STEGER BIZZELL

ADDRESS
1978 S. AUSTIN AVENUE
GEORGETOWN, TX 78626

WEB
STEGERBIZZELL.COM

PHONE
512.930.9412

FAX
512.930.9416

TEXAS REGISTERED ENGINEERING FIRM F-181

SERVICES
>> ENGINEERS >> PLANNERS >> SURVEYORS

Water Pollution Abatement Plan

For

Williams Senior Living

In the

City of Georgetown

Williamson County, Texas

Submitted: 7/24/2023

Job Number: 22868

Water Pollution Abatement Plan

For

Williams Senior Living

In

City of Georgetown

Williamson County, Texas

Job Number: 22868

Prepared by:

Texas Registered Engineering Firm-181
1978 S. Austin Ave
Georgetown, TX 78626

Water Pollution Abatement Plan Checklist

(1) **Edwards Aquifer Application Cover Page (TCEQ-20705)**
(2) **General Information Form (TCEQ-0587)**
- Attachment A - Road Map
- Attachment B - USGS / Edwards Recharge Zone Map
- Attachment C - Project Description

(3) **Geologic Assessment Form (TCEQ-0585)**
- Attachment A - Geologic Assessment Table (TCEQ-0585-Table)
- Comments to the Geologic Assessment Table
- Attachment B - Soil Profile and Narrative of Soil Units
- Attachment C - Stratigraphic Column
- Attachment D - Narrative of Site Specific Geology
- Site Geologic Map(s)
- Table or list for the position of features' latitude/longitude (if mapped using GPS)

(4) **Water Pollution Abatement Plan Application Form (TCEQ-0584)**
- Attachment A - Factors Affecting Water Quality
- Attachment B - Volume and Character of Stormwater
- Attachment C - Suitability Letter from Authorized Agent (if OSSF is proposed)
- Attachment D - Exception to the Required Geologic Assessment (if requesting an exception)
- Site Plan

(5) **Temporary Stormwater Section (TCEQ-0602)**
- Attachment A - Spill Response Actions
- Attachment B - Potential Sources of Contamination
- Attachment C - Sequence of Major Activities
- Attachment D - Temporary Best Management Practices and Measures
- Attachment E - Request to Temporarily Seal a Feature, if sealing a feature
- Attachment F - Structural Practices
- Attachment G - Drainage Area Map
- Attachment H - Temporary Sediment Pond(s) Plans and Calculations
- Attachment I - Inspection and Maintenance for BMPs
- Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices

(6) **Permanent Stormwater Section (TCEQ-0600)**
- Attachment A - 20% or Less Impervious Cover Waiver, if project is multi-family residential, a school, or a small business and 20% or less impervious cover is proposed for the site
- Attachment B - BMPs for Upgradient Stormwater
- Attachment C - BMPs for On-site Stormwater
- Attachment D - BMPs for Surface Streams
- Attachment E - Request to Seal Features (if sealing a feature)
- Attachment F - Construction Plans
- Attachment G - Inspection, Maintenance, Repair and Retrofit Plan
- Attachment H - Pilot-Scale Field Testing Plan, if BMPs not based on Complying with the Edwards Aquifer Rules: Technical Guidance for BMPs
- Attachment I -Measures for Minimizing Surface Stream Contamination

(7) **Agent Authorization Form (TCEQ-0599), if application submitted by agent**
(8) **Application Fee Form (TCEQ-0574)**
(9) **Check Payable to the "Texas Commission on Environmental Quality"**
(10) **Core Data Form (TCEQ-10400)**

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: Williams Senior Living					**2. Regulated Entity No.:** N/A				
3. Customer Name: Novak Williams Senior Living, LLC					**4. Customer No.:** N/A				
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):**		9.29	
9. Application Fee:	$5,000		**10. Permanent BMP(s):**			Batch Detention Basin			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Williamson		**14. Watershed:**			Berry Creek			

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. David Platt
Print Name of Customer/Authorized Agent 7/24/2023
Signature of Customer/Authorized Agent Date

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

General Information Form

Texas Commission on Environmental Quality

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

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

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

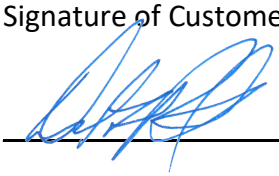
Signature

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

Print Name of Customer/Agent: David Platt

Date: 7/24/2023

Signature of Customer/Agent:



Project Information

1. Regulated Entity Name: Williams Senior Living
2. County: Williamson
3. Stream Basin: San Gabriel
4. Groundwater Conservation District (If applicable): _____
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

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

7. Customer (Applicant):

   Contact Person: Cade Novak
   Entity: Novak Williams Senior Living, LLC
   Mailing Address: 1500 Rivery Boulevard., Suite 2200
   City, State: Georgetown, TX Zip: 78628
   Telephone: 512-943-4703 FAX: N/A
   Email Address: cnovak@novakbros.com

8. Agent/Representative (If any):

   Contact Person: David Platt
   Entity: Steger Bizzell
   Mailing Address: 1978 S. Austin Avenue
   City, State: Georgetown, TX Zip: 78626
   Telephone: 512-930-9412 FAX: N/A
   Email Address: dplatt@stegerbizzell.com

9. Project Location:

   ☒ The project site is located inside the city limits of Georgetown.
   ☐ The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of Georgetown.
   ☐ 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.

    FROM AUSTIN: TRAVELLING NORTH ON I-35, TAKE EXIT 262 ONTO S I-35 FRONTAGE ROAD. STAY ON S I-35 FRONTAGE ROAD THEN TURN LEFT ONTO WILLIAMS DRIVE. CONTINUE ON WILLIAMS DRIVE FOR APPROXIMATELY 3.8 MILES. THE SITE IS LOCATED ON THE RIGHT.

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: 6/15/2023

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:

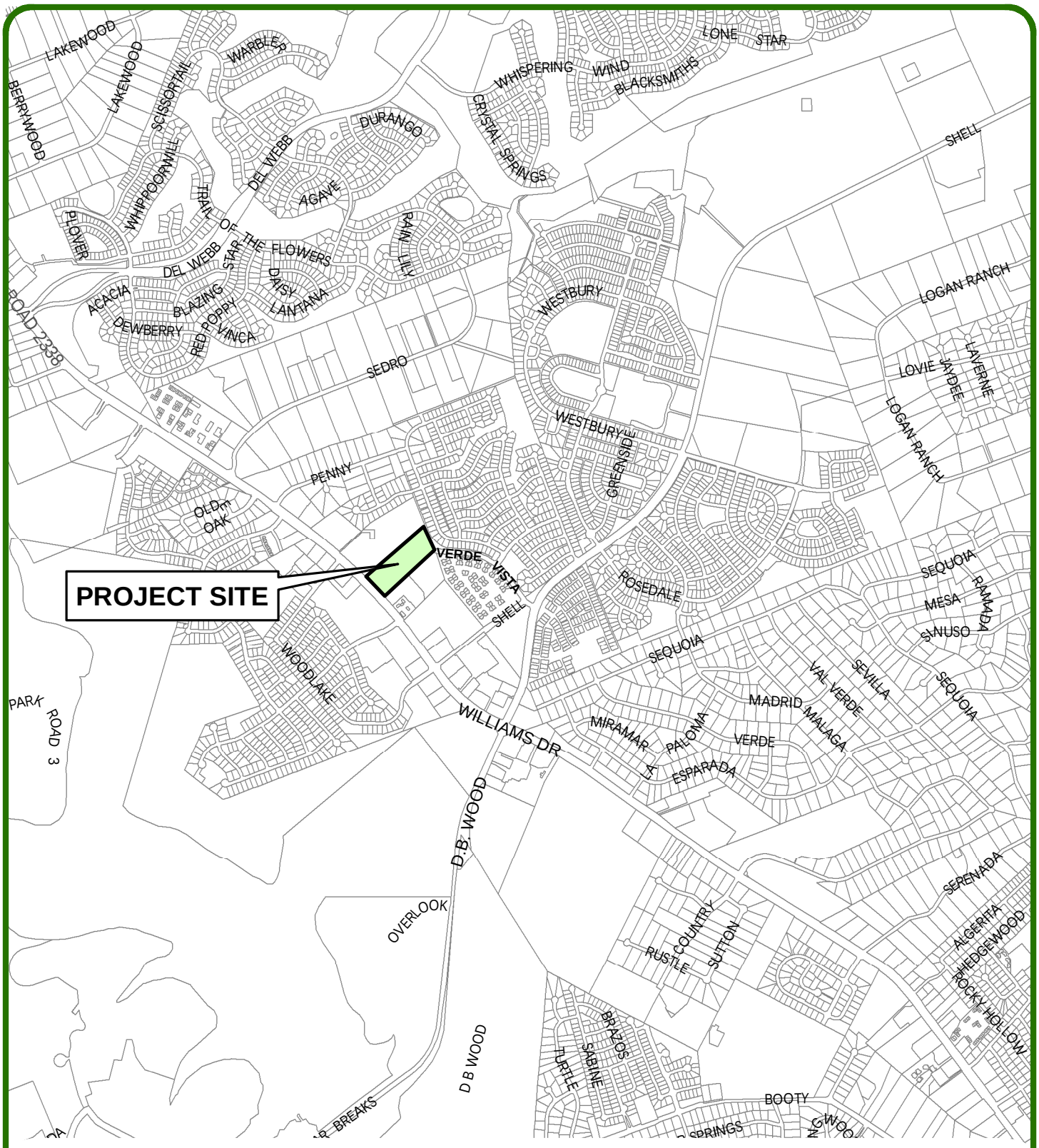
☒ For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
☐ For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines.
☐ For a UST Facility Plan or Modification or an AST Facility 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.



ROAD MAP
ATTACHMENT A

SCALE: 1" = 2000'

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W E
S

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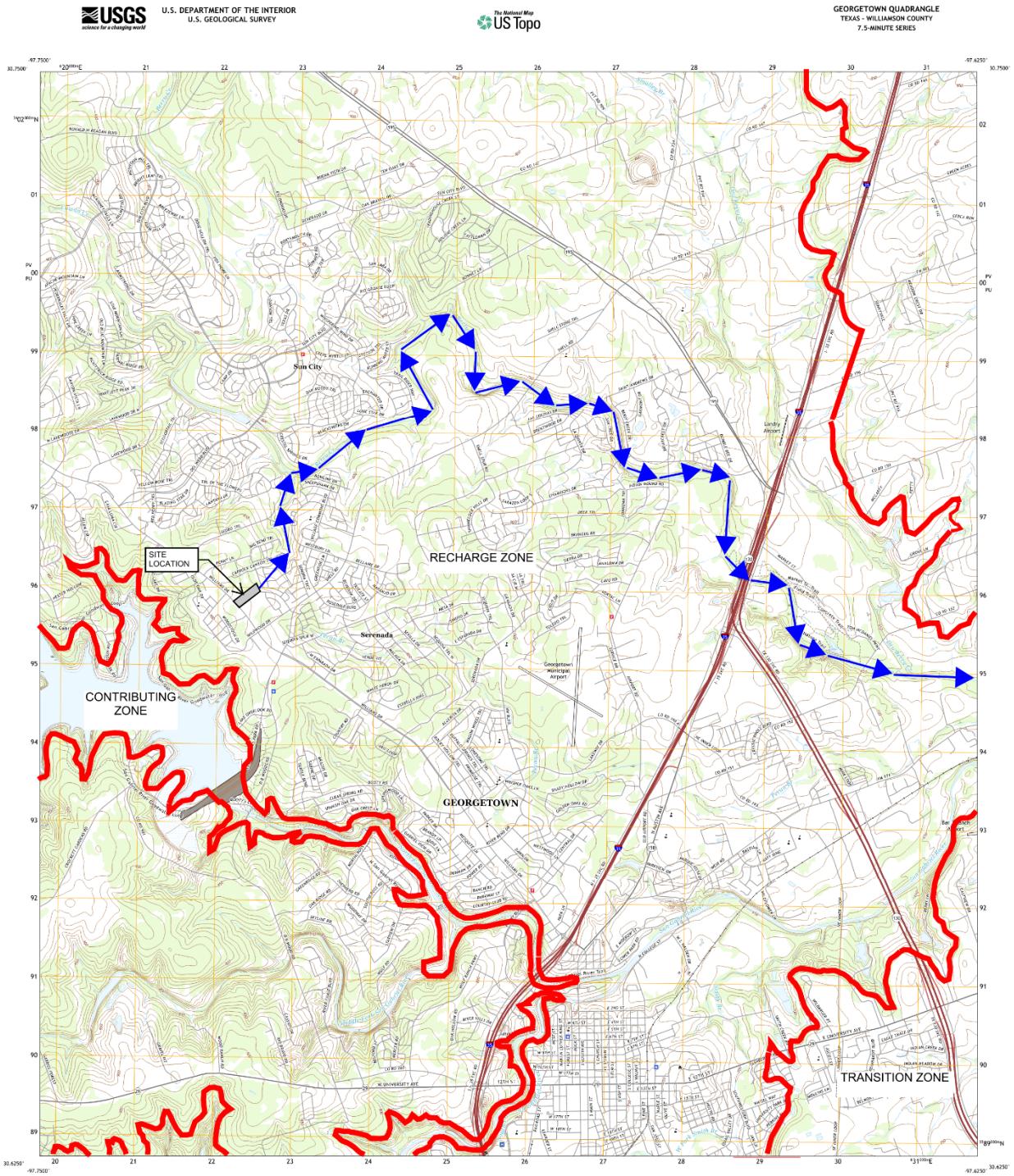
TEXAS REGISTERED ENGINNERING FIRM F-181

ADDRESS	1978 S. AUSTIN AVENUE		GEORGETOWN, TX 78626
METRO	512.930.9412	FAX	512.930.9416
WEB	STEGERBIZZELL.COM		
SERVICES	>>ENGINEERS	>>PLANNERS	>>SURVEYORS

JOB NO. 22868 5/30/2023

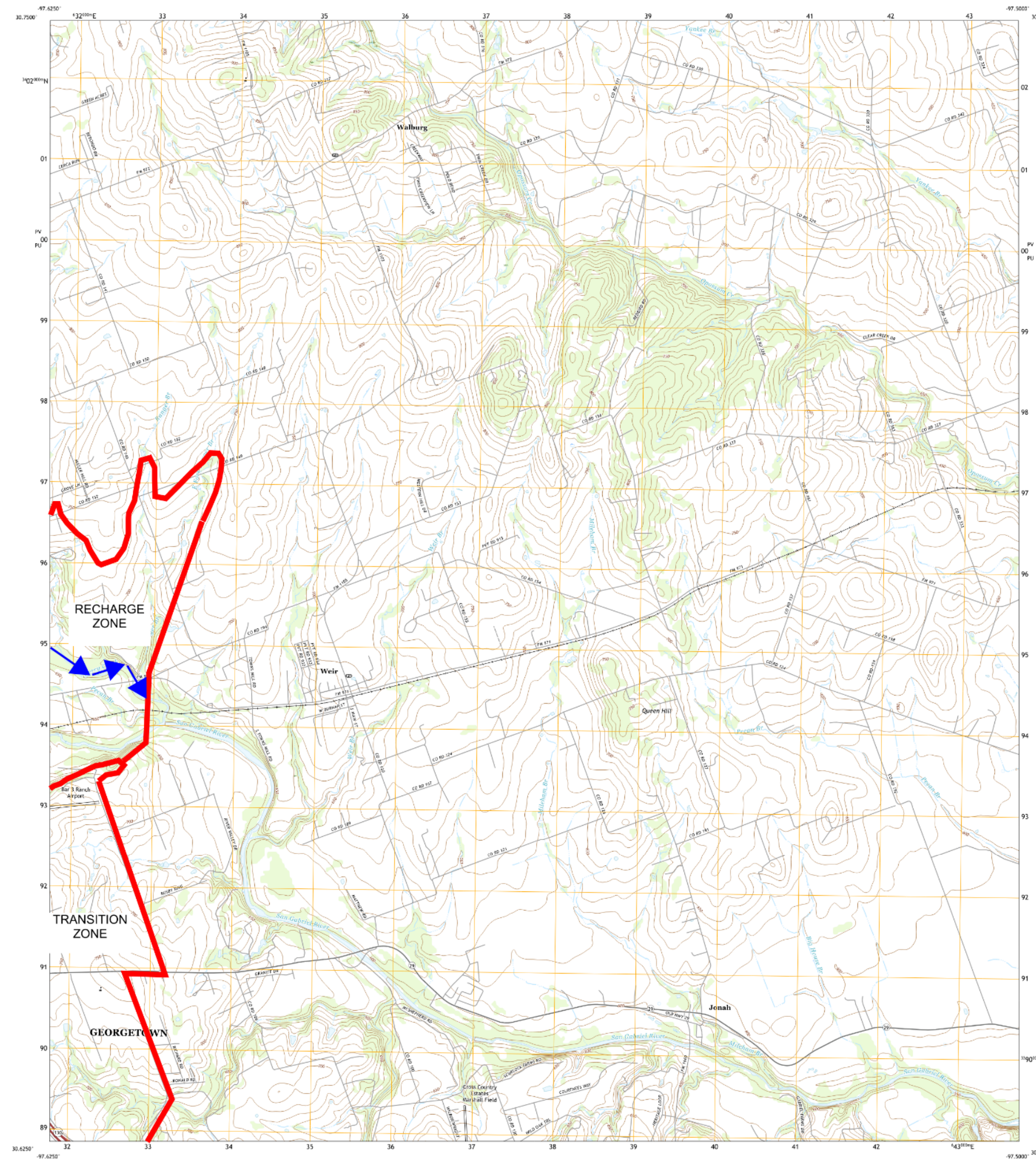
Attachment B – USGS/Edwards Recharge Zone Map



U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map
US Topo

WEIR QUADRANGLE
TEXAS - WILLIAMSON COUNTY
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid:Universal Transverse Mercator, Zone 14R

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery....NAIP, August 2016 - November 2016
Roads....U.S. Census Bureau, 2015
Names....GNIS, 1979 - 2018
Hydrography....National Hydrography Dataset, 2002 - 2016
Contours....National Elevation Dataset, 2002 - 2004
Boundaries....Multiple sources; see metadata file 2016 - 2017
Wetlands....FWS National Wetlands Inventory 1982

UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.18

QUADRANGLE LOCATION

1 Cobbs Cavern
2 Jarrell
3 Bartlett
4 Georgetown
5 Granger
6 Round Rock
7 Hutto
8 Taylor

ADJOINING QUADRANGLES

ROAD CLASSIFICATION

Expressway — Local Connector
Secondary Hwy — Local Road
Ramp — 4WD
Interstate Route — US Route — State Route

WEIR, TX
2019

Attachment C – Project Description

Novak Williams Senior Living, LLC, is proposing to convert an 9.29-acre undeveloped site into a senior high-density multi-family site on Lot 4, Blocks A & B, of the Schiller Business Park Subdivision (currently being platted) in Georgetown, Texas. This development will include the construction of one building with associated parking, drive aisles, sidewalks, utilities, and water quality facility. There is an adjacent project currently being designed which will include a road along with associated sidewalks that go through Lot 4. After platting and right-of-way dedication, the total acreage for the proposed Williams Senior Living project will decrease from 9.29 to 8.55 acres. The proposed road being dedicated will be treated with the adjacent project. Please see WPAP RN number, "RN111695623" for more information regarding the adjacent project.

Although the land is undeveloped, there are gravel and concrete-paved areas on the site totaling 0.28 acres (3.27%) of impervious cover. All the existing impervious cover will be removed prior to construction. A manmade well was also discovered during the geologic assessment. The well is currently not in use and will be properly abandoned prior to construction. Proposed impervious cover within the development will be 4.79 acres (56.0%). We are limited to 50% impervious cover on this site and will need to use permeable pavers to offset the impervious cover.

There are 2 sensitive manmade geologic features within the site's boundaries: a water well and an underground septic tank/field. Prior to construction, the well will be plugged and abandoned appropriately. In addition, the underground septic tank/field will be appropriately abandoned.

1.0 TCEQ FORM 0585

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: Michael Trojan, PG Telephone: (512) 917-3695

Representing: M. Trojan & Associates Fax:

Signature of Geologist:

_____

Michael Trojan, PG
Certified Professional Geoscientist #1109 (TX)

Regulated Entity Name: 9.29-Acre Undeveloped Tract
4775 Williams Drive, Georgetown, Williamson Co., Texas

Project Information

1. Date(s) Geologic Assessment was performed: January 10, 2023

2. Type of Project:

X	WPAP		AST
X	SCS		UST

3. Location of Project:

X	Recharge Zone
	Transition Zone
	Contributing Zone within the Transition Zone

4. [X] **Attachment A – Geologic Assessment Table**. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.

5. [X] 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 (refer to Attachment D).

Table 1 – Soil Units, Infiltration, Characteristics and Thickness

Soil Units, Infiltration Characteristics & Thickness		
Soil Name	Group*	Thickness (feet)
Doss silty clay, 1-5% slopes (DoC)	C	up to 1.5
Eckrant extremely stony clay, 0-3% slopes (EeB)	D	up to 0.9

* 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. [X] **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. [X] **Attachment C – Site Geology and Features**. 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. [X] **Attachment D – Site Geologic Map(s)**. The Site Geologic Map must be the same scale as the applicant's Site Plan.

   Applicant's Site Plan Scale: unknown
   Site Geologic Map Scale: 1" = 300'
   Site Soils Map Scale (if more than 1 soil type): 1" = 300'

9. Method of collecting positional data:

   [X] Global Positioning System (GPS) technology.
   [ ] Other method(s). Please describe method of data collection: _____

10. [X] The project site and boundaries are clearly shown and labeled on the Site Geologic Map.

11. [X] Surface geologic units are shown and labeled on the Site Geologic Map.

12. [X] 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. [X] 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

    [X] There are 1 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply).

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

[X] 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. [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.

ATTACHMENT A

GEOLOGIC ASSESSMENT TABLE

GEOLOGIC ASSESSMENT TABLE			PROJECT NAME: 9.29-Acre Undeveloped Tract																	
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	
ONSITE																				
MB-1	30.689671	-97.721674	MB	30	Ked	unk	unk	unk					X	≤5	≤35	≤35		N/A	N/A	hillside
MB-2	30.689874	-97.722554	MB	30	Kgt	unk	unk	unk					X	≤5	≤35	≤35		N/A	N/A	hillside
OFFSITE																				
MB-3	N/A	N/A	MB	30	Kgt	unk	unk	unk					X	≤5	≤35	≤35		N/A	N/A	hillside
MB-4	N/A	N/A	MB	30	Kgt	unk	unk	unk					X	≤5	≤35	≤35		N/A	N/A	hillside

* DATUM:_____

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.

_____

Date: January 16, 2023

Sheet 1 of 1

ATTACHMENT B

STRATIGRAPHIC COLUMN

SYSTEM	SERIES	GROUP	FORMATION	LITHOLOGY/ THICKNESS
QUATERNARY				TERRACE AND ALLUVIUM SAND, SILT, CLAY, AND GRAVEL THICKNESS NOT REPORTED
CRETACEOUS	UPPER CRETACEOUS (GULFIAN)	AUSTIN		CHALK, MARL, AND LIMESTONE 325–420 FEET THICK
		EAGLE FORD	EAGLE FORD	SHALE AND SILTY LIMESTONE TO CALCAREOUS SILTSTONE 25–65 FEET THICK
			BUDA	LIMESTONE UP TO 45 FEET THICK
	LOWER CRETACEOUS (COMANCHEAN)		DEL RIO	CLAY 40–70 FEET THICK
			GEORGETOWN	LIMESTONE AND MARL 30–80 FEET THICK
		FREDERICKSBURG	EDWARDS	LIMESTONE AND DOLOSTONE 60–350 FEET THICK
			COMANCHE PEAK	LIMESTONE AND MARL UP TO 80 FEET THICK
			WALNUT FORMATION	LIMESTONE AND MARL UP TO 130 FEET THICK
			PALUXY SAND	SAND UP TO 10 FEET THICK

Geologic unit that directly underlies the subject property

M. TROJAN & ASSOCIATES
Environmental Consultants
P.O. Box 338
Thorndale, Texas 76577
(512) 917-3695

Scale: No Scale
Date: January 16, 2023
Project: TCEQ Geologic Assessment
MTA Project: 2PC-22-011

STRATIGRAPHIC COLUMN

9.29-ACRE UNDEVELOPED TRACT
4775 WILLIAMS DRIVE
GEORGETOWN, WILLIAMSON COUNTY, TEXAS 78633

ATTACHMENT C

SITE GEOLOGY AND FEATURES

TOPOGRAPHY AND SURFACE WATER HYDROLOGY

According to the Williamson County GIS and City of Georgetown GIS, the study area slopes very gently toward the northeast (refer to Figure 3 of Attachment D). Topographic elevations on the study area range between approximately 898 and 877 feet above mean sea level (msl), with the highest elevations located along the southwest property boundary (along Williams Drive) and the lowest elevations near the northern-most property corner.

As is depicted on Figure 3 of Attachment D, stormwater runoff generated within the study area boundaries flows primarily toward the northeast and discharges offsite to a designated drainage easement located directly northeast of the property. Offsite runoff flows along the easement to the northwest for approximately 880 feet and discharges to an ephemeral stream that crosses Big Bend Trail. Based on reconnaissance of the property, all onsite runoff was observed to represent overland (sheet) flow. The site reconnaissance did not identify any onsite defined drainage ways/streams, nor any active or inactive springs.

The study area lies in the Berry Creek watershed. This area exhibits very gently sloping drainage basins with relatively sparse "defined" creeks/streams. Berry Creek lies approximately one mile to the north-northeast of the tract. According to review of a FEMA Flood Insurance Rate Map and Williamson County GIS, no portion of the study area lies within the 100-year floodplain. Moreover, no portion of the property lies within an area designated as a waterway setback zone.

