TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
(TCEQ)

WATER POLLUTION ABATEMENT PLAN
(WPAP)

For Regulated Entity:

AAA Gabriel Forest

a 10.07-acre property located at:
120 Gabriel Forest (just north or W State Hwy 29)
Georgetown, Texas 78628

Prepared for the Customer:

JMA Entity, LLC
120 Gabriel Forest
Georgetown, Texas 78628

Thompson Land Engineering, LLC (F-10220)

02/06/2024

Prepared by the Applicant:

Mr. Robert Thompson, P.E.
Thompson Land Engineering, LLC
904 N Cuernavaca DR
Austin, Texas 78733

February 2024

Water Pollution Abatement Plan (WPAP) Checklist

- ✓ **Edwards Aquifer Application Cover Page (TCEQ-20705)**
- ✓ **General Information Form (TCEQ-0587)**

  Attachment A - Road Map
  Attachment B - USGS / Edwards Recharge Zone Map
  Attachment C - Project Description

- ✓ **Geologic Assessment Form (TCEQ-0585)**

  Attachment A - Geologic Assessment Table (TCEQ-0585-Table)
  Attachment B - Stratigraphic Column
  Attachment C - Site Geology
  Attachment D - Site Geologic Map(s)

- ✓ **Water Pollution Abatement Plan Application Form (TCEQ-0584)**

  Attachment A - Factors Affecting Surface 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 requested)

- ✓ **Site Plan**
- ✓ **Temporary Stormwater Section (TCEQ-0602)**
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  - Attachment B - Potential Sources of Contamination
  - Attachment C - Sequence of Major Activities
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  - 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
- ✓ **Permanent Stormwater Section (TCEQ-0600)**

  Attachment A - 20% or Less Impervious Cover Waiver (if requested for multi-family, school, or small business 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 proposed)
  Attachment I -Measures for Minimizing Surface Stream Contamination

- ✓ **Agent Authorization Form (TCEQ-0599), if application submitted by agent**
- ✓ **Application Fee Form (TCEQ-0574)**
- ✓ **Check Payable to the "Texas Commission on Environmental Quality (TCEQ)"**
- ✓ **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: AAA Gabriel Forest						**2. Regulated Entity No.:**			
3. Customer Name: JMA Entity, LLC						**4. Customer No.:** CN606122752			
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):**		10.07-acre	
9. Application Fee:	$6,500.00		**10. Permanent BMP(s):**			Sand Filter			
11. SCS (Linear Ft.):	0 (zero)		**12. AST/UST (No. Tanks):**			0 (zero)			
13. County:	Williamson		**14. Watershed:**			North Fork San Gabriel			

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.)	__	__	_X_
Region (1 req.)	__	__	_X_
County(ies)	__	__	_X_
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. Robert Thompson
Print Name of Customer/Authorized Agent  02/05/2024 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: Robert Thompson

Date: 02/02/2024

Signature of Customer/Agent:

Project Information

1. Regulated Entity Name: AAA Gabriel Forest
2. County: Williamson
3. Stream Basin: Brazos River Basin (Middle Fork San Gabriel River Sub Watershed)
4. Groundwater Conservation District (If applicable): not applicable
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

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

7. Customer (Applicant):

   Contact Person: Shawn Beichler
   Entity: JMA Entity, LLC
   Mailing Address: 4203 Spinnaker Cove
   City, State: Austin, Texas Zip: 78731
   Telephone: 704-754-3200 FAX: _____
   Email Address: shawn.beichler@aaastorage.com

8. Agent/Representative (If any):

   Contact Person: Robert Thompson, P.E.
   Entity: Thompson Land Engineering, LLC
   Mailing Address: 904 N Cuernavaca Drive
   City, State: Austin, Texas Zip: 78733
   Telephone: 512-328-0002 FAX: 512-328-1112
   Email Address: ric@tleng.net

9. Project Location:

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

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

    The site is located on the north side of State Highway 29, directly east of Gabriel Forest (a private street), which is all on the west side of the large gravel pit on SH 29.

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: already an established lot

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

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

15. Existing project site conditions are noted below:

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

Prohibited Activities

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

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

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

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

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

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

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

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

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

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

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

Administrative Information

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

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

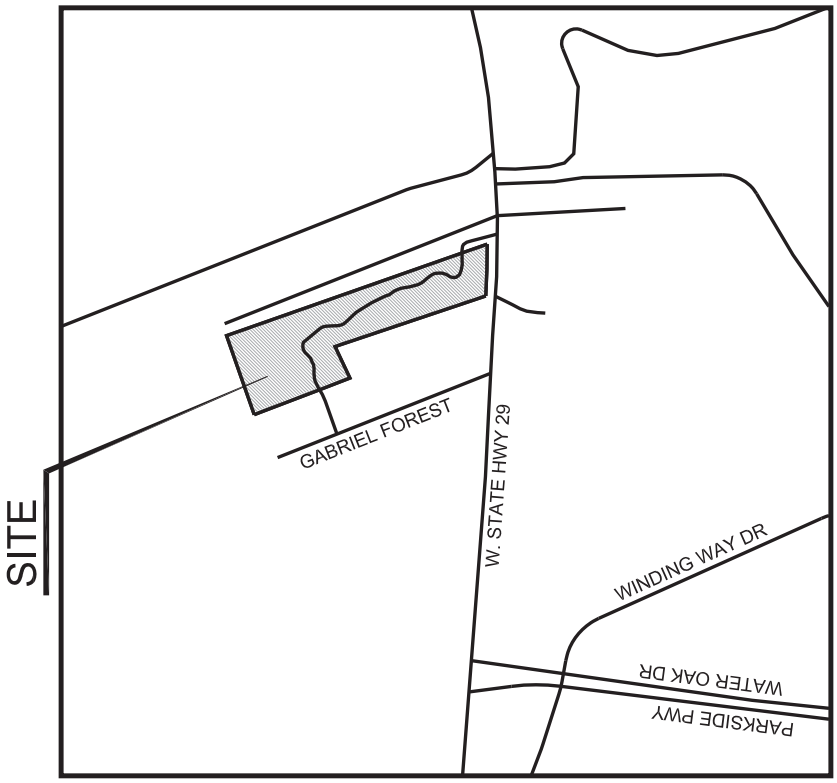
19. ☒ Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

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

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

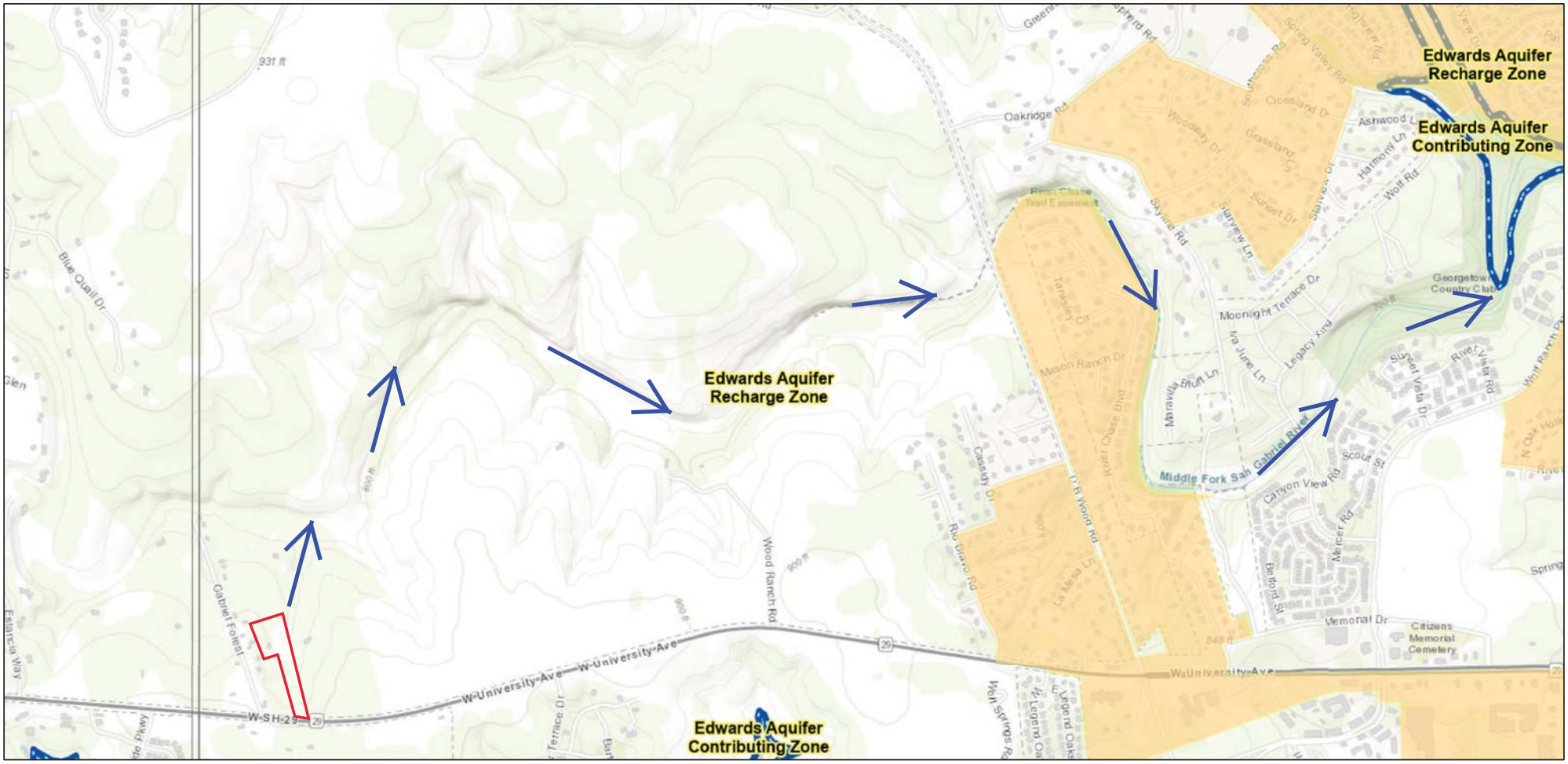
21. ☒ No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.

ATTACHMENT A
ROAD MAP



ATTACHMENT B

Edwards Aquifer Recharge Zone



6/7/2023, 11:36:00 AM

- Edwards Aquifer Label
- Edwards Aquifer Boundary
- Edwards Aquifer Boundary central line
- City/Place
- TX Counties
- 7.5 Minute Quad Grid
- TCEQ_EDWARDS_OFFICIAL_MAPS

1:18,056

0 0.17 0.35 0.7 mi

0 0.28 0.55 1.1 km

County of Williamson, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, TCEQ

Web AppBuilder for ArcGIS

County of Williamson, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA | TCEQ |

ATTACHMENT C – PROJECT DESCRIPTION

This Water Pollution Abatement Plan (WPAP) application is being submitted for the proposed construction on a 10.07-acre tract in Williamson County, Texas. The property located at 120 Gabriel Forest where an existing residential structure is located and estimated to have been built in 1969 (per Williamon County records) on the surrounding agricultural land.

The proposed development will include the demolition of the existing structures and pavement, along with the addition of various office/warehouse/storage (metal) buildings, as well as the associated parking, drives, utilities and the water quality and detention ponds. The limits of construction (LOC) area consist of the entire site, as well as the shared driveway off State Highway 29. The pre-developed drainage condition of the site primarily flows from the southwest to the northeast and includes an off-site drainage area (approximately 29-acres) that drains through this property. The post-developed drainage condition will match the existing conditions by capturing and bypassing these off-site flows and detaining the on-site flows, and then, providing a flow spreading structure to match existing conditions.

All the work will take place onsite, except for the driveway approach along SH 29. There will not be any aboveground or underground storage tanks that are proposed for this project.

As shown in the total suspended solids (TSS) removal calculations, approximately 6.8-acres of onsite impervious cover (IC) will be treated by the proposed Sand Filter Pond (that will be located on the downstream side of this property). The Sand Filter has been designed by using the current TCEQ Technical Guidance Manual – see the attached construction plan sheets for further information on the pond design. There are no additional water quality controls proposed with this project.

Horizon™
Environmental Services

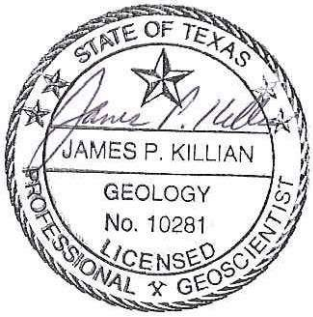
GEOLOGIC ASSESSMENT
APPROXIMATELY 10.07-ACRE AAA GABRIEL FOREST TRACT
120 GABRIEL FOREST
GEORGETOWN, WILLIAMSON COUNTY, TEXAS
HJN 23171 GA

PREPARED FOR:

JMA ENTITY, LLC
AUSTIN, TEXAS

PREPARED BY:

HORIZON ENVIRONMENTAL SERVICES
TBPG FIRM REGISTRATION NO. 50679



JULY 2023

1507 S Interstate 35 • Austin, Texas 78741-2502 • 512.328.2430 • www.horizon-esi.com
A Branch of LJA Environmental Services, LLC • TBPG Firm No. 50679

Horizon
Environmental Services

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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

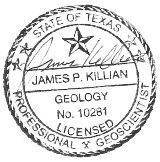
To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: James Killian Telephone: 512-328-2430

Date: 10 July 2023 Fax: 512-328-1804

Representing: Horizon Environmental Services and TBPG Form Registration No. 50679 (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: Approximately 10.07-acre AAA Gabriel Forest Tract; 120 Gabriel Forest, Georgetown, Williamson County, Texas

Project Information

1. Date(s) Geologic Assessment was performed: 27 June 2023
2. Type of Project:
   - ☒ WPAP
   - ☒ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

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

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

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
Eckrant stony clay, 0-3% slopes, stony (EeB)	D	1
Eckrant-Rock outcrop association, 1-10% slopes (ErE)	D	1

Soil Name	Group*	Thickness(feet)

** Soil Group Definitions (Abbreviated)*

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

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

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

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

   Applicant's Site Plan Scale: 1" = 400'
   Site Geologic Map Scale: 1" = 400'
   Site Soils Map Scale (if more than 1 soil type): 1" = 500'

9. Method of collecting positional data:

   ☒ Global Positioning System (GPS) technology.

☐ Other method(s). Please describe method of data collection: _____

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

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

    ☐ There are 0 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    - ☐ The wells are not in use and have been properly abandoned.
    - ☐ The wells are not in use and will be properly abandoned.
    - ☐ The wells are in use and comply with 16 TAC Chapter 76.

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

Administrative Information

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

Horizon
Environmental Services

ATTACHMENT A

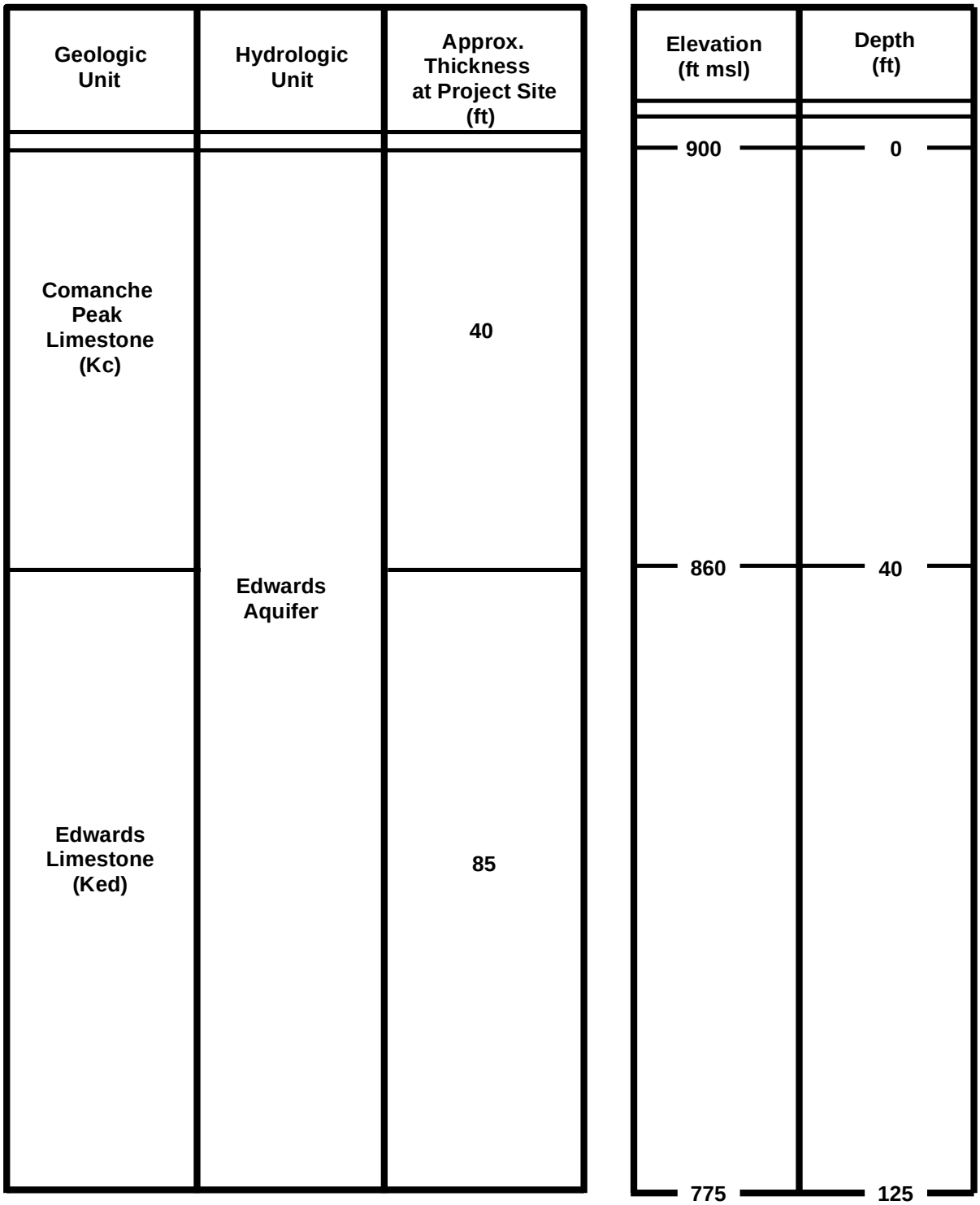
GEOLOGIC ASSESSMENT TABLE

Horizon observed no features on the subject site that meet the TCEQ definition of a potential recharge feature; as such, the TCEQ Geologic Assessment Table was not completed.

Horizon
Environmental Services

ATTACHMENT B

STRATIGRAPHIC COLUMN



Note: Unit elevation and thickness given with respect to a ground surface elevation of 900 feet on the southern portion of the subject site.

Horizon Environmental Services	Date: 07/19/2023 Drawn: KRW HJN NO: 23171.001 GA	**Attachment B** Stratigraphic Column AAA Gabriel Forest Georgetown, Williamson County, Texas	STATE OF TEXAS JAMES P. KILLIAN GEOLOGY No. 10291 LICENSED PROFESSIONAL GEOSCIENTIST

23171--AAA_Gabriel_Forest\Graphics\23171_001GA_05A_Strat.mxd

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ATTACHMENT C

DESCRIPTION OF SITE GEOLOGY

Geologic information for the subject site obtained via literature review is provided in Attachment E, Supporting Information.

A geologic assessment of approximately 10.07 acres located at 120 Gabriel Forest, Georgetown, Williamson County, Texas, was conducted pursuant to Texas rules for regulated activities in the Edwards Aquifer Recharge Zone (EARZ) (30 TAC 213). The subject site consists of vacant, previously developed (razed) rangeland. Assessment findings were used to develop recommendations for site construction measures intended to be protective of water resources at the subject site and adjacent areas.

The entire subject site is located within the EARZ, as defined by the Texas Commission on Environmental Quality (TCEQ). The EARZ occurs where surface water enters the subsurface through exposed limestone bedrock containing faults, fractures, sinkholes, and caves.

The subject site is completely underlain by Edwards Limestone (Ked) (UT-BEG, 1995), which has an estimated maximum thickness of about 85 feet thick.

No naturally occurring geologic features or man-made features were identified at this site. Further information pertaining to the subject site is presented in the following Attachments D, E, and F. Photographs of the subject site are presented in Attachment G.

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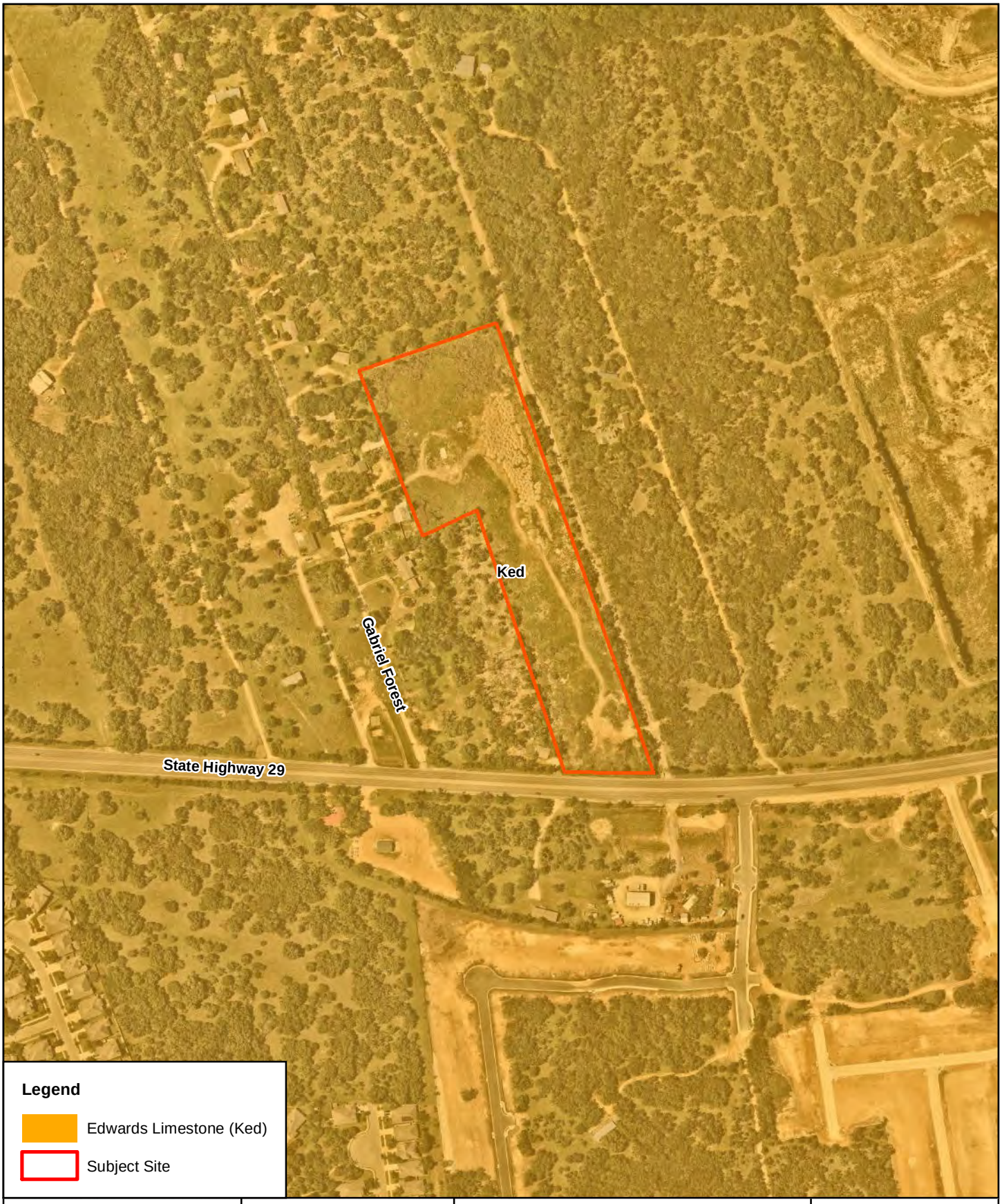
ATTACHMENT D

SITE GEOLOGIC MAP



Horizon™ Environmental Services

Date:	07/12/2023
Drawn:	ZHB
HJN NO:	23171.001GA
Source:	Nearmap, 2023; TWSC, 2014

Attachment D

Site Geologic Map
AAA Gabriel Forest
Georgetown, Williamson County, Texas

N

0 200 400
Feet

23171–AAA_Gabriel_Forest\Graphics\23171_001GA_06A_SGM.mxd

Horizon
Environmental Services

ATTACHMENT E

SUPPORTING INFORMATION

1.0 INTRODUCTION AND METHODOLOGY

This report and any proposed abatement measures are intended to fulfill Texas Commission on Environmental Quality (TCEQ) reporting requirements (TCEQ, 2005). This geologic assessment includes a review of the subject site for potential aquifer recharge and documentation of general geologic characteristics for the subject site. Horizon Environmental Services, Inc. (Horizon) conducted the necessary field and literature studies according to TCEQ *Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones* (TCEQ, 2004).

Horizon walked transects spaced 50 feet apart, mapped the locations of any features using a sub-foot accurate Trimble Geo HX handheld GPS, and posted processed data utilizing GPS Pathfinder Office software, topographic maps, and aerial photographs. Horizon also searched the area around any potential recharge features encountered to look for additional features. When necessary, Horizon removed loose rocks and soil (by hand) to preliminarily assess each feature's subsurface extent while walking transects. However, labor-intensive excavation was not conducted during this assessment. Features that did not meet the TCEQ definition of a potential recharge feature (per TCEQ, 2004), such as surface weathering, karren, or animal burrows, were evaluated in the field and omitted from this report.

The results of this survey do not preclude the possibility of encountering subsurface voids or abandoned test or water wells during the clearing or construction phases of the proposed project. If a subsurface void is encountered during any phase of the project, work should be halted until the TCEQ (or appropriate agency) is contacted and a geologist can investigate the feature.

2.0 ENVIRONMENTAL SETTING

2.1 LOCATION AND GENERAL DESCRIPTION

The subject site consists of approximately 10.07 acres of rangeland located at 120 Gabriel Forest in Williamson County, Texas (Appendix F, Figure 1).

2.2 LAND USE

The subject site is reportedly vacant, previously developed land that has been razed and filled. Over half of the site has been disturbed with either imported fill material and/or razed areas. No habitable structures were observed on the site. West State Highway 29 borders the site to the south and Gabriel Forest is approximately 300 feet west of the western border of the site. Surrounding lands are generally used for rural residences, farming, and raising livestock.

2.3 TOPOGRAPHY AND SURFACE WATER

The subject site is situated on gently sloping terrain within the North Fork San Gabriel River watershed (Appendix F, Figures 2 and 3). Surface elevations on the subject site vary from a minimum of approximately 850 feet above mean sea level (amsl) within an unnamed tributary of the North Fork San Gabriel River near the eastern site boundary to a maximum of

approximately 900 feet amsl near the southern boundary (USGS, 1982). Drainage on the site occurs primarily by overland sheet flow from southwest to northeast through an unnamed tributary of North Fork San Gabriel River along the eastern site boundary.

2.4 EDWARDS AQUIFER ZONE

The subject site is found within the Edwards Aquifer Recharge Zone (TCEQ, 2023) (Attachment F, Figure 2).

2.5 SURFACE SOILS

Two soil units are mapped within the subject site (NRCS, 2023) (Appendix F, Figure 4). Generally, the soil series are similar in their physical, chemical, and engineering properties, with the principal exception being rock fragment content and thickness. The soil units are described in further detail below.

Eckrant stony clay, 0 to 3% slopes (EeB) is gently sloping and located on broad ridges and in shallow valleys on uplands. The soil is very stony, calcareous, and moderately alkaline. Indurated limestone underlies the Eckrant stony clay. It is known to be well-drained with a moderately slow permeability. Due to the shallowness of the soil and underlying strata, the available water capacity is very low. Eckrant stony clay is most commonly used for rangeland. The shallow limestone provides a stable foundation for housing, but makes construction of underground utility lines, foundations, roads, and streets difficult (Werchan and Coker, 1983).

Eckrant-Rock outcrop association, 1 to 10% slopes (ErE) is an upland complex consisting of Eckrant soils and Rock outcrop on hills and ridges and on sides of drainageways. This complex is made up of about 70% Eckrant soils, 15% Rock outcrop, and 15% other soils. Typically, the surface layer of Eckrant soils is calcareous, moderately alkaline, dark grayish brown, extremely stony clay about 8 inches thick. The underlying material is fractured, indurated limestone. Fragments of limestone from 6 inches to 2 feet across cover about 35% of the surface. Rock outcrop consists of exposed limestone bedrock. It is in narrow horizontal bands and in random areas within portions of the Eckrant soils. Loose cobbles and stones on the surface are common. Permeability is moderately slow. The rooting depth is very shallow. Runoff is rapid. The available water capacity is very low. This complex has an esthetic appeal for use as homesites. However, the hard limestone substratum and the slope are limitations. This complex has poor suitability for recreational uses because of slope, the clayey surface, large stones, and the shallow to very shallow depth to rock (Werchan and Coker, 1983).

2.6 WATER WELLS

A review of TCEQ and Texas Water Development Board (TWDB) records revealed no water wells on the subject site and 2 wells within 0.5 miles of the subject site (TCEQ, 2023; TWDB, 2023). According to the TWDB records, one of the off-site wells (no. 5818903; plugged/abandoned test hole) was reportedly completed within the Edwards Aquifer at a total depth of 88 feet, and the second off-site well (no. 5819701) is reportedly completed within the

Trinity Aquifer at a total depth of 380 feet below surface. Horizon observed no apparent wells on the subject site.

The results of this assessment do not preclude the existence of additional undocumented/abandoned wells on the site. If a water well or casing is encountered during construction, work should be halted near the feature until the TCEQ is contacted.

2.7 GEOLOGY

Literature Review

The subject site is underlain by Edwards Limestone (Ked) (UT-BEG, 1995). Edwards Limestone comprises limestone, dolomite, and chert. The limestone is aphanitic to fine grained, massive to thin bedded, hard, brittle, and in part rudistid biostromes, with much miliolid biosparite. The dolomite fine to very fine grained, porous, medium gray to grayish brown. Nodules and plates are common in the chert, which varies in amount from bed to bed, with some intervals free of chert and mostly white to light gray. In the zone of weathering, the formation is considerably recrystallized, "honeycombed," and cavernous, forming an aquifer; it forms flat areas and plateaus bordered by scarps. Thickness ranges from 60 to 350 feet, thinning northward.

The site Stratigraphic Column is provided as Attachment B, and the Site Geologic Map is Attachment D.

The subject site is located within the Balcones Fault Zone. Available geologic reports indicate the nearest mapped fault is located approximately 4 miles to the east, trending from southwest to northeast (TWSC, 2023).

Field Assessment

Horizon observed no features on the subject site that meet the TCEQ definition of a potential recharge feature. In addition, no springs and/or spring runs were observed at the subject site.

3.0 CONCLUSIONS AND RECOMMENDATIONS

No geologic or man-made features were identified at the subject site that would require protection or mitigation pursuant to TCEQ rules for protection of the Edwards Aquifer (30 TAC 213). The site generally appears well-suited to development prospectuses. It should be noted that soil and drainage erosion would increase with ground disturbance. Native grasses and the cobbly content of the soil aid to prevent erosion. Soil and sedimentation fencing should be placed in all appropriate areas prior to any site disturbing activities.

Because the subject site is located over the Edwards Aquifer Recharge Zone, it is possible that subsurface voids underlie the site. If any subsurface voids are encountered during site development, work should halt immediately so that a geologist may assess the potential for the void(s) to provide meaningful contribution to the Edwards Aquifer.

4.0 REFERENCES

(CAPCOG) Capital Area Council of Governments. 5-foot contours, CAPCOG Center for Regional Development, Austin, Texas. 2015.

(Nearmap) Nearmap US, Inc. Nearmap Vertical™ digital orthographic photograph, <https://go.nearmap.com>. Imagery date 3 June 2023.

(NRCS) US Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey, <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Soil map data layer updated 12 September 2019. Accessed 10 July 2023.

(OSM) OpenStreetMap contributors. OpenStreetMap, <http://www.openstreetmap .org>. Available under the Open Database License (www.opendatacommons.org/ licenses/odbl). Accessed 12 July 2023.

(TCEQ) Texas Commission on Environmental Quality. Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones. Revised October 2004.

_____. RG-348, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices. Revised July 2005.

_____. Optional Enhanced Measures for the Protection of Water Quality in the Edwards Aquifer (Revised). Appendix A to RG-348, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices. September 2007.

_____. Edwards Aquifer Protection Program. Edwards Aquifer Viewer, <http://www.tceq. state.tx.us/field/eapp/viewer.html>. Accessed 7 July 2023.

(TWDB) Texas Water Development Board. Water Information Integration and Dissemination System. TWDB Groundwater Database (ArcIMS), <http://wiid.twdb.state.tx.us/ ims/wwm_drl/viewer.htm?>. Accessed 10 July 2023.

(TWSC) United States Geological Survey, Texas Water Science Center. Geologic Database of Texas, <https://txpub.usgs.gov/txgeology/>. Updated 1 February 2014; Accessed 10 July 2023.

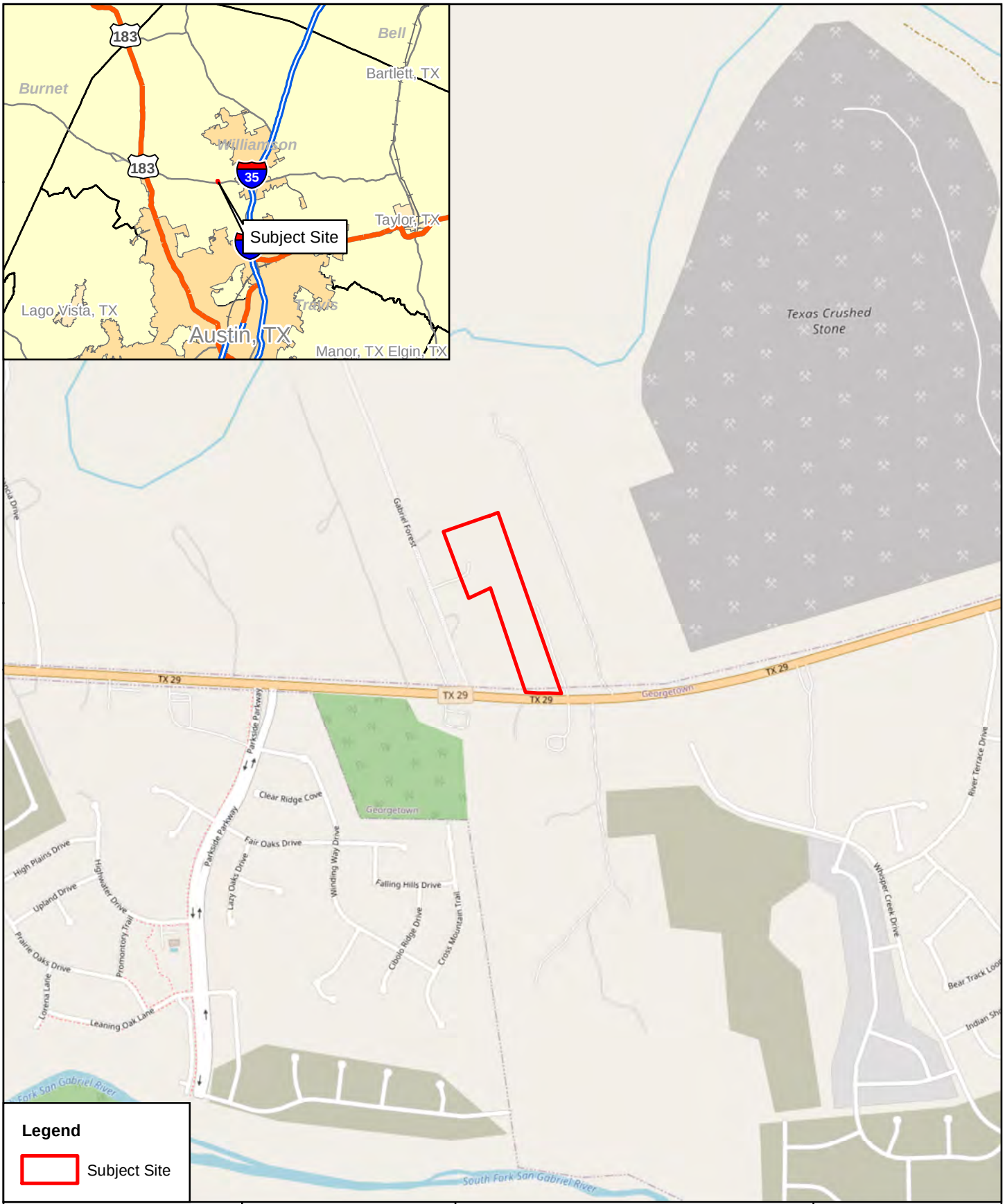
(UT-BEG) University of Texas Bureau of Economic Geology, C.V. Proctor, Jr., T.E. Brown, J.H. McGowen, N.B. Waechter, and V.E. Barnes. *Geologic Atlas of Texas*, Austin Sheet, Francis Luther Whitney Memorial Edition. 1974; reprinted 1995.

(USGS) US Geological Survey. 7.5-minute series topographic maps, Georgetown, Texas, quadrangle. 1982.

Werchan, L. E., and J. L. Coker. Soil survey of Williamson County, Texas. US Department of Agriculture, Natural Resources Conservation Service (formerly Soil Conservation Service), in cooperation with the Texas Agricultural Experiment Station. 1983.

ATTACHMENT F

ADDITIONAL SITE MAPS



Legend

Subject Site

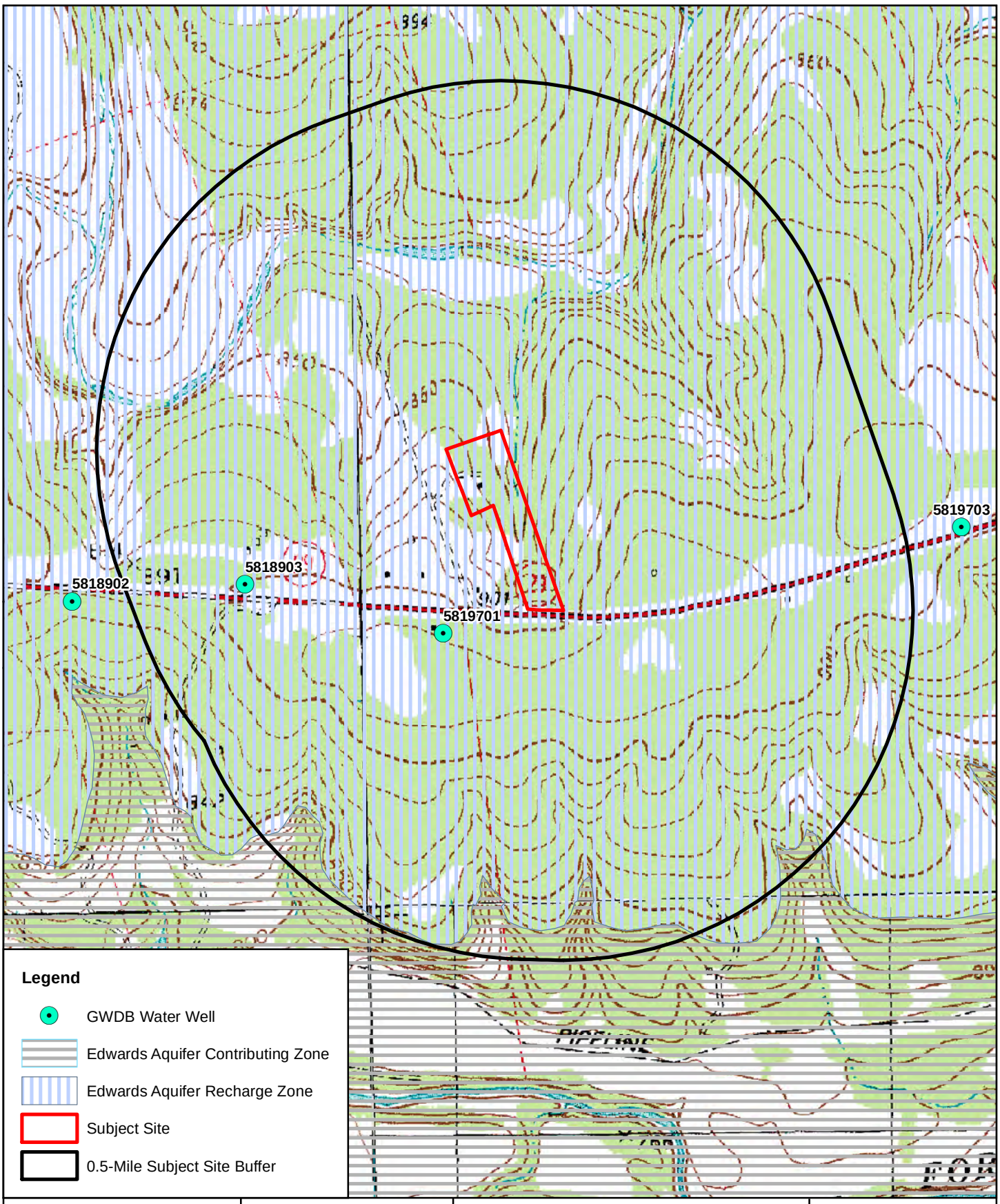
Date:	07/12/2023
Drawn:	ZHB
HJN NO:	23171.001GA
Source:	OSM, 2023

Attachment F, Figure 1

Vicinity Map
AAA Gabriel Forest
Georgetown, Williamson County, Texas

0 500 1,000
Feet

23171–AAA_Gabriel_Forest\Graphics\23171_001GA_01A_VicMap.mxd



Horizon Environmental Services

Date:	07/12/2023
Drawn:	ZHB
HJN NO:	23171.001GA
Source:	TCEQ, 2023; TWDB, 2023; USGS, 1982

Attachment F, Figure 2

Topography and Hydrogeology Map
AAA Gabriel Forest
Georgetown, Williamson County, Texas

0 500 1,000
Feet

23171–AAA_Gabriel_Forest\Graphics\23171_001GA_02A_TopoHydro.mxd

Date:	07/12/2023
Drawn:	ZHB
HJN NO:	23171.001GA
Source:	CAPGOG, 2015; Nearmap, 2023

Horizon™ Environmental Services

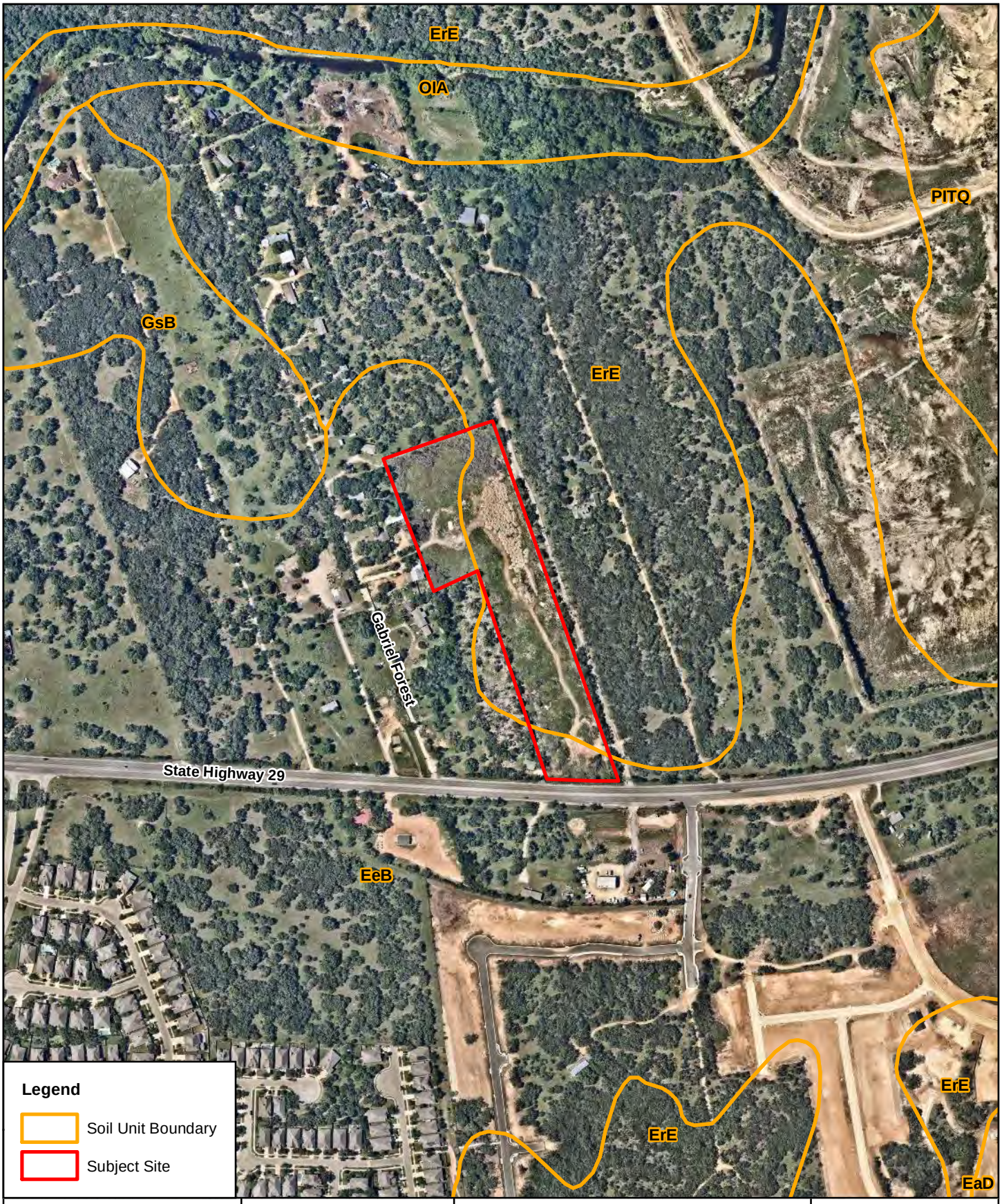
Attachment F, Figure 3

Site Topography Map
AAA Gabriel Forest
Georgetown, Williamson County, Texas

N

0 250 500
Feet

23171–AAA_Gabriel_Forest\Graphics\23171_001GA_03A_Topo.mxd



Date:	07/12/2023
Drawn:	ZHB
HJN NO:	23171.001GA
Source:	Nearmap, 2023; NRCS, 2023

Attachment F, Figure 4

Site Soil Map
AAA Gabriel Forest
Georgetown, Williamson County, Texas

0 250 500
Feet

23171–AAA_Gabriel_Forest\Graphics\23171_001GA_04A_Soil.mxd

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ATTACHMENT G

SITE PHOTOGRAPHS

Horizon
Environmental Services

PHOTO 1
General site conditions (facing southeast)

PHOTO 2
General site conditions (facing east)

PHOTO 3
General site conditions (facing west)

PHOTO 4
Off-site tributary (facing northeast)

Horizon
Environmental Services

PHOTO 5
Old house foundation (facing northeast)

PHOTO 6
Large debris pile (facing southeast)

PHOTO 7
Disturbed land (facing east)

PHOTO 8
Disturbed land (facing northeast)

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: Robert Thompson

Date: 02/02/2024

Signature of Customer/Agent:

Regulated Entity Name: AAA Gabriel Forest

Regulated Entity Information

1. The type of project is:

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

2. Total site acreage (size of property):10.07

3. Estimated projected population:0.0

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	129,108	÷ 43,560 =	2.964
Parking	0	÷ 43,560 =	0.00
Other paved surfaces	177,822	÷ 43,560 =	4.082
Total Impervious Cover	306,930	÷ 43,560 =	7.046

Total Impervious Cover 7.046 **÷ Total Acreage** 10.066 **X 100 =** 70.0**% 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	245 (dry), 3,794 (peak wet) Gallons/day
_____% Industrial	_____Gallons/day
_____% Commingled	_____Gallons/day

TOTAL gallons/day 245 (average dry), 3,794 (peak wet)

15. Wastewater will be disposed of by:

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

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

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

☐ Sewage Collection System (Sewer Lines):

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

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

☐ The SCS was previously submitted on_____.

☐ The SCS was submitted with this application.

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

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

☐ Existing.
☐ Proposed.

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

Site Plan Requirements

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

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

Site Plan Scale: 1" = 20'.

18. 100-year floodplain boundaries:

☐ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
☒ No part of the project site is located within the 100-year floodplain.
The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): FEMA FIRM 48491C0290E, dated 09/26/2008

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 _____ (#) 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 are believed to be the potential sources of sediment to stormwater:

1) Disturbed earth from rough grading,
2) road base for pavement, and
3) disturbed earth from the construction of the water quality control

The following are believed to be potential pollutants and sources, other than sediment, to stormwater runoff:

1) Construction debris (e.g., wood form boards, nails, tie wire for rebar, survey laths, survey tape, etc.),
2) items that can float, such as cups and paper,
3) possible oils from leaking machinery,
4) possible fuel should any refueling activity occur,
5) possible concrete materials from truck washout activities (if not bound in the solidifying mass), and
6) possible paint from striping activities (if not adhered to something large).

ATTACHMENT B – VOLUME AND CHARACTER OF STORM WATER

The proposed work with this application is expected to produce a significant amount of volume from the stormwater, due to the size of the disturbance area and the proposed impervious cover to be added. However, the quality of the stormwater is expected to be improved from the existing conditions, since the proposed impervious cover being added will be treated by a proposed water quality control.

Pre-construction runoff coefficient = 77.00

Post-construction runoff coefficient = 91.70

ATTACHMENT C – SUITABILITY LETTER FROM AUTHORIZED AGENT

See next page for this letter.

ATTACHMENT D – EXCEPTION TO THE REQUIRED GEOLOGIC ASSESSMENT

This is not applicable for this project

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: Robert Thompson

Date: 02/02/2024

Signature of Customer/Agent:

Regulated Entity Name: AAA Gabriel Forest

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: Middle Fork San Gabriel River

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

Spill response actions will be in accordance with Texas Administrative Code (TAC) Title 30, Chapter 327. Corresponding notes have been developed based on that section of the TAC and are included on the General Notes page (in the attached construction plan set) and is also copied below (and continues through to page 7).

The person responsible for cleaning up a spill is:

- the owner or operator of a **facility** from which a spill emanates;
- the owner, operator, or demise charterer of a **vessel** from which a spill emanates; or
- any other person who **causes, suffers, allows, or permits** a spill or discharge.

Notification, emergency response, spill cleanups that take less than 180 days:

- See https://www.tceq.texas.gov/response/index.html. Most spills requiring less than 6 months of cleanup are reviewed by the **TCEQ Austin Regional** office staff at (512) 339-2929 (Monday-Friday, 8 a.m. – 5 p.m.) or
- State of Texas Spill-Reporting Hotline at (800) 832-8224 (24-hours)

Cleanups requiring **more than 180 days and spills that impact groundwater** may be referred from the Region office to the Remediation Division for oversight. Contact:

- The **TCEQ Austin Regional office** at (512) 339-2929, for Travis county or
- The TCEQ Remediation Division, Environmental Cleanup sections at: (512) 239-2200.

SPILL PREVENTION AND CONTROL NOTES
(BASED ON TAC 30.327)

A DISCHARGE OR SPILL IS AN ACT OR OMISSION BY WHICH OIL, HAZARDOUS SUBSTANCES, WASTE, OR OTHER SUBSTANCES ARE SPILLED, LEAKED, PUMPED, POURED, EMITTED, ENTERED, OR DUMPED ONTO OR INTO WATERS IN THE STATE OF TEXAS OR BY WHICH THOSE SUBSTANCES ARE DEPOSITED WHERE, UNLESS

CONTROLLED OR REMOVED, THEY MAY DRAIN, SEEP, RUN, OR OTHERWISE ENTER WATER IN THE STATE OF TEXAS.

NOTIFICATION REQUIREMENTS

(A) REPORTABLE DISCHARGE OR SPILL. A REPORTABLE DISCHARGE OR SPILL IS A DISCHARGE OR SPILL OF OIL, PETROLEUM PRODUCT, USED OIL, HAZARDOUS SUBSTANCES, INDUSTRIAL SOLID WASTE, OR OTHER SUBSTANCES INTO THE ENVIRONMENT IN A QUANTITY EQUAL TO OR GREATER THAN THE REPORTABLE QUANTITY LISTED IN SECTION 327.4 OF THIS TITLE (RELATING TO REPORTABLE QUANTITIES) IN ANY 24-HOUR PERIOD.

(B) INITIAL NOTIFICATION. UPON THE DETERMINATION THAT A REPORTABLE DISCHARGE OR SPILL HAS OCCURRED, THE CONTRACTOR SHALL NOTIFY THE TCEQ AS SOON AS POSSIBLE BUT NOT LATER THAN 24 HOURS AFTER THE DISCOVERY OF THE SPILL OR DISCHARGE.

(C) METHOD OF NOTIFICATION. THE CONTRACTOR SHALL NOTIFY THE TCEQ IN ANY REASONABLE MANNER INCLUDING BY TELEPHONE, IN PERSON, OR BY ANY OTHER METHOD APPROVED BY THE TCEQ. IN ALL CASES, THE INITIAL NOTIFICATION SHALL PROVIDE, TO THE EXTENT KNOWN, THE INFORMATION LISTED IN SUBSECTION (D) OF THIS SECTION. NOTICE PROVIDED UNDER THIS SECTION SATISFIES THE FEDERAL REQUIREMENT TO NOTIFY THE STATE EMERGENCY RESPONSE COMMISSION IN THE STATE OF TEXAS. THE CONTRACTOR SHALL NOTIFY ONE OF THE FOLLOWING:
(1) THE STATE EMERGENCY RESPONSE CENTER AT 1-800-832-8224;
(2) DURING NORMAL BUSINESS HOURS ONLY, THE REGIONAL OFFICE FOR THE TCEQ REGION IN WHICH THE DISCHARGE OR SPILL OCCURRED; OR
(3) THE TCEQ AT THE TCEQ 24-HOUR SPILL REPORTING NUMBER (512) 239-2507 OR (512) 463-7727.

(D) INFORMATION REQUIRED IN INITIAL NOTIFICATION. THE INITIAL NOTIFICATION SHALL PROVIDE, TO THE EXTENT KNOWN, THE INFORMATION IN THE FOLLOWING LIST. COPIES OF SPILL REPORTS PREPARED FOR OTHER GOVERNMENTAL AGENCIES SHALL SATISFY THIS REQUIREMENT IF THEY CONTAIN, OR ARE SUPPLEMENTED TO CONTAIN, ALL THE INFORMATION REQUIRED BY THIS SUBSECTION. THE INITIAL NOTIFICATION SHALL CONTAIN:

(1) THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE PERSON MAKING THE TELEPHONE REPORT;
(2) THE DATE, TIME, AND LOCATION OF THE SPILL OR DISCHARGE;
(3) A SPECIFIC DESCRIPTION OR IDENTIFICATION OF THE OIL, PETROLEUM PRODUCT, HAZARDOUS SUBSTANCES OR OTHER SUBSTANCES DISCHARGED OR SPILLED;
(4) AN ESTIMATE OF THE QUANTITY DISCHARGED OR SPILLED;
(5) THE DURATION OF THE INCIDENT;
(6) THE NAME OF THE SURFACE WATER OR A DESCRIPTION OF THE WATERS IN THE STATE AFFECTED OR THREATENED BY THE DISCHARGE OR SPILL;
(7) THE SOURCE OF THE DISCHARGE OR SPILL;
(8) A DESCRIPTION OF THE EXTENT OF ACTUAL OR POTENTIAL WATER POLLUTION OR HARMFUL IMPACTS TO THE ENVIRONMENT AND AN IDENTIFICATION OF ANY ENVIRONMENTALLY SENSITIVE AREAS OR NATURAL RESOURCES AT RISK;
(9) IF DIFFERENT FROM PARAGRAPH (1) OF THIS SUBSECTION, THE NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF THE CONTRACTOR AND THE CONTACT PERSON AT THE LOCATION OF THE DISCHARGE OR SPILL;
(10) A DESCRIPTION OF ANY ACTIONS THAT HAVE BEEN TAKEN, ARE BEING TAKEN, AND WILL BE TAKEN TO CONTAIN AND RESPOND TO THE DISCHARGE OR SPILL;
(11) ANY KNOWN OR ANTICIPATED HEALTH RISKS;
(12) THE IDENTITY OF ANY GOVERNMENTAL REPRESENTATIVES, INCLUDING LOCAL AUTHORITIES OR THIRD PARTIES, RESPONDING TO THE DISCHARGE OR SPILL; AND
(13) ANY OTHER INFORMATION THAT MAY BE SIGNIFICANT TO THE RESPONSE ACTION.

(E) UPDATE NOTIFICATION. THE CONTRACTOR SHALL NOTIFY THE TCEQ AS SOON AS POSSIBLE WHENEVER NECESSARY TO PROVIDE INFORMATION THAT WOULD TRIGGER A CHANGE IN THE RESPONSE TO THE SPILL OR DISCHARGE.

(F) CORRECTION OF RECORDS. NOTIFYING THE TCEQ THAT A REPORTABLE DISCHARGE OR SPILL HAS OCCURRED SHALL NOT BE CONSTRUED AS AN ADMISSION THAT POLLUTION HAS OCCURRED. FURTHERMORE, IF THE CONTRACTOR DETERMINES, AFTER NOTIFICATION, THAT A REPORTABLE DISCHARGE OR SPILL DID NOT OCCUR, THE CONTRACTOR MAY SEND A LETTER TO

THE TCEQ DOCUMENTING THAT DETERMINATION. IF THE EXECUTIVE DIRECTOR AGREES WITH THAT DETERMINATION, THE EXECUTIVE DIRECTOR WILL NOTE THE DETERMINATION IN COMMISSION RECORDS. IF THE EXECUTIVE DIRECTOR DISAGREES WITH THAT DETERMINATION, THE EXECUTIVE DIRECTOR WILL NOTIFY THE CONTRACTOR WITHIN 30 DAYS.

(G) NOTIFICATION OF LOCAL GOVERNMENTAL AUTHORITIES. IF THE DISCHARGE OR SPILL CREATES AN IMMINENT HEALTH THREAT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY AND COOPERATE WITH LOCAL EMERGENCY AUTHORITIES (FIRE DEPARTMENT, FIRE MARSHAL, LAW ENFORCEMENT AUTHORITY, HEALTH AUTHORITY, OR LOCAL EMERGENCY PLANNING COMMITTEE (LEPC), AS APPROPRIATE). THE RESPONSIBLE PARTY WILL COOPERATE WITH THE LOCAL EMERGENCY AUTHORITY IN PROVIDING SUPPORT TO IMPLEMENT APPROPRIATE NOTIFICATION AND RESPONSE ACTIONS. THE LOCAL EMERGENCY AUTHORITY, AS NECESSARY, WILL IMPLEMENT ITS EMERGENCY MANAGEMENT PLAN, WHICH MAY INCLUDE NOTIFYING AND EVACUATING AFFECTED PERSONS. IN THE ABSENCE OF A LOCAL EMERGENCY AUTHORITY, THE CONTRACTOR SHALL TAKE REASONABLE MEASURES TO NOTIFY POTENTIALLY AFFECTED PERSONS OF THE IMMINENT HEALTH THREAT.

(H) NOTIFICATION TO PROPERTY OWNER AND RESIDENTS. AS SOON AS POSSIBLE, BUT NO LATER THAN TWO WEEKS AFTER DISCOVERY OF THE SPILL OR DISCHARGE, THE CONTRACTOR SHALL REASONABLY ATTEMPT TO NOTIFY THE OWNER (IF IDENTIFIABLE) OR OCCUPANT OF THE PROPERTY UPON WHICH THE DISCHARGE OR SPILL OCCURRED AS WELL AS THE OCCUPANTS OF ANY PROPERTY THAT THE CONTRACTOR REASONABLY BELIEVES IS ADVERSELY AFFECTED.

(I) ADDITIONAL NOTIFICATION REQUIRED.
(1) NOTICE PROVIDED UNDER THIS SECTION SATISFIES THE FEDERAL REQUIREMENT TO NOTIFY THE STATE EMERGENCY RESPONSE COMMISSION IN THE STATE OF TEXAS. HOWEVER, COMPLYING WITH THE NOTIFICATION REQUIREMENTS SET FORTH IN THIS SECTION DOES NOT RELIEVE, SATISFY, OR FULFILL ANY OTHER NOTIFICATION REQUIREMENTS IMPOSED BY PERMIT OR OTHER LOCAL, STATE, OR FEDERAL LAW. THE CONTRACTOR SHOULD CONTACT THE LOCAL AUTHORITIES TO DETERMINE IF ANY ADDITIONAL NOTIFICATION IS REQUIRED AND SHOULD CONSULT WITH THE TECQ AS TO WHETHER ANY ADDITIONAL STATE OR FEDERAL NOTIFICATION IS REQUIRED.

(J) ALTERNATIVE NOTIFICATION PLANS.
(1) CONTRACTORS IN CHARGE OF ACTIVITIES AND FACILITIES MAY SUBMIT AND IMPLEMENT AN ALTERNATIVE NOTIFICATION PLAN. THIS ALTERNATIVE NOTIFICATION PLAN SHALL COMPLY WITH THE TEXAS WATER CODE, SECTION 26.039. CONTRACTORS SHALL OBTAIN THE TCEQ'S WRITTEN APPROVAL BEFORE IMPLEMENTING ANY ALTERNATIVE NOTIFICATION PLAN.
(2) UPON APPROVAL OF THE TCEQ REGIONAL MANAGER, CONTRACTORS MAY PROVIDE THE INITIAL NOTIFICATION BY FACSIMILE TO THE REGIONAL OFFICE DURING NORMAL BUSINESS HOURS.

REPORTABLE QUANTITIES (RQ)

(A) HAZARDOUS SUBSTANCES. THE REPORTABLE QUANTITIES FOR HAZARDOUS SUBSTANCES SHALL BE:
(1) FOR SPILLS OR DISCHARGES ONTO LAND--THE QUANTITY DESIGNATED AS THE FINAL REPORTABLE QUANTITY (RQ) IN TABLE 302.4 IN 40 CFR SECTION 302.4; OR
(2) FOR SPILLS OR DISCHARGES INTO WATERS IN THE STATE--THE QUANTITY DESIGNATED AS THE FINAL RQ IN TABLE 302.4 IN 40 CFR SECTION 302.4, EXCEPT WHERE THE FINAL RQ IS GREATER THAN 100 POUNDS IN WHICH CASE THE RQ SHALL BE 100 POUNDS.

(B) OIL, PETROLEUM PRODUCT, AND USED OIL.
(1) THE RQ FOR CRUDE OIL AND OIL OTHER THAN THAT DEFINED AS PETROLEUM PRODUCT OR USED OIL SHALL BE:
(A) FOR SPILLS OR DISCHARGES ONTO LAND--210 GALLONS (FIVE BARRELS); OR
(B) FOR SPILLS OR DISCHARGES DIRECTLY INTO WATER IN THE STATE--QUANTITY SUFFICIENT TO CREATE A SHEEN.
(2) THE RQ FOR PETROLEUM PRODUCT AND USED OIL SHALL BE:
(A) EXCEPT AS NOTED IN SUBPARAGRAPH (B) OF THIS PARAGRAPH, FOR SPILLS OR DISCHARGES ONTO LAND--25 GALLONS;
(B) FOR SPILLS OR DISCHARGES TO LAND FROM PST EXEMPTED FACILITIES--210 GALLONS (FIVE BARRELS); OR
(C) FOR SPILLS OR DISCHARGES DIRECTLY INTO WATER IN THE STATE--QUANTITY SUFFICIENT TO CREATE A SHEEN.

(C) INDUSTRIAL SOLID WASTE OR OTHER SUBSTANCES. THE RQ FOR SPILLS OR DISCHARGES INTO WATER IN THE STATE SHALL BE 100 POUNDS.

ACTIONS REQUIRED

(A) THE CONTRACTOR SHALL IMMEDIATELY ABATE AND CONTAIN THE SPILL OR DISCHARGE AND COOPERATE FULLY WITH THE EXECUTIVE DIRECTOR AND THE LOCAL INCIDENT COMMAND SYSTEM. THE CONTRACTOR SHALL ALSO BEGIN REASONABLE RESPONSE ACTIONS WHICH MAY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING ACTIONS:
(1) ARRIVAL OF THE CONTRACTOR OR RESPONSE PERSONNEL HIRED BY THE CONTRACTOR AT THE SITE OF THE DISCHARGE OR SPILL;
(2) INITIATING EFFORTS TO STOP THE DISCHARGE OR SPILL;
(3) MINIMIZING THE IMPACT TO THE PUBLIC HEALTH AND THE ENVIRONMENT;
(4) NEUTRALIZING THE EFFECTS OF THE INCIDENT;
(5) REMOVING THE DISCHARGED OR SPILLED SUBSTANCES; AND
(6) MANAGING THE WASTES.

(B) UPON REQUEST OF THE LOCAL GOVERNMENT RESPONDERS OR THE EXECUTIVE DIRECTOR, THE CONTRACTOR SHALL PROVIDE A VERBAL OR WRITTEN DESCRIPTION, OR BOTH, OF THE PLANNED RESPONSE ACTIONS AND ALL ACTIONS TAKEN BEFORE THE LOCAL GOVERNMENTAL RESPONDERS OR THE EXECUTIVE DIRECTOR ARRIVE. WHEN THE TCEQ ON-SCENE COORDINATOR REQUESTS THIS INFORMATION, IT IS SUBJECT TO POSSIBLE ADDITIONAL RESPONSE ACTION REQUIREMENTS BY THE EXECUTIVE DIRECTOR. THE INFORMATION WILL SERVE AS A BASIS FOR THE EXECUTIVE DIRECTOR TO DETERMINE THE NEED FOR:
(1) FURTHER RESPONSE ACTIONS BY THE CONTRACTOR;
(2) INITIATING STATE FUNDED ACTIONS FOR WHICH THE CONTRACTOR MAY BE HELD LIABLE TO THE MAXIMUM EXTENT ALLOWED BY LAW; AND
(3) SUBSEQUENT REPORTS ON THE RESPONSE ACTIONS.

(C) EXCEPT FOR DISCHARGES OR SPILLS OCCURRING DURING THE NORMAL COURSE OF TRANSPORTATION ABOUT WHICH CARRIERS ARE REQUIRED TO FILE A WRITTEN REPORT WITH THE U.S. DEPARTMENT OF TRANSPORTATION UNDER 49 CFR SECTION 171.16, THE CONTRACTOR SHALL SUBMIT WRITTEN INFORMATION, SUCH AS A LETTER, DESCRIBING THE DETAILS OF THE DISCHARGE OR SPILL AND SUPPORTING THE ADEQUACY OF THE RESPONSE ACTION, TO THE APPROPRIATE TCEQ REGIONAL MANAGER WITHIN 30 WORKING DAYS OF THE DISCOVERY OF THE REPORTABLE DISCHARGE OR SPILL. THE REGIONAL MANAGER HAS THE

DISCRETION TO EXTEND THE DEADLINE. THE DOCUMENTATION SHALL CONTAIN ONE OF THE FOLLOWING ITEMS:

(1) A STATEMENT THAT THE DISCHARGE OR SPILL RESPONSE ACTION HAS BEEN COMPLETED AND A DESCRIPTION OF HOW THE RESPONSE ACTION WAS CONDUCTED. THE STATEMENT SHALL INCLUDE THE INITIAL REPORT INFORMATION REQUIRED BY SECTION 327.3(C) OF THIS TITLE (RELATING TO NOTIFICATION REQUIREMENTS). THE EXECUTIVE DIRECTOR MAY REQUEST ADDITIONAL INFORMATION. APPROPRIATE RESPONSE ACTIONS AT ANY TIME FOLLOWING THE DISCHARGE OR SPILL INCLUDE USE OF THE TEXAS RISK REDUCTION PROGRAM RULES IN CHAPTER 350 OF THIS TITLE (RELATING TO TEXAS RISK REDUCTION PROGRAM).

(2) A REQUEST FOR AN EXTENSION OF TIME TO COMPLETE THE RESPONSE ACTION, ALONG WITH THE REASONS FOR THE REQUEST. THE REQUEST SHALL ALSO INCLUDE A PROJECTED WORK SCHEDULE OUTLINING THE TIME REQUIRED TO COMPLETE THE RESPONSE ACTION. THE EXECUTIVE DIRECTOR MAY GRANT AN EXTENSION UP TO SIX MONTHS FROM THE DATE THE SPILL OR DISCHARGE WAS REPORTED. UNLESS OTHERWISE NOTIFIED BY THE APPROPRIATE REGIONAL MANAGER OR THE EMERGENCY RESPONSE TEAM, THE CONTRACTOR SHALL PROCEED ACCORDING TO THE TERMS OF THE PROJECTED WORK SCHEDULE.

(3) A STATEMENT THAT THE DISCHARGE OR SPILL RESPONSE ACTION HAS NOT BEEN COMPLETED NOR IS IT EXPECTED TO BE COMPLETED WITHIN THE MAXIMUM ALLOWABLE SIX MONTH EXTENSION. THE STATEMENT SHALL EXPLAIN WHY COMPLETION OF THE RESPONSE ACTION IS NOT FEASIBLE AND INCLUDE A PROJECTED WORK SCHEDULE OUTLINING THE REMAINING TASKS TO COMPLETE THE RESPONSE ACTION. THIS INFORMATION WILL ALSO SERVE AS NOTIFICATION THAT THE RESPONSE ACTIONS TO THE DISCHARGE OR SPILL WILL BE CONDUCTED UNDER THE TEXAS RISK REDUCTION PROGRAM RULES IN CHAPTER 350 OF THIS TITLE (RELATING TO TEXAS RISK REDUCTION PROGRAM).

ATTACHMENT B – POTENTIAL SOURCES OF CONTAMINATION

The only "pollutants" expected from the work during construction are sediment. Mostly inert materials (i.e. pipe, wood, drywall, concrete, etc.) will be stored or installed on the site. No off-site fill material is expected to be brought onto the site (other than crushed limestone base, asphalt and concrete). No significant chemicals are planned to be stored or distributed on the site. A portable toilet might be on the site during construction, but no spill is expected from maintaining this toilet. Re-fueling of the vehicles is the only other perceived threat, but short of an accidental spill, no threat should be posed. Trash containers shall be used for the construction debris. The only possible "pollutants" expected after the construction has been completed are: pesticides, fertilizers, automotive fluids, and air conditioning condensate.

ATTACHMENT C – SEQUENCE OF MAJOR ACTIVITIES

-	Install erosion controls:	less than 1-acre
	Control measure: Silt Fence	approximately 1.5-weeks
-	Clear, grub, and rough grade site (for the paving and building pads):	approximately 10.5-acres
	Control measure: Silt Fence	approximately 2-weeks
-	Install water & WW utilities:	approximately 0.2-acres
	Control measure: Silt Fence & Tri. Filter Dikes	approximately 4-weeks
-	Install water quality and detention ponds:	approximately 0.65-acre
	Control measure: Silt Fence	approximately 3-weeks

ATTACHMENT D – TEMPORARY BEST MANAGEMENT PRACTICES (TBMPs)

Silt fence shall be located along the entire down slope grade of this project. No run-off should be able to leave the site without first being filtered by that silt fence. As shown on the Erosion and Sedimentation Controls Plan in the construction set, a stabilized construction entrance will be used to facilitate mud

on the wheels of vehicles being removed on site. A concrete washout area shall be provided onsite to prevent or reduce the discharge of pollutants from concrete waste.

Any pollutants are expected to be either soil or attached to soil (unless it is trash which will float) and with the silt fence described, that soil (or any floating trash) is expected to be caught and held until removal. Notes are included in the plan set (in relation to the Storm Water Pollution Prevention Plan, SW3P) that specify the minimum maintenance required for silt fence, including cleaning of soil and debris.

There are no sensitive features known to exist near the site; however, run-off will still be released after either filtering through the silt fence or infiltrating through the soil.

ATTACHMENT E – REQUEST TO TEMPORARILY SEAL A FEATURE

This subject is not applicable (n/a) for this project.

ATTACHMENT F – STRUCTURAL PRACTICES

The drainage area to the work area will be relatively small; therefore, the flows are not diverted around it. Rather, all of the run-off is caught and filtered through a silt fence. See the discussion under Temporary BMPs and Measures above.

ATTACHMENT G – DRAINAGE AREA MAP

See the attached construction plan set.

ATTACHMENT H – TEMPORARY SEDIMENT POND(S) PLAN & CALCS

This subject is n/a for this project.

