Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

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

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

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

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

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

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

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

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

Technical Review

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

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

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

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

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

Mid-Review Modifications

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

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

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

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

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

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

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

1. Regulated Entity Name: HARVEST RETREAT						**2. Regulated Entity No.:**			
3. Customer Name: BM21, LLC						**4. Customer No.:**			
5. Project Type: **(Please circle/check one)**	New		Modification			Extension		Exception	
6. Plan Type: **(Please circle/check one)**	WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		Non-residential			**8. Site (acres):**			9.996
9. Application Fee:	$5,000.00		**10. Permanent BMP(s):**			3 BATCH DETENTION PONDS			
11. SCS (Linear Ft.):	5,293 LF		**12. AST/UST (No. Tanks):**			N/A			
13. County:	WILLIAMSON		**14. Watershed:**			TURKEY CREEK-BRUSHY CREEK			

Application Distribution

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

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

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

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	__	__	1
Region (1 req.)	__	__	1
County(ies)	__	__	1
Groundwater Conservation District(s)	__Edwards Aquifer Authority __Barton Springs/ Edwards Aquifer __Hays Trinity __Plum Creek	__Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	__Austin __Buda __Dripping Springs __Kyle __Mountain City __San Marcos __Wimberley __Woodcreek	__Austin __Bee Cave __Pflugerville __Rollingwood __Round Rock __Sunset Valley __West Lake Hills	__Austin __Cedar Park __Florence __Georgetown __Jerrell X Leander __Liberty Hill __Pflugerville __Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	__	__	__	__	__
Region (1 req.)	__	__	__	__	__
County(ies)	__	__	__	__	__
Groundwater Conservation District(s)	__ Edwards Aquifer Authority __Trinity-Glen Rose	__Edwards Aquifer Authority	__Kinney	__EAA __Medina	__EAA __Uvalde
City(ies) Jurisdiction	__Castle Hills __Fair Oaks Ranch __Helotes __Hill Country Village __Hollywood Park __San Antonio (SAWS) __Shavano Park	__Bulverde __Fair Oaks Ranch __Garden Ridge __New Braunfels __Schertz	NA	__San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review. JOHN P. SULLIVAN, P.E.
Print Name of Customer/Authorized Agent 9/19/2025
Signature of Customer/Authorized Agent Date

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

Contributing Zone Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Contributing Zone to the Edwards Aquifer and Relating to 30 TAC §213.24(1), Effective June 1, 1999

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

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

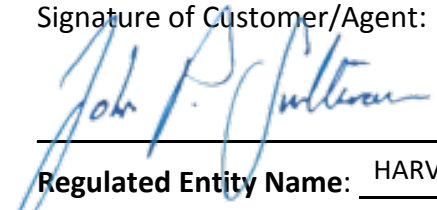
Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Contributing Zone Plan Application** is hereby submitted for TCEQ review and Executive Director approval. The application was prepared by:

Print Name of Customer/Agent: JOHN P. SULLIVAN

Date: 9/19/2025

Signature of Customer/Agent:



Regulated Entity Name: HARVEST RETREAT

Project Information

1. County: WILLIAMSON
2. Stream Basin: _____
3. Groundwater Conservation District (if applicable): _____
4. Customer (Applicant):

   Contact Person: SWAMY DEVUNI
   Entity: BM21, LLC
   Mailing Address: 1237 SUMMERBROOKE CIRCLE
   City, State: LEANDER, TX Zip: 78641
   Telephone: 703-220-7265 Fax: _____
   Email Address: SWAMY@LATITUDE-INVESTMENT.COM

5. Agent/Representative (If any):

Contact Person: JOHN P. SULLIVAN
Entity: RADIUS CIVIL ENGINEERING
Mailing Address: 10308 ANAHUAC TRAIL
City, State: AUSTIN, TX Zip: 78747
Telephone: 512-431-8510 Fax: _____
Email Address: JP@RADIUSCIVIL.COM

6. Project Location:

[X] The project site is located inside the city limits of LEANDER.
[ ] The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of _____.
[ ] The project site is not located within any city's limits or ETJ.

7. [X] 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.

14751 RONALD REAGAN BLVD, LEANDER, TX,

8. [X] **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. [X] **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:

[X] Project site boundaries.
[X] USGS Quadrangle Name(s).

10. [X] **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:

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

11. Existing project site conditions are noted below:

[ ] Existing commercial site
[ ] Existing industrial site
[ ] Existing residential site

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

12. The type of project is:

☐ Residential: # of Lots: _____
☐ Residential: # of Living Unit Equivalents: _____
☐ Commercial
☐ Industrial
☒ Other: THE SITE HAS A PUD AGREEMENT, WILL BE DEVELOPED WITH OFFICE SPACES PLUS 71 TOWNHOMES

13. Total project area (size of site): 9.996 Acres

Total disturbed area: 8 Acres

14. Estimated projected population: 225

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	227,585	÷ 43,560 =	5.22
Parking	96,175	÷ 43,560 =	2.21
Other paved surfaces	19,185	÷ 43,560 =	.44
Total Impervious Cover	342,945	÷ 43,560 =	7.87

Total Impervious Cover 342,945 **÷ Total Acreage** 9.996 **X 100 =** 78.76 **% Impervious Cover**

16. ☒ **Attachment D - Factors Affecting Surface Water Quality**. A detailed description of all factors that could affect surface water quality is attached. If applicable, this includes the location and description of any discharge associated with industrial activity other than construction.

17. ☒ Only inert materials as defined by 30 TAC 330.2 will be used as fill material.

For Road Projects Only

Complete questions 18 - 23 if this application is exclusively for a road project.

☐ N/A

18. Type of project:

- ☐ TXDOT road project.
- ☐ County road or roads built to county specifications.
- ☐ City thoroughfare or roads to be dedicated to a municipality.
- ☐ Street or road providing access to private driveways.

19. Type of pavement or road surface to be used:

- ☐ Concrete
- ☐ Asphaltic concrete pavement
- ☐ Other: _____

20. Right of Way (R.O.W.):

Length of R.O.W.: _____ feet.
Width of R.O.W.: _____ feet.
L x W = _____Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.

21. Pavement Area:

Length of pavement area: _____ feet.
Width of pavement area: _____ feet.
L x W = _____Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.
Pavement area _____ acres ÷ R.O.W. area _____ acres x 100 = _____% impervious cover.

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

☐ A rest stop will not be included in this project.

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

Stormwater to be generated by the Proposed Project

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

Wastewater to be generated by the Proposed Project

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

☒ N/A

26. Wastewater will be disposed of by:

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

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

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

☒ Sewage Collection System (Sewer Lines):

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

☒ Existing.

☐ Proposed.

☐ N/A

Permanent Aboveground Storage Tanks(ASTs) ≥ 500 Gallons

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

☒ N/A

27. Tanks and substance stored:

Table 2 - Tanks and Substance Storage

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

Total x 1.5 = _____ Gallons

28. ☐ The AST will be placed within a containment structure that is sized to capture one and one-half (1 1/2) times the storage capacity of the system. For facilities with more than

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

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

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

Table 3 - Secondary Containment

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

Total: _____ Gallons

30. Piping:

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

31. ☐ The containment area must be constructed of and in a material impervious to the substance(s) being stored. The proposed containment structure will be constructed of: _____.

32. ☐ **Attachment H - AST Containment Structure Drawings**. A scaled drawing of the containment structure is attached that shows the following:

☐ Interior dimensions (length, width, depth and wall and floor thickness).
☐ Internal drainage to a point convenient for the collection of any spillage.
☐ Tanks clearly labeled
☐ Piping clearly labeled
☐ Dispenser clearly labeled

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

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

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

Site Plan Requirements

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

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

    Site Plan Scale: 1" = 100 '.

35. 100-year floodplain boundaries:

    ☒ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.

    ☐ No part of the project site is located within the 100-year floodplain.

    The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): _____.

36. ☒ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.

    ☐ The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot contour intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.

37. ☒ A drainage plan showing all paths of drainage from the site to surface streams.

38. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.

39. ☒ Areas of soil disturbance and areas which will not be disturbed.

40. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

41. ☒ Locations where soil stabilization practices are expected to occur.

42. ☐ Surface waters (including wetlands).

    ☒ N/A

43. ☐ Locations where stormwater discharges to surface water.

    ☒ There will be no discharges to surface water.

44. ☐ Temporary aboveground storage tank facilities.

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

45. ☐ Permanent aboveground storage tank facilities.

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

46. ☒ Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

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

47. ☒ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.

☐ N/A

48. ☒ These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.

☒ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

☐ A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is: _____.

☐ N/A

49. ☒ Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

☐ N/A

50. Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

☐ The site will be used for low density single-family residential development and has 20% or less impervious cover.

☐ The site will be used for low density single-family residential development but has more than 20% impervious cover.

☒ The site will not be used for low density single-family residential development.

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

    ☐ **Attachment I - 20% or Less Impervious Cover Waiver**. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached.

    ☒ The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.

    ☐ The site will not be used for multi-family residential developments, schools, or small business sites.

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

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

    ☐ No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.

    ☐ Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.

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

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

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

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

    ☐ N/A

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

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

☐ N/A

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

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

☐ N/A

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

☒ N/A

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

☐ N/A

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

59. ☒ The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.

60. ☒ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development,

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

Administrative Information

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

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

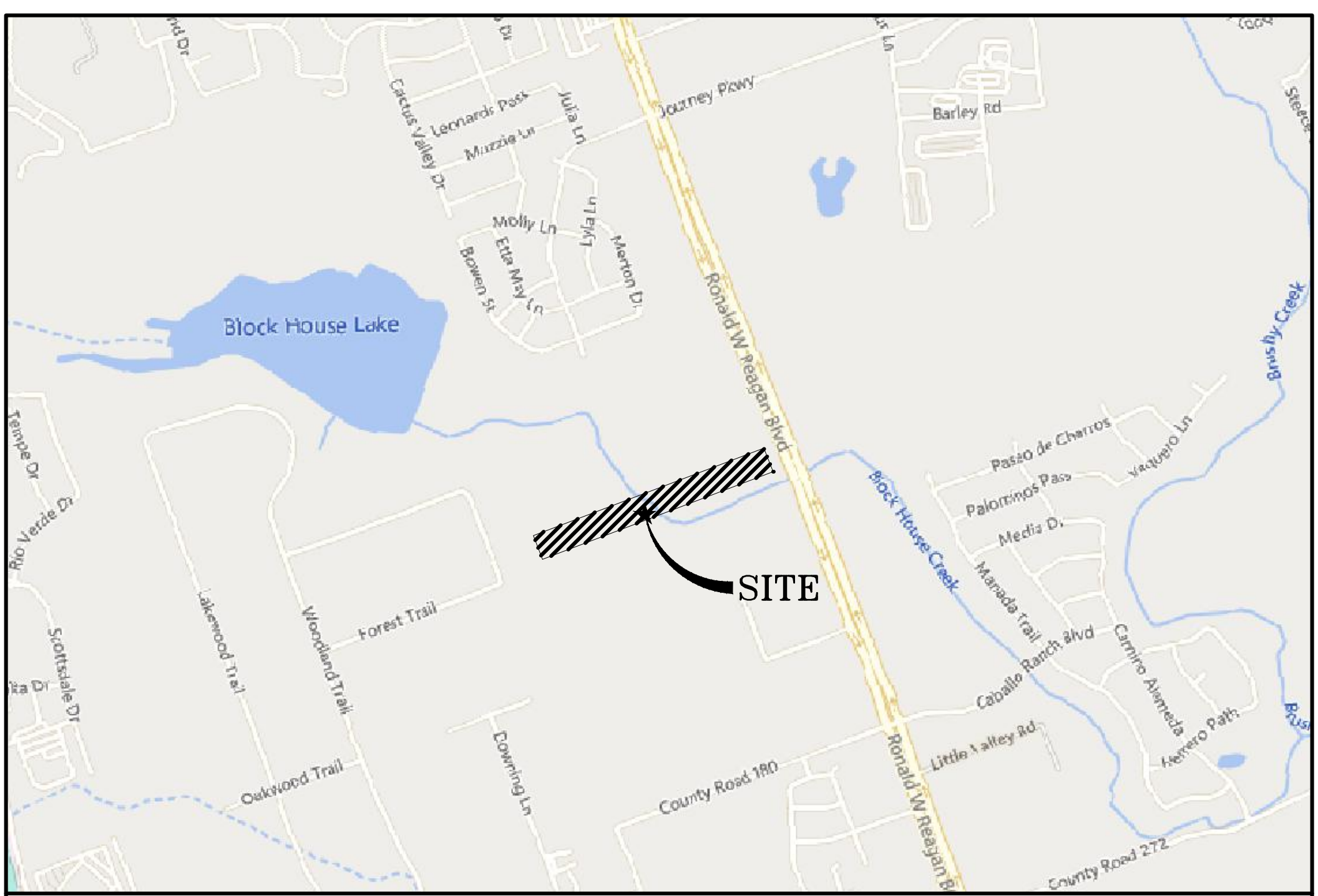
63. [ ] The site description, controls, maintenance, and inspection requirements for the storm water pollution prevention plan (SWPPP) developed under the EPA NPDES general permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC §213.24(1-5) of the technical report. All requirements of 30 TAC §213.24(1-5) have been met by the SWPPP document.

[X] The Temporary Stormwater Section (TCEQ-0602) is included with the application.

Contributing Zone Plan Attachments

(TCEQ-10257)

ATTACHMENT A – ROAD MAP



0' 500' 1000' 2000'

SCALE: 1"=1000'

LOCATION MAP

GRID: L20
MAPSCO: 466X

ATTACHMENT B – USGS QUADRANGLE MAP

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

The National Map US Topo

LEANDER QUADRANGLE
TEXAS
7.5-MINUTE SERIES

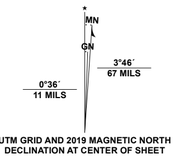


Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 14R

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery.....NAIP, September 2016 - November 2016
Roads..... U.S. Census Bureau, 2015 - 2019
Names.....GNIS, 1979 - 2022
Hydrography.....National Hydrography Dataset, 2002 - 2020
Contours.....National Elevation Dataset, 2019
Boundaries.....Multiple sources; see metadata file 2019 - 2021

Wetlands.....FWS National Wetlands Inventory Not Available



UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

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

SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 MILES 1
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

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



QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

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

ADJOINING QUADRANGLES

ROAD CLASSIFICATION

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

LEANDER, TX
2022

NSN 7643016396981
NGA REF NO. USGSX24K25238

Contributing Zone Plan Attachments

(TCEQ-10257)

ATTACHMENT C- PROJECT NARRATIVE

The project is for a site that encompasses 9.996 acres of mostly-undeveloped land located at 14751 Ronald Reagan Blvd in Leander, Texas. The developed portion of the site is the easternmost portion of the site that fronts Ronald Reagan Blvd. The existing development includes ~2,400 square feet residential building footprint (manufactured home and porches) as well as 5,600 square feet of driveways and parking.

Site has zoning approval for 71 detached residential units (townhomes) as well as an office and amenities building/pool. The scope of the project will include utility, road, water, wastewater, drainage, stormwater detention, and water quality design for the purpose of developing the 9.996-acre tract. The development will result in a total of ~260,638 square feet of impervious cover, which is ~61% of the gross site area.

We will be permitting the site through the City of Leander as two separate phases. For any attached site plan sheets, notice on the right hand side of the sheet if it is Phase 1 or Phase 2. Phase 1 will include all of the area east of the creek and Phase 2 will include the bridge over the creek and units 33-71. Ponds 1 and 2 will be constructed in Phase 1 and Pond 3 will be constructed in Phase 2. The ponds were designed to control storm flows and manage TSS load removal as standalone phases, but we are submitting our TCEQ CZP for the site as a whole.

ATTACHMENT D – FACTORS AFFECTING SURFACE WATER QUALITY

The proposed development may include factors that could affect storm and ground water quality:

- Disturbance of vegetated areas
- Construction spoils
- Leaking oil from parked vehicles
- Loss of vegetative ground cover due to inadequate watering or mismanagement
- Over fertilizing vegetative areas
- The use of roads by automotive traffic and subsequent oil / grease pollutants from normal use
- The accidental or improper discharge of the following:
    - Concrete
    - Cleaning solvents
    - detergents
    - Petroleum based products
    - Paints
    - Paint solvents
    - Acids
    - Concrete additives
    - Portable restrooms

Contributing Zone Plan Attachments

(TCEQ-10257)

ATTACHMENT E – VOLUME AND CHARACTER OF STORMWATER

Increases in stormwater runoff from the pre-project to post-project conditions necessitated the use of onsite above ground detention. We are providing 3 batch-detention basins designed in accordance with TCEQ technical guidance document *Complying with the Edwards Aquifer Rules: Technical Guidance on best Management Practices (2005).* For detailed information regarding the pre and post development storm flows see the included Existing Drainage Area Maps, Proposed Drainage Area Maps, and Pond 1 Plan & Profile sheets, Pond 2 Plan & Profile sheets, Pond 3 Plan & Profile sheets, Pond 1 Notes & Details sheet, Pond 2 Notes & Details sheet, Pond 3 Notes & Details sheet.

The Pond 1 Notes & Details sheet, Pond 2 Notes & Details sheet, and Pond 3 Notes & Details sheet show the TCEQ Removal Calculations excel tables as well as the stage-storage tables.

ATTACHMENT F – SUITABILITY LETTER FROM AUTHORIZED AGENT

NOT APPLICABLE

ATTACHMENT G – ALTERNATIVE SECONDARY CONTAINMENT METHODS

NOT APPLICABLE

ATTACHMENT H – AST CONTAINMENT STRUCTURE DRAWINGS

NOT APPLICABLE

Contributing Zone Plan Attachments

(TCEQ-10257)

ATTACHMENT I – 20% OR LESS IMPERVIOUS COVER WAIVER

NOT APPLICABLE

ATTACHMENT J – BMPS FOR UPGRADIENT STORMWATER

There is a small area of upgradient stormwater west of the project site that drains through the site until it reaches the creek. This is Point of Analysis 1 on the existing and proposed drainage area maps. For our proposed conditions, we are capturing the upgradient stormwater in Pond 3 to control the flows and capture sediment prior to releasing it to the creek.

ATTACHMENT K – BMPS FOR ON-SITE STORMWATER

BMPs for treating ontsite storm water consist of three batch detention ponds. TSS removal required was calculated using the TCEQ TSS Removal Calculations spreadsheet. Total required TSS removal for the site is 4356 lbs.

TSS Removal for each pond:

Pond 1: 2821 lbs.

Pond 2: 500 lbs.

Pond 3: 2030 lbs.

Total TSS Removal: 5,351 lbs.

For the full excel tables regarding TSS removal and specific information on the ponds, Plan & Profile sheets and Notes & Details sheets have been included for each of the 3 ponds.

ATTACHMENT L – BMPS FOR SURFACE STREAMS

Stormwater will be captured and treated by water quality ponds prior to being released into streams. During construction, streams will be protected with temporary erosion control measures such as silt screening and mulch socks to capture sediments.

ATTACHMENT M – CONSTRUCTION PLANS

See included civil stamped sheets from Harvest Retreat Phase 1 and Harvest Retreat Phase 2 site development plan sheet sets.

Contributing Zone Plan Attachments

(TCEQ-10257)

ATTACHMENT N – INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

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

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.

Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges.

A Weekly Inspection and Maintenance Form has been created to maintain the BMPs onsite. The On-site Project Manager will be responsible for scheduling the weekly inspection and making sure all necessary repairs are made to ensure the proper performance of the onsite BMPs. The form consists of the BMP inspected, a list of items for each BMP, a date of last inspection/maintenance, the current condition of the item being inspected, a description of the maintenance or repair that is needed, and when the maintenance or repair was complete.

Pest Management: The control of insects and weeds will be with minimal use of insecticides and herbicides.

Seasonal Mowing and Lawn Care: The basin, basin side-slopes, and embankment of the basin must be mowed to prevent woody growth and control weeds. A mulching mower should be used, or the grass clippings should be caught and removed. Mowing should take place at least twice a year, or more frequently if vegetation exceeds 18 inches in height. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas. If at the time of inspection, grass height exceeds 18 inches, notice will be provided to the owner/general contractor. Owner/general contractor are responsible to maintain grass height during construction and to correct to comply with TCEQ criteria.

Inspections: The facility will be inspected weekly during construction, and after any storm event. During each inspection, erosion areas inside and downstream of the BMPs must be identified and repaired or revegetated immediately. If work must stop due to weather, hydro mulch will be applied to site to stabilize. With each inspection, any damage to the structural elements of the system will be identified and repaired immediately. Cracks, voids, and undermining will be patched/filled to prevent additional structural damage. Trees and root systems will be removed to prevent growth in cracks and joints that can cause structural damage.

Sediment Removal: Sediment buildup shall be removed when the accumulation exceeds six inches in splitter boxes, wet wells and basins, when sediment traps are full, and when sediment, of any amount, causes standing water conditions or reduces basin storage by more than 10%.

Contributing Zone Plan Attachments

(TCEQ-10257)

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

Mowing: Grass areas in and around sand filters will be mowed at least twice annually to limit vegetation height to 18 inches. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas. Vegetation on the pond embankments should be mowed as appropriate to prevent the establishment of woody vegetation.

Vegetation: A plan should be provided indicating how the basin will be stabilized, with vegetation, stone, or concrete. If vegetation is used for stabilization, the facility should be planted and maintained to provide full and robust cover. Vegetation on the basin embankments should be mowed as appropriate to prevent the establishment of woody vegetation.

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

ATTACHMENT 0 – PILOT-SCALE FIELD TESTING PLAN

NOT APPLICABLE

ATTACHMENT P – MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION

Measures for temporary controls are:

Temporary Construction Entrance/Exit. The purpose of a temporary gravel construction entrance is to provide a stable entrance/exit condition from the construction site and keep mud and sediment off public roads. A stabilized construction entrance is a stabilized pad of crushed stone located at any point traffic will be entering or leaving the construction site from a public right-of-way, street, alley, sidewalk or parking area. The purpose of a stabilized construction entrance is to reduce or eliminate the tracking or flowing of sediment onto public rights-of-way. This practice will be used at all points of construction ingress and egress. The entrance will be maintained in a condition, which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed, or tracked onto public rights-of-way will be removed immediately by contractor. When necessary, wheels will be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it will be done on an area stabilized with crushed stone that drains into the appropriate designated area. All sediment will be prevented from entering a storm drain, ditch or watercourse by using approved methods.

Silt Fence. A silt fence is a barrier consisting of geotextile fabric supported by metal posts to prevent soil and sediment loss from a site. When properly used, silt fences can be highly effective at controlling sediment from disturbed areas. They cause runoff to pond, allowing heavier solids to settle out. The purpose of a silt fence is to intercept and detain water-borne sediment from unprotected areas of a limited extent. Silt fence will be used during the entire period of construction near the perimeter of a disturbed area to intercept sediment while allowing water to percolate through. This fence will remain in place until the disturbed area is permanently stabilized. All fencing will be inspected weekly, and after any rainfall. Sediment will be removed when buildup reaches 6 inches. Any torn fabric will be replaced or a second line of fencing will be installed parallel to the torn section. Any sections of fencing that are crushed or collapsed in the course of construction activity will be replaced or repaired. If a section of fence is obstructing vehicular access it will be relocated to a spot where it will provide equal protection, but will not obstruct vehicles. When construction is complete, the sediment will be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence will be revegetated. The fence itself will be disposed of in an approved landfill.

Concrete Washout Area The concrete washout area will be located on the north side of the proposed western private street.. The purpose of concrete washout areas is to prevent or reduce the discharge of pollutants to stormwater from concrete waste by conducting washout offsite, performing onsite washout in a designated area, and training employees and subcontractors.

Contributing Zone Plan Attachments

(TCEQ-10257)

The following steps will help reduce stormwater pollution from concrete wastes:

- Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.
- Avoid mixing excess amounts of fresh concrete.
- Perform washout of concrete trucks in designated areas only.
- Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
- Do not allow excess concrete to be dumped onsite, except in designated areas.

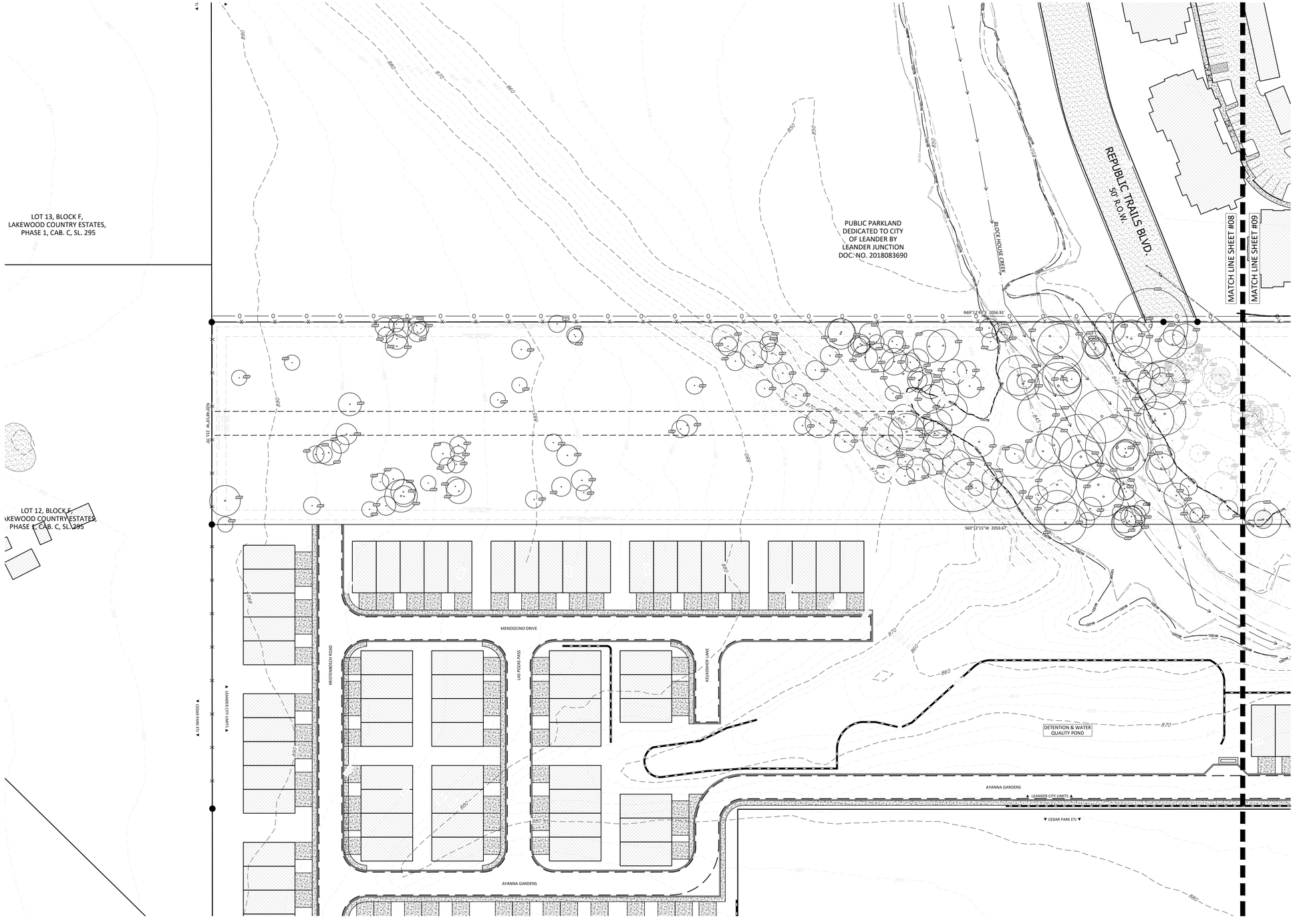
For onsite washout:

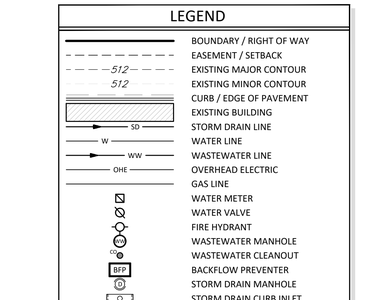
- Locate washout area at least 50 feet from sensitive features, storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
- Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.

Below grade concrete washout facilities are typical. These consist of a lined excavation sufficiently large to hold expected volume of washout material. Above grade facilities are used if excavation is not practical. Temporary concrete washout facility (type above grade) should be constructed as shown on the details at the end of this section, with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. Plastic lining material should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material. When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of. Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

Measures for permanent control are:

Three ponds are proposed on this project to minimize surface stream contamination and change the way in which water enters a stream as a result of the construction and development.





KEY MAP
SCALE: 1"=500'

0' 25' 50' 100'
SCALE: 1"=50'

LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- CURB / EDGE OF PAVEMENT
- EXISTING BUILDING
- STORM DRAIN LINE
- WATER LINE
- WASTEWATER LINE
- OVERHEAD ELECTRIC
- GAS LINE
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- WASTEWATER MANHOLE
- WASTEWATER CLEANOUT
- BACKFLOW PREVENTER
- STORM DRAIN MANHOLE
- STORM DRAIN CURB INLET
- STORM DRAIN AREA INLET
- TRANSFORMER
- AIR CONDITIONER UNIT
- GAS METER
- ELECTRIC MANHOLE
- ELECTRIC BOX
- UTILITY POLE
- GUY WIRE
- SIGN
- SURVEY ROD/NAIL
- BENCHMARK
- TREE - REMOVE
- TREE - REMAIN

ATTENTION:

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AT LEAST 48 HOURS PRIOR TO EXCAVATION, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY TO REQUEST EXACT FIELD LOCATIONS AS REQUIRED. CONTRACTOR SHALL CONTACT THE TEXAS EXCAVATION SAFETY SYSTEM AT 800-344-8377 AT LEAST TWO FULL WORKING DAYS BEFORE COMMENCING ANY EXCAVATION OR UTILITY WORK.

Texas 811

CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	0°42'43"	17011.73'	211.39'	S21°33'54"E	211.38'

NOTES:

1. EXISTING CONDITIONS SURVEY PREPARED BY MC SURVEYING ON OCTOBER 14, 2022.
2. A PRECONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR IS REQUIRED PRIOR TO ANY SITE DISTURBANCE.
3. WHERE TREE PROTECTION FENCING CANNOT BE INSTALLED AROUND THE FULL CRZ, PLACE FENCING AT THE 1/2 CRZ AND ADD 8" OF HARDWOOD MULCH FROM THE 1/2 CRZ TO THE FULL CRZ.
4. THE SIZE AND LOCATION OF UTILITY STRUCTURES, (IF SHOWN), MAY BE EXAGGERATED FOR GRAPHICAL CLARITY. THE SURVEY SHOWS FIELD MEASURED SIZES AND DEPTHS AS OBSERVED FROM GROUND LEVEL OPENINGS.

ON SITE BENCHMARK

BENCHMARK #1:
CUT SQUARE IN TOP OF CONCRETE HEADWALL
ELEV = 845.39'

NO.	DATE	REVISION

RADIUS
CIVIL ENGINEERING
FIRM NO: F-23684
WWW.RADIUSCIVIL.COM
10928 ANAHUAC TRL, AUSTIN, TEXAS 78747
(512) 431-8510
INFO@RADIUSCIVIL.COM

STATE OF TEXAS
JOHN P. SULLIVAN
144534
LICENSED
PROFESSIONAL ENGINEER
09/20/2024

HARVEST RETREAT
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

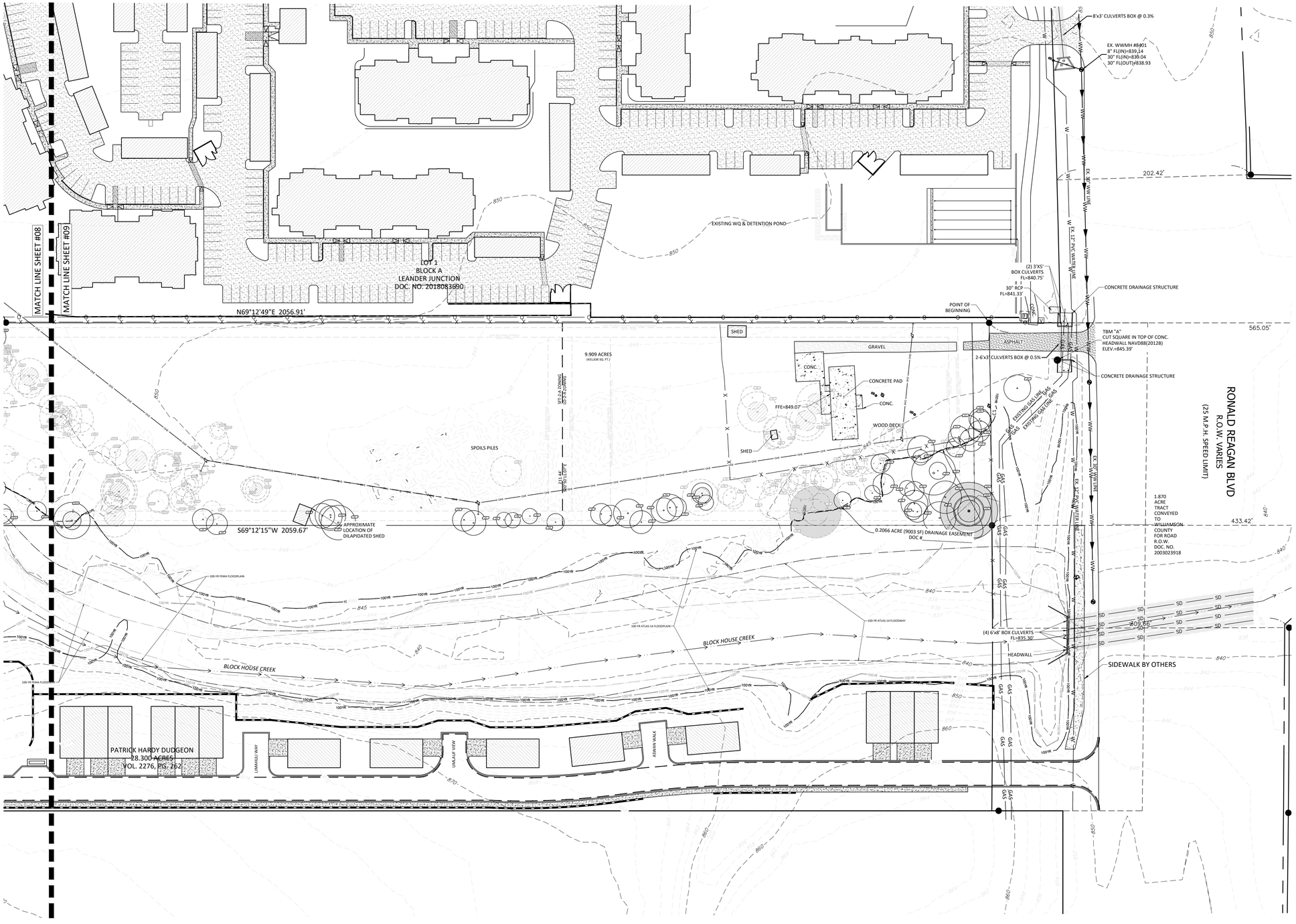
EXISTING CONDITIONS PLAN (1 OF 2)

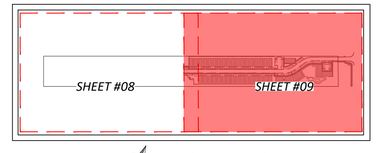
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08
OF 71

SD-24-0196

Plot Date: 09/09/2025 @ 4:11 PM

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KEY MAP
SCALE: 1"=500'

0' 25' 50' 100'
SCALE: 1"=50'

LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- 512 EXISTING MAJOR CONTOUR
- 512 EXISTING MINOR CONTOUR
- CURB / EDGE OF PAVEMENT
- EXISTING BUILDING
- SD STORM DRAIN LINE
- W WATER LINE
- WW WASTEWATER LINE
- OHE OVERHEAD ELECTRIC
- GAS LINE
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- WASTEWATER MANHOLE
- WASTEWATER CLEANOUT
- BFP BACKFLOW PREVENTER
- STORM DRAIN MANHOLE
- STORM DRAIN CURB INLET
- STORM DRAIN AREA INLET
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4. THE SIZE AND LOCATION OF UTILITY STRUCTURES, (IF SHOWN), MAY BE EXAGGERATED FOR GRAPHICAL CLARITY. THE SURVEY SHOWS FIELD MEASURED SIZES AND DEPTHS AS OBSERVED FROM GROUND LEVEL OPENINGS.

ON SITE BENCHMARK

BENCHMARK #1:
CUT SQUARE IN TOP OF CONCRETE HEADWALL
ELEV = 845.39'

NO.	DATE	REVISION

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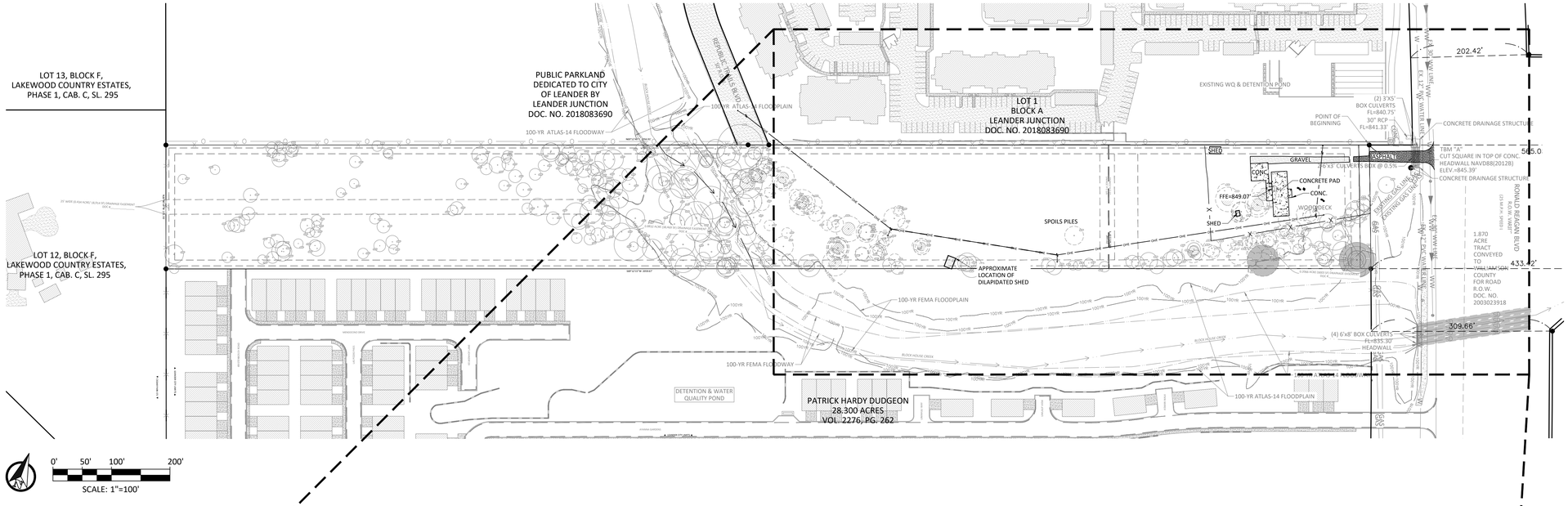
EXISTING CONDITIONS PLAN (2 OF 2)

SHEET
09
OF 71

SD-24-0196

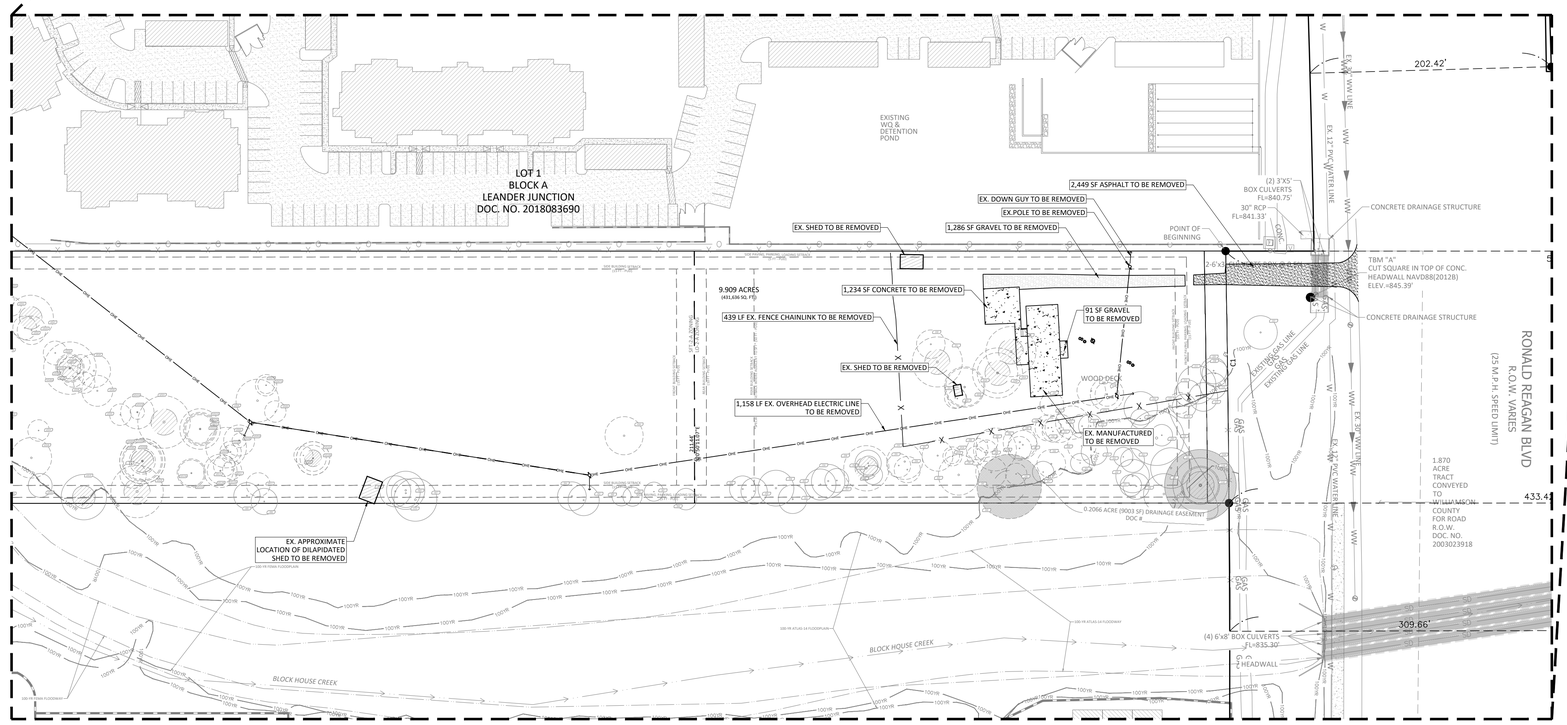
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LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- FIRE LANE STRIPING
- RETAINING / SCREENING WALL
- BUILDING PAD AREA
- PAVEMENT / ASPHALT
- PAVEMENT / CONCRETE
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- WASTEWATER MANHOLE
- WASTEWATER CLEANOUT
- BACKFLOW PREVENTER
- STORM DRAIN MANHOLE
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- TRANSFORMER
- AIR CONDITIONER UNIT
- GAS METER
- ELECTRIC MANHOLE
- ELECTRIC BOX
- UTILITY POLE
- GUY WIRE
- SIGN
- DUMPSTER
- MAIL BOX
- PARKING BUMPER
- ACCESSIBLE PARKING (ADA)
- CROSSWALK



NOTES:

1. EXISTING CONDITIONS SURVEY PREPARED BY MC SURVEYING ON OCTOBER 14, 2022
2. WHERE TREE PROTECTION FENCING CANNOT BE INSTALLED AROUND THE FULL CRZ, PLACE FENCING AT THE 1/2 CRZ AND ADD 8" OF HARDWOOD MULCH FROM THE 1/2 CRZ TO THE FULL CRZ.
3. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TURCKS AND MULCHING AS PER ECM 1.4.5(A), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY.
4. WHEN INSTALLING MULCH LOGS, IF DAYLIGHT CAN BE SEEN UNDER MULCH DUE TO TOPOGRAPHIC CHANGES, ADD ADDITIONAL ROWS OF MULCH LOG TO CLOSE GAPS.
5. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF ANY AND ALL EXISTING APPLICABLE BUILDING/STRUCTURES ON THE SITE AND UTILITY RELOCATION WORK.
6. ALL DEBRIS AND EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE IN A MANNER NOT TO DAMAGE THE SITE PRIOR TO ACCEPTANCE OF THE PROJECT.
7. ALL REQUIRED RELOCATIONS OR ALTERATIONS OF TELEPHONE POLES, UNDERGROUND CONDUIT, POWER POLES, AND ANY OTHER FACILITIES SHALL BE DONE BY THE CONTRACTOR UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE HIS WORK WITH THAT OF OTHER CONTRACTORS AND UTILITY COMPANIES SO AS NOT TO DELAY THE PROJECT.
8. THE CONTRACTOR SHALL REMOVE OR RELOCATE, WHEN APPLICABLE, ALL EXISTING BUILDINGS, FOUNDATIONS, BASEMENTS, AND CONNECTING IMPROVEMENTS, DRAIN PIPES, SANITARY SEWER PIPE, POWER POLES AND GUY WIRES, WATER METERS AND WATER LINES, WELLS, SIDEWALKS, SIGN POLES, UNDERGROUND GAS, SEPTIC TANKS, AND ASPHALT, SHOWN AND NOT SHOWN, WITHIN CONSTRUCTION LIMITS AND WHERE NEEDED, TO ALL FOR CONSTRUCTION, UNLESS OTHERWISE NOTED.
9. CONTRACTOR TO PROTECT ALL UTILITIES THAT ARE TO REMAIN.
10. THE SIZE AND LOCATION OF UTILITY STRUCTURES, (IF SHOWN), MAY BE EXAGGERATED FOR GRAPHICAL CLARITY. THE SURVEY SHOWS FIELD MEASURED SIZES AND DEPTHS AS OBSERVED FROM GROUND LEVEL OPENINGS.
11. FLOODPLAIN LIMITS DELINEATED VIA FLOODPLAIN STUDY PREPARED BY RADIUS CIVIL ENGINEERING DATED MAY 2023.
12. REFER TO SHEETS 08-10 FOR TREE PRESERVATION PLAN AND TREE TABLE.