SOILS

According to the *Soil Survey of Williamson County, Texas*, the soils that are reported to cover the study area are as follows (also refer to Figure 4 of Attachment D for soil type locations):

Soil Component Name:	Doss silty clay, 1–5% slopes (DoC)
Soil Surface Texture:	Dark grayish-brown silty clay to approximately 9 inches, underlain by brown silty clay loam to about 19 inches, underlain by limy earth interbedded with fragments of limestone
Hydrologic Group:	Permeability is slow; available water capacity is low
Soil Drainage Class:	Well drained
Soil Component Name:	Eckrant extremely stony clay, 0 – 3% slopes (EeB)
Soil Surface Texture:	Very dark gray, extremely stony silty clay loam to approximately 11 inches, underlain by indurated limestone

Hydrologic Group:	Permeability is very slow; available water capacity is very low; runoff is rapid
Soil Drainage Class:	Well drained

Based on the *Soil Survey* and as is depicted on Figure 4 of Attachment D, the Eckrant extremely stony clay soils are reported to cover majority of the study area, while the Doss silty clay covers a relatively small component of the property near the western-most property corner. Shallow excavations were made at various locations across the property and observations of the soil characteristics confirmed the presence of soils similar to those described in the *Soil Survey*. The soils were found to be relatively shallow to medium-thick and fine-grained. The Eckrant soils on the central and northeast components of the tract were observed to exhibit modest to high concentrations of embedded rock fragments up to 5.5 feet in size.

GEOLOGY

According to the *Geologic Map of the West Half of the Taylor, Texas 30X60 Minute Quadrangle* and the *Geologic Atlas of Texas, Austin Sheet*, the study area is reported to be underlain by the Georgetown Formation (Kgt) (refer to Figure 5 of Attachment D for a regional geologic map and the stratigraphic column in Attachment B). The Georgetown Formation consists of limestone and marl (mostly limestone). The limestone is light gray, fine grained, nodular, and moderately indurated. Some limestone is white, hard, brittle, and thick bedded. The Georgetown also includes some shale that is light gray to yellowish gray, marly, and soft. The thickness is reported to range 30 to 80 feet, and the formation thins southward.

Given the consistent soil cover over the entire study area, no true geologic rock outcrops were observed at ground surface. However, "loose" rock fragments up to approximately 5.5 feet in size were observed embedded in surface soils, primarily on the northeastern half of the tract (refer to photograph in Attachment E). All bedrock fragments were observed to be light gray, fine- to very fine-grained and hard. Where access was available, no true geologic outcrops were observed on neighboring properties at distances of up to 200 feet from all boundaries of the tract.

SENSITIVE KARST AND MANMADE FEATURES

Onsite Features

The field reconnaissance of the study area included search for and identification of sensitive karst and manmade features, as defined by TCEQ, and to note potential ground recharge points that may be associated with such features. The field reconnaissance entailed walking 25- to 50-foot spaced transects across the entire study area. The results of the reconnaissance are provided below.

Caves

Based on TCEQ criteria, a cave is a natural underground open (or filled) space formed by dissolution of limestone that is large enough for an average-sized person to enter. When a surface cave opening is encountered, then the subsurface extent of the cave is relevant in terms of subsurface recharge.

Based on observations made across the entire study area, no cave openings/caves were identified.

Solution Cavities

Based on TCEQ criteria, a solution cavity is a natural cavity or depression formed as a result of dissolution of limestone. This category is designed to capture features that are not large enough for a normal-sized person to enter but appear to be part of a system of interconnected voids that connect the surface with the subsurface. The size and geometry of the feature is defined by in-place bedrock. Solution cavities also include areas where dissolution has increased the opening size and permeability along bedding planes as well as fractures.

Based on observations made across the entire study area, no solution cavities were identified.

Solution-Enlarged Fractures

Based on TCEQ criteria, a solution-enlarged fracture is one that shows evidence of being locally enlarged by dissolution of limestone, recognized by measurable (larger than hairline) openings and miss-matched fracture surface shapes.

Based on observations made across the entire study area, no solution-enlarged fractures were identified.

Faults

Based on TCEQ criteria, a fault is defined as a fracture along which there has been displacement of one side of the fracture relative to the other side. Displaced geologic materials and/or an abrupt change in surface topography can both be indicative of the presence of a fault.
Based on observations made across the entire study area, no faults were identified. Moreover, information obtained from technical publications

reviewed as part of this *Geologic Assessment* suggests that no known faults are located within the study area or in the close proximity.

Swallet or Swallow Holes

Based on TCEQ criteria, a swallet or swallow hole may include a focused recharge feature in an intermittent drainage or stream in karst terrain. Some swallow holes have a surface expression, for example, a cave opening or formation of a whirlpool in the stream at high flow. The general case is that fine soil and sediment as well as gravel are deposited over the bedrock feature during falling stages of flow, thereby intermittently or frequently obscuring the feature.

Based on observations made across the entire study area, no swallet or swallow holes were identified.

Sinkholes

Based on TCEQ criteria, a sinkhole represents a shallow, broad topographic depression formed in response to karst processes. Sinkholes are pragmatically defined as features greater than six (6) feet in diameter with more than six (6) inches of topographic relief. Sinkholes are usually circular in map view. In cross section they may be subtle swales or funnel-shaped pits and some have exposed rimrock at the perimeter. The presence of a sinkhole implies that processes including collapse, subsidence, and soil sapping over geologic time have caused the land surface to sink below the surrounding area.

Based on observations made across the entire study area, no sinkholes were identified.

Other Natural Bedrock Features

Based on TCEQ criteria, other natural bedrock features include vuggy rock and reef deposits that may contain large holes or vugs.

Based on observations made across the entire study area, no other natural bedrock features were identified.

Non-karst Closed Depressions

Based on TCEQ criteria, a non-karst closed depression is a natural or non-natural topographic depression that is not formed by karst processes and is

not bedrock floored. A feature larger than six (6) feet in at least one direction and with six (6) inches or more of topographic relief should be considered as a feature.

Based on observations made across the entire study area, no non-karst closed depressions were identified.

Zones

Based on TCEQ criteria, a zone is an area in which any type of karst feature occurs along a trend or in a cluster. Clustered or aligned features are more likely to be an indicator of an integrated flow system at depth than isolated features. Alignment is expected in areas where conduit flow is strongly influenced by structurally controlled fractures.

Based on observations made across the entire study area, no zones were identified.

Manmade Features in Bedrock

Based on TCEQ criteria, manmade features in bedrock may include water wells, sanitary sewer lines, storm sewer lines, trenches, quarries, and other cultural features that intersect bedrock and can potentially increase the rate of recharge to the subsurface.

Based on observations made across the entire study area, the following manmade features in bedrock were identified:

Onsite Manmade Feature in Bedrock MB-1

Latitude: 30.689671
Longitude: -97.721674
Dimensions: unknown

Onsite Feature MB-1 represents a water well located on the northeastern half of the study area (refer to the Geologic Assessment Table in Attachment A, Figure 6 of Attachment D and photograph in Attachment E). The well was observed to be not functional and in an abandoned state. In the event that the well is not resurrected for future use, the well should be plugged and abandoned according to appropriate State rules.

Onsite Manmade Feature in Bedrock MB-2

Latitude: 30.689874
Longitude: -97.722554
Dimensions: unknown

Onsite Feature MB-2 represents an underground septic tank/field located directly northwest of the former residence on the central part of the study area (refer to the Geologic Assessment Table in Attachment A and Figure 6 of Attachment D). The exact location of the underground infrastructure could not be determined, and there was no information available to determine whether the underground tank was properly closed/abandoned or removed. If still present, this feature is engineered, fully-enclosed and installed in bedrock that presumably showed no evidence of karst features during the installation process.

Offsite Features

The field reconnaissance also included inspection of neighboring properties a distance of approximately 200 feet (as practical) from all boundaries of the study area for identification of offsite sensitive karst and/or manmade features in bedrock that could be deemed as significant in terms of development on the study area. The following offsite features were identified:

Offsite Manmade Feature in Bedrock MB-3

Latitude: N/A
Longitude: N/A
Dimensions: N/A

Features represented by offsite Feature MB-3 qualify as manmade features in bedrock. The features include any/all underground infrastructure that has been installed along the southwest property boundary – along Williams Drive – including a water line and cable (refer to Geologic Assessment Table in Attachment A and Figure 6 of Appendix D). These features are engineered and represent fully-enclosed wet and dry lines (Note: This assessment has no knowledge of the installation details).

The infrastructure is installed in bedrock that presumably showed no evidence of karst features during the installation process. Therefore, it is assessed that the underground infrastructure is not significant in the potential to increase the rate of recharge to the subsurface. It is further assessed that these features will not be affected by future development on the tract.

Offsite Manmade Feature in Bedrock MB-4

Latitude: N/A
Longitude: N/A
Dimensions: N/A

Features represented by offsite Feature MB-4 qualify as manmade features in bedrock. The features include any/all underground infrastructure that has been installed along Verde Vista directly east of the eastern-most property corner (refer to Geologic Assessment Table in Attachment A and Figure 6 of Appendix D). Based on visual inspection of this offsite area, the infrastructure was observed to include a water line and gas line. These features are engineered and represent fully-enclosed wet and dry lines (Note: This assessment has no knowledge of the installation details).

The infrastructure is installed in bedrock that presumably showed no evidence of karst features during the installation process. Therefore, it is assessed that the underground infrastructure is not significant in the potential to increase the rate of recharge to the subsurface. It is further assessed that these features will not be affected by future development on the tract.

POTENTIAL FOR FLUID MOVEMENT TO THE SUBSURFACE

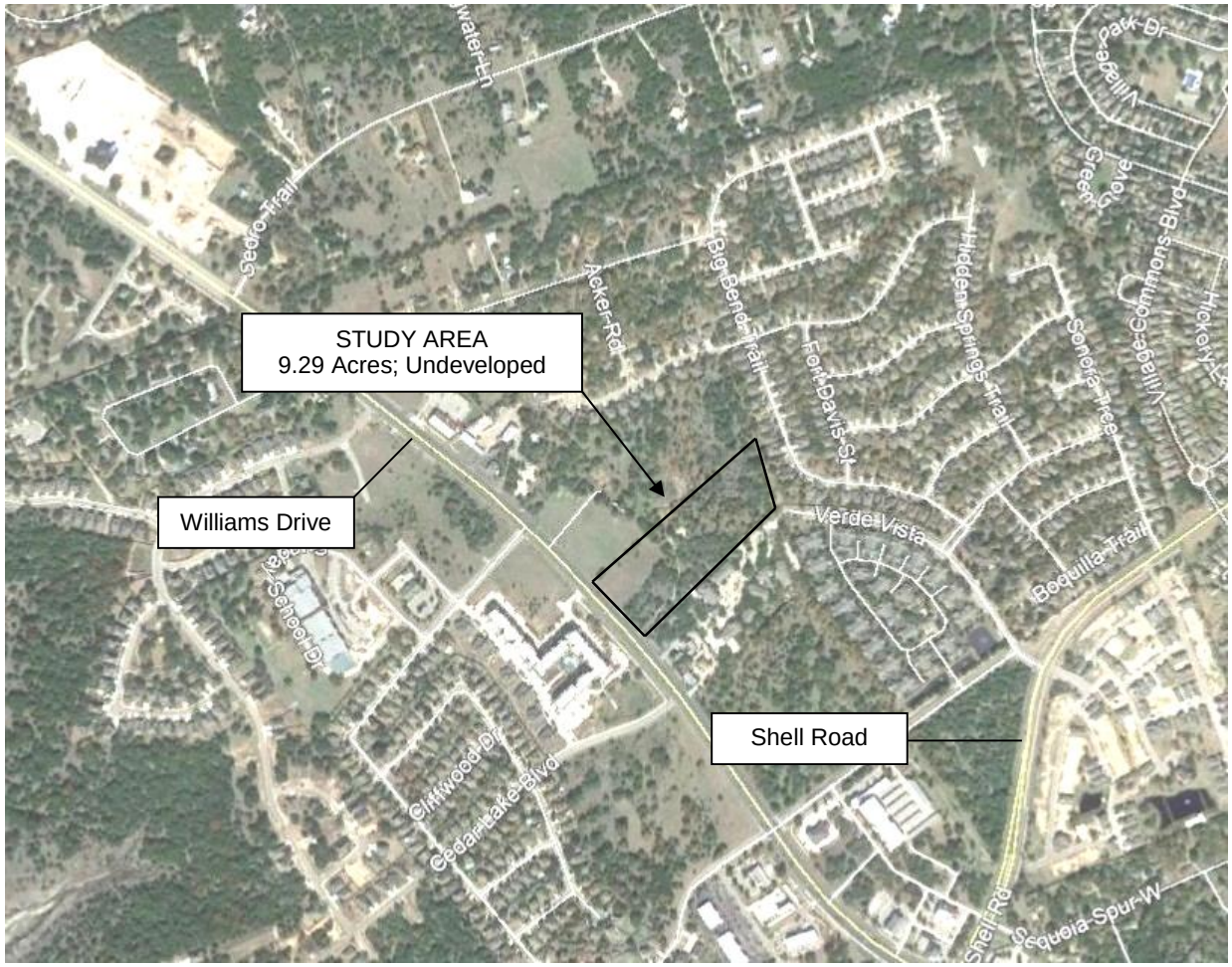
Based on review of available information and visual observations made during the field reconnaissance, this *Geologic Assessment* presents the following observations regarding the potential for recharge of the subsurface within the study area:

- Characteristics of soils that cover the study area are the primary factors that influence potential subsurface recharge on the property. The presence of primarily Eckrant soils with reported very slow permeability suggests overall very slow recharge potential to the subsurface.

- No "defined" karst recharge points with focused recharge potential were observed to be located on the study area.

ATTACHMENT D

SITE GEOLOGIC MAPS



M. TROJAN & ASSOCIATES
Environmental Consultants

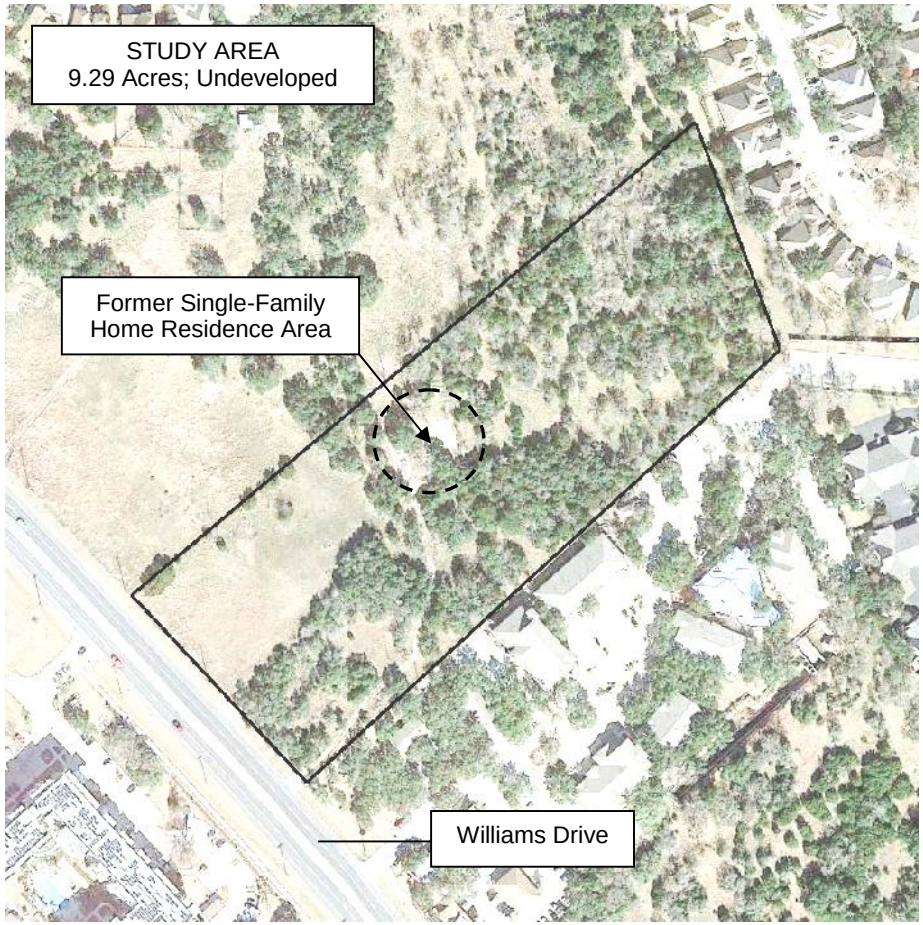
P.O. Box 338
Thorndale, Texas 76577
(512) 917-3695

Scale:	No Scale
Date:	January 16, 2023
Project:	TCEQ Geologic Assessment
MTA Project:	2PC-22-011

FIGURE 1

SITE LOCATION MAP

9.29-ACRE UNDEVELOPED TRACT
4775 WILLIAMS DRIVE
GEORGETOWN, WILLIAMSON COUNTY, TEXAS 78633



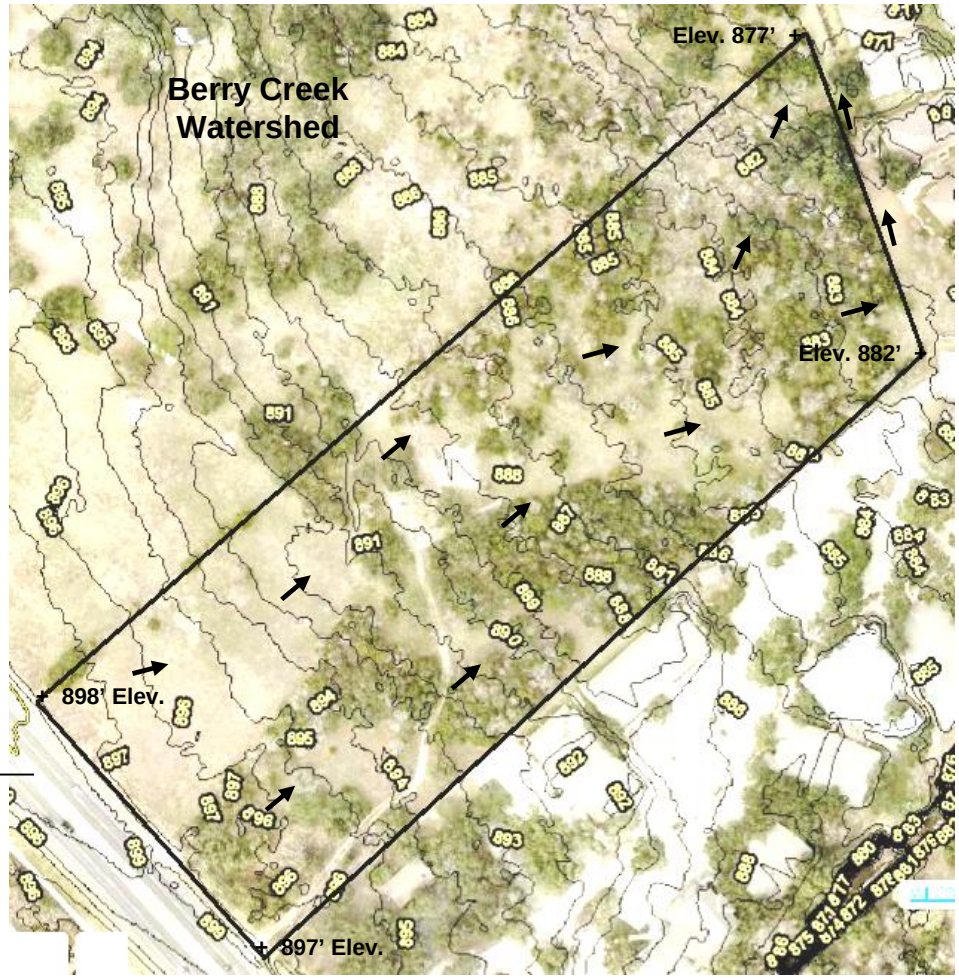
M. TROJAN & ASSOCIATES
Environmental Consultants
P.O. Box 338
Thorndale, Texas 76577
(512) 917-3695

Scale: 1" = 300' (approx.)
Date: January 16, 2023
Project: TCEQ Geologic Assessment
MTA Project: 2PC-22-011

FIGURE 2

SITE AERIAL PHOTOGRAPH

9.29-ACRE UNDEVELOPED TRACT
4775 WILLIAMS DRIVE
GEORGETOWN, WILLIAMSON COUNTY, TEXAS 78633



Note: Topographic elevations depicted are approximate

Stormwater Runoff

M. TROJAN & ASSOCIATES
Environmental Consultants

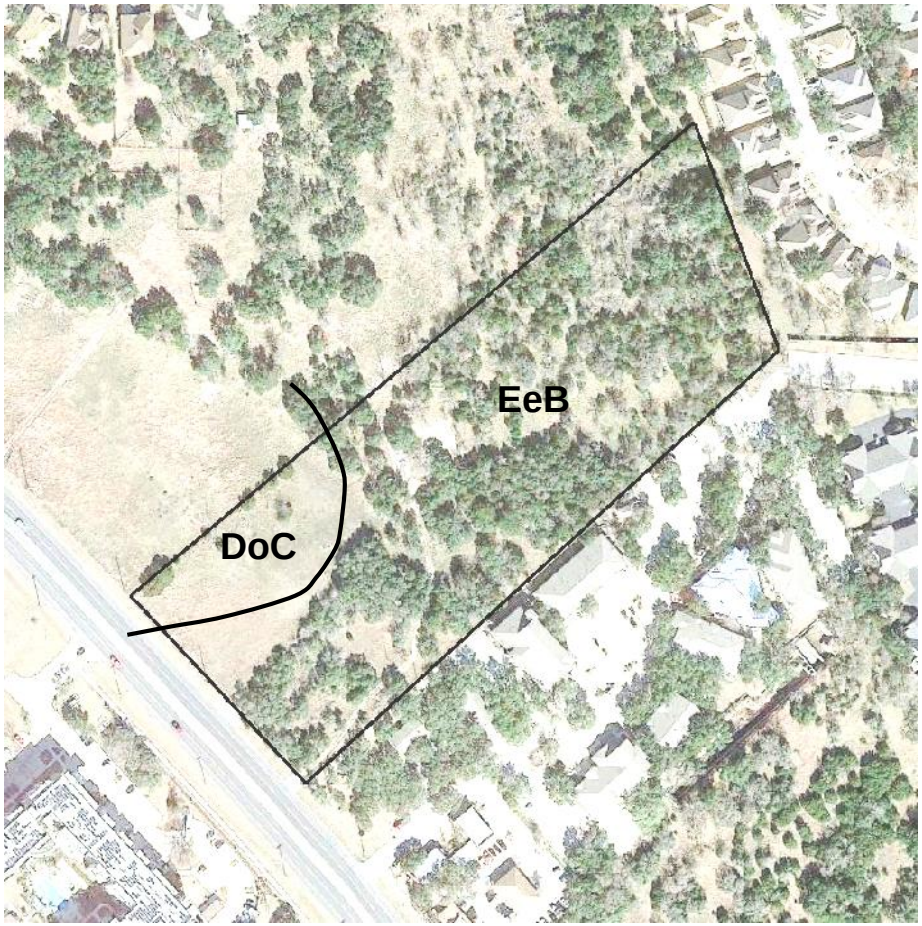
P.O. Box 338
Thorndale, Texas 76577
(512) 917-3695

Scale:	1" = 220' (approx.)
Date:	January 16, 2023
Project:	TCEQ Geologic Assessment
MTA Project:	2PC-22-011

FIGURE 3

SURFACE WATER HYDROLOGY

9.29-ACRE UNDEVELOPED TRACT
4775 WILLIAMS DRIVE
GEORGETOWN, WILLIAMSON COUNTY, TEXAS 78633



DoC – Doss silty clay, 1-5% slopes / EeB – Eckrant extremely stony clay, 0-3% slopes

M. TROJAN & ASSOCIATES
Environmental Consultants

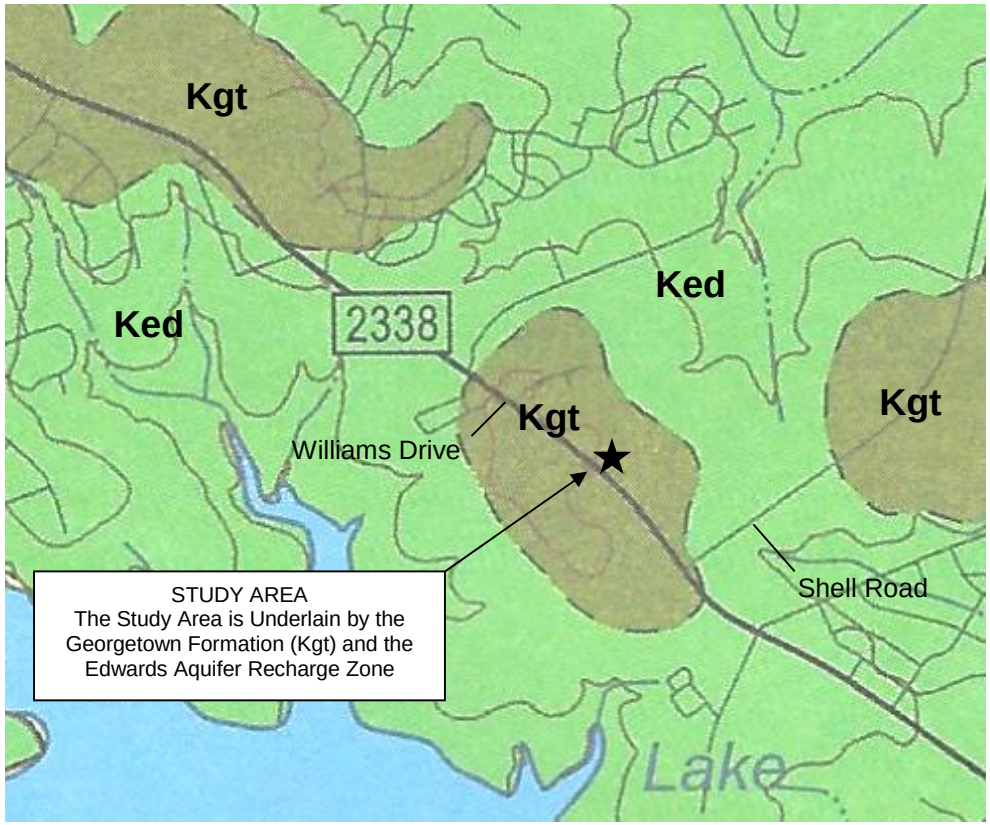
P.O. Box 338
Thorndale, Texas 76577
(512) 917-3695

