CONTRIBUTING ZONE PLAN MODIFICATION

ORIGINAL REGULATED ENTITY NAME "VELSA RANCH" NW CORNER OF PARMER LANE AND KENAI DRIVE CEDAR PARK, WILLIAMSON COUNTY, TEXAS

Prepared For:

VLS PROPERTIES, LLC
3109 Kenai Drive, Unit 109
Cedar Park, TX 78613
(512) - 337- 0418

Prepared By:

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Firm No. 928
KHA Project No. 069274402

Sept 5th, 2024

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SECTION 1:
EDWARDS AQUIFER APPLICATION COVER PAGE

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: Velsa Ranch						2. Regulated Entity No.: RN111283388			
3. Customer Name: VLS Properties, LLC						4. Customer No.: CN605903327			
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):		17.40	
9. Application Fee:	$6,500		10. Permanent BMP(s):			Batch Detention			
11. SCS (Linear Ft.):	0		12. AST/UST (No. Tanks):			0			
13. County:	Williamson		14. Watershed:			Turkey Creek – Brushy Creek			

Application Distribution

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

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

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

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

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

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review. Ryan Schubert, P.E.
Print Name of Customer/Authorized Agent
 09/05/2024
Signature of Customer/Authorized Agent Date

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

SECTION 2:
MODIFICATION OF A PREVIOUSLY APPROVED CONTRIBUTING ZONE PLAN

Modification of a Previously Approved Contributing Zone Plan

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Transition Zone and Relating to 30 TAC 213.4(j), 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 **Modification of a Previously Approved Contributing Zone Plan** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Print Name of Customer/Agent: VLS Properties LLC

Date: VLS Properties LLC

Signature of Customer/Agent:



Project Information

1. Current Regulated Entity Name: Velsa Ranch
   Original Regulated Entity Name: Velsa Ranch
   Assigned Regulated Entity Number(s) (RN): RN111283388
   Edwards Aquifer Protection Program ID Number(s): _____
   [X] The applicant has not changed and the Customer Number (CN) is: CN605903327
   [ ] The applicant or Regulated Entity has changed. A new Core Data Form has been provided.

2. [X] **Attachment A: Original Approval Letter and Approved Modification Letters**. A copy of the original approval letter and copies of any modification approval letters are attached.

3. A modification of a previously approved plan is requested for (check all that apply):

[X] Any physical or operational modification of any best management practices or structure(s), including but not limited to temporary or permanent ponds, dams, berms, silt fences, and diversionary structures;
[ ] Any change in the nature or character of the regulated activity from that which was originally approved;
[ ] A change that would significantly impact the ability to prevent pollution of the Edwards Aquifer and hydrologically connected surface water; or
[ ] Any development of land previously identified in a contributing zone plan as undeveloped.

4. [X] Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

Velsa Ranch

CZP Modification Summary	***Approved Project***	***Proposed Modification***
Acres	17.40	17.40
Type of Development	Commercial	Commercial
Number of Residential Lots	0	0
Impervious Cover (acres)	6.55	6.55
Impervious Cover (%)	37.6%	37.6%
Permanent BMPs	Partial Filtration and Sedimentation	Batch Detention System
Other		

AST Modification Summary	***Approved Project***	***Proposed Modification***
Number of ASTs		
Other		

UST Modification Summary	***Approved Project***	***Proposed Modification***
Number of USTs		
Other		

5. [X] **Attachment B: Narrative of Proposed Modification**. A detailed narrative description of the nature of the proposed modification is attached. It discusses what was approved,

including previous modifications, and how this proposed modification will change the approved plan.

6. [X] **Attachment C: Current Site Plan of the Approved Projec**t. A current site plan showing the existing site development (i.e., current site layout) at the time this application for modification is attached. A site plan detailing the changes proposed in the submitted modification is required elsewhere.
   - [ ] The approved construction has not commenced. The original approval letter and any subsequent modification approval letters are included as Attachment A to document that the approval has not expired.
   - [ ] The approved construction has commenced and has been completed. Attachment C illustrates that the site was constructed as approved.
   - [ ] The approved construction has commenced and has been completed. Attachment C illustrates that the site was **not** constructed as approved.
   - [X] The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was constructed as approved.
   - [ ] The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was **not** constructed as approved.

7. [X] Acreage has not been added to or removed from the approved plan.
   [ ] Acreage has been added to or removed from the approved plan and is discussed in *Attachment B: Narrative of Proposed Modification*.

8. [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. The copies must be submitted to the appropriate regional office.

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Toby Baker, *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

March 25, 2022

Mr. Venkat Gudapuri
VLS Properties, LLC
3109 Kenai Drive, STE 109
Cedar Park, Texas 78613-2540

Re: Edwards Aquifer, Williamson County

NAME OF PROJECT: Velsa Ranch; Located 0.1 miles NW of Kenai Dr. and W Parmer Ln.; Cedar Park, Texas

TYPE OF PLAN: Request for Approval of a Contributing Zone Plan (CZP); 30 Texas Administrative Code (TAC) Chapter 213 Subchapter B Edwards Aquifer

Regulated Entity No. RN111283388; Additional ID No. 11002878

Dear Mr. Gudapuri:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the CZP application for the above-referenced project submitted to the Austin Regional Office by Kimley-Horn and Associates, Inc. on behalf of VLS Properties, LLC on January 11, 2022. Final review of the CZP was completed after additional material was received on March 21, 2022. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) were selected, and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

PROJECT DESCRIPTION

The proposed commercial project will have an area of approximately 17.40 acres and will include the construction of eight buildings with associated parking, drives, sidewalks, utilities, and drainage improvements on Lot 1 of the development and the construction of a water quality pond and detention pond on Lot 4 with associated access drive. The impervious cover will be 6.55 acres (37.6 percent). Project wastewater will be disposed of by conveyance to the existing Brushy Creek Wastewater Treatment Plant owned by the City of Cedar Park.

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, one partial sedimentation/ filtration basin, designed using the TCEQ technical guidance document, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices (2005), will be constructed to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 5,700 pounds of TSS generated from the 6.55 acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project.

SPECIAL CONDITIONS

I. The permanent pollution abatement measure shall be operational prior to first occupancy of the facilities.

II. All sediment and/or media removed from the water quality basin during maintenance activities shall be properly disposed of according to 30 TAC 330 or 30 TAC 335, as applicable.

STANDARD CONDITIONS

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.
2. The holder of the approved Edwards Aquifer protection plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the approved plan. Additional and separate approvals, permits, registrations and/or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, UIC) can be required depending on the specifics of the plan.
3. In addition to the rules of the Commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.

Prior to Commencement of Construction:

4. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved Contributing Zone Plan and this notice of approval shall be maintained at the project location until all regulated activities are completed.
5. Any modification to the activities described in the referenced CZP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
6. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the Austin Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the name of the approved plan and file number for the regulated activity, the date on which the regulated activity will commence, and the name of the prime contractor with the name and telephone number of the contact person.
7. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved Storm Water Pollution Prevention Plan (SWPPP) must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established, and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges

from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

During Construction:

8. During the course of regulated activities related to this project, the applicant or his agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
9. If sediment escapes the construction site, the 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). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been significantly reduced. 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).
10. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.
11. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
12. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.
13. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 5, above.

After Completion of Construction:

14. Owners of permanent BMPs and measures must insure that the 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 Austin Regional Office within 30 days of site completion.
15. The applicant shall be 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. A copy of the transfer of responsibility must be filed with the executive director through the Austin Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.
16. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Contributing Zone Plan. If the new owner intends to commence any new regulated activity on the site, a new Contributing Zone Plan that specifically addresses the

new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.

17. A Contributing Zone Plan approval or extension will expire, and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Contributing Zone Plan must be submitted to the Austin Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
18. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact the Edwards Aquifer Protection Program of the Austin Regional Office at 512-339-2929.

Sincerely,

Lillian Butler

Lillian Butler, Section Manager
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality

LIB/jv

Enclosures: Change in Responsibility for Maintenance of Permanent BMPs, Form TCEQ-10263

cc: Mr. Michael Doggett, P.E., Kimley-Horn and Associates, Inc.

PROJECT NARRATIVE

Velsa Ranch located on the NWQ of Parmer Lane and Kenai Drive in Cedar Park, Texas consists of 4 lots to be developed in two phases. The first phase consists of eight buildings with local business, restaurant, and office space on Lot 1. The water quality and detention pond located on Lot 4 will be constructed with the first phase. The ponds will be sized to serve all developable portions of Lots 1-4. The entire site is located within the City of Cedar Park City Limits and Williamson County. A Contributing Zone Plan was prepared for this site.

The plan proposes a detention pond on Lot 4 located within a drainage easement with the drainage piped from Lots 1-3 to the detention pond. A batch detention pond will be utilized to address water quality for both phases. The plans for this water quality pond can be located within the Civil Plans, located in Appendix M of this application. Future development within Lots 2-4 will also be served by this detention pond in the future. The water quality pond will be oversized to be able to serve future development in Phase II (Lots 2-4). This Contributing Zone Plan must be modified as development occurs within Lots 2-4.

The plan proposes additional impervious cover in the TxDOT right of way as well as a maintenance path on the west side of the site. The Erosion Control Plan Sheet in the civil plans shows the limits of disturbance to include the proposed construction limits within the TxDOT right-of-way of Parmer Lane. A deceleration lane and a driveway with right in, right out access, is proposed in the TxDOT right-of-way of Parmer Lane. The TSS from the impervious cover in the TxDOT ROW and maintenance path will be treated in the water quality pond on Lot 4.

A Water Quality Drainage Area Map is provided within the Civil Plans. This plan shows there are two Offsite Water Quality ponds that discharge to this parcel. These outfalls are being collected and routed around the subject property to avoid combining with untreated runoff that is onsite. Areas A1 and A2 shown on this plan are the captured portions of the site while Areas B1, B2, UC1 and UC2 are the uncaptured portions of the site in this CZP. The total acreage for all areas is 17.40 acres which is included in the plan. The Treatment Summary Table shown on this sheet indicates 6.13 acres of impervious surface area captured and 0.42 acres of impervious surface that is not captured within the limits of the plan. Using these values, this equates to 5,700 lbs of required treatment. This also equates to an on-site water quality volume required of 45,032 cubic feet of storage.

The site will be served by an offsite extension of an existing 8” water line along Kenai Drive. The offsite improvements consist of extending an 8” water line along Parmer Lane to the site. The sewer line will be installed in two phases. In Phase I, a force main will be installed starting at the western property line and will be pumped through a temporary pump station to an existing stub out for a force main at the adjacent properties to the south. Phase 2 will connect the sewer system to an 8” sewer line under Parmer Lane that will be installed by the City in the future.

This site is located in the Turkey Creek- Bushy Creek Watershed and entirely in the Edwards Aquifer Contributing Zone as defined by maps prepared by the Texas Commission on Environmental Quality.

No portion of the property is within the limits of the 100-year floodplain as shown on FIRM Panel No. 48491C0470F, dated December 20, 2019.

CITY OF CEDAR PARK SITE PLAN NOTES

ANY REVISION TO THIS PLAN WILL REQUIRE CITY APPROVAL AND WILL REQUIRE REVISIONS TO ANY CORRESPONDING PLANS TO AVOID CONFLICTS BETWEEN PLANS.

1. DUMPSTERS AND TRASH COMPACTORS SHALL BE SCREENED IN ACCORDANCE WITH THE ZONING ORDINANCE. ANY ADDITIONAL ENCLOSURES WILL REQUIRE REAPPROVAL BY CITY STAFF.
2. OPEN STORAGE, WHERE PERMITTED, SHALL BE SCREENED IN ACCORDANCE WITH THE ZONING ORDINANCE.
3. OUTDOOR LIGHTING SHALL COMPLY WITH THE LIGHTING AND GLARE STANDARDS CONTAINED WITHIN THE ZONING ORDINANCE AND SUBDIVISION ORDINANCE.
4. LANDSCAPING SHALL CONFORM TO LANDSCAPE PLANS APPROVED BY THE CITY.
5. ALL ELEVATIONS SHALL COMPLY WITH THE STANDARDS CONTAINED WITHIN THE ZONING ORDINANCE.
6. BUILDINGS OF 5,000 SQUARE FEET OR GREATER SHALL BE 100% FIRE SPRINKLED. ALTERNATIVE FIRE PROTECTION MEASURES MAY BE APPROVED BY THE FIRE DEPARTMENT.
7. FIRE LANES SHALL BE DESIGNED AND CONSTRUCTED PER CITY STANDARDS OR AS DIRECTED BY THE FIRE DEPARTMENT.
8. TWO POINTS OF ACCESS SHALL BE MAINTAINED FOR THE PROPERTY AT ALL TIMES.
9. TRAFFIC CALMING DEVICES (SPEED BUMPS) ARE NOT ALLOWED TO BE INSTALLED UNLESS APPROVAL IS GIVEN BY THE FIRE PREVENTION OFFICE. IFC 503.4.1
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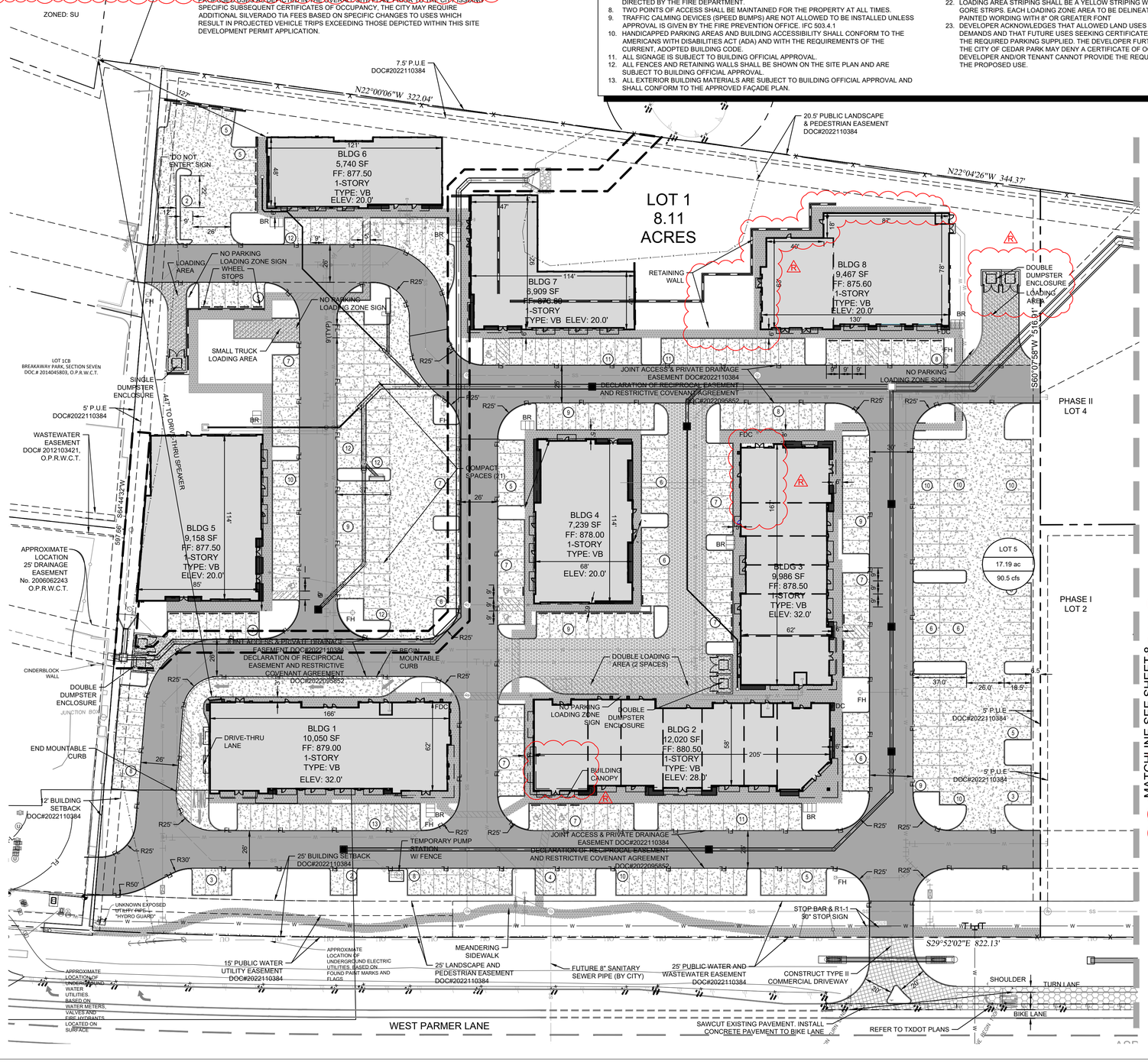
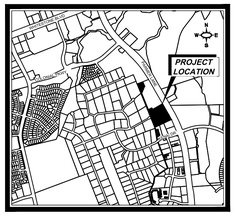
SILVERADO TIA FEE CALCULATION

PROPOSED USES	BUILDING AREA (SF)	PM PEAK RATE	PM TRIP GENERATION	COST PER PM TRIP	TOTAL COST
- RETAIL	17,523	3.74 TRIPS/1,000 SQ FT	65.5	$ 126.26	$ 8,274.58
- RESTAURANT - INCLUDES PATIO					
FAST FOOD	3,333	51.36 TRIPS/1,000 SQ FT	171.2	$ 126.26	$ 21,615.71
FAST CASUAL	3,333	43.79 TRIPS/1,000 SQ FT	146.0	$ 126.26	$ 18,429.75
HIGH TURNOVER SIT DOWN	7,333	17.41 TRIPS/1,000 SQ FT	127.7	$ 126.26	$ 16,120.04
- PERSONAL SERVICE	10,000	3.74 TRIPS/1,000 SQ FT	37.4	$ 126.26	$ 4,722.12
- OFFICE	21,786	1.49 TRIPS/1,000 SQ FT	32.5	$ 126.26	$ 4,098.54
- MEDICAL OFFICE	7,260	4.1 TRIPS/1,000 SQ FT	29.8	$ 126.26	$ 3,758.26
TOTAL BUILDING AREA	70,569			***SILVERADO TIA FEE***	**$ 77,019.00**

SILVERADO TIA FEES PAID FOR THIS SITE DEVELOPMENT PERMIT ARE BASED ON PROPOSED USES AS DEPICTED IN THE OVERALL SITE PLAN. PRIOR TO THE CITY ISSUING SPECIFIC SUBSEQUENT CERTIFICATES OF OCCUPANCY, THE CITY MAY REQUIRE ADDITIONAL SILVERADO TIA FEES BASED ON SPECIFIC CHANGES TO USES WHICH RESULT IN PROJECTED VEHICLE TRIPS EXCEEDING THOSE DEPICTED WITHIN THIS SITE DEVELOPMENT PERMIT APPLICATION.





VICINITY MAP
N.T.S.

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

BENCH MARK LIST

BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

ELEV. = 860.56'

BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN. THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'

SITE DATA TABLE

LOT 1	
ZONING	LB
LAND AREA	8.11 ACRES
TOTAL PARKING REQUIRED	376 SPACES
TOTAL PARKING PROVIDED *	380 SPACES
HANDICAP REQUIRED	8 SPACES
HANDICAP PROVIDED	13 SPACES
COMPACT SPACES ALLOWED	38 SPACES
COMPACT SPACES PROVIDED	21 SPACES
BUILDING COVERAGE	19.98%

* TOTAL PARKING PROVIDED INCLUDES HC PARKING

BUILDING No.	1	2	3	4	5	6	7	8
BUILDING HEIGHT (FT)	32	32	32	20	20	20	20	20
PROPOSED USES	RET/REST/PS	RET/REST/PS	RET/REST/PS	MOB/OFF	MOB/OFF	MOB/OFF	MOB/OFF	MOB/OFF
BUILDING AREA BY USE:								
- RETAIL (SF)	3050	5020	3986	0	0	0	0	5467
- PARKING REQUIRED (RET 1/250)	13	21	16	0	0	0	0	22
- RESTAURANT (SF) - INCLUDES PATIO	4000	4000	2000	0	0	0	0	4000
- PARKING REQUIRED (REST 1/100)	40	40	20	0	0	0	0	40
- PERSONAL SERVICE (SF)	3000	3000	4000	0	0	0	0	0
- PARKING REQUIRED (PS 1/200)	15	15	20	0	0	0	0	0
- OFFICE (SF)	0	0	0	5430	6869	4305	5182	0
- PARKING REQUIRED (OFF 1/300)	0	0	0	19	23	15	18	0
- MEDICAL OFFICE (SF)	0	0	0	1809	2289	1435	1727	0
- PARKING REQUIRED (MOB 1/200)	0	0	0	10	12	8	9	0
TOTAL BUILDING AREA (SF)	10050	12020	9986	7239	9158	5740	6909	9467
TOTAL PARKING REQUIRED PER BUILDING	68	76	56	29	35	23	27	62
TOTAL PARKING REQUIRED FOR SITE	376							
TOTAL PARKING PROVIDED	380							

Legend
RET - Retail
REST - Restaurant
PS - Personal Service
OFF - General Office
MOB - Medical Office
**Parking total included compact spaces

LEGEND

- PROPOSED FIRE LANE & PUBLIC ACCESS EASEMENT CC#_____
- PROPOSED LIGHT DUTY PAVEMENT
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED SIDE WALK
- PROPOSED BIORETENTION AREA
- PROPOSED CONCRETE TxDOT PAVEMENT *REFER TO TXDOT PLANS FOR DETAILS
- PROPOSED ASPHALT TxDOT PAVEMENT *REFER TO TXDOT PLANS FOR DETAILS
- PROPOSED BUILDING
- PROPSED CONTOUR - MAJOR
- PROPOSED CONTOUR - MINOR
- EXISTING CONTOUR - MAJOR
- EXISTING CONTOUR - MINOR
- BARRIER FREE RAMP (BFR)
- ACCESSIBLE PARKING SYMBOL
- BR BIKE RACK (3 SPACES PER RACK)
- NUMBER OF PARKING SPACES
- WM WATER METER (AND VAULT)
- FH FIRE HYDRANT
- FDC FIRE DEPARTMENT CONNECTION
- SANITARY SEWER MANHOLE
- T TRANSFORMER PAD
- CURB INLET
- GRATE INLET
- JUNCTION BOX OR WYE INLET
- HEADWALL
- TYP TYPICAL
- BFR BARRIER FREE RAMP
- SW SIDEWALK
- CI CURB INLET
- GI GRATE INLET
- JB JUNCTION BOX
- MH MANHOLE
- EX EXISTING
- PROP. PROPOSED
- FDC FIRE DEPT. CONNECTION

0 40' 80'
GRAPHIC SCALE 40'

No.	REVISION	DATE	BY
1	REVISIONS	08/19/2024	RPS

Kimley»Horn
© 2022 KIMLEY-HORN AND ASSOCIATES, INC.
260 EAST DAVIS STREET, SUITE 100, MCKINNEY, TX 75069
PHONE: 469-301-2580 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM TX F-928

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402	
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH
CEDAR PARK, TEXAS

OVERALL SITE PLAN

SD-20-00020
SHEET NUMBER
SHEET 7 OF 92

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley»Horn and Associates, Inc. shall be without liability to Kimley»Horn and Associates, Inc.

IMAGES
Cedar Park Logo
XREFS
KHA_CPK_FULL.dwt
LAST SAVED
10/21/2024 6:44 PM
PLOT DATE
10/21/2024 6:47 PM
PLOT PATH
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DWG NAME
OVERALL SITE PLAN.dwg

CITY OF CEDAR PARK SITE PLAN NOTES

ANY REVISION TO THIS PLAN WILL REQUIRE CITY APPROVAL AND WILL REQUIRE REVISIONS TO ANY CORRESPONDING PLANS TO AVOID CONFLICTS BETWEEN PLANS.

1. DUMPSTERS AND TRASH COMPACTORS SHALL BE SCREENED IN ACCORDANCE WITH THE ZONING ORDINANCE. ANY ADDITIONAL ENCLOSURES WILL REQUIRE REAPPROVAL BY CITY STAFF.
2. OPEN STORAGE, WHERE PERMITTED, SHALL BE SCREENED IN ACCORDANCE WITH THE ZONING ORDINANCE.
3. OUTDOOR LIGHTING SHALL COMPLY WITH THE LIGHTING AND GLARE STANDARDS CONTAINED WITHIN THE ZONING ORDINANCE AND SUBDIVISION ORDINANCE.
4. LANDSCAPING SHALL CONFORM TO LANDSCAPE PLANS APPROVED BY THE CITY.
5. ALL ELEVATIONS SHALL COMPLY WITH THE STANDARDS CONTAINED WITHIN THE ZONING ORDINANCE.
6. BUILDINGS OF 5,000 SQUARE FEET OR GREATER SHALL BE 100% FIRE SPRINKLED. ALTERNATIVE FIRE PROTECTION MEASURES MAY BE APPROVED BY THE FIRE DEPARTMENT.
7. FIRE LANES SHALL BE DESIGNED AND CONSTRUCTED PER CITY STANDARDS OR AS DIRECTED BY THE FIRE DEPARTMENT.
8. TWO POINTS OF ACCESS SHALL BE MAINTAINED FOR THE PROPERTY AT ALL TIMES.
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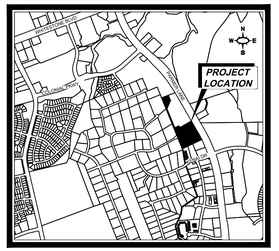

VICINITY MAP
N.T.S.



GRAPHIC SCALE 40'

LEGEND

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	ACCESSIBLE PARKING SYMBOL
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FDC	FIRE DEPARTMENT CONNECTION
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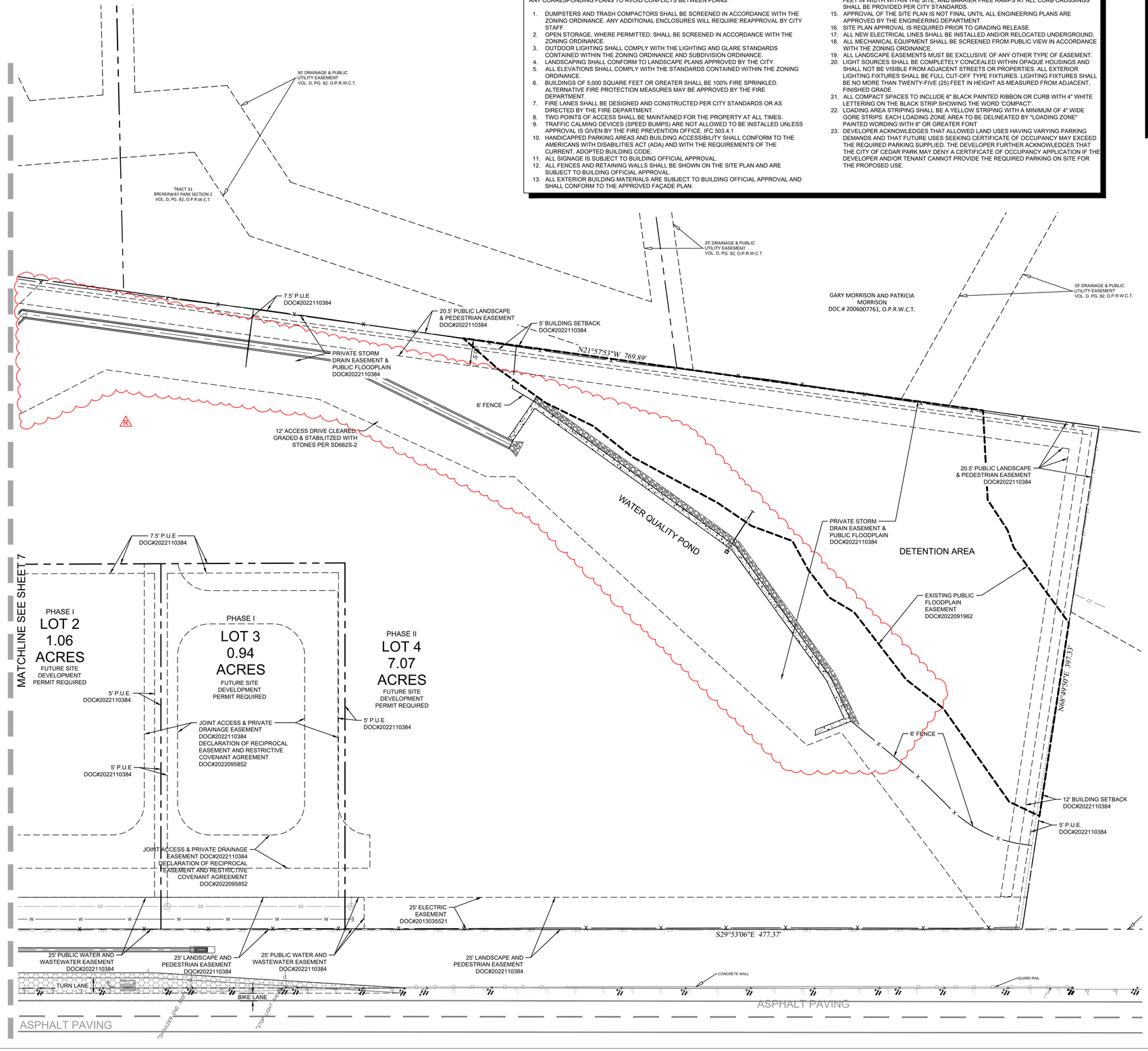
T	TRANSFORMER PAD
	CURB INLET
	GRATE INLET
	JUNCTION BOX OR WYE INLET
	HEADWALL
TYP	TYPICAL
BFR	BARRIER FREE RAMP
SW	SIDEWALK
CI	CURB INLET
GI	GRATE INLET
JB	JUNCTION BOX
MH	MANHOLE
EX	EXISTING
PROP.	PROPOSED
FDC	FIRE DEPT. CONNECTION



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No.	REVISION	DATE	BY
	REVISIONS	08/19/2024	RPS

Kimley»Horn

© 2022 KIMLEY-HORN AND ASSOCIATES, INC.
280 EAST DAVIS STREET, SUITE 100, MCKINNEY, TX 75069
PHONE: 469-301-2580 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM TX F-928

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402			
DATE	DECEMBER 2022		
SCALE	AS SHOWN	RPS	RPS
DESIGNED BY		AH	
DRAWN BY			
CHECKED BY			

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

OVERALL SITE PLAN

SD-20-00020
SHEET NUMBER

SHEET 8 OF 92

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IMAGES
XREFS
LAST SAVED
PLOT DATE
DWG PATH
PDF NAME

Cedar Park Logo
xconnect.dwg xdim xdim xdim xHATCH xEmis xlines
10/21/2024 6:44 PM
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K:\AUS_CIVIL\069274402\CEDAR PARK - PARMER 17 ACRES\CAD\PLANSHEETS
OVERALL SITE PLAN.DWG (LAYOUT: SITE PLAN)

SECTION 3:
CONTRIBUTING ZONE PLAN APPLICATION

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: _Ryan Schubert, P.E._____

Date: _09/05/2024_____

Signature of Customer/Agent:



_____

Regulated Entity Name: _Velsa Ranch__

Project Information

1. County: _Williamson_____
2. Stream Basin: _Turkey Creek – Brushy Creek_____
3. Groundwater Conservation District (if applicable): _N/A
4. Customer (Applicant):

   Contact Person: _Venkat Gudapuri_____
   Entity: _VLS Properties, LLC_____
   Mailing Address: _3109 Kenai Drive, Unit 109_____
   City, State: _Cedar Park, TX_____ Zip: _78613_____
   Telephone: _(512) - 337- 0418_____ Fax: _____
   Email Address: _vgudapuri@gmail.com_____

5. Agent/Representative (If any):

Contact Person: _Ryan Schubert, P.E._____
Entity: _Kimley-Horn and Associates, Inc._____
Mailing Address: _10814 Jollyville Rd, Avallon IV, Suite 200_
City, State: _Austin, TX_____ Zip: _78759_____
Telephone: _(512) 418 - 1771_____ Fax: _____
Email Address: _ryan.schubert@kimley-horn.com__

6. Project Location:

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

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

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

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

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

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

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

11. Existing project site conditions are noted below:

☐ Existing commercial site
☐ Existing industrial site

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

12. The type of project is:

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

13. Total project area (size of site): 17.40 Acres

Total disturbed area: 17.40 Acres

14. Estimated projected population: n/a

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	69,576	÷ 43,560 =	1.60
Parking	197,446	÷ 43,560 =	4.53
Other paved surfaces	18,295	÷ 43,560 =	0.42
Total Impervious Cover	285,317	÷ 43,560 =	6.55

Total Impervious Cover 6.55 ÷ Total Acreage 17.40 X 100 = 37.6% Impervious Cover

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

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

For Road Projects Only

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

☒ N/A

18. Type of project:

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

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

☐ Concrete
☐ Asphalt concrete pavement
☐ Other: _____

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

Length o f R .O.W.:_____feet.

Width o f R .O.W.:_____feet.
L x W = _____Ft² ÷ 43,560 Ft²/Acre = _____acres.

21. Pavement Area:

Length o f R .O.W.:_____feet.

Width o f R .O.W.:_____feet.
L x W = _____Ft² ÷ 43,560 Ft²/Acre = _____acres.
Pavement area_____acres ÷ R .O.W. a rea____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 Brushy Creek WWTP (name) Treatment Plant. The treatment facility is:

☒ Existing.
☐ Proposed.
☐ N/A

Permanent Aboveground Storage Tanks (ASTs) ≥ 500 Gallons

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

☒ N/A

27. Tanks and substance stored:

Table 2 - Tanks and Substance Storage

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

Total x 1.5 = _____ Gallons

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

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

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

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

Table 3 - Secondary Containment

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

Total: _____ Gallons

30. Piping:

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

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

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

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

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

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

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

Site Plan Requirements

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

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

    Site Plan Scale: 1" = __40__'.

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): _48491C0470F Dated December 20, 2019

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

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

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

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

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

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

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

42. ☐ Surface waters (including wetlands).

    ☒ N/A

43. ☐ Locations where stormwater discharges to surface water.

    ☒ There will be no discharges to surface water.

44. ☐ Temporary aboveground storage tank facilities.

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

45. ☐ Permanent aboveground storage tank facilities.

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

46. ☒ Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

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

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

    ☐ N/A

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

    ☒ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site. (Phase 1)

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

    ☐ N/A

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

    ☐ N/A

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

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

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

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

51. The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be

recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

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

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

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

52. ☒ Attachment J - BMPs for Upgradient Stormwater.

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

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

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

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

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

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

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

☒ N/A

55. ☒ Attachment M - Construction Plans. Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. Construction plans for the proposed permanent BMPs and measures are attached and include: Design calculations, TCEQ Construction Notes, all proposed structural plans and specifications, and appropriate details.

☐ N/A

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

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

    ☐ N/A

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

    ☒ N/A

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

    ☒ N/A

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

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

60. ☒ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

Administrative Information

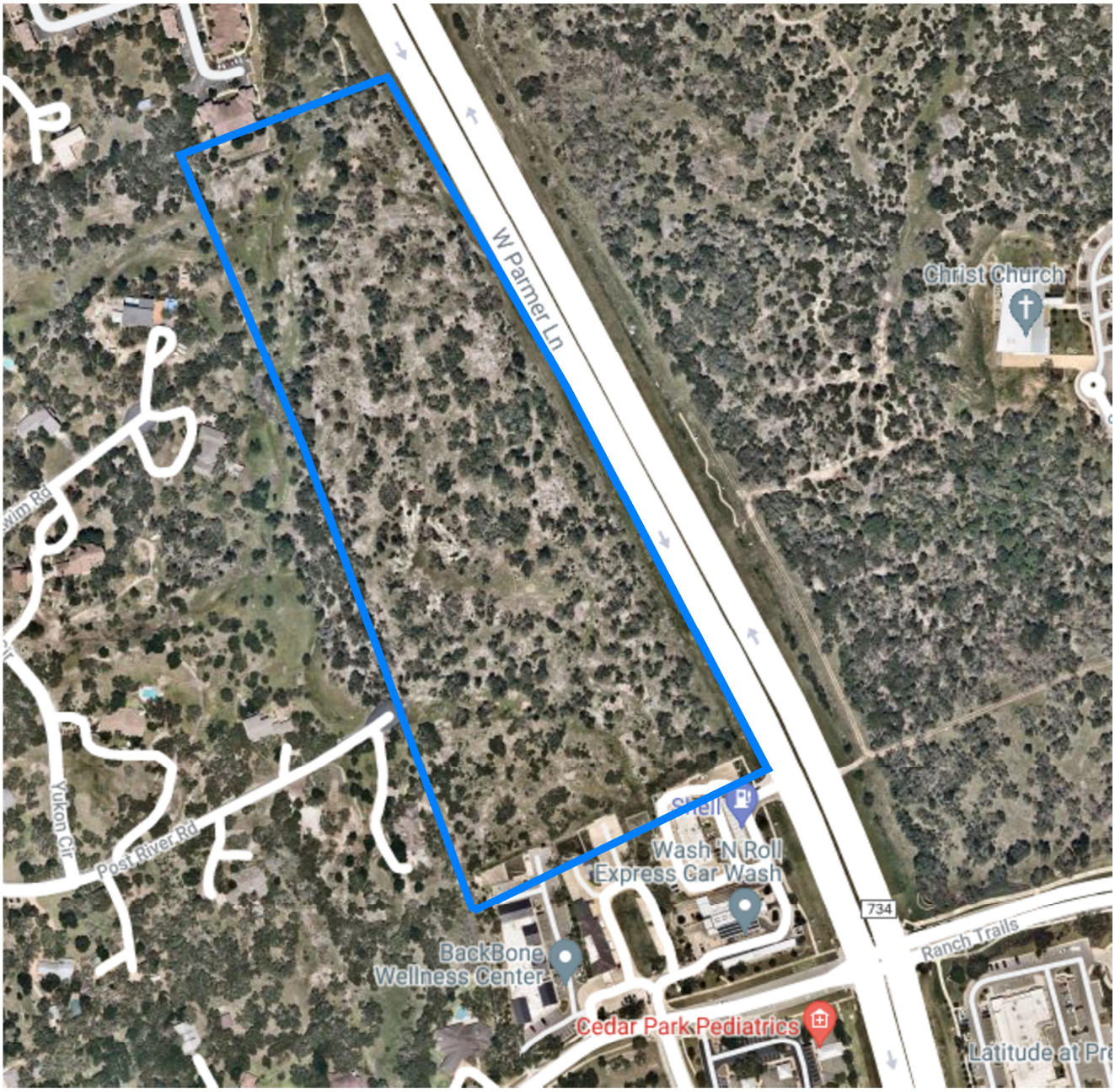
61. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions.

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

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

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

ROAD MAP



DIRECTIONS FROM TCEQ HEADQUARTERS TO PROJECT SITE:

1. GET ON I-35 S FRONTAGE RD FROM PARK 35 CIR
2. TURN RIGHT ONTO COVINGTON DRIVE EAST\
3. TURN RIGHT ON TO HORNSBY ST WHICH TURNS INTO WEST CADDO ST
4. TURN RIGHT ONTO N LAMAR BLVD
5. TURN LEFT ONTO WEST PARMER LANE
6. DESTINATION WILL BE ON THE LEFT

LEGEND

CONSTRUCTION SITE, 7.4 ACRES

APPENDIX						
A	DATE	08/20/2021	ROAD MAP	VELSA RANCH CEDAR PARK, TEXAS WILLIAMSON COUNTY	N W E S	Kimley»Horn
	DESIGNED BY	SLT				
	DRAWN BY	SLT				
	CHECKED BY	MTD				
	KHA PROJECT NO.	069274402				

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260 EAST DAVIS STREET, SUITE 100, MCKINNEY, TX 75069
PHONE: 469-301-2580 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM TX F-928

USGS QUADRANGLE MAP

USGS science for a changing world

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

The National Map US Topo

LEANDER QUADRANGLE
TEXAS
7.5-MINUTE SERIES



Produced by the United States Geological Survey

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

Imagery		NAIP, September 2016 - November 2016	
Roads	U.S. Census Bureau,		2015
Names		GNIS, 1979 -	2018
Hydrography	National Hydrography Dataset,	2002 -	2018
Contours	National Elevation Dataset,		2002
Boundaries	Multiple sources; see metadata file	2016 -	2017
Wetlands	FWS National Wetlands Inventory		1982

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, 2011.
A metadata file associated with this product is draft version 0.6.18

QUADRANGLE LOCATION

ADJOINING QUADRANGLES

1	2	3
4		5
6	7	8

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

ROAD CLASSIFICATION

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

LEANDER, TX
2019

MAP ID 1045019
NGA REF NO. USGSX24K25230

PROJECT NARRATIVE

Velsa Ranch located on the NWQ of Parmer Lane and Kenai Drive in Cedar Park, Texas currently consists of 4 lots to be developed in two phases. The first phase consists of eight buildings with local business, restaurant, and office space on Lot 1. The water quality and detention pond located on Lot 4 will be constructed with the first phase. The ponds will be sized to serve all developable portions of Lots 1-4. The entire site is located within the City of Cedar Park City Limits and Williamson County. A Contributing Zone Plan was prepared for this site (Regulated Entity No. RN111283388; Additional ID No. 11002878).

The plan proposes a detention pond on Lot 4 located within a drainage easement with the drainage piped from Lots 1-3 to the detention pond. A partial sedimentation and filtration basin has been previously approved as a water quality BMP. This plan is being modified to remove the partial sedimentation and filtration basin and replace it with a batch detention pond that will be utilized to address water quality for both phases. Additionally, a modification is being made to the storm water conveyance system that will change a 5x4 box culvert into a 5x4 open flow channel. No other modifications are being made at this time. The plans for this water quality pond can be located within the Civil Plans, located in Appendix M of this application. Future development within Lots 2-4 will also be served by this detention pond in the future. The water quality pond will be oversized to be able to serve future development in Phase II (Lots 2-4). This Contributing Zone Plan must be modified as development occurs within Lots 2-4.

The plan proposes additional impervious cover in the TxDOT right of way as well as a maintenance path on the west side of the site. The Erosion Control Plan Sheet in the civil plans shows the limits of disturbance to include the proposed construction limits within the TxDOT right-of-way of Parmer Lane. A deceleration lane and a driveway with right in, right out access, is proposed in the TxDOT right-of-way of Parmer Lane. The TSS from the impervious cover in the TxDOT ROW and maintenance path will be treated in the water quality pond on Lot 4.

A Water Quality Drainage Area Map is provided within the Civil Plans. This plan shows there are two Offsite Water Quality ponds that discharge to this parcel. These outfalls are being collected and routed around the subject property to avoid combining with untreated runoff that is onsite. Areas A1 and A2 shown on this plan are the captured portions of the site while Areas B1, B2, UC1 and UC2 are the uncaptured portions of the site in this CZP. The total acreage for all areas is 17.40 acres which is included in the plan. The Treatment Summary Table shown on this sheet indicates 6.13 acres of impervious surface area captured and 0.42 acres of impervious surface that is not captured within the limits of the plan. Using these values, this equates to 5,700 lbs of required treatment. This also equates to an on-site water quality volume required of 45,032 cubic feet of storage.

The site will be served by an offsite extension of an existing 8” water line along Kenai Drive. The offsite improvements consist of extending an 8” water line along Parmer Lane to the site. The sewer line will be installed in two phases. In Phase I, a force main will be installed starting at the western property line and will be pumped through a temporary pump station to an existing stub out for a force main at the adjacent properties to the south. Phase 2 will connect the sewer system to an 8” sewer line under Parmer Lane that will be installed by the City in the future.

This site is located in the Turkey Creek- Bushy Creek Watershed and entirely in the Edwards Aquifer Contributing Zone as defined by maps prepared by the Texas Commission on Environmental Quality.

No portion of the property is within the limits of the 100-year floodplain as shown on FIRM Panel No. 48491C0470F, dated December 20, 2019.

FACTORS AFFECTING SURFACE WATER QUALITY ROAD MAP

Surface water quality can be affected by disturbance during construction and by development after construction. Soil disturbance from clearing and grubbing and cut / fill operations can lead to discharge of sediment unless adequate temporary erosion control measures are in place. For this project, the use of silt fence and rock berms will prevent sediment from leaving the site. Siltation collected by the control measures will be cleaned from fences, berms, etc. on a routine schedule.

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

1. Refueling construction equipment.
2. Performing operator-level maintenance, including adding petroleum, oils, or lubricants.
3. Unscheduled or emergency repairs, such as hydraulic fluid leaks.

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

After construction is complete, impervious cover for the tract of land is the major reason for degradation of water quality. Impervious cover includes the building foundation, parking lot pavement and concrete sidewalks. Oil and fuel discharge from vehicles is anticipated. A batch detention pond will mitigate these factors.

VOLUME AND CHARACTER OF STORMWATER

On-Site Drainage

The onsite drainage on Lots 1-4 will sheet flow through a storm pipe system and into a batch detention pond located on Lot 4. After the filtration and sedimentation pond, the runoff will then be routed to the detention pond located on Lot 4. Detention will also be provided for the future development within Lots 2-4.

Calculations for the water quality surface area are included in the Civil Plans.

SUITABILITY LETTER FROM AUTHORIZED AGENT

(NOT APPLICABLE)

ALTERNATIVE SECONDARY CONTAINMENT STRUCTURE DESIGN ROAD MAP

(NOT APPLICABLE)

AST CONTAINMENT STRUCTURE DRAWINGS

(NOT APPLICABLE)

20% OR LESS IMPERVIOUS COVER WAIVER

(NOT APPLICABLE)

BMPS FOR UPGRADIENT STORMWATER

Two permanent water quality ponds are provided for the developments upstream (south) of this proposed development. These are shown on the Water Quality Drainage Area Map in the Civil Plans. These ponds are being maintained and managed by others.

BMPS FOR ON-SITE STORMWATER

A batch detention pond will be utilized on the site. The size of the pond and each component within the pond have been calculated based on the existing grades on the site as well as the total drainage area the pond will treat.

Silt fence will be utilized around the site during construction to avoid additional erosion from the site.

Inlet protection covers will be utilized once the storm infrastructure has been constructed. This will aid in avoiding additional sediment from running through the storm system.

A temporary sedimentation basin is also designed to be provided during the early phases of construction since there are more than 10 acres of land disturbance proposed. These plans and calculations can be found in the Erosion Control Plans in the Civil Plans.

BMPS FOR SURFACE STREAMS

(NOT APPLICABLE)

CONSTRUCTION PLANS

PROJECT DESCRIPTION:
THE PROPOSED DEVELOPMENT CONSISTS OF RETAIL, RESTAURANT, PERSONAL SERVICES, MEDICAL OFFICE AND OFFICE USE. THE SITE CONSISTS OF 8 BUILDINGS RANGING IN SIZE FROM 6,000 SQ FT TO 12,000 SQ FT.

LOT 1 SITE ACREAGE: 353,213 SQ FT / 8.11 AC

TOTAL SITE IMPERVIOUS COVER: 267,261 SF/ 6.135 AC

LAND USE SUMMARY:

ZONING: LOCAL BUSINESS (LB)

LEGAL DESCRIPTION: LOT 1, BLOCK A OF THE VELSA RANCH SUBDIVISION AS RECORDED IN DOCUMENT NUMBER 2022110384.

WATERSHED: TURKEY CREEK - BUSHY CREEK. LOCATED IN EDWARDS AQUIFER CONTRIBUTING ZONE

SUB WATERSHED: SOUTH BUSHY CREEK - BUSHY CREEK

SITE ADDRESS: 12301 PARMER LANE, CEDAR PARK, TX 78613

ENGINEER'S STATEMENT: ALL RESPONSIBILITY FOR ACCURACY OF THESE PLANS REMAIN WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF CEDAR PARK MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

FEMA STATEMENT: THIS PROPERTY LIES WITHIN ZONE X OF THE FLOOD INSURANCE RATE MAP FOR WILLIAMSON COUNTY, TEXAS AND INCORPORATED AREAS, MAP NO. 48491C0470F, EFFECTIVE ON 12/20/2019, VIA SCALE MAP LOCATION AND GRAPHIC PLOTTING.

CITY OF CEDAR PARK GPS MONUMENT:
GPS MONUMENT NO. 20
HORIZONTAL DATUM: NAD 83 TEXAS CENTRAL
NORTHING: 10163340.92
EASTING: 3102216.78
LATITUDE: 30°-31'-24.0520"
LONGITUDE: 97°-46'-27.7044"
DESCRIPTION OF MONUMENT: 3" Brass disk in concrete. Standing on east ROW of W. Parmer Lane, north of Ranch Trails, looking east at entrance to The Ranch at Brushy Creek subdivision.

PROJECT NOTE:
DEVELOPER ACKNOWLEDGES THAT THE SILVERADO TIA FEE IS BASED ON THE USES PROPOSED WITH THIS SITE DEVELOPMENT PLAN. ACTUAL PROPOSED USES/TENANTS MAY CHANGE THE RATIO OF USES PROPOSED WITHIN THIS SITE. THEREFORE, THE SILVERADO TIA FEE MAY CHANGE AS THE SITE DEVELOPS AND TENANTS MOVE IN. THE CITY MAY REQUIRE ADDITIONAL SILVERADO TIA FEES TO BE PAID IF THE DEVELOPMENT SERVICES COMMITTEE DETERMINES THAT HIGHER TRIP GENERATING USES HAVE BEEN PROPOSED THAN WHAT IS SHOWN WITHIN THESE PLANS. ADDITIONAL SILVERADO TIA FEES MAY BE WARRANTED AND REQUIRED TO BE PAID TO THE CITY PRIOR TO ALL REQUESTS FOR CERTIFICATE OF OCCUPANCY BEING ISSUED BY THE CITY FOR THIS DEVELOPMENT

PLANS SUBMITTAL/REVIEW LOG

CITY SUBMITTAL	10/26/2020
CITY RESUBMITTAL	01/18/2021
CITY RESUBMITTAL	03/22/2021
CITY RESUBMITTAL	05/03/2021
TCEQ RESUBMITTAL	08/20/2021
TCEQ RESUBMITTAL	09/13/2021
CITY RESUBMITTAL	10/25/2021
TCEQ RESUBMITTAL	01/05/2022
TCEQ RESUBMITTAL	03/18/2022
CITY RESUBMITTAL	05/09/2022
CITY RESUBMITTAL	10/03/2022
CITY RESUBMITTAL	10/17/2022
CITY RESUBMITTAL	11/07/2022
CITY RESUBMITTAL	12/05/2022
PLANS A, REVISION 1	02/05/2024
PLANS B, REVISION 1	04/01/2024
PLANS B, REVISION 2	05/01/2024
REVISION SUBMITTAL	08/19/2024

CEDAR PARK

Reviewed for Code Compliance
Signature required from all Departments

Planning_____Date_____

Engineering Services_____Date_____

Industrial Pretreatment_____Date_____

Fire Prevention_____Date_____

Landscape Planner_____Date_____

Addressing_____Date_____

Site Development Permit Number SD-20-00020

ENGINEER:
Kimley-Horn and Associates, Inc.
260 East Davis Street, Suite 100
McKinney, Texas 75069
Tel. No. (469) 301-2580
Contact: Michael T. Doggett, P.E.

