AtkinsRéalis

TCEQ EDWARDS AQUIFER PROTECTION PROGRAM CONTRIBUTING ZONE PAN

LEANDER INDEPENDEDNT SCHOOL DISTRICT

EARLY CHILDCHOOD CENTER

Prepared for:

Leander Independent School District
P.O. Box 218
Leander, Texas 78646-0218

Prepared by:

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Austin, Texas 78758
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TBPE Reg. NO: F-474

December 2024

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: LISD Early Childhood Center							**2. Regulated Entity No.:**			
3. Customer Name: Leander ISD							**4. Customer No.:** CN600781074			
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):**			36.588
9. Application Fee:	$6,500.00		**10. Permanent BMP(s):**						Partial Sedimentation and Filtration System	
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**						N/A	
13. County:	Williamson		**14. Watershed:**						Turkey Creek-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 ___Cedar Park ___Florence ___Georgetown ___Jerrell x_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. Shangreaux, Michael, PE
Print Name of Customer/Authorized Agent
Michael Shangreaux, P.E. Digitally signed by Michael Shangreaux, P.E. DN: C=US, E=michael.shangreaux@atkinsrealis.com, O=AtkinsRealis, CN="Michael Shangreaux, P.E." Date: 2024.12.16 11:23:41-06'00' 12-16-2024
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: Shangreaux, Michael

Date: 12-16-2024

Signature of Customer/Agent:

Michael Shangreaux, P.E. Digitally signed by Michael Shangreaux, P.E. DN: C=US, E=michael.shangreaux@atkinsrealis.com, O=AtkinsRealis, CN="Michael Shangreaux, P.E." Date: 2024.12.16 11:25:19-06'00'

Regulated Entity Name: LISD Early Childhood Center

Project Information

1. County: Williamson
2. Stream Basin: Brushy Creek
3. Groundwater Conservation District (if applicable): N/A
4. Customer (Applicant):

   Contact Person: Jeremy Trimble
   Entity: LISD
   Mailing Address: 204 W. South Street P.O. Box 218
   City, State: Leander Zip: 78646
   Telephone: (512) 570-0415 Fax: (512) 570-0054
   Email Address: jeremy.trimble@leanderisd.org

5. Agent/Representative (If any):

   Contact Person: Shangreaux, Michael
   Entity: AtkinsRéalis
   Mailing Address: 11801 Domain Blvd, Suite 500
   City, State: Austin Zip: 78758
   Telephone: (512) 939-2309 Fax: _____
   Email Address: Michael.Shangreaux@atkinsrealis.com

6. Project Location:

   ☒ The project site is located inside the city limits of Leander, TX.
   ☐ 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.

   South-east corner of W. San Gabriel Parkway and Halsey Dr intersection. Williamson CAD Parcels: R462849, R462848

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: Preschool Facility

13. Total project area (size of site): 36.59 Acres

Total disturbed area: TBD Acres

14. Estimated projected population: 600 Pre-K students (ages 3-4)and 100 childcare students (ages 0-2)

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	101,909	÷ 43,560 =	2.34
Parking	148,893	÷ 43,560 =	3.42
Other paved surfaces	284,882	÷ 43,560 =	6.54
Total Impervious Cover	535,684	÷ 43,560 =	12.30

Total Impervious Cover 12.30 **÷ Total Acreage** 36.59 **X 100 =** 34.6**% 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 Leander Wastewater (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" = 70'.

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): FIRM Panel No. 48491C0455F dated December 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.

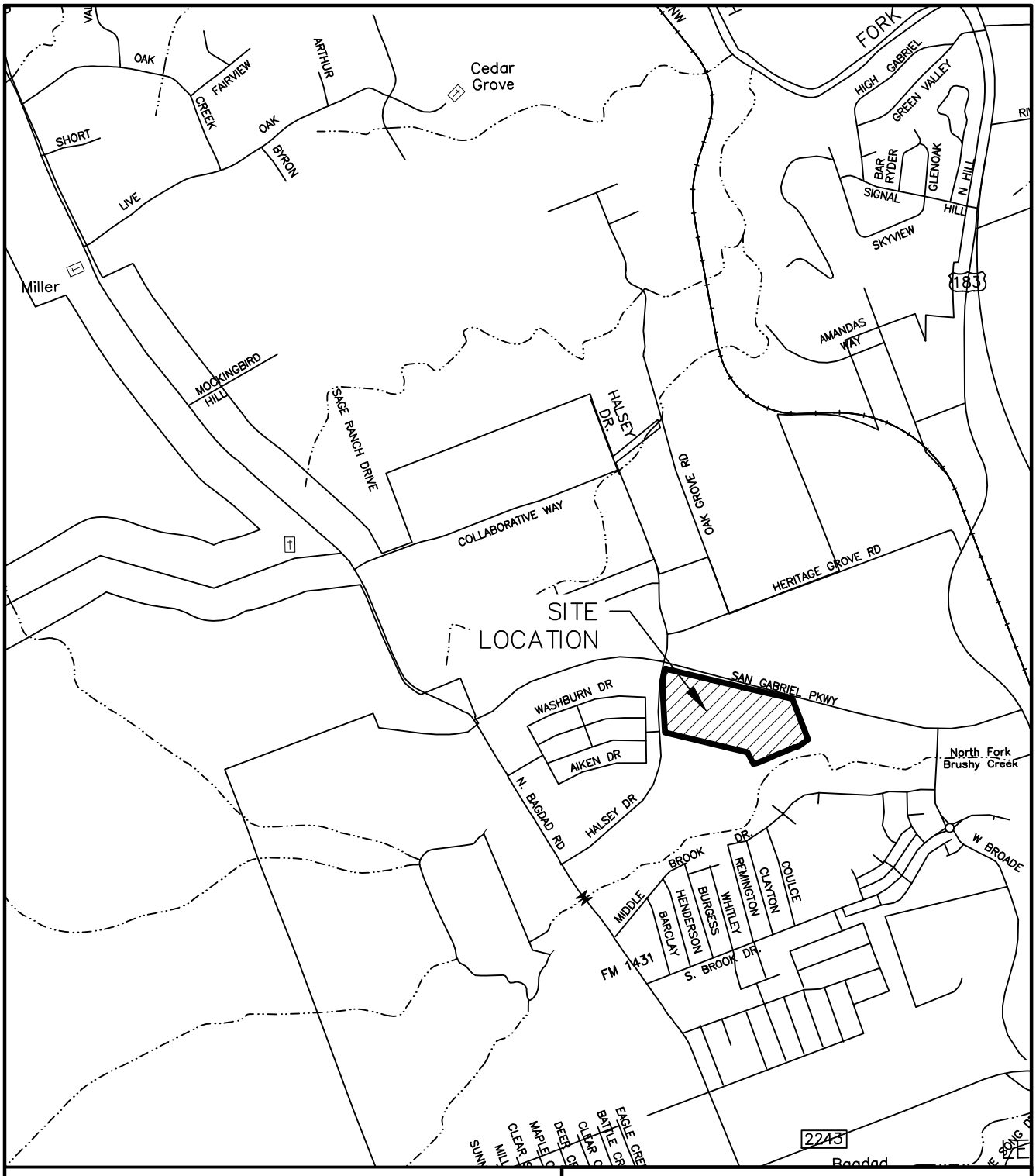
62. ☒ Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.

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



AtkinsRéalis
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Phone: (512) 327-6840 FAX: (512) 327-2453

LISD EARLY CHILDHOOD CENTER
GENERAL LOCATION MAP
ATTACHMENT "A"

Prepared for: LEANDER INDEPENDENT SCHOOL DISTRICT	
Job No.: 100090499	Scale: 1"=2000'
Drawn by: K.M.	Date: DECEMBER, 15 2024
File: C:\USERS\MELL7452\ONEDRIVE\DOCUMENTS\ECC\POND DESIGN\WATER QUALITY\TCEQ\ECC CZP\ECC-ROAD ATTACHMENT A.DWG	

ATTACHMENT B

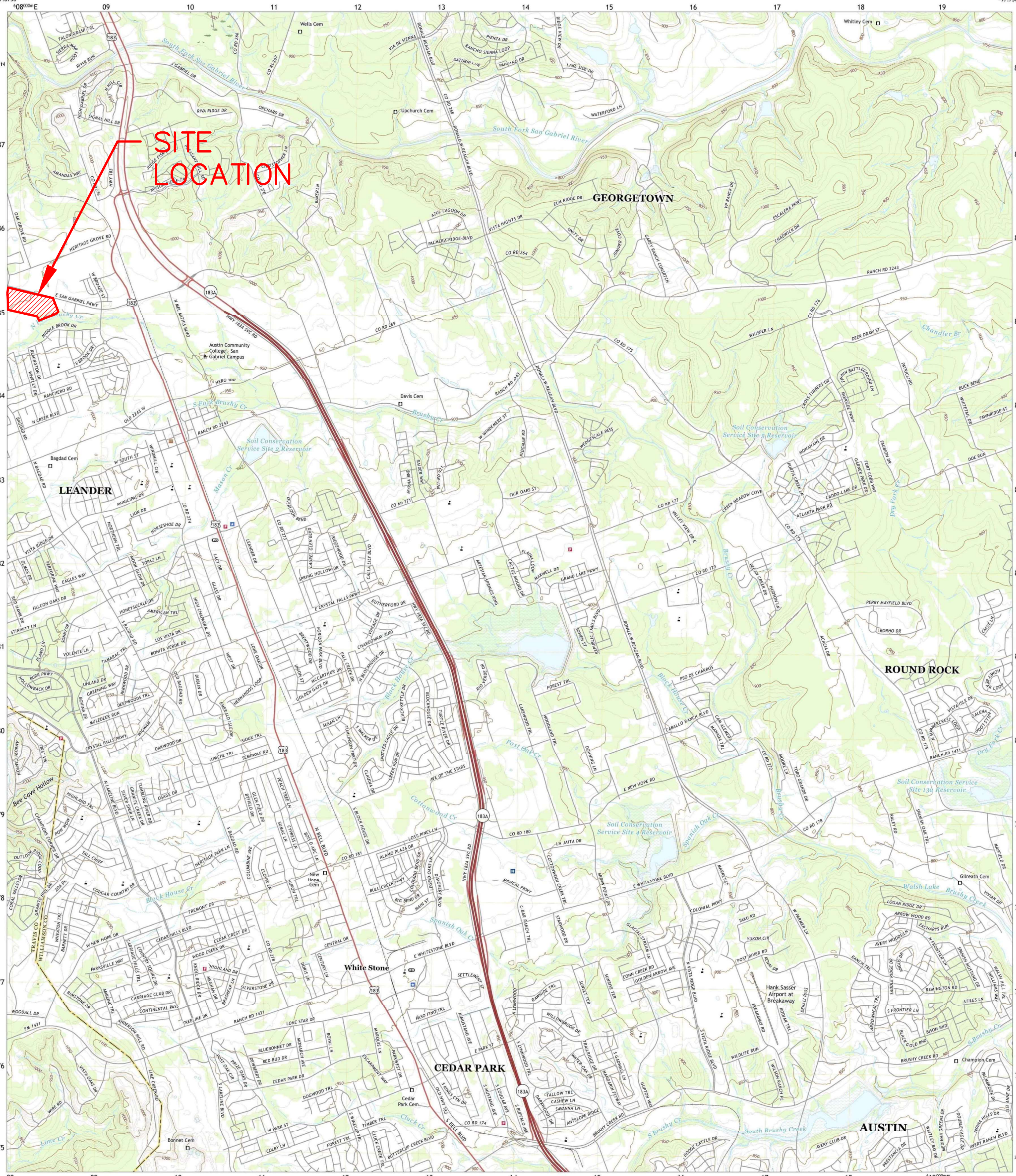
USGS QUADRANGLE MAP

USGS
science for a changing world

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

The National Map
US Topo

LEANDER QUADRANGLE
TEXAS
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid:Universal Transverse Mercator, Zone 14R
This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery........NAIP, September 2016 - November 2016
Roads........U.S. Census Bureau, 2015 - 2019
Names........GNIS, 1979 - 2022
Hydrography........National Hydrography Dataset, 2002 - 2020
Contours........National Elevation Dataset, 2019
Boundaries........Multiple sources; see metadata file 2019 - 2021
Wetlands........FWS National Wetlands Inventory Not Available

MN
GN
3°46´ 67 MILS
0°36´ 11 MILS
UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000 - m Square ID
PU
Grid Zone Designation 14R

SCALE 1:24 000
KILOMETERS
METERS
MILES
FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard.

TEXAS
QUADRANGLE LOCATION

1 Liberty Hill
2 Leander NE
3 Georgetown
4 Nameless
5 Round Rock
6 Mansfield Dam
7 Jollyville
8 Pflugerville West
ADJOINING QUADRANGLES

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

LEANDER, TX
2022

ATTACHMENT C

PROJECT NARRATIVE

The Early Childhood Center is located in the southeast quadrant of the intersection at San Gabriel Parkway and Halsey Drive in the city of Leander, Williamson County, Texas. The project is to be constructed on Lot 1, Block A of the Early Childhood Center subdivision, an approximately 36.59-acre undeveloped tract (considered the total site area). The most southern portion of the project site (+/- 2.17 ac) is located within the limits of the 100-year floodplain as shown on FIRM Panel No. 48491C0455F dated December 20, 2019. The site is located within the city limits of Leander, the limits of the Brushy Creek Turkey Creek watershed, and Contributing Zone of the Edwards Aquifer.

The site consists of 36.59 acres in undeveloped condition (drainage area EX-1), predominantly covered with grass and shrubs. Topographically, the property slopes uniformly from the NW corner to the North Fork Brushy Creek, which is located just south of the subject site on adjacent property. There is approximately a 35' elevation difference from the highest to the lowest point.

The land upgradient from Early Childhood Center (drainage area EX-OS1&3), being portion of the San Gabriel Parkway ROW, is currently undeveloped and will be used in the future for construction of an Arterial Road. It is our understanding that the road will be developed by the City of Leander at a later time. Our development will add public sidewalks along San Gabriel Parkway only.

The development of the site will consist of the construction of a single-level school building and its corresponding parking spaces, driveways, and flatwork. The limits of construction for this site will be 25.54 acres. Approximately 31.77 acres (P-1, P-2, P-3) of the 36.59-acre property will flow into proposed partial sedimentation-filtration ponds. Remaining 4.82 acres (P-4) will remain mostly undeveloped as it is primarily located within 100-yr floodplain limits.

Although the ponds have been sized for the higher Impervious Cover values as shown in the *Table C1 Ultimate Impervious Cover,* this CZP does not include any future improvements that LISD might wish to add at a later time. Table C2 *Proposed Impervious Cover* summarizes the impervious cover proposed under this CZP.

Drainage Area ID	Acreage	Ultimate IC
ON-SITE		
P-1	9.50 ac.	6.01ac.
P-2	20.52 ac.	15.64 ac.
P-3	1.75 ac.	1.40 ac.
P-4	4.82 ac.	0.00 ac.
TOTAL:	36.59 ac.	23.05 ac.
OFF-SITE		
P-1(OS)	1.59 ac.	0.19 ac.
P-3(OS)	1.25 ac.	0.08 ac.
TOTAL:	2.84 ac.	0.27 ac.

Table C1 "Ultimate Impervious Cover"

Drainage Area ID	Acreage	Proposed IC
ON-SITE		
P-1	9.50 ac.	4.97ac.
P-2	20.52 ac.	7.26 ac.
P-3	1.75 ac.	0.07 ac.
P-4	4.82 ac.	0.00 ac.
TOTAL:	36.59 ac.	12.30 ac.
OFF-SITE		
P-1(OS)	1.59 ac.	0.19 ac.
P-3(OS)	1.25 ac.	0.08 ac.
TOTAL:	2.84 ac.	0.27 ac.

Table C2 "Proposed Impervious Cover"

The proposed storm sewer system will collect runoff from all impervious areas, and from some pervious areas, on the site and convey this rainfall runoff to the water quality ponds. The water quality volume for the ponds were calculated pursuant to the Texas Commission on Environmental Quality (TCEQ) Technical Design Manual, complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices, RG-348, 2005 (TSS Removal and BMP Sizing Calculations, Section 3.3). The aforementioned calculations are located in Attachment E, Volume and Character of Stormwater, of this Contributing Zone Plan document.

The water quality ponds have been designed to treat the typical pollutants one might expect from a commercial office building site. These types of pollutants primarily include dirt and silt from planted areas, and a lesser amount of vehicle oils, greases, detergents, waxes and brake linings. Runoff will originate from a variety of impervious

surfaces, such as metal roofing, concrete sidewalks, concrete parking lots and concrete roads.

ATTACHMENT D

FACTORS AFFECTING SURFACE WATER QUALITY

The factors affecting surface water quality might be dirt and silt from planted areas, vehicle oils, greases, detergents, waxes, brake linings, trash, leaves, and some fertilizers. Most runoff will originate from the impervious surfaces. There is no discharge from an industrial activity associated with this project.

During construction stage clearing will disturb areas and create the potential for pollutants to runoff from rainfall. Temporary BMP's will be maintained throughout construction and will include measures such as a stabilized construction entrance/exit, silt fencing, inlet protection, rock berms, which will reduce TSS in runoff leaving the site.

ATTACHMENT E

VOLUME AND CHARACTER OF STORMWATER

The proposed Early Childhood Center project site is about 36.59 acres, and its Limits of Construction will be 25.54 acres. The proposed impervious cover on site is 34.6% or 12.30 acres. The water quality ponds have been designed (per the Texas Commission on Environmental Quality Technical Design Manual, Edwards Aquifer Rules: Technical Guidance on Best Management Practices,RG-348, 2005) to accommodate the school impervious cover and the anticipated future impervious cover on the site immediately upgradient from the ECC complex.

The required water quality capture volume for the two ponds is 60,696 cubic feet (which includes the required 20% increase). This value was calculated using the TCEQ spreadsheet, v.04-20-09 pursuant to the methods outlined in the Texas Commission on Environmental Quality (TCEQ) Technical Design Manual, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices, RG-348, 2005 (TSS Removal and BMP Sizing Calculations, Section 3.3). The aforementioned water quality calculations are included at the end of this section (Attachment E, Volume and Character of Stormwater) in this Contributing Zone Plan report. The provided water quality capture volume for the two ponds is 121,082 cubic feet to account for future additions as outlined in Attachment C.

The stormwater runoff calculations were based on the SCS Method using PondPack modeling in conjunction with drainage criteria specified by the City of Leander. Existign and proposed drainage area maps are shown in **Attachment M**. The detention pond is designed to limit the peak discharges for the 2, 10, 25, and 100 year storm events to existing flow rates. The difference in volumes between the developed and existing hydrographs for each subsequent storm event will be detained in the detention pond and discharged at a developed peak runoff rate that is equal to or less than its corresponding peak runoff rate for the site in its existing conditions. The discharge point for the stormwater detention pond corresponds with natural discharge point on the site in its existing conditions. The National Resources Conservation Service (NRCS) web soil survey shows the site to be a hydrologic soil type “D”, which has a low infiltration rate when saturated and exhibits the highest runoff potential of all hydrological soil groups. For detention pond sizing purposes, the proposed 12.30 ac of IC was analyzed as well as the future increase indicated in Attachment C. In both scenarios the existing peak flow rates were maintained, and the required freeboard was accomplished.

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: ECC
Date Prepared: 12/9/2024

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:

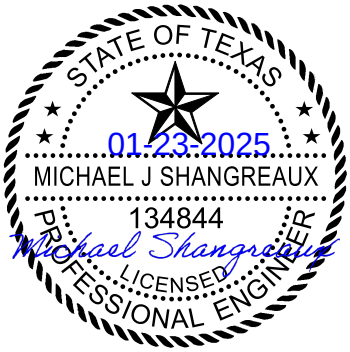
$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

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

County =	Williamson	
Total project area included in plan * =	36.59	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	12.30	acres
Total post-development impervious cover fraction * =	0.34	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	10706	lbs.

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

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



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

Drainage Basin/Outfall Area No. = North WQP

Total drainage basin/outfall area =	9.50	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	4.97	acres
Post-development impervious fraction within drainage basin/outfall area =	0.52	
$L_{M\ THIS\ BASIN}$ =	4326	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Sand Filter
Removal efficiency = 89 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 =	9.50	acres
A_I =	4.97	acres
A_P =	4.53	acres
L_R =	4967	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = **4326** lbs.

F = **0.87**

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 = **1.44** inches
Post Development Runoff Coefficient = **0.37**
On-site Water Quality Volume = **18403** cubic feet

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

Off-site area draining to BMP = **1.59** acres
Off-site Impervious cover draining to BMP = **0.19** acres
Impervious fraction of off-site area = **0.12**
Off-site Runoff Coefficient = **0.14**
Off-site Water Quality Volume = **1178** cubic feet

Storage for Sediment = **3916**
Total Capture Volume (required water quality volume(s) x 1.20) = **23497** 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 = **NA** cubic feet

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

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = **23497** cubic feet

Minimum filter basin area = **1022** square feet

Maximum sedimentation basin area = **9201** square feet **For minimum water depth of 2 feet**
Minimum sedimentation basin area = **2300** square feet **For maximum water depth of 8 feet**

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = **23497** cubic feet

Minimum filter basin area = **1840** square feet

Maximum sedimentation basin area = **7361** square feet **For minimum water depth of 2 feet**
Minimum sedimentation basin area = **460** square feet **For maximum water depth of 8 feet**

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: ECC
Date Prepared: 12/9/2024

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 * =	36.59	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	12.30	acres
Total post-development impervious cover fraction * =	0.34	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	10706	lbs.

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

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

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

Drainage Basin/Outfall Area No. = South WQP

Total drainage basin/outfall area =	22.27	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	7.33	acres
Post-development impervious fraction within drainage basin/outfall area =	0.33	
$L_{M\ THIS\ BASIN}$ =	6380	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Sand Filter
Removal efficiency = 89 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 =	22.27	acres
A_I =	7.33	acres
A_P =	14.94	acres
L_R =	7453	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = **6380** lbs.

F = **0.86**

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

Rainfall Depth = **1.38** inches
Post Development Runoff Coefficient = **0.27**
On-site Water Quality Volume = **30429** cubic feet

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

Off-site area draining to BMP = **1.25** acres
Off-site Impervious cover draining to BMP = **0.08** acres
Impervious fraction of off-site area = **0.06**
Off-site Runoff Coefficient = **0.09**
Off-site Water Quality Volume = **570** cubic feet

Storage for Sediment = **6200**
Total Capture Volume (required water quality volume(s) x 1.20) = **37199** 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 = **NA** cubic feet

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

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = **37199** cubic feet

Minimum filter basin area = **1690** square feet

Maximum sedimentation basin area = **15214** square feet **For minimum water depth of 2 feet**
Minimum sedimentation basin area = **3804** square feet **For maximum water depth of 8 feet**

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = **37199** cubic feet

Minimum filter basin area = **3043** square feet

Maximum sedimentation basin area = **12171** square feet **For minimum water depth of 2 feet**
Minimum sedimentation basin area = **761** square feet **For maximum water depth of 8 feet**

ATTACHMENT F

SUITABILITY LETTER FROM AUTHORIZED AGENT

Attachment F is not applicable to this project.

ATTACHMENT G

ALTERNATIVE SECONDARY CONTAINMENT METHODS

Attachment G is not applicable to this project.

ATTACHMENT H

AST CONTAINMENT STRUCTURE DRAWINGS

Attachment H is not applicable to this project.

ATTACHMENT I

20% OR LESS IMPERVIOUS COVER WAIVER

Attachment I is not applicable to this project.

ATTACHMENT J

BMPs FOR UPGRADIENT STORMWATER

The land upgradient from the Early Childhood Center will receive public sidewalks as part of this development. The drainage from the upgradient land will be captured by the site storm sewer system and routed to the sand filter ponds. The ponds have been designed to accommodate the upgradient drainage.

ATTACHMENT K

BMPs FOR ON-SITE STORMWATER

The two partial sedimentation and filtration system ponds, permanent BMPs, will be used to treat pollutants from storm water runoff, and are designed to treat a total proposed impervious cover amount of 12.30 acres, or 34.6% of the 36.59 acre project site and 2.56 acres of the upgradient area. The required water quality capture volume for the two ponds is 60,696 cubic feet (which includes the required 20% increase). The provided water quality capture volume for the two ponds is 121,082 cubic feet to account for future additions as outlined in Attachment C. The stormwater from filtration ponds will be directed to proposed lift station to be further discharged on school property.

In addition, temporary BMPs will include silt fences, rock berms, and stabilized construction entrances. All calculations and design procedures for these BMPs were performed pursuant to the Texas Commission on Environmental Quality (TCEQ), Technical Design Manual, Complying with The Edwards Aquifer Rules: Technical Guidance on Best Management Practices, RG–348, 2005, (TSS Removal and BMP Sizing Calculations, Section 3.3). Design calculations, TCEQ Construction Notes, all proposed structural measures and appropriate details are found in the selected sheets from the Site Development Plan set submitted with this report.

ATTACHMENT L

BMPs FOR SURFACE STREAMS

Temporary and permanent BMPs are used to prevent pollutants from ultimately entering surface streams. Temporary BMPs include silt fence, rock berms, and stabilized construction entrances.

Permanent BMPs consist of two water quality ponds designed to treat storm water runoff collected from the project.

ATTACHMENT M

CONSTRUCTION PLANS

Construction plans and design calculations for the existing and proposed permanent BMPs and measures have been prepared under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information have been signed, sealed, and dated by the Professional Engineer. All calculations and design procedures were performed pursuant to the Texas Commission on Environmental Quality (TCEQ), Technical Design Manual, Complying with The Edwards Aquifer Rules: Technical Guidance on Best Management Practices, RG–348, 2000, (TSS Removal and BMP Sizing Calculations, Section 3.3.

LEANDER INDEPENDENT SCHOOL DISTRICT

EARLY CHILDHOOD CENTER

EDWARDS AQUIFER CONTRIBUTING ZONE PLAN

PROJECT INFORMATION

PROPERTY OWNER:
LEANDER INDEPENDENT SCHOOL DISTRICT
CONTACT: JEREMY TRIMBLE
204 W. SOUTH STREET, PO BOX 218
LEANDER, TEXAS 78646
(512) 570-0415 PH

ENGINEER:
ATKINSRÉALIS
MICHAEL SHANGREAUX, P.E.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758
(512) 340-1193 PH

PROJECT AGENT:
ATKINSRÉALIS
MICHAEL SHANGREAUX, P.E.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758
(512) 340-1193 PH

SURVEYOR:
LANDESIGN SERVICES, INC.
10090 W HIGHWAY 29
LIBERTY HILL, TEXAS 78642
(512) 238-7901 PH

FILING DATE:

PROPERTY ZONING:
MULTI-FAMILY (MF-2-B)
SINGLE-FAMILY-URBAN (SFU-2-B)

FUTURE LAND USE:
MULTI-USE CORRIDOR/NEIGHBORHOOD RESIDENTIAL/GREENWAY

PROPOSED LAND USE		
LOT/BLOCK	PROPOSED USE	ACREAGE
LOT 1, BLOCK A	EARLY CHILDHOOD LEARNING CENTER	36.44
R.O.W. DEDICATION	R.O.W.	0.15
	TOTAL:	36.59

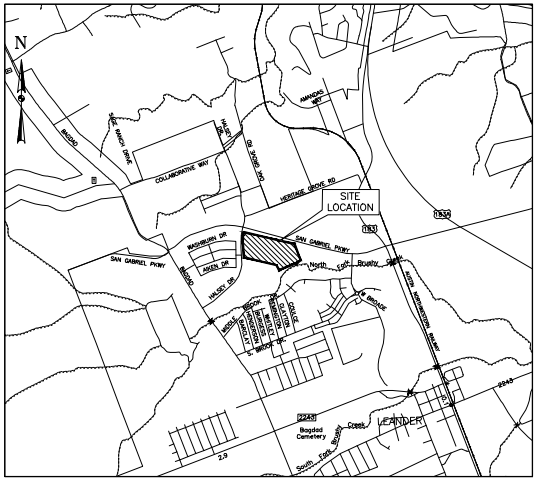
LEGAL DESCRIPTION:

BEING 36.59 ACRES OF LAND, SURVEYED BY LANDESIGN SERVICES, INC., SITUATED IN THE CHARLES COCHRAN SURVEY, ABSTRACT NO. 134, IN WILLIAMSON COUNTY, TEXAS, BEING ALL OF A CALLED 1.883 ACRES TRACT OF LAND DESCRIBED AS TRACT 1 AND CALLED 34.705 ACRES TRACT OF LAND DESCRIBED AS TRACT 2 IN A SPECIAL WARRANTY DEED TO THE BOARD OF TRUSTEES, LEANDER INDEPENDENT SCHOOL DISTRICT, RECORDED IN DOCUMENT NO. 2005006808 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS (O.P.R.W.C.T.).

NOTES:

1. THE PROJECT PROPOSED WITH THESE PLANS LIES WITHIN THE EDWARDS AQUIFER CONTRIBUTING ZONE. AN APPROVED CONTRIBUTING ZONE PLAN WILL BE PROVIDED DURING THE CONSTRUCTION PLAN REVIEW PHASE.
2. THIS SITE LIES WITHIN AN AREA OF MINIMAL FLOOD HAZARD (ZONE X AND ZONE AE) DETERMINED BY FEMA FIRM NO. 48491C0455F, DATED DECEMBER 20, 2019.
3. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY, REGULATORY COMPLIANCE, AND ADEQUACY OF THESE PLANS AND/OR SPECIFICATIONS WHETHER OR NOT THE PLANS AND/OR SPECIFICATIONS WERE REVIEWED BY THE CITY ENGINEER(S).
4. THE LISD EARLY CHILDHOOD LEARNING CENTER DEVELOPMENT IS PREDICTED TO GENERATE 2,863 DAILY TRIPS. REFER TO "LEANDER ISD EARLY CHILDHOOD LEARNING CENTER – TRAFFIC IMPACT ANALYSIS" DATED DECEMBER 13, 2024, PREPARED BY HDR, CITY PROJECT TIA-24-0014 FOR FURTHER INFORMATION.

REVISION #	DESCRIPTION	APPROVAL



LOCATION MAP
SCALE =1"=2000'

"I CERTIFY THAT THESE ENGINEERING DOCUMENTS ARE COMPLETE, ACCURATE AND ADEQUATE FOR THE INTENDED PURPOSES, INCLUDING CONSTRUCTION, BUT ARE NOT AUTHORIZED FOR CONSTRUCTION PRIOR TO FORMAL CITY APPROVAL."

Michael Shangreaux
MICHAEL SHANGREAUX, P.E. — 01/15/2025 DATE

STATE OF TEXAS — 01/15/2025 — MICHAEL J SHANGREAUX — 134844 — LICENSED PROFESSIONAL ENGINEER

APPROVED BY:

ROBIN M. GRIFFIN, AICP, EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES — DATE

EMILY TRUMAN, P.E., CFM CITY ENGINEER — DATE

MARK TUMMONS, CPRP, DIRECTOR OF PARKS AND RECREATION — DATE

CHIEF JOSHUA DAVIS, FIRE MARSHAL — DATE

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Sheet Number	Sheet Title
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3	GENERAL NOTES 2
4	EXISTING CONDITIONS
5	DEMOLITION PLAN
6	EROSION AND SEDIENTATION CONTROL PLAN – PHASE 1
7	EROSION AND SEDIENTATION CONTROL PLAN – PHASES 2 & 3
8	EROSION AND SEDIENTATION CONTROL PLAN – PHASES 4 & 5
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LEANDER INDEPENDENT SCHOOL DISTRICT - EARLY CHILDHOOD CENTER

CITY OF LEANDER NOTES

REVISED MARCH 23, 2023

CITY CONTACTS:
ENGINEERING MAIN LINE: 512-528-2721
PLANNING DEPARTMENT: 512-528-2750
PUBLIC WORKS MAIN LINE: 512-259-2640
STORMWATER INSPECTIONS: 512-285-0055
UTILITIES MAIN LINE: 512-259-1142
UTILITIES ON-CALL: 512-690-4760
UTILITY LOCATE REQUESTS LOCATES@LEANDERTX.GOV

GENERAL NOTES

1. CONTRACTORS SHALL HAVE AN APPROVED SET OF PLANS WITH APPROVED REVISIONS ON SITE AT ALL TIMES. FAILURE TO HAVE APPROVED PLANS ON SITE MAY RESULT IN ISSUANCE OF WORK STOPPAGE.

2. CONTACT 811 SYSTEM FOR EXISTING WATER AND WASTEWATER LOCATIONS 48 HOURS PRIOR TO CONSTRUCTION.

A. REFRESH ALL LOCATES BEFORE 14 DAYS – LOCATE REFRESH REQUESTS MUST INCLUDE A COPY OF YOUR 811 TICKET. TEXAS PIPELINE DAMAGE PREVENTION LAWS REQUIRE THAT A LOCATE REFRESH REQUEST BE SUBMITTED BEFORE 14 DAYS, OR IF LOCATION MARKERS ARE NO LONGER VISIBLE.

B. REPORT PIPELINE DAMAGE IMMEDIATELY – IF YOU WITNESS OR EXPERIENCE PIPELINE EXCAVATION DAMAGE, PLEASE CONTACT THE CITY OF LEANDER BY PHONE AT 512-259-2640.

3. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR 48 HOURS BEFORE:

A. BEGINNING EACH PHASE OF CONSTRUCTION. CONTACT ASSIGNED CITY INSPECTOR.

B. ANY TESTING. CONTRACTOR SHALL PROVIDE QUALITY TESTING FOR ALL INFRASTRUCTURES TO BE ACCEPTED AND MAINTAINED BY THE CITY OF LEANDER AFTER COMPLETION.

C. PROOF ROLLING SUB-GRADE AND EVERY LIFT OF ROADWAY EMBANKMENT, IN-PLACE DENSITY TESTING OF EVERY BASE COURSE, AND ASPHALT CORES. ALL OF THIS TESTING MUST BE WITNESSED BY A CITY OF LEANDER REPRESENTATIVE.

D. CONNECTING TO THE EXISTING WATER LINES.

E. THE INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A DRAINAGE EASEMENT OR STREET ROW. THE METHOD OF PLACEMENT AND COMPACTION OF BACKFILL IN THE CITY'S ROW MUST BE APPROVED PRIOR TO THE START OF BACKFILL OPERATIONS.

4. ALL RESPONSIBILITILY FOR THE ACCURACY OF THESE PLANS REMAINS WITH THE ENGINEER OF RECORD WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY ON THE ADEQUACY OF THE WORK OF THE ENGINEER OF RECORD.

5. EXCESS SOIL SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE. NOTIFY THE CITY OF LEANDER IF THE DISPOSAL SITE IS INSIDE THE CITY'S JURISDICTIONAL BOUNDARIES.

6. BURNING IS PROHIBITED.
7. NO WORK IS TO BE PERFORMED BETWEEN THE HOURS OF 9:00 P.M. AND 7:00 A.M. OR WEEKENDS. THE CITY INSPECTOR RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO UNCOVER ALL WORK PERFORMED WITHOUT INSPECTION.

8. CONTACT THE CITY INSPECTOR 4 DAYS PRIOR TO WORK FOR APPROVAL TO SCHEDULE ANY INSPECTIONS ON WEEKENDS OR CITY HOLIDAYS.

9. NO BLASTING IS ALLOWED.

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 SHALL USE REVISION CLOUDS TO HIGHLIGHT ALL REVISIONS AND CHANGES WITH EACH SUBMITTAL. REVISION TRIANGLE MARKERS AND NUMBERS SHALL BE USED TO MARK REVISIONS. ALL CLOUDS AND TRIANGLE MARKERS FROM PREVIOUS REVISIONS MUST BE REMOVED. REVISION INFORMATION SHALL BE UPDATED ON COVER SHEET AND AFFECTED PLAN SHEET TITLE BLOCK.

11. THE CONTRACTOR AND ENGINEER SHALL KEEP ACCURATE RECORDS OF ALL CONSTRUCTION THAT DEVIATES FROM THE PLANS. THE ENGINEER SHALL FURNISH THE CITY OF LEANDER ACCURATE "RECORD DRAWINGS" FOLLOWING THE COMPLETION OF ALL CONSTRUCTION. THESE "RECORD DRAWINGS" SHALL MEET THE SATISFACTION OF THE ENGINEERING DEPARTMENTS PRIOR TO FINAL ACCEPTANCE.

12. THE CONTRACTOR WILL REIMBURSE THE CITY FOR ALL REPAIR AND/OR COST INCURRED AS A RESULT OF ANY DAMAGE TO ANY PUBLIC INFRASTRUCTURE WITHIN CITY EASEMENT OR PUBLIC RIGHT-OF-WAY, REGARDLESS OF THESE PLANS.

13. WHEN CONSTRUCTION IS BEING CARRIED OUT WITHIN EASEMENTS, THE CONTRACTOR SHALL CONFINE HIS WORK TO WITHIN THE PERMANENT AND TEMPORARY EASEMENTS. PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TRASH AND DEBRIS WITHIN THE PERMANENT EASEMENTS. CLEANUP SHALL BE TO THE SATISFACTION OF THE ENGINEER OF RECORD AND CITY.

14. CONTRACTOR TO LOCATE, PROTECT, AND MAINTAIN BENCHMARKS, MONUMENTS, CONTROL POINTS AND PROJECT ENGINEERING REFERENCE POINTS. RE-ESTABLISH DISTURBED OR DESTROYED ITEMS BY REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, AT NO ADDITIONAL COST TO THE PROPERTY OWNER.

15. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 1033 LA POSADA DR. SUITE 375, AUSTIN, TEXAS 78752-3832.

16. ALL MANHOLE FRAMES/COVERS AND WATER VALVE/METER BOXES MUST BE ADJUSTED TO FINISHED GRADE AT THE OWNER'S EXPENSE BY THE CONTRACTOR FOR CITY CONSTRUCTION INSPECTOR INSPECTION. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING. CONTRACTOR SHALL BACKFILL AROUND MANHOLES AND VALVE BOXES WITH CLASS A CONCRETE.

17. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT WHERE NOT SPECIFICALLY COVERED IN THE PROJECT SPECIFICATIONS SHALL CONFORM TO ALL CITY OF LEANDER DETAILS AND CITY OF AUSTIN STANDARD SPECIFICATIONS.

18. PROJECT SPECIFICATIONS TAKE PRECEDENCE OVER PLANS AND SPECIAL CONDITIONS GOVERN OVER TECHNICAL SPECIFICATIONS.

19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.

20. THE CONTRACTOR MUST OBTAIN A CONSTRUCTION WATER METER FOR ALL WATER USED DURING CONSTRUCTION. A COPY OF THIS PERMIT MUST BE CARRIED AT ALL TIMES BY ALL WHO USE WATER.

21. THE CONTRACTOR SHALL 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. THE CONTRACTOR WILL BE RESPONSIBLE FOR DUST CONTROL FROM THE SITE. THE CONTRACTOR SHALL KEEP THE SITE AREA CLEAN AND MAINTAINED AT ALL TIMES, TO THE SATISFACTION OF THE CITY. THE SUBDIVISION (OR SITE) WILL NOT BE ACCEPTED (OR CERTIFICATE OF OCCUPANCY ISSUED) UNTIL THE SITE HAS BEEN CLEANED TO THE SATISIFACTION OF THE CITY.

22. TREES IN EXISTING ROW SHOULD BE PROTECTED OR NOTED IN THE PLANS TO BE REMOVED.

CITY OF LEANDER NOTES: (CONT.)

CONSTRUCTION SEQUENCE NOTES

NOTE: BELOW IS GENERAL SEQUENCE OF CONSTRUCTION. THE ENGINEER OF RECORD SHALL UPDATE BELOW WITH NOTES SPECIFIC TO THE PROJECT.
1. REACH OUT TO THE CITY FOR PRE-CONSTRUCTION MEETING AND CONSTRUCTION PERMIT.
2. SET-UP E/S CONTROLS AND TREE PROTECTION AND REACH OUT TO CITY FOR INSPECTION.
3. SET UP TEMPORARY TRAFFIC CONTROLS.
4. CONSTRUCT THE DRAINAGE PONDS AND STORM WATER FEATURES.
5. START UTILITY, ROAD, GRADING, FRANCHISE UTILITY AND ALL NECESSARY INFRASTRUCTURE CONSTRUCTION. [NOTE: PLEASE UPDATE AS PER THE PROJECT]
6. REQUEST FINAL WALKTHROUGH AND CONDUCT WALKTHROUGH WITH ENGINEER OF RECORD AND CITY DEPARTMENT.
7. ENGINEER OF RECORD IS RESPONSIBLE TO PREPARE AND SUBMIT CLOSEOUT DOCUMENTS FOR PROJECT CLOSEOUT.

EROSION CONTROL NOTES

1. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO ENSURE THAT THEY ARE FUNCTIONING PROPERLY. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES AND SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.

2. THE TEMPORARY SPOILS DISPOSAL SITE IS TO BE SHOWN IN THE EROSION CONTROL MAP.

3. ANY ON-SITE SPOILS DISPOSAL SHALL BE REMOVED PRIOR TO ACCEPTANCE UNLESS SPECIFICALLY SHOWN ON THE PLANS. THE DEPTH OF SPOIL SHALL NOT EXCEED 10 FEET IN ANY AREA.

4. ALL AREAS DISTURBED OR EXPOSED DURING CONSTRUCTION SHALL BE RESTORED WITH A MINIMUM OF 6 INCHES OF TOPSOIL AND COMPOST BLEND. TOPSOIL ON SINGLE FAMILY LOTS MAY BE INSTALLED WITH HOME CONSTRUCTION. THE TOPSOIL AND COMPOST BLEND SHALL CONSIST OF 75% TOPSOIL AND 25% COMPOST.

5. SEEDING FOR REESTABLISHING VEGETATION SHALL COMPLY WITH THE AUSTIN GROW GREEN GUIDE OR WILLIAMSON COUNTY'S PROTOCOL FOR SUSTAINABLE ROADSIDES (SPEC 164--WC001 SEEDING FOR EROSION CONTROL). RESEEDING VARIETIES OF BERMUDA SHALL NOT BE USED.

6. STABILIZED CONSTRUCTION ENTRANCE IS REQUIRED AT ALL POINTS WHERE CONSTRUCTION TRAFFIC IS EXITING THE PROJECT ONTO EXISTING PAVEMENT. LINEAR CONSTRUCTION PROJECTS MAY REQUIRE SPECIAL CONSIDERATION. ROADWAYS SHALL REMAIN CLEAR OF SILT AND MUD.

7. TEMPORARY STOP SIGNS SHOULD BE INSTALLED AT ALL CONSTRUCTION ENTRANCES WHERE A STOP CONDITION DOES NOT ALREADY EXIST.

8. IN THE EVENT OF INCLEMENT WEATHER THAT MAY RESULT IN A FLOODING SITUATION, THE CONTRACTOR SHALL REMOVE INLET PROTECTION MEASURES UNTIL SUCH TIME AS THE WEATHER EVENT HAS PASSED.

WATER AND WASTEWATER NOTES

WATER AND WASTEWATER GENERAL NOTES

1. ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION (ANSI/NSF) STANDARD 61 AND MUST BE CERTIFIED BY AND ORGANIZATION ACCREDITED BY ANSI.
2. ALL WATER SERVICE, WASTEWATER SERVICE AND VALVE LOCATIONS SHALL BE APPROPRIATELY STAMPED AS FOLLOWS: WATER SERVICE "W" ON TOP OF CURBWASTEWATER SERVICE "S" ON TOP OF CURB VALVE "V" ON TOP OF CURB
3. OPEN UTILITIES SHALL NOT BE PERMITTED ACROSS THE EXISTING PAVED SURFACES. WATER AND WASTEWATER LINES ACROSS THE EXISTING PAVED SURFACES SHALL BE BORED AND INSTALLED IN STEEL ENCASEMENT PIPES. BELL RESTRAINTS SHALL BE PROVIDED AT JOINTS.
4. INTERIOR SURFACES OF ALL DUCTILE IRON POTABLE OR RECLAIMED WATER PIPE SHALL BE CEMENT-MORTAR LINED AND SEAL COATED AS REQUIRED BY AWWA C104.
5. SAND, AS DESCRIBED IN AUSTIN SPECIFICATION ITEM 510 PIPE, SHALL NOT BE USED AS BEDDING FOR WATER AND WASTEWATER LINES. ACCEPTABLE BEDDING MATERIALS ARE PIPE BEDDING STONE, PEA GRAVEL AND IN LIEU OF SAND, A NATURALLY OCCURRING OR MANUFACTURED STONE MATERIAL CONFORMING TO ASTM C33 FOR STONE QUALITY AND MEETING THE FOLLOWING GRADATION SPECIFICATION:

SIEVE SIZE	PERCENT RETAINED BY WEIGHT
1/2"	0
3/8"	0-2
#4	40-85
#10	95-100

6. DENSITY TESTING FOR TRENCH BACKFILL SHALL BE DONE IN MAXIMUM 12" LIFTS.

WATER

1. SAMPLING TAPS SHALL BE BROUGHT UP TO 3 FEET ABOVE GRADE AND SHALL BE EASILY ACCESSIBLE FOR CITY PERSONNEL. AT THE CONTRACTORS' REQUEST, AND IN HIS PRESENCE, SAMPLES FOR BACTERIOLOGICAL TESTING WILL BE COLLECTED BY THE CITY OF LEANDER NOT LESS THAN 24 HOURS AFTER THE TREATED LINE HAS BEEN FLUSHED OF THE CONCENTRATED CHLORINE SOLUTION AND CHARGED WITH WATER APPROVED BY THE CITY.

2. 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 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.

3. THE CONTRACTOR IS HEREBY NOTIFIED THAT CONNECTING TO, SHUTTING DOWN, OR TERMINATING EXISTING UTILITY LINES MAY HAVE TO OCCUR AT OFF-PEAK HOURS. SUCH HOURS ARE USUALLY OUTSIDE NORMAL WORKING HOURS AND POSSIBLY BETWEEN 12 AM AND 6 AM AFTER COORDINATING WITH CITY CONSTRUCTION INSPECTORS AND INFORMING AFFECTED PROPERTIES.

4. PRESSURE TAPS OR HOT TAPS SHALL BE IN ACCORDANCE WITH CITY OF LEANDER STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION AND SHALL FURNISH, INSTALL AND AIR TEST THE SLEEVE AND VALVE. A CITY OF LEANDER INSPECTOR MUST BE PRESENT WHEN THE CONTRACTOR MAKES A TAP, AND/OR ASSOCIATED TESTS. A MINIMUM OF TWO (2) WORKING DAYS NOTICE IS REQUIRED. "SIZE ON SIZE" TAPS SHALL NOT BE PERMITTED UNLESS MADE BY THE USE OF AN APPROVED FULL-CIRCLE GASKETED TAPPING SLEEVE. CONCRETE THRUST BLOCKS SHALL BE PLACED BEHIND AND UNDER ALL TAP SLEEVES A MINIMUM OF 24 HOURS PRIOR TO THE BRANCH BEING PLACED INTO SERVICE. THRUST BLOCKS SHALL BE INSPECTED PRIOR TO BACKFILL.

5. FIRE HYDRANTS ON MAINS UNDER CONSTRUCTION SHALL BE SECURELY WRAPPED WITH A BLACK POLY WRAP BAG AND TAPED INTO PLACE. THE POLY WRAP SHALL BE REMOVED WHEN THE MAINS ARE ACCEPTED AND PLACED INTO SERVICE.

6. THRUST BLOCKS OR RESTRAINTS SHALL BE IN ACCORDANCE WITH THE CITY OF LEANDER STANDARD SPECIFICATIONS AND REQUIRED AT ALL FITTINGS PER DETAIL OR MANUFACTURER'S RECOMMENDATION. ALL FITTINGS SHALL HAVE BOTH THRUST BLOCKS AND RESTRAINTS.

7. ALL DEAD END WATER MAINS SHALL HAVE "FIRE HYDRANT ASSEMBLY" OR "BLOW-OFF VALVE AND THRUST BLOCK" OR "BLOW-OFF VALVE AND THRUST RESTRAINTS". THRUST RESTRAINTS SHALL BE INSTALLED ON THE MINIMUM LAST THREE PIPE LENGTHS (STANDARD 20' LAYING LENGTH). ADDITIONALL THRUST RESTRAINTS MAY BE REQUIRED BASED UPON THE MANUFACTURERS RECOMMENDATION AND/OR ENGINEER'S DESIGN.

CITY OF LEANDER NOTES (CONT.)

8. PIPE MATERIAL FOR PUBLIC WATER MAINS SHALL BE PVC (AWWA C900-DR14 MIN. 305 PSI PRESSURE RATING). WATER SERVICES (2" OR LESS) SHALL BE POLYETHYLENE TUBING (BLACK, 200PSI, AND SDR-(9)). COPPER PIPES AND FITTINGS ARE NOT ALLOWED IN THE PUBLIC RIGHT OF WAY. ALL PLASTIC PIPES FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL (NSF-PW).

9. ALL FIRE HYDRANT LEADS SHALL BE DUCTILE IRON PIPE (AWWA C115/C151 PRESSURE CLASS 350).

10. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH MINIMUM 8-MIL POLYETHYLENE.

11. LINE FLUSHING OR ANY ACTIVITY USING A LARGE QUANTITY OF WATER MUST BE COORDINATED WITH THE PUBLIC WORKS DEPARTMENT.

12. ALL WATER METER BOXES SHALL BE:
A. SINGLE, 1" METER AND BELOW DFW37F-12-1CA, OR EQUAL
B. DUAL, 1" METERS AND BELOW DFW39F-12-1CA, OR EQUAL
C. 1.5" SINGLE METER DFW65C-14-1CA, OR EQUAL
D. 2" SINGLE METER DFW1730F-12-1CA, OR EQUAL

13. ALL WATER VALVE COVERS ARE TO BE PAINTED BLUE.

WASTEWATER

1. CURVILINEAR WASTEWATER DESIGN LAYOUT IS NOT PERMITTED.

2. MANDREL TESTING SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.

3. MANHOLES SHALL BE COATED PER CITY OF AUSTIN SPL WW-511 (RAVEN 405 OR SPRAYWALL).PENETRATIONS TO EXISTING WASTEWATER MANHOLES REQUIRE THE CONTRACTOR TO RECOAT THE ENTIRE MANHOLE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATIONS SECTION NO. 506.5.

4. RECLAIMED AND RECYCLED WATER LINE SHALL BE CONSTRUCTED OF "PURPLE PIPE." ALL RECLAIMED AND RECYCLED WATER VALVE COVERS SHALL BE SQUARE AND PAINTED PURPLE.

5. FORCE MAIN PIPES NEED TO HAVE SWEEPING WYES FOR JOINTS.

STREET AND DRAINAGE NOTES
1. THE CITY OF LEANDER HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA). IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE COMPLIANCE WITH ALL LEGISTATION RELATED TO ACCESSIBLITY WITHIN THE LIMITS OF CONSTRUCTION SHOWN IN THESE PLANS. ALL SIDEWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND TEXAS ACCESSIBILITY STANDARS (TAS).

2. BACKFILL BEHIND THE CURB SHALL BE COMPACTED TO OBTAIN A MINIMUM OF 95% MAXIMUM DENSITY TO WITHIN 6" OF TOP OF CURB. MATERIAL USED SHALL BE PRIMARILY GRANULAR WITH NO ROCKS LARGER THAN 6" IN THE GREATEST DIMENSION. THE REMAINING 6" SHALL BE CLEAN TOPSOIL FREE FROM ALL CLODS AND SUITABLE FOR SUSTAINING PLANT LIFE.

3. A MINIMUM OF 6" OF TOPSOIL SHALL BE PLACED BETWEEN THE CURB AND RIGHT-OF-WAY AND IN ALL DRAINAGE CHANNELS EXCEPT CHANNELS CUT IN STABLE ROCK.

4. DEPTH OF COVER FOR ALL CROSSINGS UNDER PAVEMENT, INCLUDING GAS, ELECTRIC TELEPHONE, CABLE TV, ETC., SHALL BE A MINIMUM OF 36" BELOW SUBGRADE.

5. STREET RIGHT-OF-WAY SHALL BE GRADED AT A SLOPE OF ¼" PER FOOT TOWARD THE CURB UNLESS OTHERWISE INDICATED.

6. ALL DRAINAGE PIPE IN PUBLIC RIGHT OF WAY OR EASEMENTS SHALL BE REINFORCED CONCRETE PIPE MINIMUM CLASS III OF TONGUE AND GROOVE OR O-RING JOINT DESIGN. CORRUGATED METAL PIPE IS NOT ALLOWED IN PUBLIC RIGHT OR WAY OR EASEMENTS.

7. THE CONTRACTOR MUST PROVIDE A PNEUMATIC TRUCK PER TXDOT SPEC FOR PROOF ROLLING.

8. ALL STRIPING, WITH THE EXCEPTION OF STOP BARS, CROSS WALKS, WORDS AND ARROWS, IS TO BE TYPE II (WATER BASED). STOP BARS, CROSS WALKS, WORDS AND ARROWS REQUIRE TYPE I THERMOPLASTIC.

9. MANHOLE FRAMES, COVERS, VALVES, CLEAN-OUTS, ETC. SHALL BE RAISED TO GRADE PRIOR TO FINAL PAVEMENT CONSTRUCTION.

10. A STOP BAR SHALL BE PLACED AT ALL STOP SIGN LOCATIONS.

11. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE FOR COMPLIANCE WITH THE DESIGN ASSUMPTIONS MADE DURING PREPARATION OF THE SOILS REPORT. ANY ADJUSTMENTS THAT ARE REQUIRED SHALL BE MADE THROUGH REVISIONS OF THE APPROVED CONSTRUCTION PLANS.

12. GEOTECHNICAL INVESTIGATION INFORMATION AND PAVEMENT RECOMMENDATIONS WERE PROVIDED BY RABA KISTNER. PAVEMENT RECOMMENDATIONS CAN BE FOUND IN THE SITE DEVELOPMENT PLAN (SD-23-0084).

13. A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CITY OF AUSTIN TRANSPORATION CRITERIA MANUAL, CITY OF LEANDER STANDARD DETAILS AND TEXAS DEPARTMENT OF TRANSPORTATION CRITERIA, SHALL BE SUBMITTED TO THE CITY OF LEANDER FOR REVIEW AND APPROVAL PRIOR TO ANY PARTIAL OR COMPLETE ROADWAY CLOSURES. TRAFFIC CONTROL PLANS MUST BE SITE SPECIFIC AND SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.

14. ALL LANE CLOSURES SHALL OCCUR ONLY BETWEEN THE HOURS OF 9 AM AND 4 PM UNLESS OTHERWISE NOTED ON THE PLANS. ANY NIGHT TIME LANE CLOSURES REQUIRE APPROVAL OF THE CITY ENGINEER AND SHALL OCCUR BETWEEN THE HOURS OF 8 PM AND 6 AM. LANE CLOSURES OBSERVED BY THE CITY DURING PEAK HOURS OF 6 AM TO 9 AM OR 4 PM TO 8 PM WILL BE SUBJECT TO A FINE AND/OR SUBSEQUENT ISSUANCE OF WORK STOPPAGE.

15. TEMPORARY ROCK CRUSHING IS NOT ALLOWED. ALL SOURCES OF FLEXIBLE BASE MATERIAL ARE REQUIRED TO BE APPROVED BY THE CITY. PRIOR TO BASE PLACEMENT ALL CURRENT TRIAXIAL TEST REPORTS FOR PROPOSED STOCK PILES ARE TO BE SUBMITTED TO THE CITY CONSTRUCTION INSPECTOR FOR REVIEW AND APPROVAL.

16. AT ROAD INTERSECTIONS THAT HAVE A VALLEY GUTTER, THE CROWN TO THE INTERSECTING ROAD WILL BE CULMINATED AT A DISTANCE OF 40 FEET FROM THE INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.

17. NO PONDING OF WATER SHALL BE ALLOWED TO COLLECT ON OR NEAR THE INTERSECTION OF PRIVATE DRIVEWAYS AND PUBLIC STREETS. RECONSTRUCTION OF THE DRIVEWAY APPROACH SHALL BE AT THE CONTRACTOR'S EXPENSE.

18. ALL DRIVEWAY APPROACHES SHALL HAVE A UNIFORM TWO PERCENT SLOPE WITHIN THE PUBLIC RIGHT OF WAY UNLESS APPROVED IN WRITING BY THE ENGINEERING DEPARTMENT.

CITY OF LEANDER NOTES (CONT.)

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 DRVIEWAY TO REMAIN OPEN AT ALL TIMES. FULL CLOSURE OF SUCH DRIVEWAY CAN BE CONSIDERED WITH WRITTEN AUTHORIZATION OBTAINED BY THE CONTRACTOR FROM ALL PROPERTY OWNERS AND ACCESS EASEMENT RIGHT HOLDERS ALLOWING THE FULL CLOSURE OF THE DRIVEWAY.

20. CONTRACTOR MUST CLEAR FIVE (5) FEET BEYOND ALL PUBLIC RIGHT OF WAY TO PREVENT FUTURE VEGETATIVE GROWTH INTO THE SIDEWALK AREAS.

21. SLOPE OF NATURAL GROUND ADJACENT TO THE PUBLIC RIGHT OF WAY SHALL NOT EXCEED 3:1 SLOPE. IF A 3:1 SLOPE IS NOT POSSIBLE, SLOPE PROTECTION OR RETAINING WALL MUST BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO FINAL ACCEPTANCE.

22. THERE SHALL BE NO WATER, WASTEWATER OR DRAINAGE APPURTENANCES, INCLUDING BUT NOT LIMITED TO VALVES, FITTINGS, METERS, CLEAN-OUTS, MANHOLES, OR VAULTS IN ANY DRIVEWAY, SIDEWALK, TRAFFIC OR PEDESTRIAN AREA.

23. PUBLIC SIDEWALKS SHALL NOT USE CURB INLETS AS PARTIAL WALKING SURFACE. SIDEWALKS SHALL NOT USE TRAFFIC CONTROL BOXES, METERS, CHECK VALVE VAULTS, COMMUNICATION VAULTS, OR OTHER BURIED OR PARTIALLY BURIED INFRASTRUCTURE AS A VEHICULAR OR PEDESTRIAN SURFACE.

24. ALL WET UTILITIES SHALL BE INSTALLED AND ALL DENSITIES MUST HAVE PASSED INSPECTION(S) PRIOR TO THE INSTALLATION OF DRY UTILITIES.

25. DRY UTILITIES SHALL BE INSTALLED AFTER SUBGRADE IS CUT AND BEFORE THE FIRST COURSE OF BASE. NO TRENCHING COMPACTED BASE. IF NECESSARY DRY UTILITIES INSTALLED AFTER FIRST COURSE BASE SHALL BE BORED ACROSS THE FULL WIDTH OF THE PUBLIC RIGHT-OF-WAY.

26. A MINIMUM OF SEVEN (7) DAYS OF CURE TIME IS REQUIRED FOR HMAC PRIOR TO THE INTRODUCTION OF VEHICULAR TRAFFIC TO ALL STREETS.

TRENCH SAFETY NOTES

1. TRENCH SAFETY SYSTEMS TO BE UTILIZED FOR THIS PROJECT ARE DESCRIBED IN ITEM 509S "TRENCH SAFETY SYSTEMS" OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS AND SHALL BE IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U.S. OCCUPATION SAFETY AND HEALTH ADMINISTRATION REGULATIONS.

GRADING NOTES

1. POSITIVE DRAINAGE SHALL BE MAINTAINED ON ALL SURFACE AREAS WITHIN THE SCOPE OF THIS PROJECT. CONTRACTOR SHOULD TAKE PRECAUTIONS NOT TO ALLOW ANY PONDING OF WATER.

2. THE CONTRACTOR SHALL CONSTRUCT EARTHEN EMBANKMENTS WITH SLOPES NO STEEPER THAN 3:1 AND COMPACT SOIL TO 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS.

3. AREAS OF SOIL DISTURBANCE ARE LIMITED TO GRADING AND IMPROVEMENTS SHOWN. ALL OTHER AREAS WILL NOT BE DISTURBED.

NO.	REVISION	BY	DATE

DESIGNED BY: KM
DRAWN BY: CS/MR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

AtkinsRéalis
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-6840
TBPE REG. NO. F-474

STATE OF TEXAS
MICHAEL J SHANGREAUX
134844
LICENSED
PROFESSIONAL ENGINEER
1/15/2025

LISD EARLY CHILDHOOD CENTER

GENERAL NOTES 1

FILE NO. ECLC-GEN NOTES
PROJECT NO. 100090499

<u>GENERAL CONSTRUCTION NOTES</u>

1. CONTRACTOR SHALL CALL THE ONE CALL CENTER LONE STAR (1-800-545-6005) FOR UTILITY LOCATIONS 48 HOURS PRIOR TO ANY EXCAVATION.
2. ALL EXISTING INFORMATION SHOWN IS BASED ON BEST AVAILABLE DATA OBTAINED AND NOT CONFIRMED BY AS-BUILT SURVEY. CONTRACTOR SHALL REPORT ANY MAJOR DEVIATIONS FROM PLANS TO ENGINEER AS THEY AFFECT THE PROPOSED DESIGN PRIOR TO CONSTRUCTION IN THE IMMEDIATE AREA.
3. PROPERTY BOUNDARY NOT CONFIRMED WITH SURVEY. ELECTRONIC FILE OF TRAVERSE AND SELECTIVE FOUND PINS MAY BE SUPPLIED TO CONTRACTOR FOR COORDINATE CONTROL.
4. CONTRACTOR TO WORK WITH ENGINEER AND PROVIDE INFORMATION RELATING TO EXISTING INFRASTRUCTURE AS NECESSARY TO ACHIEVE PROPER DESIGN AND CONSTRUCTION OF IMPROVEMENTS.
5. ALL CONSTRUCTION MUST COMPLY WITH GOVERNING ORDINANCES, CODES, AND LAWS LOCAL, STATE, AND FEDERAL ENTITIES.
6. FOR SLOPES OR TRENCHES GREATER THAN FIVE FEET IN DEPTH, CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 611 EAST 6TH STREET, AUSTIN, TEXAS.)
7. ALL SITE WORK MUST ALSO COMPLY WITH LOCAL, STATE, AND FEDERAL ENVIRONMENTAL REQUIREMENTS.
8. ALL FINAL SITE WORK MUST COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE TEXAS DEPARTMENT OF LICENSING AND REGULATIONS (TDLR). ADA ACCESSIBLE SIDEWALKS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5% AND A MAX. CROSS SLOPE OF 2%. NO RAMP SHALL EXCEED 6 INCHES IN HEIGHT NOR EXCEED A SLOPE OF 12:1.
9. PAVEMENT RECOMMENDATIONS WITHIN THE PLANS ARE BASED ON PRELIMINARY DATA RECEIVED AT TIME OF PLAN PRODUCTION. GEOTECHNICAL ENGINEER AND CIVIL ENGINEER SHALL BE NOTIFIED PRIOR TO ANY COMMENCEMENT OF PAVEMENT CONSTRUCTION.
10. CONTRACTOR SHALL TAKE DENSITY TESTS ON SUBGRADE, BASE, ASPHALT, TRENCH BACKFILLS, AND ALL OTHER STRUCTURAL FILL AND SHALL REPORT FINDINGS TO OWNER AND ENGINEER. OWNER'S CONTRACTED GEOTECHNICAL ENGINEER SHOULD BE PRESENT AT ALL TIMES DURING TESTING.

LEANDER INDEPENDENT SCHOOL DISTRICT
<u>GENERAL CONSTRUCTION NOTES:</u>

1. CONTRACTOR TO FIELD VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. ALL CONSTRUCTION SHALL COMPLY WITH GOVERNING ORDINANCES, CODES AND LAWS.
3. THE CONTRACTOR SHALL COMPLY WITH OSHA REGULATIONS AS THEY APPLY TO THE SITE WORK.
4. ALL GRADES ARE SHOWN TO FINISHED GRADE. TO DETERMINE SUBGRADE, SUBTRACT APPROPRIATE AMOUNT OF TOPSOIL, BASE, PAVEMENT, ETC. (SEE DETAILS AND SPECIFICATIONS)
5. ALL TESTING OF UTILITIES SHALL BE CONDUCTED IN THE SAME MANNER AS PUBLIC IMPROVEMENTS REQUIREMENTS AND RESULTS SUBMITTED TO ENGINEER AND OWNER. NO UTILITY SHALL BE USED UNTIL SUCH TESTS ARE PASSED. THESE TESTS INCLUDE, BUT ARE NOT LIMITED TO, WASTEWATER LINE MANDREL TESTING, WASTEWATER AIR TESTING, MANHOLE VACUUM TESTING, WATER LINE PRESSURE TESTING, FIRE HYDRANT TESTING, ANTI-BACTERIAL TESTING, TRENCH DENSITY TESTING.
6. ALL DENSITY TESTING OF COMPACTED SOILS SHALL BE CONDUCTED AS PER THE CITY OF AUSTIN STANDARD SPECIFICATIONS AND AS RECOMMENDED BY GEOTECHNICAL ENGINEER. TESTING RESULTS SHALL BE SUBMITTED TO ENGINEER AND OWNER.
7. ALL CONCRETE COMPRESSION, TENSILE, AND SLUMP TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS AND AS RECOMMENDED BY GEOTECHNICAL ENGINEER. TESTING RESULTS SHALL BE SUBMITTED TO ENGINEER AND OWNER.
8. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SEDIMENTATION & EROSION CONTROL DEVICES WHEN AHTHORIZED BY THE ENGINEER. SOME OF THESE DEVICES MAY NEED TO REMAIN IN PLACE AFTER THE CONTRACTOR HAS LEFT THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO REMOVE THESE DEVICES AT NO ADDITIONAL COST WHEN AUTHORIZED BY THE ENGINEER.
9. AN AUTOCAD FILE WILL BE PROVIDED BY ATKINS TO THE CONTRACTOR FOR LAYOUT PURPOSES.
10. A PRE-PAVING MEETING SHALL BE HELD ON SITE PRIOR TO ANY PAVEMENT BEING INSTALLED, CONTRACTOR SHALL COORDINATE SITE MEETING WITH ENGINEER, OWNER, AND GEOTECHNICAL ENGINEER.
11. SCOPE OF WORK (CIVIL):
    - SEDIMENTATION & EROSION CONTROL PROTECTION DEVICES AND TREE PROTECTION AS SHOWN ON PLANS. THIS INCLUDES ROUTINE MAINTENANCE OF CONTROLS PER GOVERNING REGULATIONS AND THE STORM WATER POLLUTION PREVENTION PLAN.
    - CLEARING AND GRUBBING AS NEEDED INCLUDING STOCKPILING SUITABLE MATERIALS, TOPSOIL AS DEFINED IN LANDSCAPE SPECIFICATIONS, AND REMOVAL FROM SITE THOSE MATERIALS NOT NEEDED FOR USE ON SITE AS INDICATED BY THE ENGINEER.
    - UNCLASSIFIED EXCAVATION AND EMBANKMENT AS INDICATED IN PLANS & SPECS INCLUDING IMPORT FILL OR HAUL-OFF IF NECESSARY.
    - INSTALLATION OF SITE ELECTRIC, TELEPHONE, COMMUNICATION, GAS LINES AND SLEEVES AS SHOWN HEREIN AND ON MEP PLANS. FURNISH AND INSTALLATION OF SITE WATER, WASTEWATER, FIRE AND IRRIGATION LINES AND SLEEVES INCLUDING ALL APPURTENANCES AS SHOWN ON THESE PLANS AND ON THE IRRIGATION PLANS. REFER TO M.E.P. PLANS FOR MORE INFORMATION.
    - PRIOR TO CONSTRUCTION OF CONCRETE PAVING THE CONTRACTOR SHALL COORDINATE AN ON-SITE PRECONSTRUCTION MEETING. THE CIVIL ENGINEER, THE GEOTECHNICAL ENGINEER, L.I.S.D. LIAISON, AND GENERAL AND PAVING CONTRACTORS MUST ATTEND.
    - INSTALLATION OF CONCRETE CURB AND GUTTER, CURB RAMPS, TYPE II DRIVEWAYS.
    - INSTALLATION OF HEAVY-DUTY AND STANDARD DUTY RIGID PAVING INCLUDING SUBGRADE PREP, CRUSHED STONE BASE IF SPECIFIED, AND CONCRETE. REFER TO PAVING DETAIL SHEETS FOR PAVING DESIGN. REFER TO SPECIFICATIONS.
    - INSTALLATION OF STORM SEWER LINES, ROOF-DRAIN LINES, CURB INLETS, GRATE INLETS, AREA INLETS, MANHOLES AND CONNECTIONS TO DOWNSPOUTS.
    - PREPARATION OF BUILDING PAD
    - FURNISH & INSTALL CHAIN-LINK VINYL-COATED FENCE AS SHOWN ON SITE PLAN.
    - FURNISH & INSTALL HANDICAP CURB RAMPS AS SHOWN ON CIVIL & ARCHITECTURAL PLANS.
    - TEST ALL UTILITY LINES IN ACCORDANCE WITH THE ADOPTED SPECIFICATIONS, AND COORDINATE WITH CITY OR THIRD PARTY ON INSPECTION.

LEANDER INDEPENDENT SCHOOL DISTRICT
<u>GENERAL CONSTRUCTION NOTES:</u> (CONT.)

11. SCOPE OF WORK (CIVIL) (CONT.):
    - COORDINATE CONSTRUCTION WITH OTHER CONTRACTORS ONSITE TO PREVENT ACCIDENTS, RESOLVE CONFLICTS WITH OTHER UTILITIES, AND FACILITATE THE SMOOTH PROGRESS OF THE PROJECT. COORDINATE WITH ARCHITECT AND ENGINEER AS NEEDED FOR ROUTINE PROGRESS MEETINGS ON SITE AND COMMUNICATE REQUESTS FOR INFORMATION (RFI'S) AS NEEDED TO RESOLVE QUESTIONS, PROBLEMS, OR POTENTIAL PROBLEMS AS THEY MAY ARISE.
    - CONSTRUCT ANY ROCK WALLS AND CONCRETE RETAINING WALLS AS SHOWN ON SITE PLAN OR GRADING PLAN.
    - FURNISH AND INSTALL LANDSCAPING AND IRRIGATION AS SHOWN IN APPROVED LANDSCAPE AND IRRIGATION PLANS.
    - MAINTAIN ACCURATE AS-BUILTS AND PROVIDE FOR THE TESTING OF MATERIALS AND INSTALLATION PER SPECIFICATIONS.
    - RESTORE ALL DISTURBED AREAS AND CLEAN UP SITE PER FINAL ACCEPTANCE NOTE BELOW. SEE PERMANENT EROSION CONTROL NOTES.
    - WHEN DIRECTED BY ENGINEER, REMOVE SILT FENCES, TREE PROTECTION FENCING, INLET PROTECTION, ROCK BERMS, AND TEMPORARY IRRIGATION FROM SITE. THIS MAY REQUIRE THE CONTRACTOR TO RETURN TO THIS PROJECT AFTER HE HAS BEEN RELEASED BY LISD.
    - PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE FROM THE ENTIRE SITE ANY DEBRIS WHICH MAY BECOME A HAZARD FOR L.I.S.D. LAWN-MOWING EQUIPMENT. CONTRACTOR SHALL CONTACT NICK RODRIGUEZ GROUND SUPERVISOR @ L.I.S.D. AT (512)570-0644, TO SECURE INSPECTION AND APPROVAL. THIS INCLUDES SCRUB CEDAR TREES, ROCKS, AND SMALL BRUSH.
    - CONSTRUCT CONCRETE SIDEWALKS OF VARIOUS DIMENSIONS AS SHOWN ON THE SITE PLANS. USE STANDARD SIDEWALK DETAILS SHOWN ON DETAIL SHEETS.
    - FURNISH MATERIALS AND LABOR NECESSARY TO INSTALL TRAFFIC PAINT STRIPING AND SIGNAGE IN ACCORDANCE WITH THE SITE PLAN AND L.I.S.D. DIRECTIONS.
    - FURNISH AND INSTALL STEEL SWINGING GATES AT LOCATIONS SHOWN ON THE SITE PLAN. EACH INSTALLATION INCLUDES A MATCHING PAIR OF GATES. GATES ARE CONSTRUCTED OF GALVANIZED STEEL WITH REFLECTIVE MATERIALS ON THE CROSS PIECE. GATES LOCK IN BOTH OPEN AND CLOSED POSITIONS.
    - CONTRACTOR SHALL SUBMIT TO A FINAL INSPECTION AND PUNCHLIST BY THE ENGINEER. CONTRACTOR MUST RESOLVE ALL OUTSTANDING ITEMS TO THE SATISFACTION OF THE ENGINEER PRIOR TO RECEIVING ENGINEER'S LETTER OF CONCURRENCE.
    - THIS PROJECT INCLUDES ALL LANDSCAPE IMPROVEMENTS AS SHOWN ON THE APPROVED PLANS PREPARED BY BRAD SIMS, LANDSCAPE ARCHITECT.
    - PROJECT ALSO INCLUDES CONCRETE STEPS, ACCESSIBLE RAMPS, CURB RAMPS, HANDRAILS & GUARDRAILS AS DETAILED BY ARCHITECT & SHOWN BY CIVIL.

<u>EROSION AND SEDIMENTATION CONTROL NOTES</u>

1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR EXCAVATION).
2. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL AND ARE RECOMMENDED IN THE EROSION AND SEDIMENTATION CONTROL PLAN PROVIDED IN THE STORM WATER POLLUTION PREVENTION PLAN AND IN THIS SET OF CONSTRUCTION DOCUMENTS.
3. THE PLACEMENT OF TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION AND THE APPROVED SITE PLAN SHOWING TREE PROTECTION.
4. ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN WILL REQUIRE A REVISION WITHIN THE SWPPP AND APPROVED BY THE CIVIL ENGINEER AND OWNER. MINOR CHANGES TO BE MADE AS FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE TPDES ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES, ANY CHANGES MADE TO THE EROSION & SEDIMENTATION CONTROL PLAN BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY OF MAINTAINING THE SITE IN CONFORMANCE WITH THE TDPES REQUIREMENTS.
5. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO INSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WITH THE DEPTH REACHES SIX (6) INCHES.
6. PRIOR TO FINAL ACCEPTANCE BY THE CITY, OWNER, AND/OR ENGINEER, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING DEBRIS SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.
7. ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS ONE SQUARE FOOT IN TOTAL AREA; BLOWS AIR FROM WITHIN THE SUBSTRATE AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO IMMEDIATELY CONTACT THE ENGINEER AND TCEQ INSPECTOR FOR FURTHER INVESTIGATION.

<u>EROSION AND SEDIMENTATION CONTROL NOTES</u> (CONT.)

8. DEVELOPER INFORMATION

OWNER: LEANDER INDEPENDENT SCHOOL DISTRICT
(JIMMY DISLER)
ADDRESS: P.O. BOX 218, LEANDER, TX 78646
PHONE: (512)570-0415

OWNER'S REPRESENTATIVE:

ATKINS PHONE#: (512) 327-6840

PERSON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE:
GENERAL CONTRACTOR
BARTLETT COCKE GENERAL CONTRACTORS (512)326-4223

PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE:
GENERAL CONTRACTOR
HANS SCHNEIDER (512)326-4223

<u>TREE AND NATURAL AREA PROTECTION NOTES</u>

1. ALL TREES AND NATURAL AREAS SHOWN ON PLAN TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING.
2. PROTECTIVE FENCES SHALL BE ERECTED ACCORDING TO CITY OF AUSTIN STANDARDS FOR TREE PROTECTION.
3. PROTECTIVE FENCES SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING), AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT.
4. EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP WITHIN TREE DRIP LINES.
5. PROTECTIVE FENCES SHALL SURROUND THE TREE OR GROUP OF TREES, AND WILL BE LOCATED AT THE OUTERMOST LIMIT OF BRANCHES (DRIP LINE), FOR NATURAL AREAS, PROTECTIVE FENCES SHALL FOLLOW THE LIMIT OF CONSTRUCTION LINE, IN ORDER TO PREVENT THE FOLLOWING:

   A) SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIALS;
   B) ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6 INCHES CUT OR FILL), OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY ARBORIST;
   C) WOUNDS TO EXPOSED ROOTS, TRUNK OR LIMBS BY MECHANICAL EQUIPMENT;
   D) OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING, AND FIRES.

6. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIPLINES MAY BE PERMITTED IN THE FOLLOWING CASES:

   A) WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT, ERECT THE FENCE APPROXIMATELY 2 TO 4 FEET BEYOND THE AREA DISTURBED;
   B) WHERE PERMEABLE PAVING IS TO BE INSTALLED WITHIN A TREE'S DRIP LINE, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA (PRIOR TO SITE GRADING SO THAT THIS AREA IS GRADED SEPARATELY PRIOR TO PAVING INSTALLATION TO MINIMIZE ROOT DAMAGE)
   C) WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE TO ALLOW 6 TO 10 FEET OF WORK SPACE BETWEEN THE FENCE AND THE BUILDING;
   D) WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER SPECIAL REQUIREMENTS, CONTACT THE ENGINEER AT 327-6840 TO DISCUSS ALTERNATIVES.

7. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE BEING CLOSER THAN 4 FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF 8 FEET) OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.
8. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.
9. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN 2 DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
10. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
11. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITHIN THE DRIP LINE OF TREES. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
12. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT SHALL TAKE PLACE BEFORE DAMAGE OCCURS (RIPPING OF BRANCHES, ETC.)
13. ALL FINISHED PRUNING SHALL BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES AVAILABLE ON REQUEST FROM THE CITY ARBORIST).

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CONTRIBUTING ZONE PLAN
<u>GENERAL CONSTRUCTION NOTES DATED 7/25/2015:</u>

1. WRITTEN CONSTRUCTION NOTIFICATION SHOULD BE PROVIDED TO THE APPROPRIATE TCEQ REGIONAL OFFICE NO LATER THAN 48 HOURS PRIOR TO COMMENCEMENT OF THE REGULATED ACTIVITY. INFORMATION SHOULD INCLUDE THE DATE ON WHICH THE REGULATED ACTIVITY WILL COMMENCE, THE NAME OF THE APPROVED PLAN FOR THE REGULATED ACTIVITY, AND THE NAME OF THE PRIME CONTRACTOR WITH THE NAME AND TELEPHONE NUMBER OF THE CONTACT PERSON.
2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT SHOULD BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED CONTRIBUTING ZONE PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTOR(S) SHOULD KEEP COPIES OF THE APPROVED PLAN AND APPROVAL LETTER ON-SITE.
3. NO HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.
4. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
5. ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.
6. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS NOT LATER THAN WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%. A PERMANENT STAKE MUST BE PROVIDED THAT CAN INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN VOLUME.
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 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 OF CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED;
   C. ANY CHANGE THAT WOULD SIGNIFICANTLY IMPACT THE ABILITY TO PREVENT POLLUTION OF THE EDWARDS AQUIFER; OR
   D. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE APPROVED CONTRIBUTING ZONE PLAN.

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

SUBMITTED FOR PERMIT REVIEW
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NO.	REVISION	BY	DATE

DESIGNED BY: KM
DRAWN BY: CS/MR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

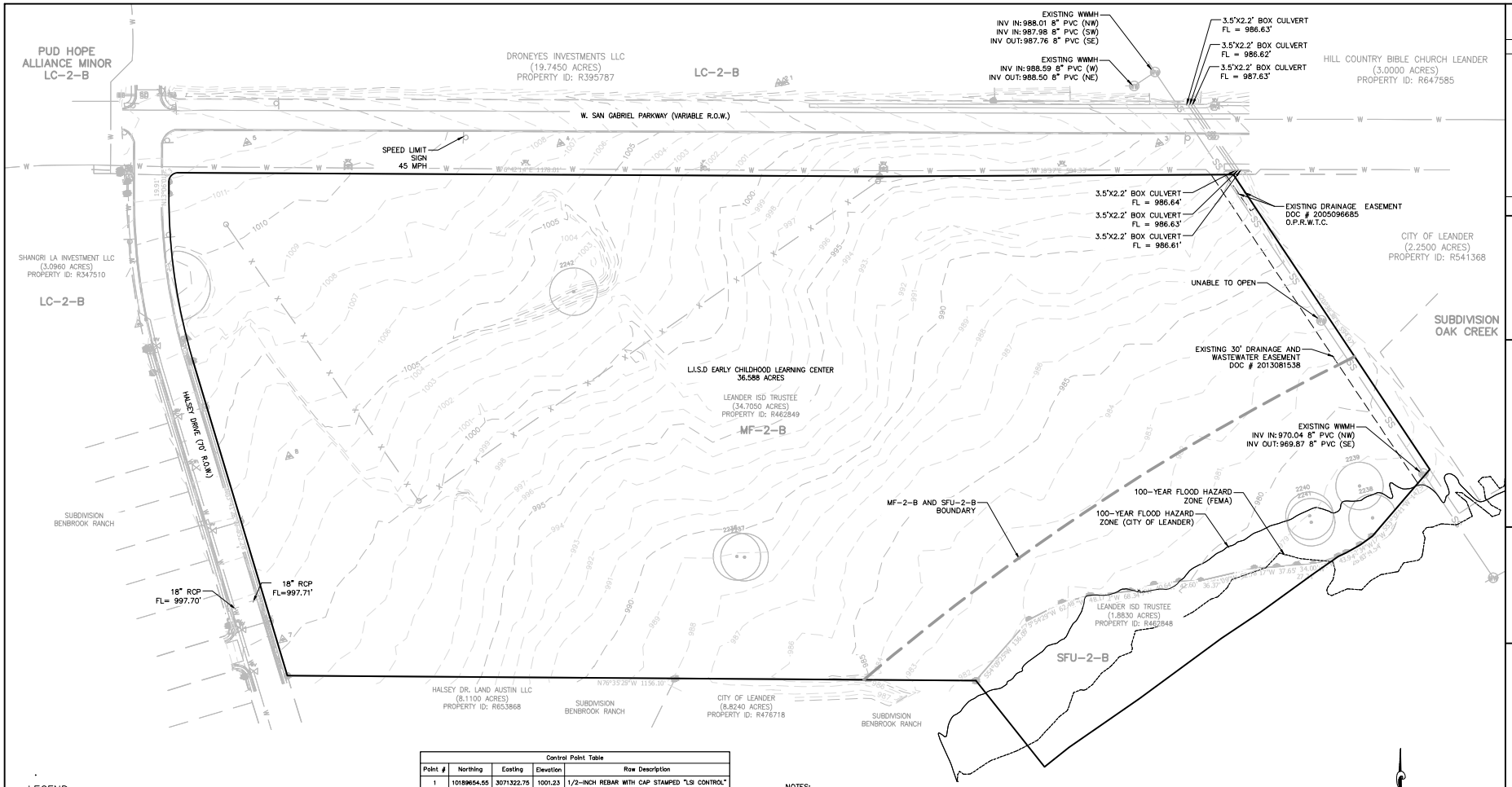
AtkinsRéalis
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-6840
TBPE REG. NO. F-474

LISD EARLY CHILDHOOD CENTER

GENERAL NOTES 2

SHEET NO. 3
OF 61 SHEETS

FILE NO. ECLC-GEN NOTES
PROJECT NO. 100090499



LEGEND:

	1/2-INCH REBAR FOUND 1/2-INCH REBAR WITH CAP FOUND 1/2-INCH REBAR WITH CAP STAMPED "LSI SURVEY" SET
O.P.R.W.C.T.	OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS
R.O.W.	RIGHT-OF-WAY
	FIRE HYDRANT
	WATER VALVE
	WATER METER
	SIGN POST SIGN
	LIGHT POLE
	BOLLARD
	STORM MANHOLE
	WASTEWATER MANHOLE
	FENCE
	CONCRETE
	ASPHALT
	TREE
	PROPERTY BOUNDARY
	ZONING BOUNDARY
SFR	ZONING DESIGNATION

Control Point Table

Point #	Northing	Easting	Elevation	Raw Description
1	10189654.55	3071322.75	1001.23	1/2-INCH REBAR WITH CAP STAMPED "LSI CONTROL"
2	10189655.21	3071313.21	1001.42	1/2-INCH REBAR WITH CAP STAMPED "LSI CONTROL"
3	10189413.27	3071912.57	994.38	1/2-INCH REBAR WITH CAP STAMPED "LSI CONTROL"
4	10189639.30	3070933.05	1007.37	1/2-INCH REBAR WITH CAP STAMPED "LSI CONTROL"
5	10189758.77	3070420.61	1012.38	1/2-INCH REBAR WITH CAP STAMPED "LSI CONTROL"
6	10189502.86	3070174.56	1009.14	1/2-INCH REBAR WITH CAP STAMPED "LSI CONTROL"
7	10188931.83	3070291.41	1000.28	1/2-INCH REBAR WITH CAP STAMPED "LSI CONTROL"
8	10189229.48	3070370.93	1002.80	1/2-INCH REBAR WITH CAP STAMPED "LSI CONTROL"

CURVE TABLE

CURVE #	RADIUS	LENGTH	DELTA	CHORD BEARING	CHORD
C1	964.91'	38.64'	2°17'40"	N02°30'33"W	38.64'
C2	964.91'	246.21'	14°37'10"	N05°56'52"E	245.54'
C3	15.00'	23.56'	90°05'27"	N58°15'12"E	21.23'

LINE TABLE

LINE #	BEARING	DISTANCE
L1	S78°13'03"W	15.38'

TREELIST

TAG #	SIZE (IN)	TYPE	BOLES (IN)
2236	10	BOIS D'ARC	
2237	9	BOIS D'ARC	
2238	13	BOIS D'ARC	9 8
2239	27	BOIS D'ARC	
2240	16	BOIS D'ARC	
2241	13	BOIS D'ARC	
2242	10	HACKBERRY	

NOTES:
1. THIS SITE LIES WITHIN AN AREA OF MINIMAL FLOOD HAZARD (ZONE X AND ZONE AE) DETERMINED BY FEMA FIRM NO. 48491C0455F, DATED DECEMBER 20, 2019.

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NO.	REVISION	BY	DATE

DESIGNED BY: KM
DRAWN BY: CS/MR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

AtkinsRéalis
11801 DOMAIN BOULEVARD, SUITE 500
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TBPE REG. NO. F-474

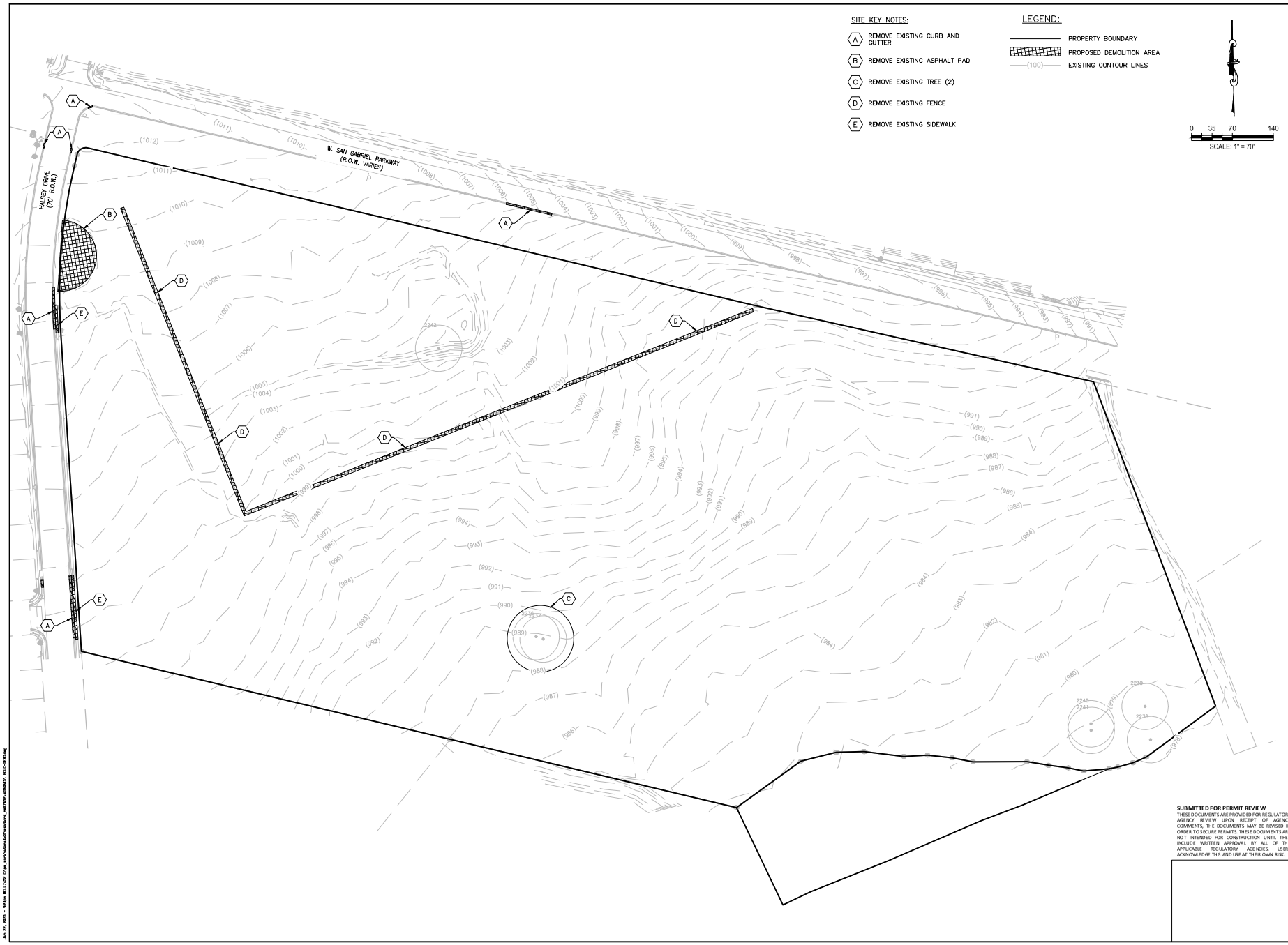
STATE OF TEXAS MICHAEL J SHANGREAUX 136644 LICENSED PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER

EXISTING CONDITIONS

SHEET NO. 4
OF 61 SHEETS

FILE NO. ECLC-EC
PROJECT NO. 100090499



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NO.	REVISION	BY	DATE

DESIGNED BY: KM
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APPROVED BY: MS
DATE: 01/15/2025

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TBPE REG. NO. F-474

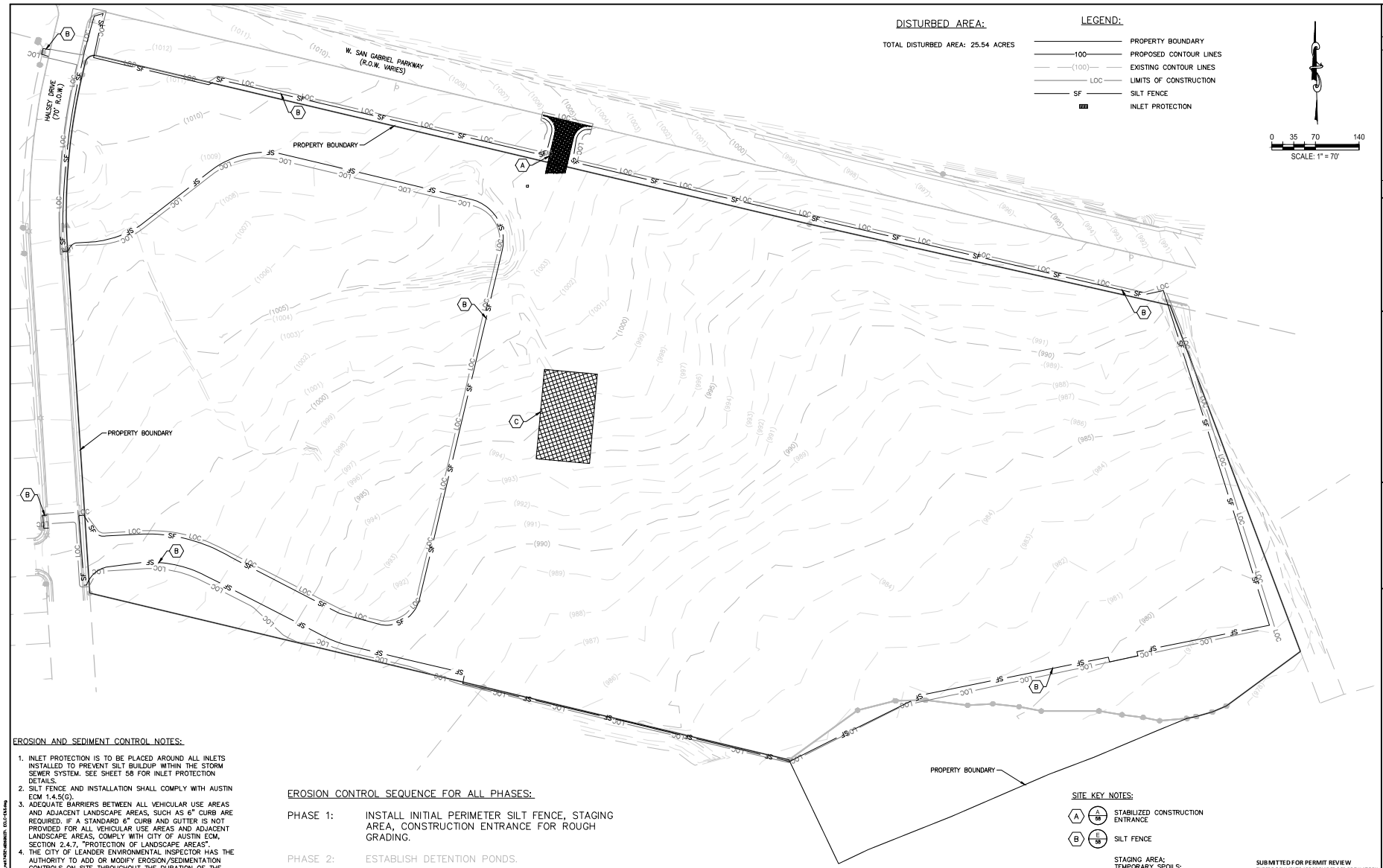
STATE OF TEXAS
MICHAEL J BRANGREAUX
136644
LICENSED PROFESSIONAL ENGINEER
01/15/2025

LISD EARLY CHILDHOOD CENTER

DEMOLITION PLAN

SHEET NO. 5
OF 61 SHEETS

FILE NO. ECLC-DEMO
PROJECT NO. 100090499



DISTURBED AREA:

TOTAL DISTURBED AREA: 25.54 ACRES

LEGEND:

- PROPERTY BOUNDARY
- 100 PROPOSED CONTOUR LINES
- (100) EXISTING CONTOUR LINES
- LOC LIMITS OF CONSTRUCTION
- SF SILT FENCE
- INLET PROTECTION

0 35 70 140

SCALE: 1" = 70'

EROSION AND SEDIMENT CONTROL NOTES:

1. INLET PROTECTION IS TO BE PLACED AROUND ALL INLETS INSTALLED TO PREVENT SILT BUILDUP WITHIN THE STORM SEWER SYSTEM. SEE SHEET 58 FOR INLET PROTECTION DETAILS.
2. SILT FENCE AND INSTALLATION SHALL COMPLY WITH AUSTIN ECM 1.4.5(G).
3. ADEQUATE BARRIERS BETWEEN ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS, SUCH AS 6" CURB ARE REQUIRED. IF A STANDARD 6" CURB AND GUTTER IS NOT PROVIDED FOR ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS, COMPLY WITH CITY OF AUSTIN ECM, SECTION 2.4.7, "PROTECTION OF LANDSCAPE AREAS".
4. THE CITY OF LEANDER ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
5. SEE SHEET 58 FOR EROSION AND SEDIMENTATION CONTROL DETAILS.
6. IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY RE-VEGETATION, MULCH, TARP OR RE-VEGETATION MATTING. [ECM 1.4.4.B.3, SECTION 5.I]
7. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER AUSTIN ECM 1.4.5(A), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
8. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY.
9. ON-SITE EROSION CONTROL MEASURES TO BE ESTABLISHED AND MAINTAINED AROUND TEMPORARY/PERMANENT SPOILS LOCATIONS, CONCRETE WASHOUT AND CONTRACTOR STAGING AREAS.

EROSION CONTROL SEQUENCE FOR ALL PHASES:

PHASE 1: INSTALL INITIAL PERIMETER SILT FENCE, STAGING AREA, CONSTRUCTION ENTRANCE FOR ROUGH GRADING.

PHASE 2: ESTABLISH DETENTION PONDS.

PHASE 3: COMPLETE ROUGH GRADING

PHASE 4: INSTALL INLET PROTECTION WHERE APPROPRIATE AND INSTALL ADDITIONAL LOT PERIMETER SILT FENCE AND CONCRETE WASHOUT. FINAL GRADE IS ESTABLISHED.

PHASE 5: REMOVAL OF TEMPORARY EROSION CONTROLS AFTER ESTABLISHMENT OF VEGETATION. (SEE SHEET 9, OVERALL GRADING, AND REF. LANDSCAPE)

SITE KEY NOTES:

- A (A/58) STABILIZED CONSTRUCTION ENTRANCE
- B (B/58) SILT FENCE
- C STAGING AREA; TEMPORARY SPOILS; PORTABLE SANITARY FACILITIES; (FINAL LOCATION TO BE VERIFIED BY CONTRACTOR)
- D (C/58) CONCRETE WASH-OUT AREA
- E ROCK CHECK DAM
- F (B/58) GRATE INLET PROTECTION
- G (A/58) CURB INLET PROTECTION

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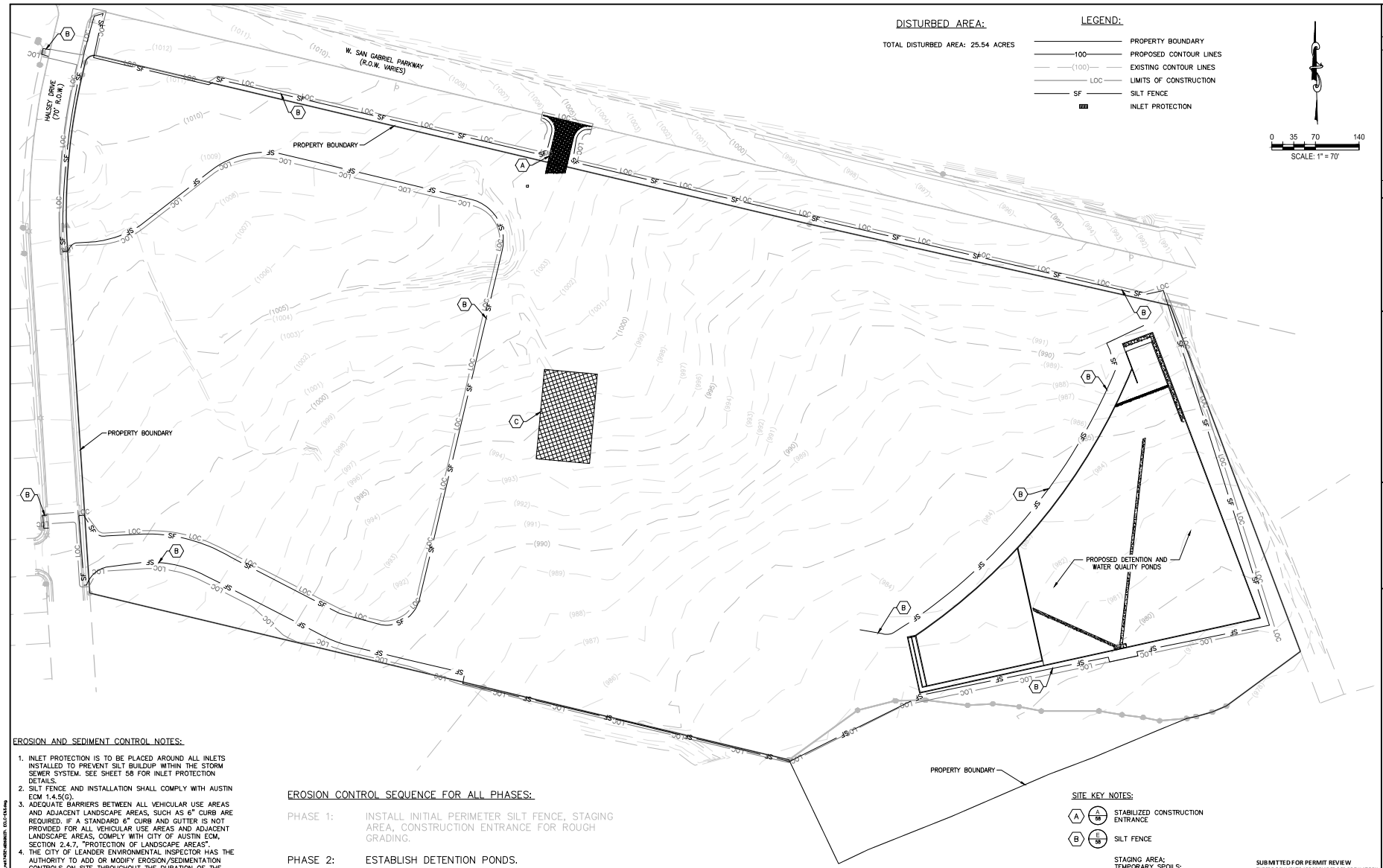
STATE OF TEXAS MICHAEL J BRANGREAUX 135644 LICENSED PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER
EROSION AND SEDIENTATION CONTROL PLAN - PHASE 1

SHEET NO. 6
OF 61 SHEETS

FILE NO. ECLC-EAS
PROJECT NO. 100090499



DISTURBED AREA:

TOTAL DISTURBED AREA: 25.54 ACRES

LEGEND:

- PROPERTY BOUNDARY
- 100 PROPOSED CONTOUR LINES
- (100) EXISTING CONTOUR LINES
- LOC LIMITS OF CONSTRUCTION
- SF SILT FENCE
- INLET PROTECTION

0 35 70 140

SCALE: 1" = 70'

EROSION AND SEDIMENT CONTROL NOTES:

1. INLET PROTECTION IS TO BE PLACED AROUND ALL INLETS INSTALLED TO PREVENT SILT BUILDUP WITHIN THE STORM SEWER SYSTEM. SEE SHEET 58 FOR INLET PROTECTION DETAILS.
2. SILT FENCE AND INSTALLATION SHALL COMPLY WITH AUSTIN ECM 1.4.5(G).
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4. THE CITY OF LEANDER ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
5. SEE SHEET 58 FOR EROSION AND SEDIMENTATION CONTROL DETAILS.
6. IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY RE-VEGETATION, MULCH, TARP OR RE-VEGETATION MATTING. [ECM 1.4.4.B.3, SECTION 5.I]
7. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER AUSTIN ECM 1.4.5(A), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
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EROSION CONTROL SEQUENCE FOR ALL PHASES:

PHASE 1: INSTALL INITIAL PERIMETER SILT FENCE, STAGING AREA, CONSTRUCTION ENTRANCE FOR ROUGH GRADING.

PHASE 2: ESTABLISH DETENTION PONDS.

PHASE 3: COMPLETE ROUGH GRADING

PHASE 4: INSTALL INLET PROTECTION WHERE APPROPRIATE AND INSTALL ADDITIONAL LOT PERIMETER SILT FENCE AND CONCRETE WASHOUT. FINAL GRADE IS ESTABLISHED.

PHASE 5: REMOVAL OF TEMPORARY EROSION CONTROLS AFTER ESTABLISHMENT OF VEGETATION. (SEE SHEET 9, OVERALL GRADING, AND REF. LANDSCAPE)

SITE KEY NOTES:

- A (A/58) STABILIZED CONSTRUCTION ENTRANCE
- B (B/58) SILT FENCE
- C STAGING AREA; TEMPORARY SPOILS; PORTABLE SANITARY FACILITIES; (FINAL LOCATION TO BE VERIFIED BY CONTRACTOR)
- D (C/58) CONCRETE WASH-OUT AREA
- E ROCK CHECK DAM
- F (B/58) GRATE INLET PROTECTION
- G (A/58) CURB INLET PROTECTION

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STATE OF TEXAS
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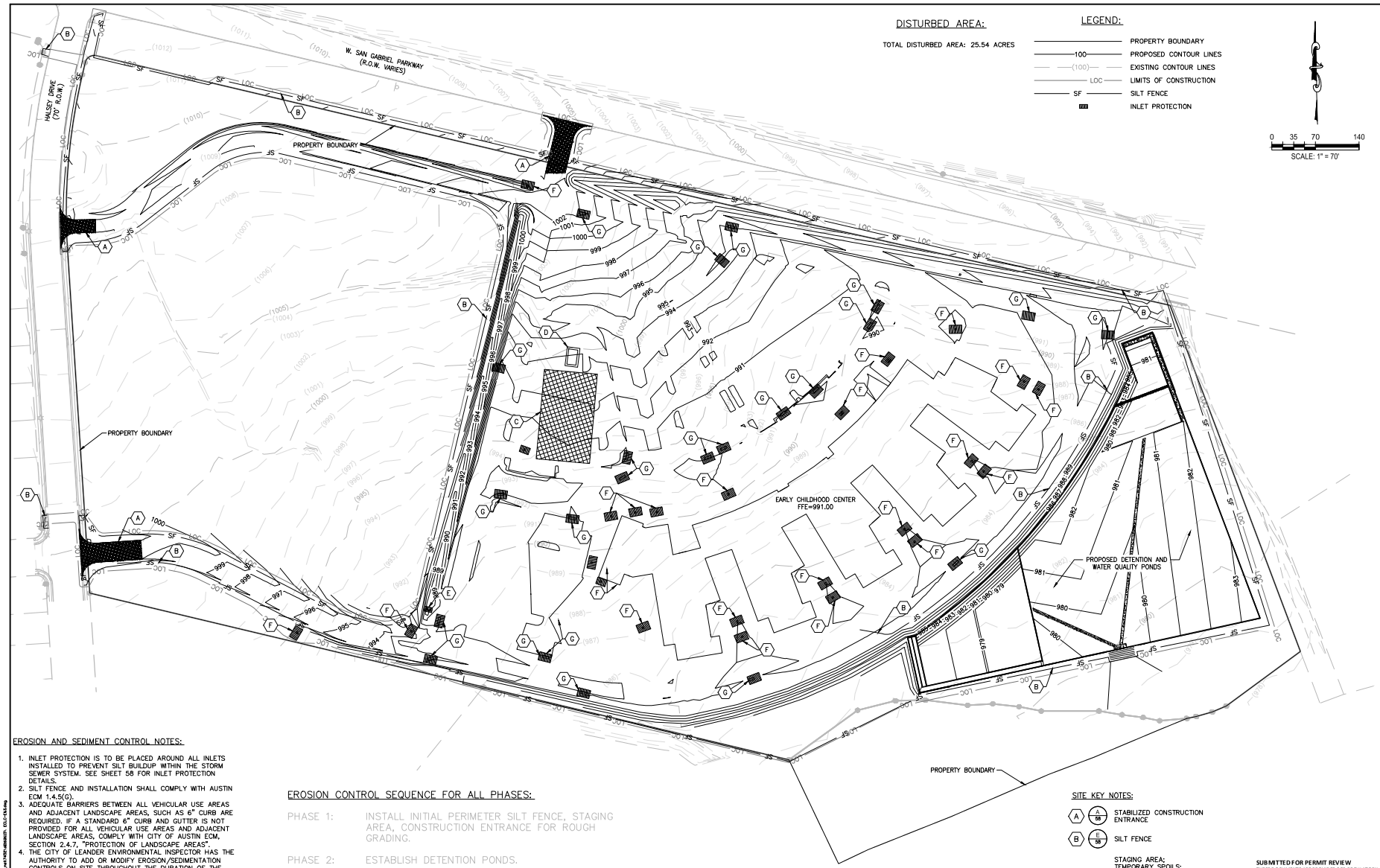
103644
LICENSED PROFESSIONAL ENGINEER
01/15/2025

LISD EARLY CHILDHOOD CENTER
EROSION AND SEDIENTATION CONTROL PLAN - PHASES 2 & 3

SHEET NO. 7
OF 61 SHEETS

FILE NO. ECLC-EAS
PROJECT NO. 100090499



DISTURBED AREA:

TOTAL DISTURBED AREA: 25.54 ACRES

LEGEND:

- PROPERTY BOUNDARY
- 100 PROPOSED CONTOUR LINES
- (100) EXISTING CONTOUR LINES
- LOC LIMITS OF CONSTRUCTION
- SF SILT FENCE
- INLET PROTECTION

0 35 70 140

SCALE: 1" = 70'

EROSION AND SEDIMENT CONTROL NOTES:

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PHASE 2: ESTABLISH DETENTION PONDS.

PHASE 3: COMPLETE ROUGH GRADING

PHASE 4: INSTALL INLET PROTECTION WHERE APPROPRIATE AND INSTALL ADDITIONAL LOT PERIMETER SILT FENCE AND CONCRETE WASHOUT. FINAL GRADE IS ESTABLISHED.

PHASE 5: REMOVAL OF TEMPORARY EROSION CONTROLS AFTER ESTABLISHMENT OF VEGETATION. (SEE SHEET 9, OVERALL GRADING, AND REF. LANDSCAPE)

SITE KEY NOTES:

- (A) A/58 STABILIZED CONSTRUCTION ENTRANCE
- (B) E/58 SILT FENCE
- (C) STAGING AREA; TEMPORARY SPOILS; PORTABLE SANITARY FACILITIES; (FINAL LOCATION TO BE VERIFIED BY CONTRACTOR)
- (D) C/58 CONCRETE WASH-OUT AREA
- (E) ROCK CHECK DAM
- (F) D/58 GRATE INLET PROTECTION
- (G) A/58 CURB INLET PROTECTION

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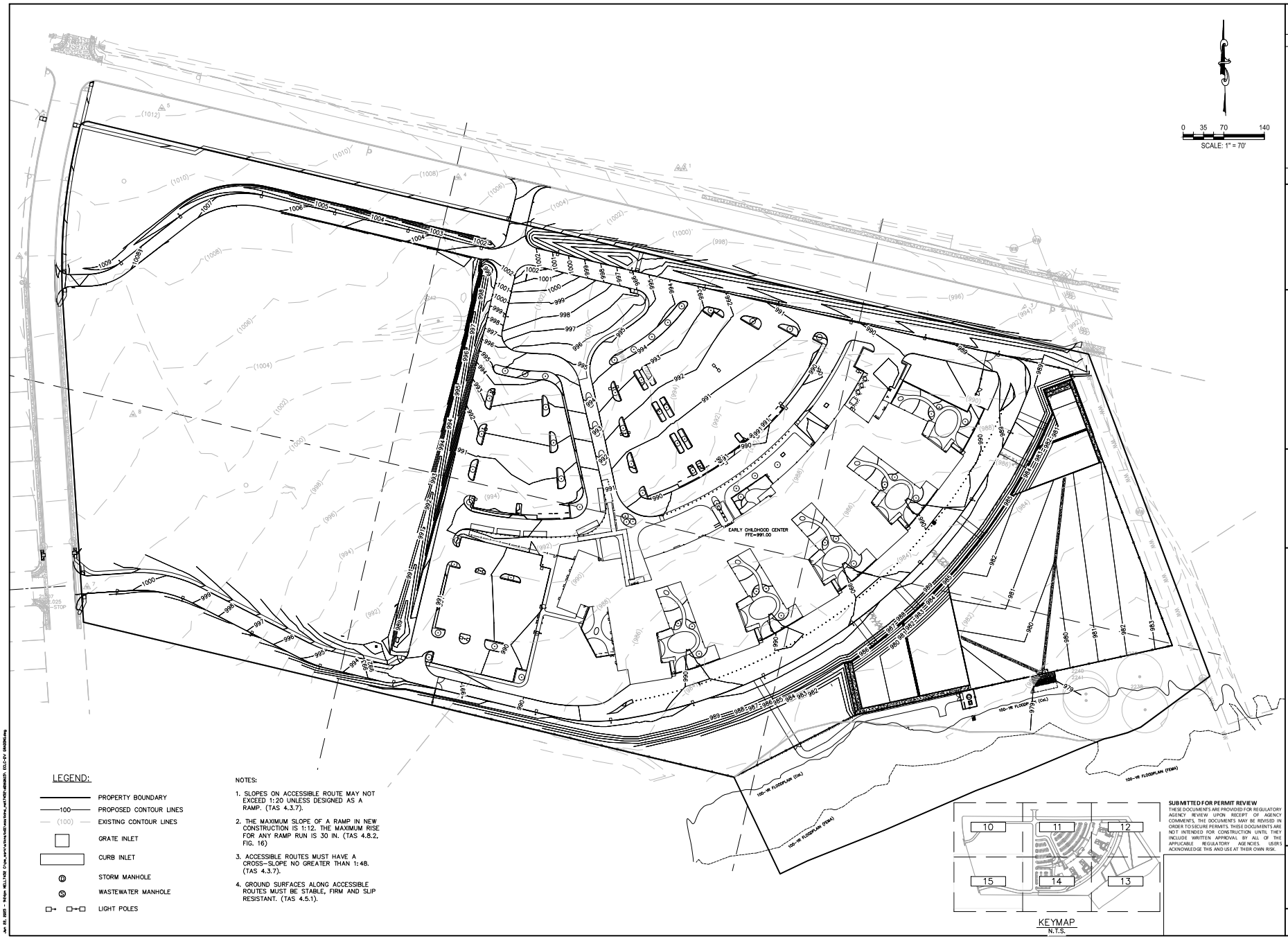
STATE OF TEXAS MICHAEL J. BRANGREAUX 135644 LICENSED PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER

EROSION AND SEDIENTATION CONTROL PLAN - PHASES 4 & 5

SHEET NO. 8
OF 61 SHEETS

FILE NO. ECLC-EAS
PROJECT NO. 100090499



LEGEND:

- PROPERTY BOUNDARY
- 100 PROPOSED CONTOUR LINES
- (100) EXISTING CONTOUR LINES
- GRATE INLET
- CURB INLET
- STORM MANHOLE
- WASTEWATER MANHOLE
- LIGHT POLES

NOTES:

1. SLOPES ON ACCESSIBLE ROUTE MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP. (TAS 4.3.7).
2. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12. THE MAXIMUM RISE FOR ANY RAMP RUN IS 30 IN. (TAS 4.8.2, FIG. 16)
3. ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:48. (TAS 4.3.7).
4. GROUND SURFACES ALONG ACCESSIBLE ROUTES MUST BE STABLE, FIRM AND SLIP RESISTANT. (TAS 4.5.1).

KEYMAP
N.T.S.

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136644
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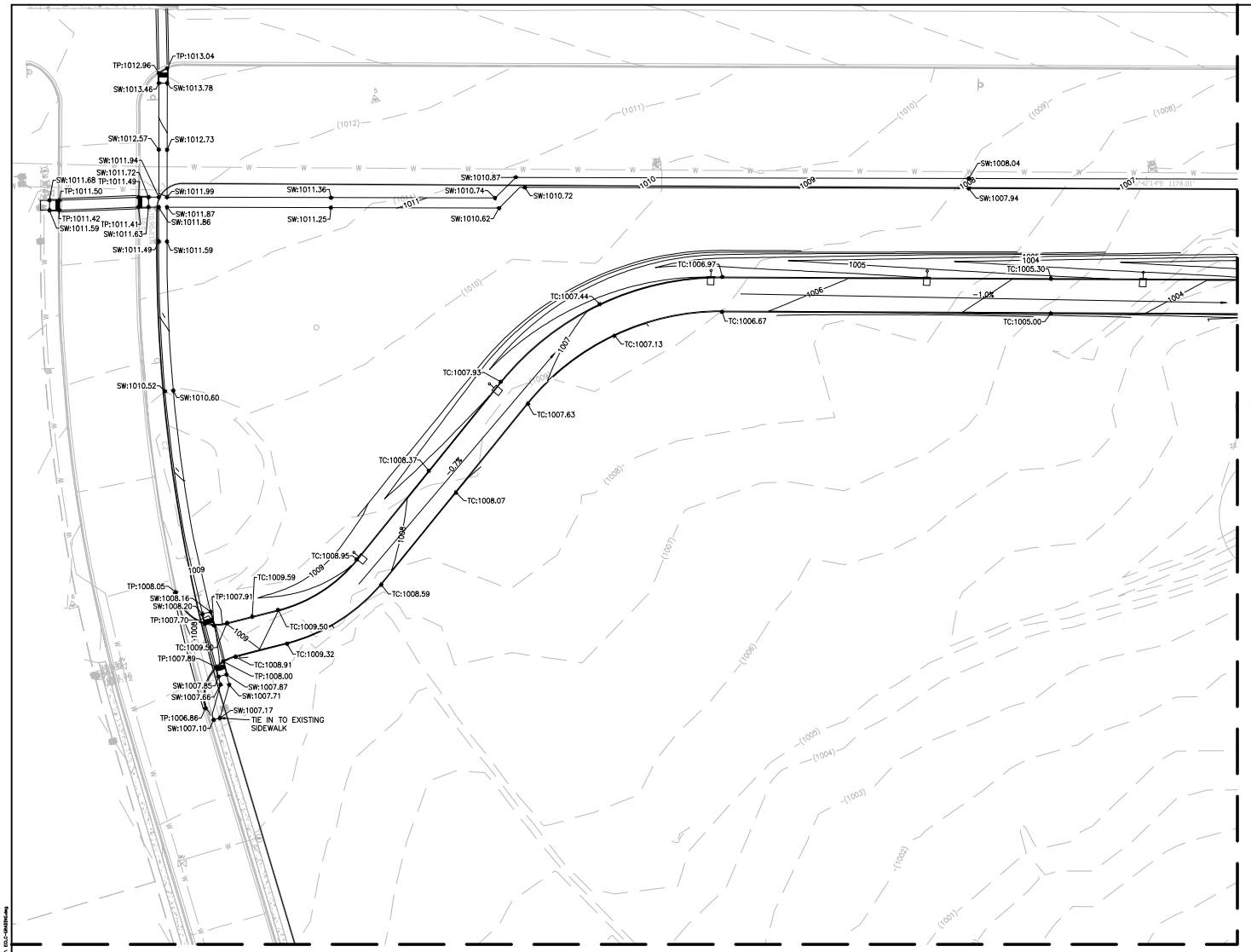
01/15/2025

LISD EARLY CHILDHOOD CENTER

OVERALL GRADING PLAN

SHEET NO. 9
OF 61 SHEETS

FILE NO. ECLC-OV GRADING
PROJECT NO. 100090499



0 15' 30' 60'

SCALE: 1" = 30'

LEGEND:

- PROPERTY BOUNDARY
- 100 PROPOSED CONTOUR LINES
- (100) EXISTING CONTOUR LINES
- GRATE INLET
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- STORM MANHOLE
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NOTES:

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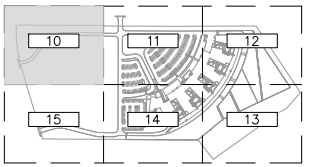

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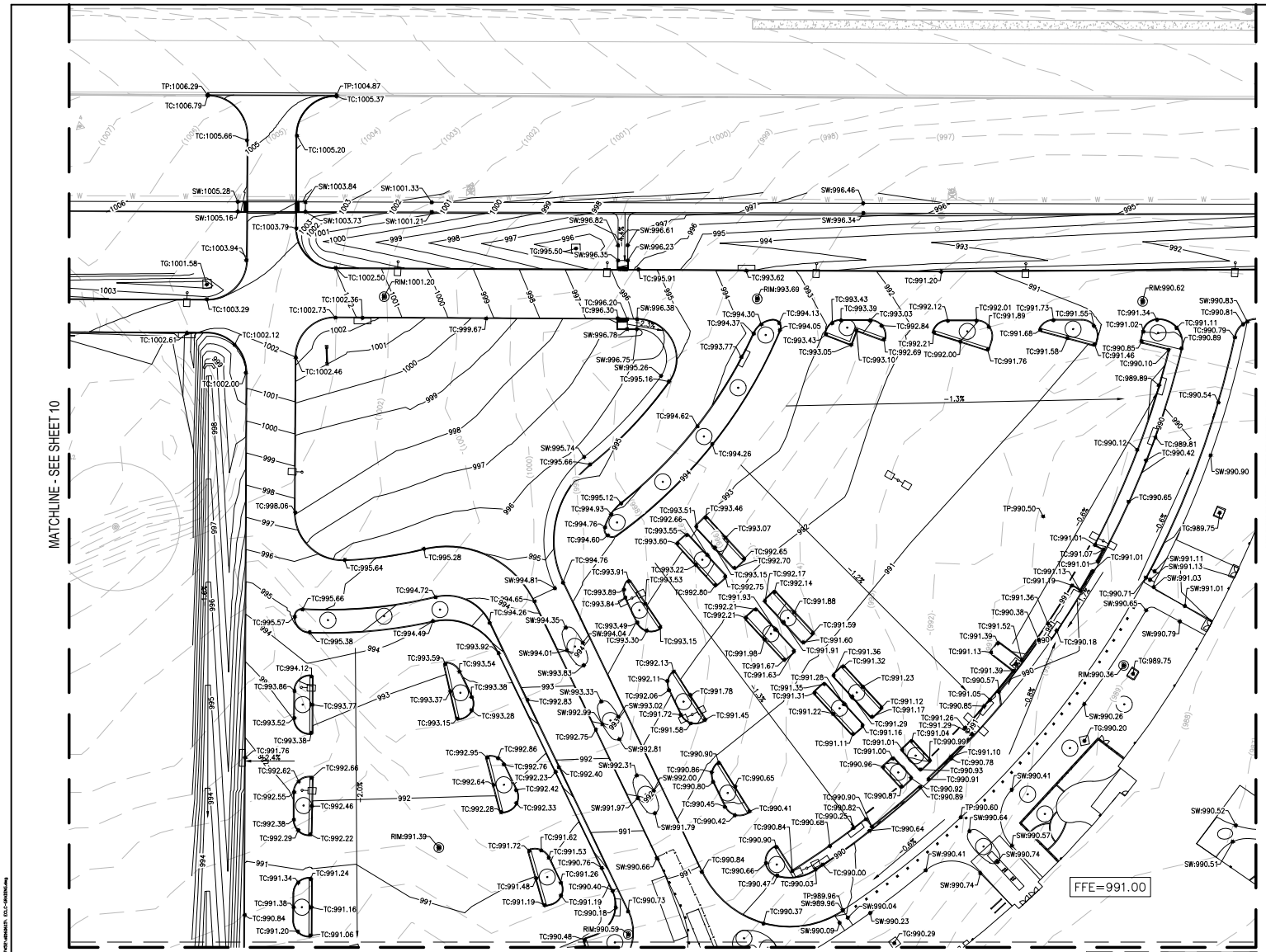
LISD EARLY CHILDHOOD CENTER

GRADING PLAN 1 OF 6

SHEET NO. 10
OF 61 SHEETS

FILE NO. ECLC-GRADING
PROJECT NO. 100090499



0 15' 30' 60'
SCALE: 1" = 30'

LEGEND:

- PROPERTY BOUNDARY
- 100 PROPOSED CONTOUR LINES
- (100) EXISTING CONTOUR LINES
- GRATE INLET
- CURB INLET
- STORM MANHOLE
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NOTES:

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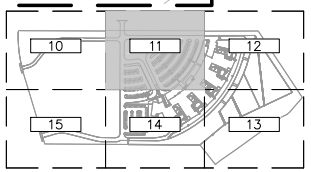

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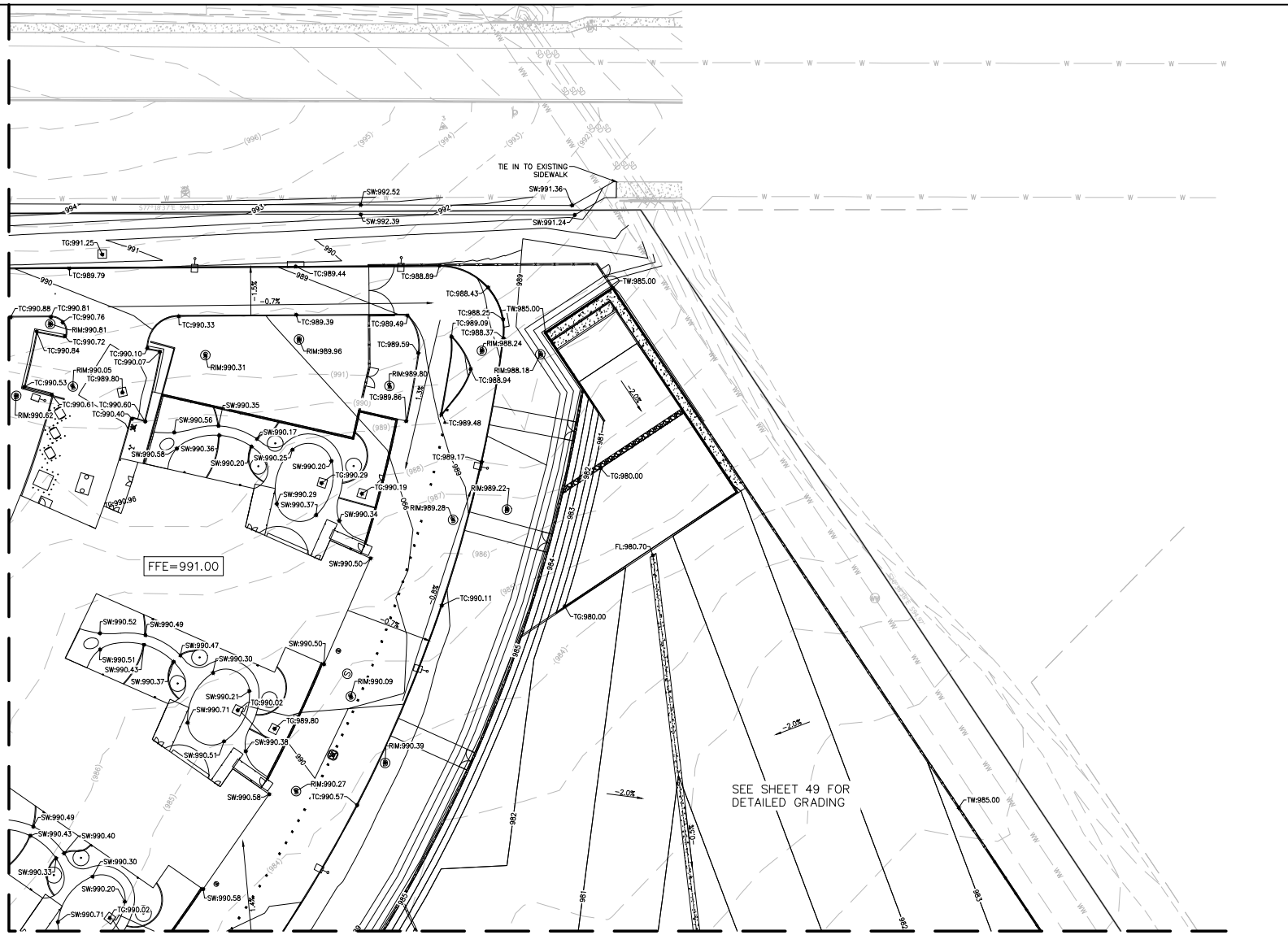
LISD EARLY CHILDHOOD CENTER

GRADING PLAN 2 OF 6

SHEET NO. 11
OF 61 SHEETS

FILE NO. ECLC-GRADING
PROJECT NO. 100090499



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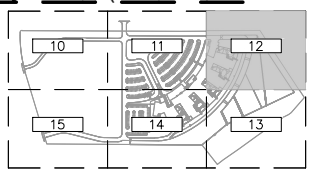

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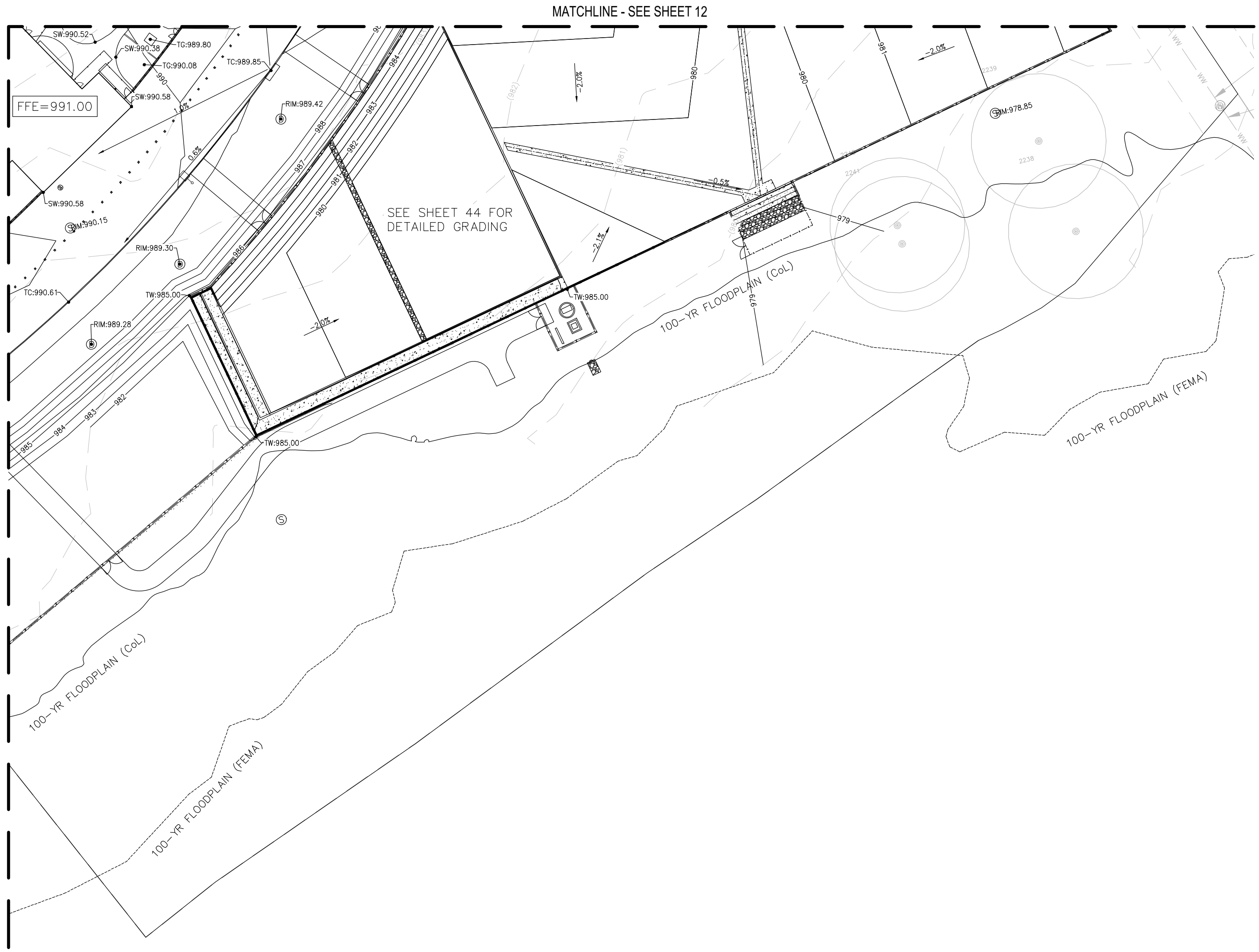
01/15/2025

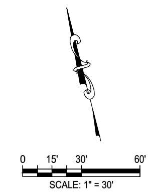
LISD EARLY CHILDHOOD CENTER

GRADING PLAN 3 OF 6

SHEET NO. 12
OF 61 SHEETS

FILE NO. ECLC-GRADING
PROJECT NO. 100090499



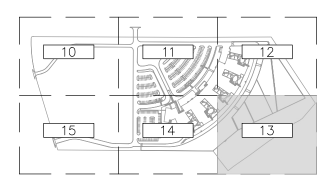


LEGEND:

- PROPERTY BOUNDARY
- 100 PROPOSED CONTOUR LINES
- (100) EXISTING CONTOUR LINES
- GRATE INLET
- CURB INLET
- D STORM MANHOLE
- S WASTEWATER MANHOLE
- LIGHT POLES

NOTES:

1. SLOPES ON ACCESSIBLE ROUTE MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP. (TAS 4.3.7).
2. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12. THE MAXIMUM RISE FOR ANY RAMP RUN IS 30 IN. (TAS 4.8.2, FIG. 16)
3. ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:48. (TAS 4.3.7).
4. GROUND SURFACES ALONG ACCESSIBLE ROUTES MUST BE STABLE, FIRM AND SLIP RESISTANT. (TAS 4.5.1).



KEYMAP
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DRAWN BY: CS/MR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

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STATE OF TEXAS
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134644
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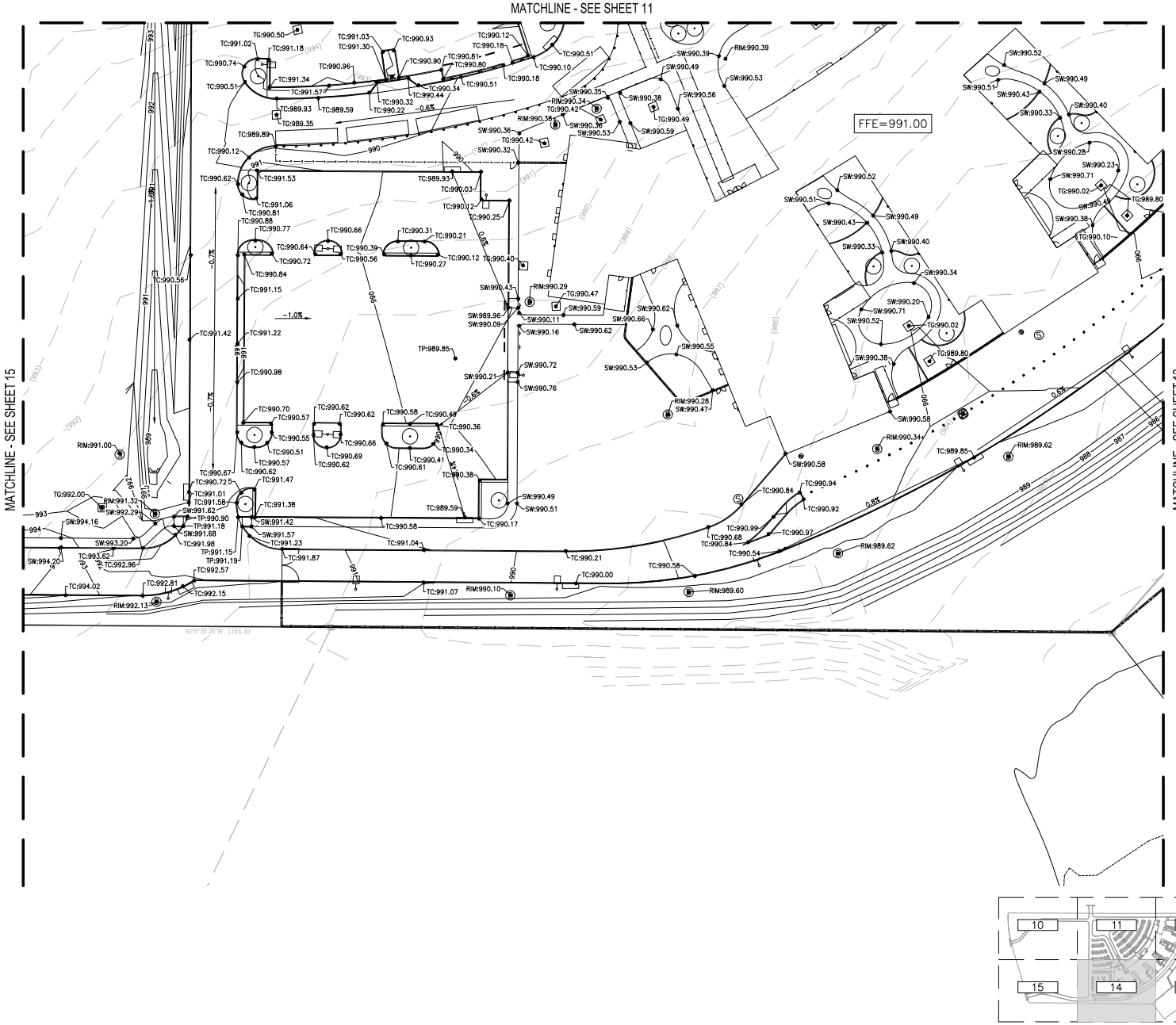
1/15/2025

LISD EARLY CHILDHOOD CENTER

GRADING PLAN 4 OF 6

SHEET NO. 13
OF 61 SHEETS

FILE NO. ECLC-GRADING
PROJECT NO. 100090499



0 15' 30' 60'
SCALE: 1" = 30'

LEGEND:

- PROPERTY BOUNDARY
- 100 PROPOSED CONTOUR LINES
- (100) EXISTING CONTOUR LINES
- GRATE INLET
- CURB INLET
- STORM MANHOLE
- WASTEWATER MANHOLE
- LIGHT POLES

NOTES:

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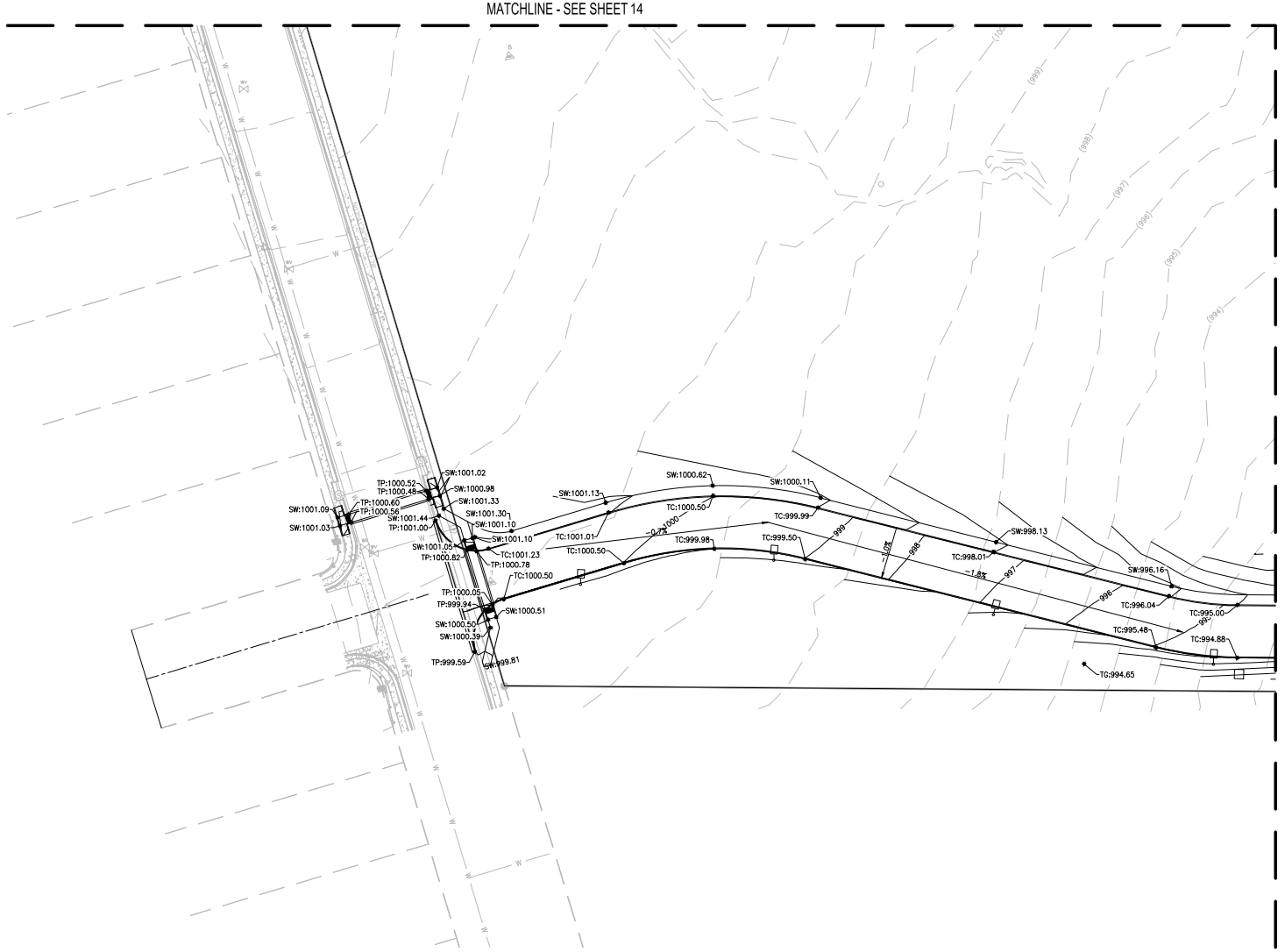
LISD EARLY CHILDHOOD CENTER

GRADING PLAN 5 OF 6

SHEET NO. 14
OF 61 SHEETS

FILE NO. ECLC-GRADING
PROJECT NO. 100090499



LEGEND:

- PROPERTY BOUNDARY
- 100 PROPOSED CONTOUR LINES
- (100) EXISTING CONTOUR LINES
- GRATE INLET
- CURB INLET
- STORM MANHOLE
- WASTEWATER MANHOLE
- LIGHT POLES

NOTES:

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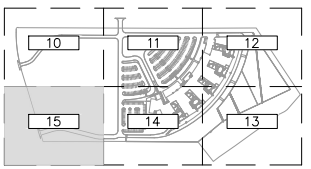

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LISD EARLY CHILDHOOD CENTER

GRADING PLAN 6 OF 6

SHEET NO. 15
OF 61 SHEETS

FILE NO. ECLC-GRADING
PROJECT NO. 100090499

NOTES:

1. SITE WATERSHED SUMMARY:
   – TURKEY CREEK – BRUSHY CREEK WATERSHED.

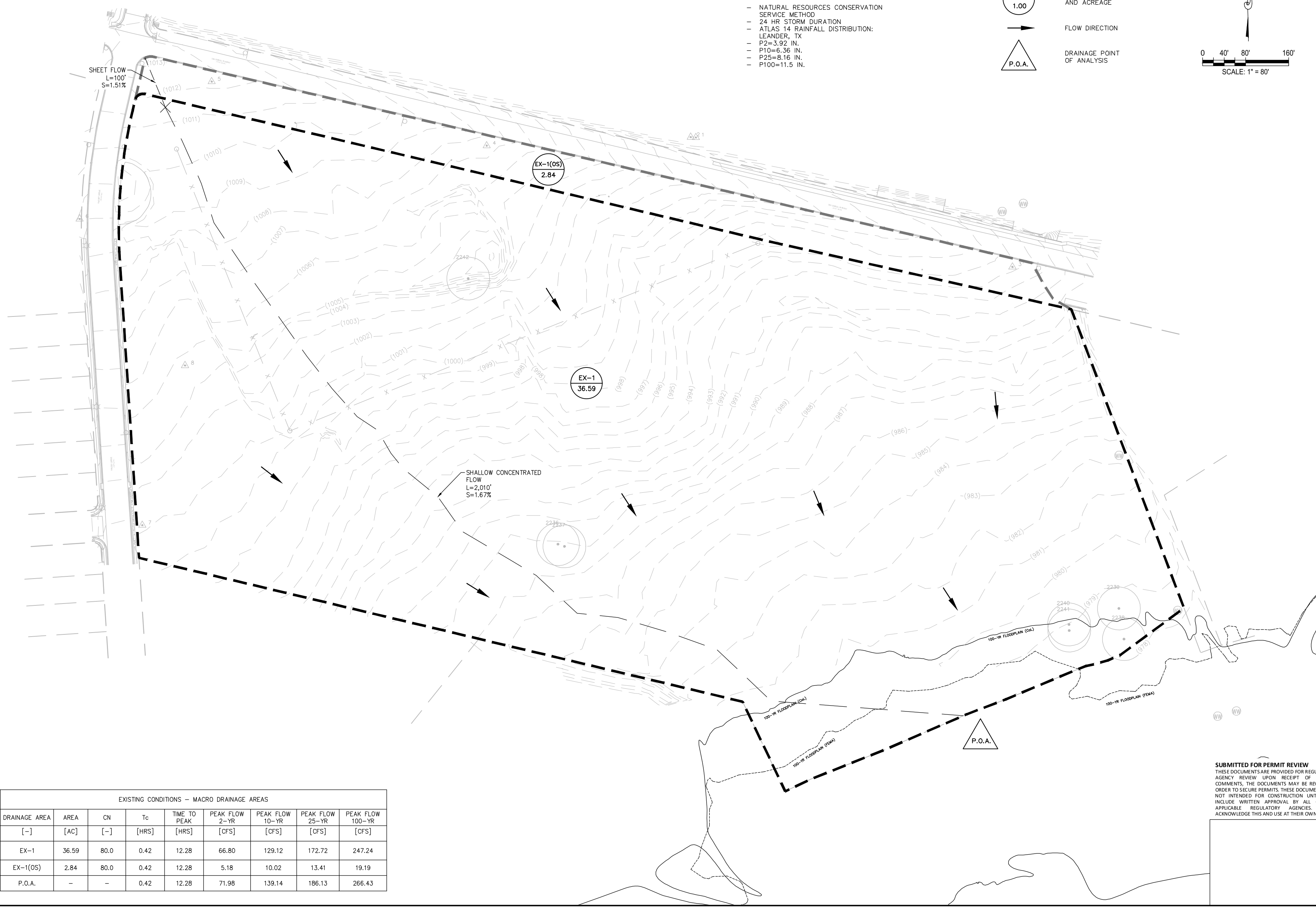
DRAINAGE CALCULATIONS BASIS:

– NATURAL RESOURCES CONSERVATION SERVICE METHOD
– 24 HR STORM DURATION
– ATLAS 14 RAINFALL DISTRIBUTION: LEANDER, TX
– P2=3.92 IN.
– P10=6.36 IN.
– P25=8.16 IN.
– P100=11.5 IN.

LEGEND:

- DRAINAGE AREA BOUNDARY
- EX–# / 1.00 — DRAINAGE AREA ID AND ACREAGE
- FLOW DIRECTION
- P.O.A. — DRAINAGE POINT OF ANALYSIS

SCALE: 1" = 80'



EXISTING CONDITIONS – MACRO DRAINAGE AREAS

DRAINAGE AREA	AREA	CN	Tc	TIME TO PEAK	PEAK FLOW 2–YR	PEAK FLOW 10–YR	PEAK FLOW 25–YR	PEAK FLOW 100–YR
[–]	[AC]	[–]	[HRS]	[HRS]	[CFS]	[CFS]	[CFS]	[CFS]
EX–1	36.59	80.0	0.42	12.28	66.80	129.12	172.72	247.24
EX–1(OS)	2.84	80.0	0.42	12.28	5.18	10.02	13.41	19.19
P.O.A.	–	–	0.42	12.28	71.98	139.14	186.13	266.43

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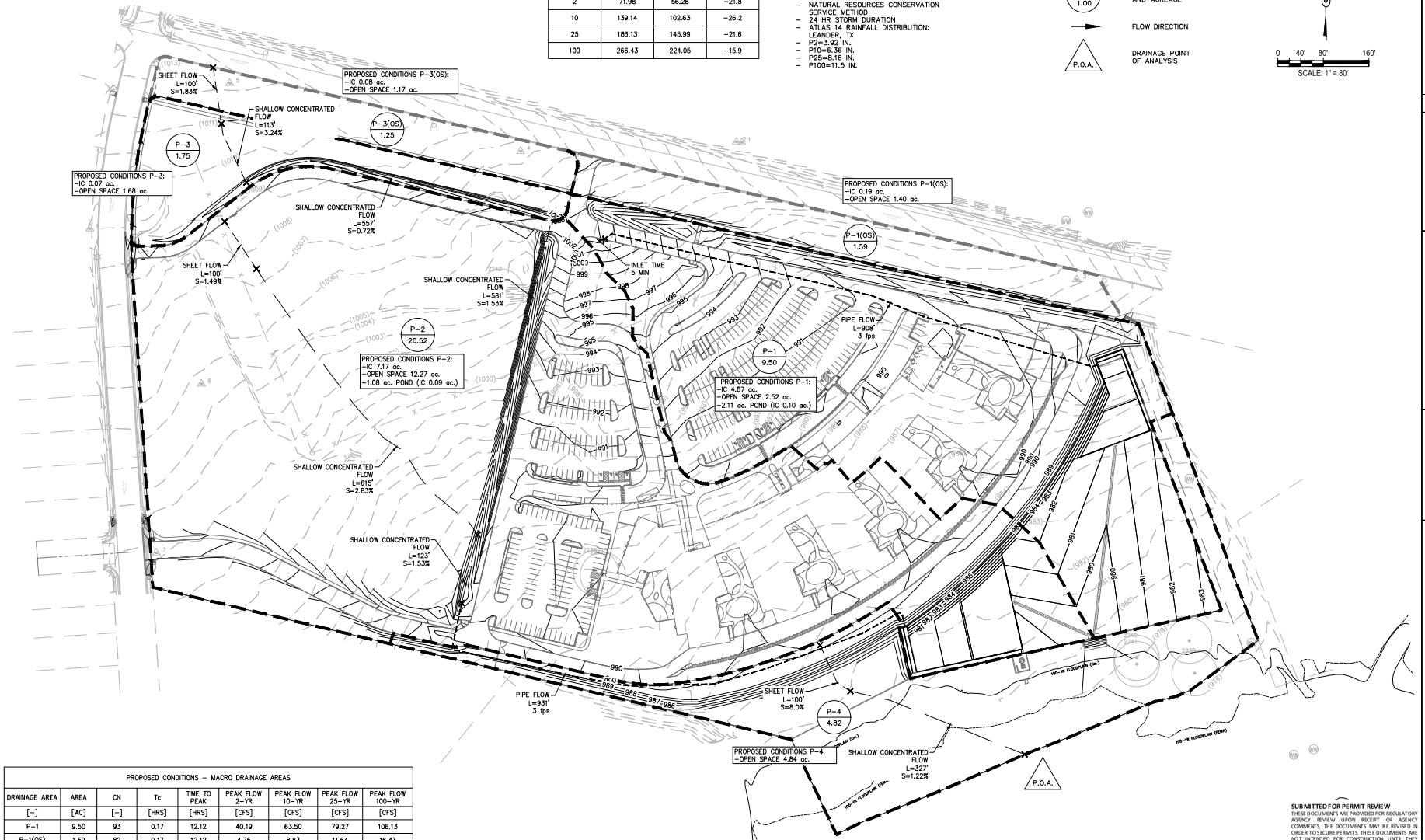
STATE OF TEXAS — MICHAEL J SHANGREAUX — 134844 — LICENSED PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER

EXISTING DRAINAGE AREAS

SHEET NO. 16 OF 61 SHEETS

FILE NO. ECLC-DA-EX
PROJECT NO. 100090499



POINT OF ANALYSIS SUMMARY – PROPOSED CONDITIONS			
STORM EVENT	EXISTING PEAK FLOW	PROPOSED PEAK FLOW	% CHANGE
[YR]	[CFS]	[CFS]	[–]
2	71.98	56.28	–21.8
10	139.14	102.63	–26.2
25	186.13	145.99	–21.6
100	266.43	224.05	–15.9

NOTES:

1. SITE WATERSHED SUMMARY:
   - TURKEY CREEK – BRUSHY CREEK WATERSHED.

DRAINAGE CALCULATIONS BASIS:

- NATURAL RESOURCES CONSERVATION SERVICE METHOD
- 24 HR STORM DURATION
- ATLAS 14 RAINFALL DISTRIBUTION: LEANDER, TX
- P2=3.92 IN.
- P10=6.36 IN.
- P25=8.16 IN.
- P100=11.5 IN.

