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Contributing Zone Plan

(CZP)

City of Cedar Park:

Public Safety Training Center

Prepared for:

TCEQ-Region 11 Office

Austin, Texas

August 2024

Prepared by:

FREESE AND NICHOLS, INC.
10431 Morado Circle, Suite 300
Austin, Texas 78759
512-617-3100

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: Public Safety Training Center						**2. Regulated Entity No.: RN108001322**			
3. Customer Name: City of Cedar Park						**4. Customer No.: CN600407951**			
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):**			6.71
9. Application Fee:	$5,000		**10. Permanent BMP(s):**					Two wet detention ponds, engineered rock level spreader	
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**					N/A	
13. County:	Williamson		**14. Watershed:**					Brushy Creek	

Application Distribution

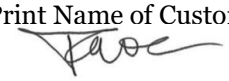
Instructions: Use the table below to determine the number of applications required. One original and one copy of the application, plus additional copies (as needed) for each affected incorporated city, county, and groundwater conservation district are required. Linear projects or large projects, which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

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

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

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	___	___	_X_
Region (1 req.)	___	___	_X_
County(ies)	___	___	_X_
Groundwater Conservation District(s)	___Edwards Aquifer Authority ___Barton Springs/ Edwards Aquifer ___Hays Trinity ___Plum Creek	___Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda ___Dripping Springs ___Kyle ___Mountain City ___San Marcos ___Wimberley ___Woodcreek	___Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	___Austin _X_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. Tam H. Tran
Print Name of Customer/Authorized Agent  08/30/2024
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

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: Tam Tran

Date: 8/30/2024

Signature of Customer/Agent:

Regulated Entity Name: Public Safety Training Center

Project Information

1. County: Williamson
2. Stream Basin: Brushy Creek- San Gabriel
3. Groundwater Conservation District (if applicable): _____
4. Customer (Applicant):

   Contact Person: Caleb Stockton
   Entity: City of Cedar Park
   Mailing Address: 450 Cypress Creek Road, Building 1
   City, State: Cedar Park Zip: 78613
   Telephone: 512-401-5352 Fax: _____
   Email Address: Caleb.Stockton@cedarparktexas.gov

5. Agent/Representative (If any):

   Contact Person: Tam Tran
   Entity: Freese and Nichols, Inc
   Mailing Address: 10431 Morado Cir, Ste. 300
   City, State: Austin, Texas Zip: 78759
   Telephone: 512-381-1830 Fax: _____
   Email Address: Tam.Tran@freese.com

6. Project Location:

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

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.

   1204 North Kent Lane, Cedar Park, Texas 78613 (Lat/Long: 30.497173, -97.807867).

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: Municipal service

13. Total project area (size of site): 6.71 Acres

Total disturbed area: 1.63 Acres

14. Estimated projected population: 0

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	42,769	÷ 43,560 =	0.98
Parking	67,324	÷ 43,560 =	1.55
Other paved surfaces	17,634	÷ 43,560 =	0.40
Total Impervious Cover	127,727	÷ 43,560 =	2.93

Total Impervious Cover 2.93 **÷ Total Acreage** 6.71 **X 100 =** 43.6**% 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" = 400'.

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 100-year Floodplain, 48491C0610F eff. 12/20/2019.

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

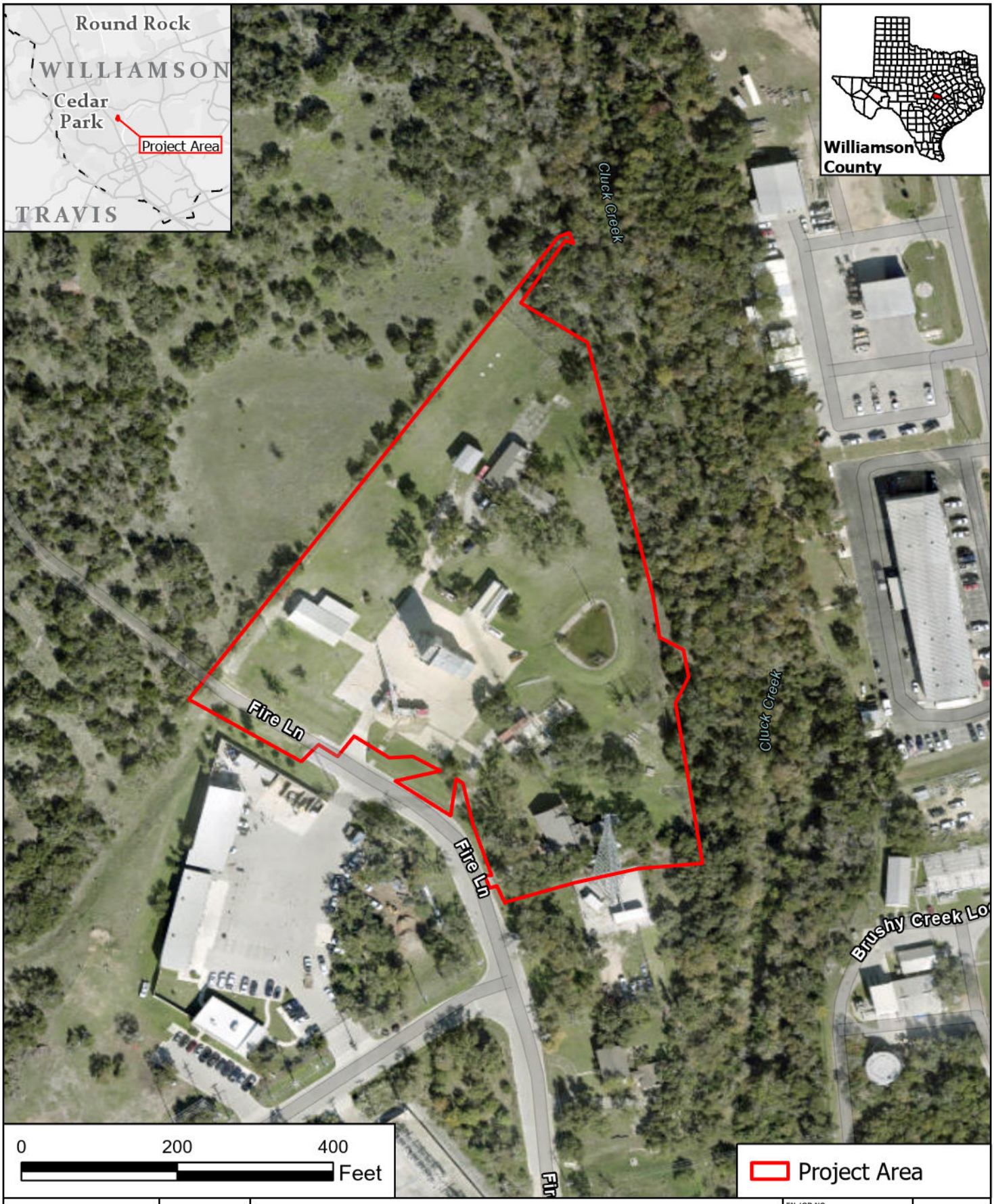
61. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions.

62. ☒ 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.

☒ The Temporary Stormwater Section (TCEQ-0602) is included with the application.

Attachment A. Road Map



FREESE AND NICHOLS, INC
10431 Morado Circle, Suite 300
Austin, TX 78759
512-617-3188

City of Cedar Park

Public Safety Training Center

Attachment A

FN JOB NO	HFW23821
FILE NAME	ProjectMaps.mxd
DATE	8/23/2024
DESIGNED	02588
DRAFTED	02588

1

FIGURE

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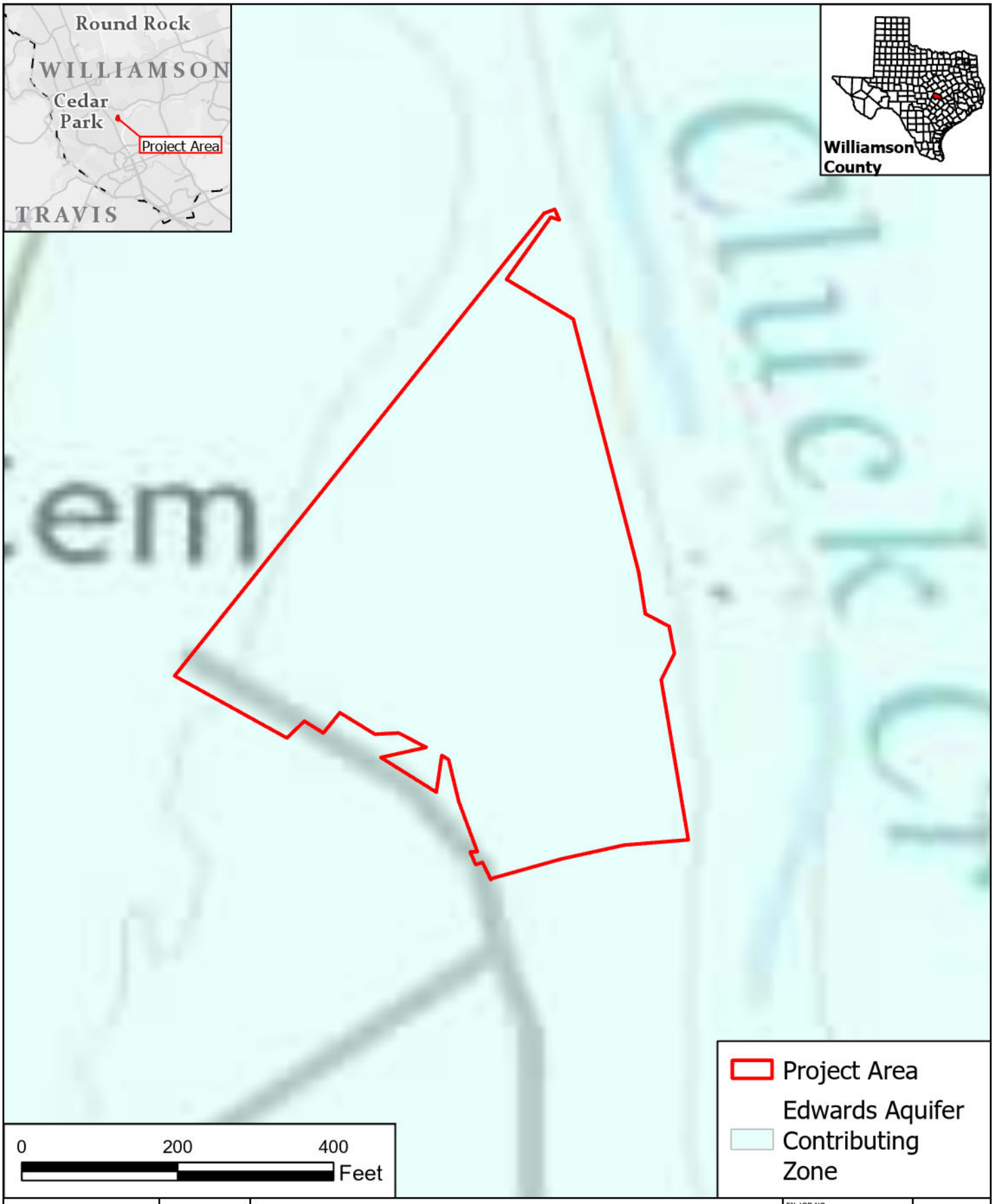
Attachment B. USGS/ Edwards Aquifer Zone Map



FREESE AND NICHOLS, INC
10431 Morado Circle, Suite 300
Austin, TX 78759
512-617-3188

City of Cedar Park

Public Safety Training Center

Attachment B

USGS Topographic Map Quad: Jollyville, TX, 2022

FN JOB NO	HFW23821
FILE NAME	ProjectMaps.mxd
DATE	8/23/2024
DESIGNED	02588
DRAFTED	02588

2

FIGURE

Path: H:\ENVIRONMENTAL\Final_Exhibits\ProjectMaps\ProjectMaps.aprx

City of Cedar Park Public Safety Training Center
Contributing Zone Plan

Attachment C

Project Narrative

The City of Cedar Park's Public Safety Training Center Project is located on 1204 North Kent Lane, Cedar Park, Texas 78613. The site is used as a police and fire training facility with an administrative building and a mock fire building. The current facility is used as a training facility and classroom area for the City of Cedar Park Fire and Police departments. The improvement project would include the construction of two additional buildings and the addition of two wet detention basins within the project area. The additional facilities would increase the City's emergency response capabilities and preparedness. Temporary BMP will include silt fencing and inlet protection. Permanent BMPs will include two water quality ponds and engineered rock level spreaders as shown on the plans. After construction is complete, disturbed areas will be revegetated. The site will be drained with sheet flow and roof drains to underground piping to the two water quality ponds on site.

The total project area is approximately 6.71 acres of developed and cleared lands. The new site improvements will increase the impervious cover from 1.30 acres (56,628 square-feet, sqft) to 2.93 acres (127,727 sqft), an increase of 1.63 acres, or approximately 71,099 sqft. Several onsite buildings will be demolished in addition to perimeter fencing, trees, power poles, railings and paving. No offsite areas are included in the project plans. The project would be constructed within the existing City property and no new ROW would be acquired.

Cedar Park Public Safety Training Center
Contributing Zone Plan

Attachment D

Factors Affecting Surface Water Quality

The Cedar Park Public Safety Training Center project will minimally affect water quality during construction by filtering run-off with silt fencing and stone outlet sediment traps. Potential contaminants include fuel and oils from vehicles entering and leaving the site. Equipment will be checked for leaks first thing in the morning and monitored throughout the workday. Fueling will be conducted within a designated area with a designated spill kit nearby. Any runoff will flow into the detention basins located on site.

Cedar Park Public Safety Training Center
Contributing Zone Plan

Attachment E

Volume and Character of Stormwater

The volume and character of the stormwater expected to occur from the proposed project will not be majorly impacted. The amount of impervious cover added will be asphalt pavement and several new buildings used for instructional learning. Potential contaminants include fuel, oils, and chemicals from vehicles entering and leaving the site. The silt fence and added vegetation will isolate sediments and other roadway pollutants from reaching any existing surface waterways. The extended detention basins will trap sediments and prevent untreated stormwater from entering nearby streams.

The volume of stormwater is minimally impacted. The pre-construction to post-construction composite curve number is 83 (Hydrologic Soil Group D, grass in good condition and pre-construction impervious cover) to 87 (Hydrologic Soil Group D, grass in good condition and post-construction impervious cover). The increase in the post-construction composite curve number results in a 12 cfs increase from the site during the 100-year frequency storm that is mitigated based on the site's peak discharge timing relative to the timing of the peak discharge within Cluck Creek. The peak flow results for the 100-year frequency storm are summarized in Table 1 below. These are negligible impacts to the volume of stormwater from the site.

Table 1. 100-year Site Peak Flow Comparison

Condition	Site 100-Year Flow (cfs)
Pre-Construction	58
Post-Construction	46

Cedar Park Public Safety Training Center

Contributing Zone Plan

Attachment J

BMPs for Upgradient Stormwater

Potential overland flow originating within the site will be slowed and filtered of potential pollutants by vegetation and routed to one of the two wet detention ponds on site. The wet detention ponds would be used to filter and settle out sediment before it flows offsite. Stormwater from the site will pass through the wet detention ponds before discharging through the engineered rock level spreaders and into Cluck Creek.

Cedar Park Public Safety Training Center

Contributing Zone Plan

Attachment K

BMPs for On-site Stormwater

Around all boundaries of the project site are natural vegetation buffers. The vegetation will help filter and slow overland flow and prevent pollution of any potential surface water, groundwater, or stormwater originating on-site or flowing off the site. The vegetation and existing trees will help prevent soil erosion. There is no observed surface water on the project site. With a low slope grade, overland flow is expected to have a low runoff velocity. After construction is completed, stormwater would be routed to the two stormwater detention ponds located on site. The wet detention pond will be used to filter and settle out sediment before it flows offsite. Stormwater from the detention ponds will flow through engineered rock level spreaders to further decrease velocity before entering Cluck Creek.

Cedar Park Public Safety Training Center

Contributing Zone Plan

Attachment L

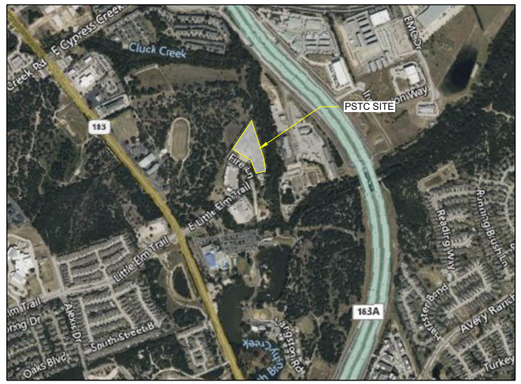
BMPs for Surface Streams

Cluck Creek is an intermittent surface stream that flows to the east of the project area. Silt fencing running along the perimeter of the construction area will keep upgradient and on-site stormwater within the project area and prevent disturbed sediments from entering the stream. Disturbed areas of the project site that are not imperviously covered will be re-vegetated upon completion of construction. Any additional overland sheet flow originating from the project area will flow to one of the three detention ponds within the project area. The detention ponds will settle out sediments from the stormwater before discharging into the creek. Rock level spreaders at the outfall of each detention ponds will reduce the velocity coming out of the ponds before it enters the creek.

Attachment M. Construction Site Plan

PUBLIC SAFETY TRAINING CENTER

1204 N FIRE LN
CEDAR PARK, TEXAS 78613



SITE LOCATION SKETCH, REFER TO DRAINAGE REPORT FOR SITE WATERSHED (ERZ)

NORTH

NOTES:
1. ALL RESPONSIBILITY FOR ACCURACY OF THESE PLANS REMAIN WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF CEDAR PARK MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
2. FEMA FLOODPLAIN NOTE - FEMA FIRM PANEL 48491C0610F, EFFECTIVE DATE DECEMBER 12,2019, SITE IS LOCATED IN ZONE X.

DRAWING INDEX	
	COVER SHEET
	FINAL PLAT (REPLAT NOT INCLUDED AT THIS TIME)
1	GENERAL NOTES
2	GENERAL NOTES-TCEQ
SITE PLAN	
3	OVERALL DEMOLITION PLAN
4	OVERALL PAVING PLAN
5	COORDINATE POINTS
6	DETAILED PAVING PLAN
7	COORDINATE POINTS
GRADING	
8	OVERALL GRADING PLAN
EROSION CONTROL	
9	EROSION CONTROL PLAN
DRAINAGE	
10	DRAINAGE AREA MAP
11	WATER QUALITY TREATMENT SUMMARY
12	DRAINAGE AREA MAP CALCULATIONS
13	WATER QUALITY CALCULATIONS
14	WATER QUALITY CALCULATIONS
15	OVERALL STORM DRAIN PLAN
16	STORM DRAIN AND OUTFALL PROFILES
17	STORM DRAIN AND OUTFALL PROFILES
18	EX 30 REALIGNMENT PROFILE
19	POND A CALCULATIONS
20	POND B CALCULATIONS

DRAWING INDEX	
UTILITIES	
21	DOMESTIC UTILITIES PLAN
22	SS AND FIRE UTILITIES PLAN
23	SANITARY SEWER PROFILES
DETAILS	
24	PAVING DETAILS
25	PAVING DETAILS
26	STANDARD DETAILS
27	STANDARD DETAILS
LANDSCAPE ARCHITECTURE	
28-LS-100	OVERALL PLANTING PLAN
29-LS-101	PLAZA PLAN
30-LS-102	SITE FURNISHINGS
31-LS-103	SITE DETAILS
32-LS-104	SITE DETAILS
IRRIGATION	
33-IR-100	IRRIGATION NOTES
34-IR-101	IRRIGATION PLAN
35-IR-102	IRRIGATION SPECS AND DETAILS
FIRE PROTECTION	
4	OVERALL PAVING PLAN (SEE 4, FOR FIRE LANE MARKING)
22	SS AND FIRE UTILITIES (SEE 22, FOR FIRE LINES)
TREE PRESERVATION	
-	TREE PRESERVATION PLAN (NOT INCLUDED AT THIS TIME)
ARCHITECTURAL ELEVATIONS	
36-0-AS108	EXTERIOR ELEVATIONS - TRAINING

DRAWING INDEX	
37-0-AS108	EXTERIOR ELEVATIONS - TACTICAL
38-0-AS108	EXTERIOR ELEVATIONS - APPARATUS BAY
ELECTRICAL	
39-0-ES201	ELECTRICAL SITE LIGHTING CALCULATIONS

CEDAR PARK

Reviewed for Code Compliance
Signature required from all Departments

Planning_____ Date_____

Engineering Services_____ Date_____

Industrial Pretreatment_____ Date_____

Fire Prevention_____ Date_____

Landscape Planner_____ Date_____

Addressing_____ Date_____

Site Development Permit Number _____

SITE DEVELOPMENT

AUGUST 26,2024

HOEFER WELKER

HW PROJECT NO: 138091

TDLR PROJECT NOTABS2024025797

OWNER
CITY OF CEDAR PARK, TEXAS
450 CYPRESS CREEK ROAD
CEDAR PARK, TEXAS 78613
P: 512.401.5000

ARCHITECT
HOEFER WELKER
4622 PENNSYLVANIA AVE.
KANSAS CITY, MISSOURI 64112
P: 913.307.3700

CONSTRUCTION MANAGER
CORE CONSTRUCTION
3000 PLAR LN. # 503
CEDAR PARK, TEXAS
P: 737.239.0600

MEP ENGINEER
HOEFER WELKER
4622 PENNSYLVANIA AVE.
KANSAS CITY, MISSOURI 64112
P: 913.307.3700

STRUCTURAL ENGINEER
L.A. FUESS PARTNERS
333 LEE PARKWAY. SUITE 300
DALLAS, TEXAS 75219
P: 214.871.7010

CIVIL ENGINEER
FREESE AND NICHOLS, INC
801 CHERRY STREET, SUITE 2800
FT. WORTH TEXAS 76102
P: 214.906.0098

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

FIRE PROTECTION ENGINEER
FSC, INC
8675 W. 96TH STREET, SUITE E
OVERLAND PARK, KS 66212
P: 913.722.3473

PROFESSIONAL SEAL

NO.	DESCRIPTION	DATE

PROFESSIONAL SEAL

STATE OF TEXAS
ISAAC D. WOOD
142408
LICENSED
PROFESSIONAL ENGINEER

8/23/2024

PUBLIC SAFETY TRAINING CENTER AUGUST 26, 2024

138091

GENERAL NOTES:

1. GENERAL CONTRACTOR SHALL CALL FOR ALL UTILITY LOCATES PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL DELINEATE AREAS OF EXCAVATION USING WHITE PAINT (WHITE LINING) IN ACCORDANCE WITH 16 TAC 18.3. WATER & WASTEWATER OWNED BY THE CITY OF CEDAR PARK CAN BE LOCATED BY CALLING TEXAS 811 AT 1-800-344-8377. ALLOW THREE BUSINESS DAYS FOR UTILITY LOCATES BY THE CITY OF CEDAR PARK.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST CITY OF AUSTIN STANDARD SPECIFICATIONS. CITY OF AUSTIN STANDARDS SHALL BE USED UNLESS OTHERWISE NOTED.
3. DESIGN PROCEDURES SHALL BE IN GENERAL COMPLIANCE WITH THE CITY OF AUSTIN DRAINAGE CRITERIA MANUAL. ALL VARIANCES TO THE MANUAL ARE LISTED BELOW: NONE
4. BENCHMARKS SHOULD BE TIED TO THE CITY OF CEDAR PARK BENCHMARKS AND BE CORRECTLY "GEO REFERENCED" TO STATE PLANE COORDINATES. A LIST OF THE CITY'S BENCHMARKS CAN BE FOUND AT:HTTP://WWW.CEDARPARKTEXAS.GOV/INDEX.ASPX?PAGE=793.
5. PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR A SITE DEVELOPMENT PERMIT, THE RIGHT OF WAY BETWEEN THE PROPERTY LINE AND EDGE OF PAVEMENT / BACK OF CURB SHALL BE REVEGETATED ACCORDING TO COA SPECIFICATION 602S AND 606S. PRIOR TO CITY ACCEPTANCE OF SUBDIVISION IMPROVEMENTS ALL GRADED AND DISTURBED AREAS SHALL BE RE-VEGETATED IN ACCORDANCE WITH THE CITY OF AUSTIN SPECIFICATION ITEM #604 NATIVE SEEDING UNLESS NON- NATIVE IS SPECIFICALLY APPROVED.
6. THE CONTRACTOR SHALL PROVIDE THE CITY OF CEDAR PARK COPIES OF ALL TEST RESULTS PRIOR TO ACCEPTANCE OF SUBDIVISION IMPROVEMENTS.
7. CITY, OWNER, ENGINEER, CONTRACTOR, REPRESENTATIVES OF ALL UTILITY COMPANIES, AND A REPRESENTATIVE FROM THE TESTING LAB SHALL ATTEND PRE-CONSTRUCTION CONFERENCE PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL SCHEDULE THE MEETING WITH THE CITY OF CEDAR PARK ENGINEERING DEPARTMENT A MINIMUM OF 48 HOURS PRIOR TO THIS PRE-CONSTRUCTION MEETING (512-401-5000). FINAL CONSTRUCTION PLANS SHALL BE DELIVERED TO ENGINEERING A MINIMUM OF SEVEN BUSINESS DAYS PRIOR TO REQUESTING A PRE-CONSTRUCTION MEETING.
8. EXCESS SOIL SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE. NOTIFY THE CITY OF CEDAR PARK IF THE DISPOSAL SITE IS INSIDE THE CITY'S JURISDICTIONAL BOUNDARIES.
9. BURNING IS PROHIBITED.
10. ANY CHANGES OR REVISIONS TO THESE PLANS MUST FIRST BE SUBMITTED TO THE CITY BY THE DESIGN ENGINEER FOR REVIEW AND WRITTEN APPROVAL PRIOR TO CONSTRUCTION OF THE REVISION. ALL CHANGES AND REVISIONS MADE TO THE DESIGN OF UTILITIES OR IMPACTS UTILITIES SHALL USE REVISION CLOUDS TO HIGHLIGHT ALL REVISIONS OR CHANGES WITH EACH SUBMITTAL. REVISION TRIANGLES SHALL BE USED TO MARK REVISIONS. ALL CLOUDS AND TRIANGLE MARKERS FROM PREVIOUS REVISIONS MAY BE REMOVED. REVISION INFORMATION SHALL BE UPDATED IN THE APPROPRIATE AREAS OF THE TITLE BLOCK.
11. MINIMUM SETBACK REQUIREMENTS FOR EXISTING AND NEWLY PLANTED TREES FROM THE EDGE OF PAVEMENT TO CONFORM TO THE REQUIREMENTS AS SHOWN IN TABLE 6-1 OF THE CITY OF AUSTIN'S TRANSPORTATION CRITERIA MANUAL.
12. THE CONTRACTOR WILL REIMBURSE THE CITY FOR ALL COST INCURRED AS A RESULT OF ANY DAMAGE TO ANY CITY UTILITY OR ANY INFRASTRUCTURE WITHIN THE RIGHT-OF-WAY BY THE CONTRACTOR, REGARDLESS OF THESE PLANS.
13. AN ENGINEER'S CONCURRENCE LETTER AND ELECTRONIC 22"X34" RECORD DRAWINGS SHALL BE SUBMITTED TO THE ENGINEERING DEPARTMENT PRIOR TO THE ISSUANCE OF CERTIFICATE OF OCCUPANCY OR SUBDIVISION ACCEPTANCE. THE ENGINEER AND CONTRACTOR SHALL VERIFY THAT ALL FINAL REVISIONS AND CHANGES HAVE BEEN MADE TO RECORD DRAWINGS PRIOR TO CITY SUBMITTAL. RECORD CONSTRUCTION DRAWINGS, INCLUDING ROADWAY AND ALL UTILITIES, SHALL BE PROVIDED TO THE CITY IN AUTOCAD ". DWG" FILES AND ".PDF" FORMAT ON A CD OR DVD. LINE WEIGHTS, LINE TYPES AND TEXT SIZE SHALL BE SUCH THAT IF HALF-SIZE PRINTS (11"X 17") WERE PRODUCED, THE PLANS WOULD STILL BE LEGIBLE. ALL REQUIRED DIGITAL FILES SHALL CONTAIN A MINIMUM OF TWO (2) CONTROL POINTS REFERENCED TO THE STATE PLANE GRID COORDINATE SYSTEM –TEXAS CENTRAL ZONE (4203), IN US FEET AND SHALL INCLUDE ROTATION INFORMATION AND SCALE FACTOR REQUIRED TO REDUCE SURFACE COORDINATES TO GRID COORDINATES IN US FEET.
14. THE CITY OF CEDAR PARK HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT. IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE COMPLIANCE WITH ALL LEGISLATION RELATED TO ACCESSIBILITY WITHIN THE LIMITS OF CONSTRUCTION SHOWN IN THESE PLANS.
15. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF CEDAR PARK MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
16. NO BLASTING IS ALLOWED ON THIS PROJECT.
17. A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO ANY PARTIAL OR COMPLETE ROADWAY CLOSURES. TRAFFIC CONTROL PLANS SHALL BE SITE SPECIFIC AND SEAL BY A REGISTERED PROFESSIONAL ENGINEER.
18. THE CONTRACTORSHALL KEEP THE SITE CLEAN AND MAINTAINED AT ALL TIMES, TO THE SATISFACTION OF THE CITY. THE SUBDIVISION WILL NOT BE ACCEPTED (OR CERTIFICATE OF OCCUPANCY ISSUED) UNTIL THE SITE HAS BEEN CLEANED TO THE SATISFACTION OF THE CITY.
19. SIGNS ARE NOT PERMITTED IN PUBLIC UTILITY EASEMENTS, SET BACKS OR DRAINAGE EASEMENTS.
20. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSPECT TEMPORARY EROSION CONTROLS ON A DAILY BASIS. ADJUST THE CONTROLS AND/OR REMOVE ANY SEDIMENT BUILDUP AS NECESSARY. A STOP WORK ORDER AND/OR FINE MAY BE IMPOSED IF THE EROSION CONTROLS ARE NOT MAINTAINED.
21. A FINAL CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED ON COMMERCIAL SITES UNTIL ALL DISTURBED AREAS HAVE BEEN RE-VEGETATED. SUBSTANTIAL GRASS COVER, AS DETERMINED BY ENGINEERING DEPARTMENT, MUST BE ACHIEVED PRIOR TO THE ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY. ALL EROSION CONTROLS MUST REMAIN IN PLACE AND MAINTAINED UNTIL ALL DISTURBED AREAS HAVE BEEN RE-VEGETATED TO THE ACCEPTANCE OF THE CITY OF CEDAR PARK ENGINEERING DEPARTMENT. PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR A SITE DEVELOPMENT PERMIT, THE RIGHT OF WAY BETWEEN THE PROPERTY LINE AND EDGE OF PAVEMENT / BACK OF CURB SHALL BE REVEGETATED ACCORDING TO COA SPECIFICATION 602S AND 606S.
22. CONTRACTOR WILL BE RESPONSIBLE FOR KEEPING ROADS AND DRIVES ADJACENT TO AND NEAR THE SITE FREE FROM SOIL, SEDIMENT AND DEBRIS. CONTRACTOR WILL NOT REMOVE SOIL, SEDIMENT OR DEBRIS FROM ANY AREA OR VEHICLE BY MEANS OF WATER, ONLY SHOVELING AND SWEEPING WILL BE ALLOWED. CONTRACTOR WILL BE RESPONSIBLE FOR DUST CONTROL FROM THE SITE. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY RESULT IN A STOP WORK ORDER OR A FINE.
23. ALL WET UTILITIES SHALL BE INSTALLED AND ALL DENSITIES MUST HAVE PASSED INSPECTION(S) PRIOR TO THE INSTALLATION OF DRY UTILITIES.
24. A MINIMUM OFSEVEN DAYS OF CURE TIME IS REQUIRED FOR HMAC PRIOR TO THE INTRODUCTION OF VEHICULAR TRAFFIC TO ANY STREETS.
25. PRIOR TO PLAN APPROVAL, THE ENGINEER SHALL SUBMIT TO THE ENGINEERING DEPARTMENT DOCUMENTATION OF SUBDIVISION/SITE REGISTRATION WITH THE TEXAS DEPARTMENT OF LICENSING AND REGULATIONS (TDLR) AND PROVIDE DOCUMENTATION OF REVIEW AND COMPLIANCE OF THE SUBDIVISION/SITE CONSTRUCTION PLANS WITH TEXAS ARCHITECTURAL BARRIERS ACT (TABA).
26. PRIOR TO SUBDIVISION/SITE ACCEPTANCE, THE ENGINEER/DEVELOPER-OWNERSHALL SUBMIT TO THE ENGINEERING DEPARTMENT DOCUMENTATION THAT THE SUBDIVISION/SITE WAS INSPECTED BY TDLR OR A REGISTERED ACCESSIBILITY SPECIALIST (RAS) AND THE SUBDIVISION/SITE IS IN COMPLIANCE WITH THE REQUIREMENTS OF THE TABA.
27. ALL CONSTRUCTION AND CONSTRUCTION RELATED ACTIVITIES SHALL BE PERFORMED MONDAY THRU FRIDAY FROM 7:00 A.M. TO 6:00 P.M. HOWEVER, CONSTRUCTION ACTIVITIES WITHIN ONE HUNDRED FEET (100') OF A DWELLING OR DWELLING UNIT SHALL BE PERFORMED BETWEEN THE HOURS OF 8:00 A.M. AND 6:00 P.M. OTHERWISE ALL CONSTRUCTION AND CONSTRUCTION RELATED ACTIVITIES SHALL CONFORM TO CITY OF CEDAR PARK CODE OF ORDINANCES, SPECIFICALLY ARTICLE 8.08.
28. APPROVAL FOR CONSTRUCTION ACTIVITIES PERFORMED ON OWNER'S HOLIDAYS, AND/OR SATURDAYS, OUTSIDE OF MONDAY THROUGH FRIDAY 8 AM TO 5 PM, OR IN EXCESS OF 8 HOURS PER DAY SHALL BE OBTAINED IN WRITING 48 HOURS IN ADVANCE, AND INSPECTION FEES AT 1.5 TIMES THE HOURLY INSPECTION RATE SHALL BE BILLED DIRECTLY TO THE CONTRACTOR. THERE SHALL BE NO CONSTRUCTION OR CONSTRUCTION RELATED ACTIVITIES PERFORMED ON SUNDAY. THE CITY RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO UNCOVER ALL WORK PERFORMED WITHOUT CITY INSPECTION.
29. ALL POLES TO BE APPROVED BY CITY AND PEC, NO CONDUIT SHALL BE INSTALLED DOWN LOT LINES / BETWEEN HOMES. ALL CONDUIT SHALL BE LOCATED IN THE PUBLIC ROW OR IN AN EASEMENT ADJACENT TO AND PARALLEL TO THE PUBLIC ROW.
30. DRY UTILITIES SHALL BE INSTALLED AFTER SUBGRADE IS CUT AND BEFORE FIRST COURSE BASE. NO TRENCHING OF COMPACTED BASE. IF NECESSARY DRY UTILITIES INSTALLED AFTER FIRST COURSE BASE SHALL BE BORED ACROSS THE FULL WIDTH OF THE ROW.
31. NO PONDING OF WATER SHALL BE ALLOWED TO COLLECT ON OR NEAR THE INTERSECTION OF PRIVATE DRIVEWAY(S) AND A PUBLIC STREET. RECONSTRUCTION OF THE DRIVEWAY APPROACH SHALL BE AT THE CONTRACTOR'S EXPENSE.
32. ALL DRIVEWAY APPROACHES SHALL HAVE A UNIFORM TWO PERCENT SLOPE WITHIN THE ROW UNLESS APPROVED IN WRITING BY THE ENGINEERING DEPARTMENT.
33. CONTRACTORS ON SITE SHALL HAVE AN APPROVED SET OF PLANS AT ALL TIMES. FAILURE TO HAVE AN APPROVED SET MAY RESULT IN A STOP WORK ORDER.
34. CONTRACTOR TO CLEAR FIVE FEET BEYOND ALL RIGHT OF WAY TO PREVENT FUTURE VEGETATIVE GROWTH INTO THE SIDEWALK AREAS.
35. THERE SHALL BE NO WATER OR WASTEWATER APPURTENANCES, INCLUDING BUT NOT LIMITED TO, VALVES, FITTINGS, METERS, CLEAN-OUTS, MANHOLES, OR VAULTS IN ANY DRIVEWAY, SIDEWALK, TRAFFIC OR PEDESTRIAN AREA.
36. SIDEWALKS SHALL NOT USE CURB INLETS AS A PARTIAL WALKING SURFACE. SIDEWALKS SHALL NOT USE TRAFFIC CONTROL BOXES, METER OR CHECK VALVE VAULTS, COMMUNICATION VAULTS, OR OTHER BURIED OR PARTIALLY BURIED INFRASTRUCTURE AS A VEHICULAR OR PEDESTRIAN SURFACE.

STREET NOTES:

1. NO TRENCHING OF COMPACTED BASE WILL BE ALLOWED. A PENALTY AND/OR FINE MAY BE IMPOSED TO THE GENERAL CONTRACTOR IF TRENCHING OF COMPACTED BASE OCCURS WITHOUT CITY APPROVAL, REGARDLESS OF WHO PERFORMED THE TRENCHING.
2. ALL SIDEWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT. THE CITY OF CEDAR PARK HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, OR ANY OTHER ACCESSIBILITY LEGISLATION, AND DOES NOT WARRANTY OR APPROVE THESE PLANS FOR ANY ACCESSIBILITY STANDARDS.
3. STREET BARRICADES SHALL BE INSTALLED ON ALL DEAD END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB SAFETY.
4. ANY DAMAGE CAUSED TO EXISTING PAVEMENT, CURBS, SIDEWALKS, RAMPS, ETC., SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE SUBDIVISION.
5. AT INTERSECTIONS, WHICH HAVE VALLEY DRAINAGE, THE CROWN TO THE INTERSECTING STREET WILL BE CULMINATED AT A DISTANCE OF 40 FT. FROM THE INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
6. THE SUBGRADE MATERIAL WAS TESTED BY GEOTEX, 14805 TRINITY BOULEVARD, FORT WORTH, TX 76155, 817.952.3598, REPORT #G23-2405, ON JANUARY 25, 2024. THE PAVEMENT SECTIONS WERE DESIGNED ACCORDINGLY. THE PAVEMENT SECTIONS ARE TO BE CONSTRUCTED AS FOLLOWS: CP-104-105
7. DENSITY TESTING OF COMPACTED SUBGRADE MATERIAL, FIRST COURSE AND SECOND COURSE COMPACTED BASE, SHALL BE MADE AT 500 FOOT INTERVALS.
8. ALL DENSITY TESTING IS THE RESPONSIBILITY OF THE OWNER OR CONTRACTOR AND SHALL BE WITNESSED BY THE CITY OF CEDAR PARK'S PROJECT REPRESENTATIVE. THE CONTRACTOR IS TO NOTIFY THE CITY 48 HOURS PRIOR TO SCHEDULED DENSITY TESTING.
9. TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND INSTALLED AS DIRECTED BY THE CITY OF CEDAR PARK PRIOR TO CITY ACCEPTANCE OF THE SUBDIVISION.
10. SLOPE OF NATURAL GROUND ADJACENT TO THE RIGHT-OF-WAY SHALL NOT EXCEED 3:1. IF A 3:1 SLOPE IS NOT POSSIBLE, A RETAINING WALL OR SOME OTHER FORM OF SLOPE PROTECTION APPROVED BY THE CITY SHALL BE PLACED IN A LOCATION ACCEPTABLE TO THE CITY.
11. THE CITY, ENGINEER, CONTRACTOR, AND A REPRESENTATIVE FROM THE ASPHALT TESTING LAB SHALL ATTEND A PRE-PAVING CONFERENCE PRIOR TO THE START OF HMAC PAVING. THE CONTRACTOR SHALL GIVE THE CITY A MINIMUM OF 48 HOURS NOTICE PRIOR TO THIS MEETING (512-401-5000).
12. THE CONTRACTOR OR OWNER IS RESPONSIBLE FOR CONDUCTING TESTS ON ASPHALT PAVEMENT IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE CITY OF AUSTIN STANDARD SPECIFICATION NO. 340. ANY RE-TESTING OF THE ASPHALT PAVEMENT SHALL BE CONDUCTED UNDER THE SUPERVISION OF THE ENGINEER AND THE CITY OF CEDAR PARK. RE-TESTING OF THE ASPHALT PAVEMENT SHALL BE LIMITED TO ONE RETEST PER PROJECT.
13. ALL PAVEMENT MARKINGS AND SIGNAGE SHALL COMPLY WITH MUTCD STANDARDS. STREET NAME LETTER SIZING SHALL BE IN ACCORDANCE WITH MUTCDTABLE2D-2.PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
14. ALL STREET NAME SIGNS SHALL BE HIGH INTENSITY RETRO GRADE.
15. NO FENCING OR WALL IS ALLOWED TO BE CONSTRUCTED SO THAT IT OBSTRUCTS THE SIGHT LINES OF DRIVERS FROM AN INTERSECTING PUBLIC ROADWAY OR FROM AN INTERSECTING PRIVATE DRIVEWAY. SIGHT LINES ARE TO BE MAINTAINED AS DESCRIBED IN CITY CODE SECTION 14.05.007. INSTALLING A FENCE OR WALL WHICH DOES NOT COMPLY WITH THE CITY'S SIGHT DISTANCE REQUIREMENTS OR FENCING REGULATIONS IS A VIOLATION OF THE CITY'S ORDINANCE AND MAY BE PUNISHABLE PURSUANT TO SECTION 1.01.009 OF CITY CODE.
16. TEMPORARY ROCK CRUSHING OPERATIONS ARE NOT ALLOWED. ALL SOURCES FOR FLEXIBLE BASE MATERIAL ARE REQUIRED TO BE APPROVED BY THE CITY. PRIOR TO BASE PLACEMENT ALL CURRENT TRIAXIAL TEST REPORTS FOR THE PROPOSED STOCKPILES ARE TO BE SUBMITTED TO THE CITY'S PROJECT REPRESENTATIVE FOR REVIEW AND APPROVAL.
17. UTILITY SERVICE BOXES OR OTHER UTILITY FACILITIES SHALL NOT BE INSTALLED WITHIN AREAS DETERMINED TO BE REQUIRED SIGHT LINES OF TWO INTERSECTING PUBLIC STREETS OR WITHIN SIGHT LINES OF A PRIVATE DRIVEWAY. SIGHT LINES ARE TO BE MAINTAINED COMPLIANT WITH TABLE 1-1 OF THE AUSTIN TRANSPORTATION CRITERIA MANUAL. UTILITIES DETERMINED BY THE DIRECTOR OF ENGINEERING TO BE PLACED WITHIN REQUIRED SIGHT LINES MAY BE REQUIRED TO BE RELOCATED AT THE EXPENSE OF THE CONTRACTOR PRIOR TO THE CITY ISSUING A CERTIFICATE OF OCCUPANCY OR PRIOR TO THE CITY'S ACCEPTANCE OF THE PROJECT IMPROVEMENTS.
18. ALL LANE CLOSURES SHALL OCCUR ONLY BETWEEN THE HOURS OF 9 AM AND 4 PM. ANY NIGHT TIME LANE CLOSURES REQUIRE APPROVAL BY THE DIRECTOR OF ENGINEERING AND SHALL OCCUR BETWEEN THE HOURS OF 8 PM AND 6 AM. LANE CLOSURES OBSERVED BY CITY DURING THE PEAK HOURS OF 6 AM TO 9 AM, OR 4 PM TO 8 PM WILL BE SUBJECT TO FINE PER CHAPTER 1 OF CITY ORDINANCE, AND/OR SUBSEQUENT ISSUANCE OF WORK STOPPAGE.
19. IMPROVEMENTS THAT INCLUDE RECONSTRUCTION OF AN EXISTING TYPE II DRIVEWAY SHALL BE DONE IN A MANNER WHICH RETAINS OPERATIONS OF NOT LESS THAN HALF OF THE DRIVEWAY AT ALL TIMES. FULL CLOSURE OF SUCH DRIVEWAY CAN BE CONSIDERED WITH WRITTEN AUTHORIZATION RETAINED BY THE CONTRACTOR FROM THE PROPERTY OWNER(S) OR ACCESS EASEMENT RIGHT HOLDER(S) OF THE DRIVEWAY ALLOWING FULL CLOSURE OF THE DRIVEWAY.
20. TREES MUST NOT OVERHANG WITHIN 10' VERTICALLY OF A SIDEWALK, OR 18' VERTICALLY OF A ROADWAY OR DRIVEWAY.