ARCHITECT
MAT Studios
14618 Mansfield Dam Ct 19
Austin, TX 78734
Phone: (469) 951-0614
Contact: Monika Arora

DEVELOPER:
VLS Properties
3109 Kenai Drive, Unit 109
Cedar Park, TX 78613
Phone: (512) 337-0418
Contact: Venkat Gudapuri

PREPARED BY:
Kimley»Horn

Firm Registration No. F-928
260 East Davis Street, Suite 100
McKinney, Texas 75069
Tel. No. (469) 301-2580

CONSTRUCTION PLANS

FOR

12301 PARMER LN
CEDAR PARK, TX 78613
VELSA RANCH

BLOCK A, LOT 1

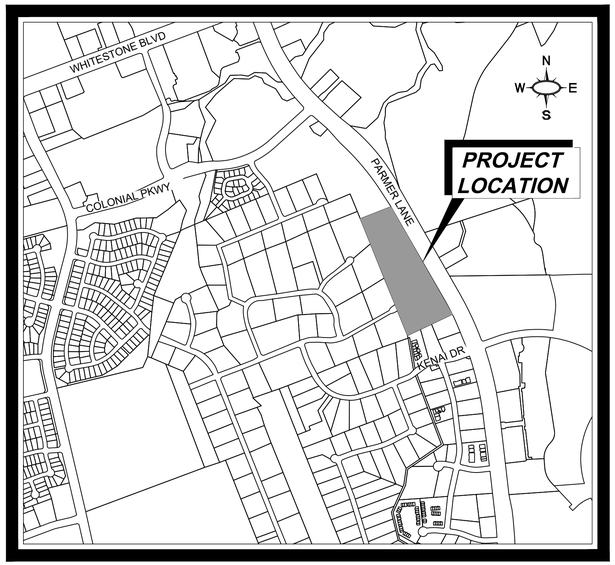
IN

THE CITY OF CEDAR PARK

WILLIAMSON COUNTY, TEXAS

CITY PROJECT NO.

SD-20-00020



VICINITY MAP
N.T.S.

AUGUST 2024

Sheet List Table

Sheet Number	Sheet Title
1	COVER SHEET
2	PLAT
3	PLAT
4	PLAT
5	PLAT
6	EXISTING CONDITIONS AND DEMOLITION PLAN
7	OVERALL SITE PLAN
8	OVERALL SITE PLAN
9	CITY OF CEDAR PARK AND TCEQ NOTES
10	KIMLEY-HORN GENERAL NOTES
11	FIRE PREVENTION SHEET
12	FIRE LANE PROFILES
13	FIRE LANE PROFILES
14	DIMENSION CONTROL PLAN (1 OF 2)
15	DIMENSION CONTROL PLAN (2 OF 2)
16	PAVING PLAN (1 OF 2)
17	PAVING PLAN (2 OF 2)
18	PAVING DETAILS
19	PAVING DETAILS
20	GRADING PLAN (1 OF 3)
21	GRADING PLAN (2 OF 3)
22	GRADING PLAN (3 OF 3)
23	EXISTING DRAINAGE AREA MAP
24	OVERALL DAM PRE-PROJECT
25	DRAINAGE AREA MAP
26	OVERALL DAM POST-PROJECT
27	STORM PLAN (1 OF 4)
28	STORM PLAN (2 OF 4)
29	STORM PLAN (3 OF 4)
30	STORM PLAN (4 OF 4)
31	STORM PROFILES
32	STORM PROFILES
33	STORM PROFILES
34	STORM PROFILES
35	STORM PROFILES
36	STORM PROFILES
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38	WATER QUALITY DETENTION PLAN AND DETAILS
39	WATER QUALITY ACCESS
40	DETENTION POND CROSS SECTIONS
41	WATER QUALITY POND SECTION
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43	WATER QUALITY DETAILS
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46	DRAINAGE DETAILS
47	DRAINAGE DETAILS
48	WATER PLAN
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50	PRIVATE SANITARY SEWER PLAN
51	PRIVATE SANITARY SEWER PLAN
52	PRIVATE SANITARY SEWER PROFILES
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54	TEMPORARY PUMP STATION PROFILE
55	UTILITY DETAILS
56	UTILITY DETAILS
57	UTILITY DETAILS
58	EROSION CONTROL PLAN PHASE I
59	EROSION CONTROL PLAN PHASE I
60	EROSION CONTROL PLAN PHASE II
61	EROSION CONTROL DETAILS
62	EROSION CONTROL DETAILS

REVISIONS/CORRECTIONS

NO.	DESCRIPTION	REVISE (R) VOID (V) ADD (A) SHEET NO.'S	TOTAL NO. SHEETS IN PLAN SET	NET CHANGE IMP. COVER (SQ. FT.)	TOTAL SITE IMP. COVER (SQ. FT.)/%	CITY OF CEDAR PARK APPROVAL DATE
1	UPDATED UTILITIES AND BUILDING 2,3,& 8	SEE SHEET INDEX	92	+ 585 SQ. FT.	296275 SQ. FT. (76%)	
2	Storm Line A and Water Quality Pond adjustments	SEE SHEET INDEX	92	- 10957 SQ. FT.	285318 SQ. FT. (73%)	

TxDOT Sheet List Table

Sheet Number	Sheet Title
63	COVER SHEET
64	DIMENSION CONTROL AND STRIPING PLAN
65	GRADING
66	EROSION CONTROL PLAN
67	DETAILS (SHEET 1 OF 12)
68	DETAILS (SHEET 2 OF 12)
69	DETAILS (SHEET 3 OF 12)
70	DETAILS (SHEET 4 OF 12)
71	DETAILS (SHEET 5 OF 12)
72	DETAILS (SHEET 6 OF 12)
73	DETAILS (SHEET 7 OF 12)
74	DETAILS (SHEET 8 OF 12)
75	DETAILS (SHEET 9 OF 12)
76	DETAILS (SHEET 10 OF 12)
77	DETAILS (SHEET 11 OF 12)
78	DETAILS (SHEET 12 OF 12)

LANDSCAPE AND ELEVATON SHEETS

Sheet Number	Sheet Title
79	BUILDING ELEVATIONS
80	BUILDING ELEVATIONS
81	BUILDING ELEVATIONS
82	BUILDING ELEVATIONS
83	BUILDING ELEVATIONS
84	BUILDING ELEVATIONS
85	BUILDING ELEVATIONS
86	BUILDING ELEVATIONS
87	LANDSCAPE PLAN
88	LANDSCAPE PLAN
89	LANDSCAPE PLANS
90	TREE LIST
91	TREE LIST
92	TREE LIST

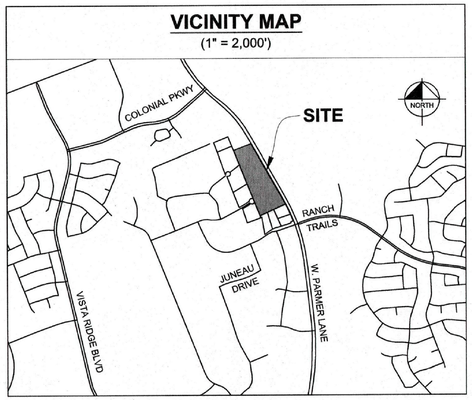
VELSA RANCH
BLOCK A , LOT 1

CITY OF CEDAR PARK NO. SD-20-00020

Plotted By:Schubert, Ryan Sheet Set:McKinney Server - Cedar Park Layout: COVER SHEET October 21, 2024 08:46:13pm K:\cus_civil\069274402-cedar park - parmer 17 acre\CAD\plansheets\Cover Sheet.dwg

2022110384

FINAL PLAT ESTABLISHING
VELSA RANCH SUBDIVISION
BEING 17.188 ACRES OUT OF THE JOHN DILLARD SURVEY, ABSTRACT 179 CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS



BENCHMARK TABLE

DATUM IS NAVD '88, USING GEOID 12B, BASED ON GPS OBSERVATIONS.

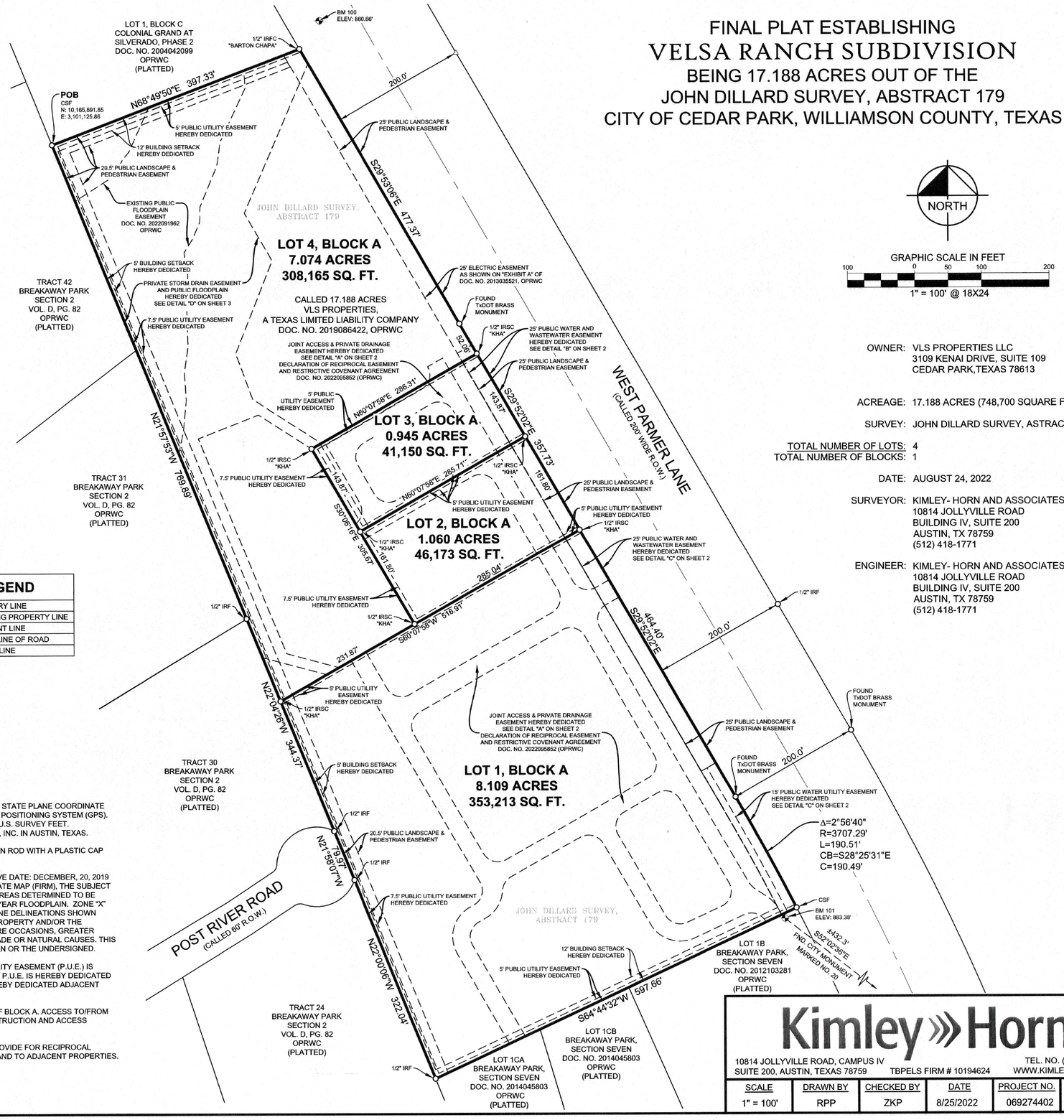
BM #100	COTTON SPINDLE SET IN THE SOUTHWEST EDGE OF ASPHALT OF WEST PARMER LANE APRROXIMATELY 52 FEET NORTHEAST OF THE NORTHEAST PROPERTY CORNER OF THIS TRACT. • ELEV.= 860.66'
BM #101	MAG NAIL WITH WASHER STAMPED "JPH" SET IN THE BACK OF CURB APPROXIMATELY 35 FEET SOUTH OF A FUEL STATION OVERHANG AND 160 FEET WEST OF THE CENTER LINE OF WEST PARMER LANE. • ELEV.= 883.38'
BM #20	3 INCH BRASS DISK FOUND IN CONCRETE. STANDING ON EAST RIGHT OF WAY OF WEST PARMER LANE, NORTH OF RANCH TRAILS, LOOKING EAST AT ENTRANCE TO THE "RANCH AT BRUSHY CREEK" SUBDIVISION. • ELEV.= 889.17'

LEGEND

IRF	IRON ROD FOUND
IRFC	IRON ROD FOUND WITH CAP
IRSC	IRON ROD SET W/"KHA" CAP
XF	CUT "X" FOUND
CSF	COTTON SPINDLE FOUND
PKF	"PK" OR "MAG" NAIL FOUND
OPRWC	OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY
△	- CALCULATED POINT
◆	- BENCHMARK
○	- GEOMETRIC BREAK
○	- FND/SET MONUMENT
POB	- POINT OF BEGINNING

LINETYPE LEGEND

———	BOUNDARY LINE
———	ADJOINING PROPERTY LINE
- - - - -	EASEMENT LINE
———	CENTERLINE OF ROAD
———	SURVEY LINE



NORTH

GRAPHIC SCALE IN FEET
100 0 50 100 200
1" = 100' @ 18X24

OWNER: VLS PROPERTIES LLC
3109 KENAI DRIVE, SUITE 109
CEDAR PARK,TEXAS 78613

ACREAGE: 17.188 ACRES (748,700 SQUARE FEET)

SURVEY: JOHN DILLARD SURVEY, ASTRACT 179

TOTAL NUMBER OF LOTS: 4
TOTAL NUMBER OF BLOCKS: 1

DATE: AUGUST 24, 2022

SURVEYOR: KIMLEY- HORN AND ASSOCIATES
10814 JOLLYVILLE ROAD
BUILDING IV, SUITE 200
AUSTIN, TX 78759
(512) 418-1771

ENGINEER: KIMLEY- HORN AND ASSOCIATES
10814 JOLLYVILLE ROAD
BUILDING IV, SUITE 200
AUSTIN, TX 78759
(512) 418-1771

SURVEY NOTES:

1. THE BEARINGS, DISTANCES, AREAS AND COORDINATES SHOWN HEREON ARE TEXAS STATE PLANE COORDINATE SYSTEM GRID, CENTRAL ZONE (FIPS 4203) (NAD'83), AS DETERMINED BY THE GLOBAL POSITIONING SYSTEM (GPS). ALL DISTANCES SHOWN HEREON ARE ON THE GRID. THE UNIT OF MEASUREMENT IS U.S. SURVEY FEET. THIS DOCUMENT WAS PREPARED IN THE OFFICE OF KIMLEY-HORN AND ASSOCIATES, INC. IN AUSTIN, TEXAS.
2. ALL LOTS LOCATED IN THIS SUBDIVISION WILL BE MONUMENTED WITH A 1/2 INCH IRON ROD WITH A PLASTIC CAP STAMPED "KHA" PRIOR TO LOT SALES UNLESS OTHERWISE STATED.
3. ACCORDING TO COMMUNITY PANEL NO. 4815360455, MAP NO. 48491C0455F, EFFECTIVE DATE: DECEMBER, 20, 2019 OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM), THE SUBJECT TRACT IS LOCATED WITHIN ZONE "X" (UN-SHADED) WHICH IS DEFINED BY FEMA AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN," COMMONLY KNOWN AS THE 500-YEAR FLOODPLAIN. ZONE "X" (UN-SHADED) IS OUTSIDE OF ANY FEMA ESTABLISHED FLOOD HAZARD ZONE. ALL ZONE DELINEATIONS SHOWN HEREON ARE APPROXIMATE. THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY AND/OR THE STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. ON RARE OCCASIONS, GREATER FLOODS CAN AND WILL OCCUR AND FLOOD HEIGHTS MAY BE INCREASED BY MAN-MADE OR NATURAL CAUSES. THIS FLOOD STATEMENT SHALL NOT CREATE ANY LIABILITY ON THE PART OF KIMLEY-HORN OR THE UNDERSIGNED.
4. IN ADDITION TO THE EASEMENT SHOWN HEREON, A TEN (10) FOOT WIDE PUBLIC UTILITY EASEMENT (P.U.E.) IS HEREBY DEDICATED ADJACENT TO STREET ROW ON ALL LOTS. A FIVE (5) FOOT WIDE P.U.E. IS HEREBY DEDICATED ALONG EACH SIDE LOT LINE. A SEVEN AND ONE HALF (7 ½) FOOT WIDE P.U.E. IS HEREBY DEDICATED ADJACENT TO ALL REAR LOT LINES.
5. DIRECT ACCESS TO/FROM PARMER LANE IS PROHIBITED TO/FROM LOT 2 OR LOT 3 OF BLOCK A. ACCESS TO/FROM LOT 2 OR LOT 3 OF BLOCK A TO/FROM PARMER LANE SHALL BE PROVIDED VIA CONSTRUCTION AND ACCESS EASEMENT ACROSS LOT 1, BLOCK A.
6. ALL DRIVE LANES, FIRE LANES AND DRIVEWAYS WITHIN THIS SUBDIVISION SHALL PROVIDE FOR RECIPROCAL ACCESS FOR INGRESS AND EGRESS TO ALL OTHER LOTS WITHIN THE SUBDIVISION AND TO ADJACENT PROPERTIES.

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Kimley»Horn
10814 JOLLYVILLE ROAD, CAMPUS IV
SUITE 200, AUSTIN, TEXAS 78759
TBPELS FIRM # 10194624
TEL. NO. (512) 418-1771
WWW.KIMLEY-HORN.COM

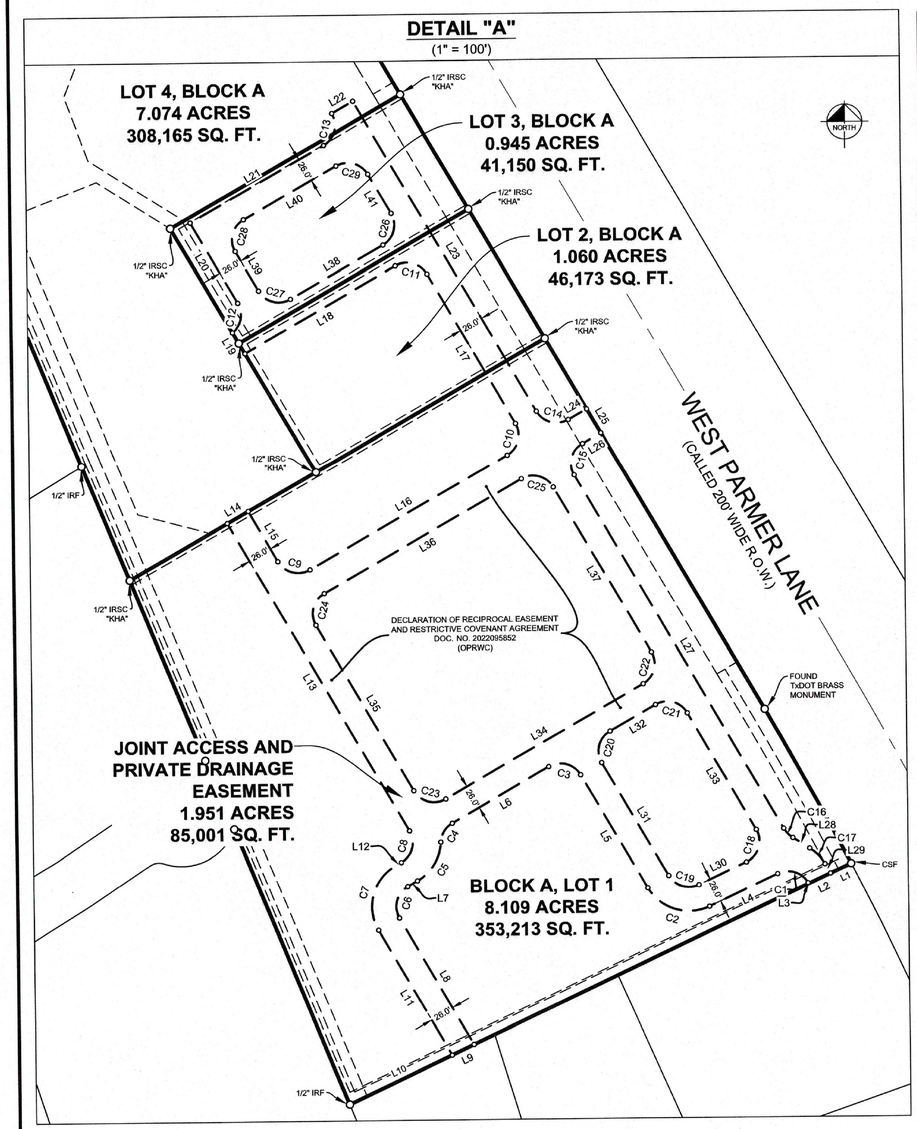
SCALE	DRAWN BY	CHECKED BY	DATE	PROJECT NO.	SHEET NO.
1" = 100'	RPP	ZKP	8/25/2022	069274402	1 OF 4

DWG NAME: \\SNAFP01\TX_SNA1\SNA_SURVEY\069274402 - CEDAR PARK 17 ACQ\DWG\CEDAR PARK 17 - FINAL PLAT 12.DWG PLOTTED BY PAZITNEY, ROB 8/25/2022 11:19 AM LAST SAVED 8/25/2022 11:18 AM

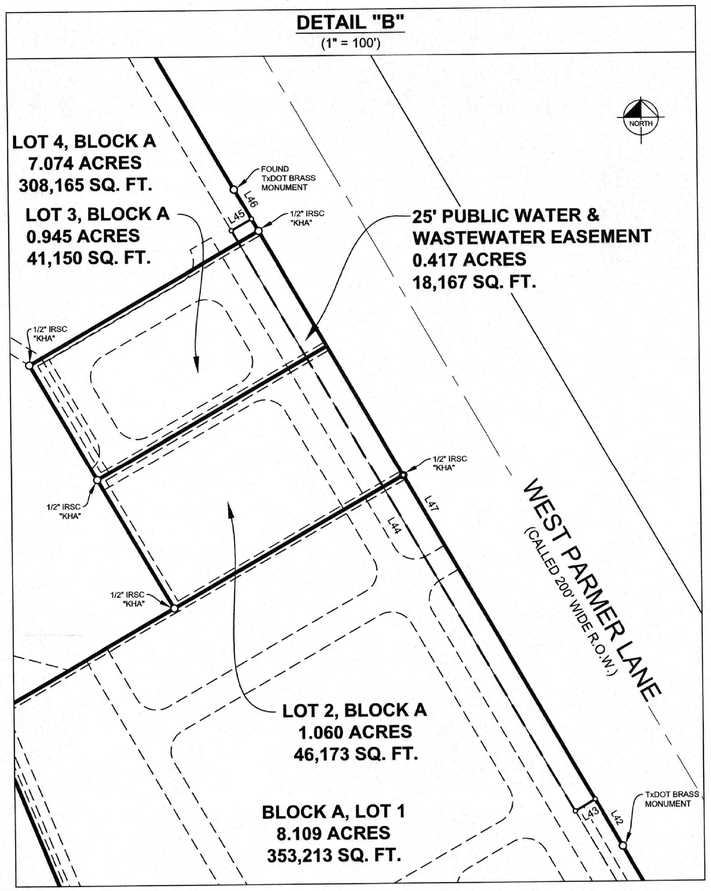
2022110384

FINAL PLAT ESTABLISHING
VELSA RANCH SUBDIVISION
BEING 17.188 ACRES OUT OF THE
JOHN DILLARD SURVEY, ABSTRACT 179
CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

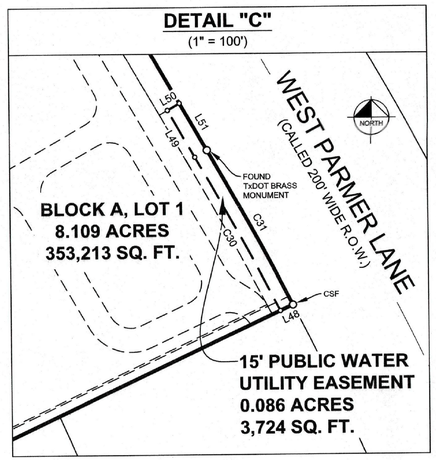
DETAIL "A"
(1" = 100')



DETAIL "B"
(1" = 100')



DETAIL "C"
(1" = 100')



LEGEND

IRF	IRON ROD FOUND
IRFC	IRON ROD FOUND WITH CAP
IRSC	IRON ROD SET W/"KHA" CAP
XF	CUT "X" FOUND
CSF	COTTON SPINDLE FOUND
PKF	"PK" OR "MAG" NAIL FOUND
OPRWC	OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY
△	- CALCULATED POINT
	- BENCHMARK
○	- GEOMETRIC BREAK
○	- FND/SET MONUMENT
POB	- POINT OF BEGINNING

LINETYPE LEGEND

———	BOUNDARY LINE
———	ADJOINING PROPERTY LINE
- - - -	EASEMENT LINE
———	CENTERLINE OF ROAD
—·—·—	SURVEY LINE

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Kimley»Horn
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SUITE 200, AUSTIN, TEXAS 78759
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SCALE	DRAWN BY	CHECKED BY	DATE	PROJECT NO.	SHEET NO.
N/A	RPP	ZKP	8/25/2022	069274402	2 OF 4

DWG NAME: \\SNAFP011TX_SNA1\SNA_SURVEY\069274402 - CEDAR PARK 17 ACDWG\CEDAR PARK 17 - FINAL PLAT 12.DWG PLOTTED BY PAZITNEY, ROB 8/25/2022 11:19 AM LAST SAVED 8/25/2022 11:18 AM

2022110384

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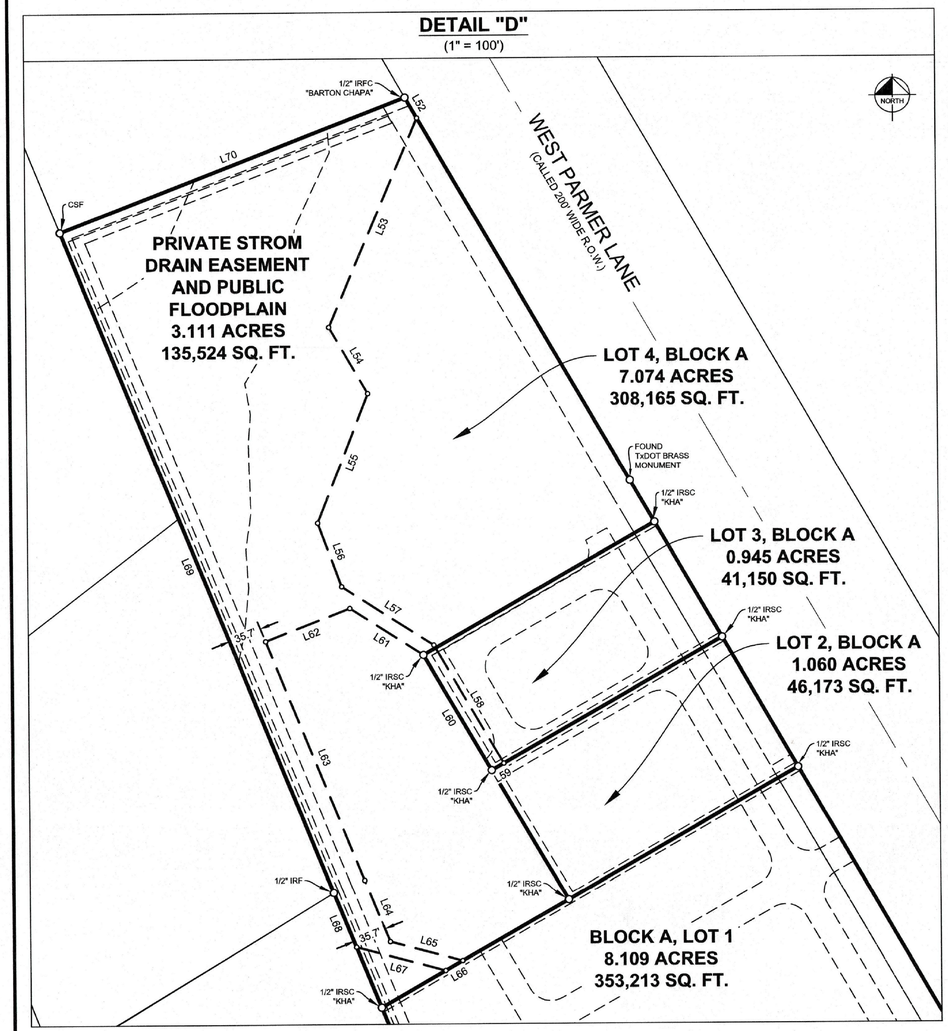
JOHN DILLARD SURVEY, ABSTRACT 179
CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS



CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	85°23'26"	25.00'	37.26'	N72°33'45"W	33.90'
C2	85°23'26"	51.00'	76.01'	N72°33'45"W	69.17'
C3	90°00'00"	25.00'	39.27'	N74°52'02"W	35.36'
C4	57°12'25"	25.00'	24.96'	S31°31'44"W	23.94'
C5	57°12'26"	51.00'	50.92'	S31°31'45"W	48.83'
C6	90°00'00"	25.00'	39.27'	S15°07'58"W	35.36'
C7	90°00'00"	51.00'	80.11'	N15°07'58"E	72.12'
C8	90°00'01"	25.00'	39.27'	N15°07'57"E	35.36'
C9	90°00'00"	25.00'	39.27'	S74°52'02"E	35.36'
C10	90°00'00"	25.00'	39.27'	N15°07'58"E	35.36'
C11	90°00'00"	25.00'	39.27'	N74°52'02"W	35.36'
C12	81°09'53"	25.00'	35.41'	N10°38'57"E	32.53'
C13	90°00'00"	25.00'	39.27'	N15°07'58"E	35.36'
C14	90°00'00"	25.00'	39.27'	S74°52'02"E	35.36'
C15	90°00'00"	25.00'	39.27'	S15°07'58"W	35.36'
C16	27°11'53"	30.00'	14.24'	S43°27'59"E	14.11'
C17	27°11'53"	50.00'	23.73'	S43°27'59"E	23.51'
C18	94°36'34"	25.00'	41.28'	S17°26'15"W	36.75'
C19	85°23'26"	25.00'	37.26'	N72°33'45"W	33.90'
C20	90°00'00"	25.00'	39.27'	N15°07'58"E	35.36'
C21	90°00'00"	25.00'	39.27'	S74°52'02"E	35.36'
C22	90°00'00"	25.00'	39.27'	N15°07'58"E	35.36'
C23	90°00'00"	25.00'	39.27'	S74°52'02"E	35.36'
C24	90°00'00"	25.00'	39.27'	S15°07'58"W	35.36'
C25	90°00'00"	25.00'	39.27'	N74°52'02"W	35.36'
C26	90°00'00"	25.00'	39.27'	N15°07'58"E	35.36'
C27	89°56'03"	25.00'	39.24'	S74°54'01"E	35.34'
C28	90°03'57"	25.00'	39.30'	S15°05'59"W	35.38'
C29	90°00'00"	25.00'	39.27'	N74°52'02"W	35.36'
C30	2°55'42"	3703.69'	189.30'	N28°25'51"W	189.28'
C31	2°56'40"	3707.29'	190.51'	S28°25'31"E	190.49'

LINE TABLE			LINE TABLE			LINE TABLE			LINE TABLE		
NO.	BEARING	LENGTH	NO.	BEARING	LENGTH	NO.	BEARING	LENGTH	NO.	BEARING	LENGTH
L1	N64°44'32"E	24.53'	L21	N60°07'58"E	166.01'	L41	N29°52'02"W	49.37'	L61	N57°05'04"W	93.81'
L2	S64°44'32"W	26.08'	L22	N60°07'58"E	26.00'	L42	S29°52'02"E	58.40'	L62	S68°35'28"W	96.98'
L3	N29°52'02"W	1.01'	L23	S29°52'02"E	388.17'	L43	S60°07'58"W	25.00'	L63	S21°57'53"E	278.27'
L4	S64°44'32"W	81.37'	L24	N60°07'58"E	22.74'	L44	N29°52'02"W	726.67'	L64	S22°04'18"E	71.56'
L5	N29°52'02"W	141.46'	L25	S29°52'02"E	30.00'	L45	N60°07'58"E	25.00'	L65	S74°52'02"E	80.38'
L6	S60°07'58"W	120.26'	L26	S60°07'58"W	22.74'	L46	N29°52'02"W	37.06'	L66	S60°07'58"W	21.21'
L7	S60°07'58"W	12.22'	L27	S29°52'02"E	442.76'	L47	S29°52'02"E	726.67'	L67	N74°52'02"W	98.81'
L8	S29°52'02"E	157.89'	L28	S57°03'56"E	21.12'	L48	S64°44'32"W	15.00'	L68	N22°04'18"W	63.32'
L9	S64°44'32"W	26.08'	L29	S29°52'02"E	11.74'	L49	N29°52'02"W	58.41'	L69	N21°57'53"W	769.89'
L10	N64°44'32"E	122.31'	L30	S64°44'32"W	56.68'	L50	N60°07'58"E	15.00'	L70	N68°49'50"E	397.33'
L11	N29°52'02"W	155.79'	L31	N29°52'02"W	141.46'	L51	S29°52'02"E	58.40'			
L12	N60°07'58"E	7.37'	L32	N60°07'58"E	56.50'	L52	S29°52'46"E	25.53'			
L13	N29°52'02"W	384.84'	L33	S29°52'02"E	146.01'	L53	S23°08'04"W	244.59'			
L14	N60°07'58"E	26.00'	L34	N60°07'58"E	245.50'	L54	S29°52'02"E	82.65'			
L15	S29°52'02"E	63.00'	L35	S29°52'02"E	207.00'	L55	S21°24'25"W	149.92'			
L16	N60°07'58"E	245.50'	L36	S60°07'58"W	245.50'	L56	S20°02'27"E	73.39'			
L17	N29°52'02"W	186.80'	L37	N29°52'02"W	207.00'	L57	S57°05'04"E	117.29'			
L18	S60°07'58"W	186.92'	L38	N60°07'58"E	114.90'	L58	S30°06'16"E	147.54'			
L19	N30°06'16"W	26.30'	L39	S29°55'59"E	49.37'	L59	S60°07'58"W	15.00'			
L20	N29°55'59"W	100.35'	L40	S60°07'58"W	114.96'	L60	N30°06'16"W	143.87'			

LEGEND

IRF	IRON ROD FOUND
IRFC	IRON ROD FOUND WITH CAP
IRSC	IRON ROD SET W/"KHA" CAP
XF	CUT "X" FOUND
CSF	COTTON SPINDLE FOUND
PKF	"PK" OR "MAG" NAIL FOUND
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△	- CALCULATED POINT
	- BENCHMARK
○	- GEOMETRIC BREAK
○	- FND/SET MONUMENT
POB	- POINT OF BEGINNING

LINETYPE LEGEND

———	BOUNDARY LINE
———	ADJOINING PROPERTY LINE
- - - -	EASEMENT LINE
——— — ———	CENTERLINE OF ROAD
——— · · ———	SURVEY LINE

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SCALE	DRAWN BY	CHECKED BY	DATE	PROJECT NO.	SHEET NO.
N/A	RPP	ZKP	8/25/2022	069274402	3 OF 4

DWG NAME: \\SNAFP01\TX_SNA1\SNA_SURVEY\069274402 - CEDAR PARK 17 ACD\WG\CEDAR PARK 17 - FINAL PLAT 12.DWG PLOTTED BY PAZITNEY, ROB 8/25/2022 11:19 AM LAST SAVED 8/25/2022 11:18 AM

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IMAGES
ANNO
LAST SAVED
PLOT DATE
DWG PATH
DWG NAME

Cedar Park Logo
Xrefs: KHA_PROJECTION.dwg xrefs - xUM
9/19/2022 10:34 AM
10/21/2024 6:46 PM
K:\AUS_CPA\069274402\CEDAR PARK - PARMER 117 ACRE\DWG\ARCHITECTS\
EXISTING CONDITIONS AND DEMOLITION PLAN.dwg
EXISTING CONDITIONS AND DEMOLITION PLAN [EXISTING CONDITIONS AND DEMOLITION PLAN]

ALAN J. GARCIA
DOC. No. 2014016790
O.P.R.W.C.T.

PUBLIC ACCESS TRAIL
DOC. No. 2016065744
O.P.R.W.C.T.

S22°00'06"E
44.37'

N22°00'06"W 322.04'

N22°04'26"W 344.37'

N21°57'53"W 769.80'

N68°49'50"E 397.33'

30' DRAINAGE & PUBLIC UTILITY EASEMENT VOL. D, PG. 82, O.P.R.W.C.T.

7.5 PUBLIC UTILITY EASEMENT DOC.# 2012150581, O.P.R.W.C.T.

APPROXIMATE LOCATION 25' DRAINAGE EASEMENT No. 2008052343 O.P.R.W.C.T.

~597.66'

WASTEWATER EASEMENT DOC.# 2012150421, O.P.R.W.C.T.

JUNCTION BOX

OVERHANG

FL

CONTRACTOR TO REFER TO TREE REMOVAL PLANS AND INVENTORY FOR ADDITIONAL DETAIL

REMOVE AND DISPOSE OF CHAIN LINK FENCE

REMOVE AND DISPOSE OF CHAIN LINK FENCE

S29°52'02"E 822.13'

S29°53'06"E 477.37'

PARMER LN

FULL DEPTH SAWCUT AND REMOVE EXISTING PAVEMENT. REFERENCE TxDOT PLANS FOR ADDITIONAL NOTES FOR WORK WITHIN THE STATE RIGHT OF WAY.

ASPHALT PAVING

ASPHALT PAVING

GUARD RAIL

BENCH MARK LIST

BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

ELEV. = 860.56'

BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN. THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'

CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.

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

0 60' 120'
GRAPHIC SCALE 60'

No.	REVISIONS	DATE	BY

Kimley»Horn

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280 EAST DAVIS STREET, SUITE 100, MCKINNEY, TX 75069
PHONE: 469-301-2580 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM TX F-928

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER

10/21/2024

KHA PROJECT	069274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

EXISTING CONDITIONS AND DEMOLITION PLAN

SD-20-00020

SHEET NUMBER

SHEET 6 OF 92

CITY OF CEDAR PARK SITE PLAN NOTES

ANY REVISION TO THIS PLAN WILL REQUIRE CITY APPROVAL AND WILL REQUIRE REVISIONS TO ANY CORRESPONDING PLANS TO AVOID CONFLICTS BETWEEN PLANS.

1. DUMPSTERS AND TRASH COMPACTORS SHALL BE SCREENED IN ACCORDANCE WITH THE ZONING ORDINANCE. ANY ADDITIONAL ENCLOSURES WILL REQUIRE REAPPROVAL BY CITY STAFF.
2. OPEN STORAGE, WHERE PERMITTED, SHALL BE SCREENED IN ACCORDANCE WITH THE ZONING ORDINANCE.
3. OUTDOOR LIGHTING SHALL COMPLY WITH THE LIGHTING AND GLARE STANDARDS CONTAINED WITHIN THE ZONING ORDINANCE AND SUBDIVISION ORDINANCE.
4. LANDSCAPING SHALL CONFORM TO LANDSCAPE PLANS APPROVED BY THE CITY.
5. ALL ELEVATIONS SHALL COMPLY WITH THE STANDARDS CONTAINED WITHIN THE ZONING ORDINANCE.
6. BUILDINGS OF 5,000 SQUARE FEET OR GREATER SHALL BE 100% FIRE SPRINKLED. ALTERNATIVE FIRE PROTECTION MEASURES MAY BE APPROVED BY THE FIRE DEPARTMENT.
7. FIRE LANES SHALL BE DESIGNED AND CONSTRUCTED PER CITY STANDARDS OR AS DIRECTED BY THE FIRE DEPARTMENT.
8. TWO POINTS OF ACCESS SHALL BE MAINTAINED FOR THE PROPERTY AT ALL TIMES.
9. TRAFFIC CALMING DEVICES (SPEED BUMPS) ARE NOT ALLOWED TO BE INSTALLED UNLESS APPROVAL IS GIVEN BY THE FIRE PREVENTION OFFICE. IFC 503.4.1
10. HANDICAPPED PARKING AREAS AND BUILDING ACCESSIBILITY SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT (ADA) AND WITH THE REQUIREMENTS OF THE CURRENT, ADOPTED BUILDING CODE.
11. ALL SIGNAGE IS SUBJECT TO BUILDING OFFICIAL APPROVAL.
12. ALL FENCES AND RETAINING WALLS SHALL BE SHOWN ON THE SITE PLAN AND ARE SUBJECT TO BUILDING OFFICIAL APPROVAL.
13. ALL EXTERIOR BUILDING MATERIALS ARE SUBJECT TO BUILDING OFFICIAL APPROVAL AND SHALL CONFORM TO THE APPROVED FAÇADE PLAN.
14. SIDEWALKS OF NOT LESS THAN SIX (6) FEET IN WIDTH IN THE RIGHT OF WAY AND FIVE (5) FEET IN WIDTH WITHIN THE SITE, AND BARRIER FREE RAMPS AT ALL CURB CROSSINGS SHALL BE PROVIDED PER CITY STANDARDS.
15. APPROVAL OF THE SITE PLAN IS NOT FINAL UNTIL ALL ENGINEERING PLANS ARE APPROVED BY THE ENGINEERING DEPARTMENT.
16. SITE PLAN APPROVAL IS REQUIRED PRIOR TO GRADING RELEASE.
17. ALL NEW ELECTRICAL LINES SHALL BE INSTALLED AND/OR RELOCATED UNDERGROUND.
18. ALL MECHANICAL EQUIPMENT SHALL BE SCREENED FROM PUBLIC VIEW IN ACCORDANCE WITH THE ZONING ORDINANCE.
19. ALL LANDSCAPE EASEMENTS MUST BE EXCLUSIVE OF ANY OTHER TYPE OF EASEMENT.
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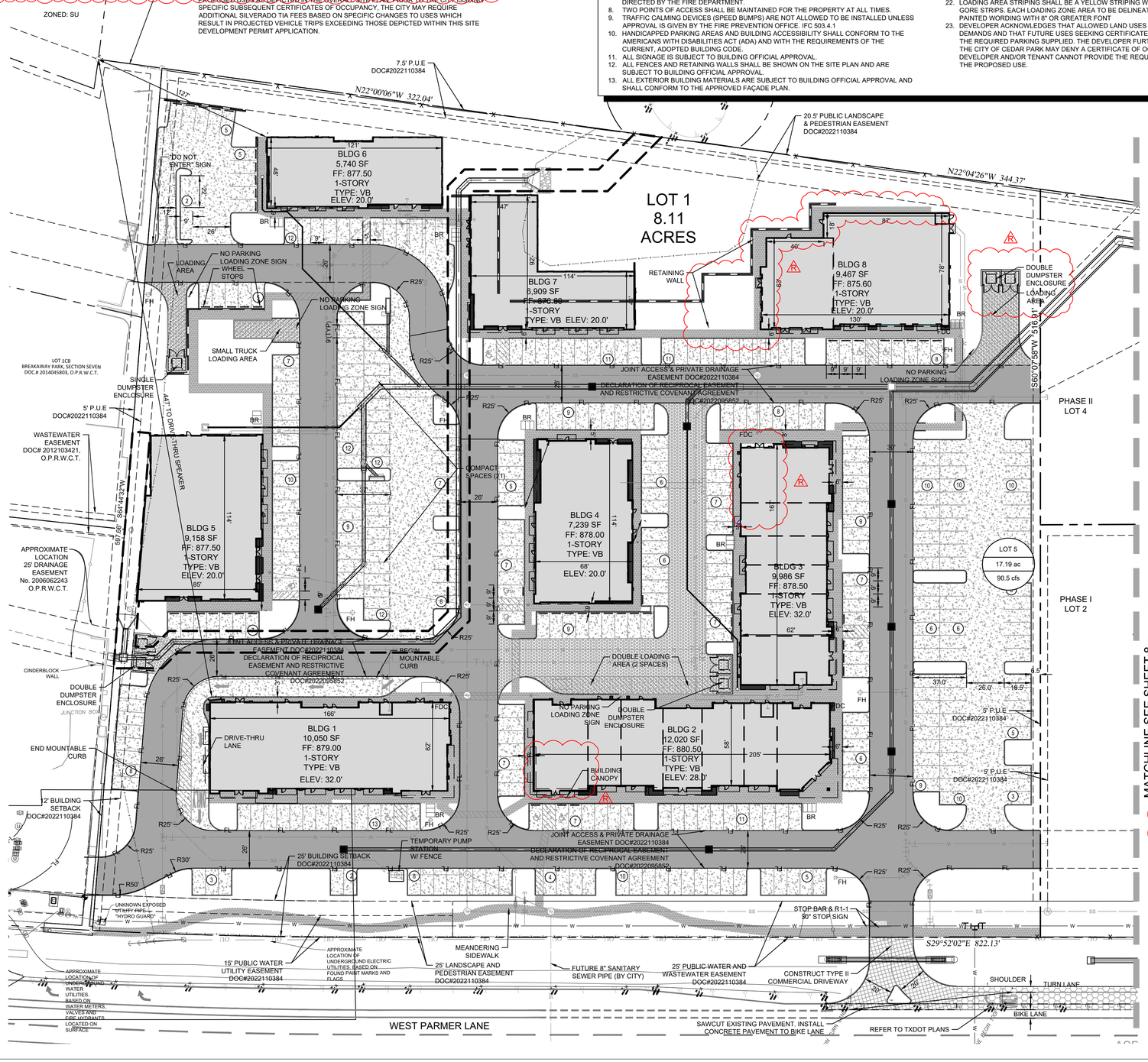
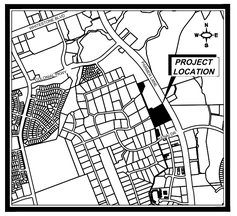
23. DEVELOPER ACKNOWLEDGES THAT ALLOWED LAND USES HAVING VARYING PARKING DEMANDS AND THAT FUTURE USES SEEKING CERTIFICATE OF OCCUPANCY MAY EXCEED THE REQUIRED PARKING SUPPLIED. THE DEVELOPER FURTHER ACKNOWLEDGES THAT THE CITY OF CEDAR PARK MAY DENY A CERTIFICATE OF OCCUPANCY APPLICATION IF THE DEVELOPER AND/OR TENANT CANNOT PROVIDE THE REQUIRED PARKING ON SITE FOR THE PROPOSED USE.

SILVERADO TIA FEE CALCULATION

PROPOSED USES	BUILDING AREA (SF)	PM PEAK RATE	PM TRIP GENERATION	COST PER PM TRIP	TOTAL COST
- RETAIL	17,523	3.74 TRIPS/1,000 SQ FT	65.5	$ 126.26	$ 8,274.58
- RESTAURANT - INCLUDES PATIO					
FAST FOOD	3,333	51.36 TRIPS/1,000 SQ FT	171.2	$ 126.26	$ 21,615.71
FAST CASUAL	3,333	43.79 TRIPS/1,000 SQ FT	146.0	$ 126.26	$ 18,429.75
HIGH TURNOVER SIT DOWN	7,333	17.41 TRIPS/1,000 SQ FT	127.7	$ 126.26	$ 16,120.04
- PERSONAL SERVICE	10,000	3.74 TRIPS/1,000 SQ FT	37.4	$ 126.26	$ 4,722.12
- OFFICE	21,786	1.49 TRIPS/1,000 SQ FT	32.5	$ 126.26	$ 4,098.54
- MEDICAL OFFICE	7,260	4.1 TRIPS/1,000 SQ FT	29.8	$ 126.26	$ 3,758.26
TOTAL BUILDING AREA	70,569			***SILVERADO TIA FEE***	**$ 77,019.00**

SILVERADO TIA FEES PAID FOR THIS SITE DEVELOPMENT PERMIT ARE BASED ON PROPOSED USES AS DEPICTED IN THE OVERALL SITE PLAN. PRIOR TO THE CITY ISSUING SPECIFIC SUBSEQUENT CERTIFICATES OF OCCUPANCY, THE CITY MAY REQUIRE ADDITIONAL SILVERADO TIA FEES BASED ON SPECIFIC CHANGES TO USES WHICH RESULT IN PROJECTED VEHICLE TRIPS EXCEEDING THOSE DEPICTED WITHIN THIS SITE DEVELOPMENT PERMIT APPLICATION.





VICINITY MAP
N.T.S.