Scale: 1" = 300' (approx.)
Date: January 16, 2023
Project: TCEQ Geologic Assessment
MTA Project: 2PC-22-011

FIGURE 4

SITE SOILS MAP

9.29-ACRE UNDEVELOPED TRACT
4775 WILLIAMS DRIVE
GEORGETOWN, WILLIAMSON COUNTY, TEXAS 78633



Ked– Edwards Formation / Kgt – Georgetown Formation

NOTE: Study area location is approximate
Sources: (1) Geologic Map of the West Half of the Taylor, Texas 30X60 Minute Quadrangle, Bureau of Economic Geology, dated 2005 (2) TCEQ

M. TROJAN & ASSOCIATES
Environmental Consultants

P.O. Box 338
Thorndale, Texas 76577
(512) 917-3695

Scale: No Scale
Date: January 16, 2023
Project: TCEQ Geologic Assessment
MTA Project: 2PC-22-011

FIGURE 5

GENERAL GEOLOGIC MAP

9.29-ACRE UNDEVELOPED TRACT
4775 WILLIAMS DRIVE
GEORGETOWN, WILLIAMSON COUNTY, TEXAS 78633

ONSITE FEATURES

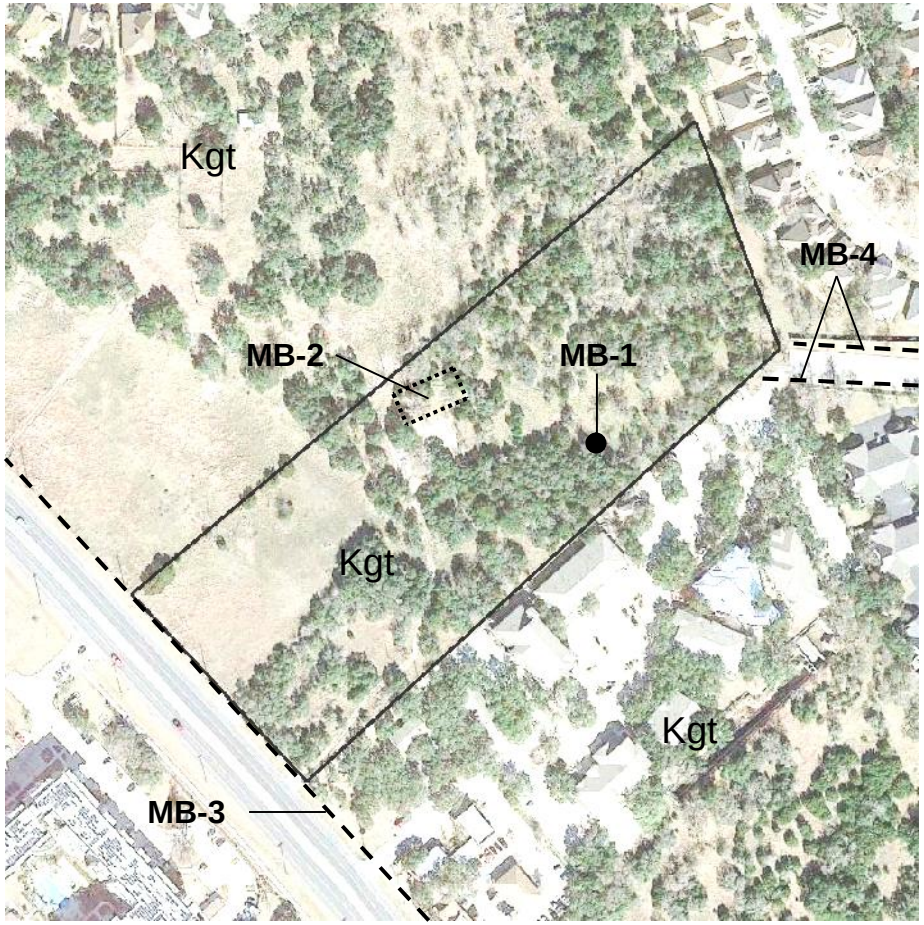
MB-1: Manmade feature in bedrock (water well)

MB-2: Manmade feature in bedrock (septic tank/field; area is approximate)

OFFSITE FEATURES (within 200')

MB-3: Area of manmade features in bedrock (underground infrastructure)

MB-4: Area of manmade features in bedrock (underground infrastructure)



NO ONSITE OR OFFSITE KARST FEATURES IDENTIFIED

NOTES

Kgt – Georgetown Formation
Refer to Attachment C for feature details.

M. TROJAN & ASSOCIATES
Environmental Consultants

P.O. Box 338
Thorndale, Texas 76577
(512) 917-3695

Scale:	1" = 300' (approx.)
Date:	January 16, 2023
Project:	TCEQ Geologic Assessment
MTA Project	2PC-22-011

FIGURE 6

SITE GEOLOGIC MAP

9.29-ACRE UNDEVELOPED TRACT
4775 WILLIAMS DRIVE
GEORGETOWN, WILLIAMSON COUNTY, TEXAS 78633

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.

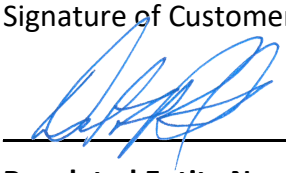
Signature

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: David Platt

Date: 7/24/2023

Signature of Customer/Agent:



Regulated Entity Name: Williams Senior Living

Regulated Entity Information

1. The type of project is:

   ☐ Residential: Number of Lots:_____
   ☒ Residential: Number of Living Unit Equivalents:214 Multi-Family Units
   ☐ Commercial
   ☐ Industrial
   ☐ Other:_____

2. Total site acreage (size of property):8.55

3. Estimated projected population:161

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	87,038	÷ 43,560 =	2.00
Parking	94,525	÷ 43,560 =	2.17
Other paved surfaces	26,968	÷ 43,560 =	0.62
Total Impervious Cover	208,531	÷ 43,560 =	4.79

Total Impervious Cover 4.79 **÷ Total Acreage** 8.55 **X 100 =** 56.0**% 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	40,125 Gallons/day
_____% Industrial	_____ Gallons/day
_____% Commingled	_____ Gallons/day
TOTAL gallons/day 40,125	

15. Wastewater will be disposed of by:

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

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

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

☒ Sewage Collection System (Sewer Lines):

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

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

☐ The SCS was previously submitted on_____.

☐ The SCS was submitted with this application.

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

☒ The sewage collection system will convey the wastewater to the Pecan Branch Wastewater (name) Treatment Plant. The treatment facility is:

☒ Existing.
☐ Proposed.

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

Site Plan Requirements

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

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

Site Plan Scale: 1" = 40'.

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 FIRM Map Panel Number 48491C0280E effective September 26, 2008.

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

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

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

☒ There are 1 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)

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

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

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

☒ All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.
☐ No sensitive geologic or manmade features were identified in the Geologic Assessment.

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

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

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

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

Administrative Information

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

Attachment A – Factors Affecting Surface Water Quality

The following factors are anticipated to adversely affect surface water and groundwater quality:

- Disturbance of vegetated areas.
- Leaking oil from parked vehicles.
- Malfunctioning wastewater collection system and spill on site.
- Loss of vegetative ground cover due to inadequate watering or mismanagement.
- Over fertilizing vegetative areas.
- The use of roads by automotive traffic and subsequent oil/grease pollutants from normal use.
- The accidental or improper discharge of the following:
    a) Concrete
    b) Cleaning solvents
    c) Detergents
    d) Petroleum based products
    e) Paints
    f) Paint solvents
    g) Acids
    h) Concrete additives

Attachment B – Volume and Character of Storm Water

The character of the storm water generated by this project is typical of a high-density residential-type development. The drainage on the site flows to the northeast. The proposed Williams Senior Living project is composed of a single drainage area which discharges into Berry Creek and then into the San Gabriel River further downstream. A summary of the drainage calculations is below.

Table 1: Peak Flow Comparison

	Storm Frequency Peak Flow [cfs]			
Basin	**2 Year**	**10 Year**	**25 Year**	**100 Year**
Existing Basin A	11.3	27	36.4	52.1
Proposed Basin A	23.3	43.2	54.8	73.8
Delta	12	16.2	18.4	21.7
Detention	11	26.4	35.7	51.5
Delta	-0.3	-0.6	-0.7	-0.6

SITE DEVELOPMENT PLAN (2023-21-SDP)
WILLIAMS SENIOR LIVING
4775 WILLIAMS DRIVE
CITY OF GEORGETOWN
WILLIAMSON COUNTY, TEXAS

PROJECT INFORMATION

SITE ADDRESS:	4775 Williams Drive Georgetown, TX 78633
OWNER/ APPLICANT:	Novak Williams Senior Living, LLC 1500 Rivery Blvd., Suite 2200 Georgetown, Texas 78628 512-943-4703 https://novakbros.com/
ARCHITECT:	HEDK Architects 4595 Excel Parkway Addison, TX 75001 214-520-8878 https://hedk.com/
CIVIL ENGINEER:	Steger Bizzell 1978 S. Austin Avenue Georgetown, TX 78626 512-930-9412 info@stegerbizzell.com https://stegerbizzell.com/
MEP:	Jordan & Skala Engineers 10375 Richmond Ave #300 Houston, TX 77042 281-617-3200 https://www.jordanskala.com/
LA:	Covey Planning and Landscape Architecture 800 S Austin Ave Georgetown, TX 78626 512-887-5311 https://coveylandscape.com/
ORIGINAL DATE:	April 17, 2023
REVISION DATE:	
ACREAGE:	8.55 Acres
EXISTING IMPERVIOUS COVER:	0.27 Acres (3.1%)
PROPOSED IMPERVIOUS COVER:	4.79 Acres (56.0% Limits of Construction)
LIMITS OF CONSTRUCTION:	8.55 Acres
LEGAL DESCRIPTION:	Lot 4, Blocks A & B of the Schiller Business Park Subdivision as recorded in Doc. #_____ of the O.P.R.W.C.T.
PROPOSED USE:	Multifamily, Attached
UTILITY PROVIDERS:	Domestic Water - City of Georgetown Wastewater - City of Georgetown City of Georgetown Utility Systems 300 Industrial Ave. Georgetown, TX 78626 512-930-3640 gus.georgetown.org Electric - Pedernales Electric Coorperative, Inc. 10625 W. Highway 29 Liberty Hill, TX 78642 888-554-4732 https://www.pec.coop/
ZONING INFORMATION:	C-1, SUP- SENIOR LIVING SPECIAL USE PERMIT, ORD 2022-83 (2022-10-SUP)

SITE PLAN NOTES:

1. It is the responsibility of the property owner, and successors to the current property owner, to ensure the subject property and any improvements are maintained in conformance with this Site Development Plan.
2. This development shall comply with all standards of the Unified Development Code (UDC), the City of Georgetown Construction Standards and Specifications Manual, the Development Manual and all other applicable City standards.
3. This Site Development Plan shall meet the UDC Stormwater requirements.
4. All signage requires a separate application and approval from the Inspection Services Department. No signage is approved with the Site Development Plan.
5. Sidewalks shall be provided in accordance with the UDC.
6. Driveways will require approval by the Development Engineer of the City of Georgetown.
7. Outdoor lighting shall comply with Section 7.04 of the UDC.
8. Screening of mechanical equipment, dumpsters and parking shall comply with Chapter 8 of the UDC. The screening is shown on the Landscape and Architectural Plans, as applicable.
9. The companion Landscape Plan has been designed and plant materials shall be installed to meet all requirements of the UDC.
10. All maintenance of required landscape shall comply with the maintenance standards of Chapter 8 of the UDC.
11. A separate Irrigation Plan shall be required at the time of building permit application.
12. Fire flow requirements of 1500 gallons per minute are being met by this plan.
13. Any Heritage Tree noted on this Site Development Plan is subject, in perpetuity, to the maintenance, care, pruning and removal requirements of the Unified Development Code.
14. The construction portion of these plans were prepared, sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the construction plans for construction of the proposed project are hereby approved subject to the Standard Construction Specifications and Details Manual and all other applicable City, State and Federal Requirements and Codes.
15. This project is subject to all City Standard Construction Specifications and Details in effect at the time of submittal of the project to the City.
16. Where no existing overhead infrastructure exists, underground electric utility lines shall be located along the street and within the site. Where existing overhead infrastructure is to be relocated, it shall be reinstalled underground and the existing facilities shall be removed at the discretion of the Development Engineer.
17. All electric and communication infrastructure shall comply with UDC Section 13.06.
18. The property subject to this application is subject to the Water Quality by Regulations of the City of Georgetown.
19. A Geologic Assessment, in accordance with the City of Georgetown Water Quality Regulations, was completed on 1/10/2023. Any springs and streams as identified in the Geologic Assessment are shown herein.
20. SUP, SENIOR LIVING SPECIAL USE PERMIT, ORD 2022-83 (2022-10-SUP), has been approved for this development.

Submitted By:

STATE OF TEXAS
DAVID L. PLATT
115964
LICENSED
PROFESSIONAL ENGINEER

DAVID L. PLATT, P.E.

2023-07-07
Date

Location Map
1" = 1000' @ 22" x 34"

Sheet List Table

Sheet #	Sheet Title	Sheet #	Sheet Title
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03	PLAT	20	STRM-A01 PLAN & PROFILE - STA. 0+00 TO END
04	EROSION & SEDIMENTATION CONTROL PLAN	21	STRM-B01 PLAN & PROFILE - STA. 0+00 TO END
05	EROSION & SEDIMENTATION CONTROL DETAILS	22	GRADING PLAN
06	TREE MITIGATION PLAN	23	DECEL LANE PLAN
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09	DEVELOPED DRAINAGE MAP	26	DRAINAGE, PAVING, STRIPING, & SIGNAGE DETAILS (CONT.)
10	WATER QUALITY & DETENTION POND PLAN	27	TRAFFIC CONTROL PLAN
11	WATER QUALITY & DETENTION POND DETAILS	28	TRAFFIC CONTROL PLAN DETAILS (1 OF 7)
12	SITE PLAN	29	TRAFFIC CONTROL PLAN DETAILS (2 OF 7)
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15	WATER & FIRE DETAILS (CONT.)	32	TRAFFIC CONTROL PLAN DETAILS (5 OF 7)
16	SEWER PLAN	33	TRAFFIC CONTROL PLAN DETAILS (6 OF 7)
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		ARCH	
		A4-00	BUILDING ELEVATIONS
		A4-01	BUILDING ELEVATIONS
		A4-02	BUILDING ELEVATIONS
		A4-03	BUILDING ELEVATIONS
		A4-04	BUILDING ELEVATIONS
		A4-05	BUILDING ELEVATIONS
		A4-06	BUILDING ELEVATIONS
		A4-07	BUILDING ELEVATIONS
		A4-08	BUILDING ELEVATIONS
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		MEP	
		E1-01	ELECTRICAL SITE PLAN
		E1-02	ELECTRICAL LIGHTING PLAN
		E1-03	ELECTRICAL PHOTOMETRIC PLAN
		LA	
		L100	LANDSCAPE PLAN
		L200	LANDSCAPE DETAILS & SCHEDULES

ITE TRIP GENERATION:

AM PEAK TRIPS
Senior Adult Housing - Multifamily = 62 (28 ENTRY, 34 EXIT)

PM PEAK TRIPS
Senior Adult Housing - Multifamily = 64 (35 ENTRY, 29 EXIT)

AVERAGE DAILY TRIPS
Senior Adult Housing - Multifamily = 693 (347 ENTRY, 346 EXIT)

BENCHMARKS:

BEFORE YOU DIG Texas811.com

TEXAS ONE-CALL 800-344-8377

NOTE TO CONTRACTOR:

CONTRACTOR IS TO FURNISH A SET OF CONSTRUCTION PLANS BACK TO THE ENGINEER AT THE END OF THE PROJECT WITH ALL DEVIATIONS NOTED IN RED INK ON THE PLAN SHEETS. CONTRACTOR SHALL NOT RECEIVE FINAL PAYMENT UNTIL COMPLETE "AS-BUILT" SET IS RETURNED TO ENGINEER.

NOTE:
CONTRACTOR SHALL UNCOVER AND VERIFY LOCATIONS, BOTH HORIZONTALLY AND VERTICALLY, OF ALL EXISTING UTILITIES ALONG THE PROPOSED ROUTE. IF A CONFLICT EXISTS BETWEEN THE PROPOSED PROJECT AND ANY EXISTING UTILITY, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT CAN BE RESOLVED.

STEGER BIZZELL

ADDRESS 1978 S. AUSTIN AVENUE | GEORGETOWN, TX 78626
METRO 512.930.9412 | TEXAS REGISTERED ENGINEERING FIRM F-181 TBPLS FIRM No.10003700 | WEB STEGERBIZZELL.COM
SERVICES >>ENGINEERS >>PLANNERS >>SURVEYORS

Warning!
There are existing water pipelines, underground telephone cables and other above and below ground utilities in the vicinity of this project. The Contractor shall contact all appropriate companies prior to any construction in the area and determine if any conflicts exist. If so, the Contractor shall immediately contact the Engineer who shall revise the design as necessary.

2"x3" SPACE RESERVED
FOR CITY APPROVAL STAMP

COG Project Number: 2023-21-SDP
Project Number: 22868
Sheet 01 of 34

HANDICAP ACCESSIBILITY NOTES:

1. TEXTURES SHALL CONSIST OF EXPOSED CRUSHED STONE AGGREGATE, ROUGHENED CONCRETE, RUBBER, RAISED ABRASIVE STRIPS, OR GROOVES EXTENDING THE FULL WIDTH AND DEPTH OF THE CURB RAMP. SURFACES THAT ARE RAISED, ETCHED, OR GROOVED IN A WAY THAT WOULD ALLOW WATER TO ACCUMULATE ARE PROHIBITED.

2. FOR PURPOSES OF WARNING, THE FULL WIDTH AND DEPTH OF CURB RAMPS SHALL HAVE A LIGHT REFLECTIVE VALUE AND TEXTURE THAT SIGNIFICANTLY CONTRASTS WITH THAT OF ADJOINING PEDESTRIAN ROUTES.

3. ACCESSIBLE PARKING SPACES SHALL BE AT LEAST 8 FEET WIDE.

4. PARKING SPACES AND AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 1:50 (2%) IN ALL DIRECTIONS.

5. ACCESSIBLE AISLES SHALL BE A MINIMUM OF 5 FEET WIDE. VAN ACCESSIBLE AISLES SHALL BE A MINIMUM OF 8 FEET WIDE.

6. ADDITIONAL INFORMATION ON CURB RAMPS, PARKING SPACES AND AISLES MAY BE FOUND IN THE CURRENT ADDITION OF TEXAS ACCESSIBILITY STANDARDS (TAS) PREPARED AND ADMINISTERED BY THE T.D.L.R.

7. ANY PART OF THE ACCESSIBLE ROUTE WITH A SLOPE GRATER THAN 1:20 (5%) SHALL BE CONSIDERED A RAMP. IF A RAMP HAS A RISE GREATER THAN 6 INCHES OR A HORIZONTAL PROJECTION GREATER THAN 72 INCHES, THEN IT SHALL HAVE HANDRAILS ON BOTH SIDES. THE ONLY EXCEPTION IS AT CURB RAMPS. HANDRAILS ARE NOT REQUIRED ON CURB RAMPS. CURB RAMPS SHALL BE PROVIDED WHERE EVER AN ACCESSIBLE ROUTE CROSSES (PENETRATES) A CURB. CURB RAMPS ARE GENERALLY INTERPRETED AS ONLY THE PORTION TYING DIRECTLY INTO THE ROADWAY.

8. ALL SIDEWALK CROSS-SLOPES SHALL NOT EXCEED 1:50, UNLESS A VARIANCE IS PROVIDED BY TDLR.

9. UNDER NO CIRCUMSTANCE, REGARDLESS OF WHAT IS SHOWN IN THESE PLANS, IS THE CONTRACTOR RELIEVED OF HIS SOLE RESPONSIBILITY FOR COMPLIANCE WITH ALL ACCESSIBILITY LAWS AND/OR RULES BY THE ADA, TDLR OR OTHER REGULATORY AGENCY. SEE GENERAL NOTES SHEET FOR ADDITIONAL INFO.

ACCESSIBILITY NOTES

1. Project shall be constructed in full compliance with the Texas Accessibility Standards (TAS) 2012.

2. Slopes in the direction of pedestrian travel shall not exceed 5% (1:20) or have a cross slope greater than 2% (1:48). This shall include routes that cross-vehicular ways including but not limited pedestrian/ vehicular ways such as street intersections.

   A. Exception: Per TAS 405.8 and 68.102 (1) grades at the new sidewalks parallel to the streets shall be equal to, or less than, the street grade. Should the new sidewalks exceed the street grade, and the new sidewalk grades exceed 5% in the direction of travel, ramps complying with TAS 405 are required at these conditions.

3. Curb Ramps:
   A. Curb ramps shall not exceed 8.3% (1:12) in the direction of pedestrian ravel.
   B. Curb ramps flares (wings) shall not exceed 1:10.
   C. Minimum width of a curb ramp is 36".
   D. Top of the curb ramp must be 2% in all directions for an area 36" wide and 48"deep.
   E. When truncated domes are used, the truncated dome system shall extend the full width of the curb ramp and for a minimum depth of 24" at the bottom of the curb ramp.
   F. Returned curb ramps shall only be used where the adjacent surface on one or both sides of the curb ramp do not allow pedestrian travel such as but not limited to stop lights, stop signs and permanently mounted waste receptacles.

4. There shall be no changes in level greater than ¼" on any accessible route or ½" with a 1:2 bevel.

5. Decomposed granite surfaces, or similar Engineer-approved surfaces shall be compacted tight and maintained by the Owner at all times.

6. Provide directional signage using the international symbol of accessibility when not all routes are accessible. Signage shall be placed at the beginning of the route to avoid a patron from proceeding on a non-accessible route.

7. Verify that no plantings or other site elements on circulation paths would be protruding objects based on TAS 307 (protrudes more 4" and is higher than 27" from the surface and less than 80" from the surface).

Contractor shall notify the Engineer before proceeding with any Work, which is in conflict with the Texas Accessibility Standards. Contractor is financially responsible for proceeding with any Work without written direction on any clarification from the Engineer.

THESE CONSTRUCTION PLANS HAVE BEEN PREPARED TO FULFILL THE REQUIREMENTS FOR THE TCEQ FOR WATER POLLUTION ABATEMENT OVER THE EDWARDS AQUIFER. CONTRACTOR SHALL CONTACT THE ENGINEER FOR ADDITIONAL DETAILED CONSTRUCTION PLANS PRIOR TO CONSTRUCTION.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
WATER DISTRIBUTION SYSTEM
GENERAL CONSTRUCTION NOTES

1. This water distribution system must be constructed in accordance with the current Texas Commission on Environmental Quality (TCEQ) Rules and Regulations for Public Water Systems 30 Texas Administrative Code (TAC) Chapter 290 Subchapter D. When conflicts are noted with local standards, the more stringent requirement shall be applied. Construction for public water systems must always, at a minimum, meet TCEQ's "Rules and Regulations for Public Water Systems.

2. An appointed engineer shall notify in writing the local TCEQ's Regional Office when construction will start. Please keep in mind that upon completion of the water works project, the engineer or owner shall notify the commission's Water Supply Division, in writing, as to its completion and attest to the fact that the work has been completed essentially according to the plans and change orders on file with the commission as required in 30 TAC §290.39(h)(3).

3. All newly installed pipes and related products must conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61-G and must be certified by an organization accredited by ANSI, as required by 30 TAC §290.44(a)(1).

4. Plastic pipe for use in public water systems must bear the National Sanitation Foundation Seal of Approval (NSF pw-G) and have an ASTM design pressure rating of at least 150 psi or a standard dimension ratio of 26 or less, as required by 30 TAC §290.44(a)(2).

5. No pipe which has been used for any purpose other than the conveyance of drinking water shall be accepted or relocated for use in any public drinking water supply, as required by 30 TAC §290.44(a)(3).

6. Water transmission and distribution lines shall be installed in accordance with the manufacturer's instructions. However, the top of the water line must be located below the frost line and in no case shall the top of the water line be less than 24 inches below ground surface, as required by 30 TAC §290.44(a)(4).

7. Pursuant to 30 TAC §290.44(a)(5), the hydrostatic leakage rate shall not exceed the amount allowed or recommended by the most current AWWA formulas for PVC pipe, cast iron and ductile iron pipe. Include the formulas in the notes on the plans.
   - The hydrostatic leakage rate for polyvinyl chloride (PVC) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-605 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use;

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

     Where:
     - Q = the quantity of makeup water in gallons per hour,
     - L = the length of the pipe section being tested, in feet,
     - D = the nominal diameter of the pipe in inches, and
     - P = the average test pressure during the hydrostatic test in pounds per square inch (psi).
   - The hydrostatic leakage rate for ductile iron (DI) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-600 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use;

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

     Where:
     - L = the quantity of makeup water in gallons per hour,
     - S = the length of the pipe section being tested, in feet,
     - D = the nominal diameter of the pipe in inches, and
     - P = the average test pressure during the hydrostatic test in pounds per square inch (psi).

