EDWARDS AQUIFER
CONTRIBUTION ZONE PLAN

FOR

JULEP COMMERCIAL PARK-EAST

Prepared for:

Kelly Gray Investments, LLC
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Prepared by:

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STATE OF TEXAS
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LICENSED
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7-12-24

July 2024

Contributing Zone Plan Checklist

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Contributing Zone Plan Application (TCEQ-10257)

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EDWARDS AQUIFER APPLICATION COVER PAGE (TCEQ-20705)

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

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

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

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

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

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

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

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

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

Technical Review

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

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

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

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

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

Mid-Review Modifications

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

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

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

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

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

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

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

1. Regulated Entity Name: Julep Commercial Park-EAST						**2. Regulated Entity No.:**			
3. Customer Name: Kelly Grey Investments, LLC						**4. Customer No.:** 604360206			
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):**			7.16
9. Application Fee:	$5,000		**10. Permanent BMP(s):**			Batch Detention			
11. SCS (Linear Ft.):			**12. AST/UST (No. Tanks):**						
13. County:	Hays		**14. Watershed:**			Onion 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.)	1	__	__
Region (1 req.)	1	__	__
County(ies)	1	__	__
Groundwater Conservation District(s)	__Edwards Aquifer Authority __Barton Springs/ Edwards Aquifer X 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. Dan Brown, P.E.
Print Name of Customer/Authorized Agent  7/12/2024
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):	

CONTRIBUTING ZONE PLAN APPLICATION (TCEQ-10257)

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: Dan Brown, P.E.

Date: 7/12/2024

Signature of Customer/Agent:

Regulated Entity Name: Julep Commercial Park-East

Project Information

1. County: Hays
2. Stream Basin: Onion Creek
3. Groundwater Conservation District (if applicable): Trinity
4. Customer (Applicant): Kelly Gray Investments, LLC

   Contact Person: Aaron Googins
   Entity: Kelly Gray Investments, LLC
   Mailing Address: 6907 N Capital of Texas Hwy, Suite 300
   City, State: Austin, Texas Zip: 78731
   Telephone: 512-809-5118 Fax: N/A
   Email Address: aarongoogins@outlook.com

5. Agent/Representative (If any):

Contact Person: Dan Brown, P.E.
Entity: Malone Wheeler, Inc.
Mailing Address: 5113 Southwest Parkway, Suite 260
City, State: Austin, TX 78735 Zip: 78735
Telephone: 512-899-0601 Fax: 512-899-0655
Email Address: danb@malonewheeler.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 Dripping Springs
☐ 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.

14174 W US HWY 290 Austin, Texas 78737

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): 7.16 Acres

Total disturbed area: 5.99 Acres

14. Estimated projected population: N/A

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	52,272	÷ 43,560 =	1.20
Parking	13,503	÷ 43,560 =	0.31
Other paved surfaces	73,616	÷ 43,560 =	1.69
Total Impervious Cover	139,392	÷ 43,560 =	3.20

Total Impervious Cover 3.20 **÷ Total Acreage** 7.16 **X 100 =** 45 **% 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" = 50'.

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): FEMA FIRM Panel Number 48209C0109F dated 09/02/05

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

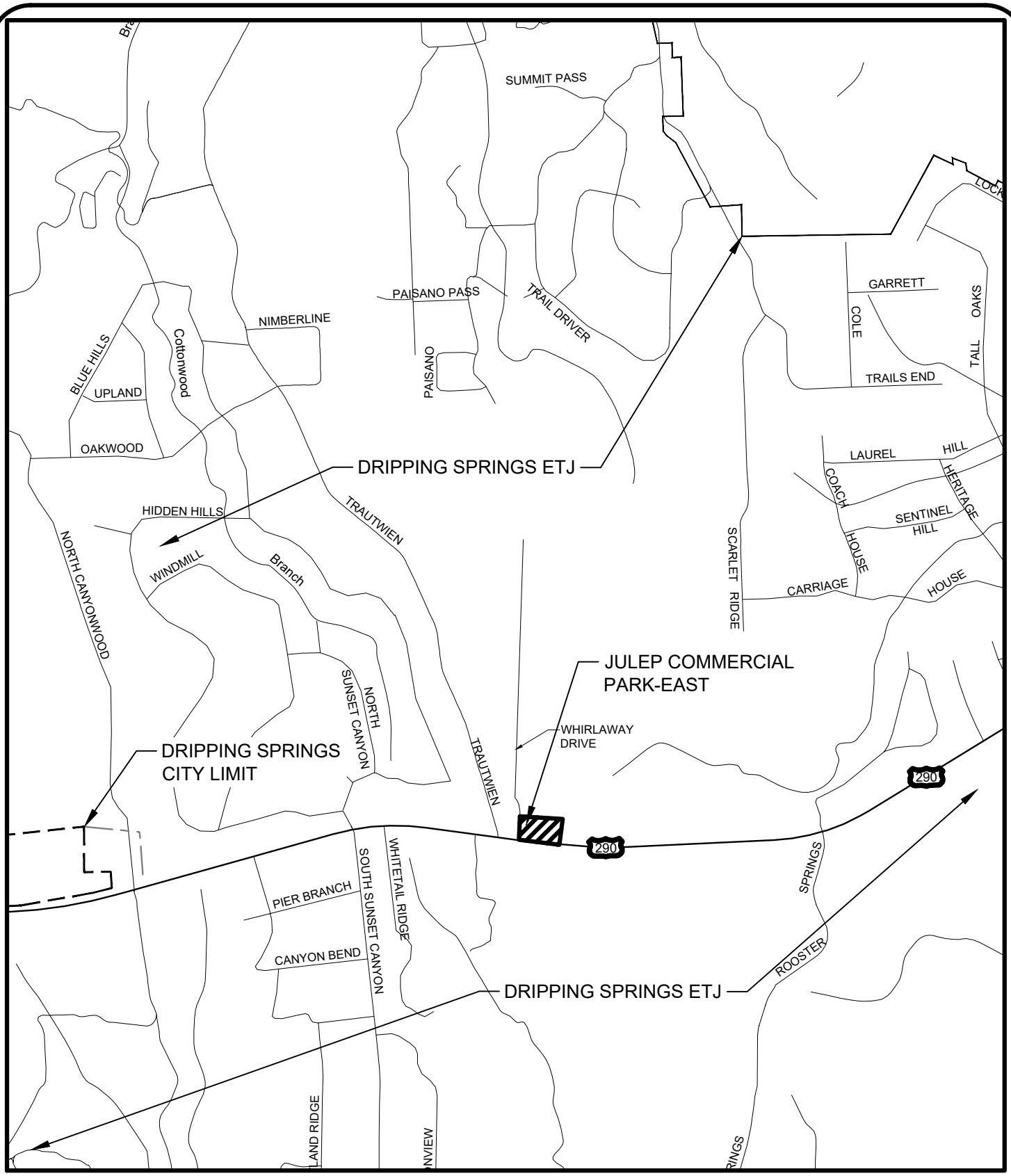
61. [X] Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions.

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.

CONTRIBUTING ZONE PLAN APPLICATION
ATTACHMENT A – ROAD MAP



JULEP COMMERCIAL PARK-EAST

N

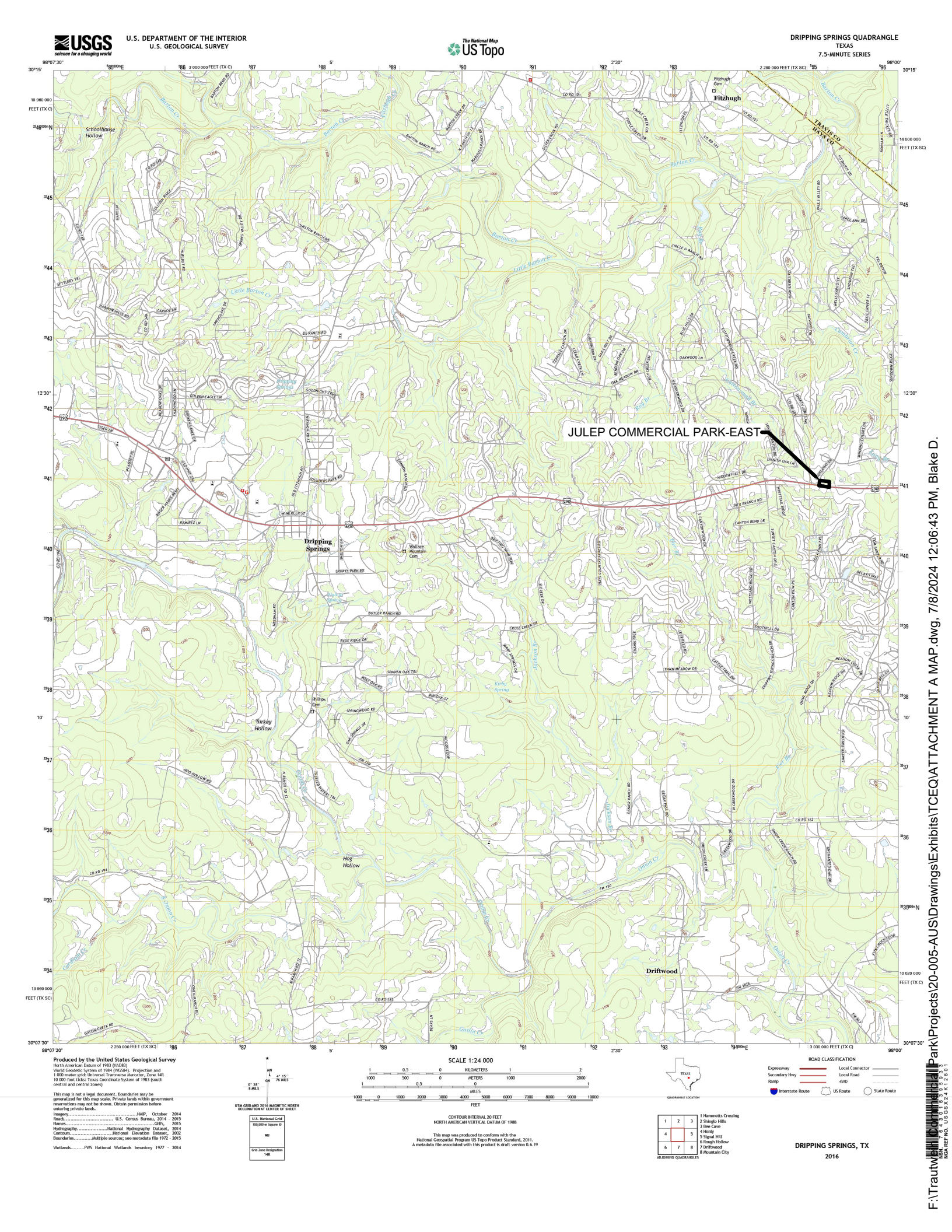
0 2000'

SCALE: 1" = 2000'

MALONE ★ WHEELER
SINCE INC. 1995
CIVIL ENGINEERING ★ DEVELOPMENT CONSULTING ★ PROJECT MANAGEMENT
5113 Southwest Pkwy, Suite 260
Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-0655
Firm Registration No. F-786

F:\Trautwein Commercial Park\Projects\20-005-AUS\Drawings\Exhibits\TCEQ\ATTACHMENT A MAP.dwg, 7/8/2024 12:05:18 PM, Blake D.

CONTRIBUTING ZONE PLAN APPLICATION
ATTACHMENT B – USGS QUADRANGLE MAP


U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY
The National Map US Topo
DRIPPING SPRINGS QUADRANGLE
TEXAS
7.5-MINUTE SERIES
JULEP COMMERCIAL PARK-EAST
Dripping Springs
Fitzhugh
Driftwood
Hog Hollow
Turkey Hollow
Schoolhouse Hollow
Wallace Mountain Cem
Phillips Cem
Fitzhugh Cem
Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 14R
10 000-foot ticks: Texas Coordinate System of 1983 (south central and central zones)
This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.
Imagery.....NAIP, October 2014
Roads..... U.S. Census Bureau, 2014 - 2015
Names.....GNIS, 2015
Hydrography.....National Hydrography Dataset, 2014
Contours.....National Elevation Dataset, 2002
Boundaries.....Multiple sources; see metadata file 1972 - 2015
Wetlands.....FWS National Wetlands Inventory 1977 - 2014
UTM GRID AND 2016 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
SCALE 1:24 000
CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft: version 0.6.19
ROAD CLASSIFICATION
Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route
1 Hammetts Crossing
2 Shingle Hills
3 Bee Cave
4 Henly
5 Signal Hill
6 Rough Hollow
7 Driftwood
8 Mountain City
ADJOINING QUADRANGLES
DRIPPING SPRINGS, TX
2016
F:\Trautwein Commercial Park\Projects\20-005-AUS\Drawings\Exhibits\TCEQ\ATTACHMENT A MAP.dwg, 7/8/2024 12:06:43 PM, Blake D.

CONTRIBUTING ZONE PLAN APPLICATION
ATTACHMENT C – PROJECT NARRATIVE

CONTRIBUTING ZONE PLAN APPLICATION
ATTACHMENT "C"

PROJECT NARRATIVE

JULEP COMMERCIAL PARK-EAST

A previous Contributing Zona Plan with Optional Enhanced Measures was approved for a site that encompasses this project on May 13th, 2022. This previous project was shelved and the approved CZP-OEM for "Julep Commercial Park, Edwards Aquifer Protection Program ID No. 11002911; Regulated Entity No. RN111421087" has since expired.

The Julep Commercial Park-East project is located on 7.16 acres. The site address is 14174 W US HWY 290, Austin, Texas 78737. The project is in the City of Dripping Springs ETJ and Hays County. This project shall consist of mixed-use commercial building with supporting driveways, a batch detention water quality and detention pond, rainwater harvesting, and supporting utilities. This project also includes a deceleration lane in the TxDOT right of way.

There is no existing development on this property.

The site is located within the Contributing Zone of the Edwards Aquifer as defined by the Texas Commission on Environmental Quality ("TCEQ"). The entirety of the site is within the Onion Creek Watershed. No Critical Environmental Features have been identified on the site at this time.

Water service will be provided by West Travis County Public Utility Agency (WTCPUA). The plans incorporate a public WTCPUA water line through the side. An onsite septic facility (OSSF) will be used for the wastewater demands of the site.

This project proposes a total of 3.20 acres of impervious cover. This total includes 0.10 acres of impervious proposed within the TxDOT right of way. The proposed impervious cover within the property will drain to the proposed batch detention pond, but the 0.10 acres of impervious cover will not drain to the pond. This additional 0.10 acres was included in the calculations to determine the Total Suspended Solids (TSS) required for removal by the proposed permanent BMP.

Stormwater runoff from the site shall be managed through a proposed batch detention pond to achieve the pollutant removal efficiency required by the TCEQ. The site is required to treat 80% of the increase of TSS loading to meet the TCEQ requirements. Appendix A to RG-348, Optional Enhanced Measures for the Protection of Water Quality in the Edwards Aquifer (Revised), was used to calculate water quality treatment and design requirements.

Unimproved areas offsite are being routed around developed areas and pond through a grass lined channel to convey stormwater to the outfall from the site.

CONTRIBUTING ZONE PLAN APPLICATION ATTACHMENT D – FACTORS AFFECTING SURFACE WATER QUALITY

CONTRIBUTING ZONE PLAN APPLICATION
ATTACHMENT "D"

FACTORS AFFECTING SURFACE WATER QUALITY

JULEP COMMERCIAL PARK-EAST

The factors that could affect surface water quality attributable to the construction of the Site Improvements consist of the following:

1. Erosion due to soil disturbance during clearing and grubbing excavation, embankment, trenching and backfilling utilities, final grading.
2. Use and handling of asphaltic pavement.
3. Use and handling of Portland Cement Concrete.
4. Heavy rains during construction.
5. Storage of equipment on-site.
6. Fueling and maintenance of equipment on-site.
7. Accidental spills of minor amounts of petroleum-based products such as paint, glue and sealants during construction.
8. Storage of construction materials on-site.
9. Waste generation, storage, and disposal.

Temporary Best Management Practices

These factors associated with the construction of the various improvements are kept in check through the Temporary Best Management Practices.

Permanent Best Management Practices

After construction of the various improvements and the site is restored and revegetated the factors that could affect surface water quality consist of the following:

1. Pollutants associated with runoff from paved areas.
2. Pollutants associated with runoff from maintained vegetation.
3. Litter.

For all factors, the permanent Best Management Practices should provide protection.

CONTRIBUTING ZONE PLAN APPLICATION ATTACHMENT E – VOLUME AND CHARACTER OF STORMWATER

CONTRIBUTING ZONE PLAN APPLICATION
ATTACHMENT “E”

VOLUME AND CHARACTER OF STORMWATER

JULEP COMMERCIAL PARK-EAST

Runoff from this project will consist of stormwater runoff typical to commercial projects which consists of runoff from roofs, driveways, sidewalk, and roadways. This runoff will be conveyed to the on-site water quality and detention pond via a storm sewer system.

The proposed pond reduces the peak flow rate of stormwater runoff to less than the peak flow rate for predeveloped conditions. Rock rip-rap has been provided at the pond outfall and the at the driveway culverts that discharges the drainage channel that routes offsite water around the site to reduce the velocity and reduce the risk of erosion.

See attached construction plans for drainage area maps, peak discharge calculations for various storm events in existing and proposed conditions, and water quality calculations.

CONTRIBUTING ZONE PLAN APPLICATION ATTACHMENT F – SUITABILITY LETTER FROM AUTHORIZED AGENT

Hays County Development Services

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

January 19, 2022

To Whom It May Concern:

Re: On Site Sewage Facility Suitability (OSSF) for the Whirlaway Business Park located at the corner of Whirlaway Drive and US Hwy 290 in Austin, Texas 78737.

I have completed my preliminary review of the planning materials submitted in support of the above referenced development in Hays County. I concur with Steve Wenzel, P.E.'s, findings that this development, can be adequately served by individual on-site sewage facilities. The total wastewater generation on this tract 1, 2.953 acres of land is restricted to generate no more than 885 gallons per day. The total wastewater generation on this tract 2, 7.155 acres of land is restricted to generate no more than 2146 gallons per day. Public water will be required for this development.

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

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

Sincerely,

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

CONTRIBUTING ZONE PLAN APPLICATION ATTACHMENT G – ALTERNATIVE SECONDARY CONTAINMENT METHODS

CONTRIBUTING ZONE PLAN APPLICATION

ATTACHMENT G – Alternative Secondary Containment Methods

Not Applicable to this project.

CONTRIBUTING ZONE PLAN APPLICATION ATTACHMENT H – AST CONTAINMENT STRUCTURE DRAWINGS

CONTRIBUTING ZONE PLAN APPLICATION

ATTACHMENT H – AST Containment Structure Drawings

Not Applicable to this project.

CONTRIBUTING ZONE PLAN APPLICATION ATTACHMENT I – 20% OR LESS IMPERVIOUS COVER DECLARATION

CONTRIBUTING ZONE PLAN APPLICATION

ATTACHMENT I – 20% or Less Impervious Cover Declaration

Not Applicable to this project.

CONTRIBUTING ZONE PLAN APPLICATION ATTACHMENT J – BMPs FOR UPGRADIENT STORMWATER

CONTRIBUTING ZONE PLAN APPLICATION
ATTACHMENT “J”

BMP’s FOR UPGRADIENT STORMWATER

JULEP COMMERCIAL PARK-EAST

Unimproved areas offsite are being routed around developed areas and pond through a grass lined channel to convey stormwater to the outfall from the site.

CONTRIBUTING ZONE PLAN APPLICATION ATTACHMENT K – BMPs FOR ON-SITE STORMWATER

CONTRIBUTING ZONE PLAN APPLICATION
ATTACHMENT “K”

BMP’s FOR ONSITE STORMWATER

JULEP COMMERCIAL PARK-EAST

BMP’s for onsite stormwater include the following:

Temporary BMP’s

1. Silt Fence
2. Mulch Logs
3. Rock Berms
4. Concrete Washout
5. Stabilized Construction Entrance

Permanent BMP

1. Batch Detention Pond

For locations and designs of temporary and permanent BMP’s please refer to the enclosed Construction Plans in Attachment “M”.

CONTRIBUTING ZONE PLAN APPLICATION
ATTACHMENT L – BMPs FOR SURFACE STREAMS

CONTRIBUTING ZONE PLAN APPLICATION

ATTACHMENT L – BMPs for Surface Streams

Not applicable to this project.

CONTRIBUTING ZONE PLAN APPLICATION
ATTACHMENT M – CONSTRUCTION PLANS

CONSTRUCTION PLANS
FOR
JULEP COMMERCIAL PARK - EAST
HAYS COUNTY, TEXAS 78737

SUBMITTED FOR APPROVAL BY
MALONE/WHEELER, INC.

5.31.24

DANIEL J. BROWN — DATE
REGISTERED PROFESSIONAL ENGINEER NO. 98337
MALONE/WHEELER, INC.
5113 SOUTHWEST PKWY, SUITE 260
AUSTIN, TEXAS 78735
OFFICE: (512) 899-0601
FAX: (512) 899-0655
FIRM REG. NO. F-786

RECOMMENDED FOR APPROVAL BY:

2022-38029
HAYS COUNTY DEVELOPMENT PERMIT #

2023-0617
HAYS COUNTY FIRE MARSHAL PERMIT #

WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY — DATE

CHAD GILPIN, P.E. CITY ENGINEER, CITY OF DRIPPING SPRINGS — DATE

TORY CARPENTER, PLANNING DIRECTOR, CITY OF DRIPPING SPRINGS — DATE

SD2022-0001
CITY OF DRIPPING SPRINGS DEVELOPMENT PERMIT #

NOTES:

1. ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT (FEMA) FLOOD INSURANCE RATE MAP (FIRM) NO. 48209C0109F DATED SEPTEMBER 2, 2005, NO PORTION OF THE SITE IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN.
2. KELLY GRAY INVESTMENTS, LLC IS THE OWNER/OPERATOR OF THE STORMWATER UTILITIES AND PONDS.
3. WATER PROVIDED BY WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY.
4. WASTEWATER PROVIDED BY OSSF.
5. THIS PROJECT IS LOCATED WITHIN THE EDWARDS AQUIFER CONTRIBUTING ZONE AND THE ONION CREEK WATERSHED.
6. A WATER QUALITY BMP MAINTENANCE PLAN HAS BEEN PREPARED FOR THIS DEVELOPMENT AND IS ON FILE AT CITY HALL IN SITE DEVELOPMENT CASE # SD2022-0001.
7. A VARIANCE HAS BEEN APPROVED BY THE CITY OF DRIPPING SPRINGS FOR FILL GREATER THAN 6' PROPOSED ON THE SITE. AS A CONDITION OF THIS APPROVAL, THIS PROJECT WILL COMPLY WITH THE CITY OF DRIPPING SPRINGS DARK SKY ORDINANCE AND WALLS SHALL BE CONSTRUCTED WITH NATIVE LIMESTONE OR A LIMESTONE VENEER. STRUCTURAL WALL PLANS SHALL BE SUBMITTED TO THE CITY PRIOR TO CONSTRUCTION OF ANY STRUCTURAL WALLS.