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

BENCH MARK LIST

BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

ELEV. = 860.56'

BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN. THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'

SITE DATA TABLE

LOT 1	
ZONING	LB
LAND AREA	8.11 ACRES
TOTAL PARKING REQUIRED	376 SPACES
TOTAL PARKING PROVIDED *	380 SPACES
HANDICAP REQUIRED	8 SPACES
HANDICAP PROVIDED	13 SPACES
COMPACT SPACES ALLOWED	38 SPACES
COMPACT SPACES PROVIDED	21 SPACES
BUILDING COVERAGE	19.98%

* TOTAL PARKING PROVIDED INCLUDES HC PARKING

BUILDING No.	1	2	3	4	5	6	7	8
BUILDING HEIGHT (FT)	32	32	32	20	20	20	20	20
PROPOSED USES	RET/REST/PS	RET/REST/PS	RET/REST/PS	MOB/OFF	MOB/OFF	MOB/OFF	MOB/OFF	MOB/OFF
BUILDING AREA BY USE:								
- RETAIL (SF)	3050	5020	3986	0	0	0	0	5467
- PARKING REQUIRED (RET 1/250)	13	21	16	0	0	0	0	22
- RESTAURANT (SF) - INCLUDES PATIO	4000	4000	2000	0	0	0	0	4000
- PARKING REQUIRED (REST 1/100)	40	40	20	0	0	0	0	40
- PERSONAL SERVICE (SF)	3000	3000	4000	0	0	0	0	0
- PARKING REQUIRED (PS 1/200)	15	15	20	0	0	0	0	0
- OFFICE (SF)	0	0	0	5430	6869	4305	5182	0
- PARKING REQUIRED (OFF 1/300)	0	0	0	19	23	15	18	0
- MEDICAL OFFICE (SF)	0	0	0	1809	2289	1435	1727	0
- PARKING REQUIRED (MOB 1/200)	0	0	0	10	12	8	9	0
TOTAL BUILDING AREA (SF)	10050	12020	9986	7239	9158	5740	6909	9467
TOTAL PARKING REQUIRED PER BUILDING	68	76	56	29	35	23	27	62
TOTAL PARKING REQUIRED FOR SITE	376							
TOTAL PARKING PROVIDED	380							

Legend
RET - Retail
REST - Restaurant
PS - Personal Service
OFF - General Office
MOB - Medical Office
**Parking total included compact spaces

LEGEND

- PROPOSED FIRE LANE & PUBLIC ACCESS EASEMENT CC#_____
- PROPOSED LIGHT DUTY PAVEMENT
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED SIDE WALK
- PROPOSED BIORETENTION AREA
- PROPOSED CONCRETE TxDOT PAVEMENT *REFER TO TXDOT PLANS FOR DETAILS
- PROPOSED ASPHALT TxDOT PAVEMENT *REFER TO TXDOT PLANS FOR DETAILS
- PROPOSED BUILDING
- PROPSED CONTOUR - MAJOR
- PROPOSED CONTOUR - MINOR
- EXISTING CONTOUR - MAJOR
- EXISTING CONTOUR - MINOR
- BARRIER FREE RAMP (BFR)
- ACCESSIBLE PARKING SYMBOL
- BR BIKE RACK (3 SPACES PER RACK)
- NUMBER OF PARKING SPACES
- WM WATER METER (AND VAULT)
- FH FIRE HYDRANT
- FDC FIRE DEPARTMENT CONNECTION
- SANITARY SEWER MANHOLE
- T TRANSFORMER PAD
- CURB INLET
- GRATE INLET
- JUNCTION BOX OR WYE INLET
- HEADWALL
- TYP TYPICAL
- BFR BARRIER FREE RAMP
- SW SIDEWALK
- CI CURB INLET
- GI GRATE INLET
- JB JUNCTION BOX
- MH MANHOLE
- EX EXISTING
- PROP. PROPOSED
- FDC FIRE DEPT. CONNECTION

0 40' 80'
GRAPHIC SCALE 40'

No.	REVISION	DATE	BY
1	REVISIONS	08/19/2024	RPS

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VELSA RANCH
CEDAR PARK, TEXAS

OVERALL SITE PLAN

SD-20-00020
SHEET NUMBER
SHEET 7 OF 92

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DWG NAME
OVERALL SITE PLAN.dwg

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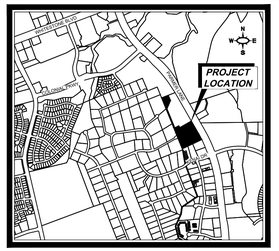

VICINITY MAP
N.T.S.



GRAPHIC SCALE 40'

LEGEND

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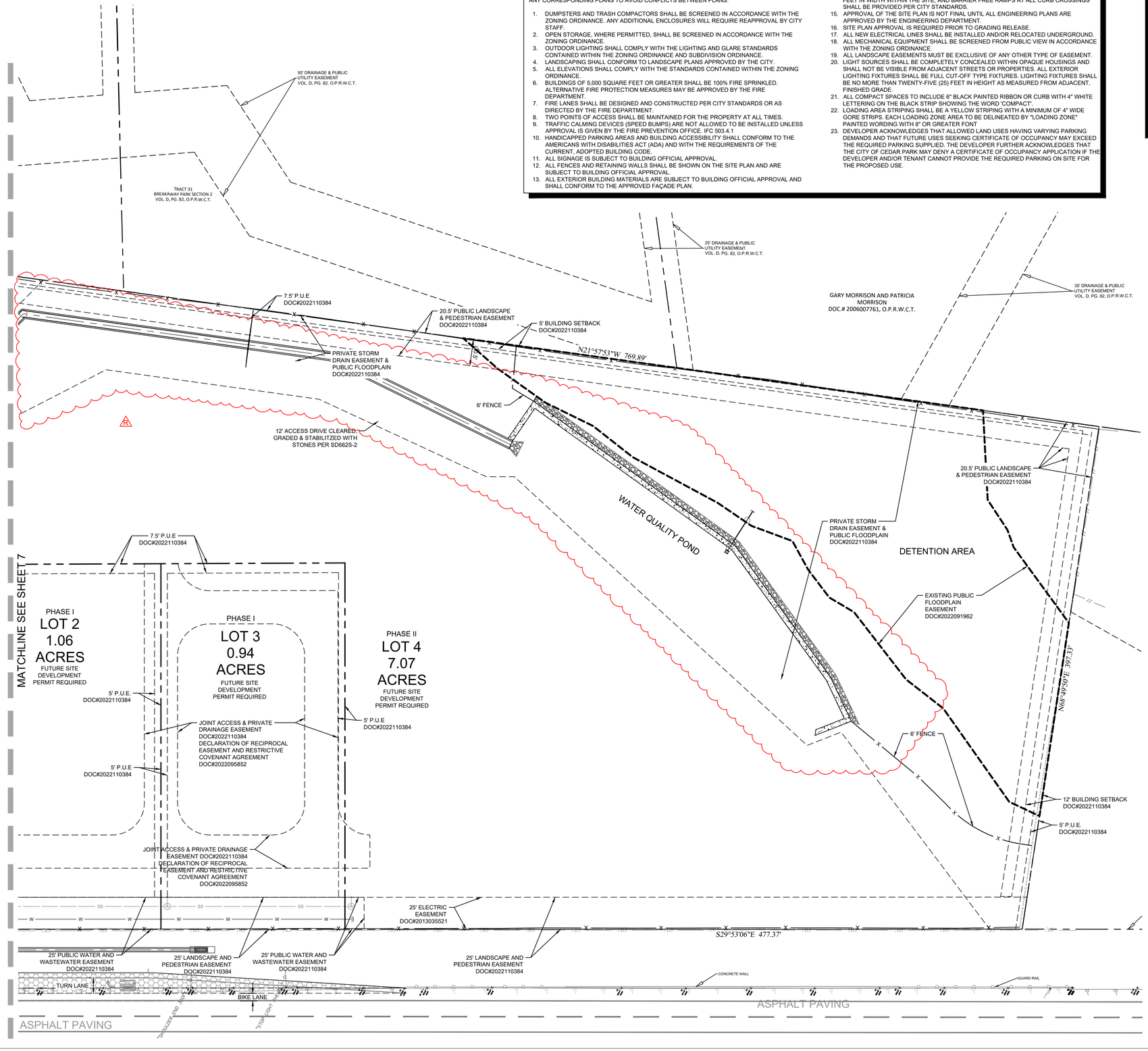
FH	FIRE HYDRANT
FDC	FIRE DEPARTMENT CONNECTION
S	SANITARY SEWER MANHOLE
T	TRANSFORMER PAD
	CURB INLET
	GRATE INLET
	JUNCTION BOX OR WYE INLET
	HEADWALL
TYP	TYPICAL
BFR	BARRIER FREE RAMP
SW	SIDEWALK
CI	CURB INLET
GI	GRATE INLET
JB	JUNCTION BOX
MH	MANHOLE
EX	EXISTING
PROP.	PROPOSED
FDC	FIRE DEPT. CONNECTION



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Kimley»Horn

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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402			
DATE	DECEMBER 2022		
SCALE	AS SHOWN	RPS	RPS
DESIGNED BY		AH	
DRAWN BY			
CHECKED BY			

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

OVERALL SITE PLAN

SD-20-00020
SHEET NUMBER

SHEET 8 OF 92

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OVERALL SITE PLAN.DWG (LAYOUT: SITE PLAN)

CONSTRUCTION NOTES FOR SUBDIVISIONS & SITE PLANS
CITY OF CEDAR PARK
REVISED MARCH 22, 2021

GENERAL NOTES:

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

STREET NOTES:

1. NO TRENCHING OF COMPACTED BASE WILL BE ALLOWED. A PENALTY AND/OR FINE MAY BE IMPOSED TO THE GENERAL CONTRACTOR IF TRENCHING OF COMPACTED BASE OCCURS WITHOUT CITY APPROVAL, REGARDLESS OF WHO PERFORMED THE TRENCHING.
2. ALL SIDEWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT. THE CITY OF CEDAR PARK HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, OR ANY OTHER ACCESSIBILITY LEGISLATION, AND DOES NOT WARRANTY OR APPROVE THESE PLANS FOR ANY ACCESSIBILITY STANDARDS.
3. STREET BARRICADES SHALL BE INSTALLED ON ALL DEAD END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB SAFETY.
4. ANY DAMAGE CAUSED TO EXISTING PAVEMENT, CURBS, SIDEWALKS, RAMPS, ETC., SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE SUBDIVISION.
5. AT INTERSECTIONS, WHICH HAVE VALLEY DRAINAGE, THE CROWN TO THE INTERSECTING STREET WILL BE CULMINATED AT A DISTANCE OF 40 FT. FROM THE INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
6. THE SUBGRADE MATERIAL WAS TESTED BY (BRAUN INTERTEC CORPORATION (REPORT NO. B2007025) ON SEPTEMBER 3, 2020 THE PAVEMENT SECTIONS WERE DESIGNED ACCORDINGLY. THE PAVEMENT SECTIONS ARE TO BE CONSTRUCTED AS FOLLOWS:
LIGHT DUTY CONCRETE: 6-INCHES OF CRUSHED AGGREGATE BASE & 5 INCHES OF CONCRETE
HEAVY DUTY CONCRETE: 6-INCHES OF CRUSHED AGGREGATE BASE & 7 INCHES OF CONCRETE
7. DENSITY TESTING OF COMPACTED SUBGRADE MATERIAL, FIRST COURSE AND SECOND COURSE COMPACTED BASE, SHALL BE MADE AT 500 FOOT INTERVALS.
8. ALL DENSITY TESTING IS THE RESPONSIBILITY OF THE OWNER OR CONTRACTOR AND SHALL BE WITNESSED BY THE CITY OF CEDAR PARK'S PROJECT REPRESENTATIVE. THE CONTRACTOR IS TO NOTIFY THE CITY 48 HOURS PRIOR TO SCHEDULED DENSITY TESTING.
9. TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND INSTALLED AS DIRECTED BY THE CITY OF CEDAR PARK PRIOR TO CITY ACCEPTANCE OF THE SUBDIVISION.
10. SLOPE OF NATURAL GROUND ADJACENT TO THE RIGHT-OF-WAY SHALL NOT EXCEED 3:1. IF A 3:1 SLOPE IS NOT POSSIBLE, A RETAINING WALL OR SOME OTHER FORM OF SLOPE PROTECTION APPROVED BY THE CITY SHALL BE PLACED IN A LOCATION ACCEPTABLE TO THE CITY.
11. THE CITY, ENGINEER, CONTRACTOR, AND A REPRESENTATIVE FROM THE ASPHALT TESTING LAB SHALL ATTEND A PRE-PAVING CONFERENCE PRIOR TO THE START OF HMAC PAVING. THE CONTRACTOR SHALL GIVE THE CITY A MINIMUM OF 48 HOURS NOTICE PRIOR TO THIS MEETING (512-401-5000).
12. THE CONTRACTOR OR OWNER IS RESPONSIBLE FOR CONDUCTING TESTS ON ASPHALT PAVEMENT IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE CITY OF AUSTIN STANDARD SPECIFICATION NO. 340. ANY RE-TESTING OF THE ASPHALT PAVEMENT SHALL BE CONDUCTED UNDER THE SUPERVISION OF THE ENGINEER AND THE CITY OF CEDAR PARK. RE-TESTING OF THE ASPHALT PAVEMENT SHALL BE LIMITED TO ONE RETEST PER PROJECT.
13. ALL PAVEMENT MARKINGS AND SIGNAGE SHALL COMPLY WITH MUTCD STANDARDS. STREET NAME LETTER SIZING SHALL BE IN ACCORDANCE WITH MUTCDTABLE2D-2.PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
14. ALL STREET NAME SIGNS SHALL BE HIGH INTENSITY RETRO GRADE.
15. NO FENCING OR WALL IS ALLOWED TO BE CONSTRUCTED SO THAT IT OBSTRUCTS THE SIGHT LINES OF DRIVERS FROM AN INTERSECTING PUBLIC ROADWAY OR FROM AN INTERSECTING PRIVATE DRIVEWAY. SIGHT LINES ARE TO BE MAINTAINED AS DESCRIBED IN CITY CODE SECTION 14.05.007. INSTALLING A FENCE OR WALL WHICH DOES NOT COMPLY WITH THE CITY'S SIGHT DISTANCE REQUIREMENTS OR FENCING REGULATIONS IS A VIOLATION OF THE CITY'S ORDINANCE AND MAY BE PUNISHABLE PURSUANT TO SECTION 1.01.009 OF CITY CODE.
16. TEMPORARY ROCK CRUSHING OPERATIONS ARE NOT ALLOWED. ALL SOURCES FOR FLEXIBLE BASE MATERIAL ARE REQUIRED TO BE APPROVED BY THE CITY. PRIOR TO BASE PLACEMENT ALL CURRENT TRIAXIAL TEST REPORTS FOR THE PROPOSED STOCKPILES ARE TO BE SUBMITTED TO THE CITY'S PROJECT REPRESENTATIVE FOR REVIEW AND APPROVAL.
17. UTILITY SERVICE BOXES OR OTHER UTILITY FACILITIES SHALL NOT BE INSTALLED WITHIN AREAS DETERMINED TO BE REQUIRED SIGHT LINES OF TWO INTERSECTING PUBLIC STREETS OR WITHIN SIGHT LINES OF A PRIVATE DRIVEWAY. SIGHT LINES ARE TO BE MAINTAINED COMPLIANT WITH TABLE 1-1 OF THE AUSTIN TRANSPORTATION CRITERIA MANUAL. UTILITIES DETERMINED BY THE DIRECTOR OF ENGINEERING TO BE PLACED WITHIN REQUIRED SIGHT LINES MAY BE REQUIRED TO BE RELOCATED AT THE EXPENSE OF THE CONTRACTOR PRIOR TO THE CITY ISSUING A CERTIFICATE OF OCCUPANCY OR PRIOR TO THE CITY'S ACCEPTANCE OF THE PROJECT IMPROVEMENTS.
18. ALL LANE CLOSURES SHALL OCCUR ONLY BETWEEN THE HOURS OF 9 AM AND 4 PM. ANY NIGHT TIME LANE CLOSURES REQUIRE APPROVAL BY THE DIRECTOR OF ENGINEERING AND SHALL OCCUR BETWEEN THE HOURS OF 8 PM AND 6 AM. LANE CLOSURES OBSERVED BY CITY DURING THE PEAK HOURS OF 6 AM TO 9 AM, OR 4 PM TO 8 PM WILL BE SUBJECT TO FINE PER CHAPTER 1 OF CITY ORDINANCE, AND/OR SUBSEQUENT ISSUANCE OF WORK STOPPAGE.
19. IMPROVEMENTS THAT INCLUDE RECONSTRUCTION OF AN EXISTING TYPE II DRIVEWAY SHALL BE DONE IN A MANNER WHICH RETAINS OPERATIONS OF NOT LESS THAN HALF OF THE DRIVEWAY AT ALL TIMES. FULL CLOSURE OF SUCH DRIVEWAY CAN BE CONSIDERED WITH WRITTEN AUTHORIZATION RETAINED BY THE CONTRACTOR FROM THE PROPERTY OWNER(S) OR ACCESS EASEMENT RIGHT HOLDER(S) OF THE DRIVEWAY ALLOWING FULL CLOSURE OF THE DRIVEWAY.
20. TREES MUST NOT OVERHANG WITHIN 10' VERTICALLY OF A SIDEWALK, OR 18' VERTICALLY OF A ROADWAY OR DRIVEWAY.

WASTEWATER NOTES:

1. REFER TO THE CITY OF CEDAR PARK PUBLIC WORKS UTILITY POLICY AND SPECIFICATIONS MANUAL.
2. MANHOLE FRAMES AND COVERS AND WATER VALVE BOXES SHALL BE RAISED TO FINISHED PAVEMENT GRADE AT THE OWNER'S EXPENSE BY THE CONTRACTOR WITH THE CITY APPROVAL. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING CONSTRUCTION.
3. THE LOCATION OF ANY EXISTING UTILITY LINES SHOWN ON THESE PLANS MAY NOT BE ACCURATE. ANY DAMAGE TO EXISTING UTILITY LINES, BOTH KNOWN AND UNKNOWN, SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR. THE CONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO BIDDING THE PROJECT.
4. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH AT LEAST 8 MIL. POLYETHYLENE WRAP.
5. ALL WATER MAINS, WASTEWATER MAINS AND SERVICE LINES SHALL MEET CITY OF AUSTIN MINIMUM COVER SPECIFICATIONS. ALL STREETS ARE TO BE CUT TO SUBGRADE PRIOR TO INSTALLATION OF WATER MAINS OR CUTS WILL BE ISSUED BY THE ENGINEER.
6. WHERE 48-INCHES OF COVER BELOW SUBGRADE CANNOT BE ACHIEVED FOR WASTEWATER SERVICE LINES ALTERNATE MATERIALS MAY BE USED. A MINIMUM OF 36-INCHES OF COVER BELOW SUBGRADE SHALL BE ACHIEVED. ANY WASTEWATER SERVICE LINE WITH COVER BETWEEN 36-INCH AND 48-INCHES SHALL BE SDR-26 PVC PRESSURE PIPE.
7. GASKETED PVC SEWER MAIN FITTINGS SHALL BE USED TO CONNECT SDR-35 PVC TO SDR-26 PVC PRESSURE PIPE OR C-900.
8. PIPE MATERIALS TO BE USED FOR CONSTRUCTION OF UTILITY LINES:
WASTEWATER- ASTM D2241 SDR-26
(NOTE: IF USING PVC, SDR-26 IS REQUIRED, SDR-35 WW IS NOT ALLOWED.
FORCE MAIN- DR-27 I.P.S. HDPE
FORCEMAINS SHALL BE EPOXY LINED DUCTILE IRON)
9. ALL SANITARY SEWERS, EXCLUDING SERVICE LINES, SHALL BE MANDREL TESTED PER TCEQ (TEXAS COMMISSION ON ENVIRONMENTAL QUALITY) CRITERIA. A MANDREL TEST WILL NOT BE PERFORMED UNTIL BACKFILL HAS BEEN IN PLACE FOR A MINIMUM OF 30 DAYS.
10. ALL WASTEWATER LINES 10" AND LARGER SHALL BE VIDEO RECORDED ACCORDING TO COA 510 AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL SUPPLY TWO COPIES TO THE CITY'S FIELD REPRESENTATIVE. NO SEPARATE PAY UNLESS NOTED ON THE BID FORM.
11. ALL SANITARY SEWERS, INCLUDING SERVICE LINES, SHALL BE AIR TESTED PER CITY OF AUSTIN STANDARD SPECIFICATIONS.
12. DENSITY TESTING OF COMPACTED BACKFILL SHALL BE MADE AT A RATE OF ONE TEST PER TWO FOOT LIFTS PER 500 FEET OF INSTALLED PIPE.
13. CITY SHALL BE GIVEN 48 HOURS NOTICE PRIOR TO ALL TESTING OF WATER AND WASTEWATER LINES. CITY INSPECTION IS REQUIRED FOR ALL TESTING OF WATER AND WASTEWATER LINES.
14. WHERE A WATER OR WASTEWATER LINE CROSSES ABOVE (OR BELOW) A STORM SEWER STRUCTURE AND THE BOTTOM (OR TOP) OF THE PIPE IS WITHIN 18 INCHES OF THE TOP (OR BOTTOM) OF THE UTILITY STRUCTURE, THE PIPE SHALL BE ENCASED WITH CONCRETE FOR A DISTANCE OF AT LEAST 1 FT. ON EITHER SIDE OF THE DITCH LINE OF THE UTILITY STRUCTURE OR THE STORM SEWER. CONCRETE ENCASEMENT SHALL CONFORM TO C.O.A. STANDARD DETAIL 505-1.
15. THE ALLOWABLE (MAXIMUM) ADJUSTMENT FOR A MANHOLE SHALL BE 12" (INCHES) OR LESS.
16. WHERE A SEWER LINE CROSSES A WATER LINE, THE SEWER LINE SHALL BE ONE 20 FT. JOINT OF 150 PSI RATED PVC CENTERED ON CROSSING.
17. ALL MANHOLE AND INLET COVERS SHALL READ "CITY OF CEDAR PARK".
18. CONTRACTOR TO NOTIFY, AND OBTAIN APPROVAL FROM, THE CITY OF CEDAR PARK 48 HOURS PRIOR TO CONNECTING TO EXISTING CITY UTILITIES.
19. ALL PIPE BEDDING MATERIAL SHALL CONFORM TO CITY OF AUSTIN STANDARD SPECIFICATIONS.
20. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER ALL CONCRETE IS TO BE CLASS "A" (5 SACK, 3000 PSI ~ 28-DAYS), AND ALL REINFORCING STEEL TO BE ASTM A615 60.
21. ALL WASTEWATER MANHOLES TO BE COATED WITH ORGANIC MATERIALS AND PROCEDURES LISTED IN CITY OF AUSTIN QUALIFIED PRODUCTS LIST NO. WW-511 (WW-511A AND WW-511B ARE NOT ALLOWED UNLESS MANHOLE IS BEING STRUCTURALLY REHABILITATED WITH APPROVAL BY PUBLIC WORKS). ALL MANHOLES WILL BE PRE-COATED OR COATED AFTER TESTING.
22. POLYBRID COATINGS ON WASTEWATER MANHOLES WILL NOT BE ALLOWED. ANY OTHER PRODUCT APPEARING ON THE COA SPL WW-511 IS ACCEPTABLE.
23. ALL PENETRATIONS OF EXISTING WASTEWATER MANHOLES ARE REQUIRED TO BE RE-COATED IN ACCORDANCE WITH THE SPECIFICATIONS LISTED IN NOTE 20.
24. ALL MANHOLES WILL BE VACUUM TESTED ONLY.
25. TRACER TAPE AND MARKING TAPE SHALL BE INSTALLED ON ALL WATER AND WASTEWATER MAINS IN ACCORDANCE WITH CITY OF AUSTIN STANDARDS, REGARDLESS OF THE TYPE OF PIPE.
26. ALL PRESSURE PIPE SHALL HAVE MECHANICAL RESTRAINT AND CONCRETE THRUST BLOCKING AT ALL VALVES, BENDS, TEES, PLUGS, AND OTHER FITTINGS

WATER NOTES:

1. REFER TO THE CITY OF CEDAR PARK PUBLIC WORKS UTILITY POLICY AND SPECIFICATIONS MANUAL.
2. THE TOP OF VALVE STEMS SHALL BE AT LEAST 18", AND NO MORE THAN 36", BELOW FINISHED GRADE VALVE STEM RISERS SHALL BE WELDED ON EACH END TO THE CITY'S SATISFACTION.
3. FIRE HYDRANT LEADS TO BE DUCTILE IRON, CLASS 350, AND INSTALLED PER CITY OF AUSTIN STANDARD SPECIFICATIONS AND DETAIL.
4. PRIOR TO INSTALLATION OF FIRE HYDRANTS, THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) CUT FROM A HUB PIN, ESTABLISHING THE ELEVATION OF THE BURY LINE.
5. THE ENGINEER SHALL PROVIDE CUTS FOR ALL WATER LINES AT ALL STORM SEWER CROSSINGS TO THE CITY OF CEDAR PARK.
6. PIPE MATERIALS TO BE USED FOR CONSTRUCTION OF UTILITY LINES:
WATER - AWWA C-900 PVC
COPPER PIPE AND FITTINGS ARE NOT PERMITTED WITHIN THE RIGHT-OF-WAY.
MINIMUM DR-14 12" DIA AND SMALLER. MINIMUM CLASS 250 DI LARGER THAN 12" DIA.
7. APPROVED 5 ¼" FIRE HYDRANTS:
- AMERICAN FLOW CONTROL, B84B
- MUELLER COMPANY, SUPER CENTURION 250
- CLOW MEDALLION HYDRANT
- AMERICAN AVK COMPANY, SERIES 27 (MODEL 2780)
- ALL FIRE HYDRANTS MUST MEET CITY OF CEDAR PARK THREAD SPECIFICATIONS (NATIONAL THREAD)
- BLUE REFLECTOR MARKERS SHALL BE LOCATED ON THE CENTERLINE OF THE PAVEMENT ACROSS FROM ALL FIRE HYDRANTS. PAVEMENT MARKERS AT INTERSECTIONS SHALL BE FOUR-SIDED.

8. SHOULD A TAPPING SADDLE BE APPROVED BY PUBLIC WORKS, THE SADDLE SHALL BE SMITH-BLAIR 662 STAINLESS STEEL TAPPING SLEEVES WITH ALL STAINLESS HARDWARE, OR APPROVED EQUAL. REQUESTS FOR ALTERNATE PROVIDERS SHALL BE MADE TO THE CITY OF CEDAR PARK PUBLIC WORKS. NO TAP EXCEEDING 2" IN DIAMETER WILL BE APPROVED.
9. ALL WATER LINES, INCLUDING SERVICE LINES, SHALL BE PRESSURE AND LEAK TESTED PER CITY OF AUSTIN STANDARD SPECIFICATIONS AND WITNESSED BY THE CITY OF CEDAR PARK REPRESENTATIVE. ALL TESTING IS TO BE THE RESPONSIBILITY OF THE CONTRACTOR, AND THE CONTRACTOR MAY BE REQUIRED TO RE-TEST LINES IF THE TESTING IS NOT WITNESSED BY THE CITY. CONTRACTOR MUST NOTIFY THE CITY OF CEDAR PARK 48 HOURS PRIOR TO ANY TESTING.
10. ALL WATER LINES SHALL BE STERILIZED AND BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH CITY OF AUSTIN STANDARDS. THE CONTRACTOR IS RESPONSIBLE FOR STERILIZATION AND THE CITY OF CEDAR PARK IS RESPONSIBLE FOR SUBMITTING BACTERIOLOGICAL SAMPLES TO THE STATE. PUBLIC WORKS WILL REQUIRE A CONTRACTOR SPECIALIZED IN DISINFECTION FOR LARGE DIAMETER LINES OR CRITICAL INFRASTRUCTURE, SUBSIDIARY TO PIPE INSTALLATION.
11. DENSITY TESTING OF COMPACTED BACKFILL SHALL BE MADE AT A RATE OF ONE TEST PER TWO FOOT LIFTS PER 500 FEET OF INSTALLED PIPE.
12. CONTRACTOR TO OBTAIN A WATER METER FROM THE CITY OF CEDAR PARK FOR ANY WATER THAT MAY BE REQUIRED DURING CONSTRUCTION. (512-401-5000)
13. ALL WATER METER BOXES SHALL BE FORD GULF METER BOX WITH LOCKING LID.
    - SINGLE G-148-233
    - DUAL DG-148-243
    - 1" METER YL111 - 444
    - 1 ½" – 2" METER 170-R (LID) & 1730-12 (BOX)/ACCEPTABLE BOXES FOR THIS SIZE OF METER
14. MANHOLE FRAMES AND COVERS AND WATER VALVE BOXES SHALL BE RAISED TO FINISHED PAVEMENT GRADE, WHEN IN PUBLIC STREETS, AT THE OWNER'S EXPENSE BY THE CONTRACTOR WITH CITY INSPECTION. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING CONSTRUCTION.
15. THE LOCATION OF ANY EXISTING UTILITY LINES SHOWN ON THESE PLANS IS THE BEST AVAILABLE AND MAY NOT BE ACCURATE. ANY DAMAGE TO EXISTING UTILITY LINES, BOTH KNOWN AND UNKNOWN, SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
16. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH AT LEAST 8 MIL. POLYETHYLENE WRAP.
17. ALL WATER MAINS, WASTEWATER MAINS AND SERVICE LINES SHALL MEET CITY OF AUSTIN SPECIFICATIONS FOR MINIMUM COVER REQUIREMENTS. ALL STREETS ARE TO BE CUT TO SUBGRADE PRIOR TO INSTALLATION OF WATER MAINS OR CUTS WILL BE ISSUED BY THE ENGINEER.
18. CITY TO BE GIVEN 48 HOURS NOTICE PRIOR TO ALL TESTING OF WATER AND WASTEWATER LINES. CITY INSPECTION IS REQUIRED FOR ALL TESTING OF WATER AND WASTEWATER LINES.
19. WHERE A WATER OR WASTEWATER LINE CROSSES ABOVE (OR BELOW) A

KH GENERAL NOTES

OVERALL:

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THESE PLANS, CITY (OR TOWN) STANDARD DETAILS AND SPECIFICATIONS, THE FINAL GEOTECHNICAL REPORT AND ALL ISSUED ADDENDA, AND COMMONLY ACCEPTED CONSTRUCTION STANDARDS. THE CITY SPECIFICATIONS SHALL GOVERN WHERE OTHER SPECIFICATIONS DO NOT EXIST. IN CASE OF CONFLICTING SPECIFICATIONS OR DETAILS, THE MORE RESTRICTIVE SPECIFICATION AND DETAIL SHALL BE FOLLOWED.
2. THE CONTRACTOR SHALL COMPLY WITH CITY (OR TOWN) "GENERAL NOTES" FOR CONSTRUCTION, IF EXISTING AND REQUIRED BY THE CITY. FOR INSTANCES WHERE THEY CONFLICT WITH THESE KH GENERAL NOTES, THEN THE MORE RESTRICTIVE SHALL APPLY.
3. THE CONTRACTOR SHALL FURNISH ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE AUTHORITIES' SPECIFICATIONS AND REQUIREMENTS.
4. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO DETERMINE EXISTING CONDITIONS.
5. THE EXISTING CONDITIONS SHOWN ON THESE PLANS WERE PROVIDED BY THE TOPOGRAPHIC SURVEY PREPARED BY THE PROJECT SURVEYOR, AND ARE BASED ON THE BENCHMARKS SHOWN. THE CONTRACTOR SHALL REFERENCE THE SAME BENCHMARKS.
6. THE CONTRACTOR SHALL REVIEW AND VERIFY THE EXISTING TOPOGRAPHIC SURVEY SHOWN ON THE PLANS REPRESENTS EXISTING FIELD CONDITIONS PRIOR TO CONSTRUCTION, AND SHALL REPORT ANY DISCREPANCIES FOUND TO THE OWNER AND ENGINEER IMMEDIATELY.
7. IF THE CONTRACTOR DOES NOT ACCEPT THE EXISTING TOPOGRAPHIC SURVEY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY AT THEIR OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED PROFESSIONAL LAND SURVEYOR TO THE OWNER AND ENGINEER FOR REVIEW.
8. CONTRACTOR SHALL PROVIDE ALL CONSTRUCTION SURVEYING AND STAKING.
9. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL CONTROL, INCLUDING BENCHMARKS PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF IMPROVEMENTS. PROPERTY LINES AND CORNERS SHALL BE HELD AS THE HORIZONTAL CONTROL.
10. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS, ELEVATIONS, AND FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE ARCHITECT, ENGINEER, AND IF APPLICABLE THE CITY AND OWNER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE CITY, ENGINEER, AND OWNER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
11. CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, LANDSCAPE, MEP, ARCHITECTURAL, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER/ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO COMMENCING WITH CONSTRUCTION.
12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK TO HAVE THEM LOCATE THEIR EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROVIDE AN ADEQUATE MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
13. CONTRACTOR SHALL CALL TEXAS 811 AN ADEQUATE AMOUNT OF TIME PRIOR TO COMMENCING CONSTRUCTION OR ANY EXCAVATION.
14. CONTRACTOR SHALL USE EXTREME CAUTION AS THE SITE CONTAINS VARIOUS KNOWN AND UNKNOWN PUBLIC AND PRIVATE UTILITIES.
15. THE LOCATIONS, ELEVATIONS, DEPTH, AND DIMENSIONS OF EXISTING UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM AVAILABLE UTILITY COMPANY MAPS AND PLANS, AND ARE CONSIDERED APPROXIMATE AND INCOMPLETE. IT SHALL BE THE CONTRACTORS' RESPONSIBILITY TO VERIFY THE PRESENCE, LOCATION, ELEVATION, DEPTH, AND DIMENSION OF EXISTING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION SO THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES. THE ENGINEER SHALL BE NOTIFIED WHEN A PROPOSED IMPROVEMENT CONFLICTS WITH AN EXISTING UTILITY.
16. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ANY ADJUSTMENTS AND RELOCATIONS OF EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO, ADJUSTING EXISTING MANHOLES TO MATCH PROPOSED GRADE, RELOCATING EXISTING POLES AND GUY WIRES THAT ARE LOCATED IN PROPOSED DRIVEWAYS, ADJUSTING THE HORIZONTAL OR VERTICAL ALIGNMENT OF EXISTING UNDERGROUND UTILITIES TO ACCOMMODATE PROPOSED GRADE OR CROSSING WITH A PROPOSED UTILITY, AND ANY OTHERS THAT MAY BE ENCOUNTERED THAT ARE UNKNOWN AT THIS TIME AND NOT SHOWN ON THESE PLANS.
17. CONTRACTOR SHALL ARRANGE FOR OR PROVIDE, AT ITS EXPENSE, ALL GAS, TELECOMMUNICATIONS, CABLE, OVERHEAD AND UNDERGROUND POWER LINE, AND UTILITY POLE ADJUSTMENTS NEEDED.
18. CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION OF FRANCHISE UTILITIES THAT ARE NECESSARY FOR ON-SITE AND OFF-SITE CONSTRUCTION, AND4. SERVICE TO THE PROPOSED BUILDING.
19. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL DAMAGES DUE TO THE5. CONTRACTORS' FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED BY THE CONTRACTOR AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
20. BRACING OF UTILITY POLES MAY BE REQUIRED BY THE UTILITY COMPANIES WHEN TRENCHING OR EXCAVATING IN CLOSE PROXIMITY TO THE POLES. THE COST OF BRACING POLES WILL BE BORNE BY THE CONTRACTOR, WORK IS A SEPARATE PAY ITEM FOR THIS WORK. THE COST IS INCIDENTAL TO THE PAY ITEM.
21. CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND POWER LINES. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, FEDERAL AND UTILITY OWNER REGULATIONS PERTAINING TO WORK SETBACKS FROM POWER LINES.
22. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL REQUIRED CONSTRUCTION PERMITS, APPROVALS, AND BONDS PRIOR TO CONSTRUCTION.
23. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES A COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, GEOTECHNICAL REPORT AND ADDENDA, PROJECT AND CITY SPECIFICATIONS, AND SPECIAL CONDITIONS. COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, EROSION CONTROL PLANS, SWPPP AND INSPECTION REPORTS.
24. ALL SHOP DRAWINGS AND OTHER DOCUMENTS THAT REQUIRE ENGINEER REVIEW SHALL BE SUBMITTED BY THE CONTRACTOR SUFFICIENTLY IN ADVANCE OF CONSTRUCTION OF THAT ITEM, SO THAT NO LESS THAN 10 BUSINESS DAYS FOR REVIEW AND RESPONSE IS AVAILABLE.
25. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES, JURISDICTIONAL AGENCIES, AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO USE OF THE FACILITY AND THE FINAL CONNECTION OF SERVICES.
26. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
27. CONTRACTOR'S BID PRICE SHALL INCLUDE ALL INSPECTION FEES.
28. ALL SYMBOLS SHOWN ON THESE PLANS (E.G. FIRE HYDRANT, METERS, VALVES, INLETS, ETC.,,) ARE FOR PRESENTATION PURPOSES ONLY AND ARE NOT TO SCALE. CONTRACTOR SHALL COORDINATE FINAL SIZES AND LOCATIONS WITH APPROPRIATE CITY INSPECTOR.
29. THE SCOPE OF WORK FOR THE CIVIL IMPROVEMENTS SHOWN ON THESE PLANS TERMINATES 5-FEET FROM THE BUILDING. REFERENCE THE BUILDING PLANS (E.G. ARCHITECTURAL, STRUCTURAL, MEP) FOR AREAS WITHIN 5-FEET OF THE BUILDING AND WITHIN THE BUILDING FOOTPRINT.
30. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR ALL FINAL BUILDING DIMENSIONS.
31. THE PROPOSED BUILDING FOOTPRINT(S) SHOWN IN THESE PLANS WAS PROVIDED TO KIMLEY-HORN AND ASSOCIATES, INC. (KH) BY THE PROJECT ARCHITECT AT THE TIME THESE PLANS WERE PREPARED. IT MAY NOT BE THE FINAL CORRECT VERSION BECAUSE THE BUILDING DESIGN WAS ONGOING. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONFIRMING THE FINAL CORRECT VERSION OF THE BUILDING FOOTPRINT WITH THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO LAYOUT. DIMENSIONS AND/OR COORDINATES SHOWN ON THESE PLANS WERE BASED ON THE ABOVE STATED ARCHITECTURAL FOOTPRINT, AND ARE THEREFORE A PRELIMINARY LOCATION OF THE BUILDING. THE CONTRACTOR IS SOLELY RESPONSIBLE TO VERIFY WHAT PART OF THE BUILDING THE ARCHITECT'S FOOTPRINT REPRESENTS (E.G. SLAB, OUTSIDE WALL, MASONRY LINE, ETC.,,,) AND TO CONFIRM ITS FINAL POSITION ON THE SITE BASED ON THE FINAL ARCHITECTURAL FOOTPRINT, CIVIL DIMENSION CONTROL PLAN, SURVEY BOUNDARY AND/OR PLAT. ANY DIFFERENCES FOUND SHALL BE REPORTED TO KH IMMEDIATELY.
32. ALL CONSTRUCTION SHALL COMPLY WITH THE PROJECT'S FINAL GEOTECHNICAL REPORT (OR LATEST EDITION), INCLUDING SUBSEQUENT ADDENDA.
33. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIALS TESTING AND CERTIFICATION, UNLESS SPECIFIED OTHERWISE BY OWNER. ALL MATERIALS TESTING SHALL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR AND COMPLY WITH CITY STANDARD SPECIFICATIONS AND GEOTECHNICAL REPORT. TESTING SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY FOR TESTING MATERIALS. OWNER SHALL APPROVE THE AGENCY NOMINATED BY THE CONTRACTOR FOR MATERIALS TESTING.
34. ALL COPIES OF MATERIALS TEST RESULTS SHALL BE SENT TO THE OWNER, ENGINEER AND ARCHITECT DIRECTLY FROM THE TESTING AGENCY.
35. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SHOW, BY THE STANDARD TESTING PROCEDURES OF THE MATERIALS, THAT THE WORK CONSTRUCTED MEETS THE PROJECT REQUIREMENTS AND CITY SPECIFICATIONS.
36. DUE TO THE POTENTIAL FOR DIFFERENTIAL SOIL MOVEMENT ADJACENT TO THE BUILDING, THE CONTRACTOR SHALL ADHERE TO GEOTECHNICAL REPORT'S RECOMMENDATION FOR SUBGRADE PREPARATION SPECIFIC TO FLATWORK ADJACENT TO THE PROPOSED BUILDING. THE OWNER AND CONTRACTOR ARE ADVISED TO OBTAIN A GEOTECHNICAL ENGINEER RECOMMENDATION SPECIFIC TO FLATWORK ADJACENT TO THE BUILDING, IF NONE IS CURRENTLY EXISTING.
37. ALL CONTRACTORS MUST CONFINE THEIR ACTIVITIES TO THE WORK AREA. NO ENCROACHMENTS OUTSIDE OF THE WORK AREA WILL BE ALLOWED. ANY DAMAGE RESULTING THEREFROM SHALL BE CONTRACTOR'S SOLE RESPONSIBILITY TO REPAIR.
38. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, UTILITIES, MANHOLES, POLES, GUY WIRES, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, COMMUNICATION BOXES/PEDESTALS, AND OTHER FACILITIES TO REMAIN AND SHALL REPAIR ANY DAMAGES AT NO COST TO THE OWNER.
39. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY PHYSICAL DAMAGE TO PRIVATE PROPERTY OR PUBLIC IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO: FENCES, WALLS, SIGNS, PAVEMENT, CURBS, UTILITIES, SIDEWALKS, GRASS, TREES, LANDSCAPING, AND IRRIGATION SYSTEMS, ETC.... TO ORIGINAL CONDITION OR BETTER AT NO COST TO THE OWNER.
40. ALL AREAS IN EXISTING RIGHT-OF-WAY DISTURBED BY SITE CONSTRUCTION SHALL BE REPAIRED TO ORIGINAL CONDITION OR BETTER, INCLUDING AS NECESSARY GRADING, LANDSCAPING, CULVERTS, AND PAVEMENT.
41. THE CONTRACTOR SHALL SALVAGE ALL EXISTING POWER POLES, SIGNS, WATER VALVES, FIRE HYDRANTS, METERS, ETC... THAT ARE TO BE RELOCATED DURING CONSTRUCTION.
42. CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING MAINTAINING EXISTING DITCHES OR CULVERTS FREE OF OBSTRUCTIONS AT ALL TIMES.
43. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
44. THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.
45. SITE SAFETY IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
46. THESE PLANS DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE ENGINEER'S SEAL HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF ALL REQUIRED SAFETY PROCEDURES AND PROGRAMS.
47. SIGNS RELATED TO SITE OPERATION OR SAFETY ARE NOT INCLUDED IN THESE PLANS.
48. CONTRACTOR OFFICE AND STAGING AREA SHALL BE AGREED ON BY THE OWNER AND CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITTING REQUIREMENTS FOR THE CONSTRUCTION OFFICE, TRAILER, STORAGE, AND STAGING OPERATIONS AND LOCATIONS.
49. LIGHT POLES, SIGNS, AND OTHER OBSTRUCTIONS SHALL NOT BE PLACED IN ACCESSIBLE ROUTES.
50. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
51. TOP RIM ELEVATIONS OF ALL EXISTING AND PROPOSED MANHOLES SHALL BE COORDINATED WITH TOP OF PAVEMENT OR FINISHED GRADE AND SHALL BE ADJUSTED TO BE FLUSH WITH THE ACTUAL FINISHED GRADE AT THE TIME OF PAVING.
52. CONTRACTOR SHALL ADJUST ALL EXISTING AND PROPOSED VALVES, FIRE HYDRANTS, AND OTHER UTILITY APPURTENANCES TO MATCH ACTUAL FINISHED GRADES AT THE TIME OF PAVING.
53. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION SEQUENCING AND PHASING, AND SHALL CONTACT THE APPROPRIATE CITY OFFICIALS, INCLUDING BUILDING OFFICIAL, ENGINEERING INSPECTOR, AND FIRE MARSHALL TO LEARN OF ANY REQUIREMENTS.
54. CONTRACTOR IS RESPONSIBLE FOR PREPARATION, SUBMITTAL, AND APPROVAL BY THE CITY OF A TRAFFIC CONTROL PLAN PRIOR TO THE START OF CONSTRUCTION, AND THEN THE IMPLEMENTATION OF THE PLAN.
55. CONTRACTOR SHALL KEEP A NEAT AND ACCURATE RECORD OF CONSTRUCTION, INCLUDING ANY DEVIATIONS OR VARIANCES FROM THE PLANS.
56. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT PLANS TO THE ENGINEER AND CITY IDENTIFYING ALL DEVIATIONS AND VARIATIONS FROM THESE PLANS MADE DURING CONSTRUCTION.

EROSION CONTROL:

1. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL EROSION CONTROL AND WATER QUALITY REQUIREMENTS, LAWS, AND ORDINANCES THAT APPLY TO THE CONSTRUCTION SITE LAND DISTURBANCE.
2. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE "TCEQ GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM TXR 150000".
3. EROSION CONTROL DEVICES SHOWN ON THE EROSION CONTROL PLAN FOR THE PROJECT SHALL BE INSTALLED PRIOR TO THE START OF LAND DISTURBANCE. ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS FOR THE PROJECT.
4. CONTRACTOR IS SOLELY RESPONSIBLE FOR INSTALLATION, IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL EROSION CONTROL DEVICES, BEST MANAGEMENT PRACTICES (BMPS), AND FOR UPDATING THE EROSION CONTROL PLAN DURING CONSTRUCTION AS FIELD CONDITIONS CHANGE.
5. CONTRACTOR SHALL DOCUMENT THE DATES OF INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL FOR EACH BMP EMPLOYED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IF APPLICABLE.
6. AS SYSTEM SEWER TESTS ARE PERFORMED, ALL TEMPORARY EROSION CONTROL DEVICES SHALL BE INSTALLED AT EACH INLET PER APPROVED DETAILS.
7. THE EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL THE AREA IT PROTECTS HAS BEEN PERMANENTLY STABILIZED
8. CONTRACTOR SHALL PROVIDE ADEQUATE EROSION CONTROL DEVICES NEEDED DUE TO PROJECT PHASING.
9. CONTRACTOR SHALL OBSERVE THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES AND MAKE FIELD ADJUSTMENTS AND MODIFICATIONS AS NEEDED TO PREVENT SEDIMENT FROM LEAVING THE SITE. IF THE EROSION CONTROL DEVICES DO NOT EFFECTIVELY CONTROL EROSION AND PREVENT SEDIMENTATION FROM WASHING OFF THE SITE, THEN THE CONTRACTOR SHALL NOTIFY THE ENGINEER.
10. OFF-SITE SOIL BORROW, SPOIL, AND STORAGE AREAS (IF APPLICABLE) ARE CONSIDERED AS PART OF THE PROJECT SITE AND MUST ALSO COMPLY WITH THE EROSION CONTROL REQUIREMENTS OUTLINED IN THIS PROJECT. THIS INCLUDES THE INSTALLATION OF BMP'S TO CONTROL EROSION AND SEDIMENTATION AND THE ESTABLISHMENT OF PERMANENT GROUND COVER ON DISTURBED AREAS PRIOR TO FINAL APPROVAL OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR MODIFYING THE SWPPP AND EROSION CONTROL PLAN TO INCLUDE BMPS FOR ANY OFF-SITE THAT ARE NOT ANTICIPATED OR SHOWN ON THE EROSION CONTROL PLAN.
11. ALL STAGING, STOCKPILES, SPOIL, AND STORAGE SHALL BE LOCATED SUCH THAT THEY WILL NOT ADVERSELY AFFECT STORM WATER QUALITY. PROTECTIVE MEASURES SHALL BE PROVIDED IF NEEDED TO ACCOMPLISH THIS REQUIREMENT, SUCH AS COVERING OR ENCIRCLING THE AREA WITH AN APPROPRIATE BARRIER.
12. CONTRACTORS SHALL INSPECT ALL EROSION CONTROL DEVICES, BMPS, DISTURBED AREAS, AND VEHICLE ENTRY AND EXIT AREAS WEEKLY AND WITHIN 24 HOURS OF ALL RAINFALL EVENTS OF 0.5 INCHES OR GREATER, AND KEEP A RECORD OF THIS INSPECTION IN THE SWPPP BOOKLET IF APPLICABLE, TO VERIFY THAT THE DEVICES AND EROSION CONTROL PLAN ARE FUNCTIONING PROPERLY.
13. CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL PRIMARY POINTS OF ACCESS IN ACCORDANCE WITH CITY SPECIFICATIONS. CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION TRAFFIC USES THE STABILIZED ENTRANCE AT ALL TIMES FOR ALL INGRESS/EGRESS.
14. SITE ENTRY AND EXITS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT THE TRACKING AND FLOWING OF SEDIMENT AND DIRT ONTO OFF-SITE ROADWAYS. ALL SEDIMENT AND DIRT FROM THE SITE THAT IS DEPOSITED ONTO AN OFF-SITE ROADWAY SHALL BE REMOVED IMMEDIATELY.
15. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SILT AND DEBRIS FROM THE AFFECTED OFF-SITE ROADWAYS THAT ARE A RESULT OF THE CONSTRUCTION, AS REQUESTED BY OWNER AND CITY. AT A MINIMUM, THIS SHOULD OCCUR ONCE PER DAY FOR THE OFF-SITE ROADWAYS.
16. WHEN WASHING OF VEHICLES IS REQUIRED TO REMOVE SEDIMENT PRIOR TO EXITING THE SITE, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP BMP.
17. CONTRACTOR SHALL INSTALL A TEMPORARY SEDIMENT BASIN FOR ANY ON-SITE DRAINAGE AREAS THAT WILL BE DISTURBED BY MORE THAN 10 ACRES AT ONE TIME PER CITY STANDARDS. IF NO ENGINEERING DESIGN HAS BEEN PROVIDED FOR A SEDIMENTATION BASIN ON THESE PLANS, THEN THE CONTRACTOR SHALL ARRANGE FOR AN APPROPRIATE DESIGN TO BE PROVIDED.
18. ALL FEES IMPOSED FOR SEDIMENT OR DIRT DISCHARGED FROM THE SITE SHALL BE PAID BY THE RESPONSIBLE CONTRACTOR.
19. WHEN SEDIMENT OR DIRT HAS CLOGGED THE CONSTRUCTION ENTRANCE VOID SPACES BETWEEN STONE OR DIRT IS BEING TRACKED ONTO A ROADWAY, THE AGGREGATE PAD MUST BE WASHED DOWN OR REPLACED. RUNOFF FROM THE WASH-DOWN OPERATION SHALL NOT BE ALLOWED TO DRAIN DIRECTLY OFF SITE WITHOUT FIRST FLOWING THROUGH ANOTHER BMP TO CONTROL SEDIMENTATION. PERIODIC RE-GRADING OR NEW STONE MAY BE REQUIRED TO MAINTAIN THE EFFECTIVENESS OF THE CONSTRUCTION ENTRANCE.
20. TEMPORARY SEEDING OR OTHER APPROVED STABILIZATION SHALL BE INITIATED WITHIN 14 DAYS OF THE LAST DISTURBANCE OF ANY AREA, UNLESS ADDITIONAL CONSTRUCTION IN THE AREA IS EXPECTED WITHIN 21 DAYS OF THE LAST DISTURBANCE.
21. CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING CONSTRUCTION, ALWAYS CLEANING UP DIRT, LOOSE MATERIAL, AND TRASH AS CONSTRUCTION PROGRESSES.
23. UPON COMPLETION OF FINE GRADING, ALL SURFACES OF DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED. STABILIZATION IS ACHIEVED WHEN THE AREA IS EITHER COVERED BY PERMANENT IMPERVIOUS STRUCTURES, SUCH AS BUILDINGS, SIDEWALK, PAVEMENT, OR A UNIFORM PERENNIAL VEGETATIVE COVER.
24. AT THE CONCLUSION OF THE PROJECT, ALL INLETS, DRAIN PIPE, CHANNELS, DRAINAGEWAYS AND BORROW DITCHES AFFECTED BY THE CONSTRUCTION SHALL BE DREDGED, AND THE SEDIMENT GENERATED BY THE PROJECT SHALL BE REMOVED AND DISPOSED IN ACCORDANCE WITH APPLICABLE REGULATIONS.

