FADGC LLC Water Pollution Abatement Plan

Table of Contents

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: FADGC LLC						**2. Regulated Entity No.: 111603759**			
3. Customer Name: Gregory Lambert						**4. Customer No.: 6060779**			
5. Project Type: **(Please circle/check one)**	(New)		Modification			Extension		Exception	
6. Plan Type: **(Please circle/check one)**	(WPAP)	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		(Non-residential)			**8. Site (acres):**			25.0
9. Application Fee:	$4,000		**10. Permanent BMP(s):**					Request waiver for small business with less than 20% IC	
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**					N/A	
13. County:	Hays		**14. Watershed:**					Sink Creek – San Marcos 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.)	_1_	___	___
Region (1 req.)	_1_	___	___
County(ies)	_1_	___	___
Groundwater Conservation District(s)	_1_Edwards Aquifer Authority ___Barton Springs/ Edwards Aquifer ___Hays Trinity ___Plum Creek	___Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda ___Dripping Springs ___Kyle ___Mountain City _1_San Marcos ETJ ___Wimberley ___Woodcreek	___Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	___Austin ___Cedar Park ___Florence ___Georgetown ___Jerrell ___Leander ___Liberty Hill ___Pflugerville ___Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	___	___	___	___	___
Region (1 req.)	___	___	___	___	___
County(ies)	___	___	___	___	___
Groundwater Conservation District(s)	___ Edwards Aquifer Authority ___Trinity-Glen Rose	___Edwards Aquifer Authority	___Kinney	___EAA ___Medina	___EAA ___Uvalde
City(ies) Jurisdiction	___Castle Hills ___Fair Oaks Ranch ___Helotes ___Hill Country Village ___Hollywood Park ___San Antonio (SAWS) ___Shavano Park	___Bulverde ___Fair Oaks Ranch ___Garden Ridge ___New Braunfels ___Schertz	NA	___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. Edward R. Newby, P.G. (agent)
Print Name of Customer/Authorized Agent  9/13/2023 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: Edward R. Newby, P.G. (agent)

Date: 9/14/2023

Signature of Customer/Agent:

Project Information

1. Regulated Entity Name: FADGC LLC
2. County: Hays
3. Stream Basin: Sink Creek - San Marcos River
4. Groundwater Conservation District (If applicable): Edwards Aquifer Authority
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

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

7. Customer (Applicant):

   Contact Person: Michael Lambert
   Entity: FADGC LLC
   Mailing Address: 3115 Hilliard Road
   City, State: San Marcos, TX Zip: 78666
   Telephone: 936-443-9554 FAX: _____
   Email Address: mrl1180@gmail.com

8. Agent/Representative (If any):

   Contact Person: E. Ray Newby
   Entity: self employed
   Mailing Address: 1000 High Road
   City, State: San Marcos, TX Zip: 78666
   Telephone: 512-644-1732 FAX: _____
   Email Address: raynewby66@yahoo.com

9. Project Location:

   ☐ The project site is located inside the city limits of _____.
   ☒ The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of San Marcos, TX.
   ☐ 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.

    The Flying Armadillo Disc Golf Club is located at 3115 Hilliard Road on a 25-acre parcel of property (Hays Co. Central Appraisal Dist. quick reference i.d. R108207) in Hays County within the extra-territorial jurisdiction of the city of San Marcos, Tx. The site is 5 miles (6.5 miles by road) north-northwest of downtown San Marcos, Tx. The geographic coordinates for the entrance to the site are 29 deg. 57' 07.41"N, 97 deg. 57' 55.26"W.

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: 10/1/23

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.

from San Marcos, Texas 78666
to 3115 Hilliard Rd, San Marcos, TX 78666

11 min (6.1 miles)

via Lime Kiln Rd and Hilliard Rd

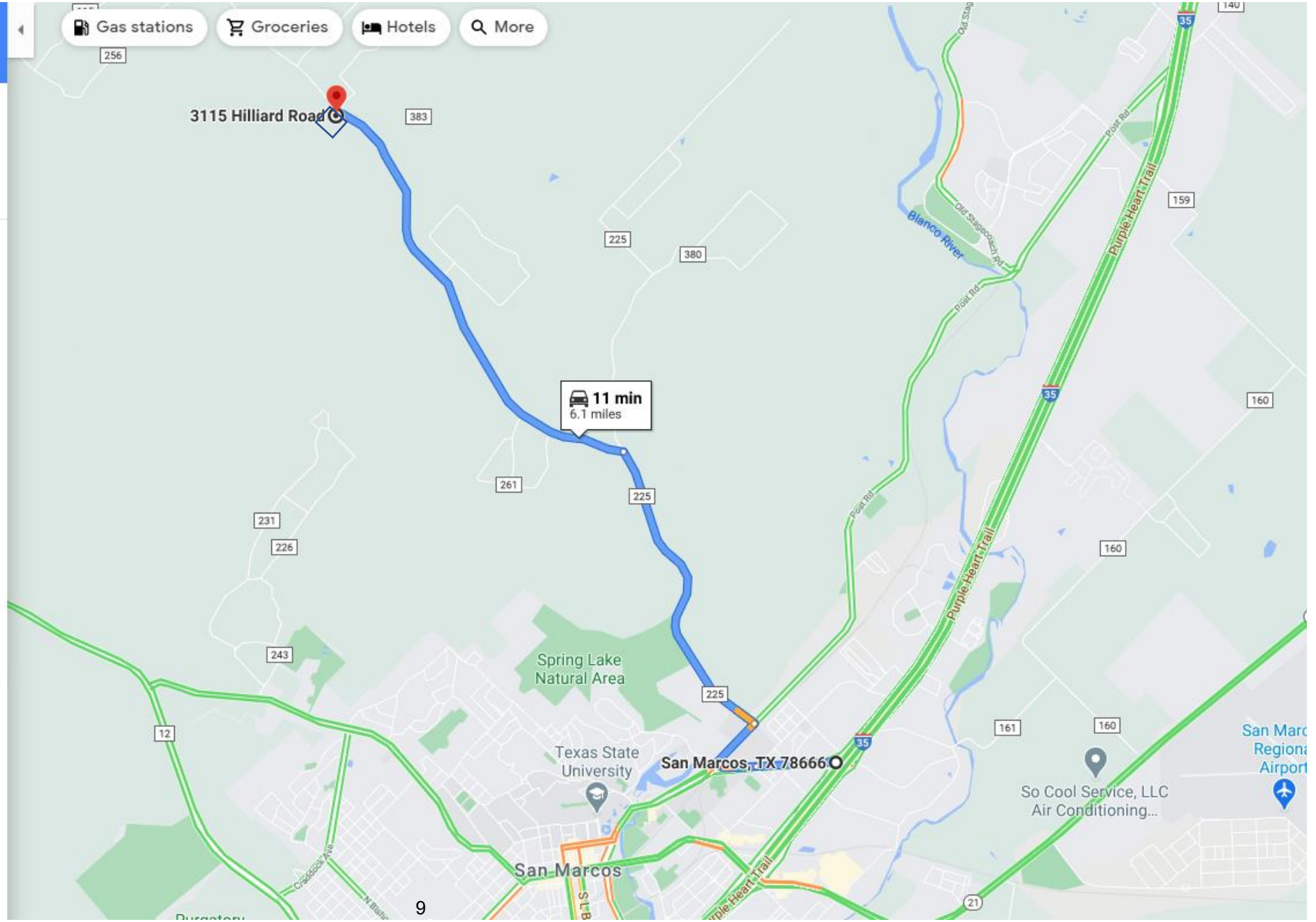
Fastest route

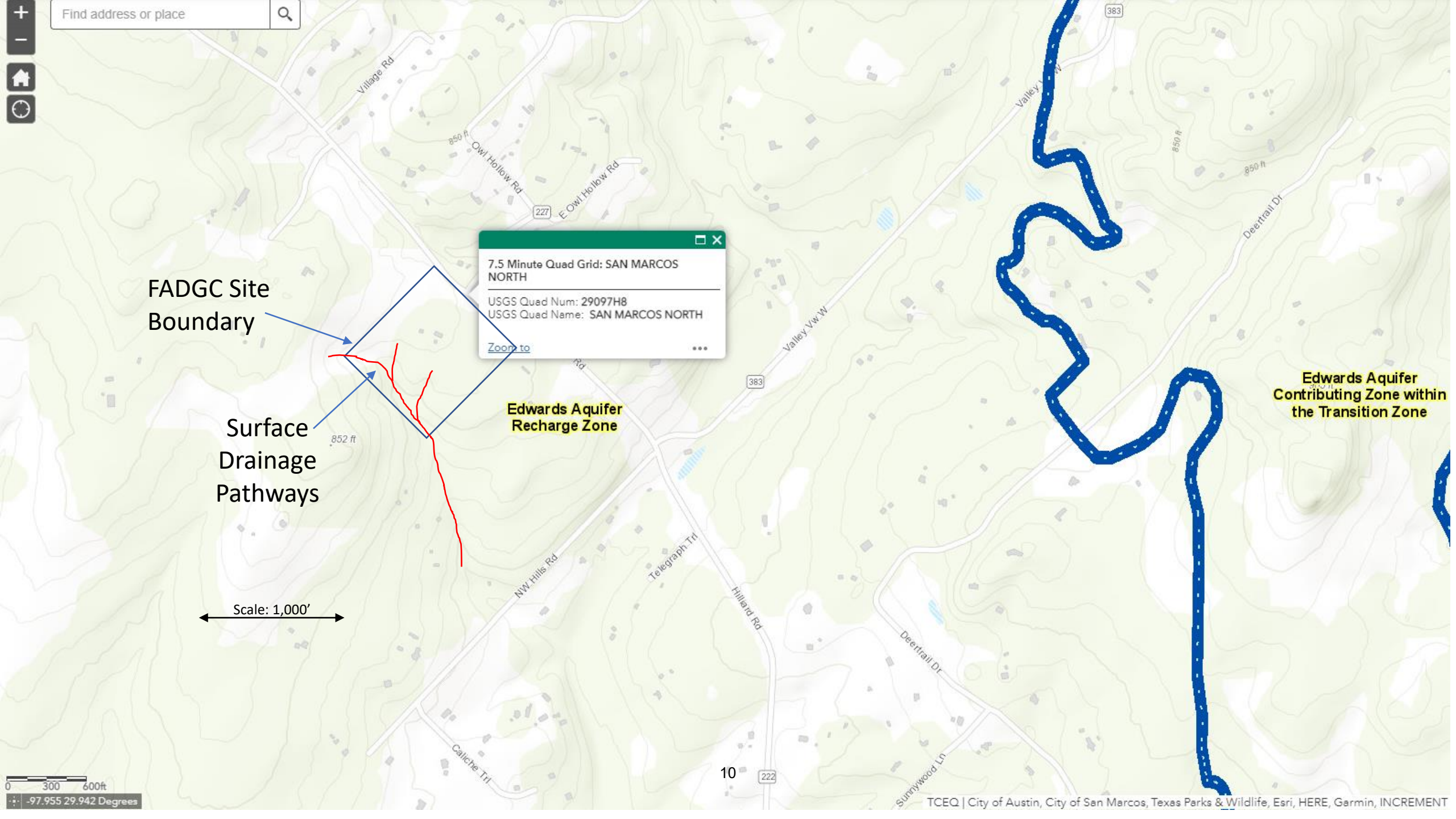
San Marcos
Texas 78666

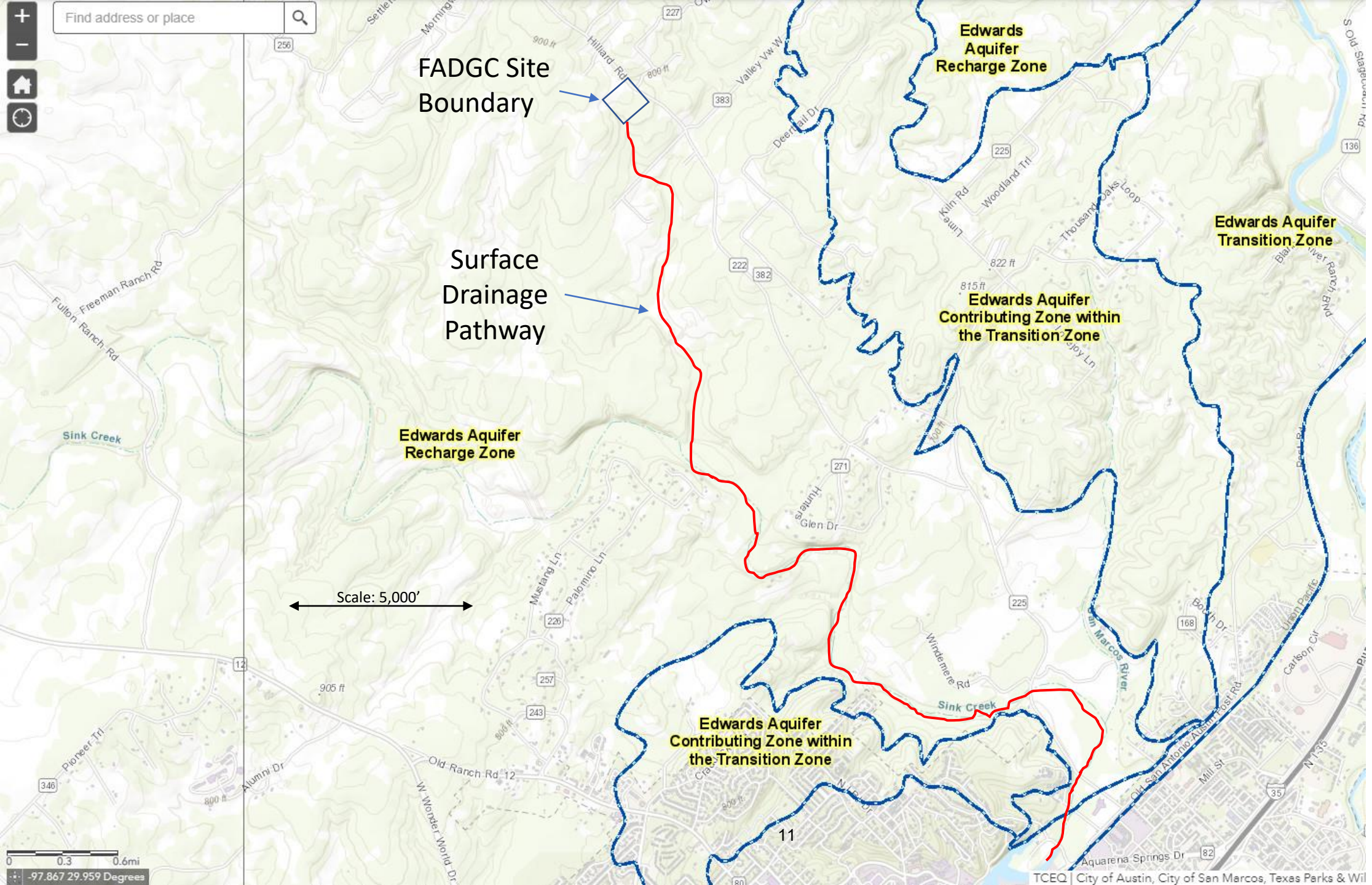
- Head west on Aquarena Springs Dr
  0.5 mi
- Use the right lane to continue on Bobcat Dr
  0.3 mi
- Turn right onto Post Rd
  0.3 mi
- Turn left onto Lime Kiln Rd
  2.0 mi
- Turn left onto Hilliard Rd
  3.0 mi

3115 Hilliard Rd
San Marcos, TX 78666

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.




Find address or place
Village Rd
Owl Hollow Rd
E Owl Hollow Rd
227
850 ft
7.5 Minute Quad Grid: SAN MARCOS NORTH
USGS Quad Num: 29097H8
USGS Quad Name: SAN MARCOS NORTH
Zoom to
FADGC Site Boundary
Surface Drainage Pathways
852 ft
Edwards Aquifer Recharge Zone
Valley Vw W
383
Deertrail Dr
Edwards Aquifer Contributing Zone within the Transition Zone
NW Hills Rd
Telegraph Trl
Hilliard Rd
Deertrail Dr
Sunnywood Ln
Caliche Trl
222
Scale: 1,000’
0 300 600ft
-97.955 29.942 Degrees
TCEQ | City of Austin, City of San Marcos, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT


FADGC Site Boundary
Surface Drainage Pathway
Edwards Aquifer Recharge Zone
Edwards Aquifer Transition Zone
Edwards Aquifer Contributing Zone within the Transition Zone
Edwards Aquifer Recharge Zone
Edwards Aquifer Contributing Zone within the Transition Zone
Scale: 5,000'
Sink Creek
Sink Creek
Find address or place
TCEQ | City of Austin, City of San Marcos, Texas Parks & Wil

FADGC LLC, GENERAL INFORMATION FORM

ATTACHMENT C – PROJECT DESCRIPTION

The Flying Armadillo Disc Golf Club is located at 3115 Hilliard Road on a 25-acre parcel of property (Hays Co. Central Appraisal Dist. quick reference i.d. R108207) in Hays County within the extra-territorial jurisdiction of the city of San Marcos, Tx. Geographic coordinates for the entrance to the site are 29° 57' 07.41"N, 97° 57' 55.26" W. The site is 5 miles (6.5 miles by road) north-northwest of downtown San Marcos, Tx.

The surrounding area is composed of rural residential parcels ranging in size from approximately 2 to 25 acres. The subject property is bordered on the northeast by Hilliard Road, on the northwest by a 25-ac. parcel, on the southwest by another 25-ac parcel, on the southeast by a 19-ac. parcel, and on the east by a 20-ac. parcel.

The site is a commercial recreational facility consisting of two disc golf courses and has been operating as such for approximately 7 years. Future plans are to continue as a disc golf facility.

Based on interviews with a local surveyor and the property owner, previous use of the site included cattle ranching and recreational hunting. There is apparent evidence of previous mechanical vegetation clearing based upon numerous examples of older ashe-juniper trees toppled over, but continuing to grow upwards and surrounded by thick brush.

The existing improvements include multiple structures associated with a single-family residence and the disc golf club business, concrete tee pads, gravel driveways and parking lot, and unimproved dirt roads. Proposed construction includes a 200 square foot (SF) restroom facility with associated on-site sewage facility (aerobic septic treatment system and drain field), a 5,000-gallon tank for public haul water supply, and a 144 SF public water supply pump room. The existing and proposed improvements on the property listed below totals 56,609 SF or 1.30 ac. (5.20 %) of impervious cover:

Impervious Surface Description	**Square Feet**
Existing Improvements:	
Residence near NW corner of lot	2,250
Garden Shed near Residence	450
Pro Shop & Porch near center of lot	1,793
Observation Tower 30' S of Pro Shop	706
Maintenance Bldg. 80' W of Pro Shop	1,250
Picnic Canopy 90 ‘ S of Pro Shop	320
Well House 150' N of Pro Shop	36
Water Tank 85' N of Pro Shop	50
Concrete Pond near E Property Line	64
Wooden Stage	260
29 Concrete Tee Pads	2,084
Short Course #8 Tee Platform	113
Gravel Parking Lot and Driveways	27,669
Gravel Residential Driveway	3,491
Service Drive (693' x 9')	6,237

East Service Drive (280’ x9’)	2,520
Proposed Improvements:	
Proposed Restroom Bldg.	200
OSSF Septic Tank	32
Public Water Supply Pump Bldg.	144
Public Water Supply Tank	79
29 Concrete Tee Pads	1305
Total Impervious Cover (IC)	**56,609**
Lot Size (25 ac. X 43560'/ac)	1,089,000
Percent IC	**5.20%**

Due to the size of the property and relatively low amount of impervious cover, no proposed permanent BMPs for stormwater runoff are proposed. New construction will consist of excavation for the restroom, septic tanks, and drain fields for the onsite sewage system and for installation of an aboveground storage tank and pump house for the haul-in public water supply system. No demolition of existing facilities is needed as part of the proposed construction.

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

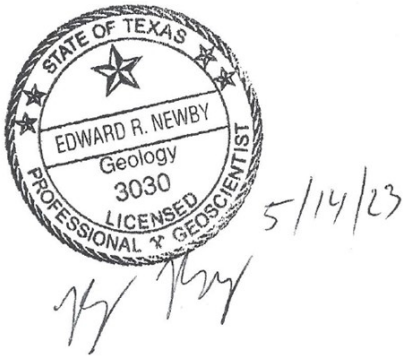
To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Edward R. Newby Telephone: 512-644-1732

Date: 5/15/2023 Fax: _____

Representing: Self Employeed, TBPG#3030 (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: FADGC LLC

Project Information

1. Date(s) Geologic Assessment was performed: January 17 and 31, 2021
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)
CrD	B	<2'
RUD	B	<3'

** 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" = 270'
   Site Geologic Map Scale: 1" = 270'
   Site Soils Map Scale (if more than 1 soil type): 1" = 360'

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 1 (#) 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.

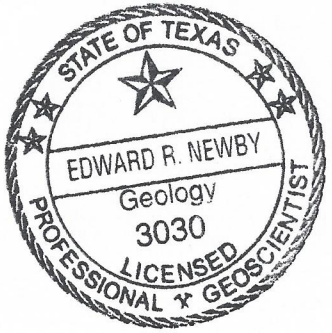
Administrative Information

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.

Geologic Assessment **Attachment A**
Geologic Assessment Table
Flying Armadillo Disc Golf Club

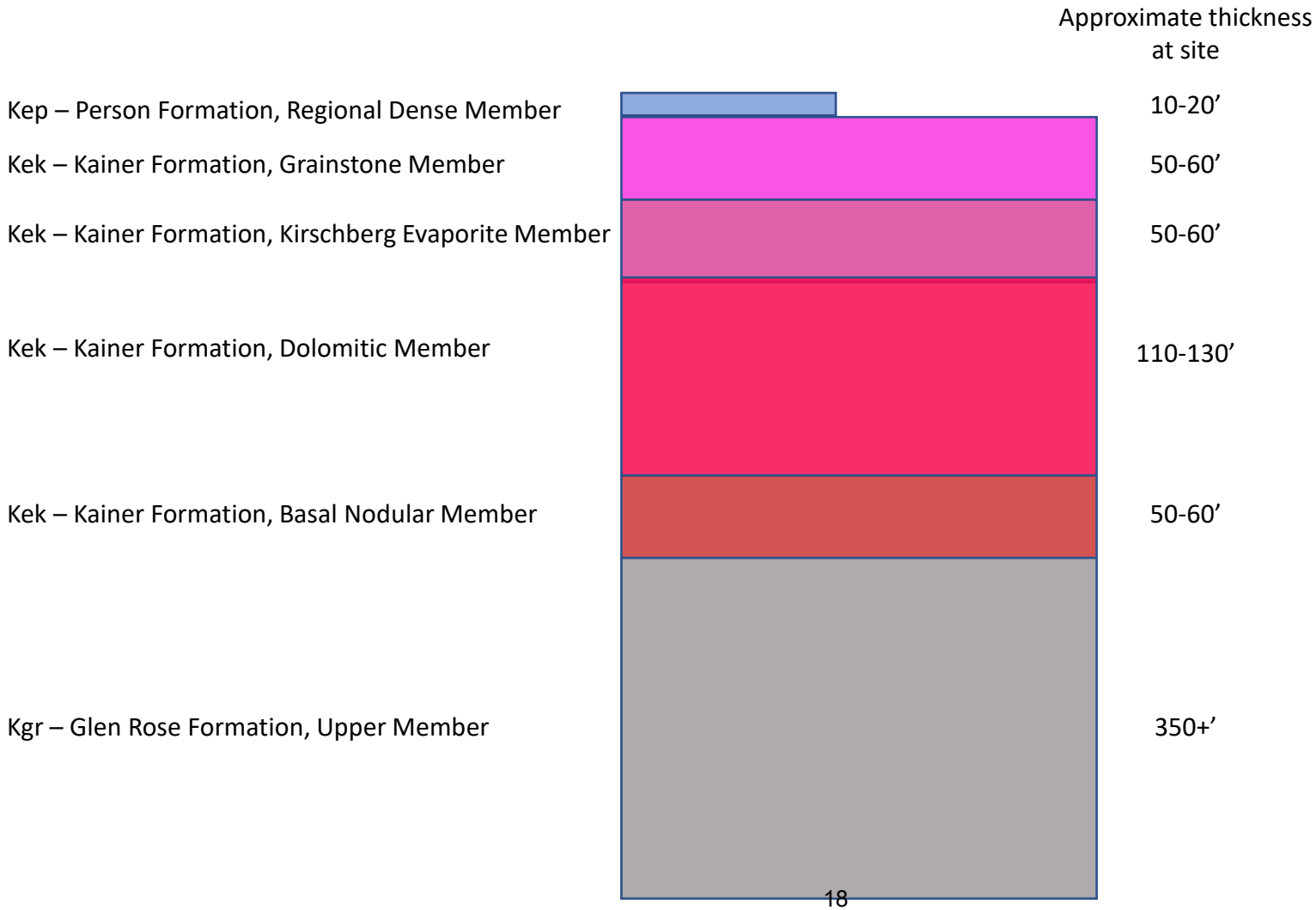
GEOLOGIC ASSESSMENT TABLE **PROJECT NAME: 3315 Hilliard Rd., Hays County, Texas - Flying Armadillo Disc Golf Course**