LEGEND:

- DRAINAGE AREA BOUNDARY
- P–# / 1.00 — DRAINAGE AREA ID AND ACREAGE
- FLOW DIRECTION
- P.O.A. — DRAINAGE POINT OF ANALYSIS

0 40' 80' 160'
SCALE: 1" = 80'

PROPOSED CONDITIONS – MACRO DRAINAGE AREAS								
DRAINAGE AREA	AREA	CN	Tc	TIME TO PEAK	PEAK FLOW 2–YR	PEAK FLOW 10–YR	PEAK FLOW 25–YR	PEAK FLOW 100–YR
[–]	[AC]	[–]	[HRS]	[HRS]	[CFS]	[CFS]	[CFS]	[CFS]
P–1	9.50	93	0.17	12.12	40.19	63.50	79.27	106.13
P–1(OS)	1.59	82	0.17	12.12	4.75	8.83	11.64	16.43
P–2	20.52	87	0.31	12.20	55.64	95.66	122.90	168.92
P–3	1.75	81	0.33	12.22	3.73	7.09	9.43	13.41
P–3(OS)	1.25	81	0.33	12.23	2.68	5.07	6.73	9.56
P–4	4.82	80	0.13	12.10	14.73	28.16	37.52	53.51
POND IN	–	–	–	12.15	98.87	167.64	214.40	293.65
POND OUT	–	–	–	12.33	52.36	95.33	135.08	206.20
P.O.A.	–	–	–	12.30	56.28	102.63	145.99	224.05

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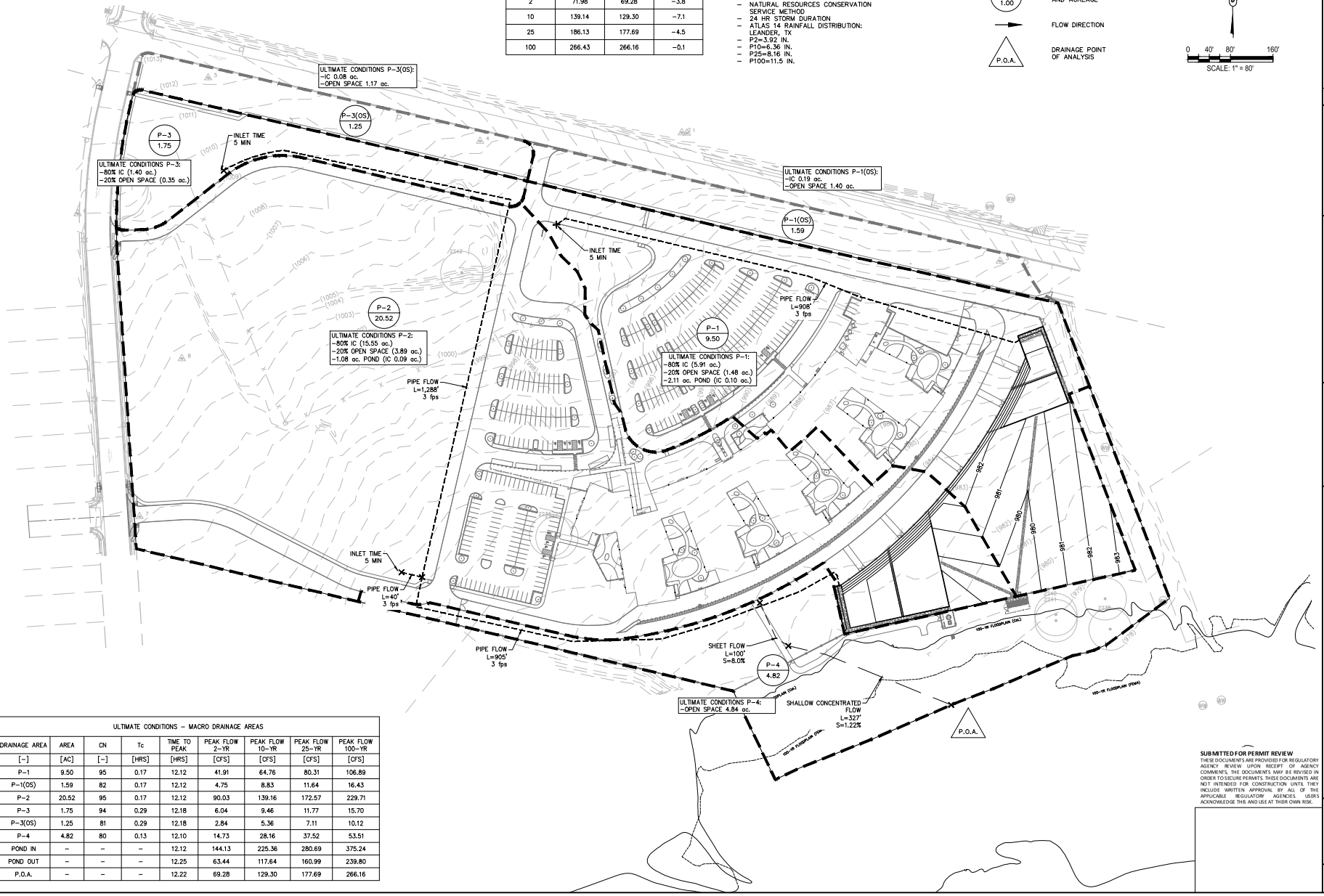
LISD EARLY CHILDHOOD CENTER

PROPOSED DRAINAGE AREAS

SHEET NO. 17
OF 61 SHEETS

FILE NO. ECLC-DA-PR
PROJECT NO. 100090499



POINT OF ANALYSIS SUMMARY – ULTIMATE CONDITIONS			
STORM EVENT	EXISTING PEAK FLOW	ULTIMATE PEAK FLOW	% CHANGE
[YR]	[CFS]	[CFS]	[%]
2	71.98	69.28	-3.8
10	139.14	129.30	-7.1
25	186.13	177.69	-4.5
100	266.43	266.16	-0.1

NOTES:

1. SITE WATERSHED SUMMARY:
   - TURKEY CREEK – BRUSHY CREEK WATERSHED.

DRAINAGE CALCULATIONS BASIS:

- NATURAL RESOURCES CONSERVATION SERVICE METHOD
- 24 HR STORM DURATION
- ATLAS 14 RAINFALL DISTRIBUTION: LEANDER, TX
- P2=3.92 IN.
- P10=6.36 IN.
- P25=8.16 IN.
- P100=11.5 IN.

LEGEND:

- DRAINAGE AREA BOUNDARY
- P-# / 1.00 — DRAINAGE AREA ID AND ACREAGE
- FLOW DIRECTION
- P.O.A. — DRAINAGE POINT OF ANALYSIS

0 40' 80' 160'
SCALE: 1" = 80'

ULTIMATE CONDITIONS – MACRO DRAINAGE AREAS								
DRAINAGE AREA	AREA	CN	Tc	TIME TO PEAK	PEAK FLOW 2-YR	PEAK FLOW 10-YR	PEAK FLOW 25-YR	PEAK FLOW 100-YR
[-]	[AC]	[-]	[HRS]	[HRS]	[CFS]	[CFS]	[CFS]	[CFS]
P-1	9.50	95	0.17	12.12	41.91	64.76	80.31	106.89
P-1(OS)	1.59	82	0.17	12.12	4.75	8.83	11.64	16.43
P-2	20.52	95	0.17	12.12	90.03	139.16	172.57	229.71
P-3	1.75	94	0.29	12.18	6.04	9.46	11.77	15.70
P-3(OS)	1.25	81	0.29	12.18	2.84	5.36	7.11	10.12
P-4	4.82	80	0.13	12.10	14.73	28.16	37.52	53.51
POND IN	–	–	–	12.12	144.13	225.36	280.69	375.24
POND OUT	–	–	–	12.25	63.44	117.64	160.99	239.80
P.O.A.	–	–	–	12.22	69.28	129.30	177.69	266.16

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STATE OF TEXAS
MICHAEL J BRANGREAUX
103644
LICENSED PROFESSIONAL ENGINEER
01/15/2025

LISD EARLY CHILDHOOD CENTER

ULTIMATE DRAINAGE AREAS

SHEET NO. 18
OF 61 SHEETS

FILE NO. ECLC-DA-ULT
PROJECT NO. 100090499

DETAIL "A"
(SCALE 1:70)

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STATE OF TEXAS
MICHAEL J SHANGREAUX
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LISD EARLY CHILDHOOD CENTER

PROPOSED CATCHMENT AREA MAP

SHEET NO. 19
OF 61 SHEETS

FILE NO. ECLC-CA-PR
PROJECT NO. 100090499

PROPOSED DRAINAGE CALCULATIONS - RATIONAL METHOD

Leander IDF Curve Coefficients:

Frequency	a	b	c
2	58	11.27	0.805
10	77	10.53	0.775
25	89	10.16	0.759
100	106	9.46	0.732

Rainfall intensity:

$I = a / (t + b)^c$

Time of Conectration:

Tc(min) = 5 minutes

Tc = T t(sheet) + T t(shallow concentrated) + T t(channel) *(Eq. 2-3) DCM*

Peak Runoff:

Q p = CIA *(Eq. 2-2) DCM*
C - composite coefficient of runoff
I - average rainfall intensity (in/hr)
A - area (acres)
Q p - peak runoff

Runoff Coefficients For Composite Analysis: *(Table 2-3) DCM*

Character of Surface	Return Period	
	25-yr	100-yr
Asphaltic	0.86	0.95
Concrete	0.88	0.97
Roofs	0.88	0.97
Grass - good condition (0%-2%)	0.29	0.36
Grass - good condition (2%-7%)	0.34	0.46

RUNOFF COEFFICIENTS CALCULATIONS:

Catchment Area ID	Concrete Surface Area (C=0.97)	Grass Surface Area (C=0.46)	Roof Surface Area (C=0.97)	Total Area (ft^2)	Composite C Value
A-1	20267	14534	0	34801	0.76
A-1 OS	887	9367	0	10254	0.50
A-2	19125	7503	0	26628	0.83
A-2 OS	754	7573	0	8327	0.51
A-3	218	16308	0	16526	0.47
A-3 OS	3041	33302	0	36343	0.50
A-4	0	5895	0	5895	0.46
A-4 OS	1024	9318	0	10342	0.51
A-5	6520	0	0	6520	0.97
A-6	2919	2	0	2921	0.97
A-6 OS	2500	0	0	2500	0.97
A-7	4758	6580	0	11338	0.67
A-8	15760	10345	0	26105	0.77
A-9	14821	1312	0	16133	0.93
A-10	39444	3562	0	43006	0.93
A-11	15646	1411	0	17057	0.93
A-12	5637	0	0	5637	0.97
A-13	402	3014	0	3416	0.52
A-14	8460	3760	0	12220	0.81
A-15	341	1705	0	2046	0.55
A-16	7408	2182	0	9590	0.85
A-17	6139	3053	0	9192	0.80
A-18	7877	3166	0	11043	0.82
A-19	4502	112899	0	117401	0.48
A-19 OS	274	1320	0	1594	0.55
B-1	14115	0	0	14115	0.97
B-2	14607	0	0	14607	0.97
B-3	8044	3207	0	11251	0.82
B-4	8092	3198	0	11290	0.83
B-5	7889	3229	0	11118	0.82
B-6	2952	7720	0	10672	0.60
B-7	8807	11008	0	19815	0.69
B-8	575	359	0	934	0.77
B-9	10100	3369	0	13469	0.84
B-10	33992	3775	0	37767	0.92
B-11	0	371	0	371	0.46
B-12	8.2	270.8	0	279	0.47
B-13	0	264	0	264	0.46
B-14	120	473	0	593	0.56
B-15	10941	8697	0	19638	0.74
B-16	19948	13973	0	33921	0.76
B-17	12808	1413	0	14221	0.92
B-18	23991	2512	0	26503	0.92
B-19	9872	2176	0	12048	0.88
B-20	16603	2875	0	19478	0.89
B-21	6449	1247	0	7696	0.89
B-22	21614	174	0	21788	0.97
B-23	0	24386	0	24386	0.46
B-24	2590	73720	0	76310	0.48
B-24 OS	3654	50797	0	54451	0.49
B-25	15517	0	0	15517	0.97
B-26	727	0	0	727	0.97
B-27	0	275087	0	275087	0.46
B-28	108	149619	0	149727	0.46
B-29	1723	207416	0	209139	0.46
B-30	4591	57219	0	61810	0.50
R-1	0	0	8052	8052	0.97
R-2	0	0	6050	6050	0.97
R-3	0	0	10768	10768	0.97
R-4	0	0	9094	9094	0.97
R-5	0	0	5391	5391	0.97
R-6	0	0	8592	8592	0.97
R-7	0	0	5807	5807	0.97
R-8	0	0	10908	10908	0.97
R-9	0	0	8898	8898	0.97
R-10	0	0	5893	5893	0.97
R-11	0	0	8921	8921	0.97
R-12	0	0	5765	5765	0.97
R-13	0	0	3414	3414	0.97
R-14	0	0	4351	4351	0.97

PEAK RUNOFF CALCULATIONS CALCULATIONS:

Catchment Area ID	Area	Area	Time of Concentration	Weighted Runoff Coefficient	Rainfall Intensity	Peak Runoff	Weighted Runoff Coefficient	Rainfall Intensity	Peak Runoff
	A	A	T_C	C_{25}	I_{25}	Q_{25}	C_{100}	I_{100}	Q_{100}
(-)	(ft^2)	(acre)	(min)	(-)	(in/hr)	(cfs)	(-)	(in/hr)	(cfs)
A-1	34801	0.799	5.00	0.68	11.304	7.31	0.76	14.999	10.95
A-1 OS	10254	0.235	5.00	0.43	11.304	7.31	0.50	14.999	10.95
A-2	26628	0.611	5.19	0.74	11.198	6.07	0.83	14.856	9.01
A-2 OS	8327	0.191	5.00	0.43	11.198	6.07	0.51	14.856	9.01
A-3	16526	0.379	8.51	0.40	6.994	4.70	0.47	9.286	5.57
A-3 OS	36343	0.834	10.92	0.43	6.994	4.70	0.50	9.286	5.57
A-4	5895	0.135	5.00	0.39	8.730	1.38	0.46	11.572	2.13
A-4 OS	10342	0.237	8.90	0.44	8.730	1.38	0.51	11.572	2.13
A-5	6520	0.150	5.00	0.88	11.304	1.50	0.97	14.999	2.20
A-6	2921	0.067	5.00	0.88	11.304	1.25	0.97	14.999	1.82
A-6 OS	2500	0.057	5.00	0.88	11.304	1.25	0.97	14.999	1.82
A-7	11338	0.260	11.48	0.60	8.628	1.36	0.67	11.438	2.01
A-8	26105	0.599	11.81	0.69	8.530	3.56	0.77	11.308	5.26
A-9	16133	0.370	5.00	0.84	11.304	3.54	0.93	14.999	5.21
A-10	43006	0.987	5.00	0.84	11.304	9.45	0.93	14.999	13.88
A-11	17057	0.392	5.00	0.84	11.304	3.75	0.93	14.999	5.51
A-12	5637	0.129	5.00	0.88	11.304	1.30	0.97	14.999	1.90
A-13	3416	0.078	7.00	0.45	10.289	0.37	0.52	13.642	0.56
A-14	12220	0.281	11.96	0.73	8.486	1.75	0.81	11.250	2.58
A-15	2046	0.047	9.44	0.47	9.302	0.21	0.55	12.329	0.32
A-16	9590	0.220	9.75	0.77	9.192	1.57	0.85	12.183	2.30
A-17	9192	0.211	5.00	0.72	11.304	1.47	0.80	14.999	3.09
A-18	11043	0.254	5.00	0.74	11.304	1.62	0.82	14.999	2.41
A-19	117401	2.695	5.00	0.41	11.304	12.49	0.48	14.999	19.40
A-19 OS	1594	0.037	10.08	0.47	9.078	0.16	0.55	12.03	0.24
B-1	14115	0.324	5.00	0.88	11.304	3.25	0.97	14.999	4.75
B-2	14607	0.335	5.00	0.88	11.304	3.36	0.97	14.999	4.92
B-3	11251	0.258	5.00	0.74	11.304	2.18	0.82	14.999	3.20
B-4	11290	0.259	5.00	0.74	11.304	2.19	0.83	14.999	3.25
B-5	11118	0.255	5.00	0.74	11.304	2.15	0.82	14.999	3.16
B-6	10672	0.245	5.00	0.53	11.304	1.48	0.60	14.999	2.22
B-7	19815	0.455	35.98	0.61	4.857	1.36	0.69	6.487	2.05
B-8	934	0.021	7.49	0.69	10.072	0.15	0.77	13.352	0.22
B-9	13469	0.309	5.00	0.76	11.304	2.68	0.84	14.999	3.93
B-10	37767	0.867	5.00	0.83	11.304	8.20	0.92	14.999	12.06
B-11	371	0.009	5.79	0.39	10.877	0.04	0.46	14.426	0.06
B-12	279	0.006	5.00	0.40	11.304	0.03	0.47	14.999	0.05
B-13	264	0.006	5.00	0.39	11.304	0.03	0.46	14.999	0.04
B-14	593	0.014	5.40	0.49	11.083	0.07	0.56	14.702	0.11
B-15	19638	0.451	5.00	0.66	11.304	3.39	0.74	14.999	5.04
B-16	33921	0.779	12.33	0.68	8.38	4.47	0.76	11.11	6.63
B-17	14221	0.326	5.00	0.83	11.304	3.09	0.92	14.999	4.54
B-18	26503	0.608	5.00	0.83	11.304	5.75	0.92	14.999	8.46
B-19	12048	0.277	5.00	0.79	11.304	2.49	0.88	14.999	3.68
B-20	19478	0.447	5.00	0.81	11.304	4.13	0.89	14.999	6.02
B-21	7696	0.177	5.00	0.80	11.304	1.61	0.89	14.999	2.38
B-22	21788	0.500	5.00	0.88	11.304	5.02	0.97	14.999	7.34
B-23	24386	0.560	16.49	0.39	7.367	1.62	0.46	9.776	2.54
B-24	76310	1.752	17.53	0.41	5.729	7.10	0.48	7.628	11.07
B-24 OS	54451	1.250	9.37	0.42	5.729	7.10	0.49	7.628	11.07
B-25	15517	0.356	5.14	0.88	11.226	3.55	0.97	14.894	5.19
B-26	727	0.017	5.00	0.88	11.305	0.17	0.97	14.999	0.24
B-27	275087	6.315	18.52	0.39	6.968	17.30	0.46	9.252	27.09
B-28	149727	3.437	17.50	0.39	7.162	9.68	0.46	9.506	15.15
B-29	209139	4.801	7.80	0.39	9.940	18.80	0.46	13.176	29.37
B-30	61810	1.419	5.00	0.43	11.304	6.90	0.50	14.999	10.64
R-1	8052	0.185	5.00	0.88	11.304	1.84	0.97	14.999	2.69
R-2	6050	0.139	5.00	0.88	11.304	1.38	0.97	14.999	2.02
R-3	10768	0.247	5.00	0.88	11.304	2.46	0.97	14.999	3.60
R-4	9094	0.209	5.00	0.88	11.304	2.08	0.97	14.999	3.04
R-5	5391	0.124	5.00	0.88	11.304	1.23	0.97	14.999	1.80
R-6	8592	0.197	5.00	0.88	11.304	1.96	0.97	14.999	2.87
R-7	5807	0.133	5.00	0.88	11.304	1.33	0.97	14.999	1.94
R-8	10908	0.250	5.00	0.88	11.304	2.49	0.97	14.999	3.64
R-9	8898	0.204	5.00	0.88	11.304	2.03	0.97	14.999	2.97
R-10	5893	0.135	5.00	0.88	11.304	1.35	0.97	14.999	1.97
R-11	8921	0.205	5.00	0.88	11.304	2.04	0.97	14.999	2.98
R-12	5765	0.132	5.00	0.88	11.304	1.32	0.97	14.999	1.93
R-13	3414	0.078	5.00	0.88	11.304	0.78	0.97	14.999	1.14
R-14	4351	0.100	5.00	0.88	11.304	0.99361	0.97	14.999	1.45

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APPROVED BY: MS
DATE: 01/15/2025

AtkinsRéalis
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TBPE REG. NO. F-474

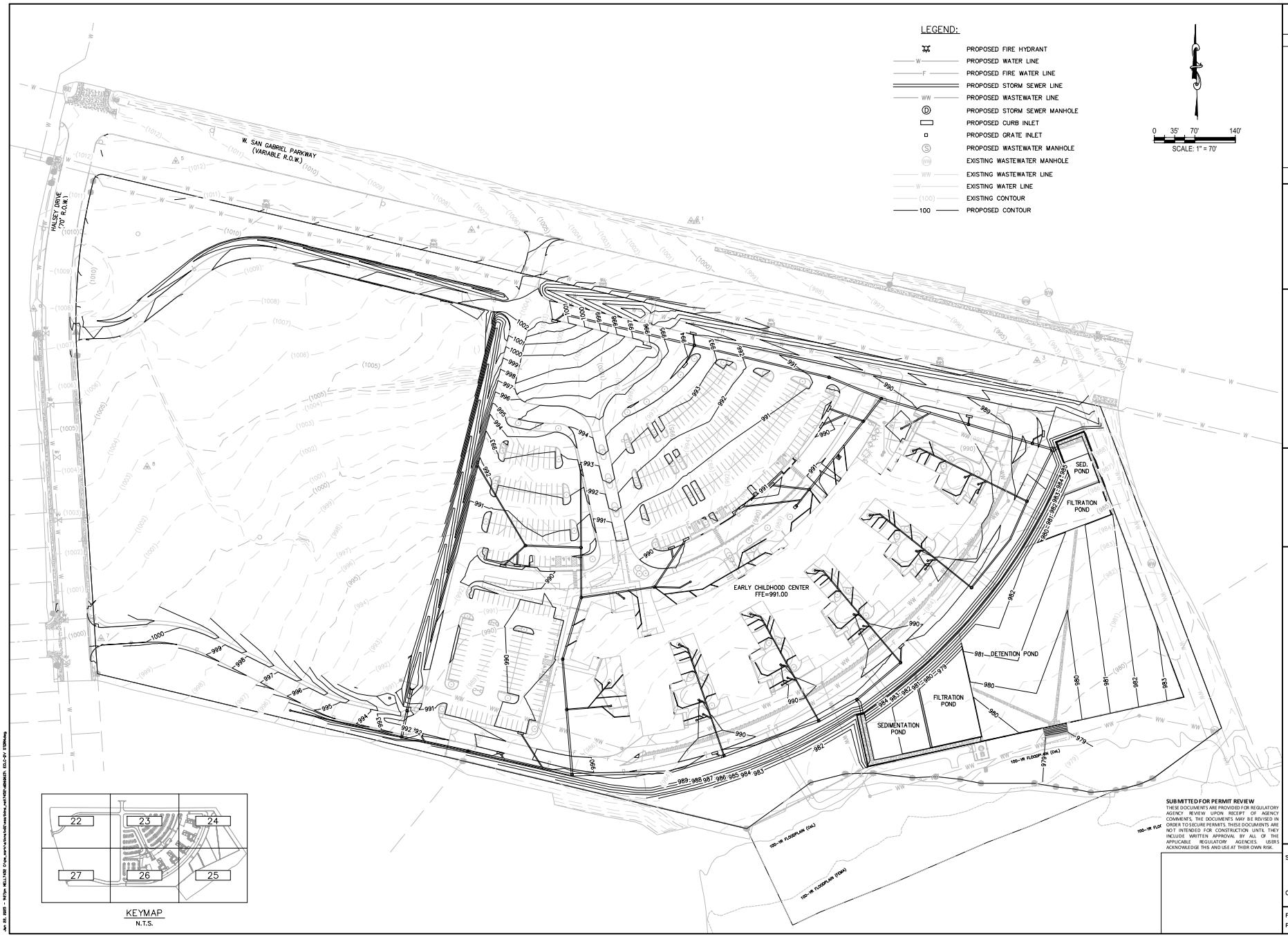
STATE OF TEXAS
MICHAEL J SHANGREAUX
134844
PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER

DRAINAGE CALCULATIONS

SHEET NO. 20 OF 61 SHEETS

FILE NO. ECLC-CA-PR
PROJECT NO. 100090499



KEYMAP
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STATE OF TEXAS
MICHAEL J BRANGREAUX
103644
LICENSED PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER

OVERALL STORM PLAN

SHEET NO. 21
OF 61 SHEETS

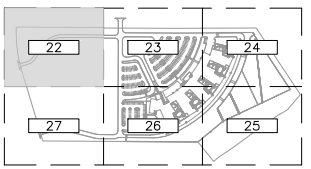
FILE NO. ECLC-OV STORM
PROJECT NO. 100090499

0 15' 30' 60'

SCALE: 1" = 30'

LEGEND:

- PROPOSED FIRE HYDRANT
- PROPOSED WATER LINE
- PROPOSED FIRE WATER LINE
- PROPOSED STORM SEWER LINE
- PROPOSED WASTEWATER LINE
- PROPOSED STORM SEWER MANHOLE
- PROPOSED CURB INLET
- PROPOSED GRATE INLET
- PROPOSED WASTEWATER MANHOLE
- EXISTING WASTEWATER MANHOLE
- EXISTING WASTEWATER LINE
- EXISTING WATER LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR



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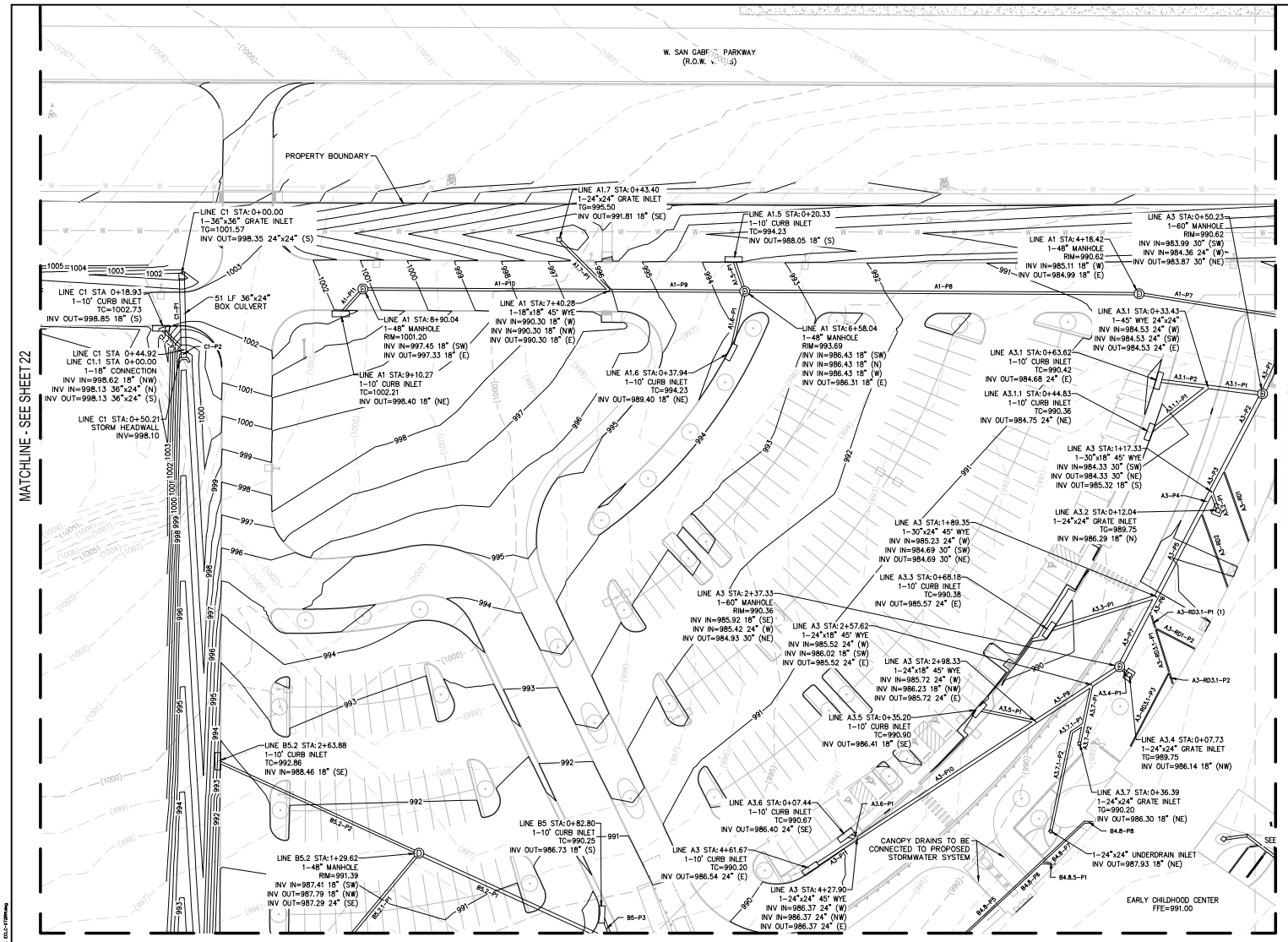
MICHAEL J. BRANGREAUX
103644
LICENSED PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER

DRAINAGE PLAN 1 OF 9

SHEET NO. 22
OF 61 SHEETS

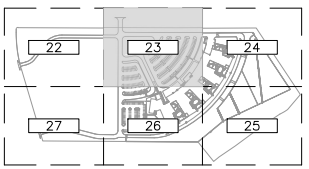
FILE NO. ECLC-STORM
PROJECT NO. 100090499



LEGEND:

- PROPOSED FIRE HYDRANT
- PROPOSED WATER LINE
- PROPOSED FIRE WATER LINE
- PROPOSED STORM SEWER LINE
- PROPOSED WASTEWATER LINE
- PROPOSED STORM SEWER MANHOLE
- PROPOSED CURB INLET
- PROPOSED GRATE INLET
- PROPOSED WASTEWATER MANHOLE
- EXISTING WASTEWATER MANHOLE
- EXISTING WASTEWATER LINE
- EXISTING WATER LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR

0 15' 30' 60'
SCALE: 1" = 30'



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TBPE REG. NO. F-474

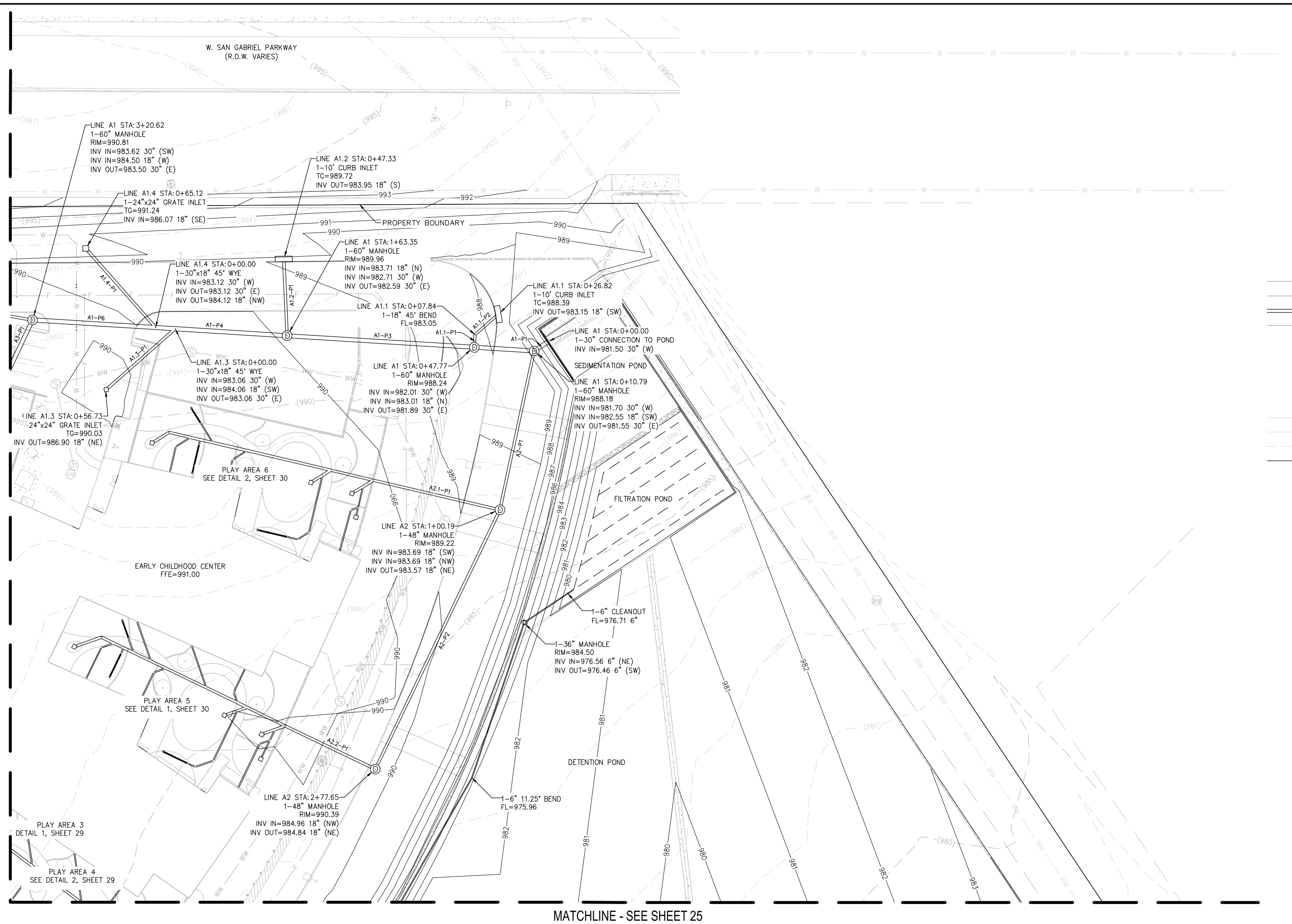
STATE OF TEXAS
MICHAEL J. BRANDREAUX
103644
LICENSED PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER

DRAINAGE PLAN 2 OF 9

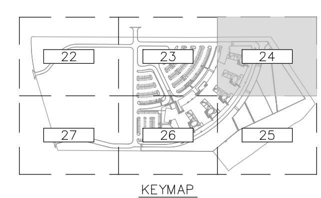
SHEET NO. 23
OF 61 SHEETS

FILE NO. ECLC-STORM
PROJECT NO. 100090499


W. SAN GABRIEL PARKWAY
(R.O.W. VARIES)
LINE A1 STA:3+20.62
1-60" MANHOLE
RIM=990.81
INV IN=983.62 30" (SW)
INV IN=984.50 18" (W)
INV OUT=983.50 30" (E)
LINE A1.2 STA:0+47.33
1-10' CURB INLET
TC=989.72
INV OUT=983.95 18" (S)
LINE A1.4 STA:0+65.12
1-24"x24" GRATE INLET
TG=991.24
INV IN=986.07 18" (SE)
PROPERTY BOUNDARY
LINE A1 STA:1+63.35
1-60" MANHOLE
RIM=989.96
INV IN=983.71 18" (N)
INV IN=982.71 30" (W)
INV OUT=982.59 30" (E)
LINE A1.4 STA:0+00.00
1-30"x18" 45° WYE
INV IN=983.12 30" (W)
INV OUT=983.12 30" (E)
INV OUT=984.12 18" (NW)
LINE A1.1 STA:0+07.84
1-18" 45° BEND
FL=983.05
LINE A1.1 STA:0+26.82
1-10' CURB INLET
TC=988.39
INV OUT=983.15 18" (SW)
LINE A1 STA:0+00.00
1-30" CONNECTION TO POND
INV IN=981.50 30" (W)
SEDIMENTATION POND
LINE A1 STA:0+10.79
1-60" MANHOLE
RIM=988.18
INV IN=981.70 30" (W)
INV IN=982.55 18" (SW)
INV OUT=981.55 30" (E)
LINE A1.3 STA:0+00.00
1-30"x18" 45° WYE
INV IN=983.06 30" (W)
INV IN=984.06 18" (SW)
INV OUT=983.06 30" (E)
LINE A1 STA:0+47.77
1-60" MANHOLE
RIM=988.24
INV IN=982.01 30" (W)
INV IN=983.01 18" (N)
INV OUT=981.89 30" (E)
LINE A1.3 STA:0+56.73
24"x24" GRATE INLET
TG=990.03
INV OUT=986.90 18" (NE)
PLAY AREA 6
SEE DETAIL 2, SHEET 30
FILTRATION POND
LINE A2 STA:1+00.19
1-48" MANHOLE
RIM=989.22
INV IN=983.69 18" (SW)
INV IN=983.69 18" (NW)
INV OUT=983.57 18" (NE)
EARLY CHILDHOOD CENTER
FFE=991.00
1-6" CLEANOUT
FL=976.71 6"
1-36" MANHOLE
RIM=984.50
INV IN=976.56 6" (NE)
INV OUT=976.46 6" (SW)
PLAY AREA 5
SEE DETAIL 1, SHEET 30
DETENTION POND
LINE A2 STA:2+77.65
1-48" MANHOLE
RIM=990.39
INV IN=984.96 18" (NW)
INV OUT=984.84 18" (NE)
1-6" 11.25° BEND
FL=975.96
PLAY AREA 3
DETAIL 1, SHEET 29
PLAY AREA 4
SEE DETAIL 2, SHEET 29
A1-P1
A1-P3
A1-P4
A1-P6
A2-P1
A2-P2
A2.1-P1
A2.2-P1
A1.1-P1
A1.2-P1
A1.3-P1
A1.4-P1
MATCHLINE - SEE SHEET 23
MATCHLINE - SEE SHEET 25
0 15' 30' 60'
SCALE: 1" = 30'

LEGEND:

	PROPOSED FIRE HYDRANT
—W—	PROPOSED WATER LINE
—F—	PROPOSED FIRE WATER LINE
	PROPOSED STORM SEWER LINE
—WW—	PROPOSED WASTEWATER LINE
Ⓓ	PROPOSED STORM SEWER MANHOLE
	PROPOSED CURB INLET
	PROPOSED GRATE INLET
Ⓢ	PROPOSED WASTEWATER MANHOLE
	EXISTING WASTEWATER MANHOLE
—WW—	EXISTING WASTEWATER LINE
—W—	EXISTING WATER LINE
—(100)—	EXISTING CONTOUR
—100—	PROPOSED CONTOUR



KEYMAP
N.T.S.

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TBPE REG. NO. F-474

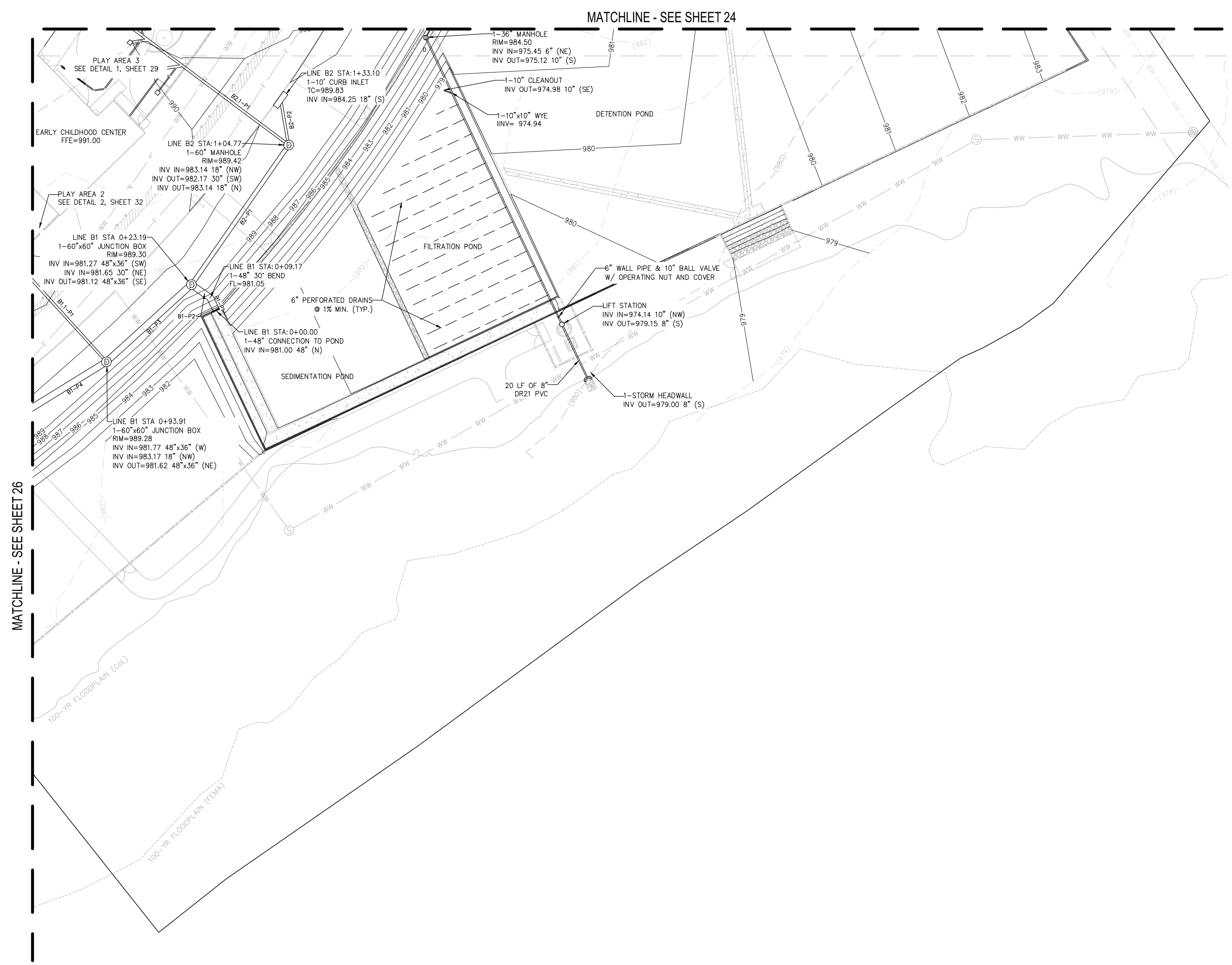
STATE OF TEXAS
MICHAEL J SHANGREAUX
134844
LICENSED
PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER

DRAINAGE PLAN 3 OF 9

SHEET NO. 24
OF 61 SHEETS

FILE NO. ECLC-STORM
PROJECT NO. 100090499



MATCHLINE - SEE SHEET 24
MATCHLINE - SEE SHEET 26
PLAY AREA 3
SEE DETAIL 1, SHEET 29
EARLY CHILDHOOD CENTER
FFE=991.00
PLAY AREA 2
SEE DETAIL 2, SHEET 32
LINE B2 STA:1+04.77
1-60" MANHOLE
RIM=989.42
INV IN=983.14 18" (NW)
INV OUT=982.17 30" (SW)
INV OUT=983.14 18" (N)
LINE B2 STA:1+33.10
1-10' CURB INLET
TC=989.83
INV IN=984.25 18" (S)
1-36" MANHOLE
RIM=984.50
INV IN=975.45 6" (NE)
INV OUT=975.12 10" (S)
1-10" CLEANOUT
INV OUT=974.98 10" (SE)
1-10"x10" WYE
IINV= 974.94
DETENTION POND
FILTRATION POND
SEDIMENTATION POND
LINE B1 STA 0+23.19
1-60"x60" JUNCTION BOX
RIM=989.30
INV IN=981.27 48"x36" (SW)
INV IN=981.65 30" (NE)
INV OUT=981.12 48"x36" (SE)
LINE B1 STA:0+09.17
1-48" 30' BEND
FL=981.05
LINE B1 STA:0+00.00
1-48" CONNECTION TO POND
INV IN=981.00 48" (N)
6" PERFORATED DRAINS
@ 1% MIN. (TYP.)
LINE B1 STA 0+93.91
1-60"x60" JUNCTION BOX
RIM=989.28
INV IN=981.77 48"x36" (W)
INV IN=983.17 18" (NW)
INV OUT=981.62 48"x36" (NE)
6" WALL PIPE & 10" BALL VALVE
W/ OPERATING NUT AND COVER
LIFT STATION
INV IN=974.14 10" (NW)
INV OUT=979.15 8" (S)
20 LF OF 8"
DR21 PVC
1-STORM HEADWALL
INV OUT=979.00 8" (S)
100-YR FLOODPLAIN (CoL)
100-YR FLOODPLAIN (FEMA)
B1-P1
B1-P2
B1-P3
B1-P4
B2-P1
B2-P2
B21-P1

0 15' 30' 60'
SCALE: 1" = 30'

LEGEND:

	PROPOSED FIRE HYDRANT
W	PROPOSED WATER LINE
F	PROPOSED FIRE WATER LINE
	PROPOSED STORM SEWER LINE
WW	PROPOSED WASTEWATER LINE
	PROPOSED STORM SEWER MANHOLE
	PROPOSED CURB INLET
	PROPOSED GRATE INLET
	PROPOSED WASTEWATER MANHOLE
	EXISTING WASTEWATER MANHOLE
WW	EXISTING WASTEWATER LINE
W	EXISTING WATER LINE
(100)	EXISTING CONTOUR
100	PROPOSED CONTOUR

KEYMAP
N.T.S.

22 23 24 27 26 25

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STATE OF TEXAS
MICHAEL J SHANGREAUX
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LICENSED PROFESSIONAL ENGINEER
1/15/2025

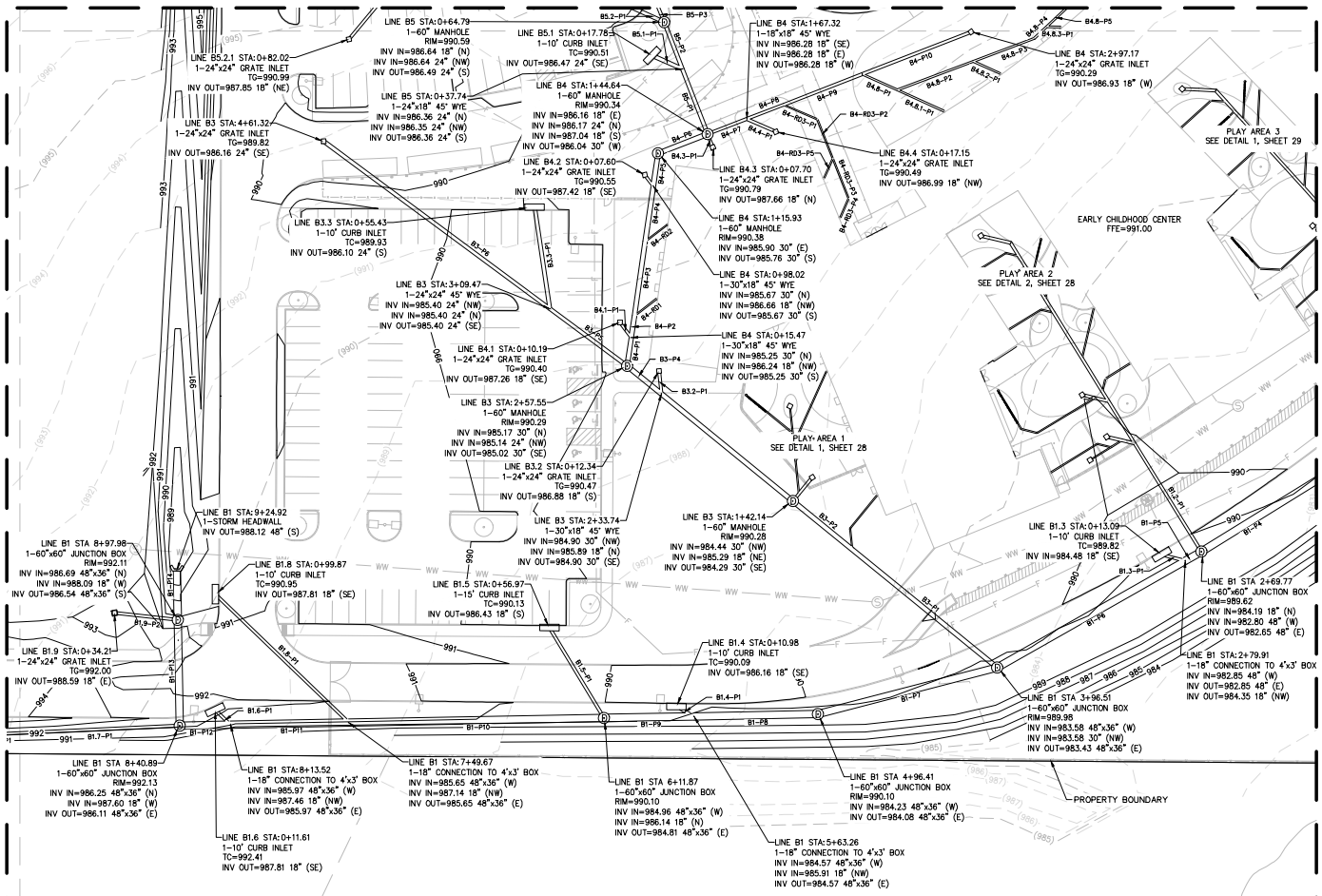
LISD EARLY CHILDHOOD CENTER

DRAINAGE PLAN 4 OF 9

SHEET NO. 25
OF 61 SHEETS

FILE NO. ECLC-STORM
PROJECT NO. 100090499

Jan 22, 2025 - 9:26pm MELL7452 ECLC-STORM.dwg



NO.	REVISION	BY	DATE

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DRAWN BY: CS/AR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

AtkinsRéalis
11801 DOMAIN BOULEVARD, SUITE 500
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TBPE REG. NO. F-474

STATE OF TEXAS
MICHAEL J SWANGREAUX
103644
LICENSED PROFESSIONAL ENGINEER
01/15/2025

LISD EARLY CHILDHOOD CENTER

DRAINAGE PLAN 5 OF 9

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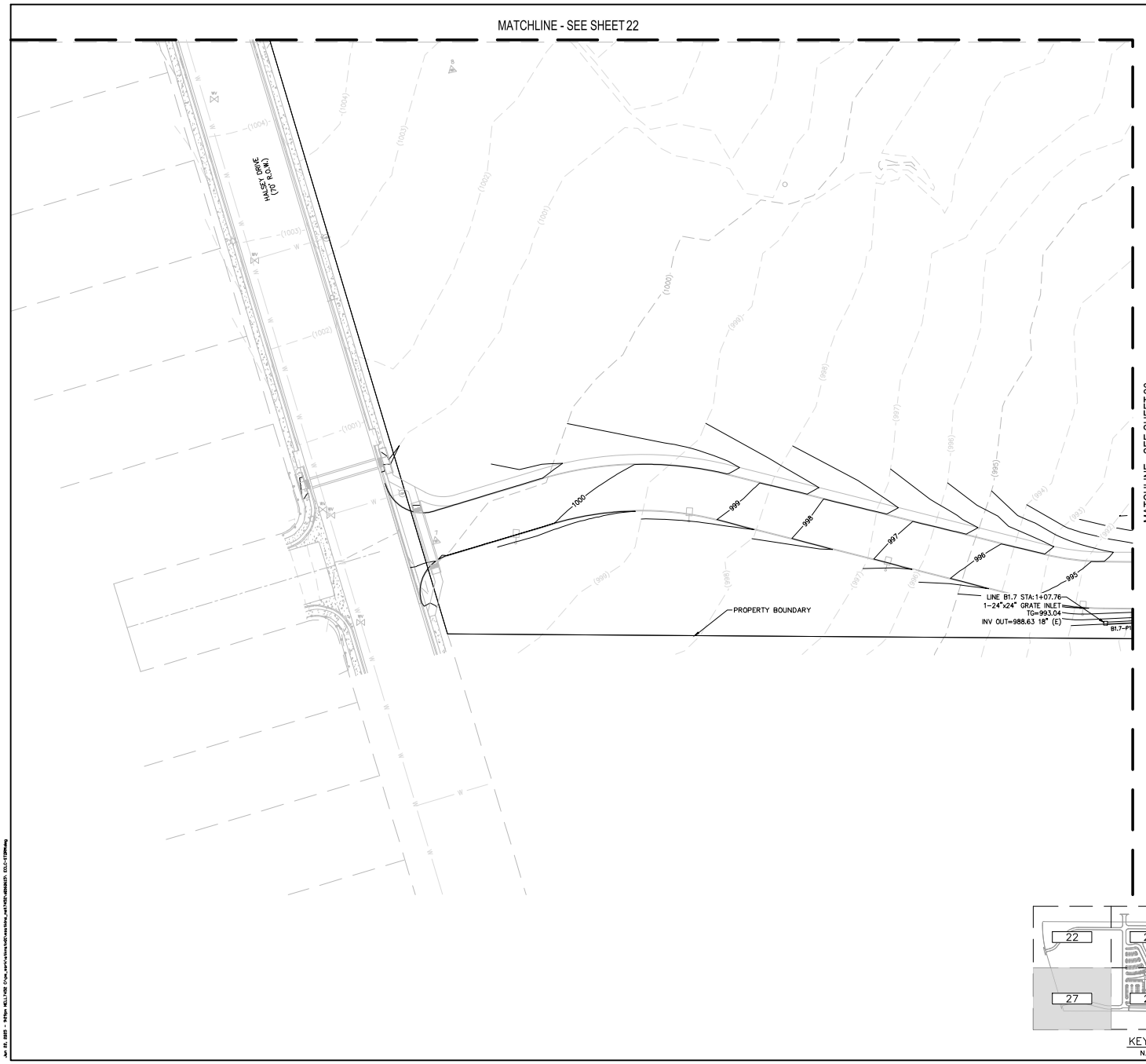
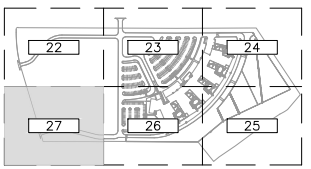
SHEET NO. 26
OF 61 SHEETS

FILE NO. ECLC-STORM
PROJECT NO. 100090499





KEYMAP
N.T.S.

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LISD EARLY CHILDHOOD CENTER

DRAINAGE PLAN 6 OF 9

SHEET NO. 27
OF 61 SHEETS

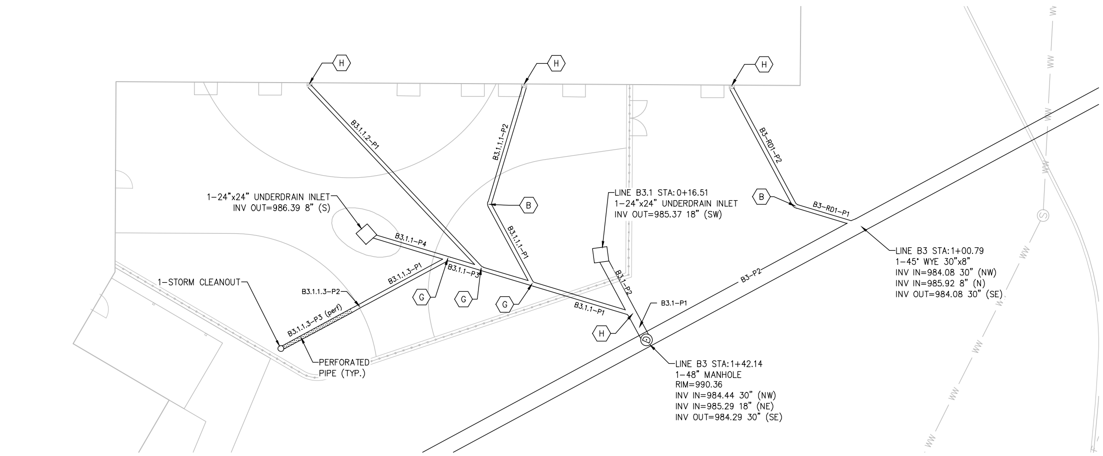
FILE NO. ECLC-STORM
PROJECT NO. 100090499

KEY NOTE LEGEND:

A	1–18" (PP) x 8" (PVC) 45° WYE
B	1–8" (PVC) 45° BEND
C	1–18" (PP) x 8" (PVC) TEE
D	1–2" 45° BEND
E	1–8" (PVC) x 8" (PVC) 45° WYE
F	DOWNSPOUT ADAPTER
G	1–12" (PVC) x 8" (PVC) 45° WYE
H	1–18" (PVC) x 12" (PVC) 45° WYE

LEGEND:

	PROPOSED FIRE HYDRANT
— W —	PROPOSED WATER LINE
— F —	PROPOSED FIRE WATER LINE
═	PROPOSED STORM SEWER LINE
— WW —	PROPOSED WASTEWATER LINE
Ⓓ	PROPOSED STORM SEWER MANHOLE
▭	PROPOSED CURB INLET
▫	PROPOSED GRATE INLET
Ⓢ	PROPOSED WASTEWATER MANHOLE
Ⓦ	EXISTING WASTEWATER MANHOLE
— WW —	EXISTING WASTEWATER LINE
— W —	EXISTING WATER LINE
— (100) —	EXISTING CONTOUR
— 100 —	PROPOSED CONTOUR

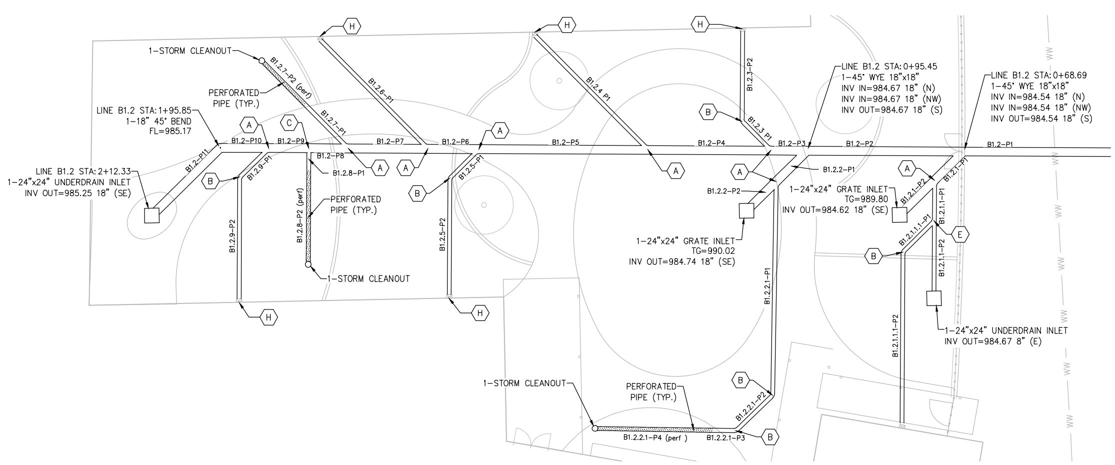


1 PLAY AREA 1

1"=10'

0 5' 10' 20'

HORIZONTAL SCALE IN FEET



2 PLAY AREA 2

1"=10'

0 5' 10' 20'

HORIZONTAL SCALE IN FEET

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STATE OF TEXAS
MICHAEL J SHANGREAUX
134844
LICENSED PROFESSIONAL ENGINEER
1/15/2025

LISD EARLY CHILDHOOD CENTER

DRAINAGE PLAN 7 OF 9

SHEET NO. 28 OF 61 SHEETS

FILE NO. ECLC-STORM
PROJECT NO. 100090499

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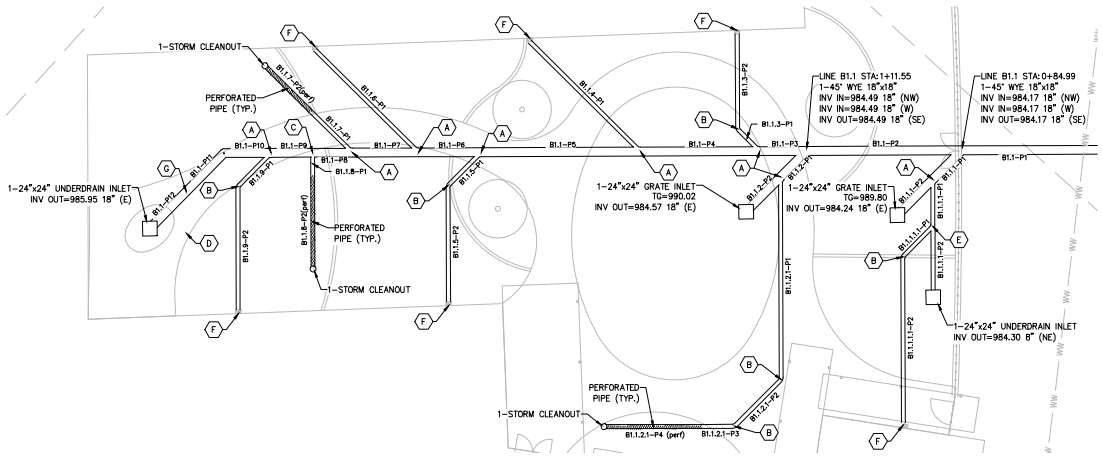
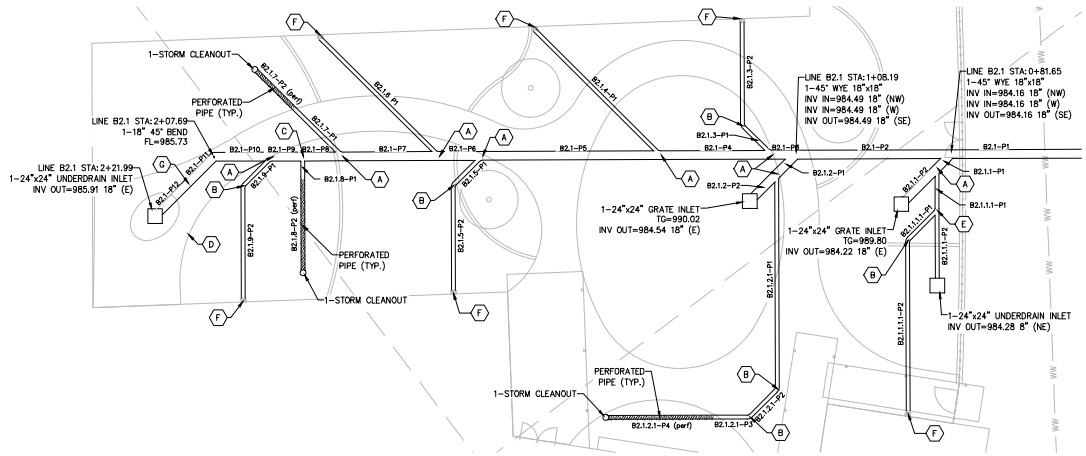


1 PLAY AREA 3

1"=10'

0 5' 10' 20'

HORIZONTAL SCALE IN FEET



2 PLAY AREA 4

1"=10'

0 5' 10' 20'

HORIZONTAL SCALE IN FEET

KEY NOTE LEGEND:

- A — 1-18" (PP) x 8" (PVC) 45° WYE
- B — 1-8" (PVC) 45° BEND
- C — 1-18" (PP) x 8" (PVC) TEE
- D — 1-2" 45° BEND
- E — 1-8" (PVC) x 8" (PVC) 45° WYE
- F — DOWNSPOUT ADAPTER

LEGEND:

- PROPOSED FIRE HYDRANT
- W — PROPOSED WATER LINE
- F — PROPOSED FIRE WATER LINE
- PROPOSED STORM SEWER LINE
- WW — PROPOSED WASTEWATER LINE
- PROPOSED STORM SEWER MANHOLE
- D — PROPOSED CURB INLET
- PROPOSED GRATE INLET
- PROPOSED WASTEWATER MANHOLE
- S — EXISTING WASTEWATER MANHOLE
- WW — EXISTING WASTEWATER LINE
- W — EXISTING WATER LINE
- (100) — EXISTING CONTOUR
- 100 — PROPOSED CONTOUR

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TBPE REG. NO. F-474

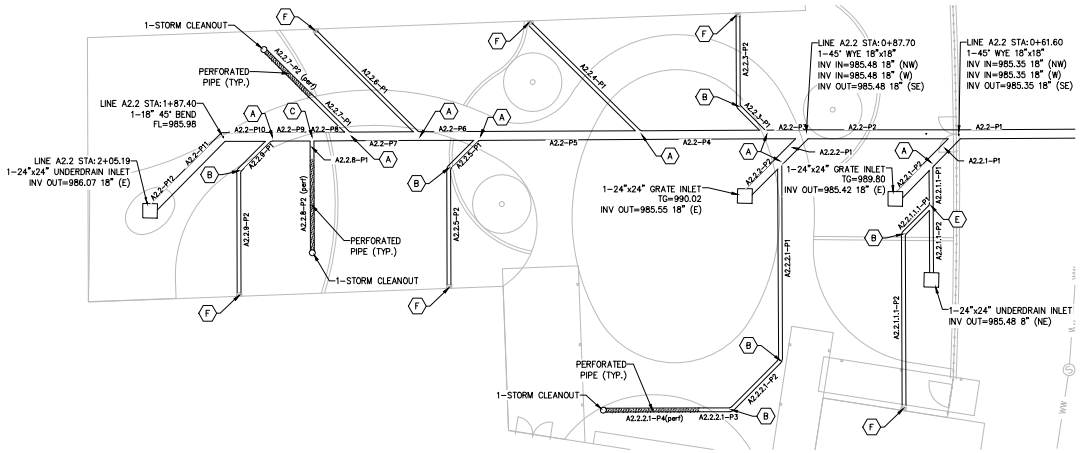
STATE OF TEXAS — MICHAEL J SWANGREAUX — 136644 — LICENSED PROFESSIONAL ENGINEER — 01/15/2025

LISD EARLY CHILDHOOD CENTER

DRAINAGE PLAN 8 OF 9

SHEET NO. 29
OF 61 SHEETS

FILE NO. ECLC-STORM
PROJECT NO. 100090499

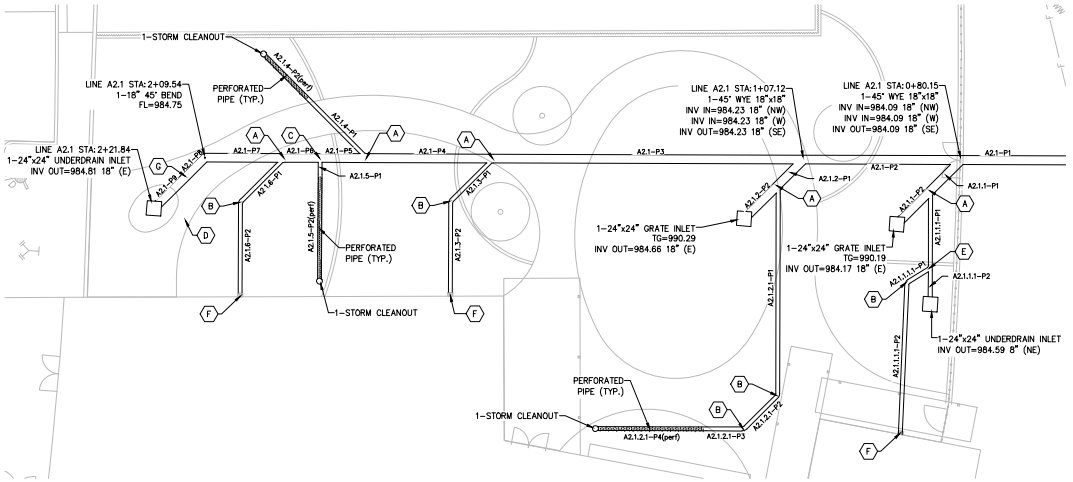


1 PLAY AREA 5

1"=10'

0 5' 10' 20'

HORIZONTAL SCALE IN FEET



2 PLAY AREA 6

1"=10'

0 5' 10' 20'

HORIZONTAL SCALE IN FEET

KEY NOTE LEGEND:

- A — 1-18" (PP) x 8" (PVC) 45° WYE
- B — 1-8" (PVC) 45° BEND
- C — 1-18" (PP) x 8" (PVC) TEE
- D — 1-2" 45° BEND
- E — 1-8" (PVC) x 8" (PVC) 45° WYE
- F — DOWNSPOUT ADAPTER

LEGEND:

- PROPOSED FIRE HYDRANT
- PROPOSED WATER LINE
- PROPOSED FIRE WATER LINE
- PROPOSED STORM SEWER LINE
- PROPOSED WASTEWATER LINE
- PROPOSED STORM SEWER MANHOLE
- PROPOSED CURB INLET
- PROPOSED GRATE INLET
- PROPOSED WASTEWATER MANHOLE
- EXISTING WASTEWATER MANHOLE
- EXISTING WASTEWATER LINE
- EXISTING WATER LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR

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TBPE REG. NO. F-474

STATE OF TEXAS — MICHAEL J BRANDREAUX — 136644 — REGISTERED PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER

DRAINAGE PLAN 9 OF 9

SHEET NO. 30

OF 61 SHEETS

FILE NO. ECLC-STORM

PROJECT NO. 100090499

Pipe Table

NAME	SIZE	LENGTH	MATERIAL
B1-P3	48"	70.72'	48 x 36 inch Concrete Box Culvert
B1-P5	48"	10.14'	48 x 36 inch Concrete Box Culvert
B1-P10	48"	137.80'	48 x 36 inch Concrete Box Culvert
A1-P11	18"	20.23'	18 inch HP Storm
A1-P10	18"	149.75'	18 inch HP Storm
A1-P8	18"	239.63'	18 inch HP Storm
A1-P7	18"	97.80'	18 inch HP Storm
A1-P6	30"	75.98'	30 inch HP Storm
A1-P3	30"	115.58'	30 inch HP Storm
B1-P1	48"	9.17'	48 x 36 inch Concrete Box Culvert
B1-P2	48"	14.02'	48 x 36 inch Concrete Box Culvert
A1.3-P1	18"	56.73'	18 inch HP Storm
B5-P3	18"	18.02'	18 inch HP Storm
B4-P10	18"	62.99'	18 inch HP Storm
B4-P5	30"	17.91'	30 inch HP Storm
B4.4-P1	18"	17.15'	18 inch HP Storm
B5.2-P2	18"	134.26'	18 inch HP Storm
B1-P13	48"	57.09'	48 x 36 inch Concrete Box Culvert
B1-P14	48"	26.94'	48 x 36 inch Concrete Box Culvert
A3.2-P1	18"	12.04'	18 inch HP Storm
A2-P1	18"	100.19'	18 inch HP Storm
B2-P2	18"	28.33'	18 inch HP Storm
B1-P7	48"	99.89'	48 x 36 inch Concrete Box Culvert
B1.3-P1	18"	13.09'	18 inch Concrete Pipe
A1.5-P1	18"	20.33'	18 inch HP Storm
B4-P7	18"	22.68'	18 inch HP Storm
A1.2-P1	18"	47.33'	18 inch HP Storm
A1.6-P1	18"	37.94'	18 inch HP Storm
B1-P4	48"	175.86'	48 x 36 inch Concrete Box Culvert
B1.1-P10	18"	8.05'	18 inch HP Storm
B1.2-P10	18"	8.34'	18 inch HP Storm
B2-P1	30"	104.77'	30 inch HP Storm
B2.1-P10	18"	9.91'	18 inch HP Storm
A2.2-P10	18"	8.41'	18 inch HP Storm
A1-P4	30"	69.21'	30 inch HP Storm
B5-P2	24"	27.05'	24 inch HP Storm
B5.2-P1	24"	129.62'	24 inch HP Storm
A3.4-P1	18"	7.73'	18 inch HP Storm
A2.2-P2	18"	26.11'	18 inch HP Storm
A2.2.2-P2	18"	8.48'	18 inch HP Storm
A2.2.1-P2	18"	8.73'	18 inch HP Storm
B2.1-P1	18"	81.65'	18 inch HP Storm
B2.1.1-P2	18"	8.65'	18 inch Concrete Pipe
B1.1-P1	18"	84.99'	18 inch HP Storm
B1.1.1-P2	18"	8.60'	18 inch HP Storm
B1.2-P1	18"	68.69'	18 inch HP Storm
B1.2.1-P2	18"	8.41'	18 inch HP Storm
A2.1-P7	18"	13.65'	18 inch HP Storm
A2.1-P2	18"	26.97'	18 inch HP Storm
A2.1.2-P2	18"	8.07'	18 inch HP Storm
A2.1-P1	18"	80.15'	18 inch HP Storm
A2.1.1-P2	18"	8.13'	18 inch HP Storm
B2.1-P2	18"	26.54'	18 inch HP Storm
B2.1.2-P2	18"	6.55'	18 inch HP Storm
B1.1-P2	18"	26.56'	18 inch HP Storm
B1.1.2-P2	18"	8.38'	18 inch HP Storm
B1.2-P2	18"	26.76'	18 inch HP Storm
B1.2.2-P2	18"	7.14'	18 inch HP Storm
A2.2.2.1-P4(perf)	8"	16.80'	8.0 inch PVC Pipe
A2.2.2.1-P3	8"	5.11'	8.0 inch PVC Pipe
A2.2.1.1-P2	8"	12.67'	8.0 inch PVC Pipe
A2.2.1-P1	18"	6.75'	18 inch HP Storm
A2.2-P1	18"	61.60'	18 inch HP Storm
A2.2-P8	18"	6.79'	18 inch HP Storm
A2.2.8-P2 (perf)	8"	16.16'	8.0 inch PVC Pipe
A2.2-P7	18"	11.76'	18 inch HP Storm
A2.2.7-P2 (perf)	8"	11.55'	8.0 inch PVC Pipe
A2.2.7-P1	8"	9.55'	8.0 inch PVC Pipe
A2.2-P12	18"	6.65'	18 inch HP Storm
A2.2.2-P1	18"	6.39'	18 inch HP Storm
A2.2.2.1-P1	8"	34.14'	8.0 inch PVC Pipe
A2.2.9-P2	8"	20.79'	8.0 inch PVC Pipe
A2.2.9-P1	8"	8.22'	8.0 inch PVC Pipe
A2.2-P9	18"	6.74'	18 inch HP Storm
A2.2-P6	18"	10.34'	18 inch HP Storm
A2.2.6-P1	8"	25.17'	8.0 inch PVC Pipe
A2.2.5-P2	8"	19.87'	8.0 inch PVC Pipe
A2.2-P5	18"	27.59'	18 inch HP Storm

Pipe Table

NAME	SIZE	LENGTH	MATERIAL
A2.2.5-P1	8"	7.82'	8.0 inch PVC Pipe
A2.2-P4	18"	21.33'	18 inch HP Storm
A2.2.4-P1	8"	26.91'	8.0 inch PVC Pipe
A2.2.3-P2	8"	15.36'	8.0 inch PVC Pipe
A2.2.3-P1	8"	6.89'	8.0 inch PVC Pipe
A2.2-P3	18"	6.71'	18 inch HP Storm
A2.2.1.1.1-P2	8"	29.31'	8.0 inch PVC Pipe
A2.2.1.1-P1	8"	7.42'	8.0 inch PVC Pipe
A2.2.1.1.1-P1	8"	6.78'	8.0 inch PVC Pipe
A2.2.8-P1	8"	3.69'	8.0 inch PVC Pipe
B1.1-P12	18"	8.85'	18 inch HP Storm
B1.1.9-P2	8"	21.11'	8.0 inch PVC Pipe
B1.1-P9	18"	7.11'	18 inch HP Storm
B1.1.9-P1	8"	8.07'	8.0 inch PVC Pipe
B1.1-P6	18"	10.74'	18 inch HP Storm
B1.1.6-P1	8"	24.91'	8.0 inch PVC Pipe
B1.1.5-P2	8"	19.87'	8.0 inch PVC Pipe
B1.1-P5	18"	27.24'	18 inch HP Storm
B1.1.5-P1	8"	8.07'	8.0 inch PVC Pipe
B1.1-P4	18"	20.42'	18 inch HP Storm
B1.1.4-P1	8"	26.69'	8.0 inch PVC Pipe
B1.1.3-P2	8"	16.28'	8.0 inch PVC Pipe
B1.1-P3	18"	7.95'	18 inch HP Storm
B1.1.3-P1	8"	5.39'	8.0 inch PVC Pipe
B1.1.1-P1	18"	7.00'	18 inch HP Storm
B1.1.1.1-P2	8"	12.13'	8.0 inch PVC Pipe
B1.1.1.1.1-P2	8"	28.37'	8.0 inch PVC Pipe
B1.1.1.1-P1	8"	8.03'	8.0 inch PVC Pipe
B1.1.1.1.1-P1	8"	7.33'	8.0 inch PVC Pipe
B2.1-P12	18"	7.91'	18 inch HP Storm
B2.1.9-P2	8"	19.20'	8.0 inch PVC Pipe
B2.1-P9	18"	5.25'	18 inch HP Storm
B2.1.9-P1	8"	7.07'	8.0 inch PVC Pipe
B2.1-P6	18"	7.39'	18 inch HP Storm
B2.1.6 P1	8"	28.60'	8.0 inch PVC Pipe
B2.1.5-P2	8"	17.97'	8.0 inch PVC Pipe
B2.1-P5	18"	30.54'	18 inch HP Storm
B2.1.5-P1	8"	7.07'	8.0 inch PVC Pipe
B2.1-P4	18"	19.01'	18 inch HP Storm
B2.1.4-P1	8"	30.37'	8.0 inch PVC Pipe
B2.1.3-P2	8"	17.70'	8.0 inch PVC Pipe
B2.1.3-P1	8"	7.07'	8.0 inch PVC Pipe
B2.1-P3	18"	4.09'	18 inch HP Storm
B2.1.1-P1	18"	3.40'	18 inch Concrete Pipe
B2.1.1.1-P2	8"	12.85'	8.0 inch PVC Pipe
B2.1.1.1.1-P2	8"	29.22'	8.0 inch PVC Pipe
B2.1.1.1-P1	8"	7.23'	8.0 inch PVC Pipe
B2.1.1.1.1-P1	8"	7.18'	8.0 inch PVC Pipe
B1.2.9-P2	8"	20.79'	8.0 inch PVC Pipe
B1.2-P9	18"	6.81'	18 inch HP Storm
B1.2.9-P1	8"	7.07'	8.0 inch PVC Pipe
B1.2-P12	18"	7.03'	18 inch HP Storm
B1.2.5-P2	8"	19.87'	8.0 inch PVC Pipe
B1.2-P5	18"	28.93'	18 inch HP Storm
B1.2.5-P1	8"	7.07'	8.0 inch PVC Pipe
B1.2-P4	18"	21.03'	18 inch HP Storm
B1.2.4 P1	8"	27.51'	8.0 inch PVC Pipe
B1.2.3-P2	8"	15.36'	8.0 inch PVC Pipe
B1.2-P3	18"	6.16'	18 inch HP Storm
B1.2.3 P1	8"	7.07'	8.0 inch PVC Pipe
B1.2.1-P1	18"	7.01'	18 inch HP Storm
B1.2.1.1-P2	8"	13.23'	8.0 inch PVC Pipe
B1.2.1.1.1-P2	8"	29.23'	8.0 inch PVC Pipe
B1.2.1.1-P1	8"	6.96'	8.0 inch PVC Pipe
B1.2.1.1.1-P1	8"	7.58'	8.0 inch PVC Pipe
B1.2-P6	18"	8.72'	18 inch HP Storm
B1.2.6-P1	8"	26.19'	8.0 inch PVC Pipe
B2.1.7-P2 (perf)	8"	9.24'	8.0 inch PVC Pipe
B2.1-P7	18"	16.52'	18 inch HP Storm
B2.1.7-P1	8"	11.86'	8.0 inch PVC Pipe
B2.1.8-P2 (perf)	8"	16.13'	8.0 inch PVC Pipe
B2.1-P8	18"	6.79'	18 inch HP Storm
B2.1.8-P1	8"	3.74'	8.0 inch PVC Pipe
B1.1.7-P2(perf)	8"	11.09'	8.0 inch PVC Pipe
B1.1-P7	18"	11.30'	18 inch HP Storm
B1.1.7-P1	8"	10.02'	8.0 inch PVC Pipe
B1.1.8-P2(perf)	8"	16.13'	8.0 inch PVC Pipe
B1.1-P8	18"	6.79'	18 inch HP Storm

