

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: Shavano Garage Condos					2. Regulated Entity No.:					
3. Customer Name: Shavano/LDR No. 4 Commercial Partnership, Ltd					4. Customer No.:					
5. Project Type: (Please circle/check one)		New			Modification		Extension		Exception	
6. Plan Type: (Please circle/check one)		WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: (Please circle/check one)		Commercial		Non-residential			8. Site (acres):		2.367	
9. Application Fee:		\$4,000		10. Permanent BMP(s):			Jellyfish Filter			
11. SCS (Linear Ft.):		N/A		12. AST/UST (No. Tanks):			N/A			
13. County:		Bexar		14. Watershed:			Upper San Antonio River			

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)	<input type="checkbox"/> Edwards Aquifer Authority <input type="checkbox"/> Barton Springs/ Edwards Aquifer <input type="checkbox"/> Hays Trinity <input type="checkbox"/> Plum Creek	<input type="checkbox"/> Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	<input type="checkbox"/> Austin <input type="checkbox"/> Buda <input type="checkbox"/> Dripping Springs <input type="checkbox"/> Kyle <input type="checkbox"/> Mountain City <input type="checkbox"/> San Marcos <input type="checkbox"/> Wimberley <input type="checkbox"/> Woodcreek	<input type="checkbox"/> Austin <input type="checkbox"/> Bee Cave <input type="checkbox"/> Pflugerville <input type="checkbox"/> Rollingwood <input type="checkbox"/> Round Rock <input type="checkbox"/> Sunset Valley <input type="checkbox"/> West Lake Hills	<input type="checkbox"/> Austin <input type="checkbox"/> Cedar Park <input type="checkbox"/> Florence <input type="checkbox"/> Georgetown <input type="checkbox"/> Jerrell <input type="checkbox"/> Leander <input type="checkbox"/> Liberty Hill <input type="checkbox"/> Pflugerville <input type="checkbox"/> Round Rock

San Antonio Region					
County:	Bexar	Comal	Kinney	Medina	Uvalde
Original (1 req.)	—	—	—	—	—
Region (1 req.)	—	—	—	—	—
County(ies)	—	—	—	—	—
Groundwater Conservation District(s)	<input type="checkbox"/> Edwards Aquifer Authority <input type="checkbox"/> Trinity-Glen Rose	<input type="checkbox"/> Edwards Aquifer Authority	<input type="checkbox"/> Kinney	<input type="checkbox"/> EAA <input type="checkbox"/> Medina	<input type="checkbox"/> EAA <input type="checkbox"/> Uvalde
City(ies) Jurisdiction	<input type="checkbox"/> Castle Hills <input type="checkbox"/> Fair Oaks Ranch <input type="checkbox"/> Helotes <input type="checkbox"/> Hill Country Village <input type="checkbox"/> Hollywood Park <input type="checkbox"/> San Antonio (SAWS) <input type="checkbox"/> Shavano Park	<input type="checkbox"/> Bulverde <input type="checkbox"/> Fair Oaks Ranch <input type="checkbox"/> Garden Ridge <input type="checkbox"/> New Braunfels <input type="checkbox"/> Schertz	NA	<input type="checkbox"/> 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.

Jose Villagomez, P.E.

Print Name of Customer/Authorized Agent

Jose Villagomez, P.E.

05-21-2023

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):

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: Jose Villagomez, P.E.

Date: 05-21-2023

Signature of Customer/Agent:

Jose Villagomez, P.E.

Project Information

1. Regulated Entity Name: Shavano Garage Condo
2. County: Bexar
3. Stream Basin: Upper San Antonio River
4. Groundwater Conservation District (If applicable): EAA

5. Edwards Aquifer Zone:

- Recharge Zone
 Transition Zone

6. Plan Type:

- WPAP
 SCS
 Modification
- AST
 UST
 Exception Request

7. Customer (Applicant):

Contact Person: Daryl Lange

Entity: Shavano/LDR No. 4 Commercial Partnership, Ltd

Mailing Address: 11 Lynn Batts Ln, Suite 100

City, State: San Antonio, Texas

Zip: 78218

Telephone: 210-379-3402

FAX: _____

Email Address: daryl@bitterblue.com

8. Agent/Representative (If any):

Contact Person: Jose Villagomez, P.E.

Entity: Villagomez Engineering Company

Mailing Address: 24165 IH-10W, Suite 217-708

City, State: San Antonio, Texas

Zip: 78257

Telephone: 210-724-0816

FAX: _____

Email Address: jlwillagomez@villagomezengineering.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.

13951 Indian Woods

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: Completed

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:

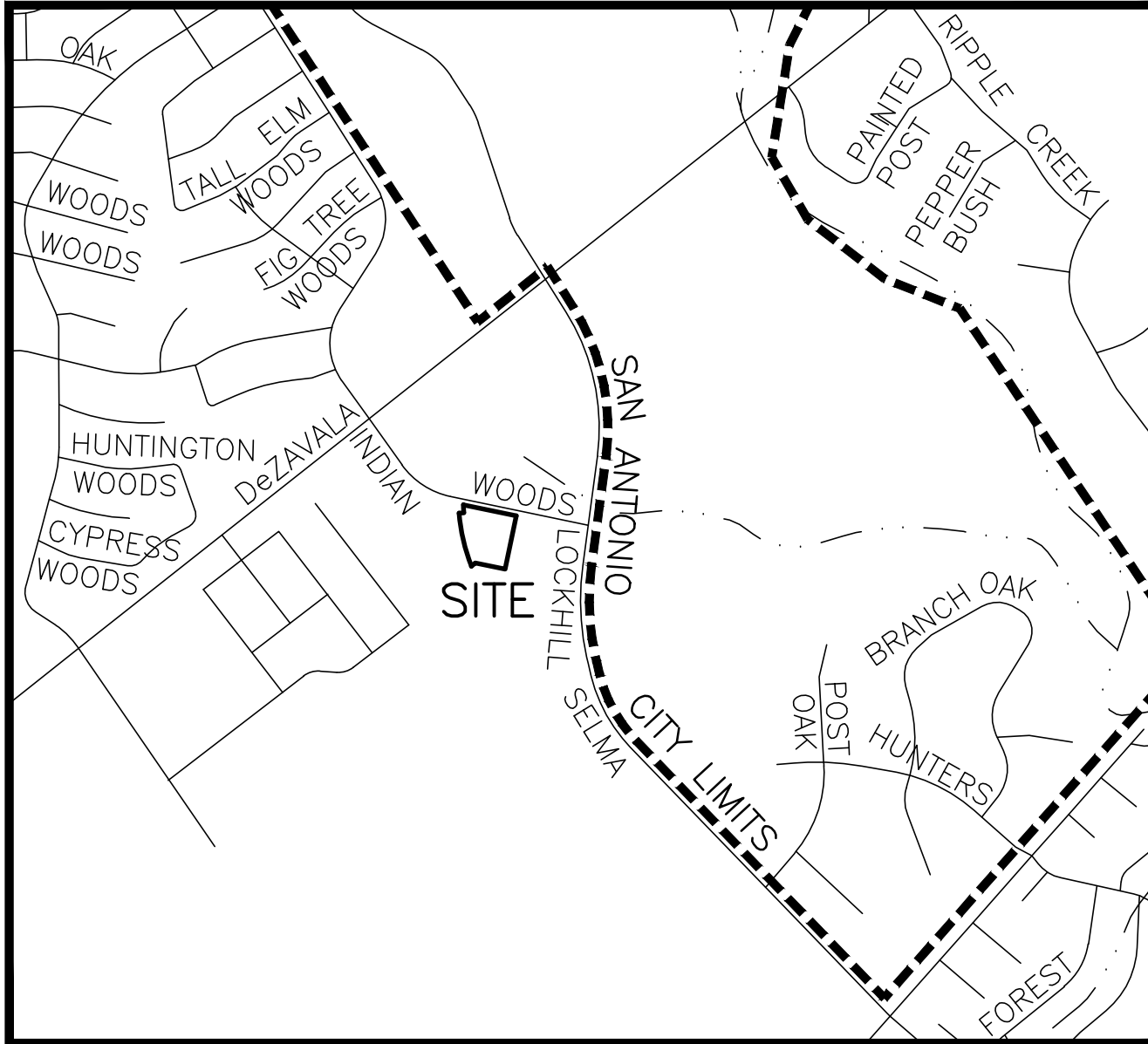
- (1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);
- (2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and

- (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.



LOCATION MAP

SHAVANO GARAGE CONDOS
 NOT TO SCALE

DATE: 05/19/23

JOB NO.: 22-058



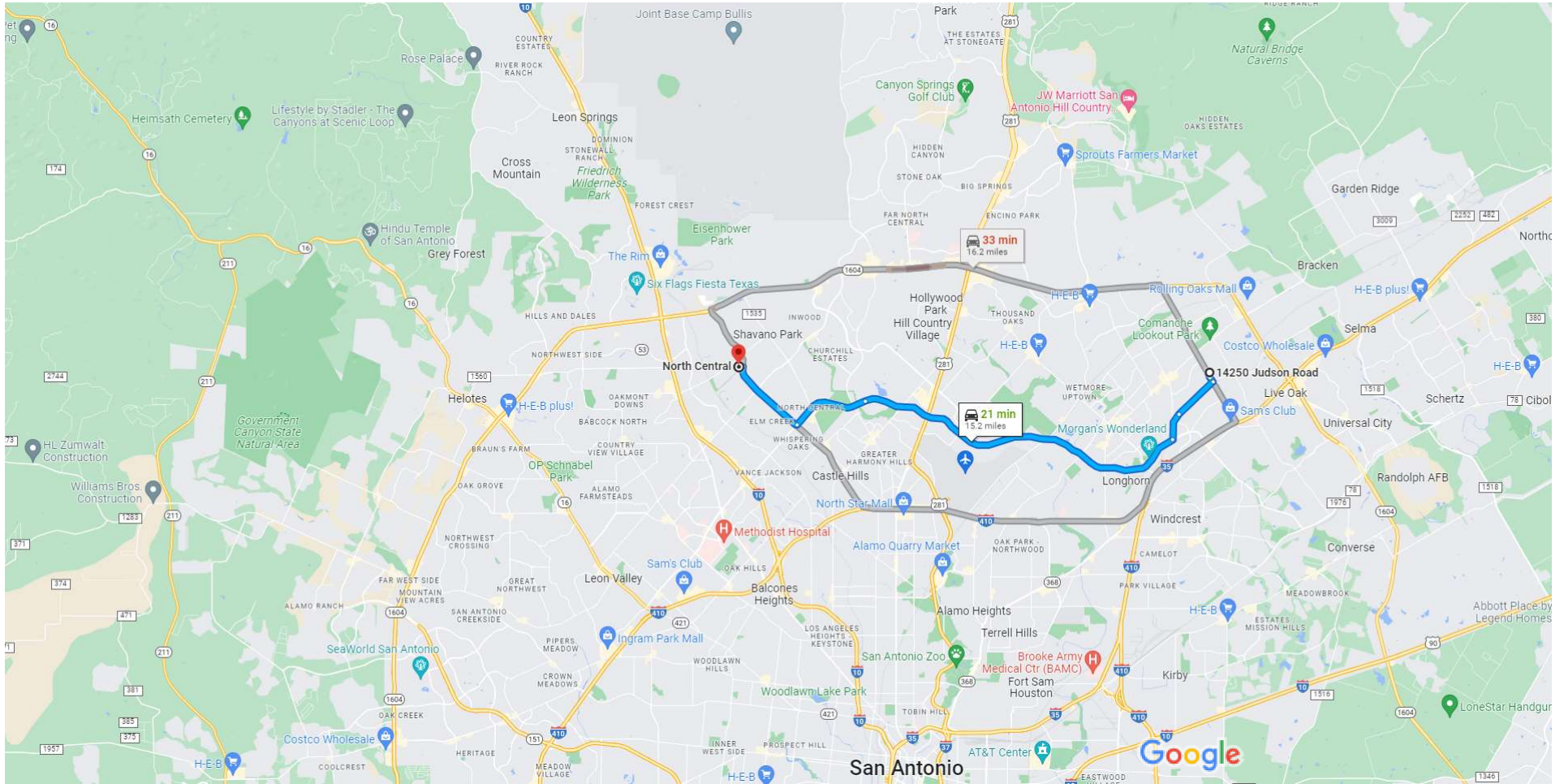
VILLAGOMEZ ENGINEERING CO.
 24165 IH-10W, STE 217-708
 SAN ANTONIO, TEXAS 78257
 PH. (210) 724-0816
 FAX (210) 853-0232
 TBPE FIRM REGISTRATION
 NO. F13698



14250 Judson Rd, San Antonio, TX 78233 to North Central, San Antonio, TX

Drive 15.2 miles, 21 min

TCEQ to Site



Map data ©2023 Google 2 mi

14250 Judson Rd
San Antonio, TX 78233


Take Lookout Rd and Weidner Rd to Wurzbach Pkwy

- ↑ 1. Head southeast toward Judson Rd 5 min (2.2 mi)
_____ 95 ft
- ↪ 2. Turn right toward Judson Rd
_____ 85 ft
- ↶ 3. Turn left onto Judson Rd
_____ 482 ft
- ↶ 4. Turn left to stay on Judson Rd
_____ 0.1 mi
- ↪ 5. Turn right onto Lookout Rd
_____ 1.2 mi
- ↑ 6. Continue onto Weidner Rd
_____ 0.7 mi

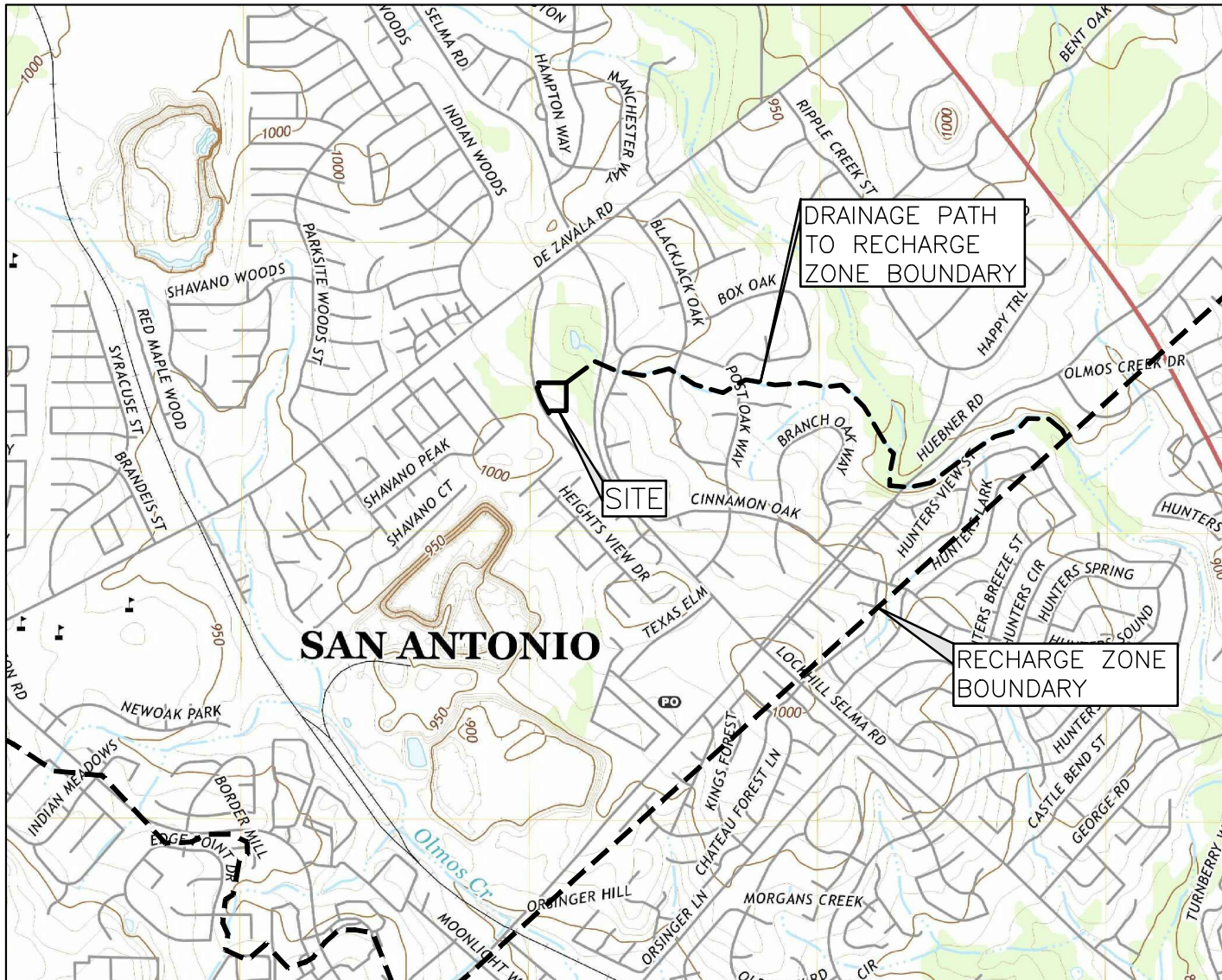
Follow Wurzbach Pkwy to Lockhill Selma Rd

- _____ 12 min (10.8 mi)
- ↪ 7. Turn right onto Wurzbach Pkwy
_____ 8.8 mi
- ↶ 8. Keep left to stay on Wurzbach Pkwy
_____ 2.0 mi

Follow Lockhill Selma Rd to Indian Woods

- _____ 4 min (2.2 mi)
- ↪ 9. Turn right onto Lockhill Selma Rd
_____ 2.1 mi
- ↶ 10. Turn left onto Indian Woods
 Destination will be on the left
_____ 0.1 mi

North Central
San Antonio, TX



USGS QUADRANGLE MAP
CASTLE HILLS, TX

SHAVANO GARAGE CONDOS
 SCALE: 1" = 2000'

DATE: 05/19/23
 JOB NO.: 22-058

VILLAGOMEZ ENGINEERING CO.
 24165 IH-10W, STE 217-708
 SAN ANTONIO, TEXAS 78257
 PH. (210) 724-0816
 FAX (210) 853-0232
 TBPE FIRM REGISTRATION
 NO. F13698

ATTACHMENT C

Project Description

Shavano Garage Condos is a 2.367-acre tract of undeveloped land located at 13951 Indian Woods. The property consists of one (1) commercial lot.

