EVER ENGINEERING
Advanced Engineering Services

Water Pollution Abatement Plan Modification
for
Western Oak South

13306 Western Oak Drive
Helotes, Bexar County, Texas 78023

September 2025

Project No. 25-0093

Ever Engineering, LLC
3201 Cherry Ridge Drive, Suite A-106
San Antonio, Bexar County, Texas 78230
TBPE Firm Registration #19197

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Section 1

Westoke South, LLC.

EDWARDS AQUIFER APPLICATION COVER PAGE (TCEQ-20705)

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

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

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

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

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

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

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

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

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

Technical Review

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

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

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

3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or will be denied. Please note that because the technical review is underway, whether the application is withdrawn or denied **the application fee will be forfeited**.
4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

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

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

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

- If the technical review has begun your application can be denied/withdrawn, your fees will be forfeited, and the plan will have to be resubmitted.
- TCEQ can continue the technical 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: Western Oak South						**2. Regulated Entity No.:** N/A, Has not been issued			
3. Customer Name: Westoke South, LLC						**4. Customer No.:** N/A, Has not been issued			
5. Project Type: **(Please circle/check one)**	(New)		Modification			Extension		Exception	
6. Plan Type: **(Please circle/check one)**	(WPAP)	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		(Non-residential)			**8. Site (acres):**			1.002
9. Application Fee:	$4,000		**10. Permanent BMP(s):**			Vegetative filter strips			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			1			
13. County:	Bexar		**14. Watershed:**			Leon 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.)	1	___	___	___	___
Region (1 req.)	1	___	___	___	___
County(ies)	1	___	___	___	___
Groundwater Conservation District(s)	X Edwards Aquifer Authority ___Trinity-Glen Rose	___Edwards Aquifer Authority	___Kinney	___EAA ___Medina	___EAA ___Uvalde
City(ies) Jurisdiction	___Castle Hills ___Fair Oaks Ranch ___Helotes ___Hill Country Village ___Hollywood Park X San Antonio (SAWS) ___Shavano Park	___Bulverde ___Fair Oaks Ranch ___Garden Ridge ___New Braunfels ___Schertz	NA	___San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.

Ever Garza, P.E.

Print Name of Customer/Authorized Agent

Ever Garza, P.E. 9/19/2025

Signature of Customer/Authorized Agent Date

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

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Section 2

Westoke South, LLC.

GENERAL INFORMATION FORM (TCEQ-0587)

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: Ever Garza, P.E.

Date: 9/2/2025

Signature of Customer/Agent:

Ever Garza, P.E.

Project Information

1. Regulated Entity Name: Western Oak South
2. County: Bexar
3. Stream Basin: Leon Creek
4. Groundwater Conservation District (If applicable): Edwards Aquifer
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

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

7. Customer (Applicant):

   Contact Person: Adrian Vega
   Entity: Westoke South LLC
   Mailing Address: 5900 Balcones Drive, Ste. 100
   City, State: Austin, Texas Zip: 78731
   Telephone: (210) 998-2020 FAX: _____
   Email Address: avega@pampadv.com

8. Agent/Representative (If any):

   Contact Person: Ever Garza, P.E.
   Entity: Ever Engineering, LLC
   Mailing Address: 3201 Cherry Ridge Dr. Ste A-106
   City, State: San Antonio, TX Zip: 78230
   Telephone: 210-572-9340 FAX: _____
   Email Address: admin@everenc.com

9. Project Location:

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

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

    13306 Western Oak Drive, Helotes, TX 78023

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

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

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

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

    ☒ Survey staking will be completed by this date: 9/15/2025

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

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

15. Existing project site conditions are noted below:

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

Prohibited Activities

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

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

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

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

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

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

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

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

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

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

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

Administrative Information

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

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

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

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

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

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

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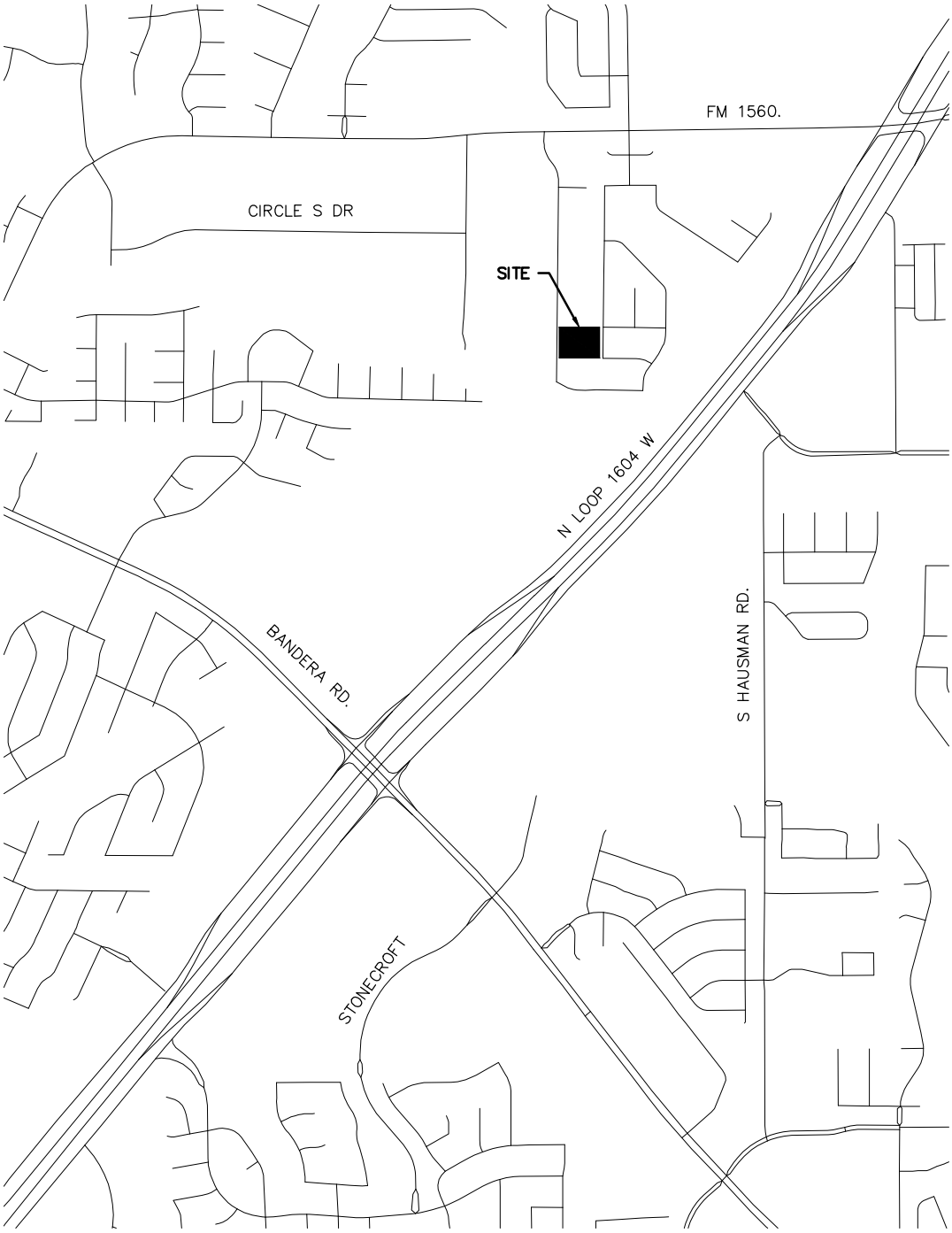
Section 2: GENERAL INFORMATION FORM (TCEQ-0587)
ATTACHMENT A

Westoke South, LLC.

ROAD MAP



(NOT-TO-SCALE)

SHEET:	EXH-1
DRAWN:	JS
JOB NO.:	25-0093
DATE:	JULY 2025

13306 WESTERN OAK DR.

SAN ANTONIO, TEXAS

LOCATION MAP

EVER ENGINEERING, LLC
ADVANCED ENGINEERING SERVICES

3201 CHERRY RIDGE DR., STE. A-106
SAN ANTONIO, TX 78230
PHONE: 210.572.9340 FAX: 210.572.9344
TXBPE FIRM #19197
EVERENC.COM

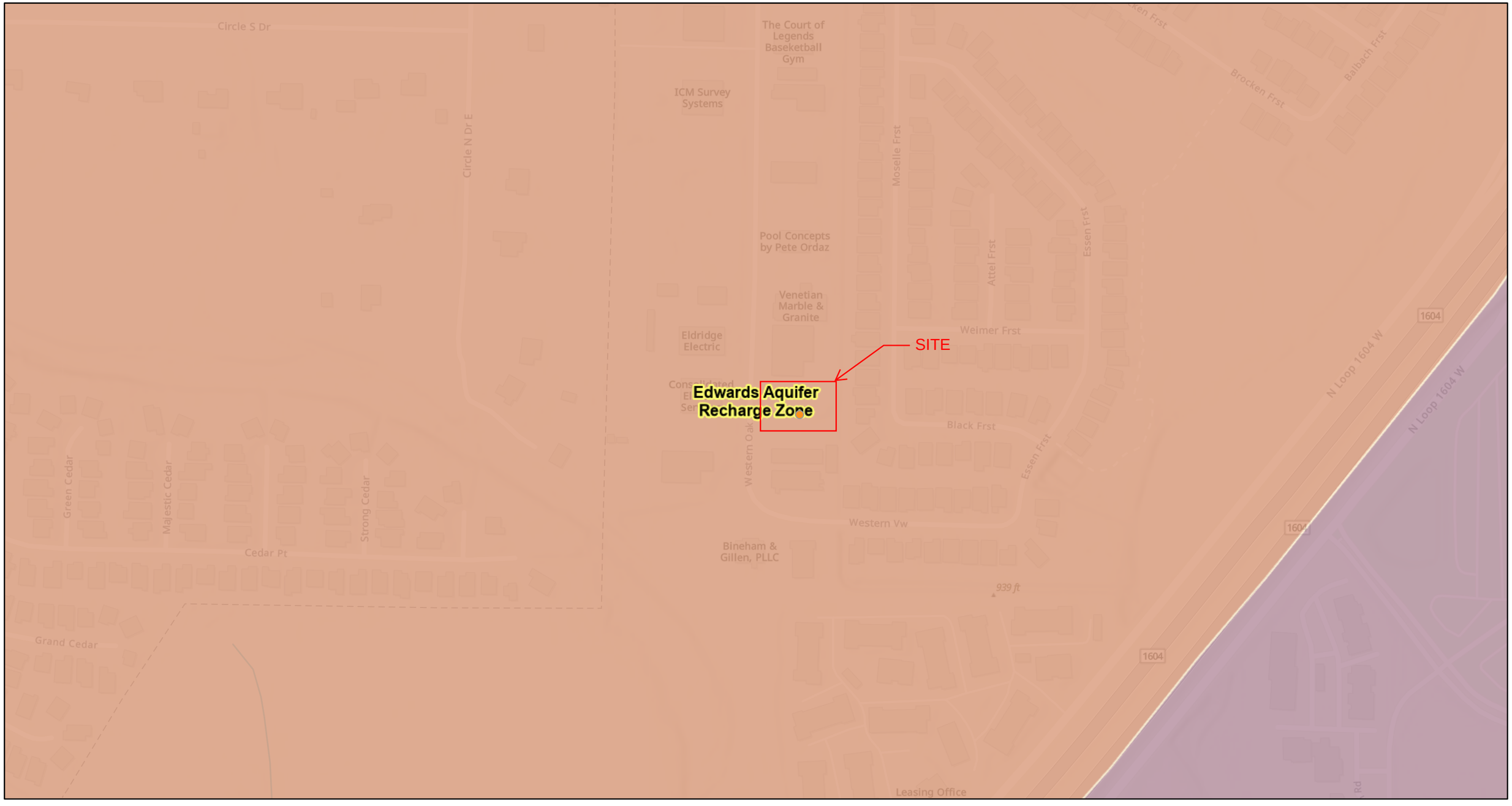
EVER ENGINEERING
Advanced Engineering Services

Section 2: GENERAL INFORMATION FORM (TCEQ-0587)
ATTACHMENT B

Westoke South, LLC.

USGS/ EDWARDS RECHARGE ZONE MAP

Edwards Aquifer Viewer Custom Print



9/2/2025, 10:31:49 AM

1:3,918

0 0.04 0.09 0.17 mi

0 0.05 0.1 0.2 km

- ArcGIS World Geocoding Service
- TCEQ_EDWARDS_OFFICIAL_MAPS
- 7.5 Minute Quad Grid
- TX Counties
- Groundwater Conservation Districts
- Edwards Aquifer Authority
- Trinity Glen Rose GCD
- City/Place
- Edwards Aquifer Label
- World_Hillshade

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, TCEQ, Sources: Esri, Maxar, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA,

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Section 2: GENERAL INFORMATION FORM (TCEQ-0587)
ATTACHMENT C

Westoke South, LLC.

PROJECT DESCRIPTION

The Western Oak South project site, located at **13306 Western Oak Drive**, consists of approximately **1.002 acres**. The site is currently considered cleared and undeveloped, with the exception of an existing chain link fence and a concrete driveway approach, both of which will be removed as part of the proposed improvements.

The property is bordered by a mix of commercial and residential development, with a concrete drainage channel situated along the rear property line. Onsite slopes are generally moderate, ranging from **1% to 3%**.

The project site lies within the **Edwards Aquifer Recharge Zone** and will therefore be subject to the applicable **stormwater quality and regulatory requirements of the Texas Commission on Environmental Quality (TCEQ).**

The **proposed development** consists of one undeveloped lot for **commercial use**, with construction of a **13,225 square foot commercial building** and associated site improvements. To meet stormwater quality requirements, the project will incorporate **vegetative filter strips** and a **water quality tank** as permanent **best management practice (BMPs).**

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Section 3

Westoke South, LLC.

GEOLOGIC ASSESEMENT FORM (TCEQ-0585)

Geologic Assessment

Project Facility
13306 Western Oak Drive
Helotes, Texas 78023

Prepared For:
Westoke South LLC
Mr. Adrian Vega

Project Number: DD202510084

Report Date: August 13, 2025

Prepared By:

Projexiv Environmental LLC
2245 Texas Drive, Suite 300,
Sugar Land, TX 77479

Anding Environmental Consulting, LLC
938 River Terrace
New Braunfels, Texas 78130

August 13, 2025

Westoke South LLC
Mr. Adrian Vega
13306 Western Oak Drive,
Helotes, Texas 78023

Geologic Assessment for 13306 Western Oak Drive, Helotes, Texas 78023

Dear Mr. Adrian Vega:

Projexiv Environmental (Projexiv) was retained by Westoke South LLC and Mr. Adrian Vega to perform a Geologic Assessment at 13306 Western Oak Drive, in Helotes, Texas 78023 (the "Subject Property").

For this Project, Projexiv partnered with Anding Environmental Consulting, LLC, who conducted the Geologic Assessment under a subcontractor agreement.

We appreciate the opportunity to provide these professional environmental services to Westoke South LLC and Mr. Adrian Vega. If you have any questions about our findings, please contact us at (713) 714-0413.

Sincerely,

Projexiv Environmental

Nirav Patel, MS, REP
Director of Operations

Enclosure

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

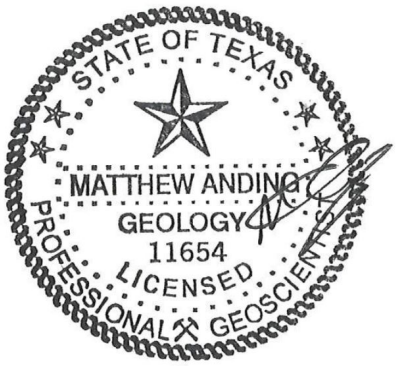
To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Matt Anding Telephone: 832-641-8143

Date: 08/12/2025 Fax: _____

Representing: Anding Environmental Consulting, LLC (50550) (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: WESTOKE SOUTH LLC

Project Information

1. Date(s) Geologic Assessment was performed: 08/09/2025
2. Type of Project:
   - ☒ WPAP
   - ☒ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

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

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

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
Cb	D	0.5'-1'

** Soil Group Definitions (Abbreviated)*

A. Soils having a high infiltration rate when thoroughly wetted.
B. Soils having a moderate infiltration rate when thoroughly wetted.
C. Soils having a slow infiltration rate when thoroughly wetted.
D. Soils having a very slow infiltration rate when thoroughly wetted.

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

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

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

   Applicant's Site Plan Scale: 1" = 50'
   Site Geologic Map Scale: 1" = 50'
   Site Soils Map Scale (if more than 1 soil type): 1" = 50'

9. Method of collecting positional data:

   ☒ Global Positioning System (GPS) technology.
   ☐ 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 0 (#) 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.

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GEOLOGIC ASSESSMENT
ATTACHMENT A - GEOLOGIC ASSESSMENT TABLE

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: 13306 Western Oak Dr, Helotes, TX 78023

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DIP	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	

* DATUM: NAD_1983_StatePlane_Texas_South_Central_FIPS_4204

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

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials

12 TOPOGRAPHY
Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood, and I have followed the Texas 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.

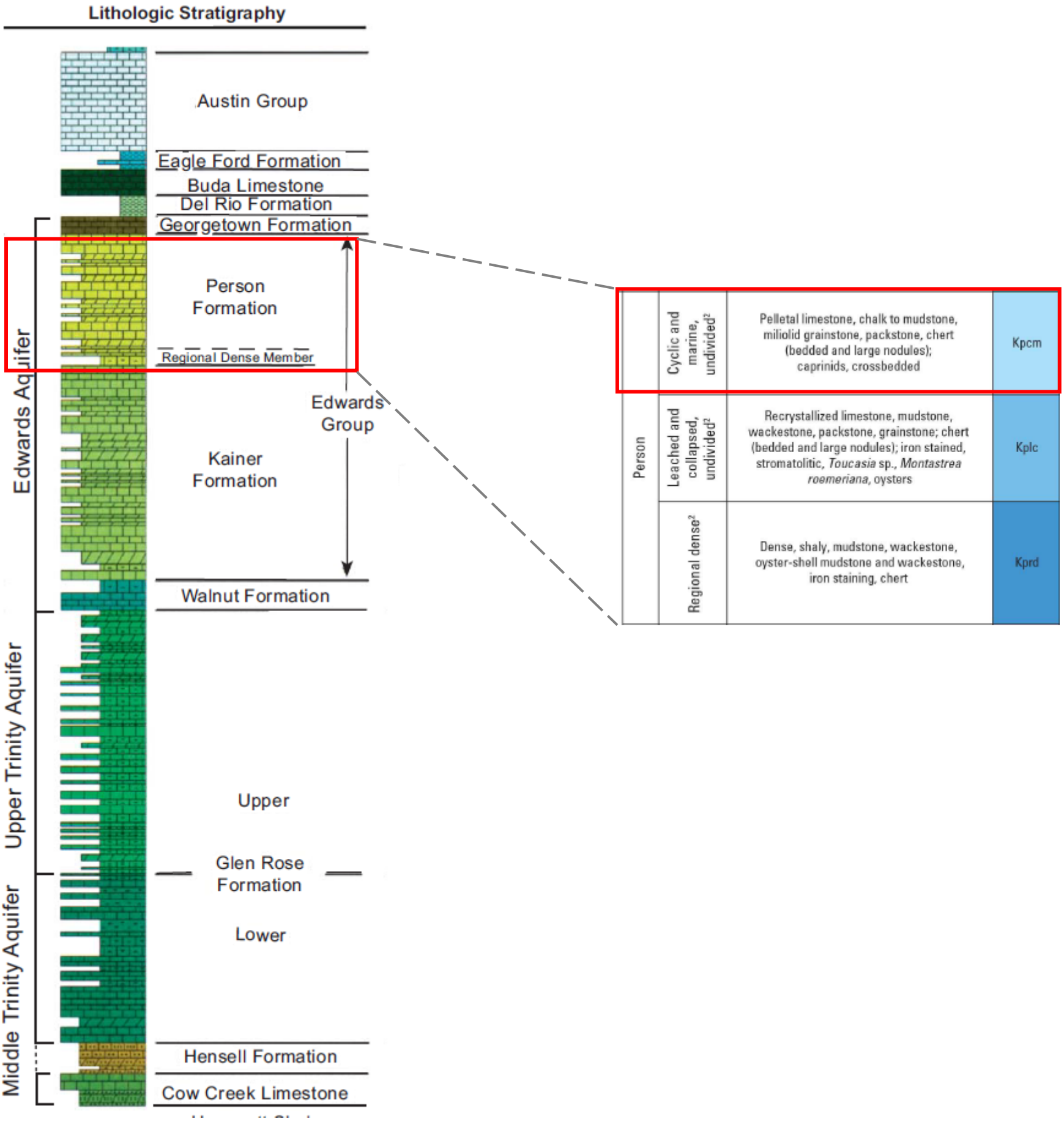
Matt Anding, P.G.

Date:08/12/2025

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

.

GEOLOGIC ASSESSMENT
ATTACHMENT B - STRATIGRAPHIC COLUMN


Lithologic Stratigraphy
Austin Group
Eagle Ford Formation
Buda Limestone
Del Rio Formation
Georgetown Formation
Person Formation
Regional Dense Member
Edwards Group
Kainer Formation
Walnut Formation
Upper
Glen Rose Formation
Lower
Hensell Formation
Cow Creek Limestone
Edwards Aquifer
Upper Trinity Aquifer
Middle Trinity Aquifer
Person
Cyclic and marine, undivided²
Pelletal limestone, chalk to mudstone, miliolid grainstone, packstone, chert (bedded and large nodules); caprinids, crossbedded
Kpcm
Leached and collapsed, undivided²
Recrystallized limestone, mudstone, wackestone, packstone, grainstone; chert (bedded and large nodules); iron stained, stromatolitic, Toucasia sp., Montastrea roemeriana, oysters
Kplc
Regional dense²
Dense, shaly, mudstone, wackestone, oyster-shell mudstone and wackestone, iron staining, chert
Kprd

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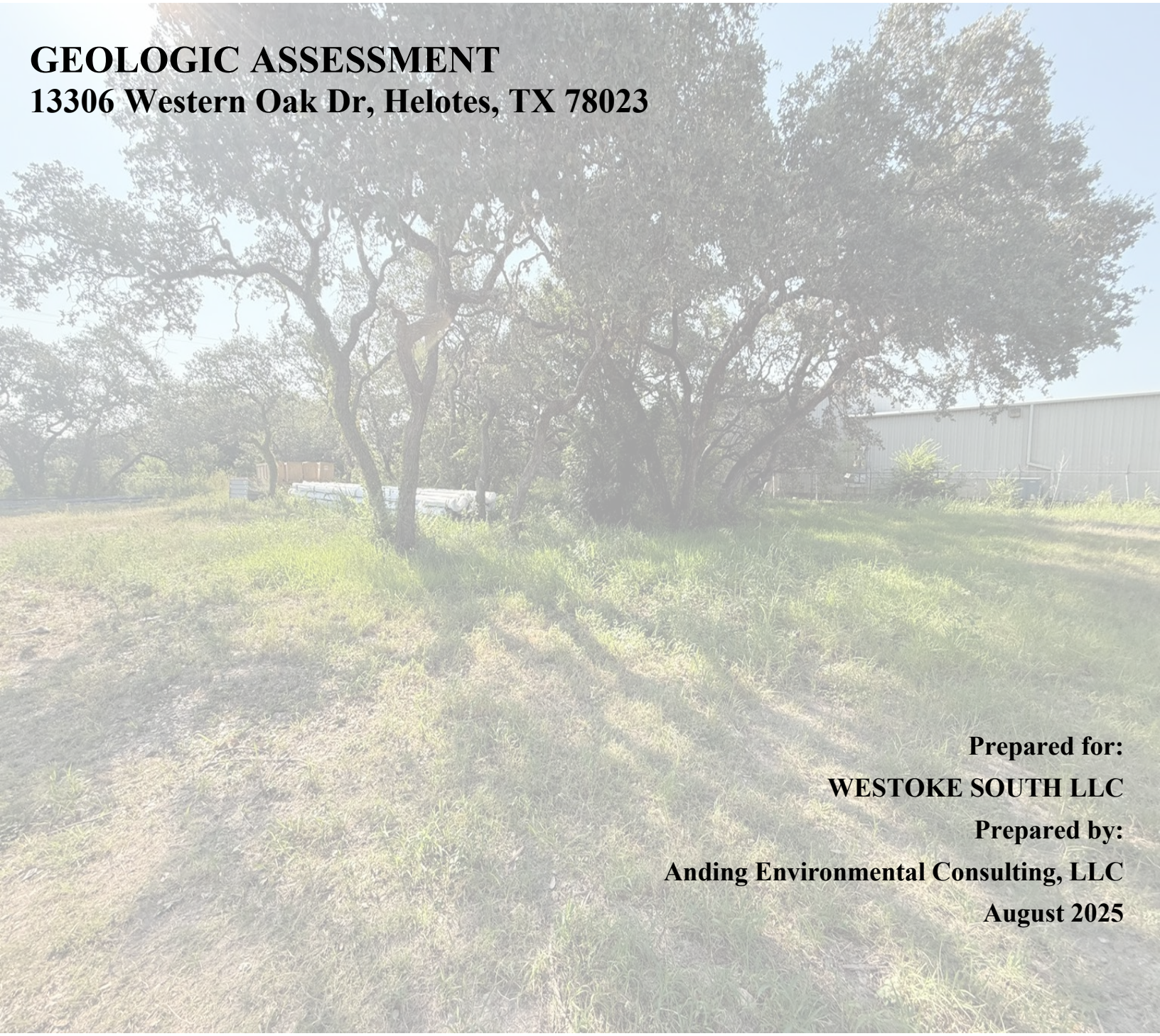
GEOLOGIC ASSESSMENT
ATTACHMENT C - SITE GEOLOGY



GEOLOGIC ASSESSMENT
13306 Western Oak Dr, Helotes, TX 78023

Prepared for:
WESTOKE SOUTH LLC
Prepared by:
Anding Environmental Consulting, LLC
August 2025

938 River Terrace · New Braunfels, Texas 78130 · Phone: 832-641-8143 · Alt: 832-867-4760

www.andingenvironmental.com

Geologic Assessment

13306 Western Oak Dr, Helotes, TX 78023

Prepared for:

WESTOKE SOUTH LLC

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938 River Terrace
New Braunfels, TX 78130

August 2025

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Table of Contents

List of Tables

Attachments

Acronyms

BMP	Best Management Practices
EAPP	Edwards Aquifer Protection Plan
FEMA	Federal Emergency Management Administration
GPS	Global Positioning System
TCEQ	Texas Commission on Environmental Quality
USDA	United States Department of Agriculture
USGS	United States Geological Survey

1.0 INTRODUCTION AND PURPOSE

1.1 Introduction

This Geologic Assessment was prepared in general accordance with to 30 TAC §213.5(b)(3), effective September 01, 2003, Texas Commission on Environmental Quality (TCEQ) requirements for regulated developments within the Edwards Aquifer Recharge Zone, and the "Instructions to Geologists", TCEQ-0585-Instructions (Rev. 10-1-04). Per TCEQ guidance, a proposed project on the Site requires a Geologic Assessment to identify all potential pathways for contaminant movement to the Edwards Aquifer and provide sufficient geologic information so that the appropriate Best Management Practices (BMPs) can be proposed in the a Water Pollution Abatement Plan (WPAP) and Organized Sewage Collection System (SCS) Plan. This Geologic Assessment has been prepared by a Texas Board of Professional Geoscientists licensed geologist, Mr. Matt Anding, P.G.

1.2 Project Description

The Site is located at 13306 Western Oak Dr, Helotes, TX 78023 (Bexar County Parcel 662838). The Site consists of one (1) parcel approximately ~1.0 acre in size. The center of the Site is located at 29°33'50.83"N Latitude and 98°39'40.68"W Longitude (WGS 84). The Site is currently undeveloped and largely consists of gravel driving and parking space. The property location is depicted on **Figure D-1**. A commercial project is in place that requires both a WPAP and SCS Plan.

2.0 METHODOLOGY

2.1 Research Information

The Geologic Assessment was performed by Matt Anding, P.G., with Anding Environmental Consulting, LLC (Anding Environmental) on August 09, 2025. Anding Environmental first conducted a desktop analysis of the geology of the area surrounding the Site. The research included, but was not limited to, the Geologic Atlas of Texas, Federal Emergency Management Agency (FEMA) maps, Edwards Aquifer Recharge Zone Maps, USGS 7.5 Minute Quadrangle Maps, Bureau of Economic Geology online digital data, historic aerials and topographic maps, and the United States Department of Agriculture (USDA) Soil Survey of Bexar County, Texas.

2.2 Field Survey

After reviewing the available desktop information, a field investigation was performed to identify any geologic or man-made potential recharge features. A transect spacing of approximately 25-50 feet, or less depending on Site vegetation, was used to inspect the Site. A 2024 aerial photograph, in conjunction with a handheld sub-meter Trimble GeoXH Global Positioning System (GPS), was used to navigate on the property and search for potential recharge features, as recommended in the "Instructions to Geologists", TCEQ-0585-Instructions (Rev. 10-1-04). The Geologic Assessment Form, Stratigraphic Column, and the Geologic Assessment Table have been filled with the appropriate information for this Site and are included in this report. Special attention was given to any mapped faults, bedrock outcroppings, and other structural features mapped in the area.

2.3 Data Gaps

No significant data gaps were incurred during the desktop analysis or field reconnaissance. Multiple locations on the Site are being used to store equipment and large crates on the ground, and the geologist was unable to view the ground underneath. However, due to the storage being located on a heavily used gravel parking/storage area, there is little risk of sensitive features being located under the stored materials. Additionally, piles of off-site fill material such as dirt and rock were observed to in several portions of the Site.

2.4 Limitations of Assessment

No Geologic Assessment can wholly eliminate uncertainty regarding potential pathways for contaminant movement to the Edwards Aquifer in connection with a property. Performance of a Geologic Assessment in accordance with TCEQ-0585 instructions is intended to reduce, but cannot eliminate, uncertainty regarding the potential for surficial points of infiltration in connection with a property, and the TCEQ recognizes reasonable limits of time and cost.

Anding Environmental assumes no responsibility for the discovery of any surficial or subsurface points of infiltration, caves, solution cavities or enlarged fractures/faults, sinkholes, or any other karst features not observed during this Geologic Assessment. Anding Environmental does not have any responsibility with regard to the Client's compliance with or fulfillment of its obligation under any law, ordinance, or regulation prevailing at any of the observed locations.

3.0 NARRATIVE DESCRIPTION OF SITE GEOLOGY

3.1 Site Characterization

The Site is located along the northwestern edge of the City of San Antonio, along the boundaries of the City of Helotes, just northwest of N Loop 1604 W. The Site is located just east of the southwestern boundary of the Edwards Plateau and the Balcones Fault Zone. This Site is located within the Edwards Aquifer Recharge Zone just prior to transitioning to the Edwards Aquifer Transition Zone.

The Site is bordered by Western Oak Drive to the west, commercial properties to the north and south, and residential properties to the east. The Site and surrounding area is positioned on gently sloping topography that generally slopes from the north/northwest to the south/southeast. The highest elevation is approximately 950 ft amsl northwestern Site corner. The lowest elevation is approximately 946 ft amsl in the southeastern Site corner.

The Site is currently undeveloped and largely consists of a dirt driveway and parking/storage areas in the northern portion of the Site, and unmaintained vegetated oak trees in the southern portion of the Site. A chain link fence is present around the Site boundary. No other built infrastructure or buildings are located on the Site. The Site vegetation would naturally be considered Edwards Plateau: Post Oak Motte and Woodland. Litle vegetation other than grass and weeds is present in the northern gravel parking lot portion of the Site. The southern unmaintained vegetated portion of the Site consists of tall grasses, ragweed, and sunflowers with trees including oak, hackberry, mesquite, and chinaberry.

There are no water wells, septic, or wastewater on Site.

The Site is located within the U.S. Fish and Wildlife Service Karst Zone 1 and the Balcones Fault Zone Karst Fauna Region.

3.2 Site Geology

Per the TCEQ Edwards Aquifer Program GIS dataset, the entirety of the Site is located within the Edwards Aquifer Recharge Zone. A map of the Site and Edwards Aquifer Zones is presented as **Figure D-3**.

The following resources were most utilized in mapping the Site geology:

- Geologic Atlas of Texas, San Antonio Sheet, 1982 (USGS)
- Geologic Map of the New Braunfels, Texas, 30x60 Minute Quadrangle, 2000, (USGS)
- Digital Geologic Map Database for the State of Texas (USGS)
- 1992 Geologic Map of Texas (Bureau of Economic Geology)
- 1997-1998 Summary Report for the STATEMAP Project: Geological Mapping to Support Improved Data Base Development and Understanding of Critical Aquifers in Texas
- Geologic Framework and Hydrostratigraphy of the Edwards and Trinity Aquifer Within Northern Bexar and Comal Counties, Texas, 2023 (USGS)

•

The *Geologic Map of the New Braunfels, Texas, 30x60 Minute Quadrangle* (2000) maps the entirety of Site as Edwards- Person Formation (Kp). High resolution geologic mapping in the Site area was best found in the 2023 *Geologic Framework and Hydrostratigraphy of the Edwards and Trinity Aquifer Within Northern Bexar and Comal Counties,* which maps the entirety of the Site as Edwards–Person – Cyclic and Marine member.

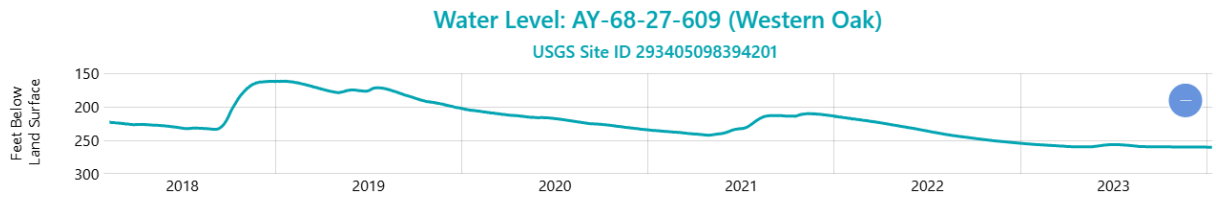
Edwards–Person – Cyclic and Marine (Lower Cretaceous) – The Edwards Group limestone in the area consists of Kainer and Person Formations. Within the Person Formation, the Site is mapped as the Cyclic and Marine, Undivided Member. The Person formation is mapped in portions of central Texas and represents a sequence of shallow marine to peritidal carbonates deposited under cyclic sea-level conditions. The formation consists predominantly of light gray to tan, fossiliferous, fine- to medium-grained limestone with intervals of dolomite, chert nodules, and occasional marl partings. Repeated exposure surfaces within the cyclic deposits have enhanced secondary porosity through dissolution and fracturing, and the unit locally exhibits well-developed karst features, including sinkholes, enlarged fractures, and solution cavities. In recharge zones of the Edwards Aquifer, the Edwards–Person unit serves as a major conduit for infiltration, with its vuggy, cavernous textures and interconnected fracture networks contributing to high permeability and transmissivity. The Cyclic and Marine Member acts as the upper Edwards Aquifer hydrologic function. Thickness typically ranges from ~80-90 feet in the area.

Few minor Edwards limestone outcroppings existing on the Site, limited to minor exposures at ground level, with no raised outcrops. The northern portion of the Site consists of a gravel drive and parking/storage area which has been heavily used over time, including imported fill material such as soil, gravel, and rock. So slab bedrock was only observed in a few locations in this portion of the Site, and limited to <18" of exposed bedrock. A few more surficial exposures were observed on the southern portion of the Site, though larger fragments of limestone were observed on the surface.

No potential karst features where surface water could rapidly infiltrate the subsurface were observed, likely due to the flat topography.

The Site is located on the southeastern edge of the Balcones Fault Zone, with multiple faults being located in the surrounding area, though no faults are mapped at the Site. Anding Environmental observed no fault structures on the Site during the field reconnaissance or on aerial imagery. The nearest mapped faults are located ~0.32 miles to the northeast, and ~0.30 miles to the south.

A USGS Groundwater Monitoring Well (USGS Site ID 293405098394201) is located approximately 1,300 ft north of the Site on Western Oak Drive. Since 2018, groundwater levels at this location range from 161 ft bgs to 260 ft bgs.



A geologic map of the Site is presented as **Figure D-5**. **Attachment E, Photo Log**, displays photographs of typical surficial outcroppings of the mapped geologic unit on Site.

3.3 Site Soils

The entirety of the Site is mapped as having Crawford, stone and Bexar soils, 0 to 5 percent slopes (Cb). Soils on the Site were observed to be fairly shallow and gravelly with limestone fragments (**See Photo Log**). **Table 3-1** displays soils mapped on the Site and **Figure D-6** illustrates the soils in relation to the Site.