8. Projects constructed on or after January 4, 2014 must comply with changes to the Safe Drinking Water Act that reduce the maximum allowable lead content of pipes, pipe fittings, plumbing fittings, and fixtures to 0.25 percent.

9. The system must be designed to maintain a minimum pressure of 35 psi at all points within the distribution network at flow rates of at least 1.5 gallons per minute per connection. When the system is intended to provide firefighting capability, it must also be designed to maintain a minimum pressure of 20 psi under combined fire and drinking water flow conditions as required by 30 TAC §290.44(d).

10. The contractor shall install appropriate air release devices in the distribution system at all points where topography or other factors may create air locks in the lines. All vent openings to the atmosphere shall be covered with 16-mesh or finer, corrosion resistant screening material or an acceptable equivalent as required by 30 TAC §290.44(d)(1).

11. Pursuant to 30 TAC §290.44(d)(4), accurate water meters shall be provided. Service connections and meter locations should be shown on the plans.

12. Pursuant to 30 TAC §290.44(d)(5), sufficient valves and blowoffs to make repairs. The engineering report shall establish criteria for this design.

13. Pursuant to 30 TAC §290.44(d)(6), the system shall be designed to afford effective circulation of water with a minimum of dead ends. All dead-end mains shall be provided with acceptable flush valves and discharge piping. All dead-end lines less than two inches in diameter will not require flush valves if they end at a customer service. Where dead ends are necessary as a stage in the growth of the system, they shall be located and arranged to ultimately connect the ends to provide circulation.

14. The contractor shall maintain a minimum separation distance in all directions of nine feet between the proposed waterline and wastewater collection facilities including manholes and septic tank drainfields. If this distance cannot be maintained, the contractor must immediately notify the project engineer for further direction. Separation distances, installation methods, and materials utilized must meet 30 TAC §290.44(e)(1-4) of the current rules.

15. Pursuant to 30 TAC §290.44(e)(5), the separation distance from a potable waterline to a wastewater main or lateral manhole or cleanout shall be a minimum of nine feet. Where the nine-foot separation distance cannot be achieved, the potable waterline shall be encased in a joint of at least 150 psi pressure class pipe at least 18 feet long and two nominal sizes larger than the new conveyance. The space around the carrier pipe shall be supported at five-foot intervals with spacers or be filled to the springline with washed sand. The encasement pipe shall be centered on the crossing and both ends sealed with cement grout or manufactured sealant.

16. Pursuant to 30 TAC §290.44(e)(6), fire hydrants shall not be installed within nine feet vertically or horizontally of any wastewater line, wastewater lateral, or wastewater service line regardless of construction.

17. Pursuant to 30 TAC §290.44(e)(7), suction mains to pumping equipment shall not cross wastewater mains, wastewater laterals, or wastewater service lines. Raw water supply lines shall not be installed within five feet of any tile or concrete wastewater main, wastewater lateral, or wastewater service line.

18. Pursuant to 30 TAC §290.44(e)(8), waterlines shall not be installed closer than ten feet to septic tank drainfields.

19. Pursuant to 30 TAC §290.44(f)(1), the contractor shall not place the pipe in water or where it can be flooded with water or sewage during its storage or installation.

20. Pursuant to 30 TAC §290.44(f)(2), when waterlines are laid under any flowing or intermittent stream or semi-permanent body of water the water main shall be installed in a separate watertight pipe encasement. Valves must be provided on each side of the crossing with facilities to allow the underwater portion of the system to be isolated and tested.

21. The contractor shall disinfect the new water mains in accordance with AWWA Standard C-651 and then flush and sample the lines before being placed into service. Samples shall be collected for microbiological analysis to check the effectiveness of the disinfection procedure which shall be repeated if contamination persists. A minimum of one sample for each 1,000 feet of completed water line will be required or at the next available sampling point beyond 1,000 feet as designated by the design engineer, in accordance with 30 TAC §290.44(f)(3).

GENERAL CONSTRUCTION NOTES

1. All construction shall be in accordance with the latest City of Georgetown Technical Specifications and Details.

2. Prior to beginning construction, the Owner or his authorized representative shall convene a Pre-Construction Conference between the City of Georgetown, Engineer, Contractor, County Engineer (if applicable), Texas Commission on Environmental Quality Field Office, and any other affected parties. Notify all such parties at least 48 hours prior to the time of the conference and 48 hours prior to beginning construction. Written construction notification must be given to the appropriate TCEQ regional office no later than 48 hours prior to commencement of the regulated activity. Information must include the date on which the regulated activity will commence, the name of the approved plan for the regulated activity, the name of the prime contractor and the name and telephone number of the contact person.

3. The Contractor shall give the City a minimum of 48 hours notice before beginning each phase of construction, call 512-930-3555.

4. No blasting will be permitted on this project.

5. Any existing utilities, pavement, curbs, and/or sidewalks damaged or removed will be repaired by the Contractor at his expense before acceptance of the project.

6. The location of any existing water and/or wastewater lines shown on the plans must be verified by the Georgetown Utility Systems Department.

7. Manhole frames, covers, water valve covers, etc., shall be raised to finished pavement grade at the Contractor's expense by a qualified contractor with City inspection. All utility adjustments shall be completed prior to final paving construction.

8. The Contractor is responsible for any damages to any public improvements.

9. Replace all destructed CMP culverts with CMP of equal size.

SEQUENCE OF CONSTRUCTION

Note: Other contractors could be working on this site. Coordinate all activities with the activities of others.

1. Call all affected parties at least 48 hours prior to beginning any construction to schedule a pre-construction conference and secure all required permits.
2. Install temporary erosion controls prior to any clearing and grubbing. Notify the City of Georgetown when installed.
3. Clear and grub site.
4. Install all utility mains & services.
5. Ensure that all underground utility installations are complete.
6. Complete construction of driveways, parking, and building.
7. Complete final site grading and revegetation.
8. Remove and dispose of temporary erosion controls.
9. Complete any necessary final dress-up.

PERMANENT EROSION CONTROL NOTES

1. All disturbed areas shall be restored as noted below:
   - 1.a. A minimum of six inches of imported sandy loam topsoil or approved equal shall be placed in all drainage channels (except rock) and on all cleared areas.
   - 1.b. The seeding for permanent erosion control shall be applied over areas disturbed by construction as follows, unless specified elsewhere:
     - 1.b.a. From September 15 to March 1, seeding shall be with a combination of 1 pound per 1,000 square feet of unhulled Bermuda and 7 pounds per 1,000 square feet of Winter Rye with a purity of 95% with 90% germination.
     - 1.b.b. From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 3 pounds per 1,000 square feet with a purity of 95% with 85% germination.
   - 1.c. Fertilizer shall be slow release granular or pelleted type and shall have an analysis of 15-15-15 and shall be applied at the rate of 23 pounds per acre once at the time of planting and again once during the time of establishment.
   - 1.d. The planted area shall be irrigated or sprinkled in a manner that will not erode the top soil, but will sufficiently soak the soil to a depth of six inches. The irrigation shall occur at ten-day intervals during the first two months. Rainfall occurrences of 1/2 inch or more shall postpone the watering schedule for one week.
   - 1.e. Mulch type used shall be Mulch, applied at a rate of 1,500 pounds per acre.

TEMPORARY EROSION CONTROL NOTES

1. The Contractor shall install erosion/sedimentation controls and tree protective fencing prior to any site preparation work (clearing, grubbing or excavation).

2. The placement of erosion/sedimentation controls shall be in accordance with the PLANS.

3. Any significant variation in materials or locations of controls or fences from those shown on the approved plans must be approved by the City Engineer.

4. The Contractor is required to inspect all controls and fences at weekly intervals and after significant rainfall events to insure that they are functioning properly. The person(s) responsible for maintenance of controls and fences shall immediately make any necessary repairs to damaged areas. Silt accumulation at controls must be removed when the depth reaches six (6) inches.

5. Prior to final acceptance, haul roads and waterway crossings constructed for temporary Contractor access must be removed, accumulated sediment removed from the waterway, and the area restored to the original grade and revegetated. All land clearing debris shall be disposed of in approved spoil disposal sites.

6. Field revisions to the EROSION & SEDIMENTATION CONTROL PLANS may be required by the Engineer or field inspector with the Texas Commission on Environmental Quality (TCEQ) during the course of construction to correct control inadequacies. Major revisions must be approved by the TCEQ.

CITY OF GEORGETOWN HERITAGE TREE PROTECTION DURING CONSTRUCTION

1. Prior to the commencement of any development, a tree protection fence constructed of approved materials shall encompass the Critical Root Zone (CRZ) of any Heritage Tree. Said tree protection fence must be maintained throughout the construction process, and must also comply with Chapter 11 of this Code.
2. During construction, no materials including but not limited to excess soil, vehicles, equipment, liquids, trash, or construction debris may be placed inside of the tree protection fence, nor shall the tree protection fence be altered in any way so as to increase the encroachment of the construction.
3. Excavation, grading, soil deposit, impervious covering, drainage and leveling within the CRZ of Heritage Trees is prohibited unless approved by the Urban Forester. Any impervious cover proposed within the CRZ of a Heritage Tree will be reviewed on a case by case basis by the Urban Forester upon field inspections and or plan reviews. In any case, generally no more than 50% of the CRZ of any Heritage Tree can be covered with impervious cover. Any protective fencing being used around Heritage Trees may only be reduced while impervious cover activity is being done. The remainder of the protective fencing must stay intact for the duration of the project.
4. Disposal or depositing of oil, gasoline, chemicals, paints, solvents or other materials is prohibited within the CRZ of Heritage Trees.
5. The attachment of wires, signs and ropes to any Heritage Tree is prohibited.
6. The location of utility service and irrigation lines inside the CRZ of Heritage Trees is only allowed when approved by the Urban Forester. If boring is used to provide underground utility access, the minimum length of the bore shall be the width of the tree's mature canopy. The minimum depth of the bore shall be specified by the Urban Forester, but in no event be less than 24" below the natural grade existing prior to any development activity within the CRZ.
7. Soil disturbance or other injurious and detrimental activity within the CRZ of Heritage Trees is prohibited.
8. At applicant's expense, an ISA Certified Arborist or their employee(s) shall be present whenever activities occur which will pose a potential threat to the health of the Heritage Tree such as pruning, or whenever any work needs to be done within the CRZ of such tree.
9. Should the area within the CRZ become compacted during excavation or grading, the affected area shall be aerated. The Urban Forester shall be notified whenever any Damage or injury occurs to a Heritage Tree during construction so that proper treatment may be administered.
10. The Urban Forester shall be notified whenever any Damage or injury occurs to a Heritage Tree during construction so that proper treatment may be administered.
11. Contact the City of Georgetown's Urban Forester (512-930-6113) when tree protection is installed and prior to any fencing being removed.

CITY OF GEORGETOWN GENERAL NOTES

1. These Construction plans were prepared, sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore based on the engineer's concurrence of compliance, the construction plans for construction of the proposed project are hereby approved subject to the standard Construction Specifications and Details Manual and all other applicable City, State, and Federal Requirements and Codes.
2. This project is subject to all City Standard Specifications and Details in effect at the time of submittal of the project to the City.
3. The site construction plans shall meet all requirements of the approved site plan.
4. Wastewater mains and service lines shall be SDR-26 PVC.
5. Wastewater mains shall be installed without horizontal or vertical bends.
6. Maximum distance between wastewater manholes is 500 feet.
7. Wastewater mains shall be low pressure air tested and mandrel tested by the contractor according to City of Georgetown and TCEQ requirements.
8. Wastewater manholes shall be vacuum tested and coated by the contractor according to City of Georgetown and TCEQ requirements.
9. Wastewater mains shall be camera tested by the contractor and submitted to the City on DVD format prior to paving the streets.
10. Private water system fire lines shall be tested by the contractor to 200 psi for 2 hours.
11. Private water system fire lines shall be ductile iron piping from the water main to the building sprinkler system, and 200 psi C900 DR-18 PVC for all others.
12. Public water system mains shall be 150 psi C900 DR-18 PVC and tested by the contractor at 150 psi for 4 hours.
13. All bends and changes in direction on water mains shall be restrained and thrust blocked.
14. Fire hydrant leads shall be restrained.
15. All water lines are to be bacteria tested by the contractor according to the City standards and specifications.
16. Water and Sewer main crossings shall meet all requirements of the TCEQ and the City.
17. Flexible base material for public streets shall be TXDOT Type A Grade 1.
18. Hot mix asphaltic concrete pavement shall be Type D unless otherwise specified and shall be a minimum of 2 inches thick on public streets and roadways.
19. All sidewalk ramps are to be installed with the public infrastructure.
20. A maintenance bond is required to be submitted to the City prior to acceptance of the public improvements. This bond shall be established for 2 years in the amount of 10% of the cost of the public improvements and shall follow the City format.
21. Record drawings of the public improvements shall be submitted to the City by the design engineer prior to acceptance of the project. These drawings shall be submitted on a flash drive or emailed through a cloud source.
22. Prior to the start of construction, the City shall be provided with a WPAP approval letter, WPAP recordation receipt, NOI, approved SWPPP, and contact information of the compliance inspector.
23. During construction, all compliance inspections and resolutions shall be copied to the City inspector upon receipt.
24. At the completion of construction, Engineer's letter of concurrence and Notice of Termination shall be provided.
25. Prior to construction above the slab, Contractor to provide an all-weather drive surface of asphalt, concrete, or chip seal placed onto base material engineered to withstand 75,000 lbs. An acceptance inspection by Fire Inspections is required. 2012 IFC 503 and D102.1.

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

Edwards Aquifer Protection Program Construction Notes – Legal Disclaimer

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

1. A written notice of construction must be submitted to the TCEQ regional office at least 48 hours prior to the start of any regulated activities. This notice must include:
   - the name of the approved project;
   - the activity start date; and
   - the contact information of the prime contractor.
2. All contractors conducting regulated activities associated with this project must be provided with complete copies of the approved Water Pollution Abatement Plan (WPAP) and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors are required to keep on-site copies of the approved plan and approval letter.
3. If any sensitive feature(s) (caves, solution cavity, sink hole, etc.) is discovered during construction, all regulated activities near the sensitive feature must be suspended immediately. The appropriate TCEQ regional office must be immediately notified of any sensitive features encountered during construction. Construction activities may not be resumed until the TCEQ has reviewed and approved the appropriate protective measures in order to protect any sensitive feature and the Edwards Aquifer from potentially adverse impacts to water quality.
4. No temporary or permanent hazardous substance storage tank shall be installed within 150 feet of a water supply source, distribution system, well, or sensitive feature.
5. Prior to beginning any construction activity, all temporary erosion and sedimentation (E&S) control measures must be properly installed and maintained in accordance with the approved plans and manufacturers specifications. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. These controls must remain in place until the disturbed areas have been permanently stabilized.
6. Any sediment that escapes the construction site must be collected and properly disposed of before the next rain event to ensure it is not washed into surface streams, sensitive features, etc.
7. Sediment must be removed from the sediment traps or sedimentation basins not later than when it occupies 50% of the basin's design capacity.
8. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from being discharged offsite.
9. All spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.
10. If portions of the site will have a temporary or permanent cease in construction activity lasting longer than 14 days, soil stabilization in those areas shall be initiated as soon as possible prior to the 14th day of inactivity. If activity will resume prior to the 21st day, stabilization measures are not required. If drought conditions or inclement weather prevent action by the 14th day, stabilization measures shall be initiated as soon as possible.
11. The following records shall be maintained and made available to the TCEQ upon request:
    - the dates when major grading activities occur;
    - the dates when construction activities temporarily or permanently cease on a portion of the site; and
    - the dates when stabilization measures are initiated.
12. The holder of any approved Edward Aquifer protection plan must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following:
    - A. any physical or operational modification of any water pollution abatement structure(s), including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
    - B. any change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;
    - C. any development of land previously identified as undeveloped in the original water pollution abatement plan.

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

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

TCEQ-0592 (Rev. July 15, 2015)

2023-21-SDP

WARNING!
There are existing water pipelines, underground telephone cables and other above and below ground utilities in the vicinity of this project. The Contractor shall contact all appropriate companies prior to any construction in the area and determine if any conflicts exist. If so, the Contractor shall immediately contact the Engineer who shall revise the design as necessary.

NO.	REVISION	BY	DATE

DLP DESIGNED BY: DATE
AMK DRAWN BY: DATE
CHECKED BY: DATE
APPROVED BY: DATE

STATE OF TEXAS · DAVID L. PLATT · 115964 · LICENSED PROFESSIONAL ENGINEER · 2023-7-7

STEGER BIZZELL
ADDRESS 1978 S. AUSTIN AVENUE GEORGETOWN, TX 78626
METRO 512.930.9412 TEXAS REGISTERED ENGINEERING FIRM F-181 TBPLS FIRM No.10003700 WEB STEGERBIZZELL.COM
SERVICES >>ENGINEERS >>PLANNERS >>SURVEYORS

GENERAL NOTES
for
WILLIAMS SENIOR LIVING
4775 WILLIAMS DRIVE
WILLIAMSON COUNTY, TEXAS

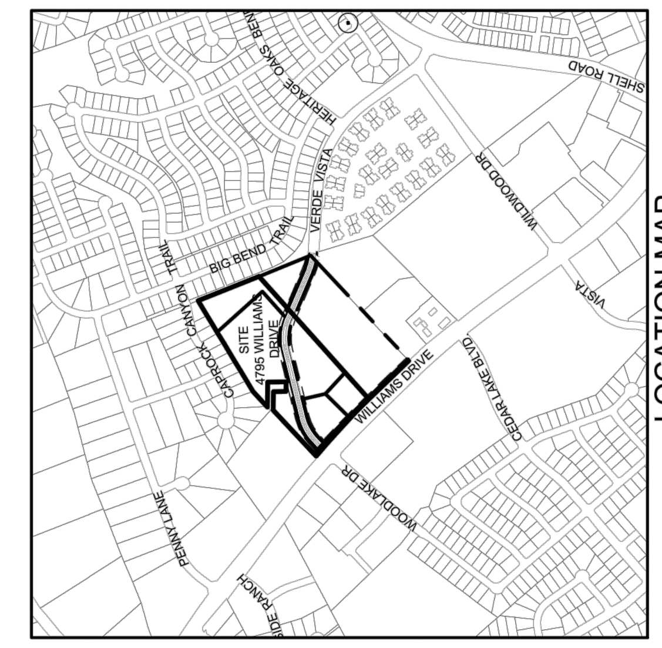
Project No: 22868

SHEET 02 of 34

P:\22000-22999\22868 Novak Sr Living\CAD\Plans\003 PLAT.dwg, PLAT, 7/10/2023 11:09:30 AM

PRELIMINARY PLAT OF SCHILLER BUSINESS PARK

23.8 ACRES
SITUATED IN THE
JOSEPH FISH SURVEY
ABSTRACT NO. 232
CITY OF GEORGETOWN
WILLIAMSON COUNTY, TEXAS



SHEET 1 OF 2

2P CONSULTANTS, LLC
203 E. MAIN STREET, SUITE 204
ROUND ROCK, TEXAS 78664
512-344-9664
TBPE FIRM #F-19351

CITY OF GEORGETOWN PROJECT NUMBER: 2022-26-FP

SCHILLER BUSINESS PARK

PRELIMINARY PLAT

SHEET 2 OF 2

2P CONSULTANTS, LLC
203 E. MAIN STREET, SUITE 204
ROUND ROCK, TEXAS 78664
512-344-9664
TBPE FIRM #F-19351

CITY OF GEORGETOWN PROJECT NUMBER: 2022-26-FP

THESE CONSTRUCTION PLANS HAVE BEEN PREPARED TO FULFILL THE REQUIREMENTS FOR THE TCEQ FOR WATER POLLUTION ABATEMENT OVER THE EDWARDS AQUIFER. CONTRACTOR SHALL CONTACT THE ENGINEER FOR ADDITIONAL DETAILED CONSTRUCTION PLANS PRIOR TO CONSTRUCTION.

WARNING!
There are existing water pipelines, underground telephone cables and other above and below ground utilities in the vicinity of this project. The Contractor shall contact all appropriate companies prior to any construction in the area and determine if any conflicts exist. If so, the Contractor shall immediately contact the Engineer who shall revise the design as necessary.

NO.	REVISION	BY	DATE

DLP
DESIGNED BY: DATE
AMK
DRAWN BY: DATE
CHECKED BY: DATE
APPROVED BY: DATE

STATE OF TEXAS
DAVID L. PLATT
115964
LICENSED PROFESSIONAL ENGINEER
2023-7-7

STEGER BIZZELL
ADDRESS 1978 S. AUSTIN AVENUE GEORGETOWN, TX 78626
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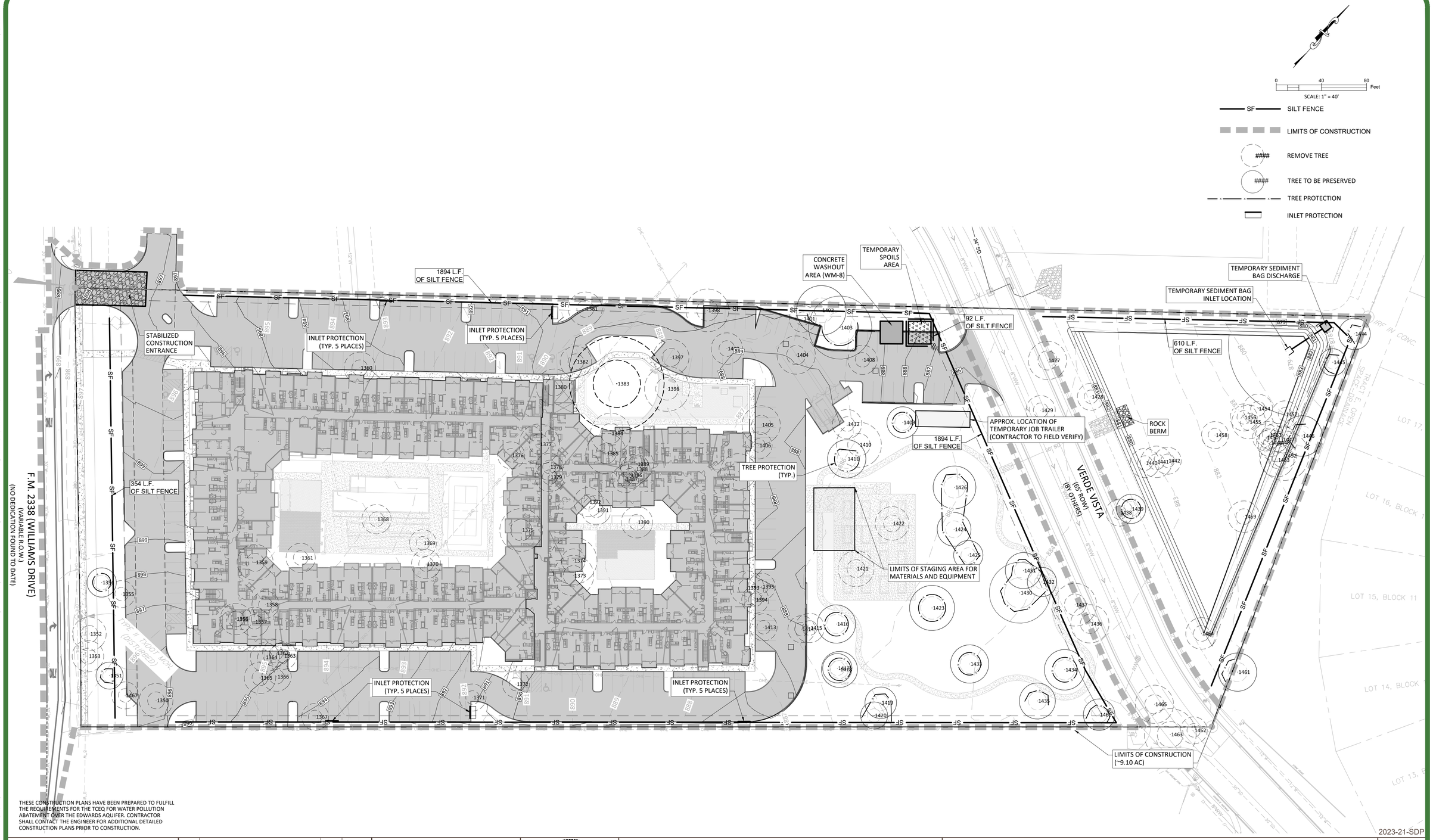
SERVICES >>ENGINEERS >>PLANNERS >>SURVEYORS

PLAT
for
WILLIAMS SENIOR LIVING
4775 WILLIAMS DRIVE
WILLIAMSON COUNTY, TEXAS

2023-21-SDP
Project No: 22868

SHEET **03** of 34



THESE CONSTRUCTION PLANS HAVE BEEN PREPARED TO FULFILL THE REQUIREMENTS FOR THE TCEQ FOR WATER POLLUTION ABATEMENT OVER THE EDWARDS AQUIFER. CONTRACTOR SHALL CONTACT THE ENGINEER FOR ADDITIONAL DETAILED CONSTRUCTION PLANS PRIOR TO CONSTRUCTION.

2023-21-SDP

WARNING!
There are existing water pipelines, underground telephone cables and other above and below ground utilities in the vicinity of this project. The Contractor shall contact all appropriate companies prior to any construction in the area and determine if any conflicts exist. If so, the Contractor shall immediately contact the Engineer who shall revise the design as necessary.

