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 <u>30 TAC 213</u>.

Administrative Review

1. <u>Edwards Aquifer applications</u> 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: <u>http://www.tceq.texas.gov/field/eapp</u>.

- 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: Sanctuary Dripping Springs				2. Regulated Entity No.: N/A			
3. Customer Name: Sanctuary Dripping Springs, LLC			4. Cı	4. Customer No.: N/A			
5. Project Type: (Please circle/check one)	New	Modification Extension		Exception			
6. Plan Type: (Please circle/check one)	WPAP CZP	SCS			Technical Clarification	Optional Enhanced Measures	
7. Land Use: (Please circle/check one)	Residential	Non-r	Non-residential		8. Site (acres):		104.355
9. Application Fee:	10,000	10. P	10. Permanent BMP(s):		s):	Retention Irrigation	
11. SCS (Linear Ft.):	N/A	12. AST/UST (No. Tanks):			nks):	N/A	
13. County:	Hays	14. Watershed:		Gatlin Creek – Onion Creek			

Application Distribution

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

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

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

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

	Sa	an 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.

Lexie England

Print Name of Customer/Authorized Agent

Live Eightens

10/04/2023

Signature of Customer/Authorized Agent

Date

**FOR TCEQ INTERNAL USE ONLY*	**			
Date(s)Reviewed:		Date Administratively Complete:		ete:
Received From:		Correct N	Number of Copies:	
Received By:		Distribut	ion Date:	
EAPP File Number:		Complex:		
Admin. Review(s) (No.):		No. AR R	ounds:	
Delinquent Fees (Y/N):		Review T	ime Spent:	
Lat./Long. Verified:		SOS Customer Verification:		
Agent Authorization Complete/Notarized (Y/N):		Fee	Payable to TCEQ (Y	/N):
Core Data Form Complete (Y/N):		Check: Signed (Y/N):		
Core Data Form Incomplete Nos.:			Less than 90 days o	ld (Y/N):

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

I	Sara Morell	,
	Print Name	
	Founding Partner	
	Title - Owner/President/Other	
of	Sanctuary Dripping Springs, LLC Corporation/Partnership/Entity Name	,
have authorized	Lexie, England, P.E.	
	Print Name of Agent/Engineer	
of	Kimley-Horn	
	Print Name of Firm	

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

I also understand that:

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

SIGNATURE PAGE:

Applicant's Signature

10.13.23 Date

THE STATE OF TEXUS § County of Williamson §

BEFORE ME, the undersigned authority, on this day personally appeared <u>Sara Morell</u> 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 131 day of October , 2023.

8

NOTARY PUBLIC KAGE SOLIS

Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 03-09-2024



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: Lexie England, P.E.

Date: 10/04/2023

Signature of Customer/Agent:

Line Carthand

Regulated Entity Name: Sanctuary Dripping Springs, LLC

Project Information

- 1. County: <u>Hays</u>
- 2. Stream Basin: Pier Branch of Onion Creek
- 3. Groundwater Conservation District (if applicable): Hays Trinity GCD
- 4. Customer (Applicant):

Contact Person: <u>Justin Kathan</u> Entity: <u>Sanctuary Dripping Springs, LLC</u> Mailing Address: <u>1416 Green Terrace</u> City, State: <u>Round Rock, TX</u> Telephone: <u>N/A</u> Email Address: <u>justin@sanctuary.com</u>

Zip: <u>78620</u> Fax: <u>N/A</u>

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5. Agent/Representative (If any):

Contact Person: Lexie EnglandEntity: Kimley HornMailing Address: 5301 Southwest ParkwayCity, State: Austin, TXTelephone: 512-518-6529Email Address: lexie.england@kimley-horn.com

- 6. Project Location:
 - The project site is located inside the city limits of _____.
 - The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of <u>Dripping Springs, TX</u>.
 - The project site is not located within any city's limits or ETJ.
- 7. The location of the project site is described below. Sufficient detail and clarity has been provided so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

The 104.335 AC site is located at t	he northeast corner	of Chaparral In a	nd Deerfield Rd.
East of Dripping Springs, TX.			

- 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.

- 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
 - \boxtimes Impervious cover
 - \boxtimes Permanent BMP(s)
 - Proposed site use
 - X 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:

\boxtimes	Residential: # of Lots: <u>49</u>
\times	Residential: # of Living Unit Equivalents: 90
	Commercial

- Industrial
- Other: _____
- 13. Total project area (size of site): <u>104.335</u> Acres

Total disturbed area: <u>65.5</u> Acres

- 14. Estimated projected population: <u>N/A</u>
- 15. The amount and type of impervious cover expected after construction is complete is shown below:

Table 1 - Impervious	Cover
----------------------	-------

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	490,000	÷ 43,560 =	11.25
Parking	100,000	÷ 43,560 =	2.30
Other paved surfaces	535,600	÷ 43,560 =	12.30
Total Impervious Cover	1,125,600	÷ 43,560 =	25.85

Total Impervious Cover 25.85 ÷ Total Acreage 104.335 X 100 = 25 % 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

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18.	Туре	of	project:
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TXDOT road project. County road or roads built to county specifications. City thoroughfare or roads to be dedicated to a municipality. Street or road providing access to private driveways. 19. Type of pavement or road surface to be used: Concrete Asphaltic concrete pavement Other: 20. Right of Way (R.O.W.): Length of R.O.W.: _____ feet. Width of R.O.W.: feet. L x W =_____Ft² ÷ 43,560 Ft²/Acre = _____ acres. 21. Pavement Area: Length of pavement area: feet. Width of pavement area: feet. $L \times W = Ft^2 \div 43,560 Ft^2/Acre = acres.$ Pavement area acres ÷ R.O.W. area acres x 100 = % impervious cover.

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

A rest stop will not be included in this project.

23. Maintenance and repair of existing roadways that do not require approval from the TCEQ Executive Director. Modifications to existing roadways such as widening roads/adding shoulders totaling more than one-half (1/2) the width of one (1) existing lane require prior approval from the TCEQ.

Stormwater to be generated by the Proposed Project

24. X Attachment E - Volume and Character of Stormwater. A detailed description of the volume (quantity) and character (quality) of the stormwater runoff which is expected to occur from the proposed project is attached. The estimates of stormwater runoff quality and quantity are based on area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

Wastewater to be generated by the Proposed Project

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

| |N/A

26. Wastewater will be disposed of by:

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

Attachment F - Suitability Letter from Authorized Agent. An on-site sewage facility
will be used to treat and dispose of the wastewater from this site. The appropriate
licensing authority's (authorized agent) written approval is attached. It states that
the land is suitable for the use of private sewage facilities and will meet or exceed
the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285
relating to On-site Sewage Facilities.

Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

Sewage Collection System (Sewer Lines):

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

Existing.
Proposed.
A

Permanent Aboveground Storage Tanks(ASTs) ≥ 500 Gallons

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

N/A

27. Tanks and substance stored:

Table 2 - Tanks and Substance Storage

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

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

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

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

Table 3 - Secondary Containment

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

Total: _____ Gallons

30. Piping:

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

The piping will be aboveground

] The piping will be underground

- 31. The containment area must be constructed of and in a material impervious to the substance(s) being stored. The proposed containment structure will be constructed of:
- 32. Attachment H AST Containment Structure Drawings. A scaled drawing of the containment structure is attached that shows the following:
 - Interior dimensions (length, width, depth and wall and floor thickness).
 - Internal drainage to a point convenient for the collection of any spillage.

Tanks clearly labeled

Piping clearly labeled

Dispenser clearly labeled

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

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

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

Site Plan Requirements

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

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

Site Plan Scale: 1" = ____'.

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): <u>FEMA Flood Plain Map - Prelim Panel 48209C0120G ISSUED</u> <u>12/14/2022</u>.

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. \square 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. \square 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.

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45. Permanent aboveground storage tank facilities.

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

46. \boxtimes 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: <u>N/A</u>.

🗌 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 simulti-family residential developments, schools, or small busine or less impervious cover. A request to waive the requirement BMPs and measures is attached. The site will be used for multi-family residential development business sites but has more than 20% impervious cover. The site will not be used for multi-family residential development business sites. 	ness sites and has 20% ts for other permanent s, schools, or small
52. 🔀 Attachment J - BMPs for Upgradient Stormwater.	
 A description of the BMPs and measures that will be used to p surface water, groundwater, or stormwater that originates up and flows across the site is attached. No surface water, groundwater or stormwater originates upg and flows across the site, and an explanation is attached. Permanent BMPs or measures are not required to prevent po water, groundwater, or stormwater that originates upgradier flows across the site, and an explanation is attached. 	ogradient from the site radient from the site Ilution of surface
53. 🔀 Attachment K - BMPs for On-site Stormwater.	
 A description of the BMPs and measures that will be used to p surface water or groundwater that originates on-site or flows pollution caused by contaminated stormwater runoff from th Permanent BMPs or measures are not required to prevent po or groundwater that originates on-site or flows off the site, in caused by contaminated stormwater runoff, and an explanation 	off the site, including e site is attached. Ilution of surface water icluding pollution
54. Attachment L - BMPs for Surface Streams. A description of the E that prevent pollutants from entering surface streams is attached	
⊠ N/A	
55. Attachment M - Construction Plans. Construction plans and desi proposed permanent BMPs and measures have been prepared by supervision of a Texas Licensed Professional Engineer, and are sig dated. Construction plans for the proposed permanent BMPs and	y or under the direct gned, sealed, and

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

___ N/A

56. X Attachment N - Inspection, Maintenance, Repair and Retrofit Plan. A site and BMP specific plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan fulfills all of the following:
 Prepared and certified by the engineer designing the permanent BMPs and measures Signed by the owner or responsible party Outlines specific procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofit. Contains a discussion of record keeping procedures
□ N/A
57. Attachment O - Pilot-Scale Field Testing Plan. Pilot studies for BMPs that are not recognized by the Executive Director require prior approval from the TCEQ. A plan for pilot-scale field testing is attached.
⊠ N/A
58. Attachment P - Measures for Minimizing Surface Stream Contamination. A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is attached. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity, which increase erosion that result in water quality degradation.
□ N/A

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

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

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

Administrative Information

- 61. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions.
- 62. Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.
- 63. The site description, controls, maintenance, and inspection requirements for the storm water pollution prevention plan (SWPPP) developed under the EPA NPDES general permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC §213.24(1-5) of the technical report. All requirements of 30 TAC §213.24(1-5) have been met by the SWPPP document.
 - The Temporary Stormwater Section (TCEQ-0602) is included with the application.

ATTACHMENT A: Road Map



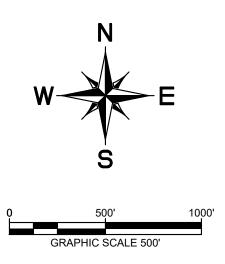
Sanctuary Dripping Springs

Dripping Springs, Texas October 23

DWG NAME LAST SAVED

K:\SAU_CIVIL\069424100 SANCTUARY DRIPPING SPRINGS\CAD\EXHIBITS\PLANSHEETS\LOCATION MAP.DWG 10/10/2023 5:29 PM

Road Map





ENEFIT OF A

NOTE: THIS PLAN IS CONCEPTUAL IN NATURE AND SURVEY, TOPOGRAPHY, UTILITIES, CONTACT WIT

ATTACHMENT B: USGS Quadrangle Map





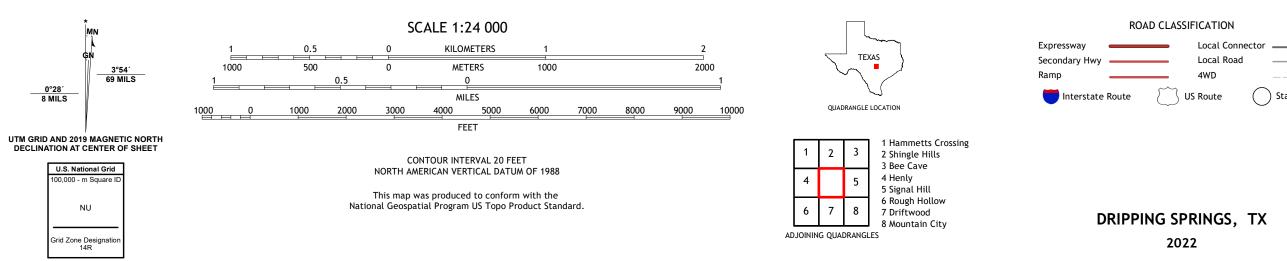
DRIPPING SPRINGS QUADRANGLE TEXAS 7.5-MINUTE SERIES

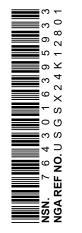




Produced by the United States Geological Survey North American Datum of 1983 (NAD83) World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid:Universal Transverse Mercator, Zone 14R This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within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

Imagery.... Roads..... Names..... Hydrography..... Contours..... Boundaries.....Mu Wetlands.... ..FWS National Wetlands Inventory Not Available





State Route

ATTACHMENT C: Project Narrative

This project narrative has been prepared for the Texas Commission on Environmental Quality and is directly for the use of the proposed Sanctuary Dripping Springs development (the "Project"). The subject property containing the Project is located at 1111 Hays Country Aces rd, within the city of Dripping Springs ETJ. The development is proposed on a +/- 104.335-acre site that consist of one tax parcel.

The proposed improvements include roadway improvements, drainage improvements, and associated utilities. These proposed improvements will add impervious cover to the site The proposed impervious cover is 25-acres of the total 104.335 acre site. Future development will be capped to bring a maximum of 25% impervious cover on site.

Areas within the project that are proposed to be demolished include 4 single family residential homes, $\pm 69,500$ SF of paved roadway, and $\pm 60,500$ SF of gravel roadway.

Water Quality Best Management Practices (BMP) for the Project will address the water quality requirements for the ultimate area disturbed. All drainage areas will utilize a retention-irrigation system which will utilize their own full-sedimentation retention basins to meet all water quality requirements per TCEQ requirements including a 10.89 off-site area draining onto the site.

ATTACHMENT D: Factors Affecting Surface Water Quality

No industrial associated activity discharges are expected for this proposed commercial development site. Surface water quality can be affected by disturbance during construction and by development after construction. Soil disturbance from clearing and grubbing and cut / fill operations can lead to discharge of sediment unless adequate temporary erosion control measures are in place. For this project, the use of silt fence, construction entrances, and rock berms will prevent sediment from leaving the site. Siltation collected by the control measures will be cleaned from fences, berms, etc. on a routine schedule as outlined in the SWPPP and contract specifications.

During construction, surface water quality may also be affected by a spill of hydrocarbons or other hazardous substances used in construction. The most likely instances of a spill of hydrocarbons or hazardous substances are:

- a) Refueling construction equipment.
- b) Oil and grease from the asphalt pavement and vehicle traffic.
- c) Performing operator-level maintenance, including adding petroleum, oils, or lubricants.
- d) Normal silt build-up.
- e) Unscheduled or emergency repairs, such as hydraulic fluid leaks.
- f) Trash with becomes loose from subdivision residents.
- g) Fertilizers used in the landscaping around the apartment buildings.

Every effort will be taken to be cautious and prevent spills. In the event of a fuel or hazardous substance spill as defined by the Reportable Quantities Table 1 (page 3) of the TCEQ's Small-Business Handbook for Spill Response (RG-285, June 1997), the contractor is required to clean up the spill and notify the TCEQ as required in RG-285. During business hours report spills to the TCEQ's Austin Regional Office at (512) 339-2929, after business hours call 1-800-832-8224, the Environmental Response Hotline or (512) 463-7727, the TCEQ Spill Reporting Hotline, which is also answered 24 hours a day.

After construction is complete, impervious cover for the tract of land is the major reason for degradation of water quality. Impervious cover includes the building foundations, street pavement and concrete sidewalks. Oil and fuel discharge from vehicles is anticipated. The proposed permanent BMPs on this project will help mitigate these occurrences.

ATTACHMENT E: Volume and Character of Stormwater

EXISTING HYDROLOGIC CONDITIONS ANALYSIS

The site has six existing on-site drainage areas and one offsite drainage area which outfall at six separate points of analysis (POA-1, POA-2, POA-3, POA-4, POA-5, and POA-6). Runoff from the existing drainage area DA-EX-1 flows from the center of the property to the north (POA-1). Runoff from the existing drainage area DA-EX-2 flows from the center of the property to the north (POA-2). Runoff from the existing drainage area DA-EX-3 flows from the center of the property to the north (POA-3). Runoff from the existing drainage area DA-EX-3 flows from the center of the property to the northeast (POA-3). Runoff from the existing drainage area DA-EX-4 flows from the center of the property to the southeast (POA-4). Runoff from the existing drainage area DA-EX-5 flows from the center of the property to the southeast (POA-4). Runoff from the existing drainage area DA-EX-5 flows from the center of the property to the south (POA-5). Runoff from the existing drainage area DA-EX-6 flows from the center of the property to the south (POA-5). Runoff from the existing drainage area DA-EX-6 flows from the center of the property to the south (POA-5). Runoff from the existing drainage area DA-EX-6 flows from the center of the property to the south (POA-5). Runoff from the existing drainage area DA-EX-6 flows from the center of the property to the south (POA-5). Runoff from the existing drainage area DA-EX-6 flows from the center of the property to the south (POA-6). The approach taken for the existing conditions of this site is to maintain the design peak flows to assure the downstream storm infrastructure can adequately convey the runoff and that the major point of confluence is not adversely affected. Table 4.1 below summarizes the existing drainage areas and the runoff produced for each storm event.

	ONS						Ī			
				PEAK FLOV	NS AT POA					
DRAINAGE AREA	AREA (AC.)	IMPERVIOUS COVER	BASE CN	IMPERVIOUS CN	WEIGHTED CN	TC (MIN)*	Q2 (CFS)	Q10 (CFS)	Q25 (CFS)	Q100 (CFS)
DA-EX-1	17.56	1.3%	80	98	80.2	17.9	38.70	73.10	96.70	136.00
DA-EX-2	6.40	1.9%	80	98	80.3	11.5	16.70	31.60	41.70	58.70
DA-EX-3	18.51	1.3%	80	98	80.2	8.9	49.90	93.70	123.00	172.40
*DA-EX-4	36.82	1.6%	80	98	80.3	10.7	85.00	163.30	216.70	306.40
*DA-EX-OFF4	10.89	5.6%								
*DA-EX-ON4	25.93	0.0%								
DA-EX-5	29.85	3.7%	80	98	80.7	13.4	74.20	140.80	185.90	261.80
DA-EX-6	4.99	5.2%	80	98	80.9	10.0	13.70	25.50	33.40	46.70

*DA-EX-OFF4 AND DA-EX-ON4 FLOWS ARE COMBINED IN DA-EX-4

PROPOSED HYDROLOGIC CONDITIONS ANALYSIS

The proposed drainage areas consider the additional impervious cover added in the proposed development. The proposed drainage areas generally follow the same drainage paths as existing conditions. The existing and proposed drainage areas were analyzed at their respective points of analysis. In all analyzed storm events, 2-year, 10-year, 25-year and 100-year, no point of analysis increased in peak run-off in the developed condition.

The time of concentrations were calculated using the equations used in the City of Austin (COA DCM) for sheet flow, shallow concentrated flow, and channel flow. Zone 2 of the City of Austin 24-hour rainfall hyetographs (COA DCM) were used to define the 2, 10, 25, and 100-year rainfall events.

Proposed drainage areas correspond to their respective existing drainage areas by number. For example, DA-PR-2 is outfalling to the same point-of-analysis (POA-2) as DA-EX-2.

PROPOSED CONDITIONS PEAK FLOWS AT POA (UNDETAINED)								PEAK	FLOWS AT	POA (DETA	AINED)			
DRAINAGE AREA	AREA (AC.)	IMPERVIOUS COVER	BASE CN	IMPERVIOUS CN	WEIGHTED CN	TC (MIN)*	Q2 (CFS)	Q10 (CFS)	Q25 (CFS)	Q100 (CFS)	Q2 (CFS)	Q10 (CFS)	Q25 (CFS)	Q100 (CFS)
DA-PR-1	17.33	25.0%	80	98	84.5	8.6	53.20	93.00	119.70	164.70	37.30	71.60	96.30	135.80
DA-PR2	6.41	25.0%	80	98	84.5	5.6	23.30	41.40	53.40	73.70	15.40	27.40	37.30	53.30
DA-PR-3	17.66	25.0%	80	98	84.5	8.8	54.30	95.00	122.30	168.30	49.20	92.40	119.90	165.90
DA-PR-4	37.62	19.4%	80	98	83.5	5.0	133.90	241.40	312.70	434.10	81.70	158.10	212.20	303.10
*DA-PR-OFF4	10.89	5.6%												
DA-PR-ON4	26.73	25.0%												
DA-PR-5	30.94	25.0%	80	98	84.5	11.3	93.00	163.90	211.50	291.90	70.50	137.20	181.00	252.40
DA-PR-6	4.66	25.0%	80	98	84.5	5.0	17.60	31.20	40.20	55.50	14.20	25.60	33.60	46.60

Table 4.2Proposed Drainage Areas Summary

* OFFSITE FLOWS FROM DA-PR-OFF4 ARE ROUTED TO POND 4

ATTACHMENT F: Suitability Letter From Authorized Agent

This attachment is not applicable. All lots are greater than 1 acre (1.6 AC minimum). All OSSF permitting is being conducted through Hays County.

ATTACHMENT G: Alternative Secondary Containment Methods

This attachment is not applicable. No alternative secondary containment methods will be utilized.

ATTACHMENT H: AST Containment Structure Drawings

This attachment is not applicable. No ASTs will be utilized.

ATTACHMENT I: 20% or Less Impervious Cover Waiver

This attachment is not applicable. The site will not be used for multi-family residential developments, schools, or small business sites.

ATTACHMENT J: BMPs for Upgradient Stormwater

All stormwater from offsite drainage area DA-PR-OFF4 is being detained in Pond 4 and accounted for in the drainage calculations. All other offsite drainage that originates upgradient of this site is flowing throught the site undisturbed.

No groundwater originates upgradient from the site and flows across the site.

ATTACHMENT K: BMPs for On-site Stormwater

Six on-site drainage areas and an offsite drainage area totaling 152.24-acres are accounted for. All drainage areas will utilize a retention-irrigation system which will utilize their own fullsedimentation retention basins to meet all water quality requirements per TCEQ requirements.

See calculations below from the TCEQ provided template spreadsheets. These calculations can also be found on the construction documents.

Texas Commission on Environmental Quality						
TSS Removal Calculations 04-20-2009				Project Name: Date Prepared:		uary - Pond 1
1. The Required Load Reduction for the total project:		Calculations	from RG-348		Pages 3-27 to	9 3-30
Page 3-29 Equation 3.3:	L _м =	: 27.2(A _N x P)				
where: L _{M TOTAL PROJ}	A _N =	Net increase		area for the project	development	= 80% of increased load
Site Data: Determine Required Load Removal Based on the Entire Pr	roject	t				
	n * = n * = n * =	Hays 104.34 2.52 26.09	acres acres acres inches			
L _{M TOTAL PROJ}	_{ECT} =	21156	lbs.			
Number of drainage basins / outfalls areas leaving the plan ar	ea =	6				
2. Drainage Basin Parameters (This information should be provided fo	r eac	:h basin):				
Drainage Basin/Outfall Area	No. =	: 1				
Total drainage basin/outfall a	rea =	17.33	acres			
Predevelopment impervious area within drainage basin/outfall ar	ea =	0.20	acres			
Post-development impervious area within drainage basin/outfall ar Post-development impervious fraction within drainage basin/outfall ar			acres			
Lw This B			lbs.			
3. Indicate the proposed BMP Code for this basin.						
	MP =	Retention /	rrigation			
Removal efficien			percent			
4. Calculate Maximum TSS Load Removed (L _R) for this Drainage Basin	by t	he selected E	MP Type.			
RG-348 Page 3-33 Equation 3.7:	L _R =	BMP efficier	ncy) x P x (A _i x	34.6 + A _P x 0.54)		
		T-t-l O- Oit		in the DMD established		
where:				i in the BMP catchment n the BMP catchment a		
				the BMP catchment are		
				s catchment area by the		/IP
	A _c =		acres			
	A _I = A _P =		acres			
	L _R =		lbs			
5. Calculate Fraction of Annual Runoff to Treat the drainage basin / ou	tfall	area				
Desired L _{M THIS B}	ASIN =	3709	lbs.			
	F =	0.72				
6. Calculate Capture Volume required by the BMP Type for this drainage	ge ba	asin / outfall a	irea.	Calculations from RG-	348	Pages 3-34 to 3-36
Rainfall De Post Development Runoff Coefficie		0.83	inches			
On-site Water Quality Volu			cubic feet			
		Calculations	from RG-348	Pages 3-36 to 3-37		
Off-site area draining to Bl			acres			
Off-site Impervious cover draining to BI Impervious fraction of off-site a			acres			
Off-site Runoff Coeffici						
Off-site Water Quality Volu			cubic feet			
Storage for Sedim Total Capture Volume (required water quality volume(s) × 1.			cubic feet			
7. Retention/Irrigation System	.,		Required in R	G-348	Pages 3-42 to	o 3-46
Required Water Quality Volume for retention ba	sin -	14524	cubic feet			
		17324				
Irrigation Area Calculations:						
Soil infiltration/permeability r Irrigation a			in/hr square feet acres	Enter determined pe	rmeability rat	e or assumed value of 0.1

Texas Commission on Enviro	annontal Quality					
TSS Removal Calculations 04-2	0-2009			Project Name: Date Prepared:	The Sanctuary 10/9/2023	y - Pond 2
1. The Required Load Reduction for th	e total project:	Calculations	from RG-348		Pages 3-27 to 3-3	0
	Page 3-29 Equation 3.3: L_{M} =	27.2(A _N x P)				
where:	A _N =	Net increase		lting from the proposed area for the project n, inches	I development = 80)% of increased load
Site Data: Determine Required Loa	d Removal Based on the Entire Project					
	County = Total project area included in plan * =	Hays 104.34	acres			
	ous area within the limits of the plan $*$ =	2.52	acres			
	ous area within the limits of the plan * = elopment impervious cover fraction * =	26.09 0.25	acres			
	P =	33	inches			
	L _{M TOTAL PROJECT} =	21156	lbs.			
Number of drainage basins	/ outfalls areas leaving the plan area =	6				
2 Drainage Basin Devemptors (This in)	formation about the provided for each	heein).				
2. Drainage Basin Parameters (This in		<u>1 basin):</u> 2				
	Drainage Basin/Outfall Area No. =					
Predevelopment impervious a	Total drainage basin/outfall area = rea within drainage basin/outfall area =	6.41 0.12	acres acres			
Post-development impervious a	rea within drainage basin/outfall area =	1.60	acres			
Post-development impervious fract	ion within drainage basin/outfall area = L _{M THIS BASIN} =	0.25 1331	lbs.			
		1001	155.			
3. Indicate the proposed BMP Code for	r this basin.					
	Proposed BMP = Removal efficiency =	Retention / 100	Irrigation percent			
4. Calculate Maximum TSS Load Dama	-		-			
4. Calculate Maximum TSS Load Remo						
	RG-348 Page 3-33 Equation 3.7: L _R =	(BMP efficie	ncy) x P x (A ₁ x	34.6 + A _P x 0.54)		
where:	$A_{\rm C} =$	Total On-Sit	e drainage area	in the BMP catchment	area	
	A ₁ =	Impervious a	area proposed i	n the BMP catchment a	irea	
				the BMP catchment are		
	L _R =	ISS Load re	emoved from the	s catchment area by th	e proposed BMP	
	A _C =	6.41	acres			
	A _I =	1.60	acres			
	A _P =	4.81	acres			
	L _R =	1915	lbs			
F. Oslavilata Enaction of Annual Duration	· · · · · · · · · · · · · · · · · · ·					
5. Calculate Fraction of Annual Runofi	Desired L _{M THIS BASIN} =	1331	lbs.			
			105.			
	F=	0.69				
6. Calculate Capture Volume required	by the BMP Type for this drainage bas	sin / outfall a	area.	Calculations from RG	-348 Pag	ges 3-34 to 3-36
	Rainfall Depth =	0.75	inches			
F	Post Development Runoff Coefficient = On-site Water Quality Volume =	0.23 4036	cubic feet			
	on-site water quality volume -	4000				
		Calculations	from RG-348	Pages 3-36 to 3-37		
	Off-site area draining to BMP =	0.00	acres			
Off-s	ite Impervious cover draining to BMP = Impervious fraction of off-site area =	0.00 0	acres			
	Off-site Runoff Coefficient =	0.00				
	Off-site Water Quality Volume =	0	cubic feet			
Total Capture Volume (requ	Storage for Sediment = ired water quality volume(s) x 1.20) =	807 4843	cubic feet			
7. Retention/Irrigation System		Designed as	Required in R	G-348	Pages 3-42 to 3-4	6
	ter Quality Volume for retention basin =	4843	cubic feet			
		.040	00010 1001			
Irrigation Area Calculatio						
	Soil infiltration/permeability rate = Irrigation area =	<mark>0.1</mark> 19371	in/hr square feet	Enter determined pe	mneaplility rate or	assumed value of 0.1
		0.44	acres			

TSS Removal Calculations 04-20-2009				
			Project Name: Date Prepared:	The Sanctuary - Pond 3 10/9/2023
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 x P)			
A _N =	 Net increase 		area for the project	development = 80% of increased load
Site Data: Determine Required Load Removal Based on the Entire Project				
County = Total project area included in plan * = Predevelopment impervious area within the limits of the plan * = Total post-development impervious area within the limits of the plan * = Total post-development impervious cover fraction * = P =	= 104.34 = 2.52	acres acres acres inches		
L _{M TOTAL PROJECT} =	= 21156	lbs.		
Number of drainage basins / outfalls areas leaving the plan area =	6			
2. Drainage Basin Parameters (This information should be provided for each	ch basin):			
Drainage Basin/Outfall Area No. =	= 3			
Total drainage basin/outfall area =	= 17.66	acres		
Predevelopment impervious area within drainage basin/outfall area =	= 0.24	acres		
Post-development impervious area within drainage basin/outfall area = Post-development impervious fraction within drainage basin/outfall area =		acres		
L _{M THIS} BASIN ⁼	= 3747	lbs.		
3. Indicate the proposed BMP Code for this basin.				
Proposed BMP = Removal efficiency =		Irrigation percent		
4. Calculate Maximum TSS Load Removed (L _R) for this Drainage Basin by t	the selected E	BMP Type.		
RG-348 Page 3-33 Equation 3.7: L _R =	 (BMP efficier 	ncy) x P x (A ₁ x	34.6 + A _P x 0.54)	
			in the BMP catchment n the BMP catchment a	
	-		the BMP catchment are	
		-	s catchment area by the	
A _c =	= 17.66	acres		
A ₁ =		acres		
A _P =		acres		
L _R =	= 5277	lbs		
5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall	area			
Desired L _{M THIS BASIN} =	- 3747	lbs.		
F=	= 0.71			
6. Calculate Capture Volume required by the BMP Type for this drainage ba			Calculations from RG-	-348 Pages 3-34 to 3-36
o. Calculate Suprate Foldine required by the Diminippe for this dramage of	<u>19117 Outlant</u>	area.		1 ages 0 04 to 0 00
Rainfall Depth = Post Development Runoff Coefficient =	0.23	inches		
On-site Water Quality Volume =	11919	cubic feet		
		from RG-348	Pages 3-36 to 3-37	
Off-site area draining to BMP = Off-site Impervious cover draining to BMP =		acres acres		
Impervious fraction of off-site area =	- 0	40.00		
Off-site Runoff Coefficient = Off-site Water Quality Volume =		cubic feet		
Storage for Sediment =	- 2384			
Total Capture Volume (required water quality volume(s) x 1.20) =		cubic feet		
	Designed as	Required in R	G-348	Pages 3-42 to 3-46
7. Retention/Irrigation System				
7. Retention/Irrigation System Required Water Quality Volume for retention basin =	14303	cubic feet		
	14303	cubic feet		
Required Water Quality Volume for retention basin =	= 0.1	cubic feet in/hr square feet acres	Enter determined pe	rmeability rate or assumed value of 0.

Texas Commission on Environmental Quality					
TSS Removal Calculations 04-20-2009				Project Name: The Date Prepared: 1	ne Sanctuary - Pond 4 I0/9/2023
1. The Required Load Reduction for the total project:		Calculations	from RG-348	Pa	ages 3-27 to 3-30
Page 3-29 Equation 3.3:	L _M = :	27.2(A _N x P)			
	A _N =	Net increase		area for the project	evelopment = 80% of increased load
Site Data: Determine Required Load Removal Based on the Entire Pro					
Cou Total project area included in plan Predevelopment impervious area within the limits of the plar Total post-development impervious area within the limits of the plan Total post-development impervious cover fractior	n * = n * =[Hays 104.34 2.52 26.09 0.25 33	acres acres acres inches		
L _{M TOTAL PROJE}	=ст =	21156	lbs.		
Number of drainage basins / outfalls areas leaving the plan are	ea =	6			
2. Drainage Basin Parameters (This information should be provided for	r each	n basin):			
Drainage Basin/Outfall Area N		4			
Total drainage basin/outfall ar Predevelopment impervious area within drainage basin/outfall ar Post-development impervious area within drainage basin/outfall ar Post-development impervious fraction within drainage basin/outfall arc L _{M THIS BA}	ea = ea = ea = ea =	26.73 0.61 6.68 0.25 5451	acres acres acres Ibs.		
3. Indicate the proposed BMP Code for this basin.					
Proposed BN Removal efficien		Retention / I 100	rrigation percent		
4. Calculate Maximum TSS Load Removed (L _R) for this Drainage Basin	by th	e selected B	MP Type.		
RG-348 Page 3-33 Equation 3.7:	L _R =	(BMP efficier	icy) x P x (A _i x	34.6 + A _P x 0.54)	
	A _I = A _P =	Impervious a Pervious area	rea proposed i a remaining in	a in the BMP catchment are in the BMP catchment area the BMP catchment area is catchment area by the p	1
5. Calculate Fraction of Annual Runoff to Treat the drainage basin / out	Hall a	r 03			
Desired L _{M THIS BA}		5451	lbs.		
Desired L _{M THIS} BA			105.		
	F =	0.68			
6. Calculate Capture Volume required by the BMP Type for this drainag	je bas	sin / outfall a	rea.	Calculations from RG-34	8 Pages 3-34 to 3-36
Rainfall De; Post Development Runoff Coefficie: On-site Water Quality Volur	nt =	0.73 0.23 16402	inches cubic feet		
		Calculations	from RG-348	Pages 3-36 to 3-37	
Off-site area draining to BM Off-site Impervious cover draining to BM Impervious fraction of off-site ar Off-site Runoff Coefficie Off-site Water Quality Volur	/IP = ea = ent =	10.89 0.61 0.06 0.08 2399	acres acres cubic feet		
Storage for Sedime Total Capture Volume (required water quality volume(s) x 1.2		3760 22562	cubic feet		
7. Retention/Irrigation System			Required in R	G-348 Pa	ages 3-42 to 3-46
Required Water Quality Volume for retention bas		22562	cubic feet		
Irrigation Area Calculations:					
Soil infiltration/permeability ra Irrigation ar		<mark>0.1</mark> 90246 2.07	in/hr square feet acres	Enter determined perm	eability rate or assumed value of 0.1

A _N F		ations fr	om PC 249	Project Name: The Sanctuary - Pond 5 Date Prepared: 10/9/2023
Page 3-29 Equation 3.3: L _b where: L _{M TOTAL PROJECT A_h P}		ations fr	om BC 249	
where: L _{M TOTAL PROJECT} A _h	= 27.2(A		011110-340	Pages 3-27 to 3-30
A _N F		(_N x P)		
A _N F	= Requir	red TSS	removal resu	Ilting from the proposed development = 80% of increased load
	= Net ind	crease ir	n impervious a	area for the project
		ge annua	al precipitatio	n, inches
Site Data: Determine Required Load Removal Based on the Entire Proje County	/= H	lays		
Total project area included in plan Predevelopment impervious area within the limits of the plan	= 2)4.34 2.52	acres	
Total post-development impervious area within the limits of the plan * Total post-development impervious cover fraction *		<mark>6.09</mark>).25	acres	
P	=	33	inches	
	= 21	1156	lbs.	
* The values entered in these fields should be for the total project area.				
Number of drainage basins / outfalls areas leaving the plan area	=	6		
2. Drainage Basin Parameters (This information should be provided for each	ach basir	<u>1):</u>		
Drainage Basin/Outfall Area No.	-	5		
Total drainage basin/outfall area Predevelopment impervious area within drainage basin/outfall area		0.94 I.15	acres	
Post-development impervious area within drainage basin/outfall area	= 7	.74	acres	
Post-development impervious fraction within drainage basin/outfall area $$L_{\rm MTHISBASIN}$$).25 911	lbs.	
3. Indicate the proposed BMP Code for this basin.				
Proposed BMP				
Removal efficiency	= 1	100	percent	
4. Calculate Maximum TSS Load Removed (L _R) for this Drainage Basin by	the sele	cted BN	IP Type.	
RG-348 Page 3-33 Equation 3.7: L _F	= (BMP	efficienc	y) x P x (A ₁ x	34.6 + A _P x 0.54)
			-	a in the BMP catchment area
				n the BMP catchment area the BMP catchment area
L _F	= TSS L	oad rem	oved from thi	is catchment area by the proposed BMP
Ac	= 30	0.94	acres	
A Aş		7.74 3.21	acres acres	
L _F		245	lbs	
5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfal	l area			
Desired L _{M THIS BASIN}	,= 5	911	lbs.	
).64		
6. Calculate Capture Volume required by the BMP Type for this drainage			a	Calculations from RG-348 Pages 3-34 to 3-36
			<u>ea.</u>	Calculations from KG-546 Pages 5-54 to 5-50
Rainfall Depth		0.66	inches	
Post Development Runoff Coefficient : On-site Water Quality Volume).23 7012	cubic feet	
	Calcul	ations fr	om RG-348	Pages 3-36 to 3-37
Off-site area draining to BMP	= 0	0.00	acres	
Off-site Impervious cover draining to BMP Impervious fraction of off-site area	= 0	0.00 0	acres	
Off-site Runoff Coefficient Off-site Water Quality Volume	= 0	0.00 0	cubic feet	
Storage for Sediment		402		
Total Capture Volume (required water quality volume(s) x 1.20)= 20	0414	cubic feet	
The following sections are used to calculate the required water quality vo The values for BMP Types not selected in cell C45 will show NA.				
7. Retention/Irrigation System			Required in R	G-348 Pages 3-42 to 3-46
Required Water Quality Volume for retention basin	= 20	0414	cubic feet	
Irrigation Area Calculations:				
Soil infiltration/permeability rate Irrigation area	i = 81	<mark>0.1</mark> 1657	in/hr square feet	Enter determined permeability rate or assumed value of 0.1
	1	1.87	acres	

Texas Commission on Environmental Quality

Texas Commission on Environmental Quality				
TSS Removal Calculations 04-20-2009				Project Name: The Sanctuary - Pond 6 Date Prepared: 10/9/2023
1. The Required Load Reduction for the total project:	Calcul	ations	from RG-348	Pages 3-27 to 3-30
Page 3-29 Equation 3.3: L	_M = 27.2(A	N X P))	
A	_N = Net ind	crease		Itting from the proposed development = 80% of increased load area for the project n, inches
Site Data: Determine Required Load Removal Based on the Entire Pro				
Coun Total project area included in plan Predevelopment impervious area within the limits of the plan Total post-development impervious area within the limits of the plan Total post-development impervious cover fraction	* = 10 * = 2 * = 2 * = 2 * = 0	lays 04.34 2.52 6.09 0.25 33	acres acres acres inches	
L _{M TOTAL PROJEC} * The values entered in these fields should be for the total project area.	_{et} = 21	1156	lbs.	
Number of drainage basins / outfalls areas leaving the plan are	a =	6		
2. Drainage Basin Parameters (This information should be provided for	ach haoir	•)•		
2. Drainage Basin Parameters (This Information should be provided for Drainage Basin/Outfall Area N		<u>1).</u> 6		
-				
Total drainage basin/outfall are Predevelopment impervious area within drainage basin/outfall are	a = 🛛 🛛	1.66).20	acres acres	
Post-development impervious area within drainage basin/outfall area Post-development impervious fraction within drainage basin/outfall area		1.17).25	acres	
L _M THIS BAS		B66	lbs.	
3. Indicate the proposed BMP Code for this basin.				
Proposed BM			Irrigation	
Removal efficience	-	100	percent	
<u>4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin b</u>	y the sele	cted I	BMP Type.	
RG-348 Page 3-33 Equation 3.7: L	_R = (BMP	efficie	ency) x P x (A ₁ x	34.6 + A _P x 0.54)
where: A	c = Total (On-Sit	e drainage area	in the BMP catchment area
			-	n the BMP catchment area
			-	the BMP catchment area
l	. _R = TSS L	oad re	emoved from thi	is catchment area by the proposed BMP
Α	4 _C = 4	1.66	acres	
		1.17	acres	
		3.50 392	acres Ibs	
5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfa	all area			
Desired L _{M THIS BAS}	_{IN} = 8	B66	lbs.	
	F = 0	0.62		
6. Calculate Capture Volume required by the BMP Type for this drainage	basin / ou	utfall	area.	Calculations from RG-348 Pages 3-34 to 3-36
Rainfall Depi Post Development Runoff Coefficien).62).23	inches	
On-site Water Quality Volum	e = 2	414	cubic feet	
	Calcul	ations	from RG-348	Pages 3-36 to 3-37
Off-site area draining to BM	P= 0	0.00	acres	
Off-site Impervious cover draining to BMI Impervious fraction of off-site are		0.00 0	acres	
Off-site Runoff Coefficier	nt = 0	0.00		
Off-site Water Quality Volum	e =	0	cubic feet	
Storage for Sedimer Total Capture Volume (required water quality volume(s) x 1.2		483 896	cubic feet	
The following sections are used to calculate the required water quality v				».
The values for BMP Types not selected in cell C45 will show NA. <u>7. Retention/Irrigation System</u>	Desigr	ned as	s Required in R	G-348 Pages 3-42 to 3-46
Required Water Quality Volume for retention basi		896	cubic feet	.
Irrigation Area Calculations:	. 4		00010 1001	
			<i>0</i> .	
Soil infiltration/permeability ra Irrigation are	a = 11	0.1 1585).27	in/hr square feet acres	Enter determined permeability rate or assumed value of 0.1

Kimley »Horn

ATTACHMENT L: BMPs for Surface Streams

There are no perennial surface streams on the site. The intermittent stream and buffer on the north end of the site are not impacted by the proposed development. Drainage contributing to the intermittent stream is treated for water quality and detained to match existing flow rates by the proposed ponds.

Kimley **»Horn**

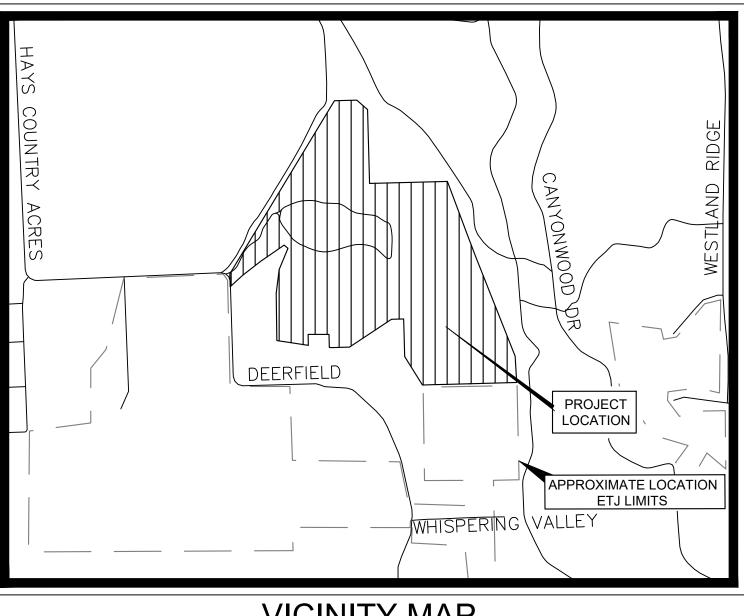
ATTACHMENT M: Construction Plans

						6			
	NO.	DESCRIPTION	REVISE (R) VOID (V) ADD (A) SHEET NO.'S	TOTAL NO. SHEETS IN PLAN SET	NET CHANGE IMP. COVER (SQ. FT.)		CITY OF AUSTIN APPROVAL DATE	DATE IMAGED	CIVI
ss, Inc.									
Associates,									
and									
Kimley-Horn									
to	GENE	RAL PLAN NOTES:							
be without liability	C C	ELEASE OF THIS APPLICATIC ALCULATIONS SUPPLIED BY OMPLETENESS, ACCURACY EVIEWED FOR CODE COMPLI	THE APPLICAN [®] AND ADEQUAC [®]	T. THE ENG Y OF HIS/H	SINEER OF REC ER SUBMITTAL	ORD IS SOLEL	Y RESPONSIBL	E FOR THE	
Inc. shall	E A	LL RESPONSIBILITY FOR THE NGINEER WHO PREPARED TH DEQUACY OF THE WORK OF	HEM. IN REVIEV THE DESIGN EI	VING THES NGINEER.	E PLANS HAYS	COUNTY MUST	RELY UPON T	HE	
and Associates,	O C	PPROVAL OF THESE PLANS NLY. APPROVAL BY OTHER G ONSTRUCTION. THE APPLICA ECESSARY.	GOVERNMENTA	L ENTITIES	MAY BE REQU	JIRED PRIOR TO	THE START O)F	
Kimley-Horn		HE PROPOSED SITE IS LOCA OUNTY, TEXAS AND INCORPO						28F, HAYS	
bу		HE SITE IS LOCATED WITHIN							
atio		HE SITE IS LOCATED IN THE F					OF THE SITE,	SEE SHEET 2	
and		NAL PLAT. O STRUCTURES CAN BE BUIL	T WITHIN WAT	FR & WAST	FWATER FASE	MENTS			
authorizatior	9. A	S PART OF THIS SITE PLAN, 1 N SITE AT ALL TIMES.					(PPP) IS REQUI	RED TO BE	
>	LEGAL	DESCRIPTION:							
with		1-56 WITHIN THE R. VAUGHAI USE SUMMARY:	N SURVEY, ABS	TRACT NO	.16, CITY OF DI	RIPPING SPRIN	GS, HAYS COU	NTY TEXAS.	
ocumer	G	ROSS ACREAGE 104.335 ACF	RES						
on this	H. H.	<u>DICTION:</u> AYS COUNTY: SITE PLAN AYS COUNTY ESD: FIRE MAR /TCPUA: WATER	SHAL						
		ITTAL DATE: 10/09/2023							
impi	WTCP	<u>T TAX ID:</u> R11682 UA COVER SHEET NOTES:							
of		HE WEST TRAVIS COUNTY PU		·	(TCPUA) IS THE	E RETAIL WATEI	R PROVIDER.		
Re		WTCPUA REPRESENTATIVE			HE TIME OF CO	NNECTION TO	THE EXISTING	SYSTEM.	
0	W	LL WATER INFRASTRUCTURE ASTEWATER CONSTRUCTIO F AUSTIN STANDARD PRODU	N SPECIFICATI	ONS AND V					
h Y		PRESSURE PLANE/ HGL-1340			/I MAP GRID PA	NEL XXXX/XXX	X (HWY 290 SY	STEM).	
client fo	6.	RRIGATION SHALL NOT UTIL		χ.					
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ierein, as		ENGINEER/APPLICANT:							
designs presented herein, as		Kimle	y 》》	HO	n				
igns pre		5301 SOUTHWEST PARKW AUSTIN, TEXAS 78735	AY, BLDG 2, SU	ITE 100					
and		CERTIFICATE OF REGISTR (512) 418-1771							
concepts		CONTACT: NATALIA GARAU	U, T.E.		RETAIL WATEF	२			
together with the co		SANCTUARY DRIPPING SP 651 N. BROAD ST., SUITE 2 MIDDLETON, DELEWARE 1 CONTACT: JUSTIN KATHAN	01 9709			 COUNTY PUBLI /E PARKWAY	C UTILITY AGE	NCY	
t, toget		<u>SURVEYOR</u> KIMLEY-HORN AND ASSOC	CIATES, INC.		<u>FIRE</u> HAYS COUNTY	FIRE MARSHA	LS OFFICE		

SURVEYOR KIMLEY-HORN AND ASSOCIATES, INC 400 N. OKLAHOMA DR., SUITE 105 CELINA, TEXAS 75009 CONTACT: DANIEL ARTHUR, R.P.L.S.

HAYS COUNTY FIRE MARSHALS OFFICE 2171 YARRINGTON RD. SUITE 300 KYLE, TX 78640 (512) 393-7300

L SITE DEVELOPMENT PLANS FOR SANCTUARY RIPPING SPRINGS 1111 HAYS COUNTRY ACRES RD. HAYS COUNTY, TX 78620



VICINITY MAP SCALE: 1" = 1,000' OCTOBER 2023

HAYS COUNTY DEVELOPMENT SERVICES	DATE
HAYS COUNTY FIRE DEPARTMENT	DATE
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	DATE

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

SHEET INDEX

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	FINAL PLAT (1 OF 4)
3	FINAL PLAT (2 OF 4)
4	FINAL PLAT (3 OF 4)
5	FINAL PLAT (4 OF 4)
6	GENERAL NOTES
7	WEST TRAVIS COUNTY PUA NOTES
8	KIMLEY-HORN GENERAL NOTES
9	OVERALL SITE PLAN
10	EXISTING CONDITIONS & DEMOLITION PLAN (1 OF 2)
11	EXISTING CONDITIONS & DEMOLITION PLAN (2 OF 2)
12 13	EROSION CONTROL PLAN (1 OF 2) EROSION CONTROL PLAN (2 OF 2)
13	EXISTING DRAINAGE AREA MAP
14	PROPOSED DRAINAGE AREA MAP
16	DRAINAGE AREA CALCULATIONS
17	PAVING PLAN & PROFILE (1 OF 11)
18	PAVING PLAN & PROFILE (2 OF 11)
19	PAVING PLAN & PROFILE (3 OF 11)
20	PAVING PLAN & PROFILE (4 OF 11)
21	PAVING PLAN & PROFILE (5 OF 11)
22	PAVING PLAN & PROFILE (6 OF 11)
23	PAVING PLAN & PROFILE (7 OF 11)
24	PAVING PLAN & PROFILE (8 OF 11)
25	PAVING PLAN & PROFILE (9 OF 11)
26	PAVING PLAN & PROFILE (10 OF 11)
27	PAVING PLAN & PROFILE (11 OF 11)
28	
29	STORM PLAN & PROFILE (1 OF 4)
30	STORM PLAN & PROFILE (2 OF 4) STORM PLAN & PROFILE (3 OF 4)
31	STORM PLAN & PROFILE (3 OF 4) STORM PLAN & PROFILE (4 OF 4)
32 33	STORM PLAN & PROFILE (5 OF 5)
33	POND PLAN & PROFILE (1 OF 12)
35	POND PLAN & PROFILE (2 OF 12)
36	POND PLAN & PROFILE (3 OF 12)
37	POND PLAN & PROFILE (4 OF 12)
38	POND PLAN & PROFILE (5 OF 12)
39	POND PLAN & PROFILE (6 OF 12)
40	POND PLAN & PROFILE (7 OF 12)
41	POND PLAN & PROFILE (8 OF 12)
42	POND PLAN & PROFILE (9 OF 12)
43	POND PLAN & PROFILE (10 OF 12)
44	POND PLAN & PROFILE (11 OF 12)
45 46	POND PLAN & PROFILE (12 OF 12) POND DETAILS
40	OVERALL WATER PLAN
47	OFFSITE WATER PLAN & PROFILE (1 OF 3)
49	OFFSITE WATER PLAN & PROFILE (2 OF 3)
50	OFFSITE WATER PLAN & PROFILE (3 OF 3)
51	WATER PLAN & PROFILE (1 OF 11)
52	WATER PLAN & PROFILE (2 OF 11)
53	WATER PLAN & PROFILE (3 OF 11)
54	WATER PLAN & PROFILE (4 OF 11)
55	WATER PLAN & PROFILE (5 OF 11)
56	WATER PLAN & PROFILE (6 OF 11)
57	WATER PLAN & PROFILE (7 OF 11)
58	WATER PLAN & PROFILE (8 OF 11)
59	WATER PLAN & PROFILE (9 OF 11)
60	WATER PLAN & PROFILE (10 OF 11) WATER PLAN & PROFILE (11 OF 11)
61 62	STREE LIGHT & SIGNAGE PLAN (SHEET 1 OF 2)
63	STREE LIGHT & SIGNAGE PLAN (SHEET 1 OF 2)
64	EROSION CONTROL DETAILS
65	PAVING DETAILS
66	STORM DRAIN DETAILS (1 OF 2)
67	STORM DRAIN DETAILS (2 OF 2)
68	UTILITY DETAILS

NOT INCLUDED IN THIS APPLICTION.

PUBLIC WATER IMPROVEMENTS:

DESCRIPTION	QUANTITY	UNIT
6" DI (RESTRAINED)	285	LF
8" DI (RESTRAINED)	105,418	LF
6" FIRE HYDRANT ASSEMBLY	15	EA
8"X8" CUT IN TEES	1	EA
8"X6" TEES	15	EA
8"X8" TEES	7	EA
6" GATE VALVES	15	EA
8" GATE VALVES	47	EA
AUTOMATIC FLUSH VALVE	4	EA
SINGLE WATER SERVICE	5	EA
DOUBLE WATER SERVICE	22	EA
BENDS	63	EA

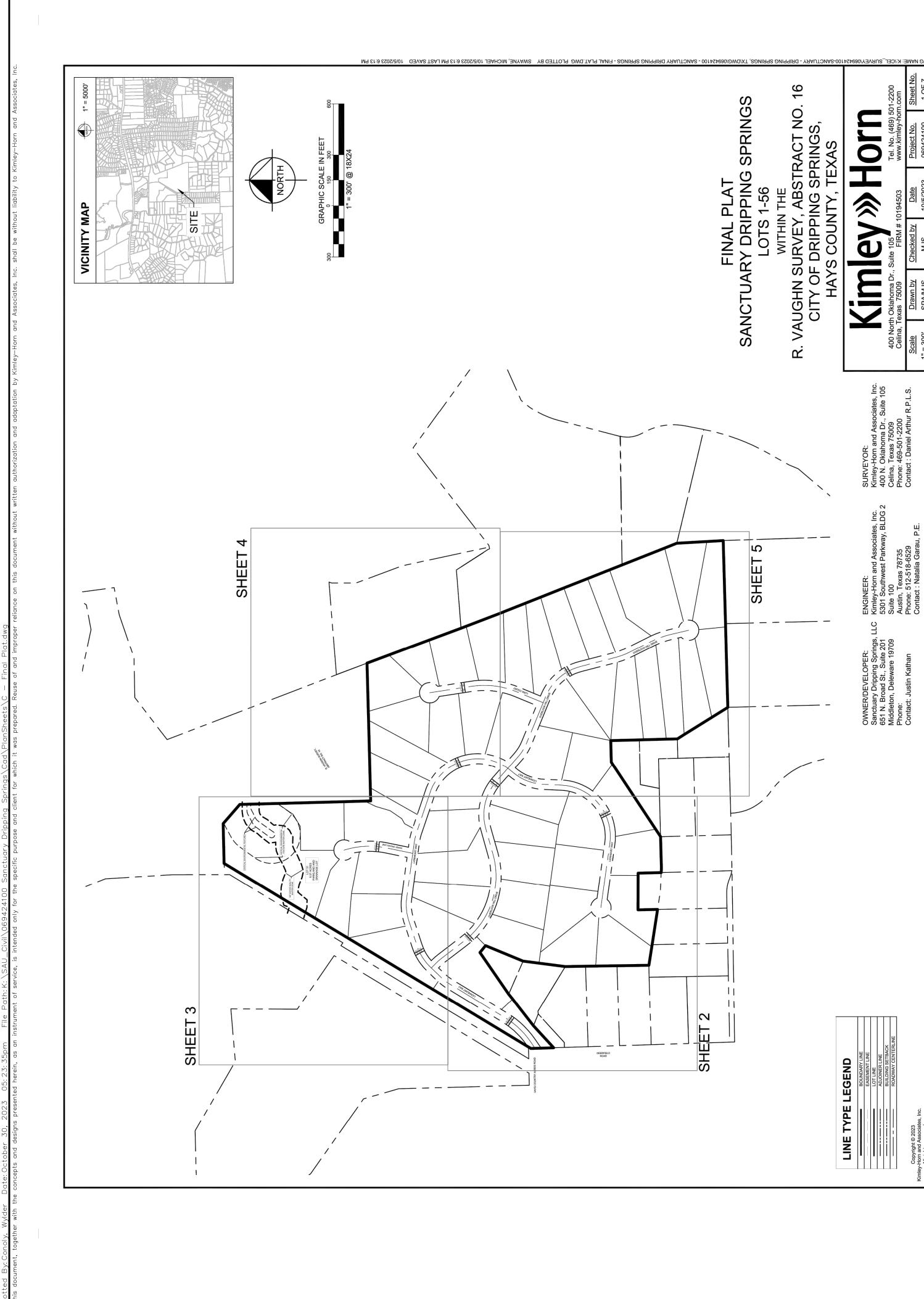




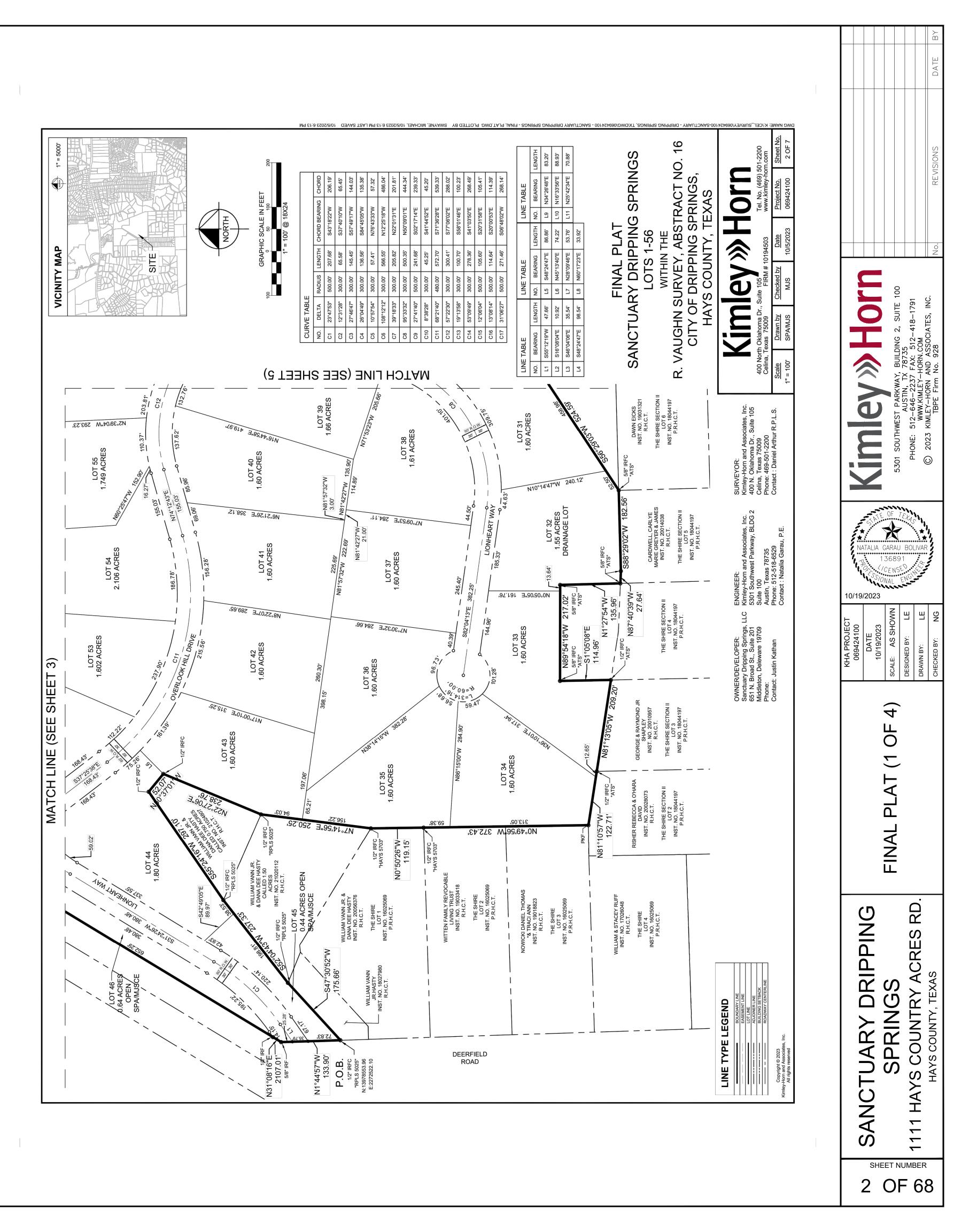
Know what's **below. Call** before you dig.