JULEP EAST IMPERVIOUS COVER WITH RAINWATER HARVESTING CREDIT	
Total Area of Site (sf)	311,712
Allowable Impervious at 35% of Total Area (sf)	109,099
Proposed Building (sf)	50,375
Proposed Other Impervious (sf)	83,747
Total Proposed Impervious (sf)	134,122
Percent Impervious of Site without Rainwater Harvesting Credit (%)	43%
Building Area with 50% Area Reduction for Rainwater Harvesting Credit (sf)	25,188
Total Proposed Impervious with Rainwater Harvesting Credit (sf)	108,935
Percent Impervious of Site with Rainwater Harvesting Credit (%)	35%

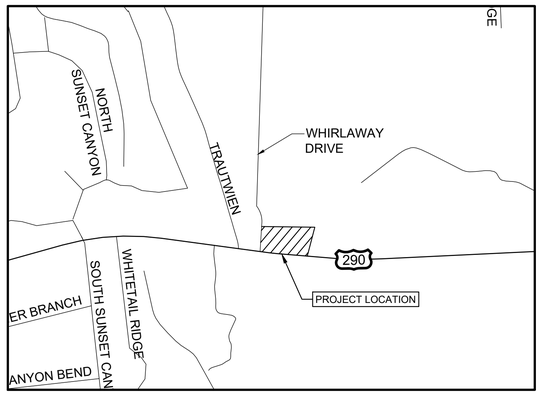
REVISION/CORRECTION

NO.	REVISION DESCRIPTION	APPROVED BY	DATE

PROJECT LEGAL DESCRIPTION

7.15 ACRES OUT OF E.B. HARGRAVES SURVEY A-240

LOCATION MAP



WTCPA 20 WATER SYSTEM GRID: AN13
PRESSURE PLANE: 1420 HGL
HAYS COUNTY TAX ID TRACT NUMBER: R120004
MAPSCO: 1639

DATE OF SUBMITTAL:
9-8-2021

PROJECT ADDRESS:

14174 W US HWY 290
AUSTIN, TEXAS 78737

N
0 1000'
SCALE: 1" = 1000'

WTCPUA WATER IMPROVEMENTS CONSTRUCTION SUMMARY		
PIPE SIZE	TYPE	LENGTH (LF)
8"	DI (CL350)	1232
6"	DI (CL350)	22

WTCPUA FIRE HYDRANTS
QTY
2

WTCPUA VALVES	
SIZE	QTY
8 INCH	8

SHEET INDEX

OWNER / DEVELOPER:
KELLY GRAY INVESTMENTS, LLC
6907 N. CAPITOL OF TEXAS HIGHWAY
AUSTIN, TEXAS 78731
512-809-5118
CONTACT: AARON GOOGINS

DESIGN SURVEY:
HOLT CARSON, INC.
1904 FORTVIEW ROAD
AUSTIN, TEXAS 78704
512-442-0990
CONTACT: HOLT CARSON, RPLS

ENGINEER
MALONE★WHEELER
SINCE INC. 1995
CIVIL ENGINEERING ★ DEVELOPMENT CONSULTING ★ PROJECT MANAGEMENT
5113 Southwest Pkwy, Suite 260
Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-0655
Firm Registration No. F-786

WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY (WTCPUA) NOTES

1. WTCPUA IS THE RETAIL WATER PROVIDER. WASTEWATER SHALL BE PROVIDED BY AN ON-SITE SEPTIC SYSTEM.
2. SIZE OF DOMESTIC METERS PER BUILDING (SEE WATER PLAN SHEETS FOR DESIGN CALCULATIONS PER AWWA STANDARDS):

BUILDING #	LAND USE	SIZE OF METER
1	OFFICE / WAREHOUSE	1.5"

3. # OF LUES : 13
4. WTCPUA DOES NOT GUARANTEE FIRE FLOW.
5. A WTCPUA REPRESENTATIVE MUST BE PRESENT AT THE TIME OF CONNECTION TO THE EXISTING SYSTEM.
6. ALL WATER AND WASTEWATER INFRASTRUCTURE SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF AUSTIN WATER AND WASTEWATER CONSTRUCTION SPECIFICATIONS AND WITH MATERIALS FROM THE CURRENT APPROVED CITY OF AUSTIN STANDARD PRODUCTS LIST (SPL).
7. LANDSCAPE IRRIGATION WILL BE PROVIDED BY RAIN HARVESTING AND WATER WELL.

WTCPUA PROJECT NUMBER: 290-21-026

CONSTRUCTION PLANS
JULEP COMMERCIAL PARK - EAST - HAYS COUNTY, TEXAS 78737

WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY GENERAL CONSTRUCTION NOTES

CONTACT INFORMATION

FACILITIES OWNER: (NAME/ADDRESS/PHONE)
WEST TRAVIS COUNTY PUA
13215 BEE CAVE PARKWAY BUILDING B, SUITE 110
BEE CAVE, TEXAS 78738
512/263-0100
JRIECHERS@WTCPUA.ORG
LAND OWNER: NAME/ADDRESS/PHONE
OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS: NAME/PHONE
MAINTENANCE: PERSON OR FIRM RESPONSIBLE FOR EROSION/ SEDIMENTATION CONTROL
CONTRACTOR: NAME/ADDRESS/ PHONE
PERSON OR FIRM REPONSIBLE FOR TREE/NATURAL AREA PROTECTION. CONTRACTOR: NAME/ADDRESS/PHONE

SPOILS MANAGEMENT AND DISPOSAL NOTES

1. TEMPORARY HOLDING SITES AS NECESSARY TO STOCKPILE EXCAVATED SOILS, EMBEDMENT MATERIAL, AND/OR PIPING AND APPURTENANCES MAY BE LOCATED WITHIN THE LIMITS OF CONSTRUCTION AS SHOWN ON THE PLANS.
2. NO PERMANENT SPOILS DISPOSAL SHALL BE ALLOWED ON-SITE, UNLESS APPROVED BY THE OWNER AND GOVERNING AUTHORITY.
3. ALL SPOILS MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED SPOIL DISPOSAL SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND SECURING A PERMIT FOR THE SITE; AND SHALL NOTIFY THE OWNER AND/OR ENGINEER AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO DISPOSAL OF ANY SPOIL MATERIAL.

EROSION /SEDIMENTATION CONTROL NOTES

1. USE LATEST CITY OF AUSTIN, CITY OF DRIPPING SPRINGS, CITY OF BEE CAVE, TRAVIS COUNTY, HAYS COUNTY EROSION/SEDIMENTATION CONTROL NOTES, AS APPROPRIATE.

HOURS OF CONSTRUCTION

1. NO WORK SHALL BE DONE BETWEEN THE HOURS OF 8:00 P.M. AND 6:00 A.M; NOR ON SUNDAYS OR LEGAL HOLIDAYS WITHOUT THE WRITTEN PERMISSION OF THE WTCPUA IN EACH CASE, EXCEPT SUCH WORK AS MAY BE NECESSARY FOR THE PROPER CARE, MAINTENANCE AND PROTECTION OF THE WORK ALREADY DONE OR IN THE CASE OF AN EMERGENCY.

LIMITS OF CONSTRUCTION

1. THE LIMITS OF CONSTRUCTION SHALL BE BOUNDED BY THE RIGHT OF WAY LINE OR PERMANENT /TEMPORARY CASEMENT LIMITS SHOWN ON THE PLANS. LIMITS OF CONSTRUCTION MAY BE FURTHER RESTRICTED BY PLACEMENT OF SILT FENCE, TREE PROTECTION FENCING, OR OTHER APPURTENANCES AS SHOWN ON THE PLANS.
2. LIMITS OF CONSTRUCTION SHALL BE CLEARLY DELINEATED BY THE CONTRACTOR BY INSTALLING SILT FENCE, ORANGE TENSAR FENCING (4 - FOOT ROLL TIED TO 6-FOOT POSTS SET AT 10-FOOT INTERVALS) OR OTHER BARRIERS AS APPROVED BY THE ENGINEER. ALL TEMPORARY BARRIERS SHALL BE REMOVED AT THE END OF THE PROJECT.
3. ANY AREAS OUTSIDE THE LIMITS OF CONSTRUCTION DISTURBED BY THE CONTRACTOR SHALL IMMEDIATELY BE RESTORED TO PRECONSTRUCTION CONDITION.

SANITARY FACILITIES

1. PROVISIONS SHALL BE MADE FOR NECESSARY SANITARY CONVENIENCES FOR THE USE OF LABORERS ON THE WORK. THE FACILITIES MUST BE PROPERLY SECLUDED FROM PUBLIC OBSERVATION AND SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR.

PROTECTION OF BORE PITS

1. INSTALL BARRIER FENCING (TENSAR ORANGE FENCING OR CHAIN LINK FENCING) TO SURROUND THE BORE PITS. BARRIER FENCING SHALL REMAIN IN PLACE AT ALL TIMES WHILE THE BORE PIT IS OPEN. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY AND SAFETY AT THE BORE PITS.

HORIZONTAL CONTROLS

1. ALL LINE WORK SHALL BE STAKED PRIOR TO CONSTRUCTION WITH SEALED CUT SHEETS PROVIDED TO THE WTCPUA INSPECTOR PRIOR TO CONSTRUCTION.

CONSTRUCTION SEQUENCING (MODIFY TO FIT PROJECT)

1. 48 HOURS PRIOR TO BEGINNING ANY WORK, CALL THE ONE-CALL BOARD OF TEXAS AT 811 OR 1-800-545-6005 FOR UTILITY LOCATIONS AND OBTAIN STREET CUT PERMIT FOR ANY WORK WITHIN CITY, COUNTY, AND/OR STATE RIGHT-OF-WAY.
2. INSTALL TEMPORARY EROSION CONTROLS AND TREE/NATURAL AREA PROTECTION FENCING PRIOR TO PRE-CONSTRUCTION MEETING AND PRIOR TO ANY SITE CLEARING, GRUBBING, EXCAVATION, MATERIAL STOCKPILING, OR OTHER CONSTRUCTION OPERATIONS.
3. SCHEDULE AND CONVENE A PRECONSTRUCTION MEETING INCLUDING BUT NOT LIMITED TO THE OWNER'S REPRESENTATIVE, ENGINEER, WTCPUA REPRESENTATIVE, FIRE DEPARTMENT, CITY, COUNTY, TXDOT REPRESENTATIVE, AND TCEQ REPRESENTATIVE, AS APPLICABLE.
4. INSTALL TRAFFIC CONTROL MEASURES.
5. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO INITIATING CONSTRUCTION.
6. ROUGH CUT WATER QUALITY PONDS AND DIRECT RUNOFF TO PONDS TO ACT AS A SEDIMENT TRAP.
7. REMOVE AND STOCKPILE TOPSOIL IN AREAS AS REQUIRED.
8. ROUGH CUT ROADS/SITE, AS NECESSARY.
9. INSTALL ALL UNDERGROUND UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE WTCPUA WHEN SWITCHING SERVICE TO THE WTCPUA SYSTEM. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MATERIALS/FACILITIES TO ENSURE SERVICE IS MAINTAINED DURING SWITCHOVER.
10. COMPLETE ALL UNDERGROUND INSTALLATIONS, INCLUDING INSTALLATION OF SLEEVES.
11. COMPLETE SUBGRADE.
12. COMPLETE 1ST COURSE BASE.
13. COMPLETE FINAL COURSE BASE.
14. LAY PAVEMENT AND/OR COMPLETE ANY PAVEMENT REPAIR.
15. COMPLETE WATER QUALITY PONDS.
16. COMPLETE PERMANENT EROSION CONTROL AND SITE RESTORATION.
17. REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROLS.
18. COMPLETE ANY NECESSARY FINAL DRESS UP OF AREAS DISTURBED BY CONSTRUCTION OPERATIONS.

TRAFFIC CONTROL NOTES (INCLUDE IF APPLICABLE)

1. PLANS SHALL INDICATE RESPONSIBLE AGENT FOR TRAFFIC CONTROL (ENGINEER OR CONTRACTOR).
2. CONTRACTOR SHALL MAINTAIN REASONABLE LOCAL VEHICULAR TRAFFIC THROUGHOUT CONSTRUCTION OPERATIONS.
3. CONTRACTOR SHALL PROVIDE SIGNS, BARRICADES, FLAGGERS, AND OTHER MEASURES AS REQUIRED TO ALLOW FOR VEHICULAR AND PEDESTRIAN TRAFFIC TO PROCEED SAFELY WITH MINIMUM INCONVENIENCE.
4. SIGNS, BARRICADES, FLAGGERS, AND RELATED WORK SHALL BE IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND WITH THE REQUIREMENTS OF THE GOVERNING CITY/COUNTY.
5. FOR ANY ACTIVITY WITHIN TXDOT RIGHT-OF-WAY, PROJECT MUST HA', E A TXDOT PERMIT. A COPY OF THE TXDOT PERMIT SHALL BE PROVIDED TO THE WTCPUA PRIOR TO CONSTRUCTION.

SWPPP NOTES

THIS PROJECT IS SUBJECT TO THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S (TCEQ) TEXAS POLLUTION DISCHARGE ELIMINATION SYSTEM (TPDES) GENERAL PERMIT TXR150000 FOR CONSTRUCTION ACTIVITIES. THE GENERAL PERMIT REQUIRES THE PREPARATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WHICH HAS BEEN PROVIDED BY THE OWNER FOR USE BY THE CONTRACTOR. THE OWNER SHALL PROVIDE THE OWNER'S NOTICE OF INTENT (NOI) AND NOTICE OF TERMINATION (N0T) TO THE TCEQ. THE CONTRACTOR'S RESPONSIBILITIES ARE AS FOLLOWS:

1. MAINTAIN A COPY OF THE SWPPP AND A SET OF CONSTRUCTION PLANS WITH THE TEMPORARY EROSION AND SEDIMENT CONTROL PLAN AT THE WORK SITE AT ALL TIMES.
2. FILE A NOTICE OF INTENT (NOI) AND APPLICABLE PAYMENT TO THE TCEQ AT LEAST 2 DAYS PRIOR TO SITE DISTURBANCE.
3. POST A COPY OF THE OWNER'S AND CONTRACTOR'S NOI FORMS AT THE WORK SITE.
4. SIGN THE CERTIFICATION AND OBTAIN A SIGNED CERTIFICATION STATEMENT FROM ALL SUBCONTRACTORS RESPONSIBLE FOR IMPLEMENTING THE EROSION AND SEDIMENT CONTROL MEASURES WHICH INDICATES THAT THE CONTRACTOR AND SUBCONTRACTOR UNDERSTANDS THE PERMIT REQUIREMENTS (FORMS ARE IN THE SWPPP)
5. FOLLOW AND COMPLY WITH ALL ASPECTS OF THE TPDES GENERAL PERMIT NO. TXR150000. THIS INCLUDES BUT IS NOT LIMITED TO FIELD INSPECTIONS AND REPORT, MAINTAINING AND REPAIRING EROSION CONTROLS AND UPDATING EROSION CONTROLS AND UPDATING EROSION CONTROL PLAN SHEETS BASED ON FIELD CHANGES AND MODIFICATIONS.
6. FILE A COPY OF THE CONTRACTOR'S NOTICE OF TERMINATION (NOT) WITH THE TCEQ ONCE THE WORK IS COMPLETED IN ACCORDANCE WITH THE TPDES GENERAL PERMIT NO TXR.150000 AND HAS BEEN ACCEPTED BY THE OWNER.

WTCPUA WATER & WASTEWATER GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE STATE STATUTES AND U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS (0.S.H.A.). COPIES OF O.S.H.A. STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE. INFORMATION AND RELATED REFERENCE MATERIALS MAY BE OBTAINED FROM O.S.H.A. AUSTIN AREA OFFICE - LA COSTA GREEN BLDG 1033, LA POSADA DR, SUITE 375, AUSTIN, TEXAS 78752-3832, 512-374-0271.
2. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO THE CITY OF AUSTIN STANDARD SPECIFICATIONS AND TO THE STATE LAW, (VERNON'S ANNOTATED TEXAS STATUTES, ARTICLE 1436 ©) AND THE NEED FOR EFFECTIVE PRECAUTIONARY MEASURES WHEN OPERATING IN THE VICINITY OF ELECTRICAL LINES. THE CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY REQUIREMENTS, AND FOR COORDINATION OF ALL WORK WITH THE APPROPRIATE ELECTRIC UTILITY COMPANY.
3. THE CONTRACTOR SHALL CONTACT THE ONE-CALL BOARD OF TEXAS AT 811 OR 1-800-545-6005 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION. THE LOCATION AND TYPE OF UTILITIES AND UNDERGROUND FACILITIES SHOWN ON THESE PLANS ARE NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL DEPTHS AND LOCATIONS OF EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. IN ADDITIONAL TO NORMAL PRECAUTIONS WHEN EXCAVATING, USE EXTRA CAUTION WHEN EXCAVATING WITHIN 25 FEET OF ANY UTILITIES SHOWN ON THE PLANS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION BETWEEN HIMSELF AND OTHER CONTRACTORS AND UTILITIES IN THE VICINITY OF THE PROJECT. THIS INCLUDES ALL WATER, WASTEWATER, GAS, ELECTRICAL, TELEPHONE, CABLE TELEVISION, AND STREET AND DRAINAGE WORK. ONCE THE CONTRACTOR BECOMES AWARE OF A POSSIBLE CONFLICT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER AND WTCPUA INSPECTOR WITHIN TWENTY-FOUR (24) HOURS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF ALL SPOIL MATERIAL FROM THE CONSTRUCTION SITE. ALL SPOILS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED SPOIL SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND SECURING A PERMIT FOR THE SITE. THE CONTRACTOR SHALL NOTIFY THE WTCPUA INSPECTOR AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO DISPOSAL OF THE MATERIAL. NO SPOILS ARE TO REMAIN OVERNIGHT IN THE FLOODPLAIN.
6. NO BLASTING OR BURNING WILL BE ALLOWED.
7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR, AT HIS EXPENSE, ALL UTILITIES, PAVEMENT, CURB, FENCES OR ANY OTHER ITEMS DAMAGED DURING CONSTRUCTION REGARDLESS OF WHETHER THESE ITEMS ARE SHOWN ON THE CONSTRUCTION PLANS.
8. WHENEVER EXISTING UTILITIES, INDICATED OR NOT ON PLANS, PRESENT OBSTRUCTIONS TO GRADE AND/OR ALIGNMENT OF PROPOSED PIPE, CONTRACTOR IS TO IMMEDIATELY NOTIFY THE ENGINEER WHO WILL DETERMINE IF EXISTING IMPROVEMENTS ARE TO BE RELOCATED OR IF THE GRADE AND/OR ALIGNMENT OF PROPOSED PIPE IS TO BE CHANGED.
9. DUST PREVENTION SHALL BE PROVIDED BY THE CONTRACTOR AT HIS OWN EXPENSE. DUST CONTROL SHALL INCLUDE SPRAYING OF WATER ON ALL DISTURBED AREAS, SPOIL PILES, OR HAUL MATERIALS ASSOCIATED WITH THE PROJECT OR OTHER METHODS APPROVED BY THE WTCPUA.
10. CLEANUP - UPON COMPLETION AND BEFORE MAKING APPLICATION FOR ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL CLEAN ALL STREETS AND ALL GROUND OCCUPIED BY HIM IN CONNECTION WITH THE WORK OF ALL RUBBISH, EXCESS MATERIALS, EXCESS EXCAVATED MATERIALS, TEMPORARY STRUCTURES AND EQUIPMENT. ALL PARTS OF THE WORK SHALL BE LEFT IN A NEAT AND PRESENTABLE CONDITION SATISFACTORY TO THE WTCPUA AND OTHER GOVERNMENTAL BODIES HAVING JURISDICTION PRIOR TO SUBMITTAL OF THE FINAL PAYMENT.
11. THE CONTRACTOR SHALL MAINTAIN ACCESS TO BUSINESSES AND RESIDENCES AT ALL TIMES. THE CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS TO MINIMIZE DISRUPTION OF DELIVERIES, PARKING, AND OTHER ACTIVITIES.
12. DEWATERING, IF NECESSARY, SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND SHALL NOT CONSTITUTE A BASIS FOR ADDITIONAL PAYMENT.
13. THE MINIMUM DEPTH OF COVER FROM TOP OF PIPE TO FINISHED GRADE FOR ALL WATER LINES SHALL BE FOUR FEET. INSTALL LINES TO AVOID HIGH POINTS.
14. CONCRETE SHALL BE CLASS 'A' WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI, UNLESS OTHERWISE NOTED. '
15. REINFORCING STEEL SHALL BE ASTM A 615M, GRADE 60 UNLESS OTHERWISE NOTED.
16. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE WTCPUA MUST RELY ON THE ADEQUACY OF THE DESIGN ENGINEER. APPROVAL OF THESE PLANS BY THE WTCPUA DOES NOT RELEASE THE DESIGN ENGINEER OF THESE RESPONSIBILITIES.

WEST TRAVIS COUNTY PUA WATER AND WASTEWATER UTILITY NOTES

1. WEST TRAVIS COUNTY PUA IS THE WATER AND / OR WASTEWATER SERVICE PROVIDER FOR THIS PROJECT. A PRE-CONSTRUCTION MEETING WITH THE WTCPUA SHALL BE HELD PRIOR TO COMMENCEMENT OF CONSTRUCTION TO SCHEDULE INSPECTION OF INSTALLATION OF WATER/WASTEWATER FACILITIES. WATER FACILITIES WILL BE INSPECTED UP TO, AND INCLUDING, THE WATER METER AND/OR FIRE HYDRANTS. THE CONTACT NUMBER FOR WTCPUA IS (512) 263- 0100.
2. THE CITY OF AUSTIN STANDARD SPECIFICATIONS AND STANDARD DETAILS CURRENT AT THE TIME OF CONSTRUCTION SHALL GOVERN MATERIALS AND METHODS USED TO PERFORM THIS WORK. CITY OF AUSTIN SPECIFICATIONS AND STANDARD DETAILS ARE AVAILABLE AT HTTPS://LIBRARY.MUNICODE.COM/TX/AUSTIN/CODES/
3. CONTRACTOR SHALL OBTAIN ALL APPROVALS AND PERMITS, INCLUDING BUT NOT LIMITED TO STREET/DRIVEWAY CUT AND UTILITY CUT PERMITS FROM THE APPROPRIATE GOVERNMENTAL AGENCY BEFORE BEGINNING CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR ALLEY.
4. THE WTCPUA SHALL BE CONTACTED AT (512) 263-0100 AT LEAST 48 HOURS BEFORE CONNECTING TO THEIR EXISTING WATER AND/OR WASTEWATER FACILITIES.
5. THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM AT 811 OR 1-800-545-6005 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION. IN ADVANCE OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES TO BE EXTENDED, TIED TO, OR ALTERED, OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS.
6. NO OTHER UTILITY SERVICE/APPURTENANCES SHALL BE PLACED NEAR THE PROPERTY LINE, OR OTHER ASSIGNED LOCATION DESIGNATED FOR WATER AND WASTEWATER UTILITY SERVICE THAT WOULD INTERFERE WITH THE WATER AND/OR WASTEWATER SERVICES.
7. WHERE WATER LINES AND SEWER LINE ARE INSTALLED WITH A SEPARATION DISTANCE CLOSER THAN NINE FEET (I.E., WATER LINES CROSSING WASTEWATER LINES, WATER LINES PARALLELING WASTEWATER LINES, OR WATER LINES NEXT TO MANHOLES) THE INSTALLATION MUST MEET THE REQUIREMENTS OF 30 TAC §217.53(D)(PIPE DESIGN) AND 30 TAC §290.44(E) (WATER DISTRIBUTION). ANY DEVIATION THESE STANDARDS SHALL REQUIRE A VARIANCE APPROVED BY TCEQ BEFORE SUBMITTING PIPING ASSIGNMENTS TO THE WTCPUA.
8. THE CITY OF AUSTIN SPECIFICATION ITEM 509S WILL BE REQUIRED AS A MINIMUM TRENCH SAFETY MEASURE. CONTRACT DOCUMENTS, WHICH INCLUDE A TRENCH SAFETY PLAN SIGNED AND SEALED BY A TEXAS PROFESSIONAL ENGINEER AND A PAY ITEM FOR TRENCH SAFETY MEASURES, IN COMPLIANCE WITH OSHA, STATE, COUNTY, AND CITY REQUIREMENTS BEFORE BEGINNING WORK ON THE PROJECT.
9. ALL MATERIAL TESTS, INCLUDING SOIL DENSITY TESTS AND RELATED SOIL ANALYSIS, SHALL BE ACCOMPLISHED BY AN INDEPENDENT LABORATORY FUNDED BY THE OWNER IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATION ITEM 1804S.4.
10. CONNECTIONS TO EXISTING WTCPUA WATER LINES SHALL BE MADE BY CUT-IN TEES IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATION ITEM 510.3(24). ISOLATION VALVES SHALL BE INSTALLED ON THE ENDS OF THE CUT-IN TEE, AS NECESSARY. A SHUT-OUT VALVE PLAN SHALL BE PROVIDED SHOWING THE LOCATION OF EXISTING GATE VALVES IN THE VICINITY OF THE CONNECTION. THE SHUT-OUT PLAN SHALL IDENTIFY ALL AFFECTED PROPERTY OWNERS. CONTRACTOR SHALL PERFORM ALL WORK AND SHALL FURNISH ALL MATERIALS, INCLUDING DRAINING AND CUTTING INTO EXISTING PIPING AND CONNECTING A NEW PIPELINE OR OTHER EXTENSION INTO THE EXISTING PRESSURE PIPING, FORMING AN ADDITION TO THE POTABLE WATER TRANSMISSION AND DISTRIBUTION NETWORK AND PERFORMING NECESSARY SHUTOFFS. CONTRACTOR SHALL SCHEDULE ALL SUCH CONNECTIONS IN ADVANCE AND SUCH SCHEDULE SHALL BE APPROVED BY THE WTCPUA BEFORE BEGINNING THE WORK. AT LEAST 48 HOURS-NOTICE SHALL BE GIVEN TO THE WTCPUA PRIOR TO MAKING THE CONNECTION, AND A REPRESENTATIVE FROM THE WTCPUA SHALL BE PRESENT WHEN THE CONNECTION IS MADE. PRESSURE TAPS MAY BE APPROVED ON A CASE-BY-CASE BASIS. "SIZE ON SIZE" TAPS WILL NOT BE PERMITTED. WHEN APPROVED, ANY TAPS SHALL BE MADE BY USE OF AND APPROVED FULL CIRCLE, GASKETED CAST IRON OR DUCTILE IRON TAPPING SLEEVE. CONCRETE BLOCKING SHALL BE PLACED BEHIND AND UNDER ALL TAP SLEEVES PRIOR TO MAKING THE PRESSURE TAP AND THE USE OF PRECAST BLOCKS MAY BE USED TO HOLD THE TAP IN ITS CORRECTION POSITION PRIOR TO BLOCKING. THE BLOCKING BEHIND AND UNDER THE TAP SHALL HAVE A MINIMUM OF 24 HOURS CURING TIME BEFORE THE VALVE CAN BE REOPENED FOR SERVICE FROM THAT TAP. THE CONTRACTOR SHALL NOTIFY THE WTCPUA INSPECTOR A MINIMUM OF SEVENTY-TWO (72) HOURS IN ADVANCE FOR THE WTCPUA TO NOTIFY THE AFFECTED CUSTOMERS. THE WTCPUA SHALL BE PRESENT WHILE ALL WORK IS PERFORMED TO MAKE THE CONNECTION.
11. THRUST RESTRAINT SHALL BE BY METAL THRUST RESTRAINTS IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATION ITEM 510.3(22).
12. FIRE HYDRANTS SHALL BE SET IN ACCORDANCE WITH CITY OF STANDARD SPECIFICATION ITEM 51LS.3 E AND SHALL BE APPROVED FIRE DEPARTMENT OR OTHER APPROPRIATE PARTY PRIOR TO INSTALLATION. FIRE HYDRANTS ON MAINS UNDER CONSTRUCTION SHALL BE SECURELY WRAPPED WITH A POLY WRAP BAG AND TAPED INTO PLACE. THE POLY WRAP WILL BE REMOVED WHEN THE MAINS ARE ACCEPTED AND PLACED IN SERVICE. FIRE HYDRANTS THAT ARE TO BE USED AS DRAIN HYDRANTS SHALL BE PAINTED SILVER W/ BLUE CAPS PRIOR TO ACCEPTANCE. WHERE STORZ ADAPTORS ARE REQUIRED (HAYS COUNTY), FIRE HYDRANTS SHALL BE MANUFACTURED WITH INTEGRAL STORZ ADAPTORS.
13. WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATION ITEM 510.3(29) AND/OR TCEQ RULES.
14. TEST PRESSURE FOR 2-HOUR TEST SHALL BE AT 175 PSI AT THE LOWEST POINT IN THE LINE.

