Modification of Contributing Zone Plan

For

AAA Storage at FM 1826

12100 Ranch to Market Rd 1826
Austin, TX 78737

Prepared By
Hill Country Civil, LLC
1042 Northpark Ridge
New Braunfels, TX 78130
Ross Corder, PE

Hill Country Civil
Engineers • Consultants

Application Cover Page

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: Appaloosa Run Storage Facility						**2. Regulated Entity No.:RN111012910**			
3. Customer Name: A-A-A Storage FM 1826						**4. Customer No.:CN6505766427**			
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):**			17.88 acres
9. Application Fee:	$6,500		**10. Permanent BMP(s):**			(2) Batch Detention Ponds			
11. SCS (Linear Ft.):			**12. AST/UST (No. Tanks):**			N/A			
13. County:	Travis		**14. Watershed:**			Bear Creek			

Application Distribution

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

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

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

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	___	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. Ross Corder, PE
Print Name of Customer/Authorized Agent
 10-04-2024
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):	

Hill Country Civil
Engineers • Consultants

Modification of a Previously Approved Contributing Zone Plan

Texas Firm No. F-22872 | Hill Country Civil LLC, 1042 North Park Ridge, New Braunfels, TX78130 | Phone: (210) 378-4953

Modification of a Previously Approved Contributing Zone Plan

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Transition Zone and Relating to 30 TAC 213.4(j), 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 **Modification of a Previously Approved Contributing Zone Plan** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Print Name of Customer/Agent: Ross Corder, PE

Date: 10-04-2024

Signature of Customer/Agent:

Project Information

1. Current Regulated Entity Name: A-A-A Storage FM 1826
   Original Regulated Entity Name: A-A-A Storage FM 1826
   Assigned Regulated Entity Number(s) (RN): RN111012910
   Edwards Aquifer Protection Program ID Number(s): 11001983
   ☒ The applicant has not changed and the Customer Number (CN) is: CN605766427
   ☐ The applicant or Regulated Entity has changed. A new Core Data Form has been provided.

2. ☒ **Attachment A: Original Approval Letter and Approved Modification Letters**. A copy of the original approval letter and copies of any modification approval letters are attached.

3. A modification of a previously approved plan is requested for (check all that apply):

☐ Any physical or operational modification of any best management practices or structure(s), including but not limited to temporary or permanent ponds, dams, berms, silt fences, and diversionary structures;
☐ Any change in the nature or character of the regulated activity from that which was originally approved;
☐ A change that would significantly impact the ability to prevent pollution of the Edwards Aquifer and hydrologically connected surface water; or
☐ Any development of land previously identified in a contributing zone plan as undeveloped.

4. ☒ Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

CZP Modification Summary	***Approved Project***	***Proposed Modification***
Acres	17.89	17.89
Type of Development	Commercial	Commercial
Number of Residential Lots	N/A	N/A
Impervious Cover (acres)	4.35	10.40
Impervious Cover (%)	34%	58%
Permanent BMPs	Retention/Irrigation	2-Batch Ponds
Other	_____	_____
AST Modification Summary	***Approved Project***	***Proposed Modification***
Number of ASTs	N/A	N/A
Other	N/A	N/A
UST Modification Summary	***Approved Project***	***Proposed Modification***
Number of USTs	N/A	N/A
Other	N/A	N/A

5. ☒ **Attachment B: Narrative of Proposed Modification**. A detailed narrative description of the nature of the proposed modification is attached. It discusses what was approved,

including previous modifications, and how this proposed modification will change the approved plan.

6. ☒ **Attachment C: Current Site Plan of the Approved Projec**t. A current site plan showing the existing site development (i.e., current site layout) at the time this application for modification is attached. A site plan detailing the changes proposed in the submitted modification is required elsewhere.
   - ☐ The approved construction has not commenced. The original approval letter and any subsequent modification approval letters are included as Attachment A to document that the approval has not expired.
   - ☒ The approved construction has commenced and has been completed. Attachment C illustrates that the site was constructed as approved.
   - ☐ The approved construction has commenced and has been completed. Attachment C illustrates that the site was **not** constructed as approved.
   - ☐ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was constructed as approved.
   - ☐ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was **not** constructed as approved.

7. ☒ Acreage has not been added to or removed from the approved plan.
   ☐ Acreage has been added to or removed from the approved plan and is discussed in *Attachment B: Narrative of Proposed Modification*.

8. ☒ 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.

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Attachment A: Original Approval Letter and Approved Modification Letters

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 14, 2020

Mr. John Munich
A-A-A Storage FM 1826, LLC
4203 Spinnaker CV
Austin, TX 78731

Re: Edwards Aquifer, Travis County

NAME OF PROJECT: Appaloosa Run Storage Facility; Located North of Appaloosa Run and FM 1826, Austin, TX

TYPE OF PLAN: Request for Approval of a Contributing Zone Plan (CZP)
30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer

Edwards Aquifer Protection Program ID No. 11001983; Regulated Entity No. RN111012910

Dear Mr. Munich:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the request for approval of a CZP Application for the above-referenced project submitted to the Austin Regional Office by Doucet and Associates, Inc. on behalf A-A-A Storage FM 1826, LLC on March 18, 2020. Final review of the CZP application was completed after additional material was received on May 13, 2020. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

PROJECT DESCRIPTION

The proposed commercial development will have a site area of approximately 17.88 acres. It will include the construction of 11 buildings, surface parking, access drives, and utilities. The impervious cover will be 4.36 acres (24.38 %). According to a letter dated February 25, 2020, signed by Michael Chapa, P.E., D.R. with Travis County, the site in the development is acceptable for the use of on-site sewage facilities.

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, a retention irrigation system, designed using the City of Austin Environmental Criteria Manual, will be used to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 3,795 pounds of TSS generated from the 4.36 acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project.

STANDARD CONDITIONS

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

Prior to Commencement of Construction:

4. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved CZP and this notice of approval shall be maintained at the project location until all regulated activities are completed.
5. Any modification to the activities described in the referenced CZP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
6. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the Austin Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.
7. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved CZP, must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

During Construction:

8. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
9. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to installation. The application must include information related to tank location and spill containment.
10. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.
11. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.
12. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
13. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

14. Owners of permanent BMPs and measures must ensure that the 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 Austin Regional Office within 30 days of site completion.
15. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through the Austin Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.
16. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved CZP. If the new owner intends to commence any new regulated activity on the site, a new CZP that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.

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

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Ms. Jade Mendiola, of the Edwards Aquifer Protection Program of the Austin Regional Office at (512) 339-2929.

Sincerely,

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

RCS/jkm

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

Deed Recordation Affidavit
Edwards Aquifer Protection Plan

THE STATE OF TEXAS §

County of _____ §

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

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

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

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

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

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

_____
LANDOWNER-AFFIANT

SWORN AND SUBSCRIBED TO before me, on this __ day of _____, ____.

_____
NOTARY PUBLIC

THE STATE OF _____ §

County of _____ §

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

GIVEN under my hand and seal of office on this __ day of _____, ____.

_____
NOTARY PUBLIC

_____
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: _____

Change in Responsibility for Maintenance on Permanent Best Management Practices and Measures

The applicant is no longer responsible for maintaining the permanent best management practice (BMP) and other measures. The project information and the new entity responsible for maintenance is listed below.

Customer: _____

Regulated Entity Name: _____

Site Address: _____

City, Texas, Zip: _____

County: _____

Approval Letter Date: _____

BMPs for the project: _____

New Responsible Party: _____

Name of contact: _____

Mailing Address: _____

City, State: _____ Zip: _____

Telephone: _____ FAX: _____

_____ _____

Signature of New Responsible Party Date

I acknowledge and understand that I am assuming full responsibility for maintaining all permanent best management practices and measures approved by the TCEQ for the site, until another entity assumes such obligations in writing or ownership is transferred.

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.

Attachment B: Narrative of Proposed Modification

A-A-A FM 1826 Phase 1 and 2 was approved with 4.85 acres of proposed impervious cover on a total site area of 17.89 acres. The Phase 1 and 2 impervious cover is treated by an existing irrigation/retention pond. The site is fully constructed and operational at this time.

A new expansion of the development is planned, with proposed Phase 3 and 4. This new expansion will include the construction of additional buildings, parking and drives needed to serve the development. The new development will create a new site total impervious cover of 10.40 acres out of the 17.89 acre tract, or 58%.

The increase in TSS generated by the proposed expansion will require modification to the existing irrigation/retention pond along with the construction of a new pond. The existing irrigation/retention pond will be modified to a Batch Detention Pond (Pond 1) located generally in the same location, although expanded in footprint and volume. Additionally, there was an existing onsite channel that routed upgradient runoff around the Phase 1 and 2 Development. Given the location of development, this channel is also now routed to Batch Pond 1. The outfall location remains the same, as it outfalls to the east into the TxDOT ROW.

Pond 2 will also be a Batch Detention Pond and will treat runoff that drains to the southwest for primarily the southern portion of the development. This pond will outfall towards the southwest property corner. Both ponds are sized using TCEQ RG-348 Criteria, and incorporate some level of overtreatment, as some drainage areas could not be captured. Reference the attached RG-348 Calculations for both Pond 1 and Pond 2.

Attachment C: Current Site Plan

APPENDIX Q-1 NET SITE AREA

NOTE: NET SITE AREA IS ONLY APPLICABLE TO WATERSHEDS CLASSIFIED AS WATER SUPPLY SUBURBAN / WATER SUPPLY RURAL / BARTON SPRINGS ZONE

TOTAL GROSS SITE AREA = 17.88 ACRES

SITE DEDUCTIONS

CRITICAL WATER QUALITY ZONE (CWQZ) =	0.00	ACRES
WATER QUALITY TRANSITION ZONE (WQTZ) =	0.19	ACRES
WASTEWATER IRRIGATION AREAS =	0.23	ACRES

DEDUCTION SUBTOTAL = 0.43 ACRES

UPLAND AREA (GROSS SITE AREA MINUS TOTAL DEDUCTIONS) : 17.45 ACRES

NET SITE AREA CALCULATION

AREA OF UPLANDS WITH SLOPES 0 - 15 % =	17.43	x100% =	17.43	ACRES
AREA OF UPLANDS WITH SLOPES 15 - 25 % =	0.02	x40% =	0.01	ACRES
AREA OF UPLANDS WITH SLOPES 25 - 35 % =	0.00	x20% =	0.00	ACRES
AREA OF UPLANDS WITH SLOPES > 35 % =	0.00	x0% =	0.00	ACRES

NET SITE AREA TOTAL = 17.44 ACRES

LANDSCAPE ANALYSIS TABLE		
	PROPOSED	ALLOWABLE
PROPOSED LANDSCAPE AREA	0.32	2.68
% LANDSCAPE AREA	1.8%	15%

APPENDIX Q-2 IMPERVIOUS COVER
WATER SUPPLY SUBURBAN / WATER SUPPLY RURAL / BARTON SPRINGS ZONE

WATER QUALITY TRANSITION ZONE

WATER QUALITY TRANSITION ZONE OUTSIDE OF 100-YEAR FLOODPLAIN (NON-FP WQTZ) 0.19 ACRES

ALLOWABLE IMPERVIOUS COVER

IMPERVIOUS COVER ALLOWED AT	0	% X NON-FP WQTZ	0.00	ACRES
IMPERVIOUS COVER ALLOWED AT	25	% X NET SITE AREA	4.36	ACRES

TOTAL IMPERVIOUS COVER ALLOWED 4.36 ACRES

ALLOWABLE IMPERVIOUS COVER BREAKDOWN BY SLOPE CATEGORY

TOTAL ACREAGE 15 - 25 % 0.02 X 10 % 0.002 Acres

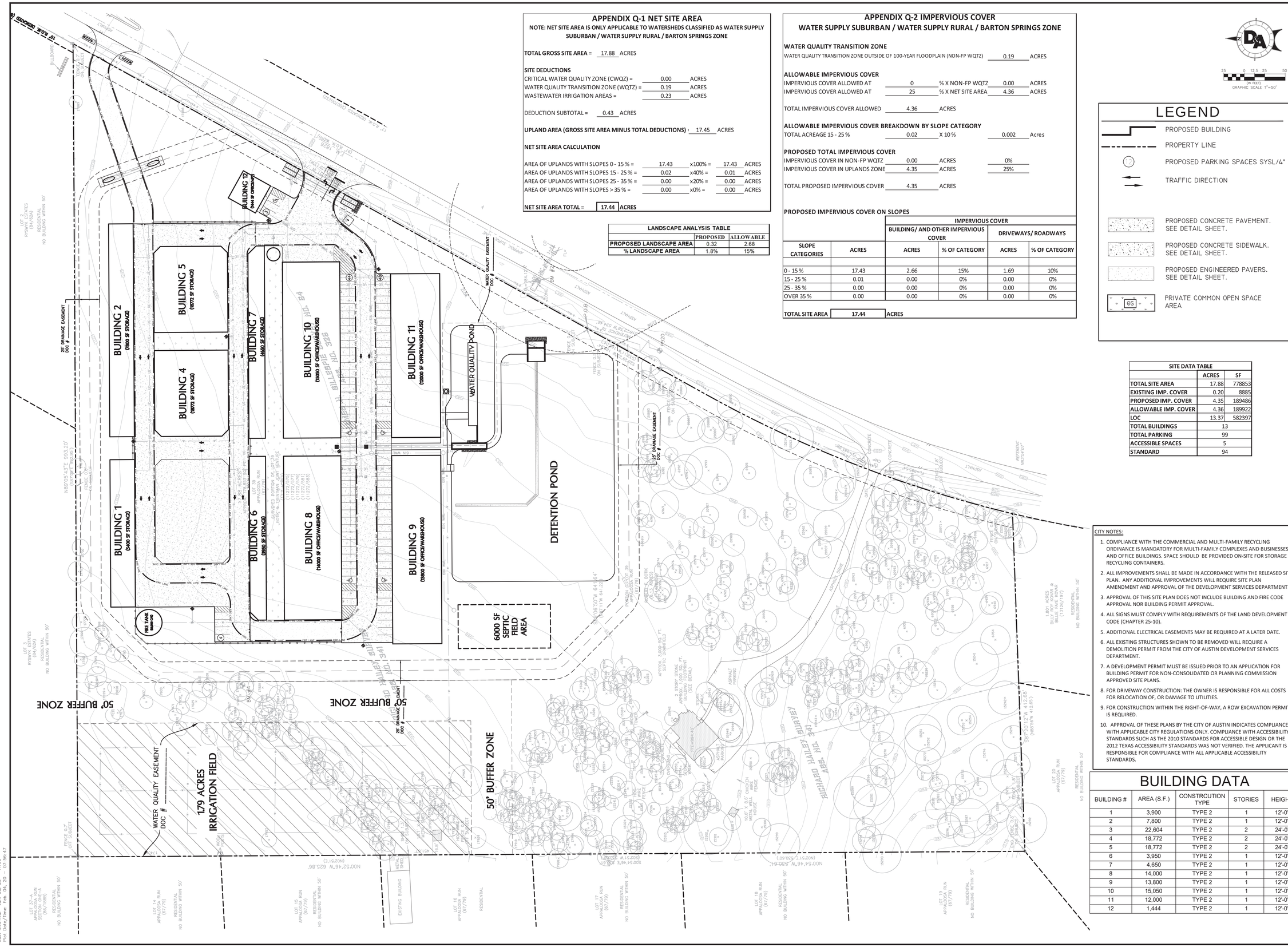
PROPOSED TOTAL IMPERVIOUS COVER

IMPERVIOUS COVER IN NON-FP WQTZ	0.00	ACRES	0%
IMPERVIOUS COVER IN UPLANDS ZONE	4.35	ACRES	25%

TOTAL PROPOSED IMPERVIOUS COVER 4.35 ACRES

PROPOSED IMPERVIOUS COVER ON SLOPES

		IMPERVIOUS COVER			
		BUILDING/ AND OTHER IMPERVIOUS COVER		DRIVEWAYS/ ROADWAYS	
SLOPE CATEGORIES	ACRES	ACRES	% OF CATEGORY	ACRES	% OF CATEGORY
0 - 15 %	17.43	2.66	15%	1.69	10%
15 - 25 %	0.01	0.00	0%	0.00	0%
25 - 35 %	0.00	0.00	0%	0.00	0%
OVER 35 %	0.00	0.00	0%	0.00	0%
TOTAL SITE AREA	17.44	ACRES			


BUILDING 1 (6400 SF STORAGE)
BUILDING 2 (7800 SF STORAGE)
BUILDING 4 (18772 SF STORAGE)
BUILDING 5 (18772 SF STORAGE)
BUILDING 6 (3950 SF STORAGE)
BUILDING 7 (4650 SF STORAGE)
BUILDING 8 (14000 SF OFFICE/WAREHOUSE)
BUILDING 9 (13800 SF OFFICE/WAREHOUSE)
BUILDING 10 (15050 SF OFFICE/WAREHOUSE)
BUILDING 11 (12000 SF OFFICE/WAREHOUSE)
BUILDING 12 (1444 SF OFFICE/WAREHOUSE)
WATER QUALITY POND
DETENTION POND
6000 SF SEPTIC FIELD AREA
179 ACRES IRRIGATION FIELD
WATER QUALITY EASEMENT DOC #
50' BUFFER ZONE
50' BUFFER ZONE
50' BUFFER ZONE
25' DRAINAGE EASEMENT DOC #
25' DRAINAGE EASEMENT DOC #
WATER QUALITY EASEMENT
FIRE TANK (50,000 GAL)
FENCE 0.3' OFF SUBJECT
FENCE 0.7' OFF SUBJECT
RESIDENTIAL NO BUILDING WITHIN 50'
RICHARD HILLERY ROAD
FEBRUARY 14TH
APPALOOSA RUN SUBDIVISION
LOT 1 RYSWYK ESTATES (84/62A)
LOT 2 RYSWYK ESTATES (84/62A)
LOT 3 RYSWYK ESTATES (84/62A)
LOT 13 APPALOOSA RUN (67/79)
LOT 14 APPALOOSA RUN (67/79)
LOT 15 APPALOOSA RUN (67/79)
LOT 16 APPALOOSA RUN (67/79)
LOT 17 APPALOOSA RUN (67/79)
LOT 18 APPALOOSA RUN (67/79)
LOT 19 APPALOOSA RUN (67/79)
LOT 20 APPALOOSA RUN (67/79)
LOT 37-A APPALOOSA RUN SECTION ONE-A (66/166D)
1.91 ACRES BILLY ROY KONAR & BILLIE FAYE KONAR (10126/691)
EXISTING METAL SHED
EXISTING BUILDING
APPROX. 3,000 SQ. FT. SEPTIC DRAINFIELD
2 STORY STONE APPROX. 1900 SQ. FT. BUILDING (SEE DETAIL)
STONE WALL
ASPHALT PARKING
CONCRETE
10.0' X 8.6' CHICKEN WIRE METAL MESH FENCE
GATE
ENTRANCE
REFERENCE N83°04'49"E
REFERENCE N83°04'49"E
N89°05'43"E 993.20' (BEARING BASIS)
N00°52'46"W 625.86' (M&D)
N00°51'E 530.60'
S89°08'50"W 641.22'
S89°08'50"W 641.64'
S89°07'12"W 412.68' (N85°56'W 412.86')
N00°54'46"W 530.61'
N00°51'E 530.60'
S00°54'46"E 530.61'
S00°51'W 530.60'
N00°52'46"W 625.86

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Contributing Zone Plan Application

Contributing Zone Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Contributing Zone to the Edwards Aquifer and Relating to 30 TAC §213.24(1), 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 **Contributing Zone Plan Application** is hereby submitted for TCEQ review and Executive Director approval. The application was prepared by:

Print Name of Customer/Agent: AAA Storage FM 1826

Date: 10-04-2024

Signature of Customer/Agent:

Regulated Entity Name: A-A-A Storage FM 1826

Project Information

1. County: Travis
2. Stream Basin: Bear Creek
3. Groundwater Conservation District (if applicable): _____
4. Customer (Applicant):

   Contact Person: John Muhich
   Entity: A-A-A Storage FM 1826
   Mailing Address: 4203 Spinnaker CV
   City, State: Austin, TX Zip: 78731
   Telephone: (512) 657-6789 Fax: _____
   Email Address: johnsmuhich@gmail.com

5. Agent/Representative (If any):

Contact Person: Ross Corder, PE
Entity: Hill Country Civil
Mailing Address: 1042 Northpark Ridge
City, State: New Braunfels, TX Zip: 78130
Telephone: (210) 378-4953 Fax: _____
Email Address: ross@hillcountrycivil.com

6. 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 Austin.
☐ The project site is not located within any city's limits or ETJ.

7. ☒ The location of the project site is described below. Sufficient detail and clarity has been provided so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

The AAA FM 1826 project is located southwest intersection of FM 1826 and Dalea Drive.

8. ☒ **Attachment A - Road Map**. A road map showing directions to and the location of the project site is attached. The map clearly shows the boundary of the project site.

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

☒ Project site boundaries.
☒ USGS Quadrangle Name(s).

10. ☒ **Attachment C - Project Narrative**. A detailed narrative description of the proposed project is attached. 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

11. 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/Not cleared)
☐ Other: _____

12. The type of project is:

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

13. Total project area (size of site): 17.88 Acres

Total disturbed area: _____ Acres

14. Estimated projected population: _____

15. The amount and type of impervious cover expected after construction is complete is shown below:

Table 1 - Impervious Cover

Impervious Cover of Proposed Project	*Sq. Ft.*	*Sq. Ft./Acre*	*Acres*
Structures/Rooftops	221,827	÷ 43,560 =	5.1
Parking	231,091	÷ 43,560 =	5.3
Other paved surfaces	0	÷ 43,560 =	0
Total Impervious Cover	452,918	÷ 43,560 =	10.4

Total Impervious Cover 10.4 **÷ Total Acreage** 17.88 **X 100 =** 58 **% Impervious Cover**

16. ☒ **Attachment D - Factors Affecting Surface Water Quality**. A detailed description of all factors that could affect surface water quality is attached. If applicable, this includes the location and description of any discharge associated with industrial activity other than construction.

17. ☒ Only inert materials as defined by 30 TAC 330.2 will be used as fill material.

For Road Projects Only

Complete questions 18 - 23 if this application is exclusively for a road project.

☒ N/A

18. 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.

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

- ☐ Concrete
- ☐ Asphaltic concrete pavement
- ☐ Other: _____

20. Right of Way (R.O.W.):

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

21. Pavement Area:

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.

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

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

23. ☐ 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

24. ☐ **Attachment E - 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 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

25. ☐ Wastewater is to be discharged in the contributing zone. Requirements under 30 TAC §213.6(c) relating to Wastewater Treatment and Disposal Systems have been satisfied.

☒ N/A

26. Wastewater will be disposed of by:

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

☒ **Attachment F - 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):

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

☐ Existing.
☐ Proposed.

☒ N/A

Permanent Aboveground Storage Tanks(ASTs) ≥ 500 Gallons

Complete questions 27 - 33 if this project includes the installation of AST(s) with volume(s) greater than or equal to 500 gallons.

☒ N/A

27. Tanks and substance stored:

Table 2 - Tanks and Substance Storage

AST Number	*Size (Gallons)*	*Substance to be Stored*	*Tank Material*
1			
2			
3			
4			
5			

Total x 1.5 = _____ Gallons

28. ☐ The AST will be placed within a containment structure that is sized to capture one and one-half (1 1/2) times the storage capacity of the system. For facilities with more than

one tank system, the containment structure is sized to capture one and one-half (1 1/2) times the cumulative storage capacity of all systems.

☐ **Attachment G - Alternative Secondary Containment Methods**. Alternative methods for providing secondary containment are proposed. Specifications showing equivalent protection for the Edwards Aquifer are attached.

29. Inside dimensions and capacity of containment structure(s):

Table 3 - Secondary Containment

Length (L)(Ft.)	*Width(W)(Ft.)*	*Height (H)(Ft.)*	*L x W x H = (Ft3)*	*Gallons*

Total: _____ Gallons

30. Piping:

☐ All piping, hoses, and dispensers will be located inside the containment structure.
☐ Some of the piping to dispensers or equipment will extend outside the containment structure.
☐ The piping will be aboveground
☐ The piping will be underground

31. ☐ The containment area must be constructed of and in a material impervious to the substance(s) being stored. The proposed containment structure will be constructed of: _____.

32. ☐ **Attachment H - AST Containment Structure Drawings**. A scaled drawing of the containment structure is attached that shows the following:

☐ Interior dimensions (length, width, depth and wall and floor thickness).
☐ Internal drainage to a point convenient for the collection of any spillage.
☐ Tanks clearly labeled
☐ Piping clearly labeled
☐ Dispenser clearly labeled

33. ☐ Any spills must be directed to a point convenient for collection and recovery. Spills from storage tank facilities must be removed from the controlled drainage area for disposal within 24 hours of the spill.

☐ In the event of a spill, any spillage will be removed from the containment structure within 24 hours of the spill and disposed of properly.

☐ In the event of a spill, any spillage will be drained from the containment structure through a drain and valve within 24 hours of the spill and disposed of properly. The drain and valve system are shown in detail on the scaled drawing.

Site Plan Requirements

Items 34 - 46 must be included on the Site Plan.

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

    Site Plan Scale: 1" = 40 '.

35. 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): _____.

36. ☒ 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, etc. are shown on the site plan.

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

37. ☒ A drainage plan showing all paths of drainage from the site to surface streams.

38. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.

39. ☒ Areas of soil disturbance and areas which will not be disturbed.

40. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

41. ☒ Locations where soil stabilization practices are expected to occur.

42. ☐ Surface waters (including wetlands).

    ☒ N/A

43. ☐ Locations where stormwater discharges to surface water.

    ☒ There will be no discharges to surface water.

44. ☐ Temporary aboveground storage tank facilities.

    ☒ Temporary aboveground storage tank facilities will not be located on this site.

45. ☐ Permanent aboveground storage tank facilities.

☒ Permanent aboveground storage tank facilities will not be located on this site.

46. ☒ Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

Practices and measures that will be used during and after construction is completed.

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

☐ N/A

48. ☒ 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

49. ☒ 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

50. 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.

51. 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 I - 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.

52. ☒ **Attachment J - 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.

53. ☒ **Attachment K - 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.

54. ☒ **Attachment L - BMPs for Surface Streams**. A description of the BMPs and measures that prevent pollutants from entering surface streams is attached.

    ☐ N/A

55. ☒ **Attachment M - Construction Plans**. Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. Construction plans for the proposed permanent BMPs and measures are

attached and include: Design calculations, TCEQ Construction Notes, all proposed structural plans and specifications, and appropriate details.

☐ N/A

56. ☒ **Attachment N - Inspection, Maintenance, Repair and Retrofit Plan**. A site and BMP specific plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan fulfills all of the following:

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

☐ N/A

57. ☐ **Attachment O - 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

58. ☒ **Attachment P - 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 result in water quality degradation.

☐ N/A

Responsibility for Maintenance of Permanent BMPs and Measures after Construction is Complete.

59. ☒ 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.

60. ☒ 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.

Administrative Information

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

62. [X] Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.

63. [ ] The site description, controls, maintenance, and inspection requirements for the storm water pollution prevention plan (SWPPP) developed under the EPA NPDES general permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC §213.24(1-5) of the technical report. All requirements of 30 TAC §213.24(1-5) have been met by the SWPPP document.

[X] The Temporary Stormwater Section (TCEQ-0602) is included with the application.

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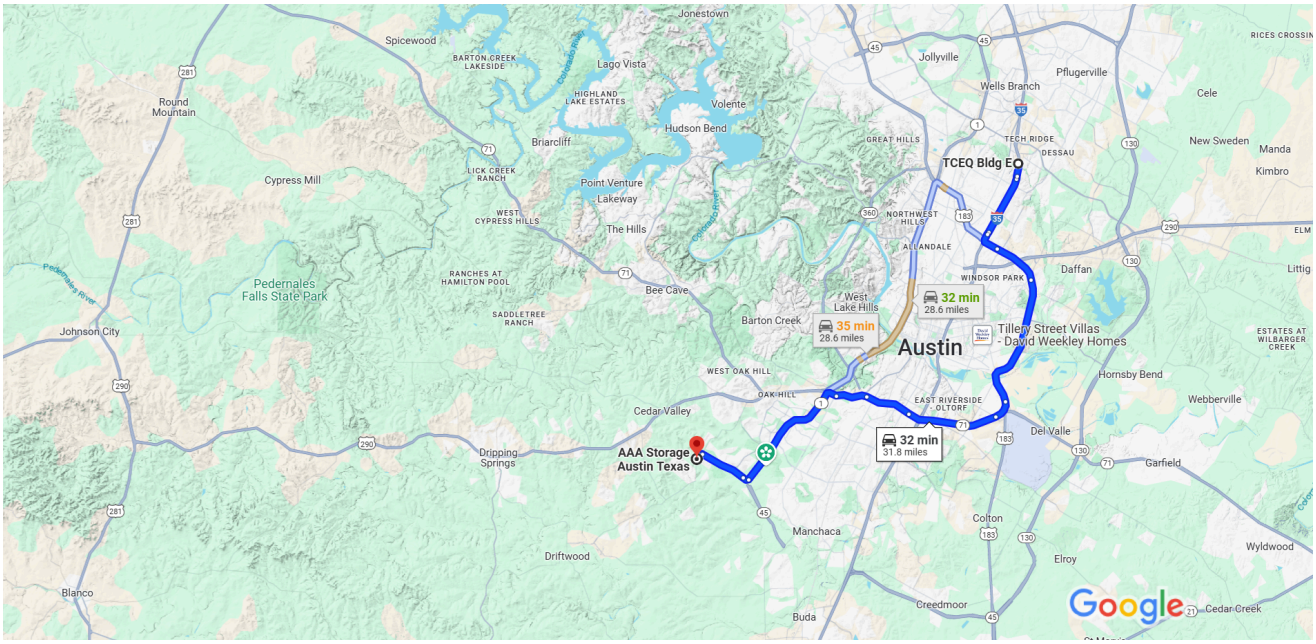
Attachment A-Road Map

TCEQ Bldg E, 12118 N Interstate Hwy 35, Austin, TX 78753 to AAA Storage Austin Texas, 12100 Ranch to Market Rd 1826, Austin, TX 78737

Drive 31.8 miles, 32 min



Map data ©2024 Google 2 mi

TCEQ Bldg E
12118 N Interstate Hwy 35, Austin, TX
78753

⚠ This route has tolls.

Get on I-35 S

2 min (0.8 mi)

1. Head northeast toward S I-35 Frontage Rd
   ⚠ Restricted usage road

187 ft

2. Turn right onto S I-35 Frontage Rd

0.6 mi

3. Use the left lane to take the ramp onto I-35 S

0.1 mi

Continue on I-35 S. Take US-183 S to 183 Toll

6 min (6.3 mi)

4. Merge onto I-35 S

2.9 mi

5. Use the 2nd from the right lane to take the exit toward US-183 S

0.1 mi

6. Use the left lane to take the ramp to U.S. 183 S

1.1 mi

7. Merge onto US-183 S

2.3 mi

Get on State Hwy 71/E Ben White Blvd

7 min (7.5 mi)

8. Keep left to continue on 183 Toll
   ⚠ Toll road

6.5 mi

9. Use the left 2 lanes to turn slightly left onto the Texas State Hwy 71 W/Ben white Blvd ramp
   ⚠ Toll road

1.0 mi

Follow State Hwy 71/E Ben White Blvd, US-290 W and TX-1 Loop S to TX-45 W. Exit from TX-1 Loop S

14 min (14.6 mi)

10. Merge onto State Hwy 71/E Ben White Blvd

4.3 mi

11. Continue onto State Hwy 71 W/US-290 W/W Ben White Blvd

2.2 mi

12. Use the 2nd from the right lane to stay on US-290 W

1.5 mi

13. Take the exit onto TX-1 Loop S

6.3 mi

14. Use the right 2 lanes to take the exit toward TX-45 W

0.3 mi

Continue on TX-45 W to your destination

4 min (2.6 mi)

15. Continue onto TX-45 W

2.3 mi

16. Use any lane to turn left onto Ranch to Market Rd 1826

0.4 mi

17. Turn right

98 ft

AAA Storage Austin Texas
12100 Ranch to Market Rd 1826, Austin, TX 78737

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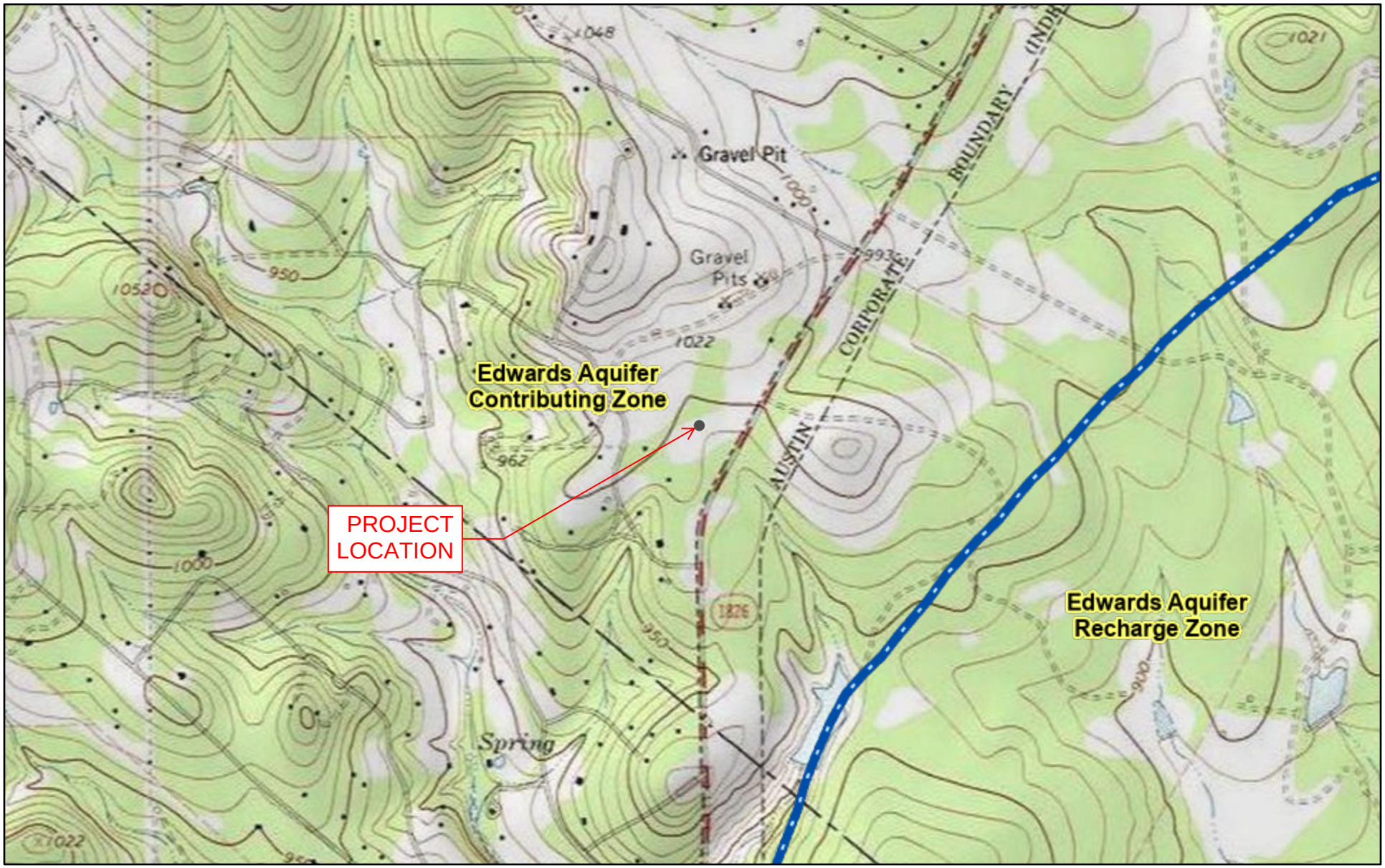
Attachment B-USGS Quadrangle Map

AAA FM 1826 USGS Map



8/30/2024, 9:14:13 AM

1:18,056

0 0.13 0.25 0.5 mi

0 0.2 0.4 0.8 km

Edwards Aquifer Label

Edwards Aquifer Boundary

Edwards Aquifer Boundary central line

7.5 Minute Quad Grid Signal Hill Quad

TCEQ_EDWARDS_OFFICIAL_MAPS

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Attachment C-Narrative

Attachment C: Project Narrative

A-A-A FM 1826 Appaloosa Storage is a storage and mixed-use facility located at 12100 RM 1826 in Travis County, TX. The 17.89-acre property is located fully within Travis County and recently has been removed from the City of Austin ETJ. Furthermore, the project is located entirely inside of the Edwards Aquifer Contributing Zone. The tract is not located within a 100-Year Floodplain per FEMA Panel No. 48453C0560J. The site generally drains from the northwest to southeast, towards the RM 1826 ROW. However, a portion of the tract drains towards the southwest. In accordance with 30 TAC Chapter 213, this CZP application is being submitted for the proposed development to occur onsite.

The site is currently fully operational and built per the previously approved CZP for Phase 1 and 2. However, a new expansion is planned and documented in this CZP Modification, which includes Phases 3 and 4. This new expansion includes a new total impervious cover of 10.40 acres, which generates 8,817 lbs of TSS per RG-348 methodology.

The existing irrigation/retention pond will be eliminated and expanded into a new proposed Batch Detention Pond in order to treat the increased TSS for this contributing area. In addition, this Batch Pond, noted as Pond 1 in the Plans and Calculations, is also sized to treat a portion of the site that is uncaptured (overtreatment). The drainage area for Pond 1 generates 6441 lbs of TSS, but the pond is sized to treat 7,000 lbs of TSS, for an "F" factor of 0.93.

Pond 2 is also a proposed Batch Pond, noted as Pond 2 on the Construction Drawings and Calculations. Pond 2 has a drainage area that contributes 1645 lbs of TSS, but the basin is designed to treat 1,817 of TSS for uncaptured (overtreatment) areas.

There is some offsite drainage that runs through the site. A portion of upgradient flows is routed through Pond 1, while other areas are routed around the site via drainage channels.

Wastewater flows generated by the project will be treated by a new septic system sized to treat the new development. Potable water will be provided by a Public Waster System unique to the development. This PWS is currently being modified and updated based on the proposed improvements with TCEQ.

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Attachment D- Factors Affecting Surface Water Quality

Attachment D: Factors Affecting Surface Water Quality

The list below are potential sources of pollution that may be reasonably expected to impact the quality of stormwater runoff from the site during construction.

- Hydrocarbons from asphalt paving construction
- Oil, fuel, grease and hydraulic fluid from construction equipment and automobiles
- Soil erosion due to site clearing, grading and demolition activities
- Trash, litter and construction debris from workers and construction activities
- Concrete truck washout
- Concrete/masonry
- Fertilizers
- Cleaning solvents

The list below are potential sources of pollution that may be reasonably expected to impact the quality of stormwater runoff from the site after construction or after development.

- Trash and litter typical of daily use from customers and tenants
- Oil, fuel, grease and hydraulic fluid from vehicles parked/traveling onsite
- Dirt and dust from landscape areas and vehicles
- Fertilizers
- Cleaning solvents

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Attachment E- Volume and Character of Stormwater

Attachment E: Volume and Character of Stormwater

A-A-A FM 1826 site will generate stormwater typical of a commercial/storage development, as outlined in the Travis County Drainage Criteria Manual. Runoff will increase because of the development for all storm events. The proposed 100-year peak stormwater discharge will be mitigated and control by use of two proposed batch detention pond. The volumes for the pond are sized for the 100-year storm and the outlet control structure is also sized to regulate 100-year storm flows.

Hill Country Civil
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Attachment F- Suitability Letter from Authorized Agent

TRANSPORTATION AND NATURAL RESOURCES

ONSITE WASTEWATER PROGRAM

411 West 13th Street
Executive Office Building
PO Box 1748
Austin, Texas 78767
(512) 854-9383
FAX (512) 854-4626

February 25, 2020

Mr. Wenzel,

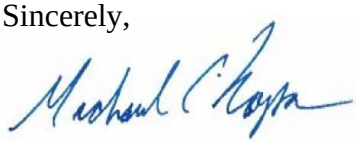
Re: OSSF Suitability Letter
11.75 Acres of Lot 39, Appaloosa Run

Dear Mr. Wenzel:

This subdivision/lot referenced above is suitable for the use of on-site sewage facilities (OSSF's) in accordance with 30 TAC Chapter 285 and Travis County Code Chapter 48.

Please do not hesitate to call me at (512) 854-7576 if you should have any questions.

Sincerely,



Michael Chapa, P.E., D.R. #OS34900
On-Site Wastewater Program
Development Services Division

Hill Country Civil
Engineers • Consultants

Attachment J- BMPs for Upgradient Stormwater

Attachment J: BMPs for Upgradient Stormwater

Upgradient flows generated from the western boundary line are intercepted by a proposed onsite channel and routed to the proposed Batch Detention Pond 1. These flows are included in the pond volume analysis and the overflow weir is sized to bypass large storm events generated from this area.

Upgradient flows generated from the northern boundary are intercepted by a proposed onsite channel and routed around the development and directed to the TxDOT ROW. No proposed BMPs are required for this portion of the upgradient flows.

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Attachment K- BMPs for On-Site Stormwater

Attachment K: BMPs for On-Site Stormwater

Proposed on-site BMPs include two (2) Batch Detention Ponds designed in accordance with TCEQ's Technical Guidance Manual (TGM) RG-348. The Batch Detention Ponds will be designed as an online facility. For online facilities the principal and emergency spillways must be sized to provide 1.0 foot of freeboard during the 25-year event and to safely pass the flow from the 100-year storm. The water quality volume required in Pond 1 is 52,909 cuft and Pond 2 is 8,781 cuft. Both the 25-year and 100-year storm events are contained within the ponds. The Batch Detention Ponds are sized to treat a total of 8817 lbs of TSS generated by the site.

Hill Country Civil
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Attachment L- BMPs for Surface Streams

Attachment L: BMPs for Surface Steams

Upon approval of this plan, the Batch Detention Ponds, traditionally designed, will be constructed before the proposed A-A-A FM 1826 Phase 3 and 4 development starts. Therefore, any storm water run-off leaving the site will be treated per TCEQ RG-348, and no surface steam contamination is anticipated.

Hill Country Civil
Engineers • Consultants

Attachment M-Construction Plans

CONTACT INFORMATION

OWNER / DEVELOPER:

A-A-A STORAGE FM 1826
4203 SPINNAKER CV
AUSTIN, TX 78731
CONTACT: JOHN MUHICH
PHONE: (512) 657-6789

ENGINEER:

HILL COUNTRY CIVIL, LLC
1042 NORTHPARK RIDGE
NEW BRAUNFELS, TX 78070
CONTACT: ROSS CORDER, PE
PHONE: (210) 378-4953
EMAIL: ROSS@HILLCOUNTRYCIVIL.COM

SURVEYOR:

CHAPARRAL PROFESSIONAL LAND SURVEYING, INC.
3500 McCALL LANE
AUSTIN, TX 78744
CONTACT: ERIC J. DANNHEIM
PHONE: (512) 443-1724

SITE INFORMATION

LEGAL DESCRIPTION
LOT 39, APPALOOSA RUN, A SUBDIVISION IN TRAVIS COUNTY, TEXAS, ACCORDING TO THE MAP OR PLAT RECORDED IN VOLUME 67, PAGE 79 OF THE PLAT RECORDS OF TRAVIS COUNTY, TEXAS.

PROJECT ADDRESS
12100 FM 1826
AUSTIN, TX 78737

WATERSHED
BEAR CREEK WATERSHED, CONTRIBUTING TO THE BARTON SPRINGS ZONE WATERSHED

CITY GRID
WZ15

MAPSCO GRID
670C

REVIEWED BY:

TRAVIS COUNTY TRANSPORTATION AND NATURAL RESOURCES DATE

TNR DEVELOPMENT PERMIT NUMBER

NO.	REVISION DESCRIPTION	REVIEWED BY	DATE

FLOOD PLAIN NOTE

THE TRACT SHOWN HEREON LIES WITHIN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), AS IDENTIFIED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, NATIONAL FLOOD INSURANCE PROGRAM, AS SHOWN ON MAP NO. 48453C0560H, DATED SEPTEMBER 26, 2008, FOR TRAVIS COUNTY, TEXAS AND INCORPORATED AREAS. IF THIS SITE IS NOT WITHIN AN IDENTIFIED SPECIAL FLOOD HAZARD AREA, THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY AND/OR THE STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR.

TRAVIS COUNTY NOTE

THE ENGINEER WHO PREPARED THESE PLANS IS RESPONSIBLE FOR THEIR ADEQUACY. IN REVIEWING THE PLANS, TRAVIS COUNTY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

GOVERNMENT / UTILITY CONTACT INFORMATION

DIG TESS/ONE CALL	811
AT&T	(512) 870-2736
PEDERNALES ELECTRIC COOP	(888) 554-4732
TEXAS GAS SERVICE	(512) 465-1134
TIME WARNER CABLE	(830) 646-6938
TXDOT	(512) 832-7000
WEST TRAVIS COUNTY PUA	(512) 263-0100

TRENCH EXCAVATION SAFETY PROTECTION

CONTRACTOR, SUB-CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE, OR STRUCTURAL/GEOTECHNICAL/SAFETY EQUIPMENT CONSULTANT, SHALL REVIEW THESE PLANS AND GEOTECHNICAL REPORT, THE INSTALLATION SITES WITHIN THE PROJECT AREA IN ORDER TO IMPLEMENT CONTRACTORS TRENCH EXCAVATION SAFETY PROTECTION PLAN, SYSTEMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM OSHA STANDARDS, SPECIFICALLY , CONTRACTOR AND/OR RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PLAN IN ACCORDANCE WITH OSHA REGULATIONS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND/OR AROUND THE EXPOSED TRENCH EXCAVATION.

CAUTION!

CONTRACTOR SHALL EXERCISE CAUTION DURING DEMOLITION, EXCAVATION, CLEARING AND CONSTRUCTION ACTIVITIES NEAR OVERHEAD ELECTRIC LINES. CONTRACTOR SHALL COMPLY WITH ALL SAFETY REGULATIONS WHEN OPERATING NEAR POWER LINES.

DIG TESS:

CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION ACTIVITY (ON OR OFFSITE) FOR THE PROJECT.

HCC JOB NUMBER: 041-01

CIVIL CONSTRUCTION DRAWINGS
FOR
APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
TRAVIS COUNTY, TX

LOCATION MAP
N.T.S

CIVIL SHEET INDEX

Hill Country Civil
Engineers ◆ Consultants
Texas Firm No. P-27973
1042 Northpark Ridge, New Braunfels, TX 78130
Phone 877-609-9378 or 210-378-4953
www.hillcountrycivil.com

STATE OF TEXAS
ROSS T. CORDER
125401
LICENSED
PROFESSIONAL ENGINEER
10/9/24

No.	Date	Revisions
		App.

APPALOOSA RUN STORAGE
FACILITY PH. 3 & 4
12100 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01
DRAWN BY: RTC

COVER SHEET

SHEET No.
1
OF 35

HCC GENERAL CONSTRUCTION NOTES:

1. CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL BUILDING CODES APPLICABLE TO THIS PROJECT. FURTHERMORE, THE CONTRACTOR WILL BE RESPONSIBLE FOR SECURING REQUIRED PERMITS AND SHALL NOTIFY ALL GOVERNMENT AGENCIES, TCEQ, AND/OR UTILITY AGENCIES AFFECTED BY THE PROPOSED CONSTRUCTION IMPROVEMENTS.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY SYSTEMS, PLANS AND DESIGNS APPLICABLE TO THE PROJECT. HILL COUNTRY CIVIL DOES NOT EXTEND TO OR INCLUDE DESIGNS OR PLANS PERTAINING TO THE SAFETY OF THE CONTRACTOR, SUBCONTRACTORS, EMPLOYEES OR PROJECT SITE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL SAFETY REGULATIONS, CODES AND ORDINANCES ARE BEING MET DURING THE DURATION OF THE PROJECT.

3. CONTRACTOR SHALL FOLLOW ALL SAFETY REQUIREMENTS AND REGULATIONS OUTLINED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION.

4. CONTRACTOR SHALL KEEP A COPY OF THE APPROVED PLANS AT THE JOBSITE THROUGHOUT THE DURATION AND COMPLETION OF THE PROJECT.

5. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL COORDINATE WITH LOCAL TV, ELECTRIC, GAS, WATER, SEWER AND PHONE PROVIDERS AS REQUIRED TO PROVIDE SERVICE TO THE PROJECT SITE. IN ADDITION, CONTRACTOR SHALL COORDINATE ANY INTERRUPTIONS OF UTILITY SERVICE TO THE APPLICABLE SERVICE PROVIDER.

6. CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN OPERATING NEAR OR AROUND EXISTING GAS LINES. CONTRACTOR SHALL NOTIFY GAS COMPANY 72 HOURS PRIOR TO CONSTRUCTION WHEN OPERATING NEAR GAS LINE FACILITIES.

7. CONTRACTOR SHALL PROTECT ALL EXISTING FACILITIES INCLUDING BUT NOT LIMITED TO UTILITIES, PAVEMENT, STREETS, CURB AND GUTTER, TREES, LANDSCAPING, IRRIGATION SYSTEMS, ETC., IMPACTED BY THE PROJECT CONSTRUCTION LIMITS. CONTRACTOR RESTORE ANY DISTURBED AREAS IMPACTED BY CONSTRUCTION TO ITS ORIGINAL OR BETTER CONDITION, INCLUDING ANY AREAS DAMAGED REQUIRING REPAIR (NO SEPARATE PAY ITEM).

8. CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION ACTIVITY (ON OR OFFSITE) FOR THE PROJECT. FURTHERMORE, CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, TELEPHONE, SEWER, FIBER OPTIC, ELECTRIC, DUCT BANKS, IRRIGATION LINES AND GAS LINES.