ATTACHMENT I – INSPECTION AND MAINTENANCE FOR BMPs

See the attached taken from the TCEQ's Technical Guidance, in addition to the plan sheets for the storm water pollution prevention plan (SWPPP) notes on the General Notes sheet and the Erosion and Sedimentation Controls (ESC) details (stabilized construction entrance, silt fence and concrete washout area) in the

construction plan set for the inspection plan of each of these temporary BMPs and measures.

ATTACHMENT J – SCHEDULE OF INTERIM AND PERMANENT SOIL STABILIZATION PRACTICES

The work at this site is relatively small, will happen quickly, and will occur in one phase. The time from the beginning of grading to stabilization is not expected to be more than 11-months; therefore, there is no particular schedule, other than to complete construction as quickly as possible and then to re-vegetate the site as quickly as possible, in accordance with the re-vegetation notes on the construction plans, which are copied below:

PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW:

A. UNLESS DIRECTED OTHERWISE BY THE OWNER, A MINIMUM OF FOUR INCHES OF TOPSOIL SHALL BE PLACED IN ALL DRAINAGE CHANNELS (EXCEPT ROCK) AND 1-INCH OF TOPSOIL IN OTHER AREAS.

B. THE SEEDING FOR PERMANENT EROSION CONTROL SHALL BE APPLIED OVER AREAS DISTURBED BY CONSTRUCTION AS FOLLOWS:

BROADCAST SEEDING:

1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH A COMBINATION OF 2 POUNDS PER 1000-SF OF UNHULLED BERMUDA AND 7 POUNDS PER 1000 SF OF WINTER RYE WITH A PURITY OF 95% WITH 90% GERMINATION.

2. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 2 POUNDS PER 1000 SF WITH A PURITY OF 95% WITH 85% GERMINATION.

3. OTHER REQUIREMENTS:
   A. FERTILIZER SHALL BE A PELLETED OR GRANULAR SLOW RELEASE WITH AN ANALYSIS OF 15-15-15 TO BE APPLIED ONCE AT PLANTING AND ONCE DURING THE PERIOD OF ESTABLISHMENT AT A RATE OF 1 POUND PER 1000-SF.
   B. MULCH TYPE USED SHALL BE HAY, STRAW OR MULCH APPLIED AT A RATE OF 45 POUNDS PER 1000-SF.

HYDRAULIC SEEDING:

1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH A COMBINATION OF 1 POUND PER 1000-SF OF UNHULLED BERMUDA AND 7 POUNDS PER 1000-SF OF WINTER RYE WITH A PURITY OF 95% WITH 90% GERMINATION.

2. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 1 POUND PER 1000 SF WITH A PURITY OF 95% WITH 85% GERMINATION.

3. OTHER REQUIREMENTS:
   A. FERTILIZER SHALL BE A WATER SOLUBLE FERTILIZER WITH AN ANALYSIS OF 15-15-15 AT A RATE OF 1.5 POUNDS PER 1000 SF.
   B. MULCH TYPE USED SHALL BE HAY, STRAW OR MULCH APPLIED AT A RATE OF 45 POUNDS PER 1000 SF, WITH SOIL TACKIFIER AT A RATE OF 1.4 POUNDS PER 1000 SF.
   C. THE PLANTED AREA SHALL BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT ERODE THE TOPSOIL, 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 « INCH OR MORE SHALL POSTPONE THE WATERING SCHEDULE FOR ONE WEEK.
   D. RESTORATION SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1« INCHES HIGH WITH 95% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN 16 SQUARE FEET EXIST.

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: Robert Thompson

Date: 02/02/2024

Signature of Customer/Agent

Regulated Entity Name: AAA Gabriel Forest

Permanent Best Management Practices (BMPs)

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

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

   ☐ N/A

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

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

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

☐ N/A

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

   ☐ N/A

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

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

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

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

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

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

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

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

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

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

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

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

☒ N/A

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

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

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

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

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

☐ N/A

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

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

    ☐ N/A

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

    ☒ N/A

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

    ☒ N/A

Responsibility for Maintenance of Permanent BMP(s)

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

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

    ☐ N/A

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

    ☒ N/A

ATTACHMENT A – 20% OR LESS IMPERVIOUS COVER

This subject is not applicable (n/a) for this project.

ATTACHMENT B – BMPs FOR UPGRADIENT STORMWATER

As seen on the drainage area map sheets (in the construction plan set), this project will have approximately 50.6-acres of up-gradient offsite flow to control, due to the existing topography from both sides of this property (and from across State Highway 29). These areas are proposed to continue to be routed through the proposed development, however, the flows will be directed into either concrete flume, a concrete box culvert or a concrete pipe and conveyed to the downstream end of this project and not included in the permanent best management practices (BMPs): water quality or detention pond design.

ATTACHMENT C – BMPs FOR ON-SITE STORMWATER

There is a proposed Sand Filter Pond that will prevent the pollution of surface water or groundwater that originates on-site. All run-off that contacts the proposed impervious areas will flow into this water quality control. (If a pollutant is released, it is most likely expected to be on the impervious area or would end up on the impervious cover that will ultimately be treated by this BMP.) The pond will be constructed of vertical concrete walls with some ground (earth) slopes of 3:1 (33.3%) next to the filtration basin and a 2.0% slope in the sedimentation basin. The TCEQ TSS calculations are provided on the Water Pollution Prevention Plan (sheet 27 of 37). The pond overflow runoff will enter the proposed detention basin (with a downstream short vertical wall for flow spreading) to detain the flows and match pre-existing conditions.

ATTACHMENT D – BMPs FOR SURFACE STREAMS

There are no surface streams, sensitive features, or direct access to the aquifer on this property or downstream; therefore, this subject is n/a for this project.

ATTACHMENT E – REQUEST TO SEAL A FEATURE

This subject is n/a for this project.

ATTACHMENT F – CONSTRUCTION PLANS

See attached construction plan set (38 sheets, total), including:

- Sheet 17 = General Notes sheet (for the TCEQ construction notes)
- Sheet 27 = Water Quality & Detention Pond Plan sheet (for the TCEQ TSS removal calculations and pond details)
- There are no known geologic features on this existing lot

ATTACHMENT G – INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

See next two (2) pages (the second page is signed by the owner)

ATTACHMENT H – PILOT-SCALE FIELD TESTING PLAN

This subject is n/a for this project.

ATTACHMENT I – MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION

There are no surface streams on this property or immediately downstream; therefore, this subject is n/a for this project.

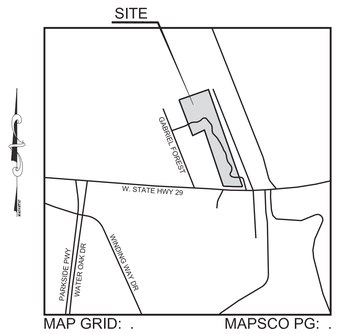
SHEET INDEX

SITE DEVELOPMENT PERMIT PLAN

FOR

AAA 120 GABRIEL FOREST

FOR: JMA ENTITY LLC



MAP GRID: . MAPSCO PG: .

LOCATION MAP

PROPOSED USE	AVERAGE DAILY TRIPS
1. WAREHOUSING	311
2. MINI WAREHOUSE	172
3. GENERAL OFFICE	421
TOTAL PROJECT =	904

WARNING!!!!!
REVIEW THE SEQUENCE OF CONSTRUCTION ON THE GENERAL NOTES SHEET PRIOR TO BEGINNING CONSTRUCTION. MANY NOTIFICATION OBLIGATIONS (AND OTHER OBLIGATIONS) INCLUDED IN THAT SEQUENCE.

TYPE OF BUILDING CONSTRUCTION:	II-B
LARGEST BUILDING AREA:	24,700 - SF
LARGEST BUILDING (FIRE AREA):	4,940 - SF
IFC FIRE FLOW (UNSPRINKLED):	1,500 - GPM
FIRE FLOW TEST HYDRANT:	0
HYDRANT FIRE FLOW DURING TEST:	1,500-GPM
RESIDUAL HYDRANT PRESSURE:	84-PSI
HYDRANT FIRE FLOW AT 20 PSI RESIDUAL:	0-GPM
HYDRANT FIRE FLOW AT 10 FPS:	0-GPM
DOMESTIC DEMAND: (PER __ WSFU):	N/A

GENERAL NOTES:

1. THESE PLANS WERE PREPARED, SEALED, SIGNED AND DATED BY A TEXAS LICENSED PROFESSIONAL ENGINEER. THEREFORE, BASE ON THE ENGINEER'S CONCURRENCE OF COMPLIANCE, THE PLANS FOR CONSTRUCTION OF THE PROPOSED PROJECT ARE HEREBY APPROVED SUBJECT TO THE STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS MANUAL AND ALL OTHER APPLICABLE CITY, 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. THIS PROJECT IS SUBJECT TO THE WATER QUALITY REGULATIONS OF THE CITY OF GEORGETOWN.
4. 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 LOCATED, IT SHALL BE REINSTALLED UNDERGROUND AND THE EXISTING FACILITIES SHALL BE REMOVED AT THE DISCRETION OF THE DEVELOPMENT ENGINEER.
5. ALL ELECTRIC AND COMMUNICATION INFRASTRUCTURE SHALL COMPLY WITH UDC SECTION 13.06.

ADDITIONAL NOTES FOR PROPERTIES LOCATED OVER THE EDWARDS AQUIFER RECHARGE ZONE

1. THE PROPERTY SUBJECT TO THIS APPLICATION IS SUBJECT TO THE WATER QUALITY REGULATIONS OF THE CITY OF GEORGETOWN.
2. A GEOLOGIC ASSESSMENT, IN ACCORDANCE WITH THE CITY OF GEORGETOWN WATER QUALITY REGULATIONS, WAS COMPLETED ON (NONE WERE FOUND). ANY SPRINGS AND STREAMS AS IDENTIFIED IN THE GEOLOGIC ASSESSMENT ARE SHOWN HEREIN/

SUBMITTAL DATE: MAY 2023 EXPIRATION DATE:

WATERSHED:
THIS PROJECT IS LOCATED IN THE NORTH FORK-SAN GABRIEL RIVER WATERSHED. IS CLASSIFIED AS RURAL AND SHALL BE DEVELOPED, CONSTRUCTED AND MAINTAINED IN CONFORMANCE WITH THE TERMS AND CONDITIONS OF CHAPTER 25-8 OF THE CITY LAND DEVELOPMENT CODE.

EDWARDS AQUIFER
THIS PROJECT LIES OVER THE EDWARDS AQUIFER RECHARGE ZONE.

FLOOD PLAIN NOTE:
NO PORTION OF THIS PROJECT IS WITHIN THE 100 YEAR FLOOD PLAIN AND IS LOCATED IN ZONE X ACCORDING TO INFORMATION FROM FEDERAL FLOOD INSURANCE RATE MAP (FIRM) PANEL NO. 48491C0290E, EFFECTIVE DATE SEPTEMBER 26, 2008 FOR WILLIAMSON COUNTY, TEXAS.

SITE DATA:
ACREAGE: 10.07 ACRES
TAX ID: R039211
MAP GRID: .
DEED: 2022068790
ZONING: LTRR-LAND TRANSITIONAL RESIDENTIAL

EXISTING LAND USE: RESIDENTIAL
PROPOSED LAND USE: COMMERCIAL

LEGAL DESCRIPTION: AW0178 AW0178-DONAGAN I. SUR., ACRES 9.566 & AW178 DONAGAN I. SUR., ACRES 0.50

RELATED CASES: .

ENGINEER: THOMPSON LAND ENGINEERING, LLC
904 N. CUERNAVACA
AUSTIN, TEXAS 78733
(512) 328-0002

OWNER: JMA ENTITY LLC
4203 SPINNAKER COVE
AUSTIN, TX 78731
.

REVISION/CORRECTION TABLE

NO.	DESCRIPTION	REVISE (R) ADD (A) VOID (V) SHEET NO's	TOTAL # SHEETS IN PLAN SET	NET CHANGE IMP. COVER (SQ. FT.)	TOTAL SITE IMP. COVER (SQ. FT.)/ (%)	CITY OF AUSTIN APPROVAL/DATE	TRAVIS COUNTY APPROVAL/DATE	APPROVED BY	DATE IMAGED
△	.	.	.	.	.				

SUBMITTAL DATE:
TCEQ WATER: .
TCEQ WASTEWATER: .
TCEQ EDWARDS AQUIFER: .
TPDES REPORT: .

SUBMITTAL DATE:
TDLR: .
COUNTY: .
FIRE MARSHALL: .
WATER & WASTEWATER: .

STATE OF TEXAS
ROBERT C. THOMPSON
69524
REGISTERED PROFESSIONAL ENGINEER
Thompson Land Engineering, LLC (F-10220)
2/24/24

2023- -SWP

THOMPSON LAND ENGINEERING, LLC
Land Planning, Site Design, Subdivision Engineering
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
www.tleng.net email: rc@tleng.net
TBPE Reg. No. F-10220

DATE
REVISION

PROJECT: AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

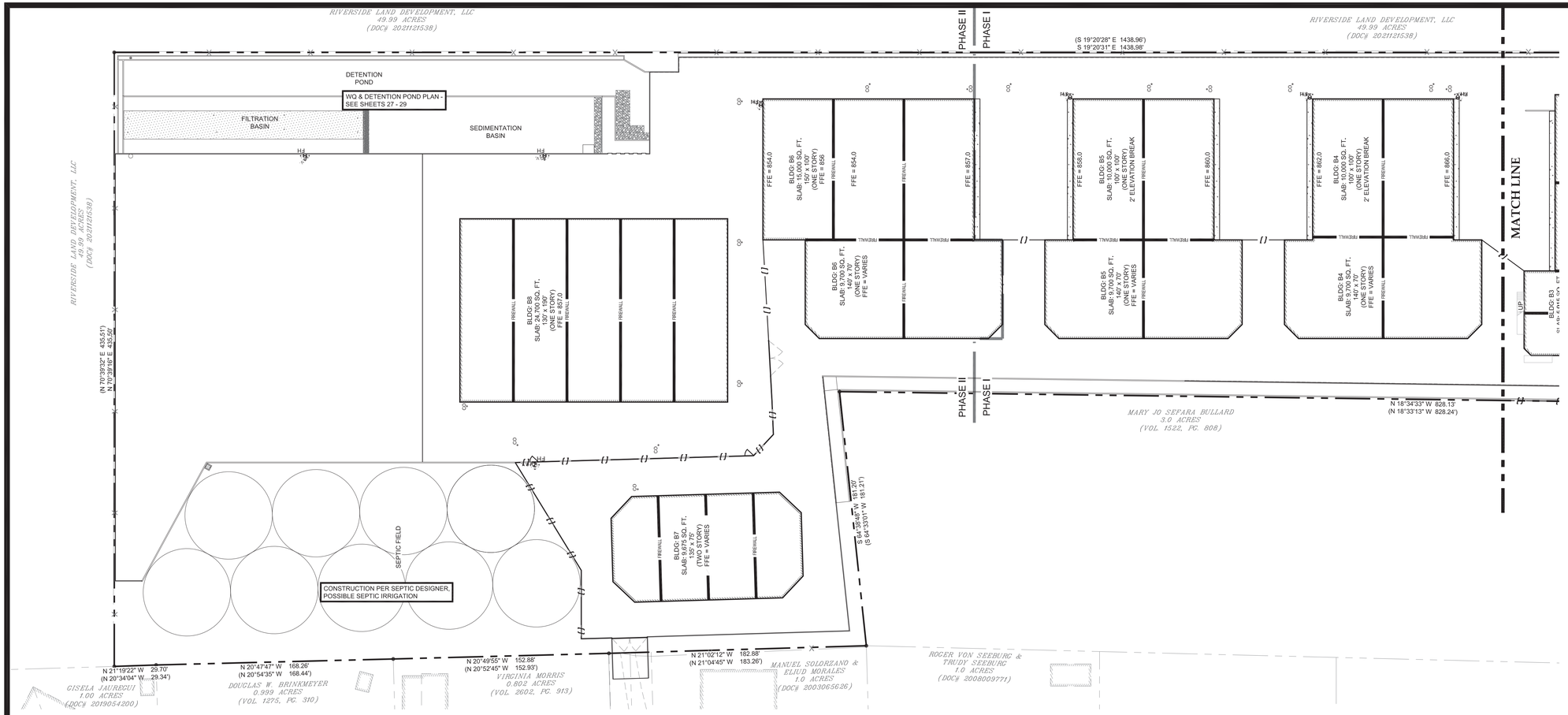
SHEET NAME: COVER SHEET

DATE ISSUED: February, 2024

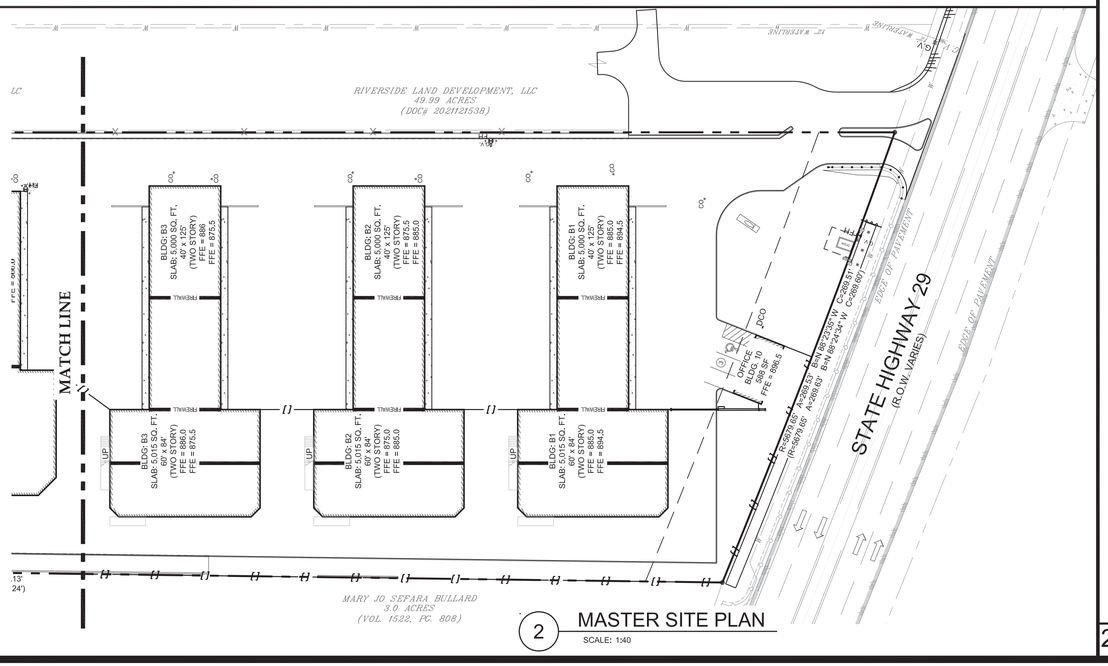
DESIGNED BY	DRAFTED BY
RCT	RH/JH/MR

JOB NUMBER: 1864

SHEET 1 OF 38



1 MASTER SITE PLAN
SCALE: 1:40



2 MASTER SITE PLAN
SCALE: 1:40

SCALE: 1" = 40'

0 20 40 80

LEGEND

- EXISTING MINOR CONTOURS
- EXISTING MAJOR CONTOURS
- PROPOSED CONTOURS
- OE — EXISTING OVERHEAD ELECTRIC
- EXISTING POWER POLE
- EXISTING WATER METER
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED WATER METER

NOTES:

1. WATER SERVICE WILL BE PROVIDED BY CITY OF GEORGETOWN.
2. WASTEWATER SERVICE WILL BE PROVIDED BY ONSITE SEPTIC FACILITY OSSF)

WARNING!

1. COMPARE THE GRADING PLAN TO LANDSCAPE PLAN BEFORE INSTALLATION OF THE LANDSCAPING. ENSURE THAT THE GRADING IS THE SAME. DIFFERENCES MIGHT EXIST DUE TO DIFFERENCES IN PURPOSE FOR THAT SHEET. RESOLVE ANY DIFFERENCES WITH ENGINEER AND LANDSCAPE ARCHITECT PRIOR TO FINAL GRADING.
2. COMPARE THE CURB STOPS SHOWN ON THE GRADING PLAN TO THE CURB STOPS SHOWN ON THE SITE PLAN. RESOLVE ANY DIFFERENCES WITH ENGINEER AND SITE PLANNER PRIOR TO ORDERING THE CURB STOPS.

NOTE:
ADEQUATE BARRIERS BETWEEN ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS. SUCH AS A 6" CONCRETE CURB ARE REQUIRED. IF A STANDARD 6" CURB AND GUTTER ARE NOT PROVIDED FOR ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS, COMPLY WITH ECM, SECTION 2.4.7, "PROTECTION OF LANDSCAPE AREAS."

Thompson Land Engineering, LLC (F-10220)

STATE OF TEXAS
ROBERT C. THOMPSON
89524
REGISTERED PROFESSIONAL ENGINEER

2/24/24

2023- -SWP

THOMPSON LAND ENGINEERING, LLC
Land Planning, Site Design, Subdivision Engineering
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
www.tleng.net email: rc@tleng.net
TBPE Reg. No. F-10220

DATE

REVISION

PROJECT
AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

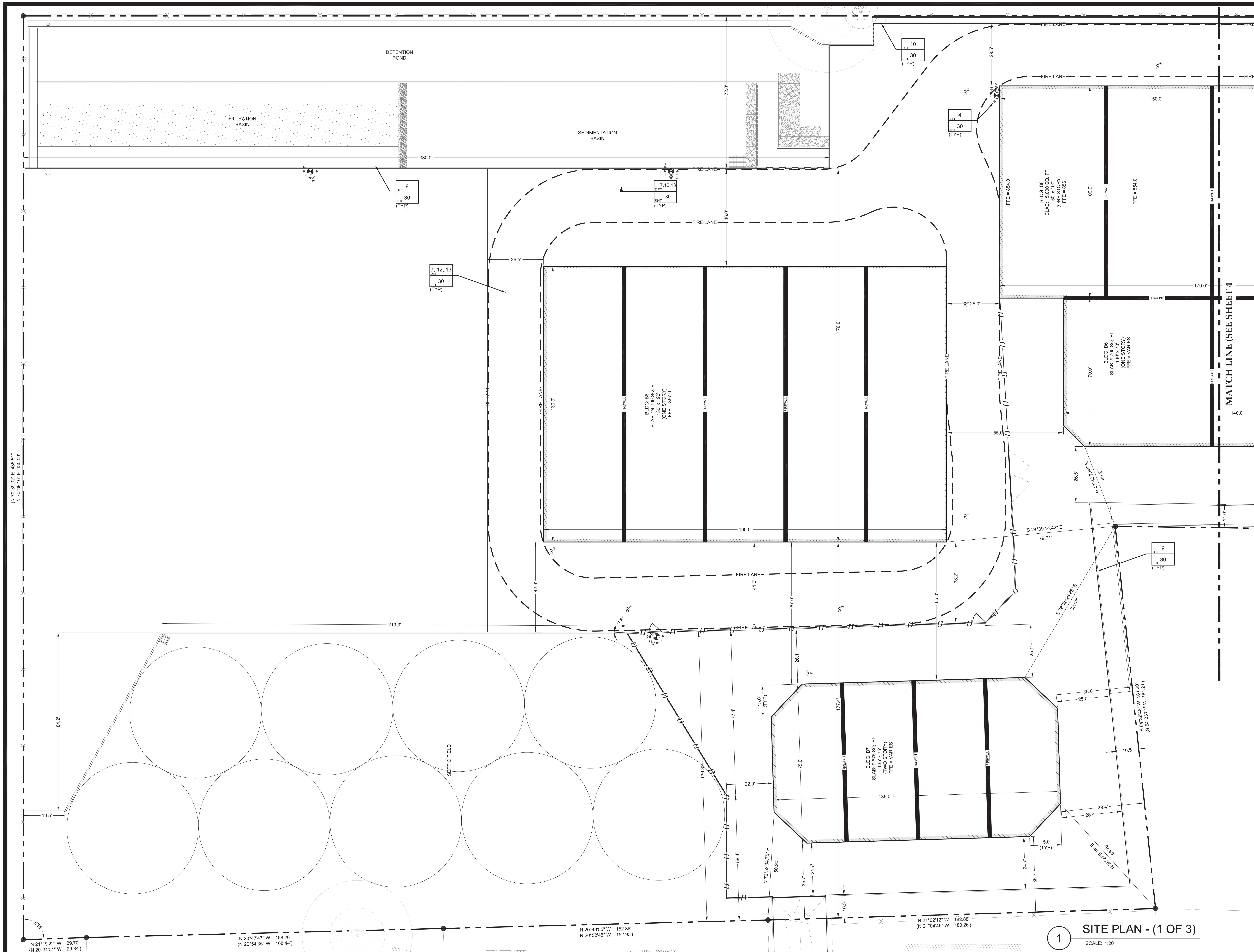
SHEET NAME
MASTER SITE PLAN

DATE ISSUED
February, 2024

DESIGNED BY: RCT
DRAFTED BY: RH/JH/MR

JOB NUMBER
1864

SHEET
2 OF 38



1 SITE PLAN - (1 OF 3)
SCALE: 1:20

SCALE: 1" = 20'

0 10 20 40

LEGEND

- PROPOSED PHASE LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING POWER POLE
- EXISTING WATER METER
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED WATER METER

DIMENSIONAL SITE PLANS NOTES: (CITY OF GEORGETOWN)

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 2 FOOT CANDLES AT A HEIGHT OF THREE FEET AT THE PROPERTY LINE. ONLY INCANDESCENT, FLUORESCENT, COLOR-CORRECTED HIGH-PRESSURE SODIUM OR METAL HALIDE MAY BE USED. ALL VEHICULAR 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 OF 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 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 SIDES BY MASONRY WALL OR APPROVED FENCE OR SCREENING WITH OPAQUE GATES.

GENERAL NOTES: (TLE)

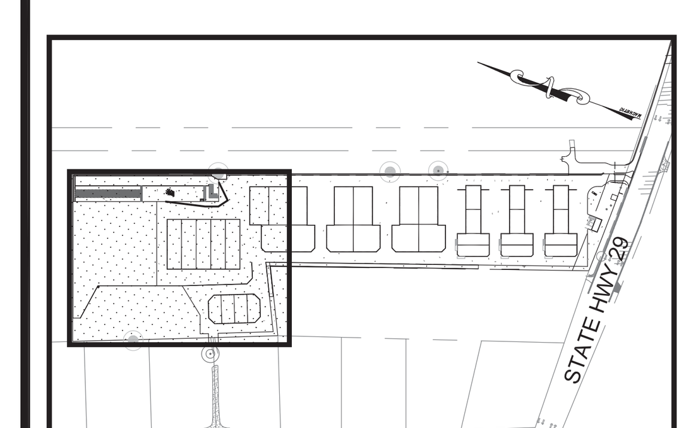
1) ALL LANDSCAPED AREAS ARE TO BE PROTECTED BY SIX-INCH WHEEL CURBS, WHEELSTOPS OR OTHER APPROVED BARRIERS.

2) DIMENSIONS ARE TO FACE OF CURB.

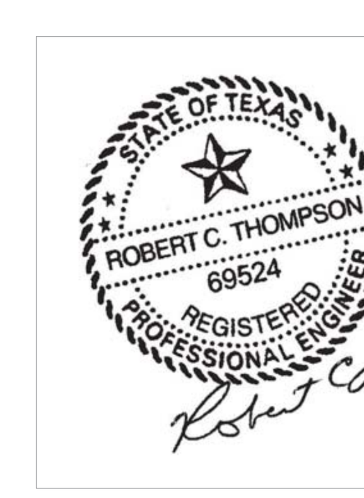
3) SEE GENERAL NOTES SHEET 17.

4) WHERE — — — IS SHOWN, PAINT CURB, OR PAVEMENT WHERE NO CURB EXISTS, RED AND STENCIL "FIRE ZONE/TOW-AWAY ZONE" IN 3 INCH WHITE LETTERS AT 35 FOOT INTERVALS ALONG CURB.

5) WHERE —·—·— IS SHOWN DENOTES THE ACCESSIBLE ROUTE.



KEY MAP



Thompson Land Engineering, LLC (F-10220)

2/24/24

2023- -SWP

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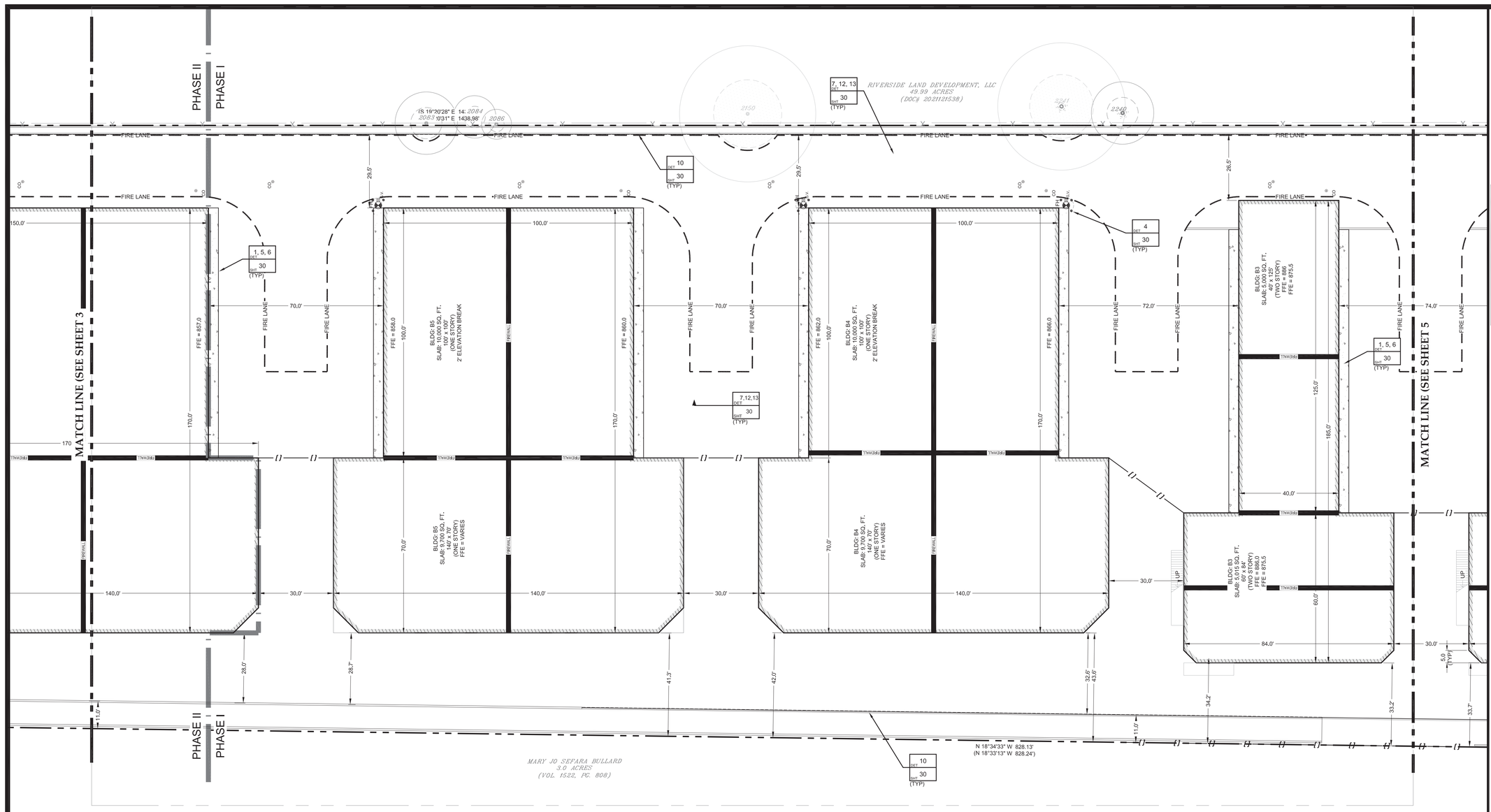
Land Planning, Site Design, Subdivision Engineering
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
email: ric@tleng.net
www.tleng.net

DATE	REVISION

PROJECT: AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME: SITE DIMENSIONAL CONTROL PLAN (1 OF 3)

DATE ISSUED	February, 2024
DESIGNED BY	RCT
DRAFTED BY	RH/JH/MR
JOB NUMBER	1864



1 SITE PLAN - (2 OF 3)

SCALE: 1:20

SCALE: 1" = 20'

0 10 20 40

LEGEND

- PROPOSED PHASE LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING POWER POLE
- EXISTING WATER METER
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED WATER METER

DIMENSIONAL SITE PLANS NOTES: (CITY OF GEORGETOWN)

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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 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 SIDES BY MASONRY WALL OR APPROVED FENCE OR SCREENING WITH OPAQUE GATES.

GENERAL NOTES: (TLE)

1) ALL LANDSCAPED AREAS ARE TO BE PROTECTED BY SIX-INCH WHEEL CURBS, WHEELSTOPS OR OTHER APPROVED BARRIERS.
2) DIMENSIONS ARE TO FACE OF CURB.
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4) WHERE ▬ ▬ ▬ IS SHOWN, PAINT CURB, OR PAVEMENT WHERE NO CURB EXISTS, RED AND STENCIL "FIRE ZONE/TOW-AWAY ZONE" IN 3 INCH WHITE LETTERS AT 35 FOOT INTERVALS ALONG CURB.
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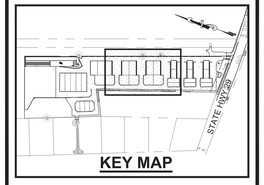

Thompson Land Engineering, LLC (F-10220)

STATE OF TEXAS
ROBERT C. THOMPSON
69524
REGISTERED PROFESSIONAL ENGINEER

2/24/24

2023- -SWP

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TBPE Reg. No. F-10220

DATE

REVISION

PROJECT
AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

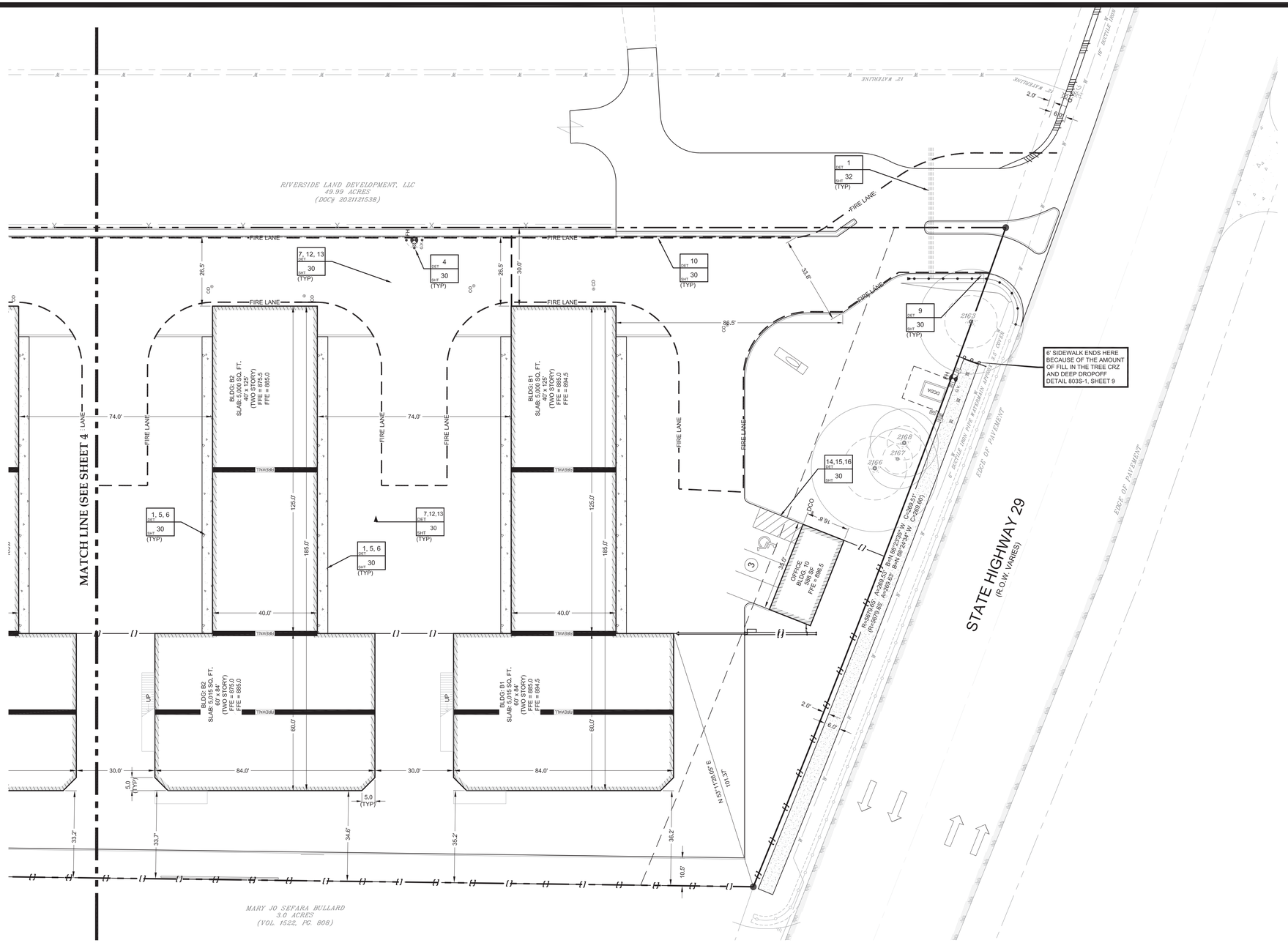
SHEET NAME
SITE DIMENSIONAL CONTROL PLAN (2 OF 3)

DATE ISSUED
February, 2024

DESIGNED BY	DRAFTED BY
RCT	RH/JH/MR

JOB NUMBER
1864

SHEET
4 OF 38



1 SITE PLAN - (3 OF 3)

SCALE: 1:20

SCALE: 1" = 20'

0 10 20 40

LEGEND

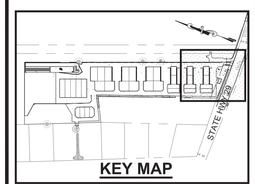
- PROPOSED PHASE LINE
- OE — EXISTING OVERHEAD ELECTRIC
- PP — EXISTING POWER POLE
- WM — EXISTING WATER METER
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- WM — PROPOSED WATER METER

DIMENSIONAL SITE PLANS NOTES: (CITY OF GEORGETOWN)

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 2 FOOT CANDLES AT A HEIGHT OF THREE FEET AT THE PROPERTY LINE, ONLY INCANDESCENT, FLUORESCENT, COLOR-CORRECTED HIGH-PRESSURE SODIUM OR METAL HALIDE MAY BE USED, ALL VEHICULAR 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 OF 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 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 SIDES BY MASONRY WALL OR APPROVED FENCE OR SCREENING WITH OPAQUE GATES.

GENERAL NOTES: (TLE)

1) ALL LANDSCAPED AREAS ARE TO BE PROTECTED BY SIX-INCH WHEEL CURBS, WHEELSTOPS OR OTHER APPROVED BARRIERS.
2) DIMENSIONS ARE TO FACE OF CURB.
3) SEE GENERAL NOTES SHEET 17.
4) WHERE — — — IS SHOWN, PAINT CURB, OR PAVEMENT WHERE NO CURB EXISTS, RED AND STENCIL "FIRE ZONE/TOW-AWAY ZONE" IN 3 INCH WHITE LETTERS AT 35 FOOT INTERVALS ALONG CURB.
5) WHERE —·—·— IS SHOWN DENOTES THE ACCESSIBLE ROUTE.



KEY MAP

Thompson Land Engineering, LLC (F-10220)

STATE OF TEXAS
ROBERT C. THOMPSON
69524
REGISTERED PROFESSIONAL ENGINEER

2/24/24

2023- -SWP

THOMPSON LAND ENGINEERING, LLC
Land Planning, Site Design, Subdivision Engineering
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
email: rc@tleng.net
www.tleng.net
TBPE Reg. No. F-10220

DATE

REVISION

PROJECT: AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

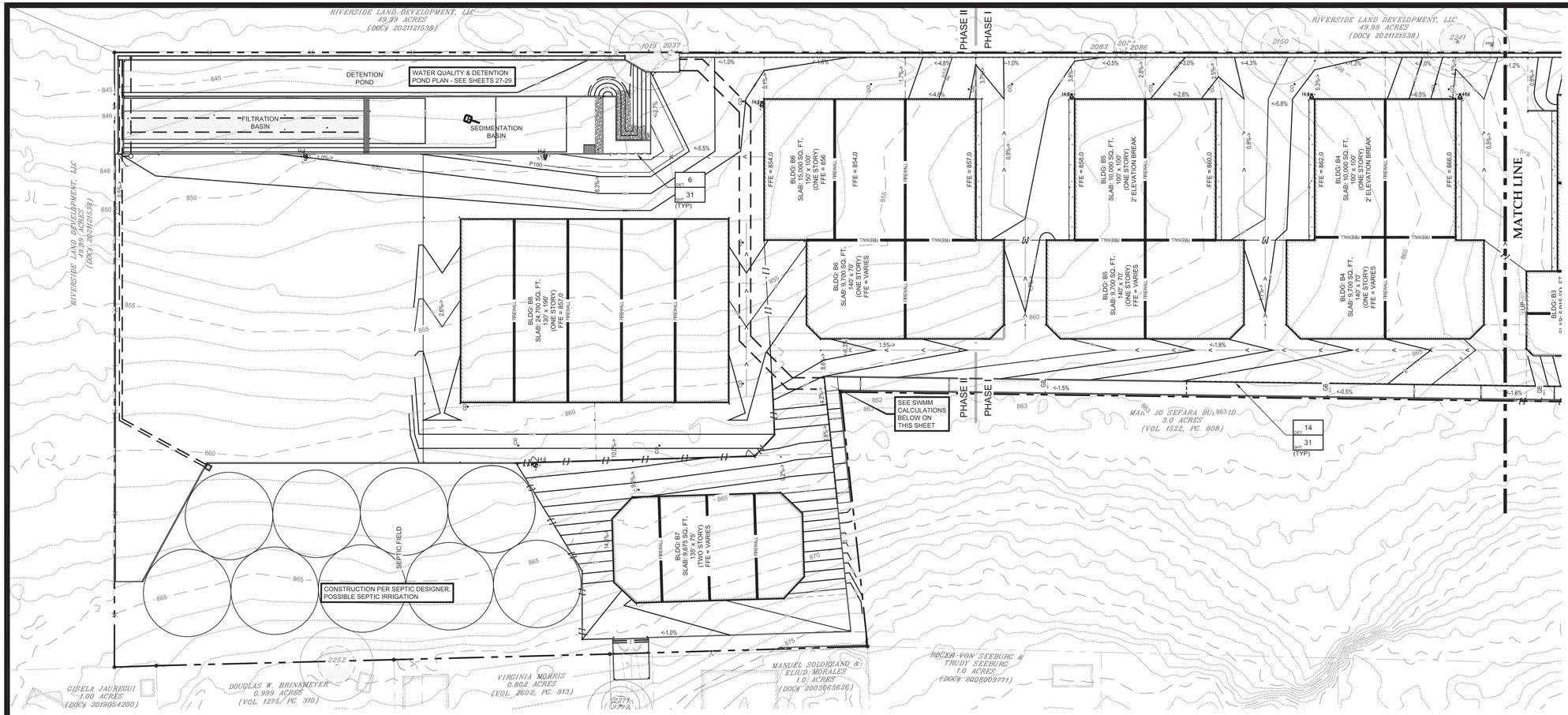
SHEET NAME: SITE DIMENSIONAL CONTROL PLAN (3 OF 3)

DATE ISSUED: February, 2024

DESIGNED BY	DRAFTED BY
RCT	RH/JH/MR

JOB NUMBER: 1864

SHEET: 5 OF 38

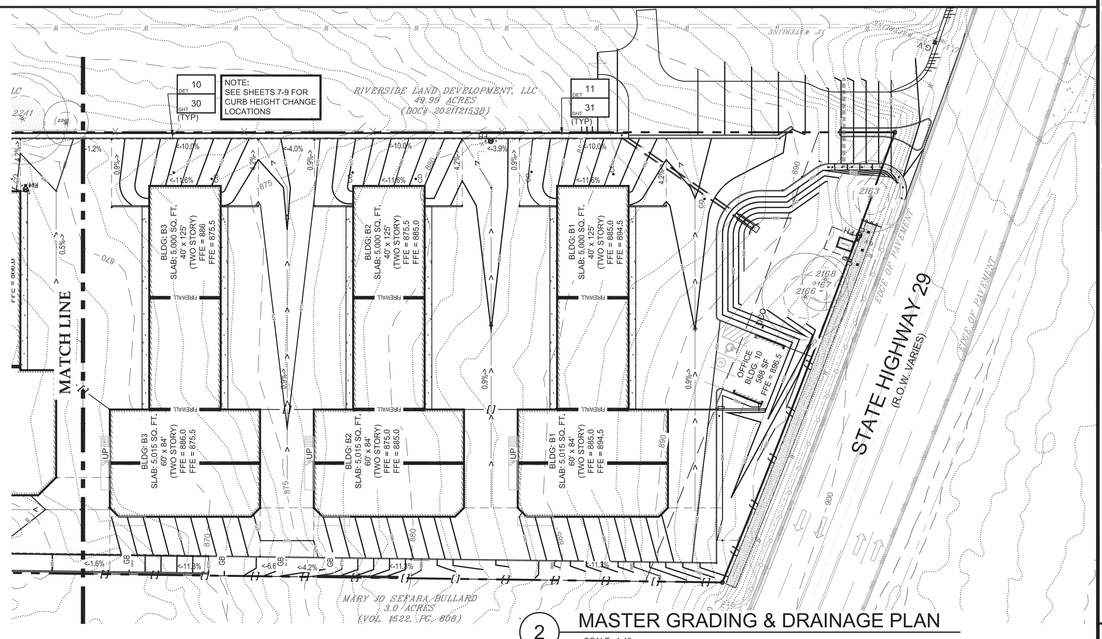


1 MASTER GRADING & DRAINAGE PLAN

SCALE: 1:40

THIS GRAPHIC IS FLOW AND PIPE OR DITCH DEPTH

THIS GRAPHIC IS Q AT POINT AND VELOCITY IN DITCH OR PIPE



2 MASTER GRADING & DRAINAGE PLAN

SCALE: 1:40

LEGEND

- TREE TO REMAIN
- HERITAGE TREE
- EXISTING MINOR CONTOURS
- EXISTING MAJOR CONTOURS
- PROPOSED CONTOURS MINOR
- PROPOSED CONTOURS MAJOR
- OE EXISTING OVERHEAD ELECTRIC
- UT EXISTING UNDERGROUND TELEPHONE
- C EXISTING UNDERGROUND GAS
- W EXISTING WATER LINE
- WW EXISTING WASTEWATER LINE
- PP EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- WM EXISTING WATER METER
- WM PROP. WATER METER
- V EXISTING GATE VALVE
- GV PROP. GATE VALVE

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WARNING!

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NOTE:
SEE SHEETS 7-9 FOR STORM SEWER CALLOUTS (TYPICAL)

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REVISION

PROJECT
AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME
MASTER GRADING & DRAINAGE PLAN

DATE ISSUED
February, 2024

DESIGNED BY: RCT
DRAFTED BY: RH/JH/MR

JOB NUMBER
1864

SHEET
6 OF 38

END DETAIL 6, SHEET 29

START DETAIL 15, SHEET 31

WATER QUALITY OUTFALL AT 1' PRECAST GRATE INLET WITH BAR GRATE (90% MIN. OPEN AREA) TOP OF GRATE: 843.0 FL 6" = 841.35

DETENTION POND

DETENTION POND OUTFALLS INTO CONCRETE FLUME WITH A FLOW SPREADING WALL

FILTRATION BASIN

TOP MEDIA:845.00

SEE SHEETS 27-29 FOR POND DETAILS (TYPICAL)

SEDIMENTATION BASIN

GRASSY BOTTOM WITH 2% (MIN.) SLOPE

WATER QUALITY SPLITTER BOX WITH SPILLWAY INTO DETENTION POND

CULVERT OUTFALL 100-YR Q = 300-CFS VELOCITY = 19,3-FPS DEPTH = 2,2-FEET

CURB CHANGE FROM TYPE B TO TYPE C (9" TO 12")

WET WELL AND "RAINWATER" PUMP

CURB AND GUTTER ABOVE CONCRETE WALL PER DETAIL 7 ON SHEET 31

6' x 3' BOX CULVERT 291,7-LF @ 2,9% SLOPE

MATCH LINE (SEE SHEET 8

BLDG: B8 SLAB: 24,700 SQ. FT. 130' x 190' (ONE STORY) FFE = 857.0

BLDG: B8 SLAB: 15,000 SQ. FT. 100' x 150' (ONE STORY) FFE = 856

BLDG: B8 SLAB: 13,000 SQ. FT. 140' x 70' (ONE STORY) FFE = VARIES

BLDG: B7 SLAB: 9,675 SQ. FT. 75' x 125' (TWO STORY) FFE = VARIES

CULVERT OUTFALL 100-YR Q = 45-CFS VELOCITY = 14,9-FPS DEPTH = 1,7-FEET

24" STORM PIPE (RCP OR OTHER APPROVED MATERIAL) 327-LF @ 4,0% SLOPE

CONCRETE WALL PER DETAIL 8 ON SHEET 31

4' PRECAST GRATE INLET (H-20 RATED) WITH BAR GRATE (90% MIN. OPEN AREA) TOP OF GRATE ELEVATION TO MATCH LOW-SPOT IN PROPOSED GROUND (~859) 24" FL: 856.50 Q_{100} = 45,0 d = 1,7-FEET (50% CLOGGED)

3-FT CURB CUT - SEE DETAIL 6 FOR CURB LAY DOWN SECTION ON SHEET31

SEPTIC FIELD

CURB AND GUTTER ABOVE CONCRETE WALL PER DETAIL 7 ON SHEET 31

16" CULVERT (RCP OR APPROVED MATERIAL) 26-LF @ 0,38% SLOPE

SEE SHEET 28 FOR CROSS SECTIONS

FLOW LINE ELEVATION INTO BOX CULVERT = 853,5

MANUEL SOLORZANO & ELIUD MORALES 1.0 ACRES

1 GRADING & DRAINAGE PLAN (1 OF 3)

SCALE: 1:20

SCALE: 1" = 20'

0 10 20 40

LEGEND

- TREE TO REMAIN
- HERITAGE TREE
- EXISTING MINOR CONTOURS
- EXISTING MAJOR CONTOURS
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KEY MAP

STATE HWY 29

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120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME: GRADING & DRAINAGE PLAN (1 OF 3)

DATE ISSUED: February, 2024

DESIGNED BY: RCT | DRAFTED BY: RH/JH/MR

JOB NUMBER: 1864

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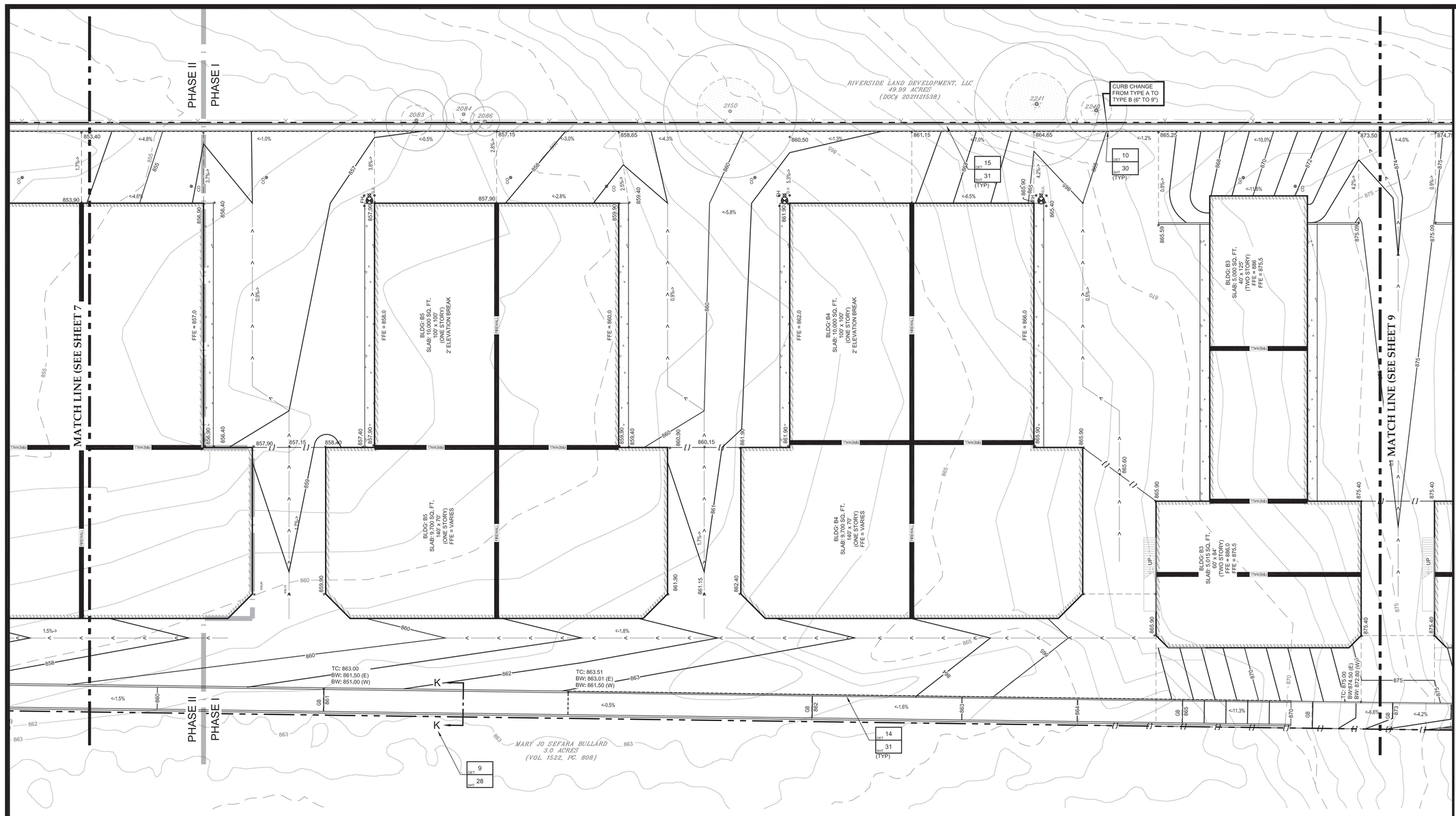

1 GRADING & DRAINAGE PLAN (2 OF 3)

SCALE: 1:20

SCALE: 1" = 20'

0 10 20 40

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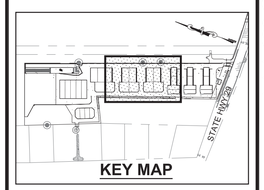

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SHEET NAME
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DRAFTED BY: RH/JH/MR

JOB NUMBER
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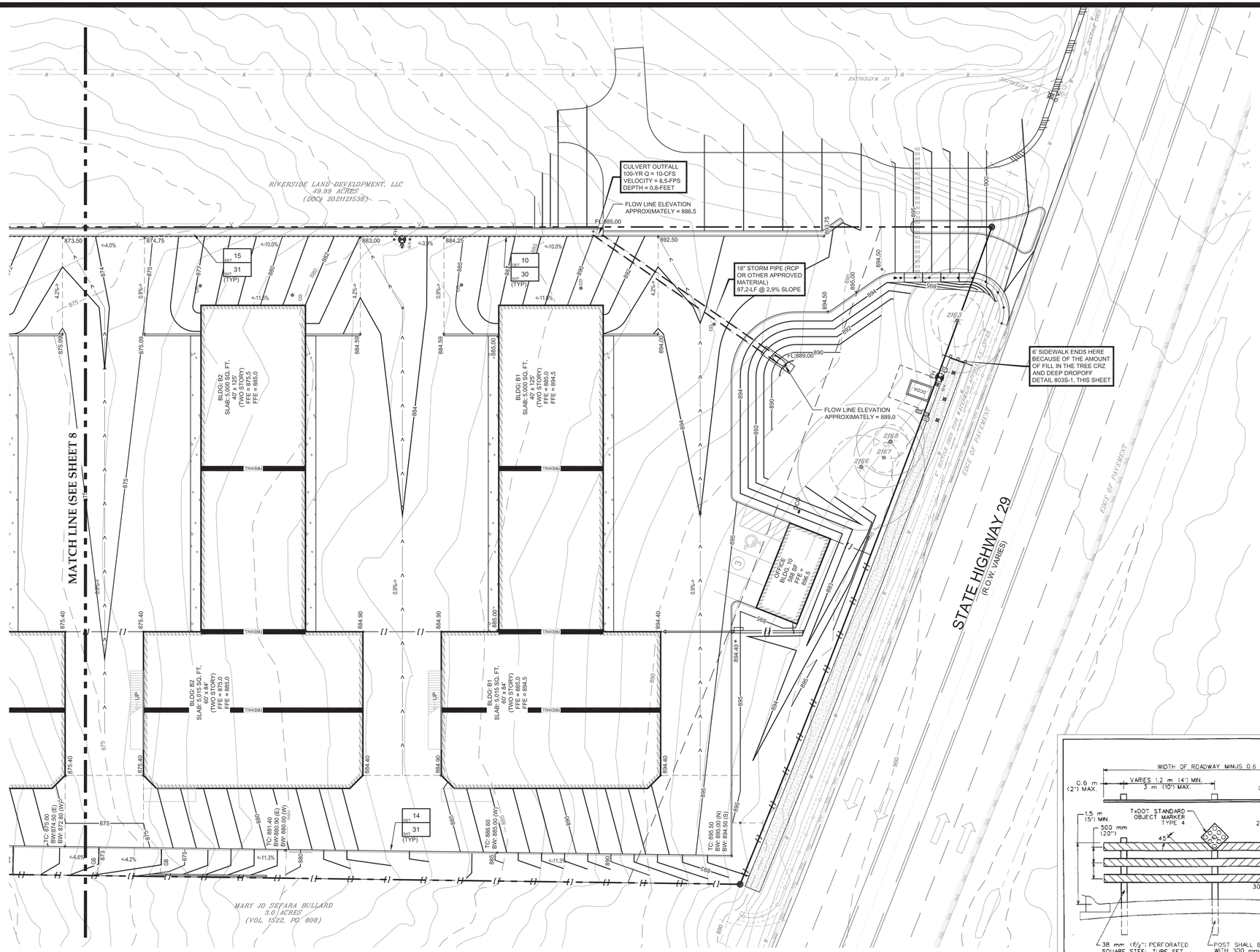
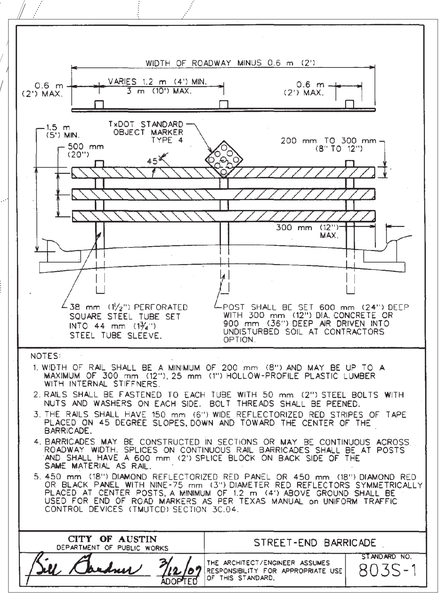
SHEET
8 OF 38



1 GRADING & DRAINAGE PLAN (3 OF 3)

SCALE: 1:20



NOTES:

1. WIDTH OF RAIL SHALL BE A MINIMUM OF 200 mm (8") AND MAY BE UP TO A MAXIMUM OF 300 mm (12"). 25 mm (1") HOLLOW-PROFILE PLASTIC LUMBER WITH INTERNAL STIFFNERS.
2. RAILS SHALL BE FASTENED TO EACH TUBE WITH 50 mm (2") STEEL BOLTS WITH NUTS AND WASHERS ON EACH SIDE. BOLT THREADS SHALL BE PEENED.
3. THE RAILS SHALL HAVE 150 mm (6") WIDE REFLECTORIZED RED STRIPES OF TAPE PLACED ON 45 DEGREE SLOPES, DOWN AND TOWARD THE CENTER OF THE BARRICADE.
4. BARRICADES MAY BE CONSTRUCTED IN SECTIONS OR MAY BE CONTINUOUS ACROSS ROADWAY WIDTH. SPLICES ON CONTINUOUS RAIL BARRICADES SHALL BE AT POSTS AND SHALL HAVE A 600 mm (2') SPLICE BLOCK ON BACK SIDE OF THE SAME MATERIAL AS RAIL.
5. 450 mm (18") DIAMOND REFLECTORIZED RED PANEL OR 450 mm (18") DIAMOND RED OR BLACK PANEL WITH NINE-75 mm (3") DIAMETER RED REFLECTORS SYMMETRICALLY PLACED AT CENTER POSTS, A MINIMUM OF 1.2 m (4') ABOVE GROUND SHALL BE USED FOR END OF ROAD MARKERS AS PER TEXAS MANUAL on UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) SECTION 3C.04.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	STREET-END BARRICADE
3/12/07 ADOPTED — THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 803S-1

SCALE: 1" = 20'

0 10 20 40

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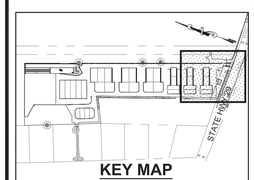

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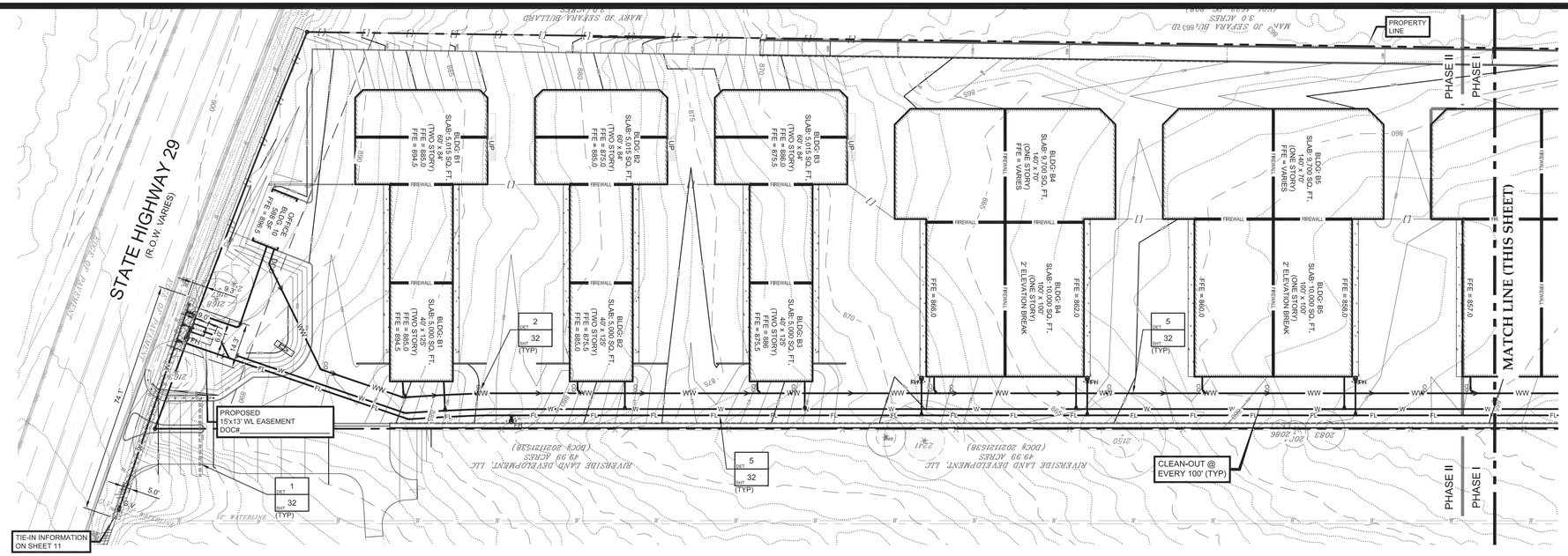
SHEET NAME: GRADING & DRAINAGE PLAN (3 OF 3)

DATE ISSUED: February, 2024

DESIGNED BY: RCT | DRAFTED BY: RH/JH/MR

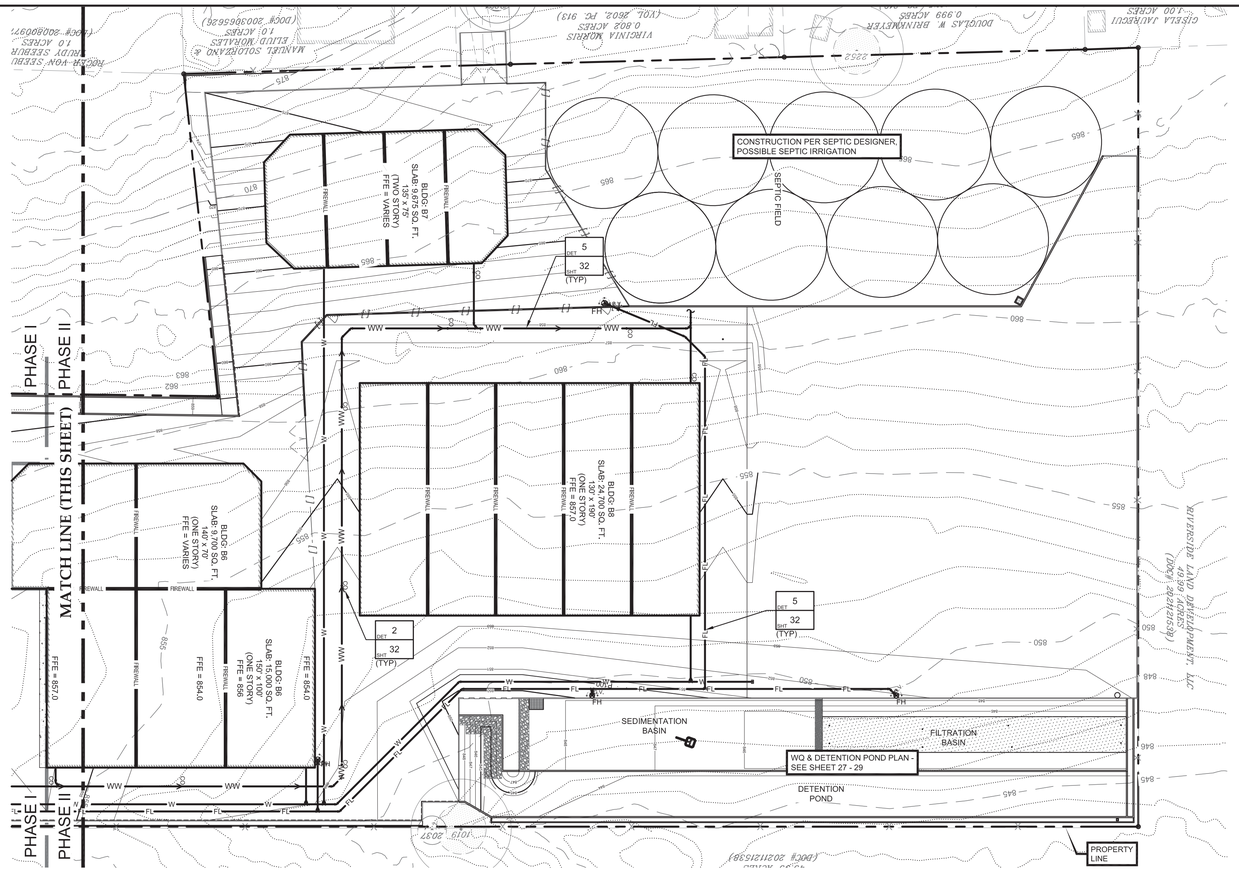
JOB NUMBER: 1864

SHEET 9 OF 38



1 MASTER WATER & WASTEWATER PLAN

SCALE: 1:40



2 MASTER WATER & WASTEWATER PLAN

SCALE: 1:40

SCALE: 1" = 40'

0 20 40 80

LEGEND

- EXISTING MINOR CONTOURS
- EXISTING MAJOR CONTOURS
- PROPOSED CONTOURS
- OE — EXISTING OVERHEAD ELECTRIC
- UT — EXISTING UNDERGROUND TELEPHONE
- G — EXISTING UNDERGROUND GAS
- W — EXISTING WATER LINE
- WW — EXISTING WASTEWATER LINE
- W — PROP. PRIVATE WATER LINE
- FL — PROP. PRIVATE FIRE LINE
- WW — PROP. PRIVATE WASTEWATER LINE
- PP — EXISTING POWER POLE
- WM — EXISTING WATER METER
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- WM — PROP. WATER METER
- V — EXISTING GATE VALVE
- GV — PROP. GATE VALVE

SPECIAL WATER & WASTEWATER NOTES:

1) FOR FIRE LINE TAPS LEADING TO A BACKFLOW PREVENTOR IN A VAULT, ADD TWO 45 DEGREE OR LESS BENDS IF REQUIRED TO ACHIEVE GRADE.
2) OSSF BY OTHERS

FUEL AND/OR AUXILIARY WATER SOURCE(S) PRESENT ON THIS SITE

HIGH HAZARD BACKFLOW/RPZ INSTALLATION REQUIRED
HIGH HAZARD BACKFLOW PREVENTION DEVICES, RPZ'S SHALL BE INSTALLED THREE (3) TO SIX (6) INCHES IMMEDIATELY AFTER WATER METERS WITHIN THE PRIVATE PROPERTY. IF THIS CANNOT BE ACHIEVED, THE WATER SERVICE LINE, FROM THE METER TO THE RPZ, SHALL BE ENTIRELY ENCASED IN SIX (6) INCH THICK CONCRETE. RPZ'S SHALL ALSO BE INSTALLED ON DEDICATED FIRE LINES ON ALL PROJECTS WHERE FUEL AND/OR AUXILIARY WATER SOURCES ARE PRESENT. REFERENCE UCM SECTION 2.3.3.D AND SECTION 2.3.4.
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!!! WARNING !!!:
UNDERGROUND UTILITIES SHOWN ON THESE PLANS IS A BEST ESTIMATE BASED ON RECORDS THAT COULD BE OBTAINED AND PHYSICAL FEATURES VISIBLE AT THE GROUND LEVEL. THE ENGINEER MAKES NO ASSERTIONS BEYOND THAT THEY ARE A BEST ESTIMATE AND AN ATTEMPT TO HELP IDENTIFY POSSIBLE UTILITIES IN THE AREA. THE CONTRACTOR MUST CALL ONE CALL IN ACCORDANCE WITH THE NOTES TO BETTER LOCATE ANY UNDERGROUND UTILITIES.

PRIVATE FIRE HYDRANT MAINTENANCE:
A. ALL PRIVATE HYDRANT BARRELS WILL BE PAINTED RED WITH THE BONNET PAINTED USING THE HYDRANT FLOW STANDARD IN PARAGRAPH C OF THIS SECTION TO INDICATE FLOW. IT WILL BE THE CUSTOMER'S RESPONSIBILITY TO TEST AND MAINTAIN THEIR PRIVATE FIRE HYDRANT(S).
B. ALL PRIVATE FIRE HYDRANTS SHOULD BE TESTED ANNUALLY AND SHALL BE COLOR CODED TO INDICATE THE EXPECTED FIRE FLOW FROM THE HYDRANT DURING NORMAL OPERATION, SUCH COLOR APPLIED TO THE FIRE HYDRANT BY PAINTING THE BONNET THE APPROPRIATE COLOR FOR THE EXPECTED FLOW CONDITION.
C. HYDRANT FLOW CODING STANDARDS, PUBLIC HYDRANTS WILL HAVE THE BONNETS PAINTED SILVER. THE HYDRANTS WILL BE FLOW TESTED, AND THE BONNET PAINTED USING THE HYDRANT FLOW STANDARD IN PARAGRAPH C.

FLOW	COLOR
GREATER THAN 1500 GPM	BLUE
1000 TO 1500 GPM	GREEN
500 TO 999 GPM	ORANGE
LESS THAN 500 GPM	RED

FIRE PROTECTION NOTES:

1. ANY FIRE SPRINKLER SYSTEMS TO BUILDINGS TO BE PREPARED BY FIRE PROTECTION ENGINEER, CONTRACTOR TO VERIFY ALL FIRE LINE SIZES TO BUILDINGS WITH FIRE PROTECTION ENGINEER PRIOR TO CONSTRUCTION OF FIRE LINES. CONTACT ENGINEER IF FIRE LINE SIZES SHOWN ARE LESS THAN THOSE REQUIRED BY FIRE PROTECTION ENGINEER.