The site has numerous live oak trees and underbrush with a portion of an existing shared access drive along the west side of the tract. The site generally slopes from south to north.

The project proposes to add 1.55 acres (65.40 percent) of impervious cover. The proposed permanent best management practices consist of Contech's Jellyfish filter system to treat the proposed parking lot and roof.

According to FEMA Firm 48029C0230G no portion of the site is within the 100-year floodplain.



GEOLOGIC ASSESSMENT

For

**SHAVANO GARAGE CONDOS TRACT
INDIAN WOODS
SAN ANTONIO, BEXAR COUNTY, TEXAS**

Prepared for
**VILLAGOMEZ ENGINEERING COMPANY
24165 IH-10 W, SUITE 217-708
SAN ANTONIO, TX 78257**

Prepared by

**Professional Service Industries, Inc.
3 Burwood Lane
San Antonio, Texas 78216
Telephone (210) 342-9377**

PSI PROJECT NO.: 0435-5847

March 21, 2023





Professional Service Industries, Inc.
3 Burwood Lane, San Antonio, TX 78216
Phone: (210) 342-9377
Fax: (210) 342-9401

March 21, 2022

Villagomez Engineering Company
24165 IH-10W, Suite 217-708
San Antonio, TX 78257

Attn: Mr. Jose Villagomez, P.E.
Email: jvillagomez@villagomezengineering.com

RE: Geologic Assessment
Shavano Garage Condos Tract
Indian Woods
San Antonio, TX
PSI Project No. 435-5847

Dear Mr. Villagomez:

Professional Service Industries, Inc. (PSI) has completed a geologic recharge assessment for the above referenced project in compliance with the Texas Commission on Environmental Quality (TCEQ) requirements for regulated developments located on the Edwards Aquifer Recharge Zone (EARZ). The purpose of this report is to describe surficial geologic units and identify the locations and extent of significant recharge features present in the development area.

AUTHORIZATION

Authorization to perform this assessment was given via a signed copy of PSI Proposal No. 394649 on March 7, 2023.

PROJECT DESCRIPTION

The property consists of an approximate 2.37-acre tract of land located on the south side of Indian Woods, east of Old Lockhill Selma Road in San Antonio, Texas. The tract is trapezoidal to semi-rectangular in shape, and has been undeveloped range land at least as far back as 1955, according to the available aerial photographs reviewed. The site is heavily vegetated, with ashe juniper, oak, woody vegetation, native grasses and weeds.

REGIONAL GEOLOGY

Physiography

From northwest to southeast, the three physiographic provinces in Bexar County are: the Edwards Plateau, the Blackland Prairie, and the West Gulf Coastal Plain. The Edwards Plateau terrain is rugged and hilly, with elevations ranging from 1,100 feet to 1,900 feet above sea level. This area is underlain by beds of limestone that dip gently to the southeast. South of the Edwards Plateau is the Balcones Fault Zone, which is also the northernmost limit of the Blackland Prairie. The Balcones Fault Zone extends northeast-southwest across Bexar County and is composed of fault blocks of limestone, chalk, shale, and marl. The undulating, hilly topography of the Blackland Prairie ranges in elevation from

about 700 feet to 1100 feet above sea level. The faults are predominantly normal, down-to-the Gulf Coast, with near vertical throws. The West Gulf Coastal Plain lies southeast of the Blackland Prairie and is composed of flat-lying beds of marl, clay, and sandy clay. According to topographic maps, elevations at the subject site range from approximately 994 feet above mean sea level in the southwest corner of the tract to approximately 978 feet above mean sea level in the northeast corner of the site, in a drainage culvert.

Stratigraphy and Structure

The majority of the site is mapped as the Cretaceous Del Rio clay (Kdr). Rock outcrops were not present, due to surficial clay and vegetation. According to the San Antonio Sheet of the Geologic Atlas of Texas, the Del Rio Clay is calcareous and gypsiferous, with pyrite common, with a blocky structure that weathers to light gray or yellowish gray. The characteristic marine megafossil, *Ilmatogyra arietina* (formerly *exogyra arietina*) is widespread throughout the formation. The thickness ranges from 40-70 feet. The northwestern portion of the site is mapped as the Lower Cretaceous Edwards Group, which includes the Georgetown Formation. The Georgetown Formation is composed of reddish-brown and gray to light tan, marly limestone with a biomicritic texture, commonly contains the brachiopod *Kingena wacoensis*. The Georgetown is considered an upper confining unit, for the underlying Edwards Aquifer with low porosity and permeability, with limited karst or cavern development.

SITE INVESTIGATION

The site investigation was performed by systematically traversing the subject tract, and mapping fractured or vuggy rock outcrops, closed depressions, sinkholes, caves, or indications of fault/fracture zones. The purpose of the site investigation was to delineate features with recharge potential that may warrant special protection or consideration. The results of the site investigation are included in the attached TCEQ report format. As stated above, no significant rock outcrops were noted during the site reconnaissance, and clays seen throughout the site were observed to contain *Ilmatogyra arietina*, characteristic of the Del Rio clay. Geotechnical borings revealed clay thicknesses at the site ranging from 2 to over 20 feet thick. Based on these results, which confirm site observations of Del Rio fossils on the east, central and southern portions, and the linearity of the mapped Del Rio-Edwards contact, suggests a fault traversing the northwest portion of the site (Feature S-1).

SUMMARY

No sensitive features were noted on the subject tract. One fault feature was mapped based on field observations and geotechnical boring results, but it is not considered a sensitive feature. Please note that subtle features, buried or obscured from view, may be present on the tract. It is possible that future clearing/construction activities will reveal the presence of features currently hidden by thick vegetation and/or soil cover. If caves, sinkholes, or solution cavities are encountered during future clearing/construction activities, please contact our office for additional assistance.



We appreciate this opportunity to be of service to you. If you have any questions, please do not hesitate to contact our office.

Respectfully submitted,
PROFESSIONAL SERVICE INDUSTRIES, INC.



John Langan, P.G.
Environmental Department Manager



WARRANTY

The field observations and research reported herein are considered enough in detail and scope to form a reasonable basis for a general geological recharge assessment of this site. PSI warrants that the findings and conclusions contained herein have been promulgated in accordance with generally accepted geologic methods, only for the site described in this report. These methods have been developed to provide the client with information regarding apparent indications of existing or potential conditions relating to the subject site and are necessarily limited to the conditions observed at the time of the site visit and research. This report is also limited to the information available at the time it was prepared. In the event additional information is provided to PSI following the report, it will be forwarded to the client in the form received for evaluation by the client. There is a possibility that conditions may exist which could not be identified within the scope of the assessment, or which were not apparent during the site visit. PSI believes that the information obtained from others during the review of public information is reliable; however, PSI cannot warrant or guarantee that the information provided by others is complete or accurate.

This report has been prepared for the exclusive use of Villagomez Engineering Company for the site discussed herein. Reproductions of this report cannot be made without the expressed approval of Villagomez Engineering Company. The general terms and conditions under which this assessment was prepared apply solely to Villagomez Engineering Company. No other warranties are implied or expressed.



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: John Langan

Telephone: 210/342-9377

Date: 03/21/23

Fax: 210/342-9401

Representing: PSI TBPG No. 50128 (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: Shavano Garage Condos Tract

Project Information

1. Date(s) Geologic Assessment was performed: 03/15/23

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)
Crawford & Bexar stony soils	B	2-3
Tarrant ass'n, gently undulating	B	2-3

Soil Name	Group*	Thickness(feet)

* Soil Group Definitions (Abbreviated)

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

6. **Attachment B – Stratigraphic Column.** A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.
7. **Attachment C – Site Geology.** A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.
8. **Attachment D – Site Geologic Map(s).** The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'
 Applicant's Site Plan Scale: 1" = 20'
 Site Geologic Map Scale: 1" = 20'
 Site Soils Map Scale (if more than 1 soil type): 1" = 70'
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 _____ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
- The wells are not in use and have been properly abandoned.
- The wells are not in use and will be properly abandoned.
- The wells are in use and comply with 16 TAC Chapter 76.
- There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

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

STRATIGRAPHIC COLUMN
Shavano Garage Condos Tract
Indian Woods
San Antonio, Bexar County, Texas

FORMATION	THICKNESS	LITHOLOGIC DESCRIPTION
Del Rio Clay	40-70	Calcareous and gypsiferous, with pyrite common, with a blocky structure that weathers to light gray or yellowish gray. The characteristic marine megafossil, <i>Ilmatogyra arietina</i> (formerly <i>exogyra arietina</i>) is widespread throughout the formation.
Georgetown Formation	2-20'	Light tan limestone identified by proximity to Del Rio clay and diagnostic marker fossil: <i>waconella wacoensis</i> brachiopod; low porosity and permeability development.
Person Formation	180-220'	Limestones and dolomites, extensive porosity development in "honeycomb sections, interbedded with massive, recrystallized limestones with more limited permeabilities (especially Regional Dense Member separating the Person and Kainer Formations.
Kainer Formation	260-310'	Hard, miliolid limestones, overlying calcified dolomites and dolomite. Leached evaporitic "Kirschberg" zone of very porous and permeable collapse breccia formed by the dissolution of gypsum. Overlies the basal nodular (Walnut) bed.
Glen Rose Limestone (upper)	350-500	Yellowish-tan thinly bedded limestone and marl. Alternating beds of varying hardness erodes to "stair step" topography. Marine fossils common.



SOILS NARRATIVE

According to the Soil Survey of Bexar County, Texas, published by the United States Department of Agriculture, Soil Conservation Service, in cooperation with the Texas Agricultural Extension Service, issued in 1991, the soils beneath the subject property have been classified as Crawford and Bexar stony soils (Cb) and Tarrant association, gently undulating 1-5% slopes (TaB).

Crawford and Bexar stony soils occur as large areas, several hundred acres in size, in a nearly continuous belt extending westward across the northern portion of the county. Crawford soils make up approximately 51% of the acreage and consist of shallow to moderately deep stony soils that develop over hard limestone. In the approximate 8-10-inch surface layer, between 10 and 40% of the material is made up of chert or limestone fragments, ranging in size from one-quarter inch to two feet in diameter. Bexar soils make up roughly 36% of the acreage and consist of cherty clay loam to gravelly loam overlying a cherty clay that develops on limestone.

Tarrant series soils are very shallow, dark colored, gently undulating to steep, that occur on limestone prairies in the northern third of the county. The surface layer is very dark grayish-brown, calcareous clay loam about 10" thick, with limestone fragments covering about 35% of the surface. The subsurface is about 8" thick, is a hard, fractured limestone, with cracks filled with dark grayish brown clay loam. Tarrant soils have rapid surface drainage and good internal drainage, low water holding capacity, with high natural fertility. These soils are non-arable and are best suited for pasture or range.

SITE GEOLOGIC NARRATIVE



REGIONAL GEOLOGY

Physiography

From northwest to southeast, the three physiographic provinces in Bexar County are: the Edwards Plateau, the Blackland Prairie, and the West Gulf Coastal Plain. The Edwards Plateau terrain is rugged and hilly, with elevations ranging from 1,100 feet to 1,900 feet above sea level. This area is underlain by beds of limestone that dip gently to the southeast. South of the Edwards Plateau is the Balcones Fault Zone, which is also the northernmost limit of the Blackland Prairie. The Balcones Fault Zone extends northeast-southwest across Bexar County and is composed of fault blocks of limestone, chalk, shale, and marl. The undulating, hilly topography of the Blackland Prairie ranges in elevation from about 700 feet to 1100 feet above sea level. The faults are predominantly normal, down-to-the Gulf Coast, with near vertical throws. The West Gulf Coastal Plain lies southeast of the Blackland Prairie and is composed of relatively flat-lying beds of marl, clay, and sandy clay. According to topographic maps, elevations at the subject site range from approximately 994 feet above mean sea level in the southwest corner of the tract to approximately 978 feet above mean sea level in the northeast corner of the site, in a drainage culvert.

Stratigraphy and Structure

The majority of the site is mapped as the Cretaceous Del Rio clay (Kdr). Rock outcrops were not present, due to surficial clay and vegetation. According to the San Antonio Sheet of the Geologic Atlas of Texas, the Del Rio Clay is calcareous and gypsiferous, with pyrite common, with a blocky structure that weathers to light gray or yellowish gray. The characteristic marine megafossil, *Ilmatogyra arietina* (formerly *exogyra arietina*) is widespread throughout the formation. The thickness ranges from 40-70 feet. The northwestern portion of the site is mapped as the Lower Cretaceous Edwards Group, which includes the Georgetown Formation. The Georgetown Formation is composed of reddish-brown and gray to light tan, marly limestone with a biomicritic texture, commonly contains the brachiopod *Kingena wacoensis*. The Georgetown is considered an upper confining unit, for the underlying Edwards Aquifer with low porosity and permeability, with limited karst or cavern development.

SITE INVESTIGATION

The site investigation was performed by systematically traversing the subject tract, and mapping fractured or vuggy rock outcrops, closed depressions, sinkholes, caves, or indications of fault/fracture zones. The purpose of the site investigation was to delineate features with recharge potential that may warrant special protection or consideration. The results of the site investigation are included in the attached TCEQ report format. As stated above, no significant rock outcrops were noted during the site reconnaissance, and clays seen throughout the site were observed to contain *Ilmatogyra arietina*, characteristic of the Del Rio clay. Geotechnical borings revealed clay thicknesses at the site ranging from 2 to over 20 feet thick. Based on these results, which confirm site observations of Del Rio fossils on the east, central and southern portions, and the linearity of the mapped Del Rio-Edwards contact, suggests a fault traversing the northwest portion of the site (Feature S-1).



SUMMARY

No sensitive features were noted on the subject tract. One fault feature was mapped based on field observations and geotechnical boring results, but it is not considered a sensitive feature. Please note that subtle features, buried or obscured from view, may be present on the tract. It is possible that future clearing/construction activities will reveal the presence of features currently hidden by thick vegetation and/or soil cover. If caves, sinkholes, or solution cavities are encountered during future clearing/construction activities, please contact our office for additional assistance.