9. LOCATION AND DEPICTION OF UTILITIES SHOWN ARE FOR REFERENCE ONLY AND PER NOTE 8 ABOVE, SHOULD BE CONFIRMED BEFORE STARTING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND ANY REPAIR COSTS SHALL BE BORNE BY THE CONTRACTOR

10. CONTRACTOR SHALL PROTECT EXISTING TREES, BOTH DEPICTED ON THE CONSTRUCTION DRAWINGS AND THOSE TREES WHICH ARE NOT AS WELL. ANY TREES THAT EXIST ON SITE NOT SHOWN TO BE REMOVED, BUT APPEAR TO BE DISTURBED, OR REQUIRED TO BE REMOVED IN ORDER TO MEET THE PROPOSED SITE PLAN, SHALL BE COORDINATED WITH THE LANDSCAPE ARCHITECT, CIVIL ENGINEER OR OWNER PRIOR TO REMOVAL.

11. DURING CONSTRUCTION, CONTRACTOR SHALL MAINTAIN UNRESTRICTED DRAINAGE. NO PONDING OF STORM DRAINAGE SHALL BE PERMITTED IN AREAS OF PREPARED SUBGRADE OR EXCAVATION, EMBANKMENT. IF PONDING SHOULD OCCUR, CONTRACTOR SHALL IMMEDIATELY PUMP OUT OR GRAVITY DRAIN PONDING WATER OUT OF IMPACTED AREAS. IF ANY DAMAGE OCCURRED TO SUBGRADE, BUILDING PAD OR EXCAVATION AREAS, THE SOILS MUST BE DRIED OUT, REMOVED, REPLACED AND RE-COMPACTED.

12. DISTURBED AREAS (CONSTRUCTION AREAS) SHALL BE STRIPPED OF VEGETATION, LOOSE TOPSOIL, ORGANICS, BRUSH AND DEBRIS. AFTERWARDS, THE EXPOSED SUBGRADE SHALL SHALL BE PROOF ROLLED WITH A MINIMUM 25 TON PNEUMATIC ROLLER. ANY WEAK AREAS DETECTED SHALL BE REMOVED AND REPLACED WITH SUITABLE SOILS OF SIMILAR TYPE (CLASSIFICATION, MOISTURE CONTENT AND DENSITY).

13. IF REQUIRED TO MODIFY EXISTING GRADE, FILL MATERIALS SHOULD BE PLACED ON PREPARED SURFACES IN LIFTS NOT EXCEED 8 INCHES (LOOSE MEASURE), WITH COMPACTED THICKNESS NOT TO EXCEED 6 INCHES OR AS INDICATED IN SITE GEOTECHNICAL REPORT. FILL SHALL BE COMPACTED TO OPTIMUM MOISTURE CONTENT OR UP TO +3 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT TO A MINIMUM OF 95% MAXIMUM DENSITY AS DETERMINED BY TXDOT, TEX-114-E OR AS DESCRIBED IN THE SITE GEOTECHNICAL REPORT.

14. ALL FILL MATERIALS SHALL BE CLEAR OF DEBRIS, ORGANICS AND VEGETATION. IF IMPORTED FILL IS USED, IT SHALL BE A RELATIVELY HOMOGENEOUS PARTICLE SIZE DISTRIBUTION, WITH MAX SIZE OF 3 INCHES , PLASTICITY INDEX BETWEEN 7 AND 20 AND A LIQUID LIMIT LESS THAN 40; OR AS INDICATED ON THE GEOTECHNICAL REPORT.

15. ANY EXCESS EXCAVATION MATERIALS NOT USED, SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFFSITE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL LAWS.

16. CONTRACTOR IS RESPONSIBLE FOR FILING WITH THE TCEQ FOR THE TEMPORARY STORM WATER POLLUTION PREVENTION PLAN NOTICE TO PROCEED AND NOTICE OF TERMINATION AT THE START AND END OF CONSTRUCTION.

17. AFTER COMPLETION OF CONSTRUCTION, THE SITE SHALL BE THOROUGHLY CLEANED OF CONSTRUCTION DEBRIS, SEDIMENT, MATERIAL, ETC. PRIOR TO TURNING OVER TO OWNER.

18. CONTRACTOR SHALL INCLUDE IN THEIR BASE BID ANY TRAFFIC AND/OR PEDESTRIAN CONTROL DEVICES, PLANS OR LAYOUT NECESSARY FOR CONSTRUCTION; INCLUDING SEQUENCING OF CONSTRUCTION, DELIVERIES OF CONSTRUCTION MATERIAL AND EQUIPMENT, AND DEMOLITION ACTIVITIES, SO THAT THE ADJACENT ROADWAYS AND NEIGHBORING PROPERTIES HAVE SUITABLE VEHICULAR AND PEDESTRIAN ACCESS.

19. NOTES, CALLOUTS OR ITEMS NOTED AS "BY-OTHERS" SHALL BE CONSIDERED OUTSIDE THE SCOPE OF SERVICES PERFORMED BY HILL COUNTRY CIVIL. THESE ITEMS ARE CALLED OUT FOR REFERENCE ONLY, AND THE CONTRACTOR SHALL CONFIRM WITH OWNER, OTHER CONSULTANT OR MANUFACTURE FOR PLANS, OR DESIGNS DETAILING THOSE SPECIFIC ITEMS.

20. CONTRACTOR IS RESPONSIBLE FOR ALL VERTICAL AND HORIZONTAL CONTROL THROUGHOUT CONSTRUCTION.

AUSTIN ENERGY CONSTRUCTION NOTES:

1. AUSTIN ENERGY HAS THE RIGHT TO PRUNE AND/OR REMOVE TREES, SHRUBBERY AND OTHER OBSTRUCTIONS TO THE EXTENT NECESSARY TO KEEP THE EASEMENTS CLEAR. AUSTIN ENERGY WILL PERFORM ALL TREE WORK IN COMPLIANCE WITH CHAPTER25-8, SUBCHAPTER B OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.

2. THE OWNER/DEVELOPER OF THIS SUBDIVISION/LOT SHALL PROVIDE AUSTIN ENERGY WITH ANY EASEMENT AND/ORACCESS REQUIRED, IN ADDITION TO THOSE INDICATED, FOR THE INSTALLATION AND ONGOING MAINTENANCE OF OVERHEAD AND UNDERGROUND ELECTRIC FACILITIES. THESE EASEMENTS AND/OR ACCESS ARE REQUIRED TO PROVIDE ELECTRIC SERVICE TO THE BUILDING AND WILL NOT BE LOCATED SO AS TO CAUSE THE SITE TO BE OUT OF COMPLIANCE WITH CHAPTER 25-8 OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.

3. THE OWNER SHALL BE RESPONSIBLE FOR INSTALLATION OF TEMPORARY EROSION CONTROL, REVEGETATION AND TREE PROTECTION. IN ADDITION, THE OWNER SHALL BE RESPONSIBLE FOR ANY INITIAL TREE PRUNING AND TREE REMOVAL THAT IS WITHIN TEN FEET OF THE CENTER LINE OF THE PROPOSED OVERHEAD ELECTRICAL FACILITIES DESIGNED TO PROVIDE ELECTRIC SERVICE TO THIS PROJECT. THE OWNER SHALL INCLUDE AUSTIN ENERGY'S WORK WITHIN THE LIMITS OF CONSTRUCTION FOR THIS PROJECT.

4. THE OWNER OF THE PROPERTY IS RESPONSIBLE FOR MAINTAINING CLEARANCES REQUIRED BY THE NATIONAL ELECTRIC SAFETY CODE, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS, CITY OF AUSTIN RULES AND REGULATIONS AND TEXAS STATE LAWS PERTAINING TO CLEARANCES WHEN WORKING IN CLOSE PROXIMITY TO OVERHEAD POWER LINES AND EQUIPMENT. AUSTIN ENERGY WILL NOT RENDER ELECTRIC SERVICE UNLESS REQUIRED CLEARANCES ARE MAINTAINED. ALL COSTS INCURRED BECAUSE OF FAILURE TO COMPLY WITH THE REQUIRED CLEARANCES WILL BE CHARGED TO THE OWNER

TRAVIS COUNTY STANDARD CONSTRUCTION NOTES:

1. EACH DRIVEWAY MUST BE CONSTRUCTED IN ACCORDANCE WITH TRAVIS COUNTY CODE SECTION 482.302(G), AND EACH DRAINAGE STRUCTURE OR SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF AUSTIN DRAINAGE CRITERIA MANUAL, UNLESS OTHER DESIGN CRITERIA ARE APPROVED BY TRAVIS COUNTY.

2. BEFORE BEGINNING ANY CONSTRUCTION, THE OWNER MUST OBTAIN A TRAVIS COUNTY DEVELOPMENT PERMIT AND POST THE DEVELOPMENT PERMIT, THE TCEQ SITE NOTICE, AND ANY OTHER REQUIRED PERMITS AT THE JOB SITE.

3. CONSTRUCTION MAY NOT TAKE PLACE WITHIN TRAVIS COUNTY RIGHT-OF-WAY UNTIL AFTER THE OWNER HAS SUBMITTED A TRAFFIC CONTROL PLAN TO TRAVIS COUNTY AND OBTAINED WRITTEN APPROVAL OF THE TRAFFIC CONTROL PLAN FROM TRAVIS COUNTY.

4. THE CONTRACTOR AND PRIMARY OPERATOR SHALL FOLLOW THE SEQUENCE OF CONSTRUCTION AND THE SWP3 IN THESE APPROVED PLANS. THE CONTRACTOR AND PRIMARY OPERATOR SHALL REQUEST TRAVIS COUNTY INSPECTION AT SPECIFIC MILESTONES IN THE SEQUENCE OF THE CONSTRUCTION OF THE SITE DEVELOPMENT CORRESPONDING TO THE PRIORITY INSPECTIONS SPECIFIED IN CONSTRUCTION SEQUENCING NOTES IN THESE APPROVED PLANS. DEVELOPMENT OUTSIDE THE LIMITS OF CONSTRUCTION SPECIFIED IN THE APPROVED PERMIT AND CONSTRUCTION PLANS IS PROHIBITED.

5. BEFORE BEGINNING ANY CONSTRUCTION, ALL STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENTS SHALL BE MET, AND THE FIRST PHASE OF THE TEMPORARY EROSION CONTROL (ESC) PLAN INSTALLED WITH A SWP3 INSPECTION REPORT UPLOADED TO MYPERMITNOW.ORG. ALL SWP3 AND ESC PLAN MEASURES AND PRIMARY OPERATOR SWP3 INSPECTIONS MUST BE PERFORMED BY THE PRIMARY OPERATOR IN ACCORDANCE WITH THE APPROVED PLANS AND SWP3 AND ESC PLAN NOTES THROUGHOUT THE CONSTRUCTION PROCESS.

6. BEFORE STARTING CONSTRUCTION, THE OWNER OR CONTRACTOR OR THEIR DESIGNATED REPRESENTATIVES SHALL SUBMIT A REQUEST VIA THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY TO REQUEST AND SCHEDULE A MANDATORY PRECONSTRUCTION CONFERENCE AND ESC INSPECTION. IF FURTHER ASSISTANCE IS NEEDED, THE TNR PLANNING AND ENGINEERING DIVISION STAFF OR TNR STORM WATER MANAGEMENT PROGRAM STAFF CAN BE CONTACTED BY TELEPHONE AT 512-854-9383.

7. THE CONTRACTOR SHALL KEEP TRAVIS COUNTY TNR ASSIGNED INSPECTION STAFF CURRENT ON THE STATUS OF SITE DEVELOPMENT AND UTILITY CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY TRAVIS COUNTY AND REQUEST PRIORITY INSPECTIONS THROUGH THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY IN ACCORDANCE WITH THE SPECIFIC MILESTONES IN THE CONSTRUCTION SEQUENCING NOTES IN THESE APPROVED PLANS.

8. CONTOUR DATA SOURCE: FIELD SURVEY, TEXAS STATE PLANES, SOUTH CENTRAL ZONE, NAD 83

9. FILL MATERIAL MUST BE MANAGED AND DISPOSED OF IN ACCORDANCE WITH ALL REQUIREMENTS SPECIFIED IN THE APPROVED PLANS, SWP3, AND THE TRAVIS COUNTY CODE. THE CONTRACTOR SHALL STOCKPILE FILL AND CONSTRUCTION MATERIALS ONLY IN THE AREAS DESIGNATED ON THE APPROVED PLANS AND NOT WITHIN THE 0.2 PERCENT ANNUAL CHANCE FLOODPLAIN OR THE 1 PERCENT ANNUAL CHANCE FLOODPLAIN, WATERWAY SETBACK, CRITICAL ENVIRONMENTAL FEATURE SETBACK, OR OUTSIDE THE LIMITS OF CONSTRUCTION. DISPOSAL OF SOLID WASTE MATERIALS, AS DEFINED BY STATE LAW (E.G., LITTER, TIRES, DECOMPOSABLE WASTES, ETC.) IS PROHIBITED IN PERMANENT FILL SITES.

10. BEFORE DISPOSING ANY EXCESS FILL MATERIAL OFF-SITE, THE CONTRACTOR OR PRIMARY OPERATOR MUST PROVIDE THE COUNTY INSPECTOR DOCUMENTATION THAT DEMONSTRATES THAT ALL REQUIRED PERMITS FOR THE PROPOSED DISPOSAL SITE LOCATION, INCLUDING TRAVIS COUNTY, TCEQ NOTICE, AND OTHER APPLICABLE DEVELOPMENT PERMITS, HAVE BEEN OBTAINED. THE OWNER OR PRIMARY OPERATOR MUST REVISE THE SWP3 AND ESC PLAN IF HANDLING OR PLACEMENT OF EXCESS FILL ON THE CONSTRUCTION SITE IS REVISED FROM THE EXISTING SWP3. IF THE FILL DISPOSAL LOCATION IS OUTSIDE TRAVIS COUNTY OR DOES NOT REQUIRE A DEVELOPMENT PERMIT, THE CONTRACTOR OR PRIMARY OPERATOR MUST PROVIDE THE COUNTY INSPECTOR THE SITE ADDRESS, CONTACT INFORMATION FOR THE PROPERTY OWNER OF THE FILL

11. THE DESIGN ENGINEER IS RESPONSIBLE FOR THE ADEQUACY OF THE CONSTRUCTION PLANS. IN REVIEWING THE CONSTRUCTION PLANS, TRAVIS COUNTY WILL RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

12. IN THE EVENT OF ANY CONFLICTS BETWEEN THE CONTENT IN THE SWP3 SITE NOTEBOOK AND THE CONTENT IN THE CONSTRUCTION PLANS APPROVED BY TRAVIS COUNTY, THE CONSTRUCTION PLANS SHALL TAKE PRECEDENCE.

13. A MINIMUM OF TWO SURVEY BENCHMARKS SHALL BE SET, INCLUDING DESCRIPTION, LOCATION, AND ELEVATION; THE BENCHMARKS SHOULD BE TIED TO A TRAVIS COUNTY CONTROL BENCHMARK WHEN POSSIBLE.

14. ANY EXISTING PAVEMENT, CURBS, SIDEWALKS, OR DRAINAGE STRUCTURES WITHIN COUNTY RIGHT-OF-WAY WHICH ARE DAMAGED, REMOVED, OR SILTED, WILL BE REPAIRED BY THE CONTRACTOR AT OWNER OR CONTRACTOR'S EXPENSE BEFORE APPROVAL AND ACCEPTANCE OF THE CONSTRUCTION BY TRAVIS COUNTY.

15. CALL THE TEXAS EXCAVATION SAFETY SYSTEM AT 8-1-1 AT LEAST 2 BUSINESS DAYS BEFORE BEGINNING EXCAVATION ACTIVITIES.

16. ALL STORM SEWER PIPES SHALL BE CLASS III RCP, UNLESS OTHERWISE NOTED.

17. CONTRACTOR IS REQUIRED TO OBTAIN A UTILITY INSTALLATION PERMIT IN ACCORDANCE WITH TRAVIS COUNTY CODE SECTION 482.901(A)(3) BEFORE ANY CONSTRUCTION OF UTILITIES WITHIN ANY TRAVIS COUNTY RIGHT-OF-WAY.

18. THIS PROJECT IS LOCATED ON FLOOD INSURANCE RATE MAP 48453C0560H.

19. TEMPORARY STABILIZATION MUST BE PERFORMED IN ALL DISTURBED AREAS THAT HAVE CEASED CONSTRUCTION ACTIVITIES FOR 14 DAYS OR LONGER, IN ACCORDANCE WITH THE STANDARDS DESCRIBED IN THE SWP3 AND ESC PLAN SHEET NOTES.

20. PERMANENT SITE STABILIZATION/RE-VEGETATION MUST BE PERFORMED IMMEDIATELY IN ALL SITE AREAS WHICH ARE AT FINAL PLAN GRADE AND IN ALL SITE AREAS SPECIFIED IN THE APPROVED PLANS FOR PHASED RE-VEGETATION, IN ACCORDANCE WITH THE STANDARDS DESCRIBED IN THE SWP3 AND ESC PLAN SHEET NOTES.

21. ALL TREES WITHIN THE RIGHT-OF-WAY AND DRAINAGE EASEMENTS SHALL BE SAVED OR REMOVED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS. TRAVIS COUNTY TREE PRESERVATION STANDARDS IN TRAVIS COUNTY CODE SECTION 482.973, INCLUDING INSTALLATION AND MAINTENANCE OF ALL SPECIFIED TREE PROTECTION MEASURES, MUST BE FOLLOWED DURING CONSTRUCTION.

22. AN ENGINEER'S CONCURRENCE LETTER IN ACCORDANCE WITH TRAVIS COUNTY CODE SECTION 482.953 MUST BE SUBMITTED VIA THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY WHEN CONSTRUCTION IS SUBSTANTIALLY COMPLETE. THE ENGINEER'S CONCURRENCE LETTER MUST BE SUBMITTED BEFORE THE CONTRACTOR OR PRIMARY OPERATOR REQUESTS A FINAL INSPECTION BY TRAVIS COUNTY.

23. SITE IMPROVEMENTS MUST BE CONSTRUCTED IN CONFORMANCE WITH THE ENGINEER'S CONSTRUCTION PLANS APPROVED BY TRAVIS COUNTY. NON-CONFORMANCE WITH THE APPROVED PLANS WILL DELAY FINAL INSPECTION APPROVAL BY THE COUNTY UNTIL PLAN CONFORMANCE IS ACHIEVED OR ANY REQUIRED PLAN REVISIONS ARE APPROVED.

24. FINAL SITE STABILIZATION. ALL AREAS DISTURBED BY THE CONSTRUCTION MUST BE PERMANENTLY REVEGETATED AND ALL TEMPORARY SEDIMENT CONTROLS AND ACCUMULATED SEDIMENTATION MUST BE REMOVED BEFORE THE COUNTY WILL ISSUE A CERTIFICATE OF COMPLIANCE FOR FINAL SITE STABILIZATION AS PART OF FINAL INSPECTION AND PROJECT COMPLETION. A DEVELOPERS CONTRACT, AS DESCRIBED IN THE SWP3 AND ESC NOTES SHEET MAY BE EXECUTED WITH TRAVIS COUNTY FOR CONDITIONAL ACCEPTANCE OF A PROJECT FOR WHICH HAS ESC FISCAL SECURITY POSTED AND FOR WHICH ALL ITEMS ARE COMPLETE

482.951 SWP3 AND ESC INSPECTIONS:

1. GENERAL. THE REQUIREMENTS OF THIS SECTION ARE IN ADDITION TO THE APPLICABLE TECHNICAL CRITERIA IN SECTION 482.933 AND THE REQUIREMENTS IN 482.601. THE REQUIREMENTS OF THIS SECTION APPLY TO A CONSTRUCTION SITE THAT REQUIRES A SWP3. FOR A NON-RESIDENTIAL PROJECT LESS THAN ONE ACRE SUBJECT TO AN ESC PLAN, THE INSPECTION SHOULD BE CONDUCTED BY AN INSPECTOR QUALIFIED IN CONSTRUCTION STORM WATER MANAGEMENT REQUIREMENTS AND IS SUBJECT TO THE REQUIREMENTS OF THIS SECTION, EXCEPT THAT WHENEVER A REFERENCE IS MADE TO A SWP3, SWP3 INSPECTION, AND SWP3 REPORT, IT SHALL BE CONSTRUED AS AN ESC PLAN, ESC PLAN INSPECTION, OR ESC PLAN REPORT, RESPECTIVELY.

2. OWNER AND OPERATOR SWP3 INSPECTION RESPONSIBILITIES. AN OWNER OR OPERATOR SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS IN THE IMPLEMENTATION AND INSPECTION OF CONSTRUCTION PROJECTS AND ASSOCIATED RECORDKEEPING SUBJECT TO A SWP3 AND TRAVIS COUNTY DEVELOPMENT PERMIT:

2.1. THE OWNER OR OPERATOR SHALL POST AT THE CONSTRUCTION SITE A COPY OF THE TCEQ CONSTRUCTION SITE NOTICE ("CSN"). NO LATER THAN TWO DAYS BEFORE THE START OF CONSTRUCTION, THE OWNER OR OPERATOR MUST PROVIDE THE COUNTY EXECUTIVE A COPY OF THE TCEQ CSN. NO LATER THAN SEVEN DAYS BEFORE THE START OF CONSTRUCTION, THE OWNER OR OPERATOR MUST PROVIDE TO THE COUNTY EXECUTIVE A COPY OF THE TCEQ NOTICE OF INTENT, IF ANY.

2.2. THE OWNER OR OPERATOR SHALL DESIGNATE AN ON-SITE PROJECT MANAGER AND PERSONNEL WITH THE NECESSARY EXPERIENCE, QUALIFICATIONS, AND TRAINING WHO WILL BE RESPONSIBLE FOR PERFORMING AND MONITORING THE SWP3, ESC PLAN BMPS, AND CONSTRUCTION ACTIVITIES TO ENSURE SPECIFIED PRACTICES AND STRUCTURAL CONTROLS ARE CONTINUOUSLY IMPLEMENTED AND MAINTAINED IN EFFECTIVE OPERATING CONDITION THROUGHOUT CONSTRUCTION. THE OWNER OR PRIMARY OPERATOR MUST PERFORM ANY ONGOING INSPECTIONS, MONITORING, AND ACTIONS NECESSARY TO MAINTAIN COMPLIANCE, INCLUDING PREPARING A SIGNED SWP3 INSPECTION REPORT ON THE SCHEDULE DESCRIBED IN PARAGRAPH (4) OF THIS SUBSECTION. ANY NECESSARY CORRECTIVE ACTION IDENTIFIED SHALL BE RECORDED ON THE SWP3 INSPECTION REPORT. THE OWNER OR PRIMARY OPERATOR SHALL ENSURE ANY CORRECTIVE ACTION IS PROMPTLY PERFORMED IN ACCORDANCE WITH THE SWP3 AND REQUIREMENTS OF THIS CHAPTER.

2.3. THE OWNER OR PRIMARY OPERATOR SHALL DESIGNATE A QUALIFIED INSPECTOR FAMILIAR WITH THE SWP3 AND POSSESSING THE REQUIRED CERTIFICATION AS SPECIFIED IN SECTION 482.934(C) TO CONDUCT WEEKLY SWP3 INSPECTIONS OF THE SITE AND PREPARE A SIGNED SWP3 INSPECTION REPORT EACH WEEK. THE DESIGNATED PROJECT MANAGER AND THE QUALIFIED SWP3 INSPECTOR ARE TO COORDINATE WITH THE INSPECTOR ON A REGULAR BASIS DURING CONSTRUCTION TO HELP ENSURE THE SWP3 CONTROLS AND MEASURES ARE PROPERLY IMPLEMENTED.

2.4. SWP3 INSPECTION SCHEDULE. SWP3 INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS ON A SPECIFICALLY DEFINED DAY UNTIL THE ENTIRE SITE IS TEMPORARILY OR FINALLY STABILIZED, AND MUST BEGIN:

2.4.1. FROM THE TIME OF THE INITIAL INSTALLATION OF THE FIRST PHASE OF ESC CONTROLS PRIOR TO THE PRE-CONSTRUCTION CONFERENCE WITH RESPECT TO PROJECTS FOR WHICH A PRE-CONSTRUCTION CONFERENCE IS REQUIRED; AND

2.4.2. FROM THE START OF CONSTRUCTION SITE SOIL DISTURBING ACTIVITY WITH RESPECT TO PROJECTS FOR WHICH A PRE-CONSTRUCTION CONFERENCE IS NOT REQUIRED.

2.5. POST-RAINFALL INSPECTIONS. THE OWNER, PRIMARY OPERATOR, OR OTHER DESIGNEE SHALL CONDUCT A POST-RAINFALL INSPECTION WITHIN 48 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER.

2.5.1. THE INSPECTION MUST INCLUDE ALL AREAS OF THE CONSTRUCTION SITE IDENTIFIED IN THE SWP3, EXCEPT AS PROVIDED BY PARAGRAPH (8);

2.5.2. THE OWNER, OPERATOR, OR DESIGNEE MUST COMMENCE CORRECTIVE ACTION, AS FEASIBLE AND AS SITE CONDITIONS ALLOW; AND

2.5.3. THE OWNER, OPERATOR, OR DESIGNEE MUST PROVIDE THE FINDINGS OF THE POST-RAINFALL INSPECTION TO THEIR SWP3 INSPECTOR NO LATER THAN THE NEXT SCHEDULED SWP3 INSPECTION.

2.6. WHEN THE ENTIRE SITE HAS BEEN FINALLY OR TEMPORARILY STABILIZED, SWP3 INSPECTIONS MUST BE CONDUCTED AT LEAST ONCE EVERY MONTH UNTIL FULL SITE COMPLETION AND FINAL INSPECTION RELEASE THROUGH ISSUANCE OF A CERTIFICATE OF COMPLIANCE. THIS ALSO APPLIES TO DISCRETE AREAS OR PHASES OF A LARGER ACTIVE SITE WHICH ARE FINALLY OR TEMPORARILY STABILIZED. UNFINISHED SITES FINALLY OR TEMPORARILY STABILIZED BUT INACTIVE FOR THREE MONTHS OR LONGER MUST BE INSPECTED ONCE EVERY TWO MONTHS AS A MINIMUM.

2.7. LONG, NARROW, LINEAR CONSTRUCTION ACTIVITIES WHERE ACCESS IS LIMITED MAY BE INSPECTED ON AN ALTERNATIVE SCHEDULE, WITH REPRESENTATIVE INSPECTIONS IN ACCORDANCE WITH THE TCEQ GENERAL PERMIT, IF THE OWNER OR PRIMARY OPERATOR SUBMITS SUPPORTING DOCUMENTATION TO THE COUNTY AND THE COUNTY APPROVES THE ALTERNATIVE SCHEDULE.

2.8. IN THE EVENT OF FLOODING OR OTHER UNCONTROLLABLE SITUATIONS WHICH PROHIBIT ACCESS TO THE INSPECTION SITES, THE INSPECTION MUST BE CONDUCTED AS SOON AS ACCESS IS PRACTICAL.

2.9. THE SWP3 INSPECTION MUST INCLUDE INSPECTION OF THE SITE FOR COMPLIANCE WITH ALL APPLICABLE SWP3 REQUIREMENTS. SWP3 INSPECTIONS MUST COVER ALL AREAS OF THE CONSTRUCTION SITE TO DETERMINE WHETHER SWP3 AND ESC PLAN BMPS ARE FULLY IMPLEMENTED AND OPERATING AS REQUIRED, AND TO DETERMINE IF THERE IS EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND DISCHARGING OFF-SITE. THE FORMAT FOR SWP3 INSPECTIONS AND THE CONTENTS OF THE SWP3 INSPECTION REPORT MUST CONFORM TO THE ITEMS LISTED IN EXHIBIT 482.951 – SWP3 INSPECTION AREAS AND REPORT CONTENTS.

2.10. THE SWP3 MUST BE REVISED AS NECESSARY BASED ON ANY INSPECTION RESULT BY THE PRIMARY OPERATOR OR INSPECTOR FOR TRAVIS COUNTY, IN A MANNER THAT WILL ELIMINATE OR MINIMIZE, TO THE MAXIMUM EXTENT PRACTICABLE, THE DISCHARGE OR POTENTIAL DISCHARGE OF POLLUTANTS IN RUNOFF. THE OWNER OR PRIMARY OPERATOR MUST REVISE THE SWP3 AS NECESSARY IN ACCORDANCE WITH SECTION 482.935(I).

2.11. FINAL INSPECTION AND CERTIFICATE OF COMPLIANCE. THE OWNER OR OPERATOR SHALL SCHEDULE A FINAL INSPECTION WITH THE INSPECTOR WHEN ALL CONSTRUCTION PLAN REQUIREMENTS ARE COMPLETED. THE FINAL INSPECTION MUST BE PRECEDED BY SUBMITTAL OF THE PROFESSIONAL ENGINEER'S CONCURRENCE LETTER, AS REQUIRED BY SECTION 482.953.

2.11.1. COMPLETION OF THE SWP3 ELEMENTS OF THE CONSTRUCTION PLANS INCLUDES:

2.11.1.1. FINAL SITE STABILIZATION;

2.11.1.2. REMOVAL AND PROPER DISPOSAL OF ALL TEMPORARY SEDIMENT CONTROLS AND ACCUMULATED SEDIMENT CAPTURED OR DEPOSITED BY ALL ESCS;

2.11.1.3. PROPER CONSTRUCTION AND FUNCTIONALITY OF EACH PERMANENT WATER QUALITY CONTROL AND DRAINAGE STRUCTURE;

2.11.1.4. REMOVAL OF SEDIMENT, DEBRIS, OR OTHER MATERIALS FROM THE CONSTRUCTION AND LAND DISTURBANCE WHICH IS DEPOSITED IN EACH PERMANENT WATER QUALITY CONTROL AND DRAINAGE STRUCTURE; AND

2.11.1.5. STABILIZATION OF ALL SUBDIVISION DISTURBED LOTS, IF A SUBDIVISION DEVELOPMENT. A SUBDIVISION LOT WHICH HAS OBTAINED ALTERNATE OPERATIONAL CONTROL AND SWP3 COVERAGE MAY BE EXCLUDED FROM THIS REQUIREMENT.

2.11.2. IF THE FINDINGS OF THE INSPECTION DEMONSTRATE TO TRAVIS COUNTY THAT THE SWP3 AND CONSTRUCTION PLAN REQUIREMENTS HAVE BEEN FULLY COMPLETED, A CERTIFICATE OF COMPLIANCE WILL BE ISSUED FOR THE PROJECT AND ANY FISCAL SECURITY FOR EROSION AND SEDIMENTATION CONTROLS, PERMANENT STORM WATER MANAGEMENT FACILITIES, AND ON-SITE AND OFF-SITE CLEANUP SHALL BE RELEASED. THE PRIMARY OPERATOR MUST NOT SUBMIT A NOTICE OF TERMINATION UNTIL THE REQUIREMENTS OF SECTION 482.931(G)(4) HAVE BEEN ACHIEVED.

2.11.3. IF RE-VEGETATION COVERAGE IS NOT FULLY COMPLETED, A DEVELOPERS CONTRACT AS DESCRIBED IN SECTION 482.936(D)(4) MAY BE ISSUED AT THE DISCRETION OF TRAVIS COUNTY FOR ELIGIBLE PROJECTS WITH FISCAL SECURITY POSTED FOR EROSION AND SEDIMENTATION CONTROLS, AS A CONDITIONAL ACCEPTANCE UNTIL THE REQUIRED VEGETATIVE COVERAGE IS ATTAINED, EXCESS SEDIMENTATION IS REMOVED, AND REMAINING TEMPORARY SEDIMENT CONTROLS ARE REMOVED.

2.11.4. A CERTIFICATE OF COMPLIANCE IS NOT REQUIRED FOR CONSTRUCTION ON A SINGLE FAMILY RESIDENTIAL LOT, UNLESS SO SPECIFIED IN THE TRAVIS COUNTY DEVELOPMENT PERMIT, BASED UPON THE POTENTIAL IMPACT ON WATER QUALITY OF THE ACTIVITIES APPROVED FOR CONSTRUCTION, OR WHEN A PERMANENT WQC IS REQUIRED FOR THE RESIDENTIAL LOT DEVELOPMENT. REGARDLESS, RESIDENTIAL LOT CONSTRUCTION MUST COMPLY WITH ALL APPLICABLE SWP3 AND ESC PLAN MEASURES AND REQUIREMENTS OF THIS CHAPTER PRIOR TO SUBMISSION OF THE NOTICE OF TERMINATION, INCLUDING CONSTRUCTION SEQUENCE, FINAL COMPLETION SCHEDULE, AND FINAL SITE STABILIZATION.

2.12. SWP3 REPORTS. EITHER AT THE TIME OF EACH SWP3 INSPECTION REQUIRED BY THIS SECTION, OR NO LATER THAN THE DATE OF THE INSPECTION, THE OWNER'S DESIGNATED, QUALIFIED INSPECTOR (AS SPECIFIED IN SECTION 482.934(C)(3)) SHALL PREPARE AND SIGN A SWP3 INSPECTION REPORT, CONTAINING NOTATIONS OF THE INSPECTION FINDINGS FOR THE REQUIRED SITE AREAS AND CONTROL MEASURES, AS DESCRIBED IN SUBSECTION (C), CERTIFYING WHETHER THE SITE IS IN COMPLIANCE WITH THE APPROVED SWP3 AND ESC PLAN, AND DESCRIBING ANY CORRECTIVE ACTIONS NECESSARY.

2.13. WP3 SITE NOTEBOOK AND RECORDS. THE SWP3 SITE NOTEBOOK AND CONTENTS, AS DESCRIBED IN SECTION 482.935(H), SHALL BE MAINTAINED BY THE PRIMARY OPERATOR OR THE QUALIFIED INSPECTOR (AS SPECIFIED IN SECTION 482.934(C)(3)) AT THE CONSTRUCTION SITE, AND IT SHALL BE READILY AVAILABLE UPON REQUEST. ALL SWP3 RECORDS MUST BE KEPT BY THE OWNER OR PRIMARY OPERATOR FOR A MINIMUM OF THREE YEARS AFTER SITE COMPLETION.

TRAVIS COUNTY SEQUENCE OF CONSTRUCTION

1. ESC INSTALLATION. INSTALL ALL TEMPORARY EROSION AND SEDIMENT CONTROLS (ESC) AND TREE PROTECTION MEASURES IN ACCORDANCE WITH THE APPROVED ESC PLAN SHEETS AND THE SWP3.
2. HAVE A QUALIFIED INSPECTOR (AS SPECIFIED IN SECTION 482.934(C)(3) OF THE TRAVIS COUNTY CODE) INSPECT THE TEMPORARY EROSION AND SEDIMENT CONTROLS AND PREPARE A CERTIFIED SWP3 INSPECTION REPORT REGARDING WHETHER THE TEMPORARY EROSION AND SEDIMENT CONTROLS WERE INSTALLED IN CONFORMANCE WITH THE APPROVED PLANS;
3. UPLOAD THE QUALIFIED INSPECTOR'S CERTIFIED SWP3 INSPECTION REPORT TO THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY; AND
4. REQUEST A MANDATORY PRE-CONSTRUCTION MEETING WITH TRAVIS COUNTY THROUGH THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY GIVING AT LEAST 3 BUSINESS DAYS NOTIFICATION.
5. PRE-CONSTRUCTION MEETING AND ESC INSPECTION. HOLD A MANDATORY PRE-CONSTRUCTION MEETING THAT ADDRESSES THE ITEMS IN EXHIBIT 482.950 AND THE ESC PRE-CONSTRUCTION INSPECTION BY THE COUNTY AND OBTAIN COUNTY'S APPROVAL TO START CONSTRUCTION. (PRIORITY INSPECTION)
6. INSPECT FOR COMPLIANCE WITH SWP3 AND ESC PLAN. MAINTAIN AND INSPECT THE SWP3 CONTROLS AND PREPARE AND UPLOAD A WEEKLY CERTIFIED SWP3 INSPECTION REPORT THAT INCLUDES THE CONTENTS LISTED IN EXHIBIT 482.951 TO THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY.
7. CONSTRUCT SEDIMENT BASIN(S). CONSTRUCT ANY STORM WATER POND(S) FIRST, WHENEVER APPLICABLE, TO BE FUNCTIONAL AS CONSTRUCTION SEDIMENT BASIN(S) BEFORE GRADING AND EXCAVATING THE ENTIRE SITE, AS FOLLOWS:
8. CLEAR, GRUB, AND EXCAVATE ONLY THE SITE AREAS AND CUT AND FILL QUANTITIES NECESSARY TO CONSTRUCT THE POND(S) IN ACCORDANCE WITH THESE APPROVED PLANS AND THE MINIMUM STANDARDS DESCRIBED IN THE SWP3 AND ESC PLAN SHEET NOTES FOR THE TEMPORARY SEDIMENT BASIN EMBANKMENTS, WALLS, INFLOWS, OUTFALLS, DRAINAGE CONVEYANCE MEASURES, SEDIMENT CONTROLS, AND STABILIZATION.
9. REQUEST COUNTY INSPECTION AND OBTAIN COUNTY'S WRITTEN APPROVAL OF THE TEMPORARY SEDIMENT BASIN(S) BEFORE PROCEEDING FURTHER IN THE SEQUENCE OF CONSTRUCTION. (PRIORITY INSPECTION)
10. CONSTRUCT SITE IMPROVEMENTS. BEGIN THE PRIMARY SITE CLEARING, EXCAVATION, AND CONSTRUCTION ACTIVITIES AND CONTINUE THE SWP3 AND ESC PLAN IMPLEMENTATION AND MAINTENANCE PER THE APPROVED PLANS.
11. CONSTRUCT DRIVEWAY APPROACH AND RIGHT-OF-WAY IMPROVEMENTS. INSTALL DRIVEWAY APPROACH AND DRAINAGE AND ROAD IMPROVEMENTS IN THE COUNTY RIGHT-OF-WAY PER APPROVED PLANS, WHEN APPLICABLE. REQUEST A COUNTY PRE-POUR INSPECTION OF THE DRIVEWAY THROUGH THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY GIVING AT LEAST 3 BUSINESS DAYS NOTIFICATION. (PRIORITY INSPECTION).
12. PERFORM TEMPORARY STABILIZATION IN ALL DISTURBED AREAS THAT HAVE CEASED CONSTRUCTION ACTIVITIES FOR 14 DAYS OR LONGER.
13. PERFORM PERMANENT SITE STABILIZATION/RE-VEGETATION IMMEDIATELY IN ALL SITE AREAS AT FINAL PLAN GRADE AND IN ALL SITE AREAS SPECIFIED FOR PHASED RE-VEGETATION.
14. COMPLETE PERMANENT WATER QUALITY CONTROLS. BEGIN COMPLETION OF PERMANENT WATER QUALITY CONTROL(S) AND INSTALL THE UNDERDRAIN PER APPROVED PLANS, WHEN APPLICABLE.
15. REMOVE CONSTRUCTION SEDIMENT, RE-ESTABLISH THE BASIN SUBGRADE, AND INSTALL UNDERDRAIN PIPING.
16. REQUEST COUNTY INSPECTION AND OBTAIN COUNTY'S WRITTEN APPROVAL OF THE UNDERDRAIN PIPING INSTALLATION AND ASSOCIATED CONSTRUCTION MATERIALS (AGGREGATE, FILTER MEDIA, ETC.) BEFORE COVERING THE UNDERDRAIN AND PROCEEDING WITH CONSTRUCTION OF THE CONTROL. (PRIORITY INSPECTION).
17. COMPLETE CONSTRUCTION SITE IMPROVEMENTS AND FINAL STABILIZATION PER THE APPROVED PLANS.
18. PROVIDE ENGINEER'S CONCURRENCE LETTER THROUGH THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY WHEN CONSTRUCTION IS SUBSTANTIALLY COMPLETE AND REQUEST A FINAL INSPECTION BY TRAVIS COUNTY. (PRIORITY INSPECTION)
19. OBTAIN A CERTIFICATE OF COMPLIANCE WHEN ALL FINAL INSPECTION PUNCH LIST ITEMS, INCLUDING FINAL SITE STABILIZATION AND REMOVAL OF TEMPORARY SEDIMENT CONTROLS. IF NECESSARY, PROVIDE A DEVELOPERS CONTRACT TO THE COUNTY TO REQUEST CONDITIONAL ACCEPTANCE FOR USE OR OCCUPANCY OF THE SITE WITH ALL ITEMS COMPLETED EXCEPT RE-VEGETATION GROWTH COVERAGE. REQUEST A RE-INSPECTION WHEN RE-VEGETATION COVERAGE IS COMPLETE. (PRIORITY INSPECTION)

482.950 PRE-CONSTRUCTION CONFERENCE AND INSPECTION REQUIRED:

1. THE PRE-CONSTRUCTION CONFERENCE AND PRE-CONSTRUCTION INSPECTION REQUIREMENTS OF THIS SECTION APPLY TO EVERY PROJECT FOR WHICH A SWP3 MUST BE SUBMITTED TO THE COUNTY FOR APPROVAL AND EVERY NON-RESIDENTIAL PROJECT LESS THAN ONE ACRE WHICH REQUIRES AN ESC PLAN, EXCEPT AS SPECIFIED IN PARAGRAPHS (1) AND (2).
2. A PRE-CONSTRUCTION CONFERENCE IS NOT REQUIRED FOR CONSTRUCTION ON A SINGLE FAMILY RESIDENTIAL LOT.
3. A PRE-CONSTRUCTION CONFERENCE FOR A NON-RESIDENTIAL PROJECT LESS THAN ONE ACRE AND SUBJECT TO AN ESC PLAN SHOULD BE CONDUCTED BY AN INSPECTOR QUALIFIED IN CONSTRUCTION STORM WATER MANAGEMENT REQUIREMENTS AND IS SUBJECT TO THE REQUIREMENTS OF THIS SECTION, EXCEPT THAT WHENEVER A REFERENCE IS MADE TO A SWP3, SWP3 INSPECTION, SWP3 REPORT, OR SWP3 PRE-CONSTRUCTION CONFERENCE, IT SHALL BE CONSTRUED AS AN ESC PLAN, ESC PLAN INSPECTION, ESC PLAN REPORT, OR ESC PLAN PRE-CONSTRUCTION CONFERENCE, RESPECTIVELY.
4. THE REQUIREMENTS OF THIS SECTION ARE IN ADDITION TO ANY APPLICABLE PRE-CONSTRUCTION CONFERENCE REQUIREMENTS OF SECTION 482.603(D).
5. THE OWNER OF A PROJECT OR OWNER REPRESENTATIVE SHALL REQUEST A PRE-CONSTRUCTION CONFERENCE WITH THE DESIGNATED INSPECTOR BEFORE STARTING CONSTRUCTION UNDER AN APPROVED SITE PLAN OR SUBDIVISION CONSTRUCTION PLAN. BEFORE REQUESTING A PRE-CONSTRUCTION CONFERENCE, THE OWNER OR OWNER'S REPRESENTATIVE SHALL ENSURE THE FIRST PHASE OF THE ESC CONTROLS ARE INSTALLED IN CONFORMANCE WITH THE APPROVED PLANS, A QUALIFIED INSPECTOR (AS SPECIFIED IN SECTION 482.934(C)(3)) HAS INSPECTED THE CONTROLS AND VERIFIED COMPLIANCE WITH THE PLANS, AND AN SWP3 INSPECTION REPORT DOCUMENTING THIS INFORMATION HAS BEEN SUBMITTED TO THE COUNTY THROUGH THE METHOD SPECIFIED BY THE INSPECTOR .
6. THE OWNER OR OWNER'S DESIGNATED REPRESENTATIVE SHALL PROVIDE NOTICE OF THE SWP3 PRE-CONSTRUCTION CONFERENCE AND A COPY OF THE APPROVED PLANS FOR THE DEVELOPMENT TO THE FOLLOWING PERSONS OR ENTITIES AT LEAST TWO BUSINESS DAYS BEFORE THE CONFERENCE:
7. PRIMARY OPERATOR WITH OPERATIONAL CONTROL OF THE PLANS AND SPECIFICATIONS;
8. TRAVIS COUNTY'S DESIGNATED INSPECTOR(S);
9. DESIGN ENGINEER OR REPRESENTATIVE FOR THE APPROVED PLANS AND SWP3;
10. CONTRACTOR(S) AND PRIMARY OPERATOR(S) WITH DAY TO DAY OPERATIONAL CONTROL OF THE CONSTRUCTION SITE;
11. DESIGNATED QUALIFIED INSPECTOR (AS SPECIFIED IN SECTION 482.934(C)(3)) FOR THE PRIMARY OPERATOR RESPONSIBLE FOR PREPARING THE SWP3 INSPECTION REPORTS
12. MUNICIPAL DEVELOPMENT REVIEW REPRESENTATIVES, AS APPROPRIATE; AND
13. AFFECTED UTILITY REPRESENTATIVES.
14. THE SWP3 PRE-CONSTRUCTION CONFERENCE MAY BE A DISCRETE MEETING OR A SUBSET OF A LARGER PROJECT PRE-CONSTRUCTION CONFERENCE, BUT MUST INCLUDE AN ON-SITE INSPECTION AND APPROVAL BY THE INSPECTOR OF THE INSTALLATION OF THE FIRST PHASE OF THE PROJECT'S EROSION AND SEDIMENT CONTROLS BEFORE THE CONSTRUCTION ACTIVITIES CAN COMMENCE. THE REQUIRED PREPARATIONS IN ADVANCE OF THE PRE-CONSTRUCTION CONFERENCE AND THE GENERAL FORMAT, ROLES, AND EXPECTATIONS FOR THE PRE-CONSTRUCTION CONFERENCE ARE SPECIFIED IN EXHIBIT 482.950 – PRE-CONSTRUCTION PLANNING AND CONFERENCE FOR SWP3 AND ESC PLAN.
15. IF THE TRAVIS COUNTY INSPECTOR DETERMINES THAT INSTALLATION OF THE FIRST PHASE OF A PROJECT'S EROSION AND SEDIMENT CONTROLS HAS NOT OCCURRED, IS SUBSTANTIALLY INCOMPLETE, OR REQUIRES RE-INSPECTION PRIOR TO ALLOWING CONSTRUCTION TO COMMENCE, THEN THE OWNER OR OWNER'S DESIGNATED REPRESENTATIVE MUST PAY A RE-INSPECTION FEE ESTABLISHED BY THE COMMISSIONER'S COURT, PRIOR TO SCHEDULING A SUBSEQUENT PRE-CONSTRUCTION CONFERENCE AND PRIOR TO ALLOWING CONSTRUCTION TO COMMENCE.

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STATE OF TEXAS
ROSS T. CORDER
125401
LICENSED PROFESSIONAL ENGINEER
10/4/24

No.	Date	Revisions	App.

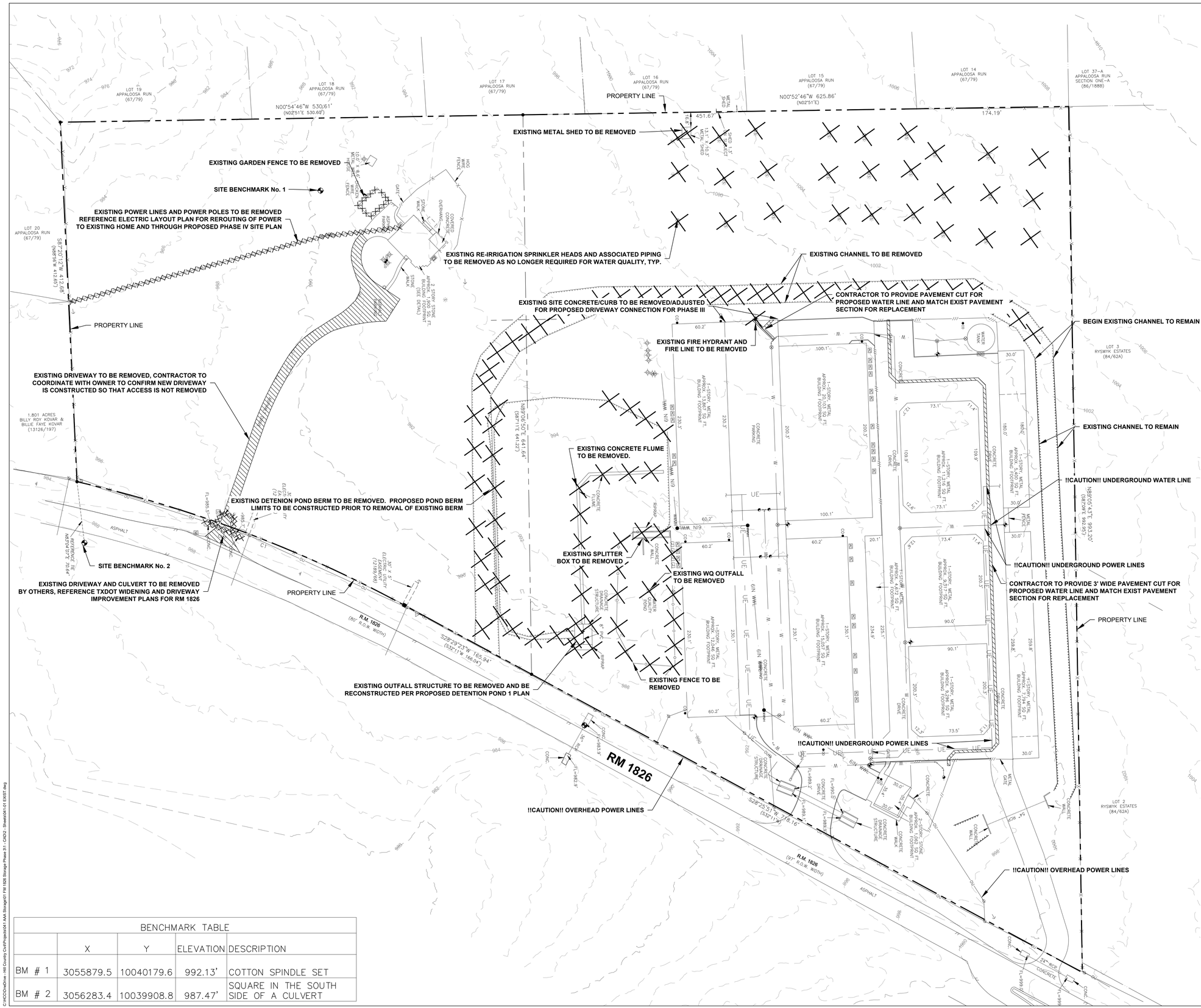
APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01
DRAWN BY.: RTC

GENERAL CONSTRUCTION NOTES

SHEET No.
2
OF 35

October 4, 2024



LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- EASEMENT LINE
- SITE BENCHMARK
- PROPERTY CORNER
- GAS — GAS LINE
- OE — OVERHEAD ELECTRIC LINE
- X — FENCE LINE
- EXISTING TREE
- SIGN
- PP — POWER POLE
- SITE DEMOLITION
- PAVEMENT, CONCRETE, GRAVEL AREAS TO BE REMOVED

DEMOLITION PLAN NOTES:

1. PRIOR TO START OF CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL CONSTRUCT ALL REQUIRED EROSION CONTROL AND TREE PROTECTION MEASURES AS INDICATED ON STORM WATER POLLUTION PREVENTION PLAN AND/OR LANDSCAPE ARCHITECT DRAWINGS.
2. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL COORDINATE WITH LOCAL TV, ELECTRIC, GAS, WATER, SEWER AND PHONE PROVIDERS AS REQUIRED TO PROVIDE SERVICE TO THE PROJECT SITE.
3. CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION ACTIVITY (ON OR OFFSITE) FOR THE PROJECT.
4. ANY GARBAGE OR DEBRIS SHALL BE REMOVED FROM THE PROJECT SITE.
5. REMOVAL, RELOCATION OR DISCONNECTION FROM A UTILITY SERVICE (ELECTRIC, GAS, WATER, SEWER, CABLE, TV, FIBER, ETC.) SHALL BE COORDINATED WITH APPROPRIATE UTILITY SERVICE PROVIDER PRIOR TO START OF DEMOLITION ACTIVITIES.
6. CONTRACTOR SHALL PROPERLY DISPOSE OF ANY HAZARDOUS MATERIALS IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. FURTHERMORE, HAZARDOUS MATERIALS SHALL BE HANDLED BY PROPERLY LICENSED AND TRAINED HAZARDOUS MATERIAL SUB-CONTRACTORS/INDIVIDUALS.
7. CONTRACTOR SHALL COORDINATE ALL REMOVED ITEMS WITH OWNER. CONTRACTOR IS RESPONSIBLE FOR ALL DISPOSAL AND HAULING COSTS AND SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS FOR DISPOSING OF DEMOLISHED MATERIALS.

