STADIUM POINTE P.U.D.

UNIT 2 & 3

Water Pollution Abatement Plan

BLUESITE ENGINEERING, LLC
13750 San Pedro Ave. Suite B10
San Antonio, Texas 78232



09/15/2025

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EDWARDS AQUIFER APPLICATION COVER PAGE (TCEQ-20705)

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

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

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

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

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

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

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

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

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

Technical Review

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

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

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

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

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

Mid-Review Modifications

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

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

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

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

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

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

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

1. Regulated Entity Name: Stadium Pointe PUD, Unit 2 & 3						**2. Regulated Entity No.:** 105230411			
3. Customer Name: Skyhawk Villa de San Antonio, LLC						**4. Customer No.:** 605548692			
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):**		16.38	
9. Application Fee:	$6,500.00		**10. Permanent BMP(s):**			Two (2) Batch Detention Basins			
11. SCS (Linear Ft.):	Ref. SCS Submittal		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Bexar		**14. Watershed:**			French Creek within Leon Creek Watershed			

Application Distribution

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

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

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

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

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	☑	__	__	__	__
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.

Christopher Garza, PE SIT

Print Name of Customer/Authorized Agent



09/15/2025

Signature of Customer/Authorized Agent | Date

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

General Information Form (TCEQ-0587)

General Information Form

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Christopher Garza, PE SIT

Date: 08/26/2025

Signature of Customer/Agent:



Project Information

1. Regulated Entity Name: Stadium Pointe PUD Unit 2 & 3
2. County: Bexar
3. Stream Basin: French Creek (within the Leon Creek Watershed)
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: Srikanth Beeram
Entity: Skyhawk Villa De San Antonio, LLC
Mailing Address: 8117 Sutherland Lane
City, State: Plano, TX Zip: 75025
Telephone: 210.299.7600 FAX:
Email Address: sbeeram@gmail.com

8. Agent/Representative (If any):

Contact Person: Christopher Garza, PE SIT
Entity: Bluesite Engineering
Mailing Address: 13750 San Pedro, Suite B10
City, State: San Antonio, TX Zip: 78232
Telephone: 210.469.4419 FAX:
Email Address: cgarza@bluesiteengineering.com

9. Project Location:

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

10. ☑ The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.
Regulated Entity property located east of RN110455052, 470 feet east of Skyhawk drive at ends of Runner Ridge and Runner Cove. Deceleration Lane construction associated with this modification disturbs a 0.08 acre off-site area at the intersection of Stadium Ridge and Skyhawk Drive to a point ~150 feet south of the intersection.

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

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

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

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

☐ Survey staking will be completed by this date: _____

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

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

15. Existing project site conditions are noted below:

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

Prohibited Activities

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

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

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

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

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

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

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

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

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

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

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

Administrative Information

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

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

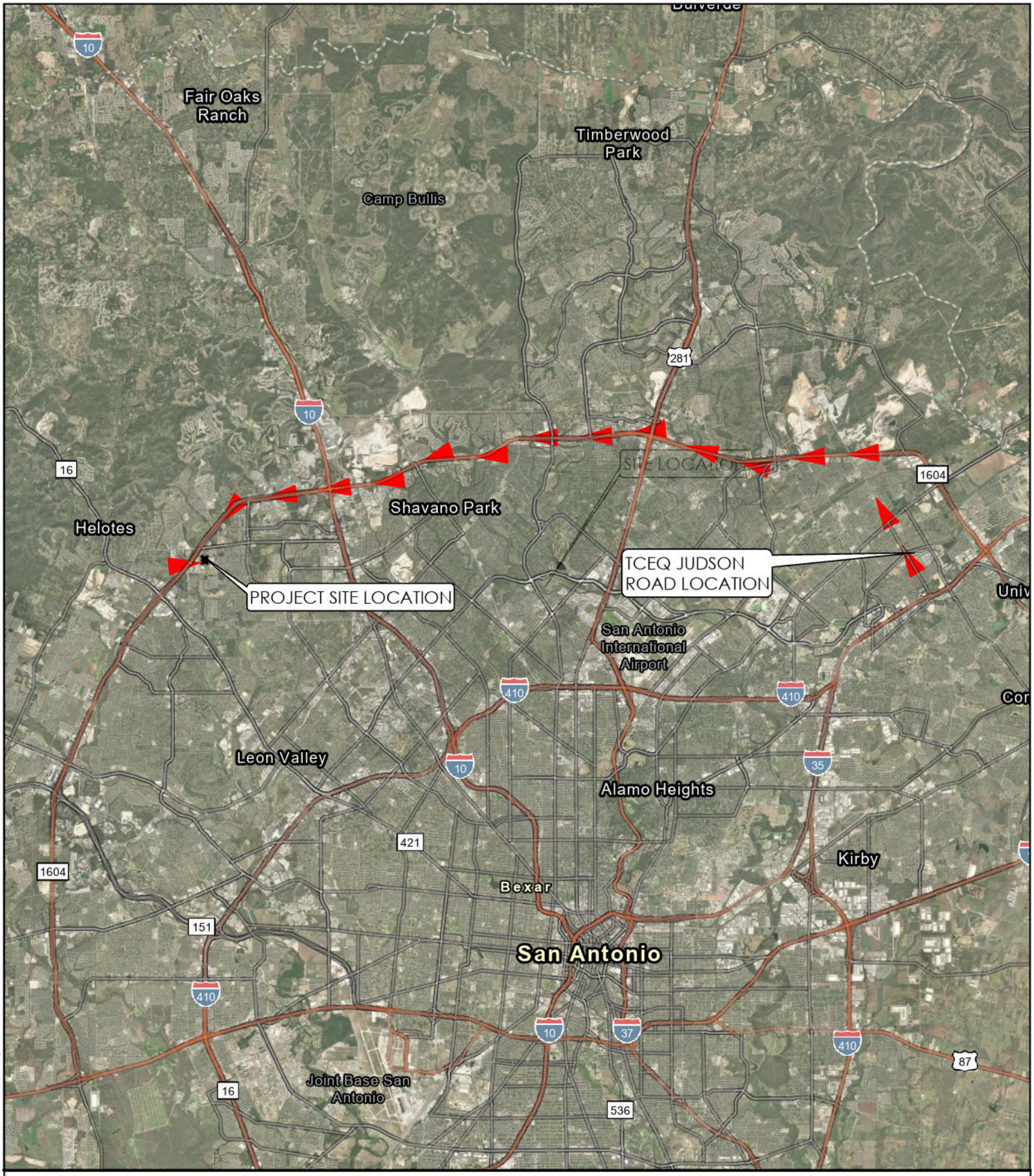
19. [x] Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

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

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

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

Attachment – “A” - Road Map



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Stadium Pointe Unit 2 & 3 Aerial Travel Map To Site

Stadium Pointe Units 2 & 3
City of San Antonio, TX

BLUESITE ENGINEERING



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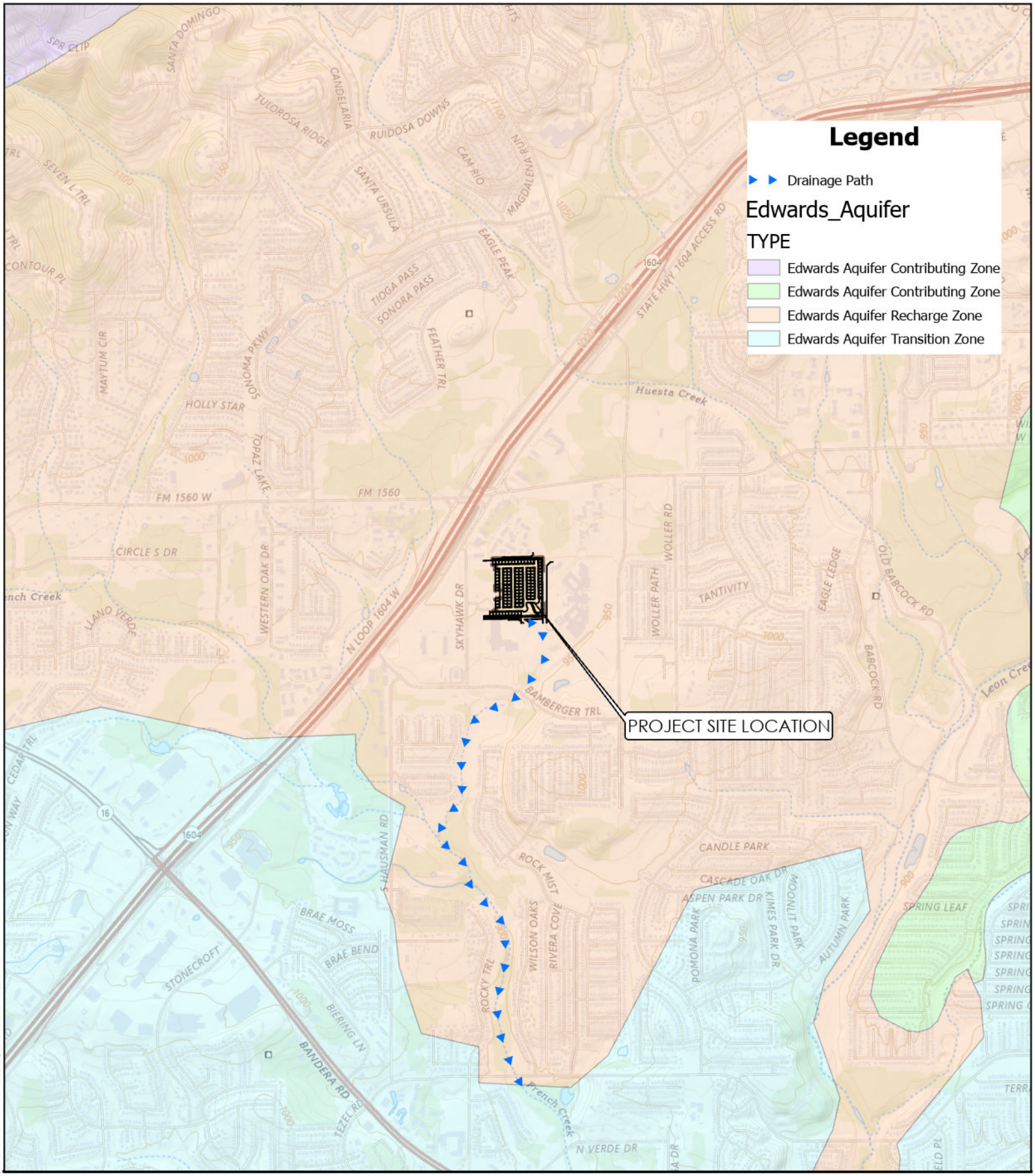
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Stadium Pointe Unit 2 & 3 Aerial Location Map

BLUESITE ENGINEERING

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Attachment “B” - USGS / Edward Recharge Zone Map



N

0 1,000 2,000 4,000 Feet

Stadium Pointe Unit 2 & 3 USGS Quadrangle Map
USGS Helotes Quadrangle

BLUESITE ENGINEERING

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Attachment “C” – Project Description

ATTACHMENT C | Project Description

The Project Site Stadium Pointe PUD Unit 2 & 3 **(Unit 2 & 3)** is in San Antonio, Texas and currently zoned MF-18 PUD. The Project Site is located 470' east of Skyhawk Drive at the end of Runners Ridge. The Aerial Location Map and Road Map can be Found in **Attachment – A .** The Project Site is located entirely within the Edwards Aquifer Recharge Zone Map and subject to Texas Commission on Environmental Quality **(TCEQ**) Regulations over the Edwards Aquifer Recharge Zone **Attachment – B.** A detailed USGS Map with Quadrangle with drainage area map to the limits of the Edwards Aquifer Recharge Zone can be found in **Attachment – B.**

The site was previously subdivided in 1988 as the "Father Flanagan's Boys' Home" Subdivision and developed as a long-term residential program for residential care for youth. Operating as Father Flannagan's Girls and Boys Town of San Antonio and eventually as the Non-Profit organizations Boys Town, the entire 26-acre property had five (5) homes and one (1) small office building. In-mid 2017, the property ended its services and closed this location. Stadium Pointe PUD Unit 1 is constructed with residents and consists of 9.59-acres from the original 26 acres. The Stadium Pointe PUD Unit 1 plat was recorded on March 27, 2020 and recorded in Volume 20001 Page 1951. Please note that Stadium Pointe PUD, Unit 2 & 3 is the remaining16.38-acre portion of the original 26 acres.

An original WPAP known as Stadium Pointe PUD Unit 2 & 3 was submitted and approved by TCEQ November 12, 2020. A WPAP Modification, Stadium Pointe PUD Unit 2 & 3 WPAP Modification No. 1 **(WPAP 1 Mod No.1)** was submitted and approved by TCEQ April 29, 2021, Regulated Entity No. 105230411. WPAP 1 Mod No. 1 was the addition of a northbound right-turn deceleration lane that will be installed at the intersection of Skyhawk Drive and Stadium Ridge. The deceleration lane is required by the City of San Antonio to mitigate traffic impact associated with Stadium Pointe PUD Unit 2 & 3 along Skyhawk Drive. Approximately 0.03 acres of existing street and sidewalk will be removed, and 0.06 acre of new street and sidewalk will be installed, yielding a net increase of 0.03 acres of impervious cover. All other land disturbance associated with the development of Stadium Pointe PUD Unit 2 & 3 are covered under the previously approved WPAP Stadium Pointe PUD Unit 2 & 3.

The Platted Area of Stadium Point PUD Unit 2 & 3 is 16.38 Acres of land exclusive of 0.1 acres of land dedicated as an existing Utility Easement that will remain undisturbed. The total Site Area has been calculated to be 16.28 Acres. The proposed site use for Stadium Pointe PUD unit 2 & 3 is 112 residential lots that will consist of a duplex development design as a Planned Unit Development (PUD).

Offsite areas that require disturbance originally accounted in WPAP Mod No. 1.

- 0.18 Acres of land that adjoin the Site Area will be disturbed with the construction of the WPAP Batch Detention Basin outfalls.
- 0.08 Acres of land will be disturbed for the construction of the deceleration lane located at the intersection of Skyhawk Drive and Stadium Ridge.

Areas to be demolished:

- Original Approved WPAP: Building foundations and miscellaneous flatwork from the original development will be removed following the temporary BMP placement.
- WPAP Mod. No. 1: Asphalt pavement, concrete curb, and concrete sidewalk will be removed prior to construction of the deceleration lane totaling 124 Square Yards.

An existing Stadium Pointe PUD Unit 1 WPAP Basin RN 11045502 was previously reviewed, approved by TCEQ, and constructed. Stadium Pointe PUD Unit 2 & 3 at constructed conditions has 3.61 acres that will ultimately drain to existing Sand Filtration Basin. The Existing WPAP installed with Unit 1 was designed to treat the portion of the Unit 2 & 3 Site Area runoff.

The Limits of Construction were verified by BlueSite Engineering to be a total of 16.54 acres of land.

The Plan Area for TSS removal calculations were verified by BlueSite Engineering to total 12.93 acres of land.

The Drainage Areas for the West and East Pond were verified for BlueSite Engineering.

The impervious cover areas were verified by BlueSite Engineering confirming 9.42 acres of total impervious cover submitted within the Water Pollution Abatement Plan Application dated 3/17/2021.

As stated in the previously approved WPAP Mod No. 1 the impervious cover is calculated to be 9.42 acres or 57.9% of the 16.28 acre Site Area.

STADIUM POINT PUD UNIT 2 & 3 REPORT MOD # 1 APPROVED APRIL 2021.			
LOCATION	AREA (ACRES)	PROP IC AREA (AC)	PROP IC AREA (%)
WEST POND CDA	6.96	4.15	59.6%
EAST POND CDA	4.53	2.85	62.9%
BYPASS AREA (OAP)	1.36	0.13	9.6%
BYPASS AREA (MOD 1)	0.08	0.03	37.5%
PLAN AREA SUBMITTAL	12.93	7.16	55.4%
OFFSITE BMP CDA	3.61	2.26	62.6%
LOC TOTAL	16.54	9.42	57.0%
RUNOFF FROM BYPASS AREAS IS RELEASED DOWNSTREAM WITHOUTH TREATMENT BY A BMP			
CDA = CONTRIBUTING DRAINAGE AREA			
PROP IC = PROPOSED IMPERVIOUS COVER (NET INCREASE)			
LOC = LIMITS OF CONSTRUCTION			
OAP = ORIGINAL APPROVED PLAN			
MOD 1 = MODIFICATION NO. 1			

The stormwater runoff from the additional 0.03 acre of impervious cover will bypass Unit 2 & 3 Permanent BMPs. Bluesite Engineering has verified the 0.03 acres and confirmed it was accounted for in the original approved WPAP Mod. No.1.

Therefore, Bluesite Engineering agrees with the analysis in concept previously approved with WPAP Mod No.1. and no changes are needed to the two (2) proposed permanent BMPs Batch Detention Basins.

The purpose of this WPAP submittal is to reapprove the Stadium Pointe PUD Unit 2 & 3 WPAP Modification No 1. Based on the approval date of April 29, 2021. The previously approved WPAP Modification No. 1 expired April 29, 2023 and no record of a WPAP Extension could be found in record by TCEQ and Bluesite Engineering. Therefore, a new submittal is required to be reviewed and approved by TCEQ for construction based on the previously approved WPAP Plan.

GEOLOGIC ASSESSMENT FORM (TCEQ-0585)

Narrative Description of Site-Specific Geology for the Stadium Pointe P.U.D. Unit 2 & 3 Property Located in San Antonio, Bexar County, Texas

Prepared for:

SKYHAWK VILLA DE SAN ANTONIO, LLC

Prepared by:

CAMBRIAN ENVIRONMENTAL

June 30th, 2025

NARRATIVE DESCRIPTION OF SITE-SPECIFIC GEOLOGY FOR THE STADIUM POINTE P.U.D. UNIT 2 & 3 PROPERTY LOCATED IN SAN ANTONIO, BEXAR COUNTY, TEXAS

Prepared for:

Skyhawk Villa De San Antonio, LLC
2339 Homestead Ln.
Plano, Texas 75025

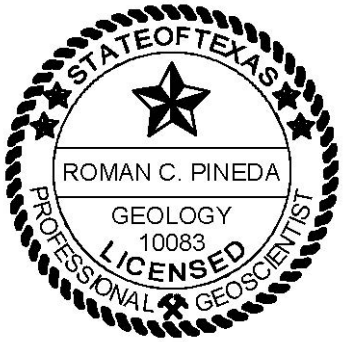
Prepared by:

Roman C. Pineda, P.G.
TX Geoscience License #10083

Cambrian Environmental
4422 Pack Saddle Pass
Suite 204
Austin, Texas 78745

TX Geoscience Firm Registration #50484

As a licensed professional geoscientist, I attest that the contents of this report are complete and accurate to the best of my knowledge.



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: Roman C. Pineda, P.G.

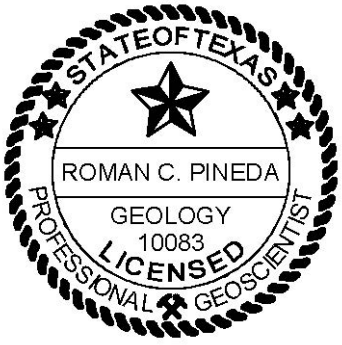
Telephone: (512) 705-5541

Fax: _____

Date: June 30, 2025

Representing: Cambrian Environmental, TBPG Firm #50484 (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: Stadium Pointe P.U.D. Unit 2 & 3

Project Information

1. Date(s) Geologic Assessment was performed: May 15, 2025
2. Type of Project:
   - ☒ WPAP
   - ☐ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

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

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

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)

Soil Name	Group*	Thickness(feet)
Crawford, stony and Bexar soils (Cb)	D	2-4

** Soil Group Definitions (Abbreviated)*

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

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

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

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

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

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

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

   Applicant's Site Plan Scale: 1" = 50'
   Site Geologic Map Scale: 1" = 50'
   Site Soils Map Scale (if more than 1 soil type): 1" = 500'

9. Method of collecting positional data:

   ☒ Global Positioning System (GPS) technology.
   ☐ Other method(s). Please describe method of data collection: _____

10. ☒ The project site and boundaries are clearly shown and labeled on the Site Geologic Map.
11. ☒ Surface geologic units are shown and labeled on the Site Geologic Map.
12. ☒ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.

    ☐ Geologic or manmade features were not discovered on the project site during the field investigation.
13. ☒ The Recharge Zone boundary is shown and labeled, if appropriate.
14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

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

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

Administrative Information

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

Attachment “A” - Geologic Assessment Table (TCEQ-0585-Table)

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: STADIUM POINTE P.U.D. UNIT 2 & 3

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
F-1	29°33'53.6"	98°38'58.6"	MB	30	Kep	2	2	3	—	0			N,O,F	5	35	35		X		Hillside

* DATUM: NAD 83

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

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

12 TOPOGRAPHY

Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

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

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

Signature

Date June 30, 2025

Sheet __1__ of __1__

STATE OF TEXAS
ROMAN C. PINEDA
GEOLOGY
10083
LICENSED
PROFESSIONAL GEOSCIENTIST

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

Attachment "B" – Stratigraphic Column

Stratigraphic Column

*Area shaded gray represents the lithology directly underlying the project site

Period	Group	Stratigraphic Unit	Hydrologic Unit	Maximum Thickness (Feet)
Quaternary to Tertiary		Stream and river alluvium (Qal)	Overlying Units	70
		Terrace alluvium (Qt)		
		Older alluvium (QTa)		
Upper Cretaceous (Gulf Series)	Taylor	Taylor Clay (Ktl)	Confining Units	300
	Austin	Austin Chalk (Kau)		400
	Eagle Ford	Eagle Ford Shale (Kef)		60
	Washita	Buda Limestone (Kbu)		20
		Del Rio Clay (Kdr)		60
Lower Cretaceous (Comanche Series)	Fredericksburg	Georgetown Limestone (Kgt)	Edwards Aquifer	100
		Edwards Limestone – Kainer Formation (Kk)		120
		Edwards Limestone - Person Formation (Kp)		50
	Trinity	Walnut Formation (Kw)	Confining Unit	140
		Upper Glen Rose Limestone (Kgru)	Upper Trinity Aquifer	200

Attachment “C” – Site Geology

NARRATIVE DESCRIPTION OF SITE-SPECIFIC GEOLOGY FOR THE STADIUM POINTE P.U.D. UNIT 2 & 3 PROPERTY LOCATED IN SAN ANTONIO, BEXAR COUNTY, TEXAS

INTRODUCTION

This narrative Geologic Assessment accompanies the Texas Commission on Environmental Quality (TCEQ) Geologic Assessment Form TCEQ-0585 completed for the Stadium Pointe P.U.D. Unit 2 & 3 property in San Antonio, Bexar County, Texas (see Site Location Map). The project area is comprised of approximately 16.5-acres of land located on the east side of Skyhawk Dr approximately 650-ft southwest of the intersection with N Loop 1604.

METHODOLOGY

A Cambrian Environmental Registered Professional Geoscientist (Texas License #10083) conducted a field survey for a TCEQ Geologic Assessment on May 15th, 2025. The pedestrian survey was completed by walking parallel transects spaced approximately 50 feet apart as directed by the TCEQ in the Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones (Rev. 10-01-04). Closer spacing was used where vegetation inhibited clear observation. The project site was thoroughly examined for the presence of potential karst features, including depressions, holes, and animal burrows. A number of techniques can be used for this effort, including probing with a digging implement to determine the thickness and consistency of fill material and feeling for the presence of air flow, which may indicate the presence of a sub-surface void space. Other techniques include making observations of any notable characteristics of the feature site such as the presence of various types of vegetation or a semi-circular burrow mound produced by the activities of small mammals.

RESULTS

Soils

Soils mapped within the project area consist of the Crawford, stony and Bexar soils (Cb), Figure 2. The Crawford series soils are within the "D" classification of the hydrologic soil groups. Type "D" soils have a very slow infiltration rate (very high runoff potential) when thoroughly wet.

Geology

The mapped bedrock lithology underlying the project area consists of the cyclic and marine members of the Person Formation (Kep) of the Edwards Group Limestone. This Person Formation is further subdivided into the Regional Dense, the Leached and Collapsed, and the Cyclic and Marine members. The Person Formation consist of alternating beds of limestone, dolomitic limestone, and argillaceous limestone. The geology of the property has been mapped most recently at a useful scale by Clark et al (2023) and we find his interpretation of the geology to be generally accurate.[1] Bedrock outcrops were not visible on most of the site due to relatively thick soil cover. No faults are mapped within the project limits, and none were

[1] Clark, A.K., Golab, J.A., Morris, R.R., and Pedraza, D.E., 2023, Geologic framework and hydrostratigraphy of the Edwards and Trintiy Aquifers within northern Bexar and Comal Counties, Texas, U.S. Geological Survey, Scientific Investigations Map 3510. Scale 1:24,000

observed during the pedestrian survey. However, the dominant trend for the site is N45°E, based on an average of the trends of known faults within the surrounding area from published maps[1].

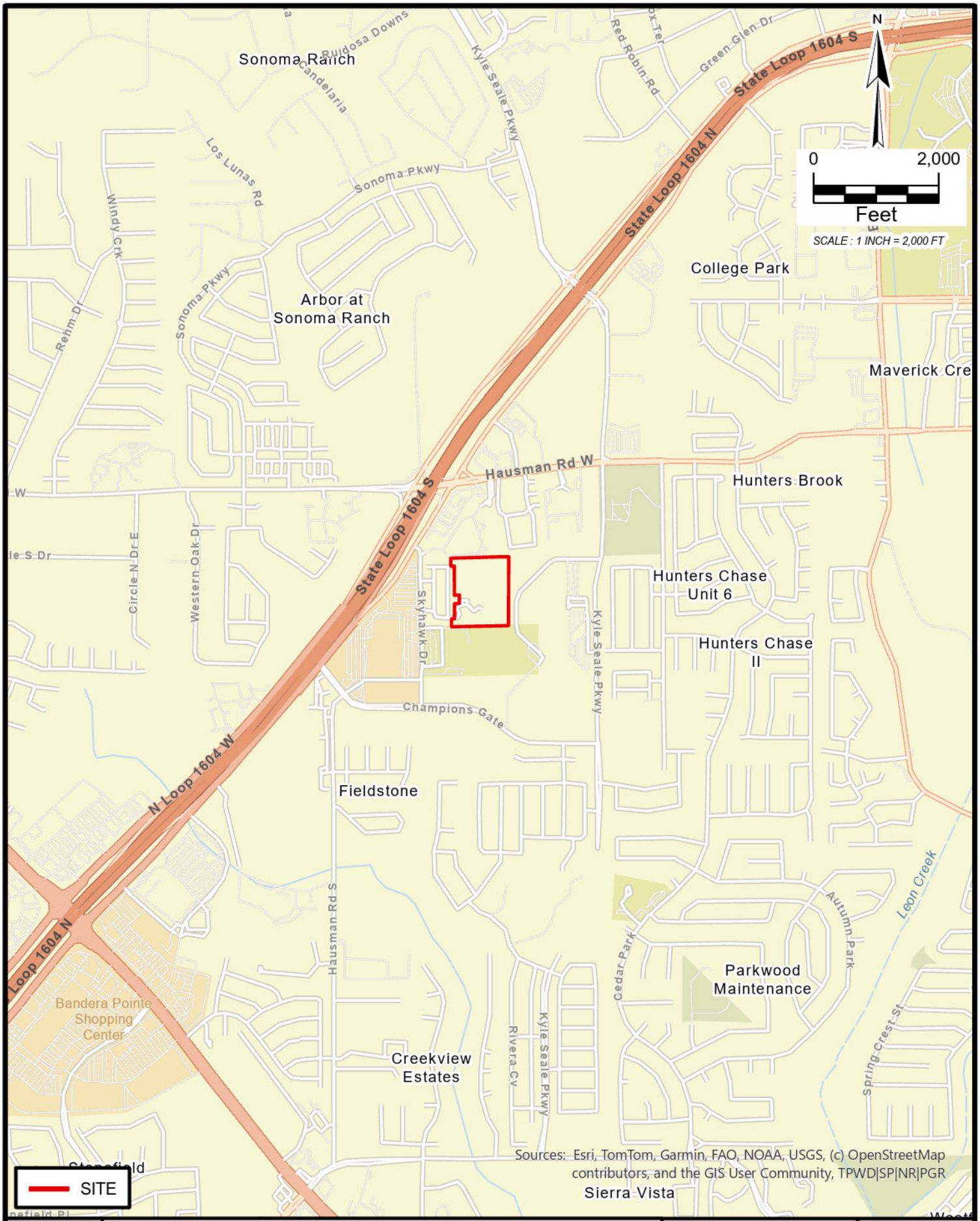
The site lies within Edwards Aquifer Recharge Zone. Recharge into the aquifer primarily occurs in areas where the Edwards Group Limestone and upper confining units are exposed at the surface. Most recharge is from direct infiltration via precipitation and streamflow loss. Recharge occurs predominantly along secondary porosity features such as faults, fractures, and karst features (caves, solution cavities, sinkholes, etc.); and these types of karst features are commonly formed along joints, fractures, and bedding plane surfaces formed within the Edwards Group Limestone.

Site Hydrogeologic Assessment

One manmade feature was identified during the pedestrian survey (feature "F-1"). The overall potential for fluid migration to the Edwards Aquifer on the property is low. Lack of identified recharge features and thick soil cover in some areas of the property indicate the potential for recharge to occur on the property is thought to be low. No areas of enhanced infiltration greater than background infiltration was observed at the time of the site visit. Additionally, should any karst features be discovered during the construction phase of the project, they should be reported to TCEQ to determine the appropriate mitigation measures.

Feature Descriptions

F-1 The feature is a septic tank that is no longer in-use. Ponded water observed within the septic tank at the time of the site visit suggests evidence of fine infilling. Therefore, the probability for rapid infiltration is low. The feature is ranked as "non-sensitive".



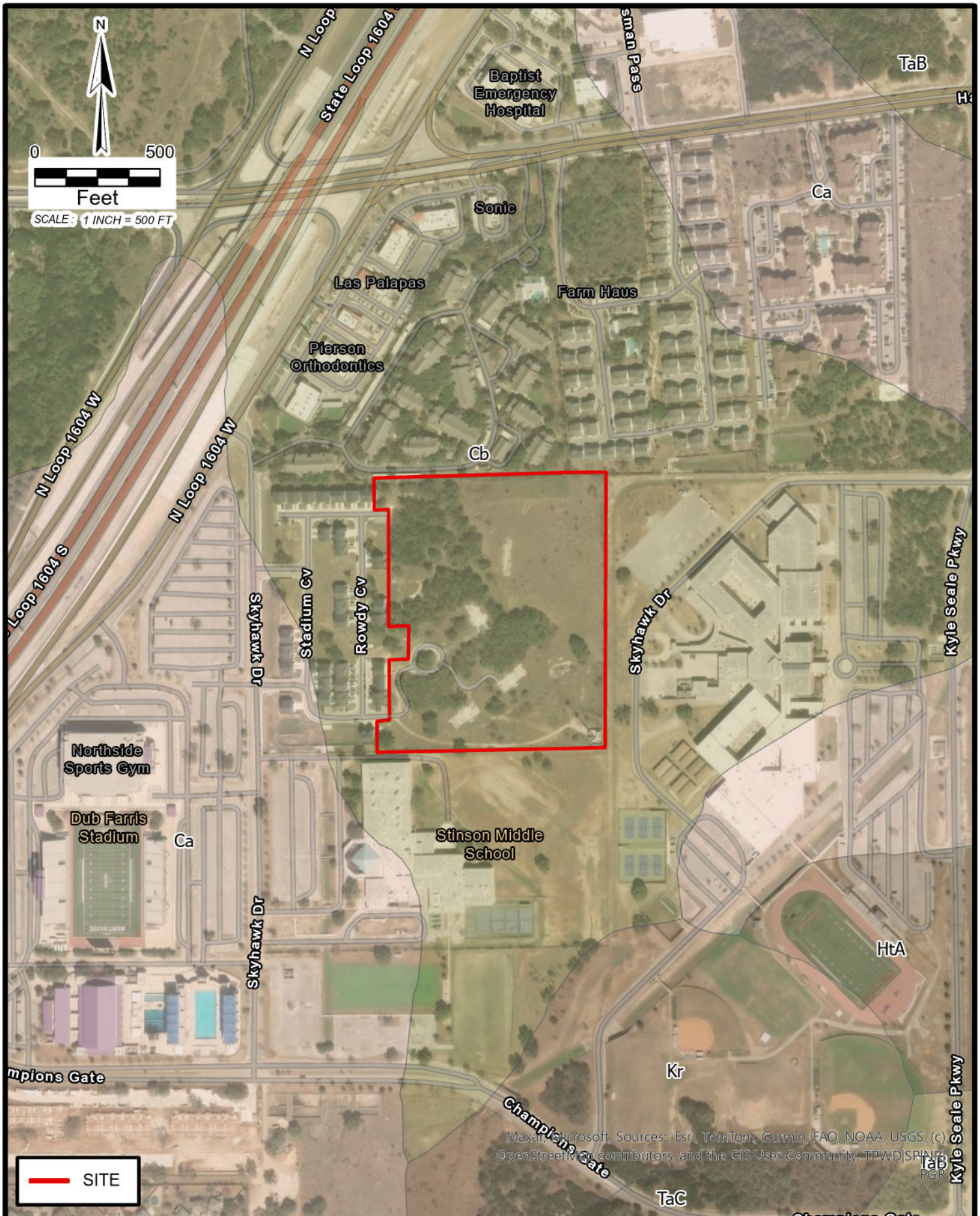
Cambrian

STADIUM POINTE P.U.D. UNIT 2 & 3
SAN ANTONIO, BEXAR COUNTY, TEXAS
SITE LOCATION MAP

REVISIONS:	ISSUE DATE:
PROJECT NO.	
DATE: June 2025	DESIGNER:
DRAWN: RCP	CHECKED: CC

FIGURE 1

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL.



Cambrian

STADIUM POINTE P.U.D. UNIT 2 & 3
SAN ANTONIO, BEXAR COUNTY, TEXAS
SITE SOILS MAP

REVISIONS:	ISSUE DATE:	
PROJECT NO.		
DATE: June 2025	DESIGNER: RCP	FIGURE 2
DRAWN: RCP	CHECKED: CC	

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL.

Attachment “D” – Site Geologic Map(s)



Cambrian

STATE OF TEXAS
ROMAN C. PINEDA
GEOLOGY
10085
LICENSED
PROFESSIONAL GEOSCIENTIST

STADIUM POINTE P.U.D. UNIT 2 & 3

SITE GEOLOGIC MAP

SAN ANTONIO, BEXAR COUNTY, TEXAS

PROJECT NO:
DATE: June 2025
DRAWN: RCP CHECKED: CC

Figure 3

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL.

WATER POLLUTION ABATEMENT PLAN APPLICATION FORM (TCEQ-0584)

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: Christopher Garza, PE SIT

Date: 08/26/2025

Signature of Customer/Agent:



Regulated Entity Name: Stadium Pointe PUD Unit 2 & 3

Regulated Entity Information

1. The type of project is:

   ☑ Residential: Number of Lots: 112
   ☐ Residential: Number of Living Unit Equivalents:
   ☐ Commercial
   ☐ Industrial
   ☐ Other:

2. Total site acreage (size of property): 16.28 acres

3. Estimated projected population: 672

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	168,940	÷ 43,560 =	3.88
Parking	8,480	÷ 43,560 =	0.19
Other paved surfaces	232,829	÷ 43,560 =	5.35
Total Impervious Cover	410,249	÷ 43,560 =	9.42

Total Impervious Cover 9.42 **÷ Total Acreage** 16.28 **X 100 =** 57.9 **% 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	26,880 Gallons/day
_____ % Industrial	_____ Gallons/day
_____ % Commingled	_____ Gallons/day
TOTAL gallons/day _____	

15. Wastewater will be disposed of by:

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

- ☐ **Attachment C - Suitability Letter from Authorized Agent**. An on-site sewage facility will be used to treat and dispose of the wastewater from this site. The appropriate licensing authority's (authorized agent) written approval is attached. It states that the land is suitable for the use of private sewage facilities and will meet or exceed the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285 relating to On-site Sewage Facilities.
- ☐ Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

☑ Sewage Collection System (Sewer Lines):

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

- ☑ The SCS was previously submitted on 9/22/2020 (Approved 11/12/2020)
- ☑ 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 SAWS Leon Creek 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" = 50 '.

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 FIRM48029C0210G eff. 9/29/2010

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

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

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

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

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

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

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

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

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

    ☑ N/A
27. ☐ Locations where stormwater discharges to surface water or sensitive features are to occur.

    ☑ There will be no discharges to surface water or sensitive features.
28. ☑ Legal boundaries of the site are shown.

Administrative Information

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

Attachment “A” – Factors Affecting Surface Water Quality

ATTACHMENT A | Factors Affecting Surface Water Quality

There are several factors that can affect water quality as a result of the proposed residential development. These may include, but are not limited to:

- Increased storm water runoff from the increase in impervious area.
- Increase contamination from vehicle traffic. This includes trash and debris from waste collection trucks as well as chemical contaminants (vehicle fluids) from personal vehicles.
- Contamination of soils from grading and site excavation activities during construction.
- Erosion and silt runoff from construction activities.

To address these potential factors, Temporary Best Management Practices (TBMPs) will be installed during construction and monitored/inspected periodically to prevent adverse impact to the water quality during construction. More detailed information can be found in the "Temporary Storm Water" Section of this WPAP Application. Two on-line batch detention facilities are proposed for post-construction BMP. The batch detention facilities will remove pollutants from stormwater by allowing a 12 hour settlement period following the conclusion of a rain event and subsequently releasing treated stormwater beginning with the top of the detained water quality volume over a 46 hour drawdown period. Additional details are provided in the "Permanent Stormwater" section of this report.

Attachment "B" – Volume and Character of Stormwater

ATTACHMENT B | Volume and Character of Stormwater

Volume of Runoff

The following tables include the pre-development and ultimate conditions runoff calculations for Stadium Pointe (refer to Drainage Area Maps (Attachment G, Temporary Stormwater Section TCEQ-0602):

Original Calculations from CDS Muery 2021 City of San Antonio Unified Development Code for Stormwater Volumes

Pre-Development Conditions								
Study Point	C (Coeff)	Area (ACRES)	I-5 (IN/HR)	I-25 (IN/HR)	I-100 (IN/HR)	Q-5 (CFS)	Q-25 (CFS)	Q-100 (CFS)
1	0.51	11.5	4.167	5.780	7.200	24.6	34.2	42.6
2	0.56	6.2	4.355	6.042	7.533	15.2	21.2	26.4
3	0.47	6.7	3.926	5.444	6.778	12.5	17.3	21.5

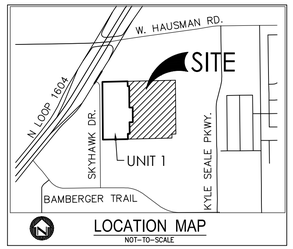
Ultimate Conditions								
Study Point	C (Coeff)	Area (ACRES)	I-5 (IN/HR)	I-25 (IN/HR)	I-100 (IN/HR)	Q-5 (CFS)	Q-25 (CFS)	Q-100 (CFS)
1	0.77	11.8	5.711	7.956	10.016	52.3	72.9	91.8
2	0.75	7.8	4.459	6.189	7.718	26.3	36.5	45.5
3	0.75	4.8	4.572	6.347	7.919	16.6	23.0	28.7
4	*0.95*	*0.6*	*6.604*	*9.228*	*11.683*	*3.8*	*5.3*	*6.7*

Notes:
1. A 3.6 acre portion of Stadium Pointe Unit 2&3 lies within an 11.8 acre drainage area to an off-site water quality and stormwater detention facility.
2. Ultimate conditions flows shown represent undetained flows to outfall locations. Stormwater detention facilities reduce peak discharge to less than pre-development conditions at all outfalls (study points).
3. *Study Point 4 is added for Off-site Turn Lane Construction (Modification No. 1)*

Character of Runoff

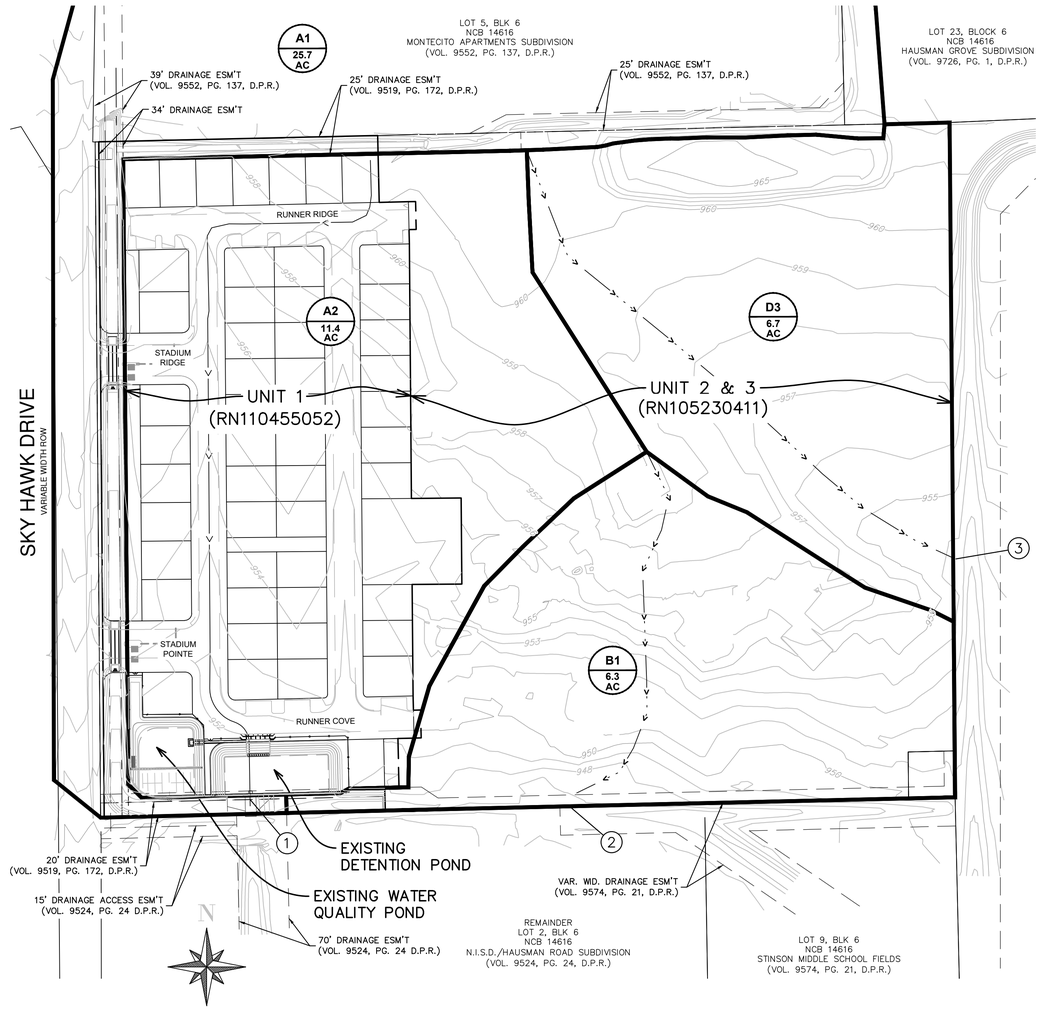
Stormwater runoff from a 11.5 acre portion of the Site Area will be captured and treated by two proposed batch detention facilities (see Permanent BMP Section of this Application). The batch detention facilities remove required pollutant loading prior to release downstream. The proposed batch detention facilities each provide stormwater detention volume stored above the water quality volume. The detention volumes and associated outfall structures capture and attenuate peak discharges to pre-development rates for the 5-, 25-, and 100-year storm events and are designed in accordance with the City of San Antonio Drainage Criteria Manual.

Stormwater runoff from a 3.61 acre portion of the Site Area will be conveyed to an existing partial sedimentation and filtration system that was designed and approved to receive and treat the runoff. A flow splitter upstream of the existing water quality basin routes stormwater exceeding the water quality volume to an existing detention facility that releases proposed condition runoff at pre-developed condition peak rates. The existing detention facility was designed to capture and attenuate runoff from the 3.6 acre portion of the Site Area.

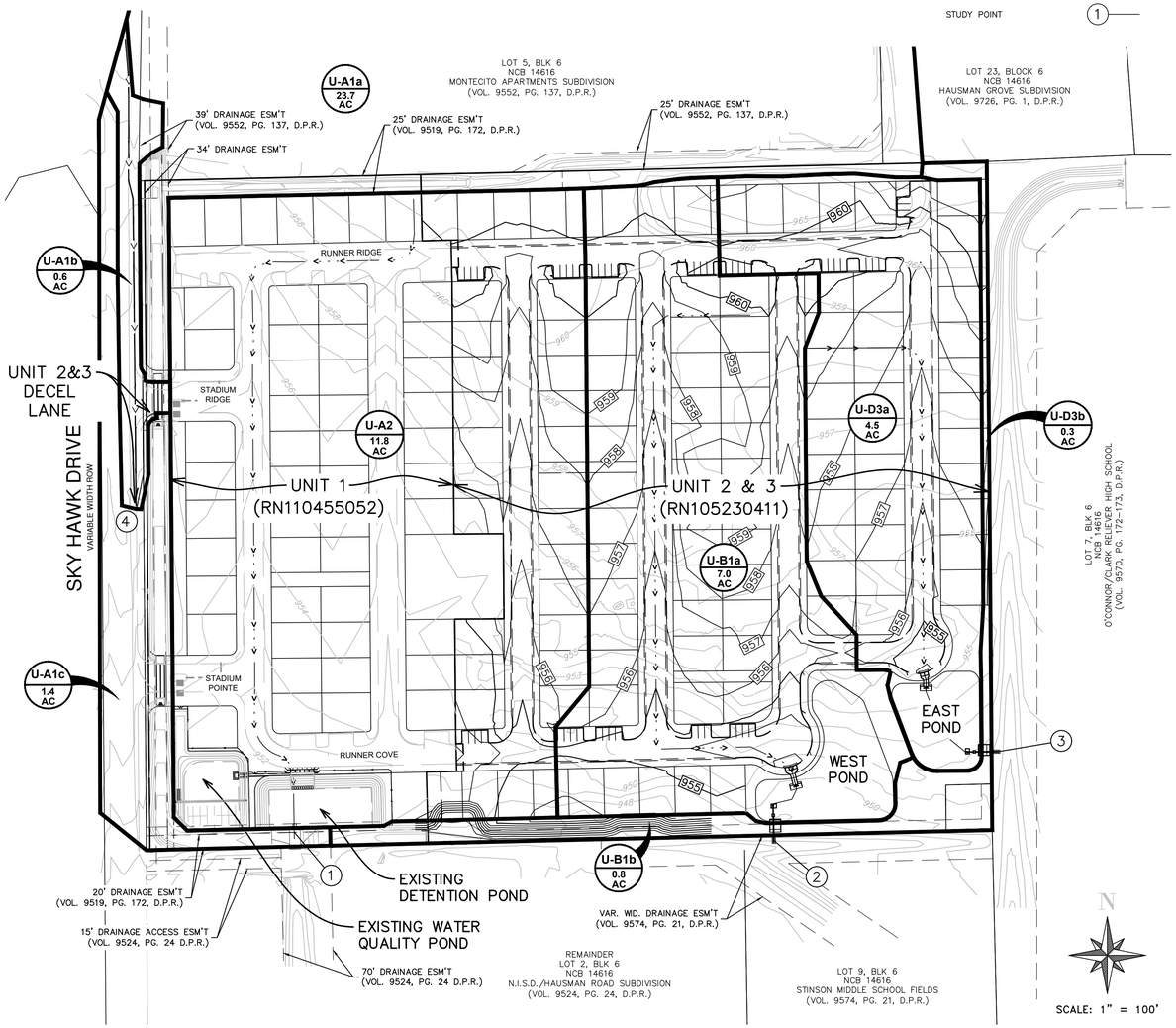


LEGEND

DRAINAGE AREA BOUNDARY	
EXISTING MAJOR CONTOURS	960
EXISTING MINOR CONTOURS	959
PROPOSED MAJOR CONTOURS	960
PROPOSED MINOR CONTOURS	959
TIME OF CONCENTRATION FLOW PATHS	
DRAINAGE ESM'T	
NEW CITY BLOCK	NCB
DPRBCT	DEED PLAT RECORDS BEXAR COUNTY TEXAS
VOL.	VOLUME
PG.	PAGE
STUDY POINT	1



EXISTING CONDITIONS



PROPOSED/ULTIMATE CONDITIONS

SUBMITTAL SET

NO.	REVISION	DATE

STATE OF TEXAS
BRIAN A. CROWELL
82619
LICENSED
PROFESSIONAL ENGINEER
03/17/2021

CDS muery
ENGINEERS | SURVEYORS
100 NE Loop 410, Ste. 300 | San Antonio, Texas 78216
(210) 581-1111 | TBPE No. F-1733 | TBPLS No. 100495-00

PLAT NO. 19-11800164

JOB NO. 118008.04
DATE SEPTEMBER 2020
DRAWN J.W.G.
CHECKED BC DESIGN JBG

STADIUM POINTE P.U.D.
UNIT 2 & 3
DRAINAGE AREA MAP
EXISTING AND PROPOSED/ULTIMATE CONDITIONS

SHEET EXH

Date: Mar 17, 2021, 3:57pm User ID: john.gibson
File: F:\2018\118008.04 Stadium Point, Phase 2\Civil 3D\Dwg\Engineer\Exhibits\STADPNT U2_3 EX_ULT DAM WPAP_MOD1.dwg

Attachment “C” – Suitability Letter from Authorized Agent

ATTACHMENT C | Suitability Letter from Authorized Agent

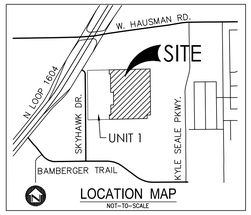
This section does not apply. An onsite sewage facility is not proposed for this project. A Sewage Collection System (SCS) Application is being submitted concurrently with this application.

Attachment "D" – Exception to the Required Geologic Assessment Site Plan

ATTACHMENT D | Exception to the Required Geologic Assessment

This section does not apply. A Geologic Assessment was performed for the entire master planned development and attached in section TCEQ-0585 of this application.

Attachment “E” – TCEQ WPAP Site Plan



LEGEND

EXISTING MINOR CONTOUR	901
EXISTING MAJOR CONTOUR	900
EXISTING SANITARY SEWER MAIN	E8"SS
EXISTING SANITARY SEWER MANHOLE	
EXISTING WATERLINE	E8"W
DIRECTION OF FLOW	
LIMITS OF PLAT (16.38 AC)	
LIMITS OF CONSTRUCTION (16.46 AC)	LOC
LIMITS OF PLAN AREA (12.85 AC)	LPA
PROPOSED CONTOUR	900
PROPOSED SANITARY SEWER MAIN	P12"SS
PROPOSED SANITARY SEWER MANHOLE	
PROPOSED WATERLINE	P8"W
PROPOSED FLOW ARROW	X.X%

NOTES:

1. NO PART OF THE PROJECT SITE IS LOCATED WITHIN THE 100 YEAR FLOODPLAIN BOUNDARIES ACCORDING TO FEMA FIRM MAP NO.48029C0210G DATED SEPTEMBER 29, 2010.
2. THERE ARE NO WELLS OR TEST HOLES OF ANY KIND KNOWN TO EXISTING WITHIN THE PROJECT BOUNDARIES.
3. TOTAL PLATTED ACREAGE FOR STADIUM POINTE PUD UNIT 2 & 3 IS 16.38 ARCES.
4. TOTAL SITE AREA IS 16.28 ACRES (16.38 AC. PLAT AREA – 0.10 AC UTILITY EASEMENT)
5. ± 0.18 ACRE OFF-SITE AREA WILL BE DISTURBED TO TIE IN OUTFALLS.
6. ± 0.08 ACRE OFF-SITE AREA WILL BE DISTURBED TO CONSTRUCT DECELERATION LANE IN SKYHAWK DRIVE
7. TOTAL DISTURBED AREA (LIMITS OF CONSTRUCTION) IS 16.54 ACRES (16.28+0.18+0.08)
8. TOTAL PLAN AREA IS 12.93 ACRES (16.54–3.61 AC. TO OFF–SITE BMP)
9. PLEASE NOTE THE CONSTRUCTION OF THE DUPLEXES WILL COMMENCE MORE OR LESS AFTER THE PERMANENT BMP'S ARE IN PLACE.
10. CALCULATING THE LIMITS OF CONSTRUCTION (LOC):

±4.76 ACRES	PRIVATE STREETS/SIDEWALKS/ PARKING/GREENWAY
±1.80 ACRES	BATCH DETENTION FACILITIES
±9.72 ACRES	LOT GRADING
±0.18 ACRE	OFF–SITE DRAIN TIE–INS
±0.08 ACRE	OFF–SITE DECEL LANE
±16.54 ACRES	TOTAL DISTURBED AREA (LOC)

11. APPROXIMATELY 16.54 ACRES WILL BE DISTURBED BY CONSTRUCTION ACTIVITIES. SOIL STABILIZATION WILL BE IMPLEMENTED PRIMARILY BY THE FOLLOWING PRACTICES:
    a. RE–ESTABLISHMENT OF VEGETATION, AROUND THE PERIMETER OF THE DISTURBED AREAS, TO BE MAINTAINED BY THE OWNER AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED TO ENSURE IT HAS BEEN ADEQUATELY ESTABLISHED.
    b. INSTALLATION OF CONCRETE BUILDING SLAB AND PAVEMENTS.
    c. ALL DISTURBED SOIL WILL BE STABILIZED AS PER PROJECT SPECIFICATIONS IN ACCORDANCE TCEQ'S TECHNICAL GUIDANCE MANUAL (TGM) RG–348.

LOT 5, BLOCK 6
NCB 14616
MONTECITO APARTMENTS SUBDIVISION
VOLUME 9552, PAGE 137 DPR

LOT 23, BLOCK 6
NCB 14616
HAUSMAN GROVE SUBDIVISION
VOLUME 9726, PAGE 1 DPR
OWNER: FARM HOUSE DEVELOPMENT, LLC.