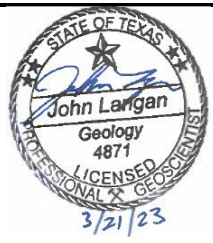
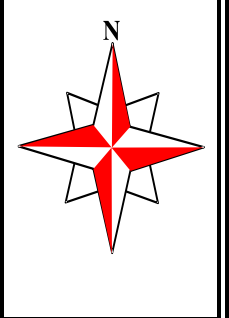


intertek
psi
 PSI, Inc.
 3 Burwood Lane
 San Antonio, Texas 78216

PROJECT NAME:
 Shavano Garage Condos Tract
 Indian Woods
 San Antonio, TX

 PROJECT NO.:435-5847

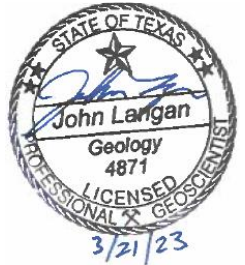
Geologic Map of the Castle Hills, Texas Quadrangle
 (Bureau of Economic Geology, UT-Austin1993) Geology from Arnow (1959), Shawl (1974), Stein (1993) and E.W. Collins (1994)





PSI, Inc.
 3 Burwood Lane
 San Antonio, Texas 78216

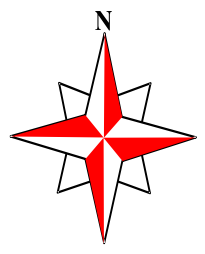
PROJECT NAME:
 Shavano Garage Condos Tract
 S. of Indian Woods
 San Antonio, Texas
 PROJECT NO.:435-5847

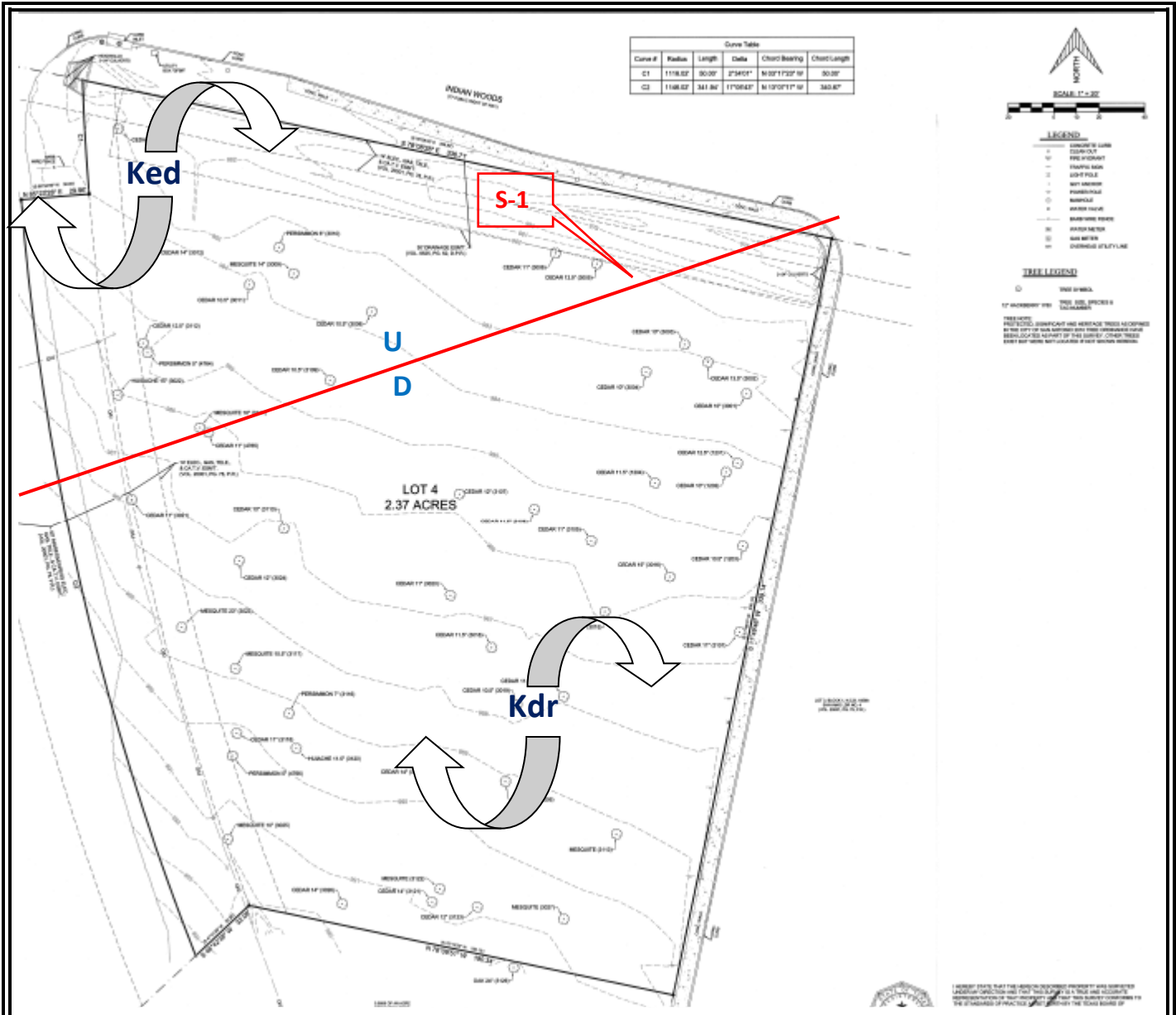


Geologic Map

(from Texas Geologic Map Viewer
<https://txpub.usgs.gov/txgeology/>)

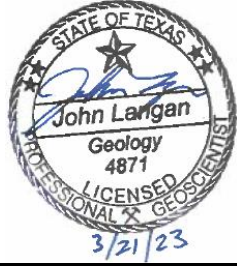
- KEY**
- Kgt-Lower Cretaceous Georgetown Fm.
 - Ked-Lower Cretaceous Edwards Limestone





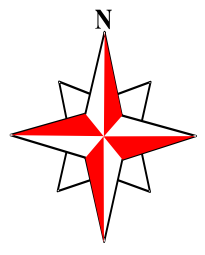
**intertek
psi**
PSI, Inc.
3 Burwood Lane
San Antonio, Texas 78216

PROJECT NAME:
Shavano Garage Condos Tract
S. of Indian Woods
San Antonio, Texas
PROJECT NO.:435-5847



Geologic Feature Map

Key
Kdr- Lower Cretaceous Del Rio Clay
Ked-Lower Cretaceous Edwards Group
S-1 Feature Location
U/D Fault Location





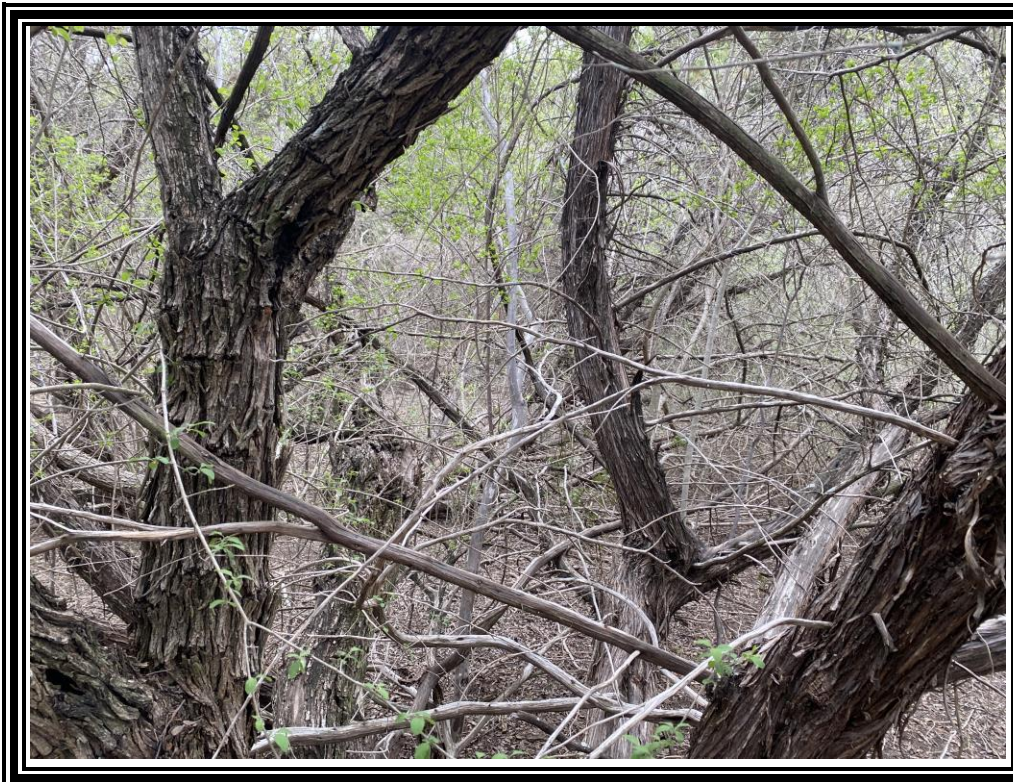
1. View north from near the middle of the Shavano Garage Condos tract on Indian Woods in San Antonio, Texas.



2. View east from near the middle of the Shavano Garage Condos tract on Indian Woods in San Antonio, Texas.



3. View south from near the middle of the Shavano Garage Condos tract on Indian Woods in San Antonio, Texas.



4. View west from near the middle of the Shavano Garage Condos tract on Indian Woods in San Antonio, Texas.



5. View north along the west property line from near the southwest corner of the site.



6. View north along the east property line from the southeast corner of the site.



7. View west along the south property line from the southeast corner of the site.



8. View of Del Rio Clay on the eastern portion of the site with the characteristic *Illmatogyra Arietina* bivalve fossils.



9. View west along the north property line from the northeast corner of the site.



10. View southwest of the site interior from the northeast corner.



11. View of Georgetown Limestone on the surface in the northwest portion of the site. Geotechnical borings confirmed shallow depths to hard limestones in this area, while areas where the *Ilmatogyra Arietina* bivalve fossils were seen had thick clay sections in the borings on the east and southeast portions of the site.



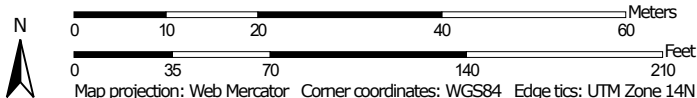
12. View of pecten bivalve seen in the Georgetown Limestone, on the west side of the site.

Soil Map—Bexar County, Texas



Soil Map may not be valid at this scale.

Map Scale: 1:822 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84



Natural Resources Conservation Service

Web Soil Survey National Cooperative Soil Survey

3/20/2023 Page 1 of 3

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bexar County, Texas

Survey Area Data: Version 26, Aug 24, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 8, 2020—Dec 14, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Cb	Crawford, stony and Bexar soils, 0 to 5 percent slopes	1.6	64.2%
TaB	Eckrant cobbly clay, 1 to 8 percent slopes	0.9	35.8%
Totals for Area of Interest		2.5	100.0%

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: Jose Villagomez, P.E.

Date: 05-21-2023

Signature of Customer/Agent: 

Jose Villagomez, P.E.

Regulated Entity Name: Shavano Garage Condos

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): 2.367

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	39530	÷ 43,560 =	0.907
Parking	29661	÷ 43,560 =	0.681
Other paved surfaces	1182	÷ 43,560 =	0.027
Total Impervious Cover	70373	÷ 43,560 =	1.615

Total Impervious Cover 1.615 ÷ Total Acreage 2.367 X 100 = 68.23% 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 = _____ Ft² ÷ 43,560 Ft²/Acre = _____ acres.

10. Length of pavement area: _____ feet.

Width of pavement area: _____ feet.

L x W = _____ Ft² ÷ 43,560 Ft²/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:

<u>100</u> % Domestic	<u>650</u> Gallons/day
<u> </u> % Industrial	<u> </u> Gallons/day
<u> </u> % Commingled	<u> </u> Gallons/day
TOTAL gallons/day <u> </u>	

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 Salado Creek (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): 48029C0230G, 09/29/2010.

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

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

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

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

The wells are not in use and have been properly abandoned.

The wells are not in use and will be properly abandoned.

The wells are in use and comply with 16 TAC §76.

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

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

All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.

No sensitive geologic or manmade features were identified in the Geologic Assessment.

Attachment D - Exception to the Required Geologic Assessment. A request and justification for an exception to a portion of the Geologic Assessment is attached.

- 22. The drainage patterns and approximate slopes anticipated after major grading activities.
- 23. Areas of soil disturbance and areas which will not be disturbed.
- 24. Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
- 25. Locations where soil stabilization practices are expected to occur.
- 26. Surface waters (including wetlands).
 - N/A
- 27. Locations where stormwater discharges to surface water or sensitive features are to occur.
 - There will be no discharges to surface water or sensitive features.
- 28. Legal boundaries of the site are shown.

Administrative Information

- 29. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
- 30. Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

ATTACHMENT A – FACTORS AFFECTING SURFACE WATER QUALITY

There are a few factors that may affect surface water quality. Petroleum products and other fluids from construction vehicles may affect surface water quality. Additionally, airborne pollutants that land on the roof of the main structure may affect surface water quality.

ATTACHMENT B – VOLUME AND CHARACTER OF STORMWATER

Quality:

The quality of the stormwater runoff will be that of a retail building with a metal roof and asphalt/concrete paving. The majority of the impervious cover is an asphalt pavement parking lot. Runoff from the rooftop will be contaminated mostly by airborne pollutants which come to rest on the roof; runoff from the parking lot will be caused by oils and other pollutants from vehicles.

Volume:

Existing Conditions:

Total Area = 2.367 ac
Impervious cover = 0.00 **ac**.

Watershed:

- $C = 0.45$
- $T_c = 7$ min.
- $i_5 = 7.11$; $Q_5 = 7.57$ CFS
- $i_{25} = 9.95$; $Q_{25} = 10.60$ CFS
- $i_{100} = 12.49$; $Q_{100} = 13.30$ CFS

Proposed Conditions:

Total Area = 2.367 ac
Impervious cover = 1.615 **ac**.

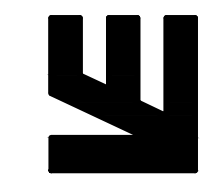
Watershed:

- $C = 0.79$
- $T_c = 5$ min.
- $i_5 = 7.88$; $Q_5 = 14.74$ CFS
- $i_{25} = 11.00$; $Q_{25} = 20.57$ CFS
- $i_{100} = 13.79$; $Q_{100} = 25.79$ CFS

REVISIONS:

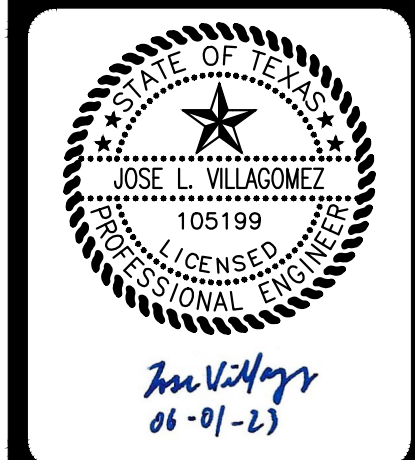
24165 IH-10W, SUITE 217-708
SAN ANTONIO TEXAS 78257
PHONE: 210-724-0816
FAX: 210-855-0222

**VILLAGOMEZ
ENGINEERING
COMPANY**

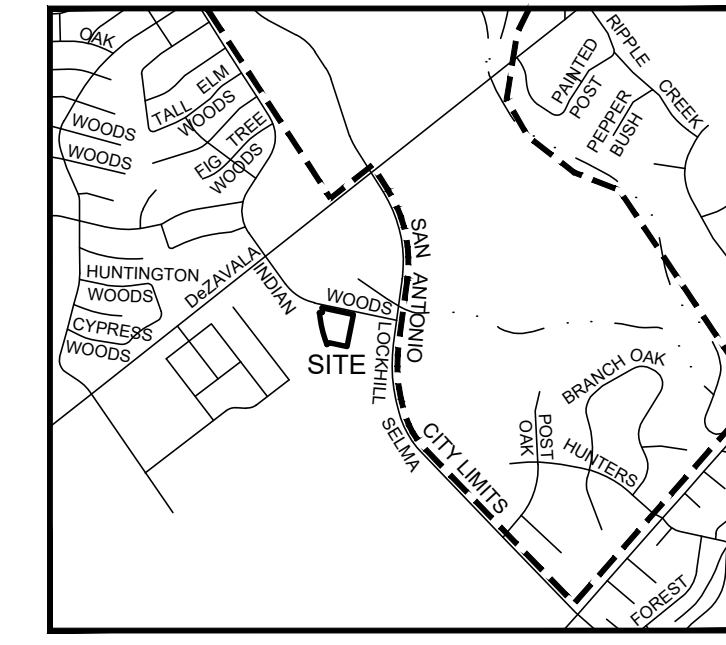


TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 13688

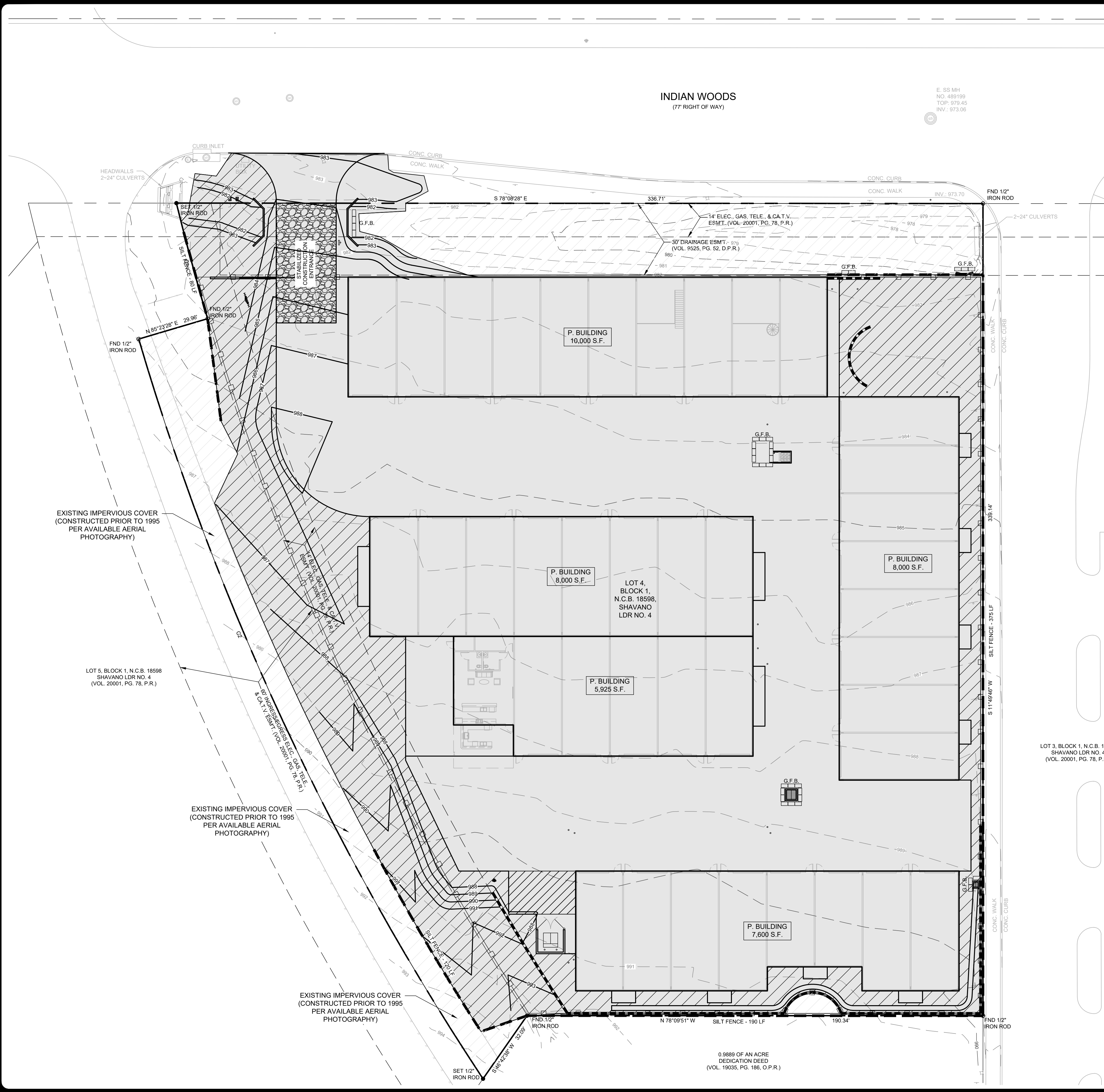
**SHAVANO GARAGE CONDOS
INDIAN WOODS
SAN ANTONIO, TEXAS
WPAP SITE PLAN**