STORM SEWER NOTES:

1. MANHOLE FRAMES AND COVERS AND WATER VALVE BOXES SHALL BE RAISED TO FINISHED PAVEMENT GRADE AT THE OWNER'S EXPENSE BY THE CONTRACTOR WITH CITY INSPECTION. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING CONSTRUCTION. CONTRACTOR SHALL BACKFILL AROUND MANHOLES AND JUNCTION BOXES WITH CLASS A CONCRETE.
2. ALL MANHOLE LIDS SHALL BE 32" OR LARGER, UNLESS EXPRESSLY APPROVED IN WRITING BY THE ENGINEERING DEPARTMENT.
3. THE LOCATION OF ANY EXISTING UTILITY LINES SHOWN ON THESE PLANS IS THE BEST AVAILABLE AND MAY NOT BE ACCURATE. ANY DAMAGE TO EXISTING UTILITY LINES, BOTH KNOWN AND UNKNOWN, SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
4. PIPE MATERIALS TO BE USED FOR CONSTRUCTION OF UTILITY LINES: UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, ALL STORM SEWER RCP SHALL BE CLASS III. CORRUGATED METAL PIPE IS NOT PERMITTED.
5. ALL MANHOLE AND INLET COVERS SHALL READ "CITY OF CEDAR PARK".
6. CONTRACTOR TO NOTIFY THE CITY OF CEDAR PARK 48 HOURS PRIOR TO CONNECTING TO EXISTING UTILITIES.
7. ALL PIPE BEDDING MATERIAL SHALL CONFORM TO CITY OF AUSTIN STANDARD SPECIFICATIONS.
8. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER ALL CONCRETE IS TO BE CLASS "A" (5 SACK, 3000 PSI ~ 28-DAYS), AND ALL REINFORCING STEEL TO BE ASTM A615 60.
9. CONTRACTOR TO INSTALL AND MAINTAIN GEO-TEXTILE FABRIC BARRIER (INLET PROTECTION) AROUND STORM SEWER LEADS AND INLETS TO PREVENT SILT AND OTHER MATERIAL FROM ENTERING THE STORM SEWER COLLECTION SYSTEM.
10. INSTALL CONCRETE SAFETY END TREATMENTS TO ALL CULVERTS AND ENDS OF DRAINAGE PIPE.
11. ALL CURB INLETS SHALL HAVE AN ALMETEK 4" DISC "NO DUMPING DRAINS TO WATERWAY" MARKER.

WASTEWATER NOTES:

1. REFER TO THE CITY OF CEDAR PARK PUBLIC WORKS UTILITY POLICY AND SPECIFICATIONS MANUAL.
2. MANHOLE FRAMES AND COVERS AND WATER VALVE BOXES SHALL BE RAISED TO FINISHED PAVEMENT GRADE AT THE OWNER'S EXPENSE BY THE CONTRACTOR WITH THE CITY APPROVAL. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING CONSTRUCTION.
3. THE LOCATION OF ANY EXISTING UTILITY LINES SHOWN ON THESE PLANS MAY NOT BE ACCURATE. ANY DAMAGE TO EXISTING UTILITY LINES, BOTH KNOWN AND UNKNOWN, SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR. THE CONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO BIDDING THE PROJECT.
4. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH AT LEAST 8 MIL. POLYETHYLENE WRAP.
5. ALL WATER MAINS, WASTEWATER MAINS AND SERVICE LINES SHALL MEET CITY OF AUSTIN MINIMUM COVER SPECIFICATIONS. ALL STREETS ARE TO BE CUT TO SUBGRADE PRIOR TO INSTALLATION OF WATER MAINS OR CUTS WILL BE ISSUED BY THE ENGINEER.
6. WHERE 48-INCHES OF COVER BELOW SUBGRADE CANNOT BE ACHIEVED FOR WASTEWATER SERVICE LINES ALTERNATE MATERIALS MAY BE USED. A MINIMUM OF 36-INCHES OF COVER BELOW SUBGRADE SHALL BE ACHIEVED. ANY WASTEWATER SERVICE LINE WITH COVER BETWEEN 36-INCH AND 48- INCHES SHALL BE SDR-26 PVC PRESSURE PIPE.
7. GASKETED PVC SEWER MAIN FITTINGS SHALL BE USED TO CONNECT SDR-35 PVC TO SDR-26 PVC PRESSURE PIPE OR C-900.
8. PIPE MATERIALS TO BE USED FOR CONSTRUCTION OF UTILITY LINES:
   WASTEWATER- PVC FORCE MAIN- PVC (NOTE: IF USING PVC, SDR-26 IS REQUIRED, SDR-35 WW IS NOT ALLOWED. FORCEMAINS SHALL BE EPOXY LINED DUCTILE IRON)
9. ALL SANITARY SEWERS, EXCLUDING SERVICE LINES, SHALL BE MANDREL TESTED PER TCEQ (TEXAS COMMISSION ON ENVIRONMENTAL QUALITY) CRITERIA. A MANDREL TEST WILL NOT BE PERFORMED UNTIL BACKFILL HAS BEEN IN PLACE FOR A MINIMUM OF 30 DAYS.
10. ALL WASTEWATER LINES 10" AND LARGER SHALL BE VIDEO INSPECTED IN ACCORDANCE WITH CITY OF CEDAR PARK PUBLIC WORKS DEPARTMENT UTILITY POLICY AND STANDARD SPECIFICATIONS MANUAL APPENDIX E: REQUIREMENTS FOR VIDEO INSPECTION OF WASTEWATER LINES AT THE CONTRACTOR'S EXPENSE. NO SEPARATE PAY UNLESS NOTED ON THE BID FORM.
11. ALL SANITARY SEWERS, INCLUDING SERVICE LINES, SHALL BE AIR TESTED PER CITY OF AUSTIN STANDARD SPECIFICATIONS.
12. DENSITY TESTING OF COMPACTED BACKFILL SHALL BE MADE AT A RATE OF ONE TEST PER TWO FOOT LIFTS PER 500 FEET OF INSTALLED PIPE.
13. CITY SHALL BE GIVEN 48 HOURS NOTICE PRIOR TO ALL TESTING OF WATER AND WASTEWATER LINES. CITY INSPECTION IS REQUIRED FOR ALL TESTING OF WATER AND WASTEWATER LINES.
14. WHERE A WATER OR WASTEWATER LINE CROSSES ABOVE (OR BELOW) A STORM SEWER STRUCTURE AND THE BOTTOM (OR TOP) OF THE PIPE IS WITHIN 18 INCHES OF THE TOP (OR BOTTOM) OF THE UTILITY STRUCTURE, THE PIPE SHALL BE ENCASED WITH CONCRETE FOR A DISTANCE OF AT LEAST 1 FT. ON EITHER SIDE OF THE DITCH LINE OF THE UTILITY STRUCTURE OR THE STORM SEWER. CONCRETE ENCASEMENT WILL NOT BE REQUIRED FOR DUCTILE IRON (THICKNESS CLASS 50), AWWA C-900 (SDR- 18) 150 PSI RATED PVC IN SIZES TO 12 INCHES OR AWWA C-905 (SDR-25) 165 PSI RATED PVC IN SIZES LARGER THAN 12 INCHES. CONCRETE ENCASEMENT SHALL CONFORM TO C.O.A. STANDARD DETAIL 505-1.
15. THE ALLOWABLE (MAXIMUM) ADJUSTMENT FOR A MANHOLE SHALL BE 12" (INCHES) OR LESS.
16. WHERE A SEWER LINE CROSSES A WATER LINE, THE SEWER LINE SHALL BE ONE 20 FT. JOINT OF 150 PSI RATED PVC CENTERED ON CROSSING.
17. ALL MANHOLE AND INLET COVERS SHALL READ "CITY OF CEDAR PARK".
18. CONTRACTOR TO NOTIFY, AND OBTAIN APPROVAL FROM, THE CITY OF CEDAR PARK 48 HOURS PRIOR TO CONNECTING TO EXISTING CITY UTILITIES.
19. ALL PIPE BEDDING MATERIAL SHALL CONFORM TO CITY OF AUSTIN STANDARD SPECIFICATIONS.
20. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER ALL CONCRETE IS TO BE CLASS "A" (5 SACK, 3000 PSI ~ 28-DAYS), AND ALL REINFORCING STEEL TO BE ASTM A615 60.
21. ALL WASTEWATER MANHOLES TO BE COATED WITH ORGANIC MATERIALS AND PROCEDURES LISTED IN CITY OF AUSTIN QUALIFIED PRODUCTS LIST NO. WW-511 (WW-511A AND WW-511B ARE NOT ALLOWED UNLESS MANHOLE IS BEING STRUCTURALLY REHABILITATED WITH APPROVAL BY PUBLIC WORKS). ALL MANHOLES WILL BE PRE-COATED OR COATED AFTER TESTING.
22. POLYBRID COATINGS ON WASTEWATER MANHOLES WILL NOT BE ALLOWED. ANY OTHER PRODUCT APPEARING ON THE COA SPL WW-511 IS ACCEPTABLE.
23. ALL PENETRATIONS OF EXISTING WASTEWATER MANHOLES ARE REQUIRED TO BE RE-COATED IN ACCORDANCE WITH THE SPECIFICATIONS LISTED IN NOTE 20.
24. ALL MANHOLES WILL BE VACUUM TESTED ONLY.
25. TRACER TAPE AND MARKING TAPE SHALL BE INSTALLED ON ALL WATER AND WASTEWATER MAINS IN ACCORDANCE WITH CITY OF AUSTIN STANDARDS, REGARDLESS OF THE TYPE OF PIPE.
26. ALL PRESSURE PIPE SHALL HAVE MECHANICAL RESTRAINT AND CONCRETE THRUST BLOCKING AT ALL VALVES, BENDS, TEES, PLUGS, AND OTHER FITTINGS.

WATER NOTES:

1. REFER TO THE CITY OF CEDAR PARK PUBLIC WORKS UTILITY POLICY AND SPECIFICATIONS MANUAL.
2. THE TOP OF VALVE STEMS SHALL BE AT LEAST 18", AND NO MORE THAN 36", BELOW FINISHED GRADE. VALVE STEM RISERS SHALL BE WELDED ON EACH END TO THE CITY'S SATISFACTION.
3. FIRE HYDRANT LEADS TO BE DUCTILE IRON, CLASS 350, AND INSTALLED PER CITY OF AUSTIN STANDARD SPECIFICATIONS AND DETAIL.
4. PRIOR TO INSTALLATION OF FIRE HYDRANTS, THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) CUT FROM A HUB PIN, ESTABLISHING THE ELEVATION OF THE BURY LINE.
5. THE ENGINEER SHALL PROVIDE CUTS FOR ALL WATER LINES AT ALL STORM SEWER CROSSINGS TO THE CITY OF CEDAR PARK.
6. PIPE MATERIALS TO BE USED FOR CONSTRUCTION OF UTILITY LINES:
   -WATER - PVC
   COPPER PIPE AND FITTINGS ARE NOT PERMITTED WITHIN THE RIGHT-OF-WAY.
   MINIMUM DR-14 12" DIA AND SMALLER. MINIMUM CLASS 250 DI LARGER THAN 12" DIA.
7. APPROVED 5 ¼" FIRE HYDRANTS:
   -AMERICAN FLOW CONTROL, B84B
   -MUELLER COMPANY, SUPER CENTURION 250
   -CLOW MEDALLION HYDRANT
   -REQUIREMENTS FOR PRIVATE FIRE HYDRANTS (BEHIND DOUBLE CHECK BACKFLOW PREVENTION ASSEMBLY): MUST BE IN ACCORDANCE WITH CITY OF AUSTIN SPECIFICATIONS.
   -ALL FIRE HYDRANTS MUST MEET CITY OF CEDAR PARK THREAD SPECIFICATIONS (NATIONAL THREAD)
   -BLUE REFLECTOR MARKERS SHALL BE LOCATED ON THE CENTERLINE OF THE PAVEMENT ACROSS FROM ALL FIRE HYDRANTS. PAVEMENT MARKERS AT INTERSECTIONS SHALL BE FOUR-SIDED.
8. SHOULD A TAPPING SADDLE BE APPROVED BY PUBLIC WORKS, THE SADDLE SHALL BE SMITH-BLAIR 662 STAINLESS STEEL TAPPING SLEEVES WITH ALL STAINLESS HARDWARE, OR APPROVED EQUAL. REQUESTS FOR ALTERNATE PROVIDERS SHALL BE MADE TO THE CITY OF CEDAR PARK PUBLIC WORKS. NO TAP EXCEEDING 2" IN DIAMETER WILL BE APPROVED.
9. ALL WATER LINES, INCLUDING SERVICE LINES, SHALL BE PRESSURE AND LEAK TESTED PER CITY OF AUSTIN STANDARD SPECIFICATIONS AND WITNESSED BY THE CITY OF CEDAR PARK REPRESENTATIVE. ALL TESTING IS TO BE THE RESPONSIBILITY OF THE CONTRACTOR, AND THE CONTRACTOR MAY BE REQUIRED TO RE-TEST LINES IF THE TESTING IS NOT WITNESSED BY THE CITY. CONTRACTOR MUST NOTIFY THE CITY OF CEDAR PARK 48 HOURS PRIOR TO ANY TESTING. INITIAL WATER LINE DISINFECTION MUST MEET A CHLORINE RESIDUAL OF 50PPM, AND A CHLORINE RESIDUAL OF 25 PPM AFTER A 24 HOUR DETENTION PERIOD. SECTIONS THAT ARE 20 – 30 FEET CAN USE GRANULAR OR TABLET DISINFECTION, BUT ANYTHING BEYOND THAT MUST BE LIQUID DISINFECTION TO EVENLY CLEAN THE PIPE.
10. ALL WATER LINES SHALL BE STERILIZED AND BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH CITY OF AUSTIN STANDARDS. THE CONTRACTOR IS RESPONSIBLE FOR STERILIZATION AND THE CITY OF CEDAR PARK IS RESPONSIBLE FOR SUBMITTING BACTERIOLOGICAL SAMPLES TO THE STATE. PUBLIC WORKS WILL REQUIRE A CONTRACTOR SPECIALIZED IN DISINFECTION FOR LARGE DIAMETER LINES OR CRITICAL INFRASTRUCTURE, SUBSIDIARY TO PIPE INSTALLATION.
11. DENSITY TESTING OF COMPACTED BACKFILL SHALL BE MADE AT A RATE OF ONE TEST PER TWO FOOT LIFTS PER 500 FEET OF INSTALLED PIPE.
12. CONTRACTOR TO OBTAIN A WATER METER FROM THE CITY OF CEDAR PARK FOR ANY WATER THAT MAY BE REQUIRED DURING CONSTRUCTION. (512-401-5000)
13. ALL WATER METER BOXES SHALL BE FORD GULF METER BOX WITH LOCKING LID.
   -SINGLE G-148-233
   -DUAL DG-148-243
   -1" METER YL111 - 444
   -1 ½" – 2" METER 1730-R (LID) & 1730-12 (BOX)/ACCEPTABLE BOXES FOR THIS SIZE OF METER
14. MANHOLE FRAMES AND COVERS AND WATER VALVE BOXES SHALL BE RAISED TO FINISHED PAVEMENT GRADE, WHEN IN PUBLIC STREETS, AT THE OWNER'S EXPENSE BY THE CONTRACTOR WITH CITY INSPECTION. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING CONSTRUCTION.
15. THE LOCATION OF ANY EXISTING UTILITY LINES SHOWN ON THESE PLANS IS THE BEST AVAILABLE AND MAY NOT BE ACCURATE. ANY DAMAGE TO EXISTING UTILITY LINES, BOTH KNOWN AND UNKNOWN, SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
16. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH AT LEAST 8 MIL. POLYETHYLENE WRAP.
17. ALL WATER MAINS, WASTEWATER MAINS AND SERVICE LINES SHALL MEET CITY OF AUSTIN SPECIFICATIONS FOR MINIMUM COVER REQUIREMENTS. ALL STREETS ARE TO BE CUT TO SUBGRADE PRIOR TO INSTALLATION OF WATER MAINS OR CUTS WILL BE ISSUED BY THE ENGINEER.
18. CITY TO BE GIVEN 48 HOURS NOTICE PRIOR TO ALL TESTING OF WATER AND WASTEWATER LINES. CITY INSPECTION IS REQUIRED FOR ALL TESTING OF WATER AND WASTEWATER LINES.
19. WHERE A WATER OR WASTEWATER LINE CROSSES ABOVE (OR BELOW) A STORM SEWER STRUCTURE AND THE BOTTOM (OR TOP) OF THE PIPE IS WITHIN 18 INCHES OF THE TOP (OR BOTTOM) OF THE UTILITY STRUCTURE, THE PIPE SHALL BE ENCASED WITH CONCRETE FOR A DISTANCE OF AT LEAST 1 FT. ON EITHER SIDE OF THE DITCH LINE OF THE UTILITY STRUCTURE OR THE STORM SEWER. CONCRETE ENCASEMENT WILL NOT BE REQUIRED FOR DUCTILE IRON (THICKNESS CLASS 50), AWWA C-900 (SDR- 18) 150 PSIRATED PVC IN SIZESTO 12 INCHES OR AWWA C-905 (SDR-25) 165 PSI RATED PVC IN SIZESLARGER THAN 12 INCHES. CONCRETE ENCASEMENT SHALL CONFORM TO C.O.A. STANDARD DETAIL 505-1.
20. CONTRACTOR TO NOTIFY THE CITY OF CEDAR PARK 48 HOURS PRIOR TO CONNECTING TO EXISTING UTILITIES.
21. ALL PIPE BEDDING MATERIAL SHALL CONFORM TO CITY OF AUSTIN STANDARD SPECIFICATIONS.
22. TRACER TAPE SHALL BE INSTALLED ON ALL WATER AND WASTEWATER MAINS REGARDLESS OF THE TYPE OF PIPE OR DEPTH OF PIPE INSTALLED.
23. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER ALL CONCRETE IS TO BE CLASS "A" (5 SACK, 3000 PSI ~28-DAYS), AND ALL REINFORCING STEEL TO BE ASTM A615 60.
24. THE CITY CONSIDERS PROTECTION OF ITS WATER SYSTEM PARAMOUNT TO CONSTRUCTION ACTIVITIES. CITY PERSONNEL WILL OPERATE, OR AUTHORIZE THE CONTRACTOR TO OPERATE, ALL WATER VALVES THAT WILL PASS THROUGH THE CITY'S POTABLE WATER. THE CONTRACTOR MAY NOT OPERATE ANY WATER VALVE, EXISTING OR PROPOSED, THAT WILL ALLOW WATER FROM THE CITY'S WATER SYSTEM TO FLOW TO A PROPOSED OR EXISTING WATER SYSTEM WITHOUT THE EXPRESS CONSENT OF THE CITY. NOTIFY THE CITY TWO BUSINESS DAYS IN ADVANCE OF ANY REQUEST TO OPERATE A WATER VALVE. THE GENERAL CONTRACTOR MAY BE FINED $500 OR MORE, INCLUDING ADDITIONAL THEFT OF WATER FINES, IF A WATER VALVE IS OPERATED IN AN UNAUTHORIZED MANNER, REGARDLESS OF WHO OPERATED THE VALVE.
25. ALL WATER VALVES OVER 24" IN SIZE SHALL HAVE A BY-PASS LINE AND VALVE INSTALLED. BY-PASS VALVES AND LINES ARE SUBSIDIARY TO THE COST OF THE VALVE UNLESS SPECIFICALLY IDENTIFIED ON THE BID FORM.
26. ALL WATER VALVES, INCLUDING THOSE OVER 12" IN SIZE, SHALL BE GATE VALVES.
27. A DOUBLE CHECK BACKFLOW DEVICE IN A VAULT SHALL BE INSTALLED AT THE PROPERTY LINE ON ALL PRIVATE FIRE LINES. A DETECTOR WATER METER WILL BE INSTALLED ON THIS BACKFLOW DEVICE, AND IT MUST BE A SENSUS SRII 3/4" METER WITH AMI RADIO READ CAPABILITY. THE CITY WILL PROVIDE THIS METER. PLEASE REFERENCE THE CITY OF CEDAR PARK DOUBLE CHECK BACKFLOW PREVENTION ASSEMBLY DETAIL.
28. ALL POTABLE WATER SYSTEM COMPONENTS INSTALLED AFTER JANUARY 4, 2014, SHALL BE "LEAD FREE" ACCORDING TO THE UNITED STATES SAFE DRINKING WATER ACT. THE ONLY COMPONENTS EXEMPT FROM THIS REQUIREMENT ARE FIRE HYDRANTS. COMPONENTS THAT ARE NOT CLEARLY IDENTIFIED BY THE MANUFACTURER AS MEETING THIS REQUIREMENT BY MARKING, OR ON THE PRODUCT PACKAGING, OR BY PRE-APPROVED SUBMITTAL, WILL BE REJECTED FOR USE. A NSF CERTIFICATION WILL BE ADEQUATE IF THE CERTIFICATION HAS NOT EXPIRED AS OF JANUARY 4, 2014 AND REMAINS UNEXPIRED AT THE TIME OF CONSTRUCTION.
29. ALL PRESSURE PIPE SHALL HAVE MECHANICAL RESTRAINT AND CONCRETE THRUST BLOCKING AT ALL VALVES, BENDS, TEES, PLUGS, AND OTHER FITTINGS.

SEQUENCE OF CONSTRUCTION NOTES:

THE FOLLOWING SEQUENCE OF CONSTRUCTION SHALL BE USED FOR ALL DEVELOPMENT. THE APPLICANT IS ENCOURAGED TO PROVIDE ANY ADDITIONAL DETAILS APPROPRIATE FOR THE PARTICULAR DEVELOPMENT.