DIG TESS:

CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION ACTIVITY (ON OR OFFSITE) FOR THE PROJECT.

CAUTION!

CONTRACTOR SHALL EXERCISE CAUTION DURING DEMOLITION, EXCAVATION, CLEARING AND CONSTRUCTION ACTIVITIES NEAR OVERHEAD ELECTRIC LINES. CONTRACTOR SHALL COMPLY WITH ALL SAFETY REGULATIONS WHEN OPERATING NEAR POWER LINES.

TRENCH EXCAVATION SAFETY PROTECTION

CONTRACTOR, SUB-CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE, OR STRUCTURAL/GEOTECHNICAL/SAFETY EQUIPMENT CONSULTANT, SHALL REVIEW THESE PLANS AND GEOTECHNICAL REPORT, THE INSTALLATION SITES WITHIN THE PROJECT AREA IN ORDER TO IMPLEMENT CONTRACTORS TRENCH EXCAVATION SAFETY PROTECTION PLAN, SYSTEMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM OSHA STANDARDS, SPECIFICALLY , CONTRACTOR AND/OR RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PLAN IN ACCORDANCE WITH OSHA REGULATIONS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND/OR AROUND THE EXPOSED TRENCH EXCAVATION.

BENCHMARK TABLE				
	X	Y	ELEVATION	DESCRIPTION
BM # 1	3055879.5	10040179.6	992.13'	COTTON SPINDLE SET
BM # 2	3056283.4	10039908.8	987.47'	SQUARE IN THE SOUTH SIDE OF A CULVERT

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ROSS T. GORDER 125401 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS 10/4/24

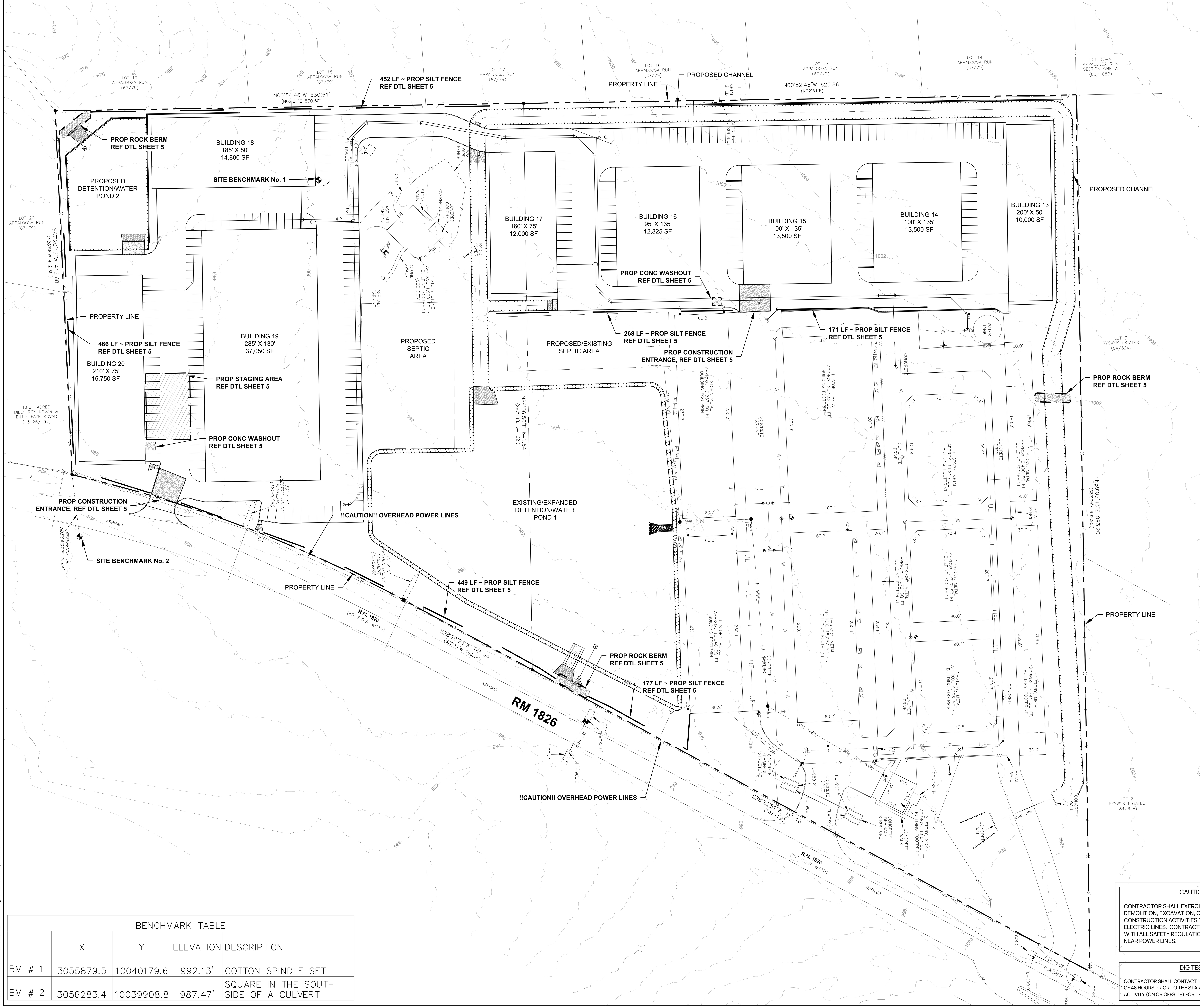
No.	Date	Revisions

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY:: RTC

EXISTING CONDITIONS AND DEMOLITION PLAN

SHEET No. 3 OF 35



LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- EASEMENT LINE
- SITE BENCHMARK
- PROPERTY CORNER
- GAS LINE
- OVERHEAD ELECTRIC LINE
- FENCE LINE
- EXISTING TREE
- SIGN
- POWER POLE
- SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- STAGING AREA
- CONCRETE WASHOUT PIT
- ROCK FILTER DAM

EROSION CONTROL PLAN NOTES:

1. CONTRACTOR SHALL FILE STORM WATER POLLUTION PREVENTION PLAN WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AND POST A SITE NOTICE AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.
2. CONTRACTOR SHALL FILE THE NOTICE OF INTENT AND NOTICE OF TERMINATION WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY PRIOR TO START OF CONSTRUCTION AND AT THE END OF THE PROJECT.
3. ALL STRUCTURAL BMP'S SHALL BE INSTALLED PRIOR TO START OF ANY DISTURBANCE OR CONSTRUCTION ACTIVITY ONSITE, INCLUDING BUT NOT LIMITED TO EXCAVATION, CLEARING, GRUBBING, OR GRADING.
4. CONTRACTOR SHALL INSTALL BMP'S AS REQUIRED BY PHASE FOR THE PROJECT OR AS SPECIFICALLY INDICATED PER PLAN. ALL PHASING OR ADJUSTMENTS TO THE EROSION CONTROL PLAN SHALL TAKE IN TO ACCOUNT UP-GRADIENT STORM WATER FLOWS FOR PLACEMENT OF BMP'S.
5. CONTRACTOR SHOULD IN BEST EFFORT, ONLY DISTURB AREAS WHERE CONSTRUCTION ACTIVITY IS REQUIRED IN AN EFFORT TO REDUCE POTENTIAL OF STORM WATER POLLUTION RUNOFF FROM THE SITE.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND INSPECTING STRUCTURAL BMP'S DAILY AND ESPECIALLY AFTER STORM EVENTS TO ENSURE BMP'S ARE FUNCTIONING PROPERLY. THE CONTRACTOR MAY MODIFY CONTROLS AS REQUIRED TO PREVENT SEDIMENT RUNOFF DOWNSTREAM IMPACTS.
7. CONTRACTOR SHALL USE DUST CONTROL MEASURES DURING CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS REQUIRED.
8. CONTRACTOR SHALL CLEAN UP ANY SEDIMENTATION RUNOFF OR SPOILS THAT MIGRATE ONTO ADJACENT ROADWAYS AFTER A STORM EVENT OR AS REQUIRED BY THE LOCAL INSPECTOR.
9. CONTRACTOR SHALL SEED OR SOD DISTURBED AREAS WITH BERMUDA GRASS OR SOME OTHER FORM OF HARD GRASS AS SOON AS POSSIBLE TO AVOID SOIL RUNOFF AFTER CONSTRUCTION IN THAT AREA IS COMPLETED.
10. TREES PROPOSED TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION AND MUST MEET THE FOLLOWING CRITERIA:
    - 10.1. MINIMUM OF 50% OF THE CRITICAL ROOT ZONE MUST BE PRESERVED AT NATURAL GRADE, WITH NATURAL GROUND COVER.
    - 10.2. CUT OR FILL IS LIMITED TO 4-INCHES FROM THE $\frac{1}{2}$ CRITICAL ROOT ZONE TO THE $\frac{1}{4}$ CRITICAL ROOT ZONE.
    - 10.3. NO CUT OR FILL IS PERMITTED WITHIN THE $\frac{1}{4}$ CRITICAL ROOT ZONE.
11. BMP'S MAY ONLY BE REMOVED ONCE THE SITE ACHIEVES 80% RE-VEGETATION IN DISTURBED AREAS.

SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES:

1. INSTALLATION OF TEMPORARY BMPS.
2. SITE CLEARING AND GRUBBING.
3. SITE DEMOLITION ACTIVITIES.
4. ROUGH SITE GRADING AND SUBGRADE PREPARATION.
5. STORMWATER FACILITIES CONSTRUCTED.
6. UTILITY CONSTRUCTION.
7. FINAL SITE GRADING AND SUBGRADE PREPARATION.
8. PAVEMENT INSTALLATION, INCLUDING BASE MATERIALS AND CONCRETE/ASPHALT PAVEMENT AND CURBS.
9. BUILDING PAD CONSTRUCTION.
10. BUILDING CONSTRUCTION.
11. LANDSCAPING AND IRRIGATION CONSTRUCTION.
12. SITE STABILIZATION, REVEGETATION OF DISTURBED AREAS.
13. SITE CLEANUP AND REMOVAL OF TEMPORARY BMPS.

CAUTION!

CONTRACTOR SHALL EXERCISE CAUTION DURING DEMOLITION, EXCAVATION, CLEARING AND CONSTRUCTION ACTIVITIES NEAR OVERHEAD ELECTRIC LINES. CONTRACTOR SHALL COMPLY WITH ALL SAFETY REGULATIONS WHEN OPERATING NEAR POWER LINES.

DIG TESS:

CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION ACTIVITY (ON OR OFFSITE) FOR THE PROJECT.

TRENCH EXCAVATION SAFETY PROTECTION

CONTRACTOR, SUB-CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE, OR STRUCTURAL/GEOTECHNICAL/SAFETY EQUIPMENT CONSULTANT, SHALL REVIEW THESE PLANS AND GEOTECHNICAL REPORT, THE INSTALLATION SITES WITHIN THE PROJECT AREA IN ORDER TO IMPLEMENT CONTRACTORS TRENCH EXCAVATION SAFETY PROTECTION PLAN, SYSTEMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM OSHA STANDARDS, SPECIFICALLY , CONTRACTOR AND/OR RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PLAN IN ACCORDANCE WITH OSHA REGULATIONS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND/OR AROUND THE EXPOSED TRENCH EXCAVATION.

BENCHMARK TABLE

	X	Y	ELEVATION	DESCRIPTION
BM # 1	3055879.5	10040179.6	992.13'	COTTON SPINDLE SET
BM # 2	3056283.4	10039908.8	987.47'	SQUARE IN THE SOUTH SIDE OF A CULVERT

C:\HCC\OneDrive - Hill Country Civil\Projects\041 AAA Storage\01 FM 1826 Storage Phase 3\1 - CAD\2 - Sheets\041-01 EXIST.dwg

Hill Country Civil
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STATE OF TEXAS — ROSS T. CORDER — 125401 — LICENSED PROFESSIONAL ENGINEER — 10/4/24

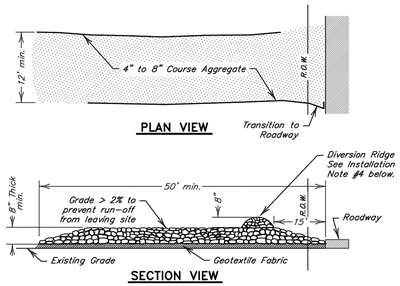
No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY.: RTC

EROSION CONTROL PLAN

SHEET No. 4 OF 35



MATERIALS:

1. The aggregate should consist of four (4) inch to eight (8) inch washed stone over a stable foundation as specified in the plan.
2. The aggregate should be placed with a minimum thickness of eight (8) inches.
3. The geotextile fabric should be designed specifically for use as a soil filtration media with an approximate weight of 6 oz./sq.yd., a Mullen burst rating of 140 #/sq.in., and an equivalent opening size greater that a U.S. Sieve No. 50.
4. If a washing facility is required, a level area with a minimum of four (4) inch diameter washed stone or commercial rock should be included in the plans. Wastewater should be diverted to a sediment trap or basin.

INSTALLATION:

1. Avoid curves on public roads and steep slopes. Remove vegetation and other objectionable material from the foundation area. Grade a crown in the center of the foundation for positive drainage.
2. The minimum width of the facility should be either twelve (12) feet or the full width of Exit roadway, whichever is greater.
3. The Construction Entrance should be at least fifty (50) feet long.
4. If the slope toward the road exceeds two (2) percent, construct a ridge six (6) inches to eight (8) inches high with three to one (3ft:1V) side slopes across the foundation approximately fifteen (15) feet from the Entrance to divert runoff away from the public road.
5. Place geotextile fabric and grade foundation to improve stability, especially where wet conditions are anticipated.
6. Place stone to dimensions and grade shown on plans. Leave the surface smooth and sloped for drainage.
7. Divert all surface runoff and drainage from the stone pad to a sediment trap or basin.
8. Install a pipe under pad as needed to maintain proper public road drainage.

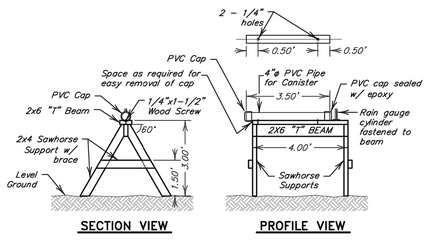
INSPECTION AND MAINTENANCE GUIDELINES:

1. The Entrance should be maintained in a condition which will prevent the tracking and flowing of sediment into public right-of-way. This may require a periodic top dressing of additional stone as conditions demand and repairing and/or cleaning out any measures used to trap sediment.
2. All sediment spilled, dropped, washed or tracked onto the public right-of-way should be removed immediately by the Contractor.
3. When necessary vehicular wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.
4. When washing is required it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.
5. All sediment should be prevented from entering any storm drain, ditch, or water course by using approved methods.

TEMPORARY CONSTRUCTION ENTRANCE/EXIT
(NTS)

GENERAL S.W.P.P.P. NOTES:

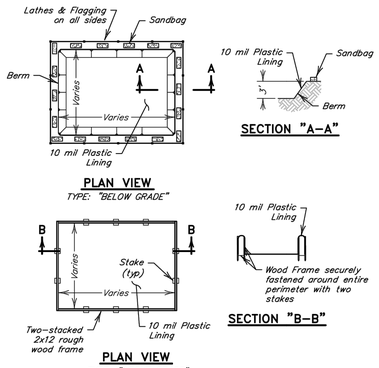
1. The location of Erosion and Sedimentation Control facilities are approximate. Contractor may modify, relocate, or add facilities with prior authorization from the Engineer.
2. Where a note or detail differs from the official Texas Commission On Environmental Quality (TCEQ) latest edition regulations, the TCEQ note or detail shall apply.



NOTES:

1. This canister shall be used to store the complete Storm Water Pollution Prevention Plan (SWPPP) and all other related documents so that they are available on-site for the Inspector.
2. The canister shall be located on solid level ground adjacent to the construction entrance and on the opposite side of the Concrete Washout Area.

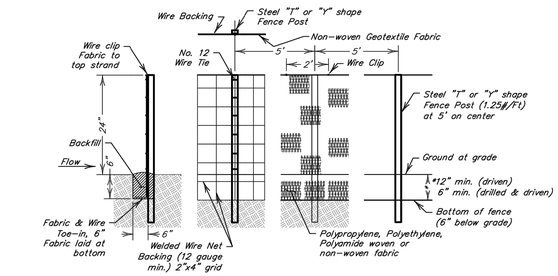
S.W.P.P.P. DOCUMENT CONTAINER
(NTS)



NOTES:

1. Locate washout area at least 50 feet from sensitive features, storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
2. Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.
3. Below grade concrete washout facilities are typical. These consist of a lined excavation sufficiently large to hold expected volume of washout material. Above grade facilities are used if excavation is not practical. Temporary concrete washout facility (type above grade) should be constructed as shown on the details at the end of this section, with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. Plastic lining material should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.
4. When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of. Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

CONCRETE WASHOUT AREA
(NTS)



MATERIALS:

1. Silt fence material should be polypropylene, polyethylene or polyamide woven or non-woven fabric. The fabric width should be thirty-six (36) inches with a minimum unit weight of 4.5 oz./sq.yd., a mullen burst strength exceeding 190 #/sq.in., ultraviolet stability exceeding 70%, and minimum apparent opening size of U.S. Sieve No. 30.
2. Fence posts should be made of hot rolled steel, at least four (4) feet long with Tee or Y-bar cross section, surface painted or galvanized, minimum nominal weight 1.25 #/ft, and Brindell hardness exceeding 140.
3. Woven wire backing to support the fabric should be galvanized twelve (12) gauge minimum two by four (2x4) inch welded wire.

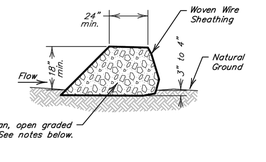
INSTALLATION:

1. Steel posts which support the silt fence should be installed on a slight angle toward the anticipated runoff source. Posts must be embedded a minimum of one (1) foot deep and spaced not more than eight (8) feet on center. Where water concentrates the maximum spacing should be six (6) feet.
2. Lay out fencing down-slope of disturbed area following the contour as closely as possible. The fence should be sited so that the maximum drainage area is one-quarter (1/4) acre per one-hundred (100) feet of fence.
3. The toe of the silt fence should be trenched in with a spade or mechanical trencher so that the down-slope face of the trench is flat and perpendicular to the line of flow. Where fence cannot be trenched in (e.g. pavement or rock outcrop) weight fabric flap with three (3) inches of pea gravel on uphill side to prevent flow from seeping under the fence.
4. The trench must be a minimum of six (6) inches deep and six (6) inches wide to allow for the silt fence fabric to be laid in the ground and backfilled with compacted material.
5. Silt fence should be securely fastened to each steel support post or to woven wire which is in turn attached to the steel fence post. There should be a securely fastened three (3) foot overlap where ends of the fabric meet.
6. Silt fence should be removed when the site is completely stabilized so as not to block or impede storm flow or drainage.

INSPECTION AND MAINTENANCE GUIDELINES:

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

SILT FENCE
(NTS)



MATERIALS:

1. The berm structure should be secured with a woven wire sheathing having a maximum opening of one (1) inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoot rings.
2. Clean, open graded three (3) inch to five (5) inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected five (5) inch to eight (8) inch diameter rocks may be used.

INSTALLATION:

1. Lay out the woven wire sheathing perpendicular to the flow line. The sheathing should be twenty (20) gauge woven wire mesh with one (1) inch openings.
2. Berm should have a top width of two (2) feet minimum with side slopes being two to one (2h:1V) ratio slope or flatter.
3. Place the rock along the sheathing as shown above to a height not less than eighteen (18) inches.
4. Wrap the wire sheathing around the rock and secure with tie wire so that the ends of the sheathing overlap at least two (2) inches. The berm should retain its shape when walked upon.
5. Berm should be built along the contour at zero percent grade or as near as possible.
6. The ends of the berm should be tied into existing up-slope grade and the berm should be buried in a trench approximately three (3) to four (4) inches deep to prevent failure of the control.

INSPECTION AND MAINTENANCE GUIDELINES:

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

ROCK BERM
(NTS)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CONTRIBUTING ZONE PLAN
GENERAL CONSTRUCTION NOTES

EDWARDS AQUIFER PROTECTION PROGRAM CONSTRUCTION NOTES - LEGAL DISCLAIMER

THE FOLLOWING/LISTED "CONSTRUCTION NOTES" ARE INTENDED TO BE ADVISORY IN NATURE ONLY AND DO NOT CONSTITUTE AN APPROVAL OR CONDITIONAL APPROVAL BY THE EXECUTIVE DIRECTOR (ED), NOR DO THEY CONSTITUTE A COMPREHENSIVE LISTING OF RULES OR CONDITIONS TO BE FOLLOWED DURING CONSTRUCTION. FURTHER ACTIONS MAY BE REQUIRED TO ACHIEVE COMPLIANCE WITH TCEQ REGULATIONS FOUND IN TITLE 30, TEXAS ADMINISTRATIVE CODE (TAC), CHAPTERS 213 AND 217, AS WELL AS LOCAL ORDINANCES AND REGULATIONS PROVIDING FOR THE PROTECTION OF WATER QUALITY. ADDITIONALLY, NOTHING CONTAINED IN THE FOLLOWING/LISTED "CONSTRUCTION NOTES" RESTRICTS THE POWERS OF THE ED, THE COMMISSION OR ANY OTHER GOVERNMENTAL ENTITY TO PREVENT, CORRECT, OR CURTAIL ACTIVITIES THAT RESULT OR MAY RESULT IN POLLUTION OF THE EDWARDS AQUIFER OR HYDROLOGICALLY CONNECTED SURFACE WATERS. THE HOLDER OF ANY EDWARDS AQUIFER PROTECTION PLAN CONTAINING "CONSTRUCTION NOTES" IS STILL RESPONSIBLE FOR COMPLIANCE WITH TITLE 30, TAC, CHAPTERS 213 OR ANY OTHER APPLICABLE TCEQ REGULATION, AS WELL AS ALL CONDITIONS OF AN EDWARDS AQUIFER PROTECTION PLAN THROUGH ALL PHASES OF PLAN IMPLEMENTATION. FAILURE TO COMPLY WITH ANY CONDITION OF THE ED'S APPROVAL, WHETHER OR NOT IN CONTRADICTION OF ANY "CONSTRUCTION NOTES," IS A VIOLATION OF TCEQ REGULATIONS AND ANY VIOLATION IS SUBJECT TO ADMINISTRATIVE RULES, ORDERS, AND PENALTIES AS PROVIDED UNDER TITLE 30, TAC § 213.10 (RELATING TO ENFORCEMENT). SUCH VIOLATIONS MAY ALSO BE SUBJECT TO CIVIL PENALTIES AND INJUNCTION. THE FOLLOWING/LISTED "CONSTRUCTION NOTES" IN NO WAY REPRESENT AN APPROVED EXCEPTION BY THE ED TO ANY PART OF TITLE 30 TAC, CHAPTERS 213 AND 217, OR ANY OTHER TCEQ APPLICABLE REGULATION

1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY GROUND DISTURBANCE OR CONSTRUCTION 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 SHOULD BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED CONTRIBUTING ZONE PLAN (CZP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTOR(S) SHOULD KEEP COPIES OF THE APPROVED PLAN AND APPROVAL LETTER ON-SITE.
3. NO HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.

4. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. 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.

5. 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.
6. SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.
7. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.
8. ALL EXCAVATED MATERIAL THAT WILL BE STORED ON-SITE MUST HAVE PROPER E&S CONTROLS.
9. IF PORTIONS OF THE SITE WILL HAVE A CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL TCEQ-0592A (REV. JULY 15, 2015) PAGE 2 OF 2

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.
10. THE FOLLOWING RECORDS SHOULD 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.
11. THE HOLDER OF ANY APPROVED CZP 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 BEST MANAGEMENT PRACTICES (BMPS) OR STRUCTURE(S), INCLUDING BUT NOT LIMITED TO TEMPORARY OR PERMANENT PONDS, DAMS, BERMS, SILT FENCES, AND DIVERSIONARY STRUCTURES;

B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED;
C. ANY CHANGE THAT WOULD SIGNIFICANTLY IMPACT THE ABILITY TO PREVENT POLLUTION OF THE EDWARDS AQUIFER; OR
D. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE APPROVED CONTRIBUTING ZONE PLAN.

Austin Regional Office
12100 Park 35 Circle, Building A
Austin, Texas 78753-1808
Phone (512) 339-2929
Fax (512) 339-3795

San Antonio Regional Office
14250 Judson Road
San Antonio, Texas 78233-4480
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STATE OF TEXAS
ROSS T. CORDER
125401
LICENSED
PROFESSIONAL ENGINEER
12/9/24

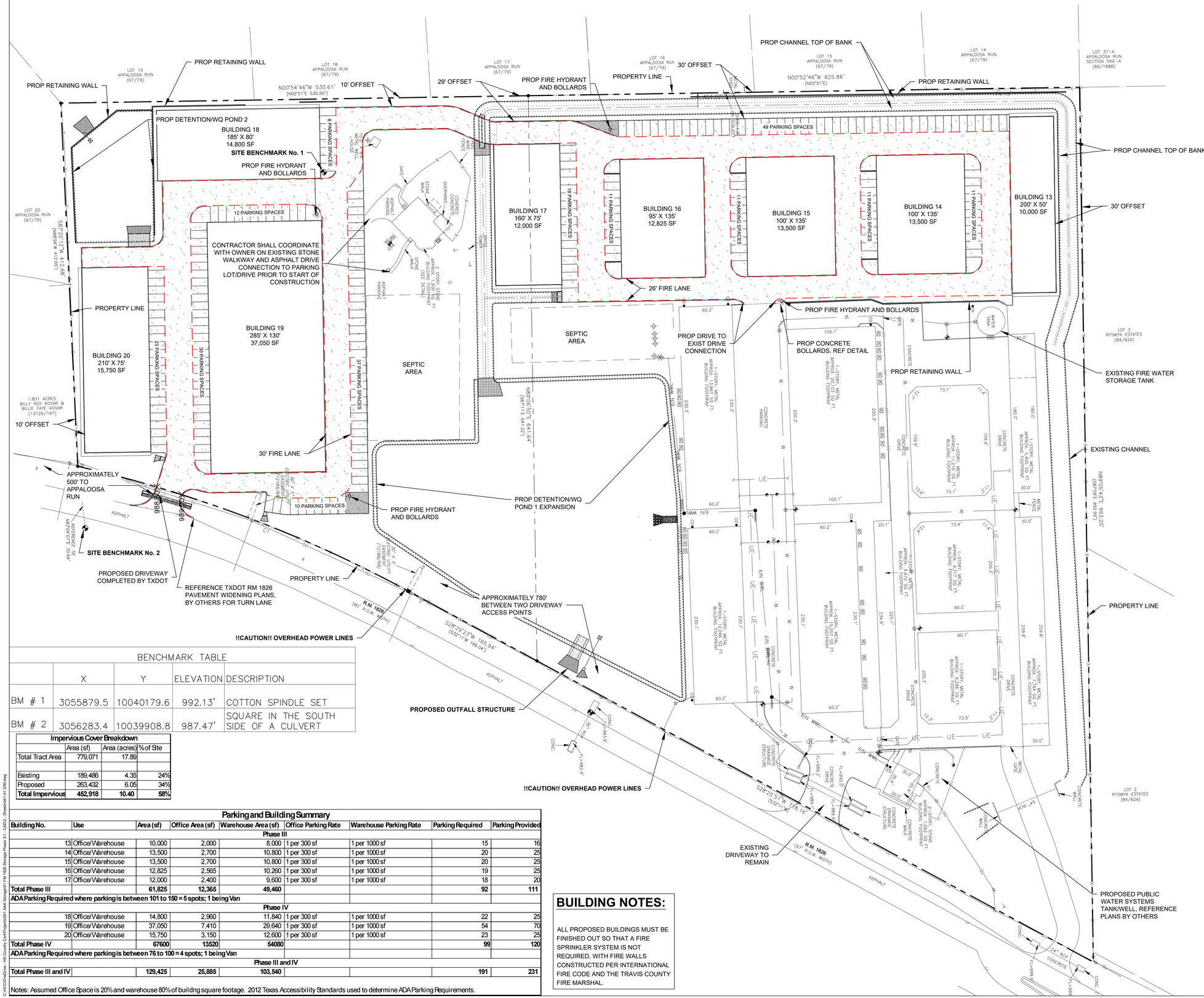
No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01
DRAWN BY: RTC

EROSION CONTROL DETAILS

SHEET No.
5
OF 35



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BM # 2	3056283.4	10039908.8	987.47'	SQUARE IN THE SOUTH SIDE OF A CULVERT

Impervious Cover Breakdown

	Area (sf)	Area (acres)	% of Ste
Total Tract Area	779,071	17.89	
Existing	189,486	4.35	24%
Proposed	263,432	6.05	34%
Total Impervious	**452,918**	**10.40**	**58%**

Parking and Building Summary

Building No.	Use	Area (sf)	Office Area (sf)	Warehouse Area (sf)	Office Parking Rate	Warehouse Parking Rate	Parking Required	Parking Provided
Phase III								
13	Office/Warehouse	10,000	2,000	8,000	1 per 300 sf	1 per 1000 sf	15	16
14	Office/Warehouse	13,500	2,700	10,800	1 per 300 sf	1 per 1000 sf	20	25
15	Office/Warehouse	13,500	2,700	10,800	1 per 300 sf	1 per 1000 sf	20	25
16	Office/Warehouse	12,825	2,565	10,260	1 per 300 sf	1 per 1000 sf	19	25
17	Office/Warehouse	12,000	2,400	9,600	1 per 300 sf	1 per 1000 sf	18	20
Total Phase III		**61,825**	**12,365**	**49,460**			**92**	**111**
ADA Parking Required where parking is between 101 to 150 = 5 spots; 1 being Van								
Phase IV								
18	Office/Warehouse	14,800	2,960	11,840	1 per 300 sf	1 per 1000 sf	22	25
19	Office/Warehouse	37,050	7,410	29,640	1 per 300 sf	1 per 1000 sf	54	70
20	Office/Warehouse	15,750	3,150	12,600	1 per 300 sf	1 per 1000 sf	23	25
Total Phase IV		**67600**	**13520**	**54080**			**99**	**120**
ADA Parking Required where parking is between 76 to 100 = 4 spots; 1 being Van								
Phase III and IV								
Total Phase III and IV		**129,425**	**25,885**	**103,540**			**191**	**231**

Notes: Assumed Office Space is 20% and warehouse 80% of buildng square footage. 2012 Texas Accessibility Standards used to determine ADA Parking Requirements.

BUILDING NOTES:

ALL PROPOSED BUILDINGS MUST BE FINISHED OUT SO THAT A FIRE SPRINKLER SYSTEM IS NOT REQUIRED, WITH FIRE WALLS CONSTRUCTED PER INTERNATIONAL FIRE CODE AND THE TRAVIS COUNTY FIRE MARSHAL.

SCALE: 1"=50'

LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- SETBACK LINE
- LANDSCAPE BUFFER LINE
- EASEMENT LINE
- SITE BENCHMARK
- PROPERTY CORNER
- GAS — GAS LINE
- OE — OVERHEAD ELECTRIC LINE
- X — FENCE LINE
- EXISTING TREE
- SIGN
- POWER POLE
- FIRE LANE
- CONCRETE PAVEMENT

SITE PLAN NOTES

1. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL BUILDING, SAFETY, AND INSPECTION REGULATIONS.
2. CONTRACTOR SHALL KEEP A COPY OF APPROVED CONSTRUCTION DRAWINGS ONSITE AT ALL TIMES.
3. PROPERTY LIES IN UNSHADED ZONE "X" AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR TRAVIS COUNTY, TEXAS AND INCORPORATED AREAS, MAP NO.48453C0560J.
4. ALL DIMENSIONS SHOWN ARE TO FACE OF CURB OR EDGE OF PAVEMENT UNLESS STATED OTHERWISE.
5. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL COORDINATE WITH LOCAL TV, ELECTRIC, GAS, WATER, SEWER AND PHONE PROVIDERS AS REQUIRED TO PROVIDE SERVICE TO THE PROJECT SITE.
6. CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION ACTIVITY (ON OR OFFSITE) FOR THE PROJECT.
7. ALL RAMPS, ACCESSIBLE PATHS, AND ACCESSIBLE PARKING SPOTS SHALL BE IN COMPLIANCE WITH THE LATEST TEXAS ACCESSIBILITY STANDRS (TAS).
8. WHEELSTOPS SHALL BE PRE-CAST CONCRETE AND AND 6' IN LENGTH, OR AS SPECIFICALLY CALLED OUT ON PLANS. FURTHERMORE, WHEELSTOPS SHALL BE DOWELED IN PLACE A MINIMUM OF 12" INTO PAVEMENT AND BASE SECTION.
9. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL ENGINEER OR LIGHTING CONSULTANT FOR LAYOUT OF PARKING LOT LIGHTS.
10. ALL DUMPSTER PADS AND APRONS SHALL BE CONSTRUCTED OF 6" REINFORCED CONCRETE PAVEMENT, WITH #4 BARS, 18" O.C.E.W.
11. DUMPSTER'S SHALL BE SCREENED FROM PUBLIC RIGHT-OF-WAY AND ADJACENT PROPERTIES. SCREENING SHALL BE A MINIMUM OF 7' TALL. GATES TO ACCESS DUMPSTER'S SHALL BE A MINIMUM OF 12' WIDE.
12. PROPOSED PAVEMENT SECTIONS SHALL BE PER THE SITE GEOTECH REPORT.
13. FIRE LANE STRIPING SHALL BE RED PAINT STRIPING WITH 4" TYPE D BLOCK WHITE LETTERING SPACED EVERY 40'. WHITE LETTERING SHALL STATE: "FIRE LANE - NO PARKING - TOW AWAY ZONE".

DIG TESS:

CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION ACTIVITY (ON OR OFFSITE) FOR THE PROJECT.

CAUTION!

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TRENCH EXCAVATION SAFETY PROTECTION

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ROSS T. CORDER 125401 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS 10-9-24

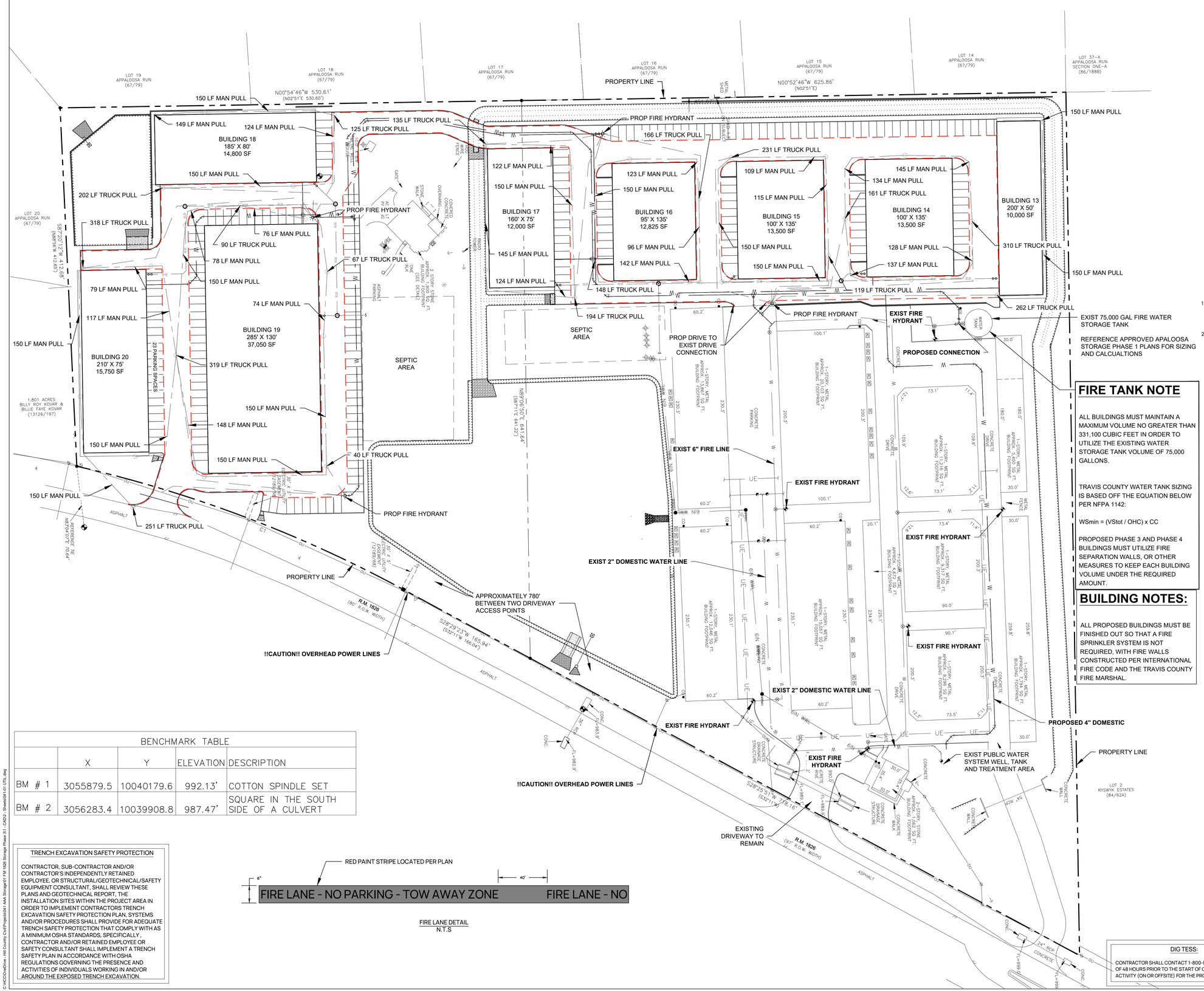
No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY: RTC

OVERALL SITE PLAN

SHEET No. 6 OF 35



0 25 50 100
SCALE: 1"=50'

LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- SETBACK LINE
- LANDSCAPE BUFFER LINE
- EASEMENT LINE
- SITE BENCHMARK
- PROPERTY CORNER
- GAS LINE
- OVERHEAD ELECTRIC LINE
- FENCE LINE
- EXISTING TREE
- SIGN
- POWER POLE
- WATER LINE
- REDUCER
- ISOLATION/GATE VALVE
- FIRE HYDRANT
- SERVICE SADDLE
- FIRE TRUCK HOSE PULL
- FIRE HOSE MAN PULL
- FIRE LANE

FIRE PROTECTION PLAN NOTES

1. THIS PLAN COMPLIES WITH THE TRAVIS COUNTY FIRE PROTECTION ORDINANCES. HOSE PULL BY TRUCK SHALL NOT EXCEED 350 LF AND 150 LF MAN PULL WHEN BUILDINGS ARE NOT PROTECTED BY A FIRE SPRINKLER SYSTEM, AND WHEN PROTECTED BY A FIRE PROTECTION SYSTEM 200 LF.
2. FIRE LANE STRIPING SHALL BE RED PAINT STRIPING WITH 4" TYPE D BLOCK WHITE LETTERING SPACED EVERY 40'. WHITE LETTERING SHALL STATE: " FIRE LANE - NO PARKING - TOW AWAY ZONE".

FIRE TANK NOTE

ALL BUILDINGS MUST MAINTAIN A MAXIMUM VOLUME NO GREATER THAN 331,100 CUBIC FEET IN ORDER TO UTILIZE THE EXISTING WATER STORAGE TANK VOLUME OF 75,000 GALLONS.

TRAVIS COUNTY WATER TANK SIZING IS BASED OFF THE EQUATION BELOW PER NFPA 1142:

WSmin = (VStot / OHC) x CC

PROPOSED PHASE 3 AND PHASE 4 BUILDINGS MUST UTILIZE FIRE SEPARATION WALLS, OR OTHER MEASURES TO KEEP EACH BUILDING VOLUME UNDER THE REQUIRED AMOUNT.

BUILDING NOTES:

ALL PROPOSED BUILDINGS MUST BE FINISHED OUT SO THAT A FIRE SPRINKLER SYSTEM IS NOT REQUIRED, WITH FIRE WALLS CONSTRUCTED PER INTERNATIONAL FIRE CODE AND THE TRAVIS COUNTY FIRE MARSHAL.

BENCHMARK TABLE				
	X	Y	ELEVATION	DESCRIPTION
BM # 1	3055879.5	10040179.6	992.13'	COTTON SPINDLE SET
BM # 2	3056283.4	10039908.8	987.47'	SQUARE IN THE SOUTH SIDE OF A CULVERT

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FIRE LANE DETAIL
N.T.S

DIG TESS:

CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION ACTIVITY (ON OR OFFSITE) FOR THE PROJECT.

CAUTION!