NO.	REVISION	BY	DATE

DLP
DESIGNED BY: DATE

AMK
DRAWN BY: DATE

CHECKED BY: DATE

APPROVED BY: DATE

STATE OF TEXAS
DAVID L. PLATT
115964
LICENSED
PROFESSIONAL ENGINEER
2023-7-7

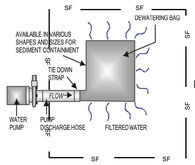
STEGER BIZZELL
ADDRESS 1978 S. AUSTIN AVENUE GEORGETOWN, TX 78626
METRO 512.930.9412 TEXAS REGISTERED ENGINEERING FIRM F-181 TBPLS FIRM No.10003700 WEB STEGERBIZZELL.COM
SERVICES >>ENGINEERS >>PLANNERS >>SURVEYORS

EROSION & SEDIMENTATION CONTROL PLAN

for
WILLIAMS SENIOR LIVING
4775 WILLIAMS DRIVE
WILLIAMSON COUNTY, TEXAS

Project No: 22868

SHEET 04 of 34



Sediment Dewatering Bag

NTS

TEMPORARY POND DEWATERING

1. Place dewatering pump at/in pond to be dewatered.
2. The pump inlet shall have a floating intake to pump water from the surface of the pond.
3. Pump discharge hose is attached to sediment dewatering bag.
4. Sediment dewatering bag is located as shown.
5. Secondary containment consisting of silt fencing is installed around the sediment dewatering bag.
6. The pump is run until the pond is dewatered.
7. Inspect the flow conditions, bag condition, bag capacity and secondary containment during operation of the pump to insure the system is operating effectively.
8. Replace the bag when it no longer filters sediment or passes water at a reasonable rate. The bag is disposed of offsite.

GUIDELINES FOR DESIGN AND INSTALLATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROLS

TYPE OF STRUCTURE	REACH LENGTH	MAXIMUM DRAINAGE AREA	SLOPE
SILT FENCE	N/A	2 ACRES	0 – 10%
	200 FEET	2 ACRES	10 – 20%
	100 FEET	1 ACRE	20 – 30%
	50 FEET	1/2 ACRE	> 30%
TRIANGLE FILTER DIKE	100 FEET	1/2 ACRE	< 30% SLOPE
	50 FEET	1/4 ACRE	> 30% SLOPE
ROCK BERM *, **	500 FEET	< 5 ACRES	0 – 10%

* FOR ROCK BERM DESIGN WHERE PARAMETERS ARE OTHER THAN STATED, DRAINAGE AREA CALCULATIONS AND ROCK BERM DESIGN MUST BE SUBMITTED FOR REVIEW.

** HIGH SERVICE ROCK BERMS MAY BE REQUIRED IN AREAS OF ENVIRONMENTAL SIGNIFICANCE AS DETERMINED BY THE CITY OF GEORGETOWN.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

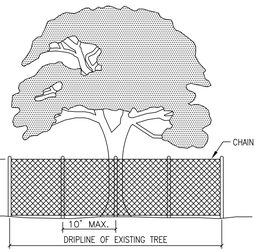
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TEMPORARY EROSION AND SEDIMENTATION CONTROL GUIDELINES
REVISION NOTE: ADOPTED 6/21/2006
DRAWING NAME: EC01
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

NOTE: THIS SECTION IS INTENDED TO ASSIST THOSE PERSONS PREPARING WATER POLLUTION ABATEMENT PLANS (WPAP) OR STORM WATER POLLUTION PREVENTION PLANS (SWSP) THAT COMPLY WITH FEDERAL, STATE AND/OR LOCAL STORM WATER REGULATIONS.

1. THE CONTRACTOR TO INSTALL AND MAINTAIN EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING, GRADING, OR EXCAVATION). CONTRACTOR TO REMOVE EROSION/SEDIMENTATION CONTROLS AT THE COMPLETION OF PROJECT AND GRASS RESTORATION.
2. ALL PROJECTS WITHIN THE RECHARGE ZONE OF THE EDWARD'S AQUIFER SHALL SUBMIT A BEST MANAGEMENT PRACTICES AND WATER POLLUTION AND ABATEMENT PLAN TO THE TNRCC FOR APPROVAL PRIOR TO ANY CONSTRUCTION.
3. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS TO BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN AND WATER POLLUTION ABATEMENT PLAN. DEVIATIONS FROM THE APPROVED PLAN MUST BE SUBMITTED TO AND APPROVED BY THE OWNER'S REPRESENTATIVE.
4. ALL PLANTING SHALL BE DONE BETWEEN MAY 1 AND SEPTEMBER 15 EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING. IF PLANTING IS AUTHORIZED TO BE DONE OUTSIDE THE DATES SPECIFIED, THE SEED SHALL BE PLANTED WITH THE ADDITION OF WINTER FESCUE (KENTUCKY 31) AT A RATE OF 100lb/ACRE. GRASS SHALL BE COMMON BERMUDA GRASS, HULLED, MINIMUM 80% PURE LIVE SEED. ALL GRASS SEED SHALL BE FREE FROM NOXIOUS WEED, GRADE "A" RECENT CROP, RECLEANED AND TREATED WITH APPROPRIATE FUNGICIDE AT TIME OF MIXING. SEED SHALL BE FURNISHED IN SEALED, STANDARD CONTAINERS WITH DEALER'S GUARANTEED ANALYSIS.
5. ALL DISTURBED AREAS TO BE RESTORED AS NOTED IN THE WATER POLLUTION ABATEMENT PLAN.
6. THE PLANTED AREA TO BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT ERODE THE TOPSOIL, BUT WILL SUFFICIENTLY SOAK THE SOIL TO A DEPTH OF FOUR (4) INCHES. THE IRRIGATION TO OCCUR AT 10-DAY INTERVALS DURING THE FIRST TWO MONTHS TO INSURE GERMINATION AND ESTABLISHMENT OF THE GRASS . RAINFALL OCCURRENCES OF 1/2 INCH OR GREATER TO POSTPONE THE WATERING SCHEDULE ONE WEEK.
7. RESTORATION TO BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1-1/2 INCHES HIGH WITH 95± *COVERAGE*, PROVIDED NO BARE SPOTS LARGER THAN 25 SQUARE FEET EXIST.
8. A MINIMUM OF FOUR (4) INCHES OF TOPSOIL TO BE PLACED IN ALL AREAS DISTURBED BY CONSTRUCTION.
9. THE CONTRACTOR TO HYDROMULCH OR SOD (AS SHOWN ON PLANS) ALL EXPOSED CUTS AND FILLS UPON COMPLETION OF CONSTRUCTION.
10. EROSION AND SEDIMENTATION CONTROLS TO BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILDUP WITHIN TREE DRIPLINE.
11. TO AVOID SOIL COMPACTION, CONTRACTOR SHALL NOT ALLOW VEHICULAR TRAFFIC, PARKING, OR STORAGE OF EQUIPMENT OR MATERIALS IN THE TREE DRIPLINE AREAS.
12. WHERE A FENCE IS CLOSER THAN FOUR (4) FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF EIGHT (8) FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE FENCING.
13. TREES TO BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.
14. ANY ROOT EXPOSED BY CONSTRUCTION ACTIVITY TO BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOPSOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN TWO DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
15. CONTRACTOR TO PRUNE VEGETATION TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC, AND EQUIPMENT BEFORE DAMAGE OCCURS (RIPPING OF BRANCHES, ETC.). ALL FINISHED PRUNING TO BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE "NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES").
16. THE CONTRACTOR IS TO INSPECT THE CONTROLS AT WEEKLY INTERVALS AND AFTER EVERY RAINFALL EXCEEDING 1/4 INCH TO VERIFY THAT THEY HAVE NOT BEEN SIGNIFICANTLY DISTURBED. ANY ACCUMULATED SEDIMENT AFTER A SIGNIFICANT RAINFALL TO BE REMOVED AND PLACED IN THE OWNER DESIGNATED SPOIL DISPOSAL SITE. THE CONTRACTOR TO CONDUCT PERIODIC INSPECTIONS OF ALL EROSION/SEDIMENTATION CONTROLS AND TO MAKE ANY REPAIRS OR MODIFICATIONS NECESSARY TO ASSURE CONTINUED EFFECTIVE OPERATION OF EACH DEVICE.
17. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT IMMEDIATELY ADJACENT TO A PROTECTED TREE, ERECT THE FENCE APPROXIMATELY TWO TO FOUR FEET (2'-4') BEHIND THE AREA IN QUESTION.
18. NO ABOVE AND/OR BELOW GROUND TEMPORARY FUEL STORAGE FACILITIES TO BE STORED ON THE PROJECT SITE.
19. IF EROSION AND SEDIMENTATION CONTROL SYSTEMS ARE EXISTING FROM PRIOR CONTRACTS, OWNER'S REPRESENTATIVE AND THE CONTRACTOR TO EXAMINE THE EXISTING EROSION AND SEDIMENTATION CONTROL SYSTEMS FOR DAMAGE PRIOR TO CONSTRUCTION. ANY DAMAGE TO PREEXISTING EROSION AND SEDIMENTATION CONTROLS NOTED TO BE REPAIRED AT OWNERS EXPENSE.
20. INTENTIONAL RELEASE OF VEHICLE OR EQUIPMENT FLUIDS ONTO THE GROUND IS NOT ALLOWED. CONTAMINATED SOIL RESULTING FROM ACCIDENTAL SPILL TO BE REMOVED AND DISPOSED OF PROPERLY.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
EROSION AND SEDIMENTATION AND TREE PROTECTION NOTES
REVISION NOTE: ADOPTED 6/21/2006
DRAWING NAME: EC01A
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



NOTES:

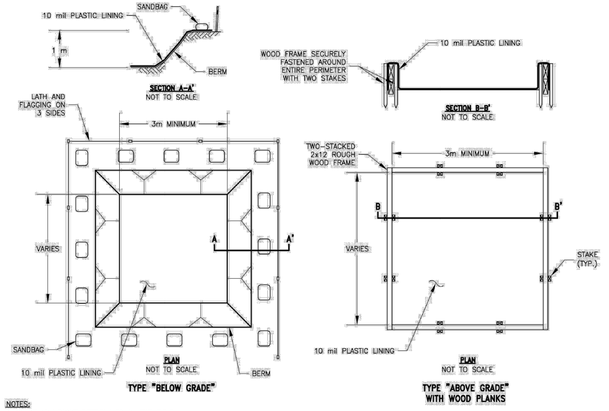
1. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING).
2. FENCES SHALL COMPLETELY SURROUND THE TREE, OR CLUSTERS OF TREES; WILL BE LOCATED AT THE OUTERMOST LIMIT OF THE TREE BRANCHES (DRIPLINE), AND WILL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PREVENT THE FOLLOWING:
   A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MATERIALS.
   B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN SIX INCHES (6") CUT OR FILL, OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY.
   C. WOUNDS TO EXPOSED ROOTS, TRUNKS OR LIMBS BY MECHANICAL EQUIPMENT.
   D. OTHER ACTIVITIES DETRIMENTAL TO TREES, SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING AND FIRE.
3. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIPLINES MAY BE PERMITTED IN THE FOLLOWING CASES:
   A. WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
   B. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN SIX FEET (6'-0") TO BUILDING.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TREE PROTECTION – CHAIN LINK FENCE
REVISION NOTE: ADOPTED 6/21/2006
DRAWING NAME: EC09
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

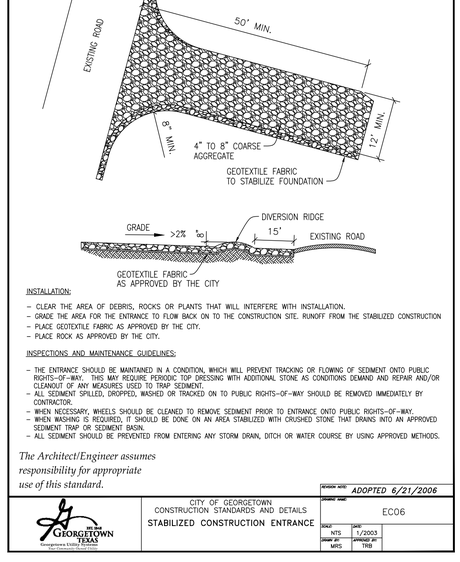
Concrete Waste Management

WM-8



NOTES:

1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. THE CONCRETE WASHOUT SIGN (SEE PAGE 6) SHALL BE INSTALLED WITHIN 10 m OF THE TEMPORARY CONCRETE WASHOUT FACILITY.



INSTALLATION:

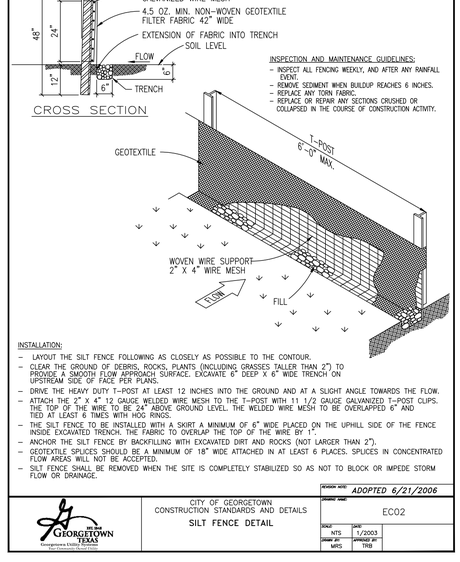
- CLEAR THE AREA OF DEBRIS, ROCKS OR PLANTS THAT WILL INTERFERE WITH INSTALLATION.
- GRADE THE AREA FOR THE ENTRANCE TO FLOW BACK ON TO THE CONSTRUCTION SITE. RUNOFF FROM THE STABILIZED CONSTRUCTION
- PLACE GEOTEXTILE FABRIC AS APPROVED BY THE CITY.
- PLACE ROCK AS APPROVED BY THE CITY.

INSPECTIONS AND MAINTENANCE GUIDELINES:

- THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION, WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ON TO PUBLIC RIGHTS–OF–WAY SHOULD BE REMOVED IMMEDIATELY BY CONTRACTOR.
- WHEN NECESSARY, WHEELS SHOULD BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS–OF–WAY.
- WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
- ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STABILIZED CONSTRUCTION ENTRANCE
REVISION NOTE: ADOPTED 6/21/2006
DRAWING NAME: EC06
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



INSPECTION AND MAINTENANCE GUIDELINES:

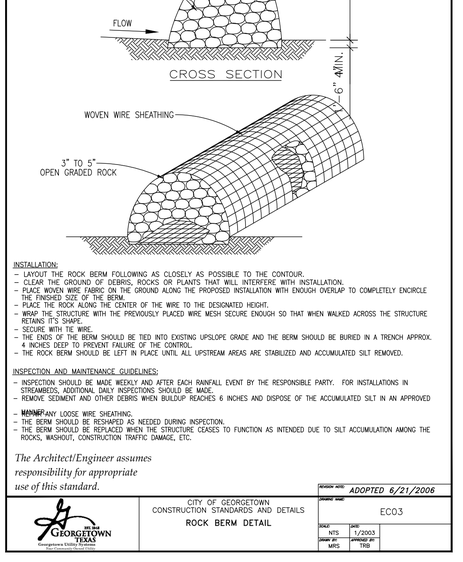
- INSPECT ALL FENCING WEEKLY, AND AFTER ANY RAINFALL EVENT.
- REMOVE SEDIMENT WHEN BUILDUP REACHES 6 INCHES.
- REPLACE ANY TORN FABRIC.
- REPLACE OR REPAIR ANY SECTIONS CRUSHED OR COLLAPSED IN THE COURSE OF CONSTRUCTION ACTIVITY.

INSTALLATION:

- LAYOUT THE SILT FENCE FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
- CLEAR THE GROUND OF DEBRIS, ROCKS, PLANTS (INCLUDING GRASSES TALLER THAN 2") TO PROVIDE A SMOOTH FLOW APPROACH SURFACE. EXCAVATE 6" DEEP X 6" WIDE TRENCH ON UPSTREAM SIDE OF FACE PER PLANS.
- DRIVE THE HEAVY DUTY T–POST AT LEAST 12 INCHES INTO THE GROUND AND AT A SLIGHT ANGLE TOWARDS THE FLOW.
- ATTACH THE 2" X 4" 12 GAUGE WELDED WIRE MESH TO THE T–POST WITH 11 1/2 GAUGE GALVANIZED T–POST CLIPS. THE TOP OF THE WIRE TO BE 24" ABOVE GROUND LEVEL. THE WELDED WIRE MESH TO BE OVERLAPPED 6" AND TIED AT LEAST 6 TIMES WITH HOG RINGS.
- THE SILT FENCE TO BE INSTALLED WITH A SKIRT A MINIMUM OF 6" WIDE PLACED ON THE UPHILL SIDE OF THE FENCE INSIDE EXCAVATED TRENCH. THE FABRIC TO OVERLAP THE TOP OF THE WIRE BY 1".
- ANCHOR THE SILT FENCE BY BACKFILLING WITH EXCAVATED DIRT AND ROCKS (NOT LARGER THAN 2").
- GEOTEXTILE SPLICES SHOULD BE A MINIMUM OF 18" WIDE ATTACHED IN AT LEAST 6 PLACES. SPLICES IN CONCENTRATED FLOW AREAS WILL NOT BE ACCEPTED.
- SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
SILT FENCE DETAIL
REVISION NOTE: ADOPTED 6/21/2006
DRAWING NAME: EC02
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



INSTALLATION:

- LAYOUT THE ROCK BERM FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
- CLEAR THE GROUND OF DEBRIS, ROCKS OR PLANTS THAT WILL INTERFERE WITH INSTALLATION.
- PLACE WOVEN WIRE FABRIC ON THE GROUND ALONG THE PROPOSED INSTALLATION WITH ENOUGH OVERLAP TO COMPLETELY ENCIRCLE THE FINISHED SIZE OF THE BERM.
- PLACE THE ROCK ALONG THE CENTER OF THE WIRE TO THE DESIGNATED HEIGHT.
- WRAP THE STRUCTURE WITH THE PREVIOUSLY PLACED WIRE MESH SECURE ENOUGH SO THAT WHEN WALKED ACROSS THE STRUCTURE RETAINS IT'S SHAPE.
- SECURE WITH TIE WIRE.
- THE ENDS OF THE BERM SHOULD BE TIED INTO EXISTING UPSLOPE GRADE AND THE BERM SHOULD BE BURIED IN A TRENCH APPROX. 4 INCHES DEEP TO PREVENT FAILURE OF THE CONTROL.
- THE ROCK BERM SHOULD BE LEFT IN PLACE UNTIL ALL UPSTREAM AREAS ARE STABILIZED AND ACCUMULATED SILT REMOVED.

INSPECTION AND MAINTENANCE GUIDELINES:

- INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL EVENT BY THE RESPONSIBLE PARTY. FOR INSTALLATIONS IN STREAMBEDS, ADDITIONAL DAILY INSPECTIONS SHOULD BE MADE.
- REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6 INCHES AND DISPOSE OF THE ACCUMULATED SILT IN AN APPROVED MANNER.
- REMOVE ANY LOOSE WIRE SHEATHING.
- THE BERM SHOULD BE RESHAPED AS NEEDED DURING INSPECTION.
- 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.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
ROCK BERM DETAIL
REVISION NOTE: ADOPTED 6/21/2006
DRAWING NAME: EC03
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

THESE CONSTRUCTION PLANS HAVE BEEN PREPARED TO FULFILL THE REQUIREMENTS FOR THE TCEQ FOR WATER POLLUTION ABATEMENT OVER THE EDWARDS AQUIFER. CONTRACTOR SHALL CONTACT THE ENGINEER FOR ADDITIONAL DETAILED CONSTRUCTION PLANS PRIOR TO CONSTRUCTION.

2023-21-SDP

WARNING!
There are existing water pipelines, underground telephone cables and other above and below ground utilities in the vicinity of this project. The Contractor shall contact all appropriate companies prior to any construction in the area and determine if any conflicts exist. If so, the Contractor shall immediately contact the Engineer who shall revise the design as necessary.

NO.	REVISION	BY	DATE

DLP
DESIGNED BY: DATE
AMK
DRAWN BY: DATE
CHECKED BY: DATE
APPROVED BY: DATE

STATE OF TEXAS
DAVID L. PLATT
115964
LICENSED PROFESSIONAL ENGINEER
2023-7-7

STEGER BIZZELL

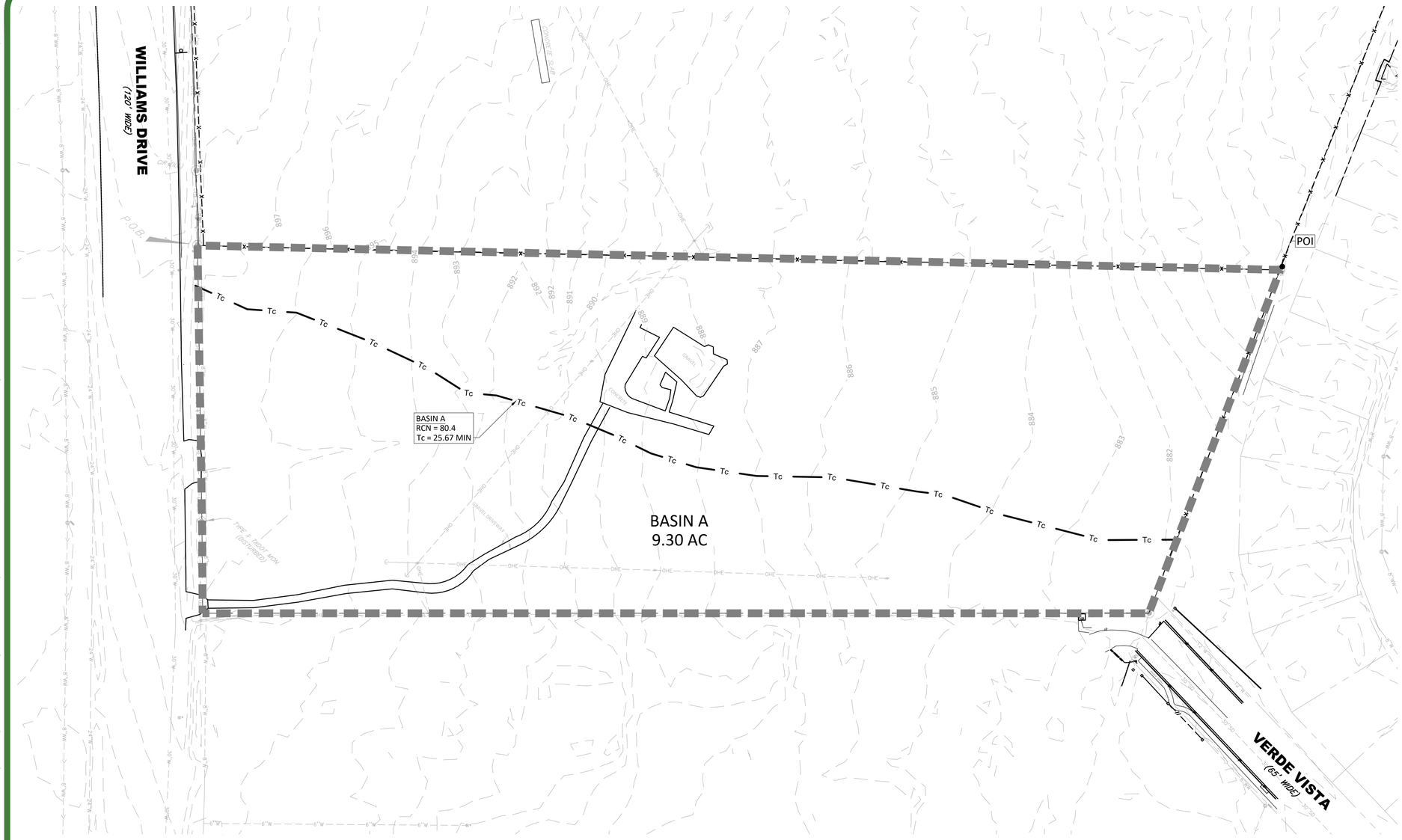
ADDRESS: 1978 S. AUSTIN AVENUE, GEORGETOWN, TX 78626
METRO: 512.930.9412
TEXAS REGISTERED ENGINEERING FIRM F-181
TBPLS FIRM No.10003700
WEB: STEGERBIZZELL.COM
SERVICES: >>ENGINEERS >>PLANNERS >>SURVEYORS

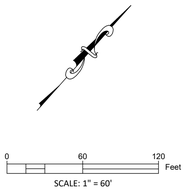
EROSION & SEDIMENTATION CONTROL DETAILS

for
WILLIAMS SENIOR LIVING
4775 WILLIAMS DRIVE
WILLIAMSON COUNTY, TEXAS

Project No: 22868

SHEET 05 of 34





Tc — TIME OF CONCENTRATION PATH

DRAINAGE BASIN BOUNDARY

123 EXISTING CONTOUR

Project: Novak Sr Living 3 Simulation Run: EX 2-YR SCS

Start of Run: 09Apr2020, 00:00 Basin Model: Existing
End of Run: 10Apr2020, 00:00 Meteorologic Model: CoA SCS 2 Yr 24 Hr
Compute Time:30Jun2023, 09:08:06 Control Specifications:24 HR

Show Elements: All Elements Volume Units: (•) IN ( ) ACRE-FT Sorting: Hydrologic

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
BASIN A	0.014531	11.3	09Apr2020, 12:18	1.66

Project: Novak Sr Living 3 Simulation Run: EX 10-YR SCS

Start of Run: 09Apr2020, 00:00 Basin Model: Existing
End of Run: 10Apr2020, 00:00 Meteorologic Model: CoA SCS 10 Yr 24 Hr
Compute Time:30Jun2023, 09:09:56 Control Specifications:24 HR

Show Elements: All Elements Volume Units: (•) IN ( ) ACRE-FT Sorting: Hydrologic

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
BASIN A	0.014531	27.0	09Apr2020, 12:17	3.96

Project: Novak Sr Living 3 Simulation Run: EX 25-YR SCS

Start of Run: 09Apr2020, 00:00 Basin Model: Existing
End of Run: 10Apr2020, 00:00 Meteorologic Model: CoA SCS 25 Yr 24 Hr
Compute Time:30Jun2023, 09:10:57 Control Specifications:24 HR

Show Elements: All Elements Volume Units: (•) IN ( ) ACRE-FT Sorting: Hydrologic

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
BASIN A	0.014531	36.4	09Apr2020, 12:17	5.38

Project: Novak Sr Living 3 Simulation Run: EX 100-YR SCS

Start of Run: 09Apr2020, 00:00 Basin Model: Existing
End of Run: 10Apr2020, 00:00 Meteorologic Model: CoA SCS 100 Yr 24 Hr
Compute Time:30Jun2023, 09:11:31 Control Specifications:24 HR

Show Elements: All Elements Volume Units: (•) IN ( ) ACRE-FT Sorting: Hydrologic

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
BASIN A	0.014531	52.1	09Apr2020, 12:17	7.80

Select RCN from Table 2-7 of DCM

									Building	*Pavement*		*Range (Fair)*		*Lawn (Good)*						
				Hydrologic Soil Group [%]					98	98	91	87	80	80	89	78				
Basin	Area [s.f.]	Area [ac.]	Area [sq. mi.]	A	B	C	D	% Check	IC-1 [s.f.]	IC-2 [s.f.]	IC-3 [s.f.]	IC-4 [s.f.]	PC-1 [s.f.]	PC-2 [s.f.]	PC-3 [s.f.]	PC-4 [s.f.]	Total IC [s.f.]	Total IC %	% Check	Composite RCN
Existing	405108	9.30	0.014531	0%	0%	0%	100%	OK	0	4,095	7,469	0	393,544	0	0	0	11563.8211	2.85%	OK	80.4

Time of Concentration

Sheet							*Shallow Concentrated - Unpaved*					*Shallow Concentrated - Paved*					*Channel/Storm Drain*							*Total*	
Elev-Start [ft]	Elev-Stop [ft]	L [ft]	n	P [in]	s [ft/ft]	Tt-sheet [min]	Elev-Start [ft]	Elev-Stop [ft]	L [ft]	s [ft/ft]	Tt-SCFu [min]	Elev-Start [ft]	Elev-Stop [ft]	L [ft]	s [ft/ft]	Tt-SCFp [min]	L [ft]	Q [cfs]	A [ft^2]	Wp [ft]	V [ft/s]	Tt-channel [min]	Tc [min]	Tlag [min]
898	892.25	300	0.13	4.2	0.019167	18.68	892.25	882	777	0.013	6.99	882	882	0	0.000	0.00	0	0	0	0	5	0.00	25.67	15.40

	Storm Frequency Peak Flow [cfs]			
Basin	**2 Year**	**10 Year**	**25 Year**	**100 Year**
Existing Basin A	11.3	27	36.4	52.1
Proposed Basin A	21.6	40.1	50.8	68.4
Delta	10.3	13.1	14.4	16.3
Detention	11.3	26.4	35.6	51
Delta	0	-0.6	-0.8	-1.1

ABATEMENT OVER THE EDWARDS AQUIFER. CONTRACTOR SHALL CONTACT THE ENGINEER FOR ADDITIONAL DETAILED CONSTRUCTION PLANS PRIOR TO CONSTRUCTION.