NOTE:
PRIOR TO PRESSURE TESTING, CONTRACTOR SHALL VERIFY THAT THRUST BLOCKING AND/OR THRUST RESTRAINT BACK TO AND INCLUDING THE VALVE AGAINST WHICH THE PRESSURE TEST SHALL BE PERFORMED, HAS BEEN INSTALLED TO AT LEAST THE SPECIFICATIONS OF THIS PROJECT. FAILURE TO VERIFY THAT THRUST BLOCKING AND/OR THRUST RESTRAINT IN THE EXISTING LINE MEETS OR EXCEEDS THE SPECIFICATIONS OF THIS PROJECT MAY RESULT IN SERIOUS DAMAGE TO THE EXISTING WATERLINE.

15. WATER LINES SHALL BE FILLED WITH WATER AND ALL AIR EXPELLED AT LEAST 24 HOURS BEFORE TESTING. ALL SERVICE LATERALS AND DRAIN VALVE LEADS, WITH THE HYDRANT VALVES CLOSED AND NOZZLE CAPS OPEN SHALL BE INCLUDED IN THE TESTS.
16. CONTRACTOR SHALL SUBMIT A DISINFECTION AND FLUSHING PLAN IN ACCORDANCE WITH AWWA STANDARDS TO THE WTCPUA FOR APPROVAL. REQUIRED FLUSHING VOLUMES, FLUSHING SCHEDULE, AND METHOD OF DISPOSAL OF FLUSH WATER SHALL BE IN ACCORDANCE WITH THE APPROVED PLAN.
17. GATE VALVES SHALL BE RESILIENT SEATED GATE VALVES CONFORMING TO AWWA C509, WITH A MINIMUM RATED WORKING PRESSURE OF 250 PSIG.
18. FORCE MAIN TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATION ITEM 510.3(27) AND/OR TCEQ RULES.
19. GRAVITY SANITARY SEWER MAIN TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATION ITEMS 510.3(26) AND/OR TCEQ RULES. IN ADDITION, ALL GRAVITY SANITARY SEWER MAINS SHALL BE TELEVISED PRIOR TO ACCEPTANCE BY WTCPUA. DIGITAL FILES (VIA CD-ROM) CLEARLY SHOWING TELEVISED RECORDING SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOLLOWING INSPECTION.
20. LOCATOR 'FINDER' WIRE - ALL NON -METALLIC WATER LINES SHALL HAVE A FINDER WIRE LOCATED ABOVE THE PIPE. THE WIRE SHALL BE POLY-INSULATED NO. 10 SOLID COPPER AND WILL TERMINATE AT EACH ISOLATION VALVE SUCH THAT IT IS ACCESSIBLE FROM THE VALVE BOX.
21. LOCATOR 'FINDER' WIRE - ALL NON-METALLIC WASTEWATER LINES SHALL HAVE A FINDER WIRE LOCATED ABOVE THE PIPE. THE WIRE SHALL BE POLY-INSULATED NO. 10 SOLID COPPER AND WILL TERMINATE AT READILY ACCESSIBLE LOCATIONS THROUGHOUT THE COLLECTION SYSTEM.
22. ALL VALVE RISERS SHALL HAVE A 1'-6" SQUARE CONCRETE BOX POURED AROUND THEM AT FINISHED GRADE.
23. ALL MANHOLES SHALL BE LINED WITH A CORROSION RESISTANT LINING APPROVED BY THE WTCPUA.
24. BOLTED AND GASKETED COVERS SHALL BE USED FOR ALL MANHOLES LOCATED IN THE 100-YEAR FLOODPLAIN. WHERE THERE ARE MORE THAN THREE GASKETED MANHOLES IN A ROW, VENTS SHALL BE PROVIDED ON EVERY THIRD MANHOLE.
25. THE DOWNSTREAM END OF ANY FORCE MAIN SHALL BE TERMINATED IN A SANITARY SEWER MANHOLE IN A MANNER TO MINIMIZE TURBULENCE.
26. CONTRACTOR SHALL HAVE NECESSARY EROSION AND SEDIMENTATION CONTROLS IN PLACE PRIOR TO COMMENCING WATER/WASTEWATER FACILITY CONSTRUCTION.
27. RECORD DRAWINGS, AS STIPULATED BY THE WTCPUA, SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR VERIFICATION AND FURNISHED TO THE WTCPUA UPON COMPLETION OF THE PROJECT.
28. THE WTCPUA WILL OWN AND OPERATE ALL WATER LINES AND APPURTENANCES UP TO AND INCLUDING THE WATER METER. THESE IMPROVEMENTS WILL BE DEFINED BY A RECORDED EASEMENT OR IN PUBLIC RIGHT-OF-WAY.
29. ANY PORTIONS OF WASTEWATER LINES INCLUDING SERVICES THAT ARE LOCATED OUTSIDE OF A RECORDED EASEMENT OR PUBLIC RIGHT-OF-WAY WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER, OR HIS/HER ASSIGNS.
30. WHERE EXISTING WATER AND/OR WASTEWATER INFRASTRUCTURE IS TO BE ABANDONED, THE ENGINEER SHALL SUBMIT AN ABANDONMENT PLAN FOR APPROVAL BY THE WTCPUA.
31. WATER SERVICES SHALL BE INSTALLED USING HDPE PIPE. COPPER IS NOT ALLOWED.
32. FOR ANY STORM SEWER LINE CROSSING A WATER OR WASTEWATER LINE CLOSER THAN 18â€ , THE STORM SEWER PIPE SHALL BE LAID SUCH THAT NO STORM SEWER JOINTS WILL BE OVER THE WATER PIPE CROSSING.

OTHER NOTES – ENGINEER IS RESPONSIBLE FOR INCLUDING ALL APPLICABLE NOTES, INCLUDING BUT NOT LIMITED TO COUNTY, CITY, TXDOT, STATE, FIRE DEPARTMENT, TCEQ (CZP, WPAP, ORGANIZED SEWAGE COLLECTION SYSTEM NOTES, GENERAL CONSTRUCTION NOTES). ENGINEER IS RESPONSIBLE FOR ENSURING THE CURRENT ADOPTED VERSION OF ALL NOTES IS INCLUDED IN THE CONSTRUCTION PLANS.

TCEQ WATER DISTRIBUTION SYSTEM GENERAL CONSTRUCTION NOTES

(REVISED FEBRUARY 2019 OR LATEST VERSION)

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

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

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

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

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

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

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

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

STREET AND DRAINAGE NOTES:

1. CONTRACTOR SHALL PROVIDE QUALITY TESTING FOR ALL INFRASTRUCTURES TO BE ACCEPTED AND MAINTAINED BY HAYS COUNTY AFTER COMPLETION. THE CONTRACTOR SHALL NOTIFY HAYS COUNTY NO LESS THAN 48 HOURS PRIOR TO ANY TESTING.
2. BACKFILL BEHIND THE CURB SHALL BE COMPACTED TO OBTAIN A MINIMUM OF 95% MAXIMUM DENSITY TO WITHIN 6" OF TOP OF CURB. MATERIAL USED SHALL BE PRIMARILY GRANULAR WITH NO ROCKS LARGER THAN 6" IN THE GREATEST DIMENSION.THE REMAINING 4" SHALL BE CLEAN TOPSOIL FREE FROM ALL CLODS, ROCK LARGER THAN 1" AND SUITABLE FOR SUSTAINING PLANT LIFE.
3. STREET RIGHT-OF-WAY SHALL BE GRADED AT A MINIMUM SLOPE OF 1/4" PER FOOT TOWARD THE CURB UNLESS OTHERWISE INDICATED.
4. BARRICADES BUILT TO THE CITY OF DRIPPING SPRINGS STANDARDS SHALL BE ERECTED ON ALL DEAD-END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB AND PUBLIC SAFETY.
5. ALL REINFORCED CONCRETE PIPE (RCP) SHALL BE MINIMUM CLASS III.
6. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE FOR COMPLIANCE WITH THE DESIGN ASSUMPTIONS MADE DURING PREPARATION OF THE SOILS REPORT. ANY ADJUSTMENTS THAT ARE REQUIRED SHALL BE MADE THROUGH REVISIONS OF THE CONSTRUCTION PLANS.
7. WHENEVER SOIL INVESTIGATION OR EXCAVATION SHOWS MORE THAN 2 FEET OF EXPANSIVE SUBGRADE, WITH P.I. GREATER THAN 35, THE GEOTECHNICAL ENGINEER OF RECORD SHALL BE CONSULTED FOR ALTERNATIVE PAVEMENT DESIGN MEASURES.
8. AT INTERSECTIONS WHICH HAVE VALLEY DRAINAGE, THE CROWNS OF THE INTERSECTING STREETS WILL CULMINATE IN A DISTANCE OF 40 FEET FROM INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
9. A CURB LAYDOWN IS REQUIRED AT ALL POINTS WHERE THE PROPOSED SIDEWALK INTERSECTS THE CURB.
10. INSTALLATION OF EXPANSION JOINTS AT 40' INTERVAL IS OPTIONAL FOR MACHINE LAID CURB EXCEPT IN SUCH CONDITIONS BELOW:
    - HIGH PLASTICITY SUBGRADE
    - WHENEVER THE CURB END ABUTS CONCRETE STRUCTURE
    - EXTRUSION IS SUSPENDED LONG ENOUGH TO PRODUCE COLD JOINT
12. WHEN USING LIME FOR STABILIZATION OF THE SUBGRADE, IT SHALL BE PLACED IN SLURRY OR PELLET FORM. NO DRY LIME PLACEMENT IS PERMITTED.

HAYS COUNTY CONSTRUCTION NOTES:

1. SEVENTY-TWO (72) HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION CONFERENCE WITH ALL PERTINENT PARTIES.
2. ALL ROADWAY AND DRAINAGE IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HAYS COUNTY SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS FROM HAYS COUNTY ROAD AND BRIDGE DEPARTMENT PRIOR TO BEGINNING ANY ON-SITE CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING THE NECESSARY INSPECTIONS FROM THE HAYS COUNTY ROAD AND BRIDGE DEPARTMENT. ALL REPAIRS TO IMPROVEMENTS CAUSED BY CONTRACTOR'S FAILURE TO INSTALL IMPROVEMENTS IN ACCORDANCE WITH HAYS COUNTY SPECIFICATIONS AND THESE CONSTRUCTION PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. HAYS COUNTY ROAD AND BRIDGE DEPARTMENT'S ACCEPTANCE OF THE IMPROVEMENTS ARE CONTINGENT ON REPAIRS BEING MADE TO HAYS COUNTY'S SATISFACTION. DELAYS CAUSED BY REPAIRS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
3. A MINIMUM OF TWO (2) BENCHMARKS SHALL BE SHOWN ON THE CONSTRUCTION PLANS.
4. ALL BEDDING MATERIALS USED WITHIN THE ROW SHALL COMPLY WITH COA ITEM 510.
5. ALL CONCRETE PLACED WITHIN THE ROW SHALL BE A MINIMUM OF CLASS A. THE USE OF REBAR CHAIRS AND TESTS CYLINDERS WILL BE REQUIRED ON PCC VALLEY GUTTER PLACEMENTS.
6. THE PROPOSED FULLY DEVELOPED STORMWATER RUNOFF RATE CANNOT EXCEED EXISTING CONDITIONS RUNOFF RATE.
7. DEWATERING OPERATIONS MUST USE SWPPP-SPECIFIED METHODS ONLY. IF SUCH METHODS ARE ONLY GENERAL OR NOT APPLICABLE, PUMP FROM THE TOP OF THE POOL (RATHER THAN THE BOTTOM) AND DISCHARGE TO A VEGETATED, UPLAND AREA (AWAY FROM WATERBODIES OR DRAINAGES) OR USE ANOTHER TYPE OF FILTRATION PRIOR TO DISCHARGE. REFER TO THE EPA 2017 GENERAL CONSTRUCTION PERMIT, SECTION 2.4, AS APPLICABLE.
8. THE CONTRACTOR SHALL SUPPLY QUALIFIED PERSONNEL TO PERFORM SWPPP INSPECTIONS ON PROJECT ≥ 1 ACRE. QUALIFIED PERSONNEL SHALL HAVE CISEC, CESSWI, OR EQUIVALENT CERTIFICATION APPROVED BY THE MS4.
9. CONTRACTOR SHALL ENSURE THAT MUD AND DEBRIS TRACKED ONTO PUBLICLY MAINTAINED ROADWAYS FROM VEHICLES LEAVING THE CONSTRUCTION SITE WILL BE CLEANED UP DAILY.
10. NO EXPLOSIVES SHALL BE USED FOR THIS PROJECT WITHOUT TCEQ APPROVAL.
11. ALL HOLES, TRENCHES AND OTHER HAZARDOUS AREAS SHALL BE ADEQUATELY PROTECTED BY BARRICADES, FENCING, LIGHTS AND/OR OTHER PROTECTIVE DEVICES IN COMPLIANCE WITH COA 509S AND OSHA REGULATIONS AT ALL TIMES.
12. THE CONTRACTOR SHALL SUBMIT A TRENCH SAFETY PLAN PREPARED AND SEALED BY AN ENGINEER LICENSED BY THE STATE OF TEXAS PRIOR TO THE START OF THE PROJECT. THE CONTRACTOR SHALL ASSIGN A COMPETENT PERSON THAT HAS BEEN PROPERLY TRAINED AND IS QUALIFIED TO MAKE INSPECTIONS AND SUPERVISE THE INSTALLATION, MAINTENANCE, AND REMOVAL OF THE TRENCH SAFETY OR EXCAVATION SAFETY SYSTEM.
13. HAYS COUNTY IS NOT RESPONSIBLE FOR SIDEWALK MAINTENANCE. A NOTE ON THE FINAL PLAT IS REQUIRED NOTING ENTITY TO MAINTAIN SIDEWALKS (OTHER THAN HAYS COUNTY).
14. CONTRACTOR SHALL COMPLY WITH CONSTRUCTION SEQUENCING WHICH MAY BE SPECIFIED SOMEWHERE IN THE CONSTRUCTION PLANS.
15. PERMIT IS REQUIRED FOR CONSTRUCTION IN 'RIGHT OF WAY': ORDINANCE 7.10. NO DRIVEWAY, UTILITY CONSTRUCTION, MAILBOXES, LANDSCAPING OR ANY OTHER ENCROACHMENT INTO RIGHT-OF-WAY OR EASEMENT SHALL BE ALLOWED WITHOUT FIRST OBTAINING A PERMIT FROM THE HAYS COUNTY ROAD AND BRIDGE DEPARTMENT.
16. PRIOR TO THE INSTALLATION OF ANY ROAD BUILDING MATERIAL THE SUBGRADE SHALL BE INSPECTED
17. BY HAYS COUNTY. PRIOR TO PAVING, BASE MATERIAL SHALL BE INSPECTED BY HAYS COUNTY. THE OWNER OR HIS AGENT SHALL NOTIFY HAYS COUNTY FORTY-EIGHT (48) HOURS PRIOR TO THE TIME WHEN THE INSPECTION IS NEEDED :ORDINANCE 1.05; 2.06.
18. ALL OUTFALLS CONSTRUCTED WITHIN HAYS COUNTY MUST BE SUBMITTED TO HAYS COUNTY WITH GPS COORDINATES AT THE END OF EACH PROJECT. COORDINATES WILL BE SUBMITTED ON THE NAD 1983 STATE PLANE SOUTH CENTRAL FIPS 4204 FEET COORDINATE SYSTEM. ALL COORDINATES WILL BE SUBMITTED IN GRID UNITS. THE REQUIRED FILE TYPE FOR COORDINATE DATA SUBMISSIONS IS *TXT FORMAT.
19. AT THE TIME A FINAL INSPECTION AND RELEASE OF PERFORMANCE SECURITY IS REQUESTED; THE DESIGN ENGINEER SHALL PROVIDE A COMPLETE SET OF "AS-BUILT" RECORD DRAWINGS IN PDF FORMAT (300DPI) ON A VIRUS FREE DISK AND SHALL CERTIFY THAT ALL ROAD AND DRAINAGE CONSTRUCTION HAS BEEN COMPLETED IN SUBSTANTIAL ACCORDANCE WITH PREVIOUSLY APPROVED PLANS AND SPECIFICATIONS, EXCEPT AS NOTED.
20. NO PERFORMANCE SECURITY WILL BE RELEASED WITHOUT THESE EXHIBITS.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY CONTRIBUTING ZONE PLAN GENERAL CONSTRUCTION NOTES:

TCEQ-0592A (REV. JULY 15, 2015)

1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY GROUND DISTURBANCE OR CONSTRUCTION ACTIVITIES. THIS NOTICE MUST INCLUDE:
    - THE NAME OF THE APPROVED PROJECT
    - THE ACTIVITY START DATE
    - 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, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THE CONTROLS MUST REMAIN IN PLACE UNTIL 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 SEDIMENT TRAPS OR SEDIMENT BASINS WHEN IT OCCUPIES 50% OF THE BASIN DESIGN CAPACITY.
7. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFF-SITE.
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 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
    - THE DATES WHEN STABILIZATION MEASURES ARE INITIATED
11. THE HOLDER OF ANY APPROVED CONTRIBUTING ZONE PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
    - A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY BEST MANAGEMENT PRACTICES 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
    - D. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE APPROVED CONTRIBUTING ZONE PLAN

AUSTIN REGIONAL OFFICE	SAN ANTONIO REGIONAL OFFICE
12100 PARK 35 CIRCLE, BUILDING A	14250 JUDSON ROAD
AUSTIN, TEXAS 78753-1808	SAN ANTONIO, TEXAS 78233-4480
PHONE (512)339-2929	PHONE (210)490-3096
FAX (512)339-3795	FAX (210)545-4329

SWPPP NOTES

THIS PROJECT IS SUBJECT TO THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S (TCEQ) TEXAS POLLUTION DISCHARGE ELIMINATION SYSTEM (TPDES) GENERAL PERMIT TXR150000 FOR CONSTRUCTION ACTIVITIES. THE GENERAL PERMIT REQUIRES THE PREPARATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WHICH HAS BEEN PROVIDED BY THE OWNER FOR USE BY THE CONTRACTOR. THE OWNER SHALL PROVIDE THE OWNER'S NOTICE OF INTENT (NOI) AND NOTICE OF TERMINATION (NOT) TO THE TCEQ. THE CONTRACTOR'S RESPONSIBILITIES ARE AS FOLLOWS:

1. MAINTAIN A COPY OF THE SWPPP AND A SET OF CONSTRUCTION PLANS WITH THE TEMPORARY EROSION AND SEDIMENT CONTROL PLAN AT THE WORK SITE AT ALL TIMES.
2. FILE A NOTICE OF INTENT (NOI) AND APPLICABLE PAYMENT TO THE TCEQ AT LEAST 2 DAYS PRIOR TO SITE DISTURBANCE.
3. POST A COPY OF THE OWNER'S AND CONTRACTOR"S NOI FORMS AT THE WORK SITE.
4. SIGN THE CERTIFICATION AND OBTAIN A SIGNED CERTIFICATION STATEMENT FROM ALL SUBCONTRACTORS RESPONSIBLE FOR IMPLEMENTING THE EROSION AND SEDIMENT CONTROL MEASURES WHICH INDICATES THAT THE CONTRACTOR AND SUBCONTRACTOR UNDERSTANDS THE PERMIT REQUIREMENTS (FORMS ARE IN THE SWPPP)
5. FOLLOW AND COMPLY WITH ALL ASPECTS OF THE TPDES GENERAL PERMIT NO. TXR150000. THIS INCLUDES BUT IS NOT LIMITED TO FIELD INSPECTIONS AND REPORT, MAINTAINING AND REPAIRING EROSION CONTROLS AND UPDATING EROSION CONTROLS AND UPDATING EROSION CONTROL PLAN SHEETS BASED ON FIELD CHANGES AND MODIFICATIONS.
6. FILE A COPY OF THE CONTRACTOR'S NOT WITH THE TCEQ ONCE THE WORK IS COMPLETED IN ACCORDANCE WITH THE TPDES GENERAL PERMIT NO TXR150000 AND HAS BEEN ACCEPTED BY THE OWNER.

CONTACT INFORMATION

FACILITIES OWNER: KELLY GRAY INVESTMENTS, LLC
6907 N. CAPITOL OF TEXAS HIGHWAY
AUSTIN, TEXAS 78731

LAND OWNER: KELLY GRAY INVESTMENTS, LLC
6907 N. CAPITOL OF TEXAS HIGHWAY
AUSTIN, TEXAS 78731

OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:
CONTACT: AARON GOOGINS (512) 809-5118

MAINTENANCE:
PERSON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL T.B.D.

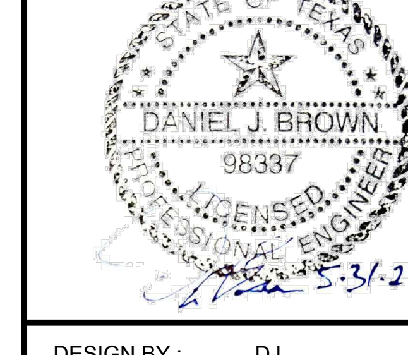
MAINTENANCE:
PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION. T.B.D.