1. TEMPORARY EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSTALLED AS INDICATED ON THE APPROVED SITE PLAN OR SUBDIVISION CONSTRUCTION PLAN AND IN ACCORDANCE WITH THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) THAT IS REQUIRED TO BE POSTED ON THE SITE. INSTALL TREE PROTECTION AND INITIATE TREE MITIGATION MEASURES.
2. THE GENERAL CONTRACTOR MUST CONTACT THE CITY INSPECTOR AT 512-401-5000, 72 HOURS PRIOR TO THE SCHEDULED DATE OF THE REQUIRED ON-SITE PRECONSTRUCTION MEETING.
3. THE GENERAL CONTRACTOR WILL FOLLOW THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE REVISED, IF NEEDED, TO COMPLY WITH CITY INSPECTORS' DIRECTIVES, AND REVISED CONSTRUCTION SCHEDULE RELATIVE TO THE WATER QUALITY PLAN REQUIREMENTS AND THE EROSION PLAN.
4. ROUGH GRADE THE POND(S) AT 100% PROPOSED CAPACITY. EITHER THE PERMANENT OUTLET STRUCTURE OR A TEMPORARY OUTLET MUST BE CONSTRUCTED PRIOR TO DEVELOPMENT OF EMBANKMENT OR EXCAVATION THAT LEADS TO PONDING CONDITIONS. THE OUTLET SYSTEM MUST CONSIST OF A SUMP PIT OUTLET AND AN EMERGENCY SPILLWAY MEETING THE REQUIREMENTS OF THE CITY OF AUSTIN DRAINAGE CRITERIA MANUAL, AS REQUIRED. THE OUTLET SYSTEM SHALL BE PROTECTED FROM EROSION AND SHALL BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION UNTIL INSTALLATION OF THE PERMANENT WATER QUALITY POND(S).
5. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE.
6. BEGIN SITE CLEARING/CONSTRUCTION (OR DEMOLITION) ACTIVITIES.
7. UNDERGROUND UTILITIES WILL BE INSTALLED, INCLUDING FIRE HYDRANTS.
8. 8FIRE DEPARTMENT ACCESS WILL BE INSTALLED WHERE REQUIRED BY APPROVED SITE PLAN.
9. VERTICAL CONSTRUCTION MAY OCCUR AFTER THE PRE-VERTICAL INSPECTION HAS BEEN CLEARED BY THE FIRE MARSHAL.
10. PERMANENT WATER QUALITY PONDS OR CONTROLS WILL BE CLEANED OUT AND FILTER MEDIA WILL BE INSTALLED PRIOR TO/CONCURRENTLY WITH REVEGETATION OF SITE.
11. COMPLETE CONSTRUCTION AND START REVEGETATION OF THE SITE AND INSTALLATION OF LANDSCAPING.
12. UPON COMPLETION OF THE SITE CONSTRUCTION AND REVEGETATION OF A PROJECT SITE, THE DESIGN ENGINEER SHALL SUBMIT AN ENGINEER'S LETTER OF CONCURRENCE BEARING THE ENGINEER'S SEAL, SIGNATURE, AND DATE TO THE CITY INDICATING THAT CONSTRUCTION, INCLUDING REVEGETATION, IS COMPLETE AND IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE CITY INSPECTOR.
13. UPON COMPLETION OF LANDSCAPE INSTALLATION OF A PROJECT SITE, THE LANDSCAPE ARCHITECT SHALL SUBMIT A LETTER OF CONCURRENCE TO THE CITY INDICATING THAT THE REQUIRED LANDSCAPING IS COMPLETE AND IN SUBSTANTIAL CONFORMITY WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE CITY INSPECTOR.
14. AFTER A FINAL INSPECTION HAS BEEN CONDUCTED BY THE CITY INSPECTOR AND WITH APPROVAL FROM THE CITY INSPECTOR, REMOVE THE TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND COMPLETE ANY NECESSARY FINAL REVEGETATION RESULTING FROM REMOVAL OF THE CONTROLS. CONDUCT ANY MAINTENANCE AND REHABILITATION OF THE WATER QUALITY PONDS OR CONTROLS.

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CONSTRUCTION DOCUMENTS

REVISION DATES:
1 ADDENDUM 01 08/23/2024

ISAAC D. WOOD
142408
8/23/2024
PROFESSIONAL SEAL

1

ISSUE DATE: AUGUST 23, 2024
HOEFER WELKER #: 138091

GENERAL NOTES

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CONTRIBUTING ZONE PLAN
GENERAL CONSTRUCTION NOTES

EDWARDS AQUIFER PROTECTION PROGRAM CONSTRUCTION NOTES – LEGAL DISCLAIMER

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

1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY GROUND DISTURBANCE OR CONSTRUCTION ACTIVITIES NOTICE MUST INCLUDE:
   - THE NAME OF THE APPROVED PROJECT;
   - THE ACTIVITY START DATE; AND
   - THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.

2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT SHOULD BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED CONTRIBUTING ZONE PLAN (CZP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTOR(S) SHOULD KEEP COPIES OF THE APPROVED PLAN AND APPROVAL LETTER ONSITE.
3. NO HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.
4. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
5. ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.
6. SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.
7. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.
8. ALL EXCAVATED MATERIAL THAT WILL BE STORED ON-SITE MUST HAVE PROPER E&S CONTROLS.
9. IF PORTIONS OF THE SITE WILL HAVE A CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.
10. THE FOLLOWING RECORDS SHOULD BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST:
    - THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
    - THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND
    - THE DATES WHEN STABILIZATION MEASURES ARE INITIATED
11. THE HOLDER OF ANY APPROVED CZP MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
    A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY BEST MANAGEMENT PRACTICES (BMPS) OR STRUCTURE(S), INCLUDING BUT NOT LIMITED TO TEMPORARY OR PERMANENT PONDS, DAMS, BERMS, SILT FENCES, AND DIVERSIONARY STRUCTURES;
    B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED;
    C. ANY CHANGE THAT WOULD SIGNIFICANTLY IMPACT THE ABILITY TO PREVENT POLLUTION OF THE EDWARDS AQUIFER; OR
    D. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE APPROVED CONTRIBUTING ZONE PLAN.

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142408
LICENSED
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HOEFER WELKER #: 138091

GENERAL NOTES

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LEGEND

DEMOLITION

EXISTING TREE REMOVAL

CONTRACTOR TO: REMOVE EXISTING FENCE AROUND PROJECT SITE

CONTRACTOR TO: PROTECT EXISTING TRAINING EQUIPMENT DURING CONSTRUCTION ACTIVITIES

CONTRACTOR TO: REMOVE 142 LF OF EX 30" RCP

CONTRACTOR TO: REMOVE 10 TREES

CONTRACTOR TO: REMOVE 7 TREES

CONTRACTOR TO: PROTECT EXISTING RETENTION POND DURING ALL CONSTRUCTION ACTIVITIES

CONTRACTOR TO: PROTECT EXISTING ELECTRICAL EQUIPMENT

CONTRACTOR SHALL SAWCUT EXISTING CURB FROM PAVING AROUND EXISTING FIRE TOWER

CONTRACTOR TO: REMOVE EXISTING POWER POLES AROUND PROJECT SITE

CONTRACTOR TO: RELOCATE PROPANE TANK AND REMOVE RAILING AND CONCRETE PAD AROUND PROPANE TANK

CONTRACTOR TO: REMOVE 20 TREES

CONTRACTOR TO: PROTECT EXISTING FOAM INLET

CONTRACTOR TO: REMOVE PARKING STRIPING

CONTRACTOR TO: PROTECT EXISTING FIRE HYDRANT, VAULT, AND PAVING DURING CONSTRUCTION ACTIVITIES

CONTRACTOR TO: REMOVE EXISTING POWER POLES AROUND PROJECT SITE

CONTRACTOR TO: REMOVE 5 TREES

CONTRACTOR TO: REMOVE 18 TREES

CONTRACTOR TO: REMOVE EXISTING FENCE AROUND PROJECT SITE

CONTRACTOR TO: REMOVE 8 TREES

25' DRAINAGE EASEMENT

0 10' 20' 30' 60'

SCALE IN FEET

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OVERALL DEMOLITION PLAN

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LEGEND

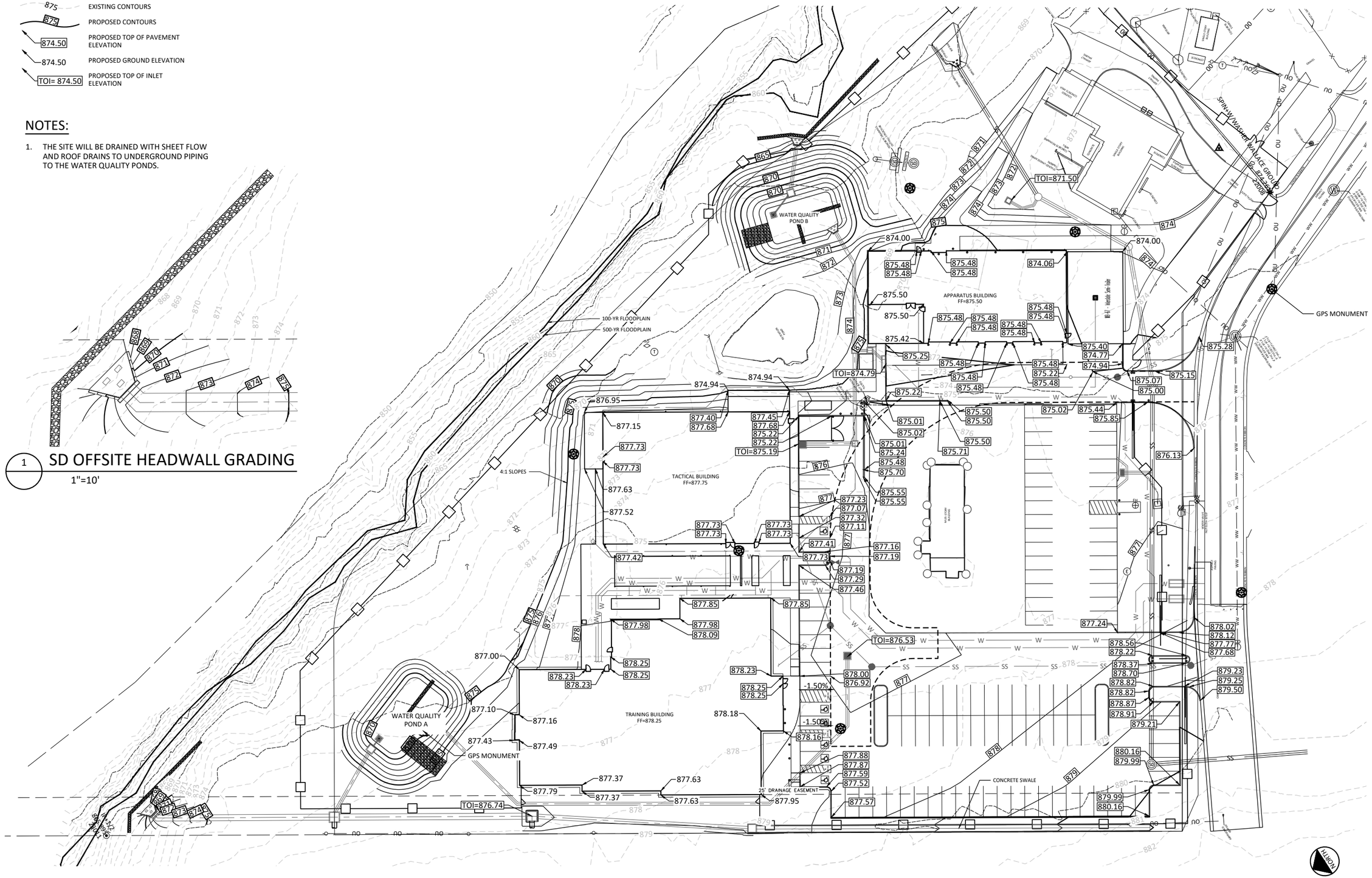
- 875 — EXISTING CONTOURS
- 875 — PROPOSED CONTOURS
- 874.50 — PROPOSED TOP OF PAVEMENT ELEVATION
- 874.50 — PROPOSED GROUND ELEVATION
- TOI= 874.50 — PROPOSED TOP OF INLET ELEVATION

NOTES:

1. THE SITE WILL BE DRAINED WITH SHEET FLOW AND ROOF DRAINS TO UNDERGROUND PIPING TO THE WATER QUALITY PONDS.

1 SD OFFSITE HEADWALL GRADING

1"=10'



0 10' 20' 30' 60'

SCALE IN FEET

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OVERALL GRADING PLAN

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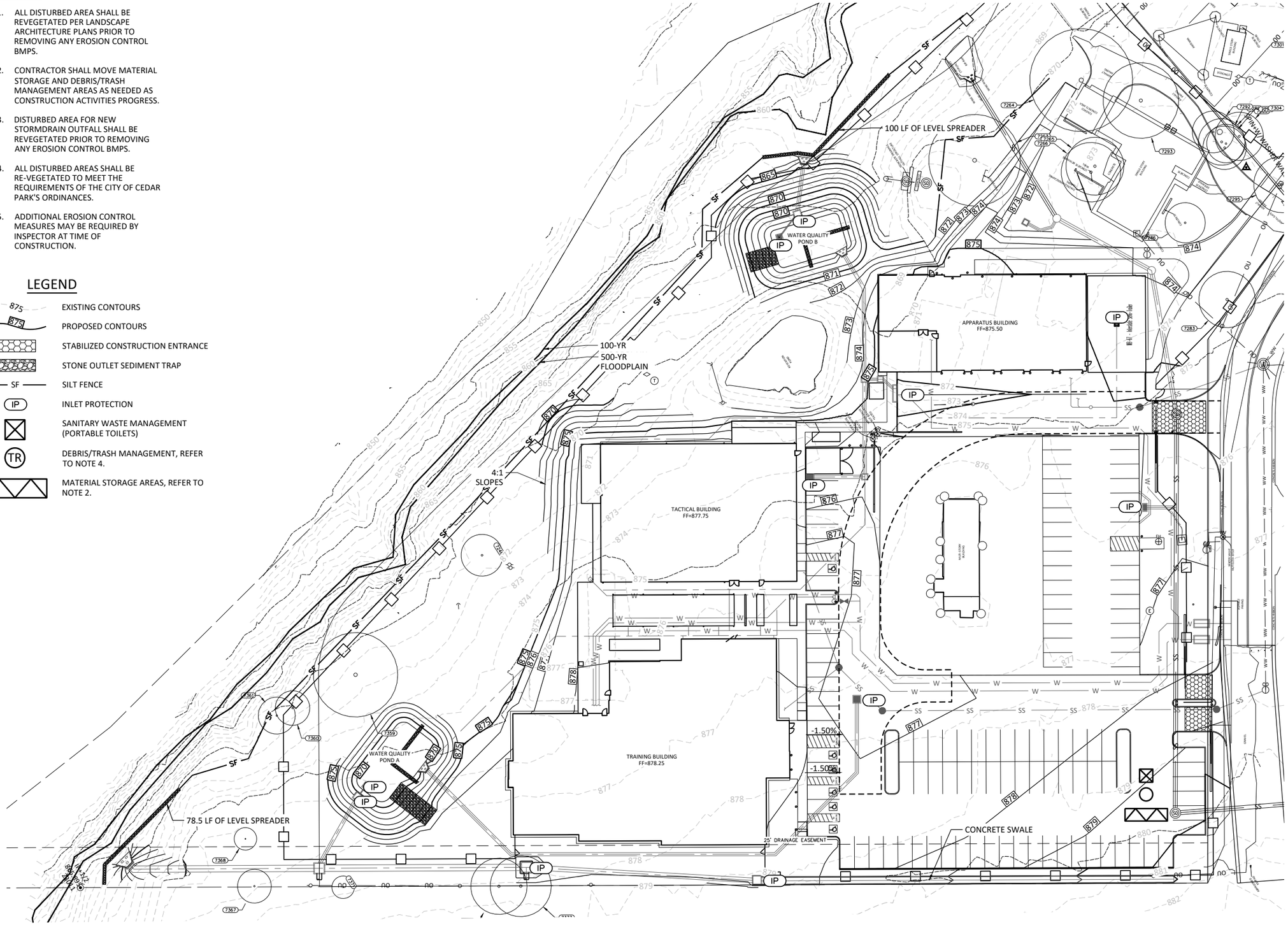
NOTES:

1. ALL DISTURBED AREA SHALL BE REVEGETATED PER LANDSCAPE ARCHITECTURE PLANS PRIOR TO REMOVING ANY EROSION CONTROL BMPS.
2. CONTRACTOR SHALL MOVE MATERIAL STORAGE AND DEBRIS/TRASH MANAGEMENT AREAS AS NEEDED AS CONSTRUCTION ACTIVITIES PROGRESS.
3. DISTURBED AREA FOR NEW STORMDRAIN OUTFALL SHALL BE REVEGETATED PRIOR TO REMOVING ANY EROSION CONTROL BMPS.
4. ALL DISTURBED AREAS SHALL BE RE-VEGETATED TO MEET THE REQUIREMENTS OF THE CITY OF CEDAR PARK'S ORDINANCES.
5. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY INSPECTOR AT TIME OF CONSTRUCTION.

LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- STABILIZED CONSTRUCTION ENTRANCE
- STONE OUTLET SEDIMENT TRAP
- SF — SILT FENCE
- IP — INLET PROTECTION
- SANITARY WASTE MANAGEMENT (PORTABLE TOILETS)
- TR — DEBRIS/TRASH MANAGEMENT, REFER TO NOTE 4.
- MATERIAL STORAGE AREAS, REFER TO NOTE 2.



0 10' 20' 30' 60'
SCALE IN FEET

EROSION CONTROL PLAN

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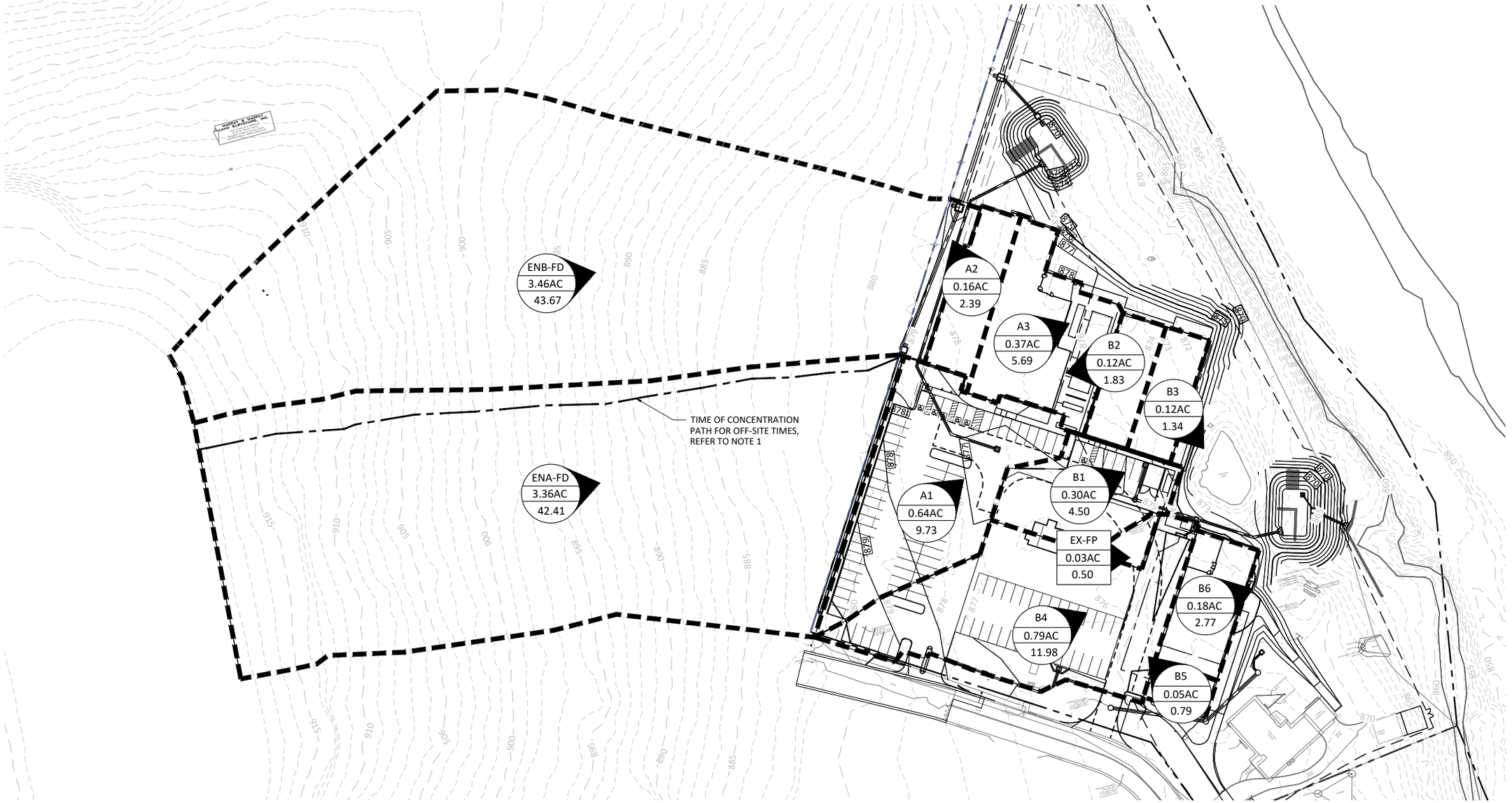

1 PROPOSED DRAINAGE AREA MAP
1"=50'

LEGEND

- DRAINAGE AREA
- 875 EXISTING CONTOURS
- 875 PROPOSED CONTOURS
- ENA-FD / 3.36AC / 32.40 — ARROW=ULTIMATE DIRECTION OF FLOW; PROPOSED DRAINAGE AREA ID; AREA IN ACRES; Q_{100} IN CUBIC FEET PER SECOND
- EX-FP / 0.03AC / 0.29 — ARROW=ULTIMATE DIRECTION OF FLOW; EXISTING DRAINAGE AREA ID; AREA IN ACRES; Q_{100} IN CUBIC FEET PER SECOND

NOTES

1. FNI CALCULATED OFF-SITE TIME OF CONCENTRATION TO BE APPROXIMATELY 18MIN. TO SIMULATE FULLY DEVELOPED CONDITIONS FOR THE FUTURE USES OF THOSE AREAS FNI USED $\frac{1}{2}$ Tc IN THE CALCULATIONS.
2. REFER TO SHEET 12 FOR DRAINAGE ARE MAP CALCULATIONS.
3. THE FLOW OFF THE SITE HAS NOT BEEN INCREASED FROM EXISTING CONDITION.