STATE OF TEXAS
ROBERT C. THOMPSON
69524
REGISTERED PROFESSIONAL ENGINEER

Thompson Land Engineering, LLC (F-10220)

2/24/24

2023- -SWP

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Land Planning, Site Design, Subdivision Engineering
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
www.tleng.net email: rc@tleng.net
TBPE Reg. No. F-10220

DATE
REVISION

PROJECT
AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

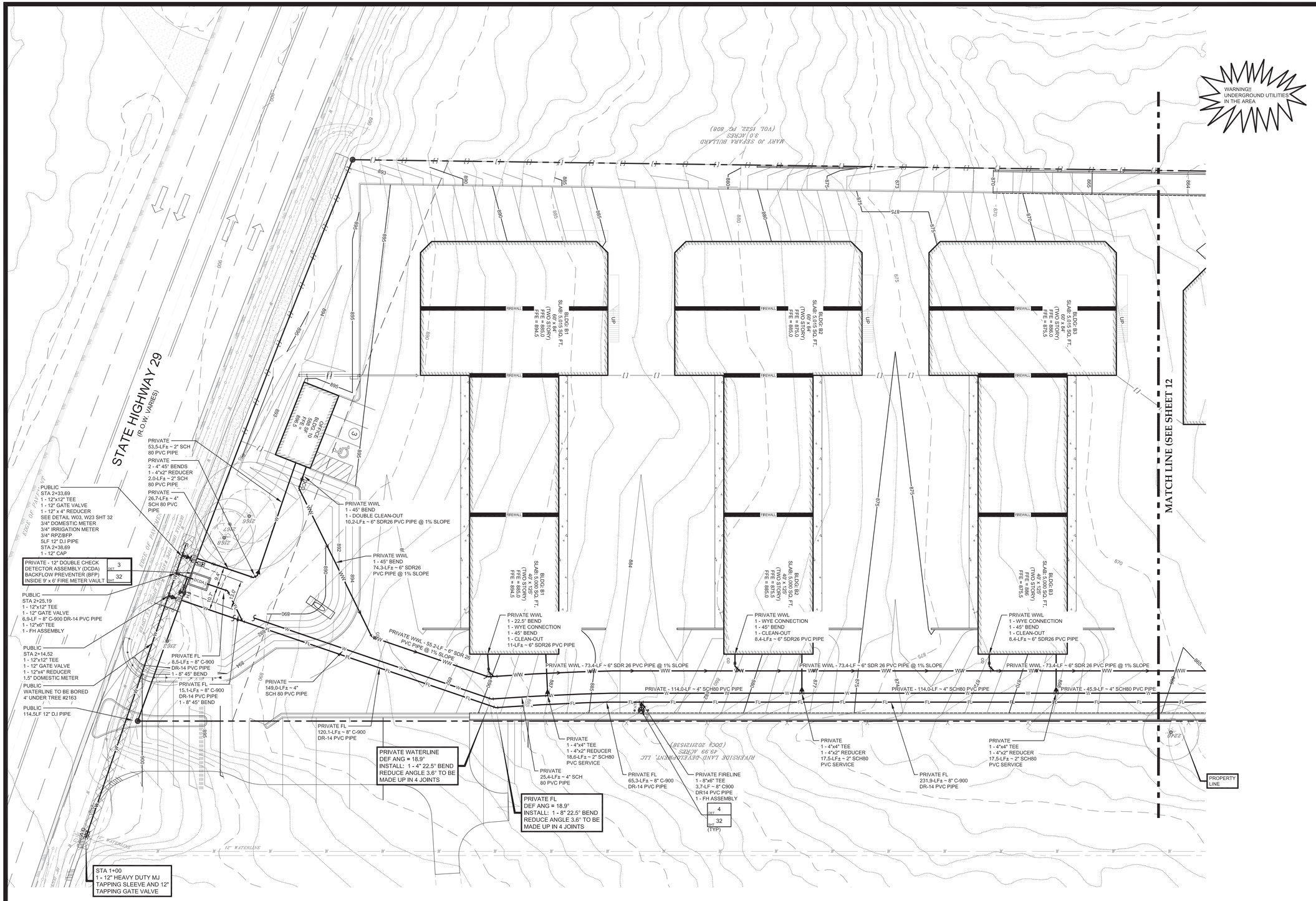
SHEET NAME
MASTER WATER & WASTEWATER PLAN

DATE ISSUED
February, 2024

DESIGNED BY RCT
DRAFTED BY RH/JH/MR

JOB NUMBER
1864

SHEET
10 OF 38



SCALE: 1" = 20'

0 10 20 40

LEGEND

- EXISTING MINOR CONTOURS
- EXISTING MAJOR CONTOURS
- PROPOSED CONTOURS
- OE — EXISTING OVERHEAD ELECTRIC
- UT — EXISTING UNDERGROUND TELEPHONE
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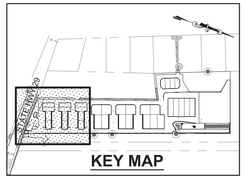

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DATE
REVISION

PROJECT
AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME
WATER & WASTEWATER PLAN (1 OF 3)

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DESIGNED BY: RCT
DRAFTED BY: RH/JH/MR

JOB NUMBER
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SHEET
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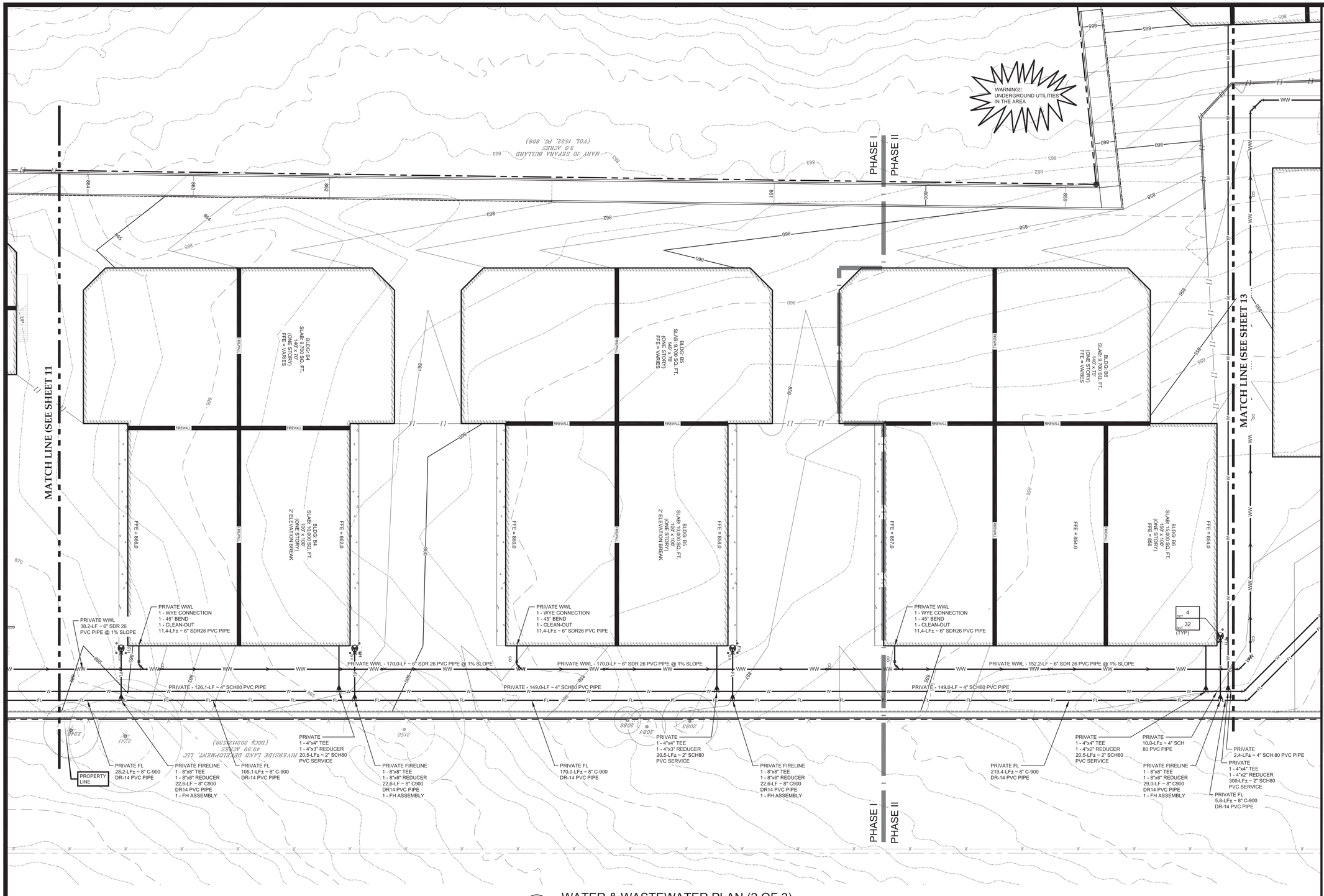

1 WATER & WASTEWATER PLAN (2 OF 3)

SCALE: 1:20

SCALE: 1" = 20'

0 10 20 40

LEGEND

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- EXISTING MAJOR CONTOURS
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1000 TO 1500 GPM	GREEN
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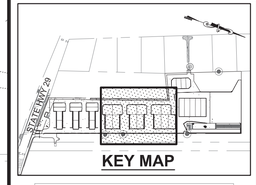

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2/24/24

2023- -SWP

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TBPE Reg. No. F-10220

DATE

REVISION

PROJECT
AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

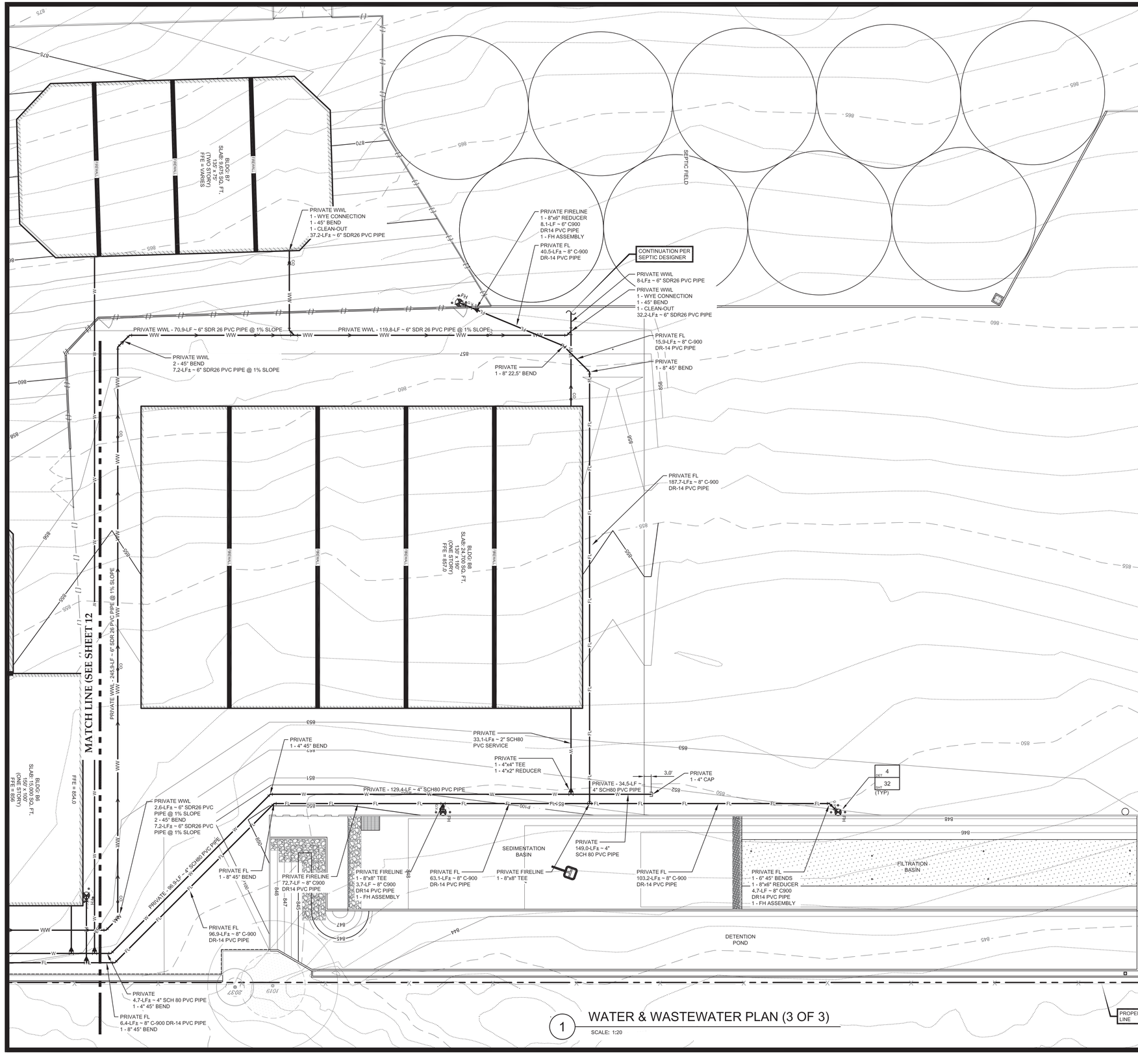
SHEET NAME
WATER & WASTEWATER PLAN (2 OF 3)

DATE ISSUED
February, 2024

DESIGNED BY	DRAFTED BY
RCT	RH/JH/MR

JOB NUMBER
1864

SHEET
12 OF 38



1 WATER & WASTEWATER PLAN (3 OF 3)

SCALE: 1:20

LEGEND

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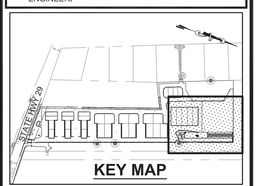

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120 GABRIEL FOREST GEORGETOWN, TX 78628
SHEET NAME: WATER & WASTEWATER PLAN (3 OF 3)

DATE ISSUED: February, 2024
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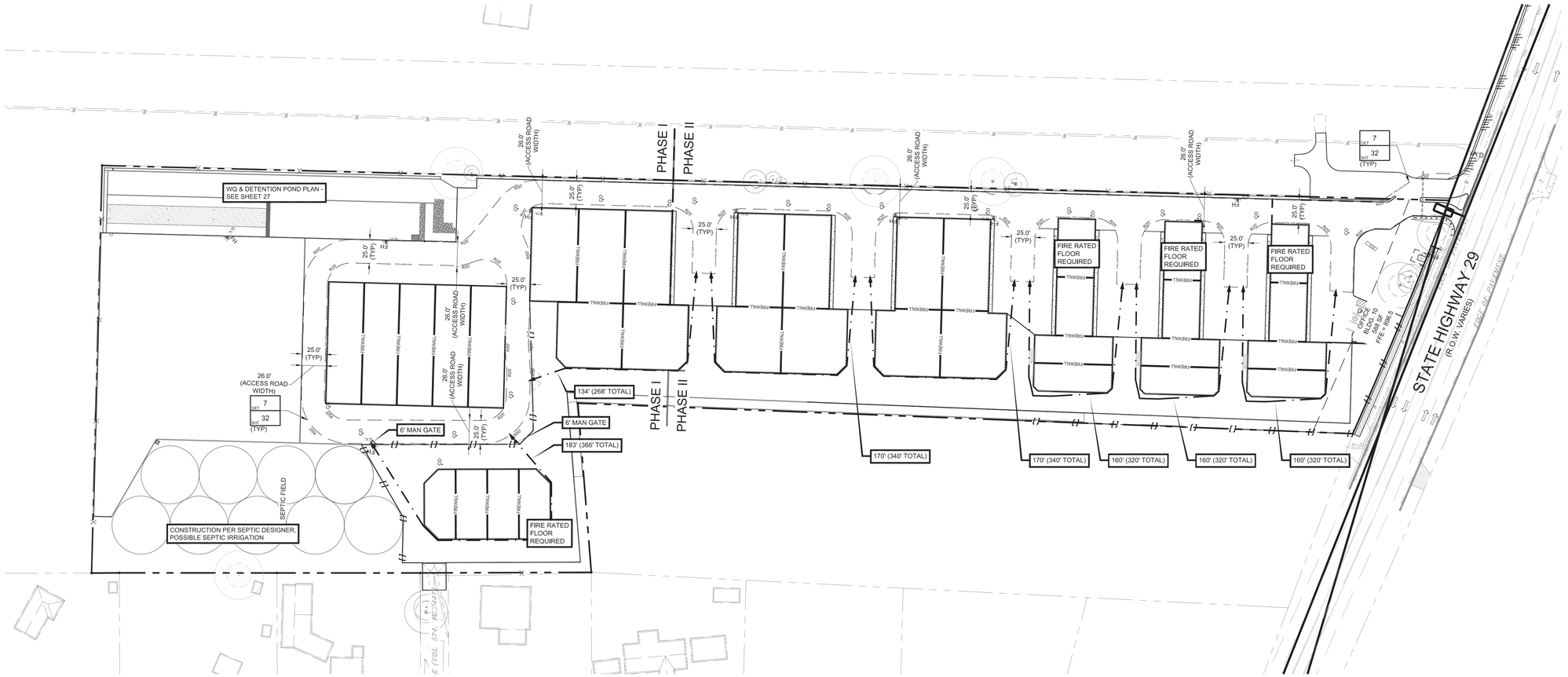
JOB NUMBER: 1864
SHEET: 13 OF 38



1 EMERGENCY ACCESS PLAN

SCALE: 1:60

SCALE: 1" = 60'

0 30 60 120

LEGEND

TRUCK PROXIMITY

392' TRUCK PROXIMITY PULL DISTANCE

EMERGENCY ACCESS NOTES:

1. ALL CURBS AND CURB ENDS SHALL BE PAINTED RED WITH FOUR-INCH WHITE LETTERING STATING, "FIRE LANE-TOW AWAY ZONE". THE LETTERING SHALL BE FOUR-INCHES IN HEIGHT AND SHALL BE SPACED AT INTERVALS NOT EXCEEDING 30 FEET.
2. A MINIMUM VERTICAL CLEARANCE OF 14 FEET WILL BE MAINTAINED FOR THE ENTIRE LENGTH AND WIDTH OF THE DESIGNATED EMERGENCY ACCESS DRIVES.
3. NO PORTION OF THE ACCESS DRIVE SERVING THIS FACILITY HAS A GRADE WHICH EXCEEDS 10%.
4. ACCESS DRIVES NEEDS TO BE DESIGNED TO SUPPORT THE WEIGHT OF A 75,000 POUNDS LIVE-LOAD UNDER ALL WEATHER CONDITIONS.

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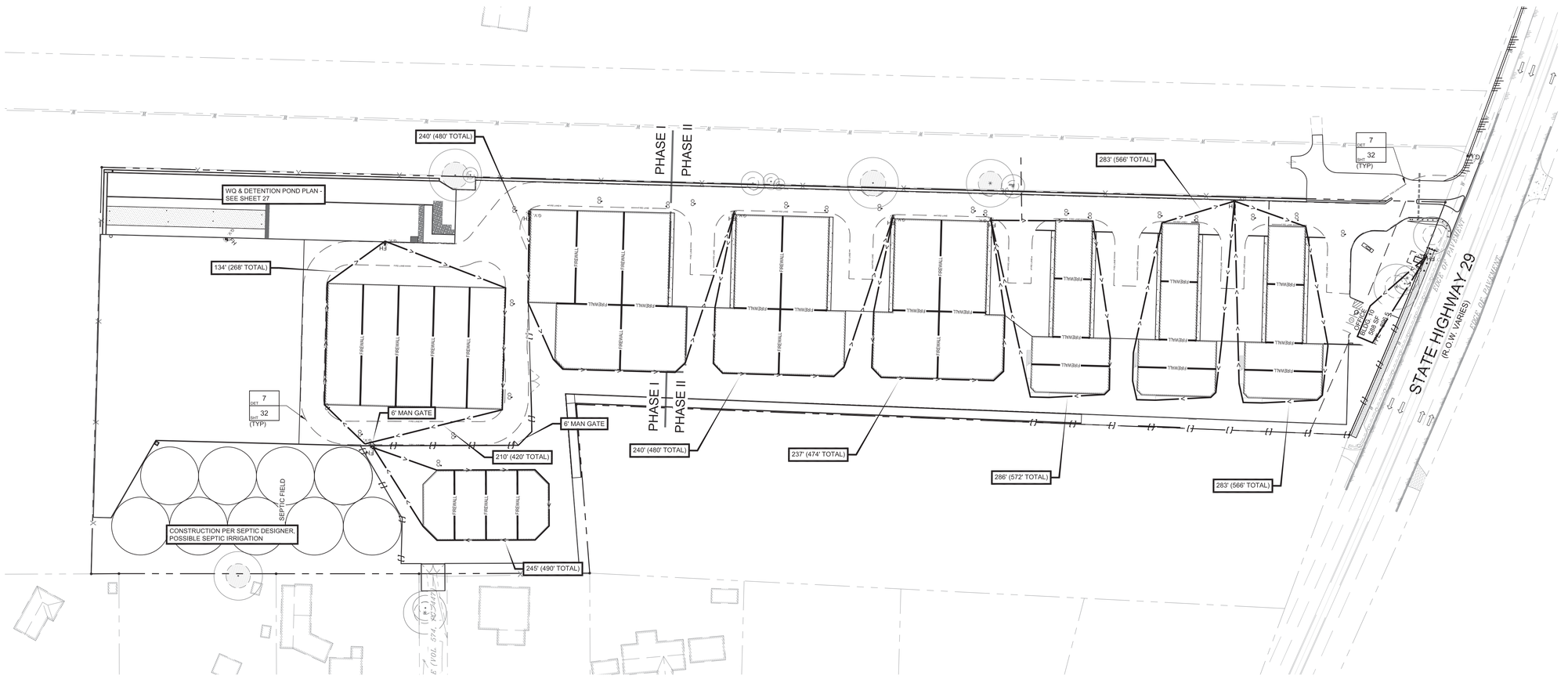

1 FIRE PROTECTION PLAN

SCALE: 1:60

NORTH

SCALE: 1" = 60'

0 30 60 120

LEGEND

HOSE PULL FIRE HYDRANT

392' HOSE PULL DISTANCE

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EMERGENCY FIRE PROTECTION PLAN

DATE ISSUED
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DESIGNED BY	DRAFTED BY
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JOB NUMBER
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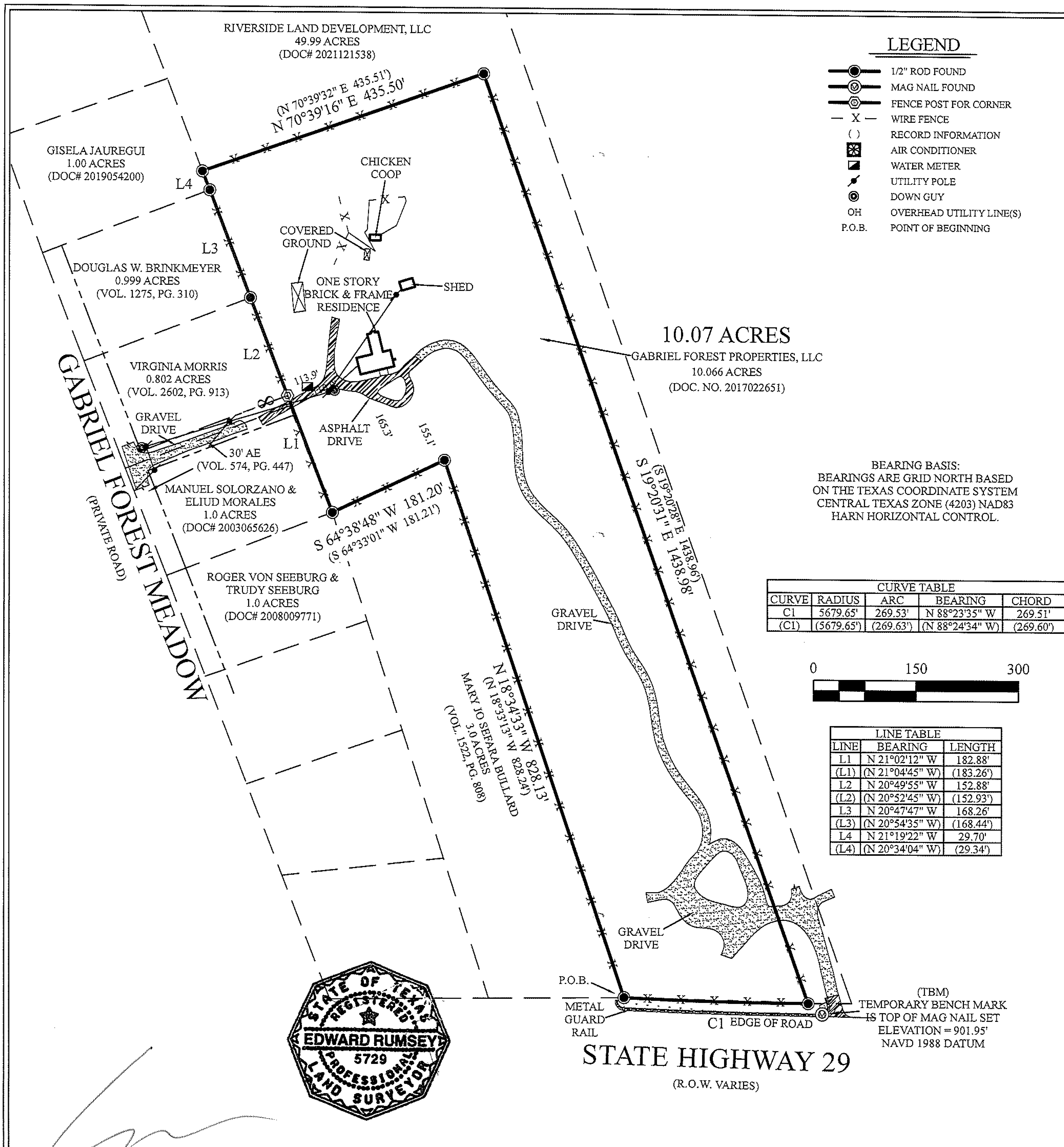
SHEET
15 OF 38


RIVERSIDE LAND DEVELOPMENT, LLC
49.99 ACRES
(DOC# 2021121538)
(N 70°39'32" E 435.51')
N 70°39'16" E 435.50'
GISELA JAUREGUI
1.00 ACRES
(DOC# 2019054200)
L4
L3
L2
L1
CHICKEN COOP
COVERED GROUND
ONE STORY BRICK & FRAME RESIDENCE
SHED
DOUGLAS W. BRINKMEYER
0.999 ACRES
(VOL. 1275, PG. 310)
VIRGINIA MORRIS
0.802 ACRES
(VOL. 2602, PG. 913)
GRAVEL DRIVE
30' AE
(VOL. 574, PG. 447)
113.9'
ASPHALT DRIVE
165.3'
155.1'
MANUEL SOLORZANO &
ELIUD MORALES
1.0 ACRES
(DOC# 2003065626)
S 64°38'48" W 181.20'
(S 64°33'01" W 181.21')
ROGER VON SEEBURG &
TRUDY SEEBURG
1.0 ACRES
(DOC# 2008009771)
GABRIEL FOREST MEADOW
(PRIVATE ROAD)
10.07 ACRES
GABRIEL FOREST PROPERTIES, LLC
10.066 ACRES
(DOC. NO. 2017022651)
(S 19°20'28" E 1438.96')
S 19°20'31" E 1438.98'
GRAVEL DRIVE
N 18°34'33" W 828.13'
(N 18°33'13" W 828.24')
MARY JO SEFARA BULLARD
3.0 ACRES
(VOL. 1522, PG. 808)
GRAVEL DRIVE
P.O.B.
METAL GUARD RAIL
C1 EDGE OF ROAD
(TBM)
TEMPORARY BENCH MARK
IS TOP OF MAG NAIL SET
ELEVATION = 901.95'
NAVD 1988 DATUM
STATE HIGHWAY 29
(R.O.W. VARIES)
LEGEND
1/2" ROD FOUND
MAG NAIL FOUND
FENCE POST FOR CORNER
— X — WIRE FENCE
( ) RECORD INFORMATION
AIR CONDITIONER
WATER METER
UTILITY POLE
DOWN GUY
OH OVERHEAD UTILITY LINE(S)
P.O.B. POINT OF BEGINNING
0 150 300
STATE OF TEXAS
REGISTERED
EDWARD RUMSEY
5729
PROFESSIONAL LAND SURVEYOR

BEARING BASIS:
BEARINGS ARE GRID NORTH BASED ON THE TEXAS COORDINATE SYSTEM CENTRAL TEXAS ZONE (4203) NAD83 HARN HORIZONTAL CONTROL.

CURVE TABLE				
CURVE	RADIUS	ARC	BEARING	CHORD
C1	5679.65'	269.53'	N 88°23'35" W	269.51'
(C1)	(5679.65')	(269.63')	(N 88°24'34" W)	(269.60')

LINE TABLE		
LINE	BEARING	LENGTH
L1	N 21°02'12" W	182.88'
(L1)	(N 21°04'45" W)	(183.26')
L2	N 20°49'55" W	152.88'
(L2)	(N 20°52'45" W)	(152.93')
L3	N 20°47'47" W	168.26'
(L3)	(N 20°54'35" W)	(168.44')
L4	N 21°19'22" W	29.70'
(L4)	(N 20°34'04" W)	(29.34')

TO THE LIEN HOLDER AND / OR OWNERS OF THE PREMISES SURVEYED AND TO:

STEWART TITLE GUARANTY COMPANY

I DO HEREBY CERTIFY THAT THIS SURVEY SUBSTANTIALLY COMPLIES WITH THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYORS MANUAL OF PRACTICE REQUIREMENTS FOR A CATEGORY 1A, CONDITION 2, LAND TITLE SURVEY. EASEMENTS MAY NOT BE SHOWN IF THE SURVEYOR WAS NOT PROVIDED A COPY OF THE EASEMENT. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE.

PAGE 1 OF 3

RESTRICTIONS

SUBJECT TO BLANKET TYPE EASEMENT GRANTED TO CHISHOLM TRAIL WATER SUPPLY CORP. IN VOLUME 876, PAGE 547, TRANSFERRED IN VOLUME 2168, PAGE 44.

LEGAL DESCRIPTION

TRACT 1:
BEING 10.07 ACRES OF LAND OUT OF THE ISAAC DONAGAN SURVEY, ABSTRACT NUMBER 178, WILLIAMSON COUNTY, TEXAS, SAME BEING ALL OF THAT CERTAIN GABRIEL FOREST PROPERTIES, LLC 10.066 ACRE TRACT, RECORDED IN DOCUMENT NUMBER 2017022651, OFFICIAL PUBLIC RECORDS, WILLIAMSON COUNTY, TEXAS, SAID 10.07 ACRES OF LAND TO BE MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS IN EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF.

TRACT 2:
TWO ACCESS EASEMENTS OUT OF THE ISAAC DONAGAN SURVEY, ABSTRACT NO. 178, WILLIAMSON COUNTY, TEXAS, RECORDED IN VOLUME 574, PAGE 447.

N / NE / E / SE / S / SW / W / NW
SCALE 1" = 150'

ALLSTAR Land Surveying
9020 ANDERSON MILL RD
AUSTIN, TEXAS 78729
(512) 249-8149 PHONE
(512) 331-5217 FAX
TBPELS FIRM NO. 10135000

F.I.R.M. MAP INFORMATION

THIS PROPERTY DOES NOT LIE WITHIN THE 100 YEAR FLOOD - PLAIN, AND HAS A ZONE "X" RATING AS SHOWN ON THE FLOOD INSURANCE RATE MAPS
F.I.R.M. MAP NO. 48491C0290E
PANEL: 0290E
DATED: 09/26/2008

THIS CERTIFICATION IS FOR INSURANCE PURPOSES ONLY AND IS NOT A GUARANTEE THAT THIS PROPERTY WILL OR WILL NOT FLOOD. CONTACT YOUR LOCAL FLOOD PLAIN ADMINISTRATOR FOR THE CURRENT STATUS OF THIS TRACT.

ADDRESS

JMA ENTITY LLC AND/OR ASSIGNS
120 GABRIEL FOREST
GEORGETOWN, WILLIAMSON COUNTY, TEXAS

SURVEY DATE:	APRIL 18, 2022	FIELDED BY:	DUSTIN CARTER	04/04/2022
TITLE CO.:	STEWART TITLE GUARANTY COMPANY	CALC. BY:	CHRIS ZOTTER	04/12/2022
G.F. NO.:	9992-22-26570CM	DRAWN BY:	SEAN SUTTON	04/12/2022
JOB NO.:	A0305422	UPDATE BY:	-	-
		RPLS CHECK:	EDWARD RUMSEY	04/18/2022

WARNING: DRAWING HAS BEEN REDUCED TO FIT WITHIN THE BORDER. USE BAR SCALE FOR MEASUREMENT

2023- -SWP

PROJECT: AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628
SHEET NAME: RECORDED SURVEY

REVISION | DATE

THOMPSON LAND ENGINEERING, LLC
Land Planning, Site Design, Subdivision Engineering
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
www.tleng.net email: ric@tleng.net

DATE ISSUED February, 2024
DESIGNED BY RCT | DRAFTED BY RH/JH/MR
JOB NUMBER 1864

CITY OF GEORGETOWN
GENERAL NOTES:

1. THESE CONSTRUCTION PLANS WERE PREPARED, SEALED 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 PVC FOR ALL OTHERS.
12. PUBLIC WATER SYSTEM MAINS SHALL BE 150 PSI C900 PVC AND TESTED BY THE CONTRACTOR AT 150 PSI FOR 2 HOURS.
13. ~~ALL BENDS AND CHANGES IN DIRECTION ON WATER MAINS SHALL BE RESTRAINED AND THRUST BLOCKED.~~
14. ~~LONG 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 1 YEAR IN THE AMOUNT OF 25% 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 ON MYLAR OR ON TIFF OR PDF DISK (300DPI). IF A DISK IS SUBMITTED, A BOND SET SHALL BE INCLUDED WITH THE DISK.

TLE GENERAL CONTRACT NOTES

1) CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING STRUCTURES, UTILITIES, AND FACILITIES PRIOR TO ANY EXCAVATION REQUIRED FOR CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. ANY DISCREPANCIES OR CONFLICTS FOUND SHALL BE BROUGHT TO THE ATTENTION OF ENGINEER.
2) CONTRACTOR IS TO TAKE PRECAUTION TO PROTECT EXISTING STRUCTURES, UTILITIES, AND OTHER FACILITIES FROM DAMAGE WHILE CONSTRUCTION OF THE IMPROVEMENTS. ANY DAMAGE TO EXISTING STRUCTURES, UTILITIES OR OTHER FACILITIES INCURRED AS A RESULT OF CONTRACTORS ACTIONS ARE TO BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
3) CONTRACTOR IS TO GIVE NOTICE TO ALL AFFECTED PARTIES AND ALL REGULATORS OF THE COMMENCEMENT OF WORK AT LEAST 48 HOURS IN ADVANCE OF COMMENCEMENT OF WORK.
4) CONTRACTOR IS RESPONSIBLE FOR THE SOURCE AND TRANSPORT OF ALL POTABLE AND CONSTRUCTION WATER FOR THE PROJECT SITE AND TO THE PROJECT SITE AND THE CONTRACTOR IS RESPONSIBLE FOR PAYMENT OF THE SAME.
5) ANY WATER USED FOR ADDING MOISTURE FOR COMPACTION SHALL BE FREE FROM OIL, WASTE, AND ANY OTHER OBJECTIONABLE MATERIAL.
6) CONTRACTOR IS RESPONSIBLE FOR THE PERFORMANCE AND PAYMENT OF ALL DENSITY TESTS, CONCRETE TESTS, AND ASPHALT TESTS, UNLESS OTHERWISE SPECIFIED. ALL SUCH TESTS ARE TO BE PERFORMED IN ACCORDANCE WITH CITY'S SPECIFICATIONS INCLUDING FREQUENCY, UNLESS OTHERWISE SPECIFIED,. LOCATIONS FOR DENSITY TESTS WILL BE AS SPECIFIED BY THE OWNER OR THEIR REPRESENTATIVE.
7) CONTRACTOR IS RESPONSIBLE FOR THE PERFORMANCE OF AND PAYMENT OF ALL CONSTRUCTION STAKING, UNLESS OTHERWISE SPECIFIED. ENGINEER MAY ASSIST IN CONSTRUCTION STAKING AS REQUIRED BY THE GOVERNING AUTHORITIES OR AS REQUESTED, AND PAID FOR, BY CONTRACTOR.
8) ALL AS-BUILT DIMENSIONS SHALL CONFORM TO THE DESIGN DIMENSIONS PLUS OR MINUS 0.02 FEET. ALL AS-BUILT SLOPES SHALL CONFORM TO THE DESIGNED SLOPES PLUS OR MINUS 0.005 FOOT PER FOOT.
9) THE METHODOLOGY FOR THE CONSTRUCTION OF THE IMPROVEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR.
10) CONTRACTOR IS TO PROVIDE THE MATERIALS, EQUIPMENT, AND EFFORT TO COMPLETE THE INSTALLATION OF THE PROPOSED IMPROVEMENTS, WHETHER THOSE MATERIALS, EQUIPMENT, OR EFFORT IS SPECIFICALLY MENTIONED IN THESE PLANS OR NOT.
11) CONTRACTOR IS TO COMPLY WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS AND REGULATIONS, AS WELL AS ANY OTHER APPLICABLE FEDERAL, STATE, OR LOCAL HEALTH AND SAFETY STANDARDS, LAWS, OR REGULATIONS. FAILURE TO COMPLY WITH THE REQUIREMENTS SPECIFIED WILL BE CONSIDERED JUST AND SUFFICIENT CAUSE FOR THE OWNER TO STOP WORK.
12) UNLESS OTHERWISE SPECIFIED BY THE GEOTECHNICAL ENGINEER IN THE GEOTECHNICAL REPORT FOR THIS PROJECT, SELECT BACK FILL SHALL:
    - BE SUBSTANTIALLY FREE OF ORGANIC MATERIALS
    - HAVE A PLASTICITY INDEX BETWEEN 10 AND 18,
    - HAVE A LIQUID LIMIT OF LESS THAN 35, AND
    - FREE OF STONES OR ROCKS OVER 2 INCHES IN ANY DIMENSION.

    SUCH SELECT FILL, WHEN CALLED FOR ON THE PLANS AND UNLESS OTHERWISE SPECIFIED, SHALL BE PLACED IN LOOSE, HORIZONTAL LAYERS SIX TO NINE INCHES IN THICKNESS AND COMPACTED TO 95 PERCENT OF THE STANDARD PROCTOR DENSITY OR THE MAXIMUM DENSITY AS SPECIFIED BY TXDOT TEST METHOD TEX-114-E. SANDY LOAM SHALL NOT BE USED FOR SELECT FILL.
13) UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR IS RESPONSIBLE FOR THE PAYMENT OF AND PHYSICAL REMOVAL OF ALL SURPLUS MATERIAL FROM THE SITE. THE REMOVAL OF ANY MATERIAL FROM THE SITE SHALL BE TO A LOCATION APPROVED BY THE GOVERNING AGENCY AND OWNER.
14) UNLESS OTHERWISE SPECIFIED, THE PROVISION OF AND PAYMENT FOR BONDING, INCLUDING BUT NOT LIMITED TO THE PROVISION OF PERFORMANCE AND PAYMENT BONDS, IS TO BE CONSIDERED SUBSIDIARY TO OTHER WORK.
15) UNLESS OTHERWISE SPECIFIED, AND NOT INCLUDING MEASUREMENT AND PAYMENT SECTIONS, ALL WORK ON THESE PLANS SHALL BE IN CONFORMANCE WITH THE CITY'S STANDARD SPECIFICATIONS.

TLE SPECIAL NOTES FOR STORM WATER POLLUTION PREVENTION PLANS (SW3P)

1) ALL EROSION SEDIMENT CONTROLS SHALL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT SHALL BE PERFORMED AT THE EARLIEST POSSIBLE DATE BUT NO LATER THAN 7 CALENDAR DAYS AFTER THE SURROUNDING EXPOSED GROUND HAS DRIED SUFFICIENTLY TO PREVENT FURTHER DAMAGE FROM HEAVY EQUIPMENT. DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE CEASED, TEMPORARILY OR PERMANENTLY, SHALL BE STABILIZED WITHIN 14 CALENDAR DAYS UNLESS THEY ARE SCHEDULED TO AND DO RESUME WITHIN 21 CALENDAR DAYS. THE AREAS ADJACENT TO CREEKS AND DRAINAGE WAYS SHALL HAVE PRIORITY FOLLOWED BY DEVICES PROTECTING STORM SEWER INLETS.
2) AN INSPECTION OF ALL EROSION CONTROLS SHALL BE PERFORMED BY A DESIGNATED INSPECTOR EVERY 7 CALENDAR DAYS AS WELL AS AFTER EVERY HALF INCH OR MORE RAIN AS RECORDED ON A NON-FREEZING RAIN GAUGE TO BE LOCATED ON THE PROJECT SITE. AN INSPECTION AND MAINTENANCE REPORT SHALL BE FILED FOR EACH INSPECTION. BASED ON THE INSPECTION RESULTS, THE CONTROLS SHALL BE REVISED AS PER THE INSPECTION REPORT. CONTRACTOR SHALL CORRECT ANY PROBLEMS IDENTIFIED WITHIN 48 HOURS.
3) EXCEPT AS SPECIFIED ELSEWHERE, ALL WASTE MATERIALS SHALL BE COLLECTED IN A METAL DUMPSTER HAVING A SECURE COVER. THE DUMPSTER SHALL MEET ALL STATE AND LOCAL SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND DEBRIS FROM CONSTRUCTION SHALL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER SHALL BE EMPTIED, AS NECESSARY OR AS REQUIRED BY LOCAL REGULATION, AND HAULED TO A LOCAL APPROVED LAND FILL SITE. THE BURYING OF CONSTRUCTION WASTE ON THE PROJECT SITE SHALL NOT BE PERMITTED.
4) THE SPECIFICATION OF CONCRETE WASHOUT AREAS SHALL BE REQUIRED AND SHALL CONSIST AN APPROVED WASHOUT SYSTEM, SUCH AS RTC SUPPLY VINYL-CON CONCRETE WASHOUT (SIZE BASED ON SIZE OF JOB AND NUMBER OF CONCRETE TRUCKS), OR EQUAL.
5) AS A MINIMUM, ANY PRODUCTS IN THE FOLLOWING CATEGORY ARE CONSIDERED TO BE HAZARDOUS: PAINTS, ACIDS, SOLVENTS, ASPHALT PRODUCTS, CHEMICAL ADDITIVES FOR SOIL STABILIZATION, AND CONCRETE CURING COMPOUNDS OR ADDITIVES. IN THE EVENT OF A SPILL WHICH MAY BE HAZARDOUS, THE SPILL REMEDIATED IN ACCORDANCE WITH THE LOCAL AND STATE REGULATIONS.
6) ALL SANITARY WASTE SHALL BE COLLECTED FROM PORTABLE UNITS, AS NECESSARY OR AS REQUIRED BY LOCAL REGULATIONS, BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.
7) FUELS AND HAZARDOUS SUBSTANCES ARE NOT TO BE STORED ON SITE.
8) CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS WATERING WITH IRRIGATION TRUCKS AND/OR MULCH.
9) THE LIMITS OF CONSTRUCTION FOR THIS PROJECT IS 10.51 ACRES.

EXPECTED TIME FRAMES FOR SEQUENCE OF CONSTRUCTION FOR SWPPP:	
1.	GET PERMITS, SET UP EROSION CONTROLS, AND HAVE PRE-CONSTRUCTION CONFERENCE (4 WEEKS)
2.	ROUGH CUT PONDS, PERFORM ANY DEMOLITION, AND ROUGH GRADE SITE (10 WEEKS)
3.	CHECK ENVIRONMENTAL CONTROLS (ON-GOING ACTIVITY)
4.	INSTALL UNDERGROUND UTILITIES (10 WEEK)
5.	CONSTRUCTION OF BUILDING (25 WEEKS)
6.	PAVE SITE (4 WEEKS)
7.	FINISH GRADE SITE, CLEAN UP, LANDSCAPE, AND REVEGETATE (2 WEEKS)

TLE GENERAL CONCRETE NOTES

1) ALL CONCRETE, REINFORCING, AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE LATEST ACI CODES AND IBC INCLUDING LAPS, SPLICES, TERMINATIONS, BAR SUPPORTS, AND CONCRETE COVER.
2) UNLESS OTHERWISE SPECIFIED, BARS SHALL BE DEFORMED GRADE 60.
3) UNLESS OTHERWISE SPECIFIED, ALL CONCRETE FOR FLAT WORK, CURBS, AND WALLS 3 FEET IN HEIGHT OR LESS SHALL CONFORM TO CITY OF AUSTIN CLASS A (3000 psi) AND ALL CONCRETE FOR WALLS GREATER THAN 3 FEET IN HEIGHT, AND OTHER VERTICAL STRUCTURES, SHALL CONFORM TO CITY OF AUSTIN CLASS S (4000 psi).
4) UNLESS OTHERWISE SPECIFIED, ALL DOWELS SHALL BE OF THE SAME SIZE AND SPACING AS THE REINFORCEMENT TO WHICH THE DOWEL IS TO BE SPLICED. DOWELS SHALL BE FIRMLY SET PRIOR TO PLACING THE CONCRETE; DOWELS SHALL NOT BE INSERTED INTO FRESH CONCRETE.
5) UNLESS OTHERWISE SPECIFIED, ALL EXPOSED WALL EDGES ARE TO RECEIVE 3/4" CHAMFER.
6) UNLESS OTHERWISE SPECIFIED, ALL EXPOSED VERTICAL SURFACES TO RECEIVE A RUBBED FINISH AND ALL EXPOSED FLAT WORK SURFACES TO RECEIVE A BROOM FINISH.
7) UNLESS OTHERWISE SPECIFIED OR SHOWN, EXPANSION JOINTS AND CONTROL JOINTS SHOULD BE LAID OUT SO THAT NO SECTION OF CONCRETE HAS A CORNER WITH AN ANGLE LESS THAN 60 DEGREES. ANY JOINT FORMING A CORNER WITH AN ANGLE OF LESS THAN 60 DEGREES SHOULD BE REALIGNED TO INCLUDE A STRAIGHT SECTION AT 90 DEGREES THAT IS AT LEAST 6 INCHES IN LENGTH
8) UNLESS OTHERWISE SPECIFIED, CONTROL JOINTS IN CONCRETE FLAT WORK SHALL BE FORMED WITH A TROWEL, 3/4" DEEP, 5 FEET ON CENTER, AND ROUNDED. UNLESS OTHERWISE SPECIFIED, CONTROL JOINTS IN VERTICAL CONCRETE SHALL BE FORMED WITH 3/4" CHAMFER STRIPS AND SHALL BE SPACED NO FURTHER APART THAN 25 FEET ON CENTER.
9) UNLESS OTHERWISE SPECIFIED, EXPANSION JOINTS SHALL BE INCLUDED IN ALL CONCRETE FLAT WORK AT A MAXIMUM SPACING OF 25 FEET ON CENTER AND SHALL BE INCLUDED IN ALL CONCRETE WALLS AT A MAXIMUM SPACING OF 20 FEET ON CENTER. JOINTS SHALL BE 3/4-INCH WIDE AND FILLED WITH ASPHALTIC FIBER BOARD. EXPANSION JOINTS IN WALLS RETAINING WATER SHALL INCLUDE A CONTINUOUS WATER STOP EXTENDING DOWN TO THE FOOTING. DOWELS SHALL BE INCLUDED IN ALL EXPANSION JOINTS THAT ARE AT LEAST OF THE SAME SIZE AND SPACING AS THE REINFORCING

TLE GENERAL PAVEMENT NOTES:

1) ALL MARKINGS, MARKERS, SIGNAGE, BUTTONS, PAINT AND OTHER TRAFFIC RELATED CONTROLS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) MANUAL ON UNIFORM TRAFFIC CONTROL DEVISES FOR STREETS AND HIGHWAYS (MUTCD). THESE INCLUDE ANY METHODS, PAVEMENT MARKING, SIGNAGE NECESSARY FOR WARNING MOTORISTS, WARN PEDESTRIANS, AND/OR DIVERTING TRAFFIC DURING CONSTRUCTION AS WELL AS ANY MARKINGS, MARKERS, SIGNAGE, BUTTONS, AND PAINT REQUIRED FOR THE FINISHED PRODUCT.

SPILL PREVENTION AND CONTROL NOTES (BASED ON TAC 30.327)

A DISCHARGE OR SPILL IS AN ACT OR OMISSION BY WHICH OIL, HAZARDOUS SUBSTANCES, WASTE, OR OTHER SUBSTANCES ARE SPILLED, LEAKED, PUMPED, POURED, EMITTED, ENTERED, OR DUMPED ONTO OR INTO WATERS IN THE STATE OF TEXAS OR BY WHICH THOSE SUBSTANCES ARE DEPOSITED WHERE, UNLESS CONTROLLED OR REMOVED, THEY MAY DRAIN, SEEP, RUN, OR OTHERWISE ENTER WATER IN THE STATE OF TEXAS.

NOTIFICATION REQUIREMENTS:
(A) REPORTABLE DISCHARGE OR SPILL.
A REPORTABLE DISCHARGE OR SPILL IS A DISCHARGE OR SPILL OF OIL, PETROLEUM PRODUCT, USED OIL, HAZARDOUS SUBSTANCES, INDUSTRIAL SOLID WASTE, OR OTHER SUBSTANCES INTO THE ENVIRONMENT IN A QUANTITY EQUAL TO OR GREATER THAN THE REPORTABLE QUANTITY LISTED IN SECTION 327.4 OF THIS TITLE (RELATING TO REPORTABLE QUANTITIES) IN ANY 24-HOUR PERIOD.
(B) INITIAL NOTIFICATION.
UPON THE DETERMINATION THAT A REPORTABLE DISCHARGE OR SPILL HAS OCCURRED, THE CONTRACTOR SHALL NOTIFY THE TCEQ AS SOON AS POSSIBLE BUT NOT LATER THAN 24 HOURS AFTER THE DISCOVERY OF THE SPILL OR DISCHARGE.
(C) METHOD OF NOTIFICATION.
CONTRACTOR SHALL NOTIFY TCEQ IN ANY REASONABLE MANNER INCLUDING BY TELEPHONE, IN PERSON, OR BY ANY OTHER METHOD APPROVED BY THE TCEQ. IN ALL CASES, THE INITIAL NOTIFICATION SHALL PROVIDE, TO THE EXTENT KNOWN, THE INFORMATION LISTED IN SUBSECTION (D) OF THIS SECTION. NOTICE PROVIDED UNDER THIS SECTION SATISFIES THE FEDERAL REQUIREMENT TO NOTIFY THE STATE EMERGENCY RESPONSE COMMISSION IN THE STATE OF TEXAS. THE CONTRACTOR SHALL NOTIFY ONE OF THE FOLLOWING:
(1) THE STATE EMERGENCY RESPONSE CENTER AT 1-800-832-8224;
(2) DURING NORMAL BUSINESS HOURS ONLY, THE REGIONAL OFFICE FOR THE TCEQ REGION IN WHICH THE DISCHARGE OR SPILL OCCURRED; OR
(3) THE TCEQ AT THE TCEQ 24-HOUR SPILL REPORTING NUMBER(512) 239-2507 OR (512) 463-7727..
(D) INFORMATION REQUIRED IN INITIAL NOTIFICATION.
INITIAL NOTIFICATION SHALL PROVIDE, TO THE EXTENT KNOWN, THE INFORMATION IN THE FOLLOWING LIST. COPIES OF SPILL REPORTS PREPARED FOR OTHER GOVERNMENTAL AGENCIES SHALL SATISFY THIS REQUIREMENT IF THEY CONTAIN, OR ARE SUPPLEMENTED TO CONTAIN, ALL THE INFORMATION REQUIRED BY THIS SUBSECTION. THE INITIAL NOTIFICATION SHALL CONTAIN:
(1) THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE PERSON MAKING THE TELEPHONE REPORT;
(2) THE DATE, TIME, AND LOCATION OF THE SPILL OR DISCHARGE;
(3) SPECIFIC DESCRIPTION OR IDENTIFICATION OF THE OIL, PETROLEUM PRODUCT, HAZARDOUS SUBSTANCES OR OTHER SUBSTANCES CHARGED/SPILLED;
(4) AN ESTIMATE OF THE QUANTITY DISCHARGED OR SPILLED;
(5) THE DURATION OF THE INCIDENT;
(6) THE NAME OF THE SURFACE WATER OR A DESCRIPTION OF THE WATERS IN THE STATE AFFECTED OR THREATENED BY THE DISCHARGE OR SPILL;
(7) THE SOURCE OF THE DISCHARGE OR SPILL;
(8) A DESCRIPTION OF THE EXTENT OF ACTUAL OR POTENTIAL WATER POLLUTION OR HARMFUL IMPACTS TO THE ENVIRONMENT AND AN IDENTIFICATION OF ANY ENVIRONMENTALLY SENSITIVE AREAS OR NATURAL RESOURCES AT RISK;
(9) IF DIFFERENT FROM PARAGRAPH (1) OF THIS SUBSECTION, THE NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF THE CONTRACTOR AND THE CONTACT PERSON AT THE LOCATION OF THE DISCHARGE OR SPILL;
(10) DESCRIPTION OF ANY ACTIONS THAT HAVE, WILL, AND/OR ARE BEING TAKEN TO CONTAIN AND RESPOND TO THE DISCHARGE/SPILL;
(11) ANY KNOWN OR ANTICIPATED HEALTH RISKS;
(12) THE IDENTITY OF ANY GOVERNMENTAL REPRESENTATIVES, INCLUDING LOCAL AUTHORITIES OR THIRD PARTIES, RESPONDING TO THE DISCHARGE/SPILL;
(13) ANY OTHER INFORMATION THAT MAY BE SIGNIFICANT TO THE RESPONSE ACTION.
(E) UPDATE NOTIFICATION.
CONTRACTOR SHALL NOTIFY THE TCEQ AS SOON AS POSSIBLE WHENEVER NECESSARY TO PROVIDE INFORMATION THAT WOULD TRIGGER A CHANGE IN THE RESPONSE TO THE SPILL OR DISCHARGE.
(F) CORRECTION OF RECORDS.
NOTIFYING TCEQ THAT A REPORTABLE DISCHARGE OR SPILL HAS OCCURRED SHALL NOT BE CONSTRUED AS AN ADMISSION THAT POLLUTION HAS OCCURRED. FURTHERMORE, IF THE CONTRACTOR DETERMINES, AFTER NOTIFICATION, THAT A REPORTABLE DISCHARGE OR SPILL DID NOT OCCUR, THE CONTRACTOR MAY SEND A LETTER TO TCEQ DOCUMENTING THAT DETERMINATION. IF THE EXECUTIVE DIRECTOR AGREES WITH THAT DETERMINATION, THE EXECUTIVE DIRECTOR WILL NOTE THE DETERMINATION IN COMMISSION RECORDS. IF THE EXECUTIVE DIRECTOR DISAGREES WITH THAT DETERMINATION, THE EXECUTIVE DIRECTOR WILL NOTIFY THE CONTRACTOR WITHIN 30 DAYS.
(G) NOTIFICATION OF LOCAL GOVERNMENTAL AUTHORITIES.
IF THE DISCHARGE OR SPILL CREATES AN IMMINENT HEALTH THREAT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY AND COOPERATE WITH LOCAL EMERGENCY AUTHORITIES (FIRE DEPARTMENT, FIRE MARSHAL, LAW ENFORCEMENT AUTHORITY, HEALTH AUTHORITY, OR LOCAL EMERGENCY PLANNING COMMITTEE (LEPC), AS APPROPRIATE). THE RESPONSIBLE PARTY WILL COOPERATE WITH THE LOCAL EMERGENCY AUTHORITY IN PROVIDING SUPPORT TO IMPLEMENT APPROPRIATE NOTIFICATION AND RESPONSE ACTIONS. THE LOCAL EMERGENCY AUTHORITY, AS NECESSARY, WILL IMPLEMENT ITS EMERGENCY MANAGEMENT PLAN, WHICH MAY INCLUDE NOTIFYING AND EVACUATING AFFECTED PERSONS. IN THE ABSENCE OF A LOCAL EMERGENCY AUTHORITY, THE CONTRACTOR SHALL TAKE REASONABLE MEASURES TO NOTIFY POTENTIALLY AFFECTED PERSONS OF THE IMMINENT HEALTH THREAT.
(H) NOTIFICATION TO PROPERTY OWNER AND RESIDENTS.
AS SOON AS POSSIBLE, BUT NO LATER THAN TWO WEEKS AFTER DISCOVERY OF SPILL/DISCHARGE, CONTRACTOR SHALL REASONABLY ATTEMPT TO NOTIFY THE OWNER (IF IDENTIFIABLE) OR OCCUPANT OF THE PROPERTY UPON WHICH DISCHARGE/SPILL OCCURRED AS WELL AS THE OCCUPANTS OF ANY PROPERTY THAT THE CONTRACTOR REASONABLY BELIEVES IS ADVERSELY AFFECTED.
(I) ADDITIONAL NOTIFICATION REQUIRED.
NOTICE PROVIDED UNDER THIS SECTION SATISFIES THE FEDERAL REQUIREMENT TO NOTIFY THE STATE EMERGENCY RESPONSE COMMISSION IN THE STATE OF TEXAS. HOWEVER, COMPLYING WITH THE NOTIFICATION REQUIREMENTS SET FORTH IN THIS SECTION DOES NOT RELIEVE, SATISFY, OR FULFILL ANY OTHER NOTIFICATION REQUIREMENTS IMPOSED BY PERMIT OR OTHER LOCAL, STATE, OR FEDERAL LAW. THE CONTRACTOR SHOULD CONTACT THE LOCAL AUTHORITIES TO DETERMINE IF ANY ADDITIONAL NOTIFICATION IS REQUIRED AND SHOULD CONSULT WITH THE TECQ AS TO WHETHER ANY ADDITIONAL STATE OR FEDERAL NOTIFICATION IS REQUIRED.
(J) ALTERNATIVE NOTIFICATION PLANS.
(1) CONTRACTORS IN CHARGE OF ACTIVITIES AND FACILITIES MAY SUBMIT AND IMPLEMENT AN ALTERNATIVE NOTIFICATION PLAN. THIS ALTERNATIVE NOTIFICATION PLAN SHALL COMPLY WITH THE TEXAS WATER CODE, SECTION 26.039. CONTRACTORS SHALL OBTAIN THE TCEQ'S WRITTEN APPROVAL BEFORE IMPLEMENTING ANY ALTERNATIVE NOTIFICATION PLAN.
(2) UPON APPROVAL OF THE TCEQ REGIONAL MANAGER, CONTRACTORS MAY PROVIDE THE INITIAL NOTIFICATION BY FACSIMILE TO THE REGIONAL OFFICE DURING NORMAL BUSINESS HOURS.

REPORTABLE QUANTITIES (RQ)
(A) HAZARDOUS SUBSTANCES.
THE REPORTABLE QUANTITIES FOR HAZARDOUS SUBSTANCES SHALL BE:
(1) FOR SPILLS/DISCHARGES ONTO LAND--THE QUANTITY DESIGNATED AS THE FINAL REPORTABLE QUANTITY (RQ) IN TABLE 302.4 IN 40 CFR SECTION 302.4;
(2) FOR SPILLS OR DISCHARGES INTO WATERS IN THE STATE--THE QUANTITY DESIGNATED AS THE FINAL RQ IN TABLE 302.4 IN 40 CFR SECTION 302.4, EXCEPT WHERE THE FINAL RQ IS GREATER THAN 100 POUNDS IN WHICH CASE THE RQ SHALL BE 100 POUNDS.
(B) OIL, PETROLEUM PRODUCT, AND USED OIL.
(1) THE RQ FOR CRUDE OIL AND OIL OTHER THAN THAT DEFINED AS PETROLEUM PRODUCT OR USED OIL SHALL BE:
(A) FOR SPILLS OR DISCHARGES ONTO LAND--210 GALLONS (FIVE BARRELS); OR
(B) FOR SPILLS OR DISCHARGES DIRECTLY INTO WATER IN THE STATE--QUANTITY SUFFICIENT TO CREATE A SHEEN.
(2) THE RQ FOR PETROLEUM PRODUCT AND USED OIL SHALL BE:
(A) EXCEPT AS NOTED IN SUBPARAGRAPH (B) OF THIS PARAGRAPH, FOR SPILLS OR DISCHARGES ONTO LAND--25 GALLONS;
(B) FOR SPILLS OR DISCHARGES TO LAND FROM PST EXEMPTED FACILITIES--210 GALLONS (FIVE BARRELS); OR
(C) FOR SPILLS OR DISCHARGES DIRECTLY INTO WATER IN THE STATE--QUANTITY SUFFICIENT TO CREATE A SHEEN.
(C) INDUSTRIAL SOLID WASTE OR OTHER SUBSTANCES.
THE RQ FOR SPILLS OR DISCHARGES INTO WATER IN THE STATE SHALL BE 100 POUNDS.

ACTIONS REQUIRED
(A) THE CONTRACTOR SHALL IMMEDIATELY ABATE AND CONTAIN THE SPILL OR DISCHARGE AND COOPERATE FULLY WITH THE EXECUTIVE DIRECTOR AND THE LOCAL INCIDENT COMMAND SYSTEM. THE CONTRACTOR SHALL ALSO BEGIN REASONABLE RESPONSE ACTIONS WHICH MAY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING ACTIONS:
(1) ARRIVAL OF THE CONTRACTOR OR RESPONSE PERSONNEL HIRED BY THE CONTRACTOR AT THE SITE OF THE DISCHARGE OR SPILL;
(2) INITIATING EFFORTS TO STOP THE DISCHARGE OR SPILL;
(3) MINIMIZING THE IMPACT TO THE PUBLIC HEALTH AND THE ENVIRONMENT;
(4) NEUTRALIZING THE EFFECTS OF THE INCIDENT;
(5) REMOVING THE DISCHARGED OR SPILLED SUBSTANCES; AND
(6) MANAGING THE WASTES.
(B) UPON REQUEST OF THE LOCAL GOVERNMENT RESPONDERS OR THE EXECUTIVE DIRECTOR, THE CONTRACTOR SHALL PROVIDE A VERBAL OR WRITTEN DESCRIPTION, OR BOTH, OF THE PLANNED RESPONSE ACTIONS AND ALL ACTIONS TAKEN BEFORE THE LOCAL GOVERNMENTAL RESPONDERS OR THE EXECUTIVE DIRECTOR ARRIVE. WHEN THE TCEQ ON-SCENE COORDINATOR REQUESTS THIS INFORMATION, IT IS SUBJECT TO POSSIBLE ADDITIONAL RESPONSE ACTION REQUIREMENTS BY THE EXECUTIVE DIRECTOR. THE INFORMATION WILL SERVE AS A BASIS FOR THE EXECUTIVE DIRECTOR TO DETERMINE THE NEED FOR:
(1) FURTHER RESPONSE ACTIONS BY THE CONTRACTOR;
(2) INITIATING STATE FUNDED ACTIONS FOR WHICH THE CONTRACTOR MAY BE HELD LIABLE TO THE MAXIMUM EXTENT ALLOWED BY LAW; AND
(3) SUBSEQUENT REPORTS ON THE RESPONSE ACTIONS.
(C) EXCEPT FOR DISCHARGES OR SPILLS OCCURRING DURING THE NORMAL COURSE OF TRANSPORTATION ABOUT WHICH CARRIERS ARE REQUIRED TO FILE A WRITTEN REPORT WITH THE U.S. DEPARTMENT OF TRANSPORTATION UNDER 49 CFR SECTION 171.16, THE CONTRACTOR SHALL SUBMIT WRITTEN INFORMATION, SUCH AS A LETTER, DESCRIBING THE DETAILS OF THE DISCHARGE OR SPILL AND SUPPORTING THE ADEQUACY OF THE RESPONSE ACTION, TO THE APPROPRIATE TCEQ REGIONAL MANAGER WITHIN 30 WORKING DAYS OF THE DISCOVERY OF THE REPORTABLE DISCHARGE OR SPILL. THE REGIONAL MANAGER HAS THE DISCRETION TO EXTEND THE DEADLINE. THE DOCUMENTATION SHALL CONTAIN ONE OF THE FOLLOWING ITEMS:
(1) A STATEMENT THAT THE DISCHARGE/SPILL RESPONSE ACTION HAS BEEN COMPLETED AND A DESCRIPTION OF HOW THE RESPONSE ACTION WAS CONDUCTED SHALL INCLUDE THE INITIAL REPORT INFORMATION REQUIRED BY SECTION 327.3(C) OF THIS TITLE (RELATING TO NOTIFICATION REQUIREMENTS). THE EXECUTIVE DIRECTOR MAY REQUEST ADDITIONAL INFORMATION. APPROPRIATE RESPONSE ACTIONS AT ANY TIME FOLLOWING THE DISCHARGE/SPILL INCLUDE USE OF THE TEXAS RISK REDUCTION PROGRAM RULES IN CHAPTER 350 OF THIS TITLE (RELATING TO TEXAS RISK REDUCTION PROGRAM).
(2) A REQUEST FOR AN EXTENSION OF TIME TO COMPLETE THE RESPONSE ACTION, ALONG WITH THE REASONS FOR THE REQUEST. THE REQUEST SHALL ALSO INCLUDE A PROJECTED WORK SCHEDULE OUTLINING THE TIME REQUIRED TO COMPLETE THE RESPONSE ACTION. THE EXECUTIVE DIRECTOR MAY GRANT AN EXTENSION UP TO SIX MONTHS FROM THE DATE THE SPILL OR DISCHARGE WAS REPORTED. UNLESS OTHERWISE NOTIFIED BY THE APPROPRIATE REGIONAL MANAGER OR THE EMERGENCY RESPONSE TEAM, THE CONTRACTOR SHALL PROCEED ACCORDING TO THE TERMS OF THE PROJECTED WORK SCHEDULE.
(3) A STATEMENT THAT THE DISCHARGE OR SPILL RESPONSE ACTION HAS NOT BEEN COMPLETED NOR IS IT EXPECTED TO BE COMPLETED WITHIN THE MAXIMUM ALLOWABLE SIX MONTH EXTENSION. THE STATEMENT SHALL EXPLAIN WHY COMPLETION OF THE RESPONSE ACTION IS NOT FEASIBLE AND INCLUDE A PROJECTED WORK SCHEDULE OUTLINING THE REMAINING TASKS TO COMPLETE THE RESPONSE ACTION. THIS INFORMATION WILL ALSO SERVE AS NOTIFICATION THAT THE RESPONSE ACTIONS TO THE DISCHARGE OR SPILL WILL BE CONDUCTED UNDER THE TEXAS RISK REDUCTION PROGRAM RULES IN CHAPTER 350 OF THIS TITLE (RELATING TO TEXAS RISK REDUCTION PROGRAM).

THE PERSON RESPONSIBLE FOR CLEANING UP A SPILL IS:

- THE OWNER OR OPERATOR OF A **FACILITY** FROM WHICH A SPILL EMANATES;
- THE OWNER, OPERATOR, OR DEMISE CHARTERER OF A **VESSEL** FROM WHICH A SPILL EMANATES; OR
- ANY OTHER PERSON WHO **CAUSES, SUFFERS, ALLOWS, OR PERMITS** A SPILL OR DISCHARGE.

NOTIFICATION, EMERGENCY RESPONSE, SPILL CLEANUPS THAT TAKE LESS THAN 180 DAYS:

- SEE HTTPS://WWW.TCEQ.TEXAS.GOV/RESPONSE/INDEX.HTML. MOST SPILLS REQUIRING LESS THAN 6 MONTHS OF CLEANUP ARE REVIEWED BY THE **TCEQ AUSTIN REGIONAL** OFFICE STAFF AT (512) 339-2929 (MONDAY-FRIDAY, 8 A.M. - 5 P.M.) OR
- STATE OF TEXAS SPILL-REPORTING HOTLINE AT (800) 832-8224 (**24-HOURS)**

CLEANUPS REQUIRING **MORE THAN 180 DAYS AND SPILLS THAT IMPACT GROUNDWATER** MAY BE REFERRED FROM THE REGION OFFICE TO THE REMEDIATION DIVISION FOR OVERSIGHT. CONTACT:

- THE **TCEQ AUSTIN REGIONAL OFFICE** AT (512) 339-2929, FOR TRAVIS COUNTY OR
- THE TCEQ REMEDIATION DIVISION, ENVIRONMENTAL CLEANUP SECTIONS AT:
  (512) 239-2200.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY - WATER POLLUTION ABATEMENT PLAN
GENERAL CONSTRUCTION NOTES TCEQ-0592 (REVISED JULY 15, 2015)

1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
   - 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	SAN ANTONIO REGIONAL OFFICE
12100 PARK 35 CIRCLE, BUILDING A	14250 JUDSON ROAD
AUSTIN, TEXAS 78753-1808	SAN ANTONIO, TEXAS 78233-4480
PHONE (512) 339-2929	PHONE (210) 490-3096
FAX (512) 339-3795	FAX (210) 545-4329

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

TLE EROSION CONTROL NOTES:
PART A:
1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR EXCAVATION).
2. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES IN ACCORDANCE WITH THE ADDITIONAL NOTES FOR SW3P PLANS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
3. ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS; ONE SQUARE FOOT IN TOTAL AREA; BLOWS AIR FROM WITHIN THE SUBSTRATE AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO IMMEDIATELY CONTACT A LOCAL ENVIRONMENTAL INSPECTOR FOR FURTHER INVESTIGATION.

PART B:
PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW.

A. UNLESS DIRECTED OTHERWISE BY THE OWNER, A MINIMUM OF FOUR INCHES OF TOPSOIL SHALL BE PLACED IN ALL DRAINAGE CHANNELS (EXCEPT ROCK) AND 1-INCH OF TOPSOIL IN OTHER AREAS.

B. THE SEEDING FOR PERMANENT EROSION CONTROL SHALL BE APPLIED OVER AREAS DISTURBED BY CONSTRUCTION AS FOLLOWS:

BROADCAST SEEDING:
1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH A COMBINATION OF 2 POUNDS PER 1000 SF OF UNHULLED BERMUDA AND 7 POUNDS PER 1000 SF OF WINTER RYE WITH A PURITY OF 95% WITH 90% GERMINATION.
2. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 2 POUNDS PER 1000 SF WITH A PURITY OF 95% WITH 85% GERMINATION.
3. OTHER REQUIREMENTS:
   A. FERTILIZER SHALL BE A PELLETED OR GRANULAR SLOW RELEASE WITH AN ANALYSIS OF 15-15-15 TO BE APPLIED ONCE AT PLANTING AND ONCE DURING THE PERIOD OF ESTABLISHMENT AT A RATE OF 1 POUND PER 1000 SF.
   B. MULCH TYPE USED SHALL BE HAY, STRAW OR MULCH APPLIED AT A RATE OF 45 POUNDS PER 1000 SF.

HYDRAULIC SEEDING:
1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH A COMBINATION OF 1 POUND PER 1000 SF OF UNHULLED BERMUDA AND 7 POUNDS PER 1000 SF OF WINTER RYE WITH A PURITY OF 95% WITH 90% GERMINATION.
2. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 1 POUND PER 1000 SF WITH A PURITY OF 95% WITH 85% GERMINATION.
3. OTHER REQUIREMENTS:
   A. FERTILIZER SHALL BE A WATER SOLUBLE FERTILIZER WITH AN ANALYSIS OF 15-15-15 AT A RATE OF 1.5 POUNDS PER 1000 SF.
   B. MULCH TYPE USED SHALL BE HAY, STRAW OR MULCH APPLIED AT A RATE OF 45 POUNDS PER 1000 SF, WITH SOIL TACKIFIER AT A RATE OF 1.4 POUNDS PER 1000 SF.
   C. THE PLANTED AREA SHALL BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT ERODE THE TOPSOIL, 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 « INCH OR MORE SHALL POSTPONE THE WATERING SCHEDULE FOR ONE WEEK.
   D. RESTORATION SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1« INCHES HIGH WITH 95% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN 16 SQUARE FEET EXIST.

