

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: Breakaway Church				2. Regulated Entity No.:			
3. Customer Name: Wells Branch Community Church				4. Customer No.:			
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
7. Land Use: (Please circle/check one)	☐ Residential	☒ Non-residential			8. Site (acres):		4.38
9. Application Fee:	4,000	10. Permanent BMP(s):			Detention and water Quality Pond System		
11. SCS (Linear Ft.):	N/A	12. AST/UST (No. Tanks):			N/A		
13. County:	Williamson	14. Watershed:			South Brushy Creek		

Application Distribution

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

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

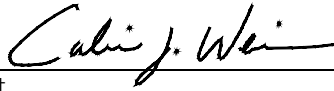
For more detailed boundaries, please contact the conservation district directly.

Austin Region			
County:	Hays	Travis	Williamson
Original (1 req.)	—	—	_X_
Region (1 req.)	—	—	_X_
County(ies)	—	—	_X_
Groundwater Conservation District(s)	___ Edwards Aquifer Authority ___ Barton Springs/ Edwards Aquifer ___ Hays Trinity ___ Plum Creek	___ Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___ Austin ___ Buda ___ Dripping Springs ___ Kyle ___ Mountain City ___ San Marcos ___ Wimberley ___ Woodcreek	___ Austin ___ Bee Cave ___ Pflugerville ___ Rollingwood ___ Round Rock ___ Sunset Valley ___ West Lake Hills	___ Austin _X_ Cedar Park ___ Florence ___ Georgetown ___ Jerrell ___ Leander ___ Liberty Hill ___ Pflugerville ___ Round Rock

San Antonio Region					
County:	Bexar	Comal	Kinney	Medina	Uvalde
Original (1 req.)	—	—	—	—	—
Region (1 req.)	—	—	—	—	—
County(ies)	—	—	—	—	—
Groundwater Conservation District(s)	___ Edwards Aquifer Authority ___ Trinity-Glen Rose	___ Edwards Aquifer Authority	___ Kinney	___ EAA ___ Medina	___ EAA ___ Uvalde
City(ies) Jurisdiction	___ Castle Hills ___ Fair Oaks Ranch ___ Helotes ___ Hill Country Village ___ Hollywood Park ___ San Antonio (SAWS) ___ Shavano Park	___ Bulverde ___ Fair Oaks Ranch ___ Garden Ridge ___ New Braunfels ___ Schertz	NA	___ San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.

Calvin Weiman



Print Name of Customer/Authorized Agent

Signature of Customer/Authorized Agent

Date 10/23/2024

****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.

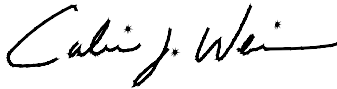
Signature

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: Calvin Weiman

Date: 11/13/2024

Signature of Customer/Agent:



Regulated Entity Name: Breakaway Church

Project Information

1. County: Williamson
2. Stream Basin: Edwards Aquifer Contributing Zone
3. Groundwater Conservation District (if applicable): N/A
4. Customer (Applicant):

Contact Person: Christopher Plekenpol

Entity: Wells Branch Community Church

Mailing Address: 2113 Wells Branch Pkwy Ste 1300

City, State: Austin, TX

Telephone: 512-540-6056

Email Address: chris@wellsbranchchurch.com

Zip: 78728

Fax: _____

5. Agent/Representative (If any):

Contact Person: Calvin Weiman

Entity: Austin Civil Engineering Inc

Mailing Address: 9501B Menchaca Rd Ste 220

City, State: Austin, TX

Zip: 78748

Telephone: 512-306-0018

Fax: _____

Email Address: tea,c@austincivil.com

6. Project Location:

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

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

2601 Brushy Creek Rd, Cedar Park, TX, 78613

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

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

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

10. ☒ **Attachment C - Project Narrative.** A detailed narrative description of the proposed project is attached. The project description is consistent throughout the application and contains, at a minimum, the following details:

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

11. Existing project site conditions are noted below:

- ☐ Existing commercial site
- ☐ Existing industrial site
- ☐ Existing residential site

- ☐ Existing paved and/or unpaved roads
☒ Undeveloped (Cleared)
☐ Undeveloped (Undisturbed/Not cleared)
☐ Other: _____

12. The type of project is:

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

13. Total project area (size of site): 4.38 Acres

Total disturbed area: 4.38 Acres

14. Estimated projected population: _____

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

Table 1 - Impervious Cover

<i>Impervious Cover of Proposed Project</i>	<i>Sq. Ft.</i>	<i>Sq. Ft./Acre</i>	<i>Acres</i>
Structures/Rooftops	27,544	÷ 43,560 =	0.632
Parking	78,638	÷ 43,560 =	1.805
Other paved surfaces	10,868	÷ 43,560 =	0.249
Total Impervious Cover	117,049	÷ 43,560 =	2.687

Total Impervious Cover $2.687 \div \text{Total Acreage } 4.38 \times 100 = 61.40\%$ 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.

$L \times W = \text{_____ Ft}^2 \div 43,560 \text{ Ft}^2/\text{Acre} = \text{_____ acres.}$

21. Pavement Area:

Length of pavement area: _____ feet.

Width of pavement area: _____ feet.

$L \times W = \text{_____ Ft}^2 \div 43,560 \text{ Ft}^2/\text{Acre} = \text{_____ acres.}$

Pavement area _____ acres $\div$ R.O.W. area _____ acres $\times 100 = \text{_____ \%}$ 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 Brushy Creek 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

<i>AST Number</i>	<i>Size (Gallons)</i>	<i>Substance to be Stored</i>	<i>Tank Material</i>
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

5 of 11

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

<i>Length (L)(Ft.)</i>	<i>Width(W)(Ft.)</i>	<i>Height (H)(Ft.)</i>	<i>L x W x H = (Ft³)</i>	<i>Gallons</i>

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" = 30'.
35. 100-year floodplain boundaries:
- ☐ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
- ☒ No part of the project site is located within the 100-year floodplain.
The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): _____.
36. ☒ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.
- ☐ The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot contour intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.
37. ☒ A drainage plan showing all paths of drainage from the site to surface streams.
38. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.
39. ☒ Areas of soil disturbance and areas which will not be disturbed.
40. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
41. ☐ Locations where soil stabilization practices are expected to occur.
42. ☐ Surface waters (including wetlands).
☒ N/A
43. ☒ Locations where stormwater discharges to surface water.
☐ There will be no discharges to surface water.
44. ☐ Temporary aboveground storage tank facilities.
☒ Temporary aboveground storage tank facilities will not be located on this site.

45. ☐ Permanent aboveground storage tank facilities.
☒ Permanent aboveground storage tank facilities will not be located on this site.
46. ☒ Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

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

47. ☒ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.
☐ N/A
48. ☐ These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.
☒ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.
☐ A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is: _____.
☐ N/A
49. ☒ Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.
☐ N/A
50. Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.
☐ The site will be used for low density single-family residential development and has 20% or less impervious cover.
☐ The site will be used for low density single-family residential development but has more than 20% impervious cover.
☒ The site will not be used for low density single-family residential development.

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

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

52. ☒ **Attachment J - BMPs for Upgradient Stormwater.**

- ☒ A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is attached.
- ☐ No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.
- ☐ Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.

53. ☒ **Attachment K - BMPs for On-site Stormwater.**

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

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

☐ N/A

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

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

☐ N/A

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

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

☐ N/A

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

☒ N/A

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

☐ N/A

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

59. ☒ The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.
60. ☒ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development,

or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

Administrative Information

- 61. ☒ 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.

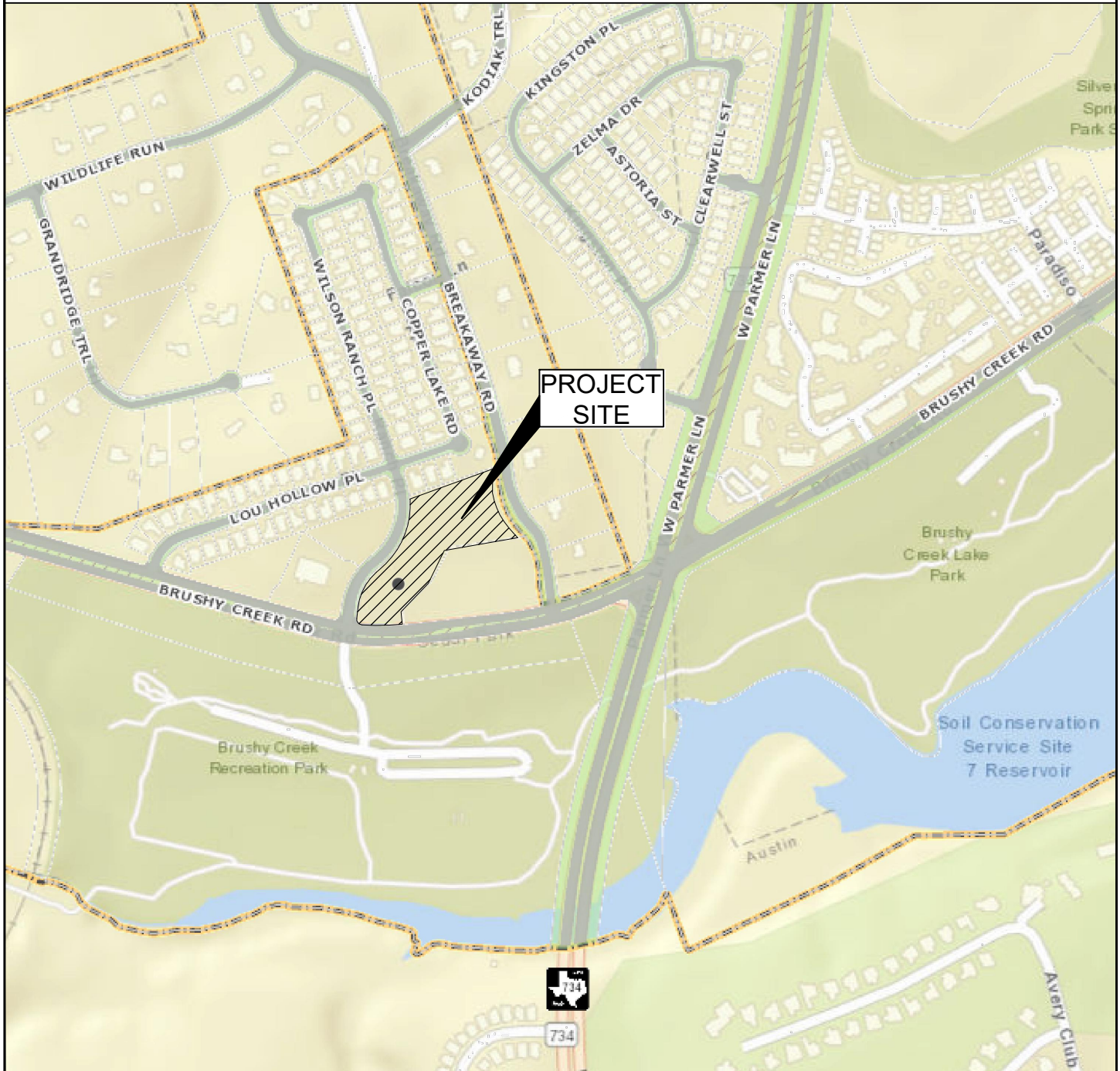
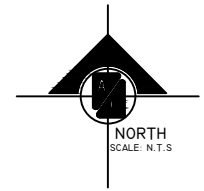


EXHIBIT
ROAD
MAP

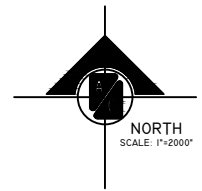
BREAKAWAY CHURCH
2601 BRUSHY CREEK RD.
CEDAR PARK TEXAS 78613

N.T.S.



**AUSTIN CIVIL
ENGINEERING, INC.**

TBPE FIRM # F-001018
9501 B Menchaca Rd., Ste. 220
AUSTIN, TEXAS 78748
PH: (512) 306-0018



JOLLYVILLE, TX 2019

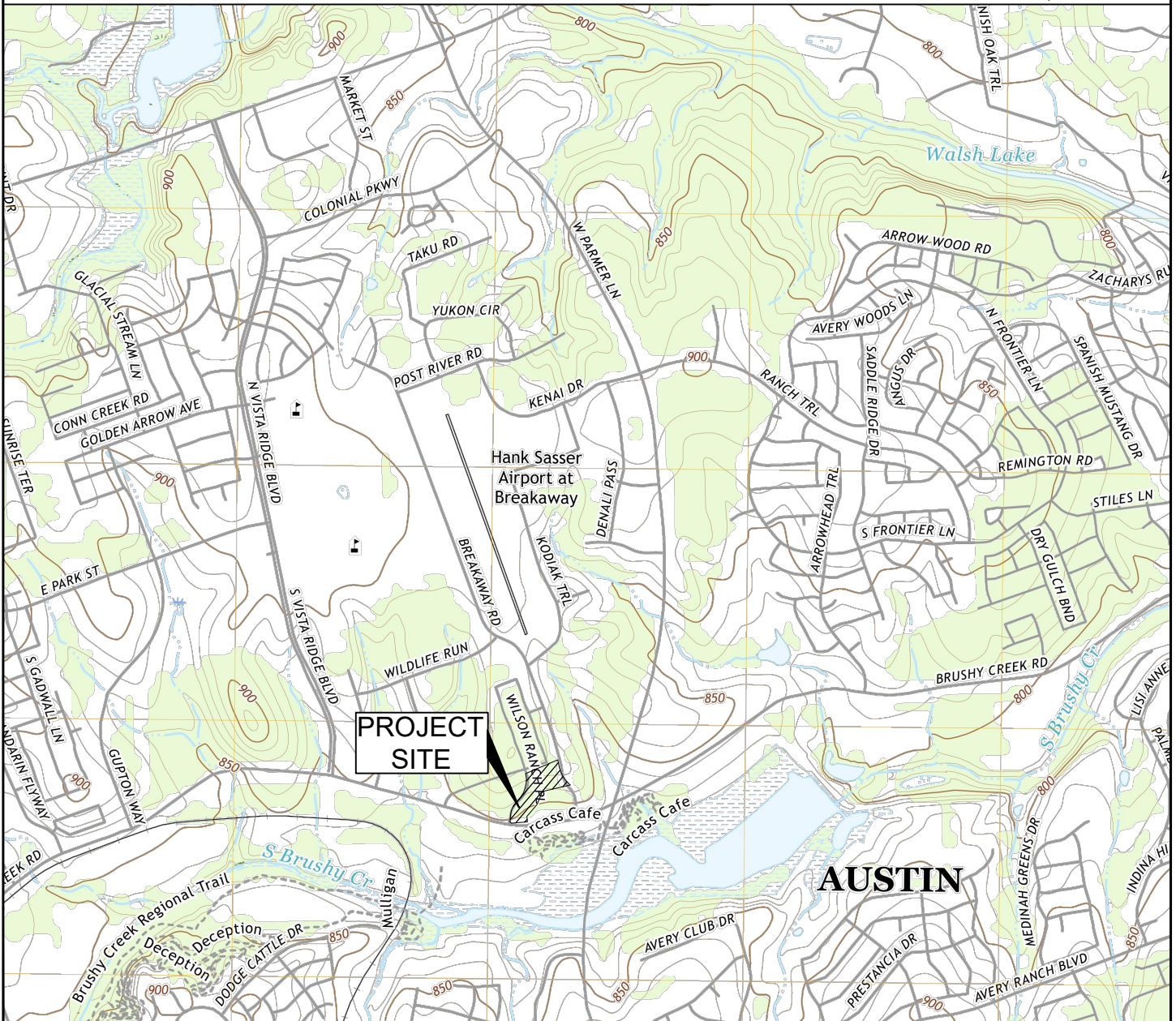


EXHIBIT
USGS
MAP

BREAKAWAY CHURCH
2601 BRUSHY CREEK RD.
CEDAR PARK TEXAS 78613

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Project: Breakaway Church CZP Modification Attachments
Address: 2601 Brushy Creek Rd, Cedar Park TX 78613

Attachment C – Project Narrative

Area of the site-Breakaway Church is located at the northwestern W Parmer Ln. at the corner of Breakaway Rd and Brushy Creek Rd. It has frontage along Wilson Ranch PL. The site is undeveloped and with an undergrowth vegetation and moderate to heavy tree cover.

Proposed Site Use-The proposed site consists of the addition of the site plan for Sec.1 Block C of the subdivision, The Reserve at Brushy Creek Section 1. The development will consist of a Church buildings, and all associated parking, drive aisle, and utility work. Breakaway Church site will be utilizing the existing water quality and detention pond as constructed for the subdivision and permitted with the original CZP.

Permanent BMPs-The regional basin is designed for 41.1 acres with 22.8 acres of impervious cover, while the project area has a 4.38-acre limit of construction. The project area for this application consists of Lot Sect 1 Block C. The plan proposes 2.687 acres of new impervious cover.

Impervious Cover-The developed site for this project is proposed to have an IC area of 117,049 (61.40%) of the site. In the existing conditions, the flows are draining towards the south-eastern portion of the property. The developed conditions are proposing to maintain the existing flow patterns. A storm sewer system will capture the runoff and deposit into Water Quality Pond.

Temporary Best Management Controls (BMPs) will be implemented to prevent any sediment from the soil disturbance from polluting the downstream properties.

Attachment D – Factors Affecting Surface Water Quality

- Runoff and erosion of sediment and pollutants from exposed soil due to clearing and grubbing, grading, landscaping, and other earthwork activities.
- Runoff from the construction equipment storage and maintenance. This may include typical automotive fluids, lubricants and fuels.
- Runoff from lawn and landscape chemicals such as pesticides and herbicides

Attachment E – Volume and Character of Stormwater

Modeling of the runoff for the site was conducted under the assumption of Hydrologic soil group D conditions. Stormwater runoff from the site will be captured and routed to the batch water quality which will remove 2339 lbs of TSS generated by this project. Detailed plans and calculations for the water quality pond facilities are included in the attached plan set. Through the proposed Detention and water quality pond system and drainage structures, the character and volume of the stormwater runoff leaving the site is within the required design parameters of the TCEQ.





AUSTIN CIVIL ENGINEERING

Project: Breakaway Church CZP Modification Attachments
Address: 2601 Brushy Creek Rd, Cedar Park TX 78613

Attachment J – BMPs for Upgradient Stormwater

No offsite stormwater will be routed through either the existing or the newly proposed BMP's.
This section is not applicable.

Attachment K – BMPs for On-Site Stormwater

The onsite drainage will be routed via public storm sewers, swales, grading, and curb and gutter into the proposed water quality ponds.





AUSTIN CIVIL ENGINEERING

Project: Breakaway Church CZP Modification Attachments
Address: 2601 Brushy Creek Rd, Cedar Park TX 78613

Attachment L – BMPs for Surface Streams

All the proposed developed drainage will be routed towards the erosion and sedimentation controls during construction and storm sewer pipes after construction. The proposed water quality pond will prevent pollutants from entering surface streams.

The TCEQ "Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices", revised July 2005, was used to design the water quality BMPs.

Attachment M – Construction Plans

See Attached Construction Plans

Attachment N – Inspection, Maintenance Repair, and Retrofit Plan

The BMP maintenance plan and schedule is attached.



VICINITY MAP



OWNER

JOHN BRODERSEN
6140 E MOCKINGBIRD LN
DALLAS, TX 75214
jbrodersen@sbcglobal.net

UTILITIES

WATER & WASTEWATER

CITY OF CEDAR PARK
450 CYPRESS CREEK RD
CEDAR PARK, TEXAS 78613
PHONE: (512) 401-5300

TELEPHONE

AT&T
712 EAST HUNTLAND DRIVE, ROOM 229
AUSTIN, TEXAS 78752
CONTACT: MICHAEL THURMAN
PHONE: (512) 870-4708

ELECTRIC & GAS

PEDERNAL ELECTRIC (PEC)
12233 RR 620 N.
AUSTIN, TEXAS 78750
CONTACT:ELTON HEINE
PHONE: (512) 4331-8883

ONE-CALL

PHONE:1(800) DIG-TESS=1(800) 344-8377
UTILITY LOCATING SERVICE
CONTRACTOR TO CALL BEFORE DIGGING!!

CONSULTANTS

CIVIL ENGINEER

AUSTIN CIVIL ENGINEERING, INC.
9501B MENCHACA RD#220
AUSTIN, TEXAS 78748
PHONE: (512) 306-0018
FAX: (512) 306-0048

SURVEYOR

JPH LAND SURVEYING INC.
1516 E. PALM VALLEY BLVD. STE A4
ROUND ROCK, TEXAS 78664
PHONE: (817) 431-4971

LANDSCAPE ARCHITECT

PLACE DESIGNERS, INC.
PHILIP WANKE
304 EAST MAIN STREET
ROUND ROCK, TEXAS 78664
PHONE: (512) 238 8912 x 203

ARCHITECT

APDG
2653 SAGEBRUSH DR. STE 200
FLOWER MOUND, TEXAS 75028
PHONE: (972) 724-4440

SITE PLAN FOR

BREAKAWAY CHURCH

2601 BRUSHY CREEK RD
CEDAR PARK, TX 78613

ORIGINAL SUBMITTAL: 10/8/2021
SHEET INDEX

1. COVER SHEET
2. CONSTRUCTION NOTES
3. GENERAL NOTES
4. FINAL PLAT 1 OF 3
5. FINAL PLAT 2 OF 3
6. FINAL PLAT 3 OF 3
7. EXISTING SURVEY
8. EXISTING SUBDIVISION DRAINAGE CONDITIONS
9. EXISTING SUBDIVISION INLET DRAINAGE BASIN MAP
10. DEVELOPED DRAINAGE AREA MAP
11. DEMOLITION PLAN
12. SITE PLAN
13. FIRE PROTECTION PLAN
14. FIRE PROTECTION NOTES & DETAILS
15. GRADING PLAN
16. STORM SEWER PLAN
17. EXISTING W.Q & DETENTION POND PLAN (SI-11-002)
18. EXISTING W.Q & DETENTION POND PLAN (SI-11-002)
19. DRAINAGE AND POND CALCULATIONS
20. UTILITY PLAN
21. EROSION & SEDIMENTATION CONTROL & TREE PROTECTION PLAN
22. DETAILS: SITE 1 OF 2
23. DETAILS: SITE 2 OF 2
24. DETAILS: EROSION AND SEDIMENTATION CONTROL
25. DETAILS: UTILITY
26. LANDSCAPE COMPLIANCE & MITIGATION PLAN
27. TREE PRESERVATION - TREE LIST
28. LANDSCAPE DETAILS
29. ARCHITECTURAL ELEVATIONS
30. ARCHITECTURAL ELEVATIONS
31. ARCHITECTURAL ELEVATIONS
32. ARCHITECTURAL ELEVATIONS
33. SITE PHOTOMETRIC
34. SITE LIGHTING DETAILS

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE CONSTRUCTION OF A 1 STORY BUILDING THAT WILL BE USED AS A PLACE OF PUBLIC ASSEMBLY TOTALING 14,077 SQ. FT. ON A 4.377-ACRE SITE WITH ASSOCIATED PARKING AND UTILITY IMPROVEMENTS.

STATE OF TEXAS

COUNTY OF WILLIAMSON

I, HUNTER SHADBURNE, P.E., DO HEREBY CERTIFY THAT THE ENGINEERING WORK BEING SUBMITTED HEREIN COMPLIES WITH THE TEXAS ENGINEERING PRACTICE ACT, INCLUDING SECTION 131.152(e). I HEREBY ACKNOWLEDGE THAT ANY MISREPRESENTATION REGARDING THIS CERTIFICATION CONSTITUTES A VIOLATION OF THE ACT, AND MAY RESULT IN CRIMINAL, CIVIL AND/OR ADMINISTRATIVE PENALTIES AGAINST ME, AS AUTHORIZED BY THE ACT.


HUNTER SHADBURNE, P.E. 9/30/24
DATE



NUMBER	DESCRIPTION	REVISE (R) ADD (A) VOID (V) SHEET NO.'S	TOTAL # SHEETS IN PLAN SET	NET CHANGE IMP. COVER (SQ. FT.)	TOTAL SITE IMP. COVER (SQ. FT.)/%	CITY OF CEDAR PARK	DATE APPROVED

PROJECT DATA

OWNER: JOHN BRODERSEN
ADDRESS: 6140 E MOCKINGBIRD LN DALLAS, TEXAS 75214
PHONE: - FAX: -
ACREAGE: 4.377 AC TOTAL IMPERVIOUS COVER: 2.66 AC
LEGAL DESCRIPTION: S10236-RESERVE AT BRUSHY CREEK SEC 1, BLOCK C, LOT 14, 4.38

ADDRESS: 2601 BRUSHY CREEK RD
CEDAR PARK, TEXAS 78613

LAND USE SUMMARY: CHURCH
ZONING: LB - LOCAL BUSINESS
DATE: 10/08/21
BUILDING SQ FT: 14,077
PARKING SPACE REQUIRED: 153
PARKING SPACE PROVIDED: 186

PERSON PREPARING PLAN: HUNTER SHADBURNE P.E.
COMPANY: AUSTIN CIVIL ENGINEERING, INC.
ADDRESS: 9501B MENCHACA ROAD, STE. 220
PHONE: (512) 306-0018 FAX: (512) 306-0048

ENGINEER: HUNTER SHADBURNE P.E.
COMPANY: AUSTIN CIVIL ENGINEERING, INC.
ADDRESS: 9501B MENCHACA ROAD, STE. 220
PHONE: (512) 306-0018 FAX: (512) 306-0048

PROJECT DATA

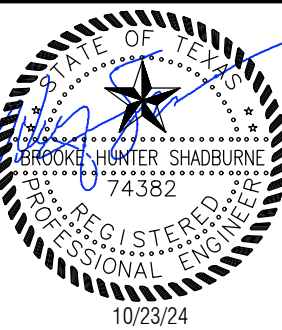
- THIS SITE IS LOCATED IN THE SOUTH BRUSHY CREEK
- ZONING: LB - LOCAL BUSINESS
- THIS TRACT IS LOCATED IS IN THE EDWARD'S AQUIFER CONTRIBUTING ZONE.
 - FLOOD PLAIN NOTE: NO PORTION OF THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOODPLAIN AND IS NOT WITHIN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON THE FIRM FLOOD INSURANCE RATE MAP FOR THE CITY OF CEDAR PARK, TEXAS, COMMUNITY PANEL # 48491C0470F F, WITH AN EFFECTIVE DATE OF DECEMBER 20, 2019.
 - ALL RESPONSIBILITY FOR THE ACCURACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF CEDAR PARK MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
- BENCKMARK: TBM #1 MNS "JPH BENCHMARK" 840.10'
TBM #2 MNS "JPH BENCHMARK" 854.20'
- ASSIGNED CITY ADDRESS NUMBERS SHALL BE PERMANENTLY AFFIXED TO ALL STRUCTURES IN SUCH POSITIONS AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET.
 - THESE PLANS ARE IN FULL COMPLIANCE WITH THE LANDSCAPE AND TREE ORDINANCE OF THE CITY OF CEDAR PARK, TEXAS.
 - TDLR: TABS # 2022-018306
 - EDWARDS AQUIFER PROTECTION PROGRAM ID No. 11002978



Reviewed for Code Compliance
Signature required from all Departments

Planning _____ Date _____
Engineering Services _____ Date _____
Industrial Pretreatment _____ Date _____
Fire Prevention _____ Date _____
Landscape Planner _____ Date _____
Addressing _____ SD-21-00044 _____ Date _____
Site Development Permit Number _____

AUSTIN CIVIL
ENGINEERING, INC.



BREAKAWAY CHURCH

2601 BRUSHY CREEK RD.
CEDAR PARK TEXAS 78613

REV.	DATE	DESCRIPTION	APPROVED BY

JOB: 21-019 DATE: 10/23/24
CAD: DAMMCH CK'D BY:
ENGINEER: HS CK'D BY:
SCALE:

COVER
SHEET

SITE CIVIL PLAN
1
of 34

SD-21-00044



Know what's below.
Call before you dig.

General Notes:

- General Contractor shall call for all utility locates prior to any construction. Water & wastewater owned by the City of Cedar Park can be located by calling Texas 811 at 1-800-344-8377. Allow three business days for utility locates by the City of Cedar Park.
- All construction shall be in accordance with the latest City of Austin Standard Specifications. City of Austin standards shall be used unless otherwise noted.
- Design procedures shall be in general compliance with the City of Austin Drainage Criteria Manual. All variances to the manual are listed below: NONE
- Benchmarks should be tied to the City of Cedar Park benchmarks and be correctly "georeferenced" to state plane coordinates. A list of the City's benchmarks can be found at: <http://www.cedarparktexas.gov/index.aspx?page=793>.

BENCHMARKS ON SITE

- TBM #1 IS A MAG NAIL WITH METAL WASHER STAMPED "JPH BENCHMARK" SET IN CONCRETE FOR A STORM DRAIN MANHOLE, LOCATED APPROXIMATELY 36 FEET NORTHERLY FROM THE NORTH RIGHT-OF-WAY LINE OF BRUSHY CREEK ROAD, AND APPROXIMATELY 182 FEET EASTERLY FROM THE EAST RIGHT-OF-WAY LINE OF WILSON RANCH PLACE. BENCHMARK ELEVATION = 840.10 (NAV'D89).
- TBM #2 IS A MAG NAIL WITH METAL WASHER STAMPED "JPH BENCHMARK" SET IN A CONCRETE SIDEWALK, LOCATED APPROXIMATELY 30 FEET SOUTHWESTERLY FROM THE WEST RIGHT-OF-WAY LINE OF BREAKAWAY ROAD, AND APPROXIMATELY 316 FEET NORTHERLY FROM THE NORTH RIGHT-OF-WAY LINE OF BRUSHY CREEK ROAD. BENCHMARK ELEVATION = 854.20 (NAV'D88).

TIED TO THE CITY OF CEDAR PARK MONUMENT 1

3" Brass disk in concrete. Standing south of Brushy Creek Rd. Row, looking north.

Northing: 10158516.40

Eastings: 3103421.28

Latitude (N): 30°-30'-36.0342"

Longitude (W): 97°-46'-15.2066"

Elevation: 835.41

- Prior to issuance of a certificate of occupancy for a site development permit, the right of way between the property line and edge of pavement / back of curb shall be revegetated according to COA specification 602S and 606S. Prior to City acceptance of subdivision improvements all graded and disturbed areas shall be re-vegetated in accordance with the City of Austin Specification Item #604 native seeding unless nonnative is specifically approved.
- The Contractor shall provide the City of Cedar Park copies of all test results prior to acceptance of subdivision improvements.
- City, owner, engineer, contractor, representatives of all utility companies, and a representative from the testing lab shall attend pre-construction conference prior to start of construction. The contractor shall schedule the meeting with the City of Cedar

Park Engineering Department a minimum of 48 hours prior to this pre-construction meeting (512-401-5000). Final construction plans shall be delivered to Engineering a minimum of seven business days prior to requesting a pre-construction meeting.

- Excess soil shall be removed at the contractor's expense. Notify the City of Cedar Park if the disposal site is inside the City's jurisdictional boundaries.
- Burning is prohibited.
- Any changes or revisions to these plans must first be submitted to the City by the design engineer for review and written approval prior to construction of the revision. All changes and revisions made to the design of utilities or impacts utilities shall use

revisional clouds to highlight all revisions or changes with each submittal. Revision triangles shall be used to mark revisions. All clouds and triangle markers from previous revisions may be removed. Revision information shall be updated in the appropriate areas of the Title Block.

- Minimum setback requirements for existing and newly planted trees from the edge of pavement to conform to the requirements as shown in Table 6-1 of the City of Austin's Transportation Criteria Manual.
- The Contractor will reimburse the City for all cost incurred as a result of any damage to any City utility or any infrastructure within the Right-of-Way by the Contractor, regardless of these plans.
- An engineer's concurrence letter and electronic 22"x34" record drawings shall be submitted to the Engineering Department prior to the issuance of certificate of occupancy or subdivision acceptance. The Engineer and Contractor shall verify that all

final revisions and changes have been made to record drawings prior to City submittal. Record construction drawings, including roadway and all utilities, shall be provided to the City in AutoCAD ".dwg" files and ".PDF" format on a CD or DVD. Line weights, line types and text size shall be such that if half-size prints (11"x 17") were produced, the plans would still be legible. All required digital files shall contain a minimum of two (2) control points referenced to the State Plane Grid Coordinate System – Texas Central Zone (4203), in US feet and shall include rotation information and scale factor required to reduce surface coordinates to grid coordinates in US feet.

- The City of Cedar Park has not reviewed these plans for compliance with the Americans With Disabilities Act. It is the responsibility of the owner to provide compliance with all legislation related to accessibility within the limits of construction shown in these plans.
- ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF CEDAR PARK MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
- No blasting is allowed on this project.
- A traffic control plan, in accordance with the Texas Manual on Uniform Traffic Control Devices, shall be submitted to the City for review and approval prior to any partial or complete roadway closures. Traffic control plans shall be site specific and seal by a registered professional engineer.
- The contractor shall keep the site clean and maintained at all times, to the satisfaction of the City. The subdivision will not be accepted (or Certificate of Occupancy issued) until the site has been cleaned to the satisfaction of the City.
- Signs are not permitted in Public Utility Easements, Set Backs or Drainage Easements.
- It shall be the responsibility of the Contractor to inspect temporary erosion controls on a daily basis. Adjust the controls and/or remove any sediment buildup as necessary. A stop work order and/or fine may be imposed if the erosion controls are not maintained.
- A final certificate of occupancy will not be issued on commercial sites until all disturbed areas have been re-vegetated. Substantial grass cover, as determined by Engineering Department, must be achieved prior to the issuance of a final certificate of occupancy. All erosion controls must remain in place and maintained until all disturbed areas have been re-vegetated to the acceptance of the City of Cedar Park Engineering Department. Prior to issuance of a certificate of occupancy for a site development permit, the right of way between the property line and edge of pavement / back of curb shall be revegetated according to COA specification 602S and 606S.
- Contractor will be responsible for keeping roads and drives adjacent to and near the site free from soil, sediment and debris. Contractor will not remove soil, sediment or debris from any area or vehicle by means of water, only shoveling and sweeping will be allowed. Contractor will be responsible for dust control from the site. Failure to comply with this requirement may result in a stop work order or a fine.
- All wet utilities shall be installed and all densities must have passed inspection(s) prior to the installation of dry utilities.
- A minimum of seven days of cure time is required for HMA/C prior to the introduction of vehicular traffic to any streets.
- Prior to plan approval, the Engineer shall submit to the Engineering Department documentation of subdivision/site registration with the Texas Department of Licensing and Regulations (TDLR) and provide documentation of review and compliance of the subdivision/site construction plans with Texas Architectural Barriers Act (TABA).
- Prior to subdivision/site acceptance, the engineer/developer-owner shall submit to the Engineering Department documentation that the subdivision/site was inspected by TDLR or a registered accessibility specialist (RAS) and the subdivision/site is in compliance with the requirements of the TABA.
- All construction and construction related activities shall be performed Monday thru Friday from 7:00 A.M. to 6:00 P.M. However, construction activities within one hundred feet (100') of a dwelling or dwelling unit shall be performed between the hours of 8:00 and 6:00 p.m. Otherwise all construction and construction related activities shall conform to City of Cedar Park Code of Ordinances, specifically ARTICLE 8.08.
- Approval for construction activities performed on Owner's Holidays, and/or Saturdays, outside of Monday through Friday 8 am to 5 pm, or in excess of 8 hours per day shall be obtained in writing 48 hours in advance, and inspection fees at 1.5 times the hourly inspection rate shall be billed directly to the contractor. There shall be no construction or construction related activities performed on Sunday. The City reserves the right to require the contractor to uncover all work performed without City inspection.
- All poles to be approved by City and PEC, no conduit shall be installed down lot lines / between homes. All conduit shall be located in the public ROW or in an easement adjacent to and parallel to the public ROW.
- Dry utilities shall be installed after subgrade is cut and before first course base. No trenching of compacted base. If necessary dry utilities installed after first course base shall be bored across the full width of the ROW.
- No ponding of water shall be allowed to collect on or near the intersection of private driveway(s) and a public street. Reconstruction of the driveway approach shall be at the Contractor's expense.
- All driveway approaches shall have a uniform two percent slope within the ROW unless approved in writing by the Engineering Department.
- Contractors on site shall have an approved set of plans at all times. Failure to have an approved set may result in a stop work order.
- Contractor to clear five feet beyond all right of way to prevent future vegetative growth into the sidewalk areas.
- There shall be no water or wastewater appurtenances, including but not limited to, valves, fittings, meters, clean-outs, manholes, or vaults in any driveway, sidewalk, traffic or pedestrian area.
- Sidewalks shall not use curb inlets as a partial walking surface. Sidewalks shall not use traffic control boxes, meter or check valve vaults, communication vaults, or other buried or partially buried infrastructure as a vehicular or pedestrian surface.

STREET NOTES:

- NO TRENCHING OF COMPACTED BASE WILL BE ALLOWED. A PENALTY AND/OR FINE MAY BE IMPOSED TO THE GENERAL CONTRACTOR IF TRENCHING OF COMPACTED BASE OCCURS WITHOUT CITY APPROVAL.
- REGARDLESS OF WHO PERFORMED THE TRENCHING.
- ALL SIDEWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT. THE CITY OF CEDAR PARK HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, OR ANY OTHER ACCESSIBILITY LEGISLATION, AND DOES NOT WARRANT OR APPROVE THESE PLANS FOR ANY ACCESSIBILITY STANDARDS.
- STREET BARRICADES SHALL BE INSTALLED ON ALL DEAD END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB SAFETY.
- ANY DAMAGE CAUSED TO EXISTING PAVEMENT, CURBS, SIDEWALKS, RAMPS, ETC. SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE SUBDIVISION.
- AT INTERSECTIONS, WHICH HAVE VALLEY DRAINAGE, THE CROWN TO THE INTERSECTING STREET WILL BE CULMINATED AT A DISTANCE OF 40 FT. FROM THE INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
- THE SUBGRADE MATERIAL WAS TESTED BY

Professional Service Industries, Inc.

2600 McHale Court, Suite 125

Austin, Texas 78758

512-491-0200

Per Geotechnical Report, Dated April 14, 2021.

4.2.1 FLEXIBLE PAVEMENT

The proposed roadways and parking areas for this project may be constructed with flexible asphaltic concrete pavement. Recommendations for flexible asphaltic concrete pavement for roadways and parking areas are provided below:

TABLE 4.2: FLEXIBLE PAVEMENT SECTION		
Material	Section	
Traffic Type	Light	Heavy
Hot Mix Asphaltic Concrete	2"	3"
Import Flexible Base	7"	10"
Compacted Subgrade	8"	

4.2.2 RIGID PAVEMENT

The proposed roadways and parking areas for this project may also be constructed with rigid concrete pavement. Recommendations for rigid concrete pavement for roadways and parking areas are provided below:

TABLE 4.3: RIGID PAVEMENT SECTION		
Material	Option 1	
Traffic Type	Light	Heavy
Portland Cement Concrete	5 1/2"	7"
Compacted Subgrade	8"	

EIGHT-INCH THICK CONCRETE PAVEMENT IS RECOMMENDED FOR DUMPSER PAD AREAS AND THAT AREA LEADING UP TO THE DUMPSER PAD.

CONCRETE COMPRESSIVE STRENGTH4,000 PSI

- DENSITY TESTING OF COMPACTED SUBGRADE MATERIAL, FIRST COURSE AND SECOND COURSE COMPACTED BASE, SHALL BE MADE AT 500 FOOT INTERVALS.
- ALL DENSITY TESTING IS THE RESPONSIBILITY OF THE OWNER OR CONTRACTOR AND SHALL BE WITNESSED BY THE CITY OF CEDAR PARK'S PROJECT REPRESENTATIVE. THE CONTRACTOR IS TO NOTIFY THE CITY 48

HOURS PRIOR TO SCHEDULED DENSITY TESTING.

- TRAFFIC CONTROL, SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND INSTALLED AS DIRECTED BY THE CITY OF CEDAR PARK PRIOR TO CITY ACCEPTANCE OF THE SUBDIVISION.

- SLOPE OF NATURAL GROUND ADJACENT TO THE RIGHT-OF-WAY SHALL NOT EXCEED 3:1. IF A 3:1 SLOPE IS NOT POSSIBLE, A RETAINING WALL OR SOME OTHER FORM OF SLOPE PROTECTION APPROVED BY THE

CITY SHALL BE PLACED IN A LOCATION ACCEPTABLE TO THE CITY.

- THE CITY, ENGINEER, CONTRACTOR, AND A REPRESENTATIVE FROM THE ASPHALT TESTING LAB SHALL ATTEND A PRE-PAVING CONFERENCE PRIOR TO THE START OF HMA/C PAVING. THE CONTRACTOR SHALL

GIVE THE CITY A MINIMUM OF 48 HOURS NOTICE PRIOR TO THIS MEETING (512-401-5000).

- THE CONTRACTOR OR OWNER IS RESPONSIBLE FOR CONDUCTING TESTS ON ASPHALT PAVEMENT IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE CITY OF AUSTIN STANDARD SPECIFICATION

NO. 340. ANY RE-TESTING OF THE ASPHALT PAVEMENT SHALL BE CONDUCTED UNDER THE SUPERVISION OF THE ENGINEER AND THE CITY OF CEDAR PARK. RE-TESTING OF THE ASPHALT PAVEMENT SHALL BE LIMITED TO ONE RETEST PER PROJECT.

- ALL PAVEMENT MARKINGS AND SIGNAGE SHALL COMPLY WITH MUTCD STANDARDS. STREET NAME LETTER SIZING SHALL BE IN ACCORDANCE WITH MUTCD TABLE 2-2. PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.

- ALL STREET NAME SIGNS SHALL BE HIGH INTENSITY RETRO GRADE.

- NO FENCING OR WALL IS ALLOWED TO BE CONSTRUCTED SO THAT IT OBSTRUCTS THE SIGHT LINES OF DRIVERS FROM AN INTERSECTING PUBLIC ROADWAY OR FROM AN INTERSECTING PRIVATE DRIVEWAY.

SIGHT LINES ARE TO BE MAINTAINED AS DESCRIBED IN CITY CODE SECTION 14.05.007. INSTALLING A FENCE OR WALL WHICH DOES NOT COMPLY WITH THE CITY'S SIGHT DISTANCE REQUIREMENTS OR FENCING REGULATIONS IS A VIOLATION OF THE CITY'S ORDINANCE AND MAY BE PUNISHABLE PURSUANT TO SECTION 1.01.009 OF CITY CODE.

- TEMPORARY ROCK CRUSHING OPERATIONS ARE NOT ALLOWED. ALL SOURCES FOR FLEXIBLE BASE MATERIAL ARE REQUIRED TO BE APPROVED BY THE CITY. PRIOR TO BASE PLACEMENT ALL CURRENT TRIAXIAL TEST REPORTS FOR THE PROPOSED STOCKPILES ARE TO BE SUBMITTED TO THE CITY'S PROJECT REPRESENTATIVE FOR REVIEW AND APPROVAL.

- UTILITY SERVICE BOXES OR OTHER UTILITY FACILITIES SHALL NOT BE INSTALLED WITHIN AREAS DETERMINED TO BE REQUIRED SIGHT LINES OF TWO INTERSECTING PUBLIC STREETS OR WITHIN SIGHT LINES OF A PRIVATE DRIVEWAY. SIGHT LINES ARE TO BE MAINTAINED COMPLIANT WITH TABLE 1-1 OF THE AUSTIN TRANSPORTATION CRITERIA MANUAL. UTILITIES DETERMINED BY THE DIRECTOR OF ENGINEERING TO BE PLACED WITHIN REQUIRED SIGHT LINES MAY BE REQUIRED TO BE RELOCATED AT

THE EXPENSE OF THE CONTRACTOR PRIOR TO THE CITY ISSUING A CERTIFICATE OF OCCUPANCY OR PRIOR TO THE CITY'S ACCEPTANCE OF THE PROJECT IMPROVEMENTS.

- ALL LANE CLOSURES SHALL OCCUR ONLY BETWEEN THE HOURS OF 9 AM AND 4 PM. ANY NIGHT TIME LANE CLOSURES REQUIRE APPROVAL BY THE DIRECTOR OF ENGINEERING AND SHALL OCCUR BETWEEN

THE HOURS OF 8 PM AND 6 AM. LANE CLOSURES OBSERVED BY CITY DURING THE PEAK HOURS OF 6 AM TO 9 AM, OR 4 PM TO 8 PM WILL BE SUBJECT TO FINE PER CHAPTER 1 OF CITY ORDINANCE, AND/OR SUBSEQUENT ISSUANCE OF WORK STOPPAGE.

- IMPROVEMENTS THAT INCLUDE RECONSTRUCTION OF AN EXISTING TYPE II DRIVEWAY SHALL BE DONE IN A MANNER WHICH RETAINS OPERATIONS OF NOT LESS THAN HALF OF THE DRIVEWAY AT ALL TIMES.

FULL CLOSURE OF SUCH DRIVEWAY CAN BE CONSIDERED WITH WRITTEN AUTHORIZATION RETAINED BY THE CONTRACTOR FROM THE PROPERTY OWNER(S) OR ACCESS EASEMENT RIGHT HOLDER(S) OF THE

DRIVEWAY ALLOWING FULL CLOSURE OF THE DRIVEWAY.

- TREES MUST NOT OVERHANG WITHIN 10' VERTICALLY OF A SIDEWALK, OR 18' VERTICALLY OF A ROADWAY OR DRIVEWAY.