NORTH
0 50' 100'
SCALE IN FEET

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DRAINAGE AREA MAP

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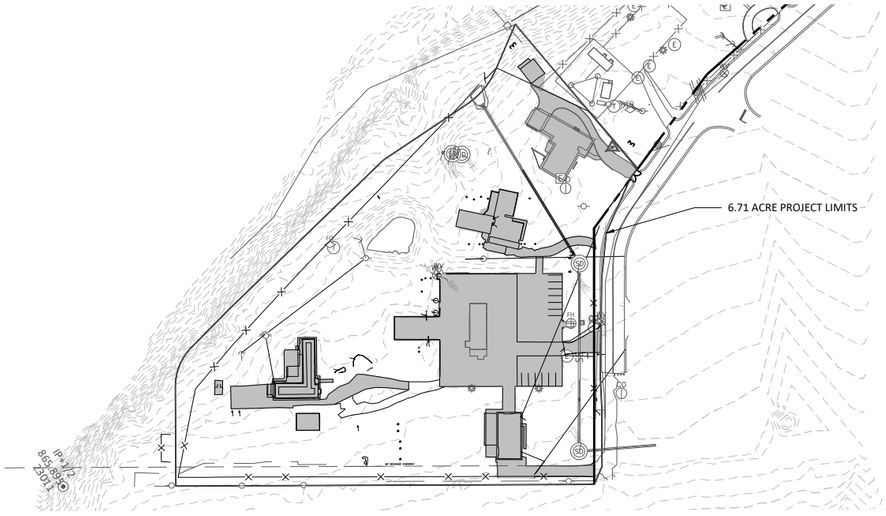

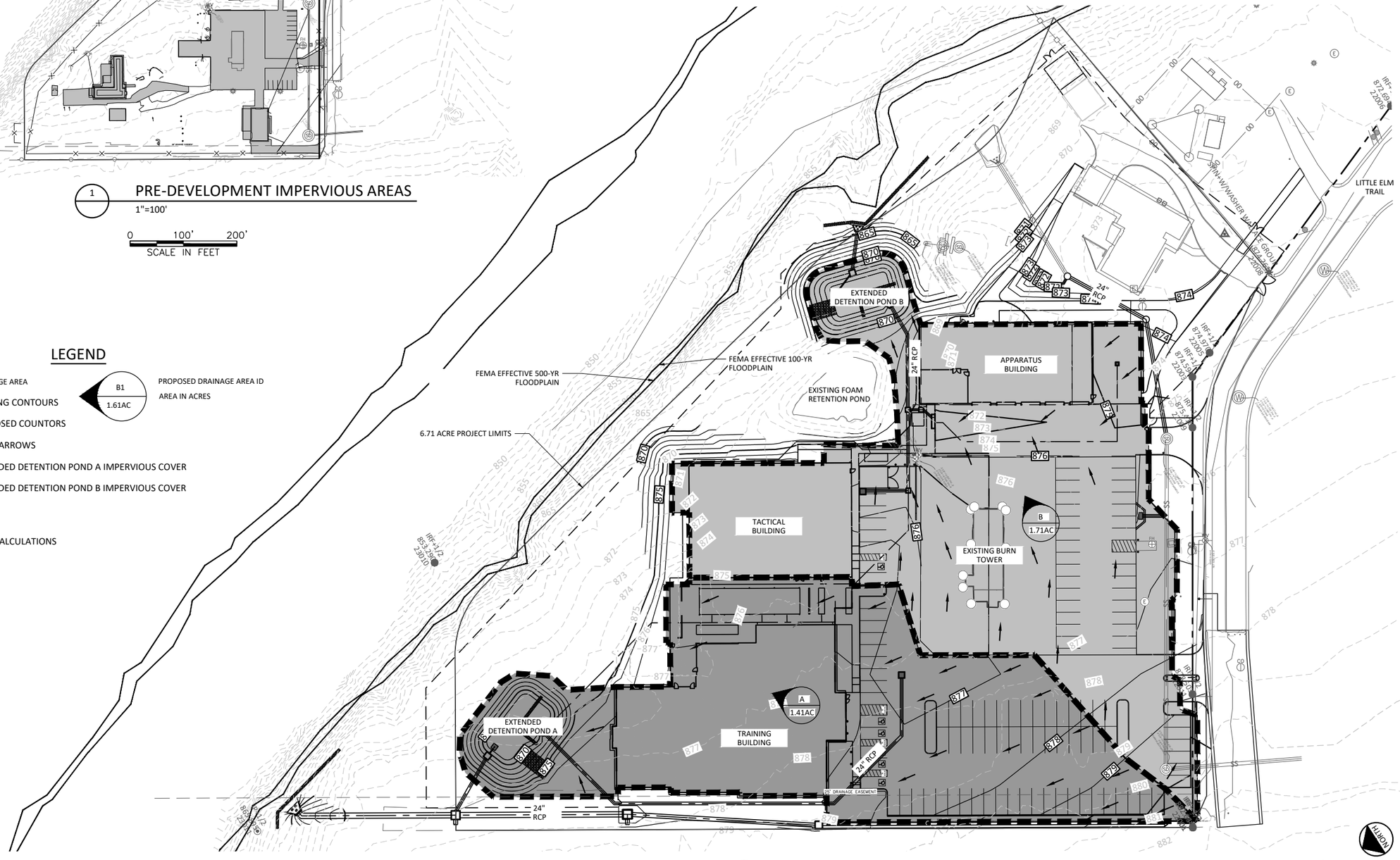

Cedar Park Public Safety Training Center - Water Quality Treatment Summary							
Drainage Area Name	**Drainage Area (AC)**	**Pre-**Development Impervious Cover (AC)	**Post-**Development Impervious Cover (AC)	**Total Net** Impervious Cover (AC)	**Permanent BMP**	Required TSS Removal, L_M	Provided TSS Load Removal by BMP, L_R
A	1.41	0.26	1.10	0.84	Extended Detention Pond A	731	731
B	1.71	0.74	1.47	0.73	Extended Detention Pond B	635	688
Uncaptured Impervious Cover		0.30	0.36	0.06	Overtreatment by Extended Detention Pond B	53	-
Totals		1.30	2.93	1.63	Total Treatment Summary	1,419	1,419

1 PRE-DEVELOPMENT IMPERVIOUS AREAS
1"=100'

0 100' 200'
SCALE IN FEET

LEGEND

▬ ▬	DRAINAGE AREA
875	EXISTING CONTOURS
875	PROPOSED COUNTORS
→	FLOW ARROWS
▇	EXTENDED DETENTION POND A IMPERVIOUS COVER
▒	EXTENDED DETENTION POND B IMPERVIOUS COVER
B1 1.61AC	PROPOSED DRAINAGE AREA ID AREA IN ACRES

NOTES

FOR WATER QUALITY CALCULATIONS
RE:13, 14

2 POST-DEVELOPMENT DRAINAGE AREAS
1"=40'

0 40' 80'
SCALE IN FEET

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WATER QUALITY TREATMENT SUMMARY

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RATIONAL METHOD SUB-AREA RUNOFF CALCULATIONS

DESIGN POINT	DRAINAGE AREA (ac)	TOTAL Tc (min)	RUNOFF COEF. "C"	1 YEAR INTENSITY I (in/hr)	2 YEAR INTENSITY I (in/hr)	5 YEAR INTENSITY I (in/hr)	10 YEAR INTENSITY I (in/hr)	25 YEAR INTENSITY I (in/hr)	50 YEAR INTENSITY I (in/hr)	100 YEAR INTENSITY I (in/hr)	1 YEAR PEAK FLOW Q (cfs)	2 YEAR PEAK FLOW Q (cfs)	5 YEAR PEAK FLOW Q (cfs)	10 YEAR PEAK FLOW Q (cfs)	25 YEAR PEAK FLOW Q (cfs)	50 YEAR PEAK FLOW Q (cfs)	100 YEAR PEAK FLOW Q (cfs)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
EX-NORTH A	3.36	9.00	0.35	0.00	5.14	6.47	7.69	9.49	11.16	12.62	0.00	6.05	7.61	9.04	12.28	15.75	18.55
EX-NORTH A FULL DEV	3.36	9.00	0.95	0.00	5.14	6.47	7.69	9.49	11.16	12.62	0.00	16.42	20.65	24.55	31.89	37.51	42.41
EX-NORTH B	3.46	9.00	0.35	0.00	5.14	6.47	7.69	9.49	11.16	12.62	0.00	6.23	7.83	9.31	12.64	16.22	19.10
EX-NORTH B FULL DEV	3.46	9.00	0.95	0.00	5.14	6.47	7.69	9.49	11.16	12.62	0.00	16.91	21.26	25.28	32.84	38.62	43.67
A1	0.64	5.00	0.86	0.00	6.18	7.80	9.29	11.45	13.47	15.24	0.00	3.38	4.26	5.08	6.88	8.60	9.73
A2	0.16	5.00	0.95	0.00	6.18	7.80	9.29	11.45	13.47	15.24	0.00	0.92	1.16	1.39	1.80	2.12	2.39
A3	0.37	5.00	0.95	0.00	6.18	7.80	9.29	11.45	13.47	15.24	0.00	2.19	2.76	3.29	4.27	5.03	5.69
B1	0.30	5.00	0.95	0.00	6.18	7.80	9.29	11.45	13.47	15.24	0.00	1.73	2.18	2.60	3.38	3.97	4.50
B2	0.12	5.00	0.95	0.00	6.18	7.80	9.29	11.45	13.47	15.24	0.00	0.70	0.89	1.06	1.37	1.62	1.83
B3	0.12	5.00	0.95	0.00	6.18	7.80	9.29	11.45	13.47	15.24	0.00	0.70	0.89	1.06	1.37	1.62	1.83
B4	0.79	5.00	0.95	0.00	6.18	7.80	9.29	11.45	13.47	15.24	0.00	4.62	5.82	6.94	9.00	10.59	11.98
B5	0.05	5.00	0.95	0.00	6.18	7.80	9.29	11.45	13.47	15.24	0.00	0.31	0.39	0.46	0.60	0.70	0.79
B6	0.18	5.00	0.95	0.00	6.18	7.80	9.29	11.45	13.47	15.24	0.00	1.07	1.35	1.61	2.08	2.45	2.77
EX-FP	0.03	5.00	0.95	0.00	6.18	7.80	9.29	11.45	13.47	15.24	0.00	0.19	0.25	0.29	0.38	0.45	0.50

Inlet No.	Gutter Slope S_o (ft/ft)	Crown Slope of Pavement θ_o (ft/ft)	100-year Gutter Flow Q_o (cfs)	100-year Carryover Flow (cfs)	100-year Total Gutter Flow Q_o (cfs)	100-year Depth of Gutter Flow Y_o (ft)	Depth of Depression a (ft)	Depth of Flow at Opening Y (ft)	Capacity of Inlet per Foot of Length (Q/L) (cfs/ft)	Length of Inlet Opening L (ft)	Capacity of Inlet Q (cfs)	Bypass into Overflow (cfs)	Percent Q100 Captured By Inlet	NOTES	Inlet type
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
EX-NORTH A	0.010	0.02	18.55	0.00	18.55	0.42	0.33	0.75	1.16	4'x4'	31.43	0.00	100%	No CO	Yard
EX-NORTH B	0.013	0.0125	19.10	0.00	19.10	0.34	0.33	0.68	0.96	5'x5'	33.30	0.00	100%	No CO	Yard
B4	0.010	0.015	11.98	0.00	11.98	0.32	0.33	0.65	1.65	10	16.54	0.00	100%	No CO	Curb

Inlet No.	Gutter Slope S_o (ft/ft)	Crown Slope of Pavement θ_o (ft/ft)	100-year Gutter Flow Q_o (cfs)	100-year Carryover Flow (cfs)	100-year Total Gutter Flow Q_o (cfs)	Number of Sides Open	Depth for Weir/Orifice Control (ft)	Clogging Factor (%)	Length of Inlet Side (ft)	Area of Inlet Opening A (ft^2)	Q weir (cfs)	Q orifice (cfs)	Capacity of Inlet Q (cfs)	Bypass into Overflow (cfs)	Percent Q100 Captured By Inlet	NOTES	Inlet type
1	2	3	4	5	6	7	8	9	10	11	10	11	12	13	14	15	16
A1	0.000	0.015	9.73	0.00	9.73	4.00	0.50	0.50	4	16	16.97	27.24	16.97	0.00	100%	4'x4' Grate Inlet	Grate
B1	0.000	0.02	4.50	0.00	4.50	3.00	0.50	0.50	4	16	9.55	27.24	9.55	0.00	100%	4'x4' Grate Inlet	Grate

STORM DRAIN HYDRAULIC CALCULATIONS TABLE

FROM	TO	PIPE LENGTH	Drainage Area: Incremental No.	Drainage Area: Incremental Area	Drainage Area: Total Area	Runoff "c"	Incr. cA	Total cA	Time of Concentration: Inlet	Time of Concentration: Travel	Time of Concentration: Total	5-yr Intensity	100-yr Intensity	Q5 Runoff	Q100 Runoff	100-yr Inlet Bypass	Q pipe	Pipe Size	No. of Barrels	n	Sf	HGL: D/S	HGL: U/S	HEAD LOSS CALCULATIONS: V1 (in)	V2 (out)	$V1^2/2G$	$V2^2/2G$	Kj	$KjV1^2/2G$	Hk	Design U/S HGL	Invert Elev.: FROM	Invert Elev.: TO	T/C ELEV.	DESCRIPTION	NOTES
		feet	No.	Area					min.	min.	min.	in/hr.	in/hr.	cfs	cfs	cfs	cfs	in.			ft/ft	Elev.	Elev.	ft/sec	ft/sec	ft.	ft.		ft.	ft.	Elev.	ft.	ft.	Ft.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
Line A																																				
04+54.99	04+09.95	45.04	A1	0.64	0.64	0.86	0.55	0.55	5.00	0.24	5.00	7.80	15.24	4.26	9.73	0.00	9.73	24	1	0.013	0.0018	872.82	872.91	0.00	3.10	0.000	0.149	1.25	0.00	0.19	873.09			876.53	Inlet at Beg. of Line	
04+09.95	03+38.16	71.79		0.00	0.64			0.55	0.00	0.39	5.24	7.70	15.05	4.20	9.60	0.00	9.60	24	1	0.013	0.0018	872.60	872.72	3.10	3.06	0.149	0.145	0.35	0.05	0.10	872.82			877.14	Bends where radius = diam, 45º Bend	
03+38.16	01+73.88	164.28	A2	0.16	0.80	0.95	0.15	0.70	5.00	0.73	5.63	7.54	14.74	5.24	11.72	0.00	11.72	24	1	0.013	0.0027	872.05	872.50	3.06	3.73	0.145	0.216	0.35	0.05	0.10	872.60			877.94	Bends where radius = diam, 45º Bend	
01+73.88	01+00.79	73.09		0.00	0.80			0.70	0.00	0.34	6.37	7.27	14.20	5.06	11.29	0.00	11.29	24	1	0.013	0.0025	871.77	871.95	3.73	3.59	0.216	0.201	0.35	0.08	0.10	872.05			877.51	Bends where radius = diam, 45º Bend	
01+00.79	01+00.00	0.79	A3	0.37	1.17	0.95	0.35	1.05	5.00	0.00	6.71	7.16	13.97	7.51	16.32	0.00	16.32	24	1	0.013	0.0052	871.50	871.50	3.59	5.19	0.201	0.419	0.75	0.15	0.27	871.77			872.00	45º Wye connection	
LINE B																																				
02+75.73	02+41.17	34.56	B1	0.30	0.30	0.95	0.28	0.28	5.00	0.40	5.00	7.80	15.24	2.18	4.50	0.00	4.50	24	1	0.013	0.0004	870.20	870.22	0.00	1.43	0.000	0.032	1.25	0.00	0.10	870.32			874.79	Inlet at Beg. of Line	
02+41.17	02+10.39	30.78	B2	0.12	0.42	0.95	0.11	0.39	5.00	0.26	5.40	7.63	14.92	3.01	6.19	0.00	6.19	24	1	0.013	0.0007	870.08	870.10	1.43	1.97	0.032	0.060	0.25	0.01	0.10	870.20			875.46	MH on Trunk Line w/90º Branch Lat	
02+10.39	01+80.61	29.78	B3	0.12	0.54	0.95	0.11	0.51	5.00	0.20	5.66	7.53	14.72	3.83	7.87	0.00	7.87	24	1	0.013	0.0012	869.94	869.98	1.97	2.51	0.060	0.098	0.75	0.05	0.10	870.08			875.46	45º Wye connection	
01+80.61	01+24.10	56.51	B4+B5	0.84	1.37	0.95	0.80	1.30	5.00	0.15	5.86	7.46	14.57	9.73	20.00	0.00	20.00	24	1	0.013	0.0078	868.90	869.34	2.51	6.37	0.098	0.630	0.25	0.02	0.61	869.94			875.46	MH on Trunk Line w/90º Branch Lat	
01+24.10	01+00.00	24.10	B6	0.18	1.56	0.95	0.17	1.48	5.00	0.06	6.01	7.40	14.46	10.94	22.49	0.00	22.49	24	1	0.013	0.0099	868.50	868.74	6.37	7.16	0.630	0.796	0.20	0.13	0.16	868.90			868.90	Bends where radius = diam, 30º Bend	
OFFSITE LINE																																				
05+19.22	03+71.61	147.61	EX-NORTH A FULL DEV	3.36	3.36	0.95	3.19	3.19	9.00	0.41	9.00	6.47	12.62	20.65	42.41	0.00	42.41	36	1	0.013	0.0040	873.08	873.68	0.00	6.00	0.000	0.559	1.25	0.00	0.70	874.38			876.59	Inlet at Beg. of Line	
03+71.61	02+41.44	130.17	EX-NORTH B FULL DEV	3.46	6.82	0.95	3.29	6.48	9.00	0.32	9.41	6.36	12.41	41.22	84.65	0.00	84.65	48	1	0.013	0.0035	872.06	872.52	6.00	6.74	0.559	0.705	0.25	0.14	0.56	873.08			876.82	MH on Trunk Line w/90º Branch Lat	
02+41.44	01+27.63	113.81		0.00	6.82			6.48	0.00	0.29	9.73	6.28	12.25	40.69	83.57	0.00	83.57	48	1	0.013	0.0034	871.17	871.55	6.74	6.65	0.705	0.687	0.25	0.18	0.51	872.06			876.82	MH on Trunk Line w/90º Branch Lat	
01+27.63	01+23.80	3.83		0.00	6.82			6.48	0.00	0.01	10.02	6.21	12.12	40.24	82.64	0.00	82.64	48	1	0.013	0.0033	871.00	871.01	6.65	6.58	0.687	0.672	0.75	0.52	0.16	871.17			877.15	45º Wye connection	
LAT B1																																				
01+20.28	01+10.04	10.24	B4+B5	0.84	0.84	0.95	0.80	0.80	5.00	0.02	5.00	7.80	15.24	6.21	12.78	0.00	12.78	18	1	0.013	0.0148	870.70	870.85	0.00	7.23	0.000	0.812	1.25	0.00	1.01	871.86			874.80	Inlet at Beg. of Line	
01+10.04	01+00.00	10.04		0.00	0.84			0.80	0.00	0.02	5.02	7.79	15.23	6.20	12.76	0.00	12.76	18	1	0.013	0.0148	869.94	870.09	7.23	7.22	0.812	0.809	0.25	0.20	0.61	870.70			875.31	MH on Trunk Line w/90º Branch Lat	

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142408
LICENSED
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8/23/2024
PROFESSIONAL SEAL

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ISSUE DATE: AUGUST 23, 2024
HOEFER WELKER #: 138091

DRAINAGE AREA MAP CALCULATIONS

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Cedar Park Public Safety Training Center
Date Prepared: 6/27/2024

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

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

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

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

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

County =	Williamson	
Total project area included in plan * =	6.71	acres
Predevelopment impervious area within the limits of the plan * =	1.30	acres
Total post-development impervious area within the limits of the plan* =	2.93	acres
Total post-development impervious cover fraction * =	0.44	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	1419	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = 3

1 WATER QUALITY POND A
N.T.S.

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

Drainage Basin/Outfall Area No. = A

Total drainage basin/outfall area =	1.41	acres
Predevelopment impervious area within drainage basin/outfall area =	0.26	acres
Post-development impervious area within drainage basin/outfall area =	1.10	acres
Post-development impervious fraction within drainage basin/outfall area =	0.78	
$L_{M\ THIS\ BASIN}$ =	731	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Extended Detention
Removal efficiency = 75 percent

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

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

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

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

A_C =	1.41	acres
A_I =	1.10	acres
A_P =	0.31	acres
L_R =	917	lbs

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

Desired $L_{M\ THIS\ BASIN}$ =	731	lbs.
F =	0.80	

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

Rainfall Depth =	1.08	inches
Post Development Runoff Coefficient =	0.60	
On-site Water Quality Volume =	3302	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 =	660	
Total Capture Volume (required water quality volume(s) x 1.20) =	3962	cubic feet

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

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

Required Water Quality Volume for retention basin = NA cubic feet

Irrigation Area Calculations:

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

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

Required Water Quality Volume for extended detention basin = 3962 cubic feet

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WATER QUALITY CALCULATIONS

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Last Saved: 8/22/2024 11:55 AM Saved By: 08430

Plot Date: 8/22/2024 12:23 PM Plot By: 08430 Filename: N:\IF\Drawings\1. General\Site Development Submittal 22x34\CV-ALL-PL-DMAP-TCEQ-22x34.dwg

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Cedar Park Public Safety Traning Center
Date Prepared: 6/27/2024

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where:
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P = Average annual precipitation, inches

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

County =	Williamson	
Total project area included in plan * =	6.71	acres
Predevelopment impervious area within the limits of the plan * =	1.30	acres
Total post-development impervious area within the limits of the plan* =	2.93	acres
Total post-development impervious cover fraction * =	0.44	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	1419	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = 3

2 WATER QUALITY POND B
N.T.S.

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

Drainage Basin/Outfall Area No. = B

Total drainage basin/outfall area =	1.71	acres
Predevelopment impervious area within drainage basin/outfall area =	0.74	acres
Post-development impervious area within drainage basin/outfall area =	1.47	acres
Post-development impervious fraction within drainage basin/outfall area =	0.86	
$L_{M\ THIS\ BASIN}$ =	635	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Extended Detention
Removal efficiency = 75 percent

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

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

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

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

A_C =	1.71	acres
A_I =	1.47	acres
A_P =	0.24	acres
L_R =	1224	lbs

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

Desired $L_{M\ THIS\ BASIN}$ =	688	lbs.
F =	0.56	

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

Rainfall Depth =	0.50	inches
Post Development Runoff Coefficient =	0.70	
On-site Water Quality Volume =	2179	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 =	436	
Total Capture Volume (required water quality volume(s) x 1.20) =	2615	cubic feet

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

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

Required Water Quality Volume for retention basin =	NA	cubic feet	
Irrigation Area Calculations:			
Soil infiltration/permeability rate =	0.1	in/hr	Enter determined permeability rate or assumed value of 0.1
Irrigation area =	NA	square feet	
	NA	acres	