Pipe Table

NAME	SIZE	LENGTH	MATERIAL
B1.1.8-P1	8"	3.75'	8.0 inch PVC Pipe
B1.2.7-P2 (perf)	8"	10.51'	8.0 inch PVC Pipe
B1.2-P7	18"	13.62'	18 inch HP Storm
B1.2.7-P1	8"	10.60'	8.0 inch PVC Pipe
B1.2-P8	18"	6.79'	18 inch HP Storm
B1.2.8-P2 (perf)	8"	16.13'	8.0 inch PVC Pipe
B1.2.8-P1	8"	3.75'	8.0 inch PVC Pipe
B1.2.2.1-P4 (perf)	8"	20.05'	8.0 inch PVC Pipe
B1.2.2.1-P3	8"	4.08'	8.0 inch PVC Pipe
B1.2.2-P1	18"	7.47'	18 inch HP Storm
B1.2.2.1-P1	8"	36.56'	8.0 inch PVC Pipe
B1.1.2.1-P4 (perf)	8"	16.80'	8.0 inch PVC Pipe
B1.1.2.1-P3	8"	5.55'	8.0 inch PVC Pipe
B1.1.2-P1	18"	6.27'	18 inch HP Storm
B1.1.2.1-P1	8"	34.66'	8.0 inch PVC Pipe
B2.1.2.1-P4 (perf)	8"	18.48'	8.0 inch PVC Pipe
B2.1.2.1-P3	8"	6.11'	8.0 inch PVC Pipe
B2.1.2-P1	18"	4.63'	18 inch HP Storm
B2.1.2.1-P1	8"	36.83'	8.0 inch PVC Pipe
B1.2.2.1-P2	8"	8.74'	8.0 inch PVC Pipe
B1.1.2.1-P2	8"	11.27'	8.0 inch PVC Pipe
B2.1.2.1-P2	8"	6.73'	8.0 inch PVC Pipe
A2.2.2.1-P2	8"	11.90'	8.0 inch PVC Pipe
B4.8-P8	12"	5.07'	12 inch HP Storm
B4.8-P7	12"	36.34'	12 inch HP Storm
B4.8-P3	12"	35.09'	12 inch HP Storm
B4.8-P1	12"	20.73'	12 inch HP Storm
B4.8.1-P1	12"	27.57'	12 inch HP Storm
B4.8-P2	12"	43.79'	12 inch HP Storm
B4.8.2-P1	12"	15.93'	12 inch HP Storm
B4.8-P4	12"	9.22'	12 inch HP Storm
B4.8.3-P1	12"	7.59'	12 inch HP Storm
B4.8-P6	12"	21.13'	12 inch HP Storm
B4.8.5-P1	12"	8.69'	12 inch HP Storm
B4.8-P5	12"	52.63'	12 inch HP Storm
B4-RD3-P4	8"	11.10'	8.0 inch PVC Pipe
B4-RD3-P3	8"	23.23'	8.0 inch PVC Pipe
B4-P8	18"	21.29'	18 inch HP Storm
B4-RD3-P1	8"	19.89'	8.0 inch PVC Pipe
B4-RD3-P2	8"	22.65'	8.0 inch PVC Pipe
B4-RD3-P5	8"	11.43'	8.0 inch PVC Pipe
A2-P2	18"	177.45'	18 inch HP Storm
A1-P1	30"	10.79'	30 inch HP Storm
B1.4-P1	18"	10.98'	18 inch HP Storm
B1-P9	48"	48.61'	48 x 36 inch Concrete Box Culvert
B1.5-P1	18"	56.97'	18 inch HP Storm
B1-P12	48"	27.38'	48 x 36 inch Concrete Box Culvert
B1.6-P1	18"	11.61'	18 inch HP Storm
A2.1.1-P1	18"	7.42'	18 inch HP Storm
A2.1.1.1-P2	8"	6.16'	8.0 inch PVC Pipe
A2.1-P9	18"	7.78'	18 inch HP Storm
A2.1.6-P2	8"	15.56'	8.0 inch PVC Pipe
A2.1-P6	18"	6.05'	18 inch HP Storm
A2.1.6-P1	8"	10.70'	8.0 inch PVC Pipe
A2.1.3-P2	8"	15.56'	8.0 inch PVC Pipe
A2.1-P3	18"	53.03'	18 inch HP Storm
A2.1.3-P1	8"	10.38'	8.0 inch PVC Pipe
A2.1-P8	18"	4.53'	18 inch HP Storm
A2.2-P11	18"	11.15'	18 inch HP Storm
B2.1-P11	18"	6.39'	18 inch HP Storm
B1.1-P11	18"	9.27'	18 inch HP Storm
B1.2-P11	18"	9.45'	18 inch HP Storm
B3-P4	30"	23.80'	30 inch HP Storm
B4-P2	30"	11.71'	30 inch HP Storm
B4-RD1	8"	15.08'	8.0 inch PVC Pipe
A2.1.5-P2(perf)	8"	17.90'	8.0 inch PVC Pipe
A2.1-P5	18"	8.03'	18 inch HP Storm
A2.1.5-P1	8"	3.16'	8.0 inch PVC Pipe
A2.1.4-P2(perf)	8"	10.78'	8.0 inch PVC Pipe
A2.1-P4	18"	21.66'	18 inch HP Storm
A2.1.4-P1	8"	14.36'	8.0 inch PVC Pipe
A2.1.2.1-P4(perf)	8"	18.55'	8.0 inch PVC Pipe
A2.1.2.1-P3	8"	6.86'	8.0 inch PVC Pipe
A2.1.2.1-P2	8"	8.12'	8.0 inch PVC Pipe
A2.1.2.1-P1	8"	36.03'	8.0 inch PVC Pipe
A2.1.2-P1	18"	6.28'	18 inch HP Storm
A2.1.1.1.1-P2	8"	25.99'	8.0 inch PVC Pipe
A2.1.1.1-P1	8"	13.28'	8.0 inch PVC Pipe

Pipe Table

NAME	SIZE	LENGTH	MATERIAL
A2.1.1.1.1-P1	8"	4.70'	8.0 inch PVC Pipe
B1-P6	48"	116.61'	48 x 36 inch Concrete Box Culvert
B3-P2	30"	41.35'	30 inch HP Storm
B3.1-P1	18"	5.03'	18 inch HP Storm
B3-RD1-P2	8"	22.76'	8.0 inch PVC Pipe
B3.1-P2	18"	11.48'	18 inch HP Storm
B3-RD1-P1	8"	11.48'	8.0 inch PVC Pipe
B3.1.1-P1	12"	17.95'	12.0 inch PVC Pipe
B3.1.1.1-P1	8"	15.44'	8.0 inch PVC Pipe
B3.1.1-P4	12"	14.52'	12.0 inch PVC Pipe
B3.1.1.2-P1	8"	42.81'	8.0 inch PVC Pipe
B3.1.1.3-P3 (perf)	8"	14.08'	8.0 inch PVC Pipe
B3.1.1.3-P2	8"	2.35'	8.0 inch PVC Pipe
B3.1.1-P3	12"	5.94'	12.0 inch PVC Pipe
B3.1.1.3-P1	8"	15.99'	8.0 inch PVC Pipe
A3-P5	30"	58.42'	30 inch HP Storm
A3.3-P1	24"	68.18'	24 inch HP Storm
A3-P1	30"	50.23'	30 inch HP Storm
A3.1.1-P1	24"	44.83'	24 inch HP Storm
A3.1-P2	24"	30.19'	24 inch HP Storm
B4-P9	18"	45.56'	18 inch HP Storm
A3.6-P1	24"	7.44'	24 inch HP Storm
A3-P11	24"	33.77'	24 inch HP Storm
A3-P7	30"	39.09'	30 inch HP Storm
A3.5-P1	18"	35.20'	18 inch HP Storm
A3-P3	30"	15.47'	30 inch HP Storm
A3.1-P1	24"	33.43'	24 inch HP Storm
A1.1-P2	18"	18.98'	18 inch HP Storm
A1-P2	30"	36.98'	30 inch HP Storm
A1.1-P1	18"	7.84'	18 inch HP Storm
B1.7-P1	18"	107.76'	18 inch HP Storm
B4-P3	30"	40.77'	30 inch HP Storm
B4-RD2	8"	14.80'	8.0 inch PVC Pipe
A3-RD1-P2	8"	26.70'	8.0 inch PVC Pipe
A3-RD3.1-P2	8"	7.52'	8.0 inch PVC Pipe
A3-RD3.1-P1	8"	27.84'	8.0 inch PVC Pipe
A3-RD3.1-P3	8"	50.65'	8.0 inch PVC Pipe
A3-P4	30"	13.61'	30 inch HP Storm
A3-RD2	8"	48.36'	8.0 inch PVC Pipe
A3-P2	30"	51.63'	30 inch HP Storm
A3-RD1	8"	46.36'	8.0 inch PVC Pipe
A1-P5	30"	12.08'	30 inch HP Storm
A1.4-P1	18"	65.12'	18 inch HP Storm
A3-P6	30"	8.88'	30 inch HP Storm
A3-RD3.1-P1 (1)	8"	12.05'	8.0 inch PVC Pipe
A3-P10	24"	129.57'	24 inch HP Storm
A3-P9	24"	40.71'	24 inch HP Storm
B3.1.1.1-P2	8"	20.85'	8.0 inch PVC Pipe
B3.1.1-P2	12"	9.12'	12.0 inch PVC Pipe
B3-P1	30"	100.79'	30 inch HP Storm
B1-P8	48"	66.85'	48 x 36 inch Concrete Box Culvert
B3-P6	24"	151.85'	24 inch HP Storm
B3-P5	24"	51.92'	24 inch HP Storm
B3.3-P1	24"	55.43'	24 inch HP Storm
B5-P1	24"	37.74'	24 inch HP Storm
B5.1-P1	24"	17.78'	24 inch HP Storm
B4-P6	30"	28.71'	30 inch HP Storm
B4-P1	30"	15.47'	30 inch HP Storm
B4.1-P1	18"	10.19'	18 inch HP Storm
B4-P4	30"	30.07'	30 inch HP Storm
B4.2-P1	18"	7.60'	18 inch HP Storm
B4.3-P1	18"	7.70'	18 inch HP Storm
B3-P3	30"	91.60'	30 inch HP Storm
B3.2-P1	18"	12.34'	18 inch HP Storm
B5.2.1-P1	18"	82.02'	18 inch HP Storm
B1.9-P2	18"	34.21'	18 inch HP Storm
C1-P1	36"	44.92'	24 X 24 Concrete Box Culvert
C1-P2	36"	5.29'	24 X 24 Concrete Box Culvert
C1.1-P1	18"	18.89'	18 inch HP Storm
A1-P9	18"	82.24'	18 inch HP Storm
A1.7-P1	18"	43.40'	18 inch HP Storm
B1.8-P1	18"	99.87'	18 inch HP Storm
B1-P11	48"	63.85'	48 x 36 inch Concrete Box Culvert
A3-P8	24"	20.29'	24 inch HP Storm
A3.7-P2	18"	11.87'	18 inch HP Storm
A3.7.1-P2	18"	61.54'	18 inch HP Storm
A3.7-P1	18"	24.52'	18 inch HP Storm
A3.7.1-P1	18"	8.66'	18 inch HP Storm

Pipe Flow Rate Data

Element ID	Q_{25} (cfs)	V_{25} (fps)	Q_{100} (cfs)	V_{100} (fps)
A1-P1	40.39	8.23	59.13	12.04
A1-P2	35.35	7.20	51.08	10.41
A1-P3	31.11	7.31	44.63	9.09
A1-P4	27.46	7.25	39.19	7.98
A1-P5	26.04	7.14	37.09	7.56
A1-P6	25.00	7.10	36.72	7.48
A1-P7	4.67	4.73	6.93	3.92
A1-P8	4.81	4.76	7.17	4.06
A1-P9	2.33	8.78	3.53	9.90
A1-P10	1.24	7.29	1.82	8.16
A1-P11	1.25	7.28	1.82	8.15
A1.1-P1	7.28	5.21	10.92	6.14
A1.1-P2	7.31	5.28	10.95	6.15
A1.2-P1	6.07	5.03	9.01	5.07
A1.3-P1	1.75	8.25	2.58	9.24
A1.4-P1	4.70	9.14	5.57	9.58
A1.5-P1	1.50	9.29	2.20	10.40
A1.6-P1	1.36	8.95	2.01	10.05
A1.7-P1	1.38	6.67	2.13	7.53
A2-P1	7.94	7.01	12.62	7.14
A2-P2	4.94	5.28	7.29	5.75
A2.1-P1	3.24	4.30	5.67	4.93
A2.1-P2	1.82	3.73	2.66	4.14
A2.1-P3	1.84	3.71	2.69	4.13
A2.1-P4	1.85	3.72	2.70	4.13
A2.1-P5	1.85	3.69	2.71	4.10
A2.1-P6	1.85	3.69	2.71	4.09
A2.1.1-P1	1.46	3.55	3.09	4.37
A2.1.1-P2	1.47	3.44	3.09	4.23
A2.2-P1	4.99	5.24	7.36	5.70
A2.2-P2	3.42	4.37	5.02	4.80
A2.2-P3	3.43	4.37	5.02	4.80
A2.2-P4	3.44	4.37	5.04	4.81
A2.2-P5	3.46	4.38	5.06	4.81
A2.2-P6	3.47	4.38	5.07	4.81
A2.2-P7	2.09	3.82	3.05	4.24
A2.2-P8	2.09	3.82	3.06	4.24
A2.2-P9	2.09	3.83	3.06	4.24
A2.2.1-P1	1.61	3.56	2.41	3.98
A2.2.1-P2	1.62	3.56	2.41	3.98
A3-P1	20.52	6.81	30.08	6.13
A3-P2	17.09	6.55	25.09	5.11
A3-P3	17.11	6.62	25.14	5.12
A3-P4	16.84	6.58	24.72	5.04
A3-P5	16.92	6.50	24.88	5.07
A3-P6	15.52	6.14	22.83	4.65
A3-P7	13.75	6.24	20.28	4.13
A3-P8 (2)	13.59	6.08	20.03	6.29
A3-P9	13.26	6.04	19.54	6.14
A3-P10	6.36	5.09	9.37	5.63
A3-P11	3.56	4.35	5.26	4.85
A3.1-P1	4.81	4.75	7.00	2.20
A3.1-P2	3.54	4.32	5.21	1.64
A3.1.1-P1	1.30	5.86	1.90	6.58
A3.2-P1	0.37	6.09	0.56	6.93
A3.3-P1	1.57	3.42	2.30	0.72
A3.4-P1	0.21	3.57	0.32	0.18
A3.5-P1	9.45	5.31	13.88	7.80
A3.6-P1	3.75	4.07	5.51	4.52
A3.7-P1	0.51	2.85	0.76	0.43
B1-P1	59.14	8.39	89.32	9.28
B1-P2	59.16	8.39	89.35	9.29
B1-P3	55.64	8.25	84.14	9.15
B1-P4	53.60	8.17	81.06	9.08
B1-P5	51.25	8.07	77.59	8.98
B1-P6	50.02	8.02	75.74	8.93
B1-P7	32.51	7.09	50.52	8.04
B1-P8	32.59	7.14	50.63	8.09
B1-P9	34.46	7.18	53.91	8.14
B1-P10	33.39	7.15	52.30	8.12
B1-P11	32.71	7.11	51.28	8.08
B1-P12	30.35	7.00	47.78	7.98
B1-P13	29.24	6.91	46.00	7.88
B1-P14	21.92	13.01	34.42	15.23
B1.1-P1	5.46	6.75	8.06	7.42
B1.1-P2	3.33	6.04	4.88	6.71
B1.1-P3	3.33	6.04	4.88	6.71
B1.1-P4	3.34	6.05	4.90	6.71
B1.1-P5	3.36	6.06	4.91	6.72
B1.1-P6	3.36	6.06	4.92	6.71

Pipe Flow Rate Data

Element ID	Q_{25} (cfs)	V_{25} (fps)	Q_{100} (cfs)	V_{100} (fps)
B1.1-P7	3.37	6.06	4.93	6.72
B1.1-P8	3.37	6.06	4.93	6.72
B1.1-P9	3.37	6.06	4.93	6.72
B1.1-P10	3.38	6.07	4.94	6.72
B1.1-P11	3.38	6.07	4.95	6.72
B1.1-P12	3.39	6.07	4.95	6.73
B1.1.1-P1	2.18	3.87	3.25	4.31
B1.1.1-P2	2.19	3.87	3.25	4.31
B1.2-P1	5.41	4.89	7.95	5.20
B1.2-P2	3.34	4.34	4.89	4.77
B1.2-P3	3.34	4.34	4.89	4.77
B1.2-P4	3.35	4.34	4.91	4.78
B1.2-P5	3.37	4.35	4.93	4.78
B1.2-P6	3.38	4.35	4.94	4.79
B1.2-P7	3.39	4.36	4.95	4.79
B1.2-P8	3.39	4.36	4.96	4.79
B1.2-P9	3.39	4.36	4.97	4.79
B1.2-P10	3.40	4.36	4.97	4.79
B1.2-P11	3.41	4.36	4.98	4.79
B1.2-P12	3.41	4.36	4.99	4.80
B1.2.1-P1	2.15	3.85	3.16	4.28
B1.2.1-P2	2.15	3.86	3.16	4.28
B1.3-P1	3.36	5.59	4.92	6.19
B1.4-P1	1.36	6.39	2.05	7.21
B1.5-P1	2.68	4.09	3.93	4.53
B1.6-P1	5.02	9.32	7.34	10.34
B1.7-P1	1.62	4.49	2.54	5.09
B1.8-P1	1.61	3.81	2.38	4.14
B1.9-P1	9.68	7.91	15.15	8.57
B2-P1	8.40	5.42	12.33	6.01
B2-P2	3.25	8.26	4.75	9.21
B2.1-P1	5.29	6.86	7.77	7.55
B2.1-P2	3.17	5.98	4.64	6.63
B2.1-P3	3.17	5.98	4.64	6.63
B2.1-P4	3.18	5.98	4.65	6.64
B2.1-P5	3.19	5.99	4.67	6.65
B2.1-P6	3.20	5.99	4.68	6.65
B2.1-P7	3.20	5.99	4.69	6.65
B2.1-P8	3.21	6.00	4.69	6.65
B2.1-P9	3.21	6.00	4.69	6.66
B2.1-P10	3.21	6.00	4.70	6.66
B2.1-P11	3.22	6.00	4.70	6.66
B2.1-P12	3.22	6.00	4.71	6.66
B2.1.1-P1	2.17	3.87	3.20	4.29
B2.1.1-P2	2.18	3.87	3.20	4.29
B3-P1	29.76	7.28	42.29	8.62
B3-P2	28.89	7.26	41.01	8.35
B3-P3	28.01	7.25	39.66	8.08
B3-P4	27.94	7.23	39.54	8.05
B3-P5	11.99	5.96	16.94	5.32
B3-P6	4.13	4.52	6.02	1.89
B3.1-P1	1.48	3.47	2.21	1.24
B3.1-P2	1.48	3.47	2.22	1.25
B3.2-P1	0.15	4.64	0.22	5.25
B3.3-P1	8.20	7.64	12.06	3.79
B4-P1	18.99	6.70	26.50	5.40
B4-P2	18.98	6.70	26.49	5.40
B4-P3	19.04	6.71	26.60	5.42
B4-P4	18.35	6.74	25.61	5.22
B4-P5	18.36	6.65	25.62	5.22
B4-P6	18.40	6.65	25.70	5.24
B4-P7	7.18	5.15	7.52	4.23
B4-P8	7.13	5.15	8.49	4.77
B4-P9	6.42	5.06	7.49	4.21
B4-P10	2.94	4.20	4.38	2.46
B4.1-P1	0.04	3.22	0.06	3.73
B4.2-P1	0.03	3.03	0.05	3.49
B4.3-P1	0.03	2.75	0.04	3.17
B4.4-P1	0.07	2.98	0.11	0.06
B5-P1	12.85	6.05	18.89	5.94
B5-P2	10.82	5.82	15.99	5.02
B5-P3	3.09	4.25	4.54	2.57
B5.1-P1	4.47	4.94	6.63	2.08
B5.2.1-P1	5.75	5.11	8.46	4.76
B5.2-P1	8.02	5.41	11.84	5.94
B5.2-P2	2.49	4.04	3.68	4.47
C1-P1	7.10	4.60	11.07	5.16
C1-P2	8.88	5.15	13.69	5.73
C1.1-P1	3.55	10.86	5.19	11.95

NO.	REVISION	BY	DATE

DESIGNED BY: KM
DRAWN BY: CS/MR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

AtkinsRéalis
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TBPE REG. NO. F-474

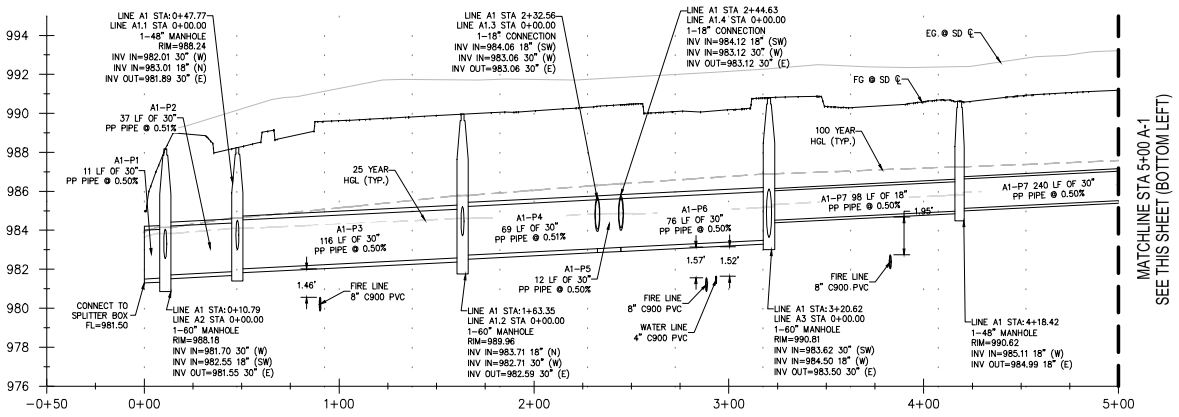
STATE OF TEXAS · MICHAEL J SHANGREAUX · 134844 · LICENSED PROFESSIONAL ENGINEER · 1/16/2025

LISD EARLY CHILDHOOD CENTER

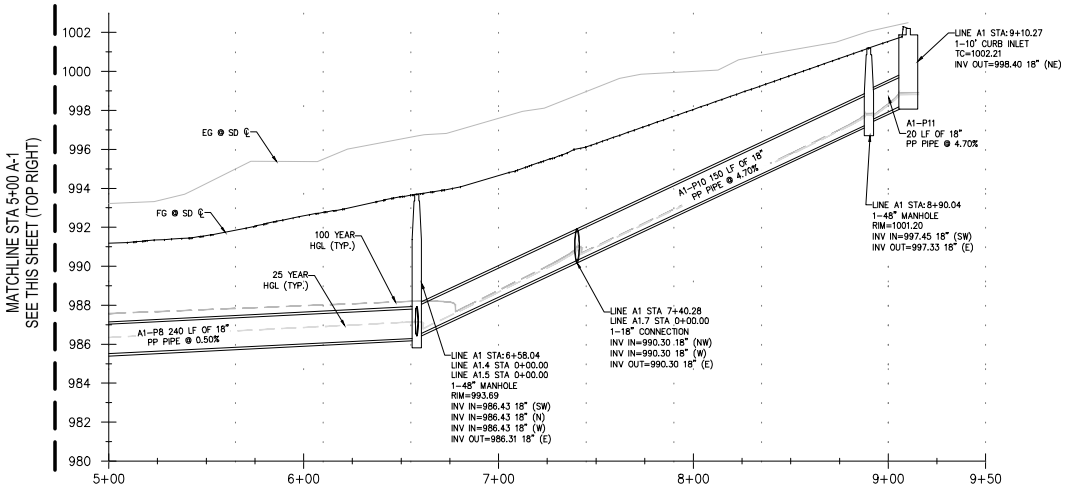
STORM PIPE TABLES

SHEET NO. 31 OF 61 SHEETS

FILE NO. ECLC-STORM
PROJECT NO. 100090499



STORM DRAIN – LINE A1 PROFILE



STORM DRAIN – LINE A1 PROFILE

SUBMITTED FOR PERMIT REVIEW

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NO.	REVISION	BY	DATE

DESIGNED BY: KM
DRAWN BY: CS/AR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

AtkinsRéalis
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 (512) 327-6840
TBPE REG. NO. F-474

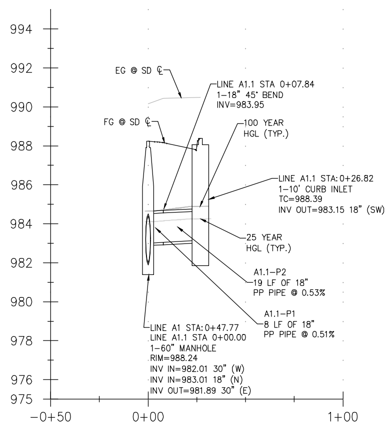
STATE OF TEXAS
MICHAEL J BRANGREAUX
103644
LICENSED PROFESSIONAL ENGINEER
01/15/2025

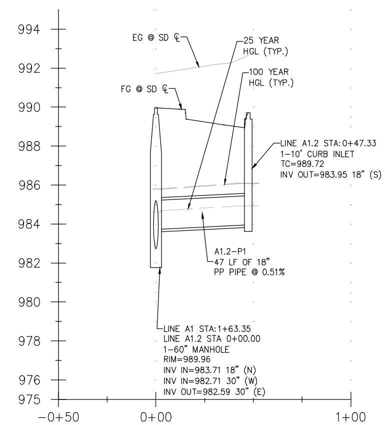
LISD EARLY CHILDHOOD CENTER

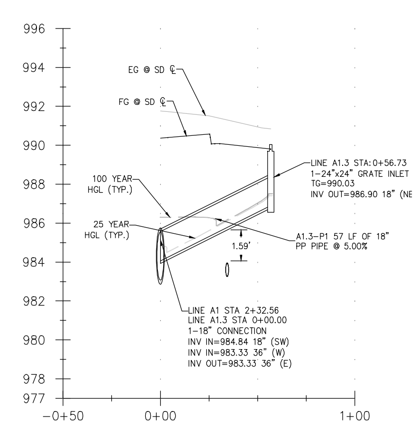
STORM PROFILE - LINE A1

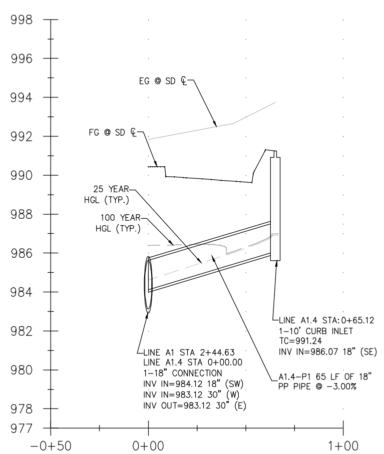
SHEET NO. 32
OF 61 SHEETS

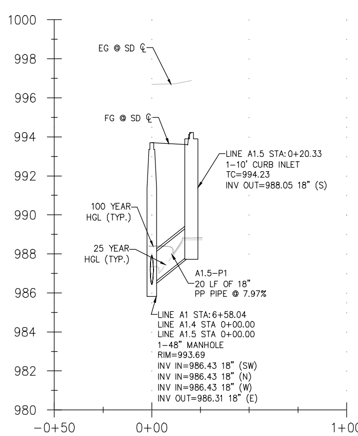
FILE NO. ECLC-STORM
PROJECT NO. 100090499

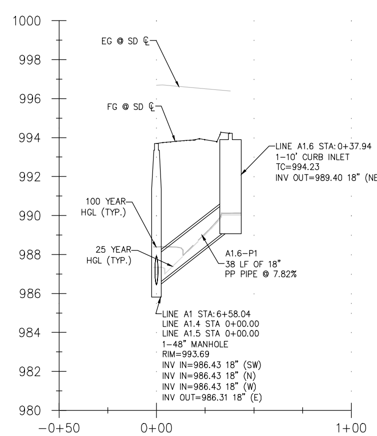

EG @ SD ℄
FG @ SD ℄
LINE A1.1 STA 0+07.84
1-18" 45° BEND
INV=983.95
100 YEAR
HGL (TYP.)
LINE A1.1 STA:0+26.82
1-10' CURB INLET
TC=988.39
INV OUT=983.15 18" (SW)
25 YEAR
HGL (TYP.)
A1.1-P2
19 LF OF 18"
PP PIPE @ 0.53%
A1.1-P1
8 LF OF 18"
PP PIPE @ 0.51%
LINE A1 STA:0+47.77
LINE A1.1 STA 0+00.00
1-60" MANHOLE
RIM=988.24
INV IN=982.01 30" (W)
INV IN=983.01 18" (N)
INV OUT=981.89 30" (E)
994
992
990
988
986
984
982
980
978
976
975
-0+50
0+00
1+00
STORM DRAIN – LINE A1.1 PROFILE


EG @ SD ℄
FG @ SD ℄
25 YEAR
HGL (TYP.)
100 YEAR
HGL (TYP.)
LINE A1.2 STA:0+47.33
1-10' CURB INLET
TC=989.72
INV OUT=983.95 18" (S)
A1.2-P1
47 LF OF 18"
PP PIPE @ 0.51%
LINE A1 STA:1+63.35
LINE A1.2 STA 0+00.00
1-60" MANHOLE
RIM=989.96
INV IN=983.71 18" (N)
INV IN=982.71 30" (W)
INV OUT=982.59 30" (E)
994
992
990
988
986
984
982
980
978
976
975
-0+50
0+00
1+00
STORM DRAIN – LINE A1.2 PROFILE


EG @ SD ℄
FG @ SD ℄
100 YEAR
HGL (TYP.)
25 YEAR
HGL (TYP.)
LINE A1.3 STA:0+56.73
1-24"x24" GRATE INLET
TG=990.03
INV OUT=986.90 18" (NE
A1.3-P1 57 LF OF 18"
PP PIPE @ 5.00%
1.59'
LINE A1 STA 2+32.56
LINE A1.3 STA 0+00.00
1-18" CONNECTION
INV IN=984.84 18" (SW)
INV IN=983.33 36" (W)
INV OUT=983.33 36" (E)
996
994
992
990
988
986
984
982
980
978
977
-0+50
0+00
1+00
STORM DRAIN – LINE A1.3 PROFILE


EG @ SD ℄
FG @ SD ℄
25 YEAR
HGL (TYP.)
100 YEAR
HGL (TYP.)
LINE A1.4 STA:0+65.12
1-10' CURB INLET
TC=991.24
INV IN=986.07 18" (SE)
LINE A1 STA 2+44.63
LINE A1.4 STA 0+00.00
1-18" CONNECTION
INV IN=984.12 18" (SW)
INV IN=983.12 30" (W)
INV OUT=983.12 30" (E)
A1.4-P1 65 LF OF 18"
PP PIPE @ -3.00%
998
996
994
992
990
988
986
984
982
980
978
977
-0+50
0+00
1+00
STORM DRAIN – LINE A1.4 PROFILE


EG @ SD ℄
FG @ SD ℄
LINE A1.5 STA:0+20.33
1-10' CURB INLET
TC=994.23
INV OUT=988.05 18" (S)
100 YEAR
HGL (TYP.)
25 YEAR
HGL (TYP.)
A1.5-P1
20 LF OF 18"
PP PIPE @ 7.97%
LINE A1 STA:6+58.04
LINE A1.4 STA 0+00.00
LINE A1.5 STA 0+00.00
1-48" MANHOLE
RIM=993.69
INV IN=986.43 18" (SW)
INV IN=986.43 18" (N)
INV IN=986.43 18" (W)
INV OUT=986.31 18" (E)
1000
998
996
994
992
990
988
986
984
982
980
-0+50
0+00
1+00
STORM DRAIN – LINE A1.5 PROFILE


EG @ SD ℄
FG @ SD ℄
LINE A1.6 STA:0+37.94
1-10' CURB INLET
TC=994.23
INV OUT=989.40 18" (NE)
100 YEAR
HGL (TYP.)
25 YEAR
HGL (TYP.)
A1.6-P1
38 LF OF 18"
PP PIPE @ 7.82%
LINE A1 STA:6+58.04
LINE A1.4 STA 0+00.00
LINE A1.5 STA 0+00.00
1-48" MANHOLE
RIM=993.69
INV IN=986.43 18" (SW)
INV IN=986.43 18" (N)
INV IN=986.43 18" (W)
INV OUT=986.31 18" (E)
1000
998
996
994
992
990
988
986
984
982
980
-0+50
0+00
1+00
STORM DRAIN – LINE A1.6 PROFILE

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TBPE REG. NO. F-474

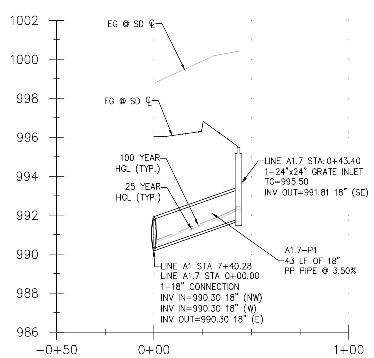
STATE OF TEXAS
MICHAEL J SHANGREAUX
134844
LICENSED
PROFESSIONAL ENGINEER
1/15/2025

LISD EARLY CHILDHOOD CENTER

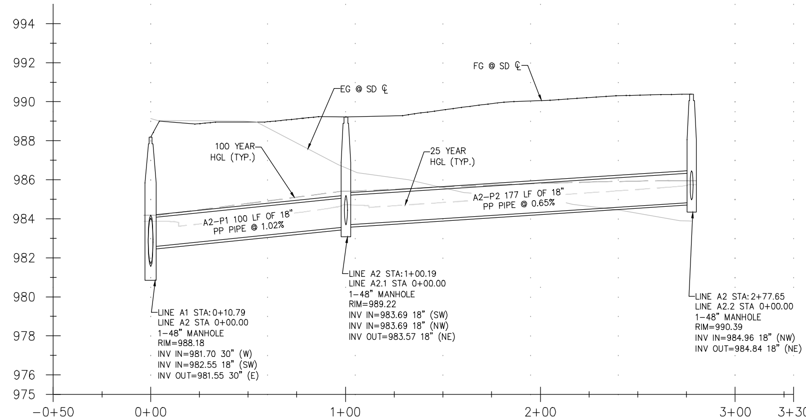
STORM PROFILE - LINES A1.1 TO A1.6

SHEET NO. 33
OF 61 SHEETS

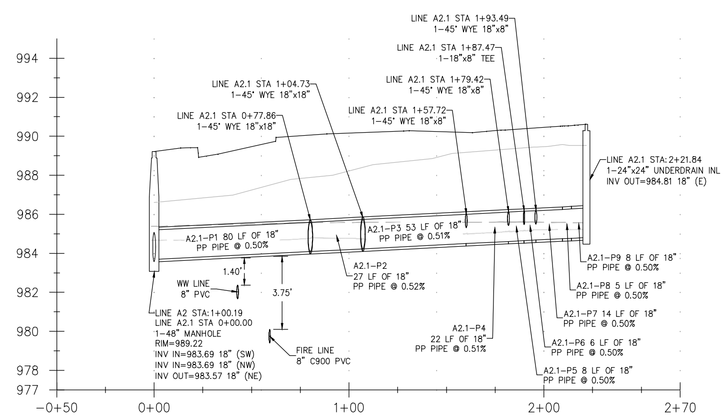
FILE NO. ECLC-STORM
PROJECT NO. 100090499


EG @ SD ℄
FG @ SD ℄
100 YEAR HGL (TYP.)
25 YEAR HGL (TYP.)
LINE A1.7 STA:0+43.40
1-24"x24" GRATE INLET
TG=995.50
INV OUT=991.81 18" (SE)
A1.7-P1
43 LF OF 18"
PP PIPE @ 3.50%
LINE A1 STA 7+40.28
LINE A1.7 STA 0+00.00
1-18" CONNECTION
INV IN=990.30 18" (NW)
INV IN=990.30 18" (W)
INV OUT=990.30 18" (E)
1002
1000
998
996
994
992
990
988
986
-0+50
0+00
1+00

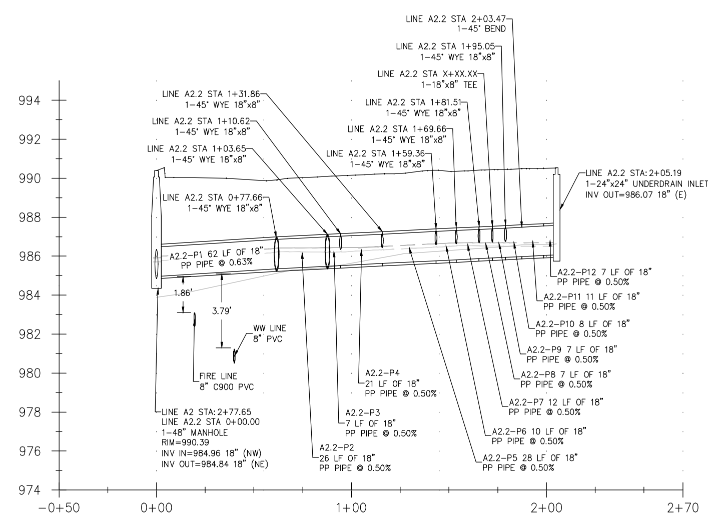
STORM DRAIN – LINE A1.7 PROFILE


FG @ SD ℄
EG @ SD ℄
100 YEAR HGL (TYP.)
25 YEAR HGL (TYP.)
A2-P1 100 LF OF 18"
PP PIPE @ 1.02%
A2-P2 177 LF OF 18"
PP PIPE @ 0.65%
LINE A1 STA:0+10.79
LINE A2 STA 0+00.00
1-48" MANHOLE
RIM=988.18
INV IN=981.70 30" (W)
INV IN=982.55 18" (SW)
INV OUT=981.55 30" (E)
LINE A2 STA:1+00.19
LINE A2.1 STA 0+00.00
1-48" MANHOLE
RIM=989.22
INV IN=983.69 18" (SW)
INV IN=983.69 18" (NW)
INV OUT=983.57 18" (NE)
LINE A2 STA:2+77.65
LINE A2.2 STA 0+00.00
1-48" MANHOLE
RIM=990.39
INV IN=984.96 18" (NW)
INV OUT=984.84 18" (NE)
994
992
990
988
986
984
982
980
978
976
975
-0+50
0+00
1+00
2+00
3+00
3+30

STORM DRAIN – LINE A2 PROFILE


LINE A2.1 STA 1+93.49
1-45° WYE 18"x8"
LINE A2.1 STA 1+87.47
1-18"x8" TEE
LINE A2.1 STA 1+79.42
1-45° WYE 18"x8"
LINE A2.1 STA 1+57.72
1-45° WYE 18"x8"
LINE A2.1 STA 1+04.73
1-45° WYE 18"x18"
LINE A2.1 STA 0+77.86
1-45° WYE 18"x18"
LINE A2.1 STA:2+21.84
1-24"x24" UNDERDRAIN INL
INV OUT=984.81 18" (E)
A2.1-P1 80 LF OF 18"
PP PIPE @ 0.50%
A2.1-P3 53 LF OF 18"
PP PIPE @ 0.51%
A2.1-P2
27 LF OF 18"
PP PIPE @ 0.52%
A2.1-P4
22 LF OF 18"
PP PIPE @ 0.51%
A2.1-P9 8 LF OF 18"
PP PIPE @ 0.50%
A2.1-P8 5 LF OF 18"
PP PIPE @ 0.50%
A2.1-P7 14 LF OF 18"
PP PIPE @ 0.50%
A2.1-P6 6 LF OF 18"
PP PIPE @ 0.50%
A2.1-P5 8 LF OF 18"
PP PIPE @ 0.50%
1.40'
WW LINE
8" PVC
3.75'
FIRE LINE
8" C900 PVC
LINE A2 STA:1+00.19
LINE A2.1 STA 0+00.00
1-48" MANHOLE
RIM=989.22
INV IN=983.69 18" (SW)
INV IN=983.69 18" (NW)
INV OUT=983.57 18" (NE)
994
992
990
988
986
984
982
980
978
977
-0+50
0+00
1+00
2+00
2+70

STORM DRAIN – LINE A2.1 PROFILE


LINE A2.2 STA 2+03.47
1-45° BEND
LINE A2.2 STA 1+95.05
1-45° WYE 18"x8"
LINE A2.2 STA X+XX.XX
1-18"x8" TEE
LINE A2.2 STA 1+81.51
1-45° WYE 18"x8"
LINE A2.2 STA 1+69.66
1-45° WYE 18"x8"
LINE A2.2 STA 1+59.36
1-45° WYE 18"x8"
LINE A2.2 STA 1+31.86
1-45° WYE 18"x8"
LINE A2.2 STA 1+10.62
1-45° WYE 18"x8"
LINE A2.2 STA 1+03.65
1-45° WYE 18"x8"
LINE A2.2 STA 0+77.66
1-45° WYE 18"x8"
LINE A2.2 STA:2+05.19
1-24"x24" UNDERDRAIN INLET
INV OUT=986.07 18" (E)
A2.2-P1 62 LF OF 18"
PP PIPE @ 0.63%
1.86'
3.79'
WW LINE
8" PVC
FIRE LINE
8" C900 PVC
A2.2-P12 7 LF OF 18"
PP PIPE @ 0.50%
A2.2-P11 11 LF OF 18"
PP PIPE @ 0.50%
A2.2-P10 8 LF OF 18"
PP PIPE @ 0.50%
A2.2-P9 7 LF OF 18"
PP PIPE @ 0.50%
A2.2-P8 7 LF OF 18"
PP PIPE @ 0.50%
A2.2-P7 12 LF OF 18"
PP PIPE @ 0.50%
A2.2-P6 10 LF OF 18"
PP PIPE @ 0.50%
A2.2-P5 28 LF OF 18"
PP PIPE @ 0.50%
A2.2-P4
21 LF OF 18"
PP PIPE @ 0.50%
A2.2-P3
7 LF OF 18"
PP PIPE @ 0.50%
A2.2-P2
26 LF OF 18"
PP PIPE @ 0.50%
LINE A2 STA:2+77.65
LINE A2.2 STA 0+00.00
1-48" MANHOLE
RIM=990.39
INV IN=984.96 18" (NW)
INV OUT=984.84 18" (NE)
994
992
990
988
986
984
982
980
978
976
974
-0+50
0+00
1+00
2+00
2+70

STORM DRAIN – LINE A2.2 PROFILE

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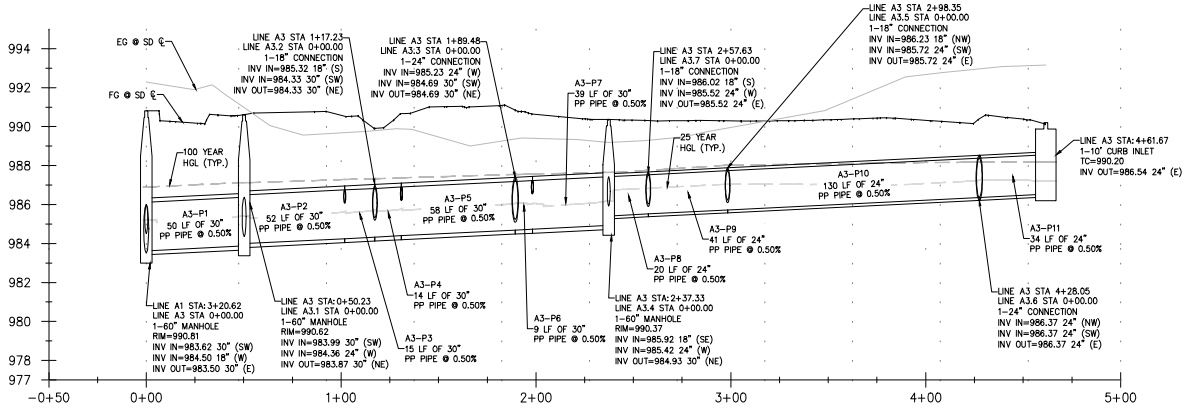
LISD EARLY CHILDHOOD CENTER

STORM PROFILE - LINES A1.7 TO A2.2

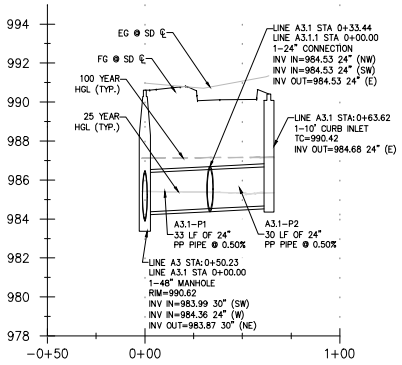
SHEET NO. 34 OF 61 SHEETS

FILE NO. ECLC-STORM
PROJECT NO. 100090499

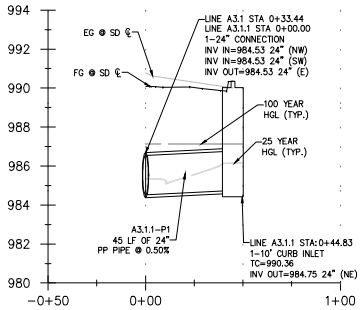
Jan 22, 2025 - 9:53am WELL7452 C:\pw_work\...\ECLC-STORM.dwg



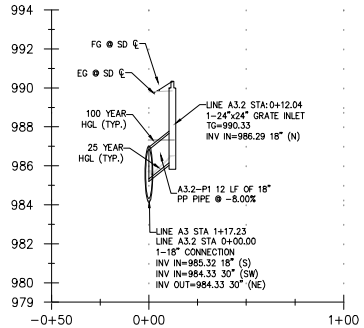
STORM DRAIN – LINE A3 PROFILE



STORM DRAIN – LINE A3.1 PROFILE



STORM DRAIN – LINE A3.1.1 PROFILE



STORM DRAIN – LINE A3.2 PROFILE

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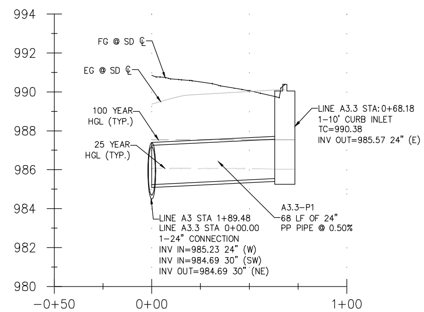
LICENSED PROFESSIONAL ENGINEER
01/15/2025

LISD EARLY CHILDHOOD CENTER

STORM PROFILE - LINES A3 TO A3.2

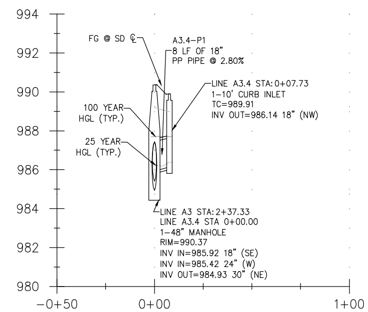
SHEET NO. 35
OF 61 SHEETS

FILE NO. ECLC-STORM
PROJECT NO. 100090499



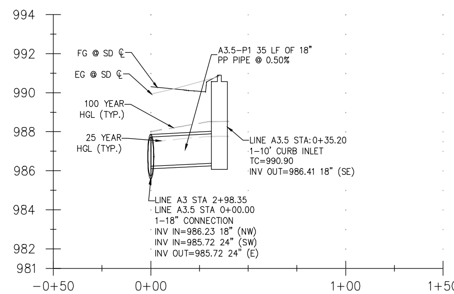
994
992
990
988
986
984
982
980
−0+50
0+00
1+00
FG @ SD ℄
EG @ SD ℄
100 YEAR HGL (TYP.)
25 YEAR HGL (TYP.)
LINE A3.3 STA:0+68.18
1-10' CURB INLET
TC=990.38
INV OUT=985.57 24" (E)
LINE A3 STA 1+89.48
LINE A3.3 STA 0+00.00
1-24" CONNECTION
INV IN=985.23 24" (W)
INV IN=984.69 30" (SW)
INV OUT=984.69 30" (NE)
A3.3-P1
68 LF OF 24"
PP PIPE @ 0.50%

STORM DRAIN – LINE A3.3 PROFILE



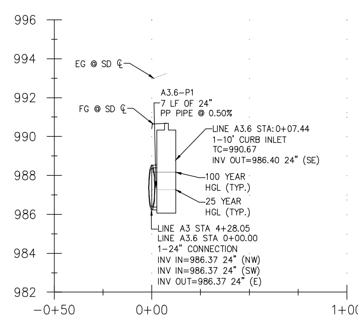
994
992
990
988
986
984
982
980
−0+50
0+00
1+00
FG @ SD ℄
A3.4-P1
8 LF OF 18"
PP PIPE @ 2.80%
100 YEAR HGL (TYP.)
25 YEAR HGL (TYP.)
LINE A3.4 STA:0+07.73
1-10' CURB INLET
TC=989.91
INV OUT=986.14 18" (NW)
LINE A3 STA:2+37.33
LINE A3.4 STA 0+00.00
1-48" MANHOLE
RIM=990.37
INV IN=985.92 18" (SE)
INV IN=985.42 24" (W)
INV OUT=984.93 30" (NE)

STORM DRAIN – LINE A3.4 PROFILE



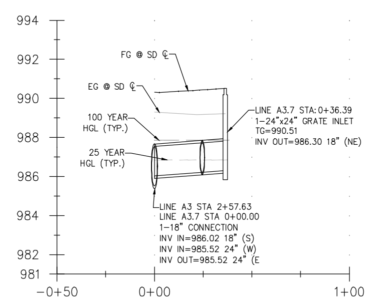
994
992
990
988
986
984
982
981
−0+50
0+00
1+00
1+50
FG @ SD ℄
EG @ SD ℄
A3.5-P1 35 LF OF 18"
PP PIPE @ 0.50%
100 YEAR HGL (TYP.)
25 YEAR HGL (TYP.)
LINE A3.5 STA:0+35.20
1-10' CURB INLET
TC=990.90
INV OUT=986.41 18" (SE)
LINE A3 STA 2+98.35
LINE A3.5 STA 0+00.00
1-18" CONNECTION
INV IN=986.23 18" (NW)
INV IN=985.72 24" (SW)
INV OUT=985.72 24" (E)

STORM DRAIN – LINE A3.5 PROFILE



996
994
992
990
988
986
984
982
−0+50
0+00
1+00
EG @ SD ℄
FG @ SD ℄
A3.6-P1
7 LF OF 24"
PP PIPE @ 0.50%
LINE A3.6 STA:0+07.44
1-10' CURB INLET
TC=990.67
INV OUT=986.40 24" (SE)
100 YEAR HGL (TYP.)
25 YEAR HGL (TYP.)
LINE A3 STA 4+28.05
LINE A3.6 STA 0+00.00
1-24" CONNECTION
INV IN=986.37 24" (NW)
INV IN=986.37 24" (SW)
INV OUT=986.37 24" (E)

STORM DRAIN – LINE A3.6 PROFILE



994
992
990
988
986
984
982
981
−0+50
0+00
1+00
FG @ SD ℄
EG @ SD ℄
100 YEAR HGL (TYP.)
25 YEAR HGL (TYP.)
LINE A3.7 STA:0+36.39
1-24"x24" GRATE INLET
TG=990.51
INV OUT=986.30 18" (NE)
LINE A3 STA 2+57.63
LINE A3.7 STA 0+00.00
1-18" CONNECTION
INV IN=986.02 18" (S)
INV IN=985.52 24" (W)
INV OUT=985.52 24" (E

STORM DRAIN – LINE A3.7 PROFILE

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DESIGNED BY: KM
DRAWN BY: CS/MR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

AtkinsRéalis
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-6840
TBPE REG. NO. F-474

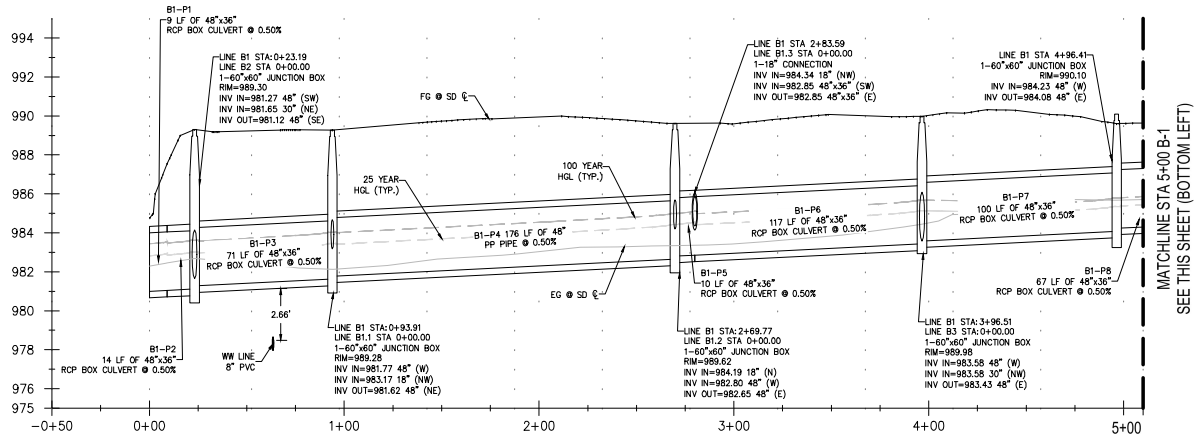
STATE OF TEXAS · MICHAEL J SHANGREAUX · 134844 · LICENSED PROFESSIONAL ENGINEER · 1/15/2025

LISD EARLY CHILDHOOD CENTER

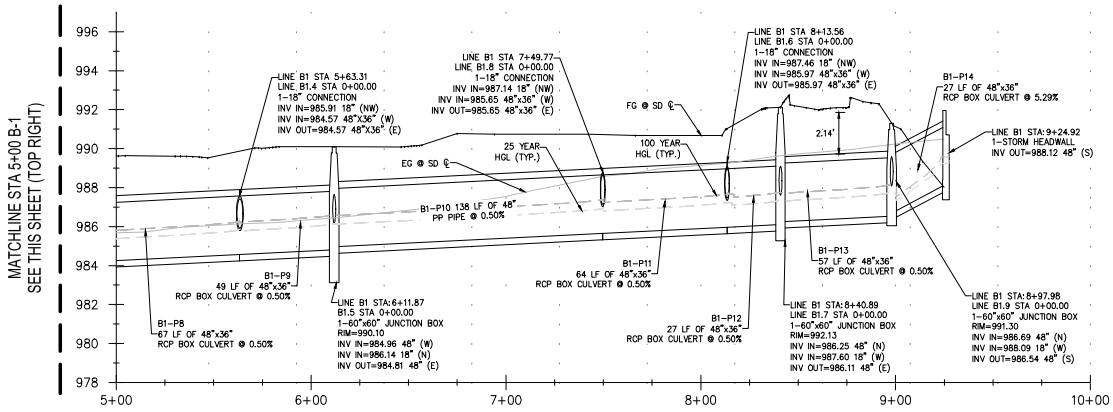
STORM PROFILE - LINES A3.3 TO 3.7

SHEET NO. 36 OF 61 SHEETS

FILE NO. ECLC-STORM
PROJECT NO. 100090499



STORM DRAIN – LINE B1 PROFILE



STORM DRAIN – LINE B1 PROFILE

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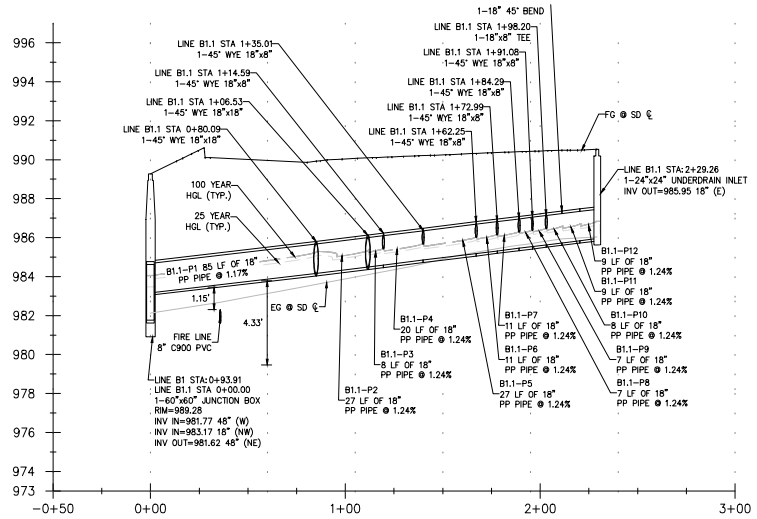
STATE OF TEXAS
MICHAEL J BRANGREAUX
103644
LICENSED PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER

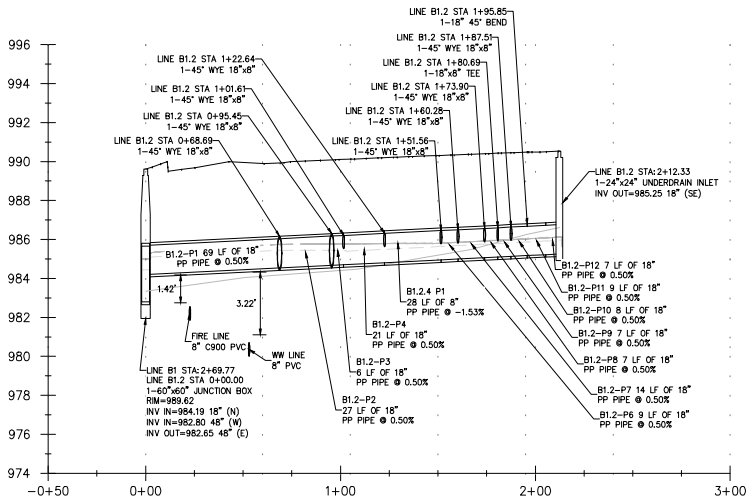
STORM PROFILE - LINE B1

SHEET NO. 37
OF 61 SHEETS

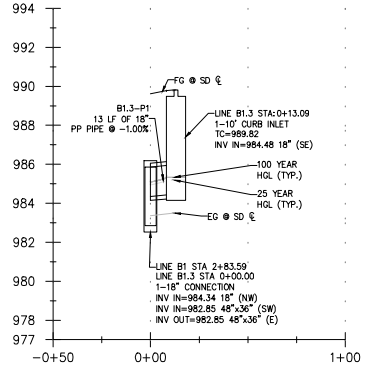
FILE NO. ECLC-STORM
PROJECT NO. 100090499



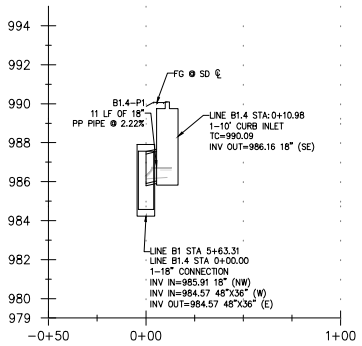
STORM DRAIN – LINE B1.1 PROFILE



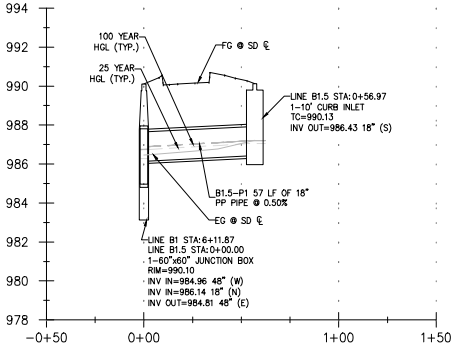
STORM DRAIN – LINE B1.2 PROFILE



STORM DRAIN – LINE B1.3 PROFILE



STORM DRAIN – LINE B1.4 PROFILE



STORM DRAIN – LINE B1.5 PROFILE

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STATE OF TEXAS
MICHAEL J BRANDREAUX
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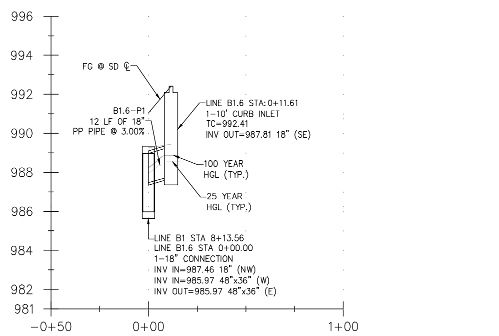
LICENSED PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER

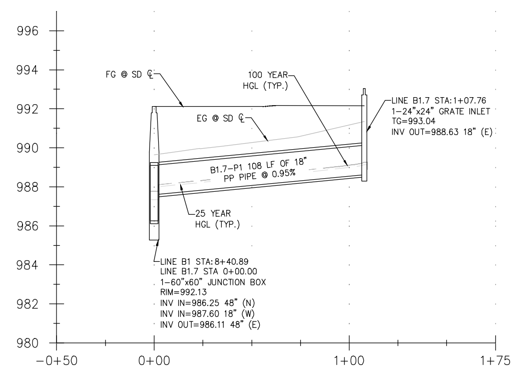
STORM PROFILE - LINES B1.1 TO B1.5

SHEET NO. 38
OF 61 SHEETS

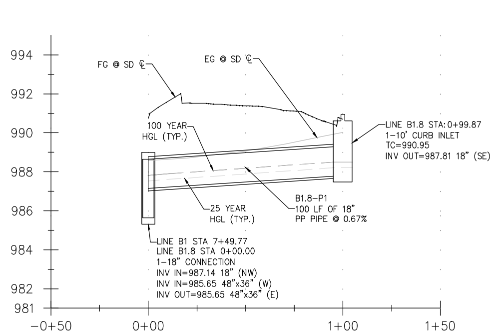
FILE NO. ECLC-STORM
PROJECT NO. 100090499


FG @ SD ℄
B1.6–P1
12 LF OF 18"
PP PIPE @ 3.00%
LINE B1.6 STA:0+11.61
1–10' CURB INLET
TC=992.41
INV OUT=987.81 18" (SE)
100 YEAR
HGL (TYP.)
25 YEAR
HGL (TYP.)
LINE B1 STA 8+13.56
LINE B1.6 STA 0+00.00
1–18" CONNECTION
INV IN=987.46 18" (NW)
INV IN=985.97 48"x36" (W)
INV OUT=985.97 48"x36" (E)
996
994
992
990
988
986
984
982
981
–0+50
0+00
1+00

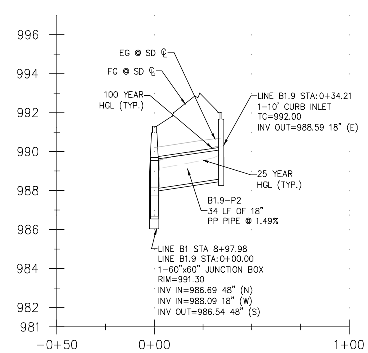
STORM DRAIN – LINE B1.6 PROFILE


FG @ SD ℄
100 YEAR
HGL (TYP.)
EG @ SD ℄
LINE B1.7 STA:1+07.76
1–24"x24" GRATE INLET
TG=993.04
INV OUT=988.63 18" (E)
B1.7–P1 108 LF OF 18"
PP PIPE @ 0.95%
25 YEAR
HGL (TYP.)
LINE B1 STA:8+40.89
LINE B1.7 STA 0+00.00
1–60"x60" JUNCTION BOX
RIM=992.13
INV IN=986.25 48" (N)
INV IN=987.60 18" (W)
INV OUT=986.11 48" (E)
996
994
992
990
988
986
984
982
980
–0+50
0+00
1+00
1+75

STORM DRAIN – LINE B1.7 PROFILE


FG @ SD ℄
EG @ SD ℄
100 YEAR
HGL (TYP.)
LINE B1.8 STA:0+99.87
1–10' CURB INLET
TC=990.95
INV OUT=987.81 18" (SE)
25 YEAR
HGL (TYP.)
B1.8–P1
100 LF OF 18"
PP PIPE @ 0.67%
LINE B1 STA 7+49.77
LINE B1.8 STA 0+00.00
1–18" CONNECTION
INV IN=987.14 18" (NW)
INV IN=985.65 48"x36" (W)
INV OUT=985.65 48"x36" (E)
994
992
990
988
986
984
982
981
–0+50
0+00
1+00
1+50

STORM DRAIN – LINE B1.8 PROFILE


EG @ SD ℄
FG @ SD ℄
100 YEAR
HGL (TYP.)
LINE B1.9 STA:0+34.21
1–10' CURB INLET
TC=992.00
INV OUT=988.59 18" (E)
25 YEAR
HGL (TYP.)
B1.9–P2
34 LF OF 18"
PP PIPE @ 1.49%
LINE B1 STA 8+97.98
LINE B1.9 STA:0+00.00
1–60"x60" JUNCTION BOX
RIM=991.30
INV IN=986.69 48" (N)
INV IN=988.09 18" (W)
INV OUT=986.54 48" (S)
996
994
992
990
988
986
984
982
981
–0+50
0+00
1+00

STORM DRAIN – LINE B1.9 PROFILE

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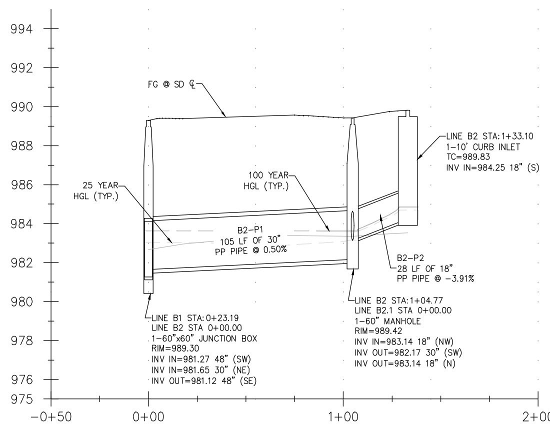
1/15/2025

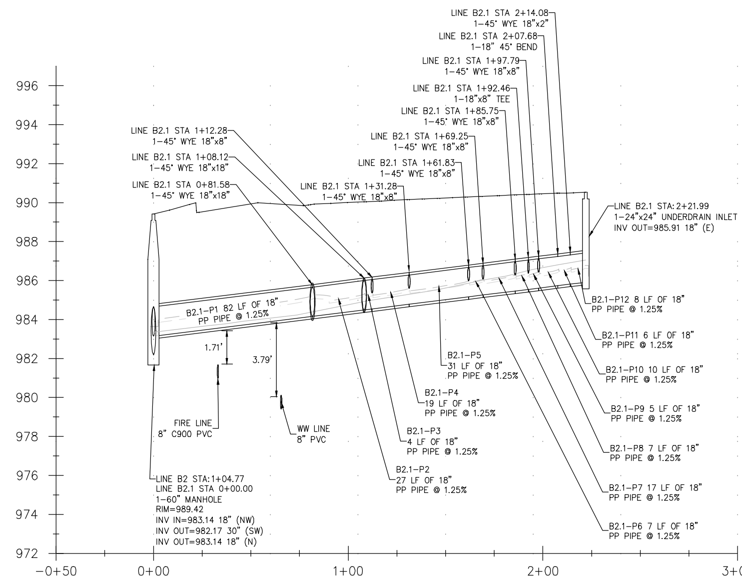
LISD EARLY CHILDHOOD CENTER
STORM PROFILE - LINES B1.6 TO B1.9

SHEET NO. 39 OF 61 SHEETS

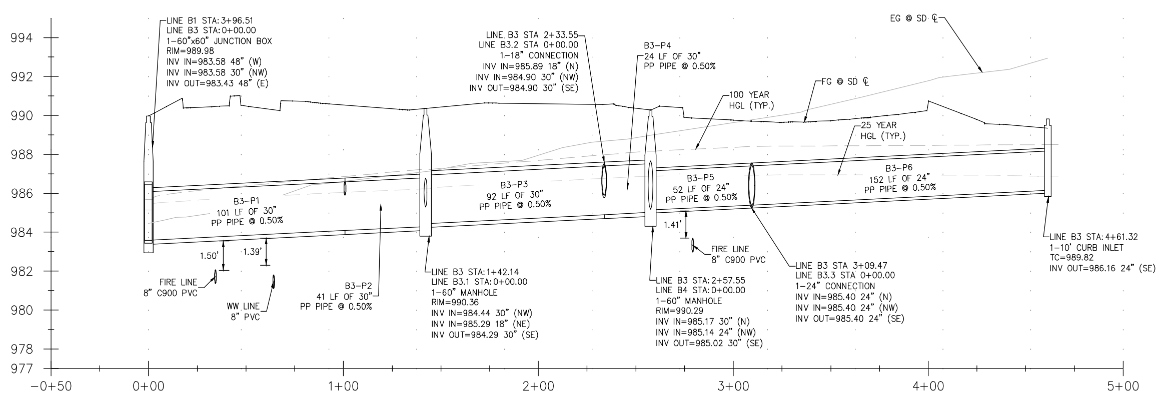
FILE NO. ECLC-STORM
PROJECT NO. 100090499


FG @ SD ℄
25 YEAR HGL (TYP.)
100 YEAR HGL (TYP.)
B2-P1
105 LF OF 30"
PP PIPE @ 0.50%
B2-P2
28 LF OF 18"
PP PIPE @ -3.91%
LINE B2 STA:1+33.10
1-10' CURB INLET
TC=989.83
INV IN=984.25 18" (S)
LINE B1 STA:0+23.19
LINE B2 STA 0+00.00
1-60"x60" JUNCTION BOX
RIM=989.30
INV IN=981.27 48" (SW)
INV IN=981.65 30" (NE)
INV OUT=981.12 48" (SE)
LINE B2 STA:1+04.77
LINE B2.1 STA 0+00.00
1-60" MANHOLE
RIM=989.42
INV IN=983.14 18" (NW)
INV OUT=982.17 30" (SW)
INV OUT=983.14 18" (N)
994
992
990
988
986
984
982
980
978
976
975
-0+50
0+00
1+00
2+00

STORM DRAIN – LINE B2 PROFILE


LINE B2.1 STA 2+14.08
1-45° WYE 18"x2"
LINE B2.1 STA 2+07.68
1-18" 45° BEND
LINE B2.1 STA 1+97.79
1-45° WYE 18"x8"
LINE B2.1 STA 1+92.46
1-18"x8" TEE
LINE B2.1 STA 1+85.75
1-45° WYE 18"x8"
LINE B2.1 STA 1+69.25
1-45° WYE 18"x8"
LINE B2.1 STA 1+61.83
1-45° WYE 18"x8"
LINE B2.1 STA 1+31.28
1-45° WYE 18"x8"
LINE B2.1 STA 1+12.28
1-45° WYE 18"x8"
LINE B2.1 STA 1+08.12
1-45° WYE 18"x18"
LINE B2.1 STA 0+81.58
1-45° WYE 18"x18"
LINE B2.1 STA:2+21.99
1-24"x24" UNDERDRAIN INLET
INV OUT=985.91 18" (E)
B2.1-P1 82 LF OF 18"
PP PIPE @ 1.25%
1.71'
3.79'
FIRE LINE
8" C900 PVC
WW LINE
8" PVC
B2.1-P5
31 LF OF 18"
PP PIPE @ 1.25%
B2.1-P4
19 LF OF 18"
PP PIPE @ 1.25%
B2.1-P3
4 LF OF 18"
PP PIPE @ 1.25%
B2.1-P2
27 LF OF 18"
PP PIPE @ 1.25%
B2.1-P12 8 LF OF 18"
PP PIPE @ 1.25%
B2.1-P11 6 LF OF 18"
PP PIPE @ 1.25%
B2.1-P10 10 LF OF 18"
PP PIPE @ 1.25%
B2.1-P9 5 LF OF 18"
PP PIPE @ 1.25%
B2.1-P8 7 LF OF 18"
PP PIPE @ 1.25%
B2.1-P7 17 LF OF 18"
PP PIPE @ 1.25%
B2.1-P6 7 LF OF 18"
PP PIPE @ 1.25%
LINE B2 STA:1+04.77
LINE B2.1 STA 0+00.00
1-60" MANHOLE
RIM=989.42
INV IN=983.14 18" (NW)
INV OUT=982.17 30" (SW)
INV OUT=983.14 18" (N)
996
994
992
990
988
986
984
982
980
978
976
974
972
-0+50
0+00
1+00
2+00
3+00

STORM DRAIN – LINE B2.1 PROFILE


LINE B1 STA:3+96.51
LINE B3 STA:0+00.00
1-60"x60" JUNCTION BOX
RIM=989.98
INV IN=983.58 48" (W)
INV IN=983.58 30" (NW)
INV OUT=983.43 48" (E)
LINE B3 STA 2+33.55
LINE B3.2 STA 0+00.00
1-18" CONNECTION
INV IN=985.89 18" (N)
INV IN=984.90 30" (NW)
INV OUT=984.90 30" (SE)
B3-P4
24 LF OF 30"
PP PIPE @ 0.50%
100 YEAR HGL (TYP.)
FG @ SD ℄
EG @ SD ℄
25 YEAR HGL (TYP.)
B3-P1
101 LF OF 30"
PP PIPE @ 0.50%
B3-P3
92 LF OF 30"
PP PIPE @ 0.50%
B3-P5
52 LF OF 24"
PP PIPE @ 0.50%
B3-P6
152 LF OF 24"
PP PIPE @ 0.50%
1.50'
1.39'
1.41'
FIRE LINE
8" C900 PVC
WW LINE
8" PVC
B3-P2
41 LF OF 30"
PP PIPE @ 0.50%
LINE B3 STA:1+42.14
LINE B3.1 STA:0+00.00
1-60" MANHOLE
RIM=990.36
INV IN=984.44 30" (NW)
INV IN=985.29 18" (NE)
INV OUT=984.29 30" (SE)
FIRE LINE
8" C900 PVC
LINE B3 STA:2+57.55
LINE B4 STA:0+00.00
1-60" MANHOLE
RIM=990.29
INV IN=985.17 30" (N)
INV IN=985.14 24" (NW)
INV OUT=985.02 30" (SE)
LINE B3 STA 3+09.47
LINE B3.3 STA 0+00.00
1-24" CONNECTION
INV IN=985.40 24" (N)
INV IN=985.40 24" (NW)
INV OUT=985.40 24" (SE)
LINE B3 STA:4+61.32
1-10' CURB INLET
TC=989.82
INV OUT=986.16 24" (SE)
994
992
990
988
986
984
982
980
978
977
-0+50
0+00
1+00
2+00
3+00
4+00
5+00

STORM DRAIN – LINE B3 PROFILE

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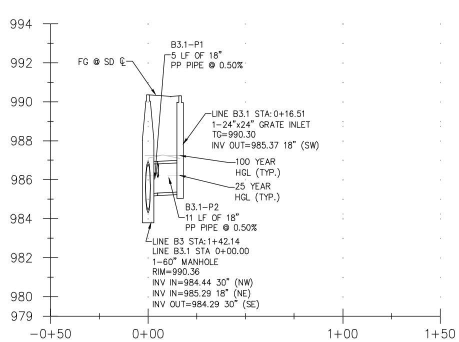
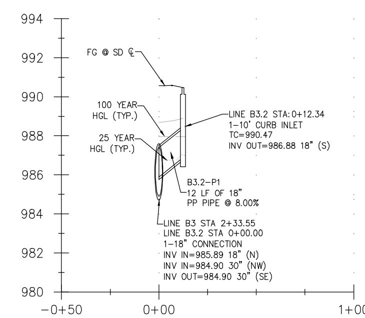
STORM PROFILE - LINES B2 TO B3

SHEET NO. 40
OF 61 SHEETS

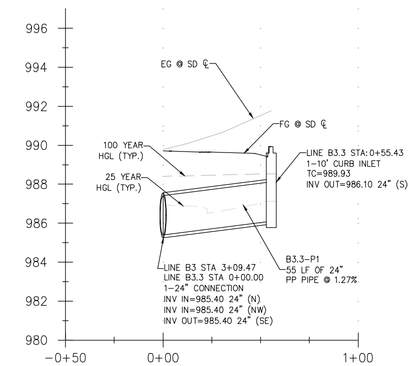
FILE NO. ECLC-STORM
PROJECT NO. 100090499


B3.1-P1
5 LF OF 18"
PP PIPE @ 0.50%
FG @ SD ℄
LINE B3.1 STA:0+16.51
1-24"x24" GRATE INLET
TG=990.30
INV OUT=985.37 18" (SW)
100 YEAR
HGL (TYP.)
25 YEAR
HGL (TYP.)
B3.1-P2
11 LF OF 18"
PP PIPE @ 0.50%
LINE B3 STA:1+42.14
LINE B3.1 STA 0+00.00
1-60" MANHOLE
RIM=990.36
INV IN=984.44 30" (NW)
INV IN=985.29 18" (NE)
INV OUT=984.29 30" (SE)
994
992
990
988
986
984
982
980
979
-0+50
0+00
1+00
1+50