Table 3-1 – Site Soils

Cb	**Crawford, Stone and Bexar soils,** 0% to 5% slopes

Crawford, Stone, and Bexar soils, 0 to 5 percent slopes (Cb) – This soil mapping unit consists of shallow to moderately deep, well-drained soils formed in residuum weathered from limestone on gently sloping uplands and low ridges. Crawford soils are typically very dark grayish-brown to dark brown clay loams over weakly weathered limestone, with depths to bedrock ranging from about 10 to 20 inches. Stone soils are similar but contain a high percentage of limestone fragments and cobbles throughout the profile, often with bedrock within 10 inches. Bexar soils are moderately deep, with brown clay loams over fractured limestone at depths of 20 to 40 inches. The stony and shallow nature of these soils results in low water-holding capacity but moderate to rapid permeability through fractures in the underlying bedrock, allowing for efficient surface water infiltration to the subsurface. These soils are often associated with karst recharge zones and contribute to groundwater replenishment where exposed to rainfall or runoff. Surface runoff is generally medium due to slope and stoniness, and vegetation is commonly rangeland grasses and oak–juniper woodland. Limitations for urban development include shallow depth to bedrock and high rock fragment content**.**

3.4 Site Assessment

While the Site is within the Edwards Aquifer Recharge Zone, the relatively flat topography does not provide terrain in which karst and other sensitive features which would allow rapid surface water infiltration to occur. Few surficial bedrock outcroppings were observed.

No geologic features, sensitive features, or potential recharge features were observed on the Site.

4.0 SUMMARY

Anding Environmental has conducted a Geologic Assessment for the referenced Site in accordance with 30 TAC §213.5(b)(3), TCEQ requirements for regulated developments within the Edwards Aquifer Recharge Zone, and the "Instructions to Geologists", TCEQ-0585-Instructions (Rev. 10-1-04). No geologic features, sensitive features, or potential recharge features were observed on the Site.

It is Anding Environmental's professional judgement that **the Site has low potential for rapid surface water movement to the Edwards Aquifer via direct infiltration**.

Please note that other karst features may exist on Site, either buried or obscured from view, which may have potential for openings to the subsurface. If any additional potentially karst features are discovered during future Site activities, please do not hesitate to contact Anding Environmental for support.

5.0 REFERENCES

Bureau of Economic Geology, 1992, Geologic Map of Texas: University of Texas at Austin, Virgil E. Barnes, project supervisor, Hartmann, B.M. and Scranton, D.F., cartography, scale 1: 500,000

Bureau of Economic *Geology. Geologic Atlas of Texas, San Antonio Sheet*. 1983.

Clark, Allan K. , et. al., Geologic Framework and Hydrostratigraphy of the Edwards and Trinity Aquifer Within Northern Bexar and Comal Counties, Texas, 2023 (USGS)

Collins, E.W, Raney, J. *Summary Report for the STATEMAP Project: Geological Mapping to Support Improved Data Bae Development and Understanding of Critical Aquifers in Texas*. USGS. 1998.

Edwards Aquifer Authority. Maps and GIS. https://www.edwardsaquifer.org/science-maps/maps-geographic-information-systems-gis/ Accessed August 2025.

Federal Emergency Management Agency. Floodplain Maps. https://msc.fema.gov/portal

Stoeser, D.B., Shock, Nancy, Green, G.N., Dumonceaux, G. M., and Heran, W.D., in press*, A Digital Geologic Map Database for the State of Texas*: U.S. Geological Survey Data Series.

Texas Commission on Environmental Quality. Regulatory Databases. http://www.tceq.state.tx.us/

Texas Water Development Board. USGS Geologic Atlas of Texas (GAT) Viewer. https://webapps.usgs.gov/txgeology/ Accessed August 2025.

U.S. Department of Agriculture (USDA), 2025. NRCS Web Soil Survey. *Custom Soil Report for Bexar County, Texas*. Accessed August 2025.

U.S. Department of Agriculture. *Soil Survey of Bexar County Texas*. 1966.

U.S. Geological Survey. Topographic Maps. https://ngmdb.usgs.gov/maps/topoview/viewer

U.S. Geological Survey. Texas Geology. http://mrdata.usgs.gov/sgmc/tx.html

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GEOLOGIC ASSESSMENT
ATTACHMENT D - SITE GEOLOGIC MAPS

Legend

Site

N

0 100 200

Feet

13306 Western Oak Dr, Helotes, TX 78023
Bexar County

Site Location

Geologic Assessment
13306 Western Oak Dr, Helotes, TX

LANDING ENVIRONMENTAL

DATE	***FIGURE***
8/7/2025	***1***

Legend

Site

N

0 50 100

Feet

13306 Western Oak Dr, Helotes, TX 78023
Bexar County

Site Aerial

Geologic Assessment
13306 Western Oak Dr, Helotes, TX

LANDING ENVIRONMENTAL

DATE	***FIGURE***
8/7/2025	***2***

Legend

- Site
- Edwards Aquifer Recharge Zone
- Edwards Aquifer Transition Zone

N

0 0.1 0.2

Miles

13306 Western Oak Dr, Helotes, TX 78023
Bexar County

Edwards Aquifer Zone Map

Geologic Assessment
13306 Western Oak Dr, Helotes, TX

LANDING ENVIRONMENTAL

DATE	***FIGURE***
8/7/2025	***3***

Legend

Site

Elevation Contours
2' Intervals

N

0 50 100

Feet

13306 Western Oak Dr, Helotes, TX 78023
Bexar County

Site Topography

Geologic Assessment
13306 Western Oak Dr, Helotes, TX

LANDING ENVIRONMENTAL

DATE	***FIGURE***
8/7/2025	***4***

Legend

Site

Soil Map Unit

Cb	Crawford, stony and Bexar soils, 0 to 5 percent slop

N

0 50 100

Feet

13306 Western Oak Dr, Helotes, TX 78023
Bexar County

Site Soils

Geologic Assessment
13306 Western Oak Dr, Helotes, TX

LANDING ENVIRONMENTAL

DATE
8/7/2025

FIGURE
5

Legend

- Site
- Mapped Faults

Surface Geologic Units

- Qal - Alluvium
- Kdr - Del Rio Formation
- Kgt - Georgetown Formation
- Kp Person Formation

N

0 500 1,000

Feet

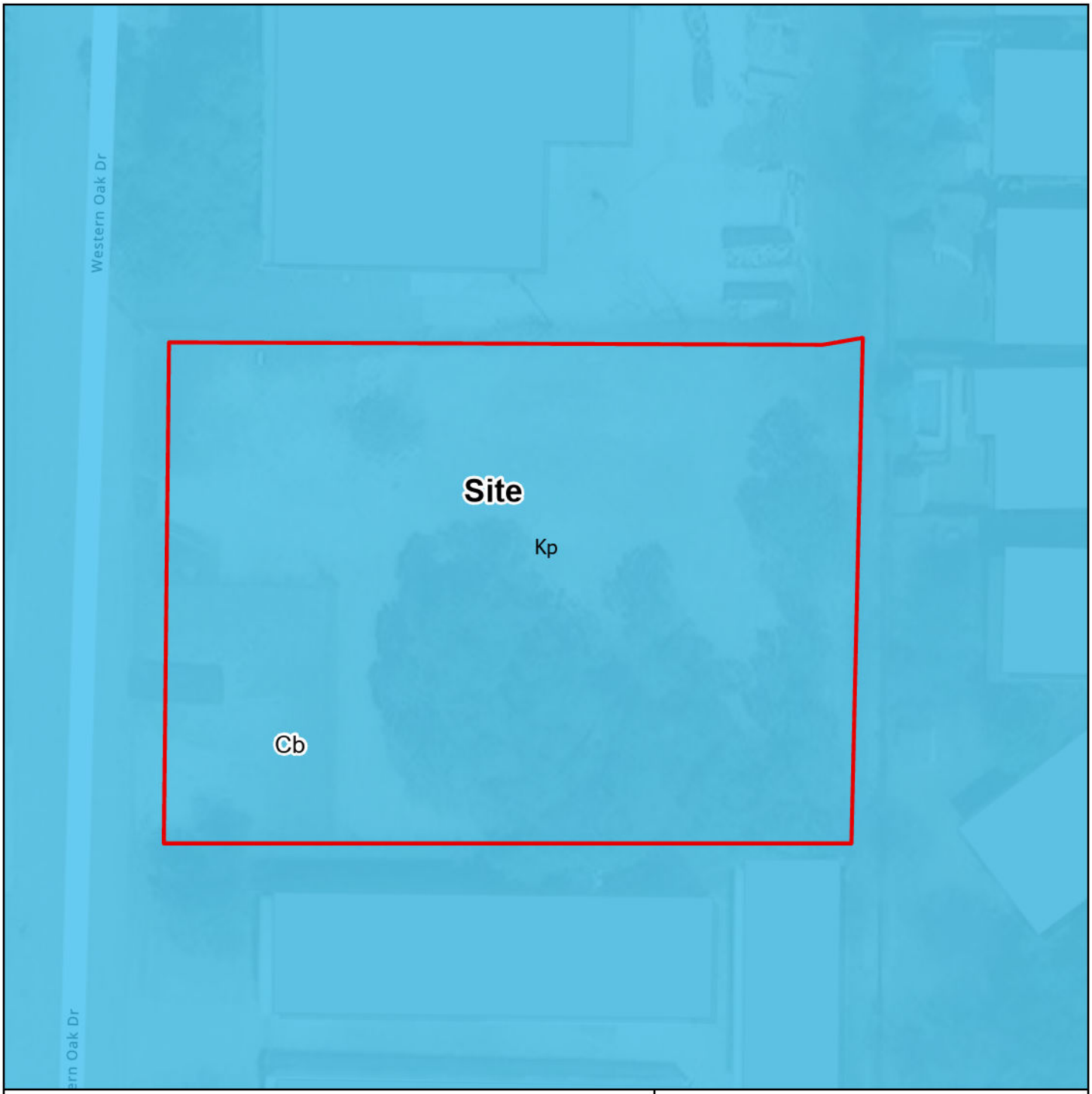
13306 Western Oak Dr, Helotes, TX 78023
Bexar County

Site Geology

Geologic Assessment
13306 Western Oak Dr, Helotes, TX

ANDING ENVIRONMENTAL

DATE	FIGURE
8/7/2025	6



Legend

Site

Surface Geologic Units

Kp Person Formation

Cb	Crawford, stony and Bexar soils, 0 to 5 percent slop

N

0 40 80

Feet

1"= 50'

13306 Western Oak Dr, Helotes, TX 78023
Bexar County

Site Geologic Map & Findings

Geologic Assessment
13306 Western Oak Dr, Helotes, TX

LANDING ENVIRONMENTAL

DATE	FIGURE
8/12/2025	7

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GEOLOGIC ASSESSMENT
ATTACHMENT E - PHOTO LOG

Attachment E - Photo Log

Site Investigation Photos

Site

Site Entrance Along Western Oak Drive

Western Site Boundary
Western Oak Drive

Southwestern Site Corner

Southern Site Boundary

Southeastern Site Corner

Eastern Site Boundary

Northeastern Site Corner

Northern Site Boundary

Northwestern Site Corner

Northern Portion of Site
Gravel Drive and Parking/Storage Area

Southern Vegetated Portion of Site

Typical Ground Cover
Northern Portion of Site

Typical Ground Cover
Southern Portion of Site

Typical Vegetation
Northern Portion of Site

Typical Vegetation
Southern Portion of Site

Typical Site Soil Conditions
Crawford, Stony, and Bexar Soils (Cb)

Typical Site Soil Conditions
Crawford, Stony, and Bexar Soils (Cb)

Typical Surface Exposed Bedrock

Typical Surface Exposed Limestone

EVER ENGINEERING
Advanced Engineering Services

Section 4

Westoke South, LLC.

WATER POLLUTION ABATEMENT APPLICATION FORM (TCEQ-0590)

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: Ever Garza, P.E.

Date: 9/2/2025

Signature of Customer/Agent:

_____

Regulated Entity Name: Western Oak South

Regulated Entity Information

1. The type of project is:

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

2. Total site acreage (size of property):1.002

3. Estimated projected population:N/A

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

Table 1 - Impervious Cover Table

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	Exempt (WQ Tank)	÷ 43,560 =	
Parking	18,414	÷ 43,560 =	0.42
Other paved surfaces		÷ 43,560 =	
Total Impervious Cover		÷ 43,560 =	

Total Impervious Cover 0.42 **÷ Total Acreage** 1.002 **X 100 =** 42.2**% Impervious Cover**

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

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

For Road Projects Only

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

7. Type of project:

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

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

   ☐ Concrete
   ☐ Asphaltic concrete pavement
   ☐ Other: _____

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

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

10. Length of pavement area: _____ feet.

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

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

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

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

Stormwater to be generated by the Proposed Project

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

Wastewater to be generated by the Proposed Project

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

100% Domestic	200 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.

☐ Sewage Collection System (Sewer Lines):

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

- ☐ The SCS was previously submitted on_____.
- ☐ The SCS was submitted with this application.
- ☐ The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

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

☐ Existing.
☐ Proposed.

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

Site Plan Requirements

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

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

Site Plan Scale: 1" = 20'.

18. 100-year floodplain boundaries:

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

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

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

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

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

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

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

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

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

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

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

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

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

26. ☐ Surface waters (including wetlands).

    ☒ N/A

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

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

28. ☒ Legal boundaries of the site are shown.

Administrative Information

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

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

EVER ENGINEERING

Advanced Engineering Services

Section 4: WATER POLLUTION ABATEMENT APPLICATION FORM (TCEQ-0584) ATTACHMENT A

Westoke South, LLC.

FACTORS AFFECTING SURFACE WATER QUALITY

Factors affecting surface water quality include impervious cover from rooftops and paved parking areas. Impervious cover from rooftops will be mitigated by collecting the runoff into a gutter system leading to a water tank. Water collected from the rooftops will be utilized for onsite irrigation. Therefore, runoff from rooftops is not included with impervious calculations in this report. Paved parking areas will also affect surface water quality. A detailed impervious cover exhibit is attached to this report and shows the ultimate developed condition of the site

Attachment B – Volume and Character of Stormwater

Runoff Volume:

Watershed	Area (ac)	C (unitless)	Tc (min)	Flow (cfs) 2	10	25	100
EXISTING							
ONSITE WS-1	3.19	0.57	11	8.86	12.59	14.98	18.64
ULTIMATE/DEVELOPED							
ONSITE WS-1	3.19	0.60	11	9.32	13.25	15.77	19.62
ROOFTOPS	0.22	0.99	5	1.37	1.99	2.37	2.97
ONSITE WS-1 POST DETENTION	2.97	0.60	11	7.95	11.26	13.40	16.65

Water Quality volume:

Onsite Water Quality Volume: 1,139 CF

Offsite Water Quality Volume: 65 CF

Total Capture Volume (required WQ volume x 1.20) = 1,445 CF

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Westoak South
Date Prepared: 8/8/2025

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

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

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

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

County =	Bexar	
Total project area included in plan * =	1.06	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	0.73	acres
Total post-development impervious cover fraction * =	0.69	
P =	30	inches
$L_{M\ TOTAL\ PROJECT}$ =	596	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 3

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

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area =	0.31	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.31	acres
Post-development impervious fraction within drainage basin/outfall area =	1.00	
$L_{M\ THIS\ BASIN}$ =	249	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Retention / Irrigation
Removal efficiency = 100 percent

Aqualogic Cartridge Filter
Bioretention
Contech StormFilter
Constructed Wetland
Extended Detention
Grassy Swale
Retention / Irrigation
Sand Filter
Stormceptor
Vegetated Filter Strips
Vortechs
Wet Basin
Wet Vault

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

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

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

A_C =	1.40	acres
A_I =	1.18	acres
A_P =	0.22	acres
L_R =	1228	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 249 lbs.

F = 0.20

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	0.11	inches
Post Development Runoff Coefficient =	0.69	
On-site Water Quality Volume =	399	cubic feet

Calculations from RG-348 Pages 3-36 to 3-37

Off-site area draining to BMP =	0.04	acres
Off-site Impervious cover draining to BMP =	0.04	acres
Impervious fraction of off-site area =	1.00	
Off-site Runoff Coefficient =	0.82	
Off-site Water Quality Volume =	14	cubic feet
Storage for Sediment =	83	
Total Capture Volume (required water quality volume(s) x 1.20) =	495	cubic feet

The following sections are used to calculate the required water quality volume(s) for the selected BMP.
The values for BMP Types not selected in cell C45 will show NA.

7. Retention/Irrigation System Designed as Required in RG-348 Pages 3-42 to 3-46

Required Water Quality Volume for retention basin = 495 cubic feet

Irrigation Area Calculations:

Soil infiltration/permeability rate =	0.1	in/hr	Enter determined permeability rate or assumed value of 0.1
Irrigation area =	1981	square feet	
	0.05	acres	

8. Extended Detention Basin System Designed as Required in RG-348 Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin = NA cubic feet

9. Filter area for Sand Filters Designed as Required in RG-348 Pages 3-58 to 3-63

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = **NA** cubic feet

Minimum filter basin area = **NA** square feet

Maximum sedimentation basin area = **NA** square feet **For minimum water depth of 2 feet**
Minimum sedimentation basin area = **NA** square feet **For maximum water depth of 8 feet**

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = **NA** cubic feet

Minimum filter basin area = **NA** square feet

Maximum sedimentation basin area = **NA** square feet **For minimum water depth of 2 feet**
Minimum sedimentation basin area = **NA** square feet **For maximum water depth of 8 feet**

10. Bioretention System Designed as Required in RG-348 Pages 3-63 to 3-65

Required Water Quality Volume for Bioretention Basin = **NA** cubic feet

11. Wet Basins Designed as Required in RG-348 Pages 3-66 to 3-71

Required capacity of Permanent Pool = **NA** cubic feet **Permanent Pool Capacity is 1.20 times the WQV**
Required capacity at WQV Elevation = **NA** cubic feet **Total Capacity should be the Permanent Pool Capacity plus a second WQV.**

12. Constructed Wetlands Designed as Required in RG-348 Pages 3-71 to 3-73

Required Water Quality Volume for Constructed Wetlands = **NA** cubic feet

13. AquaLogic™ Cartridge System Designed as Required in RG-348 Pages 3-74 to 3-78

**** 2005 Technical Guidance Manual (RG-348) does not exempt the required 20% increase with maintenance contract with AquaLogic™.**

Required Sedimentation chamber capacity = **NA** cubic feet
Filter canisters (FCs) to treat WQV = **NA** cartridges
Filter basin area (RIA_F) = **NA** square feet

14. Stormwater Management StormFilter® by CONTECH

Required Water Quality Volume for Contech StormFilter System = **NA** cubic feet

THE SIZING REQUIREMENTS FOR THE FOLLOWING BMPs / LOAD REMOVALS ARE BASED UPON FLOW RATES - NOT CALCULATED WATER QUALITY VOLUMES

15. Grassy Swales Designed as Required in RG-348 Pages 3-51 to 3-54

Design parameters for the swale:

Drainage Area to be Treated by the Swale = A = 1.40 acres
Impervious Cover in Drainage Area = 1.18 acres
Rainfall intensity = i = 1.1 in/hr
Swale Slope = 0.01 ft/ft
Side Slope (z) = 3
Design Water Depth = y = 0.33 ft
Weighted Runoff Coefficient = C = 0.68

A_{CS} = cross-sectional area of flow in Swale = 2.91 sf
P_W = Wetted Perimeter = 9.84 feet
R_H = hydraulic radius of flow cross-section = A_{CS}/P_W = 0.30 feet
n = Manning's roughness coefficient = 0.2

15A. Using the Method Described in the RG-348

Manning's Equation: $Q = \frac{1.49}{n} A_{CS} R_H^{2/3} S^{0.5}$

$b = \frac{0.134 \times Q}{y^{1.67} S^{0.5}} - zy$ = 7.73 feet

Q = CiA = 1.04 cfs

To calculate the flow velocity in the swale:

V (Velocity of Flow in the swale) = Q/A_{CS} = 0.36 ft/sec

To calculate the resulting swale length:

L = Minimum Swale Length = V (ft/sec) * 300 (sec) = 107.24 feet

If any of the resulting values do not meet the design requirement set forth in RG-348, the design parameters must be modified and the solver rerun.

15B. Alternative Method using Excel Solver

Design Q = CiA = 1.04 cfs

Manning's Equation Q = 0.76 cfs Error 1 = 0.28
Swale Width= 6.00 ft

Instructions are provided to the right (green comments).

Flow Velocity 0.36 ft/s
Minimum Length = 107.24 ft

Instructions are provided to the right (blue comments).

Design Width = 6 ft
Design Discharge = 0.76 cfs Error 2 = 0.28
Design Depth = 0.33 ft
Flow Velocity = 0.32 cfs
Minimum Length = 97.48 ft

If any of the resulting values do not meet the design requirement set forth in RG-348, the design parameters may be modified and the solver rerun.
If any of the resulting values still do not meet the design requirement set forth in RG-348, widening the swale bottom value may not be possible.

To solve for bottom width of the trapezoidal swale (b) using the Excel solver:
Excel can simultaneously solve the "Design Q" (C217) vs "Manning's Q" (C219) by varying the
The required "Swale Width" occurs when the "Design Q" = "Manning's Q"

First, highlight Cell F219 (Error 1 value). The equation showing in the fx screen for Cell F219 sh
Then click on "Tools" and "Solver". The "Solver Parameters" screen pops up.
The value in the "Set Target cell" should be F219 "Error 1 ="
The value in the "By Changing Cells" should be C220 "Swale Width"
Click on solve.

The resulting "Swale Width" must be less than 10 feet to meet the requirements of the TGM.
If the resulting "Swale Width" exceeds 10 feet then the design parameters must be revised and

If there is not the option for "Solver" under "Tools"
Click on "Tools" and "Add Ins" and then check "Solver Add-in"
Then proceed as instructed above.

If you would like to increase the bottom width of the trapezoidal swale (b):
Excel can simultaneously solve the "Design Q" (C217) vs "Design Discharge" (C232) by varying
The required "Design Depth" for a 10-foot bottom width occurs when the "Design Q" (C217) = th

First set the desired bottom width in Cell C231.
Highlight Cell F232. The equation showing in the fx screen for Cell F232 should be "= C217-$

Click on "Tools" and "Solver". The "Solver Parameters" screen pops up.
The value in the "Set Target cell" should be F232 "Error 2"
The value in the "By Changing Cells" should be C233 "Design Depth"
Click on solve.

The resulting "Design Depth" must be equal to or less than 0.33 feet to meet the requirements o
If the resulting "Design Depth" exceeds 0.33 feet then the design parameters must be revised a
First set the desired bottom width in Cell C231.

16. Vegetated Filter Strips Designed as Required in RG-348 Pages 3-55 to 3-57

There are no calculations required for determining the load or size of vegetative filter strips.
The 80% removal is provided when the contributing drainage area does not exceed 72 feet (direction of flow) and the sheet flow leaving the impervious cover is directed across 15 feet of engineered filter strips with maximum slope of 20% or across 50 feet of natural vegetation with a maximum slope of 10%. There can be a break in grade as long as no slope exceeds 20%.

If vegetative filter strips are proposed for an interim permanent BMP, they may be sized as described on Page 3-56 of RG-348.

Highlight Cell F232. The equation showing in the fx screen for Cell F232 should be "= C217-$
Click on "Tools" and "Solver". The "Solver Parameters" screen pops up.
The value in the "Set Target cell" should be F232 "Error 2"
The value in the "By Changing Cells" should be C233 "Design Depth"
Click on solve.

The resulting "Design Depth" must be equal to or less than 0.33 feet to meet the requirements o
If the resulting "Design Depth" exceeds 0.33 feet then the design parameters must be revised a

17. Wet Vaults Designed as Required in RG-348 Pages 3-30 to 3-32 & 3-79

Required Load Removal Based upon Equation 3.3 = **NA** lbs

First calculate the load removal at 1.1 in/hour

RG-348 Page 3-30 Equation 3.4: Q = CiA

C = runoff coefficient for the drainage area = 0.90 C = Runoff Coefficient = 0.546 $(IC)^2$ + 0.328 (IC) + 0.03
i = design rainfall intensity = 1.1 in/hour
A = drainage area in acres = 1 acres

Q = flow rate in cubic feet per second = 0.99 cubic feet/sec

RG-348 Page 3-31 Equation 3.5: V_{OR} = Q/A

Q = Runoff rate calculated above = 0.99 cubic feet/sec
A = Water surface area in the wet vault = 150 square feet

V_{OR} = Overflow Rate = 0.01 feet/sec

Percent TSS Removal from Figure 3-1 (RG-348 Page 3-31) = 53 percent

Load removed by Wet Vault = #VALUE! lbs

If a bypass occurs at a rainfall intensity of less than 1.1 in/hours
Calculate the efficiency reduction for the actual rainfall intensity rate

Actual Rainfall Intensity at which Wet Vault bypass Occurs = 0.5 in/hour

Fraction of rainfall treated from Figure 3-2 RG-348 Page 3-32 = 0.75 percent
Efficiency Reduction for Actual Rainfall Intensity = 0.83 percent

Resultant TSS Load removed by Wet Vault = #VALUE! lbs

18. Permeable Concrete Designed as Required in RG-348 Pages 3-79 to 3-83

PERMEABLE CONCRETE MAY ONLY BE USED ON THE CONTRIBUTING ZONE

19. BMPs Installed in a Series Designed as Required in RG-348 Pages 3-32

Michael E. Barrett, Ph.D.. P.E. recommended that the coefficient for E_2 be changed from 0.5 to 0.65 on May 3, 2006

E_{TOT} = [1 - ((1 - E_1) X (1 - 0.65E_2) x (1 - 0.25E_3))] X 100 = 86.38 percent NET EFFICIENCY OF THE BMPs IN THE SERIES

EFFICIENCY OF FIRST BMP IN THE SERIES = E_1 = 75.00 percent

EFFICIENCY OF THE SECOND BMP IN THE SERIES = E_2 = 70.00 percent

EFFICIENCY OF THE THIRD BMP IN THE SERIES = E_3 = 0.00 percent

THEREFORE, THE NET LOAD REMOVAL WOULD BE:
(A_I AND A_P VALUES ARE FROM SECTION 3 ABOVE)

L_R = E_{TOT} X P X (A_I X 34.6 X A_P X0.54) = 1061.03 lbs

20. Stormceptor

Required TSS Removal in BMP Drainage Area= **NA** lbs
Impervious Cover Overtreatment= 0.0000 ac
TSS Removal for Uncaptured Area = 0.00 lbs

BMP Sizing

Effective Area = NA EA
Calculated Model Size(s) = #N/A
Actual Model Size (if multiple values provided in Calculated Model Size or if you are choosing a larger model size) = 0 Model Size

Surface Area = #N/A ft^2
Overflow Rate = #VALUE! V_{or}
Rounded Overflow Rate = #VALUE! V_{or}
BMP Efficiency % = #VALUE! %
L_R Value = #VALUE! lbs

TSS Load Credit = #VALUE! lbs

Is Sufficient Treatment Available? (TSS Credit ≥ TSS Uncapt.) #VALUE!

TSS Treatment by BMP (LM + TSS Uncapt.) = #VALUE!

21. Vortech

Required TSS Removal in BMP Drainage Area= **NA** lbs
Impervious Cover Overtreatment= 0.0000 ac
TSS Removal for Uncaptured Area = 0.00 lbs

BMP Sizing

Effective Area = NA EA
Calculated Model Size(s) = #N/A

Actual Model Size (if choosing larger model size) = Vx1000 Pick Model Size

Surface Area = 7.10 ft^2
Overflow Rate = #VALUE! V_{or}
Rounded Overflow Rate = #VALUE! V_{or}
BMP Efficiency % = #VALUE! %
L_R Value = #VALUE! lbs

TSS Load Credit = #VALUE! lbs

Is Sufficient Treatment Available? (TSS Credit ≥ TSS Uncapt.) #VALUE!

TSS Treatment by BMP (LM + TSS Uncapt.) = #VALUE!

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Westoak South
Date Prepared: 7/22/2025

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

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

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

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

County =	Bexar	
Total project area included in plan * =	1.40	acres
Predevelopment impervious area within the limits of the plan * =	0.38	acres
Total post-development impervious area within the limits of the plan* =	1.18	acres
Total post-development impervious cover fraction * =	0.84	
P =	30	inches
$L_{M\ TOTAL\ PROJECT}$ =	**653**	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 1

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

Drainage Basin/Outfall Area No. = 3

Total drainage basin/outfall area =	0.31	acres
Predevelopment impervious area within drainage basin/outfall area =	0.04	acres
Post-development impervious area within drainage basin/outfall area =	0.29	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.94**	
$L_{M\ THIS\ BASIN}$ =	**204**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Vegetated Filter Strips
Removal efficiency = **85** percent

Aqualogic Cartridge Filter
Bioretention
Contech StormFilter
Constructed Wetland
Extended Detention
Grassy Swale
Retention / Irrigation
Sand Filter
Stormceptor
Vegetated Filter Strips
Vortechs
Wet Basin
Wet Vault

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

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

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

A_C =	0.31	acres
A_I =	0.31	acres
A_P =	**0.00**	acres
L_R =	**274**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 267 lbs.

F = **0.98**

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**3.33**	inches
Post Development Runoff Coefficient =	**0.82**	
On-site Water Quality Volume =	**3059**	cubic feet

Calculations from RG-348 Pages 3-36 to 3-37

Off-site area draining to BMP =	0.38	acres
Off-site Impervious cover draining to BMP =	0.40	acres
Impervious fraction of off-site area =	**1.05**	
Off-site Runoff Coefficient =	**0.86**	
Off-site Water Quality Volume =	**3946**	cubic feet

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Westoak South
Date Prepared: 7/22/2025

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

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

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

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

County =	Bexar	
Total project area included in plan * =	1.40	acres
Predevelopment impervious area within the limits of the plan * =	0.38	acres
Total post-development impervious area within the limits of the plan* =	1.18	acres
Total post-development impervious cover fraction * =	0.84	
P =	30	inches
$L_{M\ TOTAL\ PROJECT}$ =	653	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 1

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

Drainage Basin/Outfall Area No. = 2

Total drainage basin/outfall area =	0.10	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.09	acres
Post-development impervious fraction within drainage basin/outfall area =	0.90	
$L_{M\ THIS\ BASIN}$ =	73	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Vegetated Filter Strips
Removal efficiency = 85 percent

Aqualogic Cartridge Filter
Bioretention
Contech StormFilter
Constructed Wetland
Extended Detention
Grassy Swale
Retention / Irrigation
Sand Filter
Stormceptor
Vegetated Filter Strips
Vortechs
Wet Basin
Wet Vault

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

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

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

A_C =	0.10	acres
A_I =	0.09	acres
A_P =	0.01	acres
L_R =	80	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 73 lbs.

F = 0.92

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	2.00	inches
Post Development Runoff Coefficient =	0.73	
On-site Water Quality Volume =	534	cubic feet

Calculations from RG-348 Pages 3-36 to 3-37

Off-site area draining to BMP =	0.38	acres
Off-site Impervious cover draining to BMP =	0.40	acres
Impervious fraction of off-site area =	1.05	
Off-site Runoff Coefficient =	0.86	
Off-site Water Quality Volume =	2370	cubic feet

EVER ENGINEERING

Advanced Engineering Services

Section 4: WATER POLLUTION ABATEMENT APPLICATION FORM (TCEQ-0584)
ATTACHMENT C

Westoke South, LLC.

SUITABILITY LETTER FROM AUTHORIZED AGENT
(if OSSF is proposed)

COUNTY OF BEXAR

PUBLIC WORKS DEPARTMENT

1948 Probandt St
San Antonio, Texas 78214
Main 210-335-6700 Fax 210-335-6713

October 23, 2025

Mr. Robert Sadlier
Texas Commission on Environmental Quality
14250 Judson Rd
San Antonio, TX 78233-4480

RE: 13306 Western Oak, San Antonio, TX 78023

Dear Mr. Sadlier:

Based on the information submitted by Ever Engineering LLC, the above referenced subdivision has been reviewed by the Environmental Services Division and is found to meet the minimum requirements of the Regulations for On-Site Sewage Facilities, Bexar County, Texas (2006), for a proposed site not served by sanitary sewer.

Prior to installation, each individual lot owner will be required to obtain approval of a site specific design (which meets Bexar County construction requirements) for conditions unique to that lot. This letter does not guarantee approval of any and all lots within the proposed subdivision or the use of specific types of on-site systems.

Sincerely,

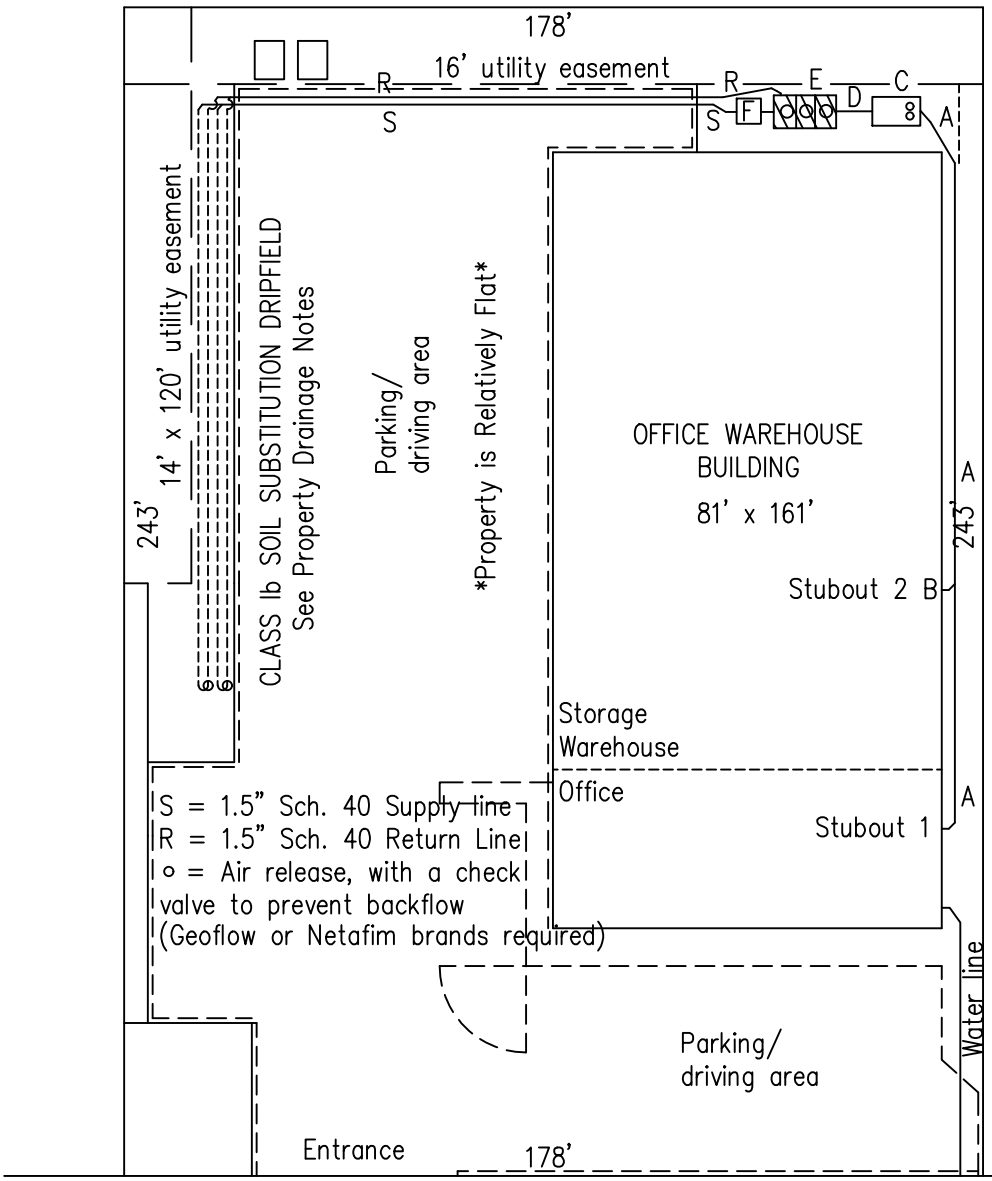
OS0030790

Erin M. Lowe
Bexar County Public Works
Civil Engineer

SUPERFAST SEPTIC DESIGNS

1" = 40'

WESTOKE SOUTH LLC
7 JULY 2025



13306 WESTERN OAK DR

Property drainage should divert rain/surface water away from drip zone area
Dripzone area should slightly drain towards side property line

Note: The contractor may make field adjustments to the system so as to better fit specific site conditions encountered. All angles, lengths and locations shown are approximate and are adjustable during the actual system installation.

FERNANDO BERNAL AGUIRRE
REGISTERED SANITARIAN #5402

A = ± 160' of 4" pvc, Sch. 40, tightline with a cleanout within 3' of the building

B = ± 3' of 4" pvc, Sch. 40, tightline with a cleanout within 3' of the building (To join tightline A)

C = Lift station to include at least a 500 gallon tank and two .4 HP dual-alternating effluent pumps with auditory/visual high-water alarm

D = ± 7' of 2" pvc, Sch. 40 tightline with a check valve

E = TCEQ Approved Pre-treatment 600 gpd ATU, chlorinator, and pump tank (ATU setback 5'; to include auditory/visual alarm)

F = Drip management system to include a 130 micron filter and a pressure regulator set to 30 psi

DRIPFIELD:
Two zones, each containing 2 driplines of 120' =
2 (2 x 120') = 480' Total

NOTES:
1) This design uses Class Ib Soil Substitution for the entire bed. See Planning Materials for more information on various system components.