CONSTRUCTION NOTES FOR SUBDIVISIONS & SITE PLANS

CITY OF CEDAR PARK

REVISED MARCH 22, 2021

WASTEWATER NOTES:

- REFER TO THE CITY OF CEDAR PARK PUBLIC WORKS UTILITY POLICY AND SPECIFICATIONS MANUAL.
- MANHOLE FRAMES AND COVERS AND WATER VALVE BOXES SHALL BE RAISED TO FINISHED PAVEMENT GRADE AT THE OWNER'S EXPENSE BY THE CONTRACTOR WITH THE CITY APPROVAL. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING CONSTRUCTION.
- THE LOCATION OF ANY EXISTING UTILITY LINES SHOWN ON THESE PLANS MAY NOT BE ACCURATE. ANY DAMAGE TO EXISTING UTILITY LINES, BOTH KNOWN AND UNKNOWN, SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR. THE CONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO BIDDING THE PROJECT.
- ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH AT LEAST 8 MIL. POLYETHYLENE WRAP.
- ALL WATER MAINS, WASTEWATER MAINS AND SERVICE LINES SHALL MEET CITY OF AUSTIN MINIMUM COVER SPECIFICATIONS. ALL STREETS ARE TO BE CUT TO SUBGRADE PRIOR TO INSTALLATION OF WATER MAINS OR CUTS WILL BE ISSUED BY THE ENGINEER.
- WHERE 48-INCHES OF COVER BELOW SUBGRADE CANNOT BE ACHIEVED FOR WASTEWATER SERVICE LINES, ALTERNATE MATERIALS MAY BE USED. A MINIMUM OF 36-INCHES OF COVER BELOW SUBGRADE SHALL BE ACHIEVED. ANY WASTEWATER SERVICE LINE WITH COVER BETWEEN 36-INCH AND 48-INCHES SHALL BE SDR-26 PVC PRESSURE PIPE.
- GASKETED PVC SEWER MAIN FITTINGS SHALL BE USED TO CONNECT SDR-35 PVC TO SDR-26 PVC PRESSURE PIPE OR C-900.
- PIPE MATERIALS TO BE USED FOR CONSTRUCTION OF UTILITY LINES:
- WASTEWATER 6" SDR-26 PVC FORCE MAIN NONE

(NOTE: IF USING PVC, SDR-26 IS REQUIRED. SDR-35 WW IS NOT ALLOWED. FORCEMAINS SHALL BE EPOXY LINED DUCTILE IRON)

- ALL SANITARY SEWERS, EXCLUDING SERVICE LINES, SHALL BE MANDREL TESTED PER TCEQ (TEXAS COMMISSION ON ENVIRONMENTAL QUALITY) CRITERIA. A MANDREL TEST WILL NOT BE PERFORMED UNTIL BACKFILL HAS BEEN IN PLACE FOR A MINIMUM OF 30 DAYS.
- ALL WASTEWATER LINES 10" AND LARGER SHALL BE VIDEO RECORDED ACCORDING TO COA 510 AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL SUPPLY TWO COPIES TO THE CITY'S FIELD REPRESENTATIVE. NO SEPARATE PAY UNLESS NOTED ON THE BID FORM.
- ALL SANITARY SEWERS, INCLUDING SERVICE LINES, SHALL BE AIR TESTED PER CITY OF AUSTIN STANDARD SPECIFICATIONS.
- DENSITY TESTING OF COMPACTED BACKFILL SHALL BE MADE AT A RATE OF ONE TEST PER TWO FOOT LIFTS PER 500 FEET OF INSTALLED PIPE.

CITY SHALL BE GIVEN 48 HOURS NOTICE PRIOR TO ALL TESTING OF WATER AND WASTEWATER LINES. CITY INSPECTION IS REQUIRED FOR ALL TESTING OF WATER AND WASTEWATER LINES.

- WHERE A WATER OR WASTEWATER LINE CROSSES ABOVE (OR BELOW) A STORM SEWER STRUCTURE AND THE BOTTOM (OR TOP) OF THE PIPE IS WITHIN 18 INCHES OF THE TOP (OR BOTTOM) OF THE UTILITY STRUCTURE, THE PIPE SHALL BE ENCASED WITH CONCRETE FOR A DISTANCE OF AT LEAST 1 FT. ON EITHER SIDE OF THE DITCH LINE OF THE UTILITY STRUCTURE OR THE STORM SEWER. CONCRETE ENCASEMENT WILL NOT BE REQUIRED FOR DUCTILE IRON (THICKNESS CLASS 50), AWWA C-900 (SDR18) 150 PSI RATED PVC IN SIZES TO 12 INCHES OR AWWA C-905 (SDR-25) 165 PSI RATED PVC IN SIZES LARGER THAN 12 INCHES.

- CONCRETE ENCASEMENT SHALL CONFORM TO C.O.A. STANDARD DETAIL 505-1.
- THE ALLOWABLE (MAXIMUM) ADJUSTMENT FOR A MANHOLE SHALL BE 12" (INCHES) OR LESS.
- WHERE A SEWER LINE CROSSES A WATER LINE, THE SEWER LINE SHALL BE ONE 20 FT. JOINT OF 150 PSI RATED PVC CENTERED ON CROSSING.

- ALL MANHOLE AND INLET COVERS SHALL READ "CITY OF CEDAR PARK".
- CONTRACTOR TO NOTIFY, AND OBTAIN APPROVAL FROM, THE CITY OF CEDAR PARK 48 HOURS PRIOR TO CONNECTING TO EXISTING CITY UTILITIES.

- PIPE BEDDING MATERIAL SHALL CONFORM TO CITY OF AUSTIN STANDARD SPECIFICATIONS.
- UNLESS OTHERWISE SPECIFIED BY THE ENGINEER ALL CONCRETE IS TO BE CLASS "A" (5 SACK, 3000 PSI - 28-DAYS), AND ALL REINFORCING STEEL TO BE ASTM A615 60.

- ALL WASTEWATER MANHOLES TO BE COATED WITH ORGANIC MATERIALS AND PROCEDURES LISTED IN CITY OF AUSTIN QUALIFIED PRODUCTS LIST NO. WW-511 (WW-511A AND WW-511B ARE NOT ALLOWED UNLESS MANHOLE IS BEING STRUCTURALLY REHABILITATED WITH APPROVAL BY PUBLIC WORKS). ALL MANHOLES WILL BE PRE-COATED OR COATED AFTER TESTING.

- POLYBRID COATINGS ON WASTEWATER MANHOLES WILL NOT BE ALLOWED. ANY OTHER PRODUCT APPEARING ON THE COA SRL WW-511 IS ACCEPTABLE.

- ALL PENETRATIONS OF EXISTING WASTEWATER MANHOLES ARE REQUIRED TO BE RE-COATED IN ACCORDANCE WITH THE SPECIFICATIONS LISTED IN NOTE 20.

- ALL MANHOLES WILL BE VACUUM TESTED ONLY.

- TRACER TAPE AND MARKING TAPE SHALL BE INSTALLED ON ALL WATER AND WASTEWATER MAINS IN ACCORDANCE WITH CITY OF AUSTIN STANDARDS, REGARDLESS OF THE TYPE OF PIPE.

- ALL PRESSURE PIPE SHALL HAVE MECHANICAL RESTRAINT AND CONCRETE THRUST BLOCKING AT ALL VALVES, BENDS, TEES, PLUGS, AND OTHER FITTINGS.

SEQUENCE OF CONSTRUCTION NOTES:

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

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

WATER NOTES:

- REFER TO THE CITY OF CEDAR PARK PUBLIC WORKS UTILITY POLICY AND SPECIFICATIONS MANUAL.
- THE TOP OF VALVE STEMS SHALL BE AT LEAST 18", AND NO MORE THAN 36", BELOW FINISHED GRADE. VALVE STEM RISERS SHALL BE WELDED ON EACH END TO THE CITY'S SATISFACTION.
- FIRE HYDRANT LEADS TO BE DUCTILE IRON, CLASS 350, AND INSTALLED PER CITY OF AUSTIN STANDARD SPECIFICATIONS AND DETAIL.
- PRIOR TO INSTALLATION OF FIRE HYDRANTS, THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) CUT FROM A HUB PIN, ESTABLISHING THE ELEVATION OF THE BURY LINE.
- THE ENGINEER SHALL PROVIDE CUTS FOR ALL WATER LINES AT ALL STORM SEWER CROSSINGS TO THE CITY OF CEDAR PARK.
- PIPE MATERIALS TO BE USED FOR CONSTRUCTION OF UTILITY LINES:

WATER 6" C-900 PVC, 8" C-900 PVC, 2" SCH-40 PVC
COPPER PIPE AND FITTINGS ARE NOT PERMITTED WITHIN THE RIGHT-OF-WAY.
MINIMUM DR-14 12" DIA AND SMALLER. MINIMUM CLASS 250 DI LARGER THAN 12" DIA.

- APPROVED 5 1/2" FIRE HYDRANTS:
- AMERICAN FLOW CONTROL, 8848
- MUELLER COMPANY, SUPER CENTURION 250
- CLOW MEDALLION HYDRANT
- AMERICAN AVK COMPANY, SERIES 27 (MODEL 2780)
- ALL FIRE HYDRANTS MUST MEET CITY OF CEDAR PARK THREAD SPECIFICATIONS (NATIONAL THREAD)
- BLUE REFLECTOR MARKERS SHALL BE LOCATED ON THE CENTERLINE OF THE PAVEMENT ACROSS FROM ALL FIRE HYDRANTS. PAVEMENT MARKERS AT INTERSECTIONS SHALL BE FOUR-SIDED.

- SHOULD A TAPPING SADDLE BE APPROVED BY PUBLIC WORKS, THE SADDLE SHALL BE SMITH-BLAIR 662 STAINLESS STEEL TAPPING SLEEVES WITH ALL STAINLESS HARDWARE, OR APPROVED EQUAL. REQUESTS FOR ALTERNATE PROVIDERS SHALL BE MADE TO THE CITY OF CEDAR PARK PUBLIC WORKS, NO TAP EXCEEDING 2" IN DIAMETER WILL BE APPROVED.

- ALL WATER LINES, INCLUDING SERVICE LINES, SHALL BE PRESSURE AND LEAK TESTED PER CITY OF AUSTIN STANDARD SPECIFICATIONS AND WITNESSED BY THE CITY OF CEDAR PARK REPRESENTATIVE. ALL TESTING IS TO BE THE RESPONSIBILITY OF THE CONTRACTOR, AND THE CONTRACTOR MAY BE REQUIRED TO RE-TEST LINES IF THE TESTING IS NOT WITNESSED BY THE CITY. CONTRACTOR MUST NOTIFY THE CITY OF CEDAR PARK 48 HOURS PRIOR TO ANY TESTING.

- ALL WATER LINES SHALL BE STERILIZED AND BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH CITY OF AUSTIN STANDARDS. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION AND THE CITY OF CEDAR PARK IS RESPONSIBLE FOR SUBMITTING BACTERIOLOGICAL SAMPLES TO THE STATE. PUBLIC WORKS WILL REQUIRE A CONTRACTOR SPECIALIZED IN DISINFECTION FOR LARGE DIAMETER LINES OR CRITICAL INFRASTRUCTURE, SUBSIDIARY TO PIPE INSTALLATION.

- DENSITY TESTING OF COMPACTED BACKFILL SHALL BE MADE AT A RATE OF ONE TEST PER TWO FOOT LIFTS PER 500 FEET OF INSTALLED PIPE.
- CONTRACTOR TO OBTAIN A WATER METER FROM THE CITY OF CEDAR PARK FOR ANY WATER THAT MAY BE REQUIRED DURING CONSTRUCTION. (512-401-5000)

- ALL WATER METER BOXES SHALL BE FORD GULF METER BOX WITH LOCKING LID.

- SINGLE C-148-235
- DUAL DG-148-243
- 1" METER YL111-444
- 1 1/2" - 2" METER 1730-R (LID) & 1730-12 (BOX)/ACCEPTABLE BOXES FOR THIS SIZE OF METER

- MANHOLE FRAMES AND COVERS AND WATER VALVE BOXES SHALL BE RAISED TO FINISHED PAVEMENT GRADE, WHEN IN PUBLIC STREETS, AT THE OWNER'S EXPENSE BY THE CONTRACTOR WITH CITY INSPECTION. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING CONSTRUCTION.

- THE LOCATION OF ANY EXISTING UTILITY LINES SHOWN ON THESE PLANS IS THE BEST AVAILABLE AND MAY NOT BE ACCURATE. ANY DAMAGE TO EXISTING UTILITY LINES, BOTH KNOWN AND UNKNOWN, SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.

- ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH AT LEAST 8 MIL. POLYETHYLENE WRAP.

- ALL WATER MAINS, WASTEWATER MAINS AND SERVICE LINES SHALL MEET CITY OF AUSTIN SPECIFICATIONS FOR MINIMUM COVER REQUIREMENTS. ALL STREETS ARE TO BE CUT TO SUBGRADE PRIOR TO INSTALLATION OF WATER MAINS OR CUTS WILL BE ISSUED BY THE ENGINEER.

- CITY TO BE GIVEN 48 HOURS NOTICE PRIOR TO ALL TESTING OF WATER AND WASTEWATER LINES. CITY INSPECTION IS REQUIRED FOR ALL TESTING OF WATER AND WASTEWATER LINES.

- WHERE A WATER OR WASTEWATER LINE CROSSES ABOVE (OR BELOW) A STORM SEWER STRUCTURE AND THE BOTTOM (OR TOP) OF THE PIPE IS WITHIN 18 INCHES OF THE TOP (OR BOTTOM) OF THE UTILITY STRUCTURE, THE PIPE SHALL BE ENCASED WITH CONCRETE FOR A DISTANCE OF AT LEAST 1 FT. ON EITHER SIDE OF THE DITCH LINE OF THE UTILITY STRUCTURE OR THE STORM SEWER. CONCRETE ENCASEMENT WILL NOT BE REQUIRED FOR DUCTILE IRON (THICKNESS CLASS 50), AWWA C-900 (SDR18) 150 PSI RATED PVC IN SIZES TO 12 INCHES OR AWWA C-905 (SDR-25) 165 PSI RATED PVC IN SIZES LARGER THAN 12 INCHES. CONCRETE ENCASEMENT SHALL CONFORM TO C.O.A. STANDARD DETAIL 505-1.

- CONTRACTOR TO NOTIFY THE CITY OF CEDAR PARK 48 HOURS PRIOR TO CONNECTING TO EXISTING UTILITIES.

- ALL PIPE BEDDING MATERIAL SHALL CONFORM TO CITY OF AUSTIN STANDARD SPECIFICATIONS.

- TRACER TAPE SHALL BE INSTALLED ON ALL WATER AND WASTEWATER MAINS REGARDLESS OF THE TYPE OF PIPE OR DEPTH OF PIPE INSTALLED.

- UNLESS OTHERWISE SPECIFIED BY THE ENGINEER ALL CONCRETE IS TO BE CLASS "A" (5 SACK, 3000 PSI - 28-DAYS), AND ALL REINFORCING STEEL TO BE ASTM A615 60.

- THE CITY CONSIDERS PROTECTION OF ITS WATER SYSTEM PARAMOUNT TO CONSTRUCTION ACTIVITIES. CITY PERSONNEL WILL OPERATE, OR AUTHORIZE THE CONTRACTOR TO OPERATE, ALL WATER VALVES THAT WILL PASS THROUGH THE CITY'S POTABLE WATER. THE CONTRACTOR MAY NOT OPERATE ANY WATER VALVE, EXISTING OR PROPOSED, THAT WILL ALLOW WATER FROM THE CITY'S WATER SYSTEM TO FLOW TO A PROPOSED OR EXISTING WATER SYSTEM WITHOUT THE EXPRESS CONSENT OF THE CITY. NOTIFY THE CITY TWO BUSINESS DAYS IN ADVANCE OF ANY REQUEST TO OPERATE A WATER VALVE. THE GENERAL CONTRACTOR MAY BE FINED \$500 OR MORE, INCLUDING ADDITIONAL THEFT OF WATER FINES, IF A WATER VALVE IS OPERATED IN AN UNAUTHORIZED MANNER, REGARDLESS OF WHO OPERATED THE VALVE.

- ALL WATER VALVES OVER 24" IN SIZE SHALL HAVE A BY-PASS LINE AND VALVE INSTALLED. BY-PASS VALVES AND LINES ARE SUBSIDIARY TO THE COST OF THE VALVE UNLESS SPECIFICALLY IDENTIFIED ON THE BID FORM.

- ALL WATER VALVES, INCLUDING THOSE OVER 12" IN SIZE, SHALL BE GATE VALVES.

- A DOUBLE CHECK BACKFLOW DEVICE IN A VAULT SHALL BE INSTALLED AT THE PROPERTY LINE ON ALL PRIVATE FIRE LINES. A DETECTOR WATER METER WILL BE INSTALLED ON THIS BACKFLOW DEVICE, AND IT MUST BE A SENSUS SRII 3/4" METER WITH AMI RADIO READ CAPABILITY. THE CITY WILL PROVIDE THIS METER. PLEASE REFERENCE THE CITY OF CEDAR PARK DOUBLE CHECK BACKFLOW PREVENTION ASSEMBLY DETAIL.

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TCEQ-0592A (Rev. July 15, 2015)

**Texas Commission on Environmental Quality
Contributing Zone Plan
General Construction Notes**

Edwards Aquifer Protection Program Construction Notes - Legal Disclaimer

The following listed "construction notes" are intended to be advisory in nature only and do not constitute an approval or conditional approval by the Executive Director (ED), nor do they constitute a comprehensive listing of rules or conditions to be followed during construction. Further actions may be required to achieve compliance with TCEQ regulations found in Title 30, Texas Administrative Code (TAC), Chapters 213 and 217, as well as local ordinances and regulations providing for the protection of water quality. Additionally, nothing contained in the following listed "construction notes" restricts the powers of the ED, the commission or any other governmental entity to prevent, correct, or curtail activities that result or may result in pollution of the Edwards Aquifer or hydrologically connected surface waters. The holder of any Edwards Aquifer Protection Plan containing "construction notes" is still responsible for compliance with Title 30, TAC, Chapters 213 or any other applicable TCEQ regulation, as well as all conditions of an Edwards Aquifer Protection Plan through all phases of plan implementation. Failure to comply with any condition of the ED's approval, whether or not in contradiction of any "construction notes," is a violation of TCEQ regulations and any violation is subject to administrative rules, orders, and penalties as provided under Title 30, TAC § 213.10 (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. The following listed "construction notes" in no way represent an approved exception by the ED to any part of Title 30 TAC, Chapters 213 and 217, or any other TCEQ applicable regulation

- A written notice of construction must be submitted to the TCEQ regional office at least 48 hours prior to the start of any ground disturbance or construction activities. This notice must include:
 - the name of the approved project;
 - the activity start date; and
 - the contact information of the prime contractor.
- All contractors conducting regulated activities associated with this project should be provided with complete copies of the approved Contributing Zone Plan (CZP) and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractor(s) should keep copies of the approved plan and approval letter on-site.
- No hazardous substance storage tank shall be installed within 150 feet of a water supply source, distribution system, well, or sensitive feature.
- 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.
- 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.
- Sediment must be removed from the sediment traps or sedimentation basins when it occupies 50% of the basin's design capacity.
- Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from being discharged offsite.
- All excavated material that will be stored on-site must have proper E&S controls.
- 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.
- The following records should be maintained and made available to the TCEQ upon request:
 - the dates when major grading activities occur;
 - the dates when construction activities temporarily or permanently cease on a portion of the site; and
 - the dates when stabilization measures are initiated.
- 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:
 - 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;
 - any change in the nature or character of the regulated activity from that which was originally approved;
 - any change that would significantly impact the ability to prevent pollution of the Edwards Aquifer; or
 - any development of land previously identified as undeveloped in the approved contributing zone plan.

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

San Antonio Regional Office
14250 Judson Road
San Antonio, Texas 78233-4480
Phone (210) 490-3096
Fax (210) 545-4329

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

SITE PLAN RELEASE NOTES:

- ORDINANCE REQUIREMENTS
- ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE RELEASED SITE DEVELOPMENT PERMIT. ANY ADDITIONAL IMPROVEMENTS WILL REQUIRE SITE PLAN AMENDMENT AND APPROVAL OF THE CITY OF CEDAR PARK.
 - ALL SIGNS MUST COMPLY WITH THE REQUIREMENTS OF THE SIGN ORDINANCE AND ZONING ORDINANCE, AND OTHER APPLICABLE ORDINANCES.
 - A DRIVEWAY PERMIT IS REQUIRED PRIOR TO CONSTRUCTION OF ALL APPROACHES.
 - THE CONTRACTOR IS RESPONSIBLE FOR ALL COST OF RELOCATION OR DAMAGE TO UTILITIES.
 - ADDITIONAL ELECTRIC EASEMENTS MAY BE REQUIRED AT A LATER DATE.
 - PARKING WILL CONFORM TO THE FOLLOWING STANDARDS:
PARKING DIMENSIONAL AND DESIGN REGULATIONS:
THE FOLLOWING MINIMUM DIMENSIONAL STANDARDS SHALL BE FOLLOWED IN DESIGNING PARKING AREAS:

PARKING (IN DEGREES STANDARD) 90
WIDTH OF PARKING SPACE 9'
DEPTH OF PARKING SPACE 18.5'
WIDTH OF MAUNDERING AISLE 25'
 - ALL BEARINGS, DISTANCES AND EASEMENTS SHALL MATCH THOSE ON THE SUBDIVISION PLAT.
 - APPROVAL OF THIS SITE PLAN DOES NOT INCLUDE BUILDING AND FIRE CODE APPROVAL NOR BUILDING PERMIT APPROVAL.
 - WATER AND WASTEWATER SERVICE WILL BE PROVIDED BY THE CITY OF CEDAR PARK.
 - FOR CONSTRUCTION WITHIN THE RIGHT-OF-WAY, A PERMIT FROM THE CITY OF CEDAR PARK IS REQUIRED.

GENERAL NOTES

EXCEPT AS NOTED OTHERWISE:

- ALL FILL MATERIAL PROVIDED SHALL BE APPROVED BY THE ENGINEER OR OWNER PRIOR TO PLACING AND COMPACTING. THE PLASTICITY INDEX MUST BE LESS THAN 15.
- ALL CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
- ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 40.
- LAP ALL BAR SPLICES 24 BAR DIAMETERS OR 24 INCHES.
- ALL CONCRETE SURFACES SHALL RECEIVE A HEAVY BROOM FINISH.
- CONCRETE RIP RAP TO BE A MINIMUM 4 1/2" THICK CONCRETE WITH #3'S @ 12" O.C.E.W.
- PROVIDE CONCRETE EXPANSION JOINTS AT 40 FEET O.C. ON ALL RIP RAP.
- PROVIDE A MINIMUM CLEARANCE OF 2" BETWEEN OUTSIDE OF STEEL AND FACE OF CONCRETE.
- ALL CONCRETE WORK SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF ACI 301-72.
- ALL EXPOSED CORNERS FOR CONCRETE WORK SHALL BE HAND TOOLED.
- THE INFORMATION CONTAINED ON THESE DRAWINGS IN REGARDS TO EXISTING UTILITIES, TOPOGRAPHY, CONTOURS, HYDROGRAPHY, OR SUBSURFACE CONDITIONS IS FURNISHED SOLELY AS THE BEST INFORMATION AVAILABLE AT THIS TIME. ITS ACCURACY IS NOT GUARANTEED AND ITS USE IN NO WAY RELIEVES THE CONTRACTOR OF ANY RESPONSIBILITY FOR LOSSES DUE TO ANY INACCURACIES.
- ALL REQUIRED RELOCATION'S OR ALTERATIONS OF TELEPHONE POLES, UNDERGROUND CONDUIT, POWER POLES, AND ANY OTHER FACILITIES SHALL BE DONE BY THE CONTRACTOR. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE HIS WORK WITH THAT OF OTHER CONTRACTORS AND UTILITY COMPANIES SO AS NOT TO DELAY THE PROJECT.
- THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES FOR EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
- ALL TRASH COLLECTION FOR THIS SITE WILL BE PERFORMED BY PRIVATE CONTRACTOR HIRED BY THE CONTRACTOR.
- THE GEOTECHNICAL REPORT FOR THE SITE SHALL GOVERN ALL CONSTRUCTION MATERIALS AND METHODS RELATED TO: PAVEMENT, BASE, FILL AND EXCAVATION, AND COMPACTION AND TREATMENT OF ON SITE SOILS.
- 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 TCEQ ENVIRONMENTAL INSPECTOR FOR FURTHER INVESTIGATION.

ELECTRIC GENERAL NOTES:

- THE ELECTRIC UTILITY HAS THE RIGHT TO PRUNE AND/OR REMOVE TREES, SHRUBBERY AND OTHER OBSTRUCTIONS TO THE EXTENT NECESSARY TO KEEP THE EASEMENT CLEAR.
- THE OWNER/DEVELOPER OF THIS SUBDIVISION/LOT SHALL PROVIDE THE ELECTRIC UTILITY WITH ANY EASEMENT AND/OR ACCESS REQUIRED, IN ADDITION TO THOSE INDICATED, FOR THE INSTALLATION AND ONGOING MAINTENANCE OF OVERHEAD AND UNDERGROUND ELECTRICAL FACILITIES.
- THE OWNER SHALL BE RESPONSIBLE FOR INSTALLATION OF TEMPORARY EROSION CONTROL, REVEGETATION AND TREE PROTECTION FOR ELECTRIC UTILITY WORK REQUIRED TO PROVIDE ELECTRIC SERVICE TO THIS PROJECT. THIS ELECTRIC UTILITY WORK SHALL ALSO BE INCLUDED WITHIN THE LIMITS OF CONSTRUCTION FOR THIS PROJECT.
- ANY ELECTRIC UTILITY ACTIVITY INSIDE THE SUBDIVISION SHALL BE INCLUDED UNDER THE DEVELOPMENT PERMIT.
- ANY RELOCATION OF ELECTRIC FACILITIES SHALL BE AT OWNERS EXPENSE.

EROSION AND SEDIMENTATION CONTROL:

- EROSION CONTROL MEASURES, SITE WORK AND RESTORATION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF CEDAR PARK.
- ALL SLOPES SHALL BE SODDED OR SEEDED WITH APPROVED GRASS, GRASS MIXTURE OR GROUND COVER SUITABLE TO THE AREA AND SEASON IN WHICH THEY ARE APPLIED.
- SILT FENCES, ROCK BERMS, SEDIMENTATION BASINS AND SIMILARLY RECOGNIZED TECHNIQUES AND MATERIALS SHALL BE EMPLOYED DURING CONSTRUCTION TO PREVENT POINT SOURCE SEDIMENTATION LOADING OF DOWNSTREAM FACILITIES. SUCH INSTALLATION SHALL BE REGULARLY INSPECTED BY THE CONTRACTOR FOR EFFECTIVENESS. ADDITIONAL MEASURES MAY BE REQUIRED IF, IN THE OPINION OF THE REGULATING AUTHORITY, THEY ARE WARRANTED.
- ALL TEMPORARY EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL FINAL INSPECTION AND APPROVAL OF THE PROJECT BY THE CITY OF CEDAR PARK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL TEMPORARY EROSION CONTROL STRUCTURES AND TO REMOVE EACH STRUCTURE AS APPROVED BY THE CITY OF CEDAR PARK.

TEMPORARY EROSION AND SEDIMENTATION CONTROL NOTES:

- THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR EXCAVATION).
- THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE CITY OF CEDAR PARK AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
- THE PLACEMENT OF TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE THE APPROVED GRADING/TREE AND NATURAL AREA PLAN.
- A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD ON-SITE WITH THE CONTRACTOR, DESIGN ENGINEER/PERMIT APPLICANT AND THE CITY INSPECTOR AFTER INSTALLATION OF THE EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTION MEASURES AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE CONTRACTOR SHALL NOTIFY THE CITY AT LEAST THREE DAYS PRIOR TO THE MEETING DATE.
- ANY SIGNIFICANT VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS MUST BE APPROVED BY THE CITY.
- 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 WHEN THE DEPTH REACHES SIX (6) INCHES.
- PRIOR TO FINAL ACCEPTANCE BY THE CITY, 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.
- FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES. MAJOR REVISIONS MUST BE APPROVED BY THE CITY.
- A STORM WATER POLLUTION PREVENTION PLAN WILL BE MAINTAINED ON SITE

PERMANENT EROSION CONTROL NOTES:

ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW:

- MINIMUM OF FOUR INCHES OF TOPSOIL SHALL BE PLACED IN ALL DRAINAGE CHANNELS (EXCEPT ROCK) AND BETWEEN THE CURB AND RIGHT-OF-WAY LINE. THE AREA BETWEEN BUILDING AND EAST PROPERTY LINE SHALL RECEIVE 12 INCHES OF TOP SOIL.
- THE SEEDING FOR PERMANENT EROSION CONTROL SHALL BE APPLIED OVER AREAS DISTURBED BY CONSTRUCTION AS FOLLOWS:
 - FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH A COMBINATION OF 1 POUND PER 1000 SQUARE FEET OF UNHULLED BERMUDA AND 7 POUNDS PER 1000 SQUARE FEET OF WINTER RYE WITH A PURITY OF 95% WITH 90% GERMINATION.
 - FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE 3 POUNDS PER 1000 SQUARE FEET WITH A PURITY OF 95% WITH 85% GERMINATION.
- FERTILIZER SHALL BE SLOW RELEASE GRANULAR OR PELTED TYPE AND SHALL HAVE AN ANALYSIS OF 15-15-15 AND SHALL BE APPLIED AT A RATE OF 1 POUND PER 1000 SQ.FT. ONCE AT A TIME OF PLANTING AND ONCE DURING THE TIME OF ESTABLISHMENT.
- THE PLANTED AREA SHALL BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT ERODE THE TOPSOIL, BUT WILL SUFFICIENTLY SOAK THE SOIL TO A DEPTH OF SIX INCHES. THE IRRIGATION SHALL OCCUR AT TEN-DAY INTERVALS DURING THE FIRST TWO MONTHS. RAINFALL OCCURRENCES OF 1/2 INCH OR MORE SHALL POSTPONE THE WATERING SCHEDULE FOR ONE WEEK.
- MULCH TYPE USED SHALL BE CELLULOSE FIBER, APPLIED AT A RATE OF 45 POUNDS PER SQUARE FEET WITH SOIL TACKIFIER AT A RATE OF 1.4 POUNDS PER 1000 SQUARE FEET.
- RESTORATION SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1-1/2 INCHES HIGH WITH 95% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN 16 SQUARE FEET EXIST.
- WHEN REQUIRED, NATIVE GRASS SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL.

NOTE:

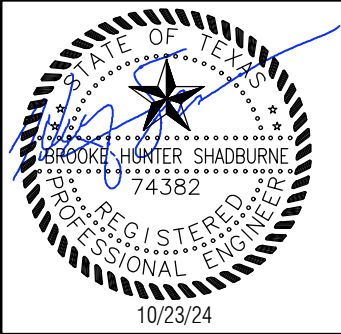
THE WATER, WASTEWATER AND DRAINAGE IMPROVEMENTS CONTAINED WITHIN THE LOT PLANS SHALL BE PRIVATELY OWNED, OPERATED, AND MAINTAINED.

TRENCH SAFETY NOTES:

- IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, ALL TRENCHES OVER 5 FEET IN DEPTH IN EITHER HARD OR COMPACT OR SOFT AND UNSTABLE SOIL SHALL BE SLOPED, SHORED, SHEETED, BRACED OR OTHERWISE SUPPORTED. FURTHERMORE, ALL TRENCHES LESS THAN 5 FEET IN DEPTH SHALL ALSO BE EFFECTIVELY PROTECTED WHEN HAZARDOUS GROUND MOVEMENT MAY BE EXPECTED. TRENCH SAFETY SYSTEMS TO BE UTILIZED FOR THIS PROJECT SHALL BE SUPPLIED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE TRENCH SAFETY PLAN REVIEWED, SIGNED, AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS.
- IN ACCORDANCE WITH THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, WHEN EMPLOYEES ARE REQUIRED TO BE IN TRENCHES 4 FEET DEEP OR MORE, ADEQUATE MEANS OF EXIT, SUCH AS A LADDER OR STEPS, MUST BE PROVIDED AND LOCATED SO AS TO REQUIRE NO MORE THAN 25 FEET OF LATERAL TRAVEL.
- IF TRENCH SAFETY SYSTEM DETAILS WERE NOT PROVIDED TO THE ENGINEER FOR REVIEW BECAUSE TRENCHES WERE ANTICIPATED TO BE LESS THAN 5 FEET IN DEPTH AND DURING CONSTRUCTION IT IS FOUND THAT TRENCHES ARE IN FACT 5 FEET OR MORE IN DEPTH OR TRENCHES LESS THAN 5 FEET IN DEPTH ARE IN AN AREA WHERE HAZARDOUS GROUND MOVEMENT IS EXPECTED, ALL CONSTRUCTION SHALL CEASE, THE TRENCHED AREA SHALL BE BARRICADED AND THE ENGINEER NOTIFIED IMMEDIATELY. CONSTRUCTION SHALL NOT RESUME UNTIL APPROPRIATE TRENCH SAFETY SYSTEM DETAILS, AS DESIGNED BY A PROFESSIONAL ENGINEER, ARE SUBMITTED TO AND ACCEPTED BY THE CITY OF CEDAR PARK.

SEQUENCE OF CONSTRUCTION

- (CONSTRUCTION MAY BE CONCURRENT WITH OTHER ELEMENTS BUT MUST BE COMPLETED IN THE ORDER SHOWN BELOW)
- INSTALL EROSION CONTROLS AS INDICATED ON APPROVED SITE PLAN.
 - INSTALL TREE PROTECTION.
 - CONTACT THE CITY OF CEDAR PARK. SCHEDULE ON-SITE PRE CONSTRUCTION COORDINATION MEETING.
 - EVALUATION OF TEMPORARY EROSION CONTROL INSTALLATION. REVIEW CONSTRUCTION SCHEDULE WITH THE WATER QUALITY PLAN REQUIREMENTS AND THE EROSION CONTROL PLAN.
 - BEGIN SITE CLEARING & ROUGH CUT DETENTION POND. ROUGH CUT DETENTION POND IS INTENDED TO SERVE AS A TEMPORARY SEDIMENT TRAP.
 - INSPECT AND MAINTAIN ALL CONTROLS AS PER GENERAL NOTES.
 - CONSTRUCT SITE UTILITIES.
 - CONSTRUCT PAVING, PARKING AND BUILDINGS.
 - COMPLETE CONSTRUCTION AND INSTALL LANDSCAPING.
 - REMOVE SEDIMENT BUILDUP & COMPLETE CONSTRUCTION OF DETENTION POND, & WATER QUALITY POND.
 - REVEGETATE DISTURBED AREAS.
 - PROJECT ENGINEER INSPECTS JOB AND WRITES CONCURRENCE LETTER TO THE CITY. FINAL INSPECTION IS SCHEDULED UPON RECEIPT OF LETTER.
 - RECEIVE OPERATING PERMIT AND CITY CLEARANCE FOR OCCUPANCY.
 - REMOVE TEMPORARY EROSION/SEDIMENTATION CONTROLS UPON INSPECTOR'S APPROVAL OF ADEQUATE REVEGETATION.



BREAKAWAY CHURCH
2601 BRUSHY CREEK RD.
CEDAR PARK TEXAS 78613

REV. DATE	REVISIONS		APPROVED BY	
	DESCRIPTION			

JOB: 21-019 DATE: 10/23/24
CAD: DAMMGLCHK'D BY:
ENGINEER: HS|CHK'D BY:
SCALE:

GENERAL
NOTES

SITE CIVIL PLAN

3

of 34

SD-21-00044

BASELINE LAND SURVEYORS, INC.
PROFESSIONAL LAND SURVEYING SERVICES
8333 CROSS PARK DRIVE
AUSTIN TEXAS 78754
OFFICE: 512.374.9722 FAX: 512.873.9743
ron-baseline@austin.tx.us



BREAKAWAY CHURCH
2601 BRUSHY CREEK RD.
CEDAR PARK TEXAS 78613

REVISIONS		APPROVED BY
REV. DATE	DESCRIPTION	

JOB: 21-019	DATE: 10/23/24
CAD: DAMMO	CHK'D BY:
ENGINEER: HS	CHK'D BY:
SCALE: N/A	

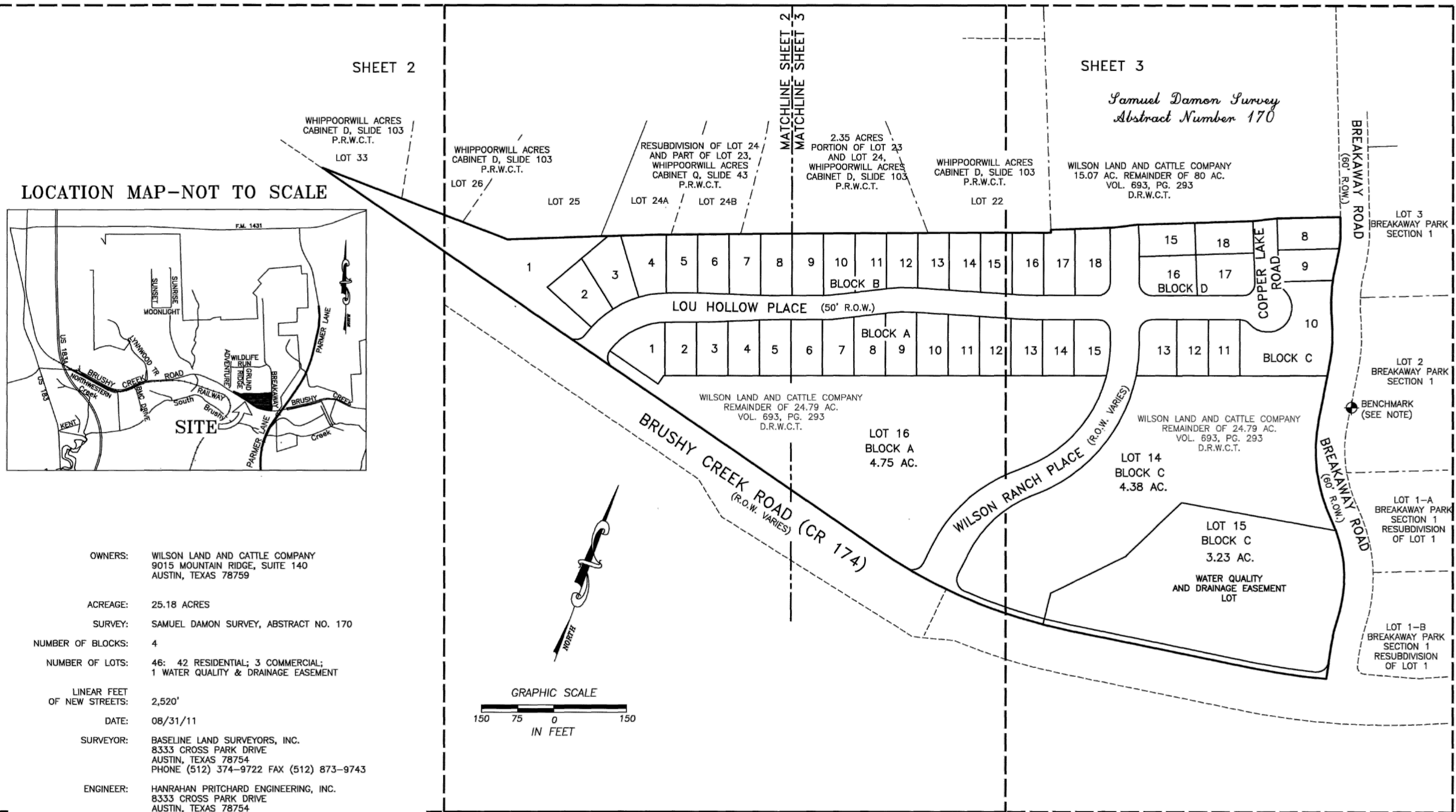
FINAL PLAT
1 OF 3

SITE CIVIL PLAN
4
of 34

FINAL PLAT
THE RESERVE AT BRUSHY CREEK
SECTION 1

File: Brushy Creek Enclave.Dwg	Job No.	Date: 08/31/11
Scale (Hor.):	Scale (Vert.):	Drawn By: RLW
Checked By: JSL	Revision 1:	Revision 2:
Revision 3:	Revision 4:	

SHEET
1 of 5



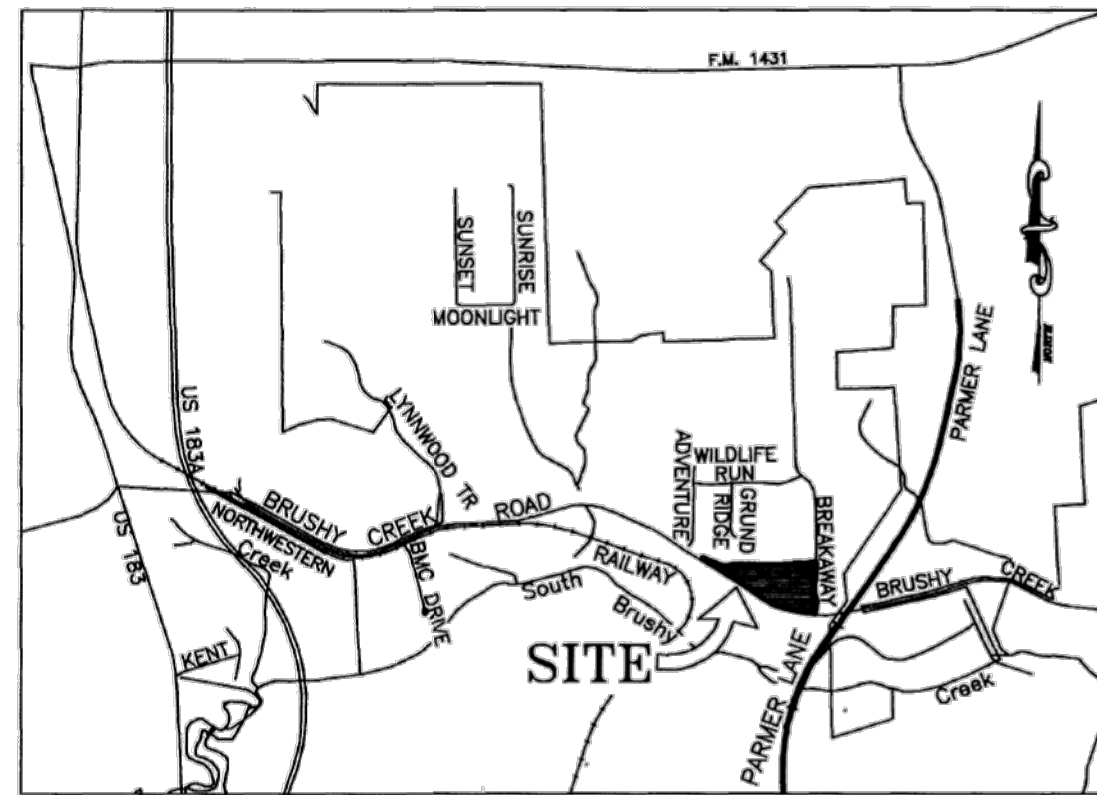
SHEET 2

SHEET 3

MATCHLINE SHEET 2

MATCHLINE SHEET 3

LOCATION MAP-NOT TO SCALE



OWNERS: WILSON LAND AND CATTLE COMPANY
9015 MOUNTAIN RIDGE, SUITE 140
AUSTIN, TEXAS 78759

ACREAGE: 25.18 ACRES

SURVEY: SAMUEL DAMON SURVEY, ABSTRACT NO. 170

NUMBER OF BLOCKS: 4

NUMBER OF LOTS: 46: 42 RESIDENTIAL; 3 COMMERCIAL;
1 WATER QUALITY & DRAINAGE EASEMENT

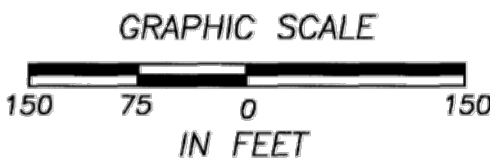
LINEAR FEET OF NEW STREETS: 2,520'

DATE: 08/31/11

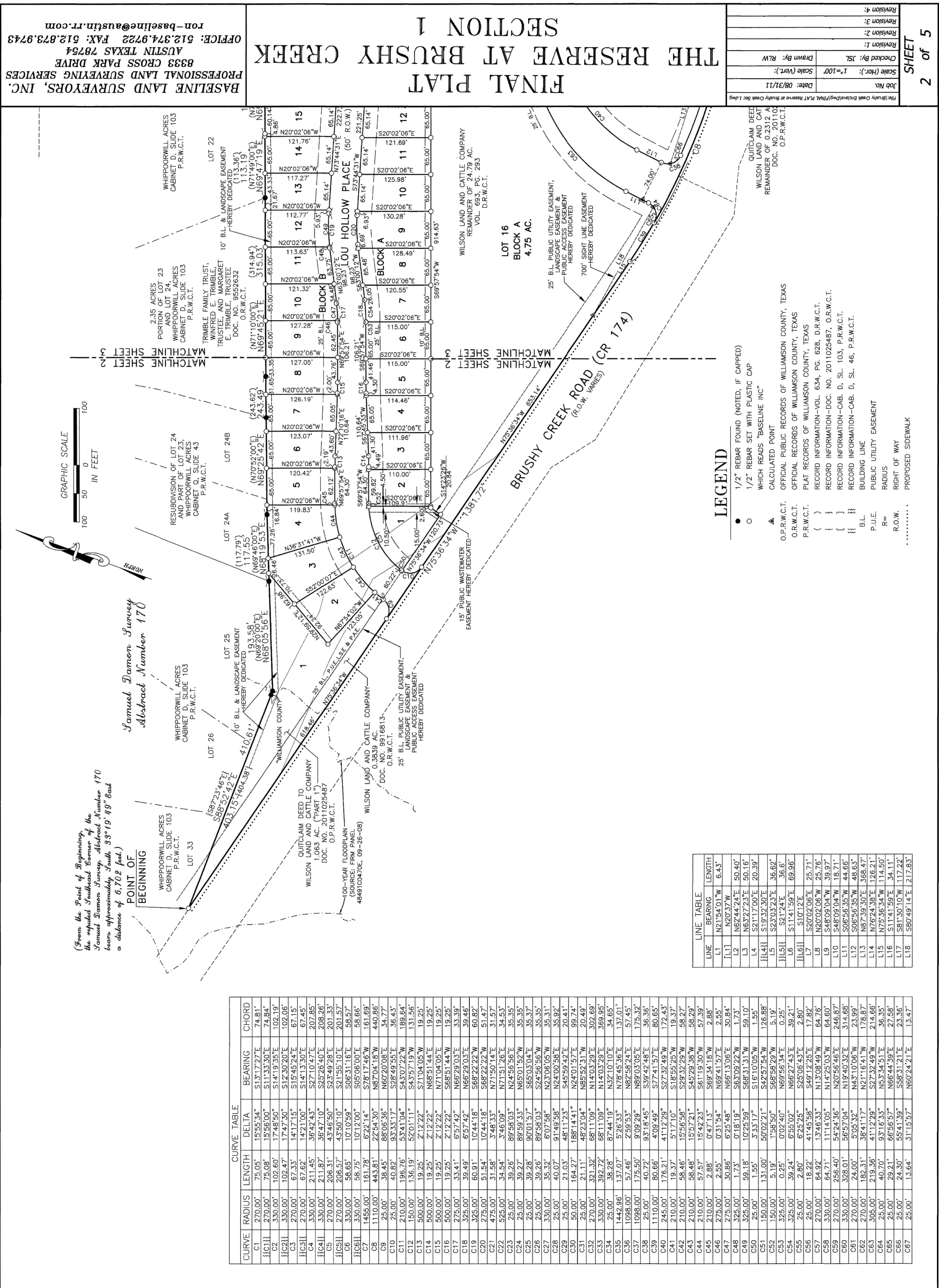
SURVEYOR: BASELINE LAND SURVEYORS, INC.
8333 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
PHONE (512) 374-9722 FAX (512) 873-9743

ENGINEER: HANRAHAN PRITCHARD ENGINEERING, INC.
8333 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
PHONE (512) 459-4534 FAX (512) 459-4752

BENCHMARK: BENCHMARK: 5/8" REBAR FOUND WITH PLASTIC
CAP: "CHAPARRAL RANDOM"; APPROX. 8' EAST OF THE
EAST EDGE OF PAVEMENT OF BREAKAWAY DRIVE AND
APPROX. 562' NORTH OF SOUTHWEST CORNER OF
INTERSECTION OF BREAKAWAY DRIVE AND BRUSHY CREEK
ROAD. ELEVATION=866.35
NAVD 88 (GEOID 99)

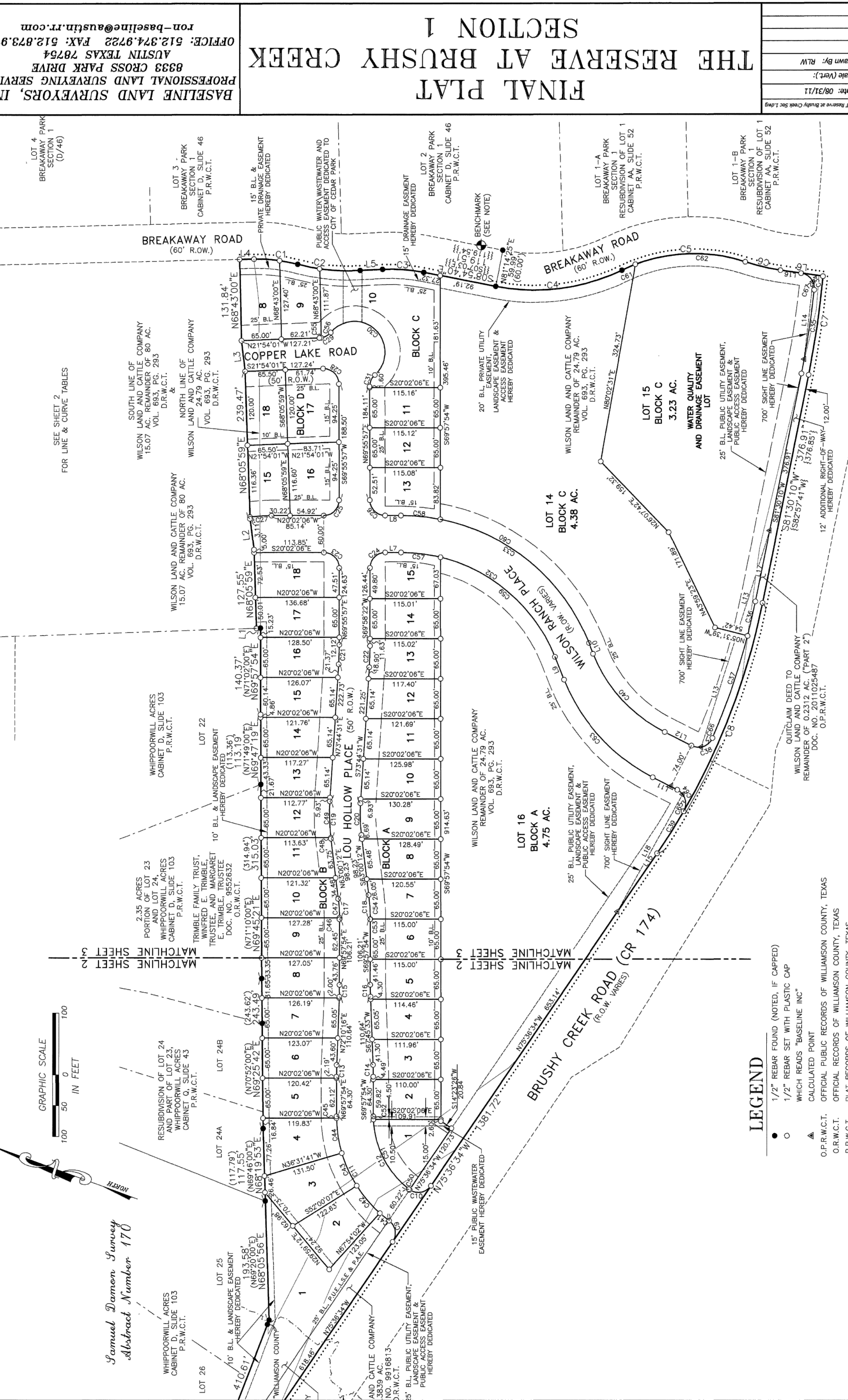


DOC.# 2012028430



2 of 5
SHEET

DOC.# 2012028430



3 of 5
SHEET

SD-21-00044

SITE CIVIL PLAN

5

of 34

FINAL PLAT

2 OF 3

ENGINEER: HS CHK'D BY:

SCALE: N/A

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED BY

BREAKAWAY CHURCH

2601 BRUSHY CREEK RD.

CEDAR PARK TEXAS 78613

AUSTIN CIVIL ENGINEERING, INC.