ATTENTION:

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Texas 811

Plot Date: 20/09/2025 @ 4:14 PM

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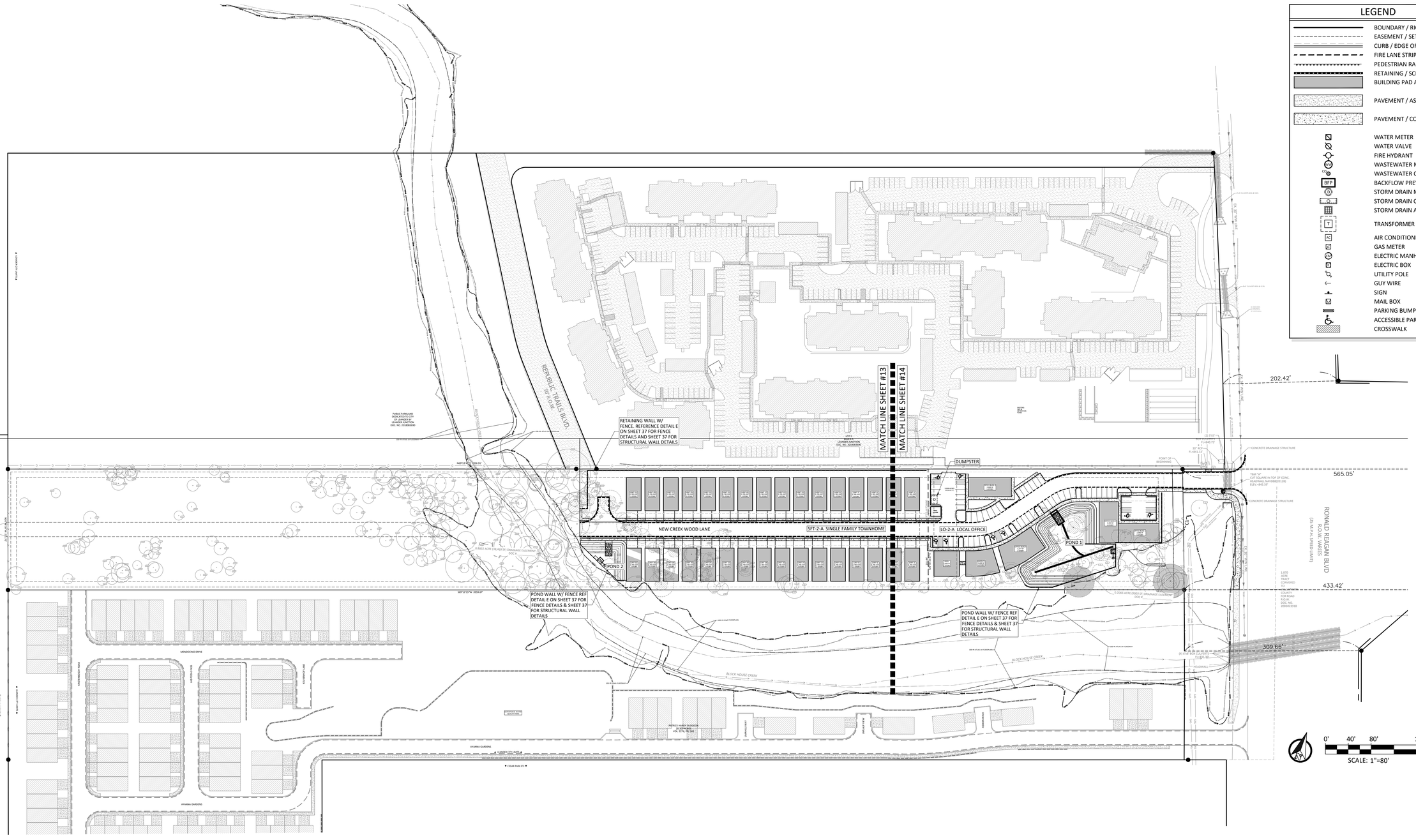
STATE OF TEXAS
JOHN P. SULLIVAN
144534
LICENSED
PROFESSIONAL ENGINEER
09/20/2024

HARVEST RETREAT
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

DEMOLITION PLAN

SHEET
11
OF 71

SD-24-0196



LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- FIRE LANE STRIPING
- PEDESTRIAN RAILING
- RETAINING / SCREENING WALL
- BUILDING PAD AREA
- PAVEMENT / ASPHALT
- PAVEMENT / CONCRETE
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- WASTEWATER MANHOLE
- WASTEWATER CLEANOUT
- BACKFLOW PREVENTER
- STORM DRAIN MANHOLE
- STORM DRAIN CURB INLET
- STORM DRAIN AREA INLET
- TRANSFORMER
- AIR CONDITIONER UNIT
- GAS METER
- ELECTRIC MANHOLE
- ELECTRIC BOX
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- GUY WIRE
- SIGN
- MAIL BOX
- PARKING BUMPER
- ACCESSIBLE PARKING (ADA)
- CROSSWALK

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Texas 811

Plot Date: 20/09/2023 @ 3:48 PM

EMERGENCY ACCESS NOTES:

1. ALL FIRE DEPARTMENT ACCESS DRIVES/ROADS TO HAVE A MINIMUM 14'-0" VERTICAL CLEARANCE.
2. PER FIRE LANE STRIPING DETAILS #501-2: FIRE APPARATUS ACCESS ROADS SHALL BE CONTINUOUSLY MARKED BE PAINTED LINES OF RED TRAFFIC PAINT SIX INCHES (6") IN WIDTH TO SHOW THE BOUNDARIES OF THE LANE. THE WORDS "FIRE LANE TOW AWAY ZONE" OR "FIRE ZONE TOW AWAY ZONE" SHALL APPEAR IN FOUR INCH (4") WHITE LETTERS AT 25 FEET INTERVALS OR LESS, ON THE RED BORDER MARKINGS ALONG BOTH SIDES OF THE FIRE LANES. WHERE A CURB IS AVAILABLE, THE STRIPING SHALL BE ON THE VERTICAL FACE OF THE CURB.
3. FIRE LANE SIGNS: SIGNS SHALL READ "FIRE LANE TOW AWAY ZONE" OR "FIRE ZONE TOW AWAY ZONE" AND SHALL BE 12" WIDE AND 18" HIGH. SIGNS SHALL BE PAINTED ON A WAY BACKGROUND WITH LETTERS AND BORDERS IN RED, USING NOT LESS THAN 2" LETTERING. SIGNS SHALL BE PERMANENTLY AFFIXED TO STATIONARY POST AND THE BOTTOM OF THE SIGN SHALL BE SIX FEET, SIX INCHES (6'6") ABOVE FINISHED GRADE. SIGNS SHALL BE SPACED NOT MORE THAN THIRTY-FIVE FEET (35') APART. SIGNS MAY BE INSTALLED ON PERMANENT BUILDINGS OR WALL OR AS APPROVED BE THE FIRE CODE OFFICIAL.

SITE PLAN NOTES:

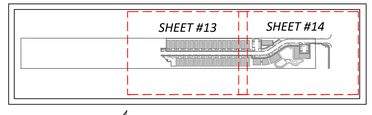
1. WATER AND WASTEWATER SERVICE TO BE PROVIDED BY THE CITY OF LEANDER.
2. AL CLAWSON DISPOSAL, INC. SHALL BE THE SOLE PROVIDER OF WASTE HAULING FOR THIS SITE AFTER CONSTRUCTION. DURING CONSTRUCTION, AN ALTERNATIVE WASTE HAULER MAY BE USED AS LONG AS THEY HAVE A FRANCHISE AGREEMENT WITH THE CITY.
3. WARNING SIGNS ARE REQUIRED TO BE PLACED UNDER THE OVERHEAD ELECTRIC LINES TO MAKE ALL PERSONNEL AWARE OF THE ELECTRIC HAZARD.
4. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
5. CAUTION: DO NOT PLACE THE STAGING AREA IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES.
6. ALL SITE UTILITY LINES ARE PROPOSED TO BE LOCATED UNDERGROUND.
7. REFER TO LANDSCAPE PLANS FOR FENCE AND GATE DETAILS.
8. FENCING FACING THE GREENBELT TO BE LIMITED TO WROUGHT IRON OR DECORATIVE, TUBULAR METAL FENCING PER PUD.
9. ATLEAST 85% OF FIRST STORY AND 50% FOR EACH ADDITIONAL STORY WALLS SHALL BE MASONRY PER DEVELOPMENT AGREEMENT.
10. THE FRONT 25-FT ALONG RONALD REAGAN BLVD WILL BE LANDSCAPED AT 150% OF THE STANDARDS LANDSCAPE REQUIREMENTS TO ENHANCE THE ENTRY AND PUBLIC VIEW OF THE PROPERTY PER PUB (ZONING ORDINANCE 19-024-00).
11. AN APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM WILL BE INSTALLED THROUGOUT ALL UNITS/BUILDINGS WITHIN THE PROJECT, INCLUDING ATTIC SPACES, SMALL ROOMS, BALCONIES, ETC.

SITE PLAN NOTES:

12. ALL EASEMENTS OF RECORD AS INDICATED ON THE MOST RECENT TITLE RUN (DATED: 11/14/2023, CONDUCTED BY: OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY) FOR THIS SITE AFTER CONSTRUCTION. DURING CONSTRUCTION, AN ALTERNATIVE WASTE HAULER MAY BE USED AS LONG AS THEY HAVE A FRANCHISE AGREEMENT WITH THE CITY.
13. EXTERIOR LIGHTING SHALL BE SHIELDED SUCH THAT THT ELIGHT SOURCE IS NOT DIRECTLY VISIBLE FROM THE PURBLIC ROW OR ADJACENT RESIDENTIAL DISTRICTS OR USES AT THE PROPERTY LINE. UNSHIELDED "WALL PACK" LIGHTING IS NOT PROPOSED.
14. AIR CONDITIONING UNITS ARE NOT PROPOSED FORWARD THE FRONT WALL OF THE BUILDING.
15. GARAGE DUMPSTERS ARE LOCATED NO CLOSER TO A ROADWAY THAN THE FRONT WALL OF THE PRINCIPAL STRUCTURE LOCATED CLOSEST TO THE RAODWAY. GARAGE DUMPSTERS ARE SCREENED BY A WALL (COMPRISED OF MASONRY COMPATIBLE WITH THE STRUCTURE OR WOODCRETE) AT LEAST AS HIGH AS THE CONTAINER. THE OPEN SIDE TO THE DUMPSTER OR OTHER TRASH RECEPTACLE IS A GATE CONSTRUCTED OF SOLID WOOD OR METAL. THE DUMPSTER IS ORIENTED FOR PICKUP BY A FRONT LOAD GARBAGE TRUCK.
16. FOR 90 GALLON ROLL OUT CONTAINER STORED OUSIDE, IT IS REQUIRED TO BE ENCLOSED BY PRIVACY FENCE.
17. OFFICE BUILDINGS HOURS OF OPERTATION TO THE GENERAL PUBLIC ARE LIMITED TO BETWEEN 7:00 AM AND 10:00 PM SUNDAY THROUGH THURSDAY, AND 7:00 AM AND 11:00 PM FRIDAY AND SATURDAY.
18. ALL TOWNHOMES WILL BE SERVICED BY ROLL-OUT BINS

AMENITY CENTER NOTE:

AMENITY CENTER TO INCLUDE MEETING AND CONFERENCE SPACE AS WELL AS A COMMUNITY GYM



KEY MAP
SCALE: 1"=500'

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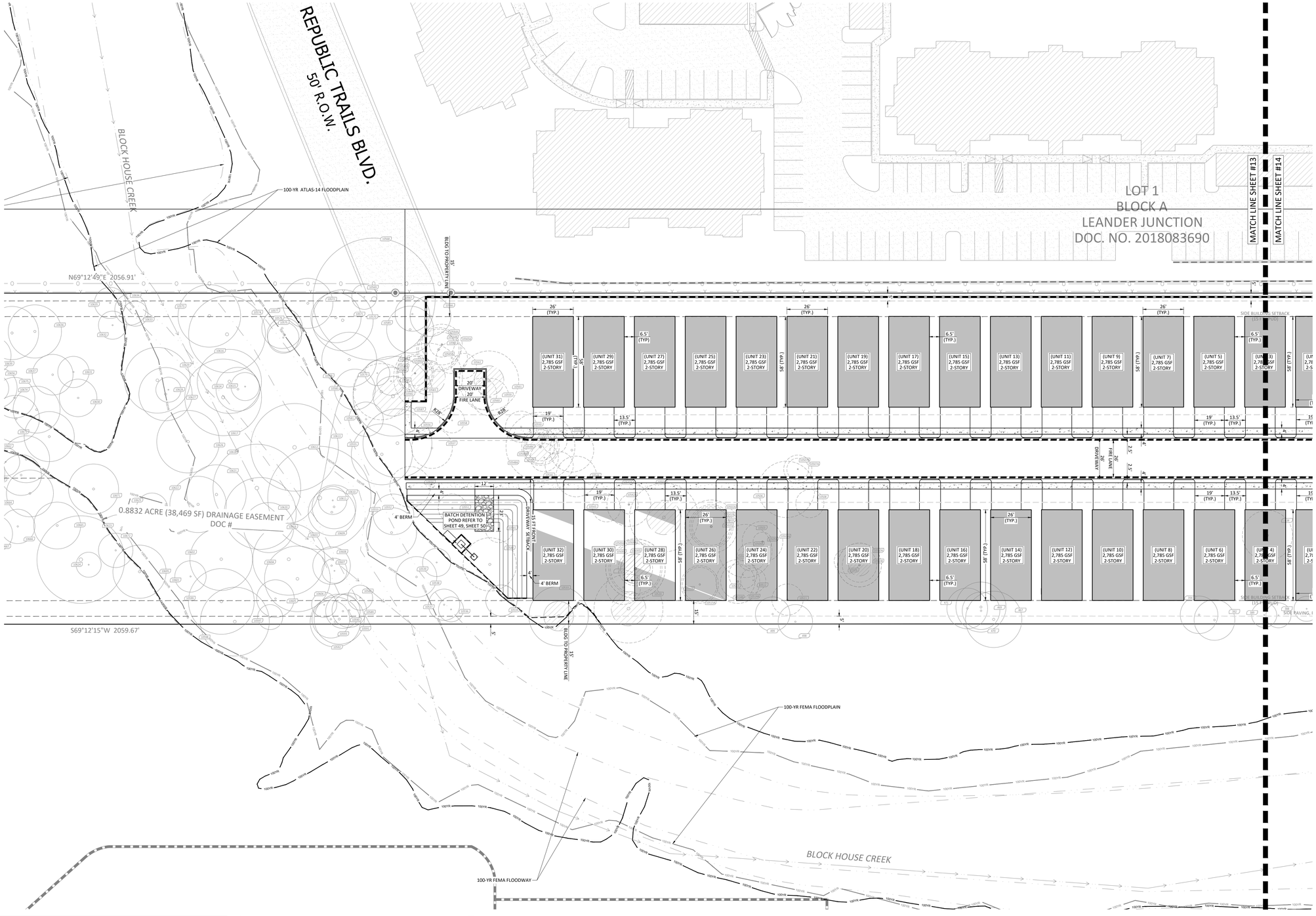
HARVEST RETREAT
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

SITE PLAN OVERALL

SHEET
12
OF 71

SD-24-0196

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LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- FIRE LANE STRIPING
- PEDESTRIAN RAILING
- RETAINING / SCREENING WALL
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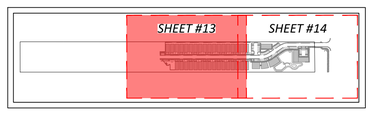
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Texas 811

NOTES:

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2. ESTABLISH FIRE ZONES AS SHOWN ON SITE BY PAINTING CURB RED. STENCIL THE WORDS "FIRE ZONE/TOW-AWAY ZONE" IN WHITE LETTERS 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
3. ALL PARKING SPACES SHALL HAVE MINIMUM 7'-0" VERTICAL CLEARANCE.
4. CONTRACTOR TO HAVE STAKING VERIFIED BY OWNER PRIOR TO PROCEEDING WITH CONSTRUCTION.
5. SEE OVERALL SITE PLAN ON SHEET #13 FOR ADDITIONAL NOTES.
6. RETAINING WALLS OVER FOUR FEET IN HEIGHT MEASURED FROM THE BOTTOM OF FOOTING TO THE TOP OF THE WALL SHALL BE ENGINEERED AND REQUIRED A SEPARATE BUILDING PERMIT [IBC 105.2].



KEY MAP
SCALE: 1"=500'

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

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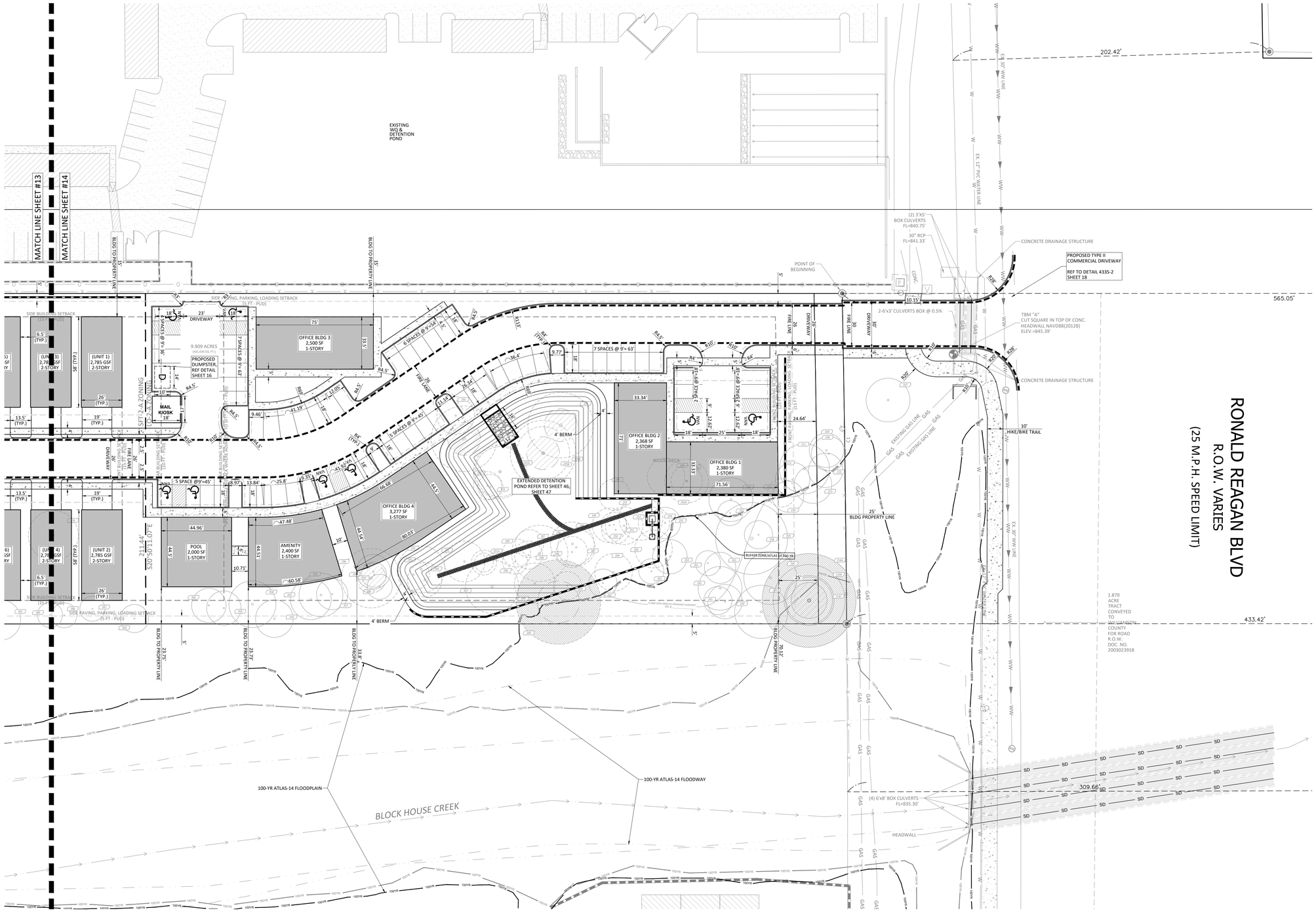
DIMENSIONAL CONTROL PLAN (1 OF 2)

SHEET
13
OF 71

SD-24-0196

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LEGEND

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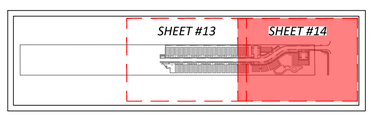
RONALD REAGAN BLVD

R.O.W. VARIES

(25 M.P.H. SPEED LIMIT)

0' 15' 30' 60'

SCALE: 1"=30'



KEY MAP

SCALE: 1"=500'

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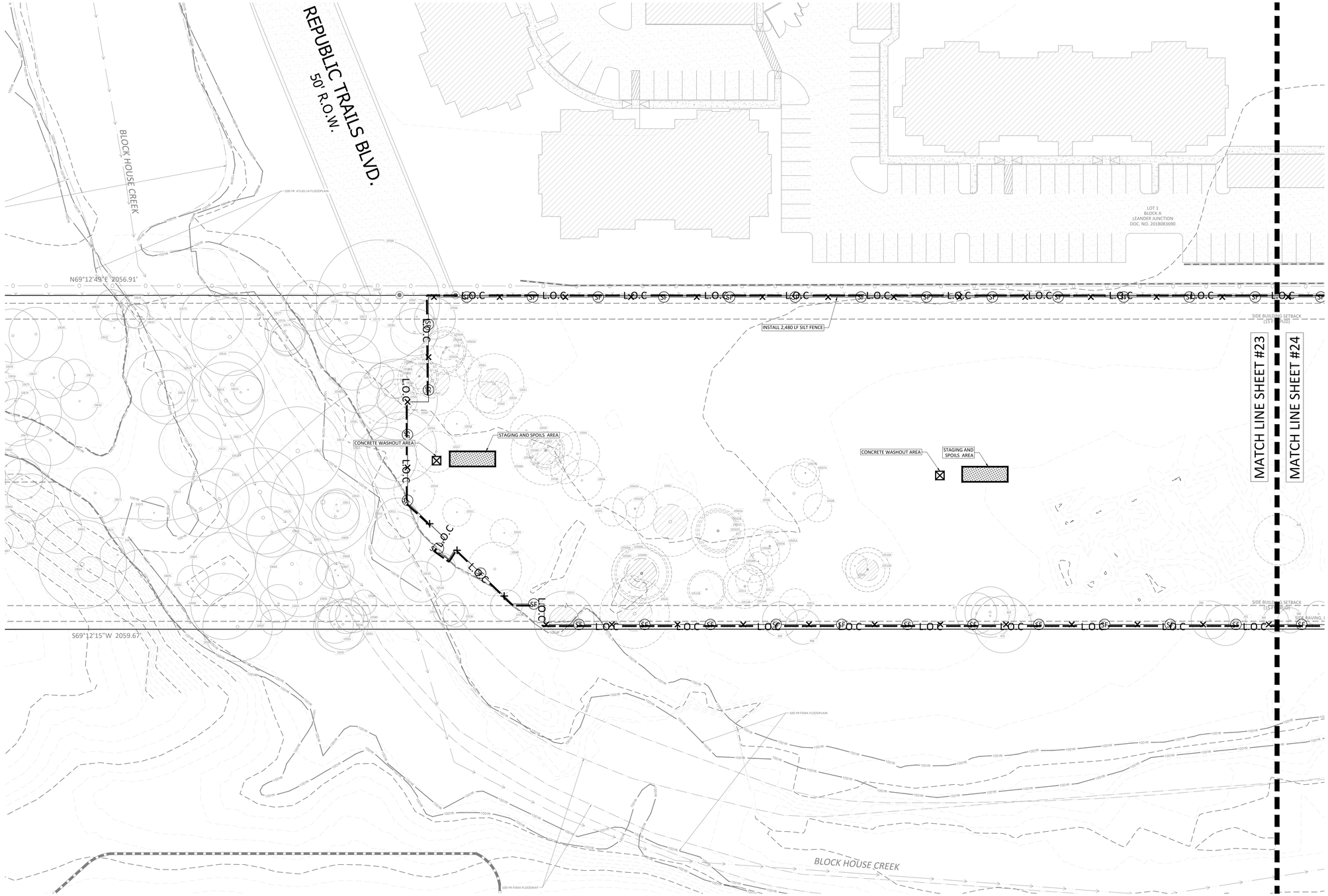
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DIMENSIONAL CONTROL PLAN (2 OF 2)

SHEET
14
OF 71

SD-24-0196



LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- 510 — EXISTING MAJOR CONTOUR
- 512 — EXISTING MINOR CONTOUR
- 200 — PROPOSED MAJOR CONTOUR
- 201 — PROPOSED MINOR CONTOUR
- TREE - REMOVE
- TREE - REMAIN
- TP — TREE PROTECTION FENCE
- L.O.C — LIMIT OF CONSTRUCTION
- SF — SILT FENCE

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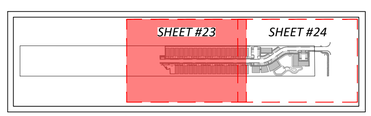
NOTES:

1. IF DISTURBED AREA IS NOT BE WORKE DON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING. [ECM 1.4.4.B.3, SECTION 5, I.]
2. ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN-COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS. [LDC 25-8-183]
3. CONTRACTOR SHALL USE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(A), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY. [ECM 1.4.4.D.4]
4. A PRECONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR IS REQUIRED PRIOR TO ANY SITE DISTURBANCE.
5. WHEN INSTALLING MULCH LOGS, IF DAYLIGHT CAN BE SEEN UNDER MULCH DUE TO TOPOGRAPHIC CHANGES, ADD ADDTIONAL ROWS OF MULCH LOG TO CLOSE GAP.
6. CONTRACTOR SHALL PROVIDE AND MAINTAIN A DEWATERING SYSTEM TO ENSURE IT MEETS COMPLIANCE WITH TITLE 6, ARTICLE V OF THE AUSTIN CITY CODE. THE DEWATERING PLANS MUST BE APPROVED BY THE ENVIRONMENTAL INSPECTOR DURING THE PRE-CONSTRUCTION CONFERENCE. IF THE PERFORMANCE OF THE DEWATERING SYSTEM IS NOT IN COMPLIANCE, THE CONTRACTOR MUST IMMEDIATELY MAKE THE NECESSARY MODIFICATIONS, FOLLOWING THE ENVIRONMENTAL INSPECTOR'S DIRECTION, TO ENSURE ADEQUATE SYSTEM PERFORMANCE.

NOTES:

ALL EROSION AND SEDIMENATION CONTROL DETAILS CALLED OUT ON THIS SHEET ARE LOCATED ON SHEET 27, SHEET 28, SHEET 29, "EROSION AND SEDIMINATION CONTROL DETAILS"

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



KEY MAP
SCALE: 1"=500'

Plot Date: 20/09/2025 @ 4:09 PM

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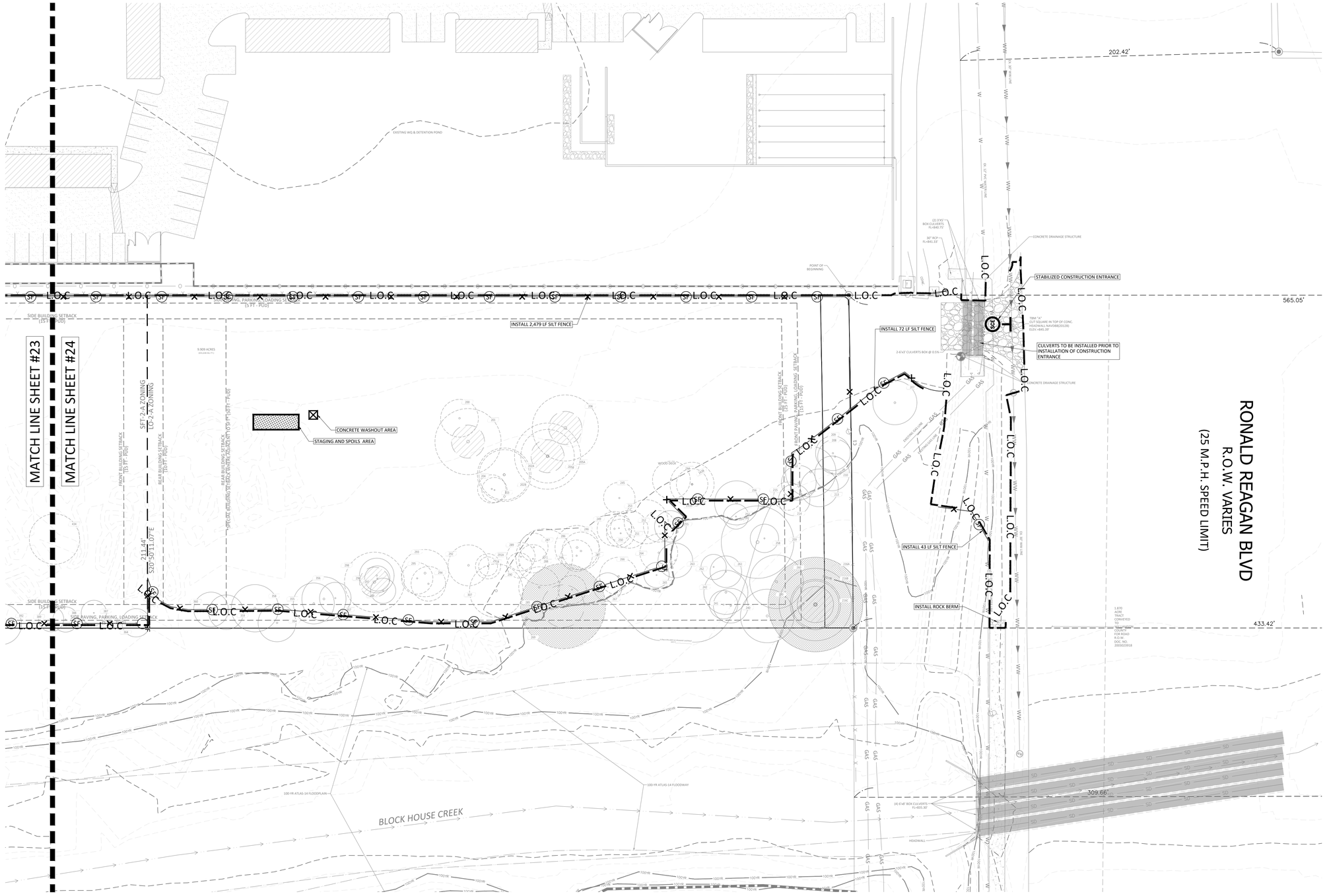
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EROSION & SEDIMENTATION CONTROL PLAN PHASE 1 (1 OF 2)

SHEET
23
OF 71

SD-24-0196



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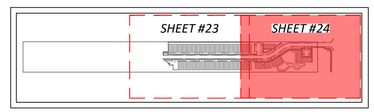
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NOTES:

ALL EROSION AND SEDIMENATION CONTROL DETAILS CALLED OUT ON THIS SHEET ARE LOCATED ON SHEET 27, SHEET 28, SHEET 29, "EROSION AND SEDIMINATION CONTROL DETAILS"

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



KEY MAP
SCALE: 1"=500'

Plot Date: 20/09/2025, @ 3:47 PM

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STATE OF TEXAS
JOHN P. SULLIVAN
144534
LICENSED PROFESSIONAL ENGINEER
09/20/2024

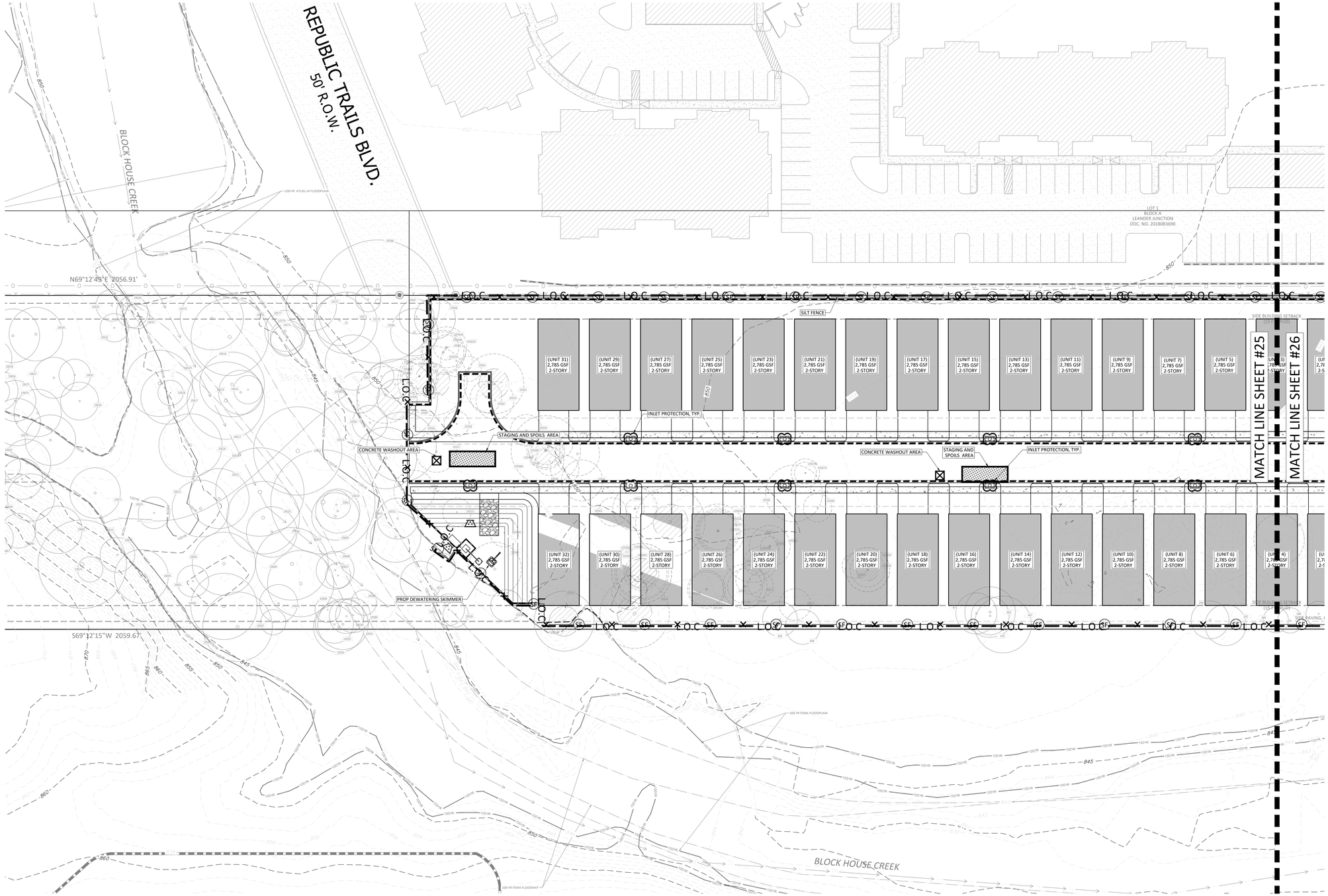
NO.	DATE	REVISION

HARVEST RETREAT
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

EROSION & SEDIMENTATION CONTROL PLAN PHASE 1 (2 OF 2)

SHEET
24
OF 71

SD-24-0196



LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- 510 EXISTING MAJOR CONTOUR
- 512 EXISTING MINOR CONTOUR
- 200 PROPOSED MAJOR CONTOUR
- 201 PROPOSED MINOR CONTOUR
- RETAINING / SCREENING WALL
- TREE - REMOVE
- TREE - REMAIN
- L.O.C LIMIT OF CONSTRUCTION
- SF SILT FENCE
- POND SKIMMER
- SCE STABILIZED CONSTRUCTION ENTRANCE
- STAGING AND SPOILS AREA
- CONCRETE WASHOUT AREA
- INLET PROTECTION

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Texas 811

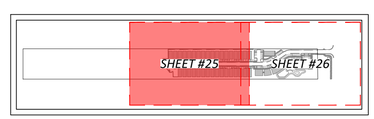
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0' 15' 30' 60'
SCALE: 1"=30'



KEY MAP
SCALE: 1"=500'

NO.	DATE	REVISION

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09/20/2024

HARVEST RETREAT
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

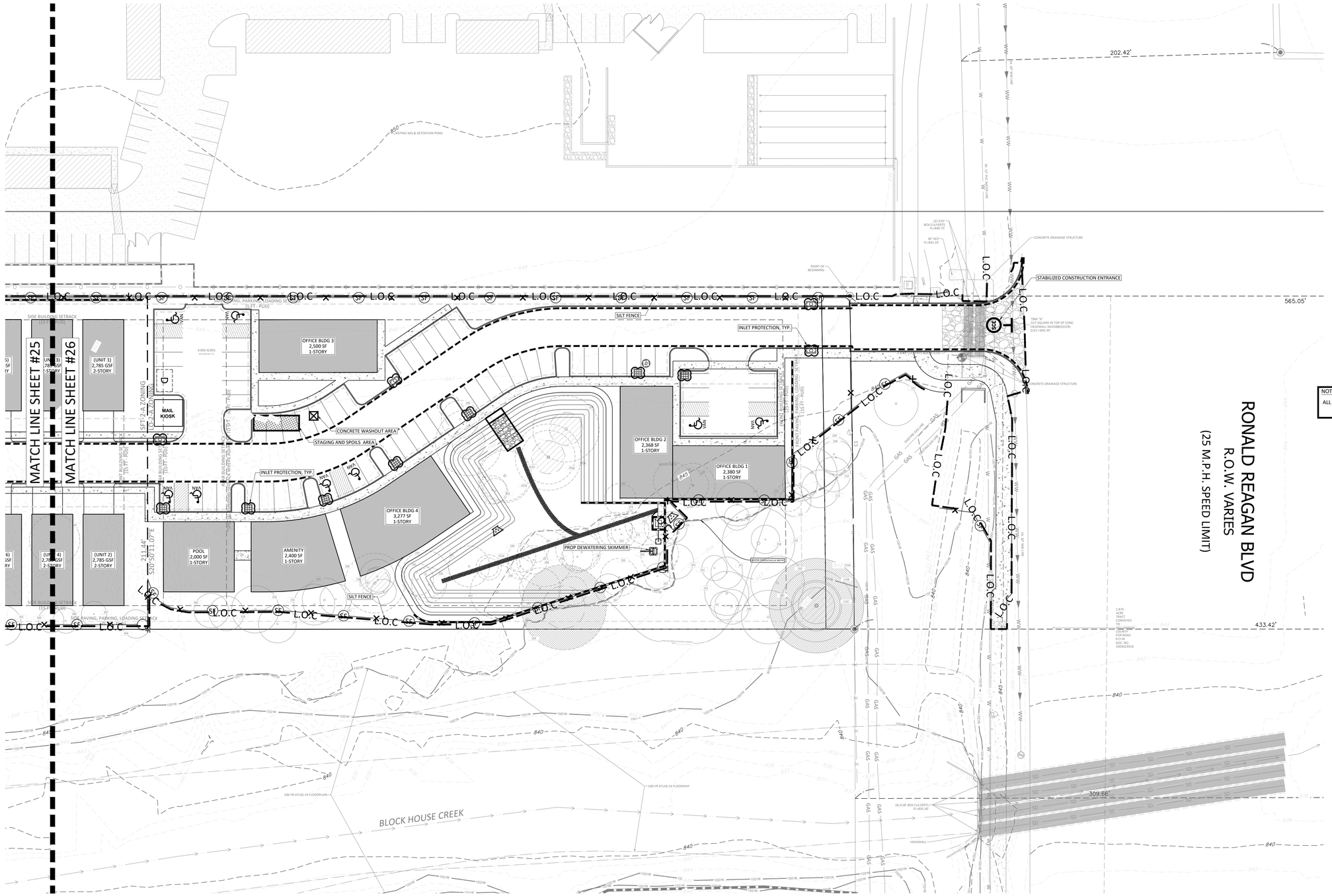
EROSION & SEDIMENTATION CONTROL PLAN PHASE 2 (1 OF 2)

SHEET
25
OF 71

SD-24-0196

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LEGEND

- BOUNDARY / RIGHT OF WAY
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- 510 EXISTING MAJOR CONTOUR
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RONALD REAGAN BLVD

R.O.W. VARIES

(25 M.P.H. SPEED LIMIT)

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Texas 811

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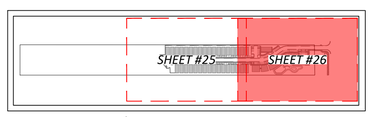
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0' 15' 30' 60'

SCALE: 1"=30'



KEY MAP

SCALE: 1"=500'

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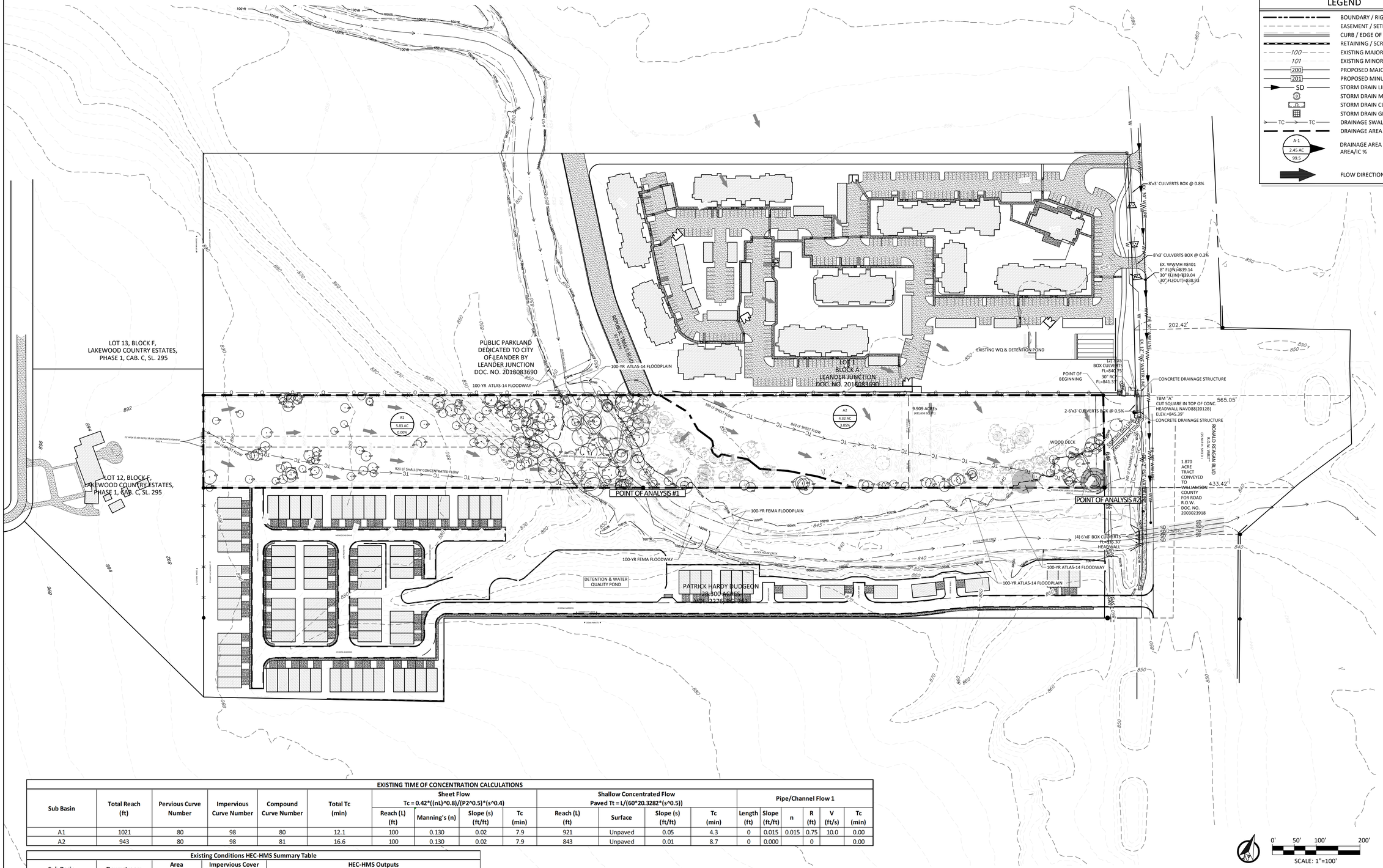
EROSION & SEDIMENTATION CONTROL PLAN PHASE 2 (2 OF 2)