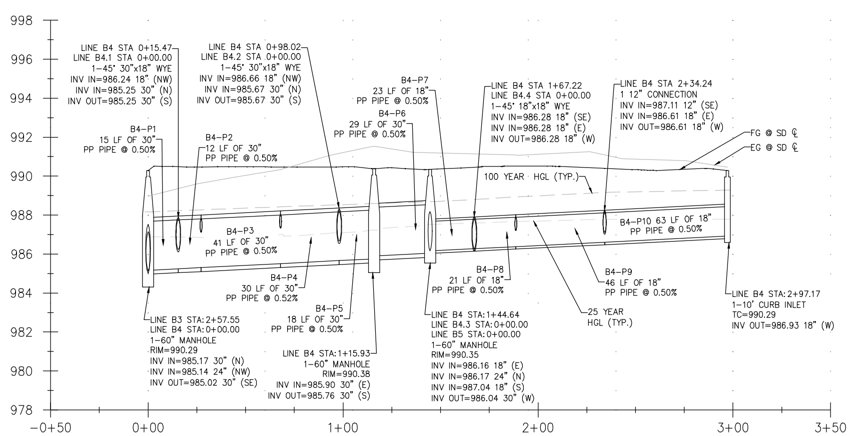
STORM DRAIN – LINE B3.1 PROFILE


FG @ SD ℄
100 YEAR
HGL (TYP.)
25 YEAR
HGL (TYP.)
LINE B3.2 STA:0+12.34
1-10' CURB INLET
TC=990.47
INV OUT=986.88 18" (S)
B3.2-P1
12 LF OF 18"
PP PIPE @ 8.00%
LINE B3 STA 2+33.55
LINE B3.2 STA 0+00.00
1-18" CONNECTION
INV IN=985.89 18" (N)
INV IN=984.90 30" (NW)
INV OUT=984.90 30" (SE)
994
992
990
988
986
984
982
980
-0+50
0+00
1+00

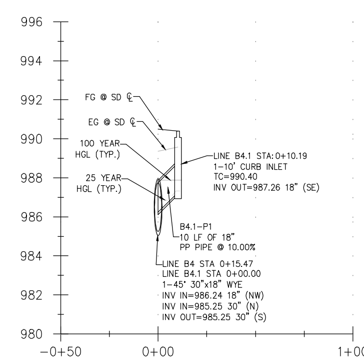
STORM DRAIN – LINE B3.2 PROFILE


EG @ SD ℄
FG @ SD ℄
100 YEAR
HGL (TYP.)
25 YEAR
HGL (TYP.)
LINE B3.3 STA:0+55.43
1-10' CURB INLET
TC=989.93
INV OUT=986.10 24" (S)
B3.3-P1
55 LF OF 24"
PP PIPE @ 1.27%
LINE B3 STA 3+09.47
LINE B3.3 STA 0+00.00
1-24" CONNECTION
INV IN=985.40 24" (N)
INV IN=985.40 24" (NW)
INV OUT=985.40 24" (SE)
996
994
992
990
988
986
984
982
980
-0+50
0+00
1+00

STORM DRAIN – LINE B3.3 PROFILE


LINE B4 STA 0+15.47
LINE B4.1 STA 0+00.00
1-45° 30"x18" WYE
INV IN=986.24 18" (NW)
INV IN=985.25 30" (N)
INV OUT=985.25 30" (S)
LINE B4 STA 0+98.02
LINE B4.2 STA 0+00.00
1-45° 30"x18" WYE
INV IN=986.66 18" (NW)
INV IN=985.67 30" (N)
INV OUT=985.67 30" (S)
B4-P7
23 LF OF 18"
PP PIPE @ 0.50%
B4-P6
29 LF OF 30"
PP PIPE @ 0.50%
LINE B4 STA 1+67.22
LINE B4.4 STA 0+00.00
1-45° 18"x18" WYE
INV IN=986.28 18" (SE)
INV IN=986.28 18" (E)
INV OUT=986.28 18" (W)
LINE B4 STA 2+34.24
1 12" CONNECTION
INV IN=987.11 12" (SE)
INV IN=986.61 18" (E)
INV OUT=986.61 18" (W)
FG @ SD ℄
EG @ SD ℄
B4-P1
15 LF OF 30"
PP PIPE @ 0.50%
B4-P2
12 LF OF 30"
PP PIPE @ 0.50%
100 YEAR HGL (TYP.)
B4-P10 63 LF OF 18"
PP PIPE @ 0.50%
B4-P3
41 LF OF 30"
PP PIPE @ 0.50%
B4-P4
30 LF OF 30"
PP PIPE @ 0.52%
B4-P5
18 LF OF 30"
PP PIPE @ 0.50%
B4-P8
21 LF OF 18"
PP PIPE @ 0.50%
B4-P9
46 LF OF 18"
PP PIPE @ 0.50%
25 YEAR
HGL (TYP.)
LINE B4 STA:2+97.17
1-10' CURB INLET
TC=990.29
INV OUT=986.93 18" (W)
LINE B3 STA:2+57.55
LINE B4 STA:0+00.00
1-60" MANHOLE
RIM=990.29
INV IN=985.17 30" (N)
INV IN=985.14 24" (NW)
INV OUT=985.02 30" (SE)
LINE B4 STA:1+15.93
1-60" MANHOLE
RIM=990.38
INV IN=985.90 30" (E)
INV OUT=985.76 30" (S)
LINE B4 STA:1+44.64
LINE B4.3 STA:0+00.00
LINE B5 STA:0+00.00
1-60" MANHOLE
RIM=990.35
INV IN=986.16 18" (E)
INV IN=986.17 24" (N)
INV IN=987.04 18" (S)
INV OUT=986.04 30" (W)
998
996
994
992
990
988
986
984
982
980
978
-0+50
0+00
1+00
2+00
3+00
3+50

STORM DRAIN – LINE B4 PROFILE


FG @ SD ℄
EG @ SD ℄
100 YEAR
HGL (TYP.)
25 YEAR
HGL (TYP.)
LINE B4.1 STA:0+10.19
1-10' CURB INLET
TC=990.40
INV OUT=987.26 18" (SE)
B4.1-P1
10 LF OF 18"
PP PIPE @ 10.00%
LINE B4 STA 0+15.47
LINE B4.1 STA 0+00.00
1-45° 30"x18" WYE
INV IN=986.24 18" (NW)
INV IN=985.25 30" (N)
INV OUT=985.25 30" (S)
996
994
992
990
988
986
984
982
980
-0+50
0+00
1+00

STORM DRAIN – LINE B4.1 PROFILE

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NO.	REVISION	BY	DATE

DESIGNED BY: KM
DRAWN BY: CS/MR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

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TBPE REG. NO. F-474

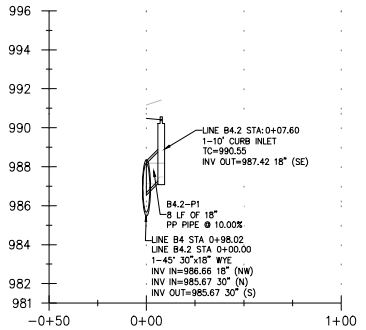
STATE OF TEXAS
MICHAEL J SHANGREAUX
134844
LICENSED
PROFESSIONAL ENGINEER
1/15/2025

LISD EARLY CHILDHOOD CENTER

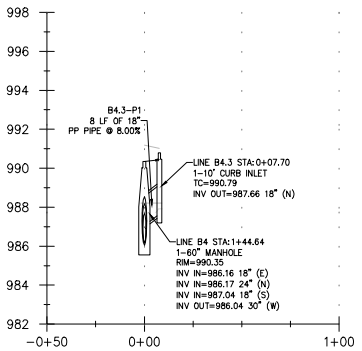
STORM PROFILE - LINES B3.1 TO B4.1

SHEET NO. 41
OF 61 SHEETS

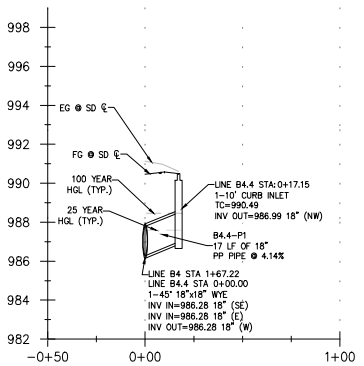
FILE NO. ECLC-STORM
PROJECT NO. 100090499



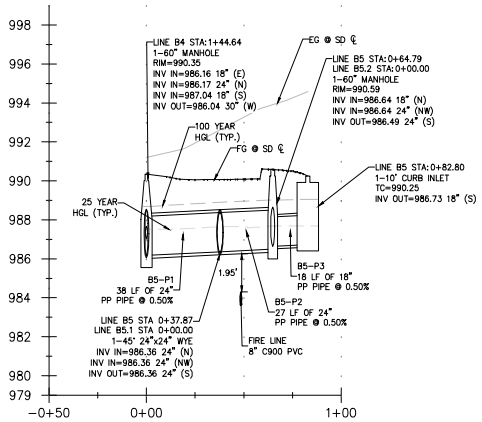
STORM DRAIN – LINE B4.2 PROFILE



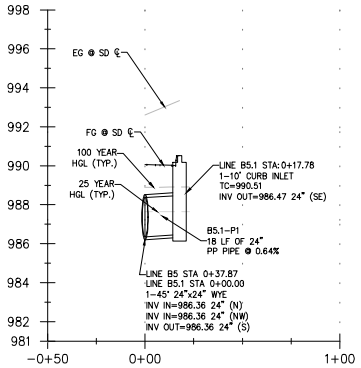
STORM DRAIN – LINE B4.3 PROFILE



STORM DRAIN – LINE B4.4 PROFILE



STORM DRAIN – LINE B5 PROFILE



STORM DRAIN – LINE B5.1 PROFILE

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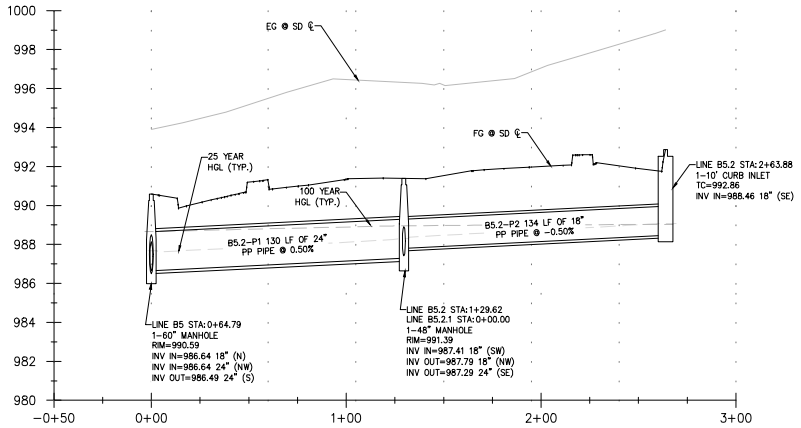
01/15/2025

LISD EARLY CHILDHOOD CENTER

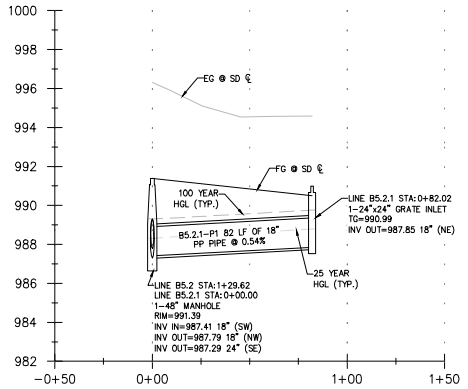
STORM PROFILE - LINES B4.2 TO B5.1

SHEET NO. 42
OF 61 SHEETS

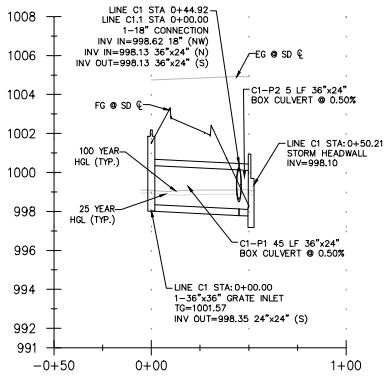
FILE NO. ECLC-STORM
PROJECT NO. 100090499



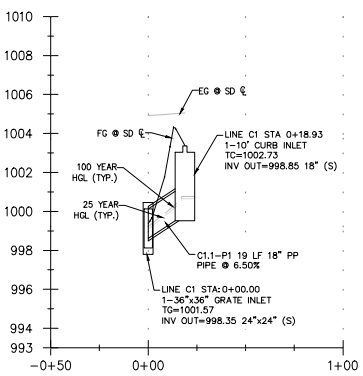
STORM DRAIN – LINE B5.2 PROFILE



STORM DRAIN – LINE B5.2.1 PROFILE



STORM DRAIN – LINE C1 PROFILE



STORM DRAIN – LINE C1.1 PROFILE

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LICENSED PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER

STORM PROFILE - LINES B5.2 TO C1.1

SHEET NO. 43
OF 61 SHEETS

FILE NO. ECLC-STORM
PROJECT NO. 100090499

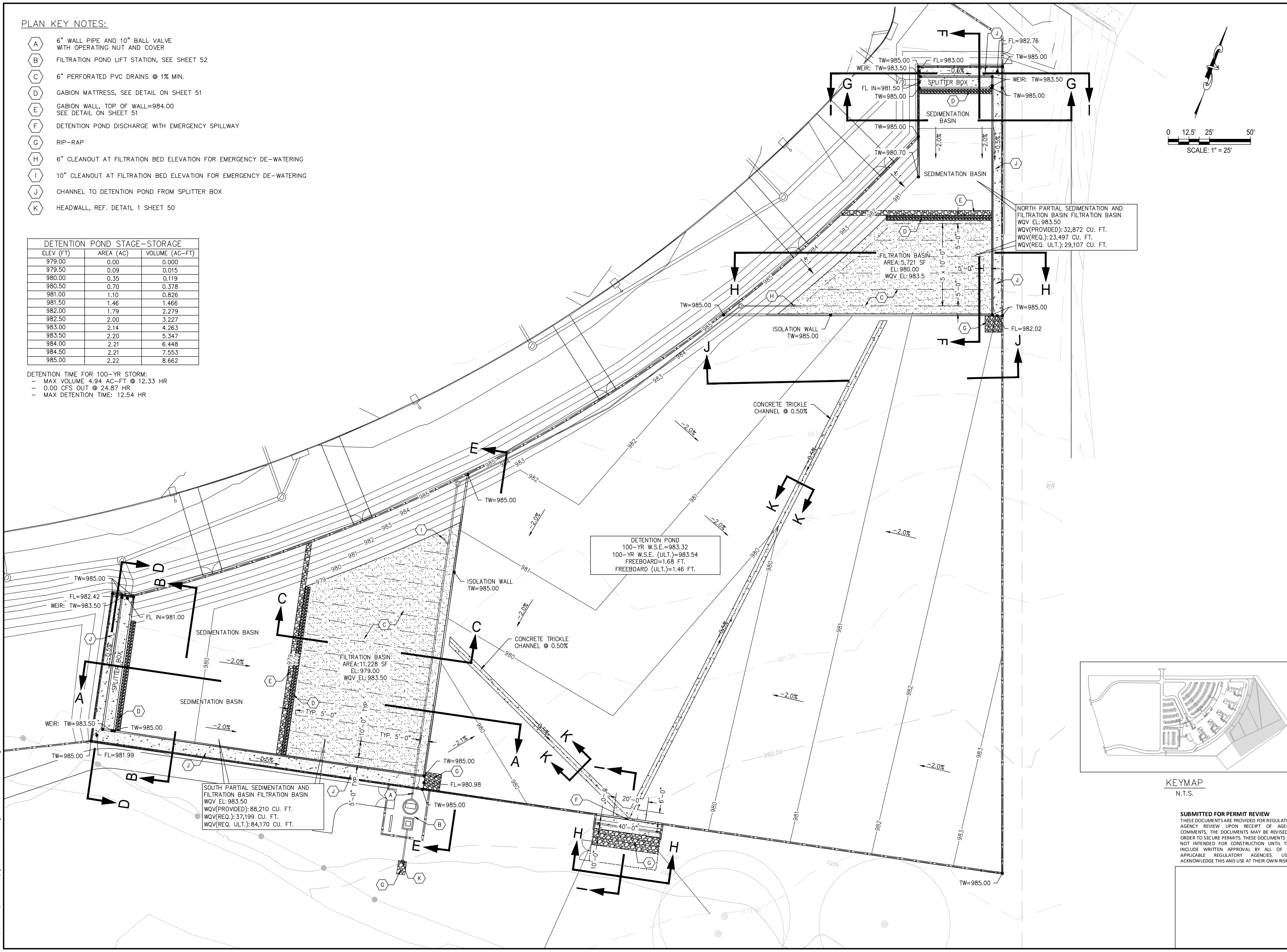
PLAN KEY NOTES:

- (A) 6" WALL PIPE AND 10" BALL VALVE WITH OPERATING NUT AND COVER
- (B) FILTRATION POND LIFT STATION, SEE SHEET 52
- (C) 6" PERFORATED PVC DRAINS @ 1% MIN.
- (D) GABION MATTRESS, SEE DETAIL ON SHEET 51
- (E) GABION WALL, TOP OF WALL=984.00 SEE DETAIL ON SHEET 51
- (F) DETENTION POND DISCHARGE WITH EMERGENCY SPILLWAY
- (G) RIP-RAP
- (H) 6" CLEANOUT AT FILTRATION BED ELEVATION FOR EMERGENCY DE-WATERING
- (I) 10" CLEANOUT AT FILTRATION BED ELEVATION FOR EMERGENCY DE-WATERING
- (J) CHANNEL TO DETENTION POND FROM SPLITTER BOX
- (K) HEADWALL, REF. DETAIL 1 SHEET 50

DETENTION POND STAGE-STORAGE

ELEV (FT)	AREA (AC)	VOLUME (AC-FT)
979.00	0.00	0.000
979.50	0.09	0.015
980.00	0.35	0.119
980.50	0.70	0.378
981.00	1.10	0.826
981.50	1.46	1.466
982.00	1.79	2.279
982.50	2.00	3.227
983.00	2.14	4.263
983.50	2.20	5.347
984.00	2.21	6.448
984.50	2.21	7.553
985.00	2.22	8.662

DETENTION TIME FOR 100-YR STORM:
- MAX VOLUME 4.94 AC-FT @ 12.33 HR
- 0.00 CFS OUT @ 24.87 HR
- MAX DETENTION TIME: 12.54 HR



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TBPE REG. NO. F-474

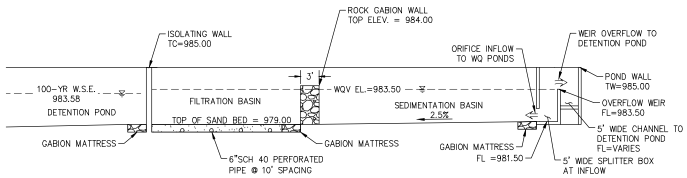
STATE OF TEXAS — MICHAEL J. SHANGREAUX — 134844 — LICENSED PROFESSIONAL ENGINEER — 1/15/2025

LISD EARLY CHILDHOOD CENTER
STORM WATER MANAGEMENT FACILITIES

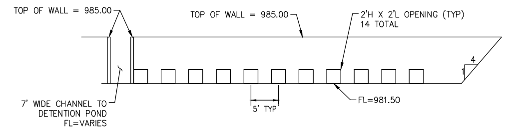
SHEET NO. 44 OF 61 SHEETS

FILE NO. ECLC-PONDS
PROJECT NO. 100090499

Jan 22, 2025 - 9:34am MELL7432 C:\pw_work\stormwater\ECLC-PONDS.dwg

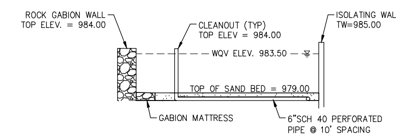

ROCK GABION WALL
TOP ELEV. = 984.00
ISOLATING WALL
TC=985.00
ORIFICE INFLOW
TO WQ PONDS
WEIR OVERFLOW TO
DETENTION POND
100-YR W.S.E.
983.58
DETENTION POND
FILTRATION BASIN
3'
WQV EL.=983.50
SEDIMENTATION BASIN
2.5%
POND WALL
TW=985.00
OVERFLOW WEIR
FL=983.50
TOP OF SAND BED = 979.00
GABION MATTRESS
GABION MATTRESS
GABION MATTRESS
FL =981.50
5' WIDE CHANNEL TO
DETENTION POND
FL=VARIES
6"SCH 40 PERFORATED
PIPE @ 10' SPACING
5' WIDE SPLITTER BOX
AT INFLOW

WATER QUALITY PONDS: SECTION A-A
N.T.S.

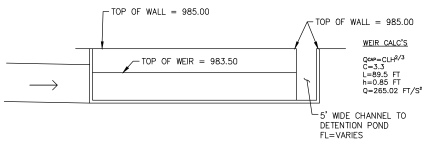


ORIFICE CALC'S
Q = CA√2gh
C=0.6
A=4.0 FT²
g=32.2 FT/S²
h=1.0 FT
Q=19.26 cfs each
269.64 cfs total

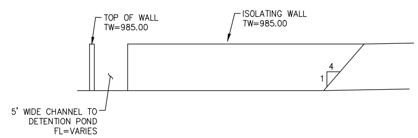
WATER QUALITY PONDS INFLOW: SECTION B-B
N.T.S.



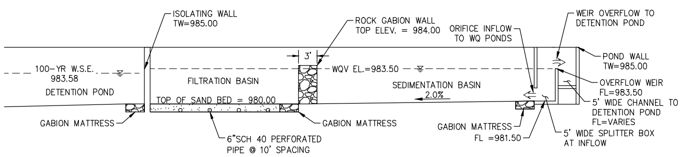
FILTRATION POND: SECTION C-C
N.T.S.



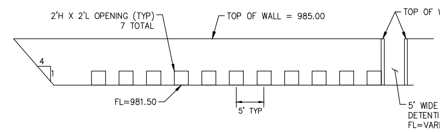
SPLITTER BOX WEIR: SECTION D-D
N.T.S.



DETENTION POND INFLOW: SECTION E-E
N.T.S.

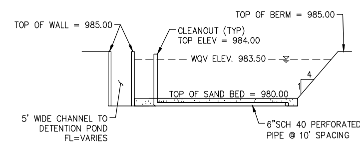

ISOLATING WALL
TW=985.00
ROCK GABION WALL
TOP ELEV. = 984.00
ORIFICE INFLOW
TO WQ PONDS
WEIR OVERFLOW TO
DETENTION POND
100-YR W.S.E.
983.58
DETENTION POND
FILTRATION BASIN
3'
WQV EL.=983.50
SEDIMENTATION BASIN
2.0%
POND WALL
TW=985.00
OVERFLOW WEIR
FL=983.50
5' WIDE CHANNEL TO
DETENTION POND
FL=VARIES
TOP OF SAND BED = 980.00
GABION MATTRESS
GABION MATTRESS
GABION MATTRESS
FL =981.50
6"SCH 40 PERFORATED
PIPE @ 10' SPACING
5' WIDE SPLITTER BOX
AT INFLOW

WATER QUALITY PONDS: SECTION F-F
N.T.S.

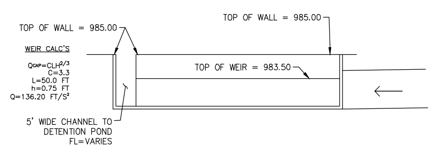


ORIFICE CALC'S
Q=CA 2gh
C=0.6
A=4.0 FT²
g=32.2 FT/S²
h=1.0 FT
Q=19.26 cfs each
134.82 cfs total

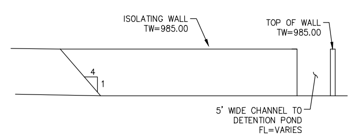
WATER QUALITY PONDS INFLOW: SECTION G-G
N.T.S.



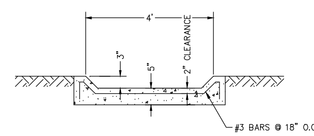
FILTRATION POND: SECTION H-H
N.T.S.



SPLITTER BOX WEIR: SECTION I-I
N.T.S.



DETENTION POND INFLOW: SECTION J-J
N.T.S.



CONCRETE TRICKLE CHANNEL: SECTION K-K
N.T.S.

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STATE OF TEXAS — MICHAEL J SHANGREAUX — 134844 — LICENSED PROFESSIONAL ENGINEER — 1/15/2025

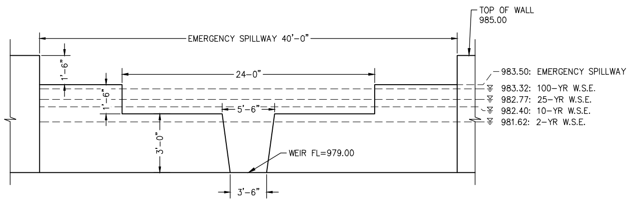
LISD EARLY CHILDHOOD CENTER

POND DETAILS

SHEET NO. 45
OF 61 SHEETS

FILE NO. ECLC-PONDS
PROJECT NO. 100090499

Jan 22, 2025 - 9:34am MELL7452 C:\pw_work\atkins\mell7452\d0560625\ ECLC-PONDS.dwg



DETENTION POND FLOW CONTROL: SECTION L-L
N.T.S.

NOTE:
1. ROCK RIPRAP SHALL BE SOUND MATERIAL AND GRADED PER REQUIREMENTS SPECIFIED IN STANDARD SPECIFICATION ITEM NO. 591S.
2. ROCK SIZE (D) FOR THE DESIGN HYDRAULIC CONDITIONS AND IN ACCORDANCE WITH THE ECM 1.4.6.D PERMANENT STRUCTURAL PRACTICES, STONE RIPRAP OR OTHER ENGINEERING STANDARD OF PRACTICE FOR SIZING ROCK RIPRAP. ROCK RIPRAP D SHALL BE NOTED ON PLANS.
3. GEOTEXTILE FILTER FABRIC SHALL MEET THE REQUIREMENTS SPECIFIED IN STANDARD SPECIFICATION ITEM NO. 620S.
4. AGGREGATE FOR GRANULAR FILTER SHALL MEET THE REQUIREMENTS SPECIFIED IN STANDARD SPECIFICATION ITEM NO. 403, AGGREGATE SIZE CLASSIFICATION/GRADE, NUMBER OF LAYERS AND LAYER THICKNESS SHOULD BE NOTED ON THE PLANS.

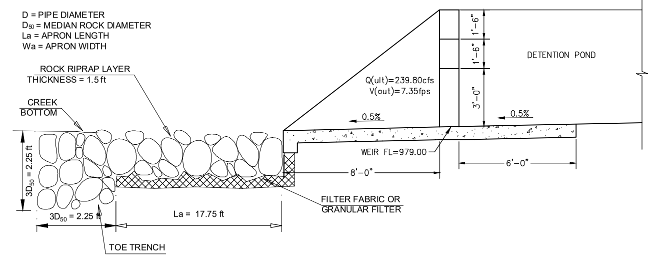
RIP-RAP SIZE AND GRADATION:

D_{50}=0.0105$V^{2.06}$=7.7in -> use 9"

Rock Riprap Class II shall be used.

Minimum recommended stone specific gravity: 2.4.

D = PIPE DIAMETER
D_{50} = MEDIAN ROCK DIAMETER
La = APRON LENGTH
Wa = APRON WIDTH



DETENTION POND FLOW CONTROL: SECTION I-I
N.T.S.

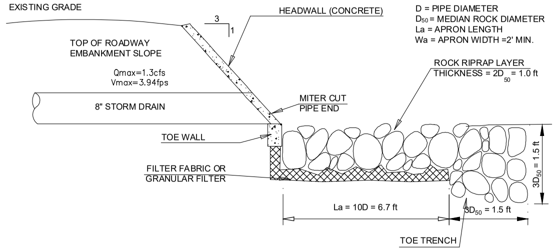
RIP-RAP SIZE AND GRADATION:

D_{50}=0.0105$V^{2.06}$=2.1in -> use 6"

Rock Riprap Class I shall be used.

Minimum recommended stone specific gravity: 2.4.

D = PIPE DIAMETER
D_{50} = MEDIAN ROCK DIAMETER
La = APRON LENGTH
Wa = APRON WIDTH =2' MIN.



D1 - HEADWALL DETAIL
N.T.S.

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STATE OF TEXAS — MICHAEL J. SHANGREAUX — 134844 — LICENSED PROFESSIONAL ENGINEER — 1/15/2025

LISD EARLY CHILDHOOD CENTER
OUTFALL DETAILS

SHEET NO. 46 OF 61 SHEETS

FILE NO. ECLC-PONDS
PROJECT NO. 100090499

Jan 22, 2025 - 9:34am ECLC-PONDS.dwg

NORTH WATER QUALITY POND — TCEQ TSS CALCULATIONS

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: **ECC**
Date Prepared: **12/9/2024**

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 * =	**36.59**	acres
Predevelopment impervious area within the limits of the plan * =	**0.00**	acres
Total post-development impervious area within the limits of the plan* =	12.30	acres
Total post-development impervious cover fraction * =	0.34	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	**10706**	lbs.

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

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

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

Drainage Basin/Outfall Area No. = North WQP

Total drainage basin/outfall area =	**9.50**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**4.97**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.52**	
$L_{M\ THIS\ BASIN}$ =	**4326**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Sand Filter**
Removal efficiency = **89** 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 =	**9.50**	acres
A_I =	**4.97**	acres
A_P =	**4.53**	acres
L_R =	**4967**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = **4326** lbs.
F = **0.87**

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 =	**1.44**	inches
Post Development Runoff Coefficient =	**0.37**	
On-site Water Quality Volume =	**18403**	cubic feet

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

Off-site area draining to BMP =	**1.59**	acres
Off-site Impervious cover draining to BMP =	**0.19**	acres
Impervious fraction of off-site area =	**0.12**	
Off-site Runoff Coefficient =	**0.14**	
Off-site Water Quality Volume =	**1178**	cubic feet
Storage for Sediment =	**3916**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**23497**	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 = **NA** cubic feet

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

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = **23497** cubic feet
Minimum filter basin area = **1022** square feet
Maximum sedimentation basin area = **9201** square feet **For minimum water depth of 2 feet**
Minimum sedimentation basin area = **2300** square feet **For maximum water depth of 8 feet**

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = **23497** cubic feet
Minimum filter basin area = **1840** square feet
Maximum sedimentation basin area = **7361** square feet **For minimum water depth of 2 feet**
Minimum sedimentation basin area = **460** square feet **For maximum water depth of 8 feet**

NORTH WATER QUALITY POND
TCEQ TSS CALCULATIONS

SOUTH WATER QUALITY POND — TCEQ TSS CALCULATIONS

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

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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 * =	**36.59**	acres
Predevelopment impervious area within the limits of the plan * =	**0.00**	acres
Total post-development impervious area within the limits of the plan* =	12.30	acres
Total post-development impervious cover fraction * =	0.34	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	**10706**	lbs.

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

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

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

Drainage Basin/Outfall Area No. = South WQP

Total drainage basin/outfall area =	**22.27**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**7.33**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.33**	
$L_{M\ THIS\ BASIN}$ =	**6380**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Sand Filter**
Removal efficiency = **89** 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 =	**22.27**	acres
A_I =	**7.33**	acres
A_P =	**14.94**	acres
L_R =	**7453**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = **6380** lbs.
F = **0.86**

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

Rainfall Depth =	**1.38**	inches
Post Development Runoff Coefficient =	**0.27**	
On-site Water Quality Volume =	**30429**	cubic feet

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

Off-site area draining to BMP =	**1.25**	acres
Off-site Impervious cover draining to BMP =	**0.08**	acres
Impervious fraction of off-site area =	**0.06**	
Off-site Runoff Coefficient =	**0.09**	
Off-site Water Quality Volume =	**570**	cubic feet
Storage for Sediment =	**6200**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**37199**	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 = **NA** cubic feet

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

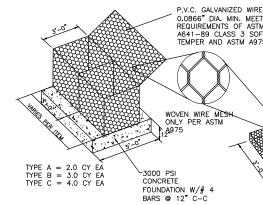
9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = **37199** cubic feet
Minimum filter basin area = **1690** square feet
Maximum sedimentation basin area = **15214** square feet **For minimum water depth of 2 feet**
Minimum sedimentation basin area = **3804** square feet **For maximum water depth of 8 feet**

9B. Partial Sedimentation and Filtration System

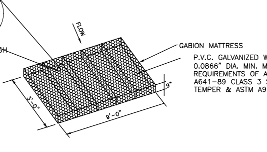
Water Quality Volume for combined basins = **37199** cubic feet
Minimum filter basin area = **3043** square feet
Maximum sedimentation basin area = **12171** square feet **For minimum water depth of 2 feet**
Minimum sedimentation basin area = **761** square feet **For maximum water depth of 8 feet**

SOUTH WATER QUALITY POND
TCEQ TSS CALCULATIONS



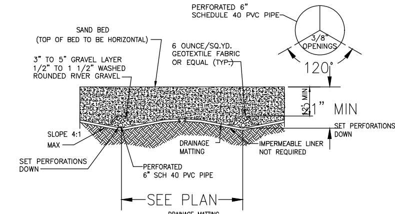
NOTE:
1. 5"-8" STANDARD ROCK SIZE PER C.O.A. STANDARD SPECIFICATION 594S.

GABION WALL DETAIL
N.T.S.



NOTE:
1. 3"-5" STANDARD ROCK SIZE PER C.O.A. STANDARD SPECIFICATION 594S.

GABION MATTRESS DETAIL
N.T.S.



DRAINAGE MATTING

PROPERTY	TEST METHOD	UNIT	SPECIFICATION
MATERIAL	NONWOVEN GEOTEXTILE FABRIC		
UNIT WEIGHT		Oz/Sq.Yd.	20 (min.)
FLOW RATE (FABRIC)		GPM/FT²	180 (min.)
PERMEABILITY	ASTM D-2434	Cm/Sec	12.4×10^{-2}
GRAB STRENGTH (FABRIC)	ASTM D-1682	Lb.	DRY Lg.90 DRY Wd:70; WET Lg.95 WET Wd:70
PUNCTURE STRENGTH (FABRIC)	COE CW-02215	Lb.	42 (MIN.)
MULLEN BURST STRENGTH	ASTM D-1117	Psi	140 (min.)
EQUIV. OPENING SIZE	US STANDARD SIEVE	No.	100 (70-120)
FLOW RATE (DRAINAGE CORE)	DREXEL UNIV. TEST METHOD	GPM/Ft.WIDTH	14

NOTE: DRAINAGE MATTING TO BE USED ONLY WITH SAND BED TRENCH DESIGN

FILTRATION BED SPECIFICATIONS

SAND – AT LEAST 12 TO 18 INCHES OF 0.02-0.04 INCH DIAMETER SAND WHICH CORRESPONDS TO ASTM C-33 CONCRETE SAND (SMALLER SIZE SAND IS NOT ACCEPTABLE)

GRAVEL – 0.5 INCH MIN. TO 1.5 INCH DIAMETER WASHED ROUNDED RIVER GRAVEL WITH A MIN. 3 INCH COVER OVER TOP OF UNDERDRAIN LATERAL PIPING

GEOTEXTILE FABRIC – SAND & GRAVEL TO BE SEPARATED BY A LAYER OF GEOTEXTILE FABRIC GEOTEXTILE FABRIC MEETING THE FOLLOWING SPECIFICATIONS:

GEOTEXTILE FABRIC SPECIFICATIONS

PROPERTY	TEST METHOD	UNIT	SPECIFICATION
MATERIAL	NONWOVEN GEOTEXTILE FABRIC		
UNIT WEIGHT		Oz/Sq.Yd.	8 (MIN.)
FILTRATION RATE		IN/SEC	0.08 (MIN.)
PUNCTURE STRENGTH	ASTM D-751 (MODIFIED)	LB.	125 (MIN.)
MULLEN BURST STRENGTH	ASTM D-751	PSI	400 (MIN.)
TENSILE STRENGTH	ASTM D-1682	LB.	200 (MIN.)
EQUIVALENT OPENING SIZE	US STANDARD SIEVE	NO.	80 (MIN)

TYPICAL FILTRATION SYSTEM DETAIL
N.T.S.

NO.	REVISION	BY	DATE

DESIGNED BY: KM
DRAWN BY: CS/MR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

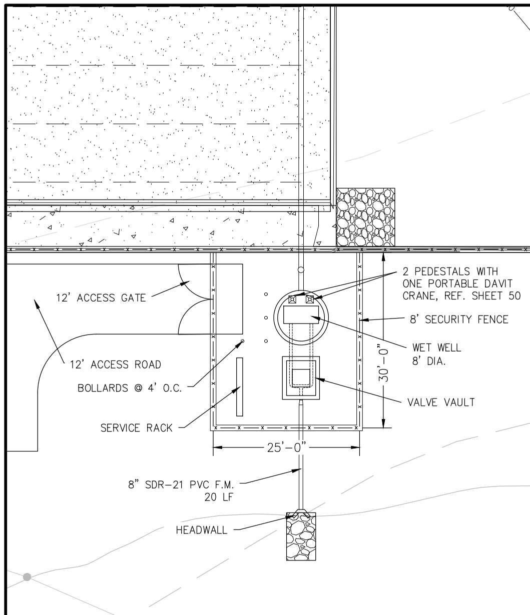
AtkinsRéalis
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-6840
TBPE REG. NO. F-474

STATE OF TEXAS — MICHAEL J SHANGREAUX — 134844 — LICENSED PROFESSIONAL ENGINEER — 1/15/2025

LISD EARLY CHILDHOOD CENTER
POND DETAILS WATER QUALITY

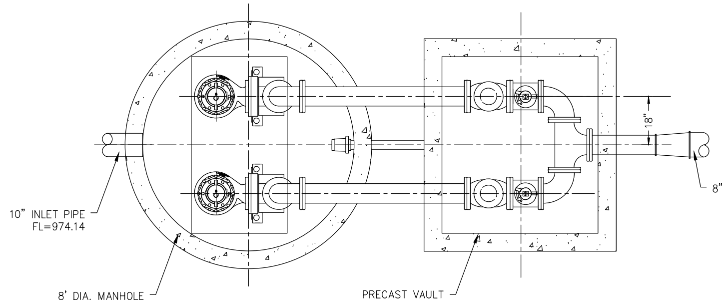
SHEET NO. 47 OF 61 SHEETS

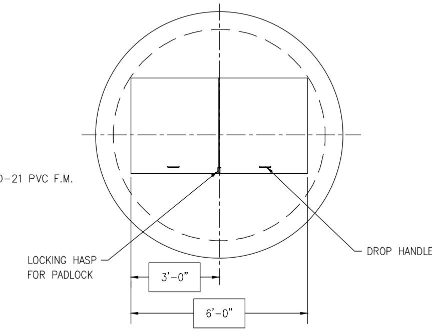
FILE NO. ECLC-PONDS
PROJECT NO. 100090499



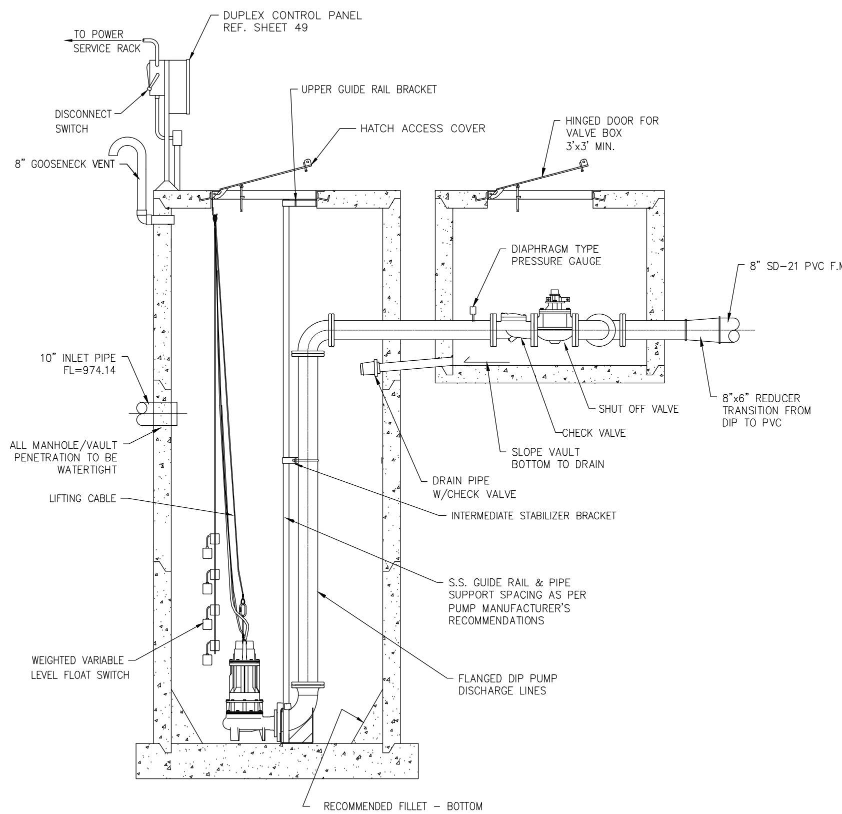
LIFT STATION SITE PLAN

SCALE 1:10

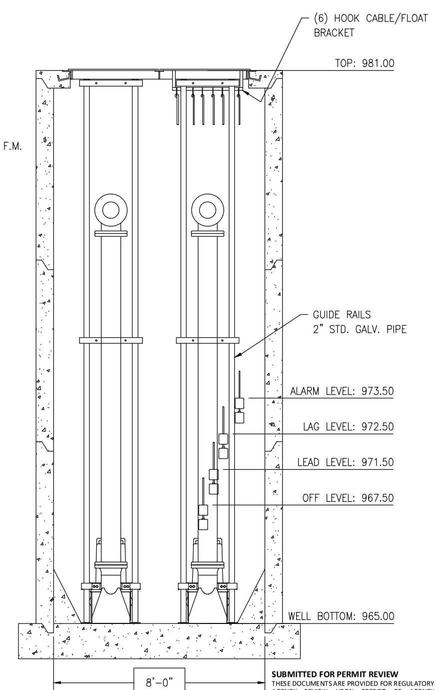




OPENING SIZE FOR
PRE-CAST SUMP COVER



TO POWER
SERVICE RACK
DUPLEX CONTROL PANEL
REF. SHEET 49
DISCONNECT
SWITCH
8" GOOSENECK VENT
UPPER GUIDE RAIL BRACKET
HATCH ACCESS COVER
HINGED DOOR FOR
VALVE BOX
3'x3' MIN.
DIAPHRAGM TYPE
PRESSURE GAUGE
8" SD-21 PVC F.M.
10" INLET PIPE
FL=974.14
SHUT OFF VALVE
8"x6" REDUCER
TRANSITION FROM
DIP TO PVC
CHECK VALVE
SLOPE VAULT
BOTTOM TO DRAIN
ALL MANHOLE/VAULT
PENETRATION TO BE
WATERTIGHT
DRAIN PIPE
W/CHECK VALVE
LIFTING CABLE
INTERMEDIATE STABILIZER BRACKET
S.S. GUIDE RAIL & PIPE
SUPPORT SPACING AS PER
PUMP MANUFACTURER'S
RECOMMENDATIONS
WEIGHTED VARIABLE
LEVEL FLOAT SWITCH
FLANGED DIP PUMP
DISCHARGE LINES
RECOMMENDED FILLET - BOTTOM



LIFT STATION NOTES:

1. LIFT STATION SHALL COMPLY WITH THE FOLLOWING PERFORMANCE QUALIFICATIONS:
   - THE LIFT STATION SHALL BE A SUBMERSIBLE LIFT STATION WITH LIFT OUT RAIL SYSTEM.
   - 2 SUBMERSIBLE PUMPS.
   - 1 DUPLEX CONTROL PANEL, WITH ALARM LIGHT AND ALARM HORN.
   - 5 NON-MERCURY SWITCHES.
   - 1 (FOR EACH PUMP) 6" CHECK VALVE AND 6" PLUG VALVE.
   - 96" DIAMETER PRECAST WET WELL AND PRECAST VALVE VAULT.
2. PUMP PERFORMANCE POINTS:
   Qpk=580 GPM
   TDH @ Qpk=11.50 FT
   3.0 BHP
   MANUFACTURER AND MODEL: PENTAIR FAIRBANKS NIJHUIS 5" 5433 MVK, RPM:865, 11" IMPELLER T5C1AG BLADELESS, OR OTHER APPROVED BY ENGINEER
   PHASE: THREE, 60Hz, VOLTAGE: 460
3. ALL SWITCHES TO BE HEAVY DUTY.
4. LIFTING CHAIN MUST NOT INTERFERE WITH CORD ASSEMBLY.
5. USE MOUNTING STUDS ARE RECOMMENDED BY PUMP MANUFACTURER.

SUBMITTED FOR PERMIT REVIEW
THESE DOCUMENTS ARE PROVIDED FOR REGULATORY AGENCY REVIEW UPON RECEIPT OF AGENCY COMMENTS. THE DOCUMENTS MAY BE REVISED IN ORDER TO SECURE PERMITS. THESE DOCUMENTS ARE NOT INTENDED FOR CONSTRUCTION UNTIL THEY INCLUDE WRITTEN APPROVAL BY ALL OF THE APPLICABLE REGULATORY AGENCIES. USERS ACKNOWLEDGE THIS AND USE AT THEIR OWN RISK.

NO.	REVISION	BY	DATE

DESIGNED BY: KM
DRAWN BY: CS/MR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

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134844
LICENSED PROFESSIONAL ENGINEER
1/15/2025

LISD EARLY CHILDHOOD CENTER

LIFT STATION DETAILS

SHEET NO. 48
OF 61 SHEETS

FILE NO. ECLC-LS
PROJECT NO. 100090499

WS Series® Duplex Control Panels

WS Series® duplex control panels will control two 120/208/240V single phase or two 208/240/480V three phase pumps designed for dewatering, wastewater, and sewage applications. See Water duplex control panels come standard with a clear front NEMA 4X rated enclosure, IEC rated contactors, and motor protective switches. All panels are UL listed for the United States and Canada, and come standard with a five-year warranty.

WS SERIES

Features

- Indoor/outdoor NEMA 4X panel enclosure: Heavy duty polycarbonate with stainless steel lockable latches
- Duplex provides: Two-pump alternation and high demand two-pump operation
- Pump control visible indicators: Pump #1 and #2 hand-off-auto (H.O.A.) swtch, green Pump Run lights, red Pump Fault lights with reset button, and Power On light
- Alarm visible indicators: High red beacon alarm lght, alarm test and silence buttons
- Alarm horn sounds at 85 decibels at 10 feet
- Remote monitoring by dry contacts: High Liquid, Pump Run(s), and Pump Fault(s)
- Upgraded pump protection: Motor protective switches included for both pumps (Branch circuit protection, adjustable overload and disconnect) and thermal cutout with indicators
- UL listed for the United States and Canada

Applications

- Sewage pump chambers
- Grinder pumps
- Sump pump basins
- Lift stations

Call us toll-free at 888.733.9283 to speak with one of our expert Sales Engineers.

c UL US LISTED · 5 YEAR

951.487.8073 / 888.733.9283 | www.seewaterinc.com | sales@seewaterinc.com

REV-0823

WS Series® Duplex Control Panels

Duplex Single Phase: 120/208/240VAC

Model	Pump Full Load Amp Rating
WD1P-4-1021	0.0-7.0 FLA
WD1P-4-1022	7.0-15.0 FLA
WD1P-4-1023	15.0-22.0 FLA
WD1P-4-1024	22.0-28.0 FLA
WD1P-4-1025	28.0-36.0 FLA

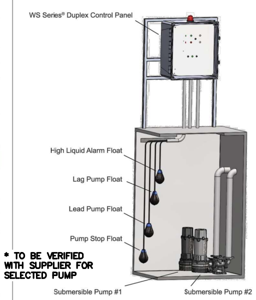
Note: Thermal overload protection is generally provided in single phase pumps. To request a specific overload on the single phase models, contact the factory. Each panel includes motor protective switches that will provide accurate pump circuit breaker protection.

Duplex Three Phase: 208/240/480VAC

Model	Pump Full Load Amp Rating
WD3P-4-3021	1.0-1.6 FLA
WD3P-4-3022	1.6-2.5 FLA
WD3P-4-3023	2.5-4.0 FLA
WD3P-4-3024	4.0-6.3 FLA
WD3P-4-3025	6.0-10.0 FLA
WD3P-4-3026	9.0-14.0 FLA
WD3P-4-3027	13.0-18.0 FLA
WD3P-4-3028	17.0-23.0 FLA
WD3P-4-3029	20.0-25.0 FLA
WD3P-4-3030	24.0-32.0 FLA
WD3P-4-3031	30.0-40.0 FLA
WD3P-4-3032	37.0-50.0 FLA
WD3P-4-3033	48.0-65.0 FLA

* TO BE VERIFIED WITH SUPPLIER FOR SELECTED PUMP

Typical Installation of WS Series® Duplex Control Panel



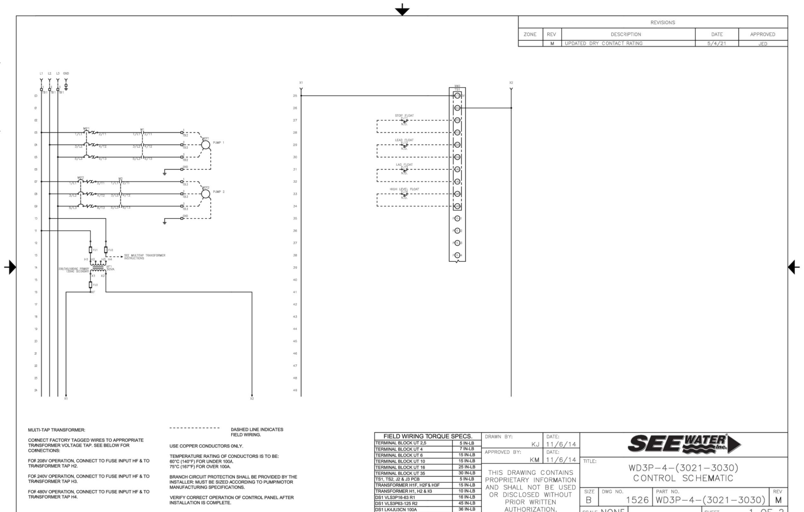
WS SERIES

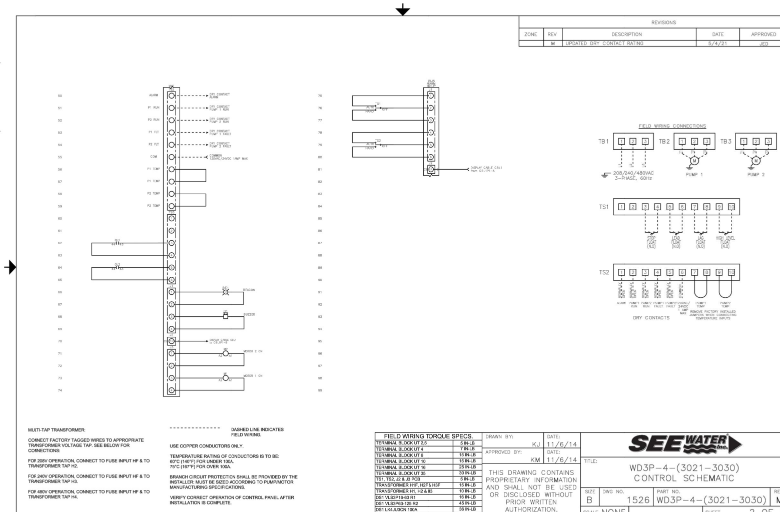
Custom Options

Option(s)	Description	Option(s)	Description
24	Pump Exerciser	LAD/LAW	Lightning Secondary Surge Arrestor (LAD Delta / LAW Wye)
28	Power On Dry Contact (Normally Open)	LL	Low Level Alarm
3R	Painted Steel Enclosure	MD	Main Disconnect; Up to 100 FLA
AF	Alarm Flasher	MD2	Main Disconnect; 100 to 230 FLA
AH	Anti-Condensation Heater	PM	Phase Monitoring
C	Additional Cord Length Per Foot Per Component*	PX	Pump Portal® Wireless Remote Communication
CCD	Cycle Counter w/LCD Display and Reset	SFD	Seal Failure Circuit w/ Indicator Lights
CO	Convenience Outlet (User to supply 120 VAC)	S3	No Floats Option
ETD	Elapsed Time Meter w/ LCD Display and Reset	SS4	Upgraded Enclosure (304 Stainless Steel)
GR	Generator Receptacle, Includes Transfer Switch	SS6	Upgraded Enclosure (316 Stainless Steel)
ISD	Intrinsically Safe		

**Additional cord length greater than 20'. Specify after C. Example: WD1P-4-1021-C50. Indicates 50' cord lengths for all floats.*

LIFT STATION CONTROL PANEL DETAILS
- OR EQUAL -





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TBPE REG. NO. F-474

STATE OF TEXAS · MICHAEL J SHANGREAUX · 134844 · LICENSED PROFESSIONAL ENGINEER · 1/15/2025

LISD EARLY CHILDHOOD CENTER
LIFT STATION DETAILS

SHEET NO. 49 OF 61 SHEETS
FILE NO. ECLC-LS
PROJECT NO. 100090499

ENSIGN® 5PA10

PORTABLE DAVIT CRANE

PORTABLE LIFTING POWER

for the Tallest Jobs

The 5PA10 Ensign 1000 portable davit crane (up to 1,200 pounds) is designed to lift and smoothly rotate heavier, taller loads, 360 degrees, with minimal boom adjustment. A longer mast and boom provide the extra hook height (up to 120 inches with pedestal base) required to clear safety gates, rails, and other obstacles. An ergonomic design, winch options, quick-disconnect feature, and boom adjustment knob make it extremely user-friendly. Included on all standard models, roller-ball bearings and rotation lock enhances unloading. Easy disassembly and reassembly with quick-release hardware and pins maximize portability for storage or use with other bases. Ideal for water/wastewater applications.

Product Shown: 5PA10-M1

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet/exceed ASTM standards
- Corrosion-resistant, powder-coated frame, mast cap, and stainless-steel fasteners resist the elements and for long service life
- Galvanized, epoxy, and 304 or 316 stainless-steel and epoxy finishes are available for corrosive environments

360° Rotation & Flexible Operation

- Specially designed roller bearing at top of base comes standard to enhance smooth, 360-degree rotation under load for precise load placement. Stainless-steel rotation lock comes standard and facilitates unloading ease
- Rotation handle design does not interfere with boom angle adjustment for easier operation
- Adjustable boom angles and four sheave assembly positions along boom are easily changed (without tools) to accommodate a variety of applications. Boom adjustment knob allows for easy, one-hand adjustment when not under load
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of speeds and power needs. DC motors and various voltage AC motors available

Thern Winches & Cranes

STANDARD CONFIGURATIONS

IMPERIAL/METRIC

Series	Description	Up To Capacity
5PA10-M1	Powder-coat crane with M4312PB-K spur gear hand winch	1,200 lbs / 544 kg
5PA10G-M1	Galvanized crane with M4312PB-K spur gear hand winch	1,200 lbs / 544 kg
5PA10-M2	Powder-coat crane with 4WM2V-K worm gear hand winch	1,200 lbs / 544 kg
5PA10G-M2	Galvanized crane with 4WM2V-K worm gear hand winch	1,200 lbs / 544 kg
5PA10S-M3	Stainless-steel crane with M4312PBSS-K spur gear hand winch	1,200 lbs / 544 kg
5PA10X-E2X	Epoxy-gray crane with epoxy-gray 4WP2VEGRA-K electric winch	1,200 lbs / 544 kg

Enhanced Portability

- Disassembles and reassembles easily, using quick-release hardware and pins for quick transport to storage or bases at other work sites—no tools required
- Move your crane to another location while keeping the wire rope attached to the load using the quick-disconnect feature. Insert the swaged-ball end of the wire rope into the keyhole slot on the tab of the pedestal base or into an optional wire rope keeper or cable spool

Flexible Configurations

- A variety of base mounting options, including pedestal, flush, and wall-mount, help meet numerous lifting needs
- A quick-mount winch bracket is standard (no tools required) and accommodates several Thern winches. Fits any three convenient/ergonomic positions on the mast via quick-connect pins

NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

Ensign 1000 Performance Ratings with Pedestal Base[1]

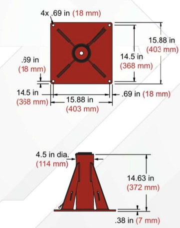
Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A-1	1,200	544	26	660	93	2,362
A-2	1,000	453	32	812	98	2,489
A-3	800	362	39	990	104	2,641
A-4	650	294	48	1,219	112	2,844
B-1	1,200	544	22	558	97	2,463
B-2	1,000	453	26	660	103	2,616
B-3	800	362	32	812	110	2,794
B-4	650	294	39	990	120	3,048

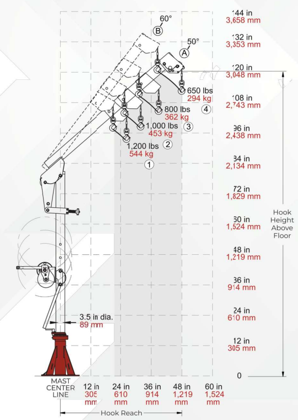
[1] Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
Dimensions are for reference only and subject to change without notice.

Ensign 1000 Pedestal Base

SBP10 SBP10S SBP10X
SBP10G SBP10S316

Pedestal Base





PORTABLE DAVIT CRANE DETAILS
- OR EQUAL -

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NO.	REVISION	BY	DATE

DESIGNED BY: KM
DRAWN BY: CS/MR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

AtkinsRéalis
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-6840
TBPE REG. NO. F-474

STATE OF TEXAS — MICHAEL J. SHANGREAUX — 134844 — LICENSED PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER
LIFT STATION DETAILS

SHEET NO. 50 OF 61 SHEETS
FILE NO. ECLC-LS
PROJECT NO. 100090499

SITE KEY NOTES:

- (A) TYPE II DRIVEWAY
- (B) FIRE HYDRANT
- (C) DECORATIVE BOLLARDS
- (D) OUTDOOR PLAY AREA
- (E) TRAFFIC GATE, REF. ARCHITECTURAL
- (F) 6' BLACK VINYL CHAIN LINK FENCE
- (G) 4' BLACK VINYL CHAIN LINK FENCE
- (H) SCREENING WALL, REF. ARCHITECTURAL
- (I) ORNAMENTAL FENCE, REF. ARCHITECTURAL

NOTES:

1. ALL SITE UTILITIES ARE PROPOSED TO BE LOCATED UNDERGROUND.
2. EXTERIOR LIGHTING SHALL BE SHIELDED SUCH THAT THE LIGHT SOURCE IN NOT DIRECTLY VISIBLE FROM THE PUBLIC R.O.W. OR ADJACENT RESIDENTIAL DISTRICTS OR USES AT THE PROPERTY LINE. UNSHIELDED WALL PACK LIGHTING IS NOT PROPOSED.
3. AL CLAWSON DISPOSAL INC. SHALL BE THE SOLE PROVIDER OF WASTE HAULING FOR THIS SITE AFTER CONSTRUCTION.
4. AIR CONDITIONING UNITS ARE NOT PROPOSED FORWARD THE FRONT WALL OF THE BUILDING.
5. GARBAGE DUMPSTERS ARE LOCATED NO CLOSER TO A ROADWAY THAN THE FRONT WALL OF THE PRINCIPAL STRUCTURE LOCATED CLOSEST TO THE ROADWAY. GARBAGE DUMPSTERS ARE SCREENED BY A WALL (COMPRISED OF MASONRY COMPATIBLE WITH THE STRUCTURE OR WOODCRETE) AT LEAST AS HIGH AS THE CONTAINER. THE OPEN SIDE TO THE DUMPSTER OR OTHER TRASH RECEPTACLE IS A GATE CONSTRUCTED OF SOLID WOOD OR METAL. THE DUMPSTER IS ORIENTED FOR PICKUP BY A FRONT LOAD GARBAGE TRUCK.
6. FOR 90 GALLON ROLL OUT CONTAINER STORED OUTSIDE, IT IS REQUIRED TO BE ENCLOSED BY PRIVACY FENCE.

LEGEND:

- PROPERTY BOUNDARY
- ACCESSIBLE PATH
- PARKING SETBACK
- BUILDING SETBACK
- P.U.E
- FIRE LANE IDENTIFICATION
- CHAIN LINK FENCE
- ORNAMENTAL FENCE
- (#) PARKING SPACE COUNT
- CROSSWALK
- FIRE HYDRANT
- (S) WASTEWATER MANHOLE
- CATCH BASIN
- CURB INLET
- LIGHT POLES
- (D) STORM MANHOLE

0 35' 70' 140'
SCALE: 1" = 70'

HALSEY DRIVE (70' R.O.W.)

W. SAN GABRIEL PARKWAY (VARIABLE R.O.W.)

PARKING LOT A TOTAL=90

PARKING LOT B TOTAL=87

PARKING LOT C TOTAL=300

EARLY CHILDHOOD CENTER FFE=991.00

SED. POND

FILTRATION POND

DETENTION POND

FILTRATION POND

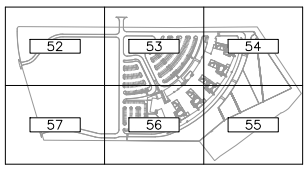
SEDIMENTATION POND

100-YR FLOODPLAIN (CAL)

100-YR FLOODPLAIN (FEMA)

100-YR FLOODPLAIN (CAL)

100-YR FLOODPLAIN



KEYMAP
N.T.S.

PARKING SPACE COUNT: 391

STANDARD PARKING SPACES:	377
ADA STANDARD ACCESSIBLE SPACES:	10
ADA VAN ACCESSIBLE SPACES:	4
TOTAL:	391

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AtkinsRéalis
11801 DOMAIN BOULEVARD, SUITE 500
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TBPE REG. NO. F-474

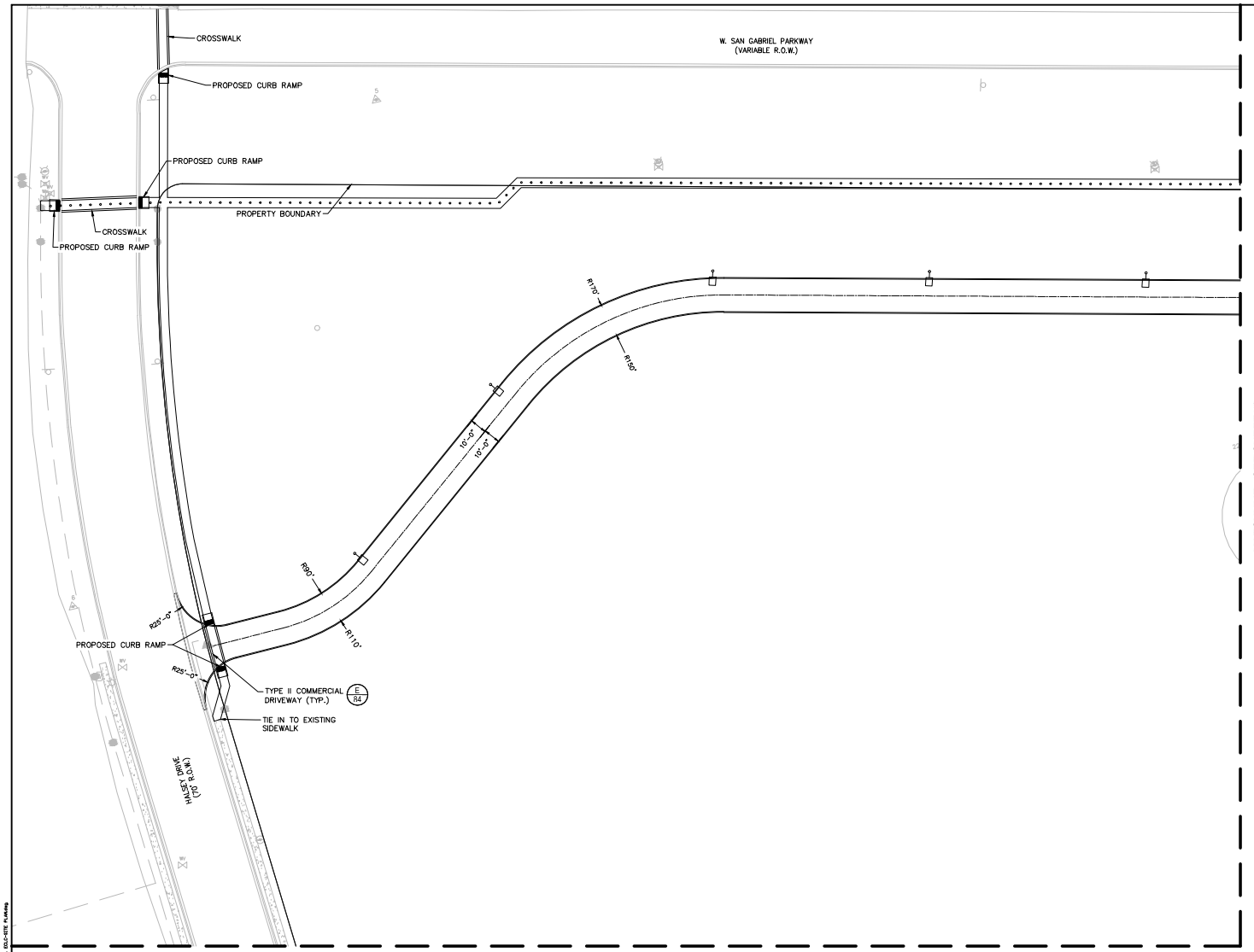
STATE OF TEXAS
MICHAEL J BRANGREAUX
103644
LICENSED PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER

OVERALL SITE PLAN

SHEET NO. 51
OF 61 SHEETS

FILE NO. ECLC-OV SITE PLAN
PROJECT NO. 100090499

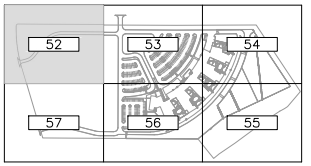


0 15' 30' 60'

SCALE: 1" = 30'

LEGEND:

- PROPERTY BOUNDARY
- ACCESSIBLE PATH
- FL — FIRE LANE IDENTIFICATION
- CHAIN LINK FENCE
- ORNAMENTAL FENCE
- (#) PARKING SPACE COUNT
- CROSSWALK
- FIRE HYDRANT
- CATCH BASIN
- CURB INLET
- (D) STORM MANHOLE
- (S) WASTEWATER MANHOLE
- LIGHT POLES
- PARKING SETBACK
- BUILDING SETBACK
- P.U.E



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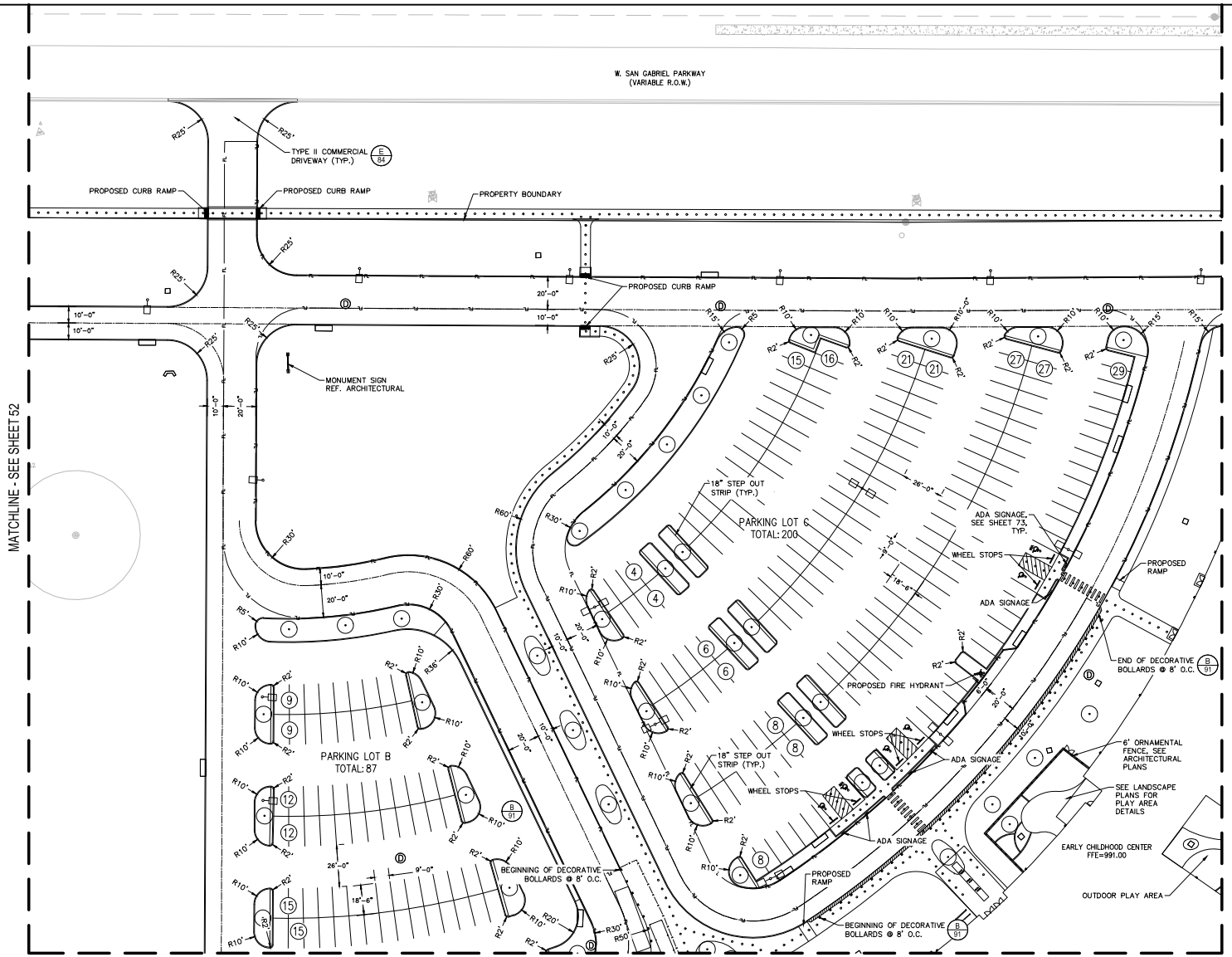
STATE OF TEXAS — MICHAEL J SWANGREAUX — 135644 — REGISTERED PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER

SITE PLAN 1 OF 6

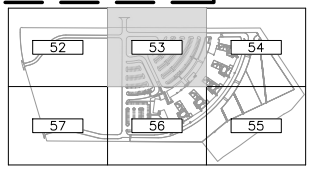
SHEET NO. 52
OF 61 SHEETS

FILE NO. ECLC-SITE PLAN
PROJECT NO. 100090499



LEGEND:

- PROPERTY BOUNDARY
- ACCESSIBLE PATH
- FIRE LANE IDENTIFICATION
- CHAIN LINK FENCE
- ORNAMENTAL FENCE
- PARKING SPACE COUNT
- CROSSWALK
- FIRE HYDRANT
- CATCH BASIN
- CURB INLET
- STORM MANHOLE
- WASTEWATER MANHOLE
- LIGHT POLES
- PARKING SETBACK
- BUILDING SETBACK
- P.U.E
- HEADWALL



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MICHAEL J BRANDREAUX
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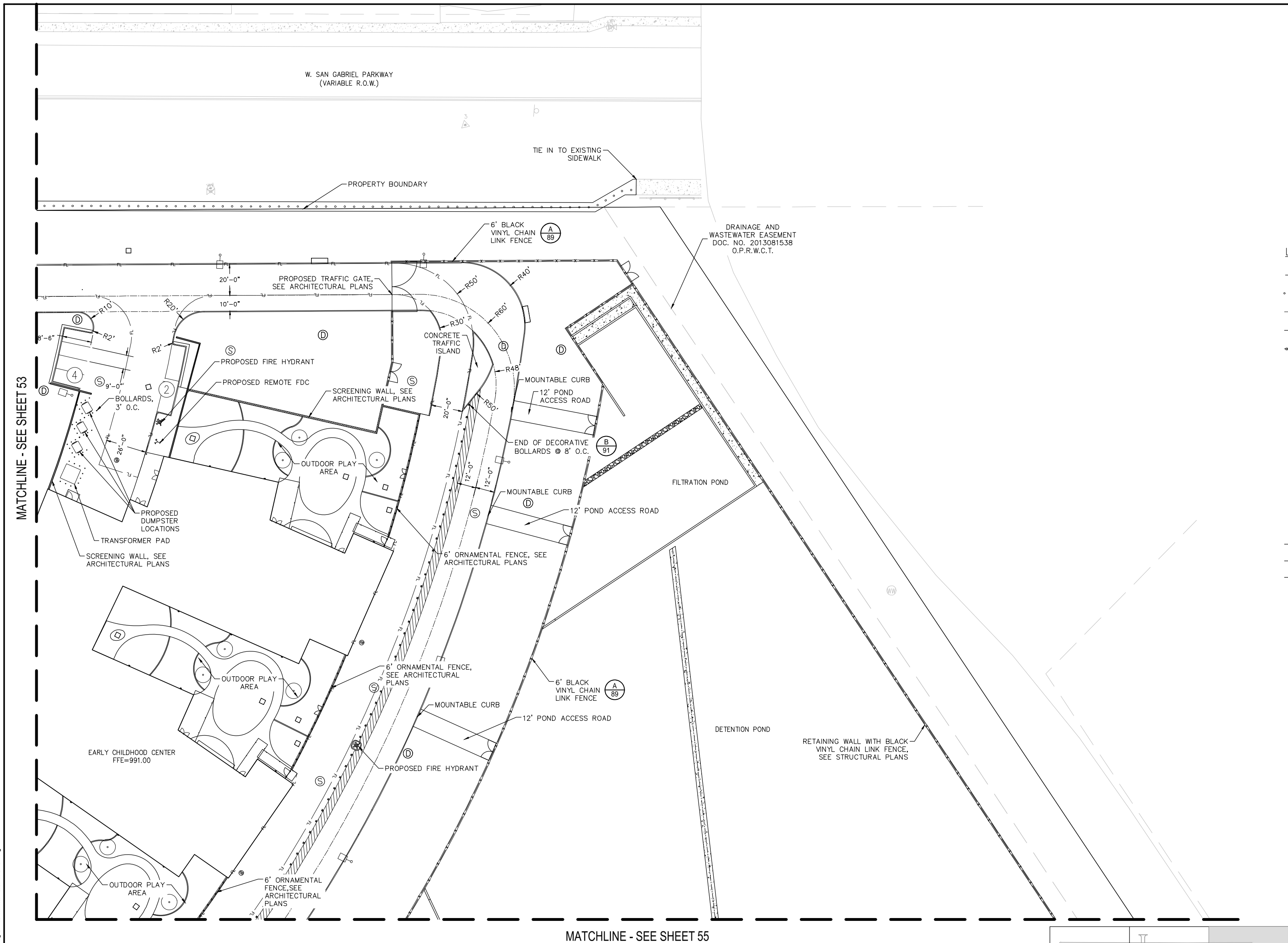
01/15/2025

LISD EARLY CHILDHOOD CENTER

SITE PLAN 2 OF 6

SHEET NO. 53
OF 61 SHEETS

FILE NO. ECLC-SITE PLAN
PROJECT NO. 100090499


W. SAN GABRIEL PARKWAY
(VARIABLE R.O.W.)
TIE IN TO EXISTING SIDEWALK
PROPERTY BOUNDARY
6' BLACK VINYL CHAIN LINK FENCE
A 89
DRAINAGE AND WASTEWATER EASEMENT DOC. NO. 2013081538 O.P.R.W.C.T.
PROPOSED TRAFFIC GATE, SEE ARCHITECTURAL PLANS
20'-0"
10'-0"
R10'
R20'
R2'
R50'
R40'
R30'
R60'
R48'
8'-6"
9'-0"
26'-0"
CONCRETE TRAFFIC ISLAND
PROPOSED FIRE HYDRANT
PROPOSED REMOTE FDC
SCREENING WALL, SEE ARCHITECTURAL PLANS
MOUNTABLE CURB
12' POND ACCESS ROAD
BOLLARDS, 3' O.C.
END OF DECORATIVE BOLLARDS @ 8' O.C.
B 91
12'-0"
OUTDOOR PLAY AREA
PROPOSED DUMPSTER LOCATIONS
TRANSFORMER PAD
SCREENING WALL, SEE ARCHITECTURAL PLANS
6' ORNAMENTAL FENCE, SEE ARCHITECTURAL PLANS
FILTRATION POND
DETENTION POND
RETAINING WALL WITH BLACK VINYL CHAIN LINK FENCE, SEE STRUCTURAL PLANS
EARLY CHILDHOOD CENTER FFE=991.00
MATCHLINE - SEE SHEET 53
MATCHLINE - SEE SHEET 55
0 15' 30' 60'
SCALE: 1" = 30'

LEGEND:

- PROPERTY BOUNDARY
- ACCESSIBLE PATH
- FIRE LANE IDENTIFICATION
- CHAIN LINK FENCE
- ORNAMENTAL FENCE
- PARKING SPACE COUNT
- CROSSWALK
- FIRE HYDRANT
- CATCH BASIN
- CURB INLET
- STORM MANHOLE
- WASTEWATER MANHOLE
- LIGHT POLES
- PARKING SETBACK
- BUILDING SETBACK
- P.U.E

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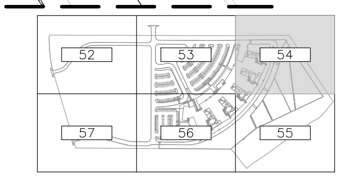

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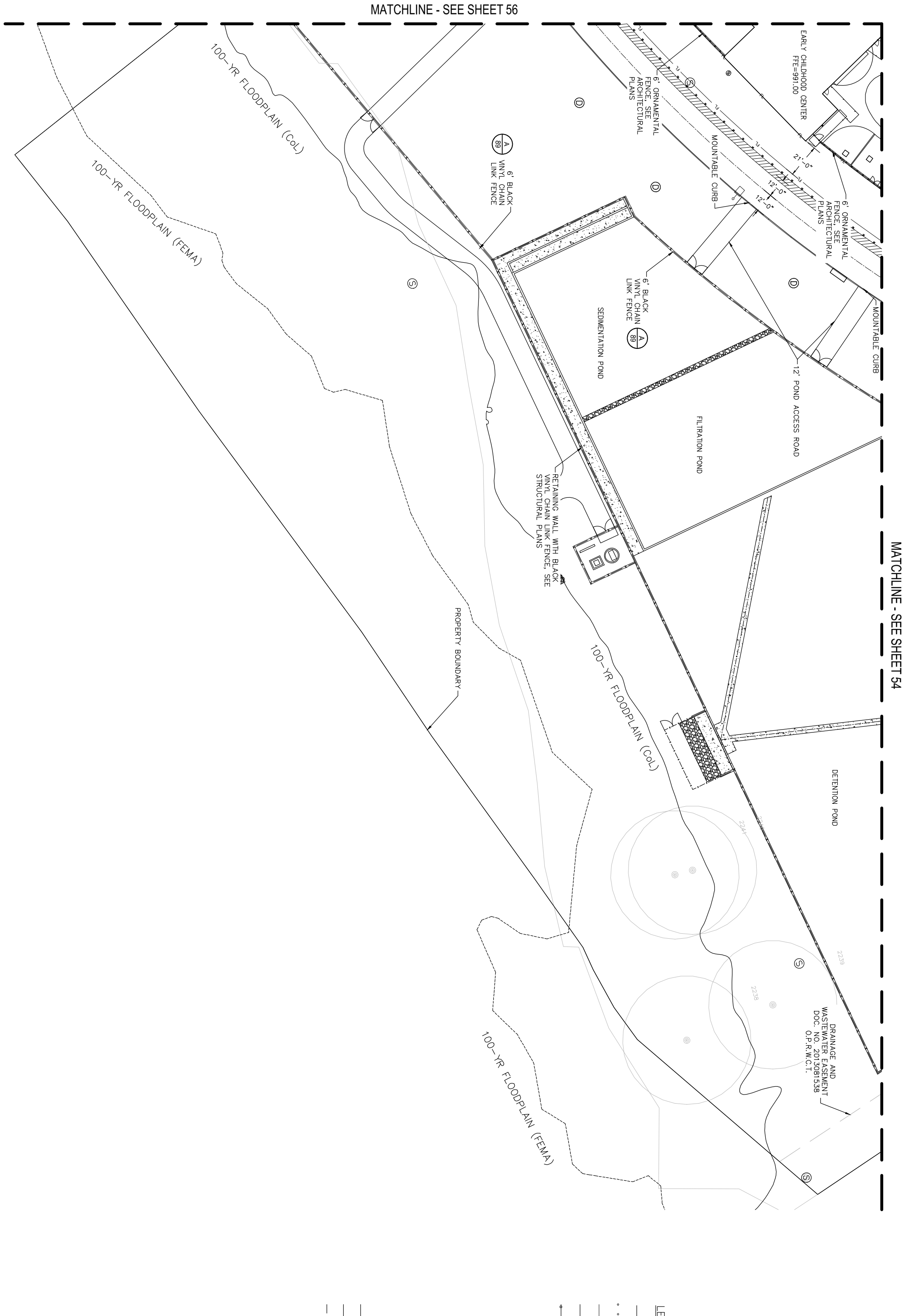
STATE OF TEXAS
MICHAEL J SHANGREAUX
134844
LICENSED PROFESSIONAL ENGINEER

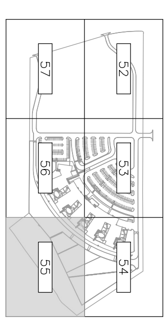
LISD EARLY CHILDHOOD CENTER

SITE PLAN 3 OF 6

SHEET NO. 54
OF 61 SHEETS

FILE NO. ECLC-SITE PLAN
PROJECT NO. 100090499


MATCHLINE - SEE SHEET 56
MATCHLINE - SEE SHEET 54
EARLY CHILDHOOD CENTER FFE=991.00
6' ORNAMENTAL FENCE, SEE ARCHITECTURAL PLANS
6' ORNAMENTAL FENCE, SEE ARCHITECTURAL PLANS
MOUNTABLE CURB
MOUNTABLE CURB
21'-0"
12'-0"
12'-0"
6' BLACK VINYL CHAIN LINK FENCE
6' BLACK VINYL CHAIN LINK FENCE
A 89
SEDIMENTATION POND
12' POND ACCESS ROAD
FILTRATION POND
RETAINING WALL WITH BLACK VINYL CHAIN LINK FENCE, SEE STRUCTURAL PLANS
PROPERTY BOUNDARY
100-YR FLOODPLAIN (CoL)
100-YR FLOODPLAIN (FEMA)
DETENTION POND
DRAINAGE AND WASTEWATER EASEMENT DOC. NO. 2013081538 O.P.R.W.C.T.