SEQUENCE OF CONSTRUCTION

TLE	1.	REVIEW THE PLANS FOR ANY ASPECTS WHICH MAY SEEM UNCLEAR AND GET ANY CLARIFICATIONS NEEDED FROM THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION. DO NOT BEGIN CONSTRUCTION UNTIL YOU BELIEVE THAT YOU UNDERSTAND ALL THE NOTES AND GRAPHICS ON THE PLAN VIEWS AND PROFILES, AS WELL AS THE NOTES ON THE GENERAL NOTES SHEET AND THE DETAILS ON THE DETAILS SHEETS.
TLE	2.	VERIFY WHETHER A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED AND, IF ONE IS REQUIRED, FILE A NOTICE OF INTENT (NOI) PRIOR TO COMMENCING CONSTRUCTION. ALSO POST THE REQUIRED CONSTRUCTION SITE NOTICE AND ENSURE A COPY OF THE REPORT IS KEPT IN THE LOCATION CITED ON THE CONSTRUCTION NOTICE.
TLE	3.	MAKE SURE ANY DEMOLITION AND/OR WORK IN THE RIGHT-OF-WAY PERMITS HAVE BEEN OBTAINED. NO CONSTRUCTION IS TO COMMENCE WITHOUT A TRAFFIC CONTROL PLAN APPROVED BY THE CITY OF AUSTIN RIGHT-OF-WAY MANAGEMENT DIVISION.
TLE	4.	MAKE SURE ALL THE PERMITS ARE ACTIVE (HAVE NOT EXPIRED) AND CONFIRM THEIR EXPIRATION DATES TO ENSURE NONE EXPIRE.
TLE	5.	VERIFY THAT THESE PLANS ARE THE APPROVED SET AND, IF SO, INSTALL EROSION CONTROLS AND TREE PROTECTION AS SHOWN ON THESE PLANS.
TLE	6.	CHECK THE COVER SHEET TO SEE IF A CONTRIBUTING ZONE PLAN (CZP) OR WATER POLLUTION ABATEMENT PLAN (WPAP) WAS REQUIRED BY TCEQ. IF ONE WAS REQUIRED, MAKE SURE TO OBTAIN A COPY, READ IT, AND KEEP A COPY ON-SITE. ALSO MAKE SURE TO READ THE RELATED NOTES ON THE NOTE SHEET(S) AND NOTIFY THE TCEQ 48 HOURS IN ADVANCE OF THE START OF CONSTRUCTION. ALSO MAKE SURE THAT THE NOTICE OF APPROVAL FROM THE TCEQ WAS FILED IN THE COUNTY DEED RECORDS AND PROOF OF THAT RECORDING SUBMITTED TO THE AUSTIN REGIONAL OFFICE. NOTE THAT APPROVAL SHOULD HAVE BEEN RECORDED WITHIN 60 DAYS OF APPROVAL.
COA P-4	7.	TEMPORARY EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSTALLED AS INDICATED ON THE APPROVED SITE PLAN OR SUBDIVISION CONSTRUCTION PLAN AND IN ACCORDANCE WITH THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) THAT IS REQUIRED TO BE POSTED ON THE SITE. INSTALL TREE PROTECTION, INITIATE TREE MITIGATION MEASURES AND CONDUCT "PRE - CONSTRUCTION" TREE FERTILIZATION (IF APPLICABLE).
COA P-4	8.	THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR MUST CONTACT THE DEVELOPMENT SERVICES DEPARTMENT, ENVIRONMENTAL INSPECTION, AT 512-974-2278, 72 HOURS PRIOR TO THE SCHEDULED DATE OF THE REQUIRED ON-SITE PRE-CONSTRUCTION MEETING.
TLE	9.	IF ANY PART OF THE PROPOSED WORK IS IN THE ROW, MAKE SURE TO CONTACT THE OWNER OF THE ROW (TXDOT, CITY, COUNTY) TO ASCERTAIN WHAT (IF ANY) INSPECTIONS WILL BE REQUIRED AND IF ONE IS REQUIRED, GET A PRECONSTRUCTION CONFERENCE HELD WITH THE INSPECTOR.
COA P-4	10.	THE ENVIRONMENTAL PROJECT MANAGER, AND/OR SITE SUPERVISOR, AND/OR DESIGNATED RESPONSIBLE PARTY, AND THE GENERAL CONTRACTOR WILL FOLLOW THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE REVISED, IF NEEDED, TO COMPLY WITH CITY INSPECTORS' DIRECTIVES, AND REVISED CONSTRUCTION SCHEDULE RELATIVE TO THE WATER QUALITY PLAN REQUIREMENTS AND THE EROSION PLAN.
TLE	11.	CONTRACTOR TO CONTACT COUNTY PRIOR TO CONSTRUCTION FOR ANY PRECONSTRUCTION CONFERENCE FOR ENVIRONMENTAL, DRIVEWAY AND/OR SEPTIC INSPECTIONS.
TLE	12.	CONTRACTOR IS TO EXPOSE ALL TIE-IN POINTS TO VERIFY ELEVATIONS AND NOTIFY ENGINEER OF ANY DIFFERENCES IN HORIZONTAL OR VERTICAL LOCATION.
TLE	13.	VERIFY THAT ALL OF THE POSSIBLE UTILITIES HAVE BEEN MARKED BY ONE CALL AND BRING TO THE ATTENTION OF THE ENGINEER ANY DISCREPANCIES OR POSSIBLE PROBLEMS OBSERVED.
COA P-4	14.	ROUGH GRADE THE POND(S) AT 100% PROPOSED CAPACITY. EITHER THE PERMANENT OUTLET STRUCTURE OR A TEMPORARY OUTLET MUST BE CONSTRUCTED PRIOR TO DEVELOPMENT OF EMBANKMENT OR EXCAVATION THAT LEADS TO PONDING CONDITIONS. THE OUTLET SYSTEM MUST CONSIST OF A SUMP PIT OUTLET AND AN EMERGENCY SPILLWAY MEETING THE REQUIREMENTS OF THE DRAINAGE CRITERIA MANUAL AND/OR THE ENVIRONMENTAL CRITERIA MANUAL, AS REQUIRED. THE OUTLET SYSTEM SHALL BE PROTECTED FROM EROSION AND SHALL BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION UNTIL INSTALLATION OF THE PERMANENT WATER QUALITY POND(S).
COA P-4	15.	TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE. (IF THIS PLAN IS PHASED, STEPS 14-25 ARE TO BE REPEATED FOR EACH PHASE)
COA P-4	16.	BEGIN SITE CLEARING/CONSTRUCTION (OR DEMOLITION ACTIVITIES).
TLE	17.	CLEAR AND ROUGH GRADE THE SITE.
TLE	18.	CHECK ENVIRONMENTAL CONTROLS AND KEEP LOG OF OBSERVATIONS AS REQUIRED IN THE SWP3. TEMPORARY CONTROLS TO BE INSPECTED AND MAINTAINED EVERY WEEK AND PRIOR TO ANTICIPATED RAINFALL EVENTS AND AFTER RAINFALL EVENTS OF 0.5 INCHES OR MORE. IF DISTURBED AREA IS NOT TO BE WORKED FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING.
		IF WORK IS SUBDIVISION CONSTRUCTION:
TLE	19.	DELIVER APPROVED ROUGH CUT SHEETS TO THE CONSTRUCTION INSPECTION DIVISION OF DPWT PRIOR TO CLEARING AND GRUBBING.
TLE	20.	ROUGH GRADE STREETS (IF APPLICABLE). NO DEVELOPMENT OF EMBANKMENT WILL BE PERMITTED AT THIS TIME. ONCE STREETS ARE ROUGH CUT, THE GEO-TECHNICAL ENGINEER IS TO FIELD VERIFY PAVEMENT DESIGN IS APPROPRIATE, AND MODIFY RECOMMENDATIONS ACCORDINGLY.
TLE	21.	INSTALL ALL UTILITIES TO BE LOCATED UNDER THE PROPOSED PAVEMENT. a. DELIVER STORM SEWER (IF APPLICABLE) CUT SHEETS TO THE CONSTRUCTION INSPECTION DIVISION OF DPWT. b. BEGIN INSTALLATION OF STORM SEWER LINES. UPON COMPLETION, RESTORE AS MUCH DISTURBED AREA AS POSSIBLE, PARTICULARLY CHANNELS AND LARGE OPEN AREAS.
TLE	22.	DELIVER FINAL GRADE CUT SHEETS TO THE CONSTRUCTION INSPECTION DIVISION OF DPWT.
TLE	23.	REGRADE STREETS TO SUBGRADE (IF APPLICABLE).
TLE	24.	INSURE THAT ALL UNDERGROUND UTILITY CROSSINGS ARE COMPLETED. LAY FIRST COURSE BASE MATERIAL ON ALL STREETS (AS APPLICABLE).
TLE	25.	INSTALL CURB AND GUTTER (IF APPLICABLE).
TLE	26.	LAY FINAL BASE COURSE ON ALL STREETS (IF APPLICABLE).
TLE	27.	LAY ASPHALT.
TLE	28.	COMPLETE ALL UNDERGROUND INSTALLATIONS WITHIN THE R.O.W.
		IF WORK IS SITE PLAN:
TLE	29.	INSTALL UNDERGROUND UTILITIES AND CONSTRUCT POND. NOTE: CONTACT ESD TO PERFORM VISUAL INSPECTION OF FIRE MAINS TO VERIFY PIPE TYPE, SIZE, WRAPPED JOINTS, AND PROPER INSTALLATION OF THRUST BLOCKING. DO NOT BURY PIPES UNTIL INSPECTION HAS BEEN CONDUCTED.
TLE	30.	CONSTRUCT BUILDINGS.
TLE	31.	PAVE THE SITE.
TLE	32.	FINISH GRADE THE SITE INCLUDING ADJUSTING AND FINISHING DRAINAGE FEATURES, PONDS, UTILITIES, AND RETAINING WALL STRUCTURES.
COA P-4	33.	IN THE BARTON SPRINGS ZONE, THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR WILL SCHEDULE A MID-CONSTRUCTION CONFERENCE TO COORDINATE CHANGES IN THE CONSTRUCTION SCHEDULE AND EVALUATE EFFECTIVENESS OF THE EROSION CONTROL PLAN AFTER POSSIBLE CONSTRUCTION ALTERATIONS TO THE SITE. PARTICIPANTS SHALL INCLUDE THE CITY INSPECTOR, PROJECT ENGINEER, GENERAL CONTRACTOR AND ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR. THE ANTICIPATED COMPLETION DATE AND FINAL CONSTRUCTION SEQUENCE AND INSPECTION SCHEDULE WILL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR.
COA P-4	34.	PERMANENT WATER QUALITY PONDS OR CONTROLS WILL BE CLEANED OUT AND FILTER MEDIA WILL BE INSTALLED PRIOR TO/CONCURRENTLY WITH REVEGETATION OF SITE.
COA P-4	35.	COMPLETE CONSTRUCTION AND START REVEGETATION OF THE SITE AND INSTALLATION OF LANDSCAPING.
COA P-4	36.	UPON COMPLETION OF THE SITE CONSTRUCTION AND REVEGETATION OF A PROJECT SITE, THE DESIGN ENGINEER SHALL SUBMIT AN ENGINEER'S LETTER OF CONCURRENCE BEARING THE ENGINEER'S SEAL, SIGNATURE AND DATE TO THE DEVELOPMENT SERVICES DEPARTMENT INDICATING THAT CONSTRUCTION, INCLUDING REVEGETATION, IS COMPLETE AND IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
COA P-4	37.	UPON COMPLETION OF LANDSCAPE INSTALLATION OF A PROJECT SITE, THE LANDSCAPE ARCHITECT SHALL SUBMIT A LETTER OF CONCURRENCE TO THE DEVELOPMENT SERVICES DEPARTMENT INDICATING THAT THE REQUIRED LANDSCAPING IS COMPLETE AND IN SUBSTANTIAL CONFORMITY WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
COA P-4	38.	AFTER A FINAL INSPECTION HAS BEEN CONDUCTED BY THE CITY INSPECTOR AND WITH APPROVAL FROM THE CITY INSPECTOR, REMOVE THE TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND COMPLETE ANY NECESSARY FINAL REVEGETATION RESULTING FROM REMOVAL OF THE CONTROLS. CONDUCT ANY MAINTENANCE AND REHABILITATION OF THE WATER QUALITY PONDS OR CONTROLS.
TLE	39.	IF AN SWPPP WAS REQUIRED, FILE A NOTICE OF TERMINATION (NOT).
TLE	40.	IF A CZP OR WPAP WAS REQUIRED, WITHIN 30 DAYS OF COMPLETION, A TEXAS PE MUST CERTIFY IN WRITING THAT THE BMPS WERE CONSTRUCTED AS DESIGNED AND THAT CERTIFICATION PROVIDED TO THE TCEQ AUSTIN REGIONAL OFFICE.

COA P-4 SOURCE: RULE NO. R161-17.03, 3-2-2017

TLE GENERAL CONTRACT NOTES

1) CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING STRUCTURES, UTILITIES, AND FACILITIES PRIOR TO ANY EXCAVATION REQUIRED FOR CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. ANY DISCREPANCIES OR CONFLICTS FOUND SHALL BE BROUGHT TO THE ATTENTION OF ENGINEER.
2) CONTRACTOR IS TO TAKE PRECAUTION TO PROTECT EXISTING STRUCTURES, UTILITIES, AND OTHER FACILITIES FROM DAMAGE WHILE CONSTRUCTION OF THE IMPROVEMENTS. ANY DAMAGE TO EXISTING STRUCTURES, UTILITIES OR OTHER FACILITIES INCURRED AS A RESULT OF CONTRACTORS ACTIONS ARE TO BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
3) CONTRACTOR IS TO GIVE NOTICE TO ALL AFFECTED PARTIES AND ALL REGULATORS OF THE COMMENCEMENT OF WORK AT LEAST 48 HOURS IN ADVANCE OF COMMENCEMENT OF WORK.
4) CONTRACTOR IS RESPONSIBLE FOR THE SOURCE AND TRANSPORT OF ALL POTABLE AND CONSTRUCTION WATER FOR THE PROJECT SITE AND TO THE PROJECT SITE AND THE CONTRACTOR IS RESPONSIBLE FOR PAYMENT OF THE SAME.
5) ANY WATER USED FOR ADDING MOISTURE FOR COMPACTION SHALL BE FREE FROM OIL, WASTE, AND ANY OTHER OBJECTIONABLE MATERIAL.
6) CONTRACTOR IS RESPONSIBLE FOR THE PERFORMANCE AND PAYMENT OF ALL DENSITY TESTS, CONCRETE TESTS, AND ASPHALT TESTS, UNLESS OTHERWISE SPECIFIED. ALL SUCH TESTS ARE TO BE PERFORMED IN ACCORDANCE WITH CITY'S SPECIFICATIONS INCLUDING FREQUENCY, UNLESS OTHERWISE SPECIFIED,. LOCATIONS FOR DENSITY TESTS WILL BE AS SPECIFIED BY THE OWNER OR THEIR REPRESENTATIVE.
7) CONTRACTOR IS RESPONSIBLE FOR THE PERFORMANCE OF AND PAYMENT OF ALL CONSTRUCTION STAKING, UNLESS OTHERWISE SPECIFIED. ENGINEER MAY ASSIST IN CONSTRUCTION STAKING AS REQUIRED BY THE GOVERNING AUTHORITIES OR AS REQUESTED, AND PAID FOR, BY CONTRACTOR.
8) ALL AS-BUILT DIMENSIONS SHALL CONFORM TO THE DESIGN DIMENSIONS PLUS OR MINUS 0.02 FEET. ALL AS-BUILT SLOPES SHALL CONFORM TO THE DESIGNED SLOPES PLUS OR MINUS 0.005 FOOT PER FOOT.
9) THE METHODOLOGY FOR THE CONSTRUCTION OF THE IMPROVEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR.
10) CONTRACTOR IS TO PROVIDE THE MATERIALS, EQUIPMENT, AND EFFORT TO COMPLETE THE INSTALLATION OF THE PROPOSED IMPROVEMENTS, WHETHER THOSE MATERIALS, EQUIPMENT, OR EFFORT IS SPECIFICALLY MENTIONED IN THESE PLANS OR NOT.
11) CONTRACTOR IS TO COMPLY WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS AND REGULATIONS, AS WELL AS ANY OTHER APPLICABLE FEDERAL, STATE, OR LOCAL HEALTH AND SAFETY STANDARDS, LAWS, OR REGULATIONS. FAILURE TO COMPLY WITH THE REQUIREMENTS SPECIFIED WILL BE CONSIDERED JUST AND SUFFICIENT CAUSE FOR THE OWNER TO STOP WORK.
12) UNLESS OTHERWISE SPECIFIED BY THE GEOTECHNICAL ENGINEER IN THE GEOTECHNICAL REPORT FOR THIS PROJECT, SELECT BACK FILL SHALL:
    - BE SUBSTANTIALLY FREE OF ORGANIC MATERIALS
    - HAVE A PLASTICITY INDEX BETWEEN 10 AND 18,
    - HAVE A LIQUID LIMIT OF LESS THAN 35, AND
    - FREE OF STONES OR ROCKS OVER 2 INCHES IN ANY DIMENSION.

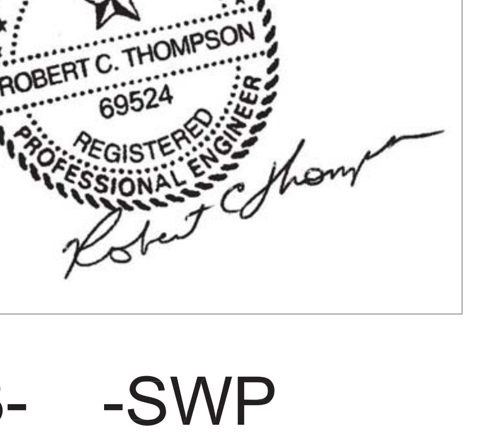
    SUCH SELECT FILL, WHEN CALLED FOR ON THE PLANS AND UNLESS OTHERWISE SPECIFIED, SHALL BE PLACED IN LOOSE, HORIZONTAL LAYERS SIX TO NINE INCHES IN THICKNESS AND COMPACTED TO 95 PERCENT OF THE STANDARD PROCTOR DENSITY OR THE MAXIMUM DENSITY AS SPECIFIED BY TXDOT TEST METHOD TEX-114-E. SANDY LOAM SHALL NOT BE USED FOR SELECT FILL.
13) UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR IS RESPONSIBLE FOR THE PAYMENT OF AND PHYSICAL REMOVAL OF ALL SURPLUS MATERIAL FROM THE SITE. THE REMOVAL OF ANY MATERIAL FROM THE SITE SHALL BE TO A LOCATION APPROVED BY THE GOVERNING AGENCY AND OWNER.
14) UNLESS OTHERWISE SPECIFIED, THE PROVISION OF AND PAYMENT FOR BONDING, INCLUDING BUT NOT LIMITED TO THE PROVISION OF PERFORMANCE AND PAYMENT BONDS, IS TO BE CONSIDERED SUBSIDIARY TO OTHER WORK.
15) UNLESS OTHERWISE SPECIFIED, AND NOT INCLUDING MEASUREMENT AND PAYMENT SECTIONS, ALL WORK ON THESE PLANS SHALL BE IN CONFORMANCE WITH THE CITY'S STANDARD SPECIFICATIONS.

TLE GENERAL WATER AND WASTEWATER NOTES

1) THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, PAYMENT, PROVISION, OPERATION, MAINTENANCE, INSTALLATION, AND REMOVAL OF ANY REQUIRED TRENCH SAFETY SYSTEM.
2) MANHOLE FRAMES, COVERS, VALVES, CLEANOUTS, AND OTHER SUCH ITEMS LOCATED WITHIN ANY PROPOSED PAVEMENT OR SIDEWALK SHALL BE RAISED THE FINISHED GRADE PRIOR TO FINAL PAVING.
3) UNLESS OTHERWISE SPECIFIED, PIPE MATERIAL FOR 4-INCH AND LARGER WATER LINES AND MAINS SHALL BE PVC (AWWA C-900, MIN. CLASS 200) OR DUCTILE IRON (AWWA C-110 OR AWWA C-153, MIN. CLASS 50 (CLASS 51 FOR 4-INCH)). UNLESS OTHERWISE SPECIFIED, PIPE MATERIAL FOR WATER LINES AND MAINS SMALLER THAN 4-INCHES SHALL BE PVC, SCHEDULE 80.
4) UNLESS OTHERWISE SPECIFIED, PIPE MATERIAL FOR 4-INCH AND LARGER GRAVITY WASTEWATER LINES AND MAINS SHALL BE PVC (ASTM D2241 OR D3034, DR-35 OR BETTER) OR DUCTILE IRON (AWWA C-100, CLASS 50 OR BETTER).
5) UNLESS OTHERWISE SPECIFIED, PIPE MATERIAL FOR PRESSURE WASTEWATER MAINS SHALL BE PVC (AWWA C-900, CLASS 150 OR BETTER) OR DUCTILE IRON (AWWA C-100, CLASS 50).
6) ALL CAST IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH A MINIMUM OF 8-MIL POLYETHYLENE.
7) ALL VALVE BOXES AND COVERS SHALL BE CAST IRON.
8) UNLESS OTHERWISE SPECIFIED, ALL MANHOLES SHALL BE IN ACCORDANCE WITH THE STANDARD DRAWINGS OF THE CITY OF AUSTIN EXCEPT THAT, UNLESS OTHERWISE SPECIFIED OR UNLESS LOCATED OVER THE EDWARDS AQUIFER, NO COATING SHALL BE REQUIRED.
9) THE CONTRACTOR SHALL PERFORM STERILIZATION OF ALL WATER LINES AT THEIR EXPENSE. THIS INCLUDES, BUT IS NOT LIMITED TO, EQUIPMENT, SUPPLIES, AND LABOR.
10) THE CONTRACTOR SHALL PERFORM QUALITY TESTING FOR ALL WASTEWATER AND WATER PIPE AT THEIR EXPENSE. THIS INCLUDES, BUT IS NOT LIMITED TO, EQUIPMENT, SUPPLIES, AND LABOR. TESTS MAY INCLUDE LEAK TESTS, PRESSURE TESTS, AND MANDREL TESTS.
11) THE CONTRACTOR SHALL CONTACT THE ESD TO PERFORM A VISUAL INSPECTION TO VERIFY THE PIPE TYPE, SIZE, WRAPPED JOINTS, AND PROPER INSTALLATION OF THRUST BLOCKING. DO NOT BURY PIPES BEFORE INSPECTION HAS TAKEN PLACE.
12) THE OWNER OR HIS/HER REPRESENTATIVE IS TO BE NOTIFIED AT LEAST 24 HOURS IN ADVANCE OF ANY TESTING.
13) UNLESS OTHERWISE SPECIFIED, WATER AND FIRE LINES ARE TO FOLLOW FINISHED GRADE AT THE DEPTHS SHOWN ON THE PLANS. THE CONTRACTOR IS TO MINIMIZE EXCAVATION, WITHIN REASON, FOR WATER AND FIRE LINES.
14) ALL ON-SITE UTILITIES SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE UPC AND UBC CODES. ALL OFF-SITE UTILITIES SHALL BE IN CONFORMANCE WITH THE UTILITY PROVIDER'S CODES.
15) WHERE A WATER LINE CROSSES A SANITARY SEWER LINE, THE WATER LINE IS TO BE A MINIMUM OF 6 INCHES ABOVE THE SEWER LINE (AS MEASURED OUT TO OUT). ADDITIONALLY, ONE "STICK" SHALL BE CENTERED OVER THE CROSSING (I.E. JOINTS SHALL BE A MINIMUM OF 9 FEET FROM THE CROSSING). WHERE A WATER LINE AND SEWER LINE ARE PARALLEL TO EACH OTHER, THE MINIMUM CLEARANCE BETWEEN WATER LINES AND SEWER LINES IS TO BE 9 FEET HORIZONTALLY BETWEEN OUTSIDE OF PIPE DIAMETERS AND THE WATER LINE SHALL BE AT LEAST 6 INCHES ABOVE THE SEWER LINE.

TLE GENERAL DRAINAGE AND GRADING NOTES:

1) UNLESS OTHERWISE SPECIFIED, ALL FINISHED EARTHEN SLOPES ARE TO BE FINE GRADED TO PROVIDE A RELATIVELY UNIFORM SURFACE WITH NO ROCKS GREATER THAN 1-INCH IN DIAMETER, NO CLODS OF SOIL GREATER THAN 2-INCHES IN DIAMETER, AND NO DEVIATIONS FROM AN OTHERWISE SMOOTH SURFACE GREATER THAN 4 INCHES IN HEIGHT OR DEPTH WITH NO AREAS OF STANDING WATER.
2) ALL FINISHED SLOPES OF A GRADE OF 3:1 OR GREATER ARE TO BE COVERED WITH A JUTE MAT, CURLEX MATTING, OR SIMILAR PRODUCT AFTER SEEDING WITH HYDROMULCH AND THE JUTE ANCHORED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
3) UNLESS OTHERWISE SPECIFIED, ALL CULVERTS 18-INCH AND LARGER SHALL BE ASTM C76 REINFORCED CONCRETE PIPE (RCP) AND ALL CULVERTS LESS THAN 18-INCHES IN DIAMETER SHALL BE SCHEDULE 40 PVC. UNLESS OTHERWISE SPECIFIED, ALL CONCRETE PIPE IN PAVEMENT AREAS SHALL BE CLASS IV. UNLESS OTHERWISE SPECIFIED, ALL CONCRETE PIPE IN NON-TRAFFIC AREAS SHALL BE CLASS III.
4) UNLESS OTHERWISE SHOWN, ALL TRICKLE CHANNELS AND PIPES SHALL HAVE A MINIMUM SLOPE OF 0.5 PERCENT AND ALL EARTHEN SLOPES SHALL HAVE A MINIMUM SLOPE OF 2.0 PERCENT.



Thompson Land Engineering, LLC (F-10220)

2/24/24

2023- -SWP

THOMPSON LAND ENGINEERING, LLC
Land Planning, Site Design, Subdivision Engineering
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
www.tleng.net email: ric@tleng.net

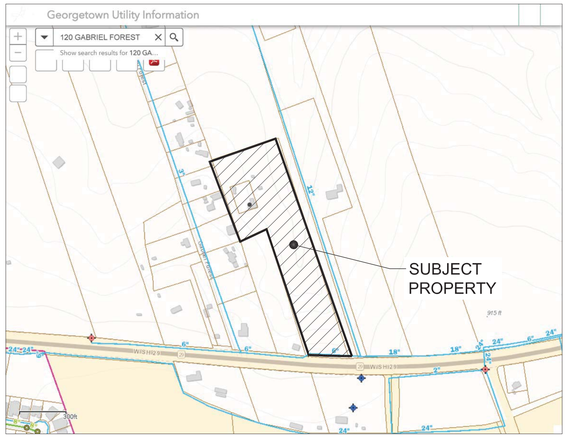
DATE | REVISION

PROJECT: AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME: GENERAL NOTES

DATE ISSUED: February, 2024
DESIGNED BY: RCT | DRAFTED BY: RH/JH/MR
JOB NUMBER: 1864

WATER



PROVIDER: GEORGETOWN UTILITY INFORMATION

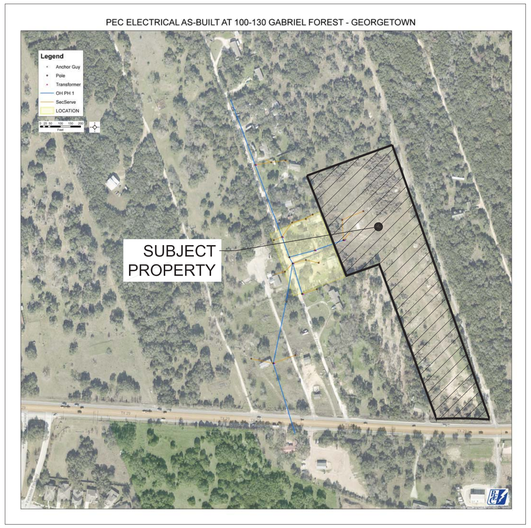
WASTEWATER

PROVIDER: SERVICED BY SEPTIC SYSTEM

TELEPHONE

PROVIDER: IN PROCESS

ELECTRIC



PROVIDER: PEDERNALES ELECTRIC CO-OP

GAS

PROVIDER: IN PROCESS

CABLE

PROVIDER: IN PROCESS

FIRE FLOW TEST

Georgetown Fire Department
3500 DB Wood
Georgetown, Texas 78628
512-930-3473
Fax: 512-450-3897

Water Flow Test Report

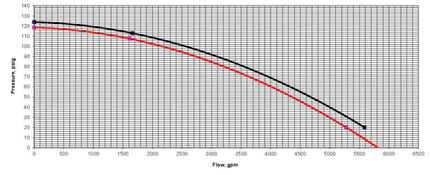
LOCATION	120 Gabriel Forest	TEST DATE:	9/26/2023
TEST BY:	Shipman Fire	TIME:	2:05 PM
WATER SUPPLIED BY:	ZOG		
PURPOSE OF TEST:	Fire flow test	MAIN SIZE:	

FLOW HYDRANT(S)	A1	A2	A3
SIZE OPENING:	2.5	2.5	2.5
COEFFICIENT:	0.9	0.9	0.9
PITOT READING:	68	0	0
GPM:	1661	0	0

				A1 Flow	A2 Flow	A3 Flow
TOTAL FLOW DURING TEST:	1661	GPM	ADJ. TOTAL FLOW:	1614	0	0
TOWER LEVEL @ TIME OF TEST:	93.5		TOWER LOW	81		
STATIC READING:	124	PSI	RESIDUAL	113	PSI	

ADJ. STATIC:	118.58	PSI	AJD. RESIDUAL:	107.58	PSI
ADJ. FLOW:	1614 GPM		ADJ. PITOT:	92.58	0.00	0.00
FLOW AT 20 PSI RESIDUAL	5276	GPM	TOTAL FLOW		5829	GPM

ted



THOMPSON LAND ENGINEERING, LLC
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www.tleng.net
TBPE Reg. No. F-10220

DATE

REVISION

PROJECT
AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME
UTILITY COLLECTION DATA

Thompson Land Engineering, LLC (F-10220)

STATE OF TEXAS
ROBERT C. THOMPSON
69524
REGISTERED PROFESSIONAL ENGINEER

2/24/24

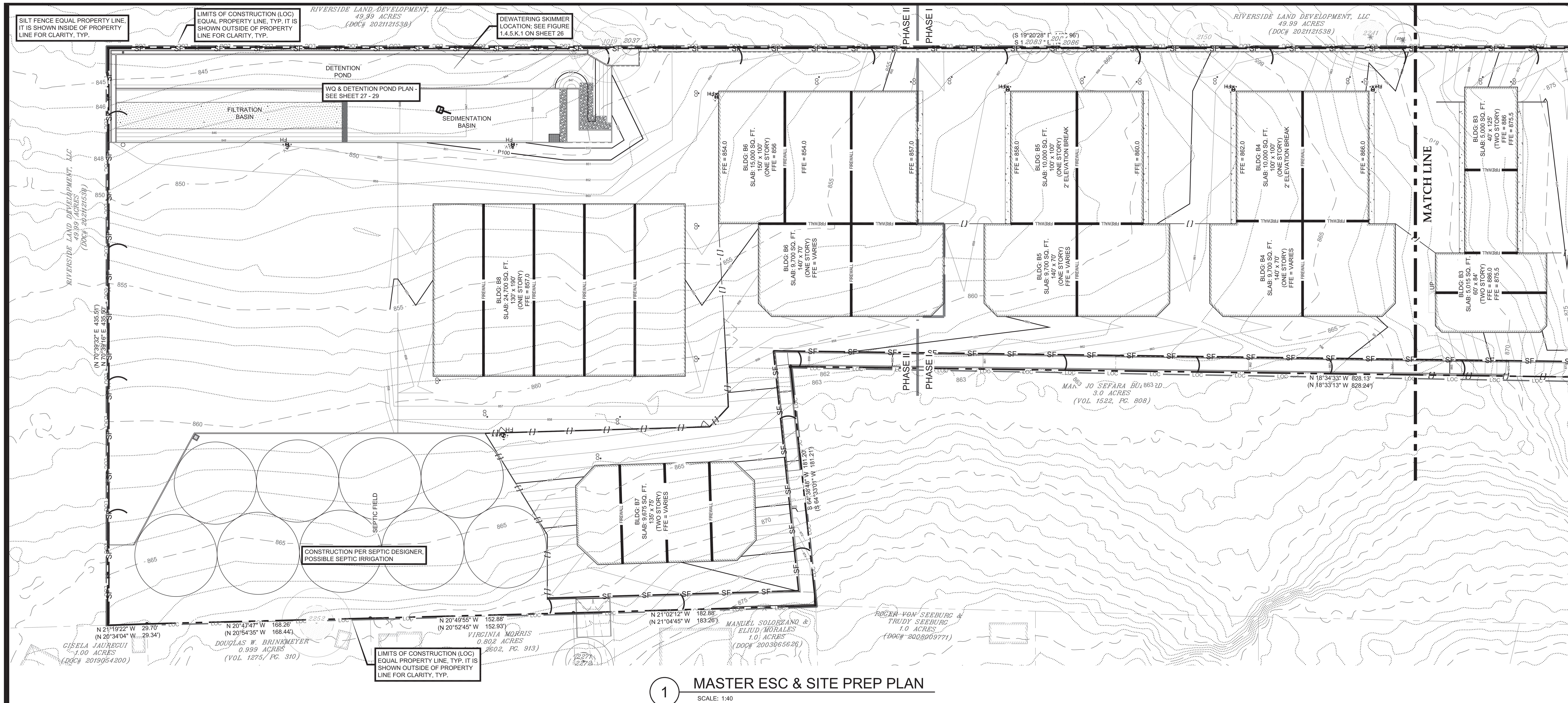
DATE ISSUED
February, 2024

DESIGNED BY: RCT
DRAFTED BY: RH/JH/MR

JOB NUMBER
1864

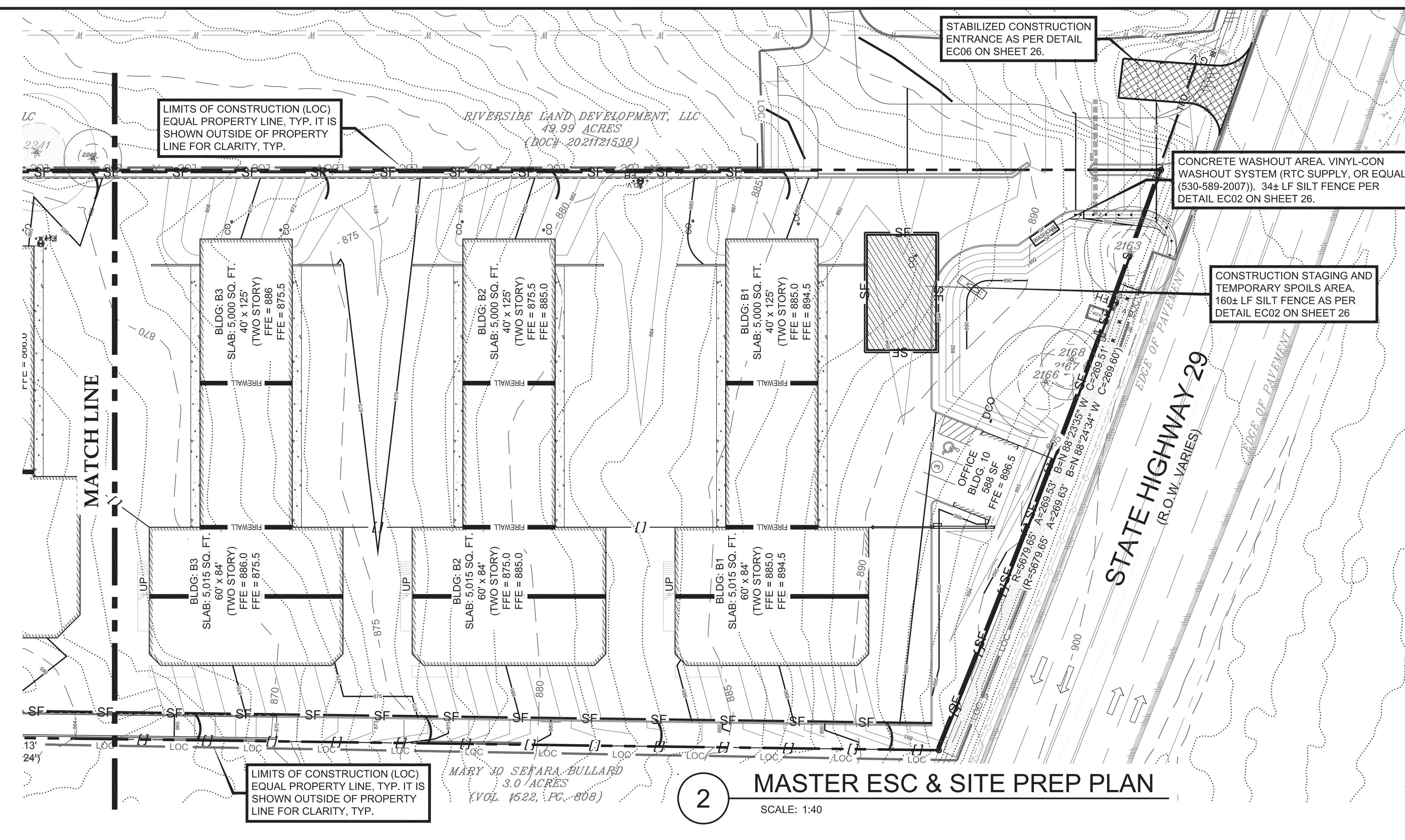
SHEET
18 OF 38

2023- -SWP



1 MASTER ESC & SITE PREP PLAN

SCALE: 1:40



2 MASTER ESC & SITE PREP PLAN

SCALE: 1:40

SCALE: 1" = 40'

0 20 40 80

LEGEND

- TREE TO REMAIN
- TREE TO BE REMOVED
- PROTECTED TREE
- HERITAGE TREE
- TREE PROTECTION
- EXISTING WATER METER
- EXISTING FIRE HYDRANT
- EXISTING GATE VALVE
- EXISTING POWER POLE
- ▨ HATCHED ITEMS TO BE DEMOLISHED AND REMOVED
- ▨ STABILIZED CONSTRUCTION ENTRANCE
- ▨ CONSTRUCTION STAGING AND TEMP. SPOILS AREA
- LOC LIMITS OF CONSTRUCTION
- SF EROSION CONTROL SILT FENCE
- MS EROSION CONTROL MULCH SOCK
- TFD TRIANGULAR FILTER DIKE
- RB ROCK BERM
- IP STORM INLET PROTECTION
- EXISTING MINOR CONTOURS
- EXISTING MAJOR CONTOURS
- PROPOSED CONTOURS
- OE EXISTING OVERHEAD ELECTRIC
- UT EXISTING UNDERGROUND TELEPHONE
- G EXISTING UNDERGROUND GAS
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE

WHILE UNDER CONSTRUCTION, CONTRACTOR TO HAVE TFD LOCATED IN LOCATIONS APPROXIMATELY AS SHOWN. AT THE END OF EACH DAY, OR PRIOR TO POSSIBLE RAIN EVENTS, CONTRACTOR TO LOCATE TFD ACROSS DISTURBED AREA. ONCE CONSTRUCTION IS COMPLETED AND PRIOR TO VEGETATION IS ESTABLISHED, CONTRACTOR TO LOCATE SILT FENCE IN SAME LOCATIONS WITH 5 FT. TURNED BACK UPHILL AT EACH END. SEE C.O. GEORGETOWN DETAIL EC05 ON SHEET 26.

!!! WARNING !!!:
UNDERGROUND UTILITIES SHOWN ON THESE PLANS IS A BEST ESTIMATE BASED ON RECORDS THAT COULD BE OBTAINED AND PHYSICAL FEATURES VISIBLE AT THE GROUND LEVEL. THE ENGINEER MAKES NO ASSERTIONS BEYOND THAT THEY ARE A BEST ESTIMATE AND AN ATTEMPT TO HELP IDENTIFY POSSIBLE UTILITIES IN THE AREA. THE CONTRACTOR MUST CALL ONE CALL IN ACCORDANCE WITH THE NOTES TO BETTER LOCATE ANY UNDERGROUND UTILITIES.

BENCH MARK: TEMPORARY BENCHMARK (TBM): TOP OF MAG NAIL SET IN CONCRETE @ EXISTING ENTRY ELEVATION = 901.95 NAVD 88 DATUM

!!!WARNING!!! BENCH MARK BEING PROVIDED IS FROM THE SURVEYOR AND COULD HAVE BEEN ADJUSTED, CHANGED, RESET, OR DESTROYED BETWEEN THE TIME OF THE SURVEY AND THE TIME OF CONSTRUCTION. CONTRACTOR SHOULD GET THE BENCH MARK ELEVATION VERIFIED AND SHOULD CHECK INTO AT LEAST TWO POINTS ON THE PROVIDED TOPOGRAPHY TO MAKE SURE THAT THE BENCH MARK ELEVATION SEEMS REASONABLE BEFORE USING.

!!!WARNING!!! TOPOGRAPHY AND MOST OR ALL OF THE EXISTING FEATURES ARE BASED ON THE SURVEY BY **ALL STAR SURVEYING** DATED **APRIL 18, 2022** AND WERE ASSUMED TO BE ACCURATE FOR THIS DESIGN.

!!CAUTION!!
OVERHEAD UTILITIES IN THE AREA

Thompson Land Engineering, LLC (F-10220)

STATE OF TEXAS
ROBERT C. THOMPSON
69524
REGISTERED PROFESSIONAL ENGINEER

[illegible]

2/24/24

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DATE	REVISION

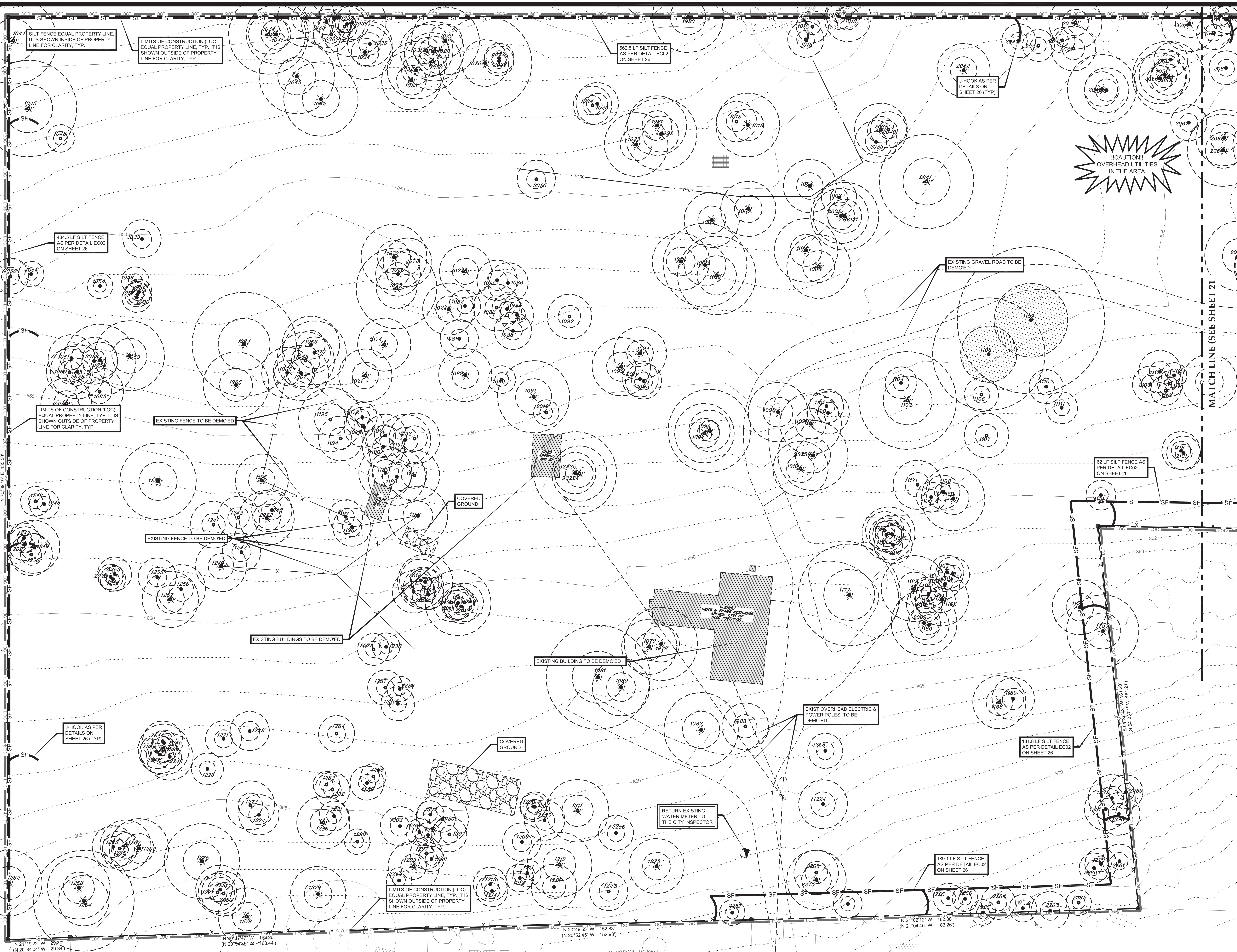
PROJECT: AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME: MASTER ESC & SITE PREP PLAN

DATE ISSUED: February, 2024

DESIGNED BY	DRAFTED BY
RCT	RH/JH/MR

JOB NUMBER: 1864


SILT FENCE EQUAL PROPERTY LINE, IT IS SHOWN INSIDE OF PROPERTY LINE FOR CLARITY, TYP.
LIMITS OF CONSTRUCTION (LOC) EQUAL PROPERTY LINE, TYP. IT IS SHOWN OUTSIDE OF PROPERTY LINE FOR CLARITY, TYP.
562.5 LF SILT FENCE AS PER DETAIL EC02 ON SHEET 26
J-HOOK AS PER DETAILS ON SHEET 26 (TYP)
!!CAUTION!! OVERHEAD UTILITIES IN THE AREA
434.5 LF SILT FENCE AS PER DETAIL EC02 ON SHEET 26
EXISTING GRAVEL ROAD TO BE DEMO'ED
MATCH LINE (SEE SHEET 21
LIMITS OF CONSTRUCTION (LOC) EQUAL PROPERTY LINE, TYP. IT IS SHOWN OUTSIDE OF PROPERTY LINE FOR CLARITY, TYP.
EXISTING FENCE TO BE DEMO'ED
62 LF SILT FENCE AS PER DETAIL EC02 ON SHEET 26
COVERED GROUND
EXISTING FENCE TO BE DEMO'ED
EXISTING BUILDINGS TO BE DEMO'ED
EXISTING BUILDING TO BE DEMO'ED
EXIST OVERHEAD ELECTRIC & POWER POLES TO BE DEMO'ED
J-HOOK AS PER DETAILS ON SHEET 26 (TYP)
COVERED GROUND
181.8 LF SILT FENCE AS PER DETAIL EC02 ON SHEET 26
RETURN EXISTING WATER METER TO THE CITY INSPECTOR
189.1 LF SILT FENCE AS PER DETAIL EC02 ON SHEET 26
LIMITS OF CONSTRUCTION (LOC) EQUAL PROPERTY LINE, TYP. IT IS SHOWN OUTSIDE OF PROPERTY LINE FOR CLARITY, TYP.
VIRGINIA MORRIS

SCALE: 1" = 20'

0 10 20 40

LEGEND

- TREE TO REMAIN
- TREE TO BE REMOVED
- PROTECTED TREE (12-25")
- HERITAGE TREE (26" PLUS)
- TREE PROTECTION
- EXISTING WATER METER
- EXISTING FIRE HYDRANT
- EXISTING GATE VALVE
- EXISTING POWER POLE
- HATCHED ITEMS TO BE DEMOLISHED AND REMOVED
- STABILIZED CONSTRUCTION ENTRANCE
- CONSTRUCTION STAGING AND TEMP. SPOILS AREA
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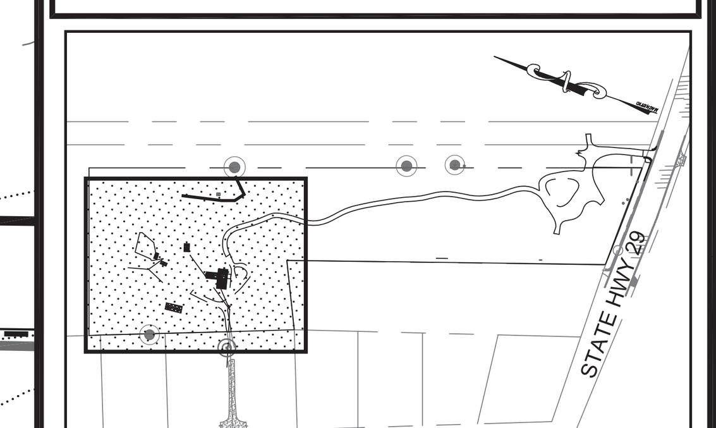

KEY MAP

WHILE UNDER CONSTRUCTION, CONTRACTOR TO HAVE TFD LOCATED IN LOCATIONS APPROXIMATELY AS SHOWN. AT THE END OF EACH DAY, OR PRIOR TO POSSIBLE RAIN EVENTS, CONTRACTOR TO LOCATE TFD ACROSS DISTURBED AREA. ONCE CONSTRUCTION IS COMPLETED AND PRIOR TO VEGETATION IS ESTABLISHED, CONTRACTOR TO LOCATE SILT FENCE IN SAME LOCATIONS WITH 5 FT. TURNED BACK UPHILL AT EACH END. SEE C.O. GEORGETOWN DETAIL EC05 ON SHEET 26.

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2/24/24

2023- -SWP

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Land Planning, Site Design, Subdivision Engineering
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
email: ric@tleng.net
www.tleng.net

REVISION	DATE

PROJECT: AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME: ESC & SITE PREP PLAN - EXISTING (1 OF 3)

DATE ISSUED	
February, 2024	
DESIGNED BY	DRAFTED BY
RCT	RH/JH/MR
JOB NUMBER	
1864	

SHEET

SILT FENCE EQUAL PROPERTY LINE, IT IS SHOWN INSIDE OF PROPERTY LINE FOR CLARITY, TYP.

LIMITS OF CONSTRUCTION (LOC) EQUAL PROPERTY LINE, TYP, IT IS SHOWN OUTSIDE OF PROPERTY LINE FOR CLARITY, TYP.

528.5 LF SILT FENCE AS PER DETAIL EC02 ON SHEET 26

EXIST DIRT ROAD TO BE DEMO'D

J-HOOK AS PER DETAILS ON SHEET 26 (TYP)

!!CAUTION!!
OVERHEAD UTILITIES IN THE AREA

RIVERSIDE LAND DEVELOPMENT, LLC
49.99 ACRES
(DOC# 2021121539)

PHASE II

PHASE I

MATCH LINE (SEE SHEET 20

MATCH LINE (SEE SHEET 22

528.5 LF SILT FENCE AS PER DETAIL EC02 ON SHEET 26

LIMITS OF CONSTRUCTION (LOC) EQUAL PROPERTY LINE, TYP, IT IS SHOWN OUTSIDE OF PROPERTY LINE FOR CLARITY, TYP.

J-HOOK AS PER DETAILS ON SHEET 26 (TYP)

N 18°34'33" W 828.13'
(N-18°33'13" W 828.24')

SCALE: 1" = 20'

0 10 20 40

LEGEND

- TREE TO REMAIN
- TREE TO BE REMOVED
- PROTECTED TREE (12-25")
- HERITAGE TREE (26" PLUS)
- TREE PROTECTION
- EXISTING WATER METER
- EXISTING FIRE HYDRANT
- EXISTING GATE VALVE
- EXISTING POWER POLE
- HATCHED ITEMS TO BE DEMOLISHED AND REMOVED
- STABILIZED CONSTRUCTION ENTRANCE
- CONSTRUCTION STAGING AND TEMP. SPOILS AREA
- LOC — LIMITS OF CONSTRUCTION
- SF — EROSION CONTROL SILT FENCE
- MS — EROSION CONTROL MULCH SOCK
- TFD — TRIANGULAR FILTER DIKE
- RB — ROCK BERM
- IP — STORM INLET PROTECTION
- EXISTING MINOR CONTOURS
- EXISTING MAJOR CONTOURS
- PROPOSED CONTOURS
- OE — EXISTING OVERHEAD ELECTRIC
- UT — EXISTING UNDERGROUND TELEPHONE
- G — EXISTING UNDERGROUND GAS
- W — EXISTING WATER LINE
- WW — EXISTING WASTEWATER LINE

STATE HWY 29

KEY MAP

WHILE UNDER CONSTRUCTION, CONTRACTOR TO HAVE TFD LOCATED IN LOCATIONS APPROXIMATELY AS SHOWN. AT THE END OF EACH DAY, OR PRIOR TO POSSIBLE RAIN EVENTS, CONTRACTOR TO LOCATE TFD ACROSS DISTURBED AREA. ONCE CONSTRUCTION IS COMPLETED AND PRIOR TO VEGETATION IS ESTABLISHED, CONTRACTOR TO LOCATE SILT FENCE IN SAME LOCATIONS WITH 5 FT, TURNED BACK UPHILL AT EACH END. SEE C.O. GEORGETOWN DETAIL EC05 ON SHEET 26.

!!! WARNING !!!!
UNDERGROUND UTILITIES SHOWN ON THESE PLANS IS A BEST ESTIMATE BASED ON RECORDS THAT COULD BE OBTAINED AND PHYSICAL FEATURES VISIBLE AT THE GROUND LEVEL. THE ENGINEER MAKES NO ASSERTIONS BEYOND THAT THEY ARE A BEST ESTIMATE AND AN ATTEMPT TO HELP IDENTIFY POSSIBLE UTILITIES IN THE AREA. THE CONTRACTOR MUST CALL ONE CALL IN ACCORDANCE WITH THE NOTES TO BETTER LOCATE ANY UNDERGROUND UTILITIES.

BENCH MARK: TEMPORARY BENCHMARK (TBM): TOP OF MAG NAIL SET IN CONCRETE @ EXISTING ENTRY
ELEVATION = 901.95 NAVD 88 DATUM

!!!WARNING!!! BENCH MARK BEING PROVIDED IS FROM THE SURVEYOR AND COULD HAVE BEEN ADJUSTED, CHANGED, RESET, OR DESTROYED BETWEEN THE TIME OF THE SURVEY AND THE TIME OF CONSTRUCTION. CONTRACTOR SHOULD GET THE BENCH MARK ELEVATION VERIFIED AND SHOULD CHECK INTO AT LEAST TWO POINTS ON THE PROVIDED TOPOGRAPHY TO MAKE SURE THAT THE BENCH MARK ELEVATION SEEMS REASONABLE BEFORE USING.

!!!WARNING!!! TOPOGRAPHY AND MOST OR ALL OF THE EXISTING FEATURES ARE BASED ON THE SURVEY BY **ALL STAR SURVEYING** DATED **APRIL 18, 2022** AND WERE ASSUMED TO BE ACCURATE FOR THIS DESIGN.

STATE OF TEXAS
ROBERT C. THOMPSON
69524
REGISTERED
PROFESSIONAL ENGINEER

Thompson Land Engineering, LLC
(F-10220)

2/24/24

2023- -SWP

THOMPSON LAND ENGINEERING, LLC
Land Planning, Site Design, Subdivision Engineering
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
email: rc@tleng.net
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REVISION

DATE

PROJECT
AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

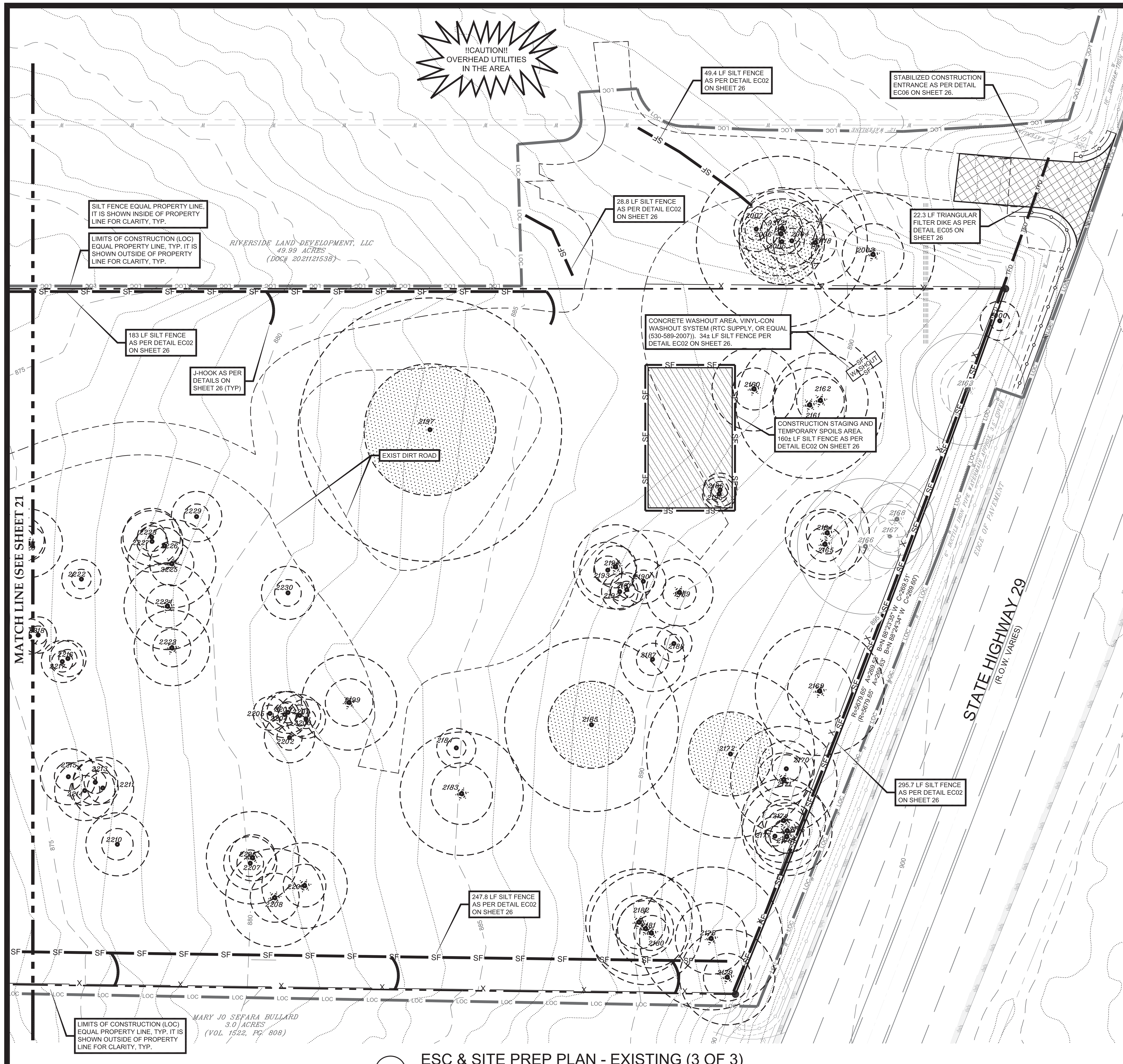
SHEET NAME
ESC & SITE PREP PLAN - EXISTING (2 OF 3)

DATE ISSUED
February, 2024

DESIGNED BY	DRAFTED BY
RCT	RH/JH/MR

JOB NUMBER
1864

SHEET
21 OF 38



1 ESC & SITE PREP PLAN - EXISTING (3 OF 3)

SCALE: 1:20

TREE LIST

	TREE NO.	<6"	6-12"	12-26"	26"+	DESCRIPTION
**	1002			13		13" LO
**	1003		8.25			8.25" LO
**	1004			12.5		12.5" CE
**	1005			15		15" LO
**M	1006			15		15" CE
**	1007			13		13" LO
**	1008			13		13" CE
**	1009			15		15" CE
**	1010			18.5		18.5" LO
**	1011			13.5		13.5" CE
**	1012			15		15" CE
**	1013		9.5			9.5" CE
**	1015		8.5			8.5" LO
**	1016		7.5			7.5" LO
**	1017		6			6" LO
**	1018		11			11" LO
	1019				28	28" LO
**	1020			16.75		16.75" LO
**	1021			14		14" LO
**	1022			17		17" LO
**	1023			15		15" LO
**	1024		9			9" LO
**	1025		10			10" LO
**	1026			22		11" LO
**	1027		7			7" ME
**	1028			14		14" LO
**	1029			16		16" LO
**	1030			13.5		13.5" LO
**	1031			12.5		12.5" LO
**	1032			13.5		13.5" LO
**	1033			14		14" LO
**	1034			13		13" CE
**	1035		10.5			10.5" AE
**	1036			16		16" LO
**	1037		8.5			8.5" CE
**	1038		8.5			8.5" AE
**	1039		12			12" CE
**	1040			13.5		13.5" CE
**	1041			14		14" LO
**	1042			17.5		17.5" CE
**M	1043			17.75		17.75" LO
**M	1044			20.5		20.5" LO
**M	1045			22.75		22.75" LO
**	1048		6.5			6.5" LO
**	1050		8.5			8.5" CE
**	1051		6			6" CE
**	1054		6			6" LO
**	1056		6.5			6.5" LO
**	1057		7			7" LO
**M	1058			17		17" LO
**M	1059			16.5		16.5" LO
**	1060		11			11" LO
**	1061		9			9" LO
**	1062			12		12" LO
**	1063		11.25			11.25" LO
**M	1064			24.5		24.5" LO
**	1065			15.5		15.5" CE
**	1066			12		12" LO
**	1067			13		13" LO
**	1068			13.5		13.5" LO
**	1069			13.5		13.5" LO
**	1070			15		15" LO
**	1071			12.5		12.5" LO
**	1072		7			7" HB
**	1073		9.5			9.5" LO
**	1074			12.5		12.5" LO
**M	1075			19		19" LO
**	1076		10.5			10.5" LO
**	1077			15.5		15.5" LO
**	1078		11.5			11.5" LO
**M	1081		9			9" LO
**	1082		7.5			7.5" LO
**	1083		11			11" LO
**	1084		7			7" LO
**	1085		9.5			9.5" LO
**	1086		9.5			9.5" LO
**	1087		8			8" LO
**	1088		8.75			8.75" LO
**	1089			12.5		12.5" LO
**	1090		6.5			6.5" LO
**	1091			17		17" CE
**	1092		10.5			10.5" CE
**M	1093			13.75		13.75" LO
**	1094			12.5		12.5" LO
**	1095		8.5			8.5" LO
**	1096			19.5		19.5" LO
**	1097			14		14" HB
**	1098			14		14" LO
**	1099			14.5		14.5" CE
**	1100		10			10" LO
**	1101		8			8" LO
**	1102			23.5		23.5" LO
**	1104		7.5			7.5" CE
**	1106		8			8" LO
**	1107		10.5			10.5" LO
**M	1108				26.5	26.5" LO
**M	1109				34.75	34.75" LO
**	1110		8			8" LO
**	1111		7.5			7.5" LO
**	1113		10			10" LO
**	1114		6			6" LO
**	1115		6			6" LO
**	1116		7			7" LO
**	1117			13		13" LO
**	1118		9			9" LO
**	1119		7			7" LO
**	1123		8			8" LO
**	1124		7.5			7.5" LO
**	1125		8			8" LO
**	1126		8			8" LO
**	1127		8			8" LO
**	1128		11			11" LO
**	1129		9			9" LO
**	1130		9			9" LO
**	1131		9			9" LO
**	1132		6			6" LO
**	1135		9			9" LO
**	1136		8.5			8.5" LO
**	1138		7			7" LO
**	1140		8			8" HB
**	1141			23		23" LO
**M	1142			12		12" LO
**	1143			18		18" LO
**	1144		9.5			9.5" LO
**M	1145			15		15" LO
**	1146			22		22" LO
**M	1148		11.5			11.5" LO
**	1149			15.5		15.5" CE
**	1150		8			8" LO
**M	1151		9.5			9.5" LO
**	1152		10			10" LO
**	1153		9			9" LO
**	1154				31	31" LO
**	1155			18.75		18.75" LO
**	1156			13		13" LO
**	1157			17		17" LO
**	1158			12.5		12.5" LO
**	1159		10			10" LO
**	1160		9.5			9.5" LO
**	1161		8.5			8.5" LO
**	1162			12.5		12.5" CE
**	1163		8.5			8.5" LO
**	1164		7			7" CE
**M	1165			15.5		15.5" LO
**	1166		7			7" LO
**	1167		8			8" LO
**	1168		8			8" LO
**	1169			15		15" LO
**	1170		7			7" LO
**	1171		11.5			11.5" LO
**	1172		9			9" LO
**	1173			12.5		12.5" CE
**	1174		8			8" LO
**	1175		9			9" LO
**	1177			24		24" LO
**	1178			17.25		17.25" LO
**	1179			13		13" LO
**	1180			13.5		13.5" LO
**M	1181			24.5		24.5" LO
**M	1182			17.5		17.5" CB
**	1183		11			11" CB
**M	1184			15.5		15.5" LO
**	1185		9.5			9.5" LO
**	1186			14		14" LO
**	1187		12			12" LO
**	1188			13.5		13.5" LO
**	1189			12.5		12.5" LO
**	1190		10			10" LO
**	1191		12			12" LO
**	1192		10			10" LO
**	1193		12			12" LO
**M	1194		10.5			10.5" LO
**	1195			15		15" LO
**	1196			12.5		12.5" LO
**	1197		8			8" LO
**	1198		9			9" LO
**	1200		6			6" CE
**	1201		7			7" LO
**	1209		9			9" CE
**	1211		6.5			6.5" CE
**	1212		6.5			6.5" LO
**	1213		8			8" CE
**	1214		7.5			7.5" CE
**M	1219			15.25		15.25" LO
**	1221		10.75			10.75" CE
**	1222		9			9" CE
**	1223			13		13" HB
**	1224		11.5			11.5" CE
**	1225		7			7" LO
**	1226		6			6" CB
**	1228		6.5			6.5" CB
**	1229		7			7" LO
**	1230		10			10" LO
**	1231		10			10" LO
**	1232		11			11" LO
**	1235		8			8" LO
**	1236		6			6" LO
**	1237		8.25			8.25" LO
**	1238		6			6" LO
**	1240			12		12" LO
**	1241		11			11" LO
**	1242		9			9" HB

TREE LIST

	TREE NO.	<6"	6-12"	12-26"	26"+	DESCRIPTION
**	1243		10			10" LO
**	1244		18	18		18" LO
**	1245		7			7" LO
**	1246		7			7" LO
**	1247		7			7" LO
**	1248		9.5			9.5" LO
**M	1249			12.5		12.5" LO
**	1250		10			10" LO
**	1253		8			8" CE
**	1254		6			6" LO
**	1255		9			9" LO
**	1256		11.5			11.5" CB
**	1257			13.25		13.25" LO
**	1261		6			6" LO
**	1262			15.5		15.5" CE
**M	1263			14.75		14.75" LO
**M	1264			23.75		23.75" LO
**	1265		10			10" CE
**	1266		8.25			8.25" CE
**	1267			12		12" CE
**	1268			14		14" CE
**	1269			12		12" LO
**	1270		7.5			7.5" LO
**	1271		8.5			8.5" LO
**	1272		9.25			9.25" LO
**	1273		11.5			11.5" LO
**	1274		9.5			9.5" LO
**	1275			17.75		17.75" LO
**	1277		9			9" CE
**	1278			13.5		13.5" CE
**	1279			13		13" CE
**	1280			12.5		12.5" LO
**	1281		7			7" LO
**	1282		8.25			8.25" CE
**	1283		6.25			6.25" CE
**	1284		8.5			8.5" LO
**	1285		6			6" LO
**	1286		8			8" CE
**	1290		6			6" LO
**	1293			12		12" CE
**	1296		6			6" CE
**	1297		7.5			7.5" CE
**	1300		6			6" LO
**	1302		6.25			6.25" LO
**	1303		9.25			9.25" CE
**	1304		6.5			6.5" LO
**M	1305			12.25		12.25" LO
**	1307		8.25			8.25" CE
**	1310			13		13" LO
**M	1311			14.75		14.75" LO
**	2000		7			7" CE
**	2001			22		22" LO
**	2004		9			9" LO
**M	2005				30.5	30.5" LO
**	2006			15		15" LO
**	2007		8			8" LO
**	2008		8			8" LO
**	2009			15.5		15.5" LO
**	2010		9			9" LO
**	2011		8.5			8.5" LO
**	2012		6			6" LO
**	2013		9			9" LO
**	2014		7			7" LO
**	2015		8			8" LO
**	2016		9			9" LO
**M	2017			13		13" LO
**	2018		10			10" LO
**	2019		10			10" LO
**	2020		7.5			7.5" LO
**M	2021		7.5			7.5" CB
**	2022			13		13" LO
**M	2023			12.25		12.25" LO
**M	2024			12.25		12.25" LO
**	2025		9			9" LO
**	2026		6			6" LO
**	2027		8			8" LO
**	2028			12.75		12.75" LO
**	2029		11			11" LO
**	2030		6			6" LO
**	2031		6			6" LO
**	2033		9			9" LO
**M	2034			18.75		18.75" LO
**	2035		6			6" CE
**	2036		7			7" ME
	2037		8			8" LO
**	2038			12.5		12.5" LO
**	2039		10			10" LO
**	2040		8.5			8.5" LO
**M	2041			22.25		22.25" LO
**	2042			12.5		12.5" LO
**	2043		8			8" LO
**	2044		7.5			7.5" LO
**	2045		6			6" LO
**	2046			12.5		12.5" LO
**	2047		10.5			10.5" LO
**M	2048			16.25		16.25" LO
**	2049		10.5			10.5" LO
**	2050		12			12" LO
**	2051		12			12" LO
**	2052			17		17" LO
**	2053		8			8" LO
**	2054			13		13" LO
**	2055		9.25			9.25" LO
**	2056		6.5			6.5" LO
**	2057		8			8" LO
**	2058			18		18" LO
**	2059		11.5			11.5" LO
**	2060		7.75			7.75" LO
**	2061		8			8" LO
**	2062		8.5			8.5" LO
**	2063			13.25		13.25" LO
**	2064			17		17" LO
**M	2065			15.25		15.25" LO
**	2066		8			8" LO
**	2067		10.5			10.5" PO
**	2068			15		15" PO
**	2069			12.5		12.5" PO
**	2070			16.5		16.5" CE
**	2071			15		15" CE
**	2072		11.5			11.5" CE
**	2073			14		14" LO
**M	2074			24.5		24.5" LO
**	2075		11			11" LO
**	2076		6			14" LO
**	2077			14		14" LO
**	2078			14		14" LO
**	2079		7.25			7.25" LO
**	2080		9.25			9.25" LO
**	2081			13		13" LO
**	2082		9.5			9.5" LO
	2083			12.5		12.5" LO
	2084		8.5			8.5" LO
**M	2085		9.75			9.75" LO
	2086		6			6" LO
**	2087			15		15" LO
**	2088		7			7" LO
**M	2089			16		16" LO
**	2090		12			12" LO
**	2091		7.5			7.5" LO
**	2092			12		12" LO
**	2093		9			9" LO
**M	2094		10.75			10.75" LO
**	2095		8			8" LO
**	2096		9			9" LO
**	2097		7.5			7.5" LO
**	2098		9			9" LO
**	2099			15		15" LO
**	2100		8.5			8.5" LO
**	2101		8			8" LO
**	2102		6			6" LO
**	2103		8			8" LO
**	2104		11.5			11.5" LO
**M	2105		10.75			10.75" LO
**M	2106			22.25		22.25" LO
**	2107			13.5		13.5" LO
**	2108			15.75		15.75" CE
**	2109		8.5			8.5" LO
**M	2110			14.25		14.25" LO
**	2111		8.5			8.5" LO
**	2112		6			6" LO
**	2113		9			9" LO
**	2114		10			10" LO
**	2115			19.5		19.5" LO
**M	2116			14		14" LO
**	2117		8.75			8.75" LO
**	2118		11.5			11.5" LO
**	2119		6			6" CB
**	2120		9.25			9.25" LO
**	2121		10.5			10.5" LO
**	2122		6			6" LO
**M	2123			17		17" LO
**M	2124			19.75		19.75" LO
**	2125		7			7" LO
**	2126		7.25			7.25" LO
**M	2127			12.5		12.5" LO
**	2128		6			6" LO
**	2129		6.5			6.5" LO
**M	2130			18.5		18.5" LO
**	2131		6.5			6.5" LO
**M	2132		10			10" LO
**M	2133		9.75			9.75" LO
**M	2134			18.75		18.75" LO
**	2135		7			7" LO
**	2136			16		16"
**M	2137			20		20" LO
**	2138		9			9" LO
**	2139		10			10" LO
**	2140		9			9" LO
**	2141		9			9" LO
**	2142		8.5			8.5" LO
**	2143		6.5			6.5" LO
**	2144		9			9" LO
**	2145		7.75			7.75" LO
**	2146		7			7" LO
**	2147		9			9" LO
**	2148		8.5			8.5" LO
**	2149		8			8" LO
M	2150				27.25	27.25" LO

TREE LIST

	TREE NO.	<6"	6-12"	12-26"	26"+	DESCRIPTION
**	2151			14.5		14.5" LO
**	2152		7.5			7.5" LO
**	2153		11.5			11.5" LO
**	2154			12		12" LO
**	2155			12.5		12.5" LO
**	2156		9			9" LO
**	2157		9			9" LO
**	2158		9.75			9.75" LO
**	2159		7.5			7.5" LO
**	2160			15		15" CE
**M	2161				26.25	26.25" LO
**	2162			17		17" LO
	2163			20		20" LO
**	2164			15		15" LO
**	2165			12.5		12.5" LO
M	2166			24.25		24.25" LO
	2167		11.5			11.5" LO
	2168			13		13" LO
**	2169			23		23" LO
**	2170		10			10" LO
**M	2171			19		19" LO
**	2172				30	30" LO
**	2174			15		15" LO
**	2175			16		16" LO
**	2176			12		12" LO
**	2177		7			7" LO
**	2178			25.5		25.5" PO
**	2179			17		17" CE
**	2180			12.5		12.5" LO
**	2181			20		20" LO
**	2182			19		19" LO
**	2183			22		22" LO
**	2184		7			7" CE
**	2185				31	31"LO
**	2187		11.5			11.5" CE
**	2188		6.5			6.5" LO
**	2189			12		12" CE
**	2190		8			8" LO
**	2191		6			6" LO
**	2192		6.5			6.5" LO
**	2193		10			10" LO
**	2194			15		15" LO
**	2195		6			6" LO
**	2196		6			6" LO
**M	2197				47	47" LO
**M	2199			17		17" LO
**	2200		7			7" LO
**	2201		7.5			7.5" LO
**	2202		9			9" LO
**	2203		7.5			7.5" LO
**	2204		8.25			8.25" LO
**	2205		6			6" LO
**	2206			16.5		16.5" LO
**	2207		9.5			9.5" LO
**	2208			17.5		17.5" LO
**	2209			15.25		15.25" CE
**	2210		11.25			11.25" LO
**	2211		11			11" LO
**	2213		8			8" LO
**	2214		10.75			10.75" LO
**	2215		10			10" LO
**	2216		6.5			6.5" LO
**	2217		7.5			7.5" LO
**	2218		6.5			6.5" LO
**	2219		6.25			6.25" LO
**M	2220			12.25		12.25" LO
**	2221		8			8" LO
**	2222		7			7" LO
**M	2223			13.5		13.5" LO
**M	2224			15.5		15.5" LO
**M	2225			15.75		15.75" LO
**	2226		6.5			6.5" LO
**M	2227		11			11" LO
**M	2228		10.25			10.25" LO
**	2229		9			9" LO
**	2230		9.5			9.5" LO
**	2232		9.5			9.5" LO
**	2233		10.25			10.25" LO
**M	2234			22		22" LO
**	2235			13.5		13.5" LO
**	2236			14.75		14.75" LO
**M	2237			23		23" LO
**M	2238			16.25		16.25" LO
**M	2239			15.75		15.75" LO
	2240			12.5		12.5" LO
M	2241			25.5		25.5" LO
**	2242			12		12" LO
**	2243		10			10" LO
**	2244		9.5			9.5" LO
**	2245		6			6" LO
**	2246		11			11" LO
**	2247		9			9" LO
**	2248		8			8" LO
**	2250		10.5			10.5" LO
**	2251		11.5			11.5" LO
	2252				26	26" CE
**	2253		6			6" CE
**M	2255		9.5			9.5" LO
**M	2256		8.25			8.25" CM
**	2257		6			6" LO
**M	2258		8.25			8.25" LO
**	2259		8			8" LO
**	2260		7			7" LO
**	2261		8			8" LO
**	2262		6			6" HB
**	2263		9			9" HB
**	2264		8			8" CB
**	2266		6			6" CB
**	2267		8			8" HB
**	2268		6.75			6.75" LO
**	2269		10.5			10.5" LO
**	2270		14	14		14" LO
	2271			13.5		13.5" LO
	2272			23		23" LO
**	93118			15		15" LO
**	93121			14.5		14.5" LO
**	93124				28.5	28.5" LO
**	93131			16		16" LO
**	93224			13		13" LO
**M	93225			19.5		19.5" LO
**	93233			16.5		16.5" LO (DEAD)
TOTAL		0	2690.5	3054.75	366.75	

LO = LIVE OAK
CE = CEDAR/ELM
AE = AMERICAN ELM
ME = MESQUITE
HB = HACKBERRY
CB = CHINABERRY
PO = POST OAK
CM = CREPE MYRTLE

TREE NOTES:
1. TREE NUMBERS IN **BOLD** WITH ** ARE TO BE REMOVED.
2. TREE NUMBER IN *ITALICS* WITH THE PREFIX "H" ARE HERITAGE TREES AND CANNOT BE REMOVED.
3. TREE NUMBERS WITH PREFIX "M" INDICATE MULTI-TRUNK TREES.
4. TREE SURVEY PREPARED APRIL 18, 2022 BY ALLSTAR LAND SURVEYING.