SHEET
26
OF 71

SD-24-0196

Plot Date: 20/09/2025 @ 4:08 PM

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EXISTING TIME OF CONCENTRATION CALCULATIONS

Sub Basin	Total Reach (ft)	Pervious Curve Number	Impervious Curve Number	Compound Curve Number	Total Tc (min)	Sheet Flow Tc = 0.42*((nL)^0.8)/(P2^0.5)*(s^0.4)				Shallow Concentrated Flow Paved Tt = L/(60*20.3282*(s^0.5))				Pipe/Channel Flow 1					
						Reach (L) (ft)	Manning's (n)	Slope (s) (ft/ft)	Tc (min)	Reach (L) (ft)	Surface	Slope (s) (ft/ft)	Tc (min)	Length (ft)	Slope (ft/ft)	n	R (ft)	V (ft/s)	Tc (min)
A1	1021	80	98	80	12.1	100	0.130	0.02	7.9	921	Unpaved	0.05	4.3	0	0.015	0.015	0.75	10.0	0.00
A2	943	80	98	81	16.6	100	0.130	0.02	7.9	843	Unpaved	0.01	8.7	0	0.000		0		0.00

Existing Conditions HEC-HMS Summary Table

Sub Basin	Downstream	Area (ac)	Impervious Cover (%)	HEC-HMS Outputs Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
A1	Point of Analysis 1	5.826	0.00%	14.5	27.8	37.2	53.1
A2	Point of Analysis 2	4.317	3.05%	9.7	18.5	24.7	35.1
POA 1 - EX				14.46	27.83	37.15	53.06
POA 2 - EX				9.72	18.52	24.65	35.12

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DRAINAGE NOTES:

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FLOODPLAIN NOTE:

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Texas 811

Plot Date: 20/09/2025 @ 4:05 PM

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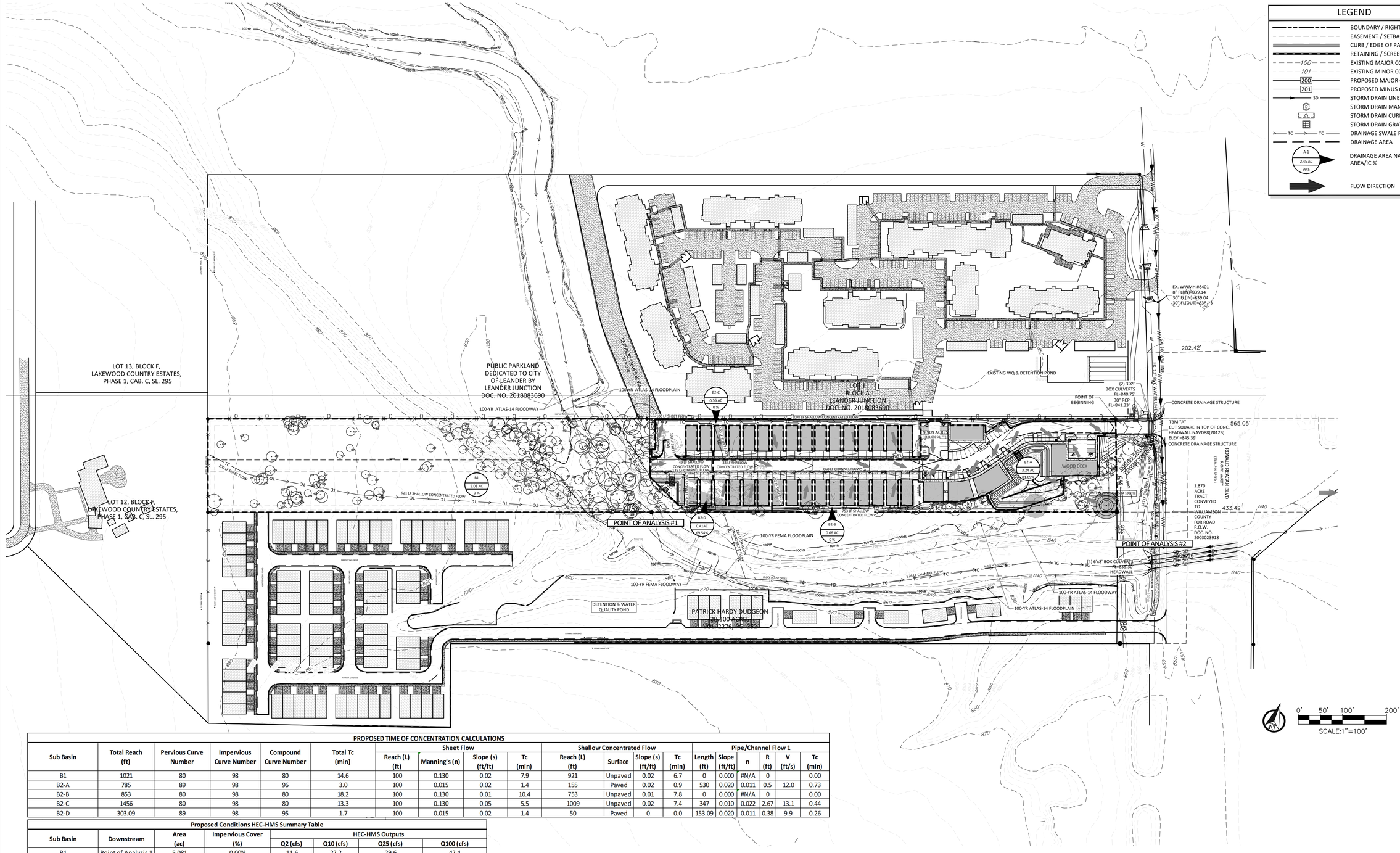
NO.	DATE	REVISION

HARVEST RETREAT
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

EXISTING DRAINAGE AREA MAP

SHEET
30
OF 71

SD-24-0196



PROPOSED TIME OF CONCENTRATION CALCULATIONS

Sub Basin	Total Reach (ft)	Pervious Curve Number	Impervious Curve Number	Compound Curve Number	Total Tc (min)	Sheet Flow				Shallow Concentrated Flow				Pipe/Channel Flow 1					
						Reach (L) (ft)	Manning's (n)	Slope (s) (ft/ft)	Tc (min)	Reach (L) (ft)	Surface	Slope (s) (ft/ft)	Tc (min)	Length (ft)	Slope (ft/ft)	n	R (ft)	V (ft/s)	Tc (min)
B1	1021	80	98	80	14.6	100	0.130	0.02	7.9	921	Unpaved	0.02	6.7	0	0.000	#N/A	0		0.00
B2-A	785	89	98	96	3.0	100	0.015	0.02	1.4	155	Paved	0.02	0.9	530	0.020	0.011	0.5	12.0	0.73
B2-B	853	80	98	80	18.2	100	0.130	0.01	10.4	753	Unpaved	0.01	7.8	0	0.000	#N/A	0		0.00
B2-C	1456	80	98	80	13.3	100	0.130	0.05	5.5	1009	Unpaved	0.02	7.4	347	0.010	0.022	2.67	13.1	0.44
B2-D	303.09	89	98	95	1.7	100	0.015	0.02	1.4	50	Paved	0	0.0	153.09	0.020	0.011	0.38	9.9	0.26

Proposed Conditions HEC-HMS Summary Table

Sub Basin	Downstream	Area (ac)	Impervious Cover (%)	HEC-HMS Outputs			
				Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
B1	Point of Analysis 1	5.081	0.00%	11.6	22.2	29.6	42.4
B2-A	Point of Analysis 2	3.236	81.69%	16.0	24.4	30.2	40.1
B2-B	Point of Analysis 2	0.704	0.00%	1.4	2.7	3.6	5.2
B2-C	Point of Analysis 2	0.564	0.00%	1.3	2.6	3.5	5.0
B2-D	Point of Analysis 3	0.411	69.54%	1.7	2.9	3.6	4.9
POND 1				6.5	13.1	17.5	25.0
POND 2				0.1	1.3	2.3	3.6
POA 1 - PR				**11.62**	**23.50**	**31.90**	**45.99**
POA 2 - PR				**9.02**	**18.32**	**24.41**	**34.72**
Increase in Runoff POA 1 - PR (Negative values mean controlled flows)				***-2.83***	***-4.32***	***-5.25***	***-7.07***
Increase in Runoff POA 2 - PR (Negative values mean controlled flows)				***-0.70***	***-0.19***	***-0.24***	***-0.40***

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Texas 811

Plot Date: 20/09/2024, @ 4:14 PM

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NO.	DATE	REVISION

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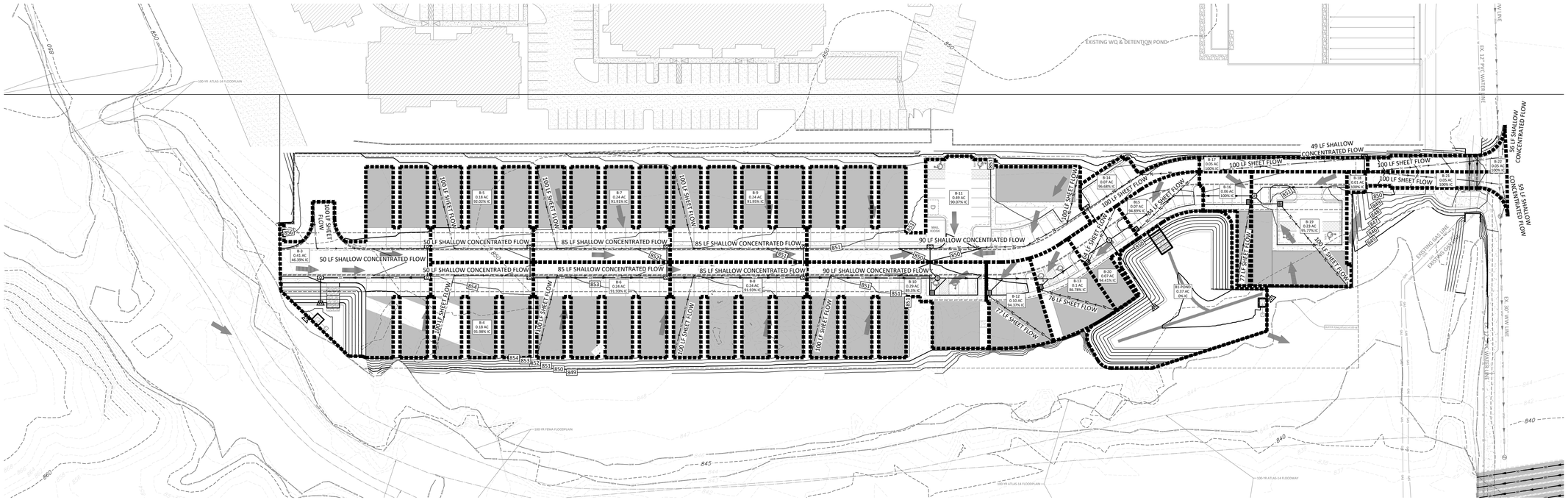
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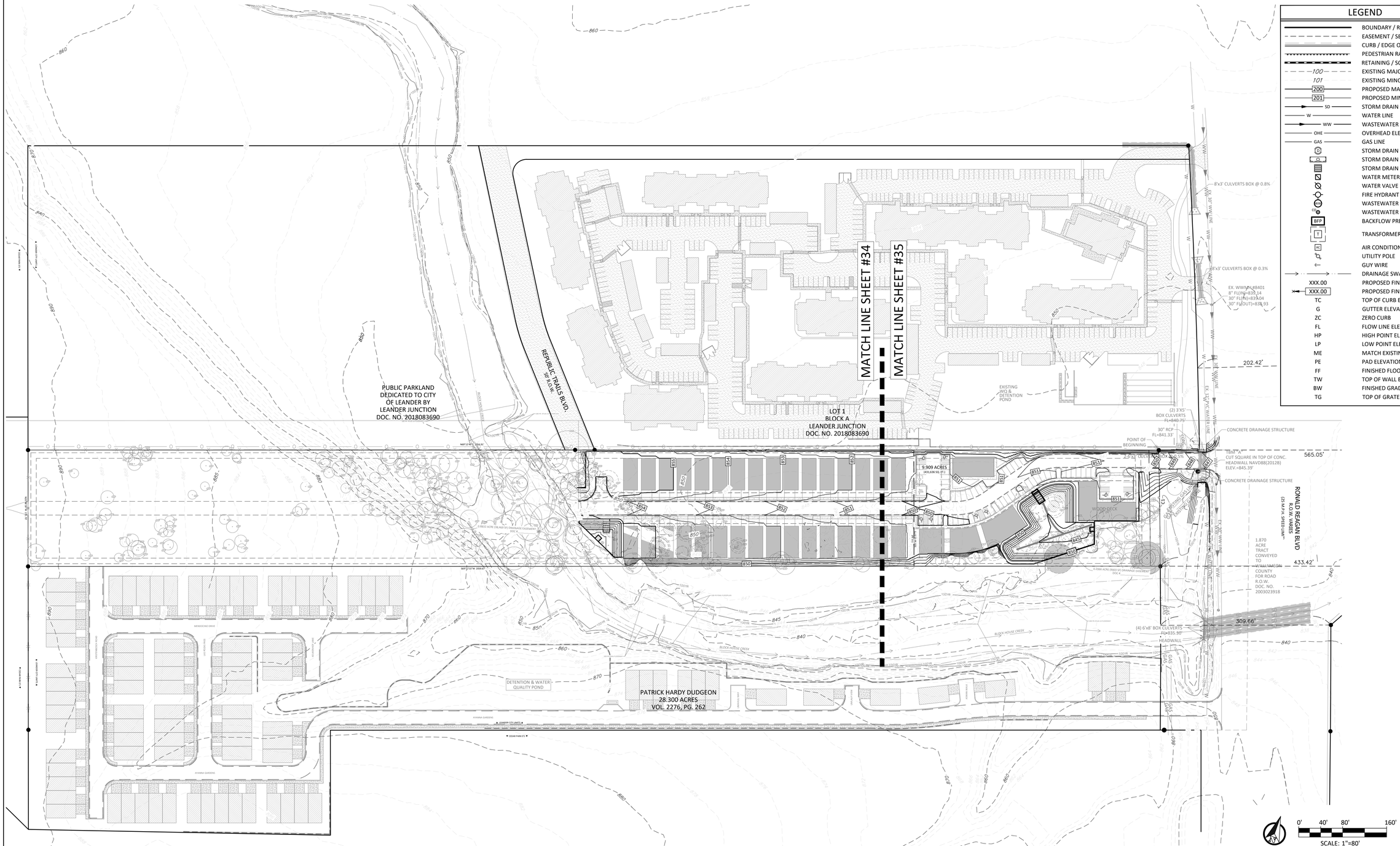
SHEET 31 OF 71

SD-24-0196

LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- RETAINING / SCREENING WALL
- 100 — EXISTING MAJOR CONTOUR
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- STORM DRAIN LINE
- STORM DRAIN MANHOLE
- STORM DRAIN CURB INLET
- STORM DRAIN GRATE INLET
- DRAINAGE SWALE FLOW LINE
- DRAINAGE AREA
- SUB-DRAINAGE AREA NAME AREA/IC %
- FLOW DIRECTION


EXISTING WQ & DETENTION POND
100 YR ATLAS 14 FLOODPLAIN
100 YR FEMA FLOODPLAIN
100 YR ATLAS 14 FLOODWAY
50 LF SHALLOW CONCENTRATED FLOW
85 LF SHALLOW CONCENTRATED FLOW
90 LF SHALLOW CONCENTRATED FLOW
49 LF SHALLOW CONCENTRATED FLOW
59 LF SHALLOW CONCENTRATED FLOW
100 LF SHEET FLOW
76 LF SHEET FLOW
77 LF SHEET FLOW
B-1 0.41 AC 46.39% C
B-2 0.24 AC 91.92% C
B-3 0.41 AC 46.39% C
B-4 0.18 AC 91.58% C
B-5 0.18 AC 92.02% C
B-6 0.24 AC 91.33% C
B-7 0.24 AC 91.92% C
B-8 0.24 AC 91.33% C
B-9 0.24 AC 91.95% C
B-10 0.29 AC 89.3% C
B-11 0.49 AC 90.07% C
B-12 0.15 AC 98.17% C
B-13 0.15 AC 86.78% C
B-14 0.07 AC 96.68% C
B-15 0.07 AC 94.89% C
B-16 0.06 AC 100% IC
B-17 0.05 AC 100% IC
B-18 0.05 AC 100% IC
B-19 0.23 AC 95.77% C
B-20 0.07 AC 94.41% C
B-21 0.05 AC 94.37% C
B-22 0.05 AC 100% IC
B-23 0.05 AC 100% IC
B1-POND 0.37 AC 0% C
EXISTING EASEMENT
EX 12" PVC WATER LINE
EX 30" WW LINE
EX 12" PVC WATER LINE
EX WATER LINE
EX WATER LINE
EX WW LINE
EX 8" WW LINE
EX 12" PVC WATER LINE
EX 8" WW LINE
EX 12" PVC WATER LINE
EX 8" WW LINE
EX 12" PVC WATER



LEGEND

	BOUNDARY / RIGHT OF WAY
	EASEMENT / SETBACK
	CURB / EDGE OF PAVEMENT
	PEDESTRIAN RAILING
	RETAINING / SCREENING WALL
100	EXISTING MAJOR CONTOUR
101	EXISTING MINOR CONTOUR
200	PROPOSED MAJOR CONTOUR
201	PROPOSED MINOR CONTOUR
SD	STORM DRAIN LINE
W	WATER LINE
WW	WASTEWATER LINE
OHE	OVERHEAD ELECTRIC
GAS	GAS LINE
	STORM DRAIN MANHOLE
	STORM DRAIN CURB INLET
	STORM DRAIN GRATE INLET
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	WASTEWATER MANHOLE
	WASTEWATER CLEANOUT
BFP	BACKFLOW PREVENTER
T	TRANSFORMER
AC	AIR CONDITIONER UNIT
	UTILITY POLE
	GUY WIRE
	DRAINAGE SWALE FLOW LINE
XXX.00	PROPOSED FINISHED GRADE
XXX.00	PROPOSED FINISHED GRADE
TC	TOP OF CURB ELEVATION
G	GUTTER ELEVATION
ZC	ZERO CURB
FL	FLOW LINE ELEVATION
HP	HIGH POINT ELEVATION
LP	LOW POINT ELEVATION
ME	MATCH EXISTING ELEVATION
PE	PAD ELEVATION
FF	FINISHED FLOOR ELEVATION
TW	TOP OF WALL ELEVATION
BW	FINISHED GRADE AT WALL
TG	TOP OF GRATE INLET

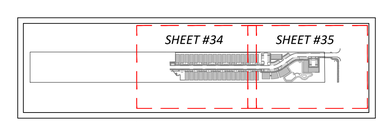
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Texas 811



KEY MAP
SCALE: 1"=500'

NO.	DATE	REVISION

FIRM NO: F-23684
RADIUS
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STATE OF TEXAS
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09/20/2024

HARVEST RETREAT
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

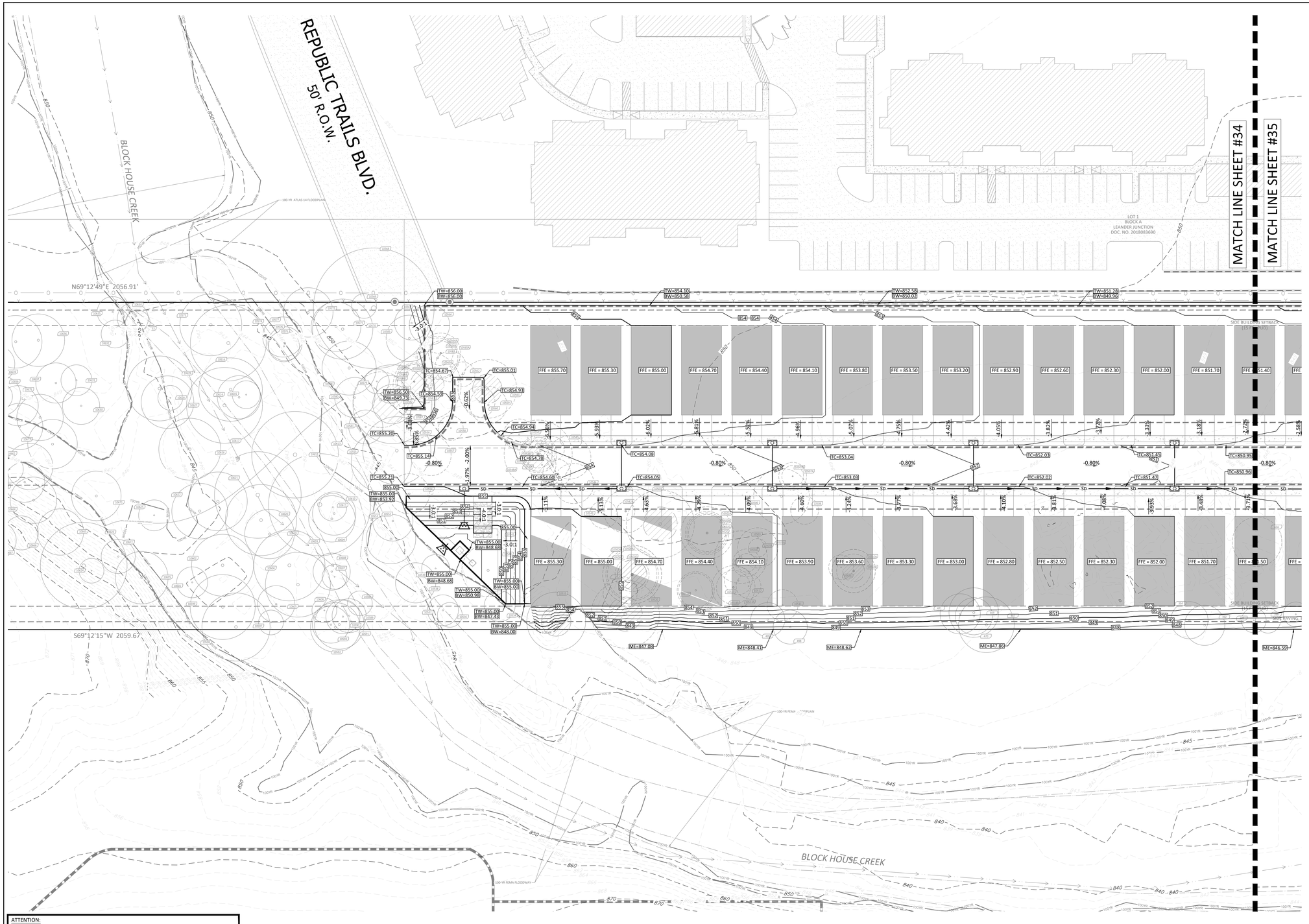
OVERALL GRADING PLAN

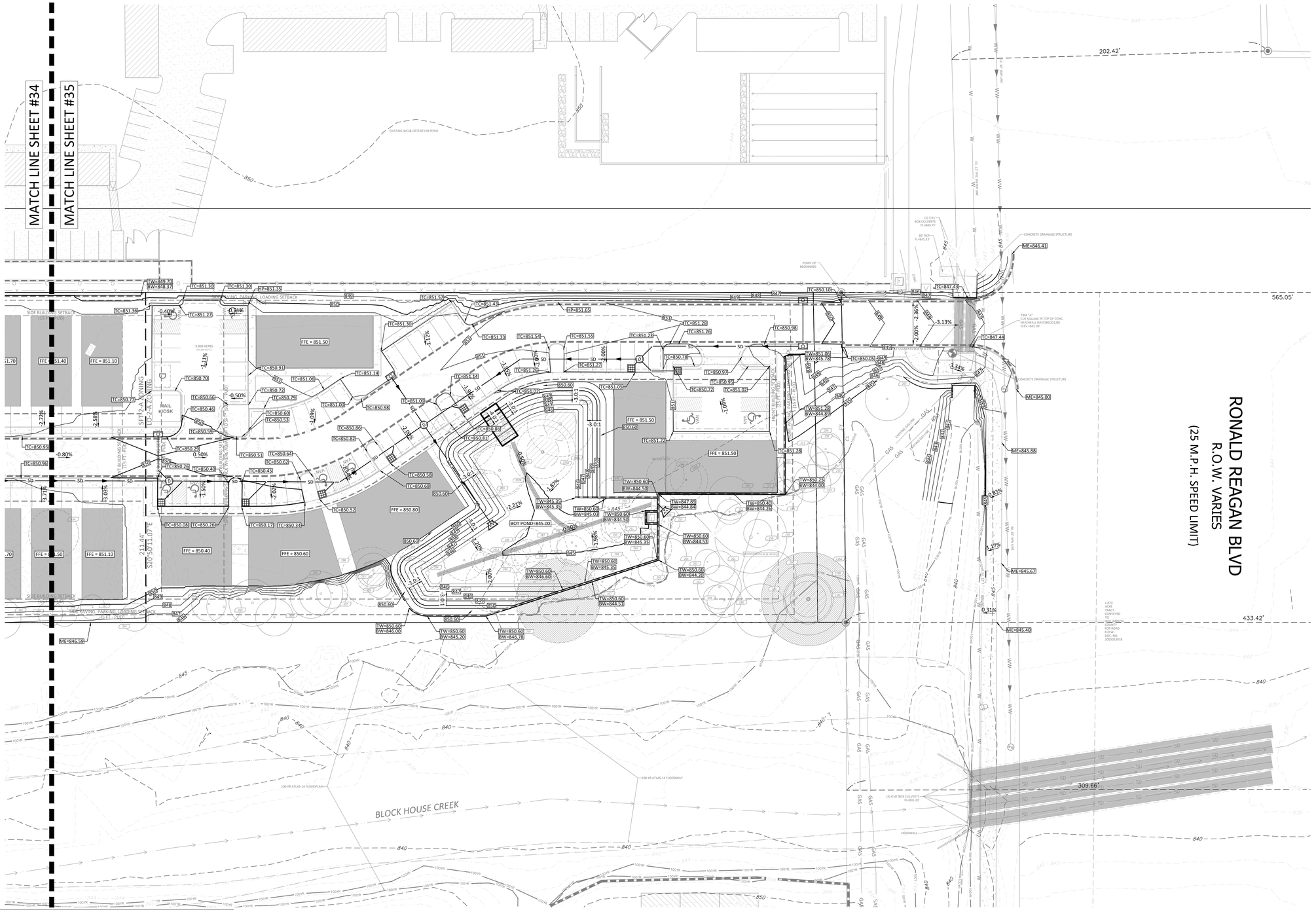
SHEET
33
OF 71

SD-24-0196

Plot Date: 20/09/2025 @ 4:08 PM

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REPUBLIC TRAILS BLVD.
50' R.O.W.
BLOCK HOUSE CREEK
100-YR. ATLAS-14 FLOODPLAIN
N69°12'49"E 2056.91'
S69°12'15"W 2059.67'
LOT 1
BLOCK A
LEANDER JUNCTION
DOC. NO. 2018083690
MATCH LINE SHEET #34
MATCH LINE SHEET #35
SIDE BUILDING SETBACK
15'
SIDE PAVING SETBACK
5'
REAR BUILDING SETBACK
10'
REAR PAVING SETBACK
5'
100-YR FEMA FLOODPLAIN
100-YR FEMA FLOODWAY
BLOCK HOUSE CREEK
TW=856.00
BW=856.00
TW=854.10
BW=851.58
TW=852.58
BW=850.08
TW=851.28
BW=849.99
TW=856.50
BW=849.73
TW=855.00
BW=853.92
TW=855.00
BW=848.68
TW=855.00
BW=850.98
TW=855.00
BW=848.68
TW=855.00
BW=855.00
TW=855.00
BW=847.43
TW=855.00
BW=848.00
FFE = 855.70
FFE = 855.30
FFE = 855.00
FFE = 854.70
FFE = 854.40
FFE = 854.10
FFE = 853.80
FFE = 853.50
FFE = 853.20
FFE = 852.90
FFE = 852.60
FFE = 852.30
FFE = 852.00
FFE = 851.70
FFE = 851.40
FFE = 855.30
FFE = 855.00
FFE = 854.70
FFE = 854.40
FFE = 854.10
FFE = 853.90
FFE = 853.60
FFE = 853.30
FFE = 853.00
FFE = 852.80
FFE = 852.50
FFE = 852.30
FFE = 852.00
FFE = 851.70
TC=854.67
TC=855.01
TC=854.59
TC=854.93
TC=855.20
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TC=855.14
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TC=854.60
TC=854.00
TC=853.21
TC=853.04
TC=853.03
TC=852.03
TC=852.02
TC=851.45
TC=851.47
TC=850.95
TC=850.90
ME=847.08
ME=848.41
ME=848.62
ME=847.86
ME=846.59
-3.66%
-10.62%
-6.38%
-5.93%
-6.02%
-5.81%
-5.52%
-4.96%
-5.07%
-4.75%
-4.42%
-4.05%
-3.82%
-3.72%
-3.33%
-2.18%
-2.72%
-2.98%
-2.00%
-1.97%
-0.80%
-0.80%
-0.80%
-0.80%
-0.80%
-3.11%
-3.13%
-4.63%
-4.29%
-4.09%
-3.60%
-4.24%
-3.77%
-3.68%
-4.10%
-3.81%
-4.08%
-3.69%
-3.48%
-3.71%
3.0:1
3.0:1
3.0:1



LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- RETAINING / SCREENING WALL
- 100 EXISTING MAJOR CONTOUR
- 101 EXISTING MINOR CONTOUR
- 200 PROPOSED MAJOR CONTOUR
- 201 PROPOSED MINOR CONTOUR
- SD STORM DRAIN LINE
- W WATER LINE
- WW WASTEWATER LINE
- OHE OVERHEAD ELECTRIC
- GAS GAS LINE
- STORM DRAIN MANHOLE
- STORM DRAIN CURB INLET
- STORM DRAIN GRATE INLET
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- WW WASTEWATER MANHOLE
- WASTEWATER CLEANOUT
- BFP BACKFLOW PREVENTER
- T TRANSFORMER
- AC AIR CONDITIONER UNIT
- UTILITY POLE
- GUY WIRE
- DRAINAGE SWALE FLOW LINE
- XXX.00 PROPOSED FINISHED GRADE
- XXX.00 PROPOSED FINISHED GRADE
- TC TOP OF CURB ELEVATION
- G GUTTER ELEVATION
- ZC ZERO CURB
- FL FLOW LINE ELEVATION
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- LP LOW POINT ELEVATION
- ME MATCH EXISTING ELEVATION
- PE PAD ELEVATION
- FF FINISHED FLOOR ELEVATION
- TW TOP OF WALL ELEVATION
- BW FINISHED GRADE AT WALL
- TG TOP OF GRATE INLET

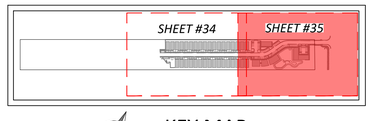
WALL NOTE:
REF TO SHEET 37 FOR STRUCTURAL WALL DETAILS

RONALD REAGAN BLVD

R.O.W. VARIES

(25 M.P.H. SPEED LIMIT)

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



KEY MAP
SCALE: 1"=500'

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Texas 811

Plot Date: 20/09/2025 @ 4:16 PM

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NO.	DATE	REVISION

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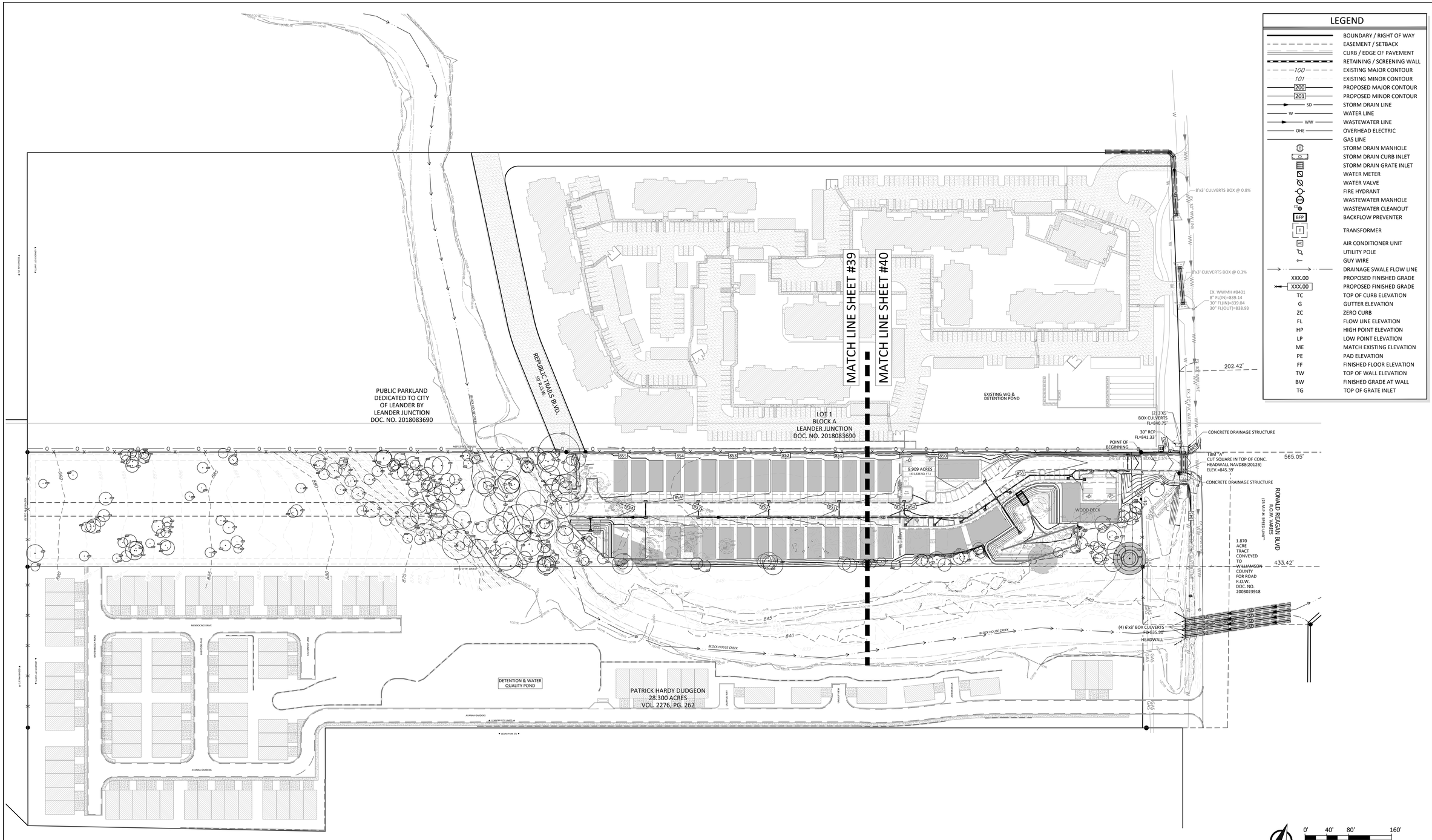
STATE OF TEXAS
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09/20/2024

HARVEST RETREAT
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

ENLARGED GRADING PLAN (2 OF 2)

SHEET
35
OF 71

SD-24-0196



LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- RETAINING / SCREENING WALL
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
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- STORM DRAIN LINE
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- TRANSFORMER
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- UTILITY POLE
- GUY WIRE
- DRAINAGE SWALE FLOW LINE
- XXX.00 PROPOSED FINISHED GRADE
- XXX.00 PROPOSED FINISHED GRADE
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- G GUTTER ELEVATION
- ZC ZERO CURB
- FL FLOW LINE ELEVATION
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- PE PAD ELEVATION
- FF FINISHED FLOOR ELEVATION
- TW TOP OF WALL ELEVATION
- BW FINISHED GRADE AT WALL
- TG TOP OF GRATE INLET

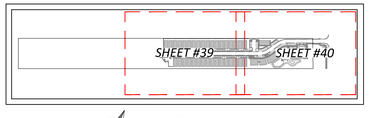
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Texas 811



KEY MAP
SCALE: 1"=500'

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14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

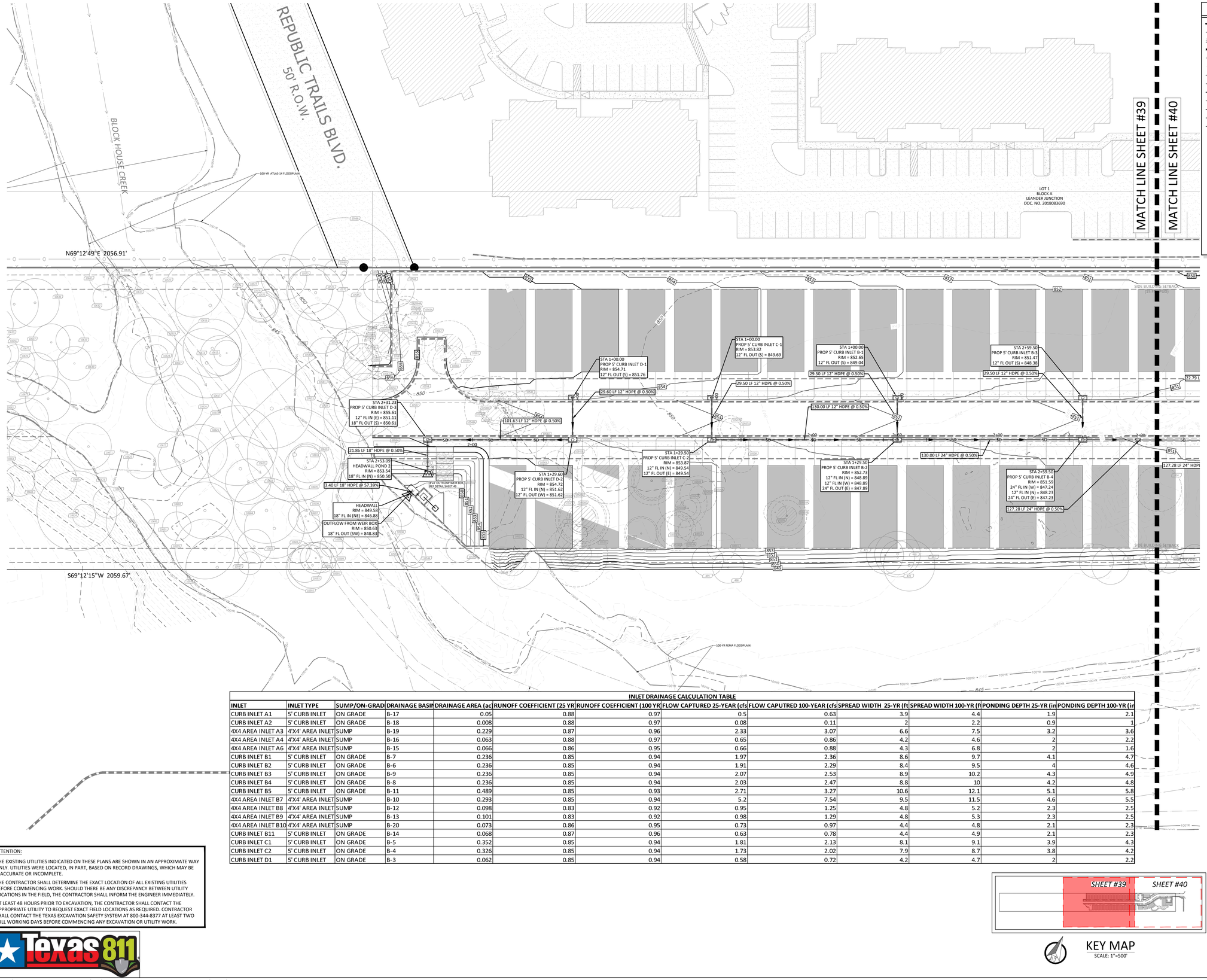
OVERALL STORM LAYOUT

SHEET
38
OF 71

SD-24-0196

Plot Date: 20/09/2025 @ 3:56 PM

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LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- RETAINING / SCREENING WALL
- 100 EXISTING MAJOR CONTOUR
- 101 EXISTING MINOR CONTOUR
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- W WATER LINE
- WW WASTEWATER LINE
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- FIRE HYDRANT
- WW WASTEWATER MANHOLE
- WASTEWATER CLEANOUT
- BFP BACKFLOW PREVENTER
- T TRANSFORMER
- AC AIR CONDITIONER UNIT
- UTILITY POLE
- GUY WIRE

INLET DRAINAGE CALCULATION TABLE

INLET	INLET TYPE	SUMP/ON-GRAD	DRAINAGE BASIN	DRAINAGE AREA (ac)	RUNOFF COEFFICIENT (25 YR	RUNOFF COEFFICIENT (100 YR	FLOW CAPTURED 25-YEAR (cfs	FLOW CAPUTRED 100-YEAR (cfs	SPREAD WIDTH 25-YR (ft	SPREAD WIDTH 100-YR (f	PONDING DEPTH 25-YR (in	PONDING DEPTH 100-YR (in
CURB INLET A1	5' CURB INLET	ON GRADE	B-17	0.05	0.88	0.97	0.5	0.63	3.9	4.4	1.9	2.1
CURB INLET A2	5' CURB INLET	ON GRADE	B-18	0.008	0.88	0.97	0.08	0.11	2	2.2	0.9	1
4X4 AREA INLET A3	4'X4' AREA INLET	SUMP	B-19	0.229	0.87	0.96	2.33	3.07	6.6	7.5	3.2	3.6
4X4 AREA INLET A4	4'X4' AREA INLET	SUMP	B-16	0.063	0.88	0.97	0.65	0.86	4.2	4.6	2	2.2
4X4 AREA INLET A6	4'X4' AREA INLET	SUMP	B-15	0.066	0.86	0.95	0.66	0.88	4.3	6.8	2	1.6
CURB INLET B1	5' CURB INLET	ON GRADE	B-7	0.236	0.85	0.94	1.97	2.36	8.6	9.7	4.1	4.7
CURB INLET B2	5' CURB INLET	ON GRADE	B-6	0.236	0.85	0.94	1.91	2.29	8.4	9.5	4	4.6
CURB INLET B3	5' CURB INLET	ON GRADE	B-9	0.236	0.85	0.94	2.07	2.53	8.9	10.2	4.3	4.9
CURB INLET B4	5' CURB INLET	ON GRADE	B-8	0.236	0.85	0.94	2.03	2.47	8.8	10	4.2	4.8
CURB INLET B5	5' CURB INLET	ON GRADE	B-11	0.489	0.85	0.93	2.71	3.27	10.6	12.1	5.1	5.8
4X4 AREA INLET B7	4'X4' AREA INLET	SUMP	B-10	0.293	0.85	0.94	5.2	7.54	9.5	11.5	4.6	5.5
4X4 AREA INLET B8	4'X4' AREA INLET	SUMP	B-12	0.098	0.83	0.92	0.95	1.25	4.8	5.2	2.3	2.5
4X4 AREA INLET B9	4'X4' AREA INLET	SUMP	B-13	0.101	0.83	0.92	0.98	1.29	4.8	5.3	2.3	2.5
4X4 AREA INLET B10	4'X4' AREA INLET	SUMP	B-20	0.073	0.86	0.95	0.73	0.97	4.4	4.8	2.1	2.3
CURB INLET B11	5' CURB INLET	ON GRADE	B-14	0.068	0.87	0.96	0.63	0.78	4.4	4.9	2.1	2.3
CURB INLET C1	5' CURB INLET	ON GRADE	B-5	0.352	0.85	0.94	1.81	2.13	8.1	9.1	3.9	4.3
CURB INLET C2	5' CURB INLET	ON GRADE	B-4	0.326	0.85	0.94	1.73	2.02	7.9	8.7	3.8	4.2
CURB INLET D1	5' CURB INLET	ON GRADE	B-3	0.062	0.85	0.94	0.58	0.72	4.2	4.7	2	2.2