25' DRAINAGE EASEMENT VOLUME 9519, PAGE 172 DPR

25' DRAINAGE EASEMENT VOLUME 9552, PAGE 137 DPR

EXIST. 8" SANITARY SEWER CONSTRUCTED WITH STADIUM POINTE P.U.D. UNIT 1 SAWS JOB NO. 18-1613

EXIST. 8" SANITARY SEWER CONSTRUCTED WITH STADIUM POINTE P.U.D. UNIT 1 SAWS JOB NO. 18-1613

DECELERATION LANE CONSTRUCTION AREA

SKYHAWK DRIVE

STADIUM COVE

ROWDY COVE

STADIUM RIDGE

STADIUM POINTE

LOT 999

LOT 901

LOT 902

LOT 11

LOT 903

DETENTION & WATER QUALITY POND

STADIUM POINTE P.U.D. UNIT 1 VOLUME 20001, PAGE 1931 DPR

LINE "A" RUNNER RIDGE

LINE "B"

LINE "C" RUNNER CV

LINE "E"

LINE "F"

LINE "G" ZETA COVE

LINE "H"

LINE "J" ROADRUNNER TIE

ROADRUNNER DIP

ROADRUNNER ELM

ROADRUNNER DEN

BLK. . . 13

BLOCK. . . 10

BLOCK. . . 11

BLOCK. . . 12

EXIST. MH. A–5 STA. 11+45.98

STA. 11+50.91 REMOVE PLUG AND TIE TO EXIST 8"SS

MH. A–6 STA. 14+24.65

MH. A–7 STA. 16+75.00

MH. J–2 STA. 7+20.00

MH. F–2 STA. 6+90.00

MH. F–2 STA. 6+80.00

EXIST. MH. B–2 STA. 6+92.05

M1–(MB) UTILITY POLE
N 29°33'58.68"
W 98°38'58.92"

3.61 ACRES TO OFF–SITE BMP

MH. J–1 STA. 4+00.00

MH. H–1 STA. 5+33.00

MH. E–1 STA. 4+00.00

EXIST. MH. B–1 STA. 3+96.03

MH. F–1 STA. 2+06.76 LINE "F" STA. 1+00.00 LINE "G"

MH. G–2 STA. 3+27.24 LINE "G" STA. 1+00.00 LINE "H"

MH. G–3 STA. 5+27.24 LINE "G" STA. 1+00.00 LINE "J"

M2–(MB) SEWER C.O.
N 29°33'53.69"
W 98°39'1.64"

EXIST. MH. C–3 STA. 5+23.09

EXIST. MH. C–2 STA. 4+21.40

MH. G–1 STA. 2+89.00

MH. C–6 STA. 8+90.00

MH. C–5 STA. 8+00.44 LINE "C" STA. 1+00.00 LINE "F"

MH. C–4 STA. 6+11.42 LINE "C" STA. 1+00.00 LINE "E"

STA. 5+28.02 REMOVE PLUG AND TIE TO EXIST. 8"SS

M3–(MB) SWIMMING POOL
N 29°33'56.60"
W 98°38'54.78"

M4–(MB) COMM. TOWER
N 29°33'53.20"
W 98°38'53.48"

0.10 ACRE UTILITY EASEMENT

EAST POND

WEST POND

VARIABLE WIDTH DRAINAGE EASEMENT VOLUME 9570, PAGE 172–173 DPR

VARIABLE WIDTH DRAINAGE EASEMENT VOLUME 9574, PAGE 24 DPR

LOT 9, BLOCK 6
NCB 14616
STINSON MIDDLE SCHOOL FIELDS
VOLUME 9574, PAGE 21 DPR

REMAINING PORTION OF LOT 2, BLOCK 6
NCB 14616
N.I.S.D. /HAUSMAN ROAD SUBDIVISION
VOLUME 9524, PAGE 24 DPR

LOT 7, BLOCK 6
NCB 14616
O'CONNOR/CLARK FIELDS HIGH SCHOOL
VOLUME 9570, PAGE 172–173 DPR

SCALE IN FEET
1"=40'

NO.	REVISION	DATE

STATE OF TEXAS
BRIAN A. CROWELL
82619
LICENSED
PROFESSIONAL ENGINEER
05/19/2021

CDS muery
ENGINEERS | SURVEYORS
100 NE Loop 410, Ste. 300 | San Antonio, Texas 78216
(210) 581-1111 | TBPE No. F-1733 | TBPLS No. 100495-00

PLAT NO. 19-11800164

JOB NO. 118008.04
DATE MARCH 2021
DESIGNER JBG
CHECKED BC DRAWN JBG

STADIUM POINTE P.U.D.
UNIT 2 & 3
SAN ANTONIO, TEXAS
TCEQ SITE PLAN

SHEET EXH

Date: Mar 17, 2021, 3:31pm User ID: John.Gibson
File: C:\2018\118008\Stadium Pointe Phase 2\Civil 3D\Dwg\Engineer\Exhibits\118008_TCEQ Site Plan WPAP Mod1.dwg

TEMPORARY STORMWATER SECTION (TCEQ-0602)

Temporary Stormwater Section

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Christopher Garza, PE SIT

Date: 08/26/2025

Signature of Customer/Agent:



Regulated Entity Name: Stadium Pointe PUD, Unit 2 & 3

Project Information

Potential Sources of Contamination

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

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

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

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

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

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

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

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

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

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

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

Sequence of Construction

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

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

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

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

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

    ☑ N/A

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

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

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

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

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

Soil Stabilization Practices

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

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

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

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

Administrative Information

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

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

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

Attachment “A” – Spill Response Actions

ATTACHMENT A | Spill Response Actions

Responsible Party
During construction, the responsible party for cleaning up a spill can be any combination of the following individuals:

1. The owner or operator, including contractor (during construction) of a facility from which a spill occurs.
2. The owner or operator, including contractor, operating a vehicle from which the spill occurs.
3. Other individual who caused or allowed the spill or discharge to occur.

Spill Classification
There are two main categories of spills that can be identified: Major Spills and Minor Spills. Spill response actions and notifications to municipal entities may differ depending on the type and degree of spill.

Major Spills can be classified as any spills where:

1. Material is considered a health or physical hazard based on its chemical or physical make up, or if the quantity of the spill exceeds the Reportable Quantity (RQ) as defined under Title 30 of the Texas Administrative Code (TAC) Chapter 327.4.
2. The spilled material has entered into the storm water drainage system, catchment basin, or adjoining creek or if it appears that discharge into the storm system will occur in the immediate future.
3. The spilled material has the ability to travel offsite.
4. The spilled material adversely affects the environment.
5. The spilled material cannot be controlled or contained by the responsible party.
6. The chemical or physical properties of the spilled material cannot be identified or is unknown.

Minor Spills are spills that do not meet the above criteria for major spills.

Notification and Reporting Agencies
The following entities shall be contact during discovery of a spill:

1. State of Texas 24-Hour Spill-Reporting Hotline and the State Emergency Response Commission at 1-800-832-8224
2. Texas Commission on Environmental Quality (San Antonio Regional Office), Monday–Friday, 8:00 a.m.–5:00 p.m. at 14250 Judson Rd, San Antonio TX 78233-4480, Main Line: 210-490-3096

Reporting Items for Major Spills
When reporting a spill, the following information may be required to help identify, log, and track the spill:

1. The date/time of the spill.
2. The identity/name of material released or spilled, and if the substance is considered hazardous.
3. The source of the release or spill.
4. The quantity of material released or spilled.
5. The time or duration of which the spill occurred.
6. The location/address of the spill.

7. The name of creek or waters involved or threatened and the extent of potential water pollution.
8. The contact information of the responsible party.
9. The steps being taken or proposed to contain and clean up the released or spilled material and any additional precautions.
10. Any injuries resulting from the spill, any known or anticipated health risks associated with the spill, or if additional medical precautions are required.
11. The identities of any municipal or private-sector representatives responding at the scene of the spill.
12. Possible hazards to the environment (air, soil, water, wildlife, etc.). This assessment may include references to accepted chemical databases, material safety data sheets, and health advisories. The TCEQ may request estimated or measured concentrations of the contaminant for the state's hazard assessment.

Reporting Items for Minor Spills

For minor spills that occur, the notification sequence described above is not required and can be treated directly onsite by the responsible parties involved by:

1. The first observer of the spill shall notify his/her supervisor and the onsite safety officer.
2. The supervisor must notify the owner, tenant, or their primary contact.
3. The immediate spill response plan/clean up actions shall be conveyed, documented and the owner/tenant shall be notified once cleanup is completed.

Equipment Needed for Minor Spills

Equipment and materials used to contain and/or restrict spreading of a spill can consist of spill pans and various forms of absorbent materials; which include granular material, socks, rock and gravel berms, pillows or pads, and sheets. Spill pans or pads can be placed under a continuing drip-type leak. Surrounding a minor spill with berms or socks can contain a small spill area until proper removal procedures can occur.

Attachment "B" – Potential Sources of Contamination

ATTACHMENT B | Potential Sources of Contamination

Potential sources of contamination for this project include:

- Drippings from vehicles, both construction and non-construction related.
- Grading and excavation activities: Stormwater runoff has the potential to be contaminated during the construction process with related excavation and site grading.
- Building materials: Materials include, but not limited to, concrete, wood, mortar, and paint among other materials.
- Trash and debris: These may include household trash items such as paper bags, cups, plastic ware, and food items.

Attachment “C” – Sequence of Major Activities

ATTACHMENT C | Sequence of Major Activities

The following is the general sequence of major activities for this project:

1. Install temporary erosion control measures. (±1.5 Acres – Various Locations)
2. Demolition of existing sidewalks, driveways, parking areas, building foundations. (± 1.6 Acres)
3. Site grading and excavation. (± 16.5 Acres)
4. Trenching and utility work for on-site water and sewer mains. (±1.5 Acres)
5. Base material for roadways and sidewalks will be placed. (±3.8 Acres)
6. Construction of batch detention facilities and cell tower access drive (±1.8 Acres)
7. Asphalt and concrete flatwork, including parking facilities as well as curbing will be installed. (± 3.8 Acres)
8. Install temporary erosion control measures and construct deceleration lane (± 0.8 Acres)

Deceleration lane construction (item 8) may occur prior to main project site development (items 1–7) at purview of contractor and/or City of San Antonio.

For each of the items above, the necessary Temporary BMPs (TBMPs) and erosion control measures will be in-place prior to major construction activities such as grading, utility installation, and roadway construction. Following construction activities, soil stabilization controls will be implemented and temporary measures will be removed as needed on an individual basis.

Total limits of construction due to proposed construction will be approximately 16.54 acres. Duplexes will be constructed more or less after the permanent BMPs are established, which will bring the total impervious area to 9.42 acres.

Attachment "D" – Temporary Best Management Practices and Measures

ATTACHMENT D | Temporary Best Management Practices and Measures

a. Storm Water Up-gradient of Deceleration Lane Construction Area
Approximately 0.6 acres of upland area contribute stormwater discharge to the deceleration lane construction area. Silt fence (± 130 LF) will be installed to prevent silt and sediment discharge downstream until permanent soil stabilization practices are installed.

The following TBMP items (b–e) pertain to the main site and are unchanged from the previously approved plan.

b. Storm Water Up-gradient of the Project Site
No up-gradient offsite areas discharge stormwater to Stadium Pointe Unit 2 & 3 (Site Area). Stormwater runoff from up-gradient areas is intercepted and diverted around the Project Site by existing channels

c. Storm Water Originating On-Site
No areas of the Project Site directly discharge into surface streams, sensitive features or the aquifer. All runoff from disturbed areas will have been treated by either temporary or permanent BMPs before ultimately discharging into French Creek (a tributary within the Leon Creek Watershed).

d. Prevention of Pollutants from Entering Surface Streams, Sensitive Features, and Aquifer
Temporary and permanent BMPs will be installed with respect to the Site Area drainage patterns. All runoff from disturbed areas will have been treated by either temporary or permanent BMPs before ultimately discharging into French Creek (a tributary within the Leon Creek Watershed).

e. Maintaining Flow During Construction
Temporary and permanent BMPs will be installed with respect to the Site Area drainage patterns. Temporary BMPs will be installed to control silt and sediment from leaving the Limits of Construction during permanent BMP installation.

NOTES:

- FOR THE PROTECTION OF NATURAL AREAS, NO EXCEPTIONS TO INSTALLING FENCES AT THE LIMIT OF CONSTRUCTION BE PERMITTED
- INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH CITY/COUNTY RULES AND REGULATIONS
- CONTRACTYOR MAY NOT BLOCK, DIRECT, IMPEDE OR REROUTE PEDESTRIAN AND VEHICULAR TRAFFICE NOR PLACE A BARRICADE OR OTHER TRAFFIC CONTROL DEVICES IN A RIGHT-OF-WAY, WITHOUT FIRST OBTAINING A TEMPORARY USE OF RIGHT-OF-WAY PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS THAT ARE REQUIRED TO COMPLY WITH THE CITY/COUNTY CODE REGARDING EXCAVATION IN WITHIN RIGHT-OF-WAY
- CONTRACTOR SHALL CLEAN UP SPOILS THAT MIGRATE INTO EXISTING RIGHT-OF-WAY AT LEAST ONCE PER DAY
- CONTRACTOR SHALL INSTALL CHAIN LINK FENCE AT ALL POINTS WHERE LIMITS OF CONSTRUCTION IS SHOWN (AS REQUIRED)
- ALL STORM WATER LEAVING SITE DURING CONSTRUCTION ACTIVITIES MUST BASS THROUGH THE SILT FENCE
- IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING
- THIS EXHIBIT IS TO BE USED FOR THE PORPUSES OF STROMWATER POLLUTION PREVENTION ONLY. OTHER CIVIL ENGINEERING INFORMATION SHALL BE OBTAINED FROM APPRPRIATE CONSTRUCTION DOCUMENTS

INSTALLATION:

- ALL OPERATORS SHALL SUBMIT A NOTICE OF INTENT (NOI) AT LEAST 48 HOURS IN ADVANCED AND ALL MANAGEMENT PRACTICES (BMP'S) SHALL BE IN PLACE PRIOR TO STARTING CONSTRUCTION
- CONTRACTOR TO ENSURE THAT STRUCTURAL BMP'S ARE INSTALLED WITHIN THE LIMITS OF CONSTRUCTION
- CONTRACTOR TO VERIFY SUFFICIENT VEGETATION IN AREAS DENOTED AS VEGETATED FILTER STRIP. IF INSUFFICIENT VEGETATION EXISTS, CONTRACTOR SHALL IMPLEMENT A DIFFERENT BEST MANAGEMENT PRACTICE AND WILL SHOW IT ON THIS PLAN WITH NOTATION IN THE MODIFICATION SECTIONS WITH THE SIGNATURE AND DATE OF RESPONSIBLE PARTY.

PROJECT COMPLETTION

- CONTRACTOR TO ENSURE THEY HAVE MET ALL REQUIREMENTS OF THE SWPPP BEFORE FILING A NOTICE OF TERMINATION
- ALL DISTURBED AREAS NOT COVERED BY IMPERVIOUS COVER ARE TO BE STABILIZED PER THE SWPPP AND PROJECT SPECIFICATIONS PRIOR TO REMOVAL OF ANY BMPS.
- BMPS ARE TO REMAIN IN PLACE UNTIL UNLESS OTHERWISE NOTATED ON THE PROJECT SPECIFICATIONS

SWPPP MODIFICATIONS

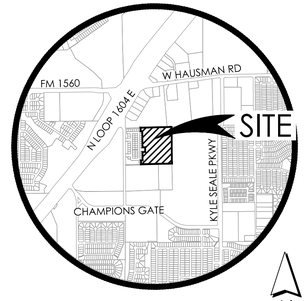
DATE	SIGNATURE	ISSUE/DESCRIPTION

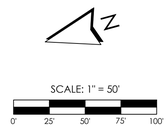
CAUTION:
CONTRACTOR TO VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPENCIES. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF UNDERGROUND UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE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

811 Know what's **below.** **Call** before you dig.

LOCATION MAP

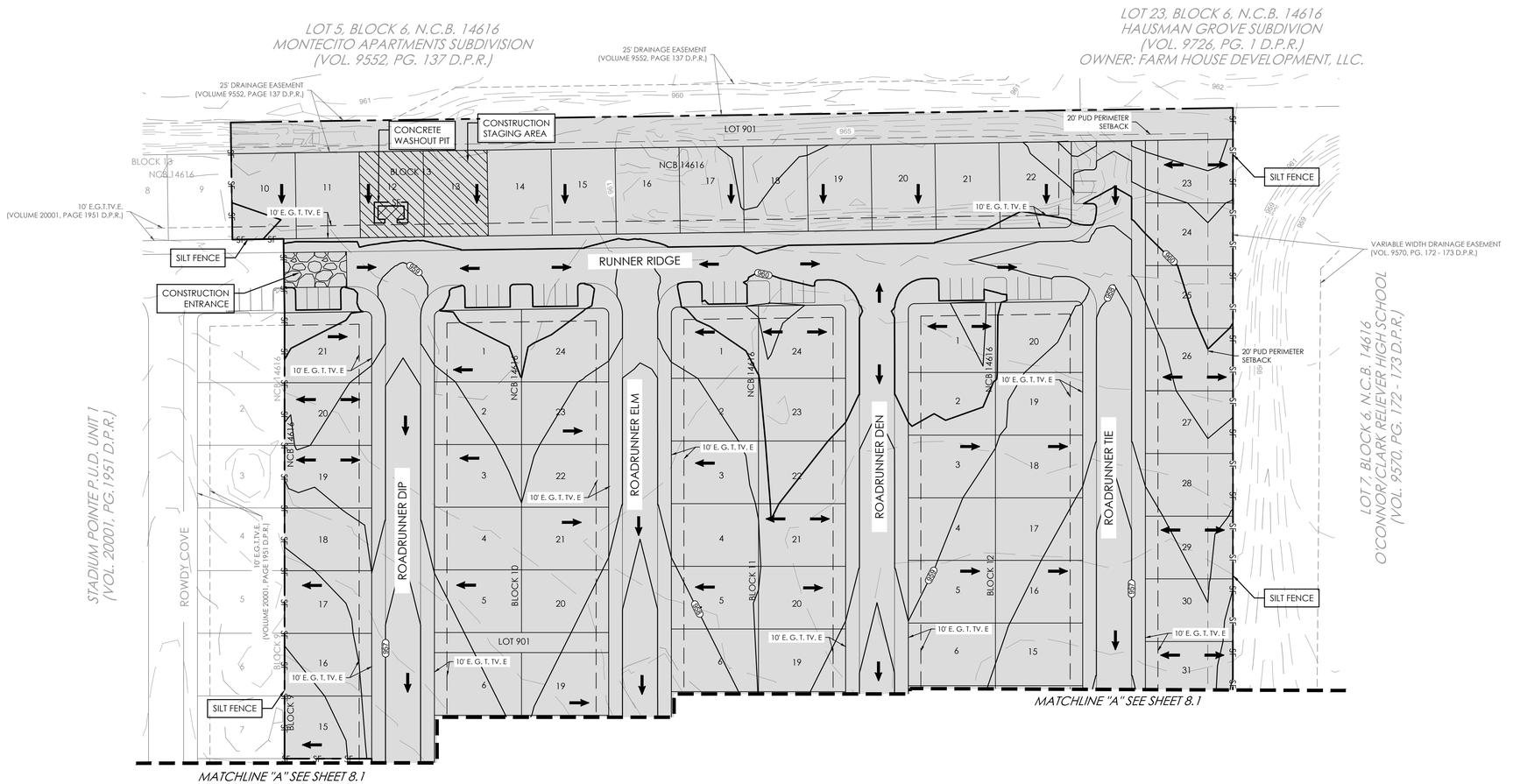
NOT-TO-SCALE





LEGEND

- DISTURBED AREA
- PROPOSED CONSTRUCTION ENTRANCE
- CONSTRUCTION STAGING AREA
- ESTABLISH VEGETATION
- INLET PROTECTION
- ROCK BERM W/ GABION
- SF — CONCRETE WASHOUT PIT
- TP TP — TREE PROTECTION PLAN
- SF SF SF — SILT FENCE
- LOC — LIMITS OF CONSTRUCTION
- PROPOSED DIRECTIONAL FLOW ARROW



PLAT NO: 19-11800164

BLUESITE ENGINEERING
TX. P-22528
13750 SAN PEDRO, SUITE B10
SAN ANTONIO, TEXAS 78232
210.469.4414

STATE OF TEXAS
CHRISTOPHER GARZA
133528
LICENSED PROFESSIONAL ENGINEER

08/26/2025

OWNER/DEVELOPER:

SKYHAWK VILLA DE SAN ANTONIO, LLC
8117 SUTHERLAND LANE
PLANO, TEXAS 75025

SURVEYOR:

REVISIONS

PLAT NO. 19-11800164

PROJECT

STADIUM POINTE P.U.D. UNIT 2 & 3

SHEET

STORMWATER POLLUTION PREVENTION PLAN

LOCATION **SAN ANTONIO, TX**

SHEET NO.

8.0

Date: 7/7/2025 2:54:22 PM
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THIS IS AN ELECTRONIC COPY AND MAY HAVE BEEN ALTERED. CONTRACTOR TO RELY ON LATEST HARD SET OF PLANS WITH ORIGINAL CONSULTANT SEAL AND SIGNATURE.

NOTES:

- FOR THE PROTECTION OF NATURAL AREAS, NO EXCEPTIONS TO INSTALLING FENCES AT THE LIMIT OF CONSTRUCTION BE PERMITTED
- INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH CITY/COUNTY RULES AND REGULATIONS
- CONTRACTYOR MAY NOT BLOCK, DIRECT, IMPEDE OR REROUTE PEDESTRIAN AND VEHICULAR TRAFFICE NOR PLACE A BARRICADE OR OTHER TRAFFIC CONTROL DEVICES IN A RIGHT-OF-WAY, WITHOUT FIRST OBTAINING A TEMPORARY USE OF RIGHT-OF-WAY PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS THAT ARE REQUIRED TO COMPLY WITH THE CITY/COUNTY CODE REGARDING EXCAVATION IN WITHIN RIGHT-OF-WAY
- CONTRACTOR SHALL CLEAN UP SPOILS THAT MIGRATE INTO EXISTING RIGHT-OF-WAY AT LEAST ONCE PER DAY
- CONTRACTOR SHALL INSTALL CHAIN LINK FENCE AT ALL POINTS WHERE LIMITS OF CONSTRUCTION IS SHOWN (AS REQUIRED)
- ALL STORM WATER LEAVING SITE DURING CONSTRUCTION ACTIVITIES MUST BASS THROUGH THE SILT FENCE
- IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING
- THIS EXHIBIT IS TO BE USED FOR THE PORPUSES OF STROMWATER POLLUTION PREVENTION ONLY. OTHER CIVIL ENGINEERING INFORMATION SHALL BE OBTAINED FROM APPRPRIATE CONSTRUCTION DOCUMENTS

INSTALLATION:

- ALL OPERATORS SHALL SUBMIT A NOTICE OF INTENT (NOI) AT LEAST 48 HOURS IN ADVANCED AND ALL MANAGEMENT PRACTICES (BMP'S) SHALL BE IN PLACE PRIOR TO STARTING CONSTRUCTION
- CONTRACTOR TO ENSURE THAT STRUCTURAL BMP'S ARE INSTALLED WITHIN THE LIMITS OF CONSTRUCTION
- CONTRACTOR TO VERIFY SUFFICIENT VEGETATION IN AREAS DENOTED AS VEGETATED FILTER STRIP. IF INSUFFICIENT VEGETATION EXISTS, CONTRACTOR SHALL IMPLEMENT A DIFFERENT BEST MANAGEMENT PRACTICE AND WILL SHOW IT ON THIS PLAN WITH NOTATION IN THE MODIFICATION SECTIONS WITH THE SIGNATURE AND DATE OF RESPONSIBLE PARTY.

PROJECT COMPLETTION

- CONTRACTOR TO ENSURE THEY HAVE MET ALL REQUIREMENTS OF THE SWPPP BEFORE FILING A NOTICE OF TERMINATION
- ALL DISTURBED AREAS NOT COVERED BY IMPERVIOUS COVER ARE TO BE STABILIZED PER THE SWPPP AND PROJECT SPECIFICATIONS PRIOR TO REMOVAL OF ANY BMPS.
- BMPS ARE TO REMAIN IN PLACE UNTIL UNLESS OTHERWISE NOTATED ON THE PROJECT SPECIFICATIONS

SWPPP MODIFICATIONS

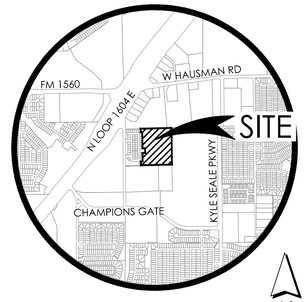
DATE	SIGNATURE	ISSUE/DESCRIPTION

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

811 Know what's **below.** **Call** before you dig.

LOCATION MAP

NOT-TO-SCALE



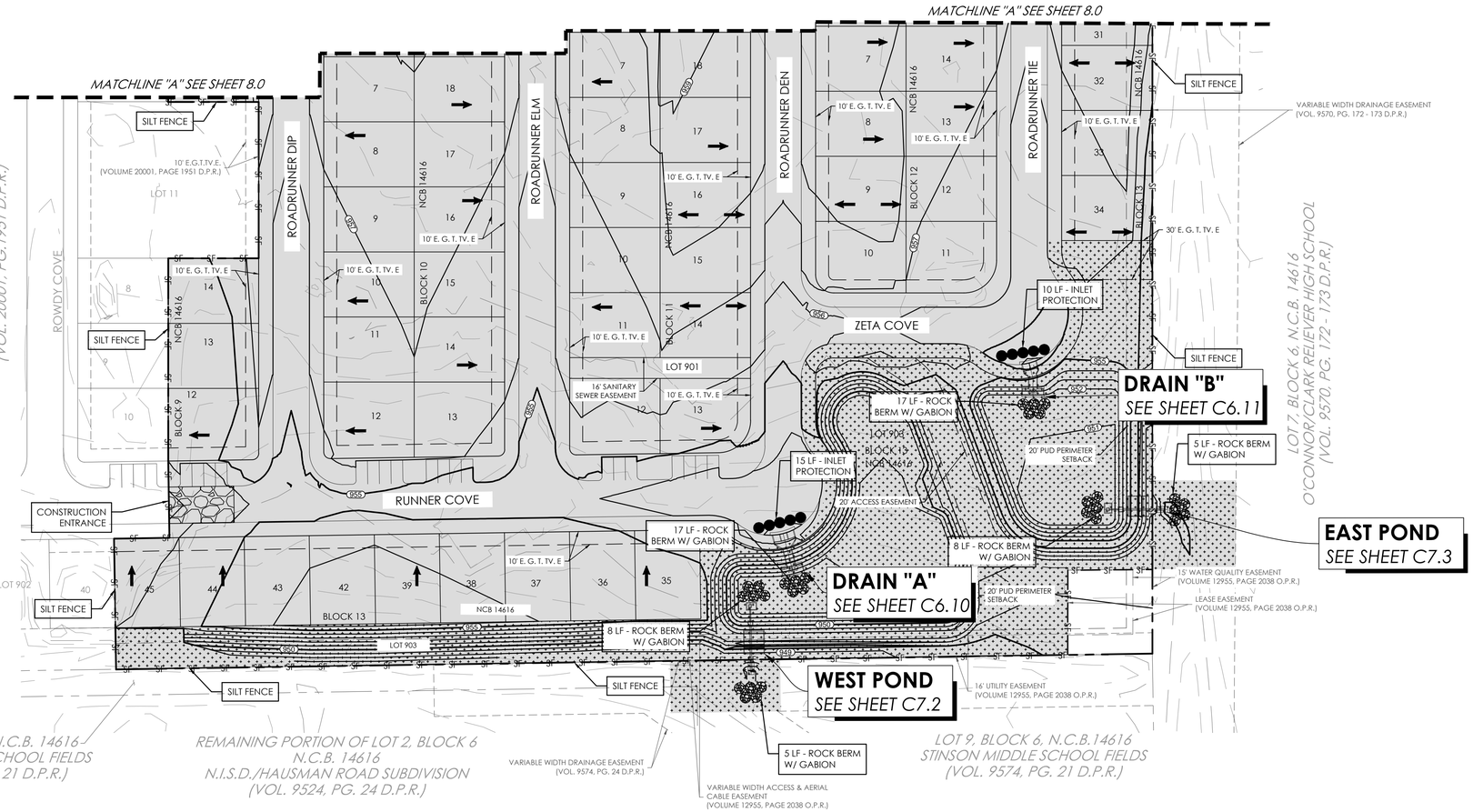
N

SCALE: 1" = 50'

0' 25' 50' 75' 100'

LEGEND

- DISTURBED AREA
- PROPOSED CONSTRUCTION ENTRANCE
- CONSTRUCTION STAGING AREA
- ESTABLISH VEGETATION
- INLET PROTECTION
- ROCK BERM W/ GABION
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SURVEYOR:

REVISIONS

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PROJECT

STADIUM POINTE P.U.D. UNIT 2 & 3

SHEET

STORMWATER POLLUTION PREVENTION PLAN

LOCATION **SAN ANTONIO, TX**

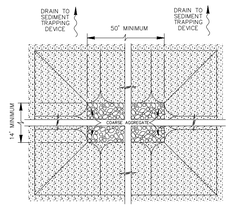
SHEET NO.

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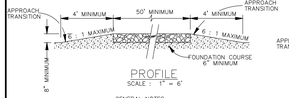
PLAT NO: 19-11800164

THIS IS AN ELECTRONIC COPY AND MAY HAVE BEEN ALTERED. CONTRACTOR TO RELY ON LATEST HARD SET OF PLANS WITH ORIGINAL CONSULTANT SEAL AND SIGNATURE.

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PLAN
SCALE : 1" = 6'

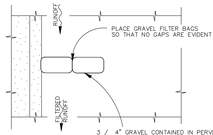


PROFILE
SCALE : 1" = 6'

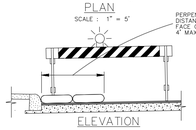
GENERAL NOTES

1. THE LENGTH OF THE TYPE 1 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A SIZE OF 4" TO 8".
3. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6 : 1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
4. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT – TYPE 1



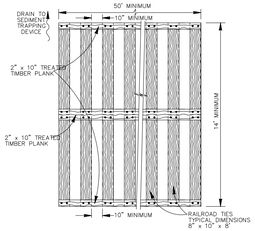
PLAN
SCALE : 1" = 5'



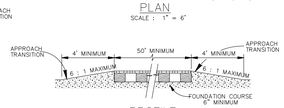
ELEVATION
SCALE : 1" = 5'

NOTE:
STRADDLE GRAVEL FILTER BAGS WITH TYPE 1 BARRICADES MOUNTED WITH TYPE "A" FLASHING WARNING LIGHT. SEE BARRICADE CONSTRUCTION SIGN DETAILS. PLACE FLASHING LIGHTS AWAY FROM GUTTER, FLUSH WITH OUTSIDE EDGE OF BAG CONFIGURATION.

GRAVEL FILTER BAGS



PLAN
SCALE : 1" = 6'

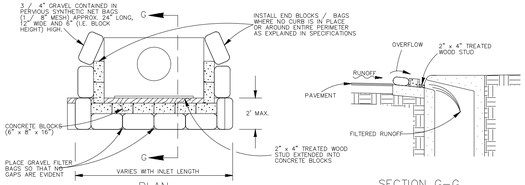


PROFILE
SCALE : 1" = 6'

GENERAL NOTES

1. THE LENGTH OF THE TYPE 2 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE TREATED TIMBER PLANKS SHALL BE ATTACHED TO THE RAILROAD TIES WITH 1 / 2" x 6" MIN. LAG BOLTS. OTHER FASTENERS MAY BE USED AS APPROVED BY THE ENGINEER.
3. THE TREATED TIMBER PLANKS SHALL BE #2 GRADE MIN., AND SHOULD BE FREE FROM LARGE AND LOOSE KNOTS.
4. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6 : 1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
6. THE CONSTRUCTION EXIT SHOULD BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
7. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT – TYPE 2

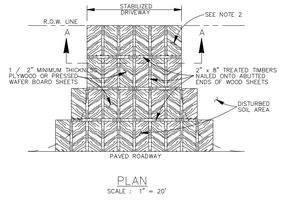


PLAN
SCALE : 1" = 5'

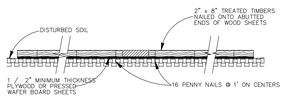
SECTION G–G
SCALE : 1" = 5'

NOTE:
GRAVEL FILTERS CAN BE USED ON PAVEMENT OR BARE GROUND.

CURB INLET GRAVEL FILTER



PLAN
SCALE : 1" = 20'

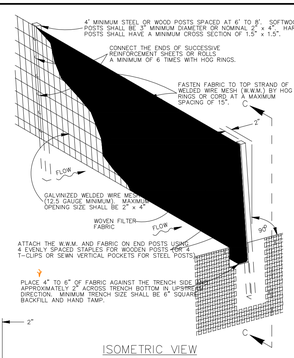


SECTION A–A
SCALE : 1" = 2'

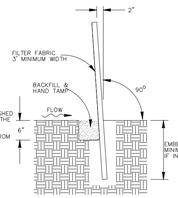
GENERAL NOTES

1. THE LENGTH OF THE TYPE 3 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
2. THE TYPE 3 CONSTRUCTION EXIT MAY BE CONSTRUCTED FROM OPEN GRADED CRUSHED STONE WITH A SIZE OF 2 TO 4 INCHES SPREAD A MINIMUM OF 4 INCHES THICK TO THE LIMITS SHOWN ON THE PLANS.
3. THE TREATED TIMBER PLANKS SHALL BE #2 GRADE MIN., AND SHOULD BE FREE FROM LARGE AND LOOSE KNOTS.
4. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT – TYPE 3



ISOMETRIC VIEW
SCALE : 1" = 2'



SECTION C–C
SCALE : 1" = 2'

SEDIMENT CONTROL FENCE USAGE GUIDELINES

A SEDIMENT CONTROL FENCE MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUN-OFF. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED.

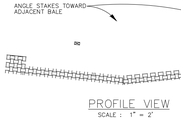
SEDIMENT CONTROL FENCE SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 100 GPM / FT SQUARED. SEDIMENT CONTROL FENCE IS NOT RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA LARGER THAN 2 ACRES.

GENERAL NOTES

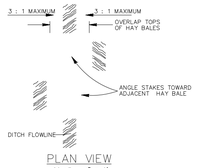
1. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

TEMPORARY SEDIMENT CONTROL FENCE

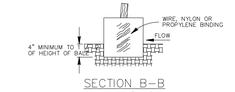
JANUARY 2005
CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
TEMPORARY EROSION, SEDIMENT & WATER POLLUTION CONTROL MEASURES STANDARDS 1



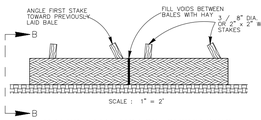
PROFILE VIEW
SCALE : 1" = 2'



PLAN VIEW
SCALE : 1" = 2'



SECTION B–B
SCALE : 1" = 2'



SCALE : 1" = 2'

BALED HAY USAGE GUIDELINES

A BALED HAY INSTALLATION MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A TWO YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED. SHE INSTALLATION SHOULD BE SIZED TO FILTER A MAXIMUM FLOW RATE OF 100 GALLONS / MINUTE / SQUARE FOOT OF CROSS SECTIONAL AREA. BALED HAY MAY BE USED AT THE FOLLOWING LOCATIONS:

1. WHERE THE RUNOFF APPROACHING THE BALED HAY FLOWS OVER DISTURBED SOIL FOR LESS THAN 100'. IF THE SLOPE OF THE DISTURBED SOIL EXCEEDS 10 %, THE LENGTH OF SLOPE UPSTREAM OF THE BALED HAY SHOULD BE LESS THAN 50'.
2. WHERE THE INSTALLATION WILL BE REQUIRED FOR LESS THAN 3 MONTHS.
3. WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1 / 2 ACRE.

FOR BALED HAY INSTALLATIONS IN SMALL DITCHES, THE FOLLOWING ADDITIONAL CONDITIONAL CONSIDERATIONS APPLY:

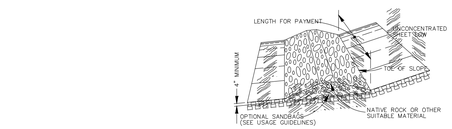
1. THE DITCH SIDESLOPES SHOULD BE GRADED AS FLAT AS POSSIBLE TO MAXIMIZE THE DRAINAGE FLOW RATE THRU THE HAY.
2. THE DITCH SHOULD BE GRADED LARGE ENOUGH TO CONTAIN THE OVERLAPPING DRAINAGE WHEN SEDIMENT HAS FILLED TO THE TOP OF THE BALED HAY.

BALES SHOULD BE REPLACED USUALLY EVERY 2 MONTHS OR MORE OFTEN DURING WET WEATHER WHEN LOSS OF STRUCTURAL INTERGRITY IS ACCELERATED.

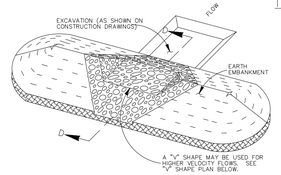
GENERAL NOTES

1. HAY BALES SHALL BE A MINIMUM OF 30" IN LENGTH AND WEIGH A MINIMUM OF 50 LBS.
2. HAY BALES SHALL BE BOUND BY EITHER WIRE OR NYLON OR POLYPROPYLENE STRING. THE BALES SHALL BE COMPOSED ENTIRELY OF VEGETABLE MATTER.
3. HAY BALES SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4" AND, WHERE POSSIBLE, ONE-HALF THE HEIGHT OF THE BALE.
4. HAY BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. THE BALES SHALL BE PLACED WITH BINDINGS PARALLEL TO THE GROUND.
5. HAY BALES SHALL BE SECURELY ANCHORED IN PLACE WITH 3 / 8" DIA. REBAR OR 2" x 2" WOOD STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE SHALL BE ANGLED TOWARDS THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

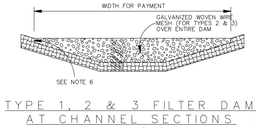
BALED HAY FOR EROSION CONTROL



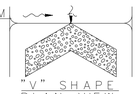
TYPE 1 FILTER DAM AT TOE OF SLOPE
SCALE : 1" = 10'

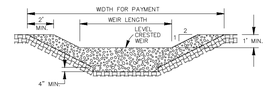


TYPE 1 & 2 FILTER DAM AT SEDIMENT TRAP
SCALE : 1" = 10'

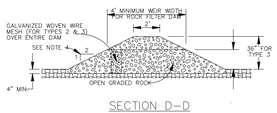


TYPE 1, 2 & 3 FILTER DAM AT CHANNEL SECTIONS
SCALE : 1" = 6'

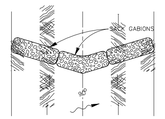




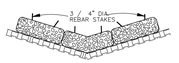
PROFILE OF TYPE 1 & 2 FILTER DAM AT SEDIMENT TRAP
SCALE : 1" = 6'



SECTION D–D
SCALE : 1" = 6'



PLAN VIEW
SCALE : 1" = 10'



SECTION E–E
SCALE : 1" = 10'

TYPE 4 SACK GABION DETAIL
SCALE : 1" = 6'

SECTION F–F
SCALE : 1" = 6'

TYPE 4 FILTER DAM AT DITCHES & SMALLER CHANNELS PLAN VIEW

ROCK FILTER DAMS

ROCK FILTER DAM USAGE GUIDELINES

ROCK FILTER DAMS SHOULD BE CONSTRUCTED DOWNSTREAM FROM DISTURBED AREAS TO INTERCEPT SEDIMENT FROM OVERLOAD RUNOFF AND / OR CONCENTRATED FLOW. THE DAMS SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 60 GPM / FT SQUARED OF CROSS SECTIONAL AREA. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE.

TYPE 1 (18" HIGH WITH NO WIRE MESH) :

TYPE 1 MAY BE USED AT THE TOE OF SLOPES, AROUND INLETS, IN SMALL DITCHES AND AT DIKE OR SWALE OUTLETS. THIS TYPE OF DAM IS RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA OF 5 ACRES OR LESS. TYPE 1 MAY NOT BE USED IN CONCENTRATED HIGH VELOCITY FLOWS (APPROXIMATELY 8 FT. / SEC. OR MORE) IN WHICH AGGREGATE WASH OUT MAY OCCUR. SANDBAGS MAY BE USED AT THE EMBEDDED FOUNDATION (4" DEEP MIN.) FOR BETTER FILTERING EFFICIENCY OF LOW FLOWS IF CALLED FOR ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

TYPE 2 (18" HIGH WITH WIRE MESH) :

TYPE 2 MAY BE USED IN DITCHES AND AT DIKE OR SWALE OUTLETS.

TYPE 3 (36" HIGH WITH WIRE MESH) :

TYPE 3 MAY BE USED IN STREAM FLOW AND SHOULD BE SECURED TO THE STREAM BED.

TYPE 4 (SACK GABIONS) :

TYPE 4 MAY BE USED IN DITCHES AND SMALLER CHANNELS TO FORM AN EROSION CONTROL DAM.

GENERAL NOTES

1. IF SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, FILTER DAMS SHOULD BE PLACED NEAR THE TOE OF SLOPES WHERE EROSION IS ANTICIPATED, UPSTREAM AND / OR DOWNSTREAM AT DRAINAGE STRUCTURES, AND IN ROADWAY DITCHES AND CHANNELS TO COLLECT SEDIMENT.
2. MATERIALS (AGGREGATE, WIRE MESH, SANDBAGS, ETC.) SHALL BE AS INDICATED BY THE SPECIFICATION FOR ROCK FILTER DAMS FOR EROSION AND SEDIMENTATION CONTROL.
3. THE ROCK FILTER DAM DIMENSIONS SHALL BE AS INDICATED ON THE STORM WATER POLLUTION PREVENTION PLANS.
4. SIDE SLOPES SHOULD BE 2 : 1 OR FLATTER. DAMS WITHIN THE SAFETY ZONE SHALL HAVE SIDE SLOPES OF 6 : 1 OR FLATTER.
5. MAINTAIN A MINIMUM OF 1' BETWEEN TOP OF ROCK FILTER DAM WEIR AND TOP OF EMBANKMENT FOR FILTER DAMS AT SEDIMENT TRAPS.
6. FILTER DAMS SHOULD BE EMBEDDED A MINIMUM OF 4" INTO THE EXISTING GROUND.
7. THE SEDIMENT TRAP FOR PONDING OF SEDIMENT LADEN RUNOFF SHALL BE OF THE DIMENSIONS SHOWN ON THE PLANS.
8. ROCK FILTER DAM TYPES 2 & 3 SHALL BE SECURED WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1" DIAMETER HEXAGONAL OPENINGS. THE AGGREGATE SHALL BE PLACED ON THE MESH TO THE HEIGHT AND SLOPES SPECIFIED. THE MESH SHALL BE FOLDED AT THE UPSTREAM SIDE OVER THE AGGREGATE AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS. THE MESH AND FILTER DAM SHALL BE SECURED OR STAKED TO THE STREAM BED PRIOR TO AGGREGATE PLACEMENT.
9. SACK GABIONS SHOULD BE STAKED DOWN WITH 3 / 4" DIA. REBAR STAKES.
10. FLOW OUTLET SHOULD BE ONTO A STABILIZED AREA (VEGETATION, ROCK, ETC.).
11. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

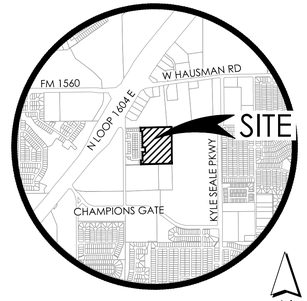




JANUARY 2005
CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
TEMPORARY EROSION, SEDIMENT & WATER POLLUTION CONTROL MEASURES STANDARDS 1

811
Know what's **below.**
Call before you dig.

LOCATION MAP
NOT-TO-SCALE



BLUESITE ENGINEERING
NO. F-22528
13750 SAN PEDRO, SUITE B10
SAN ANTONIO, TEXAS 78232
210.469.4414

STATE OF TEXAS
CHRISTOPHER GARZA
133628
LICENSED PROFESSIONAL ENGINEER

08/26/2025

OWNER/DEVELOPER:

SKYHAWK VILLA DE SAN ANTONIO, LLC
8117 SUTHERLAND LANE
PLANO, TEXAS 75025

SURVEYOR:

REVISIONS

PLAT NO. 19-11800164

PROJECT

STADIUM POINTE P.U.D. UNIT 2 & 3

SHEET

STORMWATER POLLUTION PREVENTION PLAN DETAILS

LOCATION **SAN ANTONIO, TX**

SHEET NO.

8.2

Date: 2/7/2014 2:44:29 PM
R:\Southfork\Utilities\Plotter\CAD\Sheet\SWPP STADIUM POINTE.dwg

THIS IS AN ELECTRONIC COPY AND MAY HAVE BEEN ALTERED. CONTRACTOR TO RELY ON LATEST HARD SET OF PLANS WITH ORIGINAL CONSULTANT SEAL AND SIGNATURE.

Attachment “E” – Request for Temporarily Seal a Feature (If Requested)

ATTACHMENT E | Request to Temporarily Seal a Feature

This section does not apply for this project. There will not be temporary sealing of naturally-occurring sensitive features on the site.

Attachment “F” – Structural Practices

ATTACHMENT F | Structural Practices

Temporary structural practices include:

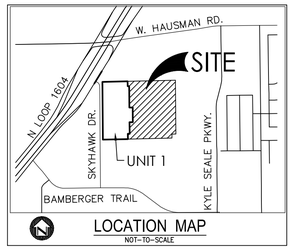
- Silt Fencing: To be placed along the down gradient boundary of the limits of construction activities.
- Gravel Filter Bags: Shall be used at the entrance to curb openings, around inlets, etc. to minimize siltation of the storm drain system and/or batch detention basins.
- Rock Berms: To serve as a secondary barrier to silt fencing and is to be placed in areas of concentrated flows, where indicated on construction plans, such as proposed channels and drainage swales.
- Construction Entrance/Exit: Will be placed to limit migration of sediment from the jobsite as construction traffic enters and exits the construction site.
- Concrete Washout-Pits: To contain and control affected runoff from cement delivery trucks.

Please note that this site is not located within a studied floodplain and is not exposed to potential flooding that may occur during heavy rainfall periods. Therefore, site inundation is not expected to adversely impact proposed TBMP structures.

Attachment “G” – Drainage Area Map

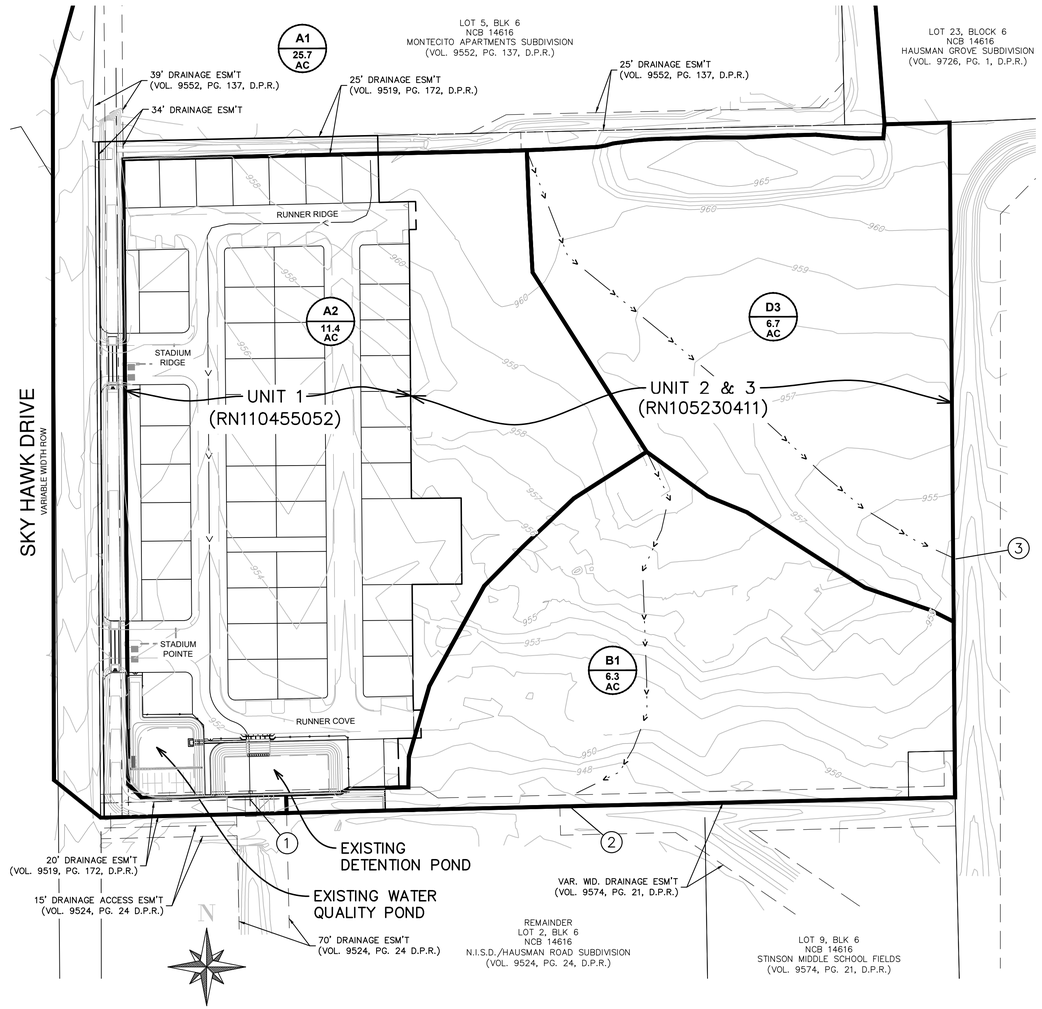
ATTACHMENT G | Drainage Area Maps

Drainage Area Map - Existing and Proposed/Ultimate Conditions

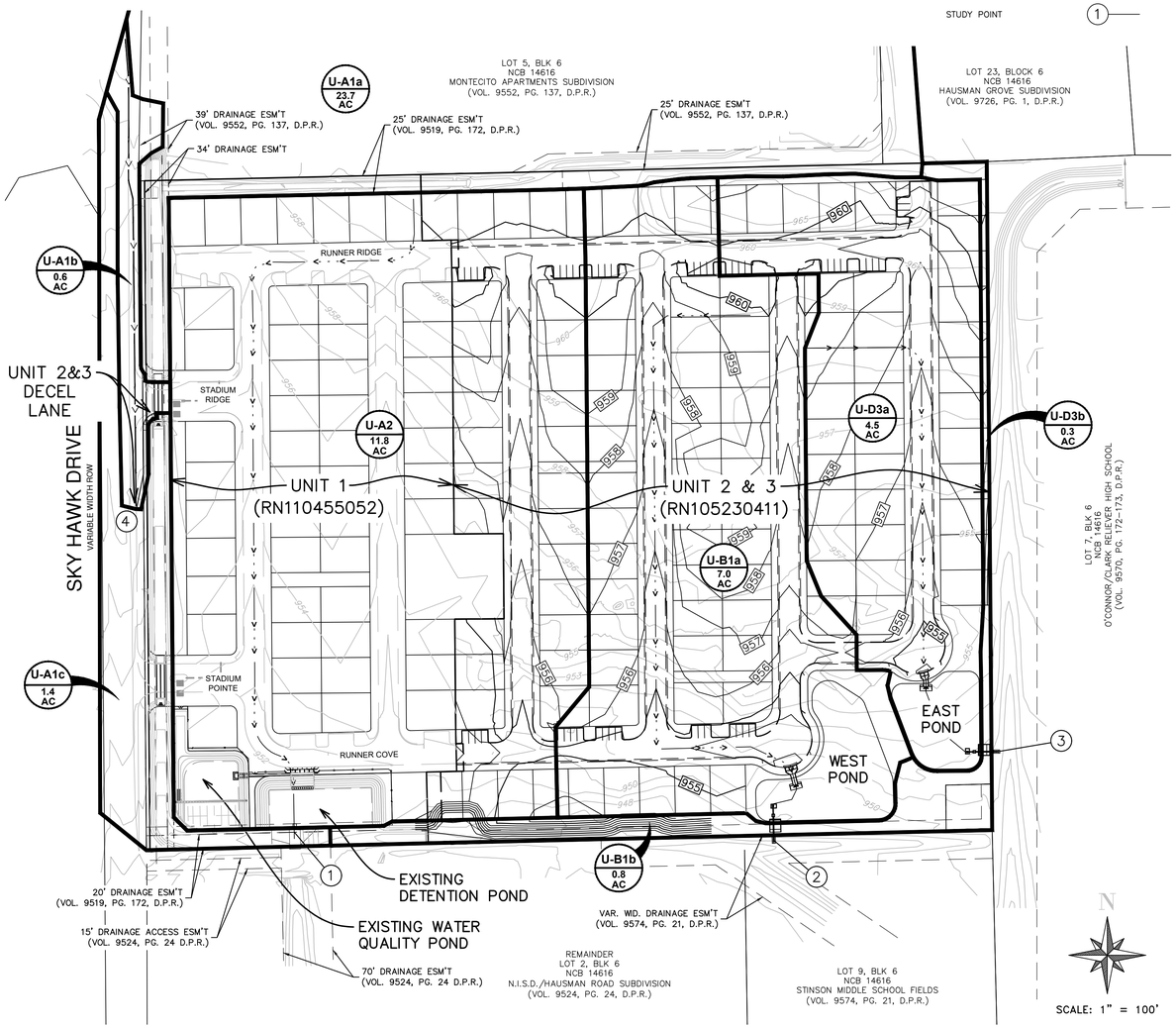


LEGEND

DRAINAGE AREA BOUNDARY	
EXISTING MAJOR CONTOURS	960
EXISTING MINOR CONTOURS	959
PROPOSED MAJOR CONTOURS	960
PROPOSED MINOR CONTOURS	959
TIME OF CONCENTRATION FLOW PATHS	
DRAINAGE ESM'T	
NEW CITY BLOCK	NCB
DPRBCT	DEED PLAT RECORDS BEXAR COUNTY TEXAS
VOL.	VOLUME
PG.	PAGE
STUDY POINT	1



EXISTING CONDITIONS



PROPOSED/ULTIMATE CONDITIONS

SUBMITTAL SET

NO.	REVISION	DATE

STATE OF TEXAS
BRIAN A. CROWELL
82619
LICENSED
PROFESSIONAL ENGINEER
03/17/2021

CDS muery
ENGINEERS | SURVEYORS
100 NE Loop 410, Ste. 300 | San Antonio, Texas 78216
(210) 581-1111 | TBPE No. F-1733 | TBPLS No. 100495-00

PLAT NO. 19-11800164

JOB NO. 118008.04
DATE SEPTEMBER 2020
DRAWN J.W.G.
CHECKED BC DESIGN JBG

STADIUM POINTE P.U.D.
UNIT 2 & 3
DRAINAGE AREA MAP
EXISTING AND PROPOSED/ULTIMATE CONDITIONS

SHEET EXH

Date: Mar 17, 2021, 3:57pm User ID: john.gibson
File: F:\2018\118008.04 Stadium Point, Phase 2\Civil 3D\Dwg\Engineer\Exhibits\STADPNT U2_3 EX_ULT DAM WPAP_MOD1.dwg

Attachment "H" – Temporary Sediment Pond(s) Plans and Calculations

ATTACHMENT H | Temporary Sediment Pond(s) Plans and Calculations

This section does not apply for this project. There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time.