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

Required Water Quality Volume for extended detention basin =	2615	cubic feet

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WATER QUALITY CALCULATIONS

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LEGEND

- PROPOSED STORM DRAIN LINE
- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER LINE
- PROPOSED LATERALS
- PROPOSED DOWNSPOUTS
- W — EXISTING WATER LINE
- WW — EXISTING WASTEWATER LINE
- SS — EXISTING STORM SEWER LINE

STA 1+00.58 OUTFALL B
INSTALL:
1 - COA STANDARD HEADWALL
W/ ENERGY DISSIPATORS
100 LF - LEVEL SPREADER
N=10153621.56
E=3092071.35

STA 1+06.08 EX 30 LAT A1
INSTALL:
1 - 18" X 45° BEND
N=10153513.04
E=3091954.66

STA 1+13.77 EX 30 LAT A1
INSTALL:
1 - 18" X 45° BEND
N=10153520.41
E=3091956.88

STA 1+00.00 EX 30 REALIGNMENT
STA 1+00.00 EX 30 LAT A1
TIE IN EX 30 LAT A1 INTO NEW 5' SDMH
INSTALL:
1 - 5' SDMH
N=10153507.69
E=3091957.53

STA 1+24.09 EX 30 LAT A1
INSTALL:
1 - 4' X 4' AREA INLET
N=10153525.28
E=3091965.99

STA 1+31.84 OUTFALL B
INSTALL:
1 - WQP B OUTFALL STRUCTURE
RE: SHEET 20
N=10153641.45
E=3092047.34

STA 1+67.24 EX 30 REALIGNMENT
INSTALL:
1 - 5' SDMH
N=10153475.93
E=3091898.26

WATER QUALITY POND B

STORM DRAIN DOWNSPOUTS

STA 1+00.00 SD LINE B
INSTALL:
1 - COA STANDARD HEADWALL
W/ ENERGY DISSIPATORS
N=10153630.90
E=3092010.42

STA 1+10.02 SD LAT B1
INSTALL:
1 - 4' X 4' JUNCTION BOX
N=10153654.10
E=3091933.38

STA 1+24.10 SD LINE B
INSTALL:
1 - 24" X 30° BEND
N=10153632.03
E=3091986.35

STA 1+21.26 SD LAT B1
INSTALL:
1 - 10' CURB INLET
N=10153649.69
E=3091923.60

EXISTING FOAM RETENTION POND

STA 1+80.61 SD LINE B
STA 1+00.00 SD LAT B1
INSTALL:
1 - 4' X 4' JUNCTION BOX
N=10153662.54
E=3091938.79

STORM DRAIN DOWNSPOUTS

STA 2+75.73 SD LINE B
INSTALL:
1 - 4' X 4' GRATE INLET
N=10153724.34
E=3091906.48

STA 2+57.95 EX 30 REALIGNMENT
INSTALL:
1 - 5' SDMH
N=10153511.58
E=3091814.84

CITY OF AUSTIN STANDARD DROP INLET W/ PAVING AND THEN CONNECT TO EXISTING STORM DRAIN

STA 2+41.17 SD LINE B
INSTALL:
1 - 4' X 4' JUNCTION BOX
N=10153695.24
E=3091887.82

STA 1+19.56 SD FIRE
INSTALL:
1 - STANDARD DROP INLET
N=10153559.61
E=3091777.07

STA 1+00.00 SD FIRE
CONNECT TO
EXISTING STORM DRAIN
N=10153543.21
E=3091766.40

STORM DRAIN DOWNSPOUTS

STA 4+54.99 SD LINE A
INSTALL:
1 - 4' X 4' GRATE INLET
N=10153775.00
E=3091774.15

STA 1+51.62 OUTFALL A
INSTALL:
1 - WQP A OUTFALL STRUCTURE
RE: SHEET 19
N=10154067.50
E=3091892.87

STA 1+23.80 SD OFFSITE LINE
INSTALL:
1 - COA STANDARD HEADWALL
W/ ENERGY DISSIPATORS
65 LF - LEVEL SPREADER
N=10154209.95
E=3091934.54

WATER QUALITY POND A

STA 1+00.00 SD LINE A
INSTALL:
1 - COA STANDARD HEADWALL
W/ ENERGY DISSIPATORS
N=10154022.88
E=3091883.19

STA 4+09.95 SD LINE A
INSTALL:
1 - 24" X 45° BEND
N=10153799.53
E=3091736.38

STA 1+27.63 SD OFFSITE LINE
INSTALL:
1 - 48" x 45° BEND
N=10154209.12
E=3091930.79

STA 1+73.88 SD LINE A
INSTALL:
1 - 24" X 45° BEND
N=10154007.52
E=3091810.93

STA 3+38.16 SD LINE A
INSTALL:
1 - 24" X 45° BEND
N=10153869.74
E=3091721.45

25' DRAINAGE EASEMENT

48" RCP

48" RCP

24" RCP

STA 2+42.86 SD OFFSITE LINE
STA 1+00.00 OUTFALL A
INSTALL:
1 - 6' X 6' JUNCTION BOX
1 - 6 - 36" RCP STUBBOUT
N=10154113.39
E=3091869.27

STA 3+71.61 SD OFFSITE LINE
INSTALL:
1 - 6' X 6' AREA INLET
1 - 6 - 36" RCP STUBBOUT
N=10154003.88
E=3091798.88

STA 5+15.19 SD OFFSITE LINE
INSTALL:
1 - 5' X 5' AREA INLET
N=10153887.97
E=3091714.15

CONCRETE SWALE, RE: SHEET CU-202

NORTH

0 10' 20' 30' 60'
SCALE IN FEET

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CEDAR PARK, TEXAS 78613

CONSTRUCTION DOCUMENTS

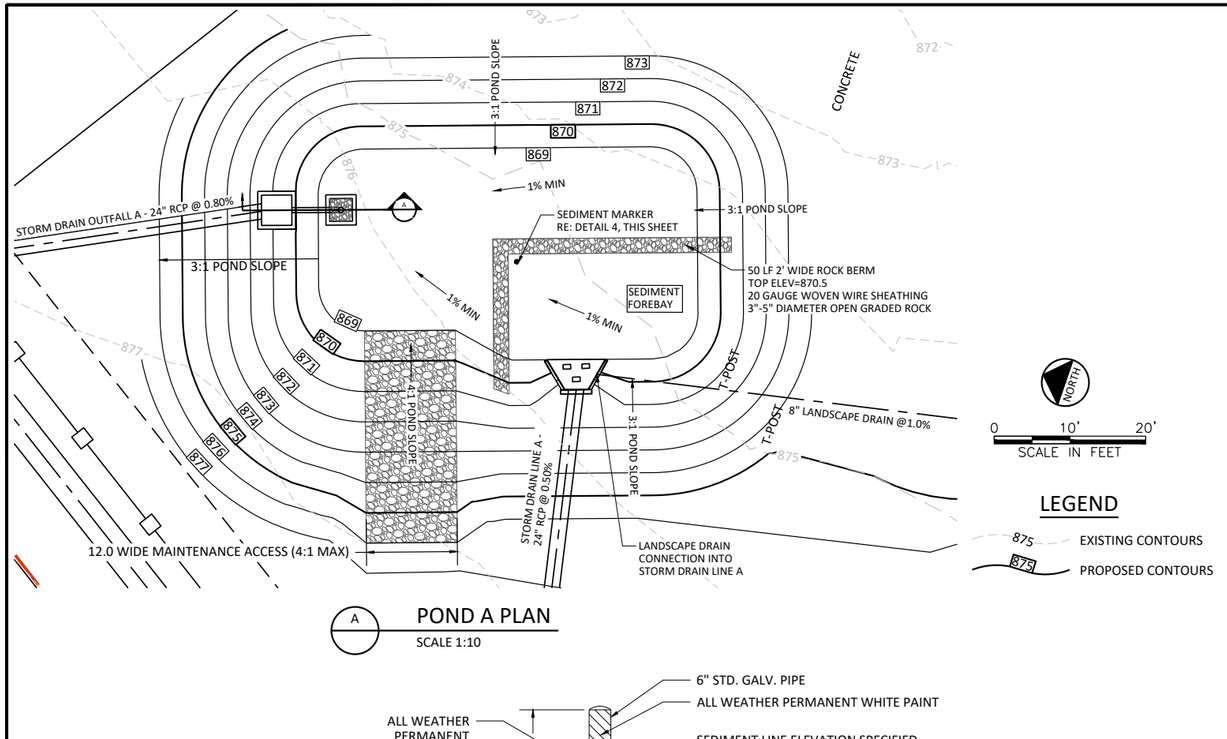
REVISION DATES:
1 ADDENDUM 01 08/23/2024

STATE OF TEXAS
ISAAC D. WOOD
142408
LICENSED
PROFESSIONAL ENGINEER
8/23/2024
PROFESSIONAL SEAL

15

ISSUE DATE: AUGUST 23, 2024
HOEFER WELKER #: 138091

OVERALL STORM DRAIN PLAN



A POND A PLAN
SCALE 1:10

LEGEND

875 EXISTING CONTOURS

875 PROPOSED CONTOURS

Extended Detention Pond A - Storage vs. Discharge						
Stage (ft)	Contour Area (ft^2)	Incremental Height (ft)	Incremental Volume (ft^3)	Cumulative Volume (ft^3)	Discharge Rate (cfs)	Comments
868.5	0	0	0	0	0	
869	1,284	0.5	214	214	0	
870	1,761	1	1,516	1,730	0	
871	2,301	1	2,025	3,755	0	
871.5	2,603	0.5	1,225	4,980	0	Water Quality Volume*
872	2,904	0.5	1,376	6,356	12.7	
873	3,570	1	3,231	9,588	66.1	Top of Pond

*Provided water quality volume (4,980 ft^3) exceeds required water quality volume (3,962 ft^3)

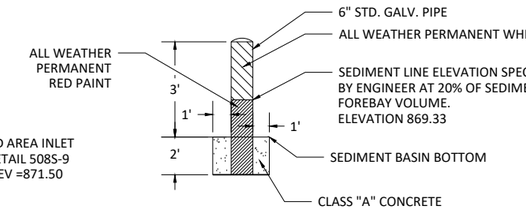
Extended Detention Pond A - Orifice Drawdown Time						
Contour Elevation (ft)	Contour Area (ft^2)	Incremental Volume (ft^3)	Cumulative Volume (ft^3)	Orifice Discharge (cfs)	Incremental Drawdown Time (hr)	Total Drawdown Time (hr)
871.5	2,603	-	-	-	-	-
871	2,301	1,225	1,225	0.046	7.5	7.5
870	1,761	2,025	3,250	0.039	14.3	21.7
869	1,284	1,516	4,766	0.029	14.3	36.0
868.5	0	214	4,980	0.019	3.2	39.2

ORIFICE DIAMETER	1.000	in
ORIFICE FL ELEV	868.2	
ORIFICE CENTROID ELEV	868.24	
ORIFICE AREA (Ao)	0.0055	ft^2
ORIFICE COEFFICIENT	0.6	

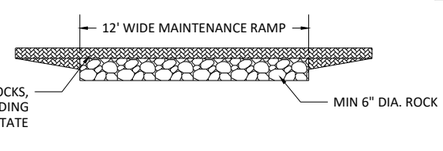
$Q = C_o A(2gH)^{0.5}$

Extended Detention Pond A - Sediment Forebay Volume				
Stage (ft)	Contour Area (ft^2)	Incremental Height (ft)	Incremental Volume (ft^3)	Cumulative Volume (ft^3)
869	342	0	0	0
870	459	1	399	399
870.5	522	0.5	245	644

Required forebay volume = 10% of water quality volume
Required Water Quality Volume = 3,962 ft^3
Forebay Volume Percentage Provided = 16.3%



4 SEDIMENT DEPTH MARKER DETAIL
N.T.S.



5 POND MAINTENANCE ACCESS SECTION
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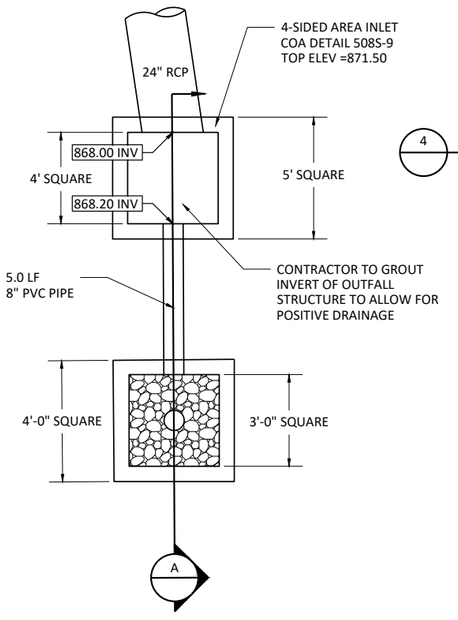
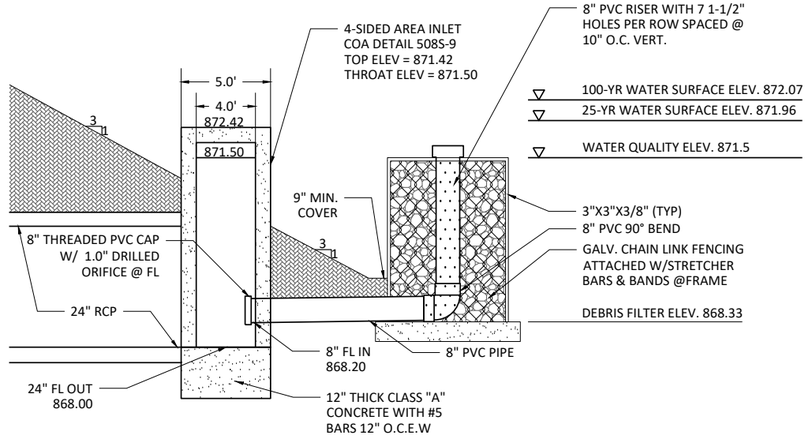


1 SECTION A
OUTFALL STRUCTURE DETAIL
N.T.S.



2 SECTION A
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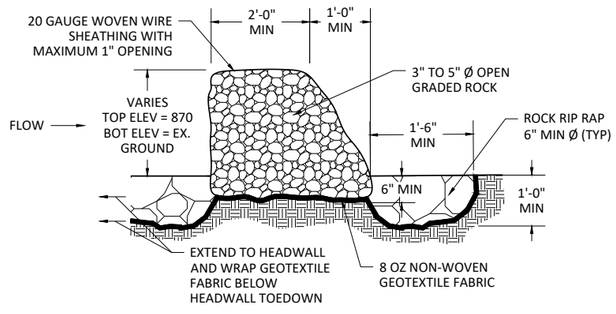
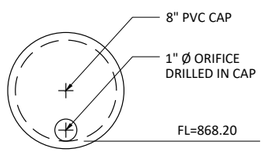


3 OUTFALL
LEVEL SPREADER DETAIL
N.T.S.



6 ORIFICE DETAIL
N.T.S.

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POND A CALCULATIONS

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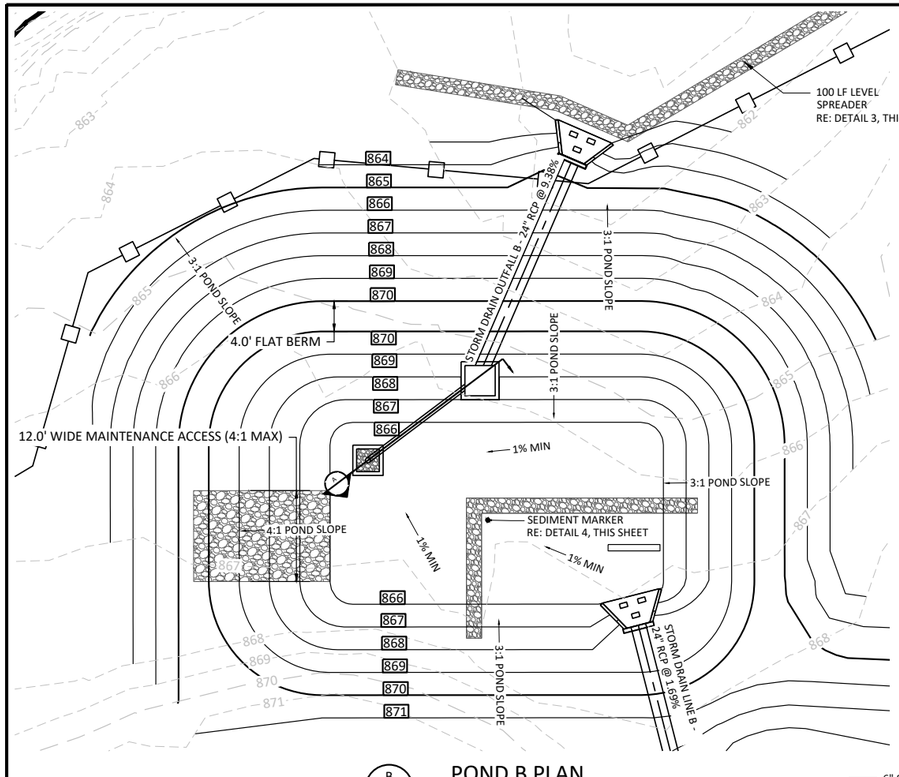
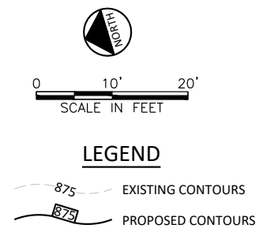


B POND B PLAN

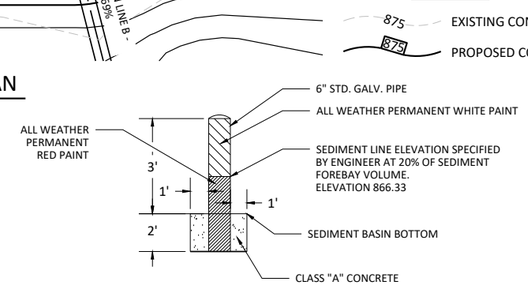
SCALE 1:10



LEGEND

875 EXISTING CONTOURS

875 PROPOSED CONTOURS



4 SEDIMENT DEPTH MARKER DETAIL

N.T.S.

Extended Detention Pond B - Storage vs. Discharge

Stage (ft)	Contour Area (ft^2)	Incremental Height (ft)	Incremental Volume (ft^3)	Cumulative Volume (ft^3)	Discharge Rate (cfs)	Comments
865.5	0	0	0	0		
866	1,048	0.5	175	175	0	
867	1,499	1	1,267	1,441	0	
868	2,018	1	1,752	3,194	0	
868.5	2,312	0.5	1,082	4,275	0	Water Quality Volume*
869	2,606	0.5	1,229	5,504	12.7	
870	3,263	1	2,928	8,433	66.1	Top of Pond

*Provided water quality volume (4,275 ft^3) exceeds required water quality volume (2,615 ft^3)

Extended Detention Pond B - Orifice Drawdown Time

Contour Elevation (ft)	Contour Area (ft^2)	Incremental Volume (ft^3)	Cumulative Volume (ft^3)	Orifice Discharge (cfs)	Incremental Drawdown Time (hr)	Total Drawdown Time (hr)
868.5	2,312	-	-	-	-	-
868	2,018	1,082	1,082	0.035	8.6	8.6
867	1,499	1,752	2,834	0.030	16.1	24.7
866	1,048	1,267	4,101	0.023	15.6	40.3
865.5	0	175	4,275	0.014	3.4	43.6

ORIFICE DIAMETER	0.875	in
ORIFICE FL ELEV	865.2	
ORIFICE CENTROID ELEV	865.24	
ORIFICE AREA (Ao)	0.0042	ft^2
ORIFICE COEFFICIENT	0.6	

$Q = C_o A(2gH)^{0.5}$

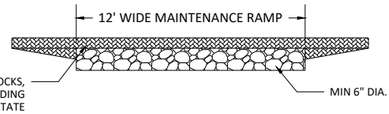
Extended Detention Pond B - Sediment Forebay Volume

Stage (ft)	Contour Area (ft^2)	Incremental Height (ft)	Incremental Volume (ft^2)	Cumulative Volume (ft^3)
866	268	0	0	0
867	397	1	330	330
867.5	458	0.5	214	544

Required forebay volume = 10% of water quality volume

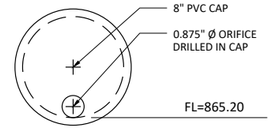
Required Water Quality Volume = 2,615 ft^3

Forebay Volume Percentage Provided = 20.8%



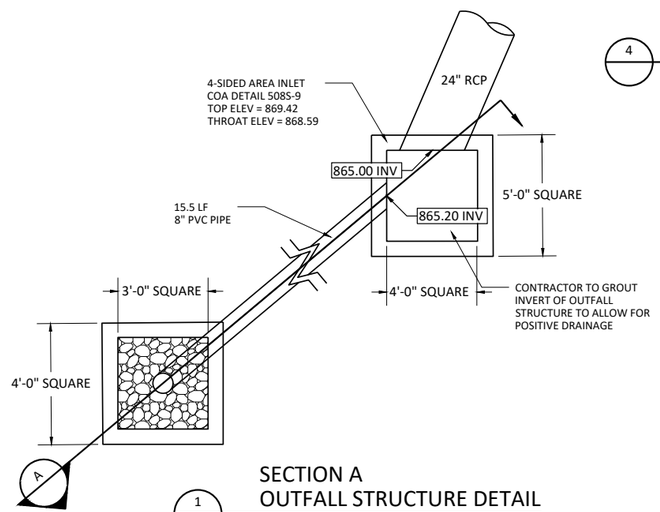
5 POND MAINTENANCE ACCESS SECTION

N.T.S.



6 ORIFICE DETAIL

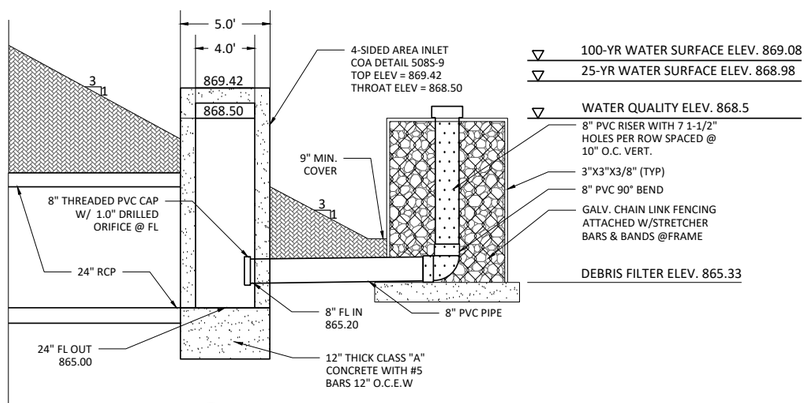
N.T.S.