KEYMAP
N.T.S.

0 15' 30' 60'
SCALE: 1" = 30'

LEGEND:

- PROPERTY BOUNDARY
- ACCESSIBLE PATH
- FIRE LANE IDENTIFICATION
- CHAIN LINK FENCE
- ORNAMENTAL FENCE
- PARKING SPACE COUNT
- CROSSWALK
- FIRE HYDRANT
- CATCH BASIN
- CURB INLET
- STORM MANHOLE
- WASTEWATER MANHOLE
- LIGHT POLES
- PARKING SETBACK
- BUILDING SETBACK
- P.U.E

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FILE NO. ECLC-SITE PLAN
PROJECT NO. 100090499

SHEET NO. 55 OF 61 SHEETS

LISD EARLY CHILDHOOD CENTER

SITE PLAN 4 OF 6

STATE OF TEXAS
MICHAEL J SHANGREAUX
134844
LICENSED
PROFESSIONAL ENGINEER
1/16/2025

AtkinsRéalis
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-6840
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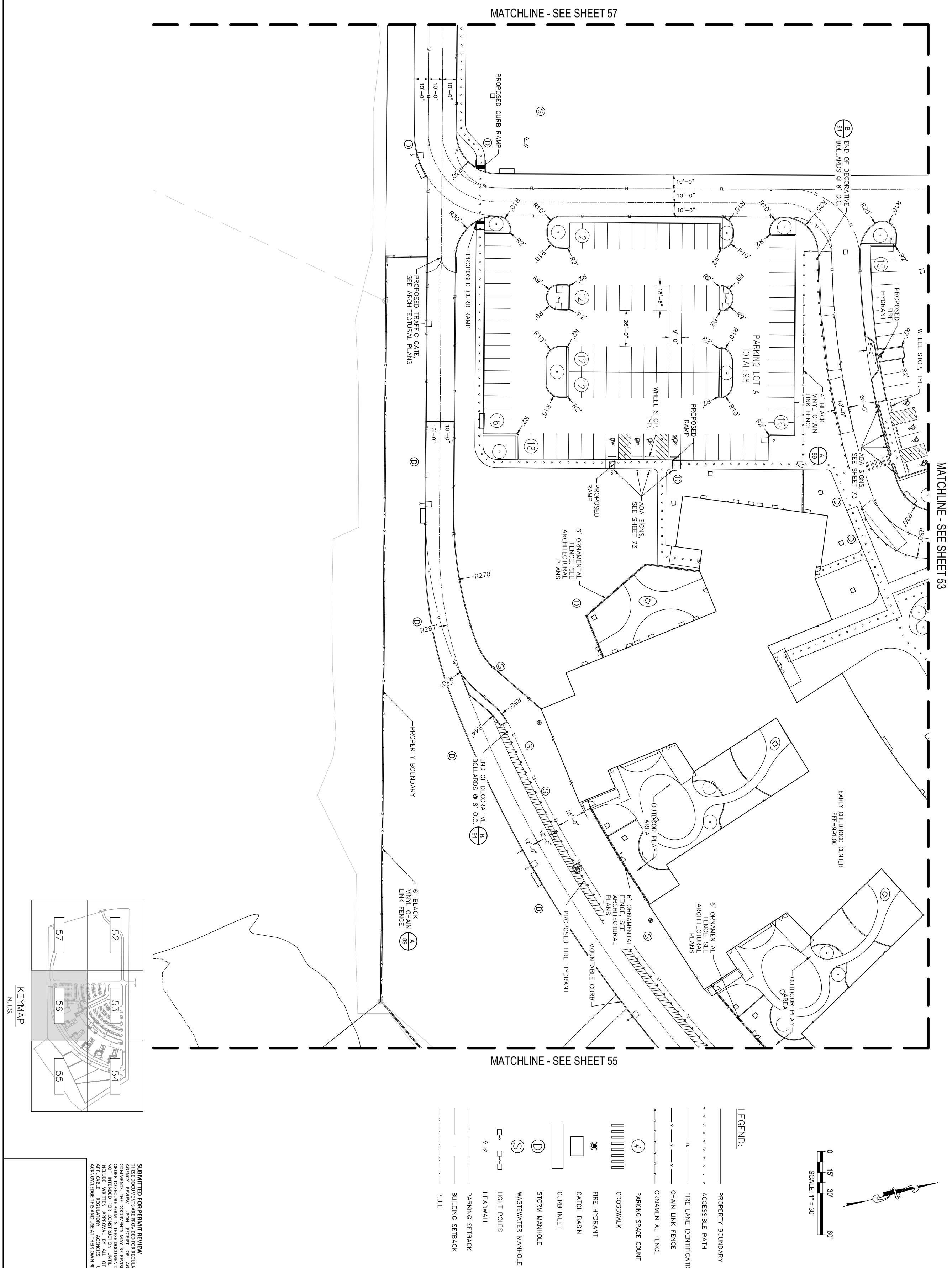
APPROVED BY:	MS
DATE:	01/15/2025

NO.	REVISION	BY	DATE



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TBPE REG. NO. F-474

STATE OF TEXAS
MICHAEL J SHANGREAUX
134844
LICENSED PROFESSIONAL ENGINEER
1/15/2025

LISD EARLY CHILDHOOD CENTER
SITE PLAN 5 OF 6

SHEET NO. 56 OF 61 SHEETS
FILE NO. ECLC-SITE PLAN
PROJECT NO. 100090499

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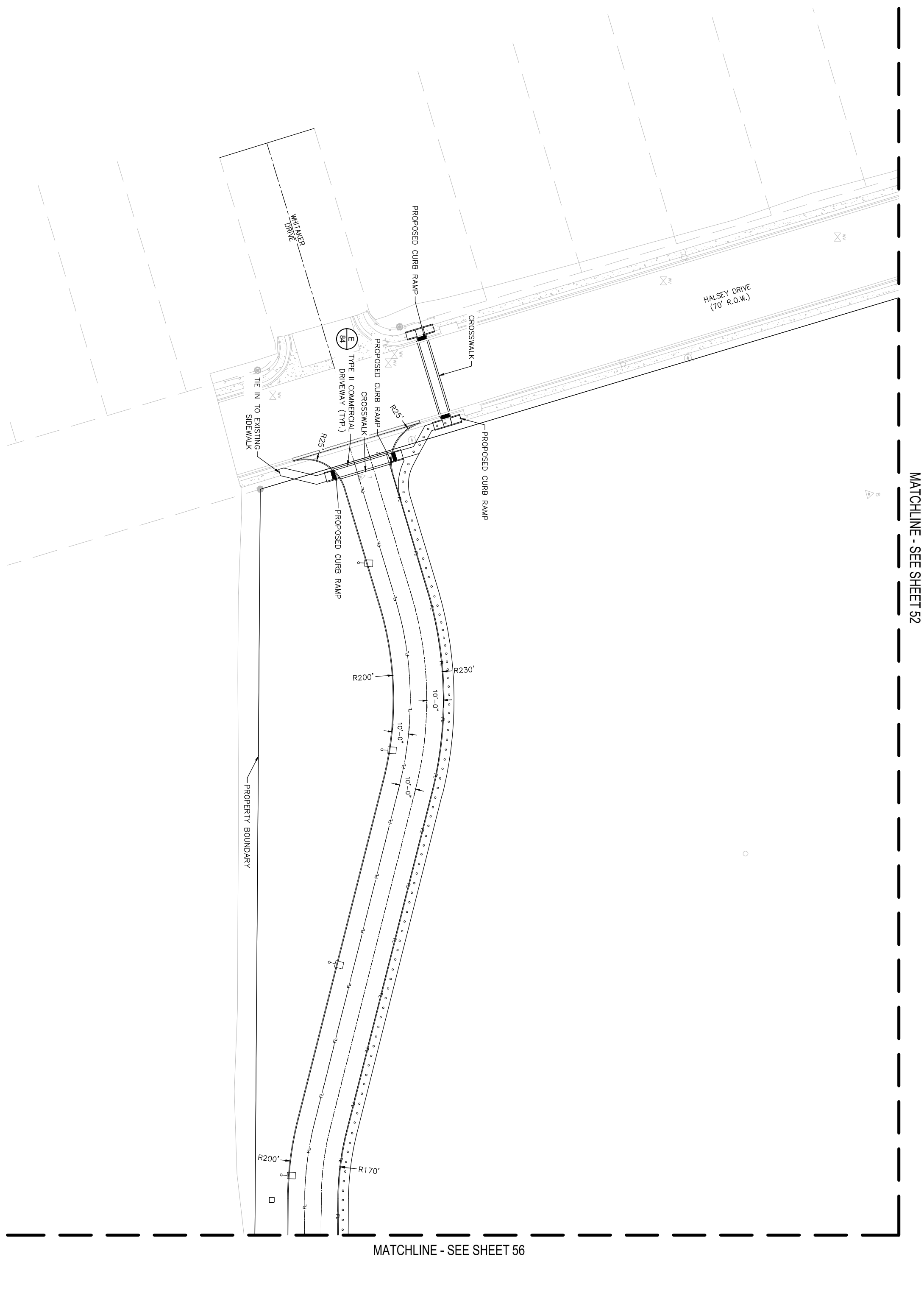
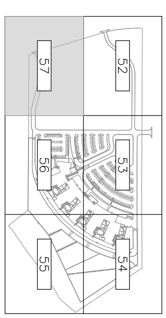
Jan 22, 2025 - 9:36pm MELL7452 C:\pw_work\atkins\d01\esstking_mel17452\d0606615\ ECLC-SITE PLAN.dwg





LEGEND:

- PROPERTY BOUNDARY
- ACCESSIBLE PATH
- FIRE LANE IDENTIFICATION
- CHAIN LINK FENCE
- ORNAMENTAL FENCE
- PARKING SPACE COUNT
- CROSSWALK
- FIRE HYDRANT
- CATCH BASIN
- CURB INLET
- STORM MANHOLE
- WASTEWATER MANHOLE
- LIGHT POLES
- PARKING SETBACK
- BUILDING SETBACK
- P.U.E

0 15' 30' 60'
SCALE: 1" = 30'

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FILE NO. ECLC-SITE PLAN
PROJECT NO. 100090499

SHEET NO. 57 OF 61 SHEETS

LISD EARLY CHILDHOOD CENTER

SITE PLAN 6 OF 6

STATE OF TEXAS
MICHAEL J SHANGREAUX
134844
LICENSED PROFESSIONAL ENGINEER
1/15/2025

AtkinsRéalis
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-6840
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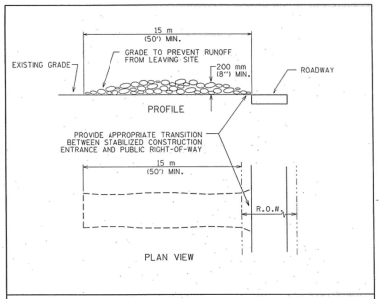
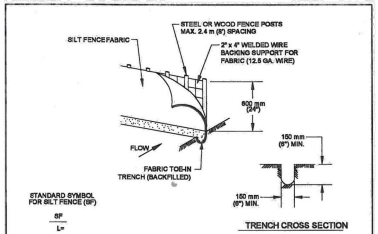


NOTES:
1. STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STABILIZED CONSTRUCTION ENTRANCE
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. ADOPTED 5/8/06	STANDARD NO. 641S-1

A NTS



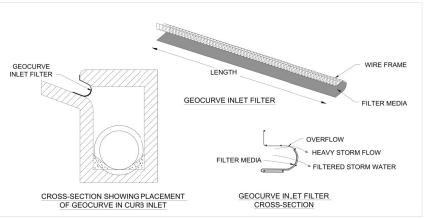
1. STEEL OR WOOD POST'S WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 Inches) DEPTH, USE STEEL POSTS.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 Inches) DEEP AND 150 mm (6 Inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 Inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. ADOPTED 9/1/2009	STANDARD NO. 642S-1

B NTS

GeoSolutions, Inc. — Product Data Sheet
GeoCurve Inlet Filter

The GeoCurve Inlet Filter is a stormwater filter for placement into a stormwater curb inlet for the purpose of capturing debris and sediment that is transported by stormwater runoff. The device is comprised of a filter media (woven monofilament filter fabric) affixed to the lower portion of a "C" shaped 12 gauge welded wire frame (2" x 4" openings) with an upper retention flange. The device effectively filters stormwater, can easily be removed for maintenance and cleaning and incorporates an overflow window for heavy storm events.

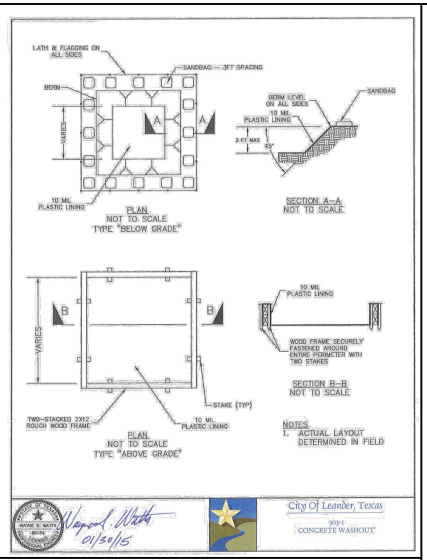


FILTER MEDIA PROFERTIES: Mono-filament Woven Filter Fabric

PROPERTY	ASTM TEST METHOD	VALUE	C.O.A. REQ'T
Fabric Weight	D 3776	4.5 oz/sy	3 oz/sy
Grab Tensile Strength	D 4632	170 lbs	----
Mullen Burst Strength	D 3786	410 lbs/sq in	120 lbs/sq in
UV Stability	D 4355	80 %	70 %
Water Flow Rate	D 4491	325 gal/min/sf	275 gal/min/sf

GeoSolutions, Inc. 4417 Burleson Road Austin, Texas 7874[illegible] 512-330-0796
– OR EQUAL –

C NTS



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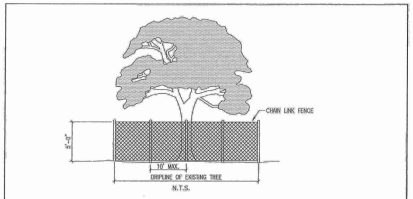
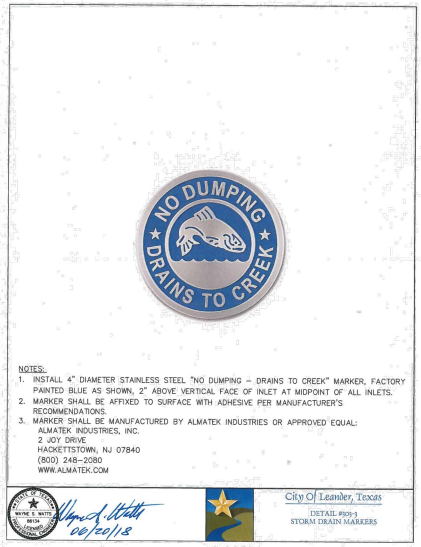


1. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING).
2. FENCES SHALL COMPLETELY SURROUND THE TREE, OR CLUSTERS OF TREES; SHALL BE LOCATED AT THE OUTERMOST LIMIT OF THE TREE BRANCHES (DRIPLINE), AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PREVENT THE FOLLOWING:
   A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MATERIALS.
   B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN SIX INCHES (6")) CUT OR FILL, OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY.
   C. WOUNDS TO EXPOSED ROOTS, TRUNK OR LIMBS BY MECHANICAL EQUIPMENT.
   D. OTHER ACTIVITIES DETRIMENTAL TO TREES, SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING AND FIRE.
3. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIPLINES MAY BE PERMITTED IN THE FOLLOWING CASES:
   A. WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
   B. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN SIX FEET (6'-0") TO BUILDING.
4. CRITICAL ROOT ZONE REQUIREMENTS
   A. NO CONSTRUCTION OR DISTURBANCE SHALL OCCUR WITHIN AN AREA THAT CONSTITUTES MORE THAN FIFTY (50%) OF THE TOTAL CRITICAL ROOT ZONE AND ONE HALF THE RADIAL DISTANCE OF THE CRITICAL ROOT ZONE FOR EACH TREE BEING PRESERVED INCLUDING SIGNIFICANT TREES, HERITAGE TREES, AND ANY OTHER TREES FOR WHICH PRESERVATION IS TO BE CREDITED. THE REMAINING CRITICAL ROOT ZONE SHALL CONSIST OF AT LEAST ONE HUNDRED (100) SQUARE FEET.
   B. THIS DEFINED AREA SHALL BE FLAGGED AND ENCIRCLED WITH PROTECTIVE FENCING DURING CONSTRUCTION. THE PLANNING DIRECTOR MAY APPROVE CONSTRUCTION CLOSER TO THE TRUNK THAN ONE HALF (50%) THE RADIAL DISTANCE, DEPENDING ON THE SIZE, SPACING, OR SPECIES OF THE TREE, THE TYPE OF DISTURBANCE PROPOSED, AND VIABILITY OF THE SITUATION.
   C. CUT OR FILL THAT IS GREATER THAN FOUR (4) INCHES IN DEPTH AND THE SEVERING OF MAJOR ROOTS SHALL BE CONSIDERED DISTURBANCE FOR THE PURPOSES OF THIS ORDINANCE.
   D. WITHIN THE PROTECTED CRITICAL ROOT ZONE, ONLY FLATWORK, DECKING, OR SIMILAR CONSTRUCTION, MAY BE APPROVED AND SHALL NOT AFFECT THE BRANCHING OF THE TREE.
   E. IF PROPOSED OR ACTUAL PROTECTION OF THE CRITICAL ROOT ZONE OF A TREE DOES NOT MEET THE REQUIREMENTS OF THIS SECTION, THEN THE TREE SHALL BE CONSIDERED REMOVED AND SHALL REQUIRE MITIGATION IN ACCORDANCE WITH THIS ORDINANCE.

City Of Leander, Texas
309-5
TREE PROTECTION

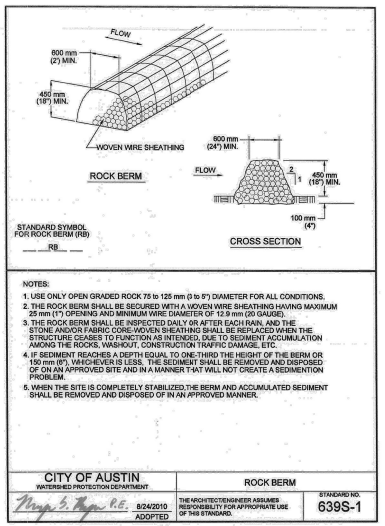
E NTS



NOTES:
1. INSTALL 4" DIAMETER STAINLESS STEEL "NO DUMPING – DRAINS TO CREEK" MARKER, FACTORY PAINTED BLUE AS SHOWN, 2" ABOVE VERTICAL FACE OF INLET AT MIDPOINT OF ALL INLETS.
2. MARKER SHALL BE AFFIXED TO SURFACE WITH ADHESIVE PER MANUFACTURER'S RECOMMENDATIONS.
3. MARKER SHALL BE MANUFACTURED BY ALMATEK INDUSTRIES OR APPROVED 'EQUAL':
   ALMATEK INDUSTRIES, INC.
   2 JOY DRIVE
   HACKETTSTOWN, NJ 07840
   (800) 248-2080
   WWW.ALMATEK.COM

City Of Leander, Texas
DETAIL #309-3
STORM DRAIN MARKERS

F NTS



NOTES:
1. USE ONLY OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE/WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTION PROBLEM.
5. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	ROCK BERM
8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. STANDARD NO. 639S-1

G NTS

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NO.	REVISION	BY	DATE

DESIGNED BY: KM
DRAWN BY: CS/MR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

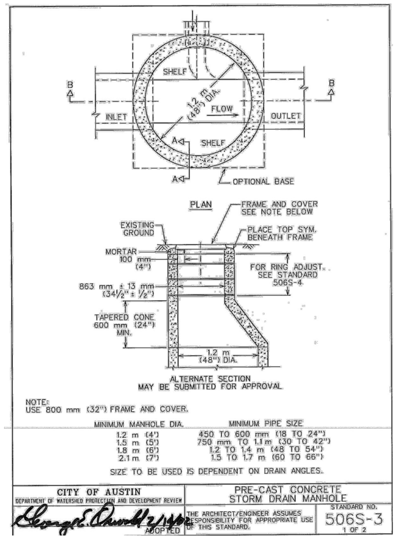
AtkinsRéalis
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 (512) 327-6440
TBPE REG. NO. F-474

LISD EARLY CHILDHOOD CENTER

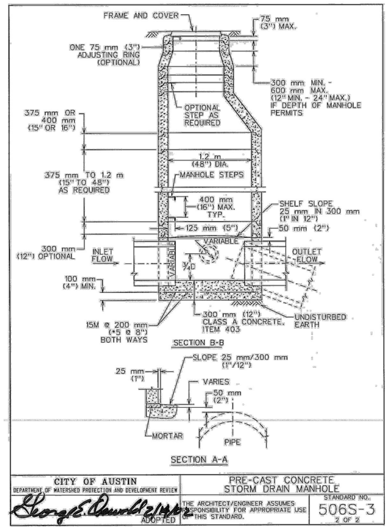
EROSION-SEDIMENTATION CONTROL & TREE PROTECTION DETAILS

SHEET NO. 58
OF 61 SHEETS

FILE NO. ECLC-DETAILS
PROJECT NO. 100090499


PLAN
ALTERNATE SECTION
MAY BE SUBMITTED FOR APPROVAL
NOTE:
USE 800 mm (32") FRAME AND COVER.
MINIMUM MANHOLE DIA. MINIMUM PIPE SIZE
1.2 m (4') 450 TO 600 mm (18 TO 24")
1.5 m (5') 750 mm TO 1.1 m (30 TO 42")
1.8 m (6') 1.2 TO 1.4 m (48 TO 54")
2.1 m (7') 1.5 TO 1.7 m (60 TO 66")
SIZE TO BE USED IS DEPENDENT ON DRAIN ANGLES.
CITY OF AUSTIN
PRE-CAST CONCRETE STORM DRAIN MANHOLE
STANDARD NO. 506S-3 1 OF 2

A NTS



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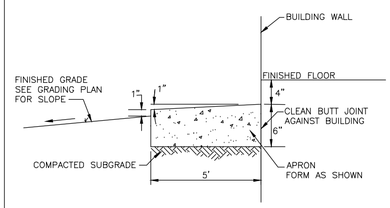


NOTES:

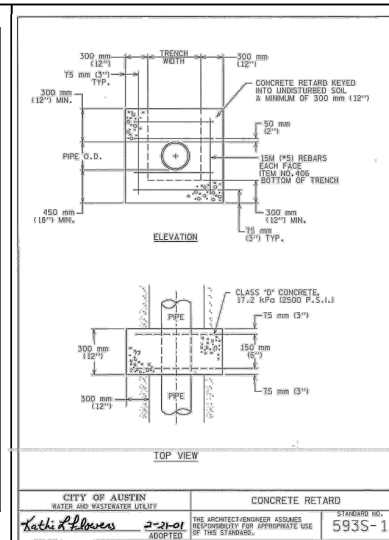
REFER TO WELDED WIRE FABRIC–REINFORCED SIDEWALK DETAIL 432S–1 FOR STRENGTH, REINFORCING, FINISH, AND JOINTING.

SEE SITE PLAN FOR APRON LOCATIONS.

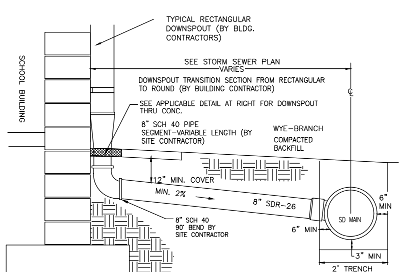
SEE STRUCTURAL PLANS FOR DOWELS INTO FOUNDATION/GRADE BEAM.

CONCRETE APRON TYPICAL DETAIL
N.T.S.

C NTS



D NTS


SCHOOL BUILDING
TYPICAL RECTANGULAR DOWNSPOUT (BY BLDG. CONTRACTORS)
SEE STORM SEWER PLAN
VARIES
DOWNSPOUT TRANSITION SECTION FROM RECTANGULAR TO ROUND (BY BUILDING CONTRACTOR)
SEE APPLICABLE DETAIL AT RIGHT FOR DOWNSPOUT THRU CONC.
8" SCH 40 PIPE SEGMENT-VARIABLE LENGTH (BY SITE CONTRACTOR)
WYE-BRANCH
COMPACTED BACKFILL
12" MIN. COVER
MIN. 2%
8" SDR-26
8" SCH 40 90° BEND BY SITE CONTRACTOR
SD MAIN
6" MIN
3" MIN
2' TRENCH

NOTE:

1) A WATERTIGHT CONNECTION SHALL BE MAINTAINED WITH ANY TRANSITION FROM SCHEDULE 40 PVC PIPE TO ANY OTHER PIPE TYPE.

2) SITEWORK CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO AND INCLUDING THE 90° SCH 40 PVC BEND AND SCH 40 PIPE SEGMENT THAT CONNECTS TO DOWNSPOUT TRANSITION SECTION. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONNECTION AT TOP OF DOWNSPOUT BOOT.

3) CONTRACTOR TO ANCHOR DOWNSPOUT TRANSITION SECTION TO THE 8" SCH 40 VARIABLE LENGTH PIPE SEGMENT BOOTS TO WALL AT 4 PLACES USING MASONRY ANCHORS PER MANUFACTURER'S SPECIFICATIONS.

4) SEE STORM SEWER PLANS FOR LOCATIONS OF DOWNSPOUT.

5) CONTRACTOR TO VERIFY THAT ALL DOWNSPOUTS ARE CONNECTED TO UNDERDRAIN COLLECTION SYSTEM, AND THAT HIS CONTRACT INCLUDES ALL RESULTANT COSTS.

DOWNSPOUT CONNECTION
N.T.S.

E NTS

LISD EARLY CHILDHOOD CENTER

DRAINAGE DETAILS 1 OF 3

AtkinsRéalis
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-6840
TBPE REG. NO. F-474

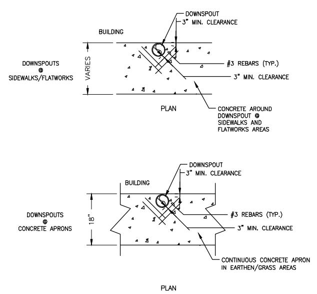
MICHAEL J SHANGREAUX 134844 — STATE OF TEXAS — PROFESSIONAL ENGINEER — 1/15/2025

DESIGNED BY:	KM
DRAWN BY:	CS/MR
CHECKED BY:	GI
APPROVED BY:	MS
DATE:	01/15/2025

NO.	REVISION	BY	DATE

SHEET NO. 59 OF 61 SHEETS

FILE NO. ECLC-DETAILS
PROJECT NO. 100090499



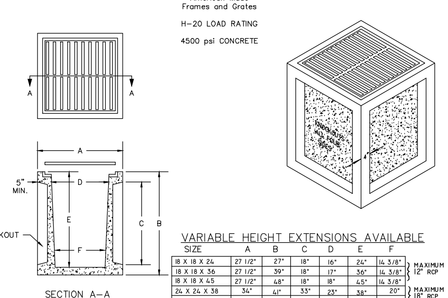
CONCRETE REINFORCEMENT AT DOWNSPOUT
N.T.S.

A NTS

CATCH BASIN
American Made
Frames and Grates

H-20 LOAD RATING

4500 psi CONCRETE



VARIABLE HEIGHT EXTENSIONS AVAILABLE

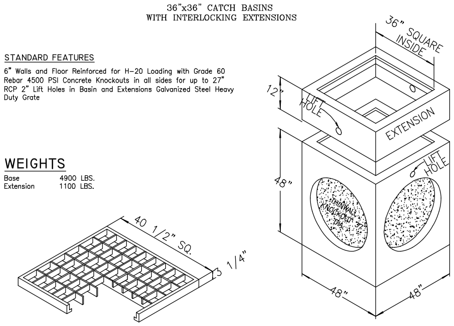
SIZE	A	B	C	D	E	F	
18 X 18 X 24	27 1/2"	27"	18"	16"	24"	14 3/8"	MAXIMUM 12" RCP
18 X 18 X 36	27 1/2"	39"	18"	17"	36"	14 3/8"	
18 X 18 X 45	27 1/2"	48"	18"	18"	45"	14 3/8"	
24 X 24 X 38	34"	41"	33"	23"	38"	20"	MAXIMUM 18" RCP
24 X 24 X 45	34"	48"	39"	24"	45"	20"	
30 X 30 X 45	40 1/2"	48"	32"	30"	45"	26"	MAXIMUM 24" RCP

HILL COUNTRY CONCRETE PRODUCTS INC.
2 3/12/98 HCCP6-1
P.O. BOX 357 Kyle, Tx 78640 (512) 268-9711
Austin Phone (512) 476-5838

36"x36" CATCH BASINS
WITH INTERLOCKING EXTENSIONS

STANDARD FEATURES
6" Walls and Floor Reinforced for H-20 Loading with Grade 60 Rebar 4500 PSI Concrete Knockouts in all sides for up to 27" RCP 2" Lift Holes in Basin and Extensions Galvanized Steel Heavy Duty Grate

WEIGHTS
Base 4900 LBS.
Extension 1100 LBS.



HILL COUNTRY CONCRETE PRODUCTS INC.
2 4/1/98 HCCP6-2
P.O. BOX 357 Kyle, Tx 78640 (512) 268-9711
Austin Phone (512) 476-5838

– OR EQUAL –

Storm Sewer Inlet Computations

Catch Basin Size LXL	Grate Size LxL	Open Area (sqft.) A	Head (ft) h	Capacity(cfs) Incl. 50% C.F.	Grate Type
1.5' x 1.5'	21 1/4" x 21 1/4"	1.22	0.50	2.07	East Jordan Iron Works Type V-5720 or Approved Equal
2' x 2'	27 1/2" x 27 1/2"	2.23	0.50	3.80	East Jordan Iron Works Type V-5726 or Approved Equal
2.5' x 2.5'	33 3/4" x 33 3/4"	3.26	0.50	5.56	East Jordan Iron Works Type V-5732 or Approved Equal
3' x 3'	42 1/2" x 42 1/2"	6.78	0.50	11.55	42 1/2" x 42 1/2" Galvanized Steel Grating Material
4' x 4'	52 1/2" x 52 1/2"	12.05	0.50	20.53	52 1/2" x 52 1/2" Galvanized Steel Grating Material

Notes:
1. All Grate Inlets Require Angle Frames to Fit Grates as Specified in Table Above.
2. Inlet in Sump (Orifice Flow)
Q = 4.82Ah^0.5 Assume 50% Clogging Factor

3. Source: City of Austin Drainage Criteria Manual, Section4.3.0 (B), September 2001 Supplement

C NTS

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NO.	REVISION	BY	DATE

DESIGNED BY: KM
DRAWN BY: CS/MR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

AtkinsRéalis
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-6840
TBPE REG. NO. F-474

STATE OF TEXAS
MICHAEL J SHANGREAUX
134844
LICENSED PROFESSIONAL ENGINEER
1/15/2025

LISD EARLY CHILDHOOD CENTER

DRAINAGE DETAILS 2 OF 3

SHEET NO. 60
OF 61 SHEETS

FILE NO. ECLC-DETAILS
PROJECT NO. 100090499

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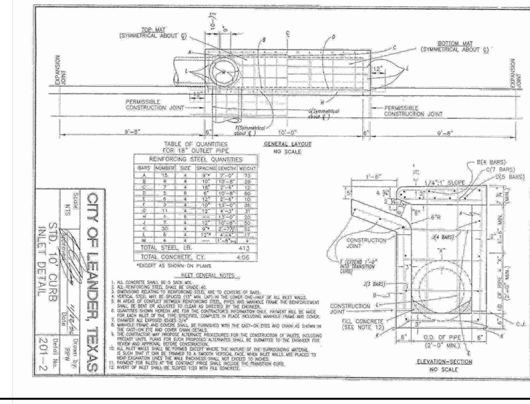
A



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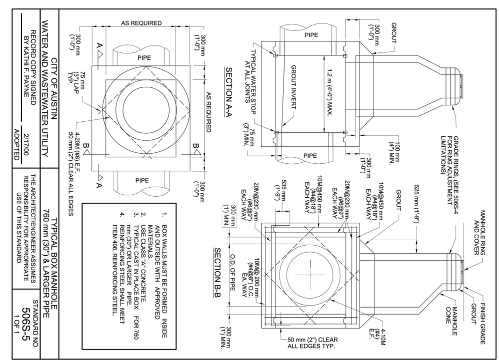
CITY OF AUSTIN
WATER AND WASTEWATER UTILITY
RECORD COPY SIGNED BY KATHI F. PAYNE
2/17/00
ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
TYPICAL BOX MANHOLE
760 mm (30") & LARGER PIPE
STANDARD NO. 506S-5
1 OF 1
SECTION A-A
SECTION B-B
AS REQUIRED
PIPE
1. BOX WALLS MUST BE FORMED INSIDE AND OUTSIDE WITH APPROVED MATERIALS.
2. USE CLASS "A" CONCRETE.
3. TYPICAL CAST IN PLACE BOX FOR 760 mm (30") OR LARGER PIPE.
4. REINFORCING STEEL SHALL MEET ITEM 406, REINFORCING STEEL.

NTS

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LISD EARLY CHILDHOOD CENTER

DRAINAGE DETAILS 3 OF 3

SHEET NO. 61 OF 61 SHEETS

FILE NO. ECLC-DETAILS
PROJECT NO. 100090499

STATE OF TEXAS
MICHAEL J SHANGREAUX
134844
LICENSED
PROFESSIONAL ENGINEER
1/15/2025

AtkinsRéalis
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-6840
TBPE REG. NO. F-474

DESIGNED BY: KM
DRAWN BY: CS/MR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

NO.	REVISION	BY	DATE

ATTACHMENT N

INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

Project Name: Early Childhood Center
Address: South-east corner of W. San Gabriel Parkway and Halsey Dr intersection
City, State, Zip: Leander, TX 78641

Regular, routine maintenance is essential to effective, long-lasting performance of sand filters. Neglect or failure to service the filters on a regular basis will lead to poor performance and eventual costly repairs. It is recommended that sand filter BMPs be inspected on a quarterly basis and after large storms for the first year of operation. This intensive monitoring is intended to ensure proper operation and provide maintenance personnel with a feel for the operational characteristics of the filter. Subsequent inspections can be limited to semi-annually or more often if deemed necessary (Young et al., 1996).

Certain construction and maintenance practices are essential to efficient operation of the filter. The biggest threat to any filtering system is exposure to heavy sediment loads that clog the filter media. Construction within the watershed should be complete prior to exposing the filter to stormwater runoff. All exposed areas should be stabilized to minimize sediment loads. Runoff from any unstabilized construction areas should be treated via a separate sediment system that bypasses the filter media.

Another important consideration in constructing the filter bed is to ensure that the top of the media is completely level. The filter design is based on the use of the entire filter media surface area; a sloped filter surface would result in disproportionate use of the filter media.

Other recommended maintenance guidelines include:

- *Inspections.* BMP facilities must be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. During each inspection, erosion areas inside and downstream of the BMP must be identified and repaired or revegetated immediately. With each inspection, any damage to the structural elements of the system (pipes, concrete drainage structures, retaining walls, etc.) must be identified and repaired immediately. Cracks, voids and undermining should be patched/filled to prevent additional structural damage. Trees and root systems should be removed to prevent growth in cracks and joints that can cause structural damage.
- *Sediment Removal.* Remove sediment from the inlet structure and sedimentation chamber when sediment buildup reaches a depth of 6 inches or when the proper functioning of inlet and outlet structures is impaired. Sediment should be cleared from the inlet structure at least every year and from the sedimentation basin at least every 5 years.

- *Media Replacement*. Maintenance of the filter media is necessary when the draw down time exceeds 48 hours. When this occurs, the upper layer of sand should be removed and replaced with new material meeting the original specifications. Any discolored sand should also be removed and replaced. In filters that have been regularly maintained, this should be limited to the top 2 to 3 inches.
- *Debris and Litter Removal*. Debris and litter will accumulate near the sedimentation basin outlet device and should be removed during regular mowing operations and inspections. Particular attention should be paid to floating debris that can eventually clog the control device or riser.
- *Filter Underdrain*. Clean underdrain piping network to remove any sediment buildup as needed to maintain design drawdown time.
- Mowing. Grass areas in and around sand filters must be mowed at least twice annually to limit vegetation height to 18 inches. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas. Vegetation on the pond embankments should be mowed as appropriate to prevent the establishment of woody vegetation.

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

Responsible Party:	Leander I.S.D.
Mailing Address:	P.O. Box 218
City, State:	Leander, TX
Zip:	78646
Telephone:	(512) 570-0000
Fax:	(512) 570-0407

Signature of Responsible Party — Date: 12/13/24

ATTACHMENT O

PILOT SCALE FIELD TESTING PLAN

Attachment O is not applicable to this project.

ATTACHMENT P

MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION

Measures used to minimize surface stream contamination during the construction of Early Childhood Center include silt fences, rock berms, and stabilized construction entrances. These temporary BMPs will be used judiciously to maintain high water quality standards of the surface runoff during construction and endeavor to prevent erosion of soils. They will remain in place until contributing disturbed areas are restored, pursuant to the definitions in the TCEQ General Permit Number TXR 150000 Relating to Discharges From Construction Activities, issued and made Effective on March 5, 2018.

The two sand filter ponds were designed according to the TCEQ Technical Guidance Manual. The selected BMP was designed to minimize pollutants that might otherwise enter any nearby surface streams. Please refer to the provided TSS Removal calculations provided in Attachment E for more information regarding the design of these ponds.

TPDES STORMWATER POLLUTION PREVENTION PLANG FOR:

LEANDER INDEPENDEDNT SCHOOL DISTRICT
EARLY CHILDCHOOD CENTER

Prepared for:

Leander Independent School District
P.O. Box 218
Leander, Texas 78646-0218

Prepared by:

11801 Domain Blvd #500
Austin, Texas 78758
(512) 327-6840
TBPE Reg. NO: F-474

December 2024

AtkinsRéalis

TABLE OF CONTENTS

Section **Page**

I. STORMWATER POLLUTION PREVENTION PLAN

A. Construction Stormwater Pollution Prevention Plan

This document establishes a plan to manage the quality of storm water runoff from construction activities associated with the **L.I.S.D. Early Childhood Center**. The TPDES General Permit for Stormwater Discharges from Construction Activities is included as Appendix B.

B. Project Name and Location

Project Name:	L.I.S.D. Early Childhood Center
Location:	Southeast of the intersection of San Gabriel Parkway and Halsey Drive, Leander, Texas 78641.
Directions:	Head north on Highway 183A from Leander. Turn left on San Gabriel Parkway. The project site is located on the northwest corner of the intersection of San Gabriel Parkway and Halsey Drive.

Latitude: 30°35'35.79"N

Longitude: 97°52'19.60"W

C. Owner Name and Address

Leander Independent School District
P.O. Box 218
Leander, Texas 78646-0218

D. Site Description

1. Description of Potential Pollutant Sources

The potential sources of storm water pollution from the construction of the L.I.S.D. Early Childhood Center are displaced soil from the construction site and petroleum products from the operation of equipment on the site.

2. Description of Construction Activities

Construction activities can be divided into three general areas: (1) clearing of the construction site; (2) construction of a school building, playgrounds, playscapes, associated paved

parking lots, paved service area, roads and sidewalks; and (3) post construction maintenance activities.

Clearing of the construction site consists of removing some trees and brush within the footprint of the planned improvements. Clearing activities are non-contiguous. Clearing activities may be completed with the aid of mechanized equipment, such as front-end loaders and possibly bulldozers, and may require some hand clearing with chainsaws. Clearing by mechanized equipment consists of shearing of some select trees, gathering (piling) the brush and trees, and converting them to mulch that will hauled off-site by mulch dealers or used on site.

Construction of the Early Childhood Center consists of contouring portions of the site and installing an underground drainage and utility system. Leveling and contouring the site requires the cut and fill of natural soil features, and may require the importation or exportation of soil. Drainage system installation requires trenching for placement of inlets and pipe. Other types of vehicles that may be used in this type of construction are concrete trucks, dump trucks and pick-ups, which carry personnel and materials required to supervise and complete construction of the schools, as well as dozers, excavators, and backhoes.

Post-construction maintenance activities consist of re-vegetating non-improved areas of the site disturbed by construction activities with Bermuda grass. Potential post-construction ground disturbing maintenance activities typically consist of mowing the areas planted with grass and/or minor repairs to the underground utility system.

3. Sequence of Major Construction Activities

- SWPPP Controls, Installation of Sediment Barriers.
- Preliminary Site Clearings.
- Site Clearing. Removal of brush and some trees.
- Site Grading. Level and contour site.
- Installation of Drainage Structures, Inlets and Storm Sewers.
- Installation of other utilities.
- Construction of Buildings, Associated Parking Lots, Roadways, and Associated Structures.
- Site Restoration. Planting of Bermuda grasses in landscaped islands and around buildings. Establishment of grasses and landscaped areas.
- Removal of SWPPP Controls/ Notice of Termination.

- Typical Maintenance Activities.

4. Estimates of Total Construction Site Area

The Limits of Construction area is 36.59 acres. The estimated total area to be disturbed by excavation, grading, or other activities is approximately 25.54-acres.

5. Estimates of the Site Runoff Coefficient

The runoff coefficient curve number (CN) is the Soil Conservation Services developed a dimensionless curve number that relates the type of soil and land development to the excess rainfall and direct runoff.

Estimate of pre-construction conditions CN = 80

Pasture, grassland, range; good condition; Hydrologic Soil Group D

Estimate of post-construction conditions CN = 83

Combination of impervious areas with good condition grass landscaped.

6. General Location Map

A General Location Map has been included in Appendix A.

7. Erosion and Sedimentation Controls.

The Erosion and Sedimentation Control Plan identifies the limits of construction, drainage patterns, areas where ground-disturbing activities occur, and the general location of storm water pollution prevention best management practices. The plans will be updated, if necessary, to reflect current construction activities. A copy of the Erosion and Sedimentation Control plan has been included in Appendix C.

8. Discharges of Storm Water Associated with Construction Support Activities

The contractor is responsible for listing the location and description of asphalt and concrete plants, equipment staging areas, material storage yards, concrete discharge, fuel storage, material borrow areas and excavated material disposal areas providing construction support to the site. Locations and descriptions records shall be retained with this SWP3. Staging areas and concrete wash out are shown on the AtkinsRéalis improvements plans, erosion control sheet. The contractor

is also responsible for assuring that the support providers to the site located beyond 1-mile of the construction site perimeter are authorized under TCEQ's "TPDES general permit NO. TXR150000".

9. Name of Receiving Waters

The project site drains to North Fork Brushy Creek.

E. Controls

1. Erosion and Sediment Controls

(a) Temporary Controls

Prior to clearing, and through the construction phase, the contractor will use a combination of silt fencing, a temporary sediment trap, stabilized construction entrances and exits, inlet protection, and rock berms as temporary controls. Their locations are provided on the Erosion and Sedimentation Control Plans. A copy of the Erosion and Sedimentation Control Plans is included in Appendix C of this document.

(b) Stabilization Practices

Permanent erosion and sedimentation controls to be used on the project include sand filter ponds, vegetative stabilization in non-improved areas that will be disturbed during construction activities, dissipaters on all culvert outfalls, rock or concrete rip-rap at proposed channel outlets, and revegetative matting on all slopes greater than 3:1 and in locations indicated on the Site Grading Plans.

2. Structural Control Practices and Permanent Storm Water Controls

Upon completion of the proposed developments, the storm water will drain into the two proposed ponds. The ponds have been designed in compliance with the Texas Commission on Environmental Quality (TCEQ) Technical Design Manual, complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices, RG-348, 2005 (TSS Removal and BMP Sizing Calculations, Section 3.3)

3. Other Pollution Prevention Controls

(a) Off-Site Vehicle Tracking of Sediment and Dust Generation

A stabilized construction entrance will be in place to prevent off-site vehicle tracking of sediments. During the construction process, a water truck will be used to control the generation of dust.

(b) Waste Disposal

All waste material will be collected and stored in a secure metal dumpster, which will be regularly emptied. No construction materials will be buried on site. Petroleum products will be properly disposed of off-site. Sanitary waste will be collected and disposed of properly in accordance with local regulations.

(c) Pollution Sources Other than Construction

A potential pollution source other than construction debris and silt is the potential spill of hydrocarbons from any temporary above-ground storage tanks. Tanks shall be limited in size to less than 500 gallons as per TCEQ regulations. Secondary containment for this tank shall be provided by the contractor per current EPA requirements. Any potential spills are addressed per the Spill Protection Plan under Appendix D.

(d) State/Local Waste Disposal, Sanitary Sewer and Septic System Regulations

State and local waste disposal, sanitary sewer and septic system regulations will be followed in the development of this site.

4. Approved State or Local Plans

State and local regulatory requirements have been reviewed. A development permit will be pursued with the City of Leander. There are no other known state or local regulations for sediment and erosion site plans or permits required for the project.

F. Maintenance and Inspections

The forms to be used for maintenance inspections, Maintenance Form A and Maintenance Form B are found in Appendix F. These forms shall be completed following each inspection.

G. Special Conditions, Management Practices, and Other Non-Numeric Limitations

Non-storm water discharges are not expected from this site.

During construction, irrigation waters will be applied to planted grasses and landscape plants through a sprinkler system to establish and maintain them.

H. SWPPP Requirements

The permittee must comply with all requirements and conditions of the General Permit and this SWP3. A responsible corporate official must certify the SWP3. In signing the plan, the corporate officer attests that he has read and fully understands the General Permit requirements and conditions.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.
Sign as required by30 TAC 305.128

Signed: _____ ***Date:*** 12/13/24

Name:

Title:

LEANDER ISD	COO	12/13/24
Owner/Developer	*Title*	*Date*
JEREMY TRIMBLE	512-570-0415	
Printed Name	*Phone Number*	

Contractor	*Title*	*Date*
Printed Name	*Phone Number*	
Michael Shangreaux, P.E. Digitally signed by Michael Shangreaux, P.E. DN: C=US, E=michael.shangreaux@atkinsrealis.com, O=AtkinsRealis, CN="Michael Shangreaux, P.E." Date: 2024.12.16 13:18:54-06'00'	Project Manager	12-16-2024
Other Operator (if applicable)	*Title*	*Date*
Michael Shangreaux	512.340.1193	
Printed Name	*Phone Number*	

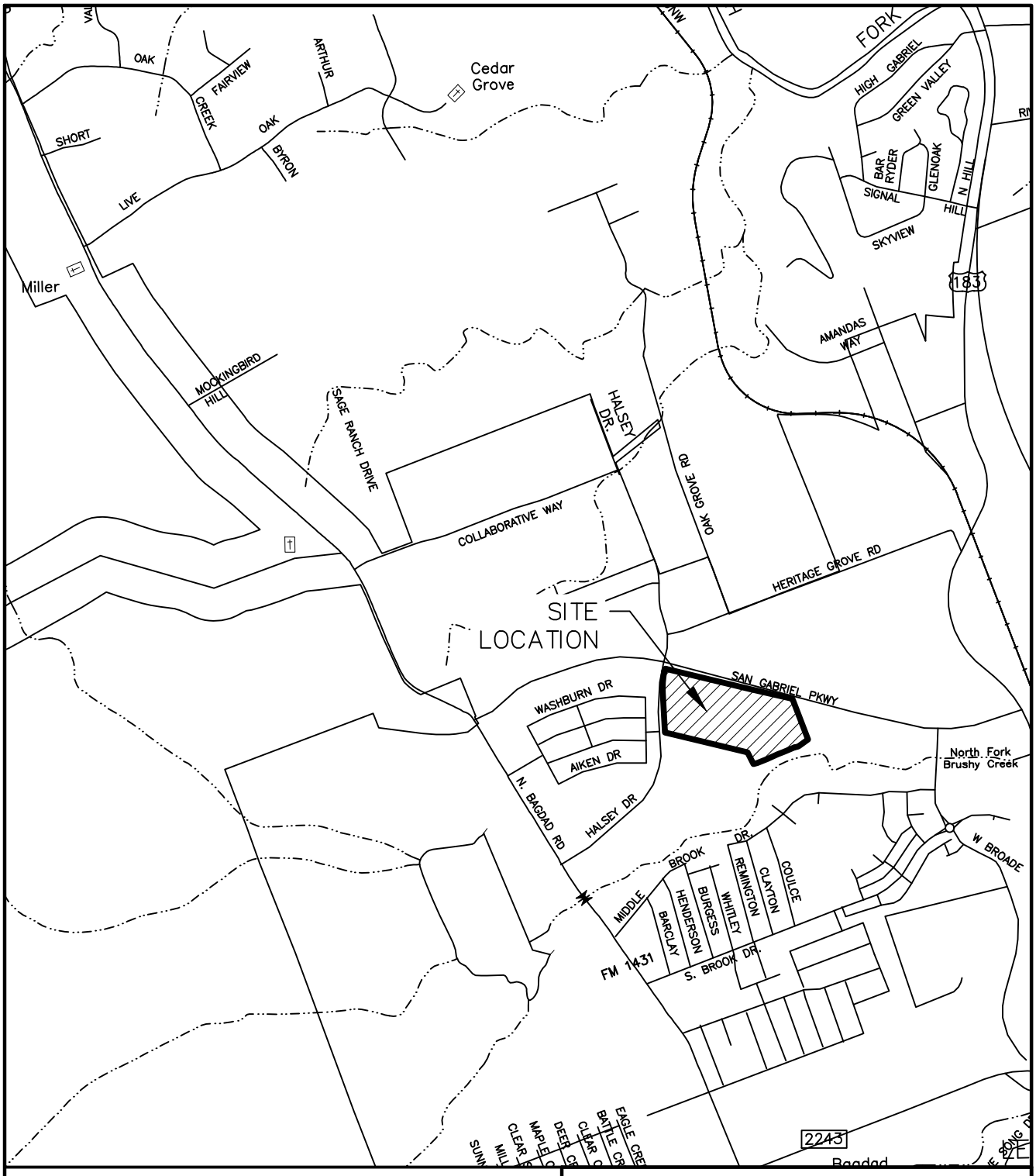
Other Operator (if applicable)	*Title*	*Date*
Printed Name	*Phone Number*	

II. ATTACHMENTS LIST

Attachment A General Location Map
Attachment B TPDES General Permit for Stormwater
Attachment C Erosion and Sedimentation Control Plans
Attachment D Spill Response Plan
Attachment E Large Construction Site Notice
Attachment F Maintenance Inspection Forms
Attachment G Web Soil Survey

ATTACHMENT A

General Location Map



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11801 Domain Boulevard, Suite 500
Austin, Texas 78758
Phone: (512) 327-6840 FAX: (512) 327-2453

LISD EARLY CHILDHOOD CENTER
GENERAL LOCATION MAP
ATTACHMENT "A"

Prepared for: LEANDER INDEPENDENT SCHOOL DISTRICT	
Job No.: 100090499	Scale: 1"=2000'
Drawn by: K.M.	Date: DECEMBER, 15 2024
File: C:\USERS\MELL7452\ONEDRIVE\DOCUMENTS\ECC\POND DESIGN\WATER QUALITY\TCEQ\ECC CZP\ECC-ROAD ATTACHMENT A.DWG	

ATTACHMENT B

TPDES General Permit to Discharge Stormwater

Texas Commission on Environmental Quality

P.O. Box 13087, Austin, Texas 78711-3087

GENERAL PERMIT TO DISCHARGE UNDER THE

TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM

under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

This permit supersedes and replaces
TPDES General Permit No. TXR150000,
effective March 5, 2018, and amended January 28, 2022

Construction sites that discharge stormwater associated with construction activity located in the state of Texas may discharge to surface water in the state only according to monitoring requirements and other conditions set forth in this general permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ or Commission), the laws of the State of Texas, and other orders of the Commission of the TCEQ. The issuance of this general permit does not grant to the permittee the right to use private or public property for conveyance of stormwater and certain non-stormwater discharges along the discharge route. This includes property belonging to but not limited to any individual, partnership, corporation or other entity. Neither does this general permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This general permit and the authorization contained herein shall expire at midnight, on March 5, 2028.

EFFECTIVE DATE: March 5, 2023

ISSUED DATE: February 27, 2023

For the Commission

TPDES GENERAL PERMIT NUMBER TXR150000

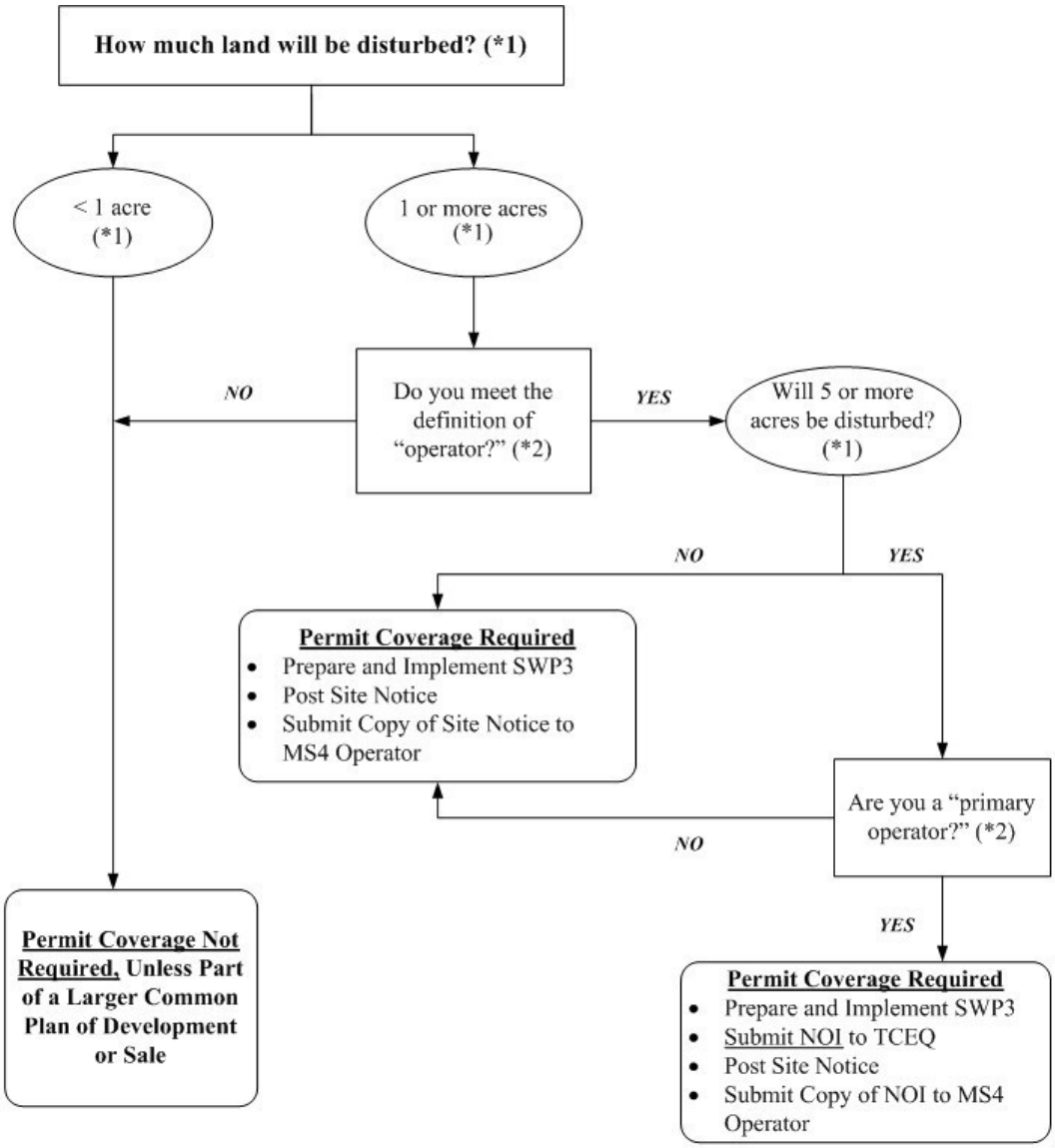
RELATING TO STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES

Table of Contents

Part I. Flow Chart and Definitions

Section A. Flow Chart to Determine Whether Coverage is Required

When calculating the acreage of land area disturbed, include the disturbed land-area of all construction and construction support activities.



(*1) To determine the size of the construction project, use the size of the entire area to be disturbed, and include the size of the larger common plan of development or sale, if the project is part of a larger project (refer to Part I.B., "Definitions," for an explanation of "common plan of development or sale").

(*2) Refer to the definitions for "operator," "primary operator," and "secondary operator" in Part I., Section B. of this permit.

Section B. Definitions

Arid Areas – Areas with an average annual rainfall of zero (0) to ten (10) inches.

Best Management Practices (BMPs) – Schedules of activities, prohibitions of practices, maintenance procedures, structural controls, local ordinances, and other management practices to prevent or reduce the discharge of pollutants. BMPs also include treatment requirements, operating procedures, and practices to control construction site runoff, spills or leaks, waste disposal, or drainage from raw material storage areas.

Commencement of Construction – The initial disturbance of soils associated with clearing, grading, or excavation activities, as well as other construction-related activities (e.g., demolition; grubbing; stockpiling of fill material; placement of raw materials at the site).

Common Plan of Development – A construction activity that is completed in separate stages, separate phases, or in combination with other construction activities. A common plan of development (also known as a "common plan of development or sale") is identified by the documentation for the construction project that identifies the scope of the project, and may include plats, blueprints, marketing plans, contracts, building permits, a public notice or hearing, zoning requests, or other similar documentation and activities. A common plan of development does not necessarily include all construction projects within the jurisdiction of a public entity (e.g., a city or university). Construction of roads or buildings in different parts of the jurisdiction would be considered separate "common plans," with only the interconnected parts of a project being considered part of a "common plan" (e.g., a building and its associated parking lot and driveways, airport runway and associated taxiways, a building complex, etc.). Where discrete construction projects occur within a larger common plan of development or sale but are located one quarter (¼) mile or more apart, and the area between the projects is not being disturbed, each individual project can be treated as a separate plan of development or sale, provided that any interconnecting road, pipeline or utility project that is part of the same "common plan" is not included in the area to be disturbed.

Construction Activity – Includes soil disturbance activities, including clearing, grading, excavating, construction-related activity (e.g., stockpiling of fill material, demolition), and construction support activity. This does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (e.g., the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing rights-of-way, and similar maintenance activities). Regulated construction activity is defined in terms of small and large construction activity.

Construction Support Activity – A construction-related activity that specifically supports construction activity, which can involve earth disturbance or pollutant-generating activities of its own, and can include, but are not limited to, activities associated with concrete or asphalt batch plants, rock crushers, equipment staging or storage areas, chemical storage areas, material storage areas, material borrow areas, and excavated material disposal areas. Construction support activity must only directly support the construction activity authorized under this general permit.

Dewatering – The act of draining accumulated stormwater or groundwater from building foundations, vaults, trenches, and other similar points of accumulation.

Discharge – For the purposes of this permit, the drainage, release, or disposal of pollutants in stormwater and certain non-stormwater from areas where soil disturbing activities (e.g., clearing, grading, excavation, stockpiling of fill material, and demolition), construction materials or equipment storage or maintenance (e.g., fill piles, borrow area, concrete truck wash out, fueling), or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants) are located.

Drought-Stricken Area – For the purposes of this permit, an area in which the National Oceanic and Atmospheric Administration's U.S. Seasonal Drought Outlook indicates for the period during which the construction will occur that any of the following conditions are likely: (1) "Drought to persist or intensify", (2) "Drought ongoing, some improvement", (3) "Drought likely to improve, impacts ease", or (4) "Drought development likely". See http://www.cpc.ncep.noaa.gov/products/expert_assessment/seasonal_drought.html.

Edwards Aquifer – As defined under Texas Administrative Code (TAC) § 213.3 of this title (relating to the Edwards Aquifer), that portion of an arcuate belt of porous, water-bearing, predominantly carbonate rocks known as the Edwards and Associated Limestones in the Balcones Fault Zone trending from west to east to northeast in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, and Williamson Counties; and composed of the Salmon Peak Limestone, McKnight Formation, West Nueces Formation, Devil's River Limestone, Person Formation, Kainer Formation, Edwards Formation, and Georgetown Formation. The permeable aquifer units generally overlie the less-permeable Glen Rose Formation to the south, overlie the less-permeable Comanche Peak and Walnut Formations north of the Colorado River, and underlie the less-permeable Del Rio Clay regionally.

Edwards Aquifer Recharge Zone – Generally, that area where the stratigraphic units constituting the Edwards Aquifer crop out, including the outcrops of other geologic formations in proximity to the Edwards Aquifer, where caves, sinkholes, faults, fractures, or other permeable features would create a potential for recharge of surface waters into the Edwards Aquifer. The recharge zone is identified as that area designated as such on official maps located in the offices of the Texas Commission on Environmental Quality (TCEQ) and the appropriate regional office. The Edwards Aquifer Map Viewer, located at https://www.tceq.texas.gov/gis/edwards-viewer.html

Edwards Aquifer Contributing Zone – The area or watershed where runoff from precipitation flows downgradient to the recharge zone of the Edwards Aquifer. The contributing zone is located upstream (upgradient) and generally north and northwest of the recharge zone for the following counties: all areas within Kinney County, except the area within the watershed draining to Segment No. 2304 of the Rio Grande Basin; all areas within Uvalde, Medina, Bexar, and Comal Counties; all areas within Hays and Travis Counties, except the area within the watersheds draining to the Colorado River above a point 1.3 miles upstream from Tom Miller Dam, Lake Austin at the confluence of Barrow Brook Cove, Segment No. 1403 of the Colorado River Basin; and all areas within Williamson County, except the area within the watersheds draining to the Lampasas River above the dam at Stillhouse Hollow reservoir, Segment No. 1216 of the Brazos River Basin. The contributing zone is illustrated on the Edwards Aquifer map viewer at https://www.tceq.texas.gov/gis/edwards-viewer.html

Effluent Limitations Guideline (ELG) – Defined in 40 Code of Federal Regulations (CFR) § 122.2 as a regulation published by the Administrator under § 304(b) of the Clean Water Act (CWA) to adopt or revise effluent limitations.

Facility or Activity – For the purpose of this permit, referring to a construction site, the location of construction activity, or a construction support activity that is regulated under this general permit, including all contiguous land and fixtures (for example, ponds and materials stockpiles), structures, or appurtenances used at a construction site or industrial site.

Final Stabilization – A construction site status where any of the following conditions are met:

(a) All soil disturbing activities at the site have been completed and a uniform (that is, evenly distributed, without large bare areas) perennial vegetative cover with a density of at least 70% of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, or gabions) have been employed.

(b) For individual lots in a residential construction site by either:

(1) the homebuilder completing final stabilization as specified in condition (a) above; or

(2) the homebuilder establishing temporary stabilization for an individual lot prior to the time of transfer of the ownership of the home to the buyer and after informing the homeowner of the need for, and benefits of, final stabilization. If temporary stabilization is not feasible, then the homebuilder may fulfill this requirement by retaining perimeter controls or BMPs, and informing the homeowner of the need for removal of temporary controls and the establishment of final stabilization. Fulfillment of this requirement must be documented in the homebuilder's stormwater pollution prevention plan (SWP3).

(c) For construction activities on land used for agricultural purposes (such as pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to surface water and areas that are not being returned to their preconstruction agricultural use must meet the final stabilization conditions of condition (a) above.

(d) In arid, semi-arid, and drought-stricken areas only, all soil disturbing activities at the site have been completed and both of the following criteria have been met:

(1) temporary erosion control measures (for example, degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years without active maintenance by the operator, and

(2) the temporary erosion control measures are selected, designed, and installed to achieve 70% of the native background vegetative coverage within three years.

High-Level Radioactive Waste – Meaning as assigned by 42 United States Code (U.S.C.) Section 10101 (12) and includes spent nuclear fuel as defined by 42 U.S.C. Section 10101 (23).

Hyperchlorination of Waterlines – Treatment of potable water lines or tanks with chlorine for disinfection purposes, typically following repair or partial replacement of the waterline or tank, and subsequently flushing the contents.

Impaired Water – A surface water body that is identified as impaired on the latest approved CWA § 303(d) List or waters with an EPA-approved or established total maximum daily load (TMDL) that are found on the latest EPA approved *Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d)*, which lists the category 4 and 5 water bodies.

Indian Country Land – (1) All land within the limits of any Indian reservation under the jurisdiction of the United States government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation; (2) all dependent Indian communities with the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and (3) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same. (40 CFR § 122.2)

Indian Tribe – Any Indian Tribe, band, group, or community recognized by the Secretary of the Interior and exercising governmental authority over a Federal Indian Reservation (40 CFR § 122.2).

Infeasible – Not technologically possible, or not economically practicable and achievable in light of best industry practices. (40 CFR § 450.11(b)).

Large Construction Activity – Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than five (5) acres of land. Large construction activity also includes the disturbance of less than five (5) acres of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than five (5) acres of land. Large construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (for example, the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities).

Linear Project – Includes the construction of roads, bridges, conduits, substructures, pipelines, sewer lines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities in a long, narrow area.

Low Rainfall Erosivity Waiver (LREW) – A written submission to the executive director from an operator of a construction site that is considered as small construction activity under the permit, which qualifies for a waiver from the requirements for small construction activities, only during the period of time when the calculated rainfall erosivity factor is less than five (5).

Minimize – To reduce or eliminate to the extent achievable using stormwater controls that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer System (MS4) – A separate storm sewer system owned or operated by the United States, a state, city, town, county, district, association, or other public body (created by or pursuant to state law) having jurisdiction over the disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, that discharges to surface water in the state.

Notice of Change (NOC) – Written notification to the executive director from a discharger authorized under this permit, providing changes to information that was previously provided to the agency in a notice of intent form.

Notice of Intent (NOI) – A written submission to the executive director from an applicant requesting coverage under this general permit.

Notice of Termination (NOT) – A written submission to the executive director from a discharger authorized under this general permit requesting termination of coverage.

Operator – The person or persons associated with a large or small construction activity that is either a primary or secondary operator as defined below:

Primary Operator – The person or persons associated with construction activity that meets either of the following two criteria:

(a) the person or persons have on-site operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or

(b) the person or persons have day-to-day operational control of those activities at a construction site that are necessary to ensure compliance with a Stormwater Pollution Prevention Plan (SWP3) for the site or other permit conditions (for example, they are authorized to direct workers at a site to carry out activities required by the SWP3 or comply with other permit conditions).

Secondary Operator – The person or entity, often the property owner, whose operational control is limited to:

(a) the employment of other operators, such as a general contractor, to perform or supervise construction activities; or

(b) the ability to approve or disapprove changes to construction plans and specifications, but who does not have day-to-day on-site operational control over construction activities at the site.

Secondary operators must either prepare their own SWP3 or participate in a shared SWP3 that covers the areas of the construction site, where they have control over the construction plans and specifications.

If there is not a primary operator at the construction site, then the secondary operator is defined as the primary operator and must comply with the requirements for primary operators.

Outfall – For the purpose of this permit, a point source at the point where stormwater runoff associated with construction activity discharges to surface water in the state and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels, or other conveyances that connect segments of the same stream or other water of the U.S. and are used to convey waters of the U.S.

Permittee – An operator authorized under this general permit. The authorization may be gained through submission of a notice of intent, by waiver, or by meeting the requirements for automatic coverage to discharge stormwater runoff and certain non-stormwater discharges from construction activity.

Point Source – Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are, or may be, discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff (40 CFR § 122.2).

Pollutant – Dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, filter backwash, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into any surface water in the state. The term "pollutant" does not include tail water or runoff water from irrigation or rainwater runoff from cultivated or uncultivated rangeland, pastureland, and farmland. For the purpose of this permit, the term “pollutant” includes sediment.

Pollution – The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any surface water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property or to public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose (Texas Water Code (TWC) § 26.001(14)).

Rainfall Erosivity Factor (R factor) – The total annual erosive potential that is due to climatic effects, and is part of the Revised Universal Soil Loss Equation (RUSLE).

Receiving Water – A "Water of the United States" as defined in 40 CFR § 122.2 or a surface water in the state into which the regulated stormwater discharges.

Semi-arid Areas – Areas with an average annual rainfall of 10 to 20 inches.

Separate Storm Sewer System – A conveyance or system of conveyances (including roads with drainage systems, streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains), designed or used for collecting or conveying stormwater; that is not a combined sewer, and that is not part of a publicly owned treatment works (POTW).

Small Construction Activity – Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one (1) acre and less than five (5) acres of land. Small construction activity also includes the disturbance of less than one (1) acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one (1) and less than five (5) acres of land. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (for example, the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities).

Steep Slopes – Where a state, Tribe, local government, or industry technical manual (e.g., stormwater BMP manual) has defined what is to be considered a "steep slope", this permit's definition automatically adopts that definition. Where no such definition exists, steep slopes are automatically defined as those that are 15 percent or greater in grade.

Stormwater (or Stormwater Runoff) – Rainfall runoff, snow melt runoff, and surface runoff and drainage.

Stormwater Associated with Construction Activity – Stormwater runoff, as defined above, from a construction activity.

Structural Control (or Practice) – A pollution prevention practice that requires the construction of a device, or the use of a device, to reduce or prevent pollution in stormwater runoff. Structural controls and practices may include but are not limited to: silt fences, earthen dikes, drainage swales, sediment traps, check dams, subsurface drains, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins.

Surface Water in the State – Lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state (from the mean high water mark (MHWM) out 10.36 miles into the Gulf), and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or non-navigable, and including the beds and banks of all water-courses and bodies of surface water, that are wholly or partially inside or bordering the state or subject to the jurisdiction of the state; except that waters in treatment systems which are authorized by state or federal law, regulation, or permit, and which are created for the purpose of waste treatment are not considered to be water in the state.

Temporary Stabilization – A condition where exposed soils or disturbed areas are provided a protective cover or other structural control to prevent the migration of pollutants. Temporary stabilization may include temporary seeding, geotextiles, mulches, and other techniques to reduce or eliminate erosion until either permanent stabilization can be achieved or until further construction activities take place.

Thawing Conditions – For the purposes of this permit, thawing conditions are expected based on the historical likelihood of two (2) or more days with daytime temperatures greater than 32 degrees Fahrenheit (℉). This date can be determined by looking at historical weather data.

NOTE: The estimation of thawing conditions is for planning purposes only. During construction, the permittee will be required to conduct site inspections based upon actual conditions (i.e., if thawing conditions occur sooner than expected, the permittee will be required to conduct inspections at the regular frequency).

Total Maximum Daily Load (TMDL) – The total amount of a pollutant that a water body can assimilate and still meet the Texas Surface Water Quality Standards.

Turbidity – A condition of water quality characterized by the presence of suspended solids and/or organic material.

Waters of the United States – Waters of the United States or waters of the U.S. means the term as defined in 40 CFR § 122.2.

Part II. Permit Applicability and Coverage

Section A. Discharges Eligible for Authorization

1. Stormwater Associated with Construction Activity

   Discharges of stormwater runoff and certain non-stormwater discharges from small and large construction activities may be authorized under this general permit, except as described in Part II.C. of this permit.