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A Feature ID	1B Latitude	1C Longitude	2A Feature Type	2B Points	3 Formation	4 Dimension (feet) X	Y	Z	5 Trend (degrees)	5A DOM 10	6 Density (no/ft) SF,Z, & O	7 Aperture (inches) SF,Z, & O	8A IN-FILL	8B Relative Infiltration Rate	9 Total	10 Sensitivity <40	>40	11 Catchment Area (Acres) <1.6	>1.6	12 Topography
F-1	29°56'57.791"N	97°57'56.769"W	SC	20	Kek	1.08	1.92	0.92		0		1.92	O	25	45		X	X		Hillside
F-2	29°57'2.112"N	97°58'4.062"W	SC	20	Kek	1.58	1.58	0.58		0		1.58	O	25	45		X	X		Hillside
F-3	29°57'2.109"N	97°58'4.163"W	SC	20	Kek	1.5	1.08	0.25		0		1.5	O	20	40	X		X		Hillside
F-4	29°57'4.091"N	97°58'1.435"W	CD	5	Kek	6.25	4.92	0.58		0			O	5	10	X		X		Hillside
F-5	29°57'5.298"N	97°57'54.696"W	CD	5	Kek	4.92	3.5	0.058		0			O	5	10	X		X		Hillside
F-6	29°57'5.357"N	97°57'54.488"W	CD	5	Kek	8.5	5.25	0.42		0			O	5	10	X		X		Hillside
F-7	29°57'5.089"N	97°57'54.56"W	CD	5	Kek	4.33	3.83	0.33		0			O	5	10	X		X		Hillside
F-8	29°57'5.138"N	97°57'54.281"W	CD	5	Kek	3.92	3.08	0.42		0			O	5	10	X		X		Hillside
F-9	29°57'4.886"N	97°57'52.026"W	CD	5	Kek	4	3.83	0.83		0			O	5	10	X		X		Hillside
F-10	29°57'4.856"N	97°57'51.878"W	SC	20	Kek	1.08	0.67	1.08		0		1.08	O	20	40		X	X		Hillside
F-11	29°57'4.326"N	97°57'52.282"W	SC	20	Kek	0.75	0.58	0.5		0		0.75	O	20	40		X	X		Hillside
F-12	29°57'3.415"N	97°57'53.777"W	CD	5	Kek	11.42	4.25	1.42		0			O	5	10	X		X		Hillside
F-13	29°57'2.448"N	97°57'55.792"W	CD	5	Kek	3	2.83	0.33		0			O	5	10	X		X		Hillside
F-14	29°57'1.06"N	97°57'56.094"W	CD	5	Kek	5.33	3.75	0.5		0			O	5	10	X		X		Hillside
F-15	29°57'1.001"N	97°57'55.071"W	CD	5	Kek	4.67	5.67	0.75		0			O	5	10	X		X		Hillside
F-16	29°56'58.966"N	97°57'57.67"W	CD	5	Kek	3.5	2.92	0.5		0			O	5	10	X		X		Hillside
F-17	29°57'1.244"N	97°57'57.836"W	CD	5	Kek	4.25	5.25	0.33		0			O	5	10	X		X		Hillside
F-18	29°57'1.258"N	97°57'58.039"W	CD	5	Kek	6.58	4.17	0.42		0			O	5	10	X		X		Hillside
F-19	29°57'1.818"N	97°57'59.984"W	CD	5	Kek	9.25	6.83	0.92		0			N	20	25	X			X	Hillside
F-20	29°57'0.294"N	97°58'0.605"W	CD	5	Kek	6.58	5.5	0.83		0			O	5	10	X			X	Streambed
F-21	29°57'1.168"N	97°58'2.012"W	CD	5	Kek	4.92	3.5	0.5		0			O	5	10	X			X	Streambed
F-22	29°57'2.624"N	97°58'4.048"W	SC	20	Kek	4.5	3.17	1	50	10		4.5	N	20	50		X	X		Streambed
F-23	29°57'3.527"N	97°58'6.401"W	SC	20	Kep	5.92	2.58	1.17		0		5.92	O	20	40		X	X		Hillside
F-24	29°57'4.546"N	97°58'5.321"W	SC	20	Kep	9.33	4.75	0.83	50	10		9.33	O	20	50		X	X		Hillside
F-25	29°57'4.626"N	97°58'5.368"W	SC	20	Kep	0.58	0.33	0.92		0		0.58	O	20	40		X	X		Hillside
F-26	29°57'5.41"N	97°58'2.844"W	CD	5	Kep	4.33	2.33	0.33		0			O	5	10	X		X		Hillside
F-27	29°57'5.948"N	97°58'1.829"W	CD	5	Kep	3.42	3.33	0.58		0			O	5	10	X		X		Hillside
F-28	29°57'6.21"N	97°58'1.146"W	CD	5	Kep	7.17	5.58	0.58		0			O	5	10	X		X		Hillside
F-29	29°57'6.741"N	97°57'59.237"W	CD	5	Kep	5.83	4.92	0.33		0			O	5	10	X		X		Hillside
F-30	29°57'7.114"N	97°57'57.671"W	CD	5	Kek	15.58	7.67	0.92		0			O	5	10	X		X		Hillside
F-31	29°57'7.566"N	97°57'57.678"W	CD	5	Kek	4.42	4.58	0.33		0			O	5	10	X		X		Hillside
F-32	29°56'57.821"N	97°57'58.334"W	CD	5	Kek	12.75	11.08	0.75		0			O	5	10	X		X		Hillside
FZ-1	29°56'58.973"N	97°58'0.307"W	SF	20	Kek	29.83	11	0.67	55	10			N	20	50		X		X	Streambed
FZ-2	29°57'3.718"N	97°58'6.865"W	SF	20	Kep	10.58	9.08	1.08	60	10			O	20	50		X	X		Hillside
FZ-3	29°57'3.857"N	97°58'7.038"W	SF	20	Kep	7.08	10	0.58	50	10			O	20	50		X	X		Hillside
FZ-4	29°57'4.002"N	97°58'7.314"W	SF	20	Kep	1.83	0.75	0.67	50	10			O	5	35	X		X		Hillside
FZ-5	29°57'3.891"N	97°58'1.002"W	SF	20	Kek	4.92	3.5	0.58	50	10			O	20	50		X	X		Hillside



4/3/23

Geologic Assessment Attachment B
Stratigraphic Column
Flying Armadillo Disc Golf Club



Geologic Assessment – Attachment C
Site Geology Narrative Description
Flying Armadillo Disc Golf Club

The 25-acre project site lies on the San Marcos Platform of the Edwards Plateau. Maximum surface elevation is approximately 840' NAVD88 near the western corner of the site with minimum elevation of 780' at the southern corner. The northeastern half of the property gently slopes from northwest to southeast. The southwestern half of the site is characterized by steeper hillsides sloping into the main southeasterly trending drainage within the Sink Creek-San Marcos River watershed.

The entire site lies within the Edwards Aquifer Recharge Zone and within the Balcones Fault Zone. No faults were identified on the project site. A mapped fault is located approximately 1,200 feet northwest of the site and another fault approximately 1,500 feet to the southeast (Hanson et. al., 1995). Both faults are oriented in a north-northeast direction.

Two soil units are mapped within the project site – the Comfort-Rock outcrop complex, undulating (CrD) on the southwestern half of the project site and the Rumple-Comfort association, undulating (RUD) on the northeastern half of the site (Attachment E – Soil Map). The CrD soils are identified as a shallow, dark brown, extremely stony clay, and rock outcrop found on side slopes and hilltops. CrD soils are well drained with slow permeability and slow to medium surface runoff. The RUD soils are a shallow to moderately deep and predominantly reddish-brown cherty loam found on the gently sloping areas. RUD soils are well drained with moderate surface runoff and moderately slow permeability (NRCS 1984). Soil thickness across the site was found to range from 0 to approximately 24" in excavations.

Edwards Group rocks of the Person and Kainer formations crop out on the property (Attachment D – Site Geologic Maps). Specifically, the lower portion of the regional dense member of the Person Formation (Kep) is exposed along the western quarter of the site with the remainder of the site surface directly underlain by the grainstone member of the Kainer Formation (Kek). The regional dense member is the lowermost unit of the Person Formation and consists of dense, light-tan, mudstone with some scattered iron oxide stains. The regional dense member is about 20 to 25 ft thick with the lower portion of the member exposed on the subject site. The grainstone member is 50 to 60 ft thick and is a very hard, light-gray to white, densely cemented *miliolid* grainstone with chert nodules and thin marly interbeds. The grainstone member is the uppermost member of the Kainer Formation and overlies the Kirschberg evaporite member (of the Kainer Formation) that is approximately 50 to 60 ft thick. The proposed construction at the site would occur in the upper portion of the grainstone member of the Kainer Formation and lowermost portion of the Person Formation regional dense member.

Both the regional dense member of the Person formation and the upper portion of the grainstone member of the Kainer Formation have relatively low permeability and porosity and are not known to contain extensive caves that form significant conduits to water-bearing units. The Kainer Formation evaporite member, estimated at 50 to 60 ft below site surface is known to have high porosity and permeability with extensive cave and sinkhole development.

The single residential water well at the site was drilled in January 2018 to a depth of approximately 400 ft below grade (Attachment F – Well Report). The descriptive lithologic log reported no return of

cuttings from the area below 60 feet which could correspond to drilling into the higher porosity evaporite member of the Kainer Formation.

The 25-ac. property was inspected on transects spaced approximately 50 feet apart extending from northwest to southeast and then perpendicular 50-ft spaced transects from northeast to southwest. Drainage pathways were individually inspected for the presence of swallets or other recharge features. Geologic feature locations were mapped using a Leica CS 35 GPS antenna and controller. The collected data was mapped using ESRI ArcGIS 10.6 software. The geologic features were investigated for any potential recharge features by removing brush, loose rocks, and soil by hand and shovel to assess the subsurface extent of each feature while walking transects. Features that did not meet the definition of a potential recharge feature, such as surface weathering, karren, or animal burrows, were evaluated in the field, but not included in this report and assessment table.

The geologic assessment of the site identified numerous non-karst closed depressions, solution cavities, and fracture zone areas (Attachment A – Geologic Assessment Table). No caves, sinkholes, or faults were identified on the property. The 23 closed depressions did not exhibit enhanced recharge/infiltration characteristics and were found to have firm rock below accumulated soil and organic matter. A total of 9 solution cavities were identified during the assessment with the largest having a horizontal opening of 112 inches by 57 inches, but with a depth of 10 inches. Limited excavation and probing of the identified solution cavity features did not reveal unobstructed conduits that could be indicative of rapid infiltration. A total of 5 fracture zones with solution-enlarged fractures were identified, but no enhanced recharge/infiltration conduits were found associated with the fracture zones. Other than the fracture zone features found within the site drainageways, no swallets or other recharge features within the drainageways were identified.

The existing improvements, gravel parking areas, driveways, unimproved trails, and the area of a proposed restroom and OSSF construction on the site do not contain or drain directly to the identified sensitive geologic features. The results of the geologic assessment survey do not preclude the possibility of encountering subsurface voids or abandoned wells during the proposed project construction. If a subsurface void is encountered during any phase of the project, work will be halted until the TCEQ (or appropriate agency) is contacted and a geologist can investigate the feature.

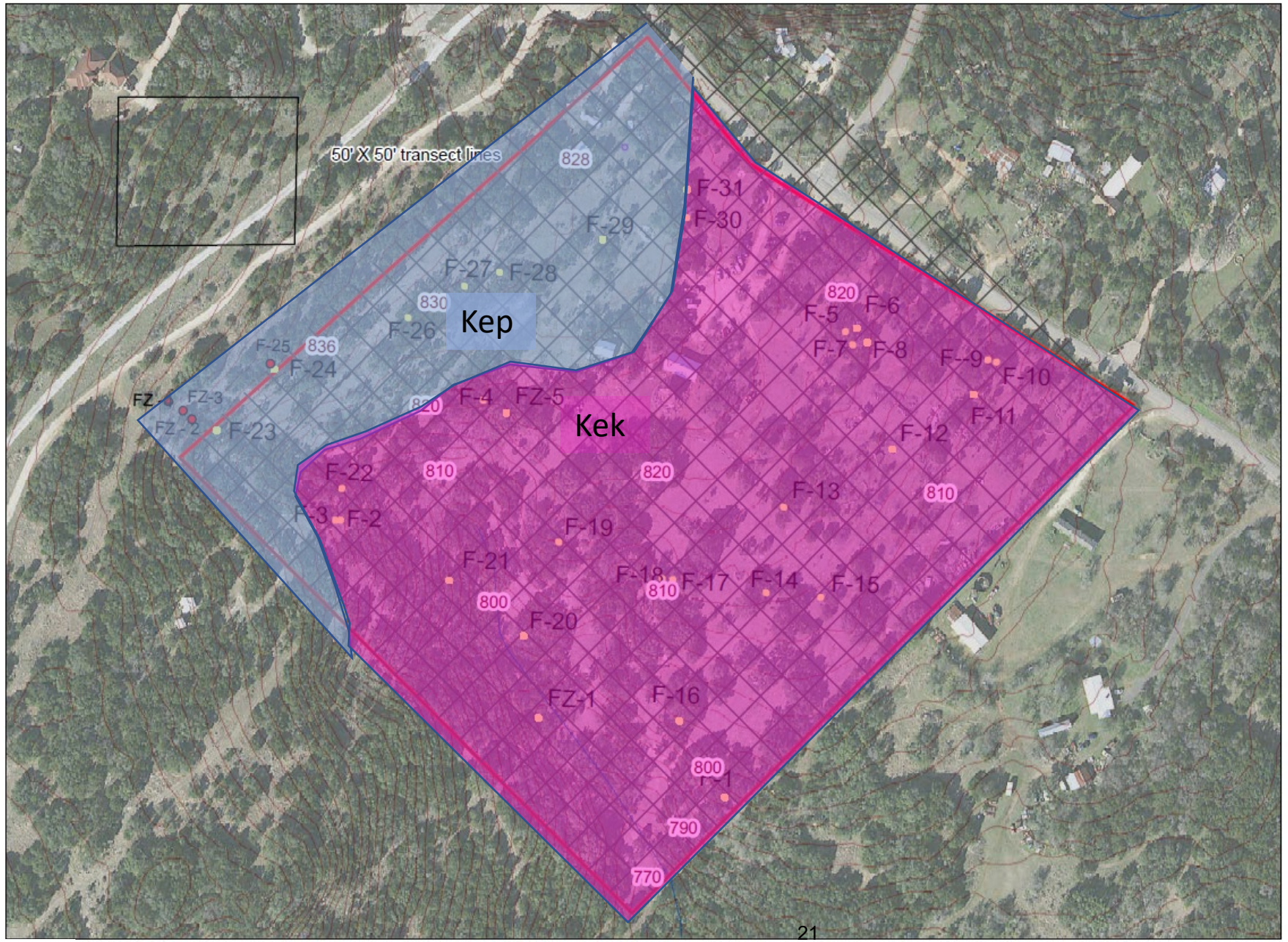
References:

Batte, Charles D., 1984, Soil Survey of Comal and Hays Counties Texas: U.S. Department of Agriculture Soil Conservation Service.

Hanson, J. A., and Small, T. A., 1995, Geologic framework and hydrogeologic characteristics of the Edwards Aquifer outcrop, Hays County, Texas: U.S. Geological Survey, Water-Resources Investigations WRI 95-4265.

Flying Armadillo Disc Golf Club - 3315 Hilliard Road, Hays County, Texas

Site Geologic Map



Geologic Units at Surface

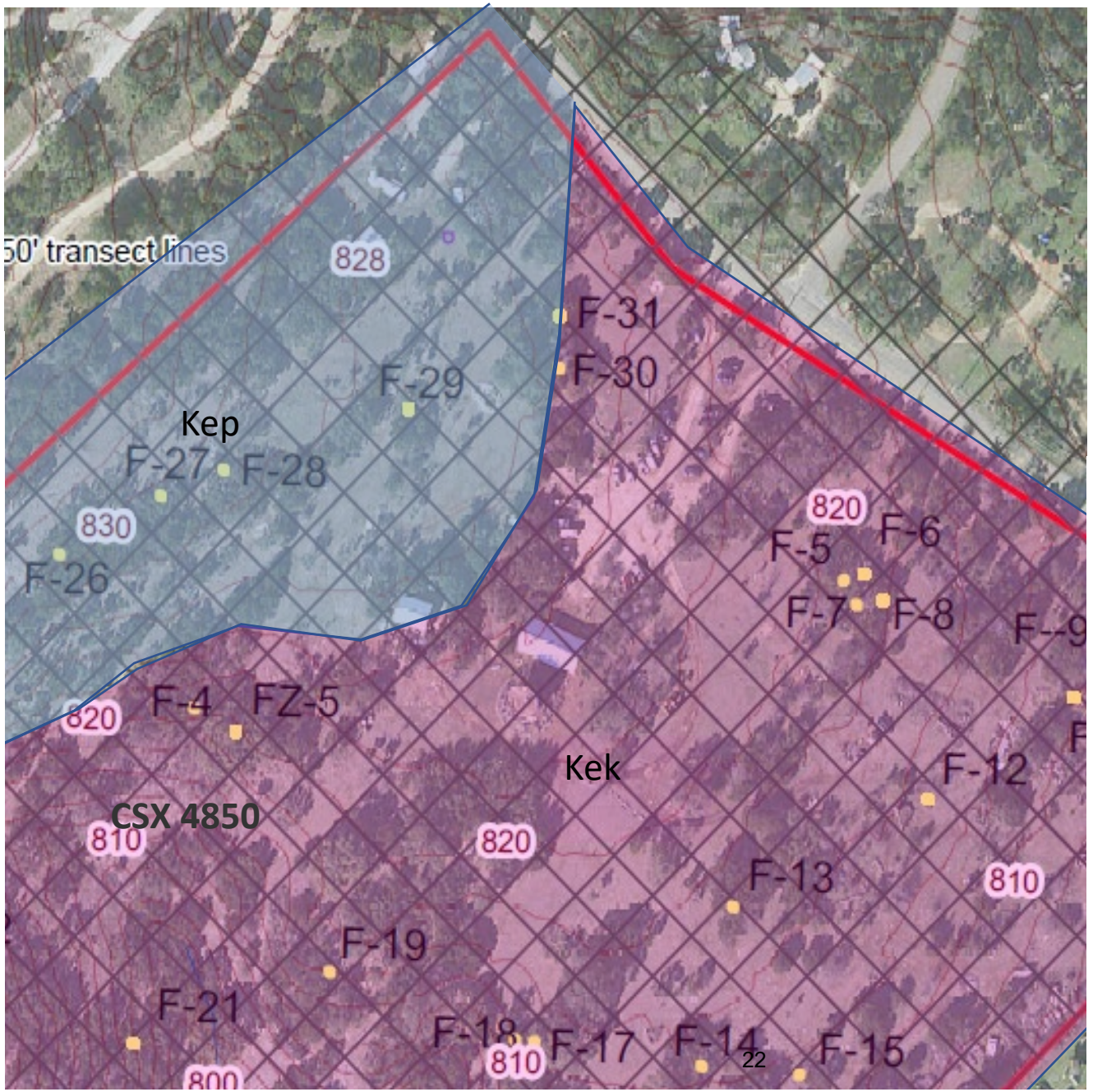
Kep – Person Site Geologic MapFormation, Regional Dense Member

Kek – Kainer Formation, Grainstone Member

Site Boundary

F-1 Geologic Feature

Site Plan Geologic Map



Property Boundary

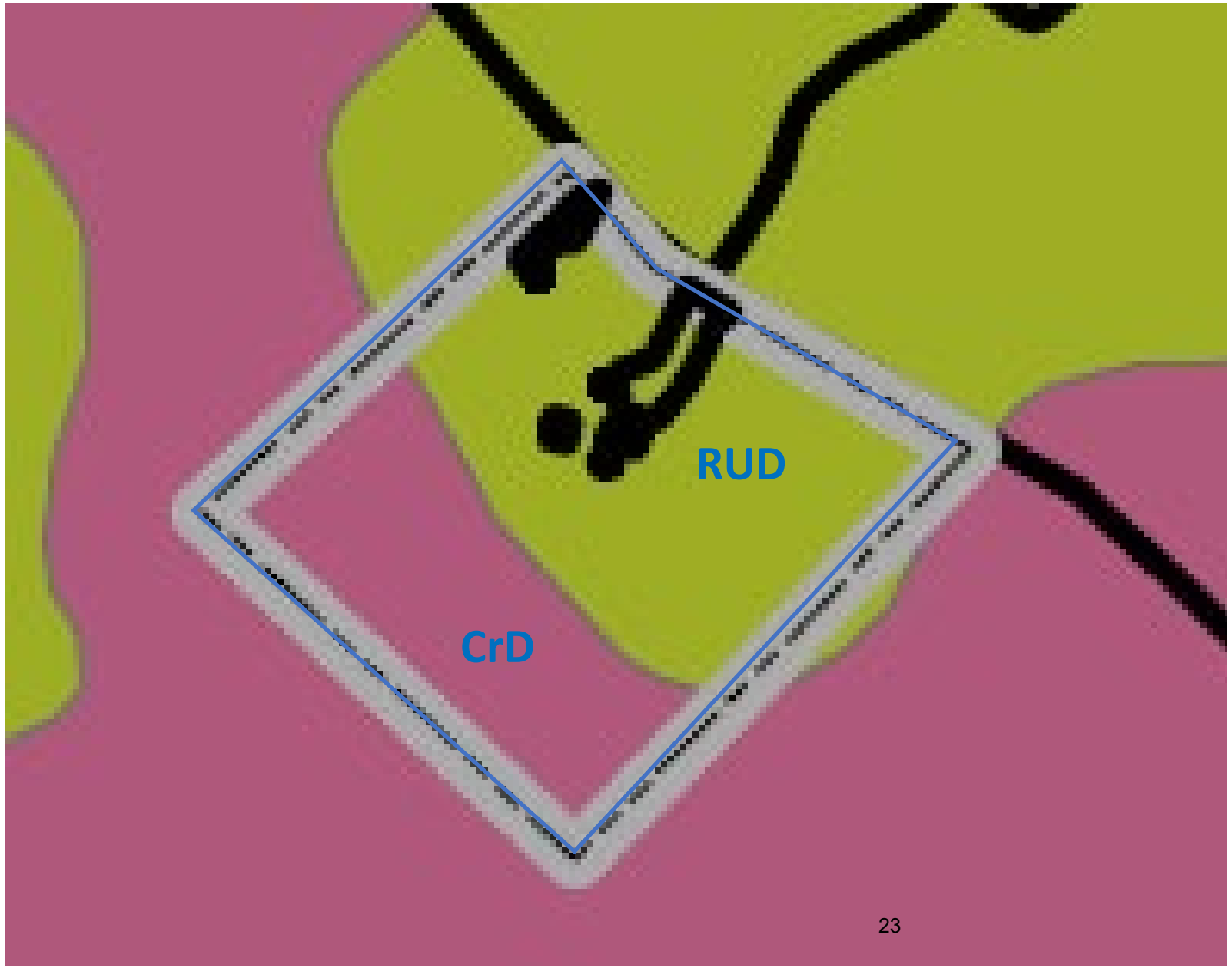
Geologic Units at Surface

Kep – Person Formation, Regional Dense Member

Kek – Kainer Formation, Grainstone Member

0 100 200 300 400

SCALE in feet



Property Boundary

RUD Rumple-Comfort association, undulating

CrD Comfort-Rock outcrop complex, undulating

0 500 1000

SCALE in feet

STATE OF TEXAS WELL REPORT for Tracking #470683

Owner:	**Michael Lambert**	Owner Well #:	**No Data**
Address:	**3115 Hilliard Rd San Marcos, TX 78666**	Grid #:	**67-01-4**
Well Location:	**3115 Hilliard Rd San Marcos, TX 78666**	Latitude:	**29° 57' 06.88" N**
		Longitude:	**097° 57' 57.69" W**
Well County:	**Hays**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **1/25/2018** Drilling End Date: **1/28/2018**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**9**	**0**	**400**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**280**	**Cement 133 Bags/Sacks**

Seal Method: **Pressure**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed** **Surface Completion by Driller**

Water Level: **190 ft.** below land surface on **2018-02-06** Measurement Method: **Electric Line**

Packers: **Rubber at 280 ft.**
Rubber at 300 ft.