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Texas 811

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STATE OF TEXAS
JOHN P. SULLIVAN
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09/20/2024

NO.	DATE	REVISION

HARVEST RETREAT
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

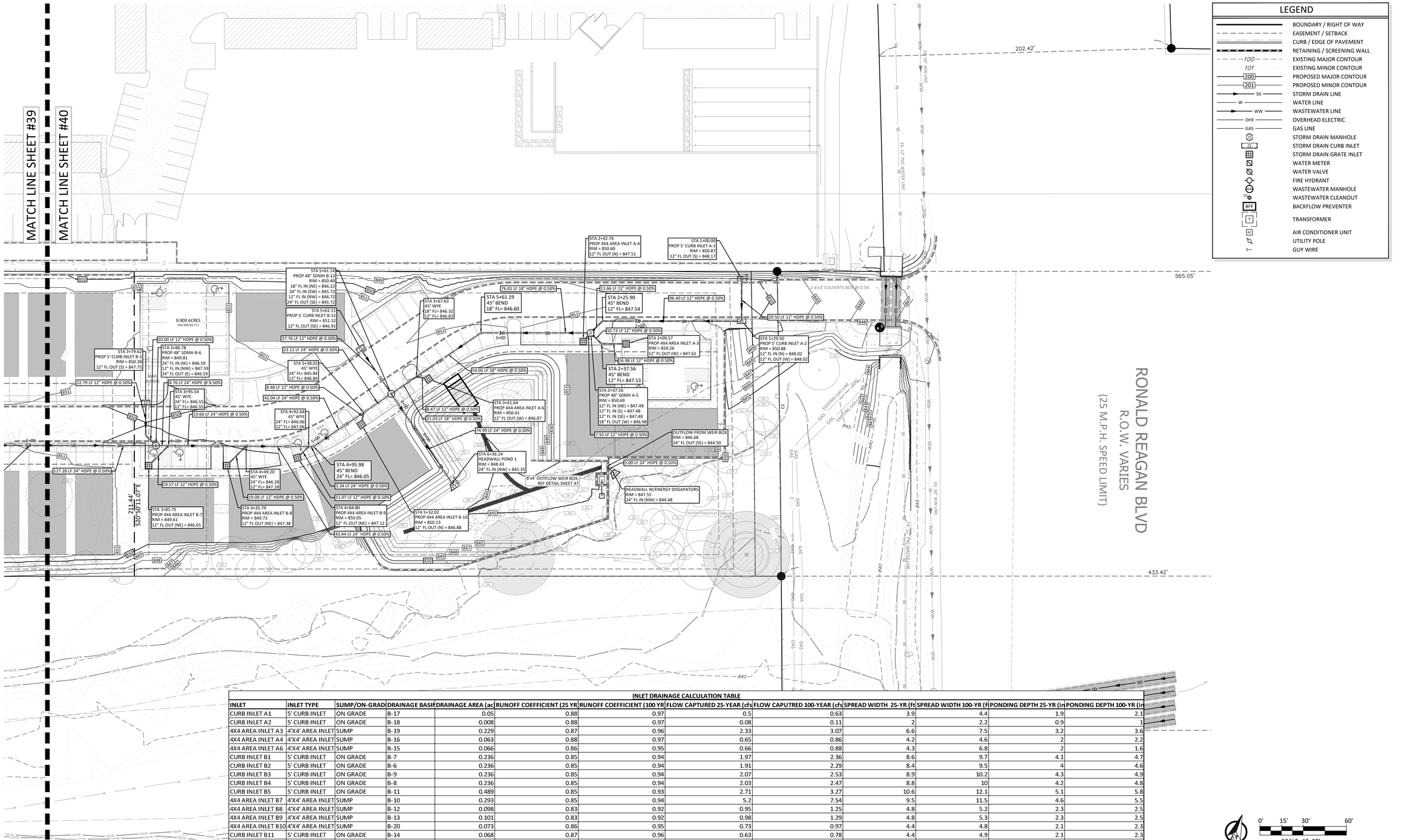
ENLARGED STORM LAYOUT (1 OF 2)

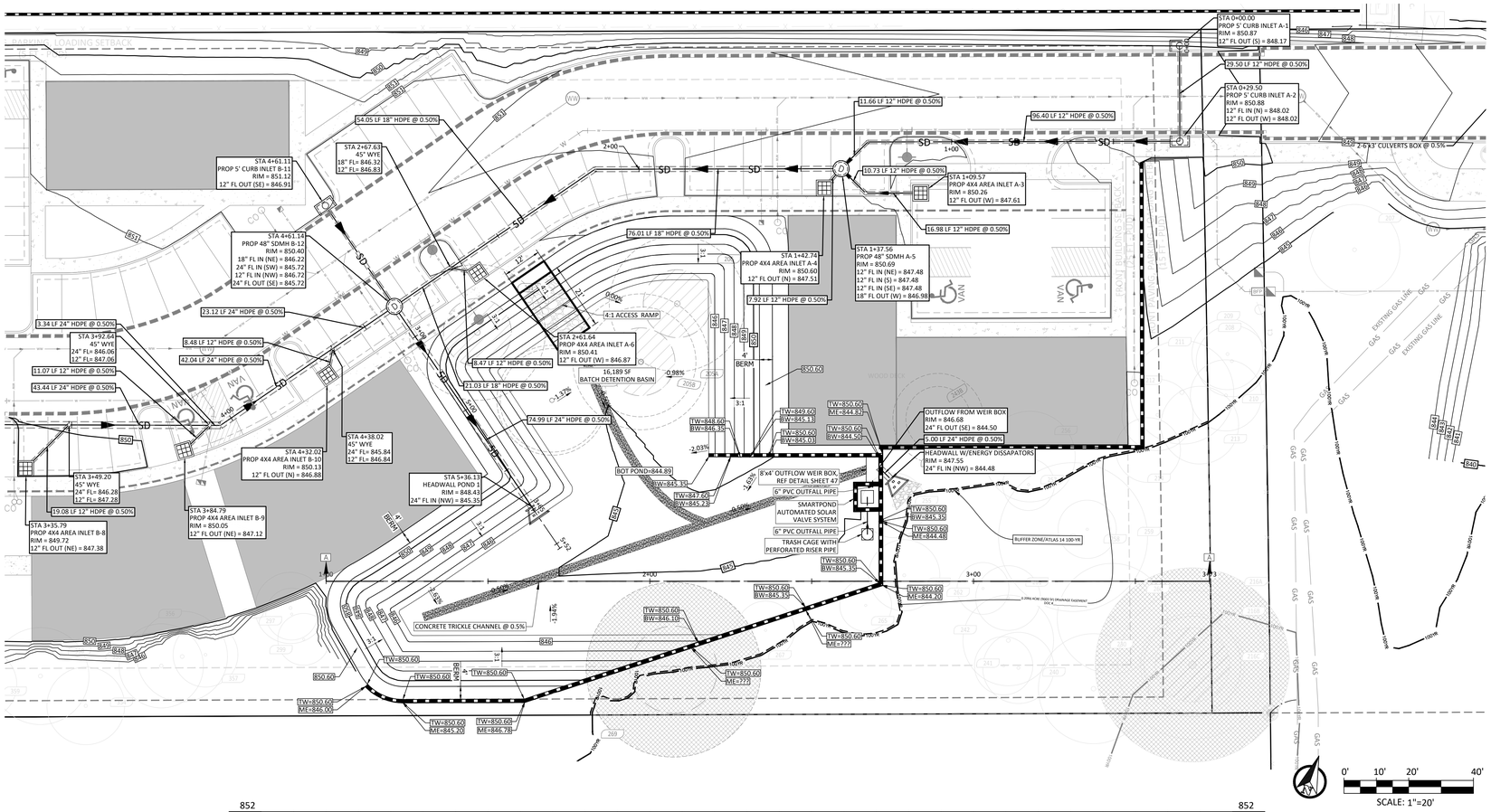
SHEET
39
OF 71

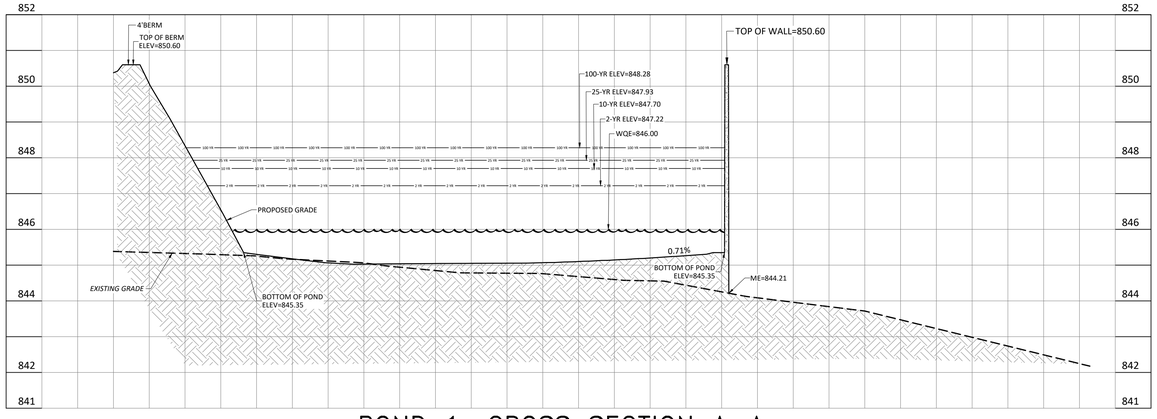
SD-24-0196

Plot Date: 20/09/2024, @ 4:03 PM

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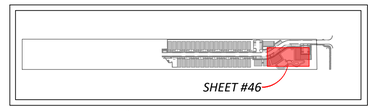

MATCH LINE SHEET #39
MATCH LINE SHEET #40
RONALD REAGAN BLVD
R.O.W. VARIES
(25 M.P.H. SPEED LIMIT)
565.05'
202.42'
433.42'
211.44'
S20°50'11.07"E
9.909 ACRES
(431,638 SQ. FT.)
STA 2+42.74
PROP 4X4 AREA INLET A-4
RIM = 850.60
12" FL OUT (N) = 847.51
STA 1+00.00
PROP 5' CURB INLET A-1
RIM = 850.87
12" FL OUT (S) = 848.17
STA 5+61.14
PROP 48" SDMH B-12
RIM = 850.40
18" FL IN (NE) = 846.22
24" FL IN (SW) = 845.72
12" FL IN (NW) = 846.72
24" FL OUT (SE) = 845.72
STA 5+61.19
45° BEND
18" FL= 846.60
STA 3+67.63
45° WYE
18" FL= 846.32
12" FL= 846.83
STA 5+43.11
PROP 5' CURB INLET B-11
RIM = 851.12
12" FL OUT (SE) = 846.91
STA 2+25.90
45° BEND
12" FL= 847.54
STA 2+09.57
PROP 4X4 AREA INLET A-3
RIM = 850.26
12" FL OUT (W) = 847.61
STA 1+29.50
PROP 5' CURB INLET A-2
RIM = 850.88
12" FL IN (N) = 848.02
12" FL OUT (W) = 848.02
STA 2+37.56
45° BEND
12" FL= 847.53
STA 2+37.56
PROP 48" SDMH A-5
RIM = 850.69
12" FL IN (NE) = 847.48
12" FL IN (S) = 847.48
12" FL IN (SE) = 847.48
18" FL OUT (W) = 846.98
STA 3+61.64
PROP 4X4 AREA INLET A-6
RIM = 850.41
12" FL OUT (W) = 846.87
STA 3+79.82
PROP 5' CURB INLET B-5
RIM = 850.38
12" FL OUT (S) = 847.75
STA 3+86.78
PROP 48" SDMH B-6
RIM = 849.81
24" FL IN (W) = 846.59
12" FL IN (NW) = 847.59
24" FL OUT (E) = 846.59
STA 3+95.54
45° WYE
24" FL= 846.55
12" FL= 846.55
STA 4+92.64
45° WYE
24" FL= 846.06
12" FL= 847.06
STA 5+38.02
45° WYE
24" FL= 845.84
12" FL= 846.84
STA 4+95.98
45° BEND
24" FL= 846.05
STA 4+49.20
45° WYE
24" FL= 846.28
12" FL= 847.28
STA 3+81.75
PROP 4X4 AREA INLET B-7
RIM = 849.61
12" FL OUT (NE) = 846.65
STA 4+35.79
PROP 4X4 AREA INLET B-8
RIM = 849.72
12" FL OUT (NE) = 847.38
STA 4+84.80
PROP 4X4 AREA INLET B-9
RIM = 850.05
12" FL OUT (NE) = 847.12
STA 5+32.02
PROP 4X4 AREA INLET B-10
RIM = 850.13
12" FL OUT (N) = 846.88
STA 6+36.14
HEADWALL POND 1
RIM = 848.43
24" FL IN (NW) = 845.35
8'x4' OUTFLOW WEIR BOX, REF DETAIL SHEET 47
HEADWALL W/ENERGY DISSAPATORS
RIM = 847.55
24" FL IN (NW) = 844.48
OUTFLOW FROM WEIR BOX
RIM = 846.68
24" FL OUT (SE) = 844.50
2-6'x3' CULVERTS BOX @ 0.5%
76.01 LF 18" HDPE @ 0.50%
11.66 LF 12" HDPE @ 0.50%
96.40 LF 12" HDPE @ 0.50%
29.50 LF 12" HDPE @ 0.50%
10.73 LF 12" HDPE @ 0.50%
16.98 LF 12" HDPE @ 0.50%
54.05 LF 18" HDPE @ 0.50%
7.92 LF 12" HDPE @ 0.50%
74.99 LF 24" HDPE @ 0.50%
5.00 LF 24" HDPE @ 0.50%
10.00 LF 12" HDPE @ 0.50%
22.79 LF 12" HDPE @ 0.50%
8.76 LF 24" HDPE @ 0.50%
53.66 LF 24" HDPE @ 0.50%
8.48 LF 12" HDPE @ 0.50%
42.04 LF 24" HDPE @ 0.50%
8.47 LF 12" HDPE @ 0.50%
21.03 LF 18" HDPE @ 0.50%
37.76 LF 12" HDPE @ 0.50%
23.12 LF 24" HDPE @ 0.50%
127.28 LF 24" HDPE @ 0.50%
19.57 LF 12" HDPE @ 0.50%
19.08 LF 12" HDPE @ 0.50%
11.07 LF 12" HDPE @ 0.50%
3.34 LF 24" HDPE @ 0.50%
43.44 LF 24" HDPE @ 0.50%
EXISTING GAS LINE
EXISTING 12" PVC WATER LINE
EXISTING 30' WW LINE
EXISTING 8" WW LINE
EXISTING 24" WW LINE
EXISTING 12" WW LINE
EXISTING 8" WW LINE
EXISTING 12" WW LINE
EXISTING 8" WW LINE
EXISTING 12" WW LINE
EXISTING 8





POND 1: CROSS SECTION A–A

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



KEY MAP
SCALE: 1"=500'

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STATE OF TEXAS
JOHN P. SULLIVAN
144534
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PROFESSIONAL ENGINEER
09/20/2024

NO.	DATE	REVISION

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14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

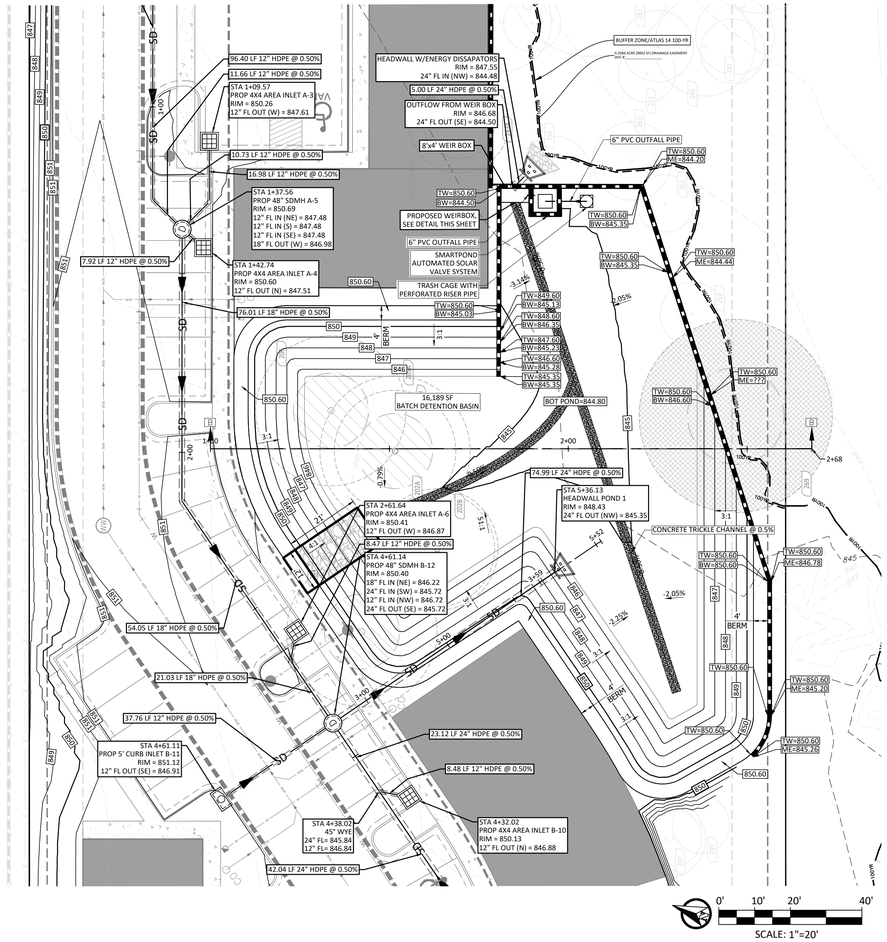
POND 1 PLAN & PROFILE (1 OF 2)

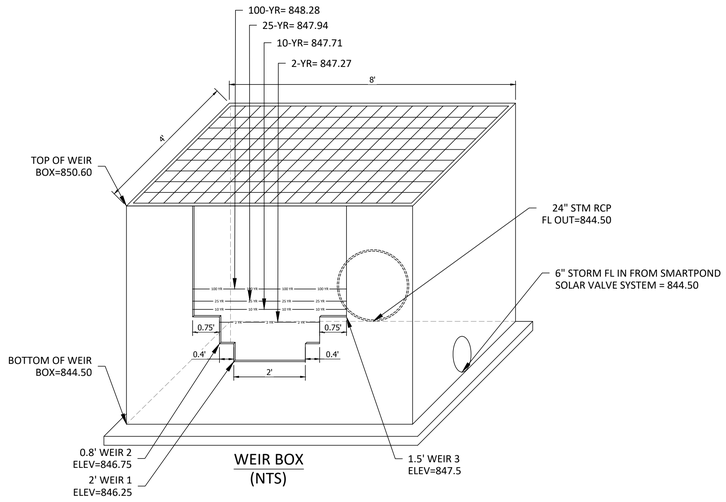
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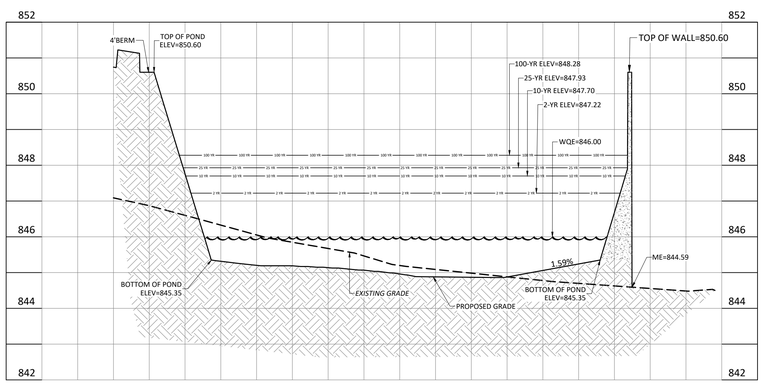
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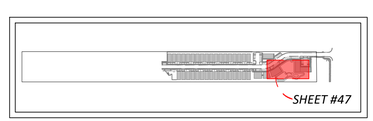


WEIR BOX
(NTS)



POND 1: CROSS SECTION B-B

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



KEY MAP
SCALE: 1"=500'

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POND 1 PLAN & PROFILE (2 OF 2)

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Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: HARVEST RETREAT
Date Prepared: 9/4/2025

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

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

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

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

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

County =	Williamson	
Total project area included in plan * =	10.00	acres
Predevelopment impervious area within the limits of the plan * =	0.18	acres
Total post-development impervious area within the limits of the plan* =	2.77	acres
Total post-development impervious cover fraction * =	0.28	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	2253	lbs.

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

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

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

Drainage Basin/Outfall Area No. = B2-A

Total drainage basin/outfall area =	2.92	acres
Predevelopment impervious area within drainage basin/outfall area =	0.18	acres
Post-development impervious area within drainage basin/outfall area =	2.58	acres
Post-development impervious fraction within drainage basin/outfall area =	0.88	
$L_{M\ THIS\ BASIN}$ =	2088	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 95 percent

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

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

RG-348 Page 3-33 Equation 3.7: L_R = (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
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	2.92	acres
A_I =	2.58	acres
A_P =	0.34	acres
L_R =	2721	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 2250 lbs.

F = 0.83

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

Rainfall Depth =	1.20	inches
Post Development Runoff Coefficient =	0.72	
On-site Water Quality Volume =	9183	cubic feet

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

Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	1837	
Total Capture Volume (required water quality volume(s) x 1.20) =	11019	cubic feet

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

BATCH DETENTION VOLUME CALCULATIONS

Elevation	Area		Incremental Depth	Average End Area Incremental Volume		Average End Area Cumulative Volume		Inflow 100-YR	Outflow 100-YR
(ft)	(sf)	(ac)	(ft)	(cf)	(ac-ft)	(cf)	(ac-ft)	(cfs)	(cfs)
844.50	30	0.000697	n/a	n/a	n/a	0	0.0000	0.00	0.00
845.00	2,684	0.061618	0.500000	678.61	0.0156	678.61	0.0156	0.21	0.00
845.50	10,291	0.236247	0.500000	3243.75	0.0745	3922.36	0.0900	0.30	0.00
845.87	10620	0.243802	0.370000	3868.52	0.0888	7790.89	0.1789	0.53	0.00
846.00	10,831	0.248649	0.130000	1394.32	0.0320	9185.21	0.2109	0.64	0.00 WQV
846.50	11,377	0.261170	0.500000	5551.92	0.1275	14737.13	0.3383	1.56	0.77
847.00	11,926	0.273785	0.500000	5825.66	0.1337	20562.79	0.4721	5.56	4.24
847.50	12,479	0.286485	0.500000	6101.35	0.1401	26664.14	0.6121	28.40	11.36
848.28	13,300	0.305326	0.780000	10053.92	0.2308	36718.06	0.8429	27.92	24.97

WEIRS

Weir	Elevation	Width (FT)	Coefficient
1	846.25	2.00	3.00
2	846.75	0.80	3.00
3	847.50	1.50	3.00

PEAK ELEVATION

Storm	Elevation
2	847.22
10	847.70
25	847.93
100	848.28

NOTE:
ALL EXPOSED CONCRETE THAT IS VISIBLE IS REQUIRED TO BE MADE OF STONE OR CLAD IN STONE INCLUDING BUT NOT LIMITED TO LEDGESTONE, FILEDSTONE, CAST STONE, OR OTHER DECORATIVE MATERIALS SUCH AS STAMPED AND TINTED CONCRETE THAT RESEMBLES STONE OR BRICK AS APPROVED BY THE DIRECTOR OF PLANNING. ALL OTHER EXPOSED CONRETE IS REQUIRED TO BE MADE OF STONE OR CLAD IN STONE AS LISTED ABOVE OR TEXTURED AND TINTED IN EARTHEN COLORS. IN THE EVENT THAT THE DRAINAGE FACILITY IS BELOW GRADE, STRUCTURAL STABILIZATION IS PERMITTED FOR THE FULL PERIMETER AND SCREENING REQUIREMENTS LISTED IN ARTICLE VI, SECTION 1 (D) OF THIS ORDINANCE SHALL APPLY.

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STATE OF TEXAS
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09/20/2024

NO.	DATE	REVISION

HARVEST RETREAT
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

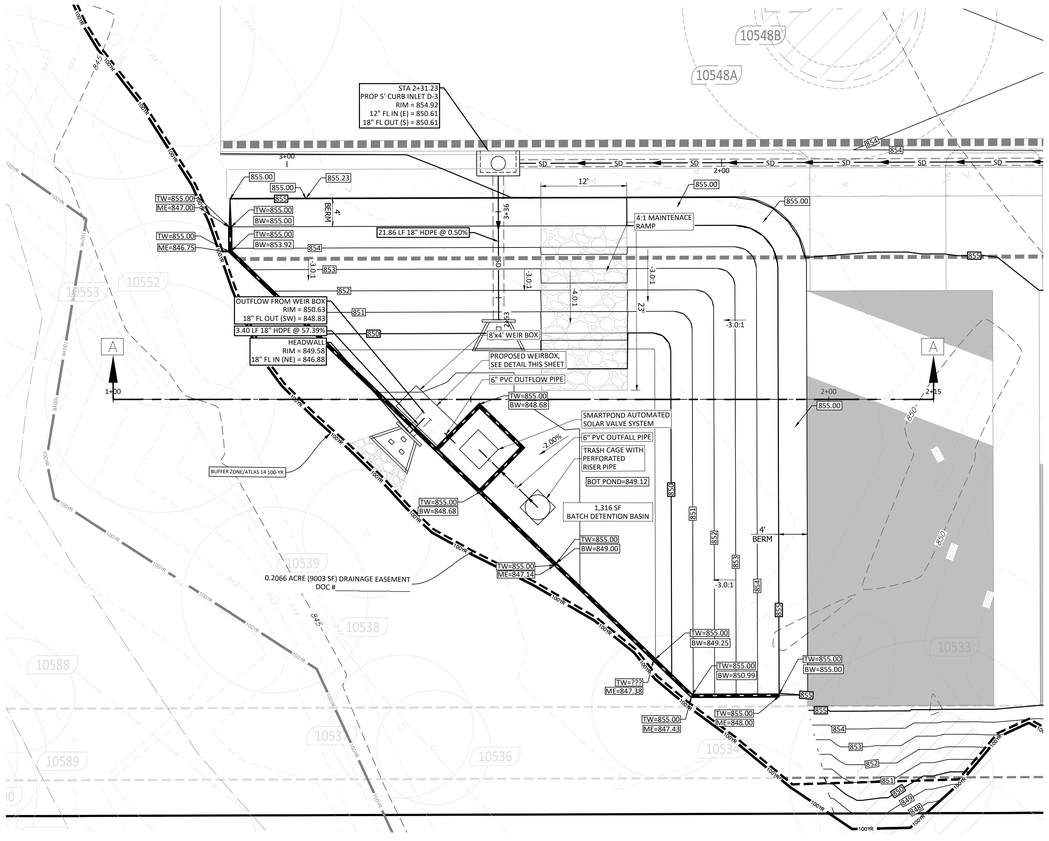
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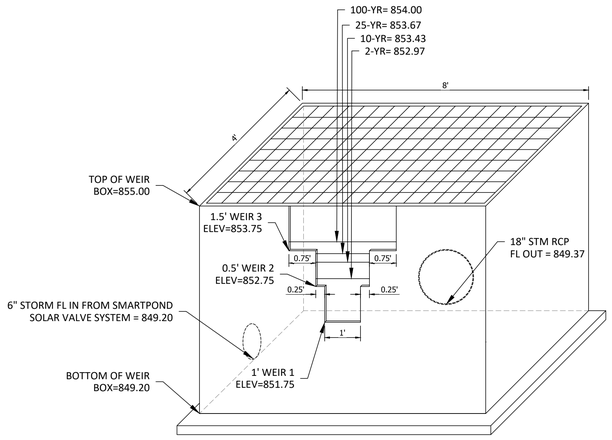
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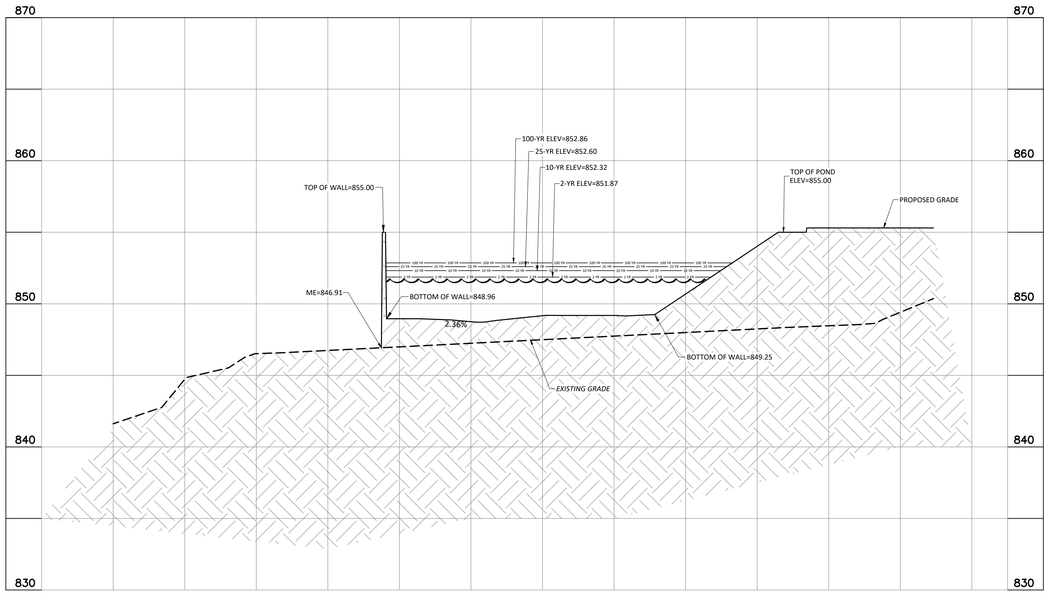
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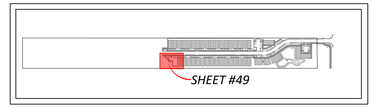


WEIR BOX
(NTS)



POND 2: CROSS SECTION A–A

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



KEY MAP
SCALE: 1"=500'

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09/20/2024

HARVEST RETREAT
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

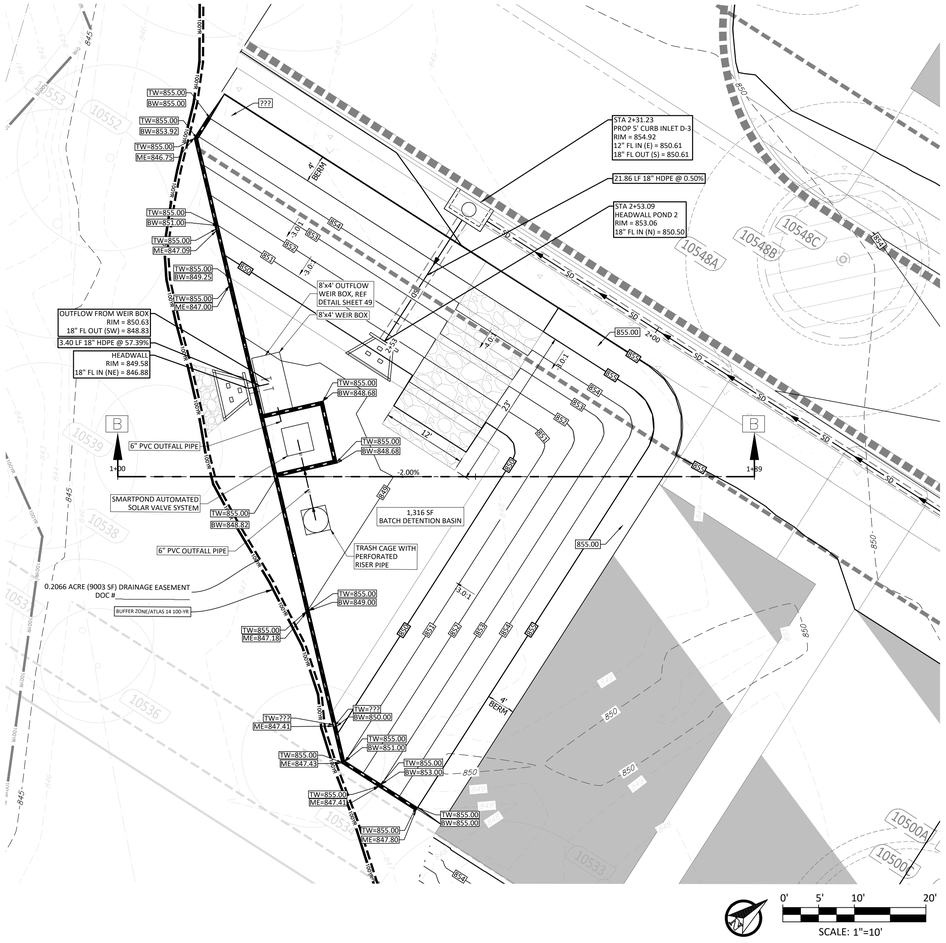
POND 2 PLAN & PROFILE (1 OF 2)

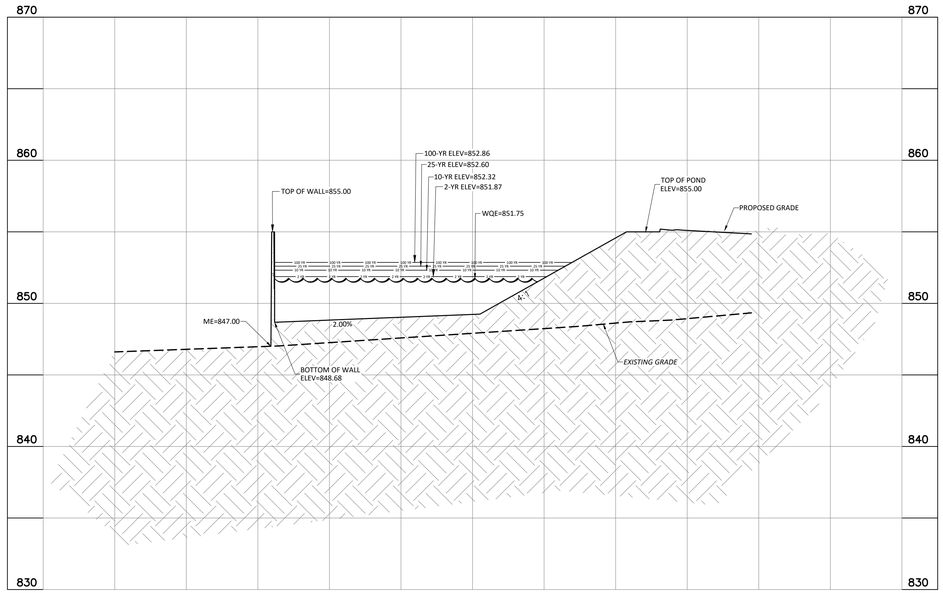
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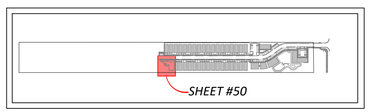
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POND 2: CROSS SECTION B–B

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



KEY MAP
SCALE: 1"=500'

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POND 2 PLAN & PROFILE (2 OF 2)

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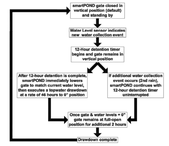
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Texas 811

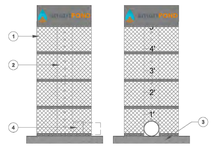
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PROGRAMMABLE LOGIC FLOW CHART

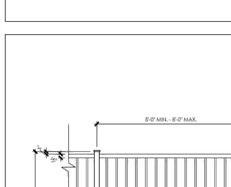


TRASH CAGE WITH PERFORATED RISER PIPE

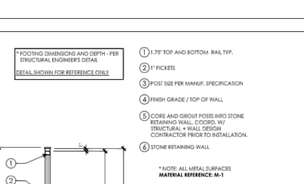


Parts List	
Item	smartPOND Valve Component
1	30" DIAMETER CAGE WITH 1.2" GALVANIZED MESH SCREEN
2	8" SQUARE PERFORATED TUBING WITH 1" PERFORATION, WITH 4" VERTICAL SPACING ON CENTERS WITH WATER DEPTH MARKER
3	3 F X 3 F X 4" CONCRETE PAD (BY OTHERS)
4	6" PVC OUTFALL PIPE (BY OTHERS)
5	WEATHERPROOF ELECTRONIC BOX
6	CONTROL BOX
7	PEDESTAL
8	ACTUATOR
9	MOTOR
10	6" VALVE
11	LEVEL TRANSDUCER
12	SOLAR PANEL
13	OUTLET PIPE (BY OTHERS)
14	30" DRAIN BASIN
15	VALVE STEM
16	QUICK DISCONNECT VALVE STEM

PERFORATED RISER PIPE



smartPOND Valve with Control Structure

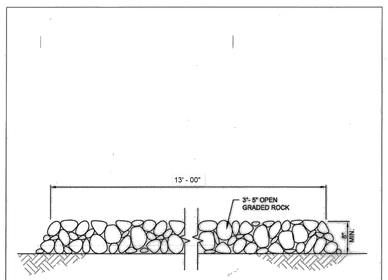


CONSTRUCTION ECO SERVICES

smartPOND Automated Stormwater Control.

FOR ADDITIONAL INFORMATION PLEASE CONTACT: CONSTRUCTION ECO SERVICES, 832-456-1000, www.ecoevs.com

CONVERGENT WATER TECHNOLOGIES



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	POND MAINTENANCE ROAD CROSS SECTION
E. J. Rourk, P.E. 1/4/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. STANDARD NO. 662S-2

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: HARVEST RETREAT

Date Prepared: 9/4/2025

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
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1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

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

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

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

County =	Williamson	
Total project area included in plan * =	10.00	acres
Predevelopment impervious area within the limits of the plan * =	0.13	acres
Total post-development impervious area within the limits of the plan * =	2.77	acres
Total post-development impervious cover fraction * =	0.28	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	2298	lbs.

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

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

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

Drainage Basin/Outfall Area No. = B2-D

Total drainage basin/outfall area =	0.41	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.19	acres
Post-development impervious fraction within drainage basin/outfall area =	0.46	
$L_{M\ THIS\ BASIN}$ =	166	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 95 percent

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

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

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_C 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
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	0.41	acres
A_I =	0.19	acres
A_P =	0.22	acres
L_R =	204	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 204 lbs.

F = 1.00

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

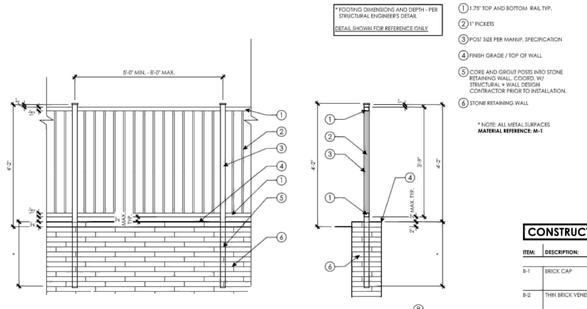
Rainfall Depth =	4.00	inches
Post Development Runoff Coefficient =	0.34	
On-site Water Quality Volume =	2014	cubic feet

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

Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	403	
Total Capture Volume (required water quality volume(s) x 1.20) =	2417	cubic feet

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

NOTE:
ALL EXPOSED CONCRETE THAT IS VISIBLE IS REQUIRED TO BE MADE OF STONE OR CLAD IN STONE INCLUDING BUT NOT LIMITED TO LEDGESTONE, FILEDSTONE, CAST STONE, OR OTHER DECORATIVE MATERIALS SUCH AS STAMPED AND TINTED CONCRETE THAT RESEMBLES STONE OR BRICK AS APPROVED BY THE DIRECTOR OF PLANNING. ALL OTHER EXPOSED CONRETE IS REQUIRED TO BE MADE OF STONE OR CLAD IN STONE AS LISTED ABOVE OR TEXTURED AND TINTED IN EARTHEN COLORS. IN THE EVENT THAT THE DRAINAGE FACILITY IS BELOW GRADE, STRUCTURAL STABILIZATION IS PERMITTED FOR THE FULL PERIMETER AND SCREENING REQUIREMENTS LISTED IN ARTICLE VI, SECTION 1 (D) OF THIS ORDINANCE SHALL APPLY.



CONSTRUCTION MATERIALS SCHEDULE

ITEM:	DESCRIPTION:	ITEM / MODEL:	COLOR:	FINISH:	MFR. / CONTACT:	NOTE TO CONTRACTOR:	PROVIDE MOCK-UP:	MOCK-UP NOTE:
B-1	BRICK CAP		TBD BY OWNER	TBD BY OWNER	ACME 817-332-4101	BLOCK VENEER SPEC AND COLOR WILL BE FINALIZED PENDING ENTRY SIGN MATERIALS.	YES	PROVIDE A 2'X2' MOCKUP FOR REVIEW BY OWNER AND LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
B-2	THIN BRICK VENEER	THIN BRICK	TBD BY OWNER	TBD BY OWNER	ACME 817-332-4101	CONTRACTOR SHALL COORDINATE WITH LANDSCAPE ARCHITECT AND OWNER TO PROVIDE COLOR OPTIONS PRIOR TO ORDERING PRODUCT.	YES	PROVIDE A 2'X2' MOCKUP FOR REVIEW BY OWNER AND LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
B-3	SPLIT FACE STONE SAWN	SPLITFACE HOG CREEK VENEER	TBD BY OWNER	TBD BY OWNER	MEDGER STONE 254-547-8207	CONTRACTOR SHALL COORDINATE WITH LANDSCAPE ARCHITECT AND OWNER TO PROVIDE COLOR OPTIONS PRIOR TO ORDERING PRODUCT.	YES	PROVIDE A 2'X2' MOCKUP FOR REVIEW BY OWNER AND LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
M-1	METAL FENCE	METAL FENCE - 4' HT. ECHELON II MAJESTIC STYLE	BLACK	PER MANUF. SPECS.	AMERISTAR (888) 333-5422	FENCE LOCATED AT RETAINING WALL PER PLAN.	YES	SUBMIT PRODUCT SHOP DRAWING FOR REVIEW BY OWNER AND LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.

'B' = BRICK; 'C' = CONCRETE; 'CP' = CONCRETE PAVER; 'G' = GLASS; 'M' = METAL; 'P' = PLASTER / STUCCO; 'PC' = POOL COPING; 'PP' = POOL PLASTER; 'PT' = POOL TILE; 'PR' = PRECAST CONC; 'PS' = PAINT/STAIN; 'R' = ROCK / BOULDER / PEBBLES / GRAVEL / D.G.; 'S' = STONE / GRANITE / MARBLE / QUARTZITE; 'T' = TILE; 'W' = WOOD; 'MI' = MISCELLANEOUS

NOTE TO CONTRACTOR:
1. SUBSTITUTIONS ARE HIGHLY DISCOURAGED.
2. MANY MATERIALS HAVE LONG LEAD ORDERING TIME. CONTRACTOR SHALL PROVIDE SAMPLES FOR REVIEW EARLY ON TO ENSURE THAT THE ORDER IS PLACED IN A TIMELY MANNER THAT WOULD NOT DELAY DELIVERY AND CONSTRUCTION.
3. ANY MATERIAL THAT IS SPECIFIED TO MATCH THE ARCHITECTURE SUCH AS WALLS, PILASTERS, ETC. (VENEER, STUCCO, PAINT), SHALL MATCH. REFER TO COLORISTS BUILDING SCHEMES FOR APPLICATION NOTES AND SPECIFICATIONS.

PEAK ELEVATION

Storm	Elevation
2	851.87
10	852.32
25	852.60
100	852.86

WEIRS

Weir	Elevation	Width (FT)	Coefficient
1	851.75	1.00	3.00
2	852.75	0.50	3.00
3	853.75	1.50	3.00

BATCH DETENTION VOLUME CALCULATIONS

Elevation	Area		Incremental Depth	Average End Area Incremental Volume		Average End Area Cumulative Volume		Inflow 100-YR	Outflow 100-YR	
(ft)	(sf)	(ac)	(ft)	(cf)	(ac-ft)	(cf)	(ac-ft)	(cfs)	(cfs)	
849.00	170	0.003903	n/a	n/a	n/a	0	0.000	0.00	0.00	
849.50	880	0.020202	0.500000	262.50	0.0060	262.50	0.006	0.06	0.00	
850.00	1031	0.023669	0.500000	477.75	0.0110	740.25	0.017	0.07	0.00	
851.00	1359	0.031198	1.000000	1195.00	0.0274	1935.25	0.044	0.14	0.00	
851.75	1,608	0.036915	0.750000	1112.63	0.0255	3047.88	0.070	0.20	0.00	WQV
852.00	1,712	0.039302	0.250000	415.00	0.0095	3462.88	0.079	0.36	0.19	
853.00	2,093	0.048049	1.000000	1902.50	0.0437	5365.38	0.123	4.16	2.30	
854.00	2,294	0.052663	1.000000	2193.50	0.0504	7558.88	0.174	4.83	6.46	

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FIRM NO: F-23684

NO. | DATE | REVISION

STATE OF TEXAS
JOHN P. SULLIVAN
144534
LICENSED
PROFESSIONAL ENGINEER
09/20/2024

HARVEST RETREAT
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

POND 2 NOTES & DETAILS

SHEET
51
OF 71

SD-24-0196

Texas 811

Plot Date: 20/09/2025 @ 3:54 PM

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LOT 13, BLOCK F,
LAKEWOOD COUNTRY ESTATES,
PHASE 1, CAB. C, SL. 295

LOT 12, BLOCK F
LAKEWOOD COUNTRY ESTATES,
PHASE 1, CAB. C, SL. 295

PUBLIC PARKLAND
DEDICATED TO CITY
OF LEANDER BY
LEANDER JUNCTION
DOC. NO. 2018083690

REPUBLIC TRAILS BLVD.
50' R.O.W.