SECTION A
OUTFALL STRUCTURE DETAIL

1

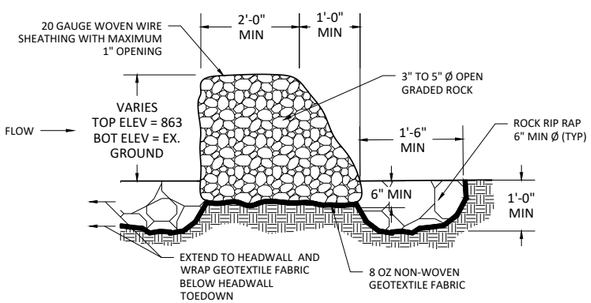
N.T.S.



SECTION A

2

N.T.S.



OUTFALL
LEVEL SPREADER DETAIL

3

N.T.S.

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ISSUE DATE: AUGUST 23, 2024
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POND B CALCULATIONS

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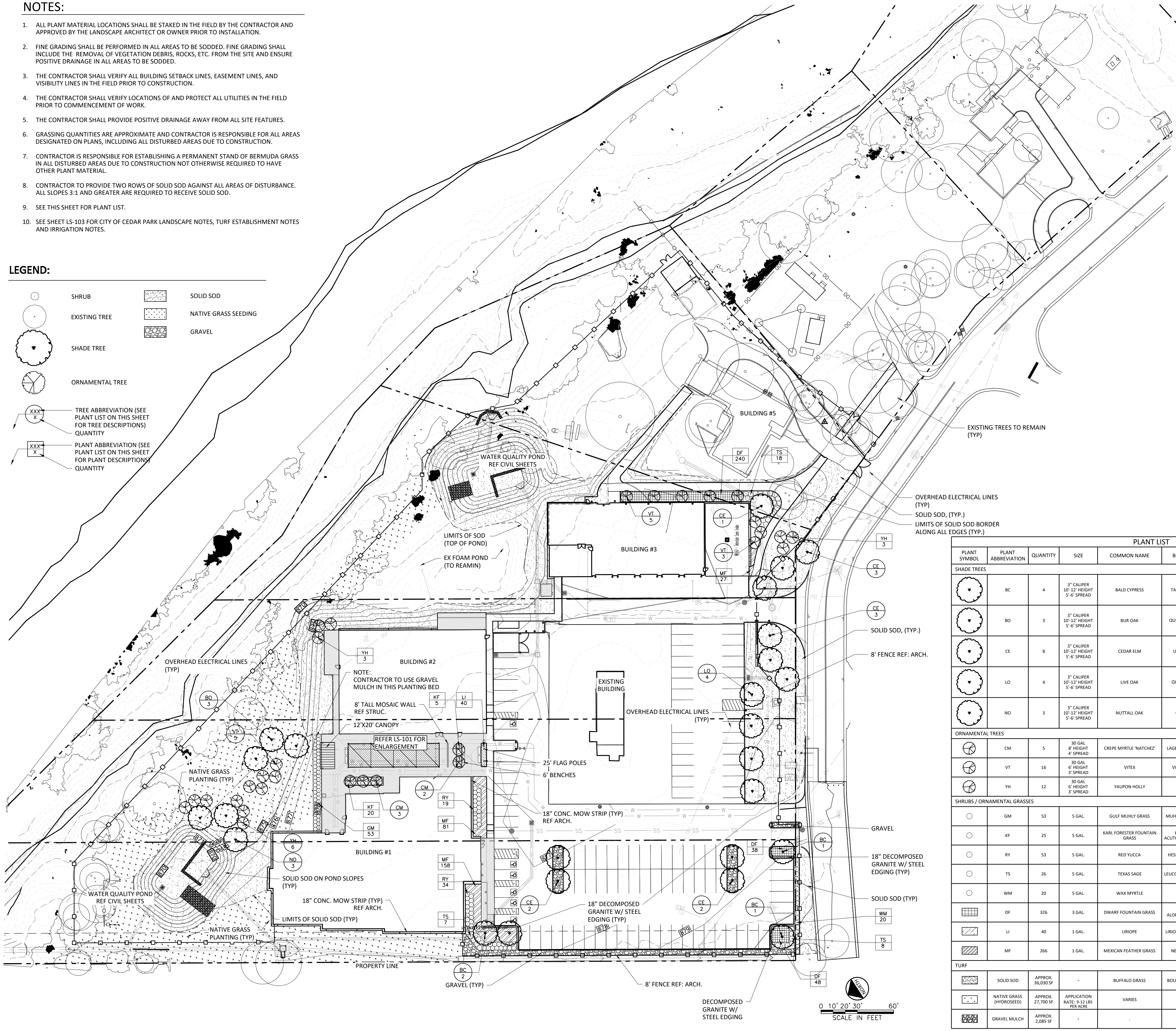
NOTES:

1. ALL PLANT MATERIAL LOCATIONS SHALL BE STAKED IN THE FIELD BY THE CONTRACTOR AND APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER PRIOR TO INSTALLATION.
2. FINE GRADING SHALL BE PERFORMED IN ALL AREAS TO BE SODDED. FINE GRADING SHALL INCLUDE THE REMOVAL OF VEGETATION DEBRIS, ROCKS, ETC. FROM THE SITE AND ENSURE POSITIVE DRAINAGE IN ALL AREAS TO BE SODDED.
3. THE CONTRACTOR SHALL VERIFY ALL BUILDING SETBACK LINES, EASEMENT LINES, AND VISIBILITY LINES IN THE FIELD PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL VERIFY LOCATIONS OF AND PROTECT ALL UTILITIES IN THE FIELD PRIOR TO COMMENCEMENT OF WORK.
5. THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL SITE FEATURES.
6. GRASSING QUANTITIES ARE APPROXIMATE AND CONTRACTOR IS RESPONSIBLE FOR ALL AREAS DESIGNATED ON PLANS, INCLUDING ALL DISTURBED AREAS DUE TO CONSTRUCTION.
7. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING A PERMANENT STAND OF BERMUDA GRASS IN ALL DISTURBED AREAS DUE TO CONSTRUCTION NOT OTHERWISE REQUIRED TO HAVE OTHER PLANT MATERIAL.
8. CONTRACTOR TO PROVIDE TWO ROWS OF SOLID SOD AGAINST ALL AREAS OF DISTURBANCE. ALL SLOPES 3:1 AND GREATER ARE REQUIRED TO RECEIVE SOLID SOD.
9. SEE THIS SHEET FOR PLANT LIST.
10. SEE SHEET LS-103 FOR CITY OF CEDAR PARK LANDSCAPE NOTES, TURF ESTABLISHMENT NOTES AND IRRIGATION NOTES.

LEGEND:

- SHRUB
- EXISTING TREE
- SHADE TREE
- ORNAMENTAL TREE
- TREE ABBREVIATION (SEE PLANT LIST ON THIS SHEET FOR TREE DESCRIPTIONS) / QUANTITY
- PLANT ABBREVIATION (SEE PLANT LIST ON THIS SHEET FOR PLANT DESCRIPTIONS) / QUANTITY
- SOLID SOD
- NATIVE GRASS SEEDING
- GRAVEL



PLANT LIST

PLANT SYMBOL	PLANT ABBREVIATION	QUANTITY	SIZE	COMMON NAME	BOTANICAL NAME	CONDITION	COMMENTS
SHADE TREES							
	BC	4	3" CALIPER 10'-12' HEIGHT 5'-6' SPREAD	BALD CYPRESS	TAXODIUM DISTICHUM	CONTAINER	FULL DENSE CANOPY; MATCH SELECTIONS FOR UNIFORM HEIGHT AND SPREAD
	BO	3	3" CALIPER 10'-12' HEIGHT 5'-6' SPREAD	BUR OAK	QUERCUS MACROCARPA	CONTAINER	FULL DENSE CANOPY; MATCH SELECTIONS FOR UNIFORM HEIGHT AND SPREAD
	CE	8	3" CALIPER 10'-12' HEIGHT 5'-6' SPREAD	CEDAR ELM	ULMUS CRASSIFOLIA	CONTAINER	FULL DENSE CANOPY; MATCH SELECTIONS FOR UNIFORM HEIGHT AND SPREAD
	LO	4	3" CALIPER 10'-12' HEIGHT 5'-6' SPREAD	LIVE OAK	QUERCUS VIRGINIANA	CONTAINER	FULL DENSE CANOPY; MATCH SELECTIONS FOR UNIFORM HEIGHT AND SPREAD
	NO	3	3" CALIPER 10'-12' HEIGHT 5'-6' SPREAD	NUTTALL OAK	QUERCUS TEXANA	CONTAINER	FULL DENSE CANOPY; MATCH SELECTIONS FOR UNIFORM HEIGHT AND SPREAD
ORNAMENTAL TREES							
	CM	5	30 GAL 8' HEIGHT 4' SPREAD	CREPE MYRTLE 'NATCHEZ'	LAGERSTROEMIA NATCHEZ	CONTAINER	SINGLE TRUNK; FULL DENSE CANOPY; MATCH SELECTIONS FOR UNIFORM HEIGHT AND SPREAD
	VT	16	30 GAL 6' HEIGHT 3' SPREAD	VITEX	VITEX AGNUS-CASTUS	CONTAINER	THREE TO FOUR TRUNKS; FULL DENSE CANOPY; MATCH SELECTIONS FOR UNIFORM HEIGHT AND SPREAD
	YH	12	30 GAL 6' HEIGHT 3' SPREAD	YAUPON HOLLY	ILEX VOMITORIA	CONTAINER	THREE TO FOUR TRUNKS; FULL DENSE CANOPY; MATCH SELECTIONS FOR UNIFORM HEIGHT AND SPREAD
SHRUBS / ORNAMENTAL GRASSES							
	GM	53	5 GAL.	GULF MUHLY GRASS	MUHLENBERGIA CAPILLARIS	CONTAINER	40" O.C.; SPACING AS SHOWN
	KF	25	5 GAL.	KARL FORESTER FOUNTAIN GRASS	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	CONTAINER	36" O.C.; SPACING AS SHOWN
	RY	53	5 GAL.	RED YUCCA	HESPERALOE PARVIFLORA	CONTAINER	40" O.C.; SPACING AS SHOWN
	TS	26	5 GAL.	TEXAS SAGE	LEUCOPHYLLUM FRUTESCENS	CONTAINER	40" O.C.; SPACING AS SHOWN
	WM	20	5 GAL.	WAX MYRTLE	MYRICA CERIFERA	CONTAINER	40" O.C.; SPACING AS SHOWN
	DF	326	3 GAL.	DWARF FOUNTAIN GRASS	PENNISETUM ALOPECUROIDES 'HAMELN'	CONTAINER	24" O.C.; SPACING AS SHOWN
	LI	40	1 GAL.	LIRIOPE	LIRIOPE MUSCARI 'BIG BLUE'	CONTAINER	18" O.C.; SPACING AS SHOWN
	MF	266	1 GAL.	MEXICAN FEATHER GRASS	NESSELLA TENUISSIMA	CONTAINER	24" O.C.; SPACING AS SHOWN
TURF							
	SOLID SOD	APPROX. 36,030 SF	-	BUFFALO GRASS	BOUTELOUA DACTYLOIDES	-	SOLID SOD WITH TEMPORARY IRRIGATION, (SEE SPECIFICATIONS)
	NATIVE GRASS (HYDROSEED)	APPROX. 27,700 SF	APPLICATION RATE: 9-12 LBS PER ACRE	VARIES	VARIES	-	MIDWAY MIX, AS SUPPLIED BY NATIVE AMERICAN SEE, JUNCTION, TX (800-728-4043)
	GRAVEL MULCH	APPROX. 2,085 SF	-	.	.	-	4"-6" DIA "BULL ROCK" OR BALLAST ROCK" PLACED OVER GEOTEXTILE FABRIC

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8/9/2024

PROFESSIONAL SEAL

LS-100

ISSUE DATE: August 9, 2024
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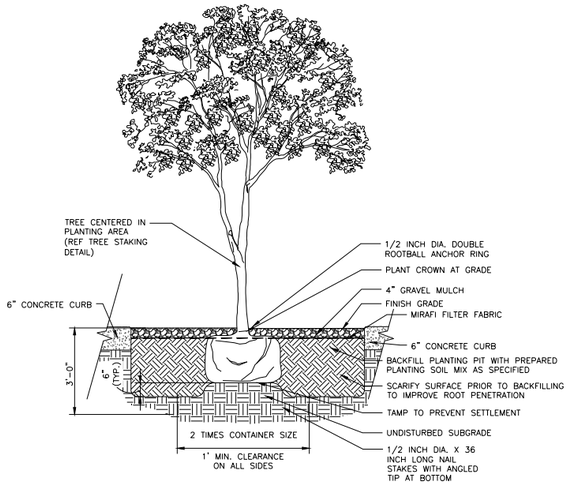
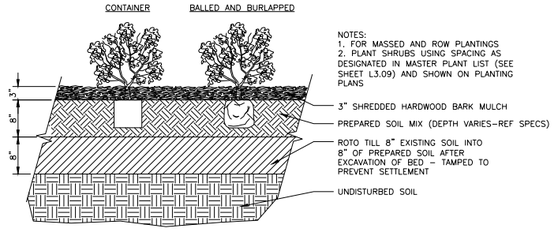
OVERALL PLANTING PLAN



1 LS-103 TREE PLANTING AT GRAVEL MULCH PLANTING BED

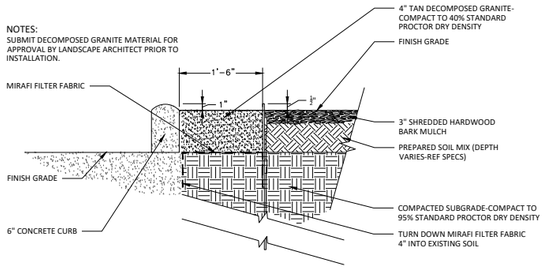
1/2"=1'-0"



NOTES:
1. FOR MASSED AND ROW PLANTINGS
2. PLANT SHRUBS USING SPACING AS DESIGNATED IN MASTER PLANT LIST (SEE SHEET L3.09) AND SHOWN ON PLANTING PLANS

2 LS-103 SHRUB PLANTING DETAIL

1"=1'



3 LS-103 DECOMPOSED GRANITE WITH CONCRETE CURB CONDITIONS

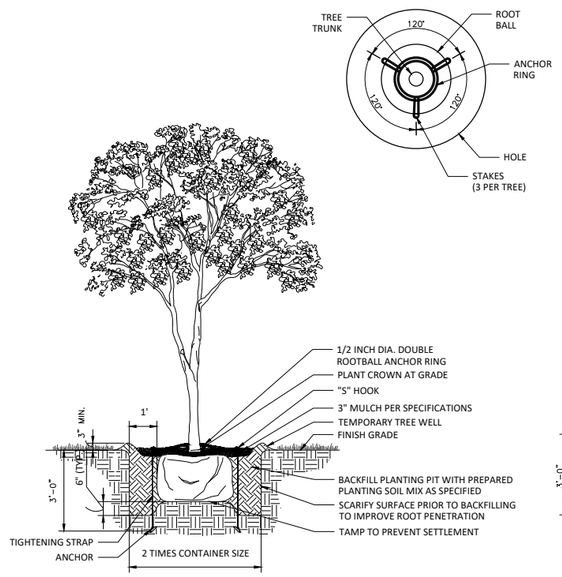
3"=1'-0"

TURF ESTABLISHMENT NOTES

1. THE LANDSCAPE CONTRACTOR, OR ANY OTHER INSTALLING SUBSURFACE IRRIGATION FEATURES, ARE RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL EXISTING AND NEWLY INSTALLED SUBSURFACE UTILITY LINES WITHIN THE PROJECT SITE. PRIOR TO ANY INSTALLATION, THE CONTRACTOR SHALL HAVE UNDERGROUND UTILITIES LOCATED THROUGH THE TEXAS ONE CALL SYSTEM (8-1-1).
2. THE LANDSCAPE CONTRACTOR SHALL FINE GRADE ENTIRE SITE TO WITHIN 0.10 FOOT OF GRADES ESTABLISHED BY CIVIL ENGINEERING PLANS. CONTRACTOR SHALL PLACE TOP SOIL/AMENDED SOIL IN TURF AREAS TO A DEPTH INDICATED IN THE SPECIFICATIONS.
3. THE LANDSCAPE CONTRACTOR SHALL TILL ALL TURF AREAS AND INCORPORATE ALL AMENDMENTS AS REQUIRED BY THE SPECIFICATIONS.
4. THE LANDSCAPE CONTRACTOR SHALL PROTECT ALL INLETS AND AREA DRAINS WITHIN LANDSCAPED AREAS BEFORE BEGINNING WORK. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING PROTECTION MEASURES AND ALL ACCUMULATED DEBRIS FROM INLETS AFTER WORK IS COMPLETED.
5. A MINIMUM OF 30 DAYS BEFORE TURF INSTALLATION, THE LANDSCAPE CONTRACTOR SHALL SUBMIT TO THE LANDSCAPE ARCHITECT TURF ANALYSIS REPORT FROM THE GROWER/ SEED SUPPLIER
6. A MINIMUM OF 30 DAYS BEFORE TURF INSTALLATION, THE LANDSCAPE CONTRACTOR SHALL SUBMIT TO THE LANDSCAPE ARCHITECT, MANUFACTURERS ANALYSIS OF ALL TOP SOIL, AMENDMENTS, AND FERTILIZER.
7. CONTRACTOR SHALL NOT BEGIN ANY TURF ESTABLISHMENT OPERATIONS UNTIL IRRIGATION SYSTEM IS FUNCTIONAL. 48 HOURS PRIOR TO SEEDING, HYROMULCHING OR SODDING, THE CONTRACTOR SHALL RUN THE IRRIGATION SYSTEM AND MOISTEN THE FIRST 4" OF SOIL. PRESSURE TESTING OF THE IRRIGATION SYSTEM SHALL ALSO BE COMPLETE BEFORE TURF ESTABLISHMENT
8. FOR TURF ESTABLISHMENT WITHOUT AN AUTOMATIC IRRIGATION SYSTEM, CONTRACTOR SHALL MAKE PROVISION TO HAND WATER PRIOR TO AND AFTER SEED OR SOD APPLICATION. THE CONTRACTOR MAY ESTABLISH AN ABOVE GROUND TEMPORARY IRRIGATION SYSTEM, AT HIS COST, UNTIL TURF IS ESTABLISHED AND ACCEPTED BY THE OWNER. REMOVAL OF THE TEMPORARY IRRIGATION SYSTEM WILL BE REQUIRED BEFORE FINAL ACCEPTANCE.
9. CONTRACTOR IS RESPONSIBLE FOR ALL MAINTENANCE, WEEDING AND MOWING THROUGHOUT THE TURF ESTABLISHMENT PERIOD. SEE SPECIFICATIONS FOR A FULL LIST OF REQUIREMENTS.
10. FINAL ACCEPTANCE OF THE TURF WORK WILL ONLY OCCUR AFTER TURF GRASS MEETS STANDARDS DEFINED IN THE SPECIFICATIONS.
11. SEE SPECIFICATIONS FOR A FULL LIST OF REQUIREMENTS.