Type of Pump: **No Data**

Well Tests: **Yield: 5-7 GPM**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Kutscher Drilling**

3810 Hunter Road
San Marcos, TX 78666

Driller Name: **Kutscher Drilling LTD** License Number: **54746**

Apprentice Name: **Derek Scott**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**Topsoil**
2	**5**	**Brown Lime**
5	**60**	**Tan Lime**
60	**400**	**No Returns**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	**Blank**	**New Plastic (PVC)**	**SDR-17**	**-2**	**338**
4.5	**Screen**	**New Plastic (PVC)**	**SDR-17**	**338**	**358**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

Flying Armadillo Disc Golf Club - 3315 Hilliard Road, Hays County, Texas

Feature Locations

FID	Northing	Easting	Elevation - Feet MSL	Feature ID	Type	Latitude	Longitude	
1	13894196.17	2296024.58	798.05	F-1	SC	29°56'57.791"N	97°57'56.769"W	
2	13894631.95	2295381.73	822.56	F-2	SC	29°57'2.112"N	97°58'4.062"W	
3	13894631.52	2295373.34	823.18	F-3	SC	29°57'2.109"N	97°58'4.163"W	
4	13894833.85	2295610.61	819.10	F-4	CD	29°57'4.091"N	97°58'1.435"W	
5	13894961.41	2296202.6	0.00	F-5	CD	29°57'5.298"N	97°57'54.696"W	
6	13894967.51	2296220.82	817.36	F-6	CD	29°57'5.357"N	97°57'54.488"W	
7	13894940.24	2296214.86	0.00	F-7	CD	29°57'5.089"N	97°57'54.56"W	
8	13894945.07	2296238.82	0.00	F-8	CD	29°57'5.138"N	97°57'54.281"W	
9	13894921.59	2296437.64	810.15	F-8	CD	29°57'4.886"N	97°57'52.026"W	
10	13894918.37	2296451.72	808.92	F-10	SC	29°57'4.856"N	97°57'51.878"W	
11	13894864.73	2296416.07	810.19	F-11	SC	29°57'4.326"N	97°57'52.282"W	
12	13894771.81	2296284.77	812.88	F-12	CD	29°57'3.415"N	97°57'53.777"W	
13	13894672.39	2296108.76	815.49	F-13	CD	29°57'2.448"N	97°57'55.792"W	
14	13894531.98	2296083.46	812.73	F-14	CD	29°57'1.06"N	97°57'56.094"W	
15	13894526.77	2296173.42	811.48	F-15	CD	29°57'1.001"N	97°57'55.071"W	
16	13894319.16	2295946.64	0.00	F-16	CD	29°56'58.966"N	97°57'57.67"W	
17	13894548.97	2295929.7	812.54	F-17	CD	29°57'1.244"N	97°57'57.836"W	
18	13894550.41	2295912.15	0.00	F-18	CD	29°57'1.258"N	97°57'58.039"W	
19	13894605.5	2295740.61	814.02	F-19	CD	29°57'1.818"N	97°57'59.984"W	
20	13894451	2295687.42	797.13	F-20	CD	29°57'0.294"N	97°58'0.605"W	
21	13894538.32	2295562.75	804.37	F-21	CD	29°57'1.168"N	97°58'2.012"W	
22	13894683.62	2295382.31	819.92	F-22	SC	29°57'2.624"N	97°58'4.048"W	
23	13894773.01	2295174.63	834.03	F-23	SC	29°57'3.527"N	97°58'6.401"W	
24	13894874.79	2295266.1	836.05	F-24	SC	29°57'4.546"N	97°58'5.321"W	
25	13894882.25	2295264.34	836.15	F-25	SC	29°57'4.626"N	97°58'5.368"W	
26	13894965.17	2295483.3	828.77	F-26	CD	29°57'5.41"N	97°58'2.844"W	OFF SITE
27	13895019.02	2295574.88	827.53	F-27	CD	29°57'5.948"N	97°58'1.829"W	
28	13895043.2	2295632.02	826.72	F-28	CD	29°57'6.21"N	97°58'1.146"W	
29	13895101.23	2295799.83	825.26	F-29	CD	29°57'6.741"N	97°57'59.237"W	
30	13895140.62	2295936.85	823.40	F-30	CD	29°57'7.114"N	97°57'57.671"W	
31	13895186.11	2295936.01	823.24	F-31	CD	29°57'7.566"N	97°57'57.678"W	
32	13895252.59	2295832.21	826.45	Existing Septic Tank Lid		29°57'8.241"N	97°57'58.876"W	
33	13894317.89	2295715.03	791.98	FZ 1	SF	29°56'58.973"N	97°58'0.307"W	
34	13894789.92	2295133.32	836.70	FZ 2	SF	29°57'3.718"N	97°58'6.865"W	OFF SITE
35	13894803.49	2295118.32	839.64	FZ 3	SF	29°57'3.857"N	97°58'7.038"W	OFF SITE
36	13894817.79	2295093.82	842.94	FZ 4	SF	29°57'4.002"N	97°58'7.314"W	OFF SITE
37	13894814.1	2295649.09	818.79	FZ 5	SF	29°57'3.891"N	97°58'1.002"W	

Note: Locations were collected using Leica CS 35 antenna and controller. The collected data was mapped using ESRI ArcGIS 10.6 software.. Z. Haden collected the data on January 17 and January 31, 2021. Transects of 50' x 50' were used.

SC = Solution Cavity
CD = Closed Depresssion
SF = Solution Fracture

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: Edward R. Newby, P.G. (agent)

Date: 9/15/2023

Signature of Customer/Agent:

Regulated Entity Name: FADGC LLC

Regulated Entity Information

1. The type of project is:

   ☒ Residential: Number of Lots:1
   ☐ Residential: Number of Living Unit Equivalents:_____
   ☒ Commercial
   ☐ Industrial
   ☐ Other:_____

2. Total site acreage (size of property):25

3. Estimated projected population:4

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	11302	÷ 43,560 =	0.259
Parking	45307	÷ 43,560 =	1.040
Other paved surfaces	0	÷ 43,560 =	0
Total Impervious Cover	56609	÷ 43,560 =	1.30

Total Impervious Cover 1.30 **÷ Total Acreage** 25 **X 100 =** 5.20**% Impervious Cover**

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

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

For Road Projects Only

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

7. Type of project:

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

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

   ☐ Concrete
   ☐ Asphaltic concrete pavement
   ☐ Other: _____

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

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

10. Length of pavement area: _____ feet.

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

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

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

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

Stormwater to be generated by the Proposed Project

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

Wastewater to be generated by the Proposed Project

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

100% Domestic	450 Gallons/day
_____% Industrial	_____Gallons/day
_____% Commingled	_____Gallons/day
TOTAL gallons/day 450	

15. Wastewater will be disposed of by:

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

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

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

☐ Sewage Collection System (Sewer Lines):

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

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

☐ The SCS was previously submitted on_____.

☐ The SCS was submitted with this application.

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

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

☐ Existing.
☐ Proposed.

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

Site Plan Requirements

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

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

Site Plan Scale: 1" = 320'.

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): FEMA Floodmap 48209C0380F, effective 9/2/05

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 1 (#) 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.

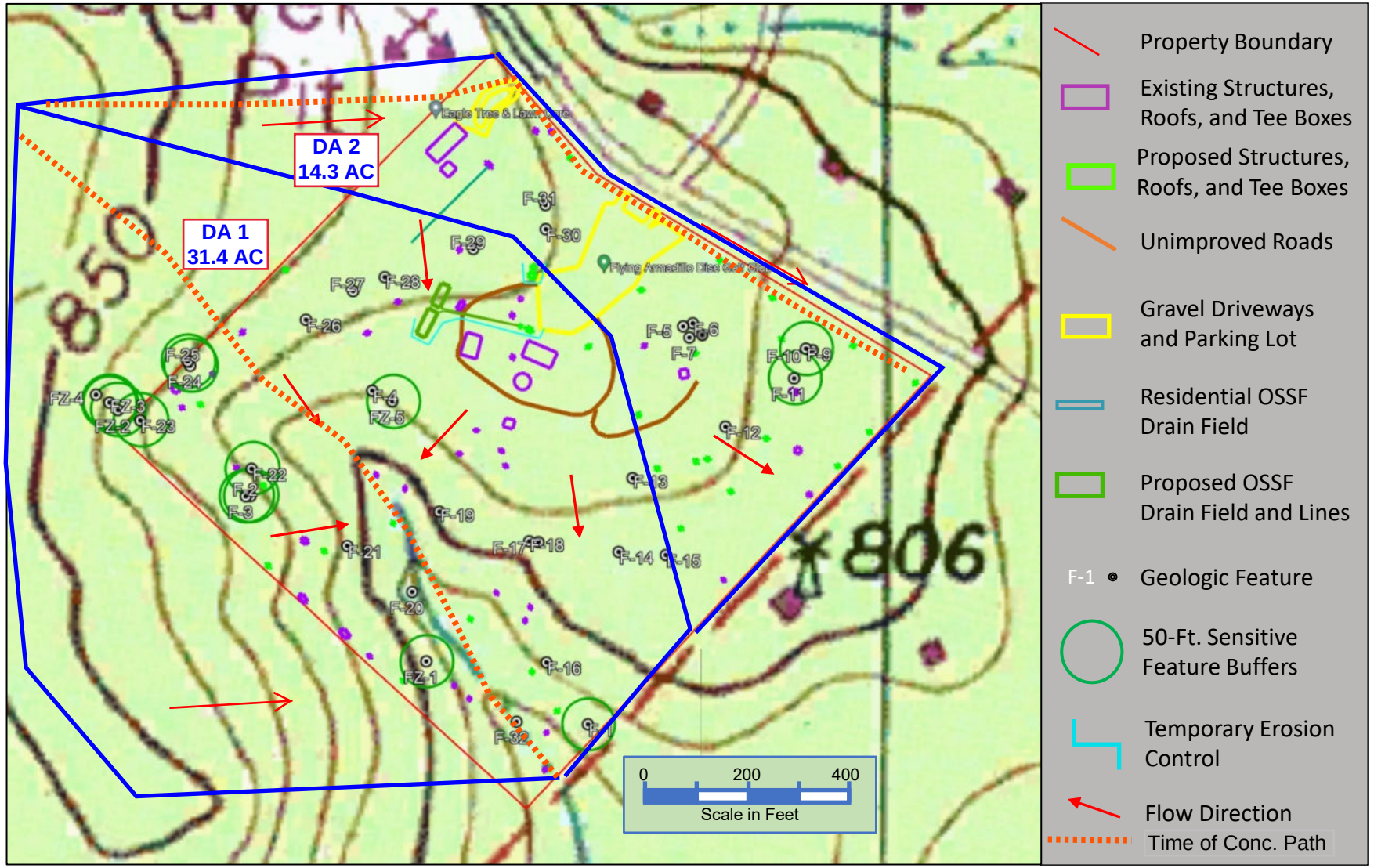
Flying Armadillo Disc Golf Club
Water Pollution Abatement Plan
Attachment A – Factors Affecting Surface Water Quality

Potential factors that could affect surface water and groundwater quality in the vicinity of the site include:

- Storm water runoff from vehicular driveways and parking areas
  - o Oils, greases, and dirt potentially from vehicles
- Erosion & Sedimentation
  - o Sediment erosion of disturbed areas from construction activities
  - o Erosive potential from point discharges
  - o Sedimentation of sensitive features
- Inappropriate use of pesticides, herbicides, and fertilizers
- Spills of minor amounts of hydrocarbons or hazardous substances
- Overflow of untreated sewage from on-site sewage facilities

ATTACHMENT B- STORMWATER GENERATED BY PROJECT

DRAINAGE PLAN Flying Armadillo Disc Golf Club – 3115 Hilliard Road, Hays County, Texas



ATTACHMENT B- STORMWATER GENERATED BY PROJECT

FLYING ARMADILO DISC GOLF
Rational Method Calculations
-Time of Concentration-

FLYING ARMADILLO DISC GOLF COURSE	**TIME OF CONCENTRATION**			
	D1	D1	D2	D2
SHEET FLOW				
Flow length (ft.)	150	150	150	150
Slope (ft./ft.)	0.01667	0.01667	0.01333	0.01333
Manning's n for sheet flow	0.24	0.24	0.24	0.24
2-year, 24-hour rainfall (in.)	4.1	4.1	4.1	4.1
Travel time (min.)	**18.8**	**18.8**	**20.5**	**20.5**
SHALLOW CONCENTRATED FLOW				
Flow length (ft.)	400	400	1150	1150
Slope (ft./ft.)	0.23667	0.23667	0.04217	0.04217
Surface (1=paved, 2=unpaved)	2	2	2	2
Travel time (min.)	**0.8**	**0.8**	**5.8**	**5.8**
OPEN CHANNEL FLOW				
Flow length (ft.)	1173	1173	872	872
Slope (ft./ft.)	0.04433	0.04433	0.02179	0.02179
Manning's n for channel flow	0.066	0.066	0.066	0.066
Bottom width (ft.)	3	3	4	4
Side slopes	8	8	4	4
Bank full depth (ft.)	2	2	2	2
Travel time (min.)	**3.9**	**3.9**	**3.9**	**3.9**
Time of Concentration (min.)	**23.5**	**23.5**	**30.2**	**30.2**

ATTACHMENT B- STORMWATER GENERATED BY PROJECT

FLYING ARMADILLO DISC GOLF
Rational Method Calculations
-Peak Flow Rates-

FLYING ARMADILLO DISC GOLF COURSE	**RATIONAL CALCULATIONS**			
	DA1 (Ex)	**DA1 (Pr)**	**DA2 (Ex)**	**DA2 (Pr)**
Drainage area (Ac.)	31.4	31.4	14.3	14.30
Impervious cover	0%	5.2%	0%	5.2%
Average slope	2.0%	6.6%	3.6%	3.6%
Tc	23.5	23.5	30.2	30.2
IMPERVIOUS "C" VALUES				
2-year	0.74	0.74	0.74	0.74
10-year	0.82	0.82	0.82	0.82
25-year	0.87	0.87	0.87	0.87
100-year	0.96	0.96	0.96	0.96
PERVIOUS "C" VALUES				
2-year	0.37	0.37	0.37	0.37
10-year	0.42	0.42	0.42	0.42
25-year	0.46	0.46	0.46	0.46
100-year	0.53	0.53	0.53	0.53
COMPOSITE "C" VALUES				
2-year	0.37	0.39	0.37	0.39
10-year	0.42	0.44	0.42	0.44
25-year	0.46	0.48	0.46	0.48
100-year	0.53	0.55	0.53	0.55
RAINFALL INTENSITIES (in./hr.)				
2-year	3.41	3.41	2.97	2.97
10-year	5.04	5.04	4.40	4.40
25-year	6.06	6.06	5.30	5.30
100-year	7.73	7.73	6.79	6.79
PEAK RUNOFF RATES (cfs)				
2-year	**39.6**	**41.6**	**15.7**	**16.5**
10-year	**66.4**	**69.7**	**26.4**	**27.7**
25-year	**87.6**	**91.6**	**34.9**	**36.5**
100-year	**128.7**	**134.2**	**51.4**	**53.6**

03/22/2023

DRAINAGE REPORT SUMMARY

Peak Flow Rates, cubic feet per second (cfs), were calculated for the drainage areas that include the proposed development at 3115 Hilliard Road. The property is within the ETJ of the City of San Marcos, so the calculation were done using the methods prescribed the the City's Stormwater Technical Manual (2020). Slopes, Areas and lengths were calculated using AutoCAD and GIS date from the City of San Marcos (https://data-cosm.hub.arcgis.com/search?tags=engineering).

The composite runoff coefficient (C) values represented were for Range land with average slopes from 2-7%.
Existing Conditions (Ex) represents pre-developed conditions at 0% IC and Proposed Condition (Pr) represent proposed development conditions with 5.2% IC.

The peak flow rate changes and composite C values are shown in the table above, with existing conditions next to proposed conditions with 5.2% IC. Calculations for the Time of Concentration are shown on the previous page.
Most of the impervious cover, parking and buildings, is located on the flattest parts of the property and is generally disconnected. This will keep the runoff moving slow, allowing for infiltration into the soils. The other impervious cover is scattered throughout the 25 acre property with very small footprints, therefore not generating a great deal of added runoff.

Hays County Development Services

2171 Yarrington Road, Suite 100, Kyle TX 78640
512-393-2150 main / 512-493-1915 fax

April 23, 2021

To Whom It May Concern:

Re: On Site Sewage Facility Suitability (OSSF) for the Flying Armadillo Disc Golf Club located at 3115 Hilliard Road, San Marcos, Texas 78666.

I have completed my preliminary review of the planning materials submitted in support of the above referenced development in Hays County. I concur with Stan Burrier, P.E., findings that this development can be adequately served by individual on-site sewage facilities. The total wastewater generation on this tract of land will be 5000 gallons per day or less. This property will need to be served by a public water supply.

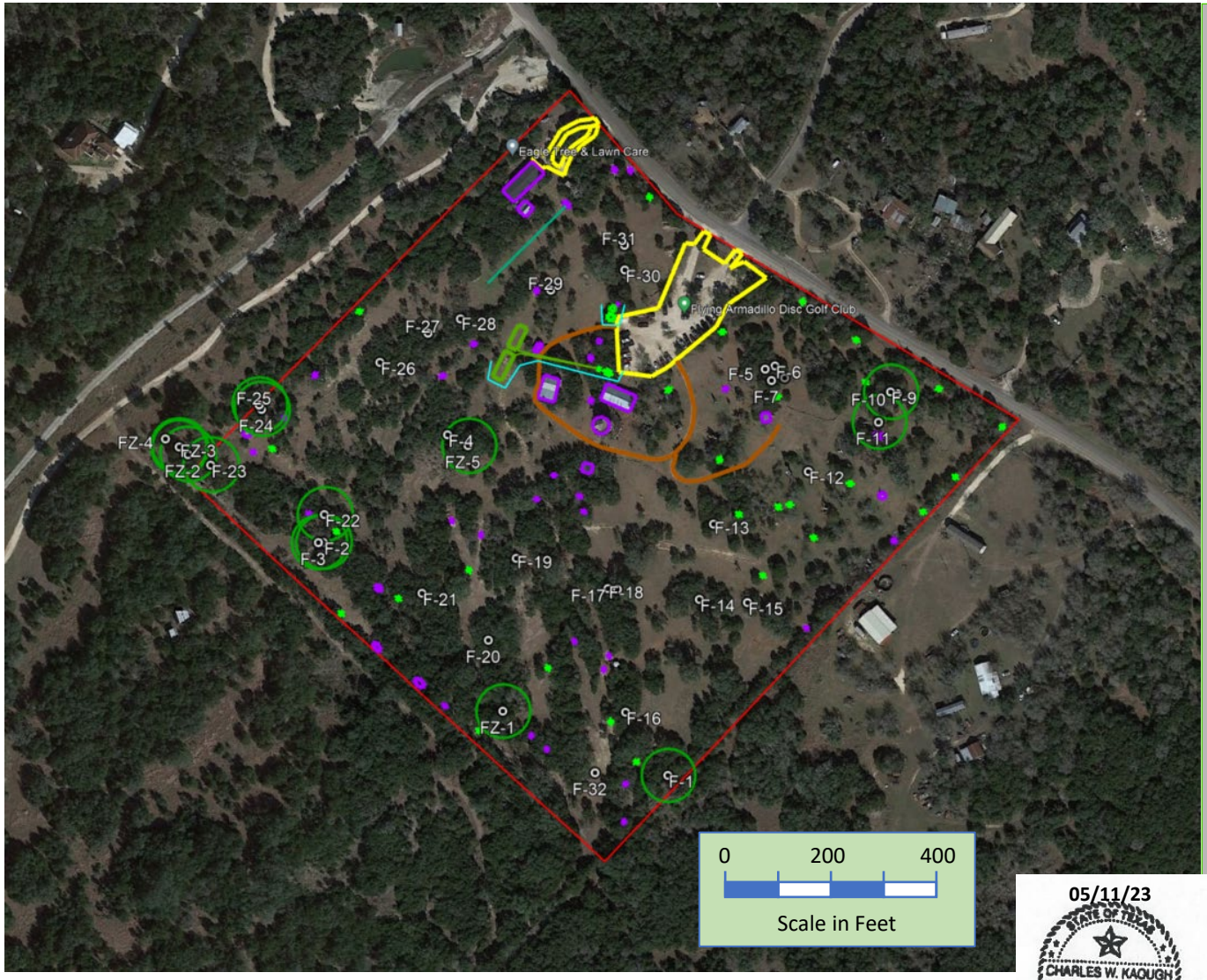
This review does not authorize the start of construction and all Hays County development authorizations and subdivision requirements must be obtained before the start of any development.

Please contact me if you have any questions concerning this matter.

Sincerely,

Eric Van Gaasbeek, R.S., C.F.M.
Senior Environmental Health Specialist
OS# 0028967

Site Plan, Flying Armadillo Disc Golf Club – 3115 Hilliard Road, Hays County, Texas



Property Boundary

Existing Structures, Roofs, and Tee Boxes

Proposed Structures, Roofs, and Tee Boxes

Unimproved Roads

Gravel Driveways and Parking Lot

Residential OSSF Drain Field

Proposed OSSF Drain Field and Lines

F-1 Geologic Feature

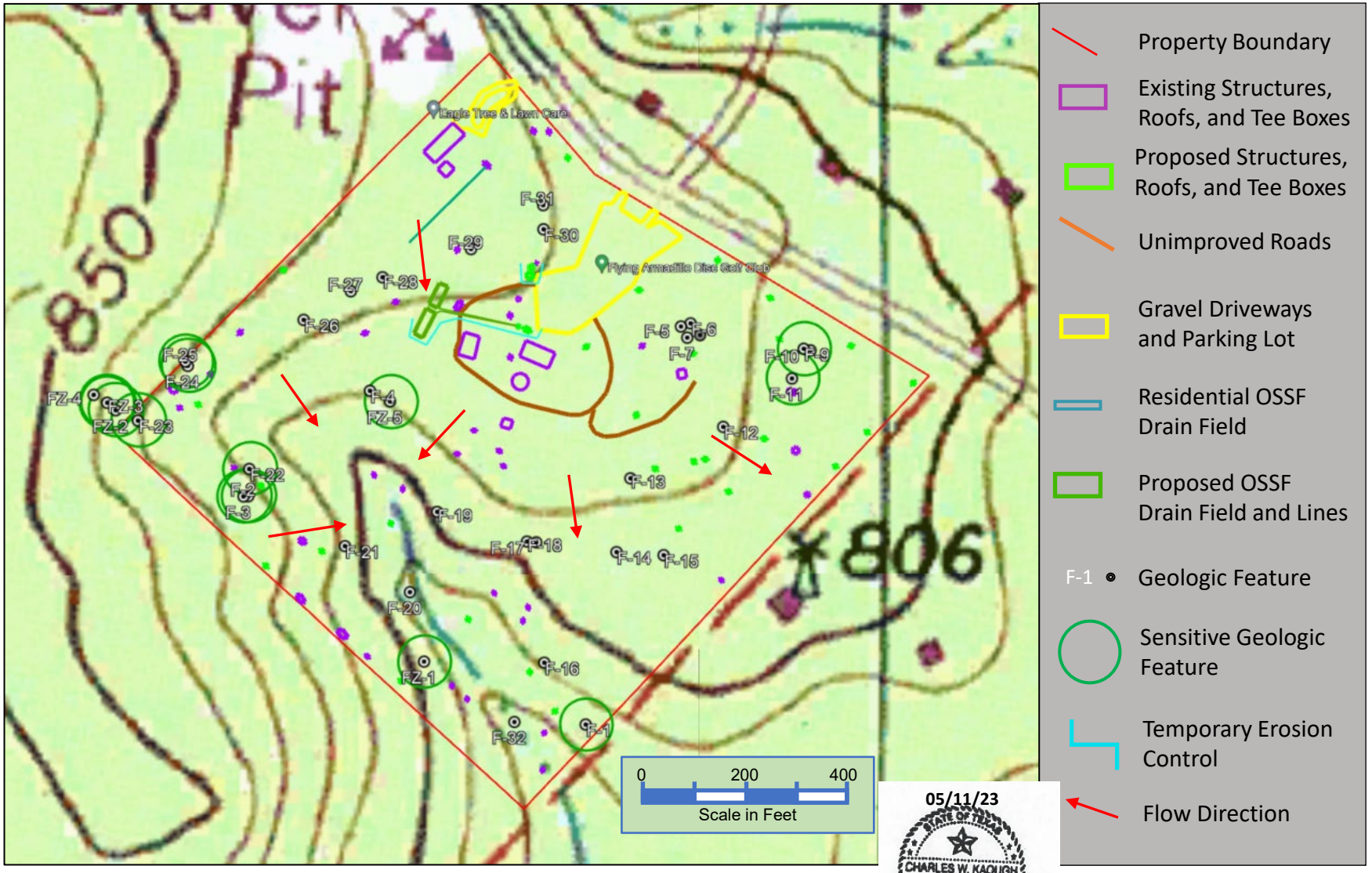
Sensitive Geologic Feature

Temporary Erosion Control

05/11/23

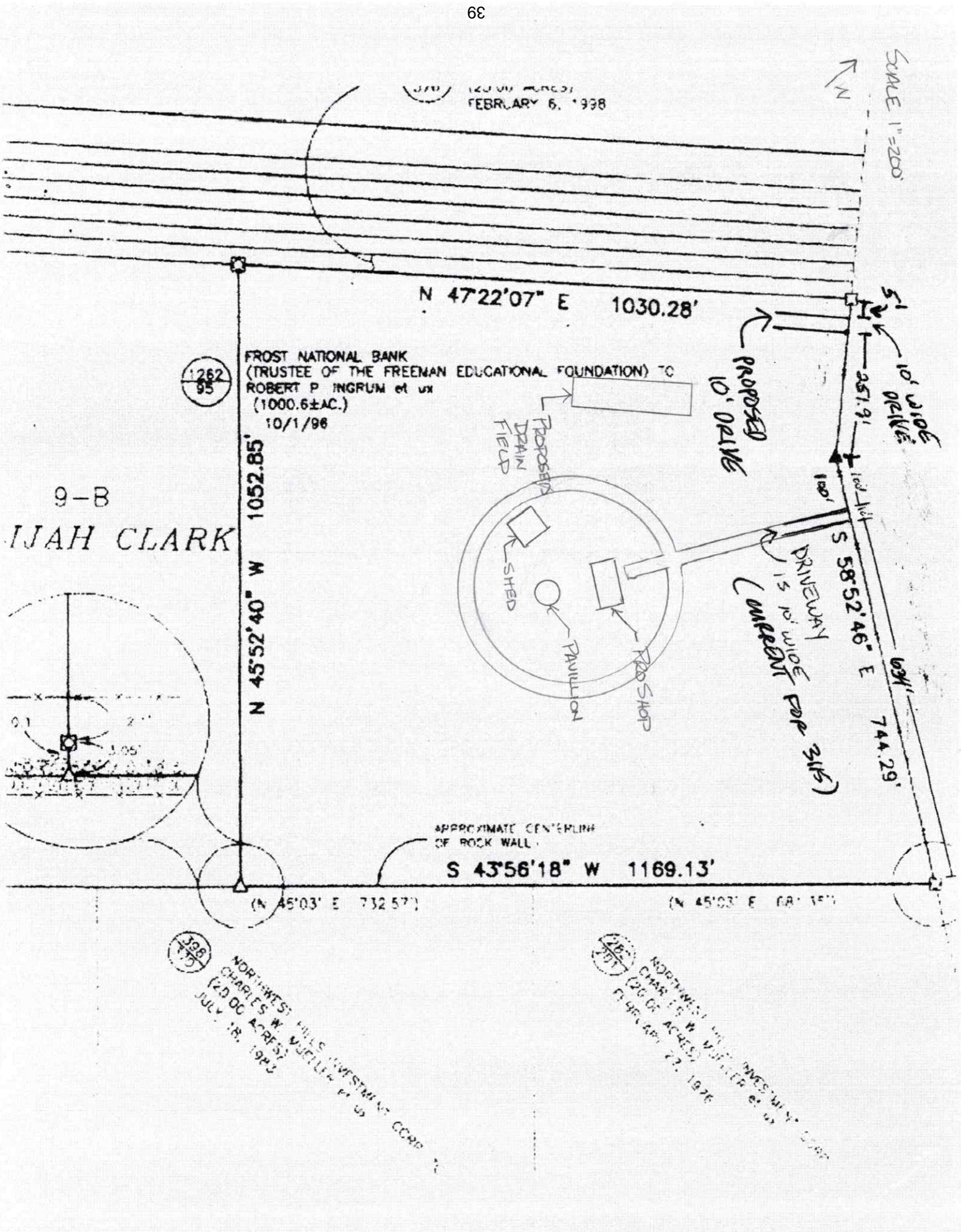
STATE OF TEXAS
CHARLES W. KAOUGH
90191
LICENSED
PROFESSIONAL ENGINEER