BLOCK HOUSE CREEK

MATCH LINE SHEET #08

MATCH LINE SHEET #09

N69°12'45"E 2056.91'

S69°12'15"W 2059.67'

25' WIDE (0.434 ACRE/ 18,914 SF) DRAINAGE EASEMENT DOC #_____

0.0178 ACRE (0.434 SF) PARKLAND PEDESTRIAN TRAIL EASEMENT DOC #_____

0.0613 ACRE (30,465 SF) DRAINAGE EASEMENT DOC #_____

MENDOCINO DRIVE

KRISTENBOSCH ROAD

LAS POZAS PASS

KEUKENHOF LANE

DETENTION & WATER
QUALITY POND

AYANNA GARDENS

▲ LEANDER CITY LIMITS ▲

▼ CEDAR PARK ETJ ▼

LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- 512 EXISTING MAJOR CONTOUR
- 512 EXISTING MINOR CONTOUR
- CURB / EDGE OF PAVEMENT
- EXISTING BUILDING
- SD STORM DRAIN LINE
- W WATER LINE
- WW WASTEWATER LINE
- OHE OVERHEAD ELECTRIC
- GAS LINE
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- WW WASTEWATER MANHOLE
- WASTEWATER CLEANOUT
- BFP BACKFLOW PREVENTER
- STORM DRAIN MANHOLE
- STORM DRAIN CURB INLET
- STORM DRAIN AREA INLET
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- AC AIR CONDITIONER UNIT
- GM GAS METER
- EM ELECTRIC MANHOLE
- ELECTRIC BOX
- UTILITY POLE
- GUY WIRE
- SIGN
- SURVEY ROD/NAIL
- BENCHMARK
- TREE - REMOVE
- TREE - REMAIN

0' 25' 50' 100'
SCALE: 1"=50'

SHEET #08
SHEET #09

KEY MAP
SCALE: 1"=500'

ATTENTION:

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Texas 811

CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	0°42'43"	17011.73'	211.39'	S21°33'54"E	211.38'

NOTES:

1. EXISTING CONDITIONS SURVEY PREPARED BY MC SURVEYING ON OCTOBER 14, 2022.
2. A PRECONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR IS REQUIRED PRIOR TO ANY SITE DISTURBANCE.
3. WHERE TREE PROTECTION FENCING CANNOT BE INSTALLED AROUND THE FULL CRZ, PLACE FENCING AT THE 1/2 CRZ AND ADD 8" OF HARDWOOD MULCH FROM THE 1/2 CRZ TO THE FULL CRZ.
4. THE SIZE AND LOCATION OF UTILITY STRUCTURES, (IF SHOWN), MAY BE EXAGGERATED FOR GRAPHICAL CLARITY. THE SURVEY SHOWS FIELD MEASURED SIZES AND DEPTHS AS OBSERVED FROM GROUND LEVEL OPENINGS.

ON SITE BENCHMARK

BENCHMARK #1:
CUT SQUARE IN TOP OF CONCRETE HEADWALL
ELEV = 845.39'

Plot Date: 09/09/2025 @ 5:25 PM

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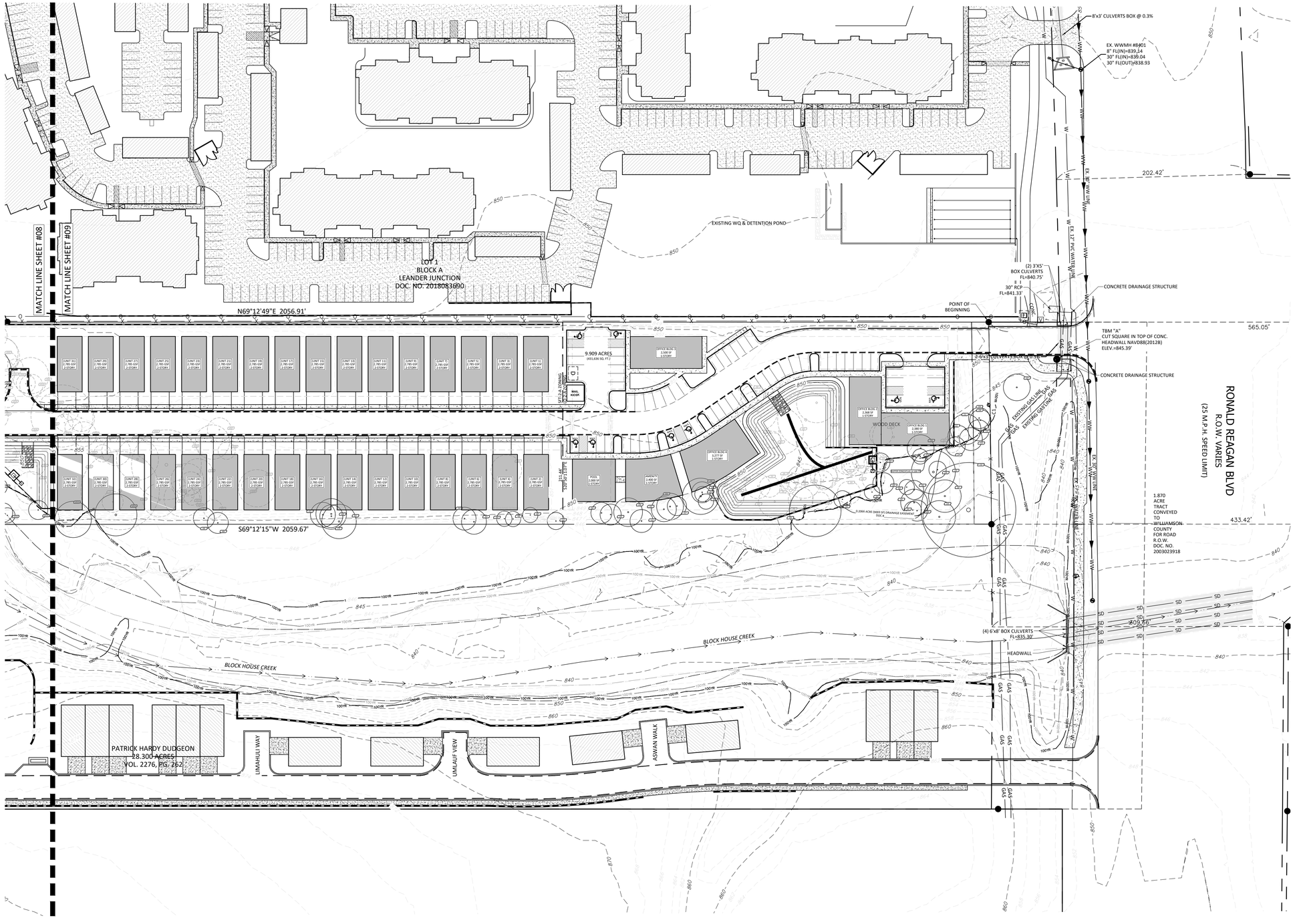
STATE OF TEXAS
JOHN P. SULLIVAN
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PROFESSIONAL ENGINEER
09/20/2024

HARVEST RETREAT PHASE 2
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

EXISTING CONDITIONS PLAN (1 OF 2)

SHEET
08
OF 80

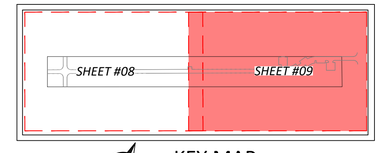
SD-24-0196



LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
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0' 25' 50' 100'
SCALE: 1"=50'



KEY MAP
SCALE: 1"=500'

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Texas 811

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ON SITE BENCHMARK

BENCHMARK #1:
CUT SQUARE IN TOP OF CONCRETE HEADWALL
ELEV = 845.39'

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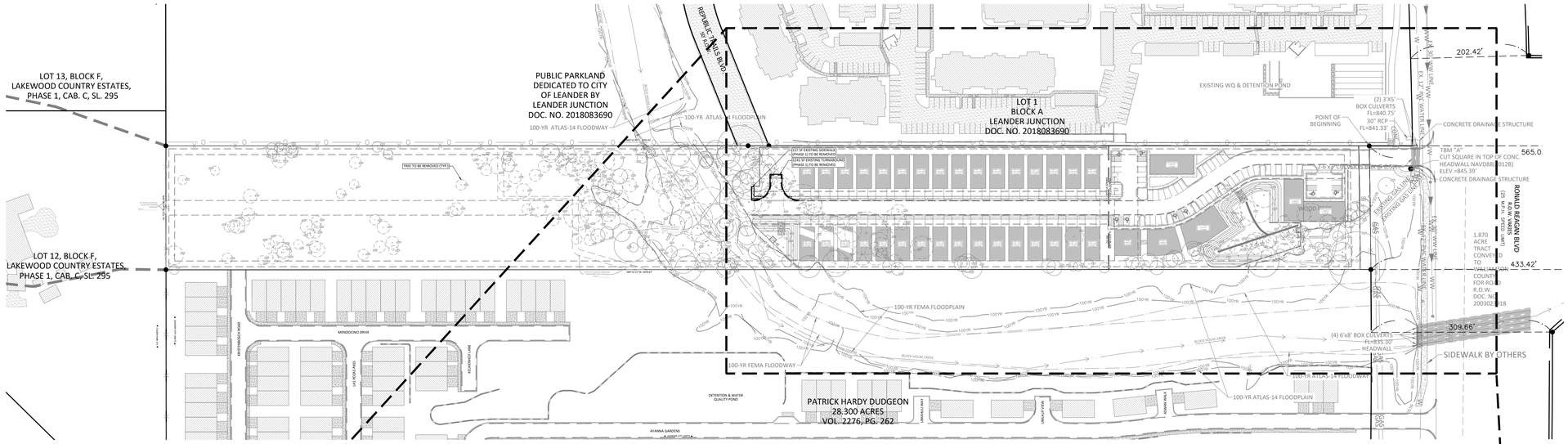
EXISTING CONDITIONS PLAN (2 OF 2)

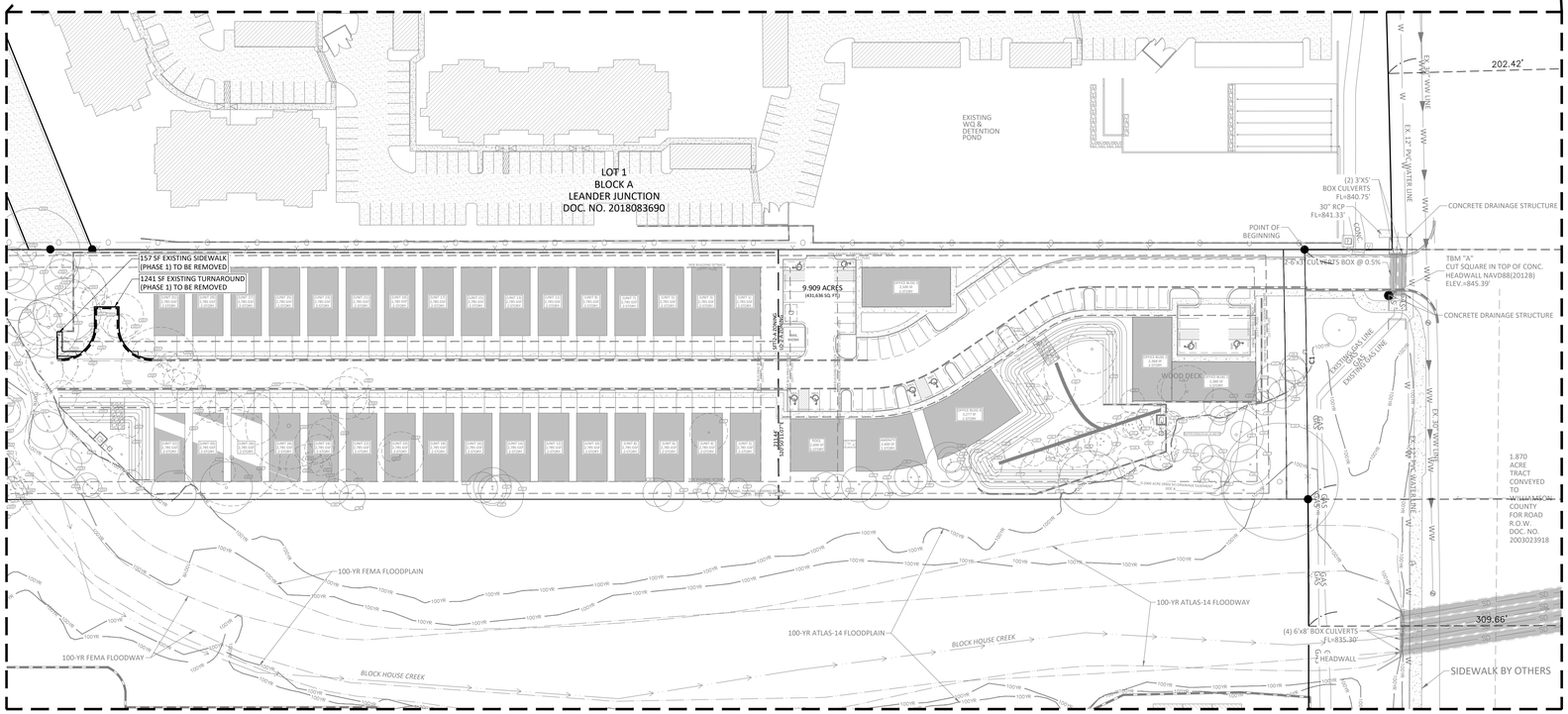
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OF 80

SD-24-0196

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NOTES:

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3. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TURCKS AND MULCHING AS PER ECM 1.4.5(A), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY.
4. WHEN INSTALLING MULCH LOGS, IF DAYLIGHT CAN BE SEEN UNDER MULCH DUE TO TOPOGRAPHIC CHANGES, ADD ADDITIONAL ROWS OF MULCH LOG TO CLOSE GAPS.
5. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF ANY AND ALL EXISTING APPLICABLE BUILDING/STRUCTURES ON THE SITE AND UTILITY RELOCATION WORK.
6. ALL DEBRIS AND EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE IN A MANNER NOT TO DAMAGE THE SITE PRIOR TO ACCEPTANCE OF THE PROJECT.
7. ALL REQUIRED RELOCATIONS OR ALTERATIONS OF TELEPHONE POLES, UNDERGROUND CONDUIT, POWER POLES, AND ANY OTHER FACILITIES SHALL BE DONE BY THE CONTRACTOR UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE HIS WORK WITH THAT OF OTHER CONTRACTORS AND UTILITY COMPANIES SO AS NOT TO DELAY THE PROJECT.
8. THE CONTRACTOR SHALL REMOVE OR RELOCATE, WHEN APPLICABLE, ALL EXISTING BUILDINGS, FOUNDATIONS, BASEMENTS, AND CONNECTING IMPROVEMENTS, DRAIN PIPES, SANITARY SEWER PIPE, POWER POLES AND GUY WIRES, WATER METERS AND WATER LINES, WELLS, SIDEWALKS, SIGN POLES, UNDERGROUND GAS, SEPTIC TANKS, AND ASPHALT, SHOWN AND NOT SHOWN, WITHIN CONSTRUCTION LIMITS AND WHERE NEEDED, TO ALL FOR CONSTRUCTION, UNLESS OTHERWISE NOTED.
9. CONTRACTOR TO PROTECT ALL UTILITIES THAT ARE TO REMAIN.
10. THE SIZE AND LOCATION OF UTILITY STRUCTURES, (IF SHOWN), MAY BE EXAGGERATED FOR GRAPHICAL CLARITY. THE SURVEY SHOWS FIELD MEASURED SIZES AND DEPTHS AS OBSERVED FROM GROUND LEVEL OPENINGS.
11. FLOODPLAIN LIMITS DELINEATED VIA FLOODPLAIN STUDY PREPARED BY RADIUS CIVIL ENGINEERING DATED MAY 2023.
12. REFER TO SHEETS 08-10 FOR TREE PRESERVATION PLAN AND TREE TABLE.

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Texas 811

LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- FIRE LANE STRIPING
- RETAINING / SCREENING WALL
- BUILDING PAD AREA
- PAVEMENT / ASPHALT
- PAVEMENT / CONCRETE
- WATER METER
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- GAS METER
- ELECTRIC MANHOLE
- ELECTRIC BOX
- UTILITY POLE
- GUY WIRE
- SIGN
- DUMPSTER
- MAIL BOX
- PARKING BUMPER
- ACCESSIBLE PARKING (ADA)
- CROSSWALK

NO.	DATE	REVISION

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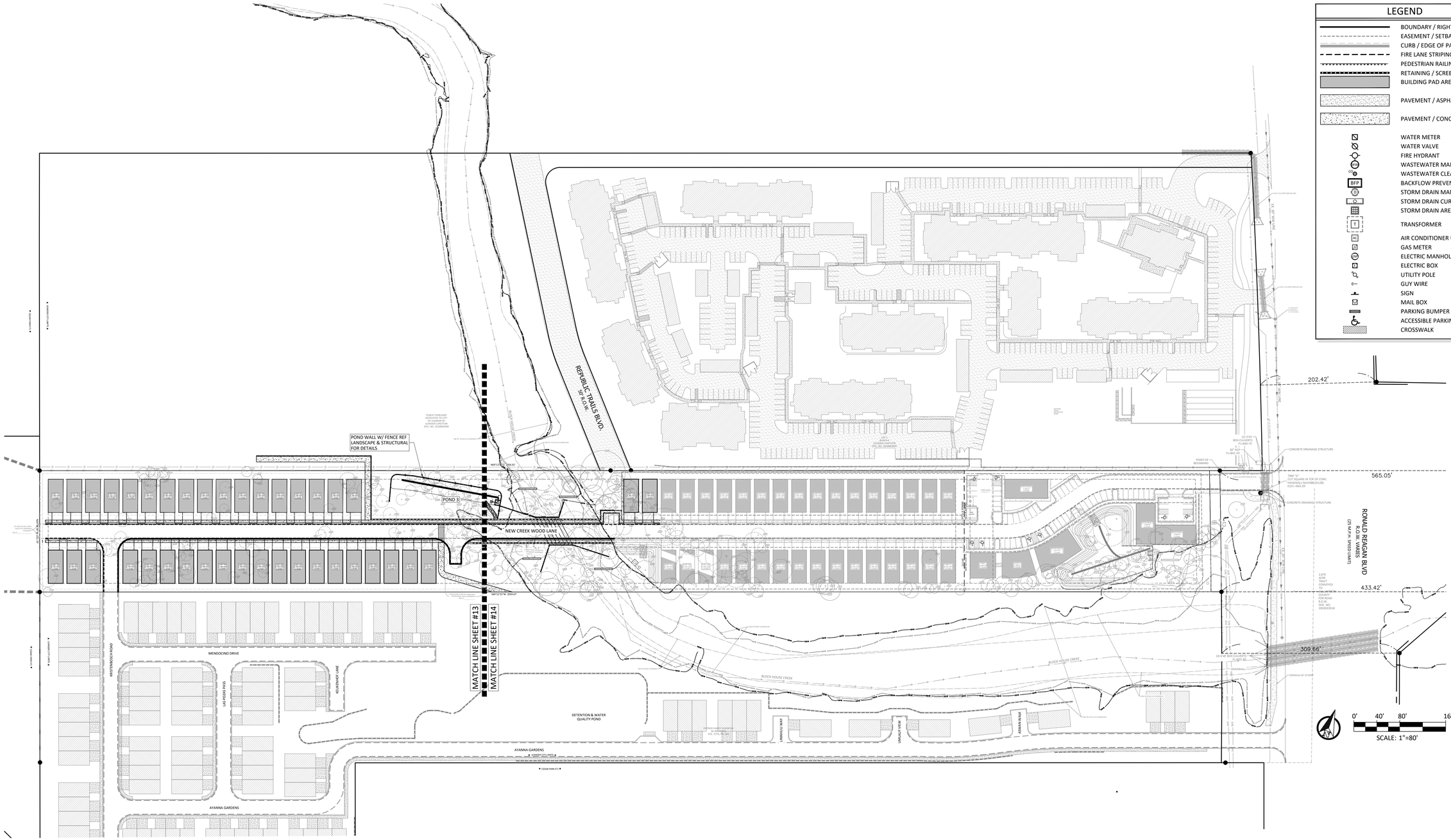
DEMOLITION PLAN

SHEET
11
OF 80

SD-24-0196

Plot Date: 20/09/2025 @ 5:10 PM

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LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- FIRE LANE STRIPING
- PEDESTRIAN RAILING
- RETAINING / SCREENING WALL
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- PAVEMENT / CONCRETE
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EMERGENCY ACCESS NOTES:

1. ALL FIRE DEPARTMENT ACCESS DRIVES/ROADS TO HAVE A MINIMUM 14'-0" VERTICAL CLEARANCE.
2. PER FIRE LANE STRIPING DETAILS #501-2: FIRE APPARATUS ACCESS ROADS SHALL BE CONTINUOUSLY MARKED BE PAINTED LINES OF RED TRAFFIC PAINT SIX INCHES (6") IN WIDTH TO SHOW THE BOUNDARIES OF THE LANE. THE WORDS "FIRE LANE TOW AWAY ZONE" OR "FIRE ZONE TOW AWAY ZONE" SHALL APPEAR IN FOUR INCH (4") WHITE LETTERS AT 25 FEET INTERVALS OR LESS, ON THE RED BORDER MARKINGS ALONG BOTH SIDES OF THE FIRE LANES. WHERE A CURB IS AVAILABLE, THE STRIPING SHALL BE ON THE VERTICAL FACE OF THE CURB.
3. FIRE LANE SIGNS: SIGNS SHALL READ "FIRE LANE TOW AWAY ZONE" OR "FIRE ZONE TOW AWAY ZONE" AND SHALL BE 12" WIDE AND 18" HIGH. SIGNS SHALL BE PAINTED ON A WAY BACKGROUND WITH LETTERS AND BORDERS IN RED, USING NOT LESS THAN 2" LETTERING. SIGNS SHALL BE PERMANENTLY AFFIXED TO STATIONARY POST AND THE BOTTOM OF THE SIGN SHALL BE SIX FEET, SIX INCHES (6'6") ABOVE FINISHED GRADE. SIGNS SHALL BE SPACED NOT MORE THAN THIRTY-FIVE FEET (35') APART. SIGNS MAY BE INSTALLED ON PERMANENT BUILDINGS OR WALL OR AS APPROVED BE THE FIRE CODE OFFICIAL.

SITE PLAN NOTES:

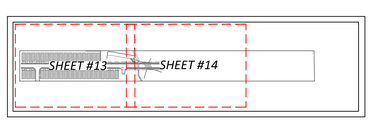
1. WATER AND WASTEWATER SERVICE TO BE PROVIDED BY THE CITY OF LEANDER.
2. AL CLAWSON DISPOSAL, INC. SHALL BE THE SOLE PROVIDER OF WASTE HAULING FOR THIS SITE AFTER CONSTRUCTION. DURING CONSTRUCTION, AN ALTERNATIVE WASTE HAULER MAY BE USED AS LONG AS THEY HAVE A FRANCHISE AGREEMENT WITH THE CITY.
3. WARNING SIGNS ARE REQUIRED TO BE PLACED UNDER THE OVERHEAD ELECTRIC LINES TO MAKE ALL PERSONNEL AWARE OF THE ELECTRIC HAZARD.
4. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
5. CAUTION: DO NOT PLACE THE STAGING AREA IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES.
6. ALL SITE UTILITY LINES ARE PROPOSED TO BE LOCATED UNDERGROUND.
7. REFER TO LANDSCAPE PLANS FOR FENCE AND GATE DETAILS.
8. FENCING FACING THE GREENBELT TO BE LIMITED TO WROUGHT IRON OR DECORATIVE, TUBULAR METAL FENCING PER PUD.
9. ATLEAST 85% OF FIRST STORY AND 50% FOR EACH ADDITIONAL STORY WALLS SHALL BE MASONRY PER DEVELOPMENT AGREEMENT.
10. THE FRONT 25-FT ALONG RONALD REAGAN BLVD WILL BE LANDSCAPED AT 150% OF THE STANDARDS LANDSCAPE REQUIREMENTS TO ENHANCE THE ENTRY AND PUBLIC VIEW OF THE PROPERTY PER PUB (ZONING ORDINANCE 19-024-00).
11. AN APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM WILL BE INSTALLED THROUGOUT ALL UNITS/BUILDINGS WITHIN THE PROJECT, INCLUDING ATTIC SPACES, SMALL ROOMS, BALCONIES, ETC.

SITE PLAN NOTES:

12. ALL EASEMENTS OF RECORD AS INDICATED ON THE MOST RECENT TITLE RUN (DATED: 11/14/2023, CONDUCTED BY: OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY) FOR THIS PROPERTY ARE SHOWN ON THIS SITE PLAN.
13. EXTERIOR LIGHTING SHALL BE SHIELDED SUCH THAT THT ELIGHT SOURCE IS NOT DIRECTLY VISIBLE FROM THE PURBLIC ROW OR ADJACENT RESIDENTIAL DISTRICTS OR USES AT THE PROPERTY LINE. UNSHIELDED "WALL PACK" LIGHTING IS NOT PROPOSED.
14. AIR CONDITIONING UNITS ARE NOT PROPOSED FORWARD THE FRONT WALL OF THE BUILDING.
15. GARAGE DUMPSTERS ARE LOCATED NO CLOSER TO A ROADWAY THAN THE FRONT WALL OF THE PRINCIPAL STRUCTURE LOCATED CLOSEST TO THE RAODWAY. GARAGE DUMPSTERS ARE SCREENED BY A WALL (COMPRISED OF MASONRY COMPATIBLE WITH THE STRUCTURE OR WOODCRETE) AT LEAST AS HIGH AS THE CONTAINER. THE OPEN SIDE TO THE DUMPSTER OR OTHER TRASH RECEPTACLE IS A GATE CONSTRUCTED OF SOLID WOOD OR METAL. THE DUMPSTER IS ORIENTED FOR PICKUP BY A FRONT LOAD GARBAGE TRUCK.
16. FOR 90 GALLON ROLL OUT CONTAINER STORED OUSIDE, IT IS REQUIRED TO BE ENCLOSED BY PRIVACY FENCE.
17. OFFICE BUILDINGS HOURS OF OPERTATION TO THE GENERAL PUBLIC ARE LIMITED TO BETWEEN 7:00 AM AND 10:00 PM SUNDAY THROUGH THURSDAY, AND 7:00 AM AND 11:00 PM FRIDAY AND SATURDAY.
18. ALL TOWNHOMES WILL BE SERVICED BY ROLL-OUT BINS

AMENITY CENTER NOTE:

AMENITY CENTER TO INCLUDE MEETING AND CONFERENCE SPACE AS WELL AS A COMMUNITY GYM



KEY MAP
SCALE: 1"=500'

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STATE OF TEXAS
JOHN P. SULLIVAN
144534
LICENSED
PROFESSIONAL ENGINEER
09/20/2024

HARVEST RETREAT PHASE 2
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

SITE PLAN OVERALL

SHEET
12
OF 80

SD-24-0196

Plot Date: 20/09/2025 @ 5:09 PM

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LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- FIRE LANE STRIPING
- PEDESTRIAN RAILING
- RETAINING / SCREENING WALL
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- ELECTRIC BOX
- UTILITY POLE
- GUY WIRE
- SIGN
- MAIL BOX
- PARKING BUMPER
- ACCESSIBLE PARKING (ADA)
- CROSSWALK

PUBLIC PARKLAND
DEDICATED TO CITY
OF LEANDER BY
LEANDER JUNCTION
DOC. NO. 2018083690

100-YR ATLAS-14 FLOODWAY

N69°12'

S69°12'1

BATCH DETENTION POND
POND REFER TO SHEET ##

INSTALL 226 LF TXDOT TYPE E PEDESTRIAN RAILING PER DETAIL SHEET 19

INSTALL 83 LF TXDOT TYPE E PEDESTRIAN RAILING PER DETAIL SHEET 19

SIDE PAVING, PARKING, LOADING SETBACK
(5 FT - PUD)

SIDE BUILDING SETBACK
(15 FT - PUD)

BLDG TO PROPERTY LINE 15'

BLDG TO PROPERTY LINE 5'

FRONT DRIVEWAY SETBACK 15'

REAR PAVING, PARKING, LOADING SETBACK (5 FT - PUD)

N20°08'59"W 211.70'

5 FT SIDE DRIVEWAY SETBACK

26' FIRE LANE
26' DRIVEWAY

20' FIRE LANE
20' DRIVEWAY

(UNIT 71) 2,785 GSF 2-STORY
(UNIT 69) 2,785 GSF 2-STORY
(UNIT 67) 2,785 GSF 2-STORY
(UNIT 65) 2,785 GSF 2-STORY
(UNIT 63) 2,785 GSF 2-STORY
(UNIT 61) 2,785 GSF 2-STORY
(UNIT 59) 2,785 GSF 2-STORY
(UNIT 57) 2,785 GSF 2-STORY
(UNIT 55) 2,785 GSF 2-STORY
(UNIT 53) 2,785 GSF 2-STORY
(UNIT 51) 2,785 GSF 2-STORY
(UNIT 49) 2,785 GSF 2-STORY
(UNIT 47) 2,785 GSF 2-STORY
(UNIT 45) 2,785 GSF 2-STORY
(UNIT 43) 2,785 GSF 2-STORY
(UNIT 41) 2,785 GSF 2-STORY
(UNIT 39) 2,785 GSF 2-STORY
(UNIT 70) 2,785 GSF 2-STORY
(UNIT 68) 2,785 GSF 2-STORY
(UNIT 66) 2,785 GSF 2-STORY
(UNIT 64) 2,785 GSF 2-STORY
(UNIT 62) 2,785 GSF 2-STORY
(UNIT 60) 2,785 GSF 2-STORY
(UNIT 58) 2,785 GSF 2-STORY
(UNIT 56) 2,785 GSF 2-STORY
(UNIT 54) 2,785 GSF 2-STORY
(UNIT 52) 2,785 GSF 2-STORY
(UNIT 50) 2,785 GSF 2-STORY
(UNIT 48) 2,785 GSF 2-STORY
(UNIT 46) 2,785 GSF 2-STORY
(UNIT 44) 2,785 GSF 2-STORY
(UNIT 42) 2,785 GSF 2-STORY
(UNIT 40) 2,785 GSF 2-STORY
(UNIT 38) 2,785 GSF 2-STORY
(UNIT 37) 2,785 GSF 2-STORY
(UNIT 36) 2,785 GSF 2-STORY
(UNIT 35) 2,785 GSF 2-STORY

MATCH LINE SHEET #13

MATCH LINE SHEET #14

MENDOCINO DRIVE

KRISTENBOSCH ROAD

KEUKENHOF LANE

ZAS PASS

CEDAR PARK ETJ

LEANDER CITY LIMITS

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

SHEET #13 SHEET #14

KEY MAP
SCALE: 1"=500'

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Texas 811

NOTES:

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Plot Date: 20/09/2025 @ 5:23 PM

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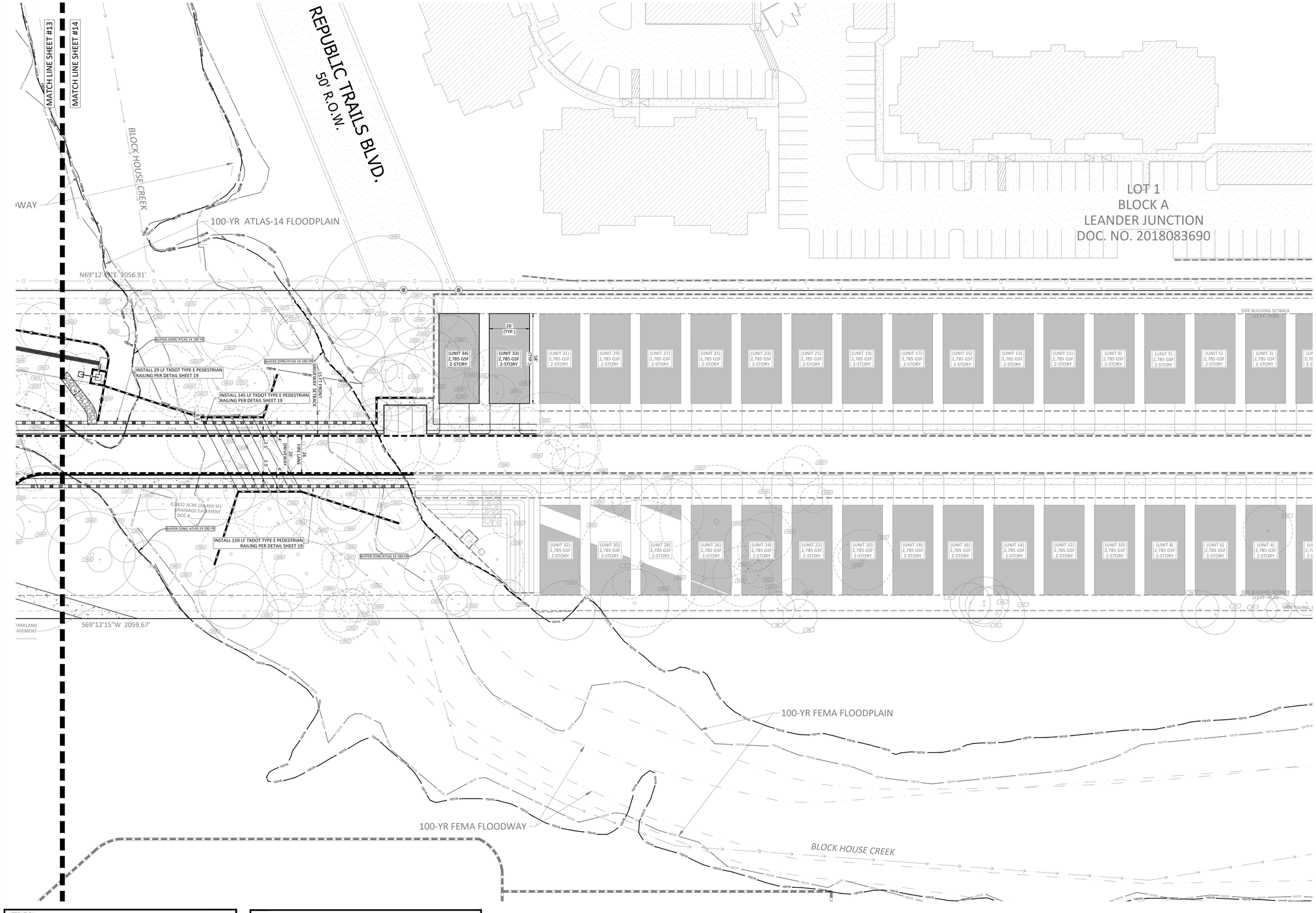
STATE OF TEXAS
JOHN P. SULLIVAN
144534
LICENSED
PROFESSIONAL ENGINEER
09/20/2024

HARVEST RETREAT PHASE 2
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

DIMENSIONAL CONTROL PLAN (1 OF 2)

SHEET
13
OF 80

SD-24-0196



LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- FIRE LANE STRIPING
- PEDESTRIAN RAILING
- RETAINING / SCREENING WALL
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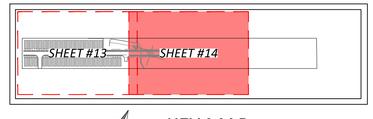
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Texas 811

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KEY MAP
SCALE: 1"=500'

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

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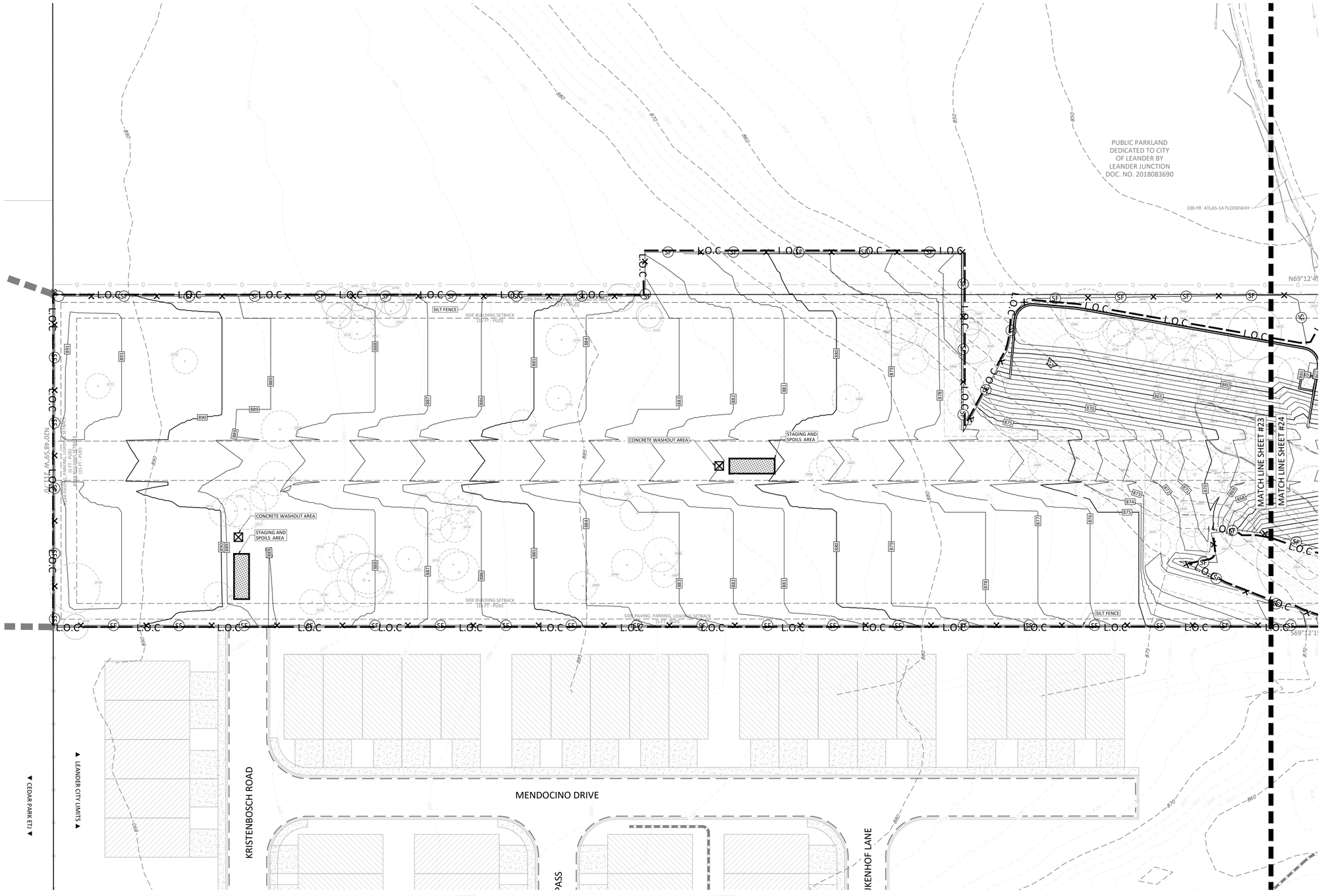
DIMENSIONAL CONTROL PLAN (2 OF 2)

SHEET
14
OF 80

SD-24-0196

Plot Date: 20/09/2025 @ 5:30 PM

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LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- 510 EXISTING MAJOR CONTOUR
- 512 EXISTING MINOR CONTOUR
- 200 PROPOSED MAJOR CONTOUR
- 201 PROPOSED MINOR CONTOUR
- RETAINING / SCREENING WALL
- TREE - REMOVE
- TREE - REMAIN
- L.O.C LIMIT OF CONSTRUCTION
- SF SILT FENCE
- SCE STABILIZED CONSTRUCTION ENTRANCE
- STAGING AND SPOILS AREA
- CONCRETE WASHOUT AREA

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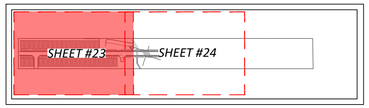
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NOTES:

1. IF DISTURBED AREA IS NOT BE WORKE DON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING. [ECM 1.4.4.B.3, SECTION 5, I.]
2. ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN-COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS. [LDC 25-8-183]
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5. WHEN INSTALLING MULCH LOGS, IF DAYLIGHT CAN BE SEEN UNDER MULCH DUE TO TOPOGRAPHIC CHANGES, ADD ADDTIONAL ROWS OF MULCH LOG TO CLOSE GAP.
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NOTES:

ALL EROSION AND SEDIMENATION CONTROL DETAILS CALLED OUT ON THIS SHEET ARE LOCATED ON SHEET 27, SHEET 28, SHEET 29, "EROSION AND SEDIMINATION CONTROL DETAILS"



KEY MAP
SCALE: 1"=500'

Texas 811

Plot Date: 20/09/2025 @ 5:32 PM

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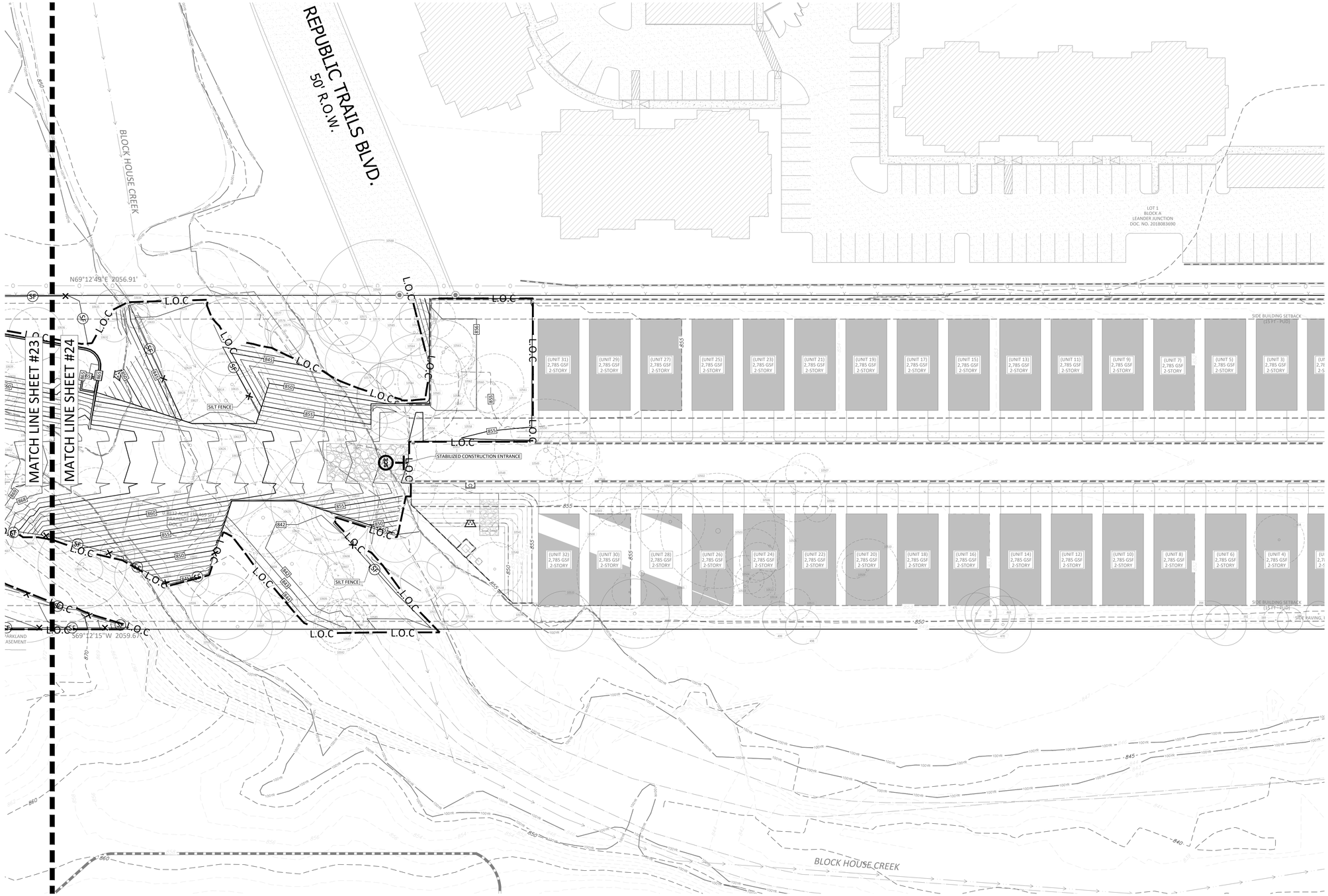
STATE OF TEXAS
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LEANDER, TEXAS 78641

EROSION & SEDIMENTATION CONTROL PLAN PHASE 3 (1 OF 2)

SHEET
23
OF 80

SD-24-0196



LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
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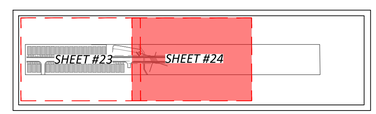
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0' 15' 30' 60'
SCALE: 1"=30'



KEY MAP
SCALE: 1"=500'

NO.	DATE	REVISION

RADIUS
CIVIL ENGINEERING
FIRM NO: F-23684
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10208 ANAHUAC TRL, AUSTIN, TEXAS 78747
(512) 431-8510
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STATE OF TEXAS
JOHN P. SULLIVAN
144534
LICENSED PROFESSIONAL ENGINEER
09/20/2024

HARVEST RETREAT PHASE 2
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

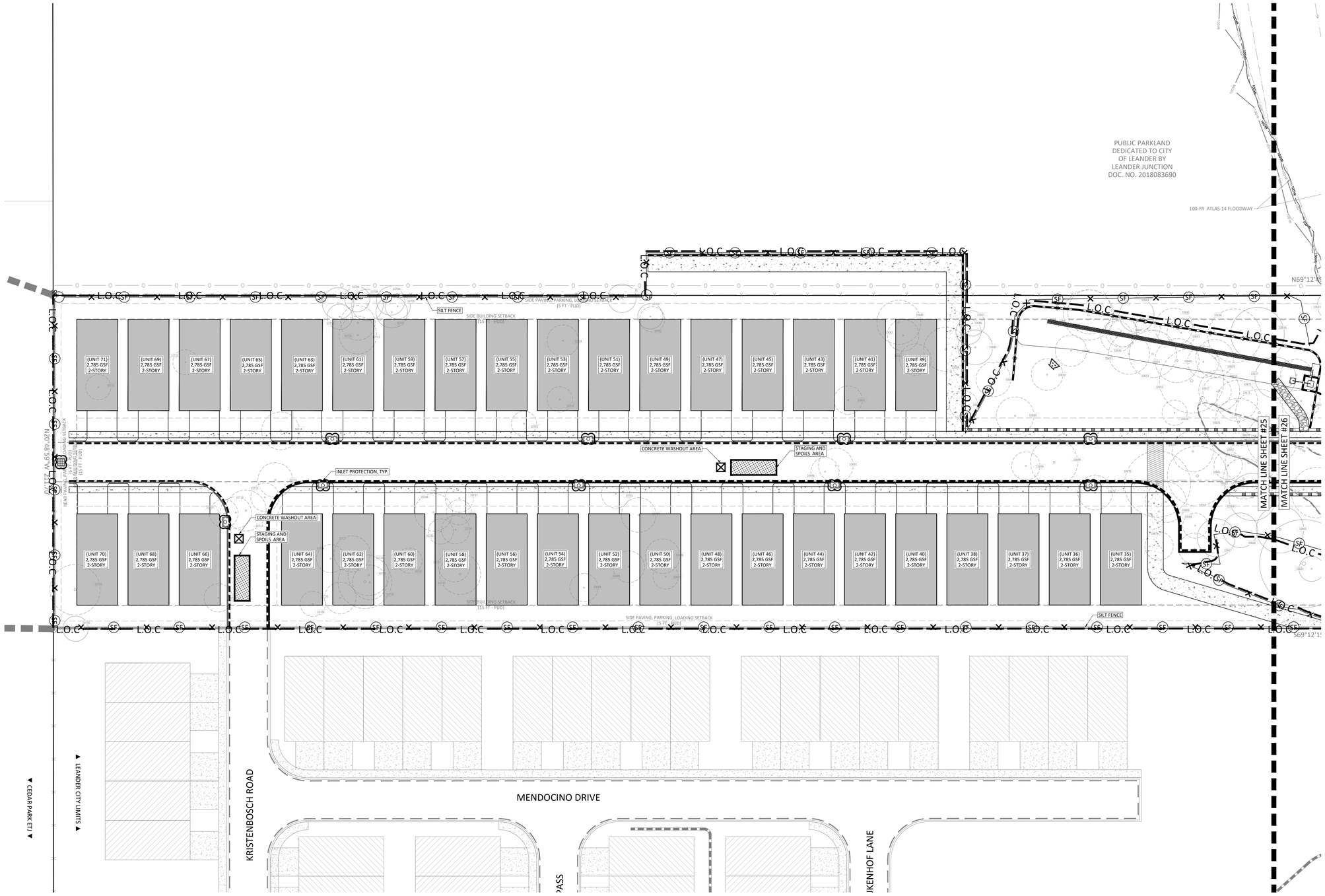
EROSION & SEDIMENTATION CONTROL PLAN PHASE 3 (2 OF 2)

SHEET
24
OF 80

SD-24-0196

Plot Date: 20/09/2025 @ 5:08 PM

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LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- 510 EXISTING MAJOR CONTOUR
- 512 EXISTING MINOR CONTOUR
- 200 PROPOSED MAJOR CONTOUR
- 201 PROPOSED MINOR CONTOUR
- RETAINING / SCREENING WALL
- TREE - REMOVE
- TREE - REMAIN
- L.O.C LIMIT OF CONSTRUCTION
- SF SILT FENCE
- SCE STABILIZED CONSTRUCTION ENTRANCE
- STAGING AND SPOILS AREA
- CONCRETE WASHOUT AREA
- INLET PROTECTION

0' 15' 30' 60'
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ATTENTION:

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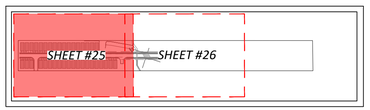
AT LEAST 48 HOURS PRIOR TO EXCAVATION, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY TO REQUEST EXACT FIELD LOCATIONS AS REQUIRED. CONTRACTOR SHALL CONTACT THE TEXAS EXCAVATION SAFETY SYSTEM AT 800-344-8377 AT LEAST TWO FULL WORKING DAYS BEFORE COMMENCING ANY EXCAVATION OR UTILITY WORK.