STORM WATER DISCHARGE AUTHORIZATION:

1. CONTRACTOR SHALL COMPLY WITH ALL TCEQ AND EPA STORM WATER POLLUTION PREVENTION REQUIREMENTS.
2. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE TCEQ GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM TXR 150000.
3. THE CONTRACTOR SHALL ENSURE THAT ALL PRIMARY OPERATORS SUBMIT A NOI TO TCEQ AT LEAST SEVEN DAYS PRIOR TO COMMENCING CONSTRUCTION (IF APPLICABLE), OR IF UTILIZING ELECTRONIC SUBMITTAL, PRIOR TO COMMENCING CONSTRUCTION. ALL PRIMARY OPERATORS SHALL PROVIDE A COPY OF THE SIGNED NOI TO THE OPERATOR OF ANY MS4 (TYPICALLY THE CITY) RECEIVING DISCHARGE FROM THE SITE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IF APPLICABLE, INCLUDING POSTING THE NOTICE, INSPECTIONS, RECORDKEEPING, AND SUBMISSION OF ANY INFORMATION REQUIRED BY THE TCEQ AND EPA (E.G. NOI).
5. ALL CONTRACTORS AND SUBCONTRACTORS PROVIDING SERVICES RELATED TO THE SWPPP SHALL SIGN THE REQUIRED CONTRACTOR CERTIFICATION STATEMENT ACKNOWLEDGING THEIR RESPONSIBILITIES AS SPECIFIED IN THE SWPPP.
6. A COPY OF THE SWPPP, INCLUDING NOI, SITE NOTICE, CONTRACTOR CERTIFICATIONS, AND ANY REVISIONS, SHALL BE SUBMITTED TO THE CITY BY THE CONTRACTOR AND SHALL BE RETAINED ON-SITE DURING CONSTRUCTION.
7. A NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO TCEQ BY ANY PRIMARY OPERATOR WITHIN 30 DAYS AFTER ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND AFTER VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY STRUCTURES, A TRANSFER OF OPERATIONAL CONTROL HAS OCCURRED, OR THE OPERATOR OBTAINS COVERAGE UNDER AN AUTHORIZATION UNDER A DIFFERENT PERMIT. A COPY OF THE NOT SHALL BE PROVIDED TO THE OPERATOR OF ANY MS4 RECEIVING DISCHARGE FROM THE SITE.

DEMOLITION:

1. KH IS NOT RESPONSIBLE FOR THE MEANS AND METHODS EMPLOYED BY THE CONTRACTOR TO IMPLEMENT THIS DEMOLITION PLAN. THIS PRELIMINARY DEMOLITION PLAN IS SIMPLY INDICATES THE KNOWN SITE FEATURE SUBJECT TRACT THAT ARE TO BE DEMOLISHED AND REMOVED FROM THE SITE.
2. KH DOES NOT WARRANT OR REPRESENT THAT THE PLAN, WHICH WAS PREPARED BASED ON SURVEY AND UTILITY INFORMATION PROVIDED BY OTHERS, SHOWS ALL IMPROVEMENTS AND UTILITIES, THAT THE IMPROVEMENTS AND UTILITIES ARE SHOWN ACCURATELY, OR THAT THE UTILITIES SHOWN CAN BE REMOVED. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ITS OWN SITE RECONNAISSANCE TO SCOPE ITS WORK AND TO CONFIRM WITH THE OWNERS OF IMPROVEMENTS AND UTILITIES THE ABILITY AND PROCESS FOR THE REMOVAL OF THEIR FACILITIES.
3. THIS PLAN IS INTENDED TO GIVE A GENERAL GUIDE TO THE CONTRACTOR, NOTHING MORE. THE INTENT OF THE DEMOLITION IS TO LEAVE THE SITE IN A STATE SUITABLE FOR THE CONSTRUCTION OF THE PROPOSED DEVELOPMENT. REMOVAL OR PRESERVATION OF IMPROVEMENTS, UTILITIES, ETC. TO ACCOMPLISH THIS GOAL ARE THE RESPONSIBILITY OF THE CONTRACTOR.
4. CONTRACTOR IS ADVISED THAT THE FOLLOWING REPORTS DESCRIBING SITE CONDITIONS PRIOR TO BIDDING AND IMPLEMENTING THE DEMOLITION PLAN:
   a. ENVIRONMENTAL SITE ASSESSMENT PROVIDED BY THE OWNER.
   b. ASBESTOS BUILDING INSPECTION REPORT(S) PROVIDED BY THE OWNER,
   c. GEOTECHNICAL REPORT PROVIDED BY THE OWNER.
   d. OTHER REPORTS THAT ARE APPLICABLE AND AVAILABLE.
5. CONTRACTOR SHALL CONTACT THE OWNER TO VERIFY WHETHER ADDITIONAL REPORTS OR AMENDMENTS TO THE ABOVE CITED REPORTS HAVE BEEN PREPARED AND TO OBTAIN/REVIEW/AND COMPLY WITH THE RECOMMENDATION OF SUCH STUDIES PRIOR TO STARTING ANY WORK ON THE SITE.
6. CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS REGARDING THE DEMOLITION OF OBJECTS ON THE SITE AND THE DISPOSAL OF THE DEMOLISHED MATERIALS OFF-SITE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REVIEW THE SITE, DETERMINE THE APPLICABLE REGULATIONS, RECEIVE THE REQUIRED PERMITS AND AUTHORIZATIONS, AND COMPLY.
7. KH DOES NOT REPRESENT THAT THE REPORTS AND SURVEYS REFERENCED ABOVE ARE ACCURATE, COMPLETE, OR COMPREHENSIVE SHOWING ALL ITEMS THAT MAY BE ENCOUNTERED DURING DEMOLITION AND REMOVAL.
8. SURFACE PAVEMENT INDICATED MAY OVERLAY OTHER HIDDEN STRUCTURES, SUCH AS ADDITIONAL LAYERS OF PAVEMENT, FOUNDATIONS OR WALLS, THAT ARE ALSO TO BE REMOVED.

GRADING:

1. THE CONTRACTOR AND GRADING SUBCONTRACTOR SHALL VERIFY THE SUITABILITY OF EXISTING AND PROPOSED GRADING CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE START OF CONSTRUCTION. THE CIVIL ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
2. CONTRACTOR SHALL OBTAIN ANY REQUIRED GRADING PERMITS FROM THE CITY.
3. UNLESS OTHERWISE NOTED, PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN IN PAVED AREA REFLECT TOP OF PAVEMENT SURFACE. IN LOCATIONS ALONG A CURB LINE, ADD 6-INCHES (OR THE HEIGHT OF THE CURB) TO THE PAVING GRADE FOR TOP OF CURB

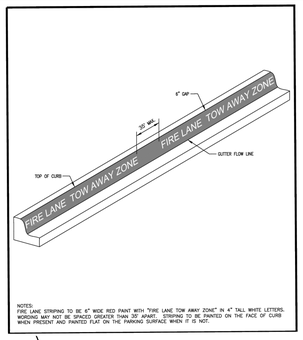
BENCH MARK LIST

BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

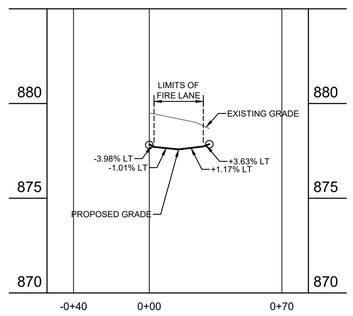
ELEV. = 860.56'

BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN. THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'



SECTION A-A



FIRE PROTECTION NOTES

FIRE PROTECTION DURING CONSTRUCTION

1. FIRE APPARATUS ACCESS ROADS SHALL:
   a. HAVE AN INSIDE RADIUS OF 25 FEET THROUGHOUT THE TURNING MOVEMENT, AND AN OUTSIDE RADIUS OF 50 FEET; ALL RADII LABELED ON PLANS
   b. BE INSTALLED SUCH THAT NO DEAD-END STRETCH IS GREATER THAN 150 FEET IN LENGTH WITHOUT AN APPROVED AREA FOR TURNING AROUND FIRE APPARATUS
   c. HAVE A MINIMUM INSIDE RADIUS OF 28 FEET FOR ALL TURNAROUNDS
   d. HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 20 FEET; 26 FEET REQUIRED WHEN HYDRANTS ARE PRESENT ALONG THE FIRE APPARATUS ACCESS ROAD OR FOR AERIAL APPARATUS ACCESS ROADS
   e. IF LONGER THAN 500 FEET, HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 26 FEET
   f. HAVE AN UNOBSTRUCTED VERTICAL CLEARANCE OF NOT LESS THAN 13 FEET 6 INCHES; AERIAL APPARATUS ACCESS ROADS SHALL HAVE NO VERTICAL OVERHANGS
   g. SHALL HAVE A GRADE WITHIN THE LIMITS ESTABLISHED BY THE FIRE CODE OFFICIAL BASED ON THE CEDAR PARK FIRE DEPARTMENT'S APPARATUS
   i. CURRENTLY, CEDAR PARK REQUIRES THAT NO GRADE SHALL BE STEEPER THAN 12%; NO ANGLES OF APPROACH OR DEPARTURE SHALL HAVE AN ALGEBRAIC DIFFERENCE OF GREATER THAN 8% WITHIN ANY 50-FOOT LENGTH
   h. BE MARKED BY LINES OF RED TRAFFIC PAINT OR DYE A MINIMUM OF 6 INCHES IN WIDTH TO SHOW THE BOUNDARIES OF THE LANE
   i. THE WORDS "FIRE LANE TOW AWAY ZONE" SHALL APPEAR IN 4 INCH WHITE LETTERS NO GREATER THAN 35 FEET APART
      a. THESE WORDS SHALL BE MARKED WITHIN THE RED STRIPE
      ii. FIRE LANE STRIPING SHALL BE CONTINUOUS THROUGHOUT
      iii. CURB FACING SHALL BE USED WHERE AVAILABLE
      a. WHERE THERE IS NO CURB, LAY DOWN STRIPING SHALL BE USED

2. BE MAINTAINED IN AN EASILY DISTINGUISHABLE CONDITION THROUGHOUT CONSTRUCTION
   a. WHERE THIS IS IMPOSSIBLE OR IMPRACTICAL, SIGNS APPROVED BY THE FIRE CODE OFFICIAL MAY BE USED
   i. ALL CONSTRUCTION VEHICLES AND CONSTRUCTION WORKER VEHICLES MUST BE PARKED ON SITE
   ii. NO VEHICLE SHALL BE ALLOWED TO PARK OR STOP IN THE FIRE APPARATUS ACCESS ROADS WHETHER OCCUPIED OR UNOCCUPIED

3. FIRE LANE SHALL EXTEND TO WITHIN
   a. 150 FEET OF ALL PORTIONS OF THE FACILITY
   b. ALL PORTIONS OF THE EXTERIOR WALLS OF THE FIRST STORY OF THE BUILDING AS MEASURED BY AN APPROVED ROUTE AROUND THE EXTERIOR OF THE BUILDING
   c. INTO INTERIOR COURTYARDS AS APPROVED BY THE FIRE CODE OFFICIAL

4. PLEASE NOTE THAT FIRE APPARATUS ACCESS ROADS SHALL BE INSTALLED
   a. PRIOR TO COMBUSTIBLE MATERIALS ARRIVING ON SITE AND
   b. PRIOR TO THE ONSET OF VERTICAL CONSTRUCTION

5. COMPACTED ROAD BASE
   a. CONTRACTOR SHOULD PLAN TO INSTALL FIRST LIFT OF ASPHALT.
   b. ROAD BASE IS NOT CONSIDERED A SUBSTITUTE FOR AN APPROVED FIRE APPARATUS ACCESS ROAD, WITH THE FOLLOWING EXCEPTION:
   i. COMPACTED BASE MAY BE USED AS FIRE APPARATUS ACCESS ROAD DURING CONSTRUCTION IF APPROVED BY THE FIRE MARSHAL'S OFFICE.
      a. PERMISSION MUST BE GRANTED IN PERSON
      b. A COMPACTION REPORT SHALL BE SUBMITTED BY A THIRD-PARTY GROUP PRIOR TO VERTICAL CONSTRUCTION AND AT ANY TIME THROUGHOUT THE CONSTRUCTION PROCESS WHEN DEEMED NECESSARY BY THE FIRE MARSHAL'S OFFICE
      c. REQUIRED COMPACTION IS 100% OF OPTIMAL DENSITY THROUGHOUT
      d. FAILURE TO MAINTAIN COMPACTED BASE MAY RESULT IN A HALT IN CONSTRUCTION UNTIL ACCESS IS RESTORED ACCORDING TO THESE STANDARDS.
      e. EVEN WITH COMPACTED BASE, ALL CONCRETE DRIVEWAY APPROACHES MUST BE INSTALLED.

FIRE DEPARTMENT CONNECTIONS (FDC)

1. FIRE DEPARTMENT CONNECTIONS MUST
   a. BE INSTALLED ON THE FRONT OF THE BUILDING,
      i. IN A LOCATION THAT IS READILY VISIBLE FROM THE APPROVED FIRE APPARATUS ACCESS ROAD
      ii. HAVE A MINIMUM OF 36 INCHES OF CLEAR SPACE MAINTAINED AROUND THE CIRCUMFERENCE OF THE FDC
      iii. HAVE A FIRE HYDRANT WITHIN 100 FEET OF THE FDC AND BE LOCATED IN SUCH A WAY THAT THE CONNECTION DOES NOT OBSTRUCT THE FIRE APPARATUS ACCESS ROAD FOR OTHER ARRIVING FIRE APPARATUS
      iv. NOT BE BLOCKED FROM VIEW OR USE BY
         a. STRUCTURAL MEMBERS
         b. PARKING SPACES
         c. TREES
         d. LANDSCAPING, ETC.
      v. A WHITE REFLECTOR IS REQUIRED TO BE MOUNTED IN THE CENTER OF THE ADJACENT DRIVE TO MARK THE FDC LOCATION

2. WHERE AN FDC IS SUBJECT TO IMPACT BY A MOTOR VEHICLE
   a. GUARD POSTS SHALL BE CONSTRUCTED AS SET FORTH IN IFC SECTION 312 AND COMPLY WITH THE FOLLOWING REQUIREMENTS:
      i. GUARD POSTS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
      ii. CONSTRUCTED OF STEEL NOT LESS THAN 4 INCHES IN DIAMETER, FILLED COMPLETELY WITH CONCRETE
      iii. SPACED NOT MORE THAN 4 FEET ON CENTER BETWEEN POSTS
      iv. SET NOT LESS THAN 3 FEET DEEP IN A CONCRETE FOOTING OF NOT LESS THAN 15 INCHES IN DIAMETER
      v. SET WITH THE TOP OF THE POSTS NOT LESS THAN 3 FEET ABOVE GRADE
      vi. LOCATED NOT LESS THAN 3 FEET FROM THE PROTECTED OBJECT

3. A REMOTE FDC MAY BE USED WHERE APPROVED BY THE FIRE CODE OFFICIAL; THIS IS RARE
   a. DETAILED PLANS SHALL BE REQUIRED IN THIS CASE.

FLAMMABLE/COMBUSTABLE WASTE AND STORAGE

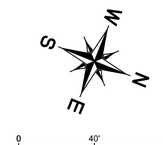
1. FLAMMABLE AND COMBUSTABLE LIQUID STORAGE AREAS SHALL
   a. BE MAINTAINED CLEAR OF COMBUSTABLE VEGATATION AND WASTE MATERIALS
   b. NOT BE USED FOR THE STORAGE OF OTHER COMBUSTABLE MATERIALS

2. COMBUSTIBLE DEBRIS, RUBBISH, AND WASTE MATERIAL SHALL
   a. NOT BE ALLOWED TO ACCUMULATE WITHIN BUILDINGS
   b. BE REMOVED FROM BUILDINGS AT THE END OF EACH SHIFT OR WORK DAY
   c. NOT BE DISPOSED OF BY BURNING ON SITE

3. MATERIALS SUSCEPTIBLE TO SPONTANEOUS IGNITION SUCH AS OILY RAGS,
   SHALL BE STORE IN A UL LISTED DISPOSAL CONTAINER
   a. CONTENTS OF SUCH CONTAINERS SHALL BE REMOVED AND DISPOSED OF DAILY
   b. STORAGE OF COMBUSTIBLE RUBBISH SHALL NOT PRODUCE CONDITIONS THAT WILL CREATE A NUISANCE OR BE A HAZARD TO PUBLIC HEALTH, SAFETY, OR WELFARE

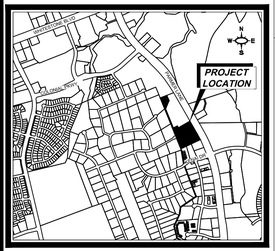
4. COMBUSTIBLE WASTE MATERIAL CREATING A FIRE HAZARD SHALL NOT BE ALLOWED TO ACCUMULATE IN BUILDINGS OR STRUCTURE, OR ON PREMISES

5. OUTSIDE STORAGE OF COMBUSTIBLE MATERIALS SHALL NOT BE LOCATED WITHIN 10 FEET OF A PROPERTY LINE



LEGEND

FL / FL	FIRE LANE PAVEMENT SECTION 7" CONC. ON 6" COMPACT SUBGRADE
	PROPOSED LIGHT DUTY PAVEMENT
	PROPOSED BUILDING
	PROPSED CONTOUR - MAJOR
	PROPOSED CONTOUR - MINOR
	EXISTING CONTOUR - MAJOR
	EXISTING CONTOUR - MINOR
	BARRIER FREE RAMP (BFR)
	ACCESSIBLE PARKING SYMBOL
X	NUMBER OF PARKING SPACES
WM	WATER METER (AND VAULT)
FH	FIRE HYDRANT
FDC	FIRE DEPARTMENT CONNECTION
S	SANITARY SEWER MANHOLE
T	TRANSFORMER PAD
	CURB INLET
	GRATE INLET
	JUNCTION BOX OR WYE INLET
	HEADWALL
TYP	TYPICAL
SSE	SANITARY SEWER EASEMENT
WE	WATER EASEMENT
DE	DRAINAGE EASEMENT
BFR	BARRIER FREE RAMP
SW	SIDEWALK
BL	BUILDING LINE/SETBACK
CI	CURB INLET
GI	GRATE INLET
WI	WYE INLET
JB	JUNCTION BOX
MH	MANHOLE
EX	EXISTING
PROP.	PROPOSED



VICINITY MAP
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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT	069274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH
CEDAR PARK, TEXAS

CEDAR PARK

FIRE PREVENTION SHEET

SD-20-00020
SHEET NUMBER
SHEET 11 OF 92

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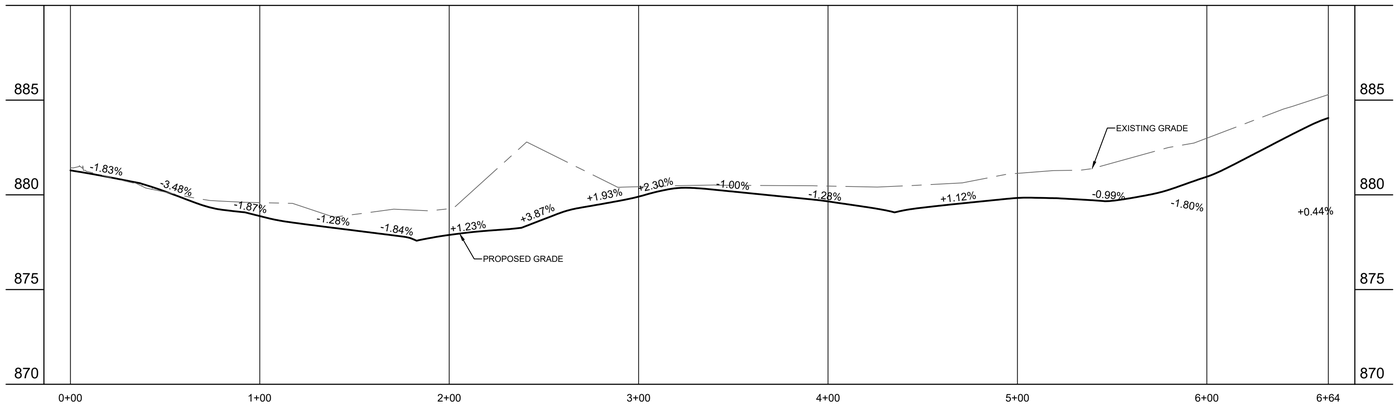
[FIRE PREVENTION SHEET]

FIRE LANE A



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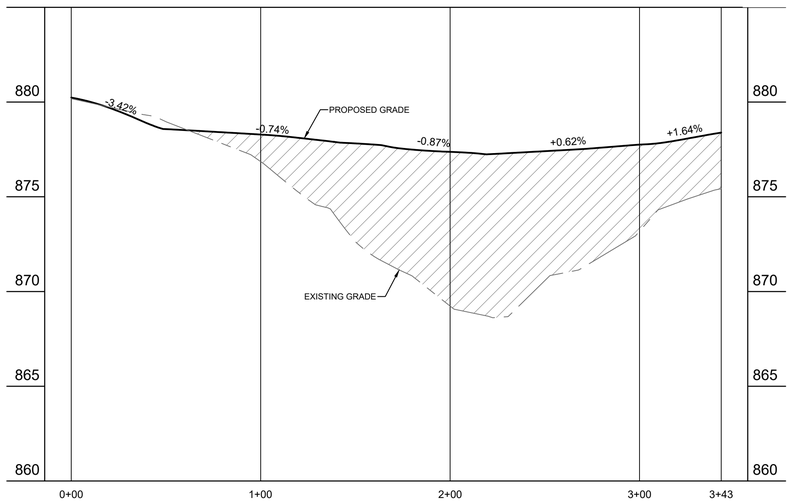

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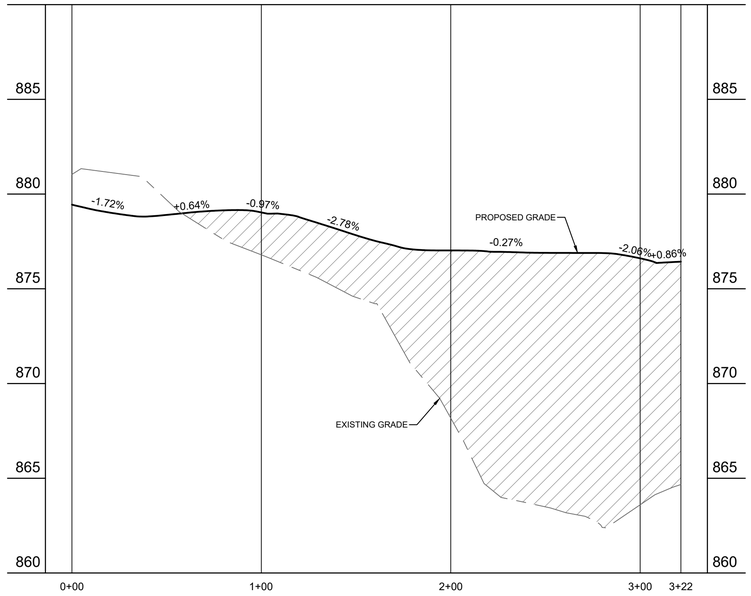

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No.	REVISIONS	DATE	BY

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402			
DATE	DECEMBER 2022		
SCALE	AS SHOWN		
DESIGNED BY	RPS	AH	
DRAWN BY	AH	RPS	
CHECKED BY	RPS		

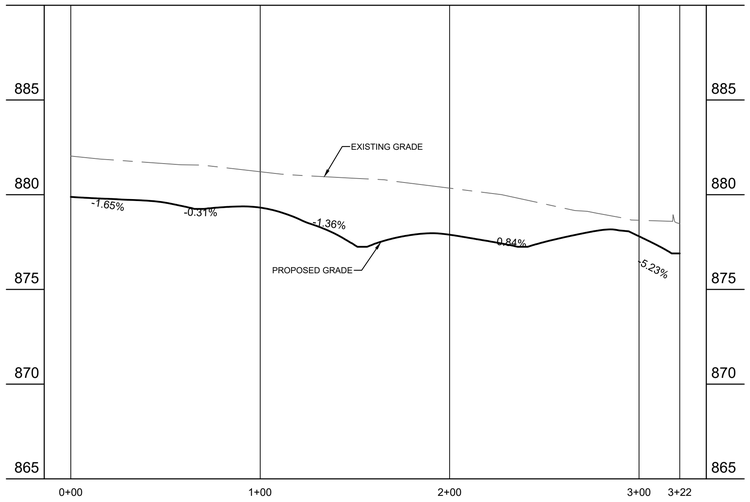
VELSA RANCH
CEDAR PARK, TEXAS

CEDAR PARK

FIRE LANE PROFILES

SD-20-00020
SHEET NUMBER
SHEET 12 OF 92

FIRE LANE D



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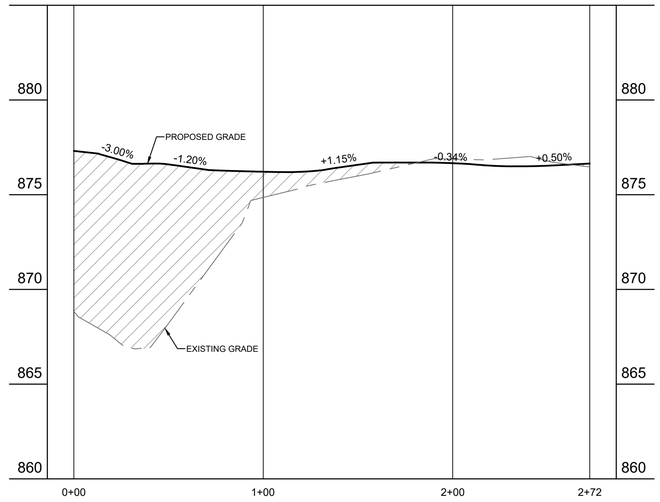

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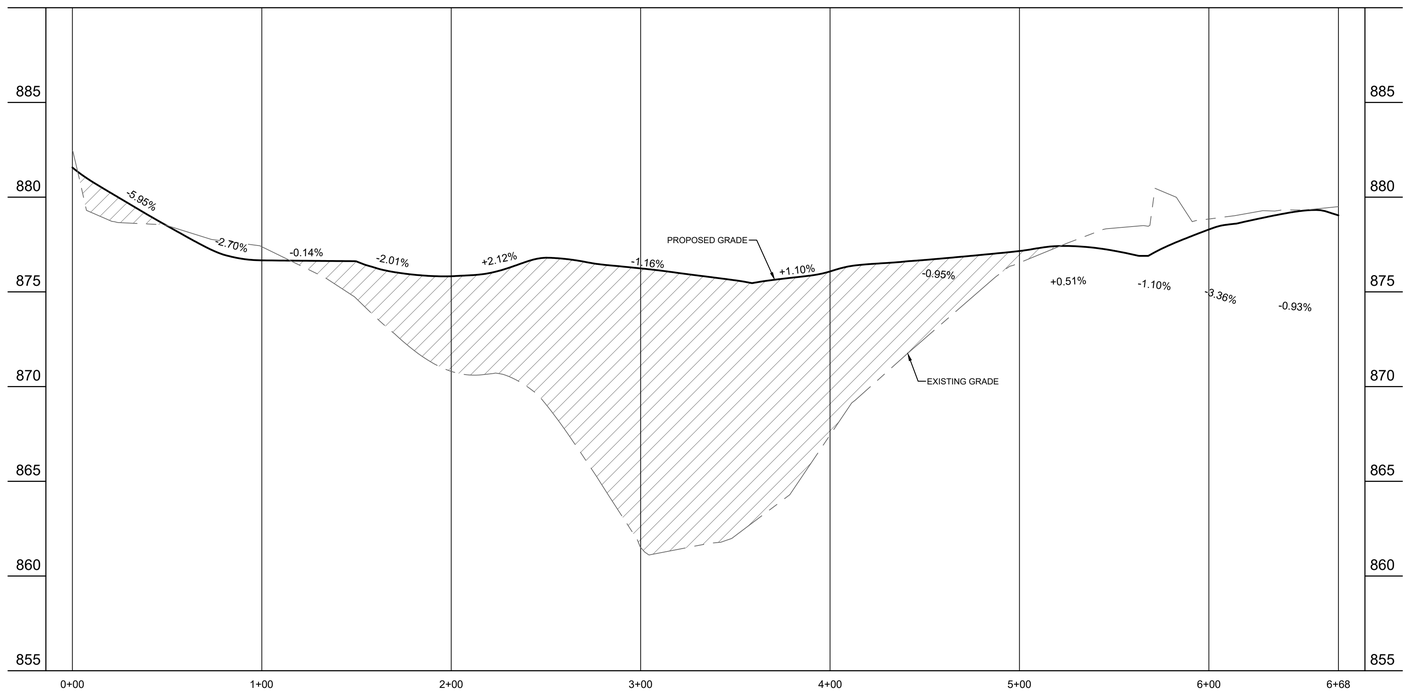

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No.	REVISIONS	DATE	BY

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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT	069274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

FIRE LANE PROFILES

SD-20-00020
SHEET NUMBER

SHEET 13 OF 92

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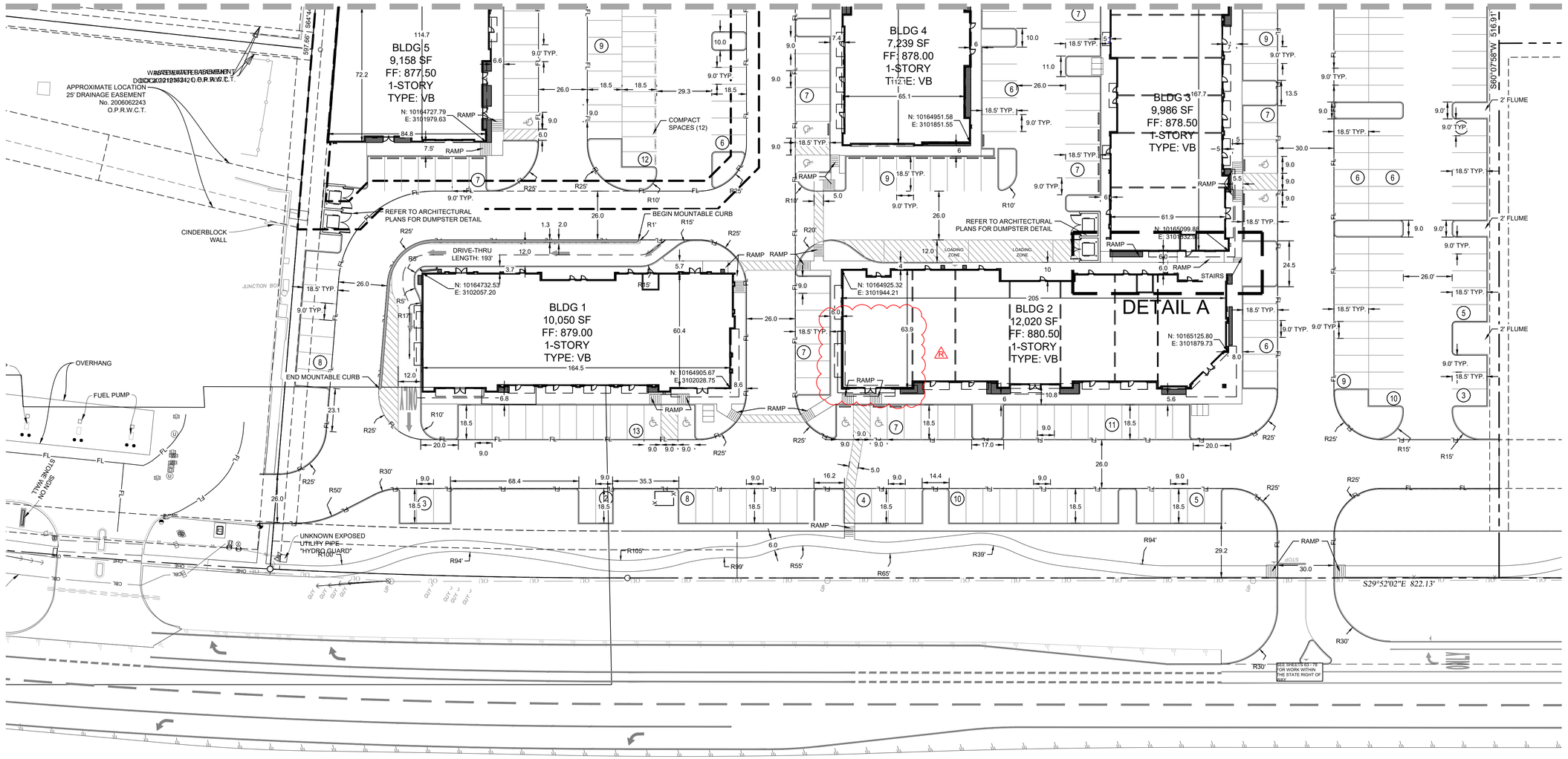
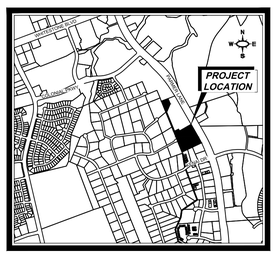
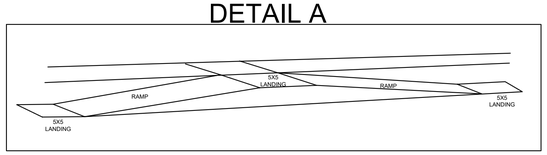




DETAIL A



NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
2. ALL CURB RADII ARE 2' UNLESS NOTED OTHERWISE.
3. LANDSCAPE ISLANDS MUST BE A MINIMUM 10' WIDE MEASURED TO FACE OF CURB.
4. ALL RADII ALONG 30' WIDE FIRE LANE ARE MIN 20' AT FACE OF CURB. ALL RADII ALONG 26' WIDE FIRE LANE ARE MIN 25' AT FACE OF CURB.
5. CONTRACTOR TO VERIFY T.A.S. COMPLIANCE, FOR ANY QUESTIONS CONTACT CIVIL ENGINEER IMMEDIATELY.
6. CONTRACTOR TO VERIFY ENGINEERING PLANS MATCH ARCHITECTURAL PLANS BEFORE CONSTRUCTION STAKING.
7. REFER TO LANDSCAPE PLANS FOR ALL SIDEWALK, SCREENING, OPEN SPACE CALCULATIONS, AND MONUMENT SIGN LOCATIONS.
8. REFER TO BUILDING ELEVATION PLANS FOR ALL BUILDING SIGNAGE LOCATIONS AND DETAILS (BY OTHERS)
9. A 10'X10' WATER EASEMENT TO BE PROVIDED AROUND EACH FIRE HYDRANT
10. ALL FIRE LANES SHALL BE CONSTRUCTED PER CITY OF CEDAR PARK SPECIFICATIONS
11. ALL CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF CEDAR PARK STANDARD DETAILS FOR CURB RAMPS.
12. COORDINATES SHOWN FOR BUILDING CORNERS, IN SOME CASES, REPRESENT THE OUTER BUILDING ENVELOPE PROJECTED BY THE OUTER-MOST BUILDING FACADE. THEY DO NOT ALWAYS REPRESENT THE ACTUAL BUILDING CORNER. CONTRACTOR SHALL REFER TO BUILDING SLAB PLANS FOR SPECIFIC DIMENSIONS AND BUILDING CORNER LOCATIONS.
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LEGEND

FL / FL	PROPOSED FIRE LANE
	EXISTING PAVEMENT
	PROPOSED BUILDING
	BARRIER FREE RAMP (BFR)
	ACCESSIBLE PARKING SYMBOL
X	NUMBER OF PARKING SPACES
TYP.	TYPICAL
BFR	BARRIER FREE RAMP
SW	SIDEWALK
BL	BUILDING LINE/SETBACK
EX	EXISTING
PROP.	PROPOSED

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

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1	REVISION	08/19/2024	RPS

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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT	069274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

DIMENSION CONTROL PLAN (1 OF 2)

SD-20-00020

SHEET NUMBER

SHEET 14 OF 92

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Know what's below. Call before you dig.

BENCH MARK LIST

BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

ELEV. = 860.56'

BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN. THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'

NOTES

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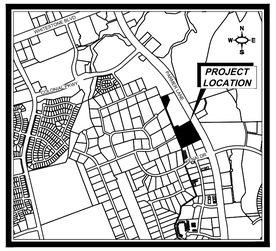
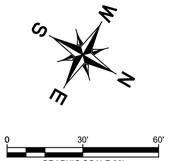
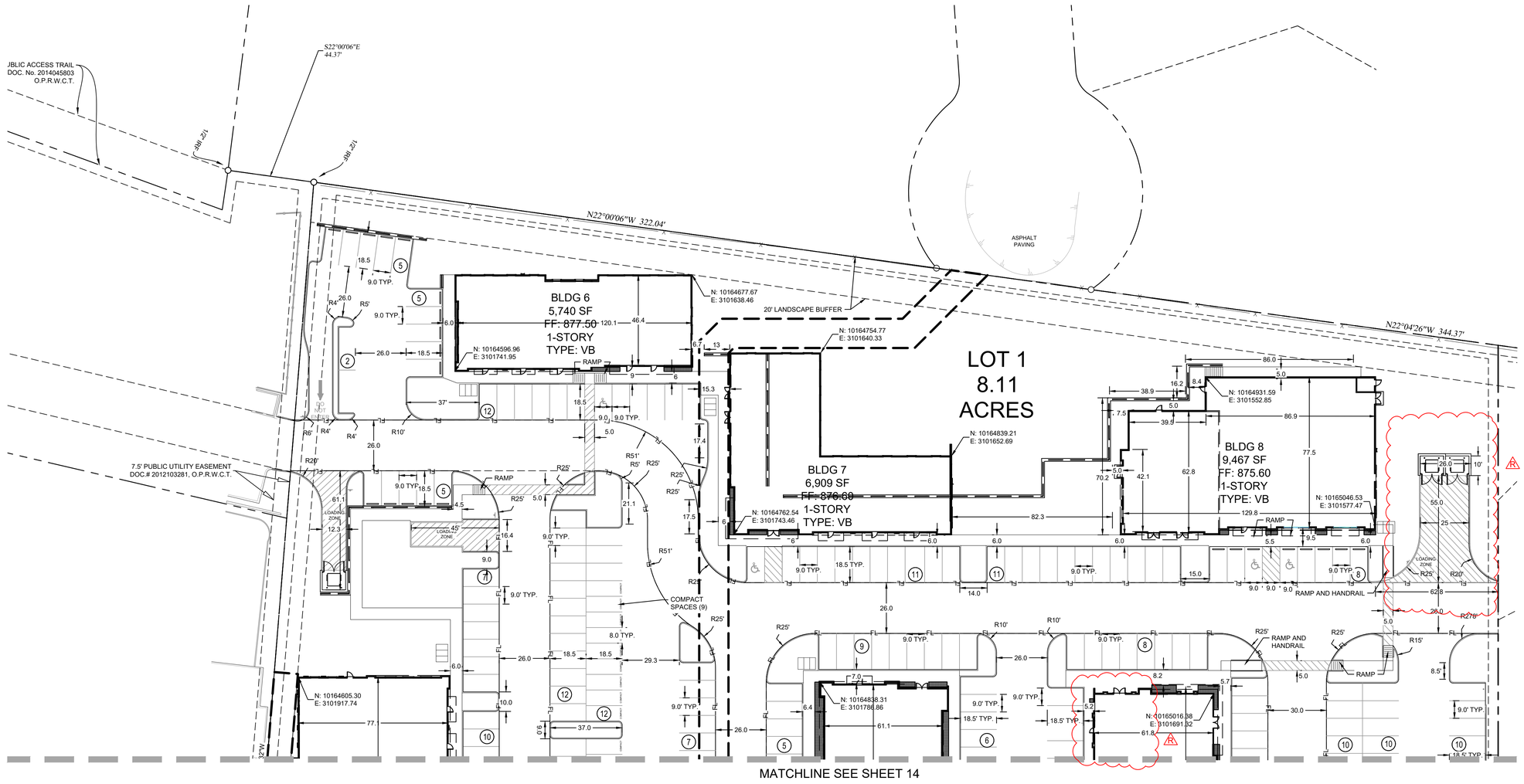
LEGEND

FL / FL	PROPOSED FIRE LANE
	EXISTING PAVEMENT
	PROPOSED BUILDING
	BARRIER FREE RAMP (BFR)
	ACCESSIBLE PARKING SYMBOL
(X)	NUMBER OF PARKING SPACES
TYP.	TYPICAL
BFR	BARRIER FREE RAMP
SW	SIDEWALK
BL	BUILDING LINE/SETBACK
EX	EXISTING
PROP.	PROPOSED



VICINITY MAP
N.T.S.





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K:\AUS_DON\SIBERG\400-CEDAR PARK - PARMER 17 ACRES\ADP\PLANSHEETS
SD-20-00020 DIMENSION CONTROL PLAN (2 OF 2).DWG
DIMENSION CONTROL PLAN (2 OF 2)

No.	REVISIONS	DATE	BY
1	REVISION	08/19/2024	RPS

Kimley»Horn

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280 EAST DAVIS STREET, SUITE 100, MCKINNEY, TX 75069
PHONE: 469-301-2580 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM TX F-928

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402		SCALE	AS SHOWN
DATE	DECEMBER 2022	DESIGNED BY	RPS
		DRAWN BY	AH
		CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

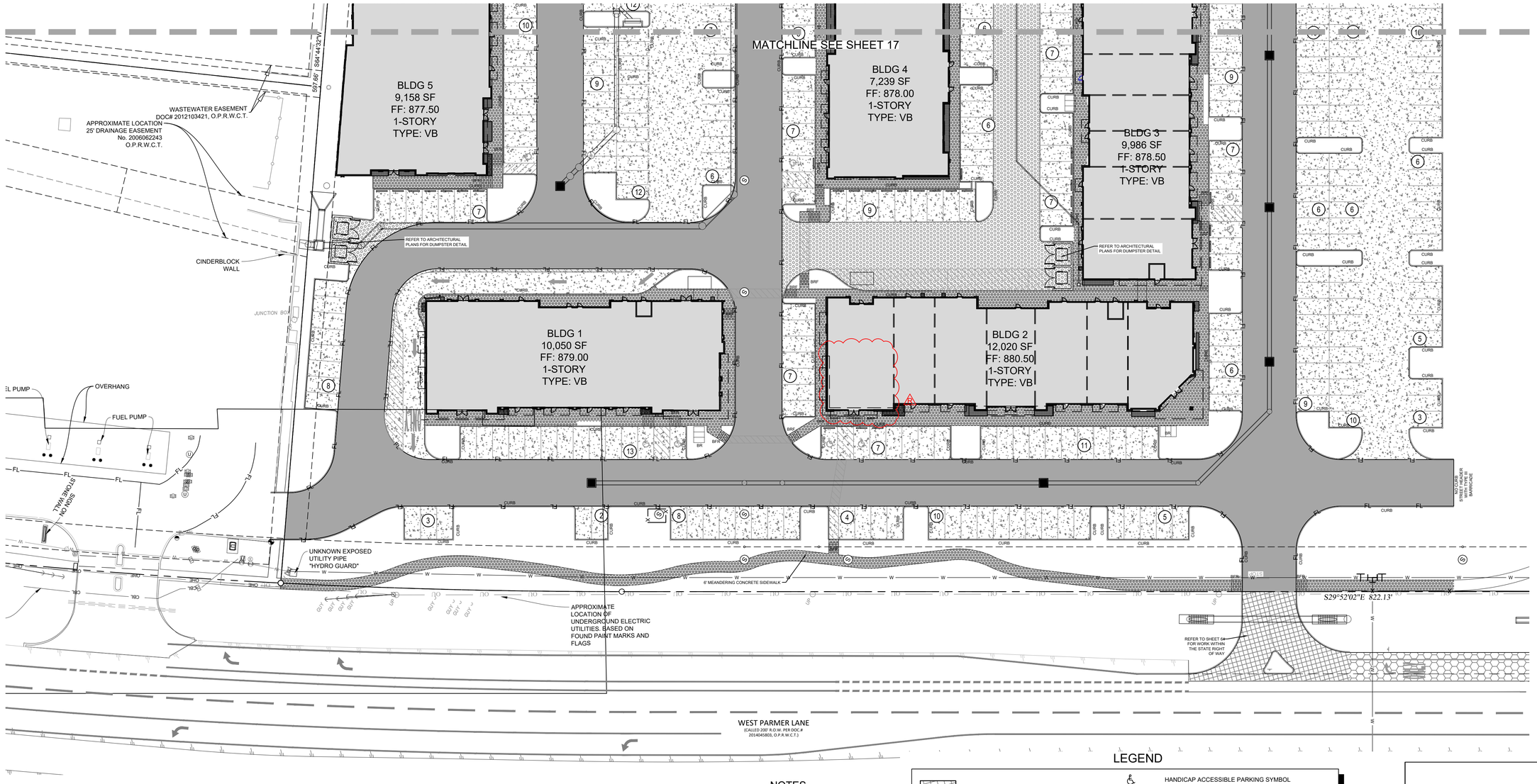
CEDAR PARK

DIMENSION CONTROL PLAN (2 OF 2)

SD-20-00020

SHEET NUMBER

SHEET 15 OF 92



0 30' 60'
GRAPHIC SCALE 30'

NOTES

1. REFERENCE LANDSCAPE ARCHITECT PLANS FOR SIDEWALK AND SPECIALITY PAVEMENTS. SIDEWALKS SHOWN ON THIS PLAN ARE NOT FINAL AND ARE FOR REFERENCE ONLY.
2. BARRIER FREE RAMPS SHOWN AS SYMBOL ONLY. REFERENCE DETAILS.
3. REFERENCE LANDSCAPE PLANS FOR LANDSCAPE ISLAND PLANTINGS.

REFER TO GEOTECHNICAL REPORT PREPARED BY BRAUN-INTERTEC PROJ. #B2007025 DATED SEPTEMBER 3, 2020.