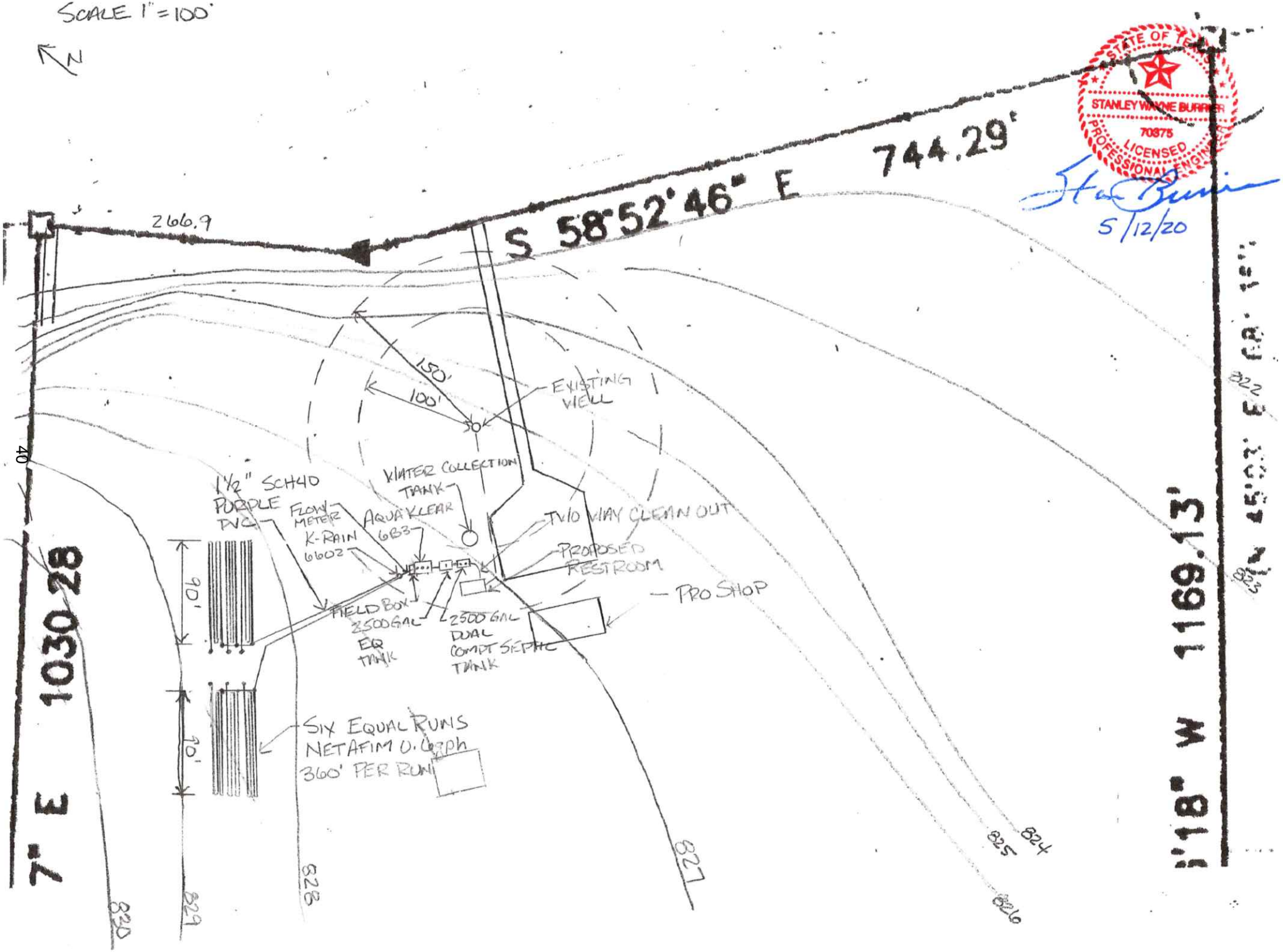
Site Plan Topo, Flying Armadillo Disc Golf Club – 3115 Hilliard Road, Hays County, Texas



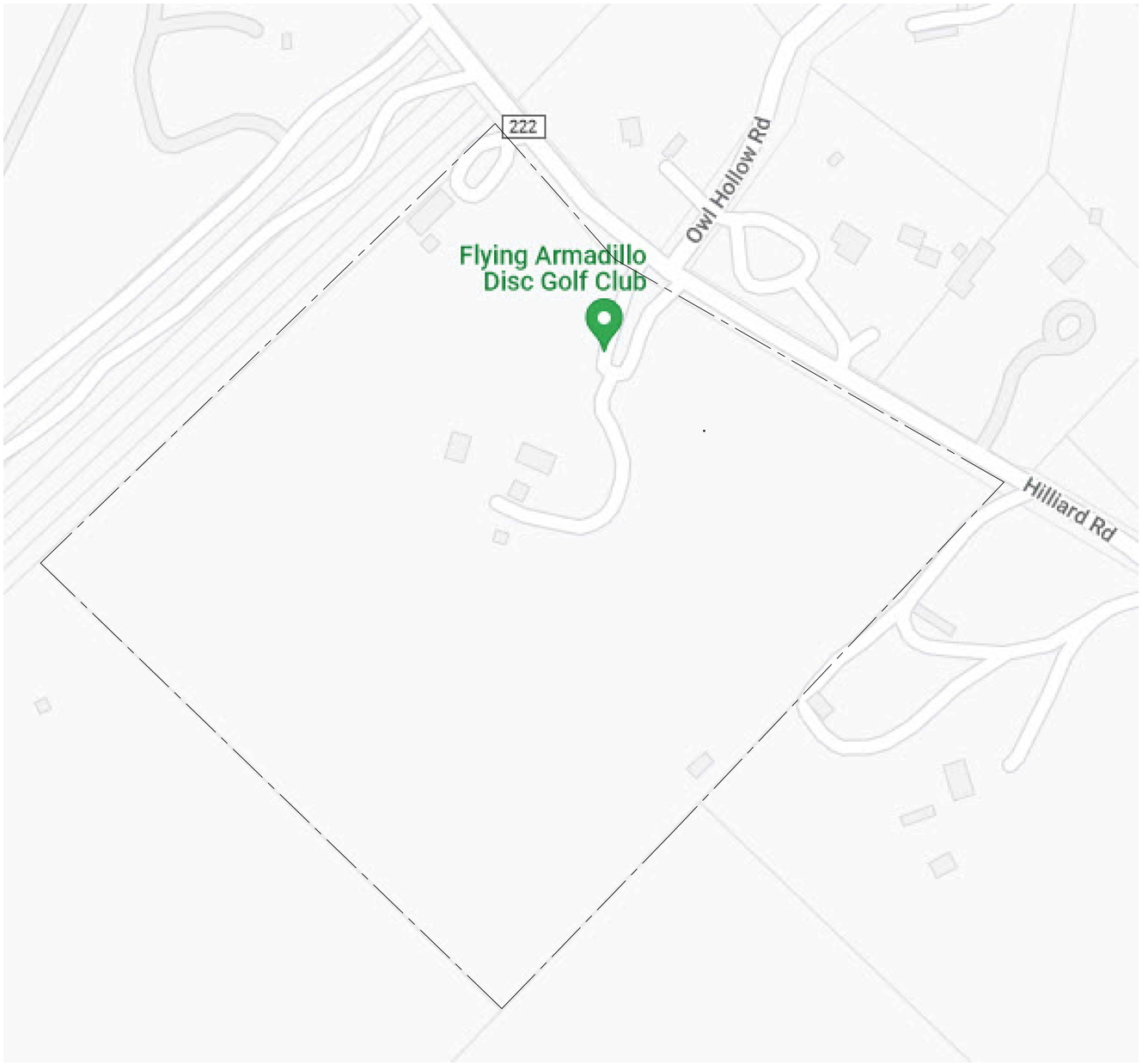
05/11/23

STATE OF TEXAS
CHARLES W. KAOUGH
90191
LICENSED
PROFESSIONAL ENGINEER


SCALE 1"=200'
N
FEBRUARY 6, 1938
N 47°22'07" E 1030.28'
5'
10' WIDE DRIVE
257.9'
PROPOSED 10' DRIVE
FROST NATIONAL BANK
(TRUSTEE OF THE FREEMAN EDUCATIONAL FOUNDATION) TO
ROBERT P INGRUM et ux
(1000.6±AC.)
10/1/86
1262
95
PROPOSED DRAIN FIELD
180'
1052.85'
N 45°52'40" W
9-B
IJAH CLARK
SHED
PAVILLION
PRO SHOP
DRIVEWAY IS 10' WIDE (CURRENT POP 3145)
S 58°52'46" E 744.29'
APPROXIMATE CENTERLINE OF ROCK WALL
S 43°56'18" W 1169.13'
(N 45°03' E 732.57')
198
45
NORTHWEST HILLS INVESTMENT CORP
CHARLES W. MOFFETT ET UX
(20.00 ACRES)
JULY 18, 1963


SCALE 1" = 100'
N
S 58°52'46" E 744.29'
266.9
150'
100'
50'
EXISTING WELL
WATER COLLECTION TANK
1½" SCH40 PURPLE PVC
FLOW METER K-RAIN 6602
AQUA KLEAR 6B3
TWO WAY CLEAN OUT
PROPOSED RESTROOM
PRO SHOP
FIELD BOX
2500 GAL EQ TANK
2500 GAL DUAL COMPT SEPTIC TANK
90'
70'
SIX EQUAL RUNS
NETAFIM 0.6gph
360' PER RUN
40
7" E 1030.28
N 45°03' E 1169.13'
820
821
826
827
824
825
822
823
STANLEY WAYNE BURRER
70875
LICENSED
PROFESSIONAL ENGINEER
5/12/20

CONSTRUCTION PLANS FOR PROPOSED PWS



LOCATION MAP
NTS

FLYING ARMADILLO DISC GOLF CLUB
HAULED WATER SYSTEM (PWS)
TREATMENT AND DISTRIBUTION SYSTEM

Hauled Water System
3115 Hilliard Road
San Marcos, TX 78666

August 26, 2022

OWNER:

FADGC,LLC
3115 Hilliard Road
San Marcos, TX 78666

ENGINEER:

Banks & Associates
Civil and Environmental Engineering
820 Currie Ranch Road
Wimberley, Texas 78676
(512) 801-9049
Firm Registration No. F-2002

STATE OF TEXAS
COUNTY OF HAYS

KNOW ALL MEN BY THESE PRESENTS, that I Erin K. Banks, a REGISTERED PROFESSIONAL ENGINEER in the State of Texas, do hereby certify that these Site Development Plans comply with the engineering related requirements of the TCEQ applicable Public Water Supply Ordinances.

STATE OF TEXAS
ERIN K. BANKS
84248
REGISTERED
PROFESSIONAL ENGINEER

Erin K Banks — 8/31/22

Erin K. Banks
Registered Professional Engineer No.
Banks & Associates
820 Currie Ranch
Wimberley, Texas
Firm Registration No.
(512) 801-9049

Date

INDEX

FOR REVIEW PURPOSES ONLY, NOT FOR CONSTRUCTION

TCEQ WATER STORAGE TANK GENERAL CONSTRUCTION NOTES:

1. THE WATER STORAGE TANK MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS 30 TEXAS ADMINISTRATIVE CODE (TAC) CHAPTER 290 SUBCHAPTER D. WHEN CONFLICTS ARE NOTED WITH LOCAL STANDARDS, THE MORE STRINGENT REQUIREMENT SHALL BE APPLIED. AT A MINIMUM, CONSTRUCTION FOR PUBLIC WATER SYSTEMS MUST ALWAYS MEET TCEQ'S "RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS."
2. ALL FACILITIES FOR POTABLE WATER STORAGE SHALL BE COVERED AND DESIGNED, FABRICATED, ERECTED, TESTED AND DISINFECTED IN STRICT ACCORDANCE WITH CURRENT AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS AND SHALL BE PROVIDED WITH THE MINIMUM NUMBER, SIZE AND TYPE OF ROOF VENTS, MAN WAYS, DRAINS, SAMPLE CONNECTIONS, ACCESS LADDERS, OVERFLOWS, LIQUID LEVEL INDICATORS ON-SITE, AND OTHER APPURTENANCES AS SPECIFIED IN THESE RULES.
3. DISINFECTION OF WATER STORAGE FACILITIES SHALL BE IN STRICT ACCORDANCE WITH CURRENT AWWA STANDARD C652-11 OR MOST RECENT.
4. DECHLORINATION OF DISINFECTING WATER SHALL BE IN STRICT ACCORDANCE WITH CURRENT AWWA STANDARD C655-09 OR MOST RECENT.
5. BOLTED TANKS SHALL BE DESIGNED, FABRICATED, ERECTED AND TESTED IN STRICT ACCORDANCE WITH CURRENT AWWA STANDARD D103. WELDED TANKS SHALL BE DESIGNED, FABRICATED, ERECTED AND TESTED IN STRICT ACCORDANCE WITH CURRENT AWWA STANDARD D100. THE ROOF OF ALL METAL TANKS SHALL BE DESIGNED AND ERECTED SO THAT NO WATER PONDS AT ANY POINT ON THE ROOF AND, IN ADDITION, NO AREA OF THE ROOF SHALL HAVE A SLOPE OF LESS THAN 0.75 INCH PER FOOT. CONCRETE TANK ROOFS SHALL BE CONSTRUCTED IN STRICT COMPLIANCE WITH THEIR RESPECTIVE AWWA STANDARD.
6. ROOF VENTS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH CURRENT AWWA STANDARDS AND SHALL BE EQUIPPED WITH APPROVED SCREENS TO PREVENT ENTRY OF ANIMALS, BIRDS, INSECTS AND HEAVY AIR CONTAMINANTS. SCREENS SHALL BE FABRICATED OF CORROSION RESISTANT MATERIAL AND SHALL BE 16 MESH OR FINER. SCREENS SHALL BE SECURELY CLAMPED IN PLACE WITH STAINLESS OR GALVANIZED BANDS OR WIRES AND SHALL BE DESIGNED TO WITHSTAND WINDS OF NOT LESS THAN TANK DESIGN CRITERIA (UNLESS SPECIFIED OTHERWISE BY THE ENGINEER).
7. ALL ROOF OPENINGS SHALL BE DESIGNED IN ACCORDANCE WITH CURRENT AWWA STANDARDS. IF AN ALTERNATE 30 INCH DIAMETER ACCESS OPENING IS NOT PROVIDED IN A STORAGE TANK, THE PRIMARY ROOF ACCESS OPENING SHALL NOT BE LESS THAN 30 INCHES IN DIAMETER. OTHER ROOF OPENINGS REQUIRED ONLY FOR VENTILATING PURPOSES DURING CLEANING, REPAIRING OR PAINTING OPERATIONS SHALL BE NOT LESS THAN 24 INCHES IN DIAMETER OR AS SPECIFIED BY THE LICENSED PROFESSIONAL ENGINEER. AN EXISTING TANK WITHOUT A 30-INCH IN DIAMETER ACCESS OPENING MUST BE MODIFIED TO MEET THIS REQUIREMENT WHEN MAJOR REPAIR OR MAINTENANCE IS PERFORMED ON THE TANK. EACH ACCESS OPENING SHALL HAVE A RAISED CURBING AT LEAST FOUR INCHES IN HEIGHT WITH A LOCKABLE COVER THAT OVERLAPS THE CURBING AT LEAST TWO INCHES IN A DOWNWARD DIRECTION. WHERE NECESSARY, A GASKET SHALL BE USED TO MAKE A POSITIVE SEAL WHEN THE HATCH IS CLOSED. ALL HATCHES SHALL REMAIN LOCKED EXCEPT DURING INSPECTIONS AND MAINTENANCE.
8. OVERFLOWS SHALL BE DESIGNED IN STRICT ACCORDANCE WITH CURRENT AWWA STANDARDS AND SHALL TERMINATE WITH A GRAVITY-HINGED AND WEIGHTED COVER, AN ELASTOMERIC DUCKBILL VALVE, OR OTHER APPROVED DEVICE TO PREVENT THE ENTRANCE OF INSECTS AND OTHER NUISANCES. THE COVER SHALL FIT TIGHTLY WITH NO GAP OVER 1/16 INCHES. IF THE OVERFLOW TERMINATES AT ANY POINT OTHER THAN THE GROUND LEVEL, IT SHALL BE LOCATED NEAR ENOUGH AND AT A POSITION ACCESSIBLE FROM A LADDER OR THE BALCONY FOR INSPECTION PURPOSES. THE OVERFLOW(S) SHALL BE SIZED TO HANDLE THE MAXIMUM POSSIBLE FILL RATE WITHOUT EXCEEDING THE CAPACITY OF THE OVERFLOW(S). THE DISCHARGE OPENING OF THE OVERFLOW(S) SHALL BE ABOVE THE SURFACE OF THE GROUND AND SHALL NOT BE SUBJECT TO SUBMERGENCE.
9. ALL CLEARWELLS AND WATER STORAGE TANKS SHALL HAVE A LIQUID LEVEL INDICATOR LOCATED AT THE TANK SITE. THE INDICATOR CAN BE A FLOAT WITH A MOVING TARGET, AN ULTRASONIC LEVEL INDICATOR, OR A PRESSURE GAUGE CALIBRATED IN FEET OF WATER. IF AN ELEVATED TANK OR STANDPIPE HAS A FLOAT WITH MOVING TARGET INDICATOR, IT MUST ALSO HAVE A PRESSURE INDICATOR LOCATED AT GROUND LEVEL. PRESSURE GAUGES MUST NOT BE LESS THAN THREE INCHES IN DIAMETER AND CALIBRATED AT NOT MORE THAN TWO-FOOT INTERVALS. REMOTE READING GAUGES AT THE OWNER'S TREATMENT PLANT OR PUMPING STATION WILL NOT ELIMINATE THE REQUIREMENT FOR A GAUGE AT THE TANK SITE UNLESS THE TANK IS LOCATED AT THE PLANT OR STATION.
10. INLET AND OUTLET CONNECTIONS SHALL BE LOCATED SO AS TO PREVENT SHORT CIRCUITING OR STAGNATION OF WATER. CLEARWELLS USED FOR DISINFECTANT CONTACT TIME SHALL BE APPROPRIATELY BAFFLED.
11. CLEARWELLS AND POTABLE WATER STORAGE TANKS SHALL BE THOROUGHLY TIGHT AGAINST LEAKAGE, SHALL BE LOCATED ABOVE THE GROUND WATER TABLE AND SHALL HAVE NO WALLS IN COMMON WITH ANY OTHER PLANT UNITS CONTAINING WATER IN THE PROCESS OF TREATMENT. ALL ASSOCIATED APPURTENANCES INCLUDING VALVES, PIPES AND FITTINGS SHALL BE TIGHT AGAINST LEAKAGE.
12. EACH CLEARWELL OR POTABLE WATER STORAGE TANK SHALL BE PROVIDED WITH A MEANS OF REMOVING ACCUMULATED SILT AND DEPOSITS AT ALL LOW POINTS IN THE BOTTOM OF THE TANK. DRAINS SHALL NOT BE CONNECTED TO ANY WASTE OR SEWAGE DISPOSAL SYSTEM AND SHALL BE CONSTRUCTED SO THAT THEY ARE NOT A POTENTIAL AGENT IN THE CONTAMINATION OF THE STORED WATER.
13. ALL CLEAR WELLS, GROUND STORAGE TANKS, STANDPIPES, AND ELEVATED TANKS SHALL BE PAINTED, DISINFECTED, AND MAINTAINED IN STRICT ACCORDANCE WITH CURRENT AWWA STANDARDS. HOWEVER, NO TEMPORARY COATINGS, WAX GREASE COATINGS, OR COATING MATERIALS CONTAINING LEAD WILL BE ALLOWED. NO OTHER COATINGS WILL BE ALLOWED WHICH ARE NOT APPROVED FOR USE (AS A CONTACT SURFACE WITH POTABLE WATER) BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA), NSF INTERNATIONAL, OR THE UNITED STATES FOOD AND DRUG ADMINISTRATION (FDA). ALL NEWLY INSTALLED COATINGS MUST CONFORM TO ANSI/NSF INTERNATIONAL STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI.
14. NO TANKS OR CONTAINERS SHALL BE USED TO STORE POTABLE WATER THAT HAS PREVIOUSLY BEEN USED FOR ANY NON-POTABLE PURPOSE. WHERE A USED TANK IS PROPOSED FOR USE, A LETTER FROM THE PREVIOUS OWNER OR OWNERS MUST BE SUBMITTED TO THE COMMISSION WHICH STATES THE USE OF THE TANK.
15. ACCESS MANWAYS IN THE RISER PIPE, SHELL AREA, ACCESS TUBE, BOWL AREA OR ANY OTHER LOCATION OPENING DIRECTLY INTO THE WATER COMPARTMENT SHALL BE LOCATED IN STRICT ACCORDANCE WITH CURRENT AWWA STANDARDS. THESE OPENINGS SHALL NOT BE LESS THAN 24 INCHES IN DIAMETER. HOWEVER, IN THE CASE OF A RISER PIPE OR ACCESS TUBE OF 36 INCHES IN DIAMETER OR SMALLER, THE ACCESS MANWAY MAY BE 18 INCHES TIMES 24 INCHES WITH THE VERTICAL DIMENSION NOT LESS THAN 24 INCHES. THE PRIMARY ACCESS MANWAY IN THE LOWER RING OR SECTION OF A GROUND STORAGE TANK SHALL BE NOT LESS THAN 30 INCHES IN DIAMETER. WHERE NECESSARY, FOR ANY ACCESS MANWAY WHICH ALLOWS DIRECT ACCESS TO THE WATER COMPARTMENT, A GASKET SHALL BE USED TO MAKE A POSITIVE SEAL WHEN THE ACCESS MANWAY IS CLOSED.
16. SERVICE PUMP INSTALLATION TAKING SUCTION FROM STORAGE TANKS SHALL PROVIDE AUTOMATIC LOW WATER LEVEL CUTOFF DEVICES TO PREVENT DAMAGE TO THE PUMPS. THE SERVICE PUMP CIRCUITRY SHALL ALSO RESUME PUMPING AUTOMATICALLY ONCE THE MINIMUM WATER LEVEL IS REACHED IN THE TANK.
17. PURSUANT TO 30 TAC §290.44(B)(1), THE MAXIMUM ALLOWABLE LEAD CONTENT OF PIPES, PIPE FITTINGS, PLUMBING FITTINGS, AND FIXTURES IS 0.25 PERCENT.