2023-21-SDP

WARNING!
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NO.	REVISION	BY	DATE

DLP
DESIGNED BY: DATE

AMK
DRAWN BY: DATE

CHECKED BY: DATE

APPROVED BY: DATE

STATE OF TEXAS
DAVID L. PLATT
115964
LICENSED
PROFESSIONAL ENGINEER
2023-7-7

STEGER BIZZELL

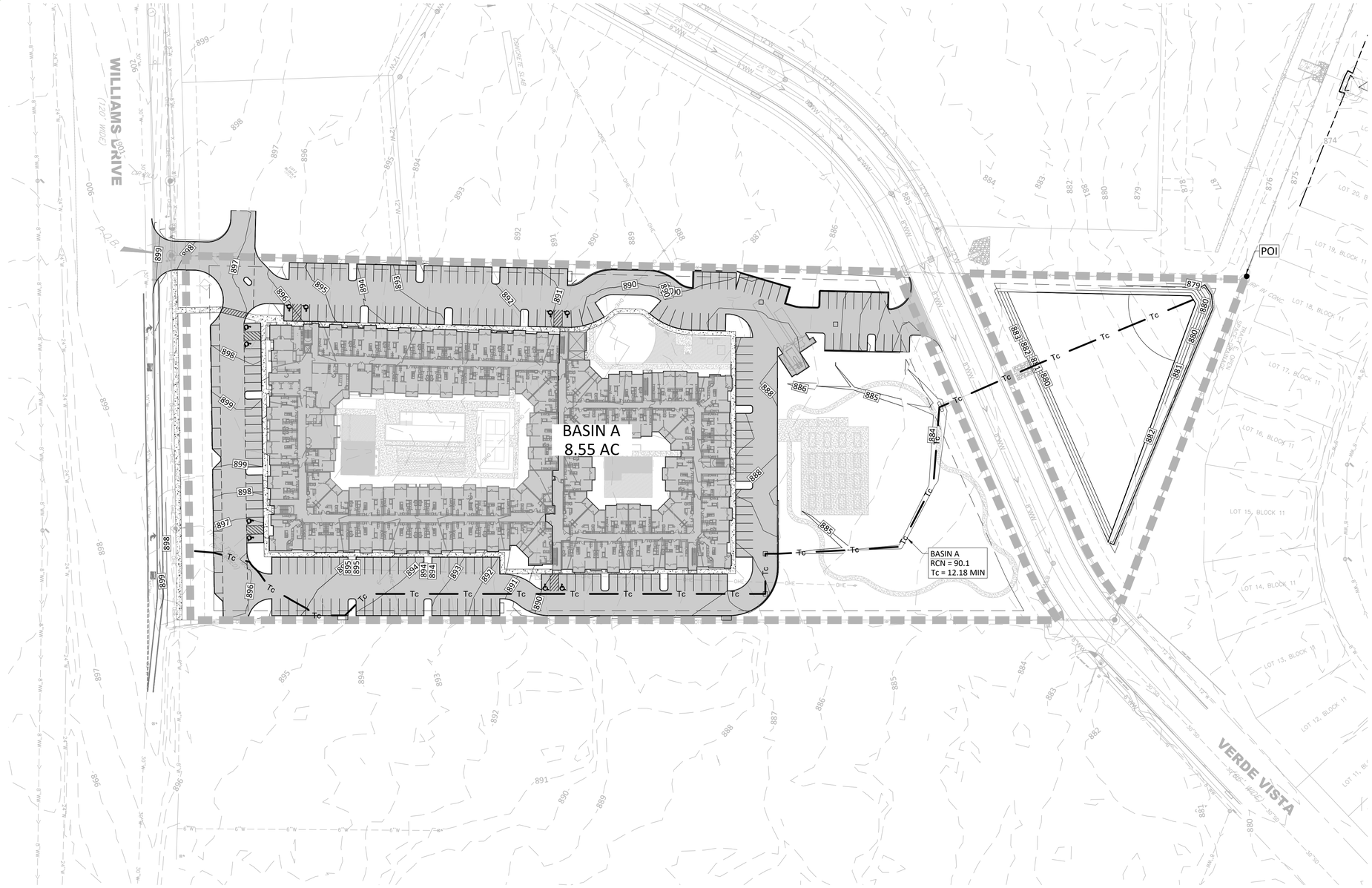
ADDRESS 1978 S. AUSTIN AVENUE GEORGETOWN, TX 78626
METRO 512.930.9412 TEXAS REGISTERED ENGINEERING FIRM F-181 TBPLS FIRM No.100037700 WEB STEGERBIZZELL.COM
SERVICES >>ENGINEERS >>PLANNERS >>SURVEYORS

EXISTING DRAINAGE MAP

for
WILLIAMS SENIOR LIVING
4775 WILLIAMS DRIVE
WILLIAMSON COUNTY, TEXAS

Project No: 22868

SHEET 08 of 34



Project: Novak Sr Living 3 Simulation Run: PR 2-YR SCS

Start of Run: 09Apr2020, 00:00 Basin Model: Proposed
End of Run: 10Apr2020, 00:00 Meteorologic Model: CoA SCS 2 Yr 24 Hr
Compute Time:DATA CHANGED, RECOMPUTE Control Specifications:24 HR

Show Elements: All Elements Volume Units: IN ACRE-FT Sorting: Hydrologic

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
BASIN A	0.013359	21.6	09Apr2020, 12:09	2.98
Detention	0.013359	11.3	09Apr2020, 12:22	2.91

Project: Novak Sr Living 3 Simulation Run: PR 10-YR SCS

Start of Run: 09Apr2020, 00:00 Basin Model: Proposed
End of Run: 10Apr2020, 00:00 Meteorologic Model: CoA SCS 10 Yr 24 Hr
Compute Time:30Jun2023, 09:09:56 Control Specifications:24 HR

Show Elements: All Elements Volume Units: IN ACRE-FT Sorting: Hydrologic

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
BASIN A	0.013359	40.1	09Apr2020, 12:09	5.59
Detention	0.013359	26.4	09Apr2020, 12:17	5.49

Project: Novak Sr Living 3 Simulation Run: PR 25-YR SCS

Start of Run: 09Apr2020, 00:00 Basin Model: Proposed
End of Run: 10Apr2020, 00:00 Meteorologic Model: CoA SCS 25 Yr 24 Hr
Compute Time:30Jun2023, 09:10:57 Control Specifications:24 HR

Show Elements: All Elements Volume Units: IN ACRE-FT Sorting: Hydrologic

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
BASIN A	0.013359	50.8	09Apr2020, 12:08	7.11
Detention	0.013359	35.6	09Apr2020, 12:16	7.00

Project: Novak Sr Living 3 Simulation Run: PR 100-YR SCS

Start of Run: 09Apr2020, 00:00 Basin Model: Proposed
End of Run: 10Apr2020, 00:00 Meteorologic Model: CoA SCS 100 Yr 24 Hr
Compute Time:30Jun2023, 09:11:31 Control Specifications:24 HR

Show Elements: All Elements Volume Units: IN ACRE-FT Sorting: Hydrologic

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
BASIN A	0.013359	68.4	09Apr2020, 12:08	9.65
Detention	0.013359	51.0	09Apr2020, 12:15	9.52

Select RCN from Table 2-7 of DCM

									Building	Pavement	Lawn (Good)									
				Hydrologic Soil Group [%]					98	98	91	87	80	80	89	78				
Basin	Area [s.f.]	Area [ac.]	Area [sq. mi.]	A	B	C	D	% Check	IC-1 [s.f.]	IC-2 [s.f.]	IC-3 [s.f.]	IC-4 [s.f.]	PC-1 [s.f.]	PC-2 [s.f.]	PC-3 [s.f.]	PC-4 [s.f.]	Total IC [s.f.]	Total IC %	% Check	Composite RCN
Proposed	372438	8.55	0.013359	0%	0%	0%	100%	OK	0	208,531	0	0	163,907	0	0	0	208531	55.99%	OK	90.1

Developed Time of Concentration

Sheet							Shallow Concentrated - Unpaved					Shallow Concentrated - Paved					Channel/Storm Drain						Total	
Elev-Start [ft]	Elev-Stop [ft]	L [ft]	n	P [in]	s [ft/ft]	Tt-sheet [min]	Elev-Start [ft]	Elev-Stop [ft]	L [ft]	s [ft/ft]	Tt-SCFu [min]	Elev-Start [ft]	Elev-Stop [ft]	L [ft]	s [ft/ft]	Tt-SCFp [min]	L [ft]	Q [cfs]	A [ft^2]	Wp [ft]	V [ft/s]	Tt-channel [min]	Tc [min]	Tlag [min]
896.2	896.1	20	0.13	4.2	0.005	3.66	885.3	878.2	582.3	0.012	5.45	896.1	894.3	164	0.011	1.28	515	0	0	0	4.8	1.79	12.18	7.31

Basin	Storm Frequency Peak Flow [cfs] 2 Year	10 Year	25 Year	100 Year
Existing Basin A	11.3	27	36.4	52.1
Proposed Basin A	21.6	40.1	50.8	68.4
Delta	10.3	13.1	14.4	16.3
Detention	11.3	26.4	35.6	51
Delta	0	-0.6	-0.8	-1.1

2023-21-SDP

WARNING!
There are existing water pipelines, underground telephone cables and other above and below ground utilities in the vicinity of this project. The Contractor shall contact all appropriate companies prior to any construction in the area and determine if any conflicts exist. If so, the Contractor shall immediately contact the Engineer who shall revise the design as necessary.

NO.	REVISION	BY	DATE

DLP DESIGNED BY: DATE
AMK DRAWN BY: DATE
CHECKED BY: DATE
APPROVED BY: DATE

STATE OF TEXAS
DAVID L. PLATT
115964
LICENSED PROFESSIONAL ENGINEER
2023-7-7

STEGER BIZZELL

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METRO 512.930.9412 TEXAS REGISTERED ENGINEERING FIRM F-181 TBPLS FIRM No.10003700 WEB STEGERBIZZELL.COM
SERVICES >>ENGINEERS >>PLANNERS >>SURVEYORS

DEVELOPED DRAINAGE MAP

for
WILLIAMS SENIOR LIVING
4775 WILLIAMS DRIVE
WILLIAMSON COUNTY, TEXAS

Project No: 22868

SHEET 09 of 34

P:\22000-22999\22868 Novak Sr Living\CAD\Plans\07 DEVELOPED DRAINAGE MAP.dwg DEVELOPED DRAINAGE MAP 7/10/2023 11:12:07 AM

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Novak Sr. Living
Date Prepared: 3/31/2023

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 =	Williamson	
Total project area included in plan * =	8.55	acres
Predevelopment impervious area within the limits of the plan * =	0.28	acres
Total post-development impervious area within the limits of the plan* =	4.78	acres
Total post-development impervious cover fraction * =	0.56	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	3917	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. = A

Total drainage basin/outfall area =	8.55	acres	
Predevelopment impervious area within drainage basin/outfall area =	0.09	acres	
Post-development impervious area within drainage basin/outfall area =	4.78	acres	
Post-development impervious fraction within drainage basin/outfall area =	0.56		
$L_{M\ THIS\ BASIN}$ =	4082	lbs.	4342 AT 85% REMOVAL

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = **91** percent

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

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

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

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

A_C =	8.55	acres	Basin area
A_I =	4.78	acres	
A_P =	3.77	acres	
L_R =	4875	lbs	

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

Desired $L_{M\ THIS\ BASIN}$ = 4342 lbs.

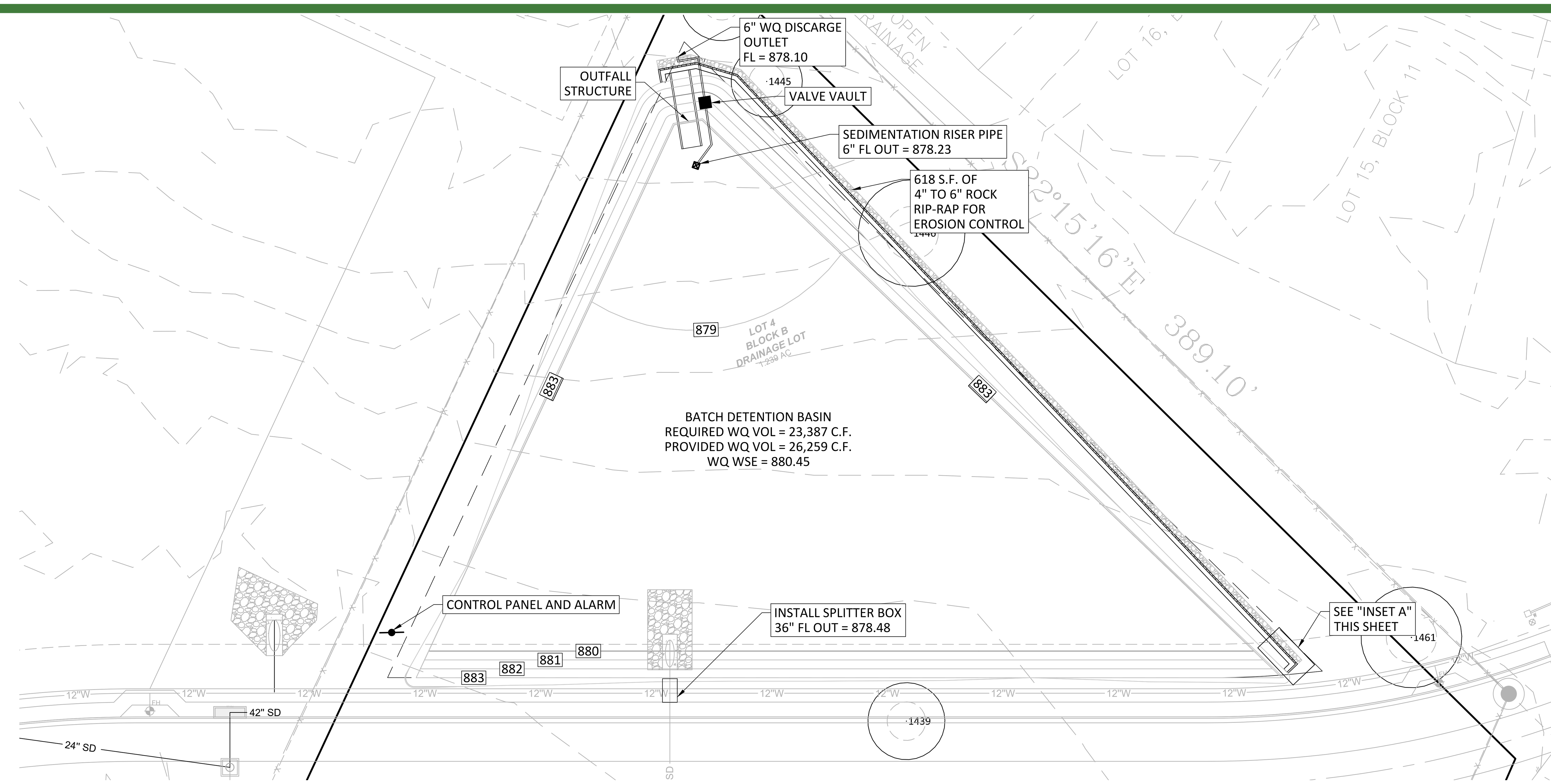
F = **0.89**

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 =	1.60	inches
Post Development Runoff Coefficient =	0.39	
On-site Water Quality Volume =	19489	cubic feet

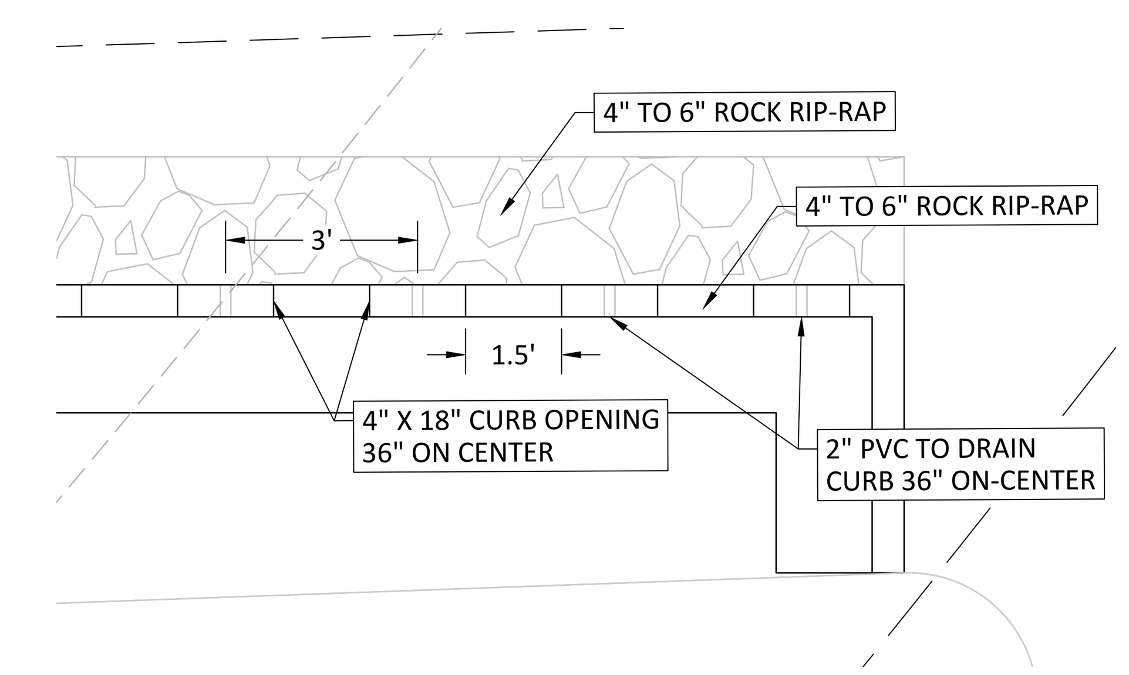
Calculations from RG-348 Pages 3-36 to 3-37

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 =	3898	
Total Capture Volume (required water quality volume(s) x 1.20) =	**23387**	cubic feet



SCALE: 1" = 30'

Pond Water Surface Elevations (STAGE-STORAGE-DISCHARGE)			
Elevation [ft.]	**Cumulative Vol. [ac-ft.]**	**Discharge [cfs]**	**W.S. Description**
879.00	0.0000	0.0	
880.00	0.3354	0.0	
880.45	0.6052	0.0	
881.00	0.9350	4.3	
881.50	1.2446	11.3	2-YR
881.97	1.5356	26.4	
882.00	1.5541	27.7	10-YR
882.18	1.6692	35.6	25-YR
882.49	1.8673	51.0	100-YR
883.00	2.1932	81.3	



INSET A
SCALE: 1" = 3'

Pond Water Surface Elevations (STAGE-STORAGE-DISCHARGE)

Elevation [ft.]	Area [s.f.]	Area [ac.]	Depth [ft.]	Incremental Vol. [c.f.]	Cumulative Vol. [c.f.]	Cumulative Vol. [ac-ft.]	Discharge [cfs]
879.00	3528	0.08099	0	0	0	0.0000	0.0
880.00	25694	0.58985	1	14611	14611	0.3354	0.0
880.45			0.45	19789	26364	0.6052	0.0
881.00	26540	0.60927	1	26117	40728	0.9350	4.3
881.50			0.5	26544	54213	1.2446	11.3
882.00	27401	0.62904	1	26970.5	67698.5	1.5541	27.7
883.00	28274	0.64908	1	27837.5	95536	2.1932	81.3

LINER DATA

IMPERMEABLE LINER OF POND SHALL BE CLAY, AND SHOULD MEET THE SPECIFICATIONS AS SHOWN BELOW AND HAVE A MINIMUM THICKNESS OF 12 INCHES.

CLAY LINER SPECIFICATIONS (MIN. THICKNESS = 12")			
PROPERTY	TEST METHOD	UNIT	SPECIFICATION
PERMEABILITY	ASTM D-2434	Cm/Sec	$1X10^{(-6)}$
PLASTICITY INDEX OF CLAY	ASTM D-423 & D-424	%	NOT LESS THAN 15
LIQUID LIMIT OF CLAY	ASTM D-2216	%	NOT LESS THAN 30
CLAY PARTICLES PASSING	ASTM D-422	%	NOT LESS THAN 30
CLAY COMPACTION	ASTM D-2216	%	95% OF STANDARD PROCTOR DENSITY AT OR ABOVE OPTIMUM MOISTURE CONTENT

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DLP
DESIGNED BY: DATE
AMK
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CHECKED BY: DATE
APPROVED BY: DATE

STATE OF TEXAS
DAVID L. PLATT
115964
LICENSED PROFESSIONAL ENGINEER
2023-7-7

STEGER BIZZELL
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METRO 512.930.9412 TEXAS REGISTERED ENGINEERING FIRM F-181 TBPLS FIRM No.10003700 WEB STEGERBIZZELL.COM
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WATER QUALITY & DETENTION POND PLAN

for
WILLIAMS SENIOR LIVING
4775 WILLIAMS DRIVE
WILLIAMSON COUNTY, TEXAS

2023-21-SDP
Project No: 22868

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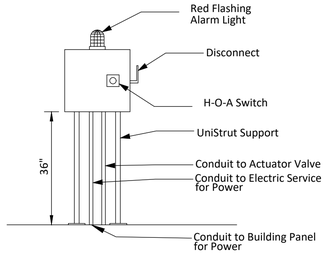
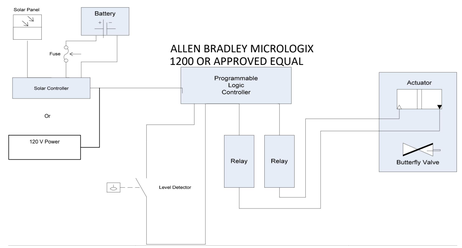


CONTROL / ALARM
NTS



CONTROLLER CIRCUIT BOX DIAGRAM
NTS

BATCH POND CONTROLLER NOTES:

1. Submittals - The contractor shall provide the engineer with batch pond controller submittals for review and approval prior to construction. Submittals shall include: power source, battery backup, logic controller, lockable parts enclosure, float, valve, actuator, relay, alarm system, signage, etc. Total wattage of power consumption and w-hours of actuator, controller and relay shall be provided. A copy of the approved submittals shall be provided to TCEQ with the engineers certification of project completion for inclusion in the TCEQ project file .
2. Controller - The controller consists of a level sensor in the detention basin, a valve (with a default closed position), an actuator, and the associated control. The controller detects water filling the basin from the level sensor and initiates a 12-hour detention time. At the end of the required detention time, the controller opens the valve and drains into the pump vault. Control floats will activate the pump as the vault fills. Subsequent rainfall events that occur prior to the basin draining should cause the valve to remain open and allow the additional stormwater runoff to pass through the basin. Once the basin is drained the controller closes the valve. The drawdown time of the basin should not exceed 48 hours for a single storm event after the 12 hour required detention time. All cables should be protected by conduit and buried to prevent damage during maintenance activities. Information on the design and configuration of an existing system, including the system schematic, can be viewed at the Austin or San Antonio Regional Offices.
3. Logic Controller – The controller should be programmed to begin draining stormwater runoff from the basin 12 hours after the first stormwater runoff is detected. The system should be programmed to have the valve remain open for two hours after the level sensor indicates the basin is empty to allow any remaining shallow water to be discharged. The system should provide the following: a test sequence, be able to deal with low battery/power outages, an on/off/reset switch, manual open/close switches (maintenance/spill), clearly visible external indicator to indicate a cycle is in progress without opening the box, and ability to exercise the valve to prevent seizing.
4. Power – The pond control system controller and actuator shall be 120 volt powered or 120 volt solar powered with backup battery power to respond to a loss of power in the middle of a cycle.
5. Parts Enclosure & Alarm System - The parts enclosure shall be lockable. An alarm system clearly visible to indicate system malfunction, with phone numbers of the owner and TCEQ Region 11 office shall be provided.
6. Temperature/Weather - The system shall be be capable of operation from 0 to 130 degrees Fahrenheit and from 10 to 90% humidity.
7. Reliability - The system shall have a minimum reliability of 40,000 hours (4.6 years).