NOTES:

1. IF DISTURBED AREA IS NOT BE WORKE DON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING. [ECM 1.4.4.B.3, SECTION 5, I.]
2. ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN-COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS. [LDC 25-8-183]
3. CONTRACTOR SHALL USE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(A), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY. [ECM 1.4.4.D.4]
4. A PRECONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR IS REQUIRED PRIOR TO ANY SITE DISTURBANCE.
5. WHEN INSTALLING MULCH LOGS, IF DAYLIGHT CAN BE SEEN UNDER MULCH DUE TO TOPOGRAPHIC CHANGES, ADD ADDTIONAL ROWS OF MULCH LOG TO CLOSE GAP.
6. CONTRACTOR SHALL PROVIDE AND MAINTAIN A DEWATERING SYSTEM TO ENSURE IT MEETS COMPLIANCE WITH TITLE 6, ARTICLE V OF THE AUSTIN CITY CODE. THE DEWATERING PLANS MUST BE APPROVED BY THE ENVIRONMENTAL INSPECTOR DURING THE PRE-CONSTRUCTION CONFERENCE. IF THE PERFORMANCE OF THE DEWATERING SYSTEM IS NOT IN COMPLIANCE, THE CONTRACTOR MUST IMMEDIATELY MAKE THE NECESSARY MODIFICATIONS, FOLLOWING THE ENVIRONMENTAL INSPECTOR'S DIRECTION, TO ENSURE ADEQUATE SYSTEM PERFORMANCE.

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KEY MAP
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Plot Date: 20/09/2025 @ 5:10 PM

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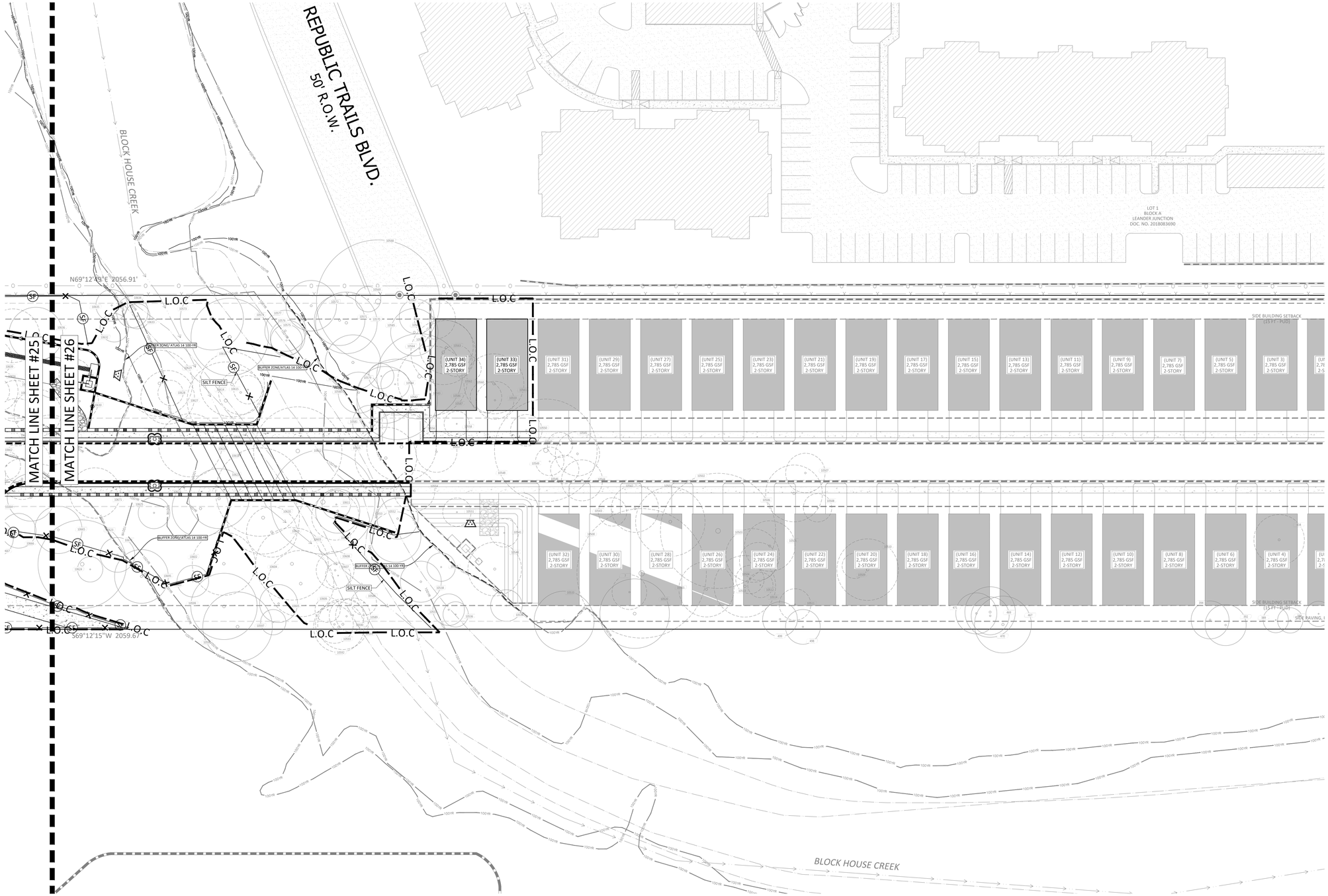
STATE OF TEXAS
JOHN P. SULLIVAN
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LICENSED
PROFESSIONAL ENGINEER
09/20/2024

HARVEST RETREAT PHASE 2
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

EROSION & SEDIMENTATION CONTROL PLAN PHASE 4 (1 OF 2)

SHEET
25
OF 80

SD-24-0196



LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- 510 EXISTING MAJOR CONTOUR
- 512 EXISTING MINOR CONTOUR
- 200 PROPOSED MAJOR CONTOUR
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Texas 811

NOTES:

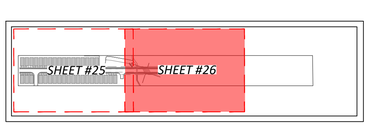
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NOTES:

ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR



KEY MAP
SCALE: 1"=500'

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

NO.	DATE	REVISION

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STATE OF TEXAS
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HARVEST RETREAT PHASE 2
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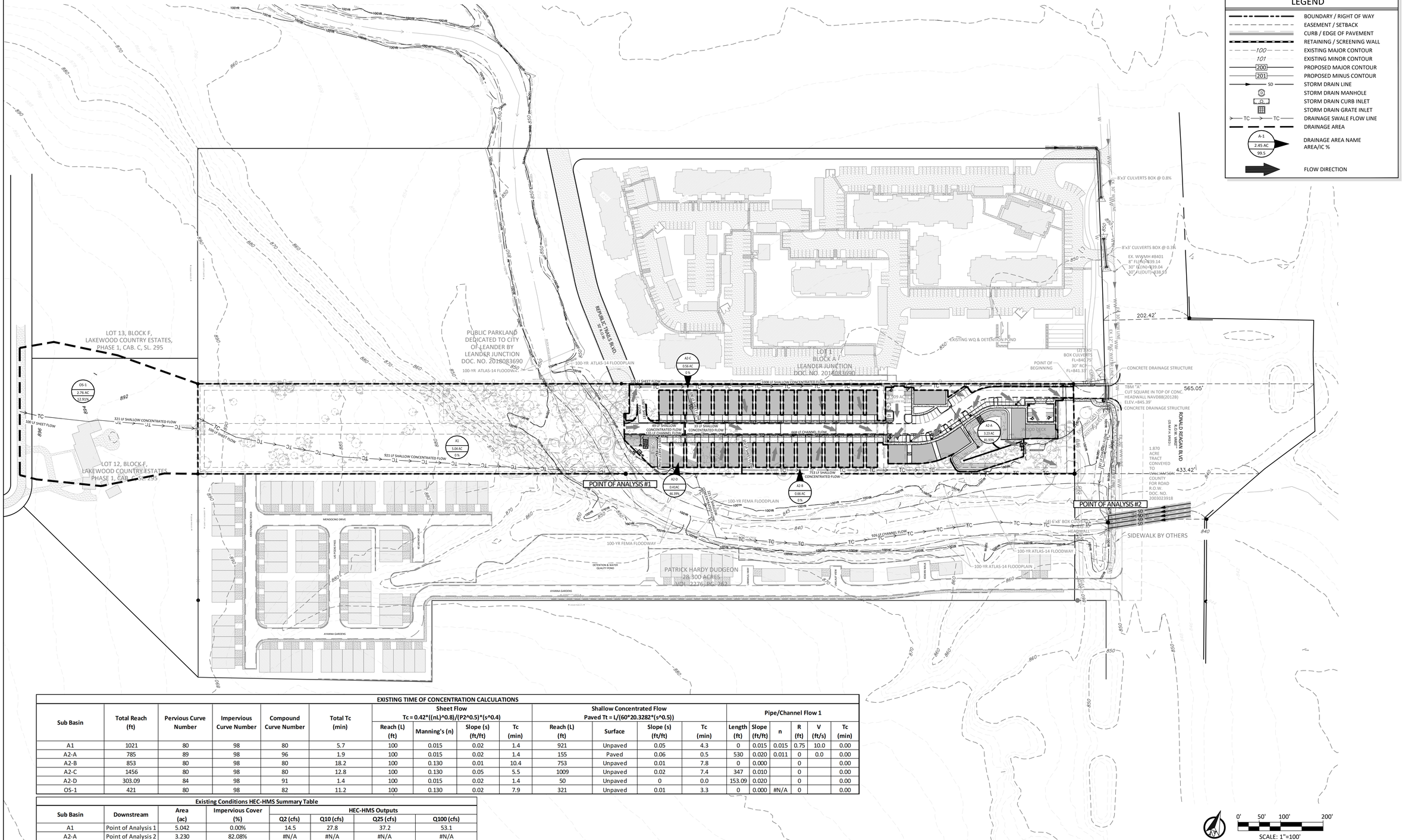
EROSION & SEDIMENTATION CONTROL PLAN PHASE 4 (2 OF 2)

SHEET
26
OF 80

SD-24-0196

Plot Date: 20/09/2025 @ 4:56 PM

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EXISTING TIME OF CONCENTRATION CALCULATIONS

Sub Basin	Total Reach (ft)	Pervious Curve Number	Impervious Curve Number	Compound Curve Number	Total Tc (min)	Sheet Flow Tc = 0.42*((nL)^0.8)/(P2^0.5)*(s^0.4)				Shallow Concentrated Flow Paved Tt = L/(60*20.3282*(s^0.5))				Pipe/Channel Flow 1					
						Reach (L) (ft)	Manning's (n)	Slope (s) (ft/ft)	Tc (min)	Reach (L) (ft)	Surface	Slope (s) (ft/ft)	Tc (min)	Length (ft)	Slope (ft/ft)	n	R (ft)	V (ft/s)	Tc (min)
A1	1021	80	98	80	5.7	100	0.015	0.02	1.4	921	Unpaved	0.05	4.3	0	0.015	0.015	0.75	10.0	0.00
A2-A	785	89	98	96	1.9	100	0.015	0.02	1.4	155	Paved	0.06	0.5	530	0.020	0.011	0	0.0	0.00
A2-B	853	80	98	80	18.2	100	0.130	0.01	10.4	753	Unpaved	0.01	7.8	0	0.000		0		0.00
A2-C	1456	80	98	80	12.8	100	0.130	0.05	5.5	1009	Unpaved	0.02	7.4	347	0.010		0		0.00
A2-D	303.09	84	98	91	1.4	100	0.015	0.02	1.4	50	Unpaved	0	0.0	153.09	0.020		0		0.00
OS-1	421	80	98	82	11.2	100	0.130	0.02	7.9	321	Unpaved	0.01	3.3	0	0.000	#N/A	0		0.00

Existing Conditions HEC-HMS Summary Table

Sub Basin	Downstream	Area (ac)	Impervious Cover (%)	HEC-HMS Outputs			
				Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
A1	Point of Analysis 1	5.042	0.00%	14.5	27.8	37.2	53.1
A2-A	Point of Analysis 2	3.230	82.08%	#N/A	#N/A	#N/A	#N/A
A2-B	Point of Analysis 2	0.662	0.00%	#N/A	#N/A	#N/A	#N/A
A2-C	Point of Analysis 2	0.564	0.00%	#N/A	#N/A	#N/A	#N/A
A2-D	Point of Analysis 3	0.410	46.54%	#N/A	#N/A	#N/A	#N/A
OS-1	Point of Analysis 1	2.759	12.91%	7.6	14.0	18.5	26.0
POA 1 - EX				22.1	41.8	55.6	79.1
POA 2 - EX				9.7	18.5	24.7	35.1

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DRAINAGE NOTES:

1. UPON COMPLETION OF THE PROPOSED SITE IMPROVEMENTS, AND PRIOR TO THE RELEASE OF THE CERTIFICATE OF OCCUPANCY BY THE DEVELOPMENT SERVICES DEPARTMENT, THE DESIGN ENGINEER SHALL CERTIFY IN WRITING THAT THE PROPOSED DETENTION AND FILTRATION FACILITIES WERE CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS.
2. CONTRACTOR SHALL CALL TEXAS 811 (811 OR 1-800-344-8377) FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET R.O.W.

FLOODPLAIN NOTE:

THE 100- AND 25- YEAR FLOODPLAIN SHOWN ON THIS PLAN WERE MODELED AND DELINEATED IN ACCORDANCE WITH AUSTIN DRAINAGE CRITERIA MANUAL REQUIREMENTS.

Texas 811

Plot Date: 20/09/2024, @ 4:59 PM

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STATE OF TEXAS
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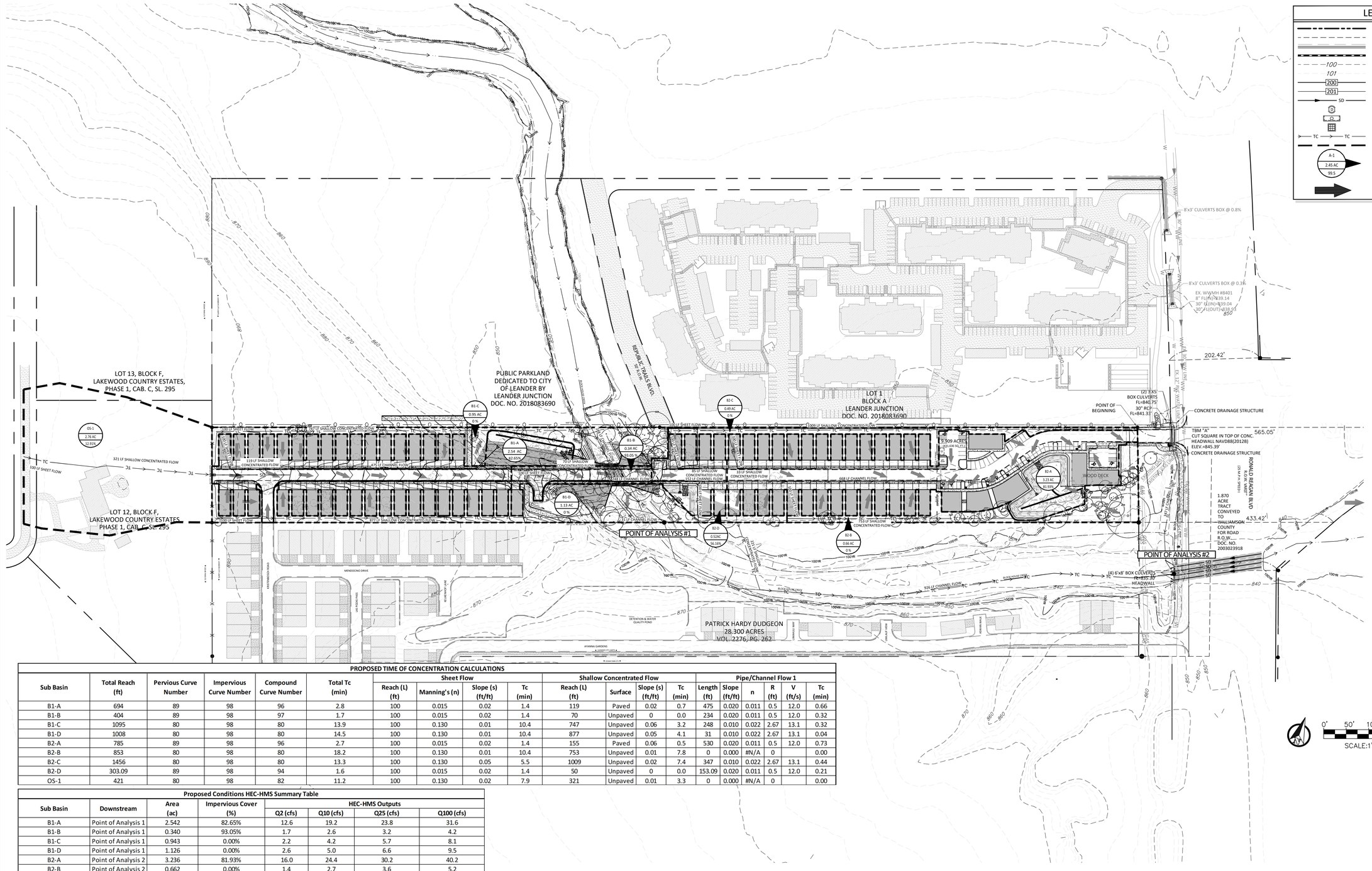
NO.	DATE	REVISION

HARVEST RETREAT PHASE 2
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

EXISTING DRAINAGE AREA MAP

SHEET
30
OF 80

SD-24-0196



PROPOSED TIME OF CONCENTRATION CALCULATIONS

Sub Basin	Total Reach (ft)	Pervious Curve Number	Impervious Curve Number	Compound Curve Number	Total Tc (min)	Sheet Flow				Shallow Concentrated Flow				Pipe/Channel Flow 1					
						Reach (L) (ft)	Manning's (n)	Slope (s) (ft/ft)	Tc (min)	Reach (L) (ft)	Surface	Slope (s) (ft/ft)	Tc (min)	Length (ft)	Slope (ft/ft)	n	R (ft)	V (ft/s)	Tc (min)
B1-A	694	89	98	96	2.8	100	0.015	0.02	1.4	119	Paved	0.02	0.7	475	0.020	0.011	0.5	12.0	0.66
B1-B	404	89	98	97	1.7	100	0.015	0.02	1.4	70	Unpaved	0	0.0	234	0.020	0.011	0.5	12.0	0.32
B1-C	1095	80	98	80	13.9	100	0.130	0.01	10.4	747	Unpaved	0.06	3.2	248	0.010	0.022	2.67	13.1	0.32
B1-D	1008	80	98	80	14.5	100	0.130	0.01	10.4	877	Unpaved	0.05	4.1	31	0.010	0.022	2.67	13.1	0.04
B2-A	785	89	98	96	2.7	100	0.015	0.02	1.4	155	Paved	0.06	0.5	530	0.020	0.011	0.5	12.0	0.73
B2-B	853	80	98	80	18.2	100	0.130	0.01	10.4	753	Unpaved	0.01	7.8	0	0.000	#N/A	0		0.00
B2-C	1456	80	98	80	13.3	100	0.130	0.05	5.5	1009	Unpaved	0.02	7.4	347	0.010	0.022	2.67	13.1	0.44
B2-D	303.09	89	98	94	1.6	100	0.015	0.02	1.4	50	Unpaved	0	0.0	153.09	0.020	0.011	0.5	12.0	0.21
OS-1	421	80	98	82	11.2	100	0.130	0.02	7.9	321	Unpaved	0.01	3.3	0	0.000	#N/A	0		0.00

Proposed Conditions HEC-HMS Summary Table

Sub Basin	Downstream	Area (ac)	Impervious Cover (%)	HEC-HMS Outputs			
				Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
B1-A	Point of Analysis 1	2.542	82.65%	12.6	19.2	23.8	31.6
B1-B	Point of Analysis 1	0.340	93.05%	1.7	2.6	3.2	4.2
B1-C	Point of Analysis 1	0.943	0.00%	2.2	4.2	5.7	8.1
B1-D	Point of Analysis 1	1.126	0.00%	2.6	5.0	6.6	9.5
B2-A	Point of Analysis 2	3.236	81.93%	16.0	24.4	30.2	40.2
B2-B	Point of Analysis 2	0.662	0.00%	1.4	2.7	3.6	5.2
B2-C	Point of Analysis 2	0.486	0.00%	1.2	2.2	3.0	4.3
B2-D	Point of Analysis 1	0.521	56.16%	2.4	3.8	4.8	6.4
OS-1	Point of Analysis 1	2.759	12.91%	7.6	14.0	18.5	26.0
POND 1				6.5	13.2	17.5	25.0
POND 2				2.8	4.9	6.2	8.4
POND 3				9.3	23.4	31.1	44.7
POA 1 - PR				**16.0**	**37.0**	**49.2**	**70.8**
POA 2 - PR				**8.9**	**18.0**	**24.0**	**34.1**
Increase in Runoff POA 1 - PR (Negative values mean controlled flows)				***-4.1***	***-2.2***	***-3.8***	***-4.7***
Increase in Runoff POA 2 - PR (Negative values mean controlled flows)				***-0.2***	***-0.3***	***-0.4***	***-0.7***

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Texas 811

Plot Date: 20/09/2025 @ 5:05 PM

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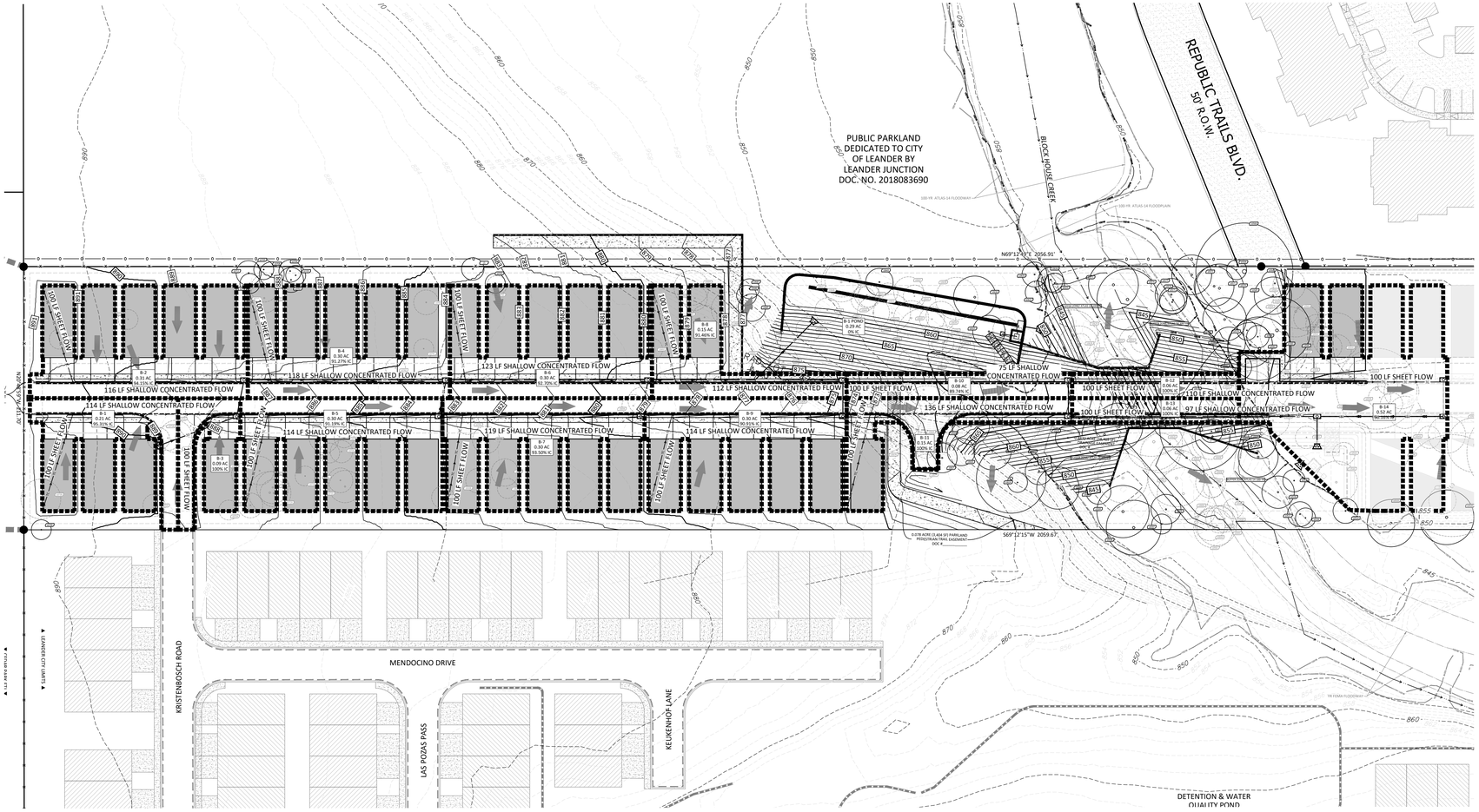
NO.	DATE	REVISION

HARVEST RETREAT PHASE 2
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

PROPOSED DRAINAGE AREA MAP

SHEET 31 OF 80

SD-24-0196



LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- RETAINING / SCREENING WALL
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINUS CONTOUR
- STORM DRAIN LINE
- STORM DRAIN MANHOLE
- STORM DRAIN CURB INLET
- STORM DRAIN GRATE INLET
- DRAINAGE SWALE FLOW LINE
- DRAINAGE AREA
- SUB-DRAINAGE AREA NAME AREA/IC %
- FLOW DIRECTION

0' 25' 50' 100'
SCALE: 1"=50'

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DRAINAGE NOTES:

1. UPON COMPLETION OF THE PROPOSED SITE IMPROVEMENTS, AND PRIOR TO THE RELEASE OF THE CERTIFICATE OF OCCUPANCY BY THE DEVELOPMENT SERVICES DEPARTMENT, THE DESIGN ENGINEER SHALL CERTIFY IN WRITING THAT THE PROPOSED DETENTION AND FILTRATION FACILITIES WERE CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS.
2. CONTRACTOR SHALL CALL TEXAS 811 (811 OR 1-800-344-8377) FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET R.O.W.

FLOODPLAIN NOTE:

THE 100- AND 25- YEAR FLOODPLAIN SHOWN ON THIS PLAN WERE MODELED AND DELINEATED IN ACCORDANCE WITH AUSTIN DRAINAGE CRITERIA MANUAL REQUIREMENTS.

Texas 811

RADIUS CIVIL ENGINEERING
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10108 ANAHUAC TRL, AUSTIN, TEXAS 78747
(512) 431-8510
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WWW.RADIUSCIVIL.COM

STATE OF TEXAS
JOHN P. SULLIVAN
144534
LICENSED
PROFESSIONAL ENGINEER
09/20/2024

NO.	DATE	REVISION

HARVEST RETREAT PHASE 2
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

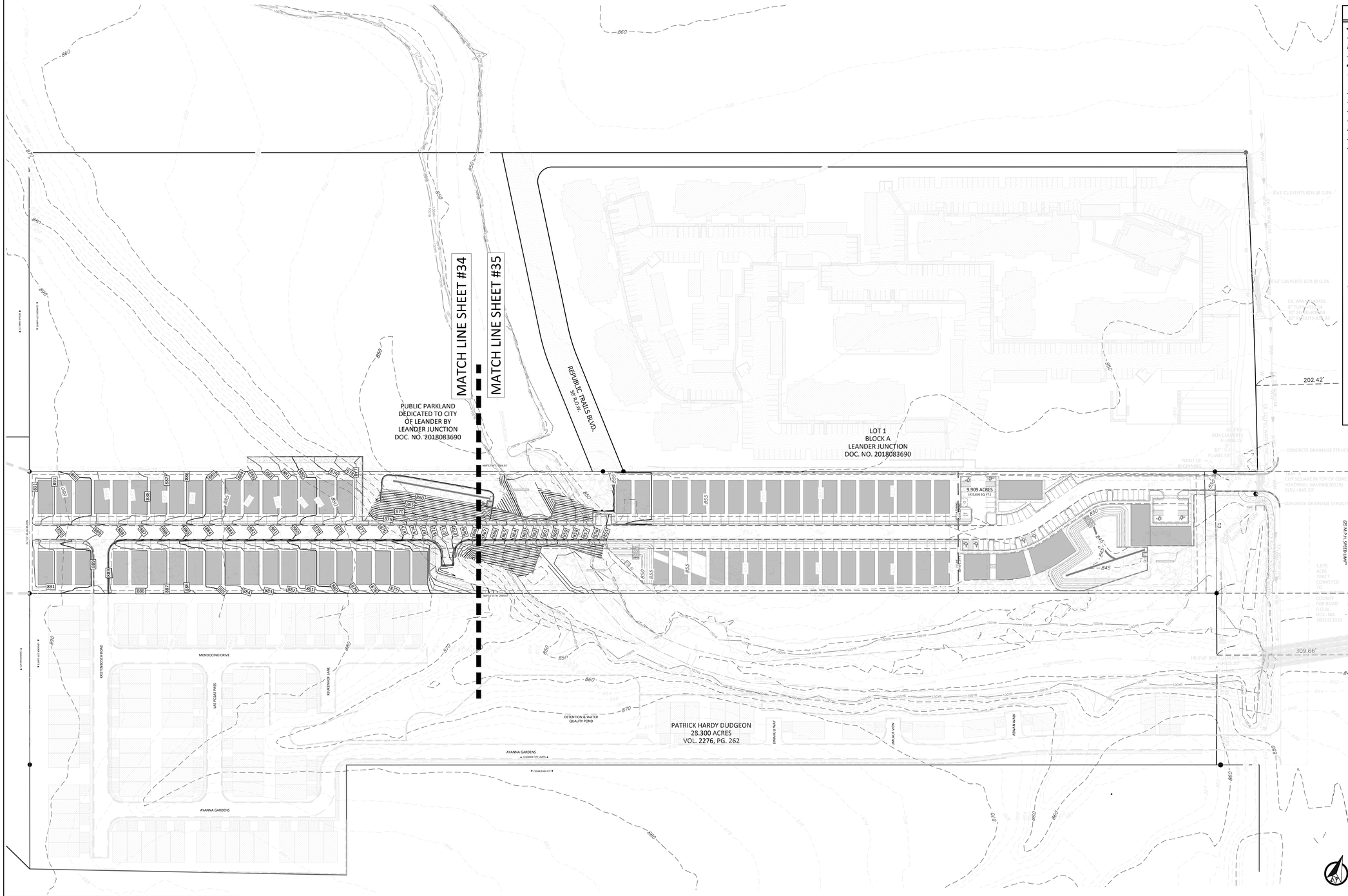
PROPOSED SUB-DRAINAGE AREA MAP

SHEET
32
OF 80

SD-24-0196

Plot Date: 20/09/2025 @ 5:01 PM

D:\Projects\A128 - Ronald Reagan Townhomes\Civil\A128 -RONALD REAGAN TOWNHOMES PHASE 2\Sheets\PROPOSED SUB-DRAINAGE AREA MAP.dwg



LEGEND

	BOUNDARY / RIGHT OF WAY
	EASEMENT / SETBACK
	CURB / EDGE OF PAVEMENT
	PEDESTRIAN RAILING
	RETAINING / SCREENING WALL
100	EXISTING MAJOR CONTOUR
101	EXISTING MINOR CONTOUR
200	PROPOSED MAJOR CONTOUR
201	PROPOSED MINOR CONTOUR
SD	STORM DRAIN LINE
W	WATER LINE
WW	WASTEWATER LINE
OHE	OVERHEAD ELECTRIC
GAS	GAS LINE
	STORM DRAIN MANHOLE
	STORM DRAIN CURB INLET
	STORM DRAIN GRATE INLET
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	WASTEWATER MANHOLE
	WASTEWATER CLEANOUT
BFP	BACKFLOW PREVENTER
T	TRANSFORMER
AC	AIR CONDITIONER UNIT
	UTILITY POLE
	GUY WIRE
	DRAINAGE SWALE FLOW LINE
XXX.00	PROPOSED FINISHED GRADE
XXX.00	PROPOSED FINISHED GRADE
TC	TOP OF CURB ELEVATION
G	GUTTER ELEVATION
ZC	ZERO CURB
FL	FLOW LINE ELEVATION
HP	HIGH POINT ELEVATION
LP	LOW POINT ELEVATION
ME	MATCH EXISTING ELEVATION
PE	PAD ELEVATION
FF	FINISHED FLOOR ELEVATION
TW	TOP OF WALL ELEVATION
BW	FINISHED GRADE AT WALL
TG	TOP OF GRATE INLET

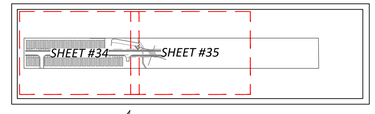
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Texas 811



KEY MAP
SCALE: 1"=500'

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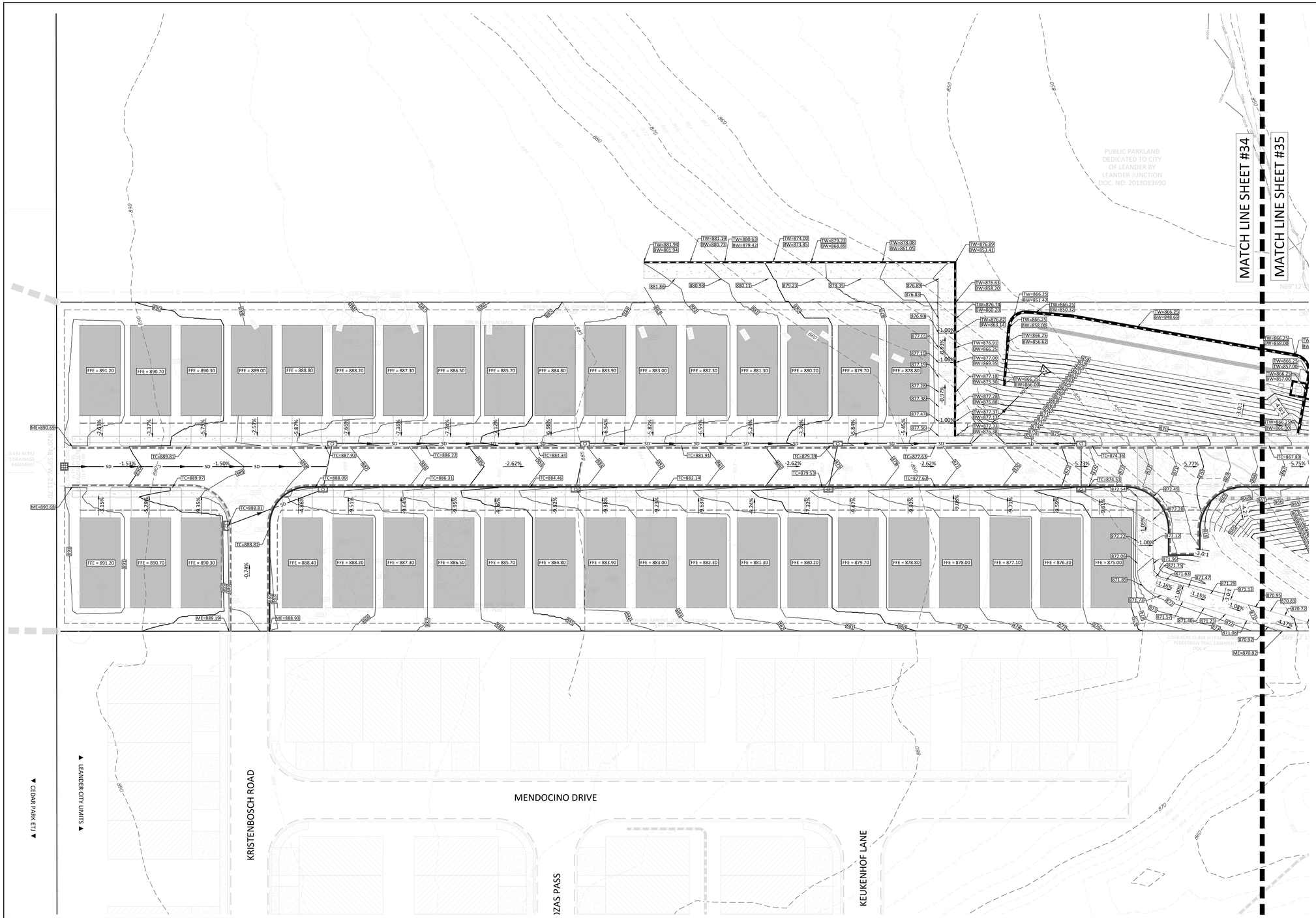
OVERALL GRADING PLAN

SHEET
33
OF 80

SD-24-0196

Plot Date: 20/09/2024 @ 5:00 PM

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LEGEND

	BOUNDARY / RIGHT OF WAY
	EASEMENT / SETBACK
	CURB / EDGE OF PAVEMENT
	RETAINING / SCREENING WALL
100	EXISTING MAJOR CONTOUR
101	EXISTING MINOR CONTOUR
200	PROPOSED MAJOR CONTOUR
201	PROPOSED MINOR CONTOUR
SD	STORM DRAIN LINE
W	WATER LINE
WW	WASTEWATER LINE
OHE	OVERHEAD ELECTRIC
	GAS LINE
	STORM DRAIN MANHOLE
	STORM DRAIN CURB INLET
	STORM DRAIN GRATE INLET
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	WASTEWATER MANHOLE
	WASTEWATER CLEANOUT
BFP	BACKFLOW PREVENTER
T	TRANSFORMER
AC	AIR CONDITIONER UNIT
	UTILITY POLE
	GUY WIRE
	DRAINAGE SWALE FLOW LINE
XXX.00	PROPOSED FINISHED GRADE
XXX.00	PROPOSED FINISHED GRADE
TC	TOP OF CURB ELEVATION
G	GUTTER ELEVATION
ZC	ZERO CURB
FL	FLOW LINE ELEVATION
HP	HIGH POINT ELEVATION
LP	LOW POINT ELEVATION
ME	MATCH EXISTING ELEVATION
PE	PAD ELEVATION
FF	FINISHED FLOOR ELEVATION
TW	TOP OF WALL ELEVATION
BW	FINISHED GRADE AT WALL
TG	TOP OF GRATE INLET