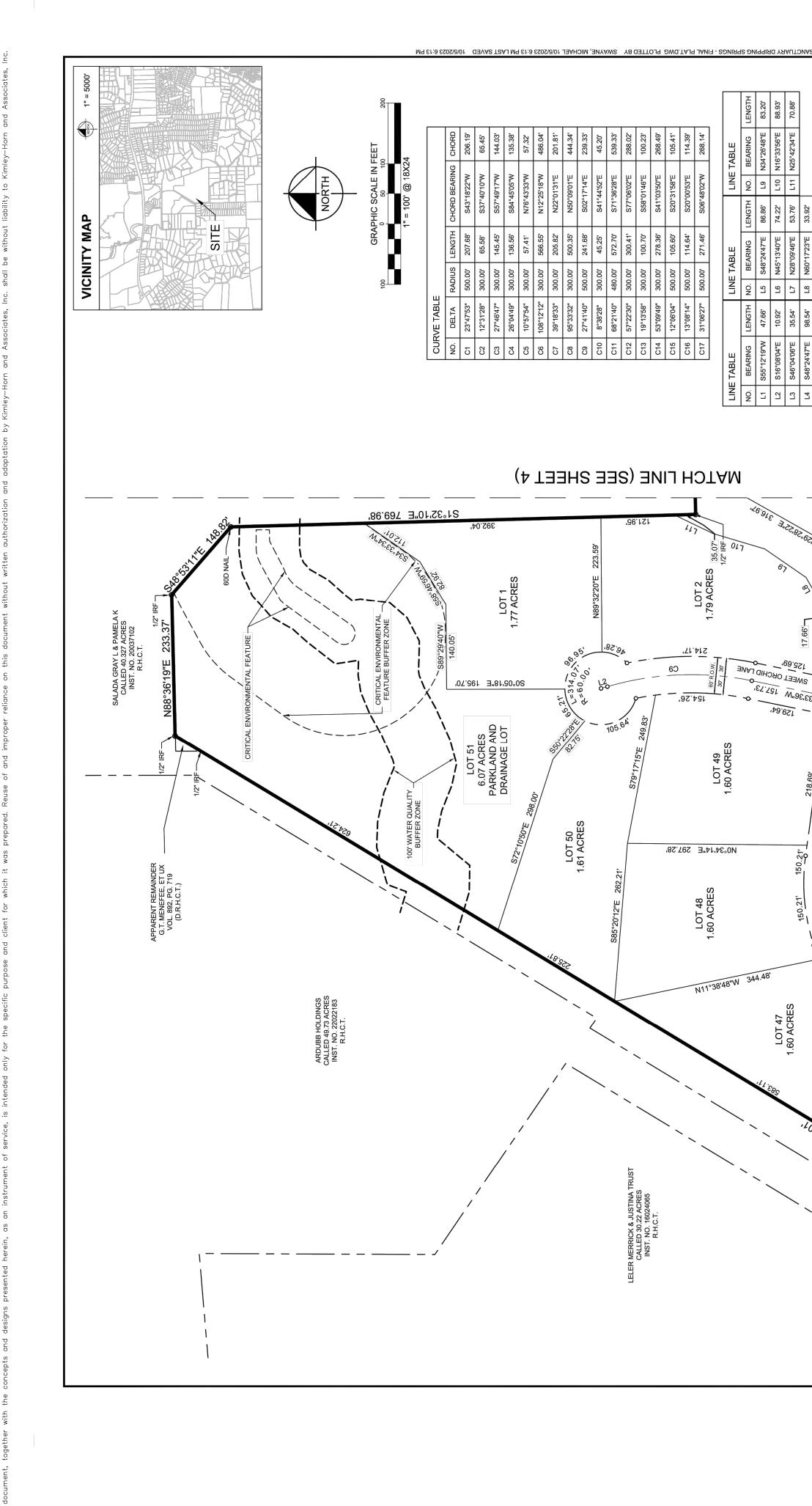
KHA PROJECT 069424100 069424100 DATE 10/19/2023	SCALE: AS SHOWN AS THE SCALE: AS SHOWN AND A SCALE: AS SHOWN AND A SCALE: AS SHOWN AND A SCALE: AS SCALE:	SIGNED BY: LE V2:0 - 명 · 소 · · · · · · · · · · · · · · · · ·	
		DE	HAYS COUNTY, TEXAS

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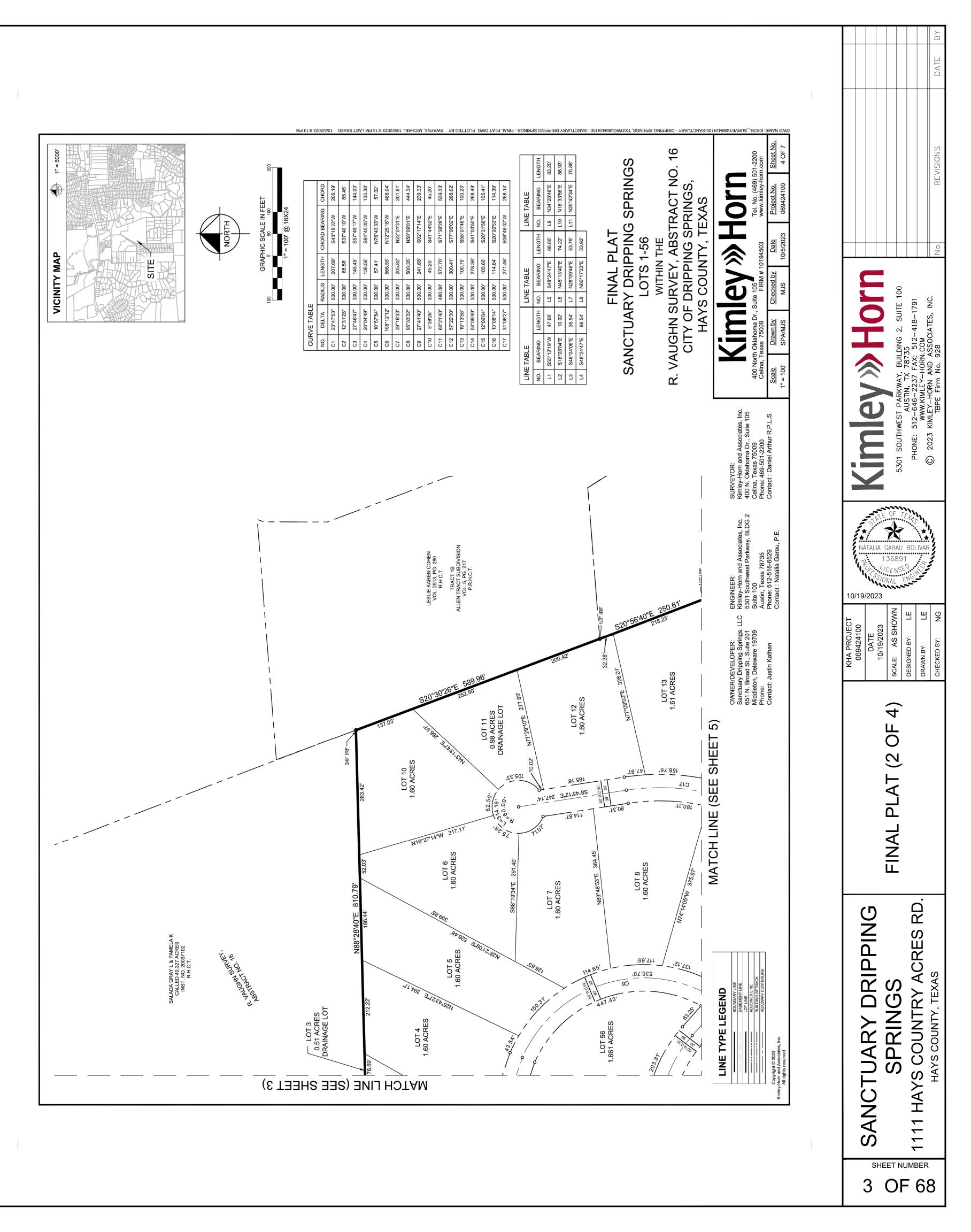


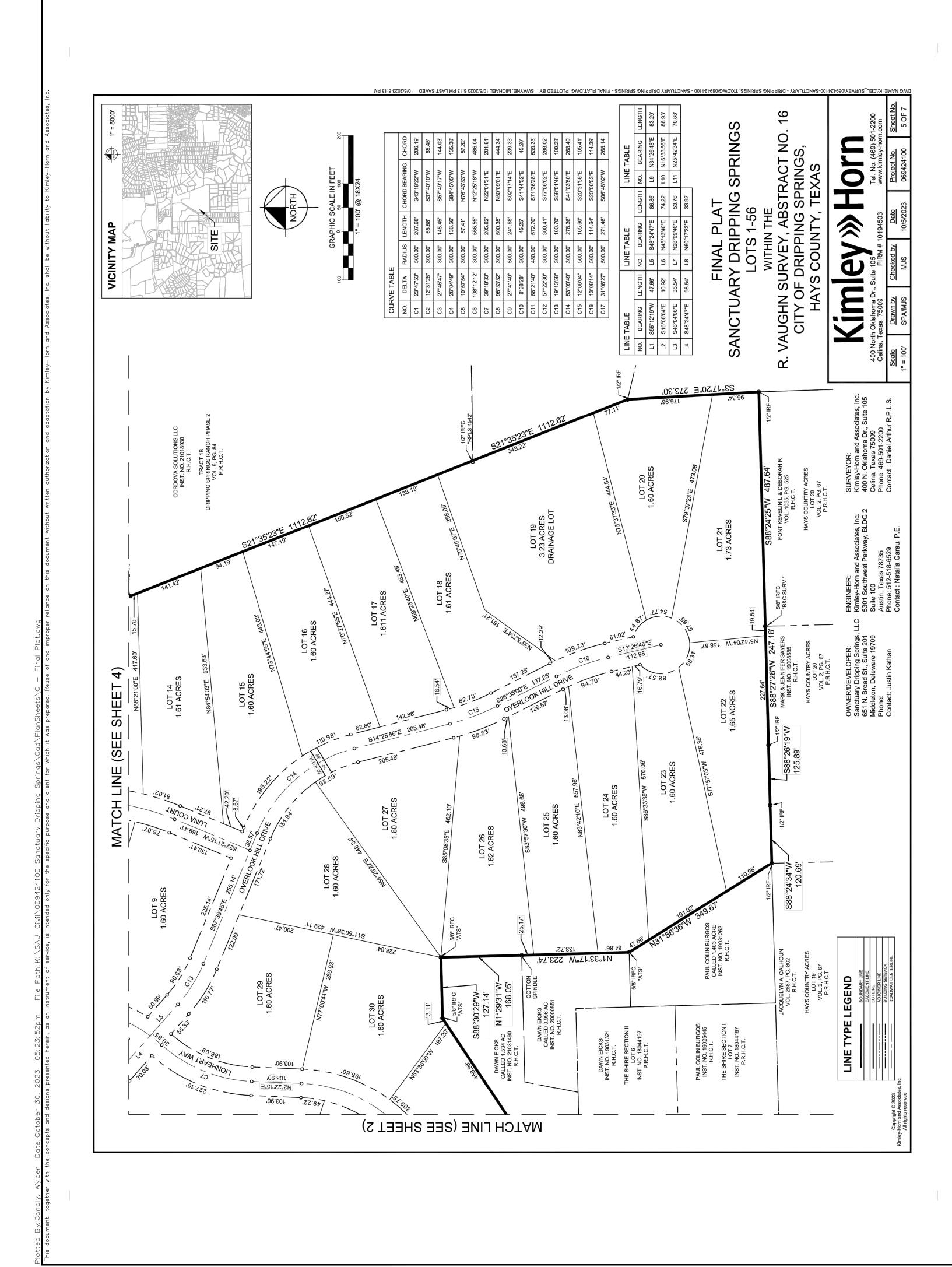
16 SPRINGS NO. 0 AC **≈** Ш L VAUGHN SUF CITY OF DI Kim **SANCTU** Ř SURVEYOR Kimley-Horn 400 N. Oklah Celina, Texa Phone: 469-Phone: 269-Contact : Da SHF ENGINE Kimley-F 5301 Sc Suite 10 Austin, T Phone: 4 OWNER/DEVELOPER: Sanctuary Dripping Springs, L 651 N. Broad St., Suite 201 Middleton, Deleware 19709 Phone: Contact: Justin Kathan 11 \sim SHE GEND TYPE . UNE



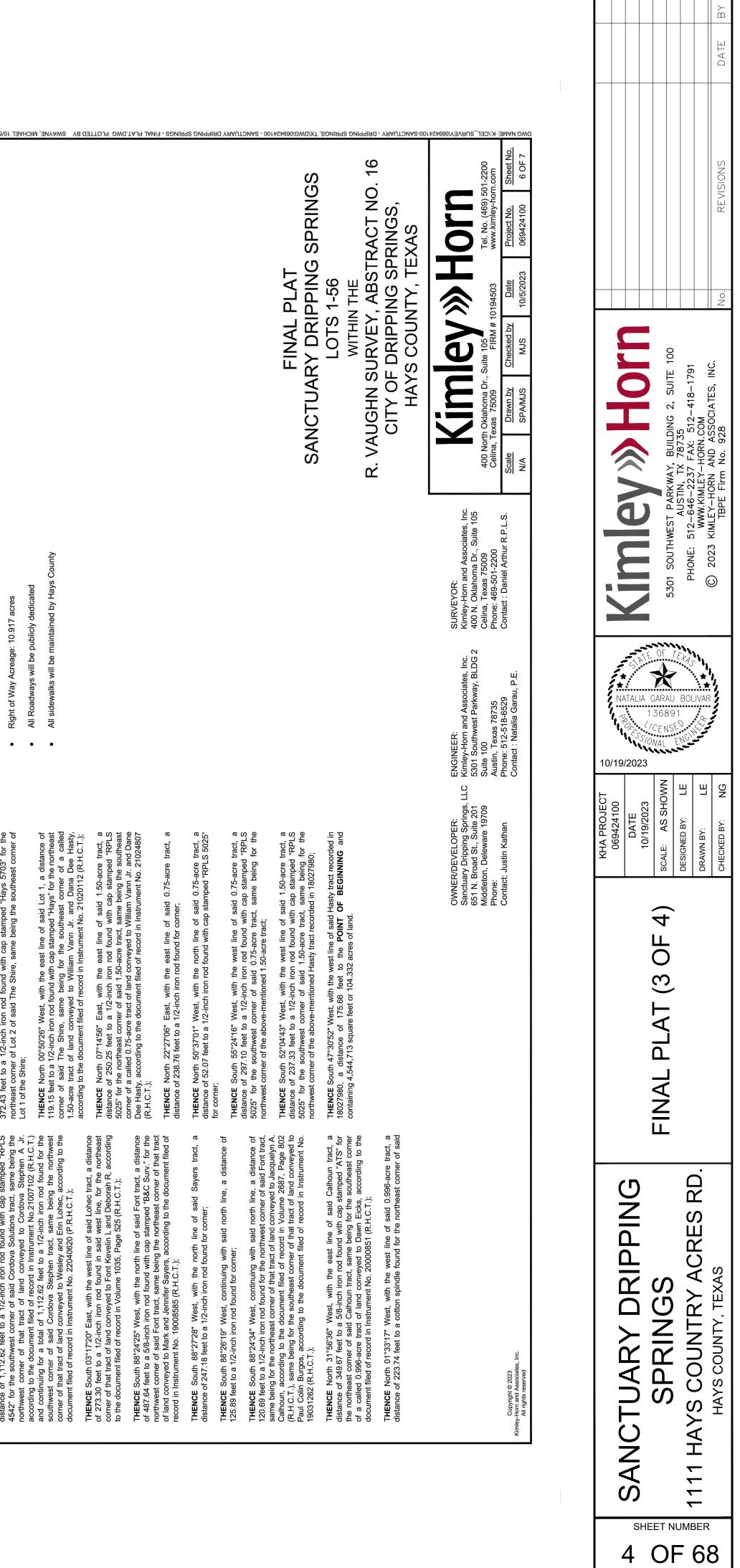


NG MARE: K./CEL_SURVEY/0694241012 SYAUCTORE WARNES TO SURVEY DRIPPING SPARAPHICE PLATE PLATE PLATE PLATE A 102 16 - PLAT RIPPING SPRINGS Ο ž ũ 紊 AB SURVEY DF DRIPP YS COUN FINAL SANCTUARY DR **Vimlev** Z R. VAUGH CITY SURVEYOR: Kimley-Horn (400 N. Oklah Celina, Texas Phone: 469-5 ы Б Ц LO 49 ENGINEER: Kimley-Horm 5301 Southv Suite 100 Austin, Texa Phone: 512-Contact : Na N3°51'40"W 291.23 ngs, 201 N4°04'20"E 448.63' 2) Sanctua Sanctua 651 N. | Middletu Phone: Contact 0T 53 602 SRES ĹЦ Ш C. Ш Ш ШZ LOT 47 60 ACR





PROPERTY DESCRIPTION	0.996-acre tract, same being for the eastern most southeast corner of a called	
104.332 ACRES	1.534-acre tract of land conveyed to Dawn Elcks, according to the document filed of record in Instrument No. 21031490 (R.H.C.T.);	Notes :
BEING a tract of land situated in the R. Vaughn Survey, Abstract No. 16, Hays County, Texas and being all of that tract of land conveyed to Serenity Hills Partners, LLC., according to the document filed of record in Document No. 20032011 Becords of Hays County, Tevas, and being more particularly described	THENCE North 01°29'31" West, with the east line of said 1.534-acre tract, a distance of 168.05 feet to a 5/8-inch iron rod found with cap stamped "ATS" for corner;	 All corners are 5/8-inch iron rods set with a plastic cap stamped "KHA" unless otherwise noted.
as follows: BEGINNING at a 1/2-inch iron rod found with cap stamped "RPLS 5025" in the east line of Deerfield Road a public right-of-way for the southernmost northwest	THENCE South 88°30'29" West, with the north line of said 1.534-acre tract, a distance of 127.14 feet to a 5/8-inch iron rod found with cap stamped "ATS" for corner;	 All bearings shown are based on grid north of the Texas Coordinate System of 1983, South Central Zone (4204), North American Datum of 1983. All dimensions shown are grid distances.
corner of that tract of land conveyed to William Vann Jr. Hasty, according to the document filed of record in Instrument No. 18027980 (R.H.C.T.);	THENCE South 56°29'03" West, continuing with the northerly line of said 1.534-acre tract, a distance of 524.59 feet to a 5/8-inch iron rod found with cap stamped "ATS" for the northeast corner of that tract of land conveved to Cardwell.	
THENCE North 01°44'57" West, along said right-of-way, a distance of 133.90 feet to a 5/8-inch iron rod found for corner in said right-of-way;	Carlye Marie Greyer and James, according to the document filed of record in Instrument No. 20014038 (R.H.C.T.);	 According to Community Panel No. 48209C0120F, dated September 9, 2005 of the National Flood Insurance Program Map, Flood Insurance Rate Map of Collin County. Texas. Federal Emergency Management Agency. Federal Insurance
THENCE North 31°08'16" East, passing a 1/2-inch iron rod found at a distance of 17.80 feet for the most Southerly Southwest corner of a tract of land conveyed to Salada, Gray L and Pamela K, according to the document filed of record in Instrument No. 20037102 (R.H.C.T.), and continuing with a west line of said	THENCE South 88°29'02" West, with the north line of said Cardwell tract, a distance of 182.56 feet to a 5/8-inch iron rod found with cap stamped "ATS" for corner;	Administration, a this property is within Zone X, areas determined to be outside the 0.2% annual chance floodplain. This flood statement does not imply that the property and/or the structures thereon will be free from flooding or flood damage. On rare occasions, greater floods can and will occur and flood heights may be
Salada tract for a total distance of 2,107.01 feet to a 1/2-inch iron rod found for corner;	THENCE North 87°40'39" West, continuing with said north line, a distance of 27.64 feet to a 5/8-inch iron rod found with cap stamped "ATS" for corner;	increased by man-made or natural causes. This flood statement shall not create liability on the part of the surveyor.
THENCE North 88°36'19" East, with the northern most south line of said Salada tract, a distance of 233.37 feet to a 1/2-iron rod found for corner;	THENCE North 01°27'54" West, a distance of 135.96 feet to a 5/8-inch iron rod found with cap stamped "ATS" for corner;	 Selling a portion of this addition by metes and bounds is a violation of city ordinance and state law and is subject to fines and withholding of utility and building permits.
THENCE South 48°53'11" East, with the western most east line of said Salada tract, a distance of 148.82 feet to a 60D nail found for corner;	THENCE North 89°54'18" West, a distance of 217.02 feet to a 5/8-inch iron rod found with cap stamped "ATS" for corner;	Lot Summary:
THENCE South 01°32'10" East, continuing with said line, a distance of 769.98 feet to a 1/2-inch iron rod found for corner; THENCE North 88°28'40" East, with a southern line of said Salada tract, a	THENCE South 01°05'08" East, a distance of 114.96 feet to a 1/2-inch iron rod found with cap stamped "ATS" for the northeast corner of that tract of land conveyed to George and Raymond Jr Shapley, according to the document filed of record in Instrument No. 20010957 (R.H.C.T.);	5 LOTS < 1.0 ACRES 48 LOTS 1.0 - 2.0 ACRES 2 LOTS 2.0 - 5.0 ACRES 1 LOTS 5.0 - 10.0 ACRES
distance of 810.79 feet to a 3/8-inch iron rod found for corner in the west line of that tract of land conveyed to Leslie Karen Cohen, according to the document	THENCE North 81°13'05" West, with the north line of said Shapley tract, a	AVERAGE LOT SIZE 1.65 ACRES
Tiled of record in Volume 2513, Page 280 (K.H.C.I.I.); THENCE South 20°30'26" East, with said west line, a distance of 589.96 feet to a 1/2-inch iron rod found for the southwest corner of said Tract 1B, same being the northwest corner of that tract of land conveved to Cordova Solutions LLC.	distance of 209.20 feet to a 1/2-inch iron rod found with cap stamped "ATS" for the northwest corner of said Shapley tract, same being for the northeast corner of that tract of land conveyed to Risher, Rebecca and O'Hara, David, according to the document filed of record in Instrument No. 20028073 (R.H.C.T.);	 Utilities provided by: Electric: Pedernales Electric Cooperative Water: West Travis County Public Utility Agency Wastewater: OSSF
according to the document filed of record in Instrument No. 21018930 (R.H.C.T.); THENCE South 20°56'40" East. with the west line of said Cordova Solutions tract.	THENCE North 81°10'57" West, with the north line of said Risher tract, a distance of 122.71 feet to a PK Nail found for corner in the north line of said Risher tract, for the southeast conner of 1 of 3 of The Shire an addition to Have County	Mailboxes placed within the ROW shal be of an approved TxDOT or FHWA Design
a distance of 250.61 feet to a point for corner; THENCE South 21°35'23" East, continuing with said west line, passing at a	according to the Plat filed of record in Instrument No. 16025069 (P.R.H.C.T.); THENCE North 00°49'56" West, with the east line of said Shire, a distance of	 Driveways shall comply with Chapter 721 of Hays County Development Regulations, and be permitted through the transportation department of Hays County under Chapter 751.
distance of 1,112.62 feet to a 1/2-inch iron rod found with cap stamped "RPLS 4542" for the southwest corner of said Cordova Solutions tract same being the	372.43 feet to a 1/2-inch iron rod found with cap stamped "Hays 5703" for the northeast corner of 1 of 2 of said The Shire same being the southeast corner of	Right of Way Acreage: 10.917 acres



DULY D 5 ELAINE H. CARDE COUNTY CLERK HAYS COUNTY, T Щ Ц Ц Ц Ц XAS, A.D. PAS SAID N CO NTY CLERK OF HAYS CC VAS FILED FOR RECORD IN A 20_____ AT ________ ___ DAY OF ________ RECORDS OF HAYS COUN ഗഗ δ Σ ശാ ശാ PLAT S, CO THE THE BER N HE SS ELAINE CARDENAS COUNTY CLERK HAYS COUNTY, TEX STATE OF TEXAS COUNTY OF COUL STATE OF TEXAS Sounty of Hays Elaine Carden ORDED ON TI OCK M, IN T REBEN BECERRA COUNTY JUDGE HAYS COUNTY, T Р Р 티 뿐 Before me, the undersigned authority, a Notary Public in and for said County and State, on this day personally appeared Daniel Arthur, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purpose and considerations therein expressed. Given under my hand and seal of office, this ______ day of _______ STATE OF TEXAS § COUNTY OF COLLIN § KNOW ALL MEN BY THESE PRESENTS That I, Daniel Arthur, a Registered Professional Land Surveyor in the State of Texas d hereby certify that I prepared this plat and the field notes made a part thereof from an actu and accurate survey of the land and that the corner monuments shown thereon wer properly placed under my supervision. PRELIMINARY THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL 105 Daniel Arthur Registered Professional Land Survey Texas Registration No. 5933 Kimley-Horn and Associates, Inc. 400 North Oklahoma Drive, Suite 10: Celina, TX 75009 (469) 501-2200 daniel.arthur@kimley-horn.com ശാ ശാ STATE OF TEXAS COUNTY OF COLLIN وا in and Notary Public Gi KNOW ALL MEN BY THESE PRESENTS THAT WE, OWNER, AS OWNER OF 104.27 ACRES BEING ALL OF THAT TRACT OF LAND OUT OF THE R. VAUGHN SURVEY, ABSTRACT NO. 16, IN HAYS COUNTY, TEXAS, CONVEYED TO SERENITY HILLS PARTNERS LLC., IN A GENERAL WARRANTY DEED DATED JUNE 29, 2022 AND RECORDED IN DOCUMENT NO. 2032944 OF THE OFFICIAL PUBLIC RECORDS OF HAYS COUNTY, TEXAS, DO HEREBY ADOPT THIS PLAT DESIGNATING THE ACRE TRACT AS SERENITY DRIPPING SPRINGS, AN ADDITION TO HAYS COUNTY, AND DO HEREBY DEDICATE TO THE USE OF THE PUBLIC ALL STREETS, ALLEYS, PARKS, WATERCOURSES, DRAINS, PUBLIC EASEMENTS AND PUBLIC PLACES SHOWN HEREON UNLESS OTHERWISE INDICATED EITHER BY PLAT OR SEPARATE INSTRUMENT, AND THAT THIS PLAT IS SUBJECT TO ALL OF THE REQUIREMENTS OF THE SUBDINGION REGULATIONS OF THE CITY OF DRIPPING SPRINGS AND THE COUNTY OF HAYS, TEXAS No structure in this subdivision shall be occupied until connected to an individual water supply or state-approved community water system. Due to declining water supply, prospective property owners are cautioned by Hays County to question the seller concerning ground water availability. Rain water collection is encouraged and, in some areas, may offer the best renewable water resource. No structure in this subdivision shall be occupied until connected to a permitted sewer system or to an on-site wastewater system that has been approved and permitted by Hays County. ose name cuted the of Before me, the undersigned authority, a Notary Public in and for said County and State this day this day personally appeared _______, known to me to be the person whose ni is subscribed to the foregoing instrument and acknowledged to me that he executed same for the purpose and considerations therein expressed. Given under my hand and seal of office, this ______ day of Texa ŝ STATE OF TEXAS § COUNTY OF Notary Public in and for the State of My Commission expires on: NAME ADDRESS

MARCUS PACHECO, DIRECTOR HAYS COUNTY DEVELOPMENT (

ERIC VAN GAASBEEK, R.S., CFM HAYS COUNTY FLOODPLAIN ADMINISTRATOR

OWNER/DEVELOPER: ENGINEER: Sanctuary Dripping Springs, LLC EnGINEER: Sanctuary Dripping Springs, LLC San Southwart Parkway, BLDG 2 San Southwart Parkway, BLDG 2 San Southwart Parkway, BLDG 2 San Southwart Parkway, BLDG 2 San Southwart Parkway, BLDG 2 Middleton, Deleware 19709 San Southwart Parkway, BLDG 2 Pione: Austin, Texas 78735 Contact: Justin Kathan Contact: Daniel Arthur R.P.L.S. Contact: Daniel Garau, P.E. Contact: Contact: Intalia Garau, P.E.	, LLC Kimley-Horn and Associates, Inc. 5301 Southwest Parkway, BLDG 2 Suite 100 Austin, Texas 78735 Phone: 512-518-6529 Contact : Natalia Garau, P.E.
LLC	FLC
OWNER/DEVELOPER: Sanctuary Dripping Springs, LLC 651 N. Broad St., Suite 201 Middleton, Deleware 19709 Phone: Contact: Justin Kathan	OWNER/DEVELOPER: Barctuary Dripping Springs, LLC 661 N. Broad St., Suite 201 Middleton, Deleware 19709 Prone: Contact: Justin Kathan

A COUNTRY ACRES RD 2 SPRINGS 2 SHEET NOTER ACRES RD 2 0	FINAL PLAT (4 OF 4)	KHA PROJECT 069424100 069424100 DATE 10/19/2023 SCALE: AS SHOWN DESIGNED BY: LE DRAWN BY: LE	NATALIA GARAU BOLIVAR	Franking A Building 2, SUITE 100 B301 SOUTHWEST PARKWAY, BUILDING 2, SUITE 100 AUSTIN, TX 78735 PHONE: 512–646–2237 FAX: 512–418–1791 WWW.KIMLEY-HORN.COM			
		CHECKED BY: NG		C) 2023 KIMLEY-HORN AND ASSOCIATES, INC. TBPE Firm No. 928	No.	REVISIONS	DATE BY

GENERAL NOTES

R.O.W.

- 1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF DRIPPING SPRINGS MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
- 2. CONTRACTOR SHALL CALL INFRAMARK FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY OR STREET
- 3. CONTRACTOR SHALL NOTIFY THE WCID AND INFRAMARK TO SUBMIT REQUIRED DOCUMENTATION. PAY CONSTRUCTION INSPECTION FEES, AND TO SCHEDULE THE REQUIRED SITE AND SUBDIVISION PRE-CONSTRUCTION MEETING. THIS MEETING MUST BE HELD PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN THE R.O.W. OR PUBLIC EASEMENTS.
- 4. FOR SLOPES OR TRENCHES GREATER THAN FIVE FEET IN DEPTH, A NOTE MUST BE ADDED STATING: "ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION." (OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 611 EAST 6TH STREET, AUSTIN TEXAS.)
- AMERICANS WITH DISABILITIES ACT

5. ALL SITE WORK MUST ALSO COMPLY WITH ENVIRONMENTAL REQUIREMENTS.

THE CITY HAS REVIEWED THIS PLAN FOR COMPLIANCE WITH CITY DEVELOPMENT REGULATIONS ONLY. THE APPLICANT, PROPERTY OWNER, AND OCCUPANT OF THE PREMISES ARE RESPONSIBLE FOR DETERMINING WHETHER THE PLAN COMPLIES WITH ALL OTHER LAWS, REGULATIONS, AND RESTRICTIONS WHICH MAY BE APPLICABLE TO THE PROPERTY AND ITS USE.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY CONTRIBUTING ZONE PLAN GENERAL CONSTRUCTION NOTES

- 1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY GROUND DISTURBANCE OR CONSTRUCTION ACTIVITIES. THIS NOTICE MUST INCLUDE: - THE NAME OF THE APPROVED PROJECT;
- THE ACTIVITY START DATE; AND - THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
- 2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT SHOULD BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED CONTRIBUTING ZONE PLAN (CZP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTOR(S) SHOULD KEEP COPIES OF THE APPROVED PLAN AND APPROVAL LETTER ON-SITE.
- 3. NO HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.
- 4. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
- 5. ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.
- 6. SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.
- 7. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE. 8. ALL EXCAVATED MATERIAL THAT WILL BE STORED ON-SITE MUST HAVE PROPER E&S CONTROLS.
- 9. IF PORTIONS OF THE SITE WILL HAVE A CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.
- 10. THE FOLLOWING RECORDS SHOULD BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST: - THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; - THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND - THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.
- 11. THE HOLDER OF ANY APPROVED CZP MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING: A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY BEST MANAGEMENT PRACTICES (BMPS) OR TRUCTURE(S). INCLUDING BUT NOT LIMITED TO TEMPORARY OR PERMANENT PONDS. DAMS. BERMS. SILT FENCES, AND DIVERSIONARY STRUCTURES; B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED;
- C. ANY CHANGE THAT WOULD SIGNIFICANTLY IMPACT THE ABILITY TO PREVENT POLLUTION OF THE EDWARDS AQUIFER: OR
- D. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE APPROVED CONTRIBUTING ZONE PLAN.

HAYS COUNTY ROAD DEPARTMENT

P.O. BOX 906 San Marcos, TX 78667



TO ALL CONTRACTORS: GENERAL CONSTRUCTION NOTES FOR PLANS

THESE PLANS ARE NOT TO BE CONSIDERED FINAL FOR CONSTRUCTION UNTIL APPROVED BY HAYS COUNTY. CHANGES MAY BE REOUIRED PRIOR TO APPROVAL.

1. Seventy-Two (72) hours prior to the beginning of construction, the developer shall arrange a pre-construction conference with all pertinent parties.

Hays County specifications. Contractor shall be responsible for obtaining any necessary permits from Hays County Road and Bridge Department prior to beginning any on-site construction. Contractor shall be responsible for scheduling the necessary inspections from the Hays County Road and Bridge Department. All repairs to improvements caused by contractor's failure to install improvements in accordance with Hays County specifications and these construction plans shall be the responsibility of the contractor.

Hays County Road and Bridge Department's acceptance of the improvements are contingent on repairs being made to Hays County's satisfaction. Delays caused by repairs are the responsibility of the contractor.

3. Contractor shall ensure that vehicles leaving the construction site onto publicly maintained roadways are clear of mud and debris. 4. No **EXPLOSIVES** shall be used for this project without **TCEQ** approval.

fencing, lights and/or other protective devices at all times. 6. Contractor shall comply with construction sequencing which may be specified somewhere in the construction plans.

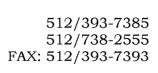
7. Permit is required for construction in 'Right of Way' :Ordinance 7.10. No driveway, utility construction, mailboxes, landscaping or any other encroachment into right-of-way or easement shall be allowed without first obtaining a permit from the Hays County Road and Bridge Department.

by Hays County. Prior to paving, base material shall be inspected by Hays County. The owner or his agent shall notify the Hays County Road Director forty-eight (48) hours prior to the time when the

inspection is needed :Ordinance 1.05; 2.06. 9. At the time a final inspection and release of performance security is requested; the design engineer shall provide a complete set of "As-Built" Record drawings in PDF format (300dpi) on a virus free disk and shall certify that all road and drainage construction has been completed in substantial accordance with previously approved plans and specifications, except as noted. No performance security will be released without these exhibits.

Approved by:

Hays County Road Department



2. All roadway and drainage improvements shall be constructed in accordance with

5. All holes, trenches and other hazardous areas shall be adequately protected by barricades,

8. Prior to the installation of any road building material the subgrade shall be inspected

		AUSTIN, TX 78735 PHONF: 512–646–2237 FAX: 512–418–1791	Firm No. 928 No. No. DATE BY
KHA PROJECT 669424100 069424100 DATE DATE Antiophona	GARAL	TEXAS J BOL	CHECKED BY: NG TBP
	GENERAL NOTES		
SANCTUARY DRIPPING	SPRINGS		HAYS COUNTY, TEXAS
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<u>CO</u>	NTACT INFORMATION
FAC	CILITIES OWNER:
	WEST TRAVIS COUNTY PUA
	13215 BEE CAVE PARKWAY, BUILDING B, SUITE 110 BEE CAVE, TEXAS 78738
	512-263-0100
	JRIECHERS@WTCPUA.ORG
ow	NER:
	LEDGESTONE EAST, LTD.
	ADDRESS: 4314 MEDICAL PARKWAY
	SUITE 200
	AUSTIN, TEXAS 78756
	CONTACT: DANIEL CAMPBELL
OW	NER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:
	KIMLEY-HORN AND ASSOCIATES, INC.
	PHONE NO: (512) 646-2237
	NATALIA GARAU
PEF	SON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANC
	LEDGESTONE EAST, LTD.
	ADDRESS: 4314 MEDICAL PARKWAY
	SUITE 200
	AUSTIN, TEXAS 78756
	CONTACT: DANIEL CAMPBELL
PEF	SON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE LEDGESTONE EAST, LTD.
	ADDRESS: 4314 MEDICAL PARKWAY
	SUITE 200
	AUSTIN, TEXAS 78756
	CONTACT: DANIEL CAMPBELL
SPO	ILS MANAGEMENT AND DISPOSAL NOTES EMPORARY HOLDING SITES AS NECESSARY TO STOCKPILE EXCAVATED SOILS,
	MEDMENT MATERIAL,
	ND/OR PIPING AND APPURTENANCES MAY BE LOCATED WITHIN THE LIMITS OF DNSTRUCTION AS SHOWN ON THE PLANS .
	D PERMANENT SPOILS DISPOSAL SHALL BE ALLOWED ON-SITE, UNLESS APPROVED (THE OWNER AND GOVERNING AUTHORITY.
AI LC AI	L SPOILS MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN PPROVED SPOIL DISPOSAL SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OCATING AND SECURING A PERMIT FOR THE SITE; AND SHALL NOTIFY THE OWNER ND/OR ENGINEER AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO DISPOSAL OF AN POIL MATERIAL.
	SION /SEDIMENTATION CONTROL NOTES
USE	LATEST CITY OF AUSTIN, CITY OF DRIPPING SPRINGS, CITY OF BEE CAVE, TRAVIS
	NTY, HAYS COUNTY EROSION/SEDIMENTATION CONTROL NOTES, AS APPROPRIATE.
	LATEST CITY OF AUSTIN, CITY OF DRIPPING SPRINGS, CITY OF BEE CAVE, TRAVIS NTY, HAYS COUNTY EROSION/SEDIMENTATION CONTROL NOTES, AS APPROPRIATE
	ST TRAVIS COUNTY PUBLIC UTILITY AGENCY (WTCPUA) NOTES - TO BE PLACED ON NERAL NOTES SHEET
	URS OF CONSTRUCTION

IN EACH CASE, EXCEPT SUCH WORK AS MAY BE NECESSARY FOR THE PROPER CARE MAINTENANCE AND PROTECTION OF THE WORK ALREADY DONE OR IN THE CASE OF AN EMERGENCY.

LIMITS OF CONSTRUCTION

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

SANITARY FACILITIES

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

PROTECTION OF BORE PITS

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

HORIZONTAL CONTROLS

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

CONSTRUCTION SEQUENCING (MODIFY TO FIT PROJECT)

- 1.48 HOURS PRIOR TO BEGINNING ANY WORK, CALL THE ONE-CALL BOARD OF TEXAS AT 811 OR 1-800-545-6005 FOR UTILITY LOCATIONS AND OBTAIN STREET CUT PERMIT FOR ANY WORK WITHIN CITY, COUNTY, AND/OR STATE RIGHT-OF-WAY.
- 2. INSTALL TEMPORARY EROSION CONTROLS AND TREE/NATURAL AREA PROTECTION FENCING PRIOR TO PRE- CONSTRUCTION MEETING AND PRIOR TO ANY SITE CLEARING, GRUBBING, EXCAVATION, MATERIAL STOCKPILING, OR OTHER CONSTRUCTION OPERATIONS
- 3. SCHEDULE AND CONVENE A PRECONSTRUCTION MEETING INCLUDING BUT NOT LIMITED TO THE OWNER'S REPRESENTATIVE, ENGINEER, WTCPUA REPRESENTATIVE, FIRE DEPARTMENT, CITY, COUNTY, TXDOT REPRESENTATIVE, AND TCEQ REPRESENTATIVE. AS APPLICABLE.
- 4. INSTALL TRAFFIC CONTROL MEASURES.
- 5. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO INITIATING CONSTRUCTION.
- 6. ROUGH CUT WATER QUALITY PONDS AND DIRECT RUNOFF TO PONDS TO ACT AS A SEDIMENT TRAP.
- 7. REMOVE AND STOCKPILE TOPSOIL IN AREAS AS REQUIRED.
- 8. ROUGH CUT ROADS/SITE, AS NECESSARY.
- 9. INSTALL ALL UNDERGROUND UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE

WTCPUA WHEN SWITCHING SERVICE TO THE WTCPUA SYSTEM. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MATERIALS/FACILITIES TO ENSURE SERVICE IS MAINTAINED DURING SWITCHOVER.

10.COMPLETE ALL UNDERGROUND INSTALLATIONS, INCLUDING INSTALLATION OF SLEEVES.

11.COMPLETE SUBGRADE.

- 12.COMPLETE 1SI COURSE BASE.
- 13.COMPLETE FINAL COURSE BASE.
- 14.LAY PAVEMENT AND/OR COMPLETE ANY PAVEMENT REPAIR.

17.REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROLS.

15.COMPLETE WATER QUALITY PONDS.

16.COMPLETE PERMANENT EROSION CONTROL AND SITE RESTORATION.

18.COMPLETE ANY NECESSARY FINAL DRESS UP OF AREAS DISTURBED BY

CONSTRUCTION OPERATIONS.

TRAFFIC CONTROL NOTES (INCLUDE IF APPLICABLE)

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

SWPPP NOTES

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

- 1. MAINTAIN A COPY OF THE SWPPP AND A SET OF CONSTRUCTION PLANS WITH THE TEMPORARY EROSION AND SEDIMENT CONTROL PLAN AT THE WORK SITE AT ALL TIMES.
- 2. FILE A NOTICE OF INTENT (NOI) AND APPLICABLE PAYMENT TO THE TCEQ AT LEAST 2 DAYS PRIOR TO SITE DISTURBANCE.
- 3. POST A COPY OF THE OWNER'S AND CONTRACTOR'S NOI FORMS AT THE WORK SITE.
- 4. SIGN THE CERTIFICATION AND OBTAIN A SIGNED CERTIFICATION STATEMENT FROM ALL SUBCONTRACTORS RESPONSIBLE FOR IMPLEMENTING THE FROSION AND SEDIMENT CONTROL MEASURES WHICH INDICATES THAT THE CONTRACTOR AND SUBCONTRACTOR UNDERSTANDS THE PERMIT REQUIREMENTS (FORMS ARE IN THE SWPPP)
- 5. FOLLOW AND COMPLY WITH ALL ASPECTS OF THE TPDES GENERAL PERMIT NO. TXR150000. THIS INCLUDES BUT IS NOT LIMITED TO FIELD INSPECTIONS AND REPORT. MAINTAINING AND REPAIRING EROSION CONTROLS AND UPDATING EROSION CONTROLS AND UPDATING EROSION CONTROL PLAN SHEETS BASED ON FIELD CHANGES AND MODIFICATIONS.
- 6. FILE A COPY OF THE CONTRACTOR'S NOTICE OF TERMINATION (NOT) WITH THE TCEQ ONCE THE WORK IS COMPLETED IN ACCORDANCE WITH THE TPDES GENERAL PERMIT NO TXR.150000 AND HAS BEEN ACCEPTED BY THE OWNER. WTCPUA WATER & WASTEWATER GENERAL CONSTRUCTION NOTES
- 1. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE STATE STATUTES AND U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS (0.S.H.A.). COPIES OF O.S.H.A. STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE. INFORMATION AND RELATED REFERENCE MATERIALS MAY BE OBTAINED FROM O.S.H.A. AUSTIN AREA OFFICE - LA COSTA GREEN BLDG 1033, LA POSADA DR, SUITE 375, AUSTIN, TEXAS 78752-3832, 512- 374-0271.
- 2. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO THE CITY OF AUSTIN

STANDARD SPECIFICATIONS AND TO THE STATE LAW, (VERNON'S ANNOTATED TEXAS STATUTES. ARTICLE 1436 ©) AND THE NEED FOR EFFECTIVE PRECAUTIONARY MEASURES WHEN OPERATING IN THE VICINITY OF ELECTRICAL LINES. THE CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY REQUIREMENTS, AND FOR COORDINATION OF ALL WORK WITH THE APPROPRIATE ELECTRIC UTILITY COMPANY.

- 3. THE CONTRACTOR SHALL CONTACT THE ONE-CALL BOARD OF TEXAS AT 811 OR 1-800-545-6005 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION. THE LOCATION AND TYPE OF UTILITIES AND UNDERGROUND FACILITIES SHOWN ON THESE PLANS ARE NOT GUARANTEED TO BE ACCURATE OR ALL- INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL DEPTHS AND LOCATIONS OF EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. IN ADDITIONAL TO NORMAL PRECAUTIONS WHEN EXCAVATING, USE EXTRA CAUTION WHEN EXCAVATING WITHIN 25 FEET OF ANY UTILITIES SHOWN ON THE PI ANS
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION BETWEEN HIMSELF AND OTHER CONTRACTORS AND UTILITIES IN THE VICINITY OF THE PROJECT. THIS INCLUDES ALL WATER, WASTEWATER, GAS, ELECTRICAL, TELEPHONE, CABLE TELEVISION, AND STREET AND DRAINAGE WORK. ONCE THE CONTRACTOR BECOMES AWARE OF A POSSIBLE CONFLICT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER AND WTCPUA NSPECTOR WITHIN TWENTY-FOUR (24) HOURS.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF ALL SPOIL MATERIAL FROM THE CONSTRUCTION SITE. ALL SPOILS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED SPOIL SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND SECURING A PERMIT FOR THE SITE. THE CONTRACTOR SHALL NOTIFY THE WTCPUA INSPECTOR AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO DISPOSAL OF THE MATERIAL. NO SPOILS ARE TO REMAIN OVERNIGHT IN THE FLOODPLAIN.
- 6. NO BLASTING OR BURNING WILL BE ALLOWED.
- 7.IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR. AT HIS EXPENSE, ALL UTILITIES, PAVEMENT, CURB, FENCES OR ANY OTHER ITEMS DAMAGED DURING CONSTRUCTION REGARDLESS OF WHETHER THESE ITEMS ARE SHOWN ON THE CONSTRUCTION PLANS.
- 8. WHENEVER EXISTING UTILITIES, INDICATED OR NOT ON PLANS, PRESENT OBSTRUCTIONS TO GRADE AND/OR ALIGNMENT OF PROPOSED PIPE. CONTRACTOR IS TO IMMEDIATELY NOTIFY THE ENGINEER WHO WILL DETERMINE IF EXISTING IMPROVEMENTS ARE TO BE RELOCATED OR IF THE GRADE AND/OR ALIGNMENT OF PROPOSED PIPE IS TO BE CHANGED.
- 9. DUST PREVENTION SHALL BE PROVIDED BY THE CONTRACTOR AT HIS OWN EXPENSE. DUST CONTROL SHALL INCLUDE SPRAYING OF WATER ON ALL DISTURBED AREAS, SPOIL PILES, OR HAUL MATERIALS ASSOCIATED WITH THE PROJECT OR OTHER METHODS APPROVED BY THE WTCPUA.
- 10. CLEANUP UPON COMPLETION AND BEFORE MAKING APPLICATION FOR ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL CLEAN ALL STREETS AND ALL GROUND OCCUPIED BY HIM IN CONNECTION WITH THE WORK OF ALL RUBBISH. EXCESS MATERIALS. EXCESS EXCAVATED MATERIALS. TEMPORARY STRUCTURES AND EQUIPMENT. ALL PARTS OF THE WORK SHALL BE LEFT IN A NEAT AND PRESENTABLE CONDITION SATISFACTORY TO THE WTCPUA AND OTHER GOVERNMENTAL BODIES HAVING JURISDICTION PRIOR TO SUBMITTAL OF THE FINAL PAYMENT
- 11. THE CONTRACTOR SHALL MAINTAIN ACCESS TO BUSINESSES AND RESIDENCES AT ALL TIMES. THE CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS TO MINIMIZE DISRUPTION OF DELIVERIES, PARKING, AND OTHER ACTIVITIES.
- 12. DEWATERING, IF NECESSARY, SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND SHALL NOT CONSTITUTE A BASIS FOR ADDITIONAL PAYMENT.
- 13. THE MINIMUM DEPTH OF COVER FROM TOP OF PIPE TO FINISHED GRADE FOR ALL WATER LINES SHALL BE FOUR FEET. INSTALL LINES TO AVOID HIGH POINTS.

14 MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI, UNLESS OTHERWISE NOTED.

- 15. REINFORCING STEEL SHALL BE ASTM A 615M, GRADE 60 UNLESS OTHERWISE NOTED
- 16. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE WTCPUA MUST RELY ON THE ADEQUACY OF THE DESIGN ENGINEER. APPROVAL OF THESE PLANS BY THE WTCPUA DOES NOT RELEASE THE DESIGN ENGINEER OF THESE RESPONSIBILITIES.

- 1. WEST TRAVIS COUNTY PUA IS THE WATER AND / OR WASTEWATER SERVICE PROVIDER FOR THIS PROJECT. A PRE-CONSTRUCTION MEETING WITH THE WTCPUA SHALL BE HELD PRIOR TO COMMENCEMENT OF CONSTRUCTION TO SCHEDULE INSPECTION OF INSTALLATION OF WATER/WASTEWATER FACILITIES. WATER FACILITIES WILL BE INSPECTED UP TO, AND INCLUDING, THE WATER METER AND/OR FIRE HYDRANTS. THE CONTACT NUMBER FOR WTCPUA IS (512) 263- 0100.
- 2. THE CITY OF AUSTIN STANDARD SPECIFICATIONS AND STANDARD DETAILS CURRENT AT THE TIME OF CONSTRUCTION SHALL GOVERN MATERIALS AND METHODS USED TO PERFORM THIS WORK. CITY OF AUSTIN SPECIFICATIONS AND STANDARD DETAILSARE AVAILABLE AT HTTPS://LIBRARY.MUNICODE.COM/TX/AUSTIN/CODES/
- 3.CONTRACTOR SHALL OBTAIN ALL APPROVALS AND PERMITS, INCLUDING BUT NOT LIMITED TO STREET/DRIVEWAY CUT AND UTILITY CUT PERMITS FROM THE APPROPRIATE GOVERNMENTAL AGENCY BEFORE BEGINNING CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR ALLEY.
- 4.THE WTCPUA SHALL BE CONTACTED AT (512) 263-0100 AT LEAST 48 HOURS BEFORE CONNECTING TO THEIR EXISTING WATER AND/OR WASTEWATER FACILITIES.
- 5.THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM AT 811 OR 1-800-545-6005 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION. IN ADVANCE OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES TO BE EXTENDED, TIED TO, OR ALTERED, OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS.
- 6.NO OTHER UTILITY SERVICE/APPURTENANCES SHALL BE PLACED NEAR THE PROPERTY LINE, OR OTHER ASSIGNED LOCATION DESIGNATED FOR WATER AND WASTEWATER UTILITY SERVICE THAT WOULD INTERFERE WITH THE WATER AND/OR WASTEWATER SERVICES.
- 8. WHERE WATER LINES AND SEWER LINE ARE INSTALLED WITH A SEPARATION DISTANCE CLOSER THAN NINE FEET (I.E., WATER LINES CROSSING WASTEWATER LINES, WATER LINES PARALLELING WASTEWATER LINES, OR WATER LINES NEXT TO MANHOLES) THE INSTALLATION MUST MEET THE REQUIREMENTS OF 30 TAC §217.53(D) (PIPE DESIGN) AND 30 TAC §290.44(E) (WATER DISTRIBUTION). ANY DEVIATION THESE STANDARDS SHALL REQUIRE A VARIANCE APPROVED BY TCEQ BEFORE SUBMITTING PIPING ASSIGNMENTS TO THE WTCPUA.
- 9. THE CITY OF AUSTIN SPECIFICATION ITEM 509S WILL BE REQUIRED AS A MINIMUM TRENCH SAFETY MEASURE. CONTRACT DOCUMENTS, WHICH INCLUDE A TRENCH SAFETY PLAN SIGNED AND SEALED BY A TEXAS PROFESSIONAL ENGINEER AND A PAY ITEM FOR TRENCH SAFETY MEASURES, IN COMPLIANCE WITH OSHA, STATE, COUNTY, AND CITY REQUIREMENTS BEFORE BEGINNING WORK ON THE PROJECT.
- 10. ALL MATERIAL TESTS, INCLUDING SOIL DENSITY TESTS AND RELATED SOIL OTHER NOTES ENGINEER IS RESPONSIBLE FOR INCLUDING ALL APPLICABLE BY THE OWNER IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATION ITEM 1804S.4.
- 11. CONNECTIONS TO EXISTING WTCPUA WATER LINES SHALL BE MADE BY CUT-IN TEES IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATION

ITEM 510.3(24). ISOLATION VALVES SHALL BE INSTALLED ON THE ENDS OF THE DEPARTMENT, TCEQ (CZP, WPAP, ORGANIZ CUT-IN TEE. AS NECESSARY, A SHUT-OUT VALVE PLAN SHALL BE PROVIDED GENERAL CONSTRUCTION NOTES). ENGIN SHOWING THE LOCATION OF EXISTING GATE VALVES IN THE VICINITY OF THE CURRENT ADOPTED VERSION OF ALL NO CONNECTION. THE SHUT-OUT PLAN SHALL IDENTIFY ALL AFFECTED PROPERTY PLANS. owners. CONTRACTOR SHALL PERFORM ALL WORK AND SHALL FURNISH ALL MATERIALS, INCLUDING DRAINING AND CUTTING INTO EXISTING PIPING AND CONNECTING A NEW PIPELINE OR OTHER EXTENSION INTO THE EXISTING PRESSURE PIPING. FORMING AN ADDITION TO THE POTABLE WATER TRANSMISSION AND DISTRIBUTION NETWORK AND PERFORMING NECESSARY SHUTOFFS. CONTRACTOR SHALL SCHEDULE ALL SUCH CONNECTIONS IN ADVANCE AND SUCH SCHEDULE SHALL BE APPROVED BY THE WTCPUA BEFORE 1. THIS WATER DISTRIBUTION SYSTEM I BEGINNING THE WORK. AT LEAST 48 HOURS- NOTICE SHALL BE GIVEN TO THE WTCPUA PRIOR TO MAKING THE CONNECTION, AND A REPRESENTATIVE FROM THE WTCPUA SHALL BE PRESENT WHEN THE CONNECTION IS MADE. PRESSURE TAPS MAY BE APPROVED ON A CASE- BY-CASE BASIS. "SIZE ON SIZE" TAPS WILL NOT BE PERMITTED. WHEN APPROVED. ANY TAPS SHALL BE MADE BY USE OF AND APPROVED FULL CIRCLE, GASKETED CAST IRON OR DUCTILE IRON TAPPING SLEEVE. CONCRETE BLOCKING SHALL BE PLACED BEHIND AND UNDER ALL TAP SI FFVFS PRIOR TO MAKING THE PRESSURE TAP AND THE USE OF PRECAST BLOCKS MAY BE USED TO HOLD THE TAP IN ITS CORRECTION POSITION PRIOR TO BLOCKING. THE BLOCKING BEHIND AND UNDER THE TAP SHALL HAVE A MINIMUM OF 24 HOURS CURING TIME BEFORE THE VALVE CAN BE REOPENED FOR SERVICE FROM THAT TAP. THE CONTRACTOR SHALL NOTIFY THE WTCPUA INSPECTOR A MINIMUM OF SEVENTY-TWO (72) HOURS IN ADVANCE FOR THE WTCPUA TO NOTIFY THE AFFECTED CUSTOMERS. THE WTCPUA SHALL BE PRESENT WHILE ALL WORK IS PERFORMED TO MAKE THE CONNECTION.

12. THRUST RESTRAINT SHALL BE BY METAL THRUST RESTRAINTS IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATION ITEM 510.3(22).