TCEQ HYDROPNEUMATIC PRESSURE TANK GENERAL CONSTRUCTION NOTES:

1. THESE HYDROPNEUMATIC PRESSURE FACILITIES MUST BE CONSTRUCTED IN ACCORDANCE WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS 30 TEXAS ADMINISTRATIVE CODE (TAC) CHAPTER 290 SUBCHAPTER D. WHEN CONFLICTS ARE NOTED WITH LOCAL STANDARDS, THE MORE STRINGENT REQUIREMENT SHALL BE APPLIED. AT A MINIMUM, CONSTRUCTION FOR PUBLIC WATER SYSTEMS MUST ALWAYS MEET TCEQ'S "RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS."
2. ALL HYDROPNEUMATIC TANKS MUST BE LOCATED WHOLLY ABOVE GRADE AND MUST BE OF STEEL CONSTRUCTION WITH WELDED SEAMS EXCEPT AS PROVIDING IN NOTE № 12 OF THESE CONSTRUCTION NOTES.
3. METAL THICKNESS FOR PRESSURE TANKS SHALL BE SUFFICIENT TO WITHSTAND THE HIGHEST EXPECTED WORKING PRESSURES WITH A FOUR TO ONE FACTOR OF SAFETY. TANKS FOR 1000 GALLON CAPACITY OR LARGER MUST MEET THE STANDARDS OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) SECTION VIII, DIVISION 1 CODES AND CONSTRUCTION REGULATIONS AND MUST HAVE AN ACCESS PORT OF PERIODIC INSPECTIONS. AN ASME NAME PLATE MUST BE PERMANENTLY ATTACHED TO THOSE TANKS. TANKS INSTALLED BEFORE JULY 1, 1988, ARE EXEMPT FROM THE ASME CODING REQUIREMENT, BUT ALL NEW INSTALLATIONS MUST MEET THIS REGULATION. EXEMPT TANKS CAN BE RELOCATED WITHIN A SYSTEM, BUT CANNOT BE RELOCATED TO ANOTHER SYSTEM.
4. ALL PRESSURE TANKS SHALL BE PROVIDED WITH A PRESSURE RELEASE DEVICE AND AN EASILY READABLE PRESSURE GAUGE.
5. FACILITIES SHALL BE PROVIDED FOR MAINTAINING THE AIR-WATER-VOLUME AT THE DESIGN WATER LEVEL AND WORKING PRESSURE. AIR INJECTION LINES MUST BE EQUIPPED WITH FILTERS OR OTHER DEVICES TO PREVENT COMPRESSOR LUBRICANT AND OTHER CONTAMINANTS FROM ENTERING THE PRESSURE TANK. A DEVICE TO READILY DETERMINE AIR-WATER-VOLUME MUST BE PROVIDED FOR ALL TANKS GREATER THAN 1000 GALLON CAPACITY. GALVANIZED TANKS WHICH ARE NOT PROVIDED WITH THE NECESSARY FITTINGS AND WERE INSTALLED BEFORE JULY 1, 1988, SHALL BE EXEMPT FROM THIS REQUIREMENT.
6. HYDROPNEUMATIC PRESSURE TANKS SHALL BE PAINTED, DISINFECTED AND MAINTAINED IN STRICT ACCORDANCE WITH CURRENT AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS. PROTECTIVE PAINT OR COATING SHALL BE APPLIED TO THE INSIDE PORTION OF ANY PRESSURE TANK. HOWEVER, NO TEMPORARY COATING, WAX, GREASE COATING OR COATING MATERIALS CONTAINING LEAD WILL BE ALLOWED. NO OTHER COATING WILL BE ALLOWED WHICH ARE NOT APPROVED FOR USE (AS A CONTACT SURFACE WITH POTABLE WATER BY THE UNITED SATES ENVIRONMENTAL PROTECTION AGENCY (EPA), NSF INTERNATIONAL, THE UNITED STATES FOOD AND DRUG ADMINISTRATION (FDA). ALL NEWLY INSTALLED COATINGS MUST CONFORM TO ANSI/NSF INTERNATIONAL STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI.
7. NO PRESSURE TANK THAT HAS BEEN USED TO STORE ANY MATERIAL OTHER THAN POTABLE WATER MAY BE USED IN A PUBLIC WATER SYSTEM. A LETTER FROM THE PREVIOUS OWNER OR OWNERS MUST BE PROVIDED.
8. PRESSURE TANK INSTALLATIONS SHOULD BE EQUIPPED WITH SLOW CLOSING VALVES AND TIME DELAY PUMP CONTROLS TO ELIMINATE WATER HAMMER TO REDUCE THE CHANCE OF TANK FAILURE.
9. ASSOCIATED APPURTENANCES INCLUDING VALVES PIPES AND FITTINGS CONNECTED TO PRESSURE TANKS MUST CONFORM TO ANSI/NSF INTERNATIONAL STANDARD 61 AND SHALL BE THOROUGHLY TIGHT AGAINST LEAKAGE. PURSUANT TO 30 TAC §290.44(B)(1), THE MAXIMUM ALLOWABLE LEAD CONTENT OF PIPES, PIPE FITTINGS, PLUMBING FITTINGS, AND FIXTURES IS 0.25 PERCENT.
10. DISINFECTION OF WATER STORAGE FACILITIES SHALL BE IN STRICT ACCORDANCE WITH CURRENT AWWA STANDARD C652-11 OR MOST RECENT.
11. DECHLORINATION OF DISINFECTING WATER SHALL BE IN STRICT ACCORDANCE WITH CURRENT AWWA STANDARD C655-09 OR MOST RECENT.
12. WHERE SEAMLESS FIBERGLASS TANKS ARE UTILIZED, THEY SHALL NOT EXCEED 300 GALLONS IN CAPACITY.
13. NO MORE THAN THREE PRESSURE TANKS SHALL BE INSTALLED AT ANY ONE SITE WITHOUT THE PRIOR APPROVAL OF THE EXECUTIVE DIRECTOR.
14. ALL POTABLE WATER STORAGE TANKS AND PRESSURE MAINTENANCE FACILITIES MUST BE ENCLOSED BY AN INTRUDER RESISTANT FENCE WITH LOCKABLE GATES. PEDESTAL TYPE ELEVATED STORAGE TANKS WITH LOCKABLE DOORS AND WITHOUT EXTERNAL LADDERS ARE EXEMPT FROM THIS REQUIREMENT. THE GATES AND DOORS MUST BE KEPT LOCKED WHENEVER THE FACILITY IS UNATTENDED.

TCEQ WATER DISTRIBUTION SYSTEM GENERAL CONSTRUCTION NOTES:

1. THIS WATER DISTRIBUTION SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS 30 TEXAS ADMINISTRATIVE CODE (TAC) CHAPTER 290 SUBCHAPTER D. WHEN CONFLICTS ARE NOTED WITH LOCAL STANDARDS, THE MORE STRINGENT REQUIREMENT SHALL BE APPLIED. AT A MINIMUM, CONSTRUCTION FOR PUBLIC WATER SYSTEMS MUST ALWAYS MEET TCEQ'S "RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS."
2. ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)/NSF INTERNATIONAL STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI [§290.44(A)(1)].
3. PLASTIC PIPE FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NSF INTERNATIONAL SEAL OF APPROVAL (NSF-PW) AND HAVE AN ASTM DESIGN PRESSURE RATING OF AT LEAST 150 PSI OR A STANDARD DIMENSION RATIO OF 26 OR LESS [§290.44(A)(2)].
4. NO PIPE WHICH HAS BEEN USED FOR ANY PURPOSE OTHER THAN THE CONVEYANCE OF DRINKING WATER SHALL BE ACCEPTED OR RELOCATED FOR USE IN ANY PUBLIC DRINKING WATER SUPPLY [§290.44(A)(3)].
5. ALL WATER LINE CROSSINGS OF WASTEWATER MAINS SHALL BE PERPENDICULAR [§290.44(E)(4)(B)].
6. WATER TRANSMISSION AND DISTRIBUTION LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. HOWEVER, THE TOP OF THE WATER LINE MUST BE LOCATED BELOW THE FROST LINE AND IN NO CASE SHALL THE TOP OF THE WATER LINE BE LESS THAN 24 INCHES BELOW GROUND SURFACE [§290.44(A)(4)].
7. THE MAXIMUM ALLOWABLE LEAD CONTENT OF PIPES, PIPE FITTINGS, PLUMBING FITTINGS, AND FIXTURES IS 0.25 PERCENT [§290.44(B)].
8. THE CONTRACTOR SHALL INSTALL APPROPRIATE AIR RELEASE DEVICES WITH VENT OPENINGS TO THE ATMOSPHERE COVERED WITH 16-MESH OR FINER, CORROSION RESISTANT SCREENING MATERIAL OR AN ACCEPTABLE EQUIVALENT [§290.44(D)(1)].
9. THE CONTRACTOR SHALL NOT PLACE THE PIPE IN WATER OR WHERE IT CAN BE FLOODED WITH WATER OR SEWAGE DURING ITS STORAGE OR INSTALLATION [§290.44(F)(1)].
10. WHEN WATERLINES ARE LAID UNDER ANY FLOWING OR INTERMITTENT STREAM OR SEMI-PERMANENT BODY OF WATER THE WATERLINE SHALL BE INSTALLED IN A SEPARATE WATERTIGHT PIPE ENCASEMENT. VALVES MUST BE PROVIDED ON EACH SIDE OF THE CROSSING WITH FACILITIES TO ALLOW THE UNDERWATER PORTION OF THE SYSTEM TO BE ISOLATED AND TESTED [§290.44(F)(2)].
11. PURSUANT TO 30 TAC §290.44(A)(5), THE HYDROSTATIC LEAKAGE RATE SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY THE MOST CURRENT AWWA FORMULAS FOR PVC PIPE, CAST IRON AND DUCTILE IRON PIPE. INCLUDE THE FORMULAS IN THE NOTES ON THE PLANS.

    O THE HYDROSTATIC LEAKAGE RATE FOR POLYVINYL CHLORIDE (PVC) PIPE AND APPURTENANCES SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY FORMULAS IN AMERICA WATER WORKS ASSOCIATION (AWWA) C-605 AS REQUIRED IN 30 TAC §290.44(A)(5). PLEASE ENSURE THAT THE FORMULA FOR THIS CALCULATION IS CORRECT AND MOST CURRENT FORMULA IS IN USE;

    $$Q = \frac{LD\sqrt{P}}{148{,}000}$$

    WHERE:
    - Q = THE QUANTITY OF MAKEUP WATER IN GALLONS PER HOUR,
    - L = THE LENGTH OF THE PIPE SECTION BEING TESTED, IN FEET,
    - D = THE NOMINAL DIAMETER OF THE PIPE IN INCHES, AND
    - P = THE AVERAGE TEST PRESSURE DURING THE HYDROSTATIC TEST IN POUNDS PER SQUARE INCH (PSI).

    O THE HYDROSTATIC LEAKAGE RATE FOR DUCTILE IRON (DI) PIPE AND APPURTENANCES SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY FORMULAS IN AMERICA WATER WORKS ASSOCIATION (AWWA) C-600 AS REQUIRED IN 30 TAC §290.44(A)(5). PLEASE ENSURE THAT THE FORMULA FOR THIS CALCULATION IS CORRECT AND MOST CURRENT FORMULA IS IN USE;

    $$L = \frac{SD\sqrt{P}}{148{,}000}$$

    WHERE:
    - L = THE QUANTITY OF MAKEUP WATER IN GALLONS PER HOUR,
    - S = THE LENGTH OF THE PIPE SECTION BEING TESTED, IN FEET,
    - D = THE NOMINAL DIAMETER OF THE PIPE IN INCHES, AND
    - P = THE AVERAGE TEST PRESSURE DURING THE HYDROSTATIC TEST IN POUNDS PER SQUARE INCH (PSI).
12. THE CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE IN ALL DIRECTIONS OF NINE FEET BETWEEN THE PROPOSED WATERLINE AND WASTEWATER COLLECTION FACILITIES INCLUDING MANHOLES. IF THIS DISTANCE CANNOT BE MAINTAINED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROJECT ENGINEER FOR FURTHER DIRECTION. SEPARATION DISTANCES, INSTALLATION METHODS, AND MATERIALS UTILIZED MUST MEET §290.44(E)(1)-(4).
13. THE SEPARATION DISTANCE FROM A POTABLE WATERLINE TO A WASTEWATER MAIN OR LATERAL MANHOLE OR CLEANOUT SHALL BE A MINIMUM OF NINE FEET. WHERE THE NINE-FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE POTABLE WATERLINE SHALL BE ENCASED IN A JOINT OF AT LEAST 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE-FOOT INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHALL BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEALANT [§290.44(E)(5)].
14. FIRE HYDRANTS SHALL NOT BE INSTALLED WITHIN NINE FEET VERTICALLY OR HORIZONTALLY OF ANY WASTEWATER LINE, WASTEWATER LATERAL, OR WASTEWATER SERVICE LINE REGARDLESS OF CONSTRUCTION [§290.44(E)(6)].
15. SUCTION MAINS TO PUMPING EQUIPMENT SHALL NOT CROSS WASTEWATER MAINS, WASTEWATER LATERALS, OR WASTEWATER SERVICE LINES. RAW WATER SUPPLY LINES SHALL NOT BE INSTALLED WITHIN FIVE FEET OF ANY TILE OR CONCRETE WASTEWATER MAIN, WASTEWATER LATERAL, OR WASTEWATER SERVICE LINE [§290.44(E)(7)].
16. WATERLINES SHALL NOT BE INSTALLED CLOSER THAN TEN FEET TO SEPTIC TANK DRAINFIELDS [§290.44(E)(8)].
17. THE CONTRACTOR SHALL DISINFECT THE NEW WATERLINES IN ACCORDANCE WITH AWWA STANDARD C-651-14 OR MOST RECENT, THEN FLUSH AND SAMPLE THE LINES BEFORE BEING PLACED INTO SERVICE. SAMPLES SHALL BE COLLECTED FOR MICROBIOLOGICAL ANALYSIS TO CHECK THE EFFECTIVENESS OF THE DISINFECTION PROCEDURE WHICH SHALL BE REPEATED IF CONTAMINATION PERSISTS. A MINIMUM OF ONE SAMPLE FOR EACH 1,000 FEET OF COMPLETED WATERLINE WILL BE REQUIRED OR AT THE NEXT AVAILABLE SAMPLING POINT BEYOND 1,000 FEET AS DESIGNATED BY THE DESIGN ENGINEER [§290.44(F)(3)].
18. DECHLORINATION OF DISINFECTING WATER SHALL BE IN STRICT ACCORDANCE WITH CURRENT AWWA STANDARD C655-09 OR MOST RECENT.

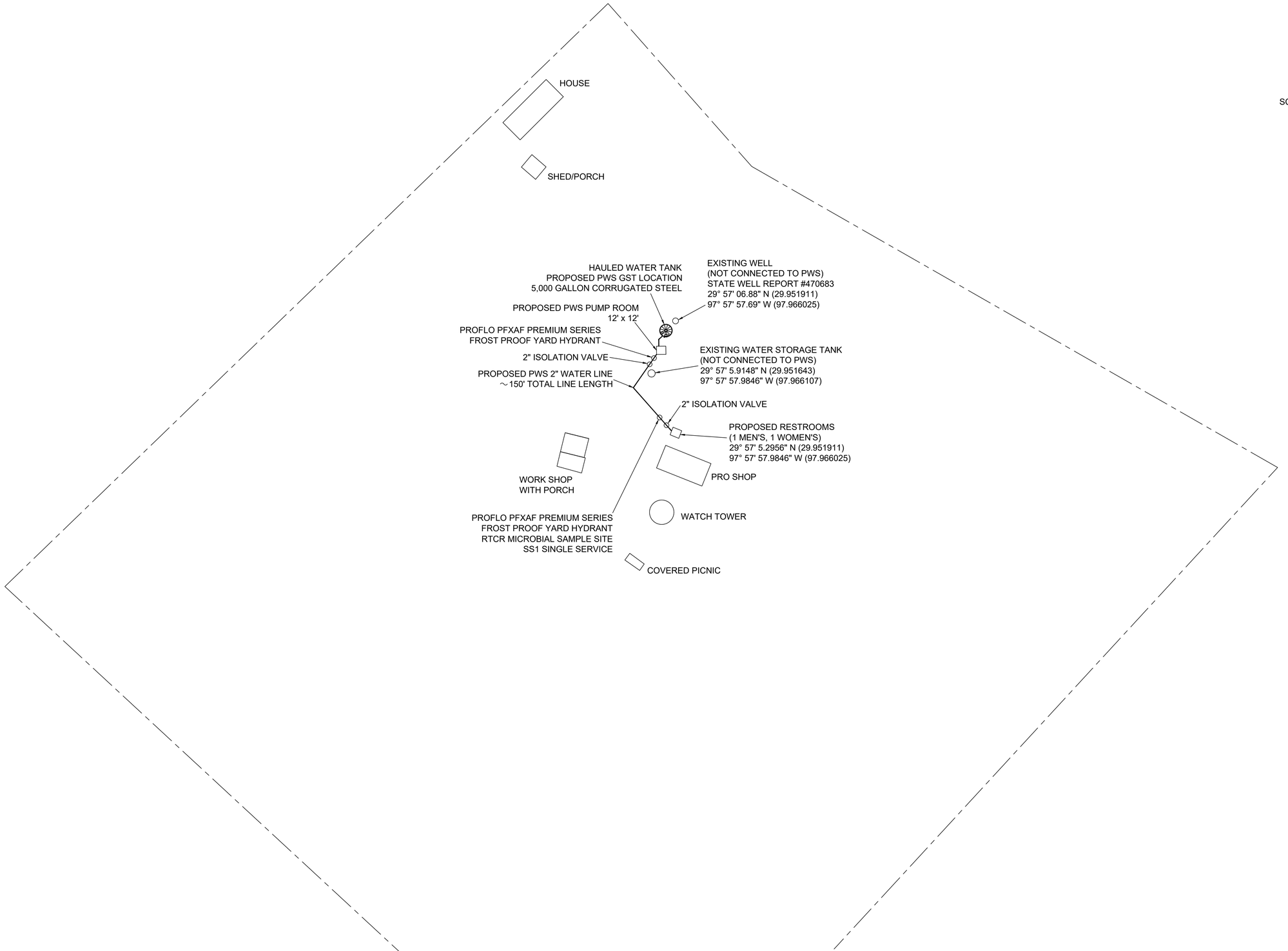
STATE OF TEXAS
Erin K. Banks
ERIN K. BANKS
84248
REGISTERED
PROFESSIONAL ENGINEER
8/31/22

BANKS & ASSOCIATES
Civil and Environmental Engineering
820 Currie Ranch Road
Wimberley, Texas 78676
(512) 801-9049
Firm Registration No. F-2002

FLYING ARMADILLO DISC GOLF CLUB
HAULED WATER SUPPLY, (PWS)
TREATMENT, AND DISTRIBUTION SYSTEM
HAYS COUNTY, TEXAS

FOR REVIEW PURPOSES ONLY, NOT FOR CONSTRUCTION

SHEET No.
C-1



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ERIN K. BANKS
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(512) 801-9049
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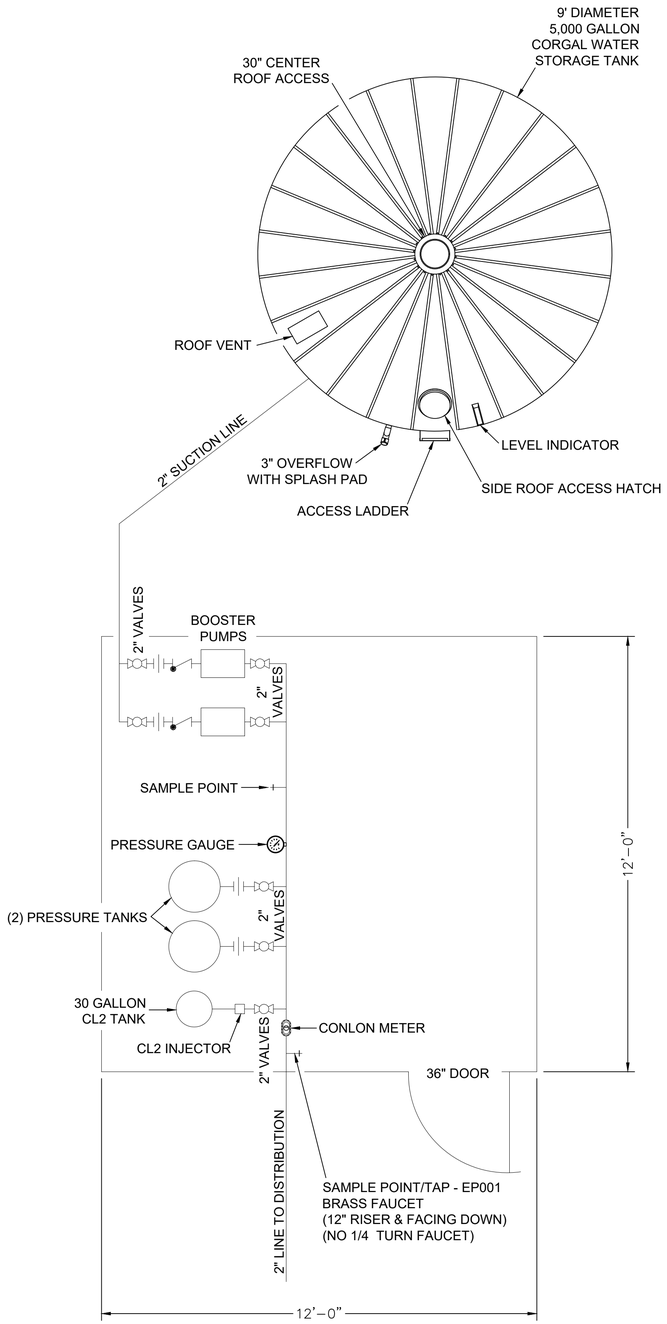
FLYING ARMADILLO DISC GOLF CLUB
HAULED WATER SUPPLY, (PWS)
TREATMENT, AND DISTRIBUTION SYSTEM
HAYS COUNTY, TEXAS

SHEET No.
C-2

FOR REVIEW PURPOSES ONLY, NOT FOR CONSTRUCTION



WATER TREATMENT AND DISTRIBUTION SYSTEM DETAIL
NTS

NOTE: WELL, TREATMENT AND DISTRIBUTION SYSTEM ARE TO BE ENCLOSED IN INTRUDER RESISTANT FENCE OR OTHER APPROVED INTRUDER RESISTANT MECHANISM

PROFLO
PFXAF Premium Series
Frost Proof Yard Hydrants

Product Features

- Lever control with variable flow
- Heavy-duty solid no lead brass hose adapter
- Pipe and rod are galvanized to prevent rust
- Head and lever can be padlocked when not in use to prevent unauthorized use
- Drains below the frost line once hydrant is shut off
- Inlet: 3/4" NPT in no lead brass casting
- Outlet: 3/4" no lead brass hose thread
- Stainless steel operating rod thru teflon packing
- Automatic self-adjusting plunger
- 1" galvanized pipe and 7/16" galvanized operating rod
- Overall length is 34" plus bury depth (bury depth is stenciled on pipe)

Parts Available

PFXAFHDL - Lever control (A)

PFAF7500RK

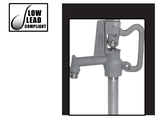
Repair Kit for PFAF7500 Series Yard Hydrant includes one each of the following:

- Draw straps (pair)
- Valve stem packing
- Pivot connector and nuts
- Plunger assembly
- Packing nut

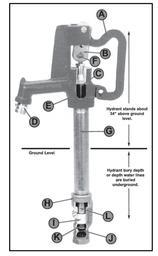
	DESCRIPTION	OVERALL LENGTH (INCHES)
PFXAF7501	1 FT BURY PREMIUM FREEZELESS YARD HYDRANT	45.5
PFXAF7502	2 FT BURY PREMIUM FREEZELESS YARD HYDRANT	57.5
PFXAF7503	3 FT BURY PREMIUM FREEZELESS YARD HYDRANT	69.5
PFXAF7504	4 FT BURY PREMIUM FREEZELESS YARD HYDRANT	81.5
PFXAF7505	5 FT BURY PREMIUM FREEZELESS YARD HYDRANT	93.5
PFXAF7506	6 FT BURY PREMIUM FREEZELESS YARD HYDRANT	105.5
PFXAF7507	7 FT BURY PREMIUM FREEZELESS YARD HYDRANT	117.5

WATER SYSTEM PRESSURE	GALLONS PER MINUTE (GPM) 0 5 10 15 20 25 30 35 40 45 50
20 PSI	16 GPM @ 20 PSI
30 PSI	21 GPM @ 30 PSI
40 PSI	24 GPM @ 40 PSI
60 PSI	30 GPM @ 60 PSI
80 PSI	34 GPM @ 80 PSI
100 PSI	40 GPM @ 100 PSI
	NOTE: Must common 1/2 hp submersible pumps output is 10 GPM.

Made in U.S.A.



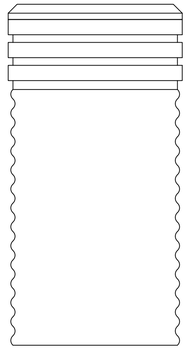
PFXAF SERIES
Low-Lead Compliant



A - Lever Control
B - Draw Straps
C - SS Operating Rod
D - Heavy-Duty Solid No Lead Brass Hose Adapter
E - Extra Thick Walled Head Casting
F - Pivot Connector withTwo Nuts
G - USA Schedule 40 Galvanized Pipe
H - Extra Thick Walled No Lead Valve Body
I - Patented Plunger Arrangement Krayton G Cup Seals
J - Beveled Bibb Washer
K - SS Spring
L - Plunger on Swivel

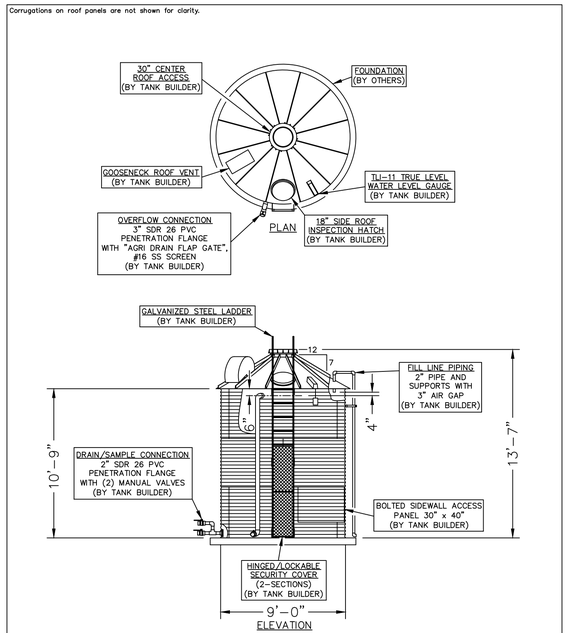
Warranty and Codes

This PROFLO product carries a 1-year limited warranty.



PROFLO HYDRANT COVER

Corrugations on roof panels are not shown for clarity.