Attachment "I" – Inspection and Maintenance for BMPs

ATTACHMENT I | Inspection and Maintenance for BMPs

Silt Fence

1. Inspect all fencing weekly, and after any rainfall events.
2. Remove sediment when buildup reaches 6 inches.
3. Replace any torn fabric or install a second line of fencing parallel to the torn section.
4. Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.
5. When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be re-vegetated. The fence itself should be disposed of in an approved landfill.

Gravel Filter Bags

1. Inspect all gravel filter bags weekly, and after any rainfall events.
2. Remove sediment when buildup reaches 4 inches.
3. Replace any torn bags or install a second line of bags parallel to the torn section.
4. When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation.

Rock Berm

1. Inspection should be made weekly and after each rainfall event by the responsible party. For installation in streambeds, additional daily inspections should be made.
2. Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.
3. Repair any loose wire sheathing.
4. The berm should be reshaped as needed during inspection.
5. The berm should be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.
6. The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

Temporary Construction Entrance/Exit

1. The entrance(s) should be maintained in a condition, which will prevent transfer of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.
2. When necessary, wheels should be cleaned and sediment removed prior to entrance onto public right-of-way.
3. When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.
4. All sediment should be prevented from entering any storm, drain, ditch or water course by using approved methods.

Concrete Washout Areas

1. To help reduce storm water pollution from concrete washes, ensure the following:
   a. Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.
   b. Avoid mixing excess amounts of fresh concrete.
   c. Perform washout of concrete trucks in designated areas only.
   d. Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
   e. Do not allow excess concrete to be dumped onsite, except in designated areas.
2. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of.
3. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
4. Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed of properly.
5. When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of.
6. Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

If any sediment escapes the site during construction activities, off-site accumulations must be removed to minimize offsite impacts to water quality. An inspection form has been attached.

Attachment "J" – Schedule of Interim and Permanent Soil Stabilization Practices

ATTACHMENT J | Schedule of Interim and Permanent Soil Stabilization Practices

Interim on-site stabilization measures will be on-going. Soil disturbances should be limited to the smallest area and shortest duration of time practical. As soon as practical, all disturbed soil shall be stabilized as per project specifications in accordance with TCEQ's Technical Guidance Manual (TGM) RG-348. Project stabilization practices will include, but not limited to, the use of sod, erosion control blankets and hydro seeding.

Stabilization measures are to be completed as soon as practicable at locations where construction activities have temporarily or permanently ceased. Bare soils are to be hyrdo seeding or otherwise stabilized within 14 calendar days after final grading or where construction activity has temporarily ceased for more than 21 days.

Newly planted vegetation will be protected from construction traffic.

The project is scheduled for completion in the 2026 calendar year. During construction, Temporary BMPs will be implemented. All disturbed areas will be permanently stabilized as indicated on Site Plan by pavements, building foundations, or vegetative cover. Temporary BMPs may only be removed after all upgradient disturbed soils are permanently stabilized and all upgradient Permanent BMPs indicated in this WPAP are installed.

PERMANENT STORM WATER SECTION (TCEQ-0600)

Permanent Stormwater Section

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Christopher Garza, PE SIT

Date: 08/26/2025

Signature of Customer/Agent



Regulated Entity Name: Stadium Pointe PUD, Unit 2 & 3

Permanent Best Management Practices (BMPs)

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

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

   ☐ N/A

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

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

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

☐ N/A

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

   ☐ N/A

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

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

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

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

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

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

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

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

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

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

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

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

☐ N/A

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

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

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

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

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

☐ N/A

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

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

    ☐ N/A

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

    ☑ N/A

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

    ☑ N/A

Responsibility for Maintenance of Permanent BMP(s)

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

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

    ☐ N/A

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

    ☐ N/A

Attachment “A” – 20% or Less Impervious Cover Waiver

ATTACHMENT A |20% or Less Impervious Cover Waiver

This section does not apply for this project. The site will not be used for multi-family residential development, schools, or small business with 20% or less impervious cover.

Attachment "B" – BMPs for Upgradient Stormwater

ATTACHMENT B | BMPs for Upgradient Stormwater

No up-gradient offsite areas discharge stormwater to Stadium Pointe Unit 2 & 3. Stormwater runoff from up-gradient areas is intercepted and diverted around the site by existing channels.

Attachment “C” – BMPs for On-site Stormwater

ATTACHMENT C | BMPs for Onsite Stormwater

Two batch detention ponds are proposed for Stadium Pointe Unit 2&3 as Permanent BMPs to remove stormwater TSS prior to discharge to the public waterway (French Creek). Plans for the batch detention ponds are included in Attachment F of this section.

Designed as one pond for both water quality and detention, each batch detention pond will feature a settling (water quality) volume controlled by an automatic actuator system and a detention volume stored above the water quality volume. The automatic actuator allows the pond to fill up to the provided water quality volume, holds the water quality volume for 12 hours after rain cessation, and then begins a 46-hour drawdown, releasing the cleanest water from the top. Incoming storm water runoff exceeding the provided water quality volume is stored in the same basin and release is controlled by the detention outfall structure. The lowest invert of the detention outfall structure is above the top of water quality volume.

The following table summarizes modified parameters for the approved Batch Detention Basins. Values in italics are modified relative to the previously approved plan. **Note that the provided capture volumes for the West and East Ponds remain unchanged, indicating no necessary changes to bmp construction plans. Refer to Attachment D, TCEQ 0590 for revised TSS Calculations.**

Table "A" BMPs for Onsite Stormwater

	WEST POND	EAST POND	BYPASS-NO BMP	PLAN AREA TOTAL	EXISTING OFFSITE BMP*	LOC TOTAL
DRAINAGE AREA (ACRES)	6.96	4.53	1.44	12.93	3.61	16.54
IMPERVIOUS COVER (ACRES)	4.15	2.85	0.16	7.16	2.26	9.42
IMPERVIOUS COVER (%)	59.60%	62.90%	11.10%	55.40%	62.60%	57.00%
$LM_{REQUIRED}$				5843		
$LM_{DESIRED}$				5871 (PROVIDED)		
TOTAL CAPTURE VOLUME REQUIRED (CF)	16713	15714				
TOTAL CAPTURE VOLUME PROVIDED (CF)	17224	16109				
* THERE IS AN EXISTING OFFSITE BMP WITHIN STADIUM POINTE PUD UNIT 1 WHICH TREATS A PORTION OF THE RUNOFF FROM STADIUM POINTE PUD UNIT 2 & 3. PLEASE REFER TO PREVIOULSY APPROVED PLANS FOR STADIUM POINTE PUD UNIT 1						
** LOC EXCLUDES 0.10 ACRES OF UNDISTRURBED PLATTED AREA AND INCLUDES 0.36 ACRES OF DISTRUBED OFF-SITE AREA. THEREFORE, THE TOTAL IMPERVIOUS COVER IS 9.42 ACRES OUT OF THE 16.28 ACREE SITE AREA (57.9%)						

Stormwater runoff from a 3.61 acre portion of Stadium Pointe PUD Unit 2&3 discharges to an existing off-site Partial Sedimentation and Filtration System (Off-Site Facility).

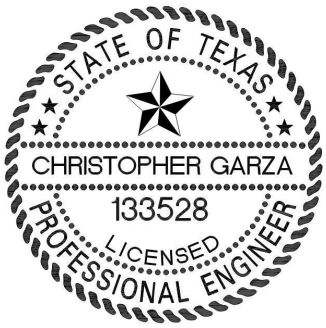
The Off-Site Facility (within Stadium Pointe PUD Unit 1) was designed and constructed to treat stormwater runoff from a 3.63 acre portion of Unit 2&3. The volume and character of discharge from the proposed 3.61 acre portion of Unit 2&3 (Site Area) meets the design parameters of the Off-Site Facility.

The following pages are the TSS Load calculation sheets from the Previously Approved Plan for the on-site facilities (Plan Area) and the Site Plan, WPAP Application Form, calculation sheets, and approval letter for the Off-Site Facility. **Please see the original WPAP calculations submitted with Stadium Point PUD Unit 1 and Stadium Pointe PUD Unit 2 & 3 Modification of a Previously Approved Plan (TCEQ 0590) Section of this report. The TSS Calculations prepared by CDS Muery can be found within this section.**

Bluesite Engineering has verified the previously approved TSS Removal Calculations and analysis and agrees with the methodology in concept.

PLAN AREA TSS REMOVAL CALCULATIONS STADIUM POINTE PUD UNIT 2 & 3

NO CHANGES WERE MADE TO PREVIOUSLY APPROVED TSS REMOVAL CALCULATIONS



09/15/2025

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: STADIUM POINTE PUD UNIT 2 & 3 WEST POND
Date Prepared: 7/22/2025

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

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

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

where:

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

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

County =	Bexar	
Total project area included in plan * =	12.93	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	7.16	acres
Total post-development impervious cover fraction * =	0.55	
P =	30	inches
$L_{M\ TOTAL\ PROJECT}$ =	5843	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = 2

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

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area =	6.96	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	4.15	acres
Post-development impervious fraction within drainage basin/outfall area =	0.60	
$L_{M\ THIS\ BASIN}$ =	3386	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP =	Batch Detention Basin	
Removal efficiency =	91	percent

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

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

where:

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

A_C =	**6.96**	acres
A_I =	**4.15**	acres
A_P =	**2.81**	acres
L_R =	**3961**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ =	**3386**	lbs.
F =	**0.85**	

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

Rainfall Depth =	**1.32**	inches
Post Development Runoff Coefficient =	**0.42**	
On-site Water Quality Volume =	**13928**	cubic feet

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

Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**2786**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**16713**	cubic feet

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: STADIUM POINTE PUD UNIT 2 & 3 EAST POND
Date Prepared: 7/22/2025

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

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

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

where:

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

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

County =	Bexar	
Total project area included in plan * =	12.93	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	7.16	acres
Total post-development impervious cover fraction * =	0.55	
P =	30	inches
$L_{M\ TOTAL\ PROJECT}$ =	5843	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = 2

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

Drainage Basin/Outfall Area No. = 2

Total drainage basin/outfall area =	4.53	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	2.85	acres
Post-development impervious fraction within drainage basin/outfall area =	0.63	
$L_{M\ THIS\ BASIN}$ =	2326	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention Basin
Removal efficiency = 91 percent

Aqualogic Cartridge Filter

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

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

where:

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

A_C =	**4.53**	acres
A_I =	**2.85**	acres
A_P =	**1.68**	acres
L_R =	**2717**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ =	**2485**	lbs.
F =	**0.91**	

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

Rainfall Depth =	**1.80**	inches
Post Development Runoff Coefficient =	**0.44**	
On-site Water Quality Volume =	**13095**	cubic feet

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

Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**2619**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**15714**	cubic feet

OFFSITE FACILITY PLAN
STADIUM POINTE PUD UNIT 1

REFERENCE APPENDIX "A" FOR FULL REPORT

VG-5-2019-20190122954

File Information

FILED IN THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY
LUCY ADAME-CLARK, BEXAR COUNTY CLERK

Document Number:	20190122954
Recorded Date:	June 28, 2019
Recorded Time:	9:31 AM
Total Pages:	7
Total Fees:	$46.00

**** THIS PAGE IS PART OF THE DOCUMENT ****

**** Do Not Remove ****

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

STATE OF TEXAS, COUNTY OF BEXAR

I hereby Certify that this instrument was FILED in File Number Sequence on this date and at the time stamped hereon by me and was duly RECORDED in the Official Public Record of Bexar County, Texas on:
6/28/2019 9:31 AM

COUNTY CLERK BEXAR COUNTY, TEXAS

Lucy Adame-Clark
Lucy Adame-Clark
Bexar County Clerk

Deed Recordation Affidavit
Edwards Aquifer Protection Plan

SCANNED

THE STATE OF TEXAS §

County of BEXAR §

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

(1) That my name is RAMANATHA YELLATURU and that I own the real property described below.

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

(3) That the EDWARDS AQUIFER PROTECTION PLAN for said real property was approved by the Texas Commission on Environmental Quality (TCEQ) on 5/14/19.

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

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

STADIUM POINTE PUD UNIT 1

LANDOWNER-AFFIANT

SWORN AND SUBSCRIBED TO before me, on this 21 day of JUNE, 2019

NOTARY PUBLIC

THE STATE OF TEXAS §

County of BEXAR §

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

GIVEN under my hand and seal of office on this 21 day of JUNE, 2019.

NOTARY PUBLIC

Typed or Printed Name of Notary

MY COMMISSION EXPIRES: _____

NOTARY PUBLIC STATE OF TEXAS
Arthur Lee Wright
My Commission Expires
05/29/2022
ID No. 4880276

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Toby Baker, *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 14, 2019

Mr. Ram Yellaturu
Skyhawk Villa de San Antonio, LLC
8117 Sutherland LN
Plano, Texas 75025 - 5545

Re: Edwards Aquifer, Bexar County

NAME OF PROJECT: Stadium Pointe PUD Unit 1; Located at 8406 Flanagan St.; San Antonio, Texas

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

Regulated Entity No. RN110455052; Additional ID No. 13000900

Dear Mr. Yellaturu:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP Modification for the above-referenced project submitted to the San Antonio Regional Office by CDS Muery on behalf of Skyhawk Villa de San Antonio, LLC on March 28, 2019. Final review of the WPAP Modification was completed after additional material was received on May 10, 2019. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) were selected and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

BACKGROUND

The original WPAP was approved by letter dated September 20, 2018 and had a site area of 9.59 acres with 4.60 acres impervious cover. The project included the construction of residential duplexes designed as a Planned Unit Development (PUD) with associated streets. One sedimentation/filtration basin was approved to treat stormwater generated by the project.

A WPAP Modification was approved by letter dated January 15, 2019 for a 9.65-acre site with the 4.93 acres of impervious cover. The project proposed an increase in the total number of residential duplexes to 52 and to alter the design of the previously approved sedimentation/filtration basin to a sedimentation/filtration basin with a computer-controlled cartridge filter system.

PROJECT DESCRIPTION

This modification proposes to decrease the total site area to 9.548 acres, decrease the total number of residential duplexes to 51, and to alter the design of the previously approved sedimentation/filtration basin with a computer-controlled cartridge filter system to a sedimentation/filtration basin. The new impervious cover on site will be 4.82 acres (50.48-percent). Project wastewater will be disposed of by conveyance to the existing Leon Creek Water Recycling Center owned by the San Antonio Water System.

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, a sedimentation filtration basin, designed using the TCEQ technical guidance document, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices (2005), will be constructed to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 3,933 pounds of TSS generated from the 4.82 acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project.

GEOLOGY

According to the geologic assessment included with the application, the site is located on the Person Formation. Four non-sensitive manmade features were identified by the project geologist. The San Antonio Regional Office site assessment conducted on April 19, 2019 revealed the site was generally as described in the geologic assessment.

SPECIAL CONDITIONS

I. This modification is subject to all Special and Standard Conditions listed in the WPAP approval letter dated September 20, 2018 and subsequent modification dated January 15, 2019.

II. The permanent pollution abatement measure shall be operational prior to occupancy of the facility.

III. All sediment and/or media removed from the water quality basin during maintenance activities shall be properly disposed of according to 30 TAC 330 or 30 TAC 335, as applicable.

STANDARD CONDITIONS

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.
2. The holder of the approved Edwards Aquifer protection plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the approved plan. Additional and separate approvals, permits, registrations and/or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, UIC) can be required depending on the specifics of the plan.

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

Prior to Commencement of Construction:

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

During Construction:

10. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
11. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and

approved prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 6, above.

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

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

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

specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.

21. An Edwards Aquifer protection plan approval or extension will expire, and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
22. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Nima Ghahremani of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210) 403-4034.

Sincerely,

Robert Sadlier, Section Manager
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality

RCS/ng

Enclosure: Deed Recordation Affidavit, Form TCEQ-0625
Change in Responsibility for Maintenance of Permanent BMPs, Form TCEQ-10263

cc: Mr. Stephen Lin, P.E., CDS Muery
Mr. Scott Halty, San Antonio Water Systems
Ms. Renee Green, P.E., Bexar County Public Works
Mr. Roland Ruiz, Edwards Aquifer Authority

ATTACHMENT D | BMPs for Surface Streams

No adverse impacts to nearby surface streams are expected. Stadium Pointe Unit 2&3 will feature two on-site batch detention ponds. The batch detention ponds will provide the required water quality volume for pollutant removal and also provide a detention volume stored above the water quality volume. The detention volume is designed to capture runoff from the proposed development and release the runoff at less than pre-developed conditions peak rates for the 5-, 25-, and 100-year recurrence interval storm events. Attenuation of the storm water runoff reduces erosion of downstream channels.

The batch detention basins protect downstream surface streams by removing stormwater pollutants and attenuating stormwater runoff. Furthermore, storm water will continue to be conveyed to an additional regional dentition pond located one block south of the property prior to reaching French Creek. French Creek is a tributary to the Leon Creek Watershed.

[COPY FROM RN110455052 WPAP MODIFICATION #2]

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Additional information is provided for cells with a red triangle in the upper right corne
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-3
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will re

1. The Required Load Reduction for the total project: Calculations from RG-348

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

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resul
A_N = Net increase in impervious a
P = Average annual precipitation

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

County =	Bexar	
Total project area included in plan * =	13.14	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	7.08	acres
Total post-development impervious cover fraction * =	0.54	
P =	30	inches
$L_{M\ TOTAL\ PROJECT}$ =	5777	lbs.

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

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

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

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area =	12.04	acres	8.41(U1)+3.61(U2/3)=12.02 AC {OK}
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres	
Post-development impervious area within drainage basin/outfall area =	7.08	acres	4.82(U1)+2.26(U2/3)=7.08 AC {OK}
Post-development impervious fraction within drainage basin/outfall area =	0.59		
$L_{M\ THIS\ BASIN}$ =	5777	lbs.	

3. Indicate the proposed BMP Code for this basin.

Proposed BMP =	Sand Filter	
Removal efficiency =	89	percent

[COPY FROM RN110455052 WPAP MODIFICATION #2]

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

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

where:

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

A_C =	12.04	acres
A_I =	7.08	acres
A_P =	**4.96**	acres
L_R =	**6612**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ =	5800	lbs.
F =	**0.88**	

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area.

Rainfall Depth =	**1.50**	inches
Post Development Runoff Coefficient =	**0.41**	
On-site Water Quality Volume =	**26998**	cubic feet

Calculations from RG-348

Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**5400**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**32398**	cubic feet

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

7. Retention/Irrigation System

Designed as Required in RG

Required Water Quality Volume for retention basin =	**NA**	cubic feet

Irrigation Area Calculations:

Soil infiltration/permeability rate =	0.1	in/hr
Irrigation area =	**NA**	square feet
	NA	acres

[COPY FROM RN110455052 WPAP MODIFICATION #2]

8. Extended Detention Basin System — Designed as Required in RG

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

9. Filter area for Sand Filters — Designed as Required in RG

9A. Full Sedimentation and Filtration System

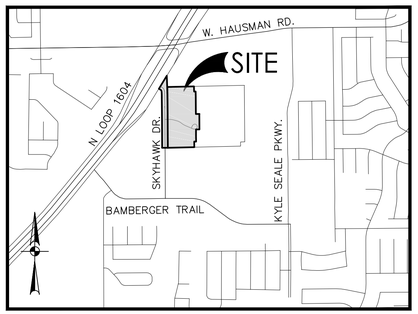
Water Quality Volume for sedimentation basin =	32398	cubic feet
Minimum filter basin area =	1500	square feet
Maximum sedimentation basin area =	13499	square feet
Minimum sedimentation basin area =	3375	square feet

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins =	32398	cubic feet
Minimum filter basin area =	2700	square feet
Maximum sedimentation basin area =	10799	square feet
Minimum sedimentation basin area =	675	square feet



PLAT ID 180390



LEGEND

PROPOSED CONTOURS — 960

EXISTING CONTOURS — 960

PROPOSED FLOW ARROWS →

SITE BOUNDARY

DRAINAGE AREA

GEOLOGIC FEATURE ×

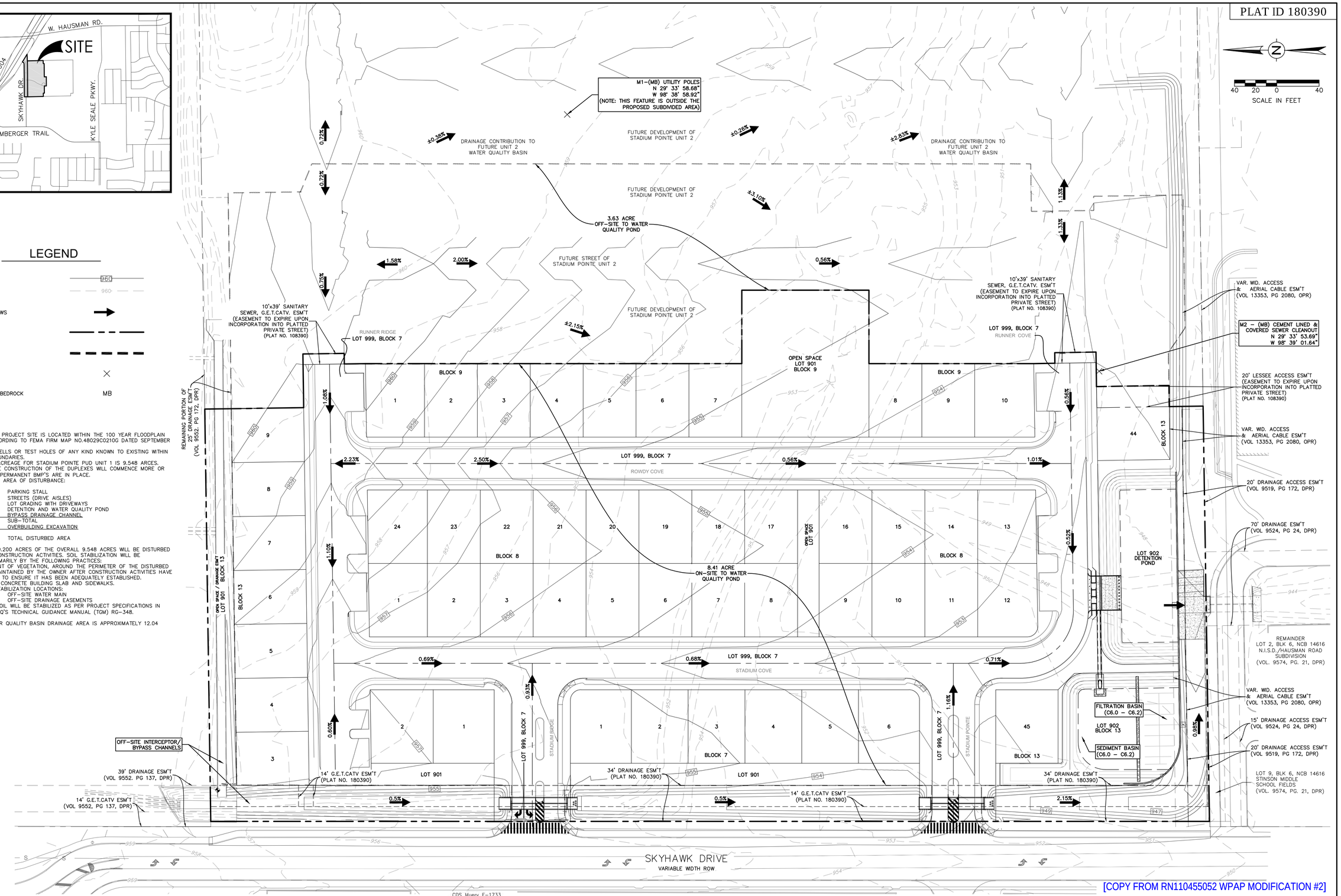
MANMADE FEATURE IN BEDROCK MB

NOTES:

1. NO PART OF THE PROJECT SITE IS LOCATED WITHIN THE 100 YEAR FLOODPLAIN BOUNDARIES ACCORDING TO FEMA FIRM MAP NO.48029C0210G DATED SEPTEMBER 29, 2010.
2. THERE ARE NO WELLS OR TEST HOLES OF ANY KIND KNOWN TO EXISTING WITHIN THE PROJECT BOUNDARIES.
3. TOTAL PLATTED ACREAGE FOR STADIUM POINTE PUD UNIT 1 IS 9.548 ARCES.
4. PLEASE NOTE THE CONSTRUCTION OF THE DUPLEXES WILL COMMENCE MORE OR LESS AFTER THE PERMANENT BMP'S ARE IN PLACE.
5. CALCULATING THE AREA OF DISTURBANCE:

±0.136	ACRES	PARKING STALL
±1.734	ACRES	STREETS (DRIVE AISLES)
±4.430	ACRES	LOT GRADING WITH DRIVEWAYS
±0.600	ACRES	DETENTION AND WATER QUALITY POND
±1.100	ACRES	BYPASS DRAINAGE CHANNEL
±8.000	ACRES	SUB-TOTAL
(15%)		OVERBUILDING EXCAVATION
±9.200	ACRES	TOTAL DISTURBED AREA

6. APPROXIMATELY 9.200 ACRES OF THE OVERALL 9.548 ACRES WILL BE DISTURBED DURING INITIAL CONSTRUCTION ACTIVITIES. SOIL STABILIZATION WILL BE IMPLEMENTED PRIMARILY BY THE FOLLOWING PRACTICES:
   a. RE-ESTABLISHMENT OF VEGETATION, AROUND THE PERIMETER OF THE DISTURBED AREAS, TO BE MAINTAINED BY THE OWNER AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED TO ENSURE IT HAS BEEN ADEQUATELY ESTABLISHED.
   b. INSTALLATION OF CONCRETE BUILDING SLAB AND SIDEWALKS.
   c. OFF-SITE SOIL STABILIZATION LOCATIONS:
      ±1.00 ACRE OFF-SITE WATER MAIN
      ±1.00 ACRE OFF-SITE DRAINAGE EASEMENTS
   d. ALL DISTURBED SOIL WILL BE STABILIZED AS PER PROJECT SPECIFICATIONS IN ACCORDANCE TCEQ'S TECHNICAL GUIDANCE MANUAL (TGM) RG-348.
7. THE UNIT 1 WATER QUALITY BASIN DRAINAGE AREA IS APPROXIMATELY 12.04 ACRES.



[COPY FROM RN110455052 WPAP MODIFICATION #2]

CDS Muery F-1733

NO	DATE	REVISION	BY
–			

DESIGNED BY SSL
DRAWN BY SAL
CHECKED BY MRH
REVIEWED BY SSL
DATE MARCH 2019

STATE OF TEXAS · STEPHEN S. LIN · 108721 · LICENSED PROFESSIONAL ENGINEER · 03/26/2019

CDS muery ENGINEERS • SURVEYORS
3411 MAGIC DRIVE SAN ANTONIO TEXAS•(210)581-1111•TBPE NO F-1733•TBPLS NO 100495-00

TCEQ SITE PLAN

STADIUM POINTE P.U.D. UNIT 1

SHEET NO. EXH
OF 41 SHEETS
JOB NO. 118008.01

F:\2018\118008.01 STADIUM POINTE, PH 1\Civil 3D\Dwg\Engineer_118008 -Stadium Pointe - TCEQ Plan.dwg

Attachment “D” – BMPs for Surface Streams

ATTACHMENT D | BMPs for Surface Streams

No adverse impacts to nearby surface streams are expected. Stadium Pointe Unit 2&3 will feature two on-site batch detention ponds. The batch detention ponds will provide the required water quality volume for pollutant removal and also provide a detention volume stored above the water quality volume. The detention volume is designed to capture runoff from the proposed development and release the runoff at less than pre-developed conditions peak rates for the 5-, 25-, and 100-year recurrence interval storm events. Attenuation of the storm water runoff reduces erosion of downstream channels.

The batch detention basins protect downstream surface streams by removing stormwater pollutants and attenuating stormwater runoff. Furthermore, storm water will continue to be conveyed to an additional regional detention pond located one block south of the property prior to reaching French Creek. French Creek is a tributary to the Leon Creek Watershed.

Attachment “E” – Request to Seal Features

ATTACHMENT E | Request to Seal Features

This section does not apply for this project. The site does not have naturally occurring sensitive features. Please reference the Geologic Assessment Section of this application package.

Attachment “F” – Construction Plans

Attachment “C” – BMPs for On-site Stormwater

ATTACHMENT F | Construction Plans

Construction plans, related details and required system information for the batch detention ponds are included herein.

NOTES:

1.) CONTRACTOR SHALL HAVE AN APPROVED TRAFFIC CONTROL PLAN AND ROW PERMIT PRIOR TO STARTING WORK SKY HAWK DRIVE.

2.) CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS.

3.) CONTRACTOR SHALL MAINTAIN CONTINUOUS DRIVEWAY ACCESS.

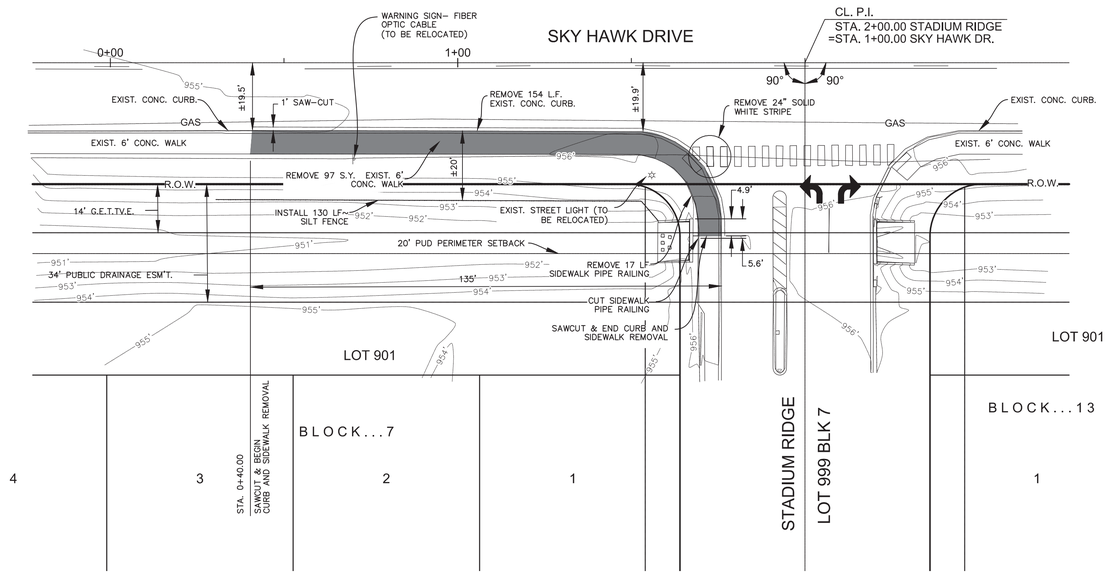
4.) ALL MATERIAL I.E. DIRT, BASE, CONCRETE, ASPHALT, ETC. TO BE REMOVED BECOMES THE CONTRACTOR'S PROPERTY. MATERIAL SHALL BE DISPOSED OF PER LOCAL, STATE AND FEDERAL REGULATIONS. NO SEPARATE PAY ITEM.

CAUTION!!

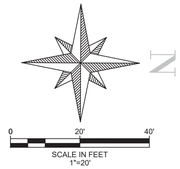
CONTRACTOR TO USE EXTREME CAUTION WHEN WORKING NEAR AND AROUND EXISTING UTILITIES. CONTRACTOR TO VERIFY VERTICAL AND HORIZONTAL LOCATION OF EXISTING UTILITIES WITHIN AREA OF CONSTRUCTION AND REPORT FINDINGS TO ENGINEER.

CAUTION

THE LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL COORDINATE WITH TX 1-CALL FOR UTILITY LOCATIONS AND IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATIONS PRIOR TO COMMENCING WORK. THE CONTRACTOR IS RESPONSIBLE FOR ANY/ ALL DAMAGES RESULTING IN FAILURE TO LOCATE AND PRESERVE UTILITIES.



DEMOLITION PLAN

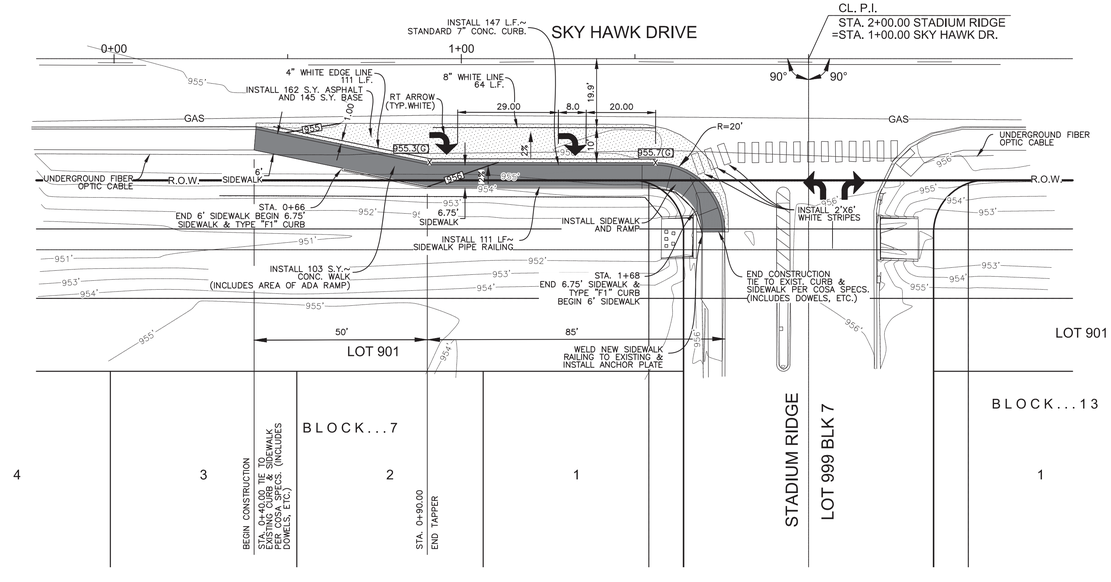


NOTES:

1.) ALL WHITE PAINT AND APPLICATION FOR ARROWS, STRIPING AND LETTERS SHALL MEET CITY OF SAN ANTONIO SPECS.

2.) ALL IMPROVEMENTS SHALL MEET CITY OF SAN ANTONIO SPECS.

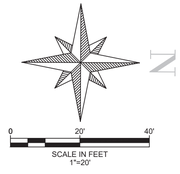
3.) AREA OF PAVEMENT SUBGRADE AND SIDEWALK IS TO BE STRIPPED OF VEGETATION AND PROOF ROLLED/ COMPACTED PER CITY OF SAN ANTONIO SPECS.



SKYHAWK DECEL LANE

LEGEND

EXISTING	PROPOSED	
		RIGHT-OF-WAY LINE
		EASEMENT LINE
		SETBACK LINE
		SIDEWALK PIPE RAILING
		SAWCUT LINE
		SILT FENCE
-GAS-		GAS LINE
		LIGHT POLE
		SIGN
-953'-		EXISTING CONTOURS
	(958)	PROPOSED CONTOURS
	955.7'(G)	PROPOSED GUTTER ELEV.
		DEMO/ PROPOSED CONCRETE WALK
		PROPOSED PAVEMENT (SEE PAVEMENT, CURB & JUNCTION DETAIL SHT C6.15)



SUBMITTAL SET

NO.	REVISION	DATE

STATE OF TEXAS
BRIAN A. CROWELL
82619
LICENSED
PROFESSIONAL ENGINEER
02/03/2021

CDSmuery
ENGINEERS | SURVEYORS
100 NE Loop 410, Ste. 300 | San Antonio, Texas 78216
(210) 581-1111 | TBPE No. F-1733 | TBPLS No. 100495-00

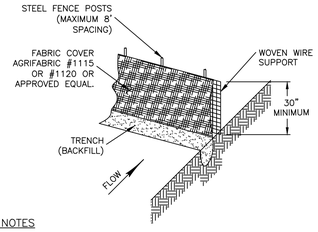
PLAT NO. 19-11800164

JOB NO. 118008.04
DATE OCTOBER 2020
DRAWN JWG, JAR, LJR
CHECKED BC DESIGN LMR

STADIUM POINTE P.U.D.
UNIT 2 & 3
STREET AND DRAIN PLANS
SKYHAWK DECEL LANE

SHEET C6.14

Date: Feb 03, 2021, 1:37pm User ID: brian.crowell
File: F:\2018\118008.04 Stadium Point, Phase 2\Civil 3D\Dwg\Engineer\118008_C6.15-17-Turn_Lane.dwg

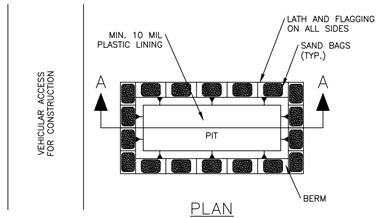


GENERAL NOTES

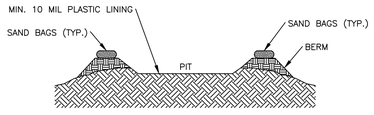
1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
3. THE TRENCH SHOULD BE A MINIMUM OF 6 INCHES DEEP AND 4–8 INCHES WIDE TO ALLOW FOR THE SILT FENCE TO BE LAID IN THE GROUND AND BACKFILLED.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POSTS.
5. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SEDIMENT TRAPPED BY THIS PRACTICE SHALL BE DISPOSED OF IN AN APPROVED SITE IN A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES AND DISPOSED OF IN AN APPROVED SPOIL SITE OR AS IN NO. 6 ABOVE.

SILT FENCE

NOT TO SCALE



PLAN



SECTION A–A

GENERAL NOTES

1. DETAIL ABOVE ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE.
2. WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC.
3. WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION FROM STORM WATER RUNOFF.
4. LOCATE WASHOUT AREA AT LEAST 50 FEET FROM SENSITIVE FEATURES, STORM DRAINS, OPEN DITCHES OR WATER BODIES.
5. TEMPORARY CONCRETE WASHOUT FACILITY SHOULD BE CONSTRUCTED WITH SUFFICIENT QUANTITY AND VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.

MATERIALS

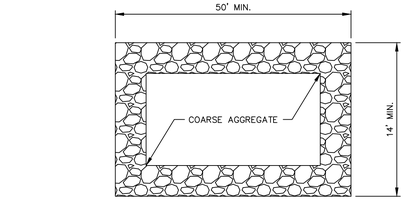
1. PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL IN POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.

MAINTENANCE

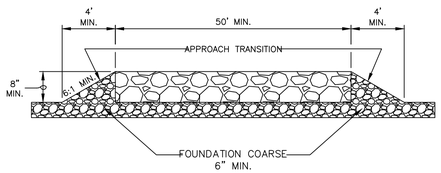
1. WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHOULD BE REMOVED AND DISPOSED OF.
2. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF.
3. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCES CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE BACKFILLED AND REPAIRED.

CONCRETE TRUCK WASHOUT PIT

NOT TO SCALE



PLAN



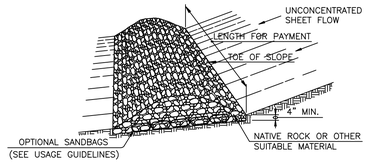
PROFILE

GENERAL NOTES

1. THE LENGTH OF THE TYPE 1 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS. BUT NOT LESS THAN 50'.
2. THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A SIZE OF 4" TO 8".
3. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6:1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
4. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

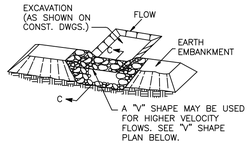
CONSTRUCTION EXIT (TYPE 1)

NOT TO SCALE



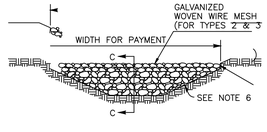
FILTER DAM AT TOE OF SLOPE

NOT TO SCALE



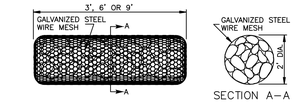
FILTER DAM AT SEDIMENT TRAP

NOT TO SCALE

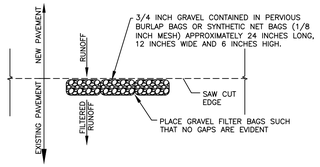


FILTER DAM AT CHANNEL SECTIONS

NOT TO SCALE

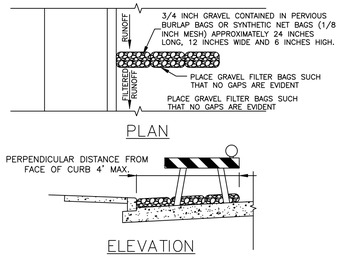


TYPE 4 (SACK GABIONS)



GRAVEL FILTER BAGS

NOT TO SCALE



PLAN

ELEVATION

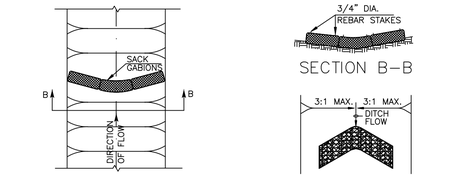
NOTE:
STRADDLE GRAVEL FILTER BAGS WITH TYPE 1 BARRICADES MOUNTED WITH TYPE "A" FLASHING WARNING LIGHT. SEE BARRICADE CONSTRUCTION SIGN DETAILS. PLACE FLASHING LIGHTS AWAY FROM GUTTER. FLUSH WITH OUTSIDE EDGE OF BAG CONFIGURATION.

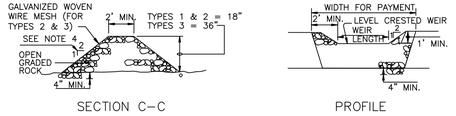
GRAVEL FILTER BAGS

NOT TO SCALE

ROCK FILTER DAM USAGE GUIDELINES

1. ROCK FILTER DAMS SHOULD BE CONSTRUCTED DOWNSTREAM FROM DISTURBED AREAS TO INTERCEPT SEDIMENT FROM OVERLOAD RUNOFF AND/OR CONCENTRATED FLOW. THE DAMS SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THROUGH RATE OF 60 GPM/FT OF CROSS SECTIONAL AREA. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE.
2. TYPE 1 (18" HIGH WITH NO WIRE MESH): TYPE 1 MAY BE USED AT THE TOE OF SLOPES. AROUND INLETS, IN SMALL DITCHES. AND AT DIKE OR SWALE OUTLETS. THIS TYPE OF DAM IS RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA OF 5 ACRES OR LESS. TYPE 1 MAY NOT BE USED IN CONCENTRATED HIGH VELOCITY FLOWS (APPROX. 8 FT./SEC. OR MORE) IN WHICH AGGREGATE WASH OUT MAY OCCUR. SANDBAGS MAY BE USED AT THE EMBEDDED FOUNDATION (4" DEEP MIN.) FOR BETTER FILTERING EFFICIENCY OF LOW FLOWS IF CALLED FOR ON THE PLANS OR DIRECTED BY THE ENGINEER.
3. TYPE 2 (18" HIGH WITH WIRE MESH): TYPE 2 MAY BE USED IN DITCHES AND AT DIKE OR SWALE OUTLETS.
4. TYPE 3 (36" HIGH WITH WIRE MESH): TYPE 3 MAY BE USED IN STREAM FLOW AND SHOULD BE SECURED TO THE STREAM BED.
5. TYPE 4 (SACK GABIONS): TYPE 4 MAY BE USED IN DITCHES AND SMALLER CHANNELS TO FORM AN EROSION CONTROL DAM.



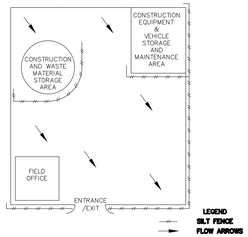


PLANS SHEET LEGEND

TYPE 1 ROCK FILTER DAM — RFD1
TYPE 2 ROCK FILTER DAM — RFD2
TYPE 3 ROCK FILTER DAM — RFD3

ROCK FILTER DAM

NOT TO SCALE



EQUIPMENT STAGING AREA

NOT TO SCALE

GENERAL NOTES

1. IF SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, FILTER DAMS SHOULD BE PLACED NEAR THE TOE OF SLOPES WHERE EROSION IS ANTICIPATED, UPSTREAM AND/OR DOWNSTREAM AT DRAINAGE STRUCTURES, AND IN ROADWAY DITCHES AND CHANNELS TO COLLECT SEDIMENT.
2. MATERIALS (AGGREGATE, WIRE MESH, SANDBAGS, ETC.) SHALL BE AS INDICATED BY THE SPECIFICATION FOR ROCK FILTER DAMS FOR EROSION AND SEDIMENTATION CONTROL.
3. THE ROCK FILTER DAM DIMENSIONS SHALL BE AS INDICATED ON THE SW3P PLANS.
4. SIDE SLOPES SHOULD BE 2:1 OR FLATTER. DAMS WITHIN THE SAFETY ZONE SHALL HAVE SIDESLOPES OF 6:1 OR FLATTER.
5. MAINTAIN A MINIMUM OF 1' BETWEEN TOP OF ROCK FILTER DAM WEIR AND TOP OF EMBANKMENT FOR FILTER DAMS AT SEDIMENT TRAPS.
6. FILTER DAMS SHOULD BE EMBEDDED A MINIMUM OF 4" INTO EXISTING GROUND.
7. THE SEDIMENT TRAP FOR PONDING OF SEDIMENT LADEN RUNOFF SHALL BE OF THE DIMENSIONS SHOWN ON THE PLANS.
8. ROCK FILTER DAM TYPES 2 & 3 SHALL BE SECURED WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1" DIAMETER HEXAGONAL OPENINGS. THE AGGREGATE SHALL BE PLACED ON THE MESH TO THE HEIGHT AND SLOPES SPECIFIED. THE MESH SHALL BE FOLDED AT THE UPSTREAM SIDE OVER THE AGGREGATE AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS. IN STREAM USE, THE MESH SHOULD BE SECURED OR STAKED TO THE STREAM BED PRIOR TO AGGREGATE PLACEMENT.
9. SACK GABIONS SHOULD BE STAKED DOWN WITH 3/4" DIA. REBAR STAKES.
10. FLOW OUTLET SHOULD BE ONTO A STABILIZED AREA (VEGETATION, ROCK,ETC.).
11. DETAILS SHOWN ARE TYPICAL, SUBJECT TO CONTRACTOR'S SW3P PLAN REQUIREMENTS.
12. SEE SHEET C5.7 FOR EROSION CONTROL MATTING DETAILS.

MATERIAL NOTES

1. ALL AGGREGATE USED FOR THE CONSTRUCTION OF THE ROCK FILTER DAMS SHALL BE HARD, DURABLE, CLEAN, OPEN-GRADED, AND SHALL NATURALLY RESIST CRUMBLING, FLAKING AND ERODING. AGGREGATE GRADATION SHALL BE 3 TO 6 INCHES FOR ROCK FILTER DAMS TYPES 1, 2 AND 4 AND SHALL BE 4 TO 8 INCHES FOR TYPE 3.
2. THE GALVANIZED STEEL WIRE MESH AND TIE WIRES FOR TYPES 2 AND 3 SHALL BE A MINIMUM 20 GAUGE UNLESS SPECIFIED ON THE PLANS.
3. FOR TYPE 4: STEEL WIRE MESH SHALL UTILIZE A DOUBLE TWISTED HEXAGONAL WEAVE; MESH OPENING SHALL BE A NOMINAL 2.50 X 3.25 INCH, STEEL WIRE FOR NETTING SHALL BE 0.0866 INCH MINIMUM; STEEL WIRE FOR SELVEDGES AND CORNERS SHALL BE 0.1063 INCH (U.S. GAUGE NO. 11) MINIMUM; AND BINDING OR TIE WIRE SHALL BE 0.0866 INCH (U.S. GAUGE NO. 13) MINIMUM.
4. UNLESS OTHERWISE SPECIFIED, THE SANDBAG MATERIAL SHALL BE MADE OF POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE WOVEN FABRIC, MINIMUM UNIT WEIGHT 4 OUNCES PER SQUARE YARD, MULLEN BURST STRENGTH EXCEEDING 300 PSI AND ULTRAVIOLET STABILITY EXCEEDING 70 PERCENT. THE SANDBAG SIZE SHALL BE 24 TO 30 INCHES IN LENGTH, 16 TO 18 INCHES IN WIDTH, 6 TO 8 INCHES THICK AND WEIGH 90 TO 125 POUNDS. THE SAND SHALL BE COARSE GRADE.

NO.	REVISION	DATE

CDS Muery F–1733

STATE OF TEXAS
BRIAN A. CROWELL
82619
REGISTERED
PROFESSIONAL ENGINEER
09/21/2020

CDS muery
ENGINEERS | SURVEYORS
100 NE Loop 410, Ste. 300 | San Antonio, Texas 78216
(210) 581-1111 | TBPE No. F-1733 | TBPLS No. 100495-00

PLAT NO. 19-11800164

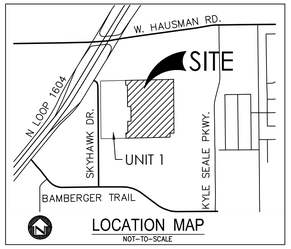
JOB NO. 118008.04
DATE OCTOBER 2020
DRAWN JAR, JWG, LJR
CHECKED BC DESIGN BC

STADIUM POINTE P.U.D.
UNIT 2 & 3
SAN ANTONIO, TEXAS
STORMWATER POLLUTION PREVENTION PLAN DETAILS

SUBMITTAL SET

SHEET C2.1

Date: Jan 25, 2021, 1:15pm User ID: luis.ramones
File: C:\Users\luis.ramones\AppData\Local\Temp\AcPublish_14032\118008_C2.0-SW3P-Grading-Plan.dwg



WATER POLLUTION ABATEMENT PLAN AND BATCH DETENTION PLAN

FOR

STADIUM POINTE P.U.D. UNIT 2 & 3

SAN ANTONIO, TEXAS

CIVIL SHEET INDEX	
Sht. No.	Sheet Title
C7.0	WPAP & BATCH DETENTION PLAN COVER SHEET
C7.1	BATCH DETENTION PONDS PLAN
C7.2	WEST POND OUTFALL DETAILS
C7.3	EAST POND OUTFALL DETAILS
C7.4	BATCH DETENTION CONTROL VALVE DETAILS
C7.5	MISCELLANEOUS BATCH DETENTION DETAILS

TCEQ WPAP GENERAL CONSTRUCTION NOTES

(REV. 07/2015)

1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:

   A. THE NAME OF THE APPROVED PROJECT
   B. THE ACTIVITY START DATE; AND
   C. THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.

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

3. IF ANY SENSITIVE FEATURE(S) (CAVES, SOLUTION CAVITY, SINK HOLE, ETC.) IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. CONSTRUCTION ACTIVITIES MAY NOT BE RESUMED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE APPROPRIATE PROTECTIVE MEASURES IN ORDER TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.

4. NO TEMPORARY OR PERMANENT HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.

5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND MANUFACTURERS SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.

6. ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.

7. SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS NOT LATER THAN TCEQ-0592 (REV. JULY 15, 2015) PAGE 2 OF 2 WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.

8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.

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

10. IF PORTIONS OF THE SITE WILL HAVE A TEMPORARY OR PERMANENT CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.

11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST:

    A. THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
    B. THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND
    C. THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

12. THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
    A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;
    B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;
    C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

CONTACT INFORMATION FOR THE REGIONAL OFFICE IS AS FOLLOWS:

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

GENERAL NOTES

1. EXISTING UNDERGROUND UTILITIES ARE SHOWN FROM AVAILABLE UTILITY RECORDS AND OBSERVABLE SURFACE FEATURES. ACTUAL LOCATIONS MAY VERY AND UTILITIES NOT SHOWN ON THESE PLANS MY EXIST. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANIES AND OWNER PERSONNEL FOR ASSISTANCE IN LOCATING ALL UNDERGROUND FACILITIES IN THE PROJECT AREA PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATION AND GRADE OF UNDERGROUND FACILITIES WELL AHEAD OF CONSTRUCTION OPERATIONS AND SHALL BE RESPONSIBLE FOR PROTECTION OF SAME DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND REPLACEMENT OF ALL DAMAGED UTILITIES AND FOR DAMAGES CAUSED TO OWNER OR OTHER PARTIES ARISING FROM SERVICE INTERRUPTION OR LOSS OF USE.

2. THERE IS AN EXISTING COMMUNICATIONS TOWER STATION LOCATED IN THE SOUTHEAST CORNER OF THE SITE WITHIN A 0.10 ACRE UTILITY EASEMENT. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL-WEATHER ACCESS TO THE COMMUNICATION TOWER STATION UNTIL THE PERMANENT ACCESS DRIVE IS INSTALLED. ANY RESTRICTION OF ACCESS TO THE STATION SHALL BE COORDINATED WITH AND APPROVED BY AN AUTHORIZED AGENT OF THE COMMUNICATION TOWER OWNER AND/OR OPERATOR.

3. THERE ARE EXISTING PROPERTY FENCES ON ADJOINING LAND THAT NEED TO BE TEMPORARILY REMOVED FOR UNDERGROUND STORM DRAIN CONSTRUCTION. COORDINATE TEMPORARY REMOVAL WITH ADJOINING PROPERTY OWNERS (BRANDEIS HIGH SCHOOL AND STINSON MIDDLE SCHOOL). CONTRACTOR SHALL NOT LEAVE UNATTENDED FENCE OPENING AT ANYTIME AND RESTORE FENCES TO EXISTING CONDITION AS SOON AS PRACTICAL.