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12100 RM 1826
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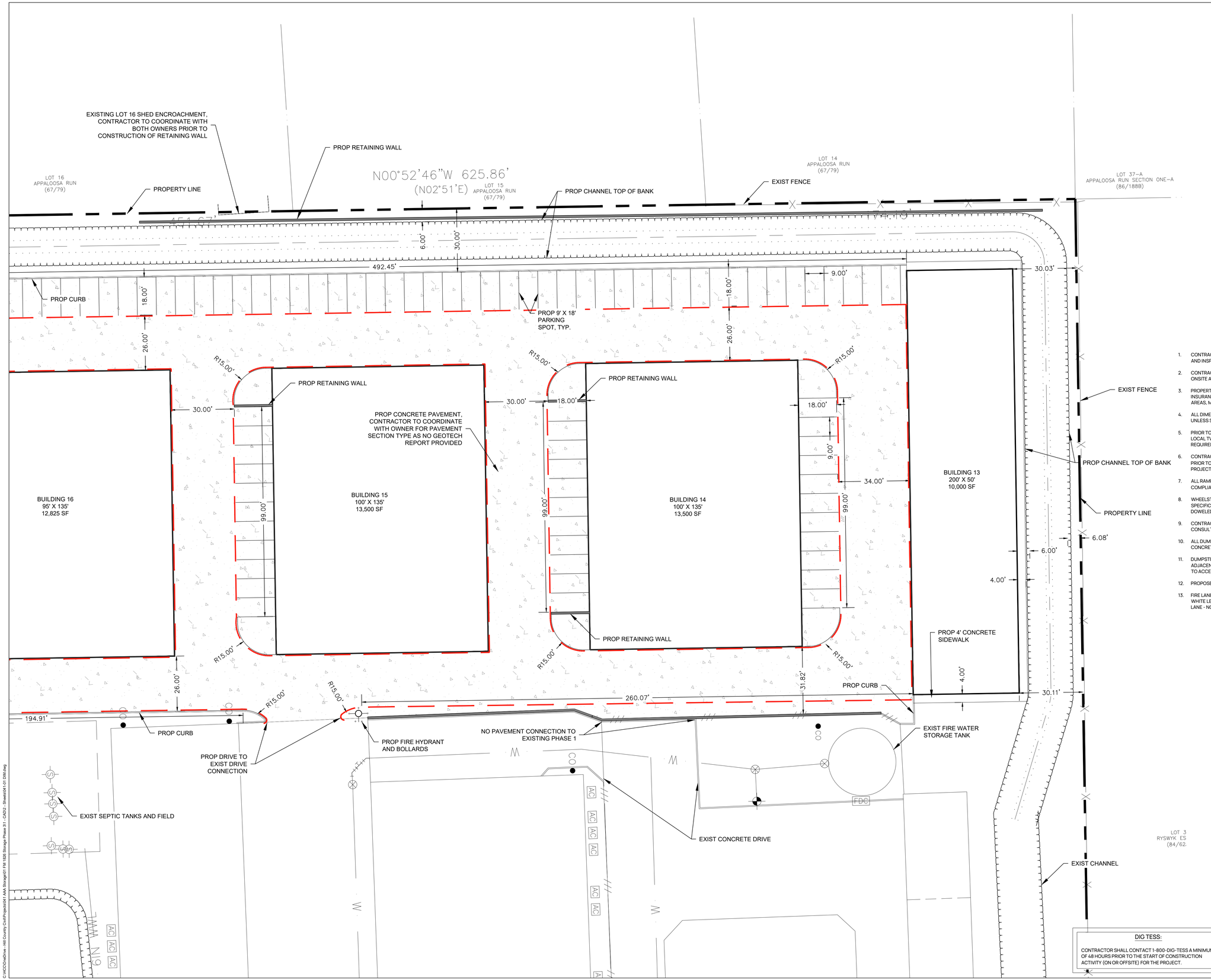
HCC JOB No.: 041-01 DRAWN BY: RTC

FIRE PROTECTION PLAN

SHEET No.
7
OF 35



0 10 20 40
SCALE: 1"=20'

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- EXISTING TREE
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- FIRE LANE
- CONCRETE PAVEMENT

SITE PLAN NOTES

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STATE OF TEXAS
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10/4/24

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12100 IH-1 R26
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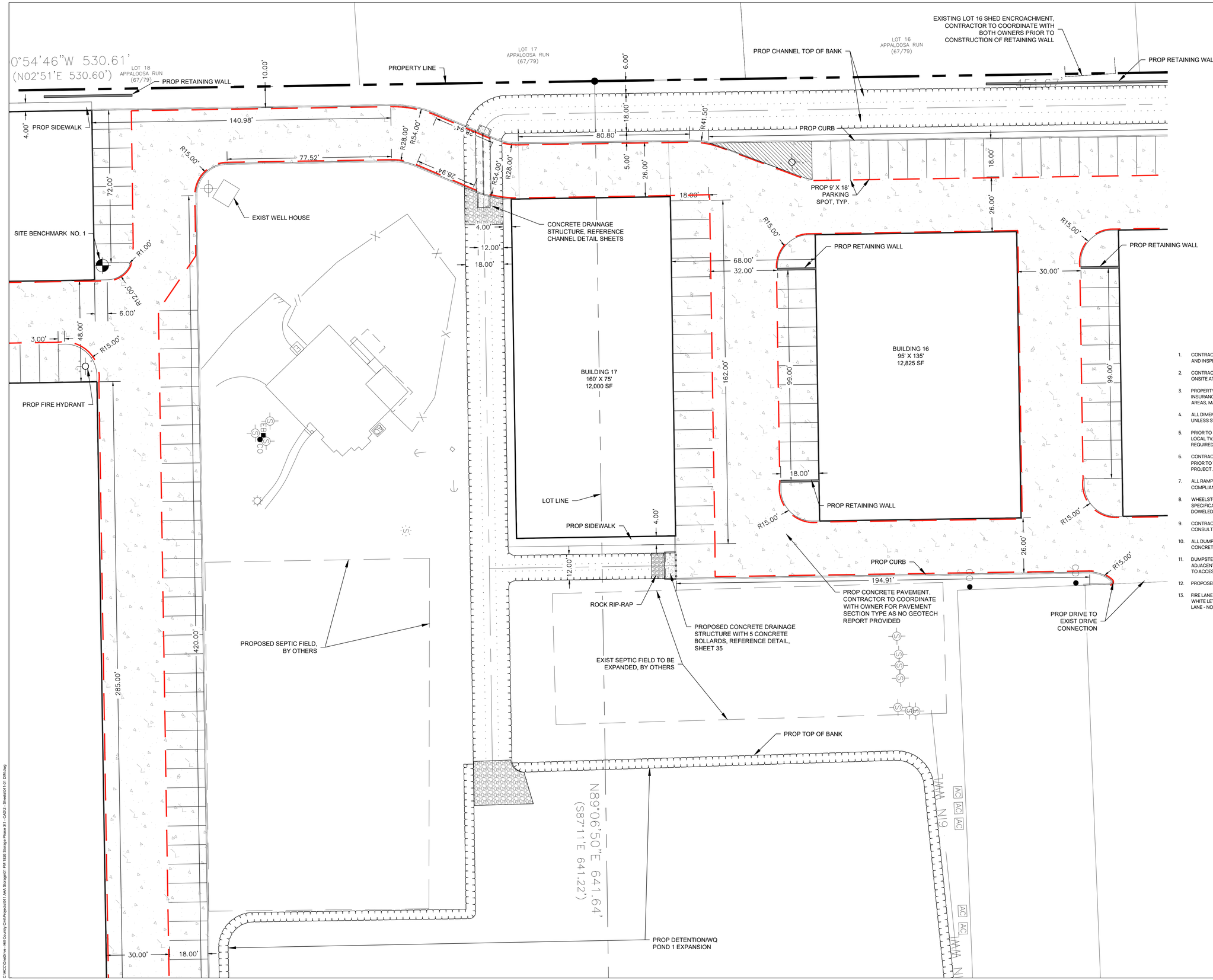
HCC JOB No.: 041-01 DRAWN BY: RTC

DIMENSION CONTROL PLAN (1 OF 5)

SHEET No. 8 OF 35



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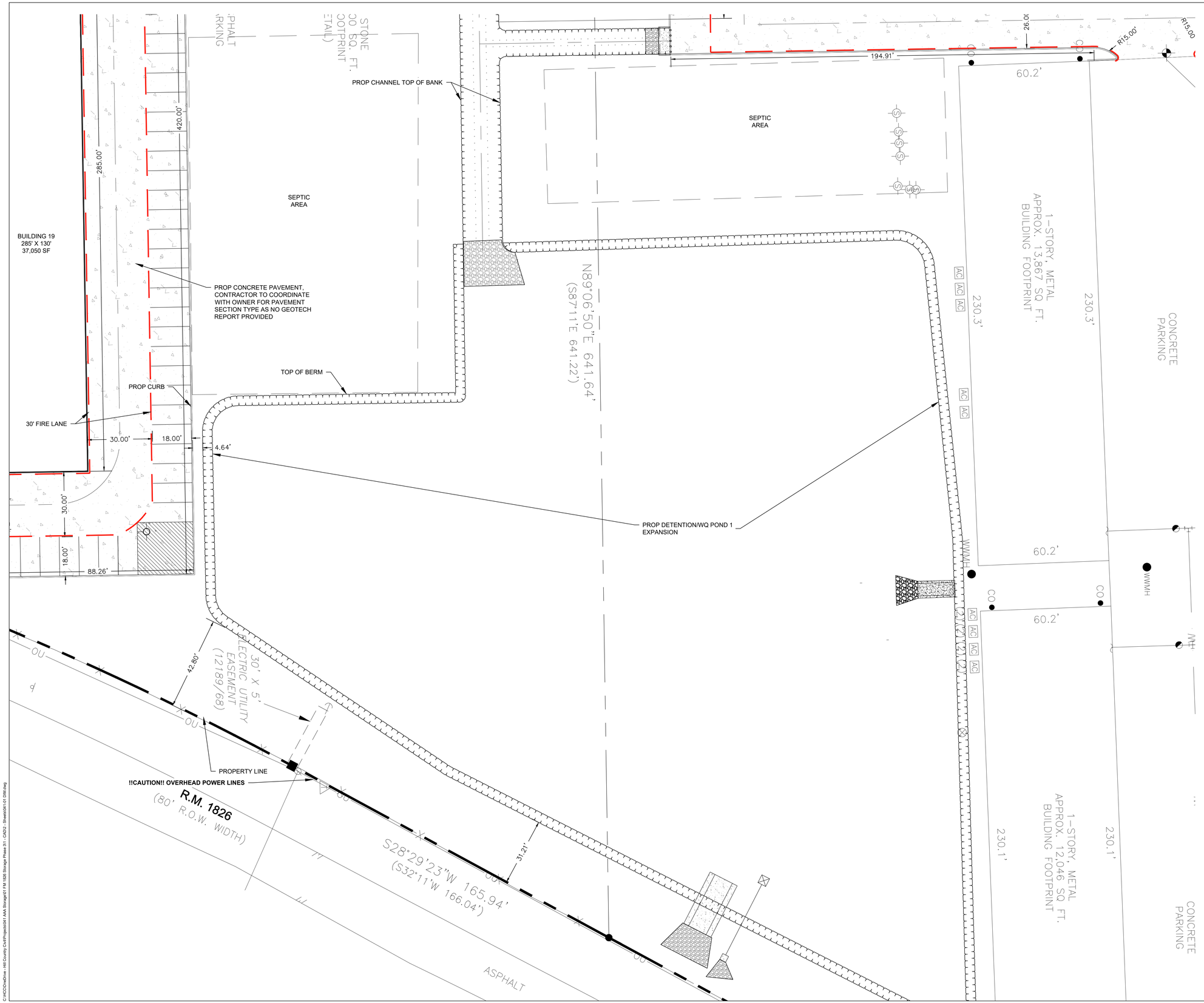
12100 IH-1 #26
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY: RTC

DIMENSION CONTROL PLAN (2 OF 5)

SHEET No. 9 OF 35



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HCC JOB No.: 041-01 DRAWN BY: RTC

DIMENSION CONTROL PLAN (3 OF 5)

SHEET No. 10 OF 35

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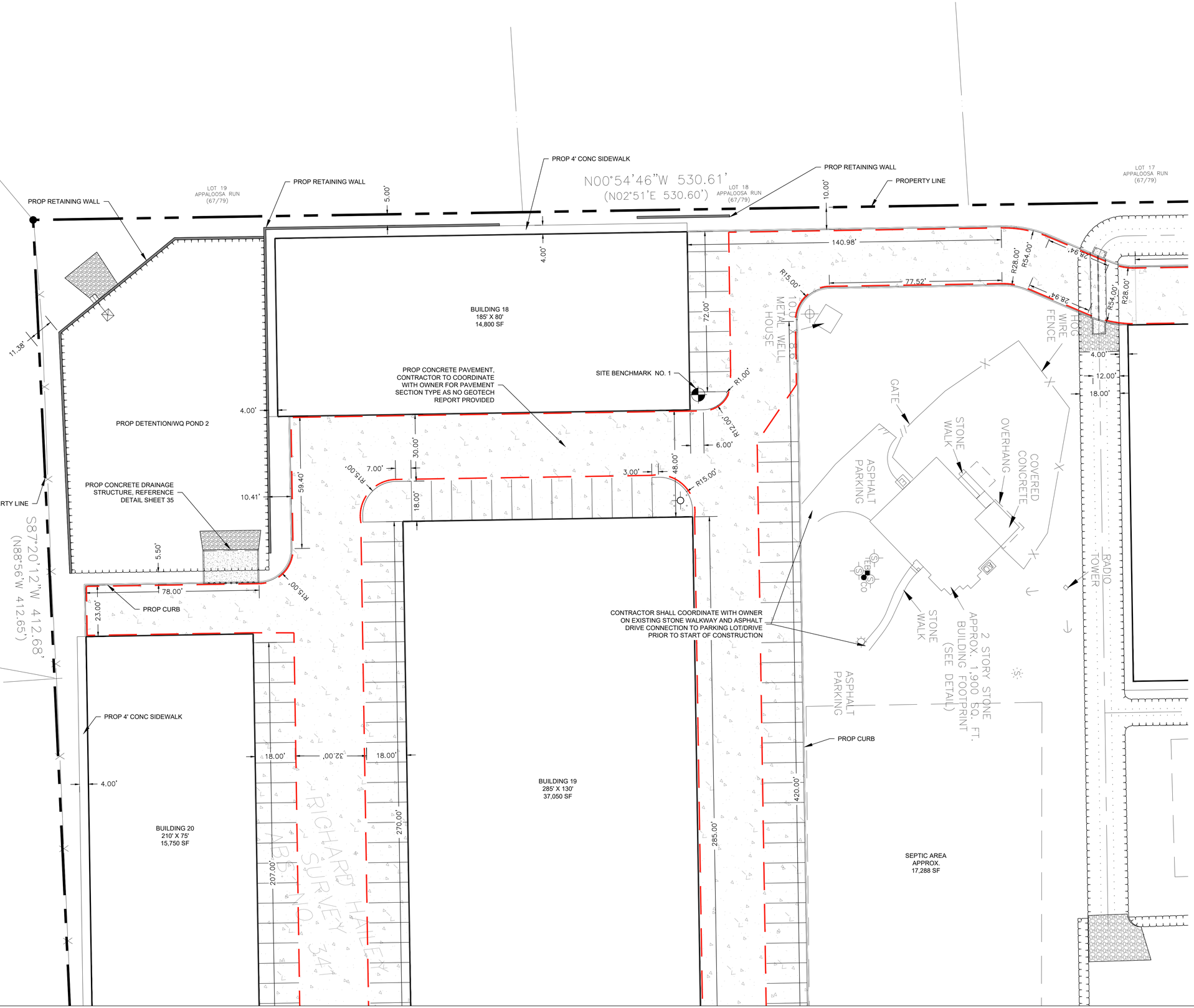

N

0 10 20 40

SCALE: 1"=20'

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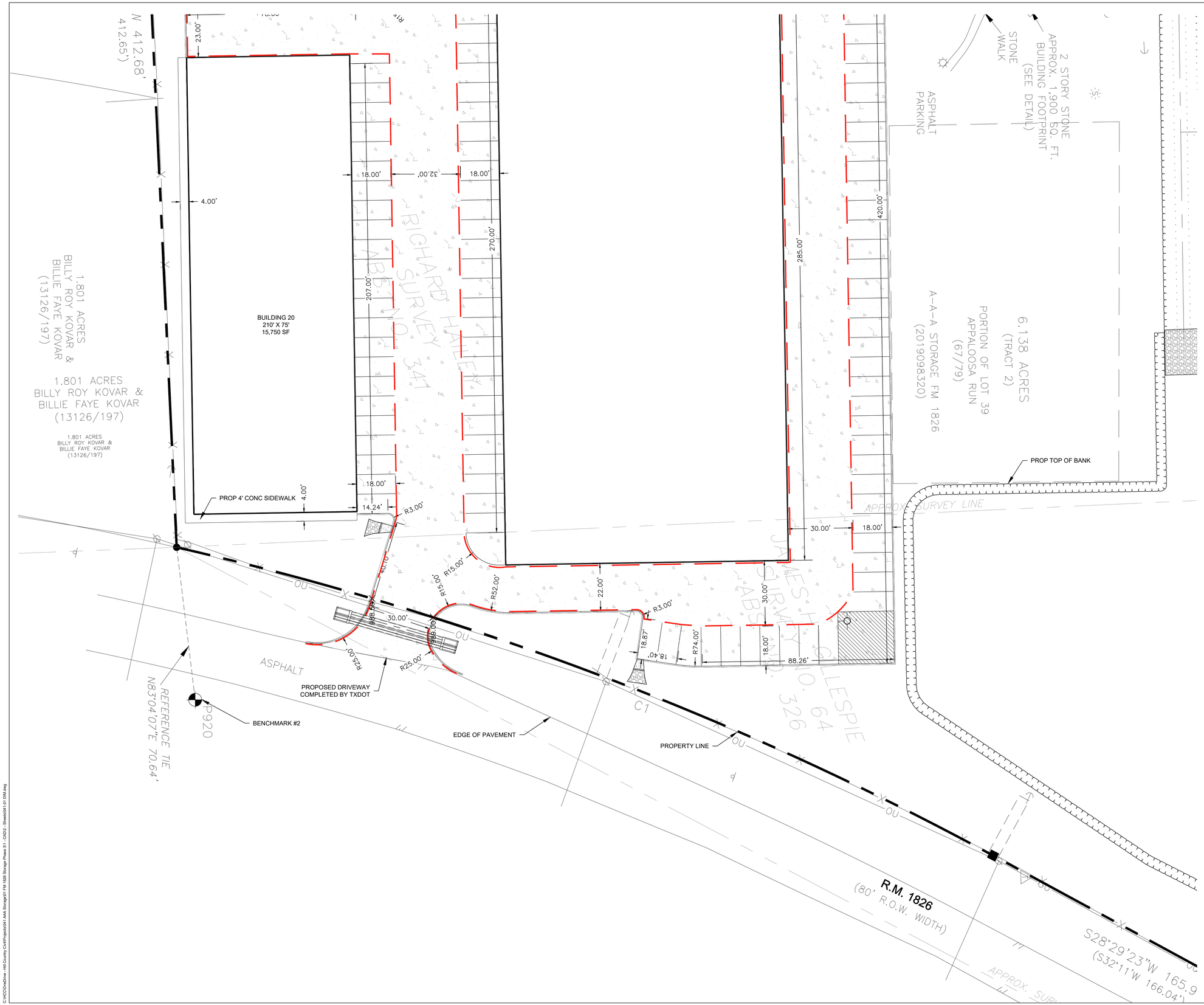
HCC JOB NO.: 041-01 DRAWN BY:. RTC

DIMENSION CONTROL PLAN (4 OF 5)

SHEET No.
11
OF 35



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7. ALL RAMPS, ACCESSIBLE PATHS, AND ACCESSIBLE PARKING SPOTS SHALL BE IN COMPLIANCE WITH THE LATEST TEXAS ACCESSIBILITY STANDRS (TAS).
8. WHEELSTOPS SHALL BE PRE-CAST CONCRETE AND AND 6' IN LENGTH, OR AS SPECIFICALLY CALLED OUT ON PLANS. FURTHERMORE, WHEELSTOPS SHALL BE DOWELED IN PLACE A MINIMUM OF 12" INTO PAVEMENT AND BASE SECTION.
9. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL ENGINEER OR LIGHTING CONSULTANT FOR LAYOUT OF PARKING LOT LIGHTS.
10. ALL DUMPSTER PADS AND APRONS SHALL BE CONSTRUCTED OF 6" REINFORCED CONCRETE PAVEMENT, WITH #4 BARS, 18" O.C.E.W.
11. DUMPSTER'S SHALL BE SCREENED FROM PUBLIC RIGHT-OF-WAY AND ADJACENT PROPERTIES. SCREENING SHALL BE A MINIMUM OF 7' TALL. GATES TO ACCESS DUMPSTER'S SHALL BE A MINIMUM OF 12' WIDE.
12. PROPOSED PAVEMENT SECTIONS SHALL BE PER THE SITE GEOTECH REPORT.
13. FIRE LANE STRIPING SHALL BE RED PAINT STRIPING WITH 4" TYPE D BLOCK WHITE LETTERING SPACED EVERY 40'. WHITE LETTERING SHALL STATE: "FIRE LANE - NO PARKING - TOW AWAY ZONE".

DIG TESS:

CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION ACTIVITY (ON OR OFFSITE) FOR THE PROJECT.

CAUTION!

CONTRACTOR SHALL EXERCISE CAUTION DURING DEMOLITION, EXCAVATION, CLEARING AND CONSTRUCTION ACTIVITIES NEAR OVERHEAD ELECTRIC LINES. CONTRACTOR SHALL COMPLY WITH ALL SAFETY REGULATIONS WHEN OPERATING NEAR POWER LINES.

TRENCH EXCAVATION SAFETY PROTECTION

CONTRACTOR, SUB-CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE, OR STRUCTURAL/GEOTECHNICAL/SAFETY EQUIPMENT CONSULTANT, SHALL REVIEW THESE PLANS AND GEOTECHNICAL REPORT, THE INSTALLATION SITES WITHIN THE PROJECT AREA IN ORDER TO IMPLEMENT CONTRACTORS TRENCH EXCAVATION SAFETY PROTECTION PLAN, SYSTEMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM OSHA STANDARDS, SPECIFICALLY , CONTRACTOR AND/OR RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PLAN IN ACCORDANCE WITH OSHA REGULATIONS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND/OR AROUND THE EXPOSED TRENCH EXCAVATION.

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STATE OF TEXAS
ROSS T. CORDER
125401
LICENSED
PROFESSIONAL ENGINEER
10/4/24

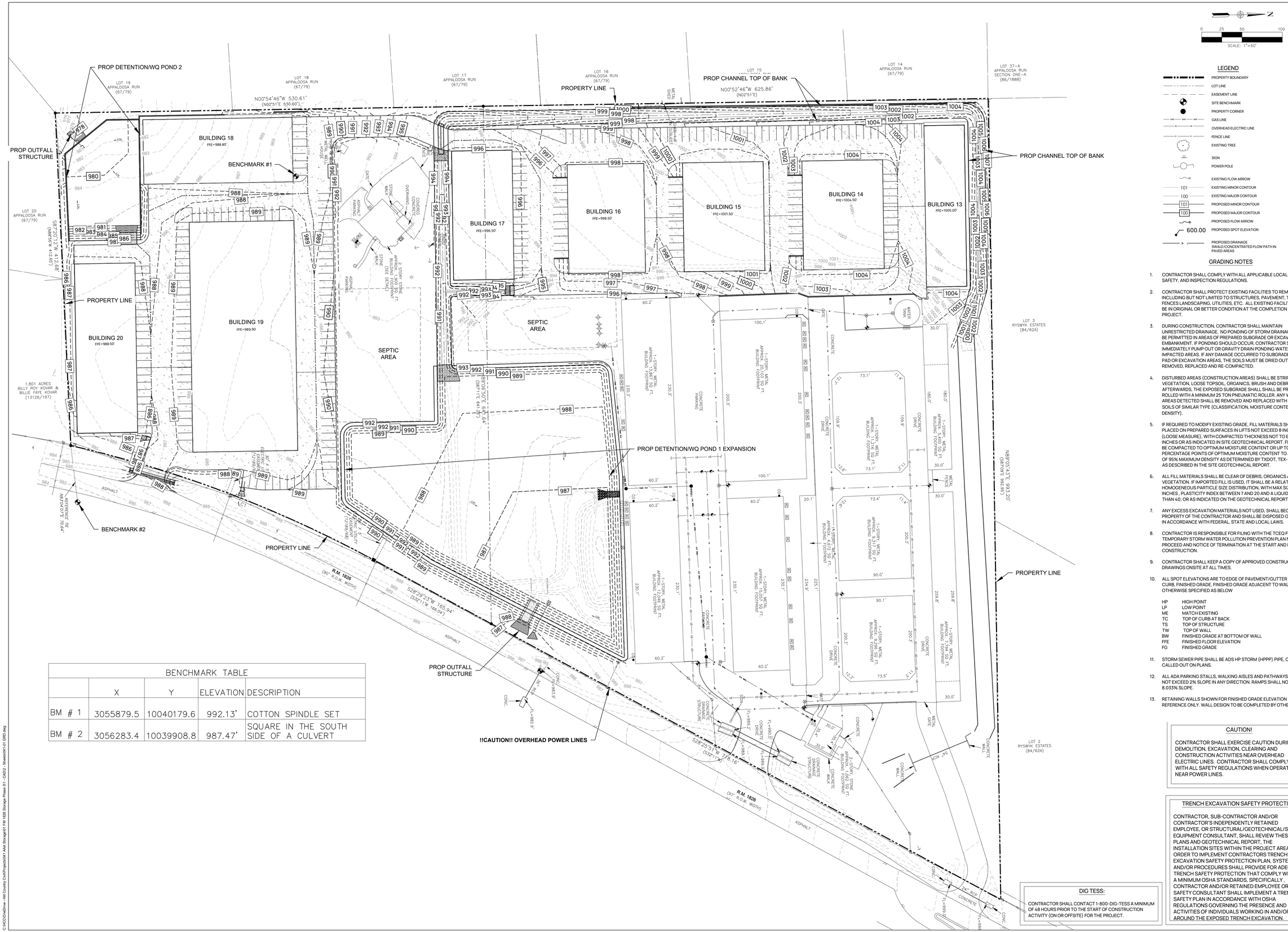
No.	Date	Revisions	App.

APPALOOSA RUN STORAGE
FACILITY PH. 3 & 4
12100 R.M.1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY: RTC

DIMENSION CONTROL
PLAN (5 OF 5)

SHEET No.
12
OF 35



BENCHMARK TABLE				
	X	Y	ELEVATION	DESCRIPTION
BM # 1	3055879.5	10040179.6	992.13'	COTTON SPINDLE SET
BM # 2	3056283.4	10039908.8	987.47'	SQUARE IN THE SOUTH SIDE OF A CULVERT

0 25 50 100

SCALE: 1"=50'

LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- EASEMENT LINE
- SITE BENCHMARK
- PROPERTY CORNER
- GAS LINE
- OVERHEAD ELECTRIC LINE
- FENCE LINE
- EXISTING TREE
- SIGN
- POWER POLE
- EXISTING FLOW ARROW
- 101 EXISTING MINOR CONTOUR
- 100 EXISTING MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- 100 PROPOSED MAJOR CONTOUR
- PROPOSED FLOW ARROW
- 600.00 PROPOSED SPOT ELEVATION
- PROPOSED DRAINAGE SWALE/CONCENTRATED FLOW PATH IN PAVED AREAS

GRADING NOTES

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2. CONTRACTOR SHALL PROTECT EXISTING FACILITIES TO REMAIN INCLUDING BUT NOT LIMITED TO STRUCTURES, PAVEMENT, TREES, FENCES LANDSCAPING, UTILITIES, ETC. ALL EXISTING FACILITIES SHALL BE IN ORIGINAL OR BETTER CONDITION AT THE COMPLETION OF THE PROJECT.
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4. DISTURBED AREAS (CONSTRUCTION AREAS) SHALL BE STRIPPED OF VEGETATION, LOOSE TOPSOIL, ORGANICS, BRUSH AND DEBRIS. AFTERWARDS, THE EXPOSED SUBGRADE SHALL SHALL BE PROOF ROLLED WITH A MINIMUM 25 TON PNEUMATIC ROLLER. ANY WEAK AREAS DETECTED SHALL BE REMOVED AND REPLACED WITH SUITABLE SOILS OF SIMILAR TYPE (CLASSIFICATION, MOISTURE CONTENT AND DENSITY).
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10. ALL SPOT ELEVATIONS ARE TO EDGE OF PAVEMENT/GUTTER LINE OF CURB, FINISHED GRADE, FINISHED GRADE ADJACENT TO WALLS UNLESS OTHERWISE SPECIFIED AS BELOW

HP	HIGH POINT
LP	LOW POINT
ME	MATCH EXISTING
TC	TOP OF CURB AT BACK
TS	TOP OF STRUCTURE
TW	TOP OF WALL
BW	FINISHED GRADE AT BOTTOM OF WALL
FFE	FINISHED FLOOR ELEVATION
FG	FINISHED GRADE

11. STORM SEWER PIPE SHALL BE ADS HP STORM (HPPP) PIPE, OR AS CALLED OUT ON PLANS.
12. ALL ADA PARKING STALLS, WALKING AISLES AND PATHWAYS SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION. RAMPS SHALL NOT EXCEED 8.033% SLOPE.
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ROSS T. CORDER 125401 LICENSED PROFESSIONAL ENGINEER 10/4/24

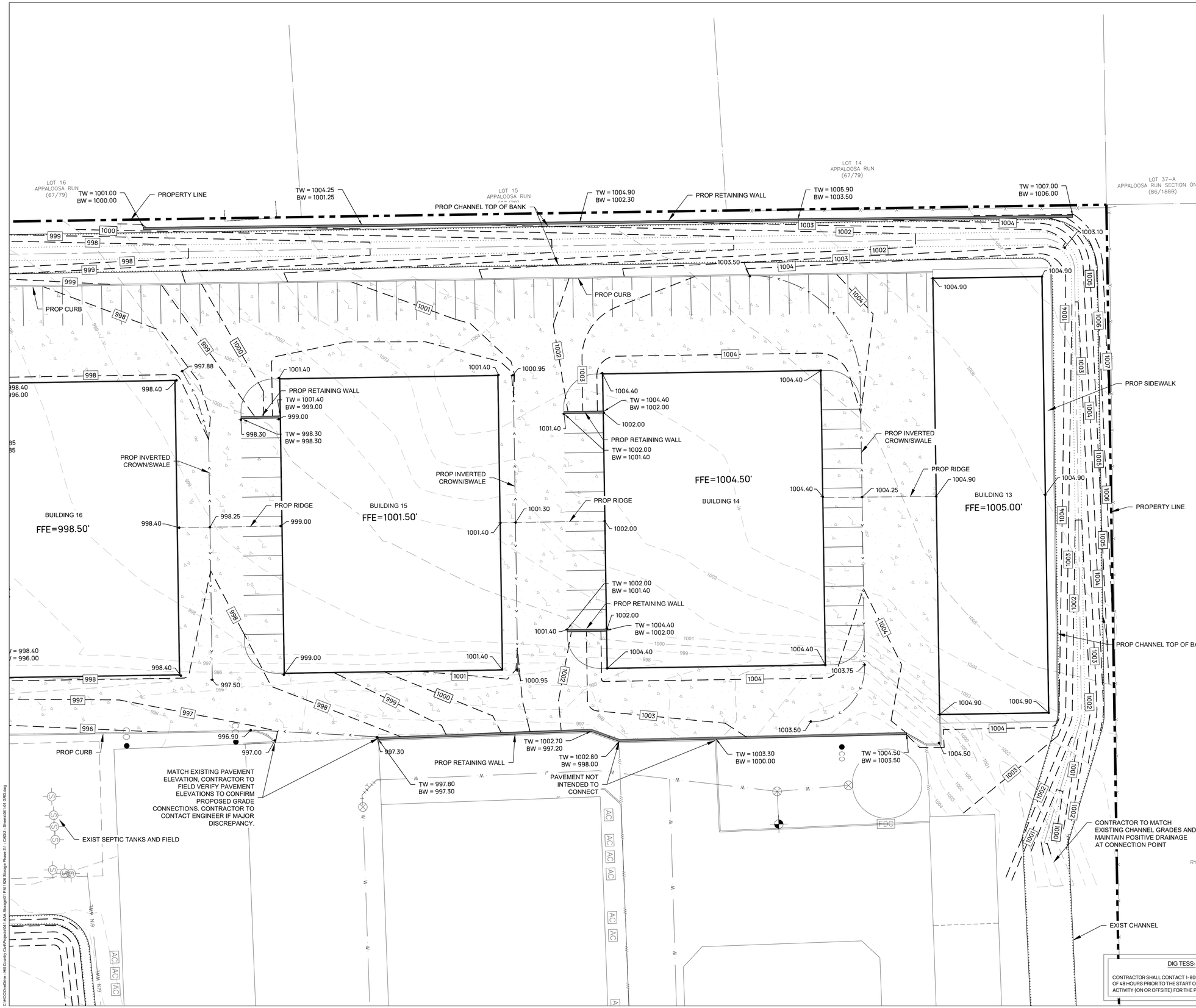
No.	Date	Revisions	App.

APPALOOSA RUN STORAGE
FACILITY PH. 3 & 4
12100 FM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY: RTC

OVERALL GRADING PLAN

SHEET No.
13
OF 35



0 10 20 40

SCALE: 1"=20'

LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- EASEMENT LINE
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- GAS LINE
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ROSS T. CORDER
STATE OF TEXAS
125401
LICENSED
PROFESSIONAL ENGINEER
10/4/24

No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY:: RTC

GRADING PLAN (1 OF 5)

SHEET No.
14
OF 35

LOT 18
APPALOOSA RUN
(67/79)

LOT 17
APPALOOSA RUN
(67/79)

LOT 16
APPALOOSA RUN
(67/79)

00°54'46"W 530.61'
(N02°51'E 530.60')

PROP RETAINING WALL

LOT 18
APPALOOSA RUN
(67/79)

TW = 990.00
BW = 989.00

PROP CURB

PROPERTY LINE

PROP TOE OF CHANNEL

PROP CHANNEL TOP OF BANK

TW = 1001.00
BW = 1000.00

TW = 1004
BW = 1001

= 988.00
= 987.00

PROP 4' CONC
SIDEWALK

988.70

988.60

995.90

992.70

995.75

995.75

995.70

995.50

995.75

995.95 HP

997.50

PROP CURB

PROP INVERTED
CROWN/SWALE

BUILDING 18

29.5 LF - PROP 2' x 3' BOX CULVERTS @ 1.00% SLOPE

995.40

992.40

996.40

996.40

EXIST WELL

PROP 5' FLUSH CURB

BENCHMARK NO. 1

988.70

988.10

989.10

PROP CHANNEL TOP OF BANK

PROP TOP OF CHANNEL

4' SIDEWALK

BUILDING 17
FFE=996.50'

989.80

988.50

989.50

CONTRACTOR SHALL COORDINATE
WITH OWNER ON EXISTING STONE
WALKWAY AND ASPHALT DRIVE
CONNECTION TO PARKING
LOT/DRIVE PRIOR TO START OF
CONSTRUCTION

998.40

TW = 998.40
BW = 996.00

PROP RETAINING WALL

995.85

995.70

996.00

TW = 995.85
BW = 995.85

PROP INVERTED
CROWN/SWALE

998.40

997.88

1001.40

TW = 1001.40
BW = 999.00

999.00

998.30

TW = 998.30
BW = 998.30

PROP RETAINING WALL

BUILDING 16
FFE=998.50'

PROP RIDGE

998.40

998.25

999.00

PROP INVERTED
CROWN/SWALE

TW = 995.85
BW = 995.55

995.10

995.55

996.00

PROP RETAINING WALL

TW = 998.40
BW = 996.00

998.40

998.40

999.00

997.50

996.40

994.90

995.00

994.70

995.30

990.90

993.20

994.90

PROP 12' WIDE
FLUSH CURB, SEE
DETAIL, SHEET 35

PROP CURB

996.90

997.00

PROP SEPTIC FIELD
NO GRADING IN THIS
AREA

BUILDING 19

PROP INVERTED
CROWN/SWALE

PROP RIDGE

989.80

989.60

990.60

PROP SEPTIC FIELD
NO GRADING IN THIS
AREA

EXISTING DETENTION/WQ POND 1 PROP EXPANSION

N89°06'50"E 641.64'
(S87°11'E 641.22')

0 10 20 40
SCALE: 1"=20'

LEGEND

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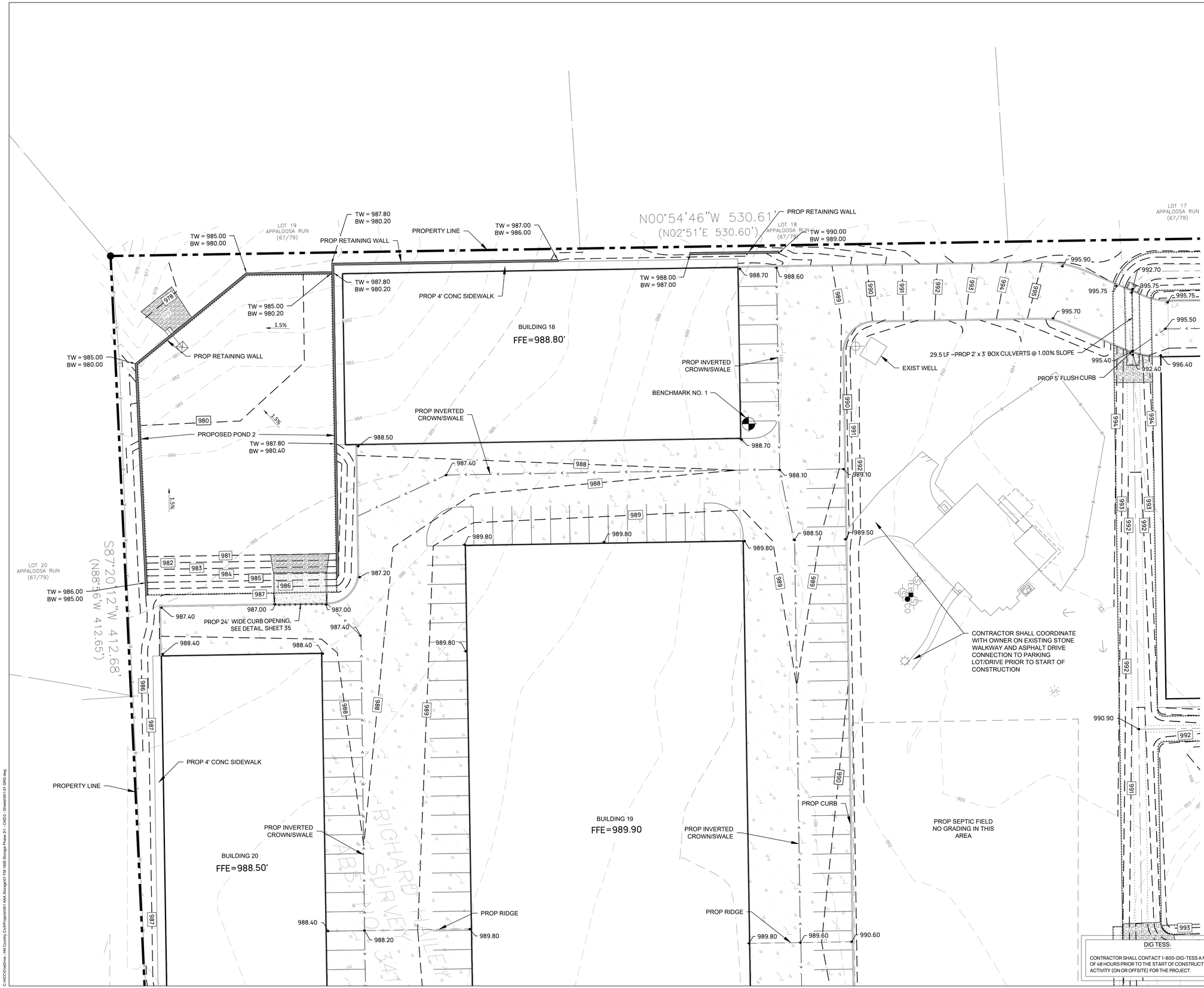
HCC JOB No.: 041-01
DRAWN BY: RTC

GRADING PLAN (2 OF 5)

SHEET No.
15
OF 35



0 10 20 40

SCALE: 1"=20'

LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- EASEMENT LINE
- SITE BENCHMARK
- PROPERTY CORNER
- GAS LINE
- OVERHEAD ELECTRIC LINE
- FENCE LINE
- EXISTING TREE
- SIGN
- POWER POLE
- EXISTING FLOW ARROW
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED FLOW ARROW
- 600.00 PROPOSED SPOT ELEVATION
- PROPOSED DRAINAGE SWALE/CONCENTRATED FLOW PATH IN PAVED AREAS

GRADING NOTES

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LP	LOW POINT
ME	MATCH EXISTING
TC	TOP OF CURB AT BACK
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12. ALL ADA PARKING STALLS, WALKING AISLES AND PATHWAYS SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION. RAMPS SHALL NOT EXCEED 8.033% SLOPE.
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CAUTION!

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ROSS T. CORDER 125401 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS 10/4/24

No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY: RTC

GRADING PLAN (3 OF 5)

SHEET No. 16 OF 35

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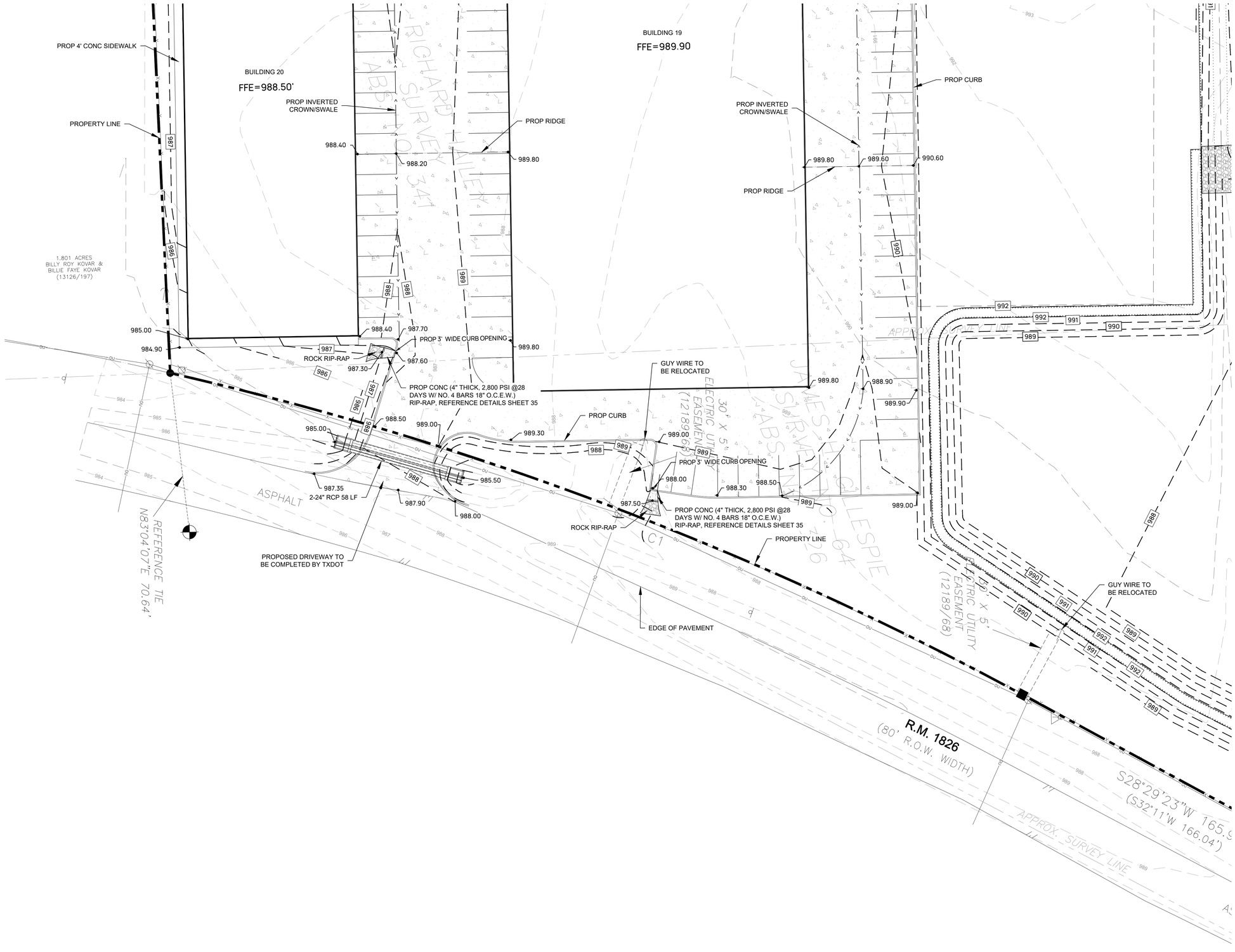

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STATE OF TEXAS
ROSS T. CORDER
125401
LICENSED
PROFESSIONAL ENGINEER
10/4/24

No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 R.M.1826
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HCC JOB No.: 041-01 DRAWN BY: RTC

GRADING PLAN (4 OF 5)

SHEET No.
17
OF 35

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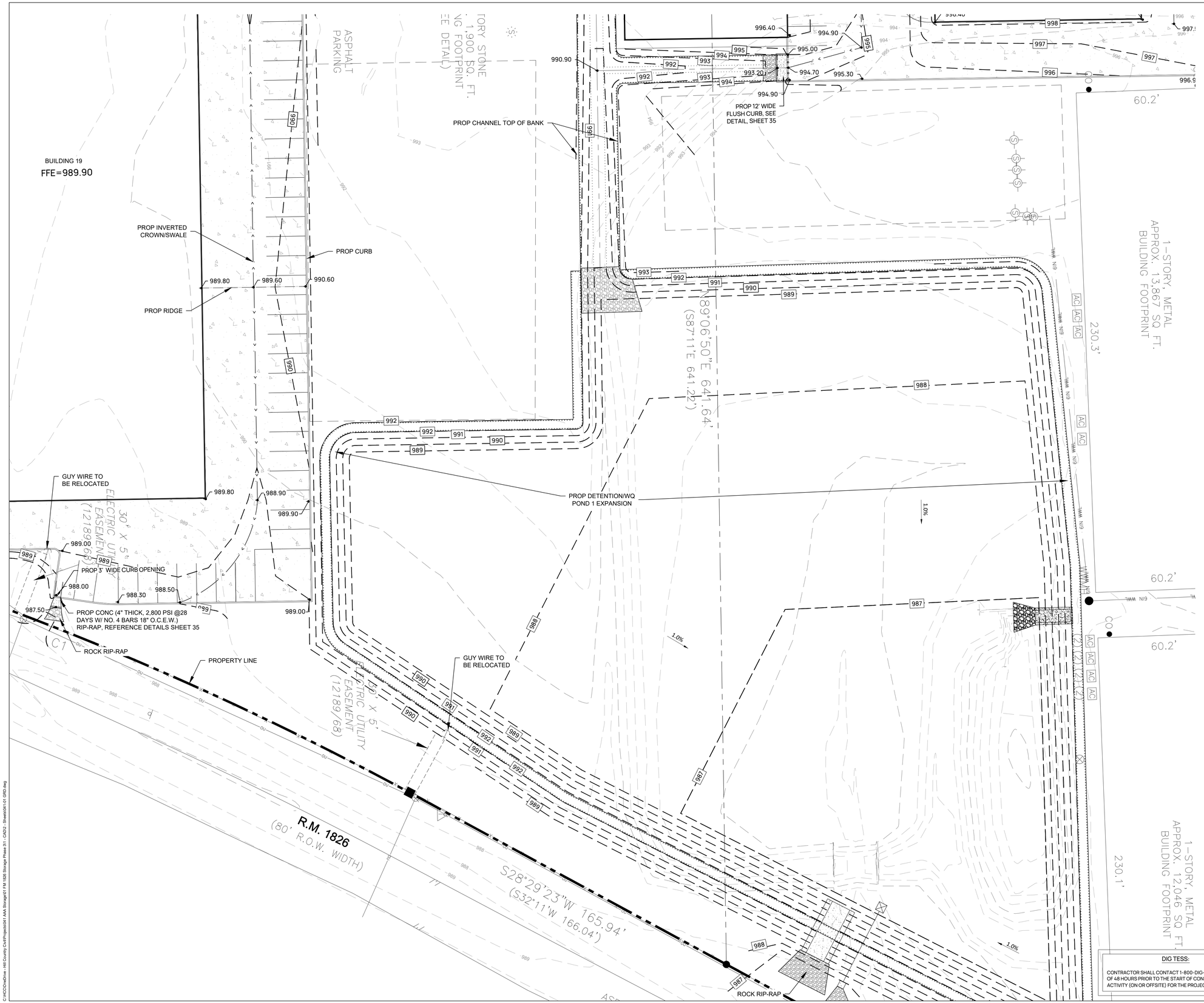

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GRADING PLAN (5 OF 5)

SHEET No.
18
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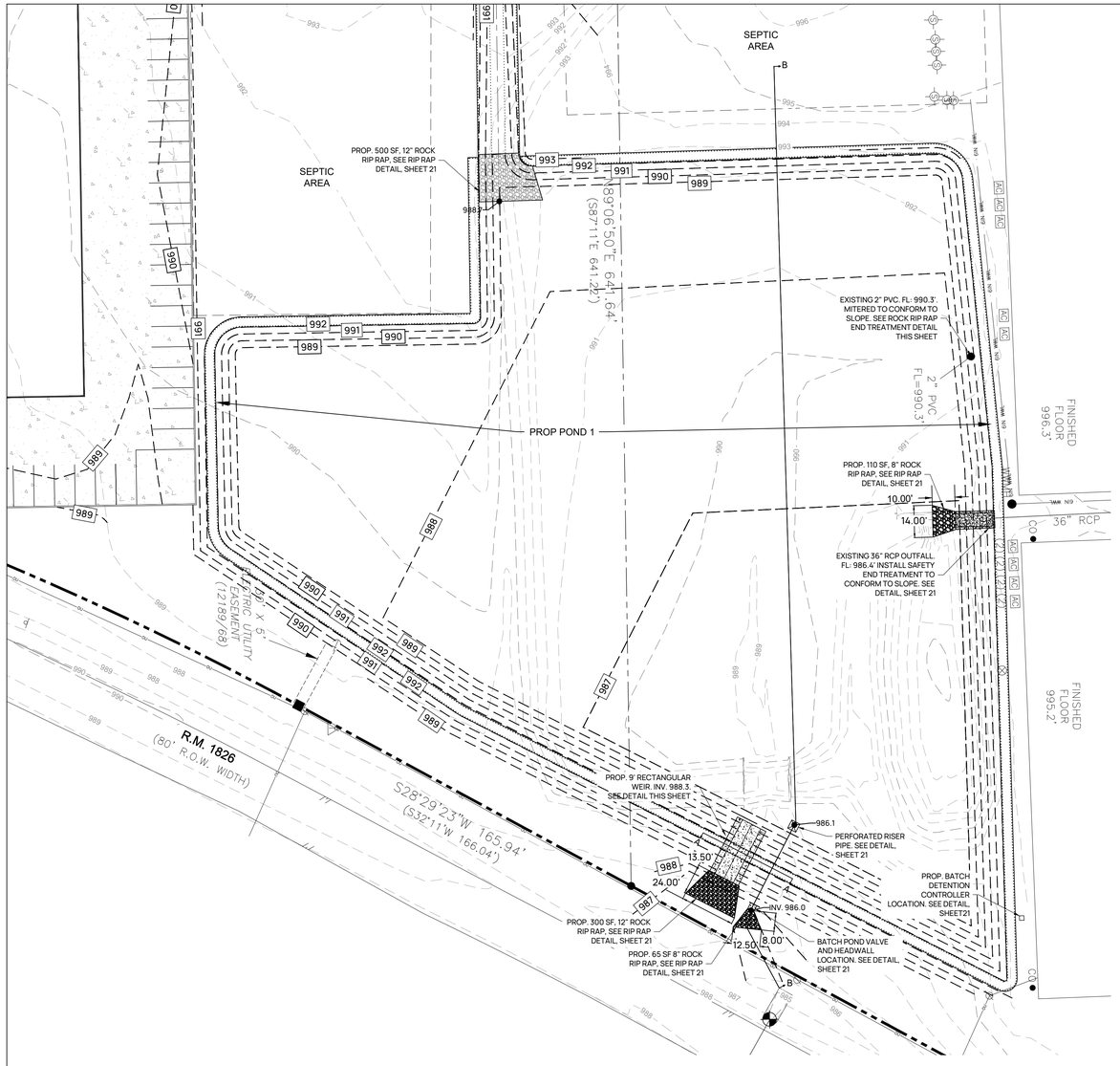
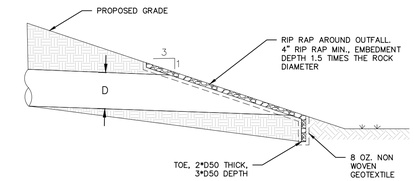
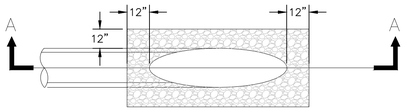




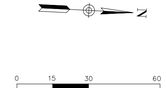
SECTION A – A



PLAN VIEW

ROCK RIP RAP END TREATMENT

N.T.S.



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Stage (ft)	Elevation (ft)	Incremental Storage (cuft)	Total Storage (cuft)
0.00	986.10	0.00	0.00
0.90	987.00	6,298.00	6,298.00
1.90	988.00	34,784.00	41,082.00
2.90	989.00	63,763.00	104,845.00
3.90	990.00	83,569.33	188,414.33
4.90	991.00	88,241.52	276,655.85
5.90	992.00	93,753.74	370,409.59

Storm Event	Stage (ft)	Storage (cuft)	Discharge (cfs)
2-yr	989.20	121,968.00	24.600
10-yr	990.00	188,414.33	59.100
25-yr	990.40	204,732.00	81.000
100-yr	991.00	276,655.85	118.200

POND 1 STAGE, STORAGE, DISCHARGE

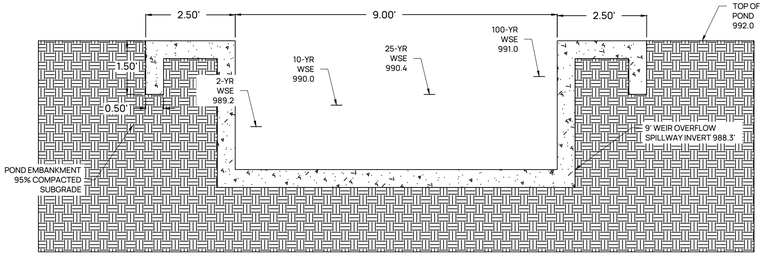
NTS

WATER QUALITY NOTES:

1. REQUIRED WATER QUALITY VOLUME IN POND 1 IS: 52,909 CF
2. PROVIDED WATER QUALITY VOLUME IN POND 1 IS: 59,417 CF AT ELEVATION 988.3

DETENTION PLAN NOTES:

1. POND WALLS SHALL BE OF WATER TIGHT DESIGN IN ORDER TO MAINTAIN PROPER FUNCTION OF THE POND.
2. THE CONSTRUCTION HEIGHT OF AN EARTHEN EMBANKMENT SHALL BE EQUAL TO THE DESIGN HEIGHT PLUS THE AMOUNT NECESSARY TO ENSURE THAT THE DESIGN HEIGHT WILL BE MAINTAINED ONCE ALL SETTLEMENT HAS TAKEN PLACE. ALL EARTHEN EMBANKMENTS SHALL BE COMPACTED TO 95% MAXIMUM DENSITY.
3. ALL ROCK RIP RAP SHALL BE A MINIMUM 6" AND HAVE A MINIMUM APRON LENGTH OF 6' UNLESS SIZE IS SPECIFIED ON THE PLANS. EMBEDMENT DEPTH OF RIP RAP SHALL BE 1.5 TIMES THE DIAMETER OF THE ROCK.
4. ALL DISTURBED AREAS SHALL BE RESTORED AND PERMANENTLY REVEGETATED UNLESS OTHERWISE NOTED IN THE PLANS.
5. AT A MINIMUM DISTURBED AREAS NEED TO BE REVEGETATED AS PER TXDOT ITEM 164 SEEDING FOR EROSION CONTROL. PLANTING MUST FOLLOW EITHER SAN ANTONIO OR AUSTIN TXDOT REQUIREMENTS FOR SEED WEIGHT PER ACRE.
6. THE PLANTED AREAS 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 ½ INCH OF MORE SHALL POSTPONE THE WATERING SCHEDULE FOR ONE WEEK.
7. REFER TO DETENTION POND DETAILS SHEETS FOR ADDITIONAL DETAILS ON POND DESIGN.
8. CONTRACTOR TO FIELD VERIFY EXISTING OUTFALLS INTO POND 1 FOR INVERT ELEVATION AND FUNCTION. ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE PLANS SHOULD BE CONVEYED TO THE ENGINEER.
9. CONTRACTOR TO ADJUST EXISTING STORM DRAINS FLOWING INTO THE PONDS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE INTO THE POND. ALL INFLOW PIPES TO THE POND ARE TO BE ARMORED WITH END TREATMENTS OR HEADWALLS FOR PERMANENT STABILIZATION.