- 13 FIRE HYDRANTS SHALL BE SET IN ACCORDANCE WITH CITY OF STANDARD SPECIFICATION ITEM 51LS.3 E AND SHALL BE APPROVED FIRE DEPARTMENT OR OTHER APPROPRIATE PARTY PRIOR TO INSTALLATION. FIRE HYDRANTS ON MAINS UNDER CONSTRUCTION SHALL BE SECURELY WRAPPED WITH A POLY WRAP BAG AND TAPED INTO PLACE. THE POLY WRAP WILL BE REMOVED WHEN 6. WATER TRANSMISSION AND DISTRI THE MAINS ARE ACCEPTED AND PLACED IN SERVICE. FIRE HYDRANTS THAT ARE TO BE USED AS DRAIN HYDRANTS SHALL BE PAINTED SILVER W/ BLUE CAPS PRIOR TO ACCEPTANCE. WHERE STORZ ADAPTORS ARE REQUIRED (HAYS COUNTY), FIRE HYDRANTS SHALL BE MANUFACTURED WITH INTEGRAL STORZ ADAPTORS
- 14. WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATION ITEM 510.3(29) AND/OR TCEQ RULES.
- 15. TEST PRESSURE FOR 2-HOUR TEST SHALL BE AT 175 PSI AT THE LOWEST POINT IN THE LINE.

- PRIOR TO PRESSURE TESTING, CONTRACTOR SHALL VERIFY THAT THRUST BLOCKING AND/OR THRUST RESTRAINT BACK TO AND INCLUDING THE VALVE AGAINST WHICH THE PRESSURE TEST SHALL BE PERFORMED, HAS BEEN INSTALLED TO AT LEAST THE SPECIFICATIONS OF THIS PROJECT. FAILURE TO VERIFY THAT THRUST BLOCKING AND/OR THRUST RESTRAINT IN THE EXISTING LINE MEETS OR EXCEEDS THE SPECIFICATIONS OF THIS PROJECT MAY RESULT IN SERIOUS DAMAGE TO THE EXISTING WATERLINE.
- 16. WATER LINES SHALL BE FILLED WITH WATER AND ALL AIR EXPELLED AT LEAST 24 HOURS BEFORE TESTING. ALL SERVICE LATERALS AND DRAIN VALVE 11. PURSUANT TO 30 TAC §290.44(A)(5), LEADS, WITH THE HYDRANT VALVES CLOSED AND NOZZLE CAPS OPEN SHALL BE INCLUDED IN THE TESTS
- CONTRACTOR SHALL SUBMIT A DISINFECTION AND FLUSHING PLAN IN ACCORDANCE WITH AWWA STANDARDS TO THE WTCPUA FOR APPROVAL. REQUIRED FLUSHING VOLUMES. FLUSHING SCHEDULE. AND METHOD OF DISPOSAL OF FLUSH WATER SHALL BE IN ACCORDANCE WITH THE APPROVED PI AN
- CONCRETE SHALL BE CLASS 'A' WITH A 18. GATE VALVES SHALL BE RESILIENT SEATED GATE VALVES CONFORMING TO AWWA C509, WITH A MINIMUM RATED WORKING PRESSURE OF 250 PSIG. 19. FORCE MAIN TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE
 - CITY OF AUSTIN STANDARD SPECIFICATION ITEM 510.3(27) AND/OR TCEQ RULES. 20. GRAVITY SANITARY SEWER MAIN TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATION ITEMS 510.3(26) AND/OR TCEQ RULES. IN ADDITION, ALL GRAVITY SANITARY SEWER MAINS SHALL BE TELEVISED PRIOR TO ACCEPTANCE BY WTCPUA. DIGITAL FILES (VIA CD-ROM) CLEARLY SHOWING TELEVISED RECORDING SHALL BE SUBMITTED
 - TO THE ENGINEER OF RECORD FOLLOWING INSPECTION. 21. LOCATOR 'FINDER' WIRE - ALL NON -METALLIC WATER LINES SHALL HAVE A FINDER WIRE LOCATED ABOVE THE PIPE. THE WIRE SHALL BE POLY-INSULATED NO. 10 SOLID COPPER AND WILL TERMINATE AT EACH ISOLATION VALVE SUCH THAT IT IS ACCESSIBLE FROM THE VALVE BOX.
 - 22. LOCATOR 'FINDER' WIRE ALL NON-METALLIC WASTEWATER LINES SHALL HAVE A FINDER WIRE LOCATED ABOVE THE PIPE. THE WIRE SHALL BE POLY-INSULATED NO. 10 SOLID COPPER AND WILL TERMINATE AT READILY ACCESSIBLE LOCATIONS THROUGHOUT THE COLLECTION SYSTEM.
 - 23. ALL VALVE RISERS SHALL HAVE A 1'-6" SQUARE CONCRETE BOX POURED AROUND THEM AT FINISHED GRADE.
 - 24. ALL MANHOLES SHALL BE LINED WITH A CORROSION RESISTANT LINING APPROVED BY THE WTCPUA.
 - 25. BOLTED AND GASKETED COVERS SHALL BE USED FOR ALL MANHOLES LOCATED IN THE 100-YEAR FLOODPLAIN. WHERE THERE ARE MORE THAN THREE GASKETED MANHOLES IN A ROW, VENTS SHALL BE PROVIDED ON EVERY THIRD MANHOLE.
 - 26. THE DOWNSTREAM END OF ANY FORCE MAIN SHALL BE TERMINATED IN A SANITARY SEWER MANHOLE IN A MANNER TO MINIMIZE TURBULENCE. 27. CONTRACTOR SHALL HAVE NECESSARY EROSION AND SEDIMENTATION
 - CONTROLS IN PLACE PRIOR TO COMMENCING WATER/WASTEWATER FACILITY CONSTRUCTION 28. RECORD DRAWINGS, AS STIPULATED BY THE WTCPUA, SHALL BE 13. THE SEPARATION DISTANCE FROM A
 - SUBMITTED TO THE ENGINEER OF RECORD FOR VERIFICATION AND FURNISHED TO THE WTCPUA UPON COMPLETION OF THE PROJECT.
 - 29. THE WTCPUA WILL OWN AND OPERATE ALL WATER LINES AND APPURTENANCES UP TO AND INCLUDING THE WATER METER. THESE IMPROVEMENTS WILL BE DEFINED BY A RECORDED EASEMENT OR IN PUBLIC RIGHT-OF-WAY.
 - 30. ANY PORTIONS OF WASTEWATER LINES INCLUDING SERVICES THAT ARE LOCATED OUTSIDE OF A RECORDED EASEMENT OR PUBLIC RIGHT-OF-WAY WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER, OR HIS/HER ASSIGNS.
 - 31. WHERE EXISTING WATER AND/OR WASTEWATER INFRASTRUCTURE IS TO 14. FIRE HYDRANTS SHALL NOT BE INSTA BE ABANDONED, THE ENGINEER SHALL SUBMIT AN ABANDONMENT PLAN FOR APPROVAL BY THE WTCPUA.
 - 32. WATER SERVICES SHALL BE INSTALLED USING HDPE PIPE. COPPER IS NOT ALLOWED.
 - 33. FOR ANY STORM SEWER LINE CROSSING A WATER OR WASTEWATER LINE CLOSER THAN 18", THE STORM SEWER PIPE SHALL BE LAID SUCH THAT NO STORM SEWER JOINTS WILL BE OVER THE WATER PIPE CROSSING.
- ANALYSIS. SHALL BE ACCOMPLISHED BY AN INDEPENDENT LABORATORY FUNDED NOTES, INCLUDING BUT NOT LIMITED TO COUNTY, CITY, TXDOT, STATE, FIRE

- WITH THE CURRENT TEXAS COMMISS RULES AND REGULATIONS FOR ADMINISTRATIVE CODE (TAC) CHAPTE ARE NOTED WITH LOCAL STANDARD SHALL BE APPLIED. AT A MINIMUM, COM
- SYSTEMS. 2. ALL NEWLY INSTALLED PIPES AND F AMERICAN NATIONAL STANDARDS STANDARD 61 AND MUST BE CERTIFIE
- ANSI [§290.44(A)(1)]. 3.PLASTIC PIPE FOR USE IN PUBLIC INTERNATIONAL SEAL OF APPROVAL PRESSURE RATING OF AT LEAST 150 I 26 OR LESS [§290.44(A)(2)].
- 4.NO PIPE WHICH HAS BEEN USED CONVEYANCE OF DRINKING WATER S USE IN ANY PUBLIC DRINKING WATER 5. ALL WATER LINE CROSSINGS OF WASTE
- [§290.44(E)(4)(B)].
- ACCORDANCE WITH THE MANUFACTU OF THE WATER LINE MUST BE LOCATED SHALL THE TOP OF THE WATER LINE SURFACE [§290.44(A)(4)].
- 7. THE MAXIMUM ALLOWABLE LEAD CONT FITTINGS, AND FIXTURES IS 0.25 PERCENT [§290.44(B)].
- 8. THE CONTRACTOR SHALL INSTALL A VENT OPENINGS TO THE ATMOSPHE CORROSION RESISTANT SCREENING M [§290.44(D)(1)].
- 9. THE CONTRACTOR SHALL NOT PLACE FLOODED WITH WATER OR SEWAGE [§290.44(F)(1)].
- WHEN WATERLINES ARE LAID STREAM OR SEMI-PERMANENT BODY INSTALLED IN A SEPARATE WATERTIG PROVIDED ON EACH SIDE OF THE CR UNDERWATER PORTION OF THE SY [§290.44(F)(2)].
- NOT EXCEED THE AMOUNT ALLOV CURRENT AWWA FORMULAS FOR PVC INCLUDE THE FORMULAS IN THE NOTES
- O THE HYDROSTATIC LEAKAGE RATE FO APPURTENANCES SHALL NOT EX RECOMMENDED BY FORMULAS IN (AWWA) C-605 AS REQUIRED IN 30 TAG FORMULA FOR THIS CALCULATION IS C IN USE:

- Q = THE QUANTITY OF MAKEUP WAT L = THE LENGTH OF THE PIPE SECTION I D = THE NOMINAL DIAMETER OF THE P = THE AVERAGE TEST PRESSURE D PER SQUARE INCH (PSI)
- O THE HYDROSTATIC LEAKAGE RATE APPURTENANCES SHALL NOT EX RECOMMENDED BY FORMULAS IN (AWWA) C-600 AS REQUIRED IN 30 TAC FORMULA FOR THIS CALCULATION IS C IN USE;

SSLI LL =-----

- S = THE LENGTH OF THE PIPE SECTION D = THE NOMINAL DIAMETER OF THE P = THE AVERAGE TEST PRESSURE D PER SQUARE INCH (PSI).
- THE CONTRACTOR SHALL MAINTAIN A DIRECTIONS OF NINE FEET BETWE WASTEWATER COLLECTION FACILITIES CANNOT BE MAINTAINED, THE CONTR PROJECT ENGINEER FOR FURTHER INSTALLATION METHODS, AND MATERIA

12

- MAIN OR LATERAL MANHOLE OR CLEA WHERE THE NINE-FOOT SEPARATION POTABLE WATERLINE SHALL BE END PRESSURE CLASS PIPE AT LEAST 18 LARGER THAN THE NEW CONVEYANCE SHALL BE SUPPORTED AT FIVE-FOOT TO THE SPRINGLINE WITH WASHED CENTERED ON THE CROSSING AND B OR MANUFACTURED SEALANT [§290.44(
- HORIZONTALLY OF ANY WASTEWA WASTEWATER SERVICE LINE REGARDL
- 15. SUCTION MAINS TO PUMPING EQUIP MAINS, WASTEWATER LATERALS, OR W SUPPLY LINES SHALL NOT BE INSTALLE TILE OR CONCRETE WASTEWATER MAIN WASTEWATER SERVICE LINE [§290.44(E
- 16. WATERLINES SHALL NOT BE INSTALLED DRAINFIELDS [§290.44(E)(8)].
- THE CONTRACTOR SHALL DISINFECT WITH AWWA STANDARD C-651- 14 OR I THE LINES BEFORE BEING PLACED COLLECTED FOR MICROBIOLOGICAL A OF THE DISINFECTION PROCEDU CONTAMINATION PERSISTS. A MINIMUM COMPLETED WATERLINE WILL BE R SAMPLING POINT BEYOND 1,000 FEET / [§290.44(F)(3)].
- 18. DE-CHLORINATION OF DISINFECTING W ACCORDANCE WITH CURRENT AWWA S

(REVISED FEBRUARY 2019

EPARTMENT, TCEQ (CZP, WPAP, ORGANIZED SEWAGE COLLECTION SYSTEM NOTES, ENERAL CONSTRUCTION NOTES). ENGINEER IS RESPONSIBLE FOR ENSURING THE JRRENT ADOPTED VERSION OF ALL NOTES IS INCLUDED IN THE CONSTRUCTION .ANS.	DATE BY
TCEQ WATER DISTRIBUTION SYSTEM GENERAL CONSTRUCTION NOTES (REVISED FEBRUARY 2019 OR LATEST VERSION)	
1. THIS WATER DISTRIBUTION SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS 30 TEXAS ADMINISTRATIVE CODE (TAC) CHAPTER 290 SUBCHAPTER D. WHEN CONFLICTS ARE NOTED WITH LOCAL STANDARDS, THE MORE STRINGENT REQUIREMENT SHALL BE APPLIED. AT A MINIMUM, CONSTRUCTION FOR PUBLIC WATER SYSTEMS MUST ALWAYS MEET TCEQ'S "RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS."	REVISIONS
 2. ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)/NSF INTERNATIONAL STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI [§290.44(A)(1)]. 3. PLASTIC PIPE FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NSF INTERNATIONAL SEAL OF APPROVAL (NSF-PW) AND HAVE AN ASTM DESIGN PRESSURE RATING OF AT LEAST 150 PSI OR A STANDARD DIMENSION RATIO OF 26 OR LESS [§290.44(A)(2)]. 	
4.NO PIPE WHICH HAS BEEN USED FOR ANY PURPOSE OTHER THAN THE CONVEYANCE OF DRINKING WATER SHALL BE ACCEPTED OR RELOCATED FOR USE IN ANY PUBLIC DRINKING WATER SUPPLY [§290.44(A)(3)]. 5. ALL WATER LINE CROSSINGS OF WASTEWATER MAINS SHALL BE PERPENDICULAR [§290.44(E)(4)(B)].	
6. WATER TRANSMISSION AND DISTRIBUTION LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. HOWEVER, THE TOP OF THE WATER LINE MUST BE LOCATED BELOW THE FROST LINE AND IN NO CASE SHALL THE TOP OF THE WATER LINE BE LESS THAN 24 INCHES BELOW GROUND SURFACE [§290.44(A)(4)]. 7. THE MAXIMUM ALLOWABLE LEAD CONTENT OF PIPES, PIPE FITTINGS, PLUMBING FITTINGS, AND FIXTURES IS 0.25 PERCENT [§290.44(B)].	X BUILDING 2, SUITE 1 X 78735 7 FAX: 512-418-1791 HORN.COM AND ASSOCIATES, INC. No. 928
8. THE CONTRACTOR SHALL INSTALL APPROPRIATE AIR RELEASE DEVICES WITH VENT OPENINGS TO THE ATMOSPHERE COVERED WITH 16-MESH OR FINER, CORROSION RESISTANT SCREENING MATERIAL OR AN ACCEPTABLE EQUIVALENT [§290.44(D)(1)]. 9. THE CONTRACTOR SHALL NOT PLACE THE PIPE IN WATER OR WHERE IT CAN BE	ST PARKWA AUSTIN, 1 AUSTIN, 1 2–646–223 WWW.KIMLEY ALEY-HORN TBPE Firm
FLOODED WITH WATER OR SEWAGE DURING ITS STORAGE OR INSTALLATION [§290.44(F)(1)]. 10. WHEN WATERLINES ARE LAID UNDER ANY FLOWING OR INTERMITTENT	1 SOUTHWES PHONE: 512 PHONE: 512 M
STREAM OR SEMI-PERMANENT BODY OF WATER THE WATERLINE SHALL BE INSTALLED IN A SEPARATE WATERTIGHT PIPE ENCASEMENT. VALVES MUST BE PROVIDED ON EACH SIDE OF THE CROSSING WITH FACILITIES TO ALLOW THE UNDERWATER PORTION OF THE SYSTEM TO BE ISOLATED AND TESTED [§290.44(F)(2)].	5301 E
. PURSUANT TO 30 TAC §290.44(A)(5), THE HYDROSTATIC LEAKAGE RATE SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY THE MOST CURRENT AWWA FORMULAS FOR PVC PIPE, CAST IRON AND DUCTILE IRON PIPE. INCLUDE THE FORMULAS IN THE NOTES ON THE PLANS. O THE HYDROSTATIC LEAKAGE RATE FOR POLYVINYL CHLORIDE (PVC) PIPE AND	SINTE OF TELAS
APPURTENANCES SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY FORMULAS IN AMERICA WATER WORKS ASSOCIATION (AWWA) C-605 AS REQUIRED IN 30 TAC §290.44(A)(5). PLEASE ENSURE THAT THE FORMULA FOR THIS CALCULATION IS CORRECT AND MOST CURRENT FORMULA IS IN USE;	NATALIA GARAU BOLIVAR 136891 CENSE SONAL ENG
$QQ = \frac{LLLL_V \overline{PP}}{148,000}$ WHERE:	10/19/2023
 Q = THE QUANTITY OF MAKEUP WATER IN GALLONS PER HOUR, L = THE LENGTH OF THE PIPE SECTION BEING TESTED, IN FEET, D = THE NOMINAL DIAMETER OF THE PIPE IN INCHES, AND P = THE AVERAGE TEST PRESSURE DURING THE HYDROSTATIC TEST IN POUNDS PER SQUARE INCH (PSI). 	ROJECT 424100 ATE 9/2023 BY: L BY: N(
O THE HYDROSTATIC LEAKAGE RATE FOR DUCTILE IRON (DI) PIPE AND APPURTENANCES SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY FORMULAS IN AMERICA WATER WORKS ASSOCIATION (AWWA) C-600 AS REQUIRED IN 30 TAC §290.44(A)(5). PLEASE ENSURE THAT THE FORMULA FOR THIS CALCULATION IS CORRECT AND MOST CURRENT FORMULA IS IN USE;	KHA P 0692 0692 007 071 071 071 071 071 071 071 071 071
$LL = \frac{SSLL_V PP}{148,000}$	NU
 WHERE: L = THE QUANTITY OF MAKEUP WATER IN GALLONS PER HOUR, S = THE LENGTH OF THE PIPE SECTION BEING TESTED, IN FEET, D = THE NOMINAL DIAMETER OF THE PIPE IN INCHES, AND P = THE AVERAGE TEST PRESSURE DURING THE HYDROSTATIC TEST IN POUNDS PER SQUARE INCH (PSI). 	VIS CO NOTES
THE CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE IN ALL DIRECTIONS OF NINE FEET BETWEEN THE PROPOSED WATERLINE AND WASTEWATER COLLECTION FACILITIES INCLUDING MANHOLES. IF THIS DISTANCE CANNOT BE MAINTAINED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROJECT ENGINEER FOR FURTHER DIRECTION. SEPARATION DISTANCES, INSTALLATION METHODS, AND MATERIALS UTILIZED MUST MEET §290.44(E)(1)-(4).	T TRA PUA
THE SEPARATION DISTANCE FROM A POTABLE WATERLINE TO A WASTEWATER MAIN OR LATERAL MANHOLE OR CLEANOUT SHALL BE A MINIMUM OF NINE FEET. WHERE THE NINE-FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE POTABLE WATERLINE SHALL BE ENCASED IN A JOINT OF AT LEAST 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE-FOOT INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHALL BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT	IG WES RD.
OR MANUFACTURED SEALANT [§290.44(E)(5)]. FIRE HYDRANTS SHALL NOT BE INSTALLED WITHIN NINE FEET VERTICALLY OR HORIZONTALLY OF ANY WASTEWATER LINE, WASTEWATER LATERAL, OR WASTEWATER SERVICE LINE REGARDLESS OF CONSTRUCTION [§290.44(E)(6)].	CRES
. SUCTION MAINS TO PUMPING EQUIPMENT SHALL NOT CROSS WASTEWATER MAINS, WASTEWATER LATERALS, OR WASTEWATER SERVICE LINES. RAW WATER SUPPLY LINES SHALL NOT BE INSTALLED WITHIN FIVE FEET OF ANY TILE OR CONCRETE WASTEWATER MAIN, WASTEWATER LATERAL, OR WASTEWATER SERVICE LINE [§290.44(E)(7)].	DRII JGS IRY AC
WASTEWATER SERVICE LINE (§290.44(E)(7)). WATERLINES SHALL NOT BE INSTALLED CLOSER THAN TEN FEET TO SEPTIC TANK DRAINFIELDS [§290.44(E)(8)].	
THE CONTRACTOR SHALL DISINFECT THE NEW WATERLINES IN ACCORDANCE WITH AWWA STANDARD C-651- 14 OR MOST RECENT, THEN FLUSH AND SAMPLE THE LINES BEFORE BEING PLACED INTO SERVICE. SAMPLES SHALL BE COLLECTED FOR MICROBIOLOGICAL ANALYSIS TO CHECK THE EFFECTIVENESS OF THE DISINFECTION PROCEDURE WHICH SHALL BE REPEATED IF CONTAMINATION PERSISTS. A MINIMUM OF ONE SAMPLE FOR EACH 1,000 FEET OF COMPLETED WATERLINE WILL BE REQUIRED OR AT THE NEXT AVAILABLE SAMPLING POINT BEYOND 1,000 FEET AS DESIGNATED BY THE DESIGN ENGINEER [§290.44(F)(3)].	NCTUA SP HAYS CC HAYS CC
DE-CHLORINATION OF DISINFECTING WATER SHALL BE IN STRICT ACCORDANCE WITH CURRENT AWWA STANDARD C655-09 OR MOST RECENT.	SA 1111
	SHEET NUMBER



IN THE FIELD THAT AFFECT THE GRADING PLAN TO THE CIVIL ENGINEER.

EFFECTIVELY CONTROL EROSION AND PREVENT SEDIMENTATION FROM WASHING OFF THE SITE, THEN THE CONTRACTOR SHALL

11 OFF-SITE SOIL BORROW SPOIL AND STORAGE AREAS (IF APPLICABLE) ARE CONSIDERED AS PART OF THE PROJECT SITE AND MUST ALSO COMPLY WITH THE EROSION CONTROL REQUIREMENTS FOR THIS PROJECT. THIS INCLUDES THE INSTALLATION OF BMP'S TO CONTROL EROSION AND SEDIMENTATION AND THE ESTABLISHMENT OF PERMANENT GROUND COVER ON DISTURBED AREAS PRIOR TO FINAL APPROVAL OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR MODIFYING THE SWPPP AND EROSION CONTROL PLAN TO INCLUDE BMPS FOR ANY OFF-SITE THAT ARE NOT ANTICIPATED OR SHOWN ON THE EROSION CONTROL PLAN. 12. ALL STAGING, STOCKPILES, SPOIL, AND STORAGE SHALL BE LOCATED SUCH THAT THEY WILL NOT ADVERSELY AFFECT STORM WATER QUALITY. PROTECTIVE MEASURES SHALL BE PROVIDED IF NEEDED TO ACCOMPLISH THIS REQUIREMENT. SUCH AS COVERING OR

13. CONTRACTORS SHALL INSPECT ALL EROSION CONTROL DEVICES, BMPS, DISTURBED AREAS, AND VEHICLE ENTRY AND EXIT AREAS WEEKLY AND WITHIN 24 HOURS OF ALL RAINFALL EVENTS OF 0.5 INCHES OR GREATER, AND KEEP A RECORD OF THIS INSPECTION IN THE SWPPP BOOKI ET IF APPLICABLE. TO VERIEV THAT THE DEVICES AND EROSION CONTROL PLAN ARE FUNCTIONING PROPERLY 14. CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL PRIMARY POINTS OF ACCESS IN ACCORDANCE WITH CITY SPECIFICATIONS. CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION TRAFFIC USES THE STABILIZED ENTRANCE AT

15. SITE ENTRY AND EXITS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT THE TRACKING AND FLOWING OF SEDIMENT AND 16. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SILT AND DEBRIS FROM THE AFFECTED OFF-SITE ROADWAYS THAT ARE A

17. WHEN WASHING OF VEHICLES IS REQUIRED TO REMOVE SEDIMENT PRIOR TO EXITING THE SITE, IT SHALL BE DONE IN AN AREA

STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP BMP 18. CONTRACTOR SHALL INSTALL A TEMPORARY SEDIMENT BASIN FOR ANY ON-SITE DRAINAGE AREAS THAT ARE GREATER THAN 10 ACRES, PER TCEQ AND CITY STANDARDS. IF NO ENGINEERING DESIGN HAS BEEN PROVIDED FOR A SEDIMENTATION BASIN ON THESE PLANS, THEN THE CONTRACTOR SHALL ARRANGE FOR AN APPROPRIATE DESIGN TO BE PROVIDED.

19 ALL FINES IMPOSED FOR SEDIMENT OR DIRT DISCHARGED FROM THE SITE SHALL BE PAID BY THE RESPONSIBLE CONTRACTOR 20. WHEN SEDIMENT OR DIRT HAS CLOGGED THE CONSTRUCTION ENTRANCE VOID SPACES BETWEEN STONES OR DIRT IS BEING TRACKED ONTO A ROADWAY, THE AGGREGATE PAD MUST BE WASHED DOWN OR REPLACED. RUNOFF FROM THE WASH-DOWN OPERATION SHALL NOT BE ALLOWED TO DRAIN DIRECTLY OFF SITE WITHOUT FIRST FLOWING THROUGH ANOTHER BMP TO CONTROL SEDIMENTATION. PERIODIC RE-GRADING OR NEW STONE MAY BE REQUIRED TO MAINTAIN THE EFFECTIVENESS OF THE CONSTRUCTION ENTRANCE. 21. TEMPORARY SEEDING OR OTHER APPROVED STABILIZATION SHALL BE INITIATED WITHIN 14 DAYS OF THE LAST DISTURBANCE OF ANY AREA, UNLESS ADDITIONAL CONSTRUCTION IN THE AREA IS EXPECTED WITHIN 21 DAYS OF THE LAST DISTURBANCE.

23. UPON COMPLETION OF FINE GRADING, ALL SURFACES OF DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED. STABILIZATION IS ACHIEVED WHEN THE AREA IS EITHER COVERED BY PERMANENT IMPERVIOUS STRUCTURES, SUCH AS BUILDINGS, SIDEWALK, 24.AT THE CONCLUSION OF THE PROJECT, ALL INLETS, DRAIN PIPE, CHANNELS, DRAINAGEWAYS AND BORROW DITCHES AFFECTED BY THE CONSTRUCTION SHALL BE DREDGED, AND THE SEDIMENT GENERATED BY THE PROJECT SHALL BE REMOVED AND DISPOSED IN

CONTRACTOR SHALL COMPLY WITH ALL TCEQ AND EPA STORM WATER POLLUTION PREVENTION REQUIREMENTS. 2. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE TCEQ GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS

3 THE CONTRACTOR SHALL ENSURE THAT ALL PRIMARY OPERATORS SUBMIT A NOLTO TO TO AT LEAST SEVEN DAYS PRIOR TO COMMENCING CONSTRUCTION (IF APPLICABLE), OR IF UTILIZING ELECTRONIC SUBMITTAL, PRIOR TO COMMENCING CONSTRUCTION. ALL PRIMARY OPERATORS SHALL PROVIDE A COPY OF THE SIGNED NOI TO THE OPERATOR OF ANY MS4 (TYPICALLY THE CITY)

4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IF APPLICABLE, INCLUDING POSTING SITE NOTICE, INSPECTIONS, DOCUMENTATION, AND SUBMISSION OF ANY INFORMATION REQUIRED

ALL CONTRACTORS AND SUBCONTRACTORS PROVIDING SERVICES RELATED TO THE SWPPP SHALL SIGN THE REQUIRED CONTRACTOR CERTIFICATION STATEMENT ACKNOWLEDGING THEIR RESPONSIBILITIES AS SPECIFIED IN THE SWPPP. 6. A COPY OF THE SWPPP, INCLUDING NOI, SITE NOTICE, CONTRACTOR CERTIFICATIONS, AND ANY REVISIONS, SHALL BE SUBMITTED TO THE CITY BY THE CONTRACTOR AND SHALL BE RETAINED ON-SITE DURING CONSTRUCTION. 7. A NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO TCEQ BY ANY PRIMARY OPERATOR WITHIN 30 DAYS AFTER ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND A UNIFORM VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY STRUCTURES, A TRANSFER OF OPERATIONAL CONTROL HAS OCCURRED, OR THE OPERATOR HAS OBTAINED ALTERNATIVE AUTHORIZATION UNDER A DIFFERENT PERMIT. A COPY OF THE NOT SHALL BE PROVIDED TO THE OPERATOR OF ANY MS4 RECEIVING DISCHARGE FROM THE SITE.

. KH IS NOT RESPONSIBLE FOR THE MEANS AND METHODS EMPLOYED BY THE CONTRACTOR TO IMPLEMENT THIS DEMOLITION PLAN. THIS PRELIMINARY DEMOLITION PLAN SIMPLY INDICATES THE KNOWN OBJECTS ON THE SUBJECT TRACT THAT ARE TO BE DEMOLISHED

2. KH DOES NOT WARRANT OR REPRESENT THAT THE PLAN, WHICH WAS PREPARED BASED ON SURVEY AND UTILITY INFORMATION PROVIDED BY OTHERS, SHOWS ALL IMPROVEMENTS AND UTILITIES, THAT THE IMPROVEMENTS AND UTILITIES ARE SHOWN ACCURATELY, OR THAT THE UTILITIES SHOWN CAN BE REMOVED. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ITS OWN SITE RECONNAISSANCE TO SCOPE ITS WORK AND TO CONFIRM WITH THE OWNERS OF IMPROVEMENTS AND UTILITIES THE ABILITY AND 3. THIS PLAN IS INTENDED TO GIVE A GENERAL GUIDE TO THE CONTRACTOR, NOTHING MORE. THE GOAL OF THE DEMOLITION IS TO LEAVE THE SITE IN A STATE SUITABLE FOR THE CONSTRUCTION OF THE PROPOSED DEVELOPMENT. REMOVAL OR PRESERVATION OF IMPROVEMENTS, UTILITIES, ETC. TO ACCOMPLISH THIS GOAL ARE THE RESPONSIBILITY OF THE CONTRACTOR. 4. CONTRACTOR IS STRONGLY CAUTIONED TO REVIEW THE FOLLOWING REPORTS DESCRIBING SITE CONDITIONS PRIOR TO BIDDING AND

b. ASBESTOS BUILDING INSPECTION REPORT(S) PROVIDED BY THE OWNER,

5 CONTRACTOR SHALL CONTACT THE OWNER TO VERIEV WHETHER ADDITIONAL REPORTS OR AMENDMENTS TO THE ABOVE CITED REPORTS HAVE BEEN PREPARED AND TO OBTAIN/REVIEW/AND COMPLY WITH THE RECOMMENDATION OF SUCH STUDIES PRIOR TO

6. CONTRACTOR SHALL COMPLY WITH ALL LOCAL. STATE, AND FEDERAL REGULATIONS REGARDING THE DEMOLITION OF OBJECTS ON THE SITE AND THE DISPOSAL OF THE DEMOLISHED MATERIALS OFF-SITE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REVIEW THE SITE DETERMINE THE APPLICABLE REGULATIONS RECEIVE THE REQUIRED PERMITS AND AUTHORIZATIONS AND COMPLY . KH DOES NOT REPRESENT THAT THE REPORTS AND SURVEYS REFERENCED ABOVE ARE ACCURATE, COMPLETE, OR COMPREHENSIVE SHOWING ALL ITEMS THAT WILL NEED TO BE DEMOLISHED AND REMOVED. 8. SURFACE PAVEMENT INDICATED MAY OVERLAY OTHER HIDDEN STRUCTURES, SUCH AS ADDITIONAL LAYERS OF PAVEMENT

1. THE CONTRACTOR AND GRADING SUBCONTRACTOR SHALL VERIFY THE SUITABILITY OF EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE START OF CONSTRUCTION. THE CIVIL ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF

3. UNLESS OTHERWISE NOTED, PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN IN PAVED AREA REFLECT TOP OF PAVEMENT SURFACE. IN LOCATIONS ALONG A CURB LINE, ADD 6-INCHES (OR THE HEIGHT OF THE CURB) TO THE PAVING GRADE FOR TOP OF CURB 4. PROPOSED SPOT ELEVATIONS AND CONTOURS OUTSIDE THE PAVEMENT ARE TO TOP OF FINISHED GRADE.

5. PROPOSED CONTOURS ARE APPROXIMATE. PROPOSED SPOT ELEVATIONS AND DESIGNATED GRADIENT ARE TO BE USED IN CASE OF 3. ALL FINISHED GRADES SHALL TRANSITION UNIFORMLY BETWEEN THE FINISHED ELEVATIONS SHOWN

7. CONTOURS AND SPOT GRADES SHOWN ARE ELEVATIONS OF TOP OF THE FINISHED SURFACE. WHEN PERFORMING THE GRADING OPERATIONS. THE CONTRACTOR SHALL PROVIDE AN APPROPRIATE ELEVATION HOLD-DOWN ALLOWANCE FOR THE THICKNESS OF PAVEMENT SIDEWALK TOPSOIL MULCH STONE LANDSCAPING RIP-RAP AND ALL OTHER SURFACE MATERIALS THAT WILL CONTRIBUTE TO THE TOP OF FINISHED GRADE. FOR EXAMPLE, THE LIMITS OF EARTHWORK IN PAVED AREAS IS THE BOTTOM OF THE 8. NO REPRESENTATIONS OF EARTHWORK QUANTITIES OR SITE BALANCE ARE MADE BY THESE PLANS. THE CONTRACTOR SHALL

VARIANCE FROM A BALANCED SITE SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CIVIL ENGINEER. 9. ALL GRADING AND EARTHWORK SHALL COMPLY WITH THE PROJECT'S FINAL GEOTECHNICAL REPORT (OR LATEST EDITION), INCLUDING 10. ALL EXCAVATION IS UNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED. UNUSABLE EXCAVATED MATERIAL AND ALL WASTE RESULTING FROM SITE CLEARING AND GRUBBING SHALL BE REMOVED FROM THE SITE AND APPROPRIATELY DISPOSED BY THE

11. EROSION CONTROL DEVICES SHOWN ON THE EROSION CONTROL PLAN FOR THE PROJECT SHALL BE INSTALLED PRIOR TO THE START OF GRADING. REFERENCE EROSION CONTROL PLAN, DETAILS, GENERAL NOTES, AND SWPPP FOR ADDITIONAL INFORMATION AND 12.BEFORE ANY EARTHWORK IS PERFORMED, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF THE PROJECT'S PROPERTY LINE AND SITE IMPROVEMENTS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY ENGINEERING AND SURVEYING FOR LINE AND

13. CONTRACTOR TO DISPOSE OF ALL EXCESS EXCAVATION MATERIALS IN A MANNER THAT ADHERES TO LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS. THE CONTRACTOR SHALL KEEP A RECORD OF WHERE EXCESS EXCAVATION WAS DISPOSED, ALONG WITH

14. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF TOPSOIL AT THE COMPLETION OF FINE GRADING. CONTRACTOR SHALL REFER TO LANDSCAPE ARCHITECTURE PLANS FOR SPECIFICATIONS AND REQUIREMENTS FOR TOPSOIL. 15. CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING MAINTAINING EXISTING 16.NO EARTHWORK FILL SHALL BE PLACED IN ANY EXISTING DRAINAGE WAY, SWALE, CHANNEL, DITCH, CREEK, OR FLOODPLAIN FOR ANY REASON OR ANY LENGTH OF TIME. UNLESS THESE PLANS SPECIFICALLY INDICATE THIS IS REQUIRED.

19. THE CONTRACTOR SHALL CLEAR AND GRUB THE SITE AND PLACE, COMPACT, AND CONDITION FILL PER THE PROJECT GEOTECHNICAL ENGINEER'S SPECIFICATIONS. THE FILL MATERIAL TO BE USED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO

20. CONTRACTOR IS RESPONSIBLE FOR ALL SOILS TESTING AND CERTIFICATION, UNLESS SPECIFIED OTHERWISE BY OWNER. ALL SOILS TESTING SHALL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR AND SHALL COMPLY WITH CITY STANDARD SPECIFICATIONS AND THE GEOTECHNICAL REPORT. SOILS TESTING SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY FOR TESTING SOILS. THE OWNER SHALL APPROVE THE AGENCY NOMINATED BY THE CONTRACTOR FOR SOILS TESTING. 21.ALL COPIES OF SOILS TEST RESULTS SHALL BE SENT TO THE OWNER, ENGINEER AND ARCHITECT DIRECTLY FROM THE TESTING

22.IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SHOW, BY THE STANDARD TESTING PROCEDURES OF THE SOILS, THAT THE WORK CONSTRUCTED MEETS THE PROJECT REQUIREMENTS AND CITY SPECIFICATIONS. 23. THE SCOPE OF WORK FOR CIVIL IMPROVEMENT SHOWN ON THESE PLANS TERMINATES 5-FEET FROM THE BUILDING. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT AND STRUCTURAL PLANS AND SPECIFICATIONS FILL, CONDITIONING, AND PREPARATION

24.DUE TO THE POTENTIAL FOR DIFFERENTIAL SOIL MOVEMENT ADJACENT TO THE BUILDING, THE CONTRACTOR SHALL ADHERE TO GEOTECHNICAL REPORT'S RECOMMENDATION FOR SUBGRADE PREPARATION SPECIFIC TO FLATWORK ADJACENT TO THE PROPOSED BUILDING. THE OWNER AND CONTRACTOR ARE ADVISED TO OBTAIN A GEOTECHNICAL ENGINEER RECOMMENDATION SPECIFIC TO FLATWORK ADJACENT TO THE BUILDING JE NONE IS CURRENTLY EXISTING

25. CONTRACTOR SHALL ENSURE THAT SUFFICIENT POSITIVE SLOPE AWAY FROM THE BUILDING PAD IS ACHIEVED FOR ENTIRE PERIMETER OF THE PROPOSED BUILDING(S) DURING GRADING OPERATIONS AND IN THE FINAL CONDITION. IF THE CONTRACTOR OBSERVES THAT THIS WILL NOT BE ACHIEVED, THE CONTRACTOR SHALL CONTACT THE ENGINEER TO REVIEW THE LOCATION 26.THE CONTRACTOR SHALL TAKE ALL AVAILABLE PRECAUTIONS TO CONTROL DUST. CONTRACTOR SHALL CONTROL DUST BY SPRINKLING WATER OR BY OTHER MEANS APPROVED BY THE CITY AT NO ADDITIONAL COST TO THE OWNER

27. CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES FOR ANY REQUIRED UTILITY ADJUSTMENTS AND/OR RELOCATIONS NEEDED FOR GRADING OPERATIONS AND TO ACCOMMODATE PROPOSED GRADE, INCLUDING THE UNKNOWN UTILITIES NOT SHOWN ON THESE PLANS. CONTRACTOR SHALL REFER TO THE GENERAL NOTES "OVERALL" SECTION THESE PLANS FOR ADDITIONAL

28.EXISTING TREE LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. CONTRACTOR SHALL REPORT ANY DISCREPANCIES FOUND 29. CONTRACTOR SHALL FIELD VERIFY ALL PROTECTED TREE LOCATIONS, INDIVIDUAL PROTECTED TREE CRITICAL ROOT ZONES, AND PROPOSED SITE GRADING, AND NOTIFY THE CIVIL ENGINEER AND LANDSCAPE ARCHITECT OF ANY CONFLICTS WITH THE TREE

PRESERVATION PLAN BY THE LANDSCAPE ARCHITECT PRIOR TO COMMENCING THE WORK. 30. TREE PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY STANDARD TREE PROTECTION DETAILS AND THE

APPROVED TREE PRESERVATION PLANS BY THE LANDSCAPE ARCHITECT. 31.CONTRACTOR SHALL REFER TO THE LANDSCAPING AND TREE PRESERVATIONS PLANS FOR ALL INFORMATION AND DETAILS

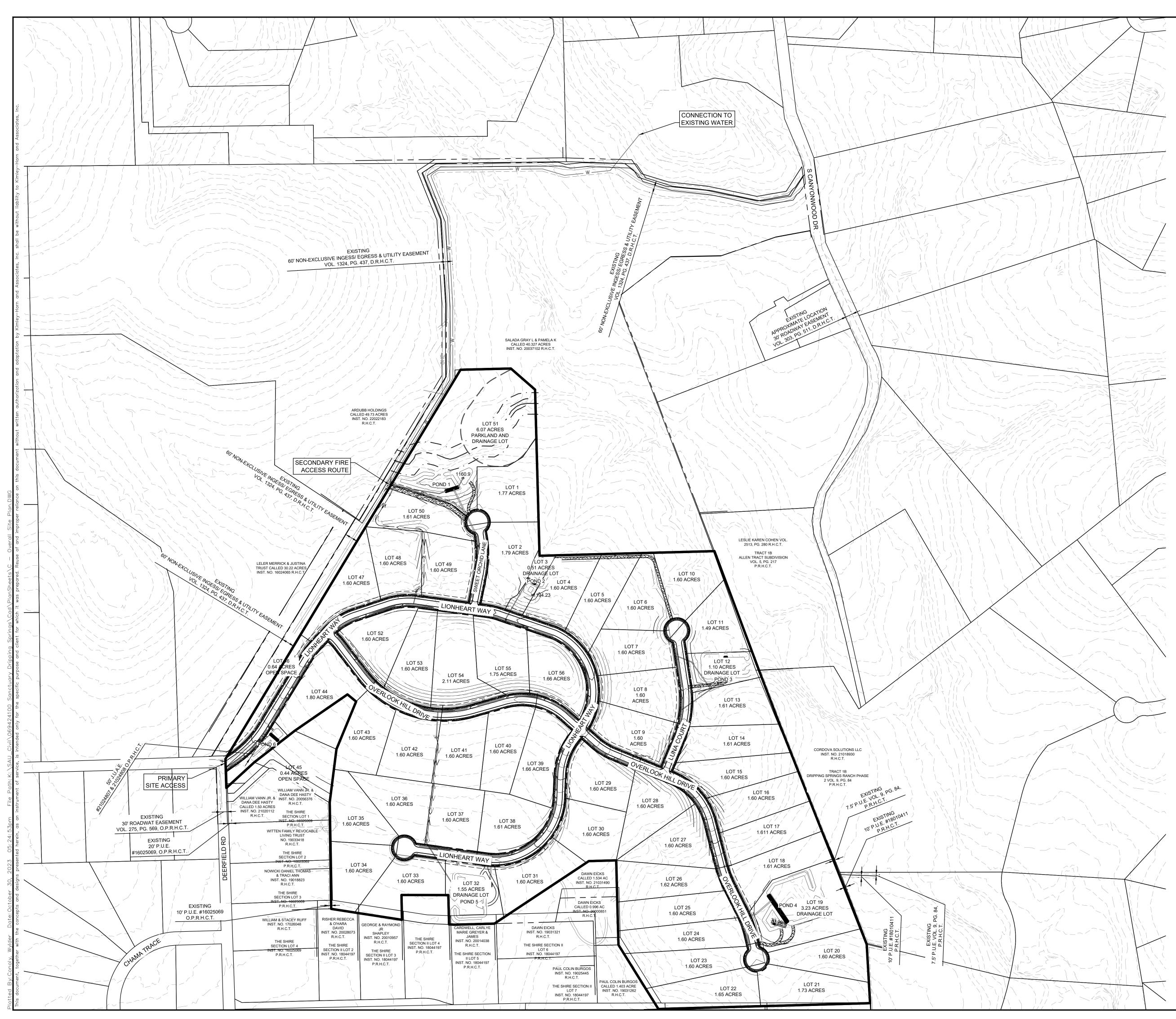
- REGARDING EXISTING TREES TO BE REMOVED AND PRESERVED 32.NO TREE SHALL BE REMOVED UNLESS A TREE REMOVAL PERMIT HAS BEEN ISSUED BY THE CITY, OR CITY HAS OTHERWISE COL IN WRITING THAT ONE IS NOT NEEDED FOR THE TREE(S).
- 33 NO TREE SHALL BE REMOVED OR DAMAGED WITHOUT PRIOR AUTHORIZATION OF THE OWNER OR OWNER'S REPRESENTATIVE EXISTING TREES SHALL BE PRESERVED WHENEVER POSSIBLE AND GRADING IMPACT TO THEM HELD TO A MINIMUM. 34 AFTER PLACEMENT OF SUBGRADE AND PRIOR TO PLACEMENT OF PAVEMENT, CONTRACTOR SHALL TEST AND OBSERVE PAVE AREAS FOR EVIDENCE OF PONDING AND INADEQUATE SLOPE FOR DRAINAGE. ALL AREAS SHALL ADEQUATELY DRAIN TOWARI INTENDED STRUCTURE TO CONVEY STORMWATER RUNOFF. CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER AND ENGINEER
- AREAS OF POOR DRAINAGE ARE DISCOVERED 35. CONTRACTOR FIELD ADJUSTMENT OF PROPOSED SPOT GRADES IS ALLOWED, IF THE APPROVAL OF THE CIVIL ENGINEER IS OB **RETAINING WALLS:**
- . RETAINING WALLS SHOWN ARE FOR SITE GRADING PURPOSES ONLY, AND INCLUDE ONLY LOCATION AND SURFACE SPOT ELEV AT THE TOP AND BOTTOM OF THE WALL 2. RETAINING WALL TYPE OR SYSTEM SHALL BE SELECTED BY THE OWNER.
- DIRT ONTO OFF-SITE ROADWAYS. ALL SEDIMENT AND DIRT FROM THE SITE THAT IS DEPOSITED ONTO AN OFF-SITE ROADWAY SHALL BE 3. RETAINING WALL DESIGN SHALL BE PROVIDED BY OTHERS AND SHALL FIT IN THE WALL ZONE OR LOCATION SHOWN ON THESE STRUCTURAL DESIGN AND PERMITTING OF RETAINING WALLS. RAILINGS, AND OTHER WALL SAFETY DEVICES SHALL BE PERFO A LICENSED ENGINEER AND ARE NOT PART OF THIS PLAN SET. 4. RETAINING WALL DESIGN SHALL MEET THE INTENT OF THE GRADING PLAN AND SHALL ACCOUNT FOR ANY INFLUENCE ON ADJA
 - BUILDING FOUNDATIONS, UTILITIES, PROPERTY LINES AND OTHER CONSTRUCTABILITY NOTES. 5. RETAINING WALL ENGINEER SHALL CONSULT THESE PLANS AND THE GEOTECHNICAL REPORT FOR POTENTIAL CONFLICTS.
 - 1. ALL PAVING MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE PLANS, THE CITY STANDARD DETAILS AN SPECIFICATIONS, THE FINAL GEOTECHNICAL REPORT AND ALL ISSUED ADDENDA, AND COMMONLY ACCEPTED CONSTRUCTION
 - STANDARDS. THE CITY SPECIFICATIONS SHALL GOVERN WHERE OTHER SPECIFICATIONS DO NOT EXIST. IN CASE OF CONFLICT SPECIFICATIONS OR DETAILS, THE MORE RESTRICTIVE SPECIFICATION/DETAIL SHALL BE FOLLOWED 2. ALL PRIVATE ON-SITE PAVING AND PAVING SUBGRADE SHALL COMPLY WITH THE PROJECT'S FINAL GEOTECHNICAL REPORT (C EDITION), INCLUDING ALL ADDENDA.
 - 3. ALL FIRELANE PAVING AND PAVING SUBGRADE SHALL COMPLY WITH CITY STANDARDS AND DETAILS. IF THESE ARE DIFFERENT THOSE IN THE GEOTECHNICAL REPORT THEN THE MORE RESTRICTIVE SHALL BE FOLLOWED 4. ALL PUBLIC PAVING AND PAVING SUBGRADE SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATI
 - 5. CONTRACTOR IS RESPONSIBLE FOR ALL PAVING AND PAVING SUBGRADE TESTING AND CERTIFICATION, UNLESS SPECIFIED OT BY OWNER. ALL PAVING AND PAVING SUBGRADE TESTING SHALL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR TESTING SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY FOR TESTING PAVING AND SUBGRADE. OWNER SH. APPROVE THE AGENCY NOMINATED BY THE CONTRACTOR FOR PAVING AND PAVING SUBGRADE TESTING. 6. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SHOW, BY THE STANDARD TESTING PROCEDURES OF THE PAVING AND P
 - SUBGRADE, THAT THE WORK CONSTRUCTED MEETS THE PROJECT REQUIREMENTS AND CITY SPECIFICATIONS. 7. DUE TO THE POTENTIAL FOR DIFFERENTIAL SOIL MOVEMENT ADJACENT TO THE BUILDING, THE CONTRACTOR SHALL ADHERE GEOTECHNICAL REPORT'S RECOMMENDATION FOR SUBGRADE PREPARATION SPECIFIC TO FLATWORK ADJACENT TO THE PRO BUILDING. THE OWNER AND CONTRACTOR ARE ADVISED TO OBTAIN A GEOTECHNICAL ENGINEER RECOMMENDATION SPECIFIC
 - FLATWORK ADJACENT TO THE BUILDING. IF NONE IS CURRENTLY EXISTING. 8. CURB RAMPS ALONG PUBLIC STREETS AND IN THE PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED BASED ON THE CITY STAN CONSTRUCTION DETAIL AND SPECIFICATIONS
 - 9. PRIVATE CURB RAMPS ON THE SITE (I.E. OUTSIDE PUBLIC STREET RIGHT-OF-WAY) SHALL CONFORM TO ADA AND TAS STANDAR SHALL HAVE A DETECTABLE WARNING SURFACE THAT IS FULL WIDTH AND FULL DEPTH OF THE CURB RAMP. NOT INCLUDING F 10. ALL ACCESSIBLE RAMPS, CURB RAMPS, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO ADA AND TAS STANDARDS.
 - EDITION. 11. ANY COMPONENTS OF THE PROJECT SUBJECT TO RESIDENTIAL USE SHALL ALSO CONFORM TO THE FAIR HOUSING ACT, AND (WITH THE FAIR HOUSING ACT DESIGN MANUAL BY THE US DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT. 12 CONTRACTOR SHALL CONSTRUCT PROPOSED PAVEMENT TO MATCH EXISTING PAVEMENT WITH A SMOOTH, FULSH, CONNECT 13. CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS FOR FIRE LANES, PARKING STALLS, HANDICAPPED PAR
 - SYMBOLS, AND MISCELLANEOUS STRIPING WITHIN PARKING LOT AND AROUND BUILDING AS SHOWN ON THE PLANS. ALL PAINT PAVEMENT MARKINGS SHALL ADHERE TO CITY AND OWNER STANDARDS. 14. REFER TO GEOTECHNICAL REPORT FOR PAVING JOINT LAYOUT PLAN REQUIREMENTS FOR PRIVATE PAVEMENT. 15. REFER TO CITY STANDARD DETAILS AND SPECIFICATIONS FOR JOINT LAYOUT PLAN REQUIREMENTS FOR PUBLIC PAVEMENT
 - 16. ALL REINFORCING STEEL SHALL CONFORM TO THE GEOTECHNICAL REPORT, CITY STANDARDS, AND ASTM A-615, GRADE 60, AI BE SUPPORTED BY BAR CHAIRS. CONTRACTOR SHALL USE THE MORE STRINGENT OF THE CITY AND GEOTECHNICAL STANDAR 17. ALL JOINTS SHALL EXTEND THROUGH THE CURB 18. THE MINIMUM LENGTH OF OFFSET JOINTS AT RADIUS POINTS SHALL BE 2 FEET.
 - 19. CONTRACTOR SHALL SUBMIT A JOINTING PLAN TO THE ENGINEER AND OWNER PRIOR TO BEGINNING ANY OF THE PAVING WOR 20. ALL SAWCUTS SHALL BE FULL DEPTH FOR PAVEMENT REMOVAL AND CONNECTION TO EXISTING PAVEMENT. 21.FIRE LANES SHALL BE MARKED AND LABELED AS A FIRELANE PER CITY STANDARDS.
 - 22. UNLESS THE PLANS SPECIFICALLY DICTATE TO THE CONTRARY, ON-SITE AND OTHER DIRECTIONAL SIGNS SHALL BE ORIENTED THEY ARE READILY VISIBLE TO THE ONCOMING TRAFFIC FOR WHICH THEY ARE INTENDED. 23.CONTRACTOR IS RESPONSIBLE FOR INSTALLING NECESSARY CONDUIT FOR LIGHTING, IRRIGATION, ETC. PRIOR TO PLACEMENT PAVEMENT. ALL CONSTRUCTION DOCUMENTS (CIVIL, MEP, LANDSCAPE, IRRIGATION, AND ARCHITECT) SHALL BE CONSULTED.
 - 24.BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES (PER ADA, TAS, FHA) EXIST TO AND FROM EVERY DOOR AND ALONG SIDEWALKS. ACCESSIBLE PARKING SPACES. ACCESS AISLES, AND ACCESS ROUTES. IN NO CASE SHALL AN ACCESSIBLE RAMP SLOPE EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWA CROSS SLOPE EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPE EXCEED 5.0 PERCENT. ACCESSIBLE SPACES AND ACCESS AISLES SHALL NOT EXCEED 2.0 PERCENT SLOPE IN ANY DIRECTION
 - 25. CONTRACTOR SHALL TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAV TO VERIFY THAT ADA/TAS SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVING EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA AND TAS SLOPE COMPLIANCE ISSUES.