NO.	DATE	REVISION	BY

JULEP COMMERCIAL PARK - EAST
HAYS COUNTY, TEXAS 78737

NOTES

MALONE ★ WHEELER INC. SINCE 1995
CIVIL ENGINEERING ★ DEVELOPMENT CONSULTING ★ PROJECT MANAGEMENT
5113 Southwest Pkwy, Suite 260
Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-0655
Firm Registration No. F-786



DESIGN BY : DJ
CHECKED BY : AV
APPROVED BY : DB
DATE : 5/21/2024

SHEET 02
OF 24

F:\TRAUTWEIN COMMERCIAL PARK\PROJECTS\20-005-AUS\DRAWINGS\PLANSET\JULEP-EAST\02 NOTES.DWG, 5/31/2024, DAVID JOHNSTON

AMENDED PLAT OF
TRACT A, TRACT B, TRACTC, TRACT D, TRACT G,
TRACT I AND TRACT L OF THE KEY RANCH AT THE POLO CLUB
AND AMENDED PLAT OF RESUBDIVISION OF
TRACT E, TRACT F, TRACT H, TRACT J, TRACT K, TRACT M, TRACT N
AND TRACT O OF THE KEY RAND AT POLO CLUB
Volume 8 Page 374

SQUARE CUT ON TOP OF
CONCRETE TRANSFORMER PAD
ELEVATION = 11261.15'

N88° 18' 30"E
158.493'

N88° 26' 10"E
563.505'

EXISTING WELL

EXISTING 15' WTCPUA
WATER EASEMENT
DOC. #23045054

EXISTING WELL

PROPERTY BOUNDARY

WHIRLAWAY
(PRIVATE STREET) AS DEDICATED ON PLAT
VOLUME 8 PAGE 129

EXISTING 15' WTCPUA
WATER EASEMENT
DOC. #23045053

EXISTING 15'
WATER EASEMENT
DOC.#23009845

N82° 34' 50"W
142.735'

N37° 25' 00"W
L=47.32, R=30.000
Δ=90.3669

D=2.9814

TURN LANE IMPROVEMENTS
ASSOCIATED WITH TRAUTWEIN
PROJECT UNDER CONSTRUCTION
AS OF 10-18-2023

CONCRETE
HEADWALL

36" DRAINPIPE
FL 1229.28'

FL=1238.8'

EDGE OF PAVEMENT

EXISTING GUARDRAIL

U.S. HIGHWAY NO. 290

SQUARE CUT ON TOP OF
CONCRETE HEADWALL.
ELEVATION = 1246.11'

N

0 30'
SCALE: 1" = 30'

LEGEND

- PROPERTY BOUNDARY
- EXIST. WATER LINE
- EXIST. WASTEWATER LINE
- EXIST. STORM LINE
- GAS — EXIST. GAS LINE
- OE — OE — EXIST. OVERHEAD ELECTRIC
- UE — UE — EXIST. UNDERGROUND ELECTRIC
- UT — EXIST. UNDERGROUND TELEPHONE
- FIBER — EXIST. UNDERGROUND FIBER
- EXIST. FENCE / GUARDRAIL
- 1/2" REBAR FOUND (OR AS NOTED)
- 1/2" REBAR WITH "EARLY BOUNDARY" CAP SET
- MAG NAIL FOUND
- MAG NAIL WITH "EARLY BOUNDARY" WASHER SET
- BENCHMARK/CONTROL POINT
- CLEANOUT
- ELECTRIC UTILITY
- FDC — FIRE DEPARTMENT CONNECTION
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- UNDERGROUND GAS MARKER
- GAS UTILITY
- UTILITY POLE
- GUY WIRE
- SIGN
- ELECTRIC MANHOLE
- STORMSEWER MANHOLE
- TELECOM MANHOLE
- IRRIGATION VALVE
- ELECTRICAL JUNCTION BOX
- UNDERGROUND FIBER MARKER
- T — TELECOM UTILITY
- WASTEWATER MANHOLE
- EDGE OF ASPHALT PAVEMENT
- B.L. — BUILDING SETBACK LINE
- ( ) — RECORD INFORMATION

TREE INDEX

- TREE

NOTE:

FOR TREE LIST SEE
SHEET 04 - DEMOLITION PLAN

NO.	DATE	REVISION	BY

JULEP COMMERCIAL PARK - EAST
HAYS COUNTY, TEXAS 78737

EXISTING CONDITIONS

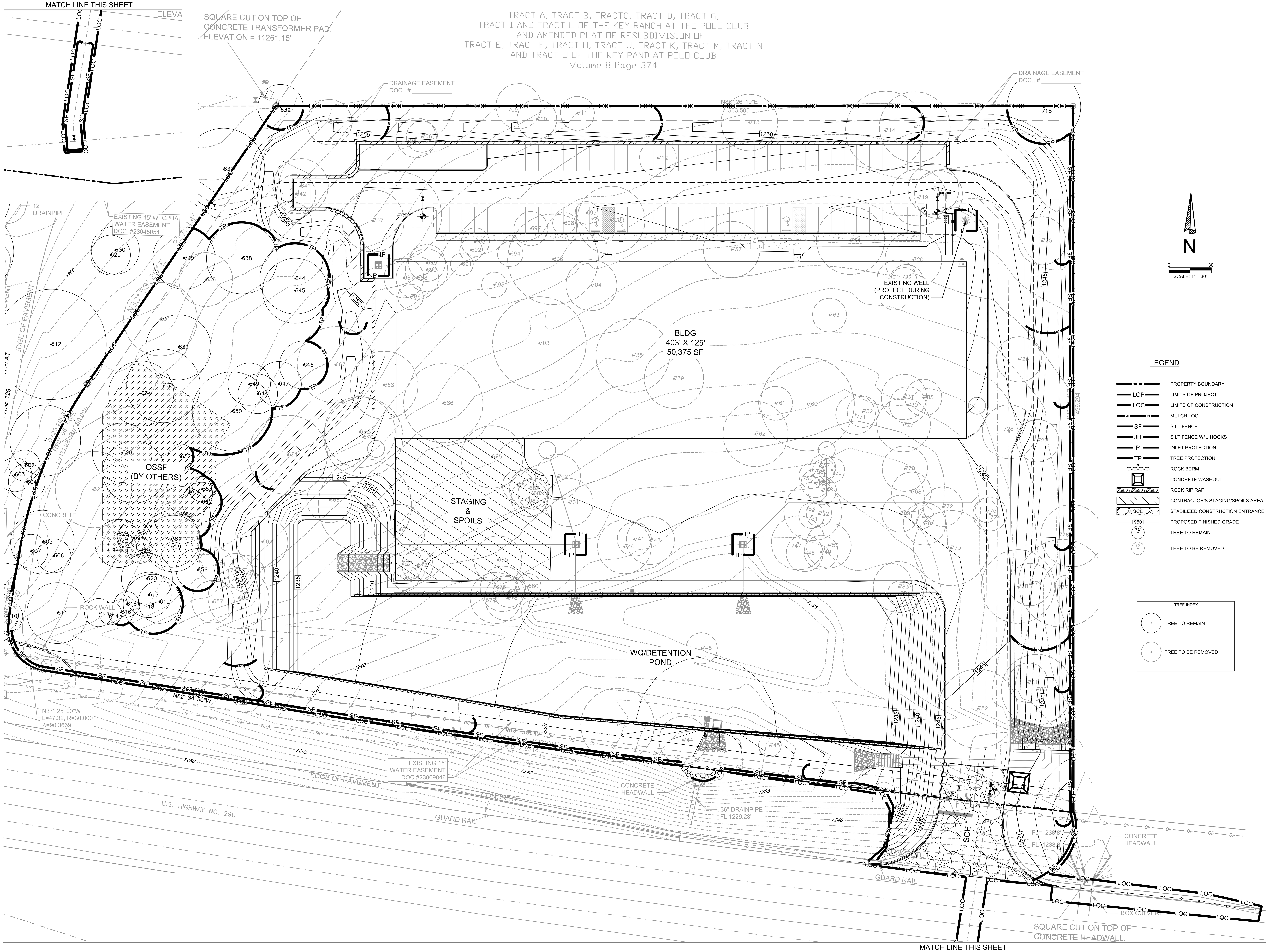
MALONE★WHEELER INC.
SINCE 1995
CIVIL ENGINEERING ★ DEVELOPMENT CONSULTING ★ PROJECT MANAGEMENT
5113 Southwest Pkwy, Suite 260
Austin, Texas 78735
Phone: (512) 899-0401 Fax: (512) 899-0455
Firm Registration No. F-786

STATE OF TEXAS
DANIEL J. BROWN
98337
LICENSED
PROFESSIONAL ENGINEER
5-31-24

DESIGN BY :	DJ
CHECKED BY :	AV
APPROVED BY :	DB
DATE :	5/31/2024

SHEET 03
OF 24

F:\TRAUTWEIN COMMERCIAL PARK\PROJECTS\20-005-AUS\DRAWINGS\PLANSET\JULEP-EASTI04 DEMOLITION PLAN.DWG, 5/31/2024, DAVID JOHNSTON


MATCH LINE THIS SHEET
SQUARE CUT ON TOP OF CONCRETE TRANSFORMER PAD. ELEVATION = 11261.15'
TRACT A, TRACT B, TRACTC, TRACT D, TRACT G,
TRACT I AND TRACT L OF THE KEY RANCH AT THE POLO CLUB
AND AMENDED PLAT OF RESUBDIVISION OF
TRACT E, TRACT F, TRACT H, TRACT J, TRACT K, TRACT M, TRACT N
AND TRACT O OF THE KEY RAND AT POLO CLUB
Volume 8 Page 374
DRAINAGE EASEMENT DOC.. #
N88° 26' 10"E 563.505'
12" DRAINPIPE
EXISTING 15' WTCPUA WATER EASEMENT DOC. #23045054
EDGE OF PAVEMENT
EXISTING WELL (PROTECT DURING CONSTRUCTION)
BLDG
403' X 125'
50,375 SF
OSSF
(BY OTHERS)
STAGING & SPOILS
CONCRETE
ROCK WALL
WQ/DETENTION POND
N37° 25' 00"W
L=47.32, R=30.000
Δ=90.3669
N82° 34' 50"W
EXISTING 15' WATER EASEMENT DOC.#23009846
CONCRETE HEADWALL
36" DRAINPIPE FL 1229.28'
U.S. HIGHWAY NO. 290
GUARD RAIL
SCE
FL=1238.8'
FL=1238.8'
BOX CULVERT
SQUARE CUT ON TOP OF CONCRETE HEADWALL.
MATCH LINE THIS SHEET
N
0 30'
SCALE: 1" = 30'
LEGEND
PROPERTY BOUNDARY
LOP LIMITS OF PROJECT
LOC LIMITS OF CONSTRUCTION
ML MULCH LOG
SF SILT FENCE
JH SILT FENCE W/ J HOOKS
IP INLET PROTECTION
TP TREE PROTECTION
RB ROCK BERM
CONCRETE WASHOUT
ROCK RIP RAP
CONTRACTOR'S STAGING/SPOILS AREA
SCE STABILIZED CONSTRUCTION ENTRANCE
950 PROPOSED FINISHED GRADE
10 TREE TO REMAIN
10 TREE TO BE REMOVED
TREE INDEX
TREE TO REMAIN
TREE TO BE REMOVED

NO.	DATE	REVISION	BY

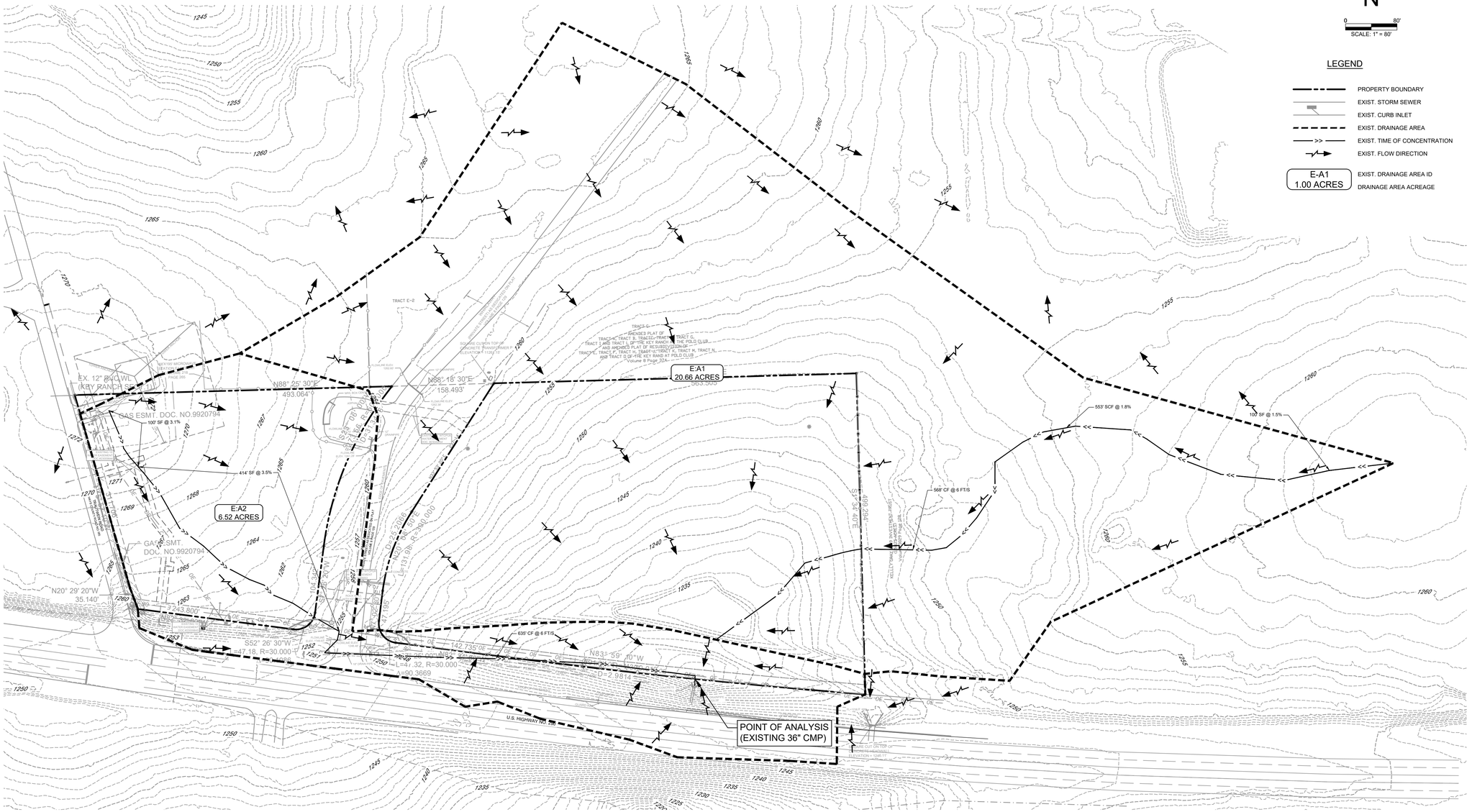
JULEP COMMERCIAL PARK - EAST
HAYS COUNTY, TEXAS 78737

EROSION & SEDIMENTATION CONTROL PLAN

MALONE ★ WHEELER INC. SINCE 1995
CIVIL ENGINEERING ★ DEVELOPMENT CONSULTING ★ PROJECT MANAGEMENT
5113 Southwest Pkwy, Suite 260
Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-0655
Firm Registration No. F-786

STATE OF TEXAS — DANIEL J. BROWN — 98337 — LICENSED PROFESSIONAL ENGINEER — 5-31-24

DESIGN BY : DJ
CHECKED BY : AV
APPROVED BY : DB
DATE : 5/31/2024



EXISTING DRAINAGE AREAS

DRAIN. AREA NO.	AREA (acres)	TC (min)	COMP. C	Q2 (cfs)	Q5 (cfs)	Q10 (cfs)	Q25 (cfs)	Q50 (cfs)	Q100 (cfs)	DRAIN. AREA NO.
E:A1	20.66	15.50	82	40.03	60.54	81.51	114.24	142.82	177.94	E:A1
E:A2	6.52	19.75	84	12.49	18.53	24.65	34.16	42.46	52.64	E:A2
TOTAL	**27.18**			**52.52**	**79.07**	**106.16**	**148.40**	**185.28**	**230.58**	**TOTAL**

NOTE: ATLAS 14 RAINFALL DATA USED FOR DRAINAGE CALCULATIONS.

NO.	DATE	REVISION	BY

JULEP COMMERCIAL PARK - EAST
HAYS COUNTY, TEXAS 78737

EXISTING DRAINAGE AREA MAP

MALONE★WHEELER
SINCE INC. 1995
CIVIL ENGINEERING ★ DEVELOPMENT CONSULTING ★ PROJECT MANAGEMENT
5113 Southwest Pkwy, Suite 260
Austin, Texas 78735
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STATE OF TEXAS
DANIEL J. BROWN
98337
LICENSED
PROFESSIONAL ENGINEER
5/21/24

DESIGN BY :	DJ
CHECKED BY :	AV
APPROVED BY :	DB
DATE :	5/21/2024

SHEET 06
OF 24

F:\TRAUTWEIN COMMERCIAL PARK\PROJECTS\30-005-AUS\DRAWINGS\PLANSET\JULEP-EAST\06 EXISTING DRAINAGE AREA MAP.DWG, 5/31/2024, DAVID JOHNSTON

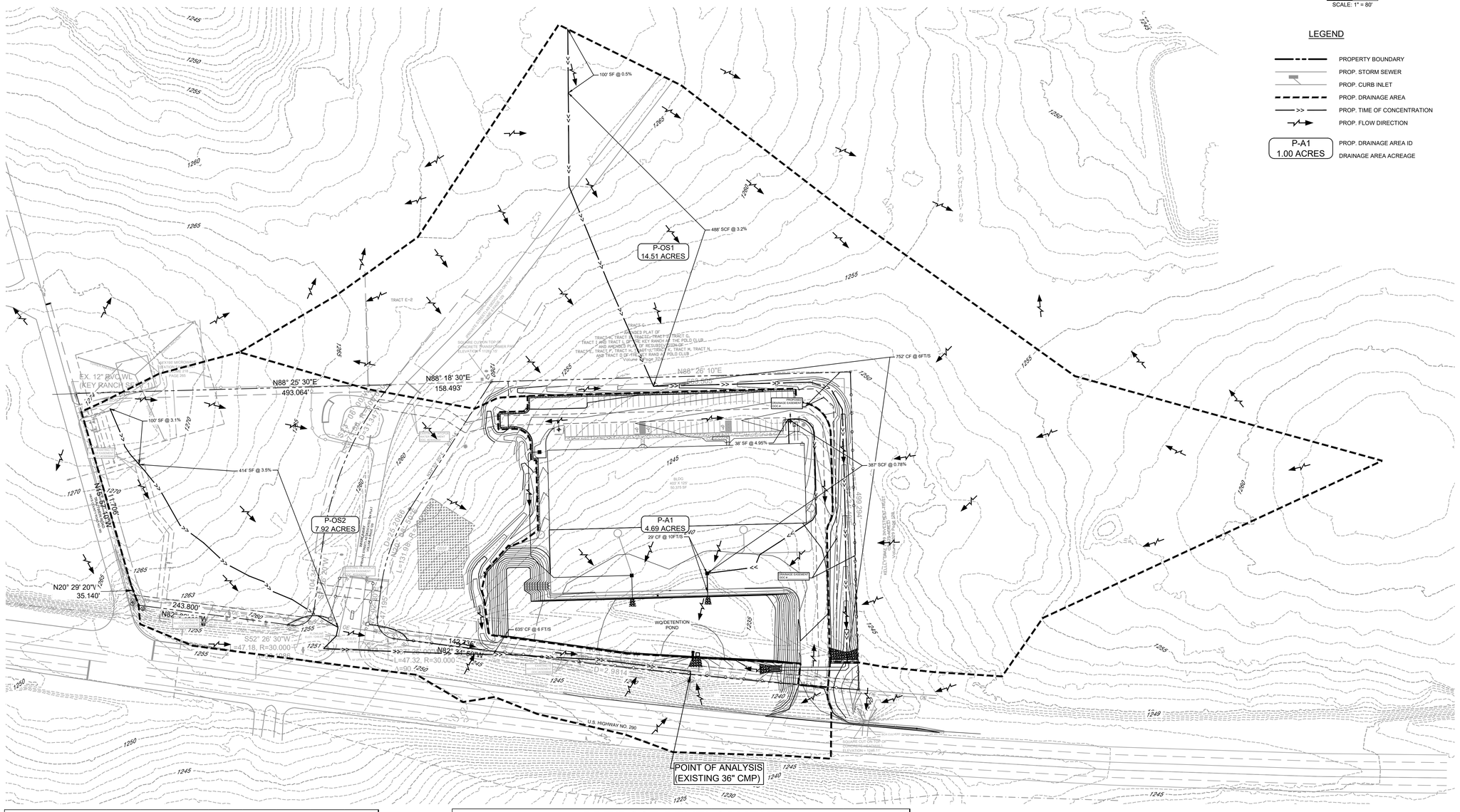
N

0 80'

SCALE: 1" = 80'

LEGEND

- PROPERTY BOUNDARY
- PROP. STORM SEWER
- PROP. CURB INLET
- PROP. DRAINAGE AREA
- PROP. TIME OF CONCENTRATION
- PROP. FLOW DIRECTION
- P-A1 / 1.00 ACRES — PROP. DRAINAGE AREA ID / DRAINAGE AREA ACREAGE



PROPOSED DRAINAGE AREAS

DRAIN. AREA NO.	AREA (acres)	TC (min)	COMP. C	Q2 (cfs)	Q5 (cfs)	Q10 (cfs)	Q25 (cfs)	Q50 (cfs)	Q100 (cfs)	DRAIN. AREA NO.
P-A1	4.69	7.67	92	14.28	19.69	25.10	33.45	40.74	49.71	P-A1
P-OS1	14.51	19.89	82	25.86	39.13	52.71	73.90	92.42	115.17	P-OS1
P-OS2	7.92	19.75	86	16.21	23.58	31.01	42.52	52.54	64.87	P-OS2
TOTAL	**27.12**			**56.35**	**82.40**	**108.82**	**149.87**	**185.70**	**229.75**	**TOTAL**

NOTE: VALUES ABOVE ARE FOR UNDETAINED FLOWS.
NOTE: ATLAS 14 RAINFALL DATA USED FOR DRAINAGE CALCULATIONS.

PRE/POST DEVELOPMENT

POINT OF ANALYSIS	Q2 (cfs)	Q5 (cfs)	Q10 (cfs)	Q25 (cfs)	Q50 (cfs)	Q100 (cfs)
EXISTING-POINT OF ANALYSIS	**47.92**	**73.08**	**91.24**	**108.91**	**119.02**	**134.38**
PROPOSED-POINT OF ANALYSIS (WITH DETENTION)	**46.52**	**67.78**	**80.72**	**94.07**	**105.00**	**117.07**

NOTE: VALUES ABOVE ARE FOR DETAINED FLOWS IN PROPOSED CONDITIONS. SEE POND SHEETS FOR MORE INFORMATION.

NOTE: 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.

NO.	DATE	REVISION	BY

JULEP COMMERCIAL PARK - EAST
HAYS COUNTY, TEXAS 78737

PROPOSED DRAINAGE AREA MAP

MALONE★WHEELER INC.
SINCE 1995
CIVIL ENGINEERING ★ DEVELOPMENT CONSULTING ★ PROJECT MANAGEMENT
5113 Southwest Pkwy, Suite 260
Austin, Texas 78735
Phone: (512) 899-0600 Fax: (512) 899-0655
Firm Registration No. F-786

STATE OF TEXAS
DANIEL J. BROWN
95397
LICENSED PROFESSIONAL ENGINEER
5/31/24

DESIGN BY :	DJ
CHECKED BY :	AV
APPROVED BY :	DB
DATE :	5/31/2024

SHEET 07
OF 24

F:\TRAUTWEIN COMMERCIAL PARK\PROJECTS\20-005-AUS\DRAWINGS\PLANSET\JULEP-EAST\07 PROPOSED DRAINAGE AREA MAP.DWG, 5/31/2024, DAVID JOHNSTON

TRACT C

AMENDED PLAT OF
TRACT A, TRACT B, TRACTC, TRACT D, TRACT G,
TRACT I AND TRACT L OF THE KEY RANCH AT THE POLO CLUB
AND AMENDED PLAT OF RESUBDIVISION OF
TRACT E, TRACT F, TRACT H, TRACT J, TRACT K, TRACT M, TRACT N
AND TRACT O OF THE KEY RAND AT POLO CLUB
Volume 8 Page 374

WHIRLAWAY
(PRIVATE STREET) AS DEDICATED ON PLAT
VOLUME 8 PAGE 129

SQUARE CUT ON TOP OF
CONCRETE TRANSFORMER PAD.
ELEVATION = 11261.15'

N88° 18' 30"E
158.493'

N88° 26' 10"E
563.505'

DRAINAGE EASEMENT
DOC.. # _____

PROPERTY
BOUNDARY

RETAINING
WALL

10' BUILDING SETBACK

PROPOSED 15'
WATER EASEMENT
DOC.#_____

REF.
JULEP-WEST
WATER PLAN
SHEETS FOR
CONTINUATION
OF OFFSITE
WATER

PROP. WL

PROP.
F.H.

PROP. 1.5"
WATER METER

EXISTING 15' WTCPUA
WATER EASEMENT
DOC. #23045054

RIBBON
CURB

ADA ROUTE

HC SIGN

PROPOSED
F.H.

EXISTING
WELL

FDC

BLDG
403' X 125'
50,375 SF

PROP. SSD

RAINWATER
HARVESTING
TANK

403'

125'

PROPERTY
BOUNDARY

PROP.
POND FENCE

OSSF
(BY OTHERS)

RETAINING
WALL

TOP OF
POND

PROP. POND
ACCESS RAMP

TOE OF
POND

100'
TRUCK COURT

150'

10' BUILDING SETBACK

PROPERTY
BOUNDARY

PROP.
POND FENCE

PROP.
POND WALL

TOE OF
POND WALL

WQ/DETENTION
POND

DRAINAGE EASEMENT
DOC.. #

EXIST.
FENCE

10' BUILDING SETBACK

N82° 34' 50"W
142.735'

N37° 25' 00"W
L=47.32, R=30.000
Δ=90.3669

PROPERTY
BOUNDARY

PROP.
POND WALL

PROP.
POND FENCE

36" S.E.T.