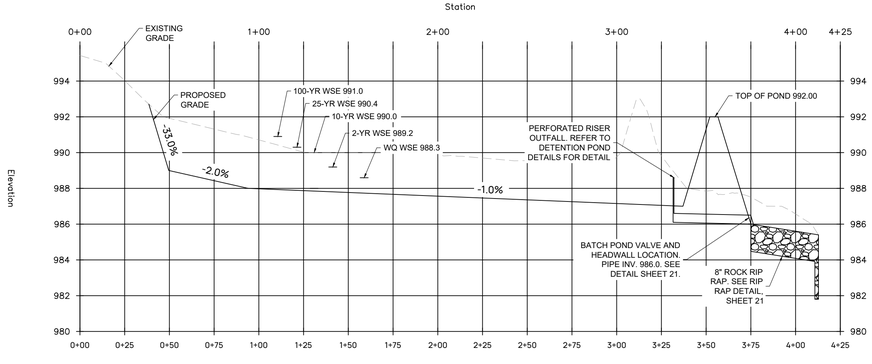


POND WEIR CROSS-SECTION A-A

N. T. S.

NOTES:

1. CONCRETE SHALL HAVE A MINIMUM THICKNESS OF 6" UNLESS NOTED OTHERWISE NOTED ON THE PLANS AND HAVE A MINIMUM OF 3,000 PSI COMPRESSIVE STRENGTH
2. CONCRETE FOR WEIR SHALL BE REINFORCED WITH #3 BARS @ 12" CENTERS
3. THICKENED TOE DOWN SHALL BE INSTALLED ON THE UP AND DOWNSTREAM ENDS OF THE WEIR STRUCTURE. TOE DOWN SHALL HAVE A MINIMUM THICKNESS OF 12" AND DEPTH OF 18"



POND 1 CROSS-SECTION B-B

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

CAUTION!

CONTRACTOR SHALL EXERCISE CAUTION DURING DEMOLITION, EXCAVATION, CLEARING AND CONSTRUCTION ACTIVITIES NEAR OVERHEAD ELECTRIC LINES. CONTRACTOR SHALL COMPLY WITH ALL SAFETY REGULATIONS WHEN OPERATING NEAR POWER LINES.

TRENCH EXCAVATION SAFETY PROTECTION

CONTRACTOR, SUB-CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE, OR STRUCTURAL/GEOTECHNICAL/SAFETY EQUIPMENT CONSULTANT, SHALL REVIEW THESE PLANS AND GEOTECHNICAL REPORT, THE INSTALLATION SITES WITHIN THE PROJECT AREA IN ORDER TO IMPLEMENT CONTRACTORS TRENCH EXCAVATION SAFETY PROTECTION PLAN, SYSTEMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM OSHA STANDARDS, SPECIFICALLY, CONTRACTOR AND/OR RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PLAN IN ACCORDANCE WITH OSHA REGULATIONS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND/OR AROUND THE EXPOSED TRENCH EXCAVATION.

DIG TESS:

CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION ACTIVITY (ON OR OFFSITE) FOR THE PROJECT.

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ROSS T. CORDER 125401 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS 10/4/24

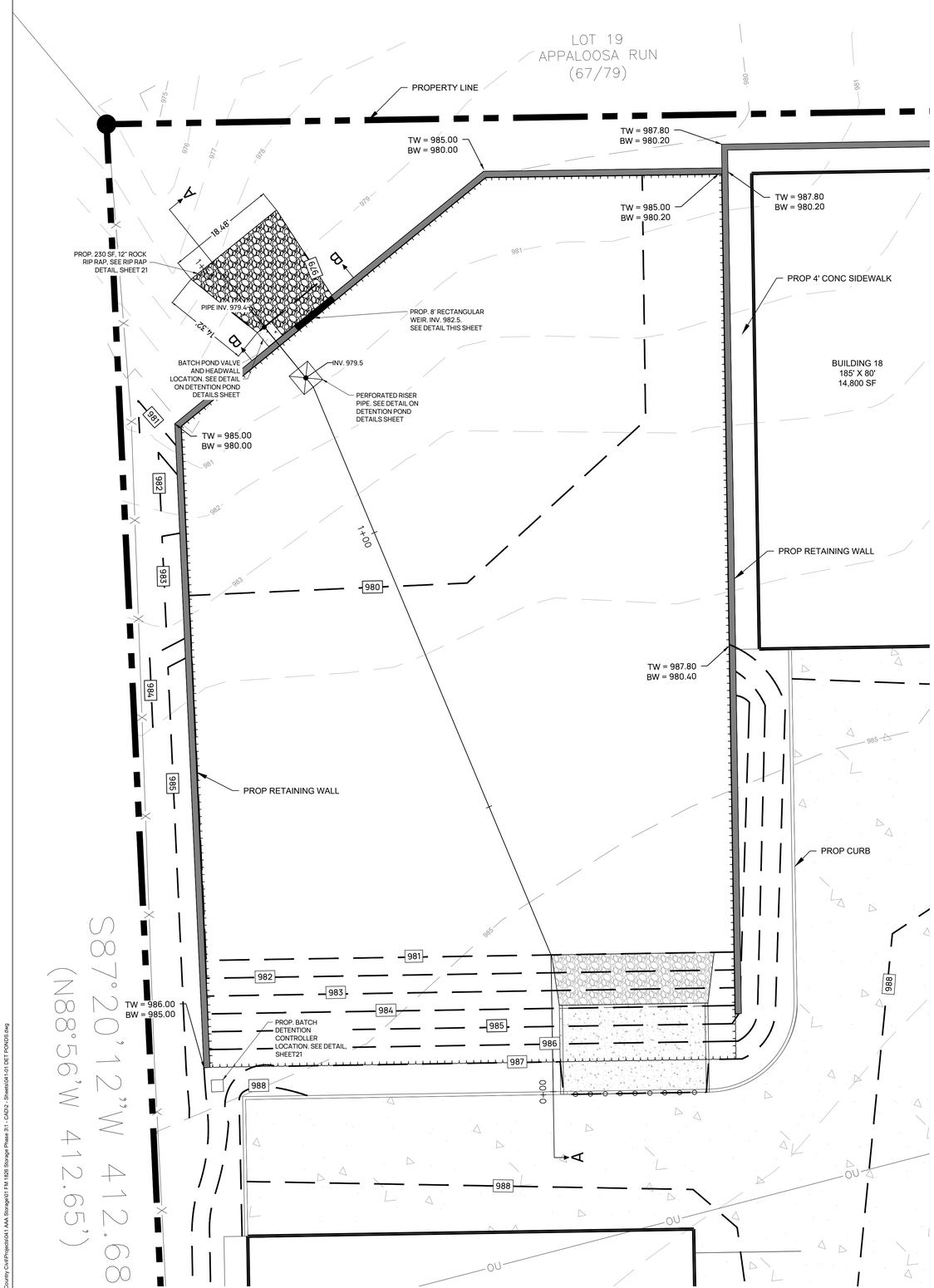
No.	Date	Revisions	App.

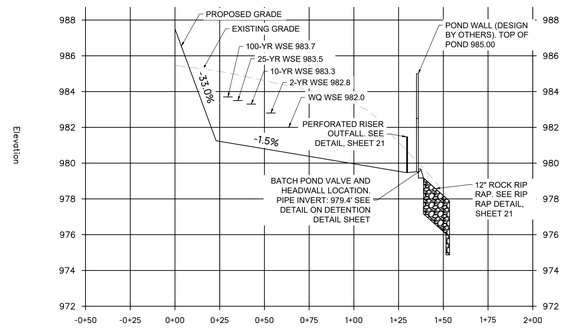
APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
17100 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY:: RTC

DETENTION POND 1

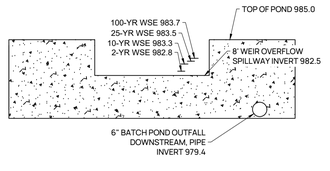
SHEET No.
19
OF 35





POND 2 CROSS-SECTION A-A

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



WEIR CROSS-SECTION B-B

NTS

Stage (ft)	Elevation (ft)	Incremental Storage (cuft)	Total Storage (cuft)
0.00	979.50	0.00	0.00
0.50	980.00	646.00	646.00
1.50	981.00	7,054.00	7,700.00
2.50	982.00	10,946.00	18,646.00
3.50	983.00	11,217.00	29,863.00
4.50	984.00	11,486.00	41,349.00
5.50	985.00	11,753.00	53,102.00

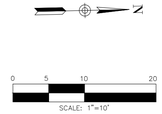
Storm Event	Stage (ft)	Storage (cuft)	Discharge (cfs)
2-yr	982.80	26,136.00	4.100
10-yr	983.30	34,847.90	17.700
25-yr	983.50	37,025.90	24.300
100-yr	983.70	39,203.90	33.300

POND 2 STAGE, STORAGE, DISCHARGE

NTS

WATER QUALITY NOTES:

1. REQUIRED WATER QUALITY VOLUME IN POND 2 IS: 8,781 CF
2. PROVIDED WATER QUALITY VOLUME IN POND 2 IS: 24,254.5 CF AT ELEVATION 982.5



LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- SETBACK LINE
- LANDSCAPE BUFFER LINE
- EASEMENT LINE
- SITE BENCHMARK
- PROPERTY CORNER
- GAS LINE
- OVERHEAD ELECTRIC LINE
- FENCE LINE
- EXISTING TREE
- SIGN
- POWER POLE
- FIRE LANE
- EXISTING FLOW ARROW
- 101 EXISTING MINOR CONTOUR
- 100 EXISTING MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- 100 PROPOSED MAJOR CONTOUR
- PROPOSED FLOW ARROW
- 600.00 PROPOSED SPOT ELEVATION
- PROPOSED DRAINAGE SWALE/CONCENTRATED FLOW PATH IN PAVED AREAS

DETENTION PLAN NOTES:

1. POND WALLS SHALL BE OF WATER TIGHT DESIGN IN ORDER TO MAINTAIN PROPER FUNCTION OF THE POND.
2. THE CONSTRUCTION HEIGHT OF AN EARTHEN EMBANKMENT SHALL BE EQUAL TO THE DESIGN HEIGHT PLUS THE AMOUNT NECESSARY TO ENSURE THAT THE DESIGN HEIGHT WILL BE MAINTAINED ONCE ALL SETTLEMENT HAS TAKEN PLACE. ALL EARTHEN EMBANKMENTS SHALL BE COMPACTED TO 95% MAXIMUM DENSITY.
3. ALL ROCK RIP RAP SHALL BE A MINIMUM 6" AND HAVE A MINIMUM APRON LENGTH OF 6' UNLESS SIZE IS SPECIFIED ON THE PLANS. EMBEDMENT DEPTH OF RIP RAP SHALL BE 1.5 TIMES THE DIAMETER OF THE ROCK.
4. ALL DISTURBED AREAS SHALL BE RESTORED AND PERMANENTLY REVEGETATED UNLESS OTHERWISE NOTED IN THE PLANS.
5. AT A MINIMUM DISTURBED AREAS NEED TO BE REVEGETATED AS PER TXDOT ITEM 164 SEEDING FOR EROSION CONTROL. PLANTING MUST FOLLOW EITHER SAN ANTONIO OR AUSTIN TXDOT REQUIREMENTS FOR SEED WEIGHT PER ACRE.
6. THE PLANTED AREAS 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 ½ INCH OF MORE SHALL POSTPONE THE WATERING SCHEDULE FOR ONE WEEK.
7. REFER TO DETENTION POND DETAILS SHEETS FOR ADDITIONAL DETAILS ON POND DESIGN.
8. CONTRACTOR TO FIELD VERIFY EXISTING OUTFALLS INTO POND 1 FOR INVERT ELEVATION AND FUNCTION. ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE PLANS SHOULD BE CONVEYED TO THE ENGINEER.
9. CONTRACTOR TO ADJUST EXISTING STORM DRAINS FLOWING INTO THE PONDS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE INTO THE POND. ALL INFLOW PIPES TO THE POND ARE TO BE ARMORED WITH END TREATMENTS OR HEADWALLS FOR PERMANENT STABILIZATION.

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STATE OF TEXAS
ROSS T. CORDER
125401
LICENSED
PROFESSIONAL ENGINEER
10/9/24

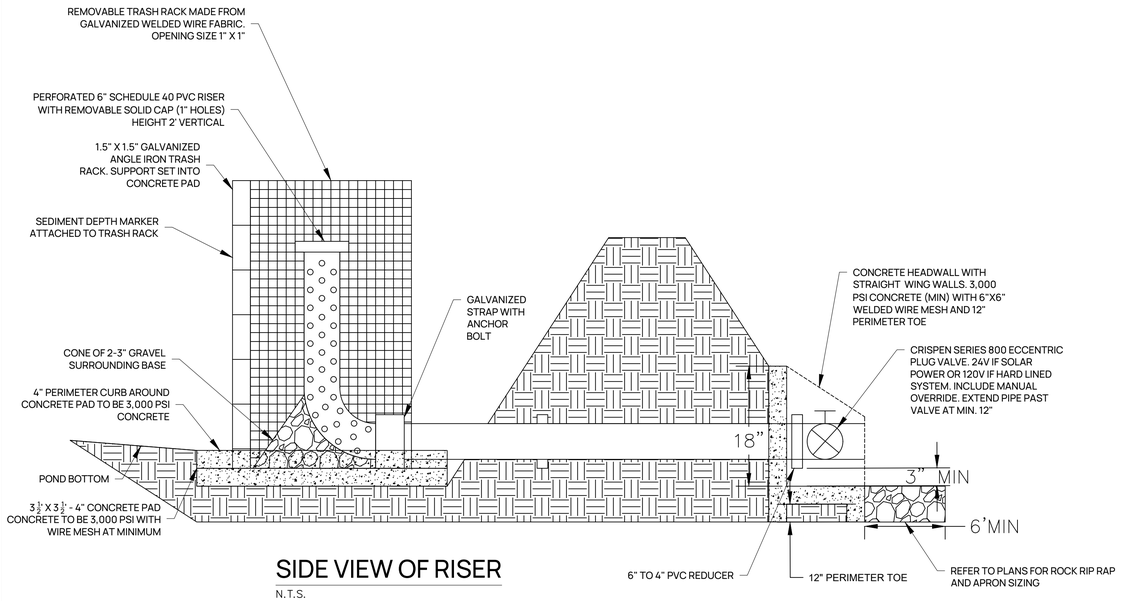
No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY: RTC

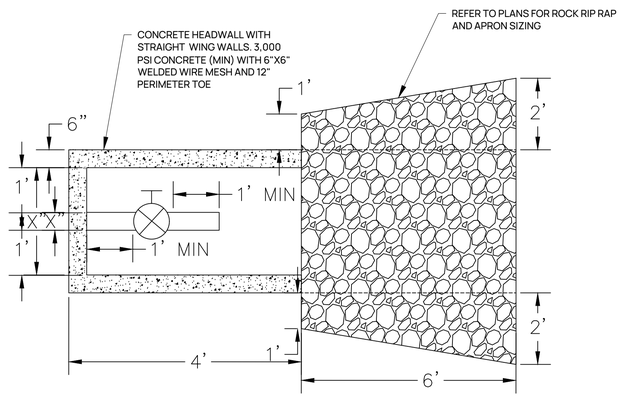
DETENTION POND 2

SHEET No.
20
OF 35



SIDE VIEW OF RISER

N.T.S.

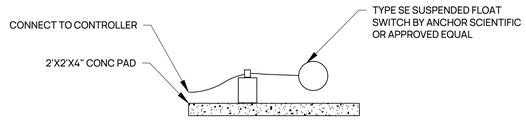


HEADWALL AND RIP RAP DETAIL

N.T.S.

NOTES

1. ROCK RIP RAP APRON SIZES SHOWN ARE MINIMUM. ADDITIONAL RIP RAP MAY BE INSTALLED IF DESIRED.
2. ROCK RIP RAP EMBEDMENT DEPTH SHALL BE AT LEAST 1.5 TIMES THE DIAMETER OF THE ROCK.

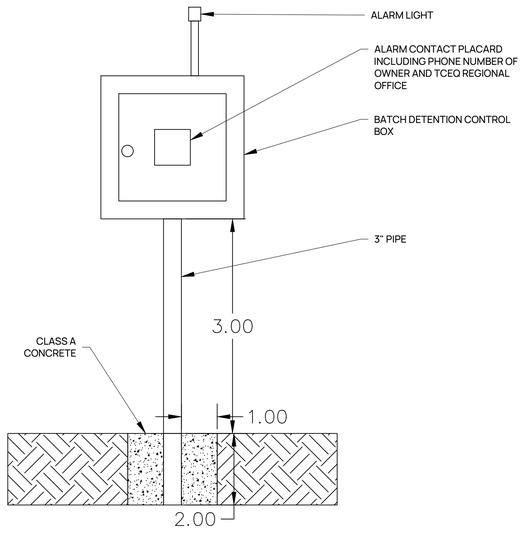


FLOAT SENSOR

N.T.S.

NOTES

1. FLOAT SWITCH TO HAVE A MAXIMUM ACTIVATION DIFFERENTIAL OF APPROXIMATELY 3.5 INCHES

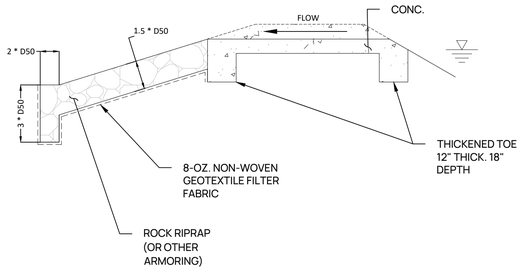


BATCH DETENTION CONTROL BOX

N.T.S.

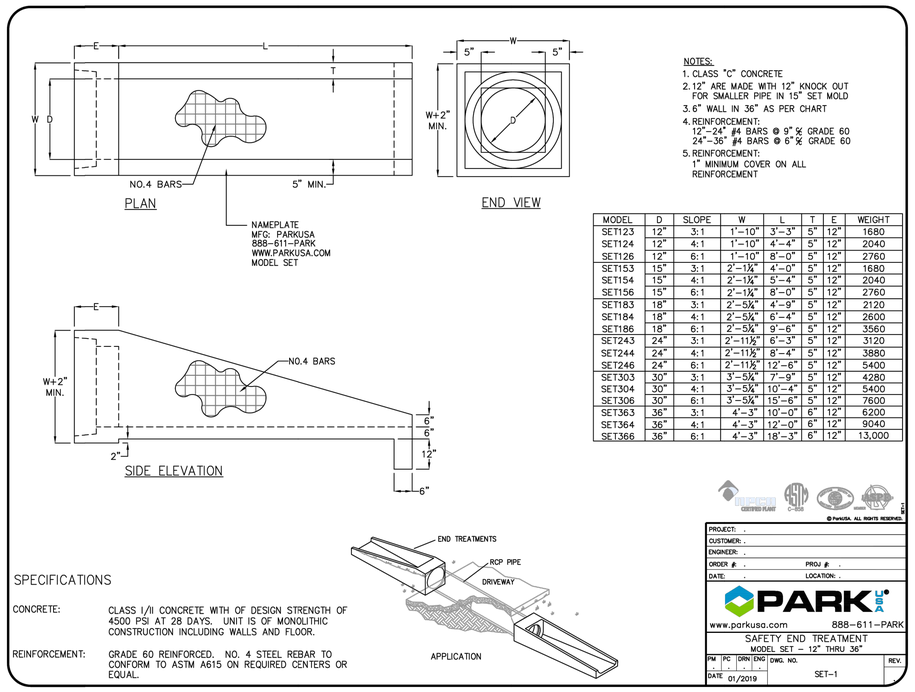
NOTES

1. 120 VAC LINE OR 24V SOLAR POWER TO BE PROVIDED TO BOX LOCATION
2. ALL CABLES TO BE PROTECTED BY CONDUIT AND BURIED TO PREVENT DAMAGE DURING MAINTENANCE ACTIVITIES
3. THE SYSTEM SHOULD BE PROGRAMMED TO BEGIN DRAINING THE STORMWATER RUNOFF FROM THE BASIN 12 HOURS AFTER THE FIRST STORMWATER RUNOFF IS SENSED BY THE FLOAT VALVE. THE SYSTEM SHOULD BE PROGRAMMED TO HAVE THE VALVE REMAIN OPEN FOR TWO HOURS AFTER THE LEVEL SENSOR INDICATES THE BASIN IS EMPTY TO ALLOW ANY REMAINING SHALLOW WATER TO BE DISCHARGED. THE SYSTEM SHOULD PROVIDE THE FOLLOWING: A TEST SEQUENCE, BE ABLE TO DEAL WITH LOW BATTERY/POWER OUTAGES, AN ON/OFF/RESET SWITCH, MANUAL OPEN/CLOSE SWITCHES (MAINTENANCE/SPILL), CLEARLY VISIBLE EXTERNAL INDICATOR TO INDICATE A CYCLE IS IN PROGRESS, AND ABILITY TO EXERCISE THE VALVE TO PREVENT SEIZING.



POND WEIR CROSS-SECTION & RIP RAP TYP.

N.T.S.



MODEL	D	SLOPE	W	L	T	E	WEIGHT
SET123	12"	3:1	1'-10"	3'-3"	5"	12"	1680
SET124	12"	4:1	1'-10"	4'-4"	5"	12"	2040
SET126	12"	6:1	1'-10"	8'-0"	5"	12"	2760
SET153	15"	3:1	2'-1¼"	4'-0"	5"	12"	1680
SET154	15"	4:1	2'-1¼"	5'-4"	5"	12"	2040
SET156	15"	6:1	2'-1¼"	8'-0"	5"	12"	2760
SET183	18"	3:1	2'-5¾"	4'-9"	5"	12"	2120
SET184	18"	4:1	2'-5¾"	6'-4"	5"	12"	2600
SET186	18"	6:1	2'-5¾"	9'-6"	5"	12"	3560
SET243	24"	3:1	2'-11½"	6'-3"	5"	12"	3120
SET244	24"	4:1	2'-11½"	8'-4"	5"	12"	3880
SET246	24"	6:1	2'-11½"	12'-6"	5"	12"	5400
SET303	30"	3:1	3'-5¾"	7'-9"	5"	12"	4280
SET304	30"	4:1	3'-5¾"	10'-4"	5"	12"	5400
SET306	30"	6:1	3'-5¾"	15'-6"	5"	12"	7600
SET363	36"	3:1	4'-3"	10'-0"	6"	12"	6200
SET364	36"	4:1	4'-3"	12'-0"	6"	12"	9040
SET366	36"	6:1	4'-3"	18'-3"	6"	12"	13,000

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ROSS T. CORDER 125401 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS 10/4/24

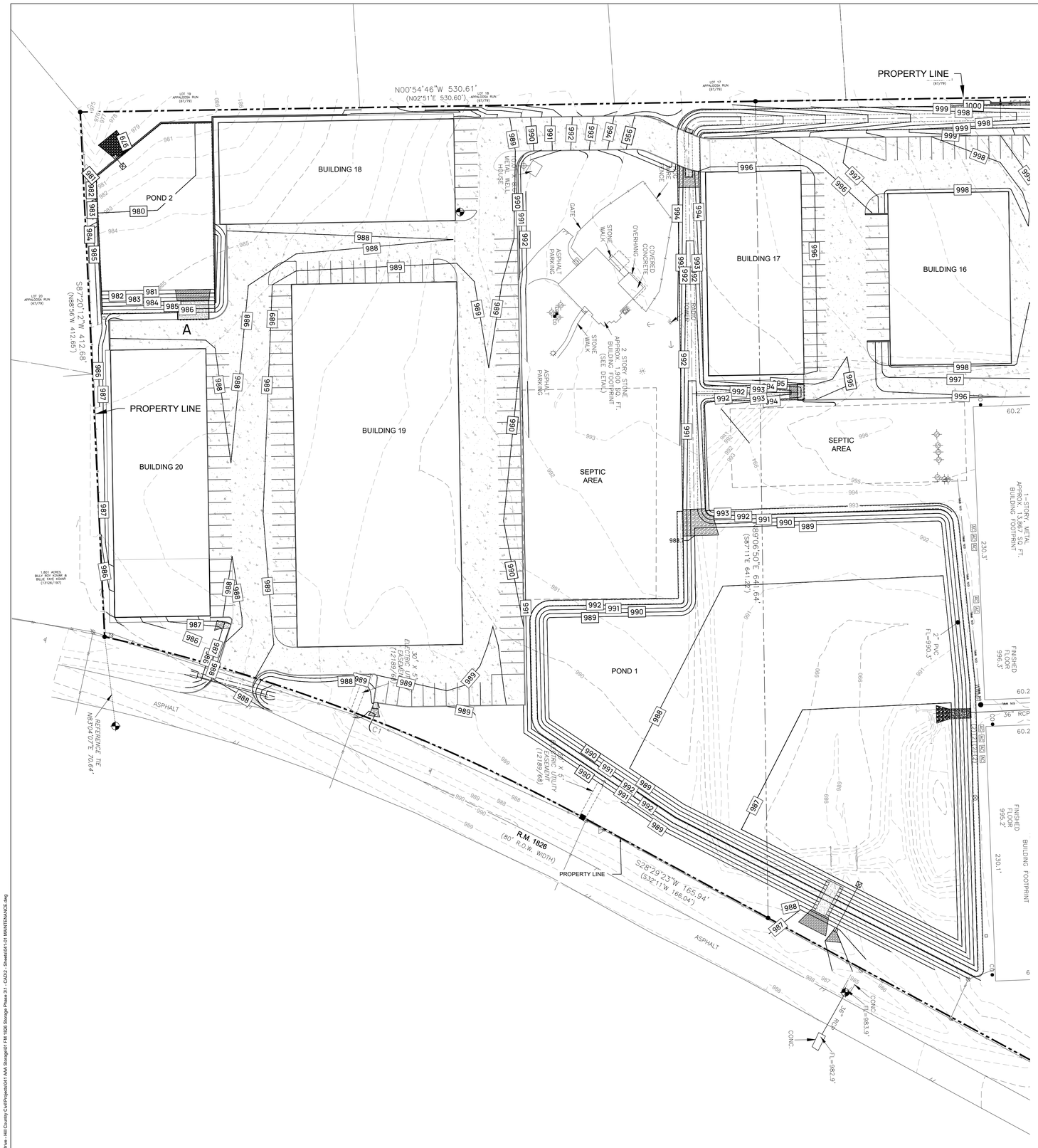
No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 R.M.1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY: RTC

DETENTION POND DETAILS

SHEET No. 21 OF 35



DETENTION POND MAINTENANCE NOTES:

PEST MANAGEMENT:

AN INTEGRATED PEST MANAGEMENT PLAN SHOULD BE DEVELOPED FOR VEGETATED AREAS. THIS PLAN SHOULD SPECIFY HOW PROBLEM INSECTS AND WEEDS WILL BE CONTROLLED WITH MINIMAL OR NO USE OF INSECTICIDES AND HERBICIDES. IT SHOULD ALSO ADDRESS THE MAINTAINING OF PROPER DRAINAGE FOR THE SITE THROUGH THE BATCH DETENTION PONDS.

SEASONAL MOWING AND LAWN CARE:

THE BASIN, BASIN SIDE-SLOPES AND EMBANKMENT OF THE BASIN MUST BE MOWED TO PREVENT WOODY GROWTH AND CONTROL WEEDS. A MULCHING MOWER SHOULD BE USED, OR THE GRASS CLIPPINGS SHOULD BE CAUGHT AND REMOVED. MOWING SHOULD TAKE PLACE AT LEAST TWICE A YEAR, OR MORE FREQUENTLY IF VEGETATION EXCEEDS 18 INCHES IN HEIGHT. MORE FREQUENT MOWING TO MAINTAIN AESTHETIC APPEAL MAY BE NECESSARY IN LANDSCAPED AREAS.

INSPECTION AND MAINTENANCE/REPAIR:

INSPECTIONS SHOULD TAKE PLACE A MINIMUM OF TWICE A YEAR. ONCE INSPECTION SHOULD TAKE PLACE DURING WET WEATHER TO DETERMINE IF THE BASIN IS MEETING THE TARGET DETENTION TIME OF 12 HOURS AND A DRAWDOWN TIME OF NO MORE THAN 48 HOURS. THE REMAINING INSPECTIONS SHOULD OCCUR BETWEEN STORM EVENT SO THAT MANUAL OPERATION OF THE VALVE AND CONTROLLER CAN BE VERIFIED. THE LEVEL SENSOR IN THE BASIN SHOULD BE INSPECTED AND ANY DEBRIS OR SEDIMENT IN THE AREA SHOULD BE REMOVED. THE OUTLET STRUCTURE AND THE TRASH SCREEN SHOULD BE INSPECTED FOR SIGNS OF CLOGGING. DEBRIS AND SEDIMENT SHOULD BE REMOVED FROM THE ORIFICE AND OUTLET AS DESCRIBED IN PREVIOUS SECTIONS. DEBRIS OBSTRUCTING THE VALVE SHOULD BE REMOVED. DURING EACH INSPECTION, EROSION AREAS INSIDE AND DOWNSTREAM OF THIS BMP SHOULD BE IDENTIFIED AND REPAIRED/REVEGETATED IMMEDIATELY. IN ADDITION, ELECTRICAL CONTROL SYSTEM SHOULD BE INCLUDED IN THE INSPECTION SCHEDULE. IF THE VALVE IS DAMAGED OR NOT FUNCTIONING TO ACHIEVE THE REQUIRED DRAWDOWN TIME, THEN THE VALVE SHOULD BE REPAIRED OR REPLACED.

DEBRIS AND LITTER REMOVAL:

LITTER AND DEBRIS REMOVAL SHOULD TAKE PLACE AT LEAST TWICE A YEAR, AS PART OF THE PERIODIC MOWING OPERATIONS AND INSPECTIONS. DEBRIS AND LITTER SHOULD BE REMOVED FROM THE SURFACE OF THE BASIN. PARTICULAR ATTENTION SHOULD BE PAID TO FLOATABLE DEBRIS AROUND THE OUTLET STRUCTURE. THE OUTLET SHOULD BE CHECKED FOR THE POSSIBLE CLOGGING OR OBSTRUCTIONS AND ANY DEBRIS REMOVED.

SEDIMENT REMOVAL:

SEDIMENT ACCUMULATING NEAR CULVERTS AND IN CHANNELS NEEDS TO BE REMOVED WHEN THEY BUILD UP TO 3 INCHES AT ANY SPOT. EXCESS SEDIMENT SHOULD BE REMOVED BY HAND OR WITH FLAT-BOTTOMED SHOVELS. IF AREAS ARE ERODED, THEY SHOULD BE FILLED, COMPACTED TO FINAL GRADE. SEDIMENT REMOVAL SHOULD BE PERFORMED PERIODICALLY, AS DETERMINED THROUGH INSPECTION.

PUBLIC EDUCATION:

THE DELEGATION OF MAINTENANCE RESPONSIBILITIES IS FOR THE LANDOWNER. HOWEVER, LOCALITIES SHOULD PROVIDE AN ACTIVE EDUCATIONAL PROGRAM TO ENCOURAGE THE RECOMMENDED PRACTICES. LANDSCAPERS FOR THE SITE WILL ALSO NEED TO BE EDUCATED ON THE SUITABLE PRACTICES FOR LAWN UP KEEP THROUGHOUT THE YEAR WITH LIMITED AMOUNT OF THE PESTICIDES OR FERTILIZER.

0 20 40 80
SCALE: 1"=40'

LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- SETBACK LINE
- LANDSCAPE BUFFER LINE
- EASEMENT LINE
- SITE BENCHMARK
- PROPERTY CORNER
- GAS LINE
- OVERHEAD ELECTRIC LINE
- FENCE LINE
- EXISTING TREE
- SIGN
- POWER POLE
- FIRE LANE
- EXISTING FLOW ARROW
- 101 EXISTING MINOR CONTOUR
- 100 EXISTING MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- 100 PROPOSED MAJOR CONTOUR
- PROPOSED FLOW ARROW
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No.	Date	Revisions

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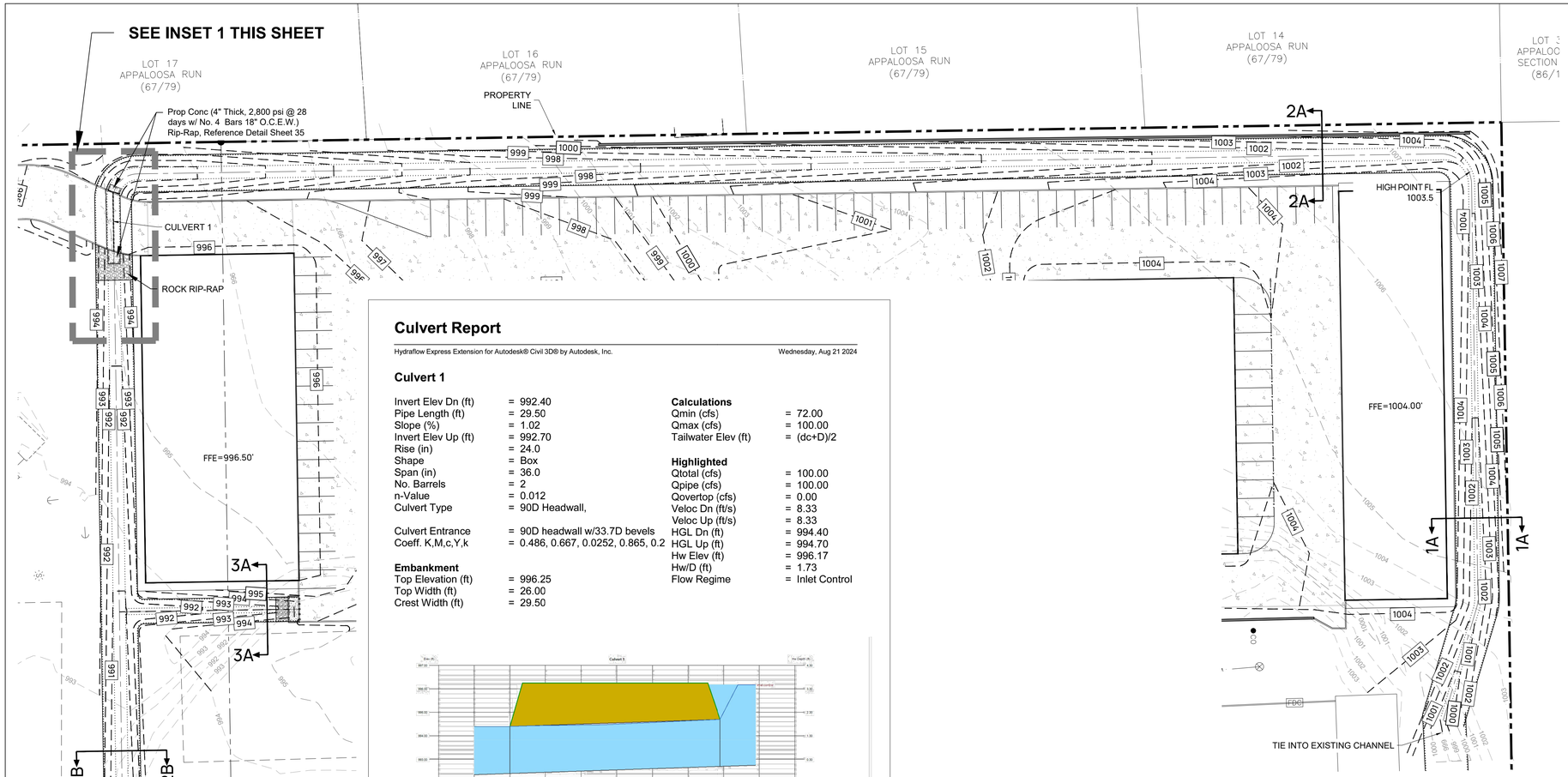
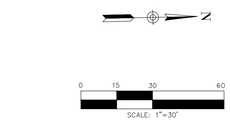
HCC JOB No.: 041-01 DRAWN BY: RTC

MAINTENANCE PLAN

SHEET No.
22
OF 35





LEGEND

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- EXISTING FLOW ARROW
- 101 EXISTING MINOR CONTOUR
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- 101 PROPOSED MINOR CONTOUR
- 100 PROPOSED MAJOR CONTOUR
- PROPOSED FLOW ARROW
- 600.00 PROPOSED SPOT ELEVATION
- PROPOSED DRAINAGE SWALE/CONCENTRATED FLOW PATH IN PAVED AREAS

Culvert Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Aug 21 2024

Culvert 1

Invert Elev Dn (ft)	= 992.40
Pipe Length (ft)	= 29.50
Slope (%)	= 1.02
Invert Elev Up (ft)	= 992.70
Rise (in)	= 24.0
Shape	= Box
Span (in)	= 36.0
No. Barrels	= 2
n-Value	= 0.012
Culvert Type	= 90D Headwall,
Culvert Entrance	= 90D headwall w/33.7D bevels
Coeff. K,M,c,Y,k	= 0.486, 0.667, 0.0252, 0.865, 0.2

Embankment

Top Elevation (ft)	= 996.25
Top Width (ft)	= 26.00
Crest Width (ft)	= 29.50

Calculations

Qmin (cfs)	= 72.00
Qmax (cfs)	= 100.00
Tailwater Elev (ft)	= (dc+D)/2

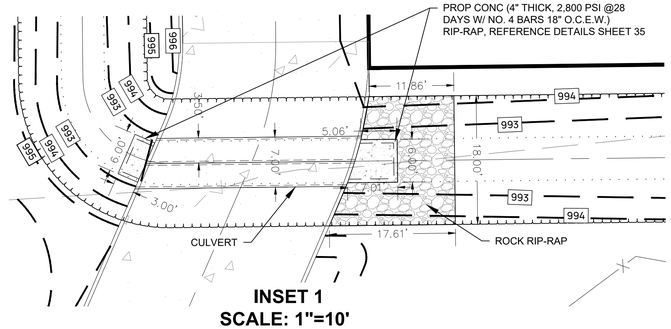
Highlighted

Qtotal (cfs)	= 100.00
Qpipe (cfs)	= 100.00
Qovertop (cfs)	= 0.00
Veloc Dn (ft/s)	= 8.33
Veloc Up (ft/s)	= 8.33
HGL Dn (ft)	= 994.40
HGL Up (ft)	= 994.70
Hw Elev (ft)	= 996.17
Hw/D (ft)	= 1.73
Flow Regime	= Inlet Control

CULVERT 1

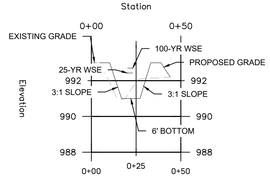
AREA (AC)	TC (MIN)	SLOPE (%)	BOTTOM (FT)	C	HEIGHT (FT)
11.22	16.8	1.02	6	0.04	2

STORM (YR)	2	10	25	100
FLOW (CFS)	29.7	54.9	72.1	100
VELOCITY (FT/S)	3.4	5.42	6.59	8.33
DEPTH (FT)	1.41	2.25	2.63	3.47



INSET 1
SCALE: 1"=10'

Alignment - CROSS SECTION 2B PROFILE

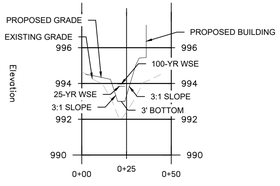


CHANNEL CROSS-SECTION 2B

AREA (AC)	TC (MIN)	SLOPE (%)	BOTTOM (FT)	C	HEIGHT (FT)
13.91	16.8	1.2	6	0.04	2

STORM (YR)	2	10	25	100
FLOW (CFS)	38.4	69.1	89.9	123.5
VELOCITY (FT/S)	3.25	3.92	4.25	4.64
DEPTH (FT)	0.9	1.24	1.43	1.7

Alignment - CROSS SECTION 3A PROFILE

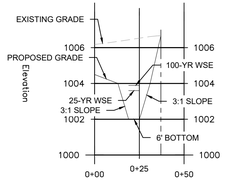


CHANNEL CROSS-SECTION 3A

AREA (AC)	TC (MIN)	SLOPE (%)	BOTTOM (FT)	C	HEIGHT (FT)
2.69	5	2.7	3	0.04	1.5

STORM (YR)	2	10	25	100
FLOW (CFS)	11.7	18.6	23.3	30.9
VELOCITY (FT/S)	3.47	3.98	4.19	4.53
DEPTH (FT)	0.58	0.74	0.84	0.97

Alignment - CROSS SECTION 2A PROFILE

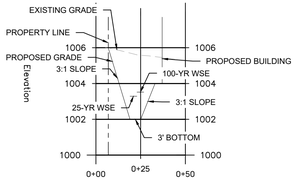


CHANNEL CROSS-SECTION 2A

AREA (AC)	TC (MIN)	SLOPE (%)	BOTTOM (FT)	C	HEIGHT (FT)
11.22	16.8	1.2	6	0.04	2

STORM (YR)	2	10	25	100
FLOW (CFS)	29.7	54.9	72.1	100
VELOCITY (FT/S)	3.31	3.98	4.29	4.68
DEPTH (FT)	1.01	1.39	1.6	1.89

Alignment - CROSS SECTION 1A PROFILE



CHANNEL CROSS-SECTION 1A

AREA (AC)	TC (MIN)	SLOPE (%)	BOTTOM (FT)	C	HEIGHT (FT)
7.29	16	1	3	0.04	2

STORM (YR)	2	10	25	100
FLOW (CFS)	19.1	35.3	46.4	64.2
VELOCITY (FT/S)	2.62	3.13	3.41	3.72
DEPTH (FT)	0.82	1.13	1.29	1.52

CAUTION!

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TRENCH EXCAVATION SAFETY PROTECTION

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DIG TESS:

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ROSS T. CORDER
STATE OF TEXAS
125401
LICENSED
PROFESSIONAL ENGINEER
8/29/24

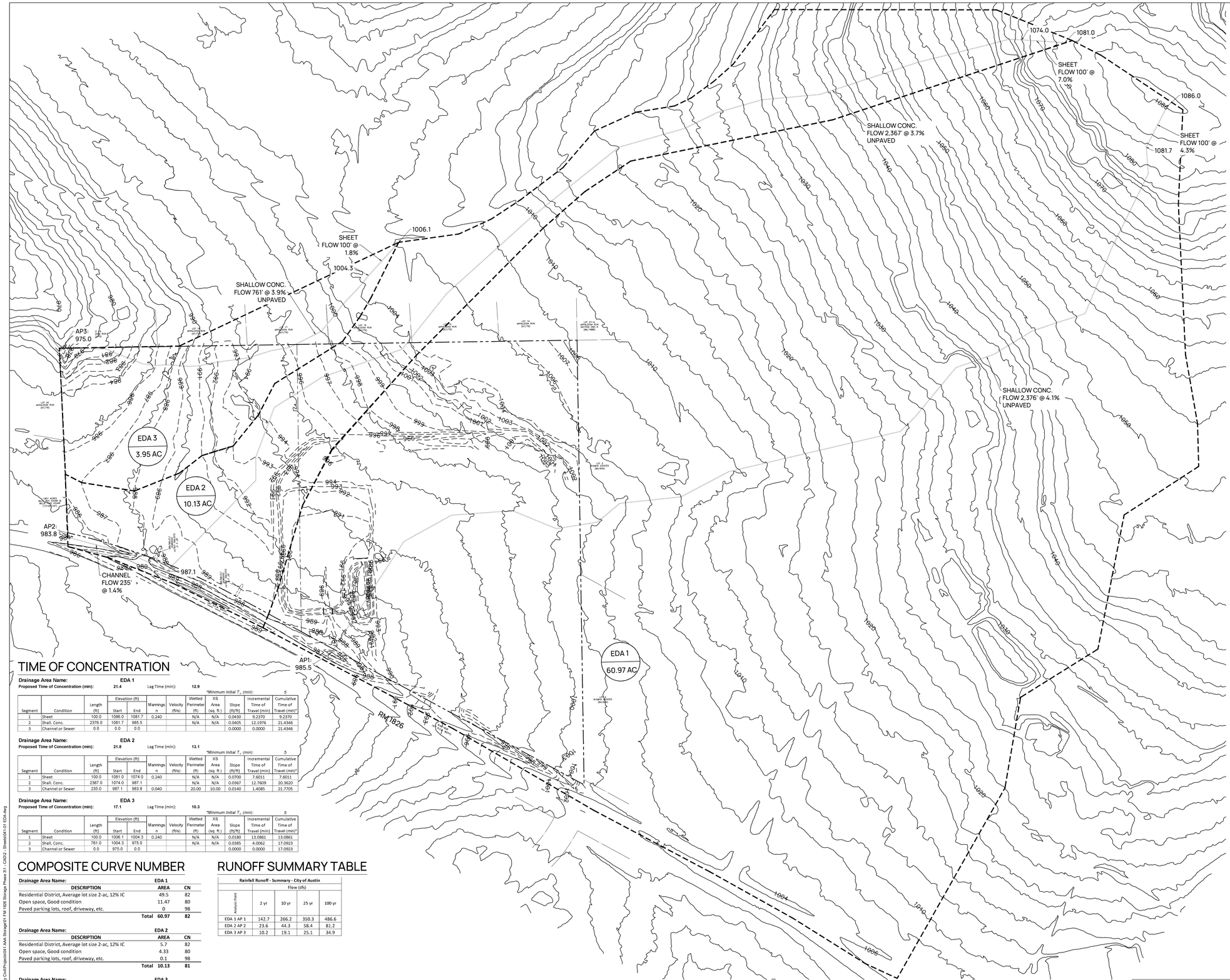
No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 04-1-01 DRAWN BY:: RTC

CHANNEL 1A DETAILS

SHEET No.
23
OF 35



0 50 100 200

SCALE: 1"=100'

LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- SETBACK LINE
- LANDSCAPE BUFFER LINE
- EASEMENT LINE
- SITE BENCHMARK
- PROPERTY CORNER
- GAS — GAS LINE
- OE — OVERHEAD ELECTRIC LINE
- X — FENCE LINE
- EXISTING TREE
- SIGN
- POWER POLE
- FIRE LANE
- 101 — EXISTING MINOR CONTOUR
- 100 — EXISTING MAJOR CONTOUR
- TIME OF CONCENTRATION
- DRAINAGE AREA BOUNDARY
- DA # / ACRES — DRAINAGE AREA LABEL

TIME OF CONCENTRATION

Drainage Area Name: EDA 1
Proposed Time of Concentration (min): 21.4 Lag Time (min): 12.9

*Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	1086.0	1081.7	0.240		N/A	N/A	0.0430	9.2370	9.2370
2	Shall. Conc.	2376.0	1081.7	985.5			N/A	N/A	0.0405	12.1976	21.4346
3	Channel or Sewer	0.0	0.0	0.0					0.0000	0.0000	21.4346

Drainage Area Name: EDA 2
Proposed Time of Concentration (min): 21.8 Lag Time (min): 13.1

*Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	1081.0	1074.0	0.240		N/A	N/A	0.0700	7.6011	7.6011
2	Shall. Conc.	2387.0	1074.0	987.1			N/A	N/A	0.0367	12.7609	20.3620
3	Channel or Sewer	235.0	987.1	983.8	0.040		20.00	10.00	0.0140	1.4085	21.7705

Drainage Area Name: EDA 3
Proposed Time of Concentration (min): 17.1 Lag Time (min): 10.3

*Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	1006.1	1004.3	0.240		N/A	N/A	0.0180	13.0861	13.0861
2	Shall. Conc.	761.0	1004.3	975.0			N/A	N/A	0.0385	4.0062	17.0923
3	Channel or Sewer	0.0	975.0	0.0					0.0000	0.0000	17.0923

COMPOSITE CURVE NUMBER

Drainage Area Name: EDA 1

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	49.5	82
Open space, Good condition	11.47	80
Paved parking lots, roof, driveway, etc.	0	98
Total	60.97	82

Drainage Area Name: EDA 2

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	5.7	82
Open space, Good condition	4.33	80
Paved parking lots, roof, driveway, etc.	0.1	98
Total	10.13	81

Drainage Area Name: EDA 3

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	0.96	82
Open space, Good condition	2.82	80
Paved parking lots, roof, driveway, etc.	0.17	98
Total	3.95	81

RUNOFF SUMMARY TABLE

Rainfall Runoff - Summary - City of Austin

Analysis Point	Flow (cfs) 2 yr	10 yr	25 yr	100 yr
EDA 1 AP 1	142.7	266.2	350.3	486.6
EDA 2 AP 2	23.6	44.3	58.4	81.2
EDA 3 AP 3	10.2	19.1	25.1	34.9

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LICENSED PROFESSIONAL ENGINEER
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10/9/24