2. Discharges of Stormwater Associated with Construction Support Activities

   Discharges of stormwater runoff and certain non-stormwater discharges from construction support activities as defined in Part I.B. of this general permit may be authorized, provided that the following conditions are met:

   (a) the construction support activities are located within one (1) mile from the boundary of the construction site where the construction activity authorized under the permit is being conducted that requires the support of these activities;

   (b) an SWP3 is developed and implemented for the permitted construction site according to the provisions in Part III.F. of this general permit, including appropriate controls and measures to reduce erosion and the discharge of pollutants in stormwater runoff according to the provisions in Part IV. of this general permit;

   (c) the activities are directly related to the construction site;

   (d) the activities are not a commercial operation, nor serve other unrelated construction projects; and

   (e) the activities do not continue to operate beyond the completion of the construction activity at the project it supports.

   Construction support activities that operate outside the terms provided in (a) through (e) above must obtain authorization under a separate Texas Pollutant Discharge Elimination System (TPDES) permit, which may include the TPDES Multi-Sector General Permit (MSGP), TXR050000 (related to stormwater discharges associated with industrial activity), an alternative general permit (if available), or an individual water quality permit.

3. Non-Stormwater Discharges

   The following non-stormwater discharges from sites authorized under this general permit are also eligible for authorization under this general permit:

(a) discharges from emergency fire-fighting activities (emergency fire-fighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, or similar activities);

(b) uncontaminated fire hydrant flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life), which include flushings from systems that utilize potable water, surface water, or groundwater that does not contain additional pollutants (uncontaminated fire hydrant flushings do not include systems utilizing reclaimed wastewater as a source water);

(c) water from the routine external washing of vehicles, the external portion of buildings or structures, and pavement, where solvents, detergents, and soaps are not used, where spills or leaks of toxic or hazardous materials have not occurred (unless spilled materials have been removed; and if local state, or federal regulations are applicable, the materials are removed according to those regulations), and where the purpose is to remove mud, dirt, or dust;

(d) uncontaminated water used to control dust;

(e) potable water sources, including waterline flushings, but excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life;

(f) uncontaminated air conditioning condensate;

(g) uncontaminated ground water or spring water, including foundation or footing drains where flows are not contaminated with industrial materials such as solvents; and

(h) lawn watering and similar irrigation drainage.

4. Other Permitted Discharges

Any discharge authorized under a separate National Pollutant Discharge Elimination System (NPDES), TPDES, or TCEQ permit may be combined with discharges authorized by this general permit, provided those discharges comply with the associated permit.

Section B. Concrete Truck Wash Out

The wash out of concrete trucks at regulated construction sites must be performed in accordance with the requirements of Part VI of this general permit.

Section C. Limitations on Permit Coverage

1. Post Construction Discharges

Discharges that occur after construction activities have been completed, and after the construction site and any supporting activity site have undergone final stabilization, are not eligible for coverage under this general permit. Discharges originating from the sites are not authorized under this general permit following the submission of the Notice of Termination (NOT) or removal of the appropriate TCEQ site notice, as applicable, for the regulated construction activity.

2. Prohibition of Non-Stormwater Discharges

Except as otherwise provided in Part II.A. of this general permit, only discharges that are composed entirely of stormwater associated with construction activity may be authorized under this general permit.

3. Compliance with Water Quality Standards

   Discharges to surface water in the state that would cause, have the reasonable potential to cause, or contribute to a violation of water quality standards or that would fail to protect and maintain existing designated uses of surface water in the state are not eligible for coverage under this general permit. The executive director may require an application for an individual permit or alternative general permit (see Parts II.H.2. and 3.) to authorize discharges to surface water in the state if the executive director determines that any activity will cause, has the reasonable potential to cause, or contribute to a violation of water quality standards or is found to cause, has the reasonable potential to cause, or contribute to, the impairment of a designated use. The executive director may also require an application for an individual permit considering factors described in Part II.H.3. of this general permit.

4. Impaired Receiving Waters and Total Maximum Daily Load (TMDL) Requirements

   The permittee shall determine whether the authorized discharge is to an impaired water body on the latest EPA-approved CWA § 303(d) List or waters with an EPA-approved or established TMDL that are found on the latest EPA-approved *Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d)*, which lists the category 4 and 5 water bodies.

   New sources or new discharges of the pollutants of concern to impaired waters are not authorized by this permit unless otherwise allowable under 30 TAC Chapter 305 and applicable state law. Impaired waters are those that do not meet applicable water quality standard(s) and are listed as category 4 or 5 in the current version of the *Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d)*, and waterbodies listed on the CWA § 303(d) List. Pollutants of concern are those for which the water body is listed as impaired.

   Discharges of the pollutants of concern to impaired water bodies for which there is a TMDL are not eligible for coverage under this general permit unless they are consistent with the approved TMDL. Permittees must incorporate the conditions and requirements applicable to their discharges into their SWP3, in order to be eligible for coverage under this general permit. For consistency with the construction stormwater-related items in an approved TMDL, the SWP3 must be consistent with any applicable condition, goal, or requirement in the TMDL, TMDL Implementation Plan (I-Plan), or as otherwise directed by the executive director.

5. Discharges to the Edwards Aquifer Recharge or Contributing Zone

   Discharges cannot be authorized by this general permit where prohibited by 30 TAC Chapter 213 (relating to Edwards Aquifer). In addition, commencement of construction (see definition for commencement of construction in Part I.B. above)) at a site regulated under 30 TAC Chapter 213, may not begin until the appropriate Edwards Aquifer Protection Plan (EAPP) has been approved by the TCEQ's Edwards Aquifer Protection Program.

   (a) For new discharges located within the Edwards Aquifer Recharge Zone, or within that area upstream from the recharge zone and defined as the Contributing Zone (CZ), operators must meet all applicable requirements of, and operate according to, 30 TAC Chapter 213 (Edwards Aquifer Rule) in addition to the provisions and requirements of this general permit.

(b) For existing discharges located within the Edwards Aquifer Recharge Zone, the requirements of the agency-approved Water Pollution Abatement Plan (WPAP) under the Edwards Aquifer Rule are in addition to the requirements of this general permit. BMPs and maintenance schedules for structural stormwater controls, for example, may be required as a provision of the rule. All applicable requirements of the Edwards Aquifer Rule for reductions of suspended solids in stormwater runoff are in addition to the requirements in this general permit for this pollutant.

(c) For discharges located within ten (10) stream miles upstream of the Edwards Aquifer recharge zone, applicants shall also submit a copy of the NOI to the appropriate TCEQ regional office.

Counties: Comal, Bexar, Medina, Uvalde, and Kinney

Contact: TCEQ Water Program Manager
San Antonio Regional Office
14250 Judson Road
San Antonio, Texas 78233-4480
(210) 490-3096

Counties: Williamson, Travis, and Hays

Contact: TCEQ Water Program Manager
Austin Regional Office
12100 Park 35 Circle
Room 179, Building A
Austin, Texas 78753
(512) 339-2929

6. Discharges to Specific Watersheds and Water Quality Areas

Discharges otherwise eligible for coverage cannot be authorized by this general permit where prohibited by 30 TAC Chapter 311 (relating to Watershed Protection) for water quality areas and watersheds.

7. Protection of Streams and Watersheds by Other Governmental Entities

This general permit does not limit the authority or ability of federal, other state, or local governmental entities from placing additional or more stringent requirements on construction activities or discharges from construction activities.

8. Indian Country Lands

Stormwater runoff from construction activities occurring on Indian Country lands are not under the authority of the TCEQ and are not eligible for coverage under this general permit. If discharges of stormwater require authorization under federal NPDES regulations, authority for these discharges must be obtained from the U.S. Environmental Protection Agency (EPA).

9. Exempt Oil and Gas Activities

The CWA § 402(l)(2) provides that stormwater discharges from construction activities related to oil and gas exploration, production, processing, or treatment, or transmission facilities are exempt from regulation under this permit. The term “oil and gas exploration, production, processing, or treatment operations, or transmission facilities” is defined in 33 U.S.C. Annotated § 1362 (24).

The exemption in CWA § 402(l)(2) *includes* stormwater discharges from construction activities regardless of the amount of disturbed acreage, which are necessary to prepare a site for drilling and the movement and placement of drilling equipment, drilling waste management pits, in field treatment plants, and in field transportation infrastructure (e.g., crude oil pipelines, natural gas treatment plants, and both natural gas transmission pipeline compressor and crude oil pumping stations) necessary for the operation of most producing oil and gas fields. Construction activities are defined in 33 U.S. Code § 1362(24) and interpreted by EPA in the final rule. *See* June 12, 2006 Amendments to the NPDES Regulations for Storm Water Discharges Associated with Oil and Gas Exploration, Production, Processing, or Treatment Operations or Transmission Facilities (71 FR 33628, Part V. Terminology).

The exemption *does not include* stormwater discharges from the construction of administrative buildings, parking lots, and roads servicing an administrative building at an oil and gas site, as these are considered traditional construction activities.

As described in 40 CFR § 122.26(c)(1)(iii) [*regulations prior to 2006*], discharges from oil and gas construction activities are waived from CWA § 402(l)(2) permit coverage *unless* the construction activity (or construction support activity) has had a discharge of stormwater resulting in the discharge of a reportable quantity of oil or hazardous substances or the discharge contributes to a violation of water quality standards.

Exempt oil and gas activities which have lost their exemption as a result of one of the above discharges, must obtain permit coverage under this general permit, an alternative general permit, or a TPDES individual permit prior to the next discharge.

10. Stormwater Discharges from Agricultural Activities

Stormwater discharges from agricultural activities that are not point source discharges of stormwater are not subject to TPDES permit requirements. These activities may include clearing and cultivating ground for crops, construction of fences to contain livestock, construction of stock ponds, and other similar agricultural activities. Discharges of stormwater runoff associated with the construction of facilities that are subject to TPDES regulations, such as the construction of concentrated animal feeding operations, would be point sources regulated under this general permit.

11. Endangered Species Act

Discharges that would adversely affect a listed endangered or threatened aquatic or aquatic-dependent species or its critical habitat are not authorized by this permit, unless the requirements of the Endangered Species Act are satisfied. Federal requirements related to endangered species apply to all TPDES permitted discharges and site-specific controls may be required to ensure that protection of endangered or threatened species is achieved. If a permittee has concerns over potential impacts to listed species, the permittee may contact TCEQ for additional information.

12. Storage of High-Level Radioactive Waste

Discharges of stormwater from construction activities associated with the construction of a facility that is licensed for the storage of high-level radioactive waste by the United States Nuclear Regulatory Commission under 10 CFR Part 72 are not authorized by this general permit. Texas Health and Safety Code (THSC) § 401.0525 prohibits TCEQ from issuing any TPDES authorizations for the construction or operation of these facilities.

Discharges of stormwater from the construction activities associated with the construction of a facility located at the site of currently or formerly operating nuclear power reactors and currently or formerly operating nuclear research and test reactors operated by a university are not prohibited under THSC § 401.0525 and continue to be regulated under this general permit.

13. Other

    Nothing in Part II. of the general permit is intended to negate any person's ability to assert *force majeure* (act of God, war, strike, riot, or other catastrophe) defenses found in 30 TAC § 70.7

Section D. Deadlines for Obtaining Authorization to Discharge

1. Large Construction Activities

   (a) New Construction – Discharges from sites where the commencement of construction activity occurs on or after the effective date of this general permit must be authorized, either under this general permit or a separate TPDES permit, prior to the commencement of those construction activities.

   (b) Ongoing Construction – Operators of large construction activities continuing to operate after the effective date of this permit, and authorized under the TPDES Construction General Permit (CGP) TXR150000 (effective on March 5, 2018, and amended on January 28, 2022), must submit an NOI to renew authorization or an NOT to terminate coverage under this general permit within 90 days of the effective date of this general permit. During this interim or grace period, as a requirement of this TPDES permit, the operator must continue to meet the conditions and requirements of the issued and amended 2018 TPDES CGP.

2. Small Construction Activities

   (a) New Construction – Discharges from sites where the commencement of construction activity occurs on or after the effective date of this general permit must be authorized, either under this general permit or a separate TPDES permit, prior to the commencement of those construction activities.

   (b) Ongoing Construction – Discharges from ongoing small construction activities that commenced prior to the effective date of this general permit, and that do not meet the conditions to qualify for termination of this permit as described in Part II.F. of this general permit, must meet the requirements to be authorized, either under this general permit or a separate TPDES permit, within 90 days of the effective date of this general permit. During this interim period, as a requirement of this TPDES permit, the operator must continue to meet the conditions and requirements of the issued and amended 2018 TPDES CGP.

Section E. Obtaining Authorization to Discharge

1. Automatic Authorization for Small Construction Activities with Low Potential for Erosion

   Operators of small construction activity, as defined in Part I.B. of this general permit, shall not submit an NOI for coverage, unless otherwise required by the executive director.

   Operators of small construction activities, which occur in certain counties and during periods of low potential for erosion that do not meet the conditions of the waiver described in Part II.G. of this general permit, may be automatically authorized under this general permit if all the following conditions are met prior to the commencement of construction.

   (a) The construction activity occurs in a county and during the corresponding date range(s) listed in Appendix A;

(b) The construction activity is initiated and completed, including either final or temporary stabilization of all disturbed areas, within the time frame identified in Appendix A for the location of the construction site;

(c) All temporary stabilization is adequately maintained to effectively reduce or prohibit erosion, permanent stabilization activities have been initiated, and a condition of final stabilization is completed no later than 30 days following the end date of the time frame identified in Appendix A for the location of the construction site; the permittee signs a completed TCEQ Small Construction Site Notice for low potential for erosion (Form TCEQ-20964), including the certification statement;

(d) A signed and certified copy of the TCEQ Small Construction Site Notice for low potential for erosion is posted at the construction site in a location where it is readily available for viewing by the general public, local, state, and federal authorities prior to commencing construction activities, and maintained in that location until final stabilization has been achieved;

> NOTE: Posted TCEQ site notices may have a redacted signature as long as there is an original signed and certified TCEQ site notice, with a viewable signature, located on-site and available for review by any applicable regulatory authority.

(e) A copy of the signed and certified TCEQ Small Construction Site Notice for low potential for erosion is provided to the operator of any MS4 receiving the discharge at least two (2) days prior to commencement of construction activities;

(f) Discharges of stormwater runoff or other non-stormwater discharges from any supporting concrete batch plant or asphalt batch plant is separately authorized under an individual TPDES permit, another TPDES general permit, or under an individual TCEQ permit where stormwater and non-stormwater is disposed of by evaporation or irrigation (discharges are adjacent to water in the state); and

(g) Any non-stormwater discharges are either authorized under a separate permit or authorization, are not considered by TCEQ to be a wastewater, or are captured and routed for disposal at a publicly operated treatment works or licensed waste disposal facility.

If all of the conditions in (a) – (h) above are met, then the operator(s) of small construction activities with low potential for erosion are not required to develop a SWP3.

If an operator is conducting small construction activities and any of the above conditions (a) – (h) are not met, the operator cannot declare coverage under the automatic authorization for small construction activities with low potential for erosion and must meet the requirements for automatic authorization (all other) small construction activities, described below in Part II.E.2.

For small construction activities that occur during a period with a low potential for erosion, where automatic authorization under this section is not available, an operator may apply for and obtain a waiver from permitting (Low Rainfall Erosivity Waiver – LREW), as described in Part II.G. of this general permit. Waivers from coverage under the LREW do not allow for any discharges of non-stormwater and the operator must ensure that discharges on non-stormwater are either authorized under a separate permit or authorization.

2. Automatic Authorization for Small Construction Activities

Operators of small construction activities as defined in Part I.B. of this general permit shall not submit an NOI for coverage, unless otherwise required by the executive director.

Operators of small construction activities, as defined in Part I.B. of this general permit or as defined but who do not meet in the conditions and requirements located in Part II.E.1 above, may be automatically authorized for small construction activities, provided that they meet all of the following conditions:

(a) develop a SWP3 according to the provisions of this general permit, that covers either the entire site or all portions of the site for which the applicant is the operator, and implement the SWP3 prior to commencing construction activities;

(b) all operators of regulated small construction activities must post a copy of a signed and certified TCEQ Small Construction Site Notice (Form TCEQ-20963), the notice must be posted at the construction site in a location where it is safely and readily available for viewing by the general public, local, state, and federal authorities, at least two (2) days prior to commencing construction activity , and maintain the notice in that location until completion of the construction activity (for linear construction activities, e.g. pipeline or highway, the TCEQ site notice must be placed in a publicly accessible location near where construction is actively underway; notice for these linear sites may be relocated, as necessary, along the length of the project, and the notice must be safely and readily available for viewing by the general public; local, state, and federal authorities);

(c) operators must maintain a posted TCEQ Small Construction Site Notice on the approved TCEQ form at the construction site until final stabilization has been achieved; and

> NOTE: Posted TCEQ site notices may have a redacted signature as long as there is an original signed and certified TCEQ Small Construction Site Notice, with a viewable signature, located on-site and available for review by an applicable regulatory authority.

(d) provide a copy of the signed and certified TCEQ Small Construction Site Notice to the operator of any municipal separate storm sewer system (MS4) receiving the discharge at least two (2) days prior to commencement of construction activities.

(e) if signatory authority is delegated by an authorized representative, then a Delegation of Signatory form must be submitted as required by 30 TAC § 305.128 (relating to Signatories to Reports). Operators for small construction activities must submit this form via mail following the instructions on the approved TCEQ paper form. A new Delegation of Signatory form must be submitted if the delegation changes to another individual or position.

As described in Part I.B of this general permit, large construction activities include those that will disturb less than five (5) acres of land, but that are part of a larger common plan of development or sale that will ultimately disturb five (5) or more acres of land and must meet the requirements of Part II.E.3. below.

3. Authorization for Large Construction Activities

Operators of large construction activities that qualify for coverage under this general permit must meet all of the following conditions:

(a) develop a SWP3 according to the provisions of this general permit that covers either the entire site or all portions of the site where the applicant is the operator. The SWP3 must be developed and implemented prior to obtaining coverage and prior to commencing construction activities;

(b) primary operators of large construction activities must submit an NOI prior to commencing construction activity at a construction site. A completed NOI must be submitted to TCEQ electronically using the online ePermits system on TCEQ's website.

Operators with an electronic reporting waiver must submit a completed paper NOI to TCEQ at least seven (7) days prior to commencing construction activity to obtain provisional coverage 48-hours from the postmark date for delivery to the TCEQ. An authorization is no longer provisional when the executive director finds the NOI is administratively complete, and an authorization number is issued to the permittee for the construction site indicated on the NOI.

If an additional primary operator is added after the initial NOI is submitted, the additional primary operator must meet the same requirements for existing primary operator(s), as indicated above.

If the primary operator changes due to responsibility at the site being transferred from one primary operator to another after the initial NOI is submitted, the new primary operator must submit an electronic NOI, unless they request and obtain a waiver from electronic reporting, at least ten (10) days prior to assuming operational control of a construction site and commencing construction activity.

(c) all operators of large construction activities must post a TCEQ Large Construction Site Notice on the approved TCEQ form (Form TCEQ-20961) in accordance with Part III.D.2. of this permit. The TCEQ site notice must be located where it is safely and readily available for viewing by the general public, local, state, and federal authorities prior to commencing construction activities, and must be maintained in that location until final stabilization has been achieved. For linear construction activities, e.g., pipeline or highway, the TCEQ site notice must be placed in a publicly accessible location near where construction is actively underway; notice for these linear sites may be relocated, as necessary, along the length of the project, and the notice must be safely and readily available for viewing by the general public, local, state, and federal authorities;

(d) two days prior to commencing construction activities, all primary operators must:

i. provide a copy of the signed NOI to the operator of any MS4 receiving the discharge and to any secondary construction operator, and

ii. list in the SWP3 the names and addresses of all MS4 operators receiving a copy;

(e) if signatory authority is delegated by an authorized representative, then a Delegation of Signatories form must be submitted as required by 30 TAC § 305.128 (relating to Signatories to Reports). Primary operators must submit this form electronically using the State of Texas Environmental Electronic Reporting System (STEERS), TCEQ's online permitting system, or by paper if the permittee requested and obtained an electronic reporting waiver. A new Delegation of Signatories form must be submitted, if the delegation changes to another individual or position;

(f) all persons meeting the definition of "secondary operator" in Part I of this permit are hereby notified that they are regulated under this general permit, but are not required to submit an NOI, provided that a primary operator at the site has submitted an NOI, or prior to commencement of construction activities, a primary operator is required to submit an NOI and the secondary operator has provided notification to the operator(s) of the need to obtain coverage (with records of notification available upon request). Any secondary operator notified under this provision may alternatively submit an NOI under this general permit, may seek coverage under an alternative TPDES individual permit, or may seek coverage under an alternative TPDES general permit if available; and

(g) all secondary operators of large construction activities must post a copy of the signed and certified TCEQ Large Construction Site Notice for Secondary Operators on the approved TCEQ form (Form TCEQ-20962) and provide a copy of the signed and certified TCEQ site notice to the operator of any MS4 receiving the discharge at least two (2) days prior to the commencement construction activities.

NOTE: Posted TCEQ site notices may have a redacted signature as long as there is an original signed and certified TCEQ Large Construction Site Notice for Secondary Operators, with a viewable signature, located on-site and available for review by an applicable regulatory authority.

Applicants must submit an NOI using the online ePermits system (accessed using STEERS) available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge.

4. Waivers for Small Construction Activities:

Operators of certain small construction activities may obtain a waiver from coverage under this general permit, if applicable. The requirements are outlined in Part II.G. below.

5. Effective Date of Coverage

(a) Operators of small construction activities as described in either Part II.E.1. or II.E.2. above are authorized immediately following compliance with the applicable conditions of Part II.E.1. or II.E.2. Secondary operators of large construction activities as described in Part II.E.3. above are authorized immediately following compliance with the applicable conditions in Part II.E.3. For activities located in areas regulated by 30 TAC Chapter 213, related to the Edwards Aquifer, this authorization to discharge is separate from the requirements of the operator's responsibilities under that rule. Construction may not commence for sites regulated under 30 TAC Chapter 213 until all applicable requirements of that rule are met.

(b) Primary operators of large construction activities as described in Part II.E.3. above that electronically submit an NOI are authorized immediately following confirmation of receipt of the electronic form by the TCEQ, unless otherwise notified by the executive director.

Operators with an electronic reporting waiver are provisionally authorized 48-hours from the date that a completed paper NOI is postmarked for delivery to the TCEQ, unless otherwise notified by the executive director. An authorization is no longer provisional when the executive director finds the NOI is administratively complete and an authorization number is issued to the permittee for the construction site indicated on the NOI.

For construction activities located in areas regulated by 30 TAC Chapter 213, related to the Edwards Aquifer, this authorization to discharge is separate from the requirements of the operator's responsibilities under that rule. Construction activities may not commence for sites regulated under 30 TAC Chapter 213 until all applicable requirements of that rule are met.

(c) Operators are not prohibited from submitting late NOIs or posting late site notices to obtain authorization under this general permit. The TCEQ reserves the right to take appropriate enforcement action for any unpermitted activities that may have occurred between the time construction commenced and authorization under this general permit was obtained.

(d) If operators that submitted NOIs have active authorizations for construction activities that are ongoing when this general permit expires on March 5, 2028, and a new general permit is issued, a 90-day interim (grace) period is granted to provide coverage that is administratively continued until operators with active authorizations can obtain coverage under the newly issued CGP. The 90-day grace period starts on the effective date of the newly issued CGP.

6. Contents of the NOI

The NOI form shall require, at a minimum, the following information:

(a) the TPDES CGP authorization number for existing authorizations under this general permit, where the operator submits an NOI to renew coverage within 90 days of the effective date of this general permit;

(b) the name, address, and telephone number of the operator filing the NOI for permit coverage;

(c) the name (or other identifier), address, county, and latitude/longitude of the construction project or site;

(d) the number of acres that will be disturbed by the applicant;

(e) the estimated construction project start date and end date;

(f) confirmation that the project or site will not be located on Indian Country lands;

(g) confirmation if the construction activity is associated with an oil and gas exploration, production, processing, or treatment, or transmission facility (see Part II.C.9.)

(h) confirmation that the construction activities are not associated with the construction of a facility that is licensed for the storage of high-level radioactive waste by the United States Nuclear Regulatory Commission under 10 CFR Part 72 (see Part II.C.12.);

(i) confirmation that a SWP3 has been developed in accordance with all conditions of this general permit, that it will be implemented prior to commencement of construction activities, and that it is compliant with any applicable local sediment and erosion control plans; for multiple operators who prepare a shared SWP3, the confirmation for an operator may be limited to its obligations under the SWP3 provided all obligations are confirmed by at least one operator;

(j) name of the receiving water(s);

(k) the classified segment number for each classified segment that receives discharges from the regulated construction activity (if the discharge is not directly to a classified segment, then the classified segment number of the first classified segment that those discharges reach); and

(l) the name of all surface waters receiving discharges from the regulated construction activity that are on the latest EPA-approved CWA § 303(d) List of impaired waters or *Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d)* as not meeting applicable state water quality standards.

7. Notice of Change (NOC)

(a) If relevant information provided in the NOI changes, the operator that has submitted the NOI must submit an NOC to TCEQ at least fourteen (14) days before the change occurs. Where a 14-day advance notice is not possible, the operator must submit an NOC to TCEQ within fourteen (14) days of discovery of the change. If the operator becomes aware that it failed to submit any relevant facts or submitted

incorrect information in an NOI, the correct information must be submitted to TCEQ in an NOC within fourteen (14) days after discovery.

(b) Information on an NOC may include, but is not limited to, the following:

i. a change in the description of the construction project;

ii. an increase in the number of acres disturbed (for increases of one (1) or more acres);

iii. or the name of the operator (where the name of the operator has changed).

(c) Electronic NOC.

Applicants must submit an NOC using the online ePermits system available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. All waivers from electronic reporting are not transferrable. Electronic reporting waivers expire on the same date as the authorization to discharge, except for temporary waivers that expire one (1) year from issuance. A copy of the NOC form or letter must also be placed in the SWP3 and provided to the operator of any MS4 receiving the discharge. Operators are authorized immediately following confirmation of receipt of the electronic form by the TCEQ, unless otherwise notified by the executive director.

(d) Paper NOC.

Applicants who request and obtain an electronic reporting waiver shall submit the NOC on a paper form provided by the executive director, or by letter if an NOC form is not available.

(e) A copy of the NOC form or letter must also be placed in the SWP3 and provided to the operator of any MS4 receiving the discharge. A list that includes the names and addresses of all MS4 operators receiving a copy of the NOC (or NOC letter) must be included in the SWP3. Information that may not be included on an NOC includes but is not limited to the following:

i. transfer of operational control from one operator to another, including a transfer of the ownership of a company. A transfer of ownership of a company includes changes to the structure of a company, such as changing from a partnership to a corporation or changing corporation types, so that the filing or charter number that is on record with the Texas Secretary of State (SOS) must be changed.

ii. coverage under this general permit is not transferable from one operator to another. Instead, the new operator will need to submit an NOI or LREW, as applicable, and the previous operator will need to submit an NOT.

iii. a decrease in the number of acres disturbed. This information must be included in the SWP3 and retained on site.

8. Signatory Requirement for NOI Forms, NOT Forms, NOC Forms, and Construction Site Notices

NOI forms, NOT forms, NOC forms, and Construction Site Notices that require a signature must be signed according to 30 TAC § 305.44 (relating to Signatories for Applications).

Section F. Terminating Coverage

1. Notice of Termination (NOT) Required

   Each operator that has submitted an NOI for authorization of large construction activities under this general permit must apply to terminate that authorization following the conditions described in this section of the general permit.

   Authorization of large construction must be terminated by submitting an NOT electronically via the online ePermits system available through the TCEQ website, or on a paper NOT form to TCEQ supplied by the executive director with an approved waiver from electronic reporting. Authorization to discharge under this general permit terminates at midnight on the day a paper NOT is postmarked for delivery to the TCEQ or immediately following confirmation of the receipt of the NOT submitted electronically by the TCEQ.

   Applicants must submit an NOT using the online ePermits system available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge, except for temporary waivers that expire one (1) year from issuance.

   The NOT must be submitted to TCEQ, and a copy of the NOT provided to the operator of any MS4 receiving the discharge (with a list in the SWP3 of the names and addresses of all MS4 operators receiving a copy), within 30 days after any of the following conditions are met:

   (a) final stabilization has been achieved on all portions of the site that are the responsibility of the operator;

   (b) a transfer of operational control has occurred (See Section II.F.4. below); or

   (c) the operator has obtained alternative authorization under an individual TPDES permit or alternative TPDES general permit.

   Compliance with the conditions and requirements of this permit is required until the NOT is submitted and approved by TCEQ.

2. Minimum Contents of the NOT

   The NOT form shall require, at a minimum, the following information:

   (a) if authorization for construction activity was granted following submission of an NOI, the permittee's site-specific TPDES authorization number for a specific construction site;

   (b) an indication of whether final stabilization has been achieved at the site and a NOT has been submitted or if the permittee is simply no longer an operator at the site;

   (c) the name, address, and telephone number of the permittee submitting the NOT;

   (d) the name (or other identifier), address, county, and location (latitude/longitude) of the construction project or site; and

   (e) a signed certification that either all stormwater discharges requiring authorization under this general permit will no longer occur, or that the applicant is no longer the operator of the facility or construction site, and that all temporary structural erosion controls have either been removed, will be removed on a schedule defined in the SWP3, or have been transferred to a new operator if the new operator has applied for permit coverage. Erosion controls that are designed to remain in place for an indefinite period, such as mulches and fiber mats, are not required to be removed or scheduled for removal.

3. Termination of Coverage for Small Construction Sites and for Secondary Operators at Large Construction Sites

   (a) Each operator that has obtained automatic authorization for small construction or is a secondary operator for large construction must perform the following when terminating coverage under the permit:

      i. remove the TCEQ site notice;

      ii. complete the applicable portion of the TCEQ site notice related to removal of the TCEQ site notice; and

      iii. submit a copy of the completed TCEQ site notice to the operator of any MS4 receiving the discharge (or provide alternative notification as allowed by the MS4 operator, with documentation of such notification included in the SWP3).

   (b) The activities described in Part II.F.3.(a) above must be completed by the operator within 30 days of meeting any of the following conditions:

      i. final stabilization has been achieved on all portions of the site that are the responsibility of the operator;

      ii. a transfer of day-to-day operational control over activities necessary to ensure compliance with the SWP3 and other permit conditions has occurred (See Section II.F.4. below); or

      iii. the operator has obtained alternative authorization under an individual or general TPDES permit.

   For Small Construction Sites and Secondary Operators at Large Construction Sites, authorization to discharge under this general permit terminates immediately upon removal of the applicable TCEQ construction site notice. Compliance with the conditions and requirements of this permit is required until the TCEQ construction site notice is removed. The construction site notice cannot be removed until final stabilization has been achieved.

4. Transfer of Day-to-Day Operational Control

   (a) When the primary operator of a large construction activity changes or operational control over activities necessary to ensure compliance with the SWP3 and other permit conditions is transferred to another primary operator, the original operator must do the following:

      i. submit an NOT within ten (10) days prior to the date that responsibility for operations terminates, and the new operator must submit an NOI at least ten (10) days prior to the transfer of operational control, in accordance with condition (c) below; and

      ii. submit a copy of the NOT from the primary operator terminating its coverage under the permit and its operational control of the construction site and submit a copy of the NOI from the new primary operator to the operator of any MS4 receiving the discharge in accordance with Part II.F.1. above.

   (b) For transfer of operational control, operators of small construction activities and secondary operators of large construction activities who are not required to submit an NOI must do the following:

      i. the existing operator must remove the original TCEQ construction site notice, and the new operator must post the required TCEQ construction site notice prior to the transfer of operational control, in accordance with the conditions in Part II.F.4.(c) i or ii below; and

ii. a copy of the TCEQ construction site notice, which must be completed and provided to the operator of any MS4 receiving the discharge, in accordance with Part II.F.3. above.

(c) Each operator is responsible for determining its role as an operator as defined in Part I.B. and obtaining authorization under the permit, as described above in Part II.E. 1. - 3. Where authorization has been obtained by submitting an NOI for coverage under this general permit, permit coverage is not transferable from one operator to another. A transfer of operational control can include changes to the structure of a company, such as changing from a partnership to a corporation, or changing to a different corporation type such that a different filing (or charter) number is established with the Texas Secretary of State (SOS). A transfer of operational control can also occur when one of the following criteria is met, as applicable:

i. another operator has assumed control over all areas of the site that do not meet the definition for final stabilization;

ii. all silt fences and other temporary erosion controls have either been removed, scheduled for removal as defined in the SWP3, or transferred to a new operator, provided that the original permitted operator has attempted to notify the new operator in writing of the requirement to obtain permit coverage. Records of this notification (or attempt at notification) shall be retained by the operator transferring operational control to another operator in accordance with Part VI of this permit. Erosion controls that are designed to remain in place for an indefinite period, such as mulches and fiber mats, are not required to be removed or scheduled for removal; or

iii. a homebuilder has purchased one (1) or more lots from an operator who obtained coverage under this general permit for a common plan of development or sale. The homebuilder is considered a new operator and shall comply with the requirements of this permit. Under these circumstances, the homebuilder is only responsible for compliance with the general permit requirements as they apply to the lot(s) it has operational control over in a larger common plan of development, and the original operator remains responsible for common controls or discharges, and must amend its SWP3 to remove the lot(s) transferred to the homebuilder.

Section G. Waivers from Coverage

The executive director may waive the otherwise applicable requirements of this general permit for stormwater discharges from small construction activities under the terms and conditions described in this section.

1. Waiver Applicability and Coverage

Operators of small construction activities may apply for and receive a waiver from the requirements to obtain authorization under this general permit, when the calculated rainfall erosivity (R) factor for the entire period of the construction project is less than five (5).

The operator must submit a Low Rainfall Erosivity Waiver (LREW) certification form to the TCEQ electronically via the online ePermits system available through the TCEQ website. The LREW form is a certification by the operator that the small construction activity will commence and be completed within a period when the value of the calculated R factor is less than five (5).

Applicants who request and obtain an electronic reporting waiver shall submit the LREW on a paper form provided by the executive director at least seven (7) days prior to commencing construction activity to obtain provisional coverage 48-hours from the postmark date for delivery to the TCEQ. An authorization is no longer provisional when the executive director finds the LREW is administratively complete, and an authorization number is issued to the permittee for the construction site indicated on the LREW. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge, except for temporary waivers that expire one (1) year from issuance.

This LREW from coverage does not apply to any non-stormwater discharges, including what is allowed under this permit. The operator must ensure that all non-stormwater discharges are either authorized under a separate permit or authorization or are captured and routed to an authorized treatment facility for disposal.

2. Steps to Obtaining a Waiver

The construction site operator may calculate the R factor to request a waiver using the following steps:

(a) estimate the construction start date and the construction end date. The construction end date is the date that final stabilization will be achieved.

(b) find the appropriate Erosivity Index (EI) zone in Appendix B of this permit.

(c) find the EI percentage for the project period by adding the results for each period of the project using the table provided in Appendix D of this permit, in EPA Fact Sheet 2.1, or in USDA Handbook 703, by subtracting the start value from the end value to find the percent EI for the site.

(d) refer to the Isoerodent Map (Appendix C of this permit) and interpolate the annual isoerodent value for the proposed construction location.

(e) multiply the percent value obtained in Step (c) above by the annual isoerodent value obtained in Step (d). This is the R factor for the proposed project. If the value is less than five (5), then a waiver may be obtained. If the value is five (5) or more, then a waiver may not be obtained, and the operator must obtain coverage under Part II.E.2. of this permit.

Alternatively, the operator may calculate a site-specific R factor utilizing the following online calculator: https://lew.epa.gov/, or using another available resource.

A copy of the LREW certification form is not required to be posted at the small construction site.

3. Effective Date of an LREW

Unless otherwise notified by the executive director, operators of small construction activities seeking coverage under an LREW are provisionally waived from the otherwise applicable requirements of this general permit 48-hours from the date that a completed paper LREW certification form is postmarked for delivery to TCEQ, or immediately upon receiving confirmation of approval of an electronic submittal, made via the online ePermits system available through the TCEQ website.

Applicants seeking coverage under an LREW must submit an application for an LREW using the online ePermits system available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge.

4. Activities Extending Beyond the LREW Period

   If a construction activity extends beyond the approved waiver period due to circumstances beyond the control of the operator, the operator must either:

   (a) recalculate the R factor using the original start date and a new projected ending date, and if the R factor is still under five (5), submit a new LREW form at least two (2) days before the end of the original waiver period; or

   (b) obtain authorization under this general permit according to the requirements for automatic authorization for small construction activities in Part II.E.2. of this permit, prior to the end of the approved LREW period.

Section H. Alternative TPDES Permit Coverage

1. Individual Permit Alternative

   Any discharge eligible for coverage under this general permit may alternatively be authorized under an individual TPDES permit according to 30 TAC Chapter 305 (relating to Consolidated Permits). Applications for individual permit coverage must be submitted at least 330 days prior to commencement of construction activities to ensure timely authorization. Existing coverage under this general permit should not be terminated until an individual permit is issued and in effect.

2. General Permit Alternative

   Any discharges eligible for authorization under this general permit may alternatively be authorized under a separate general permit according to 30 TAC Chapter 205 (relating to General Permits for Waste Discharges), as applicable.

3. Individual Permit Required

   The executive director may require an operator of a construction site, otherwise eligible for authorization under this general permit, to apply for an individual TPDES permit in the following circumstances:

   (a) the conditions of an approved TMDL or TMDL I-Plan on the receiving water;

   (b) the activity being determined to cause, has a reasonable potential to cause, or contribute to a violation of water quality standards or being found to cause, or contribute to, the loss of a designated use of surface water in the state; and

   (c) any other consideration defined in 30 TAC Chapter 205 (relating to General Permits for Waste Discharges) including 30 TAC § 205.4(c)(3)(D), which allows the commission to deny authorization under the general permit and require an individual permit if a discharger has been determined by the executive director to have been out of compliance with any rule, order, or permit of the commission, including non-payment of fees assessed by the executive director.

      A discharger with a TCEQ compliance history rating of “unsatisfactory” is ineligible for coverage under this general permit. In that case, 30 TAC § 60.3 requires the executive director to deny or suspend an authorization to discharge under a general permit. However, per TWC § 26.040(h), a discharger is entitled to a hearing before the commission prior to having an authorization denied or suspended for having an “unsatisfactory” compliance history.

   Denial of authorization to discharge under this general permit or suspension of a permittee’s authorization under this general permit for reasons other than compliance history shall be done according to commission rules in 30 TAC Chapter 205 (relating to General Permits for Waste Discharges).

Section I. Permit Expiration

1. This general permit is effective for a term not to exceed five (5) years. All active discharge authorizations expire on the date provided on page one (1) of this permit. Following public notice and comment, as provided by 30 TAC § 205.3 (relating to Public Notice, Public Meetings, and Public Comment), the commission may amend, revoke, cancel, or renew this general permit. All authorizations that are active at the time the permit term expires will be administratively continued as indicated in Part II.I.2. below and in Part II.D.1.(b) and D.2.(b) of this permit.
2. If the executive director publishes a notice of the intent to renew or amend this general permit before the expiration date, the permit will remain in effect for existing, authorized discharges until the commission takes final action on the permit. Upon issuance of a renewed or amended permit, permittees may be required to submit an NOI within 90 days following the effective date of the renewed or amended permit, unless that permit provides for an alternative method for obtaining authorization.
3. If the commission does not propose to reissue this general permit within 90 days before the expiration date, permittees shall apply for authorization under an individual permit or an alternative general permit. If the application for an individual permit is submitted before the expiration date, authorization under this expiring general permit remains in effect until the issuance or denial of an individual permit. No new NOIs will be accepted nor new authorizations honored under the general permit after the expiration date.

Part III. Stormwater Pollution Prevention Plans (SWP3)

All regulated construction site operators shall prepare an SWP3, prior to submittal of an NOI, to address discharges authorized under Parts II.E.2. and II.E.3. of this general permit that will reach waters of the U.S. This includes discharges to MS4s and privately owned separate storm sewer systems that drain into surface water in the state or waters of the U.S.

Individual operators at a site may develop separate SWP3s that cover only their portion of the project, provided reference is made to the other operators at the site. Where there is more than one (1) SWP3 for a site, operators must coordinate to ensure that BMPs and controls are consistent and do not negate or impair the effectiveness of each other. Regardless of whether a single comprehensive SWP3 is developed or separate SWP3s are developed for each operator, it is the responsibility of each operator to ensure compliance with the terms and conditions of this general permit in the areas of the construction site where that operator has control over construction plans and specifications or day-to-day operations.

An SWP3 must describe the implementation of practices that will be used to minimize to the extent practicable the discharge of pollutants in stormwater associated with construction activity and non-stormwater discharges described in Part II.A.3., in compliance with the terms and conditions of this permit.

An SWP3 must also identify any potential sources of pollution that have been determined to cause, have a reasonable potential to cause, or contribute to a violation of water quality standards or have been found to cause or contribute to the loss of a designated use of surface water in the state from discharges of stormwater from construction activities and construction support activities. Where potential sources of these pollutants are present at a construction site, the SWP3 must also contain a description of the management practices that will be used to prevent these pollutants from being discharged into surface water in the state or waters of the U.S.

> NOTE: Construction support activities can also include vehicle repair areas, fueling areas, etc. that are present at a construction site solely for the support construction activities and are only used by operators at the construction site.

The SWP3 is intended to serve as a road map for how the construction operator will comply with the effluent limits and other conditions of this permit. Additional portions of the effluent limits are established in Part IV. of the permit.

Section A. Shared SWP3 Development

For more effective coordination of BMPs and opportunities for cost sharing, a cooperative effort by the different operators at a site is encouraged. Operators of small and large construction activities must independently obtain authorization under this permit but may work together with other regulated operators at the construction site to prepare and implement a single, comprehensive SWP3, which can be shared by some or all operators, for the construction activities that each of the operators are performing at the entire construction site.

1. The SWP3 must include the following:
   (a) for small construction activities – the name of each operator that participates in the shared SWP3;
   (b) for large construction activities – the name of each operator that participates in the shared SWP3, the general permit authorization numbers of each operator (or the date that the NOI was submitted to TCEQ by each operator that has not received an authorization number for coverage under this permit); and
   (c) for large and small construction activities – the signature of each operator participating in the shared SWP3.
2. The SWP3 must clearly indicate which operator is responsible for satisfying each shared requirement of the SWP3. If the responsibility for satisfying a requirement is not described in the plan, then each permittee is entirely responsible for meeting the requirement within the boundaries of the construction site where they perform construction activities. The SWP3 must clearly describe responsibilities for meeting each requirement in shared or common areas.
3. The SWP3 may provide that one operator is responsible for preparation of a SWP3 in compliance with the CGP, and another operator is responsible for implementation of the SWP3 at the project site.

Section B. Responsibilities of Operators

1. Secondary Operators and Primary Operators with Control Over Construction Plans and Specifications

   All secondary operators and primary operators with control over construction plans and specifications shall:
   (a) ensure the project specifications allow or provide that adequate BMPs are developed to meet the requirements of Part III of this general permit;
   (b) ensure that the SWP3 indicates the areas of the project where they have control over project specifications, including the ability to make modifications in specifications;
   (c) ensure that all other operators affected by modifications in project specifications are notified in a timely manner so that those operators may modify their BMP s as necessary to remain compliant with the conditions of this general permit; and

(d) ensure that the SWP3 for portions of the project where each operator has control indicates the name and site-specific TPDES authorization number(s) for operators with the day-to-day operational control over those activities necessary to ensure compliance with the SWP3 and other permit conditions. If a primary operator has not been authorized or has abandoned the site, the secondary operator is considered to be the responsible party and must obtain authorization as a primary operator under the permit, until the authority for day-to-day operational control is transferred to another primary operator. The new primary operator must update or develop a new SWP3 that will reflect the transfer of operational control and include any additional updates to the SWP3 to meet requirements of the permit.

2. Primary Operators with Day-to-Day Operational Control

Primary operators with day-to-day operational control of those activities at a project that are necessary to ensure compliance with an SWP3 and other permit conditions must ensure that the SWP3 accomplishes the following requirements:

(a) meets the requirements of this general permit for those portions of the project where they are operators;

(b) identifies the parties responsible for implementation of BMPs described in the SWP3;

(c) indicates areas of the project where they have operational control over day-to-day activities; and

(d) the name and site-specific TPDES authorization number of the parties with control over project specifications, including the ability to make modifications in specifications for areas where they have operational control over day-to-day activities.

Section C. Deadlines for SWP3 Preparation, Implementation, and Compliance

The SWP3 must be prepared prior to obtaining authorization under this general permit, and implemented prior to commencing construction activities that result in soil disturbance. The SWP3 must be prepared so that it provides for compliance with the terms and conditions of this general permit.

Section D. Plan Review and Making Plans Available

1. The SWP3 must be retained on-site at the construction site or, if the site is inactive or does not have an on-site location to store the plan, a notice must be posted describing the location of the SWP3. The SWP3 must be made readily available at the time of an on-site inspection to: the executive director; a federal, state, or local agency approving sediment and erosion plans, grading plans, or stormwater management plans; local government officials; and the operator of a municipal separate storm sewer receiving discharges from the site. If the SWP3 is retained off-site, then it shall be made available as soon as reasonably possible. In most instances, it is reasonable that the SWP3 shall be made available within 24 hours of the request.

   NOTE: The SWP3 may be prepared and kept electronically, rather than in paper form, if the records are: (a) in a format that can be read in a similar manner as a paper record; (b) legally valid with no less evidentiary value than their paper equivalent; and (c) immediately accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be, if the records were stored in paper form.

2. Operators with authorization for construction activity under this general permit must post a TCEQ site notice at the construction site at a place readily available for viewing by the general public, and local, state, and federal authorities.

(a) Primary and secondary operators of large construction activities must each post a TCEQ construction site notice, respective to their role as an operator at the construction site, as required above and according to requirements in Part II.E.3. of this general permit.

(b) Primary and secondary operators of small construction activities must post the TCEQ site notice as required in Part III.D.2.(a) above and for the specific type of small construction described in Part II.E.1. and 2. of the permit.

(c) If the construction project is a linear construction project, such as a pipeline or highway, the notices must be placed in a publicly accessible location near where construction is actively underway. TCEQ construction site notices for small and large construction activities at these linear construction sites may be relocated, as necessary, along the length of the project, but must still be readily available for viewing by the general public; local, state, and federal authorities; and contain the following information:

i. the site-specific TPDES authorization number for the project if assigned;

ii. the operator name, contact name, and contact phone number;

iii. a brief description of the project; and

iv. the location of the SWP3.

3. This permit does not provide the general public with any right to trespass on a construction site for any reason, including inspection of a site; nor does this permit require that permittees allow members of the general public access to a construction site.

Section E. Revisions and Updates to SWP3s

The permittee must revise or update the SWP3, including the site map, within seven (7) days of when any of the following occurs:

1. a change in design, construction, operation, or maintenance that has a significant effect on the discharge of pollutants and that has not been previously addressed in the SWP3;
2. changing site conditions based on updated plans and specifications, new operators, new areas of responsibility, and changes in BMPs; or
3. results of inspections or investigations by construction site personnel authorized by the permittee, operators of a municipal separate storm sewer system receiving the discharge, authorized TCEQ personnel, or a federal, state or local agency approving sediment and erosion plans indicate the SWP3 is proving ineffective in eliminating or significantly minimizing pollutants in discharges authorized under this general permit.

Section F. Contents of SWP3

The SWP3 must be developed and implemented by primary operators of small and large construction activities and include, at a minimum, the information described in this section and must comply with the construction and development effluent guidelines in Part IV. of the general permit.

1. A site or project description, which includes the following information:

(a) a description of the nature of the construction activity;

(b) a list of potential pollutants and their sources;

(c) a description of the intended schedule or sequence of activities that will disturb soils for major portions of the site, including estimated start dates and duration of activities;

(d) the total number of acres of the entire property and the total number of acres where construction activities will occur, including areas where construction support activities (defined in Part I.B. of this general permit) occur;

(e) data describing the soil or the quality of any discharge from the site;

(f) a map showing the general location of the site (e.g., a portion of a city or county map);

(g) a detailed site map (or maps) indicating the following:

i. property boundary(ies);

ii. drainage patterns and approximate slopes anticipated before and after major grading activities;

iii. areas where soil disturbance will occur (note any phasing), including any demolition activities;

iv. locations of all controls and buffers, either planned or in place;

v. locations where temporary or permanent stabilization practices are expected to be used;

vi. locations of construction support activities, including those located off-site;

vii. surface waters (including wetlands) either at, adjacent, or in close proximity to the site, and also indicate whether those waters are impaired;

NOTE: Surface waters adjacent to or in close proximity to the site means any receiving waters within the site and all receiving waters within one mile downstream of the site's discharge point(s).

viii. locations where stormwater discharges from the site directly to a surface water body or a municipal separate storm sewer system;

ix. vehicle wash areas; and

x. designated points on the site where vehicles will exit onto paved roads (for instance, this applies to construction transition from unstable dirt areas to exterior paved roads).

Where the amount of information required to be included on the map would result in a single map being difficult to read and interpret, the operator shall develop a series of maps that collectively include the required information.

(h) the location and description of support activities authorized under the permittee's NOI, including asphalt plants, concrete plants, and other activities providing support to the construction site that is authorized under this general permit;

(i) the name of receiving waters at or near the site that may be disturbed or that may receive discharges from disturbed areas of the project;

(j) a copy of this TPDES general permit (an electronic copy of this TPDES general permit or a current link to this TPDES general permit on the TCEQ webpage is acceptable);

(k) the NOI and the acknowledgement of provisional and non-provisional authorization for primary operators of large construction sites, and the TCEQ site notice for small construction sites and for secondary operators of large construction sites;

(l) if signatory authority is delegated by an authorized representative, then a copy of the formal notification to TCEQ, as required by 30 TAC 305.128 relating to Signatories to Reports must be filed in the SWP3 and made available for review upon request by TCEQ or local MS4 Operator. For primary operators of large construction activities, the formal notification to TCEQ must be submitted either electronically through

STEERS, TCEQ's electronic reporting system, or, if qualifying for an electronic reporting waiver, by paper on a Delegation of Signatories form. For operators or small construction activities, the formal notification to TCEQ must be submitted by paper on a Delegation of Signatories form.

(m) stormwater and allowable non-stormwater discharge locations, including storm drain inlets on site and in the immediate vicinity of the construction site where construction support activities will occur; and

(n) locations of all pollutant-generating activities at the construction site and where construction support activities will occur, such as the following: Paving operations; concrete, paint and stucco washout and water disposal; solid waste storage and disposal; and dewatering operations.

2. A description of the BMPs that will be used to minimize pollution in runoff.

The description must identify the general timing or sequence for installation and implementation. At a minimum, the description must include the following components:

(a) General Requirements

i. Erosion and sediment controls must be designed to retain sediment on-site to the extent practicable with consideration for local topography, soil type, and rainfall.

ii. Control measures must be properly selected, installed, and maintained according to good engineering practices, and the manufacturer's or designer's specifications.

iii. Controls must be developed to minimize the offsite transport of litter, construction debris, construction materials, and other pollutants required of Part IV.D.

(b) Erosion Control and Stabilization Practices

The SWP3 must include a description of temporary and permanent erosion control and stabilization practices for the construction site, where small or large construction activity will occur. The erosion control and stabilization practices selected by the permittee must be compliant with the requirements for sediment and erosion control, located in Part IV. of this permit. The description of the SWP3 must also include a schedule of when the practices will be implemented. Site plans must ensure that existing vegetation at the construction site is preserved where it is possible.

i. Erosion control and stabilization practices may include but are not limited to: establishment of temporary or permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of existing trees and vegetation, slope texturing, temporary velocity dissipation devices, flow diversion mechanisms, and other similar measures.

ii. The following records must be maintained and either attached to or referenced in the SWP3, and made readily available upon request to the parties listed in Part III.D.1 of this general permit:

(A) the dates when major grading activities occur;

(B) the dates when construction activities temporarily or permanently cease on a portion of the site; and

(C) the dates when stabilization measures are initiated.

iii. Erosion control and stabilization measures must be initiated immediately in portions of the site where construction activities have temporarily ceased and will not resume for a period exceeding fourteen (14) calendar days. Stabilization

measures that provide a protective cover must be initiated immediately in portions of the site where construction activities have permanently ceased. The term "immediately" is used to define the deadline for initiating stabilization measures. In the context of this requirement, "immediately" means as soon as practicable, but no later than the end of the next work day, following the day when the earth-disturbing activities have temporarily or permanently ceased. Except as provided in (A) through (D) below, these measures must be completed as soon as practicable, but no more than fourteen (14) calendar days after the initiation of soil stabilization measures:

(A) where the immediate initiation of vegetative stabilization measures after construction activity has temporarily or permanently ceased due to frozen conditions, non-vegetative controls must be implemented until thawing conditions (as defined in Part I.B. of this general permit) are present, and vegetative stabilization measures can be initiated as soon as practicable.

(B) in arid areas, semi-arid areas, or drought-stricken areas, as they are defined in Part I.B. of this general permit, where the immediate initiation of vegetative stabilization measures after construction activity has temporarily or permanently ceased or is precluded by arid conditions, other types of erosion control and stabilization measures must be initiated at the site as soon as practicable. Where vegetative controls are infeasible due to arid conditions, and within fourteen (14) calendar days of a temporary or permanent cessation of construction activity in any portion of the site, the operator shall immediately install non-vegetative erosion controls in areas of the construction site where construction activity is complete or has ceased. If non-vegetative controls are infeasible, the operator shall install temporary sediment controls as required in Part III.F.2.(b)iii.(C) below.

(C) in areas where non-vegetative controls are infeasible, the operator may alternatively utilize temporary perimeter controls. The operator must document in the SWP3 the reason why stabilization measures are not feasible, and must demonstrate that the perimeter controls will retain sediment on site to the extent practicable. The operator must continue to inspect the BMPs at the frequencies established in Part III.F.8.(c) for unstabilized sites.

(D) the requirement for permittees to initiate stabilization is triggered as soon as it is known with reasonable certainty that construction activity at the site or in certain areas of the site will be stopped for 14 or more additional calendar days. If the initiation or completion of vegetative stabilization is prevented by circumstances beyond the control of the permittee, the permittee must employ and implement alternative stabilization measures immediately. When conditions at the site changes that would allow for vegetative stabilization, then the permittee must initiate or complete vegetative stabilization as soon as practicable.

iv. Final stabilization must be achieved prior to termination of permit coverage.

v. TCEQ does not expect that temporary or permanent stabilization measures to be applied to areas that are intended to be left un-vegetated or un-stabilized following construction (e.g., dirt access roads, utility pole pads, areas being used for storage of vehicles, equipment, or materials).

(c) Sediment Control Practices

The SWP3 must include a description of any sediment control practices used to remove eroded soils from stormwater runoff, including the general timing or sequence for implementation of controls. Controls selected by the permittee must be compliant with the requirements in Part IV. of this permit.

i. Sites With Drainage Areas of Ten (10) or More Acres

(A) Sedimentation Basin(s) or Impoundments

(1) A sedimentation basin or similar impoundment is required, where feasible, for a common drainage location that serves an area with ten (10) or more acres disturbed at one time. A sedimentation basin or impoundment may be temporary or permanent, and must provide sufficient storage to contain a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed acre drained. When calculating the volume of runoff from a 2-year, 24-hour storm event, it is not required to include the flows from offsite areas and flow from onsite areas that are either undisturbed or have already undergone permanent stabilization, if these flows are diverted around both the disturbed areas of the site and the sediment basin or similar impoundment. Capacity calculations shall be included in the SWP3. Sedimentation basins must be designed for and appropriate for controlling runoff at the site and existing detention or retention ponds at the site may not be appropriate.

(2) Where rainfall data is not available, or a calculation cannot be performed, the sedimentation basin must provide at least 3,600 cubic feet of storage per acre drained until final stabilization of the site.

(3) If a sedimentation basin or impoundment is not feasible, then the permittee shall provide equivalent control measures until final stabilization of the site. In determining whether installing a sediment basin or impoundment is feasible, the permittee may consider factors such as site soils, slope, available area, public safety, precipitation patterns, site geometry, site vegetation, infiltration capacity, geotechnical factors, depth to groundwater, and other similar considerations. The permittee shall document the reason that the sediment basins or impoundments are not feasible, and shall utilize equivalent control measures, which may include a series of smaller sediment basins or impoundments.

(4) Unless infeasible, when discharging from sedimentation basins and impoundments, the permittee shall utilize outlet structures that withdraw water from the surface.

(B) Perimeter Controls: At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries of the construction area, and for those side slope boundaries deemed appropriate as dictated by individual site conditions.

ii. Controls for Sites with Drainage Areas Less than Ten (10) Acres:

(A) Sediment traps and sediment basins may be used to control solids in stormwater runoff for drainage locations serving less than ten (10) acres. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries of the construction area, and for those side slope boundaries deemed appropriate as dictated by individual site conditions.

(B) Alternatively, a sediment basin that provides storage for a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed acre drained may be utilized. Where rainfall data is not available or a calculation cannot be performed, a temporary or permanent sediment basin providing 3,600 cubic feet of storage per acre drained may be provided. If a calculation is performed, then the calculation shall be included in the SWP3.

(C) If sedimentation basins or impoundments are used, the permittee shall comply with the requirements in Part IV.F. of this general permit.

3. Description of Permanent Stormwater Controls

A description of any stormwater control measures that will be installed during the construction process to control pollutants in stormwater discharges that may occur after construction operations have been completed must be included in the SWP3. Permittees are responsible for the installation and maintenance of stormwater management measures, as follows:

(a) permittees authorized under the permit for small construction activities are responsible for the installation and maintenance of stormwater control measures prior to final stabilization of the site; or

(b) permittees authorized under the permit for large construction activities are responsible for the installation and maintenance of stormwater control measures prior to final stabilization of the site and prior to submission of an NOT.

4. Other Required Controls and BMPs

(a) Permittees shall minimize, to the extent practicable, the off-site vehicle tracking of sediments and dust. The SWP3 shall include a description of controls utilized to control the generation of pollutants that could be discharged in stormwater from the site.

(b) The SWP3 must include a description of construction and waste materials expected to be stored on-site and a description of controls to minimize pollutants from these materials.

(c) The SWP3 must include a description of potential pollutant sources in discharges of stormwater from all areas of the construction site where construction activity, including construction support activities, will be located, and a description of controls and measures that will be implemented at those sites to minimize pollutant discharges.

(d) Permittees shall place velocity dissipation devices at discharge locations and along the length of any outfall channel (i.e., runoff conveyance) to provide a non-erosive flow velocity from the structure to a water course, so that the natural physical and biological characteristics and functions are maintained and protected.

(e) Permittees shall design and utilize appropriate controls in accordance with Part IV. of this permit to minimize the offsite transport of suspended sediments and other pollutants if it is necessary to pump or channel standing water from the site.

(f) Permittees shall ensure that all other required controls and BMPs comply with all of the requirements of Part IV. of this general permit.

(g) For demolition of any structure with at least 10,000 square feet of floor space that was built or renovated before January 1, 1980, and the receiving waterbody is impaired for polychlorinated biphenyls (PCBs):

i. implement controls to minimize the exposure of PCB-containing building materials, including paint, caulk, and pre-1980 fluorescent lighting fixtures to precipitation and to stormwater; and

ii. ensure that disposal of such materials is performed in compliance with applicable state, federal, and local laws.

5. Documentation of Compliance with Approved State and Local Plans

   (a) Permittees must ensure that the SWP3 is consistent with requirements specified in applicable sediment and erosion site plans or site permits, or stormwater management site plans or site permits approved by federal, state, or local officials.

   (b) SWP3s must be updated as necessary to remain consistent with any changes applicable to protecting surface water resources in sediment erosion site plans or site permits, or stormwater management site plans or site permits approved by state or local official for which the permittee receives written notice.

   (c) If the permittee is required to prepare a separate management plan, including but not limited to a WPAP or Contributing Zone Plan in accordance with 30 TAC Chapter 213 (related to the Edwards Aquifer), then a copy of that plan must be either included in the SWP3 or made readily available upon request to authorized personnel of the TCEQ. The permittee shall maintain a copy of the approval letter for the plan in its SWP3.

6. Maintenance Requirements

   (a) All protective measures identified in the SWP3 must be maintained in effective operating condition. If, through inspections or other means, as soon as the permittee determines that BMPs are not operating effectively, then the permittee shall perform maintenance as necessary to maintain the continued effectiveness of stormwater controls, and prior to the next rain event if feasible. If maintenance prior to the next anticipated storm event is impracticable, the reason shall be documented in the SWP3 and maintenance must be scheduled and accomplished as soon as practicable. Erosion and sediment controls that have been intentionally disabled, run-over, removed, or otherwise rendered ineffective must be replaced or corrected immediately upon discovery.

   (b) If periodic inspections or other information indicates a control has been used incorrectly, is performing inadequately, or is damaged, then the operator shall replace or modify the control as soon as practicable after making the discovery.

   (c) Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50%. For perimeter controls such as silt fences, berms, etc., the trapped sediment must be removed before it reaches 50% of the above-ground height.

   (d) If sediment escapes the site, accumulations must be removed at a frequency that minimizes off-site impacts, and prior to the next rain event, if feasible. If the permittee does not own or operate the off-site conveyance, then the permittee shall work with the owner or operator of the property to remove the sediment.

7. Observation and Evaluation of Dewatering Controls Pursuant to Part IV.C. of this General Permit

   (a) Personnel provided by the permittee must observe and evaluate dewatering controls at a minimum of once per day on the days where dewatering discharges from the construction site occur. Personnel conducting these evaluations must be knowledgeable of this general permit, the construction activities at the site, and the SWP3 for the site. Personnel conducting these evaluations are not required to have signatory authority for reports under 30 TAC § 305.128 (relating to Signatories to Reports).

(b) Requirements for Observations and Evaluations

i. A report summarizing the scope of any observation and evaluation must be completed within 24-hours following the evaluation. The report must also include, at a minimum, the following:

(A) date of the observations and evaluation;

(B) name(s) and title(s) of personnel making the observations and evaluation;

(C) approximate times that the dewatering discharge began and ended on the day of evaluation, or if the dewatering discharge is a continuous discharge that continues after normal business hours, indicate that the discharge is continuous (this information can be reported by personnel initiating the dewatering discharge);

(D) estimates of the rate (in gallons per day) of discharge on the day of evaluation;

(E) whether or not any indications of pollutant discharge were observed at the point of discharge (e.g., foam, oil sheen, noticeable odor, floating solids, suspended sediments, or other obvious indicators of stormwater pollution); and

(F) major observations, including: the locations of where erosion and discharges of sediment or other pollutants from the site have occurred; locations of BMPs that need to be maintained; locations of BMPs that failed to operate as designed or proved inadequate for a particular location; and locations where additional BMPs are needed.

ii. Actions taken as a result of evaluations, including the date(s) of actions taken, must be described within, and retained as a part of, the SWP3. Reports must identify any incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the report must contain a certification that the facility or site is in compliance with the SWP3 and this permit. The report must be retained as part of the SWP3 and signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).

iii. The names and qualifications of personnel making the evaluations for the permittee may be documented once in the SWP3 rather than being included in each report.

8. Inspections of All Controls

(a) Personnel provided by the permittee must inspect disturbed areas (cleared, graded, or excavated) of the construction site that do not meet the requirements of final stabilization in this general permit, all locations where stabilization measures have been implemented, areas of construction support activity covered under this permit, stormwater controls (including pollution prevention controls) for evidence of, or the potential for, the discharge of pollutants, areas where stormwater typically flows within the construction site, and points of discharge from the construction site.

i. Personnel conducting these inspections must be knowledgeable of this general permit, the construction activities at the site, and the SWP3 for the site.

ii. Personnel conducting these inspections are not required to have signatory authority for inspection reports under 30 TAC § 305.128 (relating to Signatories to Reports).

(b) Requirements for Inspections

i. Inspect all stormwater controls (including sediment and erosion control measures identified in the SWP3) to ensure that they are installed properly, appear to be operational, and minimizing pollutants in discharges, as intended.

ii. Identify locations on the construction site where new or modified stormwater controls are necessary.

iii. Check for signs of visible erosion and sedimentation that can be attributed to the points of discharge where discharges leave the construction site or discharge into any surface water in the state flowing within or adjacent to the construction site.

iv. Identify any incidents of noncompliance observed during the inspection.

v. Inspect locations where vehicles enter or exit the site for evidence of off-site sediment tracking.

vi. If an inspection is performed when discharges from the construction site are occurring: identify all discharge points at the site, and observe and document the visual quality of the discharge (i.e., color, odor, floating, settled, or suspended solids, foam, oil sheen, and other such indicators of pollutants in stormwater).

vii. Complete any necessary maintenance needed, based on the results of the inspection and in accordance with the requirements listed in Part III.F.6. above.

(c) Inspection frequencies:

i. Inspections of construction sites must be conducted at least once every fourteen (14) calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater, unless as otherwise provided below in Part III.F.8.(c)ii. – v. below.

(A) If a storm event produces 0.5 inches or more of rain within a 24-hour period (including when there are multiple, smaller storms that alone produce less than 0.5 inches but together produce 0.5 inches or more in 24 hours), you are required to conduct one inspection within 24 hours of when 0.5 inches of rain or more has fallen. When the 24-hour inspection time frame occurs entirely outside of normal working hours, you must conduct an inspection by no later than the end of the next business day.

(B) If a storm event produces 0.5 inches or more of rain within a 24-hour period on the first day of a storm and continues to produce 0.5 inches or more of rain on subsequent days, you must conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the last day of the storm that produces 0.5 inches or more of rain (i.e., only two (2) inspections would be required for such a storm event). When the 24-hour inspection time frame occurs entirely outside of normal working hours, you must conduct an inspection by no later than the end of the next business day.

ii. Inspection frequencies must be conducted at least once every month in areas of the construction site that meet final stabilization or have been temporarily stabilized.

iii. Inspection frequencies for construction sites, where runoff is unlikely due to the occurrence of frozen conditions at the site, must be conducted at least once every month until thawing conditions begin to occur (see definitions for thawing conditions in Part I.B.). The SWP3 must also contain a record of the approximate beginning and ending dates of when frozen conditions occurred at the site, which resulted in inspections being conducted monthly, while those

conditions persisted, instead of at the interval of once every fourteen (14) calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.

iv. In arid, semi-arid, or drought-stricken areas, inspections must be conducted at least once every month and within 24 hours after the end of a storm event of 0.5 inches or greater. The SWP3 must also contain a record of the total rainfall measured, as well as the approximate beginning and ending dates of when drought conditions occurred at the site, which resulted in inspections being conducted monthly, while those conditions persisted, instead of at the interval of once every fourteen (14) calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.

v. As an alternative to the inspection schedule in Part III.F.8.(c)i. above, the SWP3 may be developed to require that these inspections will occur at least once every seven (7) calendar days. If this alternative schedule is developed, then the inspection must occur regardless of whether or not there has been a rainfall event since the previous inspection.

vi. The inspection procedures described in Part III.F.8.(c)i. – v above can be performed at the frequencies and under the applicable conditions indicated for each schedule option, provided that the SWP3 reflects the current schedule and that any changes to the schedule are made in accordance with the following provisions: the inspection frequency schedule can only be changed a maximum of once per calendar month and implemented within the first five (5) business days of a calendar month; and the reason for the schedule change documented in the SWP3 (e.g., end of "dry" season and beginning of "wet" season).

(d) Utility line installation, pipeline construction, and other examples of long, narrow, linear construction activities may provide inspection personnel with limited access to the areas described in Part III.F.8.(a) above.

i. Inspection of linear construction sites could require the use of vehicles that could compromise areas of temporary or permanent stabilization, cause additional disturbance of soils, and result in the increase the potential for erosion. In these circumstances, controls must be inspected at least once every fourteen (14) calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater, but representative inspections may be performed.

ii. For representative inspections, personnel must inspect controls along the construction site for 0.25 mile above and below each access point where a roadway, undisturbed right-of-way, or other similar feature intersects the construction site and allows access to the areas described in Part III.F.8.(a) above. The conditions of the controls along each inspected 0.25-mile portion may be considered as representative of the condition of controls along that reach extending from the end of the 0.25-mile portion to either the end of the next 0.25-mile inspected portion, or to the end of the project, whichever occurs first.

As an alternative to the inspection schedule described in Part III.F.8.(c)i. above, the SWP3 may be developed to require that these inspections will occur at least once every seven (7) calendar days. If this alternative schedule is developed, the inspection must occur regardless of whether or not there has been a rainfall event since the previous inspection.

iii. the SWP3 for a linear construction site must reflect the current inspection schedule. Any changes to the inspection schedule must be made in accordance with the following provisions:

(A) the schedule may be changed a maximum of one time each month;

(B) the schedule change must be implemented at the beginning of a calendar month, and

(C) the reason for the schedule change must be documented in the SWP3 (e.g., end of "dry" season and beginning of "wet" season).

(e) Adverse Conditions.

Requirements for inspections may be temporarily suspended for adverse conditions. Adverse conditions are conditions that are either dangerous to personnel (e.g., high wind, excessive lightning) or conditions that prohibit access to the site (e.g., flooding, freezing conditions). Adverse conditions that result in the temporary suspension of a permit requirement to inspect must be documented and included as part of the SWP3. Documentation must include:

i. the date and time of the adverse condition,

ii. names of personnel that witnessed the adverse condition, and

iii. a narrative for the nature of the adverse condition.

(f) In the event of flooding or other adverse conditions which prohibit access to the inspection sites, inspections must be conducted as soon as access is practicable. Inspection Reports.

i. A report summarizing the scope of any inspection must be completed within 24-hours following the inspection. The report must also include the date(s) of the inspection and major observations relating to the implementation of the SWP3. Major observations in the report must include: the locations of where erosion and discharges of sediment or other pollutants from the site have occurred; locations of BMPs that need to be maintained; locations of BMPs that failed to operate as designed or proved inadequate for a particular location; and locations where additional BMPs are needed.

ii. Actions taken as a result of inspections, including the date(s) of actions taken, must be described within, and retained as a part of, the SWP3. Reports must identify any incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the report must contain a certification that the facility or site is in compliance with the SWP3 and this permit. The report must be retained as part of the SWP3 and signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).

iii. The names and qualifications of personnel making the inspections for the permittee may be documented once in the SWP3 rather than being included in each report.

(g) The SWP3 must be modified based on the results of inspections, as necessary, to better control pollutants in runoff. Revisions to the SWP3 must be completed within seven (7) calendar days following the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in the SWP3 and wherever possible those changes implemented before the next storm event. If implementation before the next anticipated storm event is impracticable, these changes must be implemented as soon as practicable. If necessary, modify your site map to reflect changes to your stormwater controls that are no longer accurately reflected on the current site map.

9. The SWP3 must identify and ensure the implementation of appropriate pollution prevention measures for all eligible non-stormwater components of the discharge, as listed in Part II.A.3. of this permit.

10. The SWP3 must include the information required in Part III.B. of this general permit.

11. The SWP3 must include pollution prevention procedures that comply with Part IV.D. of this general permit.

Part IV. Erosion and Sediment Control Requirements Applicable to All Sites

Except as provided in 40 CFR §§ 125.30-125.32, any discharge regulated under this general permit, with the exception of sites that obtained waivers based on low rainfall erosivity, must achieve, at a minimum, the following effluent limitations representing the degree of effluent reduction attainable by application of the best practicable control technology currently available (BPT). The BPT are also required by and must satisfy the Effluent Limitations Guideline (ELG) permitting requirement for application of 40 CFR § 450.24 New Source Performance Standards (NSPS), 40 CFR § 450.22 Best Available Technology Economically Achievable (BAT), and 40 CFR § 450.23 Best Conventional Pollutant Control Technology (BCT).

Section A. Erosion and Sediment Controls

Design, install, and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, such controls must be designed, installed, and maintained to:

1. control stormwater volume and velocity within the site to minimize soil erosion in order to minimize pollutant discharges;
2. control stormwater discharges, including both peak flowrates and total stormwater volume, to minimize channel and streambank erosion and scour in the immediate vicinity of discharge point(s);
3. minimize the amount of soil exposed during construction activity;
4. minimize the disturbance of steep slopes;
5. minimize sediment discharges from the site. The design, installation, and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site;
6. provide and maintain appropriate natural buffers around surface water in the state. Direct stormwater to vegetated areas and maximize stormwater infiltration to reduce pollutant discharges, unless infeasible. If providing buffers is infeasible, the permittee shall document the reason that natural buffers are infeasible and shall implement additional erosion and sediment controls to reduce sediment load;
7. preserve native topsoil at the site, unless the intended function of a specific area of the site dictates that the topsoil be disturbed or removed, or it is infeasible; and
8. minimize soil compaction. In areas of the construction site where final vegetative stabilization will occur or where infiltration practices will be installed, either:
   (a) restrict vehicle and equipment use to avoid soil compaction; or
   (b) prior to seeding or planting areas of exposed soil that have been compacted, use techniques that condition the soils to support vegetative growth, if necessary and feasible.

   Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted.
9. TCEQ does not consider stormwater control features (e.g., stormwater conveyance channels, storm drain inlets, sediment basins) to constitute “surface water” for the purposes of triggering the buffer requirement in Part IV.A.(6) above.

Section B. Soil Stabilization

Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating, or other earth disturbing activities have permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding fourteen (14) calendar days. In the context of this requirement, "immediately" means as soon as practicable, but no later than the end of the next workday, following the day when the earth-disturbing activities have temporarily or permanently ceased. Temporary stabilization must be completed no more than fourteen (14) calendar days after initiation of soil stabilization measures, and final stabilization must be achieved prior to termination of permit coverage. In arid, semi-arid, and drought-stricken areas where initiating vegetative stabilization measures immediately is infeasible, alternative non-vegetative stabilization measures must be employed as soon as practicable. Refer to Part III.F.2.(b) for complete erosion control and stabilization practice requirements. In limited circumstances, stabilization may not be required if the intended function of a specific area of the site necessitates that it remain disturbed.

Section C. Dewatering

Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited, unless managed by appropriate controls to address sediment and prevent erosion. Operators must observe and evaluate the dewatering controls once per day while the dewatering discharge occurs as described in Part III.F.7. of this general permit.

Section D. Pollution Prevention Measures

Design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented, and maintained to:

1. minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
2. minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site to precipitation and to stormwater;
3. minimize the exposure of waste materials by closing waste container lids at the end of the workday and during storm events. For waste containers that do not have lids, where the container itself is not sufficiently secure enough to prevent the discharge of pollutants absent a cover and could leak, the permittee must provide either a cover (e.g., a tarp, plastic sheeting, temporary roof) to minimize exposure of wastes to precipitation, stormwater, and wind, or a similarly effective means designed to minimize the discharge of pollutants (e.g., secondary containment). Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use);
4. minimize exposure of wastes by implementing good housekeeping measures. Wastes must be cleaned up and disposed of in designated waste containers on days of operation at the site. Wastes must be cleaned up immediately if containers overflow;

5. minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302 as soon as you have knowledge of the release. You must also, within seven (7) calendar days of knowledge of the release, provide a description of the release, the circumstances leading to the release, and the date of the release; and
6. minimize exposure of sanitary waste by positioning portable toilets so that they are secure and will not be tipped or knocked over, and so that they are located away from surface water in the state and stormwater inlets or conveyances.

Section E. Prohibited Discharges

The following discharges are prohibited:

1. wastewater from wash out of concrete, unless managed by an appropriate control;
2. wastewater from wash out and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
3. fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
4. soaps or solvents used in vehicle and equipment washing; and
5. toxic or hazardous substances from a spill or other release.

Section F. Surface Outlets

When discharging from basins and impoundments, utilize outlet structures that withdraw water from the surface, unless infeasible. If infeasible, the permittee must provide documentation in the SWP3 to support the determination, including the specific conditions or time periods when this exception will apply.

Part V. Stormwater Runoff from Concrete Batch Plants

Discharges of stormwater runoff from concrete batch plants present at regulated construction sites and operated as a construction support activity may be authorized under the provisions of this general permit, provided that the following requirements are met for concrete batch plant(s) authorized under this permit. Only the discharges of stormwater runoff and non-stormwater from concrete batch plants that meet the requirements of a construction support activity can be authorized under this permit (see the requirements for "Non-Stormwater Discharges" in Part II.A.3. and "Discharges of Stormwater Associated with Construction Support Activity" in Part II.A.2.).

If discharges of stormwater runoff or non-stormwater from concrete batch plants are not authorized under this general permit, then discharges must be authorized under an alternative general permit or individual permit [see the requirement in Part II.A.2.(c)].

This permit does not authorize the discharge or land disposal of any wastewater from concrete batch plants at regulated construction sites. Authorization for these wastes must be obtained under an individual permit or an alternative general permit.