EXISTING 15'
WATER EASEMENT
DOC.# 23009846

REF. SHEET 09 FOR
TURN LANE DETAILS

EXIST.
FENCE

2-36" RCP WALL
PENETRATION

PROP. SSD

CONCRETE
HEADWALL

PROP.
GUARDRAIL

36" DRAINPIPE
FL 1229.28'

PROP. WL

PROP.
GUARDRAIL
FL=1238.8'

EDGE OF PAVEMENT

U.S. HIGHWAY NO. 290

TURN LANE IMPROVEMENTS
ASSOCIATED WITH TRAUTWEIN
PROJECT UNDER CONSTRUCTION
AS OF 10-18-2023

PROP. WL
SEE WATER PLANS FOR CONTINUATION

TOP OF
WALL.
ELEVATION = 1246.11'

KELLY GRAY 1999 INVESTMENT TRUST
(15.875 ACRES)
Volume 3029 Page 128

N

0 30'
SCALE: 1" = 30'

LEGEND

- PROPERTY LINE
- PROP. CURB & GUTTER
- PROP. SIDEWALK
- PROP. CURB RAMP
- PROP. ADA ROUTE
- PROP. BUILDING SETBACK
- PROP. DRAINAGE EASEMENT
- PROP. PUBLIC UTILITY EASEMENT
- EXIST. METAL FENCE
- PROP. METAL FENCE
- PROP. GUARDRAIL
- FIRE LANE
- PROP. RETAINING WALL
- PROP. GRATE INLET
- PROP. STORM LINE
- PROP. WATER LINE
- PROP. WASTEWATER LINE
- EXIST. WATER LINE
- EXIST. WASTEWATER LINE
- EXIST. STORM LINE
- EXIST. GAS LINE
- TREE TO REMAIN
- RIBBON CURB / CURB & GUTTER (RC / CG)

NOTES:

1. ALL DIMENSIONS ARE FROM FACE OF CURB TO FACE OF CURB, UNLESS OTHERWISE NOTED.
2. SLOPES ON ACCESSIBLE ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP. [ANSI 403.3]
3. ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:50. [ANSI 403.3]
4. SEE OWNER'S GEOTECHNICAL REPORT FOR PAVEMENT REQUIREMENTS.
5. ALL CURB SHALL BE STANDARD 6" SPILL CURB UNLESS MARKED OTHERWISE.
6. CONTRACTOR SHALL OBTAIN WALL DESIGN BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF TEXAS.

NO.	DATE	REVISION	BY

JULEP COMMERCIAL PARK - EAST
HAYS COUNTY, TEXAS 78737

SITE PLAN

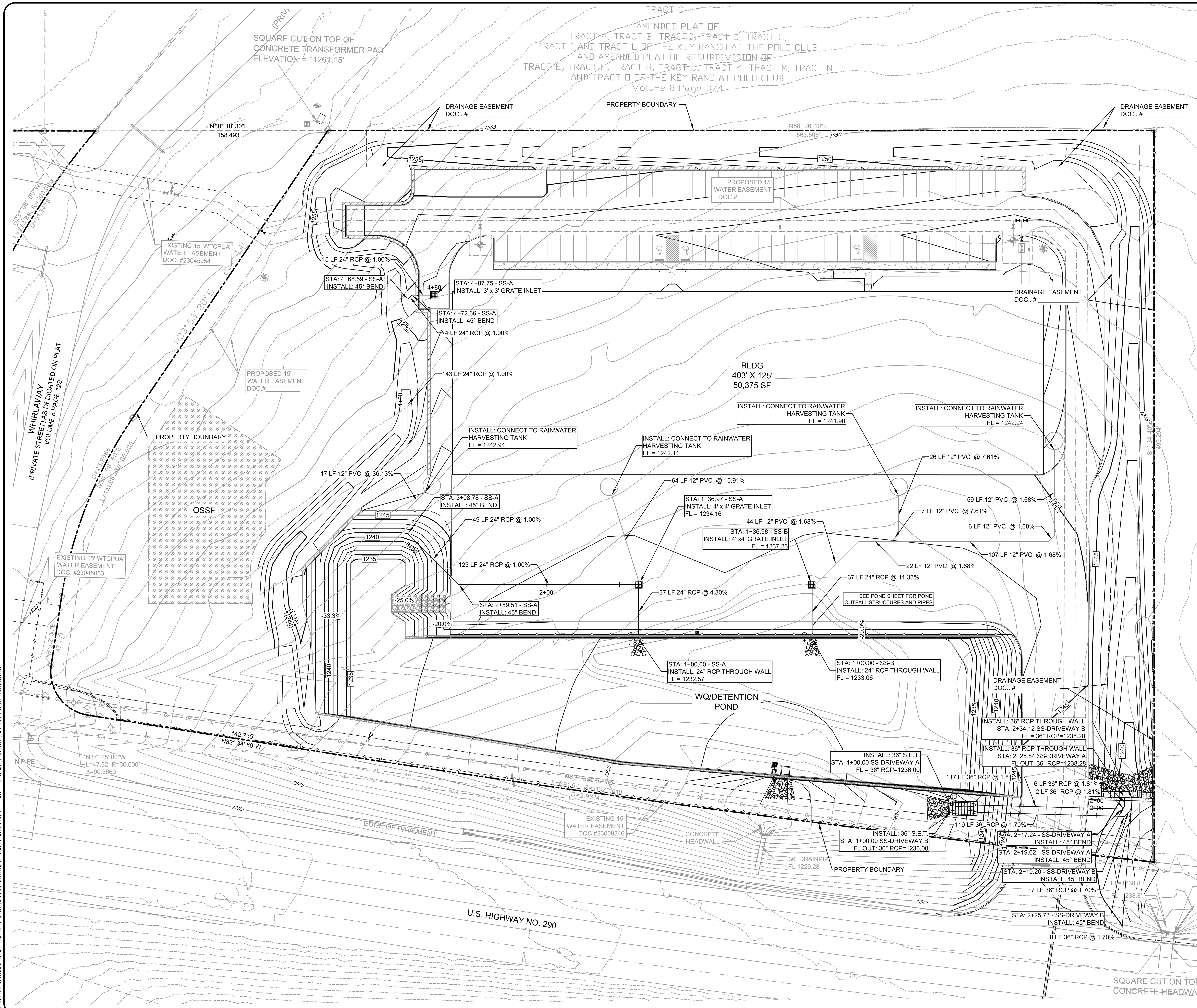
MALONE★WHEELER INC. SINCE 1995
CIVIL ENGINEERING ★ DEVELOPMENT CONSULTING ★ PROJECT MANAGEMENT
5113 Southwest Pkwy, Suite 260
Austin, Texas 78735
Phone: (512) 899-2060 Fax: (512) 899-0655
Firm Registration No. F-786

STATE OF TEXAS
DANIEL J. BROWN
95397
LICENSED
PROFESSIONAL ENGINEER
5/31/24

DESIGN BY :	DJ
CHECKED BY :	AV
APPROVED BY :	DB
DATE :	5/31/2024

SHEET 08
OF 24

F:\TRAUTWEIN COMMERCIAL PARK\PROJECTS\20-005-AUS\DRAWINGS\PLANSET\JULEP-EAST\08 SITE PLAN.DWG, 5/31/2024, DAVID JOHNSTON



LEGEND

- PROPERTY LINE
- PROP. BUILDING SETBACK
- PROP. PUBLIC UTILITY EASEMENT
- PROP. WATER LINE
- PROP. GATE VALVE
- PROP. FIRE HYDRANT
- PROP. WASTEWATER LINE
- PROP. WASTEWATER MANHOLE
- PROP. STORM SEWER
- PROP. CURB INLET
- PROP. STORM SEWER MANHOLE
- EXISTING WATER LINE
- EXISTING GATE VALVE
- EXISTING FIRE HYDRANT
- EXIST. WASTEWATER LINE
- 250 EXIST. CONTOUR
- 250 PROP. CONTOUR

NOTE: 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.

DRIVEWAY CULVERT-HEADWATER ELEVATION

STORM EVENT	ALLOWABLE	COMPUTED
5-YEAR	1243.00	1240.36
100-YEAR	1243.00	1242.42

DRIVEWAY CULVERT
CALCULATED VELOCITY AT END OF RIPRAP

STORM EVENT (Atlas 14 Rainfall)	FLOW RATE (cfs)	VELOCITY (ft/s)
2-YEAR	25.82	2.27
5-YEAR	39.08	2.64
10-YEAR	52.63	2.94
25-YEAR	73.80	3.32
50-YEAR	92.29	3.59
100-YEAR	115.02	3.88

NO.	DATE	REVISION	BY

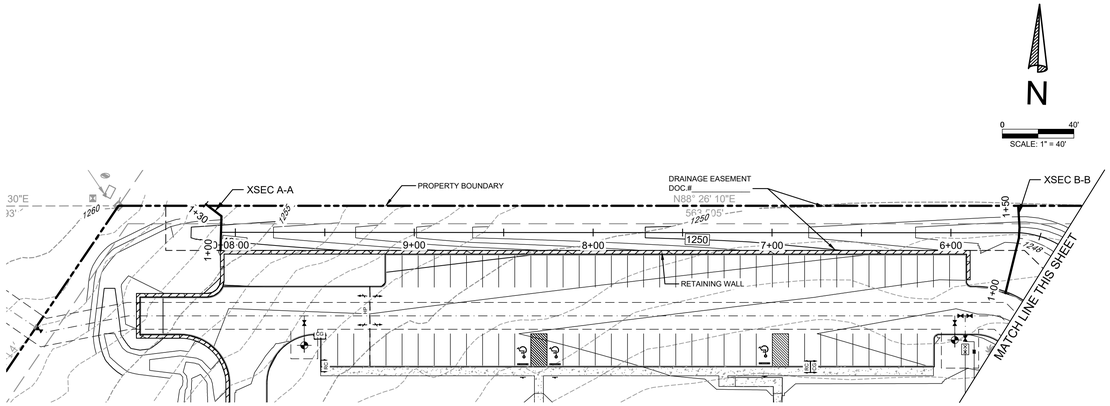
JULEP COMMERCIAL PARK - EAST
HAYS COUNTY, TEXAS 78737

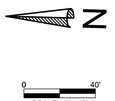
STORM PLAN

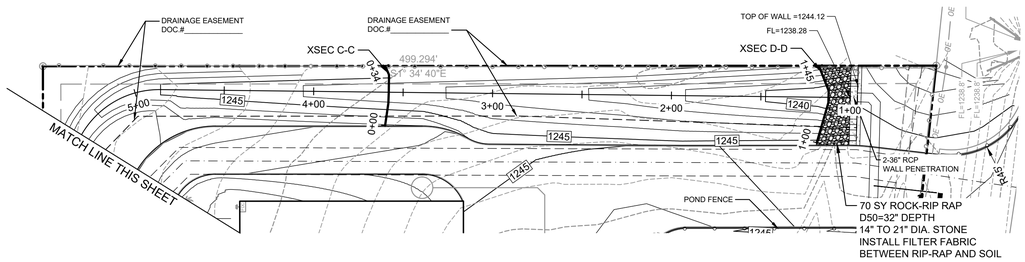
MALONE ★ WHEELER INC. SINCE 1995
CIVIL ENGINEERING ★ DEVELOPMENT CONSULTING ★ PROJECT MANAGEMENT
5113 Southwest Pkwy, Suite 260
Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-0655
Firm Registration No. F-786

STATE OF TEXAS
DANIEL J. BROWN
98337
LICENSED PROFESSIONAL ENGINEER
5.31.24

DESIGN BY : DJ
CHECKED BY : AV
APPROVED BY : DB
DATE : 5/31/2024





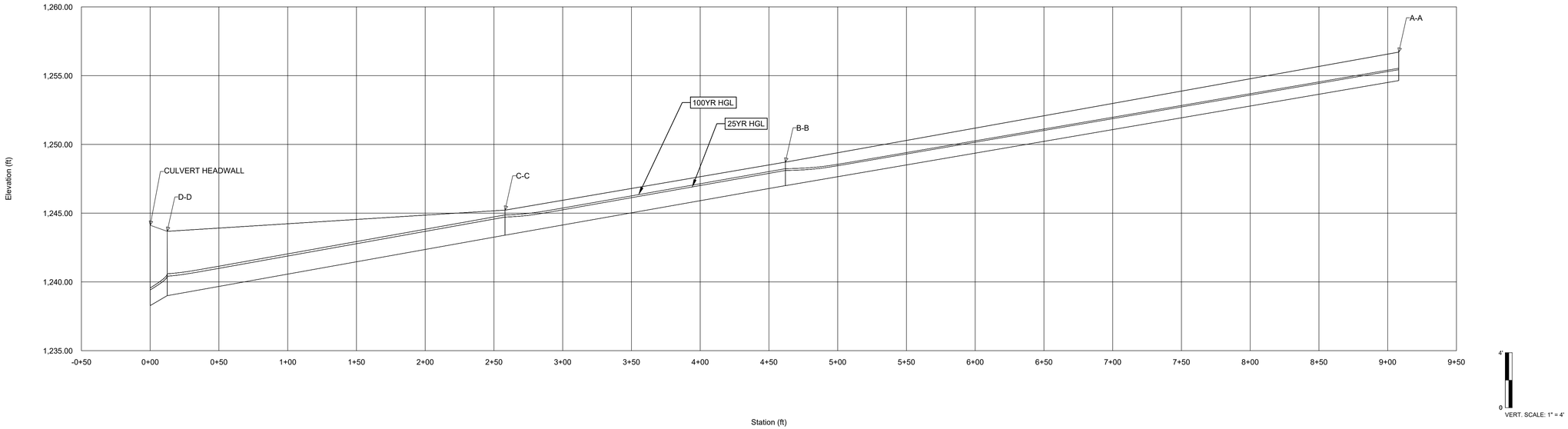


Q25=92.42cfs
V25=4.75ft/s
Q100=115.17cfs
V100=5.82ft/s

Q25=69.33cfs
V25=4.75ft/s
Q100=86.37cfs
V100=5.05ft/s

Q25=46.22cfs
V25=4.14ft/s
Q100=57.58cfs
V100=4.40ft/s

Q25=23.11cfs
V25=3.48ft/s
Q100=28.79cfs
V100=3.72ft/s



LEGEND

- PROPERTY LINE
- PROP. CURB
- PROP. CENTER LINE
- PROP. SIDEWALK
- PROP. BUILDING SETBACK
- PROP. PUBLIC UTILITY EASEMENT
- PROP. WATER LINE
- PROP. GATE VALVE
- PROP. FIRE HYDRANT
- PROP. WASTEWATER LINE
- PROP. WASTEWATER MANHOLE
- PROP. STORM SEWER
- PROP. CURB INLET
- PROP. STORM SEWER MANHOLE
- EXISTING WATER LINE
- EXISTING GATE VALVE
- EXISTING FIRE HYDRANT
- EXIST. WASTEWATER LINE
- 250 EXIST. CONTOUR
- 250 PROP. CONTOUR

NO.	DATE	REVISION	BY

JULEP COMMERCIAL PARK - EAST
HAYS COUNTY, TEXAS 78737

BYPASS DRAINAGE CHANNEL PLAN & PROFILE

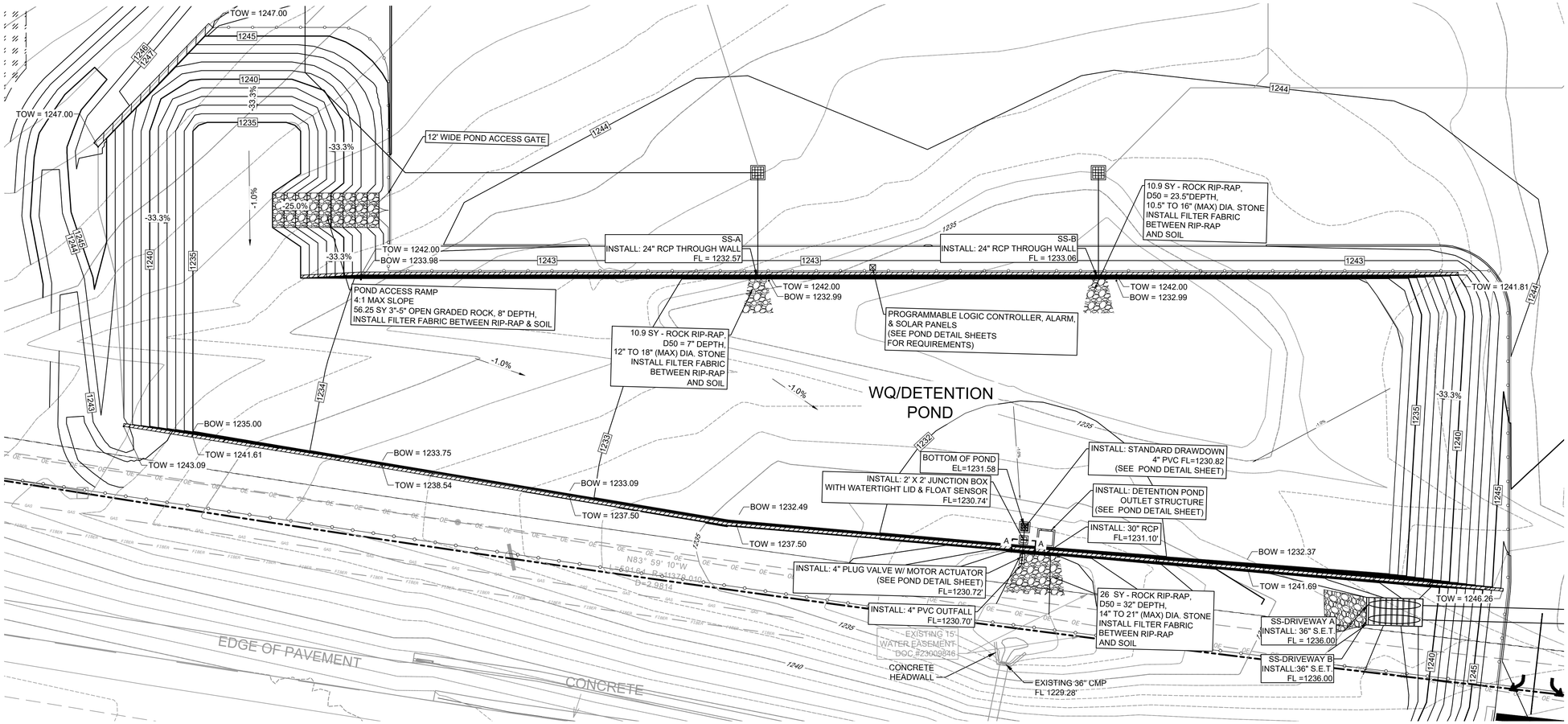
MALONE★WHEELER
SINCE INC. 1995
CIVIL ENGINEERING ★ DEVELOPMENT CONSULTING ★ PROJECT MANAGEMENT
5113 Southwest Pkwy, Suite 260
Austin, Texas 78735
Phone: (512) 899-0560 Fax: (512) 899-0655
Firm Registration No. F-786

STATE OF TEXAS
DANIEL J. BROWN
95397
LICENSED
PROFESSIONAL ENGINEER
5/31/24

DESIGN BY :	DJ
CHECKED BY :	AV
APPROVED BY :	DB
DATE :	5/31/2024

SHEET 16
OF 24

F:\TRAUTWEIN COMMERCIAL PARK\PROJECTS\20-005-AUS\DRAWINGS\PLANSET\JULEP-EAST\BYPASS DRAINGE CHANNEL PLAN & PROFILE.DWG, 5/31/2024, DAVID JOHNSTON



TOTAL POND VOLUME				
CONTOUR	AREA (SF)	AVERAGE AREA	INCREMENTAL STORAGE (CF)	CUMULATIVE STORAGE (CF)
1231.58	0	0	0	0
1232	3,877	1,939	814	814
1233	24,403	14,140	14,140	14,954
1234	32,150	28,277	28,277	43,231
1235	37,127	34,639	34,639	77,869
1236	38,194	37,661	37,661	115,530
1237	39,274	38,734	38,734	154,264
1237.50	39,802	39,538	19,769	174,033

WATER QUALITY VOLUME				
CONTOUR	AREA	AVERAGE AREA	INCREMENTAL STORAGE (CF)	CUMULATIVE STORAGE (CF)
1231.58	0	0	0	0
1232	3,877	1,939	814	814
1233	24,403	14,140	14,140	14,954
1233.40	***27,502***	***25,952***	***10,381***	***25,335***
1234	32,150	28,277	28,277	43,231

DETENTION VOLUME				
CONTOUR	AREA	AVERAGE AREA	INCREMENTAL STORAGE (CF)	CUMULATIVE STORAGE (CF)
1233.40	27,502	0	0	0
1234	32,150	29,826	17,896	17,896
1235	37,127	34,639	34,639	52,534
1236	38,194	37,661	37,661	90,195
1237	39,274	38,734	38,734	128,929
1237.50	39,802	39,538	19,769	148,698

DETENTION POND STAGE-STORAGE-DISCHARGE			
STORM EVENT	MAX. POND WSE (FT)	PEAK DISCHARGE (CFS)	MAX. POND STORAGE (AC-FT)
2-YEAR	1,234.02	5.69	0.427
5-YEAR	1,234.21	8.33	0.576
10-YEAR	1,234.55	12.74	0.851
25-YEAR	1,235.38	22.80	1.536
50-YEAR	1,236.18	31.46	2.234
100-YEAR	1,237.22	40.56	3.163

POND DISCHARGE CALCULATED VELOCITY AT END OF RIPRAP		
STORM EVENT (Atlas 14 Rainfall)	FLOW RATE (cfs)	VELOCITY (ft/s)
2-YEAR	5.69	0.91
5-YEAR	8.33	1.04
10-YEAR	12.74	1.20
25-YEAR	22.80	1.46
50-YEAR	31.46	1.62
100-YEAR	40.56	1.76

N

0 20'

SCALE: 1" = 20'

LEGEND

- PROPERTY BOUNDARY
- PROPOSED TRICKLE CONCRETE WALL
- PROPOSED ROCK RIP-RAP
- PROPOSED PVC PIPE
- PROP. PERFORATED PVC PIPE
- TOW=1250.00 — PROPOSED TOP OF WALL SPOT ELEVATION
- BOW=1250.00 — PROPOSED BOTTOM OF WALL SPOT ELEVATION
- FG=1250.00 — PROPOSED FINISHED GRADE SPOT ELEVATION
- 350 — EXISTING GROUND CONTOUR
- 350 — PROPOSED FINISHED CONTOUR
- PROPOSED STORM SEWER
- PROPOSED GRATE INLET

NO.	DATE	REVISION	BY

JULEP COMMERCIAL PARK - EAST
HAYS COUNTY, TEXAS 78737

BATCH DETENTION POND PLAN

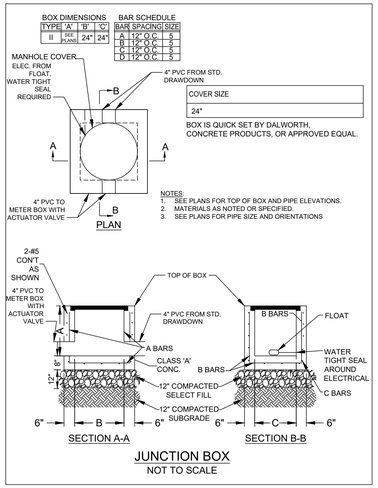
MALONE★WHEELER INC.
SINCE 1995
CIVIL ENGINEERING ★ DEVELOPMENT CONSULTING ★ PROJECT MANAGEMENT
5113 Southwest Pkwy, Suite 260
Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-0655
Firm Registration No. F-786

STATE OF TEXAS
DANIEL J. BROWN
98337
LICENSED PROFESSIONAL ENGINEER
5/31/24

DESIGN BY :	DJ
CHECKED BY :	AV
APPROVED BY :	DB
DATE :	5/22/2024

SHEET 17
OF 24

F:\TRAUT\WEN COMMERCIAL PARK\PROJECTS\30-005-AUS\DRAWINGS\PLANSET\JULEP-EAST\18 BATCH DETENTION POND DETAILS.DWG, 5/31/2024, DAVID JOHNSTON



SYSTEM OVERVIEW
-THIS SYSTEM SHALL UTILIZE A PRESSURE SWITCH TO ACTIVATE TIMERS THAT CONTROL A SINGLE VALVE OPEN AND CLOSE COMMANDS.

MODES OF OPERATION
-THE SYSTEM SHALL HAVE THREE BASIC MODES OF OPERATION; OFF, MANUAL, AND AUTOMATIC.
-WHEN THE ON/OFF SWITCH IS IN THE 'OFF' POSITION, POWER SHALL NOT BE PROVIDED TO THE VALVE ACTUATOR OR VALVE PROGRAMMABLE LOGIC CONTROLLER (PLC).
-WHEN THE ON/OFF SWITCH IS IN THE 'ON' POSITION, THE SYSTEM SHALL OPERATE BASED ON THE OPEN/AUTO/CLOSE SWITCH POSITION. THE SOLAR CIRCUIT IS FULLY OPERATIONAL, TO CHARGE THE BATTERY, WHITE THE SWITCH IS IN THE 'ON' OR 'OFF' POSITION.