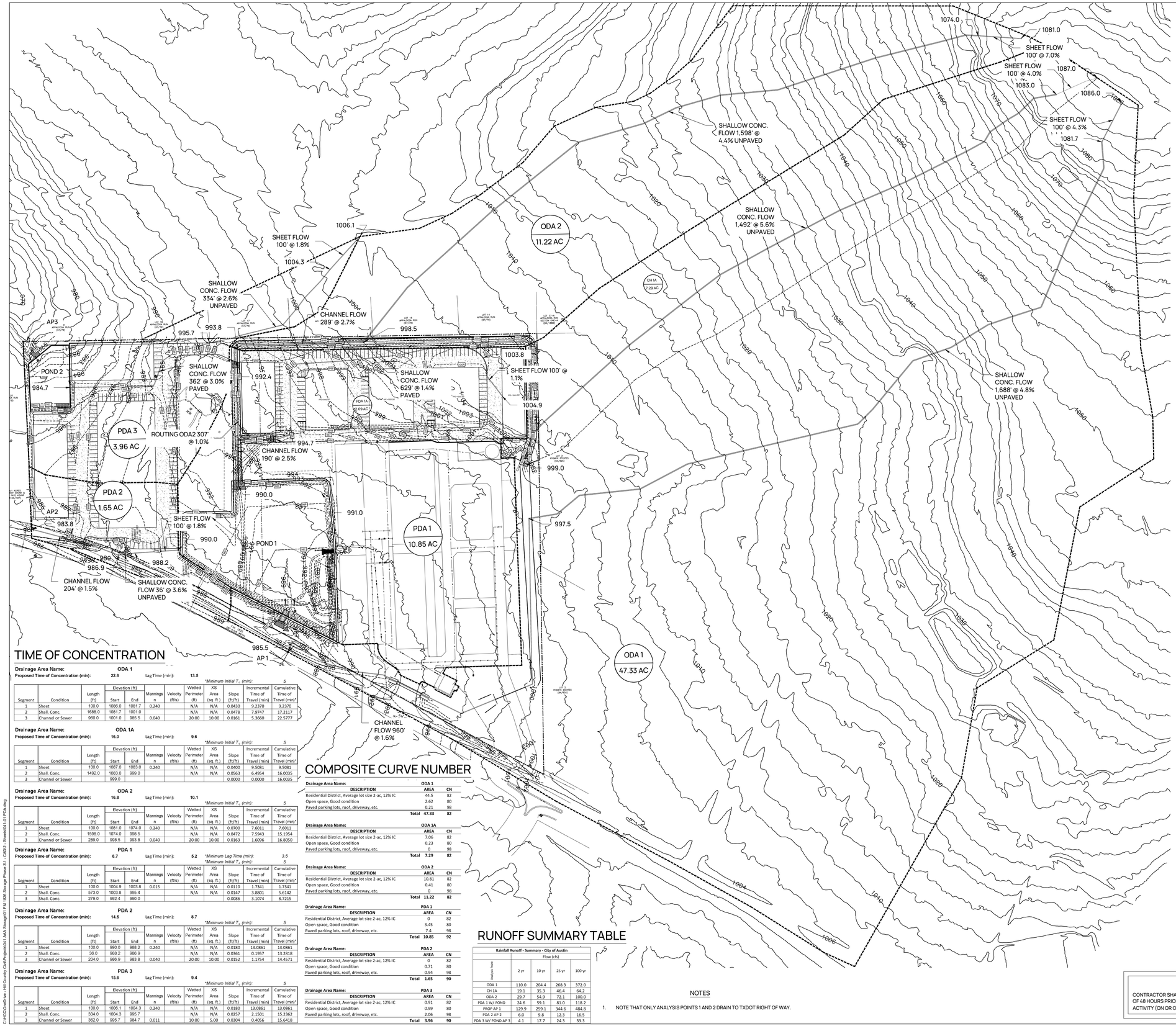
No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY: RTC

EXISTING DRAINAGE AREA MAP

SHEET No. 24 OF 35



TIME OF CONCENTRATION

Drainage Area Name: ODA 1
Proposed Time of Concentration (min): 22.6 Lag Time (min): 13.5 *Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	1086.0	1081.7	0.240		N/A	N/A	0.0430	9.2370	9.2370
2	Shall. Conc.	1688.0	1081.7	1001.0			N/A	N/A	0.0478	7.9747	17.2117
3	Channel or Sewer	960.0	1001.0	985.5	0.040		20.00	10.00	0.0161	5.3660	22.5777

Drainage Area Name: ODA 1A
Proposed Time of Concentration (min): 16.0 Lag Time (min): 9.6 *Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	1087.0	1083.0	0.240		N/A	N/A	0.0400	9.5081	9.5081
2	Shall. Conc.	1492.0	1083.0	999.0			N/A	N/A	0.0563	6.4954	16.0035
3	Channel or Sewer		999.0						0.0000	0.0000	16.0035

Drainage Area Name: ODA 2
Proposed Time of Concentration (min): 16.8 Lag Time (min): 10.1 *Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	1081.0	1074.0	0.240		N/A	N/A	0.0700	7.6011	7.6011
2	Shall. Conc.	1598.0	1074.0	998.5			N/A	N/A	0.0472	7.5943	15.1954
3	Channel or Sewer	289.0	998.5	993.8	0.040		20.00	10.00	0.0163	1.6096	16.8050

Drainage Area Name: PDA 1
Proposed Time of Concentration (min): 8.7 Lag Time (min): 5.2 *Minimum Lag Time (min): 3.5 *Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	1004.9	1003.8	0.015		N/A	N/A	0.0110	1.7341	1.7341
2	Shall. Conc.	573.0	1003.8	995.4			N/A	N/A	0.0147	3.8801	5.6142
3	Shall. Conc.	279.0	992.4	990.0					0.0086	3.1074	8.7215

Drainage Area Name: PDA 2
Proposed Time of Concentration (min): 14.5 Lag Time (min): 8.7 *Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	990.0	988.2	0.240		N/A	N/A	0.0180	13.0861	13.0861
2	Shall. Conc.	36.0	988.2	986.9			N/A	N/A	0.0361	0.1957	13.2818
3	Channel or Sewer	204.0	986.9	983.8	0.040		20.00	10.00	0.0152	1.1754	14.4571

Drainage Area Name: PDA 3
Proposed Time of Concentration (min): 15.6 Lag Time (min): 9.4 *Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	1006.1	1004.3	0.240		N/A	N/A	0.0180	13.0861	13.0861
2	Shall. Conc.	334.0	1004.3	995.7			N/A	N/A	0.0257	2.1501	15.2362
3	Channel or Sewer	362.0	995.7	984.7	0.011		10.00	5.00	0.0304	0.4056	15.6418

COMPOSITE CURVE NUMBER

Drainage Area Name: ODA 1

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	44.5	82
Open space, Good condition	2.62	80
Paved parking lots, roof, driveway, etc.	0.21	98
Total	**47.33**	**82**

Drainage Area Name: ODA 1A

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	7.06	82
Open space, Good condition	0.23	80
Paved parking lots, roof, driveway, etc.	0	98
Total	**7.29**	**82**

Drainage Area Name: ODA 2

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	10.81	82
Open space, Good condition	0.41	80
Paved parking lots, roof, driveway, etc.	0	98
Total	**11.22**	**82**

Drainage Area Name: PDA 1

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	0	82
Open space, Good condition	3.45	80
Paved parking lots, roof, driveway, etc.	7.4	98
Total	**10.85**	**92**

Drainage Area Name: PDA 2

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	0	82
Open space, Good condition	0.71	80
Paved parking lots, roof, driveway, etc.	0.94	98
Total	**1.65**	**90**

Drainage Area Name: PDA 3

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	0.91	82
Open space, Good condition	0.99	80
Paved parking lots, roof, driveway, etc.	2.06	98
Total	**3.96**	**90**

RUNOFF SUMMARY TABLE

Rainfall Runoff - Summary - City of Austin

Analysis Point	Flow (cfs) 2 yr	10 yr	25 yr	100 yr
ODA 1	110.0	204.4	268.3	372.0
CH 1A	19.1	35.3	46.4	64.2
ODA 2	29.7	54.9	72.1	100.0
PDA 1 W/ POND	24.6	59.1	81.0	118.2
PROP AP 1	129.9	259.1	344.6	484.8
PDA 2 AP 2	6.0	9.8	12.3	16.5
PDA 3 W/ POND AP 3	4.1	17.7	24.3	33.3

NOTES

1. NOTE THAT ONLY ANALYSIS POINTS 1 AND 2 DRAIN TO TXDOT RIGHT OF WAY.

LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- SETBACK LINE
- LANDSCAPE BUFFER LINE
- EASEMENT LINE
- SITE BENCHMARK
- PROPERTY CORNER
- GAS LINE
- OVERHEAD ELECTRIC LINE
- FENCE LINE
- EXISTING TREE
- SIGN
- POWER POLE
- FIRE LANE
- 101 EXISTING MINOR CONTOUR
- 100 EXISTING MAJOR CONTOUR
- TIME OF CONCENTRATION
- DRAINAGE AREA BOUNDARY
- DA # / ACRES DRAINAGE AREA LABEL

DRAINAGE PLAN NOTES

1. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL BUILDING, SAFETY, AND INSPECTION REGULATIONS.
2. CONTRACTOR SHALL KEEP A COPY OF APPROVED CONSTRUCTION DRAWINGS ONSITE AT ALL TIMES.
3. PROPERTY LIES IN UNSHADED ZONE "X" AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR TRAVIS COUNTY, TEXAS AND INCORPORATED AREAS, MAP NO.48453C0560J.
4. DRAINAGE FOR THIS DEVELOPMENT HAS BEEN DESIGNED SUCH THAT THERE WILL BE NO ADVERSE IMPACTS ON THE CAPACITY, FUNCTION OR INTEGRITY OF TEXAS DEPARTMENT OF TRANSPORTATION RIGHT OF WAY DRAINAGE FACILITIES.
5. DRAINAGE AREA CH 1A AND PDA 1A ARE SUB-DRAINAGE AREAS DELINEATED TO SIZE STORM STRUCTURES WITHIN THE DEVELOPMENT. THESE AREAS ARE ACCOUNTED FOR IN THE OVERALL DRAINAGE AREAS ACREAGE IN ODA 1 AND PDA 1.

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No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 FM 1626
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY: RTC

PROPOSED DRAINAGE AREA MAP

SHEET No. 25 OF 35

LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- EASEMENT LINE
- SITE BENCHMARK
- PROPERTY CORNER
- GAS LINE
- OVERHEAD ELECTRIC LINE
- FENCE LINE
- EXISTING TREE
- SIGN
- POWER POLE
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR

SCALE: 1"=40'

AREA DISTURBED BY SLOPE CLASS

15–25% – 0 SF TOTAL – 0 SF DISTURBED – 4% OF TOTAL
25–35% – 0 SF TOTAL – 0 SF DISTURBED – 0% OF TOTAL
35% OR GREATER – 0 SF TOTAL – 0 SF DISTURBED – 0% OF TOTAL

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ROSS T. CORDER
125401
LICENSED PROFESSIONAL ENGINEER
10/4/24

No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4

12100 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01

DRAWN BY.: RTC

SLOPE MAP

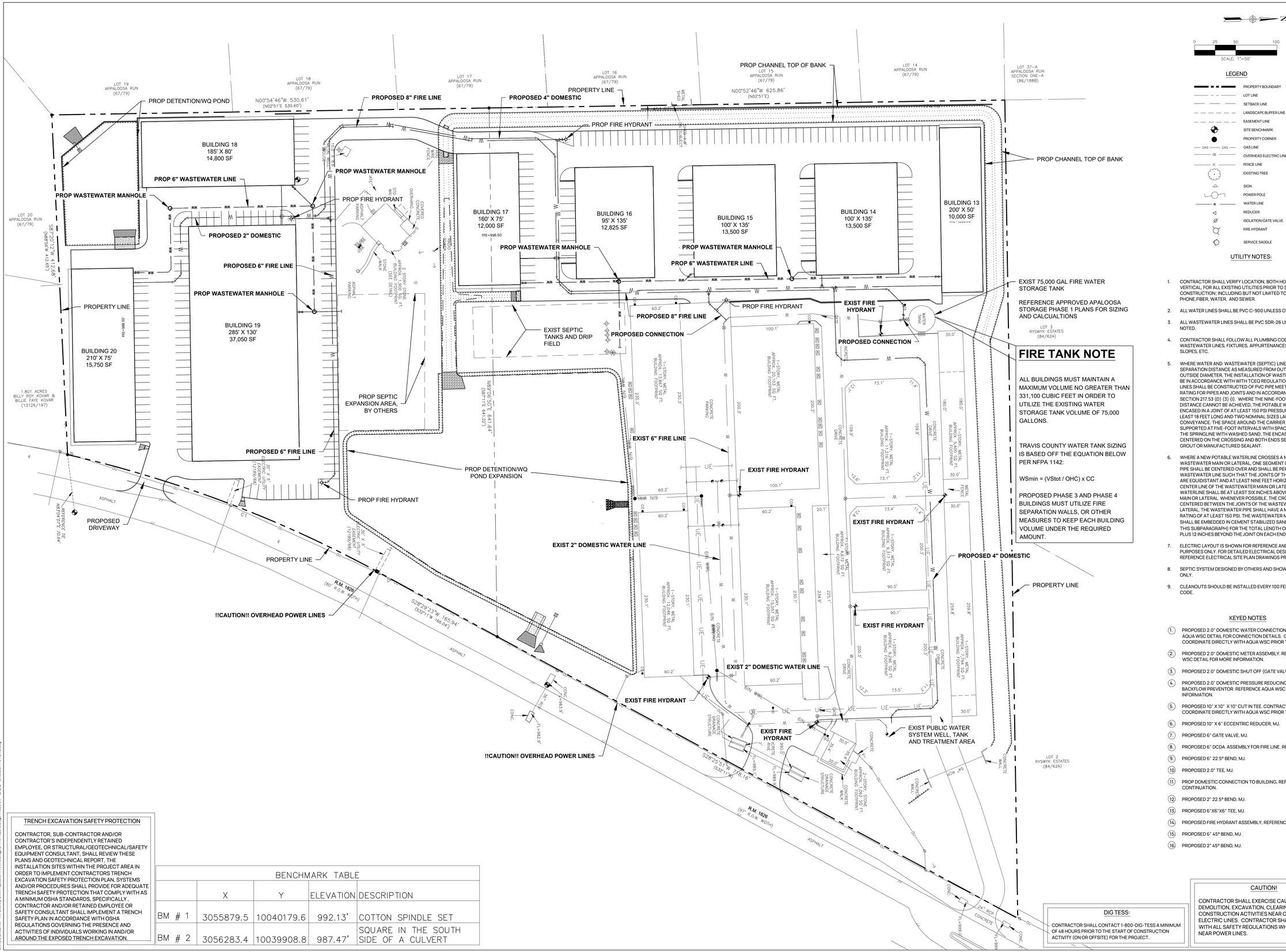
SHEET No.

26

OF 35

C:\HCC\OneDrive - Hill Country Civil\Projects\041 AAA Storage\01 FM 1826 Storage Phase 3\1 - CAD\2 - Sheets\041-01 SLOPE MAP.dwg

 October 4, 2024



FIRE TANK NOTE

ALL BUILDINGS MUST MAINTAIN A MAXIMUM VOLUME NO GREATER THAN 331,100 CUBIC FEET IN ORDER TO UTILIZE THE EXISTING WATER STORAGE TANK VOLUME OF 75,000 GALLONS.

TRAVIS COUNTY WATER TANK SIZING IS BASED OFF THE EQUATION BELOW PER NFPA 1142:

WSmin = (VStot / OHC) x CC

PROPOSED PHASE 3 AND PHASE 4 BUILDINGS MUST UTILIZE FIRE SEPARATION WALLS, OR OTHER MEASURES TO KEEP EACH BUILDING VOLUME UNDER THE REQUIRED AMOUNT.

LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- SETBACK LINE
- LANDSCAPE BUFFER LINE
- EASEMENT LINE
- SITE BENCHMARK
- PROPERTY CORNER
- GAS LINE
- OVERHEAD ELECTRIC LINE
- FENCE LINE
- EXISTING TREE
- SIGN
- POWER POLE
- WATER LINE
- REDUCER
- ISOLATION/GATE VALVE
- FIRE HYDRANT
- SERVICE SADDLE

UTILITY NOTES:

1. CONTRACTOR SHALL VERIFY LOCATION, BOTH HORIZONTAL AND VERTICAL, FOR ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION; INCLUDING BUT NOT LIMITED TO, GAS, ELECTRIC, TV, PHONE,FIBER, WATER, AND SEWER.
2. ALL WATER LINES SHALL BE PVC C-900 UNLESS OTHERWISE NOTED.
3. ALL WASTEWATER LINES SHALL BE PVC SDR-26 UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL FOLLOW ALL PLUMBING CODES FOR WATER AND WASTEWATER LINES, FIXTURES, APPURTENANCES, CLEANOUTS, SLOPES, ETC.
5. WHERE WATER AND WASTEWATER (SEPTIC) LINES ARE CLOSER THAN 9' SEPARATION DISTANCE AS MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER, THE INSTALLATION OF WASTEWATER LINES SHALL BE IN ACCORDANCE WITH WITH TCEQ REGULATIONS. WASTEWATER LINES SHALL BE CONSTRUCTED OF PVC PIPE MEETING 150 PSI PRESSURE RATING FOR PIPES AND JOINTS AND IN ACCORDANCE WITH 30 TAC, SECTION 217.53 (D) (3) (I). WHERE THE NINE-FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE POTABLE WATERLINE SHALL BE ENCASED IN A JOINT OF AT LEAST 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE-FOOT INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHALL BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEALANT.
6. WHERE A NEW POTABLE WATERLINE CROSSES A NEW, PRESSURE RATED WASTEWATER MAIN OR LATERAL, ONE SEGMENT OF THE WATERLINE PIPE SHALL BE CENTERED OVER AND SHALL BE PERPENDICULAR TO THE WASTEWATER LINE SUCH THAT THE JOINTS OF THE WATERLINE PIPE ARE EQUIDISTANT AND AT LEAST NINE FEET HORIZONTALLY FROM THE CENTER LINE OF THE WASTEWATER MAIN OR LATERAL. THE POTABLE WATERLINE SHALL BE AT LEAST SIX INCHES ABOVE THE WASTEWATER MAIN OR LATERAL. WHENEVER POSSIBLE, THE CROSSING SHALL BE CENTERED BETWEEN THE JOINTS OF THE WASTEWATER MAIN OR LATERAL. THE WASTEWATER PIPE SHALL HAVE A MINIMUM PRESSURE RATING OF AT LEAST 150 PSI. THE WASTEWATER MAIN OR LATERAL SHALL BE EMBEDDED IN CEMENT STABILIZED SAND (SEE CLAUSE (V) OF THIS SUBPARAGRAPH) FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOINT ON EACH END.
7. ELECTRIC LAYOUT IS SHOWN FOR REFERENCE AND COORDINATION PURPOSES ONLY. FOR DETAILED ELECTRICAL DESIGN INFORMATION, REFERENCE ELECTRICAL SITE PLAN DRAWINGS PREPARED BY OTHERS.
8. SEPTIC SYSTEM DESIGNED BY OTHERS AND SHOWN FOR REFERENCE ONLY.
9. CLEANOUTS SHOULD BE INSTALLED EVERY 100 FEET PER PLUMBING CODE.

KEYED NOTES

1. PROPOSED 2.0" DOMESTIC WATER CONNECTION. REFERENCE AQUA WSC DETAIL FOR CONNECTION DETAILS. CONTRACTOR TO COORDINATE DIRECTLY WITH AQUA WSC PRIOR TO CONNECTION.
2. PROPOSED 2.0" DOMESTIC METER ASSEMBLY. REFERENCE AQUA WSC DETAIL FOR MORE INFORMATION.
3. PROPOSED 2.0" DOMESTIC SHUT OFF (GATE VALVE, MJ).
4. PROPOSED 2.0" DOMESTIC PRESSURE REDUCING VALVE BACKFLOW PREVENTOR. REFERENCE AQUA WSC DETAIL FOR MORE INFORMATION.
5. PROPOSED 10" X 10" X 10" CUT IN TEE. CONTRACTOR TO COORDINATE DIRECTLY WITH AQUA WSC PRIOR TO CONNECTION.
6. PROPOSED 10" X 6" ECCENTRIC REDUCER, MJ.
7. PROPOSED 6" GATE VALVE, MJ.
8. PROPOSED 6" DCDA ASSEMBLY FOR FIRE LINE. REFERENCE DETAIL.
9. PROPOSED 6" 22.5° BEND, MJ.
10. PROPOSED 2.0" TEE, MJ.
11. PROP DOMESTIC CONNECTION TO BUILDING, REFERENCE MEP FOR CONTINUATION.
12. PROPOSED 2" 22.5° BEND, MJ.
13. PROPOSED 6"X6"X6" TEE, MJ.
14. PROPOSED FIRE HYDRANT ASSEMBLY, REFERENCE DETAIL.
15. PROPOSED 6" 45° BEND, MJ.
16. PROPOSED 2" 45° BEND, MJ.

TRENCH EXCAVATION SAFETY PROTECTION

CONTRACTOR, SUB-CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE, OR STRUCTURAL/GEOTECHNICAL/SAFETY EQUIPMENT CONSULTANT, SHALL REVIEW THESE PLANS AND GEOTECHNICAL REPORT, THE INSTALLATION SITES WITHIN THE PROJECT AREA IN ORDER TO IMPLEMENT CONTRACTORS TRENCH EXCAVATION SAFETY PROTECTION PLAN, SYSTEMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM OSHA STANDARDS, SPECIFICALLY, CONTRACTOR AND/OR RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PLAN IN ACCORDANCE WITH OSHA REGULATIONS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND/OR AROUND THE EXPOSED TRENCH EXCAVATION.

BENCHMARK TABLE

	X	Y	ELEVATION	DESCRIPTION
BM # 1	3055879.5	10040179.6	992.13'	COTTON SPINDLE SET
BM # 2	3056283.4	10039908.8	987.47'	SQUARE IN THE SOUTH SIDE OF A CULVERT

DIG TESS:

CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION ACTIVITY (ON OR OFFSITE) FOR THE PROJECT.

CAUTION!

CONTRACTOR SHALL EXERCISE CAUTION DURING DEMOLITION, EXCAVATION, CLEARING AND CONSTRUCTION ACTIVITIES NEAR OVERHEAD ELECTRIC LINES. CONTRACTOR SHALL COMPLY WITH ALL SAFETY REGULATIONS WHEN OPERATING NEAR POWER LINES.

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ROSS T. CORDER 125401 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS 10/4/24

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12100 FM 1826
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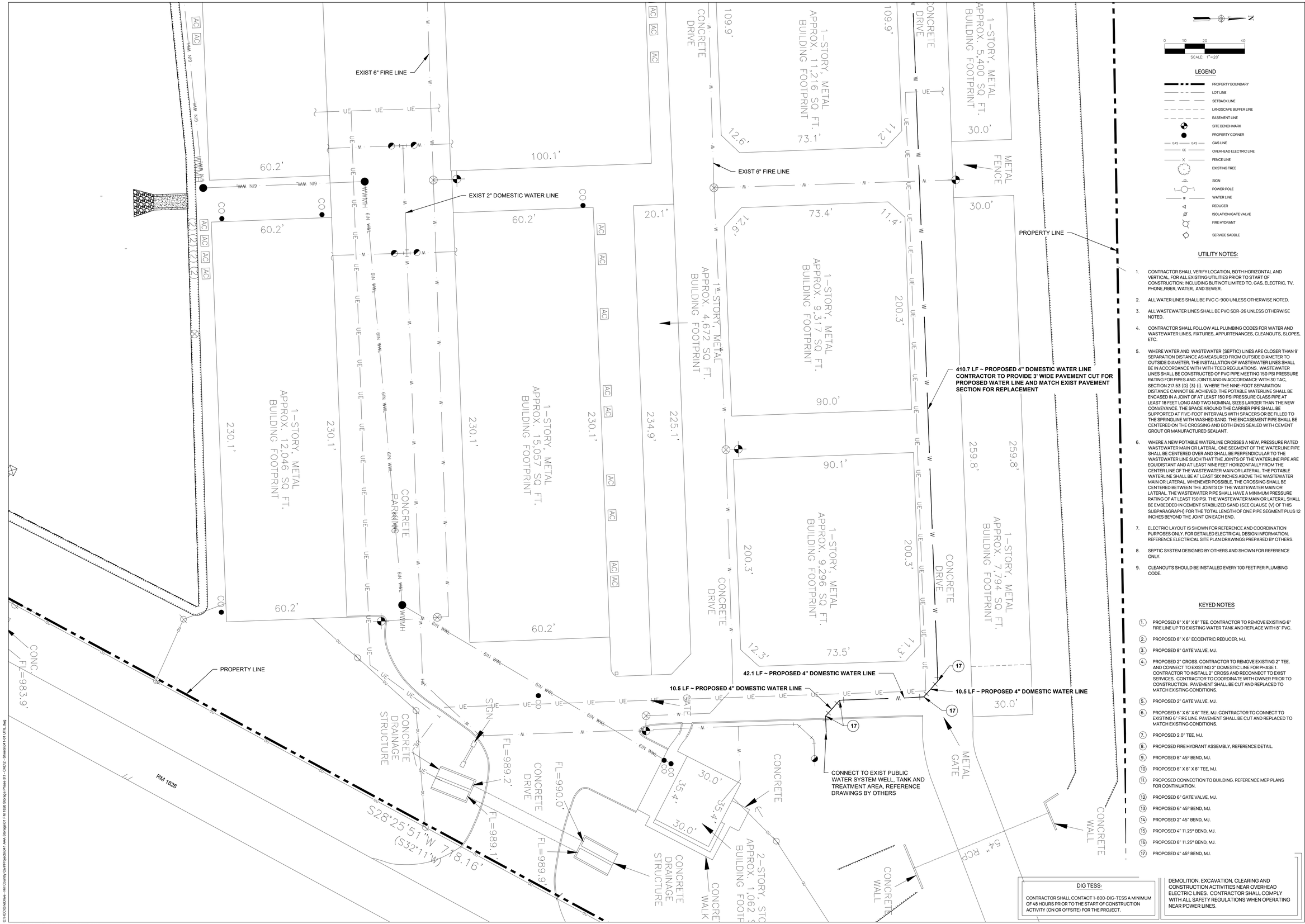
HCC JOB No.: 041-01 DRAWN BY: RTC

OVERALL UTILITY CONNECTION PLAN

SHEET No. 27 OF 35



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KEYED NOTES

1. PROPOSED 8" X 8" X 8" TEE. CONTRACTOR TO REMOVE EXISTING 6" FIRE LINE UP TO EXISTING WATER TANK AND REPLACE WITH 8" PVC.
2. PROPOSED 8" X 6" ECCENTRIC REDUCER, MJ.
3. PROPOSED 8" GATE VALVE, MJ.
4. PROPOSED 2" CROSS. CONTRACTOR TO REMOVE EXISTING 2" TEE, AND CONNECT TO EXISTING 2" DOMESTIC LINE FOR PHASE 1. CONTRACTOR TO INSTALL 2" CROSS AND RECONNECT TO EXIST SERVICES. CONTRACTOR TO COORDINATE WITH OWNER PRIOR TO CONSTRUCTION. PAVEMENT SHALL BE CUT AND REPLACED TO MATCH EXISTING CONDITIONS.
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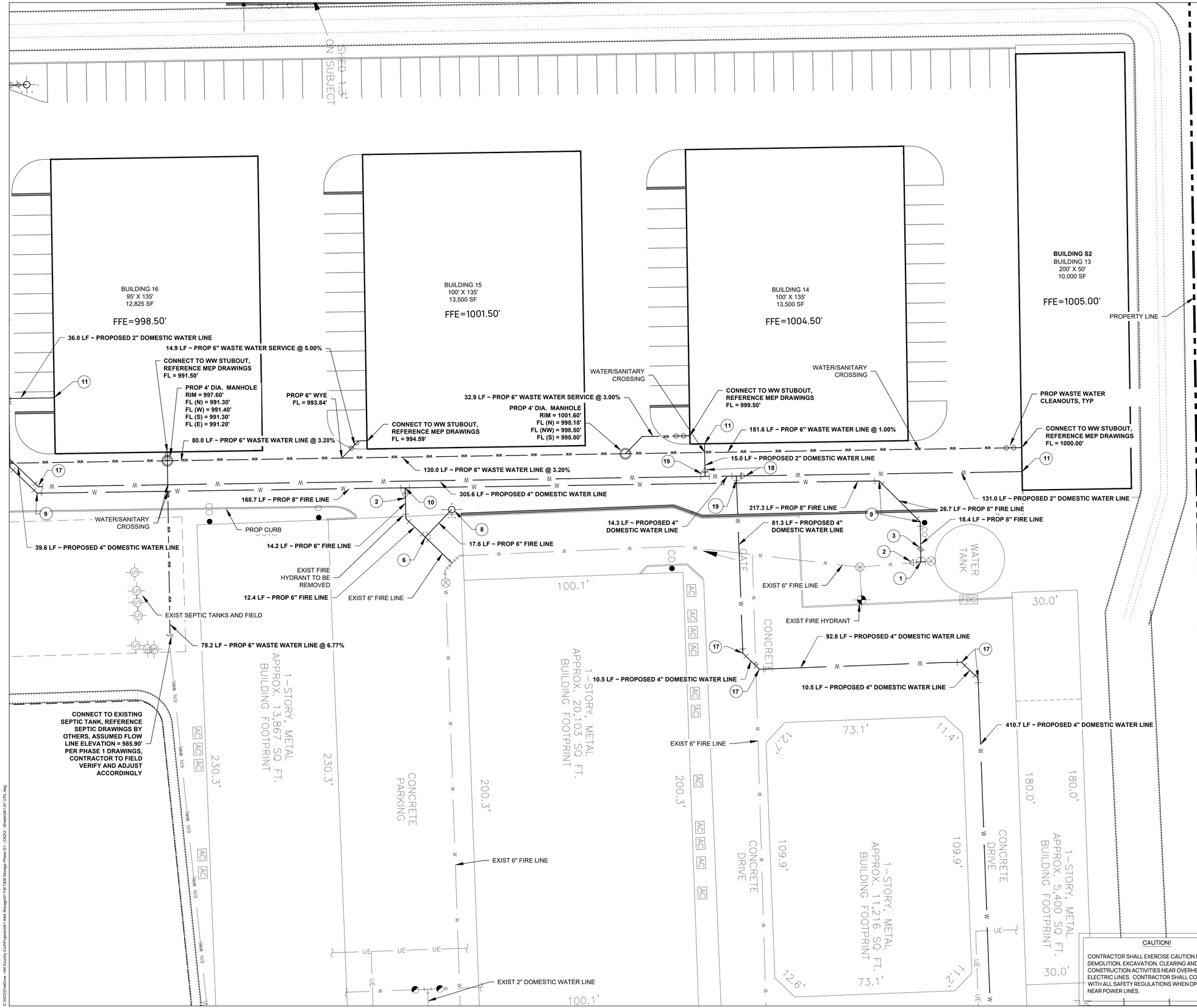
UTILITY CONNECTION
PLAN (1 OF 4)

SHEET No.
28
OF 35



0 10 20 40

SCALE: 1"=20'

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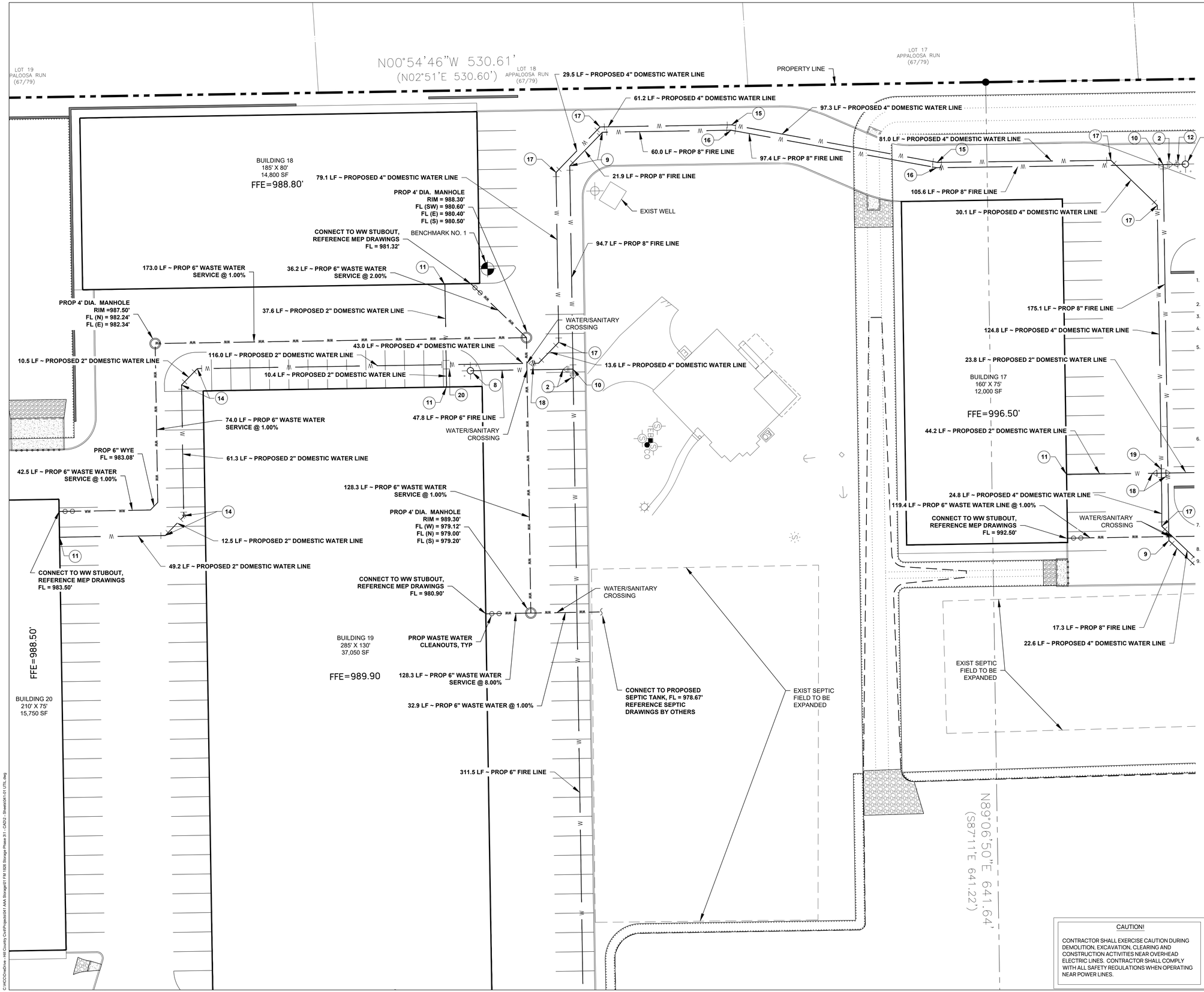
UTILITY CONNECTION PLAN (2 OF 4)

SHEET No. 29 OF 35



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19. PROPOSED 4.0" TEE, MJ.
20. PROPOSED 2.0" CROSS, MJ.

CAUTION!

CONTRACTOR SHALL EXERCISE CAUTION DURING DEMOLITION, EXCAVATION, CLEARING AND CONSTRUCTION ACTIVITIES NEAR OVERHEAD ELECTRIC LINES. CONTRACTOR SHALL COMPLY WITH ALL SAFETY REGULATIONS WHEN OPERATING NEAR POWER LINES.

DIG TESS:

CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION ACTIVITY (ON OR OFFSITE) FOR THE PROJECT.

Hill Country Civil
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STATE OF TEXAS
ROSS T. CORDER
125401
LICENSED
PROFESSIONAL ENGINEER
10/9/24

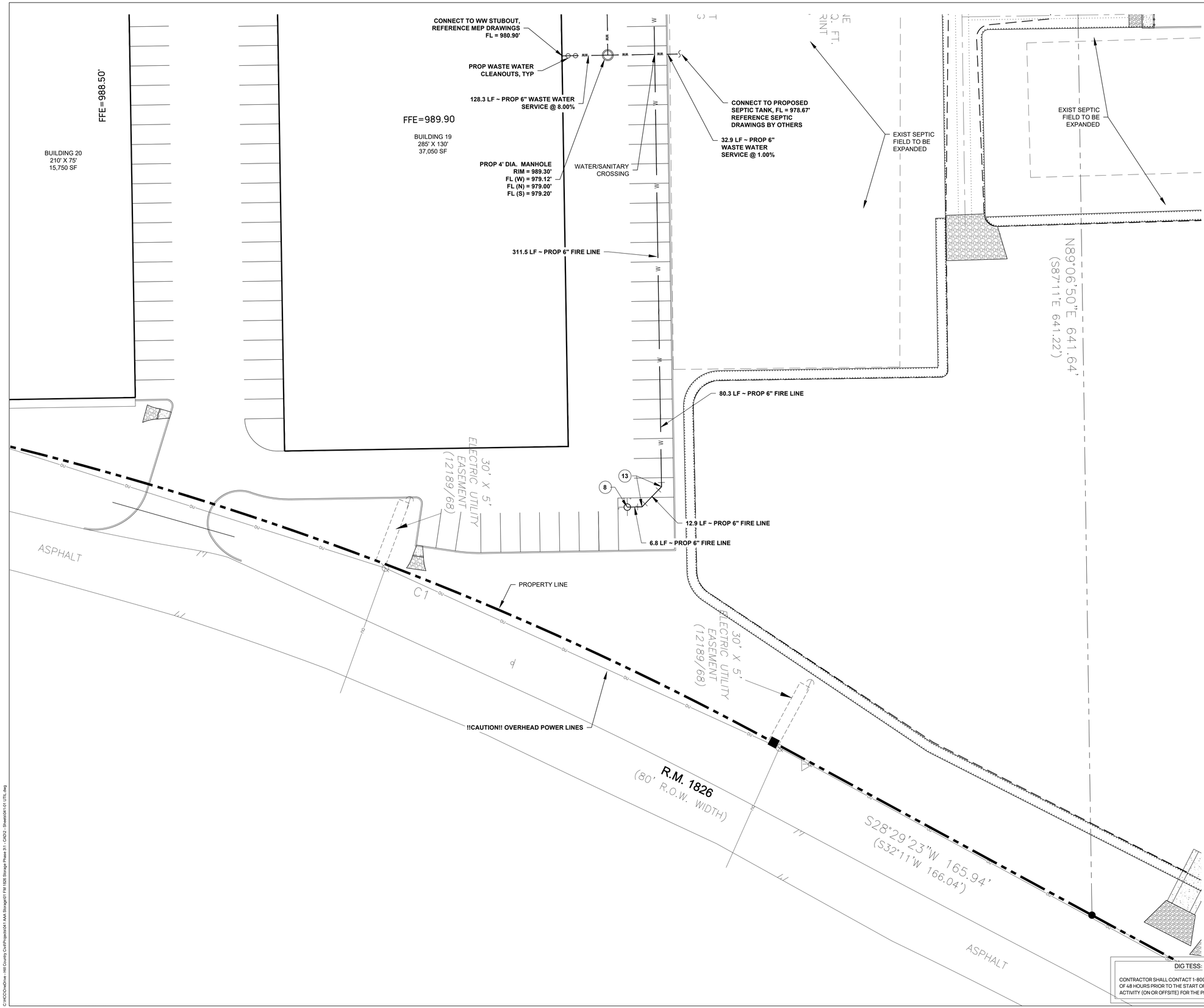
No.	Date	Revisions	App.

APPALOOSA RUN STORAGE
FACILITY PH. 3 & 4
12100 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY:: RTC

UTILITY CONNECTION
PLAN (3 OF 4)

SHEET No.
30
OF 35



LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- SETBACK LINE
- LANDSCAPE BUFFER LINE
- EASEMENT LINE
- SITE BENCHMARK
- PROPERTY CORNER
- GAS LINE
- OVERHEAD ELECTRIC LINE
- FENCE LINE
- EXISTING TREE
- SIGN
- POWER POLE
- WATER LINE
- REDUCER
- ISOLATION/GATE VALVE
- FIRE HYDRANT
- SERVICE SADDLE

UTILITY NOTES:

1. CONTRACTOR SHALL VERIFY LOCATION, BOTH HORIZONTAL AND VERTICAL, FOR ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION; INCLUDING BUT NOT LIMITED TO, GAS, ELECTRIC, TV, PHONE,FIBER, WATER, AND SEWER.
2. ALL WATER LINES SHALL BE PVC C-900 UNLESS OTHERWISE NOTED.
3. ALL WASTEWATER LINES SHALL BE PVC SDR-26 UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL FOLLOW ALL PLUMBING CODES FOR WATER AND WASTEWATER LINES, FIXTURES, APPURTENANCES, CLEANOUTS, SLOPES, ETC.
5. WHERE WATER AND WASTEWATER (SEPTIC) LINES ARE CLOSER THAN 9' SEPARATION DISTANCE AS MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER, THE INSTALLATION OF WASTEWATER LINES SHALL BE IN ACCORDANCE WITH WITH TCEQ REGULATIONS. WASTEWATER LINES SHALL BE CONSTRUCTED OF PVC PIPE MEETING 150 PSI PRESSURE RATING FOR PIPES AND JOINTS AND IN ACCORDANCE WITH 30 TAC, SECTION 217.53 (D) (3) (I). WHERE THE NINE-FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE POTABLE WATERLINE SHALL BE ENCASED IN A JOINT OF AT LEAST 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE-FOOT INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHALL BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEALANT.
6. WHERE A NEW POTABLE WATERLINE CROSSES A NEW, PRESSURE RATED WASTEWATER MAIN OR LATERAL, ONE SEGMENT OF THE WATERLINE PIPE SHALL BE CENTERED OVER AND SHALL BE PERPENDICULAR TO THE WASTEWATER LINE SUCH THAT THE JOINTS OF THE WATERLINE PIPE ARE EQUIDISTANT AND AT LEAST NINE FEET HORIZONTALLY FROM THE CENTER LINE OF THE WASTEWATER MAIN OR LATERAL. THE POTABLE WATERLINE SHALL BE AT LEAST SIX INCHES ABOVE THE WASTEWATER MAIN OR LATERAL. WHENEVER POSSIBLE, THE CROSSING SHALL BE CENTERED BETWEEN THE JOINTS OF THE WASTEWATER MAIN OR LATERAL. THE WASTEWATER PIPE SHALL HAVE A MINIMUM PRESSURE RATING OF AT LEAST 150 PSI. THE WASTEWATER MAIN OR LATERAL SHALL BE EMBEDDED IN CEMENT STABILIZED SAND (SEE CLAUSE (V) OF THIS SUBPARAGRAPH) FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOINT ON EACH END.
7. ELECTRIC LAYOUT IS SHOWN FOR REFERENCE AND COORDINATION PURPOSES ONLY. FOR DETAILED ELECTRICAL DESIGN INFORMATION, REFERENCE ELECTRICAL SITE PLAN DRAWINGS PREPARED BY OTHERS.
8. SEPTIC SYSTEM DESIGNED BY OTHERS AND SHOWN FOR REFERENCE ONLY.
9. CLEANOUTS SHOULD BE INSTALLED EVERY 100 FEET PER PLUMBING CODE.

KEYED NOTES

1. PROPOSED 8" X 8" X 8" TEE. CONTRACTOR TO REMOVE EXISTING 6" FIRE LINE UP TO EXISTING WATER TANK AND REPLACE WITH 8" PVC.
2. PROPOSED 8" X 6" ECCENTRIC REDUCER, MJ.
3. PROPOSED 8" GATE VALVE, MJ.
4. PROPOSED 2" CROSS. CONTRACTOR TO REMOVE EXISTING 2" TEE, AND CONNECT TO EXISTING 2" DOMESTIC LINE FOR PHASE 1. CONTRACTOR TO INSTALL 2" CROSS AND RECONNECT TO EXIST SERVICES. CONTRACTOR TO COORDINATE WITH OWNER PRIOR TO CONSTRUCTION. PAVEMENT SHALL BE CUT AND REPLACED TO MATCH EXISTING CONDITIONS.
5. PROPOSED 2" GATE VALVE, MJ.
6. PROPOSED 6" X 6" X 6" TEE, MJ. CONTRACTOR TO CONNECT TO EXISTING 6" FIRE LINE. PAVEMENT SHALL BE CUT AND REPLACED TO MATCH EXISTING CONDITIONS.
7. PROPOSED 2.0" TEE, MJ.
8. PROPOSED FIRE HYDRANT ASSEMBLY, REFERENCE DETAIL.
9. PROPOSED 8" 45º BEND, MJ.
10. PROPOSED 8" X 8" X 8" TEE, MJ.
11. PROPOSED CONNECTION TO BUILDING. REFERENCE MEP PLANS FOR CONTINUATION.
12. PROPOSED 6" GATE VALVE, MJ.
13. PROPOSED 6" 45º BEND, MJ.
14. PROPOSED 2" 45° BEND, MJ.
15. PROPOSED 4" 11.25º BEND, MJ.
16. PROPOSED 8" 11.25º BEND, MJ.
17. PROPOSED 4" 45° BEND, MJ.

DIG TESS:

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CAUTION!

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No.	Date	Revisions	App.

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12100 RM 1826
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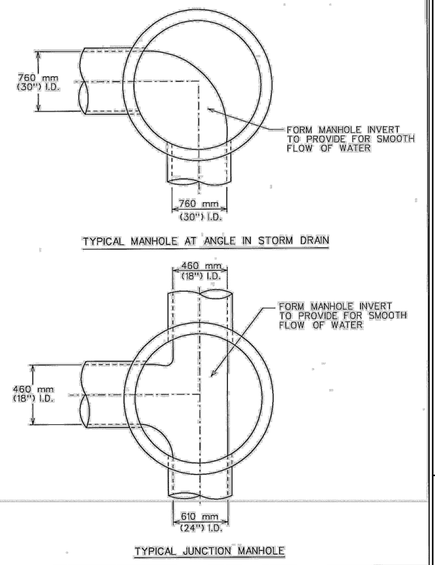
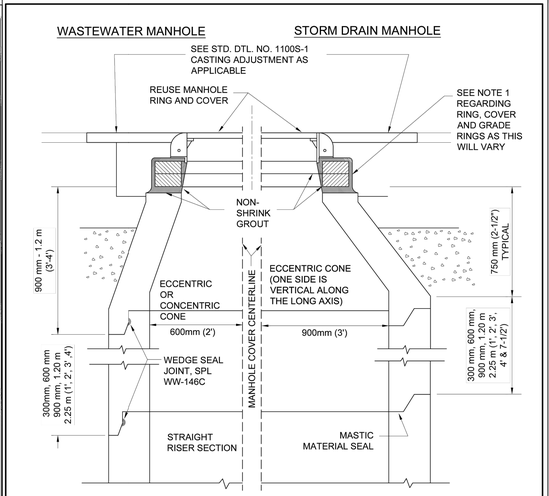
HCC JOB No.: 041-01 DRAWN BY: RTC

UTILITY CONNECTION PLAN (4 OF 4)

SHEET No.
31
OF 35

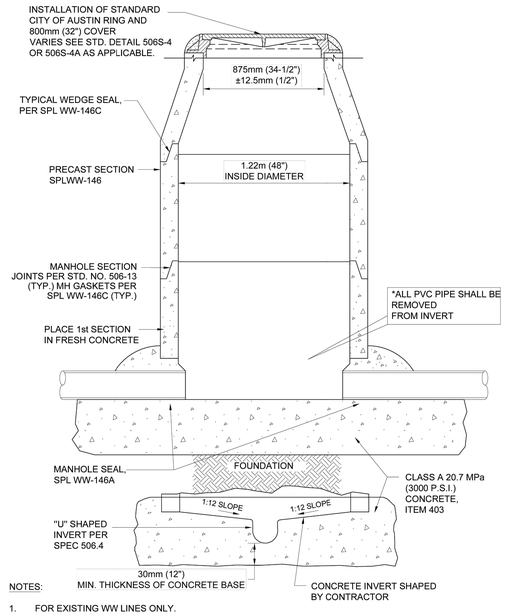


CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	MANHOLE INVERT PLAN
George E. Dewalt 2/19/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
	STANDARD NO. 506S-1



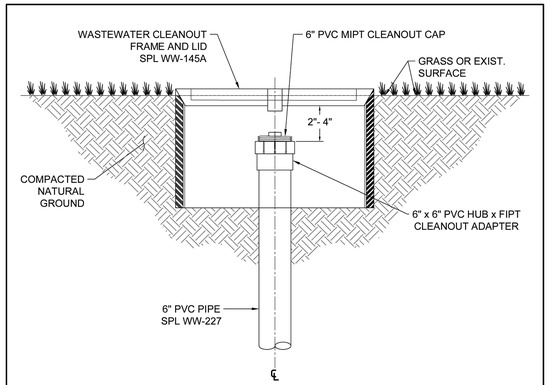
1. SEE "MINOR MANHOLE HEIGHT ADJUSTMENT" STANDARDS 506S-4 AND 506S-4A FOR ADDITIONAL INFORMATION.
2. MANHOLE SECTIONS TEMPORARILY REMOVED FOR ROADWAY CONSTRUCTION MAY BE REUSED ONLY WITH WRITTEN APPROVAL OF THE INSPECTOR. WEDGE SEALS SHALL NOT BE REUSED.
3. ANY COMBINATION OF REMOVING THE GRADE RINGS, AND/OR THE MANHOLE CONE, AND/OR THE STRAIGHT RISER SECTION OF THE MANHOLE SHALL BE ACCEPTABLE TO TEMPORARILY LOWER THE MANHOLE GRADE FOR RECONSTRUCTION.
4. WHILE THE MANHOLE IS TEMPORARILY LOWERED, A SHEET OF STEEL SUITABLE TO SUPPORT ALL IMPOSED LOADS SHALL BE USED TO COVER THE OPENING. STEEL SHALL BE PLACED SO THE SHEET WILL NOT MOVE UNDER ANY & ALL TRAFFIC CONDITIONS.
5. SUB-GRADE AND BASE MATERIALS SHALL BE COMPACTED TO 95% AND 100% DENSITIES, RESPECTIVELY, COMPACTION SHALL BE BY MECHANICAL TAMPING TO THE DENSITIES SPECIFIED, SEE STD. DTL. NO .1100S-1.

CITY OF AUSTIN AUSTIN WATER UTILITY	MAJOR MANHOLE ADJUSTMENT
RECORD COPY SIGNED BY KATHI L FLOWERS 08/31/2011 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.
	STANDARD NO. 506S-2 1 OF 1



NOTES:
1. FOR EXISTING WW LINES ONLY.
2. MANHOLE FOUNDATION SHALL MEET OR EXCEED STD. SPEC 506.5B
3. FIRST RISER SECTION SHALL BE PLACED PLUMB & LEVEL PRIOR TO SETTING ANY ADDITIONAL SECTIONS.

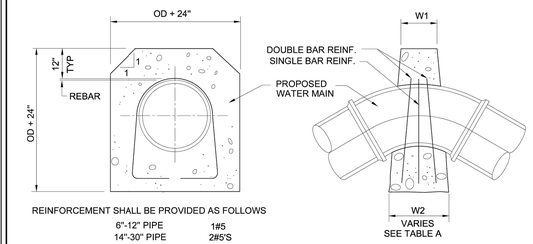
CITY OF AUSTIN AUSTIN WATER UTILITY	PRECAST MANHOLE ON CAST IN PLACE BASE
RECORD COPY SIGNED BY KATHI L FLOWERS 08/31/2011 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.
	STANDARD NO. 506S-9 1 OF1



NOTE:

1. WASTEWATER CLEANOUT FRAME AND LID SHALL NOT BE PLACED IN PAVED AREAS, INCLUDING SIDEWALKS, DRIVEWAYS, OR PARKING LOTS, AND MUST BE LOCATED A MINIMUM OF 6" FROM ALL PAVED AREAS.