SCALE: 1" = 20'

0 10 20 40

LEGEND

- TREE TO REMAIN
- TREE TO BE REMOVED
- PROTECTED TREE (12-25")
- HERITAGE TREE (26" PLUS)
- TREE PROTECTION
- EXISTING WATER METER
- EXISTING FIRE HYDRANT
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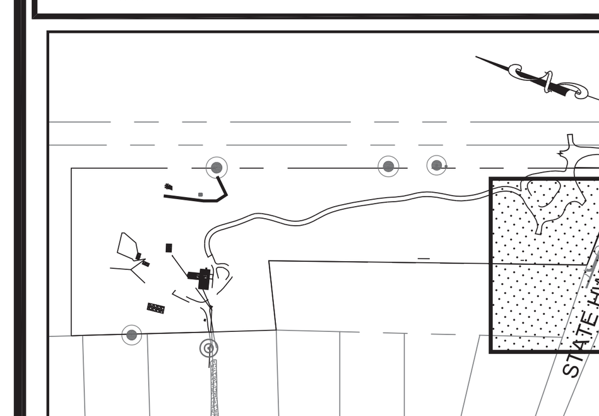
- G — EXISTING UNDERGROUND GAS
- W — EXISTING WATER LINE
- WW — EXISTING WASTEWATER LINE



KEY MAP

WHILE UNDER CONSTRUCTION, CONTRACTOR TO HAVE TFD LOCATED IN LOCATIONS APPROXIMATELY AS SHOWN. AT THE END OF EACH DAY, OR PRIOR TO POSSIBLE RAIN EVENTS, CONTRACTOR TO LOCATE TFD ACROSS DISTURBED AREA. ONCE CONSTRUCTION IS COMPLETED AND PRIOR TO VEGETATION IS ESTABLISHED, CONTRACTOR TO LOCATE SILT FENCE IN SAME LOCATIONS WITH 5 FT. TURNED BACK UPHILL AT EACH END. SEE C.O. GEORGETOWN DETAIL EC05 ON SHEET 26.

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BENCH MARK: TEMPORARY BENCHMARK (TBM): TOP OF MAG NAIL SET IN CONCRETE @ EXISTING ENTRY ELEVATION = 901.95 NAVD 88 DATUM

!!!WARNING!!! BENCH MARK BEING PROVIDED IS FROM THE SURVEYOR AND COULD HAVE BEEN ADJUSTED, CHANGED, RESET, OR DESTROYED BETWEEN THE TIME OF THE SURVEY AND THE TIME OF CONSTRUCTION. CONTRACTOR SHOULD GET THE BENCH MARK ELEVATION VERIFIED AND SHOULD CHECK INTO AT LEAST TWO POINTS ON THE PROVIDED TOPOGRAPHY TO MAKE SURE THAT THE BENCH MARK ELEVATION SEEMS REASONABLE BEFORE USING.

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Thompson Land Engineering, LLC (F-10220)

STATE OF TEXAS — ROBERT C. THOMPSON — 69524 — REGISTERED PROFESSIONAL ENGINEER

2/24/24

2023- -SWP

THOMPSON LAND ENGINEERING, LLC
Land Planning, Site Design, Subdivision Engineering
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
email: ric@tleng.net
www.tleng.net

DATE | REVISION

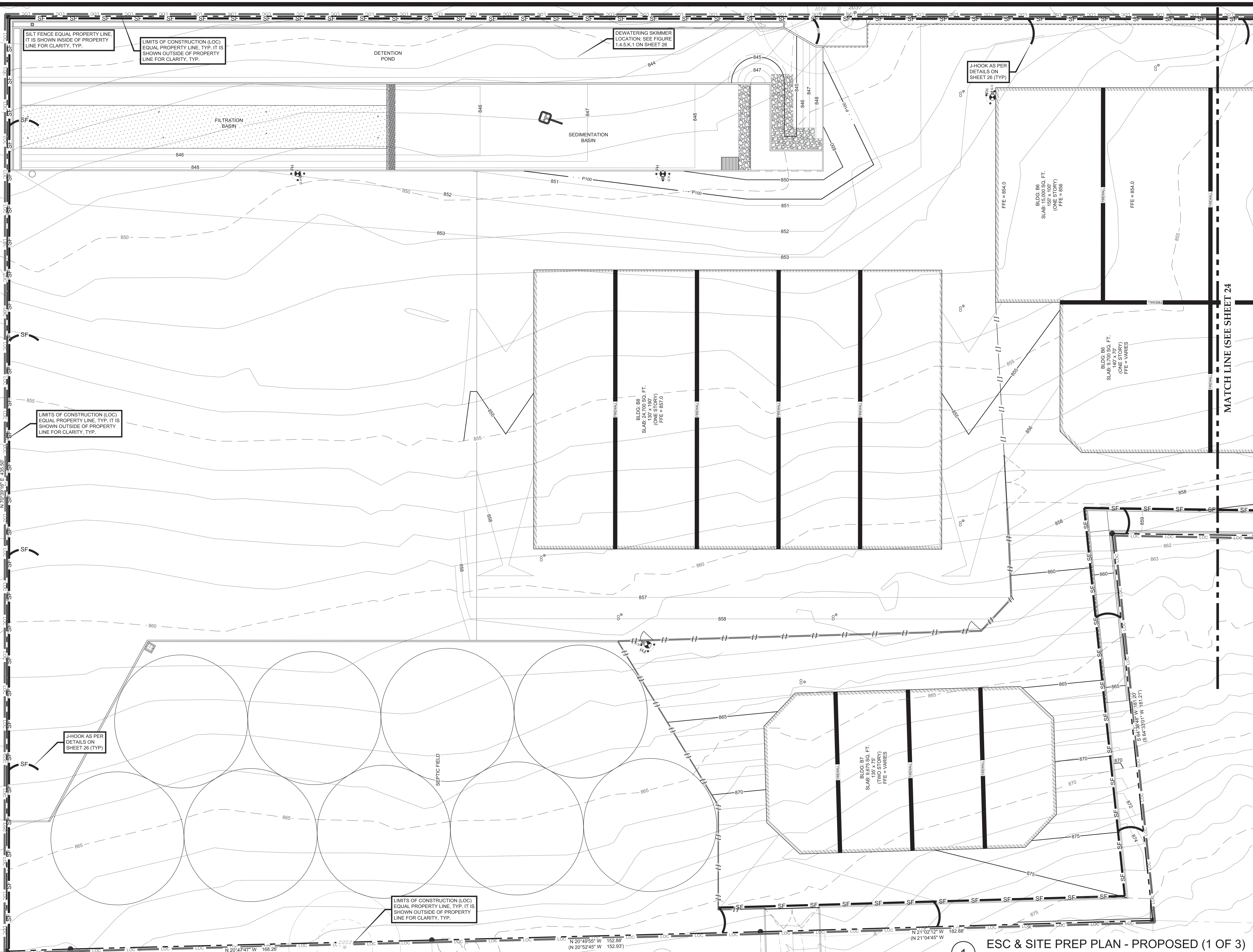
PROJECT: AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME: ESC & SITE PREP PLAN - EXISTING (3 OF 3)

DATE ISSUED: February, 2024

DESIGNED BY: RCT | DRAFTED BY: RH/JH/MR

JOB NUMBER: 1864



1 ESC & SITE PREP PLAN - PROPOSED (1 OF 3)

SCALE: 1:20

SCALE: 1" = 20'

0 10 20 40

LEGEND

- TREE TO REMAIN
- TREE TO BE REMOVED
- PROTECTED TREE (12-25")
- HERITAGE TREE (26" PLUS)
- TREE PROTECTION
- EXISTING WATER METER
- EXISTING FIRE HYDRANT
- EXISTING GATE VALVE
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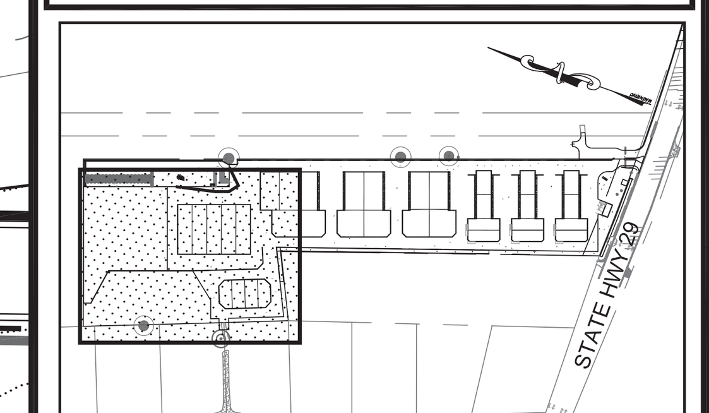

KEY MAP

WHILE UNDER CONSTRUCTION, CONTRACTOR TO HAVE TFD LOCATED IN LOCATIONS APPROXIMATELY AS SHOWN. AT THE END OF EACH DAY, OR PRIOR TO POSSIBLE RAIN EVENTS, CONTRACTOR TO LOCATE TFD ACROSS DISTURBED AREA. ONCE CONSTRUCTION IS COMPLETED AND PRIOR TO VEGETATION IS ESTABLISHED, CONTRACTOR TO LOCATE SILT FENCE IN SAME LOCATIONS WITH 5 FT. TURNED BACK UPHILL AT EACH END. SEE C.O. GEORGETOWN DETAIL EC05 ON SHEET 26.

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Thompson Land Engineering, LLC (F-10220)

STATE OF TEXAS ROBERT C. THOMPSON 69524 REGISTERED PROFESSIONAL ENGINEER

2/24/24

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Land Planning, Site Design, Subdivision Engineering
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
www.tleng.net
email: ric@tleng.net

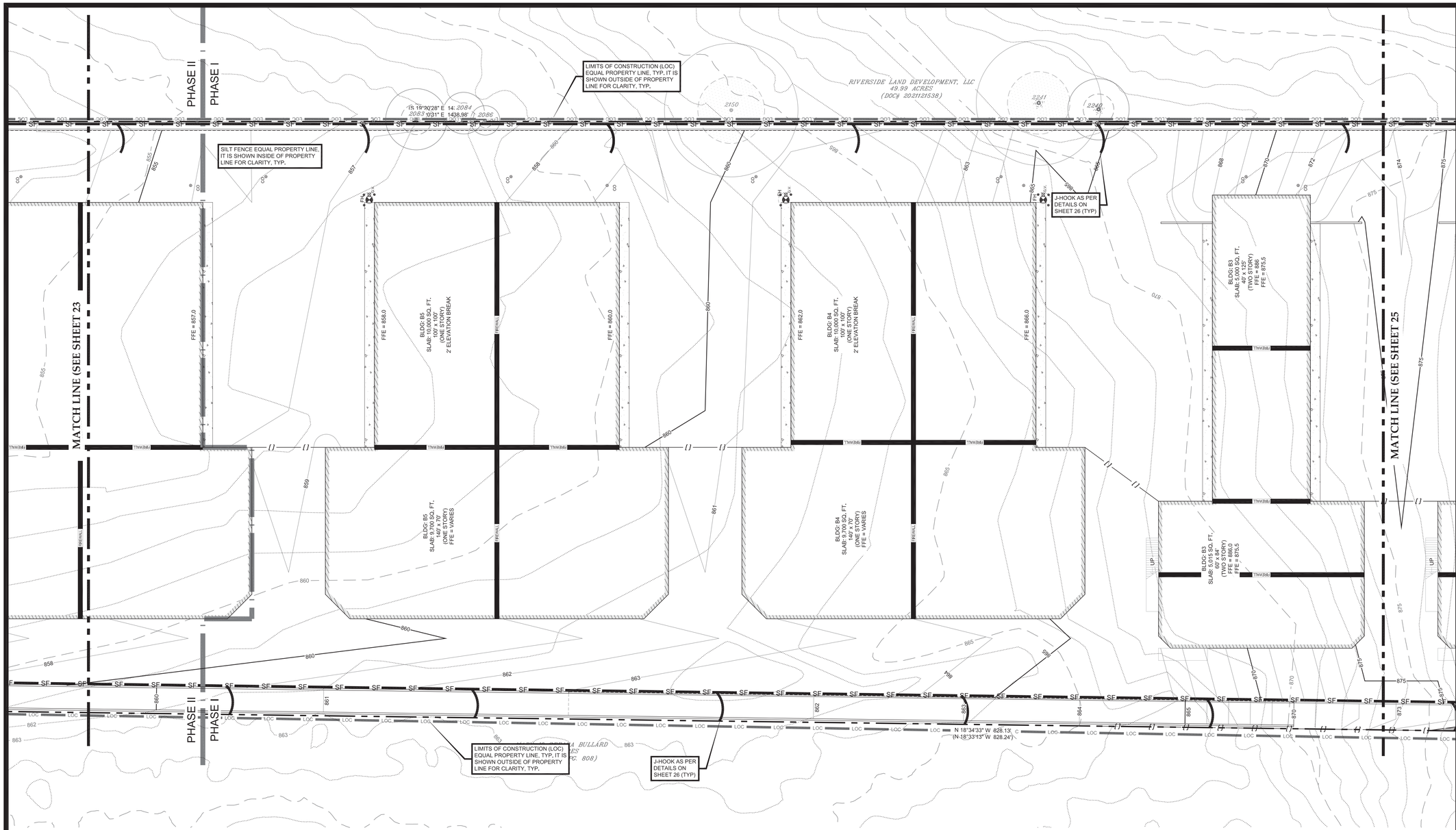
DATE	REVISION

PROJECT: AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME: ESC & SITE PREP PLAN - PROPOSED (1 OF 3)

DATE ISSUED	February, 2024
DESIGNED BY	RCT
DRAFTED BY	RH/JH/MR
JOB NUMBER	1864
SHEET	23 OF 38

2023- -SWP



1 ESC & SITE PREP PLAN - PROPOSED (2 OF 3)

SCALE: 1:20

SCALE: 1" = 20'

0 10 20 40

LEGEND

- TREE TO REMAIN
- TREE TO BE REMOVED
- PROTECTED TREE (12-25")
- HERITAGE TREE (26" PLUS)
- TREE PROTECTION
- EXISTING WATER METER
- EXISTING FIRE HYDRANT
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- EXISTING UNDERGROUND GAS
- EXISTING WATER LINE
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KEY MAP

WHILE UNDER CONSTRUCTION, CONTRACTOR TO HAVE TFD LOCATED IN LOCATIONS APPROXIMATELY AS SHOWN, AT THE END OF EACH DAY, OR PRIOR TO POSSIBLE RAIN EVENTS. CONTRACTOR TO LOCATE TFD ACROSS DISTURBED AREA. ONCE CONSTRUCTION IS COMPLETED AND PRIOR TO VEGETATION IS ESTABLISHED, CONTRACTOR TO LOCATE SILT FENCE IN SAME LOCATIONS WITH 5 FT. TURNED BACK UPHILL AT EACH END. SEE C.O. GEORGETOWN DETAIL EC05 ON SHEET 26.

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STATE OF TEXAS
ROBERT C. THOMPSON
89524
REGISTERED PROFESSIONAL ENGINEER

Thompson Land Engineering, LLC (F-10220)

2/24/24

2023- -SWP

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P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
www.tleng.net email: rc@tleng.net
TBPE Reg. No. F-10220

DATE

REVISION

PROJECT: AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

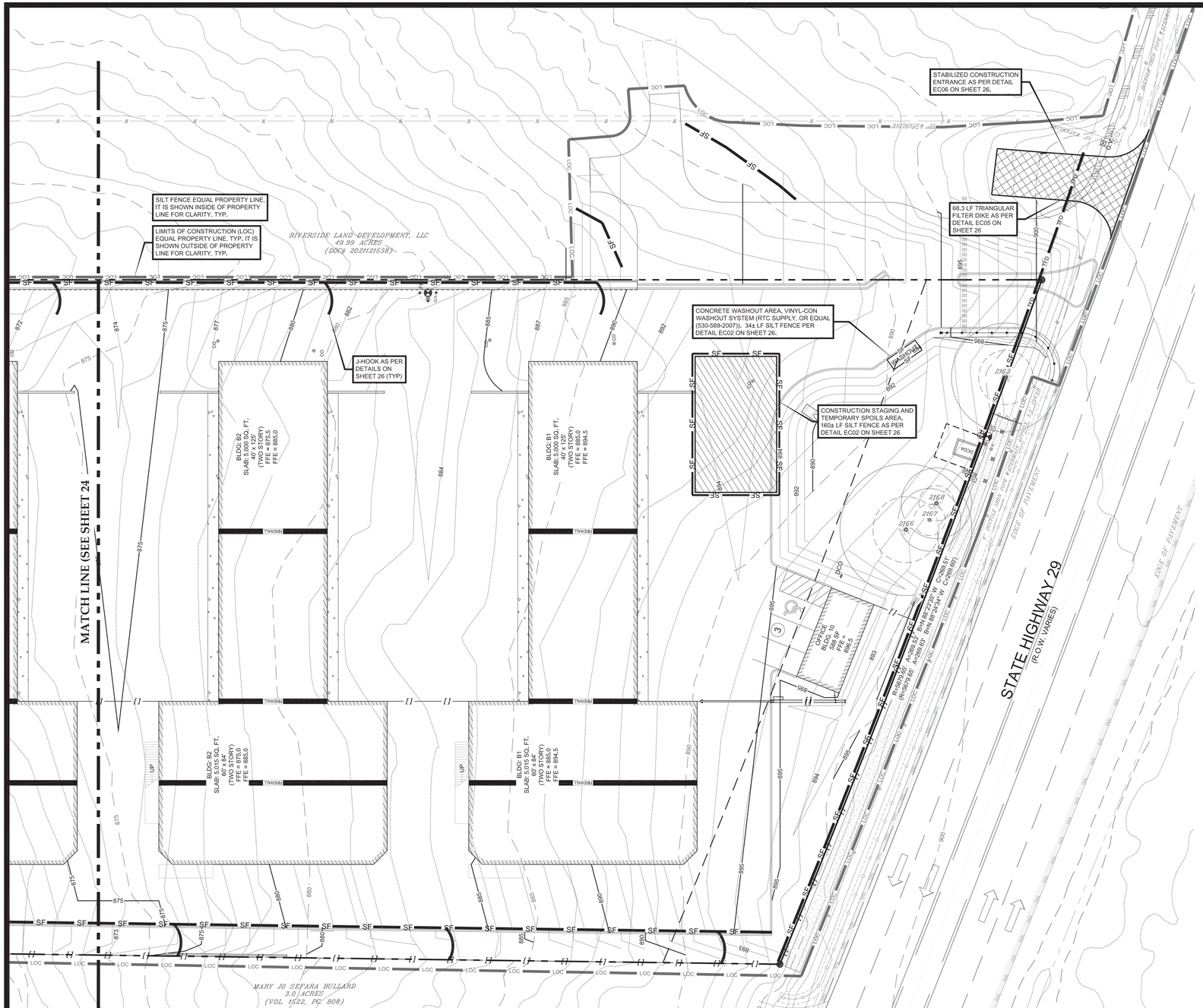
SHEET NAME: ESC & SITE PREP PLAN - PROPOSED (2 OF 3)

DATE ISSUED: February, 2024

DESIGNED BY: RCT | DRAFTED BY: RH/JH/MR

JOB NUMBER: 1864

SHEET: 24 OF 38



1 ESC & SITE PREP PLAN - PROPOSED (3 OF 3)

SCALE: 1:20

SCALE: 1" = 20'

0 10 20 40

LEGEND

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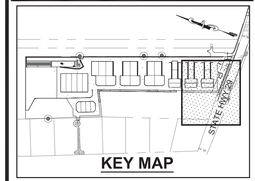

KEY MAP

WHILE UNDER CONSTRUCTION, CONTRACTOR TO HAVE TFD LOCATED IN LOCATIONS APPROXIMATELY AS SHOWN, AT THE END OF EACH DAY, OR PRIOR TO POSSIBLE RAIN EVENTS. CONTRACTOR TO LOCATE TFD ACROSS DISTURBED AREA. ONCE CONSTRUCTION IS COMPLETED AND PRIOR TO VEGETATION IS ESTABLISHED, CONTRACTOR TO LOCATE SILT FENCE IN SAME LOCATIONS WITH 5 FT, TURNED BACK UPHILL AT EACH END. SEE C.O. GEORGETOWN DETAIL EC05 ON SHEET 26.

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2/24/24

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TBPE Reg. No. F-10220

DATE

REVISION

PROJECT
AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME
ESC & SITE PREP PLAN - PROPOSED (3 OF 3)

DATE ISSUED
February, 2024

DESIGNED BY	DRAFTED BY
RCT	RH/JH/MR

JOB NUMBER
1864

SHEET
25 OF 38

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%

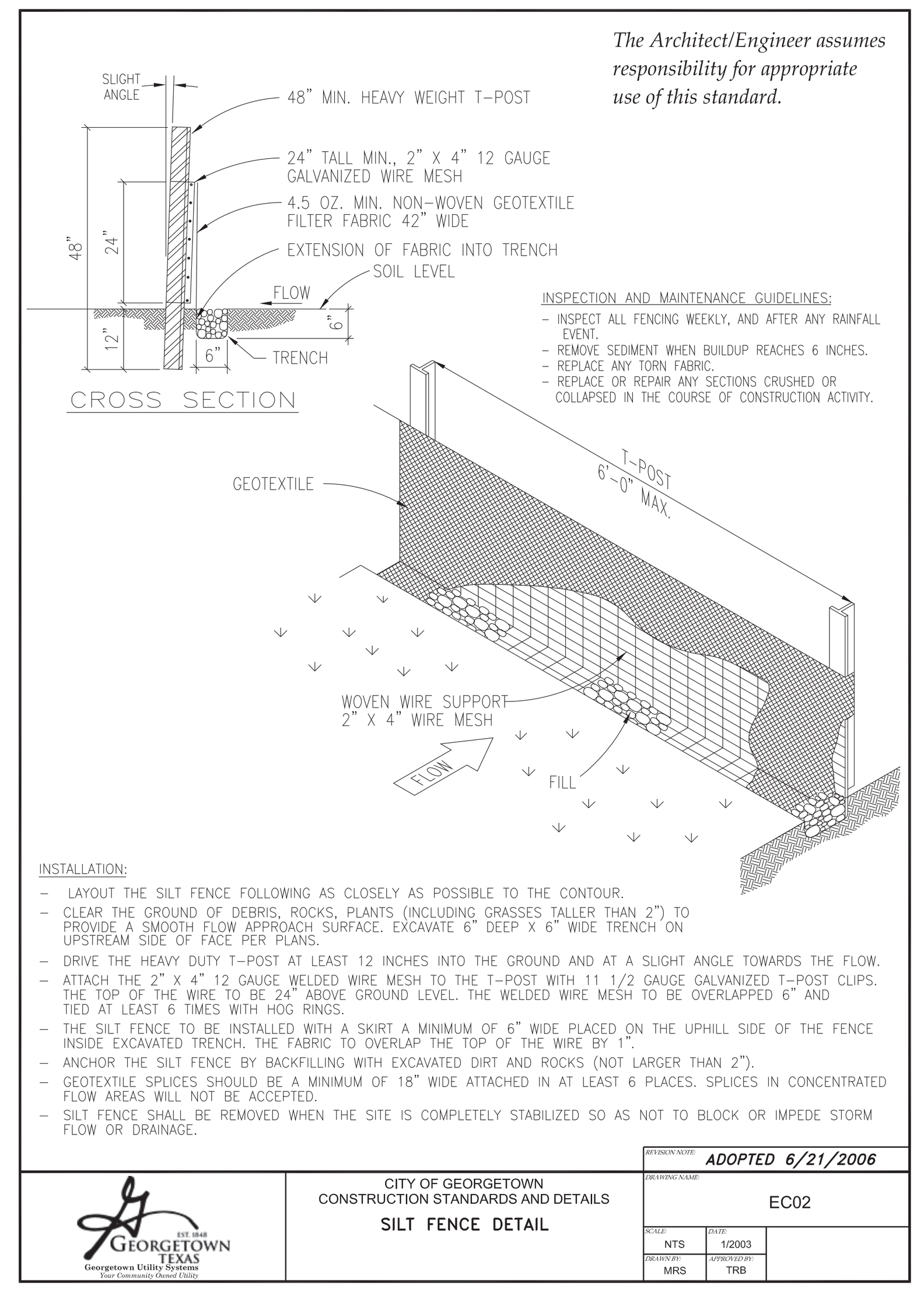
* FOR ROCK BERM DESIGN WHERE PARAMETERS ARE OTHER THAN STATED, DRAINAGE AREA CALCULATIONS AND ROCK BERM DESIGN MUST BE SUBMITTED FOR REVIEW.

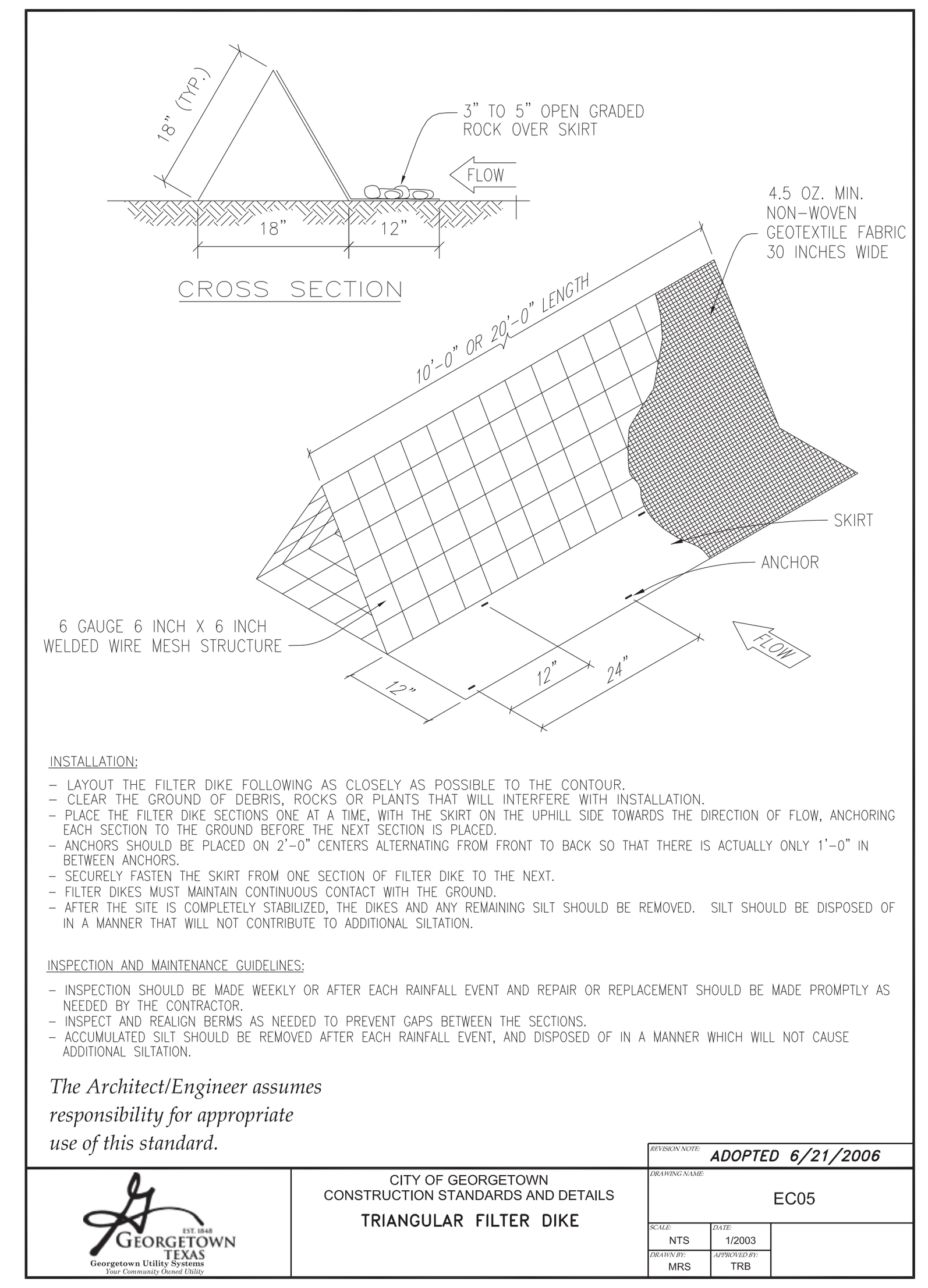
** HIGH SERVICE ROCK BERMS MAY BE REQUIRED IN AREAS OF ENVIRONMENTAL SIGNIFICANCE AS DETERMINED BY THE CITY OF GEORGETOWN.

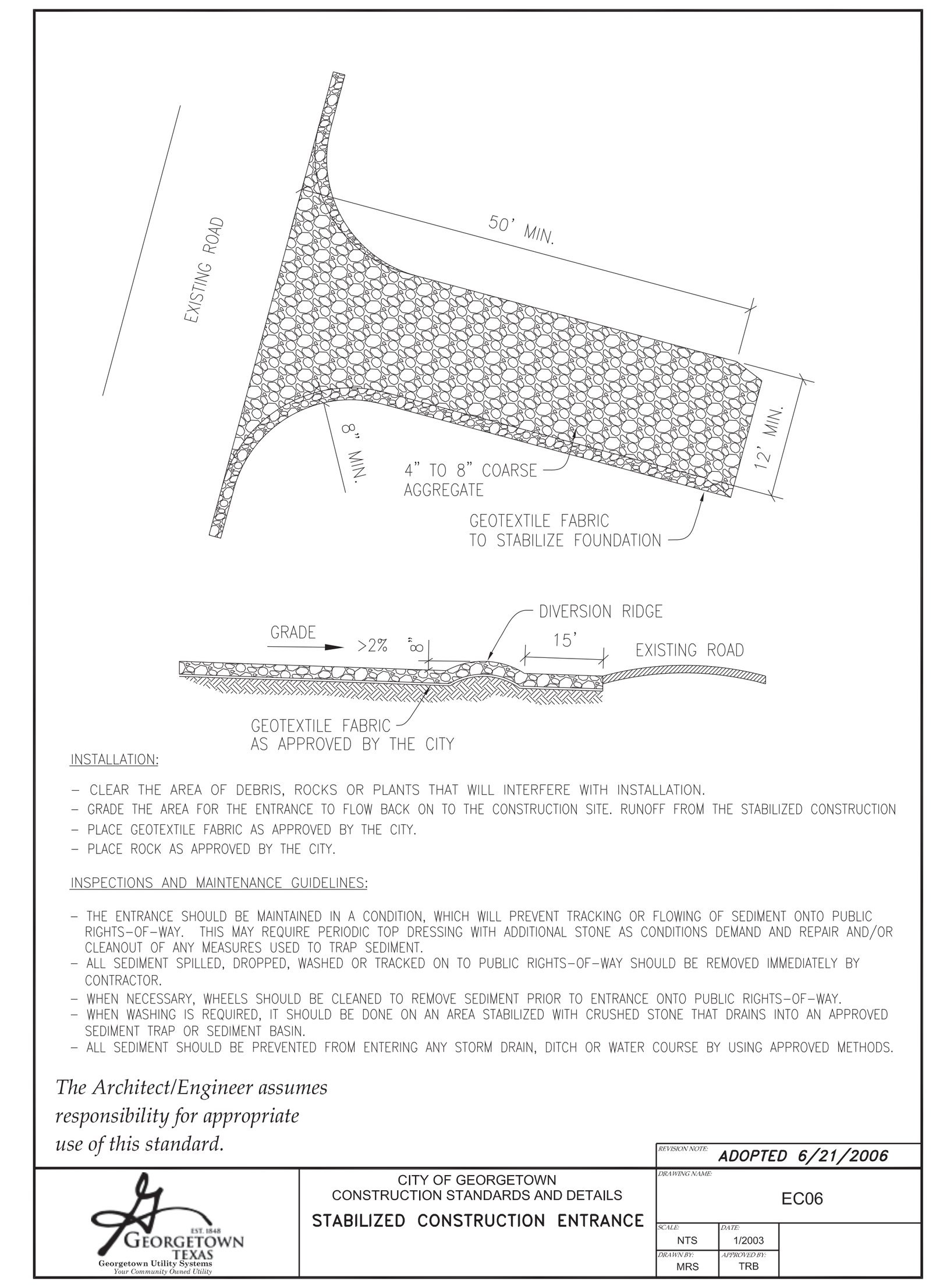
The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TEMPORARY EROSION AND SEDIMENTATION CONTROL GUIDELINES
EC01 — NTS — 1/2003 — MRS — TRB







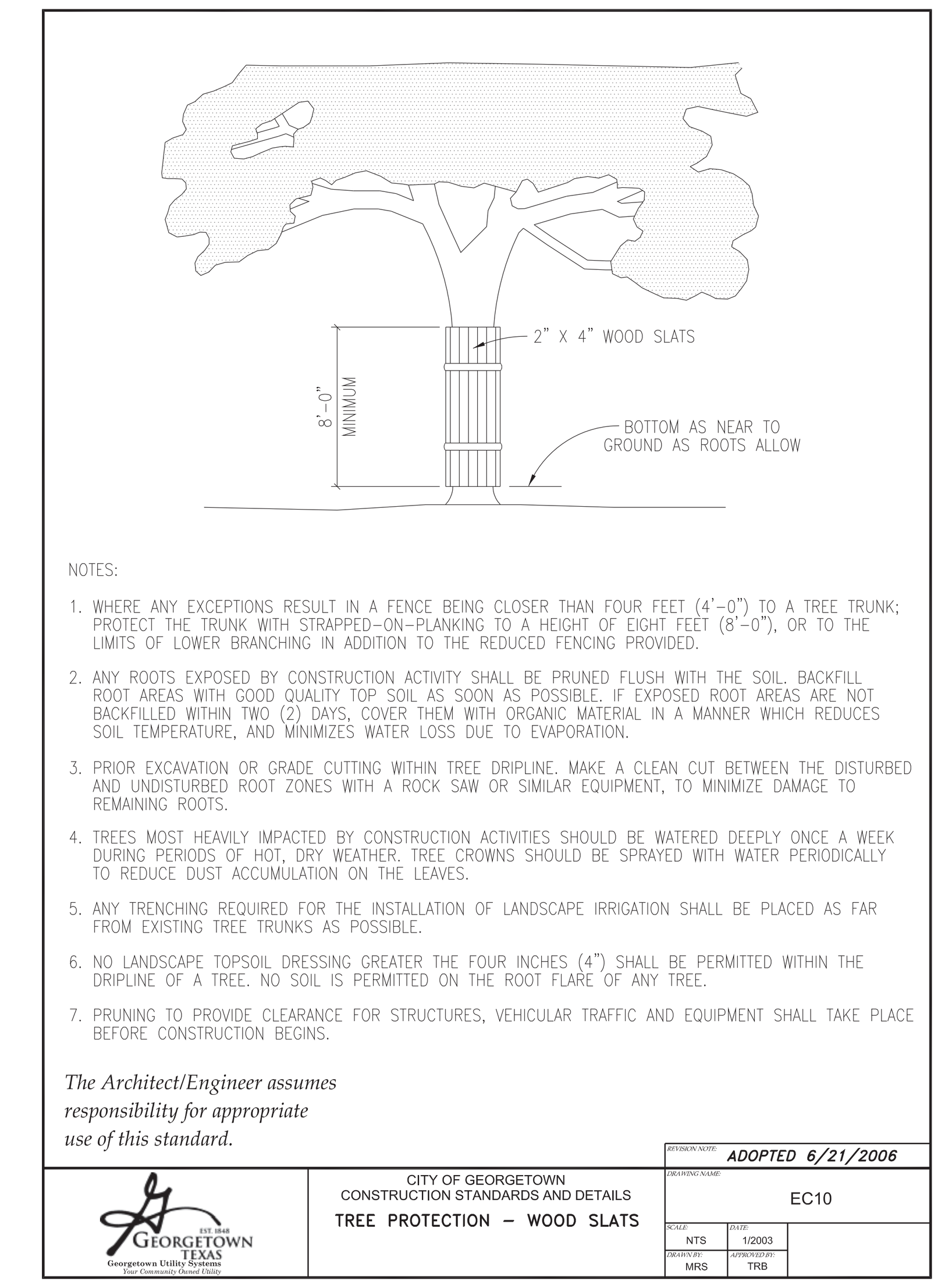


Table 1.4.5.G.1: Maximum spacing between silt fences on slopes		
Slope	Spacing Interval (ft)	Max. Drainage Area (sf)
100:1 to 50:1 (1-2%)	500	25,000
50:1 to 30:1 (2-3.3%)	250	15,000
30:1 to 25:1 (3.3-4%)	150	12,000
25:1 to 20:1 (4-5%)	120	10,000
20:1 to 10:1 (5-10%)	100	5,000
10:1 to 5:1 (10-20%)	50	2,500
5:1 to 2:1 (20-50%)	10	1,000

SILT FENCE SPACING TABLE

TABLE 1. Silt Fence Fabric Requirements		
Physical Properties	Method	Requirements
Fabric Weight in ounces per square yard (grams/square meter)	TEX-616-J[1]	5.0 minimum (150 minimum)
Equivalent Sieve Opening Size: US Standard (SI Standard sieve size)	CW-02215[2]	40 to 100 (425 to 150 μm)
Mullen Burst Strength: lbs. per sq. inch (psi) megaPascal (mPa)	ASTM D-3786[3]	280 minimum (1.9 minimum)
Ultraviolet Resistance; % Strength Retention	ASTM D-1682[4]	70 minimum

[1] TxDoT Test Method Tex-616-J, "Testing of Construction Fabrics".
[2] US Army Corps of Engineers Civil Works Construction Guide Specification CW-02215, "Plastic Filter Fabric".
[3] ASTM D-3786, " Test Method for Hydraulic Bursting Strength of Knitting Goods and Nonwoven Fabrics: Diaphragm Bursting Strength Tester Method".
[4] ASTM D-1682, "Test Methods for Breaking Load and Elongation of Textile Fabrics ".

SILT FENCE FABRIC REQUIREMENTS

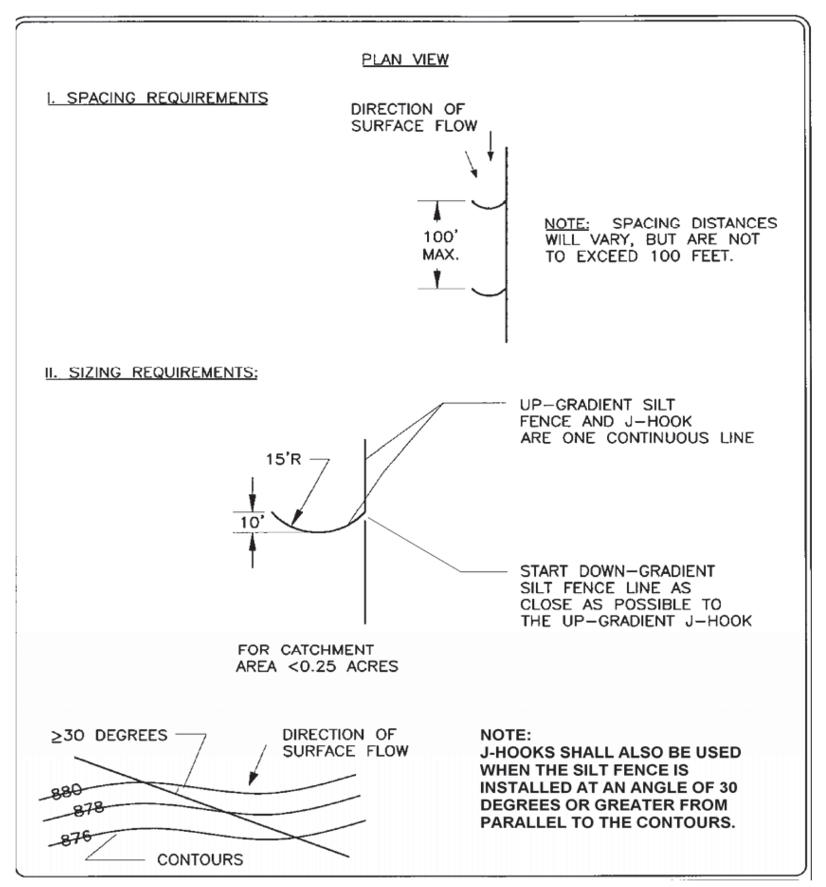
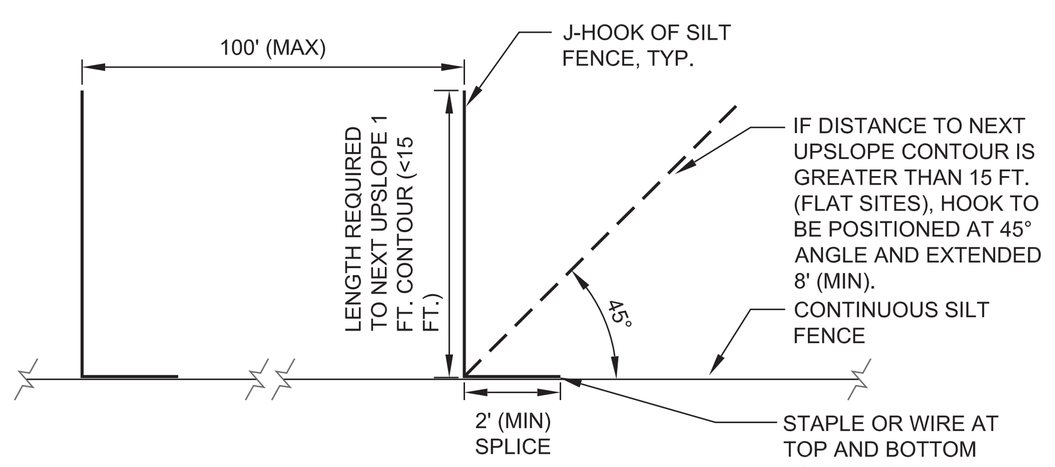
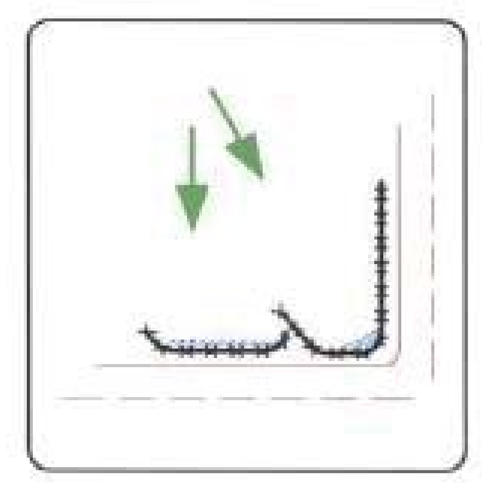


FIGURE 1.4.5.G.4 SILT FENCE J - HOOK DETAILS



SILT FENCE J-HOOK & TURNBACK DETAIL
SCALE: 1" = 4'



SILT FENCE TURN-BACK DETAIL

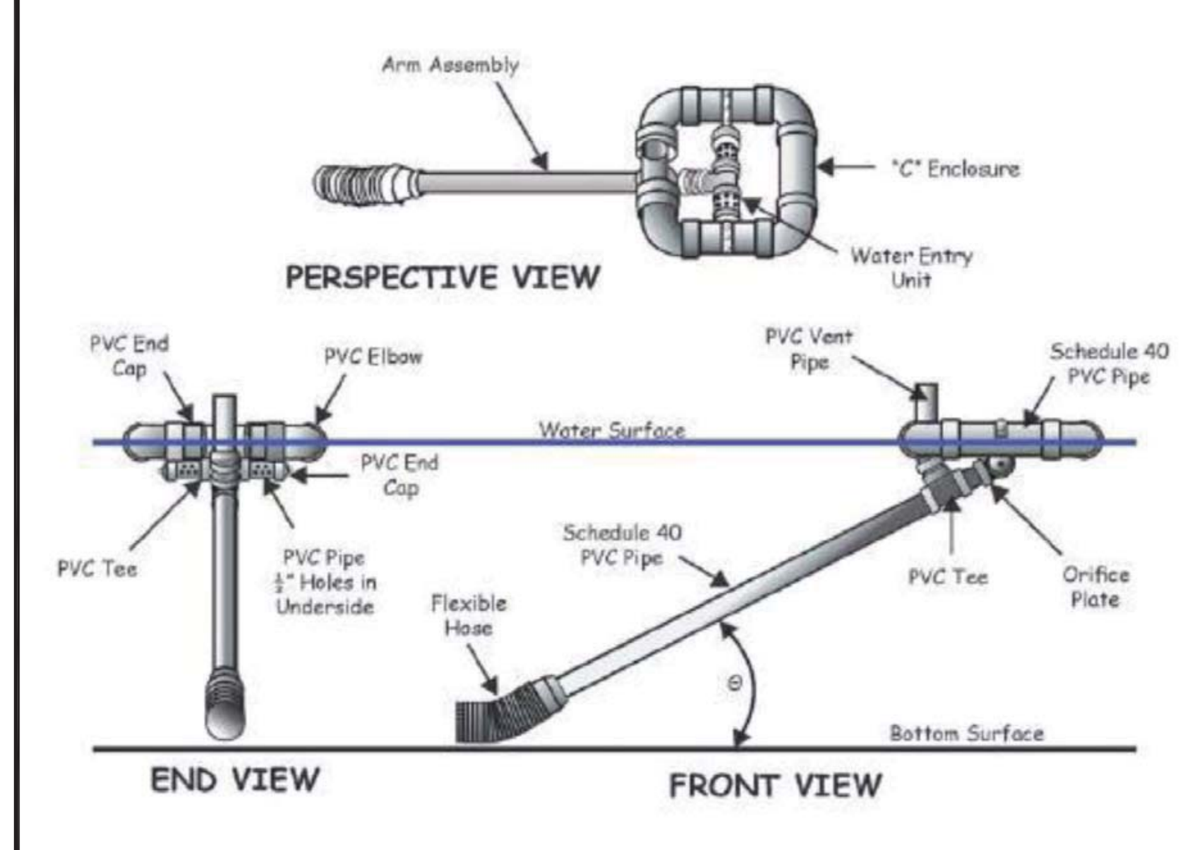
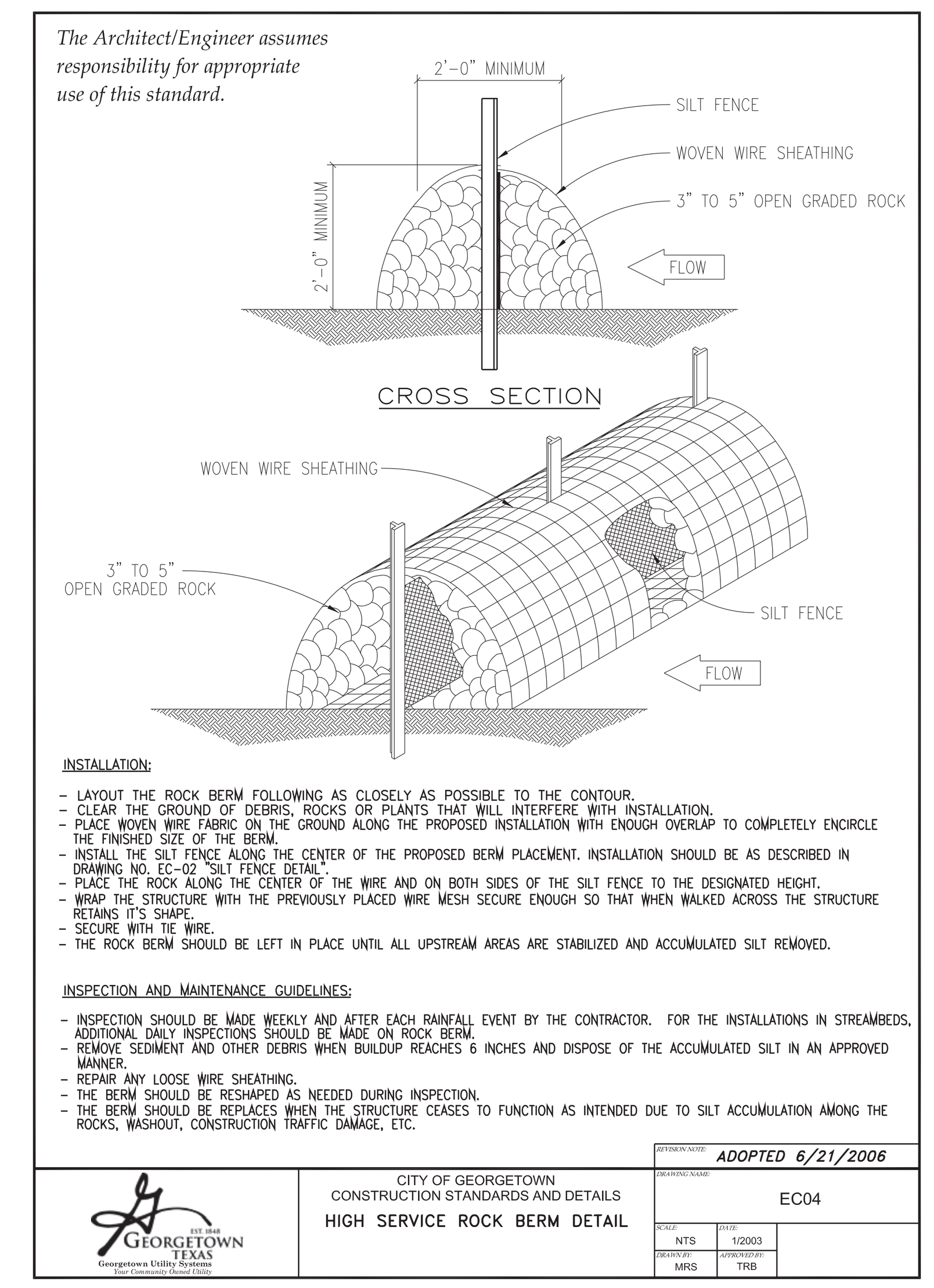
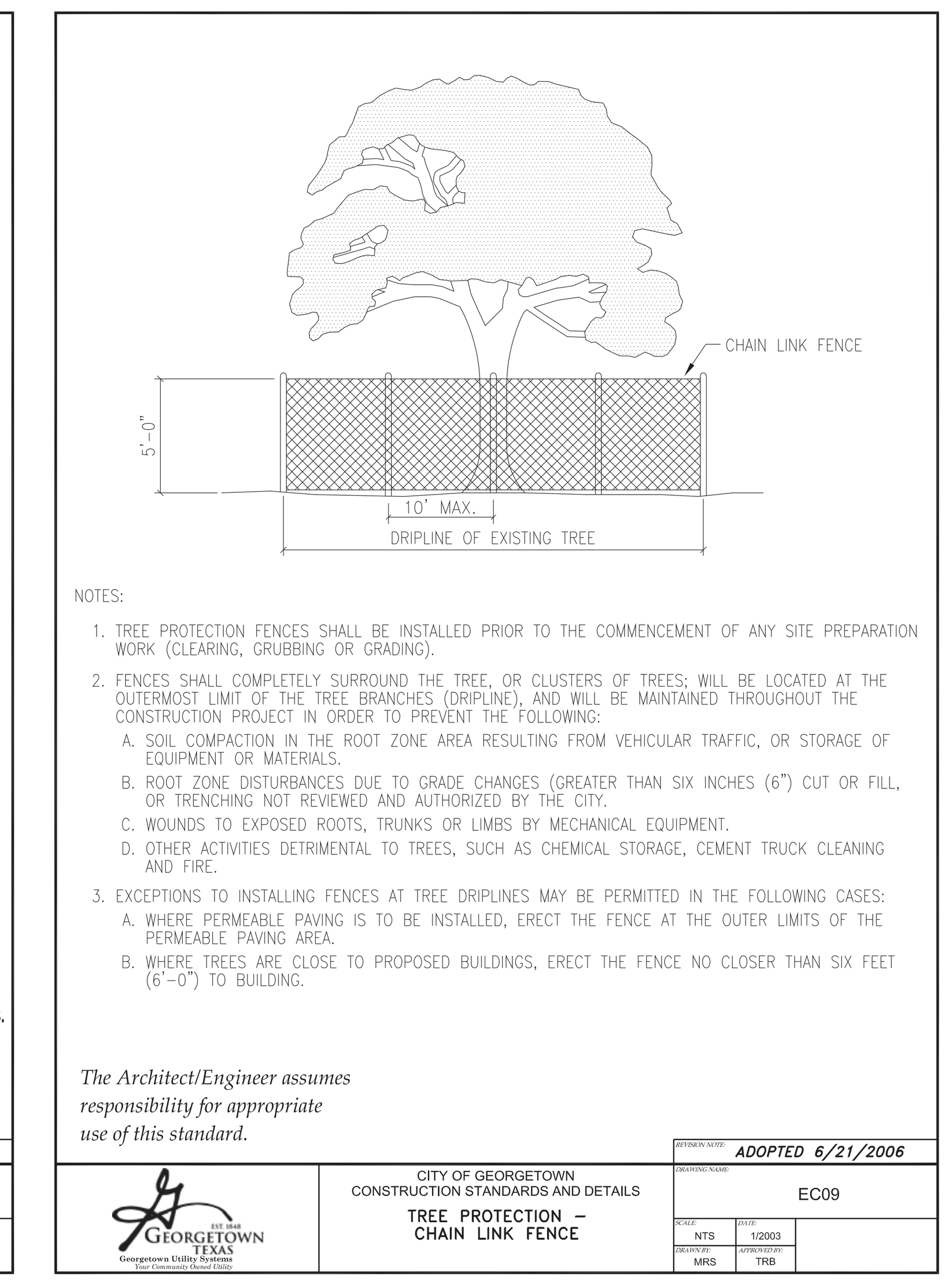
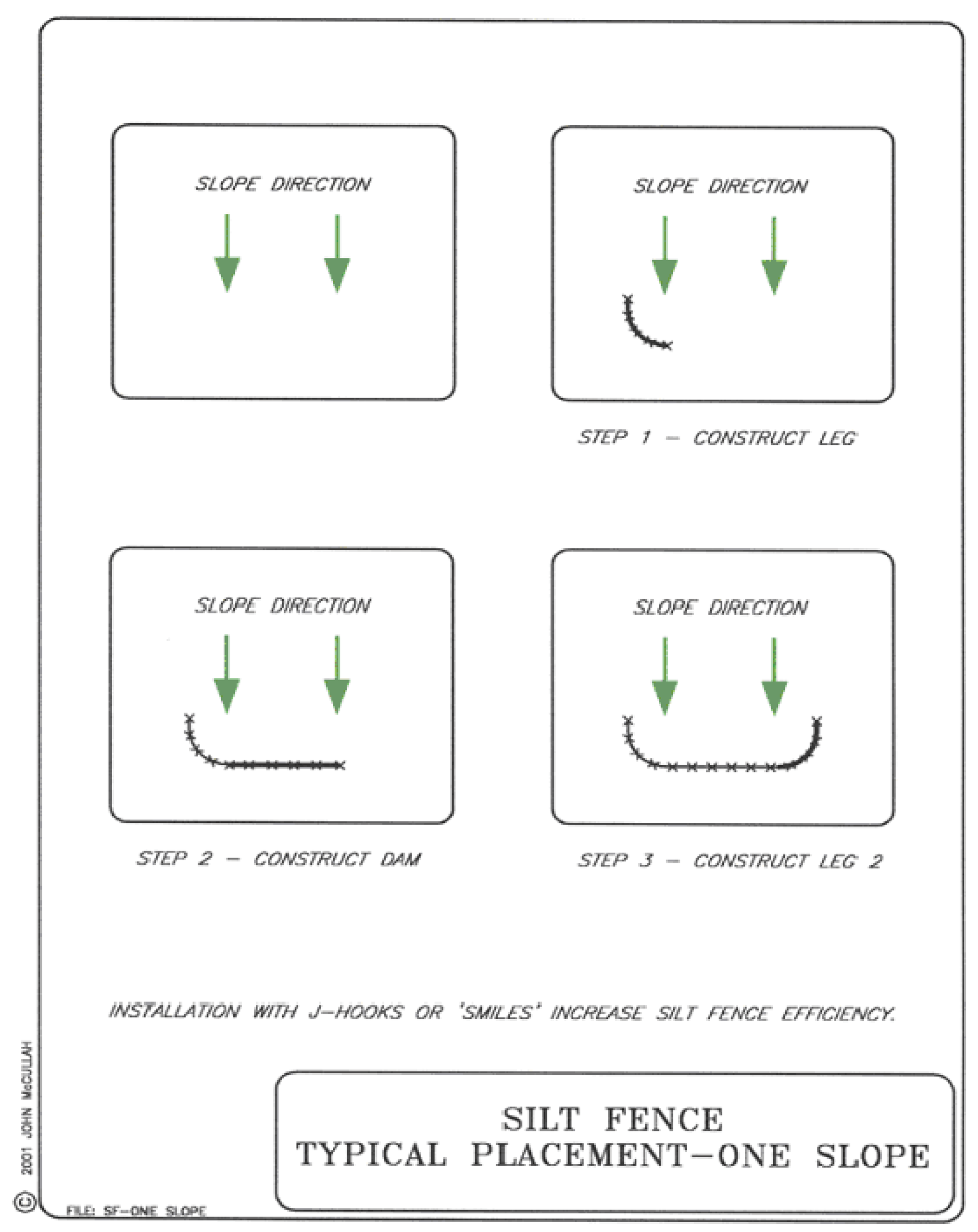


Figure 6.64a Schematic of a skimmer, from Pennsylvania Erosion and Sediment Pollution Control Manual, March, 2000.

FIGURE 1.4.5.K.1 DEWATERING SKIMMER DETAIL







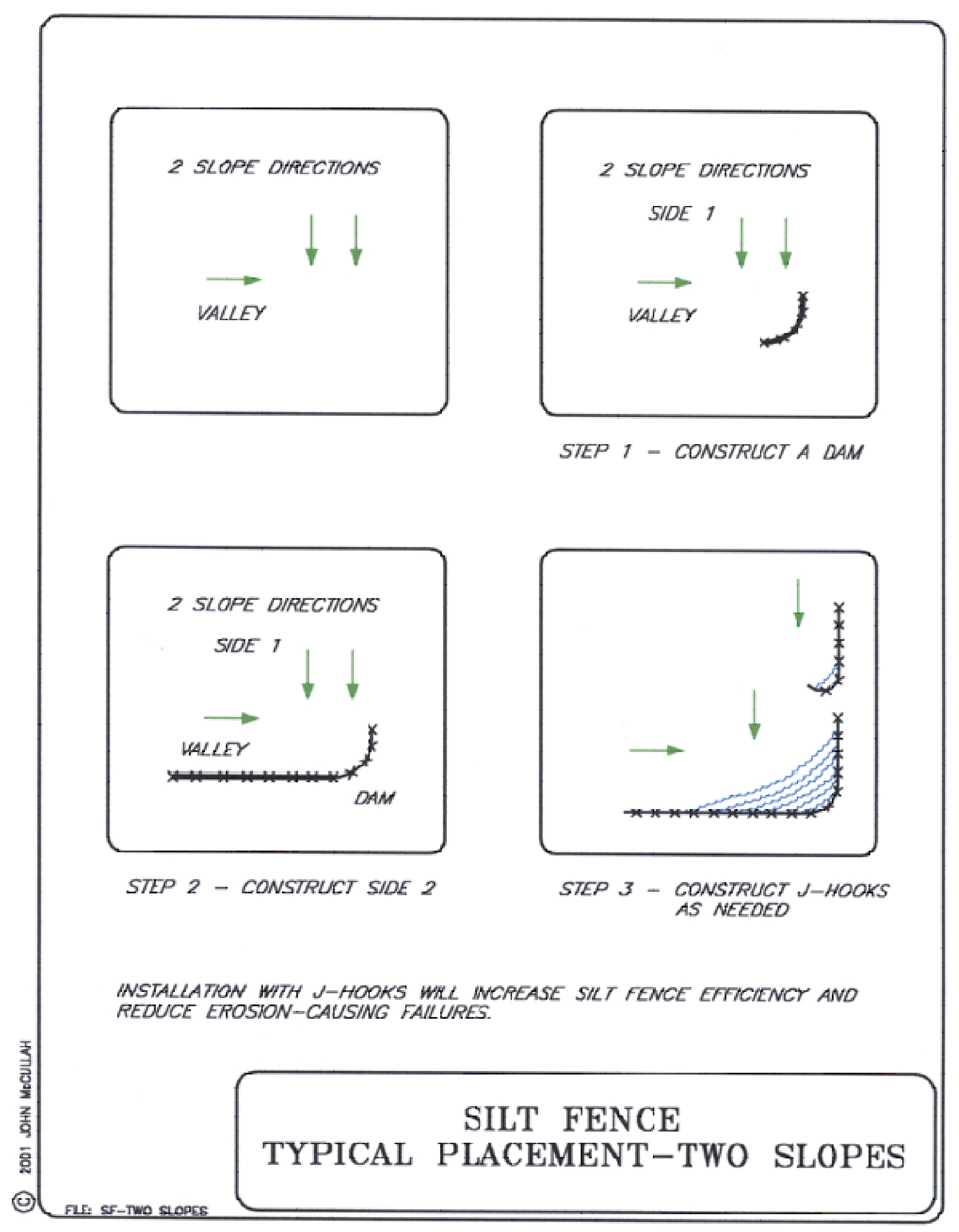


FIGURE 1.4.5.G.3 SILT FENCE PLACEMENT FOR PERIMETER CONTROL

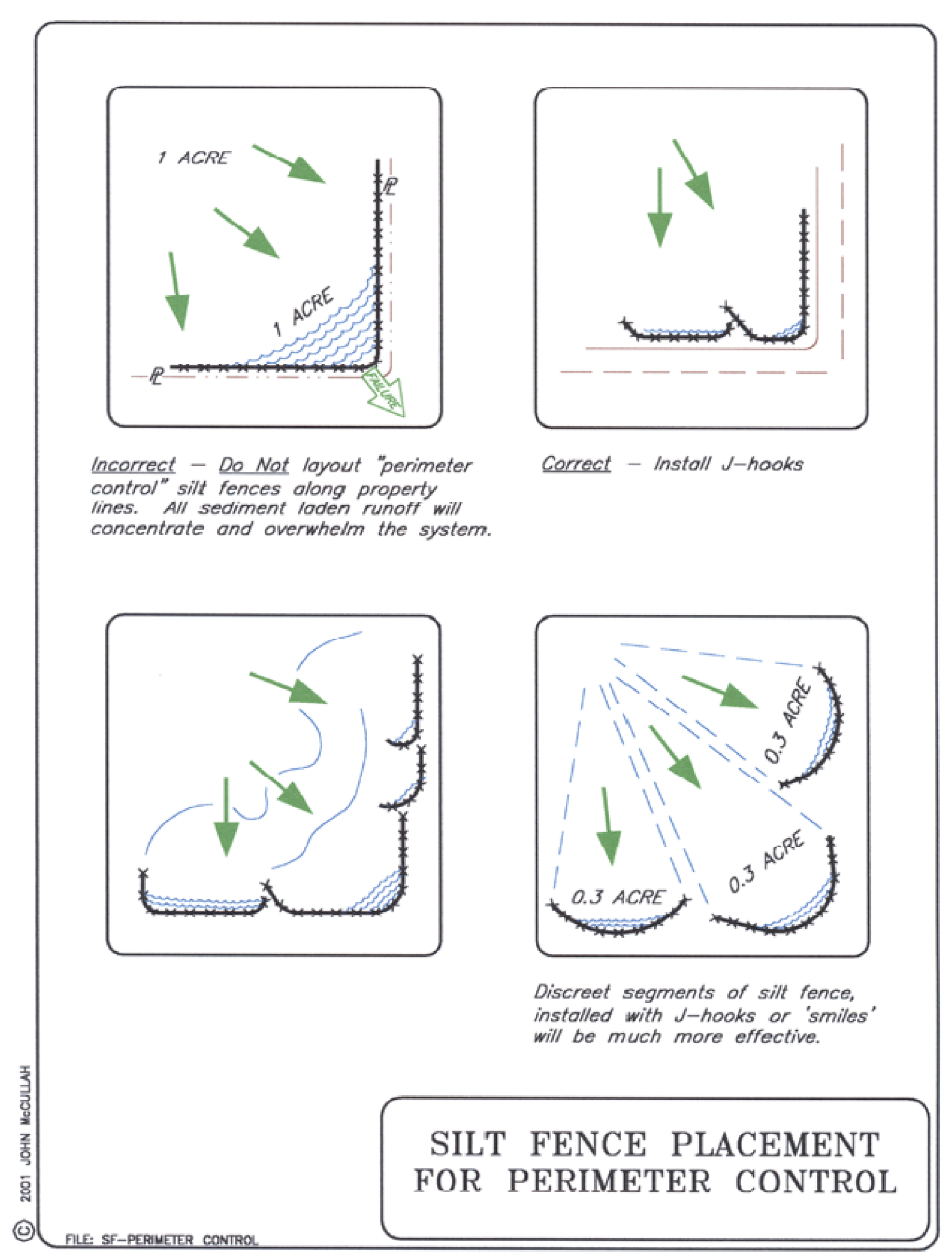
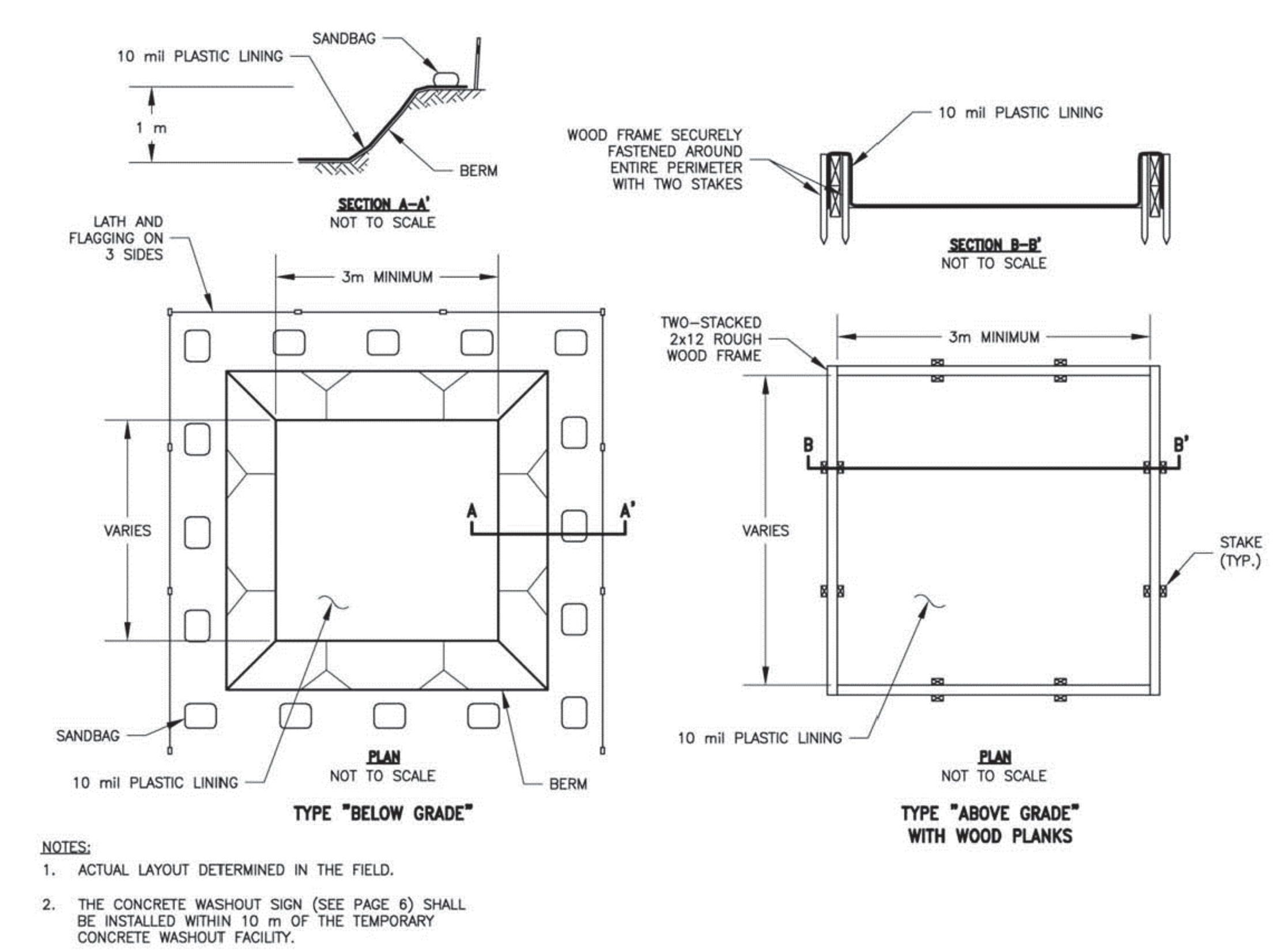
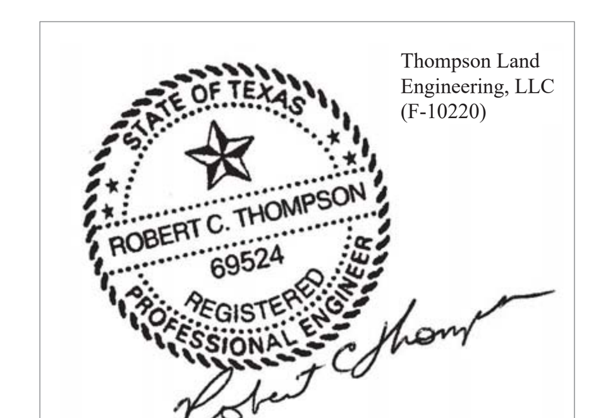


FIGURE 1.4.5.G.3 SILT FENCE PLACEMENT FOR PERIMETER CONTROL



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.