		BY	DATE
Specified Water Systems, LLC	DWN	IU	11/5/19
Austin, Texas, USA	CKD	CL	11/5/19
1-877-301-5632	ENG	CL	11/5/19
www.specwater.com			

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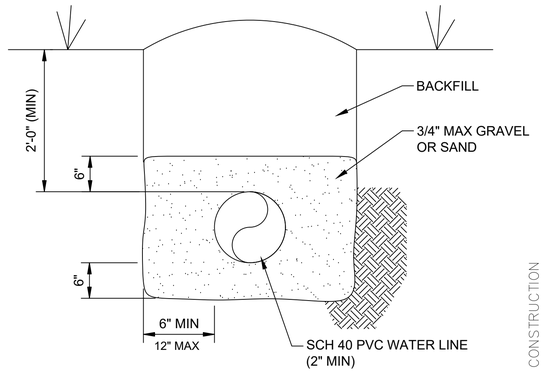
TITLE: MODEL 0903-WT-CHR
CORGAL STEEL WATER STORAGE TANK
NOMINAL CAPACITY - 5,000 GALLONS (U.S.)
DWG. NO.: SWS-0903-WT-CHR-TCEQ-1
REV. NO.: A
SIZE: A
SCALE: 3/16"=1'-0"
SHEET 1 OF 1

TCEQ PWS TANK
NTS



TYPICAL TRENCH SECTION
NTS

STATE OF TEXAS
ERIN K. BANKS
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8/31/22

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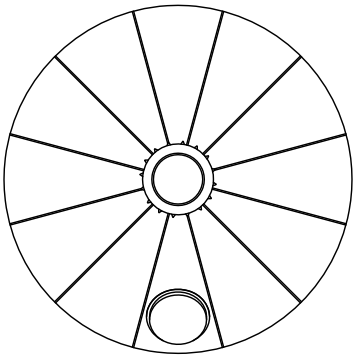
(512) 801-9049
Firm Registration No. F-2002

FLYING ARMADILLO DISC GOLF CLUB
HAULED WATER SUPPLY, (PWS)
TREATMENT, AND DISTRIBUTION SYSTEM
HAYS COUNTY, TEXAS

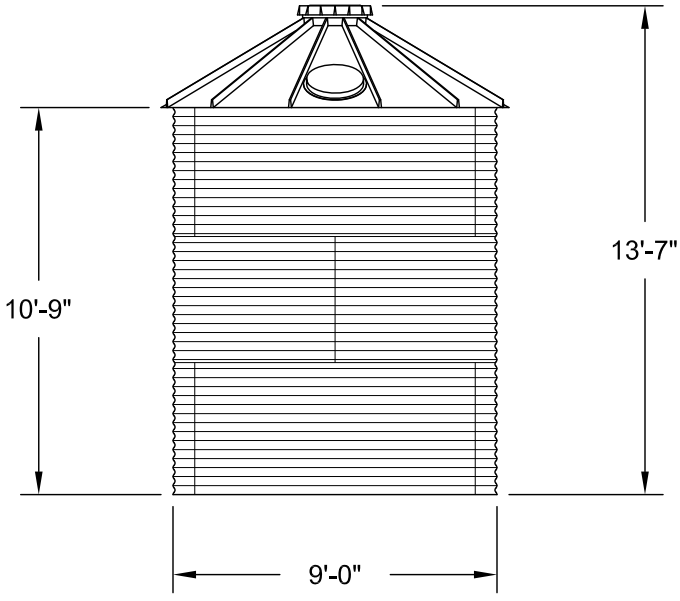
FOR REVIEW PURPOSES ONLY, NOT FOR CONSTRUCTION

SHEET No.
C-3

Corrugations on roof panels are not shown for clarity.



PLAN



ELEVATION

CORGAL WATER TANKS **WATER STORAGE TANKS, INC.** **1-800-463-1898** **www.corgaltanks.com**		BY	DATE
	DWN	IU	2/15/13
	CKD	JH	2/15/13
	ENG	JH	2/15/13

TITLE: MODEL 0903-WT-CHR
CORGAL STEEL WATER STORAGE TANK
NOMINAL CAPACITY - 5,000 GALLONS (U.S.)

DWG. NO.: 0903-WT-CHR | REV. NO.: C

SIZE: A | SCALE: 3/16"=1'-0" | SHEET: 1 OF 1

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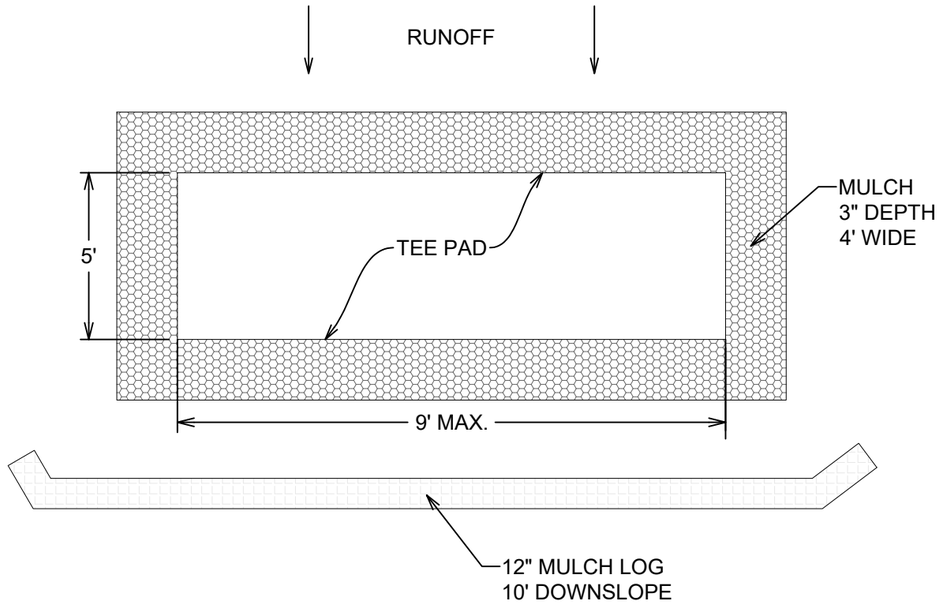
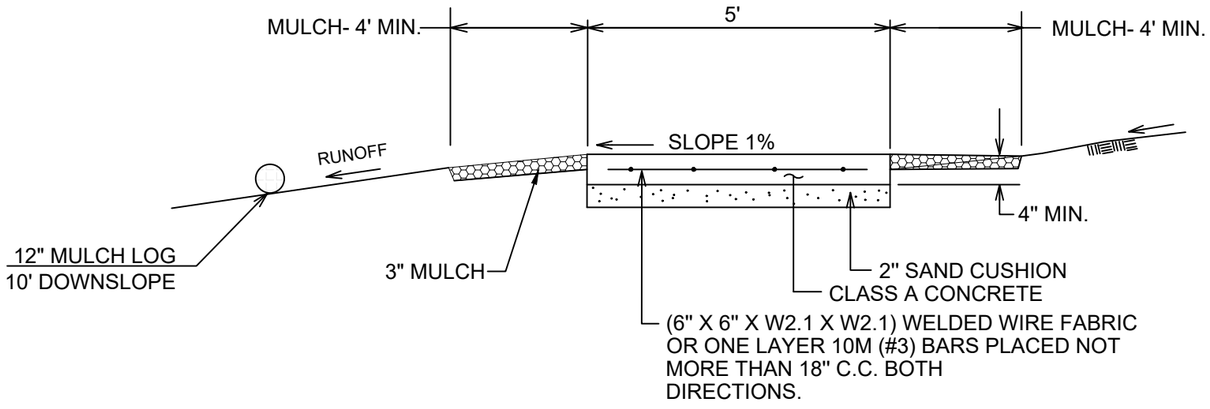


PLAN

NOTE: INSTALL MULCH LOG PER SAN MARCOS STANDARD DETAIL

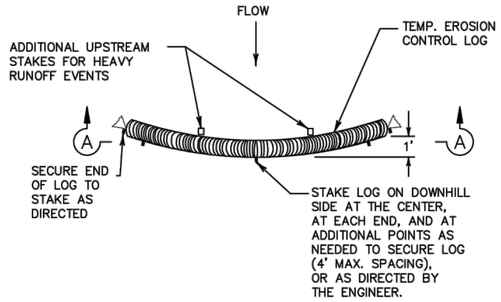


SECTION

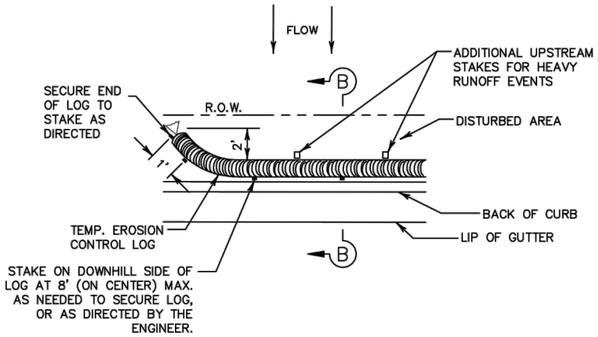
NOTE:
REINFORCEMENT SHALL ACCURATELY PLACED AT SLAB MID-DEPTH AND HELD FIRMLY IN PLACE BY MEANS OF BAR SUPPORTS OF ADEQUATE STRENGTH AND NUMBER THAT WILL PREVENT DISPLACEMENT AND KEEP THE STEEL AT ITS PROPER POSITION DURING THE PLACEMENT OF THE P.C. CONCRETE. IN NO INSTANCE SHALL THE STEEL BE PLACED DIRECTLY ON THE SUBGRADE OR SAND CUSHION LAYER.

STATE OF TEXAS
CHARLES W. KAOUGH
90191
LICENSED
PROFESSIONAL ENGINEER
8/4/2023

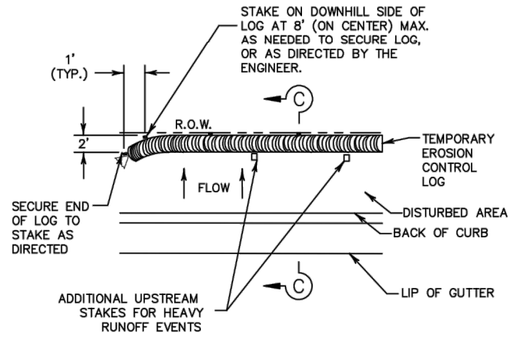
CHARLES KAOUGH, P.E.	DISC GOLF TEE PAD	SHEET 1 OF 4



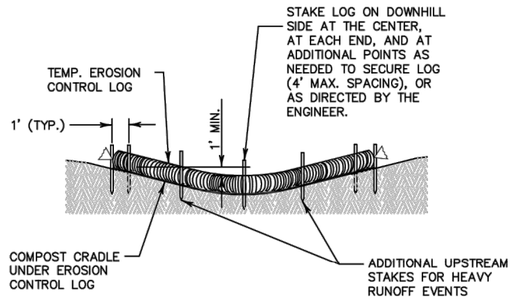
PLAN VIEW



PLAN VIEW



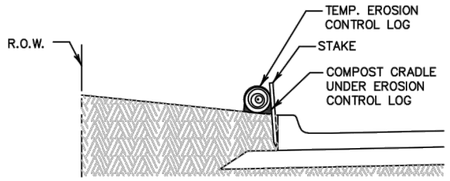
PLAN VIEW



SECTION A-A

EROSION CONTROL LOG DAM

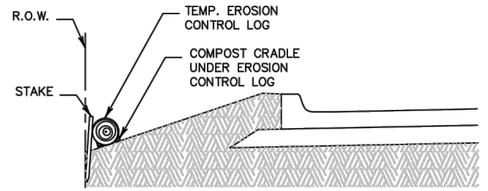
CL–D



SECTION B-B

EROSION CONTROL LOG AT BACK OF CURB

CL–BOC



SECTION C-C

EROSION CONTROL LOG AT EDGE OF RIGHT-OF-WAY

CL–ROW

REBAR STAKE DETAIL

LEGEND

- CL–D — EROSION CONTROL LOG DAM
- CL–BOC — EROSION CONTROL LOG AT BACK OF CURB
- CL–ROW — EROSION CONTROL LOG AT EDGE OF RIGHT–OF–WAY
- CL–SST — EROSION CONTROL LOGS ON SLOPES STAKE AND TRENCHING ANCHORING
- CL–SSL — EROSION CONTROL LOGS ON SLOPES STAKE AND LASHING ANCHORING
- CL–DI — EROSION CONTROL LOG AT DROP INLET
- CL–CI — EROSION CONTROL LOG AT CURB INLET
- CL–GI — EROSION CONTROL LOG AT CURB & GRATE INLET

GENERAL NOTES:

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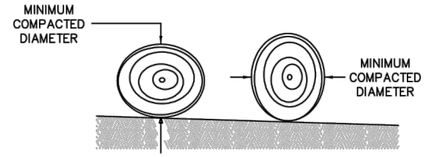
2. LENGTHS OF EROSION CONTROL LOGS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED FOR THE PURPOSE INTENDED.
3. UNLESS OTHERWISE DIRECTED, USE BIODEGRADABLE OR PHOTODEGRADABLE CONTAINMENT MESH ONLY WHERE LOG WILL REMAIN IN PLACE AS PART OF A VEGETATIVE SYSTEM. FOR TEMPORARY INSTALLATIONS, USE RECYCLABLE CONTAINMENT MESH.
4. FILL LOGS WITH SUFFICIENT FILTER MATERIAL TO ACHIEVE THE MINIMUM COMPACTED DIAMETER SPECIFIED IN THE PLANS WITHOUT EXCESSIVE DEFORMATION.
5. STAKES SHALL BE 2" X 2" WOOD OR #3 REBAR, 2'–4' LONG, EMBEDDED SUCH THAT 2" PROTRUDES ABOVE LOG, OR AS DIRECTED BY THE ENGINEER.
6. DO NOT PLACE STAKES THROUGH CONTAINMENT MESH.
7. COMPOST CRADLE MATERIAL IS INCIDENTAL & WILL NOT BE PAID FOR SEPARATELY.
8. SANDBAGS USED AS ANCHORS SHALL BE PLACED ON TOP OF LOGS & SHALL BE OF SUFFICIENT SIZE TO HOLD LOGS IN PLACE.
9. TURN THE ENDS OF EACH ROW OF LOGS UPSLOPE TO PREVENT RUNOFF FROM FLOWING AROUND THE LOG.
10. FOR HEAVY RUNOFF EVENTS, ADDITIONAL UPSTREAM STAKES MAY BE NECESSARY TO KEEP LOG FROM FOLDING IN ON ITSELF.



DIAMETER MEASUREMENTS OF EROSION CONTROL LOGS SPECIFIED IN PLANS

SEDIMENT BASIN & TRAP USAGE GUIDELINES

An erosion control log sediment trap may be used to filter sediment out of runoff draining from an unstabilized area.

Log Traps: The drainage area for a sediment trap should not exceed 5 acres. The trap capacity should be 1800 CF/Acre (0.5" over the drainage area).

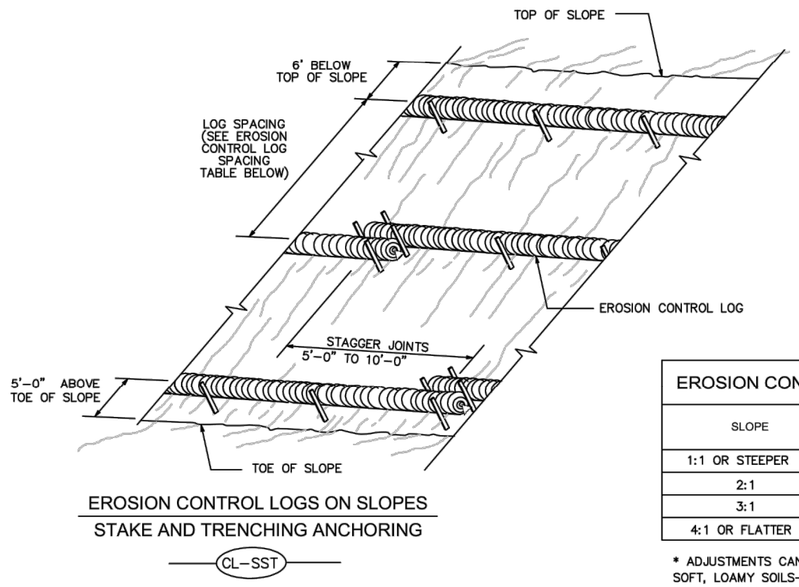
Control logs should be placed in the following locations:
1. Within drainage ditches spaced as needed or min. 500' on center
2. Immediately preceding ditch inlets or drain inlets
3. Just before the drainage enters a water course
4. Just before the drainage leaves the right of way
5. Just before the drainage leaves the construction limits where drainage flows away from the project.

The logs should be cleaned when the sediment has accumulated to a depth of 1/2 the log diameter.

Cleaning and removal of accumulated sediment deposits is incidental and will not be paid for separately.

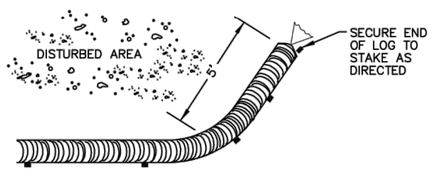
Charles W. Kaough
STATE OF TEXAS
CHARLES W. KAOUGH
90191
LICENSED PROFESSIONAL ENGINEER
8/4/2023

The City of San Marcos Engineering and Capital Improvements	CURRENT AS OF 1/1/2023
RECORD COPY SIGNED BY LAURIE MOYER, P.E.	1/1/2020 ADOPTED
MULCH SOCK	
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 648S-1-SM 1 OF 3



EROSION CONTROL LOGS ON SLOPES
STAKE AND TRENCHING ANCHORING

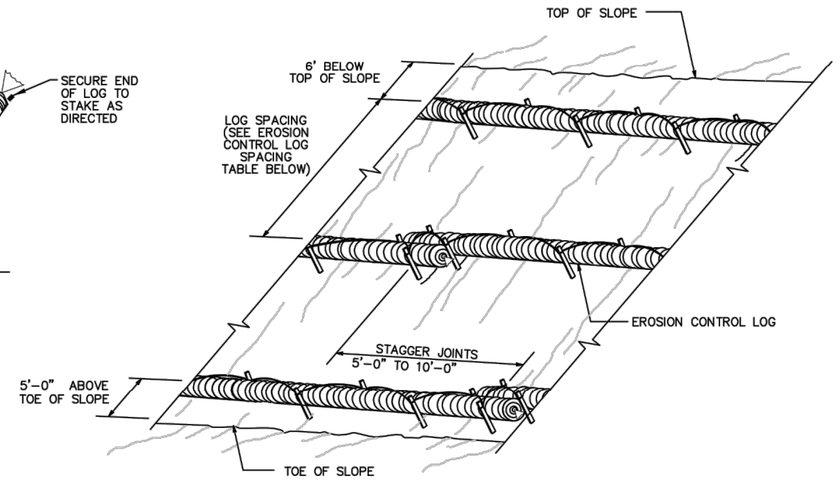
CL–SST



END SECTION RAP DETAIL

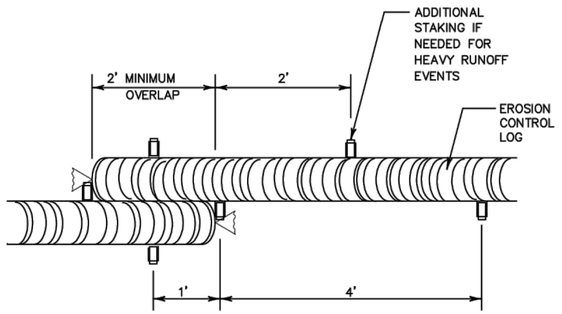
EROSION CONTROL LOG SPACING TABLE				
SLOPE	LOG DIAMETER			
	6"	8"	12"	18"
1:1 OR STEEPER	5'	10'	15'	20'
2:1	10'	20'	30'	40'
3:1	15'	30'	45'	60'
4:1 OR FLATTER	20'	40'	60'	80'

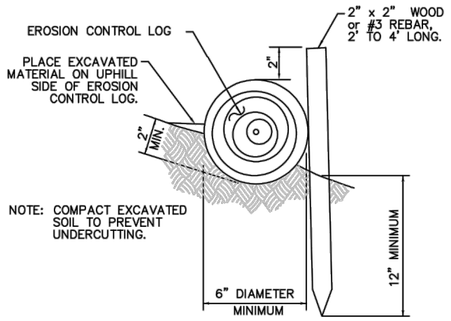
* ADJUSTMENTS CAN BE MADE FOR SOIL TYPE:
SOFT, LOAMY SOILS–ADJUST ROWS CLOSER TOGETHER;
HARD, ROCKY SOILS– ADJUST ROWS FARTHER APART



EROSION CONTROL LOGS ON SLOPES
STAKE AND LASHING ANCHORING

CL–SSL

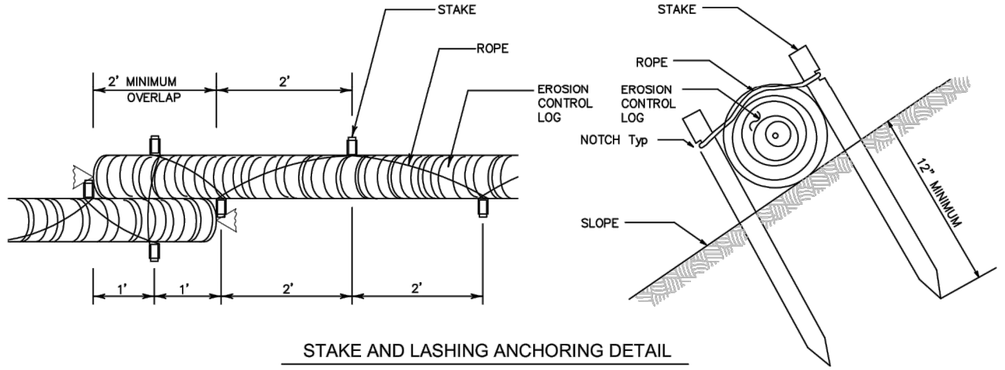




STAKE AND TRENCHING ANCHORING DETAIL

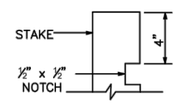
CL–SST

TRENCH DEPTH TABLE	
LOG DIAMETER	DEPTH
6"	2"
8"	3"
12"	4"
18"	5"



STAKE AND LASHING ANCHORING DETAIL

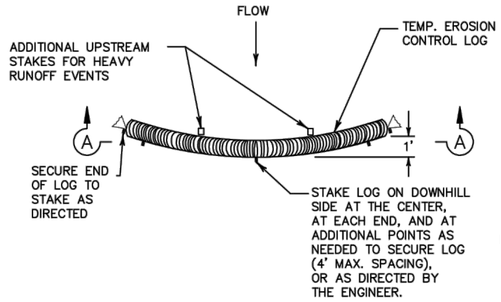
CL–SSL



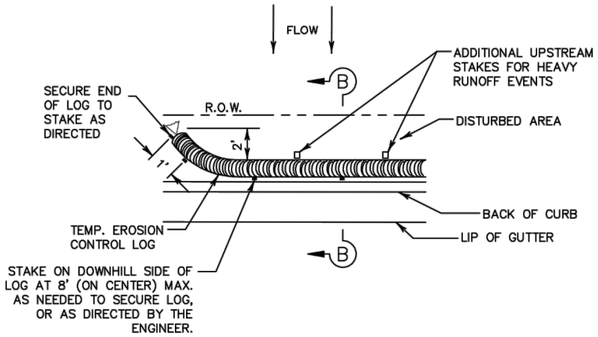
STAKE NOTCH DETAIL

Charles W. Kaough
STATE OF TEXAS
CHARLES W. KAOUGH
90191
LICENSED
PROFESSIONAL ENGINEER
8/4/2023

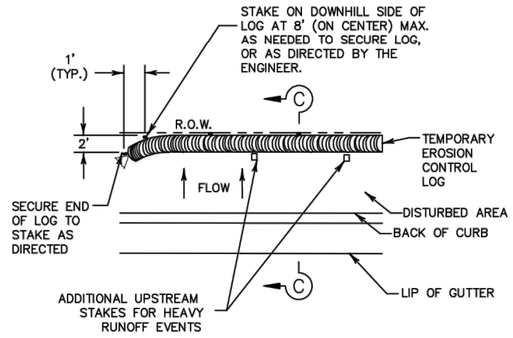
The City of San Marcos Engineering and Capital Improvements	CURRENT AS OF 1/1/2023
RECORD COPY SIGNED BY	1/1/2020
LAURIE MOYER, P.E.	ADOPTED
MULCH SOCK	
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 648S-1-SM 2 OF 3



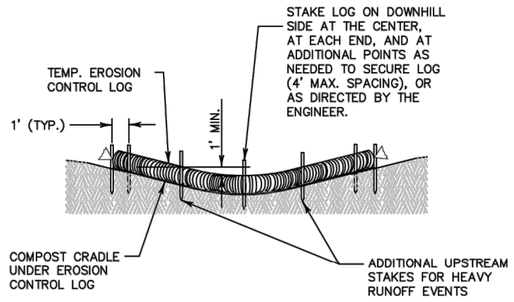
PLAN VIEW



PLAN VIEW



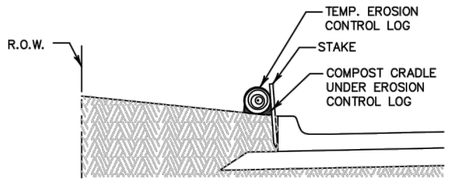
PLAN VIEW



SECTION A-A

EROSION CONTROL LOG DAM

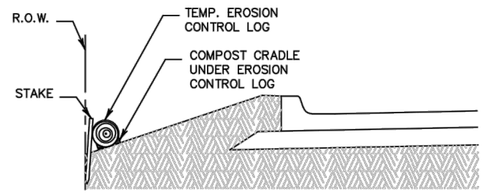
CL–D



SECTION B-B

EROSION CONTROL LOG AT BACK OF CURB

CL–BOC



SECTION C-C

EROSION CONTROL LOG AT EDGE OF RIGHT-OF-WAY

CL–ROW

LEGEND

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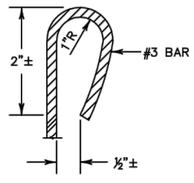

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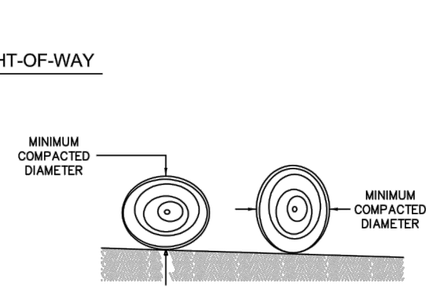


DIAMETER MEASUREMENTS OF EROSION CONTROL LOGS SPECIFIED IN PLANS

STATE OF TEXAS
CHARLES W. KAOUGH
90191
LICENSED PROFESSIONAL ENGINEER
8/4/2023

The City of San Marcos Engineering and Capital Improvements	CURRENT AS OF 1/1/2023
RECORD COPY SIGNED BY LAURIE MOYER, P.E.	1/1/2020 ADOPTED
MULCH SOCK	
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 648S-1-SM 1 OF 3

CHARLES KAOUGH, P.E.	MULCH LOG	SHEET 4 OF 4

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: Edward R. Newby

Date: 4/3/2023

Signature of Customer/Agent:

Regulated Entity Name: FADGC LLC

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: gasoline, engine coolant, and lubricants

   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: Sink Creek

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☒ N/A

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

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

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

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

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

Soil Stabilization Practices

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

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

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

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

Administrative Information

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

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

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

Flying Armadillo Disc Golf Club
Temporary Stormwater Section
Attachment A – Spill Response Actions

CONTRACTOR WILL ENSURE THEIR ONSITE PERSONNEL WILL BE TRAINED TO PERFORM AND BE KNOWLEDGEABLE OF THE SPILL RESPONSE ACTIONS.