JOB NO. 22-058
DATE 03/20/23
DESIGNER JV
DRAWN VR
SHEET C4.1

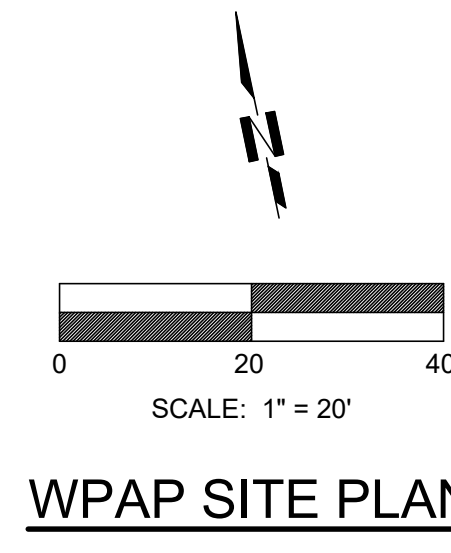


LOCATION MAP
NOT TO SCALE



LEGEND

	PROPERTY LINE
	EASEMENT LINE
	SILT FENCE
	EXISTING C.A.T.V. LINE
	EXISTING OVERHEAD ELECTRIC
	EXISTING UNDERGROUND ELECTRIC
	EXISTING FIBER LINE
	EXISTING GAS LINE
	EXISTING STORM DRAIN LINE
	EXISTING SANITARY SEWER LINE
	EXISTING UNDERGROUND TELEPHONE
	EXISTING WATER LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	EXISTING WATER METER
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING MANHOLE
	EXISTING POWER POLE
	EXISTING CLEAN OUT
	EXISTING ELEVATION
	PROPOSED ELEVATION
	TOP OF CURB ELEVATION
	GUTTER ELEVATION
	EXISTING GUTTER ELEVATION
	PROPOSED CURB
	EXISTING CURB
	PROPOSED FLOW LINE
	AREAS OF SOIL DISTURBANCE
	AREAS OF SOIL STABILIZATION
	AREAS WHICH WILL NOT BE DISTURBED



WPAP SITE PLAN

Temporary Stormwater Section

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Jose Villagomez, P.E.

Date: 05-21-2023

Signature of Customer/Agent:

Jose Villagomez, P.E.

Regulated Entity Name: Shavano Garage Condos

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: Olmos Creek

Temporary Best Management Practices (TBMPs)

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

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

- A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.
 - A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.
 - A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.
 - A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.
8. The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.
- Attachment E - Request to Temporarily Seal a Feature.** A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.
 - There will be no temporary sealing of naturally-occurring sensitive features on the site.
9. **Attachment F - Structural Practices.** A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.
10. **Attachment G - Drainage Area Map.** A drainage area map supporting the following requirements is attached:
- For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.
 - For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.
 - For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.
 - There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

- There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.
11. **Attachment H - Temporary Sediment Pond(s) Plans and Calculations.** Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.
- N/A
12. **Attachment I - Inspection and Maintenance for BMPs.** A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.
13. All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.
14. If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
15. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.
16. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

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

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

18. Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
19. Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

20. All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
21. If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.
22. Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

ATTACHMENT A – SPILL RESPONSE ACTIONS

1.4.16 Spill Prevention and Control

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

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

Education

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

General Measures

- (1) To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
- (2) Store hazardous materials and wastes in covered containers and protect from vandalism.
- (3) Place a stockpile of spill cleanup materials where it will be readily accessible.
- (4) Train employees in spill prevention and cleanup.
- (5) Designate responsible individuals to oversee and enforce control measures.
- (6) Spills should be covered and protected from stormwater runoff during rainfall to the extent that it doesn’t compromise clean up activities.
- (7) Do not bury or wash spills with water.

- (8) Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.
- (9) Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.
- (10) Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.
- (11) Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.
- (12) Keep waste storage areas clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

- (1) Clean up leaks and spills immediately.
- (2) Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.
- (3) Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

Minor Spills

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

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

Semi-Significant Spills

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

Spills should be cleaned up immediately:

- (1) Contain spread of the spill.
- (2) Notify the project foreman immediately.
- (3) If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
- (4) If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
- (5) If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

- (1) Notify the TCEQ by telephone as soon as possible and within 24 hours at 512339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
- (2) For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
- (3) Notification should first be made by telephone and followed up with a written report.
- (4) The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
- (5) Other agencies which may need to be consulted include, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

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

Vehicle and Equipment Maintenance

- (1) If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the runoff of stormwater and the runoff of spills.
- (2) Regularly inspect onsite vehicles and equipment for leaks and repair immediately
- (3) Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.
- (4) Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.
- (5) Place drip pans or absorbent materials under paving equipment when not in use.
- (6) Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.
- (7) Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.
- (8) Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.
- (9) Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

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

ATTACHMENT B – POTENTIAL SOURCES OF CONTAMINATION

Potential sources of contamination include the following:

- Oil, grease, fuel and hydraulic fluid from construction equipment and vehicles
- Construction debris
- Miscellaneous debris
- Possible discharge from portable restrooms

ATTACHMENT C – SEQUENCE OF MAJOR ACTIVITIES

The sequence of major activities is listed below:

- Implement temporary BMP's – 2 days (Week 1)
 - Silt fence (765 LF)
 - Construction Entrance/Exit (1,000 SF)
 - Gravel filter bags (5 ea.)
 - Concrete washout pit

- Construction of building and sitework – 16 weeks (Weeks 2-17)

- Site stabilization – 2 weeks (Week 18-19)

- Removal of temporary BMP's and other miscellaneous construction debris – 2 days (Week 20)

ATTACHMENT D – TEMPORARY BMP’S AND MEASURES

- Stabilized Construction Entrance/Exit
 - Timing - will be put in place at the beginning of construction, prior to any site work, will be removed at the conclusion of all site work activity
 - This BMP will prevent pollution by removing dust, rocks, and other construction debris which is carried on the construction vehicles from entering the right-of-way and potentially draining into the aquifer.

- Silt Fence
 - Timing – will be put in place at the beginning of construction, prior to any site work, will be removed at the conclusion of all site work activity
 - The silt fence will capture potentially contaminated excess sediment prior to running off site. The excess sediment will be removed periodically as described within this plan.

- Concrete Washout Pit
 - Timing – will be put in place at the beginning of construction, prior to any concrete pour, will be removed at the conclusion of all concrete work
 - The concrete washout areas will prevent or reduce the discharge of pollutants to stormwater from concrete waste by conducting washout offsite, performing onsite washout in a designated area, and training employees and subcontractors

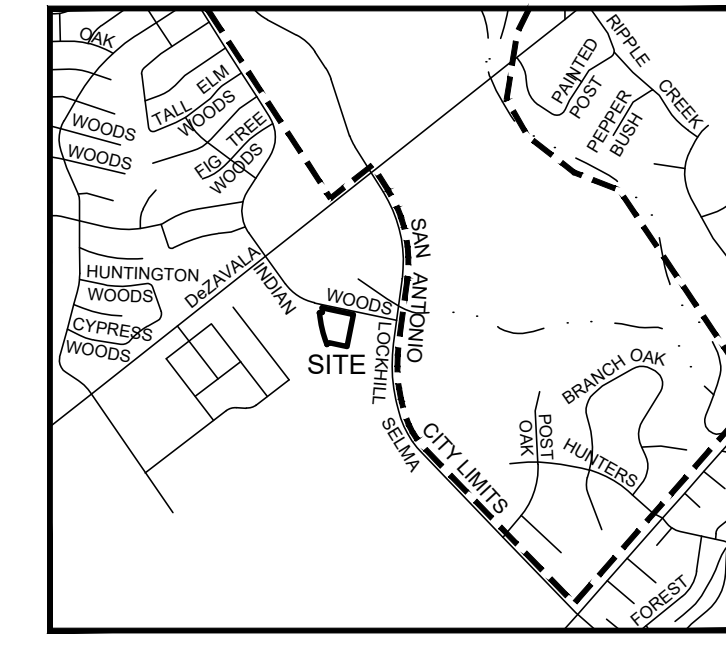
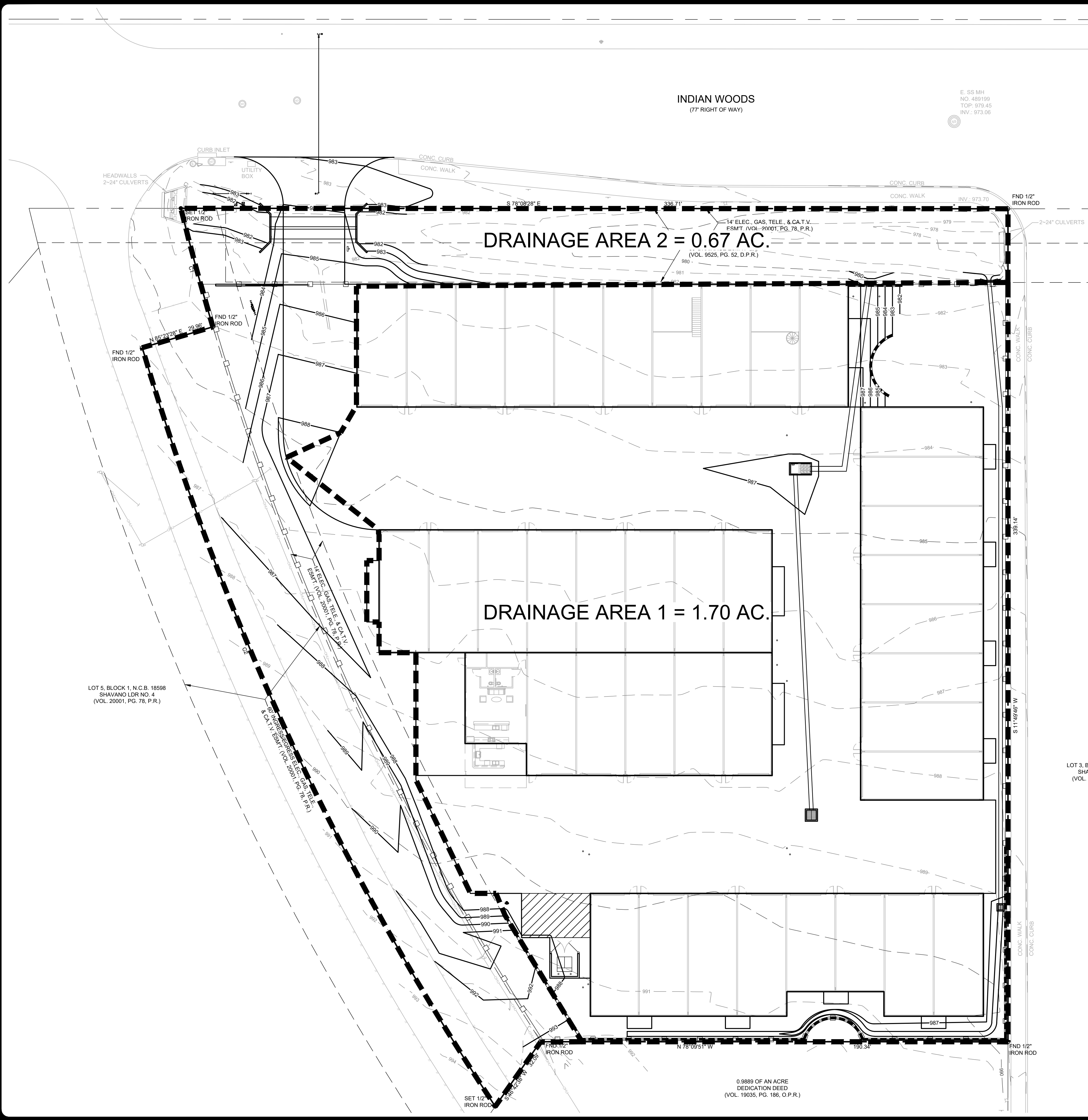
- Inlet Protection
 - Timing – will be utilized immediately after each inlet is put in place and remain until all site soil stabilization is complete.

 - Inlet protection is used to ensure silt does not enter the underground drainage system. The inlet protection will prevent clogging and silt accumulation within the system.

ATTACHMENT F – STRUCTURAL PRACTICES

The following structural practices will be installed prior to all site work:

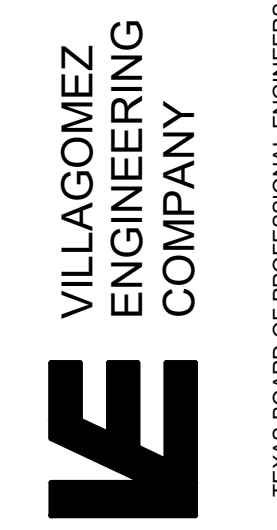
- Silt fence, which will be placed prior to all site work activity and limit runoff discharge of pollutants from exposed area of the site
- Stabilized construction entrance/exit, which will be placed prior to all site work activity and shall prevent excess sediment and debris from leaving the construction site
- Concrete washout pit will be put in place at the beginning of construction, prior to any concrete pour and will prevent or reduce the discharge of pollutants to stormwater from concrete waste by conducting washout offsite, performing onsite washout in a designated area, and training employees and subcontractors



LOCATION MAP
NOT TO SCALE

REVISIONS:

24185 IH-10W, SUITE 217-708
SAN ANTONIO, TEXAS 78257
PHONE: 210-724-0816
FAX: 210-585-4222

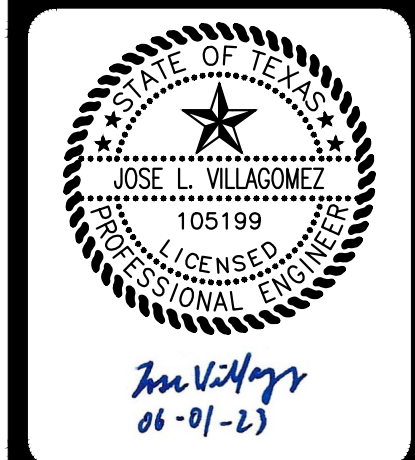


VILLAGOMEZ
ENGINEERING
COMPANY
TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 13688

SHAVANO GARAGE CONDOS
INDIAN WOODS
SAN ANTONIO, TEXAS
WPAP DRAINAGE AREA MAP

LEGEND

---	PROPERTY LINE
---	EASEMENT LINE
---	EXISTING C.A.T.V. LINE
---	EXISTING OVERHEAD ELECTRIC
---	EXISTING UNDERGROUND ELECTRIC
---	EXISTING FIBER LINE
---	EXISTING GAS LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING SANITARY SEWER LINE
---	EXISTING UNDERGROUND TELEPHONE
---	EXISTING WATER LINE
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
---	EXISTING WATER METER
---	EXISTING WATER VALVE
---	EXISTING FIRE HYDRANT
---	EXISTING MANHOLE
---	EXISTING POWER POLE
---	EXISTING CLEAN OUT
---	EXISTING ELEVATION
---	PROPOSED ELEVATION
---	TOP OF CURB ELEVATION
---	GUTTER ELEVATION
---	EXISTING GUTTER ELEVATION
---	PROPOSED CURB
---	EXISTING
---	PROPOSED
---	FLOW LINE



JOB NO. 22-058
DATE 03/20/23
DESIGNER JV
DRAWN VR
SHEET C4.2

WPAP DRAINAGE AREA MAP - ATT. G

ATTACHMENT I – INSPECTION AND MAINTENANCE FOR BMP’S

All TBMP’s shall be inspected by the contractor on a weekly basis and after all substantial rain events and maintained according to TCEQ’s Technical Guidance Manual. The contractor shall keep records of all inspections that were conducted.