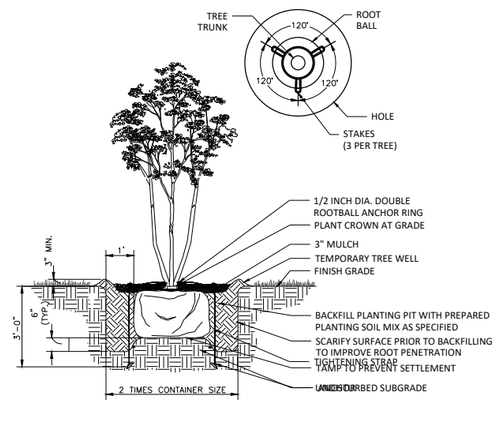
PLANTING NOTES:

1. THE LANDSCAPE CONTRACTOR, OR ANY OTHER INSTALLING PLANTS OR SUBSURFACE IRRIGATION FEATURES, ARE RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL EXISTING AND NEWLY INSTALLED SUBSURFACE UTILITY LINES WITHIN THE PROJECT SITE. PRIOR TO ANY INSTALLATION, THE CONTRACTOR SHALL HAVE UNDERGROUND UTILITIES LOCATED THROUGH THE TEXAS ONE CALL SYSTEM (8-1-1).
2. THE LANDSCAPE CONTRACTOR SHALL FINE GRADE ENTIRE SITE TO WITHIN 0.10 FOOT OF GRADES ESTABLISHED BY CIVIL ENGINEERING PLANS. CONTRACTOR SHALL PLACE TOP SOIL/AMENDED SOIL IN PLANTING AREAS TO A DEPTH INDICATED IN THE SPECIFICATIONS.
3. THE CONTRACTOR SHALL MARK ALL BEDS WITH MARKING PAINT OR PIN FLAGS FOR LANDSCAPE ARCHITECTS APPROVAL 48 HOURS BEFORE BED PREPARATION WORK BEGINS.
4. THE LANDSCAPE CONTRACTOR SHALL TILL BEDS AND INCORPORATE ALL AMENDMENTS AS REQUIRED BY THE SPECIFICATIONS. UNLESS OTHERWISE INDICATED THE CONTRACTOR SHALL EXCAVATE AND PROVIDE THE AMENDED SOIL AS FOLLOWS:
   SHRUB BEDS: 12"
   PERENNIAL/ANNUAL BEDS: 6"
   TREE PITS: 2X DIA OF CONTAINER
5. THE LANDSCAPE CONTRACTOR SHALL PROTECT ALL INLETS AND AREA DRAINS WITHIN LANDSCAPED AREAS BEFORE BEGINNING WORK. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING PROTECTION MEASURES AND ALL ACCUMULATED DEBRIS FROM INLETS AFTER WORK IS COMPLETED.
6. A MINIMUM OF 30 DAYS BEFORE PLANT INSTALLATION, THE LANDSCAPE CONTRACTOR SHALL SUBMIT TO THE LANDSCAPE ARCHITECT COLOR PHOTOS OF CURRENT PLANTING STOCK PROPOSED FOR USE ON THIS PROJECT. SUBMITTAL PHOTOS OF ALL PLANTS SHALL BE HIGH RESOLUTION AND INCLUDE, DATE PHOTO TAKEN, MEANS OF DETERMINING SCALE, GROWERS NAME, LOCATION AND PHONE NUMBER.
7. A MINIMUM OF 30 DAYS BEFORE PLANT INSTALLATION, THE LANDSCAPE CONTRACTOR SHALL SUBMIT TO THE LANDSCAPE ARCHITECT, MANUFACTURERS ANALYSIS OF ALL TOP SOIL, AMENDMENTS, AND FERTILIZER.
8. ALL PLANT MATERIAL SHALL BE GRADE 'A' SPECIMEN QUALITY. ALL PLANT MATERIALS SHALL CONFORM TO THE LATEST EDITION OF AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS FOR NURSERY STOCK.
9. PLANT SUBSTITUTIONS FROM THE LANDSCAPE CONTRACTOR ARE HIGHLY DISCOURAGED AND MUST BE APPROVED IN WRITING PRIOR TO PLANT INSTALLATION. LACK OF LOCAL AVAILABILITY WILL NOT BE AN ACCEPTABLE REASON FOR SUBSTITUTION. NO SUBSTITUTIONS AFTER PLANT SUBMITTALS ARE APPROVED WILL BE ACCEPTED. THE LANDSCAPE CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING THE NON-APPROVED SUBSTITUTION MATERIAL AT NO ADDITIONAL COST TO THE OWNER.
10. IF LANDSCAPING MATERIAL IS INSTALLED PRIOR TO COMPLETION OF THE IRRIGATION SYSTEM, CONTRACTOR SHALL MAKE PROVISIONS TO HAND WATER PLANT MATERIAL UNTIL IRRIGATION SYSTEM IS FUNCTIONAL.
11. THE CONTRACTOR AGREES TO PROVIDE A WARRANTY FOR THE PERIOD OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION. AT THE REQUEST OF THE OWNER, ALL DEAD, OR DYING PLANT MATERIAL MUST BE REPLACED WITHIN SEVEN (7) DAYS AT NO ADDITIONAL COST DURING THE WARRANTY PERIOD.
12. ALL MATERIAL SHALL BE CONTAINER GROWN UNLESS OTHERWISE NOTED IN THE PLANS. NO BALLED & BURLAP MATERIAL WILL BE ACCEPTED.
13. PLANTING PITS FOR TREES AND SHRUBS, NOT LOCATED IN A BED AREAS, ARE TO BE 2X THE DIAMETER OF THE ROOT BALL.
14. ALL PLANTING BEDS AND TREES SHALL BE TOP DRESSED WITH 3" OF SHREDDED, NATIVE, HARDWOOD BARK MULCH. NO DYED MULCH WILL BE ACCEPTED. PINE STRAW MULCH IS AN ACCEPTABLE ALTERNATIVE BUT MUST BE APPROVED BY THE LANDSCAPE ARCHITECT.
15. TREES SHALL BE INSTALLED PLUMB AND STAKED ACCORDING TO THE DRAWINGS OR SPECIFICATIONS. LOW HANGING BRANCHES SHALL BE REMOVED FROM TREES AT THE DIRECTION OF THE LANDSCAPE ARCHITECT. ANY TREES DELIVERED TO THE SITE WITH BAMBOO OR CANE SUPPORTS WILL BE REJECTED. THE CENTRAL LEADER OF ALL TREES MUST REMAIN UPRIGHT WITH NO DEFLECTION, OTHERWISE IT WILL BE REJECTED
16. UNLESS OTHER EDGING MATERIAL IS SHOWN IN THE DRAWINGS, ALL BED AREAS SHALL RECEIVE STEEL EDGING. COL-MET COMMERCIAL EDGING PRODUCTS (10' X 3/16" X 6") PAINTED BLACK. PROVIDE MANUFACTURED CORNERS.
17. SEE SPECIFICATIONS FOR A FULL LIST OF REQUIREMENTS.



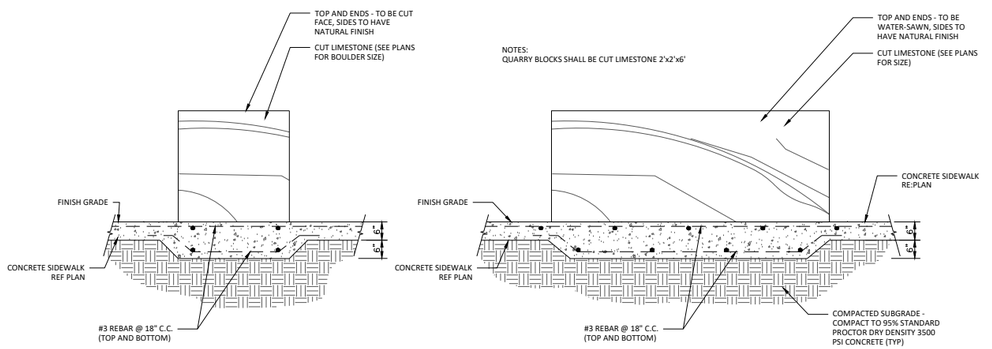
4 LS-103 TREE STAKING DETAIL

NOT TO SCALE



5 LS-103 MULTI-TRUNK TREE STAKING DETAIL

1/2"=1'-0"



6 LS-103 LIMESTONE QUARRY BLOCK

NOT TO SCALE

HOEFER WELKER
4622 PENNSYLVANIA AVENUE
SUITE 1400
KANSAS CITY, MO 64112
P: 913.307.3700
www.hoeferwelker.com

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144
FREESE NICHOLS
101 S. Locust Street, Suite 202
Denton, Texas 76201
Phone - (940) 220-4340
Web - www.freese.com

PUBLIC SAFETY TRAINING CENTER

1204 N FIRE LN
CEDAR PARK, TEXAS 78613

CONSTRUCTION DOCUMENTS

REVISION DATES:

REGISTERED LANDSCAPE ARCHITECT
STATE OF TEXAS
8/9/2024

PROFESSIONAL SEAL

LS-103

ISSUE DATE: August 9, 2024
HOEFER WELKER #: 138091

SITE DETAILS

Attachment N

Inspection and Maintenance for BMPs

The proposed project of clearing, grubbing, and well drilling is anticipated to disturb less than five acres. Being less than five acres of disturbance, a Stormwater Pollution Prevention Plan (SW3P) without Notice of Intent (NOI) to TCEQ will be in place prior to and during construction. An Inspector's Qualifications and Inspection Form is part of the SW3P. The roles and responsibilities for implementation and maintenance of the elements of the SW3P and BMPs are also specified in the SW3P and will be agreed to by all parties involved with the construction activity who meet the definition of a primary operator. The following are inspection and maintenance guidelines for the selected temporary BMPs as stated in TCEQ RG-348:

Silt fence:

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

Inlet Protection:

1) Inlet protection should be inspected weekly and after each rain event to locate and repair any damage to the channel or clear debris or other obstructions so as not to diminish flow capacity. Remove sediment when buildup reaches a depth of 3 inches. Removed sediment should be deposited in a suitable area that will not erode.
2) Check placement of the device to prevent gaps between device and curb. Inspect filter fabric and patch or replace if torn or missing.

3) Structures should be removed and the area stabilized only after the remaining drainage area has been properly stabilized.

Extended Detention Basins:

1) Basins should be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. Detention control devices should be regularly inspected for evidence of clogging or rapid release. During each inspection, erosion sreas inside or downstream of the BMP should be identified, repaired, or revegetated immediately.

2) The upper stage, side slopes, embankment, and emergency spillway of an extended detention basin must be mowed regularly to discourage woody growth and control weeds. Grass in and around basins should be mowed at least twice annual to limit vegetation height to 18 inches. Grass clippings should be caught and removed.

3) Debris and litter will accumulate near the extended detention control device and should be removed during regular mowing operations and inspections. Particular attention should be paid to floating debris that can clog the control device or riser.

4) Pond side slopes, emergency spillway, and embankment may periodically suffer from slumping or erosion. Regrading and revegetation may be required to correct the problems.

5) During inspections, any damage to the structural elements of the system (pipes, concrete drainage structures, retaining walls, etc.) should be identified and repaired immediately. Inlets, outlets, and risers will eventually deteriorate and must be replaced.

6) Standing water or soggy conditions within the basin can create nuisance conditions for nearby residents. Odors, mosquitos, weeds, and litter can be perceived as problems.

7) Extended detention basins will accumulate sediments over time. Accumulated sediments need to be removed from the lower stage when sediment buildup fills 20% of the volume of the basin or every 10 years.

Level Spreader:

1) Level spreader should be inspected after every rainfall and repairs should be made, if needed.

2) Level spreader lip should remain at a 0% slope to properly function.
3) The contractor should avoid placement of any material or construction traffic across the structure. If the level spreader is damaged by construction, it should be repaired immediately.

Completed inspection reports will include the following information:

- scope of the inspection,
- name(s) of personnel making the inspection,
- reference to qualifications of inspection personnel,
- date of the inspection,
- observed major construction activities, and
- actions taken as a result of the inspection.

The inspection report should state whether the site was in compliance or identify any incidents of non-compliance. The report will be signed by the inspector in accordance with Part III.F.7 of the TPDES general permit and filed in the SWP3. Inspection reports will be kept in the Contractor's file, along with the SWP3, for at least three years from the date that the project is completed.

Final stabilization of the construction site has been achieved when all soil disturbing activities at the site have been completed, and a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures. If a vegetative cover cannot be established, equivalent permanent stabilization measures (such as riprap, gabions, or geotextiles) can be employed. When these conditions have been met, BMPs can be removed from the construction area.

Owner & Responsible Party for Maintenance:	City of Cedar Park
Address:	450 Cypress Creek Road, Bldg. 1
City, State, Zip:	Cedar Park, Texas 78613
Telephone Number:	(512) 401-5352

Signature of Responsible Party: _____ Date: 10/2/2024

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: Tam Tran

Date: 08/23/2024

Signature of Customer/Agent:

Regulated Entity Name: Public Safety Training Center

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: gasoline, diesel

   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: Cluck Creek, a tributary to Brushy Creek

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☒ N/A

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

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

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

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

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

Soil Stabilization Practices

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

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

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

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

Administrative Information

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

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

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

Attachment A

Spill Response Actions

The TCEQ's spill response rules (30 TAC § 327.1-5) define what is considered a reportable spill and outline reporting requirements to the state, local government, and affected persons or property owners. Response and follow-up written report requirements are also identified.

The reportable quantities (RQ) for hazardous substances shall be:

(1) for spills or discharges onto land--the quantity designated as the Final Reportable Quantity (RQ) in Table 302.4 in 40 CFR §302.4; or

(2) for spills or discharges into waters in the state--the quantity designated as the Final RQ in Table 302.4 in 40 CFR §302.4, except where the Final RQ is greater than 100 pounds in which case the RQ shall be 100 pounds.

The RQ for crude oil and oil other than that defined as petroleum product or used oil shall be:

(A) for spills or discharges onto land--210 gallons (five barrels); or

(B) for spills or discharges directly into water in the state--quantity sufficient to create a sheen.

The RQ for petroleum product and used oil shall be:

(A) except as noted in subparagraph (B) of this paragraph, for spills or discharges onto land--25 gallons;

(B) for spills or discharges to land from PST exempted facilities--210 gallons (five barrels); or

(C) for spills or discharges directly into water in the state--quantity sufficient to create a sheen.

Industrial solid waste or other substances. The RQ for spills or discharges into water in the state shall be 100 pounds.

Upon the determination that a reportable discharge or spill has occurred, the responsible person shall notify the agency as soon as possible but not later than 24 hours after the discovery of the spill or discharge. The responsible person shall notify the agency in any reasonable manner including by telephone, in person, or by any other method approved by the agency. In all cases, the initial notification shall provide, to the extent known, the following information:

(1) the name, address and telephone number of the person making the telephone report;

(2) the date, time, and location of the spill or discharge;

(3) a specific description or identification of the oil, petroleum product, hazardous substances or other substances discharged or spilled;

(4) an estimate of the quantity discharged or spilled;

(5) the duration of the incident;

(6) the name of the surface water or a description of the waters in the state affected or threatened by the discharge or spill;

(7) the source of the discharge or spill;

(8) a description of the extent of actual or potential water pollution or harmful impacts to the environment and an identification of any environmentally sensitive areas or natural resources at risk;

(9) if different from paragraph (1) of this subsection, the names, addresses, and telephone numbers of the responsible person and the contact person at the location of the discharge or spill;

(10) a description of any actions that have been taken, are being taken, and will be taken to contain and respond to the discharge or spill;

(11) any known or anticipated health risks;

(12) the identity of any governmental representatives, including local authorities or third parties, responding to the discharge or spill; and

(13) any other information that may be significant to the response action.

In order to satisfy the federal requirement to notify the State Emergency Response Commission in the State of Texas, the responsible person shall notify one of the following:

(1) the State of Texas Spill-Reporting Hotline at 1-800-832-8224;

(2) during normal business hours only, the regional office for the agency region in which the discharge or spill occurred; or

(3) the National Response Center at 1-800-424-8802.

The responsible person shall notify the agency as soon as possible whenever necessary to provide information that would trigger a change in the response to the spill or discharge. If the discharge or spill creates an imminent health threat, the responsible person shall immediately notify and cooperate with local emergency authorities (fire department, fire marshal, law enforcement authority, health authority, or Local Emergency Planning Committee (LEPC), as appropriate). The responsible party will cooperate with the local emergency authority in providing support to implement appropriate notification and response actions. The local emergency authority, as necessary, will implement its emergency management plan, which may include notifying and evacuating affected persons. In the absence of a local emergency authority, the responsible person shall take reasonable measures to notify potentially affected persons of the imminent health threat.

The responsible person shall immediately abate and contain the spill or discharge and cooperate fully with the executive director and the local incident command system. The responsible person shall also begin reasonable response actions which may include, but are not limited to, the following actions:

(1) arrival of the responsible person or response personnel hired by the responsible person at the site of the discharge or spill;

(2) initiating efforts to stop the discharge or spill;

(3) minimizing the impact to the public health and the environment;

(4) neutralizing the effects of the incident;

(5) removing the discharged or spilled substances; and

(6) managing the wastes.

Texas Commission on Environmental Quality (TCEQ). 2016. 30 TAC § 327.1-5. Chapter 327: Spill Prevention and Control. https://www.tceq.texas.gov/assets/public/legal/rules/rules/pdflib/327.pdf

Attachment B

Potential Sources of Contamination

During the proposed project, the sources of potential contamination include diesel and gasoline fuel, and hydraulic fluid in the equipment that will be used for construction. Fuel for construction vehicles and work trucks will be used and be stored on site in sealed containers. No contamination is expected to occur.

ATTACHMENT C

SEQUENCE OF MAJOR ACTIVITIES

Activity	Description	Area of Disturbance	BMPs
Install temporary BMPs	Install temporary BMPs such as silt fencing and inlet protection	<0.01 ac	Silt fencing and inlet protection
Clearing	Remove vegetation within the project area	0.5 ac	Silt fencing and inlet protection
Construction	Construct training center buildings	1.65 ac	Silt fencing and inlet protection
Construction	Two additional detention basins	1.0 ac	Detention basin and silt fencing
Construction	Install engineered rock level spreader	0.05 ac	Rock level spreader
Post Construction	Remove temporary BMPs	<0.01 ac	Silt fencing and inlet protection

Attachment D

Temporary Best Management Practices and Measures

BMP	Sequence of Construction	Control Measures
Debris and trash management	Pre-construction	Trash and litter control
Sanitary facilities	Pre-construction	Sanitary waste control
Silt fence	Pre-construction	Sediment control
Inlet Protection	Pre-construction	Sediment control
Detention Basin	Post construction	Sediment control
Engineered Rock Level Spreader	Post construction	Slope protection; channel protection

The BMPs that will be in place during and after construction have been selected to help prevent pollution of surface water, groundwater, stormwater, the aquifer, or any other sensitive features that may be on or near the proposed project site. The measures to help prevent this pollution and maintain flow to naturally-occurring sensitive features are described below. There is no surface water on the project site.

Sanitary facilities and debris and trash management will help reduce sanitary waste and trash from littering the project site and surrounding areas.

A silt fence will be installed downslope of the disturbed area to filter sediment from water flowing over the disturbed area. The silt fence will help detain soil and sediment from leaving the construction site. By filtering water runoff, the possibility of pollution to any surface water, sensitive features, or aquifers that may be near the site is reduced.

Inlet protection will be installed at the entry of storm drains downslope of the project area. The function of inlet protection would be to prevent sediment and pollutants from entering the storm sewer system. Inlet protection will be regularly inspected and cleaned out when it is full.

The two additional detention basins will increase the capacity to store water during rain events and use. The detention basins would be used to capture and store sediments and pollutants from entering the municipal stormwater system and downstream towards surface waters.

Additional rock level spreader will be used to control flows from the wet detention ponds. The level spreader will convert runoff into sheet flow to reduce erosion and stabilize the slope.

Resources:

North Central Texas Council of Governments (NCTCOG). 2003. Integrated Storm Water Management Design Manual for Construction. http://www.iswm.nctcog.org/Documents/Construction/Final/pdf/Ch4_E_BMPs.pdf

Barrett, Michael. 2005. TCEQ Complying with the Edwards Aquifer Rules: Technical Guidance of Best Management Practices (RG-348).

Attachment F

Structural Practices

Use of a silt fence and inlet protection will filter sediment from on-site runoff, contain sediment in the disturbed area and prevent potential pollution to off-site areas. The two additional detention basins within the project area will increase the capacity for stormwater runoff and use. The rock level spreader will reduce runoff velocity.

Attachment I

Inspection and Maintenance for BMPs

The proposed project of trenching and pump station construction is anticipated to disturb less than five acres. Being less than five acres of disturbance, a Stormwater Pollution Prevention Plan (SW3P) without Notice of Intent (NOI) to TCEQ will be in place prior to and during construction. An Inspector's Qualifications and Inspection Form is part of the SW3P. The roles and responsibilities for implementation and maintenance of the elements of the SW3P and BMPs are also specified in the SW3P and will be agreed to by all parties involved with the construction activity who meet the definition of a primary operator. The following are inspection and maintenance guidelines for the selected temporary BMPs as stated in TCEQ RG-348:

Silt fence:

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

Inlet Protection:

1) Inspect all inlet protection devices weekly, and after any rainfall.
2) Remove sediment when buildup reaches 3 inches.
3) Check placement of device to prevent gaps between device and curb.
4) Inspect filter fabric and patch or replace if torn or missing.
5)Structures should be removed and the area stabilized only after the remaining drainage area has been properly stabilized.

Vegetative Filter Strips:

1) Vegetation strips should be inspected weekly and after each rain event to locate and repair any erosion.

2) Erosion from storms or other damage should be repaired as soon as practical by re-grading the area and applying new seed.

3) If the vegetated cover is less than 70%, the area should be reseeded.

Level Spreader:

1) Level spreader should be inspected after every rainfall and repairs should be made, if needed.
2) Level spreader lip should remain at a 0% slope to properly function.
3) The contractor should avoid placement of any material or construction traffic across the structure. If the level spreader is damaged by construction, it should be repaired immediately.

Completed inspection reports will include the following information:

- scope of the inspection,
- name(s) of personnel making the inspection,
- reference to qualifications of inspection personnel,
- date of the inspection,
- observed major construction activities, and
- actions taken as a result of the inspection.

The inspection report should state whether the site was in compliance or identify any incidents of non-compliance. The report will be signed by the inspector in accordance with Part III.F.7 of the TPDES general permit and filed in the SWP3. Inspection reports will be kept in the Contractor's file, along with the SWP3, for at least three years from the date that the project is completed.

Final stabilization of the construction site has been achieved when all soil disturbing activities at the site have been completed, and a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background

vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures. If a vegetative cover cannot be established, equivalent permanent stabilization measures (such as riprap, gabions, or geotextiles) can be employed. When these conditions have been met, BMPs can be removed from the construction area.

Attachment J

Schedule of Interim and Permanent Soil Stabilization Practices

Interim and Permanent Soil Stabilization Practices	Schedule
Engineered Rock Level Spreader	Post-construction

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

I Caleb Stockton,
Print Name

Senior Project Manager, Engineering and Capital Projects,
Title - Owner/President/Other

of City of Cedar Park,
Corporation/Partnership/Entity Name

have authorized Tam H. Tran
Print Name of Agent/Engineer

of Freese and Nichols, 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

8/30/2024
Date

THE STATE OF Texas §

County of Williamson §

BEFORE ME, the undersigned authority, on this day personally appeared Caleb Stockton 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 30 day of August 2024

NOTARY PUBLIC

Yvonne Murdoch
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 5-1-2027

YVONNE MURDOCH
NOTARY PUBLIC
ID# 134334843
State of Texas
Comm. Exp. 05-01-2027

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Public Safety Training Center
Regulated Entity Location: Cedar Park, TX
Name of Customer: City of Cedar Park
Contact Person: Tam Tran Phone: 512-381-1830
Customer Reference Number (if issued):CN 600407951
Regulated Entity Reference Number (if issued):RN 108001322
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	6.71 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: 08/30/2024

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

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN 600407951		**RN 108001322**

SECTION II: Customer Information

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

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

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

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

City of Cedar Park

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

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

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

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

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

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

15. Mailing Address: 450 Cypress Creek Road

City	Cedar Park	**State**	TX	**ZIP**	78613	**ZIP + 4**	

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

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

(512) 401-5000		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☐ New Regulated Entity ☒ Update to Regulated Entity Name ☐ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

Public Safety Training Center

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	1204 North Kent Lane							
	City	Cedar Park	**State**	TX	**ZIP**	78613	**ZIP + 4**	
24. County	Williamson							

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

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

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

27. Latitude (N) In Decimal:	30.497315		**28. Longitude (W) In Decimal:**	-97.808153	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
9224	9221	611519	

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

police and fire training facility.

34. Mailing Address:	**1204 N. Kent Lane**							
	City	**Cedar Park**	**State**	**TX**	**ZIP**	**78613**	**ZIP + 4**	
35. E-Mail Address:								

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

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

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☒ Emissions Inventory Air	☐ Industrial Hazardous Waste
			R11108001322	
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Tam H. Tran	**41. Title:**	Environmental Scientist

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512 **)** 381-1830		**( )** -	Tam.Tran@freese.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:	Freese and Nichols, Inc.	**Job Title:**	Environmental Scientist		
Name *(In Print):*	Tam H. Tran			**Phone:**	**(** 512 **)** 381- **1830**
Signature:				**Date:**	8/30/2024