TBPE FIRM # F-001018

9501B MENCHACA RD # 220

AUSTIN, TX 78745

(512) 306-0018

METES AND BOUNDS DESCRIPTION

BEING 25.18 ACRES OF LAND OUT OF THE SAMUEL DAMON SURVEY, ABSTRACT NO. 170, IN WILLIAMSON COUNTY, TEXAS, BEING ALL OF THE REMAINDER OF A 24.79 ACRE TRACT OF LAND AND A PORTION OF THE CEDAR PARK ROAD RIGHT-OF-WAY, BEING A PORTION OF THE DEED RECORDS OF WILLIAMSON COUNTY, TEXAS, BEING ALL OF A 0.8338 OF ONE ACRE TRACT OF LAND CONVEYED TO WILSON LAND AND CATTLE COMPANY BY INSTRUMENT OF RECORD IN DOCUMENT NUMBER 99161913 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS, AND ALSO BEING A PORTION OF A 1.2344 ACRE TRACT OF LAND WHICH IS COMPRISED OF A 1.063 ACRE TRACT AND A PORTION OF A 0.2312 OF ONE ACRE TRACT, BOTH OF WHICH ARE SHOWN HEREON, BEING A PORTION OF THE DEED RECORDS OF WILLIAMSON COUNTY, TEXAS, AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a 1/2" rebar set with plastic cap which reads "Baseline, Inc." for the west corner of said 1.063 acre tract, and from there, to the south line of Lot 23, Whippoorwill Acres, a subdivision of record in Cabinet G, Slide 103 of the Plat Records of Williamson County, Texas;

THENCE South 88°52'42" East (record: South 87°23'46" East), along the north line of the 1.063 acre tract and the south line of said Lot 33, Lot 28 and Lot 29, Whippoorwill Acres, passing at a distance of 117.79 feet to a 1/2" rebar set with plastic cap, which reads "Baseline, Inc." for a point of tangency, and continuing for a total distance of 410.81 feet to a 1/2" rebar found for the northeast corner of the 1.063 acre tract and being in the north line of said remainder of a 24.79 acre tract and also being on angle point in the south line of said Lot 23, Whippoorwill Acres;

THENCE along the north line of the remainder of a 24.79 acre tract the following six (6) courses:

1. North 68°05'59" East (record: North 89°20'00" East) along the south line of Lot 25, Whippoorwill Acres a distance of 193.98 feet to a 1/2" rebar found for the southeast corner of Lot 25, Whippoorwill Acres; a subdivision of record in Cabinet G, Slide 43 of the Plat Records of Williamson County, Texas;
2. North 88°19'39" East (record: North 88°49'00" East), along the south line of said Lot 24A, of said Resubdivision of Lot 24 and Part of Lot 23, Whippoorwill Acres, a distance of 117.55 feet (record: 117.79 feet) to a 1/2" rebar found for an angle point in the south line of Lot 24A, Resubdivision of Lot 24 and Part of Lot 23, Whippoorwill Acres;
3. North 69°25'42" East (record: North 70°52'00" East), along the south line of Lot 24A, and Lot 24B, Whippoorwill Acres, being on a 2.35 acre tract of land conveyed to the Trimble Family Trust, Wilfred L. Trimble, Trustee and Margaret E. Trimble, Trustee by instrument of record in Document Number 9526362 of the Official Public Records of Williamson County, Texas, a distance of 20.39 feet to a 1/2" rebar found for an angle point in the south line of the 2.35 acre tract and Lot 23, Whippoorwill Acres;
4. North 89°45'21" East (record: North 71°10'00" East), along the south line of the 2.35 acre tract and Lot 23, Whippoorwill Acres a distance of 315.03 feet and Lot 23, Whippoorwill Acres and the southwest corner of Lot 23, Whippoorwill Acres;
5. North 89°47'19" East (record: North 71°49'00" East), along the south line of said Lot 22, Whippoorwill Acres, a distance of 113.26 feet to a 1/2" rebar set with plastic cap, which reads "Baseline, Inc." for an angle point in the south line of Lot 22, Whippoorwill Acres;
6. North 89°57'54" East (record: North 71°02'00" East), continuing along the south line of Lot 22, Whippoorwill Acres a distance of 140.37 feet to a 1/2" rebar found for the southeast corner of Lot 22, Whippoorwill Acres and being the southwest corner of said 15.07 acre remainder of an 80 acre tract;

THENCE North 21°43'01" West (record: North 20°37' West), along the west line of the 15.07 acre remainder of an 80 acre tract and the east line of Lot 22, Whippoorwill Acres a distance of 6.43 feet to a 1/2" rebar set with plastic cap, which reads "Baseline, Inc.";

THENCE crossing through the 15.07 acre remainder of an 80 acre tract the following five courses:

1. North 68°05'59" East a distance of 127.55 feet to a 1/2" rebar set with plastic cap, which reads "Baseline, Inc.";
2. North 62°44'24" East a distance of 50.40 feet to a 1/2" rebar set with plastic cap, which reads "Baseline, Inc.";
3. North 68°05'59" East a distance of 239.47 feet to a 1/2" rebar set with plastic cap, which reads "Baseline, Inc.";
4. North 63°27'23" East a distance of 50.16 feet to a 1/2" rebar set with plastic cap, which reads "Baseline, Inc.";
5. North 68°43'00" East a distance of 131.84 feet to a 1/2" rebar set with plastic cap, which reads "Baseline, Inc." for the northeast corner of said 15.07 acre tract and the east line of said 15.07 acre right-of-way line of Breakaway Road (80' R.O.W.) as dedicated in Breakaway Park, Section 1, a subdivision of record in Cabinet D, Slide 46 of the Plat Records of Williamson County, Texas;

THENCE South 21°17'00" East (record: South 19°32'30" East), along the east line of the 15.07 acre remainder of an 80 acre tract, the east line of the remainder of a 24.79 acre tract and said west line of a 1/2" rebar found for a point of tangency, a distance of 20.39 feet to a 1/2" rebar set with plastic cap, which reads "Baseline, Inc." for a point of curvature;

THENCE continue along the east line of the remainder of a 24.79 acre tract and said west right-of-way line of Breakaway Road the following eight (8) courses:

1. along a tangential curve to the right, having a radius of 270.00 feet (record: 270.00 feet), a length of 102.80 feet (record: 102.47 feet), a delta angle of 17°48'50" (record: 17°47'30") and a chord, which bears South 14°19'35" East a distance of 102.19 feet (record: South 12°30'20" East a distance of 102.06 feet) to a 1/2" rebar found for a point of tangency;
2. along a reverse curve to the left, having a radius of 330.00 feet (record: 330.00 feet), a length of 102.80 feet (record: 102.47 feet), a delta angle of 17°48'50" (record: 17°47'30") and a chord, which bears South 14°19'35" East a distance of 102.19 feet (record: South 12°30'20" East a distance of 102.06 feet) to a 1/2" rebar found for a point of tangency;
3. South 23°03'23" East a distance of 36.62 feet (record: South 21°24" East a distance of 36.6 feet) to a 1/2" rebar found for a point of curvature;
4. along a tangential curve to the right, having a radius of 270.00 feet (record: 270.00 feet), a length of 102.80 feet (record: 102.47 feet), a delta angle of 17°48'50" (record: 17°47'30") and a chord, which bears South 14°19'35" East a distance of 102.19 feet (record: South 14°13'39" East a distance of 87.45 feet) to a 1/2" rebar found for a point of tangency;
5. South 08°54'40" East a distance of 118.51 feet (record: South 07°03" East a distance of 118.54 feet) to a 1/2" rebar found for a point of curvature;

STATE OF TEXAS
COUNTY OF WILLIAMSON

THAT WILSON LAND AND CATTLE COMPANY, ACTING HEREIN BY AND THROUGH WILL R. WILSON, JR., PRESIDENT OF WILSON LAND AND CATTLE COMPANY, BEING THE OWNER OF A 25.18 AC. TRACT COMPRISED OF THE REMAINDER OF A 24.79 ACRE TRACT AND A PORTION OF THE 15.07 ACRE TRACT OF LAND CONVEYED BY INSTRUMENT OF RECORD IN DOCUMENT NUMBER 99161913 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS, AND A 0.8338 OF ONE ACRE TRACT OF LAND CONVEYED BY INSTRUMENT OF RECORD IN DOCUMENT NUMBER 9526362 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS, DOES HEREBY SUBMIT, SAID 25.18 ACRES OF LAND TO THE CITY OF CEDAR PARK, TEXAS, FOR CONSIDERATION AND PLAT UNDER THE DEDICATIONS AND PLAT NOTE REQUIREMENTS SHOWN HEREON, AND DOES HEREBY JOIN, APPROVE, AND CONSENT TO ALL DEDICATIONS AND PLAT NOTE REQUIREMENTS SHOWN HEREON, AND DOES HEREBY APPROVE THE RECORDED OF THE DEEDS, INSTRUMENTS, AND RECORDS SHOWN HEREON, SUBJECT TO ANY EASEMENTS AND/OR RESTRICTIONS AND ROADS THAT ARE SHOWN HEREON, SUBJECT TO ANY EASEMENTS AND/OR RESTRICTIONS AND CERTIFICATE GRANTED AND NOT RELEASED. THIS IS HEREBY ACKNOWLEDGED THAT WILSON LAND AND CATTLE COMPANY, DOES HEREBY ACKNOWLEDGE THAT WILSON LAND AND CATTLE COMPANY DOES NOT HAVE ANY LIEN HOLDERS OR ANY UNPAID DEBTS FOR WHICH THIS PROPERTY REPRESENTS COLLATERAL ON ANY LOAN.

WITNESS MY HAND THIS 26th DAY OF October, 2011 A.D.

WILSON LAND AND CATTLE COMPANY
AUSTIN, TEXAS 78759

BY: Will R. Wilson, Jr.

WILL R. WILSON, JR. (PRESIDENT)

PRINTED NAME
Will R. Wilson, Jr.

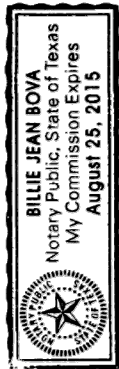
DATE 10.26.11

STATE OF TEXAS
COUNTY OF WILLIAMSON

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED WILL R. WILSON, JR., PRESIDENT OF WILSON LAND AND CATTLE COMPANY, AND SHE ACKNOWLEDGED TO ME THAT (S)HE EXECUTED AND SIGNED THE FOREGOING INSTRUMENT, AND (S)HE ACKNOWLEDGED TO ME THAT (S)HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED.

WITNESS MY HAND AND SEAL THIS THE 26th DAY OF October, 2011 A.D.

Billie Jean Bova
NOTARY PUBLIC IN AND FOR THE
STATE OF TEXAS



PRINTED NAME OF NOTARY
Billie Jean Bova

MY COMMISSION EXPIRES ON 8-25-15

PLANNING AND ZONING COMMISSION APPROVAL

APPROVED THIS 15th DAY OF November, 2011 A.D., BY THE CITY PLANNING AND ZONING COMMISSION OF THE CITY OF CEDAR PARK, TEXAS, AND AUTHORIZED TO BE FILED FOR RECORD BY THE COUNTY CLERK OF WILLIAMSON COUNTY, TEXAS.

Alfreda Delaney
CITY CLERK
PLANNING AND ZONING COMMISSION

I, SWEAR I AM A DIRECTOR OF PLANNING AND DEVELOPMENT SERVICES FOR THE CITY OF CEDAR PARK, TEXAS. DO HEREBY ATTEST AND AUTHORIZE THIS PLAT TO BE FILED FOR RECORD BY THE COUNTY CLERK OF WILLIAMSON COUNTY, TEXAS IN THE PLAT RECORDS OF SAID COUNTY.

ATTEST: Randy Howard
DIRECTOR OF PLANNING AND DEVELOPMENT SERVICES
CITY OF CEDAR PARK

REV.	DATE	DESCRIPTION	REVISIONS	APPROVED BY

BREAKAWAY CHURCH

2601 BRUSHY CREEK RD.
CEDAR PARK TEXAS 78613

AUSTIN CIVIL
ENGINEERING, INC.

TBPE FIRM # F-001018
9501B MENCHACA RD # 220
AUSTIN, TX 78745
(512) 306-0018



METES AND BOUNDS DESCRIPTION (CONTINUED)

6. along a tangential curve to the left, having a radius of 330.00 feet (record: 330.00 feet), a length of 211.43 feet (record: 211.87 feet), a delta angle of 39°24'43" (record: 36°47'07") and a chord, which bears South 27°10'47" East a distance of 207.85 feet (record: South 25°26'40" East a distance of 208.26 feet) to a 1/2" rebar found for a point of reverse curvature;

7. along a reverse curve to the right, having a radius of 270.00 feet (record: 270.00 feet), a length of 208.37 feet (record: 208.57 feet), a delta angle of 42°44'50" (record: 43°50'10") and a chord, which bears South 27°10'47" East a distance of 207.85 feet (record: South 25°26'40" East a distance of 208.26 feet) to a 1/2" rebar set with plastic cap, which reads "Baseline, Inc." for a point of reverse curvature;

8. along a reverse curve to the left, having a radius of 330.00 feet (record: 330.00 feet), a length of 58.65 feet (record: 58.75 feet), a delta angle of 107°05'59" (record: 107°12'00") and a chord, which bears South 06°31'16" East a distance of 58.57 feet (record: "Baseline, Inc." for a point of tangency;

THENCE South 11°41'59" East (record: South 10°12" East), continuing along the east line of the remainder of a 24.79 acre tract, the west right-of-way line of Breakaway Road and crossing through said 0.2312 of one acre tract and the south line of Lot 23, Whippoorwill Acres, a distance of 440.85 feet to a 1/2" rebar set with plastic cap, which reads "Baseline, Inc." for a point of tangency;

THENCE along the south line of the remainder of the 0.2312 of one acre tract and the north right-of-way line of Brushy Creek Road the following two (2) courses:

1. Along a non-tangential curve to the right, having a radius of 1455.00 feet (record: 1455.00 feet), a length of 181.68 feet to a 1/2" rebar set with plastic cap, which reads "Baseline, Inc." for a point of tangency;
2. South 81°30'10" West a distance of 376.81 feet (record: South 82°27'41" West a distance of 376.85 feet) to a 1/2" rebar set with plastic cap, which reads "Baseline, Inc." for a point of curvature;

THENCE continuing along the south line of the 0.2312 of one acre tract, the south line of the remainder of a 24.79 acre tract and the north right-of-way line of Brushy Creek Road, being a tangential curve to the right, having a radius of 110.00 feet (record: 110.00 feet), a length of 443.51 feet, a delta angle of 172°45'34" (record: 172°45'34") and a chord, which bears South 87°04'19" East a distance of 440.85 feet to a 1/2" rebar set with plastic cap, which reads "Baseline, Inc." for a point of tangency;

THENCE North 75°56'34" West, along the south line of the remainder of a 24.79 acre tract, the south line of said 0.3839 acre tract and the north right-of-way line of Brushy Creek Road a distance of 1381.72 feet to the POINT OF BEGINNING.

This parcel contains 25.18 acres of land, more or less, out of the Samuel Damon Survey, Abstract No. 170, in Williamson County, Texas.

Bearing Basis: Texas State Plane Coordinates, Texas Central Zone, NAD 83/93 HARN.

BASELINE LAND SURVEYORS, INC.
PROFESSIONAL LAND SURVEYING SERVICES
8333 CROSS PARK DRIVE
AUSTIN TEXAS 78784
OFFICE: 512.874.9722 FAX: 512.873.9743
ron-baseline@austln.rtr.com

FINAL PLAT
THE RESERVE AT BRUSHY CREEK
SECTION 1

Job No.	DATE: 08/31/11
Scale (Hori.):	1"=100'
Drawn By:	RLW
Checked By:	JSL
Revision 1:	
Revision 2:	
Revision 3:	
Revision 4:	

4 of 5
SHEET

DOC.# 2012028430

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FINAL PLAT
THE RESERVE AT BRUSHY CREEK
SECTION 1

Job No.	DATE: 08/31/11
Scale (Hori.):	1"=100'
Drawn By:	RLW
Checked By:	JSL
Revision 1:	
Revision 2:	
Revision 3:	
Revision 4:	

5 of 5
SHEET

STANDARD PUBLIC WORKS PLAT NOTES (CONTINUED)

15. TOPOGRAPHY AND PERMANENT EASEMENTS TO BE PROVIDED AS REQUIRED FOR OFF-SITE WATER, WASTEWATER AND DRAINAGE IMPROVEMENTS.
16. THIS SITE IS LOCATED WITHIN THE EDWARDS AQUIFER CONTRIBUTING ZONE. DEVELOPMENT OF THIS SITE WILL COMPLY WITH ALL APPLICABLE TCEQ EDWARDS AQUIFER RULES.
17. THIS SUBDIVISION IS NOT SUBJECT TO THE LACE TRAVIS NON-POINT SOURCE POLLUTION CONTROL ORDINANCE OF THE CEDAR PARK CITY CODE. A NON-POINT SOURCE POLLUTION DEVELOPMENT PERMIT IS REQUIRED PRIOR TO ANY CONSTRUCTION WITHIN THE SUBDIVISION.
18. PRIOR TO SUBDIVISION/SITE PLAN APPROVAL, THE ENGINEER SHALL SUBMIT TO THE CITY OF CEDAR PARK, TEXAS, A SUBDIVISION/SITE PLAN, A SUBDIVISION/SITE PLAN WITH THE TEXAS DEPARTMENT OF LICENSING AND REGULATIONS (TDLR) AND PROVIDE DOCUMENTATION OF REVIEW AND COMPLIANCE OF THE SUBDIVISION CONSTRUCTION PLANS WITH TEXAS ARCHITECTURAL BARRIERS ACT (ABA).
19. THE SUBDIVISION/SITE PLAN SHALL BE INSTALLED WHEN THE ADJOINING STREET IS CONSTRUCTED. COMMERCIAL OR INDUSTRIAL LOT SHALL BE INSTALLED WHEN THE ADJOINING STREET IS CONSTRUCTED. THE TEXAS DEPARTMENT OF LICENSING AND REGULATIONS (TDLR) AND PROVIDE DOCUMENTATION OF REVIEW AND COMPLIANCE OF THE SUBDIVISION CONSTRUCTION PLANS WITH TEXAS ARCHITECTURAL BARRIERS ACT (ABA).
20. THIS SUBDIVISION SHALL BE IN FULL COMPLIANCE WITH THE TREE AND LANDSCAPE ORDINANCE OF THE CITY OF CEDAR PARK. (LANDSCAPE AND TREE ORDINANCE, CHAPTER 14, CEDAR PARK CODE).
21. AN APPROVED PROTECTED TREE REMOVAL APPLICATION WILL BE OBTAINED FROM THE CITY OF CEDAR PARK, TEXAS, PRIOR TO ANY CONSTRUCTION OF THE SUBDIVISION. THE CITY OF CEDAR PARK, TEXAS, (CHAPTER 14, ARTICLE 14.07, CEDAR PARK CODE).
22. FIFTY PERCENT OF ALL TREES SURVIVED IN THIS SUBDIVISION ARE REQUIRED TO BE RETAINED. 23. PRIOR TO CONSTRUCTION OF ANY IMPROVEMENTS ON LOTS IN THIS SUBDIVISION, SITE DEVELOPMENT PERMITS AND BUILDING PERMITS WILL BE OBTAINED FROM THE CITY OF CEDAR PARK.
24. DRIVEWAYS ALONG BRUSHY CREEK ROAD ARE TO BE SPACED NO CLOSER THAN 300 FEET FROM BRUSHY CREEK ROAD THAN 200 FEET. ALL OTHER DRIVEWAYS ARE TO BE LOCATED NO CLOSER TO BRUSHY CREEK ROAD THAN 200 FEET. ALL DRIVEWAYS ARE TO BE LOCATED NO CLOSER TO THE CORNER OF INTERSECTING RIGHTS OF WAY THAN 80 PERCENT OF PARCEL FRONTAGE OR 100 FEET OR 60% OF PARCEL FRONTAGE, WHICHEVER IS LESS, TO THE RIGHT-OF-WAY OF BRUSHY CREEK ROAD. ALL DRIVEWAYS SHALL COMPLY WITH THE CITY'S DRIVEWAY SPACING CRITERIA.
25. ACCESS TO BREAKAWAY ROAD IS PROHIBITED FROM LOTS 8, 9, 10, 14 AND 15, BLOCK C.
26. NOTHING SHALL BE PLACED, INSTALLED OR PLANTED WHICH OBSTRUCTS THE REQUIRED SIGHT TRIANGLES AT DRIVEWAYS AND INTERSECTIONS AS OUTLINED IN SECTION 13.1.1.6.6 OF THE AUSTIN TRANSPORTATION CRITERIA MANUAL.
27. THE MAINTENANCE OF ANY/ALL PROPOSED WATER QUALITY & DETENTION PONDS FOR THIS SUBDIVISION WILL BE PRIVATELY MAINTAINED BY A COMBINATION OF THE HOME OWNERS' ASSOCIATIONS) AND THE COMMERCIAL PROPERTY OWNER'S ASSOCIATIONS).
28. A TEN (10) FOOT FUE IS HEREBY DEDICATED ADJACENT TO ALL STREET ROW ON ALL LOTS. A PROPERTY LINE TO THE FRONT BUILDING LINE EXCEPT WHERE A SIDE LOT LINE IS ALSO THE REAR LOT LINE OF AN ADJACENT LOT IN WHICH CASE THE FIVE (5) FUE IS DEDICATED ALONG THE DEDICATED TO ALL REAR LOT LINES.
29. THIS SUBDIVISION SHALL COMPLY WITH THE CORRIDOR OVERLAY ORDINANCES OF THE CITY OF CEDAR PARK.
30. WATERSHED: BRUSHY CREEK.
31. WATER AND WASTEWATER UTILITIES WILL BE PROVIDED BY THE CITY OF CEDAR PARK.
32. NO OBSTRUCTIONS WILL BE ALLOWED IN DRAINAGE EASEMENTS.
33. THIS SUBDIVISION COMPLIES WITH THE CITY OF CEDAR PARK ROADWAY PLAN.
34. SETBACKS NOT SHOWN ON LOT SHALL CONFORM TO THE CITY OF CEDAR PARK ZONING ORDINANCE.
35. THIS SUBDIVISION SHALL COMPLY WITH THE CITY OF CEDAR PARK ZONING ORDINANCE.
36. ACCESS TO BREAKAWAY ROAD BEHIND THE SUBDIVISION'S CONSTRUCTION THESE GATES ARE TO BE MAINTAINED BY THE DEVELOPER AND/OR THE HOMEOWNERS ASSOCIATION.

THE STATE OF TEXAS §§
THE COUNTY OF WILLAMSON §§

I, NANCY RISTER, CLERK OF THE COUNTY COURT, WITHIN AND FOR THE COUNTY AND STATE OF TEXAS, DO HEREBY ATTEST AND AUTHORIZE THIS PLAT TO BE FILED FOR RECORD BY THE COUNTY CLERK OF WILLIAMSON COUNTY, TEXAS, IN THE PLAT RECORDS OF SAID COUNTY IN DOCUMENT NUMBER 2012028430.

WITNESS MY HAND AND SEAL OF THE COUNTY COURT OF SAID COUNTY, AT MY OFFICE IN GEORGETOWN, TEXAS, THE LAST DATE WRITTEN ABOVE.

BY: Nancy Rister
NANCY RISTER
CLERK, COUNTY COURT
WILLIAMSON COUNTY, TEXAS



Drafter: RDG 2020/10/26
Revision: RDG 2022/01/13
Revision: CDS 2022/03/22
Revision:

RECORD DESCRIPTION:

Lot 14, Block C, *THE RESERVE AT BRUSHY CREEK SECTION 1*, an addition to the City of Cedar Park, Williamson County, Texas, according to the plat recorded under Instrument Number 2012028430 of the Official Public Records of Williamson County, Texas.

SURVEYOR'S NOTES:

- The first site benchmark (TBM #1) is a mag nail with metal washer stamped "JPH BENCHMARK" set in concrete for a storm drain manhole, located approximately 36 feet northerly from the north right-of-way line of Brushy Creek Road, and approximately 182 feet easterly from the east right-of-way line of Wilson Ranch Place. Benchmark Elevation = 840.10' (NAVD'88). See vicinity map for general location.
- The second site benchmark (TBM #2) is a mag nail with metal washer stamped "JPH BENCHMARK" set in a concrete sidewalk, located approximately 30 feet southwesterly from the west right-of-way line of Breakaway Road, and approximately 316 feet northerly from the north right-of-way line of Brushy Creek Road. Benchmark Elevation = 854.20' (NAVD'88). See vicinity map for general location.
- This survey was performed without the benefit of a title commitment. Complete copies of the record description of the property, any record easements benefiting the property, the record easements or servitudes and covenants affecting the property ("Record Documents"), documents of record referred to in the Record Documents, and any other documents containing desired appropriate information affecting the property being surveyed and to which the survey shall make reference were not provided to this surveyor for notation on the survey. Therefore, easements, agreements, or other documents, either recorded, or unrecorded may exist that affect the subject property that are not shown on this survey.
- There are no identifiable and visibly marked parking spaces or fire lane striping on subject property.
- No visible evidence of curb cuts or driveways abutting streets, highways or other public or private ways.
- No evidence of existing building(s) were observed in the process of conducting the field work.
- Subject property's record description's error of closure: 0.0097'
- The site surface is natural ground/dirt, unless noted otherwise.
- Field work was completed on November 24, 2020.
- On January 7, 2022, tree measurements and identification was provided by Tree Mann Solutions and said information was reflected on this survey on January 13, 2022; no other changes were made to this survey.
- On March 3, 2022, multi-trunk trees without a single trunk of at least 8" were removed from this survey per request of the city and client. (Except for tree numbers 60818, 60819, & 60820 per client request)

LEGEND OF SYMBOLS

- air conditioner
- borehole
- cable tv
- electric meter
- fence or handrail
- fire dept. connection
- fire hydrant
- fire line
- guard rail
- grace trap
- bellied
- grate inlet
- gas meter
- gas line
- utility pole anchor
- irrigation valve
- landscape or tree line
- landscape electric box
- landscape light
- light pole
- mailbox
- monitoring well
- overhead utility lines
- pool equipment
- road sign
- road drain
- silt fence
- spot elevation
- sanitary sewer manhole
- sanitary sewer pipe
- storm water manhole
- storm water pipe
- telephone manhole
- tank fill
- telephone riser
- traffic signal pole
- unknown manhole
- utility clean out
- utility cabinet
- utility vault
- utility markings (line color)
- color of markings
- utility pole
- utility pole with riser
- utility sign
- water shutoff
- water valve
- water manhole
- water meter
- well
- water line
- one-foot contour lines
- tree trunk (with canopy)
- caliper inches at breast height
- ornamental tree
- multiple trunks
- prohibited access line

FLOOD ZONE CLASSIFICATION

This property lies within unstated ZONE(S) X of the Flood Insurance Rate Map for Williamson County, Texas and Incorporated Areas, map no. 48491C0470F, dated 2019/12/20, via scaled map location and graphic plotting and/or the National Flood Hazard Layer (NFHL) Web Map Service (WMS) at <http://hazards.fema.gov>.

MONUMENTS / DATUMS / BEARING BASIS

Monuments are found if not marked MNS or CRS.
CRS: 1/2" rebar stamped "JPH Land Surveying" set
MNS: Mag nail & washer stamped "JPH Land Surveying" set
TBM: Site benchmark (see vicinity map for general location)
Coordinate values, if shown, are US.SyPL/TXCS, 83, CZ
Elevations, if shown, are NAVD'88
Bearings are based on grid north (TXCS, 83, CZ)

LEGEND OF ABBREVIATIONS

US.SyPL: United States Survey Feet
TXCS, 83, CZ: Texas Coordinate System of 1983, Central Zone
NAVD'88: North American Vertical Datum of 1988
P.R.W.C.T.: Plat Records of Williamson County, Texas
O.P.R.W.C.T.: Official Public Records of Williamson County, Texas
D.R.W.C.T.: Deed Records of Williamson County, Texas
VOL/PG/INST#: Volume/Page/Instrument Number
POB/POC: Point of Beginning/Point of Commencing
ESMT/BL: Easement/Building Line
PUE: Public Utility Easement
LE: Landscape Easement
AE: Access Easement
PAE: Public Access Easement
W.C.A.D.: Williamson Central Appraisal District
RCP: Reinforced Concrete Pipe
PVC: Polyvinyl Chloride Pipe



JPH Job/Drawing No. (see below)
2020.167.001 Brushy Creek Rd, Cedar Park, Williamson Co, TX-300/UNDARY & TOPO R2.dwg
© 2022 JPH Land Surveying, Inc. - All Rights Reserved
1516 E. Palm Valley Blvd., Ste. A4, Round Rock, Texas 78664
Telephone (817) 431-4971 www.jphlandsurveying.com
TDELS Firm #10019500
DFW | Central Texas | West Texas | Houston

BRUSHY CREEK ROAD
(A.K.A. CEDAR ROAD NO. 174)
VARIABLE WIDTH R.O.W. AS SHOWN IN
INST. # 2012028430, O.P.R.W.C.T.

Line Data Table			
Line #	Bearing	Distance	
L1	N86°36'33"E	48.63'	
L2	N48°09'04"E	18.71'	
L3	S05°21'39"E	54.42'	

Curve Data Table					
Curve #	Asc	Radius	Delta	Chord Bearing	Chord
C1	175.51'	1098.00'	009°09'30"	S89°03'02"W	175.32'
C2	40.71'	25.00'	093°18'16"	N39°42'48"W	36.36'
C3	176.20'	245.00'	041°12'25"	N27°32'49"E	172.43'
C4	328.02'	330.00'	056°57'06"	N19°40'32"E	314.68'
C5	211.44'	330.00'	036°42'29"	S27°10'45"E	207.84'
C6	24.00'	270.00'	005°05'33"	S43°10'06"E	23.99'

UTILITY WARNING
811 or other similar utility locate requests (DIG-TESS) may be ignored or result in an incomplete response, in which case utilities may not have been marked, or not completely marked, at the time the fieldwork was performed for this survey. Therefore, other utilities may exist which are not shown on this survey. With regard to Table A, item 11.1 (if addressed), source information from plans and markings have been combined with observed evidence of utilities pursuant to Section 5.E.IV. to develop a view of the underground utilities. However, lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. Where additional or more detailed information is required, excavation and/or a private utility locate request may be necessary.

NOTE REGARDING UTILITIES:

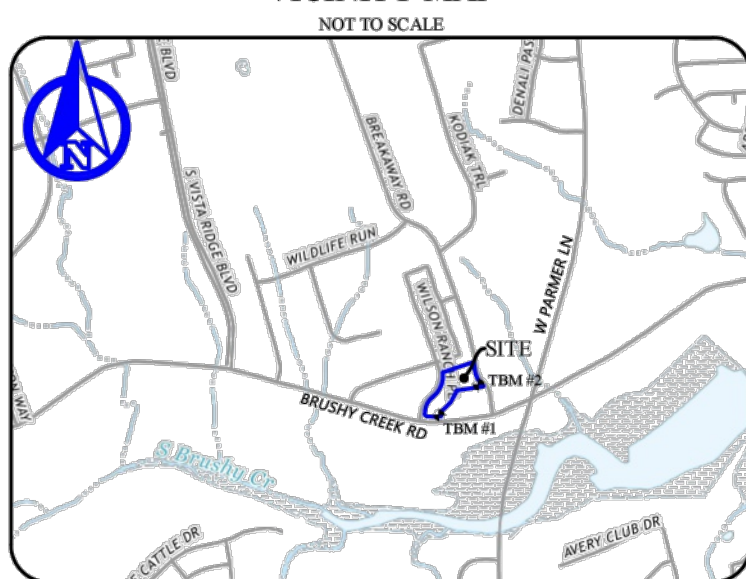
Utility locations are per observed and sources listed below:
DIG-TESS - ticket number 2078250744.
Utility providers listed in Texas 811 ticket link below.
<https://portal.texas811.com/ticket/2078250744>

TREE TABLE		TREE TABLE		TREE TABLE	
TAG NUMBER	DESCRIPTION	TAG NUMBER	DESCRIPTION	TAG NUMBER	DESCRIPTION
T3640	8" LIVE OAK	T60834	9.5" LIVE OAK	T60983	8.5" LIVE OAK
T3644	8.5" LIVE OAK	T60836	10.5" LIVE OAK	T60993	12" LIVE OAK (M) 8.5", 7"
T3645	9" LIVE OAK	T60837	9" LIVE OAK	T61006	8.5" LIVE OAK
T3646	18" LIVE OAK (M) 12", 12"	T60838	15.5" LIVE OAK	T61015	13.5" LIVE OAK
T3651	8.5" LIVE OAK	T60839	20.5" LIVE OAK	T61020	14.5" LIVE OAK (M) 8", 7", 6.5"
T3652	11.5" LIVE OAK (M) 8", 7"	T60845	20" LIVE OAK (M) 10", 8"	T61025	10.5" LIVE OAK
T3654	13" LIVE OAK (M) 10.5", 5"	T60848	11" LIVE OAK (M) 8", 6.5"	T61027	14" LIVE OAK (M) 9.5", 9"
T3655	8.5" LIVE OAK	T60851	11" LIVE OAK (M) 8.5", 5.5"	T61029	11" LIVE OAK
T3660	17" LIVE OAK	T60854	9.5" LIVE OAK	T61031	13" LIVE OAK (M) 9", 8"
T3661	19" LIVE OAK	T60855	11.5" LIVE OAK	T61043	14" LIVE OAK (M) 8", 7", 5"
T3662	10" LIVE OAK	T60858	8" LIVE OAK	T61044	13" LIVE OAK
T3664	9.5" LIVE OAK	T60859	11" LIVE OAK	T61048	13" LIVE OAK
T3665	9.5" LIVE OAK (M) 11", 10"	T60861	8.5" LIVE OAK	T61052	17" LIVE OAK (M) 9.5", 9", 6"
T3666	16" LIVE OAK (M) 11", 10"	T60862	11" LIVE OAK	T61054	8.5" LIVE OAK
T3667	22.5" LIVE OAK (M) 9.5", 9.5", 8", 7"	T60863	8" LIVE OAK	T61055	18" LIVE OAK (M) 10", 9", 7"
T60763	19" LIVE OAK	T60866	8" LIVE OAK	T61056	15.5" LIVE OAK (M) 11", 9"
T60764	11.5" LIVE OAK	T60874	8" LIVE OAK	T61069	11" LIVE OAK
T60765	11.5" LIVE OAK	T60875	11.5" LIVE OAK	T61076	25" LIVE OAK (M) 13.5", 12", 11.5"
T60766	16" LIVE OAK	T60885	12.5" LIVE OAK	T61077	18" LIVE OAK
T60767	13" LIVE OAK (M) 9", 8"	T60888	11.5" LIVE OAK (M) 8.5", 6"	T61078	11" LIVE OAK
T60769	12.5" LIVE OAK	T60891	13.5" LIVE OAK	T61079	8.5" CEDAR ELM
T60770	18" LIVE OAK	T60895	9" LIVE OAK	T61080	18" LIVE OAK
T60775	14.5" LIVE OAK (M) 11", 7"	T60916	14.5" LIVE OAK (M) 11", 7.5"	T61082	11.5" LIVE OAK
T60776	9" LIVE OAK	T60917	13.5" LIVE OAK	T61083	11.5" LIVE OAK (M) 9", 5.5"
T60778	16" LIVE OAK	T60918	11.5" LIVE OAK	T61085	15.5" LIVE OAK (M) 11.5", 8"
T60779	11.5" LIVE OAK	T60919	12" LIVE OAK	T61087	16.5" LIVE OAK (M) 11.5", 10.5"
T60780	11.5" LIVE OAK	T60920	13" LIVE OAK	T61090	13" LIVE OAK
T60781	12" LIVE OAK	T60921	11" LIVE OAK	T61095	16" LIVE OAK
T60783	8" LIVE OAK	T60924	11" LIVE OAK	T61097	8" LIVE OAK
T60784	20.5" LIVE OAK (M) 9.5", 8", 6.5"	T60946	17" LIVE OAK (M) 8", 7", 6", 5"	T61100	20.5" LIVE OAK (M) 9", 8", 8", 7"
T60803	12.5" CEDAR ELM 8.5", 8"	T60950	8" LIVE OAK	T61101	16.5" LIVE OAK (M) 9.5", 8", 6"
T60805	10.5" LIVE OAK (M) 8", 5"	T60951	10.5" LIVE OAK (M) 8", 5"	T61103	12" LIVE OAK (M) 9", 9"
T60806	11.5" LIVE OAK	T60952	8" LIVE OAK	T61104	9.5" LIVE OAK
T60807	10.5" LIVE OAK	T60961	12.5" LIVE OAK (M) 8", 6"	T61106	10" LIVE OAK
T60810	8" LIVE OAK	T60962	9" LIVE OAK	T65001	10.5" LIVE OAK
T60818	10" LIVE OAK (M) 7", 6"	T60973	13" LIVE OAK (M) 8", 6", 4"	T65002	11.5" LIVE OAK
T60819	10" LIVE OAK (M) 7", 6"	T60977	12.5" CEDAR ELM	T65003	8.5" LIVE OAK
T60820	9" LIVE OAK (M) 6", 6"	T60978	16.5" LIVE OAK		
T60828	15.5" LIVE OAK (M) 8.5", 7", 7"	T60979	8" LIVE OAK		
T60831	10.5" LIVE OAK (M) 8.5", 4.5"				

NOTE:

- Only hardwood trees with diameters of 8-inches or greater were located for the purpose of this survey. Tree measurements and identification provided by Tree Mann Solutions on January 7, 2022.
- Multi-trunk trees without a single trunk of at least 8" has not been shown for the purpose of this survey. (Except for tree numbers 60818, 60819, & 60820 per client request)

VICINITY MAP



TOPOGRAPHIC & TREE SURVEY
4.38 ACRES
BEING
LOT 14, BLOCK C
THE RESERVE AT BRUSHY CREEK SECTION 1
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS
ADDRESS: 2601 BRUSHY CREEK ROAD (PER APPRAISAL DIST)

AUSTIN CIVIL ENGINEERING, INC.