2) Driplines shall be Geoflow or Netafim brand products

3) A single check valve shall be placed at the end of each zone, to prevent backflow

4) Supply/Return lines and waterline shall be sleeved in Sch. 40 under concrete or driving surfaces

Environmental Concepts, LLC

Kyle B. DeHart, RS, SE * RS#4127 * SE#22979 * 512-847-8388

KYLE B. DeHART 4127 REGISTERED PROFESSIONAL SANITARIAN

On-Site Sewage Facility (OSSF) Design and Calculations
For: Junction Truck Yard, 200 FM 32, San Marcos, TX 78666

Site Description

The site is approximately 1.85 acres located in Hays County. The soil evaluation indicates Class IV soils down to 13" followed by Class III soils down to 38". This site is suitable for an Aerobic Drip system. The site is slightly sloping with native oak and cedar trees along with native grasses present. The drip lines will be placed on top of 6"-8" of Class III soil that is put on the Class IV soil, after scarification has taken place. A Well is present on the site and more than 150' from the dripfield. No other Wells or recharge features were observed within 150'. A TCEQ approved potable water tank is proposed for the toilets and hand sinks.

System Design

The location will contain 4 sites for self-contained food trucks and a bar that will serve draft and bottled beer. A restroom structure containing two restrooms will also be present. The bar will utilize single-serve cups for draft beer. There are water saving fixtures proposed. The projected daily wastewater flow is 200gpd, per owner request. Water flow figured at 45 customers a day @ 2gpd/customer for restroom use and 1 employee @ 15gpd/emp. (flows determined from Table 2.4 *"Overview of Advanced Wastewater Treatment Systems", Bars*) . The location will be open on Thursday thru Sunday.

Revision

A Maxx-Air Aerobic Treatment Unit M-800 (800gpd ATU) will be utilized after the 1500 gallon 2-chamber trash/dose tank. The 1500 gallon 2-chamber tank will be precast with the inlet & outlet chambers reversed to allow for a 600 gallon trash chamber followed by a 900 gallon dose chamber. The outlet of the 900 gallon dose chamber will be connected to the trash chamber of the 1st compartment of the ATU, via 3"or 4" Sch40 PVC pipe and act as a overflow to the 1st compartment of the trash chamber of the ATU should a pump failure occur. A 1.0" PVC line will also be used on the dosing pump in the 900 gallon dosing chamber to the ATU trash chamber. INSTALL PRESSURE GAUGE AND FLOW METER

The Maxx-Air M-800 ATU is a 3 chamber concrete tank and composed of steel reinforced concrete. It consists of a 431gallon pretreatment/trash chamber that flows by gravity into the 947 gallon combined aerobic/clarifying chambers. Once the effluent has settled and is processed it gravity flows from the aerobic/clarifying chambers to the 854 gallon pump chamber were it is stored for drip dispersal.

It will then be dispersed through a 120 mesh disc filter and a 40psi pressure regulator to the drip field by a 1.0" Sch40 PVC supply line. Continuous return flushing will be utilized via the 1.0" Sch40 PVC return line to the pump chamber. The return line to the pump chamber will be set to 10psi via a pressure gauge and a gate or ball valve installed on the return line manifold. Once at the drip field, the effluent will flow into the drip lines and be evenly dispersed into the field. The effluent will then continue to be processed by bacteria in the soil and dissipated by absorption and evapotranspiration.

Design Specifications & Capacities

Wastewater daily flow (Q): 45 customers @ 2gpd + 1 emp. @ 15gpd = 105gpd (design = 200gpd)
Required drainfield area (A=Q/Ra): 200gpd(Q)/.10gpd/sq.ft. = 2000sq.ft. (A)
Emitters: 2000sq.ft./4sq.ft. per emitter = 500 emitters.
Length of drip line required: 500 emitters x 2' spacing/emitter = 1000' drip line. (Netafim Bioline)
Actual drip line length: Loop 1 = 284', Loop 2 = 242', Loop 3 = 258', Loop 4 = 224' Total = 1008'.
Drip bed specifications: The drip field is to follow the natural contours of the land with the lines placed on top of 6"-8" of Loam type backfill and then covered with 8"-10" of Loam type soil.
NuWater Tank: Trash: 353gal. **Aerobic/Clarifier:** 750gal. (600gpd) **Pump Chamber:** 768gal.

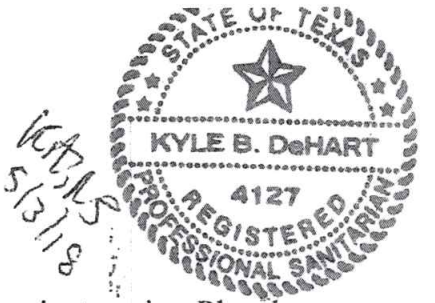
Dosing Chamber Specifications (1500 Gallon 2-Comp Tank)

Dosing Chamber: 900 gallon chamber contained in a 2 compartment 1500 gallon tank. (24.32gal/inch)
Friction loss: 4.0' of 1.5" PVC @ ~40gpm = (4.0'/100' x 8.90') x 1.2 for fittings = .43'
Elevation: 5.0' rise from pump to ATU inlet.
Total Dynamic Head: .43' + 5.0' = 5.43'.

* SEED
* CURLEX
* WATER SOFTENER

Dosing Chamber Specifications(cont'd)

Pump: Barnes SP33 (1/3hp pump)
Pump off: @ 6.0"
Pump on: @ 9.0"
Storage Capacity: = 462.08gal.
Alarm on: @ 28.0" above floor. 900.0gal. – 680.96gal = 219.04gal reserve.
Dosed Capacity: Dosed for .5 minute (30seconds) @ ~ 20 gallons, every 144 minutes, via a Rhombus Type EZS control panel with 2 floats (no redundant off or override). (20gal/2.4hr x 24hr = 200gpd)



5/3/18

Pump Calculations and Float Settings (854 Gallon Pump Chamber)

Friction Loss Supply: 110'of 1" Sch40 PVC @ 11.44gpm = (110'/100' x 7.69') x 1.2 for fittings = 10.15'
Friction Loss Return: 90'of 1" Sch40 PVC @ 6.4gpm = (90'/100' x 2.13') x 1.2 for fittings = 2.30'.
Elevation: 6.0' rise from pump to top of tank = 6.0'
Dripper Line Loss: 284' longest loop = 31.0'
Filter Loss: 10.0' @ 120 mesh (100 micron) disc filter.
Total Dynamic Head (TDH): 10.15' + 2.30' + 6.0' + 31.0' + 10.0' = 59.45' (25.73psi).
Dosing Volume: 504 emitters @ .01gpm = 5.04gpm dose rate. 200gpd/5.04gpm = ~40.0mins. total dose.
Dose@50gal/dose = 4 doses/day @ 10min/dose. Timer set to dose every 6 hours @ 10min/dose.
Pump Requirements:5.04gpm + 6.4gpm (4 x 1.6gpm for backflush in return line) = 11.44gpm.
Pump: Franklin C-Series 1/2hp (23gpm @ 30psi)

Revision

Pump Chamber: 854 gallon chamber with 53.0" usable storage =16.11gal/inch
Pump on @ 12.0" above floor.
Pump off @ 8.0" above floor.
Working Capacity: = 201.37gal.
Alarm on @ 24.5" above floor. 854.0gal. – 394.70gal = 459.30gal reserve.
Effluent flow meter: **Netafim Model ARABM1EV1U, Part # 70261-002720. (Austin Septic Supply)**

BOD Calculations

Since there is no kitchen or commercial type waste at this location, the BOD at this location will be similar to residential strength BOD and will result in a waste strength of less than 140mg/l to drainfield.

Please note, it will be required that all spilled and left over beer will not be put into the OSSF. All such spillage will be collected and put into the trash.

Installation & Construction

The installer is to follow all guidelines and setbacks as imposed by the TCEQ Chapter 285 and the local Regulatory Authority all times. Call the local Regulatory Authority for Installation Inspection Requirements.

Once the tank hole is dug a minimum of 4 inches of sand, sandy loam, or pea gravel must be placed as a leveling pad under the tank. Backfill for the tank must not contain rocks or be a Class IV type soil. The tank hole containing the water filled tank is to be left open until the tank has been inspected by the Regulatory Authority.

There should be a minimum of 1/8" per foot of fall in the tightline from the structures to the tank. A 2-way cleanout will be installed between the structures and the tank.

Sleeve tightline @ water line crossing to 10' either side and seal the ends of sleeve pipe. Sleeve the tightline within 5' of any surface improvement.

The dripfield shall contain 4 loops of Bioline Netafim drip tubing. Loop 1 = 284', Loop 2 = 242', Loop 3 = 258', Loop 4 = 224' Total of 1008'. Drip lines will be placed on top of 6"-8" of Class II or III Loam type soil.

Automatic flush return line will re-enter the pump chamber through the riser at the pump chamber.
A 40psi Pressure regulator and 120 mesh filter is required between the supply line and the drip field. A pressure gauge and valve are required on the return line before it enters the pump chamber. These can all be contained in the riser or the valve box.

The drip tubing will be covered with 8" – 10" of Class II or III Loam type soil.

The Junction Truck Yard
200 FM 32
San Marcos , TX 78666

Scale:
1" = 60'

Sleeve 2" line 10' either side and seal ends at water line crossing.

Sleeve 2" line 5' either side and within 5' of surface improvements.

2-way cleanouts at structure stub-outs

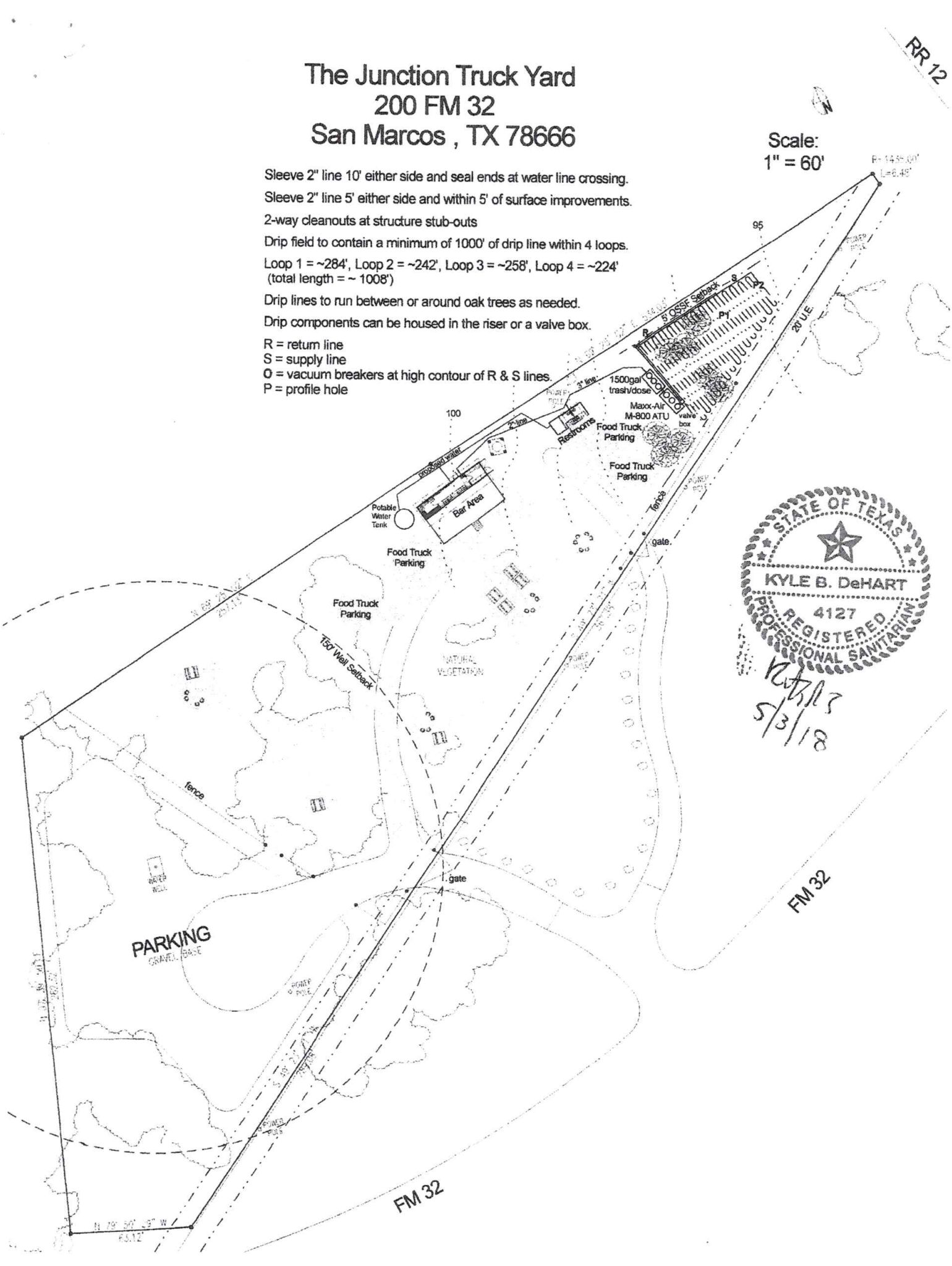
Drip field to contain a minimum of 1000' of drip line within 4 loops.

Loop 1 = ~284', Loop 2 = ~242', Loop 3 = ~258', Loop 4 = ~224'
(total length = ~ 1008')

Drip lines to run between or around oak trees as needed.

Drip components can be housed in the riser or a valve box.

R = return line
S = supply line
O = vacuum breakers at high contour of R & S lines.
P = profile hole

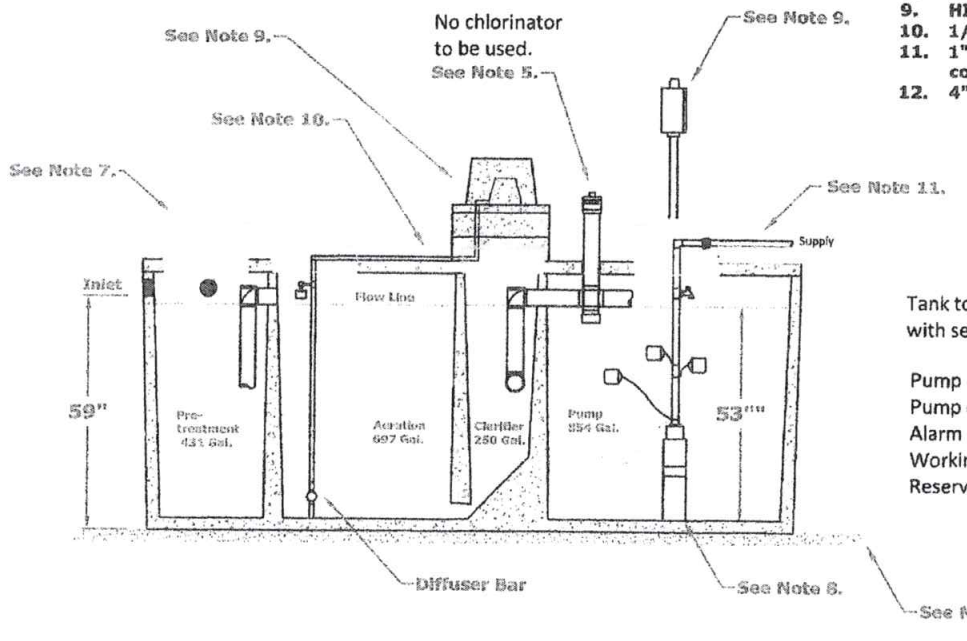


Assembly Details

OSSF

DIMENSIONS:
Outside Height: 67"
Outside Width: 75"
Outside Length: 164.5"

MINIMUM EXCAVATION DIMENSIONS:
Width: 87"
Length: 177"



GENERAL NOTES:

1. Plant structure material to be precast concrete and steel.
2. Maximum burial depth is 30" from slab top to grade.
3. Weight = 16,700 lbs.
4. Treatment capacity is 800 GPD. Pump compartment set-up for a 420 GPD Flow Rate (5 beedroom, < 4,501 sq/ft living aera). Please specify for additional set-up requirements. BOD Loading = 2.60 lbs. per day.
5. Standard tablet chlorinator or Optional Liquid chlorinator. NSF approved chlorinators (tablet & liquid) available.
6. Bio-Robix B-800 Control Center w/ Timer for night spray application. Optional Micro Dose (min/sec)timer available for drip applications. Electrical Requirement to be 115 Volts, 60 Hz, Single Phase, 30 AMP, Grounded Receptacle.
7. 20" Ø acess riser w/ lid (Typical 4). Optional extension risers available.
8. 20 GPM 1/2 HP, high head effluent pump.
9. HIBLOW Air Compressor w/ concrete housing.
10. 1/2" Sch. 40 PVC Air Line (Max. 50 Lft from Plant).
11. 1" Sch. 40 PVC pipe to distribution system provided by contractor.
12. 4" min. compacted sand or gravel pad by Contractor

Tank to have risers and lids to grade with secondary lid or plug in place

Pump off @ 8.0"
Pump on @ 12.0"
Alarm on @ 24.5"
Working capacity = 201.37gal
Reserve capacity = 459.30gal

STATE OF TEXAS
KYLE B. DeHART
4127
REGISTERED
PROFESSIONAL SANITARIAN

5/3/18

Maxx-Air M-800 (800gpd)
Aerobic Treatment Plant (Assembled)

Model: M-800

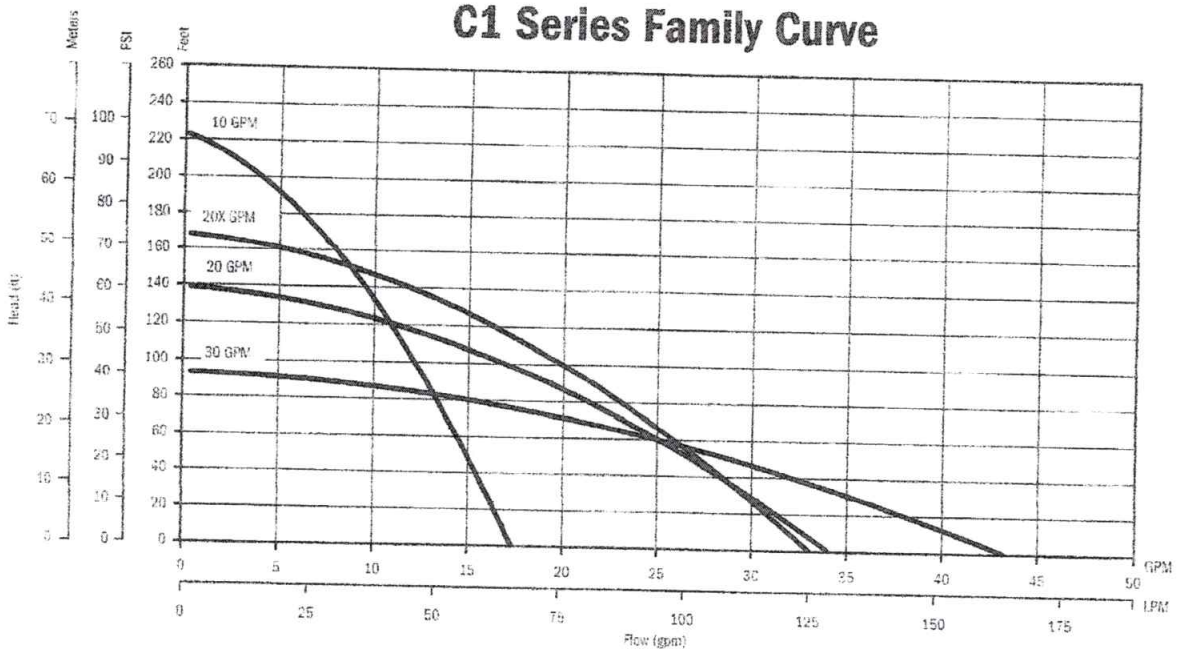
March, 2010
By: A.S.

Scale:
* All dimensions subject to allowable specification tolerance.

Dwg. #: ADV-B800-2

Advantage Wastewater Solutions llc.
444 A Old Hwy No 9
Comfort, TX 78013
830-995-3189
fax 830-995-4051

C1 Series Family Curve



FEATURES

- Supplied with a removable 5" base for secure and reliable mounting
- Bottom suction design
- Robust thermoplastic discharge head design resists breakage during installation and operation
- Single shell housing design provides a compact unit while ensuring cool and quiet operation
- Hydraulic components molded from high quality engineered thermoplastics
- Optimized hydraulic design allows for increased performance and decreased power usage
- All metal components are made of high grade stainless steel for corrosion resistance
- Available with a high quality 115 V or 230 V, ½ hp motor
- Fluid flows of 10, 20, and 30 gpm, with a max shut-off pressure of over 100 psi
- Heavy duty 600 V 10 foot SJOOW jacketed lead

APPLICATIONS

- Gray water pumping
- Filtered effluent service water pumping
- Water reclamation projects such as pumping from rain catchment basins
- Aeration and other foundation or pond applications
- Agriculture and livestock water pumping

ORDERING INFORMATION

C1 Series Pumps							
GPM	HP	Volts	Stage	Model No.	Order No.	Length (in)	Weight (lbs)
10	1/2	115	7	10C1-05P4-2W115	90301005	26	17
		230	7	10C1-05P4-2W230	90301010	26	17
20		115	5	20C1-05P4-2W115	90302005	25	16
		230	5	20C1-05P4-2W230	90302010	25	16
20X		115	6	20XC1-05P4-2W115	90302015	26	17
		230	6	20XC1-05P4-2W230	90302020	26	17
30		115	4	30C1-05P4-2W115	90303005	25	16
		230	4	30C1-05P4-2W230	90303010	25	16

Note: All units have 10 foot long SJOOW leads.

August 14, 2025

Mr. Adrian Vega

Re: 13306 Western Oak Dr. Helotes, TX 78023 Availability of SAWS' Infrastructure

Mr. Vega:

This is in response to your request for the availability of water and wastewater service to the above referenced property. The location of the tract is within the City of San Antonio city limits, inside SAWS' Water CCN, and inside SAWS' Sewer CCN.

The San Antonio Water System (SAWS) strives to provide quality, reliable service to its customers at a reasonable cost. Rates are kept low, in part, by having new customers pay for all costs associated with extending service to them. SAWS Board of Trustees Growth Strategy states "we will work to ensure that growth is self-funding". Per SAWS Utility Service Regulations Sections 3.1, 5.1, 6.1, 7.1, and 7.3, new customers are expected to pay for the infrastructure needed to serve their property and pay impact fees to SAWS to pay for general benefit facilities such as overall additional storage tanks, water supplies, pump, or treatment facilities required to serve the new customers. Please note that the water supply impact fees increased on June 1, 2024. It is not SAWS' practice to construct main or service connections to a new customer. Such construction would need to be arranged and paid for by the customer through a professional engineer (if a public main extension is required) and authorized contractor. Costs of surveying, engineering design, materials, construction, and impact fees should be considered before the customer proceeds with construction of their proposed mains or services.

WATER

Water Supply to the tract will be from Pressure Zone 1170 which has a static gradient of 1170 ft. The approximate maximum elevation of the tract is 950 feet & 95 PSI and the approximate minimum elevation of the tract is 946 feet & 97 PSI. There is an existing 8-inch water main along the west side of Western Oak. If commercial uses are proposed, the San Antonio Water System requires a 12-inch or greater sized main to provide adequate fire flow and domestic demand.

Costs and commitment requirements for providing water service may include additional on-site mains and service connection fees. Payment is required of all applicable fees in effect at the time of plat recordation or the latest date allowable by law. This includes current impact fees based on connection point and number of EDUs of capacity requested. Presently, one water EDU = 290 gallons per day of average daily flow. Current impact fees are shown in the table below.

Water Impact Fee Zone (Pressure Zone)	Flow	System Development	Water Supply	Total Water Impact Fees (per 1 EDU)
PZ 1170 Middle	$1,368	$1,744	$2,592	**$5,704**

RECYCLE WATER

In some locations it may be feasible to make use of SAWS recycled water. SAWS has established 130 miles of recycled water pipelines through the city of San Antonio. Recycled water is non-potable and ideal for irrigation, commercial, manufacturing, and industrial uses. Recycled water is cost-effective, environmentally responsible, and not affected by mandatory curtailment during drought conditions. For more information please call (210) 233-3673 or email Pablo.Martinez@saws.org Pablo Martinez at San Antonio Water System.

WASTEWATER

The Tract is situated within SAWS' sewer service area and lies within the Upper Leon Creek Watershed. There are no accessible sewer mains within 200 or 300 feet (200 - city, 300 - county) the vicinity of the property. Since a sewer main extension cannot be established the San Antonio Water System will not object to the installation of an individual septic tank system to serve the property, provided that the property owner meets all requirements set forth by the Bexar County Public Works Department. For additional information and requirements regarding septic tank systems please call (210) 335-6700 and contact Ms. Renee Green at Bexar County Public Works.

If the developer chooses to extend the nearest sewer main to the proposed site, he/she must do so at his cost. Connections to mains require the developer to acquire an easement for the main extension if necessary. All tie-ins into the San Antonio Water System's collection system must be based on fieldwork and in conformance with the San Antonio Water System Utility Service Regulations, which became effective on May 23rd, 2024. Current impact fees are shown in the table below.

Wastewater Impact Fee Area	Collection	Treatment	Total Wastewater Impact Fees (per 1 EDU)
Upper	$4,436	$1,105	**$5,541**

The Developer will be responsible for any additional sanitary wastewater main extensions (on-site and/or off-site), right-of-way and easement acquisitions (if needed), private wastewater service laterals required to serve the property, lift stations, and force main systems, lift station upgrades, and lift station maintenance fees (per lift station), along with payment of all applicable fees in effect at time of plat recordation or the latest date allowable by law. This includes current impact fees based on connection point and number of EDUs of capacity requested. Presently, one wastewater EDU = 200 gallons per day of average daily flow.

This letter does not constitute a commitment to capacity by the SAWS to provide water and/or wastewater service to the subject property. The actual availability of water and/or wastewater

service to the property will be dependent upon the site-specific requirements such as site elevation, pressure requirements, estimated demand and discharge, and the infrastructure requirements as set forth in the USR. The consulting engineer should assess the site-specific requirements in accordance with the USR regulations prior to requesting connection to SAWS' infrastructure. In some cases a Utility Service Agreement may be necessary, for more information please refer to the SAWS Guide to Development https://apps.saws.org/business_center/Developer for a detailed guideline regarding the process for obtaining water/and or wastewater services.

Should additional information be needed please contact me at email: Rebeca.Velasquez@saws.org

Sincerely,

Rebeca Velasquez, Graduate Engineer I
San Antonio Water System

Water, sewer and recycle block maps are also available online at:
https://www.saws.org/service/locates-service/ (instructions available in attachments).
Construction as-builts are available online at: https://data.saws.org/ (instructions available in attachments).

EVER ENGINEERING

Advanced Engineering Services

Section 4: WATER POLLUTION ABATEMENT APPLICATION FORM (TCEQ-0584)
ATTACHMENT D

Westoke South, LLC.

EXCEPTION TO THE REQUIRED GEOLOGIC ASSESSMENT

This attachment does not apply to this submittal. An exception to the required Geologic Assessment is not requited. A Geologic Assessment of the project site was completed and is included in this submittal, see Section 4 of this report.

EVER ENGINEERING

Advanced Engineering Services

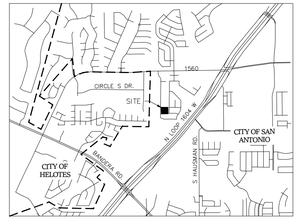
Section 4: WATER POLLUTION ABATEMENT APPLICATION FORM (TCEQ-0584)
ATTACHMENT E

Westoke South, LLC.

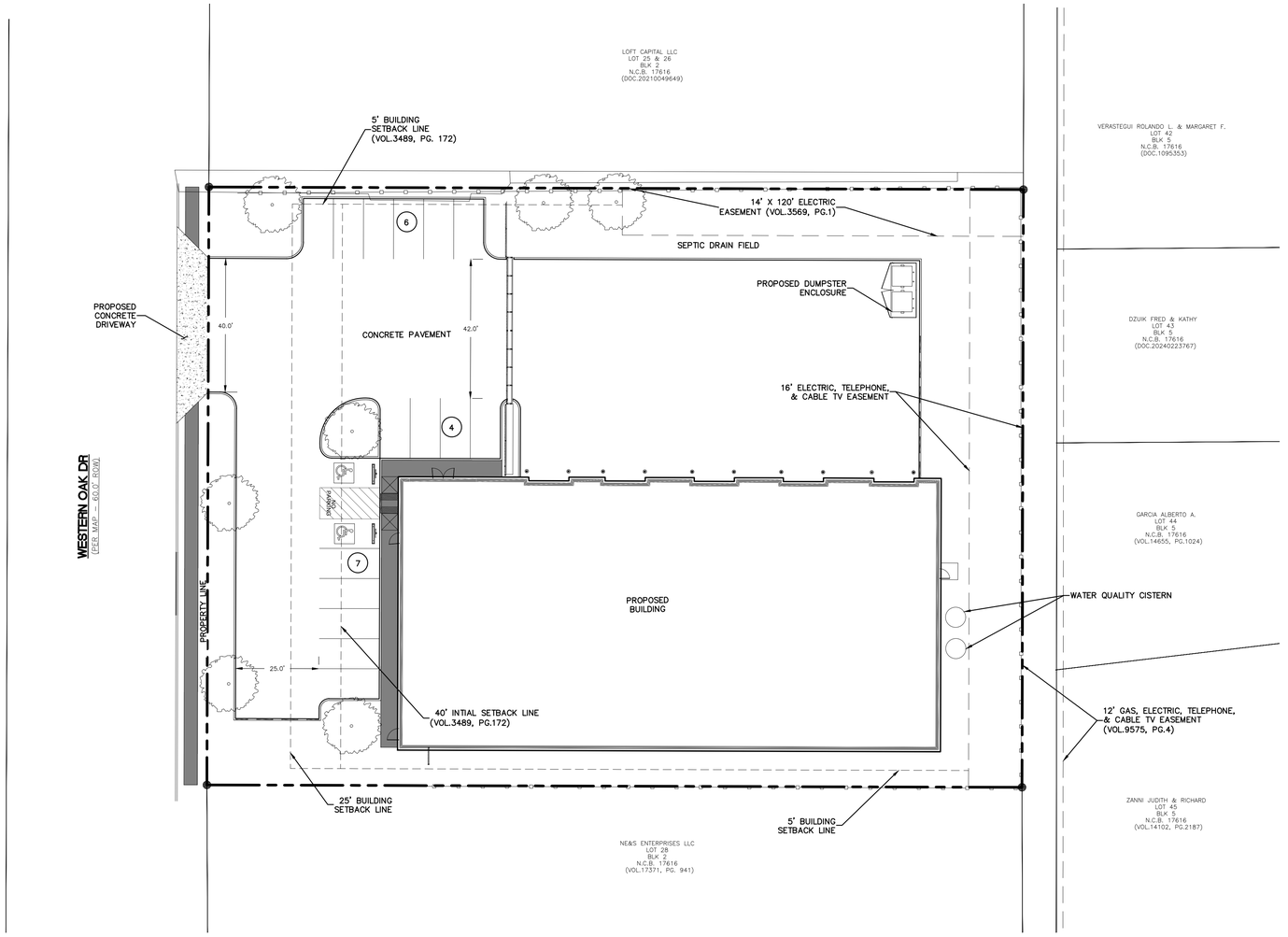
TCEQ WPAP SITE PLAN

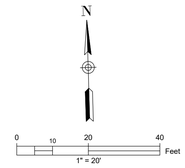
LEGAL DESCRIPTION

LOT 27
BLOCK 2
N.C.B. 17616
NORTHWEST BUSINESS PARK UNIT 1
(VOL. 9510, PG. 4041, D.P.R.)



LOCATION MAP
NOT-TO-SCALE





LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE DRIVEWAY
- PROPOSED PARKING COUNT (#)

GENERAL NOTES

1. ALL SIDEWALKS, CURBS, RAMPS, AND DRIVE APPROACHES IN THE RIGHT OF WAY SHALL BE IN COMPLIANCE WITH CURRENT TEXAS ACCESSIBILITY STANDARDS AND CITY OF SAN ANTONIO DESIGN STANDARDS PRIOR TO FINAL INSPECTION APPROVAL.

NOTES

TOTAL BUILDING SIZE = 13,225 SF
TOTAL PARKING SPACES = 17
ADA PARKING SPACES = 2

ARCHITECT:
REDfish
ARCHITECTURE AND ENGINEERING INC.

12946 Country Ridge
San Antonio, TX 78216
Phone: 210-902-9917
www.REDfishinc.com

TBAE Firm BR 4797
TBPE Firm F-24527

STATE OF TEXAS
EVER GARZA III
127459
LICENSED PROFESSIONAL ENGINEER
08/08/2025

CONSULTANTS:

EVER ENGINEERING, LLC
ADVANCED ENGINEERING SERVICES
3201 CHERRY RIDGE DRIVE, SUITE A-106,
SAN ANTONIO, TX 78230
OFFICE (210) 572-9340 FAX (210) 572-9344
WWW.EVERENC.COM
FIRM NO. F-19197

SMGC CONSTRUCTION LLC
13306 WESTERN OAK
LOT 27, BLOCK 2 OF
BANDERA NORTHWEST ANNEXATION
HELOTES, TEXAS 78023

VDRE DEVELOPMENTS

Date:	Description:
08/08/25	Construction Documents

Project #	25002
Issue Date:	08/08/2025

Drawing Title
OVERALL SITE PLAN

Drawing Number
C1.00

ISSUE FOR CONSTRUCTION

Z:\Projects\25\0093\DESIGN\CIVIL\C1.00 - OVERALL SITE PLAN.dwg 8/8/2025 10:22:26 AM DWG To PDF.pc3

EVER ENGINEERING
Advanced Engineering Services

Section 5

Westoke South, LLC.

TEMPORARY STORMWATER SECTION (TCEQ-0602)

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: Ever Garza, P.E.

Date: 9/2/2025

Signature of Customer/Agent:

Ever Garza, P.E.

Regulated Entity Name: Western Oak South

Project Information

Potential Sources of Contamination

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

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

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

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

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

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

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

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

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

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

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

Sequence of Construction

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

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

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

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

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☒ N/A

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

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

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

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

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

Soil Stabilization Practices

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

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

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

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

Administrative Information

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

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

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

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Section 5: TEMPORARY STORM WATER SECTION (TCEQ-0602)
ATTACHMENT A

Westoke South, LLC.
SPILL RESPONSE ACTIONS

In the event of accidental spills of hazardous materials or hydrocarbons, the contractor will be required to maintain a stockpile of sand material in the construction staging area. This sand material will be used to provide a dike to contain large spills and to provide an absorbent material that can be disposed of off the Edwards Aquifer Recharge, Contributing and Transition Zones during the cleanup process. The contractor will be required to contact the owner, who will notify TCEQ in the event of a spill. It is required that all contaminated soils be removed from the project site and disposed of in accordance with applicable regulations off of the Edwards Aquifer Recharge, Contributing, Transition Zones. Below are measures by TCEQ for spill prevention and response.

EDUCATION:

1. Be aware that different materials pollute in different amounts. Make sure that each employee knows what a “significant spill” is for each material they use, and what is the appropriate response for “significant” and “insignificant” spills. Employees should also be aware of when spills must be reported to the TCEQ. Information is available in 30 TAC 327.4 and 40 CFR 302.4.
2. Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks
3. Hold Regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).
4. Establish a continuing education program to indoctrinate new employees.
5. Have contractor’s superintendent or representative oversee and enforce proper spill prevention and control measures.

GENERAL MEASURES:

1. To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
2. Store hazardous materials and waste 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 runoff during rainfall to the extent that it doesn't compromise clean-up activities.
7. Do not bury or wash spills in water
8. Store and dispose of used clean up materials, contaminated materials, and recovered spill materials that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.
9. Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.
10. Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.
11. Place Material Safety Data (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.
12. Keep waste storage areas clean, well-organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, cover, 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 a hazardous waste
3. Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

MINOR SPILLS:

1. Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill
2. Use absorbent materials on small spills rather than hosing down or burying the spill.
3. Absorbent materials should be promptly removed and disposed of properly.
4. Follow the practice below for a minor spill

a. Contain the spread of the spill.
b. Recover spilled materials
c. Clean the contaminated area and properly dispose of contaminated materials.

SEMI-SIGNIFACANT SPILLS

Semi-significant spills 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 paves 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 spready widely.
4. If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
5. If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

SIGNIFICANT/HAZARDOUS SPILLS

For significant or hazardous spills that are in reportable quantities:

1. Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8AM and 5PM. 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 50 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 staff have arrived at the job site.
5. Other agencies which may need to be consulted include, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.
6. Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.
7. Promptly transfer used fluid to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.
8. Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.

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

VEHICLE AND EQUIPMENT FUELING

1. If fueling must occur on site, use designated areas, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.
2. Discourage “topping off” of fuel tanks.
3. Always use secondary containment, such as a drain pan, when fueling to catch spills/leaks

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Section 5: TEMPORARY STORM WATER SECTION (TCEQ-0602)
ATTACHMENT B

Westoke South, LLC.
POTENTIAL SOURCES OF CONTAMINATION

POTENTIAL SOURCES OF POLLUTANTS DURING CONSTRUCTION:

1. Soil, erosion due to construction.
2. Oil, grease, fuel and hydraulic fluid contamination from construction equipment and vehicle drippings
3. Volatile organic compounds are released from on-site pavement striping paint and thermoplastic.
4. Miscellaneous trash and debris from construction and material wrappings.
5. Proposed sewer connection.
6. Portable toilet spills.

POTENTIAL SOURCES OF PULLUTANTS AFTER CONSTRUCTION:

1. Traffic related pollutants from cars, roads, and driveways.
2. Improper disposal of trash.
3. Pesticides, herbicides and fertilizers.

Please refer to Attachment A: Spill Response Actions-Form 0602 for details for preventative and responsive actions of this report.