LEGEND

- TxDOT PAVEMENT SECTION
- FIRE LANE PAVEMENT SECTION 7" CONC. ON 6" COMPACT SUBGRADE
- HEAVY DUTY PAVEMENT SECTION 7" CONC. ON 6" COMPACTED SUBGRADE
- LIGHT DUTY PAVEMENT SECTION 5" CONC. ON 6" COMPACTED SUBGRADE
- SIDEWALK PAVEMENT SECTION
- PROPOSED BUILDING
- ADA CROSSWALK

	HANDICAP ACCESSIBLE PARKING SYMBOL
TYP	TYPICAL
SSE	SANITARY SEWER EASEMENT
WE	WATER EASEMENT
DE	DRAINAGE EASEMENT
BFR	BARRIER FREE RAMP
SW	SIDEWALK
BL	BUILDING LINE/SETBACK
CI	CURB INLET
GI	GRATE INLET
WI	WYE INLET
JB	JUNCTION BOX
MH	MANHOLE
EX	EXISTING
PROP.	PROPOSED
BR	BIKE RACK (3 SPACES PER RACK REQUIRED)
BFR	BARRIER FREE RAMP SYMBOL. (REF TxDOT DETAILS)

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

No.	REVISIONS	DATE	BY
1		08/19/2024	RPS

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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402
DATE DECEMBER 2022
SCALE AS SHOWN
DESIGNED BY RPS
DRAWN BY AH
CHECKED BY RPS

VELSA RANCH
CEDAR PARK, TEXAS

CEDAR PARK

PAVING PLAN (1 OF 2)

SD-20-00020
SHEET NUMBER
SHEET 16 OF 92

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K:\AUS_CIVIL\069274402-CEDAR PARK - THIMBER 117 ACRE\CAD\PLANSHEETS
RYAN.SCHUBERT [K:\AUS_CIVIL\069274402-CEDAR PARK - THIMBER 117 ACRE\CAD\PLANSHEETS\ ]

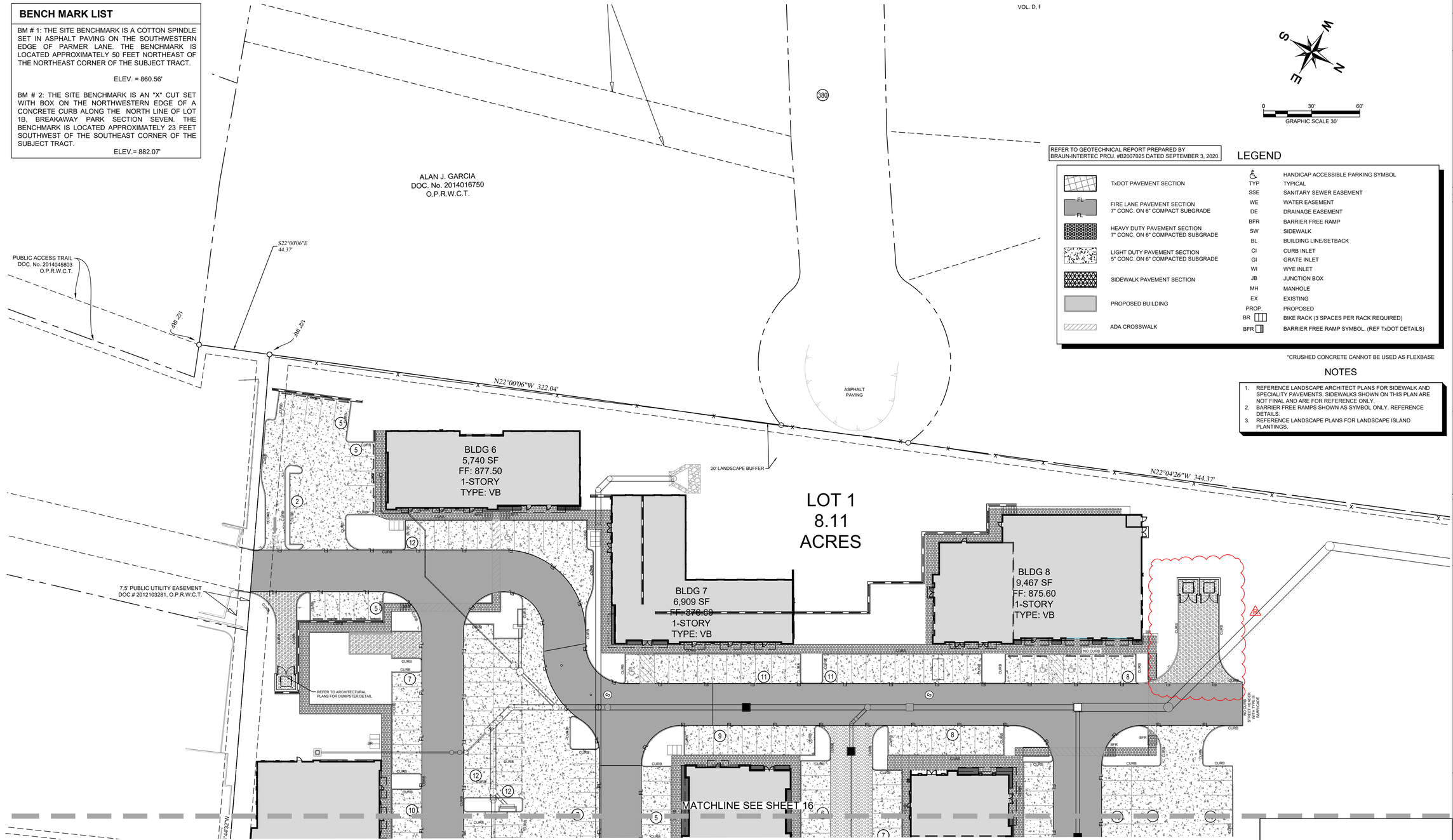
BENCH MARK LIST

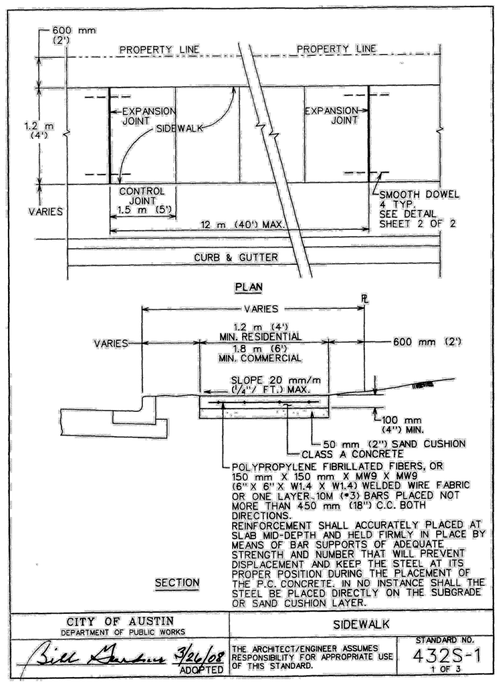
BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

ELEV. = 860.56'

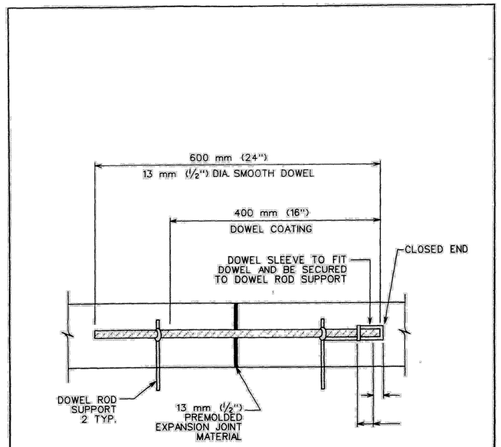
BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN. THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'

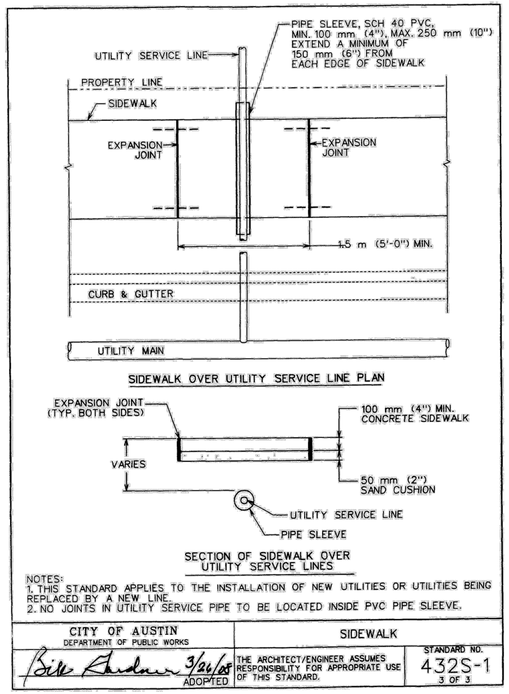

VOL. D, F
380
ALAN J. GARCIA
DOC. No. 2014016750
O.P.R.W.C.T.
PUBLIC ACCESS TRAIL
DOC. No. 2014045803
O.P.R.W.C.T.
S22°00'06"E
44.37'
S68°42'W
N22°00'06"W 322.04'
N22°04'26"W 344.37'
ASPHALT PAVING
20' LANDSCAPE BUFFER
BLDG 6
5,740 SF
FF: 877.50
1-STORY
TYPE: VB
LOT 1
8.11
ACRES
BLDG 7
6,909 SF
FF: 876.60
1-STORY
TYPE: VB
BLDG 8
9,467 SF
FF: 875.60
1-STORY
TYPE: VB
7.5' PUBLIC UTILITY EASEMENT
DOC.# 20121033281, O.P.R.W.C.T.
REFER TO ARCHITECTURAL PLANS FOR DUMPSTER DETAIL
NO CURB
NO CURB
NO CURB



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SIDEWALK	
Bill Gardner 3/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 1 OF 3

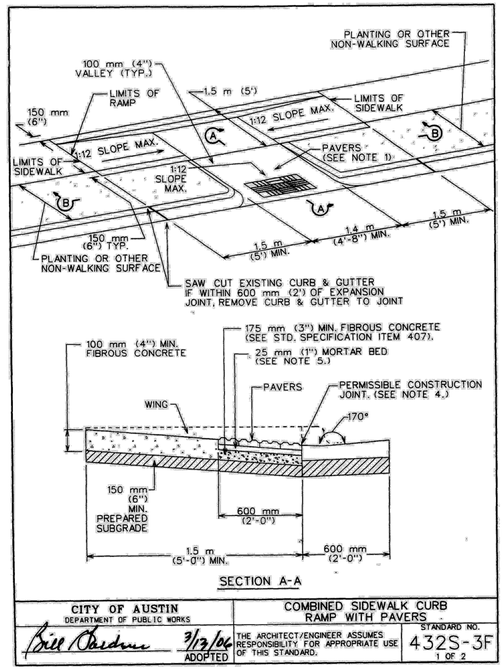


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SIDEWALK	
Bill Gardner 3/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 2 OF 3

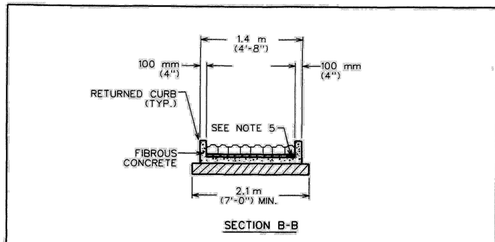


NOTES:
1. THIS STANDARD APPLIES TO THE INSTALLATION OF NEW UTILITIES OR UTILITIES BEING REPLACED BY A NEW LINE.
2. NO JOINTS IN UTILITY SERVICE PIPE TO BE LOCATED INSIDE PVC PIPE SLEEVE.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SIDEWALK	
Bill Gardner 3/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 3 OF 3

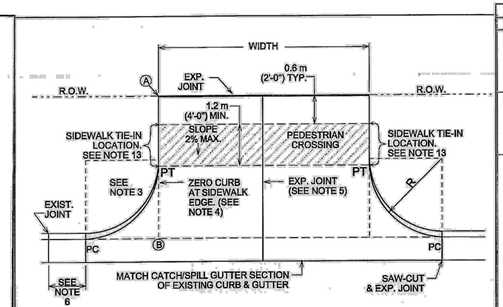


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	COMBINED SIDEWALK CURB RAMP WITH PAVERS	
Bill Gardner 3/13/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-3F 1 OF 2

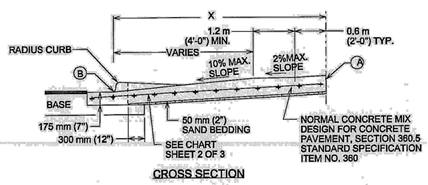


GENERAL NOTES:
1. THIS STANDARD IS APPLICABLE FOR RAMP CONSTRUCTION WITHIN RIGHT-OF-WAY OR EASEMENT ONLY.
2. PAVERS WILL HAVE DETECTABLE WARNING THAT CONSISTS OF RAISED TRUNCATED DOMES WITH A DIAMETER OF 23 mm (0.9"), A NOMINAL HEIGHT OF 5 mm (0.2") AND A NOMINAL CENTER TO CENTER SPACING OF 60 mm (2.35") AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT (Re: ADAAG SECTION 4.29.2). MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. A BASKET WEAVE PAVER PATTERN SHALL BE USED UNLESS DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. PAVER PATTERN VARIES PER MANUFACTURER'S RECOMMENDATIONS. REFER TO STANDARD DETAIL 432S-5 FOR PAVER BASE PREPARATION DETAILS.
3. THE CURB, GUTTER AND RAMP SYSTEM SHALL BE CONFIGURED TO MAINTAIN ALL RUNOFF FROM A 25 YEAR FREQUENCY STORM WITHIN THE RIGHT-OF-WAY (DRAINAGE CRITERIA MANUAL SECTION 1.2.2.B).
4. TYPICAL SIDEWALK WIDTHS AND CURB RADII ARE SHOWN FOR ILLUSTRATION ONLY. REFER TO THE TRANSPORTATION CRITERIA MANUAL FOR SIDEWALK WIDTHS, CURB RADII AND CURB BASIC REQUIREMENTS.
5. THE PERMISSIBLE CONSTRUCTION JOINT BETWEEN THE PAVERS AND THE ADJOINING SURFACE SHALL BE LIMITED TO 6 mm (1/4") JOINT SIZE, GAPS LARGER THAN 6 mm (1/4") MUST BE APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. ALL JOINTS BETWEEN BRICKS AND ADJOINING SURFACE SHALL BE MORTAR FILLED UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
6. MORTAR SHALL CONFORM TO STD. SPECIFICATION ITEM SECTION 403S.3.5, MORTAR AND GROUT. ALL OTHER CONCRETE SHALL CONFORM TO STD. SPECIFICATION ITEM 403S, CONCRETE FOR STRUCTURES, UNLESS OTHERWISE NOTED.
7. CURB RAMPS WITH 100 mm (4") CONCRETE VALLEY MAY ONLY BE USED WHERE PEDESTRIANS WOULD NOT NORMALLY WALK DIAGONALLY ACROSS THE RAMP.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	COMBINED SIDEWALK CURB RAMP WITH PAVERS	
Bill Gardner 3/13/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-3F 2 OF 2

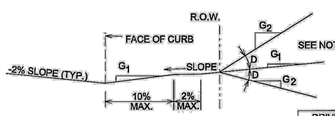


NOTE: ALL DRIVEWAYS SHALL BE SLOPED TOWARDS THE STREET FROM THE R.O.W. LINE. ELEVATION OF POINT (A) ABOVE POINT (B) IS, TYPICALLY A MINIMUM OF 150 mm (6") PLUS 20 mm/m (1/4" RISE/FOOT) OVER DISTANCE "X" IN METERS (FEET).



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPE II DRIVEWAY	
2/24/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 1 OF 2

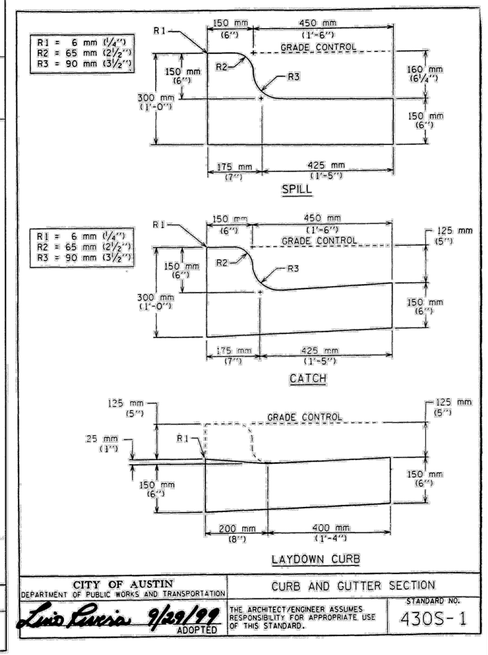
USE	THICKNESS	REINFORCEMENT
DRIVEWAYS FOR PASSENGER VEHICLE PARKING LOTS	150 mm (6") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF 13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS
ALL OTHERS	175 mm (7") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF 13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS



DRIVEWAY VOLUME (ADT)	D=GRADE CHANGE STD.	MAX
>1500	0%	3%
500-1500	3%	6%
< 500	6%	15%

NOTES:
1. ALL TYPE II DRIVEWAYS SHALL HAVE RADIUS ENDS.
2. DRIVEWAY WIDTHS AND RADII DIMENSIONS, ONE/TWO WAY TRAVEL REQUIREMENTS, AND GEOMETRIC LAY-OUT ARE HIGHLY VARIABLE, SUBJECT TO SITE SPECIFIC CONDITIONS AND REQUIREMENTS. SEE TRANSPORTATION CRITERIA MANUAL, SECTION 5 "DRIVEWAYS".
3. THE DRIVEWAY EDGE SHALL BE SMOOTHLY TRANSITITIONED INTO THE SIDEWALK TIE-IN LOCATION BEGINNING AT THE RADIUS PC LINE.
4. "ZERO" CURB AT PT OR SIDEWALK EDGE, WHICHEVER IS ENCOUNTERED FIRST.
5. PLACE AN EXPANSION JOINT DOWN THE CENTER OF DRIVEWAY ALL DRIVEWAYS.
6. IF DIMENSION IS LESS THAN 1.5 METERS (5 FEET), REMOVE CURB AND GUTTER TO EXISTING JOINT AND POUR MONOLITHICALLY WITH DRIVEWAY.
7. IF THE BASE IS OVER-EXCAVATED WHERE THE CURB AND GUTTER WERE REMOVED, BACKFILL WITH CONCRETE MONOLITHICALLY WITH THE DRIVEWAY.
8. TYPE II DRIVEWAYS ARE TO BE LOCATED NO CLOSER TO THE CORNER OF INTERSECTING RIGHT OF WAY THAN 60% OF PARCEL FRONTAGE AT 30 METERS (100 FEET); WHICHEVER IS LESS.
9. DRIVEWAY SHALL NOT BE CONSTRUCTED WITHIN THE CURB RETURN OF A STREET INTERSECTION.
10. WHILE THE PROPERTY OWNER REMAINS RESPONSIBLE FOR GRADE BREAKS WITHIN PRIVATE PROPERTY, THE FIRE DEPARTMENT SHALL BE CONSULTED WHERE THE DRIVEWAY IS ESSENTIAL TO EMERGENCY VEHICLE ACCESS AND GRADES ARE GREATER THAN 15%.
11. USE 12 MM (1/2") ASPHALT BOARD OR OTHER APPROVED MATERIAL FOR CURB AND GUTTER EXPANSION JOINTS. SIDEWALK, AT THE R.O.W. LINE AND AT MIDWIDTH, SEE NOTE 5.
12. SEE TRANSPORTATION CRITERIA MANUAL, SECTION 5 FOR OTHER DRIVEWAY REQUIREMENTS.
13. THE SIDEWALK, REGARDLESS OF ITS LOCATION WITH RESPECT TO THE CURB OR PROPERTY LINE, SHALL BE CONNECTED TO THE DRIVEWAY AT THESE LOCATIONS.
14. WATER METER BOXES AND WASTEWATER CLEAN OUTS ARE PROHIBITED FROM BEING LOCATED IN DRIVEWAY AREAS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPE II DRIVEWAY	
2/24/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 2 OF 2



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION	CURB AND GUTTER SECTION	
Luis Rivera 9/29/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 430S-1

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8/5/2024 10:29 AM
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DWG PATH
K:\AUS_ORLUNDSTAD-CEDAR PARK-TRAINER 17 ACRE\CAD\PLANSHEETS
DWG NAME
PAVING DETAILS SHEET 1 OF 2.DWG

NO.	REVISIONS	DATE	BY

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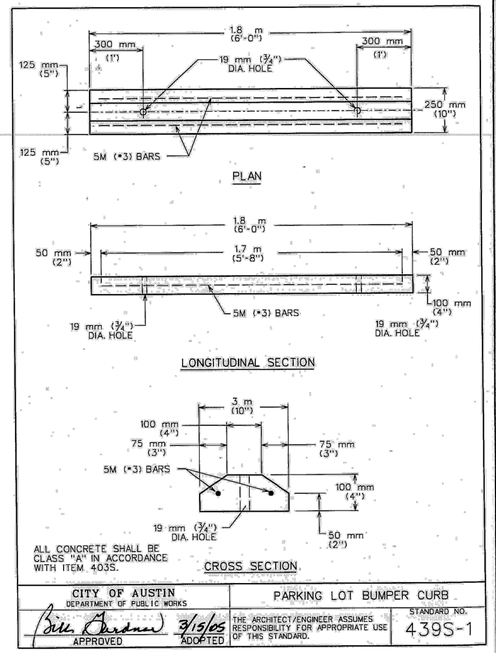
STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402			
DATE	DECEMBER 2022		
SCALE	AS SHOWN		
DESIGNED BY	RPS	DRAWN BY	AH
CHECKED BY	RPS		

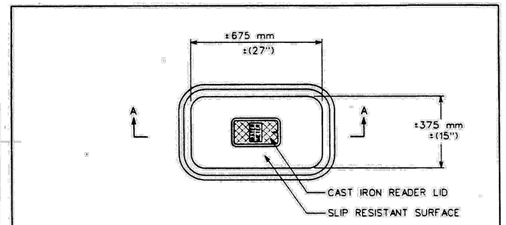
VELSA RANCH
CEDAR PARK, TEXAS

PAVING DETAILS

SD-20-00020
SHEET NUMBER
SHEET 18 OF 92



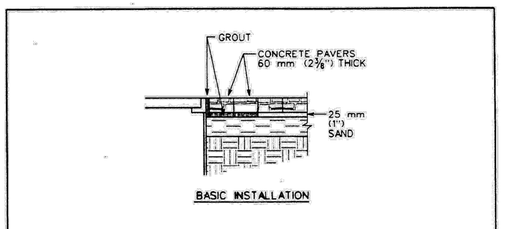
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	PARKING LOT BUMPER CURB	
Bill Hardman 3/15/05 APPROVED ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 439S-1



ALTERNATE 38 mm (1½") AND 50 mm (2") WATER METER VAULT

ALTERNATE BACKFLOW PREVENTOR VAULT

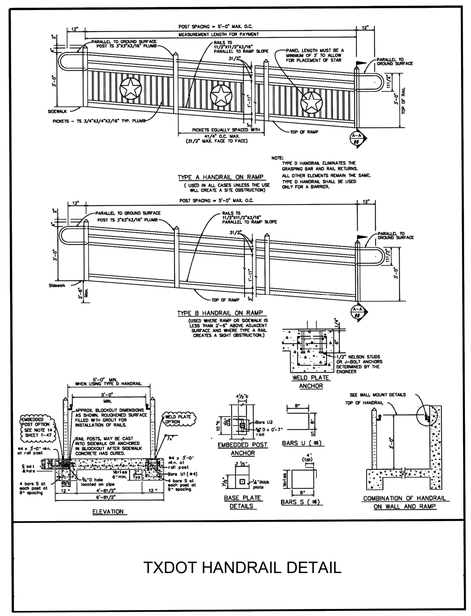
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SIDEWALK PAVER INSTALLATION- WATER METER VAULT	
Bill Hardman 9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 480S-2 1 OF 2



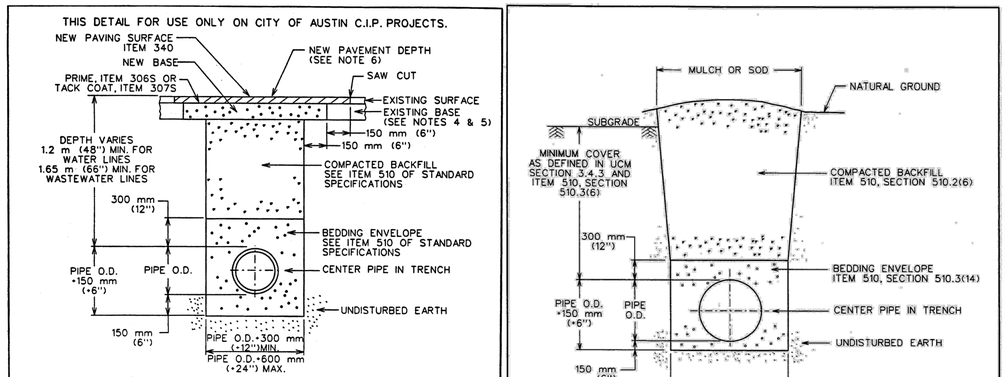
NOTES:

1. THE CONCRETE PAVERS SHALL MEET THE REQUIREMENTS OF STANDARD SPECIFICATION ITEM NO. 480S,"CONCRETE PAVER UNITS".
2. THE GROUT MIX SHALL MEET THE REQUIREMENTS OF SECTION 485S.3.E, 'GROUT MIX' OF STANDARD SPECIFICATION ITEM NO. 485S,"CONCRETE PAVER UNITS FOR SIDEWALK RAMPS".
3. THE FIRST TWO ROWS OF CONCRETE PAVERS ADJACENT TO THE WATER METER FRAME SHALL BE SET IN A 25 mm (1") THICK GROUT LAYER.
4. AS AN ALTERNATE TO SETTING THE FIRST TWO ROWS OF CONCRETE PAVERS IN A GROUT LAYER, A PC CONCRETE BAND (CLASS A, ITEM 403S, "CONCRETE FOR STRUCTURES"), 100 mm (4") DEEP AND 150 mm (6") WIDE, SHALL BE CONSTRUCTED AROUND THE PERIMETER OF THE WATER METER FRAME.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SIDEWALK PAVER INSTALLATION- WATER METER VAULT	
Bill Hardman 9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 480S-2 2 OF 2



TXDOT HANDRAIL DETAIL



NOTES:

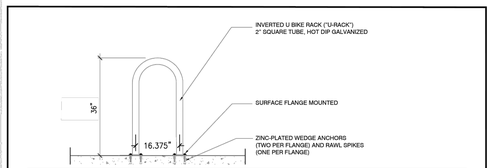
1. THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE A MINIMUM OF 300 mm (12") WIDER THAN THE UNDISTURBED SIDES OF THE TRENCH, SYMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION.
2. ANY CONCRETE PAVING SHALL BE SAW CUT 150 mm (6") WIDER THAN UNDISTURBED SIDES OF EXCAVATION.
3. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX OR TEMPORARY HOT MIX ASPHALTIC CONCRETE.
4. ROAD BASE AND SURFACE MATERIALS IN THE TRENCH CUT SHALL BE REPLACED IN KIND OF EQUAL THICKNESS, OR MINIMUM BASE THICKNESS OF 250 mm (10"), WHICHEVER IS GREATER.
5. ALL DAMAGED AREAS OF PAVEMENT OUTSIDE THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH MINIMUM OF 200 mm (8") OF BASE OR MATCH EXISTING THICKNESS, WHICHEVER IS GREATER.
6. SURFACE PAVEMENT SHALL BE OF THE KIND AND THICKNESS AS EXISTING, OR MINIMUM 50 mm (2"), WHICHEVER IS GREATER.

CITY OF AUSTIN WATER AND WASTEWATER UTILITY	TYPICAL TRENCH WITH PAVED SURFACE	
Jean Bailey P.E. 8/19/02 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 510S-3

REFERENCES:

1. UTILITY CRITERIA MANUAL SECTION 3.4.3, "FINAL DESIGN"
2. STANDARD SPECIFICATION MANUAL ITEM 510, SECTION 510.2(6), "SELECT BACKFILL OR BORROW"; SECTION 510.3(6), "TRENCH DEPTH AND DEPTH OF COVER"; SECTION 510.3(14), "PIPE BEDDING ENVELOPE"

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPICAL TRENCH DETAIL WITH UNFINISHED SURFACE	
Bill Hardman 3/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 510S-5



TOOLS & MATERIALS REQUIRED

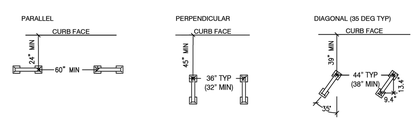
- U-rack
- Zinc wedge anchors, ½" x 3 ¾"
- Zinc rawl spikes, ½" x 2 ¾"
- Rotor hammer drill (½" chuck capacity contractor grade suggested)
- 1/2" masonry drill bit
- Small sledgehammer
- 3/4" socket wrench or wrench driver

INSTALLLATION INSTRUCTIONS

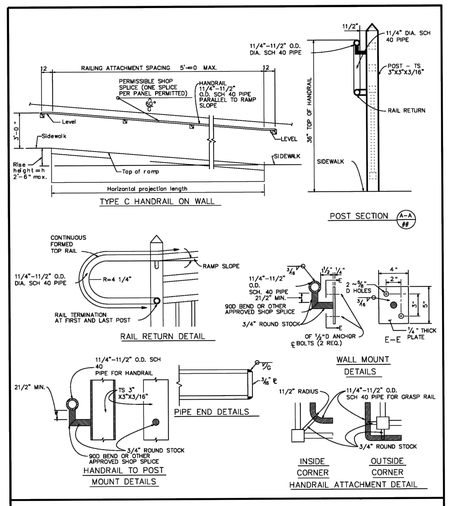
1. Place rack in location marked with white dots; read installation notes for particular location.
2. With rotor hammer drill outfitted with ½" drill bit, mark hardware location through all mounting holes.
3. Move rack away. Drill all holes at least 3 ½" deep. Remove dust in holes.
4. Pound the wedge anchor fasteners in the outer corner holes. The fasteners should protrude 7/8" above the concrete.
5. Place rack over the fasteners. Put the washers and nuts on them. Apply Loctite 262 Mil Spec High Strength Red Threadlocker ("Loctite") to the exposed threads. Cinch tight with appropriate ½" wrench.
6. Pound the Rawl Spikes into the remaining inner holes of the rack.
7. Before the Loctite sets (no more than 10 minutes) tighten the wedge anchors one last time after pounding in the rawl spikes.
8. Cut off any length of the wedge anchor protruding more than ½" above the nut. If the remaining edge is sharp, file off sharp edges, or apply a dollop of epoxy to the top of the nut.
9. Adhere funder stickers to the top of the rack (unless otherwise specified).

RAWL SPIKES

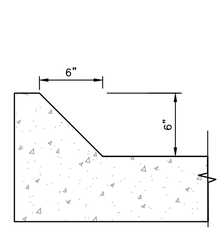
TYPICAL CONFIGURATION PLANS (NOT TO SCALE)



BIKE RACK DETAIL
NT.S.



TXDOT HANDRAIL DETAIL (continued)



MOUNTABLE CURB DETAIL
N.T.S.

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LAST PLOTTED: 10/21/2024 6:03 PM
DWG PATH: K:\AUS_ORL\069744402-CEDAR PARK - PAVMER 17 ACRE\CAD\PLANSHEETS
DWG NAME: PAVING DETAILS.DWG [19 PAVING DETAILS]

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2022 KIMLEY-HORN AND ASSOCIATES, INC.
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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069744402	DATE DECEMBER 2022	SCALE AS SHOWN	DESIGNED BY RPS	DRAWN BY AH	CHECKED BY RPS

VELSA RANCH
CEDAR PARK, TEXAS

PAVING DETAILS

SD-20-00020
SHEET NUMBER
SHEET 19 OF 92

DETAIL D

DETAIL C

DETAIL B

DETAIL A

0 20' 40'
GRAPHIC SCALE 20'

MATCHLINE SEE SHEET 21

WASTEWATER EASEMENT
DOC# 2012103421, O.P.R.W.C.T.
APPROXIMATE LOCATION
25' DRAINAGE EASEMENT
No. 2006062243
O.P.R.W.C.T.

FF: 877.50
FF: 878.00
FF: 878.50
FF: 879.00
FF: 880.50

DETAIL D
DETAIL C
DETAIL B
DETAIL E
DETAIL A

REFER TO SHEET 22

MATCHLINE SEE SHEET 22

ASPHALT PA

DETAIL E

0 10' 20'
GRAPHIC SCALE 10'

LEGEND

731	PROPOSED CONTOURS	×717.23 TP	TOP OF PAVEMENT
731	EXISTING CONTOURS	×717.23 TC	TOP OF CURB
	HIGH POINT	×717.23 TG	TOP OF GRATE
<	CHANNEL FLOWLINE	×717.23 ME	MATCH EXISTING
	FLOW PATH	×717.23 TS	TOP OF STEPS
T	TRANSFORMER PAD	×717.23 BS	BOTTOM OF STEPS
FF: 700.00	FINISHED FLOOR	×717.23 EW	END OF WALL
×717.2 EX	TOP OF EXISTING GROUND	×717.23 TW	TOP OF WALL
×717.23	TOP OF GROUND	×717.23 BW	BOTTOM OF WALL

S W N E
0 30' 60'
GRAPHIC SCALE 30'

REFER TO SHEET 38 FOR DETENTION POND GRADING

Know what's below. Call before you dig.

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IMAGES
XREFS
LAST SAVED
PLOTTED
PLOTTED BY
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Cedar Park Logo
Cedar Park.ctb dlee xdta
8/9/2024 10:04 AM
RPS
R:\CIVIL\2022\069274402 - PARMER 17 (CRE\CAD\PLANSHEETS
GRADING PLAN\DWG_ [20 GRADING PLAN (1 OF 3)]

No.	REVISIONS	DATE	BY
1		08/19/2024	RPS

REVISION

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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT	069274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH
CEDAR PARK, TEXAS

CEDAR PARK

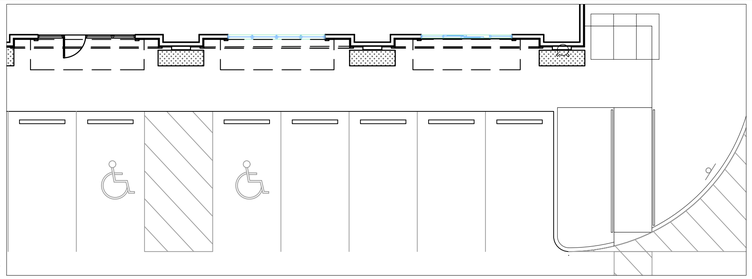
GRADING PLAN (1 OF 3)

SD-20-00020
SHEET NUMBER
SHEET 20 OF 92

LEGEND

731	PROPOSED CONTOURS	×717.23 TP	TOP OF PAVEMENT
731	EXISTING CONTOURS	×717.23 TC	TOP OF CURB
	HIGH POINT	×717.23 TG	TOP OF GRATE
<	CHANNEL FLOWLINE	×717.23 ME	MATCH EXISTING
	FLOW PATH	×717.23 TS	TOP OF STEPS
T	TRANSFORMER PAD	×717.23 BS	BOTTOM OF STEPS
FF: 700.00	FINISHED FLOOR	×717.23 EW	END OF WALL
×717.2 EX	TOP OF EXISTING GROUND	×717.23 TW	TOP OF WALL
×717.23	TOP OF GROUND	×717.23 BW	BOTTOM OF WALL

DETAIL H



N22°00'06"W 322.04'

N22°04'26"W 344.37'

1/2" REBAR

7.5' PUBLIC UTILITY EASEMENT
DOC.# 20121103281, O.P.R.W.C.T.

DETAIL F

DETAIL H

DETAIL G

FF: 877.50

FF: 876.80

FF: 877.54

FF: 878.00

FF: 878.50

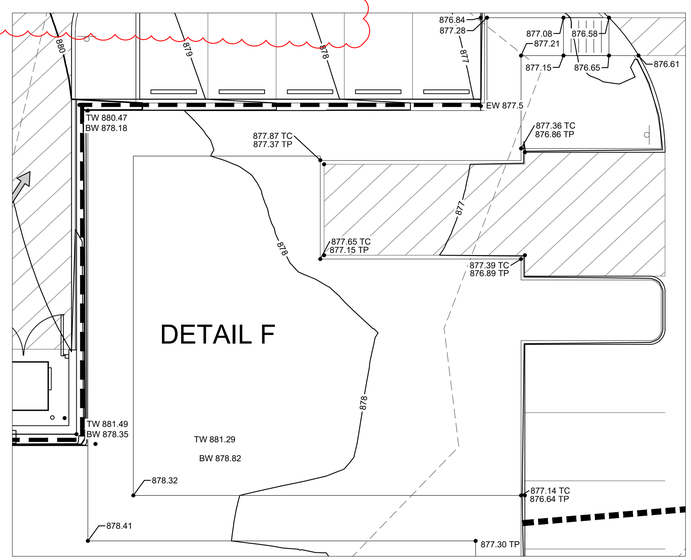
MATCHLINE SEE SHEET 20

REFER TO SHEET 38 FOR DETENTION POND GRADING

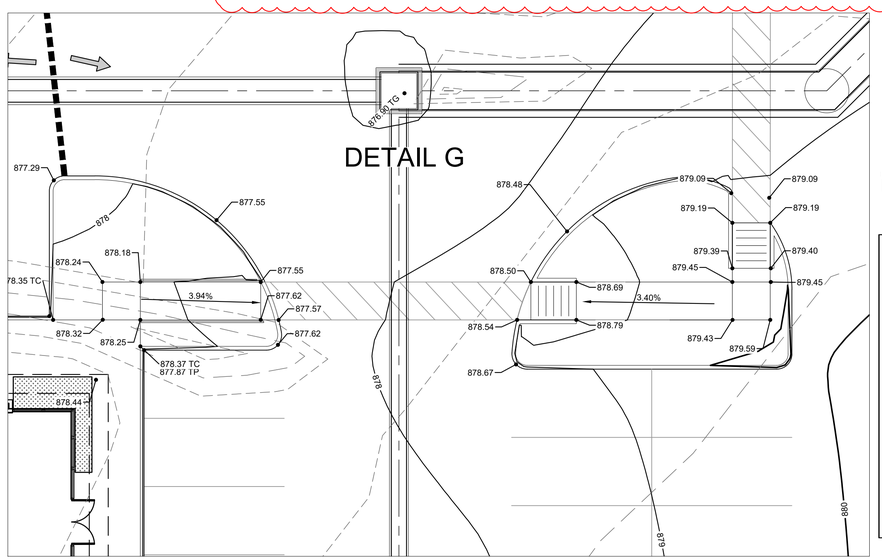
0 30' 60'
GRAPHIC SCALE 30'

0 10' 20'
GRAPHIC SCALE 10'

DETAIL F



DETAIL G



BENCH MARK LIST

BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

ELEV. = 860.56'

BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN. THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'

No.	REVISIONS	DATE	BY
1		08/19/2024	RPS

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2022 KIMLEY-HORN AND ASSOCIATES, INC.
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RYAN P. SCHUBERT
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10/21/2024

KHA PROJECT	069274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

GRADING PLAN (2 OF 3)

SD-20-00020

SHEET NUMBER

SHEET 21OF 92

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10/21/2024 10:04 AM
USER: RYAN.SCHUBERT
SCHUBERT, RYAN 1023120A FS PARK
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DWG NAME
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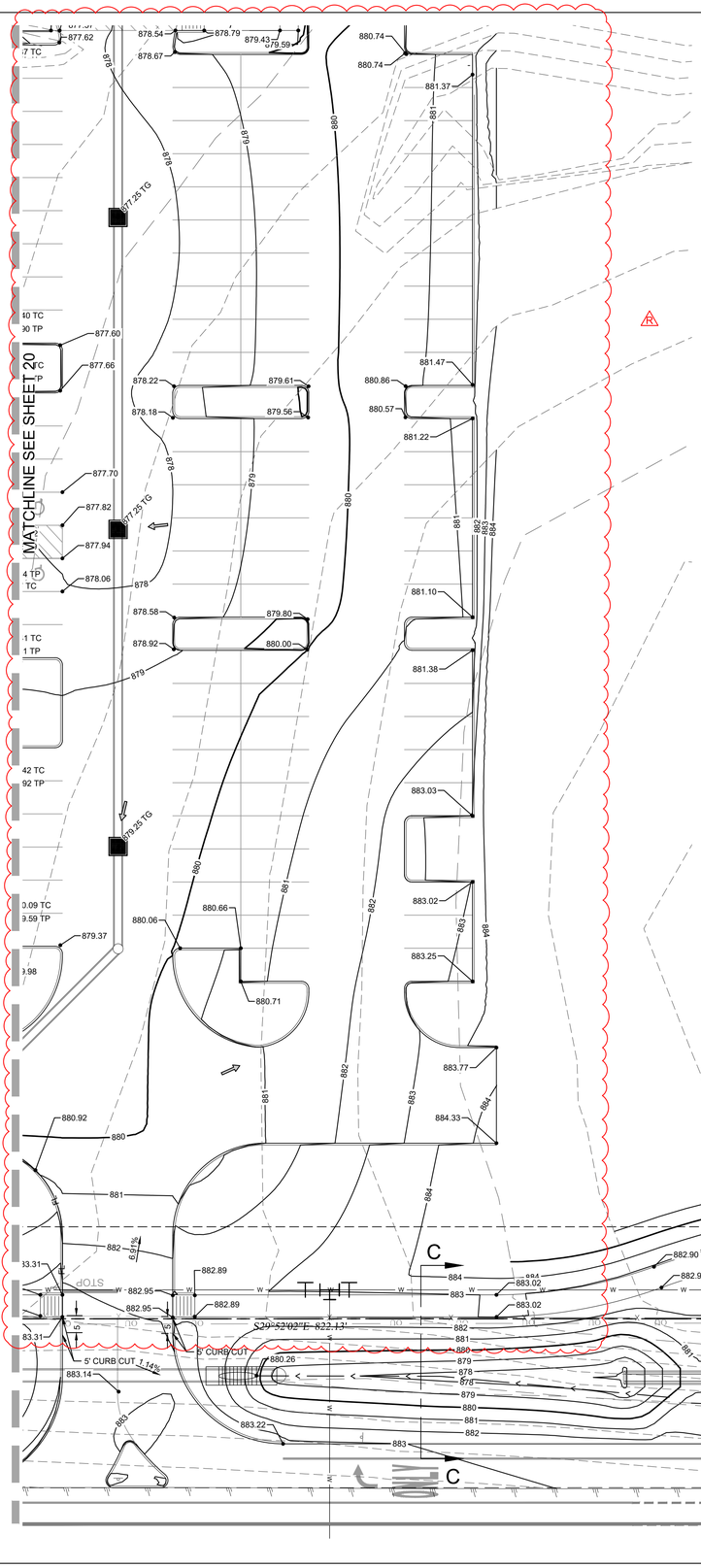


LEGEND

731	PROPOSED CONTOURS	x717.23 TP	TOP OF PAVEMENT
731	EXISTING CONTOURS	x717.23 TC	TOP OF CURB
	HIGH POINT	x717.23 TG	TOP OF GRATE
<	CHANNEL FLOWLINE	x717.23 ME	MATCH EXISTING
	FLOW PATH	x717.23 TS	TOP OF STEPS
T	TRANSFORMER PAD	x717.23 BS	BOTTOM OF STEPS
FF: 700.00	FINISHED FLOOR	x717.23 EW	END OF WALL
x717.2 EX	TOP OF EXISTING GROUND	x717.23 TW	TOP OF WALL
x717.23	TOP OF GROUND	x717.23 BW	BOTTOM OF WALL

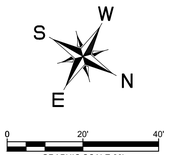
BENCH MARK LIST

BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

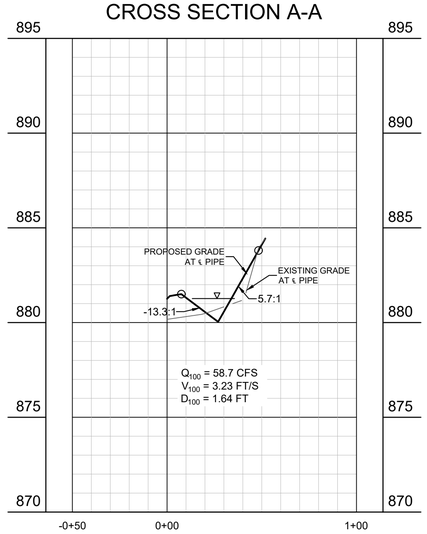
ELEV. = 860.56'

BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN. THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'



CROSS SECTION A-A



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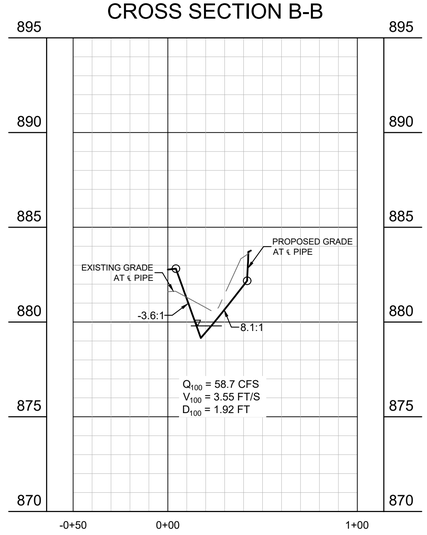

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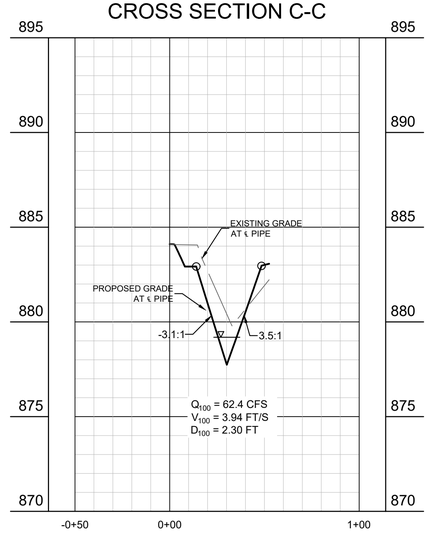

No.	REVISIONS	DATE	BY
		08/19/2024	RPS

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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT	068274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

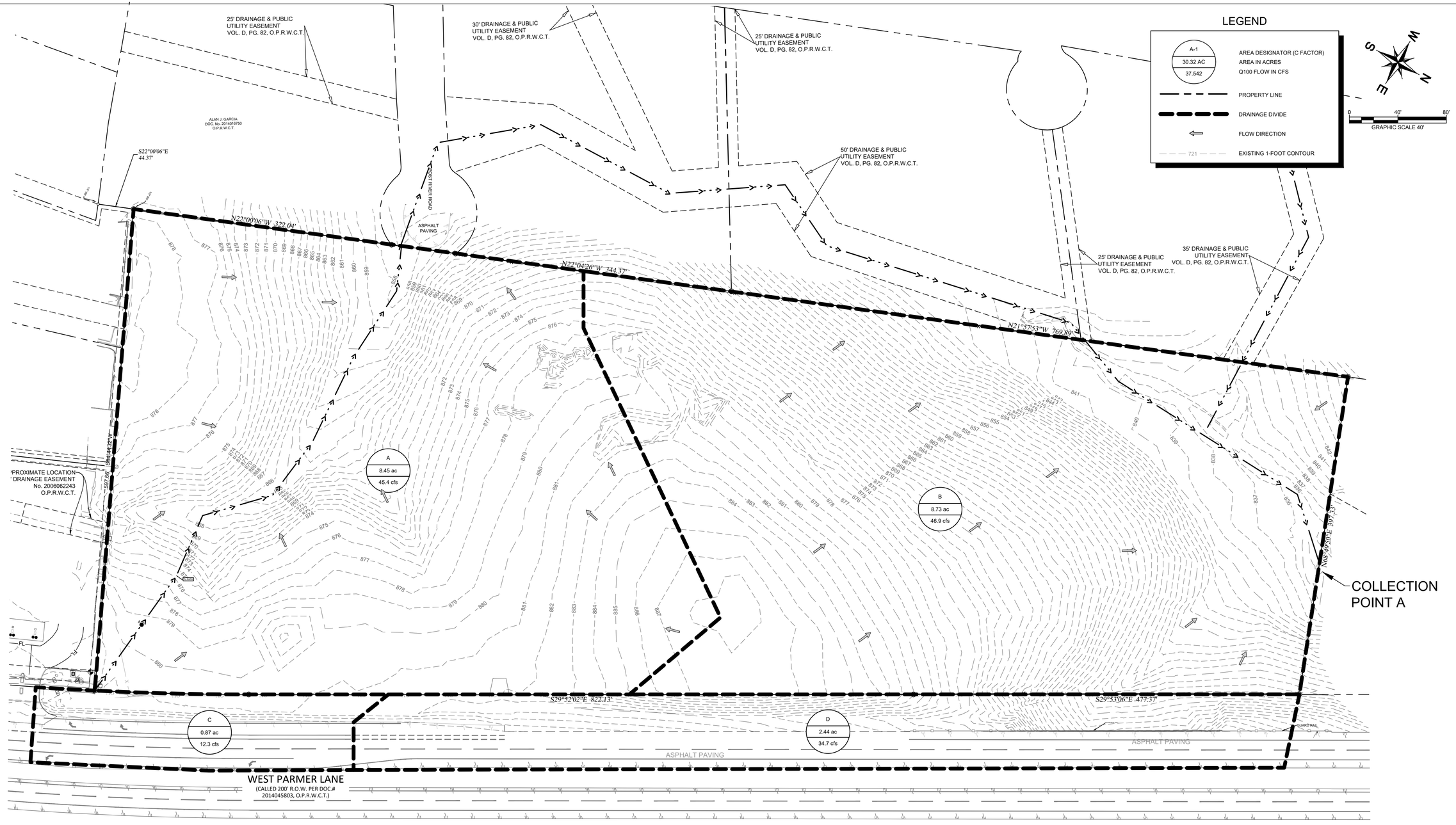
CEDAR PARK, TEXAS

GRADING PLAN (3 OF 3)

SD-20-00020

SHEET NUMBER

SHEET 22 OF 92



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ELEV.= 882.07'

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

Drainage Area Table - Allowable Release Summary - DETENTION RELEASE RATE

Condition	A	T_c	C_2	I_2	Q_2	C_{10}	I_{10}	Q_{10}	C_{25}	I_{25}	Q_{25}	C_{100}	I_{100}	Q_{100}	Collection Point
	(ac)	(min)	(in/hr)	(in/hr)	(cfs)	(in/hr)	(in/hr)	(cfs)	(in/hr)	(in/hr)	(cfs)	(in/hr)	(in/hr)	(cfs)	
A	8.45	15.00	0.39	4.14	13.64	0.44	6.14	22.83	0.48	7.54	30.58	0.54	9.94	45.36	Collection Point A
B	8.73	15.00	0.39	4.14	14.10	0.44	6.14	23.58	0.48	7.54	31.60	0.54	9.94	46.86	Collection Point A
C	0.87	5.00	0.73	4.14	26.38	1.44	9.23	11.56	0.48	11.40	47.77	1.54	15.00	201.66	Collection Point A
D	2.44	5.00	0.73	4.14	26.38	2.44	9.23	54.95	0.48	11.40	47.77	2.54	15.00	332.61	Collection Point A
Allowable Release				Q_2	**27.74**		Q_{10}	**46.41**		Q_{25}	**62.18**		Q_{100}	**92.22**	

FLOODPLAIN NOTE

1. THE SITE IS NOT LOCATED WITHIN THE 100 YEAR FLOODPLAIN LIMITS.

No.	REVISIONS	DATE	BY

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STATE OF TEXAS
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PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402
DATE DECEMBER 2022
SCALE AS SHOWN
DESIGNED BY RPS
DRAWN BY AH
CHECKED BY RPS