CITY OF AUSTIN AUSTIN WATER	WASTEWATER CLEANOUT FRAME AND LID
JEFF A. KYLE *08/16/2019* ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.
	STANDARD NO. 520-AW-03 1 OF 1



REINFORCEMENT SHALL BE PROVIDED AS FOLLOWS

6"-12" PIPE	1#5
14"-30" PIPE	2#5'S
36"-48" PIPE	2#7'S

VERTICAL DOWN BEND

TABLE A
UPWARD THRUST GRAVITY BLOCKS

PIPE DIA.	MIN. TOP WIDTH W1	ANGLE (degrees)	BOTTOM WIDTH-W2 (in)
6"	6"	0-5	NOTE 2
		5-15	24
		15-25	48
		> 25	NOTE 1
8"	6"	0-5	NOTE 2
		5-9	30
		9-15	36
		>15	NOTE 1
12"	6"	0-5	NOTE 2
		5-15	48
		> 15	NOTE 1
16"	12"	0-5	NOTE 2
		5-10	60
		10-15	96
		> 15	NOTE 1
24" THRU 36" DIA.		>5.0	NOTE 1
42" THRU 48" DIA.		>3.0	NOTE 1

NOTES:

1- FOR ANGLES GREATER THAN THOSE INDICATED RESTRAINED JOINTS SHALL BE INSTALLED

2- FOR JOINT DEFLECTIONS LESS THAN 5 DEGREES, NO HORIZONTAL OR VERTICAL THRUST RESTRAINT IS REQUIRED FOR PIPES LESS THAN 42" IN DIAMETER.

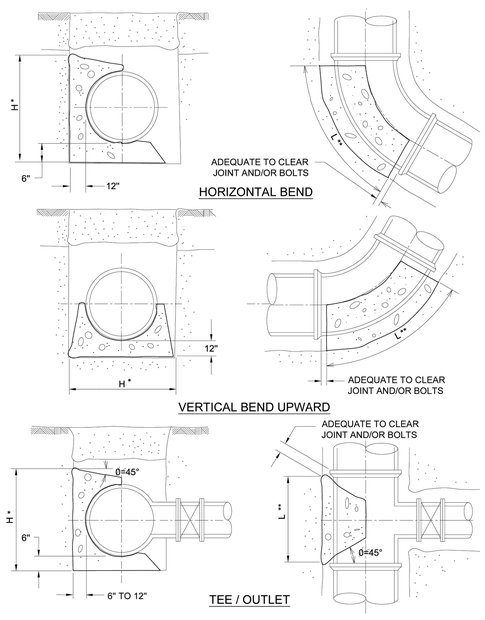
THRUST BLOCK DESIGN AS FOLLOWS

A. PRESSURE OF 150 P.S.I. (ACTUAL IF HIGHER) + 50 % SURGE ALLOWANCE

B. MAXIMIM SOIL BEARING SEE TABLE BELOW

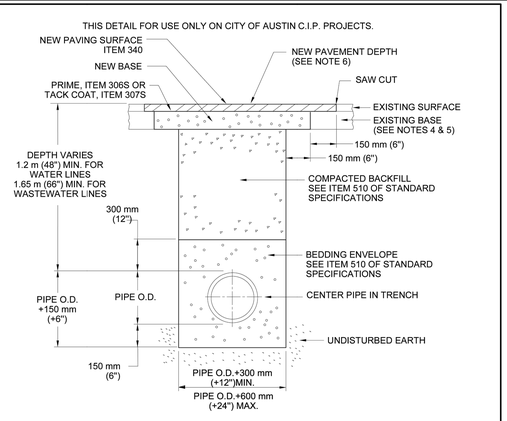
SOIL TYPES	PRESSURE
LOOSE OR SPONGY SOIL	1500 Lb/Sq.Ft.
UNDISTURBED SOIL, CALICHE	2000 Lb/Sq.Ft.
LIMESTONE ROCK	4000 Lb/Sq.Ft.

CITY OF AUSTIN WATER AND WASTEWATER UTILITY	CONCRETE THRUST BLOCKING
RECORD COPY SIGNED BY JAMES E. THOMPSON 2/11/86 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.
	STANDARD NO. 510-6 1 OF 2



* THE DIMENSION FOR "H" MUST BE GREATER THAN DIAMETER OF THE PIPE
** LENGTH "L" ALONG THE BEND MUST BE GREATER THAN "H" AND LESS THAN 2 TIMES "H"

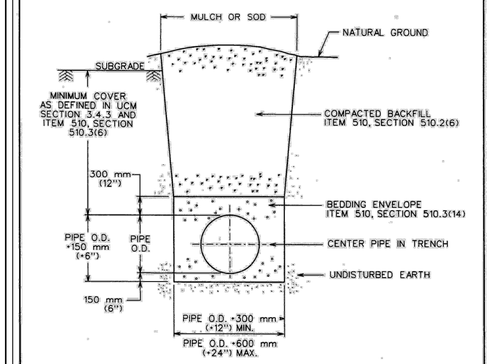
CITY OF AUSTIN WATER AND WASTEWATER UTILITY	CONCRETE THRUST BLOCKING
RECORD COPY SIGNED BY JAMES E. THOMPSON 2/11/86 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.
	STANDARD NO. 510-6 2 OF 2



NOTES:

1. THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE A MINIMUM OF 300 mm (12") WIDER THAN THE UNDISTURBED SIDES OF THE TRENCH, SYMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION.
2. ANY CONCRETE PAVING SHALL BE SAW CUT 150 mm (6") WIDER THAN UNDISTURBED SIDES OF EXCAVATION.
3. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX OR TEMPORARY HOT MIX ASPHALTIC CONCRETE.
4. ROAD BASE AND SURFACE MATERIALS IN THE TRENCH CUT SHALL BE REPLACED IN KIND OF EQUAL THICKNESS, OR MINIMUM BASE THICKNESS OF 250 mm (10"), WHICHEVER IS GREATER.
5. ALL DAMAGED AREAS OF PAVEMENT OUTSIDE THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH MINIMUM OF 200 mm (8") OF BASE OR MATCH EXISTING THICKNESS, WHICHEVER IS GREATER.
6. SURFACE PAVEMENT SHALL BE OF THE KIND AND THICKNESS AS EXISTING, OR MINIMUM 50 mm (2"), WHICHEVER IS GREATER.

CITY OF AUSTIN WATER AND WASTEWATER UTILITY	TYPICAL TRENCH WITH PAVED SURFACE
RECORD COPY SIGNED BY LEON BARBA 8/19/02 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.
	STANDARD NO. 510S-3 1 OF 1



REFERENCES:
1. UTILITY CRITERIA MANUAL SECTION 3.4.3, "FINAL DESIGN"
2. STANDARD SPECIFICATION MANUAL ITEM 510,
SECTION 510.2(6), "SELECT BACKFILL OR BORROW";
SECTION 510.3(6), "TRENCH DEPTH AND DEPTH OF COVER";
SECTION 510.3(14), "PIPE BEDDING ENVELOPE"

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPICAL TRENCH DETAIL WITH UNFINISHED SURFACE
Bice Rhodes 3/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
	STANDARD NO. 510S-5

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10/9/24

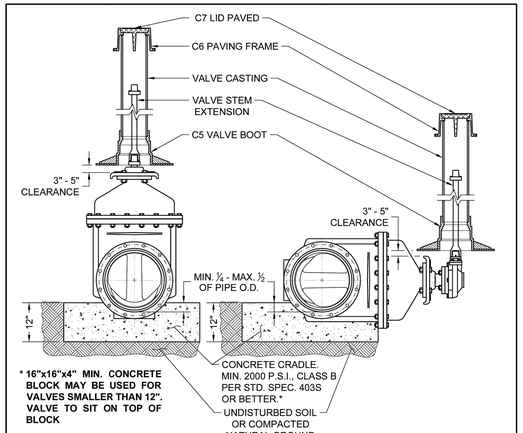
No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 R.M.1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY: RTC

UTILITY DETAILS (1 OF 2)

SHEET No. 32 OF 35



*** 16"x16"x4" MIN. CONCRETE BLOCK MAY BE USED FOR VALVES SMALLER THAN 12". VALVE TO SIT ON TOP OF BLOCK**

VERTICAL VALVE

HORIZONTAL VALVE

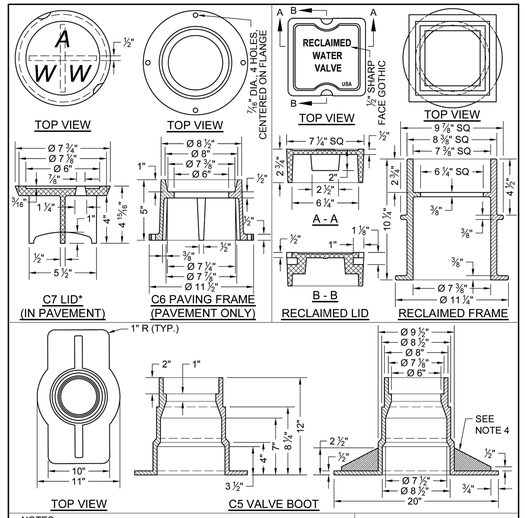
ONLY TO BE USED WHEN CALLED OUT ON THE DRAWINGS.

NOTES:

1. WELD SOCKET 2½" x 2" DEEP TO 1" SCH. 40 CARBON STEEL ROUND STEM EXTENSION, FITTED ON OPERATING NUT, [SCH. 80 FOR LENGTHS OVER 10'.]
2. VALVE CASTING SHALL BE 6" DI PIPE WITH BELL OR COLLAR CENTERED OVER VALVE BOOT.
3. NUT AT TOP OF VALVE EXTENSION ROD SHALL BE SQUARE 2" LONG WELDED TO TOP OF ROD.
4. VALVE STEM EXTENSIONS ARE REQUIRED ON ALL VALVES THAT EXCEED 3' DEEP FROM FINISHED GRADE. VALVE EXTENSIONS SHALL BE PLACED SUCH THAT THE EXTENSION NUT IS BETWEEN 12" AND 18" FROM FINISHED GRADE.

RECLAIMED WATER: ALL RECLAIMED PVC PIPE SHALL BE MANUFACTURED PURPLE PIPE. HDPE PIPE SHALL BE MANUFACTURED WITH PURPLE STRIPES. ALL OTHER PIPE AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL PIPE AND FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL BURIED DI AND CI PIPE AND FITTINGS SHALL ALSO BE WRAPPED IN PURPLE POLYETHYLENE PER SPL WW-27D. ALL COVERS SHALL HAVE "**RECLAIMED WATER**" CAST INTO THEM.

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 511-AW-01 1 OF 4



NOTES:

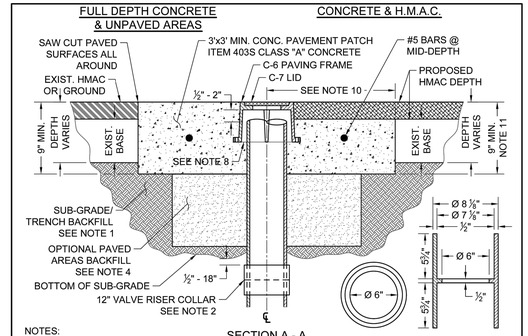
1. MATERIAL SHALL BE GRAY CAST IRON, ASTM A48, GRADE 30B.
2. THE MANUFACTURER'S IDENTIFICATION AND CASTING NUMBER, AND THE COUNTRY WHERE CAST, SHALL BE DISTINCTLY CAST ONTO EACH LID, FRAME, COLLAR AND BASE.
3. DRAFT AND SHRINKAGE ALLOWANCE SHALL BE IN ACCORDANCE WITH NORMAL FOUNDRY PRACTICE.
4. CASTING FINISH BY MANUFACTURER SHALL INCLUDE REMOVAL OF FINS AND FLASHING, AND PAINT WITH BLACK ASPHALT COATING.

WEIGHTS:

C7 LID: 13 LBS
RECLAIMED LID: 15 LBS
C6 FRAME: 23 LBS
RECLAIMED FRAME: 33 LBS
C5 BASE: 78 LBS

* LETTERING SHALL BE 1 ½" 2 PICK BAR SLOTS REQUIRED

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 511-AW-01 2 OF 4



NOTES:

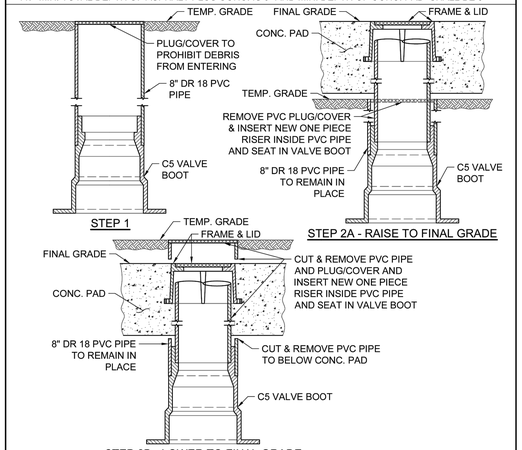
1. SUB-GRADE/TRENCH BACKFILL SHALL BE COMPACTED AS PER ITEM 201S, SUB-GRADE PREPARATION.
2. TO ADJUST VALVE CASTINGS TO FINAL GRADE, REMOVE RISER PIPE BELOW SUB-GRADE AND INSTALL APPROPRIATE LENGTH OF NEW RISER PIPE TO ACHIEVE FINAL GRADE. CONNECT THE TWO PIECES OF RISER PIPE WITH A 6" COLLAR MIN. 12" LENGTH APPROXIMATELY CENTERED ON THE JOINT WITH THE TOP OF SLEEVE LOCATED ½" - 18" BELOW SUB-GRADE. THE INSIDE "LIP" OF COLLAR TO BE PAINTED WITH FLUORESCENT WHITE PAINT OR COVERED WITH FLUORESCENT WHITE TAPE. ALTERNATE: FOR OPTIONAL SINGLE PIECE RISER INSTALLATION SEE SHEET 4 OF 4.
3. CLEAN VALVE BOX OF ALL DEBRIS DOWN TO THE NUT OF THE VALVE; NUT SHALL OPERATE WITH NO OBSTRUCTION.
4. WHERE CASTINGS TO BE REMOVED REQUIRE EXCAVATION GREATER THAN 20" DEEP, CONTRACTOR MAY ELECT TO FILL EXCAVATION WITH CONTROLLED LOW STRENGTH MATERIAL (SPEC. ITEM 402S) TO THE UNDERSIDE OF THE CONCRETE. PAVEMENT PATCH IN LIEU OF COMPACTED BACKFILL.
5. REINFORCING STEEL SHALL MEET SPEC. ITEM 406S.7.
6. NO MORE THAN 2 SECTIONS OF PIPE SHALL BE USED FROM VALVE TO FINAL GRADE.
7. BELL AND SPIGOT IS ACCEPTABLE FOR DEPTH OVER 18'.

SECTION A - A

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 511-AW-01 3 OF 4

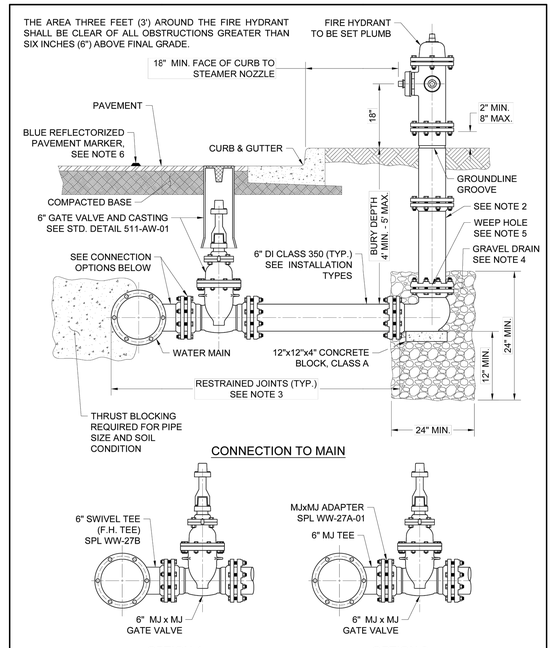
NOTES (CON'T):

8. PAVING FRAME SHALL BE FLUSH WITH THE CONC. PAD AND PLACED ½" - 2" ABOVE RISER PIPE (FRAME SHALL NOT REST ON RISER.)
9. IN UNPAVED AREAS, INSTALL ONE DELINEATOR STAKE IMMEDIATELY ADJACENT TO THE EDGE OF THE CONCRETE PAD. DELINEATOR SHALL BE BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER AND SHALL EXTEND AT LEAST 60" ABOVE GROUND. DELINEATORS SHALL HAVE 2" WIDE, WHITE IN COLOR, TYPE I REFLECTIVE TAPE MOUNTED DIAGONALLY AT 12" SPACING ON BOTH SIDES.
10. VALVE SHALL TYPICALLY BE CENTERED IN CONCRETE DIAMOND BUT MAY BE OFFSET WITH A MIN. OF 12" FROM CENTER OF VALVE LID TO EDGE OF CONCRETE IN ALL DIRECTIONS.
11. MIN. TOTAL DEPTH OF ASPHALT PLUS CONC. IS 9" AND MIN. DEPTH OF CONC. PAD SHALL BE 5"

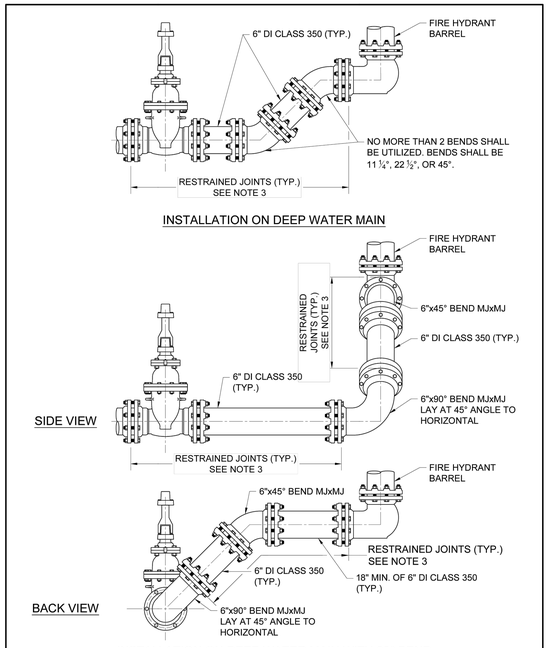


OPTIONAL ONE PIECE VALVE CASTING INSTALLATION

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 511-AW-01 4 OF 4



CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT ASSEMBLY	
JEFF A. KYLE 11/06/2023 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 511-AW-02 1 OF 3



CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT ASSEMBLY	
JEFF A. KYLE 11/06/2023 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 511-AW-02 2 OF 3

NOTES: APPLICABLE TO ALL INSTALLATION TYPES.

1. NO PART OF A HYDRANT OR ITS NOZZLE CAPS SHALL BE WITHIN 6" OF ANY SIDEWALK OR PEDESTRIAN RAMP. ANY FIRE HYDRANT PLACED NEAR A STREET CORNER SHALL BE LOCATED OUTSIDE THE CURVE RADIUS AND A MINIMUM OF 4' FROM RAMPS.
2. ONE BARREL EXTENSION NOT EXCEEDING 2' LENGTH MAY BE INSTALLED DIRECTLY BELOW THE FIRE HYDRANT IN ORDER TO MEET THE REQUIRED BURY DEPTH OF 4' - 5'. BREAK AWAY BOLTS (SHOE TYPES) SHALL BE PROPERLY SPACED AND PLACED.
3. FIRE LINE SHALL HAVE ALL JOINTS RESTRAINED FROM MAIN TO FIRE HYDRANT INCLUDING MJ RESTRAINT OF TEE AT THE MAIN. JOINTS SHOWN MAY VARY. SEE SPL WW-27A, WW-27A-01, AND WW-27B FOR RESTRAINT OPTIONS.
4. BELOW EACH HYDRANT, A DRAINAGE PIT 24" IN DIAMETER AND 12" DEEP SHALL BE EXCAVATED AND FILLED WITH COMPACTED COARSE GRAVEL OR BROKEN STONE MIXED WITH COARSE SAND UNDER AND AROUND THE BOWL OF THE HYDRANT, AND TO A LEVEL 12" ABOVE THE HYDRANT DRAIN OPENING (SEE STD. SPEC. 510). THE HYDRANT DRAINAGE PIT SHALL NOT BE CONNECTED TO A SANITARY SEWER. THE DRAIN GRAVEL SHALL BE COVERED WITH FILTER FABRIC PER STD. SPEC. 620.
5. WRAP 8 MIL. POLY-FILM WRAP ON ALL BURIED PIPE AND FITTINGS. CUT SLITS IN POLY-FILM WRAP AT BOOT TO ALLOW WATER TO ESCAPE FROM WEEP HOLES AND POLY-WRAP.
6. A BLUE TYPE II-B-B REFLECTORIZED PAVEMENT MARKER, CONFORMING TO STANDARD SPECIFICATION ITEM NO. 863S, SHALL BE PLACED 2 TO 3 FEET OFFSET FROM THE CENTERLINE OF PAVED STREETS, ON THE SIDE OF AND IN LINE WITH ALL NEWLY INSTALLED FIRE HYDRANTS.

CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT ASSEMBLY	
JEFF A. KYLE 11/06/2023 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 511-AW-02 3 OF 3

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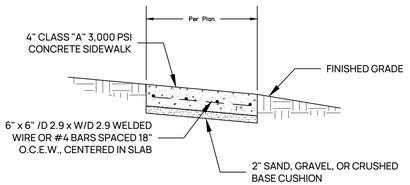
No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 R.M.1826
AUSTIN, TEXAS 78737

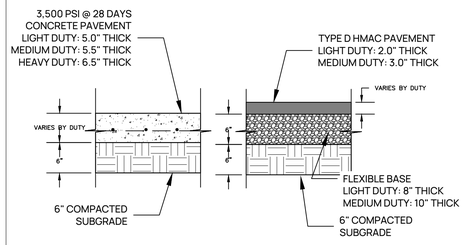
HCC JOB No.: 041-01 DRAWN BY: RTC

UTILITY DETAILS (2 OF 2)

SHEET No.
33
OF 35



TYPICAL SIDEWALK
N.T.S



PAVEMENT SECTIONS
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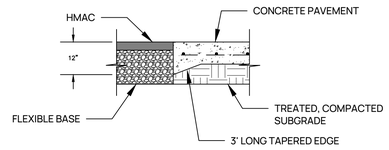
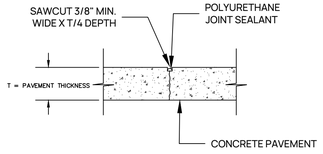
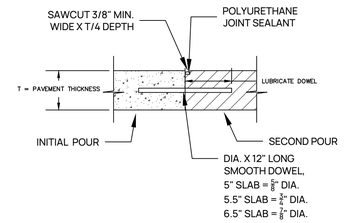


CONCRETE/ASHPALT JUNCTURE
N.T.S



CONTROL JOINT DETAIL
N.T.S



CONSTRUCTION JOINT DETAIL
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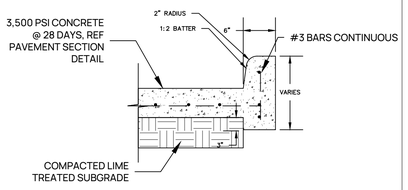
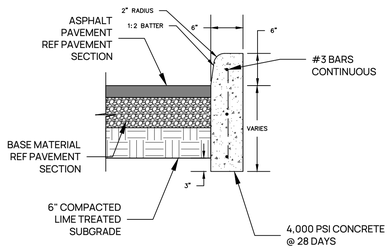
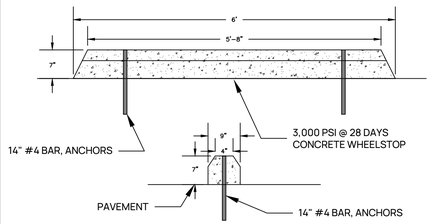


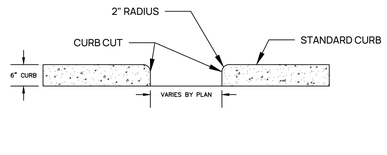
STANDARD 6" CURB - CONCRETE PAVEMENT
N.T.S



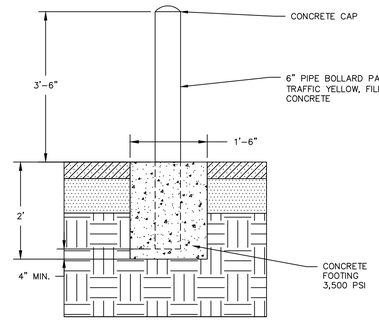
STANDARD 6" CURB - ASPHALT PAVEMENT
N.T.S



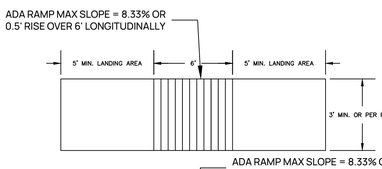
TYPICAL WHEELSTOP
N.T.S



TYPICAL CURB OPENING
N.T.S

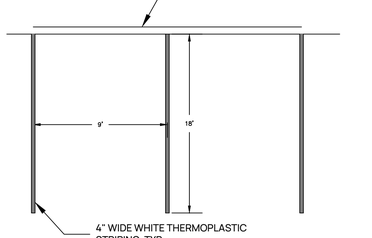


6" BOLLARD DETAIL
N.T.S



1. RAMPS SHALL BE IN ACCORDANCE WITH TAS STANDARDS, NOT TO EXCEED 1:12 SLOPE. WHEN RAMP RUNS EXCEED 0.5' OVER 6', HANDRAILS WILL BE REQUIRED. CROSS SLOPE ON RAMPS NOT TO EXCEED 2% SLOPE.
2. MAXIMUM SLOPE IN ANY DIRECTION AT LANDING AREAS NOT TO EXCEED 2% SLOPE.
3. ALL LANDINGS, RAMPS, PARKING, LOADING AREAS AND SIGNAGE SHALL BE COMPLIANT WITH TEXAS ACCESSIBILITY STANDARDS PER TAS STANDARDS SECTION 4.6.4.
4. REFERENCE DIMENSION CONTROL PLAN AND SITE GRADING PLAN FOR SPECIFIC RAMP DESIGN. THE DEPICTION ABOVE IS AN EXAMPLE OF A TYPICAL EXAMPLE.

TYPICAL ADA RAMP
N.T.S



TYPICAL PARKING SPACE STRIPING
N.T.S

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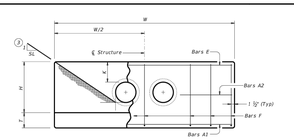
DATE: 8-14

TABLE OF VARIABLE DIMENSIONS AND QUANTITIES FOR ONE HEADWALL (1)

Dia of Pipe (D)	Values For One Pipe W	Reinf (Conc) (CY) (2)	Conc (CY) (2)	Values To Be Added for Each Add'l Pipe W	Reinf (Conc) (CY) (3)	Conc (CY) (2)
12"	9'-0"	122	1.1	1'-9"	15	0.2
15"	10'-3"	136	1.3	2'-2"	16	0.2
18"	11'-6"	163	1.5	2'-8"	19	0.3
21"	12'-9"	188	1.8	3'-1"	31	0.4
24"	14'-0"	217	2.1	3'-7"	34	0.4
27"	15'-3"	254	2.4	3'-11"	37	0.5
30"	19'-0"	272	2.7	4'-4"	40	0.6
33"	17'-9"	314	3.1	4'-8"	43	0.6
36"	19'-0"	371	3.9	5'-1"	46	0.8
42"	21'-6"	442	4.9	5'-10"	52	1.0
48"	25'-0"	569	6.4	6'-7"	59	1.3
54"	27'-6"	701	7.5	7'-6"	82	1.6
60"	30'-0"	794	8.8	8'-3"	90	1.8
66"	32'-6"	894	10.2	8'-9"	96	2.0
72"	35'-0"	1,055	11.7	9'-6"	103	2.3
12"	13'-0"	173	1.6	1'-9"	14	0.2
15"	14'-9"	193	1.9	2'-2"	17	0.2
18"	16'-6"	228	2.2	2'-8"	19	0.3
21"	18'-3"	298	2.6	3'-1"	31	0.4
24"	20'-0"	323	3.0	3'-7"	33	0.4
27"	21'-9"	371	3.5	3'-11"	37	0.5
30"	23'-6"	415	4.0	4'-4"	40	0.5
33"	25'-3"	469	4.6	4'-8"	43	0.6
36"	27'-0"	536	5.7	5'-1"	46	0.8
42"	30'-6"	673	7.1	5'-10"	52	1.0
48"	35'-6"	837	9.2	6'-7"	59	1.3
54"	39'-0"	1,015	11.0	7'-6"	84	1.6
60"	42'-6"	1,171	12.9	8'-3"	91	1.8
66"	46'-0"	1,298	14.9	8'-9"	98	2.0
72"	49'-6"	1,361	17.1	9'-6"	103	2.3
12"	17'-0"	229	2.0	1'-9"	15	0.2
15"	19'-3"	266	2.4	2'-2"	17	0.2
18"	21'-6"	308	2.8	2'-8"	19	0.3
21"	23'-9"	382	3.5	3'-1"	31	0.3
24"	26'-0"	430	3.9	3'-7"	34	0.4
27"	28'-3"	486	4.7	3'-11"	37	0.5
30"	30'-6"	539	5.2	4'-4"	40	0.6
33"	32'-9"	603	6.0	4'-8"	42	0.6
36"	35'-0"	738	7.5	5'-1"	47	0.8
42"	39'-6"	881	9.3	5'-10"	52	1.0
48"	46'-0"	1,102	12.1	6'-7"	61	1.3
54"	50'-6"	1,364	14.4	7'-6"	84	1.6
60"	55'-0"	1,547	16.9	8'-3"	91	1.8
66"	59'-6"	1,741	19.5	8'-9"	98	2.0
72"	64'-0"	2,072	22.4	9'-6"	103	2.3
12"	25'-0"	336	3.0	1'-9"	14	0.2
15"	28'-3"	384	3.6	2'-2"	17	0.2
18"	31'-6"	452	4.2	2'-8"	19	0.3
21"	34'-9"	581	5.1	3'-1"	31	0.4
24"	38'-0"	644	5.8	3'-7"	34	0.4
27"	41'-3"	731	6.9	3'-11"	37	0.5
30"	44'-6"	801	7.7	4'-4"	39	0.6
33"	47'-9"	912	8.9	4'-8"	44	0.6
36"	51'-0"	1,108	11.0	5'-1"	48	0.8
42"	57'-6"	1,318	13.7	5'-10"	54	1.0
48"	67'-0"	1,682	17.9	6'-7"	59	1.3
54"	73'-6"	2,072	21.3	7'-6"	83	1.6
60"	80'-0"	2,331	24.9	8'-3"	89	1.8
66"	86'-6"	2,643	28.9	8'-9"	96	2.0
72"	93'-0"	3,121	33.1	9'-6"	101	2.3



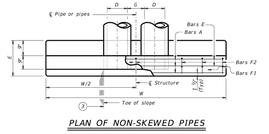
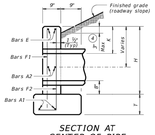


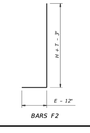
TABLE OF CONSTANT DIMENSIONS

Dia of Pipe (D)	G	K (5)	H	T	E
12"	0'-9"	1'-0"	2'-8"	0'-9"	1'-9"
15"	0'-11"	1'-0"	2'-11"	0'-9"	1'-9"
18"	1'-2"	1'-0"	3'-2"	0'-9"	1'-9"
21"	1'-4"	1'-0"	3'-5"	0'-9"	2'-0"
24"	1'-7"	1'-0"	3'-8"	0'-9"	2'-0"
27"	1'-8"	1'-0"	3'-11"	0'-9"	2'-3"
30"	1'-10"	1'-0"	4'-2"	0'-9"	2'-3"
33"	1'-11"	1'-0"	4'-5"	0'-9"	2'-3"
36"	2'-1"	1'-0"	4'-8"	1'-0"	2'-6"
42"	2'-4"	1'-3"	5'-2"	1'-0"	2'-9"
48"	2'-7"	1'-3"	5'-11"	1'-0"	3'-0"
54"	3'-0"	1'-3"	6'-5"	1'-0"	3'-3"
60"	3'-3"	1'-3"	6'-11"	1'-0"	3'-6"
66"	3'-3"	1'-3"	7'-5"	1'-0"	3'-9"
72"	3'-4"	1'-3"	7'-11"	1'-0"	4'-0"

TABLE OF REINFORCING STEEL (4)

Bar	Size	Spa	No.
A1	#5	–	2
A2	#5	1'-0"	–
E	#5	–	2
F	#5	1'-0"	–





MATERIAL NOTES:
Provide Grade 60 reinforcing steel.
Provide Class 'C' concrete (f'c = 3,600 psi).

GENERAL NOTES:
Designed according to AASHTO LRFD Bridge Design Specifications.
Do not mount bridge rails of any type directly to these culvert headwalls.
This standard may not be used for wall heights, H, exceeding the values shown.

Cover dimensions are clear dimensions, unless noted otherwise. Reinforcing dimensions are out-to-out of bars.

1. Total quantities include one 3'-1" lap for bars over 60' in length.
2. Quantities shown are for concrete pipe and will increase slightly for metal pipe installations.
3. Indicated slope is perpendicular to centerline pipe or pipes.
4. For vehicle safety, construct curbs no more than 3" above finished grade. Reduce curb heights, if necessary, to meet these requirements. No changes will be made in bid quantities. No additional compensation will be allowed for this work.
5. Dimensions shown are usual and maximum.
6. Quantities shown are for one structure end only (one headwall).

Texas Department of Transportation | Bridge Division Standard

CONCRETE HEADWALLS WITH PARALLEL WINGS FOR NON-SKEWED PIPE CULVERTS

CH-PW-0

FILE: ch-pw-0.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY		SHEET NO.

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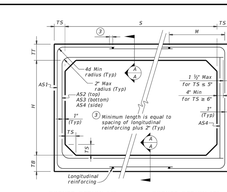
DATE: 8-14

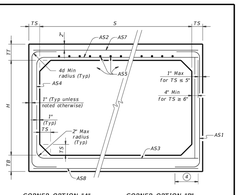
BOX DATA

SECTION DIMENSIONS S (Ft.)	H (Ft.)	TT (In.)	TB (In.)	TS (In.) (1)	Fill Height (Ft.)	W (Min) (In.)	REINFORCING (sq. in. / Ft.) (2) AS1	AS2	AS3	AS4	AS5	AS7	AS8	Unit Weight (tons)
3	2	7	6	4	< 2	–	0.17	0.25	0.16	0.10	0.17	0.17	0.14	3.3
3	2	4	4	4	2 < 3	31	0.13	0.19	0.18	0.10	–	–	–	2.4
3	2	4	4	4	3 < 5	31	0.10	0.11	0.12	0.10	–	–	–	2.4
3	2	4	4	4	5	31	0.10	0.10	0.10	0.10	–	–	–	2.4
3	2	4	4	4	15	31	0.10	0.13	0.13	0.10	–	–	–	2.4
3	2	4	4	4	20	31	0.11	0.17	0.17	0.10	–	–	–	2.4
3	2	4	4	4	25	31	0.14	0.21	0.21	0.10	–	–	–	2.4
3	2	4	4	4	30	31	0.17	0.25	0.25	0.10	–	–	–	2.4
3	2	4	4	4	35	31	0.20	0.29	0.30	0.10	–	–	–	2.4
3	3	7	6	4	< 2	–	0.17	0.27	0.17	0.10	0.17	0.17	0.14	3.7
3	3	4	4	4	2 < 3	31	0.10	0.22	0.21	0.10	–	–	–	2.8
3	3	4	4	4	3 < 5	31	0.10	0.14	0.14	0.10	–	–	–	2.8
3	3	4	4	4	10	31	0.10	0.11	0.11	0.10	–	–	–	2.8
3	3	4	4	4	15	31	0.10	0.14	0.15	0.10	–	–	–	2.8
3	3	4	4	4	20	31	0.10	0.18	0.19	0.10	–	–	–	2.8
3	3	4	4	4	25	31	0.10	0.23	0.23	0.10	–	–	–	2.8
3	3	4	4	4	30	31	0.12	0.27	0.28	0.10	–	–	–	2.8
3	3	4	4	4	35	31	0.14	0.32	0.32	0.10	–	–	–	2.8

(1) For box length = 8'-0"
(2) AS1 thru AS4, AS7 and AS8 are minimum required areas of reinforcement per linear foot of box length. AS5 is minimum required area of reinforcement per linear foot of box width.

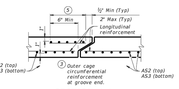


FILL HEIGHT 2 FT AND GREATER



FILL HEIGHT LESS THAN 2 FT

(4) Length is equal to spacing of longitudinal reinforcing plus 2". (1'0" Min) (Typ)



SECTION A-A
(Showing top and bottom slab joint reinforcement.)

MATERIAL NOTES:
Provide Grade 60 (420) MPa) minimum longitudinal reinforcement at each face in slabs and walls. This minimum requirement may be met by the transverse wires when wire mesh reinforcement is used.
Provide Class H concrete (f'c = 5,000 psi).

GENERAL NOTES:
Designs shown conform to ASTM C1577. Refer to ASTM C1577 for information on details not shown.
See Box Culverts Precast Miscellaneous Details (SCP-MD) standard sheet for general box culvert notes.
In lieu of furnishing the designs shown on this sheet, the contractor may furnish an alternate design that is equal to or exceeds the box design for the design fill heights in the table. Submit shop plans for alternate designs in accordance with Item "Precast Concrete Structural Members (Fabrication)."

HL93 LOADING

Texas Department of Transportation | Bridge Division Standard

SINGLE BOX CULVERTS PRECAST
3'-0" SPAN
SCP-3

FILE: SCP(3-0)-20.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY		SHEET NO.

Hill Country Civil
Engineers ◆ Consultants
Texas Firm Registration No. F-20172
1242 Northpark Ridge, New Braunfels, TX 78130
Phone 877-609-9078 or 210-378-4953
www.hillcountrycivil.com

ROSS T. CORDER
125401
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
10/9/24

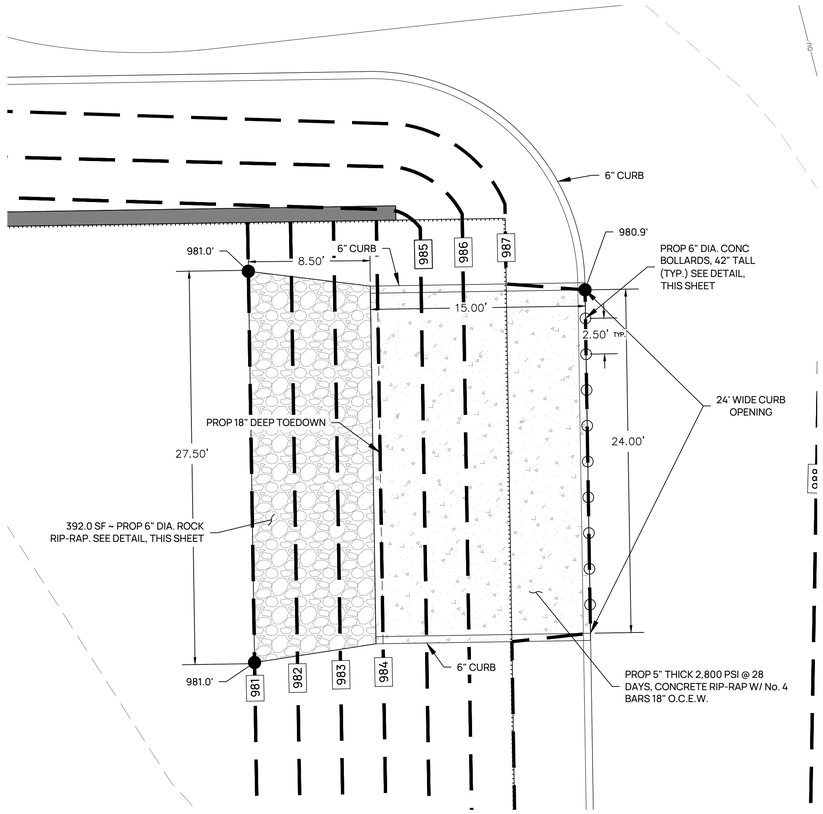
No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 | DRAWN BY: RTC

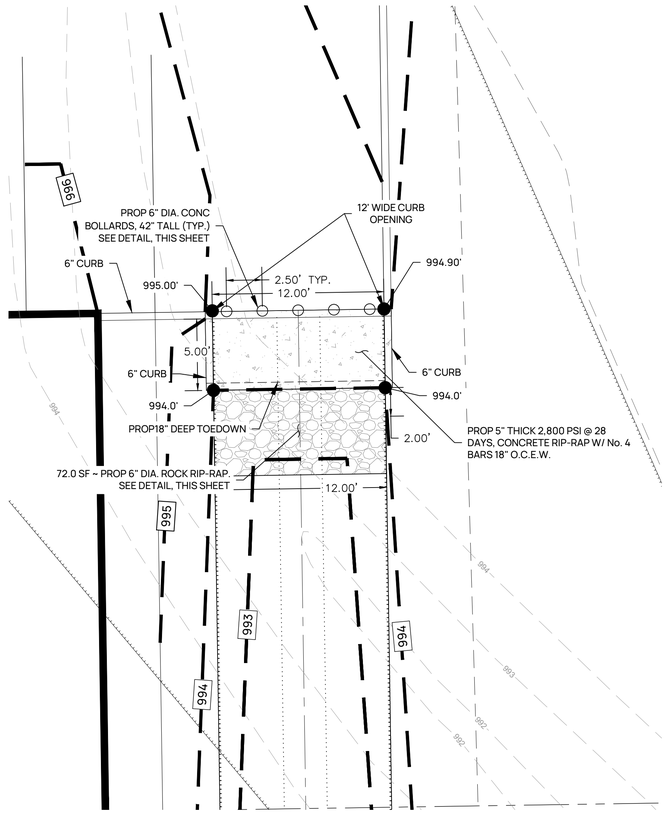
SITE DETAILS (1 OF 2)

SHEET No.
34
OF 35



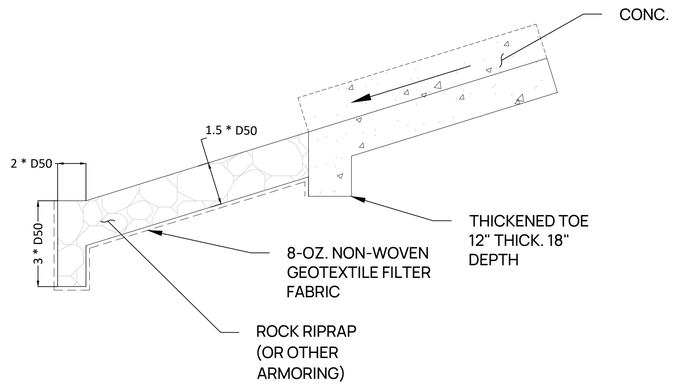
CURB OPENING INTO POND 2

SCALE: 1"=5'



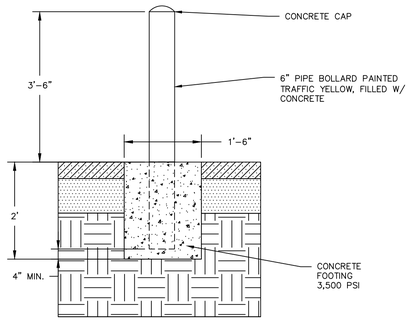
CURB OPENING INTO DRAINAGE CHANNEL

SCALE: 1"=5'



RIP RAP CROSS-SECTION TYP.

N.T.S.



6" BOLLARD DETAIL

N.T.S.

Hill Country Civil
Engineers ◆ Consultants
Texas Firm Registration No. F-20973
1624 Northpark Ridge, New Braunfels, TX 78130
Phone 817-609-9078 or 210-378-4353
www.hillcountrycivil.com

ROSS T. CORDER
125401
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
10/4/24

No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
17120 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY:. RTC

SITE DETAILS (2 OF 2)

SHEET No.
35
OF 35

Hill Country Civil
Engineers • Consultants

TCEQ Calculation Pond 1

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: AAA FM 1826
Date Prepared: 4/26/2024

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

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

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

where:

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

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

County =	Travis	
Total project area included in plan * =	17.88	acres
Predevelopment impervious area within the limits of the plan* =	0.27	acres
Total post-development impervious area within the limits of the plan* =	10.40	acres
Total post-development impervious cover fraction * =	0.58	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	8817	lbs.

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

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

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

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area =	10.85	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	7.40	acres
Post-development impervious fraction within drainage basin/outfall area =	0.68	
$L_{M\ THIS\ BASIN}$ =	6441	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 91 percent

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

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

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

where:

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

A_C =	10.85	acres
A_I =	7.40	acres
A_P =	3.45	acres
L_R =	7510	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = **7000** lbs.

F = **0.93**

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 =	**2.20**	inches
Post Development Runoff Coefficient =	**0.49**	
On-site Water Quality Volume =	**42302**	cubic feet

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

Off-site area draining to BMP =	**11.20**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0.00**	
Off-site Runoff Coefficient =	**0.02**	
Off-site Water Quality Volume =	**1789**	cubic feet
Storage for Sediment =	**8818**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**52909**	cubic feet 1.21 Acre-ft

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

7. Retention/Irrigation System Designed as Required in RG-348 Pages 3-42 to 3-46

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

Irrigation Area Calculations:

Soil infiltration/permeability rate =	**0.1**	in/hr	**Enter determined permeability rate or assumed value of 0.1**
Irrigation area =	**NA**	square feet	
	NA	acres	

8. Extended Detention Basin System Designed as Required in RG-348 Pages 3-46 to 3-51

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

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 =	**NA**	cubic feet	
Minimum filter basin area =	**NA**	square feet	
Maximum sedimentation basin area =	**NA**	square feet	**For minimum water depth of 2 feet**
Minimum sedimentation basin area =	**NA**	square feet	**For maximum water depth of 8 feet**

9B. Partial Sedimentation and Filtration System

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

10. Bioretention System Designed as Required in RG-348 Pages 3-63 to 3-65

Required Water Quality Volume for Bioretention Basin = **NA** cubic feet

11. Wet Basins Designed as Required in RG-348 Pages 3-66 to 3-71

Required capacity of Permanent Pool =	**NA**	cubic feet	**Permanent Pool Capacity is 1.20 times the WQV**
Required capacity at WQV Elevation =	**NA**	cubic feet	**Total Capacity should be the Permanent Pool Capacity plus a second WQV.**

12. Constructed Wetlands Designed as Required in RG-348 Pages 3-71 to 3-73

Required Water Quality Volume for Constructed Wetlands = **NA** cubic feet

13. AquaLogic™ Cartridge System Designed as Required in RG-348 Pages 3-74 to 3-78

**** 2005 Technical Guidance Manual (RG-348) does not exempt the required 20% increase with maintenance contract with AquaLogic™.**

Required Sedimentation chamber capacity = **NA** cubic feet
Filter canisters (FCs) to treat WQV = **NA** cartridges
Filter basin area (RIA_F) = **NA** square feet

14. Stormwater Management StormFilter® by CONTECH

Required Water Quality Volume for Contech StormFilter System = **NA** cubic feet

THE SIZING REQUIREMENTS FOR THE FOLLOWING BMPs / LOAD REMOVALS ARE BASED UPON FLOW RATES - NOT CALCULATED WATER QUALITY VOLUME

15. Grassy Swales Designed as Required in RG-348 Pages 3-51 to 3-54

Design parameters for the swale:

Drainage Area to be Treated by the Swale = A = 0.00 acres
Impervious Cover in Drainage Area = 0.00 acres
Rainfall intensity = i = 1.1 in/hr
Swale Slope = 0 ft/ft
Side Slope (z) = 0
Design Water Depth = y = 0.00 ft
Weighted Runoff Coefficient = C = #DIV/0!

A_{CS} = cross-sectional area of flow in Swale = #DIV/0! sf
P_W = Wetted Perimeter = #DIV/0! feet
R_H = hydraulic radius of flow cross-section = A_{CS}/P_W = #DIV/0! feet
n = Manning's roughness coefficient = 0.2

15A. Using the Method Described in the RG-348

Manning's Equation: $Q = \frac{1.49}{n} A_{CS} R_H^{2/3} S^{0.5}$

$b = \frac{0.134 \times Q}{y^{1.67} S^{0.5}} - zy$ = #DIV/0! feet

Q = CiA = #DIV/0! cfs

To calculate the flow velocity in the swale:

V (Velocity of Flow in the swale) = Q/A_{CS} = #DIV/0! ft/sec

To calculate the resulting swale length:

L = Minimum Swale Length = V (ft/sec) * 300 (sec) = #DIV/0! feet

If any of the resulting values do not meet the design requirement set forth in RG-348, the design parameters must be modified and the solver rerun.

15B. Alternative Method using Excel Solver

Design Q = CiA =	#DIV/0!	cfs		
Manning's Equation Q =	0.00	cfs	Error 1 =	#DIV/0!
Swale Width=	6.00	ft		
Flow Velocity	#DIV/0!	ft/s		
Minimum Length =	#DIV/0!	ft		
Design Width =	0	ft		
Design Discharge =	0.00	cfs	Error 2 =	#DIV/0!
Design Depth =	0.33	ft		
Flow Velocity =	#DIV/0!	cfs		
Minimum Length =	#DIV/0!	ft		

If any of the resulting values do not meet the design requirement set forth in RG-348, the design parameters may be modified and the solver rerun.
If any of the resulting values still do not meet the design requirement set forth in RG-348, widening the swale bottom value may not be possible.