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Section 5: TEMPORARY STORM WATER SECTION (TCEQ-0602)
ATTACHMENT C

Westoke South, LLC.
SEQUENCE OF MAJOR ACTIVITIES

1. Installation of temporary BMPs
2. Site clearing activities (approximately 1.8558-Acres)
3. Subgrade Preparation (earthwork, grading) (Approximately 1.8558-Acres)
4. Wet and Dry Utility Construction (Approximately 176 linear feet)
5. Installation of base materials (Approximately 0.0317-Acres)
6. Concrete (foundations, curbs, flatwork) (Approximately 0.1510-Acres)
7. Building Construction
8. Site cleanup and removal of temporary BMPs

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Section 5: TEMPORARY STORM WATER SECTION (TCEQ-0602)
ATTACHMENT D

Westoke South, LLC.
TEMPORARY BEST MANAGEMENT PRACTICE AND MEASURES

Silt fencing, construction staging area, concrete truck wash-out pit, and a temporary construction entrance/exit will be used in accordance with the latest edition TCEQ Technical Guidance Manual details and criteria, to prevent pollution of surface water and groundwater that originates both up-gradient and on-site.

Silt fence, construction entrance/exit, and a concrete truck wash-out pit shall be in place before the first phase of construction for the commercial site is to begin. The temporary construction entrance/exit, construction staging area and concrete washout pit will prevent sediments from flowing into public right-of-way. The fencing will be installed downstream of cut/fill areas. The locations of the silt fence were based on the criteria to limit the drainage area of disturbed soil to ¼ acres per 100 linear feet of fencing.

There is a known well identified within the subject tract Geologic Site Assessment. The Temporary and Permanent Pollution Abatement measure for construction is included in this section.

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Section 5: TEMPORARY STORM WATER SECTION (TCEQ-0602)
ATTACHMENT E

Westoke South, LLC.
REQUEST TO TEMPORARILY SEAL A FEATURE

This attachment does not apply to this submittal. There will be no temporary sealing of sensitive features on the site.

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Section 5: TEMPORARY STORM WATER SECTION (TCEQ-0602)
ATTACHMENT F

Westoke South, LLC.
STRUCTURAL PRACTICES

Structural BMPs will be used to limit runoff discharge of pollutants from exposed areas of the site. BMPs will be installed prior to soil disturbing construction activity. Silt fencing will be placed along the down gradient sides of the property to prevent silt from escaping the construction area. Inlet protection will be placed on all storm water inlets to prevent pollutants from entering the stormwater drainage system. A temporary construction entrance will be placed at the site entry/exit point to reduce tracking onto adjoining streets. A construction staging area will be used onsite to perform all vehicle maintenance and for equipment and material storage. A concrete truck wash-out pit will be placed on the site to provide containment and easier cleanup of waste from concrete operations. The location of all structural temporary BMPs is shown on the site plan within the attachments.

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Section 5: TEMPORARY STORM WATER SECTION (TCEQ-0602)
ATTACHMENT G

Westoke South, LLC.
PROPOSED DRAINAGE AREA PLAN

The overall drainage area for the area included within the WPAP modification is 1.06-acres and is shown on the attached Proposed Drainage Area Plan.

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Section 5: TEMPORARY STORM WATER SECTION (TCEQ-0602)
ATTACHMENT H

Westoke South, LLC.

TEMPORARY SEDIMENT PONDS(S) PLANS AND CALCULATIONS

This attachment does not apply to this submittal. There are no drainage areas with disturbed areas greater than 10 acres.

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Section 5: TEMPORARY STORM WATER SECTION (TCEQ-0602)
ATTACHMENT I

Westoke South, LLC.

INSPECTION AND MAINTENANCE FOR BMPS

- **Check dam inspection and Maintenance Guidelines:**
  - Contractor shall make inspections weekly, and after any rainfall.
  - Once sediment and debris build up reaches 6 inches it shall be removed and disposed of in a site acceptable manner.
  - Any loose or damaged wire shall be repaired
  - Berm shall be reshaped as needed
  - The dam shall be replaced when the structure no longer functions as it was designed, due to silt accumulation, construction traffic, etc.
  - The check dam shall be left in place until all upstream disturbed areas are stabilized and the accumulated silt has been removed.
- **Silt Fence inspection and Maintenance Guidelines:**
  - Contractor shall make inspections weekly, and after any rainfall.
  - Once sediment and debris build up reaches 6 inches it shall be removed and disposed of in a site acceptable manner.
  - Any torn favric shall be replaced, and new fencing shall be installed parallel to new section.
  - If a silt fence is located in an area of high construction traffic, then it is to be relocated to an area that will provide equal protection, but will not impede vehicular movements.
- **Construction Entrance/ Exit Maintenance Guidelines:**
  - The entrance shall be maintained in a way the will prevent tracking of sediment onto the public right-of-way
  - Any sediment that reaches the right-of-way must be removed immediately by the contractor.
  - When necessary, wheels should be washed to remove excess sediment.
  - When washing is necessary, it is to be performed in an area that is stable and protected, so that no sediment enters any public right-of-way , stream, or sensitive area.

- **Concrete Washout Area Inspection and Maintenance Guidelines:**
    - Contractor shall make inspections weekly, and after any rainfall.
    - When concrete accumulates 6 inches in depth, it is to be broken up, removed, and disposed.
    - All controls around the perimeter of the washout area shall be checked, maintained, and repaired as necessary.
    - Upon completion of construction, the concrete washout area shall be cleaned, and all concrete shall be removed and disposed of properly. Holes, depressions or other ground disturbances caused by removal of washout shall be backfilled and repaired.
- **Soil Treatment Guidelines:**
    - Contractor shall apply temporary stabilization methods where it is shown on the C2.10 sheet.
    - Temporary stabilization methods shall be replaced when torn or no longer effective.
    - Temporary stabilization is to be replaced with permanent vegetation and disturbed area vegetation at appropriate times, as called out by C2.10 series.

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Section 5: TEMPORARY STORM WATER SECTION (TCEQ-0602)
ATTACHMENT J

Westoke South, LLC.

SCHEDULE OF INTERIM AND PERMANENT SOIL STABILIZATION PRACTICES

- **Temporary Stabilization**

  No bare ground exposed during construction will be left to stabilize naturally. Any disturbed areas where construction activities have ceased, permanently or temporarily, shall be treated with temporary stabilization of the area within 14 days, unless construction is set to begin in this area within 21 days. Temporary seeding shall follow TXDOT item 164 – Seeding for Erosion Control

- **Permanent Stabilization**

  All disturbed areas where construction has permanently ceased shall be seeded no more than 14 days after the last activity. Permanent seeding shall follow TXDOT item 164 – seeding for Erosion Control. It shall be the contractor's responsibility to sufficiently water the areas so that a minimum of 70% stabilization is achieved.

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Section 5

Westoke South, LLC.

PERMANENT STORMWATER SECTION (TCEQ-0600)

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: Ever Garza, P.E.

Date: 9/2/2025

Signature of Customer/Agent

Ever Garza, P.E.

Regulated Entity Name: Western Oak South

Permanent Best Management Practices (BMPs)

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

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

   ☐ N/A

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

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

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

☐ N/A

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

   ☐ N/A

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

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

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

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

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

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

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

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

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

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

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

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

☒ N/A

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

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

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

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

☒ Design calculations (TSS removal calculations)

☒ TCEQ construction notes

☐ All geologic features

☒ All proposed structural BMP(s) plans and specifications

☐ N/A

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

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

    ☐ N/A

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

    ☒ N/A

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

    ☒ N/A

Responsibility for Maintenance of Permanent BMP(s)

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

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

    ☐ N/A

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

    ☐ N/A

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Section 6: PERMANENT STORM WATER SECTION (TCEQ-0600)
ATTACHMENT A

Westoke South, LLC.

20% OR LESS IMPERVIOUS COVER WAIVER (TCEQ-0600)

The proposed development does not generate less than 20% of impervious cover therefore, this attachment does not apply to this submittal.

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Section 6: PERMANENT STORM WATER SECTION (TCEQ-0600)
ATTACHMENT B

Westoke South, LLC.

BMPS FOR UPGRADIENT STORMWATER (TCEQ-0600)

Engineered vegetative filter strips will be applied to reduce contaminants heading downstream. These practices will assure that a minimal number of harmful pollutants will infiltrate into the ground water.

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Section 6: PERMANENT STORM WATER SECTION (TCEQ-0600)
ATTACHMENT C

Westoke South, LLC.

BMPS FOR ON-SITE STORMWATER (TCEQ-0600)

The stormwater runoff generated from the project site will be treated using vegetated filter strip (VFS) and an above ground water tank. The VFS is designed according to the TCEQ technical guidance on Best Management Practices Manual. The Sizing calculations for the VFS and the tank can be found on WQ-1.

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Section 6: PERMANENT STORM WATER SECTION (TCEQ-0600)
ATTACHMENT D

Westoke South, LLC.

BMPS FOR SURFACE STREAMS (TCEQ-0600)

This attachment does not apply to this submittal. There are no surface streams existing on site.

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Section 6: PERMANENT STORM WATER SECTION (TCEQ-0600)
ATTACHMENT E

Westoke South, LLC.

REQUEST TO SEAL FEATURES (TCEQ-0600)

This attachment does not apply to this submittal. There are no sensitive geologic features on the site.

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Section 6: PERMANENT STORM WATER SECTION (TCEQ-0600)
ATTACHMENT F

Westoke South, LLC.

WATER QUALITY TREATMENT CALCULATIONS & CONSTRUCTION PLANS

Water Quality Treatment Calculations and construction plans of structural BMPs for the site are following this sheet.

GENERAL NOTES:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS. IN THE EVENT THAT A DESIGN ELEMENT DOES NOT REFLECT FIELD CONDITIONS, THE MATTER MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER. THE ENGINEER SHALL BE RESPONSIBLE FOR RECOMMENDING A SOLUTION OR ALTERNATIVE SOLUTIONS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION COMMENCEMENT.
2. THE APPROVAL OF A CONSTRUCTION PLAN DOES NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF CONSTRUCTING WORKABLE IMPROVEMENTS. THE CONTRACTOR SHALL NOT MAKE ANY CHANGES OR ALTERATIONS TO THE PLANS. ALL REVISIONS AND/OR CORRECTIONS REQUIRED SHALL BE SUBMITTED TO THE PROJECT MANAGER AND SIGNED OF BY THE ENGINEER.
3. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE ENGINEER. EVER ENGINEERING RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
4. THE TYPE, SIZE, LOCATION AND NUMBER OF ALL KNOWN UNDERGROUND UTILITIES IN THE AREA OF CONSTRUCTION ARE SHOWN PER FIELD INVESTIGATION AND THE BEST AVAILABLE UTILITY RECORDS PROVIDED AND ARE APPROXIMATE ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE ROUTE OF WORK AND TO COORDINATE CONSTRUCTION SCHEDULES WITH THE UTILITY OWNERS AND TO SCHEDULE UTILITY ADJUSTMENTS TO ELIMINATE CONFLICT WITH PROGRESS OF THE WORK. THE CONTRACTOR SHALL NOTE ALL UTILITIES MAY NOT APPEAR ON THESE PLANS AND THAT THE POTENTIAL CONFLICT WITH UTILITIES SHALL BE CONSIDERED IN THE PREPARATION OF ANY BIDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES WHETHER SHOWN ON THE PLANS OR NOT AND SHALL HOLD THE OWNERS AND THE ENGINEER HARMLESS FOR DAMAGE ARISING FROM FAILURE TO ADEQUATELY PROTECT UTILITIES.
5. CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE APPROVED PLANS AND CONSTRUCTION STANDARDS AT THE JOB SITE AT ALL TIMES. THE CONTRACTOR SHALL MAINTAIN AN AS BUILT REDLINE SET OF PLANS ON THE SITE AT ALL TIMES. THESE DRAWINGS, AND ANY REQUIRED PERMITS, SHALL BE MADE AVAILABLE UPON REQUEST. IF CONSTRUCTION PLANS ARE NOT READILY AVAILABLE AT THE PROJECT SITE, A STOP WORK ORDER MAY BE ISSUED PENDING COMPLIANCE BY THE CONTRACTOR.
6. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF PROJECT CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS FROM ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK, ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE ENGINEER.
7. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY FIELD CONDITION NOT CONSISTENT WITH THE CONTRACT DOCUMENTS.
8. CONTRACTOR SHALL USE EXTREME CAUTION AROUND ELECTRICAL DUCTS, TELECOMMUNICATION LINES, DITCH IRRIGATION LATERALS AND WATER MAINS TO INSURE THAT THESE AND ALL UTILITIES ARE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
9. ANY EXISTING MONITORING WELLS, CLEANOUTS, VALVE BOXES, MANHOLES, ETC. ARE TO BE PROTECTED AND TO REMAIN IN SERVICE. IF FEATURES EXIST, EXTEND OR LOWER TO THE FINAL SURFACE WITH LIKE KIND CAP WITH STANDARD CAST ACCESS LID WITH SAME MARKINGS.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ANY EXISTING SIGNS, STRUCTURES, FENCES, ETC. ENCOUNTERED ON THE PROJECT AND RESTORING THEM TO THEIR PRE-CONSTRUCTION CONDITION.
11. STAGING AREAS FOR MATERIALS AND/OR EQUIPMENT ARE NOT SHOWN. CONTRACTOR SHALL ACQUIRE APPROVAL OF STAGING AREAS.
12. FINAL LIMITS OF REQUIRED ASPHALT AND/OR CONCRETE SAWCUT AND PATCHING MAY VARY FROM LIMITS SHOWN ON THE PLANS. THE CONTRACTOR IS TO PROVIDE SAWCUT AND PATCH WORK TO ACHIEVE POSITIVE DRAINAGE AND A SMOOTH TRANSITION TO EXISTING WITHIN ACCEPTABLE DRIVE SLOPE STANDARDS PER THE ENGINEER WITHOUT ADDITIONAL COST. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SAW CUTTING AND PATCHING AS REQUIRED TO FACILITATE UTILITY WORK, ETC. THAT MAY NOT BE DELINEATED ON THE PLANS.
13. CONTRACTOR SHALL PROVIDE A PLAN FOR TRAFFIC CONTROL (VEHICULAR AND PEDESTRIAN) DURING CONSTRUCTION AND SHALL BE RESPONSIBLE FOR ACQUIRING THE NECESSARY PERMITTING FOR CONSTRUCTION INCLUDING BUT NOT LIMITED TO RIGHT-OF-WAY PERMITS.
14. CONTRACTOR SHALL PROVIDE SAFETY FENCING AS NECESSARY AROUND ENTIRE ACTIVE CONSTRUCTION SITE FOR ALL PHASES OF CONSTRUCTION DURING NON-WORKING HOURS. SAFETY FENCING SHALL BE A MINIMUM 5 FOOT HIGH CHAIN LINK FENCE OR APPROVED EQUIVALENT. CONTRACTOR SHALL ALSO PROVIDE PLATING ACROSS OPEN TRENCHES FOR ALL PHASES OF CONSTRUCTION DURING WEEKEND AND HOLIDAY NON-WORKING HOURS.
15. WRITTEN DIMENSIONS ON THE PLANS AND DETAILS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
16. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO THEIR ORIGINAL CONDITION OR BETTER AS DESIGNATED BY THE OWNER/ENGINEER. THE CONTRACTOR SHALL INCLUDE THIS WORK IN HIS/HER BID.
17. FOR ALL FACILITIES NOT SPECIFICALLY DESCRIBED ON THE DRAWINGS, CONTRACTOR SHALL RESTORE ANY AND ALL DISTURBED SURFACE FEATURES TO THEIR ORIGINAL LOCATION AND CONDITION PRIOR TO PROJECT COMPLETION.
18. ALL SURPLUS MATERIALS, TOOLS AND TEMPORARY STRUCTURES, FURNISHED BY THE CONTRACTOR, SHALL BE REMOVED FROM THE PROJECT BY THE CONTRACTOR. ALL DEBRIS AND RUBBISH CAUSED BY THE OPERATIONS OF THE CONTRACTOR SHALL BE REMOVED, AND THE AREA OCCUPIED DURING CONSTRUCTION SHALL BE RESTORED TO ITS ORIGINAL CONDITION, WITHIN 48 HOURS OF PROJECT COMPLETION.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACCEPTANCE AND CONTROL OF ALL FLOWS INCLUDING SURFACE WATERS, STORM SEWER FLOWS, AND GROUNDWATER FLOWS DURING CONSTRUCTION.
20. STORMWATER: THE CONTRACTOR IS NOT TO DISCHARGE ANY CONSTRUCTION WATER, WASTE OR DEBRIS INTO THE STORM WATER SYSTEM.
21. THE CONTRACTOR IS REQUIRED TO PROVIDE AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES THROUGHT THE DURATION OF THE PROJECT.
22. STREET LIGHTS REQUIRING REMOVAL DURING CONSTRUCTION SHALL BE RESET BY CONTRACTOR UPON COMPLETION TO EXISTING CONDITION.
23. ACCESS BY THE FIRE DEPARTMENT AND OTHER EMERGENCY RESPONDERS TO ALL BUILDINGS MUST REMAIN UNOBSTRUCTED AT ALL TIMES.
24. THESE NOTES SHALL APPLY TO ALL SHEETS INCLUDED WITH THIS SET OF PLANS.

NO.	DATE	DESCRIPTION	BY

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PARTICIPANTS REQUEST 48 HOURS NOTICE BEFORE YOU DIG, DRILL, OR BLAST – STOP AND CALL 811

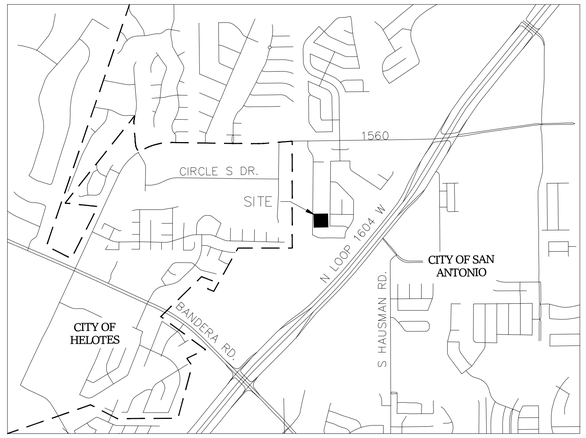
THE LONE STAR NOTIFICATION COMPANY AT 1-800-669-8344

13306 WESTERN OAK

SAN ANTONIO, TEXAS

CIVIL SITE IMPROVEMENTS

EE JOB NUMBER: 25-0093



LOCATION MAP
NOT-TO-SCALE

PREPARED FOR:

VEGA-DIEGO REAL ESTATE LLC
110 E HOUSTON ST.
SAN ANTONIO, TX 78205-2990

EVER ENGINEERING, LLC
ADVANCED ENGINEERING SERVICES
3201 CHERRY RIDGE DRIVE, SUITE A-106,
SAN ANTONIO, TX 78230
OFFICE (210) 572-9340 FAX (210) 572-9344
WWW.EVERENC.COM

SHEET INDEX

ARCHITECT:
REDfish
ARCHITECTURE AND ENGINEERING INC.

STATE OF TEXAS
EVER GARZA III
127459
LICENSED
PROFESSIONAL ENGINEER
08/08/2025

CONSULTANTS:

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OFFICE (210) 572-9340 FAX (210) 572-9344
WWW.EVERENC.COM
FIRM NO. F-19197

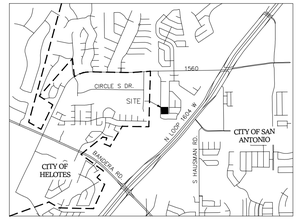
VDRE DEVELOPMENTS

ISSUE FOR CONSTRUCTION

C0.00

LEGAL DESCRIPTION

LOT 27
BLOCK 2
N.C.B. 17616
NORTHWEST BUSINESS PARK UNIT 1
(VOL. 9510, PG. 4041, D.P.R.)



LOCATION MAP
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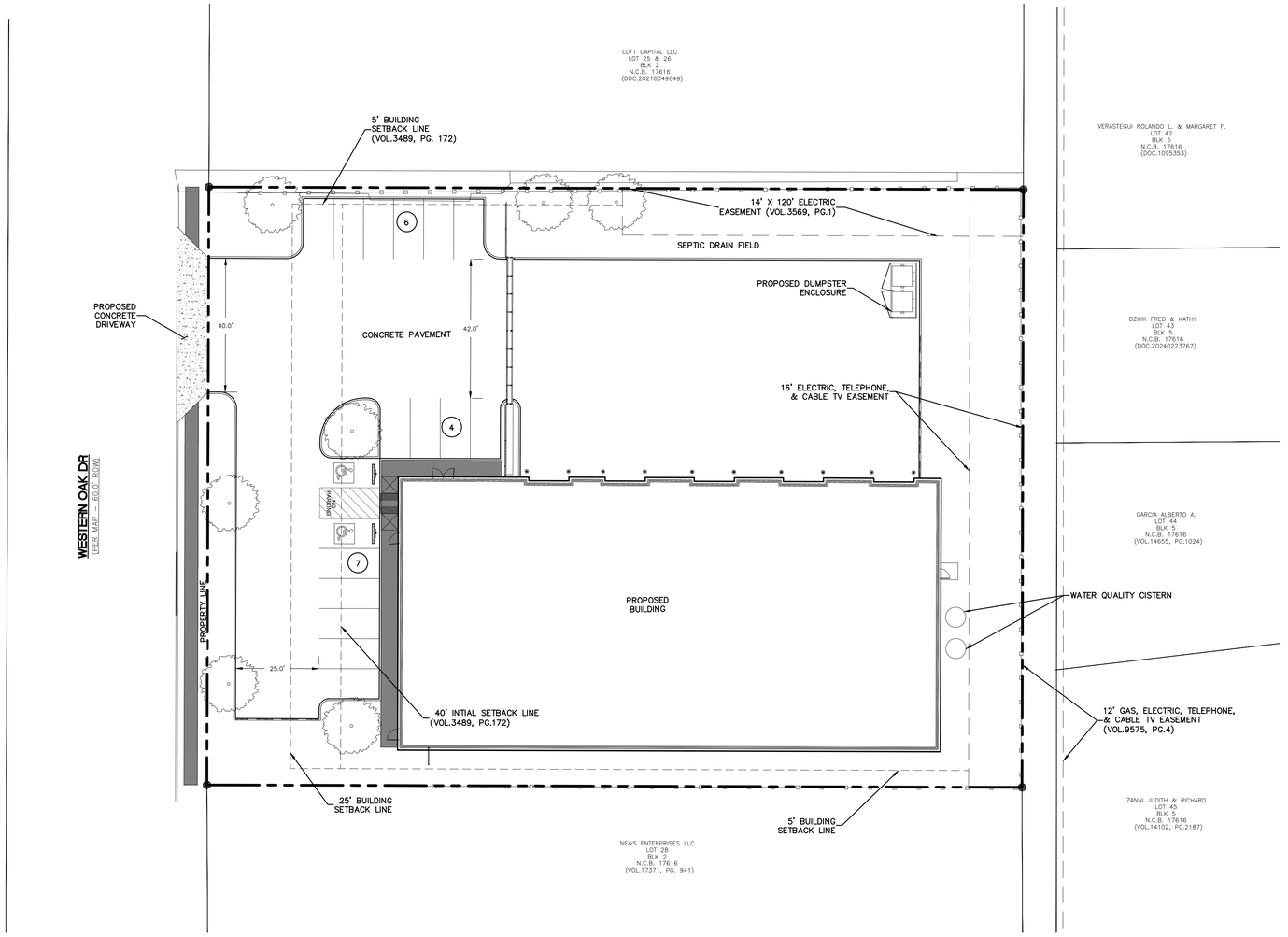

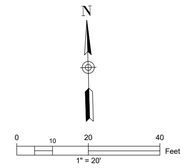

LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE DRIVEWAY
- PROPOSED PARKING COUNT (#)

GENERAL NOTES

1. ALL SIDEWALKS, CURBS, RAMPS, AND DRIVE APPROACHES IN THE RIGHT OF WAY SHALL BE IN COMPLIANCE WITH CURRENT TEXAS ACCESSIBILITY STANDARDS AND CITY OF SAN ANTONIO DESIGN STANDARDS PRIOR TO FINAL INSPECTION APPROVAL.

NOTES

TOTAL BUILDING SIZE = 13,225 SF
TOTAL PARKING SPACES = 17
ADA PARKING SPACES = 2

ARCHITECT:
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San Antonio, TX 78216
Phone: 210-902-9917
www.REDfishinc.com

TBAE Firm BR 4797
TBPE Firm F-24527

STATE OF TEXAS
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FIRM NO. F-19197

SMGC CONSTRUCTION LLC
13306 WESTERN OAK
LOT 27, BLOCK 2 OF
BANDERA NORTHWEST ANNEXATION
HELOTES, TEXAS 78023

VDRE DEVELOPMENTS

Date:	Description:
08/08/25	Construction Documents

Project #	25002
Issue Date:	08/08/2025

Drawing Title
OVERALL SITE PLAN

Drawing Number
C1.00

ISSUE FOR CONSTRUCTION

Z:\Projects\25\0093\DESIGN\CIVIL\C1.00 - OVERALL SITE PLAN.dwg 8/8/2025 10:22:26 AM DWG To PDF.pc3

LEGAL DESCRIPTION

LOT 27
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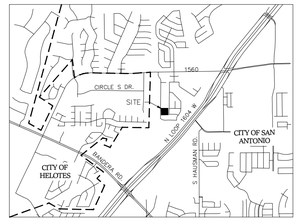
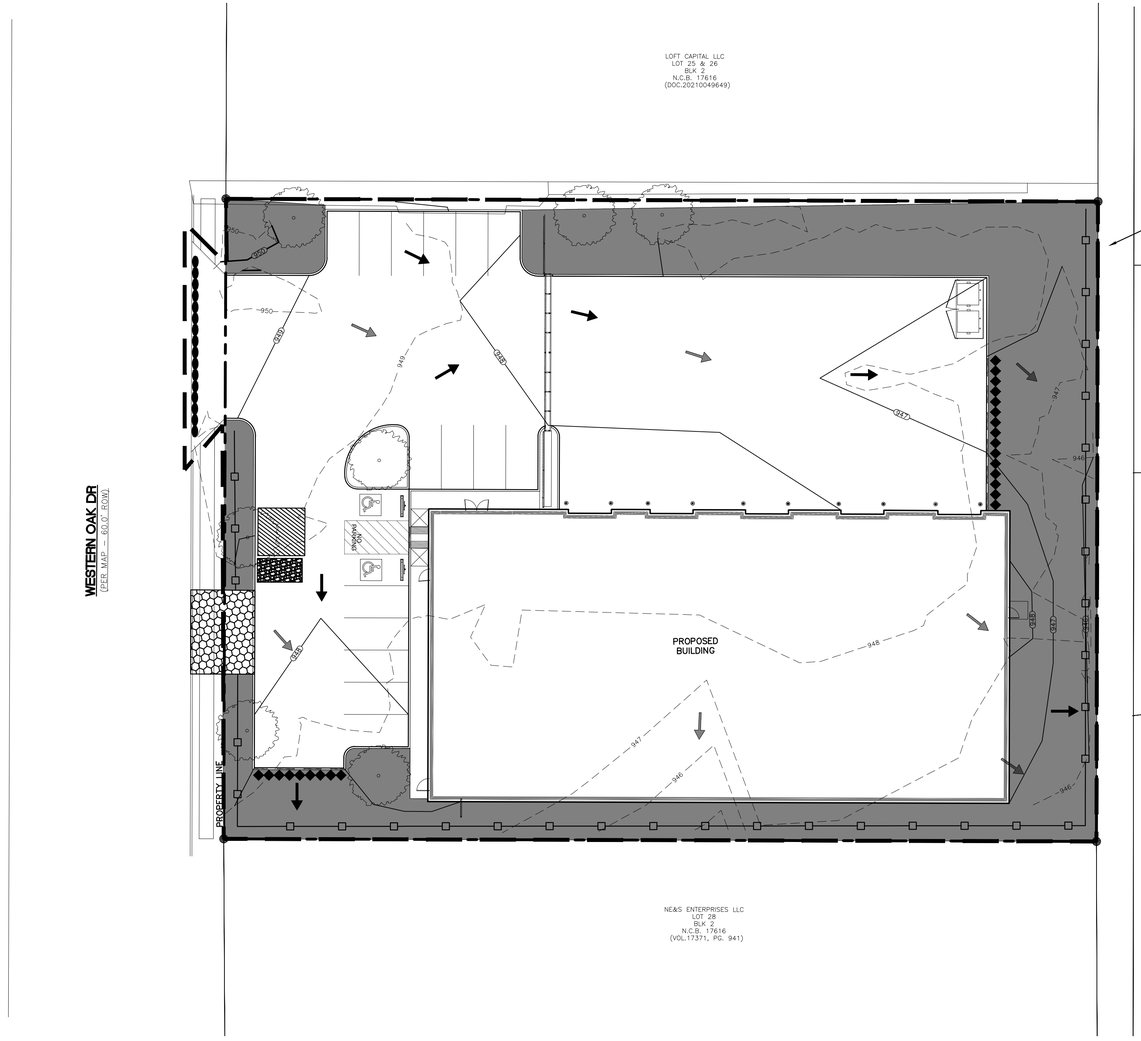
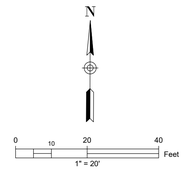
(VOL. 9510, PG. 4041, D.P.R.)



LOCATION MAP
NOT-TO-SCALE





LEGEND

- PROPERTY LINE
- LIMITS OF DISTURBED AREA
- EXISTING CONTOUR — 690
- PROPOSED CONTOUR — 690
- FLOW ARROW (EXISTING)
- FLOW ARROW (PROPOSED)
- STABILIZED CONSTRUCTION ENTRANCE (FIELD LOCATE)
- CONCRETE TRUCK WASHOUT (FIELD LOCATE)
- CONSTRUCTION STAGING AREA (FIELD LOCATE)
- PERMANENT STABILIZATION AREA
- SILT FENCE
- ROCK BERM
- INLET PROTECTION
- GRAVEL FILTER BAGS

GENERAL NOTES

1. DO NOT DISTURB VEGETATED AREAS (TREES, GRASS, WEEDS, BRUSH, ETC.) ANY MORE THAN NECESSARY FOR CONSTRUCTION.

2. CONSTRUCTION ENTRANCE/EXIT LOCATION, CONCRETE WASH-OUT PIT, AND CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD TO BE DETERMINED IN THE FIELD.

3. STORM WATER POLLUTION PREVENTION CONTROLS MAY NEED TO BE MODIFIED IN THE FIELD TO ACCOMPLISH THE DESIRED EFFECT. ALL MODIFICATIONS ARE TO BE NOTED ON THIS EXHIBIT AND SIGNED AND DATED BY THE RESPONSIBLE PARTY.

4. RESTRICT ENTRY/EXIT TO THE PROJECT SITE TO DESIGNATED LOCATIONS BY USE OF ADEQUATE FENCING, IF NECESSARY.

5. ALL STORM WATER POLLUTION PREVENTION CONTROLS ARE TO BE MAINTAINED AND IN WORKING CONDITIONS AT ALL TIMES.

6. STORM WATER POLLUTION PREVENTION STRUCTURES SHOULD BE CONSTRUCTED WITHIN THE SITE BOUNDARIES. SOME OF THESE FEATURES MAY BE SHOWN OUTSIDE THE SITE BOUNDARIES ON THIS PLAN FOR VISUAL CLARITY.

SWP3 MODIFICATIONS

	SIGNATURE	DESCRIPTION

THE ENGINEERING SEAL HAS BEEN AFFIXED TO THIS SHEET ONLY FOR THE PURPOSE OF DEMONSTRATING COMPLIANCE WITH THE TPDES-STORM WATER POLLUTION PREVENTION PLAN (SWP3) REGULATIONS.

THIS SHEET HAS BEEN PREPARED FOR PURPOSES OF THE SWP3 ONLY. ALL OTHER CIVIL ENGINEERING RELATED INFORMATION SHOULD BE ACQUIRED FROM THE APPROPRIATE SHEET IN THE CIVIL IMPROVEMENT PLANS.

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SMGC CONSTRUCTION LLC

13306 WESTERN OAK

LOT 27, BLOCK 2 OF
BANDERA NORTHWEST ANNEXATION
HELOTES, TEXAS 78023

VDRE DEVELOPMENTS

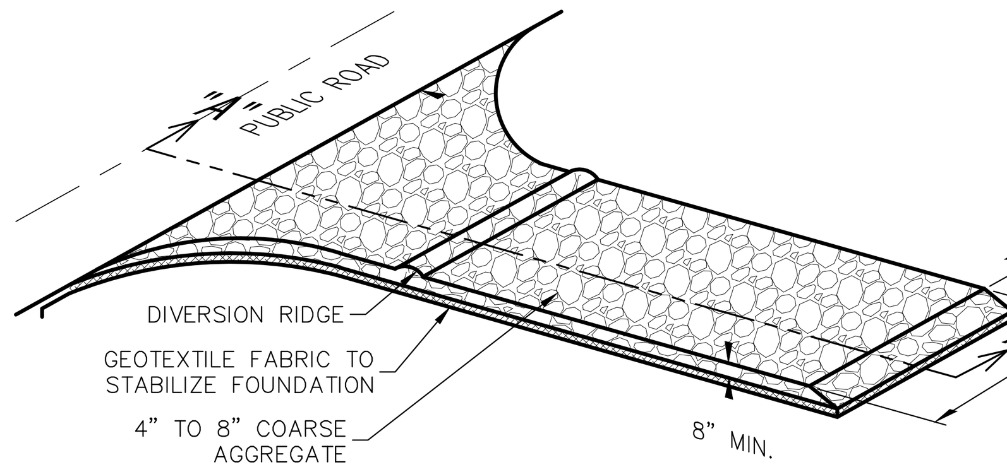
Date:	Description:
08/08/25	Construction Documents

Project #	25002
Issue Date:	08/08/2025

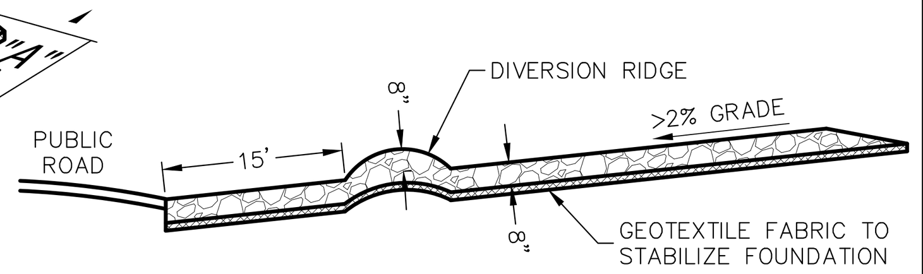
ISSUE FOR CONSTRUCTION

Drawing Title
STORM WATER PROTECTION PREVENTION PLAN

Drawing Number
C2.00



SCHEMATIC OF TEMPORARY CONSTRUCTION ENTRANCE/EXIT



SECTION "A-A" OF A CONSTRUCTION ENTRANCE/EXIT

MATERIALS

1. THE AGGREGATE SHOULD CONSIST OF 4-INCH TO 8-INCH WASHED STONE OVER A STABLE FOUNDATION AS SPECIFIED IN THE PLAN.

2. THE AGGREGATE SHOULD BE PLACED WITH A MINIMUM THICKNESS OF 8-INCHES.

3. THE GEOTEXTILE FABRIC SHOULD BE DESIGNED SPECIFICALLY FOR USE AS A SOIL FILTRATION MEDIA WITH AN APPROXIMATE WEIGHT OF 6 OZ/YD², A MULLEN BURST RATING OF 140 LB/IN², AND AN EQUIVALENT OPENING SIZE GREATER THAN A NUMBER 50 SIEVE.

4. IF A WASHING FACILITY IS REQUIRED, A LEVEL AREA WITH A MINIMUM OF 4-INCH DIAMETER WASHED STONE OR COMMERCIAL ROCK SHOULD BE INCLUDED IN THE PLANS. DIVERT WASTEWATER TO A SEDIMENT TRAP OR BASIN.

INSTALLATION

1. AVOID CURVES ON PUBLIC ROADS AND STEEP SLOPES. REMOVE VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. GRADE CROWN FOUNDATION FOR POSITIVE DRAINAGE.

2. THE MINIMUM WIDTH OF THE ENTRANCE/EXIT SHOULD BE 12 FEET OR THE FULL WIDTH OF EXIT ROADWAY, WHICHEVER IS GREATER.

3. THE CONSTRUCTION ENTRANCE SHOULD BE AT LEAST 50 FEET LONG.

4. IF THE SLOPE TOWARD THE ROAD EXCEEDS 2%, CONSTRUCT A RIDGE, 6-INCHES TO 8-INCHES HIGH WITH 3:1 (H:V) SIDE SLOPES, ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE PUBLIC ROAD.

5. PLACE GEOTEXTILE FABRIC AND GRADE FOUNDATION TO IMPROVE STABILITY, ESPECIALLY WHERE WET CONDITIONS ARE ANTICIPATED.

6. PLACE STONE TO DIMENSIONS AND GRADE SHOWN ON PLANS. LEAVE SURFACE SMOOTH AND SLOPE FOR DRAINAGE.

7. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN.