TEPE FIRM # F-001018
9501B MENCHACA RD # 220
AUSTIN, TX 78748
(512) 306-0018

BREAKAWAY CHURCH

2601 BRUSHY CREEK RD.
CEDAR PARK TEXAS 78613

REVISIONS		APPROVED BY	
REV. DATE	DESCRIPTION	DATE	BY

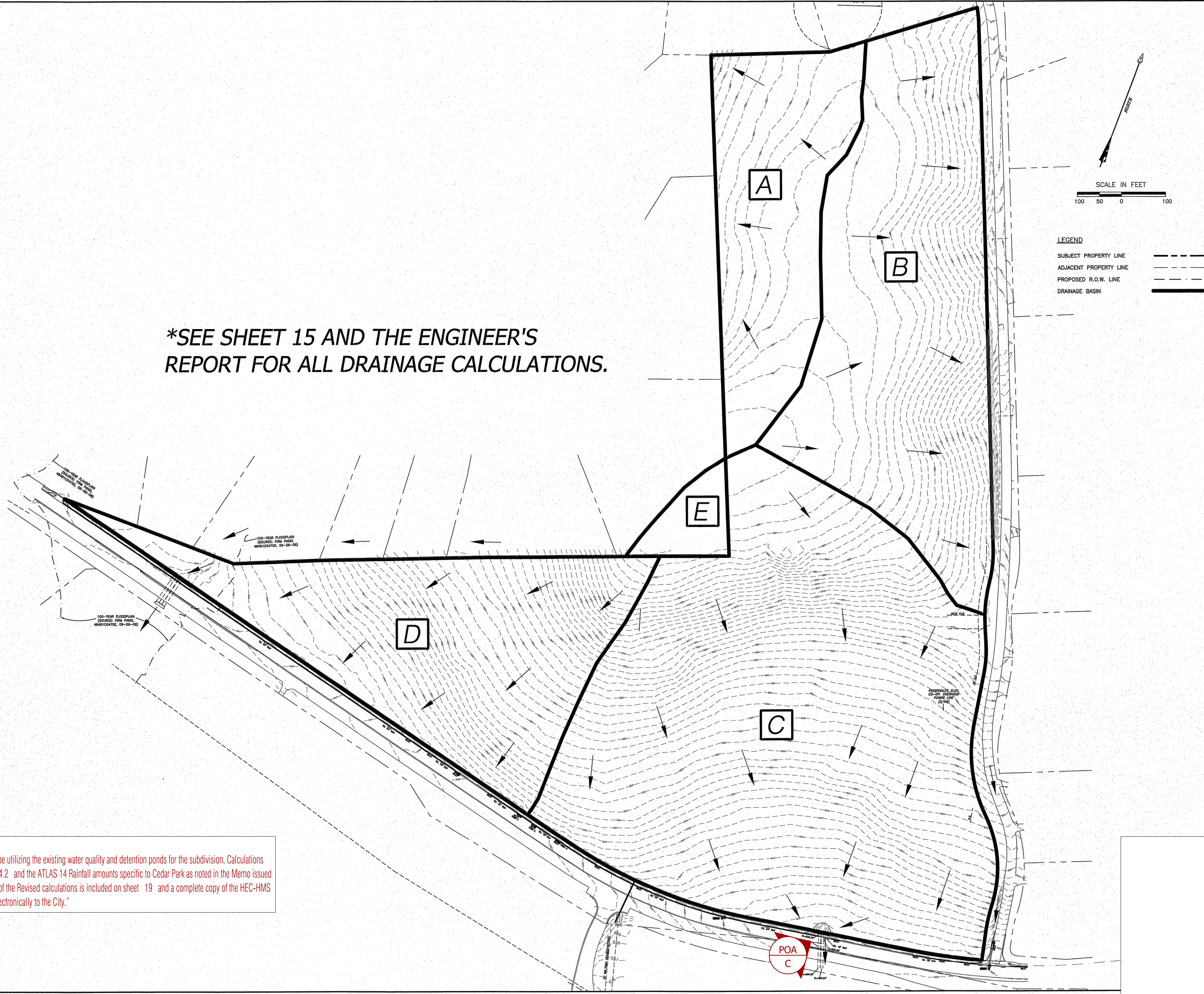
JOB: 21-019 DATE: 10/23/24
CADD: DAMM/CML/CHK'D BY:
ENGINEER: HS/CHK'D BY:
SCALE:

EXISTING SURVEY

SITE CIVIL PLAN

7
of 34

SD-21-00044



"For Reference Only"
the proposed development will be utilizing the existing water quality and detention ponds for the subdivision. Calculations have been run using HEC-HMS 4.2 and the ATLAS 14 Rainfall amounts specific to Cedar Park as noted in the Memo issued February 28, 2020. A summary of the Revised calculations is included on sheet 19 and a complete copy of the HEC-HMS model 4.2 has been provided electronically to the City."

HANRAHAN • PRITCHARD ENGINEERING, INC.
CONSULTING ENGINEERS
TX PE FIRM REG. #418
6333 Cross Creek Drive
AUSTIN, TEXAS 78754
OFFICE 512.459.4734 FAX 512.459.4732
info@hpe-eng.com

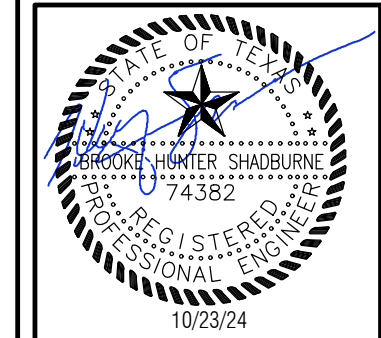
HPE

THE RESERVE AT BRUSHY CREEK SECTION 1
SUBDIVISION IMPROVEMENTS
EXISTING DRAINAGE CONDITIONS
CEDAR PARK, TEXAS 78613

The seal appearing on this document was authorized by Stephen Roy Jamison on 11/21/2011

DRAINAGE
Sheet: DRAIN
e (Ver.): N/A
SQJ Drawn By: SR

AUSTIN CIVIL
ENGINEERING, INC.
TX PE FIRM # F-001018
9501B MENCHACA RD # 220
AUSTIN, TX 78748
(512) 306-0018



BREAKAWAY CHURCH
2601 BRUSHY CREEK RD.
CEDAR PARK TEXAS 78613

REV.	DATE	DESCRIPTION	APPROVED BY

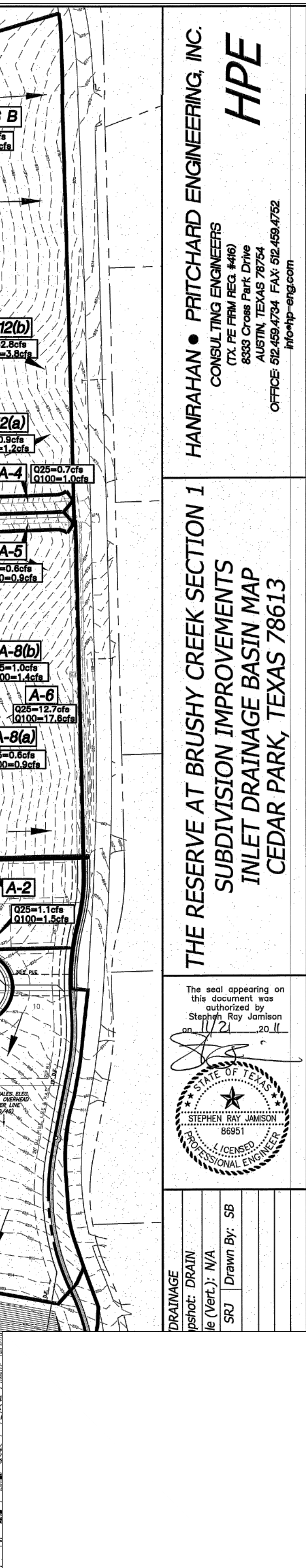
JOB: 21-019 DATE: 10/23/24
CAD: DAMMCHK'D BY:
ENGINEER: HS CHK'D BY:
SCALE: N/A

EXISTING SUBDIVISION
DRAINAGE CONDITIONS

SITE CIVIL PLAN
8
of 34

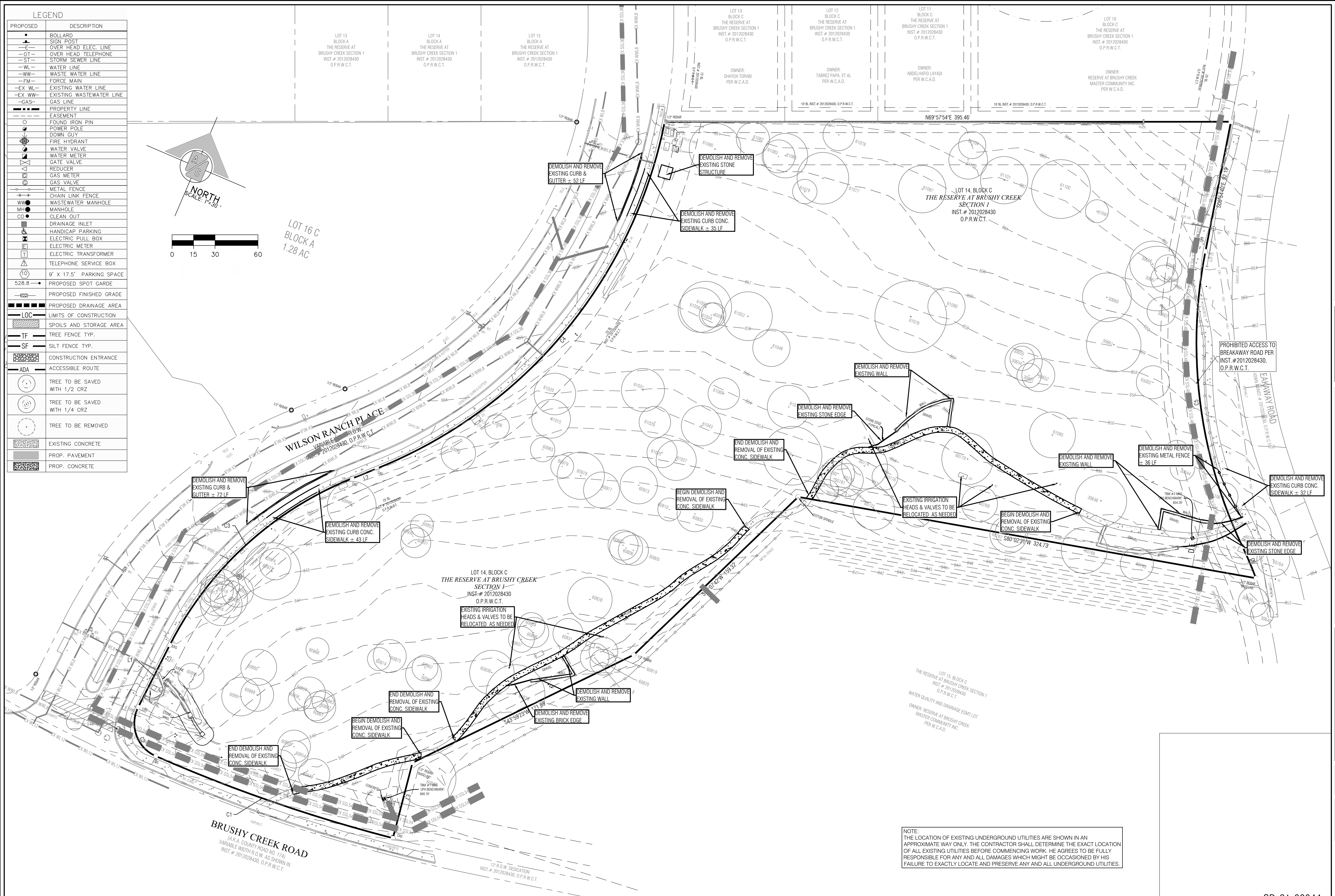
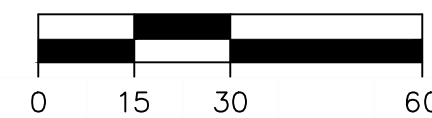
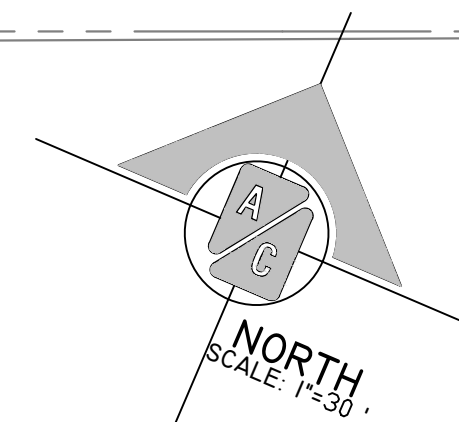
BASIN B-4		2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.		Composite "C" Calculations	
Event									2 10 25 100	
C	0.98	0.66	0.70	0.78	0.34		14,627.00	38.9%	Grass (2-7%)	0.33 0.36 0.42 0.45
Tc	6.0	6.0	6.0	6.0	0.51		20,070.00	60.1%	Concrete	0.75 0.83 0.88 0.93
I	5.76	8.67	10.11	12.54						
Q	1.8	4.7	5.9	8.2	0.84		36,697.00	100.0%		
BASIN B-5		2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.		Composite "C" Calculations	
Event									2 10 25 100	
C	0.60	0.67	0.71	0.80	0.14		5,692.00	35.9%	Grass (2-7%)	0.33 0.36 0.42 0.45
Tc	6.0	6.0	6.0	6.0	0.24		10,811.00	64.1%	Concrete	0.75 0.83 0.88 0.93
I	5.76	8.67	10.11	12.54						
Q	1.3	2.4	2.7	3.8	0.38		16,393.00	100.0%		
BASIN B-6		2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.		Composite "C" Calculations	
Event									2 10 25 100	
C	0.66	0.73	0.78	0.87	0.05		2,302.00	21.1%	Grass (2-7%)	0.33 0.36 0.42 0.45
Tc	6.0	6.0	6.0	6.0	0.20		8,695.00	78.9%	Concrete	0.75 0.83 0.88 0.93
I	5.76	8.67	10.11	12.54						
Q	1.0	1.6	2.0	2.7	0.25		10,897.00	100.0%		
BASIN B-7		2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.		Composite "C" Calculations	
Event									2 10 25 100	
C	0.57	0.64	0.68	0.76	0.35		15,434.00	43.1%	Grass (2-7%)	0.33 0.36 0.42 0.45
Tc	6.0	6.0	6.0	6.0	0.51		20,416.00	56.9%	Concrete	0.75 0.83 0.88 0.93
I	5.76	8.67	10.11	12.54						
Q	2.7	4.5	5.6	7.8	0.82		35,656.00	100.0%		
BASIN B-8		2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.		Composite "C" Calculations	
Event									2 10 25 100	
C	0.57	0.64	0.68	0.76	0.38		16,700.00	42.9%	Grass (2-7%)	0.33 0.36 0.42 0.45
Tc	6.0	6.0	6.0	6.0	0.51		20,416.00	57.1%	Concrete	0.75 0.83 0.88 0.93
I	5.76	8.67	10.11	12.54						
Q	2.8	4.3	5.1	6.5	0.89		38,973.00	100.0%		
BASIN B-9		2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.		Composite "C" Calculations	
Event									2 10 25 100	
C	0.65	0.72	0.77	0.85	0.04		1,697.00	24.3%	Grass (2-7%)	0.33 0.36 0.42 0.45
Tc	6.0	6.0	6.0	6.0	0.13		5,614.00	75.7%	Concrete	0.75 0.83 0.88 0.93
I	5.76	8.67	10.11	12.54						
Q	0.8	1.0	1.3	1.8	0.17		7,421.00	100.0%		
BASIN B-10		2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.		Composite "C" Calculations	
Event									2 10 25 100	
C	0.64	0.71	0.76	0.84	0.09		4,072.00	26.5%	Grass (2-7%)	0.33 0.36 0.42 0.45
Tc	6.0	6.0	6.0	6.0	0.26		11,274.00	73.5%	Concrete	0.75 0.83 0.88 0.93
I	5.76	8.67	10.11	12.54						
Q	1.3	2.1	2.7	3.7	0.35		15,346.00	100.0%		
BASIN B-11		2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.		Composite "C" Calculations	
Event									2 10 25 100	
C	0.66	0.74	0.79	0.87	0.05		2,244.00	20.3%	Grass (2-7%)	0.33 0.36 0.42 0.45
Tc	6.0	6.0	6.0	6.0	0.20		8,696.00		Concrete	0.75 0.83 0.88 0.93
I	5.76	8.67	10.11	12.54						
Q	1.8	1.6	2.0	2.7	0.25		11,880.00	100.0%		
BASIN B-12		2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.		Composite "C" Calculations	
Event									2 10 25 100	
C	0.60	0.68	0.71	0.79	0.10		7,073.00	37.6%	Grass (2-7%)	0.33 0.36 0.42 0.45
Tc	6.0	6.0	6.0	6.0	0.27		11,732.00	62.4%	Concrete	0.75 0.83 0.88 0.93
I	5.76	8.67	10.11	12.54						
Q	1.5	2.4	3.1	4.3	0.43		18,885.00	100.0%		
BASIN B-13		2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.		Composite "C" Calculations	
Event									2 10 25 100	
C	0.67	0.74	0.79	0.87	0.07		2,678.00	19.5%	Grass (2-7%)	0.33 0.36 0.42 0.45
Tc	6.0	6.0	6.0	6.0	0.27		11,616.00	80.1%	Concrete	0.75 0.83 0.88 0.93
I	5.76	8.67	10.11	12.54						
Q	1.3	2.1	2.6	3.8	0.33		14,494.00	100.0%		
BASIN B-14		2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.		Composite "C" Calculations	
Event									2 10 25 100	
C	0.63	0.70	0.75	0.83	1.16		50,399.00	28.1%	Grass (2-7%)	0.33 0.36 0.42 0.45
Tc	6.0	6.0	6.0	6.0	2.82		122,629.00	70.9%	Concrete	0.75 0.83 0.88 0.93
I	5.76	8.67	10.11	12.54						
Q	14.4	23.8	30.1	41.3	3.97		173,028.00	100.0%		
BASIN B-15		2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.		Composite "C" Calculations	
Event									2 10 25 100	
C	0.63	0.70	0.75	0.83	0.70		30,688.00	28.8%	Grass (2-7%)	0.33 0.36 0.42 0.45
Tc	6.0	6.0	6.0	6.0	1.74		70,745.00	71.2%	Concrete	0.75 0.83 0.88 0.93
I	5.76	8.67	10.11	12.54						
Q	8.9	14.6	18.5	25.4	2.44		106,433.00	100.0%		

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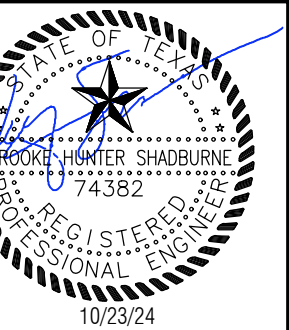
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LEGEND	
PROPOSED	DESCRIPTION
•	BOLLARD
—E—	SIGN POST
—OT—	OVER HEAD ELEC. LINE
—ST—	OVER HEAD TELEPHONE
—W—	STORM SEWER LINE
—W—	WATER LINE
—WW—	WASTE WATER LINE
—FM—	FORCE MAIN
—EX WL—	EXISTING WATER LINE
—EX WW—	EXISTING WASTEWATER LINE
—GAS—	GAS LINE
— — —	PROPERTY LINE
— — —	EASEMENT
○	FOUND IRON PIN
	POWER POLE
	DOWN GUY
	FIRE HYDRANT
	WATER VALVE
	WATER METER
	GATE VALVE
	REDUCER
	GAS METER
	GAS VALVE
	METAL FENCE
—X—X—	CHAIN LINK FENCE
WW●	WASTEWATER MANHOLE
M●	MANHOLE
CO●	CLEAN OUT
●	DRAINAGE INLET
	HANDICAP PARKING
	ELECTRIC PULL BOX
	ELECTRIC METER
	ELECTRIC TRANSFORMER
	TELEPHONE SERVICE BOX
	9' x 17.5' PARKING SPACE
528.8 —●	PROPOSED SPOT GARDE
—(F)—	PROPOSED FINISHED GRADE
— — — — —	PROPOSED DRAINAGE AREA
—LOC—	LIMITS OF CONSTRUCTION
	SPOILS AND STORAGE AREA
—TF—	TREE FENCE TYP.
—SF—	SILT FENCE TYP.
	CONSTRUCTION ENTRANCE
—ADA—	ACCESSIBLE ROUTE
	TREE TO BE SAVED WITH 1/2 CRZ
	TREE TO BE SAVED WITH 1/4 CRZ
	TREE TO BE REMOVED
	EXISTING CONCRETE
	PROP. PAVEMENT
	PROP. CONCRETE



NOTE:
THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

**AUSTIN CIVIL
ENGINEERING, INC.**



BREAKAWAY CHURCH

2601 BRUSHY CREEK RD.
CEDAR PARK TEXAS 78613

[illegible]

21-019	DATE: 10/23/24
D: DA/MM/CL	CHK'D BY:
ENGINEER: HS	CHK'D BY:
SCALE:	

DEMOLITION
PLAN

SITE CIVIL PLAN

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f 34

SD-21-00044

THE RESERVE AT BRUSHY CREEK SECTION I
INST. # 2012028430, O.P.R.W.C.T.

WILSON RANCH PLACE
VARIABLE WIDTH D.O.W. AS SHOWN IN INST. # 2012028430, O.P.R.W.C.T.

BRUSHY CREEK ROAD
(A.K.A. COUNTY ROAD NO. 174)
VARIABLE WIDTH D.O.W. AS SHOWN IN INST. # 2012028430, O.P.R.W.C.T.

LOT 14, BLOCK C
THE RESERVE AT BRUSHY CREEK SECTION I
INST. # 2012028430, O.P.R.W.C.T.

LOT 16 C BLOCK A
1.28 AC

NOTES:

- NO PART OF THE 100YR FLOODPLAIN ENTERS ONTO THE PROPERTY.
- LIGHT SOURCES SHALL BE COMPLETELY CONCEALED WITHIN OPAQUE HOUSINGS AND SHALL NOT BE VISIBLE FROM ADJACENT STREETS OR PROPERTIES. ALL EXTERIOR LIGHTING FIXTURES SHALL BE FULL CUT-OFF TYPE FIXTURES. LIGHTING FIXTURES SHALL BE NO MORE THAN TWENTY-FIVE (25) FEET IN HEIGHT AS MEASURED FROM ADJACENT, FINISHED GRADE. LIGHTING FIXTURES LOCATED WITHIN FIFTY (50) FEET OF ANY RESIDENTIAL USE SHALL NOT EXCEED FIFTEEN (15) FEET IN HEIGHT.
- ASSIGNED CITY ADDRESS NUMBERS SHALL BE PERMANENTLY AFFIXED TO ALL STRUCTURES IN SUCH POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET.
- DO NOT EXCEED 4" MAXIMUM CUT OR FILL WITHIN THE 1/2 CRZ OF ANY PRESERVED TREE.
- MECHANICAL EQUIPMENT ASSOCIATED WITH THE BUILDING OPERATIONS WHETHER MOUNTED TO THE GROUND, ROOF, OR DIRECTLY ATTACHED TO THE BUILDING FACADE SHALL BE SCREENED FROM GROUND LEVEL VIEWS FROM ALL ADJACENT PROPERTY AND RIGHTS-OF-WAY.
- LIGHT SOURCES SHALL BE COMPLETELY CONCEALED WITHIN OPAQUE HOUSINGS AND SHALL NOT BE VISIBLE FROM ADJACENT STREETS OR PROPERTIES. ALL EXTERIOR LIGHTING FIXTURES SHALL BE FULL CUT-OFF TYPE FIXTURES. LIGHTING FIXTURES SHALL BE NO MORE THAN TWENTY-FIVE (25) FEET IN HEIGHT AS MEASURED FROM ADJACENT, FINISHED GRADE.

THE CONDITIONAL OVERLAY FOR THE LB-CO ZONING HAS THE FOLLOWING CONDITIONS THAT APPLY TO THE SITE DEVELOPMENT:

- PROHIBIT ACCESS TO BREAKAWAY ROAD.
- PROVIDE A 20 FOOT PLANTED LANDSCAPE BUFFER ALONG BREAKAWAY ROAD, IN CONFORMANCE WITH THE LEVEL 20 BUFFER REQUIREMENTS OF CHAPTER 14, SECTION 14.07.006(B)(9)(B).
- PROVIDE A SIX (6) FOOT WROUGHT IRON OR TUBULAR STEEL FENCE ALONG THE WESTERN BOUNDARY OF THE 20' BUFFER.
- THE MINIMUM WIDTH REQUIREMENT OF THE BUFFER YARD AT THE NORTHERN BOUNDARY OF THE LOT ADJACENT TO THE SINGLE-FAMILY LOTS SHALL BE A MINIMUM OF THIRTY (30) FEET.
- ALL EXTERIOR SITE LIGHTING FIXTURES SHALL BE CERTIFIED AS DARK SKY FRIENDLY BY THE INTERNATIONAL DARK-SKY ASSOCIATION'S (IDA) FIXTURE SEAL OF APPROVAL PROGRAM TO REDUCE LIGHT GLARE AND SPILLOVER ONTO ADJACENT PROPERTIES

TABLE 4.1: IMPERVIOUS COVER

Category	EXISTING (Sq. feet)	percent (%)	EX. To Remain (Sq. feet)	percent (%)	PROPOSED (Sq. feet)	percent (%)	FUTURE (Sq. feet)	percent (%)	TOTAL (Sq. feet)	percent (%)
Buildings (measured at overhang)	0	0.00%	0	0.00%	14,554	7.63%	12,990	6.81%	27,544	14.45%
Proposed Parking and Drives	2,977	1.56%	527	0.28%	10,341	5.42%	10,868	5.70%	24,666	13.13%
Total Proposed Impervious Cover =	2,977	1.56%	527	0.28%	10,341	5.42%	12,990	6.81%	24,666	13.13%

TABLE 4.2: FLEXIBLE PAVEMENT SECTION

Material	Section
Traffic Type	Light Heavy
Hot Mix Asphalt Concrete	2" 8"
Import Flexible Base	7" 10"
Compacted Subgrade	8"

TABLE 4.3: ROAD PAVEMENT SECTION

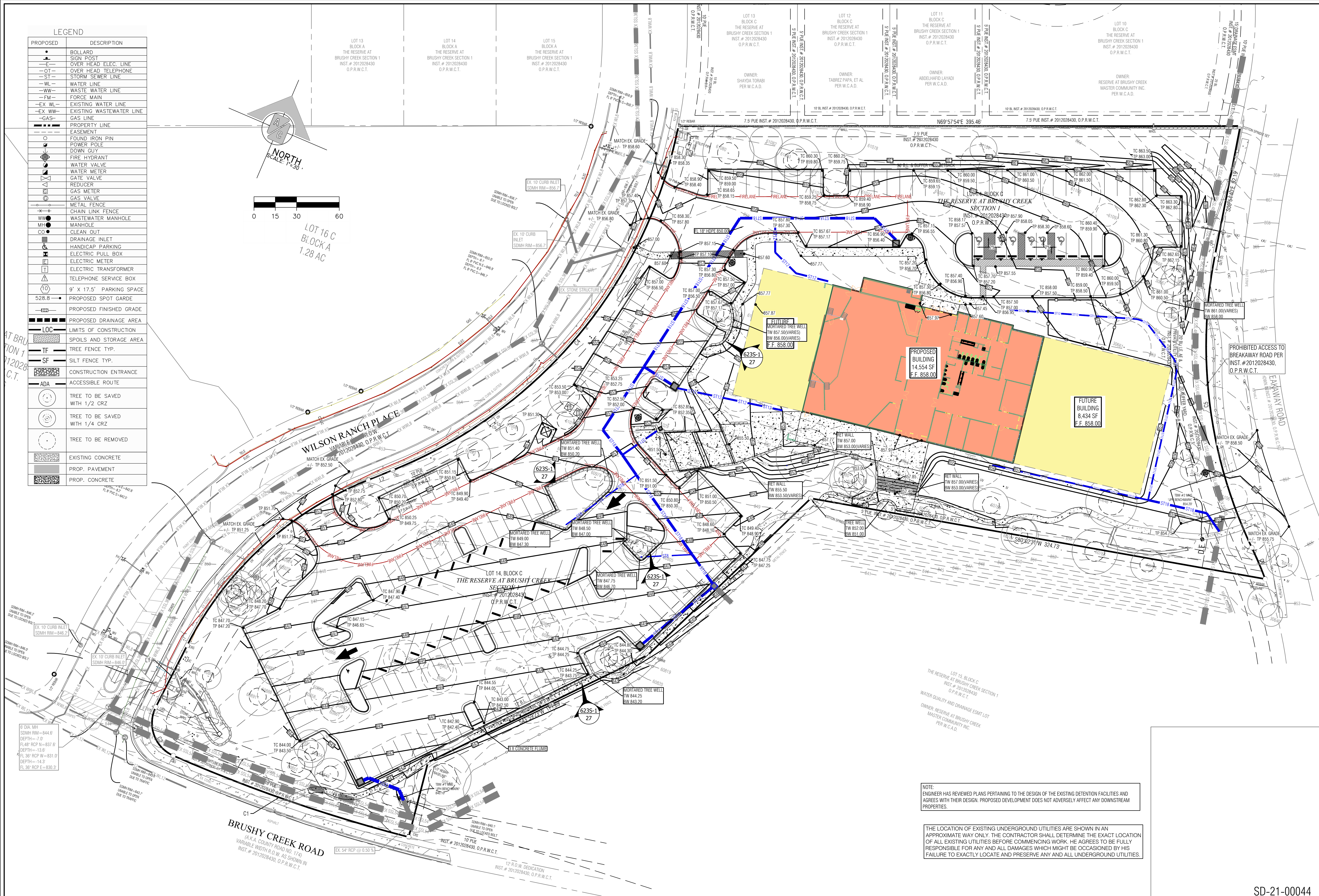
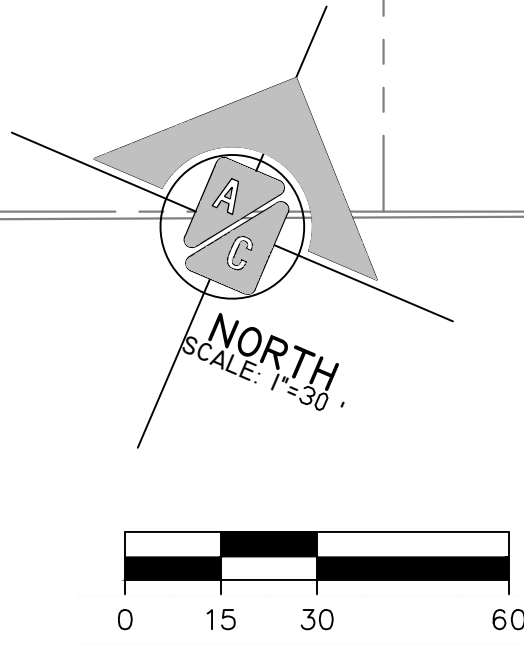
Material	Option 1
Traffic Type	Light Heavy
Portland Cement Concrete	5 1/2" 7"
Compacted Subgrade	8"

ACCESSIBILITY ROUTE:

- ACCESSIBILITY ROUTE IS PROVIDED ON-SITE FROM H.C. PARKING TO BUSINESS.
- SLOPES ON ACCESSIBILITY ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP.
- ACCESSIBILITY ROUTES MUST HAVE A CROSS SLOPE NO GREATER THAN 1:50.
- GROUND SURFACES ALONG ACCESSIBILITY ROUTES MUST BE STABLE, FIRM, AND SLIP RESISTANT.
- MAXIMUM GRADE IN ANY PARKING SPACE IS 2% MAXIMUM GRADE ON ACCESSIBLE WITH MINIMUM 2% CROSS SLOPE.
- ALL WALKWAYS, RAMPS, HANDICAP PARKING SIGNAGE, ETC. SHALL MEET APPROVED A.D.A. STANDARDS.

 AUSTIN CIVIL ENGINEERING, INC. TBPE FIRM # F-001018 9501B MENCHACA RD # 220 AUSTIN, TX 78748 (512) 306-0018																																					
 10/23/24																																					
BREAKAWAY CHURCH	2601 BRUSHY CREEK RD. CEDAR PARK TEXAS 78613																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">REVISIONS</th> <th style="text-align: right;">APPROVED BY:</th> </tr> <tr> <th style="width: 15%;">REV.</th> <th style="width: 65%;">DATE DESCRIPTION</th> <th></th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>		REVISIONS		APPROVED BY:	REV.	DATE DESCRIPTION																															
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SITE CIVIL PLAN	12 of 34																																				

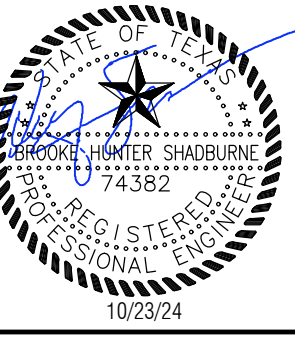
PROPOSED	DESCRIPTION
•	BOLLARD
—E—	OVER HEAD ELEC. LINE
—OT—	OVER HEAD TELEPHONE
—ST—	STORM SEWER LINE
—WL—	WATER LINE
—WW—	WASTE WATER LINE
—FM—	FORCE MAIN
—EX WL—	EXISTING WATER LINE
—EX WW—	EXISTING WASTEWATER LINE
—GAS—	GAS LINE
---	PROPERTY LINE
---	EASEMENT
○	FOUND IRON PIN
○	POWER POLE
○	DOWN GUY
○	FIRE HYDRANT
○	WATER VALVE
○	WATER METER
○	GATE VALVE
○	REDUCER
○	GAS METER
○	GAS VALVE
○	METAL FENCE
○	CHAIN LINK FENCE
○	WASTEWATER MANHOLE
○	MANHOLE
○	CLEAN OUT
○	DRAINAGE INLET
○	HANDICAP PARKING
○	ELECTRIC PULL BOX
○	ELECTRIC METER
○	ELECTRIC TRANSFORMER
○	TELEPHONE SERVICE BOX
○	9' X 17.5' PARKING SPACE
528.8	PROPOSED SPOT GARDE
---	PROPOSED FINISHED GRADE
---	PROPOSED DRAINAGE AREA
---	LIMITS OF CONSTRUCTION
---	SPOILS AND STORAGE AREA
---	TREE FENCE TYP.
---	SILT FENCE TYP.
---	CONSTRUCTION ENTRANCE
---	ACCESSIBLE ROUTE
---	TREE TO BE SAVED WITH 1/2 CRZ
---	TREE TO BE SAVED WITH 1/4 CRZ
---	TREE TO BE REMOVED
---	EXISTING CONCRETE
---	PROP. PAVEMENT
---	PROP. CONCRETE



NOTE:
ENGINEER HAS REVIEWED PLANS PERTAINING TO THE DESIGN OF THE EXISTING DETENTION FACILITIES AND AGREES WITH THEIR DESIGN. PROPOSED DEVELOPMENT DOES NOT ADVERSELY AFFECT ANY DOWNSTREAM PROPERTIES.

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**AUSTIN CIVIL
ENGINEERING, INC.**
TYPE FIRM # F-001018
9501B MENCHACA RD # 220
AUSTIN, TX 78748
(512) 306-0018



BREAKAWAY CHURCH
2601 BRUSHY CREEK RD.
CEDAR PARK TEXAS 78613

REV.	DATE	DESCRIPTION	APPROVED BY

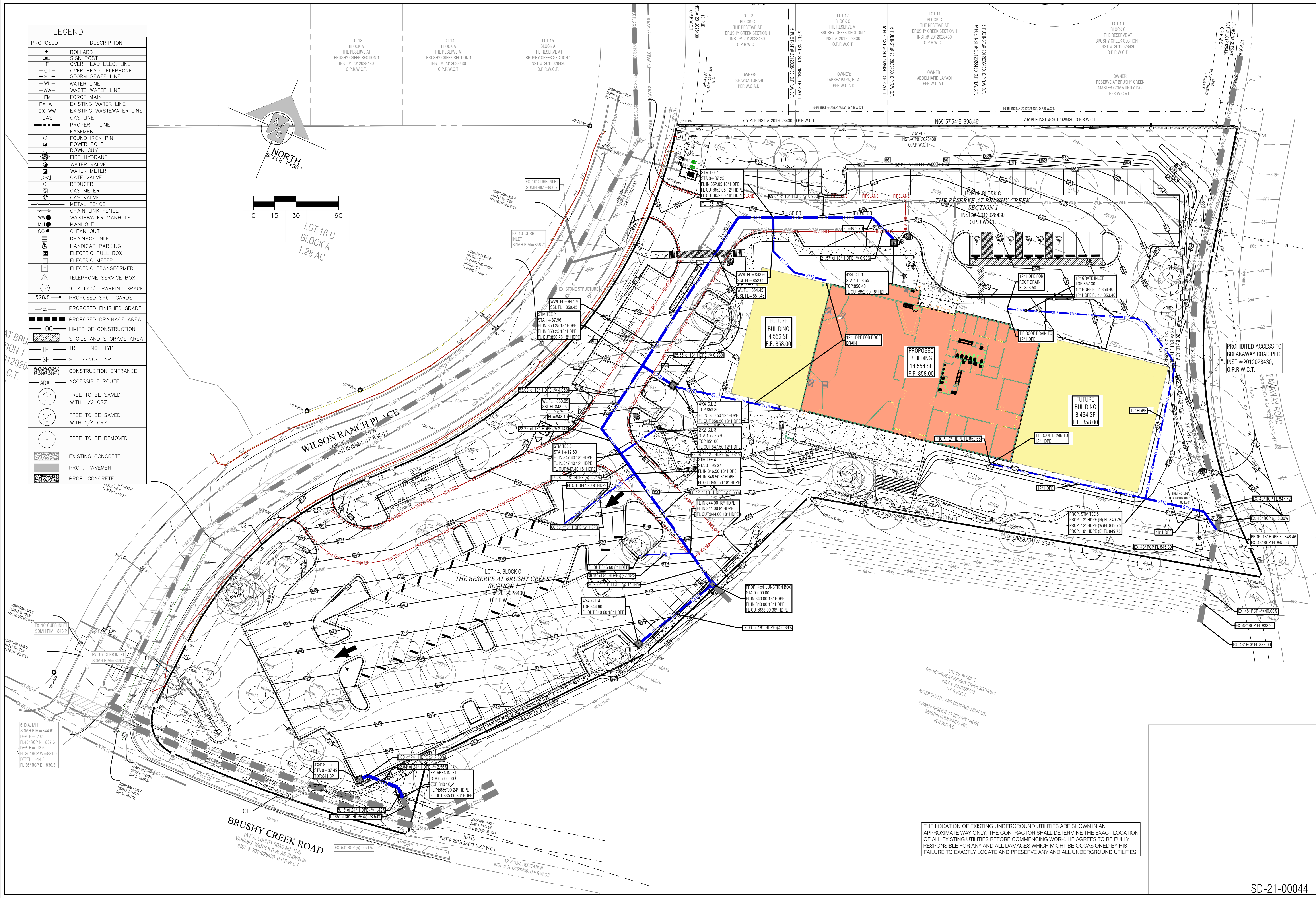
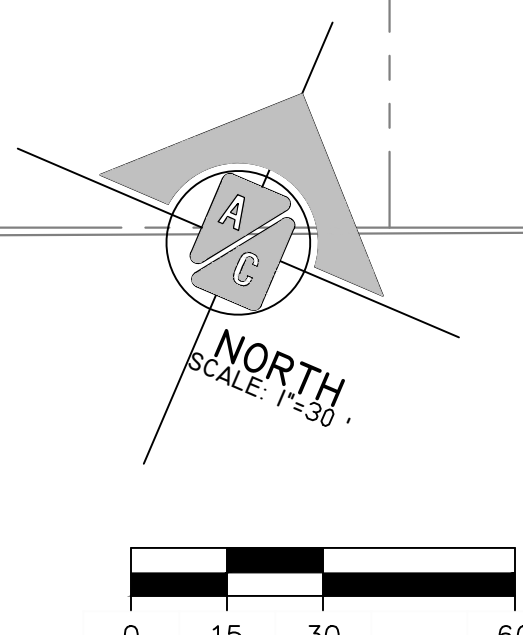
JOB: 21-019 DATE: 10/23/24
CAD: DAMM/CHK'D BY:
ENGINEER: HS/CHK'D BY:
SCALE:

GRADING PLAN

SITE CIVIL PLAN
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of 34

SD-21-00044

PROPOSED	DESCRIPTION
•	BOLLARD
—E—	OVER HEAD ELEC. LINE
—OT—	OVER HEAD TELEPHONE
—ST—	STORM SEWER LINE
—WL—	WATER LINE
—WW—	WASTE WATER LINE
—FM—	FORCE MAIN
—EX WL—	EXISTING WATER LINE
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○	DRAINAGE INLET
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○	ELECTRIC PULL BOX
○	ELECTRIC METER
○	ELECTRIC TRANSFORMER
○	TELEPHONE SERVICE BOX
○	9' X 17.5' PARKING SPACE
528.8	PROPOSED SPOT GARDE
---	PROPOSED FINISHED GRADE
---	PROPOSED DRAINAGE AREA
---	LIMITS OF CONSTRUCTION
---	SPOILS AND STORAGE AREA
---	TREE FENCE TYP.
---	SILT FENCE TYP.
---	CONSTRUCTION ENTRANCE
---	ACCESSIBLE ROUTE
---	ADA
---	TREE TO BE SAVED WITH 1/2 CRZ
---	TREE TO BE SAVED WITH 1/4 CRZ
---	TREE TO BE REMOVED
---	EXISTING CONCRETE
---	PROP. PAVEMENT
---	PROP. CONCRETE