4. THE SMARTBATCH SYSTEM AND ASSOCIATED LOGIC CONTROLLER SHOWN ON THESE PLANS SHALL FUNCTION ACCORDING TO THE TCEQ RG-348 DESIGN CRITERIA [SECTION 3.4.18 "ADDENDUM SHEET – COMPLYING WITH THE EDWARDS AQUIFER RULES TECHNICAL GUIDANCE ON BEST MANAGEMENT PRACTICES RG-348 (REVISED JULY 2005)" JANUARY 20, 2017]
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION FROM DAMAGE DONE TO EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING AND STRUCTURES. NO SEPARATE PAYMENT SHALL BE MADE FOR REQUIRED RESTORATIONS, UNLESS OTHERWISE SHOWN.
6. WHENEVER POWER POLES ARE ADJACENT TO THE PROPOSED CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE PROPER SHORING, BRACING, AND/.OR OTHER SUITABLE SUPPORT FOR THE POLES DURING CONSTRUCTION.
7. UNLESS OTHERWISE SPECIFIED BY THE ARCHITECT OR IN THE LANDSCAPE PLANS/SPECIFICATIONS THE FOLLOWING STATEMENT SHALL APPLY TO TOPSOIL SALVAGE, PLACEMENT AND SUPPLY: TOPSOIL SHALL BE STRIPPED AND STOCKPILED SEPARATELY FROM ALL OTHER MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS. STOCKPILED TOPSOIL MATERIAL SHALL BE SPREAD AND COMPACTED TO A DEPTH OF 6" TO ESTABLISH FINISHED GRADE IN ALL AREAS THAT ARE NOT TO BE PAVED. SHOULD STOCKPILED TOPSOIL FAIL TO COVER ALL AREAS TO A COMPACTED DEPTH OF 6", CONTRACTOR SHALL SUPPLY ADDITIONAL TOPSOIL FROM APPROVED OFF SITE SOURCES TO ESTABLISH FINISHED GRADE WITHOUT ADDITIONAL COMPENSATION.

8. ALL EXCAVATION IS UNCLASSIFIED AND SHALL INCLUDE ROCK AND ALL OTHER MATERIALS ENCOUNTERED REGARDLESS OF THEIR NATURE OR THE MANNER IN WHICH THEY ARE REMOVED.

9. CONTRACTOR IS RESPONSIBLE FOR GRADING ALL DISTURBED AREAS TO PREVENT PONDING OR BLOCKAGE OF SURFACE DRAINAGE.

10. CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES AS NECESSARY TO PREVENT DAMAGE TO ADJACENT PROPERTIES AND TO CONFORM TO LOCAL JURISDICTIONAL AUTHORITY REQUIREMENTS.

11. WHERE FINISHED CONTOURS ARE SHOWN TO MATCH EXISTING CONTOURS ON THE GRADING PLANS, NO GRADE SEPARATION IS ALLOWABLE. CONTRACTOR SHALL ADJUST FINISHED CONTOURS AS NECESSARY TO ACCOMPLISH THIS REQUIREMENT.

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

13. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON COMPLETION.

WEST BATCH DETENTION POND STAGE-STORAGE			
ELEVATION (FT)	AREA (SF)	INC. VOL (CF)	CUM. VOL. (CF)
946.00	48	-	-
947.00	2,674	1,027	1,027
948.00	11,076	6,397	7,424
948.75	**15,165**	**9,800**	**17,224**
949.00	15,646	3,851	21,076
950.00	17,682	16,654	37,729
951.00	19,787	18,725	56,454
952.00	21,961	20,865	77,318
952.30	22,585	6,682	84,000
TOP OF WATER QUALITY VOLUME			948.75
VOLUME REQUIRED (CF)			16,713
VOLUME PROVIDED (CF)			17,224
25-YEAR WSEL			950.58
SPILLWAY ELEVATION			951.60

EAST BATCH DETENTION POND STAGE-STORAGE			
ELEVATION (FT)	AREA (SF)	INC. VOL (CF)	CUM. VOL. (CF)
950.25	48	-	-
951.00	4,386	1,223	1,223
951.60	8,841	3,891	5,114
952.00	9,292	3,626	8,740
952.75	**10,367**	**7,368**	**16,109**
953.00	10,668	2,629	18,738
954.00	12,126	11,389	30,127
955.00	13,665	12,888	43,015
955.30	14,142	4,171	47,186
TOP OF WATER QUALITY VOLUME			952.75
VOLUME REQUIRED (CF)			14,841
VOLUME PROVIDED (CF)			16,109
25-YEAR WSEL			953.75
SPILLWAY ELEVATION			954.80

SUBMITTAL SET

NO.	REVISION	DATE

CDS Muery F-1733

STATE OF TEXAS
BRIAN A. CROWELL
82619
REGISTERED PROFESSIONAL ENGINEER
09/21/2020

CDS muery
ENGINEERS | SURVEYORS
100 NE Loop 410, Ste. 300 | San Antonio, Texas 78216
(210) 581-1111 | TBPE No. F-1733 | TBPLS No. 100495-00

PLAT NO. 19-11800164

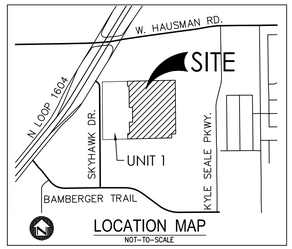
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DATE AUGUST 2020
DESIGNER LMR
CHECKED KE DRAWN LJR

STADIUM POINTE P.U.D.
UNIT 2 & 3
SAN ANTONIO, TEXAS

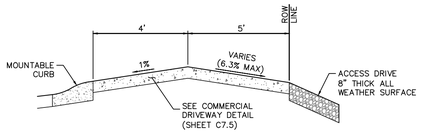
BATCH DETENTION PONDS COVER SHEET

SHEET C7.0

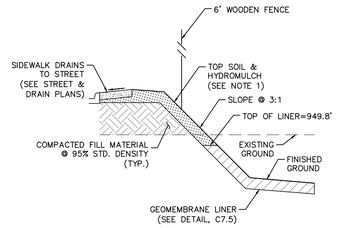
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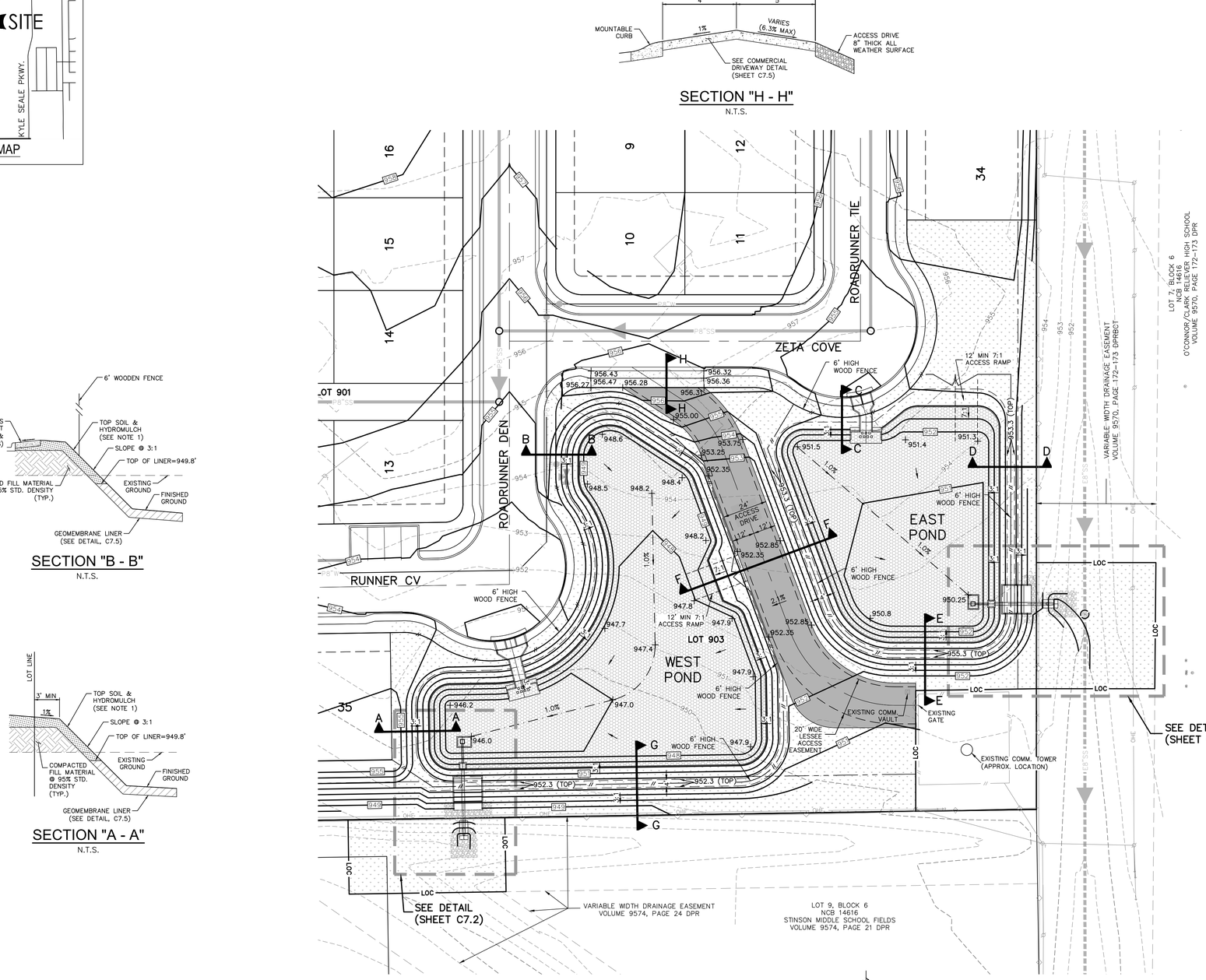
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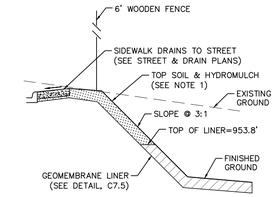
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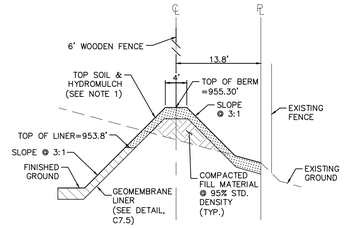
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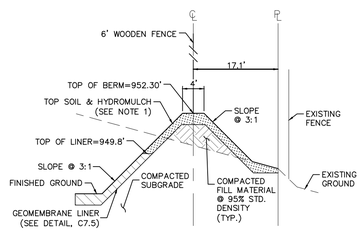
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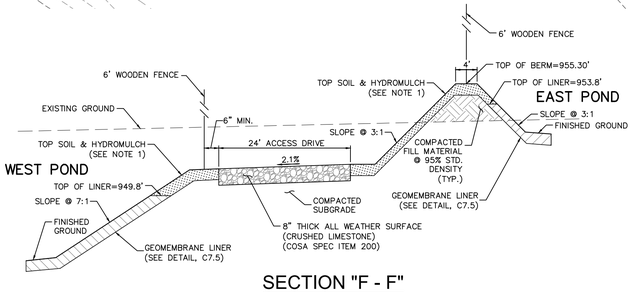
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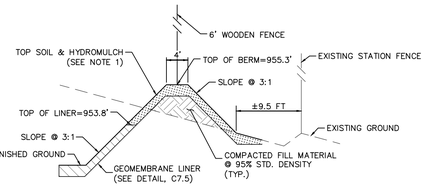
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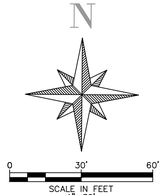
SECTION "G - G"
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SECTION "F - F"
N.T.S.



SECTION "E - E"
N.T.S.



LEGEND

EXISTING MINOR CONTOUR	900
EXISTING MAJOR CONTOUR	900
EXISTING SANITARY SEWER MAIN	8"SS
EXISTING SANITARY SEWER MANHOLE	
EXISTING WATERLINE	8"W
EXISTING CHAINLINK FENCE	
EXISTING WOODEN FENCE	//
EXISTING BARBWIRE FENCE	X
EXISTING BARBWIRE FENCE	OHE
DIRECTION OF FLOW	
PLAT BOUNDARY	
LIMITS OF CONSTRUCTION	LOC
PROPOSED CONTOUR	900
PROPOSED SANITARY SEWER MAIN	P12"SS
PROPOSED SANITARY SEWER MANHOLE	
PROPOSED WATERLINE	P8"W
PROPOSED WOODEN FENCE	//
PROPOSED POND FLOWLINE	
PROPOSED SPOT ELEVATION	+ 67.54
FLEXIBLE BASE DRIVE	
GEOMEMBRANE LINER	
TOP SOIL & HYDROMULCH	

NOTES:
1. CONTRACTOR TO PLACE TOP SOIL AND REVEGETATE DISTURBED AREAS IN ACCORDANCE WITH COSA STANDARD ITEM 515 (TOP SOIL) AND ITEM 520 (HYDROMULCHING).
2. THE SMARTBATCH SYSTEM AND ASSOCIATED LOGIC CONTROLLER SHOWN ON THESE PLANS SHALL FUNCTION ACCORDING TO THE TCEQ RG-348 DESIGN CRITERIA [SECTION 3.4.18 "ADDENDUM SHEET – COMPLYING WITH THE EDWARDS AQUIFER RULES TECHNICAL GUIDANCE ON BEST MANAGEMENT PRACTICES RG-348 (REVISED JULY 2005)" JANUARY 20, 2017]

TRENCH EXCAVATION SAFETY PROTECTION

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

SUBMITTAL SET

NO.	REVISION	DATE

CDS Muery F-1733

STATE OF TEXAS
BRIAN A. CROWELL
82619
REGISTERED PROFESSIONAL ENGINEER
09/21/2020

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100 NE Loop 410, Ste. 300 | San Antonio, Texas 78216
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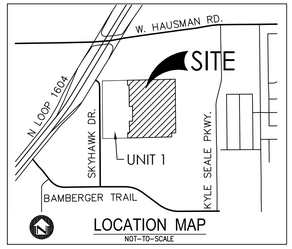
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JOB NO. 118008.04
DATE AUGUST 2020
DESIGNER JBG
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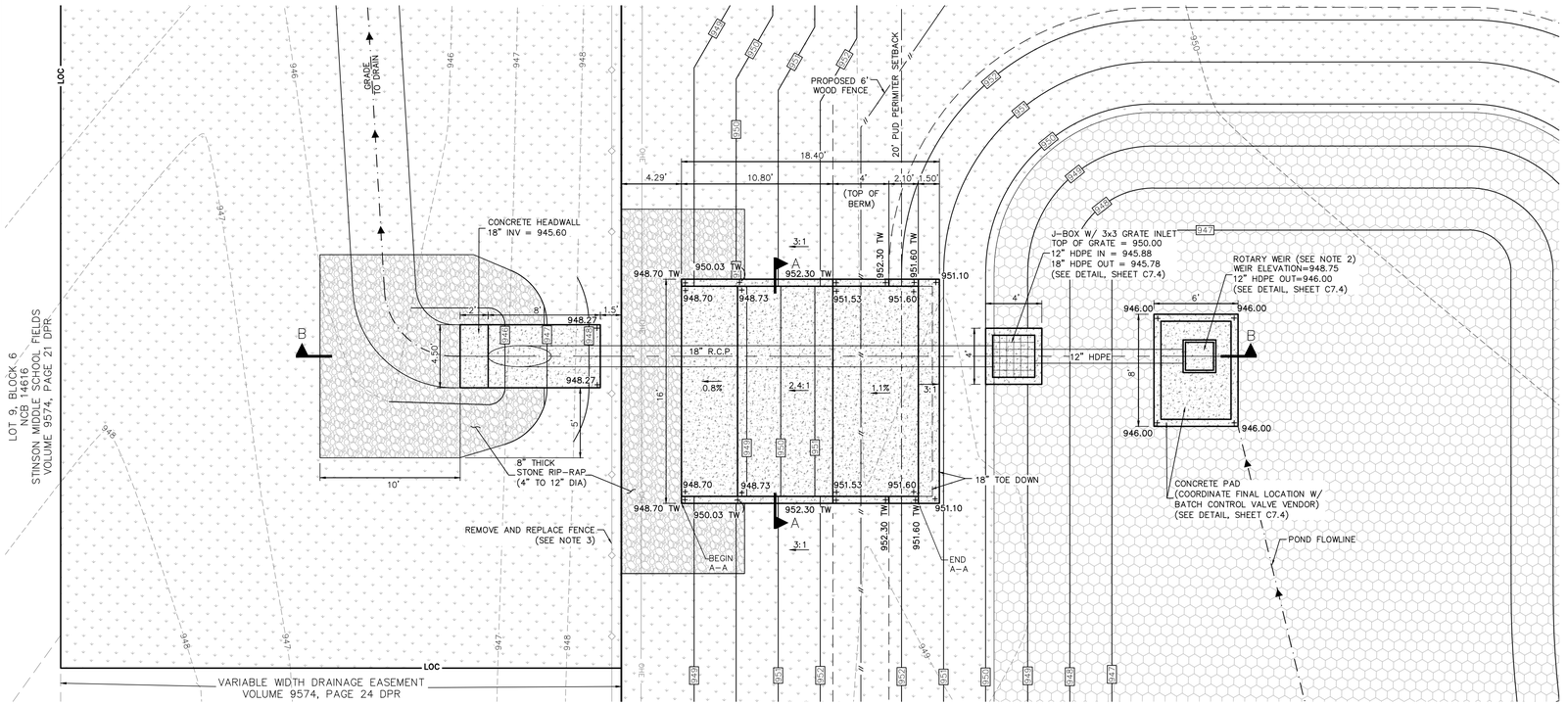
STADIUM POINTE P.U.D.
UNIT 2 & 3
SAN ANTONIO, TEXAS
BATCH DETENTION PONDS PLAN

SHEET C7.1

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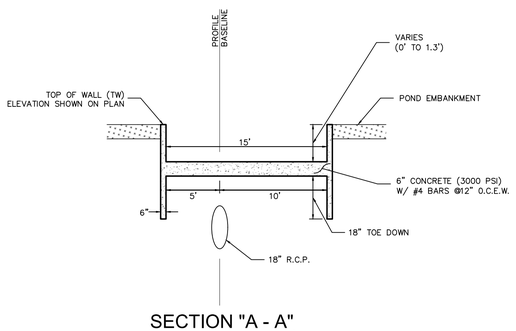
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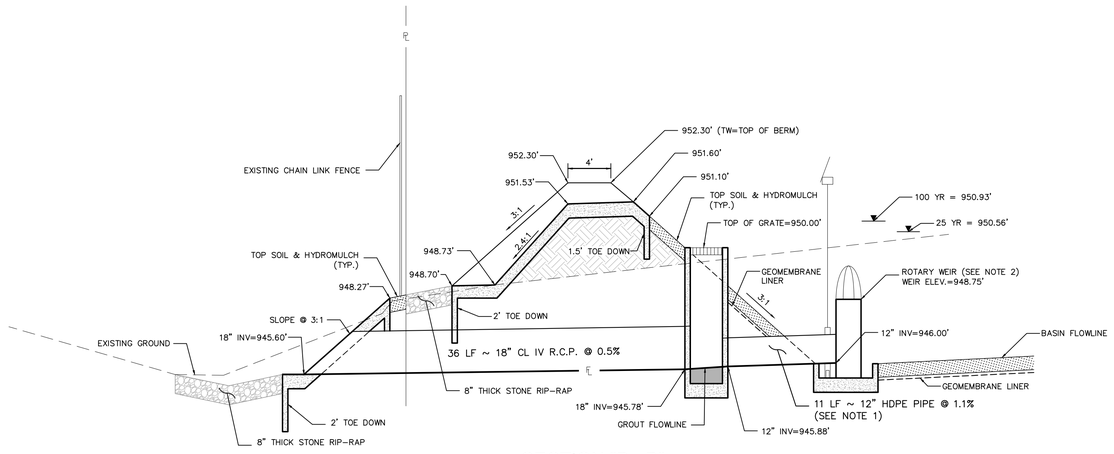
PLAN VIEW
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LEGEND

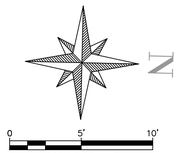
EXISTING MINOR CONTOUR	900
EXISTING MAJOR CONTOUR	900
EXISTING SANITARY SEWER MAIN	E8"SS
EXISTING SANITARY SEWER MANHOLE	
EXISTING WATERLINE	E8"W
EXISTING CHAINLINK FENCE	
EXISTING WOODEN FENCE	
EXISTING BARBWIRE FENCE	X
EXISTING BARBWIRE FENCE	OHE
DIRECTION OF FLOW	
PLAT BOUNDARY	
LIMITS OF CONSTRUCTION	LOC
PROPOSED CONTOUR	900
PROPOSED SANITARY SEWER MAIN	P12"SS
PROPOSED SANITARY SEWER MANHOLE	
PROPOSED WATERLINE	P8"W
PROPOSED WOODEN FENCE	
PROPOSED POND FLOWLINE	
PROPOSED SPOT ELEVATION	+ 67.54
GEOMEMBRANE LINER	
TOP SOIL & HYDROMULCH	



SECTION "A - A"
N.T.S.



SECTION "B - B"
N.T.S.



NOTES:
1. HDPE PIPE SHALL BE ADS N-12 DUAL WALL STORM PIPE OR EQUAL APPROVED BY ENGINEER.
2. ROTARY WEIR IS PART OF SMARTBATCH CONTROL VALVE TO BE INSTALLED BY VENDOR. GENERAL CONTRACTOR TO PROVIDE HDPE OUTLET PIPE AND CONCRETE PAD. REFER TO DETAILS, SHEET C7.4.
3. CONTRACTOR TO REMOVE AND SALVAGE FENCE AS NECESSARY TO INSTALL OUTFALL. RESTORE FENCE TO MATCH EXISTING CONDITION AS SOON AS PRACTICAL. COORDINATE FENCE OPENING WITH NEIGHBORING SCHOOL. CONTRACTOR SHALL NOT LEAVE UNATTENDED FENCE OPENING AT ANY TIME.

TRENCH EXCAVATION SAFETY PROTECTION

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

NO.	REVISION	DATE

CDS Muery F-1733

STATE OF TEXAS
BRIAN A. CROWELL
82619
REGISTERED PROFESSIONAL ENGINEER
09/21/2020

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(210) 581-1111 | TBPE No. F-1733 | TBPLS No. 100495-00

PLAT NO. 19-11800164

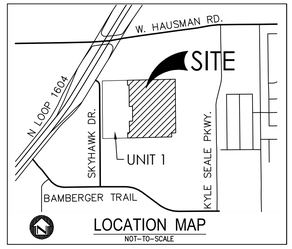
JOB NO. 118008.04
DATE AUGUST 2020
DESIGNER JBG
CHECKED KE DRAWN J.W.G.

STADIUM POINTE P.U.D.
UNIT 2 & 3
SAN ANTONIO, TEXAS
WEST POND OUTFALL DETAILS

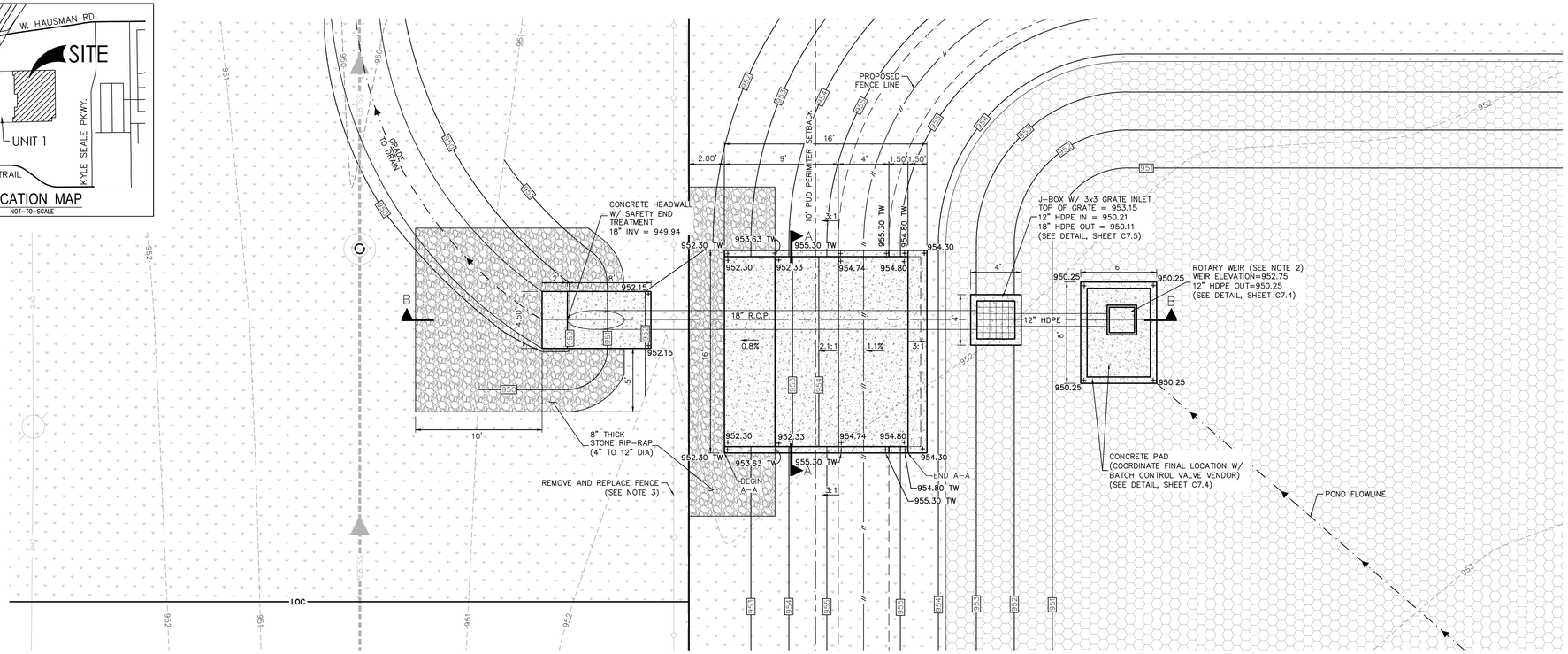
SUBMITTAL SET

SHEET C7.2

Date: Sep 21, 2020, 2:32pm User ID: jon.gross
File: F:_2018\118008.04 Stadium Point, Phase 2\Civil 3D\Dwg\Engineer\118008_C7.2-Pond-Outfall.dwg



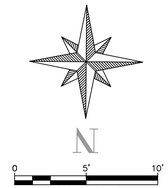
LOCATION MAP
NOT-TO-SCALE

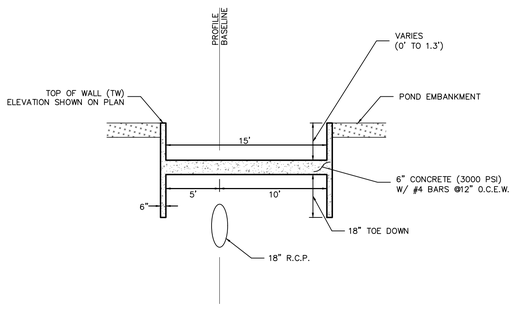


PLAN VIEW
SCALE: 1"= 5'

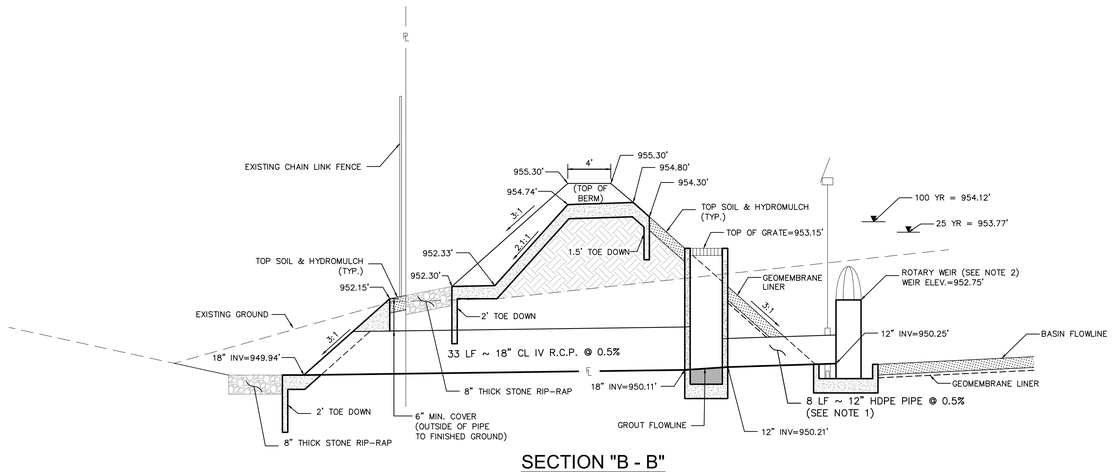
LEGEND

EXISTING MINOR CONTOUR	900
EXISTING MAJOR CONTOUR	900
EXISTING SANITARY SEWER MAIN	8"SS
EXISTING SANITARY SEWER MANHOLE	
EXISTING WATERLINE	8"W
EXISTING CHAINLINK FENCE	
EXISTING WOODEN FENCE	
EXISTING BARBWIRE FENCE	X
EXISTING BARBWIRE FENCE	OHE
DIRECTION OF FLOW	
PLAT BOUNDARY	
LIMITS OF CONSTRUCTION	LOC
PROPOSED CONTOUR	900
PROPOSED SANITARY SEWER MAIN	P12"SS
PROPOSED SANITARY SEWER MANHOLE	
PROPOSED WATERLINE	P8"W
PROPOSED WOODEN FENCE	
PROPOSED POND FLOWLINE	
PROPOSED SPOT ELEVATION	+ 67.54
GEOMEMBRANE LINER	
TOP SOIL & HYDROMULCH	





SECTION "A - A"
N.T.S.



SECTION "B - B"
N.T.S.

NOTES:

1. HDPE PIPE SHALL BE ADS N-12 DUAL WALL SNRM PIPE OR EQUAL APPROVED BY ENGINEER.
2. ROTARY WEIR IS PART OF SMARTBATCH CONTROL VALVE TO BE INSTALLED BY VENDOR. GENERAL CONTRACTOR TO PROVIDE HDPE OUTLET PIPE AND CONCRETE PAD. REFER TO DETAILS, SHEET C7.4.
3. CONTRACTOR TO REMOVE AND SALVAGE FENCE AS NECESSARY TO INSTALL OUTFALL. RESTORE FENCE TO MATCH EXISTING CONDITION AS SOON AS PRACTICAL. COORDINATE FENCE OPENING WITH NEIGHBORING SCHOOL.

TRENCH EXCAVATION SAFETY PROTECTION

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

NO.	REVISION	DATE

CDS Muery F-1733

STATE OF TEXAS
BRIAN A. CROWELL
82619
REGISTERED PROFESSIONAL ENGINEER
09/21/2020

CDS muery
ENGINEERS | SURVEYORS
100 NE Loop 410, Ste. 300 | San Antonio, Texas 78216
(210) 581-1111 | TBPE No. F-1733 | TBPLS No. 100495-00

PLAT NO. 19-11800164

JOB NO. 118008.04
DATE AUGUST 2020
DESIGNER JBG
CHECKED KE DRAWN J.W.G.

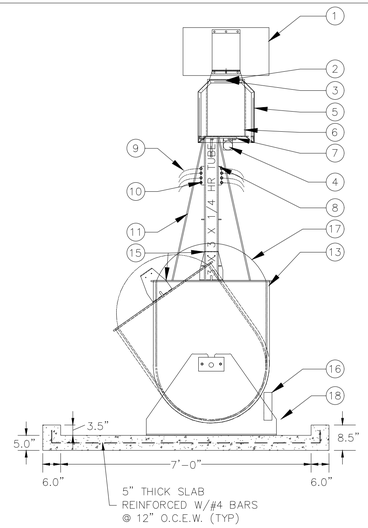
STADIUM POINTE P.U.D.
UNIT 2 & 3
SAN ANTONIO, TEXAS
EAST POND OUTFALL DETAILS

SUBMITTAL SET

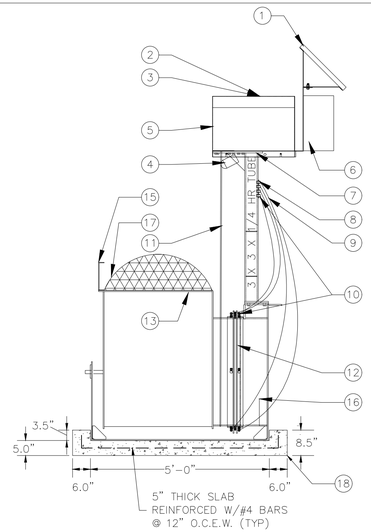
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Date: Sep 21, 2020, 2:32pm User ID: jon.gross
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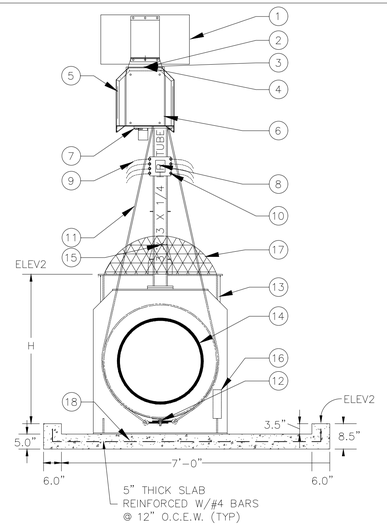
FRONT VIEW



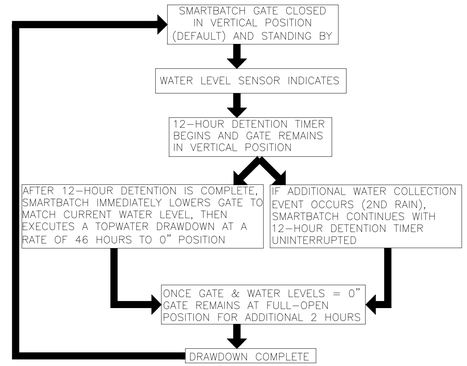
SIDE VIEW



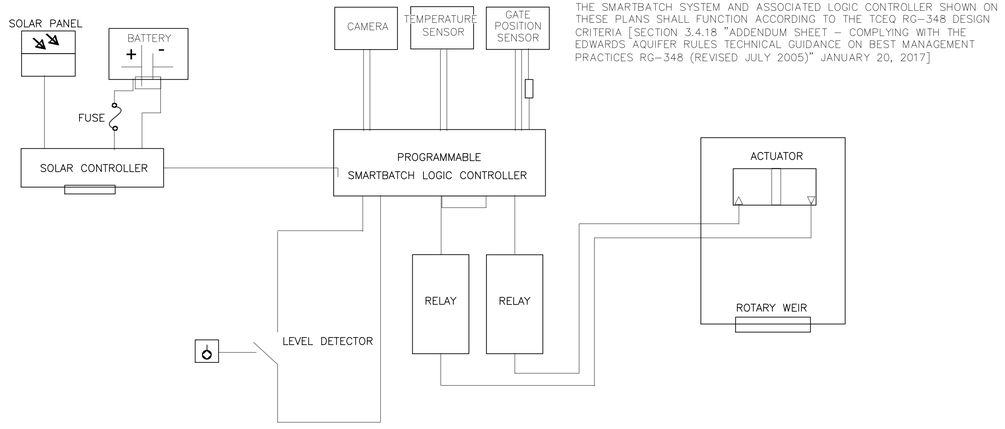
BACK VIEW



PROGRAMMABLE LOGIC FLOW CHART



BATCH DETENTION CONTROL VALVE DETAILS



THE SMARTBATCH SYSTEM AND ASSOCIATED LOGIC CONTROLLER SHOWN ON THESE PLANS SHALL FUNCTION ACCORDING TO THE TCEQ RG-348 DESIGN CRITERIA [SECTION 3.4.18 "ADDENDUM SHEET - COMPLYING WITH THE EDWARDS AQUIFER RULES TECHNICAL GUIDANCE ON BEST MANAGEMENT PRACTICES RG-348 (REVISED JULY 2005)" JANUARY 20, 2017]

CIRCUIT BOARD CONFIGURATION

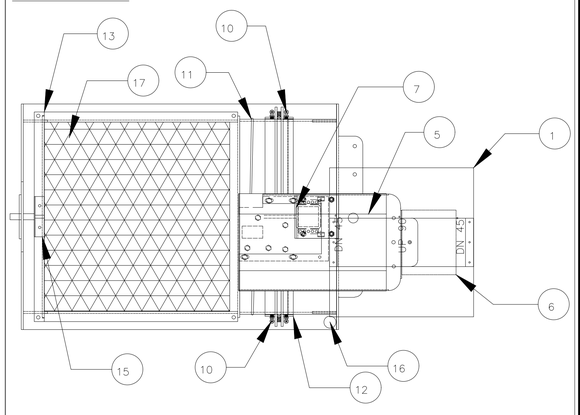
PARTS LIST

ITEM	SMARTBATCH COMPONENTS
1	12 V SOLAR PANEL WITH 30 WATT CHARGING CAPACITY
2	ANTENNA (NOT DISPLAYED)
3	CELL DATA MODEM (NOT DISPLAYED)
4	CAMERA
5	WEATHERPROOF ELECTRONIC BOX
6	CONTROL BOX
7	PEDESTAL
8	REMOTE GREASE MANIFOLD
9	GREASE TUBES
10	GREASE FITTINGS
11	$\frac{3}{16}$" GALVANIZED CABLES
12	24" ROTARY VALVE
13	24" DRUM (30"-70" TALL)
✳ 14	12" HDPE OUTLET PIPE (ADS N-12 DUAL WALL OR EQUAL APPROVED BY ENGINEER)
15	INCLINOMETER
16	LEVEL TRANSDUCER
17	BEEHIVE GRATE
✳ 18	CONCRETE PAD (BY OTHERS, SIZE VARIES)

✳ GENERAL CONTRACTOR TO INSTALL OUTLET PIPE AND CONCRETE PAD. ALL OTHER PARTS PROVIDED BY SMARTBATCH VENDOR. GENERAL CONTRACTOR TO COORDINATE FINAL LOCATION OF CONCRETE PAD WITH VENDOR.

DIMENSION TABLE			
ITEM	ELEV1	ELEV2	H
WEST POND	946.00	948.75	2.75'
EAST POND	950.25	952.75	2.50'

TOP VIEW



SUBMITTAL SET

NO.	REVISION	DATE

CDS Muery F-1733

STATE OF TEXAS
BRIAN A. CROWELL
82619
REGISTERED
PROFESSIONAL ENGINEER
09/21/2020

CDS muery
ENGINEERS | SURVEYORS
100 NE Loop 410, Ste. 300 | San Antonio, Texas 78216
(210) 581-1111 | TBPE No. F-1733 | TBPLS No. 100495-00

PLAT NO. 19-11800164

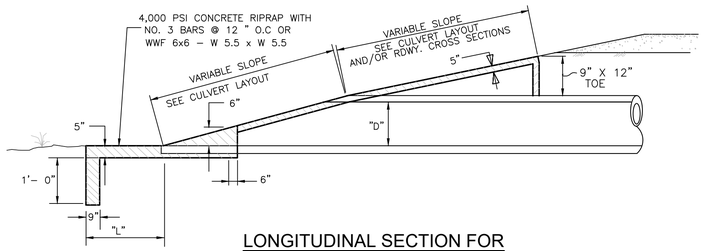
JOB NO. 118008.04
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DESIGNER JBG
CHECKED KE DRAWN J.W.G.

STADIUM POINTE P.U.D.
UNIT 2 & 3
SAN ANTONIO, TEXAS

BATCH DETENTION CONTROL VALVE DETAILS

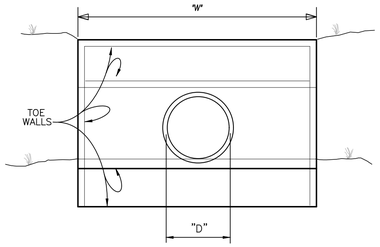
SHEET C7.4

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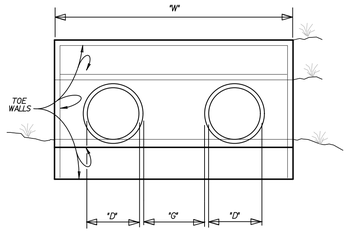


LONGITUDINAL SECTION FOR
CIRCULAR & ARCH PIPES

CONCRETE RIPRAP HEADWALLS



SINGLE CIRCULAR PIPE CULVERT
(CMP or RCP)
N.T.S.

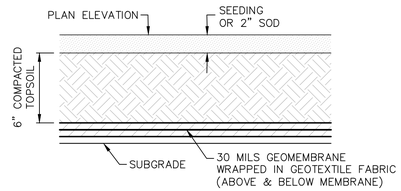


MULTIPLE CIRCULAR PIPE CULVERT
(CMP or RCP)
N.T.S.

"D" INSIDE DIA. of PIPE	"L"	"G"		SINGLE	DOUBLE	TRIPLE	QUADRUPLE
		CMP	RCP	"W"			
12"	1'–6"	1– 0"	0'– 6"	4'– 0"	6'– 0"	8'–0"	10'– 0"
18"	2'–0"	1– 2"	0'– 9"	4'– 6"	7'– 2"	9'–10"	12'– 6"
21"	2'–6"	1'– 3"	0'–10"	5'– 3"	8'– 4"	11'– 4"	13'– 4"
24"	3'–0"	1'– 5"	0'–11"	6'– 0"	9'– 5"	12'–10"	16'– 3"
30"	4'–0"	1'– 8"	1'– 1"	7'– 6"	11'–8"	15'–10"	20'– 0"
36"	5'–0"	1'–11"	1'– 3"	9'– 0"	13'–11"	18'–10"	23'– 9"
42"	6'–0"	2'– 2"	1'– 5"	10'–6"	16'– 2"	21'–10"	27'– 6"
48"	7'–0"	2'– 5"	1'– 7"	12'–0"	18'– 5"	24'–10"	31'– 3"
54"	8'–0"	2'–10"	1'–11"	13'–6"	20'–10"	28'– 2"	35'– 6"
60"	9'–0"	3'– 2"	2'– 0"	15'–0"	23'– 2"	31'– 4"	39'– 6"

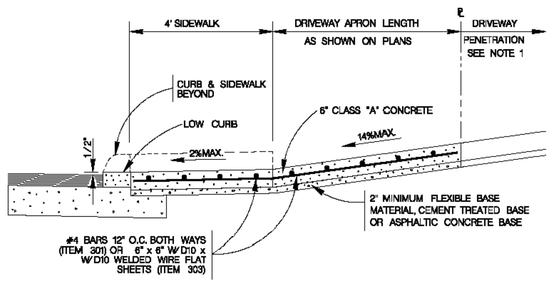
"G" IS MEASURED BETWEEN THE OUTER SURFACES OF THE PIPES.

DIMENSIONS FOR CIRCULAR (CMP and RCP)
PIPE CULVERTS



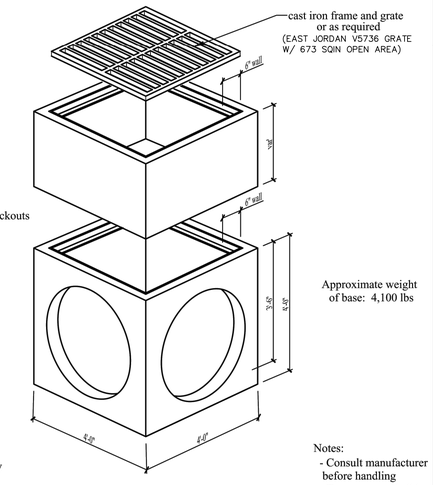
GEOMEMBRANE LINER
N.T.S.

GEOTEXTILE FABRIC SPECIFICATION			
PROPERTY	TEST METHOD	UNIT	SPECIFICATION (MINIMUM)
UNIT WEIGHT		oz/yd2	8
FILTRATION RATE		in/sec	0.08
PUNCTURE STRENGTH	ASTM D–751*	lb	125
MULLEN BURST STRENGTH	ASTM D–751	psi	400
TENSILE STRENGTH	ASTM D–1682	lb	200
EQUIVALENT OPENING SIZE	US STANDARD SIEVE	No.	80
* MODIFIED			



TYPICAL COMMERCIAL DRIVEWAY SECTION
WITH SIDEWALK ABUTTING CURB

3' x 3' x var Grate Inlet



Bottom Section
36" dia thinwall knockouts
all four sides

Approximate weight
of base: 4,100 lbs

Specifications:
- Concrete has a 28 day strength of 5,000 psi
- Steel reinforcement is ASTM A615 grade 60
- Load design is H-20

Notes:
- Consult manufacturer before handling
- The structure shall be placed on a compacted granular base

Capital Precast
CAPITAL PRECAST, INC.
800 WATSON LANE EAST
NEW BRAUNFELS, TEXAS 78130
PH. (830) 606-6200

FOR 3' x 3' x var Grate Inlet
JOB
DRAWN RW | DATE 1/15/2013 | Rev. No. | SHEET 1 OF 1
FILE catalog\grate inlets\3x3 Grate Inlet

NO. | REVISION | DATE

CDS Muery F–1733
STATE OF TEXAS
BRIAN A. CROWELL
82619
REGISTERED
PROFESSIONAL ENGINEER
09/21/2020

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(210) 581-1111 | TBPE No. F-1733 | TBPLS No. 100495-00

PLAT NO. 19-11800164

JOB NO. 118008.04
DATE AUGUST 2020
DESIGNER JBG
CHECKED KE DRAWN J.W.G.

STADIUM POINTE P.U.D.
UNIT 2 & 3
SAN ANTONIO, TEXAS
BATCH DETENTION POND DETAILS

SUBMITTAL SET

SHEET C7.5

Date: Sep 21, 2020, 2:32pm User ID: jon.gross
File: F:\2018\118008.04 Stadium Point, Phase 2\Civil 3D\Dwg\Engineer\118008_C7.0-Pond-Overall.dwg

Attachment “G” – Inspection, Maintenance, Repair and Retrofit Plan

ATTACHMENT G | Inspection, Maintenance, Repair and Retrofit Plan

Below are the inspection and maintenance guidelines required for the batch detention systems as regulated by this Water Pollution Abatement Plan. The owner/responsible party shall be responsible for the required inspection, maintenance, and repair of the BMP as well as keep all records of such events. Records are to be retained, along with a copy of this approved plan, and should be made available upon request or inspection by the Texas Commission on Environmental Quality (TCEQ)

For a batch detention pond, routine maintenance includes the following, including each specific component of the system identified.

Generally:

- Periodic scheduled inspections, with a specified checklist, shall be completed twice very calendar year at a minimum, or as outlined below.

- Inspections should be conducted after major rainfall events, especially rain events over a 24-hour period. One inspection should take place during wet weather to determine if the basin is meeting the target detention time of 12 hours and a drawdown time of no more than 48 hours. The remaining inspections should occur between storm events so that manual operation of the valve and controller can be verified.

- The level sensor in the basin should be inspected and any debris or sediment in the area should be removed.

- Inspections shall be documented in a logbook kept with a copy of the approved WPAP application package and approval letter.

Automated Rotary Batch Detention System (ARBDS) - the automatic actuator system:

• Grease

  - The ARBDS features a remote grease terminal on the pedestal. There are eight terminals that connect with grease tubes to the inner and outer flanges of the rotary valve. Autoflow recommends the ARBDS be greased at least twice per year. It is also recommended that a thick, mildly heat-resistant grease be used to avoid grease melting through lines during the summer months.
  - To grease the ARBDS flanges, use a standard grease gun to pump grease through the fittings. By either logging into the autoflow app and using the command page (see autoflow app, section ii), or by pressing the intermittent switches (see in case of failure, section 2), cycle the ARBDS from the full closed position to the fully open position. While the ARBDS valve rotates, alternate greasing between all eight grease fittings. When the ARBDS completes the movement, cycle it again from the fully open position to the full closed position and repeat the greasing process.
  - Besides the eight grease terminals on the pedestal, the only other location where grease is needed is the worm gear on the cable drive winch. To access the winch, loosen the four jam screws on the control box hood. It is not necessary to completely remove the jam screws. With the screws loose, remove the hood. Apply grease to the vertically oriented worm gear.

- Flange Bolts
    - There are 10 bolts connecting the two flanges which encircle the ARBDS 24" swivel. These bolts should be evenly tightened, allowing for a 1/16" gap between the flanges and the stainless-steel packing band inside. Do not over-tighten the flange bolts, as this will pinch the steel packing band and cause the swivel to bind.
- Packing Band
    - The stainless-steel packing band between the two flanges of the ARBDS swivel tightens with an alien-head bolt to secure the packing material beneath in place. This band should be snug at all times but not over-tightened. Over time, the rotation of the ARDBS valve will wear on the packing material, so the packing band will need to be re-tightened on a semi-annual basis to ensure that the material is well seated against the swivel surface.
- Digging Around Valve
    - Silt, sediment, and debris can build up around the unit. An annual inspection of the unit is necessary to ensure that excess debris and sediment has not limited the rotation arc of the valve. If the ARBDS valve cannot rotate to the 0° or fully opened level, it will not be able to fully drain the impoundment area.
- Solar Panel
    - The solar panel is commonly utilized by birds and insects. It is important to keep the surface clean of bird litter, insect nests and debris in order to maintain optimal performance.
- Cable Slack
    - The drive cable of the ARBDS routes from the cable drive winch inside the control box to a tab at the bottom at the ARBDS valve. To test cable slack, move the valve of the ARDBS in either the closing or opening direction using the intermittent switches. Moving the valve will cause one side of the cable to tighten and the other side to loosen.
    - The loose side should always have five inches of perpendicular slack. For slight adjustments, tighten or loosen the nut of the eye bolt on the loose cable side as needed. For major adjustments, loosen the cable clamps at the bottom of the ARBDS valve and adjust slack through the eye bolt. With the proper five inches of slack adjusted into the loose side cable, retighten the cable clamps. Clamps must be secured very tightly to avoid cable slippage.
- Cable Connections
    - The drive cable of the ARBDS is connected at the bottom of the ARBDS valve with eye bolts and cable clamps. Check annually for corrosion or broken parts. Make sure the cable clamps are secured tightly and the eye bolts are intact. Replace as needed.

- Battery
    - Over time, battery terminals may corrode. Check annually for corrosion and clean as needed.

- Camera
    - Camera is used to identify any issues with the system, including the battery system. If the battery system were to fail, this would be known by the data recorded and the ARBDS can be turned by hand. This is an extremely remote possibility given the ability to remotely monitor the system.
    - Check the lens glass annually for insect nests or debris and clean as needed. One nut connects the camera frame to the control box and two small set screws secure the camera to the camera frame. These can be loosened in order to adjust the camera's aim and then retightened to secure it in place.

- Important safety information and warnings
    - Always keep hands clear of the ARBDS valve, swivel, and cable drive system when unit is in operation.
    - Turn the power switch off when doing any electrical work.
    - Do not enter the water when the ARBDS is actively draining water.
    - Do not stand inside or on top of the ARBDS valve.
    - Always wear gloves when doing any work on the cable drive system.

- Other Items
    - Trees and root systems should be removed to prevent growth in the impermeable liner of the batch detention basin bottom and through the rock rubble sides of the basin. Any degradation of a geomembrane or clay liner will be immediately repaired upon inspection.
    - Mowing: In a clay lined basin, it must be mowed to prevent woody growth and control weeds. A mulching mower should be used, or the grass clippings should be caught and removed. Mowing should take place at least twice a year, or more frequently if vegetation exceeds 18 inches in height. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas.
    - The responsible party should limit the use of fertilizers and/or pesticides in and around the ponds. Twice a year, the facility should be evaluated in terms of nuisance control (insects, weeds, odors, algae, etc.) due to potential standing water (2–3") because of basin slope or spring flow.
    - The outlet structure and the trash screen should be inspected for signs of clogging at every inspection.
    - Sediment shall be removed from the basin at least every 5 years, when sediment depth exceeds 6 inches, when the sediment interferes with the level sensor or when the basin does not drain within 48 hours. Care should be taken not to compromise the basin lining during maintenance.

Transfer of Ownership/Responsibility:
The applicant (i.e. owner/operator) is the sole responsible party for maintaining the records for such inspections, maintenance, and repair once construction of the water quality pond is completed. Should the maintenance obligation supplant through either a change of ownership or control of the property (i.e. an owner's association, new property owner, lessee, or a district/municipality) then maintenance of the water quality pond shall be transferred to the new responsible party. A copy of the transfer of responsibility must be filed with the executive director of the regional office of which the pond resides (San Antonio Regional Office) within 30 days of the transfer.

Responsible Party Acknowledgement:

Responsible Party: Skyhawk Villa de San Antonio, LLC
8117 Sutherland Lane
Plano, TX 75025

Signature of Responsible Party: _____ 09/12/2025
Srikanth Beerman — Date

Signature of Engineer of Record: _____ 09/15/2025
Christopher Garza, PE SIT — Date

Attachment “H” – Pilot-Scale Field Testing Plan

ATTACHMENT H | Pilot-Scale Field Testing Plan

This section does not apply for this project.

Attachment "I" – Measures for Minimizing Surface Stream Contamination

ATTACHMENT I | Measures for Minimizing Surface Stream Contamination

This section does not apply for this project. To the fullest extent possible, existing drainage patterns were maintained post-construction.

AGENT AUTHORIZATION FORM (TCEQ-0599)

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

I Srikanth Beeram,
Print Name

President,
Title - Owner/President/Other

of SkyHawk Villa De San Antonio, LLC,
Corporation/Partnership/Entity Name

have authorized Christopher Garza
Print Name of Agent/Engineer

of BlueSite Engineering
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

7/22/25
Date

THE STATE OF Texas §
County of Bexar §

BEFORE ME, the undersigned authority, on this day personally appeared Srikanth Bezawada 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 22 day of July 2025.

NOTARY PUBLIC

AMANDA BRANDT
My Notary ID # 128074536
Expires June 22, 2027

Amanda Brandt
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: June 22, 2027

Application Fee Form (TCEQ-0574)

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Stadium Pointe PUD, Unit 2 & 3
Regulated Entity Location: 8406 Flanagan Street, San Antonio, TX 78249
Name of Customer: Skyhawk Villa de San Antonio, LLC
Contact Person: Christopher Garza, PE SIT Phone: 210.469.4419
Customer Reference Number (if issued):CN
Regulated Entity Reference Number (if issued):RN

Austin Regional Office (3373)

☐ Hays ☐ Travis ☐ Williamson

San Antonio Regional Office (3362)

☑ Bexar ☐ Medina ☐ Uvalde
☐ Comal ☐ Kinney

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

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

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

Site Location (Check All That Apply):

☑ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	16.38 Acres	$6,500.00
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	Acres	$
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature:  Date: 09/15/2025

Application Fee Schedule

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

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

CORE DATA FORM (TCEQ-10400)

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 605548692		**RN 105230411**

SECTION II: Customer Information

4. General Customer Information	**5. Effective Date for Customer Information Updates** (mm/dd/yyyy)	6/24/2025

☐ 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:*
Skyhawk Villa de San Antonio, LLC	

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
802909145	32065955323	824072944	

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

12. Number of Employees	**13. Independently Owned and Operated?**
☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher	☒ **Yes** ☐ **No**

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

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

15. Mailing Address:	8117 Sutherland Lane							
	City	Plano	**State**	TX	**ZIP**	75025	**ZIP + 4**	5545

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

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(210) 299-7600		(214) 383-1766

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.)*

Stadium Pointe P.U.D., Unit 2 & 3

23. Street Address of the Regulated Entity: ***(No PO Boxes)***							
	City		**State**		**ZIP**		**ZIP + 4**
24. County	Bexar County						

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

25. Description to Physical Location:	Property is located near the SE corner of the Loop 1604 norhtbound frontage and Skyhawk Drive. The site is located east of Stadium Pointe PUD Unit 1.