CONCRETE WASHOUT DETAILS



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DATE	REVISION

PROJECT: AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME: EROSION SEDIMENTATION CONTROL DETAILS

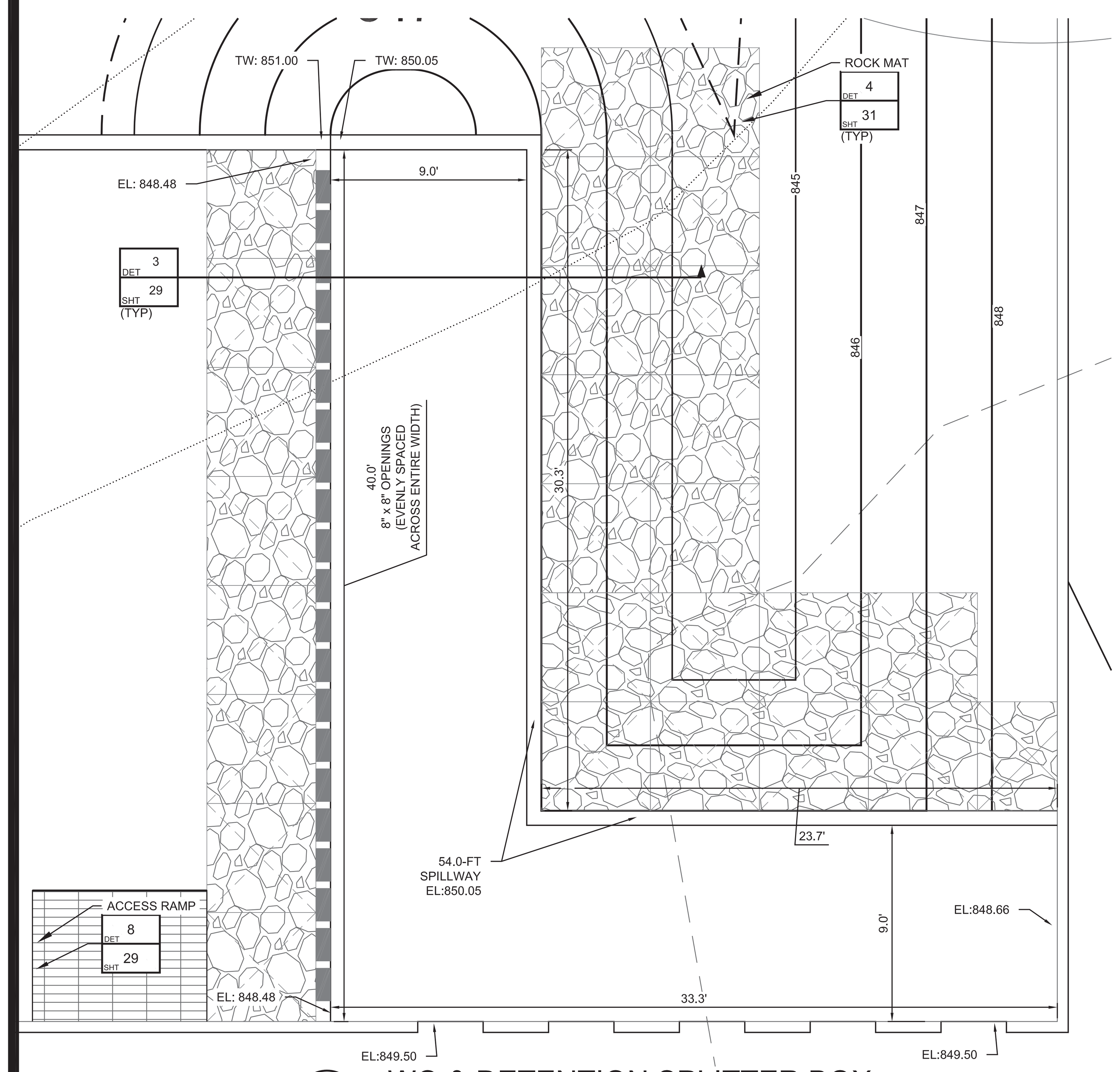
DATE ISSUED	
February, 2024	
DESIGNED BY	DRAFTED BY
RCT	RH/JH/MR
JOB NUMBER	
1864	

SHEET 26 OF 38

NOTE:
ALL WALLS SHOWN ON THESE PLANS MAY, AT OWNER'S OPTION, BE CONSTRUCTED OF DIFFERENT MATERIALS AND STRUCTURAL DETAILS AS PREPARED BY OTHERS. STRUCTURAL ASPECT OF WALL DETAILS INCLUDED ARE PROVIDED AS AN OPTION, NOT A REQUIREMENT, AND MAY BE REPLACED BY OTHER VERSIONS DESIGNED BY OTHERS.

1 WQ & DETENTION POND PLAN

SCALE: 1:20



2 WQ & DETENTION SPLITTER BOX

SCALE: 1:5

WATER QUALITY SPLITTER BOX CALCULATIONS

$H = (Q_{100}/(C*L))^{2/3}$ | $H = ((Q_{25}/CA)^2)/2g$

Design Peak Flow Rate = **Q_{DEV100} =**	116 cfs	**Q_{DEV100} =**	116 cfs
Water Quality Elevation =	849.05 MSL	Orifice FL in Spitter Box =	848.48 MSL
Elevation of Overflow Weir(>= WQelev) =	850.05 MSL	22 openings, height =	0.67 foot
Height of Gabion Wall (WQelev - 0.5') =	848.55 MSL	width =	1.50 foot
		Orifice area (A) =	22.0 sq feet
Length of Overflow Weir (L) =	64.3 feet	Orifice centerline =	848.81 MSL
Weir Coefficient (C) =	3.3	Orifice Coefficient (C) =	0.6
Required Head to Pass Design Flow (H) =	0.67 feet	Head on orifice (H) =	1.20 feet
100-yr Elevation (over spillway) =	**850.72 MSL**	100-yr Elevation (at orifices)=	**850.01 MSL**
Top of Splitter Box Wall =	851.00 MSL	Velocity into sediment pond =	5.3 fps
Water Quality Pond **Freeboard** Provided =	**0.28** feet		

MSL = Mean Sea Level

5 SPLITTER BOX CALCULATIONS

SCALE: N.T.S.

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: **AAA Gabriel Forest**
Date Prepared: **5/5/2023**
Updated: **2/22/2024**

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 * =	**10.07**	acres
Predevelopment impervious area within the limits of the plan * =	**0.04**	acres
Total post-development impervious area within the limits of the plan* =	**7.05**	acres
Total post-development impervious cover fraction * =	**0.70**	
P =	**32**	inches
$L_{M\ TOTAL\ PROJECT}$ =	**6098**	lbs.

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

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

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

Drainage Basin/Outfall Area No. =	**1** (to pond)		**2** (site)	**Total** (site)
Total drainage basin/outfall area =	**8.505**	acres	**1.561**	**10.066**
Predevelopment impervious area within drainage basin/outfall area =	**0.040**	acres	**0.000**	**0.040**
Post-development impervious area within drainage basin/outfall area =	**7.024**	acres	**0.022**	**7.046**
Post-development impervious fraction within drainage basin/outfall area =	**0.83**		**0.01**	**0.70**
$L_{M\ THIS\ BASIN}$ =	**6079**	lbs.	**19**	**6098**

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Sand Filter**
Removal efficiency = **89** percent

Sand Filter

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

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

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 =	**8.51**	acres
A_I =	**7.02**	acres
A_P =	**1.48**	acres
L_R =	**6944**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = **6125** lbs.

F = **0.88**

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 =	**1.50**	inches
Post Development Runoff Coefficient =	**0.66**	
On-site Water Quality Volume =	**30612**	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 =	**6122**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**36734**	cubic feet

The following sections are used to calculate the required water quality volume(s) for the selected BMP.

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

~~**9A. Full Sedimentation and Filtration System**~~

~~Water Quality Volume for sedimentation basin =~~	~~**36734**~~	cubic feet	
~~Minimum filter basin area =~~	~~**1701**~~	square feet	
~~Maximum sedimentation basin area =~~	~~**15306**~~	square feet	**For minimum water depth of 2 feet**
~~Minimum sedimentation basin area =~~	~~**3826**~~	square feet	**For maximum water depth of 8 feet**

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins =	**36734**	cubic feet	
Minimum filter basin area =	**3061**	square feet	
Maximum sedimentation basin area =	**12245**	square feet	**For minimum water depth of 2 feet**
Minimum sedimentation basin area =	**765**	square feet	**For maximum water depth of 8 feet**

3 TCEQ TSS CALCULATIONS

SCALE: N.T.S.

SAND FILTER - POND CALCULATIONS

DRAINAGE AREA DATA

Drainage Area to Control	8.51	ac
Drainage Area Impervious Cover	82.6%	
Capture Depth (CD) per TCEQ TSS calculations =	1.70	in

WATER QUALITY CONTROL CALCULATIONS

25-year Peak Flow Rate to Control	87	cfs
100-year (Atlas-14) Peak Flow Rate to Control	116	cfs

	Required	Provided	
Water Quality Volume (WQV) = *(see TCEQ TSS calcs)*	36,734	37,587	cf
Maximum Ponding Depth above Sand Bed (H)	n/a	4.05	ft
Sedimentation Pond Surface Area	n/a	6,778	sf
Filtration Pond Area = (see TCEQ TSS calcs)	3,331	3,400	sf

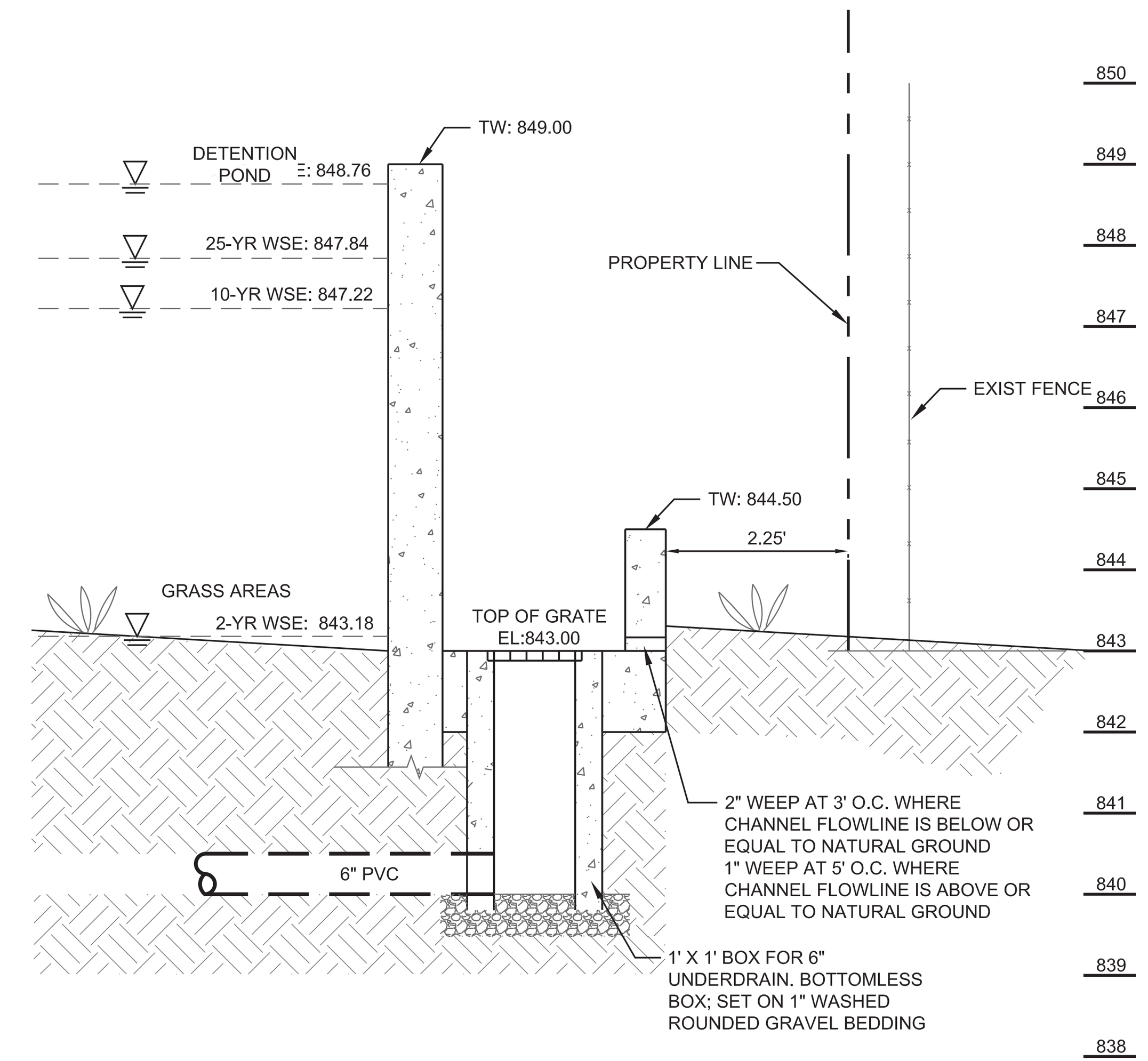
Water Quality Elevation	849.05	ft. msl
Elevation of Splitter/Overflow Weir *(> WQ elev)*	850.05	ft. msl
Height of Gabion Wall (WQ elev - 0.5')	849.55	ft. msl
Length of Splitter Weir	64.3	ft
Required Head to Pass the Q100 (maximum 1-ft)	0.71	ft

Sedimentation Pond:	Stage (ft msl)	Area (sf)	Incremental Storage (cf)	Cumulative Storage (cf)
	845.17	0	---	---
	846.00	1,392	578	578
	847.00	3,365	2,378	2,956
	848.00	5,594	4,479	7,435
	849.00	6,778	6,186	13,621
WQ Elevation =	849.05	6,778	339	13,960
	850.00	6,778	6,439	20,399
Top of Pond =	851.00	6,778	6,778	27,176

Filtration Pond:	Stage (ft msl)	Area (sf)	Incremental Storage (cf)	Cumulative Storage (cf)
	845.00	3,400	---	---
	846.00	5,440	4,420	4,420
	847.00	6,119	5,779	10,199
	848.00	6,629	6,374	16,573
	849.00	6,799	6,714	23,287
WQ Elevation =	849.05	6,799	340	23,627
	850.00	6,799	6,459	30,086
Top of Pond =	851.00	6,799	6,799	36,886

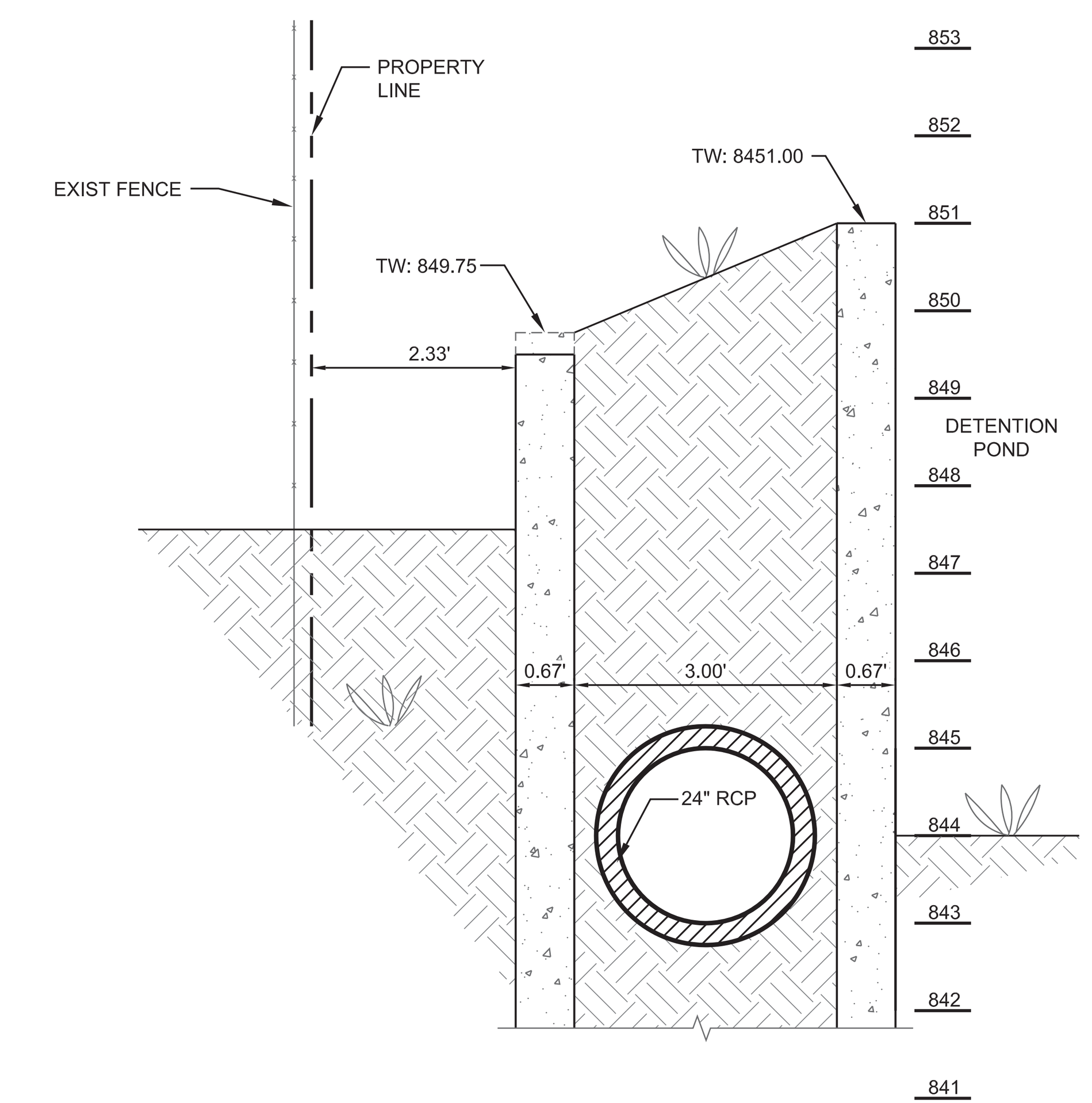
4 WQ POND CALCULATIONS

SCALE: N.T.S.



6 CROSS SECTION A-A

SCALE: 1:2



7 CROSS SECTION B-B

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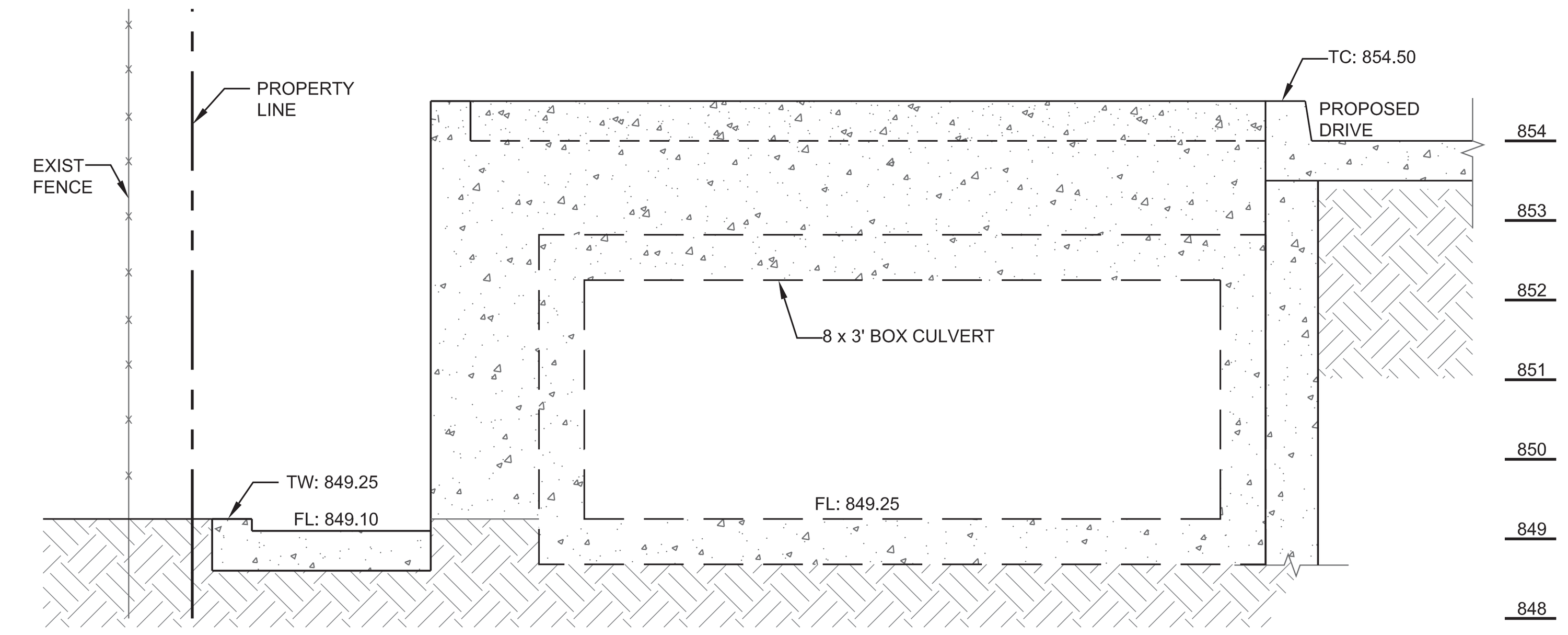

8 CROSS SECTION C-C

SCALE: 1:2

STATE OF TEXAS
ROBERT C. THOMPSON
69524
REGISTERED PROFESSIONAL ENGINEER

Thompson Land Engineering, LLC
(F-10220)

2/24/24

2023- -SWP

THOMPSON LAND ENGINEERING, LLC
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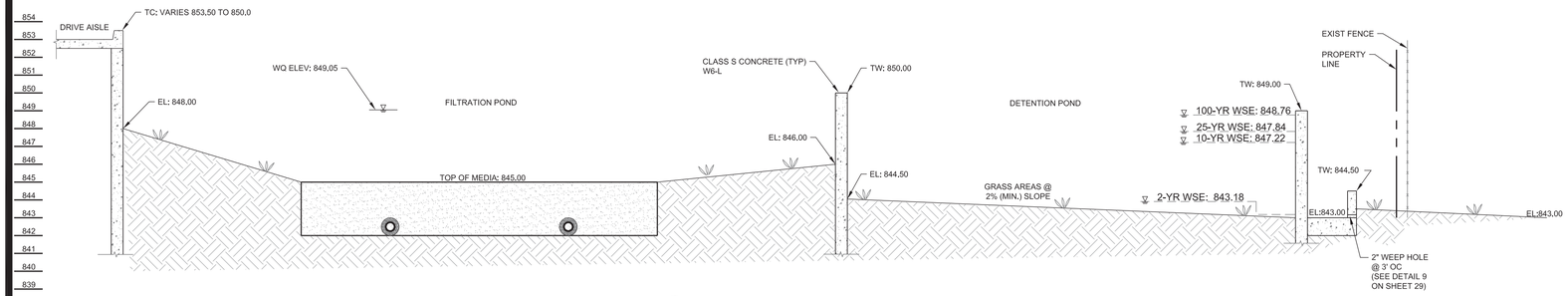
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
email: ric@tleng.net
www.tleng.net

DATE
REVISION

PROJECT: AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME: WQ & DETENTION POND PLAN

DATE ISSUED	February, 2024
DESIGNED BY	RCT
DRAFTED BY	RH/JH/MR
JOB NUMBER	1864
SHEET	27 OF 38



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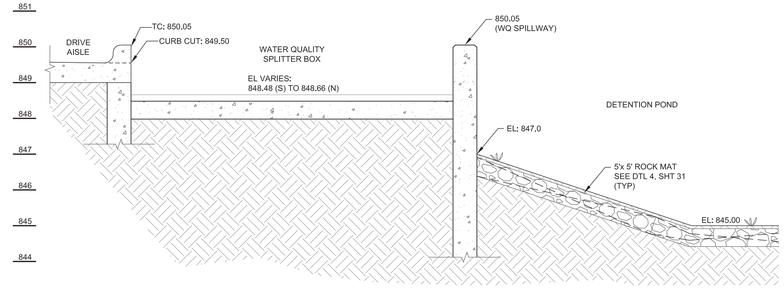

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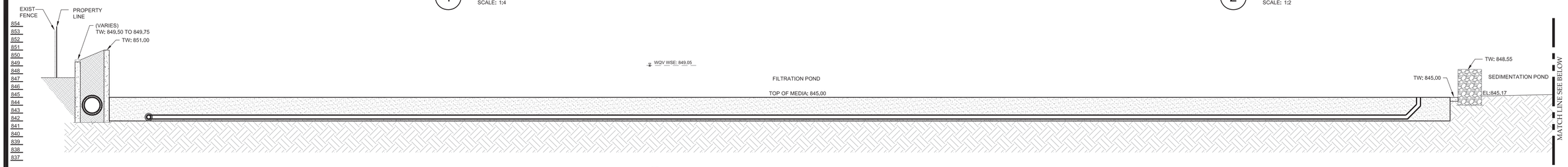

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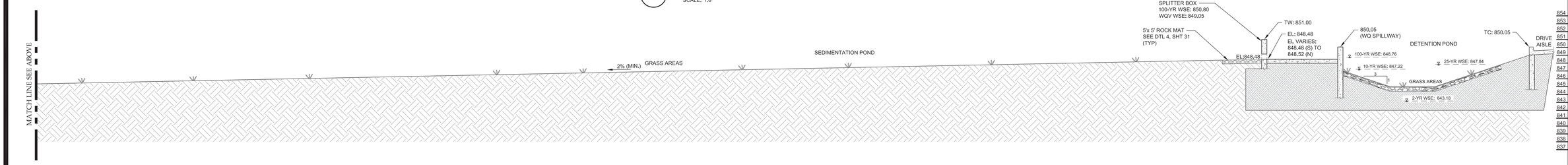

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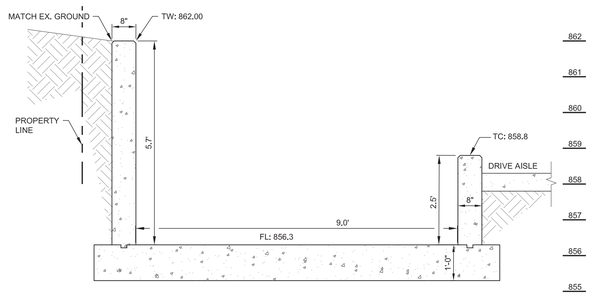

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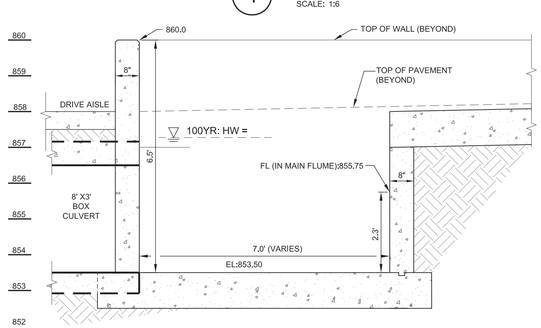

6 CROSS SECTION H-H
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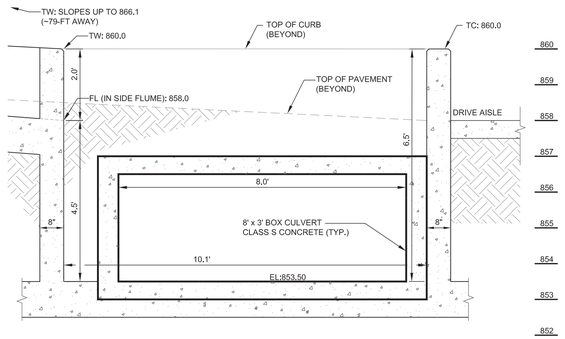

7 CROSS SECTION I-I
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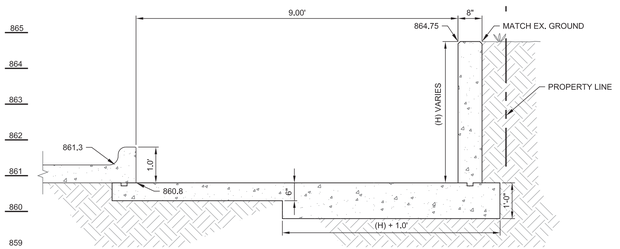
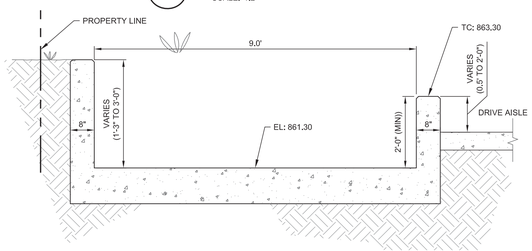


8 CROSS SECTION J-J
SCALE: 1:2



9 CROSS SECTION K-K
SCALE: 1:2

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Land Planning, Site Design, Subdivision Engineering
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
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TBPE Reg. No. F-11038

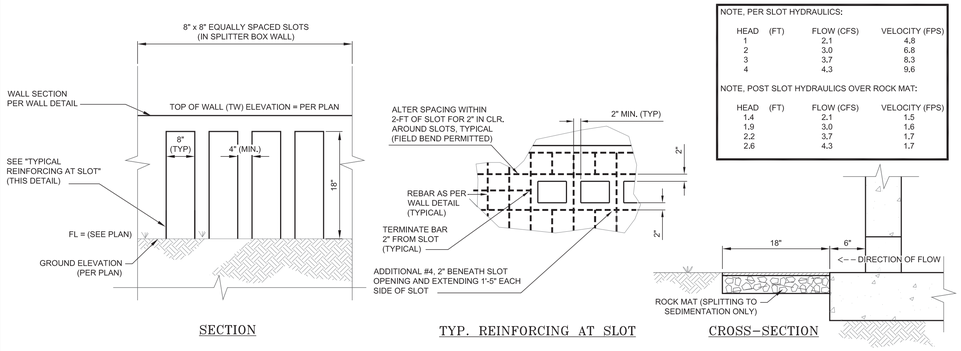
DATE
REVISION

PROJECT
AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628
SHEET NAME
WQ & DETENTION POND CROSS SECTIONS

Thompson Land Engineering, LLC (F-10220)
STATE OF TEXAS
ROBERT C. THOMPSON
69524
REGISTERED PROFESSIONAL ENGINEER
2/24/24

DATE ISSUED
February, 2024
DESIGNED BY: RCT
DRAFTED BY: RH/JH/MR
JOB NUMBER
1864
SHEET
28 OF 38

2023- -SWP



NOTE, PER SLOT HYDRAULICS:

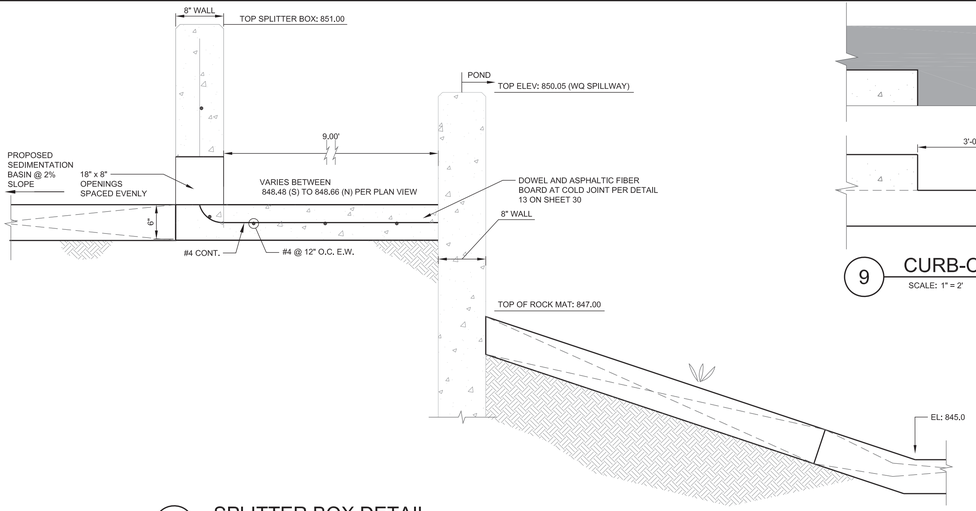
HEAD (FT)	FLOW (CFS)	VELOCITY (FPS)
1	2,1	4,8
2	3,0	6,8
3	3,7	8,3
4	4,3	9,6

NOTE, POST SLOT HYDRAULICS OVER ROCK MAT:

HEAD (FT)	FLOW (CFS)	VELOCITY (FPS)
1,4	2,1	1,5
1,9	3,0	1,6
2,2	3,7	1,7
2,6	4,3	1,7

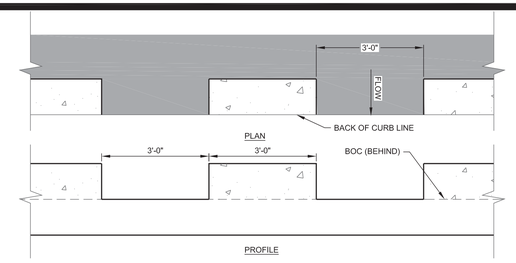
1 WALL SLOT DETAIL (SPLITTER BOX/SEDIMENTATION)

SCALE: N.T.S.



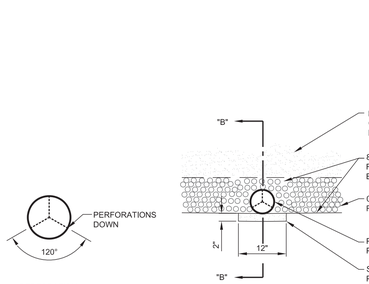
3 SPLITTER BOX DETAIL

SCALE: 1" = 2'



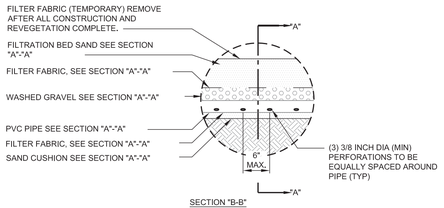
9 CURB-CUT DETAIL

SCALE: 1" = 2'



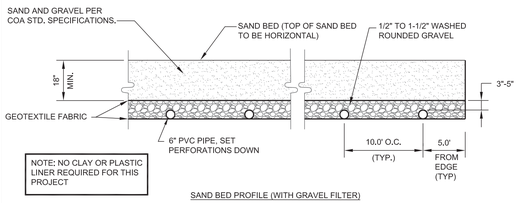
PERFORATION LAYOUT

SECTION "A-A"

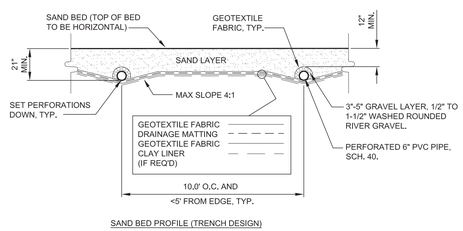


SECTION "B-B"

SPECIFICATIONS: 8oz NON-WOVEN GEOTEXTILE FILTER FABRIC			
PROPERTY	TEST METHOD	UNIT	SPECIFICATION
FILTRATION RATE		IN/SEC	0,08 (MIN)
PUNCTURE STRENGTH	ASTM D-751 (MODIFIED)	Lb.	125 (MIN)
MULLEN BURST STRENGTH	ASTM D-751	Psi	400 (MIN)
TENSILE STRENGTH	ASTM D-1682	Lb.	200 (MIN)
EQUIV. OPENING SIZE	US STANDARD SIEVE	No.	80 (MIN)



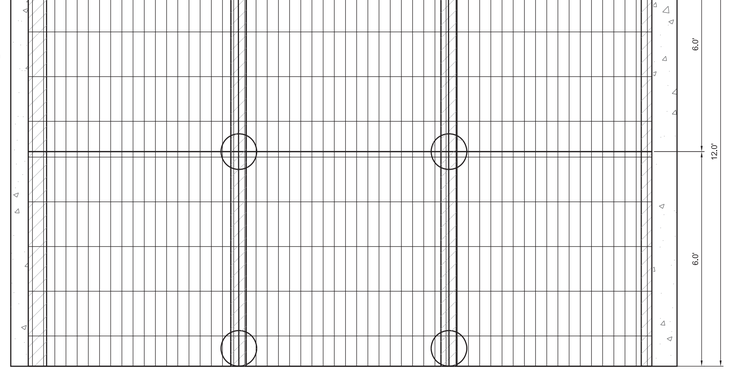
SAND BED PROFILE (WITH GRAVEL FILTER)



SAND BED PROFILE (TRENCH DESIGN)

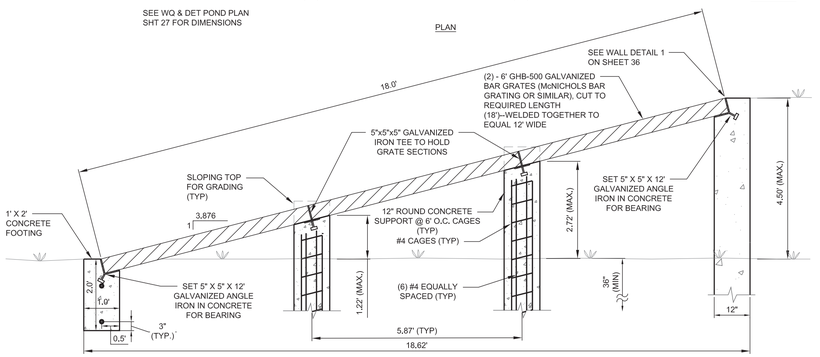
2 WQ POND DETAIL "A"

SCALE: N.T.S.



SEE WQ & DET POND PLAN
SHT 27 FOR DIMENSIONS

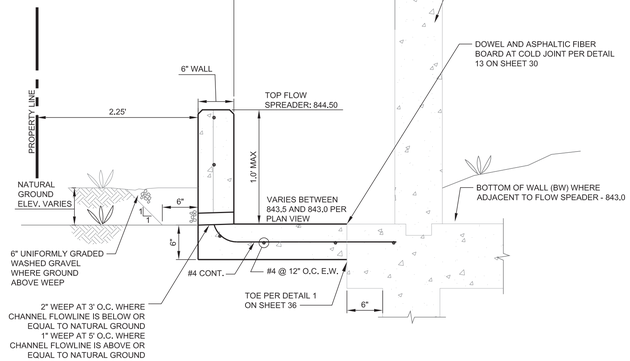
PLAN



SECTION

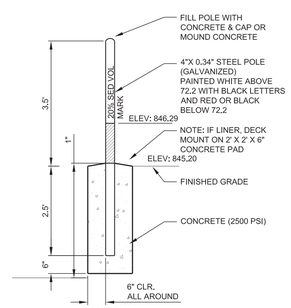
8 ACCESS RAMP DETAIL

SCALE: 1" = 2'



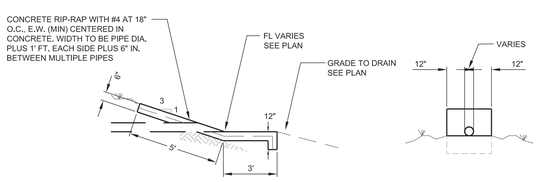
6 CROSS SECTION DETAIL

SCALE: 1" = 1'



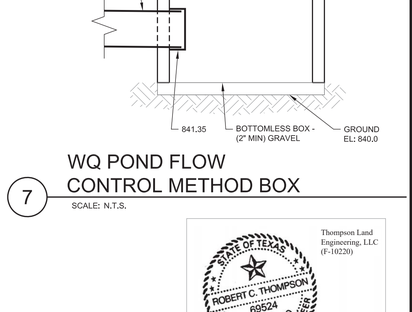
4 TCEQ SEDIMENT MARKER

SCALE: 1" = 2'



5 NOT USED

SCALE: 1" = 4' (PIPES 12" IN DIA, OR LESS)



7 WQ POND FLOW CONTROL METHOD BOX

SCALE: N.T.S.

Thompson Land Engineering, LLC (F-10220)

STATE OF TEXAS
ROBERT C. THOMPSON
69524
REGISTERED PROFESSIONAL ENGINEER

2/24/24

2023- -SWP

THOMPSON LAND ENGINEERING, LLC
Land Planning, Site Design, Subdivision Engineering
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
www.tleng.net email: rc@tleng.net
TBPE Reg. No. F-10220

DATE

REVISION

PROJECT
AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

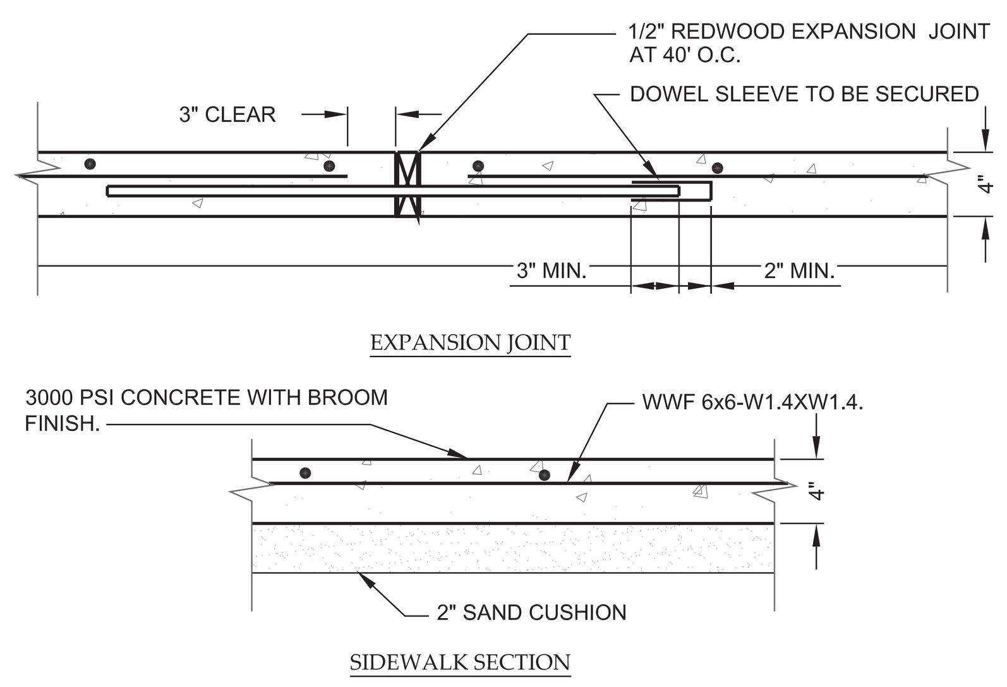
SHEET NAME
WQ & DETENTION POND DETAILS

DATE ISSUED
February, 2024

DESIGNED BY: RCT
DRAFTED BY: RH/JH/MR

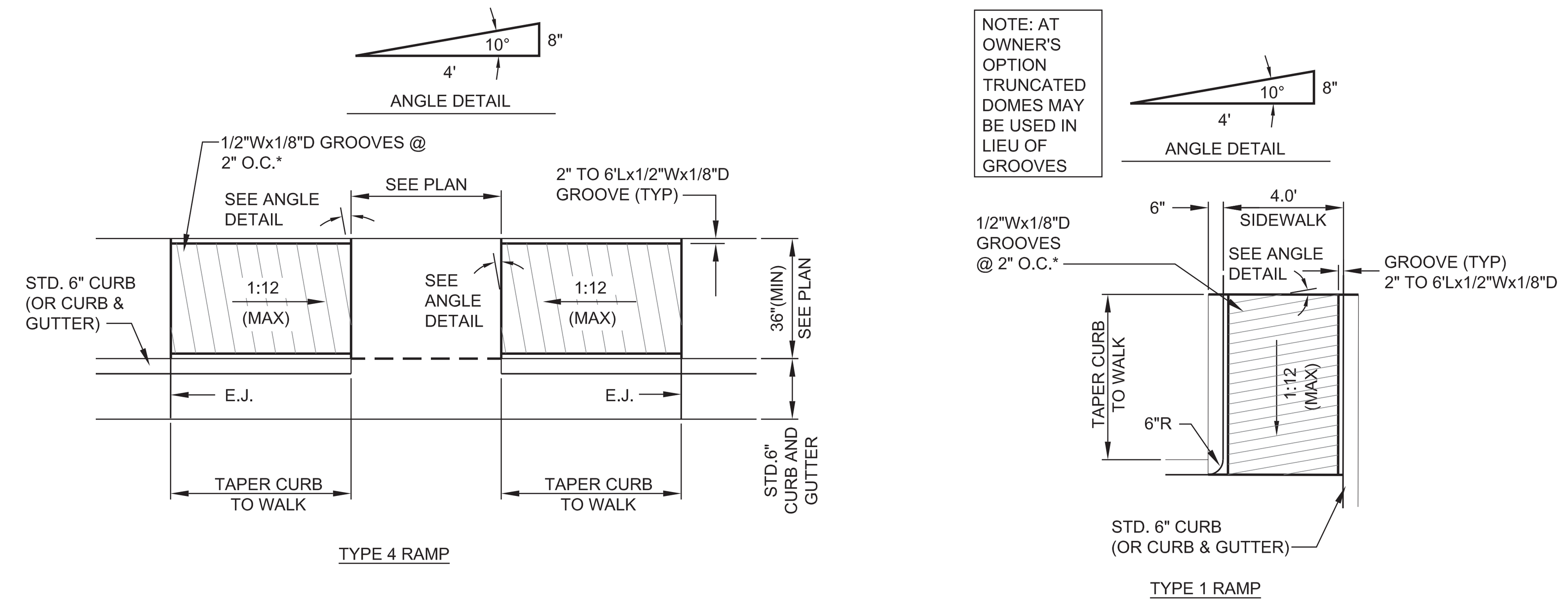
JOB NUMBER
1864

SHEET
29 OF 38



1 SIDEWALK DETAIL (PRIVATE)

SCALE: 1" = 1'



(*) 3:1 SLOPE IF SIDEWALK IS BELOW GRADE. IF ABOVE OR AT FINISHED GRADE SEE TYPICAL SIDEWALK DETAIL

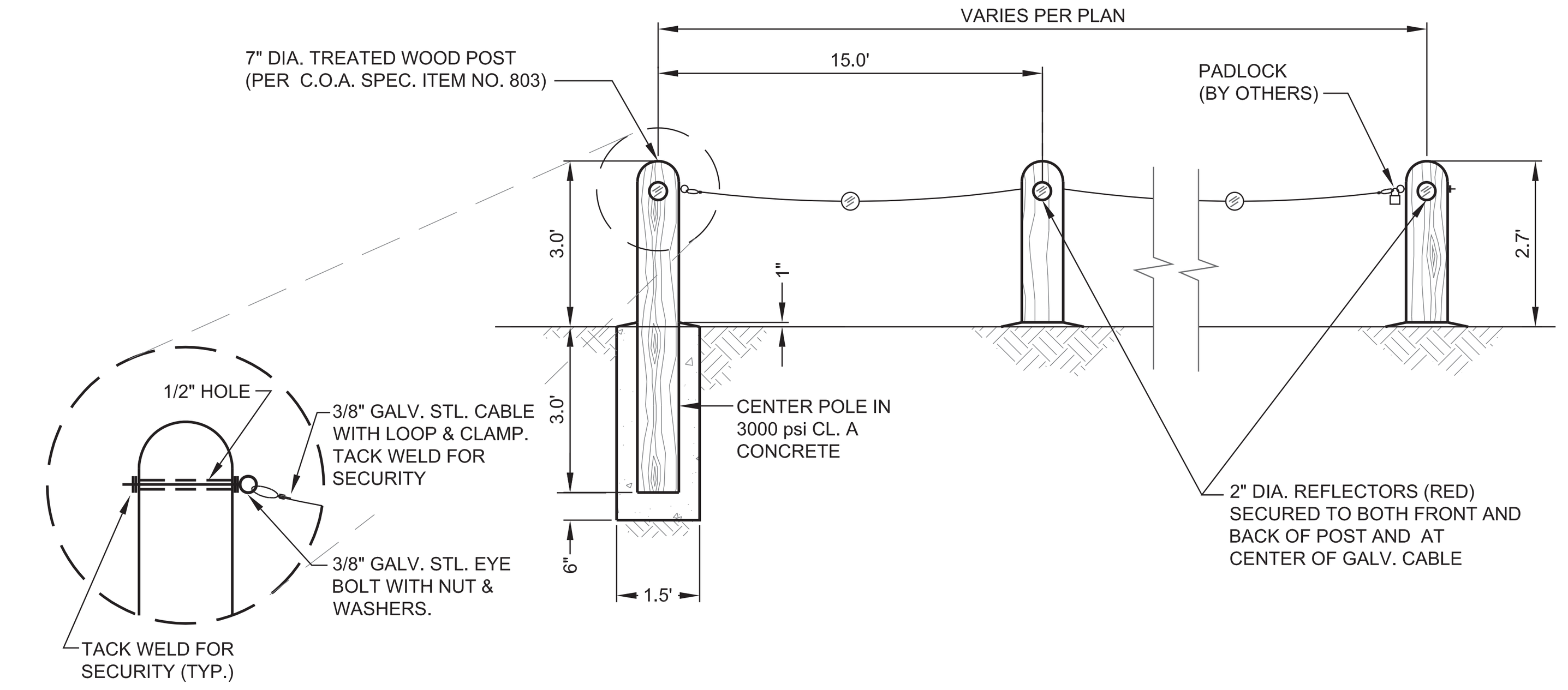
(**) SLOPED PORTION OF CONCRETE TO BE COLORED RED AND BE FINISHED WITH A COURSE BROOM FINISH

(*) 3:1 SLOPE IF SIDEWALK IS BELOW GRADE. IF ABOVE OR AT FINISHED GRADE SEE TYPICAL SIDEWALK DETAIL

(**) SLOPED PORTION OF CONCRETE TO BE COLORED RED AND BE FINISHED WITH A COURSE BROOM FINISH

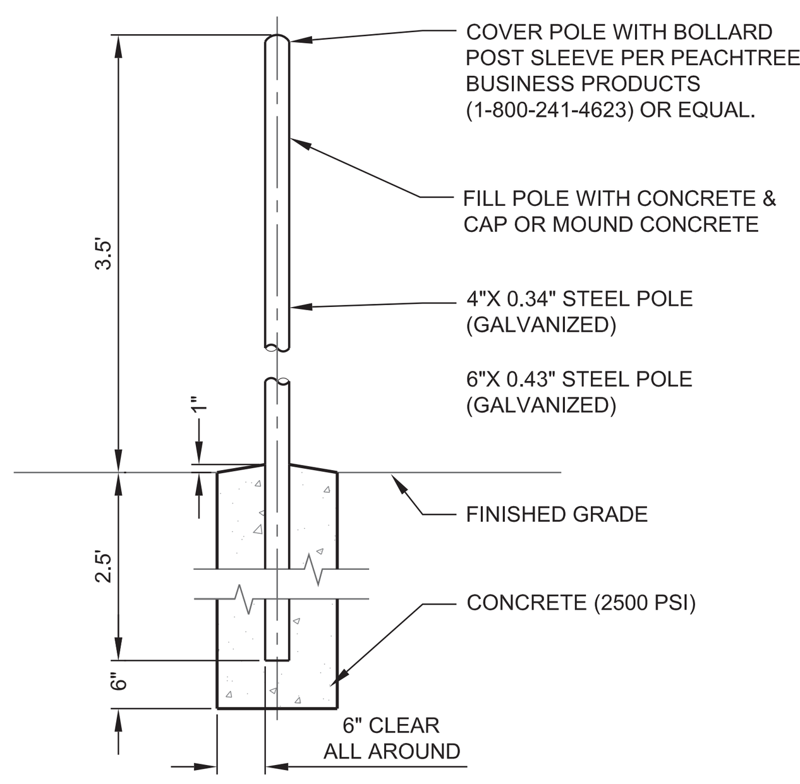
2 HANDICAP RAMP (PRIVATE)

SCALE: 1" = 5'



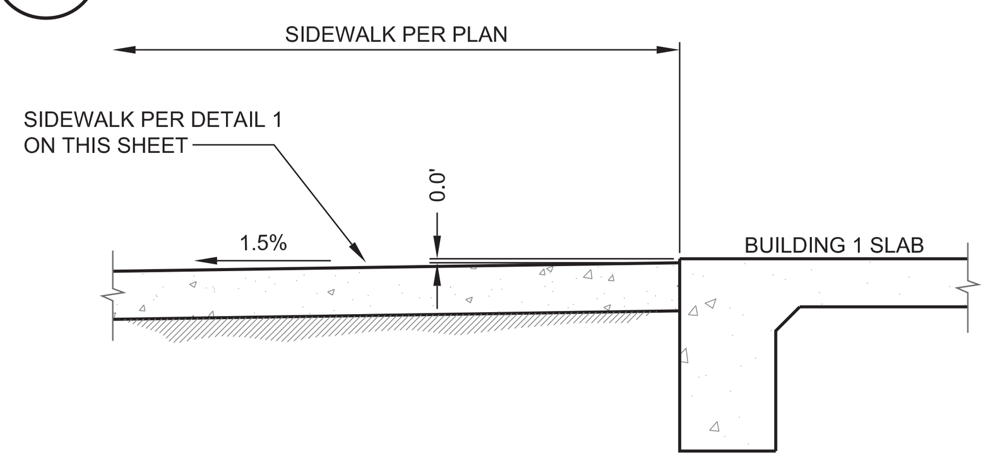
3 POST AND CABLE GATE DETAIL

SCALE: N.T.S.



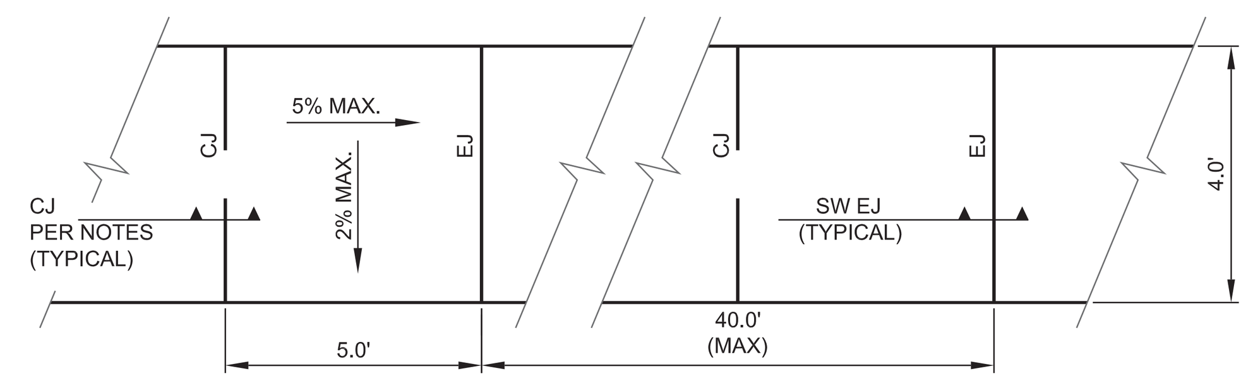
4 BOLLARD DETAIL

SCALE: N.T.S.



5 SIDEWALK @ BLDG. ENTRANCE

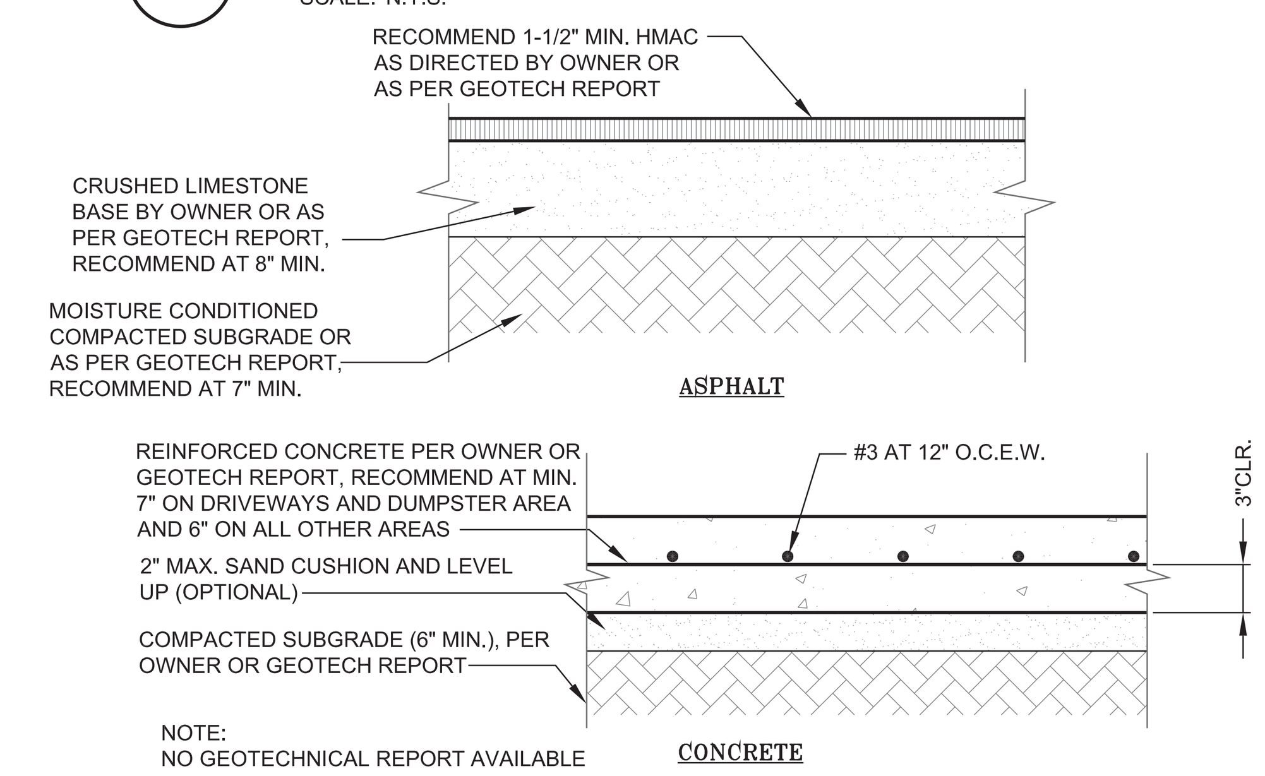
SCALE: 1" = 5'



WARNING!! ALMOST ALL OF THE SIDEWALKS FOR THIS PROJECT WERE GRADED TO HAVE A MAXIMUM CROSS SLOPE OF 2% (1% TYP.), AND A MAXIMUM LONGITUDINAL SLOPE OF 5% (4% OR LESS TYP.). THESE SLOPES ARE IN COMPLIANCE WITH "AMERICANS WITH DISABILITIES ACT" AND "TEXAS ACCESSIBILITY STANDARDS". UNLESS A SIDEWALK IS OBVIOUSLY GRADED STEEPER THAN 5%, CONTRACTOR IS TO ENSURE THAT THE SIDEWALK MEETS THESE MAXIMUM SLOPES OR NOTIFIES THE ENGINEER PRIOR TO PLACING CONCRETE. FAILURE TO COMPLY WITH THIS STIPULATION COULD BE CAUSE FOR REJECTION AND SUBSEQUENT RECONSTRUCTION OF THAT SIDEWALK AT NO EXPENSE TO THE OWNER.

6 GENERAL SIDEWALK DETAIL

SCALE: N.T.S.

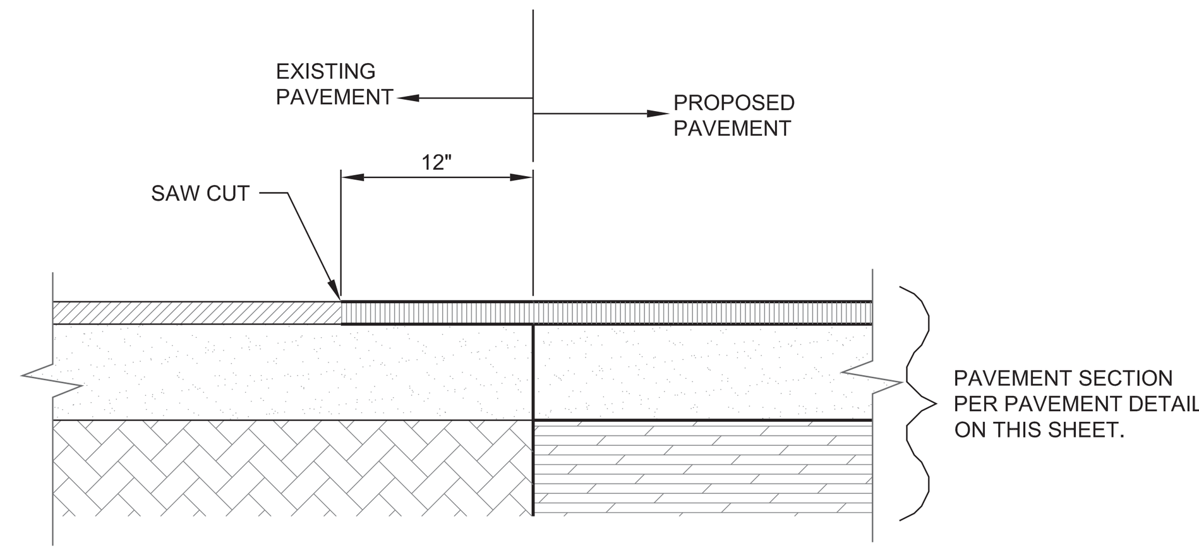


NOTE:
NO GEOTECHNICAL REPORT AVAILABLE

REFER ALSO TO DETAILS 13 & 14 ON THIS SHEET FOR EXPANSION AND CONTROL JOINTS.