If a spill occurs, the responsible person must notify the state upon determining that a reportable discharge or spill has occurred. The threshold quantity that triggers the requirement to report a spill is called the reportable quantity (RQ). The reportable quantity depends on the type of substance released and where released (e.g. into water vs. on land); different kinds of spills are subject to different provisions of state and federal rules. To determine the RQ, consult the TCEQ RQ website at: https://www.tceq.texas.gov/response/spills/spill_rq.html

For significant or hazardous spills that are in reportable quantities;

- Notify the State of Texas Spill Reporting Hotline at 1-800-832-8224
- Notify the TCEQ Austin Regional Office at 1-512-339-2929

Spills of minor amounts of hydrocarbons or hazardous substances on soil covered areas will be addressed by:

- Removing spilled material with absorbent pads;
- Remove the impacted soil and the area surrounding it;
- Contain impacted soil and pads in plastic bags; and
- Properly dispose of contaminated materials.

For minor spills on walkways:

- Lay down soil or absorbent material (kitty litter, vermiculite, sawdust);
- Remove spilled material with absorbent;
- Wash surface with biodegradable detergent and water;
- Collect water with additional sorbent, vacuum, or other method;
- Contain impacted pads and material in plastic bags; and
- Properly dispose of contaminated materials.

Spills of larger and uncontained amounts of hydrocarbons or hazardous substances will require a cessation of all other activities in the vicinity, evacuation of all non-essential personnel, and notification of local emergency responders and potentially a spill response contractor. Immediate response by on-site personnel will include:

- Extinguish any potential sources of ignition;
- Contain spread of the spill with earthen berms and/or containment booms;
- Cover the spilled material with a tarp if spill occurs during rain to prevent runoff;
- Remove spilled material with absorbent pads;
- Remove the impacted soil and the area surrounding it;

- Wash impacted impervious surfaces with biodegradable detergent and water;
- Contain impacted pads and material in plastic bags; and
- Properly dispose of contaminated materials.

Temporary Stormwater Section
Attachment B – Potential Sources of Contamination

The following are potential sources of contamination that could affect surface water quality:

- Surface stormwater runoff from roadways and parking areas: oils, fuels, and other chemical contaminants associated with typical site parking areas;
- Surface stormwater runoff from bare soil areas; and
- Construction vehicle tracks out onto public roadways.

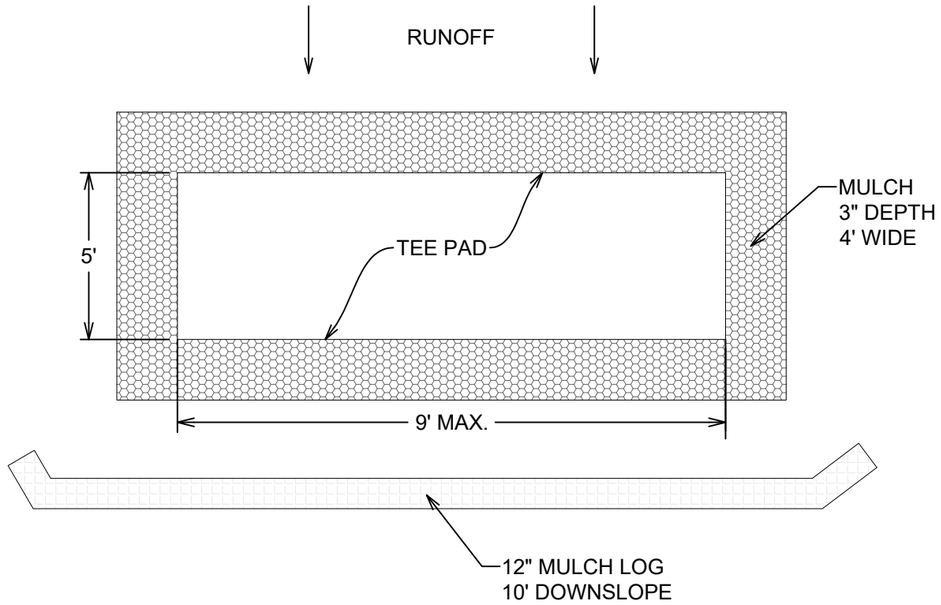
Temporary Stormwater Section
Attachment C – Sequence of Major Activities

The sequence of major construction activities which will disturb soils for portions of the site include:

- Excavation of 200 SF area for foundation of restroom facility and drain lines to septic tank, duration 3 days;
    - Mulch logs to control runoff will be used for temporary erosion and sedimentation control.
- Excavation for 2,500 gal. septic tank, equalization tank, and aerobic tank, 800 SF (.02 ac.), duration 3 days;
    - Mulch logs to control runoff will be used for temporary erosion and sedimentation control.
- Excavation of 180 feet of drain pipe chases from tanks to drain field, 600 SF (.014 ac.), duration 2 days;
    - Mulch logs to control runoff will be used for temporary erosion and sedimentation control.
- Excavation of 2 – 90 X 40-foot drain fields 7,200 SF (.17 ac.), duration 5 days;
    - Mulch logs to control runoff will be used for temporary erosion and sedimentation control.
- Installation of septic tanks and piping, duration 2 days;
    - Mulch logs to control runoff will be used for temporary erosion and sedimentation control.
- Framing and covering of restroom building, duration 2 days;
    - Mulch logs to control runoff will be used for temporary erosion and sedimentation control.
- Refilling of drain field and pipe chase excavations, duration 1 day;
    - Install temporary or permanent irrigation and reseed disturbed areas;
    - Remove temporary runoff controls.

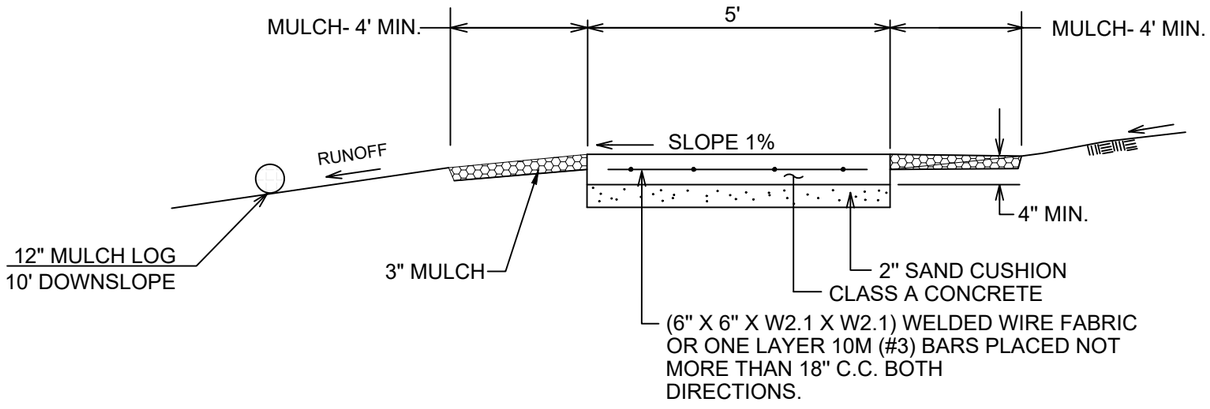
- Excavation of 144 SF area for foundation of public water supply pump house, duration 3 days;
    - Mulch logs to control runoff will be used for temporary erosion and sedimentation control.
- Excavation of 80 SF area for foundation of public water supply Storage tank, duration 3 days;
    - Mulch logs to control runoff will be used for temporary erosion and sedimentation control.
- Framing and covering of public water supply pump house building, duration s days;
    - Mulch logs to control runoff will be used for temporary erosion and sedimentation control.
- Framing and covering of restroom building, duration 2 days;
    - Mulch logs to control runoff will be used for temporary erosion and sedimentation control.
- Excavation of 120 feet of pipe chases from public water supply storage tank to pump house and restroom building, duration 1 day;
    - Mulch logs to control runoff will be used for temporary erosion and sedimentation control.
- Excavation of 50 SF for each concrete tee box, duration 1 day;
    - Mulch logs to control runoff will be used for temporary erosion and sedimentation control.

The attached typical design of the proposed disc golf tee pads and mulch log detail shows the approximate location of erosion and sedimentation control downgradient of tee pad construction areas. Also attached is a map showing the approximate location of erosion and sedimentation control for the proposed OSSF and PWS construction excavation areas.



PLAN

NOTE: INSTALL MULCH LOG PER SAN MARCOS STANDARD DETAIL

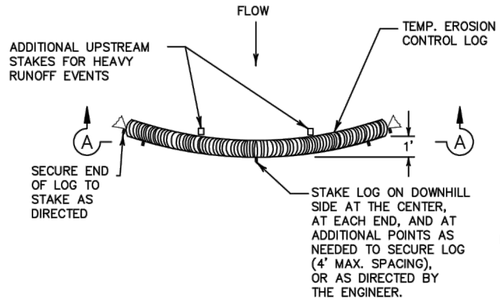


SECTION

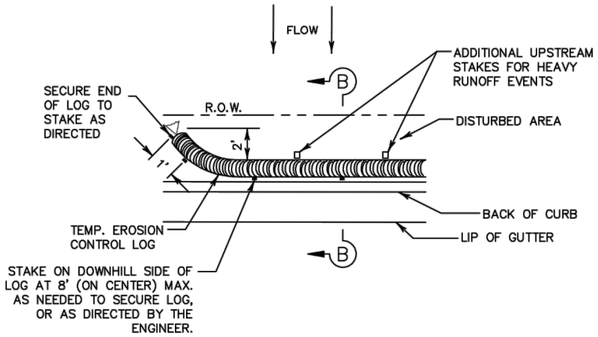
NOTE:
REINFORCEMENT SHALL ACCURATELY PLACED AT SLAB MID-DEPTH AND HELD FIRMLY IN PLACE BY MEANS OF BAR SUPPORTS OF ADEQUATE STRENGTH AND NUMBER THAT WILL PREVENT DISPLACEMENT AND KEEP THE STEEL AT ITS PROPER POSITION DURING THE PLACEMENT OF THE P.C. CONCRETE. IN NO INSTANCE SHALL THE STEEL BE PLACED DIRECTLY ON THE SUBGRADE OR SAND CUSHION LAYER.

STATE OF TEXAS
CHARLES W. KAOUGH
90191
LICENSED
PROFESSIONAL ENGINEER
8/4/2023

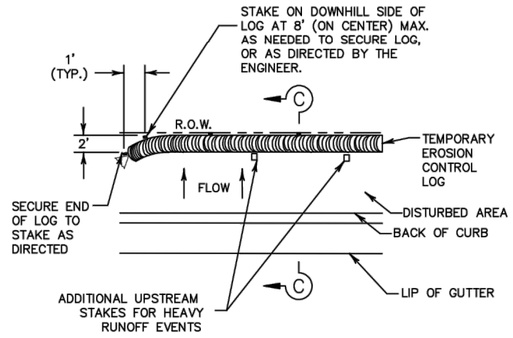
CHARLES KAOUGH, P.E.	DISC GOLF TEE PAD	SHEET 1 OF 4



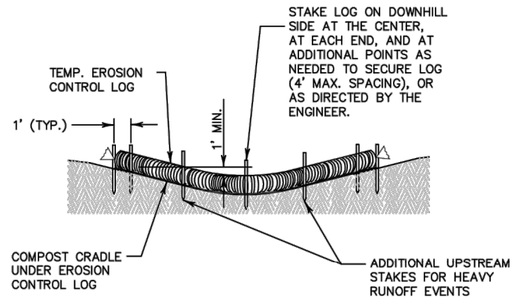
PLAN VIEW



PLAN VIEW



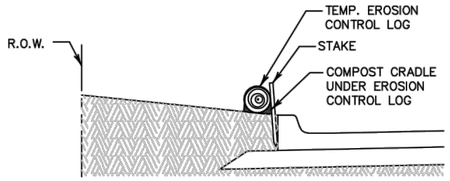
PLAN VIEW



SECTION A-A

EROSION CONTROL LOG DAM

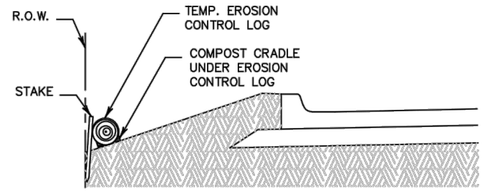
CL–D



SECTION B-B

EROSION CONTROL LOG AT BACK OF CURB

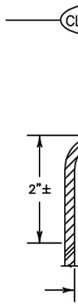
CL–BOC



SECTION C-C

EROSION CONTROL LOG AT EDGE OF RIGHT-OF-WAY

CL–ROW



REBAR STAKE DETAIL

LEGEND

- CL–D — EROSION CONTROL LOG DAM
- CL–BOC — EROSION CONTROL LOG AT BACK OF CURB
- CL–ROW — EROSION CONTROL LOG AT EDGE OF RIGHT–OF–WAY
- CL–SST — EROSION CONTROL LOGS ON SLOPES STAKE AND TRENCHING ANCHORING
- CL–SSL — EROSION CONTROL LOGS ON SLOPES STAKE AND LASHING ANCHORING
- CL–DI — EROSION CONTROL LOG AT DROP INLET
- CL–CI — EROSION CONTROL LOG AT CURB INLET
- CL–GI — EROSION CONTROL LOG AT CURB & GRATE INLET

GENERAL NOTES:

1. EROSION CONTROL LOGS SHALL BE INSTALLED IN ACCORDANCE WITH MANFACTURER'S RECOMMENDATIONS, OR AS DIRECTED BY THE ENGINEER.
2. LENGTHS OF EROSION CONTROL LOGS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED FOR THE PURPOSE INTENDED.
3. UNLESS OTHERWISE DIRECTED, USE BIODEGRADABLE OR PHOTODEGRADABLE CONTAINMENT MESH ONLY WHERE LOG WILL REMAIN IN PLACE AS PART OF A VEGETATIVE SYSTEM. FOR TEMPORARY INSTALLATIONS, USE RECYCLABLE CONTAINMENT MESH.
4. FILL LOGS WITH SUFFICIENT FILTER MATERIAL TO ACHIEVE THE MINIMUM COMPACTED DIAMETER SPECIFIED IN THE PLANS WITHOUT EXCESSIVE DEFORMATION.
5. STAKES SHALL BE 2" X 2" WOOD OR #3 REBAR, 2'–4' LONG, EMBEDDED SUCH THAT 2" PROTRUDES ABOVE LOG, OR AS DIRECTED BY THE ENGINEER.
6. DO NOT PLACE STAKES THROUGH CONTAINMENT MESH.
7. COMPOST CRADLE MATERIAL IS INCIDENTAL & WILL NOT BE PAID FOR SEPARATELY.
8. SANDBAGS USED AS ANCHORS SHALL BE PLACED ON TOP OF LOGS & SHALL BE OF SUFFICIENT SIZE TO HOLD LOGS IN PLACE.
9. TURN THE ENDS OF EACH ROW OF LOGS UPSLOPE TO PREVENT RUNOFF FROM FLOWING AROUND THE LOG.
10. FOR HEAVY RUNOFF EVENTS, ADDITIONAL UPSTREAM STAKES MAY BE NECESSARY TO KEEP LOG FROM FOLDING IN ON ITSELF.

SEDIMENT BASIN & TRAP USAGE GUIDELINES

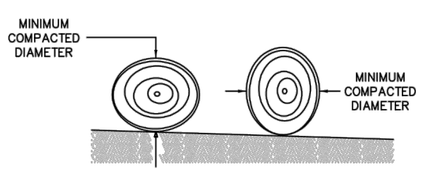
An erosion control log sediment trap may be used to filter sediment out of runoff draining from an unstabilized area.

Log Traps: The drainage area for a sediment trap should not exceed 5 acres. The trap capacity should be 1800 CF/Acre (0.5" over the drainage area).

Control logs should be placed in the following locations:
1. Within drainage ditches spaced as needed or min. 500' on center
2. Immediately preceding ditch inlets or drain inlets
3. Just before the drainage enters a water course
4. Just before the drainage leaves the right of way
5. Just before the drainage leaves the construction limits where drainage flows away from the project.

The logs should be cleaned when the sediment has accumulated to a depth of 1/2 the log diameter.

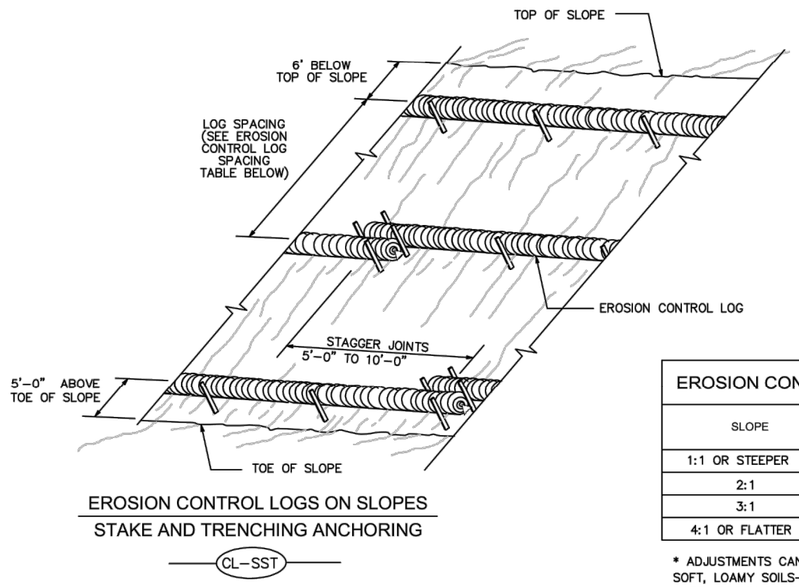
Cleaning and removal of accumulated sediment deposits is incidental and will not be paid for separately.



DIAMETER MEASUREMENTS OF EROSION CONTROL LOGS SPECIFIED IN PLANS

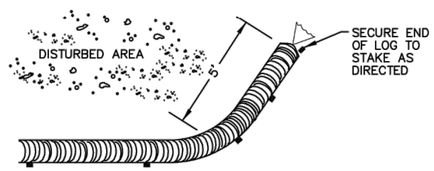
STATE OF TEXAS
CHARLES W. KAOUGH
90191
LICENSED PROFESSIONAL ENGINEER
8/4/2023

The City of San Marcos Engineering and Capital Improvements	CURRENT AS OF 1/1/2023
RECORD COPY SIGNED BY LAURIE MOYER, P.E.	1/1/2020 ADOPTED
MULCH SOCK	
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 648S-1-SM 1 OF 3



EROSION CONTROL LOGS ON SLOPES
STAKE AND TRENCHING ANCHORING

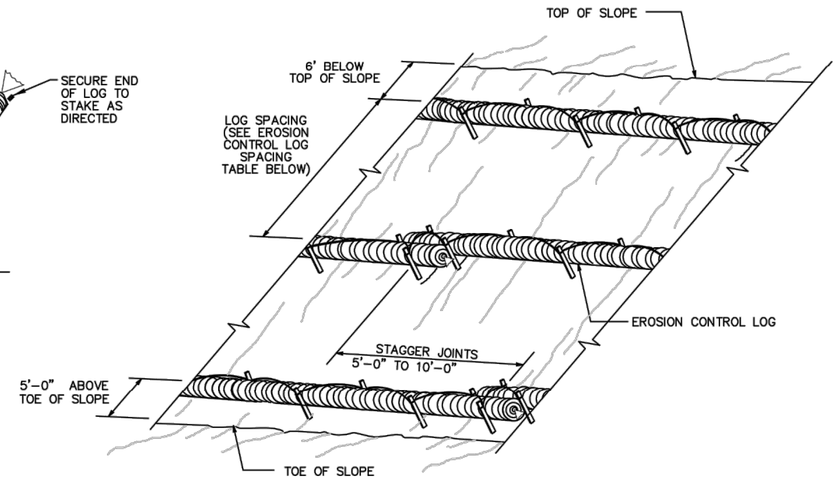
CL–SST



END SECTION RAP DETAIL

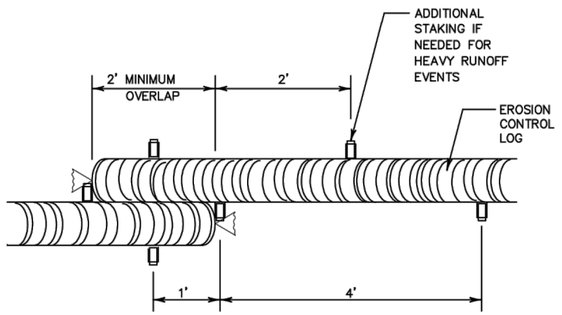
EROSION CONTROL LOG SPACING TABLE				
SLOPE	LOG DIAMETER			
	6"	8"	12"	18"
1:1 OR STEEPER	5'	10'	15'	20'
2:1	10'	20'	30'	40'
3:1	15'	30'	45'	60'
4:1 OR FLATTER	20'	40'	60'	80'

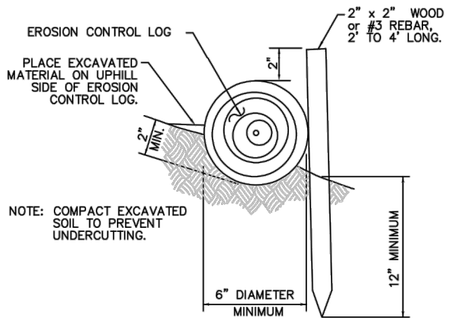
* ADJUSTMENTS CAN BE MADE FOR SOIL TYPE:
SOFT, LOAMY SOILS–ADJUST ROWS CLOSER TOGETHER;
HARD, ROCKY SOILS– ADJUST ROWS FARTHER APART



EROSION CONTROL LOGS ON SLOPES
STAKE AND LASHING ANCHORING

CL–SSL

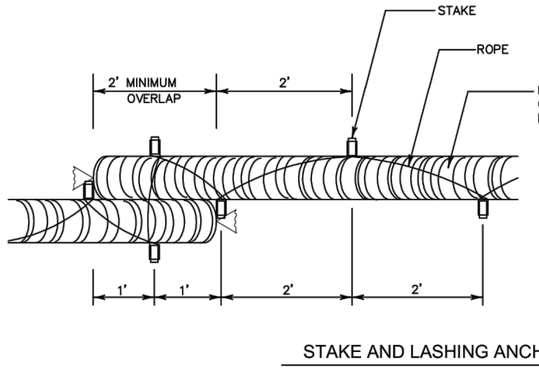


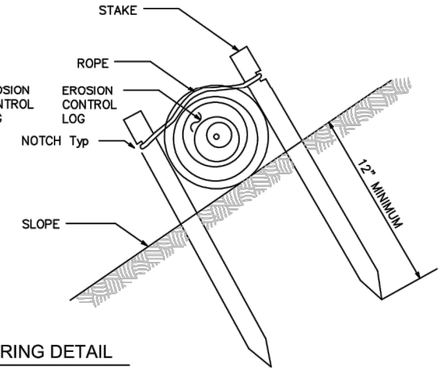


STAKE AND TRENCHING ANCHORING DETAIL

CL–SST

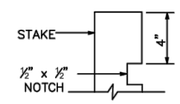
TRENCH DEPTH TABLE	
LOG DIAMETER	DEPTH
6"	2"
8"	3"
12"	4"
18"	5"





STAKE AND LASHING ANCHORING DETAIL

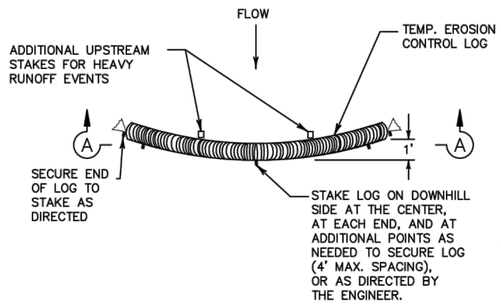
CL–SSL



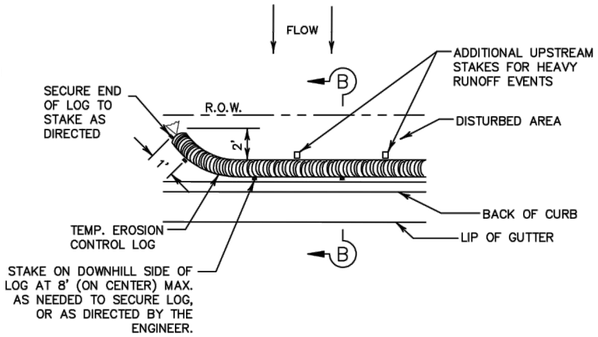
STAKE NOTCH DETAIL

Charles W. Kaough
STATE OF TEXAS
CHARLES W. KAOUGH
90191
LICENSED
PROFESSIONAL ENGINEER
8/4/2023

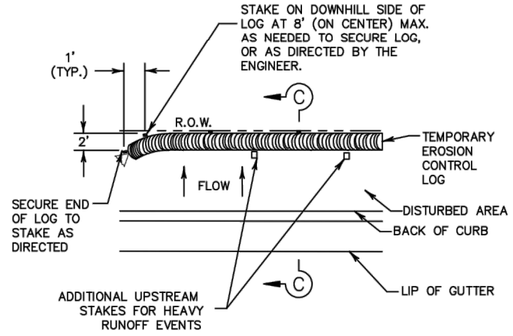
The City of San Marcos Engineering and Capital Improvements	CURRENT AS OF 1/1/2023
RECORD COPY SIGNED BY LAURIE MOYER, P.E.	1/1/2020 ADOPTED
MULCH SOCK	
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 648S-1-SM 2 OF 3