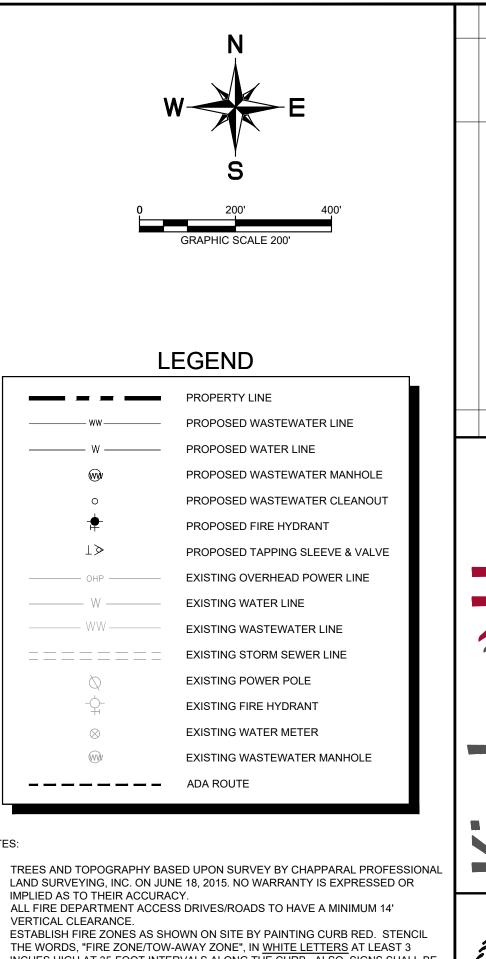
- . ALL STORM SEWER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS
- 2. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLA THE STORM SEWER 3. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING STOF SEWER FACILITIES THAT ARE TO BE CONNECTED TO PRIOR TO START OF CONSTRUCTION OF ANY STORM SEWER, AND SHALL
- THE ENGINEER OF ANY CONFLICTS DISCOVERED. 4 THE CONTRACTOR SHALL VERIEV AND COORDINATE ALL DIMENSIONS SHOWN INCLUDING THE HORIZONTAL AND VERTICAL L
- OF CURB INLETS AND GRATE INLETS AND ALL UTILITIES CROSSING THE STORM SEWER 5. FLOW LINE, TOP-OF-CURB, RIM, THROAT, AND GRATE ELEVATIONS OF PROPOSED INLETS SHALL BE VERIFIED WITH THE GRADIN
- AND FIELD CONDITIONS PRIOR TO THEIR INSTALLATION. 6. ALL PUBLIC STORM SEWER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WORKS STAND DETAILS AND SPECIFICATIONS CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS
- 7. ALL PRIVATE STORM SEWER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO THE APPLICABLE PLUMBI CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
- 8. ALL PVC TO RCP CONNECTIONS AND ALL STORM PIPE CONNECTIONS ENTERING STRUCTURES OR OTHER STORM PIPES SHALL CONCRETE COLLAR AND BE GROUTED TO ASSURE THE CONNECTION IS WATERTIGHT. 9. ALL PUBLIC STORM SEWER LINES SHALL BE MINIMUM CLASS III RCP. PRIVATE STORM SEWER LINES 18-INCHES AND GREATER
- CLASS III RCP OR OTHER APPROVED MATERIAL 10. WHERE COVER EXCEEDS 20-FEET OR IS LESS THAN 2-FEET, CLASS IV RCP SHALL BE USED.
- 11.IF CONTRACTOR PROPOSES TO USE HDPE OR PVC IN LIEU OF RCP FOR PRIVATE STORM SEWER, CONTRACTOR SHALL SUBMIT TECHNICAL DATA TO THE OWNER, ENGINEER AND CITY ENGINEER/INSPECTOR FOR APPROVAL PRIOR TO ORDERING THE MATE ANY PROPOSED HOPE AND PVC SHALL BE WATERTIGHT 12. THE CONTRACTOR SHALL PROVIDE CONSTRUCTION SURVEYING FOR ALL STORM SEWER LINES.
- 13. EMBEDMENT FOR ALL STORM SEWER LINES, PUBLIC OR PRIVATE, SHALL BE PER CITY STANDARD DETAILS. 14. ALL WYE CONNECTIONS AND PIPE BENDS ARE TO BE PREFABRICATED AND INSTALLED PER MANUFACTURERS SPECIFICATIONS
- 15. USE 4 FOOT JOINTS WITH BEVELED ENDS IF RADIUS OF STORM SEWER IS LESS THAN 100 FEET 16 THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN. PREPARED BY A PROFESSION ENGINEER IN THE STATE OF TEXAS. TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENC OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY. 17. THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.
- ANY PONDS THAT ARE INTENDED TO HOLD WATER INDEFINITELY SHALL BE CONSTRUCTED WATERTIGHT. 2. FOR ANY PONDS INTENDED TO HOLD WATER INDEFINITELY: THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT
- POND LINER SPECIFICATIONS 3. A GEOTECHNICAL ENGINEER SHALL REVIEW AND APPROVE ALL POND LINER MATERIAL, PLACEMENT PROCEDURES, AND PROV
- TESTING TO ENSURE THE POND LINER MATERIAL PLACED IS WATERTIGHT. 4. STORM SEWER PIPES AND HEADWALLS THAT CONNECT TO A POND INTENDED TO HOLD WATER INDEFINITELY SHALL BE INSTA WITH WATERTIGHT JOINTS TO AT LEAST 1-FOOT ABOVE THE NORMAL POOL WATER SURFACE ELEVATION.
- 5. ANY GRAVEL OR OTHER PERVIOUS EMBEDMENT AROUND PIPES OR OUTFALL STRUCTURES NEAR THE POND SHALL BE ELIMINA AT LEAST 20-FEET FROM THE POND SO NO ROUTE FOR WATER TO LEAK THROUGH THE EMBEDMENT MATERIAL IS PROVIDED. IN THESE AREAS SHALL BE OF IMPERVIOUS MATERIAL
- 6. FOR ANY PONDS INTENDED TO HOLD WATER INDEFINITELY: THE WATER LEVEL FOLLOWING COMPLETION AND FILLING OF THE SHALL BE MONITORED BY THE CONTRACTOR FOR AT LEAST 60 DAYS TO OBSERVE WATER INFLOW, OUTFLOW, AND CALCULATE EVAPORATION TO VERIFY THAT THE POND IS WATERTIGHT
- 7. FOR ANY PONDS INTENDED TO HOLD WATER INDEFINITELY: THE POND WATER LEVEL SHALL ALSO BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION SO THAT IT REMAINS FULL TO ITS DESIGN WATER LEVEL, AND IS NOT LC AS THIS MAY DRY-OUT THE POND LINER AND RISK ITS WATERTIGHT PROPERTIES.
- 2. CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING WATER AN WASTEWATER FACILITIES THAT ARE TO BE CONNECTED TO, PRIOR TO START OF CONSTRUCTION OF ANY WATER OR WASTEWA CONSTRUCTION, AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED.
- ALL UTILITY SERVICES ENTERING THE BUILDING
- 6. ALL PUBLIC WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WO STANDARD DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS. 7. ALL PRIVATE WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO THE APPLICAE
- 8. FIRE SPRINKLER LINES SHALL BE DESIGNED AND INSTALLED BY A LICENSED FIRE SPRINKLER CONTRACTOR, AND COMPLY TO 1 APPLICABLE CODES AND INSPECTIONS REQUIRED. THESE PLANS WERE PREPARED WITHOUT THE BENEFIT OF THE FIRE SPRIN DESIGN. CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY DISCREPANCIES.
- 10. CONTRACTOR SHALL TAKE REQUIRED SANITARY PRECAUTIONS, FOLLOWING ANY CITY, TCEQ, AND AWWA STANDARDS, TO KEE WATER PIPE AND FITTINGS CLEAN AND CAPPED AT TIMES WHEN INSTALLATION IS NOT IN PROGRESS. 11 CONTRACTOR SHALL PROVIDE CONSTRUCTION SURVEYING FOR ALL WATER AND WASTEWATER LINES
- 12. ALL WATER AND WASTEWATER SERVICES SHALL TERMINATE 5-FEET OUTSIDE THE BUILDING, UNLESS NOTED OTHERWISE 13. CONTRACTOR SHALL COMPLY WITH CITY REQUIREMENTS FOR WATER AND WASTEWATER SERVICE DISRUPTIONS AND THE AM PRIOR NOTICE THAT IS REQUIRED, AND SHALL COORDINATE DIRECTLY WITH THE APPROPRIATE CITY DEPARTMENT.
- PROPERTIES 15. CONTRACTOR SHALL MAINTAIN WATER SERVICE AND WASTEWATER SERVICE TO ALL CUSTOMERS THROUGHOUT CONSTRUCT
- NECESSARY, BY USE OF TEMPORARY METHODS APPROVED BY THE CITY AND OWNER). THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED 16. THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WATER AND WASTEWATER LINES CROSSING THE PROJECT. THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WATER AND WASTEWATER LINES CROSSING THE PROJECT.
- SHALL REPAIR ALL DAMAGED LINES IMMEDIATELY ALL REPAIRS OF EXISTING WATER MAINS WATER SERVICES SEWER MAINS SANITARY SEWER SERVICES ARE SUBSIDIARY TO THE WORK, AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED. 17. VALVE ADJUSTMENTS SHALL BE CONSTRUCTED SUCH THAT THE COVERS ARE AT FINISHED SURFACE GRADE OF THE PROPOS PAVEMENT
- 18. THE ENDS OF ALL EXISTING WATER MAINS THAT ARE CUT. BUT NOT REMOVED. SHALL BE PLUGGED AND ABANDONED IN PLACE WORK SHALL BE CONSIDERED AS A SUBSIDIARY COST TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLO

WATER AND WASTEWATER: . ALL WATER AND WASTEWATER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAIL SPECIFICATIONS

- 3. CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION
- 4. THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATION OF ALL UTILITY CROSSINGS PRIOR TO THE INSTALLATION OF ANY PIPE 5. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLA THE WATER AND WASTEWATER IMPROVEMENTS.
- PLUMBING CODE. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS
- 9. EMBEDMENT FOR ALL WATER AND WASTEWATER LINES, PUBLIC OR PRIVATE, SHALL BE PER CITY STANDARD DETAILS.
- 14. CONTRACTOR SHALL SEQUENCE WATER AND WASTEWATER CONSTRUCTION TO AVOID INTERRUPTION OF SERVICE TO SURRO

		E HYDRANTS, VALVES, TEES, BENDS, WYES, REDUCERS, FITTINGS, AND ENDS SHALL BE MECHANICALLY RESTRAINED AND/OR	B
ONFIRMED	20.CONTRA	F BLOCKED TO CITY STANDARDS. ACTOR SHALL INSTALL A FULL SEGMENT OF WATER OR WASTEWATER PIPE CENTERED AT ALL UTILITY CROSSINGS SO THAT THE ARE GREATER THAN 9-FEET FROM THE CROSSING.	Щ
Æ.	21.ALL CRO	OSSINGS AND LOCATIONS WHERE WASTEWATER IS LESS THAN 9-FEET FROM WATER, WASTEWATER CONSTRUCTION AND ALS SHALL COMPLY WITH TCEQ CHAPTER 217.53.	DATE
/EMENT	22.ALL CRO SHALL C	OSSING AND LOCATIONS WHERE WATER IS LESS THAN 9-FEET FROM WASTEWATER, WATER CONSTRUCTION AND MATERIALS COMPLY WITH TCEQ CHAPTER 290.44.	
RDS THE ER IF ANY	SPECIFI	TER AND WASTEWATER SHALL BE TESTED IN ACCORDANCE WITH THE CITY, AWWA, AND TCEQ STANDARDS AND ICATIONS. AT A MINIMUM, THIS SHALL CONSIST OF THE FOLLOWING: TERLINES SHALL BE HYDROSTATICALLY TESTED AND CHLORINATED BEFORE BEING PLACED INTO SERVICE. CONTRACTOR	
OBTAINED.	SHALL C	TERLINES SHALL BE HYDROSTATICALLY TESTED AND CHLORINATED BEFORE BEING PLACED INTO SERVICE. CONTRACTOR COORDINATE WITH THE CITY FOR THEIR REQUIRED PROCEDURES AND SHALL ALSO COMPLY WITH TCEQ REGULATIONS. WATER LINES AND MANHOLES SHALL BE PRESSURE TESTED. CONTRACTOR SHALL COORDINATE WITH THE CITY FOR THEIR	
EVATIONS	REQUIR	ED PROCEDURES AND SHALL ALSO COMPLY WITH TCEQ REGULATIONS. AFTER COMPLETION OF THESE TESTS, A TELEVISION TION SHALL BE PERFORMED AND PROVIDED TO THE CITY AND OWNER ON A DVD.	
	MARKEF	ACTOR SHALL INSTALL DETECTABLE WIRING OR MARKING TAPE A MINIMUM OF 12" ABOVE WATER AND WASTEWATER LINES. R DECALS SHALL BE LABELED "CAUTION - WATER LINE", OR "CAUTION - SEWER LINE". DETECTABLE WIRING AND MARKING TAPE	U U U U U U U U U U U U U U U U U U U
SE PLANS. FORMED BY	25.DUCTILE	COMPLY WITH CITY STANDARDS, AND SHALL BE INCLUDED IN THE COST OF THE WATER AND WASTEWATER PIPE. E IRON PIPE SHALL BE PROTECTED FROM CORROSION BY A LOW-DENSITY POLYETHYLENE LINER WRAP THAT IS AT LEAST A	E VISION
JACENT	26.WATERI	LAYER OF 8-MIL. ALL DUCTILE IRON JOINTS SHALL BE BONDED. LINES SHALL BE INSTALLED AT NO LESS THAN THE MINIMUM COVER REQUIRED BY THE CITY. ACTOR SHALL PROVIDE CLEAN-OUTS FOR PRIVATE SANITARY SEWER LINES AT ALL CHANGES IN DIRECTION AND 100-FOOT	RE <
	INTERV	ALS, OR AS REQUIRED BY THE APPLICABLE PLUMBING CODE. CLEAN-OUTS REQUIRED IN PAVEMENT OR SIDEWALKS SHALL AST IRON COVERS FLUSH WITH FINISHED GRADE.	
AND	FLOOR I	ACTOR SHALL PROVIDE BACKWATER VALVES FOR PLUMBING FIXTURES AS REQUIRED BY THE APPLICABLE PLUMBING CODE (E.G. ELEVATION OF FIXTURE UNIT IS BELOW THE ELEVATION OF THE MANHOLE COVER OF THE NEXT UPSTREAM MANHOLE IN THE	
ON CTING	29.THE CO	SEWER). CONTRACTOR SHALL REVIEW BOTH MEP AND CIVIL PLANS TO CONFIRM WHERE THESE ARE REQUIRED. NTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL	
(OR LATEST	SAFETY	ER IN THE STATE OF TEXAS, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH 'REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO RENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.	
NT THAN		NTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.	
TIONS. DTHERWISE	ABBREVIA	TIONS AND DEFINITIONS:	
OR. SHALL	A ADA	AREA AMERICANS WITH DISABILITIES ACT	100
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E TO ROPOSED	BC BC	BEGIN CURVE BACK OF CURB	
FIC TO	BCR BMP	BEGIN CURB RETURN BEST MANAGEMENT PRACTICE	– 418 2. – 418 CIATT
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S, LATEST	CFS CITY	CUBIC FEET PER SECOND CITY, TOWN, OR OTHER APPLICABLE LOCAL GOVERNMENT JURISDICTION	A A A A N K C A N A N A A A A A A A A A A A A A A A
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R SHALL BE	OSHA PC	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION POINT OF CURVATURE	
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IT TERIAL.	PI PROP	POINT OF INFLECTION PROPOSED	ZΨ
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- LESTADLISH FIRE ZONES AS SHOWN ON SITE BY PAINTING CURB RED. STENCIL THE WORDS, "FIRE ZONE/TOW-AWAY ZONE", IN <u>WHITE LETTERS</u> AT LEAST 3 INCHES HIGH AT 35-FOOT INTERVALS ALONG THE CURB. ALSO, SIGNS SHALL BE POSTED AT BOTH ENDS OF A FIRE ZONE. ALTERNATE MARKING OF THE FIRE LANES MAY BE APPROVED BY THE FIRE CHIEF PROVIDED THE FIRE LANES ARE CLEARLY IDENTIFIED AT BOTH ENDS AND AT INTERVALS NOT TO EXCEED 35 FEET. SEC. 901.4.2
- ALL PARKING SPACES SHALL HAVE MINIMUM 7'-0" VERTICAL CLEARANCE.
 WARNING SIGNS ARE REQUIRED TO BE PLACED UNDER THE OVERHEAD ELECTRIC LINES TO MAKE ALL PERSONNEL AWARE OF THE ELECTRIC HAZARD.
 EVERY HANDICAP ACCESSIBLE PARKING SPACE SHALL BE IDENTIFIED BY A SIGN CENTERED 5 FEET ABOVE THE PARKING SURFACE, AT THE HEAD OF THE PARKING SPACE. THE SIGN MUST INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND STATE RESERVED, OR EQUIVALENT LANGUAGE. SUCH SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE AND SHALL
- MEET THE CRITERIA SET FORTH IN UBC, 3108(c) AND ANSI A1171-1986-4.6.2. CONTRACTOR TO COORDINATE WITH PROJECT ARBORIST TO TRIM TREES TO ENSURE VISIBILITY NEAR PARKING AREAS. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING
- UTILITIES PRIOR TO CONSTRUCTION. CAUTION: DO NOT PLACE THE STAGING AREA IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES.
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
 ALL RADII TO BE 3' UNLESS OTHERWISE NOTED.
 SLOPES ON ACCESSIBLE ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A DAME.
- A RAMP.
 13. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12. THE MAXIMUM RISE FOR ANY RAMP RUN IS 30 IN.
 14. ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:50.
- ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:50.
 GROUND SURFACES ALONG ACCESSIBLE ROUTES MUST BE STABLE, FIRM, AND SLIP RESISTANT.
 ALL LANDSCAPED AREAS ARE TO BE PROTECTED BY SIX-INCH WHEEL CURBS,
- WHEELSTOPS, OR OTHER APPROVED BARRIERS AS PER ECM 2.4.7.
 COMPLIANCE WITH THE COMMERCIAL AND MULTI-FAMILY RECYCLING ORDINANCE IS MANDATORY FOR MULTI-FAMILY COMPLEXES WITH 100 OR MORE UNITS AND BUSINESSES WITH 100 OR MORE EMPLOYEES (AUSTIN CITY CODE,
- SEC. 15-6-91).18. REFER TO CITY OF AUSTIN ELECTRICAL DEPARTMENT FOR CONSTRUCTION
- PLANS AND DETAILS. CONTACT REY MARTINEZ (512-505-7643).
 19. ADEQUATE BARRIERS BETWEEN ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS, SUCH AS A 6" CONCRETE CURB ARE REQUIRED. IF A STANDARD 6" CURB AND GUTTER ARE NOT PROVIDED FOR ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS, COMPLY WITH ECM, SECTION 2.4.7, "PROTECTION OF LANDSCAPE AREAS".
 20. RETAINING WALLS OVER FOUR FEET IN HEIGHT MEASURED FROM THE BOTTOM OF THE FOOTING TO THE TOP OF TOP OF TOP OF THE TOP OF TOP OF
- OF THE FOOTING TO THE TOP OF THE WALL SHALL BE ENGINEERED AND REQUIRE A SEPARATE BUILDING PERMIT. [IBC CODE 105.2] 21. SEE ARCHITECTURAL PLANS FOR CARPORT DESIGN. 22. THE NUMBER OF DRIVEWAYS ON OLD SAN ANTONIO POAD IS LIMITED TO ONE 23. THE NUMBER OF DRIVEWAYS ON OLD SAN ANTONIO POAD IS LIMITED TO ONE
- 22.THE NUMBER OF DRIVEWAYS ON OLD SAN ANTONIO ROAD IS LIMITED TO ONE.23.EACH COMPACT PARKING SPACE/AISLE WILL BE SIGNED "SMALL CAR ONLY."24.ALL FDC's TO BE TWO $2\frac{1}{2}$ " SIAMESE CONNECTIONS.

SUBCHAPTER E NOTES:

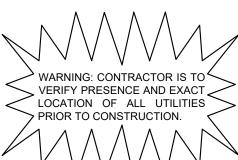
NOTES:

1. ALL EXTERIOR LIGHTING WILL BE FULL CUT-OFF AND FULLY SHIELDED IN COMPLIANCE WITH SUBCHAPTER E 2.5. ALL SITE LIGHTING TO BE LOCATED ON THE BUILDING WILL BE IN COMPLIANCE WITH SUBCHAPTER E 2.5, AND WILL BE REVIEWED DURING BUILDING PLAN REVIEW. ANY CHANGE OR SUBSTITUTION OF LAMP/LIGHT FIXTURES SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL IN ACCORDANCE WITH SECTION 2.5.2.E.

2. ALL INTERNAL UTILITIES WILL BE LOCATED IN THE DRIVE AISLES AND NOT IN THE PARKING AREAS.

3. SCREENING FOR SOLID WASTE COLLECTION AND LOADING AREAS SHALL BE THE TANDER AS AREINE FOUND LOADING MATERIALS.

- 1. THE SPACES MUST BE RESERVED AND ASSIGNED TO DWELLING UNITS WHICH ARE REQUIRED TO HAVE TWO OR MORE PARKING SPACES PER UNIT (I.E.
- UNITS WITH TWO OR MORE BEDROOMS). 2. AT LEAST ONE OF THE SPACES MUST BE LOCATED WITHIN AN ENCLOSED
- GARAGE, IN ORDER TO AVOID VISUAL CLUTTER. BOTH OF THE SPACES MUST BE STANDARD SIZE; NO COMPACT OR
- HANDICAPPED ACCESSIBLE TENDEM PARKING SPACES ARE PERMITTED.
 AT LEAST TEN PERCENT OF THE TOTAL PARKING SPACES ON THE SITE MUST BE UNASSIGNED SPACES WHICH ARE AVAILABLE FOR THE USE OF VISITORS.





Know what's below.

Call before you dig.

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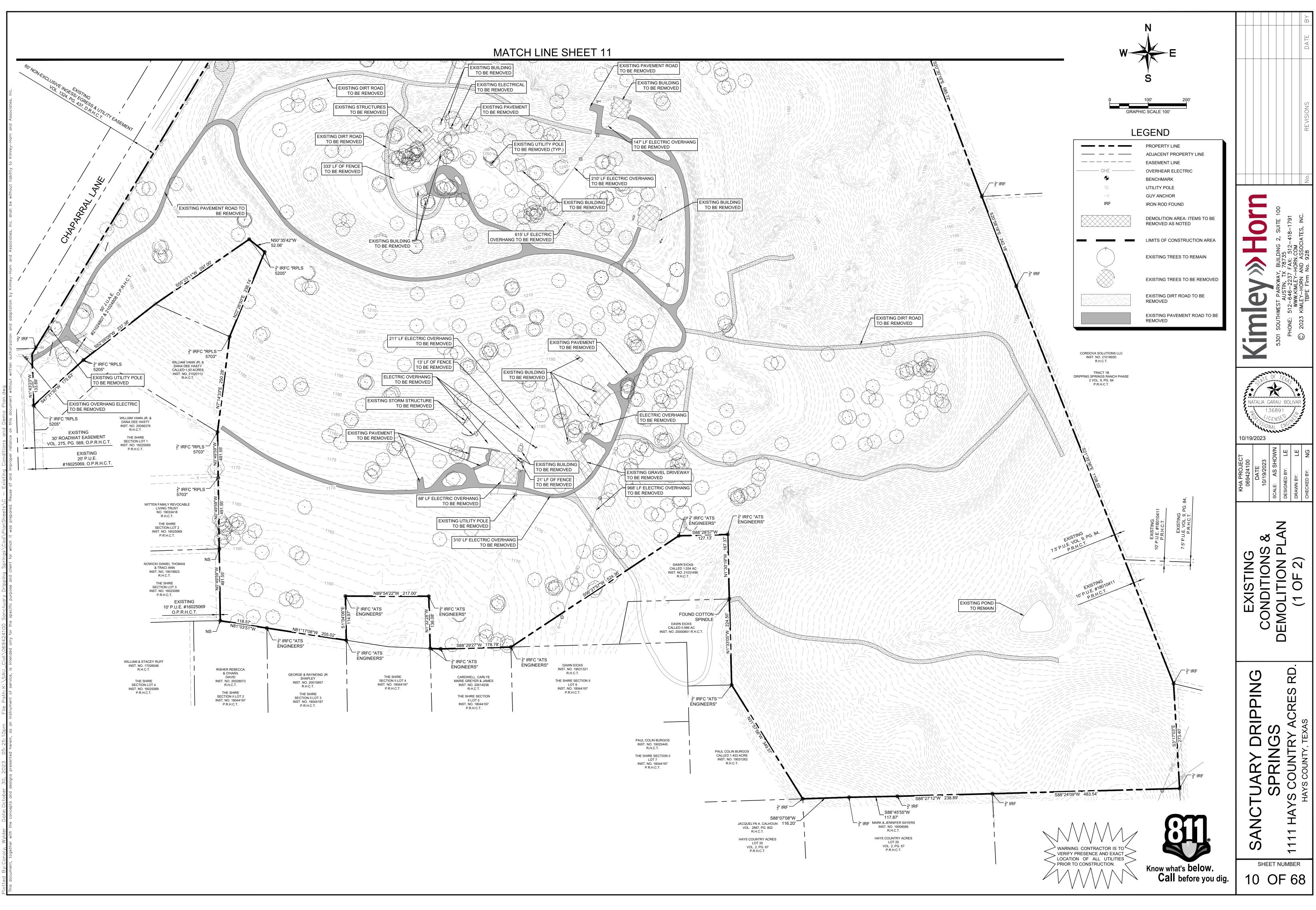
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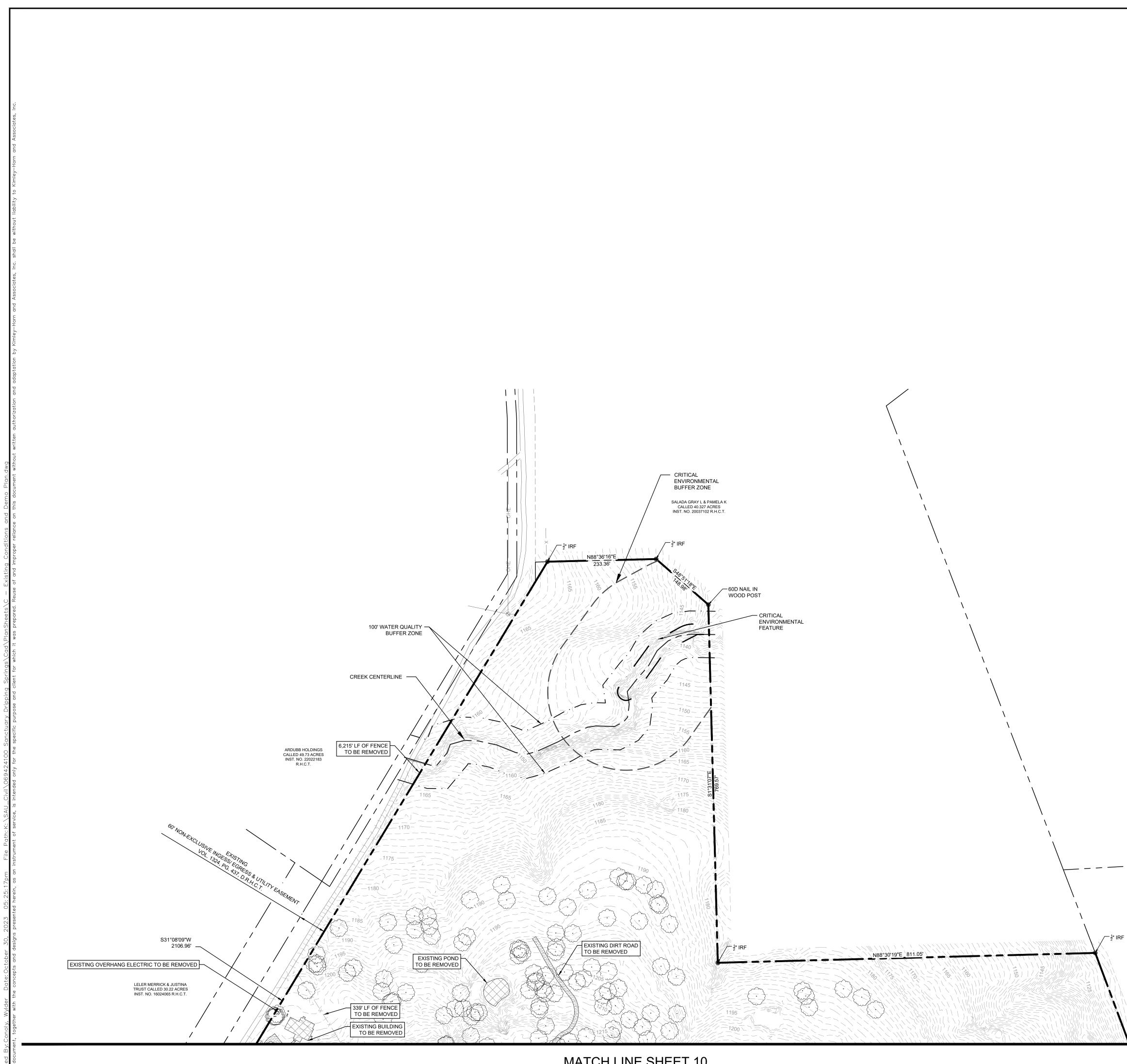
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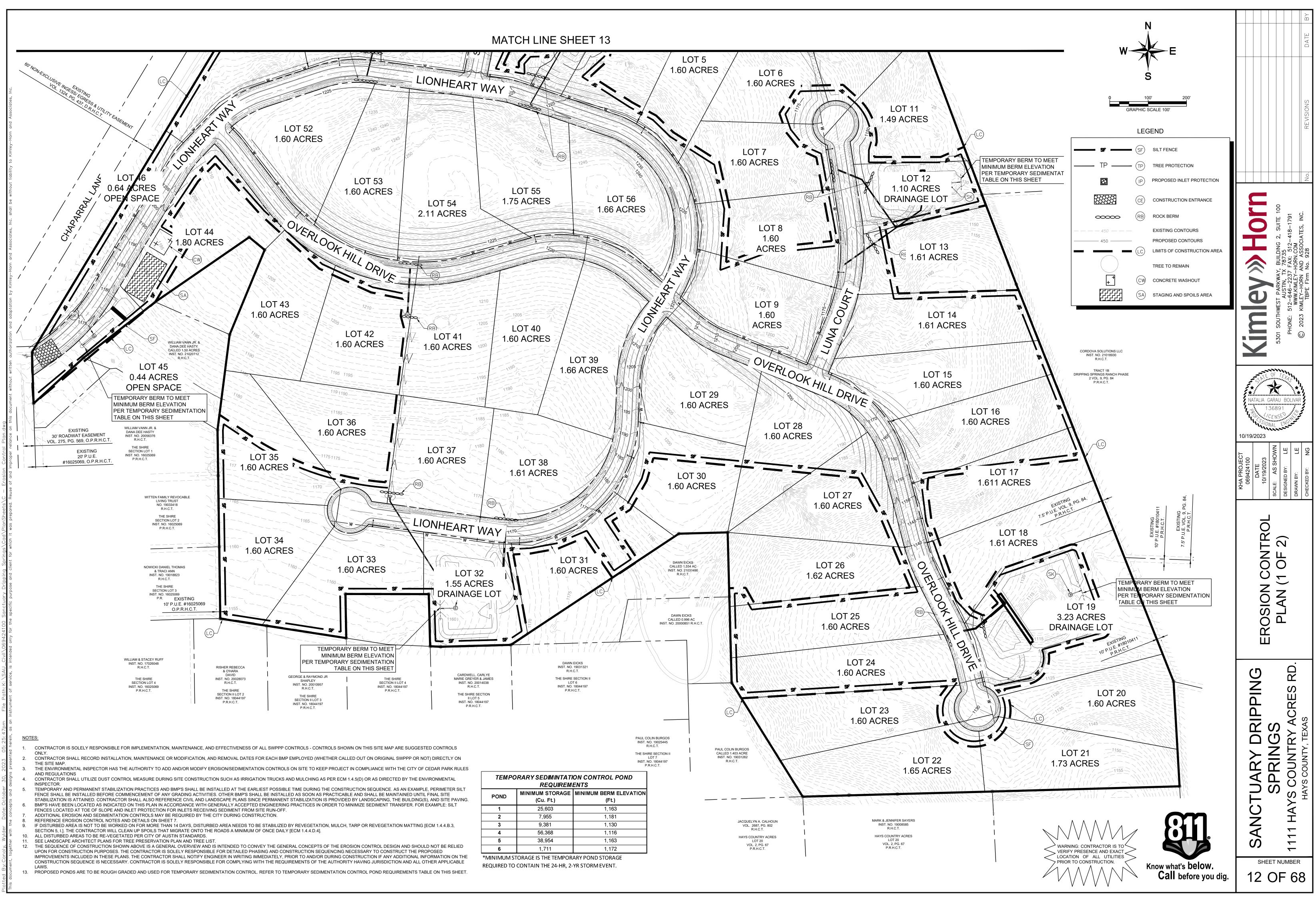


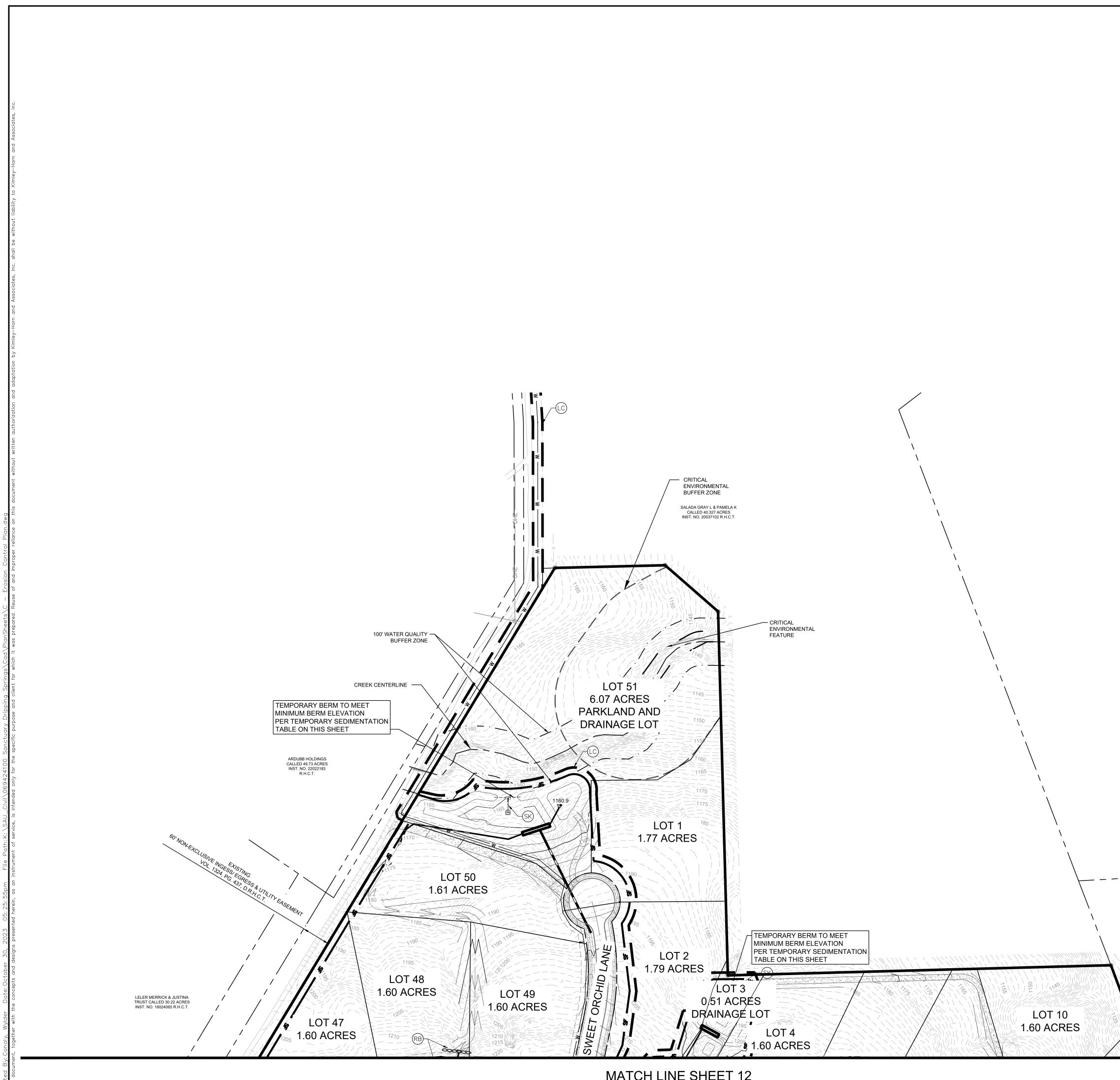
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WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.	Know what's below. Call before you dig.	A COL SANCTUARY DRIPPING SANCTUARY DRIPPING COL SANCTUARY DRIPPING COL COL COL COL COL COL COL DEMO COL DEMO 1111 HAYS COUNTRY ACRES RD. HAYS COUNTRY ACRES RD. HAYS COUNTRY TEXAS

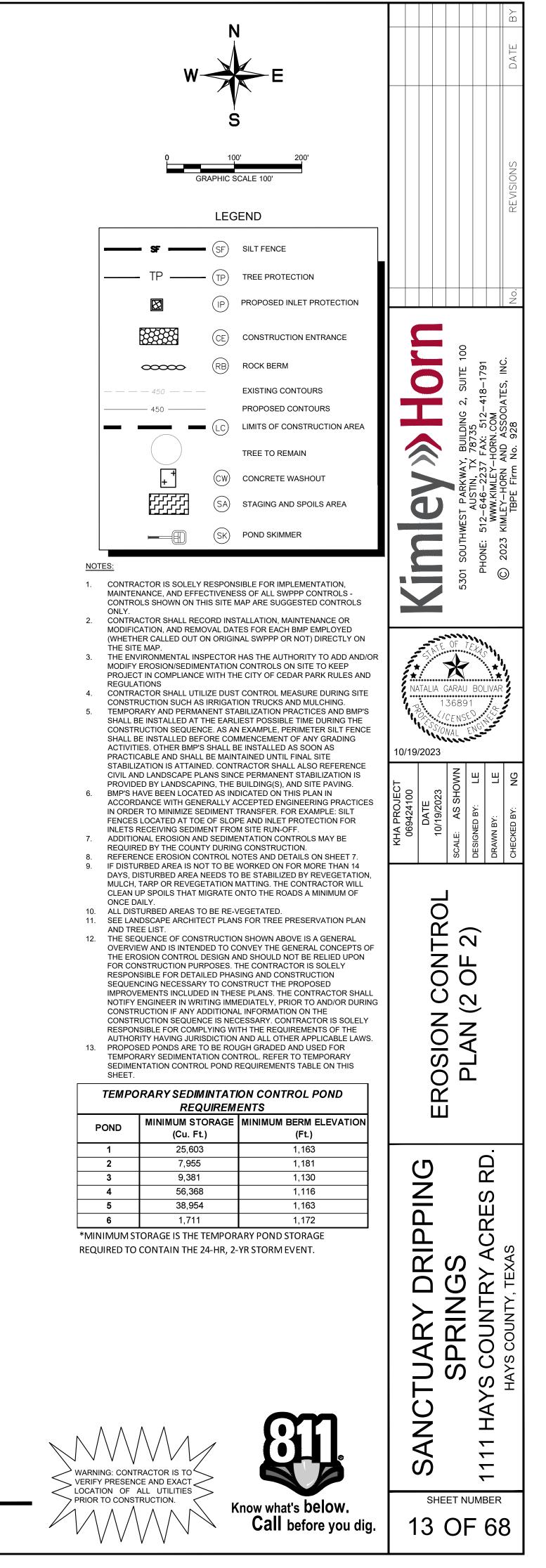
LESLIE KAREN COHEN VOL. 2513, PG. 280 R.H.C.T. TRACT 1B ALLEN TRACT SUBDIVISION VOL. 5, PG. 217 P.R.H.C.T.

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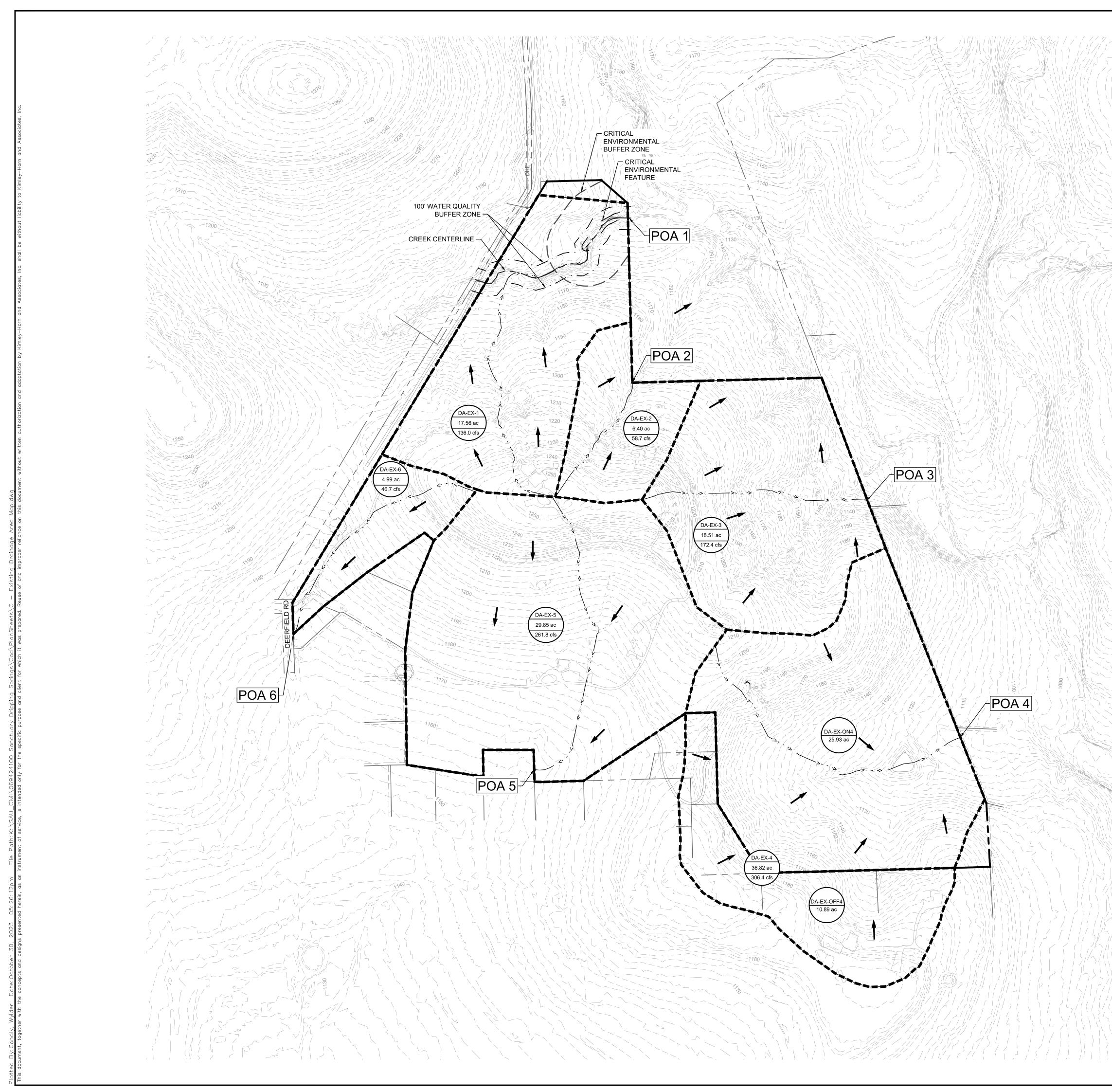


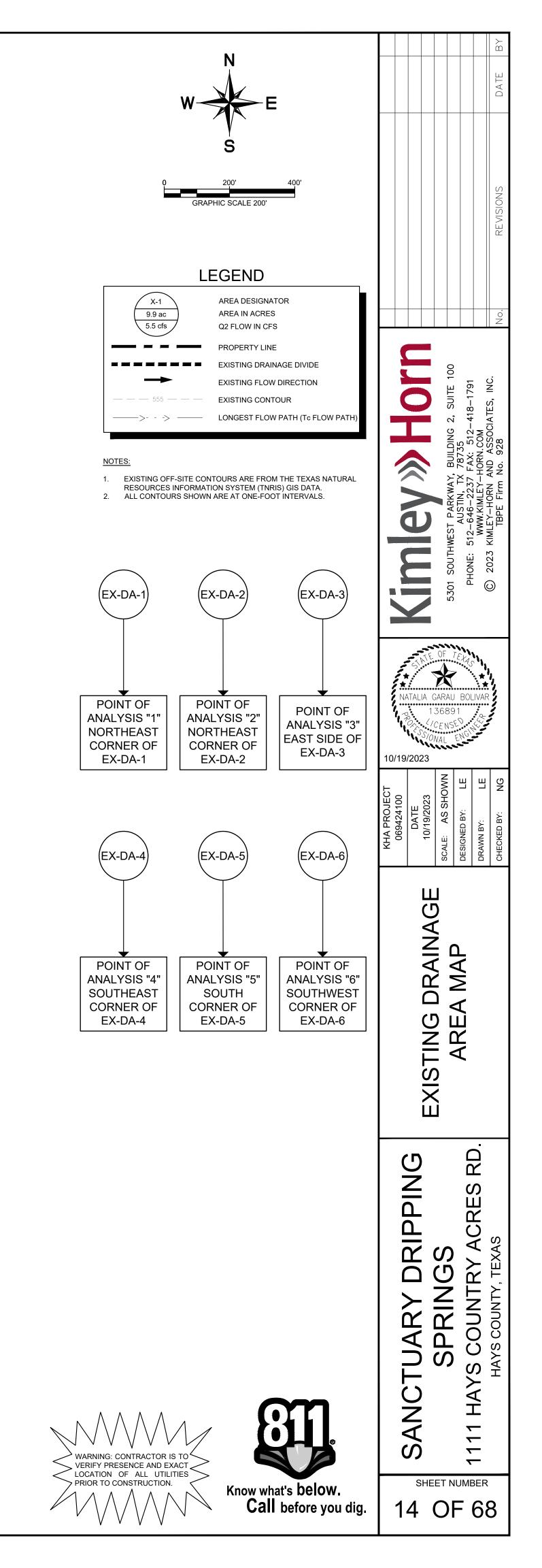


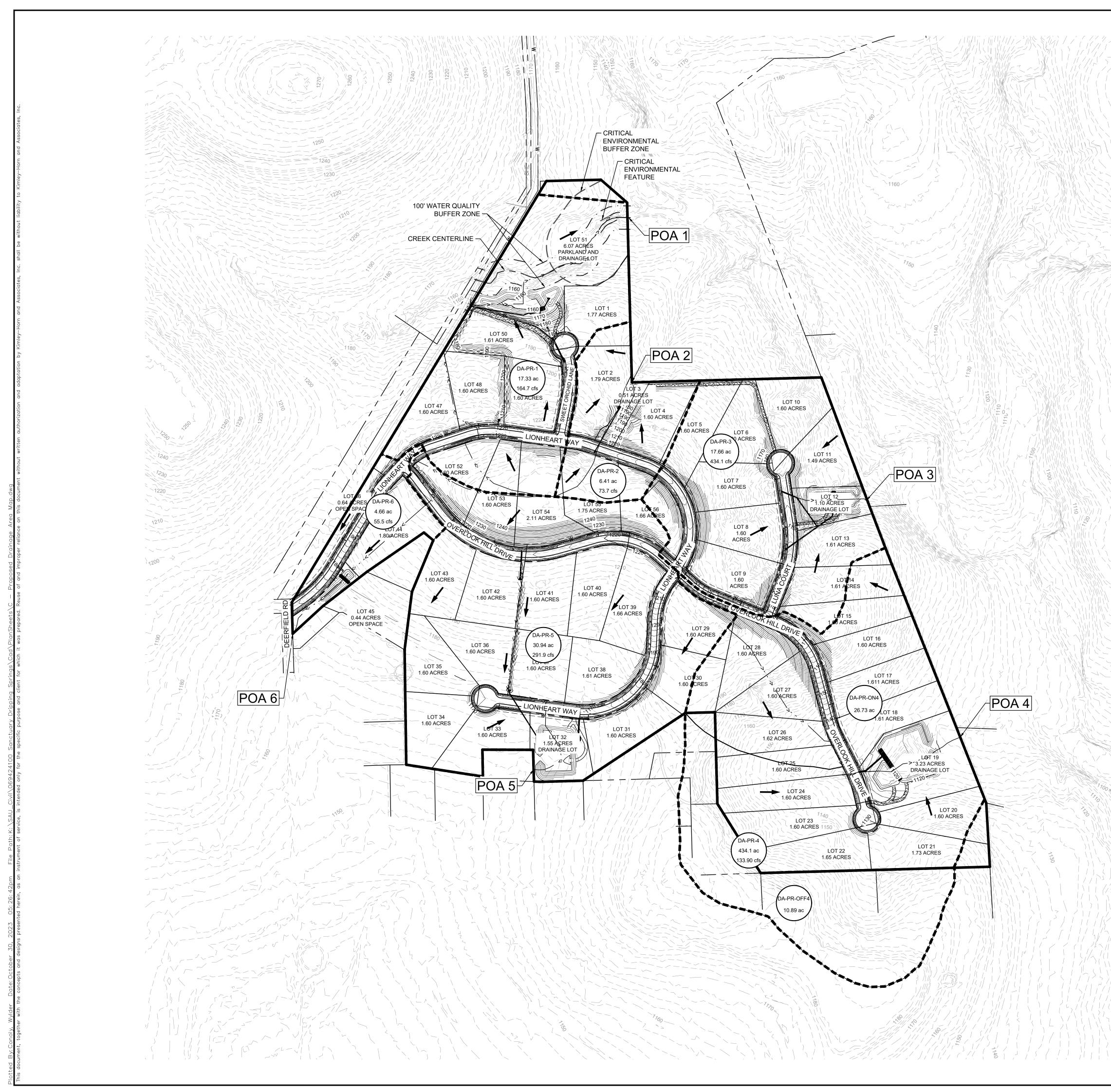
MATCH LINE SHEET 12

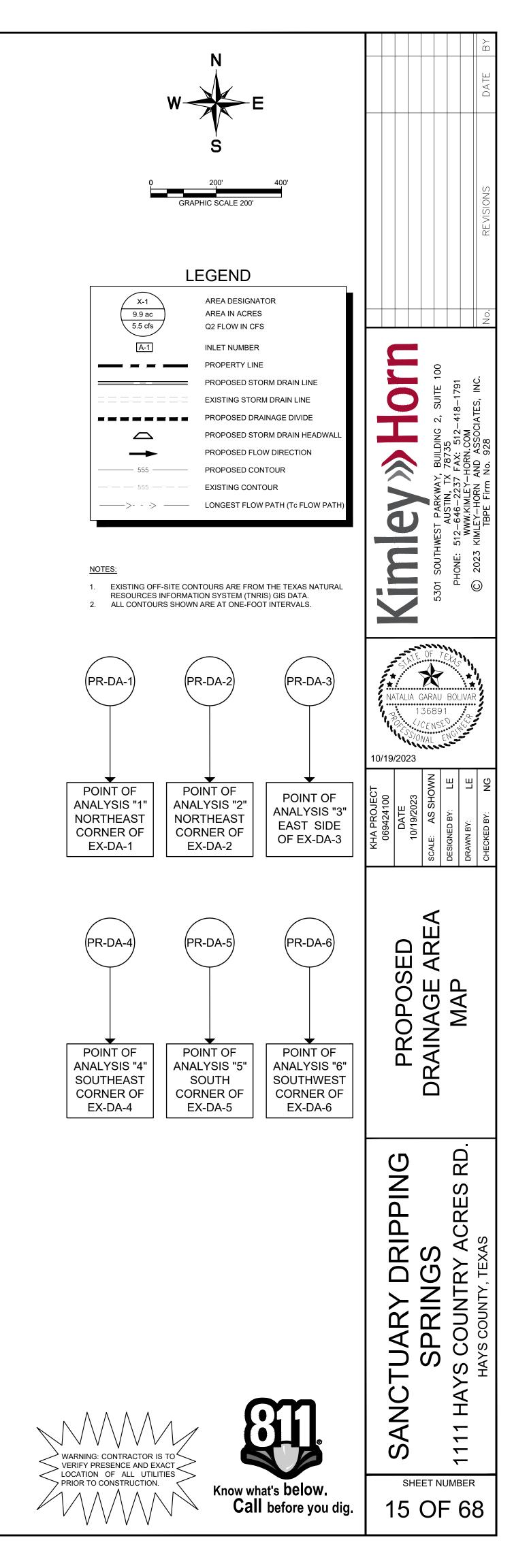


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TIME OF CONCENTRATION CALCULATIONS

							Exis	ting Time of Con	centration C	alculations									
						S	Sheet Flow		Un	paved Shallow Fl	low		Paved Shallow	Flow		Channe	Flow		Tota
Drainage	Area	Impervious	Impervious	Impervious	Length	Slope	n	Tt	Length	Slope	Tt	Length	Slope	Tt	Length	V	Slope	Tt	Тс
Area	(AC)	Cover (SF)	Cover (AC)	Cover (%)	ft	ft/ft		min	ft	ft/ft	min	ft	ft/ft	min	ft	ft/s	ft/ft	min	min
DA-EX-1	17.56	9789	0.22	1.3%	100	0.02	0.2	12.85 min	1002	0.10	3.20	0	0.01	0.00	671	6.00	0.10	1.86	17.9 m
DA-EX-2	6.4	5247	0.12	1.9%	100	0.03	0.2	10.11 min	200	0.16	0.51	0	0.01	0.00	314	6.00	0.13	0.87	11.5 m
DA-EX-3	18.51	10093	0.23	1.3%	100	0.09	0.2	6.61 min	514	0.15	1.38	0	0.01	0.00	341	6.00	0.13	0.95	8.9 m
*DA-EX-4	36.82	26584	0.61	1.6%															18.5 m
DA-EX-OFF4	10.89	26584	0.61	5.6%	100	0.01	0.2	14.27 min	1208	0.09	4.26	0	0.01	0.00	0	6.00	0.00	0.00	18.5 m
DA-EX-ON4	25.93	0	0.00	0.0%	100	0.09	0.2	6.60 min	1269	0.10	4.09	0	0.01	0.00	0	6.00	0.00	0.00	10.7 m
DA-EX-5	29.85	48053	1.10	3.7%	100	0.04	0.2	8.91 min	1245	0.08	4.48	0	0.01	0.00	0	6.00	0.00	0.00	13.4 m
DA-EX-6	4.99	11310	0.26	5.2%	100	0.11	0.2	6.03 min	1014	0.07	3.96	0	0.01	0.00	0	6.00	0.00	0.00	10.0 m

*TIME OF CONCENTRATION FOR DA-EX-4 IS THE LONGER OF THE THE TWO SUBBASINS DA-EX-OFF4 AND DA-EX-ON4

						S	heet Flow		Un	paved Shallow Flo	ow		Paved Shallow	Flow		Channe	I Flow		Total
Drainage	Area	Impervious	Impervious	Impervious	Length	Slope	n	Tt	Length	Slope	Tt	Length	Slope	Tt	Length	V	Slope	Tt	Tc
Area	(AC)	Cover (SF)	Cover (AC)	Cover (%)	ft	ft/ft		min	ft	ft/ft	min	ft	ft/ft	min	ft	ft/s	ft/ft	min	min
DA-PR-1	17.33	188724	4.33	25.0%	100	0.02	0.06	4.54 min	396	0.09	1.35	0	0.01	0.00	961	6.00	0.05	2.67	8.6 m
DA-PR-2	6.41	69805	1.60	25.0%	100	0.02	0.06	4.68 min	172	0.15	0.46	0	0.01	0.00	162	6.00	0.05	0.45	5.6 mi
DA-PR-3	17.66	192317	4.42	25.0%	100	0.15	0.06	2.03 min	384	0.01	3.45	0	0.01	0.00	1203	6.00	0.05	3.34	8.8 mi
*DA-PR-4	37.62	317654	7.29	19.4%															5.4 mi
DA-PR-OFF4	10.89	26565	0.61	5.6%	100	0.07	0.06	2.80 min	638	0.09	2.15	0	0.01	0.00	178	6.00	0.05	0.49	5.4 mi
DA-PR-ON4	26.73	291090	6.68	25.0%	100	0.12	0.06	2.22 min	569	0.12	1.67	0	0.01	0.00	298	6.00	0.05	0.83	5.0 mi
DR-PR-5	30.94	336937	7.74	25.0%	100	0.02	0.06	4.92 min	508	0.06	2.15	0	0.01	0.00	1515	6.00	0.05	4.21	11.3 m
DR-PR-6	4.66	50747	1.17	25.0%	100	0.09	0.016	0.86 min	361	0.08	1.34	0	0.01	0.00	0	6.00	0.01	0.00	5.0 mi

*TIME OF CONCENTRATION FOR DA-PR-4 IS THE LONGER OF THE THE TWO SUBBASINS DA-PR-OFF4 AND DA-PR-ON4

POINT OF ANALYSIS SUMMARY

								Р	EAK FLOV	NS AT PO	Α
DRAINAGE AREA	POA	AREA (AC.)	IMPERVIOUS COVER	BASE CN	IMPERVIOUS CN	WEIGHTED CN	TC (MIN)*	Q₂ (CFS)	Q ₁₀ (CFS)	Q₂₅ (CFS)	Q ₁₀₀ (CFS)
DA-EX-1	POA-1	17.56	1.3%	80	98	80.2	17.9	38.70	73.10	96.70	136.00
DA-EX-2	POA-2	6.40	1.9%	80	98	80.3	11.5	16.70	31.60	41.70	58.70
DA-EX-3	POA-3	18.51	1.3%	80	98	80.2	8.9	49.90	93.70	123.00	172.40
*DA-EX-4	POA-4	47.71	1.6%	80	98	80.3	10.7	85.00	163.30	216.70	306.40
*DA-EX-OFF4	POA-4	10.89	5.6%								
*DA-EX-ON4	POA-4	36.82	0.0%								
DA-EX-5	POA-5	29.85	3.7%	80	98	80.7	13.4	74.20	140.80	185.90	261.80
DA-EX-6	POA-6	4.99	5.2%	80	98	80.9	10.0	13.70	25.50	33.40	46.70

*DA-EX-OFF4 AND DA-EX-ON4 FLOWS ARE COMBINED IN DA-EX-4

	TIONS														
PROPOSED CONDI	TIONS							PEAK FLO	OWS AT P	OA (UNDI	ETAINED)	PEAK F	LOWS AT	POA (DET	AINED)
DRAINAGE AREA	POA	AREA (AC.)	IMPERVIOUS COVER	BASE CN	IMPERVIOUS CN	WEIGHTED CN	TC (MIN)*	Q₂ (CFS)	Q ₁₀ (CFS)	Q₂₅ (CFS)	Q ₁₀₀ (CFS)	Q₂ (CFS)	Q ₁₀ (CFS)	Q₂₅ (CFS)	Q ₁₀₀ (CFS)
DA-PR-1	POA-1	17.33	25.0%	80	98	84.5	8.6	53.20	93.00	119.70	164.70	37.30	71.60	96.30	135.80
DA-PR2	POA-2	6.41	25.0%	80	98	84.5	5.6	23.30	41.40	53.40	73.70	15.40	27.40	37.30	53.30
DA-PR-3	POA-3	17.66	25.0%	80	98	84.5	8.8	54.30	95.00	122.30	168.30	49.20	92.40	119.90	165.90
DA-PR-4	POA-4	64.35	19.4%	80	98	83.5	5.0	133.90	241.40	312.70	434.10	81.70	158.10	212.20	303.10
*DA-PR-OFF4	POA-4	26.73	0.0%												
DA-PR-ON4	POA-4	37.62	25.0%												
DA-PR-5	POA-5	30.94	25.0%	80	98	84.5	11.3	93.00	163.90	211.50	291.90	70.50	137.20	181.00	252.40
DA-PR-6	POA-6	4.66	25.0%	80	98	84.5	5.0	17.60	31.20	40.20	55.50	14.20	25.60	33.60	46.60

* OFFSITE FLOWS FROM DA-PR-OFF4 ARE ROUTED TO POND 4

TSS REMOVAL SUMMARY

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

1. The Required Load Reduction for the total project:

. 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 x P)	
where: L _{M TOTAL PROJ}	_{ECT} = Required TS A _N = Net increase P = Average ann	e in impervious a	
Site Data: Determine Required Load Removal Based on the Entire Cou Total project area included in pla	n * = Hays n * = 104.34	acres	

Project Name: The Sanctuary - Pond 1

Date Prepared: 10/9/2023

acres	104.34	Total project area included in plan * =
acres	2.52	Predevelopment impervious area within the limits of the plan * =
acres	26.09	Total post-development impervious area within the limits of the plan* =
	0.25	Total post-development impervious cover fraction * =
inches	33	P =
lbs.	21156	L _M TOTAL PROJECT =
103.	21130	LM TOTAL PROJECT

-M TOTAL PROJECT =	21156	

Number of drainage basins / outfalls areas leaving the plan area = 6 REFER TO POND SHEETS FOR TSS REMOVAL FOR INDIVIDUAL BASINS

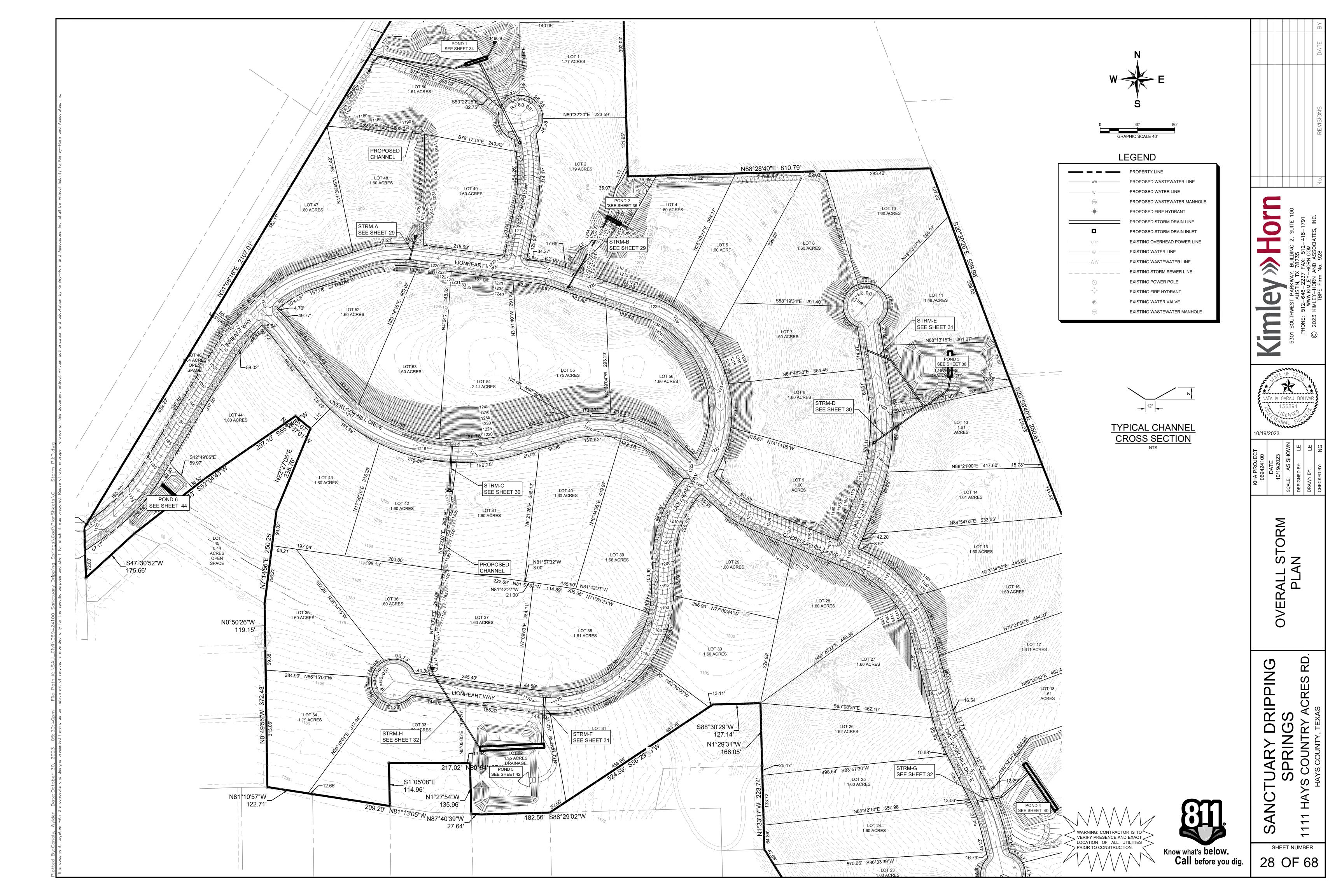
Proposed Time of Concentration Calculations