Silt Fencing:

- The contractor shall inspect all silt fencing weekly and after any rainfall for sediment accumulation, torn fabric and crushed or collapsed sections throughout the duration of construction.
- Sediment shall be removed when sediment buildup reaches 6 inches.
- At the conclusion of construction, the fence shall be disposed of in an approved landfill.

Construction Entrance:

- 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.
- All sediment spilled, dropped, washed or traced onto public rights-of-way should be removed immediately by contractor.
- When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.
- 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.
- All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

Concrete Washout Pit:

- Concrete washout pit should be inspected daily and after heavy rains to check for leaks, identify any plastic linings and sidewalls have been damaged by construction activities, and determine whether they have been filled to over 75 percent capacity.
- When filled to 75 percent capacity, the washwater should be vacuumed off or allowed to evaporate to avoid overflows.
- Remaining cementitious solids should be removed and recycled.
- Prior to heavy rains, the washout containers liquid level should be lowered to prevent overflow.

Gravel Filter Bag Inlet Protection:

- Inspection should be made weekly and after each rainfall. Repair or replacement should be made promptly as needed by the contractor.

- 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.
- Check placement of device to prevent gaps between device and inlet.
- Inspect filter fabric and patch or replace if torn or missing.
- Structures should be removed and the area stabilized only after the remaining drainage area has been properly stabilized.

ATTACHMENT J – SCHEDULE OF INTERIM AND PERMANENT SOIL STABILIZATION

Stabilization measures will be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased and will be initiated no more than 14 days after the construction in that area has ceased.

At the completion of construction all disturbed areas will be permanently stabilized with sod or other permanent ground cover as directed by the Landscape Architect.

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.

Site Stabilization

Removing the vegetative cover and altering the soil structure by clearing, grading, and compacting the surface increases an area's susceptibility to erosion. Apply stabilizing measures as soon as possible after the land is disturbed (Figure 1-5). Plan and implement temporary or permanent vegetation, mulches, or other protective practices to correspond with construction activities. Protect channels from erosive forces by using protective linings and the appropriate channel design. Consider possible future repairs and maintenance of these practices in the design.

Seeding establishes a vegetative cover on disturbed areas. Seeding is very effective in controlling soil erosion once a vegetative cover of about 80% has been established. However, often seeding and fertilizing do not produce as thick a vegetative cover as do seed and mulch or netting. Newly established vegetation does not have as extensive a root system as existing vegetation and therefore is more prone to erosion, especially on steep slopes. Care should be taken when fertilizing to avoid untimely or excessive application. Since the practice of seeding and fertilizing does not provide any protection during the time of vegetative establishment, it should be used only on favorable soils in very flat areas and not in sensitive areas.

The management of land by using ground cover reduces erosion by reducing the flow rate of runoff and the raindrop impact. Bare soils should be seeded or otherwise stabilized within 14 calendar days after final grading or where construction activity has temporarily ceased for more than 21 days. In very flat, non-sensitive areas with favorable soils, stabilization may involve simply seeding and fertilizing. Mulch and/or sod may be necessary on steeper slopes, for erodible soils, and near sensitive areas. Sediment that has escaped the site due to the failure of sediment and erosion controls should be removed as soon as possible to minimize offsite impacts. Permission should be obtained from adjacent landowners prior to offsite sediment removal.

Mulching/mats can be used to protect the disturbed area while vegetation becomes established. Mulching involves applying plant residues or other suitable materials on disturbed soil surfaces. Mulches/mats used include tacked straw, wood chips, and jute netting and are often covered by blankets or netting. Mulching alone should be used only for temporary protection of the soil surface or when permanent seeding is not feasible. The useful life of mulch varies with the material used and the amount of precipitation, but is approximately 2 to 6 months.

During times of year when vegetation cannot be established, soil mulching should be applied to moderate slopes and soils that are not highly erodible. On steep slopes or highly erodible soils, multiple mulching treatments should be used. Interlocking ceramic materials, filter fabric, and netting are available for this purpose. Before stabilizing an area, it is important to have installed all sediment controls and diverted runoff away from the area to be planted. Runoff may be diverted away from denuded areas or newly planted areas using dikes, swales, or pipe slope drains to intercept runoff and convey it to a permanent channel or storm drain. Reserved topsoil may be used to revegetate a site if the stockpile has been covered and stabilized.

Consideration should be given to maintenance when designing mulching and matting schemes. Plastic nets are often used to cover the mulch or mats; however, they can foul lawn mower blades if the area requires mowing.

Sod can be used to permanently stabilize an area. Sodding provides immediate stabilization of an area and should be used in critical areas or where establishment of permanent vegetation by seeding and mulching would be difficult. Sodding is also a preferred option when there is high erosion potential during the period of vegetative establishment from seeding.

Because of the hardy drought-resistant nature of wildflowers, they may be more beneficial as an erosion control practice than turf grass. While not as dense as turfgrass, wildflower thatches and associated grasses are expected to be as effective in erosion control and contaminant absorption. Because thatches of wildflowers do not need fertilizers, pesticides, or herbicides, and the need for watering is minimal, implementation of this practice may result in cost savings. In 1987, Howard County, Maryland, spent \$690.00 per acre to maintain turfgrass areas, compared to only \$31.00 per acre for wildflower meadows. A wildflower stand requires several years to become established; however, maintenance requirements are minimal once the area is established.

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)(li), (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: Jose Villagomez, P.E.

Date: 05-21-2023

Signature of Customer/Agent

Jose Villagomez, P.E.

Regulated Entity Name: Shavano Garage Condos

Permanent Best Management Practices (BMPs)

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

- Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.
 N/A
- These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.
 The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

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

N/A

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

N/A

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

The site will be used for low density single-family residential development and has 20% or less impervious cover.

The site will be used for low density single-family residential development but has more than 20% impervious cover.

The site will not be used for low density single-family residential development.

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

Attachment A - 20% or Less Impervious Cover Waiver. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached.

The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.

The site will not be used for multi-family residential developments, schools, or small business sites.

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

- A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is attached.
 - No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.
 - Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.
7. **Attachment C - BMPs for On-site Stormwater.**
- A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is attached.
 - Permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, and an explanation is attached.
8. **Attachment D - BMPs for Surface Streams.** A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is attached. Each feature identified in the Geologic Assessment as sensitive has been addressed.
- N/A
9. The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.
- The permanent sealing of or diversion of flow from a naturally-occurring sensitive feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed.
 - Attachment E - Request to Seal Features.** A request to seal a naturally-occurring sensitive feature, that includes, for each feature, a justification as to why no reasonable and practicable alternative exists, is attached.
10. **Attachment F - Construction Plans.** All construction plans and design calculations for the proposed permanent BMP(s) and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. The plans are attached and, if applicable include:
- Design calculations (TSS removal calculations)
 - TCEQ construction notes
 - All geologic features
 - All proposed structural BMP(s) plans and specifications
- N/A

11. **Attachment G - Inspection, Maintenance, Repair and Retrofit Plan.** A plan for the inspection, maintenance, repairs, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan includes all of the following:
- Prepared and certified by the engineer designing the permanent BMPs and measures
 - Signed by the owner or responsible party
 - Procedures for documenting inspections, maintenance, repairs, and, if necessary retrofit
 - A discussion of record keeping procedures
- N/A
12. **Attachment H - Pilot-Scale Field Testing Plan.** Pilot studies for BMPs that are not recognized by the Executive Director require prior approval from the TCEQ. A plan for pilot-scale field testing is attached.
- N/A
13. **Attachment I -Measures for Minimizing Surface Stream Contamination.** A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is attached. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity, which increase erosion that results in water quality degradation.
- N/A

Responsibility for Maintenance of Permanent BMP(s)

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

14. The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.
- N/A
15. A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.
- N/A

ATTACHMENT B – BMP'S FOR UPGRADIENT STORMWATER

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. All upgradient stormwater is captured and treated by the neighboring property. The off-site flow will be captured and piped through the site to the natural low of the site at Sandstone.

ATTACHMENT C – BMP’S FOR ON-SITE STORMWATER

The BMP’s used to treat the developed impervious cover is the Jellyfish filter system by Contech.

Jellyfish:

The Jellyfish Filter is a stormwater quality treatment technology featuring high surface area, high flow rate membrane filtration, at low driving head. By incorporating pretreatment with light-weight membrane filtration, the Jellyfish Filter removes a high level and a wide variety of stormwater pollutants. The high surface area membrane cartridges, combined with up flow hydraulics, frequent backwashing, and rinseable/reusable cartridges ensures long-lasting performance.

Stormwater enters the Jellyfish through the inlet pipe or inlet grate, builds driving head, and traps floating pollutants behind the maintenance access wall and below the cartridge deck. Water is pushed down below the cartridge deck where a separation skirt around the cartridges directs oil, trash and debris outside the filtration zone, allowing sand-sized particles to settle in the sump. Water is directed to the filtration zone and up through the top of the cartridge into the backwash pool. Once the water has filled the backwash pool, clean water overflows the weir and exits via the outlet pipe. The membrane filters provide a very large surface area to effectively remove fine sand and silt-sized particles, and a high percentage of particulate-bound pollutants such as nitrogen, phosphorus, metals, and hydrocarbons while ensuring long-lasting treatment. After every storm peak, the filtered water in the backwash pool flows back through the hi-flo membrane cartridges into the lower chamber. This passive backwash extends cartridge life, keeping the membrane clean for future events. The draindown cartridge located outside the backwash pool enables water levels to balance.

ATTACHMENT D – BMP’S FOR SURFACE STREAMS

A Jellyfish Filter will be constructed and planted to prevent pollutants from entering surface streams, sensitive features, or the aquifer. However, no naturally occurring sensitive features have been found on the site. The Jellyfish filter system have been designed and will be constructed to ensure that pollutants removed prior to leaving the site.

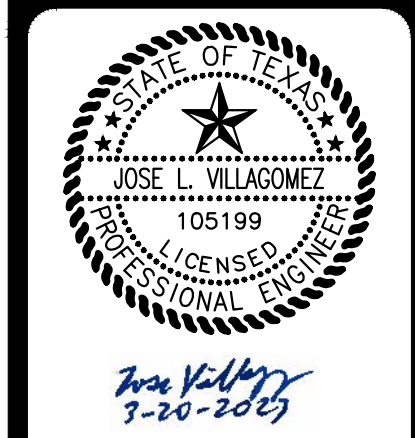
REVISIONS:

24165 IH-10W, SUITE 217-708
 SAN ANTONIO TEXAS 78257
 PHONE: 210-724-9816
 FAX: 210-555-0222

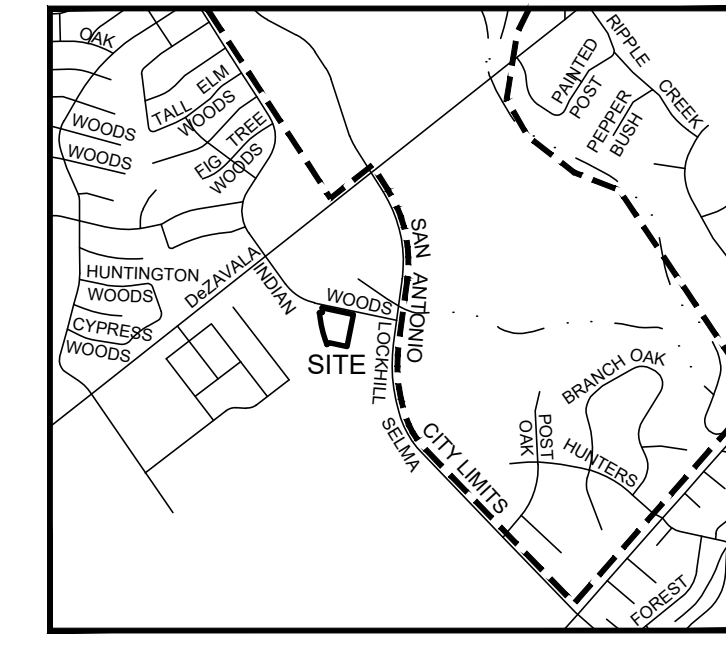


TEXAS BOARD OF PROFESSIONAL ENGINEERS FIRM REGISTRATION # 13989

SHAVANO GARAGE CONDOS
 INDIAN WOODS
 SAN ANTONIO, TEXAS
 GRADING PLAN



JOB NO. 22-058
 DATE 03/20/23
 DESIGNER JV
 DRAWN VR
 SHEET C4



LOCATION MAP
 NOT TO SCALE

GRADING NOTES:

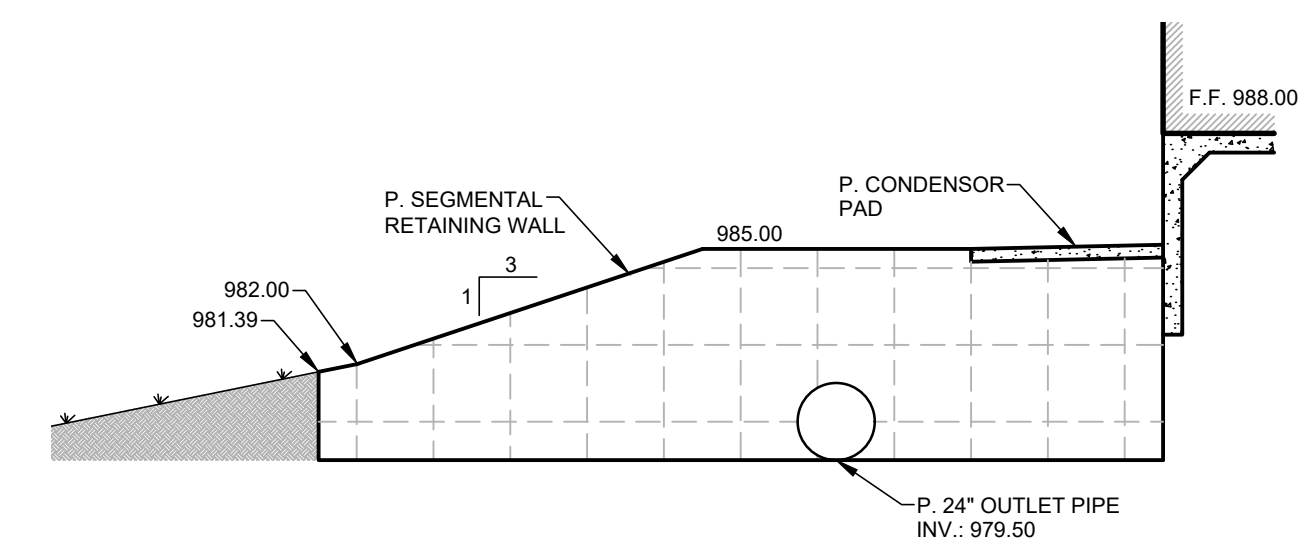
1. MAXIMUM GRADE AT SIDEWALK RAMPS IS 8.33% WITH A CROSS SLOPE OF 2.0% OR LESS AND SHALL COMPLY WITH ADA.
2. ACCESSIBLE PATH SHALL HAVE A RUNNING SLOPE OF NO GREATER THAN 5.0% WITH A CROSS SLOPE OF 2.0% OR LESS.
3. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT WHERE NOT SPECIFICALLY COVERED IN THE CONSTRUCTION DOCUMENTS SHALL CONFORM TO ALL APPLICABLE CODES AND REGULATIONS, INCLUDING, BUT NOT LIMITED TO THE CITY OF SAN ANTONIO AND BEXAR COUNTY. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL CONDITION ANY DAMAGE DONE TO EXISTING IMPROVEMENTS OR UTILITIES.
4. EARTHWORK FOR THE BUILDING FOUNDATION, CONCRETE SLABS AND CONCRETE AND ASPHALT PAVEMENT SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
5. ADJUST PAVEMENT, CURB ELEVATIONS AND/OR SIDEWALK ELEVATIONS AS NECESSARY TO ENSURE A CONTINUOUS GRADE WITH EXISTING ELEVATIONS.
6. EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN AT ONE FOOT (1').
7. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATIONS SHALL RECEIVE FOUR (4) INCHES OF TOPSOIL.