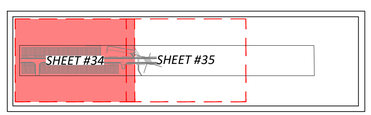
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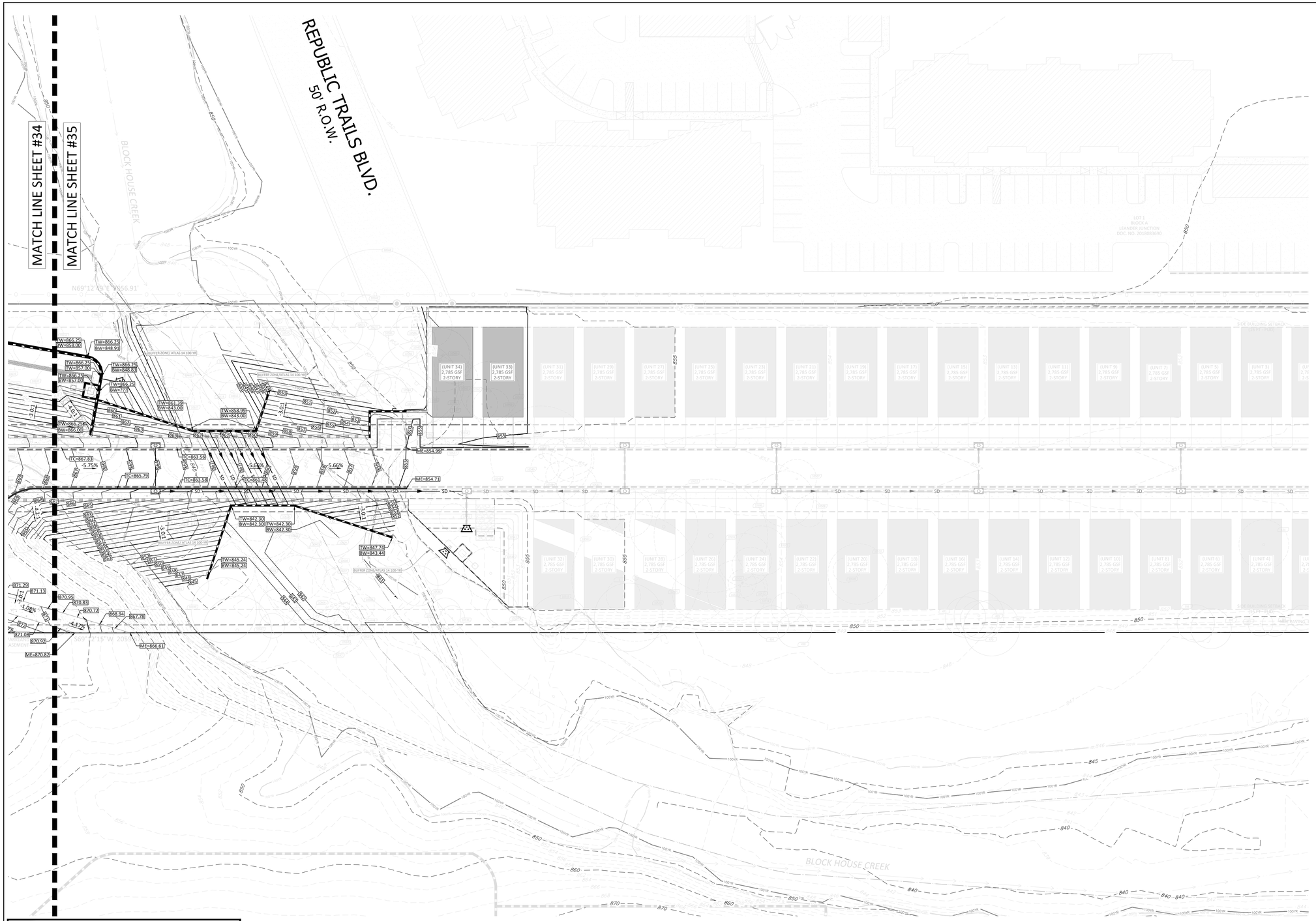
ENLARGED GRADING PLAN (1 OF 2)

SHEET
34
OF 80

SD-24-0196

Plot Date: 20/09/2025 @ 4:57 PM

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LEGEND

	BOUNDARY / RIGHT OF WAY
	EASEMENT / SETBACK
	CURB / EDGE OF PAVEMENT
	RETAINING / SCREENING WALL
100	EXISTING MAJOR CONTOUR
101	EXISTING MINOR CONTOUR
200	PROPOSED MAJOR CONTOUR
201	PROPOSED MINOR CONTOUR
SD	STORM DRAIN LINE
W	WATER LINE
WW	WASTEWATER LINE
OHE	OVERHEAD ELECTRIC
	GAS LINE
	STORM DRAIN MANHOLE
	STORM DRAIN CURB INLET
	STORM DRAIN GRATE INLET
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	WASTEWATER MANHOLE
	WASTEWATER CLEANOUT
BFP	BACKFLOW PREVENTER
T	TRANSFORMER
AC	AIR CONDITIONER UNIT
	UTILITY POLE
	GUY WIRE
	DRAINAGE SWALE FLOW LINE
XXX.00	PROPOSED FINISHED GRADE
XXX.00	PROPOSED FINISHED GRADE
TC	TOP OF CURB ELEVATION
G	GUTTER ELEVATION
ZC	ZERO CURB
FL	FLOW LINE ELEVATION
HP	HIGH POINT ELEVATION
LP	LOW POINT ELEVATION
ME	MATCH EXISTING ELEVATION
PE	PAD ELEVATION
FF	FINISHED FLOOR ELEVATION
TW	TOP OF WALL ELEVATION
BW	FINISHED GRADE AT WALL
TG	TOP OF GRATE INLET

WALL NOTE:

REF TO SHEET 37 FOR STRUCTURAL WALL DETAILS

0' 15' 30' 60'

SCALE: 1"=30'

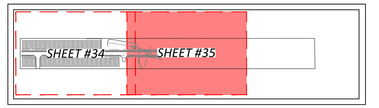
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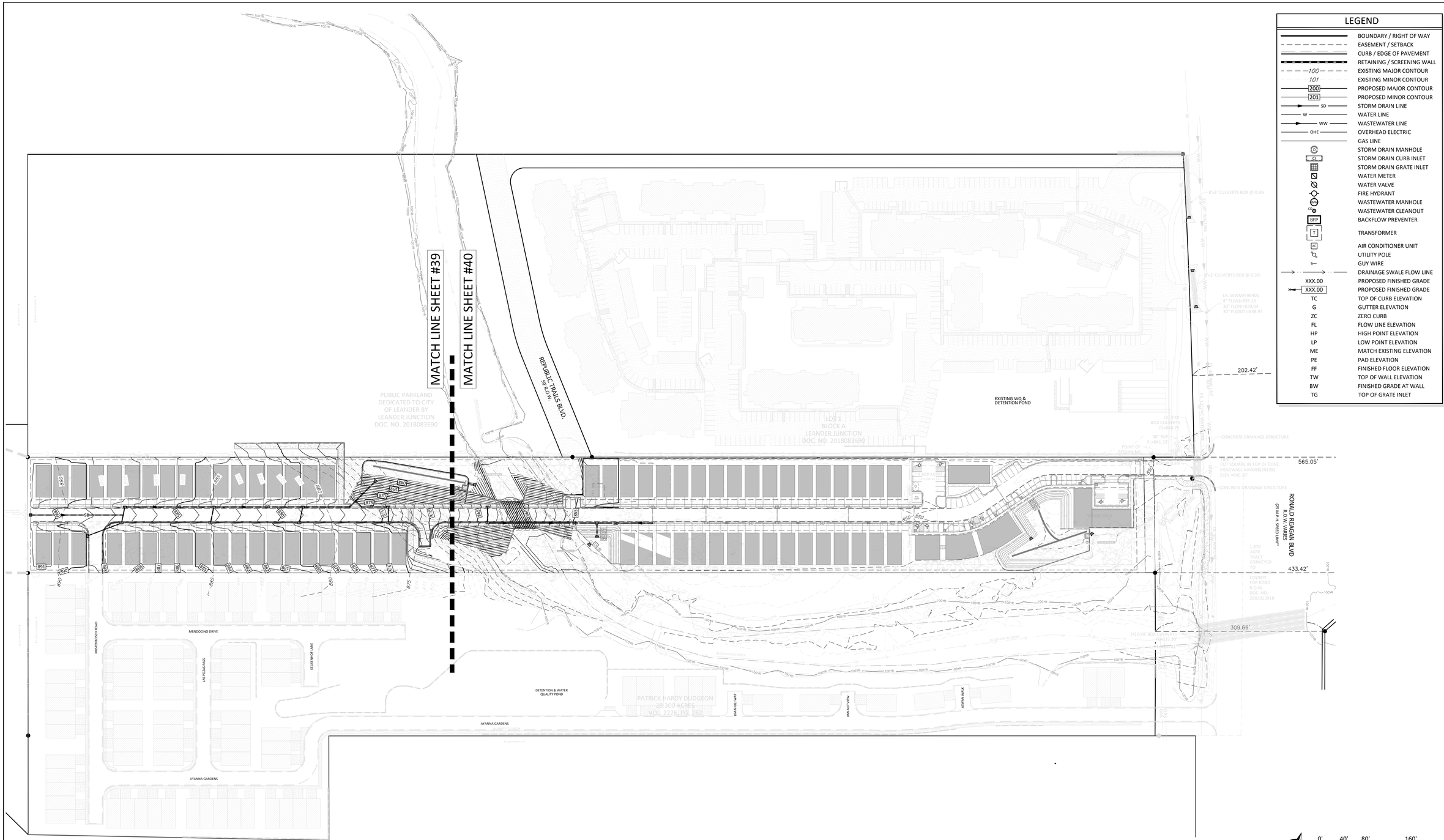
ENLARGED GRADING PLAN (2 OF 2)

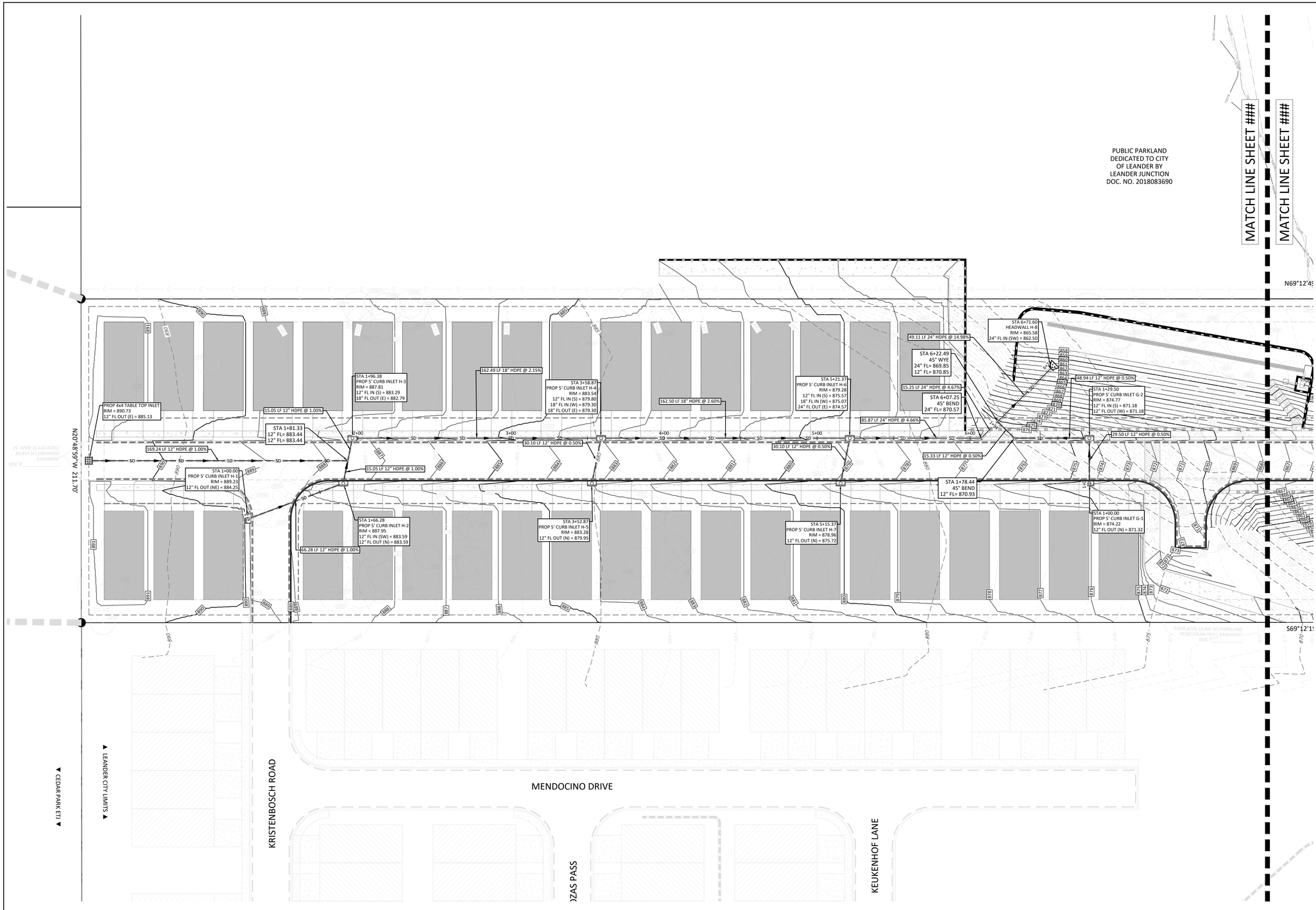
SHEET
35
OF 80

SD-24-0196

Plot Date: 20/09/2025 @ 5:24 PM

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MATCH LINE SHEET #39
MATCH LINE SHEET #40
REPUBLIC TRAILS BLVD.
50' R.O.W.
PUBLIC PARKLAND
DEDICATED TO CITY
OF LEANDER BY
LEANDER JUNCTION
DOC. NO. 2018083690
EXISTING WQ &
DETENTION POND
LOT 1
BLOCK A
LEANDER JUNCTION
DOC. NO. 2018083690
202.42'
565.05'
433.42'
309.66'
RONALD REAGAN BLVD
R.O.W. VARIES
(25 M.P.H. SPEED LIMIT)
CONCRETE DRAINAGE STRUCTURE
CUT SQUARE IN TOP OF CONC.
HEADWALL NAVD88(2012B)
ELEV.=845.39'
1.81N
ACRE
TRACT
CONVEYED
TO
COUNTY
FOR ROAD
R.O.W.
DOC. NO.
2005023918
MENDOCINO DRIVE
KRISTENWOOD ROAD
LAS ROSAS PASS
KEMENHOF LANE
AYANNA GARDENS
DETENTION & WATER
QUALITY POND
PATRICK HARDY DUDGEON
28.300 ACRES
VOL. 2276, PG. 262
UMUMULI WAY
UMUHOY VIEW
ASWAN WALK
BLOCK HOUSE CREEK
8'X3' CULVERTS BOX @ 0.8%
8'X3' CULVERTS BOX @ 0.3%
EX. WWMH #8401
8" FL(IN)=839.14
30" FL(IN)=839.04
30" FL(OUT)=838.93
(4) 6'X8' BOX CULVERTS
FL=835.00'
(4) 6'X8' BOX CULVERTS
FL=840.75'
30" RCP
FL=841.33'
POINT OF
BEGINNING
POINT OF
COMMENCING
SB
850
855
860
865
870
875
880
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890
891
892
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929



LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- RETAINING / SCREENING WALL
- 100 EXISTING MAJOR CONTOUR
- 101 EXISTING MINOR CONTOUR
- 200 PROPOSED MAJOR CONTOUR
- 201 PROPOSED MINOR CONTOUR
- SD STORM DRAIN LINE
- W WATER LINE
- WW WASTEWATER LINE
- OHE OVERHEAD ELECTRIC
- GAS LINE
- STORM DRAIN MANHOLE
- STORM DRAIN CURB INLET
- STORM DRAIN GRATE INLET
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- WW WASTEWATER MANHOLE
- WASTEWATER CLEANOUT
- BFP BACKFLOW PREVENTER
- T TRANSFORMER
- AC AIR CONDITIONER UNIT
- UTILITY POLE
- GUY WIRE

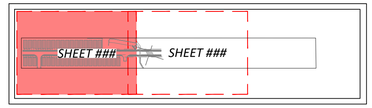
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Texas 811



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09/20/2024

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LEANDER, TEXAS 78641

ENLARGED STORM LAYOUT (1 OF 2)

SHEET
39
OF 101

SD-24-0196

Plot Date: 20/09/2025 @ 4:56 PM

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MATCH LINE SHEET #39

MATCH LINE SHEET #40

REPUBLIC TRAILS BLVD.
50' R.O.W.

BLOCK HOUSE CREEK

N69°12'49"E 2056.91'

S69°12'15"W 2059.67'

10.58 LF 48" RCP @ 0.50%

STA 0+12.77
HEADWALL F-1
RIM = 853.86
48" FL IN (W) = 848.45

STA 1+00.00
PROP 5' CURB INLET E-1
RIM = 864.34
12" FL OUT (S) = 860.91

29.50 LF 12" HDPE @ 2.00%

STA 1+29.50
PROP 5' CURB INLET E-2
RIM = 864.59
12" FL IN (N) = 860.32
12" FL OUT (E) = 860.32

54.98 LF 6'x6' RCP BOX CULVERT @ 1.18%

200.01 LF 12" HDPE @ 4.61%

(UNIT 34)
2,785 GSF
2-STORY

(UNIT 33)
2,785 GSF
2-STORY

LOT 1
BLOCK A
LEANDER JUNCTION
DOC. NO. 2018083690

SIDE BUILDING SETBACK
(STATE PLAN)

REAR BUILDING SETBACK
(STATE PLAN)

DRAINAGE EASEMENT

PARKLAND EASEMENT

LEGEND

- BOUNDARY / RIGHT OF WAY
- EASEMENT / SETBACK
- CURB / EDGE OF PAVEMENT
- RETAINING / SCREENING WALL
- 100 EXISTING MAJOR CONTOUR
- 101 EXISTING MINOR CONTOUR
- 200 PROPOSED MAJOR CONTOUR
- 201 PROPOSED MINOR CONTOUR
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- W WATER LINE
- WW WASTEWATER LINE
- OHE OVERHEAD ELECTRIC
- GAS LINE
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- WATER VALVE
- FIRE HYDRANT
- WW WASTEWATER MANHOLE
- WASTEWATER CLEANOUT
- BFP BACKFLOW PREVENTER
- T TRANSFORMER
- AC AIR CONDITIONER UNIT
- UTILITY POLE
- GUY WIRE

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

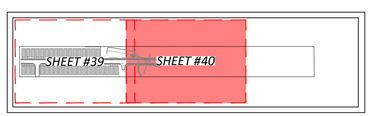
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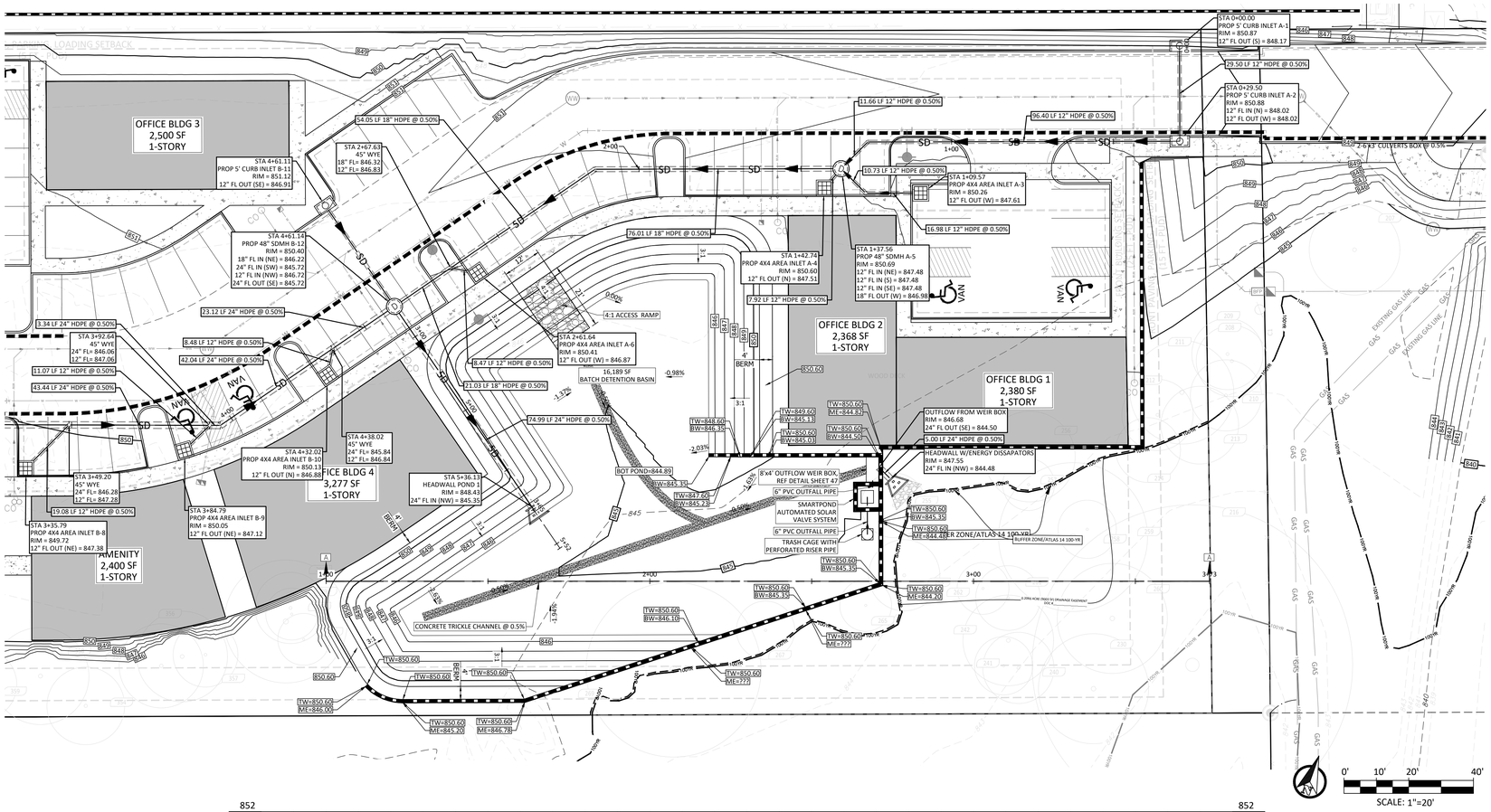
ENLARGED STORM LAYOUT (2 OF 2)

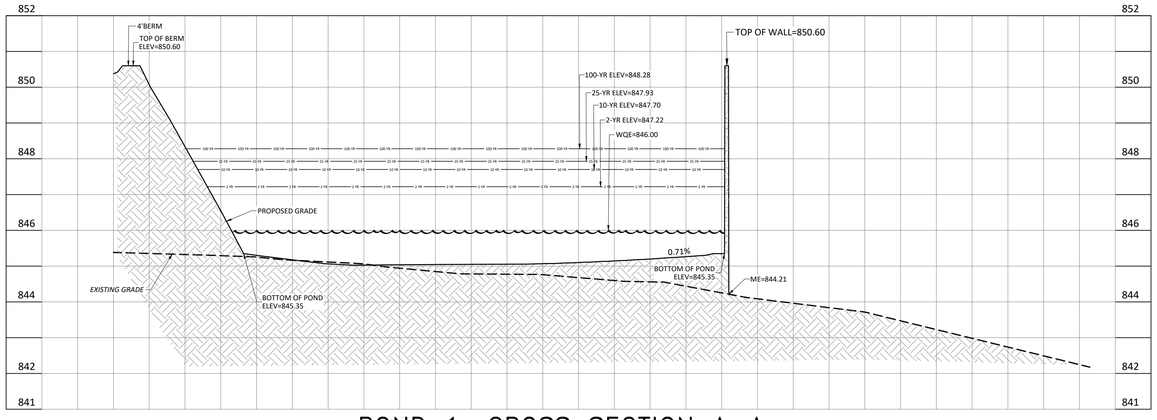
SHEET
40
OF 80

SD-24-0196

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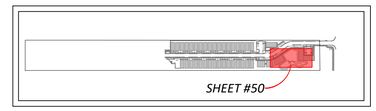
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POND 1: CROSS SECTION A–A

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



KEY MAP
SCALE: 1"=500'

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14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

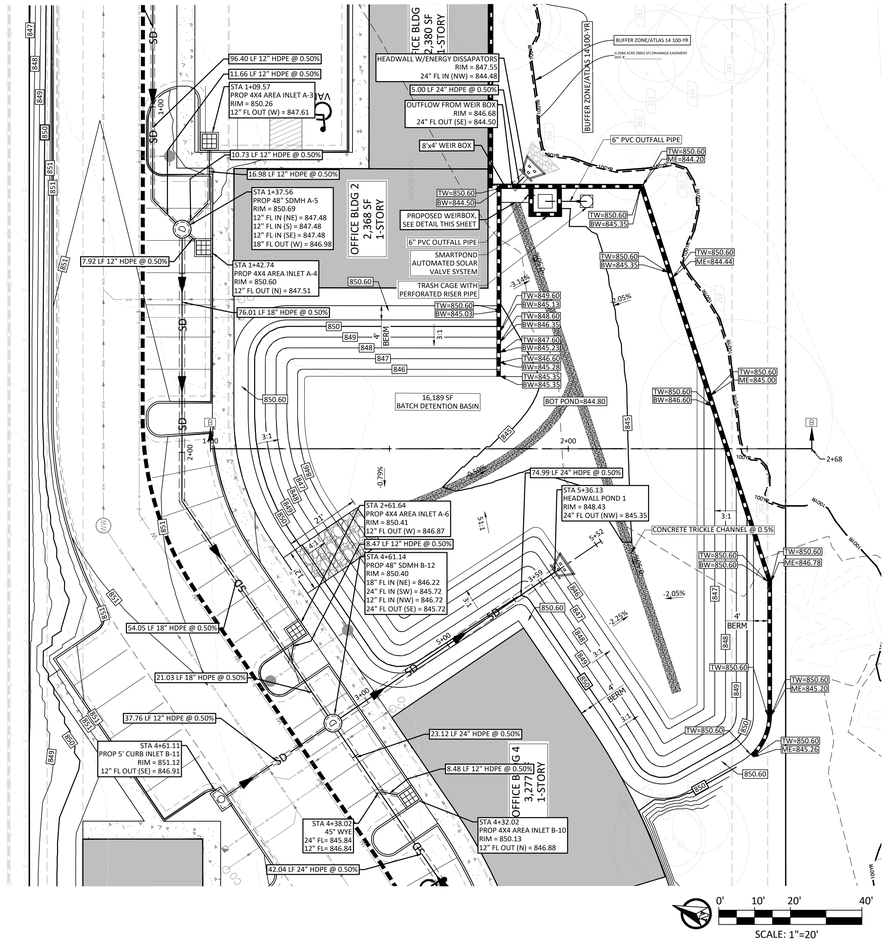
POND 1 PLAN & PROFILE (1 OF 2)

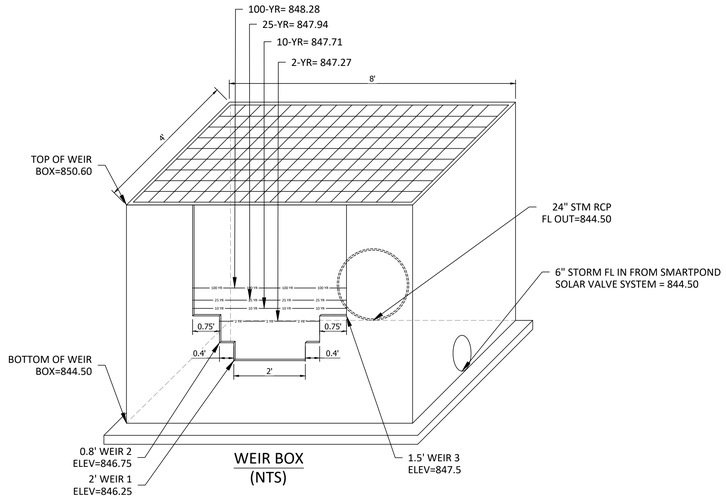
SHEET
50
OF 80

SD-24-0196

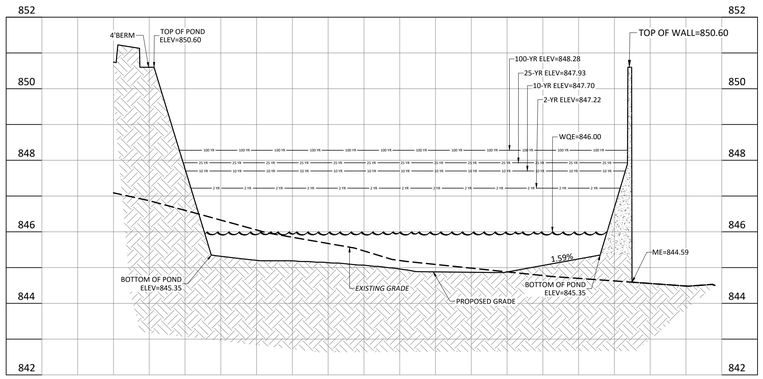
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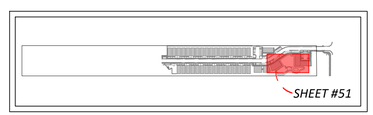


WEIR BOX
(NTS)



POND 1: CROSS SECTION B-B

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



KEY MAP
SCALE: 1"=500'

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STATE OF TEXAS
JOHN P. SULLIVAN
144534
LICENSED
PROFESSIONAL ENGINEER
09/20/2024

HARVEST RETREAT PHASE 2
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

POND 1 PLAN & PROFILE (2 OF 2)

SHEET
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OF 80

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Plot Date: 20/09/2025 @ 5:23 PM

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Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: HARVEST RETREAT
Date Prepared: 9/4/2025

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

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

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

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

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

County =	Williamson	
Total project area included in plan * =	10.00	acres
Predevelopment impervious area within the limits of the plan * =	0.18	acres
Total post-development impervious area within the limits of the plan* =	2.77	acres
Total post-development impervious cover fraction * =	0.28	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	2253	lbs.

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

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

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

Drainage Basin/Outfall Area No. = B2-A

Total drainage basin/outfall area =	2.92	acres
Predevelopment impervious area within drainage basin/outfall area =	0.18	acres
Post-development impervious area within drainage basin/outfall area =	2.58	acres
Post-development impervious fraction within drainage basin/outfall area =	0.88	
$L_{M\ THIS\ BASIN}$ =	2088	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 95 percent

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

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

RG-348 Page 3-33 Equation 3.7: L_R = (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
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	2.92	acres
A_I =	2.58	acres
A_P =	0.34	acres
L_R =	2721	lbs

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

Desired $L_{M\ THIS\ BASIN}$ =	2250	lbs.
F =	0.83	

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

Rainfall Depth =	1.20	inches
Post Development Runoff Coefficient =	0.72	
On-site Water Quality Volume =	9183	cubic feet

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

Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	1837	
Total Capture Volume (required water quality volume(s) x 1.20) =	11019	cubic feet

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

BATCH DETENTION VOLUME CALCULATIONS

Elevation	Area		Incremental Depth	Average End Area Incremental Volume		Average End Area Cumulative Volume		Inflow 100-YR	Outflow 100-YR
(ft)	(sf)	(ac)	(ft)	(cf)	(ac-ft)	(cf)	(ac-ft)	(cfs)	(cfs)
844.50	30	0.000697	n/a	n/a	n/a	0	0.0000	0.00	0.00
845.00	2,684	0.061618	0.500000	678.61	0.0156	678.61	0.0156	0.21	0.00
845.50	10,291	0.236247	0.500000	3243.75	0.0745	3922.36	0.0900	0.30	0.00
845.87	10620	0.243802	0.370000	3868.52	0.0888	7790.89	0.1789	0.53	0.00
846.00	10,831	0.248649	0.130000	1394.32	0.0320	9185.21	0.2109	0.64	0.00 WQV
846.50	11,377	0.261170	0.500000	5551.92	0.1275	14737.13	0.3383	1.56	0.77
847.00	11,926	0.273785	0.500000	5825.66	0.1337	20562.79	0.4721	5.56	4.24
847.50	12,479	0.286485	0.500000	6101.35	0.1401	26664.14	0.6121	28.40	11.36
848.28	13,300	0.305326	0.780000	10053.92	0.2308	36718.06	0.8429	27.92	24.97

WEIRS

Weir	Elevation	Width (FT)	Coefficient
1	846.25	2.00	3.00
2	846.75	0.80	3.00
3	847.50	1.50	3.00

PEAK ELEVATION

Storm	Elevation
2	847.22
10	847.70
25	847.93
100	848.28

NOTE:
ALL EXPOSED CONCRETE THAT IS VISIBLE IS REQUIRED TO BE MADE OF STONE OR CLAD IN STONE INCLUDING BUT NOT LIMITED TO LEDGESTONE, FILEDSTONE, CAST STONE, OR OTHER DECORATIVE MATERIALS SUCH AS STAMPED AND TINTED CONCRETE THAT RESEMBLES STONE OR BRICK AS APPROVED BY THE DIRECTOR OF PLANNING. ALL OTHER EXPOSED CONRETE IS REQUIRED TO BE MADE OF STONE OR CLAD IN STONE AS LISTED ABOVE OR TEXTURED AND TINTED IN EARTHEN COLORS. IN THE EVENT THAT THE DRAINAGE FACILITY IS BELOW GRADE, STRUCTURAL STABILIZATION IS PERMITTED FOR THE FULL PERIMETER AND SCREENING REQUIREMENTS LISTED IN ARTICLE VI, SECTION 1 (D) OF THIS ORDINANCE SHALL APPLY.

NO. | DATE | REVISION

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PROFESSIONAL ENGINEER
09/20/2024

HARVEST RETREAT PHASE 2
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

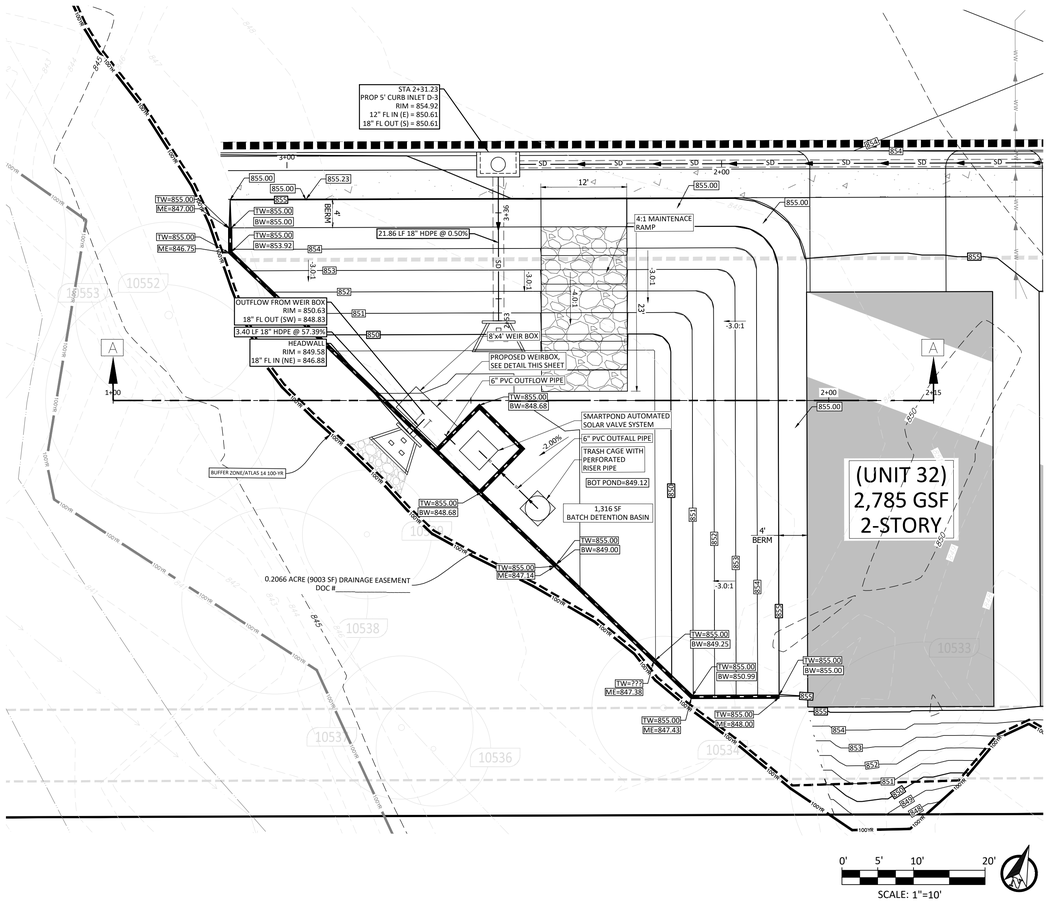
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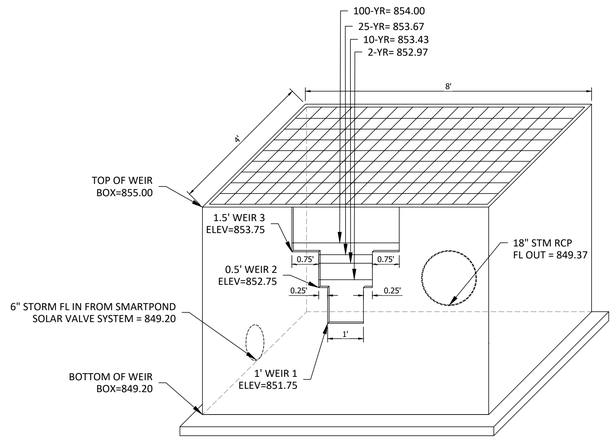
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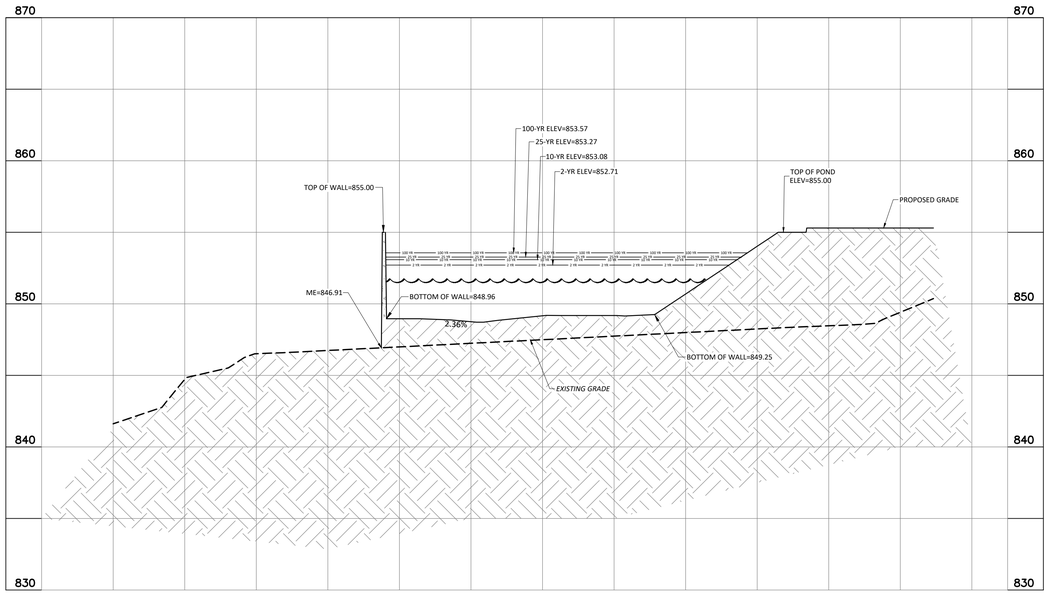
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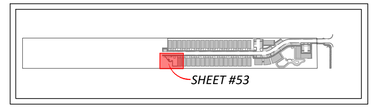


WEIR BOX
(NTS)



POND 2: CROSS SECTION A–A

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



KEY MAP
SCALE: 1"=500'

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NO.	DATE	REVISION

STATE OF TEXAS
JOHN P. SULLIVAN
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LICENSED
PROFESSIONAL ENGINEER
09/20/2024

HARVEST RETREAT PHASE 2
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

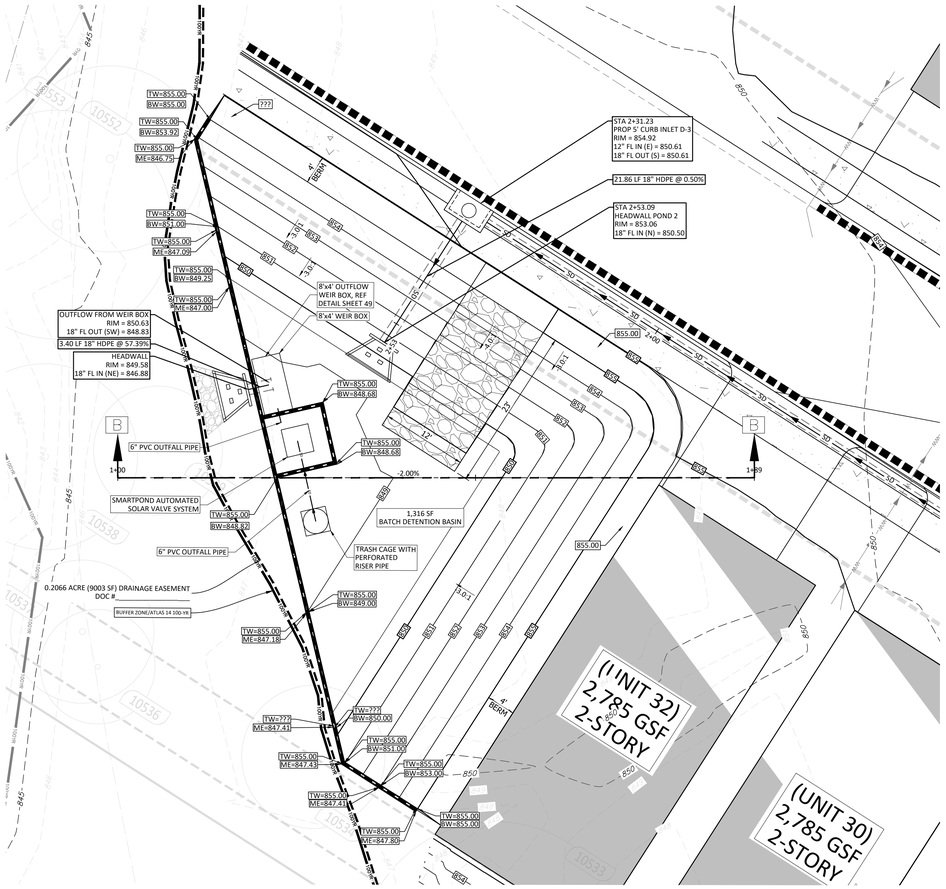
POND 2 PLAN & PROFILE (1 OF 2)

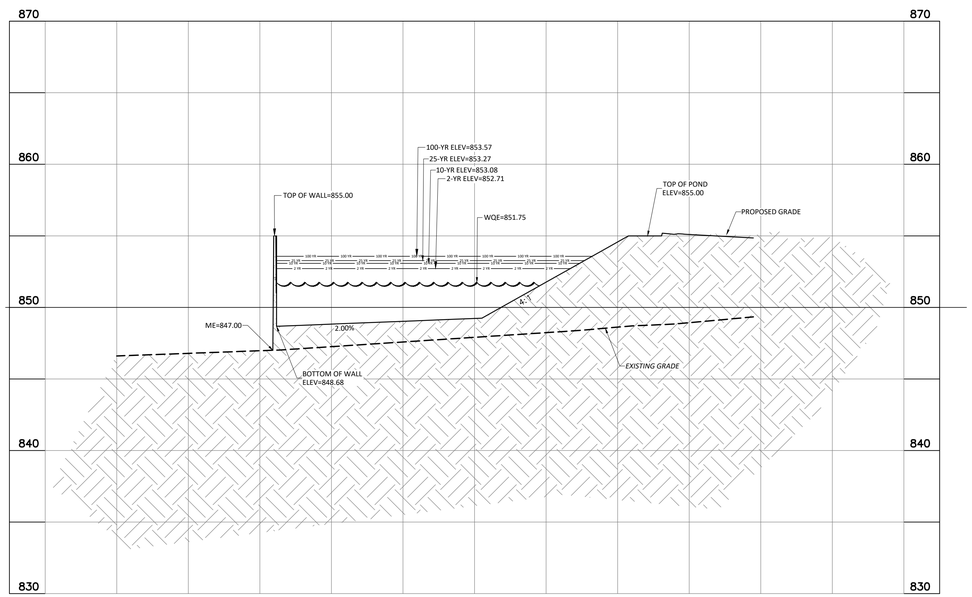
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SD-24-0196

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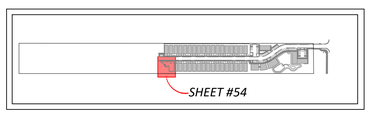
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POND 2: CROSS SECTION B–B

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



KEY MAP
SCALE: 1"=500'

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09/20/2024

HARVEST RETREAT PHASE 2
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

POND 2 PLAN & PROFILE (2 OF 2)

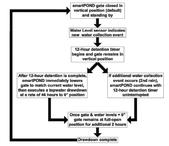
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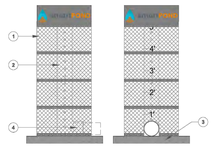
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PROGRAMMABLE LOGIC FLOW CHART

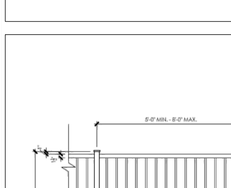


TRASH CAGE WITH PERFORATED RISER PIPE

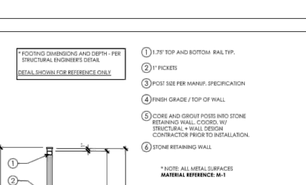


Parts List	
Item	smartPOND Valve Component
1	30" DIAMETER CAGE WITH 1"-2" GALVANIZED MESH SCREEN
2	8" SQUARE PERFORATED TUBING WITH 1" PERFORATION, WITH 4" VERTICAL SPACING ON CENTERS WITH WATER DEPTH MARKER
3	3' X 3' X 7'-6" CONCRETE PAD (BY OTHERS)
4	6" PVC OUTFALL PIPE (BY OTHERS)
5	WEATHERPROOF ELECTRONIC BOX
6	CONTROL BOX
7	PEDESTAL
8	ACTUATOR
9	MOTOR
10	6" VALVE
11	LEVEL TRANSDUCER
12	SOLAR PANEL
13	OUTLET PIPE (BY OTHERS)
14	30" DRAIN BASIN
15	VALVE STEM
16	QUICK DISCONNECT VALVE STEM

PERFORATED RISER PIPE



smartPOND Valve with Control Structure

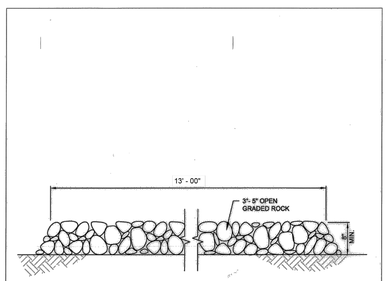


CONSTRUCTION ECO SERVICES

smartPOND Automated Stormwater Control.