26. Nearest City	State	Nearest ZIP Code
San Antonio	TX	78249

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:	29.5666		28. Longitude (W) In Decimal:	98.6503	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
29	33	59.76	98	39	1.08

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)
1522	1542	236116	531311

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

Single Family Residential Lot w/ Duplex

34. Mailing Address:	**8117 Sutherland Land**							
	City	**Plano**	**State**	**TX**	**ZIP**	**75025**	**ZIP + 4**	**5545**
35. E-Mail Address:								

36. Telephone Number	37. Extension or Code	38. Fax Number *(if applicable)*
(210) 299-7600		**(214) 383-1766**

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

☐ Dam Safety	☐ Districts	☒ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
		Water Pollution Abatement Plan		
☐ 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:	Christopher Garza, PE SIT	**41. Title:**	Founding Principal

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512 **)** 538-8374		**( ) -**	cgarza@bluesiteengineering.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:	Bluesite Engineering, LLC.	**Job Title:**	Founding Principal
Name *(In Print):*	Christopher Garza, PE SIT	**Phone:**	**(** 512 **)** 538- **8374**
Signature:		**Date:**	08/26/2025

APPENDIX "A" PREVIOUSLY APPROVED WPAP REPORTS & LETTERS

STADIUM POINTE P.U.D.

UNIT 2 & 3

Sewage Collection System

BLUESITE ENGINEERING, LLC
13750 San Pedro Ave. Suite B10
San Antonio, Texas 78232



09/15/2025

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EDWARDS AQUIFER APPLICATION COVER PAGE (TCEQ-20705)

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

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

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

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

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

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

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

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

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

Technical Review

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

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

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

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

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

Mid-Review Modifications

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

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

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

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

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

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

N/A

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

1. Regulated Entity Name: Stadium Pointe PUD, Unit 2 & 3						**2. Regulated Entity No.:** 105230411			
3. Customer Name: Skyhawk Villa de San Antonio, LLC						**4. Customer No.:** 605548692			
5. Project Type: **(Please circle/check one)**	New (circled)		Modification			Extension		Exception	
6. Plan Type: **(Please circle/check one)**	WPAP	CZP	SCS (circled)	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		Non-residential (circled)			**8. Site (acres):**		16.38	
9. Application Fee:	$1768.00		**10. Permanent BMP(s):**			Two (2) Batch Detention Basins			
11. SCS (Linear Ft.):	3536 L.F.		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Bexar		**14. Watershed:**			French Creek within Leon Creek Watershed			

Application Distribution

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

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

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

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

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	☑	__	__	__	__
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. Christopher Garza, PE SIT
Print Name of Customer/Authorized Agent
 09/15/2025
Signature of Customer/Authorized Agent Date

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

General Information Form (TCEQ-0587)

General Information Form

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Christopher Garza, PE SIT

Date: 08/26/2025

Signature of Customer/Agent:



Project Information

1. Regulated Entity Name: Stadium Pointe PUD Unit 2 & 3
2. County: Bexar
3. Stream Basin: French Creek (within the Leon Creek Watershed)
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: Srikanth Beerman
Entity: Skyhawk Villa De San Antonio, LLC
Mailing Address: 8117 Sutherland Lane
City, State: Plano, TX Zip: 75025
Telephone: 210.299.7600 FAX:
Email Address: sbeeram@gmail.com

8. Agent/Representative (If any):

Contact Person: Christopher Garza, PE SIT
Entity: Bluesite Engineering
Mailing Address: 13750 San Pedro, Suite B10
City, State: San Antonio, TX Zip: 78232
Telephone: 210.469.4419 FAX:
Email Address: cgarza@bluesiteengineering.com

9. Project Location:

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

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

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: August 15, 2025

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

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

15. Existing project site conditions are noted below:

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

Prohibited Activities

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

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

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

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

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

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

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

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

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

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

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

Administrative Information

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

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

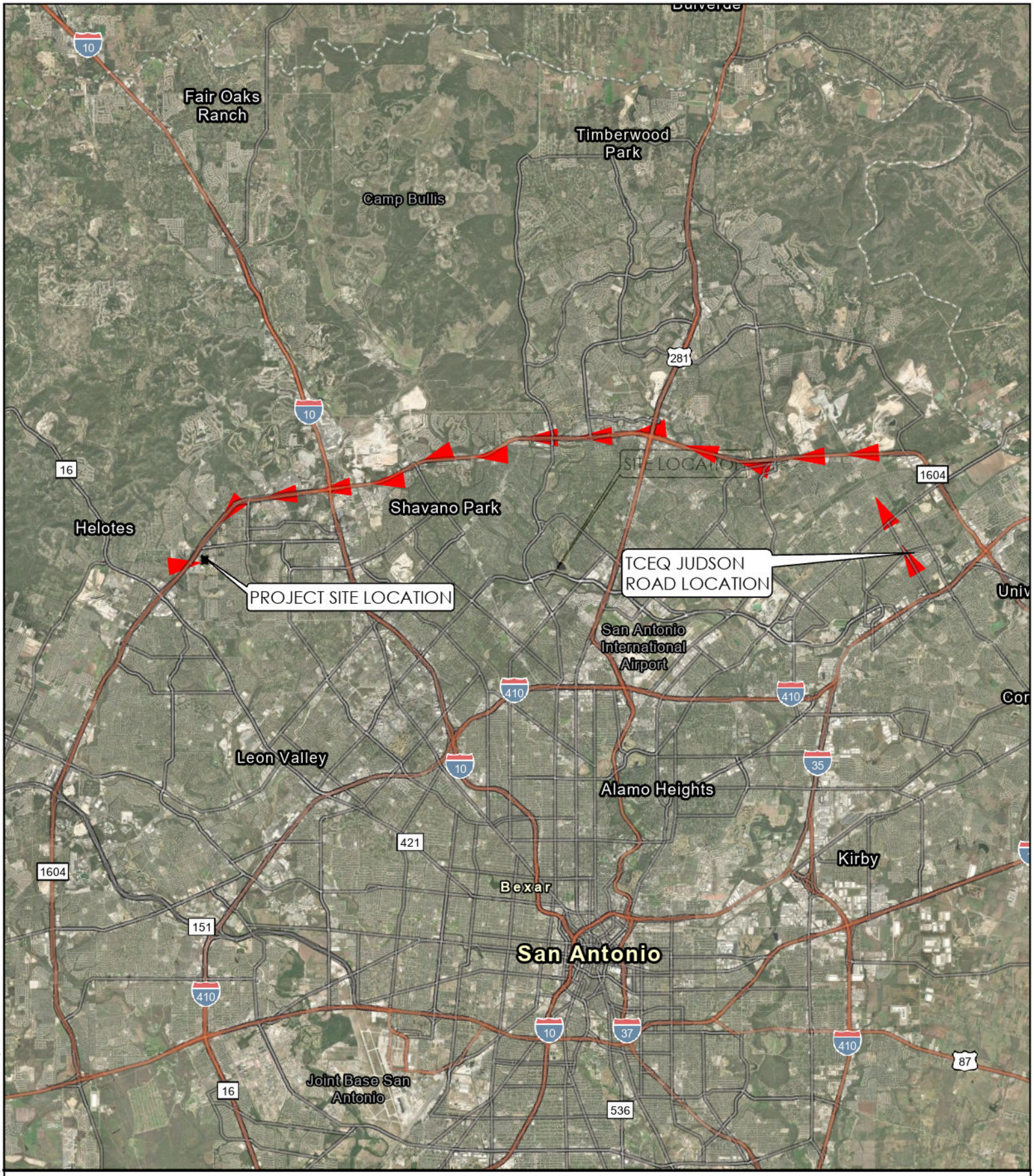
19. ☑ Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

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

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

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

Attachment – “A” - Road Map



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Stadium Pointe Unit 2 & 3 Aerial Travel Map To Site

Stadium Pointe Units 2 & 3
City of San Antonio, TX

BLUESITE ENGINEERING



N

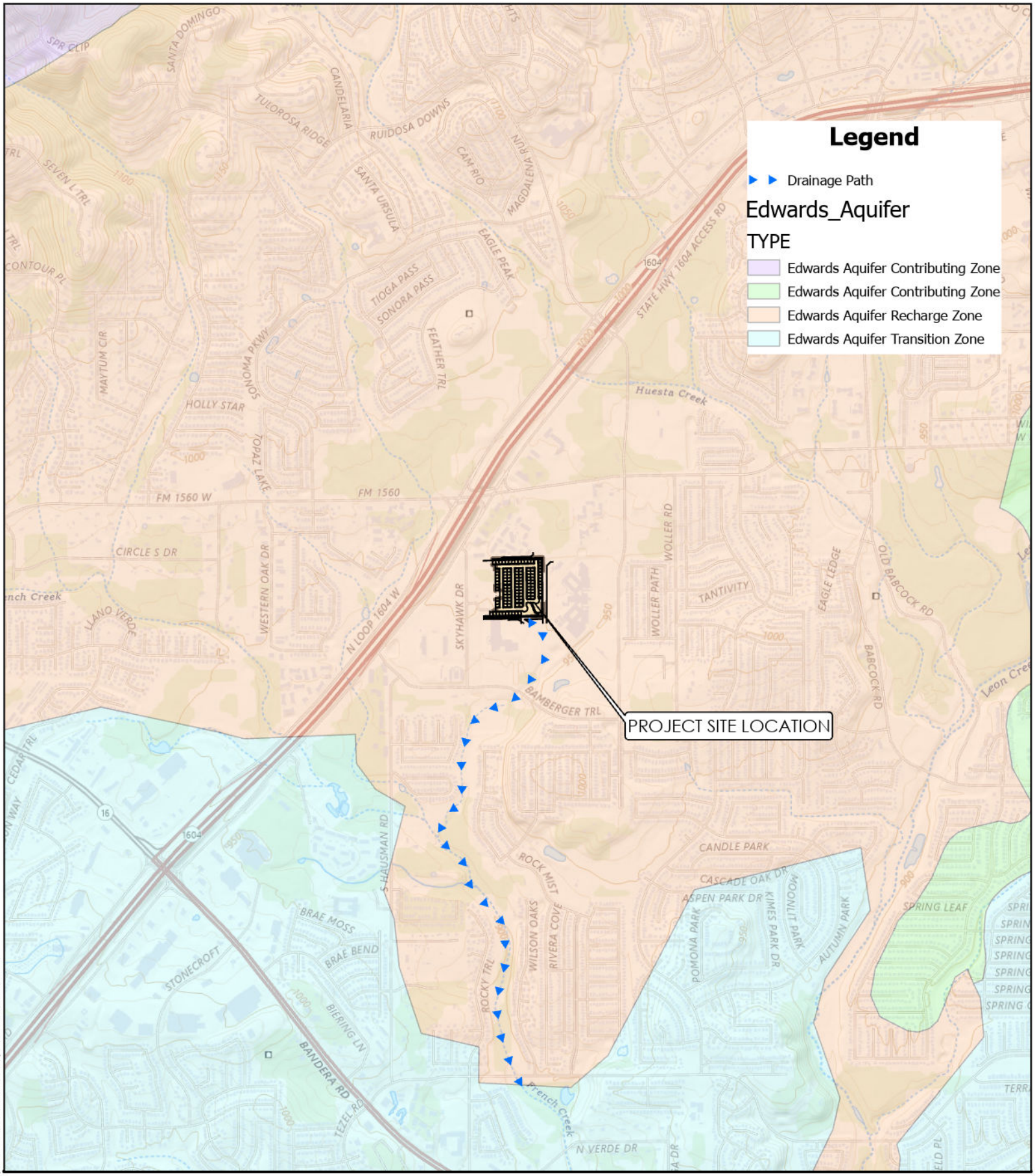
0 250 500 1,000 Feet

Stadium Pointe Unit 2 & 3 Aerial Location Map

BLUESITE ENGINEERING

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Attachment “B” - USGS / Edward Recharge Zone Map



N

0 1,000 2,000 4,000 Feet

Stadium Pointe Unit 2 & 3 USGS Quadrangle Map
USGS Helotes Quadrangle

BLUESITE ENGINEERING

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Attachment “C” – Project Description

ATTACHMENT C | Project Description

The Project Site is a total of 16.28 acres. The Total Project for Stadium Pointe PUD Unit 2 & 3 SCS will be a total of 8.29 acres which is exclusive to the Sewage Collection System **(SCS)** 100' Buffer identified on the Overall Sanitary Sewer Plan located in **F-0582 SCS Application**. The Project Site is in San Antonio, Texas inner city limits and currently zoned MF-18 PUD. The Project Site is located 470' east of Skyhawk Drive at the end of Runners Ridge. The Aerial Location Map and Road Map can be Found in **Attachment – A .** The Project Site is located entirely within the Edwards Aquifer Recharge Zone and subject to Texas Commission on Environmental Quality **(TCEQ**) Regulations over the Edwards Aquifer Recharge Zone **Attachment – B.** A detailed USGS Map with Quadrangle with drainage area map to the limits of the Edwards Aquifer recharge Zone can be found in **Attachment – B.**

Stadium Pointe PUD 2 & 3 is a proposed single family – duplex use development consisting of 112 platted lots. The Proposed Project for the SCS is the construction and installation of 3536 Linear Feet of SDR 26 PVC Pipe. The construction and installation for the Project Site does not include any offsite Sanitary Sewer Main Extensions. The Proposed Project will gravity to two (2) existing manholes previously constructed and permitted through TCEQ known as Stadium Pointe PUD Unit 1, RN110455052, and approved by TCEQ October 8, 2018.

At existing conditions, the impervious cover is ± 5%, which consists of existing gravel roads and a single-family residential structure. The proposed conditions impervious cover inclusive of streets and parking stalls are 3.16 acres with a calculated impervious cover of 19.29%.

Post-development permanent BMPs will include a two (2) water quality basin, featuring a Batch Detention system. Plans for the water quality pond are included within the Water Pollution Abatement Plan (WPAP) Application submitted concurrently with this SCS Submittal. The proposed water quality basins were previously permitted with Stadium Pointe PUD Unit 2 & 3 WPAP RN105230411 and approved November 12, 2020.

The site was previously subdivided in 1988 as the "Father Flanagan's Boys' Home" Subdivision and developed as a long-term residential program for residential care for youth. Operating as Father Flannagan's Girls and Boys Town of San Antonio and eventually as the Non-Profit organizations Boys Town, the entire 26-acre property had five (5) homes and one (1) small office building. In-mid 2017, the property ended its services and closed this location. Stadium Pointe PUD Unit 1 is constructed with residents and consists of 9.59-acres from the original 26 acres. The Stadium Pointe PUD Unit 1 plat was recorded on March 27, 2020 and recorded in Volume 20001 Page 1951. Please note that Stadium Pointe PUD, Unit 2 & 3 is the remaining16.38-acre portion of the original 26 acres.

The purpose of this SCS submittal is to request approval from TCEQ to construct and install 3536 Linear Feet of SDR 26 Sanitary Sewer Main. There has been no deviation from the previously approved SCS Submittal provided by CDS Muery Engineering & Surveying, that has expired to the best of our knowledge.

GEOLOGIC ASSESSMENT FORM (TCEQ-0585)

Narrative Description of Site-Specific Geology for the Stadium Pointe P.U.D. Unit 2 & 3 Property Located in San Antonio, Bexar County, Texas

Prepared for:

SKYHAWK VILLA DE SAN ANTONIO, LLC

Prepared by:

CAMBRIAN ENVIRONMENTAL

June 30th, 2025

NARRATIVE DESCRIPTION OF SITE-SPECIFIC GEOLOGY FOR THE STADIUM POINTE P.U.D. UNIT 2 & 3 PROPERTY LOCATED IN SAN ANTONIO, BEXAR COUNTY, TEXAS

Prepared for:

Skyhawk Villa De San Antonio, LLC
2339 Homestead Ln.
Plano, Texas 75025

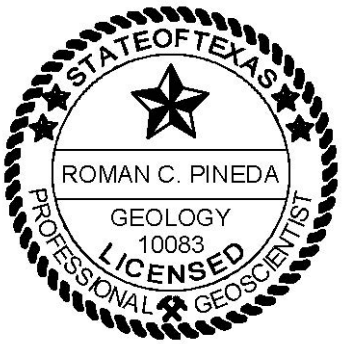
Prepared by:

Roman C. Pineda, P.G.
TX Geoscience License #10083

Cambrian Environmental
4422 Pack Saddle Pass
Suite 204
Austin, Texas 78745

TX Geoscience Firm Registration #50484

As a licensed professional geoscientist, I attest that the contents of this report are complete and accurate to the best of my knowledge.



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: Roman C. Pineda, P.G.

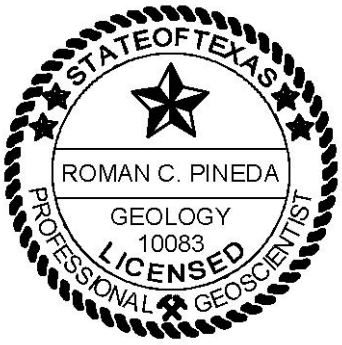
Telephone: (512) 705-5541

Fax: _____

Date: June 30, 2025

Representing: Cambrian Environmental, TBPG Firm #50484 (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: Stadium Pointe P.U.D. Unit 2 & 3

Project Information

1. Date(s) Geologic Assessment was performed: May 15, 2025
2. Type of Project:
   - ☐ WPAP
   - ☒ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

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

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

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)

Soil Name	Group*	Thickness(feet)
Crawford, stony and Bexar soils (Cb)	D	2-4

** Soil Group Definitions (Abbreviated)*

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

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

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

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

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

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

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

   Applicant's Site Plan Scale: 1" = 50'
   Site Geologic Map Scale: 1" = 50'
   Site Soils Map Scale (if more than 1 soil type): 1" = 500'

9. Method of collecting positional data:

   ☒ Global Positioning System (GPS) technology.
   ☐ Other method(s). Please describe method of data collection: _____

10. ☒ The project site and boundaries are clearly shown and labeled on the Site Geologic Map.
11. ☒ Surface geologic units are shown and labeled on the Site Geologic Map.
12. ☒ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.

    ☐ Geologic or manmade features were not discovered on the project site during the field investigation.
13. ☒ The Recharge Zone boundary is shown and labeled, if appropriate.
14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

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

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

Administrative Information

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

Attachment “A” - Geologic Assessment Table (TCEQ-0585-Table)

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: STADIUM POINTE P.U.D. UNIT 2 & 3

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
F-1	29°33'53.6"	98°38'58.6"	MB	30	Kep	2	2	3	—	0			N,O,F	5	35	35		X		Hillside
F-2	29°33'53.9"	98°39'01.6"	MB	30	Kep	50			—	0			X	5	35	35		X		Hillside
F-3	29°34'01.0"	98°39'01.7"	MB	30	Kep	50			—	0			X	5	35	35		X		Hillside

* DATUM: NAD 83

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

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

12 TOPOGRAPHY

Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

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

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

Signature

Date June 30, 2025

Sheet __1__ of __1__

STATE OF TEXAS
ROMAN C. PINEDA
GEOLOGY
10083
LICENSED
PROFESSIONAL GEOSCIENTIST

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

Attachment "B" – Stratigraphic Column

Stratigraphic Column

*Area shaded gray represents the lithology directly underlying the project site

Period	Group	Stratigraphic Unit	Hydrologic Unit	Maximum Thickness (Feet)
Quaternary to Tertiary		Stream and river alluvium (Qal)	Overlying Units	70
		Terrace alluvium (Qt)		
		Older alluvium (QTa)		
Upper Cretaceous (Gulf Series)	Taylor	Taylor Clay (Ktl)	Confining Units	300
	Austin	Austin Chalk (Kau)		400
	Eagle Ford	Eagle Ford Shale (Kef)		60
	Washita	Buda Limestone (Kbu)		20
		Del Rio Clay (Kdr)		60
Lower Cretaceous (Comanche Series)	Fredericksburg	Georgetown Limestone (Kgt)	Edwards Aquifer	100
		Edwards Limestone – Kainer Formation (Kk)		120
		Edwards Limestone - Person Formation (Kp)		50
	Trinity	Walnut Formation (Kw)	Confining Unit	140
		Upper Glen Rose Limestone (Kgru)	Upper Trinity Aquifer	200

Attachment “C” – Site Geology

NARRATIVE DESCRIPTION OF SITE-SPECIFIC GEOLOGY FOR THE STADIUM POINTE P.U.D. UNIT 2 & 3 PROPERTY LOCATED IN SAN ANTONIO, BEXAR COUNTY, TEXAS

INTRODUCTION

This narrative Geologic Assessment accompanies the Texas Commission on Environmental Quality (TCEQ) Geologic Assessment Form TCEQ-0585 completed for the Stadium Pointe P.U.D. Unit 2 & 3 property in San Antonio, Bexar County, Texas (see Site Location Map). The project area is comprised of approximately 16.5-acres of land located on the east side of Skyhawk Dr approximately 650-ft southwest of the intersection with N Loop 1604.

METHODOLOGY

A Cambrian Environmental Registered Professional Geoscientist (Texas License #10083) conducted a field survey for a TCEQ Geologic Assessment on May 15th, 2025. The pedestrian survey was completed by walking parallel transects spaced approximately 50 feet apart as directed by the TCEQ in the Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones (Rev. 10-01-04). Closer spacing was used where vegetation inhibited clear observation. The project site was thoroughly examined for the presence of potential karst features, including depressions, holes, and animal burrows. A number of techniques can be used for this effort, including probing with a digging implement to determine the thickness and consistency of fill material and feeling for the presence of air flow, which may indicate the presence of a sub-surface void space. Other techniques include making observations of any notable characteristics of the feature site such as the presence of various types of vegetation or a semi-circular burrow mound produced by the activities of small mammals.

RESULTS

Soils

Soils mapped within the project area consist of the Crawford, stony and Bexar soils (Cb), (see Site Soils Map). The Crawford series soils are within the "D" classification of the hydrologic soil groups. Type "D" soils have a very slow infiltration rate (very high runoff potential) when thoroughly wet.

Geology

The mapped bedrock lithology underlying the project area consists of the cyclic and marine members of the Person Formation (Kep) of the Edwards Group Limestone. This Person Formation is further subdivided into the Regional Dense, the Leached and Collapsed, and the Cyclic and Marine members. The Person Formation consist of alternating beds of limestone, dolomitic limestone, and argillaceous limestone. The geology of the property has been mapped most recently at a useful scale by Clark et al (2023) and we find his interpretation of the geology to be generally accurate.[1] Bedrock outcrops were not visible on most of the site due to relatively thick soil cover. No faults are mapped within the project limits, and none were

[1] Clark, A.K., Golab, J.A., Morris, R.R., and Pedraza, D.E., 2023, Geologic framework and hydrostratigraphy of the Edwards and Trintiy Aquifers within northern Bexar and Comal Counties, Texas, U.S. Geological Survey, Scientific Investigations Map 3510. Scale 1:24,000

observed during the pedestrian survey. However, the dominant trend for the site is N45°E, based on an average of the trends of known faults within the surrounding area from published maps[1].

The site lies within Edwards Aquifer Recharge Zone. Recharge into the aquifer primarily occurs in areas where the Edwards Group Limestone and upper confining units are exposed at the surface. Most recharge is from direct infiltration via precipitation and streamflow loss. Recharge occurs predominantly along secondary porosity features such as faults, fractures, and karst features (caves, solution cavities, sinkholes, etc.); and these types of karst features are commonly formed along joints, fractures, and bedding plane surfaces formed within the Edwards Group Limestone.

Site Hydrogeologic Assessment

Three manmade features were identified during the pedestrian survey (features "F-1", "F-2 and "F-3"). The overall potential for fluid migration to the Edwards Aquifer on the property is low. Lack of identified recharge features and thick soil cover in most areas of the property indicate the potential for recharge to occur on the property is thought to be low. No areas of enhanced infiltration greater than background infiltration was observed at the time of the site visit. Additionally, should any geologic karst features be discovered during the construction phase of the project, they should be reported to TCEQ to determine the appropriate mitigation measures.

Feature Descriptions

F-1 The feature is a septic tank that is no longer in-use. Ponded water observed within the septic tank at the time of the site visit suggests evidence of fine infilling. Therefore, the probability for rapid infiltration is low. The feature is ranked as "non-sensitive".

F-2 and F-3

The features are existing sanitary sewer lines being tied into. The existing sewer lines are located underneath asphalt pavement. The asphalt pavement is designated as impervious cover with an infiltration rate less than natural background rates. Therefore, the probability for rapid infiltration is low. The features ranked as "non-sensitive".

Attachment “D” – Site Geologic Map(s)

Cambrian

N

0 50
FEET
SCALE: 1in = 50ft

LEGEND
Site
Kep- Person Formation
- Feature

STATE OF TEXAS
ROMAN C. PINEDA
GEOLOGY
10085
LICENSED
PROFESSIONAL GEOLOGIST

STADIUM POINTE P.U.D. UNIT 2 & 3

SITE GEOLOGIC MAP

SAN ANTONIO, BEXAR COUNTY, TEXAS

PROJECT NO:
DATE: June 2025
DRAWN: RCP CHECKED: CC

Figure 3

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL.

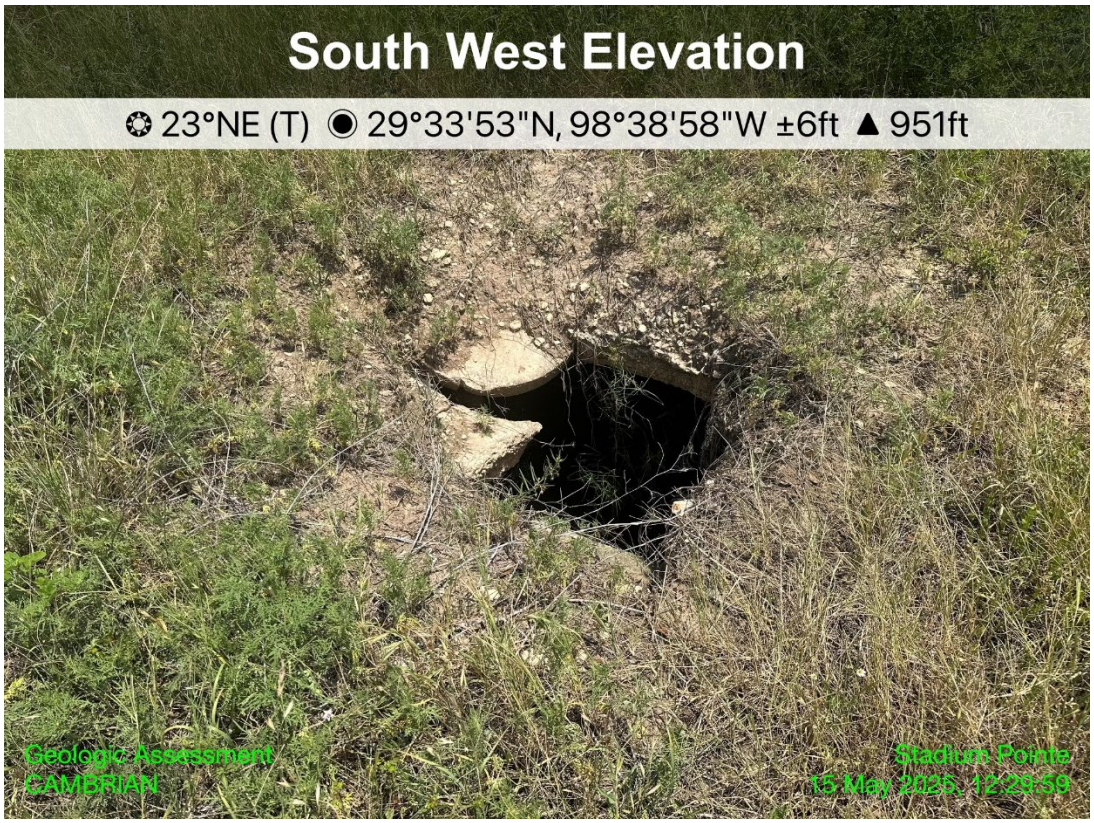


Photo 1. View of feature F-1



Photo 2. View across the site.



Photo 3. Illustrates feature F-2.

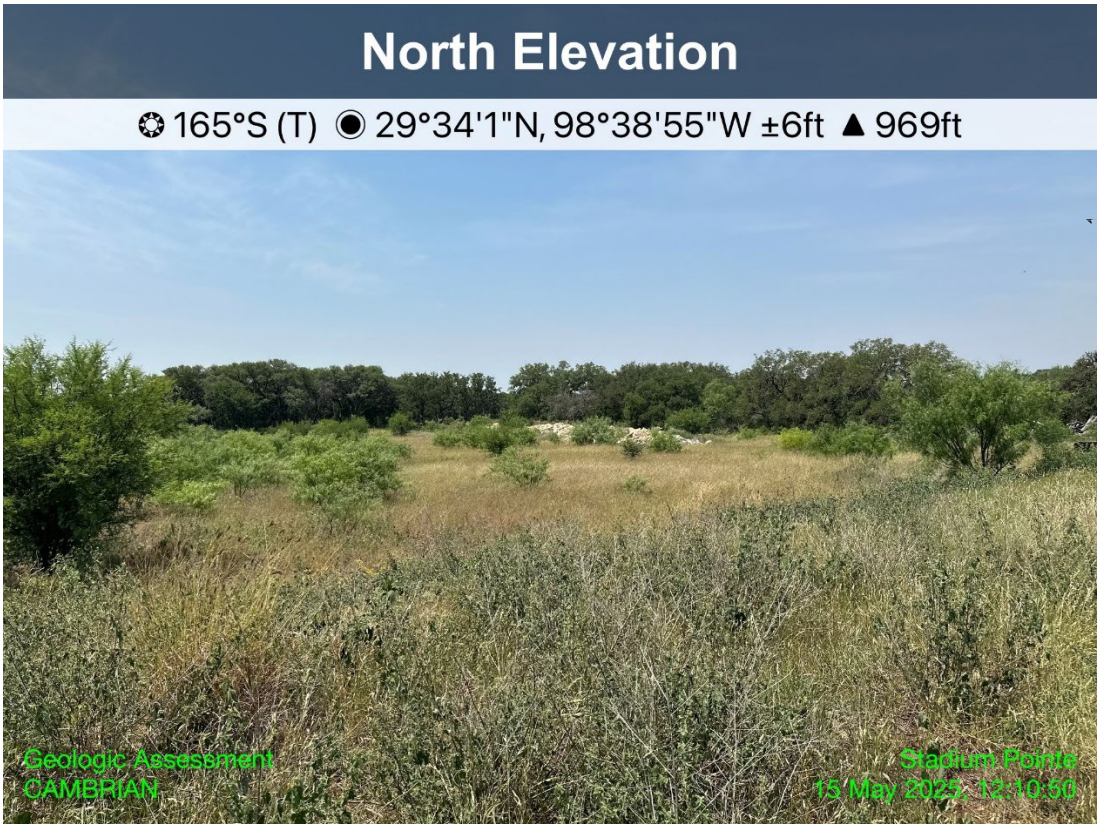
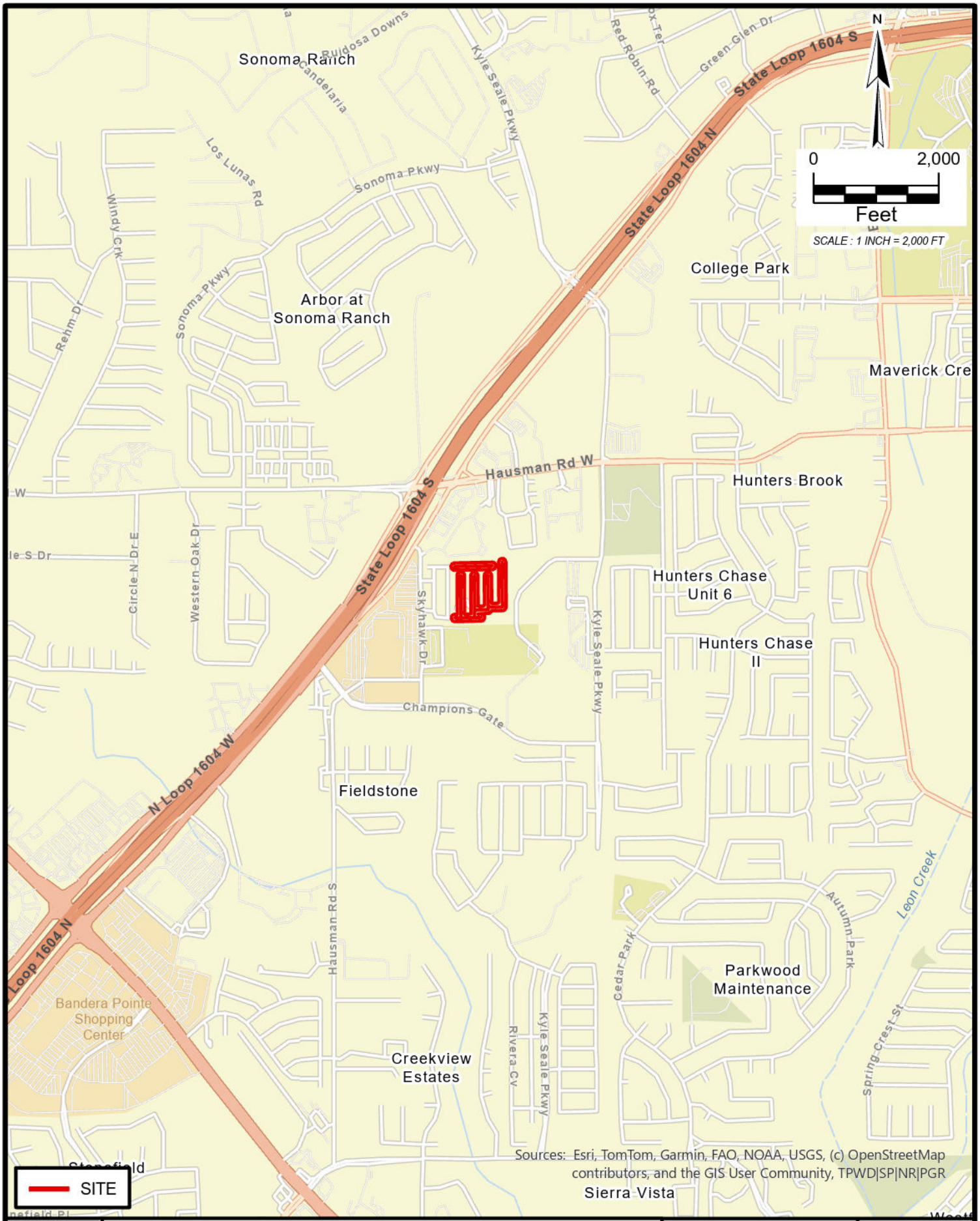


Photo 4. View across the site.



Cambrian

STADIUM POINTE P.U.D. UNIT 2 & 3
SAN ANTONIO, BEXAR COUNTY, TEXAS
SITE LOCATION MAP

REVISIONS:	ISSUE DATE:
PROJECT NO.	
DATE: June 2025	DESIGNER:
DRAWN: RCP	CHECKED: CC

FIGURE 1

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL.

ORGANIZED SEWAGE COLLECTION SYSTEM PLAN (TCEQ-0582)

Organized Sewage Collection System Application

Texas Commission on Environmental Quality

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

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

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

Regulated Entity Name: Stadium Pointe PUD, Unit 2 & 3

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

Customer Information

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

   Contact Person: Srikanth Beerman
   Entity: Skyhawk Villa de San Antonio, LLC
   Mailing Address: 8117 Sutherland Lane
   City, State: Plano, TX Zip: 75025
   Telephone: Fax:
   Email Address: sbeeram@gmail.com
   The appropriate regional office must be informed of any changes in this information within 30 days of the change.

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

   Contact Person: Christopher Garza, PE SIT
   Texas Licensed Professional Engineer's Number: 133528
   Entity: Bluesite Engineering
   Mailing Address: 13750 San Pedro Ave. Suite B10
   City, State: San Antonio, TX Zip: 78232
   Telephone: 210.469.4419 Fax:
   Email Address: cgarza@bluesiteengineering.com

Project Information

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

- [x] Residential: Number of single-family lots: 112
- [ ] Multi-family: Number of residential units
- [ ] Commercial
- [ ] Industrial
- [ ] Off-site system (not associated with any development)
- [ ] Other: _____

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

100% Domestic	26,880 gallons/day
_____% Industrial	_____ gallons/day
_____% Commingled	_____ gallons/day

Total gallons/day: 30,852

6. Existing and anticipated infiltration/inflow is 3,972 gallons/day. This will be addressed by:
incorporating inflow & infiltration into capacity design (Attachment "A" - SCS Engineering Report)

7. A Water Pollution Abatement Plan (WPAP) is required for construction of any associated commercial, industrial or residential project located on the Recharge Zone.

- [x] The WPAP application for this development was approved by letter dated _____. A copy of the approval letter is attached. Previously approved April 29, 2021
- [x] The WPAP application for this development was submitted to the TCEQ on _____, but has not been approved.
- [x] A WPAP application is required for an associated project, but it has not been submitted.
- [ ] There is no associated project requiring a WPAP application. Concurrently with this submittal.

8. Pipe description:

Table 1 - Pipe Description

Pipe Diameter(Inches)	*Linear Feet (1)*	*Pipe Material (2)*	*Specifications (3)*
8"	3,536 LF	PVC SDR 26	ASTM D2241

Total Linear Feet: 3,536

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

9. The sewage collection system will convey the wastewater to the Leon Creek Treatment Plant. The treatment facility is:

   ☑ Existing
   ☐ Proposed

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

   ☑ The City of San Antonio (San Antonio Water System) standard specifications.
   ☐ Other. Specifications are attached.

11. ☑ No force main(s) and/or lift station(s) are associated with this sewage collection system.

   ☐ A force main(s) and/or lift station(s) is associated with this sewage collection system and the **Lift Station/Force Main System Application** form (TCEQ-0624) is included with this application.

Alignment

12. ☐ There are no deviations from uniform grade in this sewage collection system without manholes and with open cut construction.

13. ☑ There are no deviations from straight alignment in this sewage collection system without manholes.

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

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

Manholes and Cleanouts

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

Table 2 - Manholes and Cleanouts

15. ☑ Manholes are installed at all Points of Curvature and Points of Termination of a sewer line.

16. ☑ The maximum spacing between manholes on this project for each pipe diameter is no greater than:

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

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

17. ☐ All manholes will be monolithic, cast-in-place concrete.

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

Site Plan Requirements

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

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

Site Plan Scale: 1" = 50 '.

19. ☑ The Site Plan must include the sewage collection system general layout, including manholes with station numbers, and sewer pipe stub outs (if any). Site plan must be overlain by topographic contour lines, using a contour interval of not greater than ten feet and showing the area within both the five-year floodplain and the 100-year floodplain of any drainage way.

20. Lateral stub-outs:

☑ The location of all lateral stub-outs are shown and labeled.
☑ No lateral stub-outs will be installed during the construction of this sewer collection system.

21. Location of existing and proposed water lines:

☑ The entire water distribution system for this project is shown and labeled.
☐ If not shown on the Site Plan, a Utility Plan is provided showing the entire water and sewer systems.
☐ There will be no water lines associated with this project.

22. 100-year floodplain:

☑ After construction is complete, no part of this project will be in or cross a 100-year floodplain, either naturally occurring or manmade. (Do not include streets or concrete-lined channels constructed above of sewer lines.)
☐ After construction is complete, all sections located within the 100-year floodplain will have water-tight manholes. These locations are listed in the table below and are shown and labeled on the Site Plan. (Do not include streets or concrete-lined channels constructed above sewer lines.)

Table 3 - 100-Year Floodplain

Line	*Sheet*	*Station*
	of	to
	of	to
	of	to
	of	to

23. 5-year floodplain:

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

Table 4 - 5-Year Floodplain

Line	*Sheet*	*Station*
	of	to
	of	to
	of	to
	of	to

24. ☑ Legal boundaries of the site are shown.

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

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

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

☐ There will be no water line crossings.
☐ There will be no water lines within 9 feet of proposed sewer lines.

Table 5 - Water Line Crossings

Line	*Station or Closest Point*	*Crossing or Parallel*	*Horizontal Separation Distance*	*Vertical Separation Distance*
E	1+13.01	CROSSING	N/A	2.0'
F	1+13.01	CROSSING	N/A	2.0'
G	3+51.96	CROSSING	N/A	2.0'

27. Vented Manholes:

☑ **No part** of this sewer line is within the 100-year floodplain and vented manholes are not required by 30 TAC Chapter 217.
☐ **A portion** of this sewer line is within the 100-year floodplain and vented manholes will be provided at less than 1500 foot intervals. These water-tight manholes are listed in the table below and labeled on the appropriate profile sheets.
☐ **A portion** of this sewer line is within the 100-year floodplain and an alternative means of venting shall be provided at less than 1500 feet intervals. A description of the alternative means is described on the following page.
☐ **A portion** of this sewer line is within the 100-year floodplain; however, there is no interval longer than 1500 feet located within. No vented manholes will be used.

Table 6 - Vented Manholes

Line	*Manhole*	*Station*	*Sheet*

Line	*Manhole*	*Station*	*Sheet*

28. Drop manholes:

☑ There are no drop manholes associated with this project.
☐ Sewer lines which enter new or existing manholes or "manhole structures" higher than 24 inches above the manhole invert are listed in the table below and labeled on the appropriate profile sheets. These lines meet the requirements of 30 TAC §217.55(l)(2)(H).

Table 7 - Drop Manholes

Line	*Manhole*	*Station*	*Sheet*

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

☐ The placement and markings of all sewer line stub-outs are shown and labeled.
☑ No sewer line stub-outs are to be installed during the construction of this sewage collection system.

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

☑ The placement and markings of all lateral stub-outs are shown and labeled.
☐ No lateral stub-outs are to be installed during the construction of this sewage collection system.

31. Minimum flow velocity (From Appendix A)

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

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

☑ Assuming pipes are flowing full, all slopes are designed to produce maximum flows of less than or equal to 10 feet per second for this system/line.
☐ **Attachment D – Calculations for Slopes for Flows Greater Than 10.0 Feet per Second.** Assuming pipes are flowing full, some slopes produce flows which are greater than 10 feet per second. These locations are listed in the table below. Calculations are attached.

Table 8 - Flows Greater Than 10 Feet per Second

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

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

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

Administrative Information

34. ☑ The final plans and technical specifications are submitted for TCEQ review. Each sheet of the construction plans and specifications are dated, signed, and sealed by the Texas Licensed Professional Engineer responsible for the design on each sheet.

35. ☑ Standard details are shown on the detail sheets, which are dated, signed, and sealed by the Texas Licensed Professional Engineer, as listed in the table below:

Table 9 - Standard Details

Standard Details	*Shown on Sheet*
Lateral stub-out marking **[Required]**	SHEET 6.11
Manhole, showing inverts comply with 30 TAC §217.55(l)(2) **[Required]**	SHEET 6.11
Alternate method of joining lateral to existing SCS line for potential future connections **[Required]**	SHEET 6.11
Typical trench cross-sections **[Required]**	SHEET 6.11
Bolted manholes **[Required]**	SHEET 6.11
Sewer Service lateral standard details **[Required]**	SHEET 6.11
Clean-out at end of line **[Required, if used]**	N/A
Baffles or concrete encasement for shock/erosion protection **[Required, if flow velocity of any section of pipe >10 fps]**	N/A
Detail showing Wastewater Line/Water Line Crossing **[Required, if crossings are proposed]**	SHEET 6.1-6.10
Mandrel detail or specifications showing compliance with 30 TAC §217.57(b) and (c) **[Required, if Flexible Pipe is used]**	SHEET 6.11

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

36. ☑ All organized sewage collection system general construction notes (TCEQ-0596) are included on the construction plans for this sewage collection system.

37. ☑ All proposed sewer lines will be sufficiently surveyed/staked to allow an assessment prior to TCEQ executive director approval. If the alignments of the proposed sewer lines are not walkable on that date, the application will be deemed incomplete and returned.

    ☑ Survey staking was completed on this date: August 15, 2025

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

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

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Organized Sewage Collection System Application** is hereby submitted for TCEQ review and executive director approval. The system was designed in accordance with the requirements of 30 TAC §213.5(c) and 30 TAC §217 and prepared by:

Print Name of Licensed Professional Engineer:

Date:

Place engineer's seal here:



Signature of Licensed Professional Engineer:



08/26/2025

Appendix A-Flow Velocity Table

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

Table 10 - Slope Velocity

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

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

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

Figure 1 - Manning's Formula

Where:

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

Attachment “A” – SCS Engineering Design Report

ATTACHMENT A | SCS Engineering Design Report

The following SCS Engineering Design Report was prepared for the Project Site Stadium Pointe PUD Unit 2 & 3. The SCS Engineering Report details how the SCS Sanitary Sewer Plans and Calculations meet the requirements of 30 TAC Chapter 217 Subchapter C and Subchapter D.

Project Name: Stadium Pointe PUD Unit 2 & Unit 3
Date Prepared: 8-Jul-25

Prepared By : BlueSite Engineering
Checked By: Christopher Garza, PE SIT
Address: 13750 San Pedro San Antonio, TX 78232



TBPE Firm No. F-22528

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Project Name: Stadium Pointe PUD Unit 2 & Unit 3
Location:
Subdivision:
Sewer Provider: SAWS
Type of Product: Duplex/Multi-Family
Number of Lots: 112
Number of Units: 224

Proposed Sewage Flow
Project Summary:

The proposed development is a multifamily duplex development. Each lots will consists of two units per lot. The formulas utilized for the anticipated sewage flow are from San Antonio Water System.

No. of Units	112	Total Lots / Dwelling Units
Equivalent Dwelling Unit	1	Equivalent Dwelling Unit1 (EDU)
SAWS EDU =	240	Gallons Per Day of Average Sewer Flow
Average Sewer Flow =	26880	Gallons Per Day
Average Sewer Flow =	0.41	Cubic Feet Per Second

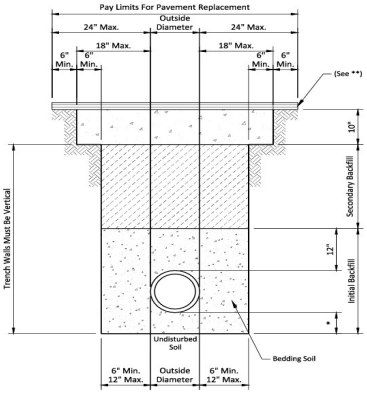
PVC Pipe Standards
The American Society for Testing and Materials (ASTM) also known as the ASTM International (Reference www.astm.org) governs the manufacturing specifications for Polyvinyl Chloride (PVC) pipes, including the dimension ratio and water pressure allowable for the use of each pipe, through its D-2241 standard. ASTM D-2241 lists its pipe dimensions and pipe classes using the "SDR" mark up, such SDR-135.5, SDR 21, SDR 26 and the SDR-41. The SDR refers to the standard dimension ration (SDR) of the outside pipe diameter and the wall thickness. This project specifies the use of SDR-26 PVC pipe, which are to meet the ASTM pressure rating of greater than 150 PSI and fall in the size category listed below. ASTM D2241 standards must be meticulously adhered to by all PVC pipe manufacturers and is recognized as the standard during PVC presser pipe testing and quality checks. Other in-depth information can be found published in Thermoplastic Pressure Pipe Design and Selection UNI-TR-7, by the Uni-Bell PVC Pipe Association.

SDR 26 Pipe Size Matrix

Size	O.D. (in)	Calc I.D (in)	Thickness (in)	M.D. (in)
4	4.5	4.154	0.173	4.327
6	6.625	6.115	0.255	6.37
8	8.625	7.961	0.332	8.293
10	10.75	9.924	0.413	10.337
12	12.75	11.77	0.49	12.26
16	16	14.77	0.615	15.385

Proposed Type of Pipe

Type 1, Grade I, Polyvinyl Chloride (PVC) Specifications:	
Size of Pipe used for Project (SDR-26) in inches:	8
Pipe Compliance:	ASTM D-2241
Joint Compliance:	ASTM D3139
Cell Classification:	12454
Minimum Tensile Strength (PSI):	7000
Minimum Modulus of Elasticity (PSI):	400000
Calculated Inner Diameter (in) = (Outer Diameter-2t):	7.961
Outer Diameter (Inch):	8.625
Wall Thickness (Inch):	0.332
Mean Pipe Diameter (in) = (Outer Diameter - Thickness):	8.293
Approximate Trenching Width (Feet):	2.72
Minimum Pipe Depth (Cover) used (Feet):	4
Maximum Pipe Depth (Cover) used (Feet):	10



Flow Capacity Analysis

Average Proposed Wastewater / Sewage Flow:	26880	GPD
Contributing Acreage for Inflow / Infiltration (I&I):	13.24	Acre
Inflow / Infiltration (300 GPD * Contributing Acreage):	3972	GPD
Average Sewer Flow + I&I	30852	GPD
Average Sewer Flow + I&I	0.476	CFS

Using the following equation, solving for the pipe capacity when flowing full, where:

$$Q = \frac{1.49}{n} A R_h^{2/3} S_f^{1/2}$$

And:

n = Mannings Coefficient	0.013
A = Cross Sectional Area (ft^2)	0.349
Wp = Wetted Perimeter (ft)	2.094
R_h = Hydraulic Radius (ft)	0.167
S = Slope, decimal, minimum used	0.004

Q_{full} = 0.764 CFS

Q_{full} =		Q_{Actual} =	
0.764	>	0.476	TRUE

Minimum & Maximum Grades for Pipes (30 TAC 217.53(I)(2)(A))

TCEQ Pipe Slopes		
Size of Pipe	Minimum Pipe Slope	Maximum Slope
6	0.5	12.35
8	0.33	8.4
10	0.25	6.23
12	0.2	4.88
16	0.15	3.62
18	0.11	2.83
21	0.09	2.3
24	0.08	1.93
27	0.06	1.65
30	0.055	1.43
33	0.05	1.26
36	0.045	1.12
39	0.04	1.01

Minimum and Maximum Velocity for the Proposed System

$$V = \frac{1.49}{n} R^{2/3} S^{1/2}$$

n = Mannings Coefficient	0.013
A = Cross Sectional Area (ft^2)	0.349
Wp = Wetted Perimeter (ft)	2.094
R_h = Hydraulic Radius (ft)	0.167
S = Slope, decimal, minimum used	0.004
S = Slope, decimal, maximum used	0.020

V_{MIN} = 2.195 CFS

V_{MAX} = 4.909 CFS

The slope is determined using Mannings formula to maintain a velocity greater than 2.0 feet per second and less than 10.0 feet per second

Average Values of Modules of Soil Reaction, E'

Soil type-pipe bedding material (Unified Classification System)	Dumped	E' for Degree of Compaction of Bedding, in pounds per square inch: Slight <85% Proctor, <40% relative density	Moderate 85%-95% Proctor, 40%-70% relative density	High, >95% Proctor, >70% relative density
(1)	(2)	(3)	(4)	(5)
Fine-grained Soils ($LL>50_a$) Soils with medium to high plasticity CH, MH, CH-MH	No data available; consult a competent soils engineer; Otherwise use E'=0			
Fine-grained Soils (LL<50) Soils with medium to no plasticity, CL, ML, ML-CL,with less than 25% coarse-grained particles	50	200	400	1000
Fine-grained Soils (LL<50) Soils with medium to no plasticity, CL, ML, ML-CL,with more than 25% coarse-grained particles	100	400	1000	2000
Coarse-grained Soils with Fines GM, GC, SM, SC[c] contains more than 12% fines	200	1000	2000	3000
Coarse-grained Soils with Little or no Fines GW, GP, SW, SP[c] contains less than 12% fines	1000	3000	3000	3000
Crushed Rock	± 2	± 2	± 1	± 0.5
Accuracy in Terms of Percentage Deflection				

Taken from: Howard, Amster K. "Soil Reaction for Buried Flexible Pipe" U.S. Bureau of Reclamation, Denver, CO and the American Society of Civil Engineers.

Using the table above, the Modulus of Soil Reaction for the in-situ soil is determined as (in psi) 1000 psi

Pipe Bedding Class

Taken from the American Society for Testing and Materials (ASTM) D2321 and American Association of State Highway and Transportation Officials (AASHTO) M43, and as published on Table 7, in Deflection: The Pipe/Soil Mechanism UNI=-TR-1-97, Uni-Bell PVC Pipe Association, Pg 24.

Pipe Embedment Material						E', psi (kPa) for Degree of Embedment Compaction				
ASTM D 2321*		ASTM D 2487		AASHTO M43 Notation	Min. Std. Proctor Density (%)	Lift Placement Depth	Dumped	Slightly < 85%	Moderate 85% - 95%	High > 95%
Class	Description	Notation	Description							
IA	Open-graded, clean manufactured aggregates	N/A	Angular crushed stone or rock, crushed gravel, crushed slag; large voids with little or no fines	5 56	Dumped	18" (0.45 m)	1000 (6,900)	3000 (20,700)	3000 (20,700)	3000 (20,700)
IB	Dense-graded, clean manufactured, processed aggregates	N/A	Angular crushed stone or other Class IA material and stone/sand mixtures; little or no fines							
II	Clean, coarse-grained soils	GW	Well-graded gravel, gravel/sand mixtures; little or no fines	57 6 67	85%	12" (0.30 m)	N/R	1000 (6,900)	2000 (13,800)	3000 (20,700)
		GP	Poorly graded gravel, gravel/sand mixtures; little or no fines							
		SW	Well-graded sands, gravelly sands; little or no fines							
		SP	Poorly graded sands, gravelly sands; little or no fines							
III	Coarse-grained soils with fines	GM	Silty gravels, gravel/sand/silt mixtures	Gravel and sand with <10% fines	90%	9" (0.20 m)	N/R	N/R	1000 (6,900)	2000 (13,800)
		GC	Claycy gravels, gravel/sand/clay mixtures							
		SM	Silty sands, sand/silt mixtures							
		SC	Clayey sands, sand/clay mixtures							

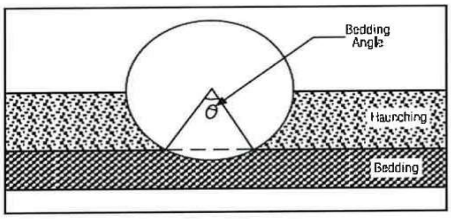
Note:

Per TCEQ guidelines, a contractor is all to use ASTM D 2321 Bedding Class 1A, 1B, II or III at no less than 85% percent compaction. To grant the contractor its ability to make the proper judgement of which bedding class to use, the calculations provided in the Engineering Design Report reflect the use of Bedding Class III, at 85% - 95% compaction, with an E' value of 1000 psi. This provided the worst case scenario for the SCS Line. All other bedding Class options will provide an improved value for the zeta factor as well as pipe deflection.