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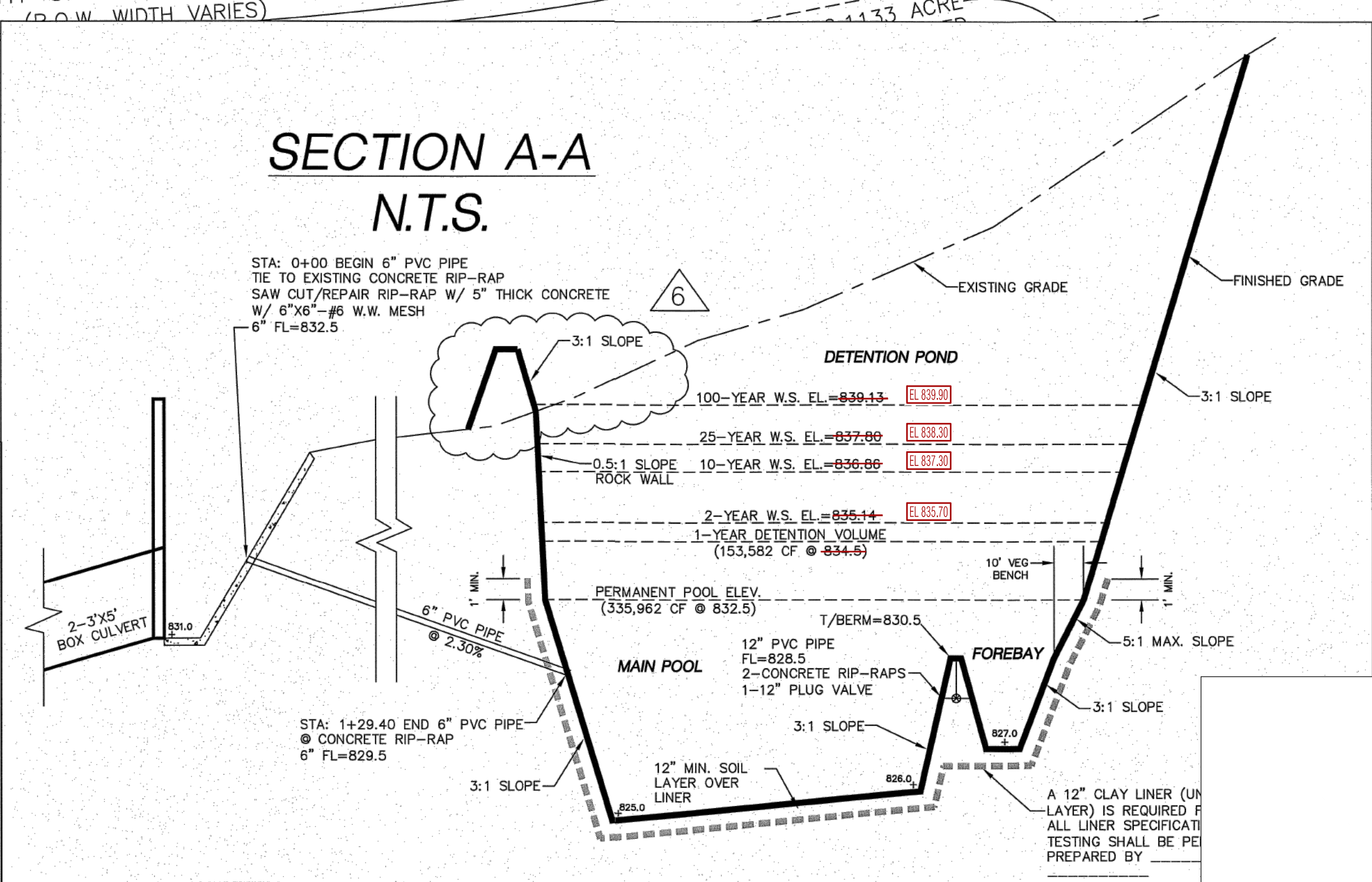
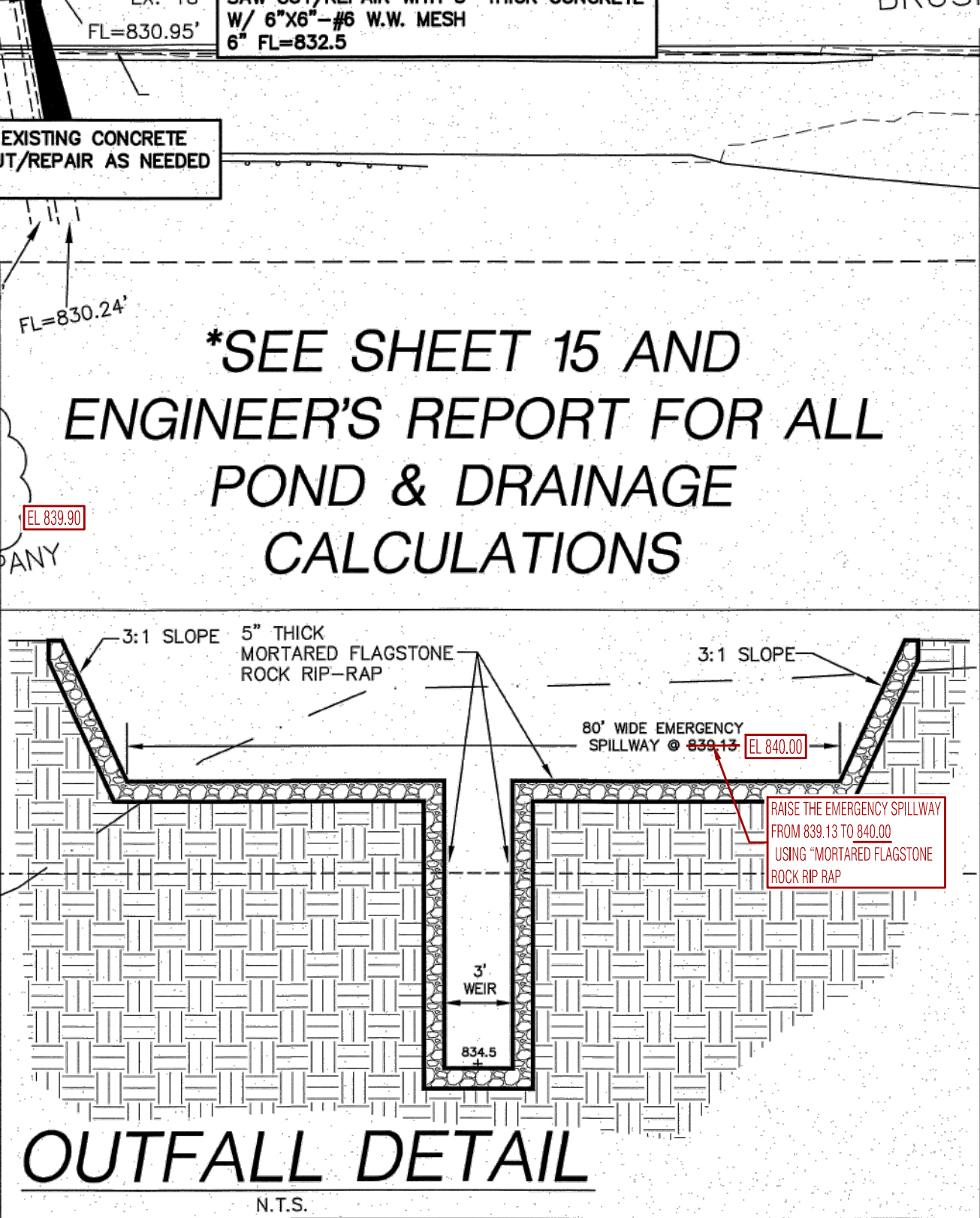
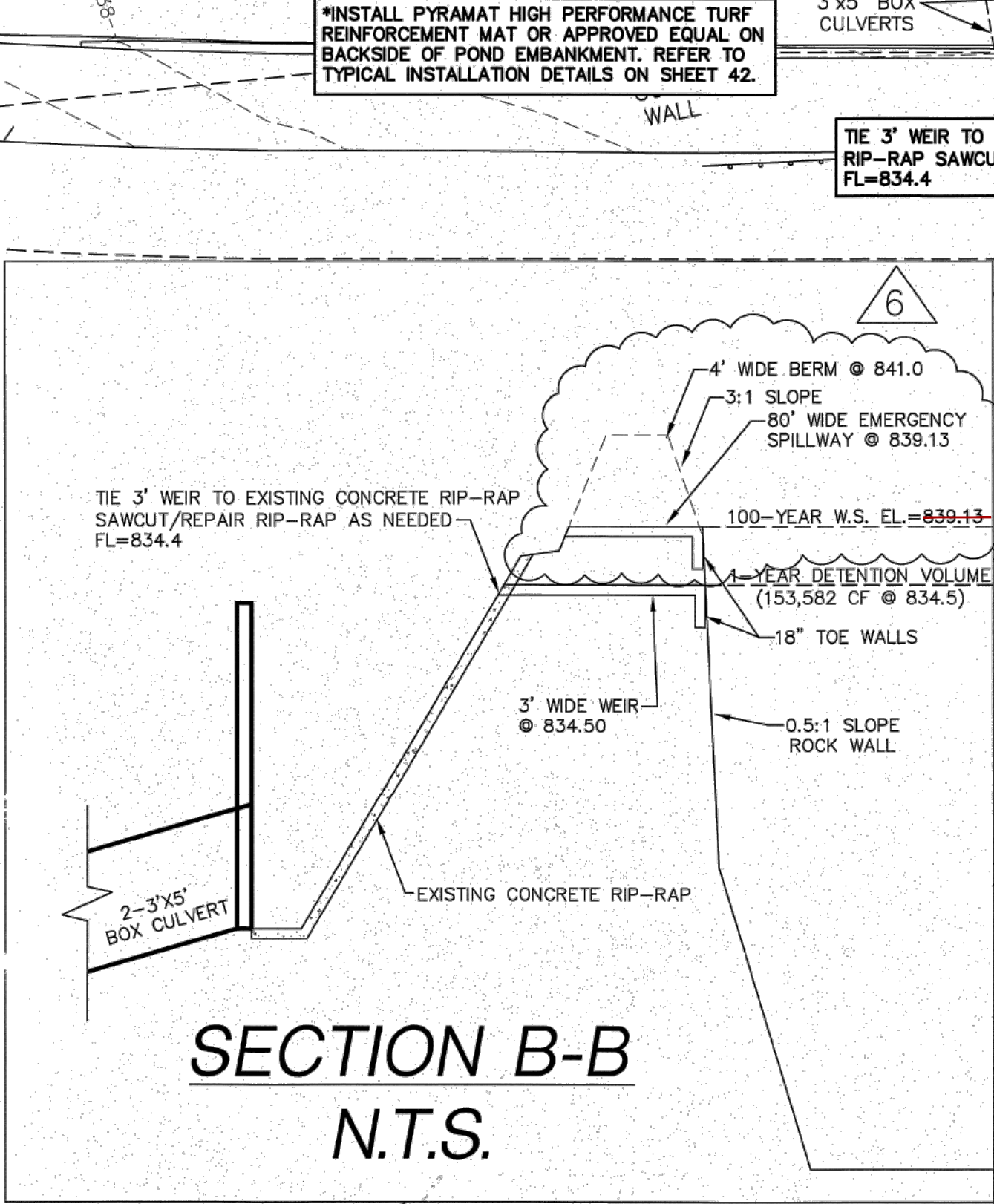
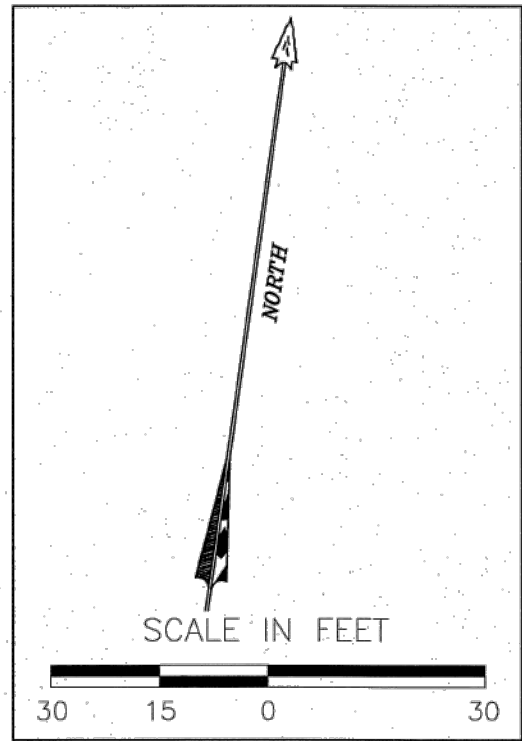
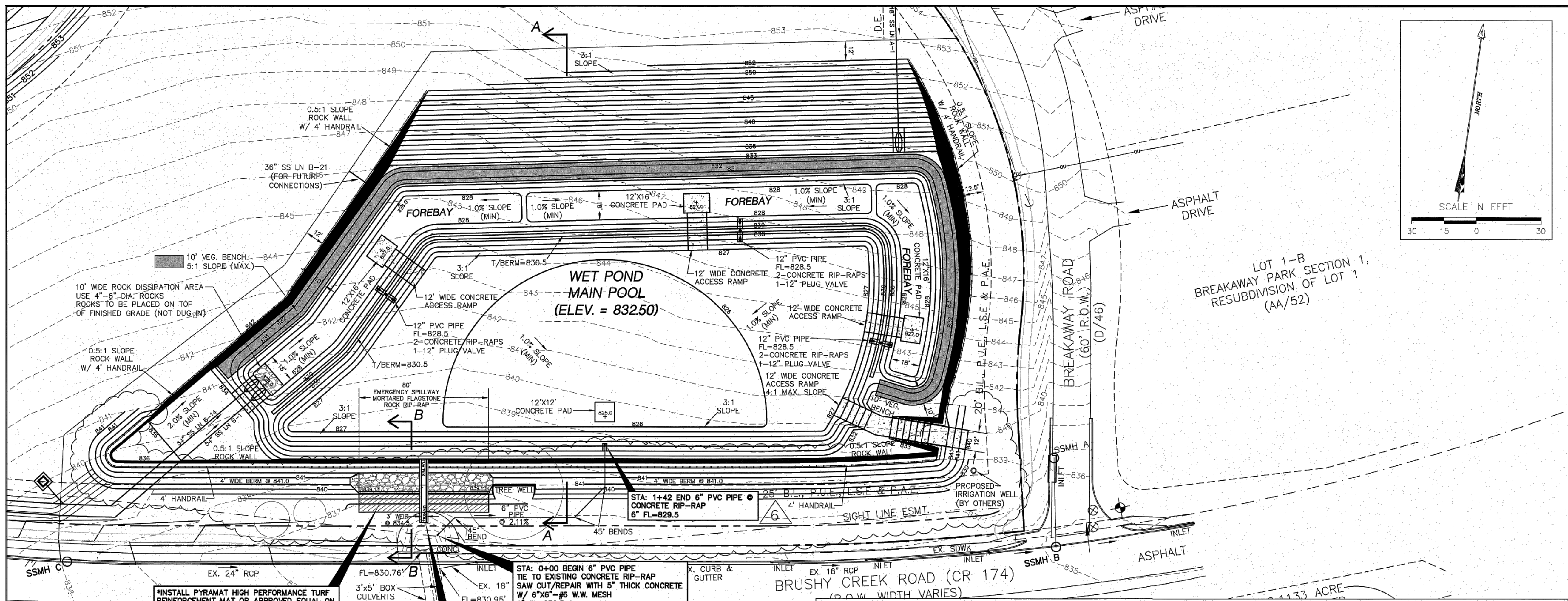


BREAKAWAY CHURCH
2601 BRUSHY CREEK RD.
CEDAR PARK TEXAS 78613

REV.	DATE	DESCRIPTION	APPROVED BY

JOB: 21-019	DATE: 10/23/24
CAD: DAMMICK, CHK'D BY:	
ENGINEER: HS, CHK'D BY:	
SCALE:	

STORM SEWER PLAN



"For Reference Only"
the proposed development will be utilizing the existing water quality and detention ponds for the subdivision. Calculations have been run using HEC-HMS 4.2 and the ATLAS 14 Rainfall amounts specific to Cedar Park as noted in the Memo issued February 28, 2020. A summary of the Revised calculations is included on sheet 21 and a complete copy of the HEC-HMS model 4.2 has been provided electronically to the City."

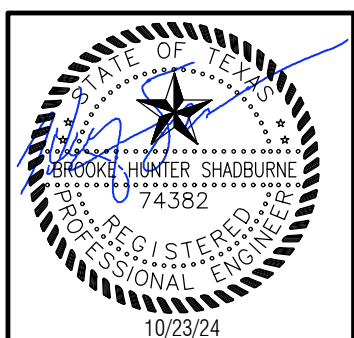
HANRAHAN • PRITCHARD ENGINEERING, INC.
CONSULTING ENGINEERS
TX FE FIRM REG. #493
8833 Cross Point Drive
AUSTIN, TEXAS 78754
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THE RESERVE AT BRUSHY CREEK SECTION 1
SUBDIVISION IMPROVEMENTS
W.Q. & DETENTION POND PLAN
CEDAR PARK, TEXAS 78613

The seal appearing on this document was authorized by
Stephen Ray Jamison
on 5/17/2017

HYDROLOGIC/POND
Snapshot: POND
Scale (Vert): N/A
Drawn By: SRJ
BERM AND OUTFALL PIPE

AUSTIN CIVIL
ENGINEERING, INC.
TBP# FIRM # F-001018
9501B MENCHACA RD # 220
AUSTIN, TX 78748
(512) 306-0018



BREAKAWAY CHURCH
2601 BRUSHY CREEK RD.
CEDAR PARK TEXAS 78613

REV.	DATE	DESCRIPTION	APPROVED BY

JOB: 21-019 DATE: 10/23/24
CAD: DAMM/CHK'D BY:
ENGINEER: HS/CHK'D BY:
SCALE: N/A

W.Q. & DETENTION
POND PLAN
1 OF 2

SITE CIVIL PLAN
17
of 34

E. BIOLOGICAL ELEMENTS – BIOLOGICAL ELEMENTS ARE AN IMPORTANT ASPECT TO THE FUNCTION AS WELL AS THE AESTHETICS OF THE WET POND SYSTEM. THE FOLLOWING CRITERIA MUST BE FOLLOWED TO ENHANCE POLLUTANT REMOVAL AND MINIMIZE UNDESIRABLE ACTIVITY.

1. WETLAND PLANTINGS – THE FUNCTIONS OF PLANTS IN A WET POND ARE TO 1) PHYSICALLY SLOW THE FLOW OF WATER AND CAUSE SUSPENDED PARTICLES TO FALL OUT; 2) PROVIDE A SUBSTRATE ON WHICH ASSOCIATED MICROBES ASSIMILATE ORGANICS, METALS, AND NUTRIENTS; 3) TAKE UP POLLUTANTS FROM THE SEDIMENT INTO THE ROOTS; AND 4) OXYGENATE THE WATER. USE WETLAND PLANTS AS SPECIFIED BELOW.

TO DETERMINE THE MINIMUM REQUIREMENT FOR WETLAND PLANT QUANTITY, MULTIPLY THE SURFACE AREA (IN SQUARE FEET) OF THE PERMANENT POOL BY TWO PERCENT (.02).

WET POND –

SURFACE AREA OF PERMANENT POOL = 1.645 ACRES (71,668 SQ FT)
204,060 X 0.02 = 1,434 NUMBER OF PLANTS REQUIRED (MINIMUM)

WETLAND PLANTS MAY BE PROVIDED IN BARE-ROOT FORM OR IN CONTAINERS. ROOT MASS OF BARE-ROOT PLANTS MUST BE EQUAL IN MASS TO THE EQUIVALENT CONTAINER SIZES. FOR THE PURPOSE OF FULFILLING THE REQUIRED MINIMUM PLANT QUANTITY, IT IS ASSUMED THAT THE PLANTS TO BE INSTALLED WILL BE 1 GALLON SIZE. OTHER SIZES ARE ACCEPTABLE BUT OVERALL THE QUANTITY MUST BE EQUIVALENT TO THE REQUIRED MINIMUM ONE GALLON PLANTS. SEE TABLE 1-9C FOR EQUIVALENCY.

PLANT SIZE EQUIVALENTS – TABLE 1-9C

PROPOSED SUBSTITUTE	QUANTITY	PLANT SIZE	EQUIVALENT TO	QUANTITY	PLANT SIZE
1	2	TWO-GALLON	2	ONE-GALLON	
2	4	4" POTS	1	ONE-GALLON	
4	1	PLUGS	1	ONE-GALLON	

ALL WETLAND PLANTS WHICH FULFILL THE MINIMUM LANDSCAPE REQUIREMENTS SHALL BE PROPAGATED FROM, OR HARVESTED FROM, REGIONALLY ADAPTED STOCK. THESE ARE PLANT SPECIES OR GENOTYPES WHICH ARE NATIVE TO A RANGE OF WITHIN 200 MILES OF THE PROJECT SITE. WETLAND PLANTS GROWN OUTSIDE THE STATE OF TEXAS ARE NOT ACCEPTABLE. THE DESIGNER IS NOT LIMITED TO THE SPECIES DESCRIBED. ADDITIONAL SPECIES USED FOR AESTHETIC REASONS, ETC. MAY BE USED. PLANTS NOT INTENDED TO MEET MINIMUM REQUIREMENTS DO NOT NEED TO BE NATIVE OR REGIONALLY ADAPTED STOCK. PLANTS THAT ARE PROHIBITED FROM WET PONDS IN THE CITY OF AUSTIN INCLUDE THOSE IN THE FOLLOWING LISTS:

TEXAS PARKS AND WILDLIFE DEPARTMENT: PROHIBITED EXOTIC SPECIES: <http://www.tpwd.state.tx.us/huntwild/wild/species/exotic/#plant>
TEXAS DEPARTMENT OF AGRICULTURE: NOXIOUS PLANT LIST: http://info.eos.state.tx.us/fids/04_0019_0300-1.html

TEXASINVASIVES.ORG: INVASIVE PLANTS DATABASE: <http://www.texasinvasives.org/invasives-database/index.php>

CATTAILS (TYPHA SPP.) TEND TO INVADE ALMOST ALL WETLANDS AND AGGRESSIVELY COLONIZE SHALLOW WATER. THEREFORE CATTAILS SHALL NOT BE SPECIFIED ON THE PLANTING PLAN. OTHER PLANTS THAT MUST NOT BE PLANTED ARE THOSE PLANTS LISTED AS INVASIVE BY THE TEXAS PARKS AND WILDLIFE DEPARTMENT. THIS LIST INCLUDES: 1) WATER HYACINTH (EICHORNIA SPP.) 2) HYDRILLA (HYDRILLA VERTICILLATA) AND 3) EURASIAN WATER-MILFOIL (MYRIOPHYLLUM SPP.).

A MINIMUM OF 90% OF THE VEGETATION SHALL BE ALIVE AND VIABLE FOR ONE YEAR FOLLOWING INSTALLATION.

TABLE 1-9D. LISTS WETLAND PLANT CATEGORIES AND THEIR RESPECTIVE RATIOS. SPECIFIC PLANTS FOR USE IN WET PONDS ARE LISTED IN TABLES 1-9E, 1-9F, AND 1-9G.

PLANT CATEGORY RATIOS – TABLE 1-9D			
PLANT CATEGORY	COMMENTS	% OF TOTAL	# OF PLANTS
POND EDGE ZONE	PLANT ROOTED PLANTS AT OR NEAR THE POND EDGE	40%	576
MARSH ZONE	PLANT ROOTED PLANTS ON THE VEGETATED BENCH	40%	576
DEEP WATER ZONE	PLANT ROOTED PLANTS ON THE DEEPEST PORTION OF THE VEGETATED BENCH	20%	288
		100%	1440

WETLAND PLANTS ARE ADAPTED TO SPECIFIC WATER DEPTHS. THESE CRITERIA IDENTIFY POND PLANTING ZONES BASED ON THE DEPTH OF THE PERMANENT POOL. INSTALL PLANTS AT WATER DEPTHS APPROPRIATE TO THE SPECIES. THE WATER DEPTHS NOTED IN THE FOLLOWING TABLES SHOW THE RANGE OF DEPTHS IN WHICH THESE PLANTS MUST BE PLANTED. THE PLANTS WILL OFTEN COLONIZE DEEPER WATER THAN THAT IN WHICH THEY ARE PLANTED. TAKEN TOGETHER, THE FOLLOWING ZONES COMPRISE THE VEGETATED BENCH.

POND EDGE ZONE – THE POND EDGE ZONE IS AN AREA OF SATURATED SOIL SURROUNDING THE PERIMETER OF THE POND. THE ZONE EXTENDS FROM AN ELEVATION 6" ABOVE THE PERMANENT POOL LEVEL TO AN ELEVATION 3" BELOW THE PERMANENT POOL LEVEL. WHILE A PORTION OF THIS ZONE IS ABOVE THE ELEVATION OF THE VEGETATED BENCH, PLANTS LISTED IN TABLE 1-9E THAT ARE INSTALLED IN THIS AREA WILL COUNT TOWARDS FULFILLING THE REQUIRED MINIMUM NUMBER OF PLANTS. USE AT LEAST FOUR OF THE FOLLOWING SPECIES IN THIS ZONE. SPECIES NOTED AS REQUIRED MUST BE INCLUDED IN THIS ZONE.

POND EDGE ZONE PLANTS – TABLE 1-9E

COMMON NAME	LATIN NAME	HEIGHT	REQUIRED	COMMENTS AND PLANTING INFORMATION (PERMANENT POOL ELEVATION = 0')
BIG MUHLY	MUHLENBERGIA LINDEHEIMERI	3'		0" TO +6", CLUMP GRASS
BURHEAD	ECHINODORUS CORDIFOLIUS (KOSTRATA)	2'		-3" TO 0", FOLIAGE SIMILAR TO ARROWHEAD
BURR MARIGOLD	BIDENS LAEVIS	3'		-3" TO 0", YELLOW FLOWERS
BUSHY BLUESTEM	ANDROPOGON GLOMERATUS	3'		0" TO +3", CLUMP GRASS
CARDINAL FLOWER	LOBELIA CARDINALIS	3'		-3" TO 0", RED FLOWERS
CARIC-SEDE	CAREX FRANKII (HYSTRICINA, CHEROKEEWIS)	2'		-3" TO +3" ORNAMENTAL SEDE
CRINUM	CRINUM AMERICANUM	3'		-3" TO 0", WHITE FLOWERS
EASTERNGAMA GRASS	TRIPSACUM DACTYLOIDES	4'		0" TO +6", CLUMP GRASS
EMORY SEDE	CAREX EMORYI (MICRODANTIA)	2'		0" TO +6", GRASS-LIKE FOLIAGE
FLATSEDE	CYPERUS OODRATUS (OCHRAEUS)	2'		-3" TO +3" PLANTING DEPTH
	ALTERNIFOLIUS, PSEUDOVEGETUS			
HORNED RUSH	RHYNCHOSPORA CORNICULATA (COLORATA)	18"		-3" TO 0", ORNAMENTAL RUSH
HORSETAIL	EQUISETUM LAEVIGATUM (HYEMALE)	2'		-3" TO +3", DEER-RESISTANT
INLAND SEA OATS	CHASMANTHIUM LATIFOLIUM	2'		0" TO +3", GRASS, TAKES SHADE
JAMICAN SAW GRASS	CLADIUM MARISCOSUS SSP. JAMAICENSE	7'		-3" TO 0", DENSE EVERGREEN,
	SHARP LEAF EDGES			
MALLOW	HIBISCUS LASIOCARPOS (LAEVIS), ALSO KOSTELETZKYA VIRGINICA	3'		-3" TO 0", PINK FLOWERS
OBEDIENT PLANT	PHYSOTEGIA ANGUSTIFOLIA	4'		0" TO +3", PINK FLOWERS
PALMETTO	SABAL MINOR	6'		-3" TO 0", TROPICAL EVERGREEN
SOFT RUSH	JUNCUS EFFUSUS	4'		-3" TO +3", EVERGREEN CLUMP
SPIKERUSH (SHORT)	ELEOCHARIS MACROSTACHYA (PALUSTRIS, MONTEVIDENSIS)	1'	X	-3" TO +3", COLONIZES FOR SHORELINE EROSION CONTROL
UMBRELLA SEDE	FLURENA SIMPLEX	2'		-3" TO 0", ORNAMENTAL SEDE
WATER CLOVER	MARSILEA MACROPODA (TENUIFOLIA)	6"	X	-3" TO +6", CLOVER-LIKE FERN
WATER DAISY	SPLANTHES AMERICANA	6"		-3" TO +6", YELLOW FLOWERS

* THE GENUS WHICH WAS FORMERLY KNOWN AS SCORPUS IS NOW KNOWN AS SCHOENOPLECTUS

MARSH ZONE – THE MARSH ZONE IS THE SHALLOW WATER AREA WITHIN THE POND. THE ZONE EXTENDS FROM AN ELEVATION 3" BELOW THE PERMANENT POOL LEVEL TO AN ELEVATION 12" BELOW THE PERMANENT POOL LEVEL. USE AT LEAST FOUR OF THE FOLLOWING SPECIES IN THE MARSH ZONE. SPECIES NOTED AS REQUIRED MUST BE INCLUDED IN THIS ZONE.

MARSH ZONE PLANTS – TABLE 1-9F

COMMON NAME	LATIN NAME	HEIGHT	REQUIRED	COMMENTS AND PLANTING INFORMATION (PERMANENT POOL ELEVATION = 0')
AMERICAN WATER-WILLOW	JUSTICIA AMERICANA	3'	X	-3" TO -12", FORMS SOLID MASS
ARROWHEAD	SAGITTARIA PLATYPHYLLA (LANCIFOLIA, LATIFOLIA, GRAMINAE)	2'	X	-3" TO -12", WILDLIFE VALUE, WHITE FLOWERS
CANNA LILY (NATIVE)	CANNA FLACODA	2.5'		-3" TO -12", YELLOW FLOWERS
HARD-STEM BULRUSH	SCHOENOPLECTUS ACUTUS*	6'		-3" TO -12"
IRIS	IRIS (FULVA, HEXAGONA, VIRGINICA)	3'		-3" TO -12", COLORFUL FLOWERS
PICKERELWEED	PONTERDERIA CORDATA	3'		-6" TO -12", FLOWER SPIKES
POWDERY THALIA	THALIA DEALBATA	5'		-3" TO -12", PURPLE FLOWERS
SPIKERUSH (TALL)	ELEOCHARIS (ROSTELLATA, QUADRANGULATA, CELLULOSA)	2.5'	X	-3" TO -12", COLONIZING EVERGREEN
THREE-SQUARE BULRUSH	SCHOENOPLECTUS AMERICANUS*	4'		-3" TO -12", TRIANGULAR STEMS

* THE GENUS WHICH WAS FORMERLY KNOWN AS SCORPUS IS NOW KNOWN AS SCHOENOPLECTUS

DEEP WATER ZONE – THE DEEP WATER ZONE EXTENDS FROM AN ELEVATION 12" BELOW THE DESIGN POOL LEVEL DOWN TO AN ELEVATION 24" BELOW THE DESIGN POOL LEVEL. THIS ZONE INCLUDES SUBMERGENT PLANTS (WHICH GROW UNDERWATER), FLOATING-LEAVED AQUATIC PLANTS, AND TALL EMERGENT PLANTS. THE LIST INCLUDES A FEW PLANTS THAT MAY BE USED ONLY IN VERY LARGE PONDS (2 ACRES OR GREATER) DUE TO THEIR AGGRESSIVE GROWTH HABIT. INSTALL SUBMERGENT AND FLOATING-LEAVED AQUATIC PLANTS THROUGHOUT THE POND TO ENCOURAGE COLONIZATION IN A VARIETY OF LOCATIONS. INSTALL AT LEAST THREE SPECIES OF THE FOLLOWING:

DEEP WATER ZONE PLANTS – TABLE 1-9G

COMMON NAME	LATIN NAME	HEIGHT	REQUIRED	COMMENTS AND PLANTING INFORMATION (PERMANENT POOL ELEVATION = 0')
AMERICAN WATERWEED	ELODEA CANADENSIS	8'		SUBMERGENT OXYGENATOR
COONTAIL	CERATOPHYLLUM DEMERSUM	6'		SUBMERGENT FOR NUTRIENTS
FANWORT	CABOMBA CAROLINIANA	6'		SUBMERGENT OXYGENATOR
GIANT BULRUSH	SCHOENOPLECTUS* (TABERNAMONTAN, CALIFORNICUS)	6'		EMERGENT 8 FT. EVERGREEN; 2 ACRE MIN. POND SIZE
PONDWEED	POTAMOGETON PECTINATUS (NODOSUS, DIVERSIFOLIA, ILLINOENSIS)	4'	X	FLOATING-LEAVED AQUATIC, BENEFITS WILDLIFE
WATER LILY	NYMPHAEA (ODORATA, ELEGANS, MEXICANA)	8'		FLOATING-LEAVED AQUATIC; 2 ACRE MIN. POND SIZE
WATER-NAIAD	NAJAS GUADALUPENSIS	4'	X	COMMON SUBMERGENT
WATER STAR GRASS	HETERANTHERA DUBIA (LIEBMANNII)	5'		SUBMERGENT OXYGENATOR

* THE GENUS WHICH WAS FORMERLY KNOWN AS SCORPUS IS NOW KNOWN AS SCHOENOPLECTUS

2. MICROBIAL INITIATION – A SUBSTANTIAL PORTION OF THE POLLUTANT REMOVAL IN WET PONDS IS DUE TO BIOLOGICAL PROCESSES. BACTERIA IN THE POND SUBSTRATE REMOVE NUTRIENTS THROUGH A PROCESS OF DENITRIFICATION. THESE MICROBIAL PROCESSES REQUIRE AN ORGANIC FOOD SOURCE, SUCH AS DECAYING PLANT LITTER. BECAUSE IT IS THE SUPPLY OF ORGANIC CARBON THAT DETERMINES NUTRIENT REMOVAL – MORE THAN UPTAKE BY LIVING PLANTS – DENITRIFICATION CAN BE EXPECTED TO CONTINUE EVEN DURING COLD-WEATHER PLANT DORMANCY. IN MATURE PONDS WITH ABUNDANT VEGETATION, AQUATIC PLANTS SUPPLY THE NECESSARY LITTER LAYER AND AEROBIC ZONE FOR MICROBIAL ACTIVITY. HOWEVER, SINCE NEW PONDS LACK A SUFFICIENT SOURCE OF ORGANIC MATTER, AN APPROPRIATE AMOUNT OF CARBON (STRAW, HAY, LEAF CLIPPINGS, SOIL, AND OTHER NON-WOODY MATERIAL) SHALL BE INSTALLED DURING CONSTRUCTION. AFTER THE POND LINER IS IN PLACE, YET PRIOR TO ALLOWING THE POND TO BE FILLED, SPREAD THE PLANT LITTER EVENLY ON THE SIDES OF THE POND (BELOW THE PERMANENT POOL LEVEL). TREAT THE ENTIRE SHALLOW WATER BENCH IN THIS MANNER, AND ALL POND SLOPES (RANGING FROM 3:1 TO 10:1). THE MINIMUM REQUIRED AMOUNT OF PLANT LITTER IS 45 POUNDS PER 1,000 SQUARE FEET OF SLOPE. WHEN USING COASTAL HAY, THIS REQUIREMENT CAN BE EXPRESSED AS 1.5 BALES AT 30 LB./BALE. ENSURE THAT THE PLANT LITTER WILL NOT FLOAT BY ATTACHING THE LITTER TO THE SLOPES (WITH STAPLES OR OTHER APPROPRIATE METHODS). COVER A MINIMUM OF 40% OF THE SLOPE SURFACE AREA.

3. INTEGRATED PEST MANAGEMENT – AS WITH ANY LANDSCAPE, THERE IS A NEED FOR PEST MANAGEMENT IN WET PONDS. TO THE EXTENT POSSIBLE, THESE CRITERIA ARE DESIGNED TO MINIMIZE THE POTENTIAL FOR PESTS WITHIN A WET POND.

ALGAE – HIGH NUTRIENT LOADS IN WET PONDS MAY CAUSE ALGAE BLOOMS TO OCCUR. PUNGENT ODOR IS OFTEN ASSOCIATED WITH THESE ALGAL BLOOMS. HOWEVER, TREATING WITH AN ALGAEICIDE IS NOT RECOMMENDED BECAUSE BLOOMS ARE USUALLY SHORT LIVED AND ARE CONSIDERED DESIRABLE FOR NUTRIENT REMOVAL. THE USE OF SUBMERGENTS AND FLOATING-LEAVED AQUATICS CAN REDUCE THE EXTENT OF ALGA BLOOMS BY REDUCING NUTRIENT LOADS AND SHADING THE WATER.

WILDLIFE – WILDLIFE SUCH AS NUTRIA AND DEER ARE OCCASIONALLY A PEST OF WET PONDS IN THE AUSTIN AREA. EVALUATION OF THE POTENTIAL OF SUCH WILDLIFE INHABITING OR BEING ATTRACTED TO THE PROPOSED POND SITE IS REQUIRED. WHEN THERE IS A POTENTIAL FOR SUCH ACTIVITY, FENCING OR SIMILAR EXCLUSIONARY METHOD MUST BE PROVIDED.

MOSQUITO CONTROL – MOSQUITOES ARE PROBLEMATIC IN URBAN AREAS. THERE IS THE POTENTIAL FOR STANDING WATER IN WET PONDS TO BECOME IDEAL BREEDING LOCALITIES. THE WET POND SHOULD BE STOCKED WITH THE LOCAL NATIVE FISH SPECIES GAMBUSIA AFFINIS TO SERVE AS A BIOLOGICAL CONTROL FOR MOSQUITOES. GAMBUSIA PROVIDE EFFECTIVE CONTROL FOR MOSQUITOES, ELIMINATING THE NEED FOR CHEMICAL CONTROL. GAMBUSIA SHOULD BE STOCKED AT THE INITIAL DENSITY OF 200 INDIVIDUALS PER SURFACE ACRE.

BRUSHY CREEK ENCLAVE SECTION 1 WET POND –

SURFACE AREA OF PERMANENT POOL = 1.645 ACRES
1.645 X 200 = 329 NUMBER OF GAMBUSIA REQUIRED (MINIMUM)

DOMESTIC WATERFOWL – DOMESTIC WATERFOWL, INCLUDING GESE AND SWANS CAN DESTROY VEGETATION AND INCREASE POLLUTANT LOADING IN WET POND SYSTEMS. IN ADDITION, WATERFOWL CAN BECOME NUISANCES TO PROPERTY OWNERS NEAR THE POND. FOR THESE REASONS, DOMESTIC WATERFOWL SHOULD NOT BE INTRODUCED INTO THESE SYSTEMS.

CARP AND GOLDFISH – CARP AND GOLDFISH ARE BOTTOM-FEEDERS THAT CAN CAUSE TURBIDITY AND OTHER PROBLEMS. THEY SHOULD NOT BE INTRODUCED INTO A WET POND.

4. WATER – AFTER THE POND LINER IS COMPLETED, THE BASIN MUST FILL UP WITH WATER WITHIN A REASONABLE TIME PERIOD, PREFERABLY WITHIN ONE WEEK. SAFETY CONCERNS AND POND LINER INTEGRITY CONCERNS MUST BE PROPERLY ADDRESSED DURING POND CONSTRUCTION.

AERATION AND RECIRCULATION UNIT (OPTIONAL) – PRIVATELY MAINTAINED WET PONDS MAY INCLUDE SOME TYPE OF AERATION DEVICE (SUCH AS A FOUNTAIN) WHICH COULD ENHANCE THE DISSOLVED OXYGEN CONCENTRATION. INCREASED DISSOLVED OXYGEN PREVENTS THE POND FROM BECOMING ANAEROBIC, HENCE MINIMIZING PROBLEMS WITH ODOR FROM BACTERIAL DECOMPOSITION.

MAKE-UP WATER – A NEARBY SOURCE FOR MAKE-UP (SUPPLEMENTAL) WATER IS RECOMMENDED AS A WAY TO MAINTAIN AN ADEQUATE PERMANENT POOL LEVEL SHOULD THE LEVEL DROP TO A SEVERE DROUGHT; THIS COULD INCLUDE A WELL, A HOSE BIBB, OR A NEARBY FIRE HYDRANT. DEMONSTRATE THAT THE QUALITY OF THE MAKE-UP WATER IS IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS AND WILL NOT HARM THE POND BIOLOGY.

POND MAINTENANCE NOTES:

DURING SITE CONSTRUCTION – THE SEDIMENT LOAD TO THE SEDIMENT FOREBAY SHALL BE CLOSELY MONITORED AFTER EVERY STORM EVENT. IF HEAVY SEDIMENT LOADS ARE DETECTED DURING AN INSPECTION, THE SOURCE SHOULD BE CORRECTED. SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT FOREBAY WHEN ONE-THIRD OF THE FOREBAY VOLUME IS LOST.

UPON COMPLETION OF SITE REVEGETATION – ANY SEDIMENT BUILD UP (GREATER THAN 5% VOLUME LOSS) SHALL BE REMOVED FROM THE FOREBAY UPON COMPLETION OF SITE REVEGETATION. THE SEDIMENT BUILD-UP IN THE MAIN POOL SHALL BE CHECKED IF MORE THAN TEN-PERCENT OF THE VOLUME IS LOST; IT SHOULD BE CLEANED AT THAT TIME.

EVERY THREE MONTH FOR THE FIRST TWO YEARS – DURING THE THREE-MONTH INITIAL INSPECTION CYCLE, IF MORE THAN FIFTEEN PERCENT OF THE VOLUME OF THE FOREBAY IS LOST, IT SHALL BE CLEANED AT THAT TIME.

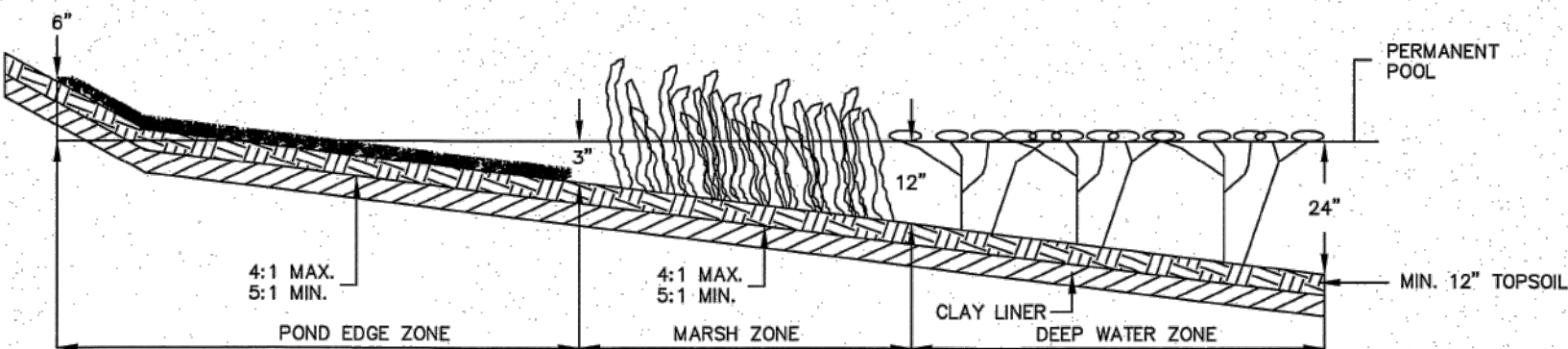
EVERY THREE MONTHS – TURF AREAS AROUND THE POND SHOULD BE MOWED. ACCUMULATED PAPER, TRASH, AND DEBRIS SHALL BE REMOVED EVERY THREE MONTHS OR AS NECESSARY. CATTAILS, COTTONWOODS, AND WILLOWS CAN QUICKLY COLONIZE SHALLOW WATER AND THE EDGE OF THE POND. THESE SPECIES OR ANY AREAS OF PLANT OVERGROWTH MAY BE THINNED AT THIS TIME OR AS NEEDED.

ANNUALLY – THE BASIN SHOULD BE INSPECTED ANNUALLY FOR SIDE SLOPE EROSION AND DETERIORATION OR DAMAGE TO THE STRUCTURAL ELEMENTS. ANY DAMAGE SHALL BE REPAIRED. LARGE AREAS, WHICH MAY HAVE DEAD OR MISSING VEGETATION, SHALL BE REPLANTED.

EVERY THREE YEARS – THE SEDIMENT BUILD-UP IN THE SEDIMENT FOREBAY SHALL BE CHECKED. THE SEDIMENT FOREBAY SHALL BE CLEANED IF MORE THAN ONE-THIRD OF THE FOREBAY VOLUME IS LOST.

EVERY SIX YEARS – THE SEDIMENT BUILD-UP IN THE MAIN POOL SHALL BE CHECKED. SEDIMENT SHALL BE REMOVED FROM THE MAIN POOL WHEN TWENTY PERCENT OF THE MAIN POOL VOLUME IS LOST.

CROSS SECTION OF A TYPICAL AQUATIC BENCH AREA:



"For Reference Only"

the proposed development will be utilizing the existing water quality and detention ponds for the subdivision. Calculations have been run using HEC-HMS 4.2 and the ATLAS 14 Rainfall amounts specific to Cedar Park as noted in the Memo issued February 28, 2020. A summary of the Revised calculations is included on sheet 21 and a complete copy of the HEC-HMS model 4.2 has been provided electronically to the City."

CLAY LINERS

A 12" CLAY LINER (UNDER A 12" MIN. SOIL LAYER) IS REQUIRED FOR THE WTE POND. ALL LINER SPECIFICATIONS, INSTALLATION & TESTING SHALL BE PER THE QA/QC REPORT PREPARED BY _____ DATED _____

MINIMUM SPECIFICATIONS FOR Qa/Qc PLAN:

FIELD AND LABORATORY TEST PERFORMED PERTINENT TO SUBGRADE PREPARATION, FILL PLACEMENT, AND CONSTRUCTION OF THE DETENTION POND LINER SHOULD INCLUDE:

TEST	DESCRIPTION
ASTM D 422	STANDARD TEST METHOD FOR PARTICLE-SIZE ANALYSIS OF SOILS
ASTM D 698	STANDARD TEST METHOD FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL
ASTM D 1140	STANDARD TEST METHOD FOR AMOUNT OF MATERIAL IN SOILS FINER THAN NO. 200 SIEVE
ASTM D 2216	STANDARD TEST METHOD FOR LABORATORY DETERMINATION OF WATER (MOISTURE) CONTENT OF SOIL
ASTM D 2487	STANDARD TEST METHOD OF SOILS FOR ENGINEERING PURPOSES
ASTM D 2922	STANDARD TEST METHOD FOR DENSITY OF SOIL AND SOIL-AGGREGATE IN PLACE BY NUCLEAR METHODS
ASTM D 3017	STANDARD TEST METHOD FOR WATER CONTENT OF SOIL AND ROCK IN PLACE BY NUCLEAR METHODS
ASTM D 4318	STANDARD TEST METHOD FOR LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF SOILS
ASTM D 5084	STANDARD TEST METHOD FOR PERMEABILITY OF FINE GRAINED SOILS

1. SAMPLES OF POND SUBGRADE SOILS SHOULD BE SUBMITTED TO A NATIONALLY ACCREDITED LABORATORY FOR TESTING OF ATTERBERG LIMITS (ASTM D 4318), GRADATION (ASTM D 422), AND MOISTURE-DENSITY RELATIONSHIP (ASTM D 698) AT A FREQUENCY ONCE EVERY 5,000 CUBIC YARDS OR FOR EVERY OBSERVED CHANGE IN SUBGRADE CONDITION.

2. SAMPLES OF POND SUBGRADE SOILS SHOULD BE SUBMITTED TO A NATIONALLY ACCREDITED LABORATORY FOR TESTING OF ATTERBERG LIMITS (ASTM D 4318), GRADATION (ASTM D 422), MOISTURE-DENSITY RELATIONSHIP (ASTM D 698), AND PERMEABILITY (ASTM D 5084), PRIOR TO IMPORTATION AND INSTALLATION ON THE PROJECT.

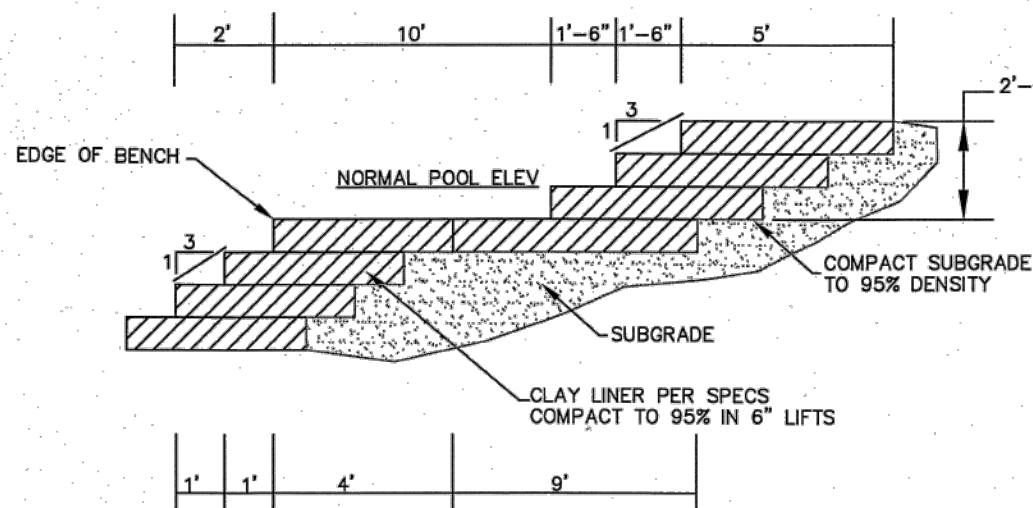
3. PRIOR TO PLACEMENT OF PROTECTIVE LAYERS AND POND LINERS WITHIN THE DETENTION POND AREA, THE EXPOSED SUBGRADE SOILS IN POND AREA SHOULD BE ROLLED WITH A HEAVY (MINIMUM 20 TON) RUBBER-TIRED VEHICLE TO VERIFY THAT SUBGRADE SOILS ARE STABLE.

4. ONCE PROOF ROLLING IS COMPLETED, OVER EXCAVATED AREAS WITHIN THE POND MAY BE BACKFILLED UNDER CONTROLLED COMPACTION CONDITIONS TO THE BOTTOM ELEVATION OF THE POND LINER. SUBGRADE AND POND LINER MATERIALS MAY BE PLACED IN 6-INCH THICK COMPACTED LIFTS.

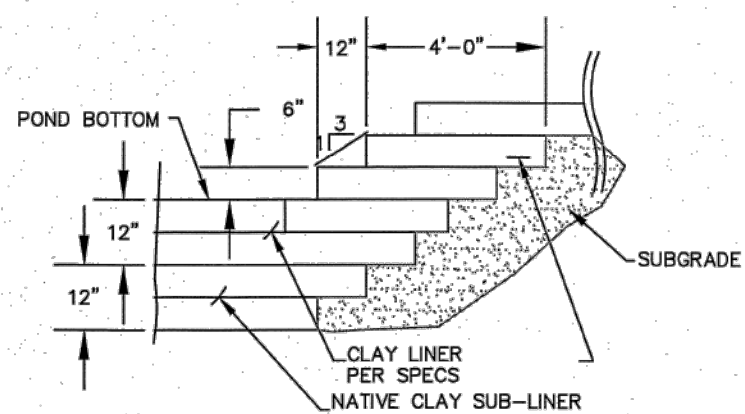
5. IN-PLACE DENSITY AND MOISTURE CONTENT TESTS (ASTM D 2922 AND ASTM D 3017) SHOULD BE PERFORMED ON SUBGRADE AND CLAY LINER MATERIALS AT A GENERAL RATE OF ONE TEST PER 5,000 SQUARE FEET. THESE ON-SITE CLAYEY SOILS WERE COMPACTED TO 95 PERCENT OF THE STANDARD PROCTOR (ASTM D 698) DENSITY. MATERIAL THAT IS CLASSIFIED AS FAT CLAY (CH) SHOULD BE COMPACTED TO BETWEEN OPTIMUM AND +4 PERCENTAGE POINTS ABOVE THE OPTIMUM MOISTURE CONTENT. ALL OTHER SOIL MATERIALS MAY BE COMPACTED AT A MOISTURE CONTENT WITHIN 3 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT. CLAY LINER MATERIALS SHOULD BE PROCESSED TO REDUCE THE CLAY CLODS TO A MAXIMUM SIZE OF 3/8 INCH PRIOR TO COMPACTION.