FOR ADDITIONAL INFORMATION PLEASE CONTACT: CONSTRUCTION ECO SERVICES, 832-456-1000, www.ecoevs.com

CONVERGENT WATER TECHNOLOGIES



NOTES:
1. STONE SIZE: 75–125 mm (3–5") OPEN GRADED ROCK.
2. THICKNESS: NOT LESS THAN 200 mm (8").
3. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	POND MAINTENANCE ROAD CROSS SECTION	
E. J. L., P.E. 1/4/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 662S-2

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: HARVEST RETREAT
Date Prepared: 9/4/2025

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

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

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

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

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

County =	Williamson	
Total project area included in plan * =	10.00	acres
Predevelopment impervious area within the limits of the plan * =	0.13	acres
Total post-development impervious area within the limits of the plan * =	2.77	acres
Total post-development impervious cover fraction * =	0.28	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	2298	lbs.

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

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

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

Drainage Basin/Outfall Area No. = B2-D

Total drainage basin/outfall area =	0.41	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.19	acres
Post-development impervious fraction within drainage basin/outfall area =	0.46	
$L_{M\ THIS\ BASIN}$ =	166	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 95 percent

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

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

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_C 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
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	0.41	acres
A_I =	0.19	acres
A_P =	0.22	acres
L_R =	204	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 204 lbs.

F = 1.00

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

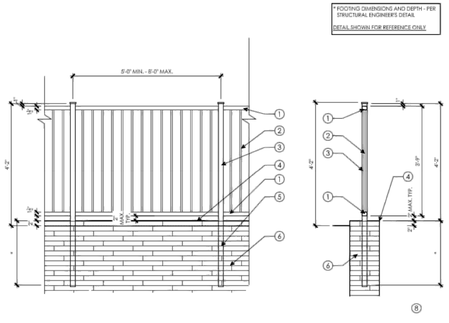
Rainfall Depth =	4.00	inches
Post Development Runoff Coefficient =	0.34	
On-site Water Quality Volume =	2014	cubic feet

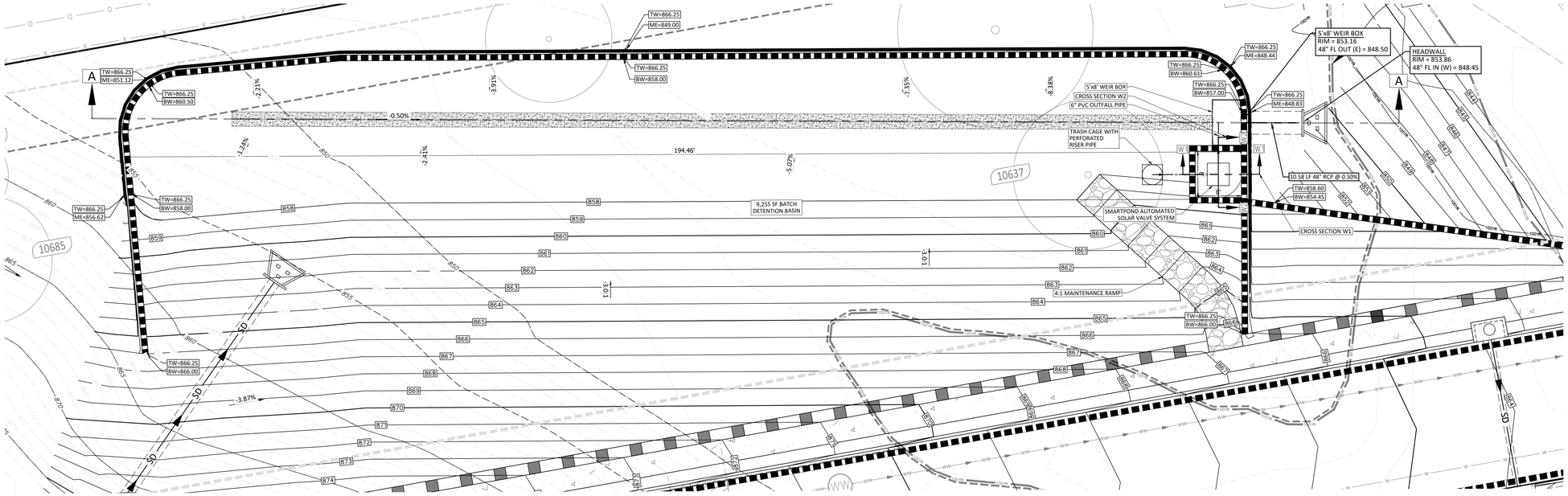
Calculations from RG-348 Pages 3-36 to 3-37

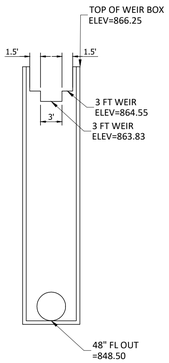
Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	403	
Total Capture Volume (required water quality volume(s) x 1.20) =	2417	cubic feet

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

NOTE:
ALL EXPOSED CONCRETE THAT IS VISIBLE IS REQUIRED TO BE MADE OF STONE OR CLAD IN STONE INCLUDING BUT NOT LIMITED TO LEDGESTONE, FILEDSTONE, CAST STONE, OR OTHER DECORATIVE MATERIALS SUCH AS STAMPED AND TINTED CONCRETE THAT RESEMBLES STONE OR BRICK AS APPROVED BY THE DIRECTOR OF PLANNING. ALL OTHER EXPOSED CONRETE IS REQUIRED TO BE MADE OF STONE OR CLAD IN STONE AS LISTED ABOVE OR TEXTURED AND TINTED IN EARTHEN COLORS. IN THE EVENT THAT THE DRAINAGE FACILITY IS BELOW GRADE, STRUCTURAL STABILIZATION IS PERMITTED FOR THE FULL PERIMETER AND SCREENING REQUIREMENTS LISTED IN ARTICLE VI, SECTION 1 (D) OF THIS ORDINANCE SHALL APPLY.


8'-0" MIN. - 8'-0" MAX.
4'-0"
2'-0"
1'-0"
1'-0"
1

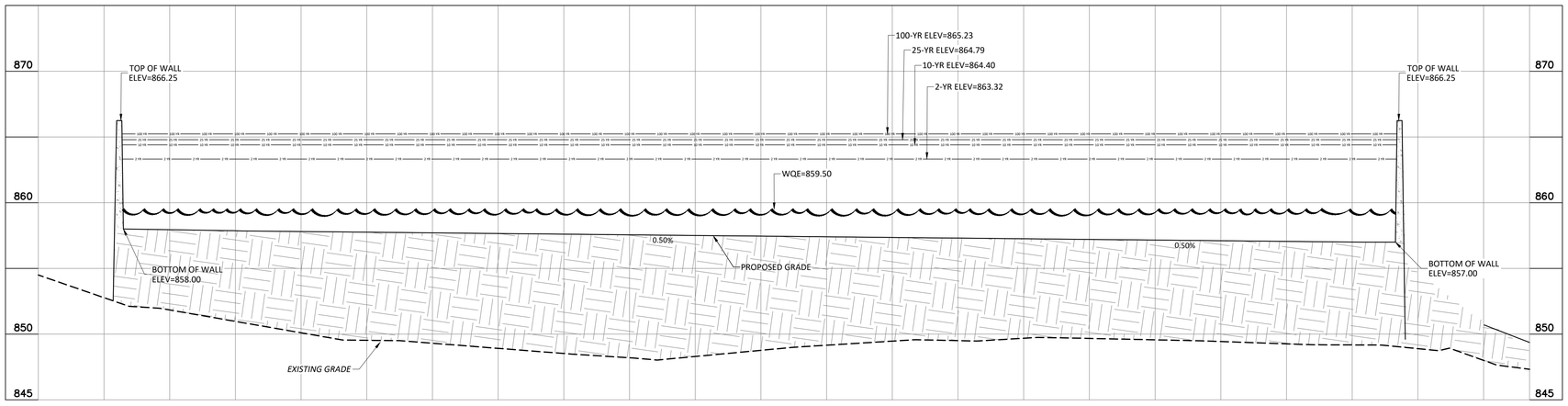




WEIR BOX CROSS SECTION

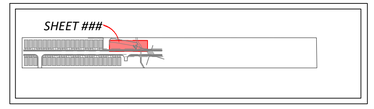
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

0' 5' 10' 20'
SCALE: 1"=10'



POND 3: CROSS SECTION A-A

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



KEY MAP
SCALE: 1"=500'

NO.	DATE	REVISION

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STATE OF TEXAS
JOHN P. SULLIVAN
144534
LICENSED
PROFESSIONAL ENGINEER
09/20/2024

HARVEST RETREAT PHASE 2
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

POND 3 PLAN & PROFILE (1 OF 2)

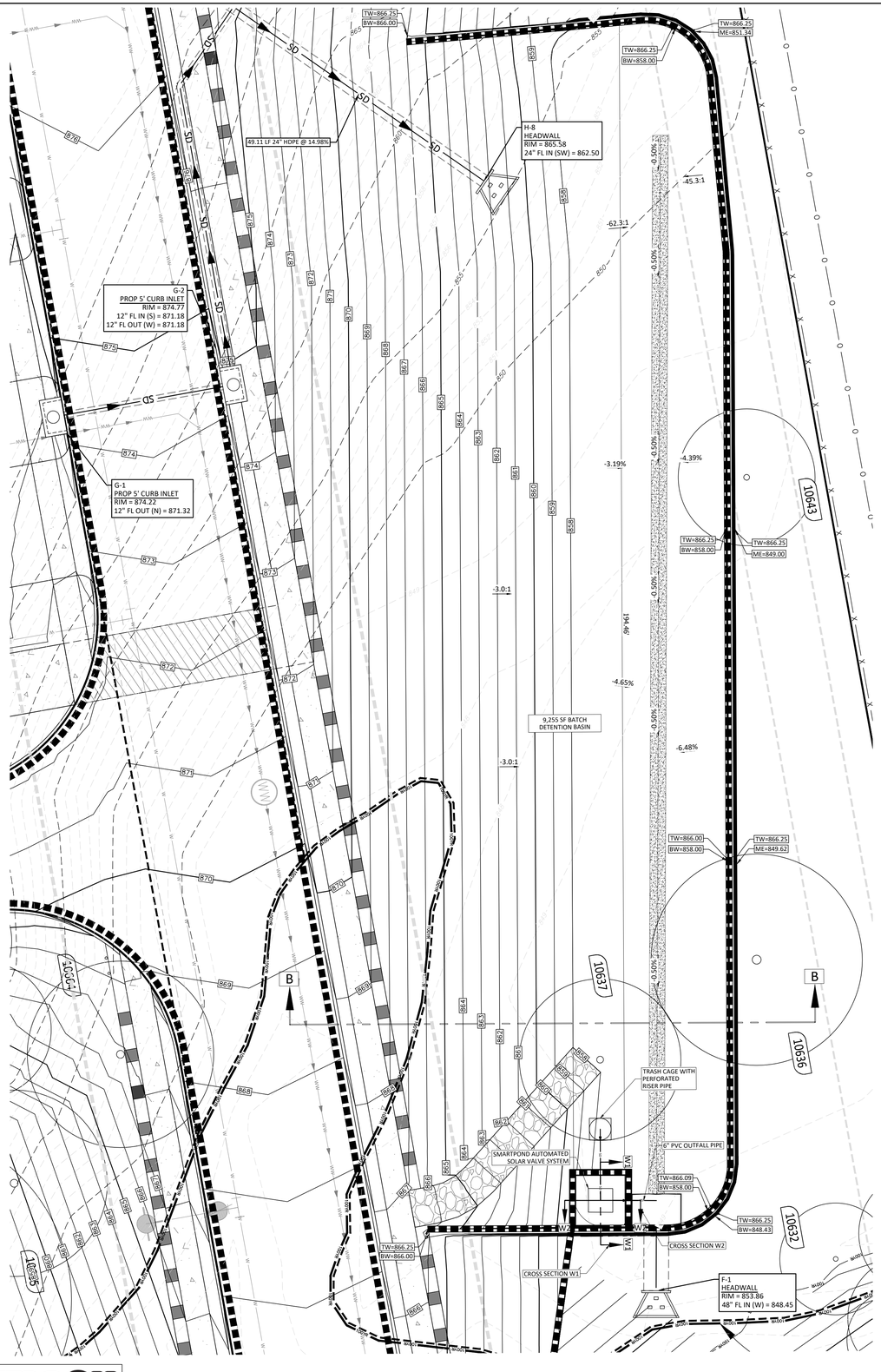
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OF 80

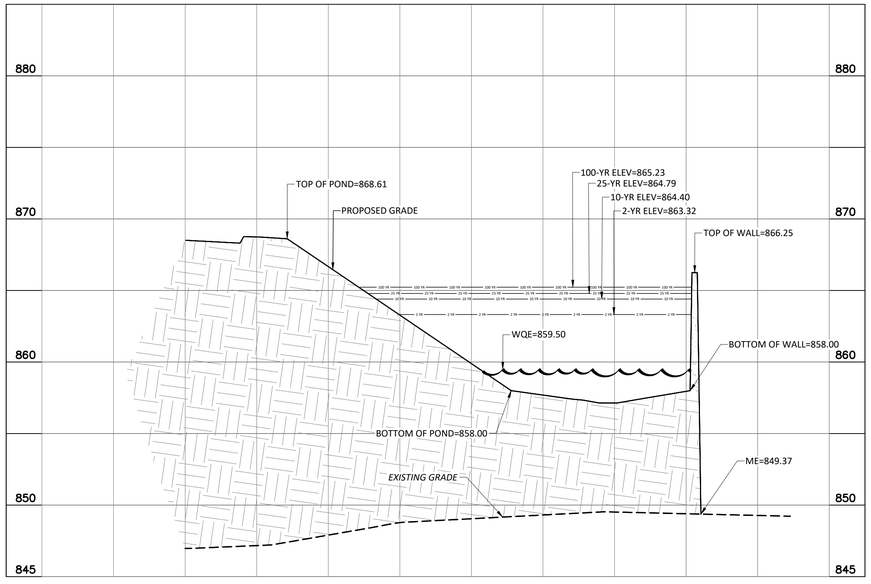
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Texas 811

Plot Date: 20/09/2025 @ 5:44 PM

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POND 3: CROSS SECTION B-B

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



KEY MAP
SCALE: 1"=500'

0' 5' 10' 20'
SCALE: 1"=10'

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LEANDER, TEXAS 78641

POND 3 PLAN & PROFILE (2 OF 2)

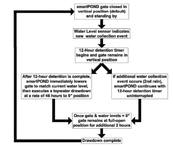
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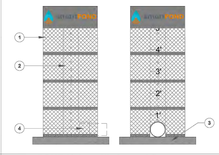
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PROGRAMMABLE LOGIC FLOW CHART

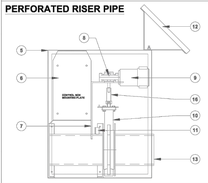


TRASH CAGE WITH PERFORATED RISER PIPE

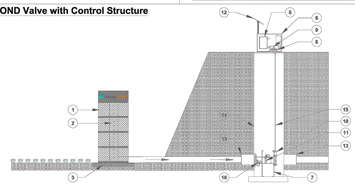


Parts List	
Item	smartPOND Valve Component
1	30" DIAMETER CAGE WITH 1 ¼" GALVANIZED MESH SCREEN
2	8" SQUARE PERFORATED TUBING WITH 1" PERFORATION, WITH 4" VERTICAL SPACING ON CENTERS WITH WATER DEPTH MARKER
3	3 ' X 3 ' X 4 ' CONCRETE PAD (BY OTHERS)
4	6" PVC OUTFALL PIPE (BY OTHERS)
5	WEATHERPROOF ELECTRONIC BOX
6	CONTROL BOX
7	PEDESTAL
8	ACTUATOR
9	MOTOR
10	6" VALVE
11	LEVEL TRANSDUCER
12	SOLAR PANEL
13	OUTLET PIPE (BY OTHERS)
14	30" DRAIN BASIN
15	VALVE STEM
16	QUICK DISCONNECT VALVE STEM

PERFORATED RISER PIPE



smartPOND Valve with Control Structure

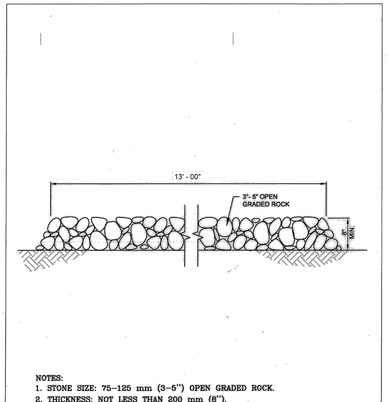


CONSTRUCTION ECO SERVICES

smartPOND
Automated Stormwater Control.

CONVERGENT WATER TECHNOLOGIES

FOR ADDITIONAL INFORMATION PLEASE CONTACT: CONSTRUCTION ECO SERVICES, 832-456-1000, www.ecoserv.com



NOTES:
1. STONE SIZE: 75–125 mm (3–5") OPEN GRADED ROCK.
2. THICKNESS: NOT LESS THAN 200 mm (8").
3. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	POND MAINTENANCE ROAD CROSS SECTION	STANDARD NO.
E. J. L., P.E. 1/4/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	662S-2

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Ronald Reagan Townhomes
Date Prepared: 1/26/2024

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

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

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

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

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

County =	Williamson	
Total project area included in plan * =	10.00	acres
Predevelopment impervious area within the limits of the plan * =	0.13	acres
Total post-development impervious area within the limits of the plan* =	5.19	acres
Total post-development impervious cover fraction * =	0.52	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	4401	lbs.

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

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

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

Drainage Basin/Outfall Area No. = B1-A

Total drainage basin/outfall area =	2.54	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	2.10	acres
Post-development impervious fraction within drainage basin/outfall area =	0.83	
$L_{M\ THIS\ BASIN}$ =	1827	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 95 percent

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

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

RG-348 Page 3-33 Equation 3.7: L_R = (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
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	2.54	acres
A_I =	2.10	acres
A_P =	0.44	acres
L_R =	2215	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 2030 lbs.

F = 0.92

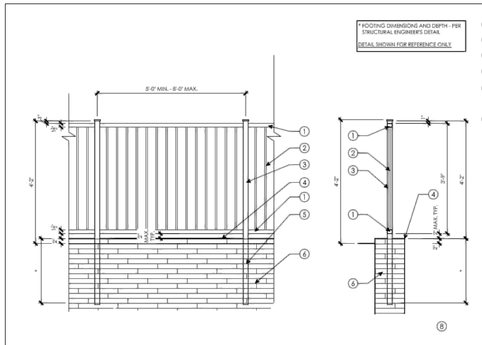
6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 — Pages 3-34 to 3-36

Rainfall Depth =	2.00	inches
Post Development Runoff Coefficient =	0.66	
On-site Water Quality Volume =	12207	cubic feet

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

Off-site area draining to BMP =	2.76	acres
Off-site Impervious cover draining to BMP =	0.36	acres
Impervious fraction of off-site area =	0.13	
Off-site Runoff Coefficient =	0.15	
Off-site Water Quality Volume =	2997	cubic feet
Storage for Sediment =	3041	
Total Capture Volume (required water quality volume(s) x 1.20) =	18245	cubic feet

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



* FOOTING DIMENSIONS AND DEPTH - PER STRUCTURAL ENGINEER'S DETAIL
DETAIL SHOWN FOR REFERENCE ONLY

1. 1.75" TOP AND BOTTOM RAIL TYP.
2. 1" PICKETS
3. POST SIZE PER MANUF. SPECIFICATION
4. FINISH GRADE / TOP OF WALL
5. CORE AND GROUT POSTS INTO STONE RETAINING WALL, COORD. W/ STRUCTURAL + WALL DESIGN CONTRACTOR PRIOR TO INSTALLATION.
6. STONE RETAINING WALL

* NOTE: ALL METAL SURFACES **MATERIAL REFERENCE: M-1**

G-M1-FENCE
SCALE: 3/4"=1'-0"

CONSTRUCTION MATERIALS SCHEDULE

ITEM:	DESCRIPTION:	ITEM / MODEL:	COLOR:	FINISH:	MFR. / CONTACT:	NOTE TO CONTRACTOR:	PROVIDE MOCK-UP:	MOCK-UP NOTE:
B-1	BRICK CAP		TBD BY OWNER	TBD BY OWNER	ACME 817-332-4101	BLOCK VENEER SPEC AND COLOR WILL BE FINALIZED PENDING ENTRY SIGN MATERIALS.	YES	PROVIDE A 3'X3' MOCKUP FOR REVIEW BY OWNER AND LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
B-2	THIN BRICK VENEER	THIN BRICK	TBD BY OWNER	TBD BY OWNER	ACME 817-332-4101	CONTRACTOR SHALL COORDINATE WITH LANDSCAPE ARCHITECT AND OWNER TO PROVIDE COLOR OPTIONS PRIOR TO ORDERING PRODUCT.	YES	PROVIDE A 3'X3' MOCKUP FOR REVIEW BY OWNER AND LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
B-3	SPLIT FACE STONE SAWN	SPLITFACE HOO CREEK VENEER	TBD BY OWNER	TBD BY OWNER	MEZGER STONE 254-547-8207	CONTRACTOR SHALL COORDINATE WITH LANDSCAPE ARCHITECT AND OWNER TO PROVIDE COLOR OPTIONS PRIOR TO ORDERING PRODUCT.	YES	PROVIDE A 3'X3' MOCKUP FOR REVIEW BY OWNER AND LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
M-1	METAL FENCE	METAL FENCE - 4' HT. ECHELON II MAJESTIC STYLE	BLACK	PER MANUF. SPECS.	AMERISTAR (888) 333-3422	FENCE LOCATED AT RETAINING WALL PER PLAN.	YES	SUBMIT PRODUCT SHOP DRAWING FOR REVIEW BY OWNER AND LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.

'B' = BRICK; 'C' = CONCRETE; 'CP' = CONCRETE PAVER; 'G' = GLASS; 'M' = METAL; 'P' = PLASTER / STUCCO; 'PC' = POOL COPING; 'PP' = POOL PLASTER; 'PT' = POOL TILE; 'PW' = PRECAST CONC; 'PS' = PARISSIAN; 'R' = ROCK / BOULDER / PEBBLES / GRAVEL / O.G.; 'S' = STONE / GRANITE / MARBLE / QUARTZITE; 'T' = TILE; 'W' = WOOD; 'MI' = MISCELLANEOUS

NOTE TO CONTRACTOR:
1. SUBSTITUTIONS ARE HIGHLY DISCOURAGED.
2. MANY MATERIALS HAVE LONG LEAD ORDERING TIME. CONTRACTOR SHALL PROVIDE SAMPLES FOR REVIEW EARLY ON TO ENSURE THAT THE ORDER IS PLACED IN A TIMELY MANNER THAT WOULD NOT DELAY DELIVERY AND CONSTRUCTION.
3. ANY MATERIAL THAT IS SPECIFIED TO MATCH THE ARCHITECTURE SUCH AS WALLS, PLASTERS, ETC. (VENEER, STUCCO, PAINT), SHALL MATCH. REFER TO COLORIST'S BUILDING SCHEMES FOR APPLICATION NOTES AND SPECIFICATIONS.

NOTE:
ALL EXPOSED CONCRETE THAT IS VISIBLE IS REQUIRED TO BE MADE OF STONE OR CLAD IN STONE INCLUDING BUT NOT LIMITED TO LEDGESTONE, FILEDSTONE, CAST STONE, OR OTHER DECORATIVE MATERIALS SUCH AS STAMPED AND TINTED CONCRETE THAT RESEMBLES STONE OR BRICK AS APPROVED BY THE DIRECTOR OF PLANNING. ALL OTHER EXPOSED CONRETE IS REQUIRED TO BE MADE OF STONE OR CLAD IN STONE AS LISTED ABOVE OR TEXTURED AND TINTED IN EARTHEN COLORS. IN THE EVENT THAT THE DRAINAGE FACILITY IS BELOW GRADE, STRUCTURAL STABILIZATION IS PERMITTED FOR THE FULL PERIMETER AND SCREENING REQUIREMENTS LISTED IN ARTICLE VI, SECTION 1 (D) OF THIS ORDINANCE SHALL APPLY.

BATCH DETENTION VOLUME CALCULATIONS

Elevation	Area		Incremental Depth	Average End Area Incremental Volume		Average End Area Cumulative Volume		Inflow 100-YR	Outflow 100-YR	
(ft)	(sf)	(ac)	(ft)	(cf)	(ac-ft)	(cf)	(ac-ft)	(cfs)	(cfs)	
858.00	4801	0.110216	n/a	n/a	n/a	0	0.000	0.00	0.00	
859.00	5379	0.123485	1.000000	5090.00	0.1169	5090.00	0.12	0.36	0.00	
860.00	5956	0.136731	1.000000	5667.50	0.1301	10757.50	0.25	0.89	0.00	
860.30	6280	0.144169	0.300000	1835.40	0.0421	12592.90	0.29	1.03	0.00	WQV
861.00	6,531	0.149931	0.700000	4483.85	0.1029	17076.75	0.39	2.08	0.00	
862.00	7,108	0.163177	1.000000	6819.50	0.1566	23896.25	0.55	4..28	3.20	
863.00	7,682	0.176354	1.000000	7395.00	0.1698	31291.25	0.72	35.24	19.72	
864.00	8,256	0.189532	1.000000	7969.00	0.1829	39260.25	0.90	54.78	38.89	
864.24	8,829	0.202686	0.240000	2050.20	0.0471	41310.45	0.95	47.99	44.67	

PEAK ELEVATION

Storm	Elevation
2	862.53
10	863.39
25	863.75
100	864.24

WEIRS

Weir	Elevation	Width (FT)
1	861.50	3.00
2	863.50	3.00

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STATE OF TEXAS
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NO.	DATE	REVISION

HARVEST RETREAT PHASE 2
14751 RONALD REAGAN BLVD
LEANDER, TEXAS 78641

POND 3 NOTES & DETAILS

SHEET
58
OF 80

SD-24-0196

Plot Date: 20/09/2025 @ 5:37 PM

Texas 811

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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.

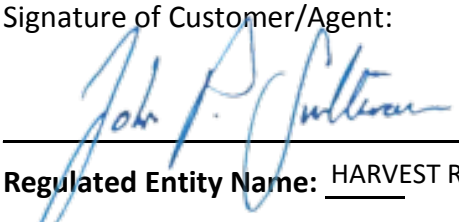
Signature

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: JOHN P SULLIVAN, P.E.

Date: 9/19/2025

Signature of Customer/Agent:



Regulated Entity Name: HARVEST REATREAT

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: BLOCKHOUSE CREEK

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

[X] 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.

    [X] N/A

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

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

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

Administrative Information

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

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

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

Temporary Stormwater Section Attachments

(TCEQ-0602)

ATTACHMENT A – Spill Response Actions

The following steps will help reduce the stormwater impacts of leaks and spills:

Education

- We will hold regular safety meetings to discuss and reinforce appropriate disposal procedures.
- We will have our contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

- To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes will be contained and cleaned up immediately.
- Any hazardous materials and waste on site will be stored in covered containers and protected from vandalism.
- Spill cleanup materials will be stockpiled on site where they will be readily accessible.
- All employees will be trained in spill prevention and cleanup.
- Spills, should they occur, will be covered and protected from stormwater runoff during rainfall to the extent that it doesn't compromise cleanup activities.
- We will not allow water used for cleaning and decontamination to enter storm drains or watercourses. We will collect and dispose of contaminated water in accordance with applicable regulations.
- We will place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.

Cleanup

We will clean up leaks and spills immediately, using the following guidelines:

- Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.
- Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of it properly.

For minor spills (small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill) we will use the following guidelines.

- Contain the spread of the spill.
- Use absorbent materials on small spills rather than hosing down or burying the spill.
- Recover spilled materials.
- Absorbent materials should be promptly removed and disposed of properly.
- Clean the contaminated area and properly dispose of contaminated materials.

Temporary Stormwater Section Attachments

(TCEQ-0602)

For semi-significant (spills which still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. but may require cessation of other activities) we will use the following guidelines:

- Spills should be cleaned up immediately.
- Contain spread of the spill.
- Notify the project foreman immediately.
- If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
- If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
- If the spill occurs during rain, cover the spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities we will use the following guidelines:

- Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM.
- After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
- For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
- Notification should first be made by telephone and followed up with a written report.
- The services of a spill’s contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staff have arrived at the job site.
- Other agencies which may need to be consulted include, but are not limited to, the Leander Police Department, Travis County Sheriff Office, Leander Fire Department, etc.

Temporary Stormwater Section Attachments

(TCEQ-0602)

ATTACHMENT B – POTENTIAL SOURCES OF CONTAMINATION

Contamination may result from the following activities:

- Drips and leaks of oil, grease, or fuel from construction equipment.
- Vehicle fluids from trucks and other vehicles entering/exiting the site.
- Accidental spills or improper handling of materials by workers.
- Mud, dirt, or sediment tracked onto adjacent roadways.
- Runoff carrying fine particles from unstabilized soils.
- Leaks or spills from chemical/portable toilets.
- Spills associated with connections to the existing SCS.

Pollutants of Concern

- Petroleum-based fluids (oil, grease, fuel)
- Sediment from excavation, grading, and disturbed soils
- Sanitary waste from portable toilets

Control Measures

- Excavated materials will be stockpiled with erosion and sediment controls (silt fence, berms, or wattles) placed downgradient to prevent transport.
- Construction equipment and site areas will be inspected regularly for leaks.
- Portable toilets will be placed on level ground away from drainageways and maintained to prevent overflows.
- Streets will be cleaned of tracked materials daily and at project completion.
- Prime coat, tack coat, and paving operations will be scheduled to avoid rainfall events. Similarly, concrete placements (structures, flatwork, formwork) will be timed to minimize contact with stormwater.

Spill Response

- If a fuel or hazardous substance spill occurs, contaminated soils and materials will be collected, stored in impervious containers, and disposed of off-site at a licensed facility.
- All response actions will follow the procedures outlined in Attachment A: Spill Response Actions.

Temporary Stormwater Section Attachments

(TCEQ-0602)

ATTACHMENT C – SEQUENCE OF MAJOR ACTIVITIES

The general sequence of construction activities is as follows:

1. Reach out to the city for a pre-construction meeting and construction permit.
2. Set up E/S controls and tree protection and reach out to the city for inspection. Limit of Disturbance (LOD) ~0.25 Acres
3. Setup temporary traffic controls LOD ~0.05 acres
4. Construct drainage ponds and stormwater features. LOD ~1 acre
5. Start utility, road, grading, franchise utility, and all necessary infrastructure construction. LOD ~ 1.5 acre
6. Construct building foundations & buildings. LOD ~4 acres
7. Final Grading & Landscaping. LOD ~5 acres
8. Request final walkthrough and conduct walkthrough with engineer of record and city development department.
9. Engineer of record is responsible to prepare and submit closeout documents for project closeout.

ATTACHMENT D – TEMPORARY BEST MANAGEMENT PRACTICES AND MEASURES

Silt Fences:

Silt fence is used during the prior of construction near the perimeter of a disturbed area to intercept sediment while allowing water to percolate through. This fence should remain in place until the disturbed area is permanently stabilized.

Silt fence should not be used where there is a concentration of water in a channel or drainage way. If concentrated flow occurs after installation, correction action must be taken such as placing a rock berm in the areas of concentrated flow.

Silt fencing within the site may be temporarily moved during the day to allow construction activity provided it is replaced and properly anchored to the ground at the end of the day. Silt fences on the perimeter of the site or around drainage ways should not be moved at any time.

Silt fences will be installed along both sides of the stream crossing, running alongside the 100-yr floodplain lines.

Triangular Sediment Filter Dikes:

The triangular sediment filter dike is used where there is no concentration of water in a channel or other drainage way above the barrier and the contributing drainage area is less than one acre. If the uphill slope above the dike exceeds 10%, the length of the slope above the dike should be less than 50 feet. If concentrated flow occurs after installation, corrective action should be taken such as placing rock berm in the areas of concentrated flow.

This measure is effective on paved areas where installation of silt fence is not possible or where vehicle access must be maintained. The advantage of these controls is the ease with which they can be moved to allow vehicle traffic, then reinstalled to maintain sediment control.

ATTACHMENT E– REQUEST TO TEMPORARILY SEAL A FEATURE

NOT APPLICABLE

ATTACHMENT F – STRUCTURAL PRACTICES

A list 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 included below.

- 3 Batch Detention Ponds
- Triangular Sediment Filter Dikes
- Storm Inlet Sediment Traps
- Stabilized Construction Entrance
- Silt Fences
- Mulch Socks
- Skimmers
- Concrete Washouts
- Inlet Protection Grates

Placement of structural practices in floodplains has been avoided. For exact details see Erosion and Sedimentation Plan and Pond Details sheets of the Site Plan.

Temporary Stormwater Section Attachments

(TCEQ-0602)

ATTACHMENT G – DRAINAGE AREA MAP

Please see plan sheets.

ATTACHMENT H – TEMPORARY SEDIMENT POND(S) PLANS AND CALCULATIONS

NOT APPLICABLE

ATTACHMENT I – INSPECTION AND MAINTENANCE FOR BMPS

Outlined below are suggested minimum inspection and maintenance procedures for the BMPs proposed with this project. These recommendations are based on the Edwards Aquifer Technical Guidance Manual (RG-348, 2005), specifically Section 1.3 (Temporary Erosion Control BMPs) and Section 1.4 (Temporary Sediment Control BMPs). More detailed direction is provided within those referenced sections.

The following practices are intended to help limit or reduce sediment transport by stormwater runoff in disturbed areas:

General

1. Silt fences (or sediment control rolls, where appropriate), rock berms, gabions, inlet protection, and stabilized construction entrances shall be installed prior to construction activities and remain until the site is fully stabilized against erosion.
2. The contractor must maintain inspection records noting the condition of BMPs and documenting corrective measures. Records should also track construction activity, including:
    a. Dates of major grading work in each area
    b. Dates when construction is paused, temporarily or permanently
    c. Dates when stabilization measures (temporary or permanent) are implemented
3. Stockpiles of soil, sand, gravel, and excavated material will be protected with correctly sized silt fencing both up-gradient and down-gradient.

Inspection

1. A qualified erosion and sediment (E&S) inspector, representing the discharger, shall review the following at least once every seven (7) days, and within 24 hours after any rainfall event of 0.5 inches or more:
    a. Disturbed areas not yet stabilized
    b. Material storage areas exposed to precipitation
    c. All structural and stabilization controls
    d. Construction entrances/exits
2. The inspector has authority to direct the Contractor to immediately correct deficiencies or revise E&S controls as needed. Revisions must be implemented within seven (7) calendar days of the inspection.
3. Written inspection reports will be prepared, documenting observations and corrective measures.

Temporary Stormwater Section Attachments

(TCEQ-0602)

Maintenance

1. All E&S measures shall be maintained in functional condition. Written maintenance records shall accompany inspections. Required repairs must begin within 24 hours of the report.
2. Construction entrances shall be maintained as follows:
    a. Prevent or minimize sediment tracking or runoff onto public roads
    b. Remove any tracked sediment from roadways immediately
    c. Clean vehicle tires before entering public rights-of-way
    d. Conduct washing on a crushed-stone pad draining to an approved trap or basin
    e. Prevent sediment entry into storm drains, ditches, or watercourses through approved methods
3. Temporary vegetation shall be:
    a. Inspected weekly and after rain events
    b. Re-graded and reseeded promptly where erosion occurs
    c. Re-seeded if vegetative cover is less than 80%
4. Rock berms shall be:
    a. Inspected weekly and after rainfall (daily if in streambeds)
    b. Cleared of sediment once accumulation reaches 6 inches
    c. Repaired if wire sheathing is loose; reshaped as necessary
    d. Replaced if no longer functioning due to siltation, washout, or damage
5. Silt fences shall be:
    a. Checked weekly and after each storm
    b. Cleared when sediment accumulation reaches 6 inches
    c. Repaired or supplemented with parallel fencing if fabric is torn
    d. Relocated if obstructing vehicle access (or substituted with triangular filter dikes)
    e. Removed and disposed of at an approved landfill once construction is complete, with disturbed ground revegetated
6. Curb inlet protection (gravel filter bags):
    a. Inspect weekly and after rainfall; repair or replace as needed
    b. Remove sediment once buildup reaches 3 inches
    c. Ensure close fit to curb with no gaps
    d. Patch or replace torn fabric promptly
    e. Remove devices and stabilize drainage areas only once upstream has been stabilized
7. Trash receptacles will be provided onsite for worker use.
8. Documentation of all inspection and maintenance activities shall be maintained onsite.

An example inspection/maintenance log for BMPs is provided by the U.S. EPA at www.epa.gov

. This template should be customized for project conditions. At minimum, the log should record inspection results, maintenance performed, and site condition observations.

ATTACHMENT J – SCHEDULE OF INTERIM AND PERMANENT SOIL STABILIZATION PRACTICES

Stabilization Schedule

1. Areas that are stripped or otherwise disturbed will receive interim or permanent stabilization within 14 days after construction activities are halted for more than 21 days (temporary) or when work has ceased permanently.
2. Final stabilization will occur upon completion of infrastructure improvements and after the main building structure is finished.

A summary schedule is provided in **Attachment C of the Temporary Stormwater Section**.

Stabilization Methods

This project may utilize several methods to stabilize soils, including but not limited to:

- Establishing temporary or permanent vegetative cover
- Mulching and use of geotextiles
- Sod placement and vegetative buffer strips
- Protection of existing trees and preservation of mature vegetation

Where appropriate, drought-tolerant wildflowers may supplement existing vegetation. Roadway soils will be stabilized permanently once the final pavement and sidewalks are installed.

The **primary stabilization approach** will be vegetation establishment and protection of existing trees. Seeding or sod installation will occur in areas prepared for final landscaping, in finished grade locations, and anywhere practical. Where final grading is incomplete, disturbed areas will either be seeded or allowed to naturally re-vegetate. Mulch, blankets, and matting may be used to encourage growth and provide erosion resistance.

Guidance from RG-348 (2005)

According to the Edwards Aquifer Technical Guidance Manual (RG-348, 2005, Section 1.2):

- When vegetation cannot be established (such as during drought), soil mulching is recommended for moderately sloped and less erodible soils.
- Steeper or highly erodible sites may require multiple mulch applications or the use of interlocking ceramic blocks, filter fabric, or netting.
- Wildflowers are considered a practical erosion control method due to their drought tolerance, minimal need for fertilizers, pesticides, or irrigation, and reduced long-term maintenance costs.

Although wildflower stands require several years to fully establish, once in place they can be as effective as turfgrass in reducing erosion and filtering contaminants.

Reference Standards

The stabilization practices proposed here are consistent with the Edwards Aquifer Technical Guidance Manual (RG-348, 2005), specifically:

- Section 1.2: General Guidelines
- Section 1.3: Temporary Erosion Control BMPs
- Section 1.4: Temporary Sediment Control BMPs
- Section 2.5: Landscaping and Vegetative Practices

Further detail can be found in the cited manual sections.

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

I Swamy Devuni,
Print Name

owner,
Title - Owner/President/Other

of BM21, LLC.,
Corporation/Partnership/Entity Name

have authorized JP SULLIVAN, P.E.
Print Name of Agent/Engineer

of RADIUS CIVIL ENGINEERING
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:

D. G.

Applicant's Signature

01/10/2024

Date

THE STATE OF Texas §

County of Williamson §

BEFORE ME, the undersigned authority, on this day personally appeared Swamy Dommeti 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 10th day of January, 2024.

B. Surendra Babu

NOTARY PUBLIC

Surendra Babu Botlagunta

Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 3/21/2026

SURENDRA BABU BOTLAGUNTA
Notary Public, State of Texas
Comm. Expires 03-21-2026
Notary ID 133657130

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: HARVEST RETREAT

Regulated Entity Location: 14751 RONALD REAGAN BLVD, LEANDER, TX, 78641

Name of Customer: BM21, LLC

Contact Person: SWAMY DEVUNI Phone: 703-220-7265

Customer Reference Number (if issued):CN _____

Regulated Entity Reference Number (if issued):RN _____

Austin Regional Office (3373)

☐ Hays ☐ Travis ☒ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde

☐ Comal ☐ Kinney

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment**. This payment is being submitted to:

☒ Austin Regional Office

☐ Mailed to: TCEQ - Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☐ San Antonio Regional Office

☐ Overnight Delivery to: TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
(512)239-0357

Site Location (Check All That Apply):

☐ Recharge Zone ☒ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	9.996 Acres	$ 5,000.00
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: _____ Date: 09/19/2025

Application Fee Schedule

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

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

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

SECTION II: Customer Information

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

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

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

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

BM21, LLC

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
0805210970	32091503956		

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

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

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

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

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

15. Mailing Address: 2508 DAPPLE GRAY LN

City	LEANDER	**State**	TX	**ZIP**	78641	**ZIP + 4**	5334

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

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

SECTION III: Regulated Entity Information

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

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

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

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

HAMPTON HOMES

23. Street Address of the Regulated Entity: *(No PO Boxes)*	14751 RONALD REAGAN BLVD							
	City	LEANDER	**State**	TX	**ZIP**	78641	**ZIP + 4**	
24. County	WILLIAMSON							

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

25. Description to Physical Location:					
26. Nearest City			**State**	**Nearest ZIP Code**	
Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).					
27. Latitude (N) In Decimal:			**28. Longitude (W) In Decimal:**		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
1521		236117	

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

Construction and sale of tonwhomes

34. Mailing Address:	**1237 SUMMERBROOKE CIRCLE**							
	City	**LEANDER**	**State**	**TX**	**ZIP**	**78641**	**ZIP + 4**	**1463**
35. E-Mail Address:	**SWAMY@LATITUDE-INVESTMENT.COM**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(702) 220-7265		**( ) -**

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

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

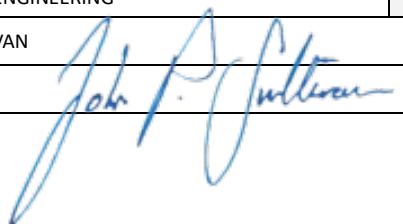
SECTION IV: Preparer Information

40. Name:	JOHN P. SULLIVAN	**41. Title:**	PRESIDENT

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512 **)** 431-8510		**( ) -**	JP@RADIUSCIVIL.COM

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	RADIUS CIVIL ENGINEERING	**Job Title:**	PRESIDENT
Name *(In Print):*	JOHN P. SULLIVAN	**Phone:**	**(** 512 **)** 431- **8510**
Signature:		**Date:**	9/19/2025