For Bedding Class III, 85%-95% Compaction, E_b = 1000 psi

Pipe Bedding Angle

As published on Figure 8 and Table 5, in Deflection: The Pipe/Soil Mechanism UNI-TR-1-97, Uni Bell PVC Pipe Association, Pgs. 18-19



Bedding Constant Values

Bedding Angle, degrees	Bedding Constant
0	0.110
30	0.108
45	0.105
60	0.102
90	0.096
120	0.090
180	0.083

Live Load Determination

Source: AASHTO H20 and E80 Loads and as Published on Table 4, in Deflection: Pipe /Soil Mechanism UNI-TR-1-97, Uni-Bell PVC Pipe Association, Pg 14.

Height of Cover (ft)	Live Load Transferred to Pipe, lb/in²			Height of Cover (ft)	Live Load Transferred to Pipe, lb/in²		
	Highway H20[1]	Railway E80[2]	Airport [3]		Highway H20[1]	Railway E80[2]	Airport [3]
1	12.50			14	*	4.17	3.06
2	5.56	26.39	13.14	16	*	3.47	2.29
3	4.17	23.61	12.28	18	*	2.78	1.91
4	2.78	18.40	11.27	20	*	2.08	1.53
5	1.74	16.67	10.09	22	*	1.91	1.14
6	1.39	15.63	8.79	24	*	1.74	1.05
7	1.22	12.15	7.85	26	*	1.39	*
8	0.69	11.11	6.93	28	*	1.04	*
10	*	7.64	6.09	30	*	0.69	*
12	*	5.56	4.76	35	*	*	*
				40	*	*	*

[1] Simulates 20 ton truck + impact
[2] Simulates 80,000 lb/ft railway load + impact
[3] 180,000 lbs. dual tandem gear assembly. 26 inch spacing between tires and 66 inch center-to-center spacing between fore and aft tires under a rigid pavement 12 inches thick + impact.
* Negligible live load influence

Prism Load Determination

Also referred to as the "Dead" load, the prism is the pressure acting on the pipe by the weight of the soil column above the given section of the pipe. The following prism load columns are industry standards as referenced from Table 3, Deflection: The Pipe / Soil Mechanism UNI-TR-1-97, Uni-Bell PVC Pipe Association, Pg. 13 and shown below.

Table 3 Prism Load Soil Pressure "Soil Unit Weight" lbs/in^3					
Cover Height (ft)	**100**	**110**	**120**	**125**	**130**
1	0.69	0.76	0.83	0.87	0.90
2	1.39	1.53	1.67	1.74	1.81
3	2.08	2.29	2.50	2.60	2.71
4	2.78	3.05	3.33	3.47	3.61
5	3.47	3.82	4.17	4.34	4.51
6	4.17	4.58	5.00	5.21	5.42
7	4.86	5.35	5.83	6.08	6.32
8	5.56	6.11	6.67	6.94	7.22
9	6.25	6.88	7.50	7.61	8.13
10	6.94	7.64	8.33	8.68	9.03
11	7.64	8.40	9.17	9.55	9.93
12	8.33	9.17	10.00	10.42	10.83
13	9.03	9.93	10.83	11.28	11.74
14	9.72	10.69	11.67	12.15	12.64
15	10.42	11.46	12.50	13.02	13.54
16	11.11	12.22	13.33	13.89	14.44
17	11.81	12.99	14.17	14.76	15.35
18	12.50	13.75	15.00	15.63	16.25
19	13.19	14.51	15.83	16.49	17.15
20	13.89	15.28	16.67	17.36	18.06
21	14.58	16.04	17.50	18.23	18.96
22	15.28	16.81	18.33	19.10	19.86
23	15.97	17.57	19.17	19.97	20.76
24	16.67	18.33	20.00	20.83	21.67
25	17.36	19.10	20.83	21.70	22.57

Note that the Prism Loads are calculated based upon the Marston Theory of Loads, developed by Professor Anson Marston, circa 1913, and is calculated using the formula:

This formula determines the earth load on a flexible pipe and is regarded as a conservative approach to determining the dead load placed upon a buried flexible pipe.

$$P = \frac{\gamma_s * H}{144}$$

Maximum Burial Depth =	10	feet
Unit Weight of Soil =	120	lbs/in^3
Prism Load =	8.33	lbs

Buckling Pressure (Allowable)

Where:

q_a	Allowable buckling pressure (psi)	85.39	psi
h	Height of soil above top of pipe (in)	120	inch
H	Depth of burial, feet, from ground surface to top of pipe	10	feet
B'	Empirical coefficient of elastic support	0.666	
E_b	Modulus of soil reaction for the bedding material (psi)	1000	psi
E	Modulus of elasticity of the pipe material (psi)	400000	psi
I	Moment of inertia of the pipe, per linear inch of pipe (in')	0.003	inch'
t	Pipe wall thickness (in)	0.332	inch
D	Mean Pipe Diameter (in)	8.293	inch
h_w	Height of water over the pipe (in)	0	inch
FS	Factor of Safety	2.5	Constant

$$B' = \frac{4(h^2 + Dh)}{1.5(2h + D)^2}$$

$$I = \left(\frac{t^3}{12}\right) = \left(\frac{inches^3}{in_{linear}}\right) =$$

Using the Allowable Buckling Pressure Equation as shown in Moser, A.P., Buried Pipe Design. 2nd Ed., McGraw- Hill, Pg 112, and an initial factor of safety (FS) of 2.5, the Allowable Buckling Pressure is then:

$$q_a = \frac{1}{FS} * \sqrt{32 * R_w * B' * E_b * \left(E * \frac{I}{D^3}\right)}$$

Where,

$$R_W = 1 - 0.33(h_w / h)$$

q_a = 85.39 psi

Rw = 1.00

Buckling Pressure (Installed Condition)

Where:

q_p	Pressure applied to pipe under installed conditions (psi)	8.67	psi
Yw	Specific Weight of Water (pci)	0.0361	pci
Ys	Specific Weight of Soil (pcf)	120	pcf
W_c	Vertical Soil Load on the pipe per unit length (lb/in)	71.88	lb/in^2
L_L	Live Load as determined from chart	0	lb/in^2
hw	Height of groundwater above pipe (typically =0)	0	feet
D	Mean Diameter (in)	8.293	inch
t	Pipe Wall Thickness (in)	0.332	inch
H	Depth of burial, feet, from ground surface to top of pipe	10	feet

The Vertical Soil Load can be calculated using Equation 6.6 of Uni-Bell's Handbook of PVC Pipe , Ch VI Superimposed Loads on Buried Pipe, Pg 183

$$W_c = H \times \gamma_s \times (D + t)$$

W_c = 71.88 lb/in^2

Using the Equation on Pg 114 of Moser, A.P., Buried Pipe Design. 2nd Ed., McGraw-Hill, Pressure Applied to Pipe under installed conditions at its deepest installed depth (Note, since hw = 0, the Water Buoyancy Factor (Rw) = 1) is calculated to be:

$$q_p = \gamma_w h_w + R_w\left(\frac{W_c + L_L}{D}\right) \qquad L_L = 0 \qquad R_W = 1 - 0.33(h_w / h)$$

q_p = 8.67 psi Rw = 1.00

Note: The pressure applied to the pipe under installed conditions is less than the allowable buckling pressure of the specified pipe, (i.e.. $q_a > q_p$) therefore the design is acceptable for installation.

Wall Crushing Calculation

Where:

D_o	Outside Diameter Pipe	8.625	inch
P_c	Compressive stress or hydrostatic design basis (HDB). For typical PVC pipe assume 4,000 psi. For any other pipe material the HDB must be supplied by the pipe manufacturer.	4000	psi
A	Surface Area of the pipe wall in^2/ft	0.332	in^2/ft
Ys	Specific Weight of Soil	120	lbs/in^3
H	Depth of burial, feet, from ground surface to top of pipe	10	feet

Using the Wall Crushing and Wall Thrust equations, as referenced in Plastic Pipe Design Manual published by Vylon Pipe, Pg 14 the Wall Crushing due to compressive stress can be found using the following:

$$P_c = \frac{T}{A} \quad \text{where T, Thrust, is calculated as} \quad T = \frac{P_y D}{2}$$

Substituting the Thrust equation into the Wall Crushing equation:

$$P_c = \frac{\frac{P_y D}{2}}{A} = \frac{P_y D}{2A}$$

From the Martson Equation determining the Prism Load Calculation (see previous section on Prism Load), substitute the equation for Pc:

$$P_c = \frac{\frac{\gamma_s * H}{144} D}{2A} \quad \text{Rearranging this equation, it becomes:} \quad 2AP_c = \frac{\gamma_s * H}{144} D$$

And simplifies to: $288AP_c = \gamma_s HD$

Note that the Surface Area of the Pipe Wall, A, is per unit length in $inches^2$ per foot, a conversion factor (From feet to inches) of 12 must be applied, therefore,

$$24AP_c = \gamma_s HD$$

Solving for H, the equation becomes:

$$H = \frac{24 * P_c * A}{\gamma_s * D_o}$$

Using this equation, and converting all units, solve for "H" of the soil column and the depth of the burial of the PVC Pipe.

H= 369.53 feet

The resulting Wall Crushing will not occur at a greater depth than the deepest burial depth of the proposed SCS lines, therefore the pipe design is acceptable.

Deflection Analysis: LeonHardt's Zeta Factor

The LeonHardt's Zeta Factor Equation can be calculated using Equation 7.32 of the Uni-Bells Handbook of PVC Pipe, Chapter VII Design of Buried PVC Pipe, Pg. 268.

Where :

D_o	Outside Diameter Pipe	8.625	inch
B	Trench Width	32.625	inch
E_b	Modulus of soil reaction for the bedding material (psi)	1000	psi
E_n'	Modulus of soil reaction for the in-situ soil (psi)	1000	psi

$$f = \frac{\frac{B}{Do} - 1}{1.154 + 0.444\left[\frac{B}{Do} - 1\right]}$$

$$zeta = \frac{1.44}{f + [1.44 - f] \times \left[\frac{E_b}{E_n'}\right]}$$

f = 1.1645 zeta = 1.00

Pipe Stiffness (Figure 30 TAC 217.53(k)(3))

Using Equation C.1 as directed in 30 TAC 217.53(k)(3), to calculate the Pipe Stiffness

Where:

PS	Pipe Stiffness, for SDR 26 PVC	115	psi
C	Conversion Factor	0.8	Constant
D	Mean Pipe Diameter	8.293	inch
RSC	Ring Stiffness Constant	142.991	Constant

Equation C.1.

$$PS = C \times RSC \times \left(\frac{8.337}{D}\right)$$

The RSC can be supplied by the manufacturer or calculated by rearranging Equation C.1.

$$RSC = \frac{PS}{C \times \left(\frac{8.337}{D}\right)}$$

RSC = 142.991

Predicted Pipe Deflection

Using the Modified Iowa Equation, referenced and published by the Uni-Bell PVC Pipe associated and found at the http://www.uni-bell.org/faq.html, and Equation of Deflection: The Pipe/Soil Mechanism UNI-TR-1-97, Uni-Bell PVC Pipe Association Pgs 17, the predicted pipe deflection can be calculated.

Where:

%ΔY/D	Predicted % vertical deflection under load	1.8790	%
P	Prism Load	8.33	psi
K	Bedding Angle Constant	0.096	lbs
W'	Live Load (at minimum depth of 4')	2.78	lb/in^2
DR	Dimension Ratio	26	dimensionless
E	Modulus of elasticity of the pipe material (psi)	400000	psi
E'	Modulus of soil reaction (Zeta * E_b)	1000	psi
D_L	Deflection lag factor	1.5	

Where Prism Load = $P = \frac{\gamma_s * H}{144}$

And using the Modified Iowa Equation:

$$(\%)\frac{\Delta Y}{D} = \frac{(D_L KP + KW')\times 100}{[2E/(3(DR-1)^3)] + 0.061E'}$$

%ΔY/D = 1.8790 %

Note: 1.8790 < 5% Therefore pipe design is acceptable

The predicted % vertical deflection is calculated to be less than 5%, therefore the pipe design is acceptable. A deflection lag factor of 1.0 is typical for new pipes. Over the life of the pipe, the pipe will tend to deflect. Therefore, 1.5 is a conservative factor for the 50 year life of the pipe.

Pipe Strain

Pipe strain is also known as the elongation of the pipe over the original length of the pipe. Under normal loading conditions of the PVC pipe, the variable that affects the elongation or straining of the pipe stems from the either the flexure/deflection (i.e.. bending) of the pipe within the bedding material (i.e. increased or excessive pipe deflection causing the pipe to elongate) or hoop stress within the pipe wall. Please note that pipe strain is not generally known to be the limiting performance factor during pipe failure. For this system, pipe deflection is limited to 5% for a SDR 26 pipe. Since the calculated deflection above is shown to be less than 5%, the pipe and bedding class used in this system is within the acceptable straining limits for this pipe.

The total Pipe strain is calculated as the combination of the hoop stress and the maximum strain due to deflection. Both items are calculated below using Equations 15 and 16 found in Deflection: the Pipe/Soil Mechanism, UNI-TR-1-97, Published by the Uni-Bell PVC Pipe Association (Pgs 28-30):

Where

E_h	Maximum Pipe Strain due to hoop stress	3.609E-04	in/in
P	Pressure on the pipe (Live Load + Prism Load)	11.11	psi
E	Modulus of elasticity of the pipe material (psi)	400000	psi
t	Pipe Wall Thickness	0.332	inch
D	Outer Pipe Diameter	8.625	inch

Using the maximum cover for both live loads and prism loads as well as the previous unit weight of soil:

$$\in_h = \frac{PD}{2tE}$$

E_h = 3.609E-04 in/in

Maximum strain of the pipe due to rung deflection is calculated below:

Where:

E_f	Maximum Pipe Strain due to Ring Deflection	2.253E-03	in/in
ΔY	Change in vertical pipe diameter under load	0.16	inch
t	Pipe Wall Thickness	0.332	inch
D	Outer Pipe Diameter	8.625	inch
DR	Dimension Ratio	26	dimensionless

$$\text{percent pipe deflection} = \frac{\text{change in diameter}}{\text{pipe diameter}} \times 100$$

$$\in_f = \frac{t}{D}\left[\frac{3\Delta Y / D}{1 - 2\Delta Y / D}\right] = \frac{1}{DR}\left[\frac{3\Delta Y}{D - 2\Delta Y}\right]$$

E_f = 2.253E-03 in/in

Therefore, the maximum combined strain in the pipe wall (in/in) is as follows:

E_{total} = 2.614E-03 in/in

Attachment "B" – Justification and Calculations for Deviation in Stright Alignment

ATTACHMENT B | Justification and Calculations for Deviation in Straight Alignment

This section is not applicable for this project. There are no deviations from straight alignment in this sewage collection system without manholes.

Attachment "C" – Justification for Variance from Maximum Manhole Spacing

ATTACHMENT C | Justification for Variance from Maximum Manhole Spacing

This section is not applicable for this project. Manholes on this project for each pipe diameter is spaced at a distance no greater than:

Pipe Diameter (in.)	Maximum Manhole Spacing (ft.)
6-15	500
16-30	800
36-48	1000
> 54	2000

Attachment "D" – Calculations for Slopes for Flows Greater than 10.0 Feet Per Second

ATTACHMENT D | Calculations for Slopes for Flows Greater than 10.0 Feet per Second

This section is not applicable for this project. Velocities within pipes are between 2 ft/sec and 10 ft/sec. Calculations can be found in "*Attachment A: SCS Engineering Design Report*"

Attachment “E” – Site Plan With Plan and Profile Sheets

STADIUM POINTE P.U.D.
UNIT 2 & 3
SAN ANTONIO, TEXAS
SANITARY SEWER PLAN
CONSTRUCTION PLANS

GENERAL CONSTRUCTION:

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND COMPLY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE FOLLOWING AS APPLICABLE:
   A. CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) "DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEM". TEXAS ADMINISTRATIVE CODE (TAC) TITLE 30 PART 1 CHAPTER 217 AND "PUBLIC DRINKING WATER", TAC TITLE 30 PART 1 CHAPTER 290.
   B. CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE."
   C. CURRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION."
   D. CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR CONSTRUCTION."
   E. CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL" (UECM).
2. THE CONTRACTOR SHALL OBTAIN SAWS STANDARD DETAILS FROM SAWS WEBSITE, HTTPS://APPS.SAWS.ORG/BUSINESS_CENTER/SPECS/CONSTSPECS/ UNLESS OTHERWISE NOTED WITHIN DESIGN PLANS.
3. THE CONTRACTOR IS TO NOTIFY AND MAKE ARRANGEMENTS WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT 210-233-3300 (DURING REGULAR SAWS WORKING HOURS) AND PROVIDE NOTIFICATION PROCEDURES THE CONTRACTOR WILL USE TO NOTIFY AFFECTED HOME RESIDENTS AND/OR PROPERTY OWNERS TWO (2) WEEKS PRIOR TO EXCAVATION. OUTSIDE OF REGULAR SAWS WORKING HOURS THE SAWS EOC SHOULD BE CONTACTED AT 210-704-7297.
4. IF NECESSARY, CONTRACTOR WILL COORDINATE USE OF SAWS PREMISES AT NO ADDITIONAL COST TO SAWS. SUCH EFFORTS INCLUDE, BUT ARE NOT LIMITED TO, OBTAINING SECURITY IDENTIFICATION BADGES REQUIRED FOR ACCESS TO SAWS FACILITIES.
5. LOCATIONS AND DEPTHS OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM DURING CONSTRUCTION AT NO COST TO SAWS.
6. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT. AS-BUILTS FOR SAWS INFRASTRUCTURE CAN BE OBTAINED AT WEBSITE BELOW. CONTRACTOR SHALL COORDINATE PHYSICAL LOCATES FOR SAWS INFRASTRUCTURE THROUGH THE SAWS INSPECTOR. PLEASE ALLOW UP TO 7 BUSINESS DAYS FOR LOCATES REQUESTING PIPE LOCATION MARKERS ON SAWS INFRASTRUCTURE. THE FOLLOWING CONTACT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES:
   SAN ANTONIO WATER SYSTEM:
   REQUEST AS-BUILTS: HTTPS://WWW.SAWS.ORG/SERVICE/LOCATES-SERVICE/
   COSA DRAINAGE 210-206-8433
   COSA TRAFFIC SIGNAL OPERATIONS 210-207-7720
   TEXAS STATEWIDE ONE CALL LOCATOR 1-800-545-6005 OR 811
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING, AND STRUCTURES TO ITS ORIGINAL OR BETTER CONDITION AS A RESULT OF DAMAGES DONE BY THE PROJECTS CONSTRUCTION.
8. CONTRACTOR SHALL NOT MAKE USE OF DUMPSTERS OR WASTE BINS THAT ARE INTENDED TO SERVE RESIDENTS AND/OR BUSINESSES.
9. ALL WORK IN TEXAS DEPARTMENT OF TRANSPORTATION AND BEXAR COUNTY RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH RESPECTIVE CONSTRUCTION SPECIFICATIONS AND PERMIT.
10. THE CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER GOVERNING MUNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR TREES.
11. ALL WORK WITHIN THE 100-YEAR FLOODPLAIN SHALL BE DONE IN ACCORDANCE WITH FLOODPLAIN DEVELOPMENT PERMIT.
12. ANY WORK COMPLETED WITHOUT PRIOR WRITTEN AUTHORIZATION WHICH IS NOT INCLUDED IN THESE PLANS AND SPECIFICATIONS WILL NOT BE COMPENSATED BY THE SAN ANTONIO WATER SYSTEM.
13. HOLIDAY WORK: CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON SAWS RECOGNIZED HOLIDAYS.
    WEEKEND WORK: CONTRACTORS ARE REQUIRED TO SUBMIT REQUEST TO THE SAWS INSPECTION CONSTRUCTION DEPARTMENT BY 12:00PM ON THE WEDNESDAY PRIOR TO THE WEEKEND BEING REQUESTED. REQUEST SHOULD BE SENT TO: CONSTWORKREQ@SAWS.ORG.
    ANY AND ALL SAWS UTILITY WORK INSTALLED WITHOUT WEEKEND APPROVAL WILL BE SUBJECT TO BE UNCOVERED FOR PROPER INSPECTION AT NO COST TO SAWS.
14. PRE-CON SITE VIDEO: BEFORE THE START OF ANY CONSTRUCTION, THE SITE MUST BE VIDEO RECORDED BY THE CONTRACTOR WITH ONE COPY SUBMITTED TO SAWS INSPECTIONS. A PRE-SITE VIDEO WILL PROVIDE ACCURATE DOCUMENTATION OF THE EXISTING CONDITIONS (NSPI).
15. POWER POLE BRACING: CONTRACTORS SHOULD BE ADVISED THAT THERE ARE EXISTING OVERHEAD UTILITY POLES ALONG THE PROJECT CORRIDOR. CONTRACTORS SHOULD FURTHER BE ADVISED THAT IF THE DISTANCE FROM THE OUTSIDE FACE OF A UTILITY TRENCH TO THE FACE OF A UTILITY POLE IS LESS THAN 5 FEET, SAID UTILITY POLE IS SUBJECT TO BRACING, BASED ON A DETERMINATION MADE BY UTILITY POLE OWNER. IT IS ADVISABLE FOR THE CONTRACTOR TO REVIEW THE CONSTRUCTION DOCUMENTS AND VISIT THE CONSTRUCTION SITE TO DETERMINE POTENTIAL IMPACTS.
16. CONSTRUCTION SEQUENCING: IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO SCHEDULE SEQUENCING FOR REMOVAL AND INSTALLATION OF EXISTING AND PROPOSED SAWS UTILITIES IN CONJUNCTION WITH GENERAL PROJECT CONSTRUCTION. SEQUENCE OF CONSTRUCTION ACTIVITIES SHALL BE CONSIDERED IN ORDER TO MINIMIZE THE EXTENT AND DURATION OF DISTURBANCES.
17. CONTRACTOR SHALL COMPLY WITH APPLICABLE REGULATIONS INCLUDING, BUT NOT LIMITED TO, THOSE OVERSEEN BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). OSHA INFORMATION AND RELATED MATERIALS MAY BE OBTAINED AT HTTPS://WWW.OSHA.GOV/ OR AT THE OSHA SAN ANTONIO OFFICE LOCATED AT FOUNTAINHEAD TOWER, SUITE 605 8200 W. INTERSTATE 10 SAN ANTONIO, TX 78230 WHICH IS ALSO REACHABLE BY PHONE AT (210) 472-5040.
18. TRENCH EXCAVATION SAFETY PROTECTION: CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREAS IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH, AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

SEWER NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT NO SANITARY SEWER OVERFLOW (SSO) OCCURS AS A RESULT OF THEIR WORK. ALL CONTRACTOR PERSONNEL RESPONSIBLE FOR SSO PREVENTION AND CONTROL SHALL BE TRAINED ON PROPER RESPONSE. SHOULD AN SSO OCCUR, THE CONTRACTOR SHALL:

   A. IDENTIFY THE SOURCE OF THE SSO AND NOTIFY SAWS EMERGENCY OPERATIONS CENTER (EOC) IMMEDIATELY AT (210) 233-2014. PROVIDE THE ADDRESS OF THE SPILL AND AN ESTIMATED VOLUME OR FLOW.
   B. ATTEMPT TO ELIMINATE THE SOURCE OF THE SSO.
   C. CONTAIN SEWAGE FROM THE SSO TO THE EXTENT OF PREVENTING A POSSIBLE CONTAMINATION OF WATERWAYS.
   D. CLEAN UP SPILL SITE (RETURN CONTAINED SEWAGE TO THE COLLECTION SYSTEM IF POSSIBLE) AND PROPERLY DISPOSE OF CONTAMINATED SOIL/MATERIALS.
   E. CLEAN THE AFFECTED SEWER MAINS AND REMOVE ANY DEBRIS.

   F.MEET ALL POST-SSO REQUIREMENTS AS PER THE EPA CONSENT DECREE, INCLUDING LINE CLEANING AND TELEVISING THE AFFECTED SEWER MAINS (AT SAWS DIRECTION) WITHIN 24 HOURS.

SHOULD THE CONTRACTOR FAIL TO ADDRESS AN SSO IMMEDIATELY AND TO SAWS SATISFACTION, THEY WILL BE RESPONSIBLE FOR ALL COSTS INCURRED BY SAWS, INCLUDING ANY FINES FROM EPA, TCEQ AND/OR ANY OTHER FEDERAL, STATE OR LOCAL AGENCIES.

NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR THIS WORK. ALL WORK SHALL BE DONE ACCORDING TO GUIDELINES SET BY THE TCEQ AND SAWS.

2. IF BYPASS PUMPING IS REQUIRED, THE CONTRACTOR SHALL PERFORM SUCH WORK IN ACCORDANCE WITH SAWS STANDARD SPECIFICATION FOR WATER AND SANITARY SEWER CONSTRUCTION, ITEM NO. 864, "BYPASS PUMPING".

3. PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING FORCE MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT (210) 233-2973 AT LEAST ONE WEEK IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIE-INS; THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK ACCORDINGLY.

4. SEWER PIPE WHERE WATER LINE CROSSES SHALL BE 160 PSI AND MEET THE REQUIREMENTS OF ASTM D2241, TAC 217.53 AND TCEQ 290.44(E)(4)(B). CONTRACTOR SHALL CENTER A 20' JOINT OF 160 PSI PRESSURE RATED PVC AT THE PROPOSED WATER CROSSING.

5. ELEVATIONS POSTED FOR TOP OF MANHOLES ARE FOR REFERENCE ONLY; IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ALLOWANCES AND ADJUSTMENTS FOR TOP OF MANHOLES TO MATCH THE FINISHED GRADE OF THE PROJECTS IMPROVEMENTS. (NSPI)

6. SPILLS, OVERFLOWS, OR DISCHARGES OF WASTEWATER: ALL SPILLS, OVERFLOWS, OR DISCHARGES OF WASTEWATER, RECYCLED WATER, PETROLEUM PRODUCTS, OR CHEMICALS MUST BE REPORTED IMMEDIATELY TO THE SAWS INSPECTOR ASSIGNED TO THE COUNTER PERMIT OR GENERAL CONSTRUCTION PERMIT (GCP). THIS REQUIREMENT APPLIES TO EVERY SPILL, OVERFLOW, OR DISCHARGE REGARDLESS OF SIZE.

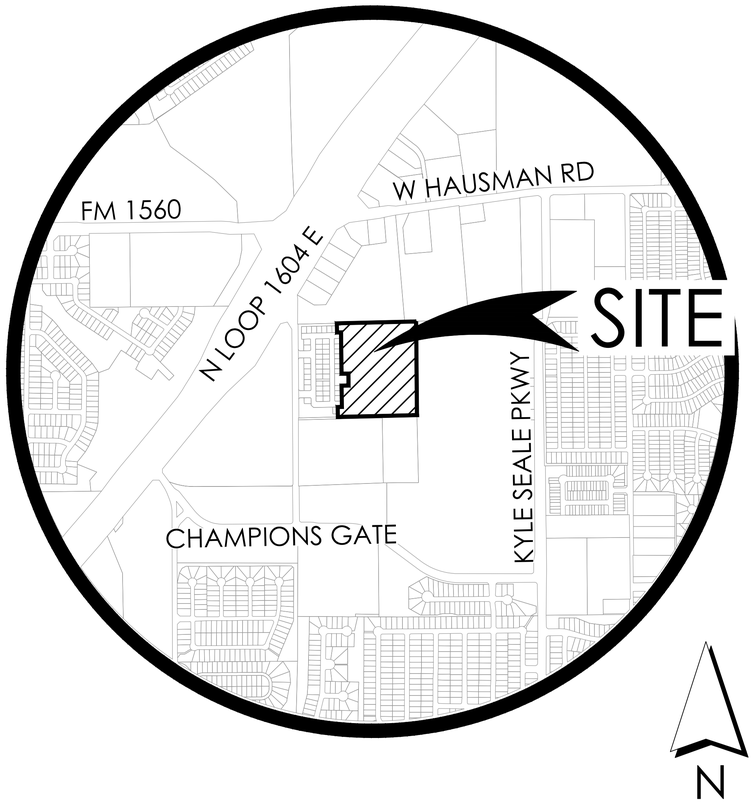
7. MANHOLE AND ALL PIPE TESTING (INCLUDING THE TV INSPECTION) MUST BE PERFORMED AND PASSED PRIOR TO FINAL FIELD ACCEPTANCE BY SAWS CONSTRUCTION INSPECTION DIVISION. AS PER THE SAWS SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION.

8. ALL PVC PIPE OVER 14 FEET OF COVER SHALL BE EXTRA STRENGTH WITH MINIMUM PIPE STIFFNESS OF 115 PSI.

NOTE:
A BEXAR COUNTY RIGHT OF WAY PERMIT IS REQUIRED PRIOR TO WORK COMMENCING WITHIN THE EXISTING BEXAR COUNTY RIGHT OF WAY

LOCATION MAP

NOT-TO-SCALE



SANITARY SEWER TABLE OF CONTENTS	
Sheet Number	Sheet Title
6.0	SANITARY SEWER COVER SHEET
6.1	SANITARY SEWER TCEQ GENERAL NOTES
6.2	OVERALL SANITARY SEWER
6.3	OVERALL SANITARY SEWER
6.4	SANITARY SEWER LINE A (11+50.91 - END)
6.5	SANITARY SEWER LINE C (5+28.02 - END)
6.6	SANITARY SEWER LINE E (1+00.00 - END)
6.7	SANITARY SEWER LINE F (1+00.00 - END)
6.8	SANITARY SEWER LINE G (1+00.00 - END)
6.9	SANITARY SEWER LINE H (1+00.00 - END)
6.10	SANITARY SEWER LINE J (1+00.00 - END)

SEWER: UPPER LEON CREEK - LEON CREEK W.R.C.

DEVELOPER'S NAME: SKYHAWK VILLA DE SAN ANTONIO, LLC
DEVELOPER'S ADDRESS: 8117 SUTHERLAND LANE
CITY: PLANO STATE: TEXAS ZIP: 75025
PHONE: 214.578.3414 FAX: TOTAL ACREAGE: 16.376
SAWS BLOCK MAP: 110630 TOTAL EDUs: 112
LINEAR FOOTAGE OF PIPE: 3,536 L.F. OF 8" SDR 26 SEWER PIPE
NUMBER OF LOTS: 112 SAWS JOB NO.: 20-1658 PLAT NO.: 19-11800164

GENERAL CONSTRUCTION PERMIT
SAWS JOB NO. 20-1658
PLAT NO: 19-11800164

BLUESITE ENGINEERING
NO. F-22528
13750 SAN PEDRO, SUITE B10
SAN ANTONIO, TEXAS 78232
210.469.4414

STATE OF TEXAS
CHRISTOPHER GARZA
133528
LICENSED
PROFESSIONAL ENGINEER

08/26/2025

OWNER/DEVELOPER:
SKYHAWK VILLA DE SAN ANTONIO, LLC
8117 SUTHERLAND LANE
PLANO, TEXAS 75025

SURVEYOR:

REVISIONS

PLAT NO. 19-11800164

PROJECT
STADIUM POINTE P.U.D.
UNIT 2 & 3

SHEET
SANITARY SEWER COVER SHEET

LOCATION **SAN ANTONIO, TX**

SHEET NO.
6.0

Date: 7/7/2025 2:54:22 PM
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THIS IS AN ELECTRONIC COPY AND MAY HAVE BEEN ALTERED. CONTRACTOR TO RELY ON LATEST HARD SET OF PLANS WITH ORIGINAL CONSULTANT SEAL AND SIGNATURE.

Texas Commission on Environmental Quality
Organized Sewage Collection System
General Construction Notes

Edwards Aquifer Protection Program Construction Notes – Legal Disclaimer

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

1. This Organized Sewage Collection System (SCS) must be constructed in accordance with 30 Texas Administrative Code (TAC) §213.5(c), the Texas Commission on Environmental Quality's (TCEQ) Edwards Aquifer Rules and any local government standard specifications.

2. All contractors conducting regulated activities associated with this proposed regulated project must be provided with copies of the SCS plan and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors must be required to keep on-site copies of the plan and the approval letter.

3. A written notice of construction must be submitted to the presiding TCEQ regional office at least 48 hours prior to the start of any regulated activities. This notice must include:
   - the name of the approved project;
   - the activity start date; and
   - the contact information of the prime contractor.

4. Any modification to the activities described in the referenced SCS application following the date of approval may require the submittal of an SCS application to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval.

5. Prior to beginning any construction activity, all temporary erosion and sedimentation (E&S) control measures must be properly installed and maintained in accordance with the manufacturers specifications. These controls must remain in place until the disturbed areas have been permanently stabilized.

6. If any sensitive features are discovered during the wastewater line trenching activities, all regulated activities near the sensitive feature must be suspended immediately. The applicant must immediately notify the appropriate regional office of the TCEQ of the feature discovered. A geologist's assessment of the location and extent of the feature discovered must be reported to that regional office in writing and the applicant must submit a plan for ensuring the structural integrity of the sewer line or for modifying the proposed collection system alignment around the feature. The regulated activities near the sensitive feature may not proceed until the

executive director has reviewed and approved the methods proposed to protect the sensitive feature and the Edwards Aquifer from any potentially adverse impacts to water quality while maintaining the structural integrity of the line.

7. Sewer lines located within or crossing the 5-year floodplain of a drainage way will be protected from inundation and stream velocities which could cause erosion and scouring of backfill. The trench must be capped with concrete to prevent scouring of backfill, or the sewer lines must be encased in concrete. All concrete shall have a minimum thickness of 6 inches.

8. Blasting procedures for protection of existing sewer lines and other utilities will be in accordance with the National Fire Protection Association criteria. Sand is not allowed as bedding or backfill in trenches that have been blasted. If any existing sewer lines are damaged, the lines must be repaired and retested.

9. All manholes constructed or rehabilitated on this project must have watertight size on size resilient connectors allowing for differential settlement. If manholes are constructed within the 100-year floodplain, the cover must have a gasket and be bolted to the ring. Where gasketed manhole covers are required for more than three manholes in sequence or for more than 1500 feet, alternate means of venting will be provided. Bricks are not an acceptable construction material for any portion of the manhole.

   The diameter of the manholes must be a minimum of four feet and the manhole for entry must have a minimum clear opening diameter of 30 inches. These dimensions and other details showing compliance with the commission's rules concerning manholes and sewer line/manhole inverts described in 30 TAC §217.55 are included on Plan Sheet __ of __.

   It is suggested that entrance into manholes in excess of four feet deep be accomplished by means of a portable ladder. The inclusion of steps in a manhole is prohibited.

10. Where water lines and new sewer line are installed with a separation distance closer than nine feet (i.e., water lines crossing wastewater lines, water lines paralleling wastewater lines, or water lines next to manholes) the installation must meet the requirements of 30 TAC §217.53(d) (Pipe Design) and 30 TAC §290.44(e) (Water Distribution).

11. Where sewers lines deviate from straight alignment and uniform grade all curvature of sewer pipe must be achieved by the following procedure which is recommended by the pipe manufacturer: _____.

    If pipe flexure is proposed, the following method of preventing deflection of the joint must be used: _____.

    Specific care must be taken to ensure that the joint is placed in the center of the trench and properly bedded in accordance with 30 TAC §217.54.

12. New sewage collection system lines must be constructed with stub outs for the connection of anticipated extensions. The location of such stub outs must be marked on the ground such that their location can be easily determined at the time of connection of the extensions. Such stub outs must be manufactured wyes or tees that are compatible in size and material with both the sewer line and the extension. At the time of original construction, new stub-outs must be constructed sufficiently to extend beyond the end of the street pavement. All stub-outs must be sealed with a manufactured cap to prevent leakage. Extensions that were not anticipated at the time of original construction or that are to be connected to an existing sewer line not furnished with stub outs must be connected using a manufactured saddle and in accordance with accepted plumbing techniques.

If no stub-out is present an alternate method of joining laterals is shown in the detail on Plan Sheet __ of __. (For potential future laterals).

The private service lateral stub-outs must be installed as shown on the plan and profile sheets on Plan Sheet __ of __ and marked after backfilling as shown in the detail on Plan Sheet __ of __.

13. Trenching, bedding and backfill must conform with 30 TAC §217.54. The bedding and backfill for flexible pipe must comply with the standards of ASTM D-2321, Classes IA, IB, II or III. Rigid pipe bedding must comply with the requirements of ASTM C 12 (ANSI A 106.2) classes A, B or C.

14. Sewer lines must be tested from manhole to manhole. When a new sewer line is connected to an existing stub or clean-out, it must be tested from existing manhole to new manhole. If a stub or clean-out is used at the end of the proposed sewer line, no private service attachments may be connected between the last manhole and the cleanout unless it can be certified as conforming with the provisions of 30 TAC §213.5(c)(3)(E).

15. All sewer lines must be tested in accordance with 30 TAC §217.57. The engineer must retain copies of all test results which must be made available to the executive director upon request. The engineer must certify in writing that all wastewater lines have passed all required testing to the appropriate regional office within 30 days of test completion and prior to use of the new collection system. Testing method will be:

(a) For a collection system pipe that will transport wastewater by gravity flow, the design must specify an infiltration and exfiltration test or a low-pressure air test. A test must conform to the following requirements:

(1) *Low Pressure Air Test.*

(A) A low pressure air test must follow the procedures described in American Society For Testing And Materials (ASTM) C-828, ASTM C-924, or ASTM F-1417 or other procedure approved by the executive director, except as to testing times as required in Table C.3 in subparagraph (C) of this paragraph or Equation C.3 in subparagraph (B)(ii) of this paragraph.

(B) For sections of collection system pipe less than 36 inch average inside diameter, the following procedure must apply, unless a pipe is to be tested as required by paragraph (2) of this subsection.

(i) A pipe must be pressurized to 3.5 pounds per square inch (psi) greater than the pressure exerted by groundwater above the pipe.

(ii) Once the pressure is stabilized, the minimum time allowable for the pressure to drop from 3.5 psi gauge to 2.5 psi gauge is computed from the following equation:

Equation C.3 $$T = \frac{0.085 \times D \times K}{Q}$$

Where:

T = time for pressure to drop 1.0 pound per square inch gauge in seconds
K = 0.000419 X D X L, but not less than 1.0
D = average inside pipe diameter in inches

L = length of line of same size being tested, in feet
Q = rate of loss, 0.0015 cubic feet per minute per square foot internal surface

(C) Since a K value of less than 1.0 may not be used, the minimum testing time for each pipe diameter is shown in the following Table C.3:

Pipe Diameter *(inches)*	**Minimum Time** *(seconds)*	**Maximum Length for Minimum Time** *(feet)*	**Time for Longer Length** *(seconds/foot)*
6	340	398	0.855
8	454	298	1.520
10	567	239	2.374
12	680	199	3.419
15	850	159	5.342
18	1020	133	7.693
21	1190	114	10.471
24	1360	100	13.676
27	1530	88	17.309
30	1700	80	21.369
33	1870	72	25.856

(D) An owner may stop a test if no pressure loss has occurred during the first 25% of the calculated testing time.

(E) If any pressure loss or leakage has occurred during the first 25% of a testing period, then the test must continue for the entire test duration as outlined above or until failure.

(F) Wastewater collection system pipes with a 27 inch or larger average inside diameter may be air tested at each joint instead of following the procedure outlined in this section.

(G) A testing procedure for pipe with an inside diameter greater than 33 inches must be approved by the executive director.

(2) *Infiltration/Exfiltration Test.*

(A) The total exfiltration, as determined by a hydrostatic head test, must not exceed 50 gallons per inch of diameter per mile of pipe per 24 hours at a minimum test head of 2.0 feet above the crown of a pipe at an upstream manhole.

(B) An owner shall use an infiltration test in lieu of an exfiltration test when pipes are installed below the groundwater level.

(C) The total exfiltration, as determined by a hydrostatic head test, must not exceed 50 gallons per inch diameter per mile of pipe per 24 hours at a minimum test head of two feet above the crown of a pipe at an upstream manhole, or at least two feet above existing groundwater level, whichever is greater.

(D) For construction within a 25-year flood plain, the infiltration or exfiltration must not exceed 10 gallons per inch diameter per mile of pipe per 24 hours at the same minimum test head as in subparagraph (C) of this paragraph.

(E) If the quantity of infiltration or exfiltration exceeds the maximum quantity specified, an owner shall undertake remedial action in order to reduce

the infiltration or exfiltration to an amount within the limits specified. An owner shall retest a pipe following a remediation action.

(b) If a gravity collection pipe is composed of flexible pipe, deflection testing is also required. The following procedures must be followed:

(1) For a collection pipe with inside diameter less than 27 inches, deflection measurement requires a rigid mandrel.

(A) *Mandrel Sizing.*

(i) A rigid mandrel must have an outside diameter (OD) not less than 95% of the base inside diameter (ID) or average ID of a pipe, as specified in the appropriate standard by the ASTMs, American Water Works Association, UNI-BELL, or American National Standards Institute, or any related appendix.

(ii) If a mandrel sizing diameter is not specified in the appropriate standard, the mandrel must have an OD equal to 95% of the ID of a pipe. In this case, the ID of the pipe, for the purpose of determining the OD of the mandrel, must equal be the average outside diameter minus two minimum wall thicknesses for OD controlled pipe and the average inside diameter for ID controlled pipe.

(iii) All dimensions must meet the appropriate standard.

(B) *Mandrel Design.*

(i) A rigid mandrel must be constructed of a metal or a rigid plastic material that can withstand 200 psi without being deformed.

(ii) A mandrel must have nine or more odd number of runners or legs.

(iii) A barrel section length must equal at least 75% of the inside diameter of a pipe.

(iv) Each size mandrel must use a separate proving ring.

(C) *Method Options.*

(i) An adjustable or flexible mandrel is prohibited.

(ii) A test may not use television inspection as a substitute for a deflection test.

(iii) If requested, the executive director may approve the use of a deflectometer or a mandrel with removable legs or runners on a case-by-case basis.

(2) For a gravity collection system pipe with an inside diameter 27 inches and greater, other test methods may be used to determine vertical deflection.

(3) A deflection test method must be accurate to within plus or minus 0.2% deflection.

(4) An owner shall not conduct a deflection test until at least 30 days after the final backfill.

(5) Gravity collection system pipe deflection must not exceed five percent (5%).

(6) If a pipe section fails a deflection test, an owner shall correct the problem and conduct a second test after the final backfill has been in place at least 30 days.

16. All manholes must be tested to meet or exceed the requirements of 30 TAC §217.58.

(a) All manholes must pass a leakage test.

(b) An owner shall test each manhole (after assembly and backfilling) for leakage, separate and independent of the collection system pipes, by hydrostatic exfiltration testing, vacuum testing, or other method approved by the executive director.

(1) Hydrostatic Testing.

(A) The maximum leakage for hydrostatic testing or any alternative test methods is 0.025 gallons per foot diameter per foot of manhole depth per hour.

(B) To perform a hydrostatic exfiltration test, an owner shall seal all wastewater pipes coming into a manhole with an internal pipe plug, fill the manhole with water, and maintain the test for at least one hour.

(C) A test for concrete manholes may use a 24-hour wetting period before testing to allow saturation of the concrete.

(2) Vacuum Testing.

(A) To perform a vacuum test, an owner shall plug all lift holes and exterior joints with a non-shrink grout and plug all pipes entering a manhole.

(B) No grout must be placed in horizontal joints before testing.

(C) Stub-outs, manhole boots, and pipe plugs must be secured to prevent movement while a vacuum is drawn.

(D) An owner shall use a minimum 60 inch/lb torque wrench to tighten the external clamps that secure a test cover to the top of a manhole.

(E) A test head must be placed at the inside of the top of a cone section, and the seal inflated in accordance with the manufacturer's recommendations.

(F) There must be a vacuum of 10 inches of mercury inside a manhole to perform a valid test.

(G) A test does not begin until after the vacuum pump is off.

(H) A manhole passes the test if after 2.0 minutes and with all valves closed, the vacuum is at least 9.0 inches of mercury.

17. All private service laterals must be inspected and certified in accordance with 30 TAC §213.5(c)(3)(I). After installation of and, prior to covering and connecting a private service lateral to an existing organized sewage collection system, a Texas Licensed Professional Engineer, Texas Registered Sanitarian, or appropriate city inspector must visually inspect the private service lateral and the connection to the sewage collection system, and certify that it is constructed in conformity with the applicable provisions of this section. The owner of the collection system must maintain such certifications for five years and forward copies to the appropriate regional office upon request. Connections may only be made to an approved sewage collection system.

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

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

BLUESITE ENGINEERING
NO. F-22528
13750 SAN PEDRO, SUITE B10
SAN ANTONIO, TEXAS 78232
210.467.4414

STATE OF TEXAS
CHRISTOPHER GARZA
133528
LICENSED
PROFESSIONAL ENGINEER
08/26/2025

OWNER/DEVELOPER:

SKYHAWK VILLA DE SAN ANTONIO, LLC
8117 SUTHERLAND LANE
PLANO, TEXAS 75025

SURVEYOR:

REVISIONS

PLAT NO. 19-11800164

PROJECT

STADIUM POINTE P.U.D. UNIT 2 & 3

SHEET

SANITARY SEWER TCEQ GENERAL NOTES

LOCATION **SAN ANTONIO, TX**

SHEET NO.

6.1

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ALL LATERALS SHALL BE INSTALLED PER SAWS REQUIREMENTS.

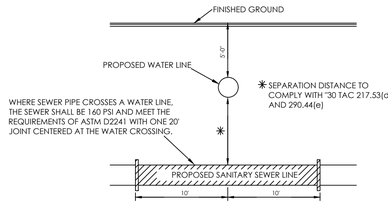
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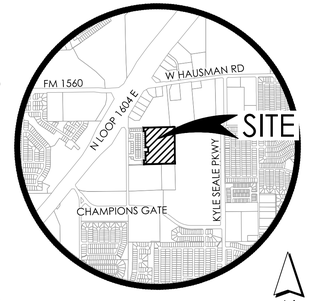


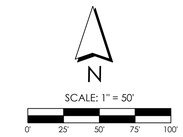
TYPICAL SANITARY SEWER/WATER CROSSING DETAIL
N.T.S.

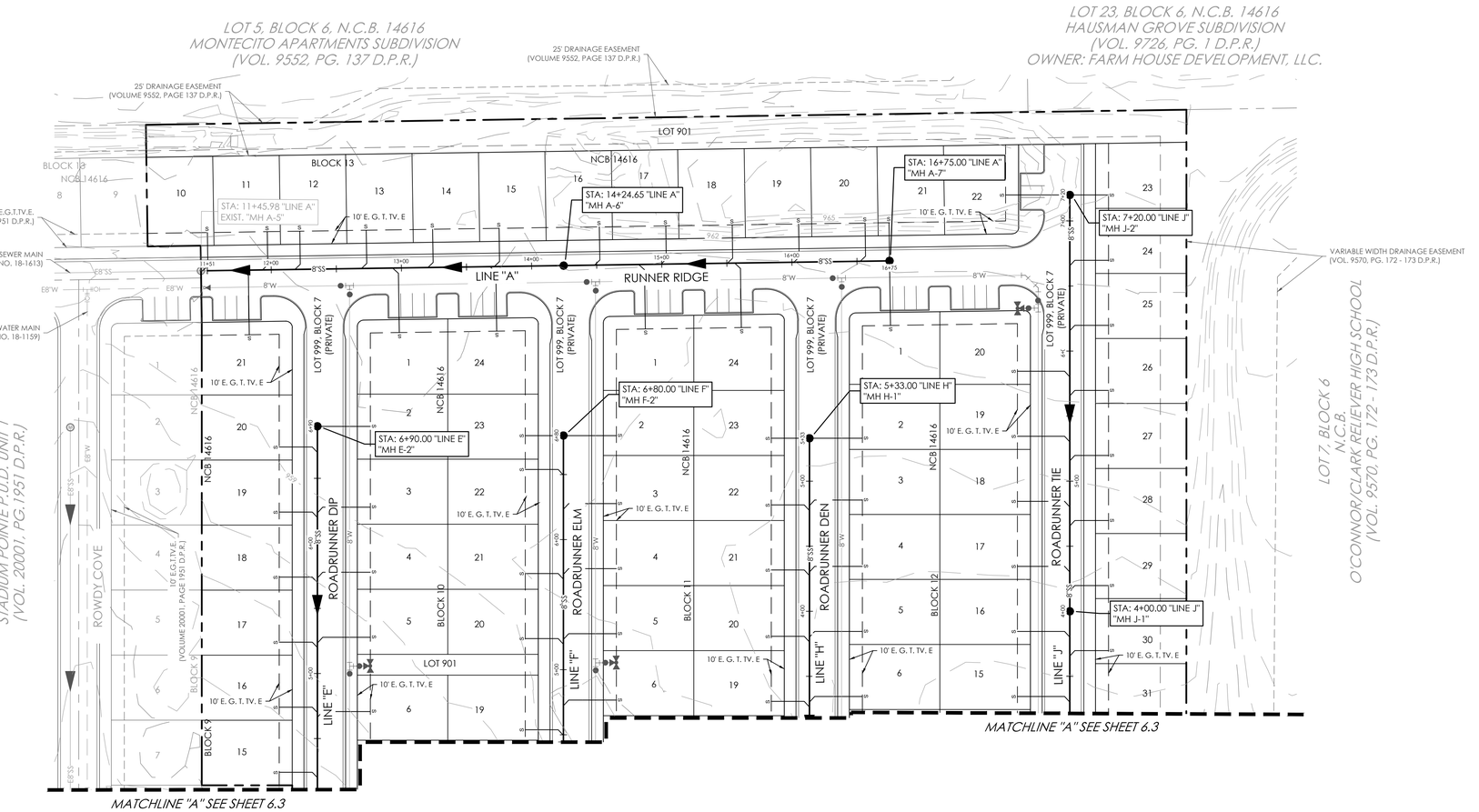
Know what's **below.**
Call before you dig.

LOCATION MAP

NOT-TO-SCALE







LEGEND

PROPOSED WATER MAIN	=	W
PROPOSED FIRE HYDRANT	=	
PROPOSED WATER VALVE	=	
PROPOSED SANITARY SEWER MAIN	=	SS
PROPOSED SANITARY SEWER MANHOLE	=	
PROPOSED SANITARY SEWER LATERAL	=	SS
PROPOSED ELECTRIC, GAS, TELEPHONE, & CABLE TV EASEMENT	=	E, G, T, TV, E
EXISTING WATER MAIN	=	E.W
EXISTING FIRE HYDRANT	=	
EXISTING WATER VALVE	=	
EXISTING SANITARY SEWER MAIN	=	E.SS
EXISTING SANITARY SEWER MANHOLE	=	
EXISTING OVERHEAD ELECTRIC W/POWER POLE	=	OHE
EXISTING GUY WIRE/OVERHEAD ELECTRIC	=	OHE

SEWER: UPPER LEON CREEK - LEON CREEK W.R.C.

DEVELOPER'S NAME: SKYHAWK VILLA DE SAN ANTONIO, LLC
DEVELOPER'S ADDRESS: 8117 SUTHERLAND LANE
CITY: PLANO STATE: TEXAS ZIP: 75025
PHONE: 214.578.3414 FAX: TOTAL ACREAGE: 16.376
SAWS BLOCK MAP: 11060 TOTAL EDUs: 112
LINEAR FOOTAGE OF PIPE: 3,536 L.F. OF 8" SDR 26 SEWER PIPE
NUMBER OF LOTS: 112 SAWS JOB NO.: 20-1658 PLAT NO.: 19-11800164

GENERAL CONSTRUCTION PERMIT
SAWS JOB NO. 20-1658

PLAT NO: 19-11800164

BLUESITE ENGINEERING
NO. F-22528
13750 SAN PEDRO, SUITE B10
SAN ANTONIO, TEXAS 78232
210.469.4414

STATE OF TEXAS
CHRISTOPHER GARZA
133528
LICENSED PROFESSIONAL ENGINEER

08/26/2025

OWNER/DEVELOPER:

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8117 SUTHERLAND LANE
PLANO, TEXAS 75025

SURVEYOR:

REVISIONS

PLAT NO. 19-11800164

PROJECT

STADIUM POINTE P.U.D. UNIT 2 & 3

SHEET

OVERALL SANITARY SEWER

LOCATION **SAN ANTONIO, TX**

SHEET NO.

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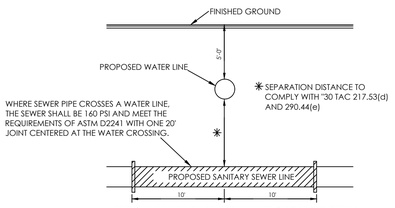
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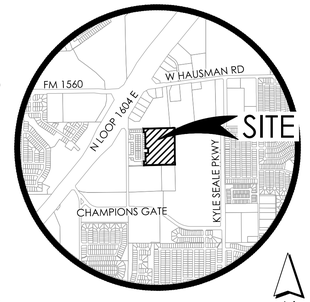


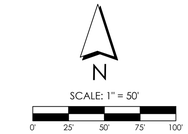
TYPICAL SANITARY SEWER/WATER CROSSING DETAIL
N.T.S.

Know what's **below.** **Call** before you dig.