AT TEST LOCATIONS WHERE MOISTURE/COMPACTION CRITERIA ARE NOT MET, THE AREA SHOULD BE REWORKED BY THE CONTRACTOR AND RETESTED AND PRIOR TO PLACEMENT OF THE NEXT LIFT OF FILL OF LINER MATERIAL.

TABLE 1.6 CLAY LINER SPECIFICATIONS			
TEST METHOD	UNIT	SPECIFICATION	
ASTM D 422		1 X 10 ⁻⁷	
ASTM D-422&424	Cm/Sec	NOT LESS THAN 15	
ASTM D-2216		NOT LESS THAN 30	
THE NO. 200 SIEVE		%	NOT LESS THAN 30
CLAY COMPACTION	ASTM D-2216	%	95% OF STANDARD PROCTOR DENSITY
SOURCE: CITY OF AUSTIN			
BERM CONSTRUCTION TO CONFORM TO THE FOLLOWING:			
1. THE MATERIAL USED FOR CONSTRUCTION MUST BE STABLE WHEN SATURATED AND WHEN THE MAXIMUM HYDROSTATIC FORCE IS APPLIED.			
2. THE SIDE SLOPE MUST BE STABLE WHEN SATURATED.			
3. THE BERM MUST PROTECT AGAINST EROSION FORCES ON THE TOP OF BERM IN HIGH FLOW CONDITIONS.			
GENERAL NOTES:			
1. FOR PLANTING SPECIFICATIONS, SEE NEXT SHEET.			
2. STRUCTURAL WALLS TO BE DESIGNED BY OWNERS STRUCTURAL ENGINEER.			
3. CONCRETE FLATWALK TO BE 5" CONCRETE WITH #3 @ 12" O.C.W.E. AND 18" TOE WITH HEAVY BROOM FINISH.			
4. EDGE WALLS TO BE 6" HIGHER THAN FINISHED GRADE.			
5. CONTACT THE ENVIRONMENTAL INSPECTOR FOR REQUIRED INSPECTION OF THE IMPERMEABLE LINER. THE CONTRACTOR SHALL PROVIDE TEST RESULTS AND MATERIALS SPECIFICATIONS FOR THE LINER AT OR PRIOR TO TIME OF INSPECTION.			
6. ALL ELEMENTS OF THIS FACILITY SHALL COMPLY WITH CITY OF AUSTIN STANDARD SPECIFICATIONS.			
7. PERIMETER LANDSCAPE OF THIS FACILITY SHALL MEET THE REQUIREMENTS OF SEC. 2.8.1 B&C OF THE ENVIRONMENTAL CRITERIA MANUAL.			



BENCH



AT POND BOTTOM

CLAY LINER

N.T.S.

HANRAHAN • PRITCHARD ENGINEERING, INC.

CONSULTING ENGINEERS

(TX) PE FIRM REG. #486

8833 Cross Park Drive

AUSTIN, TEXAS 78754

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Breakaway Church
Date Prepared: October 2024

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 = 4.300 acres
Predevelopment impervious area within the limits of the plan = 0.000 acres
Total post-development impervious area within the limits of the plan = 2.687 acres
Total post-development impervious cover fraction = 0.613
 P = 32 inches

L_{M} TOTAL PROJECT = 2339 lbs.

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

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

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area = 33.610 acres
Predevelopment impervious area within drainage basin/outfall area = 0.000 acres
Post-development impervious area within drainage basin/outfall area = 19.670 acres
Post-development impervious fraction within drainage basin/outfall area = 0.59
 L_{M} THIS BASIN = 17121 lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch WQ
Removal efficiency = 91 percent

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

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

where:

A_N = Total On-Site drainage area in the BMP catchment area
 A_P = 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_N = 33.6100 acres
 A_P = 19.6700 acres
 A_P = 13.9400 acres
 L_R = 20038 lbs

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

Desired L_{M} THIS BASIN = 2339 lbs.

F = 0.12

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area

Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth = 0.05 inches
Post Development Runoff Coefficient = 0.41
On-site Water Quality Volume = 3901 cubic feet

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

Off-site area draining to BMP = 0.00 acres
Off-site Impervious cover draining to BMP = 0.00 acres
Impervious fraction of off-site area = 0
Off-site Runoff Coefficient = 0.00
Off-site Water Quality Volume = 0 cubic feet

Storage for Sediment = 780 cubic feet

Total Capture Volume (required water quality volume(s) x 1.20) = 4681 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.

9. Filter area for Sand Filters

Designed as Required in RG-348
Pages 3-58 to 3-63

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = NA cubic feet

Minimum filter basin area = NA square feet

Maximum sedimentation basin area = NA square feet For minimum water depth of 2 feet

Minimum sedimentation basin area = NA square feet For maximum water depth of 6 feet

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = NA cubic feet

Minimum filter basin area = NA square feet

Maximum sedimentation basin area = NA square feet For minimum water depth of 2 feet

Minimum sedimentation basin area = NA square feet For maximum water depth of 8 feet

10. Bioretention System

Designed as Required in RG-348

Pages 3-63 to 3-65

Required Water Quality Volume for Bioretention Basin = NA cubic feet

11. Wet Basins

Designed as Required in RG-348

Pages 3-66 to 3-71

Required capacity of Permanent Pool = NA cubic feet

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

HEC-HMS Input Summary

BASINS	Area (ac)	Area (mi^2)	IC Area (ac)	% IC	CN	Tl (min)
DEVELOPED						
DEV. DA TO POND	33.61	0.0525	19.67	58.52%	84.0	7.6

HYDROLOGIC ELEMENT	PEAK DISCHARGE PER 24-HOUR STORM EVENT (cfs)			
	2-YR	10-YR	25-YR	100-YR
DEV. DA TO POND	128.5	205.2	257.9	349.6
DEV. SOUTH POND	14.4	44.9	70.1	115.5
DEV DA C BYPASS	3.9	6.8	8.7	12.1
DEVE POA C	14.8	46.1	72.0	118.6

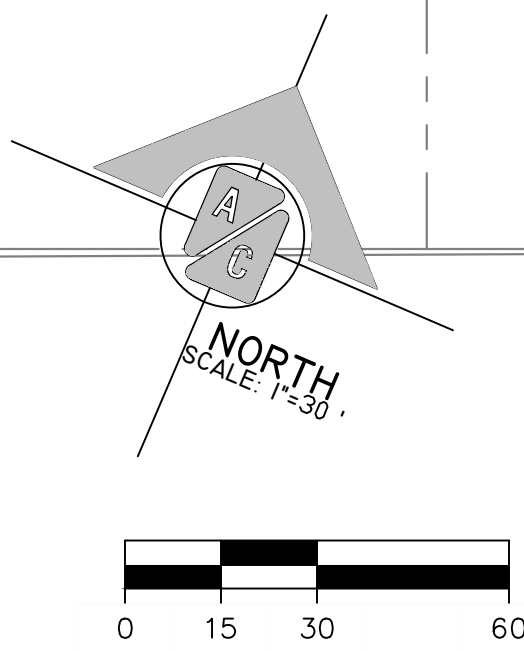
24-HR STORM EVENT	BATCH POND			
	PEAK Q _{in} (cfs)	PEAK Q _{out} (cfs)	PEAK STORAGE (ac-ft)	PEAK ELEVATION (ft)
2-YR	128.5	14.4	5.9	835.8
10-YR	205.2	44.9	8.8	837.3
25-YR	257.9	70.1	10.8	838.4
100-YR	349.6	115.5	13.9	839.9

Breakaway Church - Cedar Park

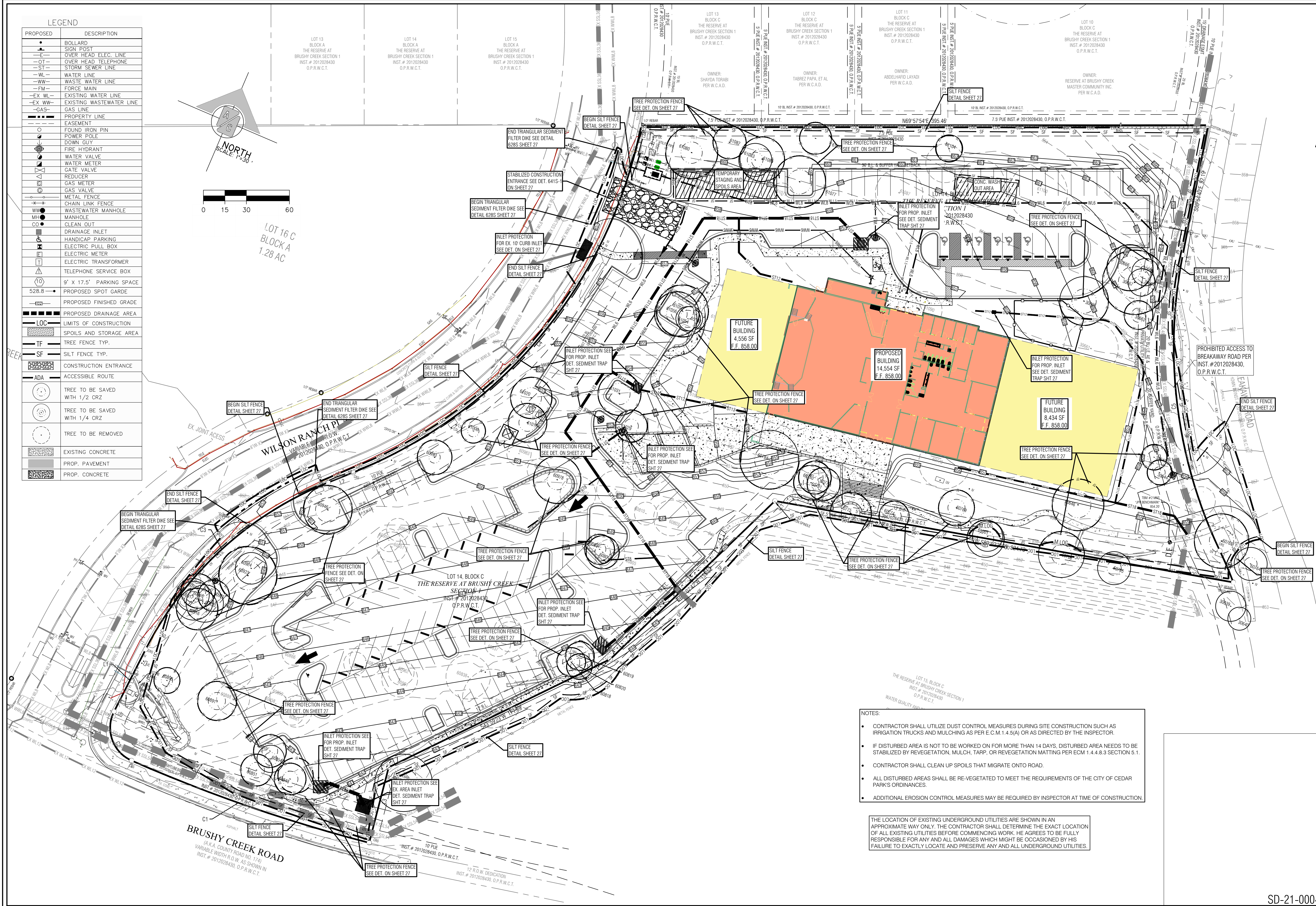
DETENTION POND OUTFLOW Structure

# 1		Width (in) 0.400		POA "A"							
Height (in) 0.400		Weir #1		C=3.0		Weir #2		C=3.0		Total Flow	
Total	Orifice	0.6	Weir #1	C=3.0	Weir #2	C=3.0	Total Flow				
	A =	0.16	L (ft) =	3.00	L (ft) =	80.00					
	832.50	flowline	834.50	flowline	840.00	flowline					
	832.70	Centerline									
	Orifice H										
elevation	H	Q (cfs)	H	Q (cfs)	H	Q (cfs)	Q (cfs)	elevation			
832.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	832.50			
833.00	0.30	0.42	0.00	0.00	0.00	0.00	0.42	833.00			
834.50	1.80	1.03	0.00	0.00	0.00	0.00	1.03	834.50			
834.75	2.05	1.10	0.25	1.13	0.00	0.00	2.23	834.75			
835.00	2.30	1.17	0.50	3.18	0.00	0.00	4.35	835.00			
835.25	2.55	1.23	0.75	5.85	0.00	0.00	7.08	835.25			
835.50	2.80	1.29	1.00	9.00	0.00	0.00	10.29	835.50			
835.75	3.05	1.35	1.25	12.58	0.00	0.00	13.92	835.75			
836.00	3.30	1.40	1.50	16.53	0.00	0.00	17.93	836.00			
836.25	3.55	1.45	1.75	20.84	0.00	0.00	22.29	836.25			
836.50	3.80	1.50	2.00	25.46	0.00	0.00	26.96	836.50			
836.75	4.05	1.55	2.25	30.38	0.00	0.00	31.93	836.75			
837.00	4.30	1.60	2.50	35.58	0.00	0.00	37.17	837.00			
837.25	4.55	1.64	2.75	41.04	0.00	0.00	42.69	837.25			
837.50	4.80	1.69	3.00	46.77	0.00	0.00	48.45	837.50			
837.75	5.05	1.73	3.25	52.73	0.00	0.00	54.46	837.75			
838.00	5.30	1.77	3.50	58.93	0.00	0.00	60.70	838.00			
838.25	5.55	1.81	3.75	65.36	0.00	0.00	67.17	838.25			
838.50	5.80	1.86	4.00	72.00	0.00	0.00	73.86	838.50			
838.75	6.05	1.89	4.25	78.85	0.00	0.00	80.75	838.75			
839.00	6.30	1.93	4.50	85.91	0.00	0.00	87.85	839.00			
840.00	7.30	2.08	5.50	116.09	0.00	0.00	118.17	840.00			
841.00	8.30	2.22	6.50	149.15	1.00	240.00	391.37	841.00			
841.25	8.55	2.25	6.75	157.83	1.25	335.41	495.50	841.25			
842.00	9.30	2.35	7.50	184.86	2.00	678.82	866.03	842.00			

PROPOSED	DESCRIPTION
•	BOLLARD
—•—	SIGN POST
—E—	OVER HEAD ELEC. LINE
—OT—	OVER HEAD TELEPHONE
—ST—	STORM SEWER LINE
—WL—	WATER LINE
—WW—	WASTE WATER LINE
—FM—	FORCE MAIN
—EX WL—	EXISTING WATER LINE
—EX WW—	EXISTING WASTEWATER LINE
—GAS—	GAS LINE
—	EASEMENT
○	FOUND IRON PIN
●	POWER POLE
○	DOWN GUY
●	FIRE HYDRANT
○	WATER VALVE
○	GATE VALVE
○	REDUCER
○	GAS METER
○	GAS VALVE
—	METAL FENCE
—	CHAIN LINK FENCE
—	WASTEWATER MANHOLE
—	MANHOLE
—	CLEAN OUT
—	DRAINAGE INLET
—	HANDICAP PARKING
—	ELECTRIC PULL BOX
—	ELECTRIC METER
—	ELECTRIC TRANSFORMER
—	TELEPHONE SERVICE BOX
—	9' X 17.5' PARKING SPACE
—	PROPOSED SPOT GARDE
—	PROPOSED FINISHED GRADE
—	PROPOSED DRAINAGE AREA
—	LIMITS OF CONSTRUCTION
—	SPOILS AND STORAGE AREA
—	TF TREE FENCE TYP.
—	SF SILT FENCE TYP.
—	CONSTRUCTION ENTRANCE
—	ADA ACCESSIBLE ROUTE
○	TREE TO BE SAVED WITH 1/2 CRZ
○	TREE TO BE SAVED WITH 1/4 CRZ
○	TREE TO BE REMOVED
—	EXISTING CONCRETE
—	PROP. PAVEMENT
—	PROP. CONCRETE



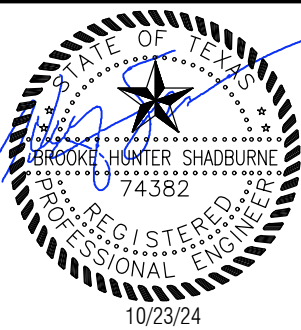
LOT 16 C
BLOCK A
1.28 AC



- NOTES:
- CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER E.C.M. 1.4.5(A) OR AS DIRECTED BY THE INSPECTOR.
 - IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP, OR REVEGETATION MATTING PER ECM 1.4.4.8.3 SECTION 5.1.
 - CONTRACTOR SHALL CLEAN UP SPOILS THAT MIGRATE ONTO ROAD.
 - ALL DISTURBED AREAS SHALL BE RE-VEGETATED TO MEET THE REQUIREMENTS OF THE CITY OF CEDAR PARK'S ORDINANCES.
 - ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY INSPECTOR AT TIME OF CONSTRUCTION.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

**AUSTIN CIVIL
ENGINEERING, INC.**
TYPE FIRM # F-001018
9501B MENCHACA RD # 220
AUSTIN, TX 78748
(512) 306-0018



BREAKAWAY CHURCH
2601 BRUSHY CREEK RD.
CEDAR PARK TEXAS 78613

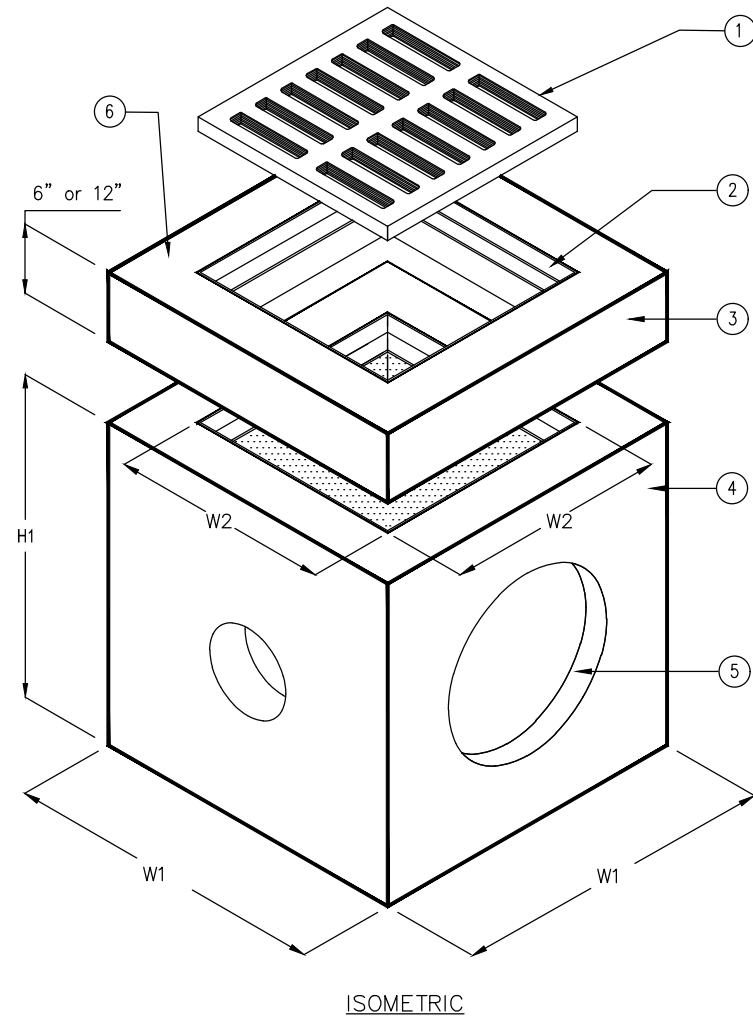
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JOB: 21-019 DATE: 10/23/24
CAD: DMM/ML CHK'D BY:
ENGINEER: HS CHK'D BY:
SCALE:

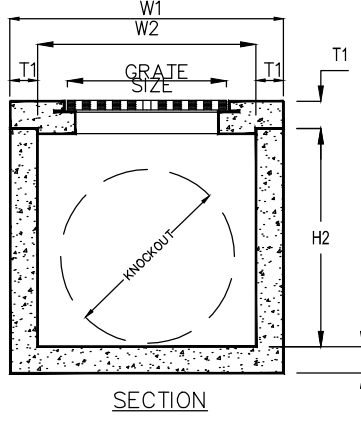
**EROSION &
SEDIMENTATION
CONTROL & TREE
PROTECTION**

SITE CIVIL PLAN
21
of 34

SD-21-00044



NOTE: KNOCKOUTS-STD,
PENETRATIONS-OPTIONAL



KEYED NOTES		
MARK	QTY	DESCRIPTION
1	1	GRATE OR COVER AS REQUESTED, SEE OPTIONS
2	1	CAST-IN STEEL FRAME
3	1	OPTIONAL TOP/EXTENSION 6" TO 18"
4	1	PRECAST CONCRETE BASIN SECTION
5	4	KNOCKOUTS (STD) AND PENETRATIONS (OPT) AS REQUIRED, SEE KO DIMENSION FOR MAXIMUM PIPE O.D.*
6	1	NAMEPLATE INDICATING: MFG: PARKUSA 888-611-PARK WWW.PARKUSA.COM MODEL: CB-01 DATE MANUFACTURED

MODEL	W1	W2	H1	H2	T1	T2	KO	GRATE SIZE	OPEN AREA	WEIGHT LBS
CB-12	15"	10"	21"	18"	3"	2"	10"	12"x12"x1"	90	180
CB-14	20"	12"	28"	24"	4"	4"	12"	14"x14"x1½"	120	600
CB-18	24"	16"	34"	30"	4"	4"	15"	18"x18"x1½"	168	1,000
CB-20	26"	18"	34"	30"	4"	4"	17"	20"x20"x1½"	170	1,335
CB-24	32"	22"	41"	36"	5"	5"	22"	24"x24"x2"	268	2,245
CB-27	37"	25"	42"	36"	6"	6"	24"	27"x27"x2"	350	2,875
CB-30	42"	30"	42"	36"	6"	6"	30"	32"x32"x2"	490	3,675
CB-36	48"	36"	42"	36"	6"	6"	32"	36"x36"x2"	693	4,585
CB-48	60"	48"	54"	48"	6"	6"	48"	36"x36"x2"	693	7,250
*CB-60	72"	60"	66"	60"	6"	6"	60"	36"x36"x2"	693	10,500
*CB-72	84"	72"	78"	72"	6"	6"	72"	36"x36"x2"	693	15,350
*CB-84	96"	84"	78"	72"	6"	6"	72"	36"x36"x2"	693	19,500

*KNOCKOUTS NOT AVAILABLE

SPECIFICATIONS

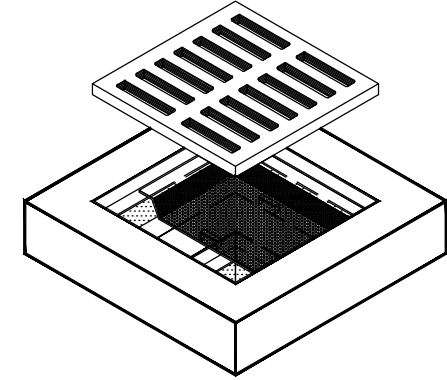
CONCRETE : CLASS 1/II CONCRETE WITH OF DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. UNIT IS OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED DEPTH.

REINFORCEMENT: GRADE 60 REINFORCED, STEEL REBAR CONFORMING TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.

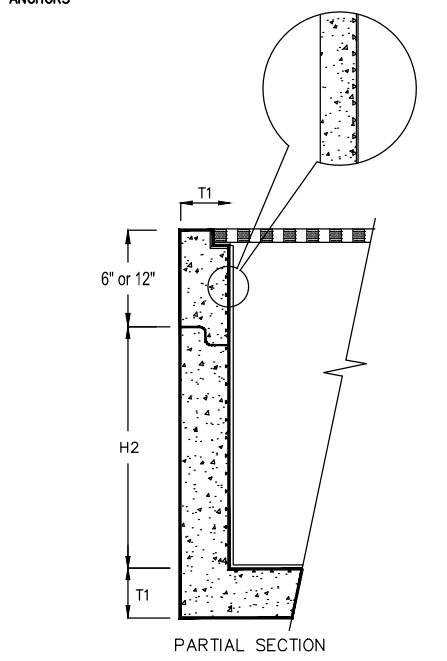
C.I. CASTINGS: CAST IRON FRAMES AND GRATES ARE MANUFACTURED OF GREY CAST IRON CONFORMING TO ASTM A48-76 CLASS 30.

ADDITIONAL OPTIONS

REMOVABLE DEBRIS SCREEN w/ (2) LIFT HANDLES,
3/4" STAINLESS STEEL, 1" HOLES @ ½" O.C. (50% FREE OPEN AREA)

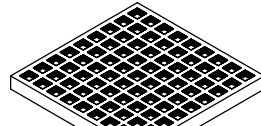


HIGH DENSITY POLYETHYLENE (HDPE) LINER W/ ANCHORS

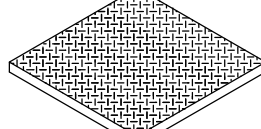


COVER OPTIONS

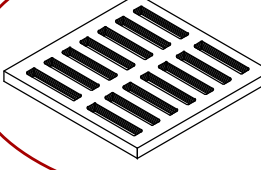
ACID-RESISTANT FRP GRATING, w/ STAINLESS STEEL FRAME (PEDESTRIAN DUTY)



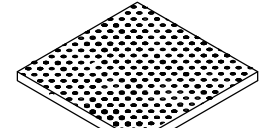
SKID-RESISTANT STEEL PEDESTRIAN DUTY STD.



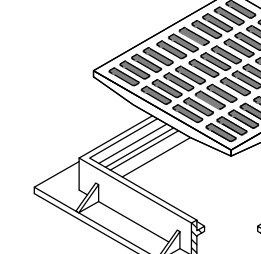
TRAFFIC DUTY CAST IRON GRATE



STAINLESS STEEL/FIBERGLASS GRATE, ADA APPROVED



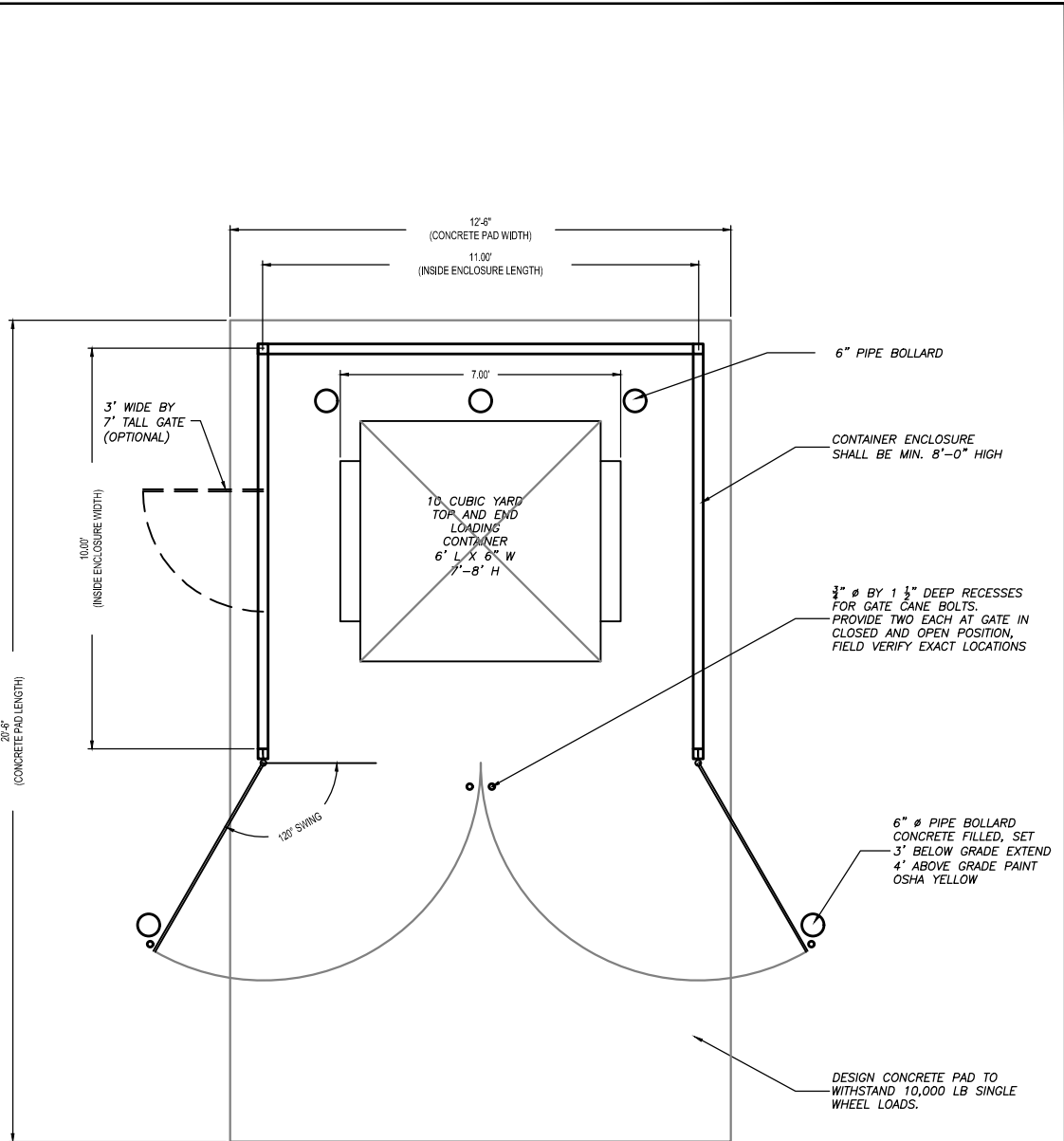
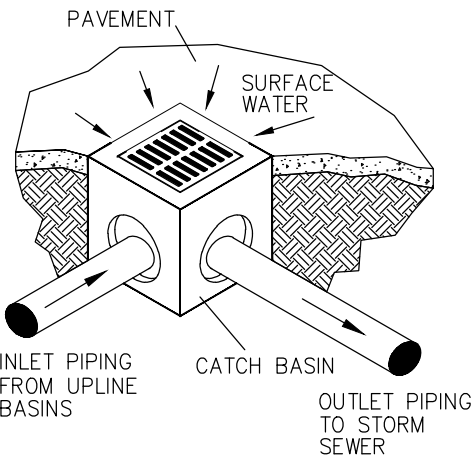
CAST IRON FRAME & GRATE V6000-SERIES



D.I. CASTINGS: MANHOLE FRAMES, COVERS OR GRATES ARE MANUFACTURED OF DUCTILE IRON CONFORMING TO ASTM A536, AASHTO M200, & AASHTO M250 STANDARDS.

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PROJECT:			
CUSTOMER:			
ENGINEER:			
ORDER #:	PROJ #:		
DATE:	LOCATION:		
PARK _{USA}			
www.parkusa.com 888-611-PARK			
CATCH BASIN			
MODEL CB - 12" THRU 84"			
PM	PC	DRAW	ENG
-	-	-	-
DATE	01/2019	DWG. NO.	REV.
		CB-1	



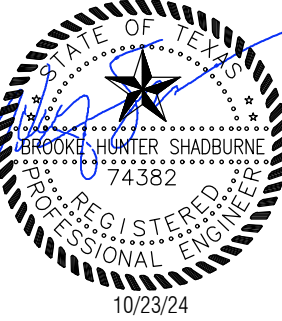
- ENCLOSURE WALLS TO BE CONSTRUCTED OF MASONRY AND WILL BE OF SIMILAR FINISH AS BUILDING

STANDARD NO.	DUMPSTER ENCLOSURE DETAIL	AUSTIN CIVIL ENGINEERING, INC	
	N.T.S.	SITE DETAIL	

AUSTIN CIVIL
ENGINEERING, INC.



TBPE FIRM # F-001018
9501B MANCHACA RD. # 220
AUSTIN, TX 78748
(512) 306-0018



BREAKAWAY CHURCH

2601 BRUSHY CREEK RD.
CEDAR PARK TEXAS 78613

REV. DATE	REVISIONS		APPROVED BY
	DESCRIPTION		

JOB: 21-019	DATE: 10/23/24
CAD: DAMM/CHK'D BY:	
ENGINEER: HS/CHK'D BY:	
SCALE:	

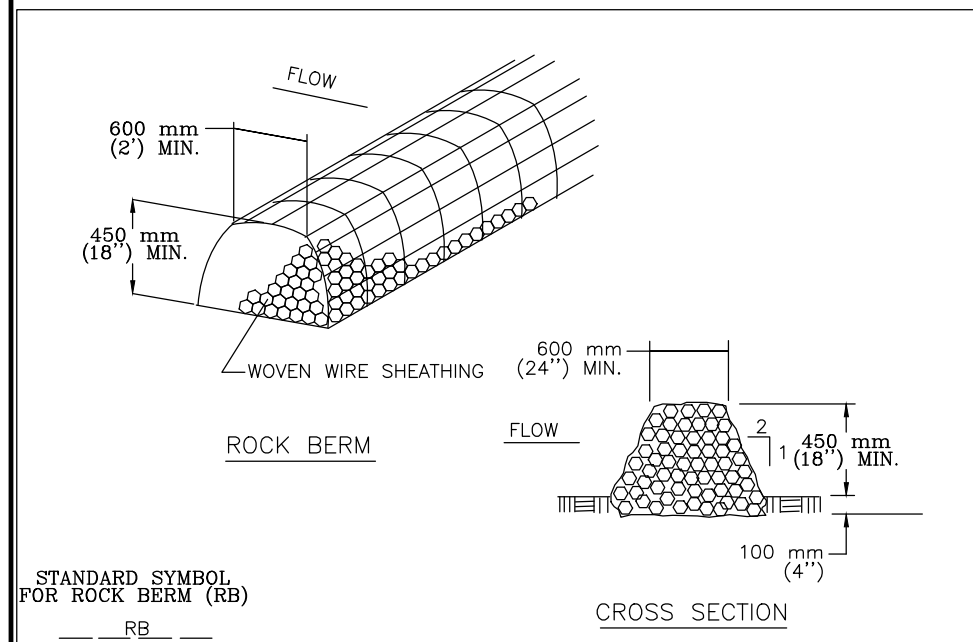
DETAILS:
SITE
2 OF 2

SITE CIVIL PLAN

23

of 34

SD-21-00044



- 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. THIS ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STRUCTURE 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 SEDIMENTATION 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	ROCK BERM	STANDARD NO.
WATERSHED PROTECTION DEPARTMENT		
RECORD COPY SIGNED BY MORGAN BYARS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	639S-1
ADOPTED 6/24/2010		

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.

CROSS-SECTION SHOWING PLACEMENT OF GEOCURVE IN CURB INLET

STANDARD SYMBOL FOR GEOCURVE INLET FILTER (GIF)

— GIF —

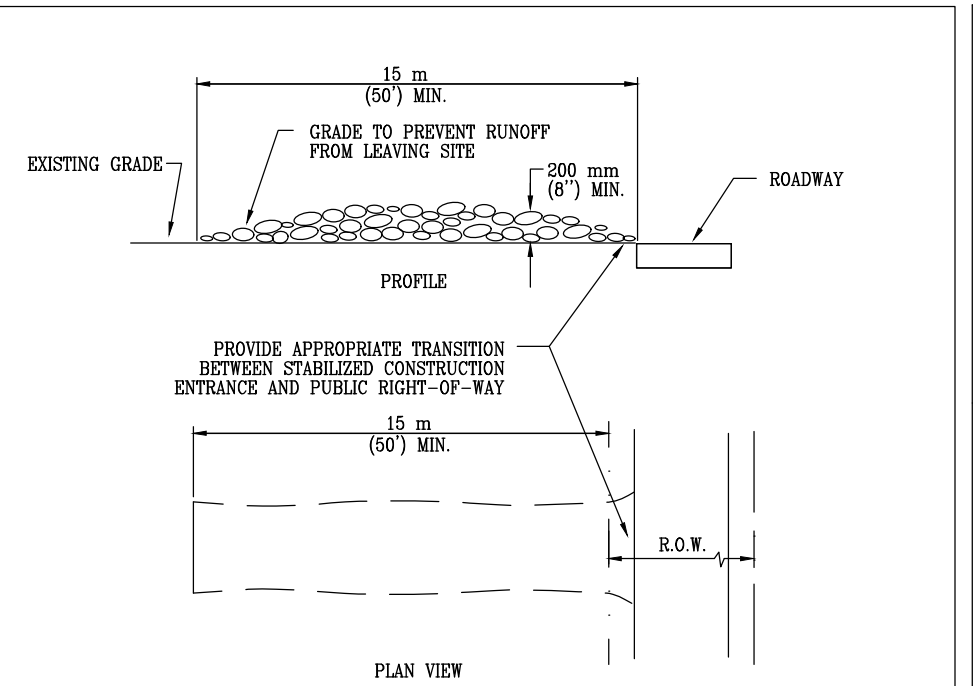
FILTER MEDIA PROPERTIES: Mono-filament Woven Filter Fabric

PROPERTY	ASTM TEST METHOD	VALUE	C.O.A. REQ'T
Fabric Weight	D 3776	4.5 oz/sq yd	3 oz/sq yd
Grab Tensile Strength	D 4632	170 lbs	---
Mullen Burst Strength	D 3786	410 lbs/sq in	120 lbs/sq in
UV Stability	D 4555	80 %	70 %
Water Flow Rate	D 4491	325 gal/min/sf	275 gal/min/sf

GeoSolutions, Inc. 4417 Burleson Road Austin, Texas 78744 512-336-0796

- NOTES:
1. MATERIAL - THE FFBIC MUST CORRESPOND TO THE FOLLOWING REQUIREMENTS:
- | PROPERTY | ASTM TEST METHOD | REQUIREMENTS |
|--------------------------------------|------------------|---|
| FABRIC WEIGHT | D 3776 | ≥ 3.0 OUNCES/SQUARE YD |
| ULTRAVIOLET (UV) RADIATION STABILITY | D 4385 | 70% STRENGTH RETAIN (MIN) AFTER 500 HOURS IN XENON ARC DEVICE |
| MULLEN BURST STRENGTH | D 3786 | ≥ 120 POUND PER SQUARE INCH |
| WATER FLOW RATE | D 4491 | ≥ 275 GALLONS/MINUTE/SQUARE FEET |
2. THIS MATERIAL SHOULD HAVE A MAXIMUM EXPECTED USEFUL LIFE OF APPROXIMATELY EIGHTEEN (18) MONTHS. THE INLET PROTECTION DEVICES SHOULD BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN OUT AND DISPOSAL OF TRAPPED SEDIMENT WHILE MINIMIZING INTERFERENCE WITH CONSTRUCTION ACT VITIES. THEY SHOULD ALSO BE CONSTRUCTED SUCH THAT ANY PONDING OF STORM WATER WILL NOT CAUSE EXCESSIVE R.O.W. FLOODING (I.E. < 4 INCHES OF STANDING WATER) OR DAMAGE TO THE STRUCTURE OR ADJACENT AREAS.
 3. COVERAGE - THE FABRIC/WIRE SHOULD COMPLETELY COVER THE OPENING OF THE INLET AND DEVICES SHOULD BE INSTALLED WITHOUT PROTRUDING PARTS THAT COULD BE A TRAFFIC, WORKER, OR PEDESTRIAN HAZARD. WHERE SECTIONS OF THE FABRIC OVERLAP, THEY SHALL OVERLAP AT LEAST THREE (3) INCHES.
 4. THE INLET FILTER SHALL BE ATTACHED IN A WAY THAT THEY CAN EASILY BE REMOVED AND ARE NOT SECURED OR ATTACHED BY THE USE OF SAND BAGS. THE INLET FILTER MUST BE REMOVED UPON COMPLETION OF WORK. IF REMOVAL DAMAGES THE CONCRETE CURB, THE CURB MUST BE REPAIRED IMMEDIATELY.
 5. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN THE DEPTH REACHES 50 MM (2 INCHES) INCHES OR ONE-THIRD THE HEIGHT OF THE INLET THROAT, AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SITUATION.
 6. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORMWATER BEGINS TO OVERTOP THE CURB.
 7. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT HAS ACHIEVED FINAL STABILIZATION CONDITIONS.

CITY OF AUSTIN	FILTER DIKE CURB INLET PROTECTION	STANDARD NO.
WATERSHED PROTECTION DEPARTMENT		
RECORD COPY SIGNED BY MAPU VIGIL	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	628S-2
ADOPTED 10/30/09		



- 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. WASH RASING 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 AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENTAL SEDIMENTS THAT IS SHIPPED, 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	STABILIZED CONSTRUCTION ENTRANCE	STANDARD NO.
WATERSHED PROTECTION DEPARTMENT		
RECORD COPY SIGNED BY J. PATRICK MURPHY	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	641S-1
ADOPTED 5/23/00		

CITY OF CEDAR PARK
PUBLIC WORKS ENGINEERING

STANDARD DETAIL
STORM INLET SEDIMENT TRAP

ADOPTED: 01/02/01
SCALE: NTS
INITIAL:

DARWIN MARCHELL, P.E.

STANDARD SYMBOL FOR STORM INLET SEDIMENT TRAP (SIST)

— SIST —

CITY OF CEDAR PARK
PUBLIC WORKS ENGINEERING

STANDARD DETAIL
MORTARED TREE WELL

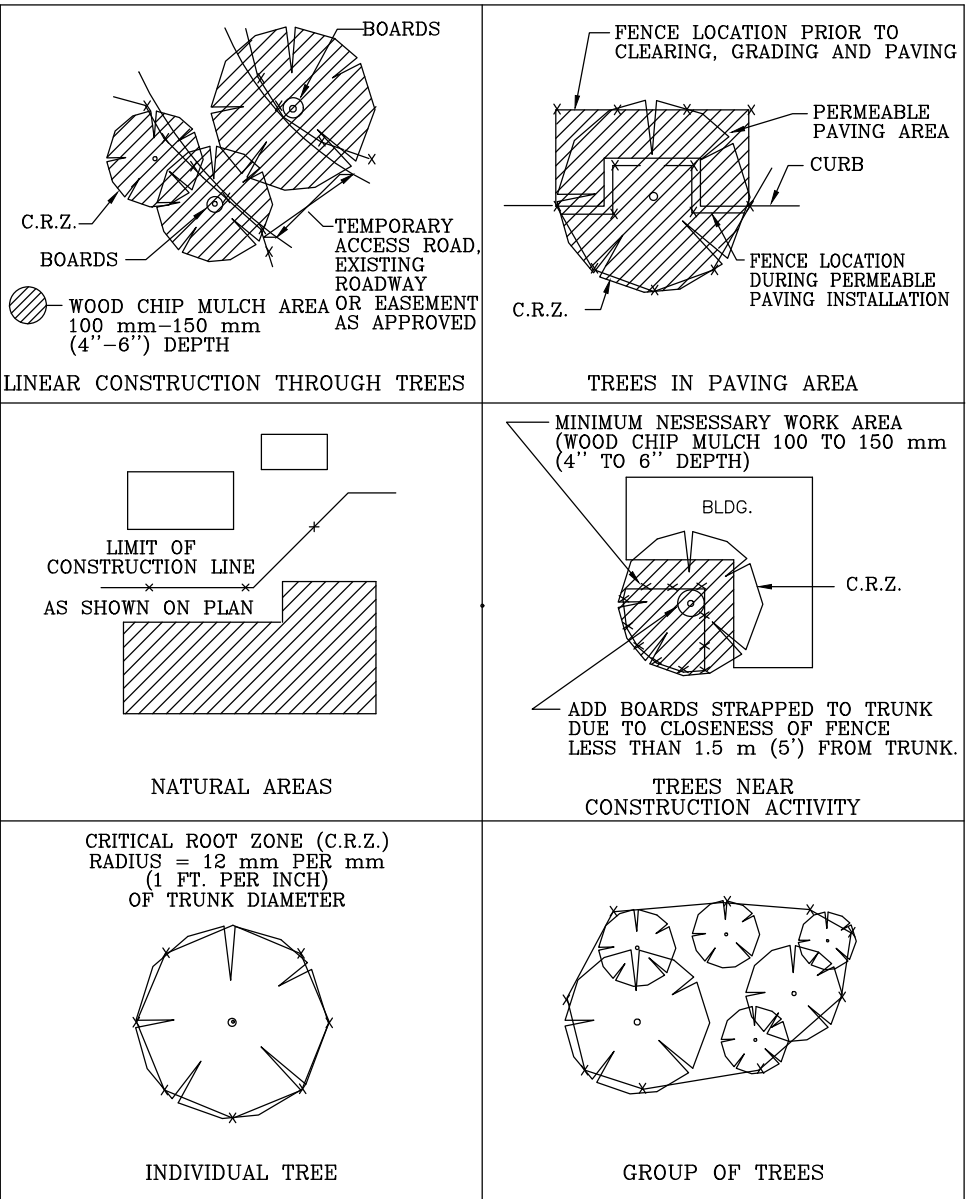
ADOPTED: 01/02/01
SCALE: NTS
INITIAL:

DARWIN MARCHELL, P.E.

STANDARD SYMBOL FOR MORTARED TREE WELL (MTW)

— MTW —

CITY OF AUSTIN	MORTARED TREE WELL	STANDARD NO.
WATERSHED PROTECTION DEPARTMENT		
RECORD COPY SIGNED BY MAPU VIGIL	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	628S-2
ADOPTED 10/30/09		



CITY OF AUSTIN	TREE PROTECTION FENCE TYPE A - CHAIN LINK	STANDARD NO.
WATERSHED PROTECTION DEPARTMENT		
RECORD COPY SIGNED BY J. PATRICK MURPHY	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	610S-1
ADOPTED 11/15/99		

CITY OF CEDAR PARK
PUBLIC WORKS ENGINEERING

STANDARD DETAIL
CONCRETE WASHOUT AREA

ADOPTED: 01/02/01
SCALE: NTS
INITIAL:

DARWIN MARCHELL, P.E.