8. INSTALL PIPE UNDER PAD AS NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.

COMMON TROUBLE POINTS

1. INADEQUATE RUNOFF CONTROL-SEDIMENT WASHES ONTO PUBLIC ROAD.

2. STONE TOO SMALL OR GEOTEXTILE FABRIC ABSENT, RESULTS IN MUDDY CONDITION AS STONE IS PRESSED INTO SOIL.

3. PAD TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC-EXTEND PAD BEYOND THE MINIMUM 50-FOOT LENGTH AS NECESSARY.

4. PAD NOT FLARED SUFFICIENTLY AT ROAD SURFACE, RESULTS IN MUD BEING TRACKED ON TO ROAD AND POSSIBLE DAMAGE TO ROAD.

5. UNSTABLE FOUNDATION – USE GEOTEXTILE FABRIC UNDER PAD AND/OR IMPROVE FOUNDATION DRAINAGE.

INSPECTION AND MAINTENANCE GUIDELINES

1. THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION, WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

2. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHOULD BE REMOVED IMMEDIATELY BY CONTRACTOR.

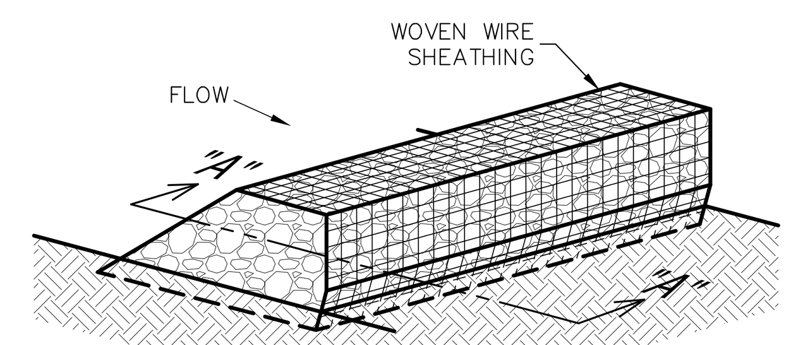
3. WHEN NECESSARY, WHEELS SHOULD BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

4. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

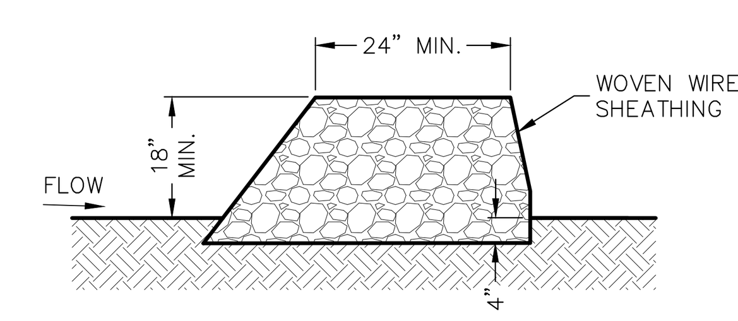
5. ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.

STABILIZED CONSTRUCTION ENTRANCE/EXIT DETAIL

NOT-TO-SCALE



ISOMETRIC PLAN VIEW



SECTION "A-A"

ROCK BERMS

THE PURPOSE OF A ROCK BERM IS TO SERVE AS A CHECK DAM IN AREAS OF CONCENTRATED FLOW, TO INTERCEPT SEDIMENT-LADEN RUNOFF, DETAIN THE SEDIMENT AND RELEASE THE WATER IN SHEET FLOW. THE ROCK BERM SHOULD BE USED WHEN THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 5 ACRES. ROCK BERMS ARE USED IN AREAS WHERE THE VOLUME OF RUNOFF IS TOO GREAT FOR A SILT FENCE TO CONTAIN. THEY ARE LESS EFFECTIVE FOR SEDIMENT REMOVAL THAN SILT FENCES, PARTICULARLY FOR FINE PARTICLES, BUT ARE ABLE TO WITHSTAND HIGHER FLOWS THAN A SILT FENCE. AS SUCH, ROCK BERMS ARE OFTEN USED IN AREAS OF CHANNEL FLOWS (DITCHES, GULLIES, ETC.). ROCK BERMS ARE MOST EFFECTIVE AT REDUCING BED LOAD IN CHANNELS AND SHOULD NOT BE SUBSTITUTED FOR OTHER EROSION AND SEDIMENT CONTROL MEASURES FARTHER UP THE WATERSHED.

INSPECTION AND MAINTENANCE GUIDELINES

1. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL BY THE RESPONSIBLE PARTY. FOR INSTALLATIONS IN STREAMBEDS, ADDITIONAL DAILY INSPECTIONS SHOULD BE MADE.

2. REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6 INCHES AND DISPOSE OF THE ACCUMULATED SILT IN AN APPROVED MANNER THAT WILL NOT CAUSE ANY ADDITIONAL SILTATION.

3. REPAIR ANY LOOSE WIRE SHEATHING.

4. THE BERM SHOULD BE RESHAPED AS NEEDED DURING INSPECTION.

5. THE BERM SHOULD BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

6. THE ROCK BERM SHOULD BE LEFT IN PLACE UNTIL ALL UPSTREAM AREAS ARE STABILIZED AND ACCUMULATED SILT REMOVED.

MATERIALS

1. THE BERM STRUCTURE SHOULD BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE DIAMETER OF 20 GAUGE GALVANIZED AND SHOULD BE SECURED WITH SHOAT RINGS.

2. CLEAN, OPEN GRADED 3-INCH TO 5-INCH DIAMETER ROCK SHOULD BE USED, EXCEPT IN AREAS WHERE HIGH VELOCITIES OR LARGE VOLUMES OF FLOW ARE EXPECTED, WHERE 5-INCH TO 8-INCH DIAMETER ROCKS MAY BE USED.

INSTALLATION

1. LAY OUT THE WOVEN WIRE SHEATHING PERPENDICULAR TO THE FLOW LINE. THE SHEATHING SHOULD BE 20 GAUGE WOVEN WIRE MESH WITH 1 INCH OPENINGS.

2. BERM SHOULD HAVE A TOP WIDTH OF 2 FEET MINIMUM WITH SIDE SLOPES BEING 2:1 (H:V) OR FLATTER.

3. PLACE THE ROCK ALONG THE SHEATHING AS SHOWN IN THE DIAGRAM TO A HEIGHT NOT LESS THAN 18".

4. WRAP THE WIRE SHEATHING AROUND THE ROCK AND SECURE WITH TIE WIRE SO THAT THE ENDS OF THE SHEATHING OVERLAP AT LEAST 2 INCHES, AND THE BERM RETAINS ITS SHAPE WHEN WALKED UPON.

5. BERM SHOULD BE BUILT ALONG THE CONTOUR AT ZERO PERCENT GRADE OR AS NEAR AS POSSIBLE.

6. THE ENDS OF THE BERM SHOULD BE TIED INTO EXISTING UPSLOPE GRADE AND THE BERM SHOULD BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP TO PREVENT FAILURE OF THE CONTROL.

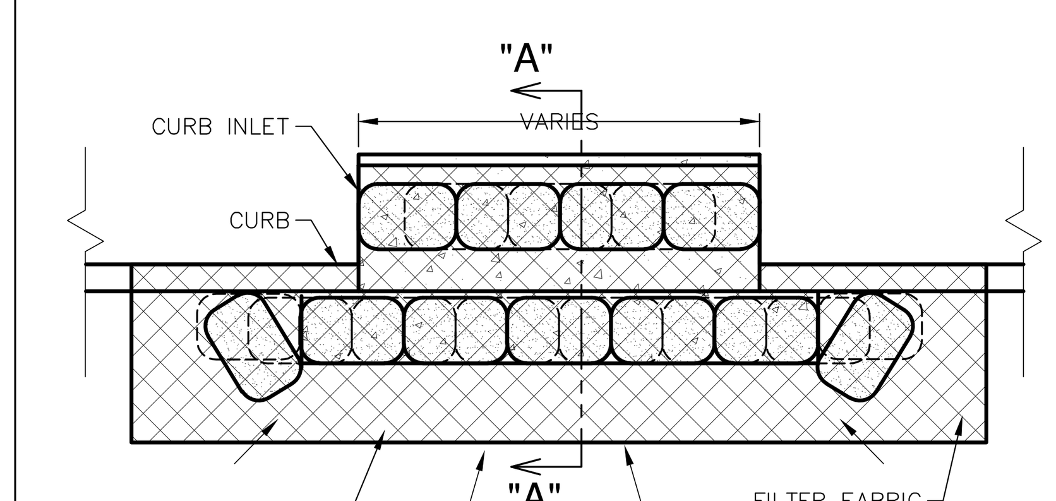
COMMON TROUBLE POINTS

1. INSUFFICIENT BERM HEIGHT OR LENGTH (RUNOFF QUICKLY ESCAPES OVER THE TOP OR AROUND THE SIDES OF BERM).

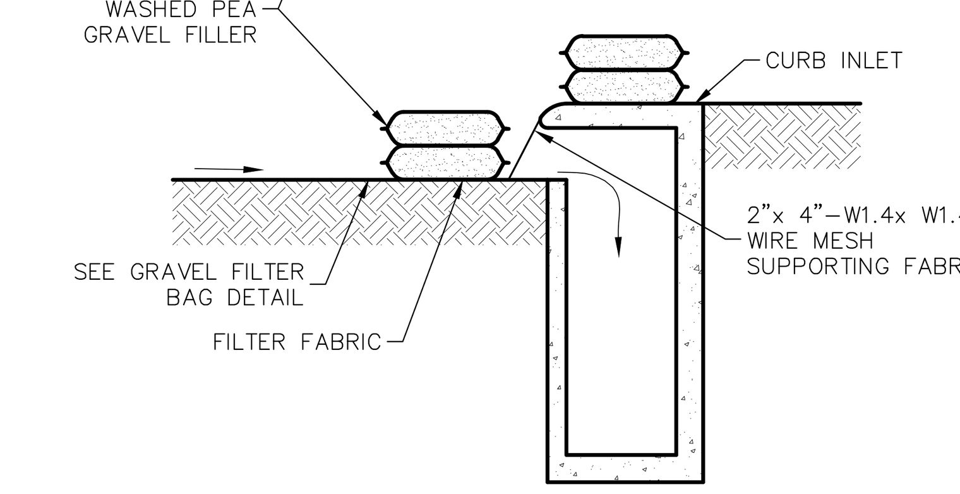
2. BERM NOT INSTALLED PERPENDICULAR TO FLOW LINE (RUNOFF ESCAPING AROUND ONE SIDE).

ROCK BERM DETAIL

NOT-TO-SCALE



PLAN VIEW



SECTION "A-A"

GENERAL NOTES

1. CONTRACTOR TO INSTALL 2"x4"-W1.4xW1.4 WIRE MESH SUPPORTING FILTER FABRIC OVER THE INLET OPENING. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR WIRE TIES AT THIS LOCATION. SAND BAGS FILLED WITH WASHED PEA GRAVEL SHOULD BE PLACED ON TOP OF WIRE MESH ON TOP OF THE INLET AS SHOWN ON THIS DETAIL TO HOLD WIRE MESH IN PLACE. SANDBAGS FILLED WITH WASHED PEA GRAVEL SHOULD ALSO BE PLACED ALONG THE GUTTER AS SHOWN ON THIS DETAIL TO HOLD WIRE MESH IN PLACE. SAND BAGS TO BE STACKED TO FORM A CONTINUOUS BARRIER AROUND INLETS.

2. THE BAGS SHOULD BE TIGHTLY ABUTTED AGAINST EACH OTHER TO PREVENT RUNOFF FROM FLOWING BETWEEN THE BAGS.

INSPECTION AND MAINTENANCE GUIDELINES

1. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.

2. REMOVE SEDIMENT WHEN BUILDUP REACHES A DEPTH OF 3 INCHES. REMOVED SEDIMENT SHOULD BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.

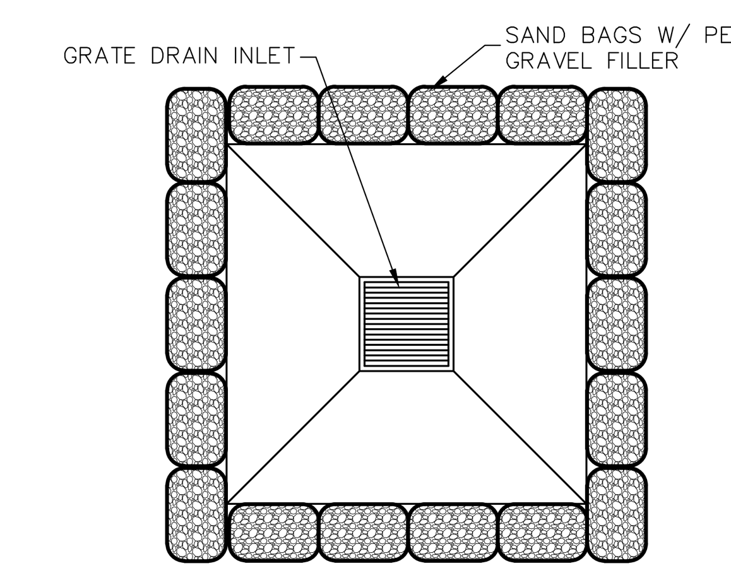
3. CHECK PLACEMENT OF DEVICE TO PREVENT GAPS BETWEEN DEVICE AND CURB.

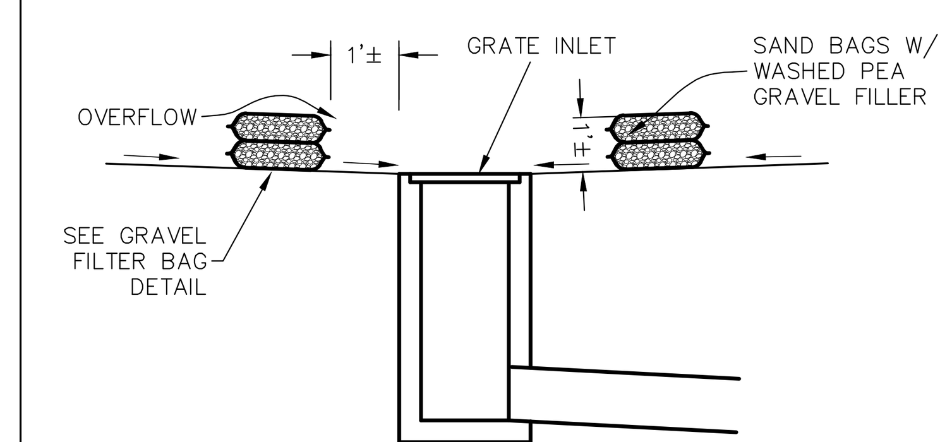
4. INSPECT FILTER FABRIC AND PATCH OR REPLACE IF TORN OR MISSING.

5. STRUCTURES SHOULD BE REMOVED AND THE AREA STABILIZED ONLY AFTER THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

BAGGED GRAVEL CURB INLET PROTECTION DETAIL

NOT-TO-SCALE





GENERAL NOTES

1) THE SANDBAGS SHOULD BE FILLED WITH WASHED PEA GRAVEL AND STACKED TO FORM A CONTINUOUS BARRIER ABOUT 1 FOOT HIGH AROUND INLETS.

2) THE BAGS SHOULD BE TIGHTLY ABUTTED AGAINST EACH OTHER TO PREVENT RUNOFF FROM FLOWING BETWEEN THE BAGS.

INSPECTION AND MAINTENANCE GUIDELINES

1) INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.

2) REMOVE SEDIMENT WHEN BUILDUP REACHES A DEPTH OF 3 INCHES. REMOVED SEDIMENT SHOULD BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MATTER THAT IT WILL NOT ERODE.

3) CHECK PLACEMENT OF DEVICE TO PREVENT GAPS BETWEEN DEVICE AND CURB.

4) INSPECT FILTER FABRIC AND PATCH OR REPLACE IF TORN OR MISSING.

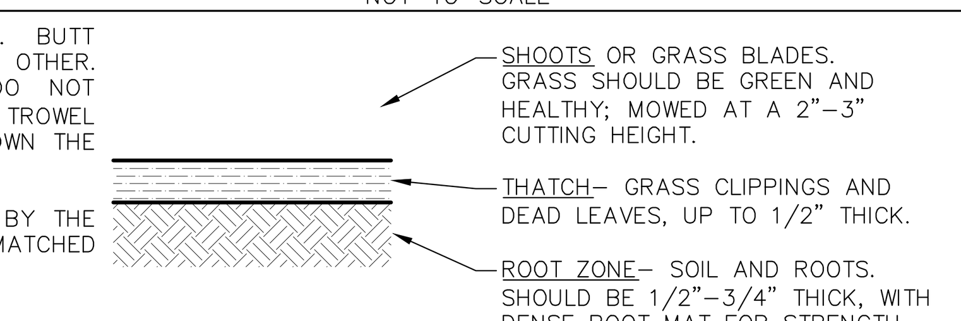
5) STRUCTURES SHOULD BE REMOVED AND THE AREA STABILIZED ONLY AFTER THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

BAGGED GRAVEL GRATE INLET PROTECTION

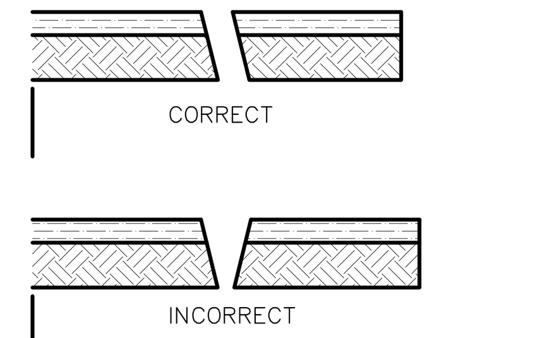
NOT-TO-SCALE

LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT OVERLAP. A SHARPENED MASON'S TROWEL IS A HANDY TOOL FOR TUCKING DOWN THE ENDS AND TRIMMING PIECES.

BUTTING – ANGLED ENDS CAUSED BY THE AUTOMATIC SOD CUTTER MUST BE MATCHED CORRECTLY.



APPEARANCE OF GOOD SOD

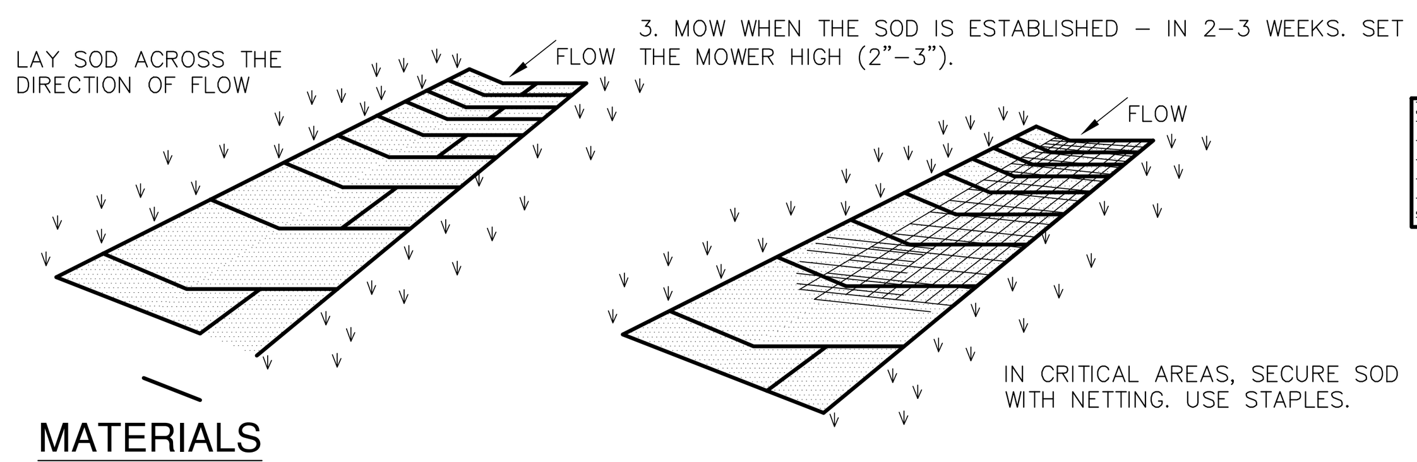


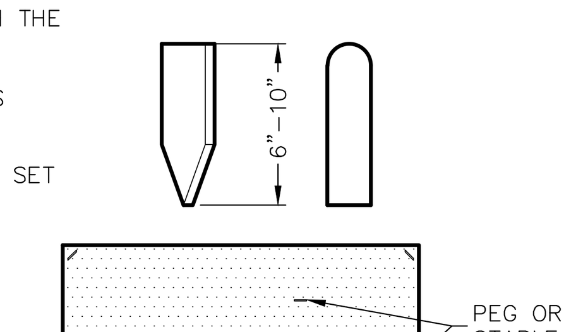
SOD INSTALLATION

NOTES:
1. ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL.

2. WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS LAID.

3. MOW WHEN THE SOD IS ESTABLISHED – IN 2-3 WEEKS. SET THE MOWER HIGH (2"-3").





USE PEGS OR STAPLES TO FASTEN SOD FIRMLY – AT THE ENDS OF STRIPS AND IN THE CENTER, OR EVERY 3-4 FEET IF THE STRIPS ARE LONG. WHEN READY TO MOW, DRIVE PEGS OR STAPLES FLUSH WITH THE GROUND.

MATERIALS

1. SOD SHOULD BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4" INCH (± 1/4" INCH) AT THE TIME OF CUTTING. THIS THICKNESS SHOULD EXCLUDE SHOOT GROWTH AND THATCH.

2. PIECES OF SOD SHOULD BE CUT TO THE SUPPLIER'S STANDARD WIDTH AND LENGTH, WITH A MAXIMUM ALLOWABLE DEVIATION IN ANY DIMENSION OF 5%. TORN OR UNEVEN PADS SHOULD NOT BE ACCEPTABLE.

3. STANDARD SIZE SECTIONS OF SOD SHOULD BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED FROM A FIRM GRASP ON ONE END OF THE SECTION.

4. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS.

SITE PREPARATION

1. PRIOR TO SOIL PREPARATION, AREAS TO BE SODDED SHOULD BE BROUGHT TO FINAL GRADE IN ACCORDANCE WITH THE APPROVED PLAN.

2. THE SURFACE SHOULD BE CLEARED OF ALL TRASH, DEBRIS AND OF ALL ROOTS, BRUSH, WIRE, GRADE STAKES AND OTHER OBJECTS THAT WOULD INTERFERE WITH PLANTING, FERTILIZING OR MAINTENANCE OPERATIONS.

3. FERTILIZE ACCORDING TO SOIL TESTS. FERTILIZER NEEDS CAN BE DETERMINED BY A SOIL TESTING LABORATORY OR REGIONAL RECOMMENDATIONS CAN BE MADE BY COUNTY AGRICULTURAL EXTENSION AGENTS. FERTILIZER SHOULD BE WORKED INTO THE SOIL TO A DEPTH OF 3 INCHES WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT. ON SLOPING LAND, THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE CONTOUR.

INSTALLATION IN CHANNELS

1. SOD STRIPS IN WATERWAYS SHOULD BE LAID PERPENDICULAR TO THE DIRECTION OF FLOW. CARE SHOULD BE TAKEN TO BUTT ENDS OF STRIPS TIGHTLY (SEE FIGURE ABOVE).

2. AFTER ROLLING OR TAMPING, SOD SHOULD BE PEGGED OR STAPLED TO RESIST WASHOUT DURING THE ESTABLISHMENT PERIOD. MESH OR OTHER NETTING MAY BE PEGGED OVER THE SOD FOR EXTRA PROTECTION IN CRITICAL AREAS.

GENERAL INSTALLATION (VA. DEPT. OF CONSERVATION, 1992)

1. SOD SHOULD NOT BE CUT OR LAID IN EXCESSIVELY WET OR DRY WEATHER. SOD ALSO SHOULD NOT BE LAID ON SOIL SURFACES THAT ARE FROZEN.

2. DURING PERIODS OF HIGH TEMPERATURE, THE SOIL SHOULD BE LIGHTLY IRRIGATED IMMEDIATELY PRIOR TO LAYING THE SOD, TO COOL THE SOIL AND REDUCE ROOT BURNING AND DIEBACK.

3. THE FIRST ROW OF SOD SHOULD BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND BUTTING TIGHTLY AGAINST EACH OTHER. LATERAL JOINTS SHOULD BE STAGGERED TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. CARE SHOULD BE EXERCISED TO ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS (SEE FIGURE ABOVE).

4. ON SLOPES 3:1 OR GREATER, OR WHEREVER EROSION MAY BE A PROBLEM, SOD SHOULD BE LAID WITH STAGGERED JOINTS AND SECURED BY STAPLING OR OTHER APPROVED METHODS. SOD SHOULD BE INSTALLED WITH THE LENGTH PERPENDICULAR TO THE SLOPE (ON CONTOUR).

5. AS SODDING OF CLEARLY DEFINED AREAS IS COMPLETED, SOD SHOULD BE ROLLED OR TAMPED TO PROVIDE FIRM CONTACT BETWEEN ROOTS AND SOIL.

6. AFTER ROLLING, SOD SHOULD BE IRRIGATED TO A DEPTH SUFFICIENT THAT THE UNDERSIDE OF THE SOD PAD AND THE SOIL 4 INCHES BELOW THE SOD IS THOROUGHLY WET.

7. UNTIL SUCH TIME A GOOD ROOT SYSTEM BECOMES DEVELOPED, IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHOULD BE PERFORMED AS OFTEN AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF AT LEAST 4 INCHES.

8. THE FIRST MOWING SHOULD NOT BE ATTEMPTED UNTIL THE SOD IS FIRMLY ROOTED, USUALLY 2-3 WEEKS. NOT MORE THAN ONE THIRD OF THE GRASS LEAF SHOULD BE REMOVED AT ANY ONE CUTTING.

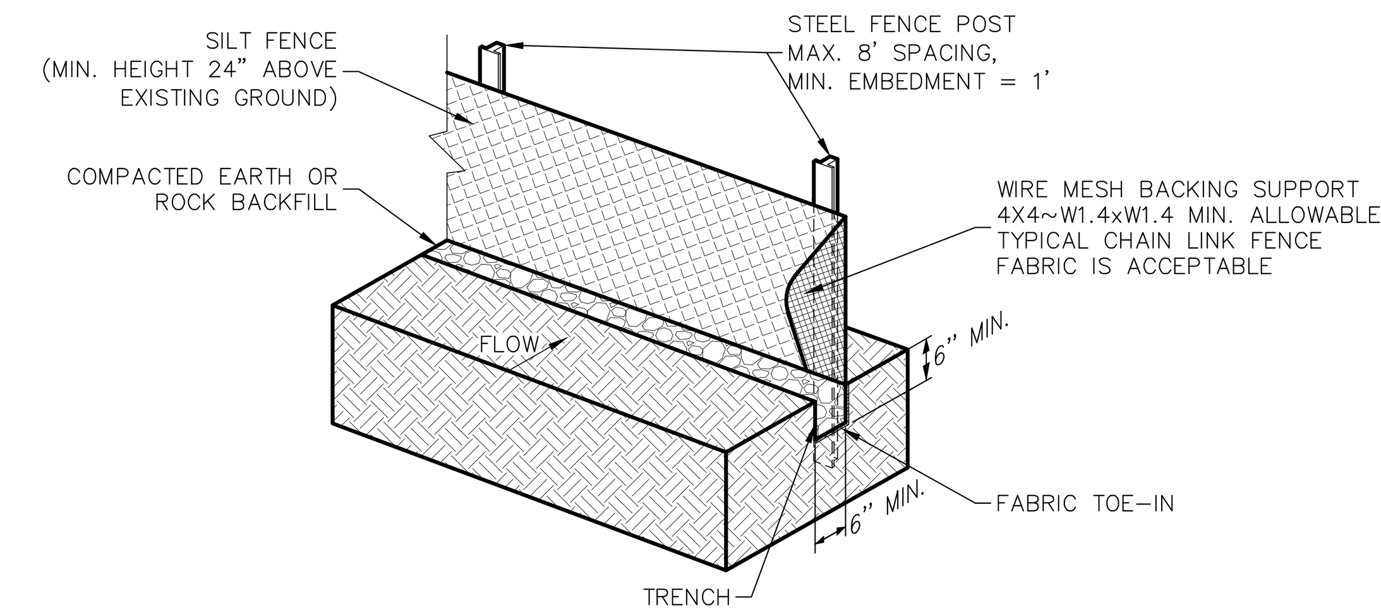
INSPECTION AND MAINTENANCE GUIDELINES

1. SOD SHOULD BE INSPECTED WEEKLY AND AFTER EACH RAIN EVENT TO LOCATE AND REPAIR ANY DAMAGE.

2. DAMAGE FROM STORMS OR NORMAL CONSTRUCTION ACTIVITIES SUCH AS TIRE RUTS OR DISTURBANCE OF SWALE STABILIZATION SHOULD BE REPAIRED AS SOON AS PRACTICAL.

SOD INSTALLATION DETAIL

NOT-TO-SCALE



ISOMETRIC PLAN VIEW

SILT FENCE

A SILT FENCE IS A BARRIER CONSISTING OF GEOTEXTILE FABRIC SUPPORTED BY METAL POSTS TO PREVENT SOIL AND SEDIMENT LOSS FROM A SITE. WHEN PROPERLY USED, SILT FENCES CAN BE HIGHLY EFFECTIVE AT CONTROLLING SEDIMENT FROM DISTURBED AREAS. THEY CAUSE RUNOFF TO POND, ALLOWING HEAVIER SOLIDS TO SETTLE OUT. IF NOT PROPERLY INSTALLED, SILT FENCES ARE NOT LIKELY TO BE EFFECTIVE.

THE PURPOSE OF A SILT FENCE IS TO INTERCEPT AND DETAIN WATER-BORN SEDIMENT FROM UNPROTECTED AREAS OF A LIMITED EXTENT. SILT FENCE IS USED DURING THE PERIOD OF CONSTRUCTION NEAR THE PERIMETER OF A DISTURBED AREA TO INTERCEPT SEDIMENT WHILE ALLOWING WATER TO PERCOLATE THROUGH. THIS FENCE SHOULD REMAIN IN PLACE UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED. SILT FENCE SHOULD NOT BE USED WHERE THERE IS A CONCENTRATION OF WATER IN A CHANNEL OR DRAINAGE WAY. IF CONCENTRATED FLOW OCCURS AFTER INSTALLATION, CORRECTIVE ACTION MUST BE TAKEN SUCH AS PLACING A ROCK BERM IN THE AREAS OF CONCENTRATED FLOW.

SILT FENCING WITHIN THE SITE MAY BE TEMPORARILY MOVED DURING THE DAY TO ALLOW CONSTRUCTION ACTIVITY PROVIDED IT IS REPLACED AND PROPERLY ANCHORED TO THE GROUND AT THE END OF THE DAY. SILT FENCES ON THE PERIMETER OF THE SITE OR AROUND DRAINAGE WAYS SHOULD NOT BE MOVED AT ANY TIME.

MATERIALS

1. SILT FENCE MATERIAL SHOULD BE POLYPROPYLENE, POLYETHYLENE, OR POLYAMIDE WOVEN OR NONWOVEN FABRIC. THE FABRIC SHOULD BE 36 INCHES, WITH A MINIMUM UNIT WEIGHT OF 4.5 OZ/YD, MULLEN BURST STRENGTH EXCEEDING 190 LB/IN2, ULTRAVIOLET STABILITY EXCEEDING 70%, AND MINIMUM APPARENT OPENING SIZE OF U.S. SIEVE NUMBER 30.

2. FENCE POSTS SHOULD BE MADE OF HOT ROLLED STEEL, AT LEAST 4 FEET LONG WITH TEE OR Y-BAR CROSS SECTION, SURFACE PAINTED OR GALVANIZED, MINIMUM WEIGHT 1.25 LB/FT, AND BRINDELL HARDNESS EXCEEDING 140.

3. WOVEN WIRE BACKING TO SUPPORT THE FABRIC SHOULD BE GALVANIZED 2" X 4" WELDED WIRE, 12 GAUGE MINIMUM.

INSTALLATION

1. STEEL POSTS, WHICH SUPPORT THE SILT FENCE, SHOULD BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST BE EMBEDDED A MINIMUM OF 1-FOOT DEEP AND SPACED NOT MORE THAN 8 FEET ON CENTER. WHERE WATER CONCENTRATES, THE MAXIMUM SPACING SHOULD BE 6 FEET.

2. LAY OUT FENCING DOWN-SLOPE OF DISTURBED AREA, FOLLOWING THE CONTOUR AS CLOSELY AS POSSIBLE. THE FENCE SHOULD BE SITED SO THAT THE MAXIMUM DRAINAGE AREA IS ¼ ACRE/100 FEET OF FENCE.

3. THE TOE OF THE SILT FENCE SHOULD BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWN-SLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G., PAVEMENT OR ROCK OUTCROP), WEIGHT FABRIC FLAP WITH 3 INCHES OF PEA GRAVEL ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.

4. 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.

5. 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 SHOULD BE A 3-FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.

6. SILT FENCE SHOULD BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

COMMON TROUBLE POINTS

1. FENCE NOT INSTALLED ALONG THE CONTOUR CAUSING WATER TO CONCENTRATE AND FLOW OVER THE FENCE.

2. FABRIC NOT SEATED SECURELY TO GROUND (RUNOFF PASSING UNDER FENCE).

3. FENCE NOT INSTALLED PERPENDICULAR TO FLOW LINE (RUNOFF ESCAPING AROUND SIDES).

4. FENCE TREATING TOO LARGE AN AREA, OR EXCESSIVE CHANNEL FLOW (RUNOFF OVERTOPS OR COLLAPSES FENCE).

INSPECTION AND MAINTENANCE GUIDELINES

1. INSPECT ALL FENCING WEEKLY, AND AFTER RAINFALL.

2. REMOVE SEDIMENT WHEN BUILDUP REACHES 6 INCHES.

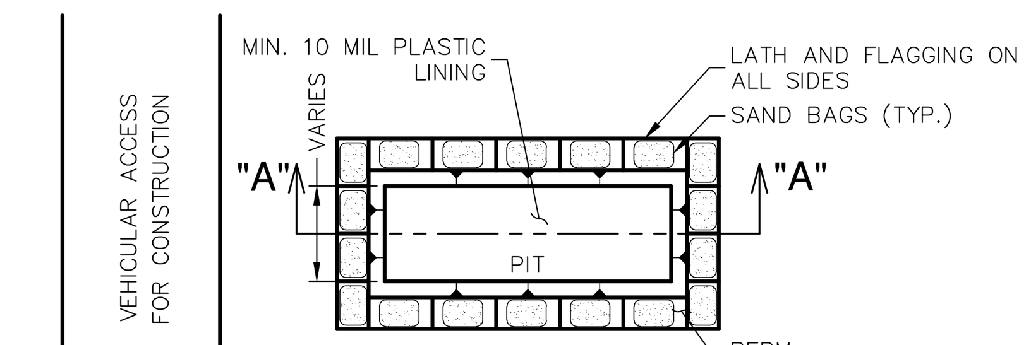
3. REPLACE TORN FABRIC OR INSTALL A SECOND LINE OF FENCING PARALLEL TO THE TORN SECTION.

4. REPLACE OR REPAIR SECTIONS CRUSHED OR COLLAPSED IN THE COURSE OF CONSTRUCTION ACTIVITY. IF A SECTION OF FENCE IS OBSTRUCTING VEHICULAR ACCESS, CONSIDER RELOCATING IT TO A SPOT WHERE IT WILL PROVIDE EQUAL PROTECTION, BUT WILL NOT OBSTRUCT VEHICLES. A TRIANGULAR FILTER DIKE MAY BE PREFERABLE TO A SILT FENCE AT COMMON VEHICLE ACCESS POINTS.

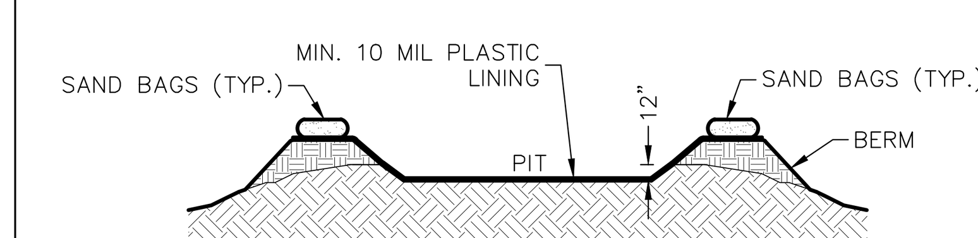
5. WHEN CONSTRUCTION IS COMPLETE, THE SEDIMENT SHOULD BE DISPOSED OF IN A MANNER THAT WILL NOT CAUSE ADDITIONAL SILTATION AND THE PRIOR LOCATION OF THE SILT FENCE SHOULD BE REVEGETATED. THE FENCE ITSELF SHOULD BE DISPOSED OF IN AN APPROVED LANDFILL.

SILT FENCE DETAIL

NOT-TO-SCALE



PLAN VIEW



SECTION "A-A"

GENERAL NOTES

1. DETAIL ABOVE ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE.

2. WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC.

3. WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION FROM STORM WATER RUNOFF.

4. LOCATE WASHOUT AREA AT LEAST 50 FEET FROM SENSITIVE FEATURES, STORM DRAINS, OPEN DITCHES OR WATER BODIES.

5. TEMPORARY CONCRETE WASHOUT FACILITY SHOULD BE CONSTRUCTED WITH SUFFICIENT QUANTITY AND VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.

MATERIALS

PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL IN POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.