UTILITY LOCATE NOTES:

THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR TO CONTACT THE TELEPHONE COMPANY CABLE LOCATOR 48 HOURS PRIOR TO EXCAVATION AT 1-800-545-6005. CONTRACTOR HAS THE RESPONSIBILITY TO PROTECT AND SUPPORT TELEPHONE COMPANY PLANT DURING CONSTRUCTION.

DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181 GAS COMPANIES MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA. THE CONTRACTOR SHALL NOTIFY THE GAS COMPANY LOCATOR AT 1-800-545-6005, 48 HOURS BEFORE BEGINNING ANY EXCAVATION.

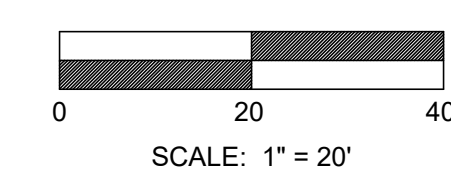
CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/ GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO DEVELOP THE CONTRACTOR'S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



SECTION A-A
 SCALE: 1" = 5'

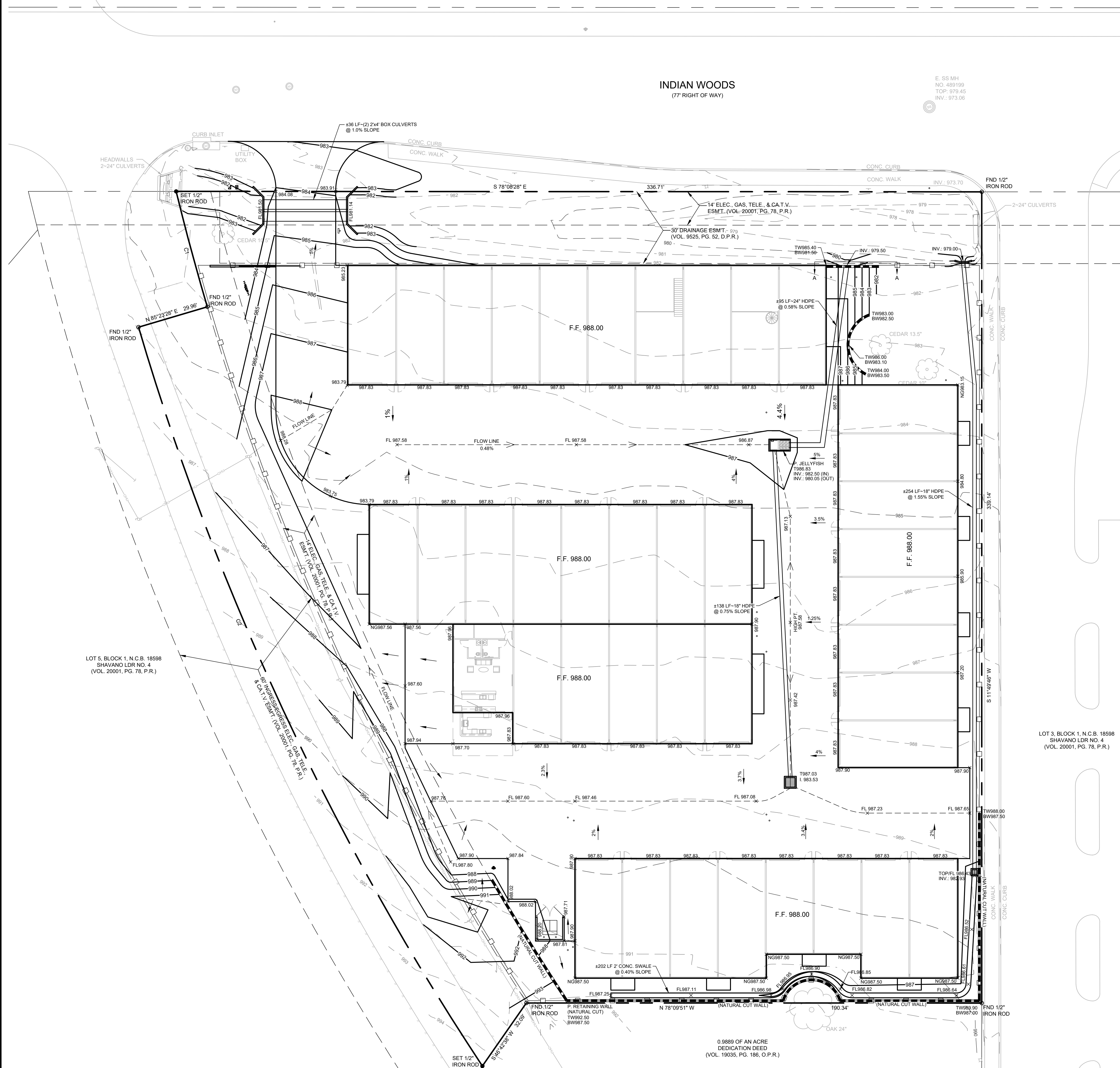
LEGEND

---	CATV	EXISTING C.A.T.V. LINE
---	OHU	EXISTING OVERHEAD ELECTRIC
---	UGE	EXISTING UNDERGROUND ELECTRIC
---	FIBER	EXISTING FIBER LINE
---	G	EXISTING GAS LINE
---	SD	EXISTING STORM DRAIN LINE
---	SS	EXISTING SANITARY SEWER LINE
---	UGT	EXISTING UNDERGROUND TELEPHONE
---	W	EXISTING WATER LINE
---	600	EXISTING CONTOUR
---	603	PROPOSED CONTOUR
---	608	EXISTING WATER METER
---	609	EXISTING WATER VALVE
---	610	EXISTING FIRE HYDRANT
---	SS	EXISTING MANHOLE
---	CP	EXISTING POWER POLE
---	CO	EXISTING CLEAN OUT
---	600.00	EXISTING ELEVATION
---	23.22	PROPOSED ELEVATION
---	T 38.75	TOP OF CURB ELEVATION
---	G 38.25	GUTTER ELEVATION
---	(G 38.25)	EXISTING GUTTER ELEVATION
---	P. CURB	PROPOSED CURB
---	E.	EXISTING
---	P.	PROPOSED
---	E	EXISTING
---		PROPOSED CONCRETE FLATWORK
---		PROPOSED CONCRETE PAVEMENT



SCALE: 1" = 20'

GRADING PLAN



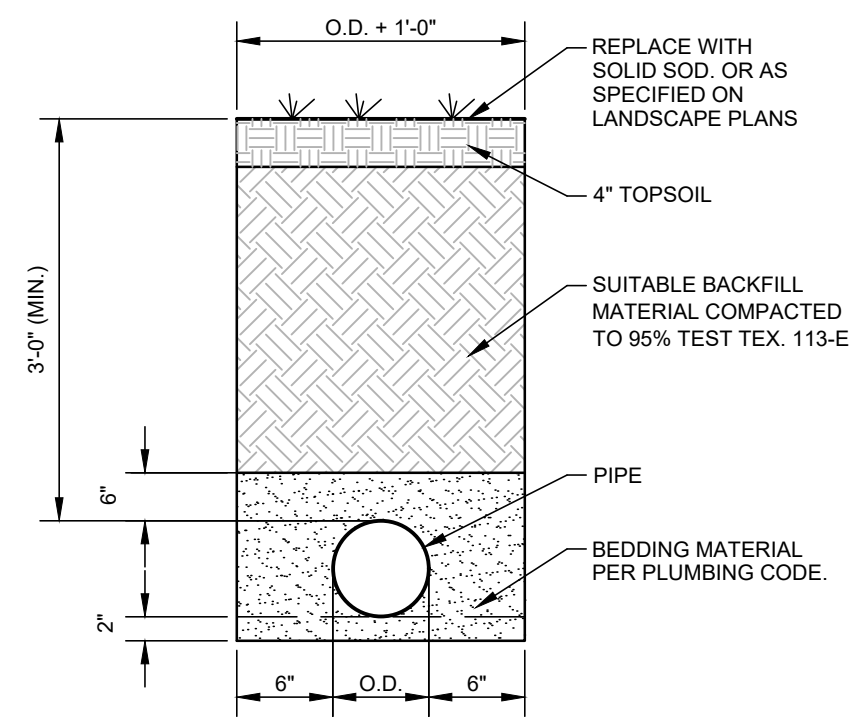
0.9889 OF AN ACRE
 DEDICATION DEED
 (VOL. 19035, PG. 186, O.P.R.)

LOT 5, BLOCK 1, N.C.B. 18598
 SHAVANO LDR NO. 4
 (VOL. 20001, PG. 78, P.R.)

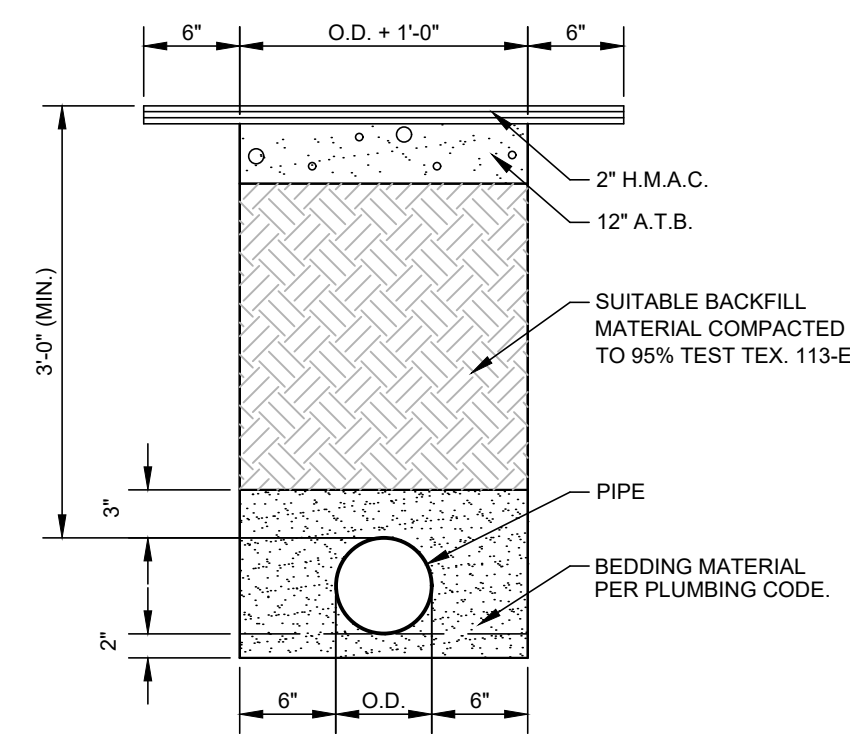
LOT 3, BLOCK 1, N.C.B. 18598
 SHAVANO LDR NO. 4
 (VOL. 20001, PG. 78, P.R.)

INDIAN WOODS
 (77' RIGHT OF WAY)

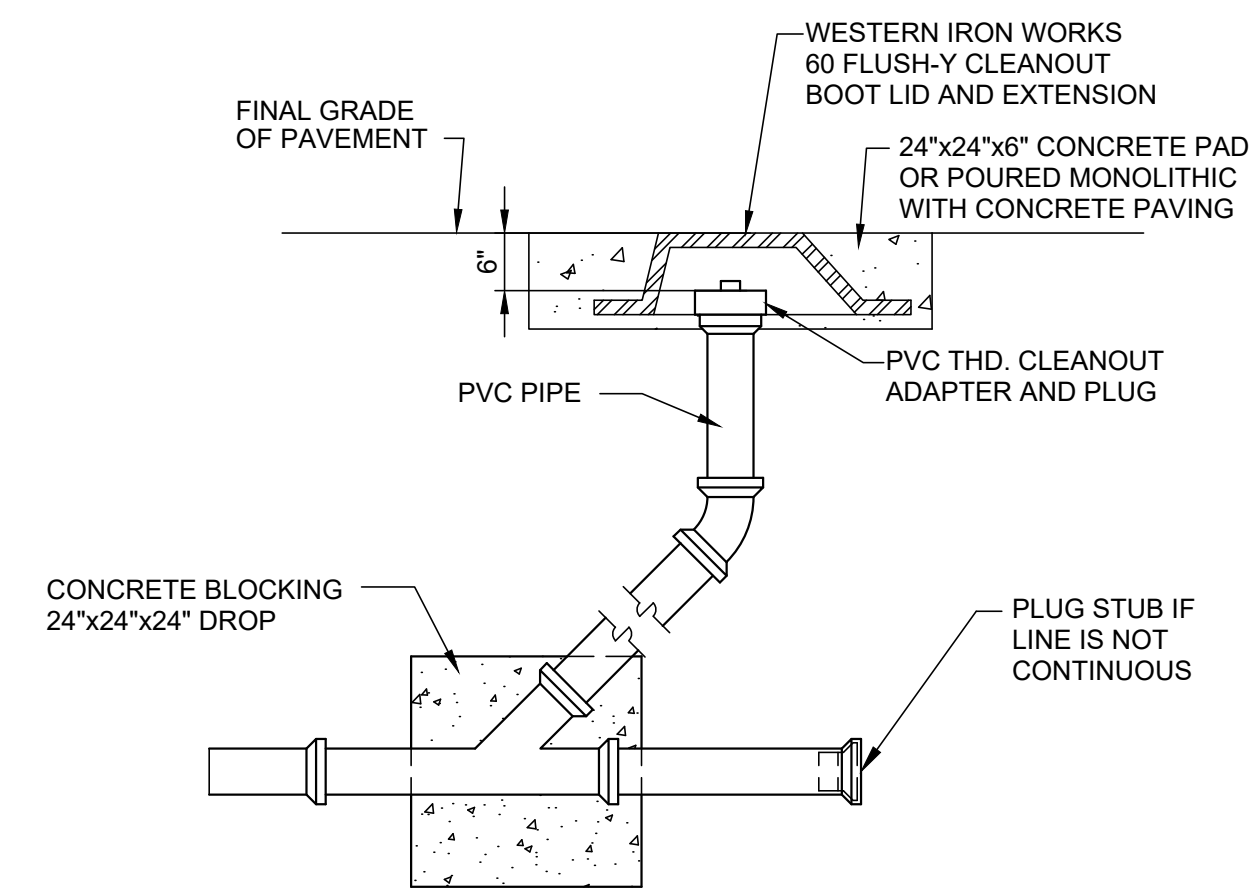
E. 53 MH
 NO. 489199
 TOP: 979.45
 INV.: 973.06



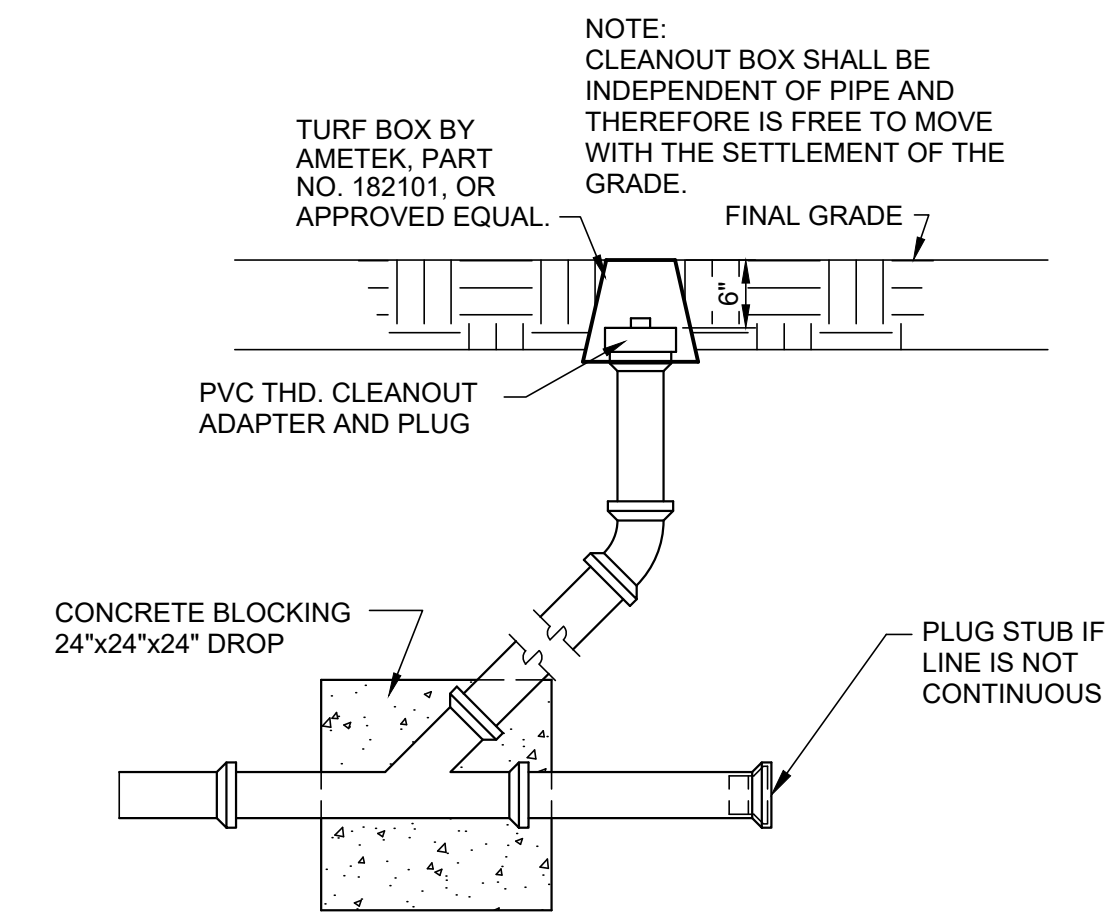
1
C9 PIPE TRENCH IN NATURAL GROUND
NOT TO SCALE