Section A. Benchmark Sampling Requirements

1. Operators of concrete batch plants authorized under this general permit shall sample the stormwater runoff from the concrete batch plants according to the requirements of this section of this general permit, and must conduct evaluations on the effectiveness of the SWP3 based on the following benchmark monitoring values:

Table 1. Benchmark Parameters

Benchmark Parameter	Benchmark Value	Sampling Frequency	Sample Type
Oil and Grease (*1)	15 mg/L	1/quarter (*2) (*3)	Grab (*4)
Total Suspended Solids (*1)	50 mg/L	1/quarter (*2) (*3)	Grab (*4)
pH	6.0 – 9.0 Standard Units	1/quarter (*2) (*3)	Grab (*4)
Total Iron (*1)	1.3 mg/L	1/quarter (*2) (*3)	Grab (*4)

(*1) All analytical results for these parameters must be obtained from a laboratory that is accredited based on rules located in 30 TAC § 25.4 (a) or through the National Environmental Laboratory Accreditation Program (NELAP). Analysis must be performed using sufficiently sensitive methods for analysis that comply with the rules located in 40 CFR §§ 136.1(c) and 122.44(i)(1)(iv).

(*2) When discharge occurs. Sampling is required within the first 30 minutes of discharge. If it is not practicable to take the sample, or to complete the sampling, within the first 30 minutes, sampling must be completed within the first hour of discharge. If sampling is not completed within the first 30 minutes of discharge, the reason must be documented and attached to all required reports and records of the sampling activity.

(*3) Sampling must be conducted at least once during each of the following periods. The first sample must be collected during the first full quarter that a stormwater discharge occurs from a concrete batch plant authorized under this general permit.

January through March
April through June
July through September
October through December

For projects lasting less than one full quarter, a minimum of one sample shall be collected, provided that a stormwater discharge occurred at least once following submission of the NOI or following the date that automatic authorization was obtained under Part II.E.2., and prior to terminating coverage.

(*4) A grab sample shall be collected from the stormwater discharge resulting from a storm event that is at least 0.1 inches of measured precipitation that occurs at least 72 hours from the previously measurable storm event. The sample shall be collected downstream of the concrete batch plant, and where the discharge exits any BMPs utilized to handle the runoff from the batch plant, prior to commingling with any other water authorized under this general permit.

2. The permittee must compare the results of sample analyses to the benchmark values above, and must include this comparison in the overall assessment of the SWP3's effectiveness. Analytical results that exceed a benchmark value are not a violation of this permit, as these values are not numeric effluent limitations. Results of analyses are indicators that modifications of the SWP3 should be assessed and may be necessary to protect water quality. The operator must investigate the cause for each exceedance and must document the results of this investigation in the SWP3 by the end of the quarter following the sampling event.

   The operator's investigation must identify the following:

   (a) any additional potential sources of pollution, such as spills that might have occurred;

   (b) necessary revisions to good housekeeping measures that are part of the SWP3;

   (c) additional BMPs, including a schedule to install or implement the BMPs; and

   (d) other parts of the SWP3 that may require revisions in order to meet the goal of the benchmark values.

   Background concentrations of specific pollutants may also be considered during the investigation. If the operator is able to relate the cause of the exceedance to background concentrations, then subsequent exceedances of benchmark values for that pollutant may be resolved by referencing earlier findings in the SWP3. Background concentrations may be identified by laboratory analyses of samples of stormwater run-on to the permitted facility, by laboratory analyses of samples of stormwater run-off from adjacent non-industrial areas, or by identifying the pollutant is a naturally occurring material in soils at the site.

Section B. Best Management Practices (BMPs) and SWP3 Requirements

Minimum SWP3 Requirements – The following are required in addition to other SWP3 requirements listed in this general permit, which include, but are not limited to the applicable requirements located in Part III.F.8. of this general permit, as follows:

1. Description of Potential Pollutant Sources – The SWP3 must provide a description of potential sources (activities and materials) that can cause, have a reasonable potential to cause or contribute to a violation of water quality standards or have been found to cause, or contribute to, the loss of a designated use of surface water in the state in stormwater discharges associated with concrete batch plants authorized under this permit. The SWP3 must describe the implementation of practices that will be used to minimize to the extent practicable the discharge of pollutants in stormwater discharges associated with industrial activity and non-stormwater discharges (described in Part II.A.3. of this general permit), in compliance with the terms and conditions of this general permit, including the protection of water quality, and must ensure the implementation of these practices.

   The following must be developed, at a minimum, in support of developing this description:

   (a) Drainage – The site map must include the following information:

      i. the location of all outfalls for stormwater discharges associated with concrete batch plants that are authorized under this permit;

      ii. a depiction of the drainage area and the direction of flow to the outfall(s);

      iii. structural controls used within the drainage area(s);

iv. the locations of the following areas associated with concrete batch plants that are exposed to precipitation: vehicle and equipment maintenance activities (including fueling, repair, and storage areas for vehicles and equipment scheduled for maintenance); areas used for the treatment, storage, or disposal of wastes; liquid storage tanks; material processing and storage areas; and loading and unloading areas; and

v. the locations of the following: any bag house or other dust control device(s); recycle/sedimentation pond, clarifier or other device used for the treatment of facility wastewater (including the areas that drain to the treatment device); areas with significant materials; and areas where major spills or leaks have occurred.

(b) Inventory of Exposed Materials – A list of materials handled at the concrete batch plant that may be exposed to stormwater and precipitation and that have a potential to affect the quality of stormwater discharges associated with concrete batch plants that are authorized under this general permit.

(c) Spills and Leaks – A list of significant spills and leaks of toxic or hazardous pollutants that occurred in areas exposed to stormwater and precipitation and that drain to stormwater outfalls associated with concrete batch plants authorized under this general permit must be developed, maintained, and updated as needed.

(d) Sampling Data – A summary of existing stormwater discharge sampling data must be maintained, if available.

2. Measures and Controls – The SWP3 must include a description of management controls to regulate pollutants identified in the SWP3's "Description of Potential Pollutant Sources" from Part V.B.1. of this permit, and a schedule for implementation of the measures and controls. This must include, at a minimum:

(a) Good Housekeeping – Good housekeeping measures must be developed and implemented in the area(s) associated with concrete batch plants.

i. Operators must prevent or minimize the discharge of spilled cement, aggregate (including sand or gravel), settled dust, or other significant materials from paved portions of the site that are exposed to stormwater. Measures used to minimize the presence of these materials may include regular sweeping or other equivalent practices. These practices must be conducted at a frequency that is determined based on consideration of the amount of industrial activity occurring in the area and frequency of precipitation, and shall occur at least once per week when cement or aggregate is being handled or otherwise processed in the area.

ii. Operators must prevent the exposure of fine granular solids, such as cement, to stormwater. Where practicable, these materials must be stored in enclosed silos, hoppers or buildings, in covered areas, or under covering.

(b) Spill Prevention and Response Procedures – Areas where potential spills that can contribute pollutants to stormwater runoff and precipitation, and the drainage areas from these locations, must be identified in the SWP3. Where appropriate, the SWP3 must specify material handling procedures, storage requirements, and use of equipment. Procedures for cleaning up spills must be identified in the SWP3 and made available to the appropriate personnel.

(c) Inspections – Qualified facility personnel (i.e., a person or persons with knowledge of this general permit, the concrete batch plant, and the SWP3 related to the concrete batch plant(s) for the site) must be identified to inspect designated equipment and areas of the facility specified in the SWP3. Personnel conducting these inspections are not required to have signatory authority for inspection reports under 30 TAC § 305.128. Inspections of facilities in operation must be performed

once every seven (7) days. Inspections of facilities that are not in operation must be performed at a minimum of once per month. The current inspection frequency being implemented at the facility must be recorded in the SWP3. The inspection must take place while the facility is in operation and must, at a minimum, include all areas that are exposed to stormwater at the site, including material handling areas, above ground storage tanks, hoppers or silos, dust collection/containment systems, truck wash down and equipment cleaning areas. Follow-up procedures must be used to ensure that appropriate actions are taken in response to the inspections. Records of inspections must be maintained and be made readily available for inspection upon request.

(d) Employee Training – An employee training program must be developed to educate personnel responsible for implementing any component of the SWP3, or personnel otherwise responsible for stormwater pollution prevention, with the provisions of the SWP3. The frequency of training must be documented in the SWP3, and at a minimum, must consist of one (1) training prior to the initiation of operation of the concrete batch plant.

(e) Record Keeping and Internal Reporting Procedures – A description of spills and similar incidents, plus additional information that is obtained regarding the quality and quantity of stormwater discharges, must be included in the SWP3. Inspection and maintenance activities must be documented and records of those inspection and maintenance activities must be incorporated in the SWP3.

(f) Management of Runoff – The SWP3 shall contain a narrative consideration for reducing the volume of runoff from concrete batch plants by diverting runoff or otherwise managing runoff, including use of infiltration, detention ponds, retention ponds, or reusing of runoff.

3. Comprehensive Compliance Evaluation – At least once per year, one or more qualified personnel (i.e., a person or persons with knowledge of this general permit, the concrete batch plant, and the SWP3 related to the concrete batch plant(s) for the site) shall conduct a compliance evaluation of the plant. The evaluation must include the following:

(a) visual examination of all areas draining stormwater associated with regulated concrete batch plants for evidence of, or the potential for, pollutants entering the drainage system. These include, but are not limited to: cleaning areas, material handling areas, above ground storage tanks, hoppers or silos, dust collection/containment systems, and truck wash down and equipment cleaning areas. Measures implemented to reduce pollutants in runoff (including structural controls and implementation of management practices) must be evaluated to determine if they are effective and if they are implemented in accordance with the terms of this permit and with the permittee's SWP3. The operator shall conduct a visual inspection of equipment needed to implement the SWP3, such as spill response equipment.

(b) based on the results of the evaluation, the following must be revised as appropriate within two (2) weeks of the evaluation: the description of potential pollutant sources identified in the SWP3 (as required in Part V.B.1., "Description of Potential Pollutant Sources"); and pollution prevention measures and controls identified in the SWP3 (as required in Part V.B.2., "Measures and Controls"). The revisions may include a schedule for implementing the necessary changes.

(c) the permittee shall prepare and include in the SWP3 a report summarizing the scope of the evaluation, the personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the SWP3, and actions taken in response to the findings of the evaluation. The report must identify any incidents of noncompliance. Where the report does not identify incidences of noncompliance, the report must contain a statement that the evaluation did not identify any

incidence(s), and the report must be signed according to 30 TAC § 305.128 (relating to Signatories to Reports).

(d) the Comprehensive Compliance Evaluation may substitute for one of the required inspections delineated in Part V.B.2.(c) of this general permit.

Section C. Prohibition of Wastewater Discharges

Wastewater discharges associated with concrete production including wastewater disposal by land application are not authorized under this general permit. These wastewater discharges must be authorized under an alternative TCEQ water quality permit or otherwise disposed of in an authorized manner. Discharges of concrete truck wash out at construction sites may be authorized if conducted in accordance with the requirements of Part VI of this general permit.

Part VI. Concrete Truck Wash Out Requirements

This general permit authorizes the land disposal of wash out from concrete trucks at construction sites regulated under this general permit, provided the following requirements are met. Any discharge of concrete production wastewater to surface water in the state must be authorized under a separate TCEQ general permit or individual permit.

A. Discharge of concrete truck wash out water to surface water in the state, including discharge to storm sewers, is prohibited by this general permit.

B. Concrete truck wash out water shall be disposed in areas at the construction site where structural controls have been established to prevent discharge to surface water in the state, or to areas that have a minimal slope that allow infiltration and filtering of wash out water to prevent discharge to surface water in the state. Structural controls may consist of temporary berms, temporary shallow pits, temporary storage tanks with slow rate release, or other reasonable measures to prevent runoff from the construction site.

C. Wash out of concrete trucks during rainfall events shall be minimized. The discharge of concrete truck wash out water is prohibited at all times, and the operator shall insure that its BMPs are sufficient to prevent the discharge of concrete truck wash out as the result of rainfall or stormwater runoff.

D. The disposal of wash out water from concrete trucks, made under authorization of this general permit must not cause or contribute to groundwater contamination.

E. If a SWP3 is required to be implemented, the SWP3 shall include concrete wash out areas on the associated site map.

Part VII. Retention of Records

The permittee must retain the following records for a minimum period of three (3) years from the date that a NOT is submitted as required in Part II.F.1. and 2. of this permit. For activities in which an NOT is not required, records shall be retained for a minimum period of three (3) years from the date that the operator terminates coverage under Section II.F.3. of this permit. Records include:

A. a copy of the SWP3;

B. all reports and actions required by this permit, including a copy of the TCEQ construction site notice;

C. all data used to complete the NOI, if an NOI is required for coverage under this general permit; and

D. all records of submittal of forms submitted to the operator of any MS4 receiving the discharge and to the secondary operator of a large construction site, if applicable.

Part VIII. Standard Permit Conditions

A. The permittee has a duty to comply with all permit conditions. Failure to comply with any permit condition is a violation of the permit and statutes under which it was issued (CWA and TWC), and is grounds for enforcement action, for terminating, revoking and reissuance, or modification, or denying coverage under this general permit, or for requiring a discharger to apply for and obtain an individual TPDES permit, based on rules located in TWC § 23.086, 30 TAC § 305.66, and 40 CFR § 122.41 (a).

B. Authorization under this general permit may be modified, suspended, revoked and reissued, terminated or otherwise suspended for cause, based on rules located in TWC § 23.086, 30 TAC § 305.66, and 40 CFR § 122.41(f). Filing a notice of planned changes or anticipated non-compliance by the permittee does not stay any permit condition. The permittee must furnish to the executive director, upon request and within a reasonable time, any information necessary for the executive director to determine whether cause exists for modifying, revoking and reissuing, terminating or, otherwise suspending authorization under this permit, based on rules located in TWC § 23.086, 30 TAC § 305.66, and 40 CFR § 122.41 (h). Additionally, the permittee must provide to the executive director, upon request, copies of all records that the permittee is required to maintain as a condition of this general permit.

C. It is not a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the permit conditions.

D. Inspection and entry shall be allowed under TWC Chapters 26-28, Texas Health and Safety Code §§ 361.032-361.033 and 361.037, and 40 CFR § 122.41(i). The statement in TWC § 26.014 that commission entry of a facility shall occur according to an establishment's rules and regulations concerning safety, internal security, and fire protection is not grounds for denial or restriction of entry to any part of the facility or site, but merely describes the commission's duty to observe appropriate rules and regulations during an inspection.

E. The discharger is subject to administrative, civil, and criminal penalties, as applicable, under TWC Chapter 7 for violations including but not limited to the following:

1. negligently or knowingly violating the federal CWA §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under CWA § 402, or any requirement imposed in a pretreatment program approved under CWA §§ 402(a)(3) or 402(b)(8);
2. knowingly making any false statement, representation, or certification in any record or other document submitted or required to be maintained under a permit, including monitoring reports or reports of compliance or noncompliance; and
3. knowingly violating CWA §303 and placing another person in imminent danger of death or serious bodily injury.

F. All reports and other information requested by the executive director must be signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).

G. Authorization under this general permit does not convey property or water rights of any sort and does not grant any exclusive privilege.

H. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

I. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

J. The permittee shall comply with the monitoring and reporting requirements in 40 CFR § 122.41(j) and (l), as applicable.

K. Analysis must be performed using sufficiently sensitive methods for analysis that comply with the rules located in 40 CFR §§ 136.1(c) and 122.44(i)(1)(iv).

Part IX. Fees

A. A fee of must be submitted along with the NOI:

1. $225 if submitting an NOI electronically, or
2. $325 if submitting a paper NOI.

B. Fees are due upon submission of the NOI. An NOI will not be declared administratively complete unless the associated fee has been paid in full.

C. No separate annual fees will be assessed for this general permit. The Water Quality Annual Fee has been incorporated into the NOI fees as described above.

Appendix A: Automatic Authorization

Periods of Low Erosion Potential by County – Eligible Date Ranges

Andrews: Nov. 15 - Apr. 30

Archer: Dec. 15 - Feb. 14

Armstrong: Nov. 15 - Apr. 30

Bailey: Nov. 1 - Apr. 30, or Nov. 15 - May 14

Baylor: Dec. 15 - Feb. 14

Borden: Nov. 15 - Apr. 30

Brewster: Nov. 15 - Apr. 30

Briscoe: Nov. 15 - Apr. 30

Brown: Dec. 15 - Feb. 14

Callahan: Dec. 15 - Feb. 14

Carson: Nov. 15 - Apr. 30

Castro: Nov. 15 - Apr. 30

Childress: Dec. 15 - Feb. 14

Cochran: Nov. 1 - Apr. 30, or Nov. 15 - May 14

Coke: Dec. 15 - Feb. 14

Coleman: Dec. 15 - Feb. 14

Collingsworth: Jan. 1 - Mar. 30, or Dec. 1 - Feb. 28

Concho: Dec. 15 - Feb. 14

Cottle: Dec. 15 - Feb. 14

Crane: Nov. 15 - Apr. 30

Crockett: Nov. 15 - Jan. 14, or Feb. 1 - Mar. 30

Crosby: Nov. 15 - Apr. 30

Culberson: Nov. 1 - May 14

Dallam: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30

Dawson: Nov. 15 - Apr. 30

Deaf Smith: Nov. 15 - Apr. 30

Dickens: Nov. 15 - Jan. 14, or Feb. 1 - Mar. 30

Dimmit: Dec. 15 - Feb. 14

Donley: Jan. 1 - Mar. 30, or Dec. 1 - Feb. 28

Eastland: Dec. 15 - Feb. 14

Ector: Nov. 15 - Apr. 30

Edwards: Dec. 15 - Feb. 14

El Paso: Jan. 1 - Jul. 14, or May 15 - Jul. 31, or Jun. 1 - Aug. 14, or Jun. 15 - Sept. 14, or Jul. 1 - Oct. 14, or Jul. 15 - Oct. 31, or Aug. 1 - Apr. 30, or Aug. 15 - May 14, or Sept. 1 - May 30, or Oct. 1 - Jun. 14, or Nov. 1 - Jun. 30, or Nov. 15 - Jul. 14

Fisher: Dec. 15 - Feb. 14

Floyd: Nov. 15 - Apr. 30

Foard: Dec. 15 - Feb. 14

Gaines: Nov. 15 - Apr. 30

Garza: Nov. 15 - Apr. 30

Glasscock: Nov. 15 - Apr. 30

Hale: Nov. 15 - Apr. 30

Hall: Feb. 1 - Mar. 30

Hansford: Nov. 15 - Apr. 30

Hardeman: Dec. 15 - Feb. 14

Hartley: Nov. 15 - Apr. 30

Haskell: Dec. 15 - Feb. 14

Hockley: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30

Howard: Nov. 15 - Apr. 30

Hudspeth: Nov. 1 - May 14

Hutchinson: Nov. 15 - Apr. 30

Irion: Dec. 15 - Feb. 14

Jeff Davis: Nov. 1 - Apr. 30 or Nov. 15 - May 14

Jones: Dec. 15 - Feb. 14

Kent: Nov. 15 - Jan. 14 or Feb. 1 - Mar. 30

Kerr: Dec. 15 - Feb. 14

Kimble: Dec. 15 - Feb. 14

King: Dec. 15 - Feb. 14

Kinney: Dec. 15 - Feb. 14

Knox: Dec. 15 - Feb. 14

Lamb: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30

Loving: Nov. 1 - Apr. 30, or Nov. 15 - May 14

Lubbock: Nov. 15 - Apr. 30

Lynn: Nov. 15 - Apr. 30

Martin: Nov. 15 - Apr. 30

Mason: Dec. 15 - Feb. 14

Maverick: Dec. 15 - Feb. 14

McCulloch: Dec. 15 - Feb. 14

Menard: Dec. 15 - Feb. 14

Midland: Nov. 15 - Apr. 30

Mitchell: Nov. 15 - Apr. 30

Moore: Nov. 15 - Apr. 30

Motley: Nov. 15 - Jan. 14, or Feb. 1 - Mar. 30

Nolan: Dec. 15 - Feb. 14

Oldham: Nov. 15 - Apr. 30

Parmer: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30
Pecos: Nov. 15 - Apr. 30
Potter: Nov. 15 - Apr. 30
Presidio: Nov. 1 - Apr. 30, or Nov. 15 - May 14
Randall: Nov. 15 - Apr. 30
Reagan: Nov. 15 - Apr. 30
Real: Dec. 15 - Feb. 14
Reeves: Nov. 1 - Apr. 30, or Nov. 15 - May 14
Runnels: Dec. 15 - Feb. 14
Schleicher: Dec. 15 - Feb. 14
Scurry: Nov. 15 - Apr. 30
Shackelford: Dec. 15 - Feb. 14
Sherman: Nov. 15 - Apr. 30
Stephens: Dec. 15 - Feb. 14
Sterling: Nov. 15 - Apr. 30
Stonewall: Dec. 15 - Feb. 14
Sutton: Dec. 15 - Feb. 14
Swisher: Nov. 15 - Apr. 30
Taylor: Dec. 15 - Feb. 14
Terrell: Nov. 15 - Apr. 30
Terry: Nov. 15 - Apr. 30
Throckmorton: Dec. 15 - Feb. 14
Tom Green: Dec. 15 - Feb. 14
Upton: Nov. 15 - Apr. 30
Uvalde: Dec. 15 - Feb. 14
Val Verde: Nov. 15 - Jan. 14, or Feb. 1 - Mar. 30
Ward: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30
Wichita: Dec. 15 - Feb. 14
Wilbarger: Dec. 15 - Feb. 14
Winkler: Nov. 1 - Apr. 30, or Nov. 15 - May 14
Yoakum: Nov. 1 - Apr. 30, or Nov. 15 - May 14
Young: Dec. 15 - Feb. 14
Wheeler: Jan. 1 - Mar. 30, or Dec. 1 - Feb. 28
Zavala: Dec. 15 - Feb. 14

Appendix B: Storm Erosivity (EI) Zones in Texas

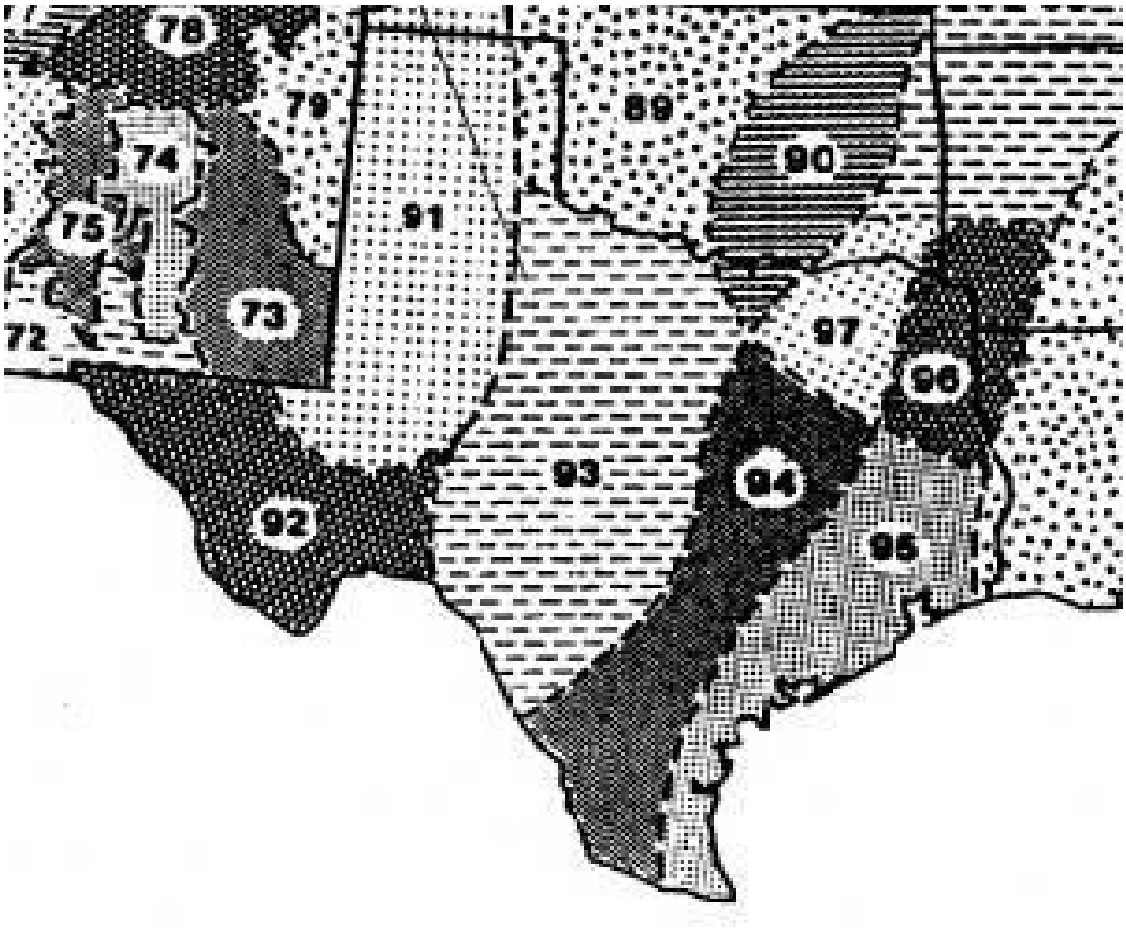


Figure B. EI Distribution Zones

Adapted from Chapter 2 of USDA Agriculture Handbook 703: "Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)," U.S. Department of Agriculture, Agricultural Research Service

Appendix C: Isoerodent Map

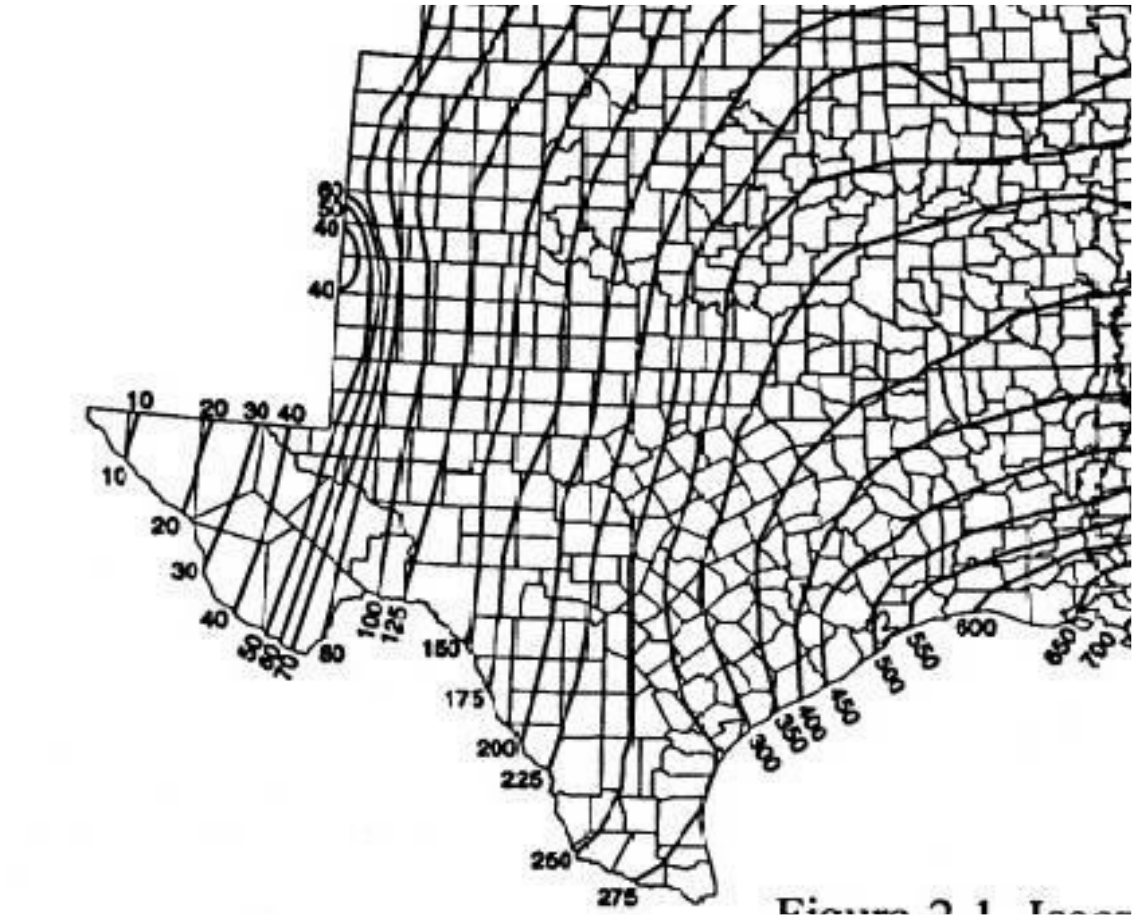


Figure C. Isoerodent Map of Texas. Units are hundreds ft*tonf*in(ac*h*yr)$^{-1}$

Adapted from Chapter 2 of USDA Agriculture Handbook 703: "Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)," U.S. Department of Agriculture, Agricultural Research Service

Appendix D: Erosivity Indices for EI Zones in Texas

Table D. EI as percentage of average annual computed selected geographic areas (EI number) by date period (month/day).

Date Periods* (Month/Day)

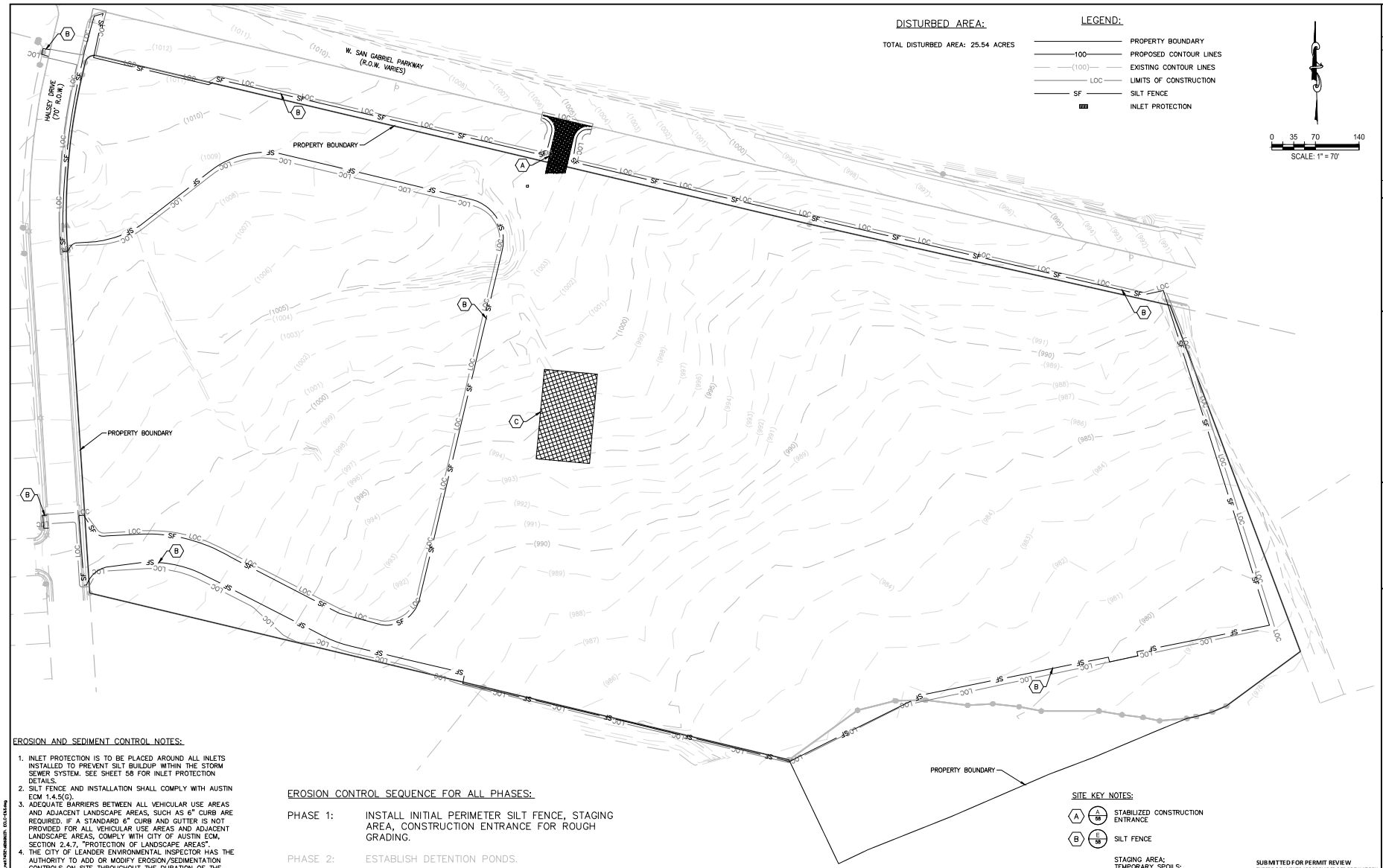
EI #	1/1	1/16	1/31	2/15	3/1	3/16	3/31	4/15	4/30	5/15	5/30	6/14	6/29	7/14	7/29	8/13	8/28	9/12	9/27	10/12	10/27	11/11	11/26	12/11	12/31
89	0	1	1	2	3	4	7	2	8	27	38	48	55	62	69	76	83	90	94	97	98	99	100	100	100
90	0	1	2	3	4	6	8	13	21	29	37	46	54	60	65	69	74	81	87	92	95	97	98	99	100
91	0	0	0	0	1	1	1	2	6	16	29	39	46	53	60	67	74	81	88	95	99	99	100	100	100
92	0	0	0	0	1	1	1	2	6	16	29	39	46	53	60	67	74	81	88	95	99	99	100	100	100
93	0	1	1	2	3	4	6	8	13	25	40	49	56	62	67	72	76	80	85	91	97	98	99	99	100
94	0	1	2	4	6	8	10	15	21	29	38	47	53	57	61	65	70	76	83	88	91	94	96	98	100
95	0	1	3	5	7	9	11	14	18	27	35	41	46	51	57	62	68	73	79	84	89	93	96	98	100
96	0	2	4	6	9	12	17	23	30	37	43	49	54	58	62	66	70	74	78	82	86	90	94	97	100
97	0	1	3	5	7	10	14	20	28	37	48	56	61	64	68	72	77	81	86	89	92	95	98	99	100
106	0	3	6	9	13	17	21	27	33	38	44	49	55	61	67	71	75	78	81	84	86	90	94	97	100

*Each period begins on the date listed in the table above and lasts until the day before the following period. The final period begins on December 11 and ends on December 31.

Table adapted from Chapter 2 of USDA Agriculture Handbook 703: "Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)," U.S. Department of Agriculture, Agricultural Research Service.

ATTACHMENT C

Erosion and Sedimentation Control Plans



DISTURBED AREA:

TOTAL DISTURBED AREA: 25.54 ACRES

LEGEND:

- PROPERTY BOUNDARY
- 100 PROPOSED CONTOUR LINES
- (100) EXISTING CONTOUR LINES
- LOC LIMITS OF CONSTRUCTION
- SF SILT FENCE
- INLET PROTECTION

0 35 70 140

SCALE: 1" = 70'

EROSION AND SEDIMENT CONTROL NOTES:

1. INLET PROTECTION IS TO BE PLACED AROUND ALL INLETS INSTALLED TO PREVENT SILT BUILDUP WITHIN THE STORM SEWER SYSTEM. SEE SHEET 58 FOR INLET PROTECTION DETAILS.
2. SILT FENCE AND INSTALLATION SHALL COMPLY WITH AUSTIN ECM 1.4.5(G).
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4. THE CITY OF LEANDER ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
5. SEE SHEET 58 FOR EROSION AND SEDIMENTATION CONTROL DETAILS.
6. IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY RE-VEGETATION, MULCH, TARP OR RE-VEGETATION MATTING. [ECM 1.4.4.B.3, SECTION 5.I]
7. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER AUSTIN ECM 1.4.5(A), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
8. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY.
9. ON-SITE EROSION CONTROL MEASURES TO BE ESTABLISHED AND MAINTAINED AROUND TEMPORARY/PERMANENT SPOILS LOCATIONS, CONCRETE WASHOUT AND CONTRACTOR STAGING AREAS.

EROSION CONTROL SEQUENCE FOR ALL PHASES:

PHASE 1: INSTALL INITIAL PERIMETER SILT FENCE, STAGING AREA, CONSTRUCTION ENTRANCE FOR ROUGH GRADING.

PHASE 2: ESTABLISH DETENTION PONDS.

PHASE 3: COMPLETE ROUGH GRADING

PHASE 4: INSTALL INLET PROTECTION WHERE APPROPRIATE AND INSTALL ADDITIONAL LOT PERIMETER SILT FENCE AND CONCRETE WASHOUT. FINAL GRADE IS ESTABLISHED.

PHASE 5: REMOVAL OF TEMPORARY EROSION CONTROLS AFTER ESTABLISHMENT OF VEGETATION. (SEE SHEET 9, OVERALL GRADING, AND REF. LANDSCAPE)

SITE KEY NOTES:

- A (A/58) STABILIZED CONSTRUCTION ENTRANCE
- B (B/58) SILT FENCE
- C STAGING AREA; TEMPORARY SPOILS; PORTABLE SANITARY FACILITIES; (FINAL LOCATION TO BE VERIFIED BY CONTRACTOR)
- D (C/58) CONCRETE WASH-OUT AREA
- E ROCK CHECK DAM
- F (B/58) GRATE INLET PROTECTION
- G (A/58) CURB INLET PROTECTION

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NO.	REVISION	BY	DATE

DESIGNED BY: KM
DRAWN BY: CS/AR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

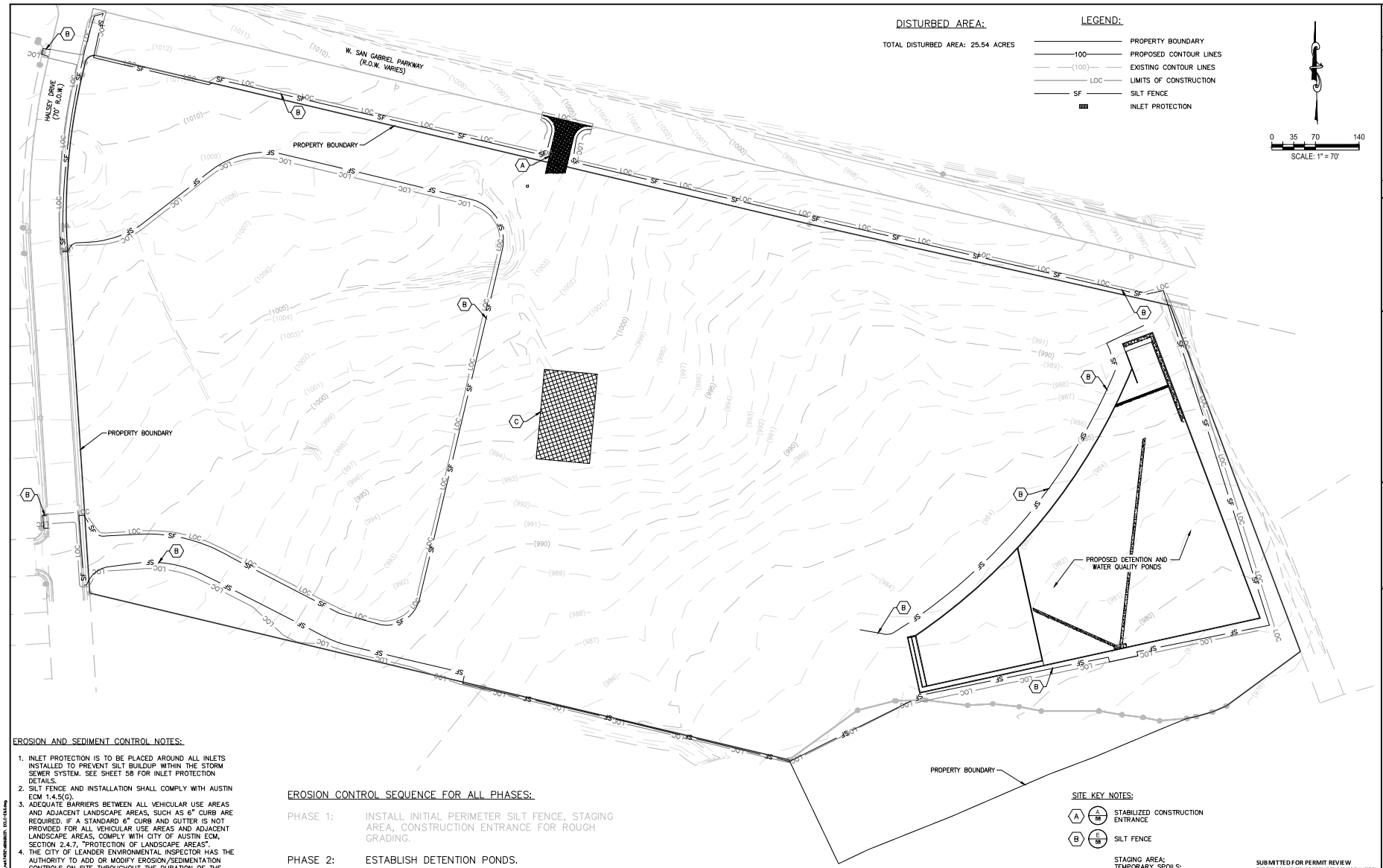
AtkinsRéalis
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 (512) 327-6940
TBPE REG. NO. F-474

STATE OF TEXAS MICHAEL J BRANGREAUX 135644 LICENSED PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER
EROSION AND SEDIENTATION CONTROL PLAN - PHASE 1

SHEET NO. 6
OF 61 SHEETS

FILE NO. ECLC-EAS
PROJECT NO. 100090499



DISTURBED AREA:

TOTAL DISTURBED AREA: 25.54 ACRES

LEGEND:

- PROPERTY BOUNDARY
- 100 PROPOSED CONTOUR LINES
- (100) EXISTING CONTOUR LINES
- LOC LIMITS OF CONSTRUCTION
- SF SILT FENCE
- INLET PROTECTION

0 35 70 140

SCALE: 1" = 70'

EROSION AND SEDIMENT CONTROL NOTES:

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PHASE 2: ESTABLISH DETENTION PONDS.

PHASE 3: COMPLETE ROUGH GRADING

PHASE 4: INSTALL INLET PROTECTION WHERE APPROPRIATE AND INSTALL ADDITIONAL LOT PERIMETER SILT FENCE AND CONCRETE WASHOUT. FINAL GRADE IS ESTABLISHED.

PHASE 5: REMOVAL OF TEMPORARY EROSION CONTROLS AFTER ESTABLISHMENT OF VEGETATION. (SEE SHEET 9, OVERALL GRADING, AND REF. LANDSCAPE)

SITE KEY NOTES:

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- B (B/58) SILT FENCE
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- D (C/58) CONCRETE WASH-OUT AREA
- E ROCK CHECK DAM
- F (B/58) GRATE INLET PROTECTION
- G (A/58) CURB INLET PROTECTION

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NO.	REVISION	BY	DATE

DESIGNED BY: KM
DRAWN BY: CS/AR
CHECKED BY: GI
APPROVED BY: MS
DATE: 01/15/2025

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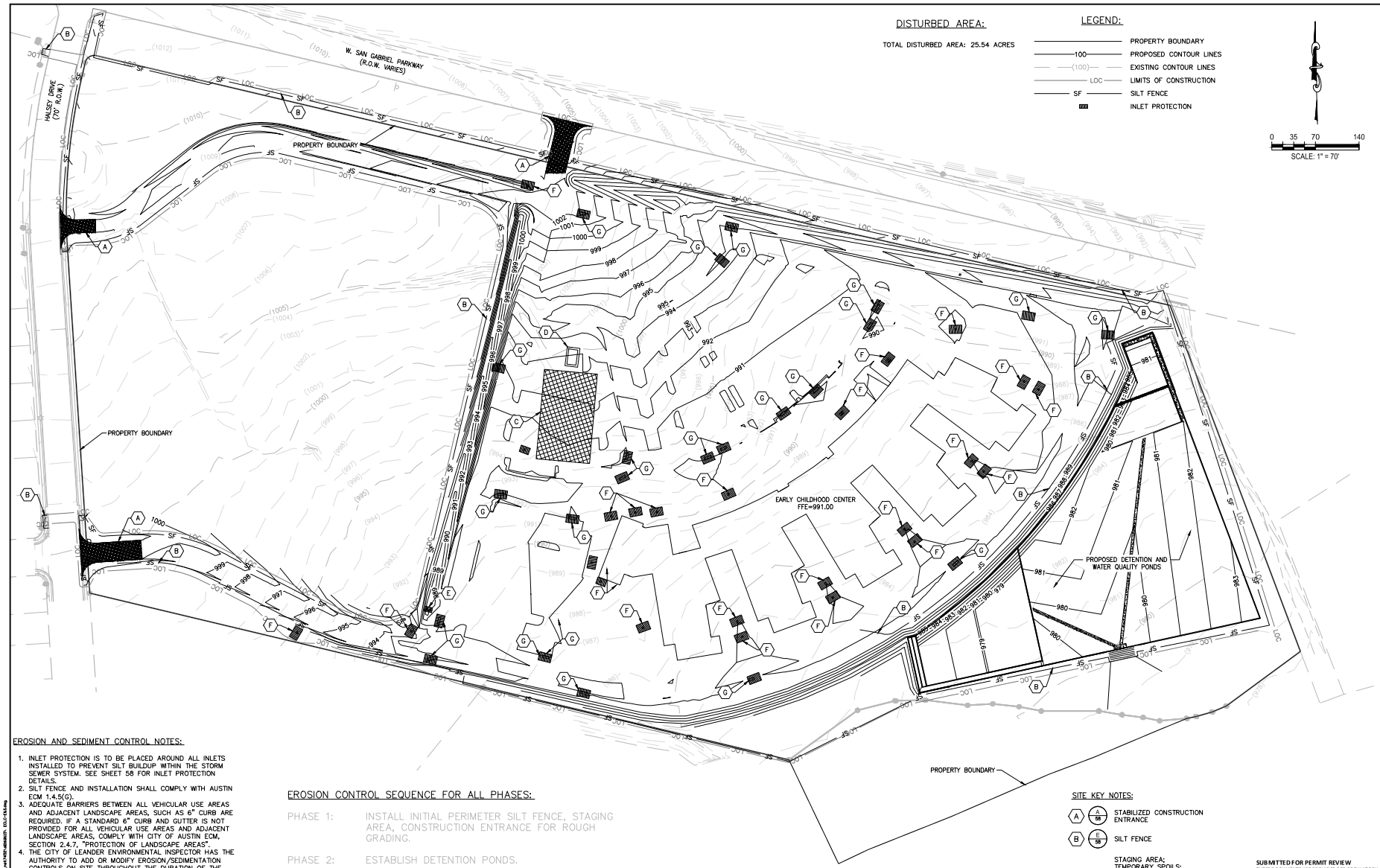
AUSTIN, TEXAS 78758 (512) 327-6940
TBPE REG. NO. F-474

STATE OF TEXAS
MICHAEL J BRANGREAUX
103644
LICENSED PROFESSIONAL ENGINEER
01/15/2025

LISD EARLY CHILDHOOD CENTER
EROSION AND SEDIENTATION CONTROL PLAN - PHASES 2 & 3

SHEET NO. 7
OF 61 SHEETS

FILE NO. ECLC-EAS
PROJECT NO. 100090499



DISTURBED AREA:

TOTAL DISTURBED AREA: 25.54 ACRES

LEGEND:

- PROPERTY BOUNDARY
- 100 PROPOSED CONTOUR LINES
- (100) EXISTING CONTOUR LINES
- LOC LIMITS OF CONSTRUCTION
- SF SILT FENCE
- INLET PROTECTION

0 35 70 140

SCALE: 1" = 70'

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- (F) D/58 GRATE INLET PROTECTION
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STATE OF TEXAS MICHAEL J. BRANGREAUX 135644 LICENSED PROFESSIONAL ENGINEER

LISD EARLY CHILDHOOD CENTER

EROSION AND SEDIENTATION CONTROL PLAN - PHASES 4 & 5

SHEET NO. 8
OF 61 SHEETS

FILE NO. ECLC-EAS
PROJECT NO. 100090499

ATTACHMENT D

Spill Response Plan

SPILL PREVENTION AND CONTROL

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

Education:

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

General Measures:

(1) To the extent that the work can be accomplished safely, spills of oil, petroleum products, and substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
(2) Store hazardous materials and wastes in covered containers and protect from vandalism.
(3) Place a stockpile of spill cleanup materials where it will be readily accessible.
(4) Train employees in spill prevention and cleanup.
(5) Designate responsible individuals to oversee and enforce control measures.
(6) Spills should be covered and protected from stormwater runoff during rainfall to the extent that it doesn't compromise clean up activities.
(7) Do not bury or wash spills with water.
(8) Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.
(9) Do not allow water used for cleaning and decontamination to enter storm drains or

watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.
(10) Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.
(11) Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.
(12) Keep waste storage areas clean, well-organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup:

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

Minor Spills:

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

Semi-Significant Spills:

Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities. Spills should be cleaned up immediately:
(1) Contain spread of the spill.
(2) Notify the project foreman immediately.
(3) If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
(4) If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.

(5) If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills:

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

Vehicle and Equipment Maintenance:

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

Vehicle and Equipment Fueling:

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

ATTACHMENT E

Large Construction Site Notice

TCEQ Large Construction Site Notice

Primary Operator

Large construction sites disturb more than five acres or are part of a larger common plan of development that disturbs more than five acres. Primary operators of large construction sites will fill out this notice. Primary operators will then post this notice at the construction site in a location where it is safely and readily available for viewing by the general public and local, state, and federal authorities. Additional information about the TCEQ Construction Stormwater General Permit may be found on TCEQ's webpage on Assistance Tools for Construction Stormwater General Permits.

Note: You must also develop a Stormwater Pollution Prevention Plan prior to the commencement of construction.

Site-Specific TPDES Authorization Number: TXR15_____

Primary Operator Name:_____

Contact Name and Phone Number: _____

_____

Project Description:

Physical

Location/Description_____

_____

Estimated Start Date_____

Projected End Date or Date Disturbed Soils Will Be Stabilized_____

Location of Stormwater Pollution Prevention Plan (SWP3):_____

_____

TCEQ Large Construction Site Notice

Secondary Operator

Large construction sites disturb more than five acres or are part of a larger common plan of development that disturbs more than five acres. Secondary operators of large construction sites will fill out this notice. Secondary operators will then post this notice at the construction site in a location where it is safely and readily available for viewing by the general public and local, state, and federal authorities. Additional information about the TCEQ Construction Stormwater General Permit may be found on TCEQ's webpage on Assistance Tools for Construction Stormwater General Permits.

Note: You must also develop a Stormwater Pollution Prevention Plan prior to the commencement of construction.

Site-Specific TPDES Authorization Number: TXR15_____

Secondary Operator Name:_____

Contact Name and Phone Number:_____

_____

Project Description:

Physical

Location/Description_____

_____

Estimated Start Date_____

Projected End Date or Date Disturbed Soils Will Be Stabilized_____

Location of Stormwater Pollution Prevention Plan (SWP3):_____

_____

For Large Construction Activities Authorized Under Part II.E.3. (Obtaining Authorization to Discharge) the following certification must be completed:

I _____ (*Typed or Printed Name Person Completing This Certification*) certify under penalty of law that I have read and understand the eligibility requirements for claiming an authorization under Part II.E.3. of TPDES General Permit TXR150000 and agree to comply with the terms of this permit. A stormwater pollution prevention plan has been developed and will be implemented prior to construction, according to permit requirements. A copy of this signed notice is supplied to the operator of the Municipal Separate Storm Sewer System (MS4) if discharges enter an MS4. I am aware there are significant penalties for providing false information or for conducting unauthorized discharges, including the possibility of fine and imprisonment for knowing violations.

Signature and Title_____ Date _____

Name of MS4 Operator notified: _____ *and Date notified (per Part II.F.3.):* _____

*Date Site Notice Removed*_____

ATTACHMENT F

Maintenance Inspection Forms

INSPECTION FORM A

INSPECTION AND MAINTENANCE REPORT FORM
TO BE COMPLETED EVERY WEEK (7 CALENDAR DAYS) AND/OR
WITHIN 24 HOURS OF RAINFALL EVENT OF 0.5 INCHES OR MORE

Instructions: Each inspector or group of inspectors must complete this page (FORM A) of the INSPECTION AND MAINTENANCE REPORT. Complete a copy of FORM B for each individual site area as defined by the Storm Water Pollution Prevention Plan (SWPPP). If changes are required to the SWPPP, check the "YES" box at the bottom of the appropriate FORM B and then fill out the CHANGES REQUIRED and REASONS FOR CHANGES section below (FORM A). Use and attach additional sheets of paper if necessary.

Inspector:_____ **Date:**_____

Inspector's Qualifications:

CHANGES REQUIRED TO THE SWPPP RESULTING FROM THIS INSPECTION, AS DOCUMENTED ON SUBSEQUENT PAGES OF THIS FORM (IF ANY):

REASONS FOR CHANGES:

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

Signature:_____ **Date:**_____

INSPECTION AND MAINTENANCE REPORT FORM

INSPECTION FORM B

Specific Site Area Location: _____

Days Since Last Rainfall: _____

Last Rainfall Amt. (inches): _____

Inspector: _____

Date: _____

Storm Water Pollution Control	Is Control Functioning Properly?	Is There Evidence of Any Problems?	Describe Any Problems	Describe Maintenance or Corrective Action Required [Include Date(s) and Responsible Person(s)]
Revegetation Condition (After Temporary or Permanent Seeding)				
Silt Fences/Hay Bale Dikes				
Rock Berms				
Stabilized Construction Entrance				
Temporary Sediment Basin				
Other Controls:				
Waste Disposal				
Offsite Vehicle Tracking				

Changes Required to the Storm Water Pollution Prevention Plan? Check One. ☐ ☐

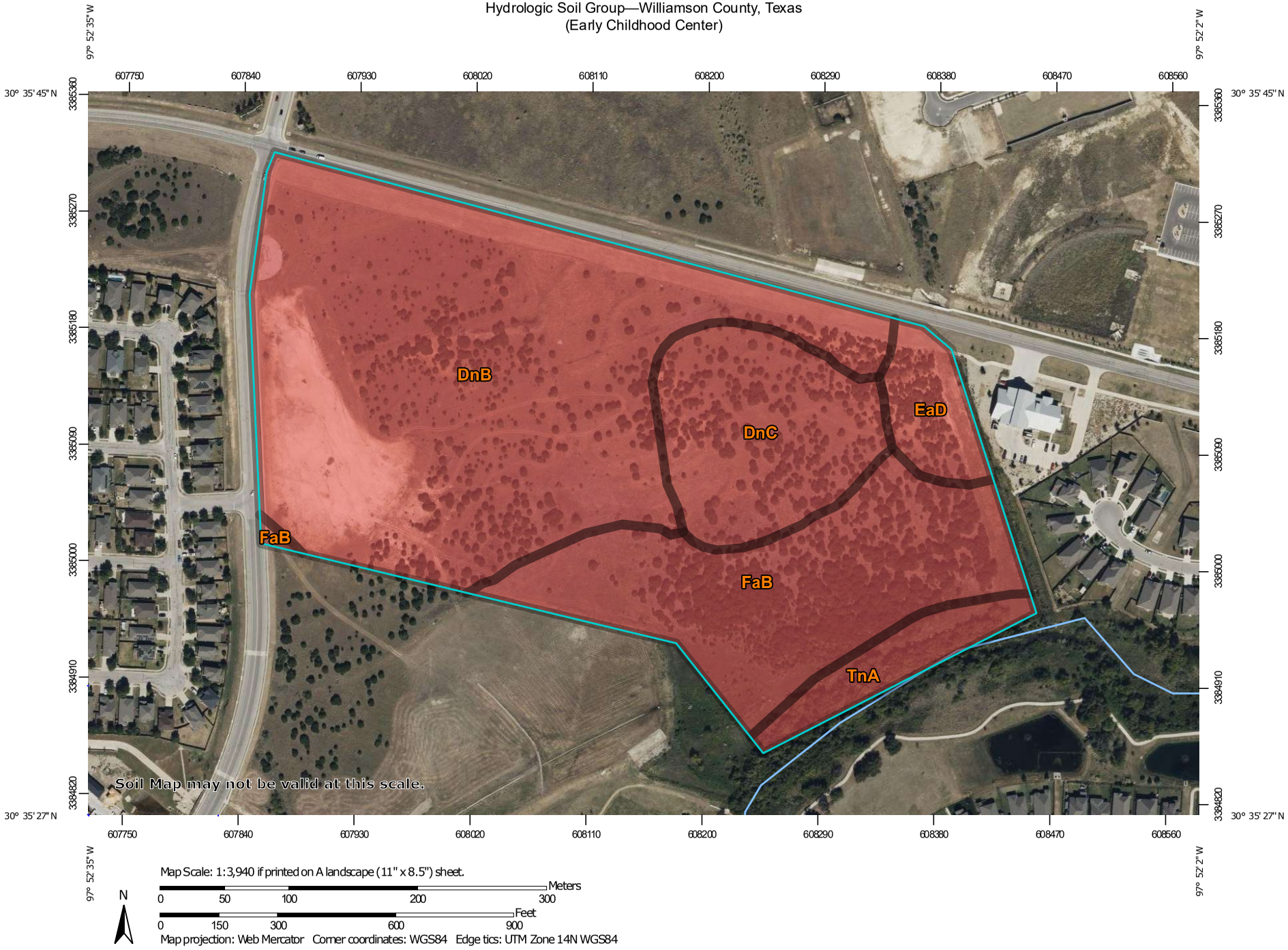
IF YES, SPECIFY CHANGES on FORM A of this set of forms and SIGN BELOW.

Signature: _____

ATTACHMENT G

Web Soil Survey

Hydrologic Soil Group—Williamson County, Texas
(Early Childhood Center)



Map Scale: 1:3,940 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Williamson County, Texas
Survey Area Data: Version 25, Aug 30, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
DnB	Denton silty clay, 1 to 3 percent slopes	D	23.4	54.6%
DnC	Denton silty clay, 3 to 5 percent slopes	D	5.9	13.9%
EaD	Eckrant cobbly clay, 1 to 8 percent slopes	D	1.8	4.1%
FaB	Fairlie clay, 1 to 2 percent slopes	D	9.8	23.0%
TnA	Tinn clay, 0 to 1 percent slopes, frequently flooded	D	1.9	4.4%
Totals for Area of Interest			**42.8**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

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

I Jeremy Trimble,
Print Name

Chief Operations Officer,
Title - Owner/President/Other

of Leander Independent School District,
Corporation/Partnership/Entity Name

have authorized Michael Shangreaux
Print Name of Agent/Engineer

of AtkinsRealis
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

12/13/24
Date

THE STATE OF Texas §

County of Williamson §

BEFORE ME, the undersigned authority, on this day personally appeared Jeremy Timbol 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 13th day of December, 2024.

Martha Hinojosa
NOTARY PUBLIC

Martha Hinojosa
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 8/17/2026

MARTHA HINOJOSA
Notary Public, State of Texas
Comm. Expires 08-17-2026
Notary ID 133913997

#01-4110075/KWD

(25) Stewart

DEED 2005006808

9 PGS

WILLIAMSON COUNTY

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OF THE FOLLOWING INFORMATION FROM THIS INSTRUMENT BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

SPECIAL WARRANTY DEED

DATE: January 24th , 2005

GRANTOR (whether one or more): BENBROOK PROPERTIES, LTD.

GRANTOR'S MAILING ADDRESS (including county): 4111 Lakeplace Lane
Austin, Texas 78746

GRANTEE (whether one or more): BOARD OF TRUSTEES, LEANDER INDEPENDENT SCHOOL DISTRICT

GRANTEE'S MAILING ADDRESS (including county): P.O. Box 218
Leander, Tx 78646

CONSIDERATION:

TEN DOLLARS ($10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged.

PROPERTY (including any improvements):

TRACT 1: 1.883 acres of land, more or less, out of the Charles Cochran Survey, Abstract No. 134, Williamson County, Texas, and being the same property more fully described in the attached Exhibit "A".

TRACT 2: 34.705 acres of land, more or less, out of the Charles Cochran Survey, Abstract No. 134, Williamson County, Texas, and being the same property more fully described in the attached Exhibit "B".

RESERVATIONS FROM AND EXCEPTIONS TO CONVEYANCE AND WARRANTY:

Easements and rights-of-way of record; ad valorem taxes for 2005; all presently recorded restrictions, reservations, covenants, conditions, and mineral severances, that affect the property.

Grantor, for the consideration and subject to the reservations from and exceptions to conveyance and warranty, grants, sells and conveys to Grantee the property, together with all and singular the rights and appurtenances thereto in any wise belonging, to have and hold it to Grantee, Grantee's successors or assigns forever. Grantor binds Grantor and Grantor's successors and assigns to WARRANT AND FOREVER DEFEND all and singular the property to Grantee and Grantee's successors, and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof, except as to the reservations from and exceptions to conveyance and warranty, when the claim is by, through or under Grantor but not otherwise.

When the context requires, singular nouns and pronouns include the plural.

BENBROOK PROPERTIES, LTD.

By: BENBROOK GP, L.L.C.
Its: GENERAL PARTNER

By: _____
JOHN LLOYD, Managing Partner

STATE OF TEXAS)
)
COUNTY OF Travis)

This instrument was acknowledged before me on this 24th day of January, 2005, by JOHN LLOYD, the Managing Partner of BENBROOK GP, L.L.C., a Texas limited liability company, on behalf of said company, and the company acknowledged the instrument as General Partner of BENBROOK PROPERTIES, LTD., a Texas limited partnership, on behalf of said partnership.

NOTARY PUBLIC STATE OF TEXAS
David Coates
Notary Public, State of Texas
My Commission Expires 7/13/05

_____
NOTARY PUBLIC, STATE OF TEXAS

AFTER RECORDING, RETURN TO:
~~STEWART TITLE AUSTIN, INC.~~
~~8014 Mesa Drive~~
~~Austin, Texas 78731~~
~~Attn: Policy Department~~
Board of Trustees, Leander Independent School District
P.O. Box 218
Leander, Texas 78646

PREPARED IN THE LAW OFFICE OF:
Clint Parsley
604 West 12th Street
Austin, Texas 78701

1.883 ACRE
LEANDER INDEPENDENT
SCHOOL DISTRICT

EXHIBIT A

FN Z03-030-04-03
November 09, 2004

DESCRIPTION OF A 1.883 ACRE TRACT OF LAND SITUATED IN THE CHARLES COCHRAN SURVEY, ABSTRACT NO. 134, BEING A PORTION OF THAT CERTAIN 59.63 ACRE TRACT OF LAND AS DESCRIBED IN A DEED TO BENBROOK PROPERTIES, LTD. OF RECORD IN DOCUMENT NO. 2002069436 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS, AND PART OF THAT CERTAIN 116.122 ACRE TRACT OF LAND DESCRIBED AS TRACT NO. 1 IN A DEED TO BENBROOK PROPERTIES, LTD. OF RECORD IN DOCUMENT NO. 2002069437 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS, SAID 1.883 ACRE TRACT BEING DESCRIBED BY METES AND BOUNDS AS FOLLOWS;

COMMENCING at an iron rod found for the northeast corner of said 116.122 acre Tract No. 1, being also the northwest corner of that certain 90.432 acre tract of land as described in a deed to Tylerville, LTD., of record in Volume 2276, Page 674 of the Deed Records of Williamson County, Texas, and being in the south line of Oak Grove Road, a 45 foot wide easement, as dedicated in Volume 861, Page 841 of the Deed Records of Williamson County, Texas;

THENCE with the east line of said 116.122 acre Tract No. 1 and the west line of said 90.432 acre tract, the following four (4) courses and distances;

1. S 20°46'35" E for a distance of 721.36 feet to a ½ inch iron rod found for an angle point,
2. S 20°36'03" E for a distance of 233.68 feet to a ½ inch iron rod found for an angle point,
3. S 20°35'20" E for a distance of 120.25 feet to a ½ inch iron rod found for an angle point, and
4. S 20°48'09" E for a distance of 928.00 feet to a ½ inch iron rod with cap stamped "ZWA" set and being in the approximate FEMA 100 year flood plain;

THENCE departing the west line of said 90.432 acre tract and over and across said 116.122 acre Tract No. 1, with approximate FEMA 100 year flood plain, the following four (4) courses and distances;

1. S 54°01'29" W for a distance of 148.25 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,
2. S 66°53'48" W for a distance of 24.57 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,
3. S 73°52'00" W for a distance of 26.74 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point, and

4. S 78°11'54" W for a distance of 15.46 feet to a ½ inch iron with cap stamped "ZWA" set at the POINT OF BEGINNING and the most easterly corner of the herein described tract;

THENCE continuing over and across said 116.122 acre tract, with said approximate FEMA 100 year flood plain and the south line of the herein described tract, the following six (6) courses and distances;

1. S 67°49'43" W for a distance of 51.22 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

2. S 67°11'13" W for a distance of 110.65 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

3. S 69°08'10" W for a distance of 77.95 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

4. S 66°38'30" W for a distance of 170.83 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

5. S 68°17'10" W for a distance of 143.75 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point, and

6. S 64°33'14" W for a distance of 52.85 feet to a ½ inch iron with cap stamped "ZWA" set for the southwest corner of the herein described tract;

THENCE departing said approximate FEMA 100 year flood plain and continuing over and across said 116.122 acre tract, the following thirteen (13) courses and distances;

1. N 25°24'52" W for a distance of 184.99 feet to a ½ inch iron with cap stamped "ZWA" set for the northwest corner of the herein described tract,

2. N 54°08'09" E for a distance of 136.06 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

3. N 75°59'23" E for a distance of 62.49 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

4. N 88°38'13" E for a distance of 48.28 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

5. S 83°13'50" E for a distance of 68.29 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

6. N 86°56'30" E for a distance of 40.70 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

7. S 83°43'56" E for a distance of 42.60 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

8. S 78°50'20" E for a distance of 36.38 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

9. N 89°51'19" E for a distance of 92.73 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

10. S 80°40'48" E for a distance of 37.62 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

11. S 82°55'05" E for a distance of 34.04 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

12. S 78°25'03" E for a distance of 27.15 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point, and

13. N 85°17'50" E for a distance of 44.04 feet to the POINT OF BEGINNING and containing 1.833 acres of land.

BEARING BASIS: TEXAS STATE PLANE COORDINATE SYSTEM, N.A.D. 1983, CENTRAL ZONE

THE STATE OF TEXAS §
§ KNOW ALL BY THESE PRESENTS:
COUNTY OF TRAVIS §

That I, William D. Warrick, a Registered Professional Land Surveyor, do hereby state that the above description is true and correct to the best of my knowledge and belief and that the property described herein was determined by a survey made on the ground during November, 2004 under my direction and supervision.

WITNESS MY HAND AND SEAL at Austin, Travis County, Texas this the 10th day of November 2004, A.D.

William D. Warrick

William D. Warrick
Registered Professional Land Surveyor
No. 4426 – State of Texas

Zamora-Warrick and Associates, L.L.C.
3737 Executive Center Drive, Suite 111
Austin, Texas 78731

STATE OF TEXAS
REGISTERED
WILLIAM D. WARRICK
4426
PROFESSIONAL
LAND SURVEYOR

REFERENCE: ZWA Plat No. Z03-030-04

34.705 ACRE
LEANDER INDEPENDENT
SCHOOL DISTRICT

EXHIBIT B

FN Z03-030-04-02
November 09, 2004

DESCRIPTION OF A 34.705 ACRE TRACT OF LAND SITUATED IN THE CHARLES COCHRAN SURVEY, ABSTRACT NO. 134, BEING A PORTION OF THAT CERTAIN 59.63 ACRE TRACT OF LAND AS DESCRIBED IN A DEED TO BENBROOK PROPERTIES, LTD. OF RECORD IN DOCUMENT NO. 2002069436 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS, AND PART OF THAT CERTAIN 116.122 ACRE TRACT OF LAND DESCRIBED AS TRACT NO. 1 IN A DEED TO BENBROOK PROPERTIES, LTD. OF RECORD IN DOCUMENT NO. 2002069437 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS, SAID 34.705 ACRE TRACT BEING DESCRIBED BY METES AND BOUNDS AS FOLLOWS;

COMMENCING at an iron rod found for the northeast corner of said 116.122 acre Tract No. 1, being also the northwest corner of that certain 90.432 acre tract of land as described in a deed to Tylerville, LTD., of record in Volume 2276, Page 674 of the Deed Records of Williamson County, Texas, and being in the south line of Oak Grove Road, a 45 foot wide easement, as dedicated in Volume 861, Page 841 of the Deed Records of Williamson County, Texas;

THENCE with the east line of said 116.122 acre Tract No. 1 and the west line of said 90.432 acre tract, the following four (4) courses and distances;

1. S 20°46'35" E for a distance of 721.36 feet to a ½ inch iron rod found for an angle point,
2. S 20°36'03" E for a distance of 233.68 feet to a ½ inch iron rod found for an angle point,
3. S 20°35'20" E for a distance of 120.25 feet to a ½ inch iron rod found for an angle point, and
4. S 20°48'09" E for a distance of 332.98 feet to a ½ inch iron rod with cap stamped "ZWA" set for the POINT OF BEGINNING and northeast corner of the herein described tract;

THENCE S 20°48'09" E, continuing with the east line of said 116.122 acre Tract No. 1 and the west line of said 90.432 acre tract, for a distance of 595.02 feet to a ½ inch iron with cap stamped "ZWA" set for the southeast corner of the herein described tract and being in the approximate FEMA 100 year flood plain;

THENCE departing the west line of said 90.432 acre tract and over and across said 116.122 acre Tract No. 1, with the south line of the herein described tract and said approximate FEMA 100 year flood plain, the following four (4) courses and distances;

1. S 54°01'29" W for a distance of 148.25 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

2. S 66°53'48" W for a distance of 24.57 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

3. S 73°52'00" W for a distance of 26.74 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point, and

4. S 78°11'54" W for a distance of 15.46 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point;

THENCE departing said approximate FEMA 100 year flood plain and continuing over and across said 116.122 acre Tract No. 1, with the west line of the herein described tract, the following thirteen (13) courses and distances;

1. S 85°17'50" W for a distance of 44.04 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

2. N 78°25'03" W for a distance of 27.15 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

3. N 82°55'05" W for a distance of 34.04 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

4. N 80°40'48" W for a distance of 37.62 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

5. S 89°51'19" W for a distance of 92.73 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

6. N 78°50'20" W for a distance of 36.38 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

7. N 83°43'56" W for a distance of 42.60 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

8. S 86°56'30" W for a distance of 40.70 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

9. N 83°13'50" W for a distance of 68.29 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

10. S 88°38'13" W for a distance of 48.28 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

11. S 75°59'23" W for a distance of 62.49 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point,

12. S 54°08'09" W for a distance of 136.06 feet to a ½ inch iron with cap stamped "ZWA" set for an angle point, and

13. N 76°35'16" W for a distance of 1156.10 feet to a ½ inch iron with cap stamped "ZWA" set for the southwest corner of the herein described tract and being in the east line of Proposed Halsey Drive, a 100 foot wide right-of-way;

THENCE continuing over and across said 116.122 acre Tract No. 1, with the west line of the herein described tract and the east line of said Proposed Halsey Drive, the following five (5) courses and distances,

1. N 03°42'15" W for a distance of 552.35 feet to a ½ inch iron rod with cap stamped "ZWA" set at the beginning of a curve to the right,

2. along said curve to the right, an arc distance of 38.65 feet, said curve having a radius of 965.00 feet, a central angle of 02°17'40" and a chord bearing of N 02°33'25" W for a chord distance of 38.64 feet to a ½ inch iron rod with cap stamped "ZWA" set;

3. Continuing along said curve to the right, an arc distance of 246.22 feet, said curve having a radius of 965.00 feet, a central angle of 14°37'08" and a chord bearing of N 05°53'59" E for a chord distance of 245.55 feet to a ½ inch iron rod with cap stamped "ZWA" set at the end of said curve,

4. N 13°12'33" E for a distance of 19.88 feet to a ½ inch iron rod with cap stamped "ZWA" set a the beginning of a curve to the right, and

5. along said curve to the right, an arc distance of 23.58 feet, said curve having a radius of 15.00 feet, a central angle of 90°05'09" and a chord bearing of N 58°15'08" E for a chord distance of 21.23 feet to a ½ inch iron rod with cap stamped "ZWA" set at the end of said curve and being at the intersection of said Proposed Halsey Drive east right-of-way line and Proposed County Road 276 south right-of-way line;

THENCE continuing over and across said 116.122 acre Tract No. 1, with the north line of the herein described tract and said Proposed County Road 276 south right-of-way line, the following two (2) courses and distances;

1. S 76°42'18" E for a distance of 1177.94 feet to a ½ inch iron rod with cap stamped "ZWA" set for an angle point, and

2. S 77°11'25" E for a distance of 594.39 feet to the POINT OF BEGINNING and containing 34.705 acres of land.

BEARING BASIS: TEXAS STATE PLANE COORDINATE SYSTEM, N.A.D. 1983, CENTRAL ZONE

THE STATE OF TEXAS §
§ KNOW ALL BY THESE PRESENTS:
COUNTY OF TRAVIS §

That I, William D. Warrick, a Registered Professional Land Surveyor, do hereby state that the above description is true and correct to the best of my knowledge and belief and that the property described herein was determined by a survey made on the ground during November, 2004 under my direction and supervision.

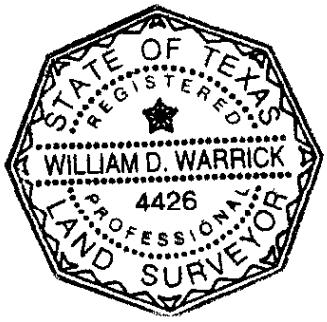
WITNESS MY HAND AND SEAL at Austin, Travis County, Texas this the 10th day of November 2004, A.D.

William D. Warrick

Zamora-Warrick and Associates, L.L.C.
3737 Executive Center Drive, Suite 111
Austin, Texas 78731

William D. Warrick
Registered Professional Land Surveyor
No. 4426 – State of Texas

REFERENCE: ZWA Plat No. Z03-030-04



FILED AND RECORDED
OFFICIAL PUBLIC RECORDS 2005006808
Nancy E. Rister
01/27/2005 02:59 PM
MARY $30.00
NANCY E. RISTER, COUNTY CLERK
WILLIAMSON COUNTY, TEXAS

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: LISD Early Childhood Center

Regulated Entity Location: Leander, TX: SE corner of W. San GabrielParkway and Halsey Dr (R462849, R462848)

Name of Customer: LISD

Contact Person: Shangreaux, Michael Phone: 512.939.2309

Customer Reference Number (if issued):CN 600781074

Regulated Entity Reference Number (if issued):RN _____

Austin Regional Office (3373)

☐ Hays ☐ Travis ☒ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde

☐ Comal ☐ Kinney

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

☒ Austin Regional Office

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

☐ San Antonio Regional Office

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

Site Location (Check All That Apply):

☐ Recharge Zone ☒ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	36.588 Acres	$ 6,500.00
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: Michael Shangreaux, P.E. Digitally signed by Michael Shangreaux, P.E. DN: C=US, E=michael.shangreaux@atkinsrealis.com, O=AtkinsRealis, CN="Michael Shangreaux, P.E." Date: 2024.12.16 11:48:28-06'00' Date: 12-16-2024

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 600781074		**RN**

SECTION II: Customer Information

4. General Customer Information	**5. Effective Date for Customer Information Updates** (mm/dd/yyyy)	12/10/2024

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

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

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

Leander Independent School District

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
	17460145737		

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

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:	P.O. Box 218						
	City	Leander	**State**	TX	**ZIP**	78646	**ZIP + 4**	0218

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) 570-0000		(512) 570-0054

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.)*

LISD Early Childhood Center

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

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

25. Description to Physical Location:	Southeast of the intersection of San Gabriel Parkway and Halsey Drive, Leander, TX				
26. Nearest City			**State**	**Nearest ZIP Code**	
Leander			TX	78641	

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:	30.593275		**28. Longitude (W) In Decimal:**	97.872111	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	35	35.79	97	52	19.60

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)
8351		624410	

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

Early Childhood Center (ages 0-4)

34. Mailing Address:	**Leander ISD**							
	PO Box 218							
	City	**Leander**	**State**	**TX**	**ZIP**	**78646**	**ZIP + 4**	**218**
35. E-Mail Address:								

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

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

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

SECTION IV: Preparer Information

40. Name:	Kristof Meller	**41. Title:**	Sr. Engineer

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512 **)** 340-1116		**( ) -**	Kristof.Meller@atkinsrealis.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:	Atkins Realis	**Job Title:**	Sr. Project Manager	
Name *(In Print):*	Michael Shangreaux		**Phone:**	**(** 512 **)** 340- **1193**
Signature:	Michael Shangreaux, P.E. Digitally signed by Michael Shangreaux, P.E. DN: C=US, E=michael.shangreaux@atkinsrealis.com, O=AtkinsRealis, CN="Michael Shangreaux, P.E." Date: 2024.12.16 12:12:02-06'00'		**Date:**	12-16-2024