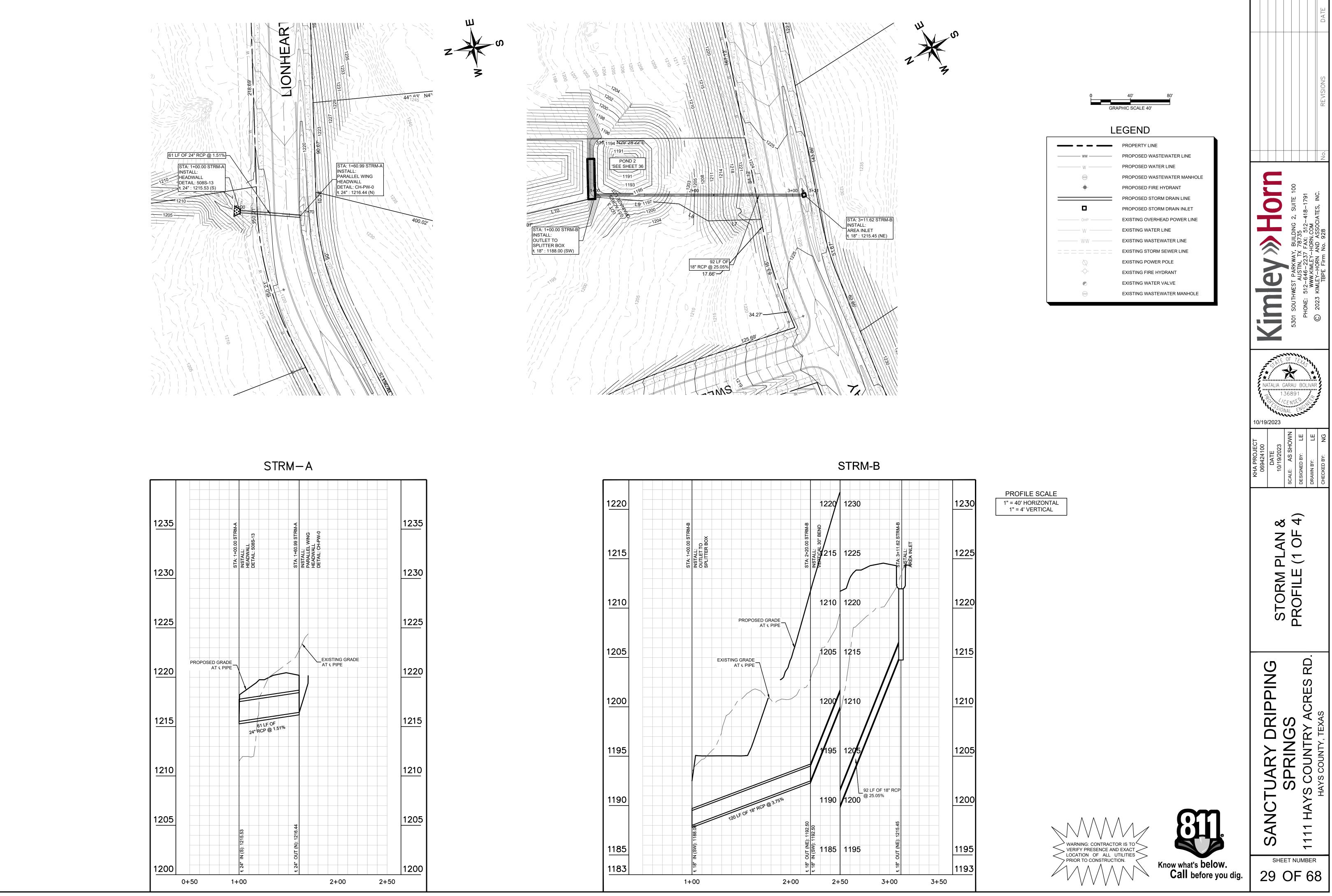
RETENTION-IRRIGATION SUMMARY

	RETENTION-IRRIGATION SUMMARY									
	Required WQ Volume	Provided WQ Volume	Required Irrigation Area	Required Irrigation Area						
Drainage Area	(Cu. Ft.)	(Cu. Ft.)	(SF)	(AC)						
DA-PR-1	14524	12448	58097	1.33						
DA-PR-2	4843	5479	19371	0.44						
DA-PR-3	14303	18293	57211	1.31						
DA-PR-4	22562	22589	90246	2.07						
DA-PR-5	20414	20642	81657	1.87						
DA-PR-6	2896	2971	11585	0.27						

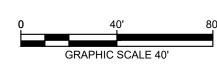
	Signed Contraction Signed Contraction Signed Contraction Signed Contraction Signed Contract Signed Contraction Signed Contraction Signed Contraction Signed Contr
	KHA PROJECT KHA PROJECT 069424100 069424100 069424100 069424100 060422400 DATE 10/19/2023 10/19/2023 Scale: AS SHOWN Designed BY: LE DRAWN BY: LE CHECKED BY: NG
	DRAINAGE AREA CALCULATIONS
	SANCTUARY DRIPPING SPRINGS 1111 HAYS COUNTRY ACRES RD. HAYS COUNTRY ACRES RD.
Know what's below. Call before you dig.	sheet number 16 OF 68



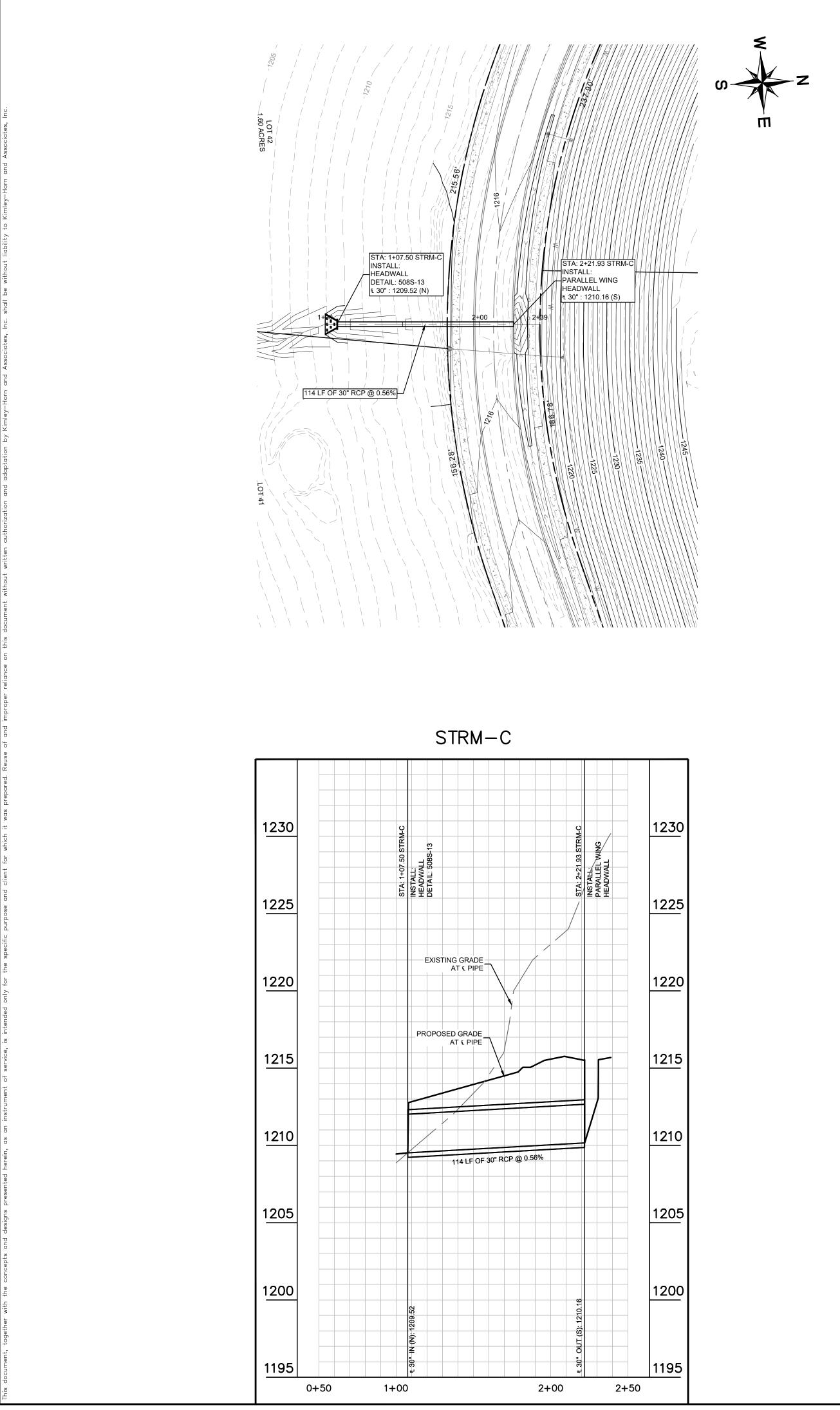


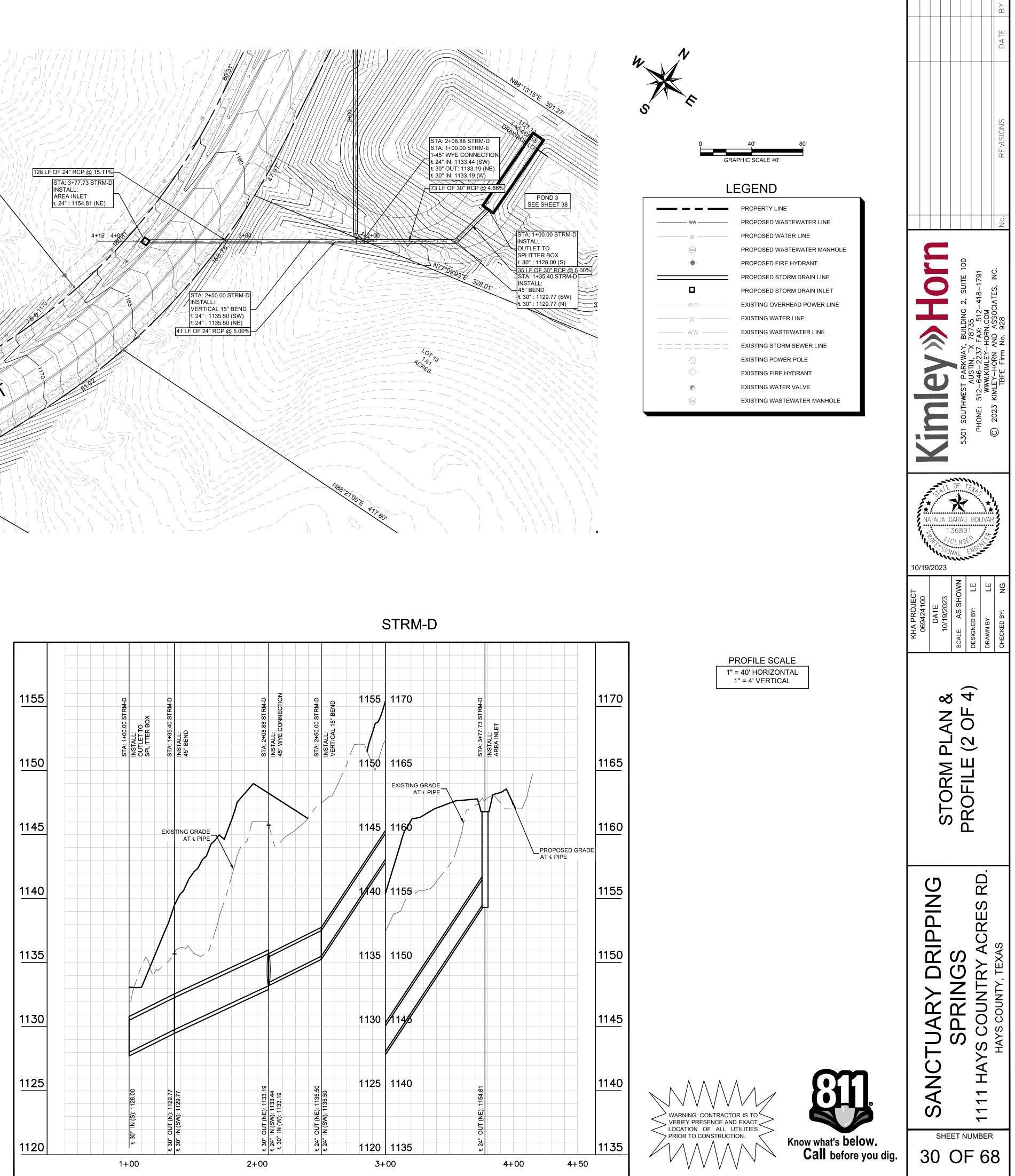


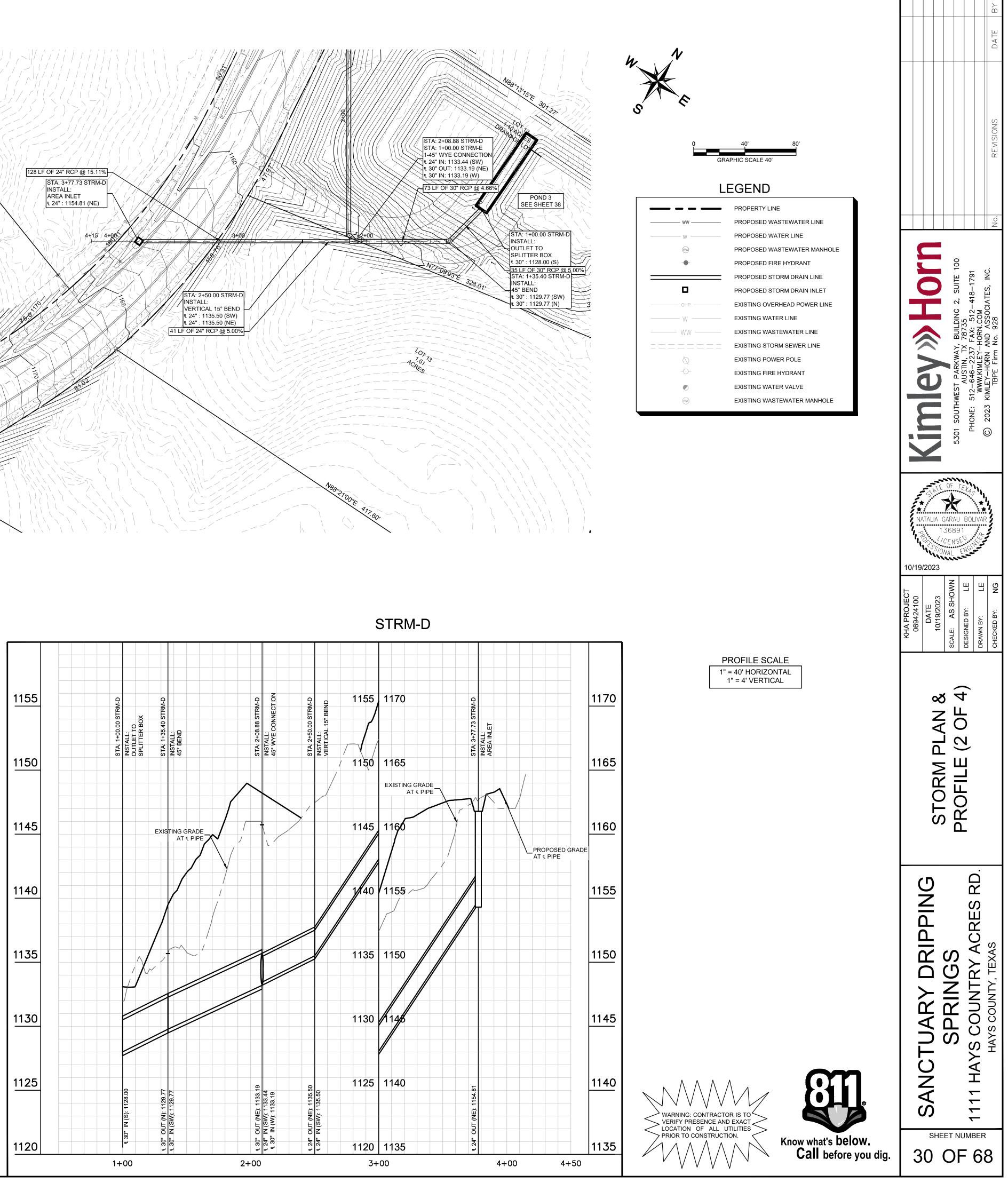


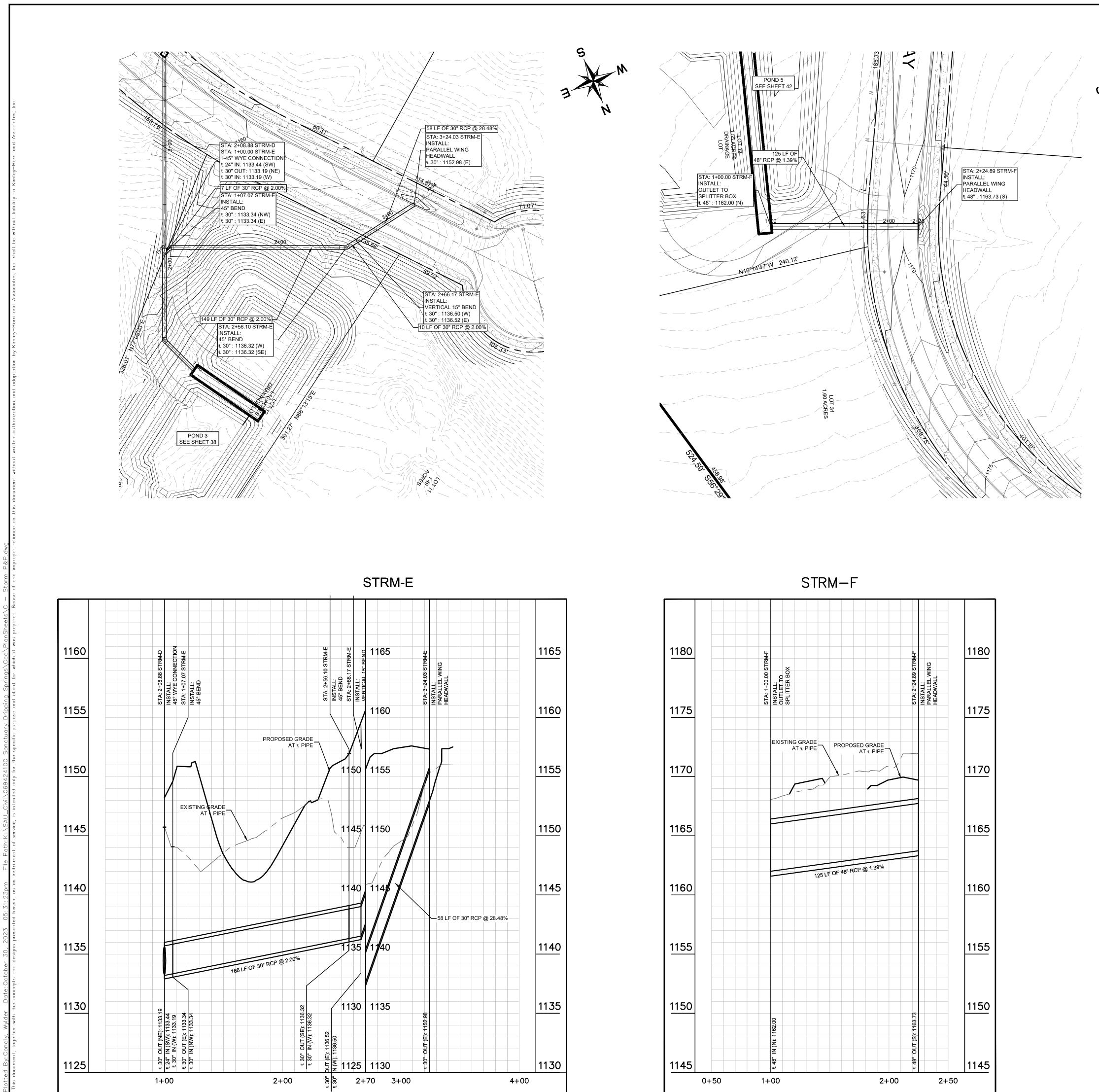


	_	PROPERTY LINE
ww		PROPOSED WASTEWATER LINE
W		PROPOSED WATER LINE
(WW)		PROPOSED WASTEWATER MANHOLE
		PROPOSED FIRE HYDRANT
	=	PROPOSED STORM DRAIN LINE
		PROPOSED STORM DRAIN INLET
OHP		EXISTING OVERHEAD POWER LINE
W		EXISTING WATER LINE
WW		EXISTING WASTEWATER LINE
======		EXISTING STORM SEWER LINE
\Diamond		EXISTING POWER POLE
-\$-		EXISTING FIRE HYDRANT
۲		EXISTING WATER VALVE
ŴŴ		EXISTING WASTEWATER MANHOLE

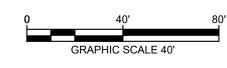








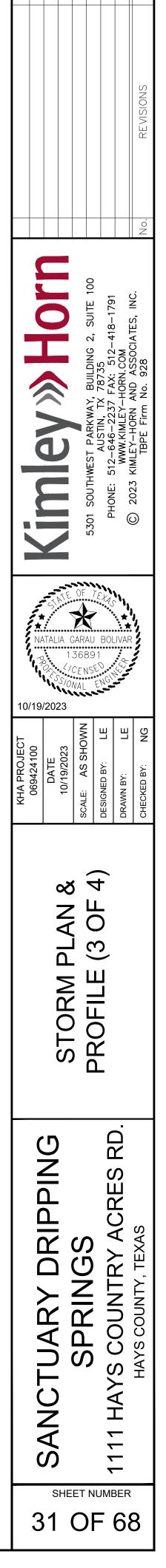


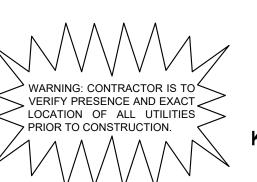


LEGEND

	PROPERTY LINE
ww	PROPOSED WASTEWATER LINE
	PROPOSED WATER LINE
(WW)	PROPOSED WASTEWATER MANHOLE
	PROPOSED FIRE HYDRANT
	PROPOSED STORM DRAIN LINE
	PROPOSED STORM DRAIN INLET
OHP	EXISTING OVERHEAD POWER LINE
W	EXISTING WATER LINE
WW	EXISTING WASTEWATER LINE
	EXISTING STORM SEWER LINE
\Diamond	EXISTING POWER POLE
	EXISTING FIRE HYDRANT
۲	EXISTING WATER VALVE
(WW)	EXISTING WASTEWATER MANHOLE

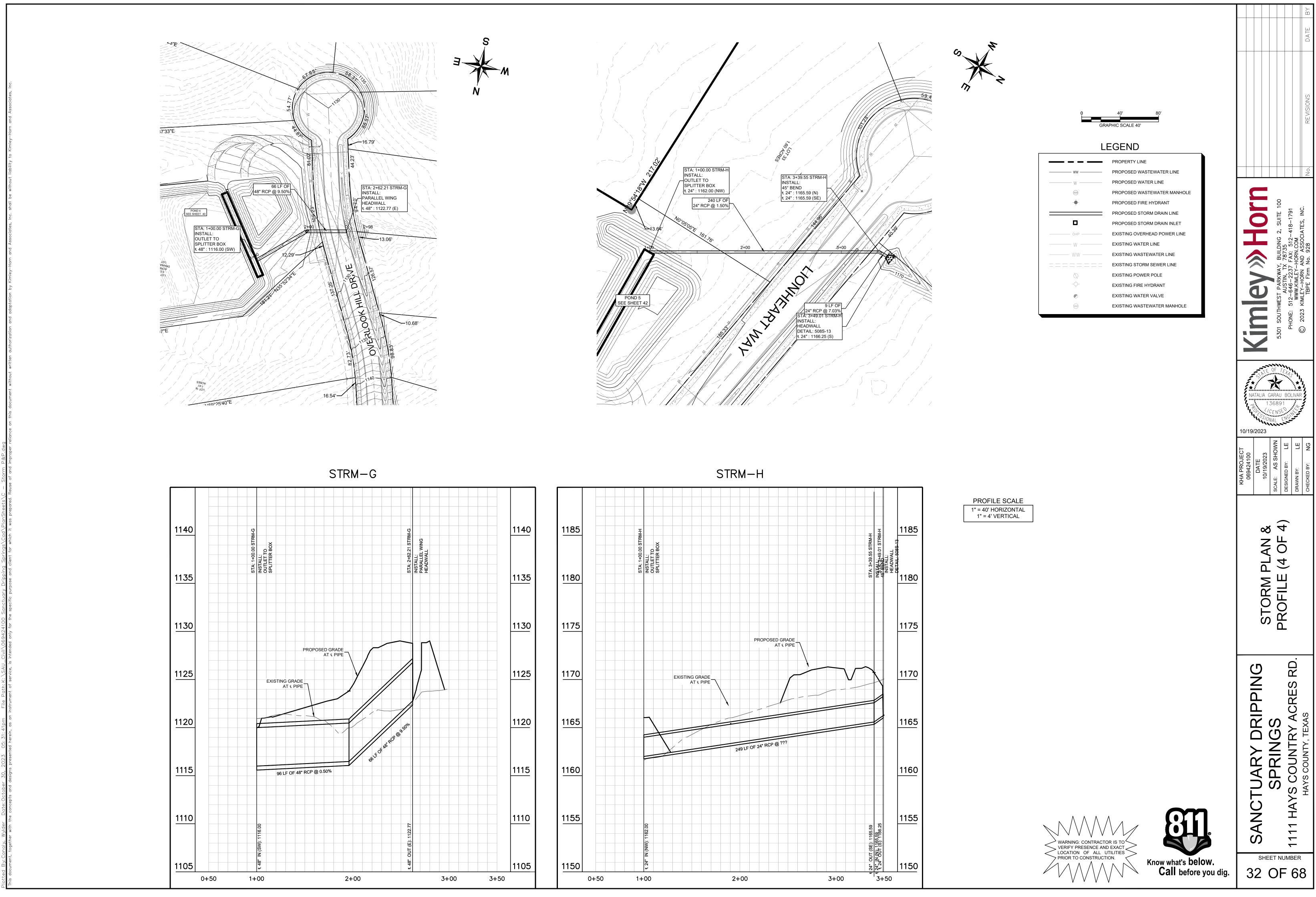
PROFILE SCALE 1" = 40' HORIZONTAL 1" = 4' VERTICAL

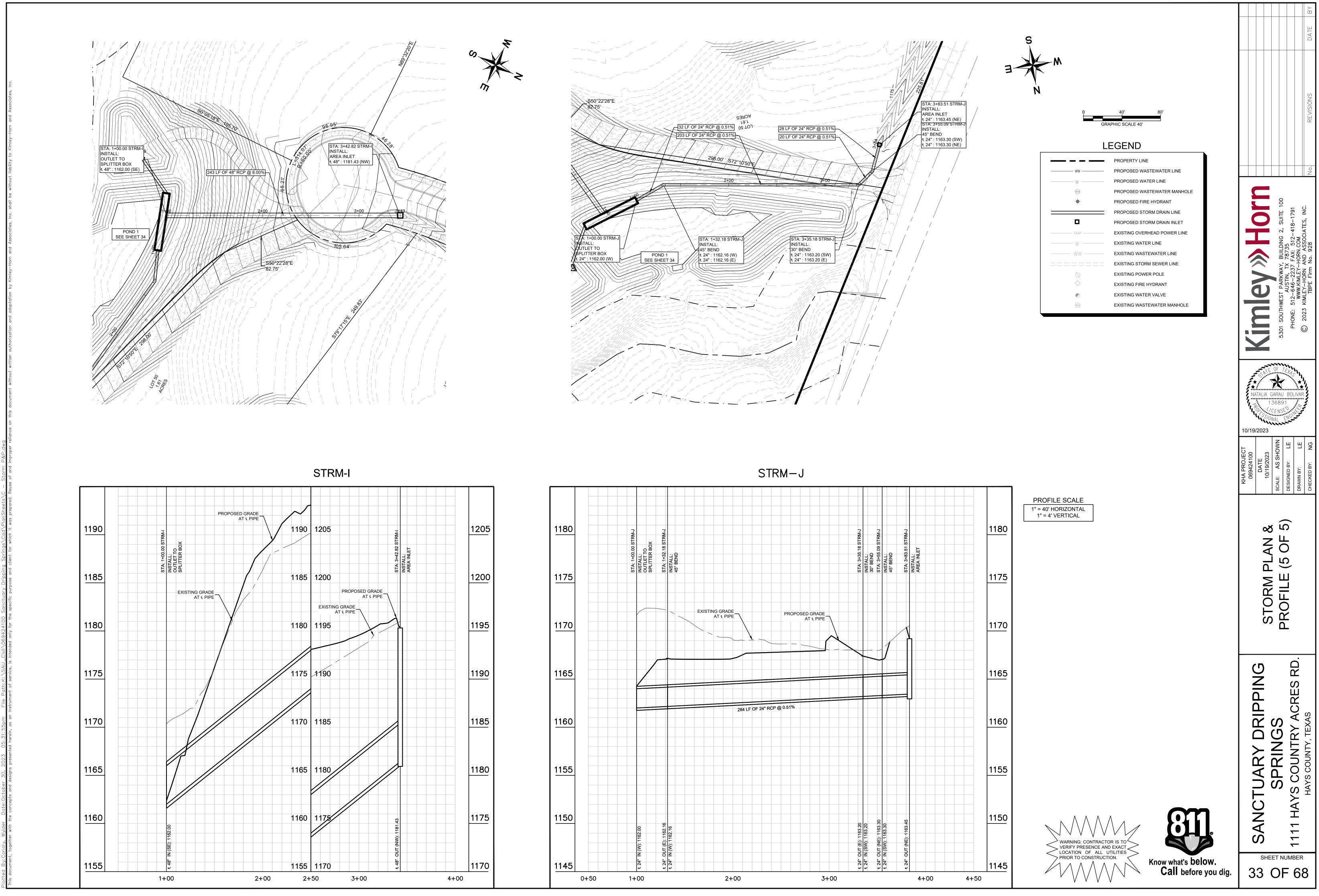


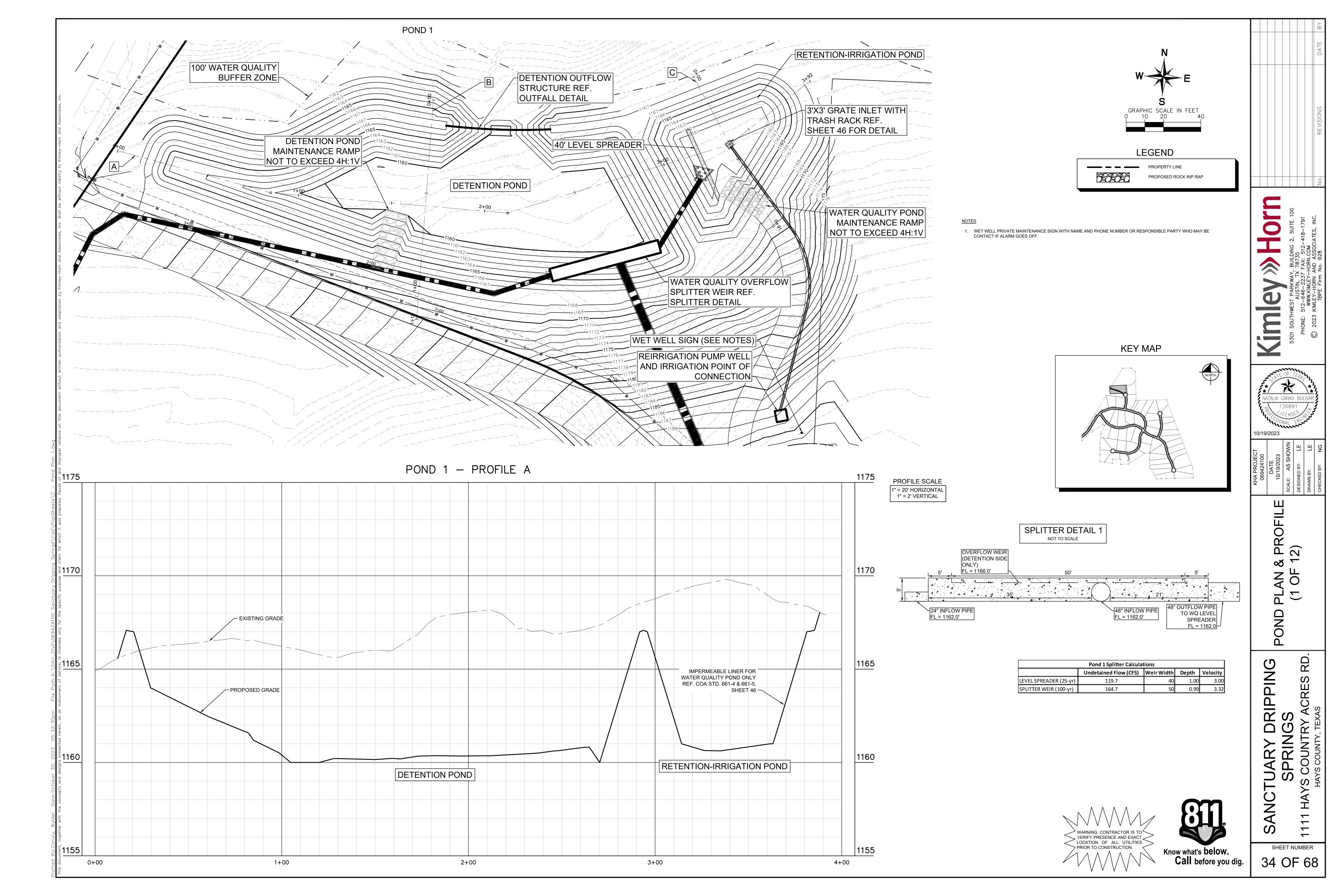




Know what's below. Call before you dig.







[POND 1 DETENTION ELEVATION STORAGE TABLE								
	Elevation	Depth	Area	Incr. Vol.	Storage				
[(ft)	(ft)	(sq.ft.)	(cu.ft.)	(cu.ft.)				
	1159	0.00	1	0.00	0.00				
	1160	1.00	6,512	3,256.39	3,256.39				
	1161	2.00	7,832	7,171.94	10,428.33				
	1162	3.00	9,224	8,527.96	18,956.29				
2-YR WSE	1162.7	3.70	9,768	6,647.07	25,603.36				
	1163	4.00	10,778	3,081.88	28,685.24				
	1164	5.00	12,570	11,674.08	40,359.32				
10-YR WSE	1164.2	5.20	12,747	2,531.74	42,891.06				
25-YR WSE	1165	6.00	14,342	10,835.78	53,726.84				
100-YR WSE	1166	7.00	16,148	15,245.13	68,971.97				
	1167	8.00	17,992	32,334.15	86,060.99				

	Elevation Depth Area Incr. Vol.						
Γ	(ft)	(ft)	(sq.ft.)	(cu.ft.)	(cu.ft.)		
Γ	1161	0.00	1,034	0.00	0.00		
F	1162	1.00	1,568	1,301.00	1,301.00		
Γ	1163	2.00	2,118	1,843.00	3,144.00		
Γ	1164	3.00	2,736	2,427.00	5,571.00		
Γ	1165	4.00	3,421	3,078.50	8,649.50		
WQ ELEVATION	1166	5.00	4,175	3,798.00	12,447.50		
	1167	6.00	4,995	4,585.00	17,032.50		

5 5'

NOT TO SCALE

ŀ ⊿

POND TOP EL = 1167.00'

Δ

WEIR TOP

_T|EL = 1163.25'

4

4

6" WALL THICKNESS WITH #4

BOTH DIRECTIONS ON AND A

OF 2.5". REFER TO THE WEIR

STRUCTURAL DETAIL BELOW

FOR DIAGONAL REBAR

PLACEMENT AT WEIR

OPENINGS.

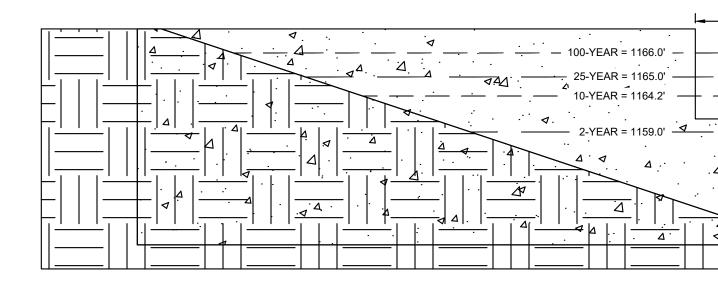
MINIMUM REBAR CLEARANCE

REBAR SPACED 12" OC IN

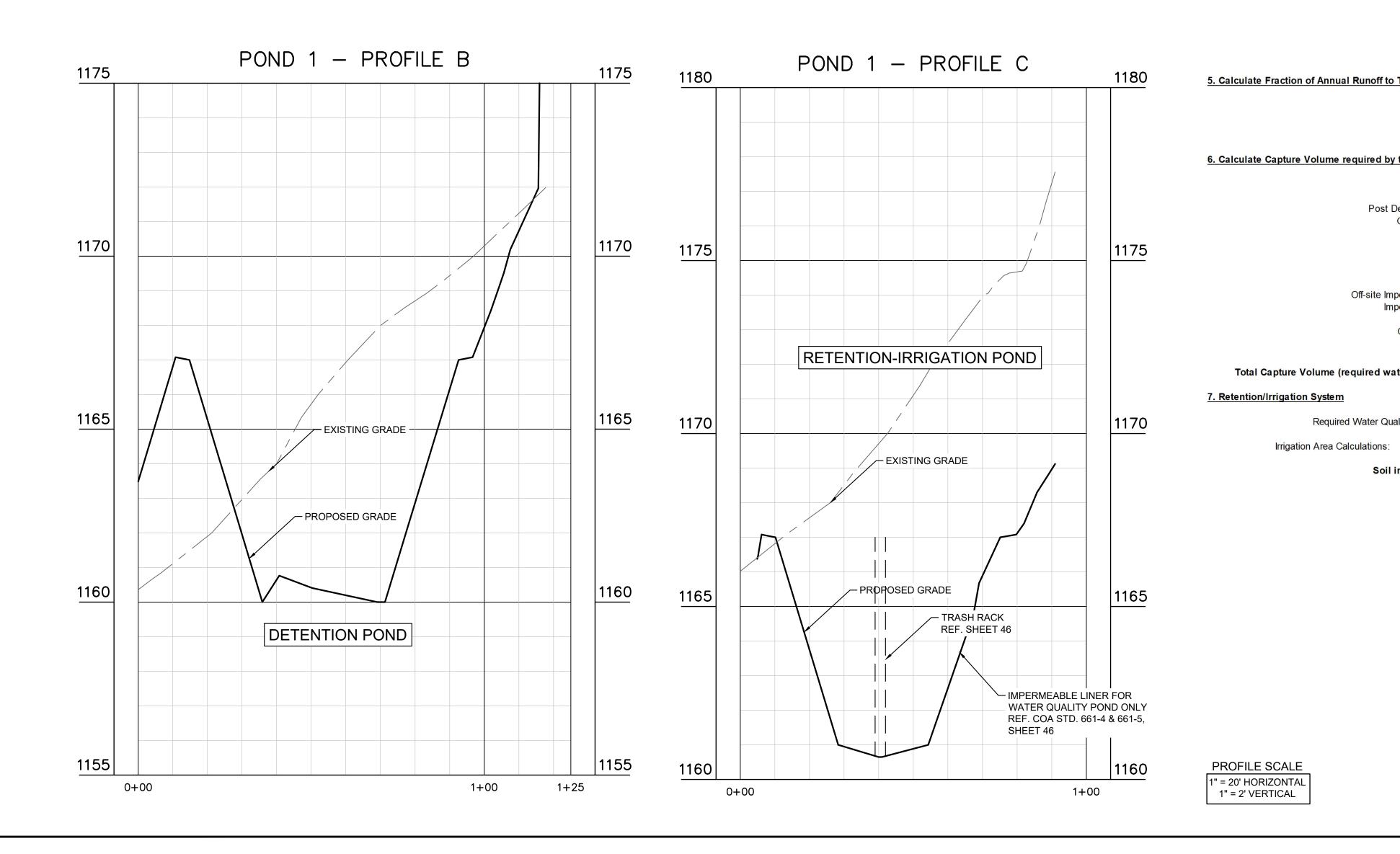
· A ·· A

Δ

FL = 1159.00'



OUTFALL DETAIL 1



POND 1 FLOW SUMMARY							
	Detained Flov						
Storm Event	(cfs)	(cfs)	(cfs)				
2-yr	38.7	53.2	37.30				
10-yr	73.1	93	71.60				
25-yr	96.7	119.7	96.30				
100-yr	136	164.7	135.80				

Texas Commission on Environr

TSS Removal Calculations 04-20-2

1. The Required Load Reduction for the to

where:

Site Data: Determine Required Load Ren

Total Predevelopment impervious area Total post-development impervious are Total post-developm

Number of drainage basins / outfa

2. Drainage Basin Parameters (This inform

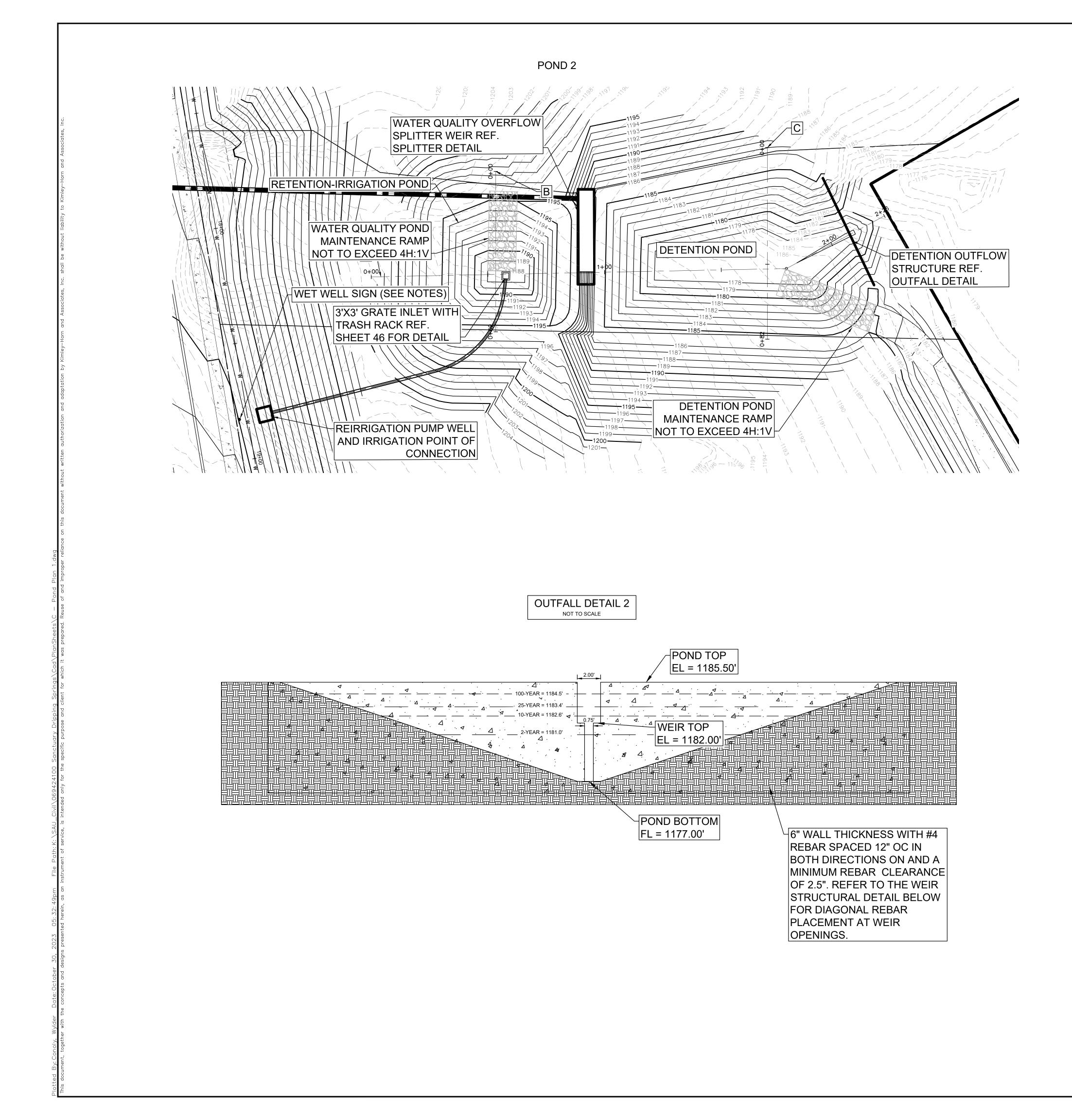
Drain Predevelopment impervious area wit Post-development impervious area wit Post-development impervious fraction with

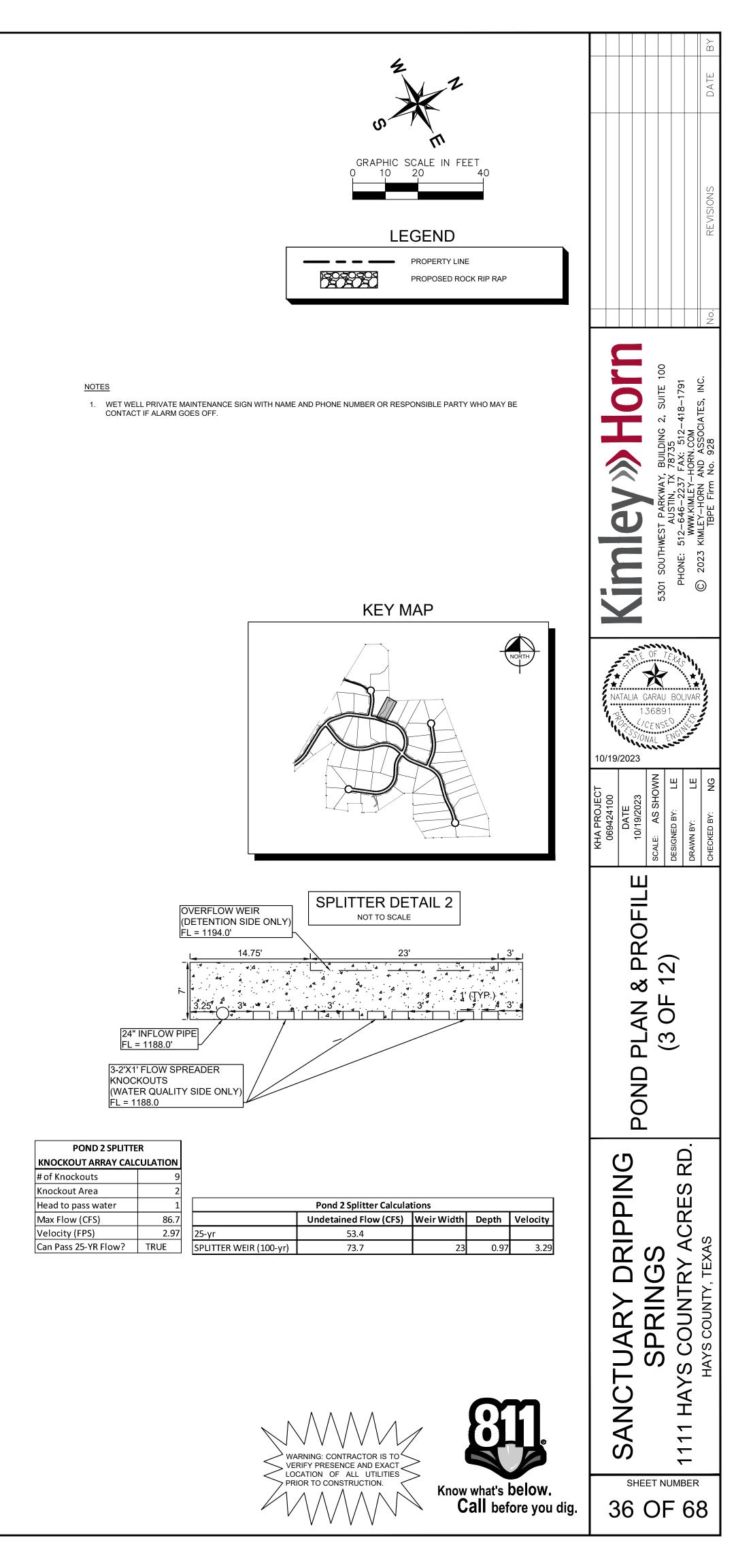
3. Indicate the proposed BMP Code for thi

4. Calculate Maximum TSS Load Remove

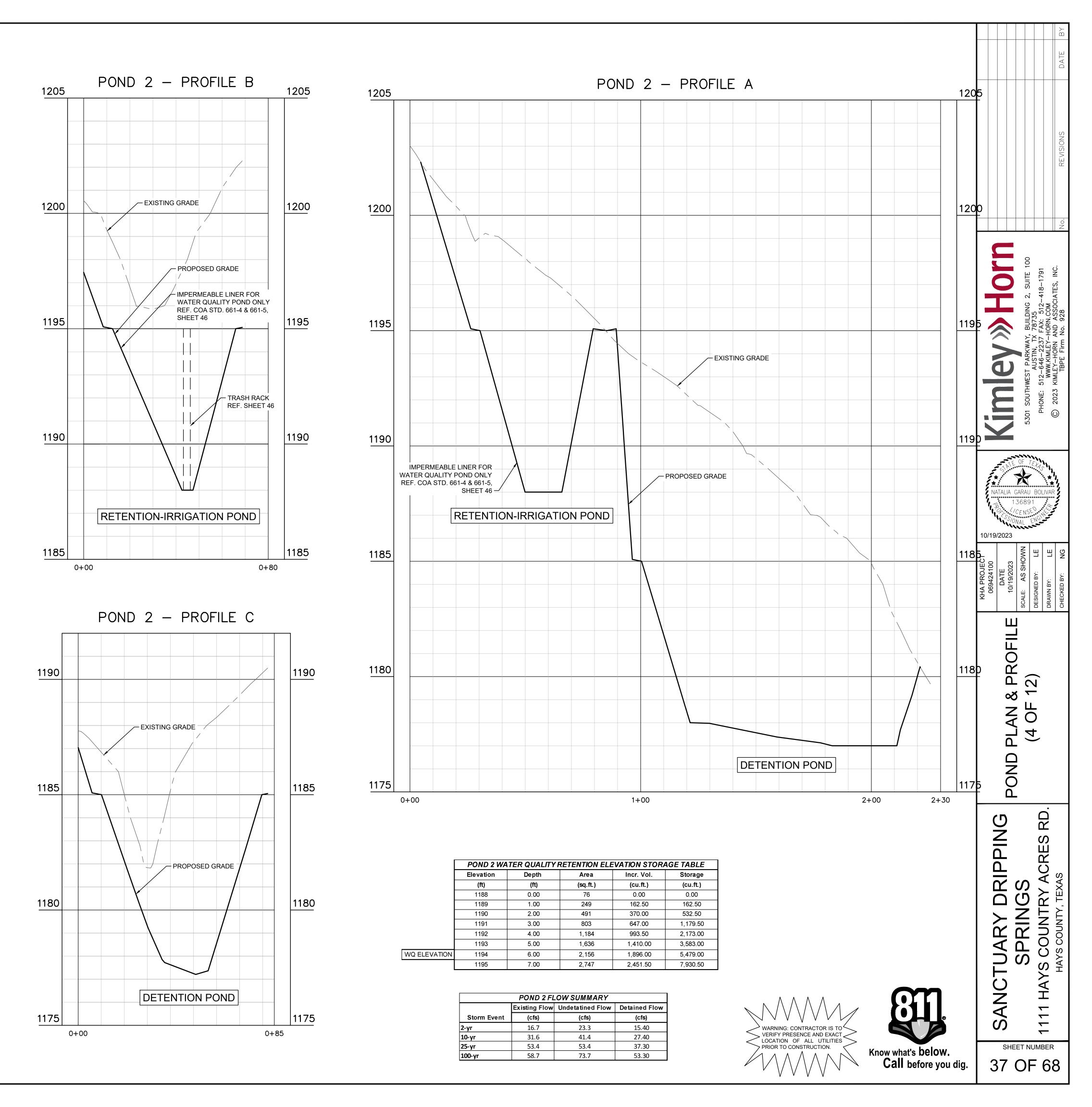
where:

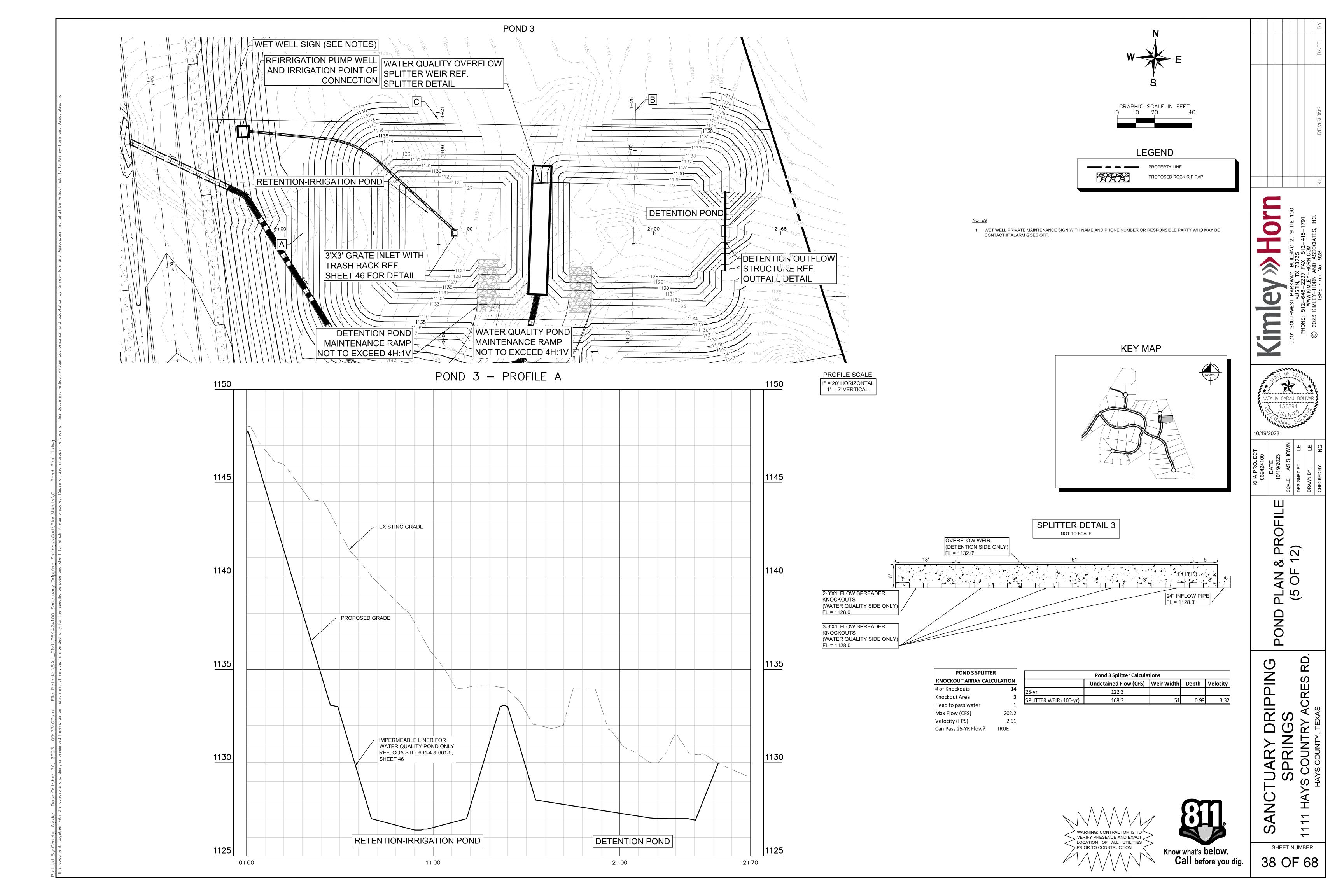
sion on Environmental Quality				C
lculations 04-20-2009			Project Name: The Sanctuary - Pond 1 Date Prepared: 10/9/2023	
d Reduction for the total project:	Calculations fro	om RG-348	Pages 3-27 to 3-30	
Page 3-29 Equation 3.3: $L_M =$	27.2(A _N x P)			
			ting from the proposed development = 80% of increased load area for the project	
	Average annua			
nine Required Load Removal Based on the Entire Projec County =				
Total project area included in plan * = elopment impervious area within the limits of the plan * =	104.34 2.52	acres		
elopment impervious area within the limits of the plan* = Total post-development impervious cover fraction * =	26.09	acres		
P =		inches		
L _{M TOTAL PROJECT} =	21156	lbs.		
f drainage basins / outfalls areas leaving the plan area =	6	•		1791 INC.
	č			, su 18–
arameters (This information should be provided for	each basin):			NG 2 MG 2 SOCIA
Drainage Basin/Outfall Area No. =	1	l i		
Total drainage basin/outfall area =	17.33	acres		AV ANIC AV ANIC AV ANIC
nent impervious area within drainage basin/outfall area = nent impervious area within drainage basin/outfall area =	0.20 4.33	acres acres		ARKW STIN, S-22, CIMLE
t impervious fraction within drainage basin/outfall area = $$L_{\rm M\ THIS\ BASIN}$$ =	0.25 3709	lbs.		ST P, AUS AUS AUS AUS AUS AUS AUS AUS
osed BMP Code for this basin.				SOUTHWES HONE: 512- 2023 KIML
Proposed BMP =	Retention / Ir	ligation		
Removal efficiency =		percent		© Pt
ım TSS Load Removed (L _R) for this Drainage Basin	by the selecte	ed BMP Type	<u>.</u>	
RG-348 Page 3-33 Equation 3.7: L _R =	(BMP efficienc	y) x P x (A _l x	34.6 + A _P x 0.54)	
		-	in the BMP catchment area	STATE OF TELAS
	-		the BMP catchment area he BMP catchment area	
L _R =	TSS Load rem	oved from this	s catchment area by the proposed BMP	NATALIA GARAU BOLIVAR
A _C =	17.33	acres		SSIONAL ENG
$A_{I} = A_{P} =$	4.33 13.00	acres acres		10/19/2023
L _R =	5178	lbs		
				- JEC 8HO
n of Annual Runoff to Treat the drainage basin / out	fall area	l i		A PROJEC 69424100 DATE 0/19/2023 AS SHC AS SHC AS SHC VED BY: VED BY:
Desired $L_{M THIS BASIN}$ =	3709	lbs.		KHA PRO 069424 DATE 10/19/2 SCALE: AS SCALE: AS DESIGNED BY: DRAWN BY:
F =	0.72			
• Volume required by the BMP Type for this drainag	je basin / outfa	all area.	Calculations from RG-348 Pages 3-34 to 3-36	
				PROFII
Rainfall Depth = Post Development Runoff Coefficient =	0.23			
On-site Water Quality Volume =	12103	cubic feet		2) Pf
	Calculations fr	om RG-348	Pages 3-36 to 3-37	∞ <u>~</u>
Off-site area draining to BMP =	0.00	acres		
Off-site Impervious cover draining to BMP = Impervious fraction of off-site area =	0.00	acres		
Off-site Runoff Coefficient = Off-site Water Quality Volume =	0.00 0	cubic feet		
Storage for Sediment =	2421			
Volume (required water quality volume(s) x 1.20) =	14524	cubic feet		l ó
	Designed as R		G-348 Pages 3-42 to 3-46	م
Required Water Quality Volume for retention basin =	14524	cubic feet		
on Area Calculations:				PPING CRES RD
Soil infiltration/permeability rate = Irrigation area =	<mark>0.1</mark> 58097	in/hr square feet	Enter determined permeability rate or assumed value of 0.1	
	1.33	acres		PPIN CRES
				2 C Z Z
				SANCTU SANCTU 1111 HAYS
		$\boldsymbol{\prime}$		SANC 1111 H/
			WARNING: CONTRACTOR IS TO	=
<u>=</u>		<	VERIFY PRESENCE AND EXACT	SHEET NUMBER
			Know what's below. Call before you dig.	
		V	\vee	35 OF 68