MAINTENANCE

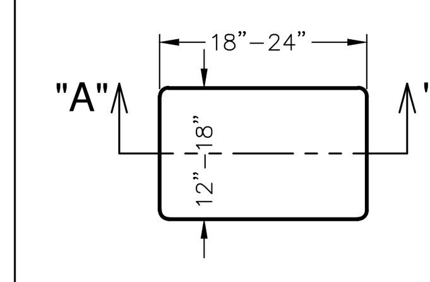
1. WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHOULD BE REMOVED AND DISPOSED OF.

2. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF.

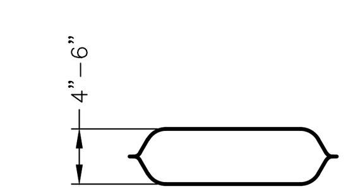
3. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCES CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE BACKFILLED AND REPAIRED.

CONCRETE TRUCK WASHOUT PIT DETAIL

NOT-TO-SCALE



PLAN VIEW



SECTION "A-A"

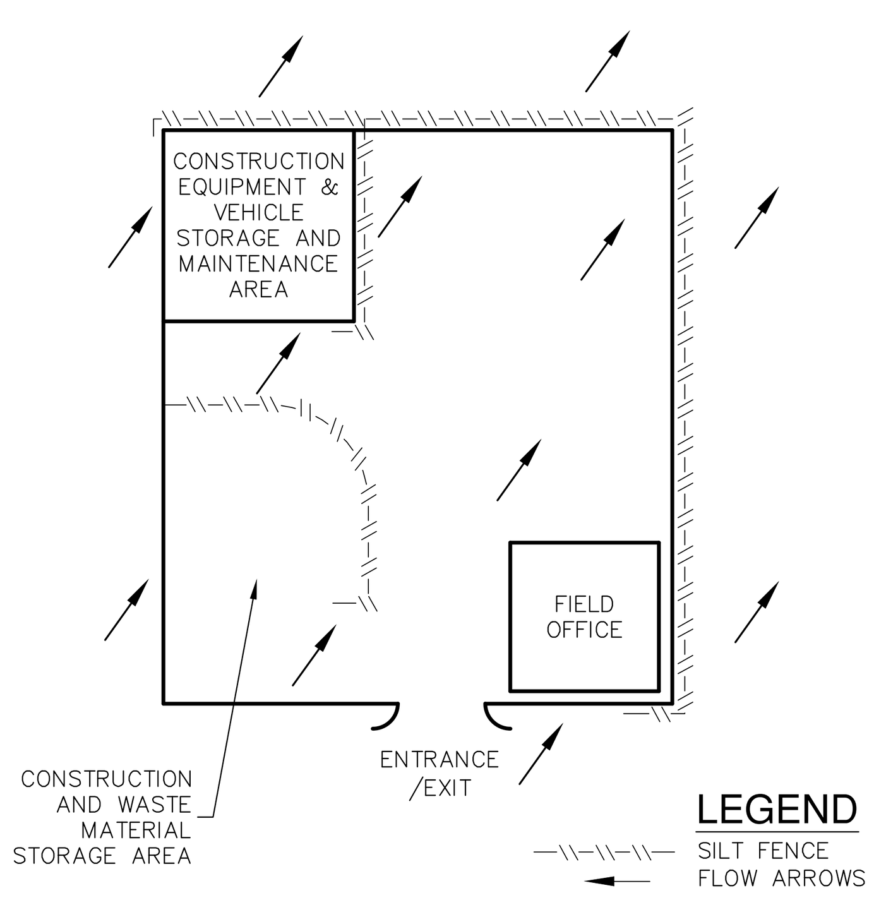
NOTES:
1. THE FILTER BAG MATERIAL SHALL BE MADE OF POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE WOVEN FABRIC, MIN. UNIT WEIGHT OF 4 OUNCES/SY, HAVE A MULLEN BURST STRENGTH EXCEEDING 300 PSI AND ULTRAVIOLET STABILITY EXCEEDING 70%.

2. THE FILTER BAG SHALL BE FILLED WITH CLEAN, MEDIUM WASHED PEA GRAVEL TO COARSE GRAVEL (0.31 TO 0.75 INCH DIAMETER).

3. SAND SHALL NOT BE USED TO FILL THE FILTER BAGS.

GRAVEL FILTER BAG DETAIL

NOT-TO-SCALE



CONSTRUCTION STAGING AREA

NOT-TO-SCALE

THE ENGINEERING SEAL HAS BEEN AFFIXED TO THIS SHEET ONLY FOR THE PURPOSE OF DEMONSTRATING COMPLIANCE WITH THE POLLUTION ABATEMENT SIZING AND TREATMENT REQUIREMENTS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S EDWARDS AQUIFER TECHNICAL GUIDANCE MANUAL.

THIS SHEET HAS BEEN PREPARED FOR PURPOSES OF POLLUTION ABATEMENT ONLY. ALL OTHER CIVIL ENGINEERING RELATED INFORMATION SHOULD BE ACQUIRED FROM THE APPROPRIATE SHEET IN THE CIVIL IMPROVEMENT PLANS.

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TBAE Firm BR 4797
TBPE Firm F-24527

STATE OF TEXAS — EVER GARZA III — 127459 — LICENSED PROFESSIONAL ENGINEER — 8/8/25

08/08/2025

CONSULTANTS:
EVER ENGINEERING, LLC
ADVANCED ENGINEERING SERVICES
3201 CHERRY RIDGE DRIVE, SUITE A-106, SAN ANTONIO, TX 78230
OFFICE (210) 572-9340 FAX (210) 572-9344
WWW.EVERENC.COM
FIRM NO: F-19197

SMGC CONSTRUCTION LLC
13306 WESTERN OAK
LOT 27, BLOCK 2 OF
BANDERA NORTHWEST ANNEXATION
HELOTES, TEXAS 78023

VDRE DEVELOPMENTS

Date:	Description:
08/08/25	Construction Documents

Project #	25002
Issue Date:	08/08/2025

ISSUE FOR CONSTRUCTION

Drawing Title
SWPPP DETAILS

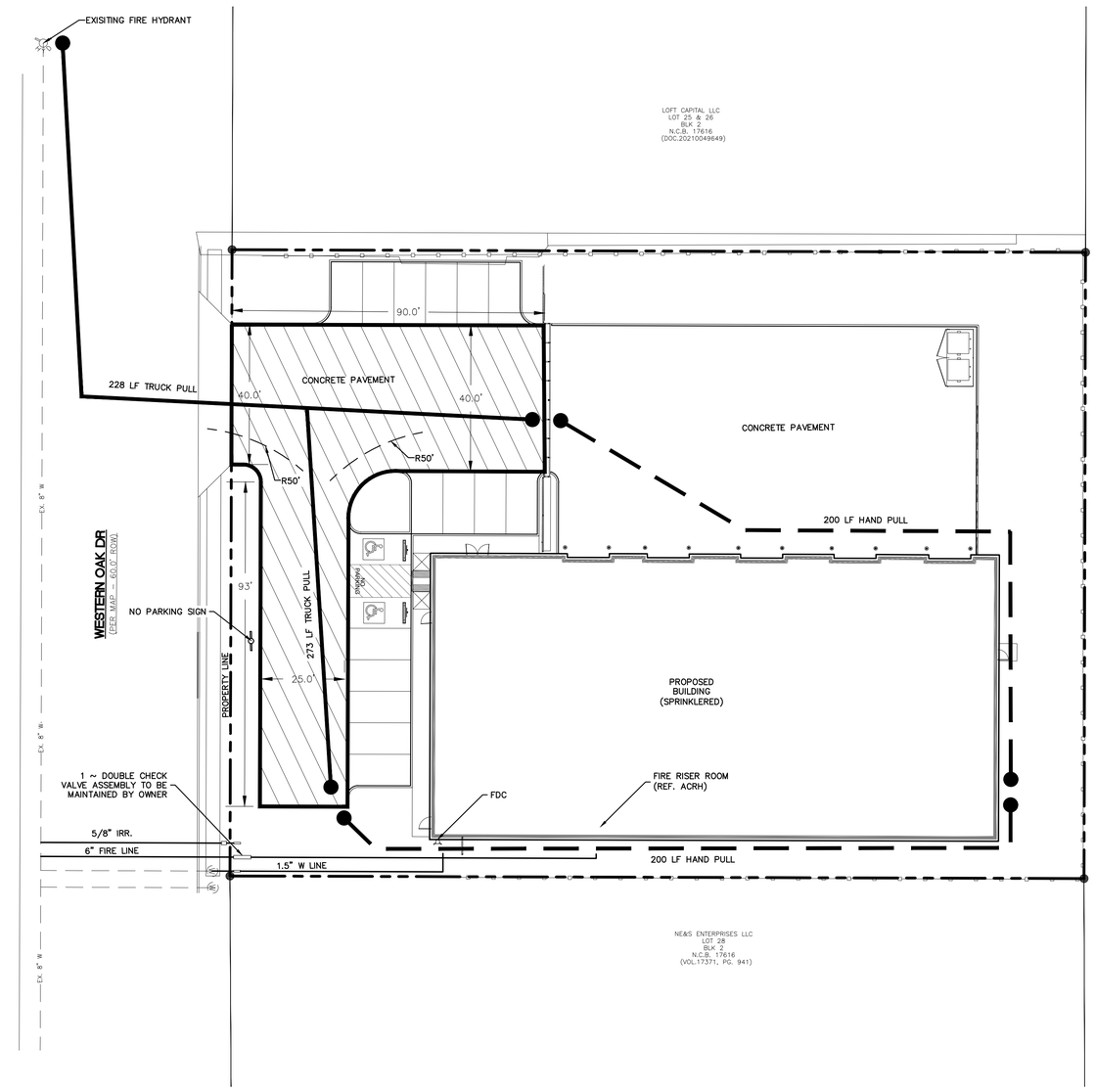
Drawing Number
C2.10

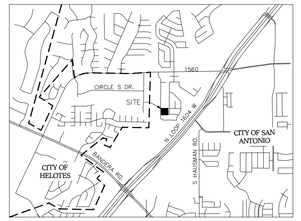
LEGAL DESCRIPTION

LOT 27
BLOCK 2
N.C.B. 17616
NORTHWEST BUSINESS PARK UNIT 1
(VOL. 9510, PG. 4041, D.P.R.)

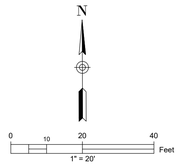
FIRE LINE NOTE:

ALL FIRE LINES SHALL BE AWWA C-900, CLASS 235 DR-18, UNLESS OTHERWISE NOTED.





LOCATION MAP
NOT-TO-SCALE

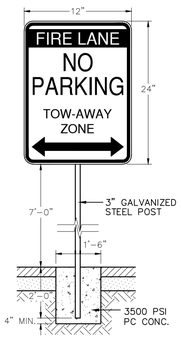


LEGEND

- PROPERTY LINE
- FIRE LANE
- FIRE TRUCK HOSE LAY TO HYDRANT (MAX 300')
- HAND PULL HOSE LAY TO TRUCK (MAX 200')
- PROPOSED FIRE HYDRANT
- W MAIN
- TURNING RADIUS

FIRE PROTECTION NOTES:

1. FIRE LANES SHALL HAVE A MINIMUM 2-WAY TRAFFIC WIDTH OF 25 FT. WITH A MINIMUM OUTSIDE TURNING RADIUS OF 50 FT., UNLESS OTHERWISE NOTED.
2. FIRE LANES NEXT TO FIRE HYDRANTS OR DESIGNATED FOR AERIAL APPARATUS SHALL BE A MINIMUM OF 26 FT.
3. FIRE LANES SHALL BE DESIGNATED IN ACCORDANCE TO THE LATEST INTERNATIONAL FIRE CODE AND PER APPLICABLE LOCAL AMENDMENTS.
4. **FIRE LANES SHALL BE MARKED BY LINES OF RED TRAFFIC PAINT OR DYE A MINIMUM OF 6 INCHES IN WIDTH TO SHOW THE BOUNDARIES OF THE LANE.**



SIGNAGE NOTES:
1. SIGNS SHALL BE STANDARD SIZE 18"X24" AND HAVE RED LETTERS AND BORDER ON A WHITE BACKGROUND.
2. SIGNS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE SIGN AT LEAST SEVEN (7) FEET ABOVE GRADE AND AT LEAST TWO (2) FEET FROM CURB EDGE.
3. SIGNS SHALL BE PLACED AS FOLLOWS:
   A. LESS THAN FORTY (40) FEET: ONE (1) SIGN WITH A DOUBLE ARROW.
   B. FROM FORTY (40) TO NINETY (90) FEET: TWO (2) SIGNS WITH RIGHT AND LEFT ARROWS.
   C. FOR ONE HUNDRED (100) FEET OR MORE: THREE (3) SINGS WITH RIGHT/LEFT AND DOUBLE ARROWS IN THE MIDDLE.
4. SIGNS TO BE PLACED IN ACCORDANCE WITH THE 2021 INTERNATIONAL FIRE CODE AND BEXAR COUNTY FIRE MARSHALLS OFFICE. THE CONTRACTOR SHALL COORDINATE WITH THE FIRE INSPECTOR FOR APPROVED SIGN LOCATIONS.

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LOT 27, BLOCK 2 OF
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ISSUE FOR CONSTRUCTION

Drawing Title
FIRE PROTECTION PLAN

Drawing Number
C3.00

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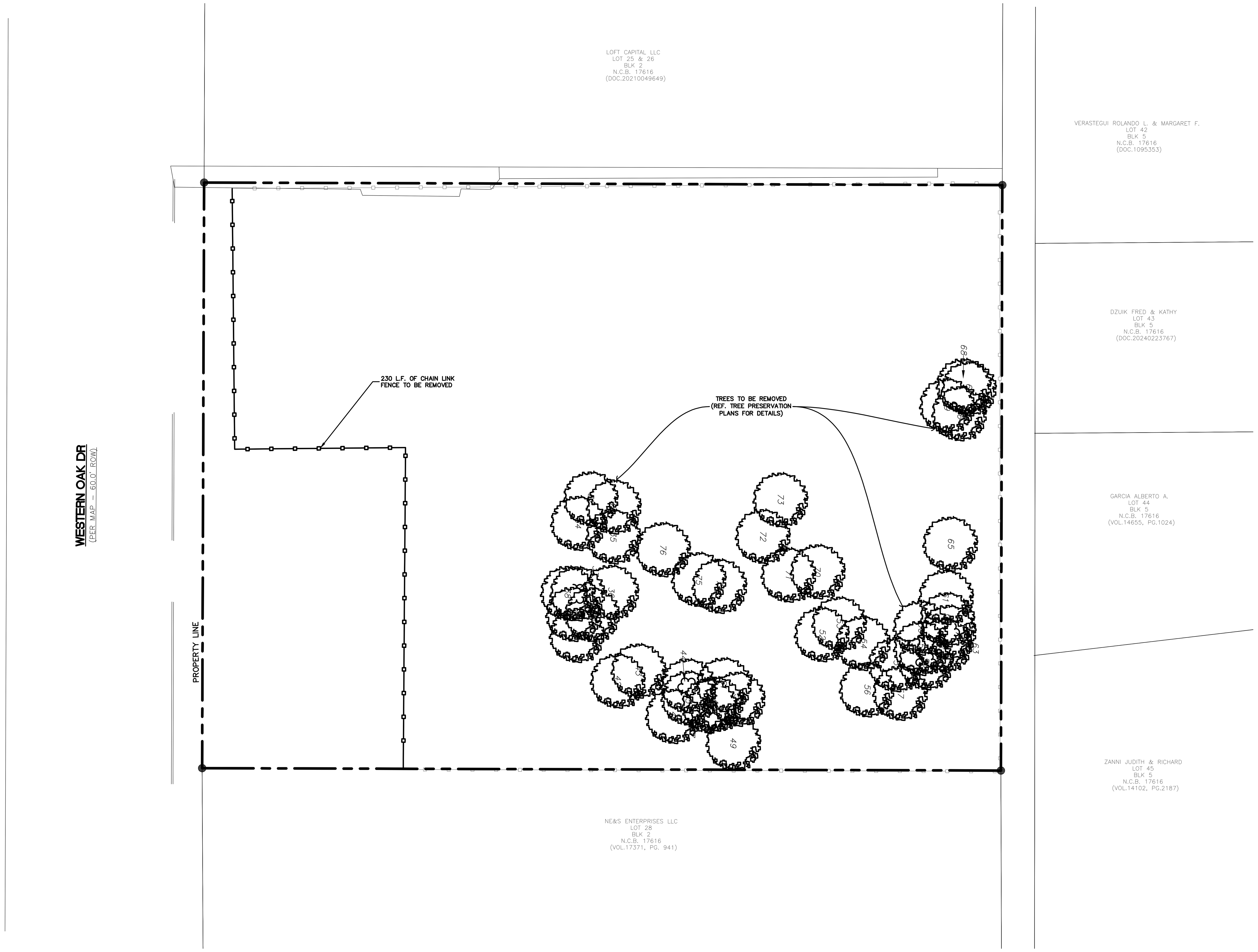

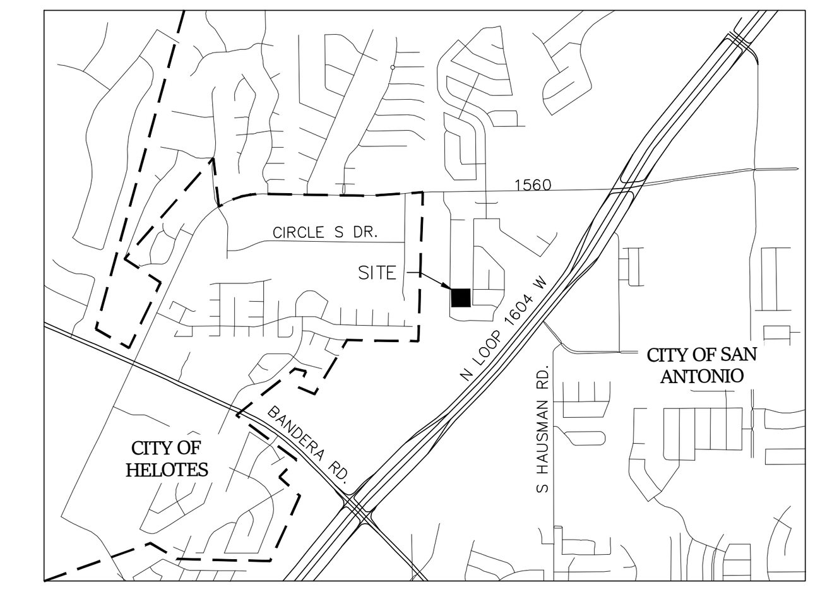

LOCATION MAP

NOT-TO-SCALE

N

0 10 20 40 Feet
1" = 20'

LEGEND

PROPERTY LINE
PROPOSED CURB
DEMOLITION FEATURE
STRUCTURE TO BE REMOVED

DEMOLITION NOTES:

1. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASE OF THE PROJECT. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGES TO ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASE OF THIS PROJECT.
2. THE CONTRACTOR WILL BE RESPONSIBLE OR PROVIDING AND MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGMEN, AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. PLACEMENT OF THESE DEVICES SHALL BE APPROVED BY THE OWNER PRIOR TO PLACEMENT. TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE STANDARDS OF THE APPROPRIATE GOVERNING ENTITIES.
3. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING THE PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
4. THE DUTY OF THE DEVELOPER OR ENGINEER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO REVIEW THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, OR NEAR THE CONSTRUCTION SITE.
5. BEFORE BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL COMPLY WITH THE EROSION CONTROL PLAN AND/OR PERMIT.
6. THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM THE PLANS.
7. EXISTING TO REMAIN: EXISTING ITEMS OF CONSTRUCTION THAT ARE NOT TO BE PERMANENTLY REMOVED AND THAT ARE NOT OTHERWISE INDICATED TO BE REMOVED, REMOVED AND SALVAGED, OR REMOVED AND REINSTALLED.
8. UNLESS OTHERWISE INDICATED, DEMOLITION WASTE BECOMES THE PROPERTY OF THE CONTRACTOR.
9. IF APPROPRIATE, REFER TO THE ENVIRONMENTAL PLANS AND SPECIFICATIONS FOR HAZARDOUS MATERIAL REMEDIATION
10. TEMPORARY FACILITIES: PROVIDE TEMPORARY BARRICADES AND OTHER PROTECTION REQUIRED TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN.
11. PROVIDE PROTECTION TO ALLOW SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREA AND TO AND FROM OCCUPIED PORTIONS OF BUILDING.
12. TEMPORARY SHORING: PROVIDE AND MAINTAIN SHORING, BRACING, AND STRUCTURAL SUPPORTS AS REQUIRED TO PRESERVE STABILITY AND PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF CONSTRUCTION AND FINISHES TO REMAIN, AND TO PREVENT UNEXPECTED OR UNCONTROLLED MOVEMENT OR COLLAPSE OF CONSTRUCTION BEING DEMOLISHED.
13. DEMOLISH AND REMOVE EXISTING CONSTRUCTION ONLY TO THE EXTENT REQUIRED BY NEW CONSTRUCTION AND AS INDICATED. USE METHODS REQUIRED TO COMPLETE THE WORK WITHIN LIMITATIONS OF GOVERNING REGULATIONS
14. REMOVE DECAYED, VERMIN-INFESTED, OR OTHERWISE DANGEROUS OR UNSUITABLE MATERIALS AND PROMPTLY DISPOSE OF OFF-SITE.
15. EXCEPT FOR ITEM OR MATERIALS INDICATED TO BE RECYCLED, REUSED, SALVAGED, REINSTALLED, OR OTHERWISE INDICATED TO REMAIN OWNER'S PROPERTY, REMOVE DEMOLISHED MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM IN AN APPROVED LANDFILL.
16. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE.

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08/08/2025

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SMGC CONSTRUCTION LLC
13306 WESTERN OAK
LOT 27, BLOCK 2 OF
BANDERA NORTHWEST ANNEXATION
HELOTES, TEXAS 78023

VDRE DEVELOPMENTS

Date:	Description:
08/08/25	Construction Documents

Project #	25002
Issue Date:	08/08/2025

ISSUE FOR CONSTRUCTION

Drawing Title
DEMOLITION PLAN

Drawing Number
C4.00

LEGAL DESCRIPTION

LOT 27
BLOCK 2
N.C.B. 17616
NORTHWEST BUSINESS PARK UNIT 1
(VOL. 9510, PG. 4041, D.P.R.)

PARKING REQUIREMENTS TABLE (PER TABLE 526-3B)

CATEGORY	PERMITTED USE	MIN. VEHICLE SPACES	MAX. VEHICLE SPACES
WAREHOUSE	OFFICE WAREHOUSE (FLEX SPACE)	1/ 2000SF GFA	1/ 200SF GFA

VEHICLE PARKING TOTALS:

MIN REQ. VEHICLE SPACES (VS) = 7 VS
MAX ALLOWABLE VEHICLE SPACES (VS) = 66
PROVIDED VEHICLE SPACES (VS) = 17 VS

ADA PARKIING REQUIREMENTS:
MIN REQ. ADA PARKING SPACES (VS) = 2
MIN REQ. ADA VAN PARKING SPACES (VS) = 1

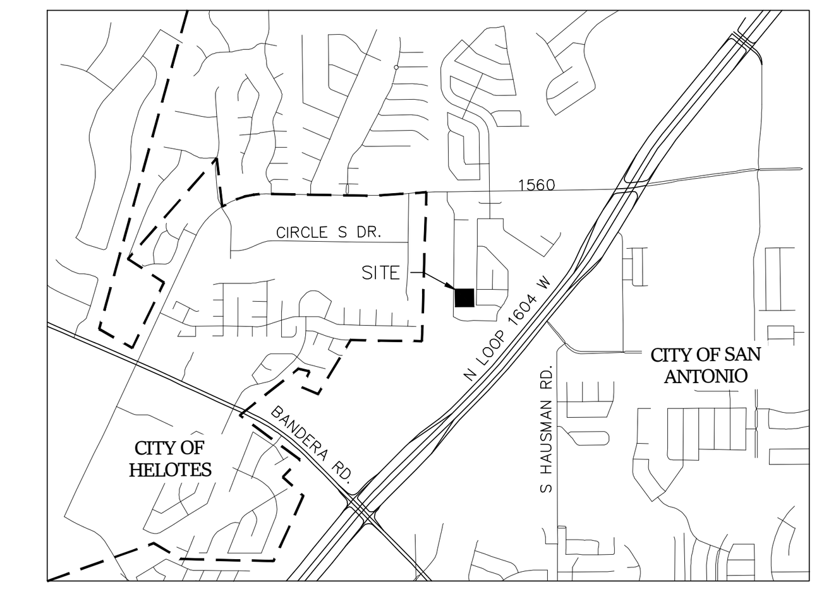
PROVIDED ADA PARKING SPACES (VS) = 2
PROVIDED ADA VAN PARKING SPACES (VS) = 1

BICYCLE PARKING TOTALS:
"10% OF THE MINIMUM REQUIRED VEHICLE SPACES"

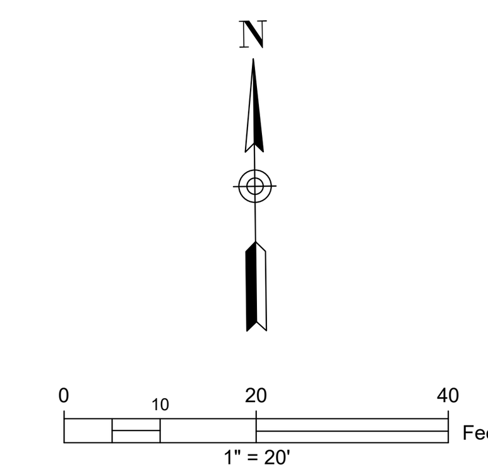
7 X 0.10 = 1 BIKE SPACES
PROVIDED BIKE SPACES = 2 BIKES SPACES
*2 BIKE SPACES PER INVERTED "U"

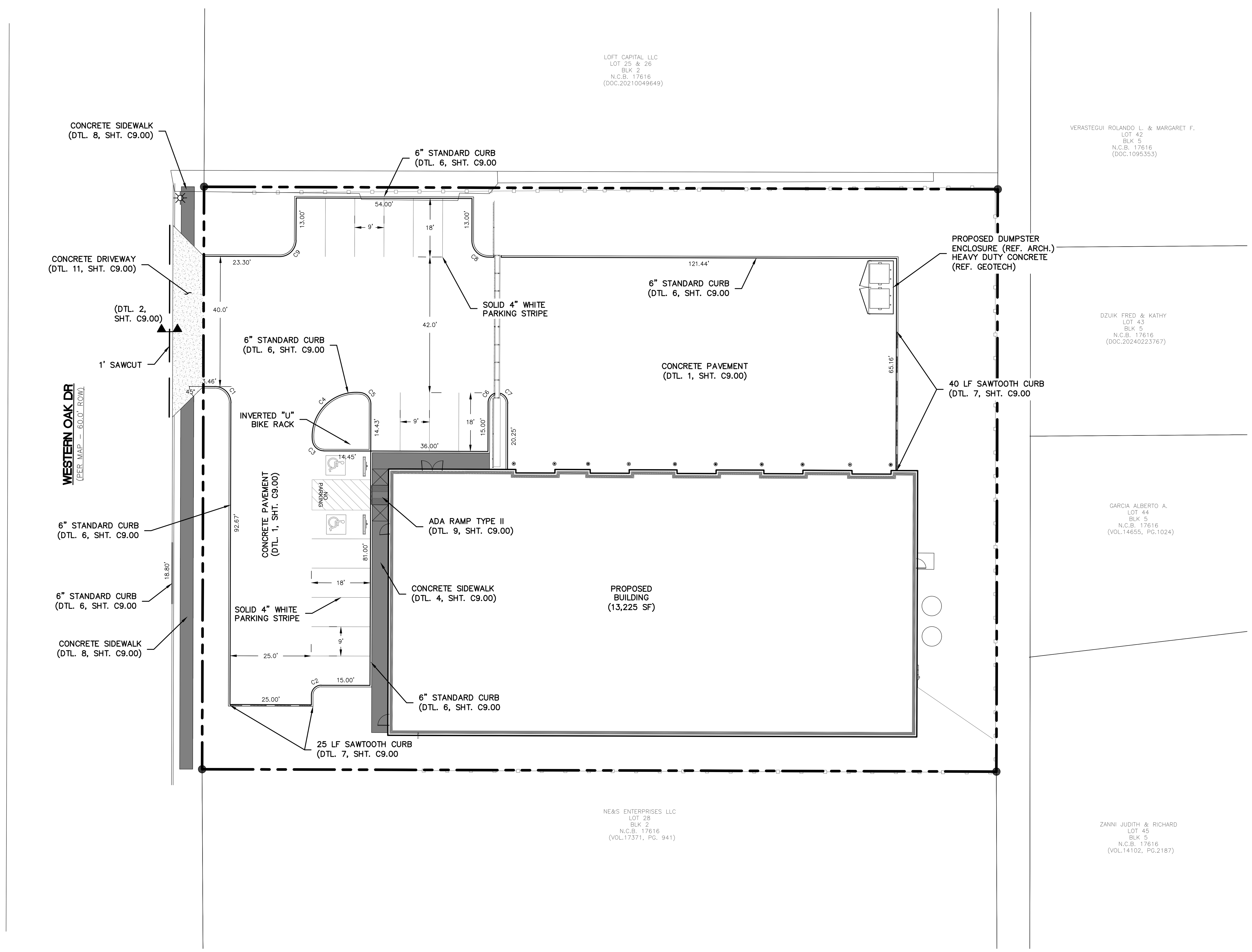
Curve Table

Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	7.85	5.00	89.98	S44° 15' 58"E	7.07
C2	4.71	3.00	90.00	N45° 43' 23"E	4.24
C3	5.15	3.50	84.28	N47° 08' 21"W	4.70
C4	23.91	13.50	101.46	N45° 43' 49"E	20.90
C5	5.16	3.49	84.69	S41° 16' 47"E	4.71
C6	3.76	3.00	71.72	N36° 34' 56"E	3.51
C7	4.09	3.25	72.08	N35° 19' 01"W	3.82
C8	7.85	5.00	90.00	N44° 16' 46"W	7.07
C9	7.86	5.00	90.02	S45° 44' 02"W	7.07



LOCATION MAP
NOT-TO-SCALE





LEGEND

- PROPERTY LINE
- PROPOSED PAVING
- HANDICAP PARKING SYMBOL
- HANDICAP SIGN AND WHEEL STOP
- HEADER CURB. REFER TO SHEET DETAIL C9.00
- ADA PEDESTRIAN RAMP. REFER TO SHEET DETAIL C9.00
- BUILDING SETBACK
- STANDARD CURB. REFER TO SHEET C9.00
- CONCRETE SIDEWALK. REFER TO SHEET C9.00
- PROPOSED BUILDING. REFER TO ARCHITECT PLAN DRAWINGS
- PROPOSED LIGHT POLE
- PROPOSED FENCE
- PROPOSED CANOPY. REFER TO ARCHITECT PLAN DRAWINGS
- CURB CONTROL POINT + 500
- SIDEWALK CONTROL POINT + 600
- STRUCTURE CONTROL POINT + 1000

DIMENSIONAL CONTROL NOTES:

1. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT OR LIMITS OF DIMENSIONS NECESSARY FOR CONSTRUCTION OF THE PROJECT.
2. THE CONTRACTOR SHALL PRESERVE ALL CONTROL POINTS, PROPERTY PINS, BENCHMARKS, HUBS OR OTHER KEY CONTROL POINTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO RE-ESTABLISH ANY SUCH POINTS AT THEIR OWN EXPENSE IN THE EVENT THEY ARE REMOVED.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO THE START OF CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING ALL HORIZONTAL AND VERTICAL CONTROL PER THE CONSTRUCTION DRAWINGS.
5. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL USE THE PROPERTY PINS FOR HORIZONTAL CONTROL POINTS. BENCHMARKS ARE NOT TO BE USED FOR HORIZONTAL CONTROL.
6. COORDINATES FOR HORIZONTAL CONTROL POINTS ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE, NAD 83(96) DISPLAYED IN SURFACE VALUES USING A SURFACE ADJUSTMENT FACTOR FOR EACH COUNTY.
7. BENCHMARK ELEVATIONS ARE BASED ON TEXAS STATE PLANE COORDINATE SYSTEM SOUTH CENTRAL ZONE NAD 83.
8. ALL DIMENSIONAL CONTROL POINTS OR DIMENSIONS ARE TO THE FACE OF CURB, FACE OF RETAINING WALL, AND CENTER OF PAINT STRIPING. ALL DIMENSIONS ARE PERPENDICULAR TO THE POINT OF REFERENCE.
9. REFER TO THE ARCHITECTURAL PLANS FOR ADDITIONAL DIMENSIONAL CONTROL INFORMATION.
10. **CURB RADII ARE 3' UNLESS OTHERWISE NOTED ON THE DRAWINGS.**

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STATE OF TEXAS
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VDRE
DEVELOPMENTS

Date:	Description:
08/08/25	Construction Documents

Project #	25002
Issue Date:	08/08/2025

ISSUE FOR CONSTRUCTION

Drawing Title
DIMENSIONAL CONTROL PLAN

Drawing Number
C5.00

LEGAL DESCRIPTION

LOT 27
BLOCK 2
N.C.B. 17616
NORTHWEST BUSINESS PARK UNIT 1
(VOL. 9510, PG. 4041, D.P.R.)

SAWS GENERAL CONSTRUCTION NOTES: (GENERAL SECTION)

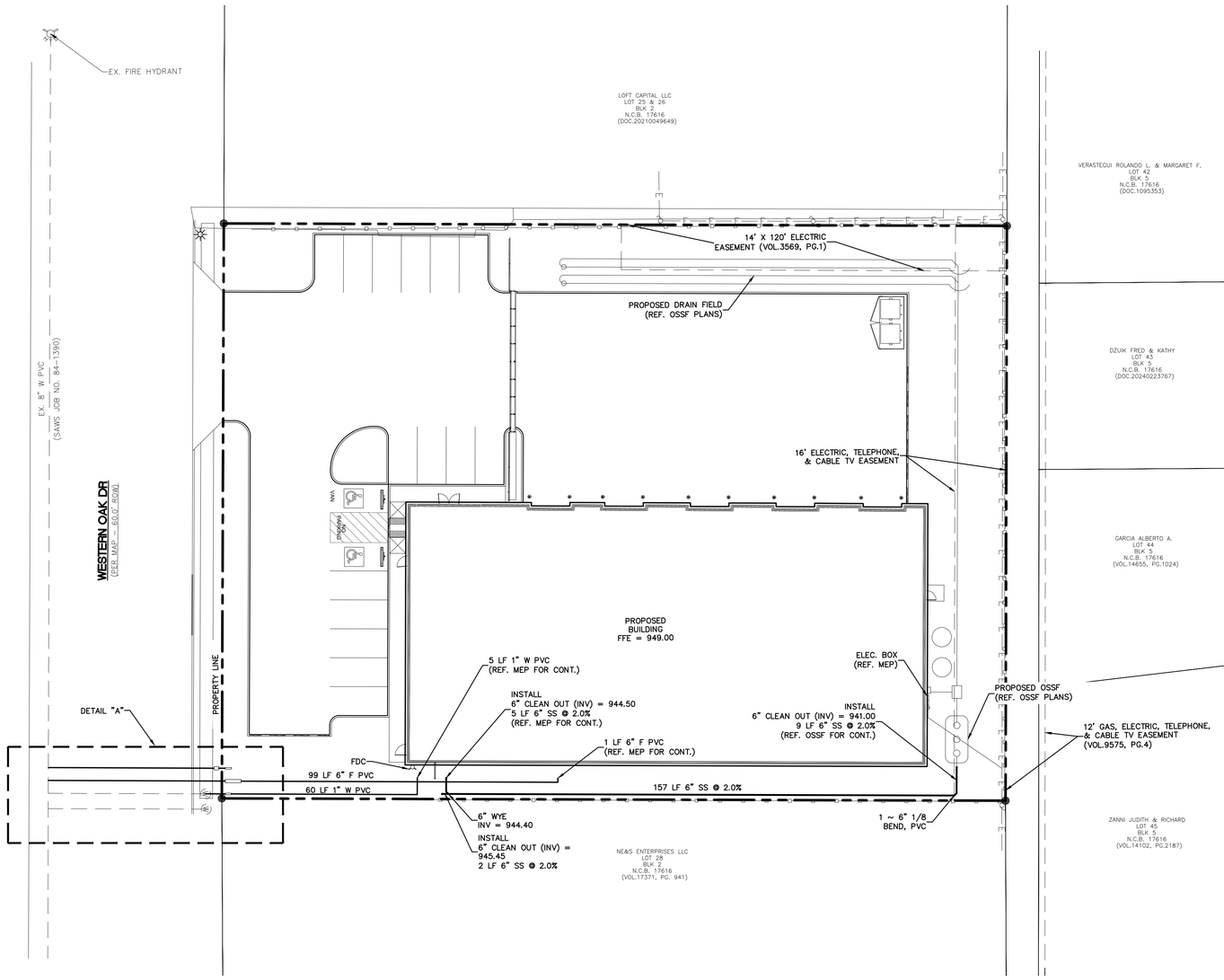
WATER NOTES:

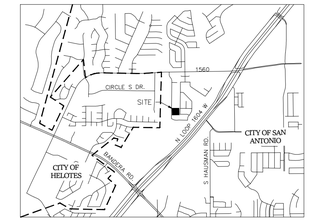
1. ALL FIRE LINES SHALL BE AWWA C-900, CLASS 235 DR-18, UNLESS OTHERWISE NOTED. ALL DOMESTIC WATER LINES SHALL BE SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED. ALL BENDS ASSOCIATED WITH THIS PROJECT ARE INCIDENTAL.
2. THE CONTRACTOR SHALL LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE, AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCT BANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTORS SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT.
3. CONTRACTOR SHALL COORDINATE WITH DEVELOPER/PROPERTY OWNER AND OBTAIN ALL REQUIRED CITY PERMITS INCLUDING RIGHT-OF-WAY AND STREET CUT PERMITS. THE CONTRACTOR SHALL MEET WITH THE CITY INSPECTOR PRIOR TO THE START OF CONSTRUCTION WITHIN THE CITY RIGHT-OF-WAY TO CONFIRM ISSUANCE OF ALL PROPER PERMITS PRIOR TO THE START OF CONSTRUCTION WITHIN THE CITY RIGHT-OF-WAY.
4. CONTRACTOR SHALL OBTAIN NECESSARY PERMIT FROM THE CITY OF SAN ANTONIO FOR REMOVAL OF TREES WITHIN THE RIGHT-OF-WAY AND EASEMENTS.
5. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL IN ACCORDANCE WITH THE CITY OF SAN ANTONIO.
6. SERVICE INTERRUPTIONS TO EXISTING USERS SHALL BE AVOIDED WHENEVER POSSIBLE. HOWEVER, WHEN NECESSARY SERVICE TO USERS CAN ONLY BE INTERRUPTED BY COORDINATING WITH S.A.W.S. AT LEAST 5 DAYS IN ADVANCE. SERVICE INTERRUPTION INTERVALS MUST BE APPROVED BY S.A.W.S.
7. CONTRACTOR SHALL WRAP ALL D.I. PIPE PER S.A.W.S. STANDARD SPECIFICATIONS. WRAP SHALL BE POLYWRAP AND POLYTAPE, TRANTEX V-10 POLYVINYL TAPE OR AN APPROVED EQUAL.
8. NORTHINGS AND EASTINGS OF THE PROPOSED WATER FITTINGS ARE TO THE POINT OF INTERSECTION.