STANDARD SYMBOL FOR CONCRETE WASHOUT AREA (CWA)

— CWA —

CITY OF CEDAR PARK
PUBLIC WORKS ENGINEERING

STANDARD DETAIL
SILT FENCE PLACEMENT

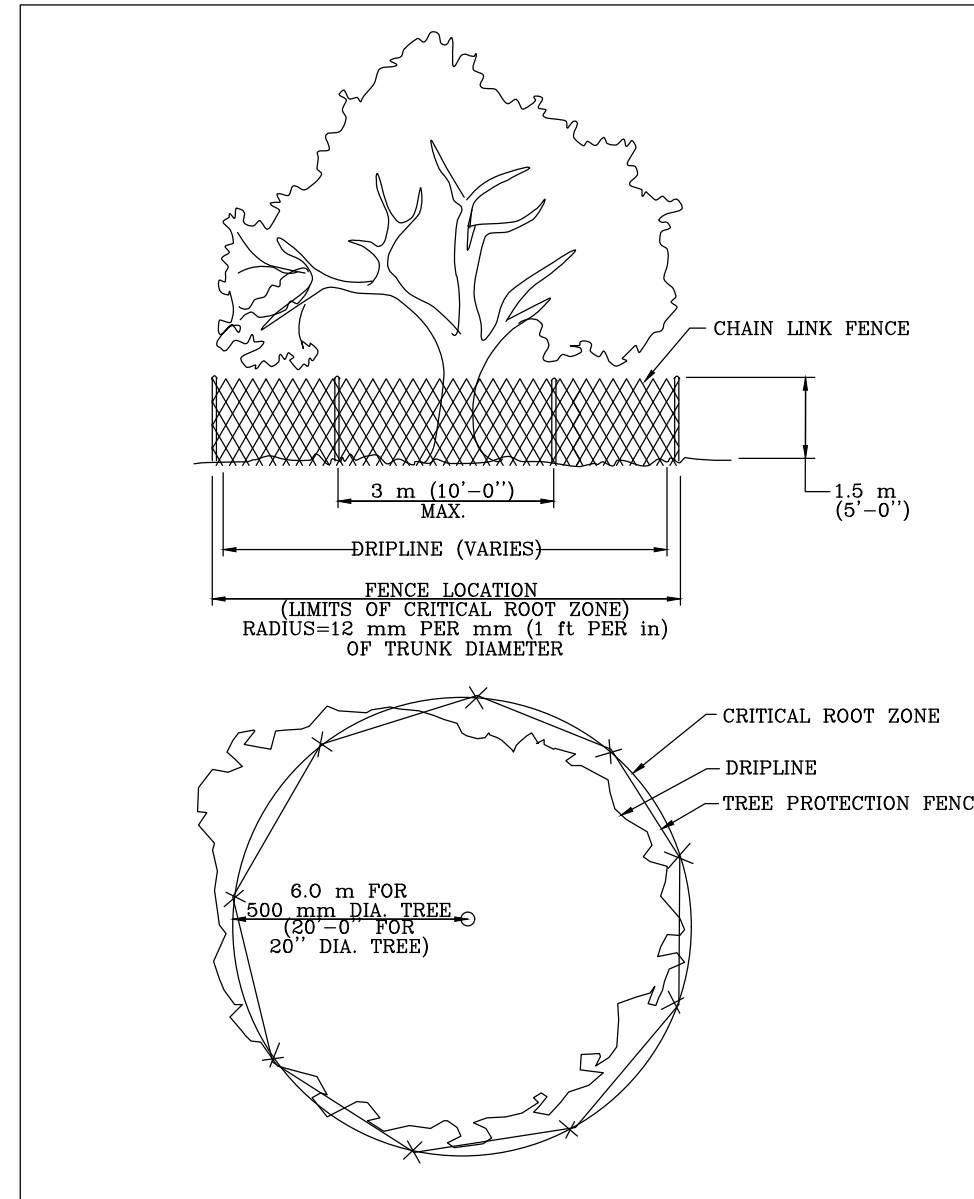
ADOPTED: 01/02/01
SCALE: NTS
INITIAL:

DARWIN MARCHELL, P.E.

STANDARD SYMBOL FOR SILT FENCE PLACEMENT (SFP)

— SFP —

CITY OF AUSTIN	SILT FENCE PLACEMENT	STANDARD NO.
WATERSHED PROTECTION DEPARTMENT		
RECORD COPY SIGNED BY MAPU VIGIL	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	628S-2
ADOPTED 10/30/09		



CITY OF AUSTIN	TREE PROTECTION FENCE TYPE A - CHAIN LINK	STANDARD NO.
WATERSHED PROTECTION DEPARTMENT		
RECORD COPY SIGNED BY J. PATRICK MURPHY	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	610S-1
ADOPTED 11/15/99		

CITY OF CEDAR PARK
PUBLIC WORKS ENGINEERING

STANDARD DETAIL
CONCRETE WASHOUT AREA

ADOPTED: 01/02/01
SCALE: NTS
INITIAL:

DARWIN MARCHELL, P.E.

STANDARD SYMBOL FOR CONCRETE WASHOUT AREA (CWA)

— CWA —

CITY OF CEDAR PARK
PUBLIC WORKS ENGINEERING

STANDARD DETAIL
SILT FENCE PLACEMENT

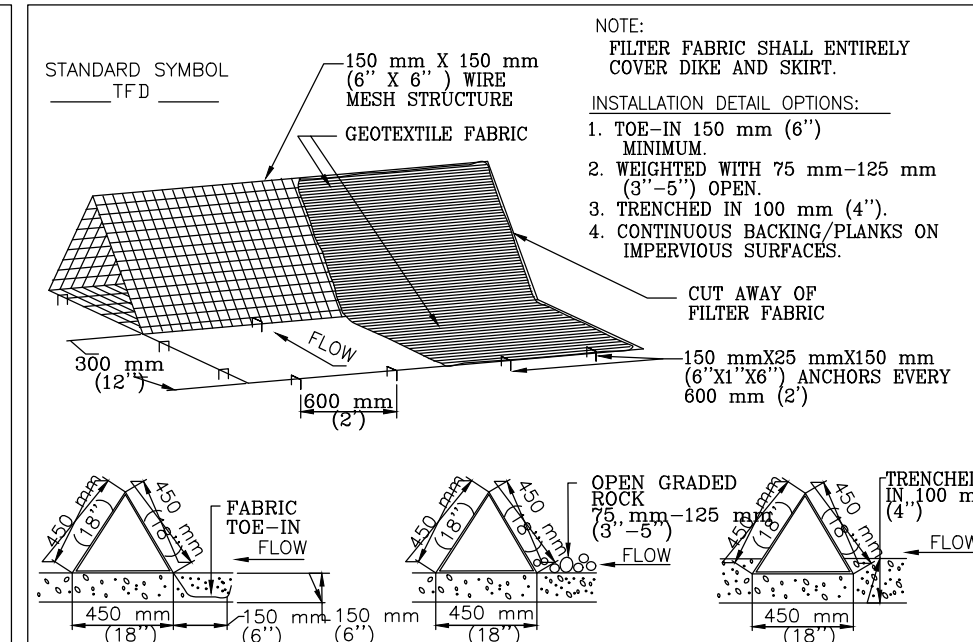
ADOPTED: 01/02/01
SCALE: NTS
INITIAL:

DARWIN MARCHELL, P.E.

STANDARD SYMBOL FOR SILT FENCE PLACEMENT (SFP)

— SFP —

CITY OF AUSTIN	SILT FENCE PLACEMENT	STANDARD NO.
WATERSHED PROTECTION DEPARTMENT		
RECORD COPY SIGNED BY MAPU VIGIL	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	628S-2
ADOPTED 10/30/09		



- NOTES:
1. FILTER FABRIC SHALL ENTIRELY COVER DIKE AND SKIRT.
 2. THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE.
 3. THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF 75-125 mm (3-5") OPEN GRADED ROCK OR TIED-IN 150 mm (6") WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED IN 100 mm (4").
 4. DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 150 mm (6") WIRE STAPLES ON 600 mm (2') CENTERS ON BOTH EDGES AND SKIRT, OR STAKE USING 10W (3/8") DIAMETER RE-BAR WITH THE ENDS.
 5. FILTER MATERIAL SHALL BE LAPPED OVER ENDS 150 mm (6") TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOT RINGS.
 6. THE DIKE STRUCTURE SHALL BE MW40-150 mmX150 mm (6 GA. 6"x6") WIRE MESH. 450 mm (18") ON A SIDE.
 7. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
 8. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6") AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SITUATION.
 9. AFTER THE DEVELOPMENT SITE IS COMPLETELY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED. SILT SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTE 8 ABOVE.

CITY OF AUSTIN	TRIANGULAR SEDIMENT FILTER DIKE	STANDARD NO.
WATERSHED PROTECTION DEPARTMENT		
RECORD COPY SIGNED BY J. PATRICK MURPHY	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	628S
ADOPTED 3/27/00		

CITY OF CEDAR PARK
PUBLIC WORKS ENGINEERING

STANDARD DETAIL
CONCRETE WASHOUT AREA

ADOPTED: 01/02/01
SCALE: NTS
INITIAL:

DARWIN MARCHELL, P.E.

STANDARD SYMBOL FOR CONCRETE WASHOUT AREA (CWA)

— CWA —

CITY OF CEDAR PARK
PUBLIC WORKS ENGINEERING

STANDARD DETAIL
SILT FENCE PLACEMENT

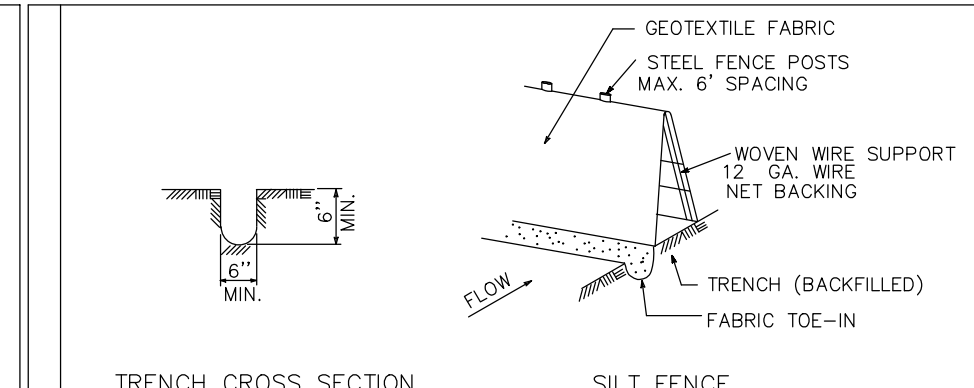
ADOPTED: 01/02/01
SCALE: NTS
INITIAL:

DARWIN MARCHELL, P.E.

STANDARD SYMBOL FOR SILT FENCE PLACEMENT (SFP)

— SFP —

CITY OF AUSTIN	SILT FENCE PLACEMENT	STANDARD NO.
WATERSHED PROTECTION DEPARTMENT		
RECORD COPY SIGNED BY MAPU VIGIL	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	628S-2
ADOPTED 10/30/09		



- GENERAL NOTES:
1. SILT FENCE LOCATED ADJACENT TO PLAYGROUNDS, PARKS, SIDEWALKS, AND OTHER LOCATIONS AS DETERMINED BY CITY OF CEDAR PARK REPRESENTATIVES SHALL HAVE CITY APPROVED SAFETY CAPS ON ALL STEEL POSTS.
 2. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE.
 3. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT. 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.
 4. WHERE FENCE CAN NOT BE TRENCHED IN (E.G. PAVEMENT) WEIGHT FABRIC FLAP WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE. 6 INCHES DEEP AND 6 INCHES WIDE TO THE TRENCH MUST BE A MINIMUM OF . ALLOW FOR THE SILT FENCE FABRIC TO BE LAD IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
 5. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST.
 6. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 7. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES.
 8. THE SILT SHALL BE DISPOSED OF IN AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SITUATION.

CITY OF CEDAR PARK	SILT FENCE	STANDARD NO.
ENGINEERING/DEPARTMENT		
DARWIN MARCHELL 09/13/2001	ADOPTED: 09/13/2001	SCALE: N.T.S.
APPROVED	DATE	INITIAL:

CITY OF CEDAR PARK
PUBLIC WORKS ENGINEERING

STANDARD DETAIL
CONCRETE WASHOUT AREA

ADOPTED: 01/02/01
SCALE: NTS
INITIAL:

DARWIN MARCHELL, P.E.

STANDARD SYMBOL FOR CONCRETE WASHOUT AREA (CWA)

— CWA —

CITY OF CEDAR PARK
PUBLIC WORKS ENGINEERING

STANDARD DETAIL
SILT FENCE PLACEMENT

ADOPTED: 01/02/01
SCALE: NTS
INITIAL:

DARWIN MARCHELL, P.E.

STANDARD SYMBOL FOR SILT FENCE PLACEMENT (SFP)

— SFP —

CITY OF AUSTIN	SILT FENCE PLACEMENT	STANDARD NO.
WATERSHED PROTECTION DEPARTMENT		
RECORD COPY SIGNED BY MAPU VIGIL	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	628S-2
ADOPTED 10/30/09		

AUSTIN CIVIL ENGINEERING, INC.

TYPE FIRM # F-001018
9501B MANCHACA RD. # 220
AUSTIN, TX 78748
(512) 306-0018

10/23/24

BREAKAWAY CHURCH

2601 BRUSHY CREEK RD.
CEDAR PARK TEXAS 78613

CITY OF CEDAR PARK
PUBLIC WORKS ENGINEERING

STANDARD DETAIL
CONCRETE WASHOUT AREA

ADOPTED: 01/02/01
SCALE: NTS
INITIAL:

DARWIN MARCHELL, P.E.

STANDARD SYMBOL FOR CONCRETE WASHOUT AREA (CWA)

— CWA —

CITY OF AUSTIN	SILT FENCE PLACEMENT	STANDARD NO.
WATERSHED PROTECTION DEPARTMENT		
RECORD COPY SIGNED BY MAPU VIGIL	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	628S-2
ADOPTED 10/30/09		



**Breakaway Church
Attachment N**

**2610 Brushy Creek
Cedar Park, TX**

Batch Extended Detention

Maintenance Plan

Responsible Party:

Pond tract only (R515179):

Reserve at Brushy Creek Master Community Inc
President of Reserve at Brushy Creek HOA

Breakaway Church (R515185):

Wells Branch Community Church
Joni Scott
2113 Wells Branch Parkway Suite 1300
Austin, TX 78728





MAINTENANCE PLAN AND SCHEDULE FOR SEDIMENTATION AND FILTRATION BASINS

PROJECT NAME: Breakaway Church
ADDRESS: 2610 Brushy Creek Rd.
CITY, STATE, ZIP: Cedar Park, TX 78613

1.0 System Description

Nonpoint source pollution control at 2610 Brushy Creek Rd., Cedar Park, TX is provided by a sedimentation basin and sand filtration basin – known as Batch Detention. This system consists of a splitter box at the intake location to separate out the initial flush of pollutants from the storm water. The sediment pond is designed to allow sediment and trash debris to settle out. The water then runs through a rock gabion and into the filtration basin. The filtration basin has a sand media used to further clean the TSS and pollutants out of the water. The underdrain system from the sand filtration basin is then discharged downstream and return to the creek flow.

This method of storm water capture and control typically has removal rates of nonpoint source pollutants exceeding 90%.

2.0 Major Maintenance and Construction Requirements (ECM 1.6.3C4)

- a. Sediment must be removed from the inlet structure and sedimentation chamber once accumulated build up exceeds six inches in depth or when the inlet and outlet structures no longer function properly.
- b. Inspections should take place a minimum of twice a year, with at least one inspection taking place during wet weather.
- c. Debris and litter shall be removed during regular mowing.
- d. The valve assembly should be checked during each inspection and be repaired/replaced, as necessary.
- e. Grass areas in and around the sand filter area must be mowed at least twice annually. Vegetation shall be limited to 18" in height. Upon the embankments, mowing shall occur frequently enough to prevent the establishment of woody vegetation.

3.0 Replacement Parts

The following is a list of retention-irrigation systems parts that are expected to need periodic replacement:

Rain Sensor
Actuator Valve
Outflow riser with trash rack





AUSTIN CIVIL ENGINEERING

Information including vender names, part numbers and vendor contact information shall be determined from the irrigation system contractor subsequent of the system, then documented below in this maintenance manual:

Sand Vendor, Specification:

Underdrain pumping Vendor, Manufacture and Model:

Clean out Vendor, Manufacturer and Model:

4.0 Inspections

Inspections of the system shall be performed twice annually, with an additional inspection performed immediately following a 25-year-old or 100-year frequency storm. Each inspection shall be documented in the table below with any deficiencies noted, whether a repair, maintenance, or retrofit action was required to resolve the issued and finally with the date of the deficiency being resolved.





AUSTIN CIVIL ENGINEERING

Inspection Log					
Date of Inspection	Inspector	Deficiency Discovered?	Repair (R) , Maintenance (M), Retrofit (RF) required?	Correction Action Taken	Date of Resolution of Deficiency

Signature of owner/responsible party:

Signature: Christopher P. P. P.

Date: 10/24/24

Print: CHRISTOPHER P. P. P.



Temporary Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

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

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

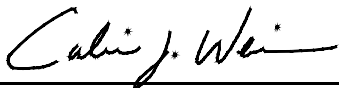
Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Temporary Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Calvin Weiman

Date: 08/13/2024

Signature of Customer/Agent:



Regulated Entity Name: Breakaway Church

Project Information

Potential Sources of Contamination

Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.

1. Fuels for construction equipment and hazardous substances which will be used during construction:

☒ The following fuels and/or hazardous substances will be stored on the site: _____

These fuels and/or hazardous substances will be stored in:

- ☐ Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.

- ☒ Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.
- ☐ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.
- ☐ Fuels and hazardous substances will not be stored on the site.
- 2. ☒ **Attachment A - Spill Response Actions.** A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.
- 3. ☒ Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.
- 4. ☒ **Attachment B - Potential Sources of Contamination.** A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Sequence of Construction

- 5. ☒ **Attachment C - Sequence of Major Activities.** A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.
 - ☒ For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.
 - ☒ For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.
- 6. ☒ Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: Brushy Creek

Temporary Best Management Practices (TBMPs)

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

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

- ☒ A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.
 - ☒ A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.
 - ☒ A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.
 - ☒ A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.
8. ☒ The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.
- ☐ **Attachment E - Request to Temporarily Seal a Feature.** A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.
- ☒ There will be no temporary sealing of naturally-occurring sensitive features on the site.
9. ☒ **Attachment F - Structural Practices.** A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.
10. ☒ **Attachment G - Drainage Area Map.** A drainage area map supporting the following requirements is attached:
- ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.
 - ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.
 - ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.
 - ☐ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

- ☐ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.
11. ☐ **Attachment H - Temporary Sediment Pond(s) Plans and Calculations.** Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.
- ☒ N/A
12. ☒ **Attachment I - Inspection and Maintenance for BMPs.** A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.
13. ☒ All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.
14. ☒ If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
15. ☒ Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.
16. ☒ Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

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

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

18. ☒ Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
19. ☒ Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

20. ☒ All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
21. ☒ If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.
22. ☒ Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

TEMPORARY STORMWATER SECTION

Attachment A

Spill Response Actions

The following is a description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances. The proceeding excerpts are from the City of Austin Watershed Department Clean Water Fact Sheets:

Petroleum Spills Response

Do not flush spills away with water. Instead, contain them immediately, before they reach a storm drain and spread to a creek or lake. Also, do not put yourself or others in danger. Before containment, evaluate what materials have spilled, make a thorough assessment of risk, and determine how to contain the spill safely. If safe containment is possible, immediately stop the spread of liquids using absorbent materials. Keep spill containment and clean up materials appropriate for the type and quantities of hazardous chemicals used or stored at your facility. The Watershed Protection Department provides a list of absorbent material suppliers. Immediately block off nearby drain (sanitary or storm sewer). It is much costlier to decontaminate inside of a storm sewer pipe and /or restore a contaminated creek than it is to purchase spill containment materials.

Always wear appropriate safety equipment such as gloves, coveralls, goggles, and respirators. Access Materials Safety Data Sheets (MSDS) for information about spilled materials. Keep MSDSs readily available for each chemical used or stored at the facility. A MSDS contains information that enables persons responsible for handling, using or encountering chemicals to estimate the likely harm, potential hazards and risks that might arise in emergency situations involving those chemicals. Obtain a MSDS free of charge by calling the manufacturer's phone number from the label on the chemical container.

Never leave spills unattended. Designate someone to make spill notification phone calls. Immediately notify the following agencies;

Local: [Cedar Park Fire Department by dialing 911](#);

State: The TCEQ requires spills/emergency release situations to be reported per [30 TAC Sections 327.1-327.5](#) effective May 23, 1996. Report spills to Environmental Release Hotline or the [Texas Commission on Environmental Quality \(TCEQ\) 1-800-832-8224; TCEQ Local office at 339-2929; or TCEQ \(24-Hours\) at 512/239-2507 or 512/463-7727.](#)

Federal: National Response Center (NRC) 1-800-424-8802 (Notification of the National Response Center does not constitute notice to the state).



Clean up surfaces contaminated by hazardous chemicals only if you are trained, experienced, and qualified. Excavate spills on pervious (e.g. soil) surfaces as quickly as possible to prevent spread of the contamination. Contact the Watershed Protection Department for soil cleanup instructions. Sweep up and containerize dry material spills on impervious surfaces (e.g. pavement) for proper disposal. Absorb liquid spills on impervious surfaces with sorbent materials (e.g. clay sorbent, pads, booms, etc.) and containerize for proper disposal. Do not use wet/dry shop vacuum for gasoline, solvents or other volatile fluids because of explosion hazards.

Post a site-specific spill contingency plan at your facility. This should provide step-by-step instructions in the event of a spill. Practice these steps in a “spill drill.” The Watershed Protection Department provides information regarding spill contingency plans and a fact sheet detailing proper spill handling. A phone number is provided at the end of this fact sheet.

Construction Products/Wastes Spills Response

Immediately clean up spills to prevent environmental impacts, especially spreading of the spill to a storm drain and waterway. Never leave spills unattended or flush a spill with water.

Prevent spills, as much as possible, through prevention planning. Inspect vehicles and heavy equipment for leaks and repair promptly. Inspect portable toilets routinely for leaks and keep them in a secured area away from traffic and possible vandalism.

Clean up non-hazardous spills on impervious (paved) surfaces by using a sorbent material (e.g. kitty litter, sand, peat, etc.), and dispose of the waste properly. Contain hazardous or large non-hazardous spills, if it is safe, and immediately contact the [Cedar Park Fire Department by dialing 911](#).

Excavate or remediate spills on pervious (soil) surfaces as quickly as possible to prevent the spread of the contamination. Any surfaces contaminated by hazardous or toxic materials should be remediated by experienced, qualified individuals to protect the health and safety of yourself and the general public.

Report all spills to the Watershed Protection Department to receive proper clean up instructions, especially for hazardous materials and large volume spills.

Collect and dispose of cleaning activity waste properly.

Clean without creating any discharge of soaps, detergents, oil or other pollutants to a storm sewer or waterway. Ideally, wash equipment and vehicles at an approved wash facility over a drain to the sanitary sewer. If any washing must be done on site, use plain water only and make sure the wash water does not create silty runoff.

When cleaning paint equipment outside, contain wastewater in a bucket or other container and dispose of it properly. Dispose of water based or latex paint wastewater in the sanitary sewer (e.g. sink, toilet).





Collect and dispose oil-based paint wastes, including solvents through a hazardous waste disposal company.

When cleaning paved areas, sweep up debris, pre-treat oil stains and slick spots with dry solvent (make a paste with water, kitty litter and powdered soap), and clean large areas with approved equipment such as vacuum scrubbers that collect the wastewater for proper disposal to a sanitary drain.

Reportable Quantities for Regulated Substances

30 Texas Administrative Code §327.4

(a) Hazardous substances. The reportable quantities for hazardous substances shall be:

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

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

(b) Oil, petroleum product, and used oil.

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

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

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

(2) The RQ for petroleum product and used oil shall be:

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

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

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

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

Source Note: The provisions of this §327.4 adopted to be effective May 23, 1996, 21 TexReg 4228.

Attachment B

Potential Sources of Contamination

- Leaking fuel or oil from construction vehicles and human litter. Refer to Attachment A for the spill response actions during construction.
- Aboveground Storage tanks.
- Total Suspended Solids (TSS)

Attachment C

Sequence of Major Activities

(Construction may be concurrent with other elements, but must be completed in the order shown below) –

See attached site plan



- A. Install erosion controls as indicated on approved site plan.
- B. Install tree protection.
- C. Contact "the city". Schedule on-site pre-construction coordination meeting.
- D. Evaluation of temporary erosion control installation. Review construction schedule with the erosion control plan.
- E. Inspect and maintain all controls as per general notes.
- F. Construct proposed elements. 4.55 acres
- G. Complete construction and install landscaping. 4.55 acres
- H. Re-vegetate disturbed areas or complete a developer's contract for the re-vegetation along with the engineer's concurrence letter. 0 acres
- I. Project engineer inspects job and writes concurrence letter to the city. Final inspection is scheduled upon receipt of letter.
- J. Receive operating permit and city clearance for occupancy.
- K. Remove temporary erosion/sedimentation controls upon inspector's approval of adequate re-vegetation.

Attachment D

Temporary Best Management Practices and Measures

- A stabilized construction entrance to trap sediment and prevent it from being tracked offsite.
- The primary temporary erosion and sedimentation control is silt fencing placed on all downstream sides of construction. Silt fence is used to prevent sediment from low volume storm events from entering the drainage ways and receiving waters by capturing the sediment before it is able to leave the site.
- To prevent or reduce the discharge to pollutants to stormwater from concrete waste all concrete washout performed on site will be done within the designated concrete washout area.
- All construction debris and litter shall be collected and disposed of in designated temporary spoils and contractor staging area. Construction waste receptacles will be emptied when full and removed when project is completed.
- To provide protection against silt transport or accumulation in storm sewer systems inlet protection devices are to be utilized for each inlet on site.

- Temporary rock berms are to be utilized in order to serve as check dams in areas of concentrated flow to intercept sediment-laden runoff, detain the sediment and release the water in sheet flow.
- Triangular sediment filter dikes are to be used to intercept and detain water-borne sediment from unprotected areas where silt fence is not feasible.
- The rough-cut pond for the proposed WQP will be utilized as a temporary sediment basin during construction for the purpose of capturing and slowly releasing the runoff from larger disturbed areas thereby allowing sedimentation to take place.
- A gravity filter bag will be utilized in order to empty the rough-cut temporary sediment basin and capture the sediment without allowing it to leave the site. The bag shall be replaced when it no longer filters sediment or passes water at a reasonable rate.

Attachment E

Request to Temporarily Seal a Feature – This section is not applicable

Attachment F

Structural Practices

- The primary structural practice to divert flows away from exposed soil is the silt fence placed on all downstream sides of construction. Silt fence is used to prevent sediment from low volume storm events entering the drainage ways and receiving waters.
- Curb-and-gutter, when constructed, will also prevent flows from exposed soils.

Attachment G

Drainage Area Map – See attached drainage area map in the civil construction set

Attachment H

Temporary Sediment Pond(s) Plans and Calculations - This section is not applicable

Attachment I

Inspection and Maintenance for BMPs. Taken from RG-348, Chapter 1.

Stabilized Construction Entrance

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

Silt Fence

1. Inspect all fencing weekly, and after any rainfall.

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

Concrete Washout Area

1. Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.
2. Avoid mixing excess amounts of fresh concrete.
3. Perform washout of concrete trucks in designated areas only.
4. Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
5. Do not allow excess concrete to be dumped onsite, except in designated areas.
6. Locate washout at least 50 feet from sensitive features, storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
7. Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.
8. Plastic lining should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.
9. When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of. Materials used to construct the temporary concrete washout facilities should be removed from the site of the work and disposed of. Holes, depressions, or other ground disturbances caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

Rock Berms

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

Triangular Filter Dike

1. Inspection should be made weekly or after each rainfall event and repair or replacement should be made promptly as needed by the contractor.
2. Inspect and realign dikes as needed to prevent gaps between sections.
3. Accumulated silt should be removed after each rainfall, and disposed of in a manner which will not cause additional siltation.

4. After the site is completely stabilized, the dikes and any remaining silt should be removed. Silt should be disposed of in a manner that will not contribute to additional siltation.

Inlet Protection

1. Inspection should be made weekly and after each rainfall. Repair or replacement should be made promptly as needed by the contractor.
2. Remove sediment when buildup reaches a depth of 3 inches. Removed sediment should be deposited in a suitable area and in such a manner that it will not erode.
3. Check placement of device to prevent gaps between device and curb.
4. Inspect filter fabric and patch or replace if torn or missing.
5. Structures should be removed and the area stabilized only after the remaining drainage area has been properly stabilized.

Sediment Basin

1. Inspection should be made weekly and after each rainfall. Check the embankment, spillways, and outlet for erosion damage, and inspect the embankment for the piping and settlement. Repair should be made promptly as needed by the contractor.
2. Trash and other debris should be removed after each rainfall to prevent clogging of the outlet structure.
3. Accumulated silt should be removed and the basin should be re-graded to its original dimensions at such point that the capacity of the impoundment has been reduced to 75% of its original storage capacity.
4. The removed sediment should be stockpiled or redistributed in areas that are protected from erosion.

Gravity Bag Filter

1. Inspection of the flow conditions, bag conditions, bag capacity, and the secondary barrier is required.
2. Replace the bag when it no longer filters sediment or passes water at a reasonable rate. The bag is disposed of offsite.

Attachment J

Schedule of Interim and Permanent Soil Stabilization Practices

As many trees and natural area as possible have been preserved, please refer to the erosion and sedimentation control plan located in the civil construction set of the “General Information” section.

All areas disturbed areas shall be restored as noted below.

Bare soils should be seeded or otherwise stabilized within 14 calendar days after final grading or where construction activity has temporarily ceased for more than 21 days.

A. All disturbed areas to be revegetated are required to place a minimum of six (6) inches of topsoil [see Standard Specification Item No. 601S.3(A)]. Do not add topsoil within the critical root zone of existing trees. The topsoil shall be composed of 3 parts of soil mixed with 1-part compost, by volume. The compost shall be Dillo Dirt or an equal approved by the Engineer, or designated representative. The approved equal, if used, shall meet the definition of compost (as defined by the

U.S. Composting Council). The soil shall be locally available native soil that meets the following specifications:

- Shall be free of trash, weeds, deleterious materials, rocks, and debris.
- 100% shall pass through a 0.375-inch (3/8") screen.
- Soil Texture class to be Loam, Sandy Clay Loam, or Sandy Loam in accordance with the USDA texture triangle. Soil known locally as "red death" or Austin Sandy Loam is not an allowable soil. Textural composition shall meet the following criteria:

Texture Class	Minimum	Maximum
Clay	5%	25%
Silt	10%	50%
Sand	30%	80%

Topsoil salvaged from the existing site may often be used, but it should meet the same standards as set forth in these standards.

B. (From 30 TAC 213.5(b)(4)(D)(i)(-b-): Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently cease is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

The vegetative stabilization of areas disturbed by construction shall be as follows:

TEMPORARY VEGETATIVE STABILIZATION:

1. From September 15 to March 1, seeding shall be with cool season cover crops (Wheat at 0.5 pounds per 1000 SF, Oats at 0.5 pounds per 1000 SF, Cereal Rye Grain at 0.5 pounds per 1000 SF) with a total rate of 1.5 pounds per 1000 SF. Cool season cover crops are not permanent erosion control.
2. From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 1 pounds per 1000 SF.

A. Fertilizer shall be water soluble with an analysis of 15-15-15 to be applied once at planting and once during the period of establishment at a rate of 1/2 pound per 1000 SF.

- B. Hydromulch shall comply with Table1, below.
- C. Temporary erosion control shall be acceptable when the grass has grown at least 1 1/2 inches high with 95% coverage, provided no bare spots larger than 16 square feet exist.
- D. When required, native grass seeding shall comply with requirements of the City of Austin Environmental Criteria Manual.

Table 1: Hydromulching for Temporary Vegetative Stabilization

Material	Description	Longevity	Typical Applications	Application Rates
70/30 Wood/ Cellulose Blend Mulch	70% Wood 30%paper 3% Tackifier	0-3 months	Moderate slopes; from flat to 3:1	45.9 lbs/1000 sf
Wood Fiber Mulch	96% Wood 3% Tackifier	0-3 months	Moderate slopes; from flat to 3:1	45.9 lbs/1000 sf

PERMANENT VEGETATIVE STABILIZATION:

1. From September 15 to March 1, seeding is considered to be temporary stabilization only. If cool season cover crops exist where permanent vegetative stabilization is desired, the grasses shall be mowed to a height of less than one-half (1/2) inch and the area shall be re-seeded in accordance with 2. below.
2. From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 1 pound per 1000 SF with a purity of 95% with 85% germination. Bermuda grass is a warm season grass and is considered permanent erosion control.
 - A. Fertilizer shall be a water soluble with an analysis of 15-15-15 to be applied once at planting and once during the period of establishment at a rate of 1/2 pound per 1000 SF.
 - B. Hydromulch shall comply with Table 2, below.
 - C. The planted area shall be irrigated or sprinkled in a manner that will not erode the topsoil, but will sufficiently soak the soil to a depth of six inches. The irrigation shall occur at daily intervals (minimum) during the first two months. Rainfall occurrences of ½ inch or more shall postpone the watering schedule for one week.

D. Permanent erosion control shall be acceptable when the grass has grown at least 1½ inches high with 95% coverage, provided no bare spots larger than 16 square feet exist.

E. When required, native grass seeding shall comply with requirements of the City of Austin Environmental Criteria Manual.

Table 2: Hydromulching for Permanent Vegetative Stabilization

Material	Description	Longevity	Typical Applications	Application Rates
Bonded Fiber Matrix (BFM)	80% Thermally Refined Wood 10% Tackifier	6 months	On slopes up to 2:1 and erosive soil conditions	68.9 lbs/SF to 80.3 lbs/ 1000SF
Fiber Reinforced Matrix (FRM)	75% Thermally Refined Wood 5% Reinforcing Fibers 10% Tackifier	12 months	On slopes up to 1:1 and erosive soil conditions	68.9 lbs/SF to 80.3 lbs/ 1000SF

Page 1

- b)** What is the Legal Name of the entity (applicant) applying for this permit?
Wells Branch Community Church
 (The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.)
- c)** What is the contact information for the Operator (Responsible Authority)? The mailing address must be recognized by the US Postal Service (USPS). You may verify the address at: <https://tools.usps.com/go/ZipLookupAction!input.action>
 Prefix (Mr. Ms. Miss): Mr.
 First/Last Name: Christopher Plekenpol Suffix: _____
 Title: Lead Pastor Credential: _____
 Phone Number: (512) 540-6056 Ext: _____ Fax Number: _____
 E-mail: chris@wellsbranchchurch.com
 Mailing Address: 2113 Wells Branch Parkway Suite 1300
 Internal Routing (Mail Code, Etc.): _____
 City: Austin State: TX ZIP Code: 78728
 If outside USA:
 Territory: _____ Country Code: _____ Postal Code: _____
- d)** Indicate the type of Customer (The instructions will help determine your customer type):
- | | | |
|--|--|--|
| ☐ Individual | ☐ Limited Partnership | ☐ Sole Proprietorship-DBA |
| ☐ Joint Venture | ☐ General Partnership | ☐ Corporation |
| ☐ Trust | ☐ Estate | ☐ Federal Government |
| ☐ State Government | ☐ County Government | ☐ City Government |
| ☒ Other Government | | |
- e)** Independent Operator? (If governmental entity, subsidiary, or part of a larger corporation, check "No".)
☒ Yes ☐ No
- f)** Number of Employees:
☐ 0-20; ☒ 21-100; ☐ 101-250; ☐ 251-500; or ☐ 501 or higher
- g)** Customer Business Tax and Filing Numbers:
 (REQUIRED for Corporations and Limited Partnerships. Not Required for Individuals, Government, or Sole Proprietors)
 State Franchise Tax ID Number: _____
 Federal Tax ID: _____
 Texas Secretary of State Charter (filing) Number: _____
 DUNS Number (if known): _____

2) APPLICATION CONTACT

If TCEQ needs additional information regarding this application, who should be contacted?

Is the application contact the same as the applicant identified above?

- ☐ Yes, go to Section 3).
- ☒ No, complete section below

Prefix (Mr. Ms. Miss): Mr.
First/Last Name: Calvin Weiman Suffix: _____
Title: Engineer Credential: _____
Organization Name: Austin Civil Engineering
Phone Number: (512) 306-0018 Ext: _____ Fax Number: _____
E-mail: hs@austincivil.com
Mailing Address: 9501B Manchaca Rd#220
Internal Routing (Mail Code, Etc.): _____
City: Austin State: Texas ZIP Code: 78748
Mailing Information if outside USA:
Territory: _____ Country Code: _____ Postal Code: _____

3) REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE

If the site of your business is part of a larger business site or if other businesses were located at this site before yours, a Regulated Entity Number (RN) may already be assigned for the larger site. Use the RN assigned for the larger site. Search TCEQ's Central Registry to see if the larger site may already be registered as a regulated site at:

<http://www.tceq.texas.gov/goto/cr-searchrn>

If the site is found, provide the assigned Regulated Entity Reference Number and provide the information for the site to be authorized through this application below. The site information for this authorization may vary from the larger site information.

a) TCEQ issued RE Reference Number (RN): RN11110030

b) Name of project or site (the name known by the community where located):

c) In your own words, briefly describe the primary business of the Regulated Entity: (Do not repeat the SIC and NAICS code):

d) County (or counties if > 1)

e) Latitude: _____ Longitude: _____

f) Does the site have a physical address?

- ☐ Yes, complete Section A for a physical address.
☐ No, complete section B for site location information.

Section A: Enter the physical address for the site.

Verify the address with USPS. If the address is not recognized as a delivery address, provide the address as identified for overnight mail delivery, 911 emergency or other online map tools to confirm an address.

Physical Address of Project or Site:

Street Number: _____ Street Name: _____
City: _____ State: Texas ZIP Code: _____

Section B: Enter the site location information.

If no physical address (Street Number & Street Name), provide a written location access description to the site. (Example: located 2 miles west from intersection of Hwy 290 & IH35 accessible on Hwy 290 South)

City where the site is located or, if not in a city, what is the nearest city:

State: Texas ZIP Code where the site is located: _____

4) GENERAL CHARACTERISTICS

a) Is the project/site located on Indian Country Lands?

☐ Yes - If the answer is Yes, you must obtain authorization through EPA, Region 6.

☒ No

b) Is your construction activity associated with a facility that, when completed, would be associated with the exploration, development, or production of oil or gas or geothermal resources?

☐ Yes - If the answer is Yes, you may be under jurisdiction of the Railroad Commission of Texas and may need to obtain authorization through EPA, Region 6.

☒ No

c) What is the Primary Standard Industrial Classification (SIC) Code that best describes the construction activity being conducted at the site?

Primary SIC Code: _____

d) If applicable, what is the Secondary SIC Code(s): _____

e) What is the total number of acres disturbed? _____

f) Is the project site part of a larger common plan of development or sale?

☒ Yes - If the answer is Yes, the total number of acres disturbed can be less than 5 acres.

☐ No - If the answer is No, the total number of acres disturbed must be 5 or more. If the total number of acres disturbed is less than 5 then the project site does not qualify for coverage through this Notice of Intent. Coverage will be denied. See the requirements in the general permit for small construction sites.

g) What is the name of the first water body(s) to receive the stormwater runoff or potential runoff from the site?

South Brushy Creek

h) What is the segment number(s) of the classified water body(s) that the discharge will eventually reach?

i) Is the discharge into an MS4?

☐ Yes - If the answer is Yes, provide the name of the MS4 operator below.

Note: The general permit requires you to send a copy of the NOI to the MS4 operator.

☒ No

j) Are any of the surface water bodies receiving discharges from the construction site on the latest EPA-approved CWA 303(d) List of impaired waters?

☐ Yes - If the answer is Yes, provide the name(s) of the impaired water body(s) below.

☐ No

k) Is the discharge or potential discharge within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer as defined in 30 TAC Chapter 213?

☒ Yes - If the answer is Yes, complete certification below by checking "Yes."

☐ No

I certify that a copy of the TCEQ approved Plan required by the Edwards Aquifer Rule (30 TAC Chapter 213) is either included or referenced in the Stormwater Pollution Prevention Plan.

☒ Yes

5) CERTIFICATION

Check Yes to the certifications below. Failure to indicate Yes to **ALL** items may result in denial of coverage under the general permit.

- a) I certify that I have obtained a copy and understand the terms and conditions of the Construction General Permit (TXR150000). ☐ Yes
- b) I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas. ☐ Yes
- c) I understand that a Notice of Termination (NOT) must be submitted when this authorization is no longer needed. ☐ Yes
- d) I certify that a Stormwater Pollution Prevention Plan has been developed, will be implemented prior to construction and to the best of my knowledge and belief is compliant with any applicable local sediment and erosion control plans, as required in the general permit TXR150000. Note: For multiple operators who operate under a shared SWP3, the confirmation of an operator may be limited to its obligations under the SWP3 provided all obligations are confirmed by at least one operator. ☐ Yes

Operator Certification:

I, _____
Typed or printed name Title

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.

I further certify that I am authorized under **30 Texas Administrative Code §305.44** to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signature: _____ Date: _____
(Use blue ink)

NOTICE OF INTENT CHECKLIST (TXR150000)

- Did you complete everything? Use this checklist to be sure!
- Are you ready to mail your form to TCEQ? Go to the General Information Section of the Instructions for mailing addresses.

This checklist is for use by the operator to ensure a complete application. Missing information may result in denial of coverage under the general permit. (See NOI process description in the Instructions)

Application Fee:

If paying by Check:

- ☐ Check was mailed **separately** to the TCEQs Cashier's Office. (See Instructions for Cashier's address and Application address.)
- ☐ Check number and name on check is provided in this application.

If using ePay:

- ☐ The voucher number is provided in this application or a copy of the voucher is attached.

PERMIT NUMBER:

- ☐ Permit number provided – if this application is for renewal of an existing authorization.

OPERATOR INFORMATION - Confirm each item is complete:

- ☐ Customer Number (CN) issued by TCEQ Central Registry
- ☐ Legal name as filed to do business in Texas (Call TX SOS 512/463-5555)
- ☐ Name and title of responsible authority signing the application
- ☐ Mailing address is complete & verifiable with USPS. www.usps.com
- ☐ Phone numbers/e-mail address
- ☐ Type of operator (entity type)
- ☐ Independent operator
- ☐ Number of employees
- ☐ For corporations or limited partnerships – Tax ID and SOS filing numbers
- ☐ Application contact and address is complete & verifiable with USPS. <http://www.usps.com>

REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE - Confirm each item is complete:

- ☐ Regulated Entity Reference Number (RN) (if site is already regulated by TCEQ)
- ☐ Site/project name/regulated entity
- ☐ Latitude and longitude <http://www.tceq.texas.gov/gis/sqmaview.html>
- ☐ County
- ☐ Site/project physical address. Do not use a rural route or post office box.
- ☐ Business description

GENERAL CHARACTERISTICS - Confirm each item is complete:

- ☐ Indian Country Lands –the facility is not on Indian Country Lands
- ☐ Construction activity related to facility associated to oil, gas, or geothermal resources
- ☐ Standard Industrial Classification (SIC) Code www.osha.gov/oshstats/sicser.html
- ☐ Acres disturbed is provided and qualifies for coverage through a NOI
- ☐ Common plan of development or sale
- ☐ Receiving water body(s)
- ☐ Segment number(s)
- ☐ Impaired water body(s)
- ☐ MS4 operator
- ☐ Edwards Aquifer rule

CERTIFICATION

- ☐ Certification statements have been checked indicating "Yes"
- ☐ Signature meets 30 Texas Administrative Code (TAC) 305.44 and is original.

Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity under TPDES General Permit (TXR150000)

General Information and Instructions

GENERAL INFORMATION

Where to Send the Notice of Intent (NOI):

BY REGULAR U.S. MAIL

Texas Commission on Environmental Quality
Stormwater Processing Center (MC-228)
P.O. Box 13087
Austin, Texas 78711-3087

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental Quality
Stormwater Processing Center (MC-228)
12100 Park 35 Circle
Austin, TX 78753

TCEQ Contact List:

Application – status and form questions:

512/239-3700, swpermit@tceq.texas.gov

Technical questions:

512/239-4671, swgp@tceq.texas.gov

Environmental Law Division:

512/239-0600

Records Management - obtain copies of forms:

512/239-0900

Reports from databases (as available):

512/239-DATA (3282)

Cashier's office:

512/239-0357 or 512/239-0187

Notice of Intent Process:

When your NOI is received by the program, the form will be processed as follows:

- 1) **Administrative Review:** Each item on the form will be reviewed for a complete response. In addition, the operator's legal name must be verified with Texas Secretary of State as valid and active (if applicable). The address(s) on the form must be verified with the US Postal service as receiving regular mail delivery. Never give an overnight/express mailing address.
- 2) **Notice of Deficiency:** If an item is incomplete or not verifiable as indicated above, a notice of deficiency (NOD) will be mailed to the operator. The operator will have 30 days to respond to the NOD. The response will be reviewed for completeness.
- 3) **Acknowledgment of Coverage:** An Acknowledgment Certificate will be mailed to the operator. This certificate acknowledges coverage under the general permit.
-or-
Denial of Coverage: If the operator fails to respond to the NOD or the response is inadequate, coverage under the general permit may be denied. If coverage is denied, the operator will be notified.

General Permit (Your Permit)

For NOIs submitted **electronically** through ePermits, provisional coverage under the general permit begins immediately following confirmation of receipt of the NOI form by the TCEQ.