MANUAL CONTROL
-THE OPEN/AUTO/CLOSE SWITCH SHALL HAVE TWO MANUAL POSITIONS, OPEN AND CLOSE.
-THERE SHOULD BE A FIVE SECOND DELAY BEFORE THEY SYSTEM SHALL RECOGNIZE THE AUTO POSITION, SO THE VALVE CAN BE SWITCHED FROM OPEN TO CLOSE WITHOUT AUTOMATIC OPERATION.
-WHEN THE OPEN/AUTO/CLOSE SWITCH IS IN THE OPEN POSITION, THE VALVE SHALL OPEN AND STAY OPEN. WHEN THE OPEN/AUTO/CLOSE SWITCH IS IN THE CLOSE POSITION, THE VALVE SHALL CLOSE AND STAY CLOSED.

AUTOMATIC CONTROL
-VALVE SHALL HAVE A DEFAULT CLOSED POSITION. AN INSTALLED PRESSURE SWITCH SHALL INDICATE THE PRESENCE OF WATER FOLLOWING A RAIN EVENT.
-UPON ACTIVATION OF THE PRESSURE SWITCH, A 12 HOUR DETENTION TIMER SHALL BE STARTED. THE VALVE SHALL REMAIN CLOSED.
-AFTER THE 12 HOUR TIMER EXPIRES, THE VALVE SHALL OPEN. VALVE SHALL REMAIN OPEN WHILE WATER IS DRAINING AND REMAIN OPEN AS LONG AS THE PRESSURE SWITCH CONTACT REMAINS CLOSED.
-WHEN THE WATER LEVEL FALLS BELOW THE PRESSURE SWITCH ELEVATION, AND THE PRESSURE SWITCH CONTACT OPENS, A 2 HOUR TIMER SHALL BE STARTED. AFTER THE 2 HOUR TIMER EXPIRES, THE VALVE SHALL CLOSE.
-WHEN THE VALVE CLOSES, THE SYSTEM BEGINS A STANDBY PERIOD, WITH THE VALVE CLOSED, UNTIL THE WATER LEVEL RISES ABOVE THE PRESSURE SWITCH ELEVATION.

NOTES:
1. WATER QUALITY POND IS A BATCH DETENTION POND PER TCEQ DESIGN CRITERIA.
2. OUTLET STRUCTURE FOR WATER QUALITY POND IS A PERFORATED PIPE (PER DETAIL) WITH A DOWNSTREAM ACTUATOR VALVE.
3. ACTUATOR VALVE IS TO BE CONTROLLED SUCH THAT A 12 HOUR MINIMUM DETENTION TIME IS ACHIEVED AND SHALL REMAIN OPEN FOR TWO HOURS AFTER THE LEVEL SENSOR INDICATES THE BASIN IS EMPTY TO ALLOW ANY REMAINING SHALLOW WATER TO BE DISCHARGED.
4. ORIFICE/PIPE HAS BEEN SIZED TO ALLOW COMPLETE DRAWDOWN OF WATER QUALITY VOLUME WITHIN 48 HOURS AFTER THE 12 HOUR DETENTION TIME.
5. SEE POND PLAN SHEET FOR MORE DETAILS.
6. ELECTRIC CONTROL PANEL SHALL BE CAPABLE OF:
   1. 12 HOUR DELAY PRIOR TO OPENING ACTUATED VALVE
   2. PROVIDE MANUAL OVERRIDE TO ACTUATOR
7. ALARM SYSTEM SHALL BE ATTACHED TO LOGIC CONTROLLER. A SIGN SHALL BE POSTED WITH THE OWNER/OWNERS REPRESENTATIVES CONTACT INFORMATION & CURRENT CONTACT INFORMATION FOR THE TCEQ EDWARDS AQUIFER AUSTIN REGION OFFICE.

ADDITIONAL FEATURES

THE FOLLOWING FEATURES SHALL BE PART OF THE NORMAL CONTROL SEQUENCE OF OPERATION.

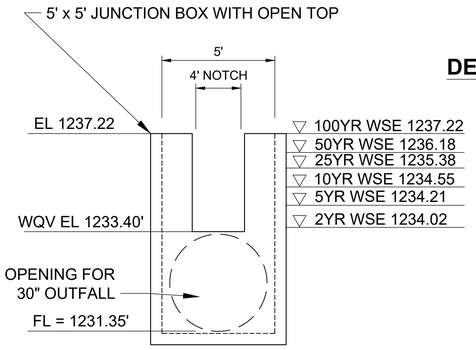
VALVE EXERCISE
-A TIMER IN THE VALVE CONTROLLER, SET AT ONE WEEK, SHALL START WHEN THE PRESSURE SWITCH CONTACT HAS REMAINED OPEN FOR THE SEVEN DAYS. THE VALVE CONTROLLER SHALL OPEN THE VALVE FOR 120 MINUTES. AFTER 120 MINUTES THE VALVE CONTROLLER SHALL CLOSE. THE VALVE.

VALVE ACTUATION TIME
-A TIMER IN THE VALVE CONTROLLER SHALL MONITOR THE VALVE OPEN OR CLOSE COMMAND TIME. THIS TIMER SHALL BE SYNCHRONIZED WITH THE VALVE OPENING AND CLOSING SEQUENCE, TO SAVE BATTERY POWER.

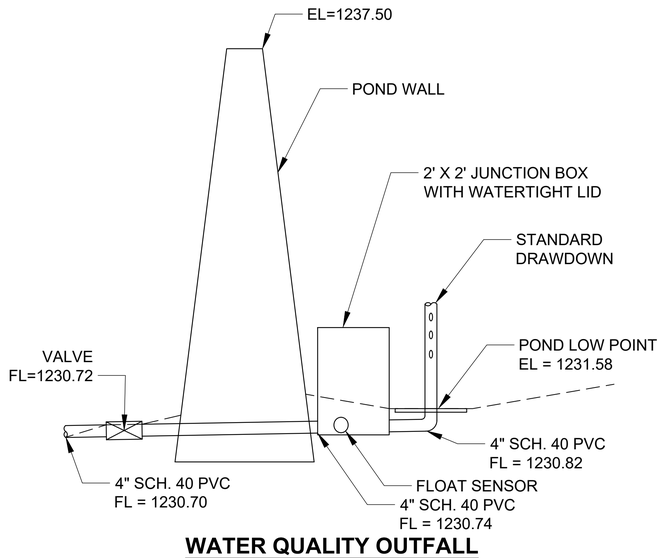
CHANGING TIMER SET POINTS
-FOUR TIMERS SHALL BE PROIDED AND MODIFIED AS NEEDED FOR FINE TUNED CONTROL. THESE TIMERS, IN ORDER OF DISPLAY ON THE PLC SCREEN, SHALL BE:
-DELAY ON TIME (DEFAULT 12 HOURS) : TIME DELAY BETWEEN THE PRESSURE SWITCH INDICATING WATER IS PRESENT AND THE VALVE AUTOMATICALLY OPENING.
-DELAY OFF TIME (DEFAULT 2 HOURS) : TIME DELAY BETWEEN THE PRESSURE SWITCH INDICATING WAS HAS EMPTIED AND THE VALVE AUTOMATICALLY CLOSING.
-EXERCISE TIME (DEFAULT 120 MINUTES) : LENGTH OF TIME THE VALVE SHALL STAY OPEN WHILE IN EXERCISE MODE.
-ACTUATION TIME (DEFAULT 60 SECONDS) : LENGTH OF TIME THE OPEN OR CLOSE COMMANDS SHALL BE GIVEN TO THE VALVE ACTUATOR.

Batch Detention Pond Valve and Actuator

COMPONENT	DESCRIPTION
Power	System to be solar powered. See plans for location of solar panels. Actuator and Contoller are 24V. Backup battery to be provided.
Logic Controller	Allen Bradley 810 Programmable Logic Controller. (Or approved equal). See attached notes for operations and test cycle control.
Parts Enclosure	Saginaw SCE-24EL2416SSLP NEMA 4X, 304 stainless steel locable enclosure. (Or approved equal)
Circuit	See below block diagram for controller circuit.
Nature of Event Sensing	ECO-FLOAT Model G Mercury Free Float Sensor. (Or approved equal). Float to be located within a concrete box with manhole cover for access. Stormwater will flow through trash rack and perforated pipe to remove vegetation and debris prior to reaching the float.
Actuator	EIM HQ series Electric Quarter turn actuator Model HQ-015 with no local controls for 24V power supply with integral condensation heater and manual handwheel override with padlock capability. (Or approved equal).
Valve Type	Henry Pratt Ballcentric Plug Valve with over torque sensors. Able to withstand 100 PSI minimum. (Or approved equal).

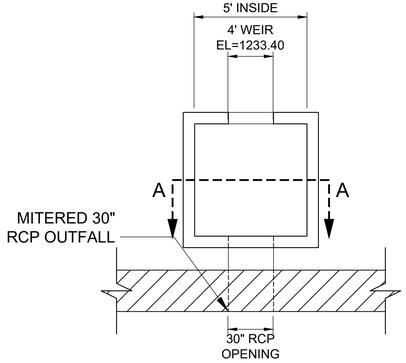


DETENTION POND OUTLET STRUCTURE SECTION A-A
NOT TO SCALE



WATER QUALITY OUTFALL SECTION B-B
NOT TO SCALE

NOTE: CONTRACTOR TO SURVEY WEIR/NOTCH DIMENSIONS AND ELEVATIONS.



DETENTION POND OUTLET STRUCTURE PLAN VIEW
NOT TO SCALE

LEGEND

- PROPERTY BOUNDARY
- PROPOSED TRICKLE CONCRETE WALL
- PROPOSED ROCK RIP-RAP
- PROPOSED PVC PIPE
- PROP. PERFORATED PVC PIPE
- TOW=1250.00 — PROPOSED TOP OF WALL SPOT ELEVATION
- BOW=1250.00 — PROPOSED BOTTOM OF WALL SPOT ELEVATION
- FG=1250.00 — PROPOSED FINISHED GRADE SPOT ELEVATION
- 350 — EXISTING GROUND CONTOUR
- 350 — PROPOSED FINISHED CONTOUR
- PROPOSED STORM SEWER
- PROPOSED GRATE INLET

TREE INDEX
- TREE TO REMAIN
- TREE TO BE REMOVED

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: **Julep Commercial Park - East**
Date Prepared: **9/14/2023**

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

1. The Required Load Reduction for the total project: Calculations from RG-348a Page 21

Page 21 Equation 4.3: $L_M = 27.7(A \times P)$

where:
$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal (pounds)
A = Impervious Area (acres)
P = Average annual precipitation, inches

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

County =	Hays		
Total project area included in plan * =	7.16	acres	Total area of property
Predevelopment impervious area within the limits of the plan * =	0.00	acres	
Total post-development impervious area within the limits of the plan* =	3.20	acres	Includes proposed impervious in ROW
Total post-development impervious cover fraction * =	0.45		
P =	33	inches	
$L_{M\ TOTAL\ PROJECT}$ * =	2925	lbs.	

* The values entered in these fields should be for the total project area. L_M Calculation from RG-348a page 21

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

2. Drainage Basin Parameters (This information should be provided for each basin): 48.4

Drainage Basin/Outfall Area No. = Pond 1

Total drainage basin/outfall area =	4.69	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	3.10	acres
Post-development impervious fraction within drainage basin/outfall area =	0.66	
$L_{M\ THIS\ BASIN}$ =	2934	lbs.

L_M Calculation from RG-348a pages 21

3. Indicate the proposed BMP Code for this basin.

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

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

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

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

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

A_C =	4.69	acres
A_I =	3.10	acres
A_P =	1.59	acres
L_R =	3247	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 2925 lbs.

F = 0.90

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 and RG-348a pages 22-23
Project Name: Julep Commercial Park - East

Rainfall Depth =	1.82	inches
Post Development Runoff Coefficient =	0.61	
On-site Water Quality Volume =	18958	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 =	3792	
Total Capture Volume (required water quality volume(s) x 1.20) =	**22749**	**cubic feet**

NO.	DATE	REVISION	BY

JULEP COMMERCIAL PARK - EAST
HAYS COUNTY, TEXAS 78737

BATCH DETENTION POND DETAILS

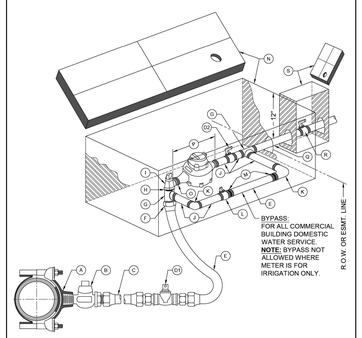
MALONE★WHEELER
SINCE INC. 1995
CIVIL ENGINEERING ★ DEVELOPMENT CONSULTING ★ PROJECT MANAGEMENT
5113 Southwest Pkwy, Suite 260
Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-0655
Firm Registration No. F-786

STATE OF TEXAS
DANIEL J. BROWN
95337
LICENSED PROFESSIONAL ENGINEER
5/31/24

DESIGN BY : DJ
CHECKED BY : AV
APPROVED BY : DB
DATE : 5/22/2024

SHEET 18
OF 24

F:\TRAUTWEIN COMMERCIAL PARK\PROJECTS\20-005-AUS\DRAWINGS\PLANSET\JULEP-EAST\18 BATCH DETENTION POND DETAILS.DWG, 5/31/2024, DAVID JOHNSTON



MATERIALS LIST:

A. 2" SERVICE CLAMP
B. 2" CORPORATION STOP MALE THREAD INLET BY COMPRESSION OUTLET
C. 2" COPPER WATER SERVICE TUBING EXTENDED BEYOND PAVEMENT
D1. 2" BALL VALVE, SPL WW-27S
D2. 2" BALL VALVE, SPL WW-27S
E. 2" COPPER SERVICE TUBING
F. 2" BRASS COUPLING - COMPRESSION TO MALE IPT
G. 2" BRASS TEE
H. 2" BRASS CLOSE-NIPPLE
I. 2" ANGLE METER STOP, SERVICE TUBING INLET x FLANGED OUTLET
J. 2" BRASS NIPPLE
K. 2" BRASS ELBOW
L. 2" LOCKABLE CURB STOP - FEMALE IPT INLET BY COMPRESSION OUTLET
M. 2" BRASS COUPLING - SERVICE TUBING TO MALE IPT
N. RECTANGULAR METER BOX AND COVER, SPL WW-145A
O. BRASS ADAPTER (2" x 1 ½") FOR 1 ½" METER ONLY
P. WATER METER: LENGTH 13", (PURCHASED FROM AUSTIN WATER)
Q. 2" COPPER SERVICE TUBING (PRIVATE PLUMBING PER CODE)
R. CUSTOMER CUT-OFF VALVE
S. CUSTOMER VALVE BOX AND LID

NOTES:

1. SERVICE CLAMP SHALL BE WRAPPED COMPLETELY WITH 8 MIL. POLYETHYLENE FILM.
2. BRANCH CONNECTIONS AND ALL ANGLE METER STOPS MUST BE INSTALLED PRIOR TO ANY METER INSTALLATION.
3. TOP OF BOXES SHOULD BE 1" ABOVE GROUND.
4. PIPING AND TUBING IN STREET RIGHT-OF-WAY SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY SECTION 510.3 (14) OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS; BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED BY SECTION 510.3 (25).
5. BOX MUST BE BEHIND CURB NEXT TO PROPERTY LINE OR EASEMENT AND OUT OF VEHICULAR TRAFFIC AREA AND SIDEWALK.
6. BALL VALVE "D1" SHALL NOT BE LOCATED UNDER SIDEWALK, CURB, OR PAVEMENT, AND NOT BE LOCATED MORE THAN 24" HORIZONTALLY FROM METER BOX OR 36" BELOW FINAL GRADE.
7. COPPER SERVICE SHALL BE COPPER TUBING SIZE ANNEALED SEAMLESS TYPE "K" MEETING ASTM B88 WITH NO SWEAT OR SOLDERED JOINTS.

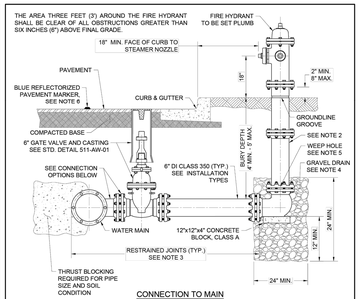
RECLAIMED WATER:

FOR RECLAIMED WATER SERVICES AND METERS, ALL RECLAIMED TUBING SHALL BE MANUFACTURED PURPLE TUBING. ALL OTHER TUBING AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL TUBING 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.

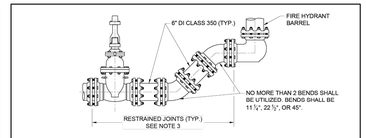
CITY OF AUSTIN AUSTIN WATER	1 ½" - 2" METER INSTALLATION SHOWING OPTIONAL BYPASS	
RECORD COPY SIGNED BY KATHI L. FLOWERS *05/18/2016* ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 520-AW-04 1 OF 2

CITY OF AUSTIN AUSTIN WATER	1 ½" - 2" METER INSTALLATION SHOWING OPTIONAL BYPASS	
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. 520-AW-04 2 OF 2

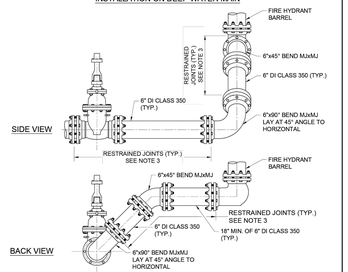
THE AREA THREE FEET (3') AROUND THE FIRE HYDRANT SHALL BE CLEAR OF ALL OBSTRUCTIONS GREATER THAN SIX INCHES (6") ABOVE FINAL GRADE.



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



INSTALLATION ON DEEP WATER MAIN



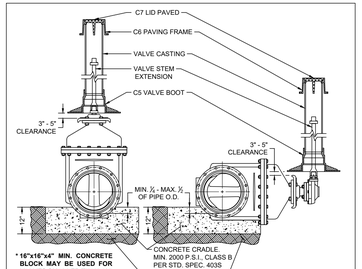
INSTALLATION ON DEEP WATER MAIN WITH 90° BEND

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. 663S, 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



VERTICAL VALVE

HORIZONTAL VALVE

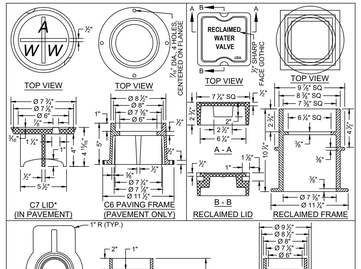
ONLY TO BE USED WHEN CALLED OUT ON THE DRAWINGS.

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 7' 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 ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 1 OF 4



NOTES:

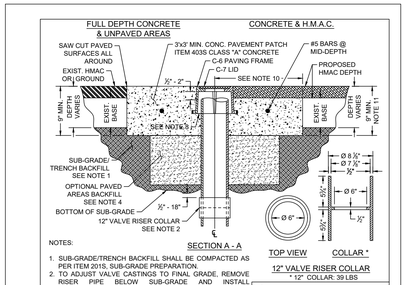
1. MATERIAL SHALL BE GRAY CAST IRON, ASTM A48, GRADE 30B.
2. THE MANUFACTURER'S IDENTIFICATION AND CASTING NUMBER, AND THE COUNTRY WHERE CAST, SHALL BE DISTINCTLY CAST ONTO EACH LID, FRAME, COLLAR AND BASE.
3. DRAFT AND SHRINKAGE ALLOWANCE SHALL BE IN ACCORDANCE WITH NORMAL FOUNDRY PRACTICE.
4. CASTING 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 ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 2 OF 4



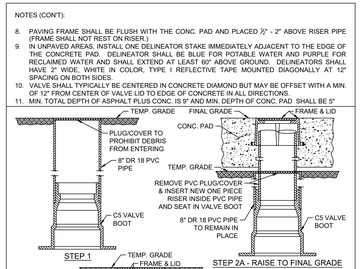
NOTES:

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 2" - 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'.

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

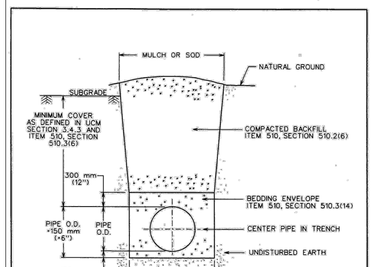
NOTES (CONT):

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

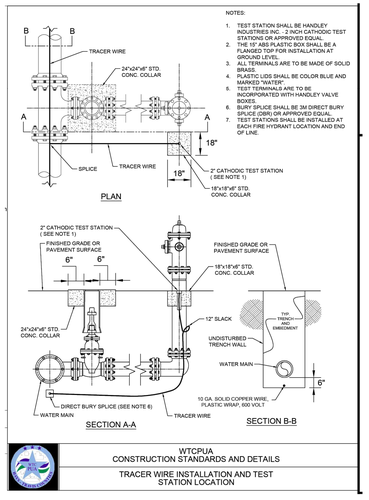
CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS *05/18/2016* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 4 OF 4



REFERENCES:

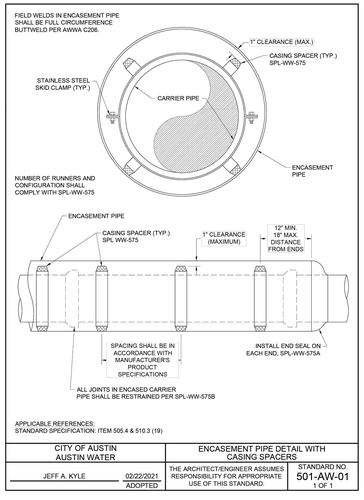
1. UTILITY CRITERIA MANUAL SECTION 3.4.3, "FINAL DESIGN"
2. STANDARD SPECIFICATION MANUAL ITEM 510,
   SECTION 510.2(6), "SELECT BACKFILL OR BORROW":
   SECTION 510.3(6), "TRENCH DEPTH AND DEPTH OF COVER":
   SECTION 510.3(14.), "PIPE BEDDING ENVELOPE"

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPICAL TRENCH DETAIL WITH UNFINISHED SURFACE	
3/23/16 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 510S-5



	WTCPUA CONSTRUCTION STANDARDS AND DETAILS	
	TRACER WIRE INSTALLATION AND TEST STATION LOCATION	

FIELD WELDS IN ENCASEMENT PIPE SHALL BE FULL CIRCUMFERENCE BUTTWELD PER AWWA C206.



APPLICABLE REFERENCES:
STANDARD SPECIFICATION: ITEM 505.4 & 510.3 (19)

CITY OF AUSTIN AUSTIN WATER	ENCASEMENT PIPE DETAIL WITH CASING SPACERS	
JEFF A. KYLE 02/22/2021 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 501-AW-01 1 OF 1

NO.	DATE	REVISION	BY

JULEP COMMERCIAL PARK - EAST
HAYS COUNTY, TEXAS 78737

WATER DETAILS

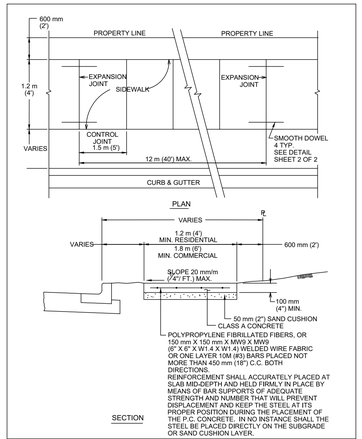
MALONE★WHEELER INC. SINCE 1995
CIVIL ENGINEERING ★ DEVELOPMENT CONSULTING ★ PROJECT MANAGEMENT
5113 Southwest Pkwy, Suite 260
Austin, Texas 78735
Phone: (512) 899-2060 Fax: (512) 899-0655
Firm Registration No. F-786

STATE OF TEXAS
DANIEL J. BROWN
95397
LICENSED PROFESSIONAL ENGINEER
3/1/24

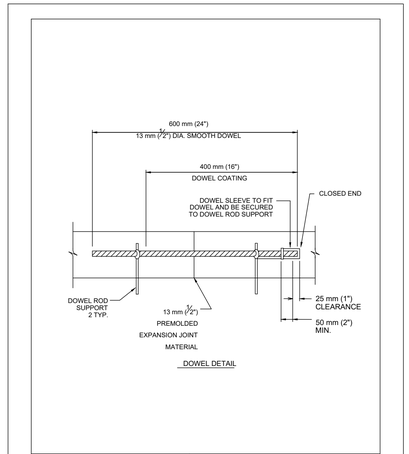
DESIGN BY : DJ
CHECKED BY : AV
APPROVED BY : DB
DATE : 5/22/2024

SHEET 22
OF 24

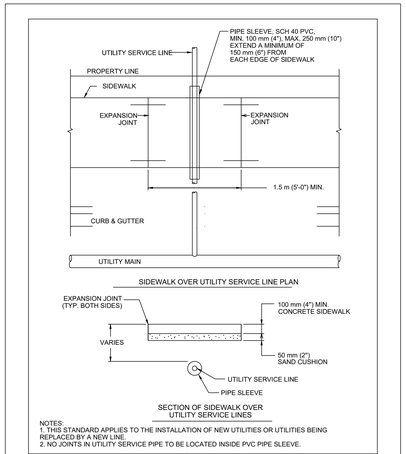
F:\TRAUTWEIN COMMERCIAL PARK\PROJECTS\20-005-AUS\DRAWINGS\PLANSET\JULEP-EAST\24 TXDOT MBGF DETAILS.DWG, 5/31/2024, DAVID JOHNSTON



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SIDEWALK	
RECORD COPY SIGNED BY BILL GARDNER ADOPTED	03/26/08	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 1 OF 3

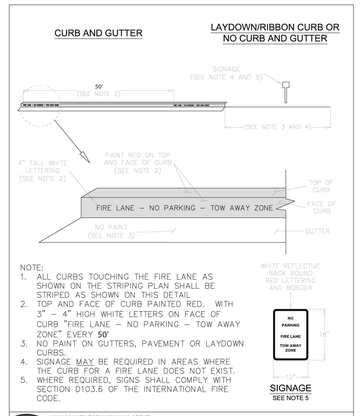


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SIDEWALK	
RECORD COPY SIGNED BY BILL GARDNER ADOPTED	03/26/08	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 2 OF 3



NOTES:
1. THIS STANDARD APPLIES TO THE INSTALLATION OF NEW UTILITIES OR UTILITIES BEING REPLACED BY A NEW LINE.
2. NO JOINTS IN UTILITY SERVICE PIPE TO BE LOCATED INSIDE PVC PIPE SLEEVE.