SANITARY SEWER NOTES:

1. SEWER PIPE WHERE WATER LINE CROSSES SHALL BE 160 P.S.I. AND MEET THE REQUIREMENTS OF ASTM D2241 WITH ONE 20' JOINT CENTERED AT WATER MAIN.
2. SEE OVERALL SEWER SHEET FOR BENCHMARK INFORMATION.
3. NO VERTICAL STACKS ALLOWED FOR ANY LOTS UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
4. WHEN HORIZONTAL DISTANCE BETWEEN SEWER PIPES AND WATER MAIN IS LESS THAN 9 FT. OF SEPARATION, SEWER MAIN SHALL BE INSTALLED WITH 160 PSI (MIN) PRESSURE PIPE AND FITTINGS IN ACCORDANCE WITH SAWS CONSTRUCTION CRITERIA FOR CONSTRUCTION OF SEWER MAINS IN THE VICINITY OF WATER MAINS.
5. ALL SEWER PIPES SHALL BE PVC (SDR 26), UNLESS OTHERWISE NOTED.
6. CONTRACTOR IS TO VERIFY EXISTING INVERT OF EXISTING SANITARY SEWER MAINS AND ALERT ENGINEER IMMEDIATELY OF ANY DIFFERENCE FROM INVERT SHOWN ON PLANS.
7. CONTRACTOR SHALL PROTECT ALL EXISTING FENCES. ANY FENCE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
8. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY SIZE, GRADE, AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
9. SEE THIS SHEET FOR TYPICAL SANITARY SEWER/WATER CROSSING DETAIL.
10. CONTOURS SHOWN ARE FOR GRAPHICAL USE ONLY.
11. MANHOLE OPENING INCREASED TO 30" AS PER TCEQ CHAPTER 217.55
12. ALL SEWER SERVICE LATERALS ARE SDR 26 & 6" DIA. AND SHALL BE EXTENDED 10' PAST THE ROW. UNLESS OTHERWISE NOTED.
13. CONTRACTOR TO INSTALL PERMANENT MARKERS AT THE END OF ALL SEWER LATERALS, PER HOUSE LATERAL DETAIL DD-854-01.
14. ALL 6" SEWER LATERALS WILL BE SET AT 2% GRADE FROM THE MAIN TO THE PROPERTY LINE.
15. BACKFILL MUST COMPLY WITH SAN ANTONIO WATER SYSTEMS SPECIFICATIONS 804.4.
16. CONTRACTOR SHALL VERIFY TOP OF MANHOLES AND MAKE FLUSH WITH TOP OF PAVEMENT OR 6" ABOVE NATURAL GROUND. IF THE GIVEN TOP OF MANHOLE ELEVATION DOES NOT AGREE ON ACTUAL GROUND SURFACE OR FINISH PAVEMENT, THE CONTRACTOR SHALL ADJUST ELEVATION SUCH THAT THE TOP OF MANHOLE SHALL BE 6 " ABOVE EXISTING GROUND OR FLUSH TO FINISH ASPHALT PAVEMENT.

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





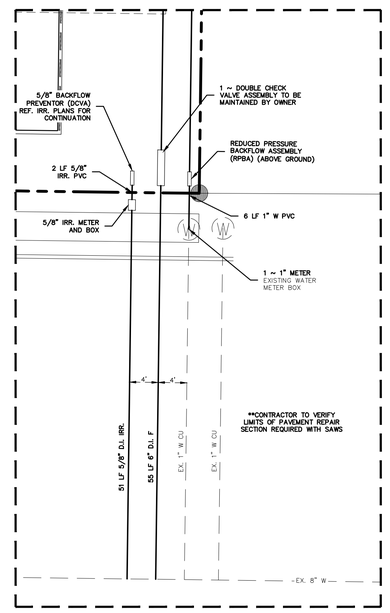
LOCATION MAP
NOT-TO-SCALE

N

0 10 20 40 Feet
1" = 20'

LEGEND

- PROPERTY LINE
- PROPOSED WATER — W —
- PROPOSED SANITARY SEWER
- EXISTING OVERHEAD ELECTRIC — OHE —
- EXISTING UNDERGROUND ELECTRIC — UGE —
- EXISTING GAS — GAS —
- EXISTING SANITARY SEWER — SS —
- EXISTING WATER — W —
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC POWER POLE



DETAIL "A"
(SCALE 1"=10')

EXISTING UTILITIES ARE WITHIN THE LIMITS OF CONSTRUCTION. CONTRACTORS SHALL EXERCISE EXTRA CARE IN DIGGING ANY TRENCH OF PROPOSED UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE, VERIFY THE EXACT LOCATION & IDENTIFY AREA OF CONFLICTS WITH EXISTING UTILITIES AND SHALL NOTIFY THE ENGINEER IF CONFLICT IS FOUND.

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VDRE DEVELOPMENTS

Date:	Description:
08/08/25	Construction Documents

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Issue Date:	08/08/2025

ISSUE FOR CONSTRUCTION

Drawing Title
UTILITY PLAN

Drawing Number
C6.00

LEGAL DESCRIPTION

LOT 27
BLOCK 2
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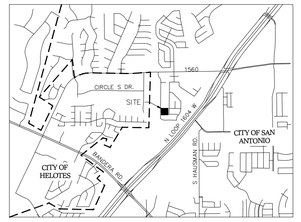
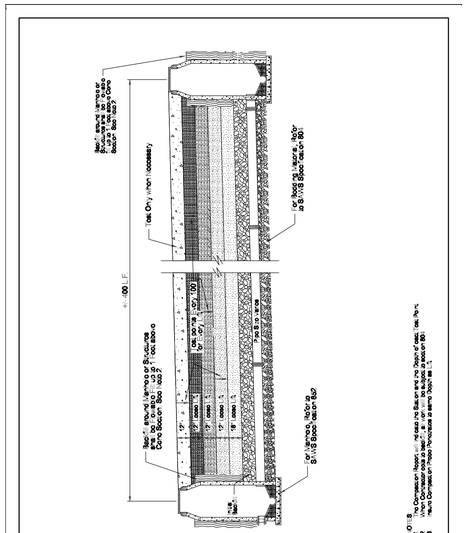
NORTHWEST BUSINESS PARK UNIT 1
(VOL. 9510, PG. 4041, D.P.R.)



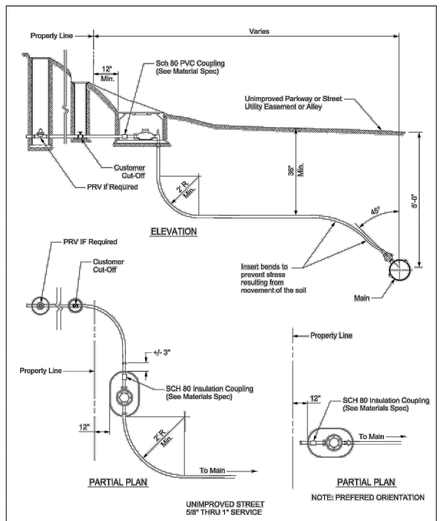
LOCATION MAP
NOT-TO-SCALE

SAWS GENERAL CONSTRUCTION NOTES:

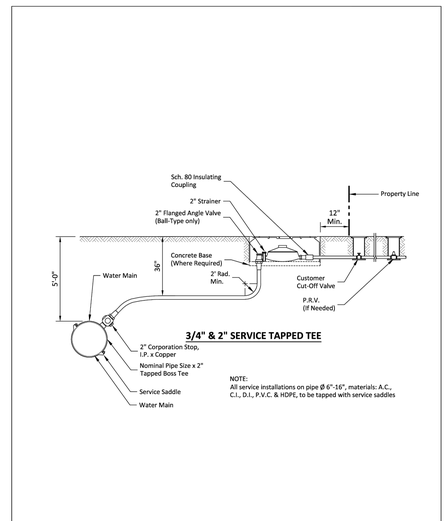
1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND COMPLY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE FOLLOWING AS APPLICABLE:
   A. CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) "DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEM", TEXAS ADMINISTRATIVE CODE (TAC) TITLE 30 PART 1 CHAPTER 217 AND "PUBLIC DRINKING WATER", TAC TITLE 30 PART 1 CHAPTER 290.
   B. CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE".
   C. CURRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION".
   D. CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION".
   E. CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL" (UECM).
2. THE CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL THEY OBTAIN A COPY OF THE APPROVED COUNTER PERMIT OR GENERAL CONSTRUCTION PERMIT (GCP) FROM THE CONSULTANT AND HAS BEEN NOTIFIED BY SAWS CONSTRUCTION INSPECTION DIVISION TO PROCEED WITH THE WORK AND HAS ARRANGED A MEETING WITH THE INSPECTOR AND CONSULTANT FOR THE WORK REQUIREMENTS. WORK COMPLETED BY THE CONTRACTOR WITHOUT AN APPROVED COUNTER PERMIT AND/OR A GCP WILL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE EXPENSE OF THE CONTRACTORS AND/OR THE DEVELOPER.
3. THE CONTRACTOR SHALL OBTAIN THE SAWS STANDARD DETAILS FROM THE SAWS WEBSITE, HTTP://WWW.SAWS.ORG/BUSINESS_CENTER/SPECS. UNLESS OTHERWISE NOTED WITHIN THE DESIGN PLANS.
4. THE CONTRACTOR IS TO MAKE ARRANGEMENTS WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT (210) 233-2973, ON NOTIFICATION PROCEDURES THAT WILL BE USED TO NOTIFY AFFECTED HOME RESIDENTS AND/OR PROPERTY OWNERS 48 HOURS PRIOR TO BEGINNING ANY WORK.
5. LOCATION AND DEPTH OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR AT LEAST 1 WEEK PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM DURING CONSTRUCTION AT NO COST TO SAWS.
6. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES AT LEAST 1-2 WEEKS PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT. PLEASE ALLOW UP TO 7 BUSINESS DAYS FOR LOCATES REQUESTING PIPE LOCATION MARKERS ON SAWS FACILITIES. THE FOLLOWING CONTACT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES:
   - SAWS UTILITY LOCATES: HTTP://WWW.SAWS.ORG/SERVICE/LOCATES
   - COSA DRAINAGE (210) 207-0724 OR (210) 207-6026
   - COSA TRAFFIC SIGNAL OPERATIONS (210) 206-8480
   - COSA TRAFFIC SIGNAL DAMAGES (210) 207-3951
   - TEXAS STATE WIDE ONE CALL LOCATOR 1-800-545-6005 OR 811
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING AND STRUCTURES TO ITS ORIGINAL OR BETTER CONDITION IF DAMAGES ARE MADE AS A RESULT OF THE PROJECT'S CONSTRUCTION.
8. ALL WORK IN TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) AND/OR BEXAR COUNTY RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH RESPECTIVE CONSTRUCTION SPECIFICATIONS AND PERMIT REQUIREMENTS.
9. THE CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER GOVERNING MUNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR TREES.
10. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIALS IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN PERMIT.
11. HOLIDAY WORK: CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON SAWS RECOGNIZED HOLIDAYS. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG.
    WEEKEND WORK: CONTRACTORS ARE REQUIRED TO NOTIFY THE SAWS INSPECTION CONSTRUCTION DEPARTMENT 48 HOURS IN ADVANCE TO REQUEST WEEKEND WORK. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG. ANY AND ALL SAWS UTILITY WORK INSTALLED WITHOUT HOLIDAY/WEEKEND APPROVAL WILL BE SUBJECT TO BE UNCOVERED FOR PROPER INSPECTION.
12. COMPACTION NOTE (ITEM 804): THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE COMPACTION REQUIREMENTS ON ALL TRENCH BACKFILL AND FOR PAYING FOR THE TESTS PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED, OR AS INDICATED BY THE SAWS INSPECTOR AND/OR THE TEST ADMINISTRATOR, PER EACH 12-INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.
13. A COPY OF ALL TESTING REPORTS SHALL BE FORWARDED TO SAWS CONSTRUCTION INSPECTION DIVISION.



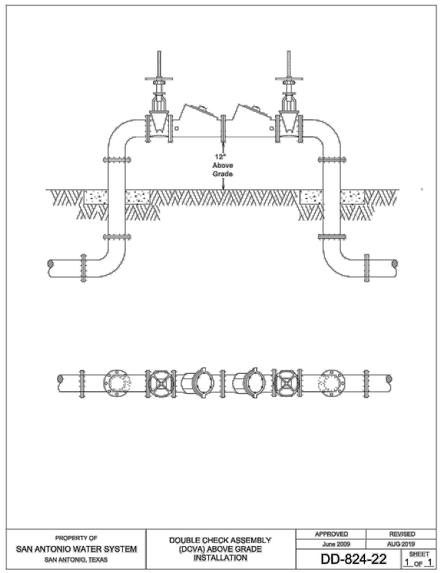
PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	TRENCH COMPACTION DETAIL	APPROVED MARCH 2018	REVISED DEC 2018
		DD 804-02	SHEET 1 OF 1



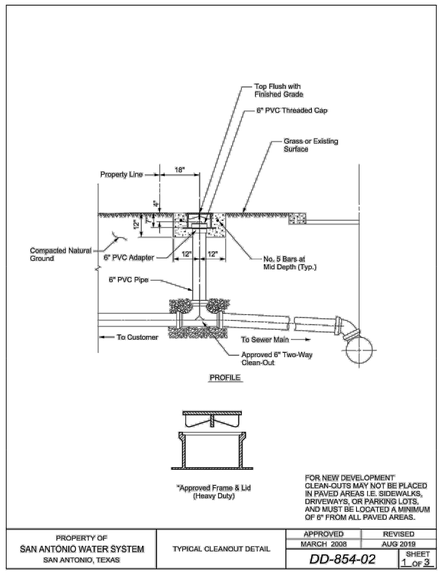
PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	COPPER AND HDPE SERVICE INSTALLATION UNIMPROVED STREET	APPROVED MARCH 2008	REVISED AUG 2019
		DD-824-01	SHEET 2 OF 3



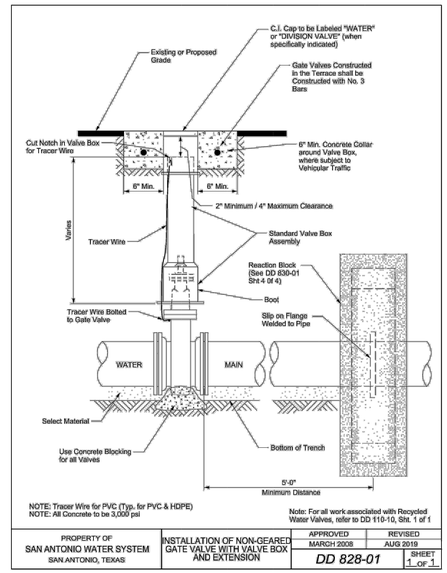
PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	COPPER & HDPE SERVICE INSTALLATION TAPPING SCHEDULE	APPROVED MARCH 2008	REVISED AUG 2019
		DD-824-01	SHEET 3 OF 3



PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	DOUBLE CHECK ASSEMBLY (DCVA) ABOVE GRADE INSTALLATION	APPROVED June 2009	REVISED AUG 2019
		DD-824-22	SHEET 1 OF 1



PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	TYPICAL CLEANOUT DETAIL	APPROVED MARCH 2008	REVISED AUG 2019
		DD-854-02	SHEET 1 OF 3



PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	INSTALLATION OF NON-GEARED GATE VALVE WITH VALVE BOX AND EXTENSION	APPROVED MARCH 2008	REVISED AUG 2019
		DD 828-01	SHEET 1 OF 1

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TBPE Firm F-24527

STATE OF TEXAS
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CONSULTANTS:

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FIRM NO. F-19197

SMGC CONSTRUCTION LLC
13306 WESTERN OAK
LOT 27, BLOCK 2 OF
BANDERA NORTHWEST ANNEXATION
HELOTES, TEXAS 78023

VDRE DEVELOPMENTS

Date:	Description:
08/08/25	Construction Documents

Project #	25002
Issue Date:	08/08/2025

Drawing Title
UTILITY DETAILS

Drawing Number
C6.10

ISSUE FOR CONSTRUCTION

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LEGAL DESCRIPTION

LOT 27
BLOCK 2
N.C.B. 17616
NORTHWEST BUSINESS PARK UNIT 1
(VOL. 9510, PG. 4041, D.P.R.)

GRADING NOTES:

1. NO WORK SHALL BE COMPLETED WITHIN PUBLIC RIGHT-OF-WAY WITHOUT TxDOT AND/OR CITY PERMIT.

2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS OR NOT.

3. ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.

4. PRECAST STRUCTURES MAY BE USED AT CONTRACTORS OPTION.

5. EXISTING GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT INTERVALS.

6. PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT INTERVALS.

7. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER. (NO SEPARATE PAY ITEM).

8. CONTRACTOR SHALL ADJUST AND/OR SAW CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.

9. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.

10. **TOPOGRAPHIC INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY BY LAND SURVEYORS. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL SURVEY AND SUBMIT IT TO THE OWNER FOR REVIEW PRIOR TO THE START OF MASS GRADING. ADDITIONALLY, CONTRACTOR SHALL INFORM THE ENGINEER OF TOPOGRAPHY ACCEPTANCE PRIOR TO GRADING COMMENCEMENT.**

11. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL GRASS DISTURBED AREAS IN ACCORDANCE WITH CITY SPECIFICATIONS UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.

12. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.

13. ALL PROPOSED ON-SITE CURBS ARE SIX INCHES (6") HIGH FROM GUTTER TO TOP OF CURB UNLESS OTHERWISE NOTED.

14. ALL ELEVATIONS AND CONTOURS SHOWN ON THIS GRADING PLAN REFLECT FINISHED GRADES. THE THICKNESS OF PAVEMENT, CURBS, SIDEWALKS, GRASS, TOPSOIL, AND MULCH MUST BE SUBTRACTED TO OBTAIN SUBGRADE ELEVATIONS.

15. CONTRACTOR TO OBTAIN GRADES SHOWN HEREON TO +/- 0.1 FEET.

16. IN PROPOSED PAVING AREAS, UNLESS NOTED OTHERWISE, IT IS INTENDED THAT THE MINIMUM GRADE IS 1.0% AND THE MAXIMUM GRADE IN ALL PARKING AREAS IS 5%. THE MAXIMUM GRADE ON SIDEWALKS IS 5%, EXCEPT AT WHEEL CHAIR RAMPS WHERE THE MAXIMUM GRADE IS 8.33% AND THE MAXIMUM CROSS SLOPE ON SIDEWALKS IS 2%. ALL EARTHEN SLOPES SHALL BE A MAXIMUM OF 3:1 AND A MINIMUM OF 2.0% UNLESS OTHERWISE SHOWN. GRADES ADJACENT TO BUILDINGS SHALL BE 7-INCHES (MIN) BELOW FFE AND SHALL SLOPE AWAY FROM THE BUILDING AT 5% FOR THE FIRST 10-FEET.

17. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT WHERE NOT SPECIFICALLY COVERED IN THE PROJECT SPECIFICATIONS SHALL CONFORM TO ALL APPLICABLE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION), TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (LATEST EDITION), AND SAN ANTONIO PUBLIC WORKS STANDARD SPECIFICATIONS.

18. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ALL NECESSARY UTILITY COMPANIES FOR PROVIDING TEMPORARY UTILITY SERVICES DURING CONSTRUCTION.

19. **CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT, OR LIMITS OF DIMENSIONS OR GRADES NECESSARY FOR CONSTRUCTION OF THIS PROJECT.**

20. CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TEST, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRICTION OF THIS PROJECT.

21. TREE PROTECTION SHALL BE PERFORMED IN ACCORDANCE WITH PROJECT PLANS AND SPECIFICATIONS.

22. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS (USE OF SILT FENCE, ETC.) TO KEEP DRAINAGE AND SILT FROM WASHING ONTO ADJACENT PROPERTY AND INTO EXISTING DRAINAGE STRUCTURES.

23. THE CONTRACTOR SHALL CLEAN STREETS, DRIVEWAYS, AND DRAINAGE SYSTEMS ADJACENT TO THE SITE, AS DIRECTED BY THE OWNER AND FOLLOWING THE PROJECTS TPDES POLLUTION PREVENTION PLAN.

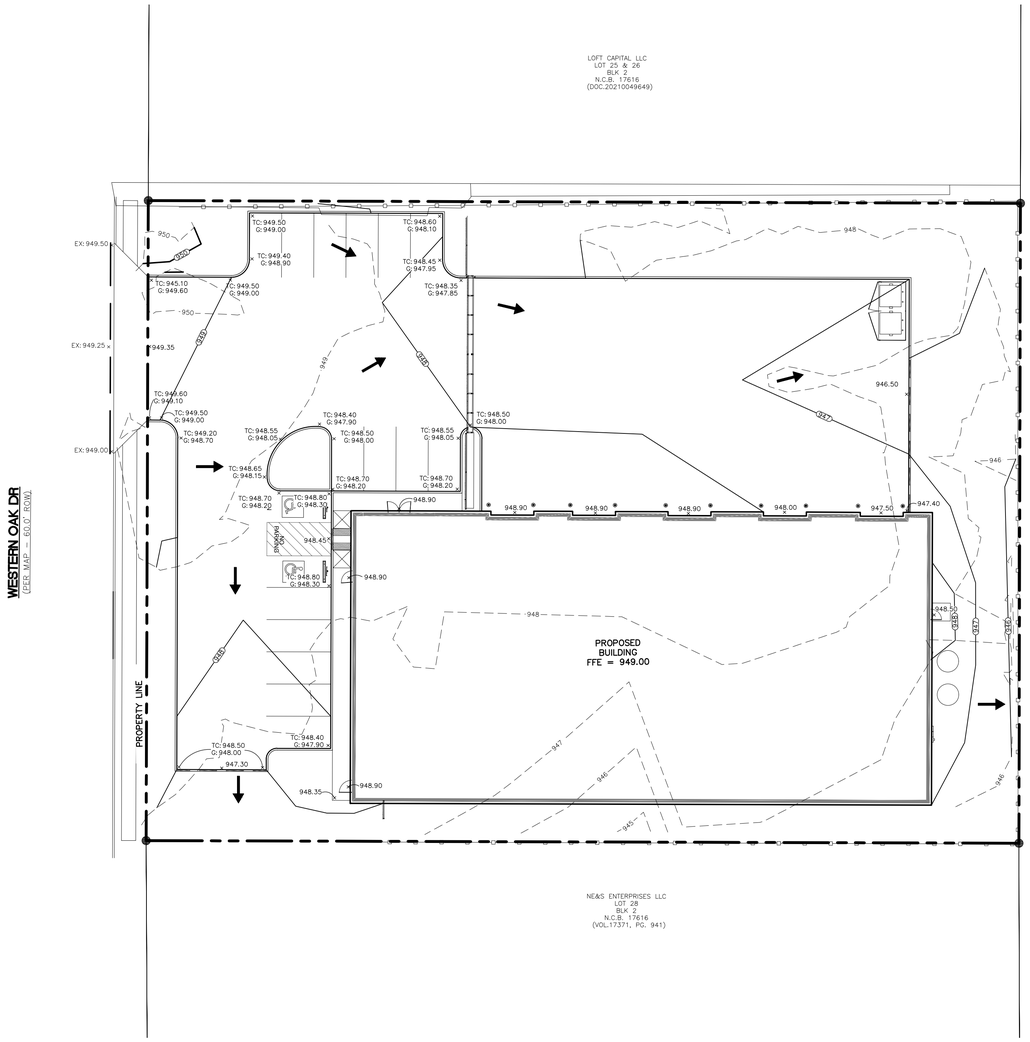
24. NO ABRUPT CHANGES IN GRADES SHALL OCCUR IN THE ROADWAYS, PARKING AREAS, OR SIDEWALKS.

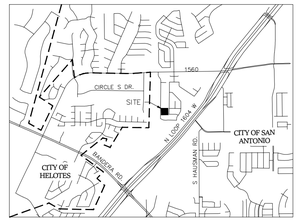
25. PONDING OR BIRD-BATHS EXCEEDING A 1/4" IN DEPTH WILL NOT BE ACCEPTABLE AND SHALL BE CORRECTED BY THE CONTRACTOR.

26. BUILDING PAD AND PAVED AREAS SHALL BE CONSTRUCTED IN ACCORDANCE TO THE GEOTECHNICAL REPORT PREPARED BY INTEC OF SAN ANTONIO ENGINEER'S JOB NO. 25-1730 DATED APRIL 17, 2025.

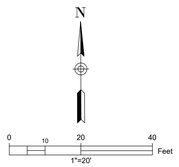
27. CONTRACTOR SHALL NOTIFY AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION:

1-800-DIG-TESS	1-800-344-8377
SAWS CONSTRUCTION INSPECTIONS	704-7107
CITY SIDEWALKS AND TRENCH DIVISION	207-8171
CITY TRAFFIC ENGINEER	207-7720





LOCATION MAP
NOT-TO-SCALE



LEGEND

PROPERTY LINE	
EXISTING CONTOUR	650
PROPOSED CONTOUR	650
SWALE FLOW LINE	
FLOW ARROW (PROPOSED)	
PROPOSED SPOT ELEV.	x 850.00
EXISTING SPOT ELEV.	x EX: 850.00

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SMGC CONSTRUCTION LLC
13306 WESTERN OAK
LOT 27, BLOCK 2 OF
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HELOTES, TEXAS 78023

VDRE DEVELOPMENTS

Date:	Description:
08/08/25	Construction Documents

Project #	25002
Issue Date:	08/08/2025

ISSUE FOR CONSTRUCTION

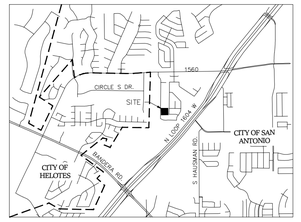
Drawing Title
GRADING PLAN

Drawing Number
C7.00

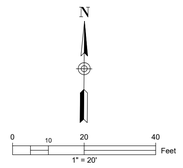
LEGAL DESCRIPTION

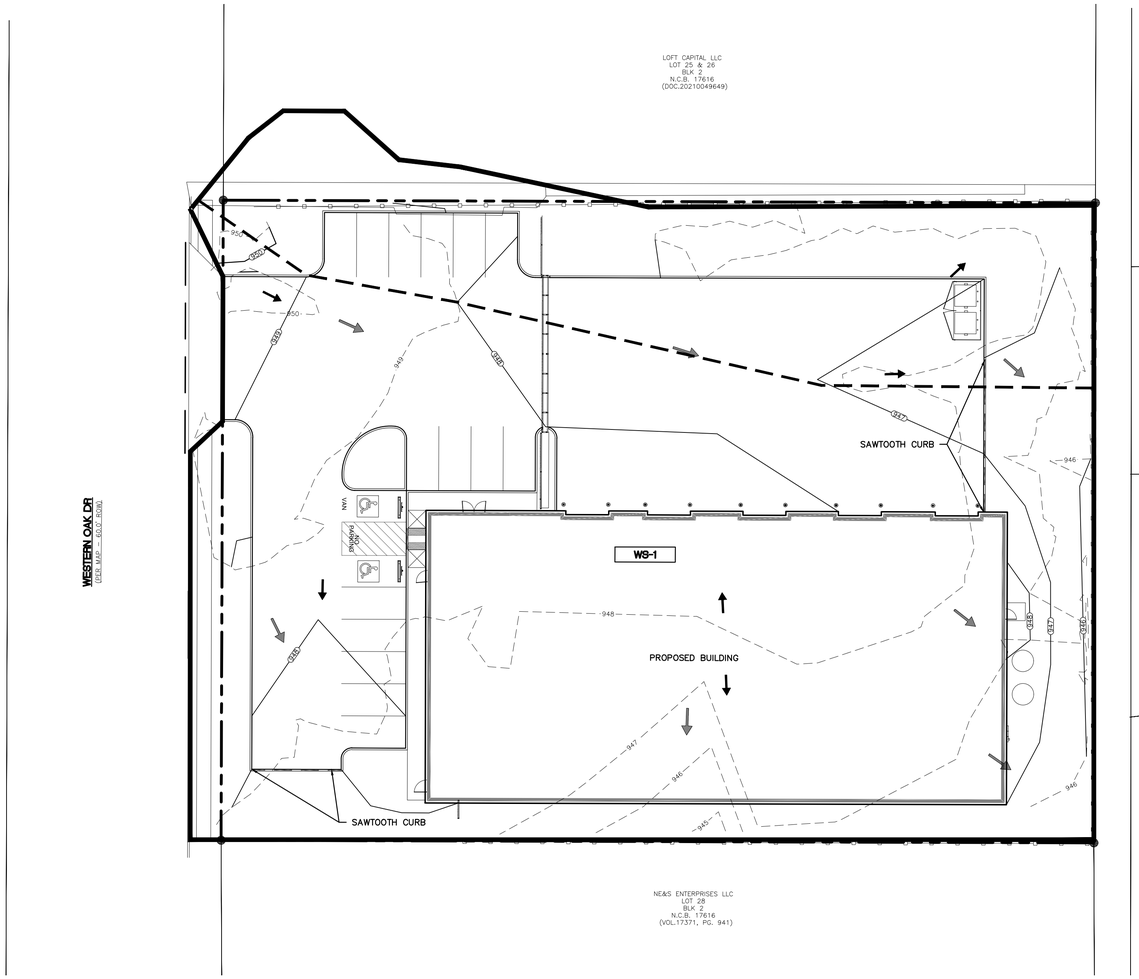
LOT 27
BLOCK 2
N.C.B. 17616
NORTHWEST BUSINESS PARK UNIT 1
(VOL. 9510, PG. 4041, D.P.R.)

** REFERENCE STORM WATER MANAGEMENT PLAN FOR DETAILE HYDROLOGIC/HYDRAULIC CALCULATIONS INCLUDING UPSTREAM AND DOWNSTREAM ANALYSIS



LOCATION MAP
NOT-TO-SCALE





LEGEND

PROPERTY LINE
EXISTING CONTOUR 690
PROPOSED CONTOUR 690
ONSITE WATERSHED
TC PATH
FLOW ARROW (EXISTING)
FLOW ARROW (PROPOSED)

Watershed	Area (ac)	C (unitless)	Tc (min)	Intensities (in/hr) 5	25	100	Flow (cfs) 5	25	100
EXISTING									
WS-1	1.06	0.46	17.0	4.99	6.88	8.60	2.44	3.36	4.19
PROPOSED									
WS-1	11.32	0.95	10.0	6.30	8.72	10.23	6.35	8.78	11.01
ULTIMATE									
WS-1	11.32	0.95	10.00	6.30	8.72	10.23	6.35	8.78	11.01

** REFERENCE STORMWATER MANAMGEMENT PLAN FOR 13306 WESTERN OAK DRIVE (COM-PRJ-APP25-3980XXX) FOR DRAINAGE CALCULATIONS, ANALYSIS, AND DETAILED PLANS INCLUDING DOWNSTREAM STUDY POINTS **

DRAINAGE NOTES:

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THIS SCOPE OF WORK SHALL COMPLY WITH THE PROJECT GEOTECH REPORT, THE PROJECT SPECIFICATIONS, AND THE CURRENT CITY, COUNTY OR TXDOT "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION".
2. THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE, AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCT BANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHALL BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT THE CONTRACTORS SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT.
3. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES. THE CONTRACTOR SHOULD EXERCISE EXTREME CAUTION WHEN WORKING NEAR EXISTING UTILITIES AND SHOULD THEY BE DAMAGED DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR WILL BE REQUIRED TO REPAIR OR REPLACE THE DAMAGED FACILITIES AT CONTRACTOR'S EXPENSE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ORIGINAL OR BETTER CONDITION DAMAGE DONE TO EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING AND STRUCTURES.
5. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION.
6. WATER JETTING THE BACKFILL OF UTILITY TRENCHES WILL NOT BE PERMITTED.
7. NORTHINGS AND EASTINGS LISTED ON THESE PLANS ARE TO CENTER OF BOX FOR JUNCTION BOXES AND GRATE INLETS AND TO OUTSIDE CORNER FACE OF CURB FOR ALL CURB AND COMBINATION INLETS. ALL LENGTHS OF PIPE ARE TO INSIDE FACE OF STRUCTURES.
8. CONTRACTOR SHALL ENSURE PROPER SIZE OF JUNCTION BOXES NEEDED WHERE INDICATED ON PLAN. CONTRACTOR SHALL CONNECT STORM DRAIN PIPE TO JUNCTION BOXES PER MANUFACTURES SPECIFICATIONS.
9. ALL STORM DRAIN TO JUNCTION BOX CONNECTIONS SHALL HAVE CONCRETE COLLARS.
10. ALL GRATE INLETS MUST BE H20 RATED GRATES.
11. TOPS OF MANHOLES, JUNCTION BOXES AND GRATES SHALL BE SET FLUSH TO FINISHED SURFACE BASED UPON GRADING PLAN.
12. ALL CONCRETE LINING SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI IN 28 DAYS.
13. CONTRACTOR SHALL ENSURE PROPER DRAINAGE ACROSS ALL PAVED AREAS. PONDING OR BIRD-BATHS EXCEEDING 1/4" IN DEPTH WILL NOT BE ACCEPTABLE AND SHALL BE CORRECTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. IF CONTRACTOR HAS CONCERNS ABOUT PROPOSED GRADES AND/OR CONTOURS HE SHALL IMMEDIATELY CONTACT THE ENGINEER.

TRENCH EXCAVATION SAFETY PROTECTION:

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

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SMGC CONSTRUCTION LLC

13306 WESTERN OAK

LOT 27, BLOCK 2 OF
BANDERA NORTHWEST ANNEXATION
HELOTES, TEXAS 78023

VDRE DEVELOPMENTS

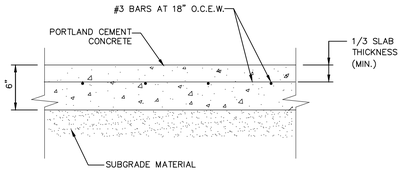
Date:	Description:
08/08/25	Construction Documents

Project #	25002
Issue Date:	08/08/2025

ISSUE FOR CONSTRUCTION

Drawing Title
ONSITE DRAINAGE PLAN

Drawing Number
C8.00



1 HEAVY DUTY CONCRETE PAVEMENT DETAIL

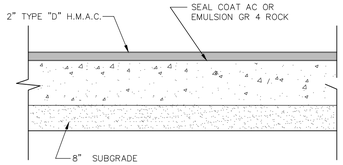
(NOT TO SCALE)

NOTE: CONCRETE SHOULD HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3500 psi. THE SLUMP AT THE POINT OF PLACEMENT SHALL BE LESS THAN OR EQUAL TO 6 INCHES AND THE AIR CONTENT SHALL RANGE FROM 4% TO 6% RESPECTIVELY. CONCRETE SHOULD BE CURED IN ACCORDANCE WITH GEOTECHNICAL ENGINEERING REPORT FOR THIS PROJECT.

CONTRACTOR SHALL SAWCUT JOINTS IN CONCRETE PAVEMENT AT 12' O/C MAX.