VELSA RANCH
CEDAR PARK, TEXAS

CEDAR PARK

EXISTING DRAINAGE AREA MAP

SD-20-00020
SHEET NUMBER
SHEET 23 OF 92

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IMAGES
Cedar Park Logo
HIDDEN
Cedar Park Logo dlwr
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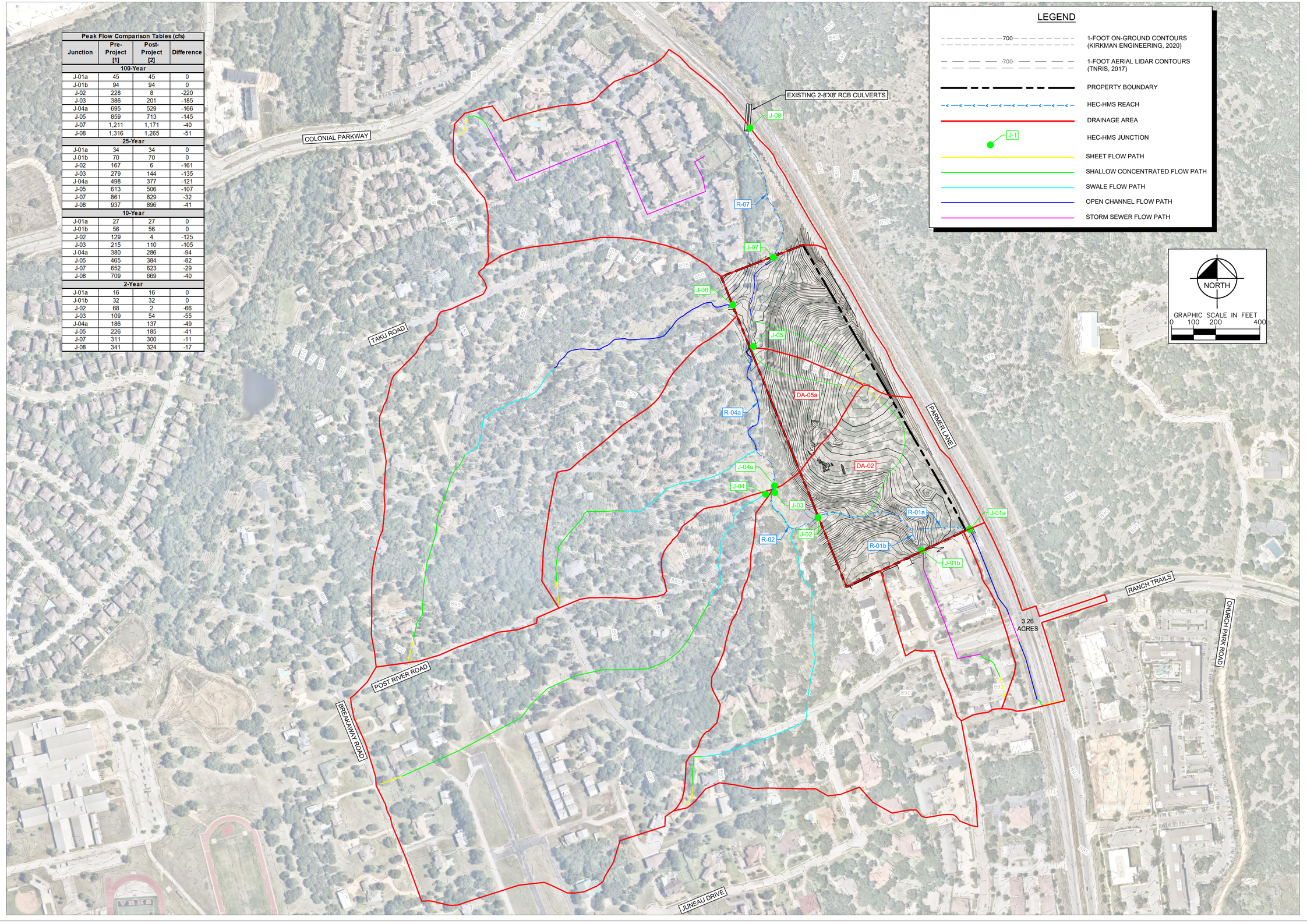
7/9/2024 5:11 PM
LAST PLOTTED
10/21/2024 6:54 PM
DWG PATH
K:\AUS_CVIL\069274402\CAD\SHEETS\WORK - PARMER 17 ACRES\CAD\PLANSHEETS
DWG NAME
DWG NAME
EXISTING DRAINAGE AREA MAP.DWG
, [1:1] ANSI B (11.00 X 17.00 INCHES)

Peak Flow Comparison Tables (cfs)			
Junction	Pre-Project [1]	Post-Project [2]	Difference
100-Year			
J-01a	45	45	0
J-01b	94	94	0
J-02	228	8	-220
J-03	386	201	-185
J-04a	695	529	-166
J-05	859	713	-145
J-07	1,211	1,171	-40
J-08	1,316	1,265	-51
25-Year			
J-01a	34	34	0
J-01b	70	70	0
J-02	167	6	-161
J-03	279	144	-135
J-04a	498	377	-121
J-05	613	506	-107
J-07	861	829	-32
J-08	937	896	-41
10-Year			
J-01a	27	27	0
J-01b	56	56	0
J-02	129	4	-125
J-03	215	110	-105
J-04a	380	286	-94
J-05	465	384	-82
J-07	652	623	-29
J-08	709	669	-40
2-Year			
J-01a	16	16	0
J-01b	32	32	0
J-02	68	2	-66
J-03	109	54	-55
J-04a	186	137	-49
J-05	226	185	-41
J-07	311	300	-11
J-08	341	324	-17



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IMAGES Cedar Park Logo - EPSG:6814_Date2020918_Lat30.5247892_Lon-97.791354_Map0.597
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PLOTTED 10/21/2024 8:55 PM
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DRAWING NAME OVERALL DAM PRE.dwg
DRAWING NAME OVERALL DAM PRE.dwg - [K:\AUS_CVN\069274402\CAD\CEDAR PARK - FARMER 17 ACRE\CADD\PLANSHEETS\OVERALL DAM PRE.dwg]

No.	REVISIONS	DATE	BY

Kimley»Horn
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10/21/2024

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DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

OVERALL DAM PRE-PROJECT

SD-20-00020
SHEET NUMBER

SHEET 24 OF 92





LEGEND

- A-1 / 30.32 AC / 37.542 — AREA DESIGNATOR (C FACTOR); AREA IN ACRES; Q100 FLOW IN CFS
- PROPERTY LINE
- DRAINAGE DIVIDE
- FLOW DIRECTION
- 721 — PROPOSED 1-FOOT CONTOUR
- 721 — EXISTING 1-FOOT CONTOUR

DRAINAGE AREA TABLE

DRAINAGE AREA NO.	AREA (ac)	RUNOFF COEFFICIENT "C"	TIME OF CONCENTRATION (minutes)	RAINFALL INTENSITY "I"100 (in/hr)	RAINFALL INTENSITY "I"25 (in/hr)	TOTAL FLOW Q100 (cfs)	COLLECTION POINT	TOTAL FLOW Q25 (cfs)
A-1	0.39	0.97	5	15.24	11.450	5.8	GRATE INLET	4.360
A-2	0.09	0.97	5	15.24	11.450	1.3	Y-INLET	0.996
B-2	0.46	0.97	5	15.24	11.450	6.8	GRATE INLET	5.124
B-3	0.33	0.97	5	15.24	11.450	4.9	GRATE INLET	3.690
B-4	0.44	0.97	5	15.24	11.450	6.5	GRATE INLET	4.918
B-5	0.98	0.97	5	15.24	11.450	14.5	GRATE INLET	10.896
B-6	0.43	0.97	5	15.24	11.450	6.4	GRATE INLET	4.773
B-7	0.60	0.97	5	15.24	11.450	8.9	GRATE INLET	6.706
C-1	1.35	0.97	5	15.24	11.450	19.9	GRATE INLET	14.967
C-2	0.01	0.97	5	15.24	11.450	0.2	AREA DRAIN	0.147
D-1	0.87	0.97	5	15.24	11.450	12.8	CURB INLET	9.615
D-2	0.01	0.97	5	15.24	11.450	0.1	AREA DRAIN	0.065
E-1	1.10	0.97	5	15.24	11.450	16.2	CURB INLET	12.179
E-2	0.72	0.97	5	15.24	11.450	10.7	GRATE INLET	8.037
OFF-1	4.98	0.97	5	15.24	11.450	73.6	LINE F	55.264
OFF-2	1.51	0.97	5	15.24	11.450	22.3	Y-INLET	16.763
OFF-3	0.95	0.97	5	15.24	11.450	14.0	OFFSITE	10.534
PARMER B-4	1.18	0.76	5	15.24	11.450	13.7	AREA INLET	10.296
PARMER B-5	0.31	0.79	5	15.24	11.450	3.7	SLOPED END TREATMENT	2.772

Time of Concentration - Parmer B-4

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	434
P2 =	4.03		
T (min) =	1.38	T (min) =	3.17
Total Tc (min) = 4.55			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area E-2

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	315
P2 =	4.03		
T (min) =	1.38	T (min) =	2.30
Total Tc (min) = 3.68			
Total Tc (min) = 5.00			Minimum used

BENCH MARK LIST

BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

ELEV. = 860.56'

BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN. THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'

Know what's below. Call before you dig.

Time of Concentration - Area E-1

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	25	L (ft)	0
P2 =	4.03		
T (min) =	0.46	T (min) =	0.00
Total Tc (min) = 0.46			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area D-1

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	20	L (ft)	0
P2 =	4.03		
T (min) =	0.38	T (min) =	0.00
Total Tc (min) = 0.38			
Total Tc (min) = 5.00			Mininum used

Time of Concentration - Offsite

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	244
P2 =	4.03		
T (min) =	1.38	T (min) =	1.78
Total Tc (min) = 3.17			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area C-1

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	15	L (ft)	0
P2 =	4.03		
T (min) =	0.30	T (min) =	0.00
Total Tc (min) = 0.30			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area B-2

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	503
P2 =	4.03		
T (min) =	1.38	T (min) =	3.67
Total Tc (min) = 5.06			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area B-1

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	59
P2 =	4.03		
T (min) =	1.38	T (min) =	0.43
Total Tc (min) = 1.81			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area A-4

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	122
P2 =	4.03		
T (min) =	1.38	T (min) =	0.89
Total Tc (min) = 2.27			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area A-3

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	222
P2 =	4.03		
T (min) =	1.38	T (min) =	1.62
Total Tc (min) = 3.01			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area A-1

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	15
P2 =	4.03		
T (min) =	1.38	T (min) =	0.11
Total Tc (min) = 1.49			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area A-2

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	148
P2 =	4.03		
T (min) =	1.38	T (min) =	1.08
Total Tc (min) = 2.46			
Total Tc (min) = 5.00			Minimum used

No.	REVISIONS	DATE	BY

Kimley»Horn
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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402	DATE DECEMBER 2022	SCALE AS SHOWN	DESIGNED BY RPS	DRAWN BY AH	CHECKED BY RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

DRAINAGE AREA MAP

SD-20-00020

SHEET NUMBER

SHEET 25 OF 92

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IMAGES
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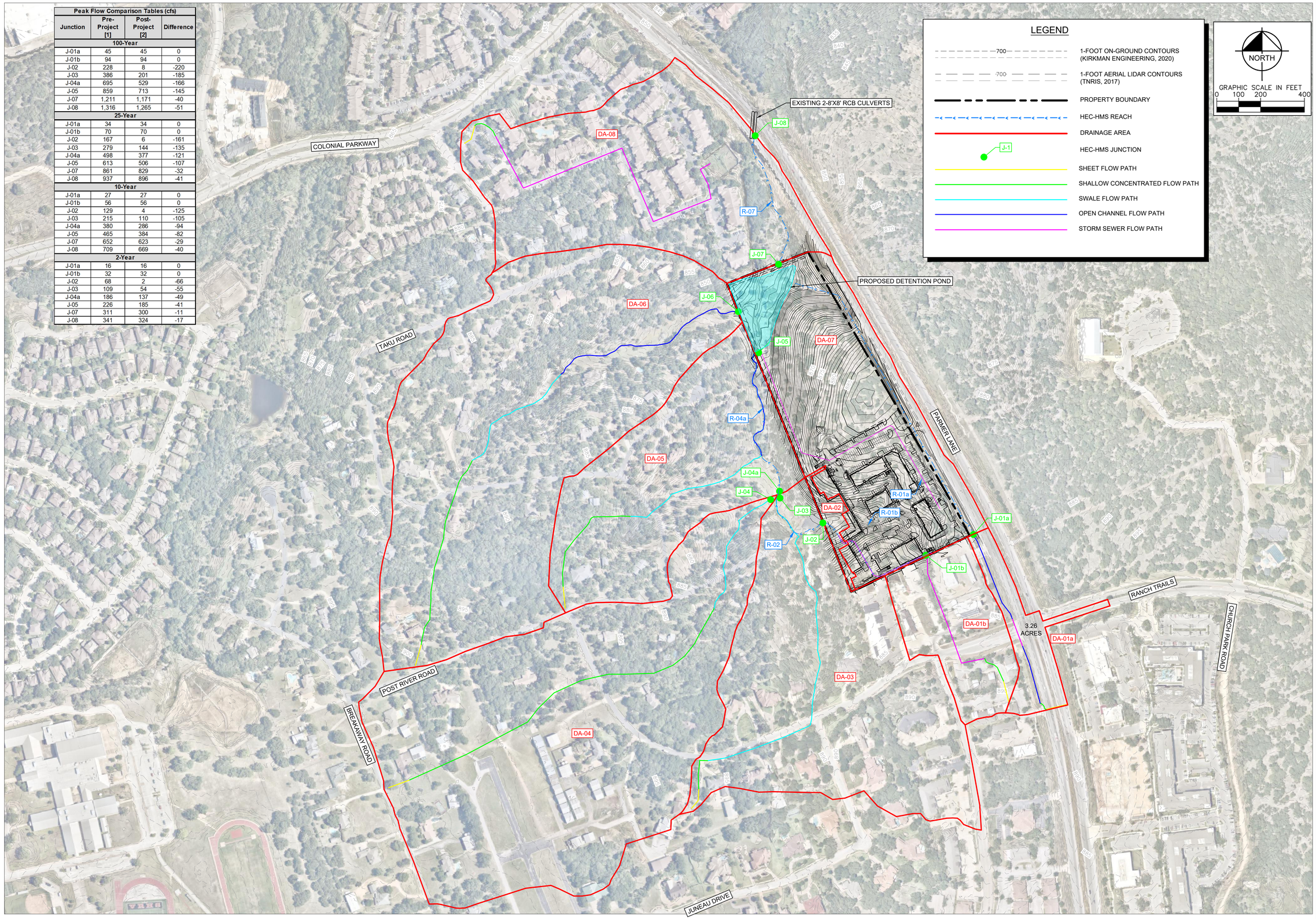
DWG NAME: DRAINAGE AREA MAP.DWG, J. [STORMWORKS_ARCH.MAP.]

Peak Flow Comparison Tables (cfs)			
Junction	Pre-Project [1]	Post-Project [2]	Difference
100-Year			
J-01a	45	45	0
J-01b	94	94	0
J-02	228	8	-220
J-03	386	201	-185
J-04a	695	529	-166
J-05	859	713	-145
J-07	1,211	1,171	-40
J-08	1,316	1,265	-51
25-Year			
J-01a	34	34	0
J-01b	70	70	0
J-02	167	6	-161
J-03	279	144	-135
J-04a	498	377	-121
J-05	613	506	-107
J-07	861	829	-32
J-08	937	896	-41
10-Year			
J-01a	27	27	0
J-01b	56	56	0
J-02	129	4	-125
J-03	215	110	-105
J-04a	380	286	-94
J-05	465	384	-82
J-07	652	623	-29
J-08	709	669	-40
2-Year			
J-01a	16	16	0
J-01b	32	32	0
J-02	68	2	-66
J-03	109	54	-55
J-04a	186	137	-49
J-05	226	185	-41
J-07	311	300	-11
J-08	341	324	-17



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K:\AUS_CIVIL\069274402\CEDAR PARK - FARMER 71 ACRE\CAD\PLANSHEETS\OVERALL EXHIBIT.DWG
OVERALL EXHIBIT.DWG [24 OVERALL EXHIBIT (POST-PROJECT)]

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No.	REVISIONS	DATE	BY

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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402	
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

OVERALL DAM POST-PROJECT

SD-20-00020

SHEET NUMBER

SHEET 26 OF 92

811
Know what's below.
Call before you dig.

BENCH MARK LIST

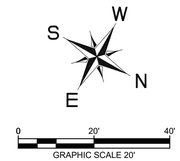
BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

ELEV. = 860.56'

BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN. THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'

NOTES:
1. ALL RIP-RAP SHALL BE MORTARED.



LEGEND

- PROPOSED STORM LINE
- SS — PROPOSED SANITARY SEWER LINE
- W — PROPOSED WATER LINE
- SS — EXISTING SANITARY SEWER LINE
- W — EXISTING WATER LINE
- EXISTING STORM LINE
- PROPOSED CURB INLET
- PROPOSED GRATE INLET
- PROPOSED JUNCTION BOX OR WYE INLET
- PROPOSED HEADWALL

*REFERENCE STRUCTURE LABELS FOR DETAILS

50' DRAINAGE & PUBLIC UTILITY EASEMENT VOL. D, PG. 82, O.P.R.W.C.T.

TRACT 31
BREAKAWAY PARK SECTION 2
VOL. D, PG. 82, O.P.R.W.C.T.

STA: 4+99.44 SD LINE A
INSTALL:
45° BEND
FL 60": 860.74
N: 10165118.66
E: 3101468.23

SD LINE A
60" @ 100%

MATCHLINE SEE SHEET 28

14" MORTARED STONE RIPRAP

N21°57'53"W 769.89'

REFER TO SHEET 38 FOR DETENTION POND PLANS
REFER TO BIOFILTRATION PLAN FOR NOTES AND DETAILS

No.	REVISIONS	DATE	BY
1	REVISION	08/19/2024	RPS

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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT	069274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

STORM PLAN (1 OF 4)

SD-20-00020

SHEET NUMBER

SHEET 27 OF 92

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IMAGES
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10/21/2024 4:57 PM
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STORM PLAN (1 OF 4).dwg

Line F Outfall		
	Units	25-year
V	ft/sec	11.29
γ_S	lb/ft^3	150
D_{50}	feet	0.81
Max D_{50}	inches	9.75

Use 18" dry rip-rap with 6" bedding

N22°00'06"W 322.04'

N22°04'26"W 344.37'

ASPHALT PAVING

TRACT 30
BREAKAWAY PARK SECTION 2
VOL. D, PG. 82, O.P.R.W.C.T.

BLDG 6
5,740 SF
FF: 877.50
1-STORY
TYPE: VB

BLDG 7
6,909 SF
FF: 876.60
1-STORY
TYPE: VB

BLDG 8
9,467 SF
FF: 875.60
1-STORY
TYPE: VB

LOT 1
8.11
ACRES

PROPOSED 15' DRAINAGE EASEMENT

18" RIP-RAP W/ 6" BEDDING

STA: 1+99.26 SD LINE D
INSTALL:
AREA DRAIN
(REFER TO NYLOPLAST DETAIL ON SHEET 44)
TG: 877.33
FL 6" OUT: 874.33
N: 10164583.49
E: 3101724.46

STA: 1+76.86 SD LINE D
INSTALL:
45° BEND
FL 6": 874.11
N: 10164594.67
E: 3101743.86

STA: 1+74.62 SD LINE D
INSTALL:
45° BEND
FL 6": 874.08
N: 10164596.83
E: 3101744.45

STA: 1+59.01 SD LINE D
INSTALL:
45° BEND
FL 6": 873.93
N: 10164610.36
E: 3101736.68

STA: 1+44.16 SD LINE D
INSTALL:
45° BEND
FL 6": 873.78
N: 10164624.70
E: 3101740.56

STA: 0+40.05 SD LINE F
INSTALL:
45° BEND
FL 36": 861.60
N: 10164708.42
E: 3101655.42

STA: 0+50.05 SD LINE F
INSTALL:
45° BEND
FL 36": 861.75
N: 10164705.81
E: 3101665.07

STA: 0+00.00 SD LINE F
INSTALL:
36" CONC. HDWL WITH GROUTED CONCRETE RIP-RAP
N: 10164743.15
E: 3101635.47

WARNING!!
STORM LINE CROSSES WATER LINE B
STORM ℄ (36") = 862.10
WATER ℄ (4") = 872.60

STA: 0+73.07 SD LINE F
FL 36": 862.10

STA: 4+71.47 DOM. WATER LINE B
FL 4": 872.60

STA: 1+17.87 SD LINE D
FL 6": 873.52

STA: 0+16.50 FIRE LINE B1
FL 6": 871.43

STA: 1+15.20 SD LINE D
INSTALL:
45° BEND
FL 6": 873.49
N: 10164639.12
E: 3101765.67

STA: 0+36.50 SD LINE D
INSTALL:
PIPE SIZE CHANGE
FL 18": 871.70
N: 10164715.09
E: 3101786.21

STA: 0+31.50 SD LINE D
STA: 0+00.00 SD LAT D-1
INSTALL:
WYE CONNECTION
FL 18": 871.30
FL 18": 871.30
N: 10164719.92
E: 3101787.52

STA: 3+09.29 FIRE LINE A
FL 8": 865.89

STA: 10+61.67 SD LINE A
FL 36": 868.30

STA: 10+72.30 SD LINE A
INSTALL:
PIPE SIZE CHANGE
FL 36": 868.38
N: 10164720.79
E: 3101829.77

STA: 11+83.88 SD LINE A
INSTALL:
AREA DRAIN
TG: 877.09
FL 8" OUT: 873.51
N: 10164635.48
E: 3101894.16

STA: 11+00.23 SD LINE A
FL 8": 871.41

STA: 1+53.58 FIRE LINE B
FL 8": 869.71

STA: 10+95.23 SD LINE A
FL 8": 871.29

STA: 2+57.38 DOM. WATER LINE B
FL 4": 870.16

STA: 10+91.19 SD LINE A
INSTALL:
45° BEND
FL 8": 871.19
N: 10164715.86
E: 3101848.00

STA: 0+41.48 SD LINE E
STA: 0+00.00 SD LAT E-1
INSTALL:
WYE CONNECTION
FL 36": 868.55

STA: 10+51.38 SD LINE A
INSTALL:
45° BEND
FL 36": 868.22
N: 10164726.25
E: 3101809.57

STA: 10+67.30 SD LINE A
STA: 0+00.00 SD LINE E
INSTALL:
45° WYE
FL 36": 868.34
FL 36": 868.34
N: 10164722.10
E: 3101824.94

STA: 0+91.86 SD LINE D
FL 6": 873.26

STA: 2+46.69 FIRE LINE B
FL 8": 871.68

STA: 3+45.49 DOM. WATER LINE B
FL 4": 871.17

STA: 0+84.79 SD LINE D
FL 6": 873.19

STA: 0+28.04 SD LAT D-1
INSTALL:
10' CURB INLET
TC: 876.00
FL 18" OUT: 872.01
N: 10164705.96
E: 3101763.20

STA: 0+12.73 SD LAT E-1
INSTALL:
10' CURB INLET
N: 10164755.04
E: 3101864.23

STA: 1+85.54 SD LINE F
FL 36": 863.78"

STA: 10+23.61 SD LINE A
STA: 0+00.00 SD LINE D
INSTALL:
45° WYE
FL 36": 867.99
FL 18": 868.74
N: 10164750.33
E: 3101795.74

WARNING!!
STORM LINE CROSSES SSWR LINE E
STORM ℄ (36") = 863.66
SSWR ℄ (8") = 872.31

STA: 9+97.14 SD LINE A
STA: 1+85.54 SD LINE F
INSTALL:
STORM CROSSING
N: 10164773.28
E: 3101782.56

WARNING!!
STORM LINE CROSSES SSWR LINE A
STORM ℄ (36") = 867.73
SSWR ℄ (8") = 872.13

WARNING!!
STORM LINE CROSSES FIRE WATER LINE C
STORM ℄ (36") = 863.89
WATER ℄ (8") = 869.26

STA: 9+04.90 SD LINE A
INSTALL:
4'x4' GRATE INLET
TG: 875.44
FL 36" IN: 867.04
FL 36" OUT: 867.04
N: 10164853.28
E: 3101736.62

STA: 8+29.12 SD LINE A
STA: 0+00.00 SD LINE C
INSTALL:
45° WYE
FL 36": 866.44
FL 21": 867.06
N: 10164918.99
E: 3101698.89

STA: 0+14.39 SD LINE C
INSTALL:
45° BEND
FL 21": 867.64
N: 10164915.23
E: 3101712.78

STA: 0+31.64 SD LINE C
INSTALL:
5'x5' GRATE INLET
TG: 876.05
FL 6" IN: 869.58
FL 21" OUT: 868.33
N: 10164923.82
E: 3101727.73

WARNING!!
STORM LINE CROSSES WATER LINE
STORM ℄ (6") = 870.55
WATER ℄ (4") = 872.55

WARNING!!
STORM LINE CROSSES SSWR LINE LAT D-2
STORM ℄ (36") = 866.13
SSWR ℄ (6") = 873.49

WARNING!!
STORM LINE CROSSES FIRE WATER LINE C
STORM ℄ (21") = 867.47
WATER ℄ (8") = 870.46

WARNING!!
STORM LINE CROSSES FIRE WATER LINE C
STORM ℄ (36") = 865.89
WATER ℄ (8") = 870.65

STA: 6+98.17 SD LINE A
STA: 0+00.00 SD LINE B
INSTALL:
6'x6' GRATE INLET
RIM: 876.97
FL 36" IN: 865.39
FL 24" IN: 869.72
FL 60" OUT: 864.00
N: 10165032.55
E: 3101633.67

STA: 6+46.70 DOM. WATER LINE A
FL 4": 873.06

STA: 3+90.40 FIRE LINE C
FL 8": 872.93

STA: 6+41.69 SD LINE A
INSTALL:
45° BEND
FL 60": 862.16
N: 10165081.52
E: 3101605.55

WARNING!!
STORM LINE CROSSES DOM WATER LINE A
STORM ℄ (60") = 862.55
WATER ℄ (4") = 872.85

WARNING!!
STORM LINE CROSSES WATER LINE
STORM ℄ (24") = 869.74

WARNING!!
STORM LINE CROSSES FIRE WATER LINE C
STORM ℄ (24") = 869.76

WARNING!!
STORM LINE CROSSES WATER LINE
STORM ℄ (60") = 862.35
WATER ℄ (4") = 873.11

WARNING!!
STORM LINE CROSSES FIRE WATER LINE C
STORM ℄ (60") = 862.97
WATER ℄ (4") = 873.07

SD LINE A
8" PVC @ 2.50%

SD LINE B
24" RCP @ 0.50%

SD LINE D
6" HDPE @ 1.00%

SD LINE E
36" RCP @ 0.50%

REFER TO BIORETENTION PLAN FOR NOTES AND DETAILS

MATCHLINE SEE SHEET 29

MATCHLINE SEE SHEET 27

BENCH MARK LIST

BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

ELEV. = 860.56'

BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN. THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'

Know what's below. Call before you dig.

LEGEND

- PROPOSED STORM LINE
- SS PROPOSED SANITARY SEWER LINE
- W PROPOSED WATER LINE
- SS EXISTING SANITARY SEWER LINE
- W EXISTING WATER LINE
- EXISTING STORM LINE
- PROPOSED CURB INLET
- PROPOSED GRATE INLET
- PROPOSED JUNCTION BOX OR WYE INLET
- PROPOSED HEADWALL

*REFERENCE STRUCTURE LABELS FOR DETAILS

GRAPHIC SCALE 20'

No.	REVISION	DATE	BY
		08/19/2024	RPS

REVISIONS

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WWW.KIMLEY-HORN.COM TX F-928

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT
069274402

DATE	DESIGNED BY	DRAWN BY	CHECKED BY
DECEMBER 2022	RPS	AH	RPS
SCALE	AS SHOWN		

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

STORM PLAN (2 OF 4)

SD-20-00020
SHEET NUMBER

SHEET 28 OF 92

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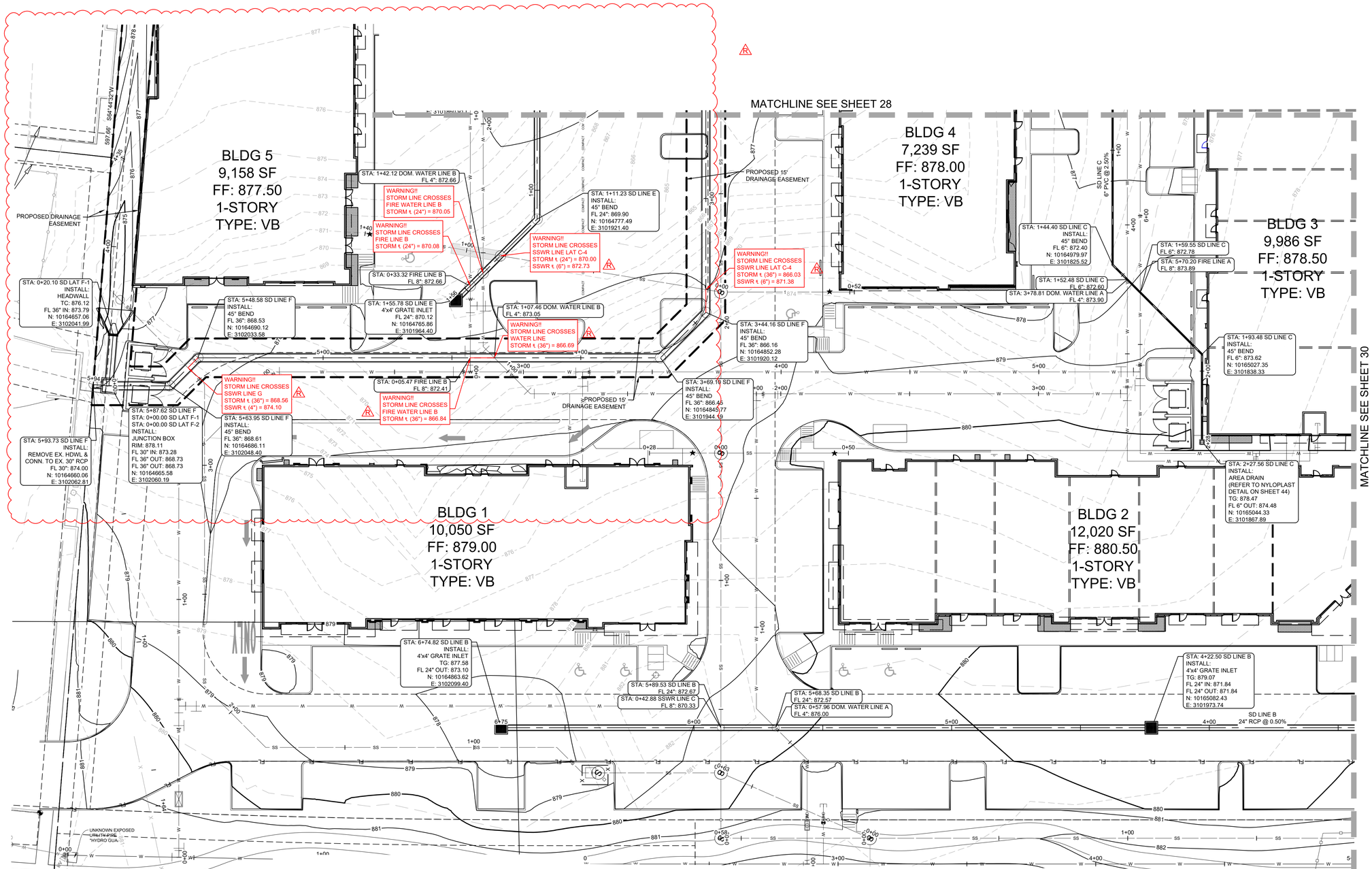
IMAGES:
Cedar Park Logo
LAST SAVED BY:
PLOT DATE:
DWG PATH:
DWG NAME:



BENCH MARK LIST

BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

ELEV. = 860.56'

BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN. THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'

LEGEND

- PROPOSED STORM LINE
- PROPOSED SANITARY SEWER LINE
- PROPOSED WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING WATER LINE
- EXISTING STORM LINE
- PROPOSED CURB INLET
- PROPOSED GRATE INLET
- PROPOSED JUNCTION BOX OR WYE INLET
- PROPOSED HEADWALL

*REFERENCE STRUCTURE LABELS FOR DETAILS

No.	REVISION	DATE	BY
	REVISIONS	08/19/2024	RPS

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STATE OF TEXAS
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PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT	069274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

STORM PLAN (3 OF 4)

SD-20-00020

SHEET NUMBER

SHEET 29 OF 92

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IMAGES:
XREFS:
LAST SAVED
PLOT DATE
DWG PATH
DWG NAME

Cedar Park Logo
xConts_Plan xLbl xBrp xStr xElvs
9/9/2024 2:51 PM
9/10/2024 4:57 PM
K:\AUS_CPL\069274402-CEDAR PARK - PARMER 17 ACRES\CAD\PLANSHEETS
STORM PLAN.dwg | 10/21/2024 8:49:37 AM | RPS

MATCHLINE SEE SHEET 28

MATCHLINE SEE SHEET 29

STA: 0+81.11 SD LINE B
INSTALL:
4'x4' GRATE INLET
TG: 877.25
FL 24" IN: 870.13
FL 24" OUT: 870.13
N: 10165072.95
E: 3101704.01

STA: 1+65.69 SD LINE B
INSTALL:
4'x4' GRATE INLET
TG: 877.25
FL 24" IN: 870.55
FL 24" OUT: 870.55
N: 10165115.06
E: 3101777.35

STA: 0+09.87 FH D-1
FL 6": 873.82

WARNING!!
STORM LINE CROSSES
WATER LINE
STORM ℄ (24") = 870.78

STA: 2+52.06 SD LINE B
INSTALL:
4'x4' GRATE INLET
TG: 879.25
FL 24" IN: 870.98
FL 24" OUT: 870.98
N: 10165158.08
E: 3101852.26

STA: 2+79.89 SD LINE B
INSTALL:
45° BEND
FL 24": 871.12
N: 10165171.94
E: 3101876.39

STA: 3+36.25 SD LINE B
45° BEND
FL 24": 871.40
N: 10165157.23
E: 3101930.79

STA: 0+04.24 SD LINE G
INSTALL:
SLOPED END SAFETY TREATMENT
N: 10165267.52
E: 3101955.25

S29°52'02"E 822.13'

SD LINE G
36" RCP @ 0.82%

STA: 0+92.74 SD LINE G
INSTALL:
SLOPED SAFETY END TREATMENT
FL 36": 879.08
N: 10165190.77
E: 3101999.31

STA: 0+23.47 WATER MAIN B
FL 8": 875.24

STA: 1+68.77 SD LINE H
INSTALL:
SLOPED END SAFETY TREATMENT
FL 36": 876.87
N: 10165349.39
E: 3101908.91

SD LINE H
36" RCP @ 1.00%

STA: 0+05.50 SD LINE H
INSTALL:
SLOPED END SAFETY TREATMENT
N: 10165490.99
E: 3101827.62

GRAPHIC SCALE 20'
0 20' 40'

LEGEND

- PROPOSED STORM LINE
- PROPOSED SANITARY SEWER LINE
- PROPOSED WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING WATER LINE
- EXISTING STORM LINE
- PROPOSED CURB INLET
- PROPOSED GRATE INLET
- PROPOSED JUNCTION BOX OR WYE INLET
- PROPOSED HEADWALL

*REFERENCE STRUCTURE LABELS FOR DETAILS

BENCH MARK LIST

BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

ELEV. = 860.56'

BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN. THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'

No.	REVISION	DATE	BY
		08/19/2024	RPS

REVISIONS

Kimley»Horn
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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT	069274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

STORM PLAN (4 OF 4)

SD-20-00020

SHEET NUMBER

SHEET 30 OF 92

IMAGES
XREFS
LAST SAVED
PLOT DATE
DWG PATH
DWG NAME

Cedar Park Logo
KHA_Logo_Horiz.dgn xSite xBldg xData
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K:\AUS_CPK\069274402-CEDAR PARK - PARMER 117-ACRE\CAD\PLANSHEETS
STORM PLAN\SHEET 4 OF 4 (4).dwg

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IMAGES
Color Plan Logo
Aerial Imagery
LAST SAVED
9/30/2024 1:58 PM
LAST PLOTTED
10/21/2024 7:01 PM
DWG PATH
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DWG NAME
STORMPROFILESLINE_1 (1).DWG

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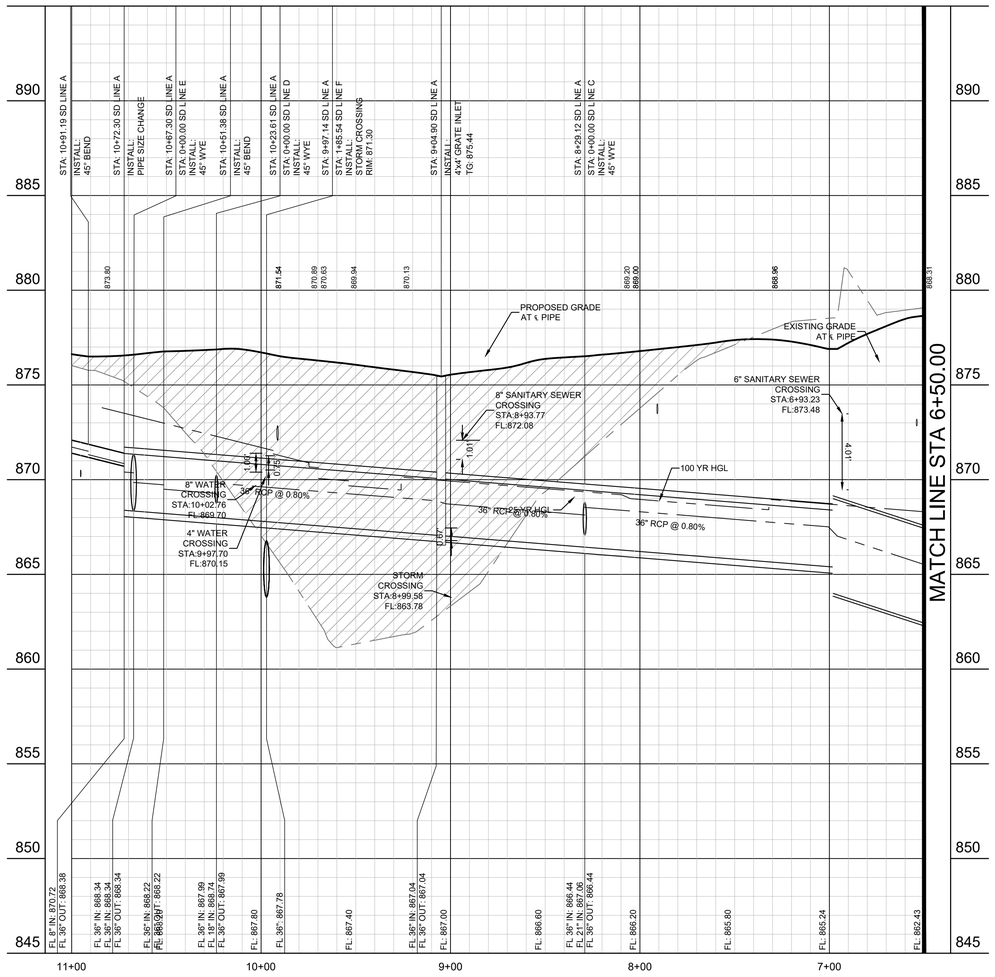
PROFILE SCALE

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

FILL TO BE COMPACTED TO 95% STD PROCTOR DENSITY OR PER GEOTECH RECOMMENDATION

SD LINE A



100 YR

10+86.31	9+93.62		9+93.62	9+74.74		9+69.74	9+53.81		9+53.81	9+26.04		9+26.04	8+07.33		8+07.33	7+31.56		7+31.56	6+00.60	
Q100=	1.12	c.f.s.	Q100=	1.11	c.f.s.	Q100=	23.40	c.f.s.	Q100=	23.36	c.f.s.	Q100=	34.10	c.f.s.	Q100=	38.81	c.f.s.	Q100=	55.15	c.f.s.
Qcap=	2.48	c.f.s.	Qcap=	2.48	c.f.s.	Qcap=	59.66	c.f.s.	Qcap=	59.66	c.f.s.	Qcap=	59.66	c.f.s.	Qcap=	59.66	c.f.s.	Qcap=	59.66	c.f.s.
Vp=	6.09	ft/sec	Vp=	6.03	ft/sec	Vp=	6.98	ft/sec	Vp=	6.96	ft/sec	Vp=	7.70	ft/sec	Vp=	7.98	ft/sec	Vp=	8.70	ft/sec
sf=	0.025	ft/ft	sf=	0.025	ft/ft	sf=	0.008	ft/ft	sf=	0.008	ft/ft	sf=	0.008	ft/ft	sf=	0.008	ft/ft	sf=	0.008	ft/ft
n=	0.010		n=	0.010		n=	0.013		n=	0.013		n=	0.013		n=	0.013		n=	0.013	
d=	0.35	ft	d=	0.35	ft	d=	1.46	ft	d=	1.46	ft	d=	1.82	ft	d=	1.97	ft	d=	2.53	ft

25 YR

10+86.31	9+93.62		9+93.62	9+74.74		9+69.74	9+53.81		9+53.81	9+26.04		9+26.04	8+07.33		8+07.33	7+31.56		7+31.56	6+00.60	
Q100=	0.88	c.f.s.	Q100=	0.87	c.f.s.	Q100=	18.48	c.f.s.	Q100=	18.45	c.f.s.	Q100=	26.93	c.f.s.	Q100=	30.64	c.f.s.	Q100=	43.51	c.f.s.
Qcap=	2.48	c.f.s.	Qcap=	2.48	c.f.s.	Qcap=	59.66	c.f.s.	Qcap=	59.66	c.f.s.	Qcap=	59.66	c.f.s.	Qcap=	59.66	c.f.s.	Qcap=	59.66	c.f.s.
Vp=	5.64	ft/sec	Vp=	5.57	ft/sec	Vp=	6.56	ft/sec	Vp=	6.55	ft/sec	Vp=	7.25	ft/sec	Vp=	7.52	ft/sec	Vp=	8.23	ft/sec
sf=	0.025	ft/ft	sf=	0.025	ft/ft	sf=	0.008	ft/ft	sf=	0.008	ft/ft	sf=	0.008	ft/ft	sf=	0.008	ft/ft	sf=	0.008	ft/ft
n=	0.010		n=	0.010		n=	0.013		n=	0.013		n=	0.013		n=	0.013		n=	0.013	
d=	0.31	ft	d=	0.31	ft	d=	1.28	ft	d=	1.28	ft	d=	1.58	ft	d=	1.70	ft	d=	2.10	ft

No.	REVISION	DATE	BY
		08/19/2024	RPS
		REVISIONS	

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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT	069274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH
CEDAR PARK, TEXAS

CEDAR PARK

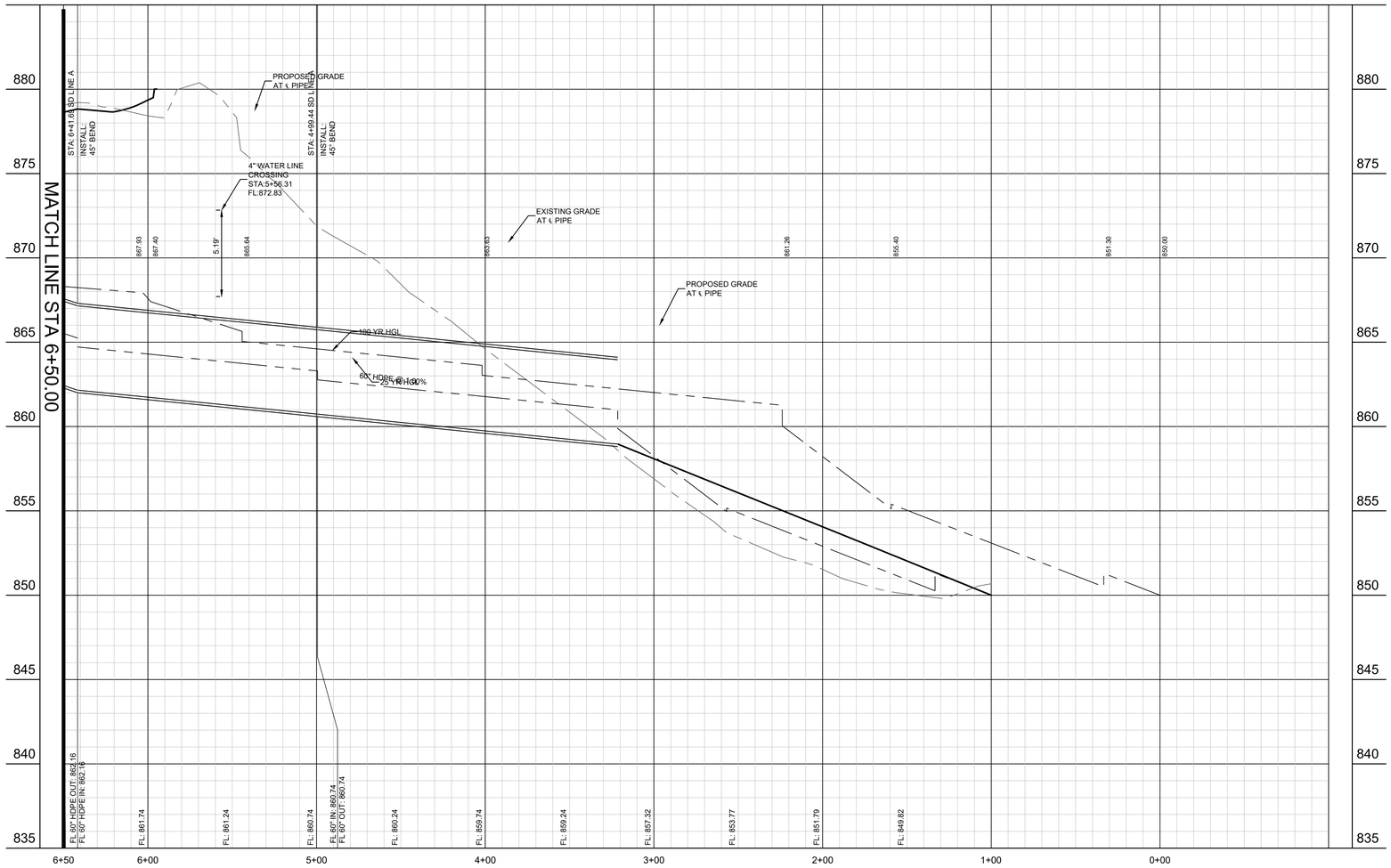
STORM PROFILES

SD-20-00020
SHEET NUMBER
SHEET 31 OF 92

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

FILL TO BE COMPACTED TO 95% STD PROCTOR DENSITY OR PER GEOTECH RECOMMENDATION

SD LINE A



100 YR

7+31.56	6+00.60		5+44.13	4+01.87		4+01.87	2+23.89		2+23.89	1+59.32		1+59.32	0+33.33		0+33.33	0+00.00	
Q100=	55.15	c.f.s.	Q100=	92.38	c.f.s.	Q100=	91.62	c.f.s.	Q100=	123.68	c.f.s.	Q100=	122.53	c.f.s.	Q100=	122.01	c.f.s.
Qcap=	59.66	c.f.s.	Qcap=	260.44	c.f.s.	Qcap=	260.44	c.f.s.	Qcap=	588.30	c.f.s.	Qcap=	420.34	c.f.s.	Qcap=	420.34	c.f.s.
Vp=	8.70	ft/sec	Vp=	10.48	ft/sec	Vp=	10.39	ft/sec	Vp=	22.66	ft/sec	Vp=	17.95	ft/sec	Vp=	17.72	ft/sec
sf=	0.008	ft/ft	sf=	0.010	ft/ft	sf=	0.010	ft/ft	sf=	0.076	ft/ft	sf=	0.039	ft/ft	sf=	0.039	ft/ft
n=	0.013		n=	0.013		n=	0.013		n=	0.015		n=	0.015		n=	0.015	
d=	2.53	ft	d=	2.30	ft	d=	2.30	ft	d=	1.08	ft	d=	1.36	ft	d=	1.32	ft

25 YR

7+31.56	6+00.60		5+44.13	4+01.87		4+01.87	2+23.89		2+23.89	1+59.32		1+59.32	0+33.33		0+33.33	0+00.00	
Q100=	43.51	c.f.s.	Q100=	72.63	c.f.s.	Q100=	71.94	c.f.s.	Q100=	97.07	c.f.s.	Q100=	96.02	c.f.s.	Q100=	95.55	c.f.s.
Qcap=	59.66	c.f.s.	Qcap=	260.44	c.f.s.	Qcap=	260.44	c.f.s.	Qcap=	588.30	c.f.s.	Qcap=	420.34	c.f.s.	Qcap=	420.34	c.f.s.
Vp=	8.23	ft/sec	Vp=	9.90	ft/sec	Vp=	9.81	ft/sec	Vp=	20.99	ft/sec	Vp=	16.46	ft/sec	Vp=	16.46	ft/sec
sf=	0.008	ft/ft	sf=	0.010	ft/ft	sf=	0.010	ft/ft	sf=	0.076	ft/ft	sf=	0.039	ft/ft	sf=	0.039	ft/ft
n=	0.013		n=	0.013		n=	0.013		n=	0.015		n=	0.015		n=	0.015	
d=	2.10	ft	d=	2.03	ft	d=	2.03	ft	d=	0.92	ft	d=	1.12	ft	d=	1.12	ft

No.	REVISION	DATE	BY
	REVISIONS	08/19/2024	RPS

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STATE OF TEXAS
RYAN P. SCHUBERT
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LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT	069274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