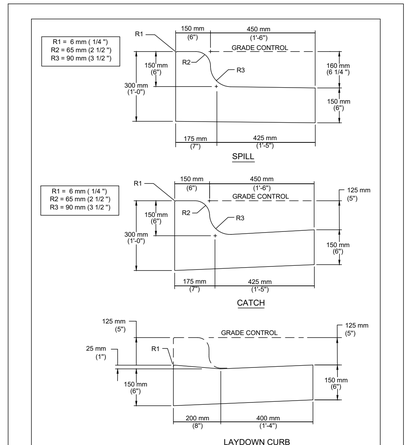
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SIDEWALK	
RECORD COPY SIGNED BY BILL GARDNER ADOPTED	03/26/08	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 3 OF 3



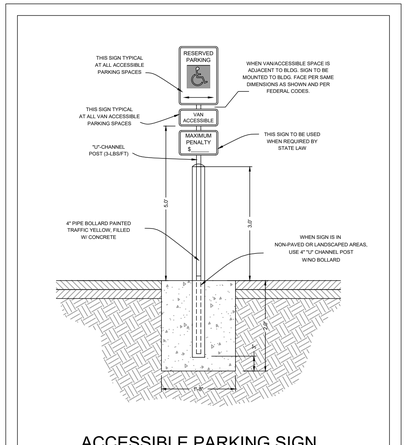
NOTE:
1. ALL CURBS TOUCHING THE FIRE LANE AS SHOWN ON THE STRIPING PLAN SHALL BE STRIPED AS SHOWN ON THIS DETAIL.
2. TOP AND FACE OF CURB PAINTED RED. WITH 3" – 4" HIGH WHITE LETTERS ON FACE OF CURB "FIRE LANE – NO PARKING – TOW AWAY ZONE" EVERY 50'
3. NO PAINT ON GUTTERS, PAVEMENT OR LAYDOWN CURBS.
4. SIGNAGE MAY BE REQUIRED IN AREAS WHERE THE CURB FOR A FIRE LANE DOES NOT EXIST.
5. WHERE REQUIRED, SIGNS SHALL COMPLY WITH SECTION D103.6 OF THE INTERNATIONAL FIRE CODE.

HAYS COUNTY FIRE MARSHAL'S OFFICE
CID PUBLIC SAFETY BUILDING
810 S. STAGECOACH TRAIL, SUITE 1200
SAN MARCOS, TX 78666
P: 512-393-7300 OPTION 2
E: FIREMARSHAL@CID.HAYS.TX.US • HCFMO.COM

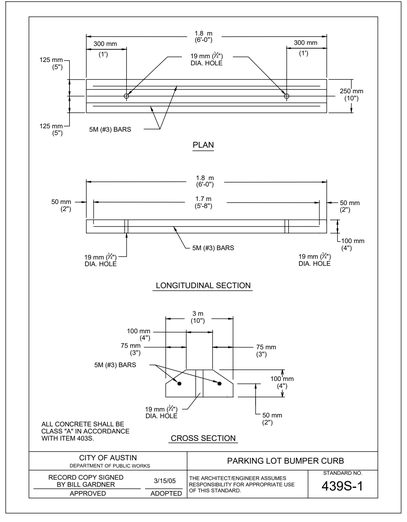
FIRE LANE MARKINGS			
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD	N.T.S.	STANDARD DETAIL	900-FLM-HC



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION		CURB AND GUTTER SECTION	
RECORD COPY SIGNED BY LINO RIVERA ADOPTED	9/29/99	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 430S-1



ACCESSIBLE PARKING SIGN
& VAN ACCESSIBLE PARKING SIGN
NOT TO SCALE



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		PARKING LOT BUMPER CURB	
RECORD COPY SIGNED BY BILL GARDNER APPROVED ADOPTED	3/15/05	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 439S-1

NO.	DATE	REVISION	BY

JULEP COMMERCIAL PARK - EAST
HAYS COUNTY, TEXAS 78737

PAVING DETAILS

MALONE★WHEELER
SINCE 1995 INC.
CIVIL ENGINEERING ★ DEVELOPMENT CONSULTING ★ PROJECT MANAGEMENT
5113 Southwest Pkwy, Suite 260
Austin, Texas 78735
Phone: (512) 899-0601 Fax: (512) 899-0655
Firm Registration No. F-786

STATE OF TEXAS
DANIEL J. BROWN
98337
LICENSED PROFESSIONAL ENGINEER
5/31/24

DESIGN BY :	DJ
CHECKED BY :	AV
APPROVED BY :	DB
DATE :	5/22/2024

SHEET 20
OF 24

F:\TRAILITWEIN COMMERCIAL PARK\PROJECTS\20-005-AUS\DRAWINGS\PLANSET\JULEP-EAST\24 TXDOT MBGF DETAILS.DWG, 5/31/2024, DAVID JOHNSTON

CONTRIBUTING ZONE PLAN APPLICATION ATTACHMENT N – INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

CONTRIBUTING ZONE PLAN APPLICATION
ATTACHMENT "N"

INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

JULEP COMMERCIAL PARK-EAST

Batch Detention Basin

Inspections. Inspections should take place a minimum of twice a year. One inspection should take place during wet weather to determine if the basin is meeting the target detention time of 12 hours and a drawdown time of no more than 48 hours. The remaining inspections should occur between storm events so that manual operation of the valve and controller can be verified. The level sensor in the basin should be inspected and any debris or sediment in the area should be removed. The outlet structure and the trash screen should be inspected for signs of clogging. Debris and sediment should be removed from the orifice and outlet(s) as described in previous sections. Debris obstructing the valve should be removed. During each inspection, erosion areas inside and downstream of this BMP should be identified and repaired/revegetated immediately.

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

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

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

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

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

Sediment Removal. A properly designed batch detention basin will accumulate quantities of sediment over time. The accumulated sediment can detract from the appearance of the facility and reduce the pollutant removal performance of the facility. The sediment also tends to accumulate near the outlet structure and can interfere with the level sensor operation. Sediment shall be removed from the basin at least every 5 years, when sediment depth exceeds 6 inches, when the sediment interferes with the level sensor or when the basin does not drain within 48 hours. Care should be taken not to compromise the basin lining during maintenance.

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

"Proper" disposal of vegetation trimmings and accumulated silt shall be accomplished following Texas Commission on Environmental Quality, City of Dripping Springs and Hays County rules and regulations.

Recordkeeping. Maintain a field logbook to record any relevant information noted during inspections. At a minimum, the field notebook should include the date and time, field staff names, weather conditions, uniformity of grass cover, presence of debris and/or litter, and areas of sediment accumulation as well as any corrective actions taken and date they were completed. Records shall be maintained for a minimum of 3 years and shall be made available to TCEQ upon request. A sample inspection report is included with this attachment.

An amended copy of this document will be provided to the Texas Commission on Environmental Quality within thirty (30) days of any changes in the following information.

Responsible Party: KELLY GRAY INVESTMENTS, LLC BY COSMO PALMIERI

Mailing Address: 6907 N CAPITAL OF TEXAS HWY

City, State: AUSTIN, TX **Zip:** 78731

Telephone: 512-637-3682 **Email:** COSMO@SERVICEGROUPHOLDINGS.COM

Signature of Responsible Party 1/13/2022 **Date**

TO BE MADE AVAILABLE UPON REQUEST

PROJECT NAME: JULEP COMMERCIAL PARK-EAST

OWNER/OPERATOR:

INSPECTOR: _____

SIGNATURE: _____

LAND AREA	LOCATION	CONTROL MEASURE	CURRENT CONDITION	CORRECTIVE ACTION TO BE TAKEN	CORRECTION CODE

DATE OF LAST RAINFALL:
AMOUNT OF LAST RAINFALL:
DATE OF INSPECTION:

ADDITIONAL NOTES

CHANGES REQUIRED

REASONS FOR CHANGES

CONDITION CODES;
01 - TO BE FIXED OR REPLACED WITHIN 24 HRS
02 - TO BE FIXED OR REPLACED WITHIN 48 HRS
03 - TO BE FIXED OR REPLACED PRIOR TO NEXT INSPECTION
04 - SEE ADDITIONAL NOTES

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly gathering information, the Informatin submitted is, to the best of my knowledge and beleifs true, accurate and complete. I am aware that there ae significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing or willful violations.

Signature: _____

Date: _____

CONTRIBUTING ZONE PLAN APPLICATION ATTACHMENT O – PILOT-SCALE FIELD TESTING PLAN

CONTRIBUTING ZONE PLAN APPLICATION

ATTACHMENT O – Pilot-Scale Field Testing Plan

Not Applicable to this project.

CONTRIBUTING ZONE PLAN APPLICATION ATTACHMENT P – MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION

CONTRIBUTING ZONE PLAN APPLICATION
ATTACHMENT “P”

MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION

JULEP COMMERCIAL PARK-EAST

There are no surface streams on site. The property drains to an existing TxDOT roadside ditch. Predeveloped drainage patterns have been maintained. TSS removal will occur in the batch detention pond prior to discharge from the site.

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: Dan Brown, P.E.

Date: 7/12/2024

Signature of Customer/Agent:

Regulated Entity Name: Julep Commercial Park-East

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: Pier Branch

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:

- [X] 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.
- [X] 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.
- [X] A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.
- [X] 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. [X] 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.
   - [X] There will be no temporary sealing of naturally-occurring sensitive features on the site.

9. [X] **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. [X] **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. [X] 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. [X] Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

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

21. [X] 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. [X] 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.

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT A –
SPILL RESPONSE ACTIONS

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT "A"

SPILL RESPONSE ACTIONS

JULEP COMMERCIAL PARK-EAST

Fuel and hazardous substances will not be stored on-site. Sources of spills would include accidents during refueling operations or damage to mechanical equipment. In addition to general care and good "housekeeping" practices, the following practices will be followed for accidental spill prevention and cleanup:

1. Site and construction personnel will be required to be aware of manufacturer's recommended methods for spill cleanup, the location of information, and the cleanup supplies.

2. Materials and equipment necessary for spill cleanup will be kept on-site in an accessible location known to site personnel.

3. All spills will be cleaned up immediately upon discovery.

4. All spill response actions shall comply with 30 TAC 327, Spill Prevention and Control, Texas Commission on Environmental Quality.

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT B –
POTENTIAL SOURCES OF CONTAMINATION

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT “B”

POTENTIAL SOURCES OF CONTAMINANTS

JULEP COMMERCIAL PARK-EAST

The materials or substances listed below are expected to be used on-site during construction.

1. Concrete and concrete products
2. Asphaltic products
3. Petroleum-based products
4. Paints
5. Fertilizers
6. Lumber

The following procedures are potential sources of contamination:

1. Earth grading
2. Installation of asphalt and concrete
3. Moving/storage of soil
4. Construction traffic
5. Trenching for underground utilities

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT C –
SEQUENCE OF MAJOR ACTIVITIES

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT "C"

SEQUENCE OF MAJOR ACTIVITIES

JULEP COMMERCIAL PARK-EAST

1. CLEAR & GRUB (Area= 5.99 acres)
2. ROUGH GRADE (Area = 5.99 acres)
3. INSTALL UTILITY SERVICE AND CONNECTIONS AND STORM SEWER SYSTEM (Area = 0.44 acres)
4. OFFSITE DRAINAGE CHANNEL CONSTRUCTION (Area = 0.07 acres)
5. POND CONSTRUCTION (Area = 0.87 acres)
6. BASE AND PAVING APPLICATION (Area = 1.92 acres)
7. RESTORATION OF SITE (Area = 5.99 acres)

Tree protection fences shall be put in place according to City of Austin standards for tree protection prior to the start of any site preparation work. Fences shall be maintained throughout all phases of the construction project. Inlet protection will be used at all inlets throughout the construction phase. Mulch Log will be used during construction of the drainage channel until adequate grass coverage is established.

During the installation of utilities and base and paving application, the contractor shall use dust control measures such as irrigation trucks and mulching. Contractor will clean up spoils that migrate onto the roads a minimum of once daily.

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT D –
TEMPORARY BEST MANAGEMENT PRACTICES AND MEASURES

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT “D”

TEMPORARY BEST MANAGEMENT PRACTICES AND MEASURES

JULEP COMMERCIAL PARK-EAST

Inlet protection will be installed to stop the pollution of stormwater runoff by preventing soil and debris from entering storm drain inlets. Silt fences will be utilized to filter stormwater runoff and keep soil on the disturbed land, rather than letting it be washed off into natural water bodies. Silt fences and rock berms downstream of disturbed areas shall be installed per the plans, maintained, and regularly inspected throughout the duration of all major construction activities until revegetation is complete. The revegetation shall be deemed complete when coverage is 85% on slopes of 0-5% and 95% on areas exceeding 5% slope with no bare areas greater than ten (10) square feet remain.

In addition to the installation of silt fencing and inlet protection, a stabilized construction entrance will be provided for all traffic accessing the site and a concrete washout will be provided. Tree protection will also be provided as needed.

CONTRIBUTING ZONE PLAN APPLICATION TEMPORARY STORMWATER ATTACHMENT E – REQUEST TO TEMPORARILIY SEAL A FEATURE, IF SEALING A FEATURE

Not applicable for this project.

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT F –
STRUCTURAL PRACTICES

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT “F”

STRUCTURAL PRACTICES

JULEP COMMERCIAL PARK-EAST

The following structural controls and procedures will be utilized on this project to limit runoff discharge of pollutants:

1. A stabilized construction entrance will be used for all traffic accessing the site.

2. Silt fences or rock berms will be installed downstream of all disturbed areas and remain in place until final site stabilization is achieved.

3. A washout will be in place for concrete trucks exiting the site.

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT G –
DRAINAGE AREA MAP

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT “G”

DRAINAGE AREA MAP

JULEP COMMERCIAL PARK-EAST

See the Drainage Area Maps in the construction plans (sheets 6-7).

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT H –
TEMPORARY SEDIMENT BASIN

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT “H”

TEMPORARY SEDIMENT BASIN

JULEP COMMERCIAL PARK-EAST

Since more than 5 acres of the site will be disturbed at one time, a temporary sediment basin is required. The rough-cut batch detention pond will be used as the temporary sediment basin during construction activities. See sheets 17 and 18 of the attached construction plans for TSS removal & pond volume calculations.

CONTRIBUTING ZONE PLAN APPLICATION TEMPORARY STORMWATER ATTACHMENT I – INSPECTION AND MAINTENANCE TEMPORARY BMPS

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT "I"

INSPECTION AND MAINTENANCE OF TEMPORARY BMPS

JULEP COMMERCIAL PARK-EAST

Erosion and Sediment Control Inspection and Maintenance Practices

1. The Contractor will inspect the control measures weekly and within 24 hours after rainfall events of ½-inch or more.

2. Temporary construction entrances should be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. All sediment spilled, dropped washed or tracked onto public rights-of-way should be removed immediately by contractor.

3. Repairs will be made to damaged areas as soon as practicable after damage is discovered but no later than seven days after the inspection.

4. Build-up sediment will be removed once it has reached maximum depth of six inches.

5. Temporary and permanent seeding shall be irrigated or sprinkled in a manner that will not erode topsoil, and at sufficient quantity and intervals to achieve restoration requirements. Irrigation shall occur at ten-day intervals during the first two months. Rainfall of ½-inch or more shall postpone watering schedule by one week.

6. The Contractor will be responsible for ensuring maintenance of the erosion and sedimentation controls. The Owner (and/or qualified agents) and Contractor shall be independently responsible for inspection of the controls, and for required record keeping (see sample inspection and maintenance report).

7. If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize off-site impacts.

TO BE MADE AVAILABLE UPON REQUEST

PROJECT NAME: JULEP COMMERCIAL PARK-EAST

OWNER/OPERATOR:

INSPECTOR: _____

SIGNATURE: _____

LAND AREA	LOCATION	DATE OF MAJOR GRADING ACTIVITIES	DAILY CONST. ACTIVITY CEASES	DATE OF STABILIZATION(S) AND/OR NEXT DISTURBANCE	CONTROL MEASURE	CURRENT CONDITION	CORRECTIVE ACTION TO BE TAKEN	CORRECTION CODE

DATE OF LAST RAINFALL:
AMOUNT OF LAST RAINFALL:
DATE OF INSPECTION:
CONTRACTOR:
DATE RECEIVED:

ADDITIONAL NOTES

CHANGES REQUIRED

REASONS FOR CHANGES

CONDITION CODES;
01 - TO BE FIXED OR REPLACED WITHIN 24 HRS
02 - TO BE FIXED OR REPLACED WITHIN 48 HRS
03 - TO BE FIXED OR REPLACED PRIOR TO NEXT INSPECTION
04 - SEE ADDITIONAL NOTES

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly gathering information, the Informatin submitted is, to the best of my knowledge and beleifs true, accurate and complete. I am aware that there ae significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing or willful violations.

Signature: _____

Date: _____

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT J –
SCHEDULE OF INTERIM AND PERMANENT SOIL STABILIZATION PRACTICES

CONTRIBUTING ZONE PLAN APPLICATION
TEMPORARY STORMWATER
ATTACHMENT "J"

SCHEDULE OF INTERIM AND PERMANENT SOIL STABILIZATION PRACTICES

JULEP COMMERCIAL PARK-EAST

Soil Stabilization Practice	Schedule of Implementation
Silt Fences	Prior to and throughout site development
Mulch Logs	Prior to and throughout site development
Stabilized Construction Entrance	Prior to and throughout site development
Concrete Wash Out	Prior to and throughout site development
Temporary Stabilization	Temporary stabilization of disturbed areas must be initiated immediately whenever any earth disturbing activities have temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.
Permanent Restoration and Revegetation	Permanent stabilization of disturbed areas must be initiated immediately whenever earth disturbing activities have permanently ceased

AGENT AUTHORIZATION FORM (TCEQ-0599)

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

I Cosmo Palmieri,
Print Name

Authorized Agent,
Title - Owner/President/Other

of Kelly Gray Investments, LLC,
Corporation/Partnership/Entity Name

have authorized Dan Brown, P.E.
Print Name of Agent/Engineer

of Malone/Wheeler Inc.
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

1/13/2022
Date

THE STATE OF Texas §

County of Travis §

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

GIVEN under my hand and seal of office on this 14 day of January, 2022.

SARAH GREEN
Notary Public, State of Texas
Comm. Expires 07-23-2023
Notary ID 124627360

NOTARY PUBLIC

Sarah Green
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 7/23/23

APPLICATION FEE FORM (TCEQ-0574)

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Julep Commercial Park-East

Regulated Entity Location: 14174 W US HWY 290 Austin, Texas 78737

Name of Customer: Kelly Gray Investments, LLC

Contact Person: Aaron Googins Phone: 512-809-5118

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	7.16 Acres	$ 5,000
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: _____ Date: 7/12/2024

Application Fee Schedule

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

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

CORE DATA FORM (TCEQ-10400)

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

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

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy): 09/28/21

☒ 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:*

KELLY GRAY INVESTMENTS 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)*
0701685622	30118452884	742765168	

11. Type of Customer: ☐ Corporation ☐ Individual Partnership: ☐ General ☒ Limited

Government: ☐ City ☐ County ☐ Federal ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

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

13. Independently Owned and Operated?
☒ Yes ☐ No

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

☒ Owner ☐ Operator ☐ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

15. Mailing Address:

6907 N CAPITAL OF TEXAS HWY STE 300

City	State	ZIP	ZIP + 4
AUSTIN	TEXAS	78731	

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

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(512)809-5118		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)*

☒ 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 Agency 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.)*

JULEP COMMERCIAL PARK EAST

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

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	14174 W US HWY 290 AUSTIN, TEXAS 78737

26. Nearest City	State	Nearest ZIP Code
DRIPPING SPRINGS	TEXAS	78737

27. Latitude (N) In Decimal:	30.196770	28. Longitude (W) In Decimal:	-98.011709

Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	11	48.372	-98	0	42.1524

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)
653108		531190	

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

Mixed-use commercial

34. Mailing Address:	6907 N CAPITAL OF TEXAS HWY STE 300							
	City	AUSTIN	State	TX	ZIP	78731	ZIP + 4	
35. E-Mail Address:	AARONGOOGINS@OUTLOOK.COM							

36. Telephone Number	37. Extension or Code	38. Fax Number *(If applicable)*
(512) 809-5118		( ) -

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	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	DAN BROWN	41. Title:	ENGINEER

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512)899-0601	232	(512)899-0655	DANB@MALONEWHEELER.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:	KELLY GRAY INVESTMENTS, LLC	Job Title:	
Name *(In Print)*:	COSMO PALMIERI	Phone:	(512)637 3682
Signature:		Date:	1/13/2022

Horizon™
Environmental Services, Inc.

GEOLOGIC ASSESSMENT
APPROXIMATELY 11.27-ACRE JULEP COMMERCIAL PARK TRACT
14131 TRAUTWEIN ROAD AND 128 WHIRLAWAY DRIVE
AUSTIN, HAYS COUNTY, TEXAS
HJN 22175 GA

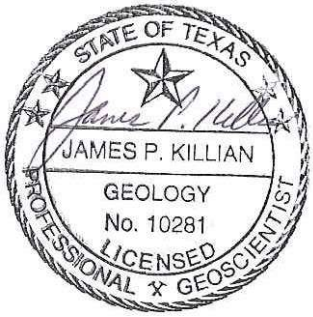
Note: Submitted 7.16 acres being a part of above described 11.27 acre tract

PREPARED FOR:

KELLY GRAY INVESTMENTS LLC
AUSTIN, TEXAS

PREPARED BY:

HORIZON ENVIRONMENTAL SERVICES, INC.
TBPG FIRM REGISTRATION NO. 50488



MAY 2022

CORPORATE HEADQUARTERS
1507 S Interstate 35 • Austin, Texas 78741-2502 • 512.328.2430 • www.horizon-esi.com
TBPG Firm No. 50488 • An LJA Company

Horizon
Environmental Services, Inc.

TABLE OF CONTENTS

Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

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

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

Signature

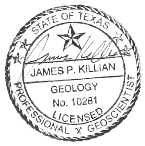
To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

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

Date: 3 May 2022 Fax: 512-328-1804

Representing: Horizon Environmental Services, Inc. and TBPG Form Registration No. 50488
(Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: Approximately 11.27-acre Julep Commercial Park Tract; 14131 Trautwein Road and 128 Whirlaway Drive, Austin, Hays County, Texas

Project Information

1. Date(s) Geologic Assessment was performed: 25 April 2022
2. Type of Project:
   - ☒ WPAP
   - ☒ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☐ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

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

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

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)

Soil Name	Group*	Thickness(feet)
Real-Comfort-Doss complex, 1-8% slopes (RcD)	D	3.5

** Soil Group Definitions (Abbreviated)*

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

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

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

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

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

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

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

   Applicant's Site Plan Scale: 1" = 400'
   Site Geologic Map Scale: 1" = 400'
   Site Soils Map Scale (if more than 1 soil type): 1" = 300'

9. Method of collecting positional data:

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

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

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

    ☒ There are 1 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    - ☐ The wells are not in use and have been properly abandoned.
    - ☐ The wells are not in use and will be properly abandoned.
    - ☒ The wells are in use and comply with 16 TAC Chapter 76.

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

Administrative Information

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

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Environmental Services, Inc.