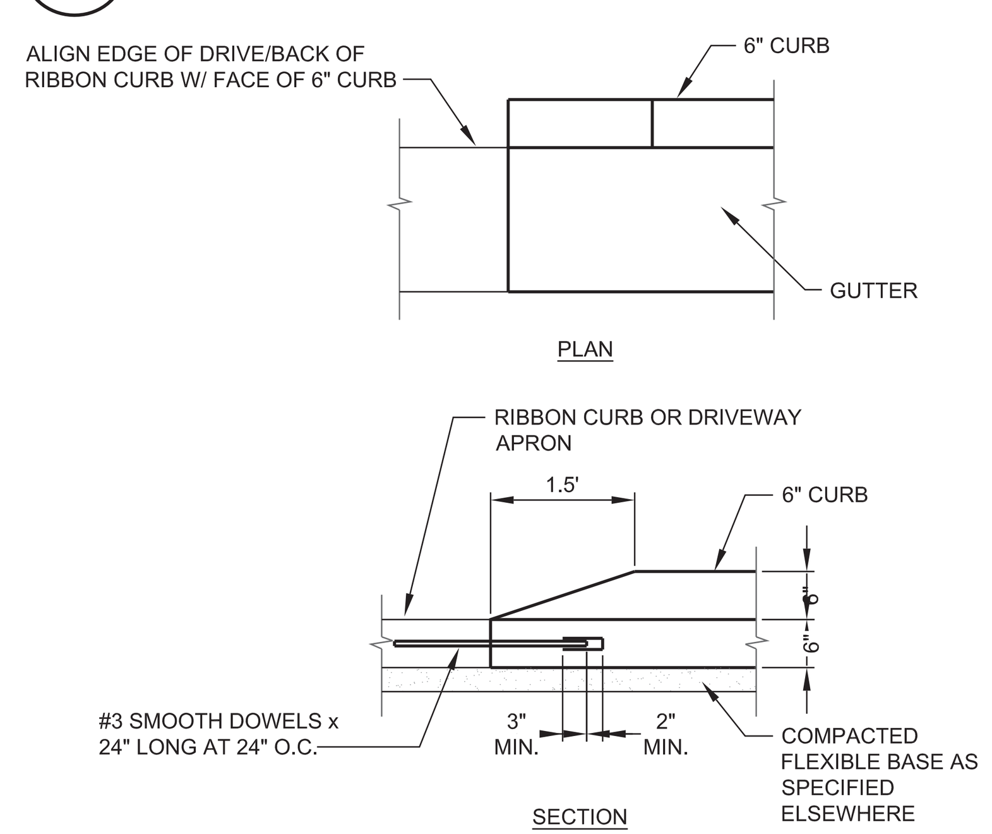
7 PAVEMENT SECTIONS

SCALE: 1" = 1'



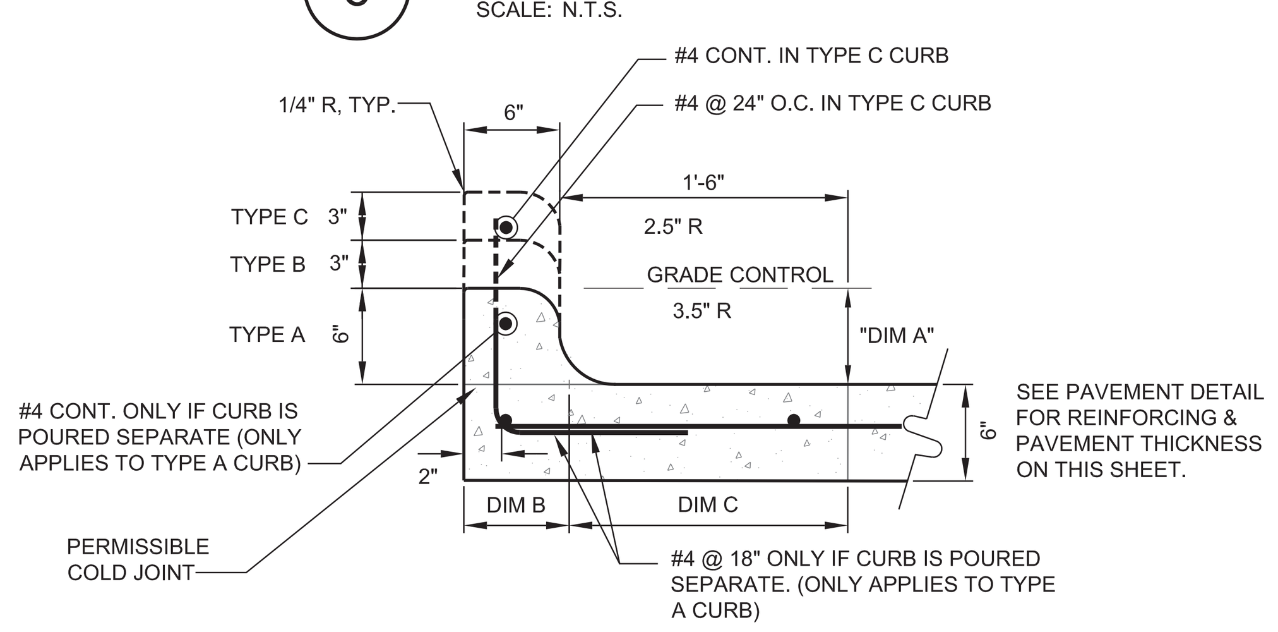
8 TYP. SECTION THRU EXIST. AND NEW ASPHALT PAVEMENT

SCALE: 1" = 1'



9 CURB TERMINATION

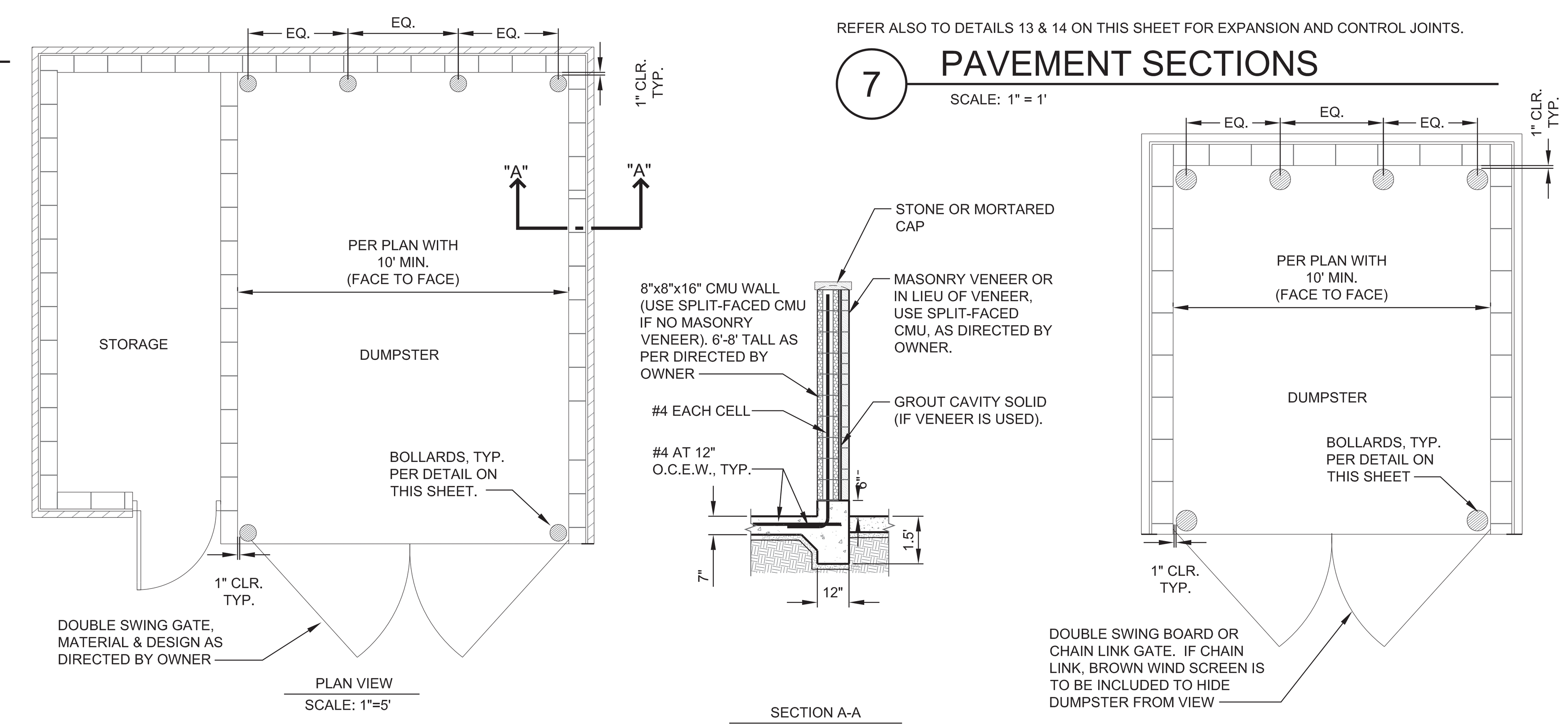
SCALE: 1" = 2'



CURB TYPE	DIM "A"	DIM "B"	DIM "C"
SPILL	6-1/4"	7"	1'-5"
CATCH	5"	7"	1'-5"
LAYDOWN	5"	8"	1'-4"

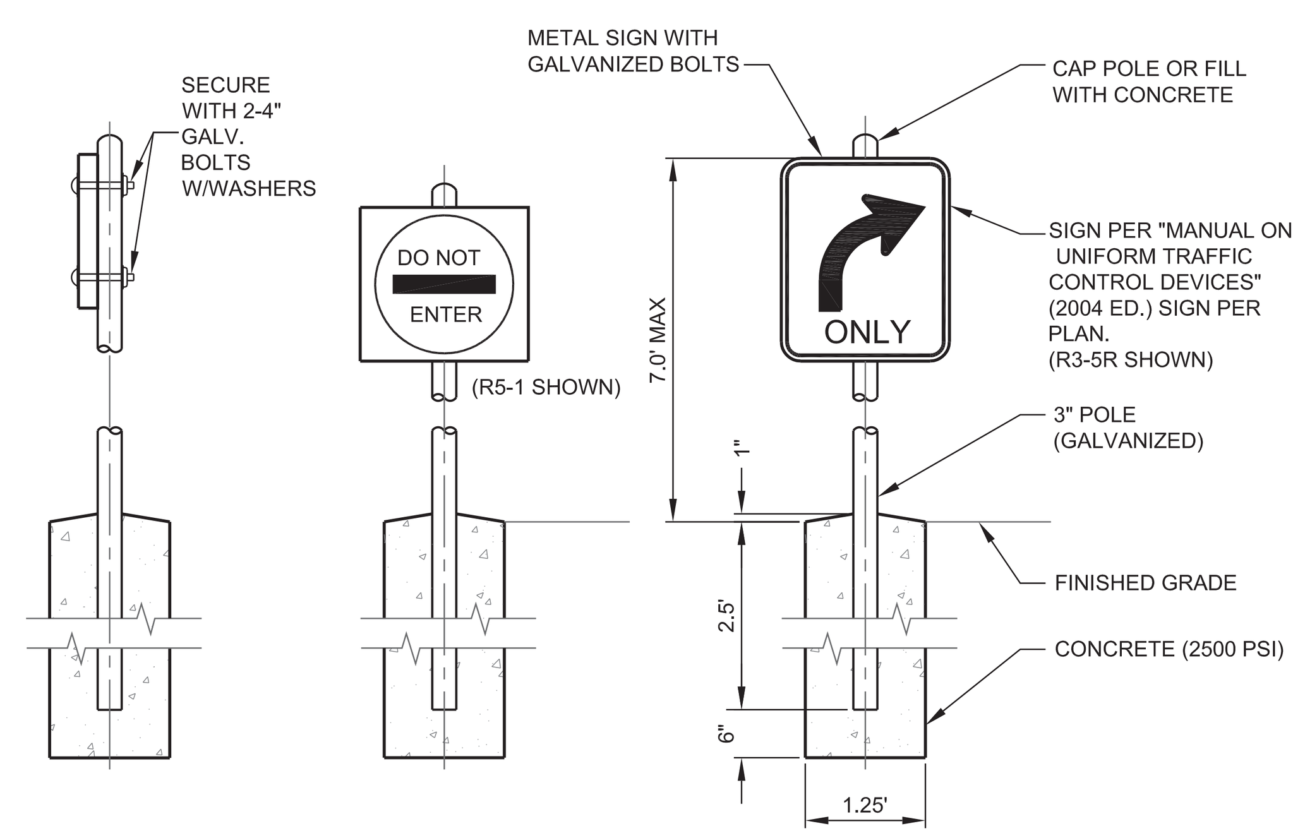
10 CURB FOR CONCRETE PAVEMENT

SCALE: 1" = 1'



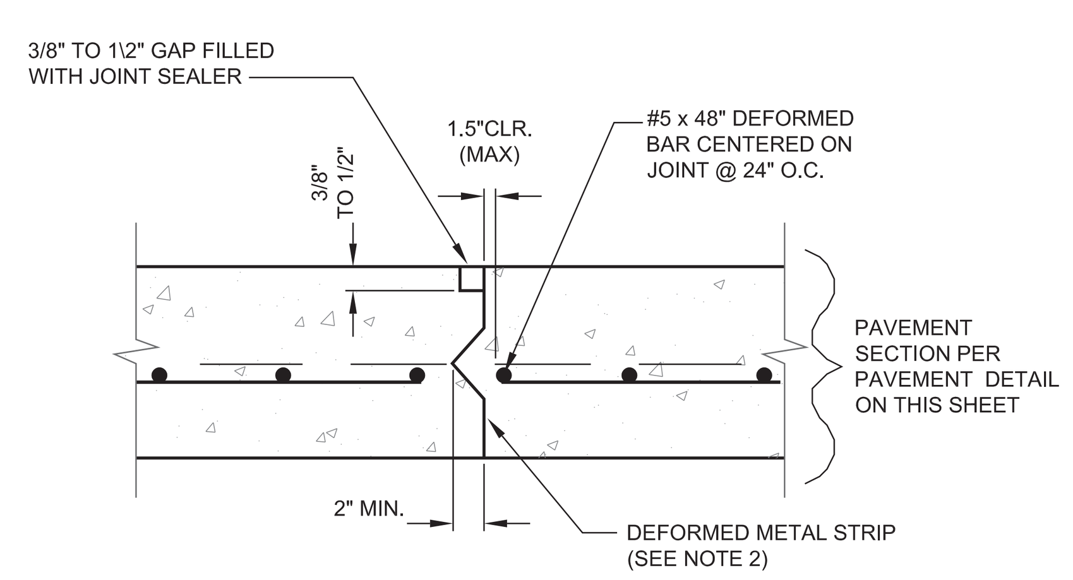
11 TRASH DUMPSTER

SCALE: 1" = 5'



12 TRAFFIC CONTROL SIGN POST DETAIL

SCALE: 1" 2"

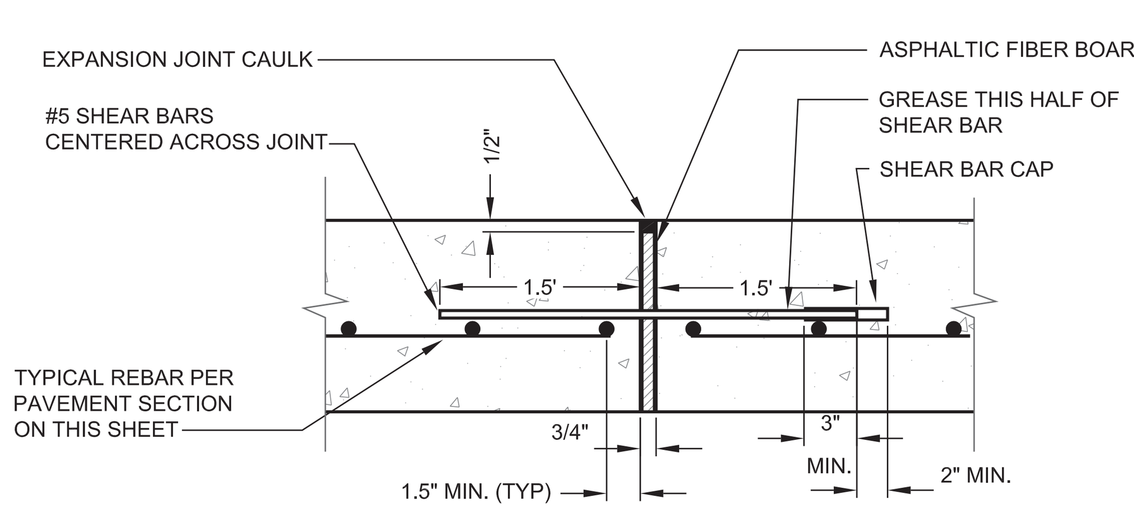


NOTES:
1.) CONTROL JOINTS SHOULD BE SPACED NO GREATER THAN 12.5 FEET FOR 5-INCH THICK CONCRETE AND NO GREATER THAN 15 FEET FOR 6-INCH THICK OR GREATER CONCRETE (OR IN ACCORDANCE WITH GEOTECHNICAL REPORT).

2.) "SCREED KEY JOINT" OR "LOAD KEY JOINT" WITH CAP STRIP AS MANUFACTURED BY DAYTON SUPERIOR OR APPROVED EQUAL. REMOVE CAP AFTER CONCRETE SETS AND FILL REMAINING GAP WITH JOINT SEALER.

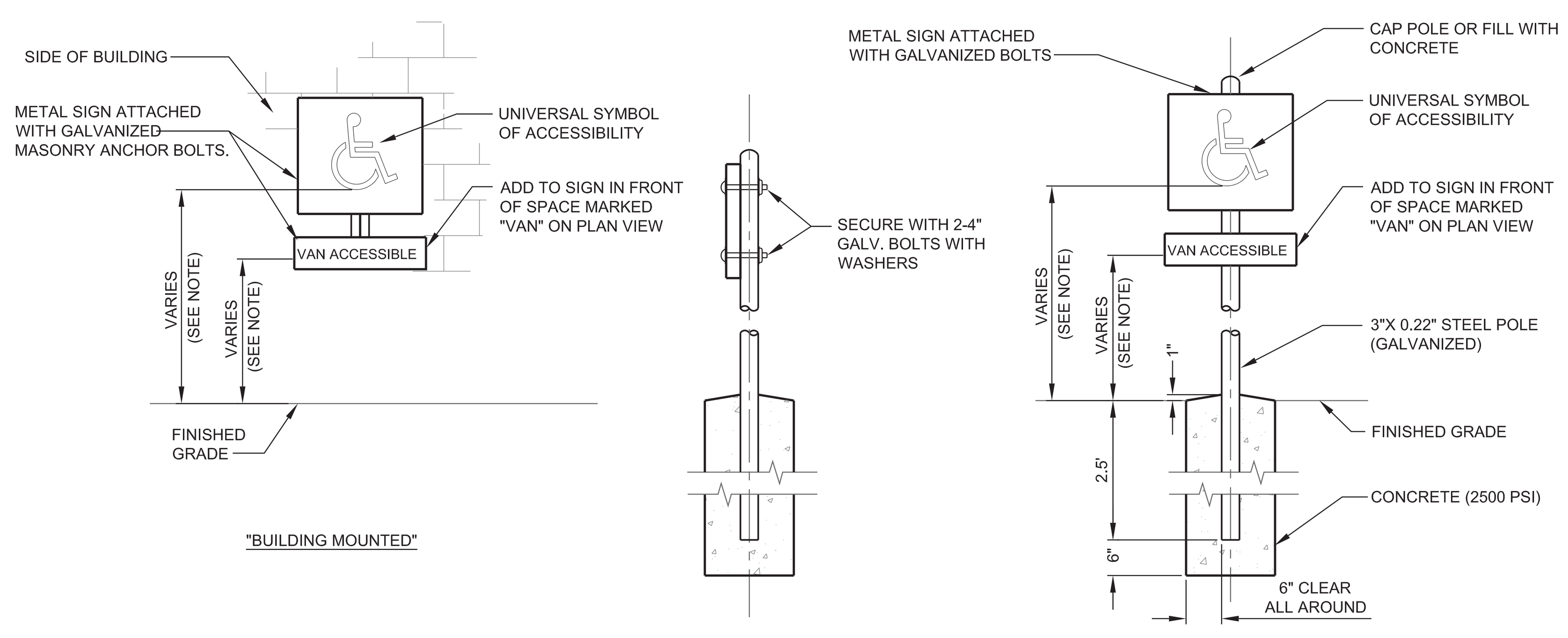
13 CONCRETE PAVEMENT CONTROL JOINT

SCALE: 1" = 0.5' FOR 6" THICKNESS SHOWN



14 DOWEL- CONCRETE PAVEMENT EXPANSION JOINT DETAIL

SCALE: N.T.S.

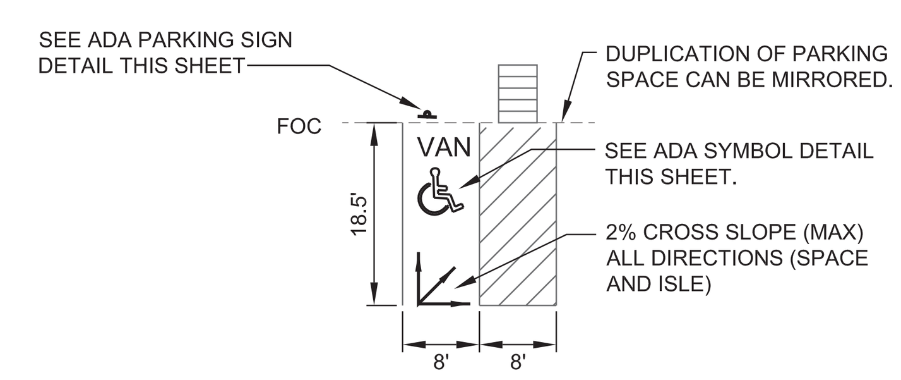


NOTE: THE HEIGHT FROM FINISHED GRADE TO EITHER THE LOWEST SYMBOL OR THE LOWEST LETTERING MUST BE A MINIMUM OF 60 INCHES. SIGN CONTENTS AND HEIGHT REQUIREMENTS ALSO APPLY TO WALL MOUNTED SIGNAGE.

15 ADA PARKING SIGN

SCALE: N.T.S (POLE OR WALL MOUNTED)

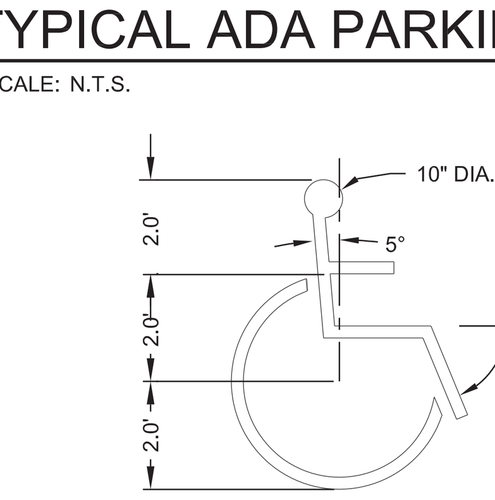
(POLE OR WALL MOUNTED)



WARNING!! EXCEEDING 2 PERCENT SLOPE IN ANY DIRECTION COULD BE CAUSE FOR REJECTION OF SPACE. CONTRACTOR IS TO VERIFY SPOT ELEVATIONS PRIOR TO CONSTRUCTION AND ENSURE 2% IS NOT EXCEEDED.

16 TYPICAL ADA PARKING SPACE

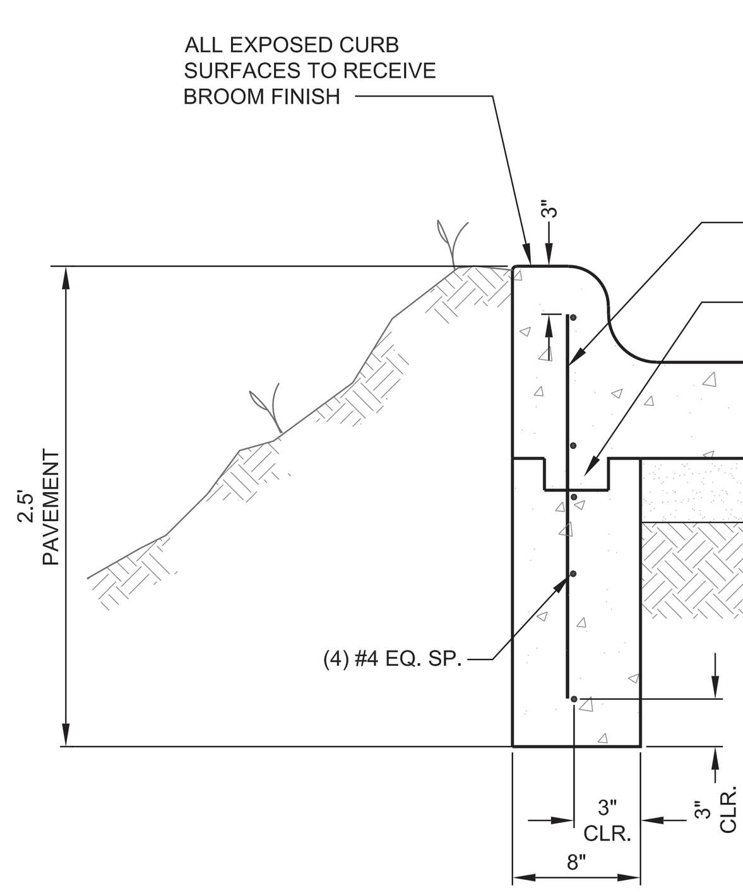
SCALE: N.T.S.



PROVIDE PAINTED WHEELCHAIR SYMBOL AT EACH DESIGNATED HANDICAP PARKING STALL. CENTER SYMBOL IN STALL.
ALL LINES ARE 5" WIDE.

17 ADA SYMBOL

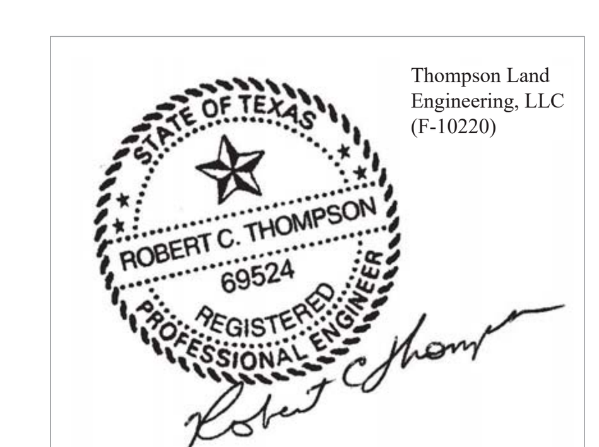
SCALE: N.T.S.



NOTE:
USE THIS DETAIL WHEN 3:1 SLOPE WITHIN 2 FEET OF BACK OF CURB.

18 6" CURB WHEN NEAR 3:1 SLOPE

SCALE: 1" = 1'



2/24/24

2023- -SWP

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TBPE Reg. No. F-10220 © Copyright 2012

REVISION	DATE

PROJECT: AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

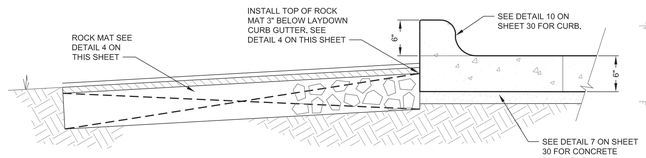
SHEET NAME: SITE PLAN DETAILS

DATE ISSUED: February, 2024

DESIGNED BY	DRAFTED BY
RCT	RH/JH/MR

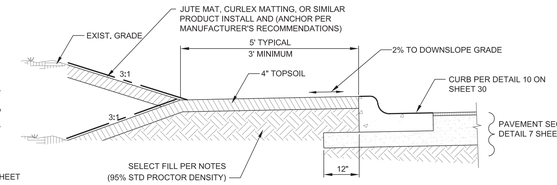
JOB NUMBER: 1864

SHEET 30 OF 38



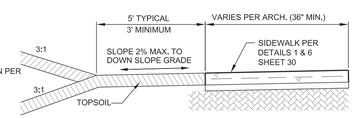
1 DRAIN MAT AT LAYDOWN CURB DETAIL

SCALE: 1" = 1'



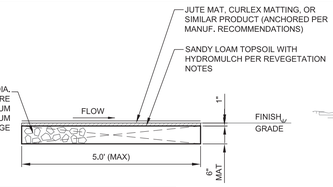
2 GRADE @ BACK OF 6" CURB

SCALE: 1" = 2'



3 ON-SITE SIDEWALK AT GRADE

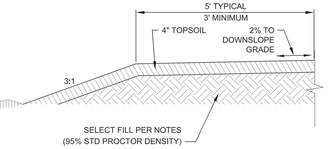
SCALE: 1" = 2'



NOTE: VOIDS ARE TO BE FILLED WITH TOP SOIL.

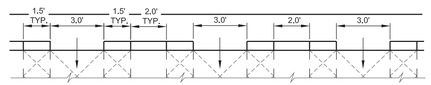
4 TYPICAL ROCK MAT SECTION

SCALE: 1" = 2'

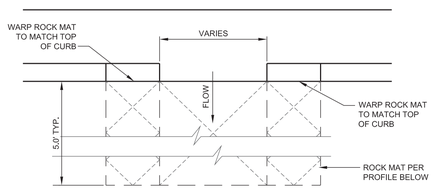


5 3:1 SLOPING GRADE

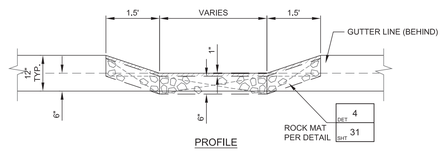
SCALE: 1" = 2'



PLAN (MULTIPLE OPENING)



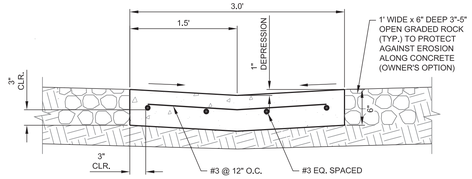
PLAN (SINGLE OPENING)



PROFILE

6 LAY DOWN CURB AND GUTTER SECTION

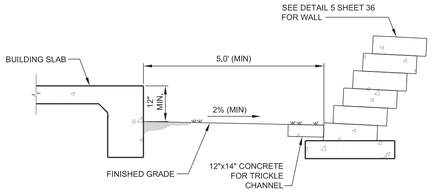
SCALE: N.T.S.



IN GRADE

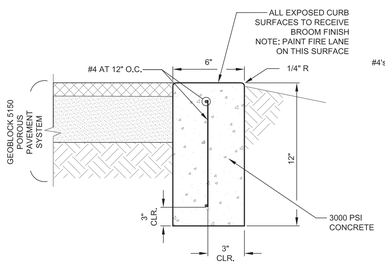
7 TRICKLE CHANNEL

SCALE: 1" = 1'



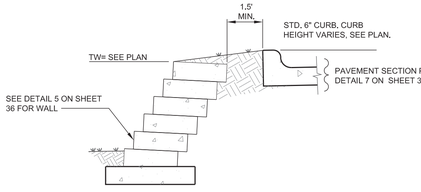
8 TYP. GRADING @ CUT FOR BUILDING

SCALE: 1" = 2'



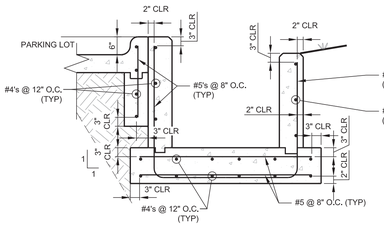
9 FIRELANE RIBBON CURB

SCALE: 1" = 1'

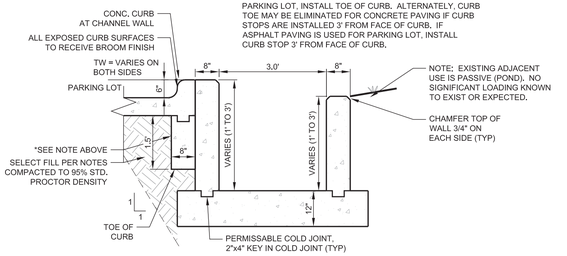


10 RETAINING WALL BEHIND CURB

SCALE: 1" = 2'



NOTE:
FOR LENGTH OF DRAINAGE CHANNEL BETWEEN PARKING AREA AND POND, USE THIS DETAIL BUT ELIMINATE CURB AND PARKING AREA.



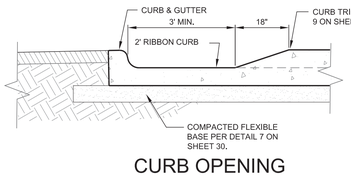
*NOTE:
TOE OF CURB: IF CONCRETE PAVING IS USED FOR PARKING LOT, INSTALL TOE OF CURB. ALTERNATELY, CURB TOE MAY BE ELIMINATED FOR CONCRETE PAVING IF CURB STOPS ARE INSTALLED 3' FROM FACE OF CURB. IF ASPHALT PAVING IS USED FOR PARKING LOT, INSTALL CURB STOP 3' FROM FACE OF CURB.

NOTE: EXISTING ADJACENT USE IS PASSIVE (POND). NO SIGNIFICANT LOADING KNOWN TO EXIST OR EXPECTED.

CHAMFER TOP OF WALL 3/4" ON EACH SIDE (TYP)

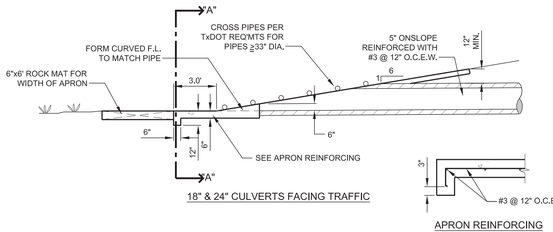
11 TYPICAL DRAINAGE CHANNEL WITH 6" CURB

SCALE: 1" = 2'



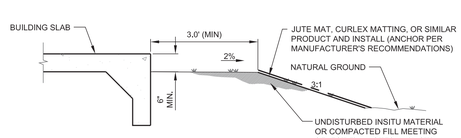
12 CURB OPENING DETAIL AT CORNER

SCALE: 1" = 2'



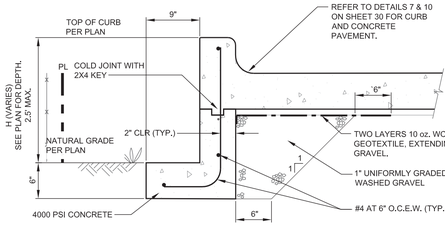
18" & 24" CULVERTS FACING TRAFFIC

APRON REINFORCING



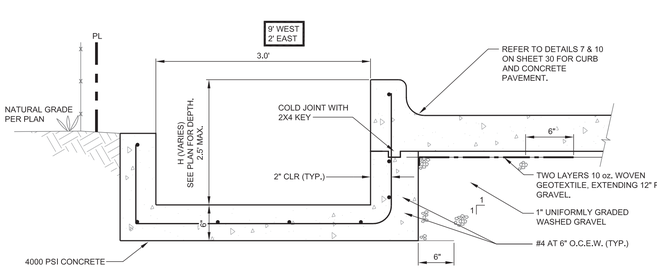
13 TYPICAL GRADING @ BUILDING

SCALE: 1" = 2'



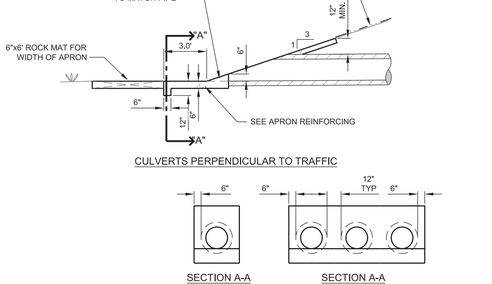
14 CURB WITH DRAINAGE PAD

SCALE: 1" = 1'



15 CURB WITH DRAINAGE PAD

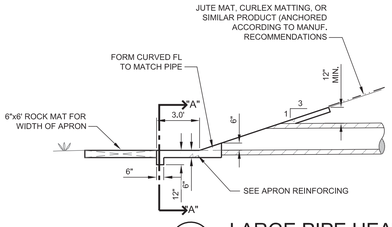
SCALE: 1" = 1'



CULVERTS PERPENDICULAR TO TRAFFIC

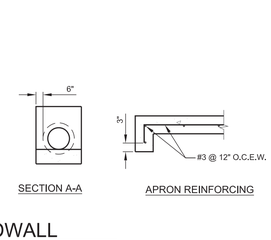
16 SAFETY END TREATMENT

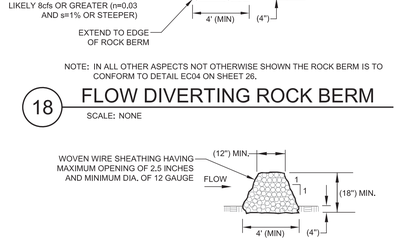
SCALE: 1" = 5' (NOTE: 18" PIPE SHOWN)



17 LARGE PIPE HEADWALL

SCALE: 1" = 5' (PIPES 18" IN DIA. OR LARGER)





NOTE: IN ALL OTHER ASPECTS NOT OTHERWISE SHOWN THE ROCK BERM IS TO CONFORM TO DETAIL EC04 ON SHEET 26.

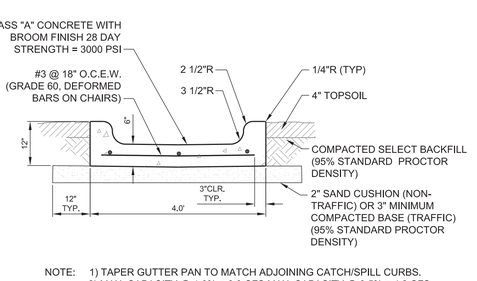
18 FLOW DIVERTING ROCK BERM

SCALE: NONE

NOTE: IN ALL OTHER ASPECTS NOT OTHERWISE SHOWN THE ROCK BERM IS TO CONFORM TO DETAIL EC04 ON SHEET 26.

19 PERMANENT ROCK BERM

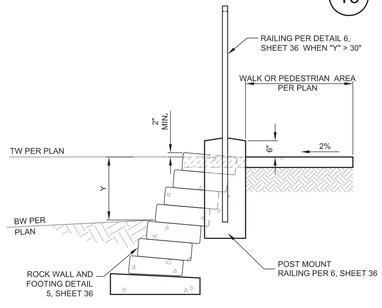
SCALE: NONE



NOTE: 1) TAPER GUTTER PAN TO MATCH ADJOINING CATCH/SPILL CURBS.
2) MAX. CAPACITY @ 1.0% = 6.0 CFS MAX. CAPACITY @ 0.5% = 4.2 CFS

20 MEDIAN CUT/DRAINAGE FLUME DETAIL

SCALE: N.T.S.



21 ROCK WALL @ 6" CURB

SCALE: 1" = 2'

THOMPSON LAND ENGINEERING, LLC
Land Planning, Site Design, Subdivision Engineering
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
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TBPE Reg. No. F-10220

DATE

REVISION

PROJECT
AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME
GRADING & DRAINAGE DETAILS

DATE ISSUED
February, 2024

DESIGNED BY RCT | DRAFTED BY RH/JH/MR

JOB NUMBER
1864

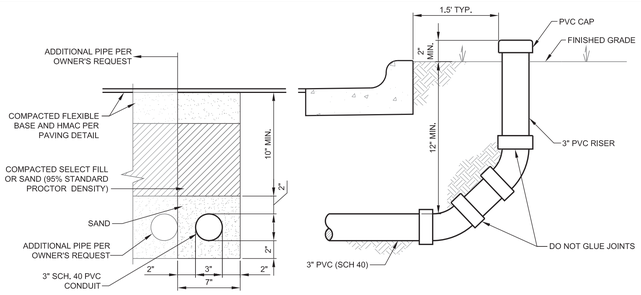
SHEET
31 OF 38

STATE OF TEXAS
ROBERT C. THOMPSON
89524
REGISTERED PROFESSIONAL ENGINEER

Thompson Land Engineering, LLC (F-10220)

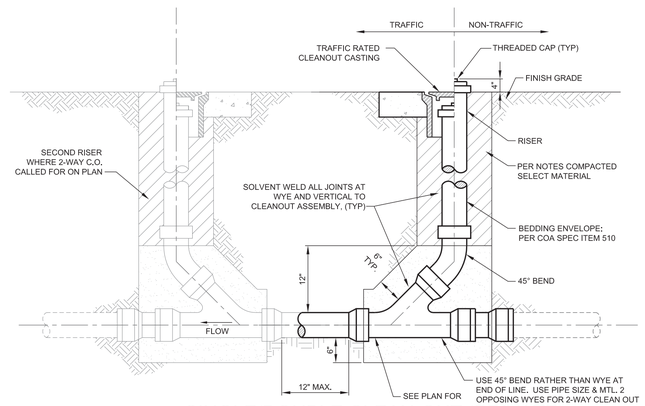
2/24/24

2023- -SWP



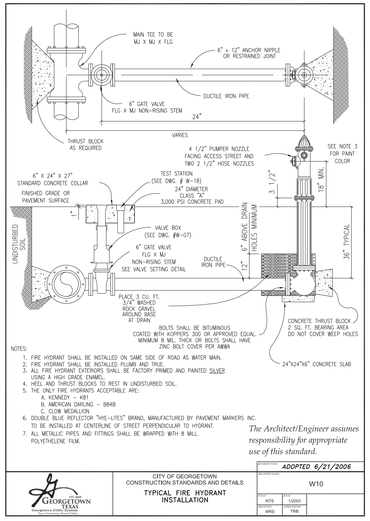
1 IRRIGATION AND/OR ELECTRICAL SLEEVES

SCALE: N.T.S.



2 SINGLE/DOUBLE CLEAN-OUT (PRIVATE)

SCALE: N.T.S.



NOTES:
1. FIRE HYDRANT SHALL BE INSTALLED ON SAME SIDE OF ROAD AS WATER MAIN.
2. FIRE HYDRANT SHALL BE INSTALLED PLUMB AND TRUE.
3. ALL FIRE HYDRANT EXTERIORS SHALL BE FACTORY PRIMED AND PAINTED SILVER USING A HIGH GRADE ENAMEL.
4. HEEL AND THRUST BLOCKS TO REST IN UNDISTURBED SOIL.
5. THE ONLY FIRE HYDRANTS ACCEPTABLE ARE:
   A. KENNEDY – K81
   B. AMERICAN DARLING – B84B
   C. CLOW MEDALLION
6. DOUBLE BLUE REFLECTOR "HI-LITES" BRAND, MANUFACTURED BY PAVEMENT MARKERS INC. TO BE INSTALLED AT CENTERLINE OF STREET PERPENDICULAR TO HYDRANT.
7. ALL METALLIC PIPES AND FITTINGS SHALL BE WRAPPED WITH 8 MIL. POLYETHELENE FILM.

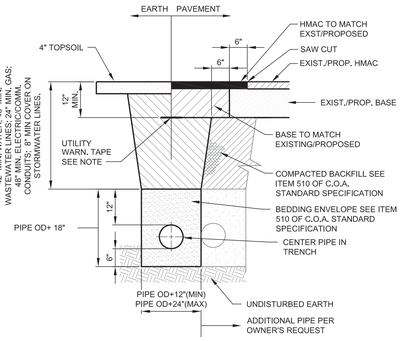
The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TYPICAL FIRE HYDRANT INSTALLATION
W10

4 FIRE HYDRANT INSTALLLATION

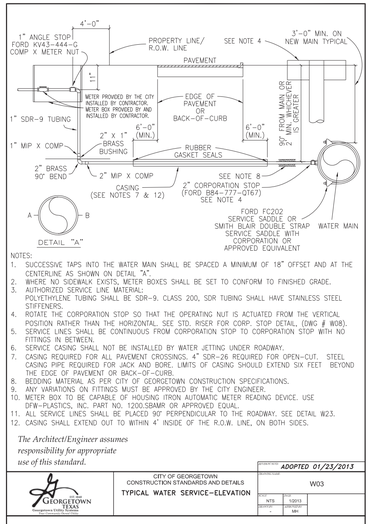
SCALE: N.T.S.



NOTE:
TAPE SHOWN SHALL BE NON-METALLIC UTILITY WARNING TAPE FOR METALLIC PIPE AND METALLIC UTILITY WARNING TAPE FOR NON-METALLIC PIPE.

5 PRIVATE ON-SITE TRENCH WITH PAVED OR EARTHEN SURFACE

SCALE: N.T.S.

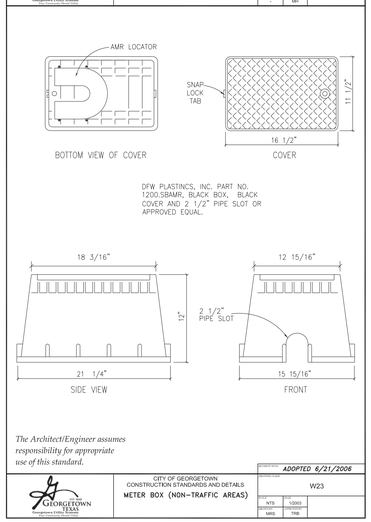


NOTES:
1. SUCCESSIVE TAPS INTO THE WATER MAIN SHALL BE SPACED A MINIMUM OF 18" OFFSET AND AT THE CENTERLINE AS SHOWN ON DETAIL "A".
2. WHERE NO SIDEWALK EXISTS, METER BOXES SHALL BE SET TO CONFORM TO FINISHED GRADE.
3. AUTHORIZED SERVICE LINE MATERIAL: POLYETHYLENE TUBING SHALL BE SDR-9. CLASS 200, SDR TUBING SHALL HAVE STAINLESS STEEL STIFFENERS.
4. ROTATE THE CORPORATION STOP SO THAT THE OPERATING NUT IS ACTUATED FROM THE VERTICAL POSITION RATHER THAN THE HORIZONTAL. SEE STD. RISER FOR CORP. STOP DETAIL, (DWG # W08).
5. SERVICE LINES SHALL BE CONTINUOUS FROM CORPORATION STOP TO CORPORATION STOP WITH NO FITTINGS IN BETWEEN.
6. SERVICE CASING SHALL NOT BE INSTALLED BY WATER JETTING UNDER ROADWAY.
7. CASING REQUIRED FOR ALL PAVEMENT CROSSINGS. 4" SDR-26 REQUIRED FOR OPEN-CUT. STEEL CASING PIPE REQUIRED FOR JACK AND BORE. LIMITS OF CASING SHOULD EXTEND SIX FEET BEYOND THE EDGE OF PAVEMENT OR BACK-OF-CURB.
8. BEDDING MATERIAL AS PER CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS.
9. ANY VARIATIONS ON FITTINGS MUST BE APPROVED BY THE CITY ENGINEER.
10. METER BOX TO BE CAPABLE OF HOUSING ITRON AUTOMATIC METER READING DEVICE. USE DFW-PLASTICS, INC. PART NO. 1200.SBAMR OR APPROVED EQUAL.
11. ALL SERVICE LINES SHALL BE PLACED 90" PERPENDICULAR TO THE ROADWAY. SEE DETAIL W23.
12. CASING SHALL EXTEND OUT TO WITHIN 4" INSIDE OF THE R.O.W. LINE, ON BOTH SIDES.

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

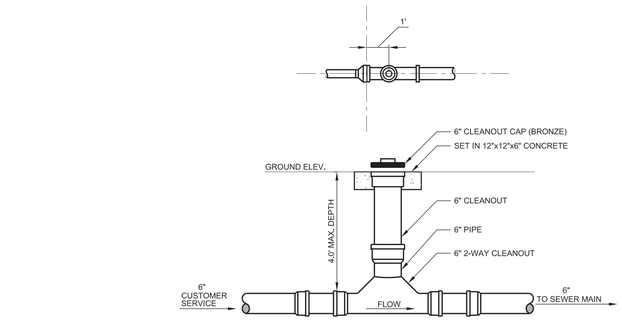
ADOPTED 01/23/2013

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TYPICAL WATER SERVICE–ELEVATION
W03



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

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
METER BOX (NON-TRAFFIC AREAS)
ADOPTED 6/21/2006
W23



8 WASTEWATER SAMPLING SITE

SCALE: N.T.S.

LENGTH OF REQUIRED RESTRAINTS FOR WATERLINES

Horizontal Bends- Length of Restraint (ft) - Pipe Length on each side of bend

PVC	Bend Angle 90°	45°	22.5°	11.25°
Nominal Size				
6"	29	12	6	3
8"	38	16	8	4
10"	45	19	9	5
12"	53	22	11	6
16"	68	28	14	7

Ductile Iron	Bend Angle 90°	45°	22.5°	11.25°
Nominal Size				
6"	24	10	5	3
8"	32	13	7	4
10"	38	16	8	4
12"	44	19	9	5
16"	56	24	12	6

Vertical Offsets- Length of Restraint (ft)

PVC	Bend Angle	45°	22.5°	11.25°
Nominal Size				
6"	Upper	33	16	8
	Lower	10	5	3
8"	Upper	43	21	11
	Lower	13	7	3
10"	Upper	52	25	13
	Lower	16	8	4
12"	Upper	63	30	15
	Lower	18	9	5
16"	Upper	79	38	19
	Lower	23	11	6

Ductile Iron	Bend Angle	45°	22.5°	11.25°
Nominal Size				
6"	Upper	21	10	5
	Lower	8	4	2
8"	Upper	28	14	7
	Lower	11	6	3
10"	Upper	33	16	8
	Lower	13	7	3
12"	Upper	39	19	10
	Lower	15	8	4
16"	Upper	50	24	12
	Lower	20	10	5

Tee- Length of Restraint (ft) - for Branch of Tee

PVC	Nominal Size 8"	10"	12"	16"
Branch Size				
6"	33	21	9	1
8"	68	59	50	31
12"	123	117	111	98

Ductile Iron	Nominal Size 8"	10"	12"	16"
Branch Size				
6"	21	14	6	1
8"	44	38	32	20
12"	79	75	71	63

Reducer- Length of Restraint (ft)

PVC	Reduced Size 6"	8"	10"	12"
Nominal Size				
8"	44	0	n/a	n/a
10"	76	42	0	n/a
12"	107	78	43	0
16"	159	138	112	80

Ductile Iron	Reduced Size 6"	8"	10"	12"
Nominal Size				
8"	28	0	n/a	n/a
10"	49	27	0	n/a
12"	68	50	28	0
16"	102	88	72	51

Dead End- Length of Restraint (ft)

PVC Nominal Size	
6"	79
8"	103
10"	124
12"	146
16"	189

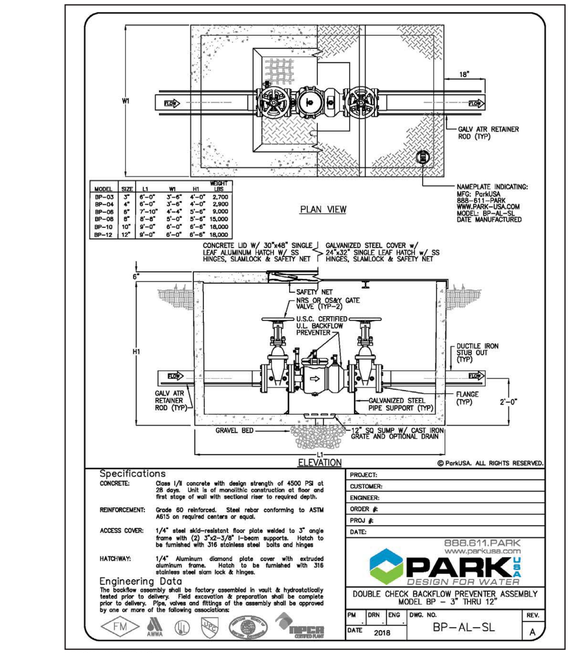
Ductile Iron Nominal Size	
6"	51
8"	66
10"	80
12"	94
16"	121

Assumptions:
Soil type CH, granular (typical trench)
Safety factor 2.0
Trench type 5 (granular backfill around per typical trench detail)
Depth of bury 4 feet
Test pressure 200 psi
Low side depth 5 feet (additional depth only reduces required restraint)

Source: EBBA Restraint Length Calculator v. 7.1.2 found at: http://rcp.ebaa.com/calculator.php

7 TYPICAL LENGTHS OF REQUIRED RESTRAINTS FOR WATERLINES

SCALE: N.T.S.



MODEL	SIZE	L1	W1	H1	WEIGHT LBS
BP-03	3"	6'-0"	3'-6"	4'-0"	2,700
BP-04	4"	6'-0"	3'-6"	4'-0"	2,900
BP-06	6"	7'-10"	4'-4"	5'-6"	9,000
BP-08	8"	8'-8"	5'-0"	5'-6"	13,000
BP-10	10"	9'-6"	6'-0"	6'-6"	18,000
BP-12	12"	9'-2"	6'-0"	6'-6"	18,000

Specifications

CONCRETE: Class I/II concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth.

REINFORCEMENT: Grade 60 reinforced. Steel rebar conforming to ASTM A615 on required centers or equal.

ACCESS COVER: 1/4" steel skid-resistant floor plate welded to 3" angle frame with (2) 3"x2-3/8" I-beam supports. Hatch to be furnished with 316 stainless steel bolts and hinges

HATCHWAY: 1/4" Aluminum diamond plate cover with extruded aluminum frame. Hatch to be furnished with 316 stainless steel slam lock & hinges.

Engineering Data

The backflow assembly shall be factory assembled in vault & hydrostatically tested prior to delivery. Field excavation & preparation shall be complete prior to delivery. Pipe, valves and fittings of the assembly shall be approved by one or more of the following associations:

PROJECT:
CUSTOMER:
ENGINEER:
ORDER #:
PROJ #:
DATE:

888.611.PARK
www.parkusa.com
DESIGN FOR WATER

DOUBLE CHECK BACKFLOW PREVENTER ASSEMBLY MODEL BP – 3" THRU 12"

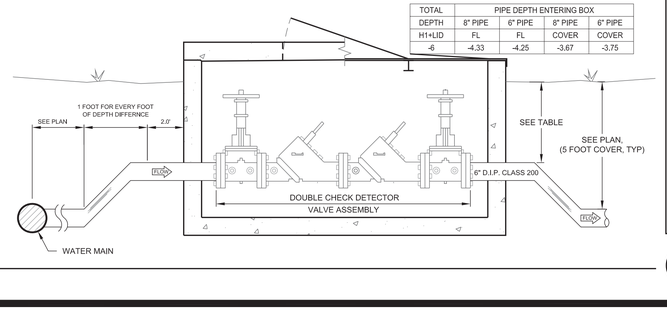
PM	DRN	DWG	DWG. NO.	REV.
DATE 2018			BP–AL–SL	A

SPECIAL WATER NOTE:
1) FOR FIRE LINE TAPS LEADING TO A BACKFLOW PREVENTOR IN A VAULT, ADD TWO 45 DEGREE OR LESS BENDS IF REQUIRED TO ACHIEVE GRADE.

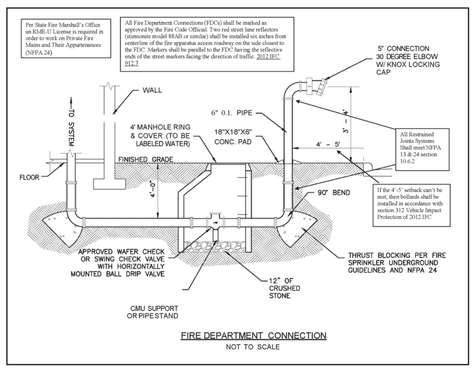
3 DOUBLE CHECK BACKFLOW PREVENTER ASSEMBLY FOR FIRE LINE (ON-SITE) OR APPROVED EQUAL

SCALE: N.T.S.

(NOTE: DETAIL BY PARK ENVIRONMENTAL EQUIPMENT, PHONE: 888-611-7275)



TOTAL DEPTH	PIPE DEPTH ENTERING BOX 8" PIPE	6" PIPE	8" PIPE	6" PIPE
H1+LID	FL	FL	COVER	COVER
-6	-4.33	-4.25	-3.67	-3.75



FIRE DEPARTMENT CONNECTION
NOT TO SCALE

6 FIRE DEPARTMENT CONNECTION (FDC)

SCALE: N.T.S.

8 FIRE LANE STRIPING

SCALE: N.T.S.

Thompson Land Engineering, LLC (F-10220)

STATE OF TEXAS
ROBERT C. THOMPSON
69524
REGISTERED PROFESSIONAL ENGINEER

2/24/24

2023- -SWP

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email: rc@tleng.net
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TBPE Reg. No. F-10220 © Copyright 2012

DATE
REVISION

AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

PROJECT

WATER & WASTEWATER DETAILS

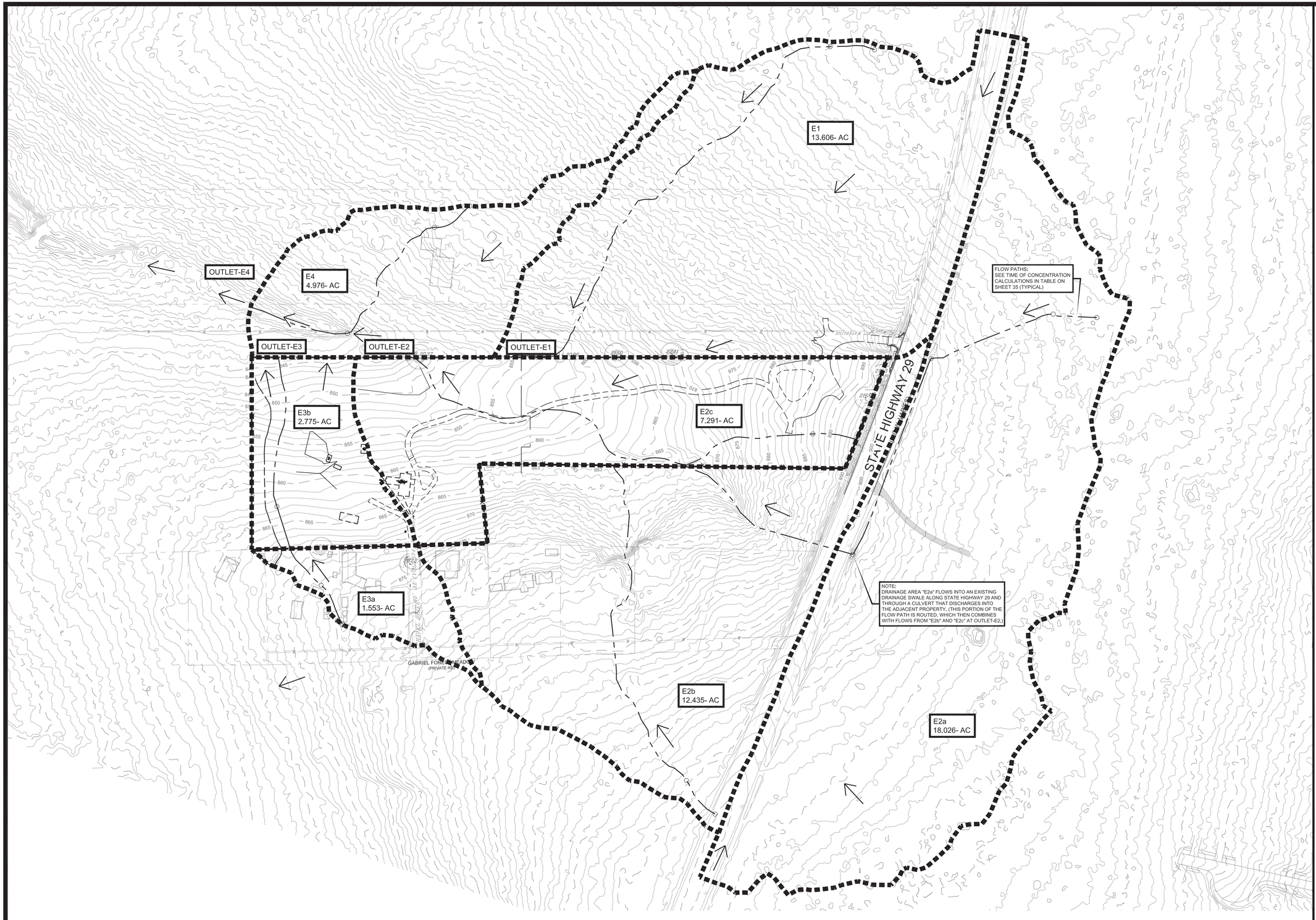
SHEET NAME

DATE ISSUED
February, 2024

DESIGNED BY: RCT
DRAFTED BY: RH/JH/MR

JOB NUMBER
1864

SHEET
32 OF 38



1 EXISTING DRAINAGE AREA MAP
SCALE: #####

SCALE: 1" = 100'
0 50 100 200

LEGEND
- LONG COURSE FLOW PATH
- EXISTING DRAINAGE AREA
- DIRECTIONAL FLOW ARROW

NOTE:
RAINFALL USED = ATLAS 14
2-YR: 4.12
10-YR: 6.80
25-YR: 8.84
100-YR: 12.70
SEE CALCULATION TABLES ON SHEET 35

THOMPSON LAND ENGINEERING, LLC
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DATE
REVISION

PROJECT
AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME
DRAINAGE AREA MAP (EXISTING)

STATE OF TEXAS
ROBERT C. THOMPSON
89524
REGISTERED PROFESSIONAL ENGINEER
Thompson Land Engineering, LLC (F-10220)
2/24/24

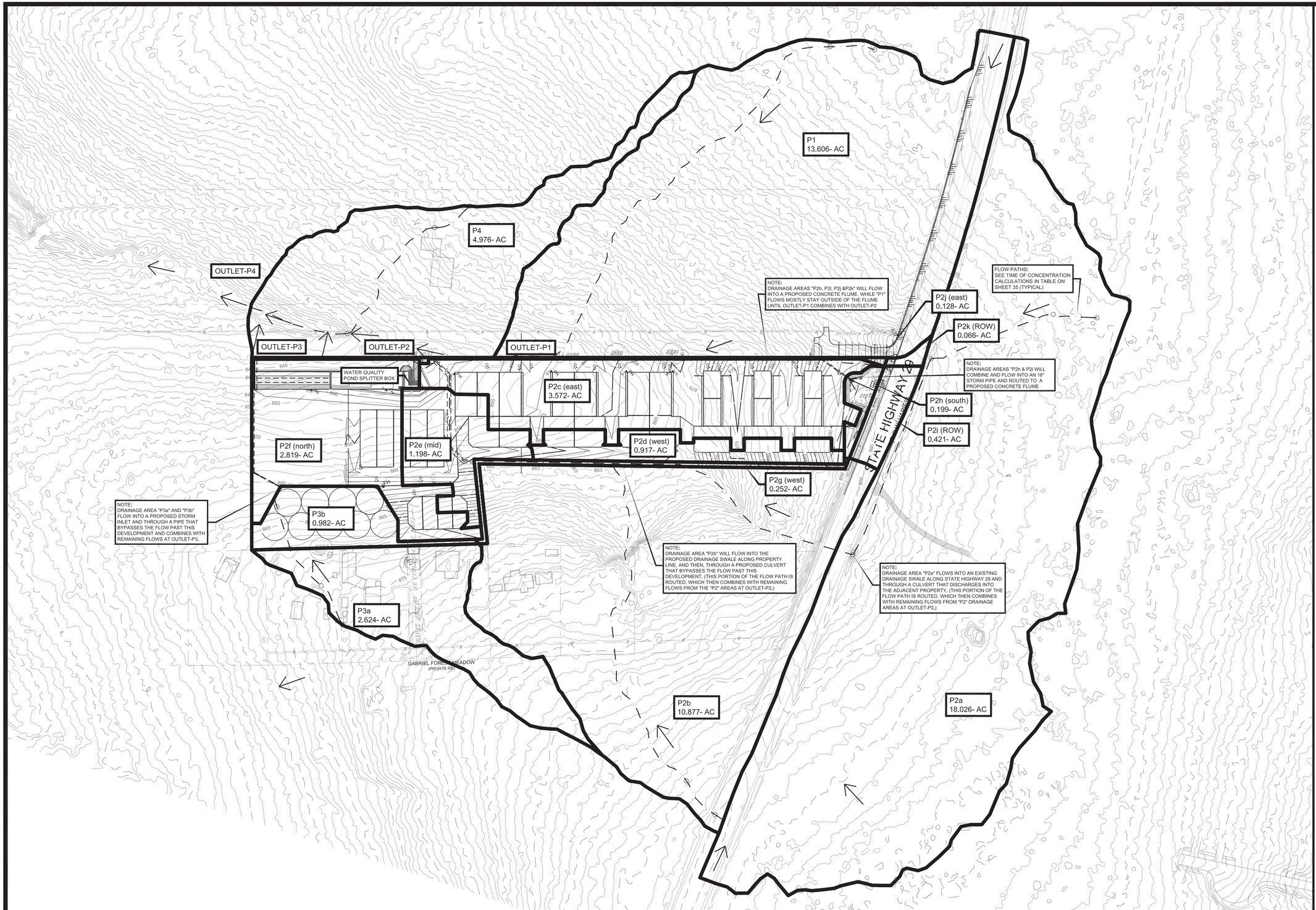
DATE ISSUED
February, 2024

DESIGNED BY: RCT
DRAFTED BY: RH/JH/MR

JOB NUMBER
1864

SHEET
33 OF 38

2023- -SWP



1 PROPOSED DRAINAGE AREA MAP

SCALE: #####

SCALE: 1" = 100'

0 50 100 200

LEGEND

- LONG COURSE FLOW PATH
- PROPOSED DRAINAGE AREA
- DIRECTIONAL FLOW ARROW

NOTE:
RAINFALL USED = ATLAS 14
2-YR: 4,12
10-YR: 6,80
25-YR: 8,84
100-YR: 12,70
SEE CALCULATION TABLES ON SHEET 35

NOTE:
DRAINAGE AREAS "P2c AND P2d" WILL COMBINE FLOWS, AS WILL "P2e AND P2f" BEFORE THEY ALL COMBINE INTO THE SPLITTER BOX (FOR WATER QUALITY & DETENTION)

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DATE

REVISION

Thompson Land Engineering, LLC (F-10220)

STATE OF TEXAS
ROBERT C. THOMPSON
69524
REGISTERED PROFESSIONAL ENGINEER

2/24/24

2023- -SWP

PROJECT
AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME
DRAINAGE AREA MAP (PROPOSED)

DATE ISSUED
February, 2024

DESIGNED BY: RCT
DRAFTED BY: RH/JH/MR

JOB NUMBER
1864

SHEET
34 OF 38

SCS RUN-OFF CURVE NUMBER CALCULATIONS

	CN [1]	E1a (Ac)	E1a CN*Ac	E1b (site) (Ac)	E1b (site) CN*Ac	E2a (Ac)	E2a CN*Ac	E2b (Ac)	E2b CN*Ac	E2c (site) (Ac)	E2c (site) CN*Ac	E2d (Ac)	E2d CN*Ac	E2e (Ac)	E2e CN*Ac	E2f (site) (Ac)	E2f (site) CN*Ac	E2g (Ac)	E2g CN*Ac	E3a (Ac)	E3a CN*Ac	E3b (site) (Ac)	E3b (site) CN*Ac	E4 (Ac)	E4 CN*Ac	E-Total
From Tables 3-4 & 3-6 (Georgetown's Drainage Criteria Manual)																										
Woods-Good																										
D Soils	77	5.89	453.4	0.41	31.8	15.51	1194.4	5.11	393.7	3.54	272.6	6.17	475.5	2.24	172.2	1.94	149.5	1.77	136.1	1.77	136.3	4.17	321.1	2.85	219.1	
Impervious Cover (IC) Areas																										
Paved dirt roads																										
A Soils	72	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	
B Soils	82	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	
C Soils	87	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	
D Soils	89	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	
Paved parking, roofs, etc., All Soils	98	0.18	17.2	0.00	0.0	4.48	439.0	1.96	192.1	0.00	0.0	1.37	134.0	0.38	36.9	0.00	0.0	0.11	10.5	0.57	55.6	0.00	0.0	0.26	25.1	**9.29**
Sum			470.6		31.8		1633.4		585.7		272.6		609.5		209.1		149.5		146.6		191.9		321.1		244.2	
Total Area (Acres)		**6.06**		**0.41**		**19.99**		**7.07**		**3.54**		**7.54**		**2.61**		**1.94**		**1.87**		**2.34**		**4.17**		**3.10**		**60.66**
Total Area (sq. miles)		0.00947		0.00064		0.03124		0.01105		0.00553		0.01178		0.00408		0.00303		0.00293		0.00365		0.00652		0.00485		
Composite "C"		**77.61**		**77.00**		**81.71**		**82.82**		**77.00**		**80.81**		**80.03**		**77.00**		**78.20**		**82.10**		**77.00**		**78.73**		
Percent IC		**2.9%**		**0.0%**		**22.4%**		**27.7%**		**0.0%**		**18.1%**		**14.4%**		**0.0%**		**5.7%**		**24.3%**		**0.0%**		**8.3%**		**15.3%**

IC BREAKDOWN TABLE	**E1a**	**E1b (site)**	**E2a**	**E2b**	**E2c (site)**	**E2d**	**E2e**	**E2f (site)**	**E2g**	**E3a**	**E3b (site)**	**E4**	**E-Total**
Existing IC													
Building / Structure	0	0	0	0	0	0	0	0	0	0	0	0	0
Driveway & Parking (pavement)	0	0	0	0	0	0	0	0	0	0	0	0	0
Sidewalk / pavement	0	0	0	0	0	0	0	0	0	0	0	0	0
Driveway & Parking (Dirt)	0	0	0	0	0	0	0	0	0	0	0	0	0
Estimated areas (per current aerial imagery)	7,645	0	195,139	85,379	0	59,556	16,408	0	4,666	24,713	0	11,161	404,666
Proposed IC													
*Additional IC for Max. Drainage Calcs.													
Total Impervious Cover (SF)	**7,645 SF**	**0 SF**	**195,139 SF**	**85,379 SF**	**0 SF**	**59,556 SF**	**16,408 SF**	**0 SF**	**4,666 SF**	**24,713 SF**	**0 SF**	**11,161 SF**	**404,666 SF**
Total Impervious Cover (AC)	**0.175 AC**	**0.000 AC**	**4.480 AC**	**1.960 AC**	**0.000 AC**	**1.367 AC**	**0.377 AC**	**0.000 AC**	**0.107 AC**	**0.567 AC**	**0.000 AC**	**0.256 AC**	**9.290 AC**

IC BREAKDOWN TABLE	**P1**	**P2a**	**P2b**	**P2c (east)**	**P2d (west)**	**P2e (mid)**	**P2f (north)**	**P2g (west)**	**P2h (south)**	**P2i (ROW)**	**P2j (east)**	**P2k (ROW)**	**P3a**	**P3b (OSSF)**	**P4**	**P-Total**
Existing IC																
Building / Structure	0	0	0							0	0	0	0		0	0
Driveway & Parking (pavement)	0	0	0							0	0	0	0		0	0
Sidewalk / pavement	0	0	0							0	0	0	0		0	0
Driveway & Parking (Dirt)	0	0	0													
Estimated areas (per current aerial imagery)	67,201	195,139	84,812							14,206		2,769	24,713		15,826	404,666
Proposed IC																
*Additional IC for Max. Drainage Calcs.				156,277	39,937	52,091	58,625	0	0		0			0		306,930
Total Impervious Cover (SF)	**67,201 SF**	**195,139 SF**	**84,812 SF**	**156,277 SF**	**39,937 SF**	**52,091 SF**	**58,625 SF**	**0 SF**	**0 SF**	**14,206 SF**	**0 SF**	**2,769 SF**	**24,713 SF**	**0 SF**	**15,826 SF**	**711,595 SF**
Total Impervious Cover (AC)	**1.543 AC**	**4.480 AC**	**1.947 AC**	**3.588 AC**	**0.917 AC**	**1.196 AC**	**1.346 AC**	**0.000 AC**	**0.000 AC**	**0.326 AC**	**0.000 AC**	**0.064 AC**	**0.567 AC**	**0.000 AC**	**0.363 AC**	**16.336 AC**

Onsite - existing (Ac)	CN*Ac	**Onsite - proposed** (Ac)	CN*Ac
10.07	775.1	3.02	232.5
-	-	-	-
0.00	0.0	0.00	0.0
0.00	0.0	0.00	0.0
0.00	0.0	0.00	0.0
0.00	0.0	0.00	0.0
0.00	0.0	7.05	690.5
	775.1		923.0
10.07		**10.07**	
0.01573		0.01573	
77.00		**91.70**	
0.0%		**70.00%**	

Onsite - existing	**Onsite - proposed**
0	0
0	0
0	0
0	0
0	0
0	306,930
0 SF	**306,930 SF**
0.000 AC	**7.046 AC**

DETERMINING THE
TIME OF CONCENTRATION CALCULATIONS USING THE SOIL CONSERVATION SERVICE (SCS) METHOD
Project: AAA Gabriel Forest

INPUT PARAMETERS

A) Rainfall Volumes - See US Weather Bereau Technical Paper 40
4.14 2-year, 24-hour Rainfall "P2" (inches) - **ATLAS-14**

B) Watershed Factors (excluding any upstream area as noted)

Sheet Flow (flow depth to 0.1 ft per SCS TR-55, p.3-3 (June 1986))

	E1a & P1	E2a & P2a	E2a Routed	E2b & P2b	E2c (site)	E3a & P3a	E3b (site)	E4 & P4	P2a Routed	P2b Routed	P2c (east)	NOTE - all other areas are assumed 5-min Tc.	
Reach 1	0.15	0.15		0.15	0.15	0.15	0.15	0.15			0.015	(n1)	Manning's "n"
	100	100		100	100	100	100	100			50	(L1)	Length, ft
	0.031	0.020		0.048	0.086	0.040	0.070	0.042			0.075	(s1)	Slope, ft/ft
Reach 2	0.15	0.15		0.15	0.15	0.15	0.15	0.15			0.02	(n1)	Manning's "n"
	0	0		0	0	0	0	0			0	(L1)	Length, ft
	0.100	0.100		0.100	0.100	0.100	0.100	0.100			0.100	(s1)	Slope, ft/ft

Shallow Concentrated Flow (R of 0.2 to 0.4 per SCS TR-55, Appendix F (June 1986))

Reach 1	N	N		N	N	N	N	N			Y		Paved? (Y or N)
	1011	300		812	1045	112	345	336			1045	(L2)	Length, ft
	0.059	0.037		0.053	0.055	0.033	0.057	0.079			0.040	(s2)	Slope, ft/ft
Reach 2	N	N		N	N	N	N	N			N		Paved? (Y or N)
	0	0		0	0	0	0	0			0	(L2)	Length, ft
	0.020	0.020		0.020	0.020	0.020	0.020	0.020			0.020	(s2)	Slope, ft/ft

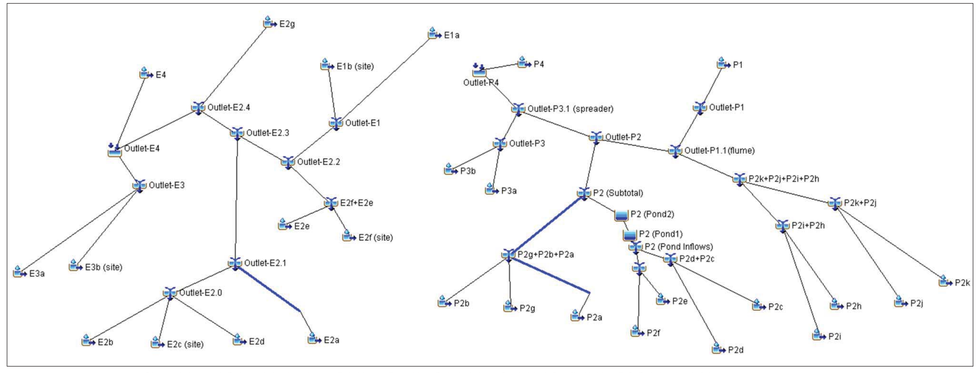
Channel Flow

2.3	2.5	3.9	0.0	0.0	0.0	0.0	2.8	3.8	3.4	0.0	(V3)	Velocity (ft/s)
0.014	0.017	0.041	0.003	0.003	0.003	0.003	0.020	0.038	0.030	0.003	(s3)	Slope, ft/ft
100	480	1184	0	0	0	0	229	1262	650	0	(L3)	Length, ft

RESULTS

E1a & P1	E2a & P2a	E2a Routed	E2b & P2b	E2c (site)	E3a & P3a	E3b (site)	E4 & P4	P2a Routed	P2b Routed	P2c (east)	
7.2	8.5		6.1	4.8	6.5	5.2	6.4			0.5	min (Tc-1a)
0.0	0.0		0.0	0.0	0.0	0.0	0.0			0.0	min (Tc-1b)
3.9	3.1		3.7	3.8	2.9	3.8	4.5			4.1	V-2a (fps)
4.3	1.6		3.7	4.6	0.6	1.5	1.2			4.3	min (Tc-2a)
2.3	2.3		2.3	2.3	2.3	2.3	2.3			2.3	V-2b (fps)
0.0	0.0		0.0	0.0	0.0	0.0	0.0			0.0	min (Tc-2b)
0.7	3.2	5.1	0.0	0.0	0.0	0.0	1.4	5.6	3.2	0.0	min = Channel Tc (Tc-3)
12.3	13.3	5.1	9.7	9.4	7.1	6.7	9.0	5.6	3.2	4.7	Total (min)
12.3	13.3	5.1	9.7	9.4	7.1	6.7	9.0	5.6	5.0	5.0	Total Used (min)
7.4	**8.0**	**3.0**	**5.8**	**5.6**	**4.3**	**4.0**	**5.4**	**3.3**	**3.0**	**3.0**	**Lag for HEC-HMS**
2.1	2.3	0.9	1.7	1.6	1.2	1.2	1.6	1.0	0.9	0.9	Min Modeling Increment

Equations:
Tc1 = 0.007 * (L1 * n1)^0.8 / (P2^0.5 * s1^0.4) in hours
Tc2 = L / V where, per Appendix F:V = 16.1345(s)^0.5 (unpaved) or V = 20.3282(s)^0.5 (paved)
Tc3 = L3 / [V3] where, V either assumed or = 1.2*16.1345(s)^0.5 like Tc2 but w/ 20% increase for channel efficiency



INPUT FOR AND RESULTS FROM HEC-HMS (VERSION 4.10)

SUMMARY of the **Hydrologic Computations** (Using the SCS Method)
Project: AAA Gabriel Forest

Hydrologic Element	Drainage Area (Mi²)	2-yr PEAK Discharge (CFS)	10-yr PEAK Discharge (CFS)	25-yr PEAK Discharge (CFS)	100-yr PEAK Discharge (CFS)	Fully Developed 100-yr PEAK Discharge (CFS)	Notes
							All storm events are Atlas-14 rainfall data
Existing Discharges							
E1a	0.009474	15.0	29.9	40.2	57.5	63.2	
E1b (site)	0.000645	1.3	2.6	3.5	5.0	5.0	
E2a	0.031237	55.9	102.9	135.1	189.8	202.6	
E2a (Reach)	0.031237	55.9	102.9	135.1	189.8	202.6	
E2b	0.011051	23.1	41.7	54.3	75.9	80.3	
E2c (site)	0.005532	11.1	22.4	30.0	43.2	43.2	
E2d	0.011785	23.3	43.5	57.2	80.6	86.4	
E2e	0.004083	8.5	16.0	21.2	30.0	32.3	
E2f (site)	0.003034	6.1	12.3	16.5	23.7	23.7	
E2f+E2e	0.007117	14.5	28.1	37.3	53.1	55.5	
E2g	0.002929	5.7	11.1	14.8	21.2	23.2	
E3a	0.003652	8.1	14.8	19.4	27.2	28.9	
E3b (site)	0.006517	12.2	24.8	33.3	47.9	47.9	
E4	0.004846	9.0	17.4	23.2	33.0	35.9	
Outlet-E1	0.010119	15.9	31.6	42.5	60.9	66.6	
Outlet-E2.0	0.028368	55.8	104.5	137.5	193.8	204.4	
Outlet-E2.1	0.059605	99.7	183.8	241.9	340.1	361.6	
Outlet-E2.2	0.017236	28.6	56.6	75.9	108.6	116.5	
Outlet-E2.3	0.076841	126.3	236.1	312.2	441.0	470.2	
Outlet-E2.4	0.079770	131.0	245.9	325.3	459.4	490.2	
Outlet-E3	0.010169	20.3	39.7	52.7	75.1	76.8	
Outlet-E3.1	0.010169	20.3	39.7	52.7	75.1	76.8	
Outlet-E4	0.094785	157.6	298.4	395.6	560.3	595.7	
Proposed Discharges							
P1	0.021259	36.1	69.3	92.0	130.6	141.7	Offsite (east)
P2a	0.031237	55.9	102.9	135.1	189.8	202.6	Offsite (south of highway)
P2a (Reach)	0.031237	55.9	102.9	135.1	189.8	202.6	Offsite (routed flow, no changes)
P2b	0.013924	27.9	51.5	67.5	94.8	101.2	Offsite (west)
P2c (east)	0.005606	20.7	31.3	38.1	49.9	49.9	On-site
P2d (west)	0.001433	5.3	8.0	9.7	12.8	12.8	On-site
P2d+P2c	0.007040	25.9	39.3	47.8	62.7	62.7	On-site (subtotal)
P2e (mid)	0.001868	6.9	10.4	12.7	16.6	16.6	On-site
P2f (north)	0.004373	12.3	20.9	26.6	36.4	36.4	On-site
P2f+P2e	0.006241	19.2	31.3	39.3	53.1	53.1	On-site (subtotal)
P2g (west)	0.000394	0.8	1.6	2.1	3.1	3.1	On-site (routed)
P2g+P2b+P2a	0.045555	78.2	143.6	188.6	264.6	282.4	On-site + Off-site (Bypass)
P2g+P2b+P2a (Reach)	0.045555	78.2	143.6	188.6	264.6	282.4	On-site + Off-site (routed flow, no changes)
P2h (south)	0.000311	0.6	1.3	1.7	2.4	2.4	On-site
P2i (ROW)	0.000658	2.2	3.4	4.3	5.7	5.7	ROW area 1
P2i+P2h	0.000969	2.8	4.7	6.0	8.1	8.1	On-site
P2j (east)	0.000210	0.4	0.9	1.1	1.6	1.6	On-site (subtotal)
P2k (ROW)	0.000103	0.4	0.6	0.7	0.9	0.9	ROW area 2
P2k+P2j	0.000313	0.8	1.4	1.8	2.6	2.6	On-site (subtotal)
P2k+P2j+P2i+P2h	0.001282	3.6	6.1	7.8	10.7	10.7	On-site (subtotal)
P2 (Pond Inflows)	0.013279	45.1	70.6	87.1	115.7	115.7	Pond Inflows
P2 (Pond1)	0.013279	42.3	67.1	83.4	111.7	111.7	Pond Outflows (WQ)
P2 (Pond2)	0.013279	24.6	42.1	55.2	77.7	77.7	Pond Outflows (DET)
P2 (Subtotal)	0.058835	102.3	183.8	240.3	335.6	353.7	On-site (subtotal)
P3a	0.004099	8.9	16.5	21.6	30.4	32.5	Offsite (northwest)
P3b (OSSF)	0.001534	3.1	6.2	8.3	12.0	12.0	On-site
P4	0.007774	14.3	27.8	37.1	52.8	57.7	Offsite (northeast)
Outlet-P1	0.021259	36.1	69.3	92.0	130.6	141.7	Compare to Outlet-E1
Outlet-P1.1 (flume)	0.022541	38.4	73.2	97.1	137.9	149.0	
Outlet-P2	0.081376	134.5	246.1	323.4	454.0	481.7	Compare to Outlet-E2.4
Outlet-P3	0.005633	12.0	22.6	29.8	42.1	44.2	Compare to Outlet-E3
Outlet-P3.1 (spreader)	0.087009	141.4	258.3	340.3	478.7	507.4	
Outlet-P4	0.094783	151.9	279.9	368.8	519.8	552.5	Compare to Outlet-E4

DRAINAGE CALCULATIONS (HMS SUMMARY RESULTS)

Existing Site and Offsite

EXISTING DRAINAGE AREAS name	acres	sq mile	IMPERVIOUS COVER acres	%
E1a	6.064	0.009474	0.175	2.9%
E1b (site)	0.413	0.000645	0.000	0.0%
E2a	19.991	0.031237	4.480	22.4%
E2b	7.072	0.011051	1.960	27.7%
E2c (site)	3.541	0.005532	0.000	0.0%
E2d	7.542	0.011785	1.367	18.1%
E2e	2.613	0.004083	0.377	14.4%
E2f (site)	1.942	0.003034	0.000	0.0%
E2g	1.874	0.002929	0.107	5.7%
E3a	2.337	0.003652	0.567	24.3%
E3b (site)	4.171	0.006517	0.000	0.0%
E4	3.101	0.004846	0.256	8.3%
Total =	60.661	0.094783	9.290	15.3%
Site =	**10.066**		**0.000**	**0.0%**
Offsite =	**50.595**		**9.290**	**18.4%**

Fully Developed Site and Existing Offsite (for detention pond design)

PROPOSED DRAINAGE AREAS name	acres	sq mile	IMPERVIOUS COVER acres	%
P1	13.606	0.021259	1.543	11.3%
P2a	19.991	0.031237	4.480	22.4%
P2b	8.912	0.013924	1.947	21.8%
P2c (east)	3.588	0.005606	3.588	100.0%
P2d (west)	0.917	0.001433	0.917	100.0%
P2e (mid)	1.196	0.001868	1.196	100.0%
P2f (north)	2.799	0.004373	1.346	48.1%
P2g (west)	0.252	0.000394	0.000	0.0%
P2h (south)	0.199	0.000311	0.000	0.0%
P2i (ROW)	0.421	0.000658	0.326	77.4%
P2j (east)	0.134	0.000210	0.000	0.0%
P2k (ROW)	0.066	0.000103	0.064	96.4%
P3a	2.624	0.004099	0.567	21.6%
P3b (OSSF)	0.982	0.001534	0.000	0.0%
P4	4.976	0.007774	0.363	7.3%
Total =	60.661	0.073524	16.336	26.9%
Site =	**10.066**		**7.046**	**70.0%**
Offsite =	**50.595**		**9.290**	**18.4%**

Fully Developed Site and Offsite (for storm conveyance)

PROPOSED DRAINAGE AREAS name	acres	sq mile	IMPERVIOUS COVER acres	%
P1	13.606	0.021259	9.524	70.0%
P2a	19.991	0.031237	13.994	70.0%
P2b	8.912	0.013924	6.238	70.0%
P2c (east)	3.588	0.005606	3.588	100.0%
P2d (west)	0.917	0.001433	0.917	100.0%
P2e (mid)	1.196	0.001868	1.196	100.0%
P2f (north)	2.799	0.004373	1.346	48.1%
P2g (west)	0.252	0.000394	0.000	0.0%
P2h (south)	0.199	0.000311	0.000	0.0%
P2i (ROW)	0.421	0.000658	0.326	77.4%
P2j (east)	0.134	0.000210	0.000	0.0%
P2k (ROW)	0.066	0.000103	0.064	96.4%
P3a	2.624	0.004099	1.837	70.0%
P3b (OSSF)	0.982	0.001534	0.000	0.0%
P4	4.976	0.007774	3.483	70.0%
Total =	60.661	0.094783	42.511	70.1%
Site =	10.066		7.046	70.0%
Offsite =	50.595		35.465	70.1%

Peak Inflows and Discharges

P2-Pond-1-WQ (IN)	45.1	70.6	87.1	115.7	115.7
P2-Pond-1-WQ (OUT)	42.3	67.1	83.4	111.7	111.7
PEAK VELOCITY over spillway [fps] =	2.1	3.0	2.6	2.9	2.9
Pond Water Surface Elevations					
P1-Pond-1-WQ	850.43	850.46	850.64	850.77	850.77
DEPTH over spillway [ft] =	0.38	0.41	0.59	0.72	0.72

Pond Outlets
P2-Pond-1-WQ

	Elevation	Length	Coef	No.	
1	850.05	54.0	3.3	1	Water quality spillway (ft)

Pond - Elevation - Area - Storage - Outflow Table

Elevation (mean sea level)	Area (sf)	Area (ac)	Storage (cubic feet)	Outflow 1 (cfs)	Outflow Total (cfs)
849.00	14,156	0.32	15,176	0	0
850.00	14,477	0.33	14,316	0	0
851.00	16,788	0.39	15,633	165	165

Peak Inflows and Discharges

P2-Pond-2-DET (IN)	42.3	67.1	83.4	111.7	111.7
P2-Pond-2-DET (OUT)	24.6	42.1	55.2	77.7	77.7
PEAK VELOCITY [fps] =	4.6	5.7	6.4	7.4	7.4
Pond Water Surface Elevations					
P2-Pond-2-DET	846.18	847.22	847.84	848.76	848.76
DEPTH [ft] =	2.68	3.72	4.34	5.26	5.26

Pond Outlets
P1-Pond-2-DET

	Elevation	Length	Coef	No.	
1	843.50	2.0	2.8	1	Weir (ft)
2	846.50	1.0	3.0	1	Weir (ft)
3	849.00	352.0	3.3	1	Overflow spillway (ft)

Pond - Elevation - Area - Storage - Outflow Table

Elevation (mean sea level)	Area (sf)	Area (ac)	Storage (cubic feet)	Outflow 1 (cfs)	Outflow 2 (cfs)	Outflow 3 (cfs)	Outflow Total (cfs)
843.50	0	0.00	0	0	0	0	0
844.00	6,907	0.16	1,727	2	0	0	2
844.50	8,725	0.20	3,908	6	0	0	6
845.00	8,979	0.21	4,426	10	0	0	10
846.00	9,327	0.21	9,153	22	0	0	22
847.00	9,678	0.22	9,503	37	1	0	38
848.00	9,868	0.23	9,773	53	6	0	59
849.00	10,027	0.23	9,948	72	12	0	84
850.00	10,027	0.23	10,027	93	20	1162	1274
851.00	10,027	0.23	10,027	115	29	3286	3429

POND CALCULATIONS (AND HMS SUMMARY RESULTS)

PURPOSE OF STUDY AND LIMITATIONS
PURPOSE OF DRAINAGE PLAN: TO OBTAIN SITE DEVELOPMENT PERMIT
LIMITATIONS OF THE DRAINAGE PLAN: OFF-SITE TOPOGRAPHY PER CITY GIS
ASSUMPTIONS: SOIL AND GROUND TYPE AND COVERAGE INDICATES A CURVE RUNOFF NUMBER OF 77.