STORM PROFILES

SD-20-00020

SHEET NUMBER

SHEET 32 OF 92

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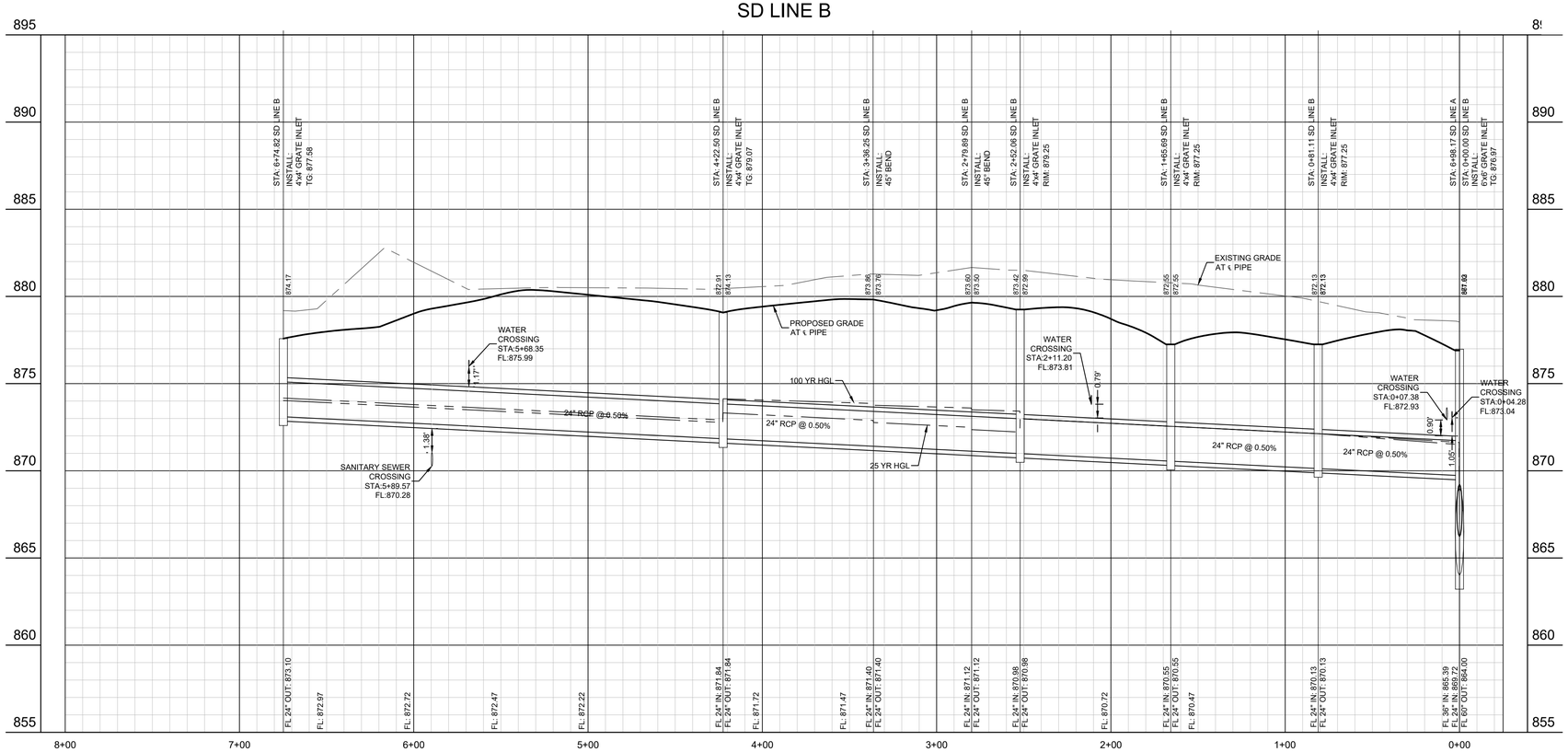
IMAGES:
XREFS:
LAST SAVED: 9/30/2024 3:58 PM
LAST SAVED BY: KYLE.CRUZ@KIMLEY-HORN.COM
DWG PATH: K:\AUS_CRU\069274402-CEDAR PARK - ENGINEE\ 7 ACRE\CADD\PLANSHEETS
DWG NAME: STORM PROFILES SHEET 1 OF 3.DWG

FILL TO BE COMPACTED TO 95% STD PROCTOR DENSITY OR PER GEOTECH RECOMMENDATION

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

SD LINE B



100 YR

6+74.82	4+22.50	
Q100=	7.44	c.f.s.
Qcap=	16.00	c.f.s.
Vp=	4.40	ft/sec
sf=	0.005	ft/ft
n=	0.013	
d=	1.07	ft

4+22.50	3+36.25	
Q100=	12.59	c.f.s.
Qcap=	16.00	c.f.s.
V=	4.01	ft/sec
sf=	0.003	ft/ft
n=	0.013	

3+36.25	2+79.89	
Q100=	12.16	c.f.s.
Qcap=	16.00	c.f.s.
V=	3.87	ft/sec
sf=	0.003	ft/ft
n=	0.013	

2+79.89	2+52.06	
Q100=	12.05	c.f.s.
Qcap=	16.00	c.f.s.
V=	3.84	ft/sec
sf=	0.003	ft/ft
n=	0.013	

2+52.06	1+65.69	
Q100=	23.47	c.f.s.
Qcap=	16.00	c.f.s.
V=	7.47	ft/sec
sf=	0.005	ft/ft
n=	0.013	

1+65.69	0+81.11	
Q100=	28.56	c.f.s.
Qcap=	16.00	c.f.s.
Vp=	9.09	ft/sec
sf=	0.005	ft/ft
n=	0.013	
d=	2.00	ft

0+81.11	0+00.00	
Q100=	33.44	c.f.s.
Qcap=	16.00	c.f.s.
Vp=	10.64	ft/sec
sf=	0.005	ft/ft
n=	0.013	
d=	2.00	ft

25 YR

6+74.82	4+22.50	
Q100=	5.89	c.f.s.
Qcap=	16.00	c.f.s.
Vp=	4.18	ft/sec
sf=	0.005	ft/ft
n=	0.013	
d=	0.93	ft

4+22.50	3+36.25	
Q100=	9.94	c.f.s.
Qcap=	16.00	c.f.s.
Vp=	4.77	ft/sec
sf=	0.005	ft/ft
n=	0.013	
d=	1.28	ft

3+36.25	2+79.89	
Q100=	9.59	c.f.s.
Qcap=	16.00	c.f.s.
Vp=	4.78	ft/sec
sf=	0.005	ft/ft
n=	0.013	
d=	1.24	ft

2+79.89	2+52.06	
Q100=	9.51	c.f.s.
Qcap=	16.00	c.f.s.
Vp=	4.74	ft/sec
sf=	0.005	ft/ft
n=	0.013	
d=	1.24	ft

2+52.06	1+65.69	
Q100=	18.53	c.f.s.
Qcap=	16.00	c.f.s.
V=	5.90	ft/sec
sf=	0.005	ft/ft
n=	0.013	

1+65.69	0+81.11	
Q100=	22.54	c.f.s.
Qcap=	16.00	c.f.s.
Vp=	7.17	ft/sec
sf=	0.005	ft/ft
n=	0.013	
d=	2.00	ft

0+81.11	0+00.00	
Q100=	27.42	c.f.s.
Qcap=	16.00	c.f.s.
Vp=	8.73	ft/sec
sf=	0.005	ft/ft
n=	0.013	
d=	2.00	ft

No.	REVISIONS	DATE	BY
1	REVISION	08/19/2024	RPS

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STATE OF TEXAS
RYAN P. SCHUBERT
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PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT	069274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

STORM PROFILES

SD-20-00020

SHEET NUMBER

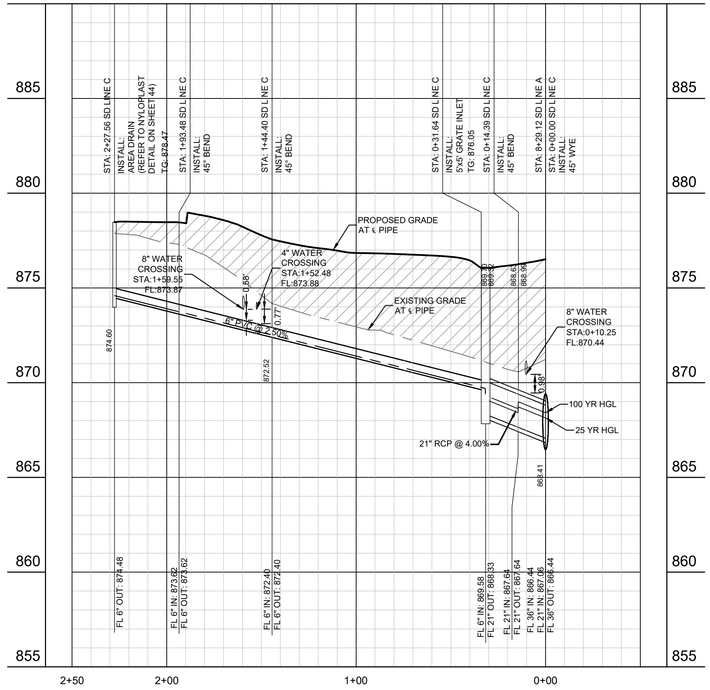
SHEET 33 OF 92

IMAGES
XREFS
LAST SAVED
PLOTTED
DWG PATH
DWG NAME
Cedar Park Logo
default
8/20/2024 3:58 PM
8/21/2024 7:02 PM
K:\AUS_CIR\069274402-CEDAR PARK - PARMER 1\ ACRE\CAD\PLANSHEETS
K:\CIR\PRELIM\SD\SD_LINE_A_LS 1.5 STORM PROFILES.DWG
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. for any other purpose may result in damages to Kimley-Horn and Associates, Inc.

FILL TO BE COMPACTED TO 95% STD PROCTOR DENSITY OR PER GEOTECH RECOMMENDATION

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

SD LINE C



100 YR

2+27.56	1+93.48
Q100=	0.12 c.f.s.
Qcap=	1.15 c.f.s.
Vp=	3.42 ft/sec
sf=	0.025 ft/ft
n=	0.010
d=	0.12 ft

1+93.48	1+44.40
Q100=	0.12 c.f.s.
Qcap=	1.15 c.f.s.
Vp=	3.40 ft/sec
sf=	0.025 ft/ft
n=	0.010
d=	0.12 ft

1+44.40	0+31.64
Q100=	0.12 c.f.s.
Qcap=	1.15 c.f.s.
Vp=	3.37 ft/sec
sf=	0.025 ft/ft
n=	0.010
d=	0.12 ft

0+31.64	0+14.39
Q100=	16.27 c.f.s.
Qcap=	31.69 c.f.s.
Vp=	11.74 ft/sec
sf=	0.040 ft/ft
n=	0.013
d=	0.99 ft

0+14.39	0+00.00
Q100=	16.25 c.f.s.
Qcap=	31.69 c.f.s.
Vp=	11.72 ft/sec
sf=	0.040 ft/ft
n=	0.013
d=	0.99 ft

25 YR

2+27.56	1+93.48
Q100=	0.10 c.f.s.
Qcap=	1.15 c.f.s.
Vp=	3.28 ft/sec
sf=	0.025 ft/ft
n=	0.010
d=	0.11 ft

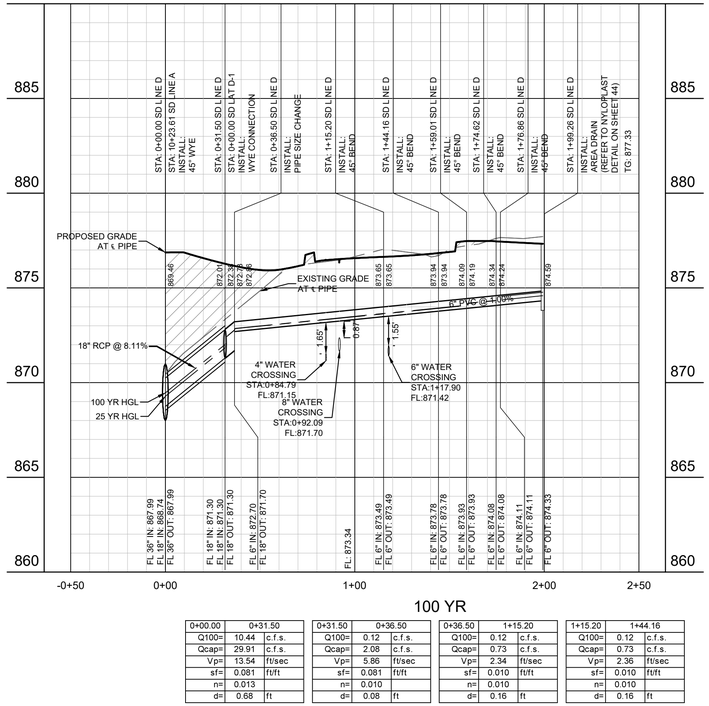
1+93.48	1+44.40
Q100=	0.10 c.f.s.
Qcap=	1.15 c.f.s.
Vp=	3.25 ft/sec
sf=	0.025 ft/ft
n=	0.010
d=	0.11 ft

1+44.40	0+31.64
Q100=	0.10 c.f.s.
Qcap=	1.15 c.f.s.
Vp=	3.22 ft/sec
sf=	0.025 ft/ft
n=	0.010
d=	0.11 ft

0+31.64	0+14.39
Q100=	12.81 c.f.s.
Qcap=	31.69 c.f.s.
Vp=	10.93 ft/sec
sf=	0.040 ft/ft
n=	0.013
d=	0.86 ft

0+14.39	0+00.00
Q100=	12.80 c.f.s.
Qcap=	31.69 c.f.s.
Vp=	10.92 ft/sec
sf=	0.040 ft/ft
n=	0.013
d=	0.86 ft

SD LINE D


STA: 0+00.00 SD LINE D
STA: 10+23.61 SD LINE A
INSTALL: 45° WYE
STA: 0+31.50 SD LINE D
STA: 0+00.00 SD LAT D-1
INSTALL: WYE CONNECTION
STA: 0+36.50 SD LINE D
INSTALL: PIPE SIZE CHANGE
STA: 1+15.20 SD LINE D
INSTALL: 45° BEND
STA: 1+44.16 SD LINE D
INSTALL: 45° BEND
STA: 1+59.01 SD LINE D
INSTALL: 45° BEND
STA: 1+74.62 SD LINE D
INSTALL: 45° BEND
STA: 1+76.86 SD LINE D
INSTALL: 45° BEND
STA: 1+99.26 SD LINE D
INSTALL: AREA DRAIN (REFER TO NYLOPLAST DETAIL ON SHEET 44) TG: 877.33
PROPOSED GRADE AT ℄ PIPE
EXISTING GRADE AT ℄ PIPE
6" PVC @ 1.25%
18" RCP @ 8.11%
4" WATER CROSSING STA:0+94.79 FL:871.15
8" WATER CROSSING STA:0+92.09 FL:871.70
6" WATER CROSSING STA:1+17.90 FL:871.42
100 YR HGL
25 YR HGL
869.48
872.01
872.36
872.86
873.65
873.65
873.94
873.94
874.09
874.19
874.34
874.24
874.59
FL 36" IN: 867.99
FL 36" OUT: 867.99
FL 36" OUT: 867.99
FL 18" IN: 871.30
FL 18" IN: 871.30
FL 18" OUT: 871.30
FL 6" IN: 872.70
FL 18" OUT: 871.70
FL 18" OUT: 871.70
FL: 873.34
FL 6" IN: 873.49
FL 6" OUT: 873.49
FL 6" IN: 873.78
FL 6" OUT: 873.78
FL 6" IN: 873.93
FL 6" OUT: 873.93
FL 6" IN: 874.08
FL 6" OUT: 874.08
FL 6" IN: 874.11
FL 6" OUT: 874.11
FL 6" OUT: 874.33
885
880
875
870
865
860
-0+50
0+00
1+00
2+00
2+50

100 YR

0+00.00	0+31.50
Q100=	10.44 c.f.s.
Qcap=	29.91 c.f.s.
Vp=	13.54 ft/sec
sf=	0.081 ft/ft
n=	0.013
d=	0.68 ft

0+31.50	0+36.50
Q100=	0.12 c.f.s.
Qcap=	2.08 c.f.s.
Vp=	5.86 ft/sec
sf=	0.081 ft/ft
n=	0.010
d=	0.08 ft

0+36.50	1+15.20
Q100=	0.12 c.f.s.
Qcap=	0.73 c.f.s.
Vp=	2.34 ft/sec
sf=	0.010 ft/ft
n=	0.010
d=	0.16 ft

1+15.20	1+44.16
Q100=	0.12 c.f.s.
Qcap=	0.73 c.f.s.
Vp=	2.36 ft/sec
sf=	0.010 ft/ft
n=	0.010
d=	0.16 ft

1+44.16	1+59.01
Q100=	0.12 c.f.s.
Qcap=	0.73 c.f.s.
Vp=	2.37 ft/sec
sf=	0.010 ft/ft
n=	0.010
d=	0.16 ft

1+59.01	1+74.62
Q100=	0.12 c.f.s.
Qcap=	0.73 c.f.s.
Vp=	2.38 ft/sec
sf=	0.010 ft/ft
n=	0.010
d=	0.16 ft

1+74.62	1+76.86
Q100=	0.12 c.f.s.
Qcap=	0.73 c.f.s.
Vp=	2.38 ft/sec
sf=	0.010 ft/ft
n=	0.010
d=	0.16 ft

1+76.86	1+99.26
Q100=	0.12 c.f.s.
Qcap=	0.73 c.f.s.
Vp=	2.29 ft/sec
sf=	0.010 ft/ft
n=	0.010
d=	0.16 ft

25 YR

0+00.00	0+31.50
Q100=	8.20 c.f.s.
Qcap=	29.91 c.f.s.
Vp=	12.42 ft/sec
sf=	0.081 ft/ft
n=	0.013
d=	0.61 ft

0+31.50	0+36.50
Q100=	0.09 c.f.s.
Qcap=	2.08 c.f.s.
Vp=	6.22 ft/sec
sf=	0.081 ft/ft
n=	0.010
d=	0.07 ft

0+36.50	1+15.20
Q100=	0.10 c.f.s.
Qcap=	0.73 c.f.s.
Vp=	2.12 ft/sec
sf=	0.010 ft/ft
n=	0.010
d=	0.14 ft

1+15.20	1+44.16
Q100=	0.10 c.f.s.
Qcap=	0.73 c.f.s.
Vp=	2.14 ft/sec
sf=	0.010 ft/ft
n=	0.010
d=	0.14 ft

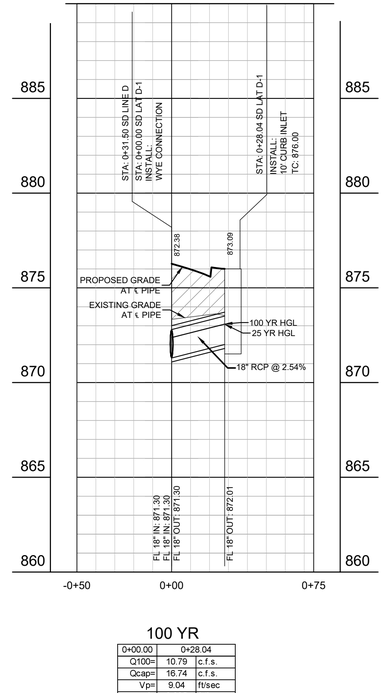
1+44.16	1+59.01
Q100=	0.10 c.f.s.
Qcap=	0.73 c.f.s.
Vp=	2.15 ft/sec
sf=	0.010 ft/ft
n=	0.010
d=	0.14 ft

1+59.01	1+74.62
Q100=	0.10 c.f.s.
Qcap=	0.73 c.f.s.
Vp=	2.17 ft/sec
sf=	0.010 ft/ft
n=	0.010
d=	0.14 ft

1+74.62	1+76.86
Q100=	0.10 c.f.s.
Qcap=	0.73 c.f.s.
Vp=	2.17 ft/sec
sf=	0.010 ft/ft
n=	0.010
d=	0.14 ft

1+76.86	1+99.26
Q100=	0.10 c.f.s.
Qcap=	0.73 c.f.s.
Vp=	2.18 ft/sec
sf=	0.010 ft/ft
n=	0.010
d=	0.14 ft

SD LAT D-1



100 YR

0+00.00	0+28.04
Q100=	10.79 c.f.s.
Qcap=	16.74 c.f.s.
Vp=	9.04 ft/sec
sf=	0.025 ft/ft
n=	0.013
d=	0.98 ft

25 YR

0+00.00	0+28.04
Q100=	8.55 c.f.s.
Qcap=	16.74 c.f.s.
Vp=	8.39 ft/sec
sf=	0.025 ft/ft
n=	0.013
d=	0.85 ft

No.	REVISIONS	DATE	BY
1		08/19/2024	RPS

Kimley»Horn
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WWW.KIMLEY-HORN.COM TX F-928

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT	069274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH
CEDAR PARK, TEXAS

CEDAR PARK

STORM PROFILES

SD-20-00020
SHEET NUMBER
SHEET 34 OF 92

IMAGES
Cedar Park Logo
Kimley-Horn Logo
LAST SAVED 8/30/2024 1:38 PM
PLOTTED BY KYLE.CHILSON 10/21/2024 7:02 PM
DWG PATH K:\AUS_CPA\069274402-CEDAR PARK - PHASE 1\7 ACRE\CAD\PLANSHEETS
DWG NAME SHEET 34 SD LINE C, D & LAT D-1.DWG
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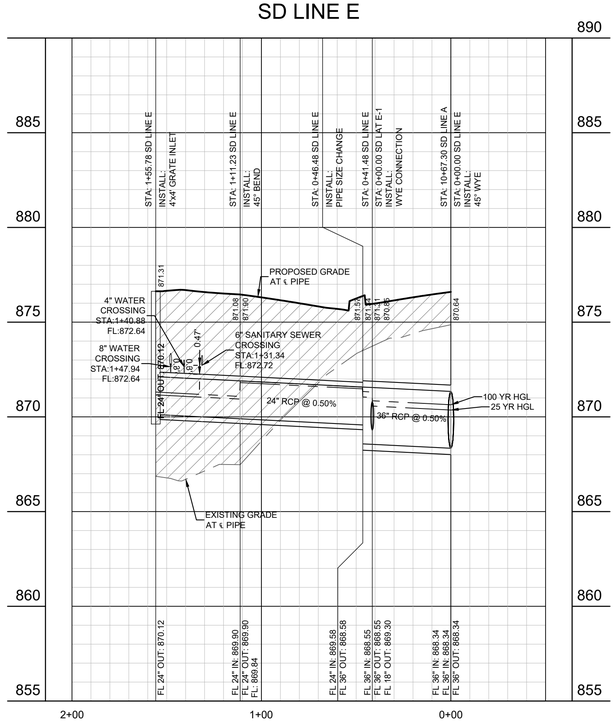
FILL TO BE COMPACTED TO 95% STD PROCTOR DENSITY OR PER GEOTECH RECOMMENDATION

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

SD LINE E



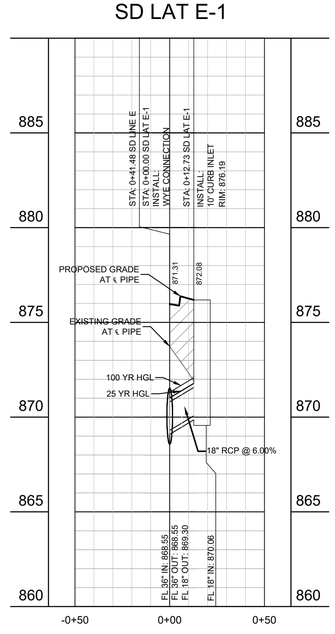
100 YR

1+55.78	1+11.23		1+11.23	0+46.48		0+46.48	0+41.48		0+41.48	0+00.00	
Q100=	8.93	c.f.s.	Q100=	21.88	c.f.s.	Q100=	21.82	c.f.s.	Q100=	30.77	c.f.s.
Qcap=	16.00	c.f.s.	Qcap=	16.00	c.f.s.	Qcap=	47.16	c.f.s.	Qcap=	47.16	c.f.s.
Vp=	4.63	ft/sec	Vp=	6.96	ft/sec	Vp=	5.74	ft/sec	Vp=	6.33	ft/sec
sf=	0.005	ft/ft	sf=	0.005	ft/ft	sf=	0.005	ft/ft	sf=	0.005	ft/ft
n=	0.013		n=	0.013		n=	0.013		n=	0.013	
d=	1.19	ft	d=	2.00	ft	d=	1.60	ft	d=	1.97	ft

25 YR

1+55.78	1+11.23		1+11.23	0+46.48		0+46.48	0+41.48		0+41.48	0+00.00	
Q100=	7.07	c.f.s.	Q100=	20.02	c.f.s.	Q100=	19.97	c.f.s.	Q100=	29.86	c.f.s.
Qcap=	16.00	c.f.s.	Qcap=	16.00	c.f.s.	Qcap=	47.16	c.f.s.	Qcap=	47.16	c.f.s.
Vp=	4.28	ft/sec	Vp=	6.37	ft/sec	Vp=	5.65	ft/sec	Vp=	6.25	ft/sec
sf=	0.005	ft/ft	sf=	0.005	ft/ft	sf=	0.005	ft/ft	sf=	0.005	ft/ft
n=	0.013		n=	0.013		n=	0.013		n=	0.013	
d=	1.04	ft	d=	2.00	ft	d=	1.52	ft	d=	1.93	ft

SD LAT E-1



100 YR

0+00.00	0+12.73	
Q100=	13.64	c.f.s.
Qcap=	25.73	c.f.s.
Vp=	12.84	ft/sec
sf=	0.060	ft/ft
n=	0.013	
d=	0.87	ft

25 YR

0+00.00	0+12.73	
Q100=	10.81	c.f.s.
Qcap=	25.73	c.f.s.
Vp=	12.23	ft/sec
sf=	0.060	ft/ft
n=	0.013	
d=	0.75	ft

No.	REVISIONS	DATE	BY
		08/19/2024	RPS

Kimley»Horn
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280 EAST DAVIS STREET, SUITE 100, MCKINNEY, TX 75069
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WWW.KIMLEY-HORN.COM TX F-928

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402
DATE DECEMBER 2022
SCALE AS SHOWN
DESIGNED BY RPS
DRAWN BY AH
CHECKED BY RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

STORM PROFILES

SD-20-00020
SHEET NUMBER
SHEET 35 OF 92

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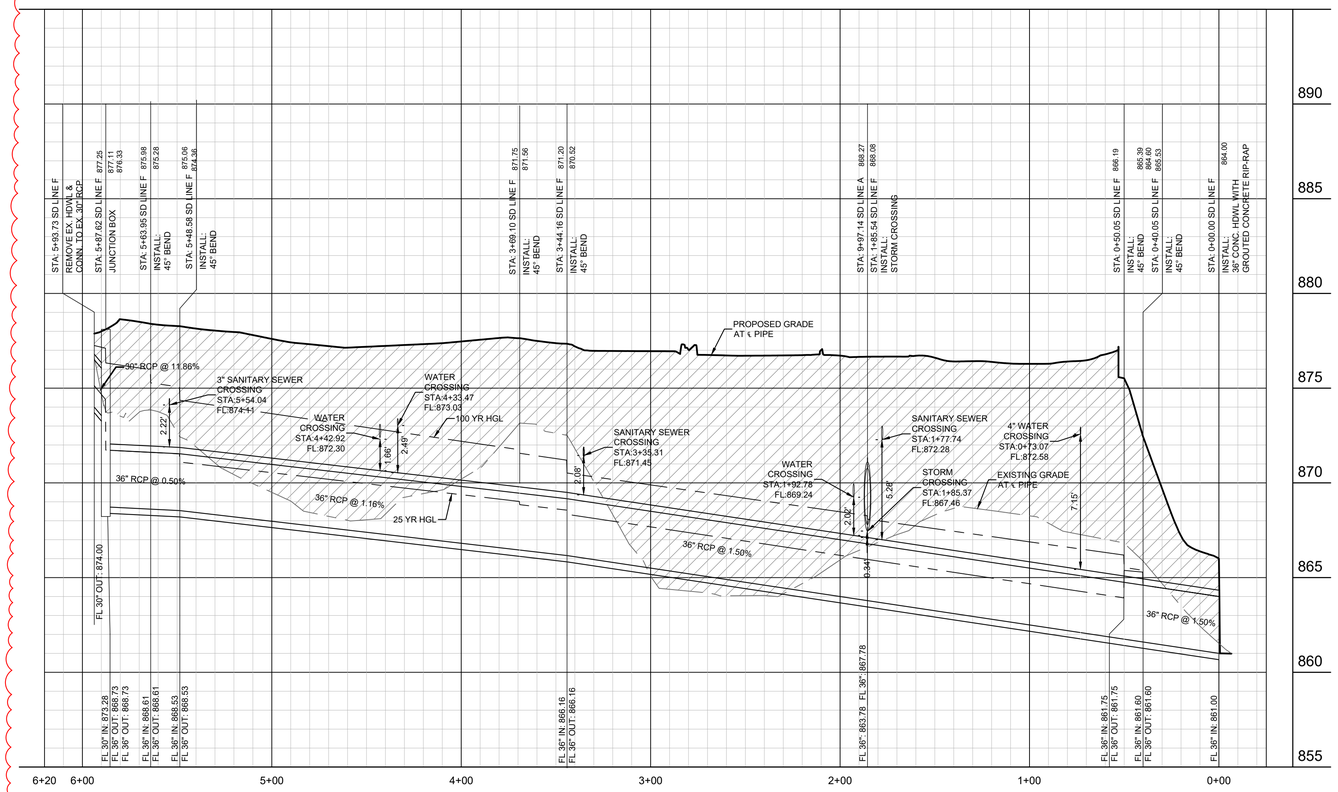
IMAGES:
Cedar Park Logo
JOB NUMBER
LAST SAVED
PLOT DATE
DWG PATH
DWG NAME
9/30/2024 1:58 PM
10/21/2024 7:02 PM
K:\AUS_CIVIL\069274402-CEDAR PARK - FARMER 17 ACRE\CAD\PLANSHEETS
STORM PROFILES.DWG

SD LINE F



100 YR

5+93.73	5+87.62		5+87.62	5+63.95		5+63.95	5+48.58		5+48.58	3+69.10		3+69.10	3+44.16		3+44.16	1+85.54		1+85.54	0+50.05		0+50.05	0+40.05		0+40.05	0+00.00	
Q100=	61.77	c.f.s.	Q100=	80.49	c.f.s.	Q100=	80.37	c.f.s.	Q100=	80.30	c.f.s.	Q100=	79.49	c.f.s.	Q100=	79.38	c.f.s.	Q100=	78.67	c.f.s.	Q100=	78.08	c.f.s.	Q100=	78.03	c.f.s.
Qcap=	141.26	c.f.s.	Qcap=	47.16	c.f.s.	Qcap=	47.16	c.f.s.	Qcap=	71.84	c.f.s.	Qcap=	71.84	c.f.s.	Qcap=	81.69	c.f.s.	Qcap=	81.69	c.f.s.	Qcap=	81.69	c.f.s.	Qcap=	81.69	c.f.s.
V=	12.58	ft/sec	V=	11.39	ft/sec	V=	11.37	ft/sec	V=	11.36	ft/sec	V=	11.25	ft/sec	V=	11.23	ft/sec	V=	11.13	ft/sec	V=	11.05	ft/sec	Vp=	12.07	ft/sec
sf=	0.023	ft/ft	sf=	0.015	ft/ft	sf=	0.015	ft/ft	sf=	0.014	ft/ft	sf=	0.014	ft/ft	sf=	0.014	ft/ft	sf=	0.014	ft/ft	sf=	0.014	ft/ft	sf=	0.015	ft/ft
n=	0.013		n=	0.013		n=	0.013		n=	0.013		n=	0.013		n=	0.013		n=	0.013		n=	0.013		n=	0.013	
																								d=	2.60	ft

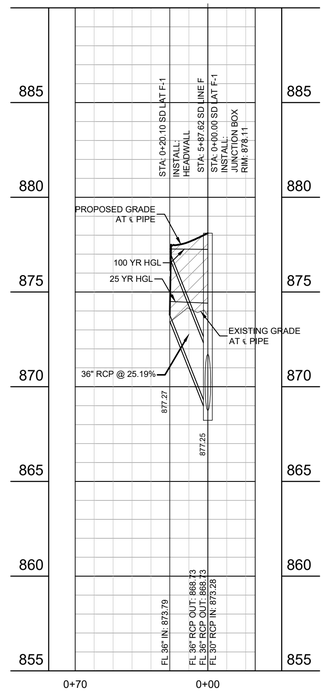
25 YR

5+93.73	5+87.62		5+87.62	5+63.95		5+63.95	5+48.58		5+48.58	3+69.10		3+69.10	3+44.16		3+44.16	1+85.54		1+85.54	0+50.05		0+50.05	0+40.05		0+40.05	0+00.00	
Q100=	48.92	c.f.s.	Q100=	63.75	c.f.s.	Q100=	63.62	c.f.s.	Q100=	63.54	c.f.s.	Q100=	62.79	c.f.s.	Q100=	62.68	c.f.s.	Q100=	62.09	c.f.s.	Q100=	61.58	c.f.s.	Q100=	61.54	c.f.s.
Qcap=	141.26	c.f.s.	Qcap=	47.16	c.f.s.	Qcap=	47.16	c.f.s.	Qcap=	71.84	c.f.s.	Vp=	10.36	ft/sec	Vp=	11.50	ft/sec	Vp=	11.40	ft/sec	Qcap=	81.69	c.f.s.	Qcap=	81.69	c.f.s.
Vp=	22.83	ft/sec	Vp=	9.02	ft/sec	Vp=	9.00	ft/sec	Vp=	10.48	ft/sec	sf=	0.012	ft/ft	sf=	0.015	ft/ft	sf=	0.015	ft/ft	V=	8.71	ft/sec	Vp=	11.29	ft/sec
sf=	0.119	ft/ft	sf=	0.005	ft/ft	sf=	0.005	ft/ft	sf=	0.012	ft/ft	n=	0.013		n=	0.013		n=	0.013		sf=	0.009	ft/ft	sf=	0.015	ft/ft
n=	0.013		n=	0.013		n=	0.013		n=	0.013		d=	2.40	ft	d=	2.18	ft	d=	2.18	ft	n=	0.013		n=	0.013	
d=	1.13	ft	d=	3.00	ft	d=	3.00	ft	d=	2.43	ft													d=	2.16	ft

FILL TO BE COMPACTED TO 95% STD PROCTOR DENSITY OR PER GEOTECH RECOMMENDATION

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

SD LAT F-1



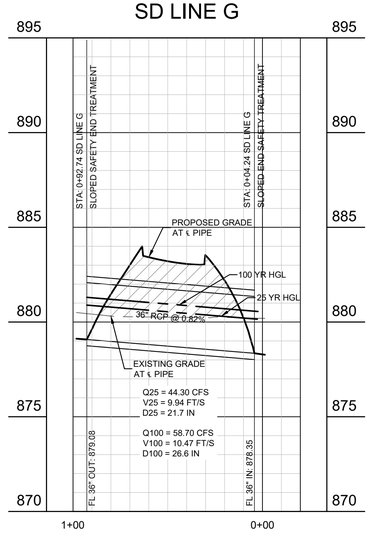
100 YR

0+20.10	0+00.00	
Q100=	18.73	c.f.s.
Qcap=	334.76	c.f.s.
V=	2.65	ft/sec
sf=	0.001	ft/ft
n=	0.013	

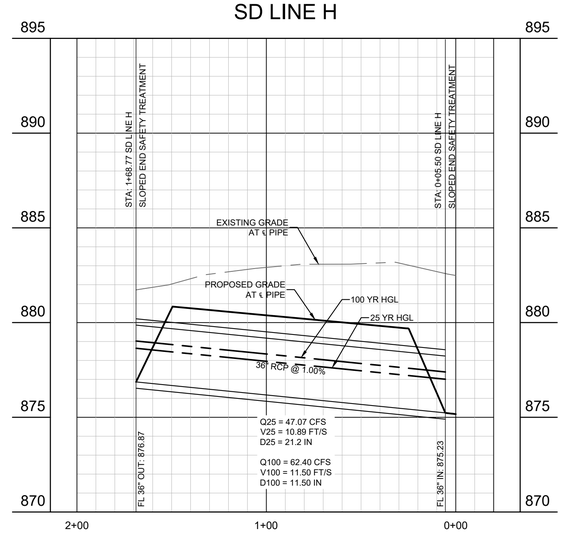
25 YR

0+20.10	0+00.00	
Q100=	14.83	c.f.s.
Qcap=	334.76	c.f.s.
Vp=	27.47	ft/sec
sf=	0.004	ft/ft
n=	0.013	
d=	0.42	ft

SD LINE G



SD LINE H



No.	REVISIONS	DATE	BY
1		08/19/2024	RPS

Kimley»Horn

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WWW.KIMLEY-HORN.COM TX F-928

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT	069274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

STORM PROFILES

SD-20-00020

SHEET NUMBER
SHEET 36 OF 92

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IMAGES
Cedar Park Logo
added by KHA

LAST SAVED
8/20/2024 1:38 PM

PLOT DATE
10/21/2024 7:02 PM

DWG PATH
K:\AUS_CPA\069274402\CED\ENTP\ARK - PARMER 17 ACRES\CADP\ARK-PARMER 17 ACRES-CADP-PLANSHEETS

DWG NAME
ENTP-ARK-PARMER 17 ACRES-CADP-PLANSHEETS_F-LAT-SD LINE F-SD LINE G-SD LINE H.DWG

Treatment Summary Table (Phase 1)						
Area	Total Drainage (acres)	Impervious Cover (acres)	BMP	Required Treatment (lbS) (Lm required, Block 2)	Maximum Load Treatable (lbs) (Lr, Block 4)	Provided Treatment (lbs) (Lm Desired, Block 5)
A1	7.23	6.13	Batch Detention	5,334	6,232	5,700
A2	2.54	0.00	Batch Detention	0		0
B1	2.75	0.00	Batch Detention	0		0
B2	0.90	0.00	Batch Detention	0		0
UC*	3.98	0.42	Uncaptured	366		0
TOTAL	17.40	6.55		5,700		5,700

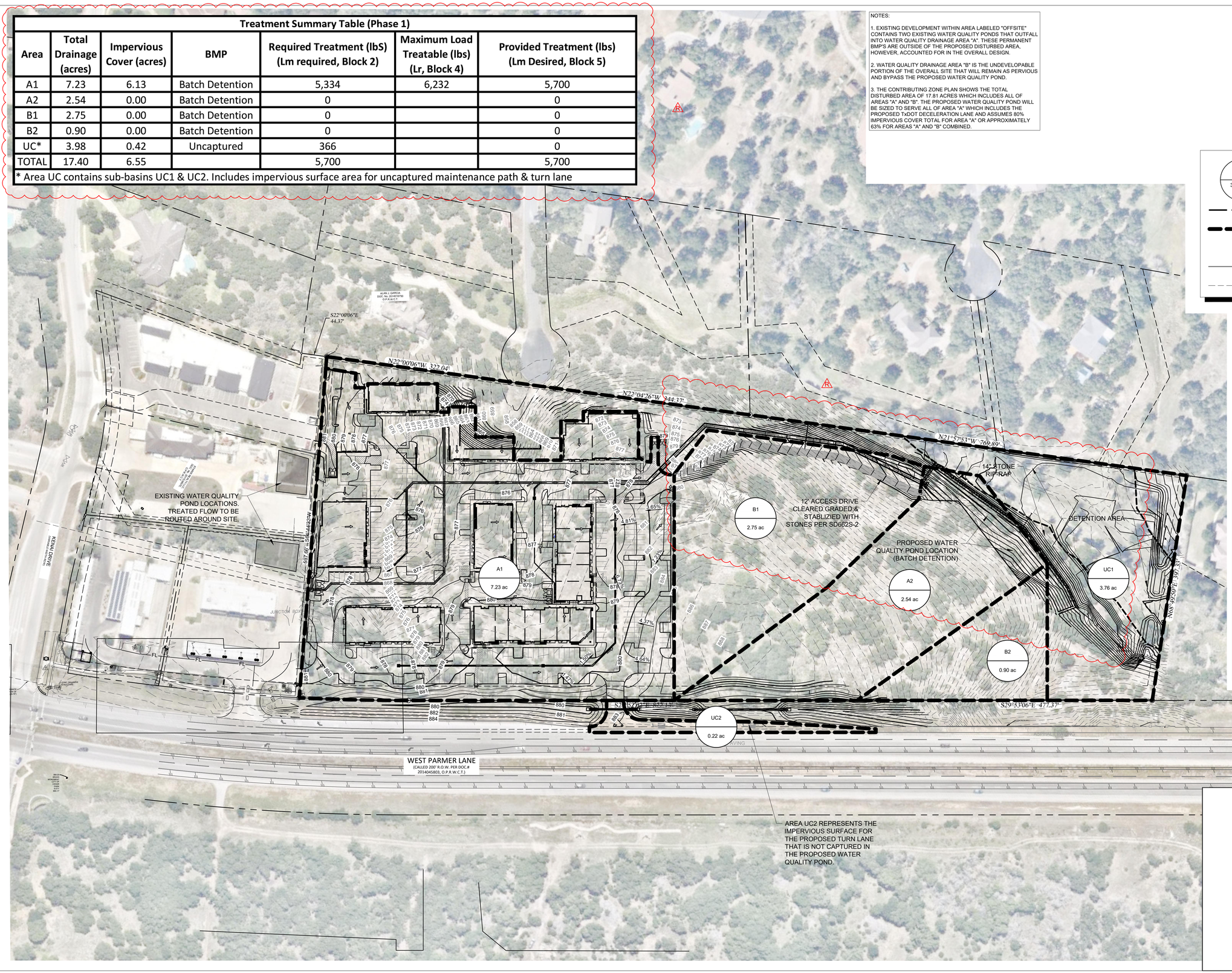
* Area UC contains sub-basins UC1 & UC2. Includes impervious surface area for uncaptured maintenance path & turn lane

NOTES:

1. EXISTING DEVELOPMENT WITHIN AREA LABELED "OFFSITE" CONTAINS TWO EXISTING WATER QUALITY PONDS THAT OUTFALL INTO WATER QUALITY DRAINAGE AREA "A". THESE PERMANENT BMP'S ARE OUTSIDE OF THE PROPOSED DISTURBED AREA, HOWEVER, ACCOUNTED FOR IN THE OVERALL DESIGN.

2. WATER QUALITY DRAINAGE AREA "B" IS THE UNDEVELOPABLE PORTION OF THE OVERALL SITE THAT WILL REMAIN AS PERVIOUS AND BYPASS THE PROPOSED WATER QUALITY POND.

3. THE CONTRIBUTING ZONE PLAN SHOWS THE TOTAL DISTURBED AREA OF 17.81 ACRES WHICH INCLUDES ALL OF AREAS "A" AND "B". THE PROPOSED WATER QUALITY POND WILL BE SIZED TO SERVE ALL OF AREA "A" WHICH INCLUDES THE PROPOSED TxDOT DECELERATION LANE AND ASSUMES 80% IMPERVIOUS COVER TOTAL FOR AREA "A" OR APPROXIMATELY 63% FOR AREAS "A" AND "B" COMBINED.



0 80' 160'
GRAPHIC SCALE 80'

LEGEND

A-1 / 30.32 AC	AREA DESIGNATOR / AREA IN ACRES
	PROPERTY LINE
	DRAINAGE DIVIDE
	FLOW DIRECTION
721	PROPOSED 1-FOOT CONTOUR
721	EXISTING 1-FOOT CONTOUR

Know what's below. Call before you dig.

BENCH MARK LIST

BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

ELEV. = 860.56'

BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN. THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'

No.	REVISION	DATE	BY
		08/19/2024	RPS

REVISIONS

Kimley»Horn
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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

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VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

WATER QUALITY DRAINAGE AREA MAP

SD-20-00020
SHEET NUMBER
SHEET 37 OF 92

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IMAGES
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Cedar Park Logo _ EPSG:3857 _ Dec20200515_Lat30.524969_Lon-97.781254_Mpp0.597 :
Aerial _ EPSG:3857 _ Dec20200515_Lat30.524969_Lon-97.781254_Mpp0.597
9/19/2024 10:54 AM
10/21/2024 7:02 PM
K:\AUS_CIVIL\069274402\CEDAR PARK - PARMER 17 ACRES\ADP\SHEETS
K:\AUS_CIVIL\069274402\CEDAR PARK - PARMER 17 ACRES\ADP\SHEETS\SD-20-00020 - [WATER QUALITY DRAINAGE AREA MAP]

MATCH LINE SHEET 39

N21°57'53"W 769.89'

345'

20'

NO DISTURBANCE WITHIN 5' OF CENTERLINE OF EXISTING CHANNEL. CONTRACTOR TO INSTALL AND MAINTAIN ORANGE SAFETY FENCE AROUND LIMITS OF CHANNEL

STA: 0+37.52 WATER QUALITY OUTFALL OUTFALL TO DETENTION

14" STONE RIP-RAP

8" PVC 38°

EXISTING PUBLIC FLOODPLAIN EASEMENT DOC#2022091962

STA: 0+29.17 WATER QUALITY OUTFALL INSTALL OUTFALL VALVE ASSEMBLY AND OUTFALL PEDESTAL REF. DETAILS ON SHEET 43

PRIVATE STORM DRAIN EASEMENT & PUBLIC FLOODPLAIN DOC#2022110384

DETENTION POND

STA: 0+00.00 WATER QUALITY OUTFALL CONNECT TO DETENTION POND OUTFALL REF. DETAILS ON SHEET 43

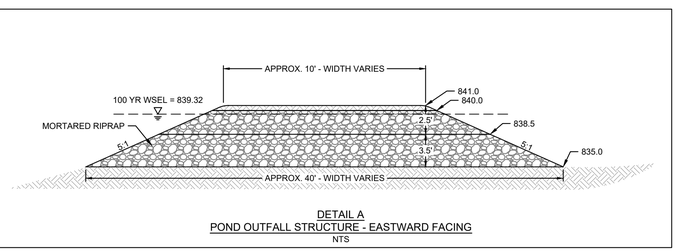
PORTION OF EXISTING CHANNEL TO BE DISTURBED.

6" CONCRETE RIP-RAP OUTFALL STRUCTURE (DETAILS A & B)

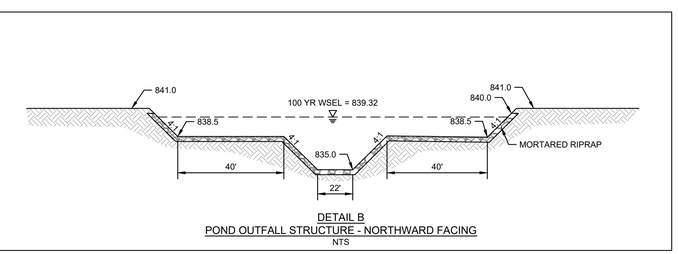
6' CHAIN LINK FENCE

TW 850.00 BW 844.30
TW 850.00 BW 844.69
TW 850.00 BW 844.32
TW 848.32 BW 847.61
TW 850.00 BW 844.50
TW 850.00 BW 844.73
TW 850.00 BW 844.31
TW 850.54 BW 847.21
TW 854.09 BW 851.97
TW 852.00 BW 847.93
TW 850.00 BW 846.01
TW 850.00 BW 845.53
TW 850.00 BW 844.09
TW 850.00 BW 844.00
TW 850.00 BW 846.77
TW 850.00 BW 844.10
TW 854.01 BW 849.00
TW 850.00 BW 847.90
TW 855.94 BW 851.17
TW 849.96 BW 844.26
TW 856.24 BW 854.36
TW 850.00 BW 845.93
TW 850.00 BW 844.43
TW 850.00 BW 844.55
TW 850.00 BW 846.06
TW 850.00 BW 848.38
TW 850.00 BW 849.33

5.61%
5.37%
20.15%
1.25%
1.64%
1.09%
0.75%
18.52%
29.61%
21.27%
2.30%



DETAIL A
POND OUTFALL STRUCTURE - EASTWARD FACING
NTS



DETAIL B
POND OUTFALL STRUCTURE - NORTHWARD FACING
NTS

LEGEND

- EXISTING PUBLIC FLOODPLAIN EASEMENT DOC#2022091962
- PRIVATE STORM DRAIN EASEMENT & PUBLIC FLOODPLAIN DOC#2022110384

REFER TO DRAINAGE STUDY FOR DETENTION POND DETAILS AND CALCULATIONS

NOTE:
ALL SIDE SLOPES, EARTHEN EMBANKMENTS, AND POND BOTTOMS, SHALL BE COMPACTED TO NINETY-FIVE (95) PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ESTABLISHED EMBANKMENT CONSTRUCTION REQUIREMENTS (STANDARD SPECIFICATION 132S).

BENCH MARK LIST

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ELEV. = 860.56'

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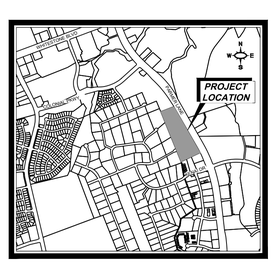

GRAPHIC SCALE IN FEET
0 10 20 40

Know what's below. Call before you dig.