ATTACHMENT A

GEOLOGIC ASSESSMENT TABLE

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: Julep Commercial Park Tract; Trautwein Rd and Whirlaway Dr, Austin, Hays Co., Tx

LOCATION			FEATURE CHARACTERISTICS											EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11	12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)	TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6 >1.6	
M-1	30.198	-98.01	MB	30	Kft	0.8	0.8	--					X	5	35	x		x	Hillside
M-2	30.197	-98.01	MB	30	Kft	300	80	4					O,X,V,C	5	35	x		x	Hillside

* DATUM:_____

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

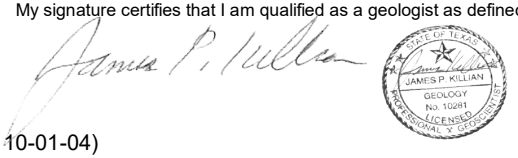
8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave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

12 TOPOGRAPHY

Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

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

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



Date

Sheet ___1___ of __1____

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

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ATTACHMENT B
STRATIGRAPHIC COLUMN

Geologic Unit	Hydrologic Unit	Approx. Thickness at Project Site (ft)	Elevation (ft msl)	Depth (ft)
			1274	0
Fort Terrett Member (Kft)	Edwards Aquifer	40		
			1234	40
Upper Glen Rose Formation (Kgru)	Upper Trinity Aquifer	350		
			884	390

Note: Unit elevation and thickness given with respect to a ground surface elevation of 1274 feet near the northwest corner of the subject site.

Horizon™ Environmental Services, Inc.

Date:	04/29/2022
Drawn:	KRW
HJN NO:	22175 GA

Attachment B

Stratigraphic Column
Julep Commercial Park
Trautwein Road and Whirlaway Drive
Austin, Hays County, Texas

STATE OF TEXAS
JAMES P. KILLIAN
GEOLOGY
No. 10281
LICENSED
PROFESSIONAL GEOSCIENTIST

22175--Julep_Commercial_Park\Graphics\22175-001GA_05A_Strat

Horizon
Environmental Services, Inc.

ATTACHMENT C
DESCRIPTION OF SITE GEOLOGY

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

A geologic assessment of approximately 11.27 acres located at 14131 Trautwein Road and 128 Whirlaway Drive, Austin, Hays County, Texas, was conducted pursuant to Texas rules for regulated activities in the Edwards Aquifer Contributing Zone (EACZ) (30 TAC 213). The subject site consists of mixed rangeland and woodlands. Assessment findings were used to develop recommendations for site construction measures intended to be protective of water resources at the subject site and adjacent areas.

The entire subject site is located within the EACZ, as defined by the Texas Commission on Environmental Quality (TCEQ). The Contributing Zone of the Edwards Aquifer includes all the watersheds that feed runoff into the rivers and streams that flow over the Recharge Zone (TCEQ, 2005). TCEQ rules regulate activities in the portions of the Contributing Zone that are within the counties already regulated by the Edwards Aquifer rules. These areas are generally north and west of the Recharge Zone.

The subject site is completely underlain by the Fort Terrett Member (Kft) (UT-BEG, 1972), which has an estimated maximum thickness of about 40 feet thick.

No naturally occurring geologic features and 2 man-made features (M-1 and M-2) were identified at this site. Further information pertaining to the man-made features is presented in the following Attachments D, E, and F. Photographs of the subject site and man-made features are presented in Attachment G.

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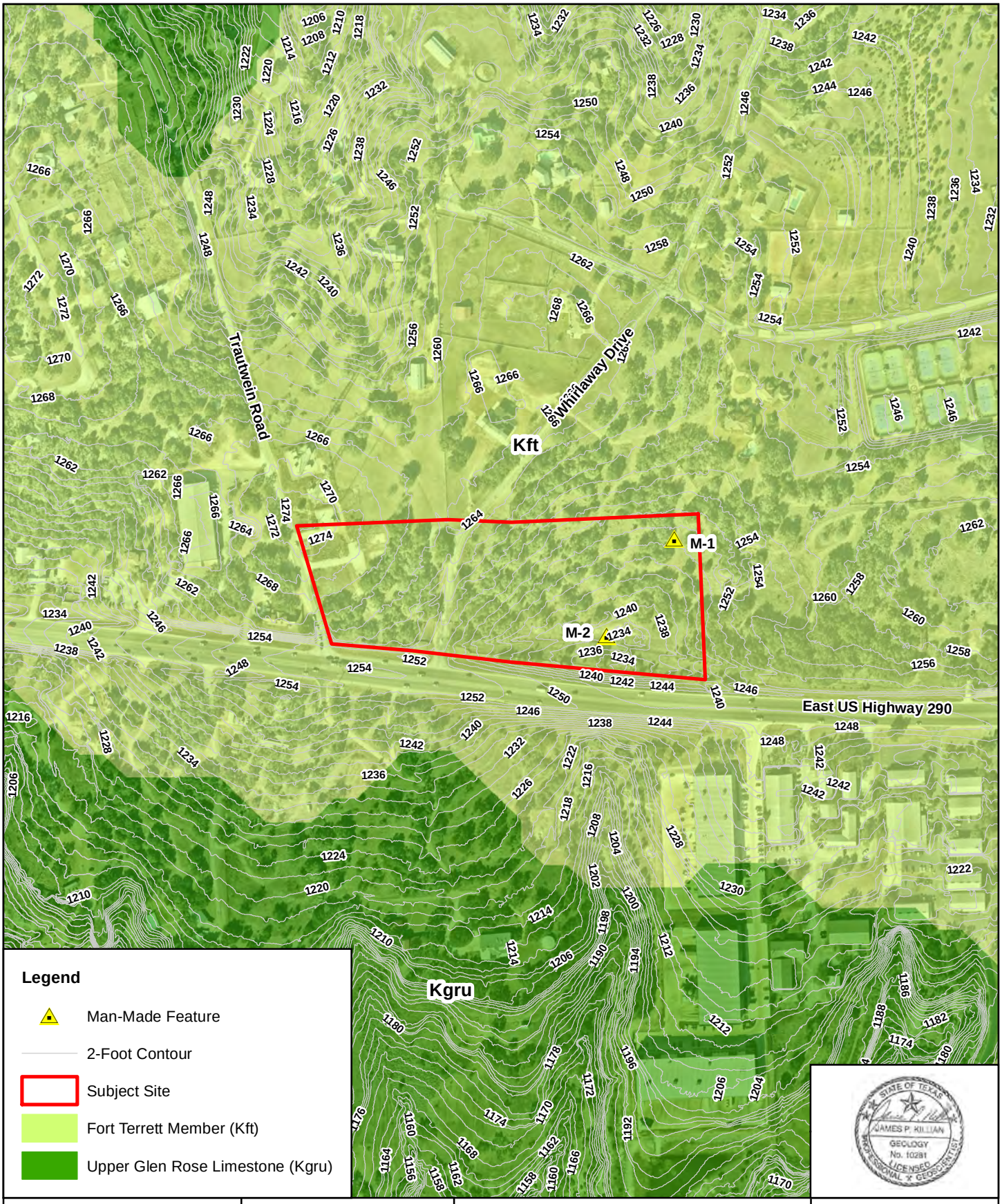
Environmental Services, Inc.

ATTACHMENT D
SITE GEOLOGIC MAP



Date:	04/29/2022
Drawn:	KRW
HJN NO:	22175 GA
Source:	Nearmap, 2022; StratMap, 2017; TWSC, 2014

Horizon Environmental Services, Inc.

Attachment D

Site Geologic Map
Julep Commercial Park
Trautwein Road and Whirlaway Drive
Austin, Hays County, Texas

STATE OF TEXAS
JAMES P. KILLIAN
GEOLOGY
No. 10281
LICENSED
PROFESSIONAL GEOSCIENTIST

N

0 200 400
Feet

22175–Julep_Commercial_Park\Graphics\22175-001GA_06A_SGM

Horizon
Environmental Services, Inc.

ATTACHMENT E
SUPPORTING INFORMATION

1.0 INTRODUCTION AND METHODOLOGY

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

In addition, this report complies with TCEQ's "Optional Enhanced Measures (OEM) for the Protection of Water Quality in the Edwards Aquifer (Revised)" (TCEQ, 2007) for new development in areas subject to the TCEQ Edwards Aquifer Rules (30 TAC Chapter 213). These measures provide a higher level of water quality protection and may be adopted by those who wish to implement additional measures for environmental protection or to satisfy requirements for agencies other than the TCEQ. For example, the implementation of these measures may satisfy requirements of the US Fish and Wildlife Service (USFWS) for the proposed development.

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

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

2.0 ENVIRONMENTAL SETTING

2.1 LOCATION AND GENERAL DESCRIPTION

The subject site consists of approximately 11.27 acres of mixed rangeland and woodlands located adjacent to the northeastern corner of the intersection of Trautwein Road and US Highway 290 (US 290) and Whirlaway Drive and US 290, in Hays County, Texas (Appendix F, Figure 1).

2.2 LAND USE

The subject site is reportedly vacant land. No habitable structures were observed on the site. Trautwein Road borders the site to the west and US 290 forms the southern border of the site. Surrounding lands are generally used for suburban residences and businesses. A portion of an easement for an off-site microwave tower is located in the northwestern corner of the subject site.

2.3 TOPOGRAPHY AND SURFACE WATER

The subject site is situated on gently to moderately sloping terrain within City of Austin–Colorado River watershed (Appendix F, Figures 2 and 3). Surface elevations on the subject site vary from a minimum of approximately 1234 feet above mean sea level (amsl) within an apparent stormwater detention pond (M-2) near the south-central portion of the site to a maximum of approximately 1274 feet amsl near the northwestern property corner (USGS, 1986). Drainage on the site occurs primarily by overland surface flow from northwest to southeast, north to south, and northeast to southwest into the detention pond.

2.4 EDWARDS AQUIFER ZONE

The subject site is found within the Edwards Aquifer Contributing Zone (TCEQ, 2022) (Attachment F, Figure 2).

2.5 SURFACE SOILS

One soil unit is mapped within the subject site (NRCS, 2022) (Appendix F, Figure 4). The soil unit is described in further detail below.

Real-Comfort-Doss complex, 1 to 8% slopes (RcD) consists of shallow, loamy and clayey soils on low hills and ridges on uplands in the Edwards Plateau resource area. Real soil composes 22 to 54% of the complex, Comfort soil is 18 to 40%, and Doss soil is 9 to 39%. The soils in this complex are well-drained and surface runoff is medium to rapid. Permeability is moderate in the Real soil, slow in the Comfort soil, and moderately slow in the Doss soil. Available water capacity is low to very low. Erosion is a moderate hazard, and the rooting zone is shallow. These soils are typically used for rangeland and wildlife habitat. Medium yields of forage can be produced, yet production is limited due to the restricted rooting depth and very low water capacity. These soils are not suited to cropland and poorly suited for use as pastureland. Shallowness, small stones, slope, low strength affecting roads and streets, and corrosivity to uncoated steel are major limitations for urban and recreation uses. Good design and careful installation are required (Batte, 1984).

2.6 WATER WELLS

A review of TCEQ and Texas Water Development Board (TWDB) records revealed no water wells on the subject site and 20 wells within 0.5 miles of the subject site (TCEQ, 2022; TWDB, 2022). According to the TWDB records, all the off-site wells are reportedly completed

within the Trinity Aquifer at total depths ranging from 570 to 1010 feet below surface. Horizon observed 1 well on the subject site (M-1). The private on-site well is in use and appeared to be properly constructed with 6-inch PVC pipe surrounded by 10-inch steel casing.

If the on-site well is not intended for future use, it should be capped or properly abandoned according to the Administrative Rules of the Texas Department of Licensing and Regulation (TDLR), 16 Texas Administrative Code (TAC), Chapter 76. TCEQ publication RG-347, "Landowner's Guide to Plugging Abandoned Water Wells," provides specific guidance. If a well is intended for use, it must comply with 16 TAC §76.

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

2.7 GEOLOGY

Literature Review

The subject site is underlain by the Fort Terrett Member (Kft) (UT-BEG, 1972). The Fort Terrett Member consists of limestone and dolomite. The upper quarter comprises porcelaneous aphanitic limestone, collapsed breccia, chert, and recrystallized limestone. The middle of the formation consists of light to dark gray, cherty dolomite, miliolid shell fragments, rudistid limestone, and medium brownish-gray dolomite. In the lower quarter, the unit is nodular limestone, with thin, yellow, *Exogyra texana*-bearing clay at the base. The thickness of the Fort Terrett Member is 150 to 230 feet, thickening southward.

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

The subject site is not located within the Balcones Fault Zone. Available geologic reports indicate the nearest mapped fault is located approximately 6 miles to the southeast, trending from southwest to northeast (TWSC, 2014).

Field Assessment

Horizon observed two man-made features on the subject site that meet the TCEQ definition of a potential recharge feature, the previously mentioned water well (M-1) and stormwater detention pond (M-2). The locations of these features are shown in the Site Geologic Map, provided as Attachment D. The Geologic Assessment Table (Attachment A) describes those features.

3.0 CONCLUSIONS AND RECOMMENDATIONS

No geologic features were identified at the subject site that would require protection or mitigation pursuant to TCEQ rules for protection of the Edwards Aquifer (30 TAC 213). Two man-made features (M-1 and M-2) were identified at the subject site; however, neither of these features

would not require protection or mitigation pursuant to TCEQ rules for protection of the Edwards Aquifer (30 TAC 213). The site generally appears well-suited to development prospectuses. It should be noted that soil and drainage erosion would increase with ground disturbance. Native grasses and the cobbly content of the soil aid to prevent erosion. Soil and sedimentation fencing should be placed in all appropriate areas prior to any site disturbing activities.

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

4.0 REFERENCES

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(OSM) OpenStreetMap contributors. OpenStreetMap, <http://www.openstreetmap .org>. Available under the Open Database License (www.opendatacommons.org/ licenses/odbl). Accessed 26 April 2022.

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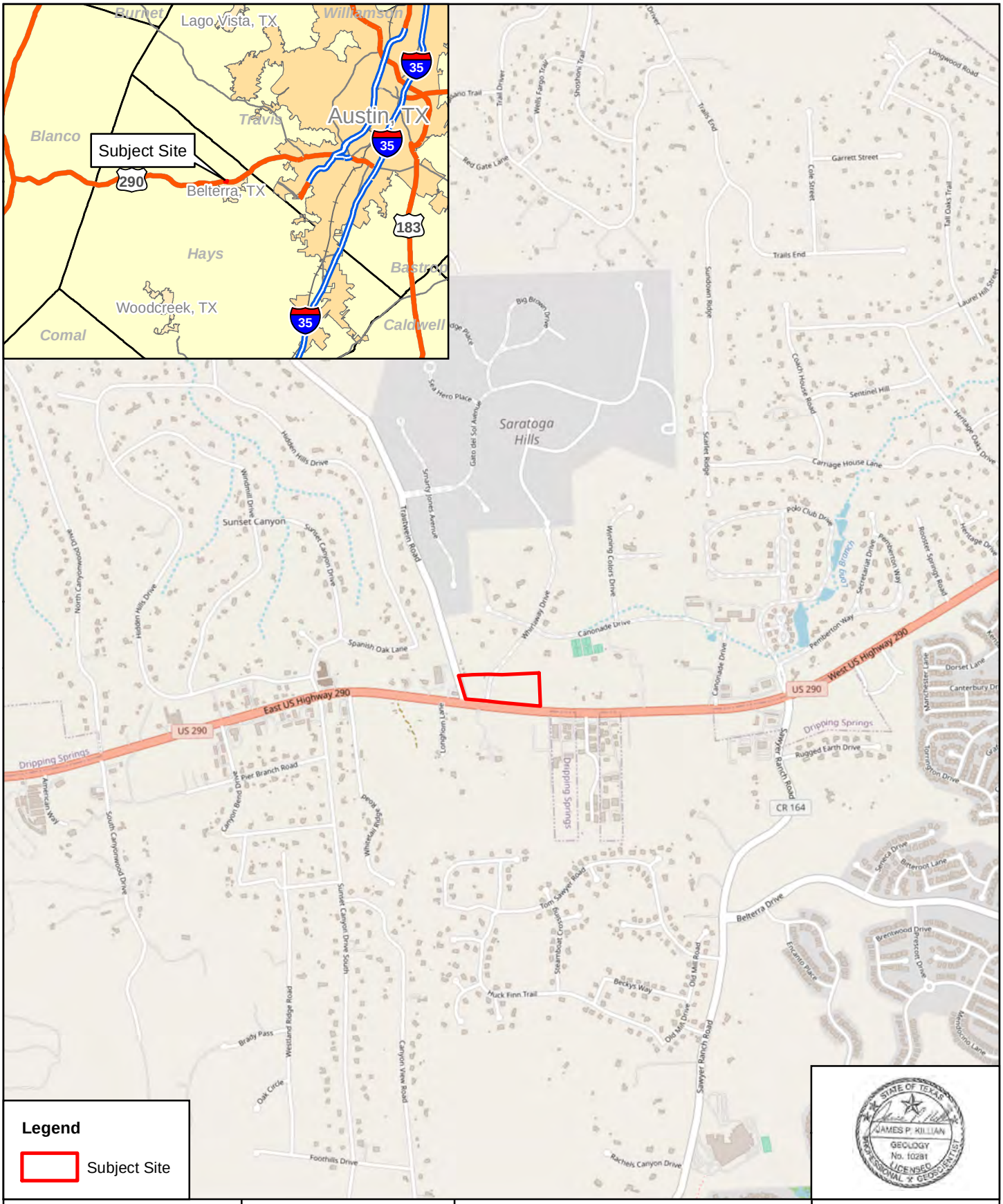
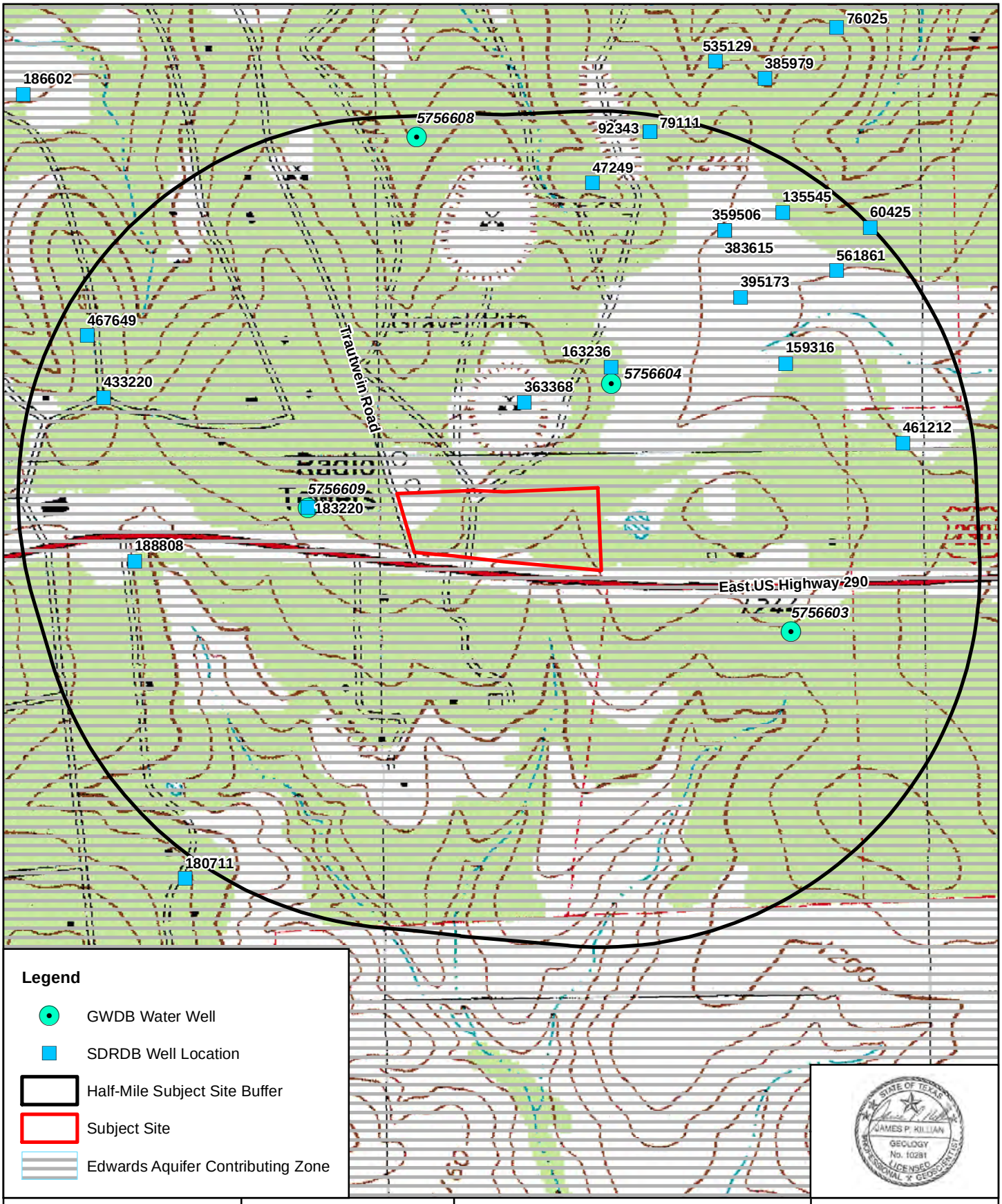
(USGS) US Geological Survey. 7.5-minute series topographic maps, Dripping Springs, Texas, quadrangle. 1986.

ATTACHMENT F

ADDITIONAL SITE MAPS



22175–Julep_Commercial_Park\Graphics\22175-001GA_01A_Vicinity



STATE OF TEXAS
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PROFESSIONAL GEOSCIENTIST

Horizon™
Environmental Services, Inc.

Date:	04/29/2022
Drawn:	KRW
HJN NO:	22175 GA
Source:	TCEQ, 2022; TWDB, 2022; USGS, 1986

Attachment F, Figure 2

Topography and Hydrogeology Map
Julep Commercial Park
Trautwein Road and Whirlaway Drive
Austin, Hays County, Texas

N

0 400 800
Feet

22175–Julep_Commercial_Park\Graphics\22175-001GA_02A_TopoHydro

Horizon™ Environmental Services, Inc.

Date:	04/29/2022
Drawn:	KRW
HJN NO:	22175 GA
Source:	Nearmap, 2022; StratMap, 2017

Attachment F, Figure 3

Site Topography Map
Julep Commercial Park
Trautwein Road and Whirlaway Drive
Austin, Hays County, Texas

N

0 150 300
Feet

22175–Julep_Commercial_Park\Graphics\22175-001GA_03A_Topo

Legend

- Subject Site
- Soil Unit Boundary

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Source:	Nearmap, 2022; NRCS, 2019

Attachment F, Figure 4

Site Soil Map
Julep Commercial Park
Trautwein Road and Whirlaway Drive
Austin, Hays County, Texas

N

0 150 300
Feet

22175–Julep_Commercial_Park\Graphics\22175-001GA_04A_Soil

Horizon
Environmental Services, Inc.

ATTACHMENT G

SITE PHOTOGRAPHS

Horizon
Environmental Services, Inc.

PHOTO 1
Man-made feature M-1 (water well), facing north

PHOTO 2
Man-made feature M-2 (detention pond), facing northeast

OPTIONAL ENHANCED MEASURES

JULEP COMMERCIAL PARK-EAST

Applicability to Site

This plan is to be reviewed and approved with Optional Enhanced Measures (OEM). OEM approval is required for the site to obtain potable water per the Service and Development Policy of West Travis County Public Utility Agency.

Geologic Assessment

A Geologic Assessment conducted by Horizon Environmental Services has been submitted with this plan.

Sensitive Features

No naturally occurring sensitive features were identified in the attached Geologic Assessment by Horizon Environmental Services. The existing well identified by the Geologic Assessment will be utilized for irrigation.

Sensitive Features Identified During Construction

Sensitive features identified during construction, such as solution cavities and caves, will be protected according to TCEQ requirements.

Caves

No caves were identified during the geologic assessment.

Stream Buffers

No existing waterways are present on site.

Construction

Temporary erosion controls that will be in place during construction are:

1. Silt Fence
2. Rock Berms
3. Concrete Washout
4. Stabilized Construction Entrance

Permanent BMP Implementation

The reduction of 80 percent of the annual Total Suspended Solids load in storm water runoff from the project will be achieved using a batch detention pond.

Permanent water quality controls have been designed to meet the TCEQ requirements and water quality calculations are based on the calculations found in the Optional Enhanced Measures Appendix A to RG-348.

Measures to Protect Stream Morphology

There are no streams present on site. To protect stream morphology downstream of the site, stormwater is detained by stacking water on top of the required water quality volume within the proposed batch detention pond. Due to the function of the proposed batch detention pond, the detention of stormwater within the pond will limit the peak rate of runoff for the 2-year, 24-hour storm to 50% of the undeveloped rate for that event and limit the 10-year, 24-hour storm peak runoff rate to less than that calculated for the undeveloped condition for the same storm conditions. Also, discharges from water quality ponds will be dissipated using rock riprap to prevent localized erosion within the TxDOT roadside ditch which receives the site's discharge. Additionally, erodible elements of the conveyance system for the project will be stabilized to prevent erosion, therefore, measures to protect stream morphology have been provided.