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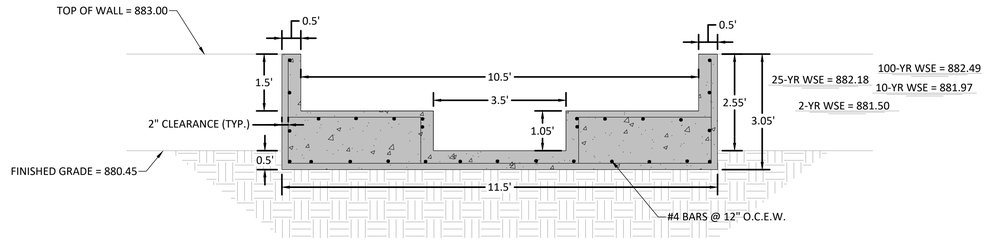
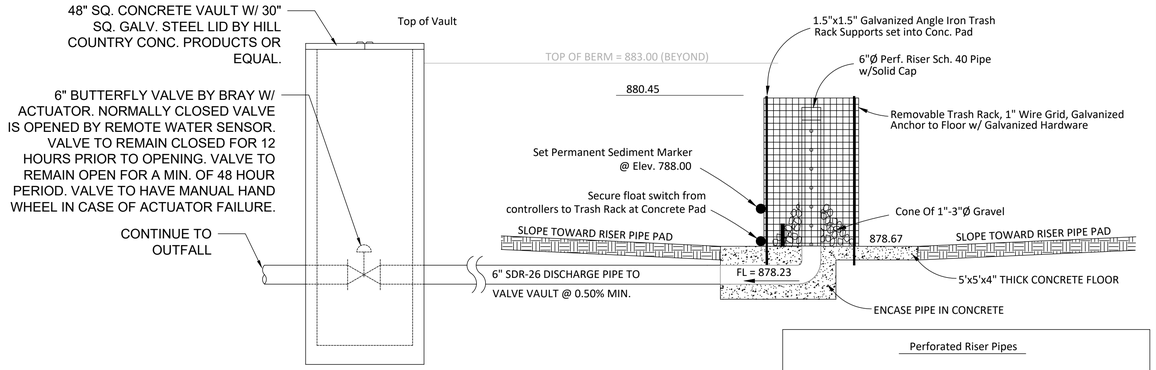
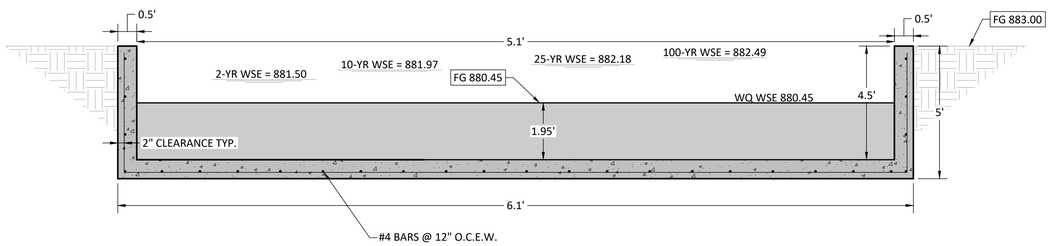


WALL OPENING DETAIL
NTS



SEDIMENTATION RISER PIPE
NTS

Perforated Riser Pipes			
Riser Pipe Ø	Vert. Spacing Between Rows	No. Perforations Per Row	Diameter of Perforations
6"	2.5"	9	1"



CONCRETE WEIR DETAIL
NTS

2023-21-SDP

NO.	REVISION	BY	DATE

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STATE OF TEXAS
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115964
LICENSED PROFESSIONAL ENGINEER
2023-7-7

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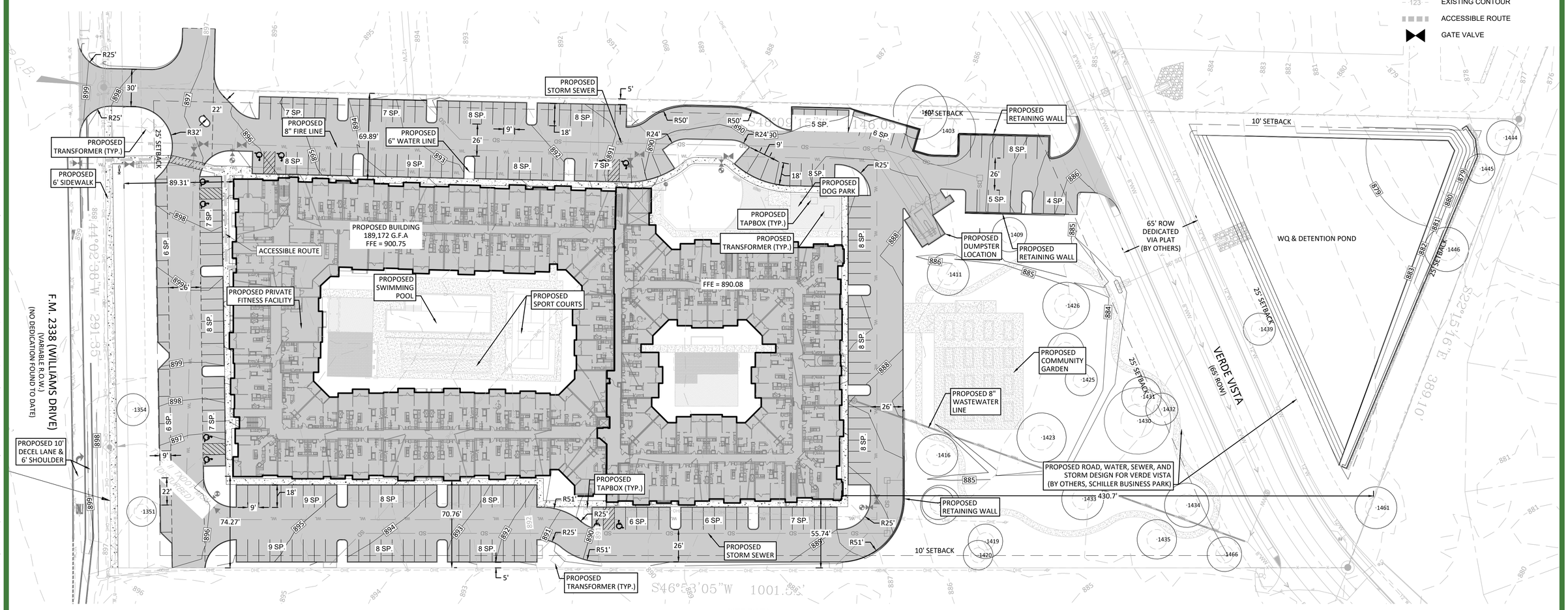
WATER QUALITY & DETENTION POND DETAILS

for
WILLIAMS SENIOR LIVING
4775 WILLIAMS DRIVE
WILLIAMSON COUNTY, TEXAS

Project No: 22868

SHEET 11 of 34



SITE DATA:

LAND AREA:	372,438 S.F. (8.55 AC.)
LOT BUILDING COVERAGE:	23.4% (87,038 S.F./372,438 S.F.)
EXISTING IMPERVIOUS COVER:	3.1% (11,564 S.F./372,438 S.F.)
PROPOSED IMPERVIOUS COVER:	56.0% (208,531 S.F./372,438 S.F.)
MAX. IMPERVIOUS COVER:	50%
TOTAL G.F.A.:	189,172 S.F.
BUILDING TYPE:	V-A
DWELLING UNITS PER ACRE:	25.03 214 UNITS/8.55 ACRES

PARKING REQUIREMENTS

MULTI-FAMILY SENIOR - 1 SPACE PER DWELLING UNIT + ADDITIONAL 5% OF TOTAL FOR VISITOR USE

TOTAL # OF UNITS	214 SP.
5% ADDITIONAL USE	11 SP.
TOTAL	225 SP.

PARKING PROVIDED: 202 - 9'x18' SP.
10 - 9'x18' ACCESSIBLE SP.
13 - 9'x22' PARALLEL SP.
225 TOTAL SP.

PER SECTION 6.06.020 OF UDC
TOTAL # OF DWELLING UNITS = 214 UNITS
MINIMUM # OF AMENITIES REQUIRED = 5
TOTAL # OF AMENITIES PROVIDED = 5 (COMMUNITY GARDEN, SWIMMING POOL, SPORT COURTS, PRIVATE FITNESS FACILITY, DOG PARK)

DIMENSIONAL SITE PLAN NOTES:

1. All lighting fixtures shall be designed to completely conceal and fully shield, within an opaque housing, the light source from visibility from any street right-of-way. The cone of light shall not cross any adjacent property line. The illumination shall not exceed two (2) foot candles at a height of three (3) feet at the property line. Only incandescent, fluorescent, color-corrected high-pressure sodium or metal halide may be used. All vehicle or pedestrian access shall be sufficiently lighted to ensure security of property and persons.
2. All roof, wall and ground mounted mechanical equipment must be screened in accordance with Chapter 8 of the UDC. If roof and wall mounted equipment of any type including duct work and large vents is proposed, it shall be shown on the Site Plan and screening identified. Screening of mechanical equipment shall result in the mechanical equipment blending in with the primary building and not appearing separate from the building and shall be screened from view from any rights-of-way or adjoining properties.
3. Per Chapter 8, the dumpster enclosures must be one (1) foot above the height of the waste container. Use protective poles in corners and at impact areas. Fence posts shall be of rust protected metal or concrete. A minimum 6" slab is required and must be sloped to drain. The enclosure must have steel framed gates with spring loaded hinges and fasteners to keep closed. Screening must be on all four (4) sides by masonry wall or approved fence or screening with opaque gates.

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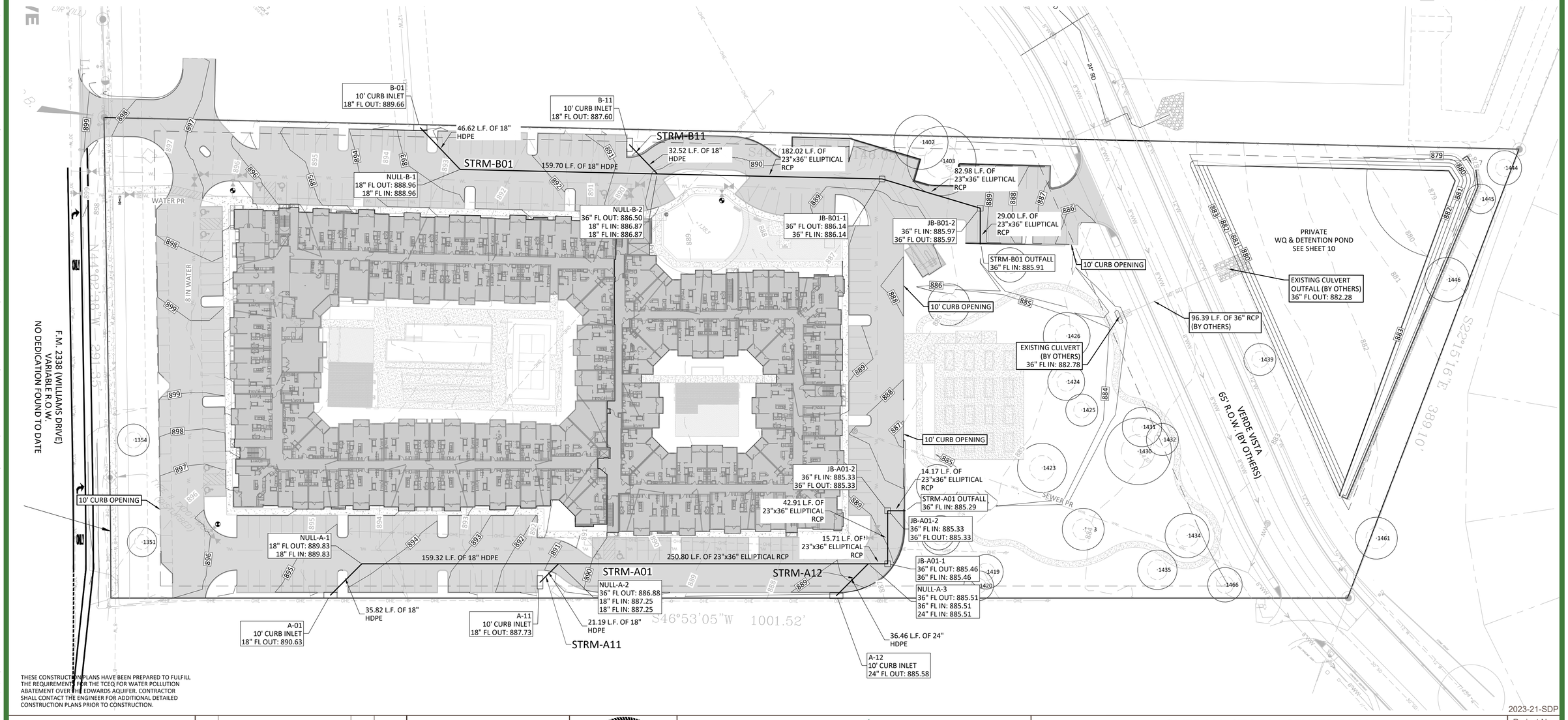
2023-21-SDP

SITE PLAN

for
WILLIAMS SENIOR LIVING
4775 WILLIAMS DRIVE
WILLIAMSON COUNTY, TEXAS

Project No: 22868

SHEET 12 of 34



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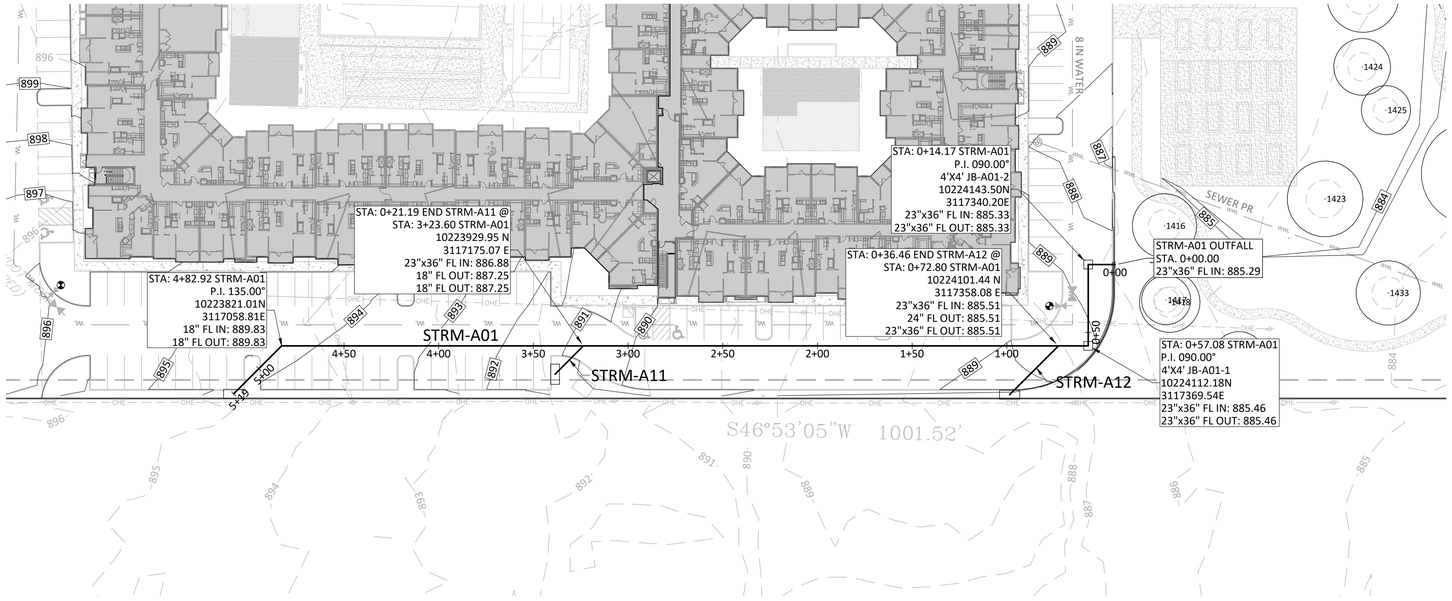
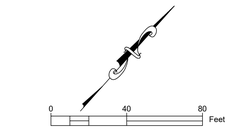
OVERALL STORM SEWER PLAN

for
WILLIAMS SENIOR LIVING
4775 WILLIAMS DRIVE
WILLIAMSON COUNTY, TEXAS

Project No: 22868

SHEET 19 of 34

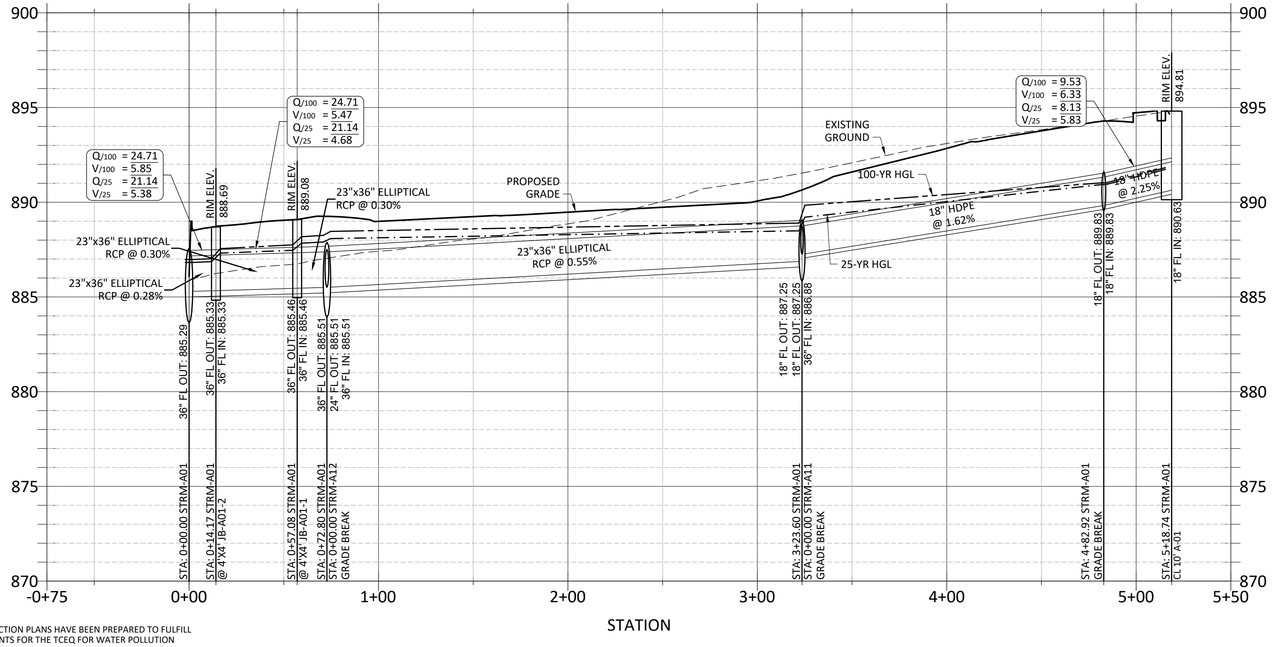




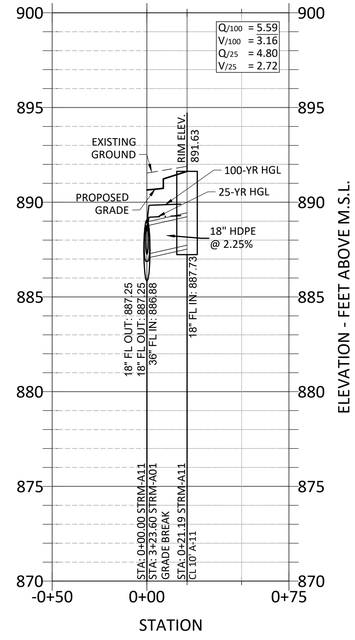
LEGEND

- STORM SEWER LINE
- WWL — WASTE WATER LINE
- WL — WATER LINE
- 123 — EXISTING CONTOUR
- 123 — PROPOSED CONTOUR
- PROPOSED STORM JUNCTION BOX
- CURB INLET
- HYDRAULIC GRADE LINE (100 YR)
- HYDRAULIC GRADE LINE (25 YR)

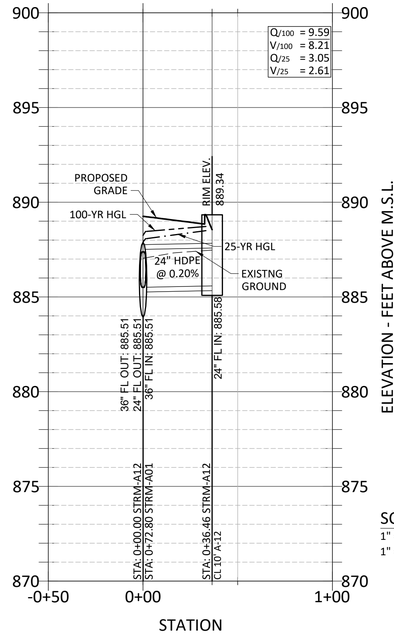
STRM-A01



STRM-A11



STRM-A12



SCALE
1" = 40' HORIZONTAL
1" = 4' VERTICAL

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STRM-A01 PLAN & PROFILE - STA. 0+00 TO END

for
WILLIAMS SENIOR LIVING
4775 WILLIAMS DRIVE
WILLIAMSON COUNTY, TEXAS

Project No: 22868

SHEET 20 of 34

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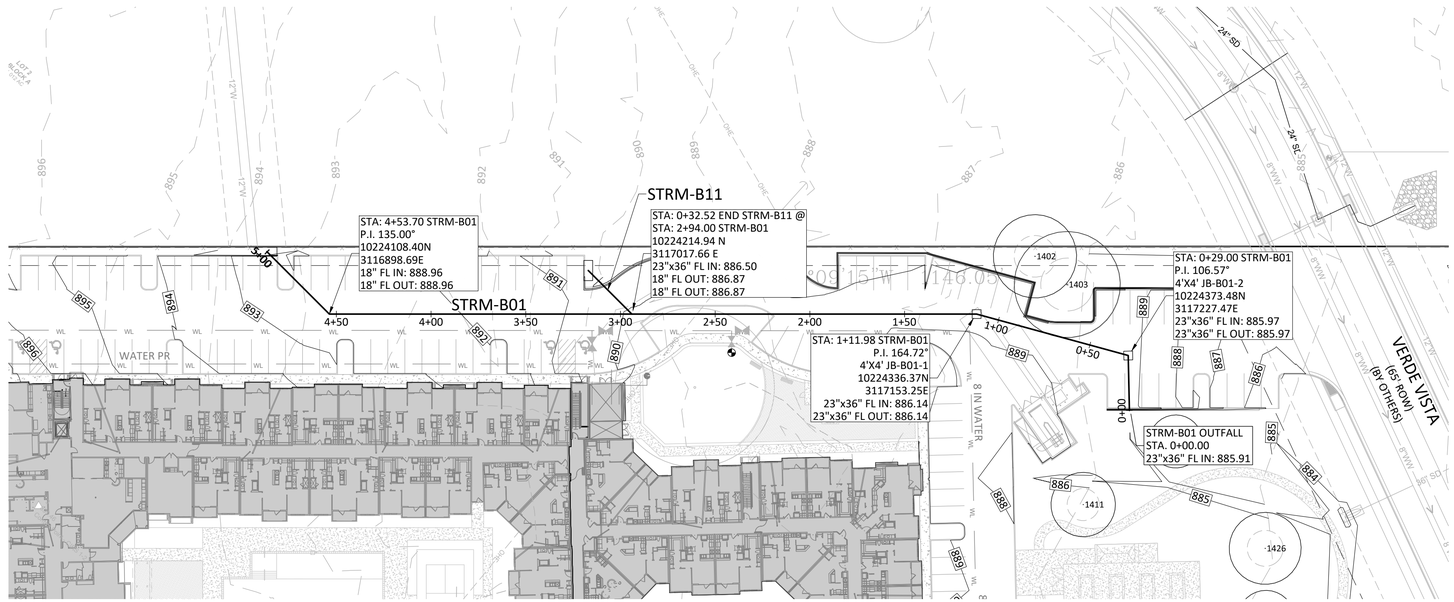