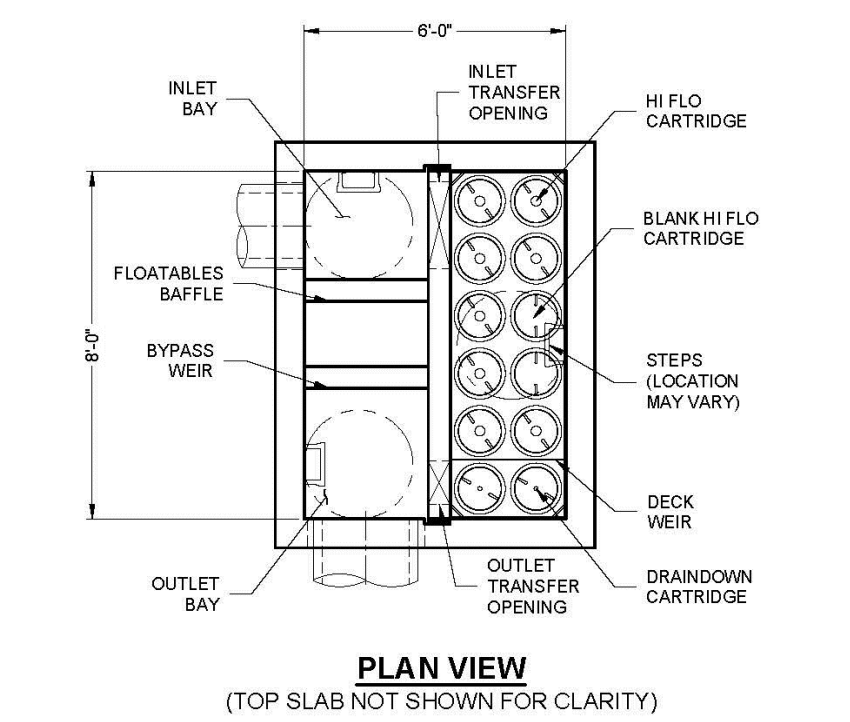
2
C9 PIPE TRENCH IN PAVEMENT
NOT TO SCALE



3
C9 CLEANOUT IN HARDSCAPE AREA
NOT TO SCALE



3
C9 CLEANOUT IN NATURAL GROUND
NOT TO SCALE

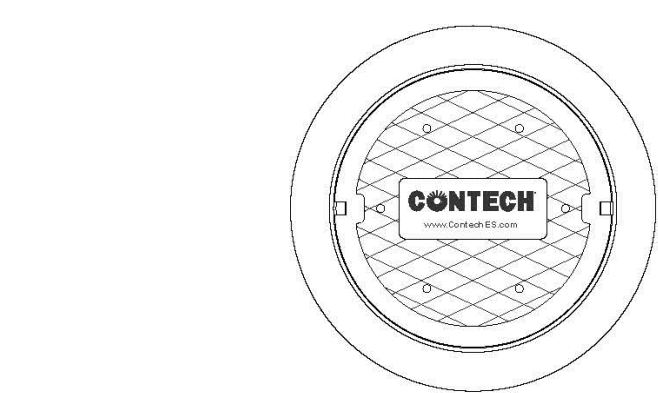


PLAN VIEW
(TOP SLAB NOT SHOWN FOR CLARITY)

JELLYFISH DESIGN NOTES

JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD PEAK DIVERSION STYLE WITH PRECAST TOP SLAB IS SHOWN. ALTERNATE OFFLINE VAULT AND/OR SHALLOW ORIENTATIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD.

CARTRIDGE LENGTH	54"
OUTLET INVERT TO STRUCTURE INVERT (ft)	6.5"
FLOW RATE (GPD) (DRAINDOWN (CFS) PER CART)	0.178 / 0.089
MAX TREATMENT (CFS)	1.98
DECK TO INSIDE TOP (MIN) (ft)	5.00



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	WQU #1
WATER QUALITY FLOW RATE (cfs)	1.59
PEAK FLOW RATE (cfs)	15.88
RETURN PERIOD OF PEAK FLOW (yrs)	25
# OF CARTRIDGES REQUIRED (HF / DD)	8 / 2
CARTRIDGE LENGTH	54"

PIPE DATA	IE	MATL	DA	SLOPE %	HOL
INLET #1	080.20	HDPE	18"	-	-
INLET #2	-	-	-	-	-
OUTLET	080.05	HDPE	24"	-	-

SEE GENERAL NOTES 8-7 FOR INLET AND OUTLET HYDRAULIC AND SIZING REQUIREMENTS.

RIM ELEVATION	986.83'
ANTI-FLOTATION BALLAST	WIDTH HEIGHT

NOTES/SPECIAL REQUIREMENTS:
* PER ENGINEER OF RECORD

- GENERAL NOTES**
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 - FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.conteches.com
 - JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
 - STRUCTURE SHALL MEET AASHTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT, ASSUMING EARTH COVER OF 0', 10', AND GROUNDWATER ELEVATION AT OR BELOW THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CARTRIDGE SHALL MEET AASHTO MINOR LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
 - STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-867, ASTM C-918, AND AASHTO LOAD FACTOR DESIGN METHOD.
 - OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
 - THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS RECOMMENDED TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE AT EQUAL OR GREATER SLOPE.
 - NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.
- INSTALLATION NOTES**
- ANY SUB-BASE BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.
 - CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT).
 - CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION.

RIM ELEV. = 986.83'

TOP OF STRUCTURE ELEV. = 985.72'

WEIR ELEV. = 981.55'

INLET INV. ELEV. = 982.50'

OUTLET INV. ELEV. = 980.05'

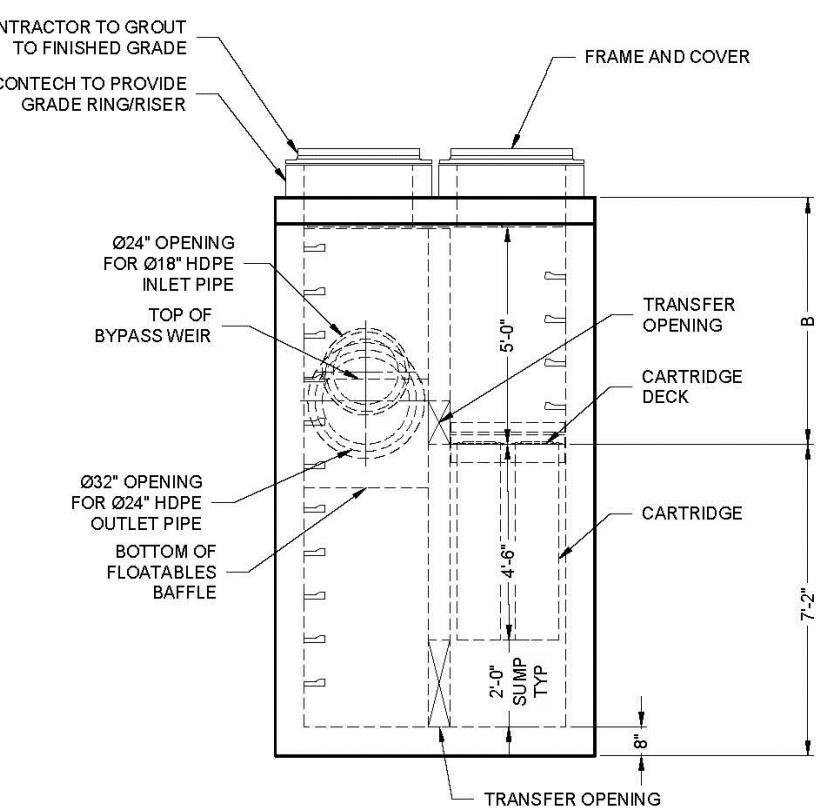
STRUCTURE INV. ELEV. = 973.55'

BOTTOM OF STRUCTURE ELEV. = 972.88'

Jellyfish Filter

CONTECH ENGINEERED SOLUTIONS LLC
www.conteches.com
9025 Centre Pointe Dr., Suite 400, Woodbridge, OH 45099
900.235.1122 514.445.1100 614.445.1283 FAX

8' x 6' JELLYFISH - 746016-010
SHAVANO GARAGE CONDOS
SAN ANTONIO, TX
SITE DESIGNATION: WQU #1



ELEVATION VIEW

4
C9

JELLYFISH STANDARD DETAIL
NOT TO SCALE

4
C9

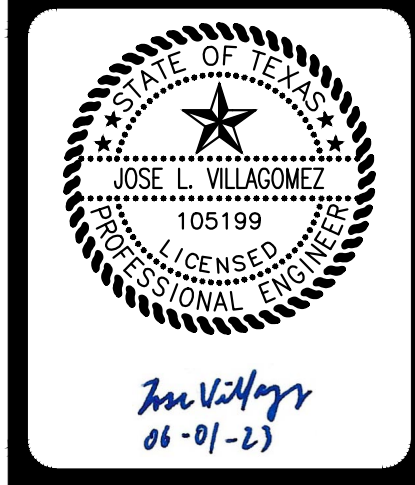
REVISIONS:

24165 IH-10W, SUITE 217-708
SAN ANTONIO TEXAS 78257
PHONE: 210-724-0816
FAX: 210-485-0222

VILLAGOMEZ
ENGINEERING
COMPANY

TEXAS BOARD OF PROFESSIONAL ENGINEERS FIRM REGISTRATION # 13689

SHAVANO GARAGE CONDOS
INDIAN WOODS
SAN ANTONIO, TEXAS
CIVIL DETAILS



JOB NO. 22-058
DATE 03/20/23
DESIGNER JV
DRAWN VR
SHEET C9

**Texas Commission on Environmental Quality
Water Pollution Abatement Plan
General Construction Notes**

Edwards Aquifer Protection Program Construction Notes – Legal Disclaimer

The following listed "construction notes" are intended to be advisory in nature only and do not constitute an approval or conditional approval by the Executive Director (ED), nor do they constitute a comprehensive listing of rules or conditions to be followed during construction. Further actions may be required to achieve compliance with TCEQ regulations found in Title 30, Texas Administrative Code (TAC), Chapters 213 and 217, as well as local ordinances and regulations providing for the protection of water quality. Additionally, nothing contained in the following listed "construction notes" restricts the powers of the ED, the commission or any other governmental entity to prevent, correct, or curtail activities that result or may result in pollution of the Edwards Aquifer or hydrologically connected surface waters. The holder of any Edwards Aquifer Protection Plan containing "construction notes" is still responsible for compliance with Title 30, TAC, Chapters 213 or any other applicable TCEQ regulation, as well as all conditions of an Edwards Aquifer Protection Plan through all phases of plan implementation. Failure to comply with any condition of the ED's approval, whether or not in contradiction of any "construction notes," is a violation of TCEQ regulations and any violation is subject to administrative rules, orders, and penalties as provided under Title 30, TAC § 213.10 (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. The following listed "construction notes" in no way represent an approved exception by the ED to any part of Title 30 TAC, Chapters 213 and 217, or any other TCEQ applicable regulation.

1. A written notice of construction must be submitted to the TCEQ regional office at least 48 hours prior to the start of any regulated activities. This notice must include:
 - the name of the approved project;
 - the activity start date; and
 - the contact information of the prime contractor.
2. All contractors conducting regulated activities associated with this project must be provided with complete copies of the approved Water Pollution Abatement Plan (WPAP) and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors are required to keep on-site copies of the approved plan and approval letter.
3. If any sensitive feature(s) (caves, solution cavity, sink hole, etc.) is discovered during construction, all regulated activities near the sensitive feature must be suspended immediately. The appropriate TCEQ regional office must be immediately notified of any sensitive features encountered during construction. Construction activities may not be resumed until the TCEQ has reviewed and approved the appropriate protective measures in order to protect any sensitive feature and the Edwards Aquifer from potentially adverse impacts to water quality.
4. No temporary or permanent hazardous substance storage tank shall be installed within 150 feet of a water supply source, distribution system, well, or sensitive feature.
5. Prior to beginning any construction activity, all temporary erosion and sedimentation (E&S) control measures must be properly installed and maintained in accordance with the approved plans and manufacturers specifications. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. These controls must remain in place until the disturbed areas have been permanently stabilized.
6. Any sediment that escapes the construction site must be collected and properly disposed of before the next rain event to ensure it is not washed into surface streams, sensitive features, etc.
7. Sediment must be removed from the sediment traps or sedimentation basins not later than

when it occupies 50% of the basin's design capacity.

8. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from being discharged offsite.
9. All spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.
10. If portions of the site will have a temporary or permanent cease in construction activity lasting longer than 14 days, soil stabilization in those areas shall be initiated as soon as possible prior to the 14th day of inactivity. If activity will resume prior to the 21st day, stabilization measures are not required. If drought conditions or inclement weather prevent action by the 14th day, stabilization measures shall be initiated as soon as possible.
11. The following records shall be maintained and made available to the TCEQ upon request:
 - the dates when major grading activities occur;
 - the dates when construction activities temporarily or permanently cease on a portion of the site; and
 - the dates when stabilization measures are initiated.
12. The holder of any approved Edward Aquifer protection plan must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following:
 - A. any physical or operational modification of any water pollution abatement structure(s), including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
 - B. any change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;
 - C. any development of land previously identified as undeveloped in the original water pollution abatement plan.

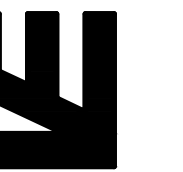
Austin Regional Office 12100 Park 35 Circle, Building A Austin, Texas 78753-1808 Phone (512) 339-2929 Fax (512) 339-3795	San Antonio Regional Office 14250 Judson Road San Antonio, Texas 78233-4480 Phone (210) 490-3096 Fax (210) 545-4329
--	---

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.

REVISIONS:

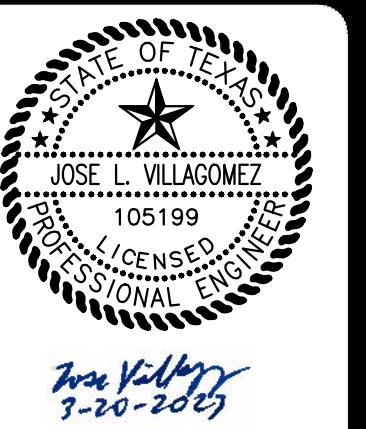
24165 IH-10W, SUITE 217-708
SAN ANTONIO TEXAS 78257
PHONE: 210-724-0816
FAX: 210-585-0222

**VILLAGOMEZ
ENGINEERING
COMPANY**



TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 13689

**SHAVANO GARAGE CONDOS
INDIAN WOODS
SAN ANTONIO, TEXAS
WPAP NOTES**



JOB NO. 22-058
DATE 03/20/23
DESIGNER JV
DRAWN VR
SHEET C10

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

Project Name: **Shavano Garage Condos**
Date Prepared: **5/24/2023**

1. The Required Load Reduction for the total project:

Calculations from RG-348 Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$
Pages 3-27 to 3-30

$L_{M\ TOTAL\ PROJECT}$ = 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 * = **2.37** acres
Predevelopment impervious area within the limits of the plan * = **0.07** acres
Total post-development impervious area within the limits of the plan* = **1.62** acres
Total post-development impervious cover fraction * = **0.68**
P = **30** inches
 $L_{M\ TOTAL\ PROJECT}$ = **1265** lbs.

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. = **1**

Total drainage basin/outfall area = **1.52** acres
Predevelopment impervious area within drainage basin/outfall area = **0.00** acres
Post-development impervious area within drainage basin/outfall area = **1.52** acres
Post-development impervious fraction within drainage basin/outfall area = **1.00**
 $L_{M\ THIS\ BASIN}$ = **1240** lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **JF** abbreviation
Removal efficiency = **86** percent

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

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

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

A_C = **1.52** acres
 A_I = **1.52** acres
 A_P = **0.00** acres
 L_R = **1357** lbs.