F	Elevation	Depth	Area	Incr. Vol.		rage		
	(ft)	(ft)	(sq.ft.)	(cu.ft.)		ı.ft.)		
_	<u>1177</u> 1178	0.00	21	0.00		00 1.50		
_	1178 1179	2.00	2067	1,764.50		06.00		
	1180	3.00	2714	2,390.50	,	96.50		
2-YR WSE	1181 1182	4.00	3402 4132	3,058.00 3,767.00		54.50 21.50		1" = 20' HORIZONTAL 1" = 2' VERTICAL
10-YR WSE	1182.6	5.60	4363	2,548.48		69.99		
	1183	6.00	4902	1,852.95	16,12	22.94		
25-YR WSE	1183.4	6.40	5064	1,993.22		16.16		
100-YR WSE	1184 1184.5	7.00	5714	3,233.55 2,910.52	,	49.70 60.22		
	1185	8.00	6569	3,124.18		84.39		
where: Site Data: De Pree Total post	Load Reduction for etermine Required L development impervi development impervi Total post-d er of drainage basin <u>n Parameters (Thi</u>	Page 3-2 Load Removal Base Total project area ious area within the vious area within the vious area within the levelopment imperv	29 Equation 3.3: L L _{M TOTAL PROJEC} A ed on the Entire Pr Count a included in plan e limits of the plan ious cover fraction	$M = 27.2(A_N \times P)$ $E_T = Required TS$ $N = Net increase$ $P = Average and$ $P = Average and$ $P = 104.34$ $* = 2.52$ $P = 26.09$ $* = 0.25$ $P = 33$ $E_T = 21156$ $a = 6$ $for each basin$	S removal res e in impervious nual precipitation acres acres acres inches	ulting from t	he proposed develop	-27 to 3-30 ment = 80% of increased loa
Post-deve Post-develop	lopment impervious lopment impervious ment impervious fra roposed BMP Code	area within drainag area within drainag ction within drainag	ge basin/outfall are ge basin/outfall are L _{M THIS BASI}	a = 0.12 a = 1.60 a = 0.25 _N = 1331	acres acres acres Ibs.			
Post-deve Post-develop 8. Indicate the p	lopment impervious ment impervious fra	area within drainag area within drainag ction within drainag <u>e for this basin.</u> <u>Removed (L_R) for</u>	ge basin/outfall are ge basin/outfall are ge basin/outfall are L _M тніз вазі Proposed BMI Removal efficienc <u>this Drainage Ba</u> 3 Equation 3.7: L	a = 0.12 $a =$ 1.60 $a =$ 0.25 $N =$ 1331 $P =$ Retention / $y =$ 100 sin by the sele R $R =$ (BMP efficience) $c =$ Total On-Site	acres acres Ibs. Irrigation percent cted BMP Typ ency) x P x (A ₁ ency) x P x (A ₁	x 34.6 + A _r a in the BM	P catchment area	
Post-deve Post-develop 3. Indicate the p	lopment impervious ment impervious fra roposed BMP Code	area within drainag area within drainag ction within drainag <u>e for this basin.</u> <u>Removed (L_R) for</u>	ge basin/outfall are ge basin/outfall are ge basin/outfall are L _M тніз вазі Proposed BMI Removal efficienc <u>this Drainage Ba</u> 3 Equation 3.7: L A A	$a =$ 0.12 $a =$ 1.60 $a =$ 0.25 $N =$ 1331 $P =$ Retention / $y =$ 100sin by the sele $R =$ (BMP efficience) $R =$ (BMP efficience) $R =$ Total On-Site $A_1 =$ Impervious and $P =$ Pervious and	acres acres Ibs. Ibs. Irrigation percent cted BMP Typ ency) x P x (A ₁ ency) x P x (A ₁ ency) x P x (A ₁ ency) x P x (A ₁) ency (A ₁)	x 34.6 + A _p ea in the BM in the BMP n the BMP c	P catchment area catchment area	sed BMP
Post-deve Post-develop 3. Indicate the p	lopment impervious ment impervious fra roposed BMP Code	area within drainag area within drainag ction within drainag <u>e for this basin.</u> <u>Removed (L_R) for</u>	ge basin/outfall are ge basin/outfall are ge basin/outfall are L _M тніѕ вазі Proposed BMI Removal efficienc this Drainage Ba 3 Equation 3.7: L A A	$a =$ 0.12 $a =$ 1.60 $a =$ 0.25 $N =$ 1331 $P =$ Retention / 100 $y =$ 100sin by the sele $R =$ (BMP efficience) $R =$ (BMP efficience) $R =$ Total On-Site $A_1 =$ Impervious are $R =$ TSS Load re $R =$ 6.41	acres acres Ibs. Ibs. Irrigation percent cted BMP Typ ency) x P x (A ₁ ency) x P x	x 34.6 + A _p ea in the BM in the BMP n the BMP c	P catchment area catchment area atchment area	sed BMP
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Post-develop A. Indicate the p A. Calculate Max where: Calculate Frace Calculate Cap	iopment impervious ment impervious fra roposed BMP Code imum TSS Load F imum TSS Load F ition of Annual Ru ture Volume requi ture Volume requi ation System Required Wa	area within drainag area within drainag ction within drainag e for this basin. Removed (L _R) for RG-348 Page 3-3 RG-348 Page 3-3 RG-348 Page 3-3 Inoff to Treat the Inoff to Treat the	ge basin/outfall are ge basin/outfall are ge basin/outfall are LM THIS BASI Proposed BMI Removal efficienc this Drainage Ba 3 Equation 3.7: L A 3 Equation 3.7: L A A L A L Desired LM THIS BASI Type for this drai Rainfall Dept t Runoff Coefficient ater Quality Volum rea draining to BMI ver draining to BMI ver draining to BMI ver draining to BMI torage for Sedimer torage for Sedimer torage for Sedimer torage for Sedimer	a = 0.12 a = 1.60 a = 0.25 N = 1331 P = Retention / y = 100 sin by the sele 100 sin by the sele 100 c = Total On-Site A = Impervious at a sele R = 100 sin by the sele 100 C = Total On-Site A = Impervious at a sele R = TSS Load restrict C = 6.41 A = 1.60 A = 0.69 nage basin / or 0 h = 0.75 t = 0.00 Calculations Calculations P = 0.00 a = 0 ot = 0 <td>acres acres "Ibs. "Irrigation percent cted BMP Type ency) x P x (Ar ency) x P x (Ar ency) x P</td> <td>x 34.6 + A_p ea in the BMP in the BMP c his catchme Calculatio Pages 3-3</td> <td>P catchment area catchment area atchment area nt area by the propos</td> <td>Pages 3-34 to 3-36</td>	acres acres "Ibs. "Irrigation percent cted BMP Type ency) x P x (Ar ency) x P x (Ar ency) x P	x 34.6 + A _p ea in the BMP in the BMP c his catchme Calculatio Pages 3-3	P catchment area catchment area atchment area nt area by the propos	Pages 3-34 to 3-36
Post-develop 3. Indicate the p 4. Calculate Max where: 5. Calculate Frace 5. Calculate Cap	iment impervious ment impervious fra roposed BMP Code imum TSS Load F imum TSS Load F ition of Annual Ru ture Volume requi	area within drainag area within drainag ction within drainag e for this basin. Removed (L _R) for RG-348 Page 3-3 RG-348 Page 3-3 RG-348 Page 3-3 RG-348 Page 3-3 Coff-site ar Coff-site ar Post Developmen On-site Wa Off-site ar Off-site ar Off-site ar Coff-site ar Site Impervious co Impervious fra Off-site Wa Sired water quality ater Quality Volume ations:	ge basin/outfall are ge basin/outfall are ge basin/outfall are L _{M THIS BASI} Proposed BMI Removal efficienc this Drainage Ba 3 Equation 3.7: L A 3 Equation 3.7: L A A L A L A L Desired L _{M THIS BASI} Type for this drai Rainfall Dept t Runoff Coefficient ater Quality Volum torage for Sedimer torage for Sedimer torage for Sedimer torage for Sedimer	a = 0.12 a = 1.60 a = 0.25 N = 1331 P = Retention / y = 100 sin by the sele 100 c = Total On-Sit A ₁ = Impervious at c = 6.41 A ₁ = 1.60 A ₁ = 1.60 A ₁ = 1.60 A ₂ = 1.331 F = 0.69 nage basin / or 0 h = 0.75 t = 0.23 e = 4036 Calculations P = 0.00 a = 0 nt = 807 a = 0 a = 0 nt = 807 a = 0 a = 0 a = 0 a = 0	acres acres "Ibs. "Irrigation percent cted BMP Type ency) x P x (Ar ency) x P x (Ar ency) x P	x 34.6 + A _f ea in the BMP in the BMP c his catchme Calculatio Pages 3-3	P catchment area catchment area atchment area int area by the propose ns from RG-348 36 to 3-37 Pages 3:	Pages 3-34 to 3-36
Post-develop 3. Indicate the p 4. Calculate Max where: 5. Calculate Frace 5. Calculate Cap	iopment impervious ment impervious fra roposed BMP Code imum TSS Load F imum TSS Load F ition of Annual Ru ture Volume requi ture Volume requi ation System Required Wa	area within drainag area within drainag ction within drainag e for this basin. Removed (L _R) for RG-348 Page 3-3 RG-348 Page 3-3 RG-348 Page 3-3 RG-348 Page 3-3 Coff-site ar Coff-site ar Post Developmen On-site Wa Off-site ar Off-site ar Off-site ar Coff-site ar Site Impervious co Impervious fra Off-site Wa Sired water quality ater Quality Volume ations:	ge basin/outfall are ge basin/outfall are ge basin/outfall are LM THIS BASI Proposed BMI Removal efficienc this Drainage Ba 3 Equation 3.7: L A 3 Equation 3.7: L A A L A L Desired LM THIS BASI Type for this drai Rainfall Dept t Runoff Coefficient ater Quality Volum rea draining to BMI ver draining to BMI ver draining to BMI ver draining to BMI torage for Sedimer torage for Sedimer torage for Sedimer torage for Sedimer	a = 0.12 a = 1.60 a = 0.25 N = 1331 P = Retention / y = 100 sin by the sele 100 c = Total On-Site A = Impervious at a set of	acres acres "Ibs. "Irrigation percent cted BMP Type ency) x P x (Ar ency) x P x (Ar ency) x P	x 34.6 + A _F ea in the BMP in the BMP c his catchme Calculatio Pages 3-3 RG-348	P catchment area catchment area atchment area int area by the propose ns from RG-348 36 to 3-37 Pages 3:	Pages 3-34 to 3-36



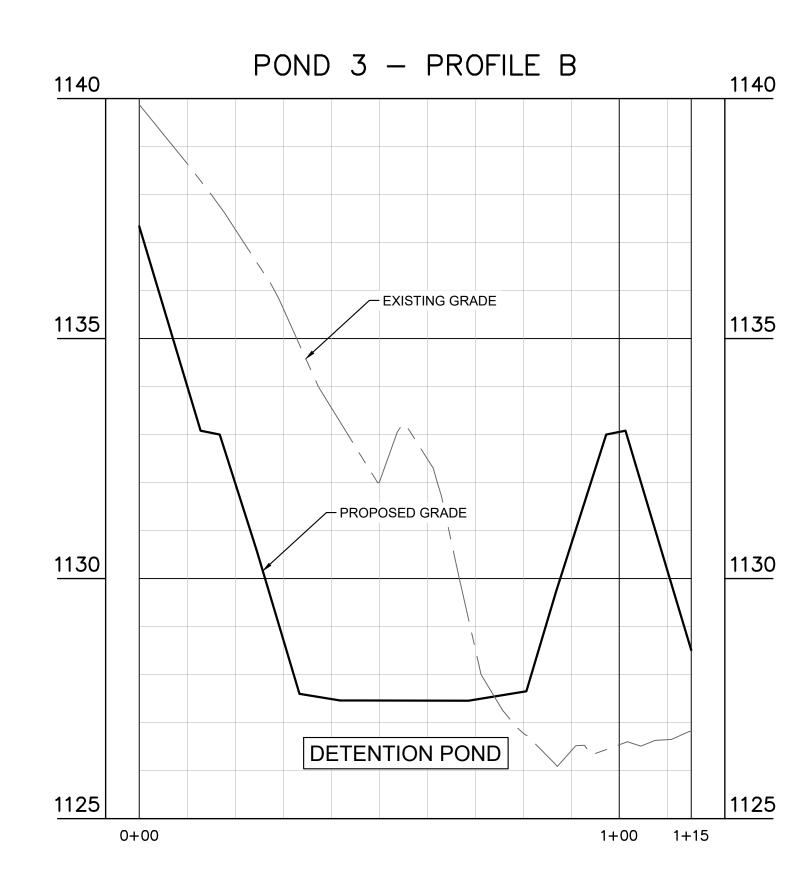


	PON	ND 3 DETENTIO	N ELEVATION	STORAGE TABL	.E		
Γ	Elevation Depth Area Incr. Vol.						
	(ft)	(ft)	(sq.ft.)	(cu.ft.)	(cu.ft.)		
	1127	0.00	1	0.00	0.00		
	1128	1.00	3,639	1,820.00	1,820.00		
	1129	2.00	4,323	3,981.00	5,801.00		
2-YR WSE	1129.8	2.80	4,627	3,579.86	9,380.86		
	1130	3.00	5,082	970.88	10,351.74		
10-YR WSE	1130.8	3.80	5,395	4,190.68	14,542.42		
	1131	4.00	5,863	1,125.77	15,668.19		
25-YR WSE	1131.1	4.10	5,906	588.46	16,256.65		
100-YR WSE	1131.7	4.70	6,163	3,620.72	19,877.38		
	1132	5.00	6,720	1,932.46	21,809.84		
Γ	1133	6.00	7,633	7,176.51	28,986.35		

Γ	Elevation	Depth	Area	Incr. Vol.	Storage
-	(ft)	(ft)	(sq.ft.)	(cu.ft.)	(cu.ft.)
	1127	0.00	1	0.00	0.00
	1128	1.00	2,773	1,387.00	1,387.00
	1129	2.00	3,442	3,107.50	4,494.50
	1130	3.00	4,177	3,809.50	8,304.00
	1131	4.00	4,978	4,577.50	12,881.50
VQ ELEVATION	1132	5.00	5,845	5,411.50	18,293.00
	1133	6.00	5,956	5,900.31	24,193.31

 $\Delta = \frac{1}{100 \cdot \text{YEAR}} = 1131.7'$ $25 \cdot \text{YEAR} = 1131.1'$ $10 \cdot \text{YEAR} = 1130.8'$ $2 \cdot \text{YEAR} = 1129.8' \checkmark$

OUTFALL DETAIL 3 NOT TO SCALE



Texas Commission on Enviror

TSS Removal Calculations 04-20-2

1. The Required Load Reduction for the

where:

Site Data: Determine Required Load Re

Total Predevelopment impervious ar Total post-development impervious a Total post-developn

Number of drainage basins / out

2. Drainage Basin Parameters (This infor

Dra

Predevelopment impervious area w Post-development impervious area w Post-development impervious fraction w

3. Indicate the proposed BMP Code for t

4. Calculate Maximum TSS Load Remov

RG-3

where:

5. Calculate Fraction of Annual Runoff to

6. Calculate Capture Volume required b

Post

Off-site Im

In

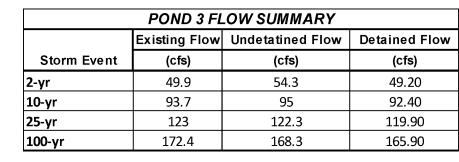
Total Capture Volume (required wa

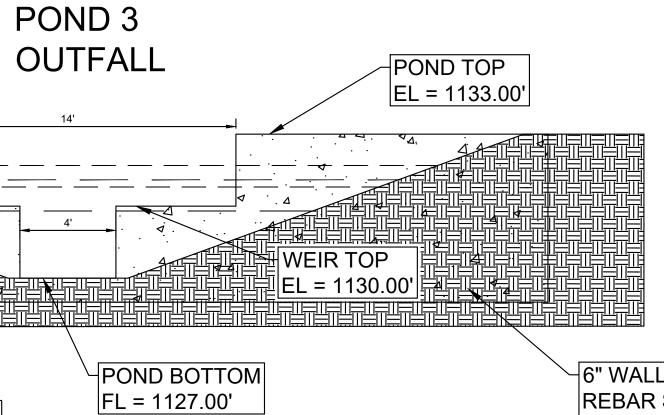
7. Retention/Irrigation System Required Water Qu

Irrigation Area Calculations:

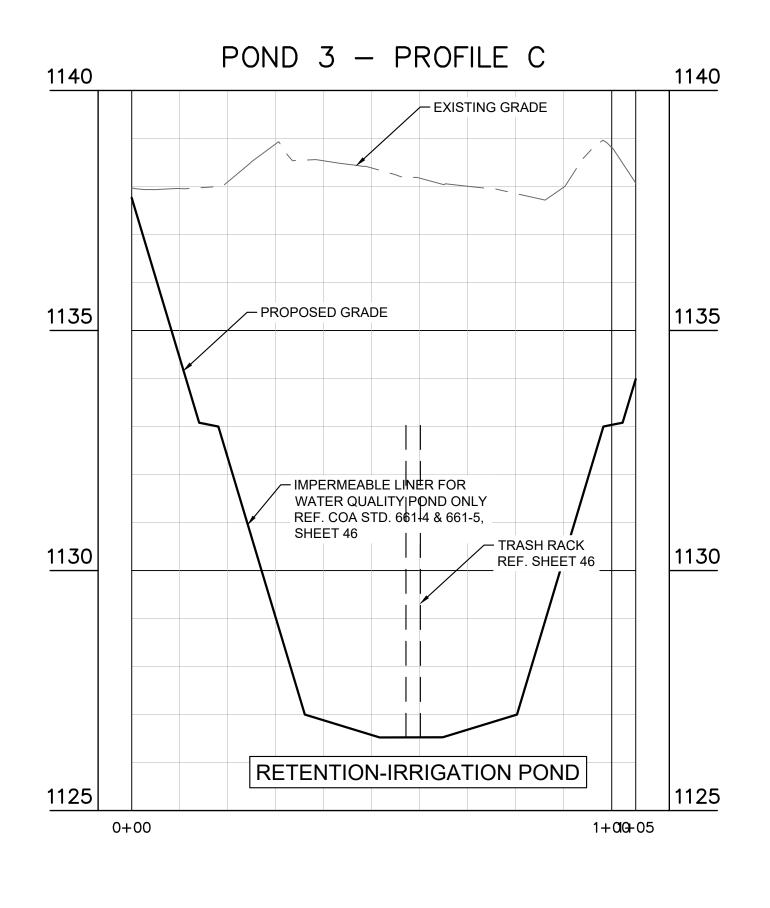
Soil

PROFILE SCALE 1" = 20' HORIZONTAL 1" = 2' VERTICAL

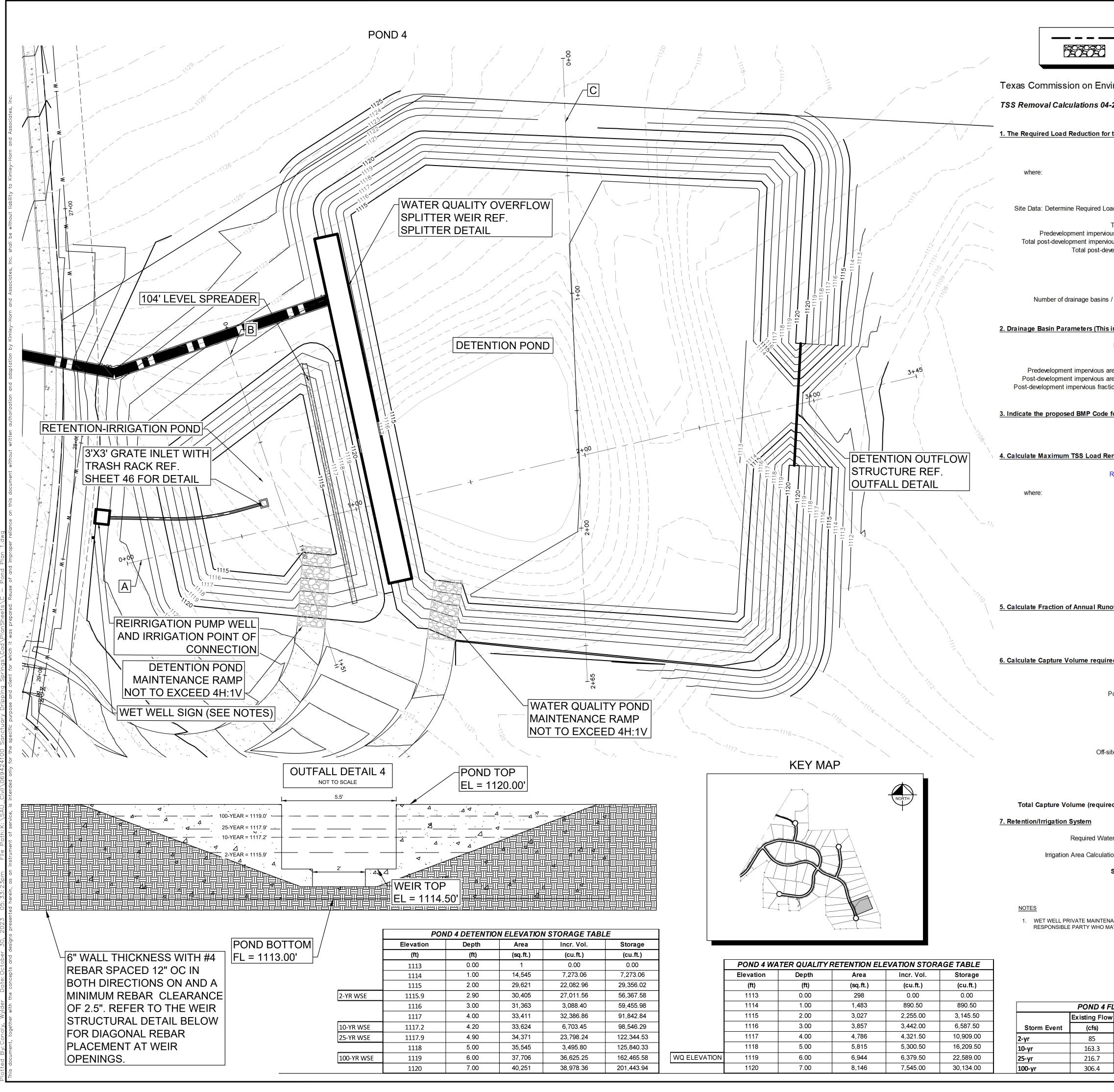




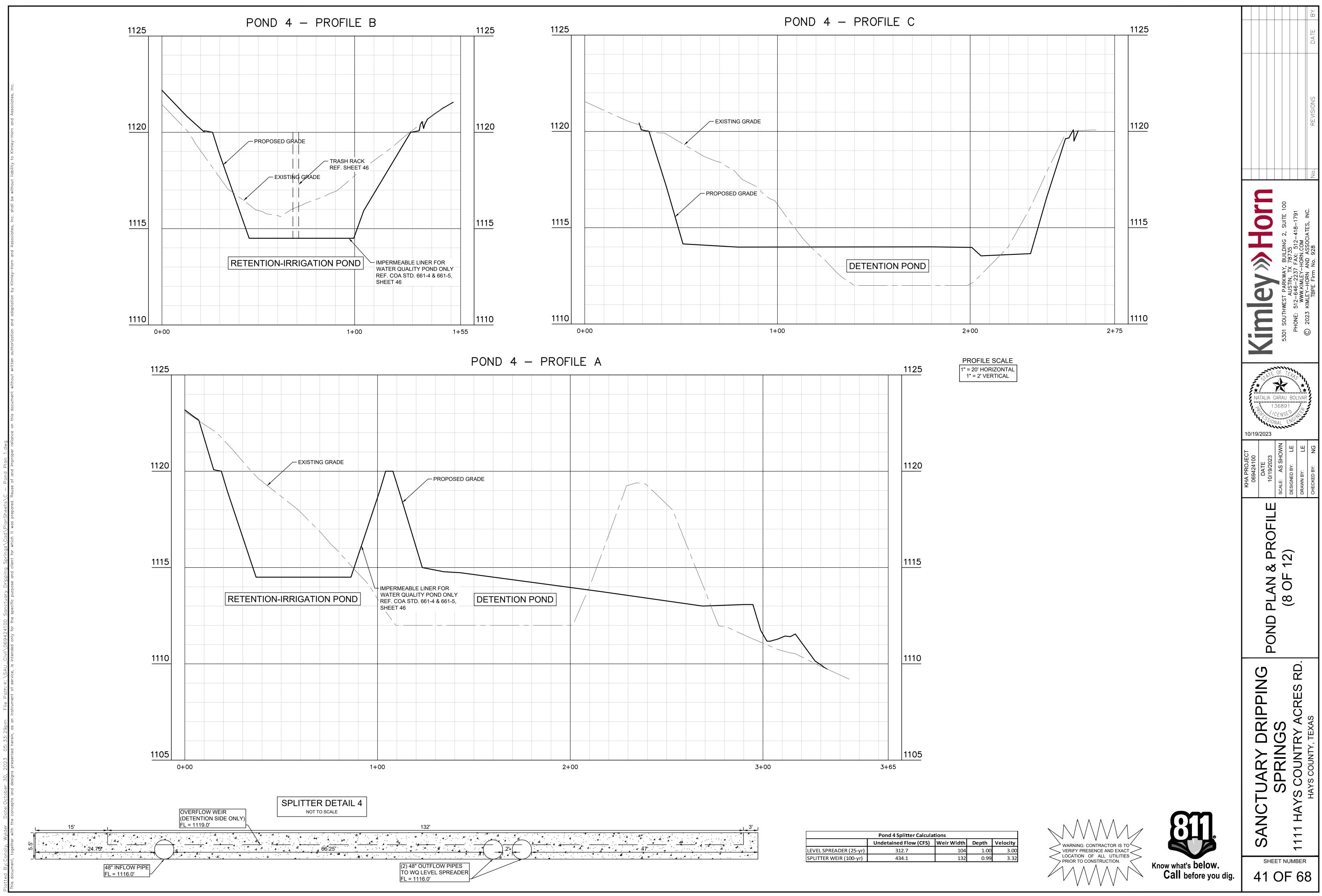
6" WALL THICKNESS WITH #4 REBAR SPACED 12" OC IN BOTH DIRECTIONS ON AND A MINIMUM REBAR CLEARANCE OF 2.5". REFER TO THE WEIR STRUCTURAL DETAIL BELOW FOR DIAGONAL REBAR PLACEMENT AT WEIR OPENINGS.

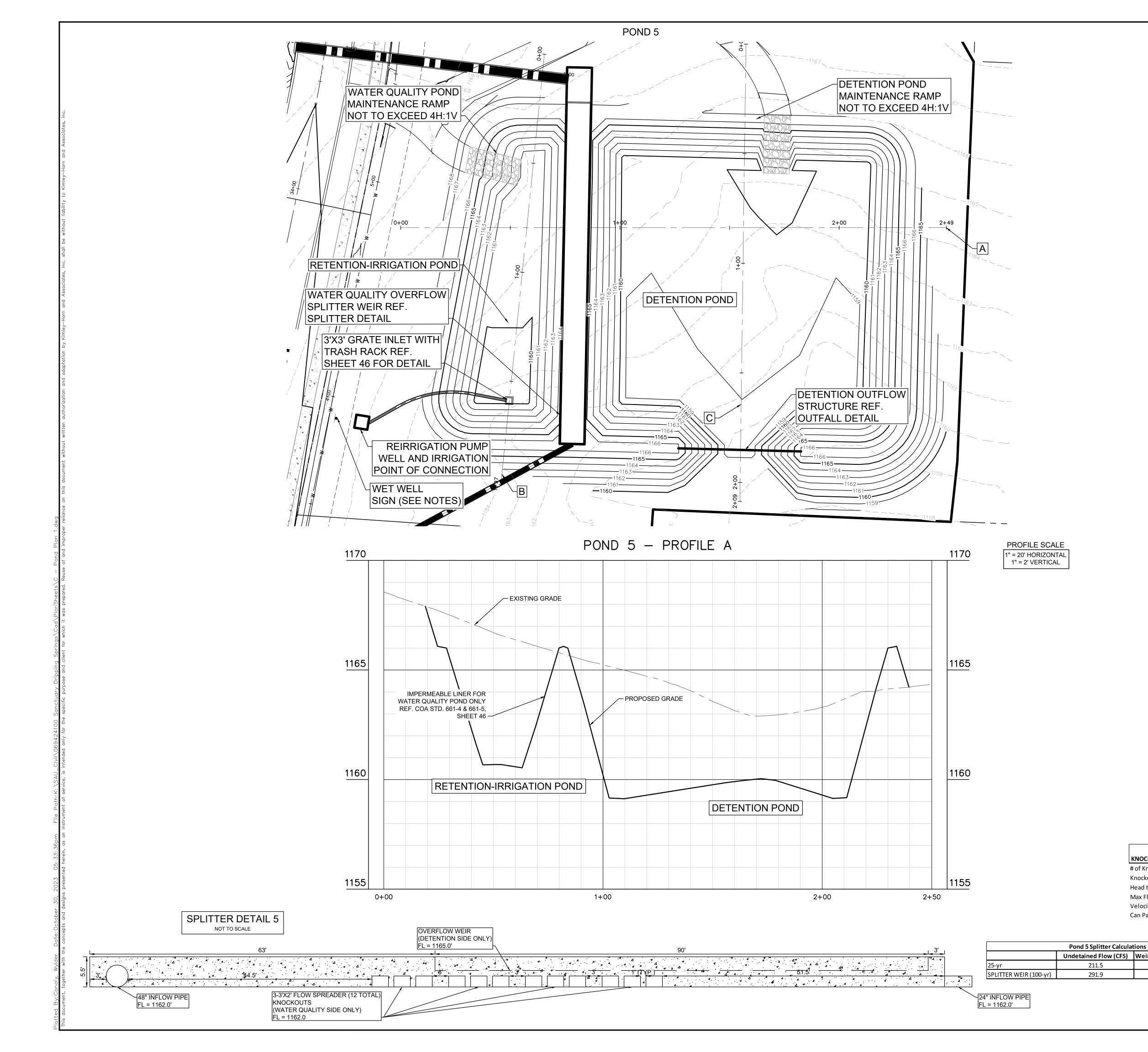


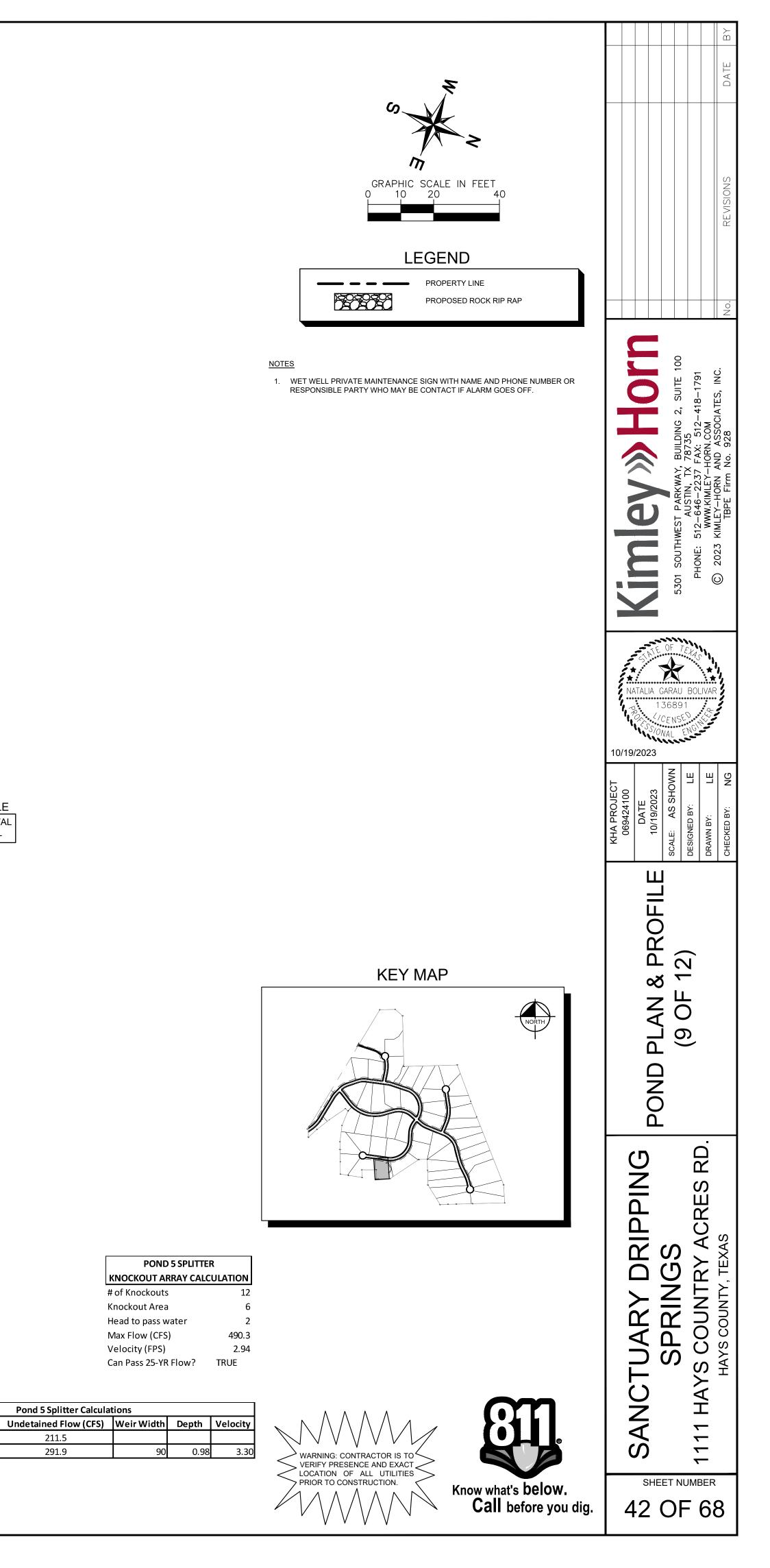
onmental Quality								
0-2009			Project Name	·· The Sanctua	ıry - Pond 3			
			Date Prepared					
ne total project:		from RG-348		Pages 3-27 to 3	-30			
Page 3-29 Equation 3.3: $L_M =$					000/ 5			
A _N =	Net increase		area for the project	ed development =	80% of increased load			
Removal Based on the Entire Proje			n, nones					
County =	Hays 104.34	acres						
area within the limits of the plan * = s area within the limits of the plan* = opment impervious cover fraction * =	26.09	acres						
P =		inches						
L _{M TOTAL PROJECT} =	21156	lbs.						
outfalls areas leaving the plan area =	6	7					Horn	E 100 91 NC.
formation should be provided for	reach basin).					0	2, SUITE 1 418–1791 ATES, INC.
Drainage Basin/Outfall Area No. =		<u>.</u>						JDING 2 35 512-4 I.COM ASSOCIA
Total drainage basin/outfall area =		acres						BUILE 7873! FAX: 10RN.C ND AS
a within drainage basin/outfall area = a within drainage basin/outfall area = n within drainage basin/outfall area =	4.42	acres						«WAY, N, TX 2237 LEY-H DRN A
$L_{\rm M}$ This basin =		Ibs.						F PARI AUSTII 646- WW.KIM EY-HQ
r this basin.								SOUTHWEST HONE: 512- WW 2023 KIMLE
Proposed BMP = Removal efficiency =		Irrigation percent						
noved (L _R) for this Drainage Basin	by the sele	cted BMP Typ	<u>e.</u>					5301 Pł
G-348 Page 3-33 Equation 3.7: L _R =	: (BMP efficie	ency) x P x (A _l :	x 34.6 + A _P x 0.54)					
		-	a in the BMP catchm n the BMP catchmer				ATE	DF TEXA
A _P =	Pervious are	ea remaining in	the BMP catchment is catchment area by	area	D		*	
A _C =		acres	,				NATALIA GA	ARAU BOLIVAR
A _I = A _P =	4.42	acres acres					TORESSION	ENSED AL ENGLIS
L _R =		lbs					10/19/2023	
							3 0 ICT	LE LE LE
f to Treat the drainage basin / ou		lbs.						AS SBY:
Desired $L_{M THIS BASIN} =$							KHA 069 10/	SCALE: , DESIGNED DRAWN BY
by the BMP Type for this draina		utfall area.	Calculations from R	G-348 Pa	iges 3-34 to 3-36			
	0.00	in the second					=	
= Rainfall Depth = st Development Runoff Coefficient = On-site Water Quality Volume	0.23	inches cubic feet					L L	
							PROF	
			Pages 3-36 to 3-37				≪ ⊥	12)
Off-site area draining to BMP = Impervious cover draining to BMP = Impervious fraction of off-site area =	0.00	acres					AN	0F 1
Off-site Water Quality Volume =	0.00	 cubic feet 					i l	(0 (
Storage for Sediment =	2384							\smile
water quality volume(s) x 1.20) =		cubic feet	C 249	Deres 2.42 to 2	46			
Quality Volume for retention basin =		Required in R	G-340	Pages 3-42 to 3	-40		POND	
ns:								
oil infiltration/permeability rate = Irrigation area =		in/hr square feet		permeability rate	e or assumed value of	0.1		CRES RD
inigation area –	1.31	acres					NI	S Ш
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		*	$\land \land \land \land$	Λл	Ω		Z	T T
			WARNING: CONTRA	V V V			SAN	1111 HAYS
		<	VERIFY PRESENCE LOCATION OF ALL PRIOR TO CONSTRU	AND EXACT				
			$1 \wedge \wedge \wedge$		Know what's be Call befor	e you dig.		DF 68
			V V V	V .		-		

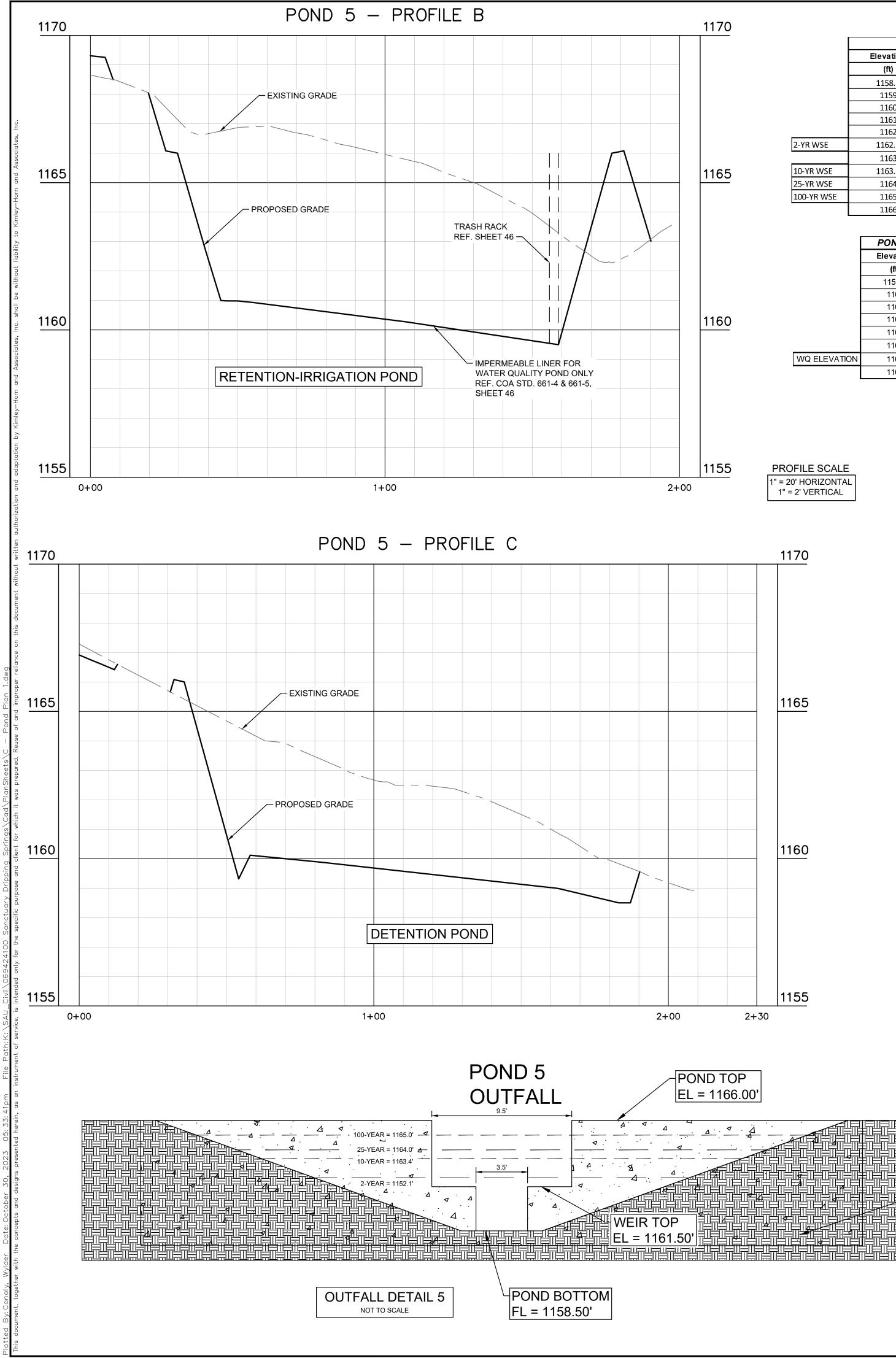


		~	
LEGEND			
PROPERTY LINE PROPOSED ROCK RIP RAP		GRAPHIC SCALE IN FEET 0 10 20 40	DAT
nvironmental Quality		'//	
04-20-2009		Project Name: The Sanctuary - Pond 4	
for the total project:	Calculations fr	Date Prepared: 10/9/2023 om RG-348 Pages 3-27 to 3-30	REVISIONS
Page 3-29 Equation 3.3: $L_{M} =$		rages 3-27 to 3-30	REV
		removal resulting from the proposed development = 80% of increased load	
		impervious area for the project precipitation, inches	
Load Removal Based on the Entire Projec County =	t Hays		Z
Total project area included in plan * = rvious area within the limits of the plan * =	104.34 2.52	acres acres	
ervious area within the limits of the plan* = -development impervious cover fraction * =	26.09 0.25	acres	
P =	33	inches	Suite 100 18–1791 VTES, INC.
L _{M TOTAL PROJECT} =	21156	lbs.	-41 IAT
ins / outfalls areas leaving the plan area =	6		MILDING 3735 8735 8735 ANSCOM
			AY, BI TX 78 37 FA 1 AND 1 AND
his information should be provided for	each basin):		ARKW. STIN, 6-22, fink
Drainage Basin/Outfall Area No. =	4 26.73	acres	
Total drainage basin/outfall area = s area within drainage basin/outfall area = s area within drainage basin/outfall area =	26.73 0.61 6.68	acres acres	51 K
raction within drainage basin/outfall area =	0.25 5451	acres Ibs.	H SOUTH PHONE:
$L_{\rm M}$ This basin	5451	IDS.	© ²³⁰¹
de for this basin. Proposed BMP =	Retention / Ir	igation	
Removal efficiency =	100	percent	CAF OF TAIL.
Removed (L _R) for this Drainage Basin	by the selecte	d BMP Type.	
RG-348 Page 3-33 Equation 3.7: L _R =	(BMP efficienc	y) x P x (A ₁ x 34.6 + A _P x 0.54)	NATALIA GARAU BOLIVAR
-		rainage area in the BMP catchment area	136891 20. (/CENSE
		a proposed in the BMP catchment area emaining in the BMP catchment area	1550NAL ENG
L _R =	TSS Load rem	oved from this catchment area by the proposed BMP	10/19/2023
$A_{C} = A_{I} =$	26.73 6.68	acres acres	JECT 100 SHOWN SHOWN LE LE NG
A _P =	20.05	acres Ibs	RO 9/2 124 124
L _R =	7987	IDS	KHA P 0692 0692 10/1 SCALE: DESIGNED DESIGNED DRAWN BY CHECKED I
Runoff to Treat the drainage basin / out	fall area		
Desired $L_{M THIS BASIN} =$	_	lbs.	
F =	0.68		OFI
uired by the BMP Type for this drainag		II area. Calculations from RG-348 Pages 3-34 to 3-36	UNC C
anea by the binn Type for this aramag			2) 2)
Rainfall Depth = Post Development Runoff Coefficient =	0.73 0.23	inches	~~ \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \` \`_
On-site Water Quality Volume =	16402	cubic feet	ANOF
	Calculations fr	om RG-348 Pages 3-36 to 3-37	√_(
Off-site area draining to BMP =	10.89	acres	
ff-site Impervious cover draining to BMP = Impervious fraction of off-site area =	0.61 0.06	acres	
Off-site Runoff Coefficient = Off-site Water Quality Volume =	0.08 2399	cubic feet	Õ
Storage for Sediment =	3760		ď
uired water quality volume(s) x 1.20) =	22562	cubic feet	B B B
		equired in RG-348 Pages 3-42 to 3-46	PIN(
Vater Quality Volume for retention basin =	22562	cubic feet	PPIN CRES
soil infiltration/normochility/rate =			L D
Soil infiltration/permeability rate = Irrigation area =	0.1 90246 2.07	in/hr Enter determined permeability rate or assumed value of 0.1 square feet	JRI SS RY A
	2.07	acres	
TENANCE SIGN WITH NAME AND PHONE NUMB	BER OR		
D MAY BE CONTACT IF ALARM GOES OFF.			
			L SY SY SH
			SANCTI
4 FLOW SUMMARY	7		A H H
Iow Undetatined Flow Detained Flo	w	WARNING: CONTRACTOR IS TO	11 SA
(cfs) (cfs) 133.9 81.70		VERIFY PRESENCE AND EXACT	
241.4 158.10 312.7 212.20	\exists	PRIOR TO CONSTRUCTION. Know what's below .	
312.7 212.20 434.1 303.10		Call before you dig.	40 OF 68







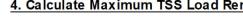


_	PON	D 5 DETENTIO	E	Texas Commission		
L	Elevation	Depth	Area	Incr. Vol.	Storage	
	(ft)	(ft)	(sq.ft.)	(cu.ft.)	(cu.ft.)	TSS Removal Calculat
	1158.5	0.00	1	0.00	0.00	155 Kemoval Calculat
	1159	0.50	3249	812.61	812.61	
	1160	1.50	12542	7,895.62	8,708.23	1. The Required Load Redu
	1161	2.50	14506	13,523.86	22,232.08	n me nequirea Boad Near
	1162	3.50	15776	15,141.02	37,373.10	
SE	1162.1	3.60	15842	1,580.89	38,953.99	
	1163	4.50	17088	14,818.45	53,772.44	where:
V SE	1163.4	4.90	17359	6,889.45	60,661.89	
V SE	1164	5.50	18443	10,740.59	71,402.48	
WSE	1165	6.50	19841	19,142.01	90,544.48	
	1166	7.50	21287	20,564.02	111,108.51	Site Data: Determine Re
	POND 5 WA	TER QUALITY	RETENTION E	ELEVATION STOR	AGE TABLE	Predevelopmen Total post-developmer
	Elevation	Depth	Area	Incr. Vol.	Storage	Tota

	POND 5 WATER QUALITY RETENTION ELEVATION STORAGE TABLE									
	Elevation	Depth	Area	Incr. Vol.	Storage					
	(ft)	(ft)	(sq.ft.)	(cu.ft.)	(cu.ft.)					
	1159.5	0.00	1	0.00	0.00					
	1160	0.50	807	202.00	202.00					
	1161	1.50	2,717	1,762.00	1,964.00					
	1162	2.50	3,650	3,183.50	5,147.50					
	1163	3.50	4,632	4,141.00	9,288.50					
	1164	4.50	5,664	5,148.00	14,436.50					
ΠΟΝ	1165	5.50	6,746	6,205.00	20,641.50					
	1166	6.50	7,877	7,311.50	27,953.00					

	1165	
	1160	
	1155	PRC

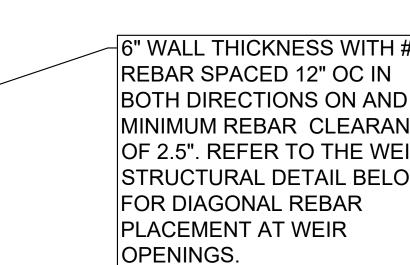
POND 5 FLOW SUMMARY					
	Existing Flow	Undetatined Flow	Detained Flow		
Storm Event	(cfs)	(cfs)	(cfs)		
2-yr	74.2	93	70.50		
10-yr	140.8	163.9	137.20		
25-yr	185.9	211.5	181.00		
100-yr	261.8	291.9	252.40		

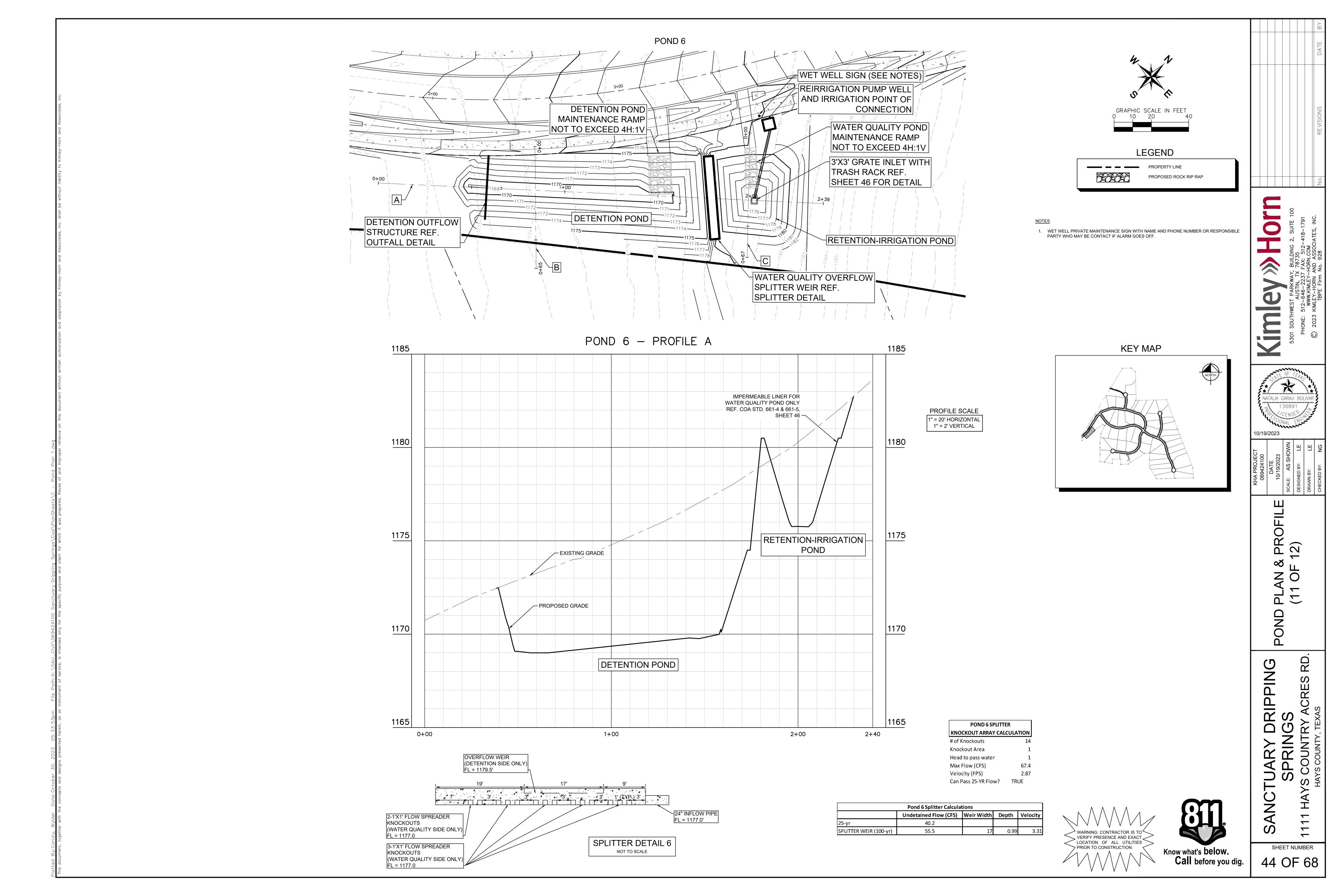


					B
on Environmental Quality					DATE
tions 04-20-2009			Project Name: The Sanctuary - Pond 5		
			Date Prepared: 10/9/2023		
luction for the total project:	Calculations	from RG-348	Pages 3-27 to 3-30		
Page 3-29 Equation 3.3: L_M =	27.2(A _N x P)			SNS
			Ilting from the proposed development = 80% of increased load area for the project		EVISION
		ual precipitatio	n, inches		
equired Load Removal Based on the Entire Proje County = Total project area included in plan * =	Hays	acres			
nt impervious area within the limits of the plan* = ent impervious area within the limits of the plan* =	2.52	acres			
tal post-development impervious cover fraction * = P =	0.25	inches			S O.
L _M total project =	21156	lbs.			
age basins / outfalls areas leaving the plan area =	6				8–1791 ES, INC.
ters (This information should be provided for	each basin	<u>):</u>		с (6 2, 2-418 М ОСІАТЕ
Drainage Basin/Outfall Area No. =	5	•			3735 3735 X: 51 XN.COI 828 928
= Total drainage basin/outfall area = apervious area within drainage basin/outfall area		acres acres			41, 5 1X 78 37 FA 7 - HOF 1 AND 1 AND 1 NO.
pervious area within drainage basin/outfall area = rvious fraction within drainage basin/outfall area =	7.74	acres			ARNW STIN, 6–22. KIMLE HORN- Firr
L _{M THIS} BASIN =		Ibs.			2-64 2-64 WWW.P MLEY- TBP
MP Code for this basin.		_			SUUTHWES HONE: 512- W 2023 KIMI
Proposed BMP = Removal efficiency =		Irrigation percent			
S Load Removed (L _R) for this Drainage Basin	by the sele	cted BMP Typ	<u>e.</u>		
RG-348 Page 3-33 Equation 3.7: L _R =	(BMP efficie	ncy) x P x (A _l :	x 34.6 + A _P x 0.54)		
			a in the BMP catchment area	ATE OF	TEXA
	-		n the BMP catchment area the BMP catchment area		×
L _R =	TSS Load re	emoved from thi	is catchment area by the proposed BMP	NATALIA GARA	U BOLIVAR
A _C = A _I =		acres acres		TO CEN	SED
A _P =	23.21	acres		10/19/2023	
L _R =	9245	lbs		Z	NG LE
nnual Runoff to Treat the drainage basin / ou	tfall area			ROJECT 424100 ATE 9/2023 AS SHOWN	
Desired L _{M THIS BASIN} =		Ibs.			BY ED
		. sui		KH/ 00 11 SCALE:	DESIGNED DRAWN BY CHECKED F
F = me required by the BMP Type for this draina		utfall area.	Calculations from RG-348 Pages 3-34 to 3-36	Ш	
				≓	
= Rainfall Depth = Post Development Runoff Coefficient	0.23	inches		ROF	
On-site Water Quality Volume =	17012	cubic feet			2)
	Calculations	from RG-348	Pages 3-36 to 3-37	∞ ,	-
Off-site area draining to BMP = Off-site Impervious cover draining to BMP =		acres		I L	С Т
Impervious fraction of off-site area = Off-site Runoff Coefficient =	0			PLAN	0
Off-site Water Quality Volume =		cubic feet			L)
= Storage for Sediment = (required water quality volume(s) x 1.20)		cubic feet		Q	
<u>tem</u>		Required in R	G-348 Pages 3-42 to 3-46		
quired Water Quality Volume for retention basin =	20414	cubic feet		<u>d</u>	
ea Calculations:				(י)	RD.
Soil infiltration/permeability rate =		in/hr	Enter determined permeability rate or assumed value of 0.1	Ž	
Irrigation area =	81657 1.87	square feet acres		PING	CRES
					ζΥ Α Texas
				$ \geq \exists$	
				I U A	S C(
					, X A H
				SANCTUAR	1111 НАҮЅ ^{на}
					~
		X	WARNING: CONTRACTOR IS TO	S	111
			VERIFY PRESENCE AND EXACT	SHFFT	NUMBER
			Know what's below. Call before you dig.	43 0	
					1 00