LOCATION MAP

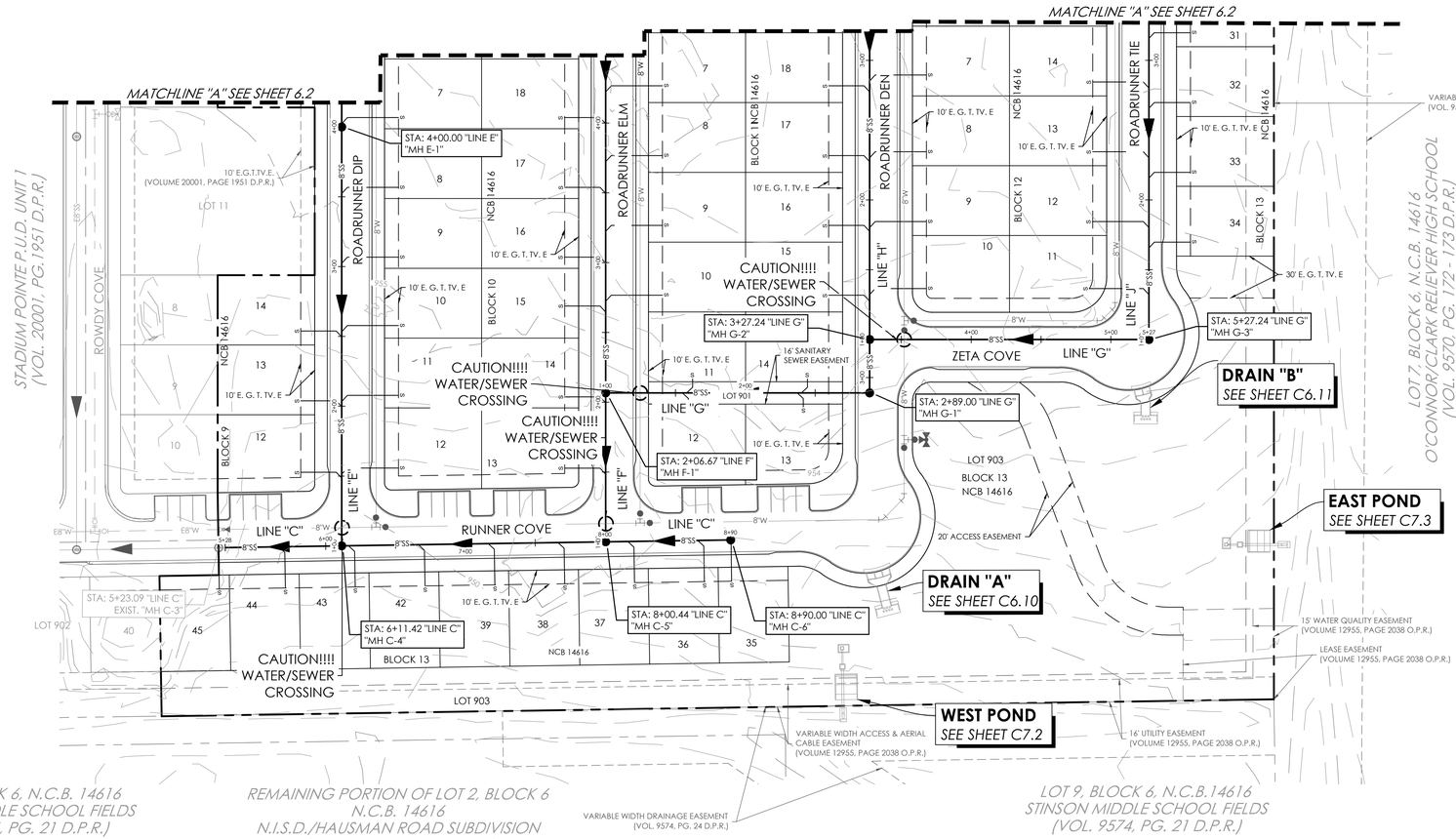
NOT-TO-SCALE





LEGEND

PROPOSED WATER MAIN	=	W
PROPOSED FIRE HYDRANT	=	
PROPOSED WATER VALVE	=	
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PROPOSED SANITARY SEWER MANHOLE	=	
PROPOSED SANITARY SEWER LATERAL	=	
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STADIUM POINTE P.U.D. UNIT 2 & 3

SHEET

OVERALL SANITARY SEWER

LOCATION **SAN ANTONIO, TX**

SHEET NO.

6.3

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THIS IS AN ELECTRONIC COPY AND MAY HAVE BEEN ALTERED. CONTRACTOR TO RELY ON LATEST HARD SET OF PLANS WITH ORIGINAL CONSULTANT SEAL AND SIGNATURE.

COMPACTION NOTE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND PAYING FOR THE TESTES TO BE PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE AQUIA INSPECTOR/TEST ADMINISTRATOR, PER EACH 12 INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM.

TRENCH EXCAVATION SAFETY PROTECTION

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

DRY UTILITY CONDUIT NOTE

CONDUIT LOCATIONS SHOWN ON PLAN ARE FOR GEOGRAPHICAL PURPOSES ONLY AND ARE APPROXIMATE. CONTRACTOR TO INSTALL PROPOSED CONDUITS IN ACCORDANCE WITH DRY UTILITY PURVEYOR'S SPECIFICATIONS. CONTRACTOR TO VERIFY THE CONDUIT LOCATIONS AND SIZES BASED ON THE DRY UTILITY PURVEYOR'S PLAN.

CAUTION:

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

GENERAL NOTES:

CONTRACTOR TO MAINTAIN A MINIMUM 1' VERTICAL SEPARATION DISTANCE BETWEEN THE BOTTOM OF THE PROPOSED WATER MAIN AND THE TOP OF THE PROPOSED SANITARY SEWER MAIN AT WATER AND SANITARY SEWER CROSSINGS.

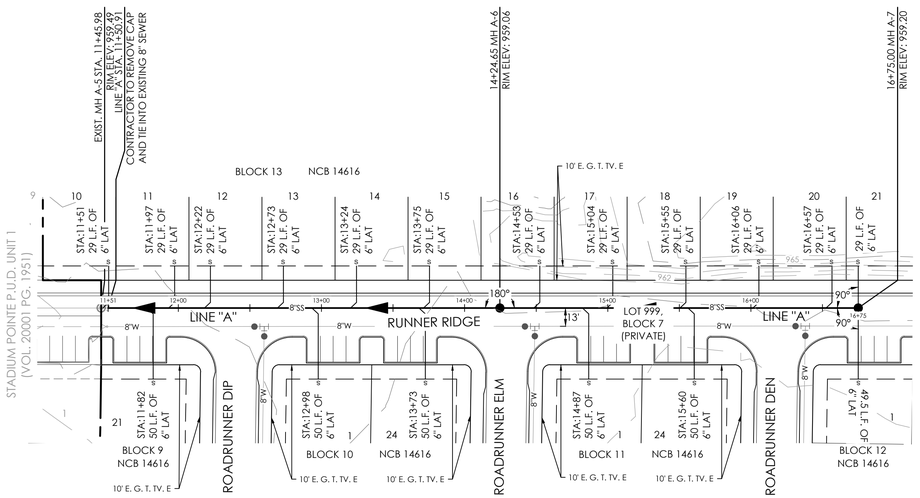
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SAWS CONSTRUCTION NOTE:

CONTRACTOR TO INSTALL NEW SEWER MAIN AND ALL APPURTENANCES PER THE LATEST SAWS CONSTRUCTION SPECIFICATIONS AND STANDARDS.

PRIVATE STREET DESIGNATION NOTE:

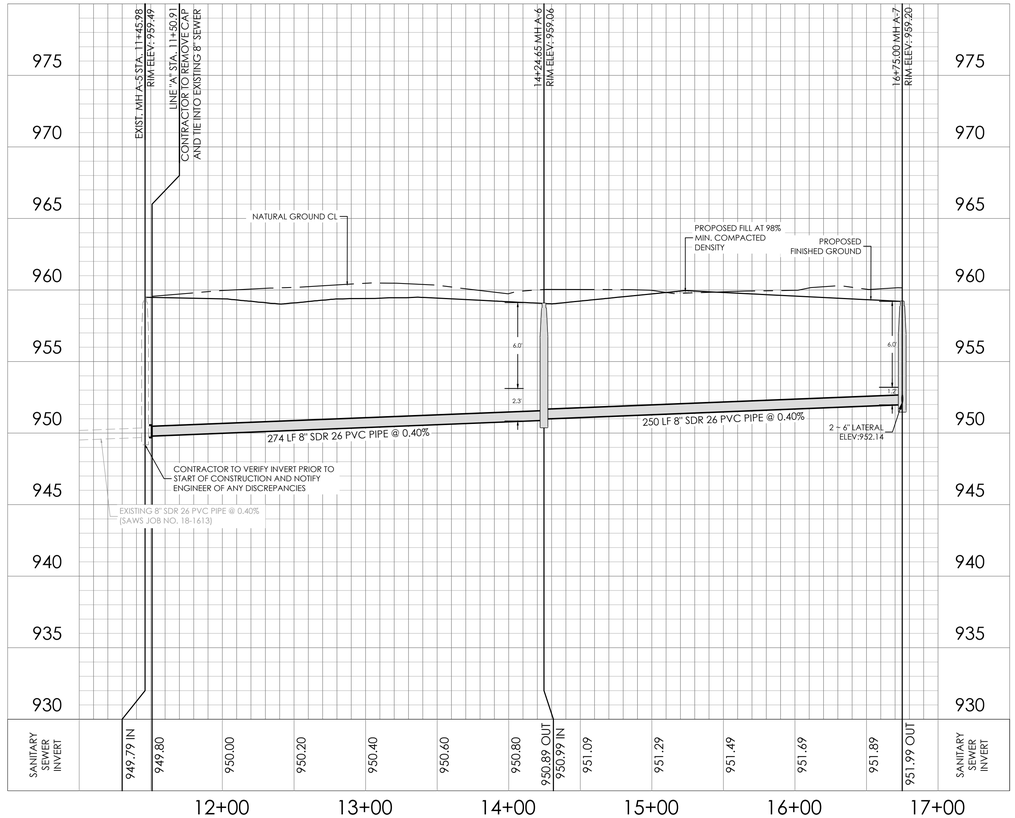
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HORIZONTAL: 1"=50'
VERTICAL = 1"=5'

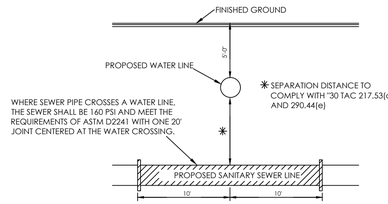
LINE "A" STA: 11+50.91 - END



Know what's below. Call before you dig.

LEGEND

PROPOSED SANITARY SEWER MAIN	=	SS
PROPOSED SANITARY SEWER MANHOLE	=	
PROPOSED SANITARY SEWER LATERAL	=	LAT
PROPOSED SANITARY SEWER LATERAL W/ VERTICAL STACK	=	



TYPICAL SANITARY SEWER/WATER CROSSING DETAIL
N.T.S.

BLUESITE ENGINEERING
NO. F-22528
13750 SAN PEDRO, SUITE B10
SAN ANTONIO, TEXAS 78232
210.469.4414

STATE OF TEXAS
CHRISTOPHER GARZA
133528
LICENSED PROFESSIONAL ENGINEER

08/26/2025

OWNER/DEVELOPER:

SKYHAWK VILLA DE SAN ANTONIO, LLC
8117 SUTHERLAND LANE
PLANO, TEXAS 75025

SURVEYOR:

REVISIONS

PLAT NO. 19-11800164

PROJECT

STADIUM POINTE P.U.D. UNIT 2 & 3

SHEET

SANITARY SEWER LINE A (11+50.91 - END)

LOCATION **SAN ANTONIO, TX**

SHEET NO. **6.4**

SEWER: UPPER LEON CREEK - LEON CREEK W.R.C.

DEVELOPER'S NAME: SKYHAWK VILLA DE SAN ANTONIO, LLC
DEVELOPER'S ADDRESS: 8117 SUTHERLAND LANE
CITY: PLANO STATE: TEXAS ZIP: 75025
PHONE: 214.578.3414 FAX: TOTAL ACREAGE: 16.376
SAWS BLOCK MAP: 110630 TOTAL EDUs: 112
LINEAR FOOTAGE OF PIPE: 3,536 L.F. OF 8" SDR 26 SEWER PIPE
NUMBER OF LOTS: 112 SAWS JOB NO.: 20-1658 PLAT NO.: 19-11800164

GENERAL CONSTRUCTION PERMIT
SAWS JOB NO. 20-1658

PLAT NO: 19-11800164

Date: 2/7/2024 2:44:23 PM
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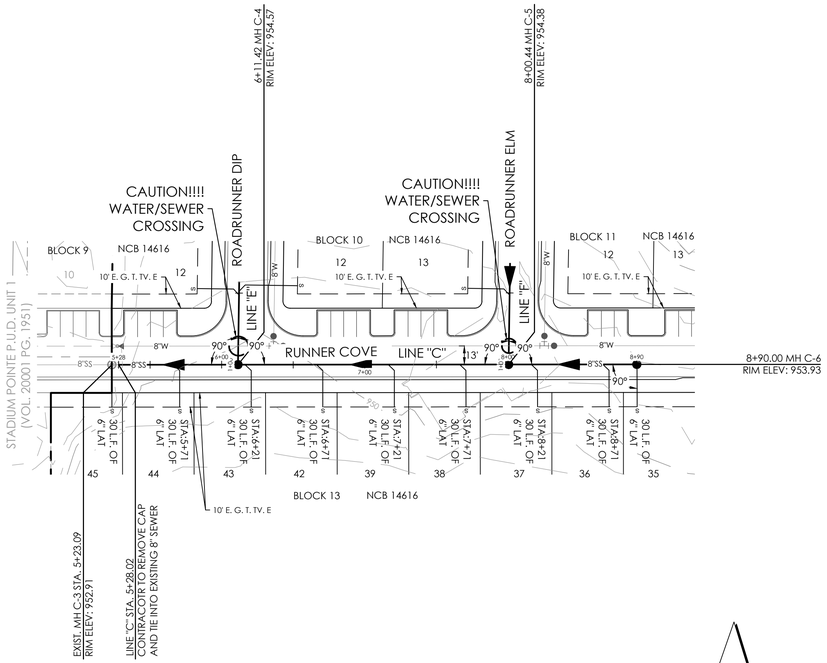
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PRIVATE STREET DESIGNATION NOTE:

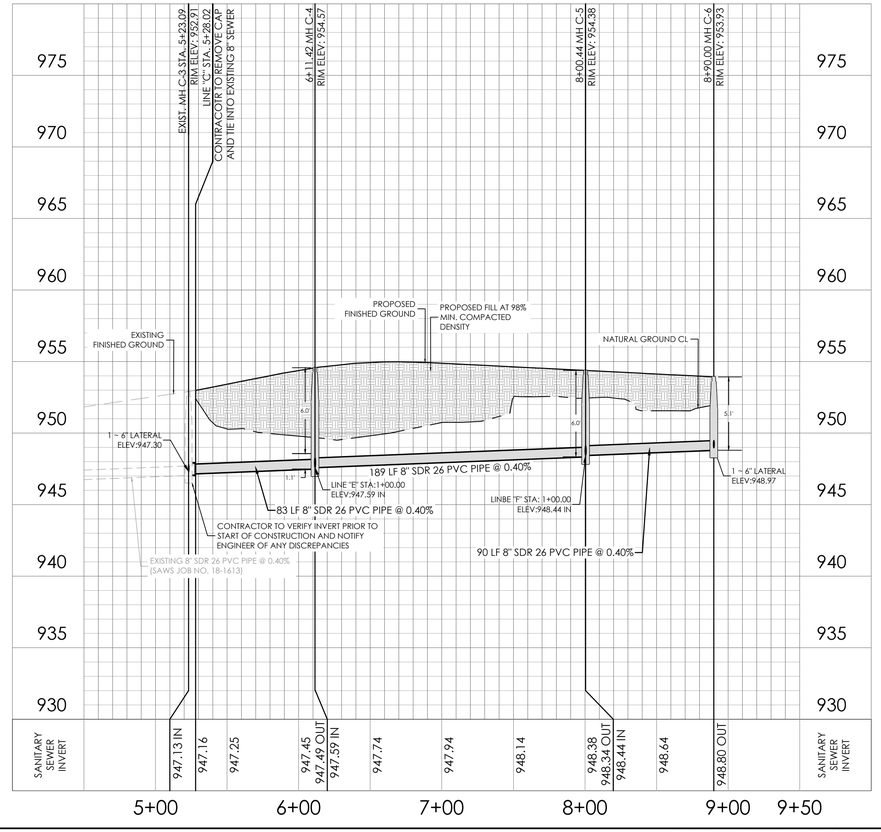
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N

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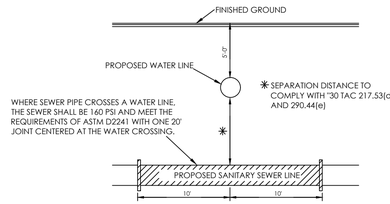
LINE "C" STA: 5+28.02 - END





LEGEND

- PROPOSED SANITARY SEWER MAIN = SS
- PROPOSED SANITARY SEWER MANHOLE =
- PROPOSED SANITARY SEWER LATERAL = LAT
- PROPOSED SANITARY SEWER LATERAL W/ VERTICAL STACK =



TYPICAL SANITARY SEWER/WATER CROSSING DETAIL
N.T.S.

BLUESITE ENGINEERING
NO. F-22528
13750 SAN PEDRO, SUITE B10
SAN ANTONIO, TEXAS 78232
210.469.4414

STATE OF TEXAS
CHRISTOPHER GARZA
133528
LICENSED
PROFESSIONAL ENGINEER

08/26/2025

OWNER/DEVELOPER:

SKYHAWK VILLA DE SAN ANTONIO, LLC
8117 SUTHERLAND LANE
PLANO, TEXAS 75025

SURVEYOR:

REVISIONS

PLAT NO. 19-11800164

PROJECT

STADIUM POINTE P.U.D. UNIT 2 & 3

SHEET

SANITARY SEWER LINE C (5+28.02 - END)

LOCATION **SAN ANTONIO, TX**

SHEET NO.

6.5

SEWER: UPPER LEON CREEK - LEON CREEK W.R.C.

DEVELOPER'S NAME: SKYHAWK VILLA DE SAN ANTONIO, LLC
DEVELOPER'S ADDRESS: 8117 SUTHERLAND LANE
CITY: PLANO STATE: TEXAS ZIP: 75025
PHONE: 214.578.3414 FAX: TOTAL ACREAGE: 16.376
SAWS BLOCK MAP: 110630 TOTAL EDUs: 112
LINEAR FOOTAGE OF PIPE: 3,536 L.F. OF 8" SDR 26 SEWER PIPE
NUMBER OF LOTS: 112 SAWS JOB NO.: 20-1658 PLAT NO.: 19-11800164

GENERAL CONSTRUCTION PERMIT
SAWS JOB NO. 20-1658

PLAT NO: 19-11800164

Date: 2/7/2024 2:44:23 PM
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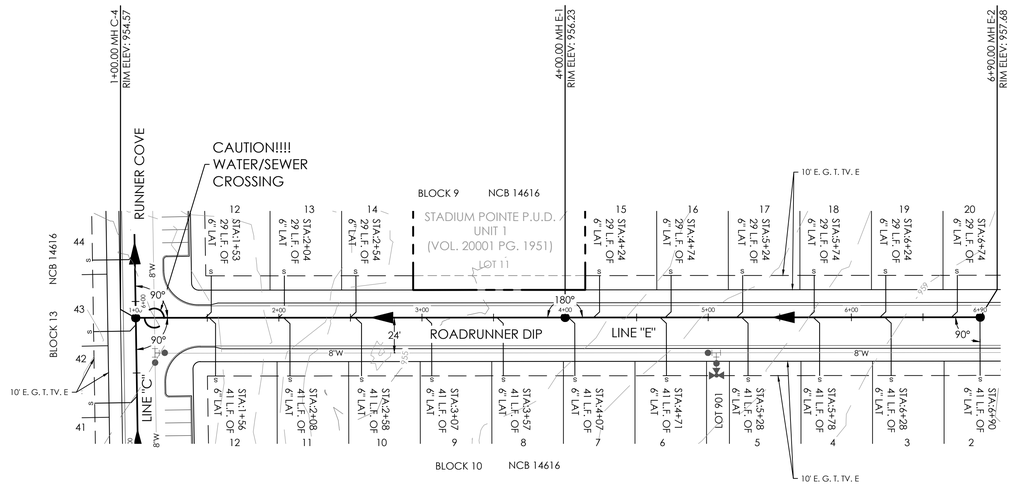
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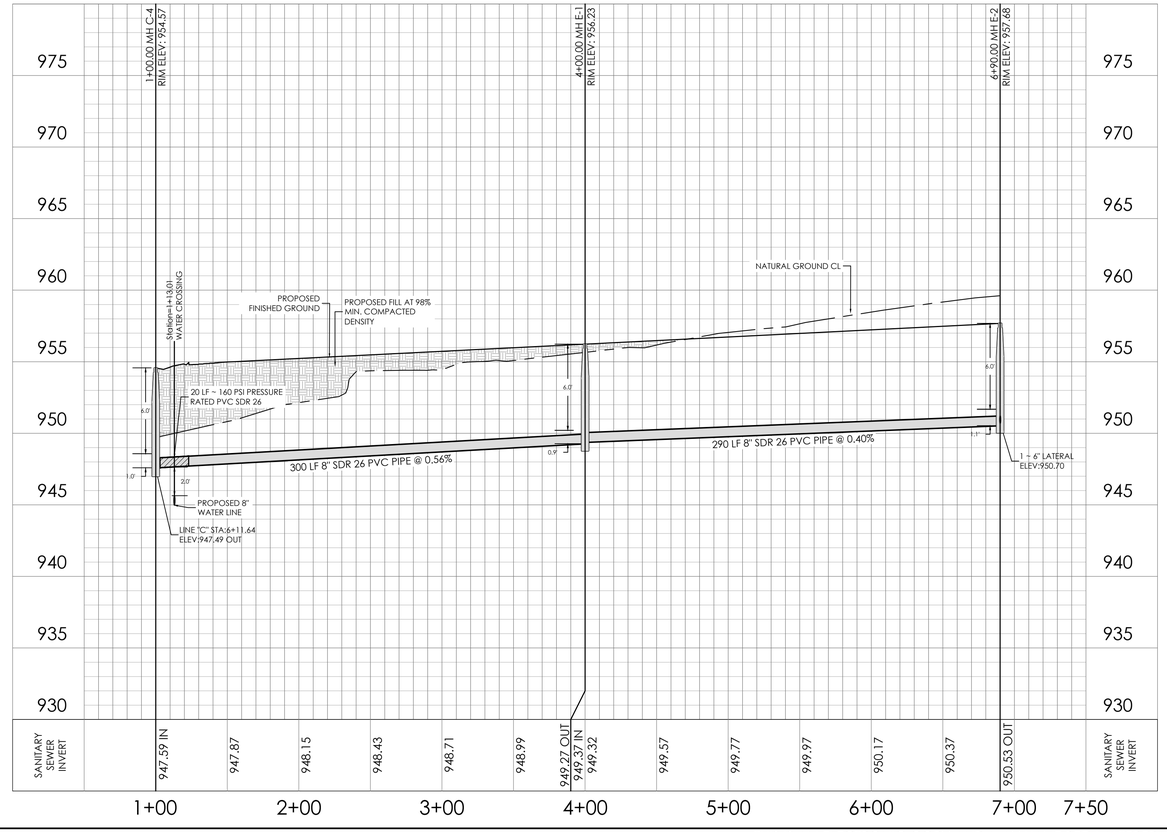
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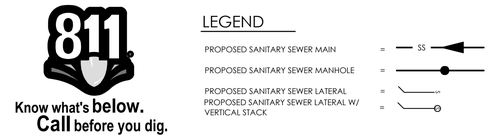
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LINE "E" STA: 1+00.00 - END

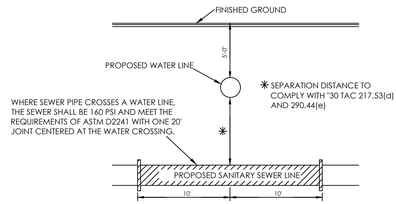
HORIZONTAL: 1"=50'
VERTICAL = 1"=5'





LEGEND

- PROPOSED SANITARY SEWER MAIN = SS
- PROPOSED SANITARY SEWER MANHOLE =
- PROPOSED SANITARY SEWER LATERAL =
- PROPOSED SANITARY SEWER LATERAL W/ VERTICAL STACK =



TYPICAL SANITARY SEWER/WATER CROSSING DETAIL
N.T.S.

BLUESITE ENGINEERING
NO. F-22528
13750 SAN PEDRO, SUITE B10
SAN ANTONIO, TEXAS 78232
210.469.4414

STATE OF TEXAS
CHRISTOPHER GARZA
133528
LICENSED
PROFESSIONAL ENGINEER

08/26/2025

OWNER/DEVELOPER:

SKYHAWK VILLA DE SAN ANTONIO, LLC
8117 SUTHERLAND LANE
PLANO, TEXAS 75025

SURVEYOR:

REVISIONS

PLAT NO. 19-11800164

PROJECT

STADIUM POINTE P.U.D.
UNIT 2 & 3

SHEET

SANITARY SEWER LINE E
(1+00.00 - END)

LOCATION **SAN ANTONIO, TX**

SHEET NO. **6.6**

SEWER: UPPER LEON CREEK - LEON CREEK W.R.C.

DEVELOPER'S NAME: SKYHAWK VILLA DE SAN ANTONIO, LLC
DEVELOPER'S ADDRESS: 8117 SUTHERLAND LANE
CITY: PLANO STATE: TEXAS ZIP: 75025
PHONE: 214.578.3414 FAX: TOTAL ACREAGE: 16.376
SAWS BLOCK MAP: 110630 TOTAL EDUs: 112
LINEAR FOOTAGE OF PIPE: 3,536 L.F. OF 8" SDR 26 SEWER PIPE
NUMBER OF LOTS: 112 SAWS JOB NO.: 20-1658 PLAT NO.: 19-11800164

GENERAL CONSTRUCTION PERMIT
SAWS JOB NO. 20-1658

PLAT NO: 19-11800164

Date: 2/7/2024 2:44:23 PM
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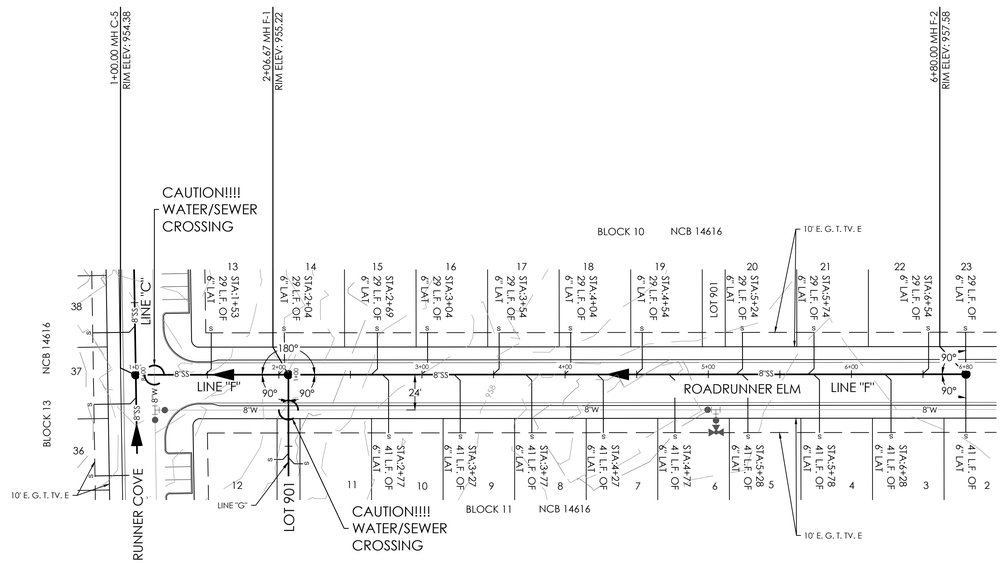
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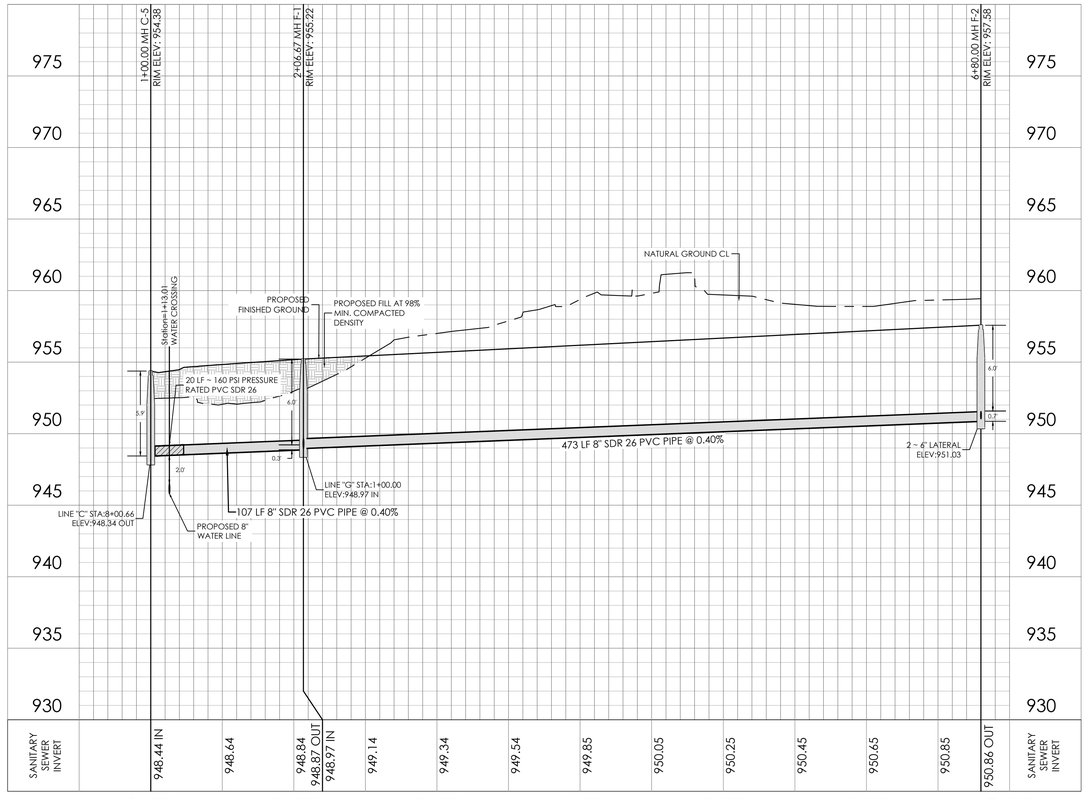
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LINE "F" STA: 1+00.00 - END

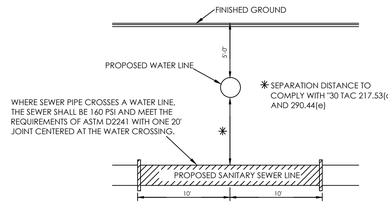
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LEGEND

PROPOSED SANITARY SEWER MAIN	=	SS
PROPOSED SANITARY SEWER MANHOLE	=	
PROPOSED SANITARY SEWER LATERAL	=	
PROPOSED SANITARY SEWER LATERAL W/ VERTICAL STACK	=	



TYPICAL SANITARY SEWER/WATER CROSSING DETAIL
N.T.S.

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SURVEYOR:

REVISIONS

PLAT NO. 19-11800164

PROJECT

STADIUM POINTE P.U.D.
UNIT 2 & 3

SHEET

SANITARY SEWER LINE F
(1+00.00 - END)

LOCATION **SAN ANTONIO, TX**

SHEET NO.

6.7

SEWER: UPPER LEON CREEK - LEON CREEK W.R.C.

DEVELOPER'S NAME: SKYHAWK VILLA DE SAN ANTONIO, LLC
DEVELOPER'S ADDRESS: 8117 SUTHERLAND LANE
CITY: PLANO STATE: TEXAS ZIP: 75025
PHONE: 214.578.3414 FAX: TOTAL ACREAGE: 16.376
SAWS BLOCK MAP: 110630 TOTAL EDUs: 112
LINEAR FOOTAGE OF PIPE: 3,536 L.F. OF 8" SDR 26 SEWER PIPE
NUMBER OF LOTS: 112 SAWS JOB NO.: 20-1658 PLAT NO.: 19-11800164

GENERAL CONSTRUCTION PERMIT
SAWS JOB NO. 20-1658

PLAT NO: 19-11800164

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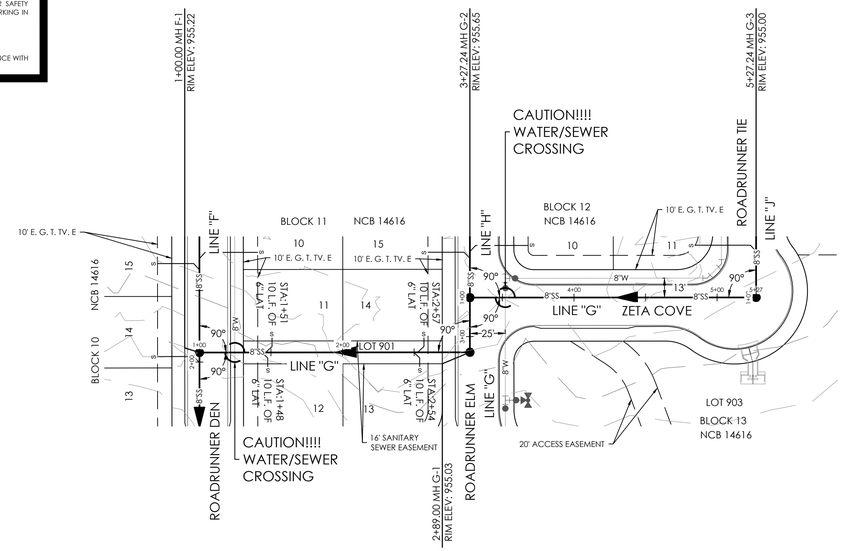
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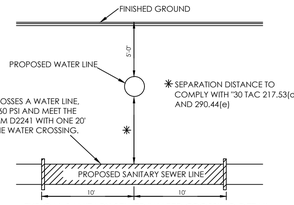
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LEGEND

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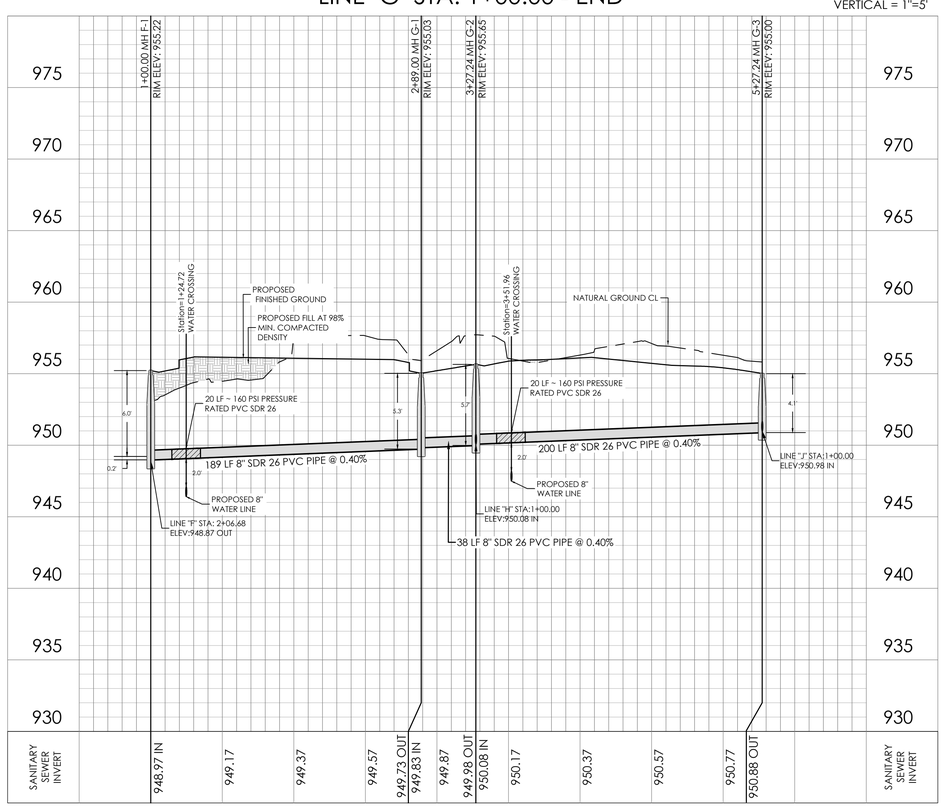


TYPICAL SANITARY SEWER/WATER CROSSING DETAIL
N.T.S.



HORIZONTAL: 1"=50'
VERTICAL = 1"=5'

LINE "G" STA: 1+00.00 - END



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BLUESITE ENGINEERING
NO. F-22528
13750 SAN PEDRO, SUITE B10
SAN ANTONIO, TEXAS 78232
210.469.4414

STATE OF TEXAS
CHRISTOPHER GARZA
133528
LICENSED PROFESSIONAL ENGINEER

08/26/2025

OWNER/DEVELOPER:

SKYHAWK VILLA DE SAN ANTONIO, LLC
8117 SUTHERLAND LANE
PLANO, TEXAS 75025

SURVEYOR:

REVISIONS

PLAT NO. 19-11800164

PROJECT

STADIUM POINTE P.U.D.
UNIT 2 & 3

SHEET

SANITARY SEWER LINE G
(1+00.00 - END)

LOCATION **SAN ANTONIO, TX**

SHEET NO.

6.8

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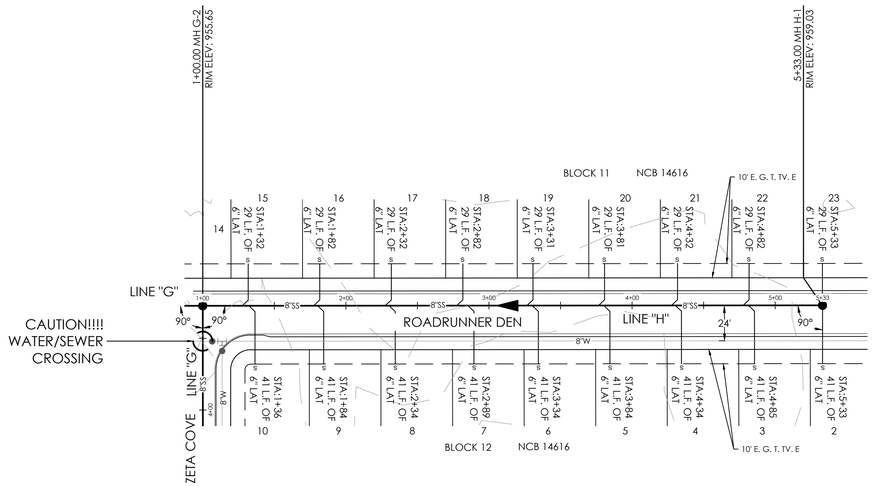
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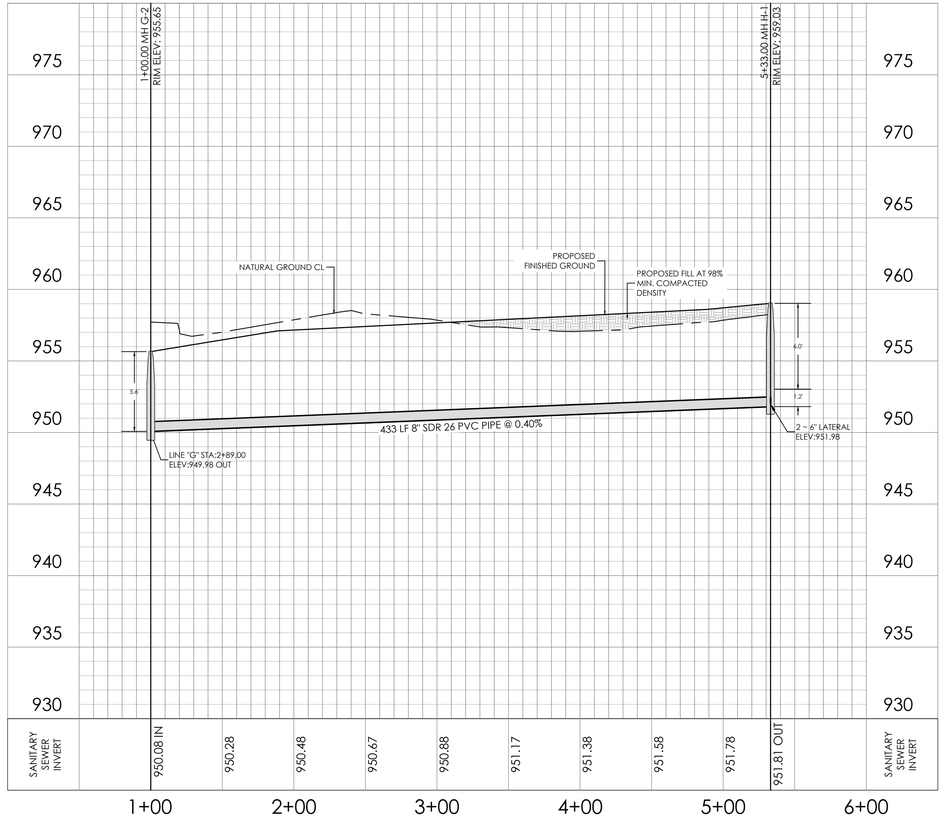
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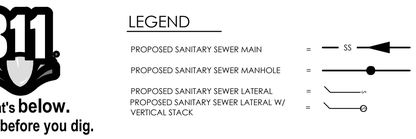
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LINE "H" STA: 1+00.00 - END

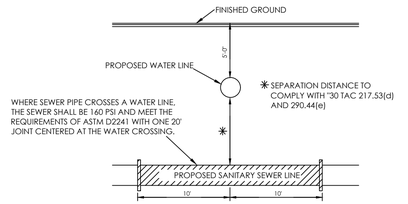
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LEGEND

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TYPICAL SANITARY SEWER/WATER CROSSING DETAIL
N.T.S.

BLUESITE ENGINEERING
NO. F-22528
13750 SAN PEDRO, SUITE B10
SAN ANTONIO, TEXAS 78232
210.469.4414

STATE OF TEXAS
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08/26/2025

OWNER/DEVELOPER:

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8117 SUTHERLAND LANE
PLANO, TEXAS 75025

SURVEYOR:

REVISIONS

PLAT NO. 19-11800164

PROJECT

STADIUM POINTE P.U.D.
UNIT 2 & 3

SHEET

SANITARY SEWER LINE H
(1+00.00 - END)

LOCATION **SAN ANTONIO, TX**

SHEET NO.

6.9

SEWER: UPPER LEON CREEK - LEON CREEK W.R.C.

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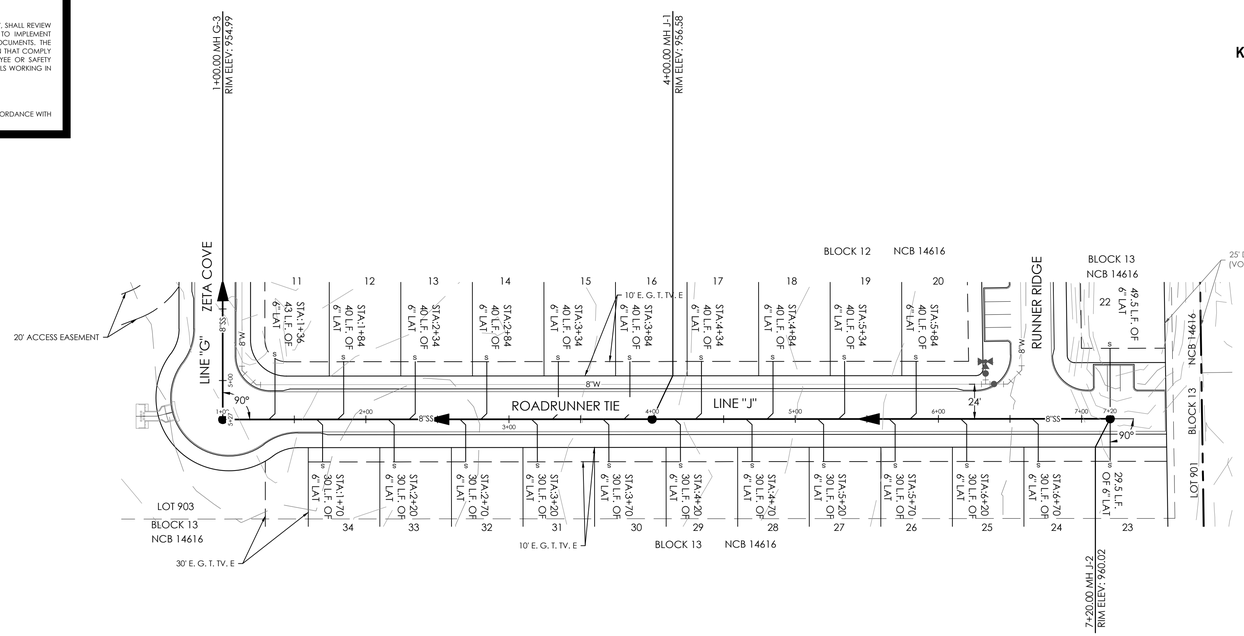
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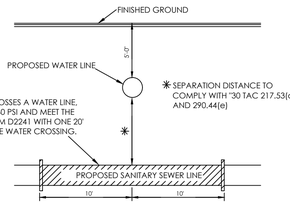
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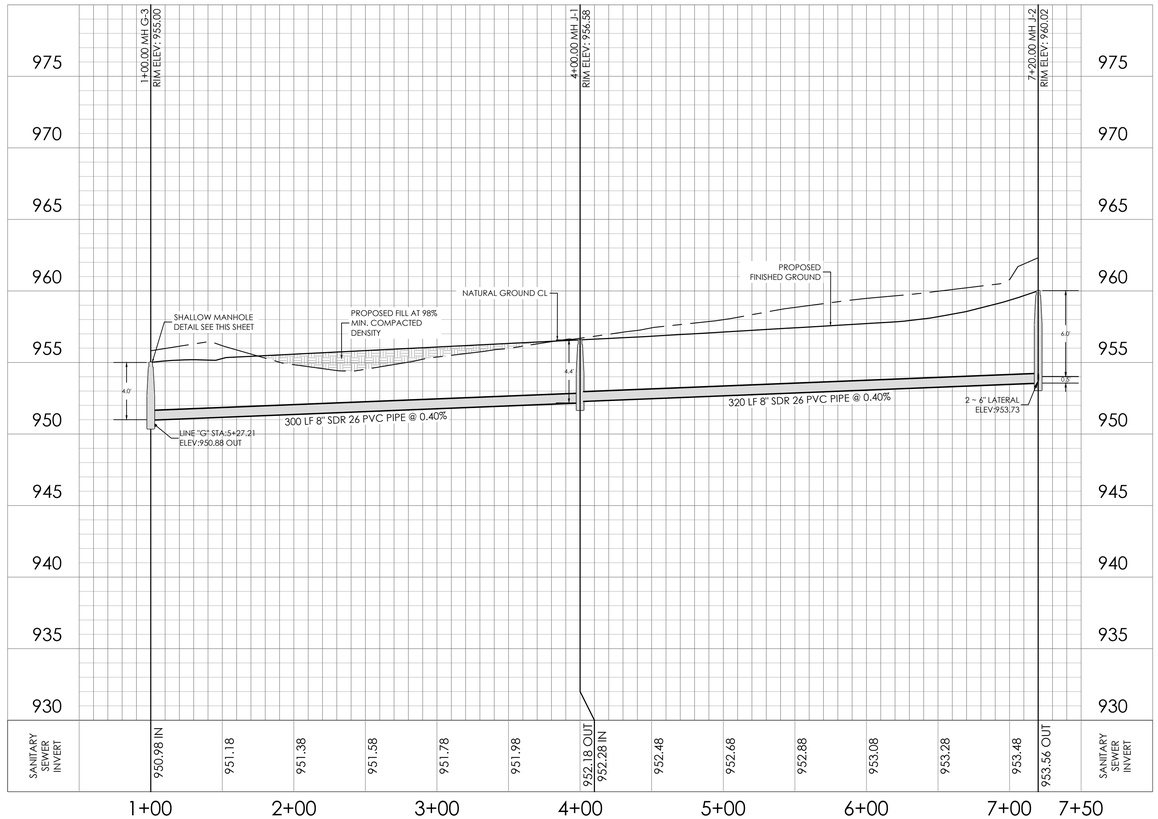


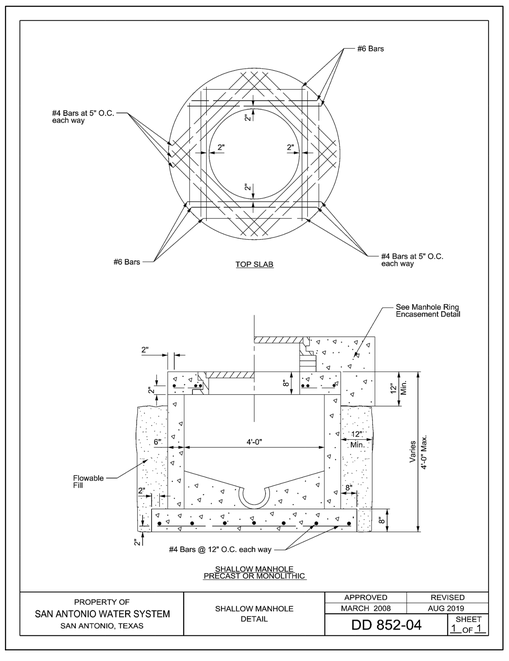
TYPICAL SANITARY SEWER/WATER CROSSING DETAIL
N.T.S.

BLOCK	LOT	MIN. FFE (ft)
13	29	957.60
13	30	957.35
13	31	957.10
13	32	956.85
13	33	956.60
13	34	956.35

HORIZONTAL: 1"=50'
VERTICAL = 1"=5'

LINE "J" STA: 1+00.00 - END





PROPERTY OF	SHALLOW MANHOLE DETAIL	APPROVED	REVISED
SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS		MARCH 2008	AUG 2019
		DD 852-04	SHEET 1 OF 1

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SURVEYOR:

REVISIONS

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PROJECT

STADIUM POINTE P.U.D. UNIT 2 & 3

SHEET

SANITARY SEWER LINE J (1+00.00 - END)

LOCATION **SAN ANTONIO, TX**

SHEET NO.

6.10

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TEMPORARY STORMWATER SECTION (TCEQ-0602)

Temporary Stormwater Section

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Christopher Garza, PE SIT

Date: 08/26/2025

Signature of Customer/Agent:



Regulated Entity Name: Stadium Pointe PUD, Unit 2 & 3

Project Information

Potential Sources of Contamination

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

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

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

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

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

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

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

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

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

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

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

Sequence of Construction

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

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

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

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

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

    ☐ N/A

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

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

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

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

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

Soil Stabilization Practices

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

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

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

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

Administrative Information

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

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

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

Attachment “A” – Spill Response Actions

ATTACHMENT A | Spill Response Actions

Responsible Party
During construction, the responsible party for cleaning up a spill can be any combination of the following individuals:

1. The owner or operator, including contractor (during construction) of a facility from which a spill occurs.
2. The owner or operator, including contractor, operating a vehicle from which the spill occurs.
3. Other individual who caused or allowed the spill or discharge to occur.

Spill Classification
There are two main categories of spills that can be identified: Major Spills and Minor Spills. Spill response actions and notifications to municipal entities may differ depending on the type and degree of spill.

Major Spills can be classified as any spills where:

1. Material is considered a health or physical hazard based on its chemical or physical make up, or if the quantity of the spill exceeds the Reportable Quantity (RQ) as defined under Title 30 of the Texas Administrative Code (TAC) Chapter 327.4.
2. The spilled material has entered into the storm water drainage system, catchment basin, or adjoining creek or if it appears that discharge into the storm system will occur in the immediate future.
3. The spilled material has the ability to travel offsite.
4. The spilled material adversely affects the environment.
5. The spilled material cannot be controlled or contained by the responsible party.
6. The chemical or physical properties of the spilled material cannot be identified or is unknown.

Minor Spills are spills that do not meet the above criteria for major spills.

Notification and Reporting Agencies
The following entities shall be contact during discovery of a spill:

1. State of Texas 24-Hour Spill-Reporting Hotline and the State Emergency Response Commission at 1-800-832-8224
2. Texas Commission on Environmental Quality (San Antonio Regional Office), Monday–Friday, 8:00 a.m.–5:00 p.m. at 14250 Judson Rd, San Antonio TX 78233-4480, Main Line: 210-490-3096

Reporting Items for Major Spills
When reporting a spill, the following information may be required to help identify, log, and track the spill:

1. The date/time of the spill.
2. The identity/name of material released or spilled, and if the substance is considered hazardous.
3. The source of the release or spill.
4. The quantity of material released or spilled.
5. The time or duration of which the spill occurred.
6. The location/address of the spill.

7. The name of creek or waters involved or threatened and the extent of potential water pollution.
8. The contact information of the responsible party.
9. The steps being taken or proposed to contain and clean up the released or spilled material and any additional precautions.
10. Any injuries resulting from the spill, any known or anticipated health risks associated with the spill, or if additional medical precautions are required.
11. The identities of any municipal or private-sector representatives responding at the scene of the spill.
12. Possible hazards to the environment (air, soil, water, wildlife, etc.). This assessment may include references to accepted chemical databases, material safety data sheets, and health advisories. The TCEQ may request estimated or measured concentrations of the contaminant for the state's hazard assessment.

Reporting Items for Minor Spills

For minor spills that occur, the notification sequence described above is not required and can be treated directly onsite by the responsible parties involved by:

1. The first observer of the spill shall notify his/her supervisor and the onsite safety officer.
2. The supervisor must notify the owner, tenant, or their primary contact.
3. The immediate spill response plan/clean up actions shall be conveyed, documented and the owner/tenant shall be notified once cleanup is completed.

Equipment Needed for Minor Spills

Equipment and materials used to contain and/or restrict spreading of a spill can consist of spill pans and various forms of absorbent materials; which include granular material, socks, rock and gravel berms, pillows or pads, and sheets. Spill pans or pads can be placed under a continuing drip-type leak. Surrounding a minor spill with berms or socks can contain a small spill area until proper removal procedures can occur.

Attachment "B" – Potential Sources of Contamination

ATTACHMENT B | Potential Sources of Contamination

Potential sources of contamination for this project include:

- Drippings from vehicles, both construction and non-construction related.
- Grading and excavation activities: Stormwater runoff has the potential to be contaminated during the construction process with related excavation and site grading.
- Building materials: Materials include, but not limited to, concrete, wood, mortar, and paint among other materials.
- Trash and debris: These may include household trash items such as paper bags, cups, plastic ware, and food items.

Attachment “C” – Sequence of Major Activities

ATTACHMENT C | Sequence of Major Activities

The following is the general sequence of major activities for this project:

1. Install temporary erosion control measures. (±1.5 Acres – Various Locations)
2. Demolition of existing sidewalks, driveways, parking areas, building foundations. (± 1.6 Acres)
3. Site grading and excavation. (± 16.5 Acres)
4. Install Water Pollution Abatement Basins "Permanent Best Management Practices" (± 1.6 Acres)
5. Trenching and utility work for on-site water and sewer mains. (±1.5 Acres)
6. Base material for roadways and sidewalks will be placed. (±3.8 Acres)
7. Construction of batch detention facilities and cell tower access drive (±1.8 Acres)
8. Asphalt and concrete flatwork, including parking facilities as well as curbing will be installed. (± 3.8 Acres)
9. Install temporary erosion control measures and construct deceleration lane (± 0.8 Acres)

Deceleration lane construction (item 8) may occur prior to main project site development (items 1–7) at purview of contractor and/or City of San Antonio.