LAYER	FLEXIBLE PAVEMENT		CONCRETE PAVEMENT	
	LIGHT	HEAVY	LIGHT	HEAVY
HMAC TYPE "D"	2"	3"	6.5"	8"
BASE	8"	8"	–	–
SUBGRADE	*	*	6"	6"

* REFERENCE GEOTECH REPORT

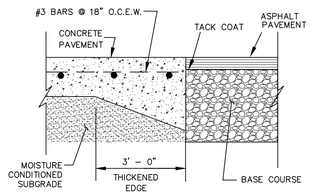


NOTE: IF PI IS GREATER THAN 20, USE LIME TREATMENT

PAVEMENT SECTIONS

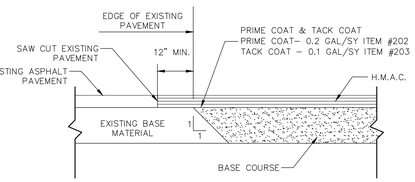
REFERENCE GEOTECHNICAL ENGINEERING REPORT PREPARED BY INTEC OF SAN ANTONIO, ENGINEER'S JOB NO. DD202510027, DATED 4/27/2025 FOR PAVEMENT MATERIALS AND CONSTRUCTION REQUIREMENTS. CONTRACTOR SHALL MEET OR EXCEED ALL PAVING RECOMMENDATIONS.

* REFERENCE GEOTECH REPORT SUBGRADE NOTES



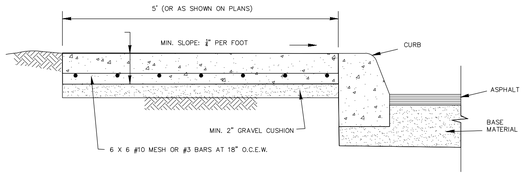
2 CONCRETE/ASPHALT PAVEMENT JUNCTURE DETAIL

(NOT TO SCALE)



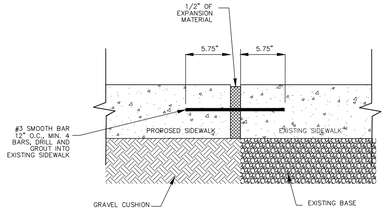
3 ASPHALT/ASPHALT JUNCTURE DETAIL

NOT–TO–SCALE



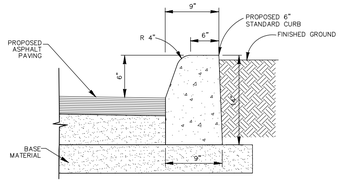
4 SIDEWALK DETAIL

NOT–TO–SCALE



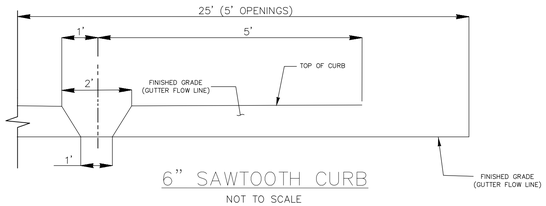
5 SIDEWALK JUNCTURE DETAIL

NOT–TO–SCALE



6 6" STANDARD CURB DETAIL

NOT–TO–SCALE

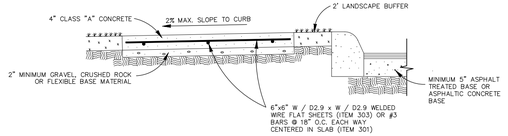


6" SAWTOOTH CURB

NOT TO SCALE

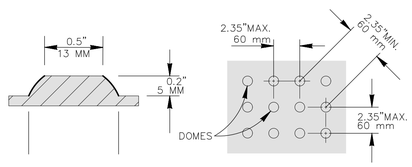
7 SAWTOOTH CURB DETAIL

NOT–TO–SCALE



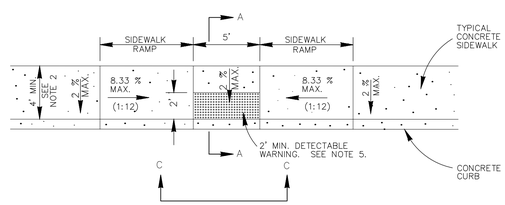
8 CONCRETE SIDEWALK/ LANDSCAPE BUFFER SECTION

SCALE : NTS



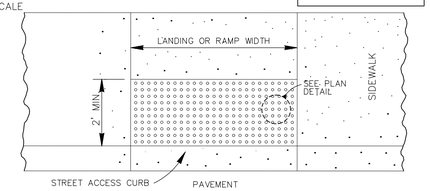
DOME SECTION

NO SCALE



PLAN DETAIL

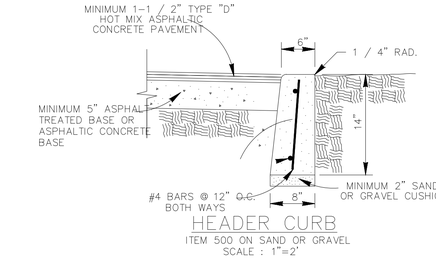
NO SCALE



DETECTABLE WARNING SURFACE

9 ADA CURB RAMP - TYPE II

NOT–TO–SCALE

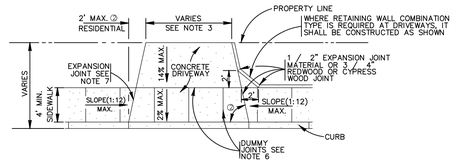


HEADER CURB

ITEM 500 ON SAND OR GRAVEL
SCALE : 1"=2'

10 HEADER CURB

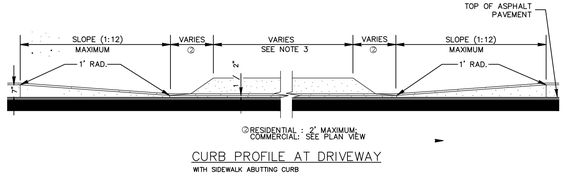
ITEM 500 ON SAND OR GRAVEL
SCALE : NTS



② 45° FOR COMMERCIAL DRIVEWAY

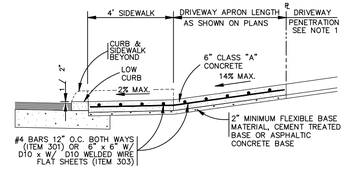
TYPICAL DRIVEWAY PLAN VIEW

WITH SIDEWALK ABUTTING CURB



CURB PROFILE AT DRIVEWAY

WITH SIDEWALK ABUTTING CURB



TYPICAL COMMERCIAL DRIVEWAY SECTION

WITH SIDEWALK ABUTTING
CURB ITEM 503.2

CONCRETE DRIVEWAY NOTES

1. DRIVEWAY PENETRATION REFERS TO A PORTION OF THE DRIVEWAY THAT MAY BE NECESSARY TO RECONSTRUCT WITHIN PRIVATE PROPERTY TO COMPLY WITH A MAXIMUM DRIVEWAY SLOPE. THIS PORTION OF THE DRIVEWAY SHALL BE PAID FOR UNDER THE FOLLOWING ITEMS AS MAY APPLY:
   A.) CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO. 503.1 OR 503.2
   B.) ASPHALTIC CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO. 503.4 AND SHALL INCLUDE A MINIMUM OF 1" ASPHALT TYPE 'D' & 6" FLEXIBLE BASE
   C.) GRAVEL DRIVEWAY PAID FOR UNDER ITEM NO. 503.5 AND SHALL INCLUDE A MINIMUM OF 6" FLEXIBLE BASE
2. 7" MINIMUM HEIGHT WILL NOT NECESSARILY OCCUR AT THE PROPERTY LINE. IT MAY OCCUR WITHIN THE RIGHT OF WAY OR WITHIN THE DRIVEWAY PENETRATION ON PRIVATE PROPERTY.
3. THE PROPOSED DRIVEWAY SHOULD MATCH THE EXISTING WIDTH AT THE PROPERTY LINE BUT UNLESS AUTHORIZED BY THE CITY TRAFFIC ENGINEER, THE WIDTH SHALL BE WITHIN THE FOLLOWING VALUES:

TYPE	MINIMUM	MAXIMUM
RESIDENTIAL	10'	20'
COMMERCIAL – ONE WAY	12'	20'
COMMERCIAL – TWO WAY	24'	30'

4. FOR LOCAL TYPE "A" STREETS, SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND IF SEPARATED FROM THE CURB, THE SIDEWALK SHALL BE LOCATED A MINIMUM OF 2' FROM THE BACK OF CURB.
5. FOR OTHER THAN LOCAL TYPE "A" STREETS, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND SEPARATED A MINIMUM OF 2' FROM THE BACK OF CURB OR, AS AN OPTION, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 6' WHEN LOCATED AT THE BACK OF CURB.
6. DUMMY JOINTS PARALLEL TO THE CURB SHALL BE PLACED WHERE THE SIDEWALK MEETS THE DRIVEWAY. DUMMY JOINTS PERPENDICULAR TO THE CURB, AND WITHIN THE BOUNDARIES OF THE PARALLEL DUMMY JOINTS, SHALL BE PLACED AT INTERVALS EQUAL TO THE WIDTH OF THE SIDEWALK.
7. A MINIMUM OF TWO ROUND AND SMOOTH DOWEL BARS 3 /8" IN DIAMETER AND 18" IN LENGTH SHALL BE SPACED 18" APART AT EACH EXPANSION JOINT.
8. SIDEWALK RAMP LENGTHS SHALL BE OF SUFFICIENT LENGTH TO MAINTAIN 8.33% (1:12) MAXIMUM SLOPE. WHERE SIDEWALKS CROSS DRIVEWAYS, SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
9. SIDEWALK RAMP SURFACE SHALL BE BRUSH FINISHED.

11 CONCRETE DRIVEWAY DETAIL

NOT–TO–SCALE

ARCHITECT:
REDfish
ARCHITECTURE AND ENGINEERING INC.

12946 Country Ridge
San Antonio, TX 78216
Phone: 210-902-9917
www.REDfishinc.com

TBAE Firm BR 4797
TBPE Firm F-24527

STATE OF TEXAS
EVER GARZA III
127459
LICENSED PROFESSIONAL ENGINEER
08/08/2025

CONSULTANTS:
EVER ENGINEERING, LLC
ADVANCED ENGINEERING SERVICES
3201 CHERRY RIDGE DRIVE, SUITE A–106,
SAN ANTONIO, TX 78230
OFFICE (210) 572–9340 FAX (210) 572–9344
WWW.EVERENG.COM
FIRM NO. F–19197

SMGC CONSTRUCTION LLC

13306 WESTERN OAK

LOT 27, BLOCK 2 OF
BANDERA NORTHWEST ANNEXATION
HELOTES, TEXAS 78023

VDRE DEVELOPMENTS

Date:	Description:
08/08/25	Construction Documents

Project #	25002
Issue Date:	08/08/2025

Drawing Title
CIVIL DETAILS

Drawing Number
C9.00

ISSUE FOR CONSTRUCTION

LEGAL DESCRIPTION

LOT 27
BLOCK 2
N.C.B. 17616
NORTHWEST BUSINESS PARK UNIT 1
(VOL. 9510, PG. 4041, D.P.R.)

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Westoak South
Date Prepared: 8/8/2025

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

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

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

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

County =	Bexar	
Total project area included in plan * =	1.06	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	0.73	acres
Total post-development impervious cover fraction * =	0.69	
P =	30	inches
$L_{M\ TOTAL\ PROJECT}$ =	596	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 3

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

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area =	0.31	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.31	acres
Post-development impervious fraction within drainage basin/outfall area =	1.00	
$L_{M\ THIS\ BASIN}$ =	249	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Retention / Irrigation
Removal efficiency = 100 percent

Aqualogic Cartridge Filter
Bioretention
Contech StormFilter
Constructed Wetland
Extended Detention
Grassy Swale
Retention / Irrigation
Sand Filter
Stormceptor
Vegetated Filter Strips
Vortechs
Wet Basin
Wet Vault

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

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

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

A_C =	1.40	acres
A_I =	1.18	acres
A_P =	0.22	acres
L_R =	1228	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 249 lbs.

F = 0.20

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	0.11	inches
Post Development Runoff Coefficient =	0.69	
On-site Water Quality Volume =	399	cubic feet

Calculations from RG-348 Pages 3-36 to 3-37

Off-site area draining to BMP =	0.04	acres
Off-site Impervious cover draining to BMP =	0.04	acres
Impervious fraction of off-site area =	1.00	
Off-site Runoff Coefficient =	0.82	
Off-site Water Quality Volume =	14	cubic feet
Storage for Sediment =	83	
Total Capture Volume (required water quality volume(s) x 1.20) =	495	cubic feet

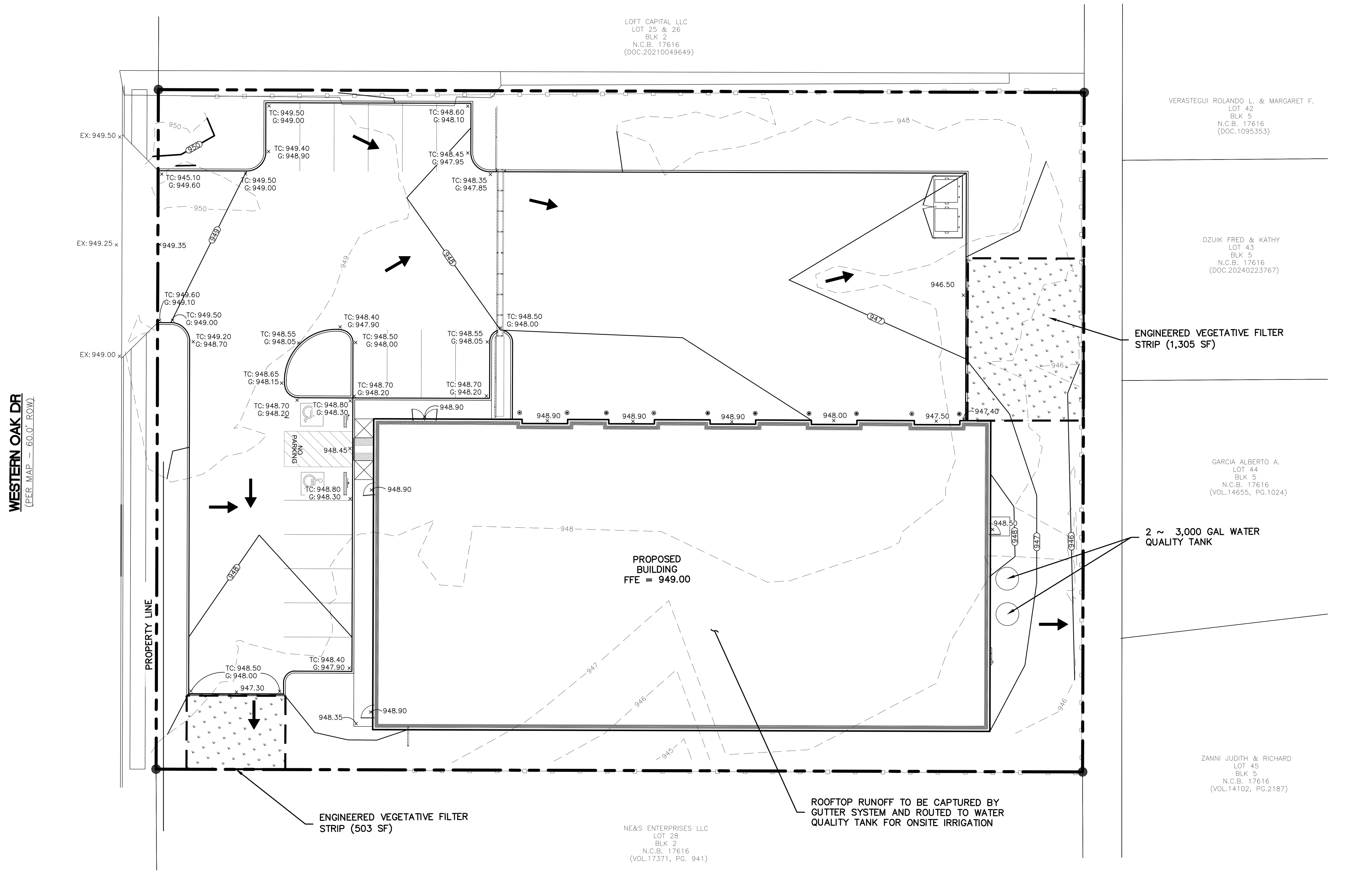
The following sections are used to calculate the required water quality volume(s) for the selected BMP.
The values for BMP Types not selected in cell C45 will show NA.

7. Retention/Irrigation System Designed as Required in RG-348 Pages 3-42 to 3-46

Required Water Quality Volume for retention basin = 495 cubic feet

Irrigation Area Calculations:

Soil infiltration/permeability rate =	0.1	in/hr	Enter determined permeability rate or assumed value of 0.1
Irrigation area =	1981	square feet	
	0.05	acres	



Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Westoak South
Date Prepared: 7/22/2025

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

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

County =	Bexar	
Total project area included in plan * =	1.40	acres
Predevelopment impervious area within the limits of the plan * =	0.38	acres
Total post-development impervious area within the limits of the plan* =	1.18	acres
Total post-development impervious cover fraction * =	0.84	
P =	30	inches
$L_{M\ TOTAL\ PROJECT}$ =	653	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 1

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

Drainage Basin/Outfall Area No. = 2

Total drainage basin/outfall area =	0.10	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.09	acres
Post-development impervious fraction within drainage basin/outfall area =	0.90	
$L_{M\ THIS\ BASIN}$ =	73	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Vegetated Filter Strips
Removal efficiency = 85 percent

Aqualogic Cartridge Filter
Bioretention
Contech StormFilter
Constructed Wetland
Extended Detention
Grassy Swale
Retention / Irrigation
Sand Filter
Stormceptor
Vegetated Filter Strips
Vortechs
Wet Basin
Wet Vault

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

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

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

A_C =	0.10	acres
A_I =	0.09	acres
A_P =	0.01	acres
L_R =	80	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 73 lbs.

F = 0.92

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Westoak South
Date Prepared: 7/22/2025

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

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

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

County =	Bexar	
Total project area included in plan * =	1.40	acres
Predevelopment impervious area within the limits of the plan * =	0.38	acres
Total post-development impervious area within the limits of the plan* =	1.18	acres
Total post-development impervious cover fraction * =	0.84	
P =	30	inches
$L_{M\ TOTAL\ PROJECT}$ =	653	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 1

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

Drainage Basin/Outfall Area No. = 3

Total drainage basin/outfall area =	0.31	acres
Predevelopment impervious area within drainage basin/outfall area =	0.04	acres
Post-development impervious area within drainage basin/outfall area =	0.29	acres
Post-development impervious fraction within drainage basin/outfall area =	0.94	
$L_{M\ THIS\ BASIN}$ =	204	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Vegetated Filter Strips
Removal efficiency = 85 percent

Aqualogic Cartridge Filter
Bioretention
Contech StormFilter
Constructed Wetland
Extended Detention
Grassy Swale
Retention / Irrigation
Sand Filter
Stormceptor
Vegetated Filter Strips
Vortechs
Wet Basin
Wet Vault

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

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

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

A_C =	0.31	acres
A_I =	0.31	acres
A_P =	0.00	acres
L_R =	274	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 267 lbs.

F = 0.98

BMP NOTES:

NATURAL VEGETATIVE FILTER STRIP:

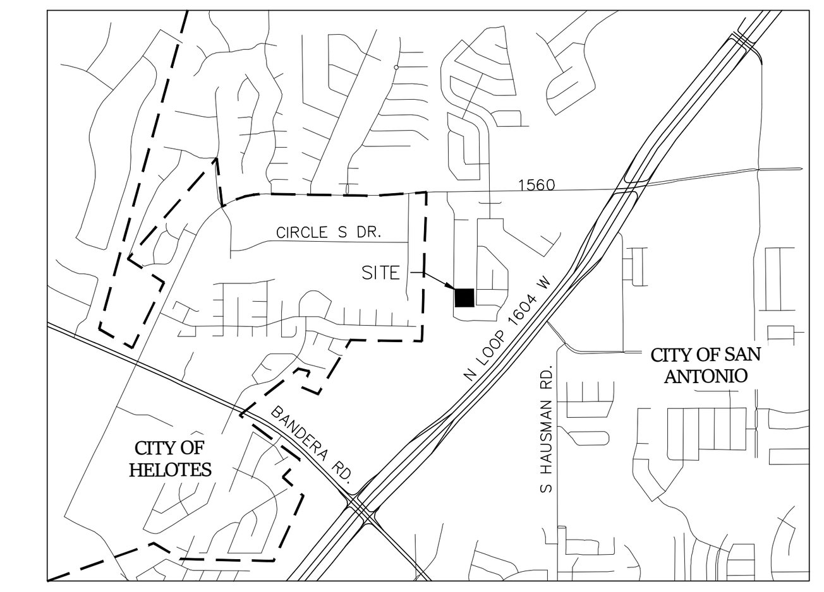
1. ALL NO PORTION OF THE NATURAL FILTER AREA SHALL EXCEED A SLOPE OF 10%.
2. FLOW LENGTH OVER THE VEGETATIVE FILTER OR FILTER WIDTH MUST BE AT LEAST 50FEET AND NO GREATER THAN 72 FEET.
3. THE FILTER STRIP MUST RUN ALONG THE ENTIRE EDGE OF THE CONTRIBUTING AREA. THE SOIL ALONG THE UPPER BOUNDARY MUST BE REINFORCED WITH PROTECTIVE MATTING OR AN INFILTRATION TRENCHED (PREFERRED) MAY BE USED. REFER TO FIGURE 4.14, THIS SHEET.
4. THE FILTER AREA MUST BE FREE OF GULLIES, RILLS, AND FLOW CONCENTRATION AND HAVE 80% VEGETATIVE COVER.
5. THE SOIL MUST AVERAGE 4–INCHES IN DEPTH. ROCK CROP AREAS MAY BE PRESENT BUT MUST BE DEDUCTED FROM THE FILTER STRIP AREA AND MUST NOT AFFECT THE FUNCTION OF THE VEGETATIVE FILTER STRIP.
6. NATURAL VEGETATIVE FILTER STRIPS WILL BE HAND WATERED AS MENTIONED IN THE IMRR PLAN.

ENGINEERED VEGETATIVE FILTER STRIP:

7. NO PORTION OF THE FILTER AREA SHALL EXCEED A SLOPE OF 20%
8. THE FLOW LENGTH OF OVER THE VEGETATIVE FILTER OR FILTER WIDTH MUST BE AT LEAST 15 FEET AND NO GREATER THAN 72 FEET.
9. THE FILTER STRIP MUST RUN ALONG THE ENTIRE EDGE OF THE CONTRIBUTING AREA. THE SOIL ALONG THE UPPER BOUNDARY MUST BE REINFORCED WITH PROTECTIVE MATTING OR AN INFILTRATION TRENCHED (PREFERRED) MAY BE USED. REFER TO FIGURE 4.15, THIS SHEET.
10. THE FILTER AREA, AFTER FINAL GRADING, SHOULD HAVE A UNIFORM AND EVEN SLOPE AND BE CAPABLE OF MAINTAINING AN EVEN SHEET FLOW ACROSS THE ENTIRE FILTER SURFACE. THE FILTER AREA MUST BE FREE OF GULLIES, RILLS, AND FLOW CONCENTRATIONS. THE STRIP MUST BE SODDED OR IF SEED IS USED IT MUST BE ACCPAMPANINED BY THE APPROPRIATE SOIL BLANKET OR MATTING PER TCEQ SPEC 3.2.11.
11. A MINIMUM OF 6–INCHES OF TOPSOIL IS REQUIRED. THE TOPSOIL MUST CONTAIN 10–20% COMPOST, A CLAY CONTENT LESS THAN 20% AND BE FREE OF STONES, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN ONE (1) INCH. IF ON–SITE SOILS DO NOT MEET SPECIFICATIONS, TOPSOIL PER THE ABOVE SPECS MUST BE ADDED. SANDY LOAM IS NOT AN APPROVED SOIL AND CALICHE IS NOT CONSIDERED SOIL.
12. AN INFILTRATION BERM IS REQUIRED AT THE DOWNGRADIENT END OF THE FILTER STRIP WITH A SLOPE GREATER THAN 2%. BERM SIDE SLOPES SHOULD BE NO STEEPER THAN 3:1, AND BERM TOP–WIDTH SHOULD BE 4–8 INCHES.
13. ENGINEERED VEGETATIVE FILTER STRIPS WILL BE HAND WATERED AS MENTIONED IN THE IMRR PLAN.

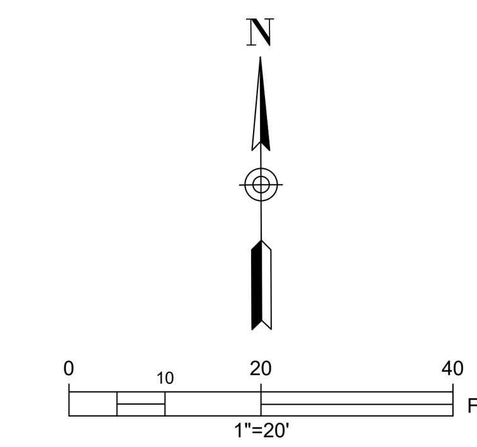
ABOVE GROUND STORAGE TANK :

14. THE ABOVE GROUND 21'–11" TANK'S NOMINAL CAPACITY CONSISTS OF 15347 GALLONS. THE TANK WILL SERVE A DUAL PURPOSE OF RETENTION AND DETENTION BY COLLECTING WATER FROM THE PROPOSED BUILDINGS ROOFTOPS AND RELEASING IT PERIODICALLY..
15. A TOTAL OF 6830 GALLONS (913 CU. FT.) OF DETENTION WAS CALCULATED TO KEEP FLOW RATES AT EXISTING LEVELS. A VALVE WILL BE PLACED AT THE 7 FT MARK FROM THE BOTTOM OF THE TANK TO ALLOW FOR WATER EXTRACTION.
16. A TOTAL OF 6200 (818 CU. FT.) GALLONS ALLOCATED AT THE BOTTOM PORTION OF THE TANK WILL BE USED FOR WATER QUALITY RETENTION. A VALVE WILL BE PLACED AT THE 1FT MARK FROM THE BOTTOM OF THE TANK TO ALLOW FOR WATER EXTRACTION.
17. WATER COLLECTED WILL BE USED AS A NON–POTABLE SOURCE FOR THE BUILDINGS SANITARY USES.



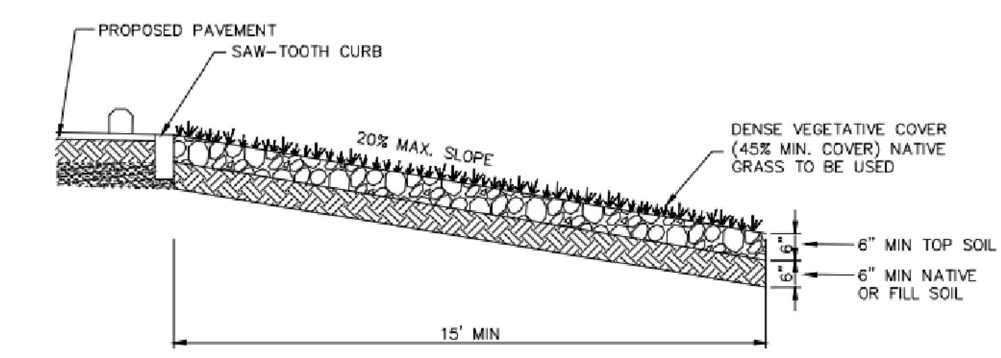
LOCATION MAP

NOT–TO–SCALE



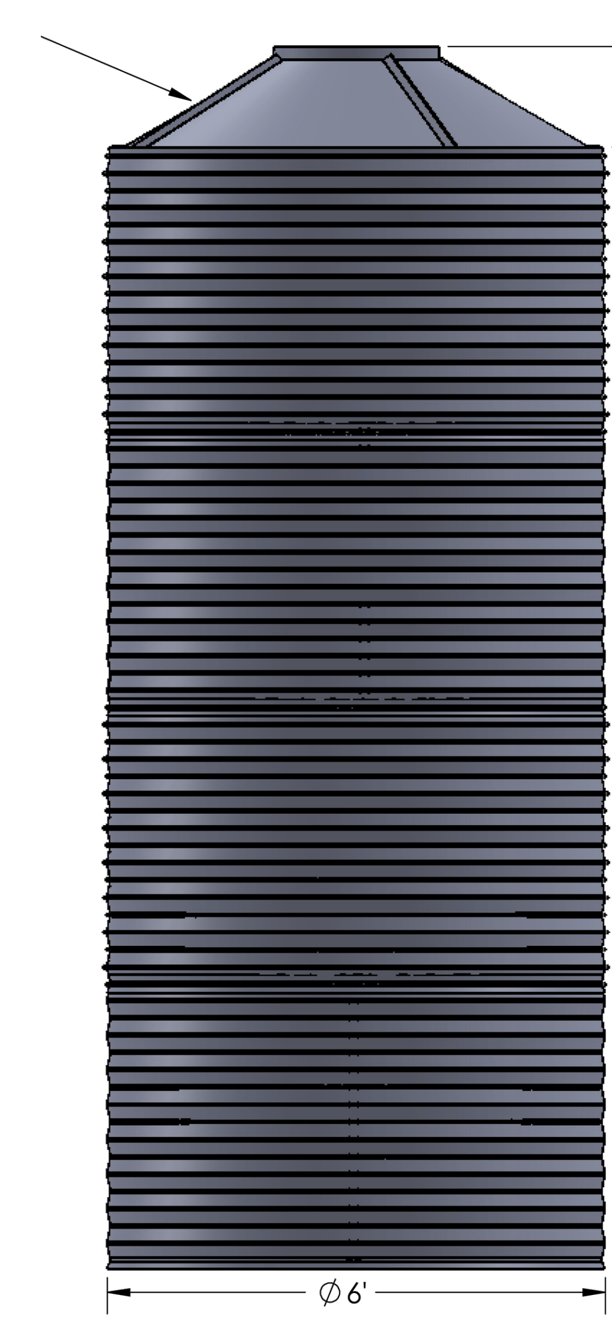
LEGEND

PROPERTY LINE	▬ ▬ ▬
EXISTING CONTOUR	– – 850 – –
PROPOSED CONTOUR	—850—
SWALE FLOW LINE	— · — · —
FLOW ARROW (PROPOSED)	←
PROPOSED SPOT ELEV.	× 850.00
EXISTING SPOT ELEV.	× EX: 850.00



1. SOILS IF COMPACTED, (>300PSI @ 3 INCHES) MUST BE LOOSENED.
2. FILTER STRIP SHOULD EXTEND ALONG THE ENTIRE LENGTH OF THE CONTRIBUTING AREA.
3. SLOPES SHOULD NOT EXCEED 20% WITHIN VEGETATIVE STRIP FILTER.
4. FILTER STRIP WIDTH SHOULD BE NO LESS THAN 15' IN DIRECTION OF FLOW.
5. FILTER STRIPS SHOULD BE LANDSCAPED AFTER OTHER PORTIONS OF THE PROJECT ARE COMPLETED.

VEGETATIVE FILTER STRIP DETAIL



UNLESS OTHERWISE SPECIFIED:		NAME	DATE	CONTAIN WATER SYSTEMS INC
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL± 1/16" ANGULAR: MACH±.5° BEND ±.5° TWO PLACE DECIMAL ±.02" THREE PLACE DECIMAL ±.005"	DRAWN	AP	9. 28.18	TITLE: GENERAL ARRANGEMENT CGS 6' 4 TIER
	CHECKED			
	ENG APPR.			
	MFG APPR.			
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5	Q.A.			
MATERIAL MIXED	COMMENTS: SALES DRAWING-TANK GENERAL ARRANGEMENT			SIZE B DWG. NO. CGS-604-30 REV 1
FINISH N/A				SCALE: 1:25 WEIGHT:591 LBS SHEET 1 OF 1
DO NOT SCALE DRAWING				

ARCHITECT:

REDfish
ARCHITECTURE AND ENGINEERING INC.

12946 Country Ridge
San Antonio, TX 78216
Phone: 210-902-9917
www.REDfishinc.com

TBAE Firm BR 4797
TBPE Firm F-24527

08/08/2025

CONSULTANTS:

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FIRM NO: F–19197

SMGC CONSTRUCTION LLC
13306 WESTERN OAK
LOT 27, BLOCK 2 OF
BANDERA NORTHWEST ANNEXATION
HELOTES, TEXAS 78023

VDRE DEVELOPMENTS

Date:	Description:
08/08/25	Construction Documents

Project #	25002
Issue Date:	08/08/2025

Drawing Title
WATER QUALITY PLAN

Drawing Number
WQ1

ISSUE FOR CONSTRUCTION

EVER ENGINEERING
Advanced Engineering Services

Section 6: PERMANENT STORM WATER SECTION (TCEQ-0600)
ATTACHMENT G

Westoke South, LLC.
INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

Inspection, maintenance and repair of the proposed permanent BMPs are attached following this sheet.

Vegetative Filter Strips (VFS)

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. Per the TCEQ RG-348 (Section 3.5.8) the recommended maintenance plan for vegetative filter strips is as follows:

PEST MANAGEMENT:

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 strips 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 3-92 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. Any filter strip structures 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 conducted no less than 4 times per year.

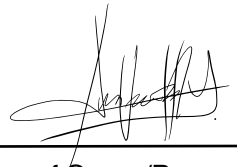
SEDIMENT REMOVAL:

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.

Text



Signature of Owner/Responsible Party

09/19/2025

Date

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Section 6: PERMANENT STORM WATER SECTION (TCEQ-0600)
ATTACHMENT H

Westoke South, LLC.

PILOT – SCALE FIELD TESTING PLAN

This attachment does not apply to this submittal. The TNRCC (TCEQ) Technical Guidance Manual (TGM) was used to design permanent BMPs and measures on site, and therefore a Pilot-Scale Field Testing Plan is not required.

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Section 6: PERMANENT STORM WATER SECTION (TCEQ-0600)
ATTACHMENT I

Westoke South, LLC.

MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION

This attachment does not apply to this submittal. There are no surface streams existing on site.

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Section 8: AGENT AUTHORIZATION FORM (TCEQ-0599)

Westoke South, LLC.

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

I ADRIAN VEGA,
Print Name

OWNER,
Title - Owner/President/Other

of WESTOKE SOUTH LLC,
Corporation/Partnership/Entity Name

have authorized EVER GARZA, P.E.
Print Name of Agent/Engineer

of EVER ENGINEERING, LLC
Print Name of Firm

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

I also understand that:

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

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

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

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

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

SIGNATURE PAGE:

Applicant's Signature

09/02/2025
Date

THE STATE OF Texas §

County of Wilson §

BEFORE ME, the undersigned authority, on this day personally appeared Adrian Gonzalez 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 2 day of September, 2025

NICHOLAS CRAWFORD
My Commission expires
03-31-2027
ID No. 134282774

NOTARY PUBLIC

Nicholas Crawford
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 03/31/2027

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Section 9: APPLICATION FEE FORM (TCEQ-0574)

Westoke South, LLC.

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Western Oak South

Regulated Entity Location: 13306 Western Oak Drive

Name of Customer: Adrian Vega

Contact Person: Richie Mendoza Phone: 210-572-9340

Customer Reference Number (if issued):CN N/A

Regulated Entity Reference Number (if issued):RN N/A

Austin Regional Office (3373)

☐ Hays ☐ Travis ☐ Williamson

San Antonio Regional Office (3362)

☒ Bexar ☐ Medina ☐ Uvalde

☐ Comal ☐ Kinney

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

☐ Austin Regional Office

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

☒ San Antonio Regional Office

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

Site Location (Check All That Apply):

☒ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	1.002 Acres	$ 4,000
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: Ever Garza, P.E. Date: 9/19/2025

Application Fee Schedule

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

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)

☑ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☐ Renewal (*Core Data Form should be submitted with the renewal form*) ☐ Other

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

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy)

☑ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership

☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name (*If an individual, print last name first: eg: Doe, John*) *If new Customer, enter previous Customer below:*

Westoke South, LLC

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number (*if applicable*)
805880551	32098581187	33-3158142	

11. Type of Customer: ☐ Corporation ☐ Individual Partnership: ☐ General ☑ Limited

Government: ☐ City ☐ County ☐ Federal ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees ☑ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated? ☐ Yes ☑ No

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☑ Owner ☐ Operator ☐ Owner & Operator

☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

15. Mailing Address: 5900 Balcones Drive, Ste. 100

City	Austin	State	TX	ZIP	78731	ZIP + 4	

16. Country Mailing Information (*if outside USA*)	17. E-Mail Address (*if applicable*)
	avega@pampadv.com

18. Telephone Number	19. Extension or Code	20. Fax Number (*if applicable*)
(210) 897-3330		( ) -

SECTION III: Regulated Entity Information

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

☑ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name (*Enter name of the site where the regulated action is taking place.*)

Western Oak South

23. Street Address of the Regulated Entity: *(No PO Boxes)*	13306 Western Oak Drive							
	City	Helotes	**State**	TX	**ZIP**	78023	**ZIP + 4**	
24. County	Bexar							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:					
26. Nearest City			**State**		**Nearest ZIP Code**

27. Latitude (N) In Decimal:	29.564107		**28. Longitude (W) In Decimal:**	-98.661645	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
		493110	493190

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

General office and storage, no storage of hazourdous materials

34. Mailing Address:	13306 Western Oak Drive							
	City	Helotes	**State**	TX	**ZIP**	78023	**ZIP + 4**	
35. E-Mail Address:	avega@pampadv.com							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(210) 897-3330		( ) -

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☑ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Richie D. Mendoza	**41. Title:**	Project Manager

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(210) 572-9340		( ) -	admin@everenc.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Westoke South, LLC	**Job Title:**	Owner
Name *(In Print):*	Adrian Vega	**Phone:**	(210.) 998. 2020
Signature:		**Date:**	09/03/2025