			_		
5 DETENTION Depth	N ELEVATION Area	STORAGE TABL Incr. Vol.	-E Storage	Texas Commission on Environmental Quality	DATE
(ft) 0.00	(sq.ft.) 1	(cu.ft.) 0.00	(cu.ft.) 0.00	TSS Removal Calculations 04-20-2009 Project Name: The Sanctuary - Pond 5	
0.50 1.50	3249 12542	812.61 7,895.62	812.61 8,708.23	Date Prepared: 10/9/2023	
2.50 3.50	14506 15776	13,523.86 15,141.02	22,232.08 37,373.10	1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30	
3.60 4.50	15842 17088	1,580.89	38,953.99 53,772.44	Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$	SN S
4.90	17359	6,889.45	60,661.89	where: $L_{M \text{ TOTAL PROJECT}}$ = Required TSS removal resulting from the proposed development = 80% of increased load A_{N} = Net increase in impervious area for the project	REVISIONS
5.50 6.50	18443 19841	10,740.59 19,142.01	71,402.48 90,544.48	P = Average annual precipitation, inches	
7.50	21287	20,564.02	111,108.51	Site Data: Determine Required Load Removal Based on the Entire Project County = Hays Total project area included in plan * = 104.34 acres	
ER QUALITY	RETENTION EL	LEVATION STOR	AGE TABLE	Predevelopment impervious area within the limits of the plan* = 2.52 acres Total post-development impervious area within the limits of the plan* = 26.09 acres	
Depth (ft)	Area (sq.ft.)	Incr. Vol. (cu.ft.)	Storage (cu.ft.)	Total post-development impervious cover fraction * = 0.25 P = 33 inches	
0.00	1 807	0.00	0.00 202.00	L _{M TOTAL PROJECT} = 21156 Ibs.	
1.50 2.50	2,717 3,650	1,762.00 3,183.50	1,964.00 5,147.50	Number of drainage basins / outfalls areas leaving the plan area = 6	TE 100 791 INC.
3.50	4,632	4,141.00	9,288.50	Number of drainage basins / outlans areas leaving the plan area –	SUITE 1 8–1791 ES, INC
4.50 5.50	5,664 6,746	5,148.00 6,205.00	14,436.50 20,641.50	2. Drainage Basin Parameters (This information should be provided for each basin):	NG 2,
6.50	7,877	7,311.50	27,953.00	Drainage Basin/Outfall Area No. = 5	NUILDIN UUILDIN VX: 51 VX: 51 ASS 0 ASS
	POND 5 FL	.OW SUMMARY		Total drainage basin/outfall area = 30.94 acres Predevelopment impervious area within drainage basin/outfall area = 1.15 acres	AY, B 37 FA M ANE M ANE
Storm Event	Existing Flow	Undetatined Flow (cfs)		Post-development impervious area within drainage basin/outfall area = 7.74 acres Post-development impervious fraction within drainage basin/outfall area = 0.25	ARKW ISTIN, 66-22 KIMLE HORI Firr
2-yr 10-yr	74.2	93 163.9	70.50 137.20	L _{M THIS BASIN} = 5911 Ibs.	WEST P AU 512-64 WWW. TBF
25-yr	185.9	211.5	181.00	3. Indicate the proposed BMP Code for this basin.	
100-yr	261.8	291.9	252.40	Proposed BMP = Retention / Inigation Removal efficiency = 100 percent	301 SOUTI PHONE: © 2023
				4. Calculate Maximum TSS Load Removed (L _R) for this Drainage Basin by the selected BMP Type.	
				RG-348 Page 3-33 Equation 3.7: L _R = (BMP efficiency) x P x (A _I x 34.6 + A _P x 0.54)	
				where: A _C = Total On-Site drainage area in the BMP catchment area A _I = Impervious area proposed in the BMP catchment area	SANE OF TELAS
				A _P = Pervious area remaining in the BMP catchment area	
				L _R = TSS Load removed from this catchment area by the proposed BMP	NATALIA GARAU BOLIVAR
				$A_{C} = 30.94 \text{acres}$ $A_{I} = 7.74 \text{acres}$	SSIONAL ENG
				A _P = 23.21 acres L _R = 9245 Ibs	10/19/2023
					JECT 100 E 023 023 SHOWN SHOWN R LE NG NG
				5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area	
				Desired $L_{M THIS BASIN} = 5911$ Ibs.	KHA PF 0694 0694 10/15 3ALE: A 3ALE: A 3AVN BY: ESIGNED I
				F = 0.64	CH DR SC
				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 = 0.66 inches	
				Post Development Runoff Coefficient = 0.23 On-site Water Quality Volume = 17012 cubic feet	
				Calculations from RG-348 Pages 3-36 to 3-37	L
				Off-site area draining to BMP = 0.00 acres	N N N N N N N N N N N N N N N N N N N
				Off-site Impervious cover draining to BMP = 0.00 acres Impervious fraction of off-site area = 0	A A A
				Off-site Runoff Coefficient = 0.00 Off-site Water Quality Volume = 0 cubic feet	PL/
				Storage for Sediment = 3402	
				Total Capture Volume (required water quality volume(s) x 1.20) = 20414 cubic feet	
				7. Retention/Irrigation System Designed as Required in RG-348 Pages 3-42 to 3-46 Required Water Quality Volume for retention basin = 20414 cubic feet	4
				Irrigation Area Calculations:	
				Soil infiltration/permeability rate = 0.1 in/hr Enter determined permeability rate or assumed value of 0.1	PPING CRES RD
				Irrigation area = 81657 square feet 1.87 acres	PPIN CRES
			SS WITH #4		
		R SPACED 1	IS ON AND A		
	MINIM	JM REBAR	CLEARANCE		
			O THE WEIR		HA H
	FOR D	IAGONAL R	EBAR		1 A N
	PLACE OPENI	MENT AT V NGS.	VEIR	WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT	1 S 1
				PRIOR TO CONSTRUCTION.	SHEET NUMBER
				Call before you dig.	43 OF 68
				V V V V	





		Incr. Vol. Storage	POND 6 WATER QUALITY RETENElevationDepth(ft)(ft)	TABLE Storage	TION ELEVATION STORAGE TA Area Incr. Vol.	POND 6 DETEI Elevation Depth
	Texas Commission on Environmental Quality	(cu.r.) (cu.r.) 0.00 0.00 138.50 138.50	(ft) (ft) (s 1175.5 0.00 1176 0.50	(cu.ft.) 0.00	(sq.ft.) (cu.ft.) 19 0.00	(ft) (ft) 1169 0.00
Project I Date Prej	TSS Removal Calculations 04-20-2009	458.50 138.50 710.00 1,307.00	1176 0.30 1177 1.50 1178 2.50	402.82 1,556.53	787 402.82 1,521 1,153.71	1170 1.00 1171 2.00
Calculations from RG-348	1. The Required Load Reduction for the total project:	1,046.00 2,353.00 617.50 2,970.50	1179 3.50	1,710.54 3,445.88 3,913.19	1,560 154.01 2,297 1,735.34 2,270 407.20	1171.1 2.10 1172 3.00 1170.0 2.20
27.2(A _N x P)	Page 3-29 Equation 3.3: $L_M = 2$	733.25 3,703.75 914.75 4,618.50	1180 4.50 1180.5 5.00	5,150.95	2,376 467.30 2,575 1,237.76	1172.2 3.20 1172.7 3.70
Required TSS removal resulting from the p				6,000.84 6,627.02 9,450.43	3,091 849.89 3,171 626.19 3,888 2,823.41	1173 4.00 1173.2 4.20 1174 5.00
Net increase in impervious area for the pro- Average annual precipitation, inches		low	POND 6 FLOW SUMMARY Existing Flow Undetatined Flow Detail nt (cfs) (cfs) (cfs)	11,394.55	3,889 1,944.13	1174.5 5.50
Hays 🎴	Site Data: Determine Required Load Removal Based on the Entire Project County = Total project area included in plan * =		13.7 17.6 25.5 31.2	2- 10		
2.52 acres 26.09 acres	Predevelopment impervious area within the limits of the plan * = Total post-development impervious area within the limits of the plan* =		33.4 40.2 33.4 46.7 55.5 4	25 10		
	Total post-development impervious cover fraction * = P =					
21156 Ibs.	L _{M TOTAL PROJECT} =					
6	Number of drainage basins / outfalls areas leaving the plan area =					
each basin):	2. Drainage Basin Parameters (This information should be provided for e		PON			
6	Drainage Basin/Outfall Area No. =	74.50'	EL =	6.25'		
0.20 acres	= Total drainage basin/outfall area = Predevelopment impervious area within drainage basin/outfall area			₹ . R = 1173.2'		
0.25	Post-development impervious area within drainage basin/outfall area = Post-development impervious fraction within drainage basin/outfall area =			\triangleleft	25-YEAR	
866 Ibs.	$L_{M \text{ THIS BASIN}} =$ 3. Indicate the proposed BMP Code for this basin.					
Retention / Inigation 100 percent						
-	<u>4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin k</u>		EL = 1172.50'			
(BMP efficiency) x P x (A ₁ x 34.6 + A _P x 0	RG-348 Page 3-33 Equation 3.7: L _R = (BOTTOM			
Total On-Site drainage area in the BMP ca		└─6" WALL THICKNESS WITH #4 REBAR SPACED 12" OC IN	169.00'			
Impervious area proposed in the BMP catch Pervious area remaining in the BMP catch TSS Load removed from this catchment ar	$A_{P} = F$	BOTH DIRECTIONS ON AND A MINIMUM REBAR CLEARANCE				
	$L_R = A_C =$	OF 2.5". REFER TO THE WEIR				
	$\Delta_{i} =$	STRUCTURAL DETAIL BELOW				
1.17 acres 3.50 acres	$A_{P} =$					
3.50 acres	$A_P = L_R =$	FOR DIAGONAL REBAR PLACEMENT AT WEIR				
3.50 acres 1392 Ibs	L _R =	FOR DIAGONAL REBAR				
3.50 acres 1392 Ibs tfall area		FOR DIAGONAL REBAR PLACEMENT AT WEIR				
3.50 acres 1392 Ibs tfall area 866 Ibs.	L _R =	FOR DIAGONAL REBAR PLACEMENT AT WEIR OPENINGS.				
3.50 acres 1392 Ibs tfall area 866 Ibs. 0.62	5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfa Desired L _{M THIS BASIN} =	FOR DIAGONAL REBAR PLACEMENT AT WEIR OPENINGS.	POND 6 - PROFIL	<u>1180</u> 1	6 – PROFILE B	POND 6
3.50 acres 1392 Ibs tfall area 866 Ibs. 0.62 ge basin / outfall area. Calculations fr 0.62 inches	$L_{R} = \frac{1}{2}$ 5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall Desired L _{M THIS BASIN} = F = 6. Calculate Capture Volume required by the BMP Type for this drainage Basin Rainfall Depth = Calculate Capture Volume required by the BMP Type for the strainage Basin Part Part Part Part Part Part Part Part	C 1185 PROFILE SCALE	POND 6 – PROFIL		6 – PROFILE B	POND 6
3.50 acres 1392 Ibs tfall area 866 Ibs. 0.62 Calculations fr 0.62 inches 0.23	$L_{R} = \frac{1}{2}$ 5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall Desired L _{M THIS BASIN} = $F = \frac{1}{2}$ 6. Calculate Capture Volume required by the BMP Type for this drainage	FOR DIAGONAL REBAR PLACEMENT AT WEIR OPENINGS.	POND 6 – PROFIL		6 – PROFILE B	POND 6
3.50 acres 1392 Ibs tfall area 866 Ibs. 0.62 Calculations fr 0.62 inches 0.23	L _R = 5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfa Desired L _{M THIS BASIN} = F = 6. Calculate Capture Volume required by the BMP Type for this drainage Rainfall Depth = Post Development Runoff Coefficient = On-site Water Quality Volume =	C 1185 PROFILE SCALE [1" = 20' HORIZONTAL	POND 6 – PROFIL		5 – PROFILE B	POND 6
3.50 acres 1392 Ibs tfall area 866 Ibs. 0.62 Calculations from RG-348 Pages 3-36 to 0.00 acres 0.00 acres 0.00 acres	L _R = 5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfa Desired L _{M THIS BASIN} = F = 6. Calculate Capture Volume required by the BMP Type for this drainage Rainfall Depth = Post Development Runoff Coefficient = On-site Water Quality Volume = Off-site area draining to BMP = Off-site Impervious cover draining to BMP =	C 1185 PROFILE SCALE [1" = 20' HORIZONTAL			S – PROFILE B	POND 6
3.50 acres 1392 Ibs tfall area 866 Ibs. 0.62 Calculations fr 0.62 inches 0.23 2414 cubic feet Calculations from RG-348 Pages 3-36 to 0.00 acres 0.00 acres 0 0.00 acres 0 0.00 C	L _R = <u>5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfa</u> Desired L _{M THIS BASIN} = F = <u>6. Calculate Capture Volume required by the BMP Type for this drainage</u> Rainfall Depth = Post Development Runoff Coefficient = On-site Water Quality Volume = (Content of the	C 1185 PROFILE SCALE 1" = 20' HORIZONTAL 1" = 2' VERTICAL	POND 6 – PROFIL			
3.50 acres 1392 Ibs tfall area 866 Ibs. 0.62 Calculations fr 0.62 inches 0.23 2414 cubic feet Calculations from RG-348 Pages 3-36 to 0.00 acres 0.00 acres 0.00 acres 0.00 acres 0.00 acres 0.00 acres 0.00 acres 1392 Calculations from RG-348 Pages 3-36 to 1483	L _R = 5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfa Desired L _{M THIS BASIN} = F = 6. Calculate Capture Volume required by the BMP Type for this drainage Rainfall Depth = Post Development Runoff Coefficient = On-site Water Quality Volume = Off-site area draining to BMP = Off-site Impervious cover draining to BMP = Impervious fraction of off-site area = Off-site Runoff Coefficient = Off-site Water Quality Volume =	C 1185 PROFILE SCALE [1" = 20' HORIZONTAL			5 – PROFILE B	POND 6
3.50 acres 1392 Ibs tfall area 866 Ibs. 0.62 Calculations from RG-348 Pages 3-36 to 0.00 acres 0.00 acres 0	L _R = 5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfill Desired L _{M THIS BASIN} = F = 6. Calculate Capture Volume required by the BMP Type for this drainage Rainfall Depth = Post Development Runoff Coefficient = On-site Water Quality Volume = Off-site area draining to BMP = Impervious fraction of off-site area area Off-site Runoff Coefficient = Off-site Runoff Coefficient = Off-site Runoff Coefficient = Off-site Water Quality Volume = Storage for Sediment = Total Capture Volume (required water quality volume(s) x 1.20) =	C 1185 PROFILE SCALE 1" = 20' HORIZONTAL 1" = 2' VERTICAL				
3.50 acres 1392 Ibs tfall area 866 Ibs. 0.62 Calculations from RG-348 Pages 3-36 to 0.00 acres 0.00 acres 0	L _R = 5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfill Desired L _{M THIS BASIN} = F = 6. Calculate Capture Volume required by the BMP Type for this drainage Rainfall Depth = Post Development Runoff Coefficient = On-site Water Quality Volume = Off-site area draining to BMP = Impervious cover draining to BMP = Off-site Impervious cover draining to BMP = Off-site Runoff Coefficient = Off-site Runoff Coefficient = Off-site Runoff Coefficient = Coefficient = Off-site Runoff Coefficient = Coefficient =	C 1185 PROFILE SCALE 1" = 20' HORIZONTAL 1" = 2' VERTICAL	EXISTING GR			
3.50 acres 1392 Ibs tfall area 866 Ibs. 0.62 Calculations from RG-348 Pages 3-36 to 0.00 acres 0.00 acres 0	L _R = 5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outform Desired L _{M THIS BASIN} = F = 6. Calculate Capture Volume required by the BMP Type for this drainage Rainfal Depth = Post Development Runoff Coefficient = On-site Water Quality Volume = Off-site area draining to BMP = Off-site area draining to BMP = Off-site mperious cover draining to BMP = Off-site mperious cover draining to BMP = Off-site Runoff Coefficient = Off-site Runoff Coefficient = Off-site Runoff Coefficient = Off-site Runoff Coefficient = Coefficient Runoff Coefficient = Off-site Runoff Coefficient = Off-site Runoff Coefficient = Coefficient Runoff Coefficient = Co	C 1185 PROFILE SCALE 1" = 20' HORIZONTAL 1" = 2' VERTICAL	EXISTING GR			
3.50 acres 1392 Ibs tfall area 866 Ibs. 0.62 Calculations fr 0.62 inches 0.23 cubic feet Calculations from RG-348 Pages 3-36 to 0.00 acres 0.00 acres 0.00 acres 0.00 acres 0.00 acres 0.00 cubic feet 483 2896 cubic feet Designed as Required in RG-348 2896 cubic feet 0.1 in/hr square feet	L _R = 5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfit Desired L _{M THIS BASIN} = F = 6. Calculate Capture Volume required by the BMP Type for this drainage Rainfall Depth = Post Development Runoff Coefficient = On-site Water Quality Volume = Off-site area draining to BMP = Off-site Impervious cover draining to BMP = Doff-site Impervious cover draining to BMP = Off-site Runoff Coefficient = Off-site Runoff Coefficient = Off-site Runoff Coefficient = Diff-site Runoff Coefficient = Coff-site Runof	C 1185 PROFILE SCALE 1" = 20' HORIZONTAL 1" = 2' VERTICAL	EXISTING GR			
 3.50 acres 1392 lbs acres acres acres bs acres acres<!--</td--><td>L_R = 5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfill Desired L_{M THIS BASIN} = F = 6. Calculate Capture Volume required by the BMP Type for this drainage Rainfall Depth = Post Development Runoff Coefficient = On-site Water Quality Volume = Off-site area draining to BMP = Impervious fraction of off-site area = Off-site Runoff Coefficient = Off-site Runoff Coefficient = Off-site Runoff Coefficient = Off-site Water Quality Volume = Total Capture Volume (required water quality volume(s) x 1.20) = 7. Retention/Irrigation System Required Water Quality Volume for retention basin = Irrigation Area Calculations: Soil infiltration/permeability rate =</td><td>C 1185 PROFILE SCALE 1" = 20' HORIZONTAL 1" = 2' VERTICAL</td><td>EXISTING GR</td><td><u>1180</u> <u>1</u> <u>1175</u> <u>1</u></td><td></td><td></td>	L _R = 5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfill Desired L _{M THIS BASIN} = F = 6. Calculate Capture Volume required by the BMP Type for this drainage Rainfall Depth = Post Development Runoff Coefficient = On-site Water Quality Volume = Off-site area draining to BMP = Impervious fraction of off-site area = Off-site Runoff Coefficient = Off-site Runoff Coefficient = Off-site Runoff Coefficient = Off-site Water Quality Volume = Total Capture Volume (required water quality volume(s) x 1.20) = 7. Retention/Irrigation System Required Water Quality Volume for retention basin = Irrigation Area Calculations: Soil infiltration/permeability rate =	C 1185 PROFILE SCALE 1" = 20' HORIZONTAL 1" = 2' VERTICAL	EXISTING GR	<u>1180</u> <u>1</u> <u>1175</u> <u>1</u>		
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Project Name: The Sanctuary - Pond 6 Date Prepared: 10/9/2023

Pages 3-27 to 3-30

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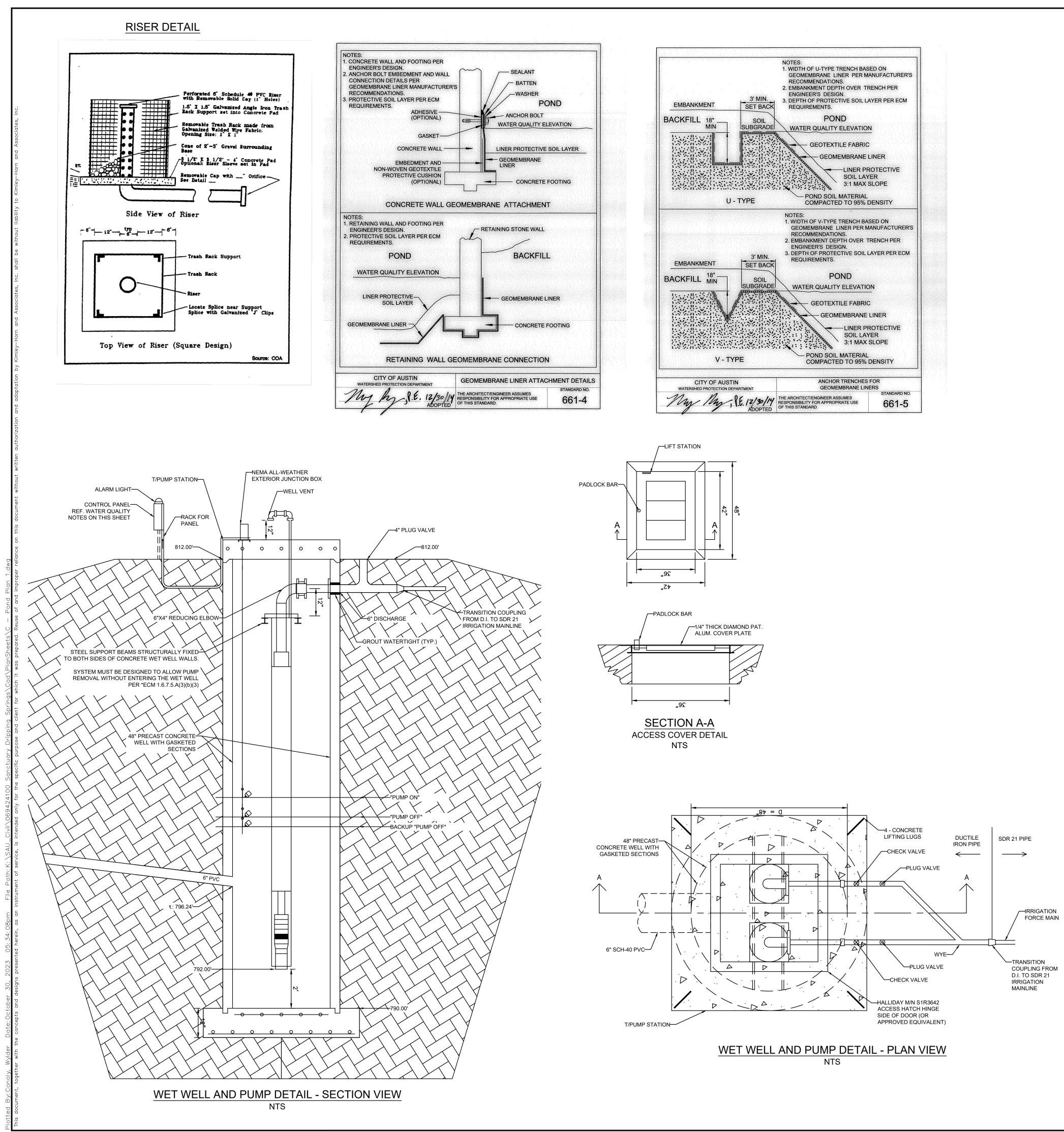
Pages 3-42 to 3-46

determined permeability rate or assumed value of 0.1

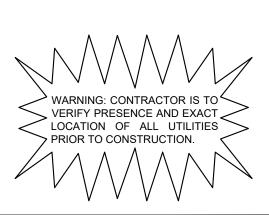
WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

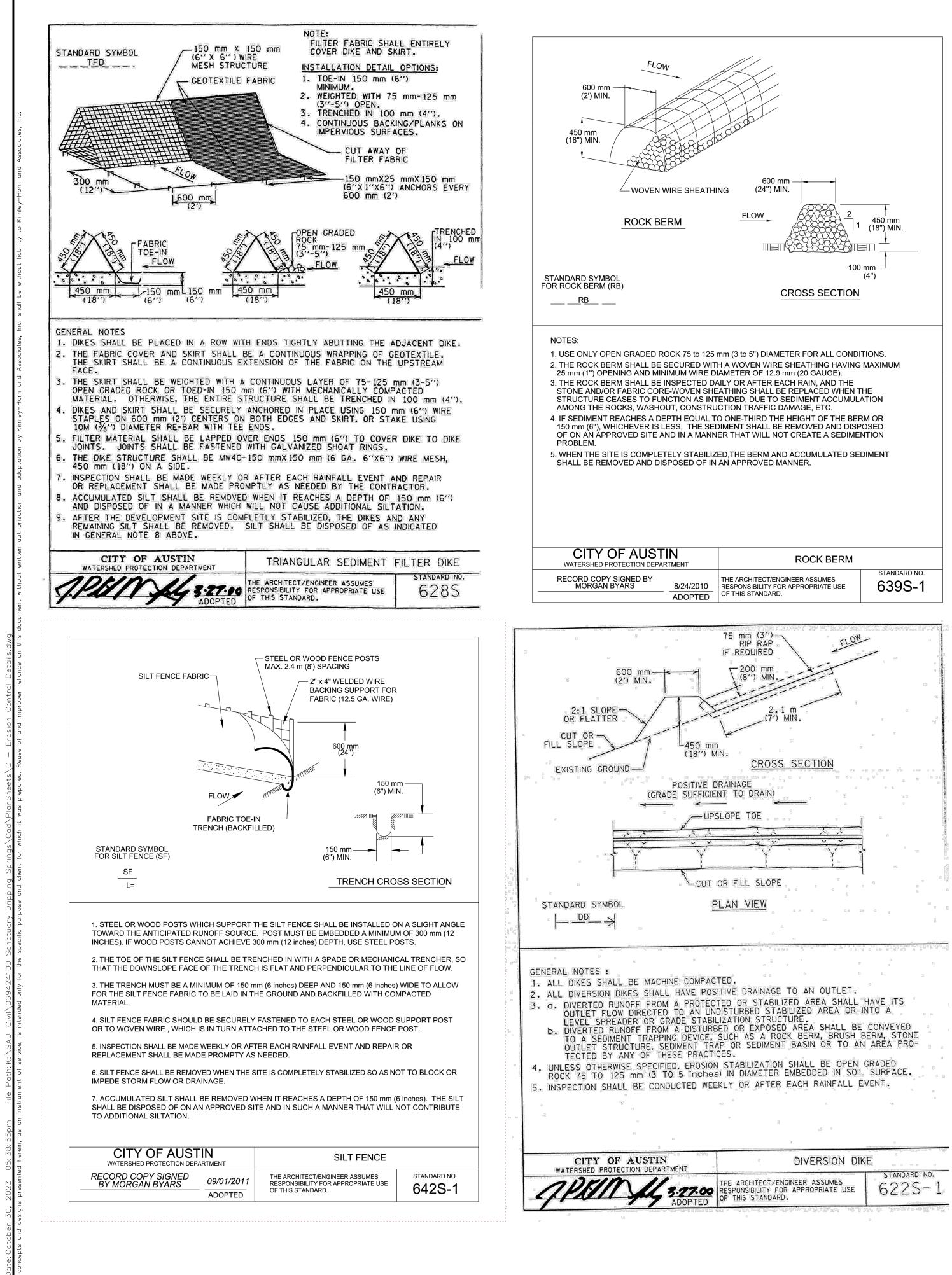
Know what's below. Call before you dig.

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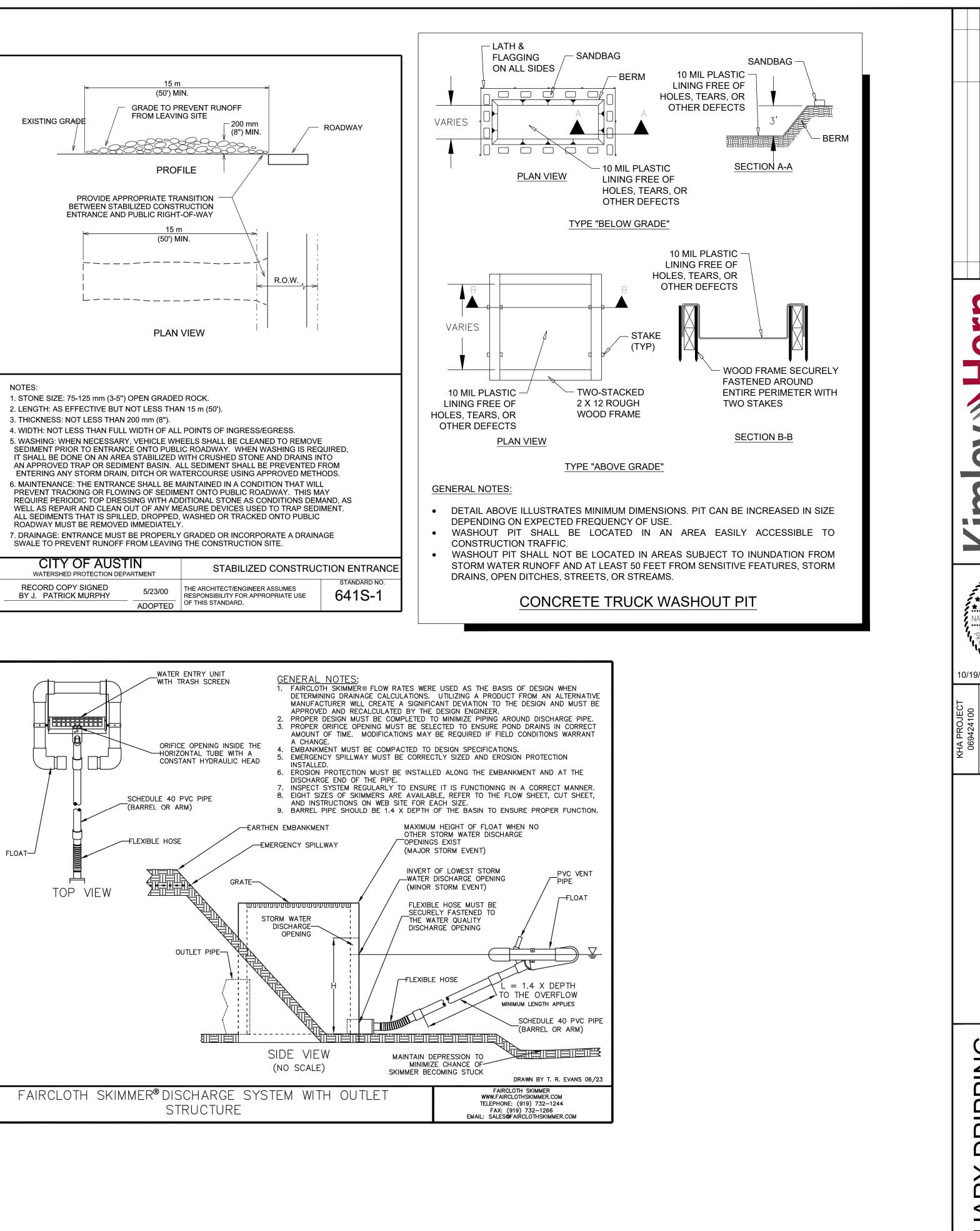


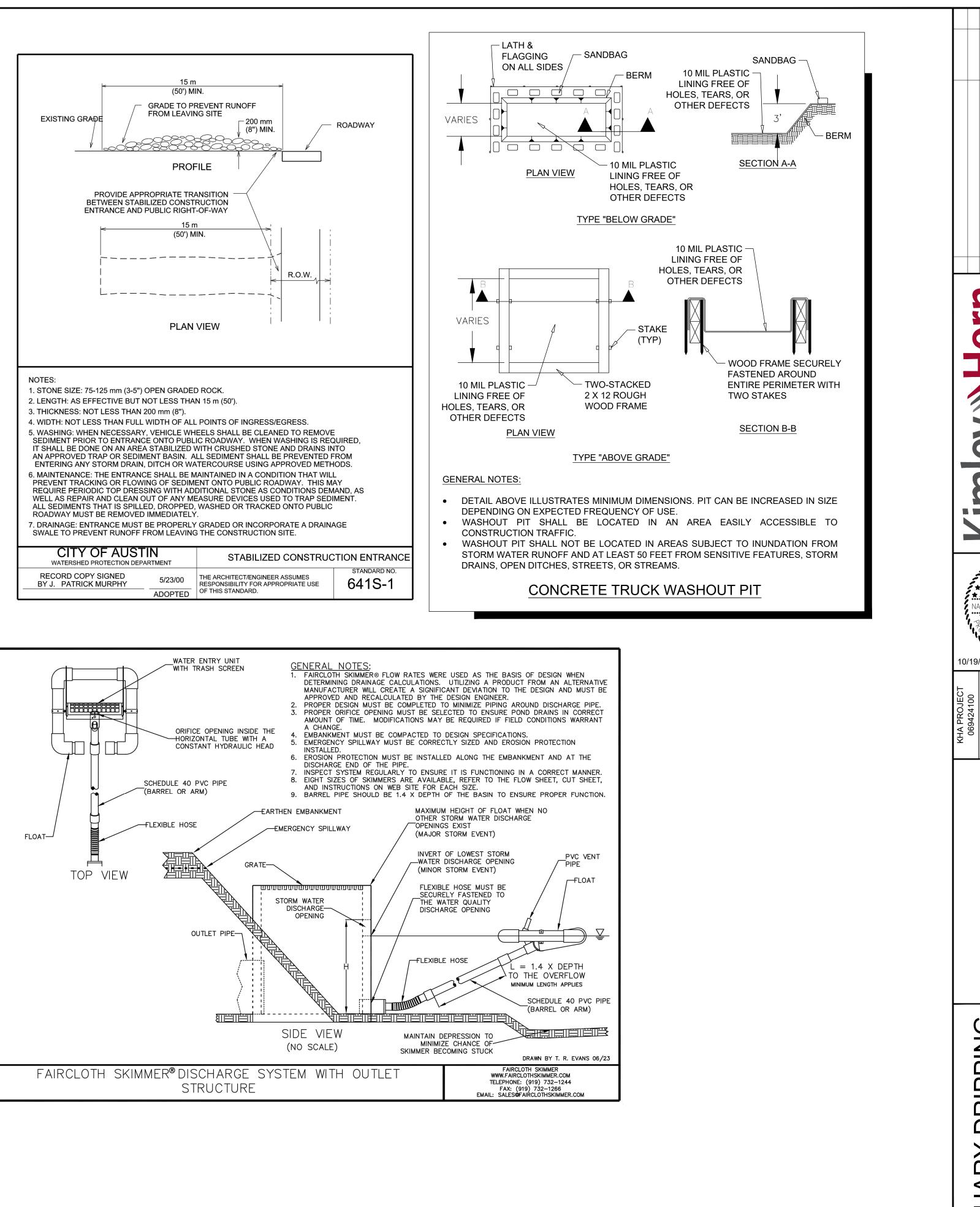
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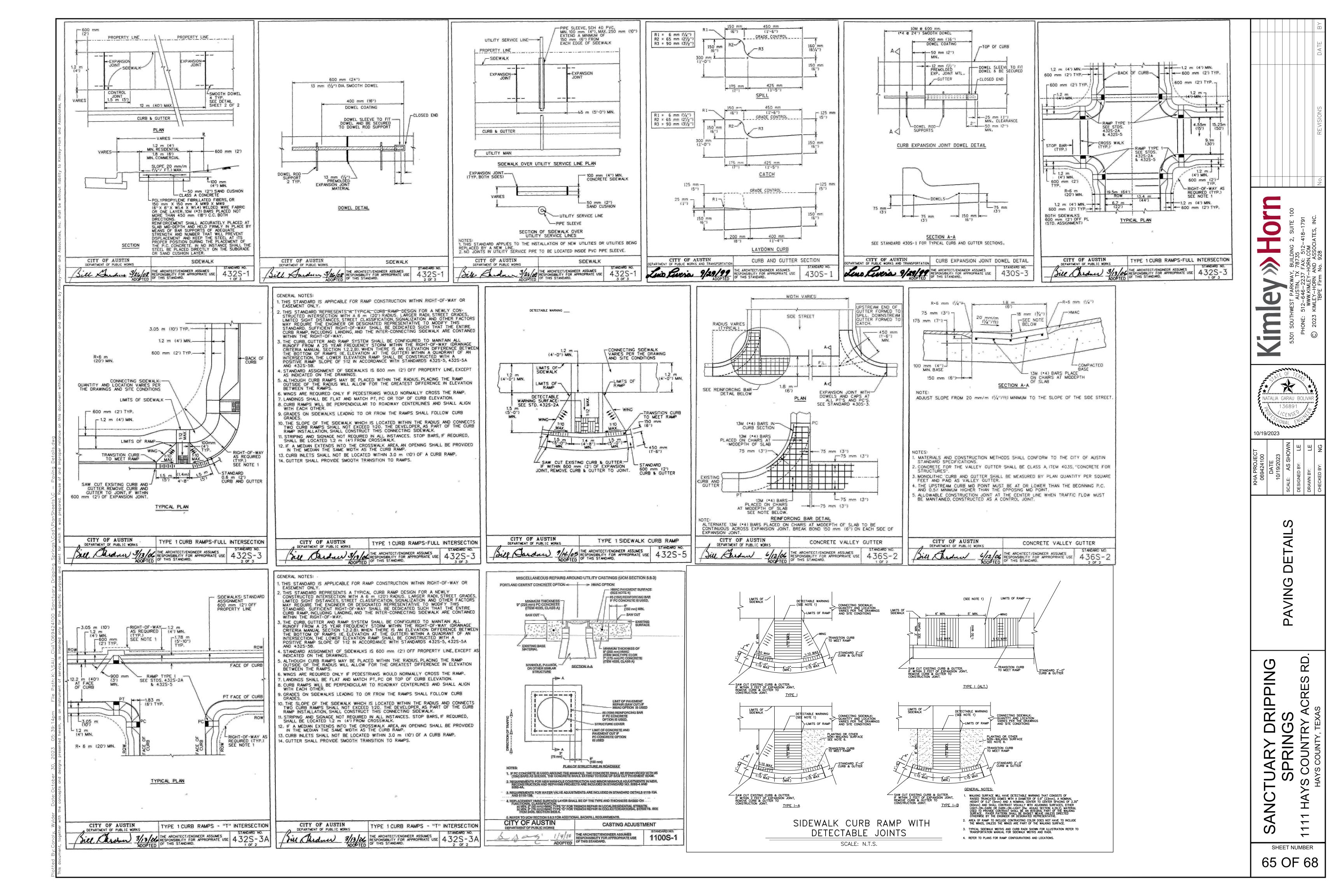


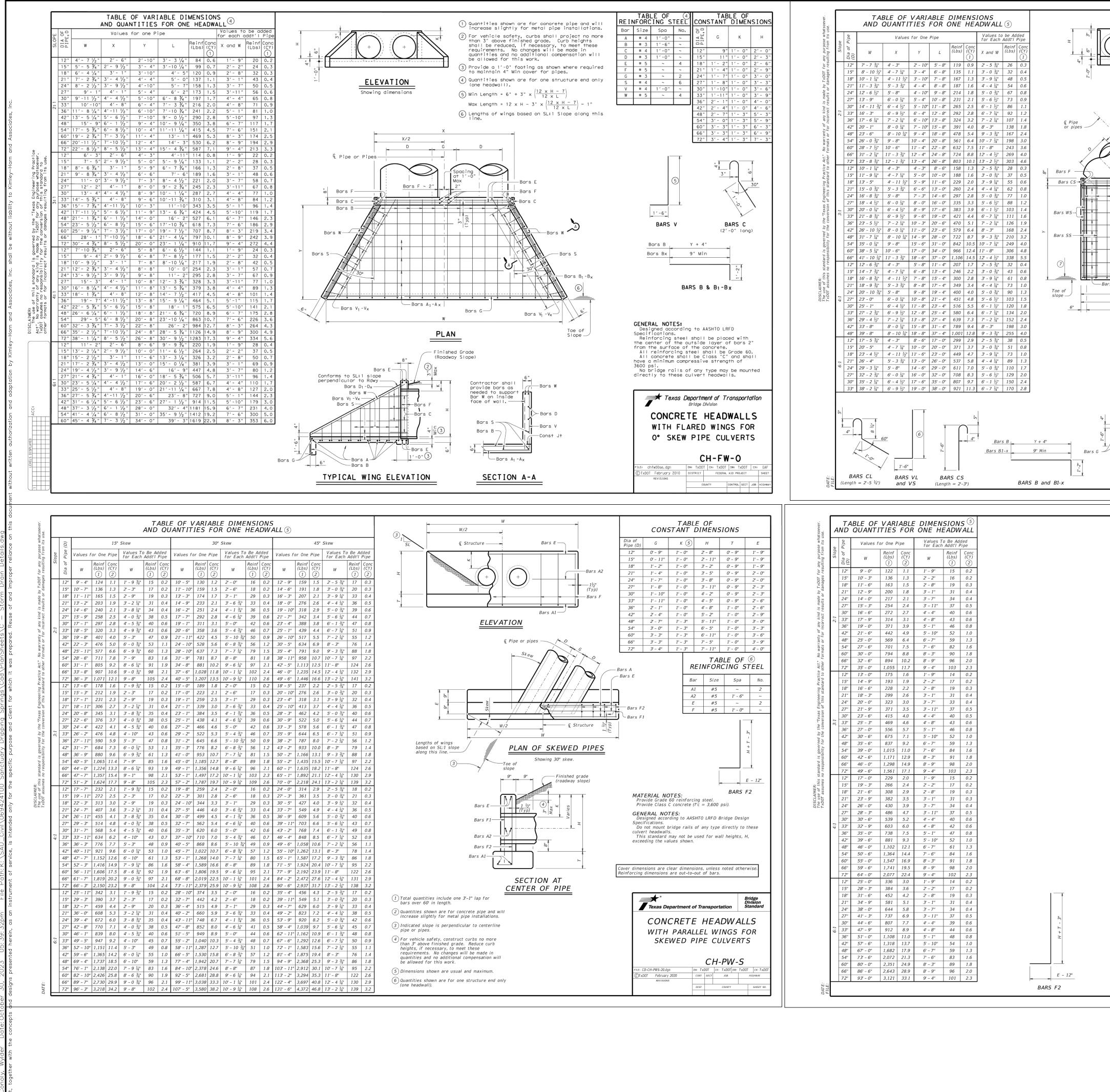


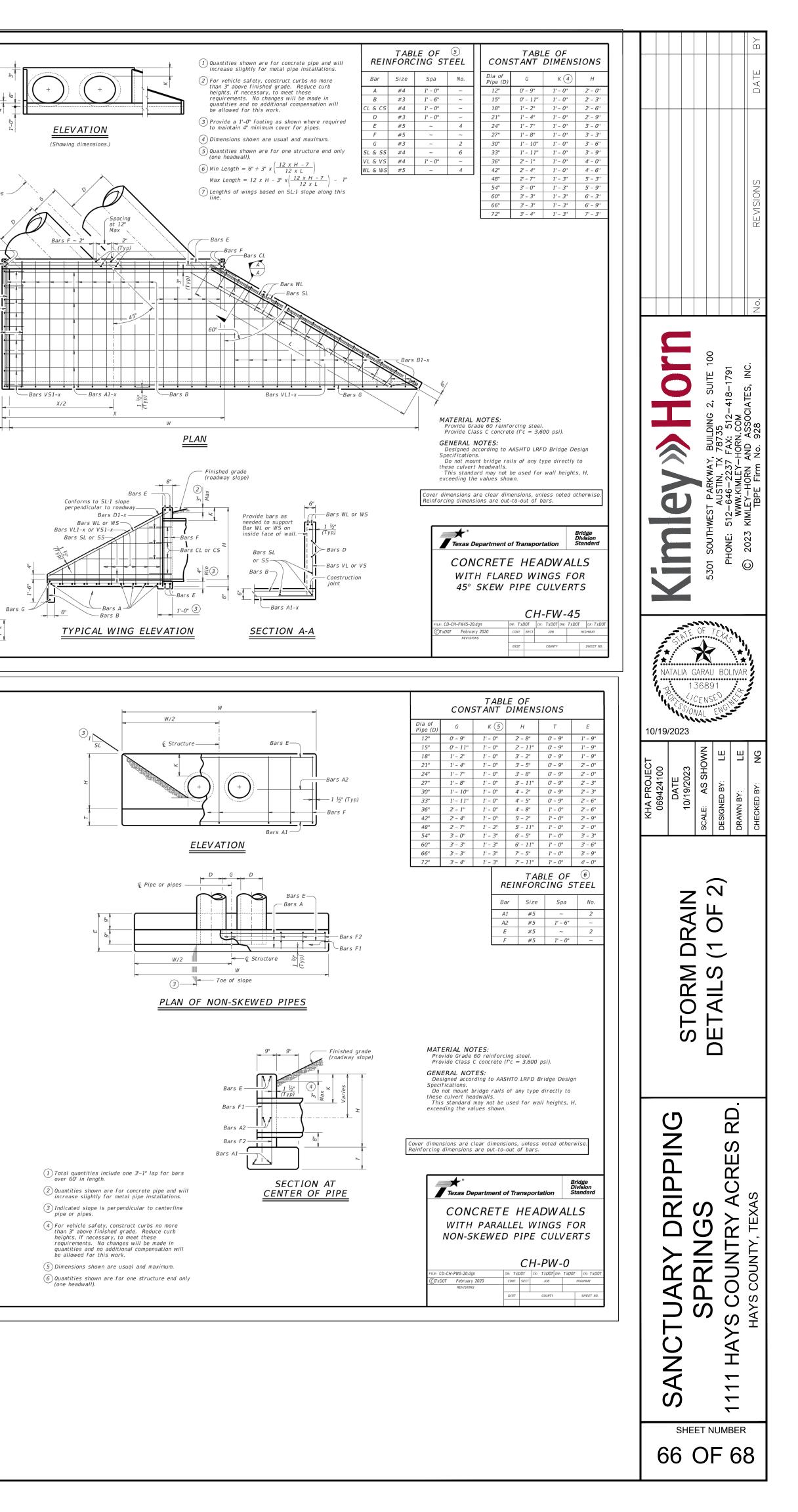
Know what's **below**. Call before you dig.

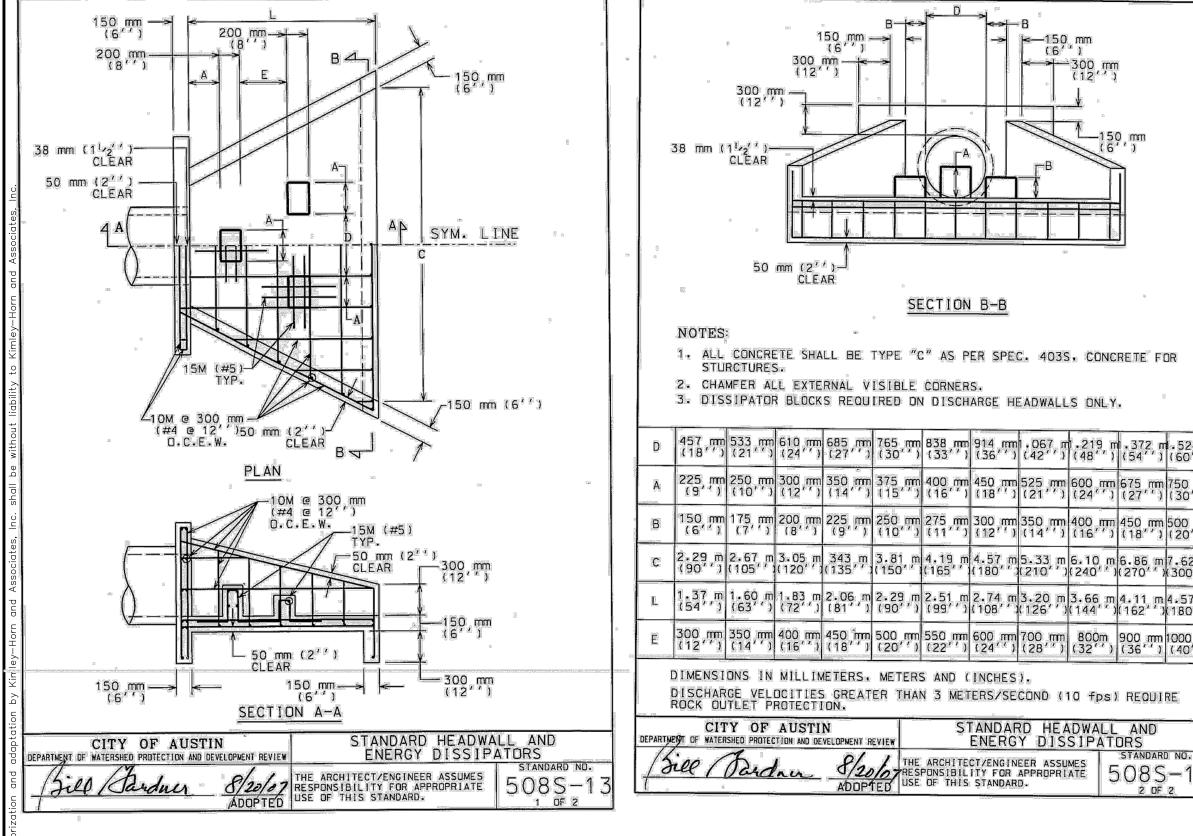
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64 OF 68











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Kimley»Horn Attachment N

Inspection, Maintenance, Repair and Retrofit Plan

The inspection and maintenance plan outlines the procedures necessary to maintain the performance of the Permanent Best Management Practices for this project. It should be noted that the plan provides guidelines that may have to be adjusted dependent on site specific and weather related conditions.

It is the responsibility of the owner to provide the inspections and maintenance as outlined in the plan for the duration of the project. The owner will maintain this responsibility until it is assumed or transferred to another entity in writing. If the property is leased or sold, the responsibility for the maintenance will be required to be transferred through the lease agreement, binding covenants, closing documents, or other binding legal instrument.

Disposal of accumulated silt shall be accomplished following Texas Commission on Environmental Quality guidelines and specifications.

Maintenance records shall be kept on the installation, maintenance, or removal of items necessary for the proper operation of the facilities. All inspections shall be documented.

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

Responsible Party:	Sanctuary Dripping Springs, LLC			
Mailing Address:	1416 Green Terrace			
City, State:	Round Rock, Texas		Zip:_	78664
Telephone:	N/A	Fax:	N/A	

I, the owner, have read and understand the requirements of the attached Inspection and Maintenance Plan for the proposed Permanent Best Management Practices for my project. I acknowledge that I will maintain responsibility for the implementation and execution of the plan until the responsibility is transferred to or assumed by another party in writing through a binding legal instrument.

Signature of Responsible Party	Z	he Date_	10.13.23

This Maintenance Plan is based on TCEQ Maintenance Guidelines.

By:	Turn Eighnich	Date <u>10/03/2023</u>	_
	Lexie England, P.E.		

Kimley **Horn** Water Quality Ponds

Routine Maintenance

<u>Mowing</u>: The side-slopes, embankment, and emergency spillway of the basin should be mowed at least twice a year to prevent woody growth and to control weeds.

<u>Inspections.</u> Water Quality Ponds should be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. When possible, inspections should be conducted during wet weather to determine if the basin is functioning properly. There are many functions and characteristics of these BMPs that should be inspected. The embankment should be checked for subsidence, erosion, leakage, cracking, and tree growth. The condition of the emergency spillway should be checked. The inlet, barrel, and outlet should be inspected for clogging. Stability of the side slopes should be checked. Modifications to the basin structure and contributing watershed should be evaluated. During semi-annual inspections replace any dead or displaced vegetation. Replanting of various species of wetland vegetation may be required at first, until a viable mix of species is established. Cracks, voids and undermining should be patched/filled to prevent additional structural damage. Trees and root systems should be removed to prevent growth in cracks and joints that can cause structural damage. The inspections should be carried out with As-built pond plans in hand.

<u>Debris and Litter Removal</u>: As part of periodic mowing operations and inspections, debris and litter should be removed from the surface of the basin. Attention should be paid to floatable debris, and the outlet should be checked for possible clogging.

<u>Sediment Removal</u>: Inspection of the forebay should be completed every three months for the first two years after construction completion, and during the three-month inspection cycle, if more than 15% of the forebay volume is lost, the sediment build-up should be removed. After the two-year period, the sediment forebay should be inspected every three years, and the sediment should be cleaned out if more than one-third of the forebay volume is lost. Every six years, the sediment build-up in the mail pool should be inspected and sediment should be removed if twenty percent of the main pool volume is lost.

Erosion Control: The basin side slopes, emergency spillway, and embankment all may periodically suffer from slumping and erosion. Corrective measures such as re-grading and re-vegetation may be necessary.

<u>Nuisance Control</u>: Most public agencies surveyed indicate that control of insects, weeds, odors, and algae may be needed in some ponds. Nuisance control is probably the most frequent maintenance item demanded by local residents. Twice a year, the facility should be evaluated in terms of nuisance control (insects, weeds, odors, algae, etc.). Biological control of algae and mosquitoes using fish such as fathead minnows is preferable to chemical applications.

Non-Routine Maintenance

<u>Structural Repairs and Replacement:</u> The structural integrity of the embankment, outlet structure and retaining walls should be inspected during the required routine inspections. Leakage or seepage of water through the embankment must be avoided and any structural damage should be repaired immediately.

Harvesting: If vegetation is present on the fringes or in the pond, it can be periodically harvested and the clippings removed to provide export of nutrients and to prevent the basin from filling with decaying organic matter.

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

Responsible Party:	Sanctuary Dripping Springs, LLC	
Mailing Address:	1416 Green Terrace	
	Round Rock, Texas	Zip: <u>78664</u>
City, State:	N/A	Fax: <u>N/A</u>

I, the owner, have read and understand the requirements of the attached Inspection and Maintenance Plan for the proposed Permanent Best Management Practices for my project. I acknowledge that I will maintain responsibility for the implementation and execution of the plan until the responsibility is transferred to or assumed by another party in writing through a binding legal instrument.

Date 10. 13. 33 Signature of Responsible Party

ATTACHMENT P: Measures for Minimizing Surface Stream Contamination

There are no perennial surface streams on the site. The intermittent stream and buffer on the north end of the site are not impacted by the proposed development. Drainage contributing to the intermittent stream is treated for water quality and detained to match existing flow rates by the proposed ponds.

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: Lexie England

Date: 10/05/2023

Signature of Customer/Agent:

Line Carpord

Regulated Entity Name: Sanctuary Dripping Springs

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: <u>Onion Creek</u>

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

ATTACHMENT A: Spill Response Actions

The following practices will be followed for spill prevention and cleanup:

- Manufacturers' recommended methods for spill cleanup will be maintained on-site in the material data sheets (MSDS) and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include but not be limited to brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Contact the MS4 Operator, TCEQ (800-832-8224), and the National Response Center (800-424-8802) to inform of any spill of toxic or hazardous material regardless of the size.

The spill prevention plan will be adjusted to include measures to prevent this type of spill from recurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.

Reportable Quantities Link: <u>https://www.tceq.texas.gov/response/spills/spill_rq.html</u>

ATTACHMENT B: Potential Sources of Contamination

No industrial associated activity discharges are expected for this proposed commercial development site. Surface water quality can be affected by disturbance during construction and by development after construction. Soil disturbance from clearing and grubbing and cut / fill operations can lead to discharge of sediment unless adequate temporary erosion control measures are in place. For this project, the use of silt fence, construction entrances, and rock berms will prevent sediment from leaving the site. Siltation collected by the control measures will be cleaned from fences, berms, etc. on a routine schedule as outlined in the SWPPP and contract specifications.

During construction, surface water quality may also be affected by a spill of hydrocarbons or other hazardous substances used in construction. The most likely instances of a spill of hydrocarbons or hazardous substances are:

- a) Refueling construction equipment.
- b) Oil and grease from the asphalt pavement and vehicle traffic.
- c) Performing operator-level maintenance, including adding petroleum, oils, or lubricants.
- d) Normal silt build-up.
- e) Unscheduled or emergency repairs, such as hydraulic fluid leaks.
- f) Trash with becomes loose from subdivision residents.
- g) Fertilizers used in the landscaping around the apartment buildings.

Every effort will be taken to be cautious and prevent spills. In the event of a fuel or hazardous substance spill as defined by the Reportable Quantities Table 1 (page 3) of the TCEQ's Small-Business Handbook for Spill Response (RG-285, June 1997), the contractor is required to clean up the spill and notify the TCEQ as required in RG-285. During business hours report spills to the TCEQ's Austin Regional Office at (512) 339-2929, after business hours call 1-800-832-8224, the Environmental Response Hotline or (512) 463-7727, the TCEQ Spill Reporting Hotline, which is also answered 24 hours a day.

After construction is complete, impervious cover for the tract of land is the major reason for degradation of water quality. Impervious cover includes the building foundation, street pavement and concrete sidewalks. Oil and fuel discharge from vehicles is anticipated. The proposed permanent BMPs on this project will help mitigate these occurrences.