16. Vegetated Filter Strips Designed as Required in RG-348 Pages 3-55 to 3-57

There are no calculations required for determining the load or size of vegetative filter strips.
The 80% removal is provided when the contributing drainage area does not exceed 72 feet (direction of flow) and
the sheet flow leaving the impervious cover is directed across 15 feet of engineered filter strips with maximum slope of 20% o
across 50 feet of natural vegetation with a maximum slope of 10%. There can be a break in grade as long as no slope exceeds 20%

If vegetative filter strips are proposed for an interim permanent BMP, they may be sized as described on Page 3-56 of RG-348

17. Wet Vaults Designed as Required in RG-348 Pages 3-30 to 3-32 & 3-79

Required Load Removal Based upon Equation 3.3 =	**NA**	lbs	
RG-348 Page 3-30 Equation 3.4: Q = CiA			
C = runoff coefficient for the drainage area =	0.51		**C = Runoff Coefficient = 0.546 (IC)^2 + 0.328 (IC) + 0.03**
i = design rainfall intensity =	1.1	in/hour	
A = drainage area in acres =	1	acres	
Q = flow rate in cubic feet per second =	0.56	cubic feet/sec	
RG-348 Page 3-31 Equation 3.5: V_{OR} = Q/A			
Q = Runoff rate calculated above =	0.56	cubic feet/sec	
A = Water surface area in the wet vault =	0	square feet	
V_{OR} = Overflow Rate =	#DIV/0!	feet/sec	
Percent TSS Removal from Figure 3-1 (RG-348 Page 3-31) =	0	percent	
Load removed by Wet Vault =	#VALUE!	lbs	

If a bypass occurs at a rainfall intensity of less than 1.1 in/hours
Calculate the efficiency reduction for the actual rainfall intensity rate

Actual Rainfall Intensity at which Wet Vault bypass Occurs =	0	in/hour	
Fraction of rainfall treated from Figure 3-2 RG-348 Page 3-32 =	0	percent	
Efficiency Reduction for Actual Rainfall Intensity =	0.00	percent	
Resultant TSS Load removed by Wet Vault =	#VALUE!	lbs	

18. Permeable Concrete Designed as Required in RG-348 Pages 3-79 to 3-83

PERMEABLE CONCRETE MAY ONLY BE USED ON THE CONTRIBUTING ZONE

19. BMPs Installed in a Series Designed as Required in RG-348 Pages 3-32

Michael E. Barrett, Ph.D.. P.E. recommended that the coefficient for E_2 be changed from 0.5 to 0.65 on May 3, 2006

$E_{TOT} = [1 - ((1 - E_1) X (1 - 0.65E_2) x (1 - 0.25E_3))] X 100 =$	0.00	percent	NET EFFICIENCY OF THE BMPs IN THE SERIES
EFFICIENCY OF FIRST BMP IN THE SERIES = E_1 =	0.00	percent	
EFFICIENCY OF THE SECOND BMP IN THE SERIES = E_2 =	0.00	percent	
EFFICIENCY OF THE THIRD BMP IN THE SERIES = E_3 =	0.00	percent	

THEREFORE, THE NET LOAD REMOVAL WOULD BE:
(A_I AND A_P VALUES ARE FROM SECTION 3 ABOVE)

$L_R = E_{TOT} X P X (A_I X 34.6 X A_P X0.54) =$	0.00	lbs

20. Stormceptor

Required TSS Removal in BMP Drainage Area=	**NA**	lbs
Impervious Cover Overtreatment=	0.0000	ac
TSS Removal for Uncaptured Area =	0.00	lbs

BMP Sizing

Effective Area =	NA	EA
Calculated Model Size(s) =	#N/A	
Actual Model Size (if multiple values provided in Calculatec Model Size or if you are choosing a larger model size) =	0	Model Size
Surface Area =	#N/A	ft^2
Overflow Rate =	#VALUE!	V_{or}
Rounded Overflow Rate =	#VALUE!	V_{or}
BMP Efficiency % =	#VALUE!	%
L_R Value =	#VALUE!	lbs
TSS Load Credit =	#VALUE!	lbs
Is Sufficient Treatment Available? (TSS Credit≥ TSS Uncapt.)	#VALUE!	
TSS Treatment by BMP (LM + TSS Uncapt.) =	#VALUE!	

21. Vortech

Required TSS Removal in BMP Drainage Area=	**NA**	lbs
Impervious Cover Overtreatment=	0.0000	ac
TSS Removal for Uncaptured Area =	0.00	lbs

BMP Sizing

Effective Area =	NA	EA
Calculated Model Size(s) =	#N/A	
Actual Model Size (if choosing larger model size) =	Vx1000	Pick Model Size
Surface Area =	7.10	ft^2
Overflow Rate =	#VALUE!	V_{or}
Rounded Overflow Rate =	#VALUE!	V_{or}
BMP Efficiency % =	#VALUE!	%
L_R Value =	#VALUE!	lbs
TSS Load Credit =	#VALUE!	lbs
Is Sufficient Treatment Available? (TSS Credit≥ TSS Uncapt.)	#VALUE!	
TSS Treatment by BMP (LM + TSS Uncapt.) =	#VALUE!	

Hill Country Civil
Engineers • Consultants

TCEQ Calculation Pond 2

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: AAA FM 1826
Date Prepared: 4/26/2024

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

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
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 =	Travis	
Total project area included in plan * =	17.88	acres
Predevelopment impervious area within the limits of the plan * =	0.27	acres
Total post-development impervious area within the limits of the plan* =	10.40	acres
Total post-development impervious cover fraction * =	0.58	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	8817	lbs.

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

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

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

Drainage Basin/Outfall Area No. = 2

Total drainage basin/outfall area =	3.96	acres
Predevelopment impervious area within drainage basin/outfall area =	0.17	acres
Post-development impervious area within drainage basin/outfall area =	2.06	acres
Post-development impervious fraction within drainage basin/outfall area =	0.52	
$L_{M\ THIS\ BASIN}$ =	1645	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 91 percent

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

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

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

where:

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

A_C =	**3.96**	acres
A_I =	**2.06**	acres
A_P =	**1.90**	acres
L_R =	**2105**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ =	**1817**	lbs.
F =	**0.86**	

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

Rainfall Depth =	**1.38**	inches
Post Development Runoff Coefficient =	**0.37**	
On-site Water Quality Volume =	**7317**	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 =	**1463**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**8781**	cubic feet 0.20 Acre-ft

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

7. Retention/Irrigation System Designed as Required in RG-348 Pages 3-42 to 3-46

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

Irrigation Area Calculations:

Soil infiltration/permeability rate =	**0**	in/hr	**Enter determined permeability rate or assu**
Irrigation area =	**NA**	square feet	
	NA	acres	

8. Extended Detention Basin System Designed as Required in RG-348 Pages 3-46 to 3-51

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

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 =	**NA**	cubic feet	
Minimum filter basin area =	**NA**	square feet	
Maximum sedimentation basin area =	**NA**	square feet	**For minimum water depth of 2 feet**
Minimum sedimentation basin area =	**NA**	square feet	**For maximum water depth of 8 feet**

9B. Partial Sedimentation and Filtration System

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

10. Bioretention System — Designed as Required in RG-348 — Pages 3-63 to 3-65

Required Water Quality Volume for Bioretention Basin =	**NA**	cubic feet

11. Wet Basins — Designed as Required in RG-348 — Pages 3-66 to 3-71

Required capacity of Permanent Pool =	**NA**	cubic feet	**Permanent Pool Capacity is 1.20 times the**
Required capacity at WQV Elevation =	**NA**	cubic feet	**Total Capacity should be the Permanent Pc plus a second WQV.**

12. Constructed Wetlands — Designed as Required in RG-348 — Pages 3-71 to 3-73

Required Water Quality Volume for Constructed Wetlands =	**NA**	cubic feet

13. AquaLogic™ Cartridge System — Designed as Required in RG-348 — Pages 3-74 to 3-78

**** 2005 Technical Guidance Manual (RG-348) does not exempt the required 20% increase with maintenance contract with AquaLogic™.**

Required Sedimentation chamber capacity =	**NA**	cubic feet
Filter canisters (FCs) to treat WQV =	**NA**	cartridges
Filter basin area (RIA_F) =	**NA**	square feet

14. Stormwater Management StormFilter® by CONTECH

Required Water Quality Volume for Contech StormFilter System =	**NA**	cubic feet

THE SIZING REQUIREMENTS FOR THE FOLLOWING BMPs / LOAD REMOVALS ARE BASED UPON FLOW RATES - NOT CALCULATED WATER (

15. Grassy Swales — Designed as Required in RG-348 — Pages 3-51 to 3-54

Design parameters for the swale:

Drainage Area to be Treated by the Swale = A =	0.00	acres
Impervious Cover in Drainage Area =	0.00	acres
Rainfall intensity = i =	1.1	in/hr
Swale Slope =	0	ft/ft
Side Slope (z) =	0	
Design Water Depth = y =	0.00	ft
Weighted Runoff Coefficient = C =	#DIV/0!	

A_{CS} = cross-sectional area of flow in Swale =	#DIV/0!	sf
P_W = Wetted Perimeter =	#DIV/0!	feet
R_H = hydraulic radius of flow cross-section = A_{CS}/P_W =	#DIV/0!	feet
n = Manning's roughness coefficient =	0.2	

15A. Using the Method Described in the RG-348

Manning's Equation: $Q = \frac{1.49}{n} A_{CS} R_H^{2/3} S^{0.5}$

$b = \frac{0.134 \times Q}{y^{1.67} S^{0.5}} - zy$ = #DIV/0! feet

Q = CiA = #DIV/0! cfs

To calculate the flow velocity in the swale:

V (Velocity of Flow in the swale) = Q/A_{CS} = #DIV/0! ft/sec

To calculate the resulting swale length:

L = Minimum Swale Length = V (ft/sec) * 300 (sec) = #DIV/0! feet

If any of the resulting values do not meet the design requirement set forth in RG-348, the design parameters must be modified and the solv

15B. Alternative Method using Excel Solver

Design Q = CiA = #DIV/0! cfs

Manning's Equation Q =	0.00	cfs	Error 1 =	#DIV/0!
Swale Width=	6.00	ft		
Flow Velocity	#DIV/0!	ft/s		
Minimum Length =	#DIV/0!	ft		
Design Width =	0	ft		
Design Discharge =	0.00	cfs	Error 2 =	#DIV/0!
Design Depth =	0.33	ft		
Flow Velocity =	#DIV/0!	cfs		
Minimum Length =	#DIV/0!	ft		

If any of the resulting values do not meet the design requirement set forth in RG-348, the design parameters may be modified and the solver reru
If any of the resulting values still do not meet the design requirement set forth in RG-348, widening the swale bottom value may not be possible.

16. Vegetated Filter Strips Designed as Required in RG-348 Pages 3-55 to 3-57

There are no calculations required for determining the load or size of vegetative filter strips.
The 80% removal is provided when the contributing drainage area does not exceed 72 feet (direction of flow) and the sheet flow leaving the impervious cover is directed across 15 feet of engineered filter strips with maximum slope of 20% or across 50 feet of natural vegetation with a maximum slope of 10%. There can be a break in grade as long as no slope exceeds 20%.

If vegetative filter strips are proposed for an interim permanent BMP, they may be sized as described on Page 3-56 of RG-348.

17. Wet Vaults — Designed as Required in RG-348 — Pages 3-30 to 3-32 & 3-

Required Load Removal Based upon Equation 3.3 = **NA** lbs

First calculate the load removal at 1.1 in/hour

RG-348 Page 3-30 Equation 3.4: Q = CiA

C = runoff coefficient for the drainage area = 0.35 — **C = Runoff Coefficient = 0.546 (IC)^2 + 0.328**
i = design rainfall intensity = 1.1 in/hour
A = drainage area in acres = 0 acres

Q = flow rate in cubic feet per second = 0.00 cubic feet/sec

RG-348 Page 3-31 Equation 3.5: V_{OR} = Q/A

Q = Runoff rate calculated above = 0.00 cubic feet/sec
A = Water surface area in the wet vault = 0 square feet

V_{OR} = Overflow Rate = #DIV/0! feet/sec

Percent TSS Removal from Figure 3-1 (RG-348 Page 3-31) = 0 percent

Load removed by Wet Vault = #VALUE! lbs

If a bypass occurs at a rainfall intensity of less than 1.1 in/hours
Calculate the efficiency reduction for the actual rainfall intensity rate

Actual Rainfall Intensity at which Wet Vault bypass Occurs = 0 in/hour

Fraction of rainfall treated from Figure 3-2 RG-348 Page 3-32 = 0 percent
Efficiency Reduction for Actual Rainfall Intensity = 0.00 percent

Resultant TSS Load removed by Wet Vault = #VALUE! lbs

18. Permeable Concrete — Designed as Required in RG-348 — Pages 3-79 to 3-83

PERMEABLE CONCRETE MAY ONLY BE USED ON THE CONTRIBUTING ZONE

19. BMPs Installed in a Series — Designed as Required in RG-348 — Pages 3-32

Michael E. Barrett, Ph.D.. P.E. recommended that the coefficient for E_2 be changed from 0.5 to 0.65 on May 3, 2006

E_{TOT} = [1 - ((1 - E_1) X (1 - 0.65E_2) x (1 - 0.25E_3))] X 100 = 0.00 percent — NET EFFICIENCY OF THE BMPs IN THE SE

EFFICIENCY OF FIRST BMP IN THE SERIES = E_1 = 0.00 percent

EFFICIENCY OF THE SECOND BMP IN THE SERIES = E_2 = 0.00 percent

EFFICIENCY OF THE THIRD BMP IN THE SERIES = E_3 = 0.00 percent

THEREFORE, THE NET LOAD REMOVAL WOULD BE:
(A_I AND A_P VALUES ARE FROM SECTION 3 ABOVE)

L_R = E_{TOT} X P X (A_I X 34.6 X A_P X0.54) = 0.00 lbs

20. Stormceptor

Required TSS Removal in BMP Drainage Area=	**NA**	lbs
Impervious Cover Overtreatment=	0.0000	ac
TSS Removal for Uncaptured Area =	0.00	lbs

BMP Sizing

Effective Area =	NA	EA
Calculated Model Size(s) =	#N/A	
Actual Model Size (if multiple values provided in Calculated Model Size or if you are choosing a larger model size) =	0	Model Size
Surface Area =	#N/A	ft^2
Overflow Rate =	#VALUE!	V_{or}
Rounded Overflow Rate =	#VALUE!	V_{or}
BMP Efficiency % =	#VALUE!	%
L_R Value =	#VALUE!	lbs
TSS Load Credit =	#VALUE!	lbs
Is Sufficient Treatment Available? (TSS Credit $\geq$ TSS Uncapt.)	#VALUE!	
TSS Treatment by BMP (LM + TSS Uncapt.) =	#VALUE!	

21. Vortech

Required TSS Removal in BMP Drainage Area=	**NA**	lbs
Impervious Cover Overtreatment=	0.0000	ac
TSS Removal for Uncaptured Area =	0.00	lbs

BMP Sizing

Effective Area =	NA	EA
Calculated Model Size(s) =	#N/A	
Actual Model Size (if choosing larger model size) =	Vx1000	Pick Model Size
Surface Area =	7.10	ft^2
Overflow Rate =	#VALUE!	V_{or}
Rounded Overflow Rate =	#VALUE!	V_{or}
BMP Efficiency % =	#VALUE!	%
L_R Value =	#VALUE!	lbs
TSS Load Credit =	#VALUE!	lbs
Is Sufficient Treatment Available? (TSS Credit $\geq$ TSS Uncapt.)	#VALUE!	
TSS Treatment by BMP (LM + TSS Uncapt.) =	#VALUE!	

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Attachment N- Inspection, Maintenance, Repair and Retrofit Plan

Attachment N: Inspection, Maintenance, Repair, Retrofit Plan

Batch Detention Pond:

Pest Management:

An Integrated Pest Management Plan should be developed for vegetated areas. This plan should specify how problem insects and weeds will be controlled with minimal or no use of insecticides and herbicides. It should also address the maintaining of proper drainage for the site through the batch detention ponds.

Seasonal Mowing and Lawn Care:

The basin, basin side-slopes and embankment of the basin must be mowed to prevent woody growth and control weeds. A mulching mower should be used, or the grass clippings should be caught and removed. Mowing should take place at least twice a year, or more frequently if vegetation exceeds 18 inches in height. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas.

Inspection and Maintenance/Repair:

Inspections should take place a minimum of twice a year. Once inspection should take place during wet weather to determine if the basin is meeting the target detention time of 12 hours and a drawdown time of no more than 48 hours. The remaining inspections should occur between storm event so that manual operation of the valve and controller can be verified. The level sensor in the basin should be inspected and any debris or sediment in the area should be removed. The outlet structure and the trash screen should be inspected for signs of clogging. Debris and sediment should be removed from the orifice and outlet as described in previous sections. Debris obstructing the valve should be removed. During each inspection, erosion areas inside and downstream of this BMP should be identified and repaired/revegetated immediately. In addition, electrical control system should be included in the inspection schedule. If the valve is damaged or not functioning to achieve the required drawdown time, then the valve should be repaired or replaced.

Debris and Litter Removal:

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

Sediment Removal:

Sediment accumulating near culverts and in channels needs to be removed when they build up to 3 inches at any spot. Excess sediment should be removed by hand or with flat-bottomed shovels. If areas are eroded, they should be filled, compacted to final grade. Sediment removal should be performed periodically, as determined through inspection.

Public Education:

The delegation of maintenance responsibilities is for the landowner. However, localities should provide an active educational program to encourage the recommended practices. Landscapers for the site will also need to be educated on the suitable practices for lawn up keep throughout the year with limited amount of the pesticides or fertilizer.

Detention Pond/BMP Records

☐ Inspection Date: _____

Type of Inspection: _____

Comments: _____

_____

_____

_____

Signature: _____ (Inspector)

☐ Maintenance Date: _____

Work Performed: _____

Comments: _____

_____

_____

_____

Signature: _____ (Maintenance Personnel)

☐ Other Date: _____

Comments: _____

_____

_____

_____

_____

_____

Signature: _____ (Title:) _____

Responsibility of Maintenance

I Shawn Beichler
Print Name

Director of Land Development & Construction
Title – Owner/President/Other

A-A-A Storage FM 1826
Corporation/Partnership/Entity Name

Agree to assume the responsibility of maintaining the permanent BMPs constructed as part of the Pecan Park Bulverde development in accordance with the rules and regulations of the Texas Commission on Environmental Quality (TCEQ).

I also understand that:

1. I am 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.

2. 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.

Shawn Beichler
Applicant's Signature Date

Contact Person: Shawn Beichler
Entity: A-A-A Storage FM 1826
Mailing Address: 4203 Spinnaker Cove
City, State, Zip: Austin, TX 78731
Telephone: (704) 754-3200

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Attachment P- Measures for Minimizing Surface Stream Contamination

Attachment P: Measures for Minimizing Surface Stream Contamination

Upon approval of this plan, the Batch Detention Ponds, traditionally designed, will be constructed before the proposed A-A-A FM 1826 Phase 3 and 4 development starts. Therefore, any storm water run off leaving the site will be treated per TCEQ RG-348, and no surface steam contamination is anticipated.

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Temporary Stormwater

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: Ross Corder, PE

Date: 10-04-2024

Signature of Customer/Agent:

Regulated Entity Name: A-A-A Storage FM 1826

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: Bear Creek

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

    ☒ N/A

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

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

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

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

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

Soil Stabilization Practices

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

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

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

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

Administrative Information

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

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

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

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Attachment A- Spill Response Actions

Attachment A: Spill Response Actions

Contractors working onsite with materials which could potentially cause pollution shall implement the following measures to prevent stormwater pollution.

Education of Employees or Subcontractors Who Handle Materials Which Can Cause Pollution

- Employees should know what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills. Employees should also be aware of when a spill must be reported to the TCEQ. Information is available in 30 TAC 327.4 and 40 CFR 302.4.
- Educate employees and subcontractors on the potential dangers to humans and the environment from spills and leaks, and provide training in spill prevention and cleanup. Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).
- Establish a continuing education program to indoctrinate new employees, who will use or handle potential pollutants.
- Provide for a superintendent or representative to oversee and enforce proper spill prevention and control measures.

General Measures

- To the extent that work can be accomplished safely, spills of oil, petroleum products, and substances listed under 40 CFR part 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
- Store hazardous materials and waste in covered containers and protect from vandalism.
- Place spill cleanup materials where it will be readily accessible.
- Spills should be covered and protected from stormwater runoff during rainfall to the extent that it doesn't compromise clean-up activities.
- Do not bury spills onsite.
- Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMP"s.
- Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.
- Contain contaminated water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.
- Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.

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

Cleanup

- Clean up leaks and spills immediately, or as soon as it is safely practical.
- Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent materials for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.
- Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly.

Minor Spills

- Minor spills such as small quantities of oil, gasoline, paint, etc, should be controlled by the first responder at the discovery of the spill.
- Use absorbent materials on small spills rather than hosing down or burying the spill.
- Absorbent materials should be promptly removed and disposed of properly.
- Follow the practice below for a minor spill:
    - Contain the spread of the spill.
    - Recover spilled materials.
    - Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

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

Spills should be cleaned up immediately, or as soon as safely practical

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

Significant/Hazardous Spills

- Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
- For spills of federal reportable quantities, in conformance with the requirements in 40CFR parts 110, 119 and 302, the contractor should notify the National Response Center at (800) 424-8802.
- Notification should first be made by telephone and followed up with a written report. The services of a spill contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staff have arrived at the job site.
- Other agencies which may need to be contacted include, but are not limited to, City, Police Department, County Sheriff Office, Fire Departments, etc.

Vehicle and Equipment Maintenance

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

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Attachment B- Potential Sources of Contamination

Attachment B: Potential Sources of Contamination

Asphalt products used on this project

- Preventative measures
    - After placement of asphalt, emulsion or coatings, the contractor will be responsible for immediate cleanup should an unexpected rain occur. For the duration of the asphalt product curing time, the contractor will maintain standby personnel and equipment to contain any asphalt wash-off should an unexpected rain occur. The contractor will be instructed not to place asphalt products on the ground within 48 hours of forecasted rain.

Oil, grease fuel and hydrocarbon fluid contamination from construction equipment and vehicle drippings.

- Preventative measures
    - Vehicle maintenance, when possible, will be performed within the construction staging area.
    - Construction vehicles and equipment shall be checked regularly for leaks and repaired immediately.

Accidental leaks or spills of oil, petroleum products and substances listed under 40 CFR parts 110, 117, and 302 used or stored temporarily on site.

- Preventative measures
    - Contractor to incorporate regular safety meetings, a discussion of spill prevention and appropriate disposal procedures.
    - Contractor's superintendent or representative overseer shall enforce proper spill prevention and control measures.
    - Hazardous material and waste shall be stored in covered containers and protected from vandalism.
    - A stockpile of spill cleanup materials shall be stored on site where it will be readily available.

Miscellaneous trash and litter from construction workers and material wrappings.

- Preventative measures
    - Trash containers will be placed throughout the site to encourage proper trash disposal.

Construction Debris

- Preventative measures
    - Construction debris will be monitored daily by the site contractor. Debris will be collected weekly and placed in disposal bins. Situations requiring immediate attention will be addressed on a case-by-case basis.

Spills/ Overflow of waste from portable toilets

- Preventative measures
    - Portable toilets will be placed away from high traffic vehicular areas and storm drain inlets.
    - Portable toilets will be placed on a level ground surface.
    - Portable toilets will be inspected regularly for leaks and will be serviced and sanitized at time intervals that will maintain sanitary conditions.

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Attachment C- Sequence of Major Construction Activities

Attachment C: Sequence of Major Construction Activities

The sequence of major construction activities that will disturb earth/soil of the proposed site will be completed in two stages. Initially, the site will cleared, and grubbed of existing vegetation to prepare for the proposed site plan. This stage will include installation of temporary erosion controls. Temporary controls include temporary construction entrance, silt fence, and concrete washout pit. The second stage will include the construction of buildings, parking, drives, utilities, Batch Detention Ponds, landscaping, and site cleanup. Once the site is fully stabilized with vegetation back in place, the temporary erosion controls may be removed. Both stages will disturb approximately 13.0 acres of land.

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Attachment D- Temporary Best Management Practices and Measures

Attachment D: Temporary Best Management Practices and Measures

7a 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.

Upgradient flows are intercepted by two channels. One channel routes upgradient storm water flows to Pond 1 and will be treated by the proposed Batch Detention Basin. The northern channel diverts upgradient flows around the northern edge of the site, and discharges into the TxDOT ROW. The proposed onsite batch detention ponds is sized to treat all onsite flows and contributing up gradient flows and impervious cover.

7b 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.

Site preparations will disturb the largest amount of soil. Therefore, before any of this work can begin, the clearing and grading contractor will be responsible for the installation of all on-site control measures. The methodology for pollution prevention of on-site stormwater will include:

- Erection of silt fence along downgradient boundary of construction activities for temporary erosion and sedimentation controls.
- Installation of stabilized construction entrance/exits to reduce the dispersion of sediment from the site.
- Installation of concrete truck washout.
- Installation of construction staging areas.

7c A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

Temporary measures are intended to provide a method of controlling and slowing the flow of runoff from the construction site. By utilizing silt fence staged down gradient and along flow paths, will allow sediment and suspended solids to settle out of stormwater flows and be captured onsite. By containing the sediment and suspended solids within the site, they will not enter the aquifer, surface streams and/or sensitive features that may exist downstream of the site.

7d 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

BMP measures utilized in this plan are intended to allow stormwater to continue downstream after passing through the BMPs. The BMPs are providing settlement of suspended solids and containment onsite, but stormwater flows will continue on their natural drainage path. Features discovered during construction will be reported and assessed in accordance with applicable regulations.

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Attachment F- Structural Practices

Attachment F: Structural Practices

The structural practices listed below are shown on the Erosion Control Plans and are listed on Attachment D of the Temporary Controls Section of the CZP.

- A stabilized construction entrance with washout pit will be constructed at all locations where vehicular traffic enters and leaves the site. This will reduce sediments which leave the site and are tracked or fall onto adjacent roadways. Currently there are two proposed stabilized construction entrance locations.

- A concrete truck washout will be located next to the south stabilized construction entrance to prevent pollutants to stormwater from concrete waste.

- Silt fencing will be installed adjacent to any drainage way which receives sheet flow from upgradient-disturbed areas and along the side slope perimeter of disturbed areas.

- Sandbags filled with washed pea gravel will be used at storm drainage inlets prior to stabilization of the drainage areas.

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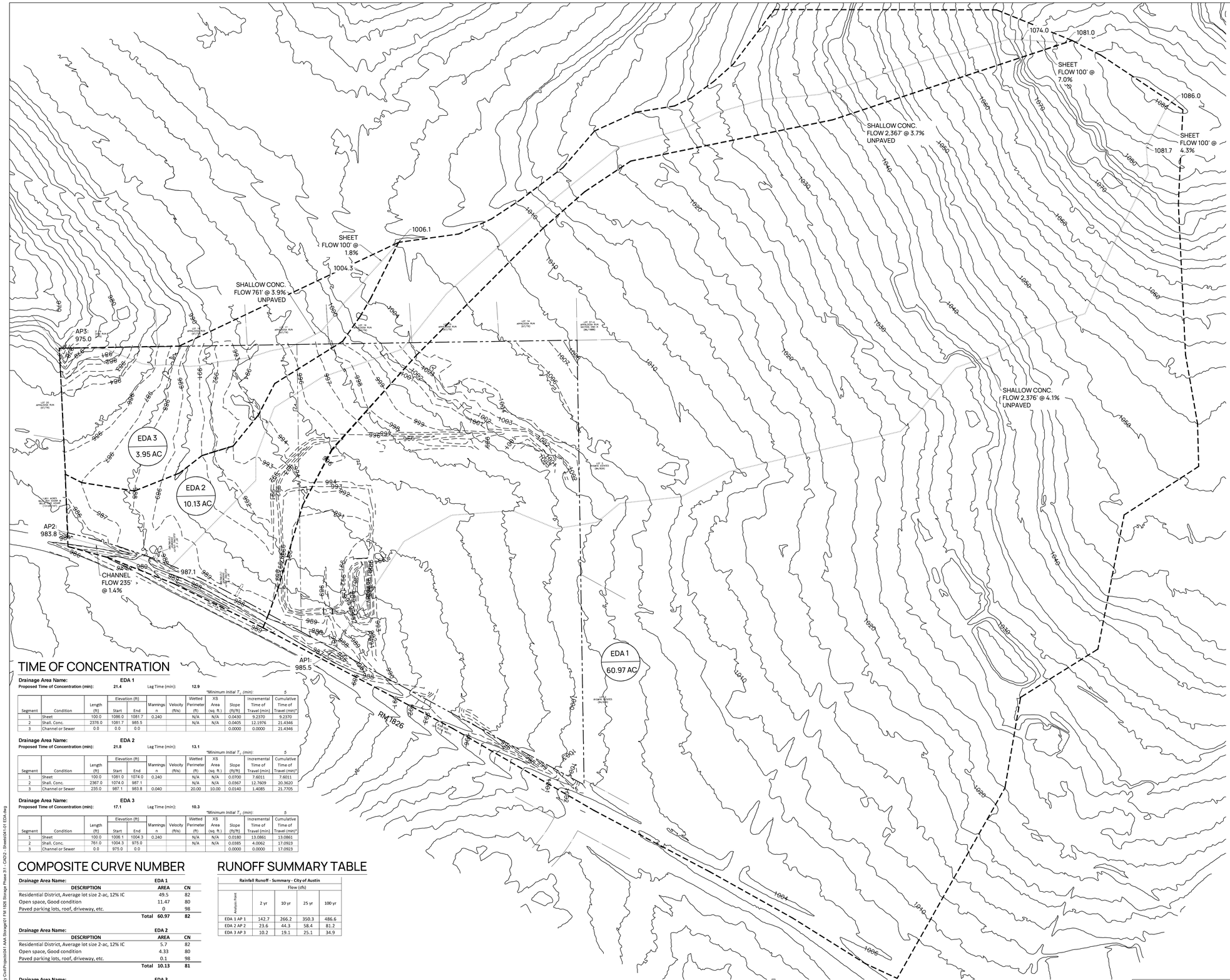
Attachment G-Drainage Area Map



0 50 100 200

SCALE: 1"=100'

LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- SETBACK LINE
- LANDSCAPE BUFFER LINE
- EASEMENT LINE
- SITE BENCHMARK
- PROPERTY CORNER
- GAS — GAS LINE
- OE — OVERHEAD ELECTRIC LINE
- X — FENCE LINE
- EXISTING TREE
- SIGN
- POWER POLE
- FIRE LANE
- 101 — EXISTING MINOR CONTOUR
- 100 — EXISTING MAJOR CONTOUR
- TIME OF CONCENTRATION
- DRAINAGE AREA BOUNDARY
- DA # / ACRES — DRAINAGE AREA LABEL

TIME OF CONCENTRATION

Drainage Area Name: EDA 1
Proposed Time of Concentration (min): 21.4 Lag Time (min): 12.9

*Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	1086.0	1081.7	0.240		N/A	N/A	0.0430	9.2370	9.2370
2	Shall. Conc.	2376.0	1081.7	985.5			N/A	N/A	0.0405	12.1976	21.4346
3	Channel or Sewer	0.0	0.0	0.0					0.0000	0.0000	21.4346

Drainage Area Name: EDA 2
Proposed Time of Concentration (min): 21.8 Lag Time (min): 13.1

*Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	1081.0	1074.0	0.240		N/A	N/A	0.0700	7.6011	7.6011
2	Shall. Conc.	2387.0	1074.0	987.1			N/A	N/A	0.0367	12.7609	20.3620
3	Channel or Sewer	235.0	987.1	983.8	0.040		20.00	10.00	0.0140	1.4085	21.7705

Drainage Area Name: EDA 3
Proposed Time of Concentration (min): 17.1 Lag Time (min): 10.3

*Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	1006.1	1004.3	0.240		N/A	N/A	0.0180	13.0861	13.0861
2	Shall. Conc.	761.0	1004.3	975.0			N/A	N/A	0.0385	4.0062	17.0923
3	Channel or Sewer	0.0	975.0	0.0					0.0000	0.0000	17.0923

COMPOSITE CURVE NUMBER

Drainage Area Name: EDA 1

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	49.5	82
Open space, Good condition	11.47	80
Paved parking lots, roof, driveway, etc.	0	98
Total	60.97	82

Drainage Area Name: EDA 2

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	5.7	82
Open space, Good condition	4.33	80
Paved parking lots, roof, driveway, etc.	0.1	98
Total	10.13	81

Drainage Area Name: EDA 3

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	0.96	82
Open space, Good condition	2.82	80
Paved parking lots, roof, driveway, etc.	0.17	98
Total	3.95	81

RUNOFF SUMMARY TABLE

Rainfall Runoff - Summary - City of Austin

Analysis Point	Flow (cfs) 2 yr	10 yr	25 yr	100 yr
EDA 1 AP 1	142.7	266.2	350.3	486.6
EDA 2 AP 2	23.6	44.3	58.4	81.2
EDA 3 AP 3	10.2	19.1	25.1	34.9

CAUTION!

CONTRACTOR SHALL EXERCISE CAUTION DURING DEMOLITION, EXCAVATION, CLEARING AND CONSTRUCTION ACTIVITIES NEAR OVERHEAD ELECTRIC LINES. CONTRACTOR SHALL COMPLY WITH ALL SAFETY REGULATIONS WHEN OPERATING NEAR POWER LINES.

TRENCH EXCAVATION SAFETY PROTECTION

CONTRACTOR, SUB-CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE, OR STRUCTURAL/GEOTECHNICAL/SAFETY EQUIPMENT CONSULTANT, SHALL REVIEW THESE PLANS AND GEOTECHNICAL REPORT, THE INSTALLATION SITES WITHIN THE PROJECT AREA IN ORDER TO IMPLEMENT CONTRACTORS TRENCH EXCAVATION SAFETY PROTECTION PLAN, SYSTEMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM OSHA STANDARDS. SPECIFICALLY , CONTRACTOR AND/OR RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PLAN IN ACCORDANCE WITH OSHA REGULATIONS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND/OR AROUND THE EXPOSED TRENCH EXCAVATION.

DIG TESS:

CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION ACTIVITY (ON OR OFFSITE) FOR THE PROJECT.

Hill Country Civil
Engineers ◆ Consultants
TBPE Firm No. F-20213
16242 Northpark Ridge, New Braunfels, TX 78130
Phone 830-609-6078 or 210-378-6953
www.hillcountrycivil.com

ROSS T. GORDER
125401
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
10/9/24

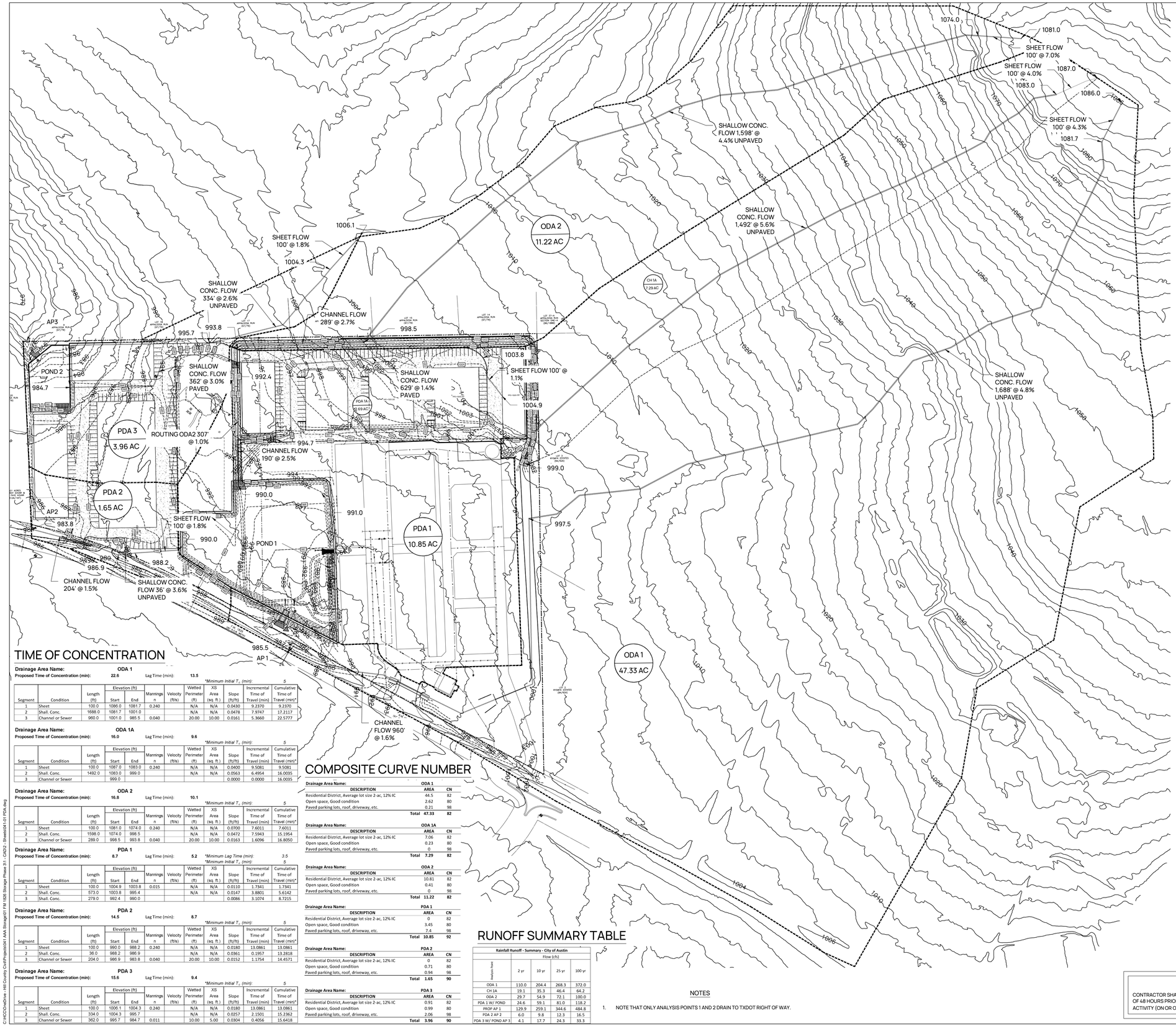
No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 RM 1826
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY: RTC

EXISTING DRAINAGE AREA MAP

SHEET No. 24 OF 35



TIME OF CONCENTRATION

Drainage Area Name: ODA 1
Proposed Time of Concentration (min): 22.6 Lag Time (min): 13.5 *Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	1086.0	1081.7	0.240		N/A	N/A	0.0430	9.2370	9.2370
2	Shall. Conc.	1688.0	1081.7	1001.0			N/A	N/A	0.0478	7.9747	17.2117
3	Channel or Sewer	960.0	1001.0	985.5	0.040		20.00	10.00	0.0161	5.3660	22.5777

Drainage Area Name: ODA 1A
Proposed Time of Concentration (min): 16.0 Lag Time (min): 9.6 *Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	1087.0	1083.0	0.240		N/A	N/A	0.0400	9.5081	9.5081
2	Shall. Conc.	1492.0	1083.0	999.0			N/A	N/A	0.0563	6.4954	16.0035
3	Channel or Sewer		999.0						0.0000	0.0000	16.0035

Drainage Area Name: ODA 2
Proposed Time of Concentration (min): 16.8 Lag Time (min): 10.1 *Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	1081.0	1074.0	0.240		N/A	N/A	0.0700	7.6011	7.6011
2	Shall. Conc.	1598.0	1074.0	998.5			N/A	N/A	0.0472	7.5943	15.1954
3	Channel or Sewer	289.0	998.5	993.8	0.040		20.00	10.00	0.0163	1.6096	16.8050

Drainage Area Name: PDA 1
Proposed Time of Concentration (min): 8.7 Lag Time (min): 5.2 *Minimum Lag Time (min): 3.5 *Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	1004.9	1003.8	0.015		N/A	N/A	0.0110	1.7341	1.7341
2	Shall. Conc.	573.0	1003.8	995.4			N/A	N/A	0.0147	3.8801	5.6142
3	Shall. Conc.	279.0	992.4	990.0					0.0086	3.1074	8.7215

Drainage Area Name: PDA 2
Proposed Time of Concentration (min): 14.5 Lag Time (min): 8.7 *Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	990.0	988.2	0.240		N/A	N/A	0.0180	13.0861	13.0861
2	Shall. Conc.	36.0	988.2	986.9			N/A	N/A	0.0361	0.1957	13.2818
3	Channel or Sewer	204.0	986.9	983.8	0.040		20.00	10.00	0.0152	1.1754	14.4571

Drainage Area Name: PDA 3
Proposed Time of Concentration (min): 15.6 Lag Time (min): 9.4 *Minimum Initial T_c (min): 5

Segment	Condition	Length (ft)	Elevation (ft) Start	Elevation (ft) End	Mannings n	Velocity (ft/s)	Wetted Perimeter (ft)	XS Area (sq. ft.)	Slope (ft/ft)	Incremental Time of Travel (min)	Cumulative Time of Travel (min)*
1	Sheet	100.0	1006.1	1004.3	0.240		N/A	N/A	0.0180	13.0861	13.0861
2	Shall. Conc.	334.0	1004.3	995.7			N/A	N/A	0.0257	2.1501	15.2362
3	Channel or Sewer	362.0	995.7	984.7	0.011		10.00	5.00	0.0304	0.4056	15.6418

COMPOSITE CURVE NUMBER

Drainage Area Name: ODA 1

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	44.5	82
Open space, Good condition	2.62	80
Paved parking lots, roof, driveway, etc.	0.21	98
Total	**47.33**	**82**

Drainage Area Name: ODA 1A

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	7.06	82
Open space, Good condition	0.23	80
Paved parking lots, roof, driveway, etc.	0	98
Total	**7.29**	**82**

Drainage Area Name: ODA 2

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	10.81	82
Open space, Good condition	0.41	80
Paved parking lots, roof, driveway, etc.	0	98
Total	**11.22**	**82**

Drainage Area Name: PDA 1

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	0	82
Open space, Good condition	3.45	80
Paved parking lots, roof, driveway, etc.	7.4	98
Total	**10.85**	**92**

Drainage Area Name: PDA 2

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	0	82
Open space, Good condition	0.71	80
Paved parking lots, roof, driveway, etc.	0.94	98
Total	**1.65**	**90**

Drainage Area Name: PDA 3

DESCRIPTION	AREA	CN
Residential District, Average lot size 2-ac, 12% IC	0.91	82
Open space, Good condition	0.99	80
Paved parking lots, roof, driveway, etc.	2.06	98
Total	**3.96**	**90**

RUNOFF SUMMARY TABLE

Rainfall Runoff - Summary - City of Austin

Analysis Point	Flow (cfs) 2 yr	10 yr	25 yr	100 yr
ODA 1	110.0	204.4	268.3	372.0
CH 1A	19.1	35.3	46.4	64.2
ODA 2	29.7	54.9	72.1	100.0
PDA 1 W/ POND	24.6	59.1	81.0	118.2
PROP AP 1	129.9	259.1	344.6	484.8
PDA 2 AP 2	6.0	9.8	12.3	16.5
PDA 3 W/ POND AP 3	4.1	17.7	24.3	33.3

NOTES

1. NOTE THAT ONLY ANALYSIS POINTS 1 AND 2 DRAIN TO TXDOT RIGHT OF WAY.

LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- SETBACK LINE
- LANDSCAPE BUFFER LINE
- EASEMENT LINE
- SITE BENCHMARK
- PROPERTY CORNER
- GAS LINE
- OVERHEAD ELECTRIC LINE
- FENCE LINE
- EXISTING TREE
- SIGN
- POWER POLE
- FIRE LANE
- 101 EXISTING MINOR CONTOUR
- 100 EXISTING MAJOR CONTOUR
- TIME OF CONCENTRATION
- DRAINAGE AREA BOUNDARY
- DA # / ACRES DRAINAGE AREA LABEL

DRAINAGE PLAN NOTES

1. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL BUILDING, SAFETY, AND INSPECTION REGULATIONS.
2. CONTRACTOR SHALL KEEP A COPY OF APPROVED CONSTRUCTION DRAWINGS ONSITE AT ALL TIMES.
3. PROPERTY LIES IN UNSHADED ZONE "X" AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR TRAVIS COUNTY, TEXAS AND INCORPORATED AREAS, MAP NO.48453C0560J.
4. DRAINAGE FOR THIS DEVELOPMENT HAS BEEN DESIGNED SUCH THAT THERE WILL BE NO ADVERSE IMPACTS ON THE CAPACITY, FUNCTION OR INTEGRITY OF TEXAS DEPARTMENT OF TRANSPORTATION RIGHT OF WAY DRAINAGE FACILITIES.
5. DRAINAGE AREA CH 1A AND PDA 1A ARE SUB-DRAINAGE AREAS DELINEATED TO SIZE STORM STRUCTURES WITHIN THE DEVELOPMENT. THESE AREAS ARE ACCOUNTED FOR IN THE OVERALL DRAINAGE AREAS ACREAGE IN ODA 1 AND PDA 1.

CAUTION!

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TBPE Firm No. F-20213
16240 Hunters Ridge, New Braunfels, TX 78130
Phone 830-609-6078 or 210-378-4953
www.hillcountrycivil.com

ROSS T. GORDER
125401
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
10/4/24

No.	Date	Revisions	App.

APPALOOSA RUN STORAGE FACILITY PH. 3 & 4
12100 FM 1626
AUSTIN, TEXAS 78737

HCC JOB No.: 041-01 DRAWN BY: RTC

PROPOSED DRAINAGE AREA MAP

SHEET No. 25 OF 35

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Attachment I- Inspection and Maintenance for BMPs

Attachment I: Inspection and Maintenance for BMPs

The following list of items outlines and dictates Inspection and Maintenance for BMPs practices. Inspection and maintenance guidelines come from TCEQ RG-348.

In addition to these measures the contractor will be subject to the provisions of the TCEQ General Permit Number TXR 150000 relating to discharges from construction activities.

Temporary Construction Entrance/Exit

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

Silt Fence

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

Inlet Protection Barrier

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

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Engineers • Consultants

Attachment J- Schedule of Interim and Permanent Soil Stabilization Practices

Attachment J: Schedule of Interim and Permanent Soil Stabilization Practices

Onsite construction activities shall be conducted in accordance with the Erosion Control Plan for the project which includes the provisions of the TPDES General Permit TXR150000.

Interim on-site stabilization measures will include minimizing soil disturbances by exposing the smallest practical area of land required for the shortest duration and maximizing the use of natural vegetation. All disturbed soil will be stabilized as per project specifications in accordance with of TCEQ Technical Guidance Manual RG-348 (2005).

Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently cease is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site has temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of the site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is preclude by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

Interim Stabilization Measures will include one or more of the following methods.

1. Temporary Vegetation
2. Installation of blankets or matting material
3. Hydraulic Mulch
4. Sod

The interim and permanent stabilization will be installed in accordance with the standard specifications for the county or city having jurisdiction over the project, whichever is more stringent. If the governing entity does not have specifications for these items, the work shall be completed in compliance with the procedures and specifications outlined in the current Technical Guidance Manual published by the TCEQ.

Permanent Stabilization measures will include one or more of the following methods.

1. Permanent Vegetation including landscape planting with trees, shrubs, or ground cover.
2. Installation of blankets or matting material
3. Hydromulch
4. Grass Sodding
5. Rock or concrete riprap

A copy of the Erosion Control Plan is attached.

Hill Country Civil
Engineers • Consultants

Agent Authorization

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
Director of Land Development & Construction,
Title - Owner/President/Other
of A-A-A STORAGE FM1826 LLC,
Corporation/Partnership/Entity Name

have authorized Ross Corder, PE,
Print Name of Agent/Engineer

of Hill Country Civil
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

5.2.24
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 2 day of May, 2024

NOTARY PUBLIC

Jennifer Elliot
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: My Commission Expires 03/14/2028

JENNIFER ELLIOT NOTARY PUBLIC IREDELL COUNTY

Hill Country Civil
Engineers • Consultants

Application Fee Form

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: A-A-A Storage FM 1826
Regulated Entity Location: 12100 Ranch to MarketRd 1826 Austin, TX 78737
Name of Customer: A-A-A STORAGE FM1826 LLC
Contact Person: Shawn Beichler Phone: (704754-3200
Customer Reference Number (if issued):CN _____
Regulated Entity Reference Number (if issued):RN _____

Austin Regional Office (3373)

☐ Hays ☒ Travis ☐ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde
☐ Comal ☐ Kinney

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

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

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

Site Location (Check All That Apply):

☐ Recharge Zone ☒ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	11.747 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: 05-03-24

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

Hill Country Civil
Engineers • Consultants

TCEQ Core Data Form

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 605766427		**RN 111012910**

SECTION II: Customer Information

4. General Customer Information	**5. Effective Date for Customer Information Updates** (mm/dd/yyyy)	5/3/2024

☐ 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:*
A-A-A STORAGE FM1826 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)*
0803127642	32068499139	83-4562896	

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

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

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

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

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

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*
	Shawn.beichler@aaastorage.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(704) 754-3200		( ) -

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.)*

A-A-A STORAGE FM1826 LLC

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	12100 FM 1826							
	City	Austin	**State**	TX	**ZIP**	78737	**ZIP + 4**	
24. County	Travis							

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

25. Description to Physical Location:	Storage Facility

26. Nearest City	**State**	**Nearest ZIP Code**
Austin	TX	78737

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)
4226		236220	

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

Storage Facility

34. Mailing Address:	**4203 Spinnaker CV**							
	City	**Austin**	**State**	**TX**	**ZIP**	**78731**	**ZIP + 4**	
35. E-Mail Address:	**shawn.beichler@aaastorage.com**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(704) 754-3200		( ) -

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:	Kortnie Thomas	**41. Title:**	Project Coordinator

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(210 **)** 378-4953		**( )** -	kortnie@hillcountrycivil.com

SECTION V: Authorized Signature

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

Company:	AAA Storage Co.	**Job Title:**	DIrector of Land Development & Construction
Name *(In Print):*	Shawn Beichler	**Phone:**	**(** 704 **)** 754- **3200**
Signature:	Shawn Beichler	**Date:**	5/1/2024