0 40 80 Feet

SCALE: 1" = 40'

LEGEND

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- WWL — WASTE WATER LINE
- WL — WATER LINE
- 123 — EXISTING CONTOUR
- 123 — PROPOSED CONTOUR
- PROPOSED STORM JUNCTION BOX
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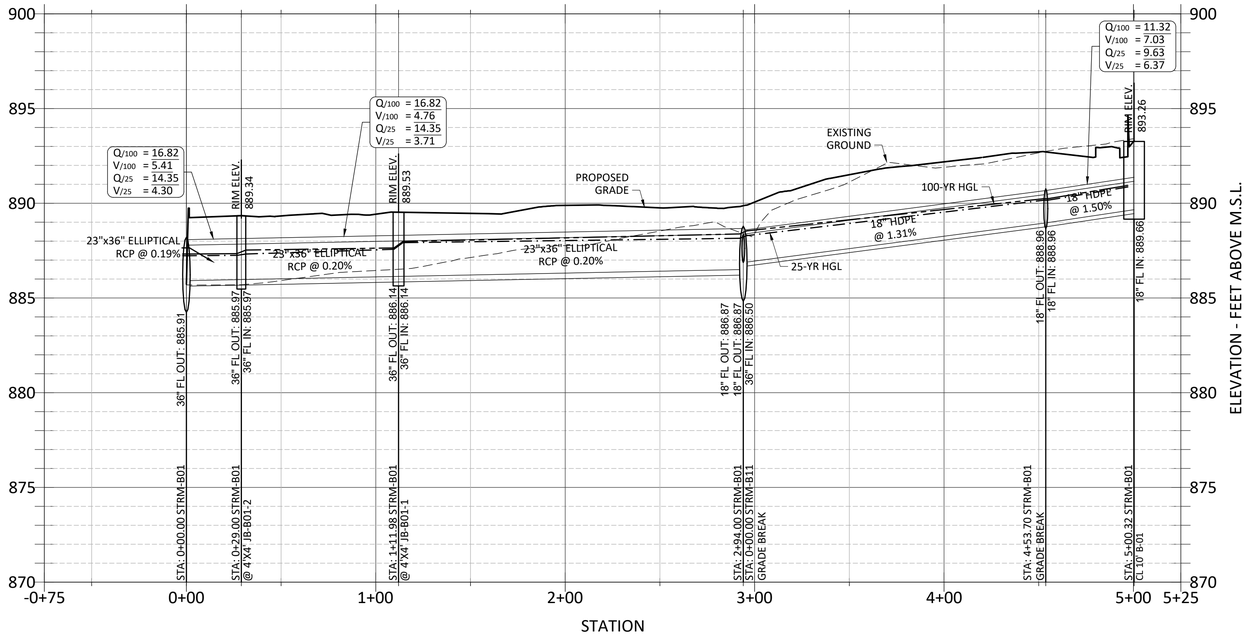
- HYDRAULIC GRADE LINE (100 YR)
- HYDRAULIC GRADE LINE (25 YR)

STRM-B01



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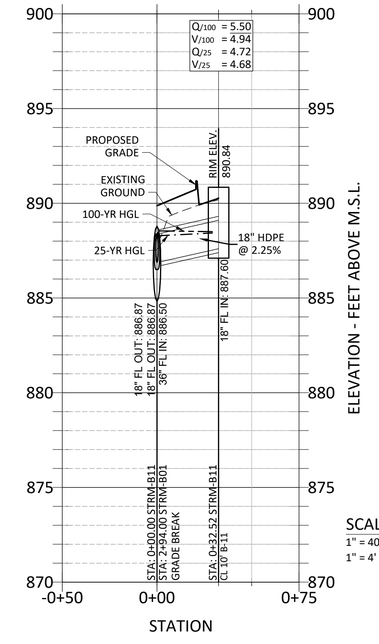

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STRM-B01 PLAN & PROFILE - STA. 0+00 TO END

for
WILLIAMS SENIOR LIVING
4775 WILLIAMS DRIVE
WILLIAMSON COUNTY, TEXAS

Project No: 22868

SHEET 21 of 34

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SCALE: 1" = 30'

123	EXISTING CONTOUR
123	PROPOSED CONTOUR
TC	TOP OF CURB
FG	FINISH GRADE
TW	TOP OF WALL

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APPROVED BY: — DATE

STATE OF TEXAS
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LICENSED PROFESSIONAL ENGINEER
2023-7-7

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GRADING PLAN
for
WILLIAMS SENIOR LIVING
4775 WILLIAMS DRIVE
WILLIAMSON COUNTY, TEXAS

Project No: 22868

SHEET 22 of 34

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.

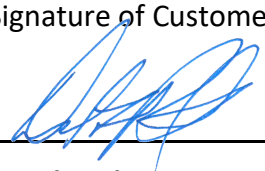
Signature

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: David Platt

Date: 7/24/2023

Signature of Customer/Agent:



Regulated Entity Name: Williams Senior Living

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: Berry Creek.

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☒ N/A

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

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

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

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

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

Soil Stabilization Practices

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

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

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

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

Administrative Information

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

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

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

Attachment A – Spill Response Actions

Because fuels and hazardous substances will be provided by an off-site facility, no on-site containment procedures are provided for in this WPAP.

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

Education

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

General Measures

1. To the extent that the work can be accomplished safely, spills of oil, petroleum products, and substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
2. Store hazardous materials and wastes in covered containers and protect from vandalism.
3. Place a stockpile of spill cleanup materials where it will be readily accessible.
4. Train employees in spill prevention and cleanup.
5. Designate responsible individuals to oversee and enforce control measures.
6. Spills should be covered and protected from stormwater run-on during rainfall to the extent that it doesn't compromise clean-up activities.
7. Do not bury or wash spills with water.
8. Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.
9. Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.
10. Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.
11. Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.

12. Keep waste storage areas clean, well-organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

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

Minor Spills

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

Semi-Significant Spills

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

Spills should be cleaned up immediately:

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

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

1. Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.

2. For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110, 119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
3. Notification should first be made by telephone and followed up with a written report.
4. The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
5. Other agencies which may need to be consulted include, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

More information on spill rules and appropriate responses is available on the TCEQ website at: http://www.tceq.texas.gov/response/

Vehicle and Equipment Maintenance

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

Vehicle and Equipment Fueling

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

If a spill should occur, the person responsible for the spill should contact the TCEQ at (512) 339-2929 or call 911. Soil contaminated by spills that occur on-site will be removed and disposed at an approved disposal site.

Attachment B – Potential Sources of Contamination

- Hydraulic and diesel
- Portable toilet systems (Sanitary Waste)
- Trash from construction workers
- Paints, Paint Solvents, glues, concrete and other building materials
- Plant fertilizers and Pesticides
- Inadequate maintenance of temporary water pollution abatement measures
- Stock piles or spoils of materials

Attachment C – Sequence of Major Activities

The following sequence of activities is suggested. The sequence of construction will take place in one phase. The actual sequence may vary slightly depending on the contractor or weather conditions.

1. Construction activities will commence with the installation of the required silt fences, inlet protection, and stabilized construction entrance. The total area disturbed by establishing temporary erosion controls is approximately 0.38 acres. **Silt fence, inlet protection, and stabilized construction entrance (S.C.E) are the control measures.**
2. Areas of vegetative cover will be cleared for the proposed driveway approach, parking lot, and building. Spoils of this material may be placed at a location on the project site as directed by the contractor or hauled off-site. These spoils and any other loose granular material will be enclosed by a silt fence. The total area disturbed by construction is approximately 8.55 acres. **Silt fence, inlet protection, and S.C.E. are the control measures.**
3. Grading on the site will consist of the placement and compaction of base or select fill material under and/or around the roads, culverts, and parking. The portion of the site that is subject to grading is approximately 8.55 acres. **Silt fence, inlet protection and S.C.E. are the control measures.**
4. Subsequent to the construction of the driveways, parking, etc. disturbed areas will be hydro-mulched or seeded. Approximately 3.76 acres. **Silt fence and inlet protection is the control measure.**
5. Temporary sediment and erosion controls will be removed after the project is completed.

Attachment D – Temporary Best Management Practices and Measures

The following sequence of activities is suggested. The actual sequence may vary slightly depending on the contractor or weather conditions.

1. Construction activities will commence with the installation of the required silt fences and rock berms. **Silt fences, rock berms, inlet protection, and a stabilized construction entrance are the control measures.**
2. Areas of vegetative cover will be cleared for the proposed storage area. Spoils of this material may be placed at a location on the project site as directed by the contractor and approved by the engineer. These spoils and any other loose granular material will be enclosed by a silt fence. The area disturbed by construction is 8.55 acres, representing 100% of the project site. **Silt fences and a stabilized construction entrance are the control measures.**
3. Grading on the site will consist of the placement and compaction of road base material or select fill material under and/or around the proposed building and pavement area. The portion of the site that is subject to grading is approximately 8.55 acres. **Silt fences, inlet protection, and a stabilized construction entrance are the control measures.**
4. Grading will be followed by installation of underground utilities as required. **Silt fences, inlet protection, and a stabilized construction entrance are the control measures.**
5. The pavement concrete will be poured at finished grade. **Silt fences, inlet protection, and a stabilized construction entrance are the control measures.**
6. A concrete washout area will be provided as defined on the site plan.
7. After the building has been installed, fine grading around the site will be completed. **Silt fences, inlet protection, and a stabilized construction entrance are the control measures.**
8. A security chain link fence will then be installed. **Silt fences, inlet protection, and a stabilized construction entrance are the control measures.**
9. Disturbed areas will be hydromulched or seeded. **Silt fences and a stabilized construction entrance are the control measures.**

Most surface runoff originating upgradient or on site will be contained within the proposed silt fence. The silt fence will trap most pollutants and prevent them from entering off-site surface streams, sensitive features or the aquifer. There is limited off-site runoff as the upgradient runoff is diverted by existing roads with ditches or existing natural drainage channels. The stabilized construction entrance will reduce the amount of sediment leaving the site. The inlet protection will prevent the storm drainage system from getting clogged and reduce the amount of sediment leaving the site. These temporary BMPs will trap most pollutants and prevent them from entering off-site surface streams, sensitive features, or the aquifer.

Attachment E – Request to Temporarily Seal a Feature

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

Attachment F – Structural Practices

No structural practices will be utilized to divert flows away from exposed soils or to store flows. Silt fence and a temporary dewatering bag will be used to limit the runoff discharge of sediments from exposed areas on the site.

Attachment G – Drainage Area Map

Please see Sheets 08 and 09, “Existing Drainage Map” and “Developed Drainage Map,” from the “Site Plan” attachment in the “Water Pollution Abatement Plan Application” section.

The maximum common drainage area is 8.55 acres. The entire 8.55 acres of this area will be disturbed.

Attachment I – Inspection and Maintenance for BMPs

Silt Fence

1. Inspect all fences weekly and after any rainfall.
2. Remove sediment when buildup reaches 6 inches, or install a second line of fencing parallel to the old fence.
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 revegetated. The fence itself should be disposed of in an approved landfill.

Stabilized Construction Entrance

1. Inspection should be made weekly or after each rainfall event and repair or replacement should be made promptly as needed by the contractor.
2. All sediment spilled, dropped, washed or tracked on to public rights-of-way should be removed immediately by contractor.
3. All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

Curb Inlet Protection

1. Inspection should be made weekly and after each rainfall. Repair or replacement should be made promptly as needed by the contractor.
2. Remove sediment when buildup reaches a depth of 3 inches. Removed sediment should be deposited in a suitable area and in such a manner that it will not erode.
3. Check placement of device to prevent gaps between device and curb.
4. Inspect filter fabric and patch or replace if torn or missing.
5. Structures should be removed and the area stabilized only after the remaining drainage area has been properly stabilized.

Concrete Washout

1. Inspection should be made weekly and after each rainfall by the responsible party.
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. The berm/temporary pit should be reshaped as needed during inspection.
4. The berm/temporary pit should be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.
5. The washout should be left in place until construction has been completed.

6. 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 Concrete Washout should be revegetated.
7. The concrete from the washout should be removed from the site in an appropriate manner. The purpose of concrete washout areas is to prevent or reduce the discharge of pollutants to stormwater from concrete waste by conducting washout offsite, performing onsite washout in a designated area, and training employees and subcontractors.

The following steps will help reduce stormwater pollution from concrete wastes:

- Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.
- Avoid mixing excess amounts of fresh concrete.
- Perform washout of concrete trucks in designated areas only.
- Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
- Do not allow excess concrete to be dumped onsite, except in designated areas.

For on-site washout:

- Locate washout area at least 50 feet from sensitive features, storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
- Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.

Construction Staging Area

1. Inspection should be made weekly of the staging area to ensure all temporary BMPs are installed and functioning. Verify that any materials stored in the staging area are not exposed to stormwater runoff.
2. If the staging area is paved, the area is to be swept on a regular basis to keep dust down.

Temporary Dewatering Bag

1. Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly to verify continued BMP implementation.
2. Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
3. Unit-specific maintenance requirements are included with the description of each technology.
4. Sediment removed during the maintenance of a dewatering device may be either spread onsite and stabilized, or disposed of at a disposal site.
5. Sediment that is commingled with other pollutants must be disposed of in accordance with all applicable laws and regulations.
6. Inspection of the flow conditions, bag condition, bag capacity, and the secondary barrier is required.

7. Replace the bag when it no longer filters sediment or passes water at a reasonable rate. The bag is disposed of offsite.

The following sample forms should be utilized to document the inspection and maintenance of the proposed temporary BMPs as described above. This form shall be kept on site with the WPAP until the project is completed. A report documenting the Temporary BMPs maintenance activities, sediment removal and modifications to the sedimentation and erosion controls is required. Steger Bizzell is responsible for maintaining this log.

Temporary BMP Log

Date	Date of Last Inspection	Inspection Performed By	Title	Company	Status of BMP(s)	Corrective Action Required (if any)	Date Corrective Action Completed

Attachment J – Schedule of Interim and Permanent Soil Stabilization Practices

Vehicular traffic should be limited to areas of the project site where construction will take place. The contractor should endeavor to preserve existing vegetation as much as practicable to reduce erosion and lower the cost associated with stabilization. **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.**

All disturbed areas shall be stabilized as described below.

Except as provided for below, stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.

A. Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceases is precluded by snow cover or frozen ground conditions, stabilization measures shall be initiated as soon as practicable.
B. Where construction activity on a portion of the site has temporarily ceased, and earth-disturbing activities will be resumed with 21 days, temporary stabilization measures do not have to be initiated on that portion of the site.
C. In areas experiencing drought, where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

Stabilization measures as described as follows:

All disturbed grass areas should be planted in drought resistant species normally grown as permanent lawns, such as Zoysia, Bermuda and Buffalo. Grass areas may be sodded, plugged, sprigged or seeded except that solid sod shall be used in swales or other areas subject to erosion. All planted areas shall be provided with a readily available water supply and watered as necessary to ensure continuous healthy growth and development. Maintenance shall include the replacement of all dead plant material if that material was used to meet the requirements of this section.

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.

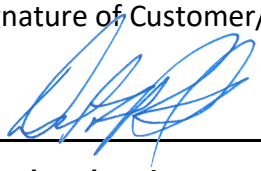
Signature

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: David Platt

Date: 7/24/2023

Signature of Customer/Agent



Regulated Entity Name: Williams Senior Living

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 B – BMPs for Upgradient Stormwater

All upgradient runoff is captured off-site and conveyed through existing ditches and culverts along Williams Drive. No upgradient runoff runs across the project site, and no storm sewer improvements are proposed to capture or divert upgradient runoff. No BMPs are proposed to treat upgradient runoff.

Attachment C – BMPs for On-site Stormwater

Batch detention, as described in the Addendum to TCEQ's "Complying with the Edwards Rules: Technical Guidance Manual on Best Management Practices" Section 3.2.17 (RG-348), will be utilized as the BMP for this development.

A batch detention basin will be used to remove the Total Suspended Solids (TSS) load. Batch detention basins have a TSS removal efficiency of 91% according to the above-referenced manual. For 80% TSS removal, 4,087 pounds of solids must be removed from the site. The City of Georgetown Water Quality Ordinance requires 85% TSS removal when a structural BMP is used. For 85% TSS removal, 4,342 pounds of solids must be removed from the site. The basin has been sized for an 85% TSS removal rate, and the total capture volume is the required water quality volume increased by 20%. The basin's total capture volume must be at least 23,387 cubic feet of runoff. A capture volume of 26,259 cubic feet is being provided.

Runoff will be captured by the proposed storm sewer system and routed toward the permanent BMP. Once the required capture volume is collected, a weir in the batch detention basin will detain and release runoff at or below existing conditions through a level-spreader. After the capture volume is collected in the batch detention basin and held for the required 12-hour detention time, a controller will open a valve and allow the treated runoff to flow off-site.

Calculations to determine the pollutant load and sizing for each BMP are attached directly after this sheet.

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Novak Sr. Living
Date Prepared: 3/31/2023

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 =	Williamson	
Total project area included in plan * =	8.55	acres
Predevelopment impervious area within the limits of the plan * =	0.28	acres
Total post-development impervious area within the limits of the plan* =	4.78	acres
Total post-development impervious cover fraction * =	0.56	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	3917	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. = A

Total drainage basin/outfall area =	8.55	acres
Predevelopment impervious area within drainage basin/outfall area =	0.09	acres
Post-development impervious area within drainage basin/outfall area =	4.78	acres
Post-development impervious fraction within drainage basin/outfall area =	0.56	
$L_{M\ THIS\ BASIN}$ =	4082	lbs.

4342 AT 85% REMOVAL

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 91 percent

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

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

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

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

A_C =	8.55	acres	Basin area
A_I =	4.78	acres	
A_P =	3.77	acres	
L_R =	4875	lbs	

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

Desired $L_{M\ THIS\ BASIN}$ = 4342 lbs.

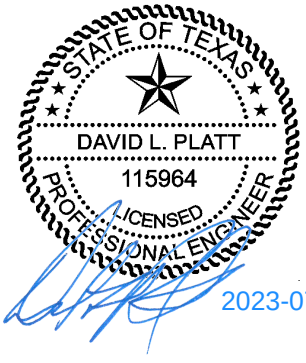
F = 0.89

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 =	1.60	inches
Post Development Runoff Coefficient =	0.39	
On-site Water Quality Volume =	19489	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 =	3898	
Total Capture Volume (required water quality volume(s) x 1.20) =	23387	cubic feet



2023-07-25

Attachment D – BMPs for Surface Streams

There are no additional BMPs for minimizing pollutants from entering surface streams. Temporary BMPs have been designed to reduce the potential pollutant load during construction activities.

Attachment F – Construction Plans

Please see the “Site Plan” attachment in the “Water Pollution Abatement Plan Application” section.

Attachment G – Inspection, Maintenance, Repair and Retrofit Plan

The following can be found in the TCEQ's "Complying with the Edwards Rules: Technical Guidance Manual on Best Management Practices", Section 3.5.20.

Maintenance Guidelines for Batch Detention Basins

Batch detention basins may have somewhat higher maintenance requirements than an extended detention basin since they are active stormwater controls. The maintenance activities are identical to those of extended detention basins with the addition of maintenance and inspections of the automatic controller and the valve at the outlet.

Inspections. Inspections should take place a minimum of twice a year. 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. The outlet structure and the trash screen should be inspected for signs of clogging. Debris and sediment should be removed from the orifice and outlet(s) as described in previous sections. Debris obstructing the valve should be removed. During each inspection, erosion areas inside and downstream of this BMP should be identified and repaired/revegetated immediately.

Mowing. The basin, basin side-slopes, and embankment of the basin 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.

Litter and Debris Removal. Litter and debris removal should take place at least twice a year, as part of the periodic mowing operations and inspections. Debris and litter should be removed from the surface of the basin. Particular attention should be paid to floatable debris around the outlet structure. The outlet should be checked for possible clogging or obstructions and any debris removed.

Erosion control. The basin side slopes and embankment all may periodically suffer from slumping and erosion. To correct these problems, corrective action, such as regarding and revegetation, may be necessary. Correction of erosion control should take place whenever required based on the periodic inspections.

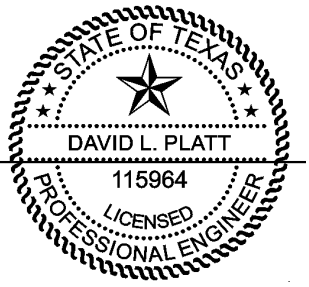
Nuisance Control. Standing water or soggy conditions may occur in the basin. Some standing water may occur after a storm event since the valve may close with 2 to 3 inches of water in the basin. Some flow into the basin may also occur between storms due to spring flow and residential water use that enters the storm sewer system. Twice a year, the facility should be evaluated in terms of nuisance control (insects, weeds, odors, algae, etc.).

Structural Repairs and Replacement. With each inspection, any damage to structural elements of the basin (pipes, concrete drainage structures, retaining walls, etc.) should be identified and repaired immediately. An example of this type of repair can include patching of cracked concrete, sealing of voids, removal of vegetation from cracks and joints. The various inlet/outlet structures in a basin will eventually deteriorate and must be replaced.

Sediment Removal. A properly designed batch detention basin will accumulate quantities of sediment over time. The accumulated sediment can detract from the appearance of the facility and reduce the pollutant removal performance of the facility. The sediment also tends to accumulate near the outlet structure and can interfere with the level sensor operation. 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.

Logic Controller. The Logic Controller should be inspected as part of the twice yearly investigations. Verify that the external indicators (active, cycle in progress) are operating properly by turning the controller off and on, and by initiating a cycle by triggering the level sensor in the basin. The valve should be manually opened and closed using the open/close switch to verify valve operation and to assist in inspecting the valve for debris. The solar panel should be inspected and any dust or debris on the panel should be carefully removed. The controller and all other circuitry and wiring should be inspected for signs of corrosion, damage from insects, water leaks, or other damage. At the end of the inspection, the controller should be reset.

NOTE: This Inspection, Maintenance, Repair and Retrofit Plan for the **Williams Senior Living Water Qualtiy and Detention Pond** was created and designed by the engineer of this BMP. Maintenance is the responsibility of the Owner and should be followed in accordance with this plan in order to keep the BMPs operating correctly.



2023-07-25

David L. Platt, P.E.
Steger Bizzell

Date

Permanent BMP Log

Date	Date of Last Inspection	Inspection Performed By	Title	Company	Status of BMP(s)	Corrective Action Required (if any)	Date Corrective Action Completed

Responsible Party: Williams Senior Living, LLC
Mailing Address: 1500 Rivery Boulevard., Suite 2200
City, State: Georgetown, TX
Zip Code: 78628
Telephone: 512-943-4703

Signature of Responsible Party

6/26/23
Date

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

I Cade Novak,
Print Name

Managing Member,
Title - Owner/President/Other

of Novak Williams Senior Living, LLC,
Corporation/Partnership/Entity Name

have authorized David Platt, P.E.,
Print Name of Agent/Engineer

of Steger Bizzell,
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:

Cade Novak
Applicant's Signature

6/26/23
Date

THE STATE OF Texas §

County of Williamson §

BEFORE ME, the undersigned authority, on this day personally appeared Cade Novak 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 26 day of June, 2023

CHARLOTTE MANAS
NOTARY PUBLIC
STATE OF TEXAS
ID 13240669-9
EXP 03-16-2024

Charlotte Manas
NOTARY PUBLIC

Charlotte Manas
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 03-16-2024

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Williams Senior Living
Regulated Entity Location: 4775 Williams Drive, Georgetown, TX 78633
Name of Customer: Novak Williams Senior Living, LLC
Contact Person: Cade Novak Phone: 512-943-4703
Customer Reference Number (if issued):CN N/A
Regulated Entity Reference Number (if issued):RN N/A

Austin Regional Office (3373)

☐ Hays ☐ Travis ☒ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde
☐ Comal ☐ Kinney

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

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

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

Site Location (Check All That Apply):

☒ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	8.55 Acres	$ 5,000
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: _____ Date: 7/24/2023

Application Fee Schedule

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

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

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

SECTION II: Customer Information

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

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

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

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

Novak Williams Senior Living, 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)*
0804936068	32088515740		N/A

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

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

13. Independently Owned and Operated?
☒ **Yes** ☐ **No**

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

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

15. Mailing Address:	1500 Rivery Boulevard						
	Suite 2200						
	City	Georgetown	**State**	TX	**ZIP**	78628	**ZIP + 4**	N/A

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*
N/A	cnovak@novakbros.com

18. Telephone Number	**19. Extension or Code**	**20. Fax Number** *(if applicable)*

(512) 943-4703		( ) -

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.)*

Williams Senior Living

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	4775 Williams Drive							
	City	Georgetown	**State**	TX	**ZIP**	78633	**ZIP + 4**	0
24. County	Williamson							

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

25. Description to Physical Location:	Northeast of the intersection of Wildwood Drive and Williams Drive in Georgetown, TX.				
26. Nearest City			**State**		**Nearest ZIP Code**
Georgetown			TX		78633

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:	30.68950		**28. Longitude (W) In Decimal:**	-97.72371	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	41	22.20	97	43	25.36

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	N/A	236116	N/A

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

Senior Multi-Family Residential Housing

34. Mailing Address:	**4775 Williams Drive**							
	City	**Georgetown**	**State**	**TX**	**ZIP**	**78633**	**ZIP + 4**	
35. E-Mail Address:	**cnovak@novakbros.com**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(512) 943-4703	**N/A**	**(N/A) -**

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
		WPAP		
☐ 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:	David Platt	**41. Title:**	Project Manager

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512 **)** 930-9412	N/A	**(** N/A **)** -	dplatt@stegerbizzell.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:	Steger Bizzell	**Job Title:**	Project Manager
Name *(In Print):*	David Platt	**Phone:**	**(** 512 **)** 930- **9412**
Signature:		**Date:**	7/24/2023