For each of the items above, the necessary Temporary BMPs (TBMPs) and erosion control measures will be in-place prior to major construction activities such as grading, utility installation, and roadway construction. Following construction activities, soil stabilization controls will be implemented and temporary measures will be removed as needed on an individual basis.

Total disturbed area due to proposed construction will be approximately 16.54 acres. Duplexes will be constructed more or less after the permanent BMPs are established, which will bring the total impervious area to 9.42 acres.

Attachment "D" – Temporary Best Management Practices and Measures

ATTACHMENT D | Temporary Best Management Practices and Measures

a. Storm Water Up-gradient of the Project Site
No up-gradient offsite areas discharge stormwater to Stadium Pointe PUD Unit 2 & 3 (Site Area). Stormwater runoff from up-gradient areas is intercepted and diverted around the Project Site by existing channels installed and constructed by others.

b. Storm Water Originating On-Site
No areas of the Project Site directly discharge into surface streams, sensitive features or the aquifer cavities. All runoff from disturbed areas will have been treated by either temporary or permanent BMPs before ultimately discharging into French Creek (a tributary within the Leon Creek Watershed).

c. Prevention of Pollutants from Entering Surface Streams, Sensitive Features, and Aquifer
Temporary and permanent BMPs will be installed with respect to the Site Area drainage patterns. All runoff from disturbed areas will have been treated by either temporary or permanent BMPs before ultimately discharging into French Creek (a tributary within the Leon Creek Watershed).

d. Maintaining Flow During Construction
Temporary and permanent BMPs will be installed with respect to the Site Area drainage patterns. Temporary BMPs will be installed to control silt and sediment from leaving the Limits of Construction during permanent BMP installation.

NOTES:

- FOR THE PROTECTION OF NATURAL AREAS, NO EXCEPTIONS TO INSTALLING FENCES AT THE LIMIT OF CONSTRUCTION BE PERMITTED
- INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH CITY/COUNTY RULES AND REGULATIONS
- CONTRACTYOR MAY NOT BLOCK, DIRECT, IMPEDE OR REROUTE PEDESTRIAN AND VEHICULAR TRAFFICE NOR PLACE A BARRICADE OR OTHER TRAFFIC CONTROL DEVICES IN A RIGHT-OF-WAY, WITHOUT FIRST OBTAINING A TEMPORARY USE OF RIGHT-OF-WAY PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS THAT ARE REQUIRED TO COMPLY WITH THE CITY/COUNTY CODE REGARDING EXCAVATION IN WITHIN RIGHT-OF-WAY
- CONTRACTOR SHALL CLEAN UP SPOILS THAT MIGRATE INTO EXISTING RIGHT-OF-WAY AT LEAST ONCE PER DAY
- CONTRACTOR SHALL INSTALL CHAIN LINK FENCE AT ALL POINTS WHERE LIMITS OF CONSTRUCTION IS SHOWN (AS REQUIRED)
- ALL STORM WATER LEAVING SITE DURING CONSTRUCTION ACTIVITIES MUST BASS THROUGH THE SILT FENCE
- IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING
- THIS EXHIBIT IS TO BE USED FOR THE PORPUSES OF STROMWATER POLLUTION PREVENTION ONLY. OTHER CIVIL ENGINEERING INFORMATION SHALL BE OBTAINED FROM APPRPRIATE CONSTRUCTION DOCUMENTS

INSTALLATION:

- ALL OPERATORS SHALL SUBMIT A NOTICE OF INTENT (NOI) AT LEAST 48 HOURS IN ADVANCED AND ALL MANAGEMENT PRACTICES (BMP'S) SHALL BE IN PLACE PRIOR TO STARTING CONSTRUCTION
- CONTRACTOR TO ENSURE THAT STRUCTURAL BMP'S ARE INSTALLED WITHIN THE LIMITS OF CONSTRUCTION
- CONTRACTOR TO VERIFY SUFFICIENT VEGETATION IN AREAS DENOTED AS VEGETATED FILTER STRIP. IF INSUFFICIENT VEGETATION EXISTS, CONTRACTOR SHALL IMPLEMENT A DIFFERENT BEST MANAGEMENT PRACTICE AND WILL SHOW IT ON THIS PLAN WITH NOTATION IN THE MODIFICATION SECTIONS WITH THE SIGNATURE AND DATE OF RESPONSIBLE PARTY.

PROJECT COMPLETTION

- CONTRACTOR TO ENSURE THEY HAVE MET ALL REQUIREMENTS OF THE SWPPP BEFORE FILING A NOTICE OF TERMINATION
- ALL DISTURBED AREAS NOT COVERED BY IMPERVIOUS COVER ARE TO BE STABILIZED PER THE SWPPP AND PROJECT SPECIFICATIONS PRIOR TO REMOVAL OF ANY BMPS.
- BMPS ARE TO REMAIN IN PLACE UNTIL UNLESS OTHERWISE NOTATED ON THE PROJECT SPECIFICATIONS

SWPPP MODIFICATIONS

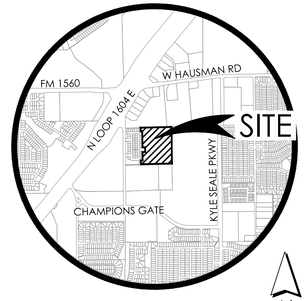
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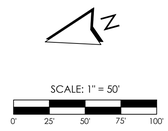
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811 Know what's **below.** **Call** before you dig.

LOCATION MAP

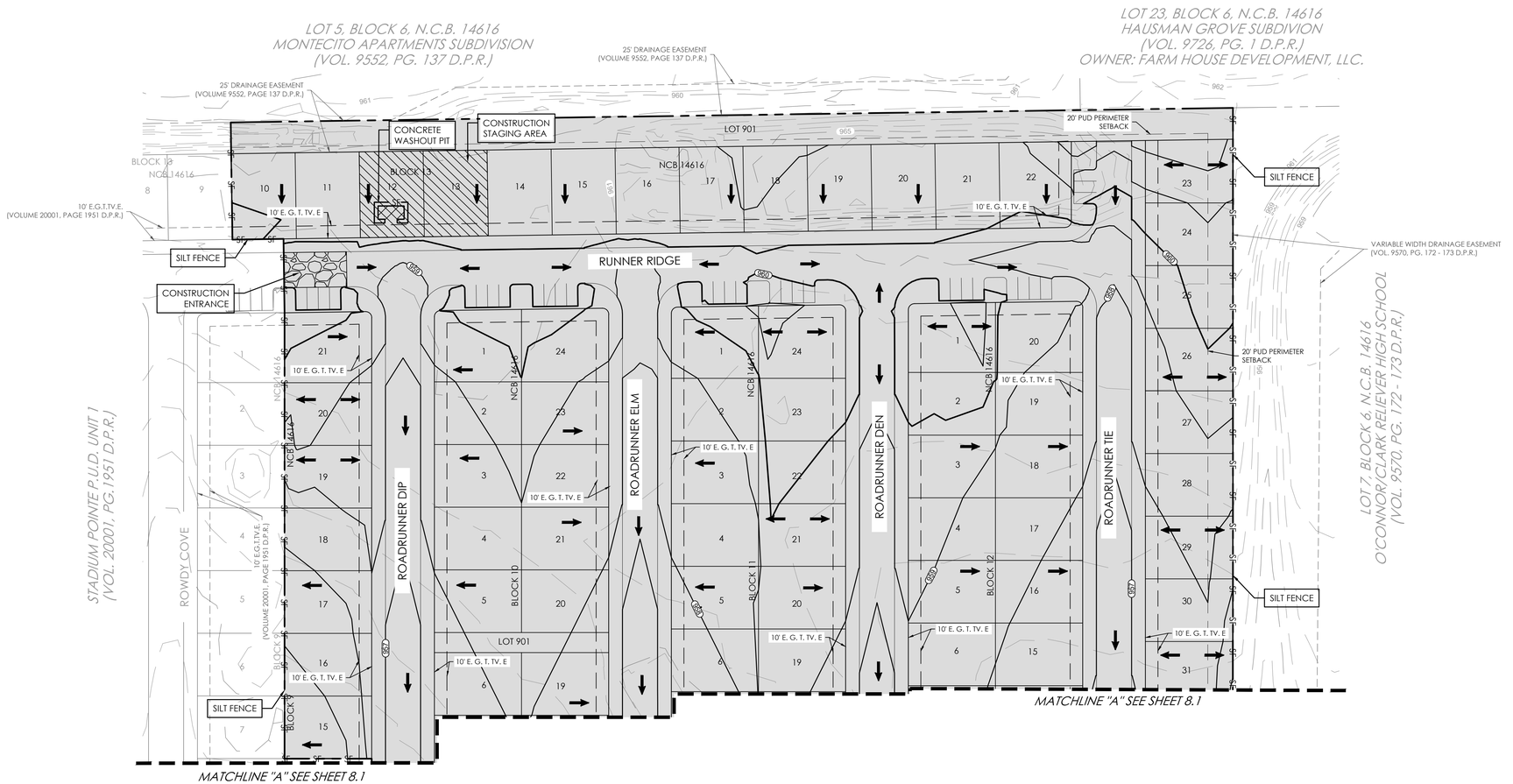
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LEGEND

- DISTURBED AREA
- PROPOSED CONSTRUCTION ENTRANCE
- CONSTRUCTION STAGING AREA
- ESTABLISH VEGETATION
- INLET PROTECTION
- ROCK BERM W/ GABION
- SF — CONCRETE WASHOUT PIT
- TP TP — TREE PROTECTION PLAN
- SF SF SF — SILT FENCE
- LOC — LIMITS OF CONSTRUCTION
- PROPOSED DIRECTIONAL FLOW ARROW



PLAT NO: 19-11800164

BLUESITE ENGINEERING
TX. P-22528
13750 SAN PEDRO, SUITE B10
SAN ANTONIO, TEXAS 78232
210.469.4414

STATE OF TEXAS
CHRISTOPHER GARZA
133528
LICENSED PROFESSIONAL ENGINEER

08/26/2025

OWNER/DEVELOPER:

SKYHAWK VILLA DE SAN ANTONIO, LLC
8117 SUTHERLAND LANE
PLANO, TEXAS 75025

SURVEYOR:

REVISIONS

PLAT NO. 19-11800164

PROJECT

STADIUM POINTE P.U.D. UNIT 2 & 3

SHEET

STORMWATER POLLUTION PREVENTION PLAN

LOCATION **SAN ANTONIO, TX**

SHEET NO.

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SWPPP MODIFICATIONS

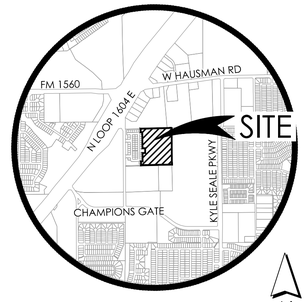
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LOCATION MAP

NOT-TO-SCALE



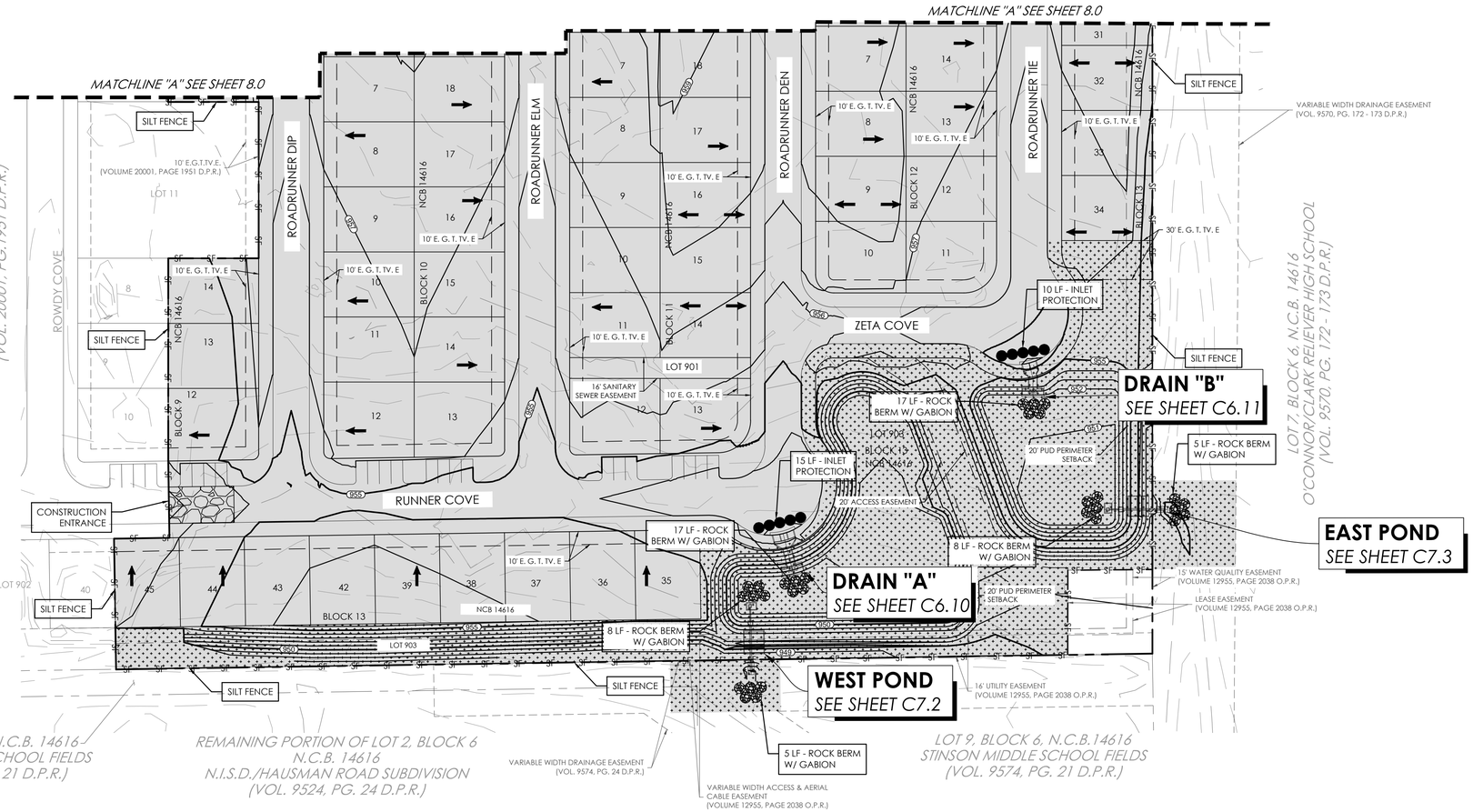
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SCALE: 1" = 50'

0' 25' 50' 75' 100'

LEGEND

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- PROPOSED CONSTRUCTION ENTRANCE
- CONSTRUCTION STAGING AREA
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PROJECT

STADIUM POINTE P.U.D. UNIT 2 & 3

SHEET

STORMWATER POLLUTION PREVENTION PLAN

LOCATION **SAN ANTONIO, TX**

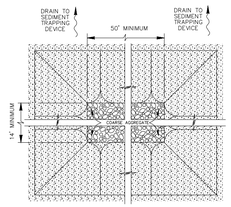
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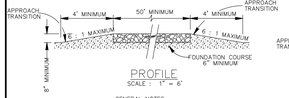
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PLAN
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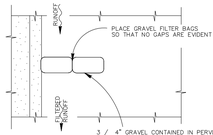


PROFILE
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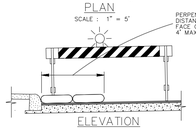
GENERAL NOTES

1. THE LENGTH OF THE TYPE 1 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A SIZE OF 4" TO 8".
3. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6 : 1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
4. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT – TYPE 1



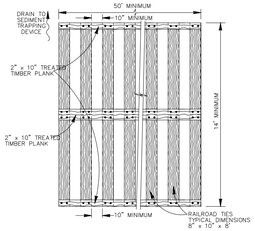
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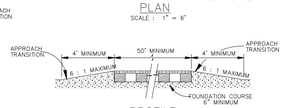
ELEVATION
SCALE : 1" = 5'

NOTE:
STRADDLE GRAVEL FILTER BAGS WITH TYPE 1 BARRICADES MOUNTED WITH TYPE "A" FLASHING WARNING LIGHT. SEE BARRICADE CONSTRUCTION SIGN DETAILS. PLACE FLASHING LIGHTS AWAY FROM GUTTER, FLUSH WITH OUTSIDE EDGE OF BAG CONFIGURATION.

GRAVEL FILTER BAGS



PLAN
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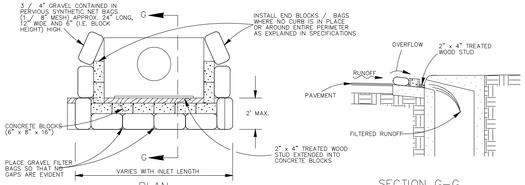


PROFILE
SCALE : 1" = 6'

GENERAL NOTES

1. THE LENGTH OF THE TYPE 2 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE TREATED TIMBER PLANKS SHALL BE ATTACHED TO THE RAILROAD TIES WITH 1 / 2" x 6" MIN. LAG BOLTS. OTHER FASTENERS MAY BE USED AS APPROVED BY THE ENGINEER.
3. THE TREATED TIMBER PLANKS SHALL BE #2 GRADE MIN., AND SHOULD BE FREE FROM LARGE AND LOOSE KNOTS.
4. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6 : 1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
6. THE CONSTRUCTION EXIT SHOULD BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
7. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT – TYPE 2

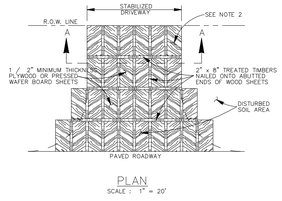


PLAN
SCALE : 1" = 5'

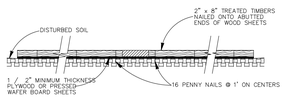
SECTION G–G
SCALE : 1" = 5'

NOTE:
GRAVEL FILTERS CAN BE USED ON PAVEMENT OR BARE GROUND.

CURB INLET GRAVEL FILTER



PLAN
SCALE : 1" = 20'

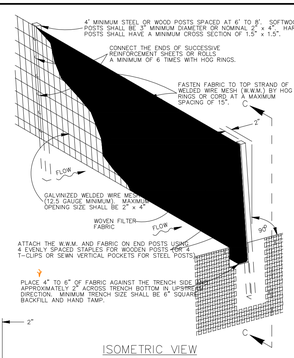


SECTION A–A
SCALE : 1" = 2'

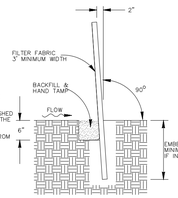
GENERAL NOTES

1. THE LENGTH OF THE TYPE 3 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
2. THE TYPE 3 CONSTRUCTION EXIT MAY BE CONSTRUCTED FROM OPEN GRADED CRUSHED STONE WITH A SIZE OF 2 TO 4 INCHES SPREAD A MINIMUM OF 4 INCHES THICK TO THE LIMITS SHOWN ON THE PLANS.
3. THE TREATED TIMBER PLANKS SHALL BE #2 GRADE MIN., AND SHOULD BE FREE FROM LARGE AND LOOSE KNOTS.
4. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT – TYPE 3



ISOMETRIC VIEW
SCALE : 1" = 2'



SECTION C–C
SCALE : 1" = 2'

SEDIMENT CONTROL FENCE USAGE GUIDELINES

A SEDIMENT CONTROL FENCE MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUN-OFF. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED.

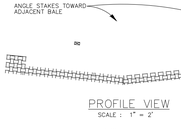
SEDIMENT CONTROL FENCE SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 100 GPM / FT SQUARED. SEDIMENT CONTROL FENCE IS NOT RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA LARGER THAN 2 ACRES.

GENERAL NOTES

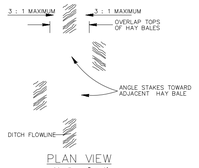
1. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

TEMPORARY SEDIMENT CONTROL FENCE

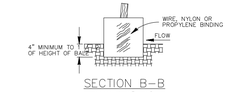
JANUARY 2005
CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
TEMPORARY EROSION, SEDIMENT & WATER POLLUTION CONTROL MEASURES STANDARDS 1



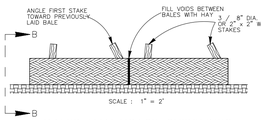
PROFILE VIEW
SCALE : 1" = 2'



PLAN VIEW
SCALE : 1" = 2'



SECTION B–B
SCALE : 1" = 2'



SCALE : 1" = 2'

BALED HAY USAGE GUIDELINES

A BALED HAY INSTALLATION MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A TWO YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED. SHE INSTALLATION SHOULD BE SIZED TO FILTER A MAXIMUM FLOW RATE OF 100 GALLONS / MINUTE / SQUARE FOOT OF CROSS SECTIONAL AREA. BALED HAY MAY BE USED AT THE FOLLOWING LOCATIONS:

1. WHERE THE RUNOFF APPROACHING THE BALED HAY FLOWS OVER DISTURBED SOIL FOR LESS THAN 100'. IF THE SLOPE OF THE DISTURBED SOIL EXCEEDS 10 %, THE LENGTH OF SLOPE UPSTREAM OF THE BALED HAY SHOULD BE LESS THAN 50'.
2. WHERE THE INSTALLATION WILL BE REQUIRED FOR LESS THAN 3 MONTHS.
3. WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1 / 2 ACRE.

FOR BALED HAY INSTALLATIONS IN SMALL DITCHES, THE FOLLOWING ADDITIONAL CONDITIONAL CONSIDERATIONS APPLY:

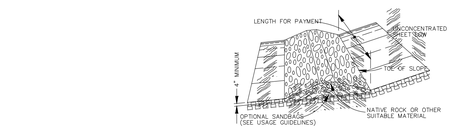
1. THE DITCH SIDESLOPES SHOULD BE GRADED AS FLAT AS POSSIBLE TO MAXIMIZE THE DRAINAGE FLOW RATE THRU THE HAY.
2. THE DITCH SHOULD BE GRADED LARGE ENOUGH TO CONTAIN THE OVERLAPPING DRAINAGE WHEN SEDIMENT HAS FILLED TO THE TOP OF THE BALED HAY.

BALES SHOULD BE REPLACED USUALLY EVERY 2 MONTHS OR MORE OFTEN DURING WET WEATHER WHEN LOSS OF STRUCTURAL INTERGRITY IS ACCELERATED.

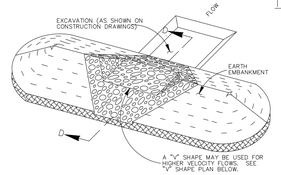
GENERAL NOTES

1. HAY BALES SHALL BE A MINIMUM OF 30" IN LENGTH AND WEIGH A MINIMUM OF 50 LBS.
2. HAY BALES SHALL BE BOUND BY EITHER WIRE OR NYLON OR POLYPROPYLENE STRING. THE BALES SHALL BE COMPOSED ENTIRELY OF VEGETABLE MATTER.
3. HAY BALES SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4" AND, WHERE POSSIBLE, ONE-HALF THE HEIGHT OF THE BALE.
4. HAY BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. THE BALES SHALL BE PLACED WITH BINDINGS PARALLEL TO THE GROUND.
5. HAY BALES SHALL BE SECURELY ANCHORED IN PLACE WITH 3 / 8" DIA. REBAR OR 2" x 2" WOOD STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE SHALL BE ANGLED TOWARDS THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

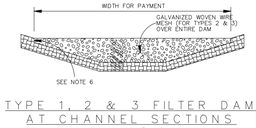
BALED HAY FOR EROSION CONTROL



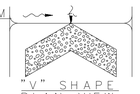
TYPE 1 FILTER DAM AT TOE OF SLOPE
SCALE : 1" = 10'

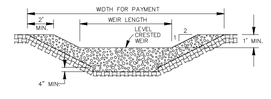


TYPE 1 & 2 FILTER DAM AT SEDIMENT TRAP
SCALE : 1" = 10'

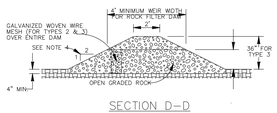


TYPE 1, 2 & 3 FILTER DAM AT CHANNEL SECTIONS
SCALE : 1" = 6'

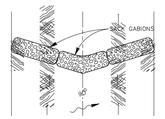




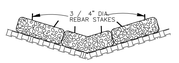
PROFILE OF TYPE 1 & 2 FILTER DAM AT SEDIMENT TRAP
SCALE : 1" = 6'



SECTION D–D
SCALE : 1" = 6'



PLAN VIEW
SCALE : 1" = 10'



SECTION E–E
SCALE : 1" = 10'

TYPE 4 SACK GABION DETAIL
SCALE : 1" = 6'

SECTION F–F
SCALE : 1" = 6'

TYPE 4 FILTER DAM AT DITCHES & SMALLER CHANNELS PLAN VIEW

ROCK FILTER DAMS

ROCK FILTER DAM USAGE GUIDELINES

ROCK FILTER DAMS SHOULD BE CONSTRUCTED DOWNSTREAM FROM DISTURBED AREAS TO INTERCEPT SEDIMENT FROM OVERLOAD RUNOFF AND / OR CONCENTRATED FLOW. THE DAMS SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 60 GPM / FT SQUARED OF CROSS SECTIONAL AREA. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE.

TYPE 1 (18" HIGH WITH NO WIRE MESH) :

TYPE 1 MAY BE USED AT THE TOE OF SLOPES, AROUND INLETS, IN SMALL DITCHES AND AT DIKE OR SWALE OUTLETS. THIS TYPE OF DAM IS RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA OF 5 ACRES OR LESS. TYPE 1 MAY NOT BE USED IN CONCENTRATED HIGH VELOCITY FLOWS (APPROXIMATELY 8 FT. / SEC. OR MORE) IN WHICH AGGREGATE WASH OUT MAY OCCUR. SANDBAGS MAY BE USED AT THE EMBEDDED FOUNDATION (4" DEEP MIN.) FOR BETTER FILTERING EFFICIENCY OF LOW FLOWS IF CALLED FOR ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

TYPE 2 (18" HIGH WITH WIRE MESH) :

TYPE 2 MAY BE USED IN DITCHES AND AT DIKE OR SWALE OUTLETS.

TYPE 3 (36" HIGH WITH WIRE MESH) :

TYPE 3 MAY BE USED IN STREAM FLOW AND SHOULD BE SECURED TO THE STREAM BED.

TYPE 4 (SACK GABIONS) :

TYPE 4 MAY BE USED IN DITCHES AND SMALLER CHANNELS TO FORM AN EROSION CONTROL DAM.

GENERAL NOTES

1. IF SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, FILTER DAMS SHOULD BE PLACED NEAR THE TOE OF SLOPES WHERE EROSION IS ANTICIPATED, UPSTREAM AND / OR DOWNSTREAM AT DRAINAGE STRUCTURES, AND IN ROADWAY DITCHES AND CHANNELS TO COLLECT SEDIMENT.
2. MATERIALS (AGGREGATE, WIRE MESH, SANDBAGS, ETC.) SHALL BE AS INDICATED BY THE SPECIFICATION FOR ROCK FILTER DAMS FOR EROSION AND SEDIMENTATION CONTROL.
3. THE ROCK FILTER DAM DIMENSIONS SHALL BE AS INDICATED ON THE STORM WATER POLLUTION PREVENTION PLANS.
4. SIDE SLOPES SHOULD BE 2 : 1 OR FLATTER. DAMS WITHIN THE SAFETY ZONE SHALL HAVE SIDE SLOPES OF 6 : 1 OR FLATTER.
5. MAINTAIN A MINIMUM OF 1' BETWEEN TOP OF ROCK FILTER DAM WEIR AND TOP OF EMBANKMENT FOR FILTER DAMS AT SEDIMENT TRAPS.
6. FILTER DAMS SHOULD BE EMBEDDED A MINIMUM OF 4" INTO THE EXISTING GROUND.
7. THE SEDIMENT TRAP FOR PONDING OF SEDIMENT LADEN RUNOFF SHALL BE OF THE DIMENSIONS SHOWN ON THE PLANS.
8. ROCK FILTER DAM TYPES 2 & 3 SHALL BE SECURED WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1" DIAMETER HEXAGONAL OPENINGS. THE AGGREGATE SHALL BE PLACED ON THE MESH TO THE HEIGHT AND SLOPES SPECIFIED. THE MESH SHALL BE FOLDED AT THE UPSTREAM SIDE OVER THE AGGREGATE AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS. THE MESH AND FILTER DAM SHALL BE SECURED OR STAKED TO THE STREAM BED PRIOR TO AGGREGATE PLACEMENT.
9. SACK GABIONS SHOULD BE STAKED DOWN WITH 3 / 4" DIA. REBAR STAKES.
10. FLOW OUTLET SHOULD BE ONTO A STABILIZED AREA (VEGETATION, ROCK, ETC.).
11. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

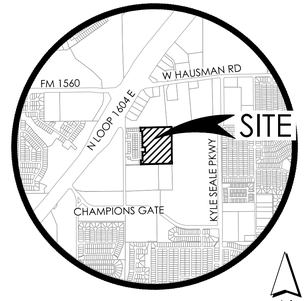




JANUARY 2005
CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
TEMPORARY EROSION, SEDIMENT & WATER POLLUTION CONTROL MEASURES STANDARDS 1

811
Know what's **below.**
Call before you dig.

LOCATION MAP
NOT-TO-SCALE



BLUESITE ENGINEERING
NO. F-22528
13750 SAN PEDRO, SUITE B10
SAN ANTONIO, TEXAS 78232
210.469.4414

STATE OF TEXAS
CHRISTOPHER GARZA
133628
LICENSED PROFESSIONAL ENGINEER

08/26/2025

OWNER/DEVELOPER:

SKYHAWK VILLA DE SAN ANTONIO, LLC
8117 SUTHERLAND LANE
PLANO, TEXAS 75025

SURVEYOR:

REVISIONS

PLAT NO. 19-11800164

PROJECT

STADIUM POINTE P.U.D. UNIT 2 & 3

SHEET

STORMWATER POLLUTION PREVENTION PLAN DETAILS

LOCATION **SAN ANTONIO, TX**

SHEET NO.

8.2

Date: 2/7/2014 2:44:29 PM
R:\Southfork\Utilities\Plotter\CAD\Sheet\SWPP STADIUM POINTE.dwg

THIS IS AN ELECTRONIC COPY AND MAY HAVE BEEN ALTERED. CONTRACTOR TO RELY ON LATEST HARD SET OF PLANS WITH ORIGINAL CONSULTANT SEAL AND SIGNATURE.

Attachment “E” – Request for Temporarily Seal a Feature (If Requested)

ATTACHMENT E | Request to Temporarily Seal a Feature

This section does not apply for this project. There will not be temporary sealing of naturally-occurring sensitive features on the site.

Attachment “F” – Structural Practices

ATTACHMENT F | Structural Practices

Temporary structural practices include:

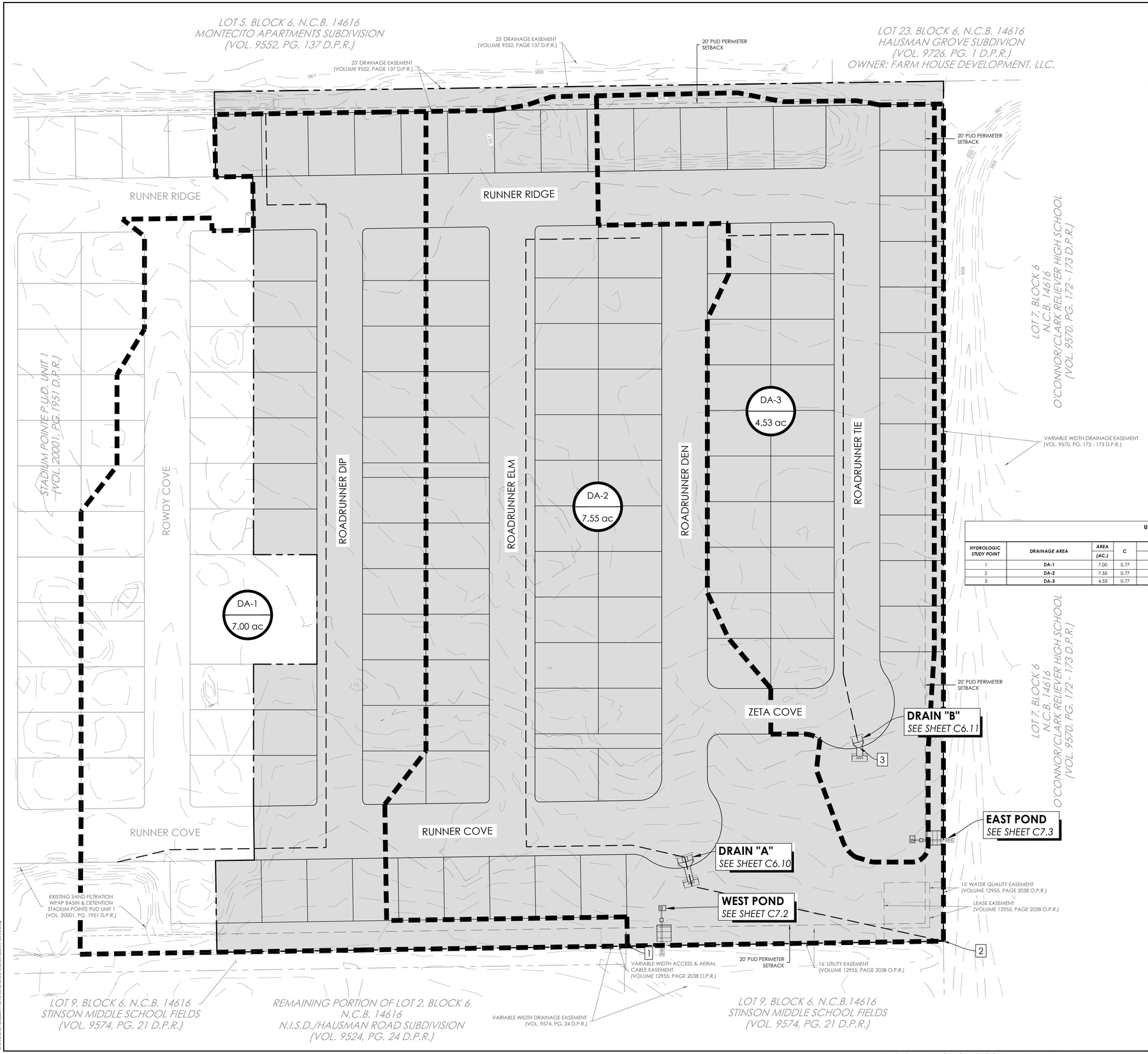
- Silt Fencing: To be placed along the down gradient boundary of the limits of construction activities.
- Gravel Filter Bags: Shall be used at the entrance to curb openings, around inlets, etc. to minimize siltation of the storm drain system and/or Water Pollution Abatement Plan Basins.
- Rock Berms: To serve as a secondary barrier to silt fencing and is to be placed in areas of concentrated flows, where indicated on construction plans, such as proposed channels and drainage swales.
- Construction Entrance/Exit: Will be placed to limit migration of sediment from the jobsite as construction traffic enters and exits the construction site.
- Concrete Washout-Pits: To contain and control affected runoff from cement delivery trucks.

Please note that this site is not located within a studied floodplain and is not exposed to potential flooding that may occur during heavy rainfall periods. Therefore, site inundation is not expected to adversely impact proposed TBMP structures.

Attachment “G” – Drainage Area Map

ATTACHMENT G | Drainage Area Maps

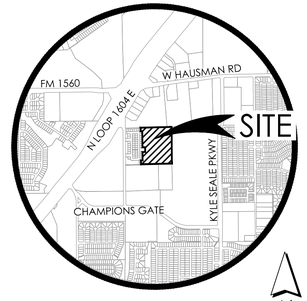
Drainage Area Map - Existing and Proposed/Ultimate Conditions



811 Know what's **below.** **Call** before you dig.

LOCATION MAP

NOT-TO-SCALE



N

SCALE: 1" = 50'

0' 25' 50' 75' 100'

LEGEND

PROPERTY BOUNDARY	=
DRAINAGE AREAS	=
PLAT BOUNDARY	=
EXISTING CONTOURS	=
TC ROUTING	=
HYDROLOGIC STUDY POINT	= X
DRAINAGE AREA ID / DRAINAGE AREA ACREAGE	= XX / XX ac

ULTIMATE CONDITIONS - HYDROLOGY SUMMARY
RATIONAL METHOD

HYDROLOGIC STUDY POINT	DRAINAGE AREA	AREA (AC.)	C	$T_{conveyor}$ DESC.	$T_{conveyor}$ (min)	T_{ovrl} (min)	T_{sc} (min)	T_{ch} (min)	T_c (min)	I_5 (in/hr)	I_{25} (in/hr)	I_{100} (in/hr)	Q_5 (ft^3/s)	Q_{25} (ft^3/s)	Q_{100} (ft^3/s)
1	DA-1	7.00	0.77			16.4	0.5	1.9	**18.78**	4.92	6.84	8.55	**26.50**	**36.84**	**46.09**
2	DA-2	7.55	0.77			15.3	5.4	0.4	**21.14**	4.66	6.48	8.10	**27.12**	**37.69**	**47.11**
3	DA-3	4.53	0.77			15.3	4.3	0.1	**19.74**	4.81	6.69	8.37	**16.79**	**23.34**	**29.19**

PLAT NO: 19-11800164

BLUESITE ENGINEERING
NO. F-22528
13750 SAN PEDRO, SUITE B10
SAN ANTONIO, TEXAS 78232
210.469.4414

STATE OF TEXAS
CHRISTOPHER GARZA
133528
LICENSED PROFESSIONAL ENGINEER

08/26/2025

OWNER/DEVELOPER:

SKYHAWK VILLA DE SAN ANTONIO, LLC
8117 SUTHERLAND LANE
PLANO, TEXAS 75025

SURVEYOR:

REVISIONS

PLAT NO. 19-11800164

PROJECT

STADIUM POINTE P.U.D. UNIT 2 & 3

SHEET

MASTER DRAINAGE PLAN

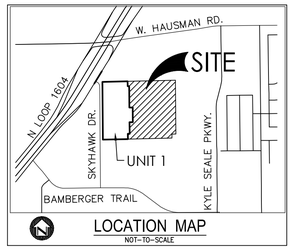
LOCATION **SAN ANTONIO, TX**

SHEET NO.

2.0

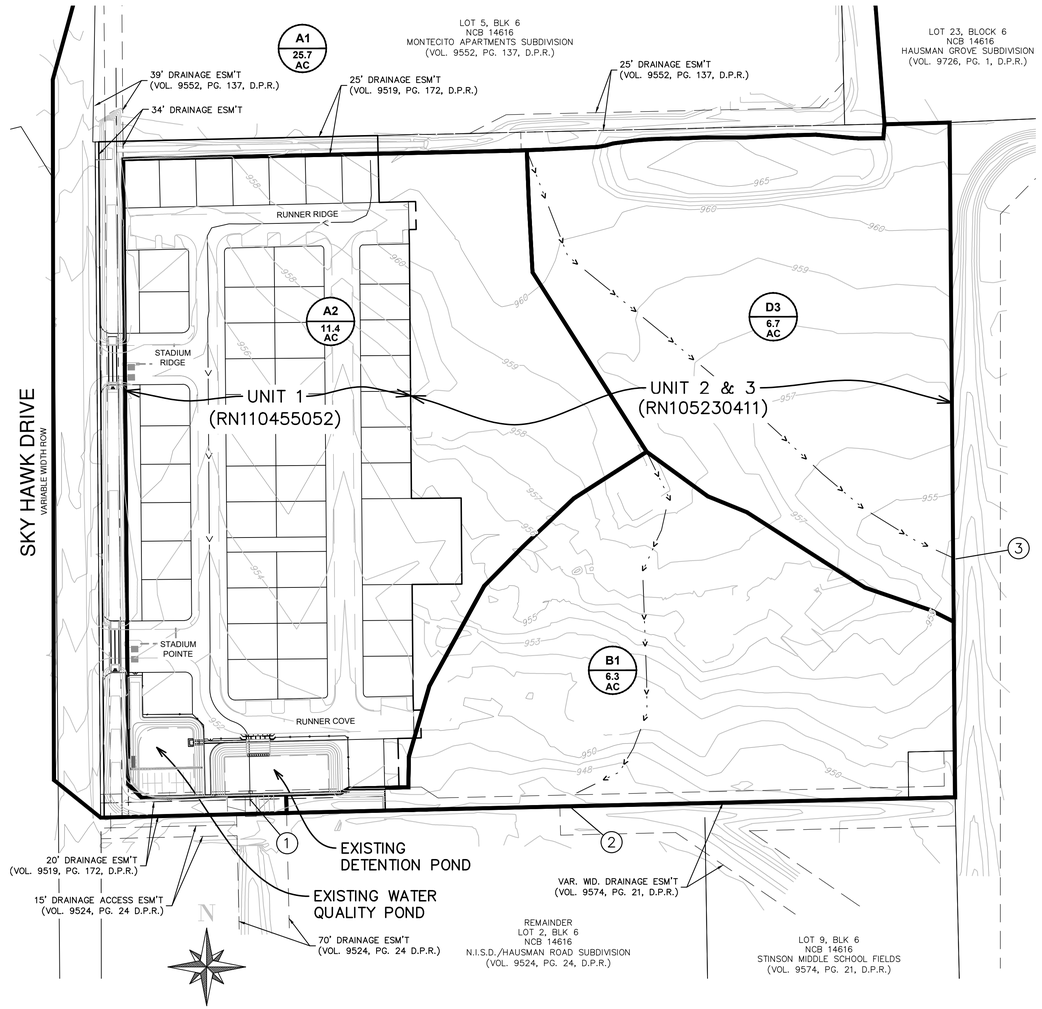
Date: 7/7/2024 2:44:53 PM
R:\Active\Clients\Farmhouse\CAD\Sheet\MDP_STADIUM_POINTE.dwg

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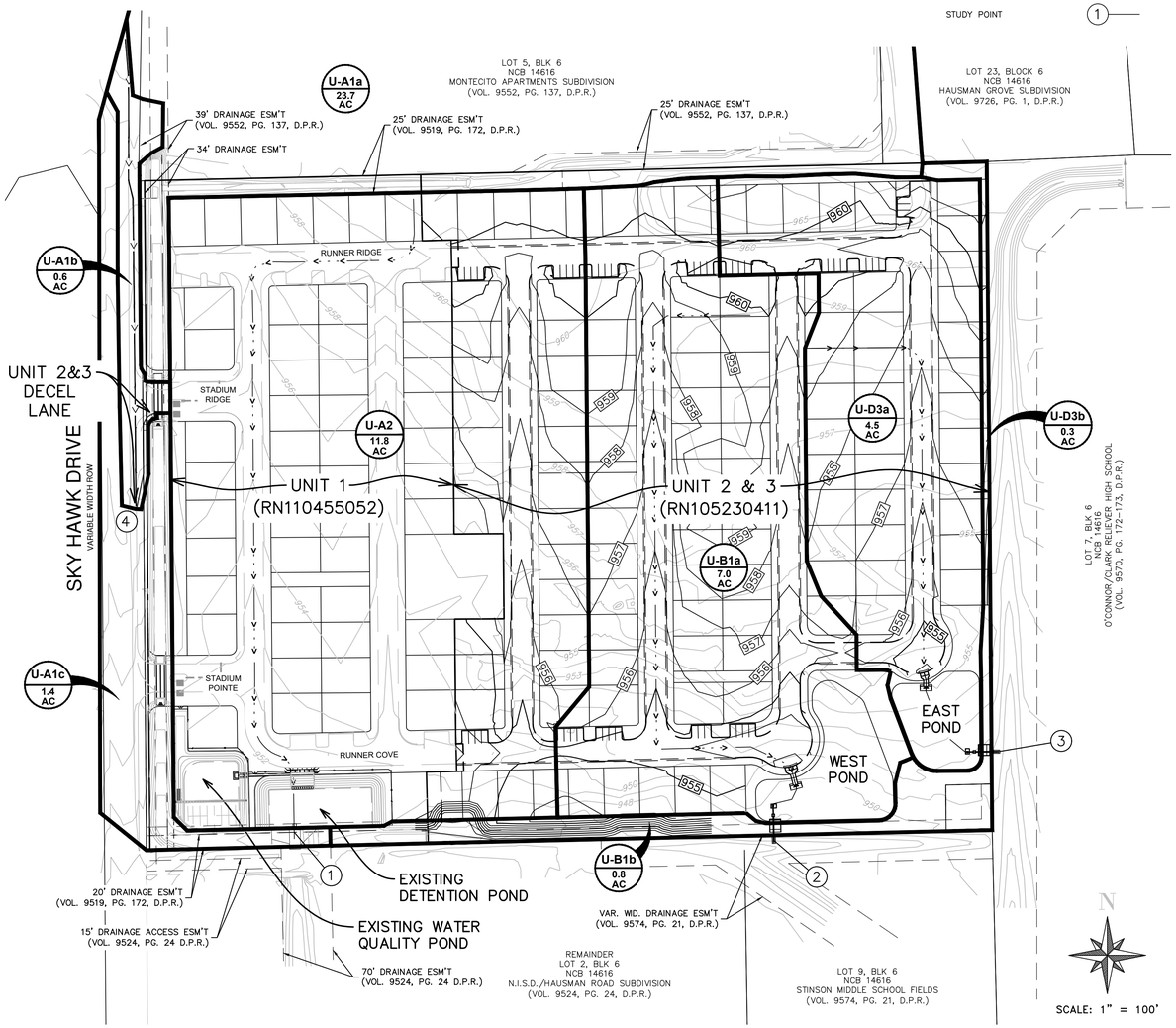


LEGEND

DRAINAGE AREA BOUNDARY	
EXISTING MAJOR CONTOURS	960
EXISTING MINOR CONTOURS	959
PROPOSED MAJOR CONTOURS	960
PROPOSED MINOR CONTOURS	959
TIME OF CONCENTRATION FLOW PATHS	
DRAINAGE ESM'T	
NEW CITY BLOCK	NCB
DPRBCT	DEED PLAT RECORDS BEXAR COUNTY TEXAS
VOL.	VOLUME
PG.	PAGE
STUDY POINT	1



EXISTING CONDITIONS



PROPOSED/ULTIMATE CONDITIONS

SUBMITTAL SET

NO.	REVISION	DATE

STATE OF TEXAS
BRIAN A. CROWELL
82619
LICENSED
PROFESSIONAL ENGINEER
03/17/2021

CDS muery
ENGINEERS | SURVEYORS
100 NE Loop 410, Ste. 300 | San Antonio, Texas 78216
(210) 581-1111 | TBPE No. F-1733 | TBPLS No. 100495-00

PLAT NO. 19-11800164

JOB NO. 118008.04
DATE SEPTEMBER 2020
DRAWN J.W.G.
CHECKED BC DESIGN JBG

STADIUM POINTE P.U.D.
UNIT 2 & 3
DRAINAGE AREA MAP
EXISTING AND PROPOSED/ULTIMATE CONDITIONS

SHEET EXH

Date: Mar 17, 2021, 3:57pm User ID: john.gibson
File: F:\2018\118008.04 Stadium Point, Phase 2\Civil 3D\Dwg\Engineer\Exhibits\STADPNT U2_3 EX_ULT DAM WPAP_MOD1.dwg

Attachment "H" – Temporary Sediment Pond(s) Plans and Calculations

ATTACHMENT H | Temporary Sediment Pond(s) Plans and Calculations

Stadium Pointe PUD Unit 2 & 3 does have small drainage areas that ultimately accumulate to 10 or more acres that will be disturbed at one time. However, based on the existing drainage patterns multiple sedimentation basins are not attainable. There are two proposed Water Pollution Abatement Plans – Batch Detention Basins permitted concurrently with this Sewage Collection System submittal. We are proposing to construct the Batch Detention Basins as construction sequence Item #4. Other Temporary Best Management Practices will be utilized to protect down slope and side slope boundaries of the construction area.

A construction staging area, concrete washout pit, silt fence, rock berm, and inlet protection will be utilized during construction to mitigate any adverse impacts to downstream systems.

See sheet 8.0 & 8.1 Stormwater Pollution Prevention Plan **Attachment H-1.**

Attachment "I" – Inspection and Maintenance for BMPs

ATTACHMENT I | Inspection and Maintenance for BMPs

Silt Fence

1. Inspect all fencing weekly, and after any rainfall events.
2. Remove sediment when buildup reaches 6 inches.
3. Replace any torn fabric or install a second line of fencing parallel to the torn section.
4. Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.
5. When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be re-vegetated. The fence itself should be disposed of in an approved landfill.

Gravel Filter Bags

1. Inspect all gravel filter bags weekly, and after any rainfall events.
2. Remove sediment when buildup reaches 4 inches.
3. Replace any torn bags or install a second line of bags parallel to the torn section.
4. When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation.

Rock Berm

1. Inspection should be made weekly and after each rainfall event by the responsible party. For installation in streambeds, additional daily inspections should be made.
2. Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.
3. Repair any loose wire sheathing.
4. The berm should be reshaped as needed during inspection.
5. The berm should be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.
6. The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

Temporary Construction Entrance/Exit

1. The entrance(s) should be maintained in a condition, which will prevent transfer of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.
2. When necessary, wheels should be cleaned and sediment removed prior to entrance onto public right-of-way.
3. When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.
4. All sediment should be prevented from entering any storm, drain, ditch or water course by using approved methods.

Concrete Washout Areas

1. To help reduce storm water pollution from concrete washes, ensure the following:
   a. Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.
   b. Avoid mixing excess amounts of fresh concrete.
   c. Perform washout of concrete trucks in designated areas only.
   d. Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
   e. Do not allow excess concrete to be dumped onsite, except in designated areas.
2. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of.
3. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
4. Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed of properly.
5. When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of.
6. Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

If any sediment escapes the site during construction activities, off-site accumulations must be removed to minimize offsite impacts to water quality. An inspection form has been attached.

Attachment "J" – Schedule of Interim and Permanent Soil Stabilization Practices

ATTACHMENT J | Schedule of Interim and Permanent Soil Stabilization Practices

Interim on-site stabilization measures will be on-going. Soil disturbances should be limited to the smallest area and shortest duration of time practical. As soon as practical, all disturbed soil shall be stabilized as per project specifications in accordance with TCEQ's Technical Guidance Manual (TGM) RG-348. Project stabilization practices will include, but not limited to, the use of sod, erosion control blankets and seeding.

Stabilization measures are to be completed as soon as practicable at locations where construction activities have temporarily or permanently ceased. Bare soils are to be seeded or otherwise stabilized within 14 calendar days after final grading or where construction activity has temporarily ceased for more than 21 days.

Newly planted vegetation will be protected from construction traffic.

The project is scheduled for completion in the 2026 calendar year. During construction, Temporary BMPs will be implemented. All disturbed areas will be permanently stabilized as indicated on Site Plan by pavements, building foundations, or vegetative cover. Temporary BMPs may only be removed after all upgradient disturbed soils are permanently stabilized and all upgradient Permanent BMPs indicated in this WPAP are installed.

AGENT AUTHORIZATION FORM (TCEQ-0599)

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

I Srikanth Beeram,
Print Name

President,
Title - Owner/President/Other

of SkyHawk Villa De San Antonio, LLC,
Corporation/Partnership/Entity Name

have authorized Christopher Garza
Print Name of Agent/Engineer

of BlueSite Engineering
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

7/22/25
Date

THE STATE OF Texas §
County of Bexar §

BEFORE ME, the undersigned authority, on this day personally appeared Srikanth Bezawada 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 22 day of July 2025.

NOTARY PUBLIC

AMANDA BRANDT
My Notary ID # 128074536
Expires June 22, 2027

Amanda Brandt
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: June 22, 2027

Application Fee Form (TCEQ-0574)

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Stadium Pointe PUD, Unit 2 & 3
Regulated Entity Location: 8406 Flanagan Street, San Antonio, TX 78249
Name of Customer: Skyhawk Villa de San Antonio, LLC
Contact Person: Christopher Garza, PE SIT Phone: 210.469.4419
Customer Reference Number (if issued):CN
Regulated Entity Reference Number (if issued):RN 110455052

Austin Regional Office (3373)

☐ Hays ☐ Travis ☐ Williamson

San Antonio Regional Office (3362)

☑ Bexar ☐ Medina ☐ Uvalde
☐ Comal ☐ Kinney

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

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

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

Site Location (Check All That Apply):

☑ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	Acres	$
Sewage Collection System	3,536 L.F.	$1,768
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature:  Date: 08/26/2025

Application Fee Schedule

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

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

CORE DATA FORM (TCEQ-10400)

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		**RN**

SECTION II: Customer Information

4. General Customer Information	**5. Effective Date for Customer Information Updates** (mm/dd/yyyy)	6/24/2025

☒ 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:*
Skyhawk Villa de San Antonio, LLC	

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
802909145	32065955323	824072944	

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

12. Number of Employees	**13. Independently Owned and Operated?**
☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher	☒ **Yes** ☐ **No**

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

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

15. Mailing Address:	8117 Sutherland Lane							
	City	Plano	**State**	TX	**ZIP**	75025	**ZIP + 4**	5545

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

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(210) 299-7600		( ) -

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.)*

Stadium Pointe P.U.D., Unit 2 & 3

23. Street Address of the Regulated Entity: ***(No PO Boxes)***							
	City		**State**		**ZIP**		**ZIP + 4**
24. County	Bexar County						

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

25. Description to Physical Location:	Property is located near the SE corner of the Loop 1604 norhtbound frontage and Skyhawk Drive. The site is located east of Stadium Pointe PUD Unit 1.

26. Nearest City	State	Nearest ZIP Code
San Antonio	TX	78249

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:	29.5666		28. Longitude (W) In Decimal:	98.6503	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
29	33	59.76	98	39	1.08

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)
1522	1542	236116	531311

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

Multi-Family Residential,Commercial Site

34. Mailing Address:	**8117 Sutherland Land**							
	City	**Plano**	**State**	**TX**	**ZIP**	**75025**	**ZIP + 4**	**5545**
35. E-Mail Address:	**greg@twotensa.com**							

36. Telephone Number	37. Extension or Code	38. Fax Number *(if applicable)*
(210) 299-7600		( ) -

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

☐ Dam Safety	☐ Districts	☒ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Christopher Garza, PE SIT	**41. Title:**	Founding Principal

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(210 **)** 469-4419		**( ) -**	cgarza@bluesiteengineering.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:	Bluesite Engineering	**Job Title:**	Founding Principal
Name *(In Print):*	Christopher Garza, PE SIT	**Phone:**	**(** 210 **)** 469- **4419**
Signature:		**Date:**	08/26/2025