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

Desired $L_{M\ THIS\ BASIN}$ = **1265** lbs.
F = **0.93**

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

Offsite area draining to BMP = **0.00** acres
Offsite impervious cover draining to BMP = **0.00** acres

Calculations from RG-348
Pages Section 3.2.22

Rainfall Intensity = **1.35** inches per hour
Effective Area = **1.37** acres
Cartridge Length = **54** inches

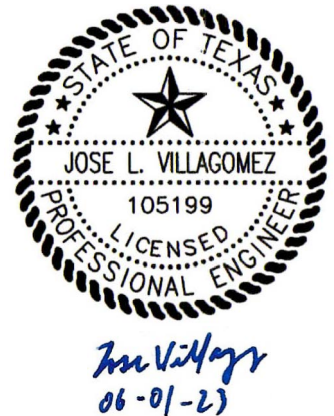
Peak Treatment Flow Required = **1.86** cubic feet per second

7. Jellyfish

Designed as Required in RG-348
Section 3.2.22

Flow Through Jellyfish Size

Jellyfish Size for Flow-Based Configuration = **JFPD0806-10-2**
Jellyfish Treatment Flow Rate = **1.96** cfs



ATTACHMENT G - INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

JELLYFISH

Inspection and Maintenance Overview

The primary purpose of the Jellyfish Filter is to capture and remove pollutants from stormwater runoff. As with any filtration system, captured pollutants must be removed to maintain the filter's maximum treatment performance.

Regular inspection and maintenance are required to insure proper functioning of the system.

Maintenance frequencies and requirements are site specific and vary depending on pollutant loading. Maintenance activities may be required in the event of an upstream chemical spill or due to excessive sediment loading from site erosion or extreme runoff events. It is a good practice to inspect the system after major storm events.

Inspection activities are typically conducted from surface observations and include:

- Observe if standing water is present
- Observe if there is any physical damage to the deck or cartridge lids
- Observe the amount of debris in the Maintenance Access Wall (MAW)

Maintenance activities typically include:

- Removal of oil, floatable trash and debris
- Removal of collected sediments from manhole sump
- Rinsing and re-installing the filter cartridges
- Replace filter cartridge tentacles, as needed.

It is recommended that Jellyfish Filter inspection and maintenance be performed by professionally trained individuals, with experience in stormwater maintenance and disposal services. Maintenance procedures may require manned entry into the Jellyfish structure. Only professional maintenance service providers trained in confined space entry procedures should enter the vessel. Procedures, safety and damage prevention precautions, and other information, included in these guidelines, should be reviewed and observed prior to all inspection and maintenance activities.

Inspection

Timing

Inspection of the Jellyfish Filter is key in determining the maintenance requirements for, and to develop a history of the site's pollutant loading characteristics. In general, inspections should be performed at the times indicated below; *or per the approved project stormwater quality documents (if applicable), whichever is more frequent.*

- Post-construction inspection is required prior to putting the Jellyfish Filter into service. All construction debris or construction-related sediment within the device must be removed, and any damage to system components repaired.
- A minimum of two inspections during the first year of operation to assess the sediment and floatable pollutant accumulation, and to ensure proper functioning of the system.
- Inspection frequency in subsequent years is based on the inspection and maintenance plan developed in the first year of operation. Minimum frequency should be once per year.
- Inspection is recommended after each major storm event.
- Immediately after an upstream oil, fuel or other chemical spill.

Inspection Tools and Equipment

The following equipment and tools are typically required when performing a Jellyfish Filter inspection:

- Access cover lifting tool
- Sediment probe (clear hollow tube with check valve)
- Tape measure
- Flashlight
- Camera
- Inspection and maintenance log documentation
- Safety cones and caution tape
- Hard hat, safety shoes, safety glasses, and chemical-resistant gloves

Inspection Procedure

The following procedure is recommended when performing inspections:

- Provide traffic control measures as necessary.
- Inspect the MAW for floatable pollutants such as trash, debris, and oil sheen.
- Measure oil and sediment depth by lowering a sediment probe through the MAW opening until contact is made with the floor of the structure. Retrieve the probe, record sediment depth, and presences of any oil layers and repeat in multiple locations within the MAW opening. **Sediment depth of 12 inches or greater indicates maintenance is required.**
- Inspect cartridge lids. Missing or damaged cartridge lids to be replaced.
- Inspect the MAW, cartridge deck, and backwash pool weir for cracks or broken components. If damaged, repair is required.
- **Dry weather inspections:** inspect the cartridge deck for standing water.
 - No standing water under normal operating condition.
 - Standing water **inside** the backwash pool, but not outside the backwash pool, this condition indicates that the filter cartridges need to be rinsed.
 - Standing water **outside** the backwash pool may indicate a backwater condition caused by high water elevation in the receiving water body, or possibly a blockage in downstream infrastructure.
- **Wet weather inspections:** observe the rate and movement of water in the unit. Note the depth of water above deck elevation within the MAW.
- **Less than 6 inches**, flow should be exiting the cartridge lids of each of the draindown cartridges (i.e.
- **Greater than 6 inches**, flow should be exiting the cartridge lids of each of the draindown cartridges and each of the hi-flo cartridges (i.e. cartridges located inside the backwash pool), and water should be overflowing the backwash pool weir.
- **18 inches or greater** and relatively little flow is exiting the cartridge lids and outlet pipe, this condition

Maintenance

Maintenance Requirements

Required maintenance for Jellyfish Filter units is based upon results of the most recent inspection, historical maintenance records, or the site specific water quality management plan; whichever is more frequent. In general, maintenance requires some combination of the following:

- **Sediment removal for depths reaching 12 inches or greater, or within 3 years of the most recent sediment cleaning, whichever occurs sooner.**
- Floatable trash, debris, and oil must be removed.
- Filter cartridges rinsed and re-installed as required by the most recent inspection results, or within 12 months of the most recent filter rinsing, whichever occurs first.
- Replace filter cartridge if rinsing does not remove accumulated sediment from the tentacles, or if tentacles are damaged or missing. It is recommended that tentacles should remain in service no longer than 5 years before replacement.
- Damaged or missing cartridge deck components must be repaired or replaced as indicated by results of the most recent inspection.
- The unit must be cleaned out and filter cartridges inspected immediately after an upstream oil, fuel, or chemical spill. Filter cartridge tentacles should be replaced if damaged by the spill.

Maintenance Tools and Equipment

The following equipment and tools are typically required when performing Jellyfish Filter maintenance:

- Vacuum truck
- Ladder
- Garden hose and low pressure sprayer
- Rope or cord to lift filter cartridges from the cartridge deck to the surface
- Adjustable pliers for removing filter cartridge tentacles from cartridge head plate
- Plastic tub or garbage can for collecting effluent from rinsed filter cartridge tentacles
- Access cover lifting tool
- Sediment probe (clear hollow tube with check valve)
- Tape measure
- Flashlight
- Camera
- Inspection and maintenance log documentation
- Safety cones and caution tape
- Hard hats, safety shoes, safety glasses, chemical-resistant gloves, and hearing protection for service providers
- Proper safety equipment for confined space entry
- Replacement filter cartridge tentacles if required

Maintenance Procedure

The following procedures are recommended when maintaining the Jellyfish Filter:

- Provide traffic control measures as necessary.

- Open all covers and hatches. Use ventilation equipment as required, according to confined space entry procedures.
- **Caution:** Dropping objects onto the cartridge deck may cause damage.
- Perform **Inspection Procedure** prior to maintenance activity.
- To access the cartridge deck for filter cartridge service, descend the ladder and step directly onto the deck. **Caution:** Do not step onto the maintenance access wall (MAW) or backwash pool weir, as damage may result. Note that the cartridge deck may be slippery.

Filter Cartridge Rinsing Procedure

- Remove a cartridge lid.
- Remove the cartridge from the receptacle using the lifting loops in the cartridge head plate. **Caution:** Should a snag occur, do not force the cartridge upward as damage to the tentacles may result. Rotate the cartridge with a slight sideways motion to clear the snag and continue removing the cartridge.
- Thread a rope or cord through the lifting loops and lift the filter cartridge from the cartridge deck to the top surface outside the structure.
- **Caution:** Immediately replace and secure the lid on the exposed empty receptacle as a safety precaution. Never expose more than one empty cartridge receptacle.
- Repeat the filter cartridge removal procedure until all of the cartridges are located at the top surface outside the structure.
- Disassemble the tentacles from each filter cartridge by rotating counter-clockwise. Remove the tentacles from the cartridge head plate.

Position a receptacle in a plastic tub or garbage can such that the rinse water is captured. Using a low-pressure garden hose sprayer, direct a wide-angle water spray at a downward 45° angle onto the tentacle membrane, sweeping from top to bottom along the length of the tentacle. Rinse until all sediment is removed from the membrane. **Caution:** Do not use a high pressure sprayer or focused stream of water on the membrane. Excessive water pressure may damage the membrane. Turn membrane upside down and pour out any residual rinsewater to ensure center of tentacle is clear of any sediment.

Remove rinse water from rinse tub or garbage can using a vacuum hose as needed.

- Slip the o-ring over the tentacle nipple and reassemble onto the cartridge head plate; hand tighten.
- If rinsing is ineffective in removing sediment from the tentacles, or if tentacles are damaged, provisions must be made to replace the spent or damaged tentacles with new tentacles. Contact Contech to order replacement tentacles.
- Lower a rinsed filter cartridge to the cartridge deck. Remove the cartridge lid on a receptacle and carefully lower the filter cartridge into the receptacle until the head plate gasket is seated squarely on the lip of the receptacle. **Caution:** Should a snag occur when lowering the cartridge into the receptacle, do not force the cartridge downward; damage may occur. Rotate the cartridge with a slight sideways motion to clear the snag and complete the installation.
- Replace the cartridge lid on the exposed receptacle. Rinse away any accumulated grit from the receptacle threads if needed to get a proper fit. **Align the cartridge lid male threads with the cartridge receptacle female threads. Firmly twist the cartridge lid clockwise a minimum 110° to seat the filter cartridge snugly in place, with a proper watertight seal.**
- Repeat cartridge installation until all cartridges are installed.

Vacuum Cleaning Procedure

- **Caution:** Perform vacuum cleaning of the Jellyfish Filter only after filter cartridges have been removed from the system. Access the lower chamber for vacuum cleaning **only through the maintenance access wall (MAW) opening**, being careful not to damage the flexible plastic separator skirt that is attached to the underside of the deck. The separator skirt surrounds the filter cartridge zone, and could be torn if contacted by the wand. **Do not lower the vacuum wand through a cartridge receptacle**, as damage to the receptacle will result.
 - To remove floatable trash, debris, and oil, lower the vacuum hose into the MAW opening and vacuum floatable pollutants off the surface of the water. Alternatively, floatable solids may be removed by a net or skimmer.
 - Using a vacuum hose, remove the water from the lower chamber to the sanitary sewer, if permitted by the local regulating authority, or into a separate containment tank.
 - Remove the sediment from the bottom of the unit through the MAW opening.
 - For larger diameter Jellyfish Filter manholes (8-ft, 10-ft, 12-ft diameter), complete sediment removal may be facilitated by removing a cartridge lid from an empty receptacle and inserting a jetting wand (not a vacuum wand) through the receptacle. Use the sprayer to rinse loosened sediment toward the vacuum hose in the MAW opening, being careful not to damage the receptacle.
 - After the unit is clean, re-fill the lower chamber with water if required by the local jurisdiction, and re-install filter cartridges.
 - Dispose of sediment, floatable trash and debris, oil, spent tentacles, and water according to local regulatory requirements.

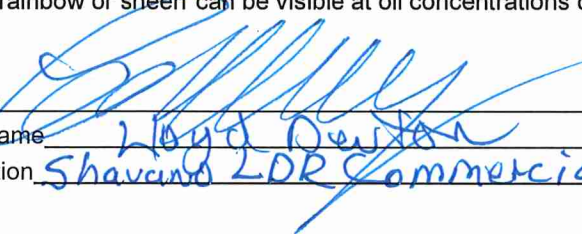
Disposal Procedures

Disposal requirements for recovered pollutants and spent filtration tentacles may vary depending on local guidelines. In most areas the sediment and spent filtration tentacles, once dewatered, can be disposed of in a sanitary landfill. It is not anticipated that the sediment would be classified as hazardous waste.

Petroleum-based pollutants captured by the Jellyfish Filter, such as oil and fuels, should be removed and disposed of by a licensed waste management company.

Although the Jellyfish Filter captures virtually all free oil, a sheen may still be present at the MAW. A rainbow or sheen can be visible at oil concentrations of less than 10 mg/L (ppm).

Signature



Date

05.17.23

Printed Name

Lloyd Denton

Organization

Shavano LDR Commercial

ATTACHMENT I – MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION

No surface streams exist on site. During the construction phase temporary BMP's will be used to prevent pollution from leaving the site. All discharge from the site has been designed to adhere to maximum velocity limits to prevent erosion. All disturbed areas will be re-vegetated at the completion of the project.

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

I Lloyd A Denton Jr.,
Print Name

Owner
Title - Owner/President/Other

of Shavano/LDR No. 4 Commercial Partnership Ltd.,
Corporation/Partnership/Entity Name

have authorized Jose Villagomez, P.E.
Print Name of Agent/Engineer

of Villagomez Engineering Company
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:

[Handwritten Signature]
Applicant's Signature

04.21.23
Date

THE STATE OF Texas §
County of Bexar §

BEFORE ME, the undersigned authority, on this day personally appeared Hoyd A. Denton 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 21 day of April, 2023



[Handwritten Signature]
NOTARY PUBLIC
DAVID A. WRIGHT
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 3/27/2025

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Shavano Garage Condos

Regulated Entity Location: 13951 Indian Woods

Name of Customer: Shavano/LDR No. 4 Commercial Partnership, Ltd.

Contact Person: Daryl Lange

Phone: 210-379-3402

Customer Reference Number (if issued):CN _____

Regulated Entity Reference Number (if issued):RN _____

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

San Antonio Regional Office

Mailed to: TCEQ - Cashier

Overnight Delivery to: TCEQ - Cashier

Revenues Section

12100 Park 35 Circle

Mail Code 214

Building A, 3rd Floor

P.O. Box 13088

Austin, TX 78753

Austin, TX 78711-3088

(512)239-0357

Site Location (Check All That Apply):

Recharge Zone

Contributing Zone

Transition Zone

<i>Type of Plan</i>	<i>Size</i>	<i>Fee Due</i>
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	2.367 Acres	\$ 4000
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: Jose Villagomez, P.E.

Date: 05-21-2023

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

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

Organized Sewage Collection Systems and Modifications

<i>Project</i>	<i>Cost per Linear Foot</i>	<i>Minimum Fee- Maximum Fee</i>
Sewage Collection Systems	\$0.50	\$650 - \$6,500

Underground and Aboveground Storage Tank System Facility Plans and Modifications

<i>Project</i>	<i>Cost per Tank or Piping System</i>	<i>Minimum Fee- Maximum Fee</i>
Underground and Aboveground Storage Tank Facility	\$650	\$650 - \$6,500

Exception Requests

<i>Project</i>	<i>Fee</i>
Exception Request	\$500

Extension of Time Requests

<i>Project</i>	<i>Fee</i>
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.)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)	<input type="checkbox"/> 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)	4/28/2023	
<input checked="" type="checkbox"/> New Customer <input type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership <input type="checkbox"/> 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:	
Shavano/LDR No. 4 Commercial Partnership, Ltd			
7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
800145475	32035834749	208471271	
11. Type of Customer:	<input type="checkbox"/> Corporation	<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Other	<input type="checkbox"/> Sole Proprietorship	<input type="checkbox"/> Other:	
12. Number of Employees		13. Independently Owned and Operated?	
<input checked="" type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following			
<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Owner & Operator <input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> Voluntary Cleanup Applicant <input type="checkbox"/> Other:			
15. Mailing Address:	11 Lynn Batts Ln, Suite 100		
	City	San Antonio	State TX ZIP 78218 ZIP + 4 3077
16. Country Mailing Information (if outside USA)		17. E-Mail Address (if applicable)	
		daryl@bitterblue.com	
18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)	
(210) 379-3402		() -	

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)
<input checked="" type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> 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.)
Shavano Garage Condos

23. Street Address of the Regulated Entity: <i>(No PO Boxes)</i>	11 Lynn Batts, Suite 100							
	City	SanAntonio	State	TX	ZIP	78211	ZIP + 4	3077
24. County	Bexar							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	13951 Indian Woods								
26. Nearest City	San Antonio				State	Tx		Nearest ZIP Code	78230
27. Latitude (N) In Decimal:	29.572875			28. Longitude (W) In Decimal:	-98.56580556				
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds				
29	34	22.35	98	33	56.90				
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)				
752			812930						
33. What is the Primary Business of this entity? <i>(Do not repeat the SIC or NAICS description.)</i>									
garage condominium									
34. Mailing Address:	1115 S. Alamo. St., Unit 2409								
	City	San Antonio	State	TX	ZIP	78210	ZIP + 4	1734	
35. E-Mail Address:	sushil@ddandbconstruction.com								
36. Telephone Number	37. Extension or Code			38. Fax Number <i>(if applicable)</i>					
(240) 576-9581				() -					

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.

<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name:	Jose Villagomez, P.E.	41. Title:	President
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(210) 724-0816		() -	

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:	Villagomez Engineering Company	Job Title:	Civil Engineer
Name <i>(In Print)</i> :	Jose Villagomez, P.E.	Phone:	(210) 724- 0816
Signature:	<i>Jose Villagomez, P.E.</i>	Date:	05-21-2023