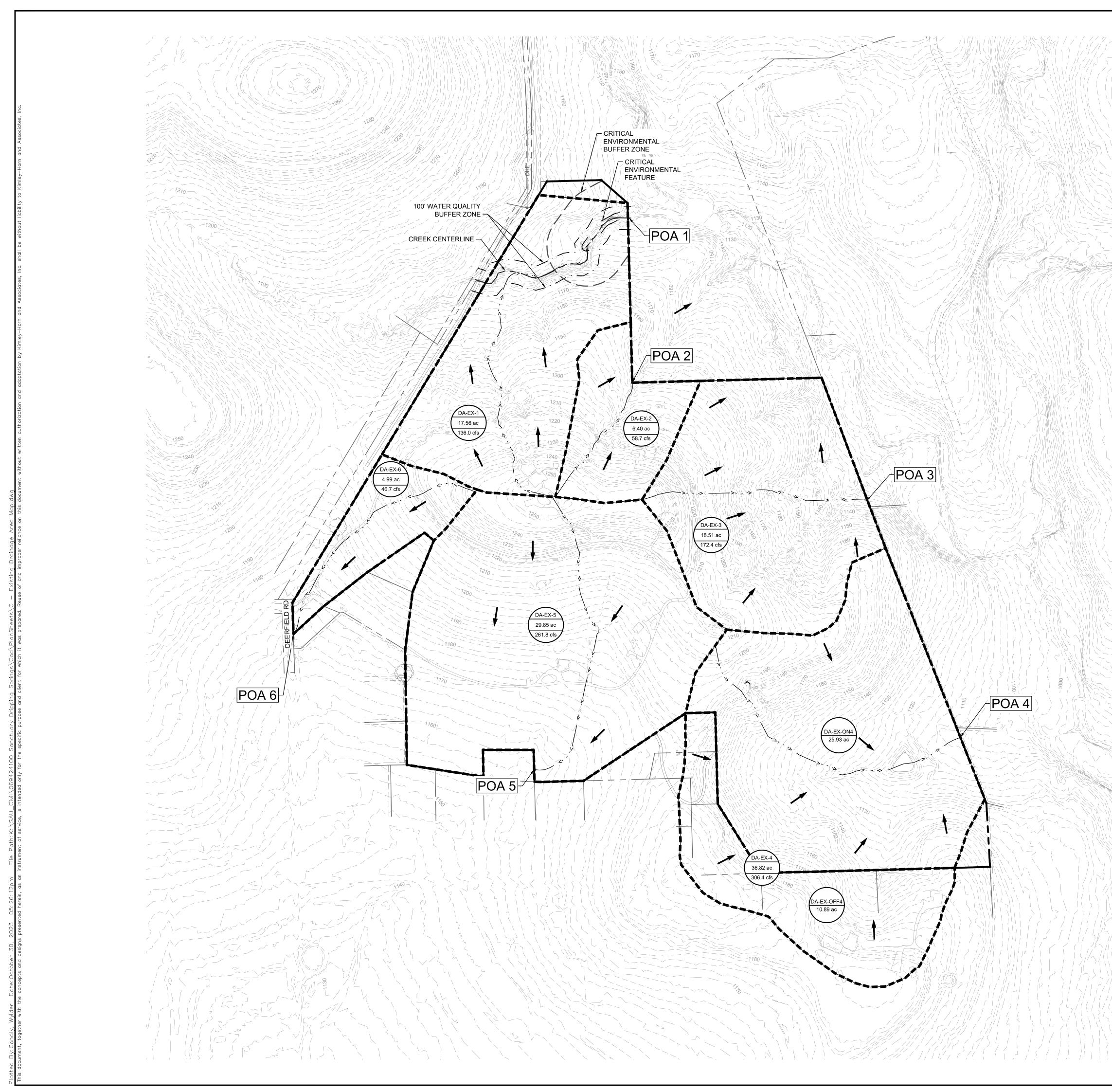
ATTACHMENT C: Sequence of Major Activities

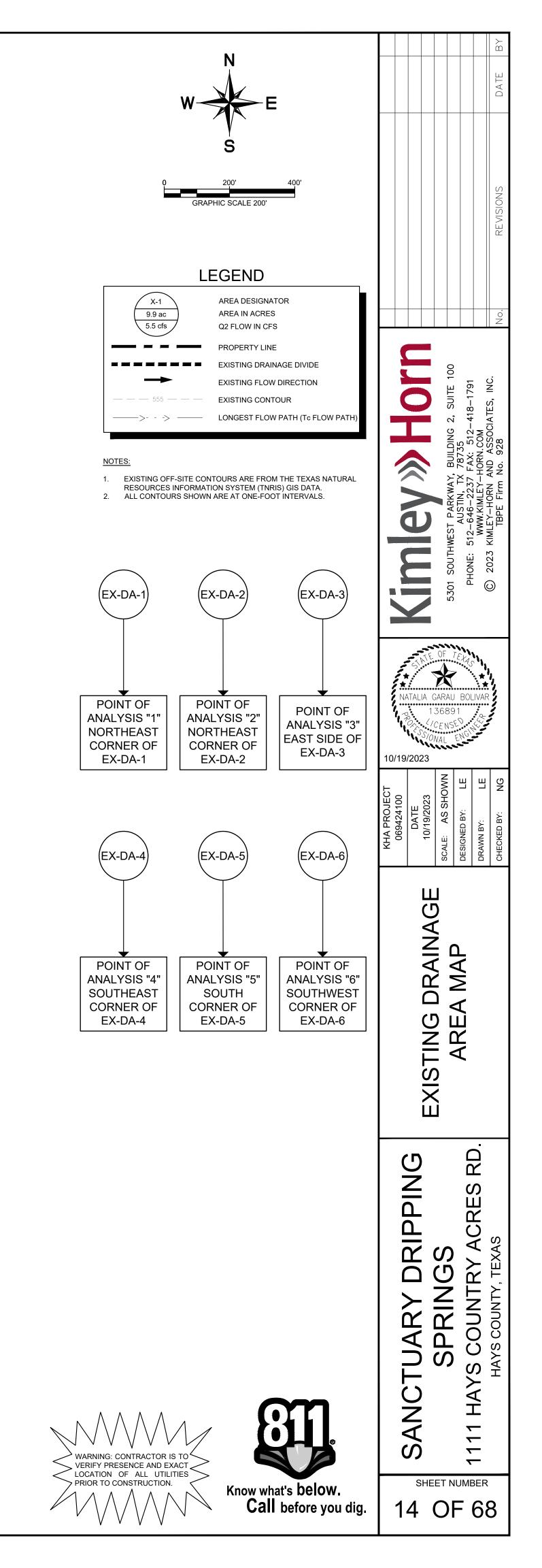
SEQUENCE OF CONSTRUCTION:

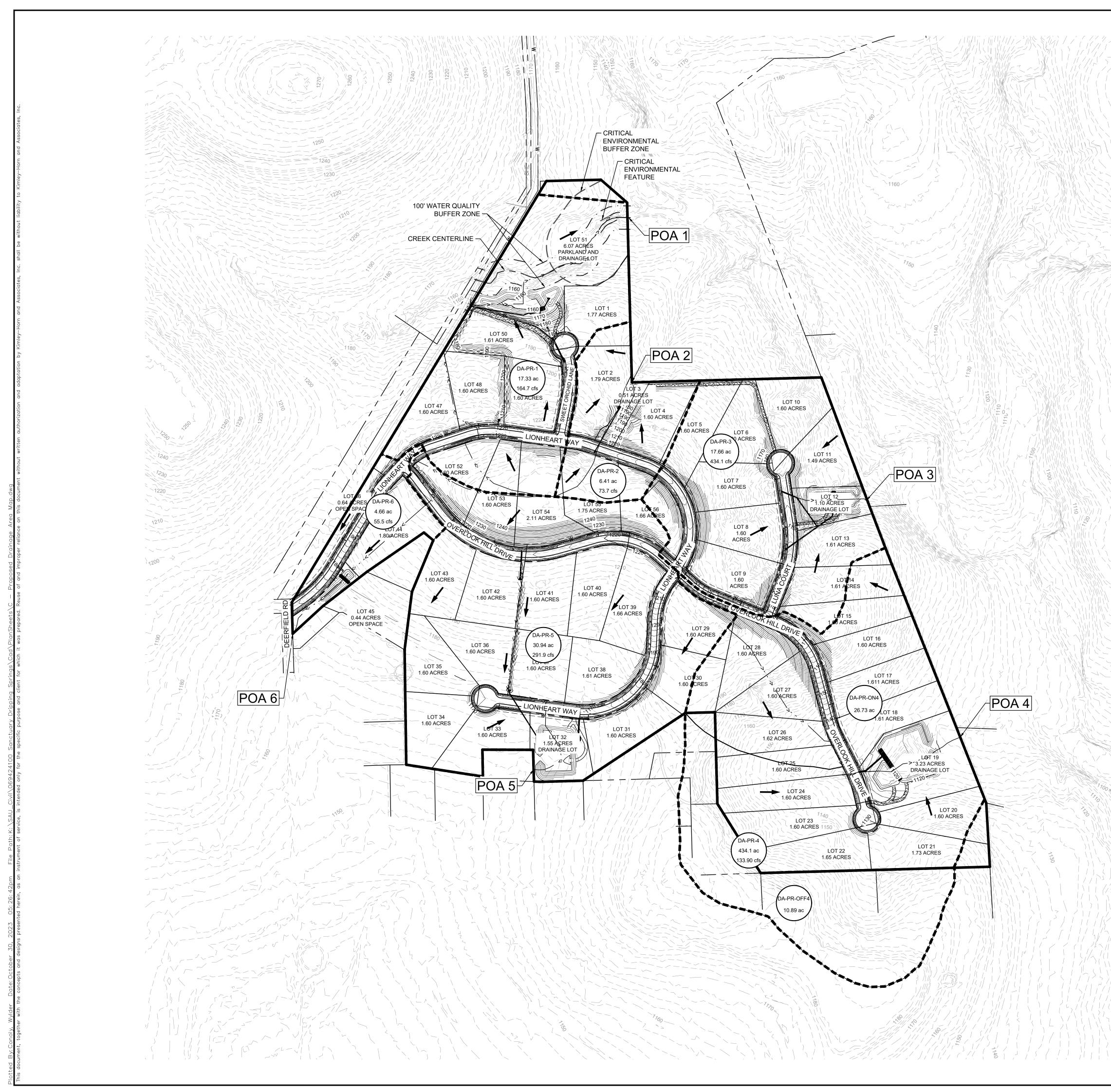
- 1) INSTALL EROSION CONTROLS PER APPROVED PLANS.
 - a) This activity effects less than 0.25-arces of the site, as its mostly consentrated at the borders of the site. The erosion controls will be in place for the duration of the construction and until the permanent BMPs have been established.
- 2) HOLD PRE-CONSTRUCTION CONFERENCE.
- 3) DEMOLISH, REMOVE AND DISPOSE OF PROPERLY ALL EXISTING IMPROVEMENTS SHOWN TO BE REMOVED PER PLANS.
 - a) This activity will effect approximately 0.6-acres of the site. The erosion controls initially placed will be maintained through this activity.
- 4) ROUGH-CUT ALL REQUIRED OR NECESSARY PONDS. EITHER THE PERMANENT OUTLET STRUCTURE OR A TEMPORARY OUTLET MUST BE CONSTRUCTED PRIOR TO DEVELOPMENT OF ANY EMBANKMENT OR EXCAVATION THAT LEADS TO PONDING CONDITIONS. THE OUTLET SYSTEM SHALL BE PROTECTED FROM EROSION AND SHALL BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION UNTIL FINAL RESTORATION IS ACHIEVED.
 - a) This activity will continue to effect the 2.25-acres of the site. This activity is preparing the site for the designed drainage condition (grading and ponds). The erosion controls initially placed will be maintained through this activity.
- 5) BEGIN CONSTRUCTION OF UNDER GROUND UTILITY, PAVING AND BUILDING, INSTALL INLET EROSION/SEDIMENTATION PROTECTION.
 - a) This activity will effect approximately 22.5-acres and the erosion controls measures initially placed will remain.
- 6) COMPLETE PERMANENT EROSION CONTROL AND SITE RESTORATION. REMOVE TEMPORARY EROSION/SEDIMENTATION CONTROLS AND TREE PROTECTION. RESTORE ANY AREAS DISTURBED DURING REMOVAL OF EROSION/SEDIMENTATION CONTROLS.
 - a) This activity will effect approximately 3 acres and includes placement of the permanent BMPs. The temporary BMPs will only be removed once the permanent BMPs have been established.
- 7) PROJECT ENGINEER INSPECTS JOB AND WRITES LETTER OF CONCURRENCE TO THE PERMITTING AUTHORITY, FINAL INSPECTION WILL BE SCHEDULED UPON RECEIPT OF THE LETTER.
- 8) REMOVE ALL TRASH AND DEBRIS FROM THE SITE AND DISPOSE OF LEGALLY.

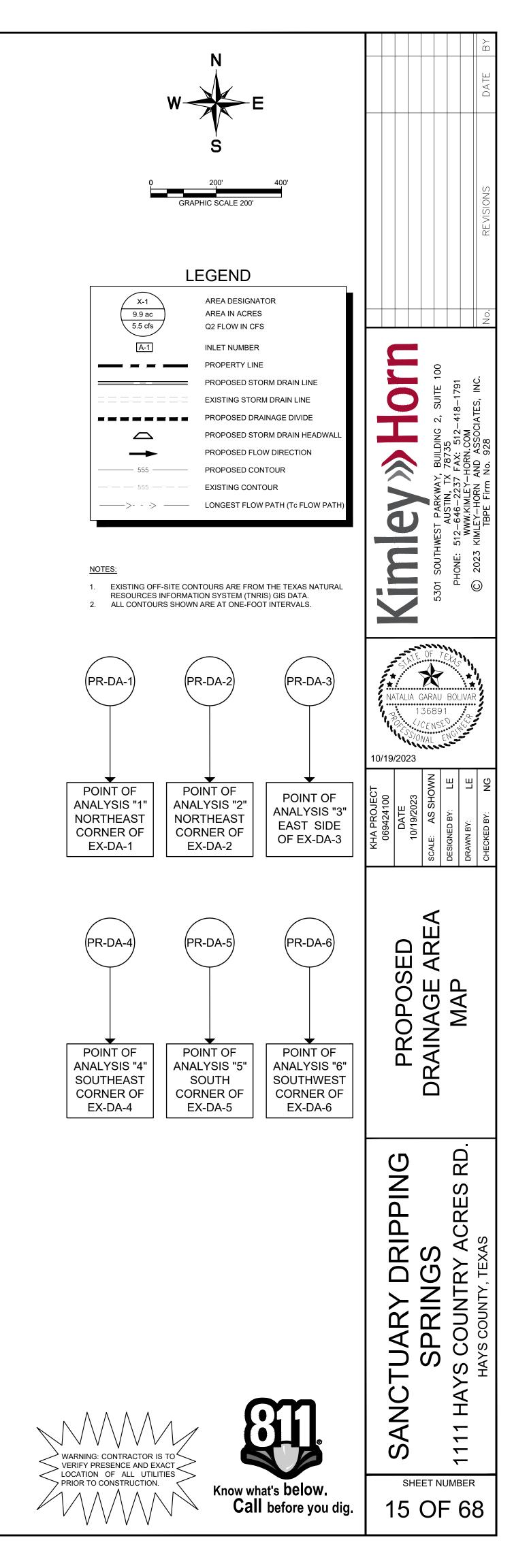
ATTACHMENT D: Temporary Best Management Practices and Measures

As shown in the erosion and sediment control plan, to protect surface streams during construction activities silt fence will be placed on the downslope along the property line where construction activities end. In addition, a construction entrance will be utilitized to filter stormwater through the rock material, inlet protection will be placed at installed inlets and rock berms will be placed in the drainage culvert to the east of the site to protect the surface streams further from any sediment that does make it through the other BMP controls.









TIME OF CONCENTRATION CALCULATIONS

							Exis	ting Time of Con	centration C	alculations									
						S	Sheet Flow		Un	paved Shallow Fl	low		Paved Shallow	Flow		Channe	Flow		Tota
Drainage	Area	Impervious	Impervious	Impervious	Length	Slope	n	Tt	Length	Slope	Tt	Length	Slope	Tt	Length	V	Slope	Tt	Тс
Area	(AC)	Cover (SF)	Cover (AC)	Cover (%)	ft	ft/ft		min	ft	ft/ft	min	ft	ft/ft	min	ft	ft/s	ft/ft	min	min
DA-EX-1	17.56	9789	0.22	1.3%	100	0.02	0.2	12.85 min	1002	0.10	3.20	0	0.01	0.00	671	6.00	0.10	1.86	17.9 m
DA-EX-2	6.4	5247	0.12	1.9%	100	0.03	0.2	10.11 min	200	0.16	0.51	0	0.01	0.00	314	6.00	0.13	0.87	11.5 m
DA-EX-3	18.51	10093	0.23	1.3%	100	0.09	0.2	6.61 min	514	0.15	1.38	0	0.01	0.00	341	6.00	0.13	0.95	8.9 m
*DA-EX-4	36.82	26584	0.61	1.6%			-												18.5 m
DA-EX-OFF4	10.89	26584	0.61	5.6%	100	0.01	0.2	14.27 min	1208	0.09	4.26	0	0.01	0.00	0	6.00	0.00	0.00	18.5 m
DA-EX-ON4	25.93	0	0.00	0.0%	100	0.09	0.2	6.60 min	1269	0.10	4.09	0	0.01	0.00	0	6.00	0.00	0.00	10.7 m
DA-EX-5	29.85	48053	1.10	3.7%	100	0.04	0.2	8.91 min	1245	0.08	4.48	0	0.01	0.00	0	6.00	0.00	0.00	13.4 m
DA-EX-6	4.99	11310	0.26	5.2%	100	0.11	0.2	6.03 min	1014	0.07	3.96	0	0.01	0.00	0	6.00	0.00	0.00	10.0 m

*TIME OF CONCENTRATION FOR DA-EX-4 IS THE LONGER OF THE THE TWO SUBBASINS DA-EX-OFF4 AND DA-EX-ON4

						S	heet Flow		Un	paved Shallow Flo	ow		Paved Shallow	Flow		Channe	I Flow		Total
Drainage	Area	Impervious	Impervious	Impervious	Length	Slope	n	Tt	Length	Slope	Tt	Length	Slope	Tt	Length	V	Slope	Tt	Tc
Area	(AC)	Cover (SF)	Cover (AC)	Cover (%)	ft	ft/ft		min	ft	ft/ft	min	ft	ft/ft	min	ft	ft/s	ft/ft	min	min
DA-PR-1	17.33	188724	4.33	25.0%	100	0.02	0.06	4.54 min	396	0.09	1.35	0	0.01	0.00	961	6.00	0.05	2.67	8.6 m
DA-PR-2	6.41	69805	1.60	25.0%	100	0.02	0.06	4.68 min	172	0.15	0.46	0	0.01	0.00	162	6.00	0.05	0.45	5.6 mi
DA-PR-3	17.66	192317	4.42	25.0%	100	0.15	0.06	2.03 min	384	0.01	3.45	0	0.01	0.00	1203	6.00	0.05	3.34	8.8 mi
*DA-PR-4	37.62	317654	7.29	19.4%															5.4 mi
DA-PR-OFF4	10.89	26565	0.61	5.6%	100	0.07	0.06	2.80 min	638	0.09	2.15	0	0.01	0.00	178	6.00	0.05	0.49	5.4 mi
DA-PR-ON4	26.73	291090	6.68	25.0%	100	0.12	0.06	2.22 min	569	0.12	1.67	0	0.01	0.00	298	6.00	0.05	0.83	5.0 mi
DR-PR-5	30.94	336937	7.74	25.0%	100	0.02	0.06	4.92 min	508	0.06	2.15	0	0.01	0.00	1515	6.00	0.05	4.21	11.3 m
DR-PR-6	4.66	50747	1.17	25.0%	100	0.09	0.016	0.86 min	361	0.08	1.34	0	0.01	0.00	0	6.00	0.01	0.00	5.0 mi

*TIME OF CONCENTRATION FOR DA-PR-4 IS THE LONGER OF THE THE TWO SUBBASINS DA-PR-OFF4 AND DA-PR-ON4

POINT OF ANALYSIS SUMMARY

								P	EAK FLOV	NS AT PO	Α
DRAINAGE AREA	POA	AREA (AC.)	IMPERVIOUS COVER	BASE CN	IMPERVIOUS CN	WEIGHTED CN	TC (MIN)*	Q₂ (CFS)	Q ₁₀ (CFS)	Q₂₅ (CFS)	Q ₁₀₀ (CFS)
DA-EX-1	POA-1	17.56	1.3%	80	98	80.2	17.9	38.70	73.10	96.70	136.00
DA-EX-2	POA-2	6.40	1.9%	80	98	80.3	11.5	16.70	31.60	41.70	58.70
DA-EX-3	POA-3	18.51	1.3%	80	98	80.2	8.9	49.90	93.70	123.00	172.40
*DA-EX-4	POA-4	47.71	1.6%	80	98	80.3	10.7	85.00	163.30	216.70	306.40
*DA-EX-OFF4	POA-4	10.89	5.6%								
*DA-EX-ON4	POA-4	36.82	0.0%								
DA-EX-5	POA-5	29.85	3.7%	80	98	80.7	13.4	74.20	140.80	185.90	261.80
DA-EX-6	POA-6	4.99	5.2%	80	98	80.9	10.0	13.70	25.50	33.40	46.70

*DA-EX-OFF4 AND DA-EX-ON4 FLOWS ARE COMBINED IN DA-EX-4

	TIONS														
PROPOSED CONDI	TIONS							PEAK FLO	OWS AT P	OA (UNDI	ETAINED)	PEAK F	LOWS AT	POA (DET	AINED)
DRAINAGE AREA	POA	AREA (AC.)	IMPERVIOUS COVER	BASE CN	IMPERVIOUS CN	WEIGHTED CN	TC (MIN)*	Q₂ (CFS)	Q ₁₀ (CFS)	Q₂₅ (CFS)	Q ₁₀₀ (CFS)	Q₂ (CFS)	Q ₁₀ (CFS)	Q₂₅ (CFS)	Q ₁₀₀ (CFS)
DA-PR-1	POA-1	17.33	25.0%	80	98	84.5	8.6	53.20	93.00	119.70	164.70	37.30	71.60	96.30	135.80
DA-PR2	POA-2	6.41	25.0%	80	98	84.5	5.6	23.30	41.40	53.40	73.70	15.40	27.40	37.30	53.30
DA-PR-3	POA-3	17.66	25.0%	80	98	84.5	8.8	54.30	95.00	122.30	168.30	49.20	92.40	119.90	165.90
DA-PR-4	POA-4	64.35	19.4%	80	98	83.5	5.0	133.90	241.40	312.70	434.10	81.70	158.10	212.20	303.10
*DA-PR-OFF4	POA-4	26.73	0.0%												
DA-PR-ON4	POA-4	37.62	25.0%												
DA-PR-5	POA-5	30.94	25.0%	80	98	84.5	11.3	93.00	163.90	211.50	291.90	70.50	137.20	181.00	252.40
DA-PR-6	POA-6	4.66	25.0%	80	98	84.5	5.0	17.60	31.20	40.20	55.50	14.20	25.60	33.60	46.60

* OFFSITE FLOWS FROM DA-PR-OFF4 ARE ROUTED TO POND 4

TSS REMOVAL SUMMARY

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

1. The Required Load Reduction for the total project:

. 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 x P)	
where: L _{M TOTAL PROJ}	_{ECT} = Required TS A _N = Net increase P = Average ann	e in impervious a	
Site Data: Determine Required Load Removal Based on the Entire Cou Total project area included in pla	n * = Hays n * = 104.34	acres	

Project Name: The Sanctuary - Pond 1

Date Prepared: 10/9/2023

acres	104.34	Total project area included in plan * =
acres	2.52	Predevelopment impervious area within the limits of the plan * =
acres	26.09	Total post-development impervious area within the limits of the plan* =
	0.25	Total post-development impervious cover fraction * =
inches	33	P =
lbs.	21156	L _M TOTAL PROJECT =
103.	21130	LM TOTAL PROJECT

-M TOTAL PROJECT =	21156	

Number of drainage basins / outfalls areas leaving the plan area = 6 REFER TO POND SHEETS FOR TSS REMOVAL FOR INDIVIDUAL BASINS

Proposed Time of Concentration Calculations

RETENTION-IRRIGATION SUMMARY

	RETENTION-IRRIGATION SUMMARY									
	Required WQ Volume	Provided WQ Volume	Required Irrigation Area	Required Irrigation Area						
Drainage Area	(Cu. Ft.)	(Cu. Ft.)	(SF)	(AC)						
DA-PR-1	14524	12448	58097	1.33						
DA-PR-2	4843	5479	19371	0.44						
DA-PR-3	14303	18293	57211	1.31						
DA-PR-4	22562	22589	90246	2.07						
DA-PR-5	20414	20642	81657	1.87						
DA-PR-6	2896	2971	11585	0.27						

	Signed Contraction Signed Contraction Signed Contraction Signed Contraction Signed Contract Signed Contraction Signed Contraction Signed Contraction Signed Contr
	KHA PROJECT KHA PROJECT 069424100 069424100 069424100 069424100 060422400 DATE 10/19/2023 10/19/2023 Scale: AS SHOWN Designed BY: LE DRAWN BY: LE CHECKED BY: NG
	DRAINAGE AREA CALCULATIONS
	SANCTUARY DRIPPING SPRINGS 1111 HAYS COUNTRY ACRES RD. HAYS COUNTRY ACRES RD.
Know what's below. Call before you dig.	sheet number 16 OF 68



ATTACHMENT E: Request to Temporarily Seal a Feature

This attachment is not applicable. No features will be sealed on this site.

ATTACHMENT F: Structural Practices

The plan for temporary structural controls on this site include placing silt fence at the down slope of the site that will collect sediment prior to entering a stream. This will allow for the sediment to be clean out for continued effective usage of the silt fence.

ATTACHMENT G: Drainage Area Map

ATTACHMENT H: Temporary Sediment Pond(s) Plans and Calculations

Proposed ponds are to be rough graded and used for temporary sedimentation control. Refer to the table below and the erosion and sedimentation control sheet in the construction documents for temporary sedimentation control pond requirements and information.

TEMPORARY SEDIMINTATION CONTROL POND REQUIREMENTS					
POND	MINIMUM STORAGE (Cu. Ft.)	MINIMUM BERM ELEVATION (Ft.)			
1	25,603	1,163			
2	7,955	1,181			
3	9,381	1,130			
4	56,368	1,116			
5	38,954	1,163			
6	1,711	1,172			

*MINIMUM STORAGE IS THE TEMPORARY POND STORAGE REQUIRED TO CONTAIN THE 24-HR, 2-YR STORM EVENT.

ATTACHMENT I: Inspection and Maintenance for BMPs

A. Inspection Schedule

- 1. All disturbed areas, as well as all erosion and sediment control devices, will be inspected according to one of the following schedules:
 - a) at least every seven (7) calendar days and within 24 hours after a rainfall of 0.25" or greater, or
 - b) every seven (7) days on the same day of the week each week, regardless of whether or not there has been a rainfall event since the previous inspection.
- 2. Inspections will occur on the schedule provided in this plan and any changes made to the schedule must adhere to the following:
 - a) the schedule can change a maximum of one time each month,
 - b) the schedule change must be implemented at the beginning of a calendar month, and
 - c) the reason for the schedule change must be documented in this plan (an inspection schedule form is located below).

B. Inspection Reports

- 1. Completed inspection reports (see below) will include the following information:
 - a) scope of the inspection,
 - b) date of the inspection,
 - c) name(s) of personnel making the inspection,
 - d) reference to qualifications of inspection personnel,
 - e) observed major construction activities, and
 - f) actions taken as a result of the inspection.
- 2. All disturbed areas (on and off-site), areas for material storage locations where vehicles enter or exit the site, and all of the erosion and sediment controls that were identified as part this plan must be inspected. The inspection report must state whether the site was in compliance or identify any incidents of non-compliance. The report will be signed by the qualified inspector in accordance with the TPDES general permit and filed in this plan. A sample Inspection Report is included below along with an Inspector Qualification Form. All reports and inspections required by the general construction permit will be completed by a duly authorized representative.
- 3. The operator should correct any damage or deficiencies as soon as practicable after the inspection, but in no case later than seven (7) calendar days after the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in this plan, and wherever possible, those changes implemented before the next storm event or as soon as practicable. A list of maintenance guidelines are included below.

4. Inspection reports will be kept in the Operator's file, along with this plan, for at least three years from the date that the NOT is submitted to the TCEQ for the construction site.

C. Final Stabilization

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

Inspector Qualifications*

Inspector Name: Qualifications (Check as appropriate and provide description): Training Course Supervised Experience Other
Inspector Name:
Qualifications (Check as appropriate and provide description):
Supervised Experience
□ Other
Inspector Name:
Qualifications (Check as appropriate and provide description):
Supervised Experience

*Personnel conducting inspections must be knowledgeable of the general permit, familiar with the construction site, and knowledgeable of the SWP3 for the site.

INSPECTION SCHEDULE

Inspections must be conducted:

- Option 1 at least once every 7 calendar days and within 24 hours of the end of a storm event of 0.25 inch or greater
- **Option 2** at least once every 7 calendar days, regardless of whether or not there has been a rainfall event since the previous inspection.

Any changes to the schedule are conducted in accordance with the following:

- the schedule is changed a maximum of one time each month,
- the schedule change must be implemented at the beginning of a calendar month, and
- the reason for the schedule change must be documented below.

Date	Schedule Option	Reason for Schedule Change

Kimley *Whorn*

Construction Site SWP3 Inspection Report

0	
Warning No.	
ö □ Project Shutdown	

	On-	Site	Up-to-date		
WP3	Yes No ¹		Yes No ²		
S					

	Project:	Date:
al tion	Address:	Inspector:
neral matio		Qualifications: see Appendix E of SWP3
for		Weather Conditions:
<u>n</u>	Owner:	Contractor:

BMP	BMP In Use		Maint. Req'd		Comments
	Yes	No	Yes ²	No	

¹The SWP3 must be retained on-site at the construction site or, if the site is inactive or does not have an on-site location to store the plan, a notice must be posted describing the location of the SWP3.

²Items marked in this column need to be addressed in the Actions to be Taken table.

ACTIONS TO BE TAKEN	RESPONSIBLE PERSON(S)	DUE DATE	DATE COMPLETED	INITIALS

NOTE: These reports will be kept on file as part of the Storm Water Pollution Prevention Plan for at least three years. A copy of the SWP3 will be kept at the site at all times during construction.

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

Name:

Address:

Telephone:

Site Location:

kimley-horn.com

Inspector Signature:

Date:

MAINTENANCE GUIDELINES

- 1. Below are some maintenance practices to be used to maintain erosion and sediment controls:
 - All control measures will be inspected according to the schedule identified in Appendix E.
 - All measures will be maintained in good working order. The operator should correct any damage or deficiencies as soon as practicable after the inspection, but in no case later than seven (7) calendar days after the inspection.
 - BMP Maintenance (as applicable)
 - Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50%. For perimeter controls such as silt fences, berms, etc., the trapped sediment must be removed before it reaches 50% of the above-ground height.
 - Silt fence will be inspected for depth of sediment, tears, to see of the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
 - Drainage swale will be inspected and repaired as necessary.
 - Inlet control will be inspected and repaired as necessary.
 - Check dam will be inspected and repaired as necessary.
 - Straw bale dike will be inspected and repaired as necessary.
 - Diversion dike will be inspected and any breaches promptly repaired.
 - Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
 - If sediment escapes the site, accumulations must be removed at a frequency that minimizes off-site impacts, and prior to the next rain event, if feasible. If the permittee does not own or operate the off-site conveyance, then the permittee must to work with the owner or operator of the property to remove the sediment.
 - Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking.
- 2. To maintain the above practices, the following will be performed:
 - Maintenance and repairs will be conducted before the next anticipated storm event or as necessary to maintain the continued effectiveness of storm water controls. Following an inspection, deficiencies should be corrected no later than seven (7) calendar days after the inspection.
 - Any necessary revisions to the SWP3 as a result of the inspection must be completed within seven (7) calendar days following the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in the SWP3 and wherever possible those changes implemented before the next storm event.
 - Personnel selected for inspection and maintenance responsibilities must be knowledgeable of the general permit, familiar with the construction site, and knowledgeable of the SWP3 for the site.

ATTACHMENT J: Schedule of Interim and Permanent Soil Stabilization Practices

Construction Activity Schedule

Activities	Start Date	Finish Date
1.Demolition (0.25-acres): Silt fence protection, tree protection, rock berm		
2.Rough Grading (32.5-acres): Construction entrance/exit shall be installed and all prior erosion control measures installed above to be maintained as necessary during rough grading.		
3.Utility Installation (1-acres): All prior erosion control measures installed above to be maintained as necessary during utility installation, inlet protection shall be installed as storm drainage system is constructed.		
4.Building Construction (4-acres): All prior erosion control measures installed above to maintained as necessary during construction.		
5.Paving (20-acres): All prior erosion control measures installed above to be maintained as necessary during paving and throughout the remainder of the project.		
6.Final Grading/Soil Stabilization/Landscaping (5-acres): All temporary erosion control measures to be removed at the conclusion of the project once final stabilization has been achieved. All affected storm sewer inlets and post development BMPs shall be cleaned prior to site completion.		

*Construction activity sequences for linear projects may be conducted on a rolling basis. As a result, construction activities may be at different stages at different locations in the project area. The Contractor is required to complete and update the schedule and adjust as necessary.

*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.

Application Fee Form

Texas Commission on Environmental Quality					
Name of Proposed Regulated Entity: <u>Sactuary Dripping Springs</u>					
Regulated Entity Location: <u>1111 Hays Country Acres Rd, Dripping Springs, TX 78620</u>					
Name of Customer: Sactuary Drip	ping Springs, LLC				
Contact Person: Justin Kathan		e: <u>N/A</u>			
Customer Reference Number (if is	ssued):CN				
Regulated Entity Reference Numb	er (if issued):RN				
Austin Regional Office (3373)					
🔀 Hays	Travis	W	illiamson		
San Antonio Regional Office (336	2)				
Bexar	Medina	Uv	valde		
Comal	Kinney				
Application fees must be paid by o	check, certified check, c	or money order, payab	le to the Texas		
Commission on Environmental Q	uality. Your canceled c	heck will serve as you	r receipt. This		
form must be submitted with you	-	•			
🔀 Austin Regional Office	Sa Sa	an Antonio Regional O	office		
Mailed to: TCEQ - Cashier	o	Overnight Delivery to: TCEQ - Cashier			
Revenues Section	1	2100 Park 35 Circle			
Mail Code 214	В	uilding A, 3rd Floor			
P.O. Box 13088	A	ustin, TX 78753			
Austin, TX 78711-3088	(5	512)239-0357			
Site Location (Check All That App	ly):				
Recharge Zone	Contributing Zone	Transi	tion Zone		
Type of Pla	n	Size	Fee Due		
Water Pollution Abatement Plan,	Contributing Zone				
Plan: One Single Family Residentia	al Dwelling	Acres	\$		
Water Pollution Abatement Plan,	Contributing Zone				
Plan: Multiple Single Family Resid	ential and Parks	104.335 Acres	\$ 8 <i>,</i> 000		
Water Pollution Abatement Plan,	Contributing Zone				
Plan: Non-residential		Acres	\$		
Sewage Collection System		L.F.	\$		
Lift Stations without sewer lines		Acres	\$		
Underground or Aboveground Sto	Tanks	\$			
Piping System(s)(only)		Each	\$		
Exception		Each	\$		
Extension of Time		Each	\$		
1 OLI					

Signature: _____ Date: <u>10/04/2023</u>

Application Fee Schedule

Texas Commission on Environmental Quality

Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

	Project Area in	
Project	Acres	Fee
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,	< 1	\$3,000
multi-family residential, schools, and other sites	1 < 5	\$4,000
where regulated activities will occur)	5 < 10	\$5,000
	10 < 40	\$6,500
	40 < 100	\$8,000
	≥ 100	\$10,000

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	Fee
Exception Request	\$500

Extension of Time Requests

Project	Fee
Extension of Time Request	\$150



TCEQ Core Data Form

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

1. Reason fo	r Submiss	ion (If other is cl	hecked please of	describe in s	space p	orovide	d.)								
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)															
2. Customer Reference Number (if issued) Follow this link to search									3. Regulated Entity Reference Number (if issued)						
CN	for CN or RN numbers in Central Registry**														
SECTION I	I: Custo	mer Informati	on	ocitiai	Regit	<u>511 y</u>									
4. General Customer Information 5. Effective Date for Customer Informatio									mm/dd/yyyy)	10/03/20	10/03/2023				
New Customer Update to Customer Information Change in Regulated Entity Ownership															
Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts) The Customer Name submitted here may be updated automatically based on what is current and active with the															
Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).															
6. Customer Legal Name (If an individual, print last name first: e.g.: Doe, John) If new Customer, enter previous Customer below:															
Sanctuary Dri	Sanctuary Dripping Springs, LLC														
7. TX SOS/C 805210744	PA Filing	Number	8. TX State Ta	ax ID (11 digits	5)		9.	9. Federal Tax ID (9 digits) 10. DUNS Number (if applicable)							
					Individ			Dor	taorahia: 🗔 Cara						
11. Type of Customer: Corporation Individual Partnership: General Limited															
Government: City County Federal State Other 12. Number of Employees 13. Independently Owned and Operated?															
□ 0-20 □ 21-100 □ 101-250 □ 251-500 □ 501 and higher □ Yes □ No															
14. Customer Role (Proposed or Actual) - as it relates to the Regulated Entity listed on this form. Please check one of the following:															
Owner Operator Owner & Operator Occupational Licensee Responsible Party Voluntary Cleanup Applicant															
		en Terrace				<u> </u>		pilotint							
15. Mailing Address:															
Audress.	City	Round Rock		State	TX		ZIP	78644		ZIP + 4					
16. Country Mailing Information (if outside USA) 17. E-Mail Address (if applicable)															
						Justin	@San	ctuary.c	om						
18. Telephon	e Number	19. Extension or Code					20. Fax Number (if applicable)								
(512)518-6529															
SECTION I	II: Regu	lated Entity Ir	nformation												
21. General F	Regulated	Entity Information	(If `New Regula	ated Entity"	is sele	cted be	low th	is form :	should be accom	panied by a	permit application)				
	ulated En	· _ ·	to Regulated E					-	Entity Informatio						
The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).															
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)															
Sanctuary D						J	. /								
TCEQ-10400 (04/	15)										Page 1of 2				

23. Street Address of the	1111 Hays Country Acres Rd											
Regulated Entity:								officer and	e contra		44.000	Statistics of
(No PO Boxes)	City Dripping Springs			State	ТХ	ZIP	P 78620			ZIP+4		
24. County	Astrice Table									1.5.12		
		Enter Physical	Locat	ion Description	n if no street	address i	s provid	ed.				
25. Description to Physical Location:	N/A											
26. Nearest City	12.76	S				State			Nearest ZIP Code			
Dripping Springs				1000		W.Deliner	TX			7	78620	
27. Latitude (N) In Decima	al:	30.181726	5.50	28. Longitu			W) In Decimal: -98.0		-98.04	034028		
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29. Primary SIC Code (4 digits) 30. Secondary SIC Code			C Cod	e (4 digits)		31. Primary NAICS Code (5 or 6 digits)			32. Secondary NAICS Code (5 or 6 digits)			de
6552			NIG I	2	237210	STATE	URISTA MARTINE			and a subject of		
33. What is the Primary Bu	siness	of this entity? (Do r	not repe	eat the SIC or NA	ICS description	.)						
Residential Development	Marco Menan March Article	Adams of the State of the State of the State	attat	ICO DE MUNICIPALITAT	anglidate e e t		and the	and and	- Aline	dan p	11-110	1. 2000-000
	1416	5 Green Terrace	Nerge	an začest fi	the galience	alest of the	therate	on on To				
34. Mailing												
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	City	Round Rock	2/2	State	TX	ZIF		78644	11/2/21	ZIP	T4	-
35. E-Mail Address:		second and measurements	(asaul)	New John Street	Added to be added to added to	and fall and	al territoria	38 Eav N	lumbor	(if ann	icable)	N STELLE MARK
36. Telephone Number			-	37. Extension or Code			38. Fax Number (if applicable)					
(2007)	•			10				()	1. A.	576	-	
39. TCEQ Programs and ID Num form Instructions for additional gui	ibers Ch dance.	eck all Programs and wi	rite in th	he permits/registr	ation numbers	that will be a	iffected b	y the updates	s submitt	ted on thi	s form. S	See the Co
Dam Safety				X Edwards Aquifer			Emissions Inventory Air				Industrial Hazardous N	
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and the second by	Contract and sender sender						Tires				Used Oil	
Sludge	Sludge Storm Water		Tarras Casti	Title V Air								
Voluntary Cleanup	U Waste Water			Wastewater Agriculture		ure 🗆	Water Rights			Other:		
Volumary oleanop							The assessments the second					
ECTION IV: Preparer	Inform	nation					-					
0. Name: Lexie England,		The Stokene		March 1	140	41.	Title:	Engineer	1463	2.10	21.12	in the second
42. Telephone Number 43. Ext./Code				44. Fax Number			45. E-Mail Address					
(512) 518 - 6529			(April)	(18035) 5	an a n States	lex	lexie.england@kimley-hom.com					in the second
Construction of the second sec	Contraction of the											

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.

Founding Partner			
(54) 40- 294 I			
0-23			
2			

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

SPECIAL WARRANTY DEED

§ §

§

STATE OF TEXAS

COUNTY OF HAYS

KNOW ALL MEN BY THESE PRESENTS THAT:

September <u>1</u>, 2023

SERENITY HILLS PARTNERS, LLC, a Delaware limited liability company (the "<u>Grantor</u>"), for and in consideration of the sum of Ten and No/100 Dollars (\$10.00) cash and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, paid by SANCTUARY DRIPPING SPRINGS, LLC, a Delaware limited liability company (the "<u>Grantee</u>"), whose mailing address is 1416 Green Terrace Drive, Round Rock, Texas 78664, subject to the provisions set forth herein, HAS GRANTED, BARGAINED, SOLD and CONVEYED, and by these presents DOES GRANT, BARGAIN, SELL and CONVEY unto Grantee all of that certain tract of land (the "Land") described on <u>Exhibit "A"</u> which is attached hereto and incorporated herein by reference for all purposes, together with any improvements located thereon and all of Grantor's right, title and interest in and to any easements, interests, benefits, privileges, rights and appurtenances pertaining to such Land (said Land, improvements, easements, interests, benefits, privileges, rights and appurtenances being herein collectively referred to as the "<u>Property</u>").

This conveyance is made and accepted subject to the foregoing and the matters set forth on <u>Exhibit "B"</u> attached hereto and incorporated herein by this reference for all purposes, to the extent they are validly existing and affect the Property (collectively, the "<u>Permitted Exceptions</u>").

GRANTOR CONVEYS TO GRANTEE AND GRANTEE ACCEPTS THE PROPERTY "AS IS, WHERE IS, WITH ALL FAULTS," EXCEPT WITH RESPECT TO THE WARRANTY OF TITLE CONTAINED IN THIS DEED. EXCEPT FOR GRANTOR'S WARRANTY OF TITLE HEREIN, GRANTEE HAS NOT RELIED AND WILL NOT RELY ON, AND GRANTOR HAS NOT MADE AND IS NOT LIABLE FOR OR BOUND BY, ANY EXPRESS OR IMPLIED WARRANTIES, GUARANTEES, STATEMENTS, REPRESENTATIONS OR INFORMATION PERTAINING TO THE PROPERTY OR RELATING THERETO MADE OR FURNISHED BY GRANTOR, OR ANY PROPERTY MANAGER, REAL ESTATE BROKER, AGENT OR THIRD PARTY REPRESENTING OR PURPORTING TO REPRESENT GRANTOR, TO WHOMEVER MADE OR GIVEN, DIRECTLY OR INDIRECTLY, ORALLY OR IN WRITING. EXCEPT FOR GRANTOR'S WARRANTY OF TITLE OR GRANTOR'S FRAUD, GRANTEE SHALL ASSUME THE RISK THAT ADVERSE MATTERS, INCLUDING, BUT NOT LIMITED TO, ADVERSE PHYSICAL OR CONSTRUCTION DEFECTS OR ADVERSE ENVIRONMENTAL, HEALTH OR SAFETY CONDITIONS.

TO HAVE AND TO HOLD the Property, subject to the Permitted Exceptions, unto Grantee, and Grantee's successors and assigns forever, and Grantor does hereby bind Grantor, and Grantor's successors and assigns, to WARRANT and FOREVER DEFEND, all and singular the Property unto Grantee and

<u>1111 Hays County Acres Road</u> Special Warranty Deed – Page 1 Grantee's successors and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof by, through or under Grantor, but not otherwise and subject, however, to the provisions contained herein and the Permitted Exceptions.

Grantee, by its acceptance hereof, does further assume and agree to pay any and all ad valorem taxes and assessments for 2023 and subsequent years, as well as all ad valorem taxes relating to a change in the usage or ownership of the Property, whether by reason of this conveyance or hereafter.

[signature page follows]

<u>1111 Hays County Acres Road</u> Special Warranty Deed – Page 2 EXECUTED to be effective as of the date first written above.

GRANTOR:

SERENITY HILLS PARTNERS, LLC, a Delaware limited liability company

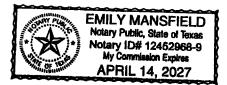
By: ZOË LIFE CENTERS, LLC, a Texas limited liability company, its Manager

By?

Name: Brian Robertson Title: Authorized Signatory

STATE OF TEXAS § COUNTY OF <u>Tranis</u> §

This instrument was ACKNOWLEDGED before me on September _____, 2023, by Brian Robertson as Authorized Signatory of Zoë Life Centers, LLC, a Texas limited liability company, the Manager of Serenity Hills Partners, LLC, a Delaware limited liability company, on behalf of said companies.



Notary Public in and for the State of Texas

Printed Name: _______ My Commission Expires:

EXHIBIT "A"

Legal Description of Property

A tract of land situated within the Richard Vaughan Survey Number 7, Abstract Number 16, Hays County, Texas and being the same called 135.046 acre tract of land conveyed to Park G. Jarrett, III by a deed filed for record in Volume 2481 at Page 829 of the Official Public Records of Hays County, Texas, Save and Except those portions conveyed by deeds filed under Document Number 18027980, 19031262, 20000851, 20036533, 20059388 (corrected in 21032488), 21024807, 21031490 and that portion platted into The Shire Minor Plat as filed under Document Number 16025069 and that portion platted into The Shire Section 2 as filed under Document Number 18044197 of the Official Public Records of Hays county, Texas. Said tract of land being more particularly described by metes and bounds as follows:

Beginning at a 1/2" rebar found on the West boundary line of Lot 1C-2 in the Final Plat of the Dripping Springs Ranch Phase 2 Subdivision, according to the map or plat thereof filed for record under Document Number 18010411 of the Official Public Records of Hays County, Texas, for the common East corner of the tract of land herein described and Lot 21 in Hays Country Acres according to the map or plat thereof filed for record in Volume 2 at Page 67 of the Plat Records of Hays County, Texas;

Thence S 88°24'09" W, along the common boundary line of the tract of land herein described and the aforementioned Lot 21, a distance of 487.70 feet to a 1/2" rebar found for a corner of the tract of land herein described and the common North corner of Lot 21 and 20 in the aforementioned Hays Country Acres, from which a 1/2" rebar with a cap marked B & G, found for a witness corner bears N 05°40'41" W a distance of 1.05 feet;

Thence along the common monumented boundary line of the tract of land herein described and the aforementioned Lot 20:

S 88°27'12" W a distance of 247.21 feet to a 1/2" rebar found for a common corner;

S 88°45'55" W a distance of 126.19 feet to a 1/2" rebar found for a common corner;

S 88°07'08" W a distance of 120.36 feet to a 1/2" rebar found for a common corner of the tract of land herein described, the common North corner of Lots 19 and 20 in the above-mentioned Hays Country Acres and the Southeast corner of a tract of land conveyed to P. C. Burgos by a deed filed for record under Document Number 19031262 of the Official Public Records of Hays County, Texas;

Thence N 31°57'56" W, along the common boundary line of the tract of land herein described and the aforementioned Burgos tract, a distance of 349.57 feet to a 1/2" rebar with a cap marked "ATS Engineers" found for the common corner of the tract of land herein described, said Burgos tract and a called 0.996 acre tract of land conveyed to Dawn Eicks by a deed filed for record under Document Number 20000851 of the Official Public Records of Hays County, Texas;

Thence N 01°33'05" W, along the common boundary line of the tract of land herein described and the aforementioned Eicks 0.996 acre tract, a distance of 223.83 feet to a cotton spindle found for a common corner of the tract of land herein described, said Eicks 0.996 acre tract and a called 1.534 acre tract of land conveyed to Dawn Eicks by a deed filed for record under Document Number 21031490 of the Official Public Records of Hays County, Texas;

<u>1111 Hays County Acres Road</u> Exhibit "A" - Page 1 Thence along the common boundary line of the tract of land herein described and the aforementioned Eicks 1.534 acre tract:

N 01°30'19" W a distance of 168.04 feet to a 1/2" rebar with a cap marked "ATS Engineers" found for a common corner;

S 88°28'57" W a distance of 127.13 feet to a 1/2" rebar with a cap marked "ATS Engineers" found for a common corner;

S 56°27'57" W a distance of 524.36 feet to a 1/2" rebar with a cap marked "ATS Engineers" found for a common corner and the common North corner of Lot 5 and Lot 7 in The Shire Section 2 according to the map of plat thereof filed for record under Document Number 18044197 of the Official Public Records of Hays County, Texas;

Thence S 88°29'27" W, along the common boundary line of the tract of land herein described and the aforementioned Lot 5 a distance of 182.94 feet to a 1/2" rebar with a cap marked "ATS Engineers" found for a common corner;

Thence N 87°40'47" W, continuing along the aforementioned common boundary line, a distance of 27.29 feet 1/2" rebar with a cap marked "ATS Engineers" found for the common corner of the tract of land herein described, Lot 4 and Lot 5 in the above-mentioned The Shire Section 2 and a tract of land conveyed to J. & A. Brownlow by a deed filed under Document Number 20059388 and corrected under Document Number 21032488 of the Official Public Records of Hays County, Texas;

Thence along the common boundary line of the tract of land herein described and the aforementioned Brownlow tract:

N 01°32'28" W a distance of 136.08 feet to a 1/2" rebar with a cap marked "ATS Engineers" found for a common corner;

N 89°54'22" W a distance of 217.00 feet to a 1/2" rebar with a cap marked "ATS Engineers" found for a common corner;

S 01°04'06" E a distance of 114.97 feet to a 1/2" rebar with a cap marked "ATS Engineers" found for a common corner and the common North corner of Lot 3 and Lot 4 in the above-mentioned The Shire Section 2;

Thence N 81°17'08" W, along the common boundary line of the tract of land herein described and the aforementioned Lot 3, a distance of 209.18 feet to a 1/2" rebar with a cap marked "ATS Engineers" found for the common North corner of Lot 2 and Lot 3 in the aforementioned The Shire Section 2;

Thence N 81°03'41" W, along the common boundary line of the tract of land herein described and the aforementioned Lot 2, a distance of 122.73 feet to a mag nail found for a common corner and the Southeast corner of Lot 3 in The Shire according to the map or plat thereof filed for record under Document Number 16025069 of the Official Public Records of Hays County, Texas;

Thence N 00°49'59" W, along the common boundary line of the tract of land herein described and the aforementioned The Shire, passing at 372.35 feet a 1/2" rebar with a cap marked "Hayes 5703" found for

<u>1111 Hays County Acres Road</u> Exhibit "A" - Page 2 the common East corner of Lot 2 and Lot 1 in The Shire and continuing for a total distance of 491.55 feet to a 1/2" rebar with a cap marked "Hayes 5703" found for the common East corner of Lot 1 and Lot 2 in The Shire and a common corner of a called 1.50 acre tract of land conveyed to W. V. Hasty, Jr. by a deed filed for record under Document Number 20036533 of the Official Public Records of Hays County, Texas;

Thence N 07°14'33" E, along the common boundary line of the tract of land herein described and the aforementioned Hasty 1.50 acre tract, a distance of 250.28 feet to a 1/2" rebar with a cap marked "RPLS 5205" found for a common corner with a called 0.750 acre tract of land conveyed to W. V. Hasty, Jr. et ux by a deed filed for record under Document Number 21024807 of the Official Public Records of Hays County, Texas;

Thence along the common boundary line of the tract of land herein described and the aforementioned Hasty 0.750 acre tract:

N 22°26'50" E a distance of 238.74 feet to a 1/2" rebar with a cap marked "RPLS 5205" found fora common corner;

N 50°35'42" W a distance of 52.06 feet to a 1/2" rebar with a cap marked "RPLS 5205" found for a common corner;

S 55°23'11" W a distance of 297.00 feet to the common West corner of the above-mentioned Hasty 0.750 and 1.50 acre tracts;

Thence S 52°05'09" W, along the common boundary line of the tract of land herein described and the aforementioned Hasty 1.50 acre tract, a distance of 237.38 feet to a 1/2" rebar with a cap marked "RPLS 5205" found for a common corner with a called 0.333 acre tract of land conveyed to W. V. Hasty, Jr. by a deed filed for record under Document Number 18027980 of the Official Public Records of Hays County, Texas;

Thence S 47°31'30" W, along the common boundary line of the tract of land herein described and the aforementioned Hasty 0.333 acre tract, a distance of 175.61 feet to a 1/2" rebar with a cap marked "RPLS 5205" found for a common corner on the East right-of-way line of Deerfield Road, a 60' public right-of-way;

Thence N 01°43'36" W, along the common boundary line of the tract of land herein described and the aforementioned East right-of-way line, a distance of 133.88 feet to a point for an angle point in said East right-of-way line;

Thence N 31°08'09" E, passing at 17.80 feet a 1/2" rebar found, on the North right-of-way line of Deerfield Road, for the most Southerly Southeast corner of a tract of land conveyed to Gray L. Salada, et ux by a deed filed under Document Number 20037102 of the Official Public Records of Hays County, Texas and continuing along the common boundary line of the tract of land herein described and said Salada tract passing at 2,056.86 feet a record corner of said Salada tract and continuing along the common boundary line of the tract of land conveyed to G. T. Menefee, et ux by a deed filed for record in Volume 892 at Page 719 of the Official Public Records of Hays County, Texas for a total distance of 2,106.96 feet to a 1/2" rebar found for a corner on the a Southerly boundary line of said Salada tract;

1111 Hays County Acres Road Exhibit "A" - Page 3 Thence N 88°36'16" E, along the common boundary line of the aforementioned Salada tract and the tract of land herein described, a distance of 233.36 feet to a 1/2" rebar found for a common corner;

Thence S 48°51'18" E, continuing along the common boundary line of the aforementioned Salada tract and the tract of land herein described, a distance of 148.84 feet to a 60d nail found in a fence post for a common corner;

Thence S 01°31'07" E, continuing along the common boundary line of the aforementioned Salada tract and the tract of land herein described, a distance of 769.57 feet to a 1/2" rebar found for a common corner;

Thence N 88°30'19" E, continuing along the common boundary line of the tract of land herein described and the aforementioned Salada tract, a distance of 811.04 feet to a 3/8" rebar found for their common East corner on the West boundary line of Lot 1 in the Allen Tract Subdivision according to the map or plat thereof filed for record in Volume 5 at Page 217 of the Plat Records of Hays County, Texas;

Thence S 20°30'16" E, along the common boundary line of the tract of land herein described and the aforementioned Lot 1, a distance of 589.88 feet to a 1/2" rebar found for the common West corner of said Lot 1 and Lot 1B in the Resubdivision of Tract 1 & 2 Dripping Springs Ranch, Phase 2, according to the map or plat thereof filed for record in Volume 9 at Page 84 of the Plat Records of Hays County, Texas;

Thence S $20^{\circ}58'18''$ E, along the common boundary line of the tract of land herein described and the aforementioned Lot 1B, a distance of 250.50 feet to a 1/2'' rebar found for a common corner;

Thence S 21°35'36" E, continuing along the aforementioned common boundary line, passing at 765.48 feet the record common West corner of the aforementioned Lot 1B and Lot 1C-3 of the above-mentioned Final Plat of The Dripping Springs Ranch, Phase 2 Subdivision, and continuing for a total distance of 1,112.71 feet to a 1/2" rebar found for the common corner of the tract of land herein described, Lot 1C-3 and Lot 1C-2;

Thence S 03°17'03" E, along the common boundary line of the tract of land herein described and the aforementioned Lot 1C-2, a distance of 273.40 feet to the Point of Beginning.

Said tract of land containing 4,544,820 square feet or 104.335 acres, more or less.

<u>1111 Hays County Acres Road</u> Exhibit "A" - Page 4

EXHIBIT B

Permitted Exceptions

- 1. The restrictive covenants recorded in Volume 395, Page 315 of the Deed Records, amended in Volume 892, Page 687 of the Deed Records, both as recorded in Hays County, Texas.
- 2. The terms, conditions and stipulations set out in that certain Ingress and Egress Easement dated October 29, 1977, recorded in Volume 303, Page 511 of the Deed Records of Hays County, Texas and as affected by acknowledgments recorded in Volume 2437, Page 724 and Volume 2424, Page 241 of the Official Public Records of Hays County, Texas.
- 3. All oil, gas and other minerals, together with all rights relating thereto, express or implied, reserved in instrument recorded in Volume 395, Page 315 of the Deed Records of Hays County, Texas. Said mineral estate not traced further herein.
- 4. All oil, gas and other minerals, together with all rights relating thereto, express or implied, conveyed in instrument recorded in Volume 1314, Page 697 of the Official Public Records of Hays County, Texas. Said mineral estate not traced further herein.
- 5. All oil, gas and other minerals, together with all rights relating thereto, express or implied, conveyed in instrument recorded in Volume 1314, Page 701 of the Official Public Records of Hays County, Texas. Said mineral estate not traced further herein.
- 6. The terms, conditions and stipulations of that certain Easement Agreement dated June 30, 1997, recorded in Volume 1327, Page 128 of the Official Public Records of Hays County, Texas.
- 7. Electric distribution line easement granted to Pedernales Electric Cooperative, Inc., by instrument dated March 2, 2010, recorded in Volume 3846, Page 251 of the Official Public Records of Hays County, Texas.
- Utility easement granted to Pedernales Electric Cooperative, Inc., by instrument dated January 5, 2016, recorded under Document No. 16003633 of the Official Public Records of Hays County, Texas.
- 9. Access easement granted to William Van Hasty, Jr., by instrument dated August 18, 2017, recorded under Document No. 17025919 of the Official Public Records of Hays County, Texas.
- 10. The terms, conditions and stipulations of that certain Access Easement Agreement dated May 10, 2021, recorded under Document No. 21024808 of the Official Public Records of Hays County, Texas, as further affected by that Amended and Restated Access Easement Agreement recorded under Document No. 21058224 of the Official Public Records of Hays County, Texas.
- 11. Apparent easement evidenced by the location of overhead utility lines outside of a dedicated easement as shown on the survey dated November 5, 2021, last revised April 10, 2023, prepared by Larry W. Busby, Registered Professional Land Surveyor No. 4967 (the "Survey").

<u>1111 Hays County Acres Road</u> Exhibit "B" – Page 1 12. The rights of third parties to use the dirt trails which traverse the property, and the dirt trails which cross south property line(s), as shown on the Survey.

11-GF# 202300604-EM Return to: Heritage Title 200 W 6th Street, Suite 1600 Austin, TX 78701

<u>1111 Hays County Acres Road</u> Exhibit "B" – Page 2

THE STATE OF TEXAS COUNTY OF HAYS

I hereby certify that this instrument was FILED on the date and the time stamped hereon by me and was duly RECORDED in the Records of Hays County, Texas.

23033566 DEED 09/12/2023 08:17:35 AM Total Fees: \$58.00

Elaine H. Cárdenas, MBA, PhD,County Clerk Hays County, Texas

Clain & Cardenas