HYDROLOGIC COMPUTATIONS
HYDROLOGIC COMPUTATIONS METHOD: SOIL CONSERVATION SERVICE (SCS) PER TECHNICAL RELEASE-55
MODELING METHOD: HEC-HMS VERSION 4.10 (SEE ADJACENT MODEL SCHEMATICS)
MODEL COMPONENTS:
a) CONTRIBUTING DRAINAGE AREAS (SEE MAPS IN THESE PLANS)
b) CURVE NUMBER (CN) (SEE THE ABOVE TABLE IN THESE PLANS)
c) TIME OF CONCENTRATION (TC) (SEE THE ABOVE TABLE IN THESE PLANS)
DRAINAGE AREA CONTOUR SOURCES: WATERLOO SURVEYEING (ON-SITE) AND CITY OF GEORGETOWN GIS (OFF-SITE)

DETERMINATION OF LAG: 0.6 * TC AS OUTLINED IN TECHNICAL RELEASE-55
MINIMUM TC: 5 MINUTES PER TECHNICAL RELEASE 55
STORMS MODELED: 2-YR, 10-YR, 25-YR AND 100-YR (ATLAS-14 RAINFALL DATA)
PRECIPITATION SOURCE: CITY OF AUSTIN DRAINAGE CRITERIA MANUAL (DCM)

HYDRAULIC COMPUTATIONS
LARGE CREEK HYDRAULIC COMPUTATIONS: HEC-RAS (NOT FOR THIS PROJECT)
ONSITE PIPES AND SWALES (AND OTHER SMALL SWALES): STORM WATER MANAGEMENT MODEL (SWMM) VERSION 5.1
ROUGHNESS COEFFICIENTS:
a) 0.012 CONCRETE,
b) 0.015 NON-CONCRETE HARD SURFACES,
c) 0.035 BROKEN ROCK,
d) 0.045 MOWED CHANNELS,
e) OTHERWISE COMPUTED USING THE PROCEDURE OUTLINES IN DCM

DETENTION COMPUTATIONS
MODEL EMPLOYED: HEC-HMS VERSION 4.10 (FREQUENCY STORM)

MODEL SCENARIOS
THREE (3) MODELS:
a) **EXISTING:** EXISTING OFF-SITE AND ON-SITE DISCHARGES USING IMPERVIOUS COVER OBTAINED FROM SURVEY AND GIS SOURCES AND AERIAL IMAGERY,
b) **PROPOSED:** EXISTING OFF-SITE DISCHARGE AND FULLY-DEVELOPED (70% IMPERVIOUS COVER) ON-SITE,
c) **FULLY DEVELOPED:** ASSUMED POSSIBLE FUTURE OFF-SITE TO BE FULLY-DEVELOPED AND FULLY-DEVELOPED ON-SITE.

DRAINAGE REPORT SUMMARY

NOTE:
RAINFALL USED = ATLAS 14
2-YR: 4.12
10-YR: 6.80
25-YR: 8.84
100-YR: 12.70
SEE DRAINAGE AREA MAPS ON SHEETS 33 AND 34

Thompson Land Engineering, LLC (F-10220)

2/24/24

2023- -SWP

THOMPSON LAND ENGINEERING, LLC
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TBPE Reg. No. F-11038

AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

PROJECT

DRAINAGE REPORT & HYDRAULIC RESULTS
SHEET NAME

REVISION

DATE

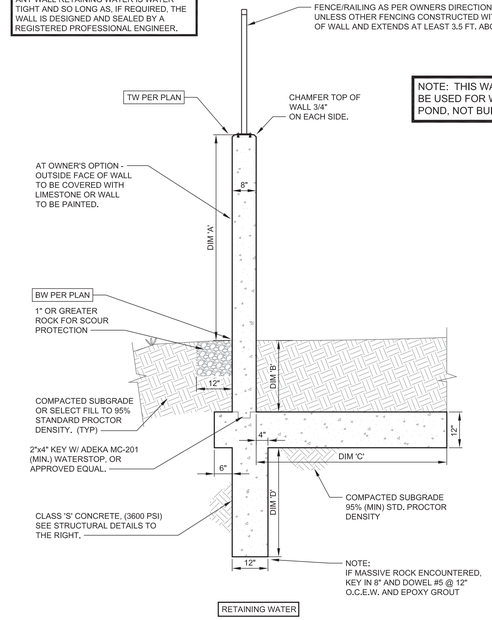
DATE ISSUED
February, 2024

DESIGNED BY: RCT
DRAFTED BY: RH/JH/MR

JOB NUMBER
1864

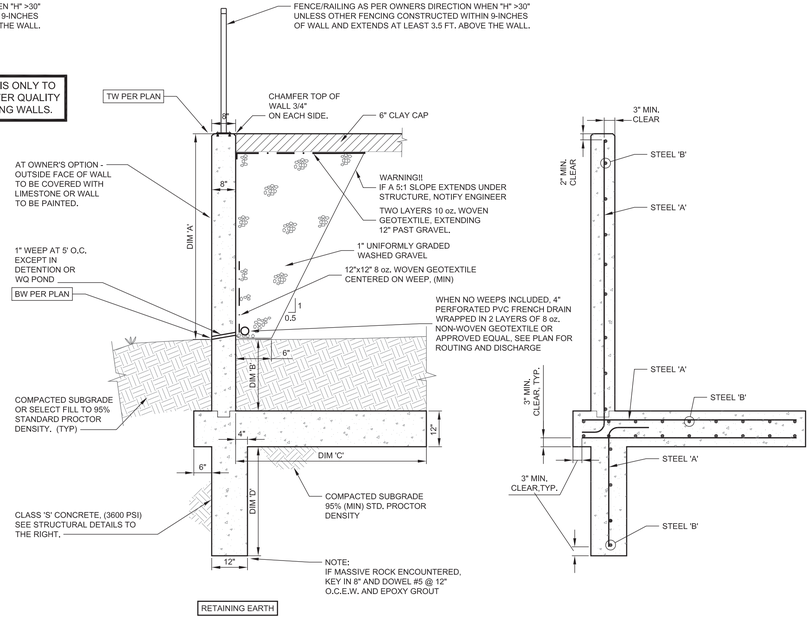
SHEET
35 OF 38

NOTE: WALL DESIGN PROVIDED AS A COURTESY. AT OWNER'S OPTION, ANOTHER WALL DESIGN IS PERMISSIBLE SO LONG AS ANY WALL RETAINING WATER IS WATER TIGHT AND SO LONG AS, IF REQUIRED, THE WALL IS DESIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.



RETAINING WATER

NOTE: THIS WALL IS ONLY TO BE USED FOR WATER QUALITY POND, NOT BUILDING WALLS.



RETAINING EARTH

USE DATA IN BOX. DIM A TO BE ACTUAL DIM ROUNDED UP TO THE NEXT WHOLE NUMBER.

Earth Only Loading (no water, weeps or french drain)

	W2-N	W2-L	W2-N	W2-L	
Dim A	2.00	2.00	2.00	2.00	Exposed Ht
Dim B	0.00	0.00	3.00	3.00	Burial
Dim C	2.83	2.83	2.83	2.83	Heal
Dim D	0.50	1.25	0.50	1.25	Key
Steel A	------ #4 @12" OC ------				Vertial Steel
Steel B	------ #4 @12" OC ------				Horizontal Steel
	2	4	2	4	Maximum non-countered height of soil or water (ft)
	1.9	1.5	2.0	1.8	Factor of safety, sliding
	13.1	5.6	3.7	2.3	Factor of safety, overturning
	434	801	1129	1955	Maximum Bearing Pressure (psi)

	W3-N	W3-L	W3-N	W3-L	
Dim A	3.00	3.00	3.00	3.00	Exposed Ht
Dim B	0.00	0.00	3.00	3.00	Burial
Dim C	3.83	3.83	3.83	3.83	Heal
Dim D	0.50	1.33	0.50	1.33	Key
Steel A	------ #4 @12" OC ------				Vertial Steel
Steel B	------ #4 @12" OC ------				Horizontal Steel
	3	5	3	5	Maximum non-countered height of soil or water (ft)
	1.8	1.5	1.9	1.7	Factor of safety, sliding
	13.3	6.3	4.5	2.9	Factor of safety, overturning
	573	965	1294	2036	Maximum Bearing Pressure (psi)

	W4-N	W4-L	W4-N	W4-L	
Dim A	4.00	4.00	4.00	4.00	Exposed Ht
Dim B	0.00	0.00	3.00	3.00	Burial
Dim C	4.83	4.83	4.83	4.83	Heal
Dim D	0.50	1.50	0.50	1.50	Key
Steel A	------ #4 @12" OC ------				Vertial Steel
Steel B	------ #4 @12" OC ------				Horizontal Steel
	4	6	4	6	Maximum non-countered height of soil or water (ft)
	1.8	1.5	1.6	1.6	Factor of safety, sliding
	12.9	6.7	4.8	3.3	Factor of safety, overturning
	719	1139	1479	2177	Maximum Bearing Pressure (psi)

	W5-N	W5-L	W5-N	W5-L	
Dim A	5.00	5.00	5.00	5.00	Exposed Ht
Dim B	0.00	0.00	3.00	3.00	Burial
Dim C	5.83	5.83	5.83	5.83	Heal
Dim D	0.50	1.75	0.50	1.75	Key
Steel A	------ #5 @12" OC ------				Vertial Steel
Steel B	------ #4 @12" OC ------				Horizontal Steel
	5	7	5	7	Maximum non-countered height of soil or water (ft)
	1.7	1.6	1.6	1.6	Factor of safety, sliding
	12.4	7.0	5.4	3.7	Factor of safety, overturning
	870	1316	1648	2323	Maximum Bearing Pressure (psi)

	W6-N	W6-L	W6-N	W6-L	
Dim A	6.00	6.00	6.00	6.00	Exposed Ht
Dim B	0.00	0.00	3.00	3.00	Burial
Dim C	6.83	6.83	6.83	6.83	Heal
Dim D	0.50	2.00	0.50	2.00	Key
Steel A	------ #5 @12" OC ------				Vertial Steel
Steel B	------ #4 @12" OC ------				Horizontal Steel
	6	8	6	8	Maximum non-countered height of soil or water (ft)
	1.7	1.6	1.6	1.6	Factor of safety, sliding
	11.9	7.2	5.8	4.1	Factor of safety, overturning
	1024	1491	1815	2476	Maximum Bearing Pressure (psi)

Water Loading (no earth other than burial)

	W2-W	W2-W	
Dim A	2.00	2.00	Exposed Ht
Dim B	0.00	3.00	Burial
Dim C	2.83	2.83	Heal
Dim D	0.50	0.50	Key
Steel A -- #4 @12" OC --			Vertial Steel
Steel B -- #4 @12" OC --			Horizontal Steel
	2	2	Maximum non-countered height of soil or water (ft)
	1.5	1.6	Factor of safety, sliding
	7.9	2.5	Factor of safety, overturning
	350	797	Maximum Bearing Pressure (psi)

	W3-W	W3-W	
Dim A	3.00	3.00	Exposed Ht
Dim B	0.00	3.00	Burial
Dim C	3.83	3.83	Heal
Dim D	1.25	1.25	Key
Steel A -- #4 @12" OC --			Vertial Steel
Steel B -- #4 @12" OC --			Horizontal Steel
	3	3	Maximum non-countered height of soil or water (ft)
	1.6	1.7	Factor of safety, sliding
	6.5	2.8	Factor of safety, overturning
	487	893	Maximum Bearing Pressure (psi)

	W4-W	W4-W	
Dim A	4.00	4.00	Exposed Ht
Dim B	0.00	3.00	Burial
Dim C	4.83	4.83	Heal
Dim D	1.75	1.75	Key
Steel A -- #4 @12" OC --			Vertial Steel
Steel B -- #4 @12" OC --			Horizontal Steel
	4	4	Maximum non-countered height of soil or water (ft)
	1.6	1.7	Factor of safety, sliding
	5.6	3.0	Factor of safety, overturning
	582	955	Maximum Bearing Pressure (psi)

	W5-W	W5-W	
Dim A	5.00	5.00	Exposed Ht
Dim B	0.00	3.00	Burial
Dim C	5.83	5.83	Heal
Dim D	2.50	2.50	Key
Steel A -- #5 @12" OC --			Vertial Steel
Steel B -- #4 @12" OC --			Horizontal Steel
	5	5	Maximum non-countered height of soil or water (ft)
	1.6	1.7	Factor of safety, sliding
	5.1	3.2	Factor of safety, overturning
	688	1039	Maximum Bearing Pressure (psi)

	W6-W W6-W	
Dim A	6.00	6.00 Exposed Ht
Dim B	0.00	3.00 Burial
Dim C	6.83	6.83 Heal
Dim D	3.00	3.00 Key
Steel A -- #5 @12" OC --		Vertial Steel
Steel B -- #4 @12" OC --		Horizontal Steel
	6	6 Maximum non-countered height of soil or water (ft)
	1.5	1.7 Factor of safety, sliding
	4.8	3.2 Factor of safety, overturning
	767	1133 Maximum Bearing Pressure (psi)

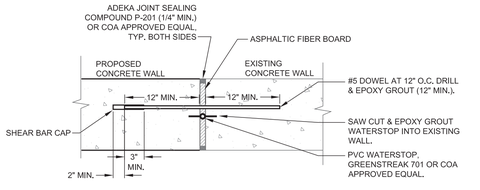
Coefficients, Wts, and Strenghts used in Calculations

120 Unit weight of soil, pcf (us) (note 5)
0.35 Active Earth Pressure Coef (Ka)-Soil
150 Passive Earth Pressure (Pp), lbs/ft below grade (note 3)
0.25 Friction Coeficient (F) (see note 3)
0 Soil Cohesion, psf (c) [for sliding]
2000 Allowable Bearing Pressure, psf (Pba) (note 4)
3600 Concrete Strength (psi)
60 Rebar Strength (ksi)

WARNING!! SEE CONCRETE NOTES ON THIS SHEET FOR OTHER INFORMATION SUCH AS REQUIRED JOINTS.

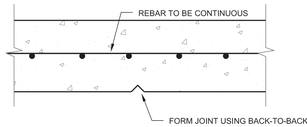
1 CONCRETE RETAINING WALL

SCALE: 1" = 2'



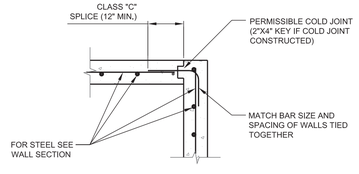
2 CONCRETE WALL EXPANSION JOINT WITH WATERSTOP

SCALE: N.T.S.



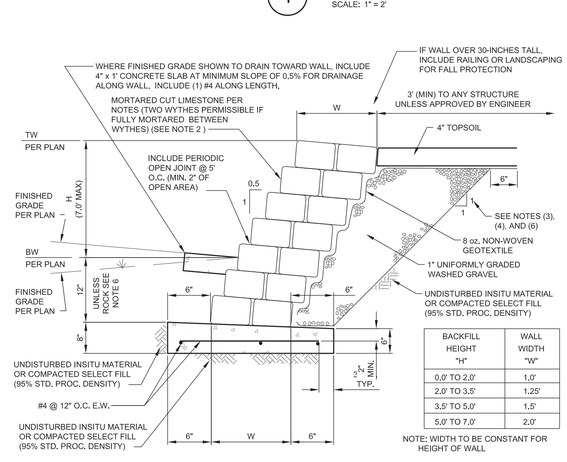
3 WALL CRACK CONTROL JOINT DETAIL

SCALE: N.T.S.



4 BAR SPLICE @ CORNER

SCALE: 1" = 2' (8 INCH WALL SHOWN)



BACKFILL HEIGHT "H"	WALL WIDTH "W"
0.0' TO 2.0'	1.0'
2.0' TO 3.5'	1.25'
3.5' TO 5.0'	1.5'
5.0' TO 7.0'	2.0'

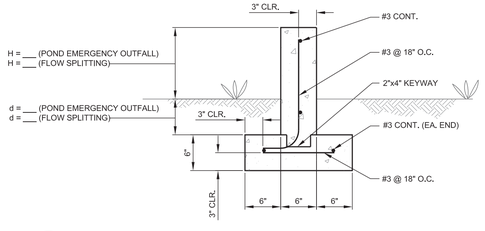
NOTE: WIDTH TO BE CONSTANT FOR HEIGHT OF WALL

NOTES:

1) DESIGN BASED ON 3000 PSF BEARING PRESSURE, 0.5 ACTIVE EARTH COEFFICIENT, PASSIVE EARTH PRESSURE COEFFICIENT OF 2.0, AND 0.35 COEFFICIENT OF FRICTION. FACTOR OF SAFETY FOR SLIDING, OVERTURNING AND BEARING IS GENERALLY 1.5 OR BETTER.
2) ROCKS TO BE LIMESTONE WITH A MINIMUM DENSITY OF 160 PCF. ALL ROCKS SHALL WEIGH A MINIMUM OF 50 POUNDS. THE ROCKS SHALL BE PLACED IN LAYERS WITH CLOSE JOINTS. THE VERTICAL AXIS OF THE ROCKS SHALL BE APPROXIMATELY PLUM EXCEPT AS BATTERED. ROCKS OF GREATER DIMENSION THAN THE REQUIRED WALL THICKNESS SHALL BE EMBEDDED IN THE EMBANKMENT TO PRESENT A UNIFORM FINISHED FACE AND TOP SURFACE SUCH THAT THE VARIATION BETWEEN ADJACENT ROCKS SHALL NOT EXCEED 2 INCHES.
3) 1:1 CAN BE 0:1 IF SOLID MASSIVE ROCK AND FACE OF ROCK IS ENCOUNTERED AT LEAST 1 FOOT FROM BACK OF WALL STONE.
4) IF SLOPE WILL EXTEND UNDER A STRUCTURE, REVISE TO VERTICAL WITHIN 6" OF STRUCTURE.
5) IF MASSIVE ROCK THAT IS 18" OR THICKER IS ENCOUNTERED, FOOTING ALONE MAY BE CAST INTO ROCK (8" KEY MIN.) AND STONE AND ADDITIONAL BURIAL DEPTH OMITTED. TWO #4 REBAR x 12" SHALL BE DOWELED AND EPOXY GROUTED INTO ROCK (ONE AT FRONT OF FOOTING AND ONE AT REAR) FOR ADDITIONAL ANCHORAGE. SPACING TO BE 24" O.C. FOR LENGTH OF WALL.
6) IF MASSIVE ROCK ENCOUNTERED FOR 75 PERCENT OF WALL HEIGHT, WALL CAN POSSIBLY BE ELIMINATED IN LIEU OF EXPOSED EXCAVATION. ENGINEERS APPROVAL REQUIRED, CONTACT ENGINEER.

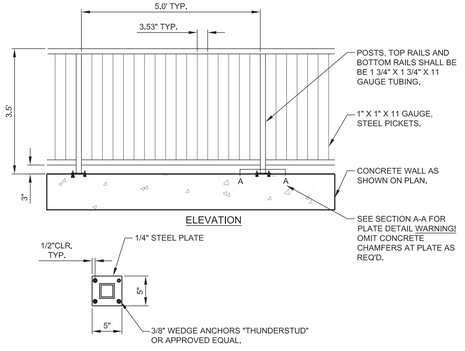
5 TYPICAL MORTARED ROCK RETAINING WALL SECTION

SCALE: N.T.S.



8 CONCRETE WALL

SCALE: 1" = 1'



RAILING NOTES:

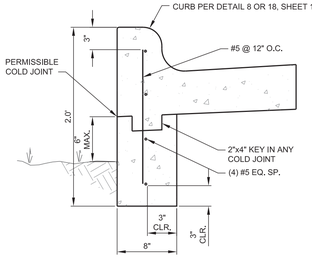
1. ALL STEEL SHALL BE HOT-DIPPED GALVANIZED AND PAINTED (COLOR PER OWNER) IN ACCORDANCE WITH ITEM 722 OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS.
2. ALL PARTS SHALL BE WELDED ALL AROUND USING EITHER A FILLET OR BUTT-WELD. THE WELDS SHALL BE FULLY-PENETRATING. WELDING SHALL CONFORM TO ITEM 723 OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS AND BE SUCH THAT THE FULL STRENGTH OF THE TUBING IS OBTAINED IN THE JOINT.
3. RAIL SHALL BE FABRICATED IN ACCORDANCE WITH ITEM 721 OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS.

6 TYPICAL PEDESTRIAN RAIL DETAIL

SCALE: 1" = 2'

TLE GENERAL CONCRETE NOTES:

1) ALL CONCRETE, REINFORCING, AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE LATEST ACI CODES AND IBC INCLUDING LAPS, SPLICES, TERMINATIONS, BAR SUPPORTS, AND CONCRETE COVER.
2) UNLESS OTHERWISE SPECIFIED, BARS SHALL BE DEFORMED GRADE 60.
3) UNLESS OTHERWISE SPECIFIED, ALL CONCRETE FOR FLAT WORK, CURBS, AND WALLS 3 FEET IN HEIGHT OR LESS SHALL CONFORM TO CITY OF AUSTIN CLASS A (3000 psi) AND ALL CONCRETE FOR WALLS GREATER THAN 3 FEET IN HEIGHT, AND OTHER VERTICAL STRUCTURES, SHALL CONFORM TO CITY OF AUSTIN CLASS S (4000 psi).
4) UNLESS OTHERWISE SPECIFIED, ALL DOWELS SHALL BE OF THE SAME SIZE AND SPACING AS THE REINFORCEMENT TO WHICH THE DOWEL IS TO BE SPLICED. DOWELS SHALL BE FIRMLY SET PRIOR TO PLACING THE CONCRETE; DOWELS SHALL NOT BE INSERTED INTO FRESH CONCRETE.
5) UNLESS OTHERWISE SPECIFIED, ALL EXPOSED WALL EDGES ARE TO RECEIVE 3/4" CHAMFER.
6) UNLESS OTHERWISE SPECIFIED, ALL EXPOSED VERTICAL SURFACES TO RECEIVE A RUBBED FINISH AND ALL EXPOSED FLAT WORK SURFACES TO RECEIVE A BROOM FINISH.
7) UNLESS OTHERWISE SPECIFIED OR SHOWN, EXPANSION JOINTS AND CONTROL JOINTS SHOULD BE LAID OUT SO THAT NO SECTION OF CONCRETE HAS A CORNER WITH AN ANGLE LESS THAN 60 DEGREES. ANY JOINT FORMING A CORNER WITH AN ANGLE OF LESS THAN 60 DEGREES SHOULD BE REALIGNED TO INCLUDE A STRAIGHT SECTION AT 90 DEGREES THAT IS AT LEAST 6 INCHES IN LENGTH
8) UNLESS OTHERWISE SPECIFIED, CONTROL JOINTS IN CONCRETE FLAT WORK SHALL BE FORMED WITH A TROWEL, 3/4" DEEP, 5 FEET ON CENTER, AND ROUNDED. UNLESS OTHERWISE SPECIFIED, CONTROL JOINTS IN VERTICAL CONCRETE SHALL BE FORMED WITH 3/4" CHAMFER STRIPS AND SHALL BE SPACED NO FURTHER APART THAN 25 FEET ON CENTER.
9) UNLESS OTHERWISE SPECIFIED, EXPANSION JOINTS SHALL BE INCLUDED IN ALL CONCRETE FLAT WORK AT A MAXIMUM SPACING OF 25 FEET ON CENTER AND SHALL BE INCLUDED IN ALL CONCRETE WALLS AT A MAXIMUM SPACING OF 20 FEET ON CENTER. JOINTS SHALL BE 3/4-INCH WIDE AND FILLED WITH ASPHALTIC FIBER BOARD. EXPANSION JOINTS IN WALLS RETAINING WATER SHALL INCLUDE A CONTINUOUS WATER STOP EXTENDING DOWN TO THE FOOTING. DOWELS SHALL BE INCLUDED IN ALL EXPANSION JOINTS THAT ARE AT LEAST OF THE SAME SIZE AND SPACING AS THE REINFORCING



NOTE: DESIGN BASED ON 20' UNSUPPORTED LENGTH SUBJECT TO A SINGLE 1000 LB. LATERAL POINT LOAD (8500 LBS. DECELERATING FROM 5 MPH IN ONE SECOND).

7 CURB EXTENSION WALL DETAIL

SCALE: N.T.S.

Thompson Land Engineering, LLC (F-10220)

STATE OF TEXAS ROBERT C. THOMPSON 69524 REGISTERED PROFESSIONAL ENGINEER

2/24/24

2023- -SWP

THOMPSON LAND ENGINEERING, LLC
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P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
www.tleng.net email: ric@tleng.net
TBPE Reg. No. F-9326

DATE

REVISION

PROJECT: AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME: WALL DETAILS

DATE ISSUED: February, 2024

DESIGNED BY: RCT | DRAFTED BY: RH/JH/MR

JOB NUMBER: 1864

SHEET: 36 OF 38

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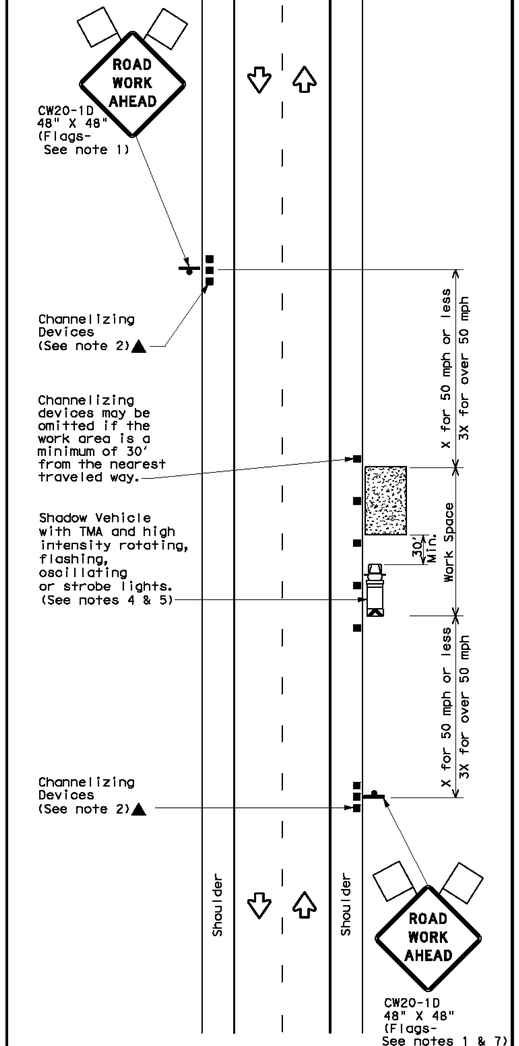
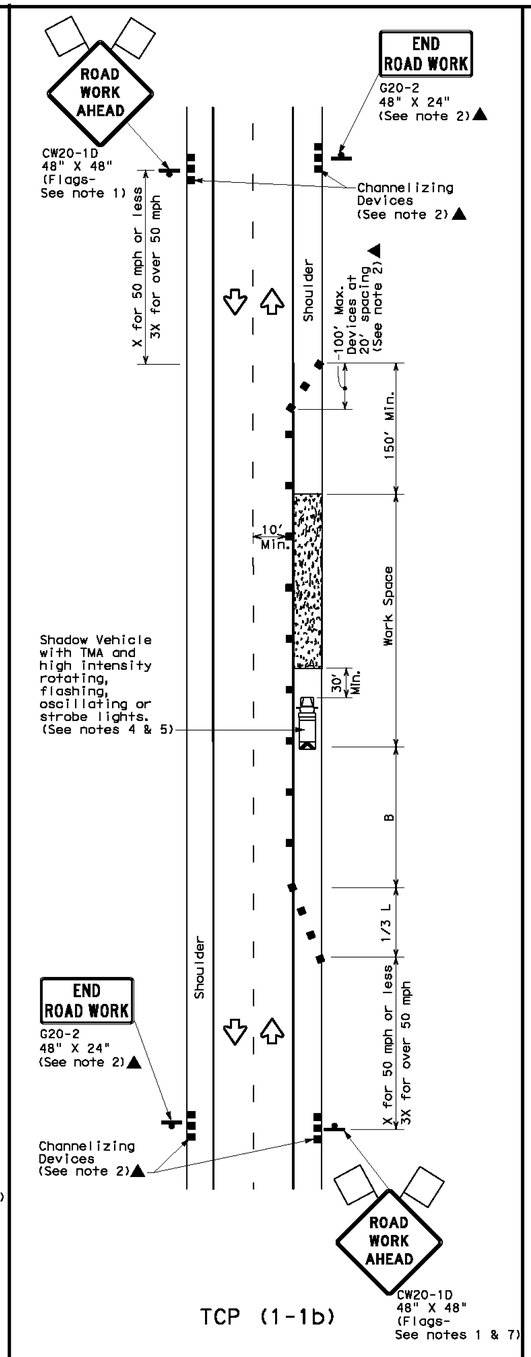


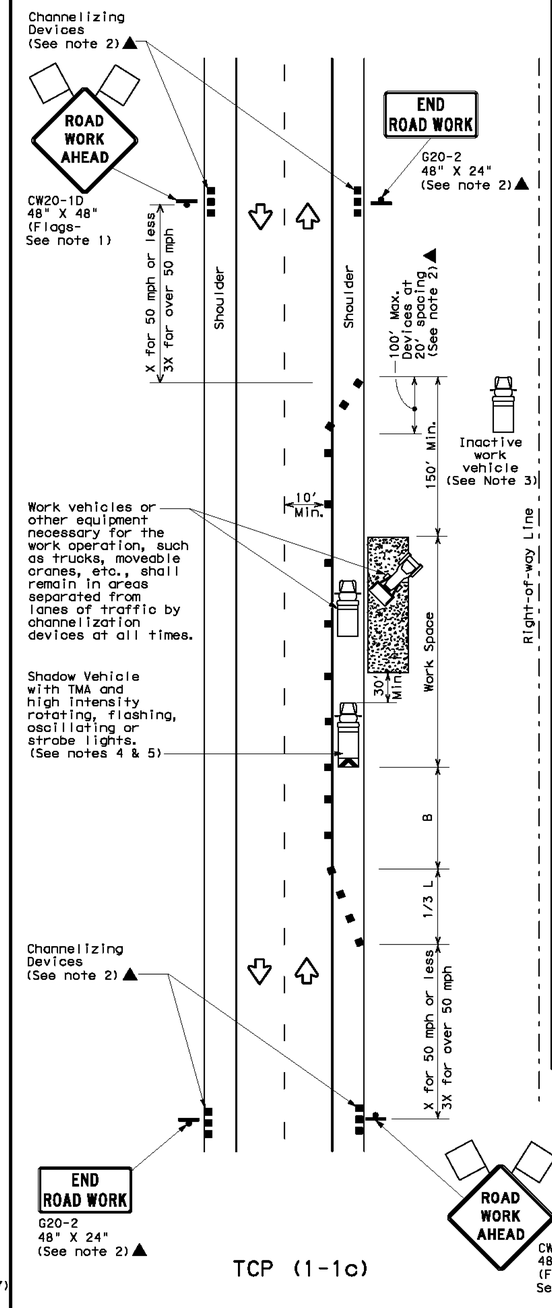
TCP (1-1a)

WORK SPACE NEAR SHOULDER
Conventional Roads



TCP (1-1b)

WORK SPACE ON SHOULDER
Conventional Roads



TCP (1-1c)

WORK VEHICLES ON SHOULDER
Conventional Roads

LEGEND			
	Type 3 Barricade	■ ■	Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L=WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

GENERAL NOTES

1. Flags attached to signs where shown are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
4. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
5. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
6. See TCP(5-1)for shoulder work on divided highways, expressways and freeways.
7. CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

For construction or maintenance contract work, specific project requirements for shadow vehicles can be found in the project GENERAL NOTES for Item 502, Barricades, Signs and Traffic Handling.

Texas Department of Transportation
Traffic Operations Division

TRAFFIC CONTROL PLAN CONVENTIONAL ROAD SHOULDER WORK

TCP(1-1)-12

© TxDOT December 1985	DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT
REVISIONS	CONT	SECT	JOB	HIGHWAY
2-94 2-12				
8-95				
1-97	DIST	COUNTY		SHEET NO.
4-98				

151

DATE:
FILE:

THOMPSON LAND ENGINEERING, LLC
Land Planning, Site Design, Subdivision Engineering
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
email: rt@tleng.net
www.tleng.net
TBPE Reg. No. F-11038

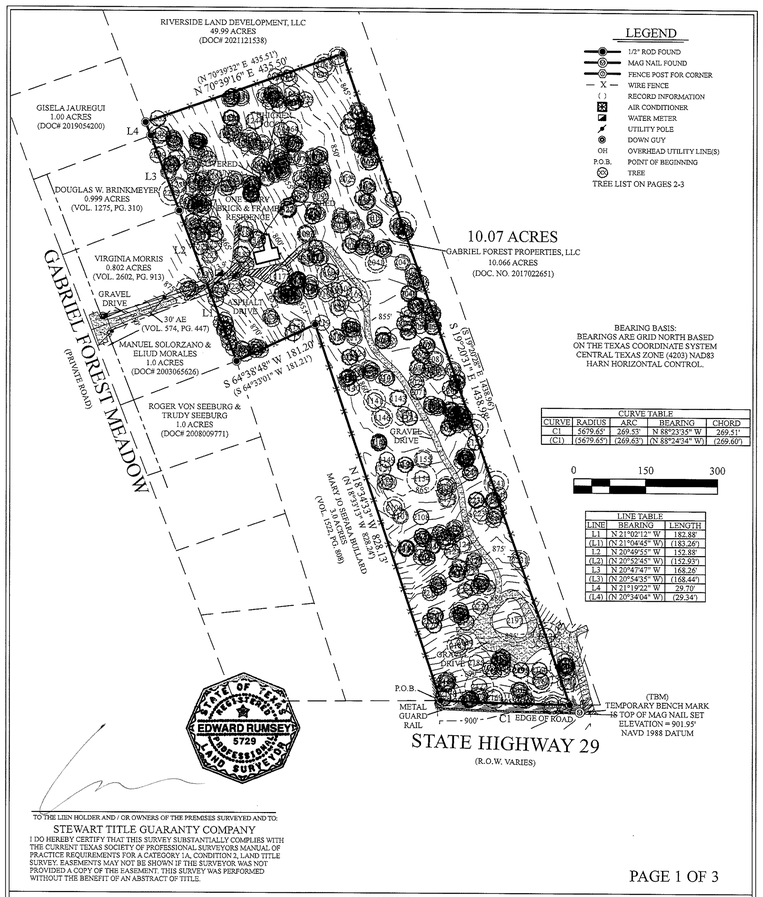
DATE
REVISION

PROJECT: AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME: TXDOT DETAILS

DATE ISSUED: February, 2024
DESIGNED BY: RCT
DRAFTED BY: RH/JH/MB
JOB NUMBER: 1864
SHEET: 37 OF 38

WARNING:
DRAWING HAS BEEN REDUCED TO FIT WITHIN THE BORDER. USE BAR SCALE FOR MEASUREMENT



CURVE TABLE				
CURVE	RADIUS	ARC	BEARING	CHORD
C1	5679.65'	269.53'	N 88°23'35" W	269.51'
(C1)	(5679.65')	(269.63')	(N 88°24'34" W)	(269.60')

LINE TABLE		
LINE	BEARING	LENGTH
L1	N 21°02'12" W	182.88'
(L1)	(N 21°04'45" W)	(183.26')
L2	N 20°49'55" W	152.88'
(L2)	(N 20°52'45" W)	(152.93')
L3	N 20°47'47" W	168.26'
(L3)	(N 20°54'35" W)	(168.44')
L4	N 21°19'22" W	29.70'
(L4)	(N 20°34'04" W)	(29.34')

0 150 300

STATE OF TEXAS
REGISTERED
EDWARD RUMSEY
5729
PROFESSIONAL
LAND SURVEYOR

TO THE LIEN HOLDER AND / OR OWNERS OF THE PREMISES SURVEYED AND TO:
STEWART TITLE GUARANTY COMPANY
I DO HEREBY CERTIFY THAT THIS SURVEY SUBSTANTIALLY COMPLIES WITH THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYORS MANUAL OF PRACTICE REQUIREMENTS FOR A CATEGORY 1A, CONDITION 2, LAND TITLE SURVEY. EASEMENTS MAY NOT BE SHOWN IF THE SURVEYOR WAS NOT PROVIDED A COPY OF THE EASEMENT. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE.

PAGE 1 OF 3

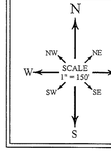
RESTRICTIONS

SUBJECT TO BLANKET TYPE EASEMENT GRANTED TO CHISHOLM TRAIL WATER SUPPLY CORP. IN VOLUME 876, PAGE 547, TRANSFERRED IN VOLUME 2168, PAGE 44.

LEGAL DESCRIPTION

TRACT 1:
BEING 10.07 ACRES OF LAND OUT OF THE ISAAC DONAGAN SURVEY, ABSTRACT NUMBER 178, WILLIAMSON COUNTY, TEXAS, SAME BEING ALL OF THAT CERTAIN GABRIEL FOREST PROPERTIES, LLC 10.066 ACRE TRACT, RECORDED IN DOCUMENT NUMBER 2017022651, OFFICIAL PUBLIC RECORDS, WILLIAMSON COUNTY, TEXAS, SAID 10.07 ACRES OF LAND TO BE MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS IN EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF.

TRACT 2:
TWO ACCESS EASEMENTS OUT OF THE ISAAC DONAGAN SURVEY, ABSTRACT NO. 178, WILLIAMSON COUNTY, TEXAS, RECORDED IN VOLUME 574, PAGE 447.



ALLSTAR Land surveying
9020 ANDERSON MILL RD
AUSTIN, TEXAS 78729
(512) 249-8149 PHONE
(512) 331-5217 FAX
TBPELS FIRM NO. 10135500

F.I.R.M. MAP INFORMATION

THIS PROPERTY DOES NOT LIE WITHIN THE 100 YEAR FLOOD - PLAIN, AND HAS A ZONE "X" RATING AS SHOWN ON THE FLOOD INSURANCE RATE MAPS
F.I.R.M. MAP NO. 48491C0290E
PANEL: 0290E
DATED: 09/26/2008

THIS CERTIFICATION IS FOR INSURANCE PURPOSES ONLY AND IS NOT A GUARANTEE THAT THIS PROPERTY WILL OR WILL NOT FLOOD. CONTACT YOUR LOCAL FLOOD PLAIN ADMINISTRATOR FOR THE CURRENT STATUS OF THIS TRACT.

ADDRESS

JMA ENTITY LLC AND/OR ASSIGNS
120 GABRIEL FOREST
GEORGETOWN, WILLIAMSON COUNTY, TEXAS

SURVEY DATE:	APRIL 18, 2022	FIELD BY:	DUSTIN CARTER 04/04/2022
TITLE CO.:	STEWART TITLE GUARANTY COMPANY	CALC. BY:	CHRIS ZOTTER 04/12/2022
G.F. NO.:	9992-22-26570CM	DRAWN BY:	SEAN SUTTON 04/12/2022
JOB NO.:	A0305422	UPDATE BY:	- -
		RPLS CHECK:	EDWARD RUMSEY 04/18/2022

TREE LIST
(1) 13" LIVE OAK
(2) 8.25" LIVE OAK
(3) 12.5" CEDAR ELM
(4) 15" LIVE OAK
(5) 15" CEDAR ELM (M)
(6) 13" LIVE OAK
(7) 13" CEDAR ELM
(8) 15" CEDAR ELM
(9) 18.5" LIVE OAK
(10) 13.5" CEDAR ELM
(11) 15" CEDAR ELM
(12) 9.5" CEDAR ELM
(13) 8.5" LIVE OAK
(14) 7.5" LIVE OAK
(15) 6" LIVE OAK
(16) 11" LIVE OAK
(17) 28" LIVE OAK
(18) 16.75" LIVE OAK
(19) 14" LIVE OAK
(20) 17" LIVE OAK
(21) 15" LIVE OAK
(22) 9" LIVE OAK
(23) 10" LIVE OAK
(24) 22" LIVE OAK
(25) 7" MESQUITE
(26) 14" LIVE OAK
(27) 16" LIVE OAK
(28) 13.5" LIVE OAK
(29) 12.5" LIVE OAK
(30) 13.5" LIVE OAK
(31) 14" LIVE OAK
(32) 13" CEDAR ELM
(33) 10.5" AMERICAN ELM
(34) 16" LIVE OAK
(35) 8.5" CEDAR ELM
(36) 8.5" AMERICAN ELM
(37) 12" CEDAR ELM
(38) 13.5" CEDAR ELM
(39) 14" LIVE OAK
(40) 17.5" CEDAR ELM
(41) 17.75" LIVE OAK (M)
(42) 20.5" LIVE OAK (M)
(43) 22.75" LIVE OAK (M)
(44) 6.5" LIVE OAK
(45) 8.5" CEDAR ELM
(46) 6" CEDAR ELM
(47) 6" LIVE OAK
(48) 6.5" LIVE OAK
(49) 7" LIVE OAK
(50) 17" LIVE OAK (M)
(51) 16.5" LIVE OAK (M)
(52) 11" LIVE OAK
(53) 9" LIVE OAK
(54) 12" LIVE OAK
(55) 11.25" LIVE OAK
(56) 24.5" LIVE OAK (M)
(57) 15.5" CEDAR ELM
(58) 12" LIVE OAK
(59) 13" LIVE OAK
(60) 13.5" LIVE OAK
(61) 15" LIVE OAK (DEAD)
(62) 12.5" LIVE OAK
(63) 7" HACKBERRY
(64) 9.5" LIVE OAK
(65) 12.5" LIVE OAK
(66) 19" LIVE OAK (M)
(67) 10.5" LIVE OAK
(68) 15.5" LIVE OAK
(69) 11.5" LIVE OAK
(70) 9" LIVE OAK (M)
(71) 7.5" LIVE OAK (DEAD)
(72) 11" LIVE OAK
(73) 7" LIVE OAK
(74) 9.5" LIVE OAK
(75) 9.5" LIVE OAK
(76) 8" LIVE OAK
(77) 8.75" LIVE OAK
(78) 12.5" LIVE OAK
(79) 6.5" LIVE OAK
(80) 17" CEDAR ELM
(81) 10.5" CEDAR ELM
(82) 13.75" LIVE OAK (M)
(83) 12.5" LIVE OAK
(84) 8.5" LIVE OAK

TREE LIST
(85) 19.5" LIVE OAK
(86) 14" HACKBERRY
(87) 14" LIVE OAK
(88) 14.5" CEDAR ELM
(89) 10" LIVE OAK
(90) 8" LIVE OAK
(91) 23.5" LIVE OAK
(92) 7.5" CEDAR ELM
(93) 8" LIVE OAK
(94) 26.5" LIVE OAK (M)
(95) 34.75" LIVE OAK (M)
(96) 8" LIVE OAK
(97) 7.5" LIVE OAK
(98) 10" LIVE OAK
(99) 6" LIVE OAK
(100) 6" LIVE OAK
(101) 6" LIVE OAK
(102) 7" LIVE OAK
(103) 6" LIVE OAK
(104) 9" LIVE OAK
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(106) 8" LIVE OAK
(107) 7.5" LIVE OAK
(108) 10" LIVE OAK
(109) 8" LIVE OAK
(110) 8" LIVE OAK
(111) 11" LIVE OAK
(112) 8.25" LIVE OAK
(113) 9" LIVE OAK
(114) 9" LIVE OAK
(115) 6" LIVE OAK
(116) 9" LIVE OAK
(117) 8.5" LIVE OAK
(118) 7" LIVE OAK
(119) 8" HACKBERRY
(120) 23" LIVE OAK
(121) 12" LIVE OAK (M)
(122) 18" LIVE OAK
(123) 9.5" LIVE OAK
(124) 15" LIVE OAK (M)
(125) 22" LIVE OAK
(126) 11.5" LIVE OAK (M)
(127) 15.5" CEDAR ELM
(128) 8" LIVE OAK
(129) 9.5" LIVE OAK (M)
(130) 10" LIVE OAK
(131) 31" LIVE OAK
(132) 18.75" LIVE OAK (M)
(133) 13" LIVE OAK
(134) 17" LIVE OAK
(135) 12.5" LIVE OAK
(136) 10" LIVE OAK
(137) 9.5" LIVE OAK
(138) 8.5" LIVE OAK
(139) 8.5" LIVE OAK
(140) 7" CEDAR ELM
(141) 15.5" LIVE OAK (M)
(142) 7" LIVE OAK
(143) 8" LIVE OAK
(144) 8" LIVE OAK (DEAD)
(145) 15" LIVE OAK (DEAD)
(146) 7" LIVE OAK (DEAD)
(147) 11.5" LIVE OAK (DEAD)
(148) 9" LIVE OAK
(149) 12.5" CEDAR ELM
(150) 8" LIVE OAK
(151) 9" LIVE OAK
(152) 24" LIVE OAK
(153) 17.25" LIVE OAK
(154) 13" LIVE OAK
(155) 13.5" LIVE OAK
(156) 24.5" LIVE OAK (M)
(157) 17.5" CHINABERRY (M)
(158) 11" CHINABERRY
(159) 15.5" LIVE OAK (M)
(160) 9.5" LIVE OAK
(161) 14" LIVE OAK
(162) 12" LIVE OAK
(163) 13.5" LIVE OAK
(164) 12.5" LIVE OAK
(165) 10" LIVE OAK
(166) 12" LIVE OAK
(167) 10" LIVE OAK

TREE LIST
(168) 12" LIVE OAK
(169) 10.5" LIVE OAK (M)
(170) 15" LIVE OAK
(171) 12.5" LIVE OAK
(172) 8" LIVE OAK
(173) 9" LIVE OAK
(174) 6" CEDAR ELM
(175) 7" LIVE OAK
(176) 9" CEDAR ELM
(177) 6.5" CEDAR ELM
(178) 6.5" LIVE OAK
(179) 8" CEDAR ELM
(180) 7.5" CEDAR ELM
(181) 15.25" LIVE OAK (M)
(182) 10.75" CEDAR ELM
(183) 9" CEDAR ELM
(184) 13" HACKBERRY
(185) 11.5" CEDAR ELM
(186) 7" LIVE OAK
(187) 6" CHINABERRY
(188) 8" CHINABERRY
(189) 6.5" HACKBERRY
(190) 7" LIVE OAK
(191) 8" LIVE OAK
(192) 10" LIVE OAK
(193) 11" LIVE OAK
(194) 8" LIVE OAK
(195) 6" LIVE OAK
(196) 8.25" LIVE OAK
(197) 6" LIVE OAK (DEAD)
(198) 12" LIVE OAK
(199) 11" LIVE OAK
(200) 10" LIVE OAK
(201) 18" LIVE OAK
(202) 7" LIVE OAK
(203) 7" LIVE OAK
(204) 7" LIVE OAK
(205) 9.5" LIVE OAK
(206) 12.5" LIVE OAK (M)
(207) 10" LIVE OAK
(208) 6" CEDAR ELM
(209) 9" LIVE OAK
(210) 11.5" CHINABERRY
(211) 13.25" LIVE OAK
(212) 6" LIVE OAK
(213) 15.5" CEDAR ELM
(214) 14.75" LIVE OAK (M)
(215) 23.75" LIVE OAK (M)
(216) 10" CEDAR ELM
(217) 8.25" CEDAR ELM
(218) 12" CEDAR ELM
(219) 14" CEDAR ELM
(220) 12" LIVE OAK
(221) 11" LIVE OAK
(222) 10" LIVE OAK
(223) 8.25" CEDAR ELM
(224) 6.25" LIVE OAK
(225) 6.5" LIVE OAK
(226) 12.25" LIVE OAK (M)
(227) 8.25" CEDAR ELM
(228) 13" LIVE OAK (DEAD)
(229) 14.75" LIVE OAK (M)
(230) 17" CEDAR ELM
(231) 22" LIVE OAK

TREE LIST
(232) 9" LIVE OAK
(233) 30.5" LIVE OAK (M)
(234) 15" LIVE OAK
(235) 8" LIVE OAK
(236) 8" LIVE OAK
(237) 15.5" LIVE OAK
(238) 9" LIVE OAK
(239) 8.5" LIVE OAK
(240) 6" LIVE OAK
(241) 9" LIVE OAK
(242) 7" LIVE OAK
(243) 8" LIVE OAK
(244) 9" LIVE OAK
(245) 13" LIVE OAK (M)
(246) 10" LIVE OAK
(247) 10" LIVE OAK
(248) 7.5" LIVE OAK
(249) 7.5" CHINABERRY (M)
(250) 13" LIVE OAK
(251) 12.25" LIVE OAK (M)
(252) 12.25" LIVE OAK (M)
(253) 9" LIVE OAK
(254) 6" LIVE OAK
(255) 8" LIVE OAK
(256) 12.75" LIVE OAK
(257) 11" LIVE OAK
(258) 6" LIVE OAK
(259) 6" LIVE OAK
(260) 8" CHINABERRY
(261) 9" LIVE OAK
(262) 18.75" LIVE OAK (M)
(263) 6" CEDAR ELM
(264) 7" MESQUITE
(265) 8" LIVE OAK
(266) 12.5" LIVE OAK
(267) 10" LIVE OAK
(268) 8.5" LIVE OAK
(269) 22.25" LIVE OAK (M)
(270) 12.5" LIVE OAK
(271) 8" LIVE OAK
(272) 7.5" LIVE OAK
(273) 6" LIVE OAK
(274) 8" CHINABERRY
(275) 9" LIVE OAK
(276) 18.75" LIVE OAK (M)
(277) 6" CEDAR ELM
(278) 7" MESQUITE
(279) 8" LIVE OAK
(280) 12.5" LIVE OAK
(281) 10" LIVE OAK
(282) 8.5" LIVE OAK
(283) 16.25" LIVE OAK (M)
(284) 10.5" LIVE OAK
(285) 16.25" LIVE OAK (M)
(286) 10.5" LIVE OAK
(287) 15" POST OAK
(288) 13.5" POST OAK
(289) 16.5" CEDAR ELM
(290) 15" CEDAR ELM
(291) 11.5" CEDAR ELM
(292) 24.5" LIVE OAK (M)
(293) 11" LIVE OAK
(294) 6" LIVE OAK
(295) 14" LIVE OAK
(296) 14" LIVE OAK
(297) 7.25" LIVE OAK
(298) 9.25" LIVE OAK
(299) 13" LIVE OAK
(300) 9.5" LIVE OAK
(301) 12.5" LIVE OAK
(302) 8.5" LIVE OAK
(303) 9.75" LIVE OAK (M)
(304) 6" LIVE OAK
(305) 15" LIVE OAK
(306) 7" LIVE OAK

PAGE 2 OF 3

ALLSTAR Land surveying
9020 ANDERSON MILL RD
AUSTIN, TEXAS 78729
(512) 249-8149 PHONE
(512) 331-5217 FAX
TBPELS FIRM NO. 10135500

LEGEND
(M) TREE
MULTI-STEMMED TREE

ADDRESS

JMA ENTITY LLC AND/OR ASSIGNS
120 GABRIEL FOREST
GEORGETOWN, WILLIAMSON COUNTY, TEXAS

SURVEY DATE:	APRIL 13, 2022	FIELD BY:	DUSTIN CARTER 04/04/2022
TITLE CO.:	STEWART TITLE GUARANTY COMPANY	CALC. BY:	CHRIS ZOTTER 04/12/2022
G.F. NO.:	9992-22-26570CM	DRAWN BY:	SEAN SUTTON 04/12/2022
JOB NO.:	A0305422	UPDATE BY:	- -
		RPLS CHECK:	EDWARD RUMSEY 04/12/2022

TREE LIST
(1) 16" LIVE OAK (M)
(2) 12" LIVE OAK
(3) 7" LIVE OAK
(4) 25.5" POST OAK (M)
(5) 17" CEDAR ELM
(6) 12.5" LIVE OAK (M)
(7) 20" LIVE OAK (M)
(8) 19" LIVE OAK (M)
(9) 22" LIVE OAK
(10) 7" CEDAR ELM
(11) 31" LIVE OAK
(12) 11.5" CEDAR ELM
(13) 6.5" LIVE OAK
(14) 12" CEDAR ELM
(15) 8" LIVE OAK
(16) 6" LIVE OAK
(17) 6.5" LIVE OAK
(18) 10" LIVE OAK
(19) 15" LIVE OAK (M)
(20) 6" SPANISH OAK
(21) 6" SPANISH OAK
(22) 47" LIVE OAK (M)
(23) 17" LIVE OAK (M)
(24) 7" LIVE OAK
(25) 7.5" LIVE OAK
(26) 9" LIVE OAK
(27) 7.5" LIVE OAK
(28) 8.25" LIVE OAK
(29) 6" LIVE OAK
(30) 16.5" LIVE OAK
(31) 9.5" LIVE OAK
(32) 17.5" LIVE OAK
(33) 15.25" CEDAR ELM
(34) 11.25" LIVE OAK
(35) 11" LIVE OAK
(36) 8" LIVE OAK
(37) 10.75" LIVE OAK
(38) 10" LIVE OAK
(39) 6.5" LIVE OAK
(40) 7.5" LIVE OAK
(41) 6.5" LIVE OAK
(42) 12.25" LIVE OAK (M)
(43) 8" LIVE OAK
(44) 7" LIVE OAK
(45) 13.5" LIVE OAK
(46) 14.75" LIVE OAK
(47) 23" LIVE OAK (M)
(48) 16.25" LIVE OAK (M)
(49) 15.75" LIVE OAK (M)
(50) 12.5" LIVE OAK
(51) 25.5" LIVE OAK (M)
(52) 12" LIVE OAK
(53) 10" LIVE OAK
(54) 9.5" LIVE OAK
(55) 6" LIVE OAK
(56) 11" LIVE OAK
(57) 9" LIVE OAK
(58) 8" LIVE OAK
(59) 7" CEDAR ELM
(60) 10.5" LIVE OAK
(61) 11.5" LIVE OAK
(62) 26" CEDAR ELM
(63) 6" CEDAR ELM
(64) 9.5" LIVE OAK (M)
(65) 8.25" CHERMYRTLE (M)
(66) 6" LIVE OAK
(67) 11.5" LIVE OAK
(68) 8.25" LIVE OAK (M)
(69) 8" LIVE OAK
(70) 7" LIVE OAK
(71) 8" LIVE OAK
(72) 6" HACKBERRY
(73) 9" HACKBERRY

TREE LIST
(74) 8" CHINABERRY
(75) 6" CHINABERRY
(76) 8" HACKBERRY
(77) 6.75" LIVE OAK
(78) 10.5" LIVE OAK
(79) 14" LIVE OAK
(80) 13.5" LIVE OAK
(81) 23" LIVE OAK
(82) 15" LIVE OAK
(83) 14.5" LIVE OAK
(84) 28.5" LIVE OAK
(85) 16" LIVE OAK
(86) 13" LIVE OAK
(87) 19.5" LIVE OAK (M)
(88) 16.5" LIVE OAK (DEAD)

PAGE 3 OF 3

ALLSTAR Land surveying
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LEGEND
(M) TREE
MULTI-STEMMED TREE

ADDRESS

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GEORGETOWN, WILLIAMSON COUNTY, TEXAS

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THOMPSON LAND ENGINEERING, LLC
Land Planning, Site Design, Subdivision Engineering
P.O. Box 160062, Austin, Texas 78716 (512-328-0002)
www.tleng.net email: ric@tleng.net
TBPE Reg. No. F-11038

DATE
REVISION

PROJECT
AAA 120 GABRIEL FOREST
120 GABRIEL FOREST GEORGETOWN, TX 78628

SHEET NAME
TREE SURVEY

DATE ISSUED
February, 2024

DESIGNED BY	DRAFTED BY
RCT	RH/JH/MR

JOB NUMBER
1864

SHEET
38 OF 38

2023- -SWP

ATTACHMENT G

Inspection, Maintenance, Repair and Retrofit Plan

Purpose
This plan is for the "water quality" control on this site.

Construction Plans
This plan is for work constructed under the City of Georgetown Case Number: 2023-SWP____. The detailed information from those plans is included in this operation and maintenance plan; however, anyone accepting responsibility for maintaining this system should obtain a copy of those plans and become familiar with the construction specifications on those plans.

Description of Control
The water quality control is a “Sand Filter” pond (which includes a sedimentation basin and a filtration basin). This pond is proposed to be built in the northeast corner of the property with a gravity flow outfall that spills into the adjacent detention pond. The purpose of this water quality control is to:

- capture the initial run-off contacting the buildings, drives and parking on this site,
- allow any sediment and pollutants to settle in the "sedimentation” portion of the pond,
- discharge runoff from the sedimentation pond into the filtration portion of the pond, and then
- filter the discharge through sand to further remove pollutants.

The goal is for the runoff to be filtered within a maximum of 48-hours.

Operational Requirements for the Control
The entire system is designed to operate by gravity and with no mechanical controls. So, no operational requirements are necessary other than to maintain the system as described below.

General Description of Maintenance Required
The primary components of the water quality control are:

- the flow splitting structure,
- the sedimentation pond,
- the rock gabion wall that divides the sedimentation pond from the filtration pond,
- the sand bed of the filtration pond, and
- the outfall of the filtration underdrain system.

The flow splitting structure, sedimentation pond, concrete wall, and filtration should not take any maintenance other than periodic cleaning of accumulated silt, and in the sedimentation pond, the mowing of the grass. The sand bed of the filtration pond should be periodically raked clean of the accumulation of silt. The opening of the underdrain outfall pipe should be kept clear of accumulation of sediment and vegetation.

The facility should be inspected at least twice every year to make sure it is clear of debris and sediment. The grass in the sedimentation pond should be mowed at least every other week during the growing season.

Specific Maintenance Guidelines

Recommended maintenance guidelines are as follows. Records should be kept of the following and any other maintenance work and inspections, and those records should be kept on site for review by the City of Austin and TECQ should they request to see them.

Inspections. The water quality control should be inspected six times a year to evaluate facility operation. One of these inspections should be during or immediately following wet weather. Items which should be inspected include:

- looking for eroded areas at the flow splitting structure,
- looking for distressed or dying grass within the sedimentation pond,
- checking the rock gabion for accumulation of silt which might block flow
- checking outfall structure for blockage and/or debris accumulation, and
- looking for areas of water accumulation.

Regular Maintenance.

- Sediment Removal. At a minimum, the sediment needs to be removed from the inlet structure and sedimentation pond when sediment buildup fills up 6 inches or when it accumulates to such a point that it blocks the flow of water.
- Media Replacement. Maintenance of filter media is necessary when the drawdown time exceeds 48-hours. When this occurs, the upper layer of sand (2-3 inches, if regularly maintained) should be removed and replaced with new material meeting the original specifications. Any discolored sand should also be removed and replaced.
- Debris and Litter Removal. Debris and litter should be removed after each significant rainfall event – typically, during regular mowing operations and inspections.
- Filter Underdrain. Clean underdrain piping network to remove any sediment buildup, as needed, to maintain design drawdown time.
- Mowing. Grassed areas in and around the sand filter system should be mowed at least twice a year to limit vegetation height to no more than 18 inches. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas; however, the grass should not be mowed to less than 2-inches. (Generally, mowing close to the ground exposes the ground to a greater potential for erosion.)

Replacement Parts. No replacement parts should be required.

Responsible Party: JMA Entity, LLC c/o Shawn Beichler
Name

Shawn Beichler — 2/6/24
Signature — Date

Mailing Address: 4203 Spinnaker Cove

City, State: Austin, Texas 78731

Telephone: (254) 466-7304

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

I Shawn Beichler,
Print Name

President,
Title – President & Director of Land Development & Construction

of JMA Entity, LLC,
Corporation/Partnership/Entity Name

have authorized Robert Thompson
Print Name of Agent/Engineer

of Thompson Land Engineering, LLC
Print Name of Firm

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

I also understand that:

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

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

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

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

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

SIGNATURE PAGE:

Applicant's Signature

2.5.24
Date

THE STATE OF NC §

County of Iredell §

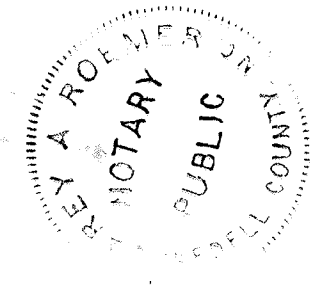
BEFORE ME, the undersigned authority, on this day personally appeared Shawn Beichler known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 5th day of February, 2024

NOTARY PUBLIC

Carey A Roemer
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 03/17/2027



Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: AAA Gabriel Forest
Regulated Entity Location: 120 Gabriel Forest, Georgetown, Texas 78628
Name of Customer: JMA Entity, LLC
Contact Person: Shawn Beichler Phone: 704-754-3200
Customer Reference Number (if issued):CN 606122752
Regulated Entity Reference Number (if issued):RN _____

Austin Regional Office (3373)

☐ Hays ☐ Travis ☒ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde
☐ Comal ☐ Kinney

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

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

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

Site Location (Check All That Apply):

☒ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	10.07 Acres	$ 6,500
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: Shawn Beichler

Date: 5/4/2023

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 606122752		**RN**

SECTION II: Customer Information

4. General Customer Information	**5. Effective Date for Customer Information Updates** (mm/dd/yyyy)	05/04/2023

☐ 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:*
JMA Entity, 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)*
		85-4269080	

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

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

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

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

15. Mailing Address:	4203 Spinnaker Cove						
	City	Austin	**State**	TX	**ZIP**	78731	**ZIP + 4**

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

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

(512) 657-6789		( ) -

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.)*

AAA Gabriel Forest

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	120 Gabriel Forest							
	City	Georgetown	**State**	TX	**ZIP**	78628	**ZIP + 4**	
24. County								

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

25. Description to Physical Location:					
26. Nearest City			**State**		**Nearest ZIP Code**
Georgetown			TX		78628

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

27. Latitude (N) In Decimal:			**28. Longitude (W) In Decimal:**		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

29. 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)
1541	1542	236220	493110

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

office and warehouse

34. Mailing Address:	**120 Gabriel Forest**							
	City	**Georgetown**	**State**	**TX**	**ZIP**	**78628**	**ZIP + 4**	
35. E-Mail Address:								

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

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

☐ Dam Safety	☐ Districts	☒ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Mark Roeder	**41. Title:**	Civil Engineer-in-Training

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512 **)** 328-0002		**(** 512 **)** 328-1112	mark@tleng.net

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:	JMA Entity, LLC	**Job Title:**	President/DIrector of Land Development & Construction
Name *(In Print):*	Shawn Beichler	**Phone:**	**(** 704 **)** 754- **3200**
Signature:	Shawn Beichler	**Date:**	2/6/2024