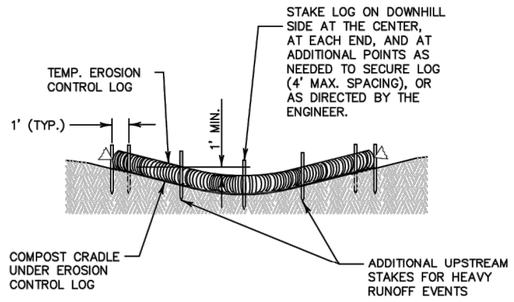
PLAN VIEW



PLAN VIEW



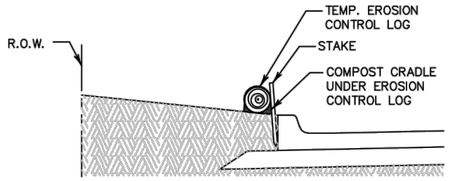
PLAN VIEW



SECTION A-A

EROSION CONTROL LOG DAM

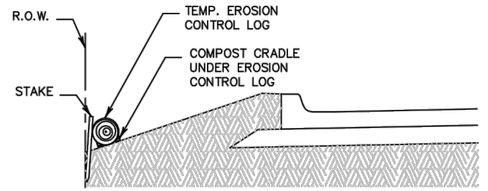
CL–D



SECTION B-B

EROSION CONTROL LOG AT BACK OF CURB

CL–BOC



SECTION C-C

EROSION CONTROL LOG AT EDGE OF RIGHT-OF-WAY

CL–ROW

REBAR STAKE DETAIL

LEGEND

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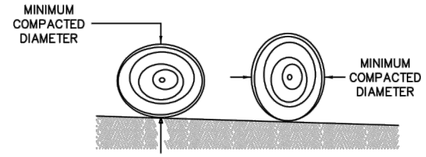

DIAMETER MEASUREMENTS OF EROSION CONTROL LOGS SPECIFIED IN PLANS

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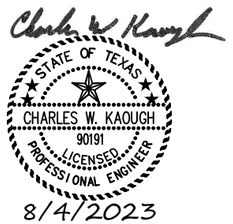


The City of San Marcos Engineering and Capital Improvements	CURRENT AS OF 1/1/2023
RECORD COPY SIGNED BY	1/1/2020
LAURIE MOYER, P.E.	ADOPTED
MULCH SOCK	
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 648S-1-SM 1 OF 3

Erosion/Sedimentation Plan For PWS and OSSF Sites
Flying Armadillo Disc Golf Club –
3115 Hilliard Road, Hays County, Texas

08/31/23

STATE OF TEXAS
CHARLES W. KAOUGH
98191
LICENSED
PROFESSIONAL ENGINEER

PWS SITE
APPROX. 50 LF
MULCH SOCK

OSSF SITE
APPROX. 200 LF
MULCH SOCK

- Property Boundary
- Existing Structures, Roofs, and Tee Boxes
- Proposed Structures, Roofs, and Tee Boxes
- Unimproved Roads
- Gravel Driveways and Parking Lot
- Residential OSSF Drain Field
- Proposed OSSF Drain Field and Lines
- F-1 Geologic Feature
- Sensitive Geologic Feature
- Temporary Erosion Control
- Flow Direction

NOTE: INSTALL MULCH SOCK PER SAN MARCOS STANDARD DETAIL 432S

Temporary Stormwater Section
Attachment D – Temporary Best Management Practices and Measures

Construction access will utilize existing driveways and vehicular service roads in close proximity to the construction area. The construction and equipment staging areas are on relatively flat ground with no drainage channels present. Mulch logs will be used to prevent pollution of surface water, groundwater, stormwater, sensitive features, and the Edwards Aquifer in the vicinity of the staging and construction areas. Mulch logs to control runoff will be used for temporary erosion and sedimentation control around temporary excavations.

Tree protection fencing will be installed to protect existing trees and vegetated areas to remain. By clearing only those areas immediately essential for completing site construction, buffer zones are preserved, and soil will remain undisturbed until construction begins. Physical markers, such as tape, signs, or barriers, indicating the limits of land disturbance, can ensure that equipment operators know the proposed limits of clearing. Reducing the extent of the disturbed area will reduce sediment loads to surface waters and groundwater. Newly planted vegetation that has been planted to stabilize disturbed areas should be protected by routing construction equipment around these areas. Where possible, construction traffic should travel over areas that must be disturbed for other construction activity. Tree armoring protects tree trunks from damage by construction equipment. Fencing can also protect tree trunks, but should be placed at the tree drip line so that construction equipment is kept away from the tree and protects roots from damage by cut, fill, or soil compaction.

Temporary Stormwater Section
Attachment E – Request to Temporarily Seal a Feature
N/A

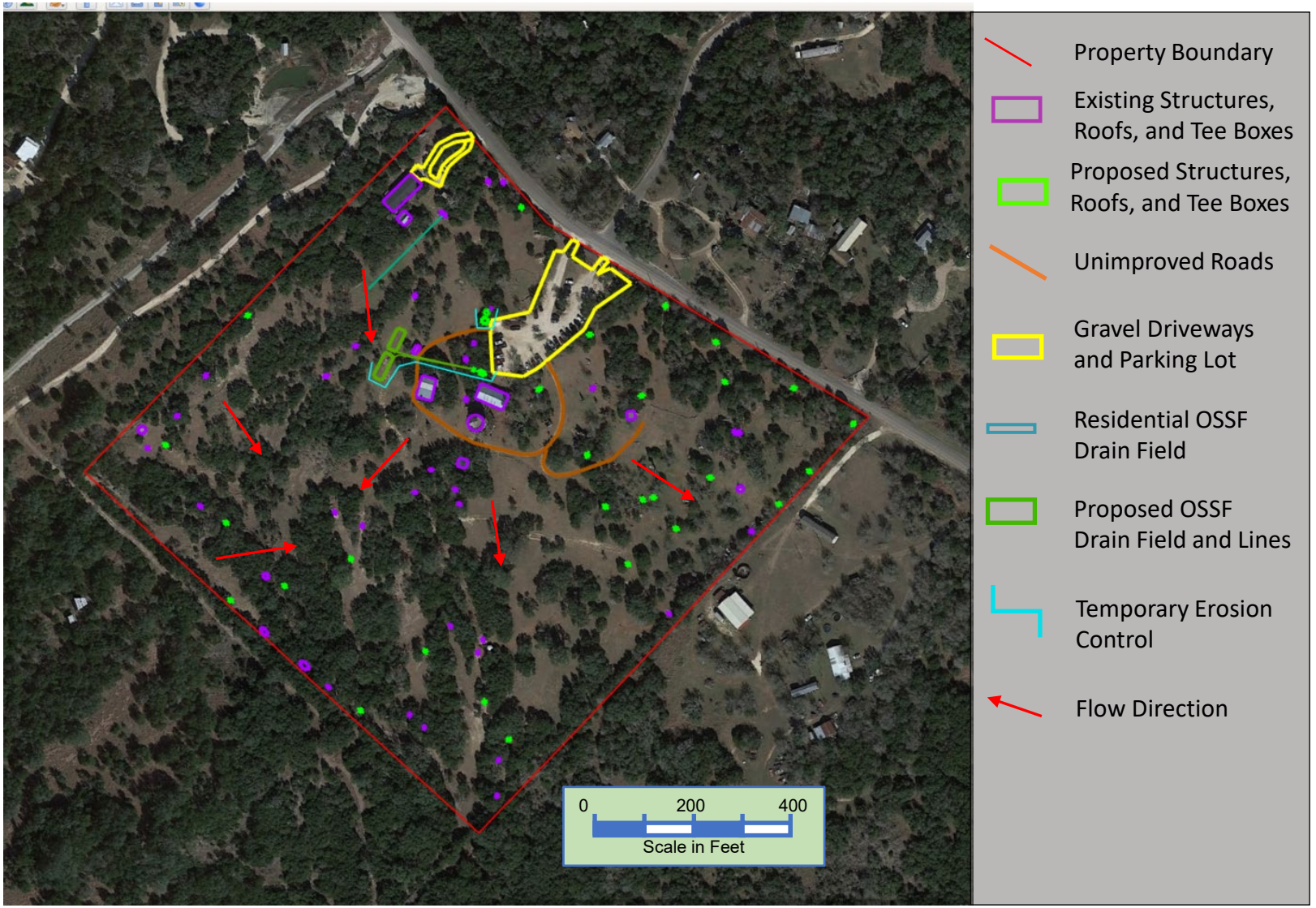
Temporary Stormwater Section
Attachment F – Structural Practices

The construction and equipment staging areas are on relatively flat ground with no drainage channels present and limited upslope drainage area. Mulch logs will be used to divert flows away from exposed soils and excavations to limit the discharge of pollutants.

Temporary Stormwater Section
Attachment G – Drainage Area Map

See drainage area map at end of Temporary Stormwater Section attachments
There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls such as mulch logs within each disturbed drainage area will be used.

Drainage Area Map, Flying Armadillo Disc Golf Club



Attachment H – Temporary Sediment Pond Plans and Calculations

N/A

Temporary Stormwater Section
Attachment I – Inspection and Maintenance of BMPs

Mulch Logs:

- Inspect all mulch logs daily, and after any rainfall;
- Remove sediment when buildup reaches 6 inches;
- Replace/reinforce any breaches, crushed, or collapsed sections during construction;
- Dispose/reuse mulch and accumulated sediment such that additional siltation does not occur; and
- Reseed or revegetate former area of berm location.

Tree Protection Fencing:

- Inspect all fencing and tree protection daily and after any rainfall;
- Replace or repair any sections damaged during construction activity; and
- Remove fence protection fencing upon completion of construction.

Temporary Stormwater Section
Attachment J – Schedule of Interim and Permanent Soil Stabilization Practices

Interim and Permanent Soil Stabilization:

- If disturbed soil is not to be worked on for more than 14 days, disturbed areas need to be stabilized by revegetation, mulch, tarp, or matting.
- 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.

Revegetation

- Interim or final excavation and grading must be completed prior to seeding, minimizing all steep slopes;
- Seedbed should be well pulverized, loose, and uniform;
- The use of fertilizer should be limited to no more than 40 pounds of nitrogen and 40 pounds of phosphorus per acre (1 pound of nitrogen and phosphorus per 1,000 SF);
- Compost can be used instead of fertilizer and applied at the same time as the seed.
- Seeding rates should be as shown in Table 1-3 and Table 1-4 of the Edwards Aquifer Technical Guidance on Best Management document or as recommended by the county agricultural extension agent; and
- Seed should be applied uniformly with a cyclone seeder, drill, or cultipacker seeder.

Irrigation – Temporary irrigation should be provided according to the schedule described below, or to replace soil moisture loss to evapotranspiration, whichever is greater. Significant rainfall in excess of .5 inches or greater may allow watering to be postponed until the next schedule irrigation.

Irrigation Schedule for Newly Seeded Areas

Time Period	Irrigation Amount and Frequency
Within 2 hours of installation	Irrigate entire root depth, or to germinate seed
During the next 10 business days	Irrigate entire root depth every Monday, Wednesday, and Friday
During the next 30 business days or until substantial completion	Irrigate entire root depth a minimum of once per week, or as necessary to ensure vigorous growth
During the next 4 months or final completion of the project	Irrigate entire root depth once every two week, or as necessary to ensure vigorous growth

Inspection and Maintenance Guidelines:

- Temporary vegetation should be inspected weekly and after each rain event to locate and repair any erosion;
- Erosion from storms or other damage should be repaired as soon as practical by regrading the area and applying new seed; and
- If the vegetated cover is less than 80% then the area should be reseeded.

Permanent Stormwater Section

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Edward R. Newby, P.G. (agent)

Date: 4/3/2023

Signature of Customer/Agent

Regulated Entity Name: FADGC, LLC

Permanent Best Management Practices (BMPs)

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

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

   ☒ N/A

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

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

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

☒ N/A

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

   ☒ N/A

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

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

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

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

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

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

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

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

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

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

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

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

☒ N/A

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

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

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

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

☐ Design calculations (TSS removal calculations)
☐ TCEQ construction notes
☐ All geologic features
☐ All proposed structural BMP(s) plans and specifications

☒ N/A

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

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

    ☒ N/A

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

    ☒ N/A

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

    ☒ N/A

Responsibility for Maintenance of Permanent BMP(s)

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

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

    ☒ N/A

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

    ☒ N/A

Permanent Stormwater Section – Attachment A
20% or Less Impervious Cover Waiver for Other Permanent BMPs
Flying Armadillo Disc Golf Club

A waiver is requested for the requirement for other permanent BMPs for multi-family developments, schools, or small business sites where 20% or less impervious cover is used at the site. The project location is the 25-acre site of the Flying Armadillo Disc Golf Club small business and a single-family residence. If granted, the exemption from permanent BMPs will be recorded in the Hays County deed records with a notice that the exemption will no longer apply if the impervious cover increases above 20% or if the land use changes.

Permanent Stormwater Section – Attachment B
Permanent BMPs for Upgradient Stormwater Not Required
Flying Armadillo Disc Golf Club

Permanent BMPs are not believed to be required at the project site to prevent pollution of surface water or groundwater or stormwater that originates upgradient from the site and flows across the site. The subject property is situated near a topographic high with a maximum elevation of approximately 860 feet NAVD88 located approximately 30 feet higher and 540 feet west of the site property. Topography of the site and upgradient area is gently sloping with no identified sensitive geologic features identified upgradient. Land use upgradient consists of rural residential lots with two unimproved residential access roads present. Land cover in the upgradient area consists of three residential structures within a predominantly ashe juniper and live oak savannah setting. The current low percent impervious cover of 5.20% of existing improvements and proposed new construction, in combination with well-drained soils, allows for sufficient interception and storage of stormwater originating upgradient.

Permanent Stormwater Section – Attachment C
Permanent BMPs for On-site Stormwater Not Required
Flying Armadillo Disc Golf Club

Permanent BMPs are not believed to be required at the project site to prevent pollution of surface water or groundwater that originates on-site or flows off the site. As described in Attachment B there is a low perceived threat of polluted stormwater originating from upgradient sources. The gently sloping topography of the area of existing improvements and proposed new construction, no identified sensitive geologic features in the immediate vicinity, low percent impervious cover of 5.20% of existing improvements and proposed new construction, no known sources of on-site contamination (excluding minor amounts of gasoline and paint in the maintenance building), in combination with well-drained soils allows for sufficient interception and storage of stormwater on the site. No fertilizers are used on the site and irrigation is limited to low-flow bubblers and drip emitters in the vicinity of the Pro Shop.

Permanent Stormwater Section – Attachment D
Permanent BMPs for Surface Streams
Flying Armadillo Disc Golf Club

Permanent BMPs are not believed to be required at the project site to prevent pollution of surface water or groundwater or stormwater that originates from the site and flows across the site. Temporary BMPs such as mulch berms and silt fences berms will be used to prevent pollution of surface water, groundwater, stormwater, sensitive features, and the Edwards Aquifer in the vicinity of the staging and construction areas. Silt fences or mulch logs to control runoff will be used for temporary erosion and sedimentation control around temporary excavations. Mulch will be placed on vulnerable unvegetated areas to minimize runoff of sediment from those areas. Within 50 feet of a sensitive feature, any improvements or unimproved trails will be located down slope from the feature.

As described in Attachment, B there is a low perceived threat of polluted stormwater originating from upgradient sources. Excluding minor amounts of gasoline and paint stored in the maintenance building, there are no known potential sources of on-site contamination. No fertilizers are used on the site and irrigation is limited to low-flow bubblers and drip emitters in the vicinity of the Pro Shop. Due to a combination of factors including: gently sloping topography in the area of existing improvements and in the vicinity of proposed construction; no identified sensitive geologic features in the immediate vicinity of the improvements; low amount of impervious cover; little threat of on-site contamination, and well-drained soils allow for the reduction of the rate of stormwater flow from the site and sufficient interception and filtration of runoff waters.

Permanent Stormwater Section – Attachment E
Request to Seal Features
Flying Armadillo Disc Golf Club

No sensitive geologic features are proposed to be filled at this site.

Permanent Stormwater Section – Attachments F, G, and H
BMP Construction Plans, Inspection/Maintenance, and Pilot-Scale Testing
Flying Armadillo Disc Golf Club

No permanent BMPs are proposed to be constructed at this site.

Permanent Stormwater Section – Attachment I
Measures for Minimizing Surface Stream Contamination
Flying Armadillo Disc Golf Club

Due to the limited volume of stormwater that originates upgradient from the site and flows across the site, low percent impervious cover of 5.20% of existing improvements and proposed new construction, and well-drained soils on the site, no additional measures for minimizing surface stream contamination is believed to be needed.

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

I Michael Lambert,
Print Name

Owner,
Title - Owner/President/Other

of Flying Armadillo Disc Golf Club, LLC,
Corporation/Partnership/Entity Name

have authorized Edward Ray Newby, P.G.
Print Name of Agent/Engineer

of self employed
Print Name of Firm

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

I also understand that:

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

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

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

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

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

SIGNATURE PAGE:

Applicant's Signature

3/1/2021
Date

THE STATE OF Texas §

County of Hays §

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

GIVEN under my hand and seal of office on this 1 day of March, 2021.

Angelina Tompkins
NOTARY PUBLIC

ANGELINA SKYE TOMPKINS
Notary ID #132736654
My Commission Expires
October 20, 2024

Angelina Tompkins
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: October 20, 2024

Owner Authorization Form

for Required Signature for submitting and signing an application for an Edwards Aquifer Protection Plan (Plan) and conducting regulated activities in accordance with an approved Plan.

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program
Relating to the Edwards Aquifer Rules of
Title 30 of the Texas Administrative Code
(30 TAC), Chapter 213
Effective June 1, 1999

Land Owner Authorization

I, Gregory B. Lambert of _____
Land Owner Name (Individual) Firm (applicable to Legal Entities)

am the Owner of Record or Title Holder of the property located at:

3115 Hilliard Rd. San Marcos, TX 78666
(Legal description of the property referenced in the application)

and being duly authorized under 30 TAC § 213.4(c)(2) and § 213.4(d)(1) or § 213.23(c)(2) and § 213.23(d) to submit and sign an application for a Plan, do hereby authorize:

Michael Lambert of Flying Armadillo Disc Golf Club LLC
(Applicant Name / Plan Holder (Legal Entity or Individual))

to conduct:

All improvements and impervious cover that has been constructed in the past, and proposed installation of an on-site sewage facility and restroom building
(Description of the proposed regulated activities)

on the property described above or at:

_____
(If applicable to a precise location for the authorized regulated activities)

Land Owner Acknowledgement

I, Gregory B. Lambert of _____
Land Owner Name (Individual) Firm (applicable to Legal Entities)

understand that while Michael Lambert of Flying Armadillo Disc Golf Club LLC
Applicant Name / Plan Holder (Legal Entity or Individual)

is responsible for compliance with the approved or conditionally approved Plan and any special conditions of the approved Plan through all phases of Plan implementation,

I, Gregory B. Lambert of _____
Land Owner Name (Individual) Firm (applicable to Legal Entities)

as Owner of Record or Title Holder of the property described above, I am ultimately responsible for ensuring that compliance with the approved or conditionally approved Plan and any special conditions of the approved Plan, through all phases of Plan implementation, is achieved even if the responsibility for compliance and the right to possess and control of the property referenced in the application has been contractually assumed by another legal entity.

I, Gregory B. Lambert of _____
Land Owner Name (Individual) Firm (applicable to Legal Entities)

further understand that any failure to comply with any condition of the Executive Director's approval is a violation and is subject to administrative rule or orders and penalties as provided under 30 TAC § 213.10 (relating to Enforcement). Such violation may also be subject to civil penalties and injunction.

Land Owner Signature

Gregory B Lambert 4/14/21
Land Owner Signature Date

THE STATE OF § Texas

County of § Hays

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

GIVEN under my hand and seal of office on this 14 day of Apr-1, 2021

Mary Bray
NOTARY PUBLIC

MARY BRAY
Notary ID #131300509
My Commission Expires
October 2, 2021

Mary Bray
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 10/02/2021

Attached: (Mark all that apply)

- ☐ Lease Agreement
- ☐ Signed Contract
- ☐ Deed Recorded Easement
- ☐ Other legally binding document

Applicant Acknowledgement

I, Michael Lambert of Flying Armadillo Disc Golf Club LLC

Applicant Name (Individual) | Firm (applicable to Legal Entities)

acknowledge that Gregory B. Lambert

Land Owner Name (Legal Entity or Individual)

has provided Michael Lambert of Flying Armadillo Disc Golf Club LLC

Applicant Name (Legal Entity or Individual)

with the right to possess and control the property referenced in the Edwards Aquifer Protection Plan (Plan).

I understand that Michael Lambert of Flying Armadillo Disc Golf Club

Applicant Name (Legal Entity or Individual)

is responsible, contractually or not, for compliance with the approved or conditionally approved Plan and any special conditions of the approved Plan through all phases of Plan implementation. I further understand that failure to comply with any condition of the Executive Director's approval is a violation and is subject to administrative rule or orders and penalties as provided under § 213.10 (relating to Enforcement). Such violation may also be subject to civil penalties and injunction.

Applicant Signature

Applicant Signature

4/14/21

Date

THE STATE OF § Texas

County of § Hays

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

GIVEN under my hand and seal of office on this 14th day of Apr. 1, 2021

NOTARY PUBLIC

MARY BRAY
Notary ID #131300509
My Commission Expires
October 2, 2021

Mary Bray

Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 10/02/2021

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: FADGC LLC
Regulated Entity Location: 3115 Hilliard Road, Hays County, Tx.
Name of Customer: Michael Lambert
Contact Person: Edward Newby
Phone: 512-644-1732
Customer Reference Number (if issued):CN 606077949
Regulated Entity Reference Number (if issued):RN 111603759

Austin Regional Office (3373)

- [x] Hays
- [ ] Travis
- [ ] Williamson

San Antonio Regional Office (3362)

- [ ] Bexar
- [ ] Comal
- [ ] Medina
- [ ] Kinney
- [ ] Uvalde

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:

- [x] Austin Regional Office
- [ ] San Antonio Regional Office
- [ ] Mailed to: TCEQ - Cashier

  Revenues Section
  Mail Code 214
  P.O. Box 13088
  Austin, TX 78711-3088
- [ ] Overnight Delivery to: TCEQ - Cashier

  12100 Park 35 Circle
  Building A, 3rd Floor
  Austin, TX 78753
  (512)239-0357

Site Location (Check All That Apply):

- [x] Recharge Zone
- [ ] Contributing Zone
- [ ] Transition Zone

Type of Plan	Size	Fee Due
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$ NA
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	25 Acres	$ 4,000
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	Acres	$ NA
Sewage Collection System	L.F.	$ NA
Lift Stations without sewer lines	Acres	$ NA
Underground or Aboveground Storage Tank Facility	Tanks	$ NA
Piping System(s)(only)	Each	$ NA
Exception	Each	$
Extension of Time	Each	$ NA

Signature: Gregory Tumlinson

Date: 5/1/2023

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

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	Fee
Exception Request	$500

Extension of Time Requests

Project	Fee
Extension of Time Request	$150

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission *(If other is checked please describe in space provided.)*

☒ New Permit, Registration or Authorization *(Core Data Form should be submitted with the program application.)*

☐ Renewal *(Core Data Form should be submitted with the renewal form)* ☐ Other

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number *(if issued)*
CN 606077949		RN 111603759

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy)

☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)* — *If new Customer, enter previous Customer below:*

Lambert, Gregory

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*
	32056914511		

11. Type of Customer: ☐ Corporation ☒ Individual Partnership: ☐ General ☐ Limited
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees
☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?
☒ Yes ☐ No

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☐ Owner ☐ Operator ☒ Owner & Operator ☐ Other: ____
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant

15. Mailing Address:	1149 Turtle Trail						
	City: New Braunfels	State: TX	ZIP: 78130	ZIP + 4: 5462			

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*
	mrl1180@gmail.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(936) 443-9554		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☐ New Regulated Entity ☒ Update to Regulated Entity Name ☐ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core 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.)*

FADGC LLC

23. Street Address of the Regulated Entity: *(No PO Boxes)*	3115 Hilliard Road							
	City	San Marcox	**State**	TX	**ZIP**	78666	**ZIP + 4**	2843
24. County	Hays							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:	South of intersection of Hilliard Rd and Owl Hollow Rd approx. 5 miles west of San Marcos, Hays County				
26. Nearest City			**State**	**Nearest ZIP Code**	
San Marcos			TX	78666	

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:			**28. Longitude (W) In Decimal:**		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
29	57	06.88	97	57	57.69

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)
7999	4941	713940	713990

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Disc Golf Course - Commercial Recreation

34. Mailing Address:	**3115 Hilliard Road**							
	City	**San Marcos**	**State**	**TX**	**ZIP**	**78666**	**ZIP + 4**	**2843**
35. E-Mail Address:	**mrl1180@gmail.com**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(936) 443-9554		( ) -

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☒ Edwards Aquifer 83	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste

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

SECTION IV: Preparer Information

40. Name:	Michael Lambert		41. Title:	President/Owner
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address	
(936) 443-9554		( ) -	mrl1180@gmail.com	

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	IN/A - Individual	Job Title:	Owner
Name *(In Print)*:	Gregory Lambert	Phone:	(936) 443- 9554
Signature:	Gregory Lambert	Date:	5/1/23