For **paper** NOIs, provisional coverage under the general permit begins **7 days after a completed NOI is postmarked for delivery** to the TCEQ.

You should have a copy of your general permit when submitting your application. You may view and print your permit for which you are seeking coverage, on the TCEQ web site <http://www.tceq.texas.gov>. Search using key word TXR150000.

General Permit Forms

The Notice of Intent (NOI), Notice of Termination (NOT), and Notice of Change (NOC) (including instructions) are available in Adobe Acrobat PDF format on the TCEQ web site <http://www.tceq.texas.gov>.

Change in Operator

An authorization under the general permit is not transferable. If the operator of the regulated entity changes, the present permittee must submit a Notice of Termination and the new operator must submit a Notice of Intent. The NOT and NOI must be submitted no later than 10 days prior to the change in Operator status.

TCEQ Central Registry Core Data Form

The Core Data Form has been incorporated into this form. Do not send a Core Data Form to TCEQ. After final acknowledgment of coverage under the general permit, the program will assign a Customer Number and Regulated Entity Number.

You can find the information on the Central Registry web site at <http://www15.tceq.texas.gov/crpub/>. You can search by the Regulated Entity (RN), Customer Number (CN) or Name (Permittee), or by your permit number under the search field labeled "Program ID". Capitalize all letters in the permit number.

The Customer (Permittee) is responsible for providing consistent information to the TCEQ, and for updating all CN and RN data for all authorizations as changes occur. For General Permits, a Notice of Change form must be submitted to the program area.

Fees associated with a General Permit

Payment of the fee may be made by check or money order, payable to TCEQ, or through EPAY (electronic payment through the web).

Application Fee: This fee is required to be paid at the time the NOI is submitted. Failure to submit payment at the time the application is filed will cause delays in acknowledgment or denial of coverage under the general permit.

Mailed Payments:

Payment must be mailed under separate cover at one of the addresses below using the attached Application Fee submittal form. (DO NOT SEND A COPY OF THE NOI WITH THE APPLICATION FEE SUBMITTAL FORM)

BY REGULAR U.S. MAIL
Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, Texas 78711-3088

BY OVERNIGHT/EXPRESS MAIL
Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, TX 78753

ePAY Electronic Payment: <http://www.tceq.texas.gov/epay>

When making the payment you must select Water Quality, and then select the fee category "General Permit Construction Storm Water Discharge NOI Application". You must include a copy of the payment voucher with your NOI. Your NOI will not be considered complete without the payment voucher.

INSTRUCTIONS FOR FILLING OUT THE NOI FORM

Renewal of General Permit. Dischargers holding active authorizations under the expired General Permit are required to submit a NOI to continue coverage. The existing permit number is required. If the permit number is not provided or has been terminated, expired, or denied a new permit number will be issued.

1. Operator (Applicant)

a) Enter assigned Customer Number (CN)

TCEQ's Central Registry will assign each customer a number that begins with CN, followed by nine digits. **This is not a permit number, registration number, or license number.**

If this customer has not been assigned a CN, leave the space for the CN blank.

If this customer has already been assigned this number, enter the permittee's CN.

b) Legal Name

Provide the current legal name of the permittee, as authorized to do business in Texas. The name must be provided exactly as filed with the Texas Secretary of State (SOS), or on other legal documents forming the entity, that is filed in the county where doing business. You may contact the SOS at 512/463-5555, for more information related to filing in Texas. If filed in the county where doing business, provide a copy of the legal documents showing the legal name.

c) Operator Contact's (Responsible Authority) Contact Information and Mailing Address

Provide the first and last name, and the title of the person signing the Certification section of the application. This person must be an individual having signatory authority in accordance with 30 TAC Chapter §305.44. This person is also referred to as the Responsible Authority.

Provide a complete mailing address for receiving mail from the TCEQ. The address must be verifiable with the US Postal Service at

<https://tools.usps.com/go/ZipLookupAction!input.action> for regular mail delivery (not overnight express mail). If you find that the address is not verifiable using the USPS web search, please indicate the address is used by the USPS for regular mail delivery.

The area code and phone number should provide contact to the operator. Leave Extension blank if not applicable.

The fax number and e-mail address are optional and should correspond to the operator.

d) Type of Customer (Entity Type)

Check only one box that identifies the type of entity. Use the descriptions below to identify the appropriate entity type. Note that the selected entity type also indicates the name that must be provided as an applicant for a permit, registration or authorization.

Sole Proprietorship – DBA

A sole proprietorship is a customer that is owned by only one person and has not been incorporated. This business may:

- be under the person's name
- have its own name (doing business as or d.b.a.)
- have any number of employees

If the customer is a Sole Proprietorship or DBA, the 'legal name' of the individual business 'owner' must be provided. The DBA name is not recognized as the 'legal name' of the entity. The DBA name may be used for the site name (regulated entity).

Individual

An individual is a customer who has not established a business, but conducts an activity that needs to be regulated by the TCEQ.

Partnership

- A customer that is established as a partnership as defined by the Texas Secretary of State Office (TX SOS). A Limited Partnership or Limited Liability Partnership (Partnership) is required to file with the Texas Secretary of State. A General Partnership or Joint Venture is not required to register with the state.
- **Partnership (Limited Partnership or Limited Liability Partnership):** A limited partnership is defined in the Act as a partnership formed by two or more persons under the provisions of Section 3 of the Uniform Limited Partnership Act (Art. 6132a, Revised Civil Statutes of Texas) and having as members one or more general partners and one or more limited partners. The limited partners as such are not bound by the obligations of the partnership. Limited partners may not take part in the day-to-day operations of the business. A Limited Partnership must file with the Texas Secretary of State. A registered limited liability partnership is a general or limited partnership that is registered with the Texas Secretary of State. The partnership's name must contain the words "Registered Limited Liability Partnership" or the abbreviation "L.L.P." as the last words or letters of its name.
- **General Partnership:** A general partner may or may not invest, participates in running the partnership and is liable for all acts and debts of the partnership and any member of it. A General Partnership does not have limited partners. For a General Partnership, there is no registration with the state or even written agreement necessary for a general partnership to be formed. The legal definition of a partnership is generally stated as "an association of two or more persons to carry on as co-owners a business for profit" (Revised Uniform Partnership Act § 101 [1994]).
- **Joint Venture:** A joint venture is but another name for a special partnership. It might be distinguished from a general partnership in that the latter is formed for the transaction of a general business, while a joint venture is usually limited to a single transaction. That is, a joint venture is a special combination of persons in the nature of a partnership engaged in the joint prosecution of a particular transaction for mutual benefit or profit.

Corporation

A customer meets all of these conditions:

- is a legally incorporated entity under the laws of any state or country
- is recognized as a corporation by the Texas Secretary of State
- has proper operating authority to operate in Texas.
- The corporation's 'legal name' as filed with the Texas Secretary of State must be provided as applicant. An 'assumed' name of a corporation is not recognized as the 'legal name' of the entity.

Government

Federal, state, county, or city government (as appropriate)

The customer is either an agency of one of these levels of government or the governmental body itself. The government agency's 'legal name' must be provided as the

applicant. A department name or other description of the organization should not be included as a part of the 'legal name' as applicant.

Trust or Estate

A trust and an estate are fiduciary relationships governing the trustee/executor with respect to the trust/estate property.

Other Government

A utility district, water district, tribal government, college district, council of governments, or river authority. Write in the specific type of government.

e) Independent Entity

Check No if this customer is a subsidiary, part of a larger company, or is a governmental entity. Otherwise, check Yes.

f) Number of Employees

Check one box to show the number of employees for this customer's entire company, at all locations. This is not necessarily the number of employees at the site named in the application.

g) Customer Business Tax and Filing Numbers

These are required for Corporations and Limited Partnerships. These are not required for Individuals, Government, and Sole Proprietors.

State Franchise Tax ID Number

Corporations and limited liability companies that operate in Texas are issued a franchise tax identification number. If this customer is a corporation or limited liability company, enter this number here.

Federal Tax ID

All businesses, except for some small sole proprietors, individuals, or general partnerships should have a federal taxpayer identification number (TIN). Enter this number here. Use no prefixes, dashes, or hyphens. Sole proprietors, individuals, or general partnerships do not need to provide a federal tax ID.

TX SOS Charter (filing) Number

Corporations and Limited Partnerships required to register with the Texas Secretary of State are issued a charter or filing number. You may obtain further information by calling SOS at 512/463-5555.

DUNS Number

Most businesses have a DUNS (Data Universal Numbering System) number issued by Dun and Bradstreet Corp. If this customer has one, enter it here.

2. APPLICATION CONTACT

Provide the name, title and communication information of the person that TCEQ can contact for additional information regarding this application.

3. REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE

a) Regulated Entity Reference Number (RN)

A number issued by TCEQ's Central Registry to sites (a location where a regulated activity occurs) regulated by TCEQ. This is not a permit number, registration number, or license number. If this regulated entity has not been assigned an RN, leave this space blank.

If the site of your business is part of a larger business site, a Regulated Entity Number (RN) may already be assigned for the larger site. Use the RN assigned for the larger site. Search TCEQ's Central Registry to see if the larger site may already be registered as a regulated site at: <http://www.tceq.texas.gov/goto/cr-searchrn>

If the site is found, provide the assigned Regulated Entity Reference Number (RN) and provide the information for the site to be authorized through this application. The site information for this authorization may vary from the larger site information.

An example is a chemical plant where a unit is owned or operated by a separate corporation that is accessible by the same physical address of your unit or facility. Other examples include industrial parks identified by one common address but different corporations have control of defined areas within the site. In both cases, an RN would be assigned for the physical address location and the permitted sites would be identified separately under the same RN.

b) Site/Project Name/Regulated Entity

Provide the name of the site as known by the public in the area where the site is located. The name you provide on this application will be used in the TCEQ Central Registry as the Regulated Entity name.

c) Description of Activity Regulated

In your own words, briefly describe the primary business that you are doing that requires this authorization. Do not repeat the SIC Code description.

d) County

Identify the county or counties in which the regulated entity is located.

e) Latitude and Longitude

Enter the latitude and longitude of the site in degrees, minutes, and seconds or decimal form. For help obtaining the latitude and longitude, go to:

<http://www.tceq.texas.gov/gis/sqmapview.html> or <http://nationalmap.gov/ustopo>

f) Site/Project (RE) Physical Address/Location Information

Enter the complete address for the site in Section A if the address can be validated through the US Postal Service. If the physical address is not recognized as a USPS delivery address, you may need to validate the address with your local police (911 service) or through an online map site used to locate a site. Please confirm this to be a complete and valid address. Do not use a rural route or post office box for a site location.

If a site does not have an address that includes a street (or house) number and street name, enter NO ADDRESS for the street name in Section A. In Section B provide a complete written location description. For example: "The site is located 2 miles west from intersection of Hwy 290 & IH35, located on the southwest corner of the Hwy 290 South bound lane." Provide the city (or nearest city) and zip code of the facility location.

4. GENERAL CHARACTERISTICS

a) Indian Country Lands

If your site is located on Indian Country Lands, the TCEQ does not have authority to process your application. You must obtain authorization through EPA, Region 6, Dallas. Do not submit this form to TCEQ.

b) Construction activity associated with facility associated with exploration, development, or production of oil, gas, or geothermal resources

If your activity is associated with oil and gas exploration, development, or production, you may be under jurisdiction of the Railroad Commission of Texas and may need to obtain authorization from EPA Region 6. For more information, see:

[http://texreg.sos.state.tx.us/public/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=30](http://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=30)

Construction activities associated with a facility related to oil, gas or geothermal resources may include the construction of a well site; treatment or storage facility; underground hydrocarbon or natural gas storage facility; reclamation plant; gas processing facility; compressor station; terminal facility where crude oil is stored prior to refining and at which refined products are stored solely for use at the facility; a carbon dioxide geologic storage facility; and a gathering, transmission, or distribution pipeline that will transport crude oil or natural gas, including natural gas liquids, prior to refining of such oil or the use of the natural gas in any manufacturing process or as a residential or industrial fuel.

Where required by federal law, discharges of stormwater associated with construction activities under the Railroad Commission's jurisdiction must be authorized by the EPA and the Railroad Commission of Texas, as applicable. Activities under Railroad Commission of Texas jurisdiction include construction of a facility that, when completed, would be associated with the exploration, development, or production of oil or gas or geothermal resources, such as a well site; treatment or storage facility; underground hydrocarbon or natural gas storage facility; reclamation plant; gas processing facility; compressor station; terminal facility where crude oil is stored prior to refining and at which refined products are stored solely for use at the facility; a carbon dioxide geologic storage facility under the jurisdiction of the Railroad Commission of Texas; and a gathering, transmission, or distribution pipeline that will transport crude oil or natural gas, including natural gas liquids, prior to refining of such oil or the use of the natural gas in any manufacturing process or as a residential or industrial fuel. The Railroad Commission of Texas also has jurisdiction over stormwater from land disturbance associated with a site survey that is conducted prior to construction of a facility that would be regulated by the Railroad Commission of Texas. Under 33 U.S.C. §1342(l)(2) and §1362(24), EPA cannot require a permit for discharges of stormwater from "field activities or operations associated with {oil and gas} exploration, production, processing, or treatment operations, or transmission facilities, including activities necessary to prepare a site for drilling and for the movement and placement of drilling equipment, whether or not such field activities or operations may be considered to be construction activities" unless the discharge is contaminated by contact with any overburden, raw material, intermediate product, finished product, byproduct, or waste product located on the site of the facility. Under §3.8 of this title (relating to Water Protection), the Railroad Commission of Texas prohibits operators from causing or allowing pollution of surface or subsurface water. Operators are encouraged to implement and maintain best management practices (BMPs) to minimize discharges of pollutants, including sediment, in stormwater during construction activities to help ensure protection of surface water quality during storm events.

c) Primary Standard Industrial Classification (SIC) Code

Provide the SIC Code that best describes the construction activity being conducted at this site.

Common SIC Codes related to construction activities include:

- 1521 - Construction of Single Family Homes
- 1522 - Construction of Residential Bldgs. Other than Single Family Homes
- 1541 - Construction of Industrial Bldgs. and Warehouses

- 1542 - Construction of Non-residential Bldgs, other than Industrial Bldgs. and Warehouses
- 1611 - Highway and Street Construction, except Highway Construction
- 1622 - Bridge, Tunnel, and Elevated Highway Construction
- 1623 - Water, Sewer, Pipeline and Communications, and Power Line Construction

For help with SIC Codes, go to:

<http://www.osha.gov/pls/imis/sicsearch.html>

d) Secondary SIC Code

Secondary SIC Code(s) may be provided. Leave blank if not applicable. For help with SIC Codes, go to: <http://www.osha.gov/pls/imis/sicsearch.html>

e) Total Number of Acres Disturbed

Provide the approximate number of acres that the construction site will disturb. Construction activities that disturb less than one acre, unless they are part of a larger common plan that disturbs more than one acre, do not require permit coverage. Construction activities that disturb between one and five acres, unless they are part of a common plan that disturbs more than five acres, do not require submission of an NOI. Therefore, the estimated area of land disturbed should not be less than five, unless the project is part of a larger common plan that disturbs five or more acres. Disturbed means any clearing, grading, excavating, or other similar activities.

If you have any questions about this item, please contact the stormwater technical staff by phone at (512)239-4671 or by email at swgp@tceq.texas.gov.

f) Common Plan of Development

Construction activities that disturb less than five acres do not require submission of an NOI unless they are part of a common plan of development or for sale where the area disturbed is five or more acres. Therefore, the estimated area of land disturbed should not be less than five, unless the project is part of a larger common plan that disturbs five or more acres. Disturbed means any clearing, grading, excavating, or other similar activities.

For more information on "What is a common plan of development?" go to:

www.tceq.texas.gov/permitting/stormwater/common_plan_of_development_steps.html

For further information, go to the TCEQ stormwater construction webpage at:

www.tceq.texas.gov/goto/construction and search for "Additional Guidance and Quick Links". If you have any further questions about this item, please call the stormwater technical staff at (512)239-4671.

g) Identify the water body(s) receiving stormwater runoff

The stormwater may be discharged directly to a receiving stream or through a MS4 from your site. It eventually reaches a receiving water body such as a local stream or lake, possibly via a drainage ditch. You must provide the name of the water body that receives the discharge from the site (a local stream or lake).

If your site has more than one outfall you need to include the name of the first water body for each outfall, if they are different.

h) Identify the segment number(s) of the classified water body(s)

Identify the classified segment number(s) receiving a discharge directly or indirectly. Go to the following link to find the segment number of the classified water body where stormwater will flow from the site: www.tceq.texas.gov/waterquality/monitoring/viewer.html

You may also find the segment number in TCEQ publication GI-316:

www.tceq.texas.gov/publications/gi/gi-316

If the discharge is into an unclassified receiving water and then crosses state lines prior to entering a classified segment, select the appropriate watershed:

- 0100 (Canadian River Basin)
- 0200 (Red River Basin)
- 0300 (Sulfur River Basin)
- 0400 (Cypress Creek Basin)
- 0500 (Sabine River Basin)

Call the Water Quality Assessments section at (512)239-4671 for further assistance.

i) Discharge into MS4 – Identify the MS4 Operator

The discharge may initially be into a municipal separate storm sewer system (MS4). If the stormwater discharge is into an MS4, provide the name of the entity that operates the MS4 where the stormwater discharges. An MS4 operator is often a city, town, county, or utility district, but possibly can be another form of government. Please note that the Construction General Permit requires the Operator to supply the MS4 with a copy of the NOI submitted to TCEQ. For assistance, you may call the technical staff at (512)239-4671.

j) Surface Water bodies on list of impaired waters – Identify the impaired water body(s)

Indicate Yes or No if any surface water bodies receiving discharges from the construction site are on the latest EPA-approved CWA 303(d) List of impaired waters. Provide the name(s) of surface water bodies receiving discharges or potential discharges from the construction site that are on the latest EPA-approved CWA 303(d) List of impaired waters. The EPA-approved CWA 303(d) List of impaired waters in Texas can be found at:

www.tceq.texas.gov/waterquality/assessment/305_303.html

NOTE: Do not use any "draft" documents.

k) Discharges to the Edwards Aquifer Recharge Zone and Certification

See maps on the TCEQ website to determine if the site is located within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer at: www.tceq.texas.gov/field/eapp/viewer.html

If the discharge or potential discharge is within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer, a site specific authorization approved by the Executive Director under the Edwards Aquifer Protection Program (30 TAC Chapter 213) is required before construction can begin. The certification must be answered "Yes" for coverage under the Construction General Permit. The TCEQ approved plan must be readily available for TCEQ staff to review at the time that the NOI is submitted.

The general permit requires the approved Contributing Zone Plan or Water Pollution Abatement Plan to be included or referenced as a part of the Stormwater Pollution Prevention Plan.

For questions regarding the Edwards Aquifer Protection Program, contact the appropriate TCEQ Regional Office. For projects in Hays, Travis and Williamson Counties: Austin Regional Office, 12100 Park 35 Circle, Austin, TX 78753, 512-339-2929. For Projects in Bexar, Comal, Kinney, Medina and Uvalde Counties: TCEQ San Antonio Regional Office, 14250 Judson Rd., San Antonio, TX 78233-4480, 210-490-3096.

5. CERTIFICATIONS

Failure to indicate **Yes** to ALL of the certification items may result in denial of coverage under the general permit.

a) Certification of Understanding the Terms and Conditions of Construction General Permit (TXR150000)

Provisional coverage under the Construction General Permit (TXR150000) begins 7 days after the completed paper NOI is postmarked for delivery to the TCEQ. (Electronic applications submitted through ePermits have immediate provisional coverage). You must obtain a copy and read the Construction General Permit before submitting your application. You may view and print the Construction General Permit for which you are seeking coverage at the TCEQ web site: www.tceq.texas.gov/goto/construction

b) Certification of Legal Name

The full legal name of the applicant as authorized to do business in Texas is required. The name must be provided exactly as filed with the Texas Secretary of State (SOS), or on other legal documents forming the entity, that is filed in the county where doing business. You may contact the SOS at (512)463 5555, for more information related to filing in Texas.

c) Understanding of Notice of Termination

A permittee shall terminate coverage under this Construction General Permit through the submittal of a NOT when the operator of the facility changes, final stabilization has been reached, the discharge becomes authorized under an individual permit, or the construction activity never began at this site.

d) Certification of Stormwater Pollution Prevention Plan

The SWP3 identifies the areas and activities that could produce contaminated runoff at your site and then tells how you will ensure that this contamination is mitigated. For example, in describing your mitigation measures, your site's plan might identify the devices that collect and filter stormwater, tell how those devices are to be maintained, and tell how frequently that maintenance is to be carried out. You must develop this plan in accordance with the TCEQ general permit requirements. This plan must be developed and implemented before you complete this NOI. The SWP3 must be available for a TCEQ investigator to review on request.

Operator Certification:

The certification must bear an original signature of a person meeting the signatory requirements specified under 30 Texas Administrative Code (TAC) §305.44.

IF YOU ARE A CORPORATION:

The regulation that controls who may sign an NOI or similar form is 30 Texas Administrative Code §305.44(a)(1) (see below). According to this code provision, any corporate representative may sign an NOI or similar form so long as the authority to sign such a document has been delegated to that person in accordance with corporate procedures. By signing the NOI or similar form, you are certifying that such authority has been delegated to you. The TCEQ may request documentation evidencing such authority.

IF YOU ARE A MUNICIPALITY OR OTHER GOVERNMENT ENTITY:

The regulation that controls who may sign an NOI or similar form is 30 Texas Administrative Code §305.44(a)(3) (see below). According to this code provision, only a ranking elected official or principal executive officer may sign an NOI or similar form. Persons such as the City Mayor or County Commissioner will be considered ranking elected officials. In order to identify the principal executive officer of your government entity, it may be beneficial to consult your city charter, county or city ordinances, or the Texas statute(s) under which your government entity was formed. An NOI or similar document that is signed by a government official who is not a ranking elected official or principal executive officer does not conform to §305.44(a)(3). The signatory requirement may not be delegated to a government representative other than those identified in the regulation. By signing the NOI or similar form, you are certifying that you are either a ranking elected official or principal executive officer as required by the administrative code. Documentation demonstrating your position as a ranking elected official or principal executive officer may be requested by the TCEQ.

If you have any questions or need additional information concerning the signatory requirements discussed above, please contact the Texas Commission on Environmental Quality's Environmental Law Division at (512)239-0600.

30 Texas Administrative Code**§305.44. Signatories to Applications**

(a) All applications shall be signed as follows.

(1) For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

(2) For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively.

(3) For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or a ranking elected official. For purposes of this paragraph, a principal executive officer of a federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., regional administrator of the EPA).

Texas Commission on Environmental Quality General Permit Payment Submittal Form

Use this form to submit your Application Fee only if you are mailing your payment.

- Complete items 1 through 5 below:
- Staple your check in the space provided at the bottom of this document.
- Do not mail this form with your NOI form.
- Do not mail this form to the same address as your NOI.

Mail this form and your check to:

BY REGULAR U.S. MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, TX 78711-3088

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, TX 78753

Fee Code: GPA

General Permit:

TXR150000

1. Check / Money Order Number:
2. Amount of Check/Money Order:
3. Date of Check or Money Order:
4. Name on Check or Money Order:
5. NOI INFORMATION

If the check is for more than one NOI, list each Project/Site (RE) Name and Physical Address exactly as provided on the NOI. DO NOT SUBMIT A COPY OF THE NOI WITH THIS FORM AS IT COULD CAUSE DUPLICATE PERMIT ENTRIES.

See Attached List of Sites (If more space is needed, you may attach a list.)

Project/Site (RE) Name:

Project/Site (RE) Physical Address:

Staple Check in This Space

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

I Christopher Plekenpol
Print Name

Lead Pastor
Title - Owner/President/Other

of Wells Branch Community Church
Corporation/Partnership/Entity Name

have authorized Calvin Weiman
Print Name of Agent/Engineer

of Austin Civil Engineering Inc
Print Name of Firm

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

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to \$10,000 per day per violation.
2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.
3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.
4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.
5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Chris Plekenpaw
Applicant's Signature

September 15, 2024
Date

THE STATE OF TX §

County of Travis §

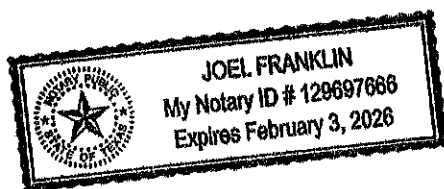
BEFORE ME, the undersigned authority, on this day personally appeared Chris Plekenpaw known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 15 day of September, 2024.

Joel Franklin
NOTARY PUBLIC

Typed or Printed Name of Notary

MY COMMISSION EXPIRES: _____



Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Breakaway Church

Regulated Entity Location: 2601 Brushy Creek Rd, Cedar Park, TX 78613

Name of Customer: Wells Branch Community Church

Contact Person: Christopher Plekenpol

Phone: 512-540-6056

Customer Reference Number (if issued): CN 604082206

Regulated Entity Reference Number (if issued): RN 106242464

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

☐ San Antonio Regional Office

☐ Mailed to: TCEQ - Cashier

☐ Overnight Delivery to: TCEQ - Cashier

Revenues Section

Mail Code 214

P.O. Box 13088

Austin, TX 78711-3088

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	4.38 Acres	\$ 4,000
Sewage Collection System	L.F.	\$
Lift Stations without sewer lines	Acres	\$
Underground or Aboveground Storage Tank Facility	Tanks	\$
Piping System(s)(only)	Each	\$
Exception	Each	\$
Extension of Time	Each	\$

Signature: Calvin J. Wein

Date: 08/13/2024

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

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

Organized Sewage Collection Systems and Modifications

<i>Project</i>	<i>Cost per Linear Foot</i>	<i>Minimum Fee- Maximum Fee</i>
Sewage Collection Systems	\$0.50	\$650 - \$6,500

Underground and Aboveground Storage Tank System Facility Plans and Modifications

<i>Project</i>	<i>Cost per Tank or Piping System</i>	<i>Minimum Fee- Maximum Fee</i>
Underground and Aboveground Storage Tank Facility	\$650	\$650 - \$6,500

Exception Requests

<i>Project</i>	<i>Fee</i>
Exception Request	\$500

Extension of Time Requests

<i>Project</i>	<i>Fee</i>
Extension of Time Request	\$150



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		RN

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)			
☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership ☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
<i>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).</i>					
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>	
Wells Branch Community Church					
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	
0801147757				27-0641864	
10. DUNS Number (if applicable)					
11. Type of Customer:		☐ Corporation		☐ Individual	
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other		☐ Sole Proprietorship		Partnership: ☐ General ☐ Limited	
12. Number of Employees		13. Independently Owned and Operated?			
☐ 0-20 ☒ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher		☒ Yes ☐ No			
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
☐ Owner ☐ Operator ☐ Owner & Operator ☒ Other: Lead Pastor ☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant					
15. Mailing Address:		2113 Wells Branch Pkwy Ste 1300			
City		Austin		State TX	
ZIP		78728		ZIP + 4	
16. Country Mailing Information (if outside USA)			17. E-Mail Address (if applicable)		
N/A			chris@wellsbranchchurch.com		

18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)
(512) 540-6056		() -

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								
<i>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).</i>								
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)								
Breakaway Church								
23. Street Address of the Regulated Entity: (No PO Boxes)	2601 Brushy Creek Rd							
	City	Cedar Park	State	TX	ZIP	78613	ZIP + 4	
24. County	Williamson							

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

25. Description to Physical Location:	Located on Brushy Creek Rd, in front of Brushy Creek Recreation Park.							
26. Nearest City					State	Nearest ZIP Code		
Cedar Park					TX	78613		
<i>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).</i>								
27. Latitude (N) In Decimal:		30.502680			28. Longitude (W) In Decimal:		-97.804800	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds			
30°	30'	9.648"	97°	48'	17.28"			
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)			
8661			813110					
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)								
Religious Organization								
34. Mailing Address:	2113 Wells Branch Pkwy Ste 1300							
	City	Austin	State	TX	ZIP	78728	ZIP + 4	
35. E-Mail Address:	chris@wellsbranchchurch.com							
36. Telephone Number	37. Extension or Code		38. Fax Number (if applicable)					
(512) 276-2194			() -					

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.

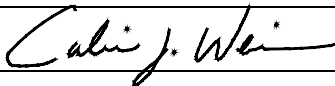
☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water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

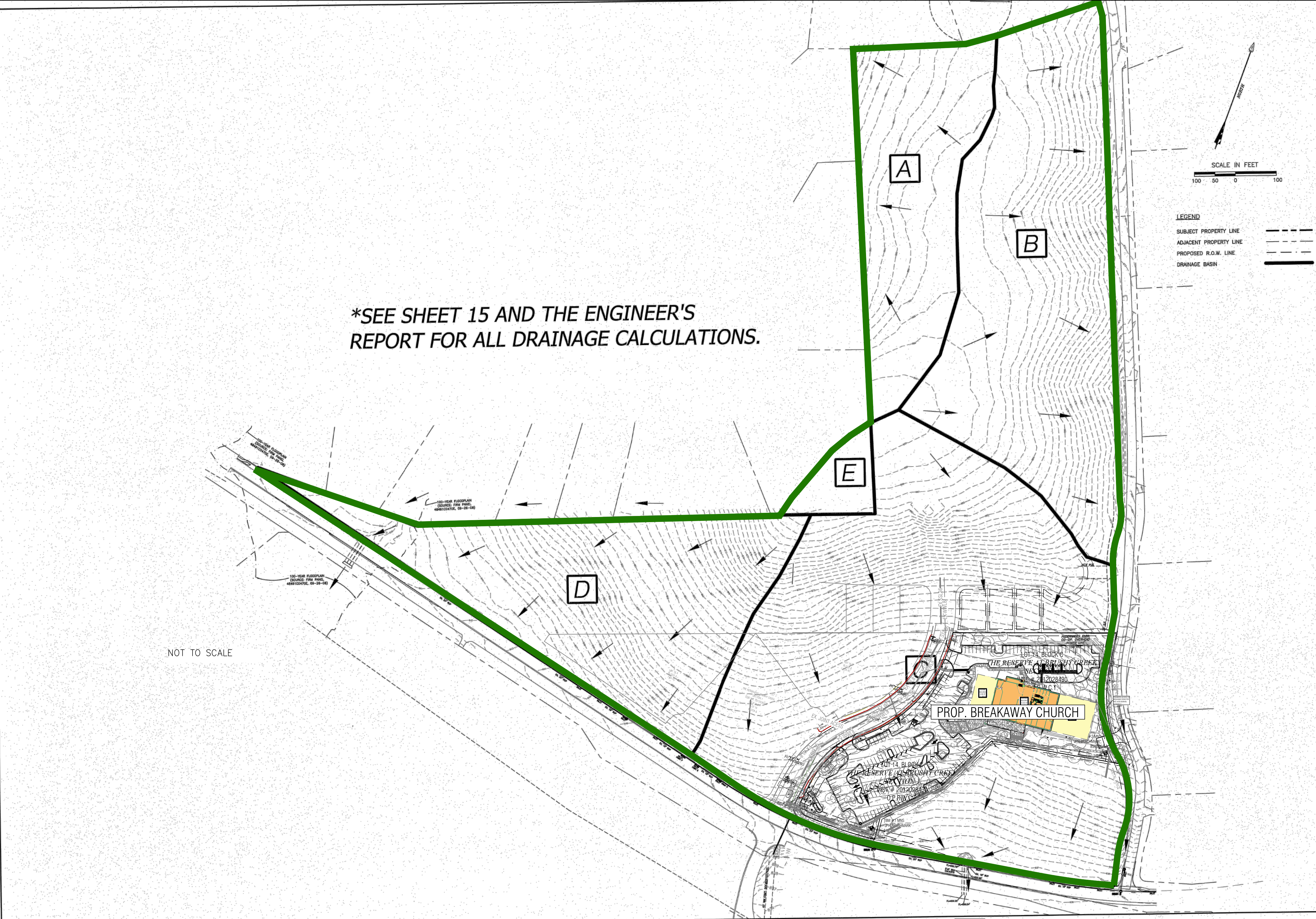
SECTION IV: Preparer Information

40. Name:	Calvin weiman	41. Title:	Project Engineer
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512) 306-0018		() -	teamc@austincivil.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:	Austin Civil Engineering Inc	Job Title:	Project Engineer
Name (In Print):	Calvin Weiman	Phone:	(512) 306- 18
Signature:		Date:	8/13/2024



*SEE SHEET 15 AND THE ENGINEER'S
REPORT FOR ALL DRAINAGE CALCULATIONS.

NOT TO SCALE

LEGEND

SUBJECT PROPERTY LINE

ADJACENT PROPERTY LINE

PROPOSED R.O.W. LINE

DRAINAGE BASIN

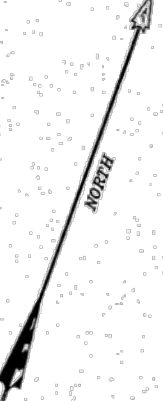


EXHIBIT A

TOTAL SITE AREA=41.06 ACRES (41.1 AC)

APPROVED IC BY DESIGN 22.81AC (22.8) ac

PROPOSED SITE AREA

TOTAL SITE AREA=41.06 ACRES (41.1 AC)

PROPOSED IMPERVIOUS COVER=22.47 AC

HANRAHAN • PRITCHARD ENGINEERING, INC.

THE RESERVE AT BRUSHY CREEK SECTION 1



File: Projects/ BRUSHY CREEK/DRAINAGE

Job No. 211-05

Snapshot: DRAIN

1

BREAKAWAY CHURCH

2601 BRUSHY CREEK RD.

CEDAR PARK TEXAS 78613

REV.	DATE	DESCRIPTION	APPROVED BY

JOB: 21-019 DATE: 10/23/24

CAD: DMM/ML CHK'D BY:

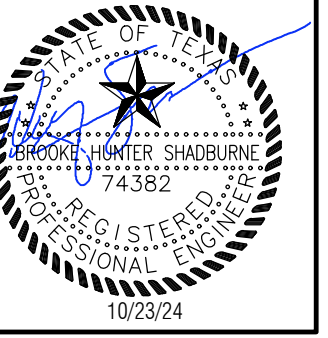
ENGINEER: HS CHK'D BY:

SCALE:

EXHIBIT

SITE CIVIL PLAN

A



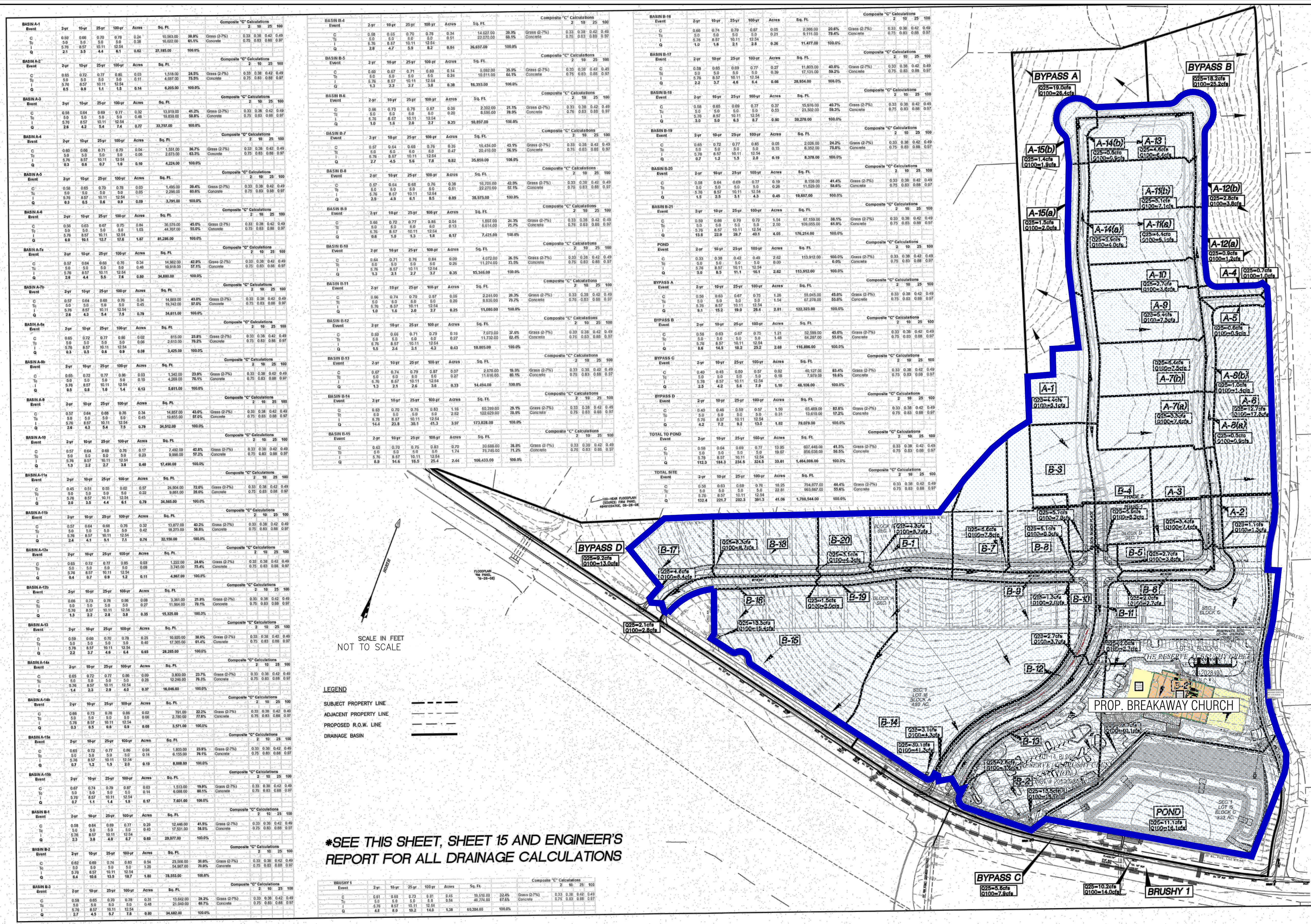
AUSTIN CIVIL
ENGINEERING, INC.

TBPE FIRM # F-001018

9501B MENCHACA RD # 220

AUSTIN, TX 78745

(512) 306-0018



*SEE THIS SHEET, SHEET 15 AND ENGINEER'S REPORT FOR ALL DRAINAGE CALCULATIONS

Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-1	0.59	0.66	0.70	0.78	0.24	10,563.00	38.8%	61.2%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.38	16,622.00	61.1%	38.9%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	2.1	3.5	4.4	6.1	0.62	27,185.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-2	0.65	0.72	0.77	0.85	0.03	1,510.00	34.2%	65.8%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.11	4,687.00	73.5%	26.5%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	0.5	0.9	1.1	1.5	0.14	6,203.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-3	0.58	0.64	0.69	0.77	0.32	13,919.00	41.2%	58.8%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.48	19,833.00	58.8%	41.2%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	2.6	4.2	5.4	7.4	0.77	33,757.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-4	0.60	0.66	0.71	0.79	0.04	1,551.00	36.7%	63.3%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.09	2,673.00	63.3%	36.7%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	0.9	1.6	2.0	2.9	0.10	4,224.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-5	0.58	0.65	0.70	0.78	0.03	1,495.00	39.4%	60.6%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.05	2,098.00	60.6%	39.4%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	0.9	1.5	1.9	2.7	0.09	3,791.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-6	0.50	0.63	0.67	0.75	0.84	36,570.00	45.0%	55.0%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	1.03	44,707.00	55.0%	45.0%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	0.9	1.6	2.0	2.9	1.87	81,286.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-7a	0.57	0.64	0.69	0.76	0.34	14,869.00	43.0%	57.0%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.45	19,742.00	57.0%	43.0%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	2.6	4.4	5.6	7.8	0.80	34,850.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-7b	0.57	0.64	0.69	0.76	0.34	14,869.00	43.0%	57.0%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.45	19,742.00	57.0%	43.0%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	2.6	4.4	5.6	7.8	0.80	34,850.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-8a	0.65	0.72	0.77	0.85	0.02	815.00	23.8%	76.2%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.06	2,010.00	76.2%	23.8%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	0.9	1.5	1.9	2.7	0.08	3,425.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-8b	0.65	0.72	0.77	0.85	0.02	815.00	23.8%	76.2%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.06	2,010.00	76.2%	23.8%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	0.9	1.5	1.9	2.7	0.08	3,425.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-9	0.57	0.64	0.69	0.76	0.34	14,869.00	43.0%	57.0%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.45	19,742.00	57.0%	43.0%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	2.6	4.3	5.4	7.5	0.79	34,512.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-10	0.57	0.64	0.69	0.76	0.34	14,869.00	43.0%	57.0%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.45	19,742.00	57.0%	43.0%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	2.6	4.3	5.4	7.5	0.79	34,512.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-11a	0.57	0.64	0.69	0.76	0.37	17,402.00	42.8%	57.2%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.23	9,966.00	57.2%	42.8%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	1.9	3.2	3.9	5.4	0.49	17,400.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-11b	0.45	0.51	0.55	0.62	0.57	24,004.00	72.0%	28.0%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.22	9,061.00	28.0%	72.0%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	2.0	3.5	4.4	6.1	0.79	34,565.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-11b	0.57	0.64	0.69	0.76	0.32	13,877.00	43.2%	56.8%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.42	19,733.00	56.8%	43.2%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	2.4	4.1	5.1	7.1	0.74	32,150.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-12a	0.65	0.72	0.77	0.85	0.03	1,222.00	24.6%	75.4%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.09	3,745.00	75.4%	24.6%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	0.4	0.7	0.9	1.2	0.11	4,987.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-12b	0.68	0.73	0.78	0.86	0.08	3,361.00	21.9%	78.1%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.27	11,064.00	78.1%	21.9%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	1.3	2.2	2.8	3.8	0.35	15,320.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-13	0.59	0.66	0.70	0.78	0.25	10,520.00	38.6%	61.4%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.40	17,365.00	61.4%	38.6%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	2.2	3.7	4.6	6.4	0.65	28,285.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-14a	0.65	0.72	0.77	0.86	0.09	3,800.00	23.7%	76.3%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.28	12,240.00	76.3%	23.7%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	1.4	2.3	2.8	4.0	0.37	16,046.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-14b	0.66	0.73	0.78	0.86	0.08	3,361.00	22.2%	77.8%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.26	11,064.00	77.8%	22.2%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	0.9	1.5	1.9	2.7	0.35	15,320.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-15a	0.65	0.72	0.77	0.86	0.04	1,533.00	33.9%	66.1%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.11	4,155.00	76.1%	23.9%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	0.7	1.2	1.5	2.2	0.19	8,088.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN A-15b	0.67	0.74	0.79	0.87	0.03	1,513.00	33.9%	66.1%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.11	4,155.00	76.1%	23.9%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	0.7	1.2	1.5	2.2	0.19	8,088.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN B-1	0.58	0.64	0.69	0.77	0.29	12,448.00	41.5%	58.5%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.40	17,371.00	58.5%	41.5%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	2.3	3.8	4.8	6.7	0.63	29,977.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN B-2	0.62	0.69	0.74	0.83	0.04	23,506.00	38.0%	62.0%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.20	54,967.00	78.0%	22.0%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	0.4	0.6	0.8	1.0	1.80	78,555.00	100.0%		
Composite "C" Calculations									
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.	Grass (2-7%)	Concrete	Grass (2-7%)
BASIN B-3	0.58	0.65	0.70	0.78	0.31	3,640.00	39.3%	60.7%	0.33 0.38 0.42 0.49
C	5.0	5.0	5.0	5.0	0.19	7,731.00	60.7%	39.3%	0.75 0.83 0.88 0.97
Tc	5.76	8.57	10.11	12.54					
Q	0.7	1.2	1.5	2.2	0.69	34,682.00	100.0%		



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 = 4.380 acres
Predevelopment impervious area within the limits of the plan = 0.000 acres
Total post-development impervious area within the limits of the plan = 2.687 acres
Total post-development impervious cover fraction = 0.613
 P = 32 inches

L_M TOTAL PROJECT = 2339 lbs.

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

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

Drainage Basin/Outfall Area No. = 1
Total drainage basin/outfall area = 33.610 acres
Predevelopment impervious area within drainage basin/outfall area = 0.000 acres
Post-development impervious area within drainage basin/outfall area = 19.670 acres
Post-development impervious fraction within drainage basin/outfall area = 0.59
 L_M THIS BASIN = 17121 lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch WQ
Removal efficiency = 91 percent

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 = 33.6100 acres
 A_I = 19.6700 acres
 A_P = 13.9400 acres
 L_R = 20038 lbs

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

Desired L_M THIS BASIN = 2339 lbs.

0

F = 0.12

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area.

Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth = 0.08 inches
Post Development Runoff Coefficient = 0.41
On-site Water Quality Volume = 3901 cubic feet

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

Off-site area draining to BMP = 0.00 acres
Off-site Impervious cover draining to BMP = 0.00 acres
Impervious fraction of off-site area = 0
Off-site Runoff Coefficient = 0.00
Off-site Water Quality Volume = 0 cubic feet

Storage for Sediment = 780
Total Capture Volume (required water quality volume(s) x 1.20) = 4681 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.

9. Filter area for Sand Filters

Designed as Required in RG-348
Pages 3-58 to 3-63

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = NA cubic feet
Minimum filter basin area = NA square feet
Maximum sedimentation basin area = NA square feet
Minimum sedimentation basin area = NA square feet

For minimum water depth of 2 feet
For maximum water depth of 8 feet

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = NA cubic feet
Minimum filter basin area = NA square feet
Maximum sedimentation basin area = NA square feet
Minimum sedimentation basin area = NA square feet

For minimum water depth of 2 feet
For maximum water depth of 8 feet

10. Bioretention System

Designed as Required in RG-348

Pages 3-63 to 3-65

Required Water Quality Volume for Bioretention Basin = NA cubic feet

11. Wet Basins

Designed as Required in RG-348

Pages 3-66 to 3-71

Required capacity of Permanent Pool = NA cubic feet
Required capacity at WQV Elevation = NA cubic feet

Permanent Pool Capacity is 1.20 times the WQV
Total Capacity should be the Permanent Pool Capacity plus a second WQV.