Storm Event	Q_{in} (cfs)	Q_{out} (cfs)	WSEL (ft)	Volume (ac-ft)
100-YR	1199	1190	839.36	3.33
25-YR	857	847	838.88	2.68
10-YR	652	633	838.46	2.15
2-YR	320	311	837.32	0.94

Elevation (ft)	Area (ac.)	Volume (ac-ft)	Discharge (cfs)
835	0.0045	0.00	0
836	0.3436	0.17	77
837	0.7035	0.70	242
838	1.1240	1.61	489
839	1.3329	2.84	925
840	1.4725	4.24	1745

No.	REVISION	DATE	BY
		08/19/2024	RPS

REVISIONS

Kimley»Horn

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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

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VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

WATER QUALITY DETENTION PLAN AND DETAILS

SD-20-00020

SHEET NUMBER
SHEET 38 OF 92

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Velsa Ranch_Sht_xSht - Bioretention Pond Plan and Details - xElvnts
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10/21/2024 7:03 PM
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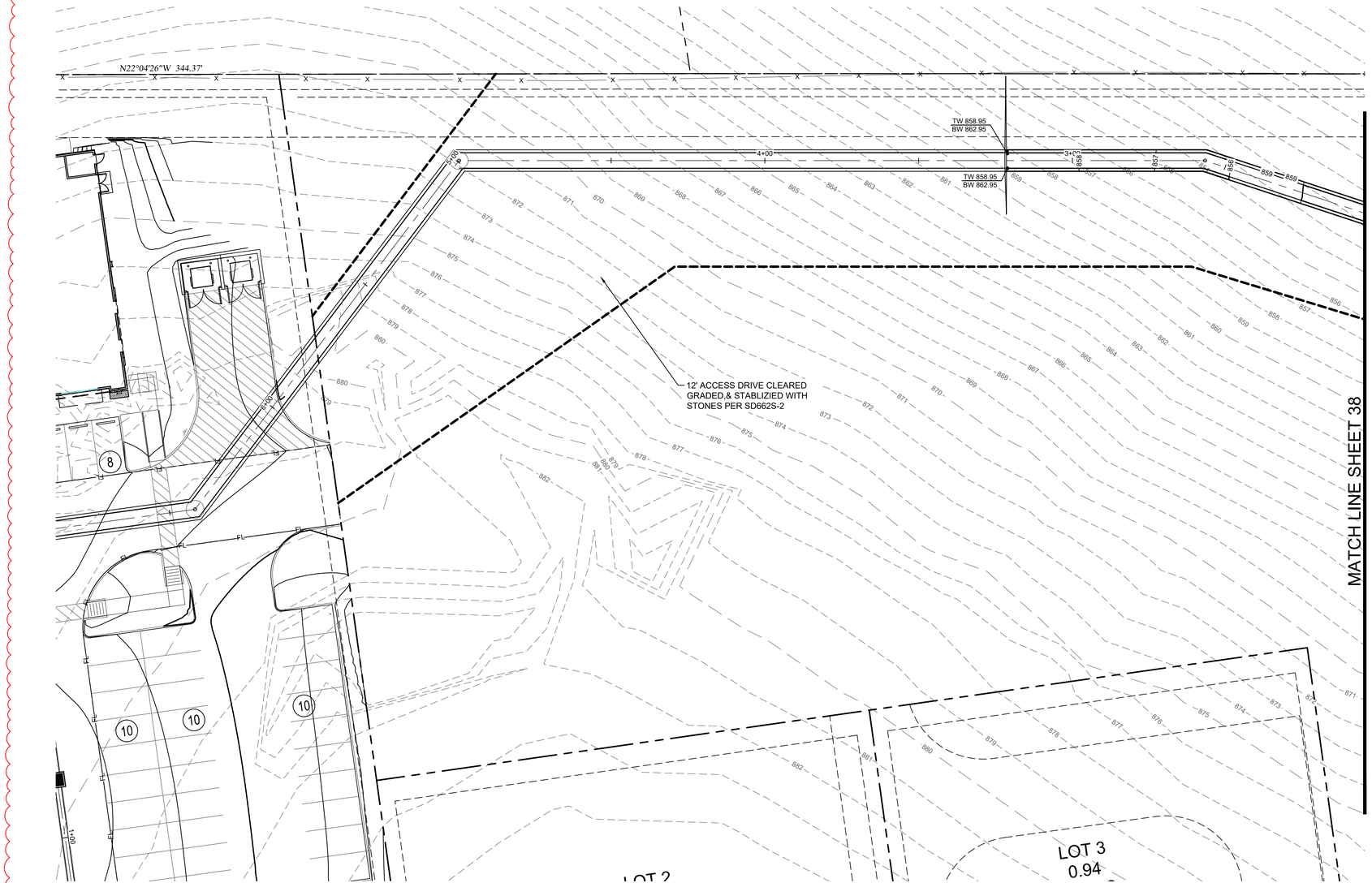
DETENTION KHA AND MEP MASTER_1.5in WITH FLOAT DETENTION KHA AND DETAILS.I



REFER TO DRAINAGE STUDY FOR DETENTION POND DETAILS AND CALCULATIONS

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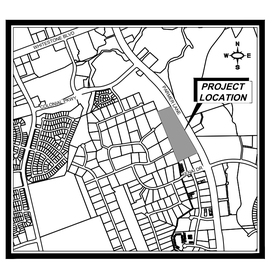

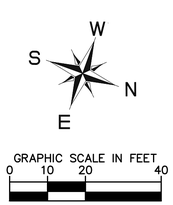

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811 Know what's below. Call before you dig.

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STATE OF TEXAS
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VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

WATER QUALITY ACCESS

SD-20-00020

SHEET NUMBER

SHEET 39 OF 92

IMAGES
Cedar Park Logo
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DWG NAME
[SECTION] WATER QUALITY ACCESS.DWG [1 SHEET(S) FULL LIST PLOTS]
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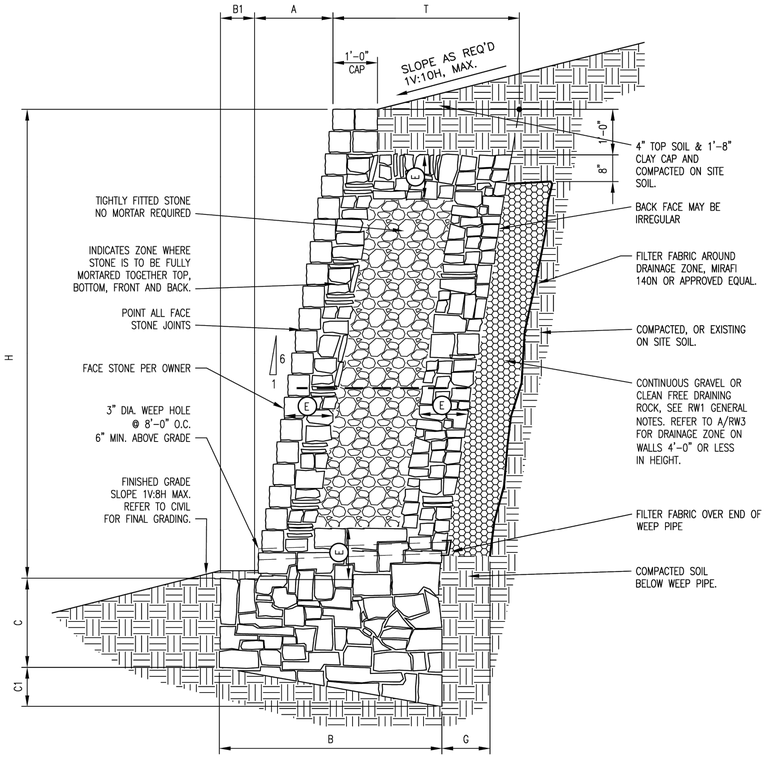
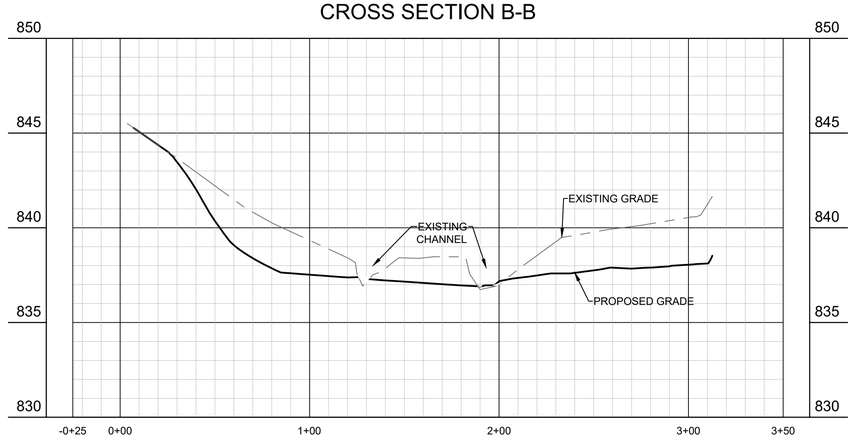
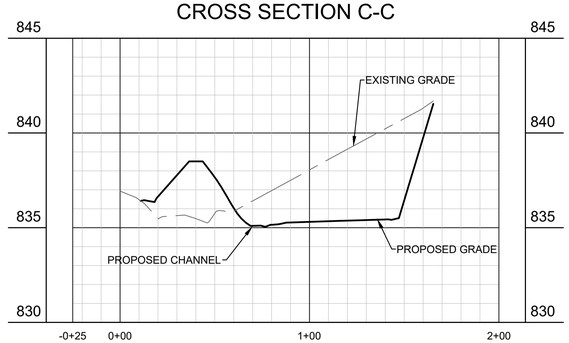


1 SK1 TYPICAL WALL SECTION - 1V:10H MAX SLOPE ABOVE WALL
1V:8H MAX SLOPE BELOW WALL
BEARING IN CLAYEY OR SANDY SOILS

CROSS SECTION B-B



CROSS SECTION C-C



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DETENTION PLAN AND DETAILS.DWG
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Bioretention Pond Plan and Details
xSmm
| 4 DETENTION POND CROSS SECTIONS)

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STATE OF TEXAS
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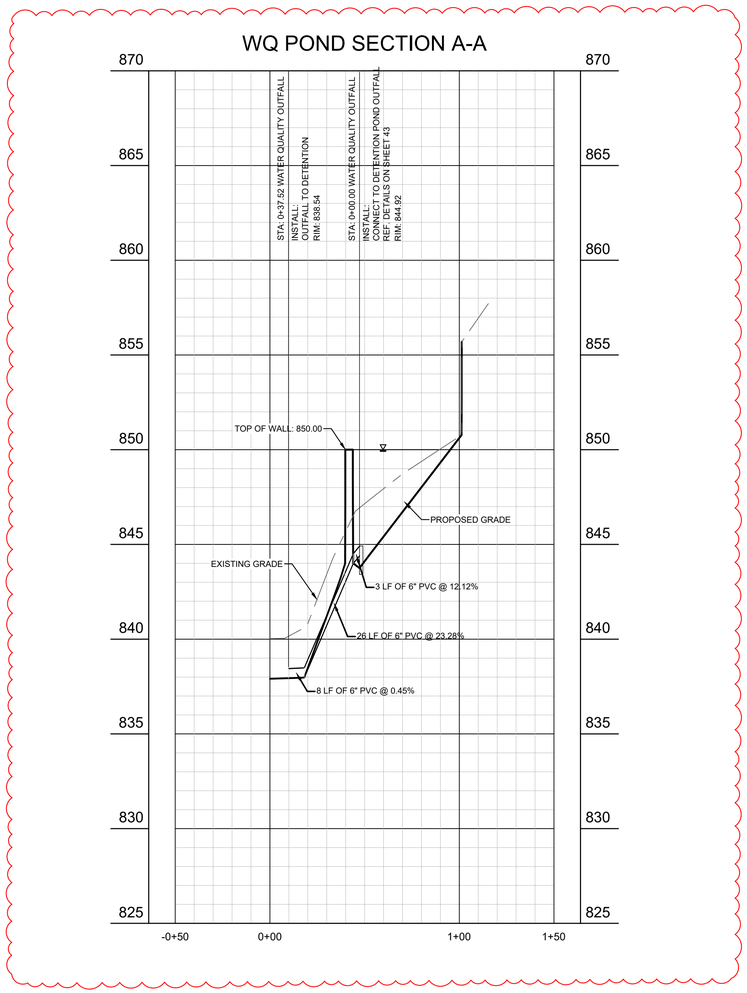
VELSA RANCH
CEDAR PARK, TEXAS

CEDAR PARK

DETENTION POND CROSS SECTIONS

SD-20-00020
SHEET NUMBER
SHEET 40 OF 92



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IMAGES
Cedar Park Logo
IMAGES
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KHA
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10/21/2024 7:03 PM
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K:\AUS_CIVIL\069274402-CEDAR PARK - FARMER 71 ACRES\CAD\PLANSHEETS
DWG NAME
[REMOVE TEXTBOX FROM KHA AND SEE README] - [WATER QUALITY POND SECTION]

No.	REVISIONS	DATE	BY
		08/19/2024	RPS

REVISION

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CEDAR PARK, TEXAS

CEDAR PARK

WATER QUALITY POND SECTION

SD-20-00020
SHEET NUMBER
SHEET 41 OF 92

CAPTURED IMPERVIOUS FLOW CALCULATION

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: VESLA RANCH
Date Prepared: 4/24/2024

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

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

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

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

County =	Williamson	
Total project area included in plan * =	17.40	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	6.55	acres
Total post-development impervious cover fraction * =	0.38	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	5700	lbs.

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

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

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

Drainage Basin/Outfall Area No. = A

Total drainage basin/outfall area =	9.77	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	6.13	acres
Post-development impervious fraction within drainage basin/outfall area =	0.63	
$L_{M\ THIS\ BASIN}$ =	5334	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Extended Detention
Removal efficiency = 91 percent

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

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

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

A_C =	9.77	acres
A_I =	6.13	acres
A_P =	3.64	acres
L_R =	6232	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 5700 lbs.

F = 0.91

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 =	1.80	inches
Post Development Runoff Coefficient =	0.44	
On-site Water Quality Volume =	28145	cubic feet

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

Off-site area draining to BMP =	3.65	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0.00	
Off-site Runoff Coefficient =	0.02	
Off-site Water Quality Volume =	477	cubic feet
Storage for Sediment =	5724	
Total Capture Volume (required water quality volume(s) x 1.20) =	34347	cubic feet

No.	REVISION	REVISIONS	DATE	BY
2			08/19/2024	RPS

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PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402	SCALE AS SHOWN	DESIGNED BY RPS	DRAWN BY AH	CHECKED BY RPS
DATE DECEMBER 2022				

VELSA RANCH
CEDAR PARK, TEXAS

CEDAR PARK

WATER QUALITY CALCULATIONS

SD-20-00020
SHEET NUMBER
SHEET 42 OF 92

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DWG NAME
Cedar Park Logo
Jeffrey Hall - Kimley-Horn - x30nn
10/10/2024 9:11 AM
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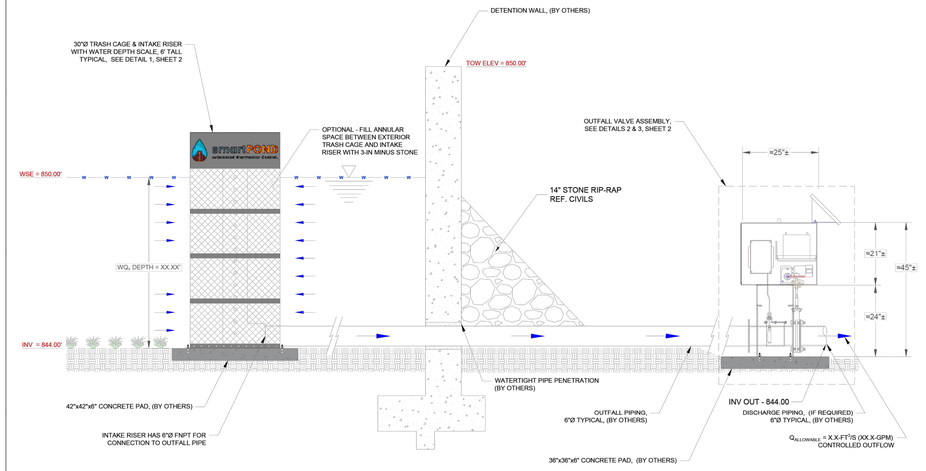
[WATER QUALITY CALCULATIONS] [K:\AUS\069274402\LANDSHEETS\WATER QUALITY CALCULATIONS.DWG]

smartPOND OUTFALL VALVE CONFIGURED DOWNSTREAM OF VERTICAL DETENTION WALL

OUTFALL VALVE DISCHARGE RATE AND DETENTION SETTING	
ALLOWABLE DISCHARGE RATE ($Q_{ALLOWABLE}$)	X.XX-FT^3/S (XX.X-GPM)
REQUIRED DETENTION VOLUME	X.XX-FT^3
DETENTION VOLUME PROVIDED	X.XX-FT^3/S
REQUIRED DETENTION TIME	XX-HOURS



NOTE: ENGINEER OF RECORD TO REVIEW, APPROVE AND ENDORSE FINAL SITE SPECIFIC DESIGN.

smartPOND Automated Stormwater Control.

FOR ADDITIONAL INFORMATION CONTACT CONVERGENT WATER TECHNOLOGIES 1-800-711-5428 www.convergentwater.com

CONVERGENT WATER TECHNOLOGIES

smartPOND OUTFALL VALVE
DOWNSTREAM OF VERTICAL WALL CONFIGURATION

REVISION 0
DATE 10/8/2024
SHEET NO. 1

smartPOND OUTFALL VALVE SPECIFICATIONS

CONTINUOUSLY MONITORED AUTOMATED STORMWATER SYSTEM (C-MASS), WITH PROGRAM CONTROLLED OUTFALL VALVE

1. **CONTINUOUSLY MONITORED AUTOMATED STORMWATER SYSTEM (C-MASS) DEVICE**: THE CONTINUOUSLY MONITORED AUTOMATED STORMWATER SYSTEM (C-MASS), SHOWN ON THE PLANS AS THE OUTFALL ASSEMBLY SHALL BE A smartPOND™ OUTFALL VALVE PROVIDED BY:

   CONVERGENT WATER TECHNOLOGIES
   800.711.5428
   WWW.CONVERGENTWATER.COM

   THE smartPOND™ OUTFALL VALVE SHALL SHALL PROVIDE FOR ACTIVE MANAGEMENT OF DETAINED STORMWATER VOLUME AND / OR ITS ALLOWABLE DISCHARGE RATE. THE smartPOND™ OUTFALL VALVE SHALL BE PROGRAMMABLE TO DETAIN A SPECIFIED VOLUME OF STORMWATER FOR A SPECIFIED REQUIRED PERIOD OF TIME AND / OR PROGRAMMED TO CONTROL THE OUTFLOW RATE TO MATCH THE MAXIMUM ALLOWABLE DISCHARGE RATE OR BOTH OF THIS OPERATIONS SIMULTANEOUSLY. THE smartPOND™ VAULT VALVE MAXIMIZES THE DETENTION TO PROMOTE THE SETTLEMENT OF SOLIDS BEFORE AUTOMATICALLY DEWATERING THE DETENTION POND COMPLETELY. FOR STORMWATER RETENTION SYSTEMS, THE SYSTEM SHALL BE PROGRAMMED TO MANAGE THE REQUIRED RETENTION VOLUME WHILE MAINTAINING A SPECIFIED AMOUNT OF CAPACITY FOR FLOOD STORAGE OR OTHER USE.

   THE FOLLOWING SPECIFICATIONS DESCRIBE THE COMPONENTS, GENERAL FUNCTIONS, AND APPLICATIONS OF A CONTINUOUSLY MONITORED AUTOMATED STORMWATER SYSTEM (C-MASS), USING THE PROGRAMMED smartPOND™ OUTFALL VALVE.

   THIS smartPOND™ OUTFALL VALVE SHALL FUNCTION AS AN ELECTRONICALLY CONTROLLED, SOLAR POWERED STORMWATER MANAGEMENT DEVICE, PROVIDING PRECISION STORMWATER VOLUME MANAGEMENT CAPABILITIES AND REAL-TIME DATA. USING SENSORS, SOLAR POWER, AN ELECTRONIC ACTUATOR, AND AN INTERNET-BASED CONTROL INTERFACE. THE smartPOND™ OUTFALL VALVE CONNECTS TO A SPECIALIZED PERFORATED INTAKE RISER INSIDE THE STORMWATER IMPOUNDMENT AREA TO ENABLE PRECISE CONTROL OF REQUIRED DETAINED OR RETAINED STORMWATER CONTROL VOLUMES AND ALLOWABLE DISCHARGE RATES AUTOMATICALLY OR IN REAL TIME. THE smartPOND™ ASSEMBLY CAN BE CONFIGURED ABOVE GROUND OR BELOW IN SMALL MANHOLE OR VAULT STRUCTURE.

   1.1 PRE-PROGRAMMED OUTFALL VALVE CONTROL: THE OUTFALL VALVE SHALL BE PRE-PROGRAMMED TO EXECUTE COMMANDS BASED ON STORM EVENTS, REQUIRED CONTROL VOLUMES AND ALLOWABLE DISCHARGE RATES.

   1.1.1 DETENTION POND OPTIMIZATION: THE smartPOND™ OUTFALL VALVE SHALL BE PROGRAMMED TO DISCHARGE FLOWS FROM THE DETENTION SYSTEM AT THE MAXIMUM ALLOWABLE RELEASE, WHICH IS TYPICALLY A PREDEVELOPMENT VALUE. OTHER PROGRAM CONSIDERATIONS MAY INCLUDE INCLUDE PREVENTION OF OVERTOPPING OR BYPASS.

   1.1.2 BATCH DETENTION FUNCTION FOR STORMWATER QUALITY: THE smartPOND™ OUTFALL VALVE MAY BE PROGRAMMED TO PROVIDE BATCH DETENTION TO ACHIEVE STORMWATER QUALITY EFFLUENT GOAL OF 80% OR MORE REMOVAL OF TOTAL SUSPENDED SOLID (TSS) REMOVAL BY HOLDING THE WATER QUALITY VOLUME (WQ_v) FOR SETTLEMENT TREATMENT, FOR A REQUIRED PERIOD OF TIME. HOLDING TIMES ARE TYPICALLY SET FORTH IN STORMWATER MANAGEMENT REGULATIONS AS 2, 24 OR 48-HOURS.

   1.1.3 SPILL CONTROL OF HAZARDOUS MATERIAL (HAZMAT): smartPOND™ WHEN SPECIFIED FOR HAZMAT SPILL CONTROL SHALL BE EQUIPPED WITH POLLUTANT SPECIFIC SENSORS THAT WHEN TRIGGERED AUTOMATICALLY CLOSE THE OUTFALL VALVE UNTIL THE COMMAND IS OVERRIDDEN.

   1.2 REAL TIME MONITORING: smartPOND™ SHALL COME WITH TELEMETRY AND THE "AUTOFLOW APP" USER APPLICATION SOFTWARE AT NO ADDITIONAL COST FOR 1-YEAR. THIS AUTOFLOW APP ENABLES REAL TIME MONITORING OF THE DETENTION POND'S STORAGE-STAGE AND DISCHARGE RATE. THE AUTOFLOW APP SHALL ENABLE A USER TO:

   - CONTROL THE OUTFALL VALVE, EITHER OPEN OR CLOSE.
   - DETERMINE THE WATER SURFACE ELEVATION (WSE) OR POND DEPTH.
   - DETERMINE IF TRASH OR DEBRIS IS SURROUNDING THE TRASH CAGE AND INTAKE RISER.
   - RECEIVE MAINTENANCE ALERTS SUCH AS: LOW BATTERY, OUTFALL VALVE FAILURE, ETC.
   - MAINTAIN SPECIFIED WATER SURFACE LEVEL.

2. **COMPONENTS**: THE smartPOND™ OUTFALL VALVE MAY BE IMPLEMENTED EITHER ABOVE OR BELOW GROUND, AND IS COMPRISED OF THE FOLLOWING COMPONENTS:

   2.1 HARDWARE AND CONFIGURATION:

   THE STANDARD smartPOND™ OUTFALL VALVE ASSEMBLY CONSISTS OF A LOWER AND UPPER COMPONENT: THE LOWER COMPONENT IS THE PEDESTAL WITH 6"Ø PIPE SPOOL AND 6"Ø ACTUATED OUTFALL VALVE AND PRESSURE TRANSDUCER HOUSING. THIS LOWER PEDESTAL SHALL HAVE FLANGES ON EACH SIDE OF THE ASSEMBLY CONFORMING WITH AN ANSI 16.5B CLASS 150 FLANGE FOR CONNECTION OF THE OUTFALL PIPE FROM THE DETENTION SYSTEM AND TO A DOWNSTREAM DISCHARGE PIPE IF CALLED FOR ON THE PLANS. THE SECOND, UPPER COMPONENT IS THE LOCKABLE STEEL WEATHERPROOF ENCLOSURE BOX WITH A SOLAR PANEL AND ALERT LIGHT MOUNTED ON ITS TOP. THIS ENCLOSURE BOX HOUSES THE PROGRAMMABLE CONTROLLER INSIDE A NEMA-3R BOX, BATTERY, ELECTRIC MOTOR, ACTUATOR GEARING AND AN EXTENDABLE NON-RISING VALVE STEM BETWEEN THE ACTUATOR AND THE 6"Ø OUTFALL VALVE.

   FOR ABOVE GROUND APPLICATIONS, THE COMPLETE "OUTFALL VALVE ASSEMBLY" SHALL BE BOLTED TO A 36"X36, 6" THICK OR LARGER CONCRETE PAD USING ⅞"Ø, 3.5 LONG STAINLESS STEEL (SS) WEDGE ANCHORS. THE OUTFALL PIPE FROM THE DETENTION SYSTEM CONNECTS TO THE INLET OF THE OUTFALL VALVE ASSEMBLY WITH EIGHT (8X) ½"Ø BOLTS AND NUTS THAT CONFORM TO ANSI 16.5B CLASS 150 FLANGE GRADE SPECIFICATIONS. THE DISCHARGE PIPE, IF ANY, CONNECTS WITH ONLY FOUR (4X) BOLTS TO PROPERLY FLANGE UP TO THE DISCHARGE SIDE OF THE ACTUATED VALVE.

   2.2 OTHER ELECTRONICS SPECIFICATIONS:

   - MOTOR - OPERATES ON 12-VOLTS AND HAS TWO WIRES CONNECTING TO THE MOTOR CONTROLLER BOARD.
   - BATTERY - THIS IS A GEL BATTERY THAT PROVIDES 12-VOLTS, 30 AMP/HOUR OF POWER TO THE OUTFALL VALVE ASSEMBLY.
   - SOLAR PANEL - PROVIDES 15-WATT CHARGING TO THE 12-VOLT GEL BATTERY.
   - SOLAR CHARGE CONTROLLER - REGULATES THE VOLTAGE AND CURRENT DELIVERED TO THE GEL BATTERY.

   SENSORS:

   - PRESSURE TRANSDUCER - A SENSOR CAPABLE OF STAYING SUBMERSED IN WATER INDEFINITELY AND IS MOUNTED IN CENTER PIPE SPOOL OF THE LOWER PEDESTAL COMPONENT.
   - OUTFALL VALVE POSITION SENSOR - DETERMINES THE POSITION OF THE OUTFALL VALVE.

   OPTIONAL SENSORS:

   - CELL DATA MODEM - REQUIRED FOR REAL TIME CONTROL AND ALERTS.
   - HYDROCARBON SENSOR - THIS OPTIONAL SENSOR MAY BE FITTED TO THE smartPOND™ OUTFALL VALVE TO PERFORM SPECIFIC FUNCTIONS BASED ON THE PRESENCE OF HYDROCARBON CONTAMINATION.

3. **ADDITIONAL COMPONENTS LIST**:

   3.1 INTAKE RISER: THIS SHALL BE A PERFORATED STEEL RISER CONNECTED TO THE 6"Ø OUTFALL PIPE WITHIN THE POND AREA. THIS INTAKE RISER SHALL BE AN 8" SQUARE STEEL WITH FOUR (4X) 1"Ø HOLES AT 90-DEGREES EACH, EVERY 4 VERTICAL INCHES. THE DISCHARGE OF THIS INTAKE TUBING SHALL HAVE FEMALE NATIONAL PIPE THREADS (FNPT) TO MATCH THE 6"Ø SCHEDULE 40 PVC OUTFALL PIPE.

   3.2 TRASH CAGE: THE TRASH CAGE ATTACHES TO THE PERFORATED RISER WITH A COUPLING AND CALDER PIN PROVIDED WITH THE THE SYSTEM. THE TRASH CAGE SHALL BE COMPRISED OF STEEL BANDING AND A 1.5" X 1.5" MESH TO PREVENT FLOATABLES AND OTHER CONTAMINANTS FROM ENTERING AND CLOGGING THE PERFORATED RISER. THE TRASH CAGE WILL SIT 0.5" ABOVE THE BOTTOM OF THE IMPOUNDMENT TO ALLOW THE LAST 0.5" OUT OF THE IMPOUNDMENT.

4. **REAL TIME MONITORING INTERFACE (OPTIONAL)**: THE AUTOFLOW APP SHALL BE THE SOFTWARE USED IF THE REAL TIME MONITORING OPTION IS SPECIFIED FOR LONG-TERM POND OPERATIONS. A COMPLETE SET OF USER INSTRUCTIONS SHALL BE PROVIDED IN THE CONSTRUCTION SUBMITTALS AND COPY OF THESE INSTRUCTIONS SHALL BE PLACED IN THE ENCLOSURE BOX.

   THIS AUTOFLOW APP SHALL PROVIDE LIVE AND HISTORICAL DATA AND PROVIDE THE ALERTS LISTED IN SECTION 6. IT WILL ALSO ENABLE COMMANDS TO BE SENT TO THE OUTFALL VALVE TO CHANGE THE VALVES POSITION TO CONTROL DISCHARGE RATE AND POND DEPTH.

5. **ALERTS**: THE smartPOND™ OUTFALL VALVE WILL INDICATE THE FOLLOWING ALERTS BY ILLUMINATING AN EXTERIORLY VISIBLE RED LED LIGHT ON TOP OF THE ENCLOSURE BOX:

   - LOW BATTERY
   - LOSS OF FUNCTION
   - OUTFALL VALVE MALFUNCTION
   - HYDROCARBON CONTAMINATION (OPTIONAL)

   IF THE TELEMETRY OPTION IS SELECTED, THE UNIT WILL UPLOAD THE ABOVE ALERTS TO THE AUTOFLOW APP AND NOTIFY THE OPERATOR VIA TEXT OR EMAIL.

6. **MAINTENANCE & OPERATION SUBMITTAL**: AN OPERATION AND MAINTENANCE MANUAL SHALL BE PROVIDED, REVIEWED AND APPROVED DURING THE CONSTRUCTION SUBMITTAL PROCESS AND SHALL INCLUDE AT A MINIMUM: GREASING AND LUBRICATION ITEMS AND CYCLE FOR THE ACTUATOR, MOTOR AND VALVE; INSPECTION AND MAINTENANCE OF THE SOLAR PANEL, GEL BATTERY TRASH CAGE AND INTAKE RISER; AND PROCEDURES FOR VALVE OPERATION IN CASE OF TOTAL ELECTRONIC OR MOTOR FAILURE.

7. **SHIPPING AND HANDLING STORAGE**: THE smartPOND™ OUTFALL VALVE IS SHIPPED IN A NEAR-FULLY ASSEMBLED CONFIGURATION AND SHOULD BE STORED LIKEWISE. THE SYSTEMS ARE TRANSPORTED AND STORED ON PALLETS AND MUST REMAIN SECURED VIA STRAPS OR STEEL BANDS TO SAID PALLET AT ALL TIMES. THE SOLAR PANEL IS NOT INSTALLED AT TIMES OF TRANSPORT OR STORAGE AND SHOULD NOT BE INSTALLED UNTIL THE UNIT IS READY TO BEGIN OPERATION. THE BATTERY MAY BE STORED INSIDE THE ELECTRONICS BOX AND IF REMOVED, SHOULD NEVER BE STORED ON A CONCRETE SURFACE.

8. **INSTALLATION**: INSTALL THE smartPOND™ OUTFALL ASSEMBLY FIRST WITHOUT THE SOLAR PANEL. MOUNT SOLAR PANEL WITH THE CONNECTION BOLTS PROVIDED AFTER THE ASSEMBLY IS ANCHORED TO THE CONCRETE PAD USING THE ANCHOR BOLTS CALLED OUT ON THE PLANS, AS BOLTS SHOULD BE REMOVED DURING THE INSTALLATION PROCESS. THERE ARE SEVERAL WAYS TO INSTALL THE smartPOND™ OUTFALL VALVE WITH THE KEY BEING STRUCTURED SUPPORT.

   8.1 BELOW GROUND INSTALLATIONS: THE UPPER COMPONENT CONSISTING OF THE ENCLOSURE BOX AND ALL ITS INTERNALS SHOULD BE FASTENED TO THE SURFACE OF THE CONCRETE VAULT. FOR VAULT INSTALLATIONS, SEE DESIGN DETAILS FOR STANDARD VAULT DESIGN.

9. **SAFETY INFORMATION AND WARNINGS**:

   - ALWAYS KEEP HANDS CLEAR OF THE OUTFALL VALVE AND MOTOR WHEN UNIT IS IN OPERATION.
   - TURN THE POWER SWITCH OFF WHEN DOING ANY ELECTRICAL WORK.
   - DO NOT ENTER THE WATER WHEN THE DEVICE IS ACTIVELY DRAINING WATER.
   - ALWAYS USE PROPER PERSONAL PROTECTION EQUIPMENT (PPE), AND CONFINED SPACE PROTOCOL WHEN SERVICING A OUTFALL VALVE BENEATH GROUND.

10. **PRODUCTS**: THE MANUFACTURER SHALL BE AN ESTABLISHED STORMWATER COMPANY THAT HAS AT LEAST FIVE (5X) INSTALLATIONS OF C-MASS DEVICES THAT HAVE BEEN IN USE AND FUNCTIONAL FOR FIVE (5X) OR MORE YEARS.

11. **QUALITY ASSURANCE AND PERFORMANCE SPECIFICATIONS**: THE QUALITY OF ALL SYSTEM COMPONENTS AND ALL OTHER APPURTENANCES AND THEIR ASSEMBLY PROCESS SHALL BE SUBJECT TO INSPECTION UPON DELIVERY OF THE SYSTEM TO THE WORK SITE. INSTALLATION IS TO BE PERFORMED ONLY BY SKILLED WORK PEOPLE WITH SATISFACTORY RECORD OF PERFORMANCE ON EARTHWORKS, PIPE, WELDING, CHAMBER, OR PONDILANDFILL CONSTRUCTION PROJECTS OF COMPARABLE SIZE AND QUALITY.

smartPOND Automated Stormwater Control.

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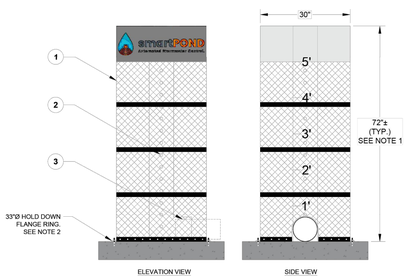
CONVERGENT WATER TECHNOLOGIES

smartPOND OUTFALL VALVE
SPECIFICATIONS

REVISION 0
DATE 8/18/2023
SHEET NO. 3

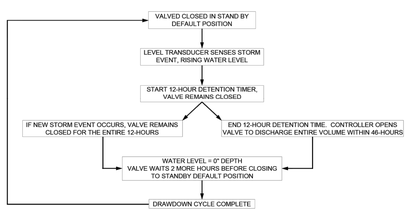
DETAIL 1 - TRASH CAGE & INTAKE RISER



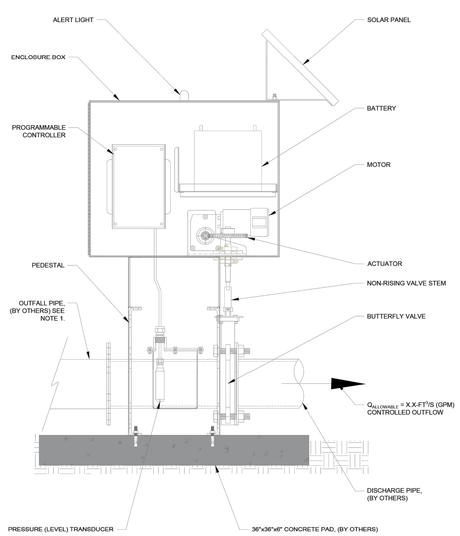
TRASH CAGE & INTAKE RISER NOTES:
1. DESIGN HEIGHT OF INTAKE TRASH CAGE AND INTAKE RISER TO MATCH REQUIRED DETENTION DEPTHS.
2. USE 4X, ⅞"Ø X 3.5" SS WEDGE ANCHOR BOLTS TO CONNECT OUTFALL ASSEMBLY TO CONCRETE PAD, 2.5" MINIMUM EMBEDMENT.

TRASH CAGE WITH INTAKE RISER - PARTS LIST	
ITEM	COMPONENT DESCRIPTION
1	30"Ø CAGE WITH 1.5" GALVANIZED MESH SCREEN
2	8" SQUARE PERFORATED TUBING WITH 1"Ø PERFORATIONS, SPACED 4" ON CENTERS WITH WATER DEPTH SCALE
3	6"Ø FNPTS PROVIDED AT BOTTOM DISCHARGE OF INTAKE RISER

DETAIL 2 - PROGRAMMABLE LOGIC FLOW CHART, OUTFALL VALVE OPERATION FOR DETENTION AND/OR WATER QUALITY



DETAIL 3 - OUTFALL VALVE ASSEMBLY



OUTFALL VALVE ASSEMBLY NOTES:
1. USE ANSI 16.5B CLASS 150 FLANGES TO CONNECT OUTFALL AND DISCHARGER PIPES.
2. USE 4X, ⅞"Ø X 3.5" SS WEDGE ANCHOR BOLTS TO CONNECT OUTFALL ASSEMBLY TO CONCRETE PAD, 2.5" MINIMUM EMBEDMENT.

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CONVERGENT WATER TECHNOLOGIES

smartPOND OUTFALL VALVE
OUTFALL VALVE DETAILS

REVISION 0
DATE 8/18/2023
SHEET NO. 2

No.	REVISIONS	DATE	BY
		08/19/2024	RPS

Kimley»Horn

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STATE OF TEXAS
RYAN P. SCHUBERT
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PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402	DATE DECEMBER 2022	SCALE AS SHOWN	DESIGNED BY RPS
			DRAWN BY AH
			CHECKED BY RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

WATER QUALITY CALCULATIONS

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R:\Projects\Texas\Austin\069274402 - CEDAR PARK - PARMER 1 7 ACRES\ADP\ARSHEETS\ [4 A WATER QUALITY DETAILS.dwg]

STORM DRAIN HYDRAULIC CALCULATIONS TABLE

FROM	TO	PIPE	DRAINAGE AREA		TOTAL	RUNOFF	INCRE-	TOTAL	TIME OF CONCENTRATION			25-YEAR	100-YEAR	Q25	Q100	INLET	Q	PIPE			HGL		HEADLOSS CALCULATIONS							DESIGN	INVERT ELEV.		T/C	
		LENGTH	INCREMENTAL		AREA	COEFF.	MENTAL		INLET	TRAVEL	TOTAL	INTENSITY	INTENSITY	RUNOFF	RUNOFF	BYPASS	PIPE	SIZE	n	Sf	D/S	U/S	V1(IN)	V2(OUT)	V1^2/2g	V2^2/2g	Kj	K(V1^2/2G	Hk	HGL	FROM	TO	ELEV.	COMMENTS
START	END	feet	NO.	AREA		"C"	"CA"	"CA"	(MIN.)	(MIN.)	(MIN.)	(INHR)	(IN/HR)	(CFS)	(CFS)	(CFS)	(CFS)	(IN)		(FT/FT)	Elev.	Elev.	ft/sec	ft/sec	(FT)	(FT)		(FT)	(FT)	Elev.	(FT)	(FT)	(FT)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	
LINE A																																		
9+93.62	10+86.31	92.69	A-2	0.090	0.090	0.97	0.087	0.087	5.00	0.00	5.00	10.13	12.79	0.88	1.12	0.00	1.12	8	0.010	0.0250	871.54	873.86	0.00	6.09	0.00	0.58	1.25	0.00	0.72	874.58	871.19	873.51	877.11	AREA DRAIN
9+74.74	9+93.62	18.88			0.090	0.97		0.087	5.00	0.25	5.25	10.02	12.66	-	-	0.00	1.11	8	0.010	0.0250	870.89	871.36	6.09	6.03	0.58	0.56	0.35	0.20	0.20	871.54	870.72	871.19	876.50	45° BEND
9+69.74	9+74.74	5.00			0.090	0.97		0.087	5.00	0.31	5.31	10.00	12.64	-	-	0.00	1.10	36	0.013	0.0080	870.64	870.68	6.03	4.17	0.56	0.27	0.10	0.06	0.21	870.89	868.35	868.39	876.55	PIPE SIZE CHANGE
9+53.81	9+69.74	15.93	E-1, E-2	1.820	1.910	0.97	1.765	1.853	5.00	0.33	5.33	9.99	12.63	17.63	22.29	0.00	23.40	36	0.013	0.0080	869.94	870.07	4.17	6.98	0.27	0.76	0.75	0.20	0.57	870.64	868.22	868.35	876.66	45° WYE, LINE E
9+26.04	9+53.81	27.77			1.910	0.97		1.853	5.00	0.36	5.36	9.97	12.61	-	-	0.00	23.36	36	0.013	0.0080	869.46	869.68	6.98	6.96	0.76	0.75	0.35	0.26	0.26	869.94	868.00	868.22	876.77	45° BEND
8+07.33	9+26.04	118.71	D-1, D-2	0.880	2.790	0.97	0.854	2.706	5.00	0.43	5.43	9.95	12.58	8.49	10.74	0.00	34.10	36	0.013	0.0080	868.87	869.82	6.96	7.70	0.75	0.92	0.75	0.57	0.69	869.46	867.05	868.00	876.87	45° WYE, LINE D
7+31.56	8+07.33	75.77	A-1	0.390	3.180	0.97	0.378	3.085	5.00	0.69	5.69	9.84	12.46	3.72	4.71	0.00	38.81	36	0.013	0.0080	868.41	869.02	7.70	7.98	0.92	0.99	0.50	0.46	0.49	868.87	866.44	867.05	875.44	GRATE INLET
6+00.60	7+31.56	130.96	C-1, C-2	1.360	4.540	0.97	1.319	4.404	5.00	0.85	5.85	9.78	12.38	12.90	16.34	0.00	55.15	36	0.013	0.0080	867.92	868.97	7.98	8.70	0.99	1.18	0.75	0.74	0.88	868.41	865.39	866.44	876.51	45° WYE, LINE C
5+44.13	6+00.60	56.47	B-2 THRU B-7	3.240	7.780	0.97	3.143	7.547	5.00	1.10	6.10	9.68	12.27	30.41	38.56	0.00	93.70	60	0.013	0.0326	865.64	867.48	8.70	15.92	1.18	3.94	0.50	0.59	1.97	867.92	862.16	864.00	876.90	GRATE INLET LINE B
4+01.87	5+44.13	142.26			7.780	0.97		7.547	5.00	1.16	6.16	9.65	12.24	-	-	0.00	92.38	60	0.013	0.0100	863.62	865.05	15.92	10.48	3.94	1.71	0.35	1.38	0.60	865.64	860.74	862.16	878.83	45° BEND
2+23.89	4+01.87	177.98			7.780	0.97		7.547	5.00	1.38	6.38	9.57	12.14	-	-	0.00	91.62	60	0.013	0.0100	861.26	863.04	10.48	10.39	1.71	1.68	0.35	0.60	0.59	863.62	858.96	860.74	871.84	45° BEND
1+59.32	2+23.89	64.57	WQ B-1	2.750	10.530	0.97	2.668	10.214	5.00	1.67	6.67	9.46	12.02	25.24	32.05	0.00	123.68	5x4	0.015	0.0762	855.12	860.04	10.39	22.66	1.68	7.98	0.10	0.17	7.81	861.26	854.04	858.96	864.11	PIPE SIZE CHANGE
0+33.33	1+59.32	125.99			10.530	0.97		10.214	5.00	1.71	6.71	9.44	12.00	-	-	0.00	122.53	5x4	0.015	0.0389	850.50	855.40	22.66	17.95	7.98	5.01	0.25	1.99	1.25	855.12	849.14	854.04	858.37	30° BEND
0+00.00	0+33.33	33.33			10.530	0.97		10.214	5.00	1.83	6.83	9.40	11.95	-	-	0.00	122.01	5x4	0.015	0.0389	850.00	851.30	17.95	17.72	5.01	4.88	0.25	1.25	1.22	850.50	847.84	849.14	853.47	30° BEND
LINE B																																		
4+22.50	6+74.82	252.32	B-7	0.600	0.600	0.97	0.582	0.582	5.00	0.00	5.00	10.13	12.79	5.89	7.44	0.00	7.44	24	0.013	0.0050	872.91	874.17	0.00	4.40	0.00	0.30	1.25	0.00	0.38	874.54	871.84	873.10	877.58	GRATE INLET
3+36.25	4+22.50	86.25	B-6	0.430	1.030	0.97	0.417	0.999	5.00	0.96	5.96	9.73	12.33	4.06	5.14	0.00	12.59	24	0.013	0.0031	873.86	874.13	4.40	4.01	0.30	0.25	0.50	0.15	0.12	872.91	871.41	871.84	879.07	GRATE INLET
2+79.89	3+36.25	56.36			1.030	0.97		0.999	5.00	1.31	6.31	9.59	12.17	-	-	0.00	12.16	24	0.013	0.0029	873.60	873.76	4.01	3.87	0.25	0.23	0.35	0.09	0.10	873.86	871.13	871.41	879.82	45° BEND
2+52.06	2+79.89	27.83			1.030	0.97		0.999	5.00	1.56	6.56	9.50	12.06	-	-	0.00	12.05	24	0.013	0.0028	873.42	873.50	3.87	3.84	0.23	0.23	0.35	0.08	0.10	873.60	870.99	871.13	879.64	45° BEND
1+65.69	2+52.06	86.37	B-5	0.980	2.010	0.97	0.951	1.950	5.00	1.68	6.68	9.46	12.01	8.99	11.42	0.00	23.47	24	0.013	0.0050	872.55	872.99	3.84	7.47	0.23	0.87	0.50	0.11	0.43	873.42	870.55	870.99	879.25	GRATE INLET
0+81.11	1+65.69	84.58	B-4	0.440	2.450	0.97	0.427	2.377	5.00	1.87	6.87	9.39	11.93	4.01	5.09	0.00	28.56	24	0.013	0.0050	872.13	872.55	7.47	9.09	0.87	1.28	0.50	0.43	0.64	872.55	870.13	870.55	877.25	GRATE INLET
0+00.00	0+81.11	81.11	B-3	0.330	2.780	0.97	0.320	2.697	5.00	2.03	7.03	11.45	15.24	3.67	4.88	0.00	33.44	24	0.013	0.0050	867.92	872.13	9.09	10.64	1.28	1.76	0.50	0.64	0.88	872.13	869.73	870.13	877.25	GRATE INLET
LINE C																																		
1+93.48	2+27.56	34.08	C-2	0.010	0.010	0.97	0.010	0.010	5.00	0.00	5.00	10.13	12.79	0.10	0.12	0.00	0.12	6	0.010	0.0250	873.75	874.60	0.00	3.42	0.00	0.18	1.25	0.00	0.23	874.83	873.63	874.48	878.47	AREA DRAIN
1+44.40	1+93.48	49.08			0.010	0.97		0.010	5.00	0.17	5.17	10.06	12.71	-	-	0.00	0.12	6	0.010	0.0250	872.52	873.75	3.42	3.40	0.18	0.18	0.35	0.06	0.10	873.75	872.40	873.63	878.46	45° BEND
0+31.64	1+44.40	112.76			0.010	0.97		0.010	5.00	0.41	5.41	9.96	12.59	-	-	0.00	0.12	6	0.010	0.0250	869.70	872.52	3.40	3.37	0.18	0.18	0.35	0.06	0.10	872.52	869.58	872.40	877.51	45° BEND
0+14.39	0+31.64	17.25	C-1	1.350	1.360	0.97	1.310	1.319	5.00	0.96	5.96	9.73	12.33	12.74	16.14	0.00	16.27	21	0.013	0.0400	868.63	869.32	3.37	11.74	0.18	2.14	0.10	0.02	2.12	869.70	867.64	868.33	876.05	PIPE SIZE CHANGE
0+00.00	0+14.39	14.39			1.360	0.97		1.319	5.00	0.99	5.99	9.72	12.32	-	-	0.00	16.25	21	0.013	0.0400	868.41	868.99	11.74	11.72	2.14	2.14	0.35	0.75	0.75	868.63	867.07	867.64	876.25	45° BEND
LINE D																																		
1+76.86	1+99.26	22.40	D-2	0.010	0.010	0.97	0.010	0.010	5.00	0.00	5.00	10.13	12.79	0.10	0.12	0.00	0.12	6	0.010	0.0100	874.36	874.59	0.00	2.29	0.00	0.08	1.25	0.00	0.10	874.69	874.11	874.33	877.33	AREA DRAIN
1+74.62	1+76.86	2.24			0.010	0.97		0.010	5.00	0.16	5.16	10.06	12.71	-	-	0.00	0.12	6	0.010	0.0100	874.24	874.26	2.29	2.38	0.08	0.09	0.35	0.03	0.10	874.36	874.08	874.11	877.44	45° BEND
1+59.01	1+74.62	15.61			0.010	0.97		0.010	5.00	0.18	5.18	10.05	12.70	-	-	0.00	0.12	6	0.010	0.0100	874.13	874.34	2.38	2.38	0.09	0.09	0.35	0.03	0.10	874.24	873.93	874.08	877.45	45° BEND
1+44.16	1+59.01	14.85			0.010	0.97		0.010	5.00	0.29	5.29	10.00	12.65	-	-	0.00	0.12	6	0.010	0.0100	873.94	874.09	2.38	2.37	0.09	0.09	0.35	0.03	0.10	874.19	873.78	873.93	877.47	45° BEND
1+15.20	1+44.16	28.96			0.010	0.97		0.010	5.00	0.39	5.39	9.96	12.60	-	-	0.00	0.12	6	0.010	0.0100	873.65	873.94	2.37	2.36	0.09	0.09	0.35	0.03	0.10	873.94	873.49	873.78	876.83	45° BEND
0+36.50	1+15.20	78.70			0.010	0.97		0.010	5.00	0.60	5.60	9.88	12.50	-	-	0.00	0.12	6	0.010	0.0100	872.86	873.65	2.36	2.34	0.09	0.08	0.35	0.03	0.10	873.65	872.70	873.49	876.64	45° BEND
0+31.50	0+36.50	5.00			0.010	0.97		0.010	5.00	1.16	6.16	9.65	12.24	-	-	0.00	0.12	6	0.010	0.0811	872.38	872.78	2.34	5.86	0.08	0.53	0.10	0.01	0.52	872.86	872.30	872.70	876.16	PIPE SIZE CHANGE
0+00.00	0+31.50	31.50	D-1	0.870	0.880	0.97	0.844	0.854	5.00	1.17	6.17	9.65	12.23	8.14	10.32	0.00	10.44	18	0.013	0.0811	869.46	872.01	5.86	13.54	0.53	2.85	0.75	0.40	2.14	872.38	868.74	871.30	876.27	45° WYE, LAT D-1
LINE E																																		
1+11.23	1+55.78	44.55	E-2	0.720	0.720	0.97	0.698	0.698	5.00	0.00	5.00	10.13	12.79	7.07	8.93	0.00	8.93	24	0.013	0.0050	871.08	871.31	0.00	4.63	0.00	0.33	1.25	0.00	0.42	871.72	869.90	870.12	876.63	GRATE INLET
0+46.48	1+11.23	64.75			0.720	0.97		0.698	5.00	0.16	5.16	10.06	12.71	-	-	0.00	21.88	24	0.013	0.0050	871.57	871.90	4.63	6.96	0.33	0.75	0.35	0.12	0.26	871.08	869.57	869.90	876.45	45° BEND
0+41.48	0+46.48	5.00			0.720	0.97		0.698	5.00	0.32	5.32	9.99	12.63	-	-	0.00	21.82	36	0.013	0.0050	871.31	871.34	6.96	5.74	0.75	0.51	0.10	0.08	0.44	871.57	868.55	868.57	876.38	PIPE SIZE CHANGE
0+00.00	0+41.48	41.48	E-1	1.100	1.820	0.97	1.067	1.765	5.00	0.33	5.33	9.99	8.38	10.66	8.95	0.00	30.77	36	0.013	0.0050	870.64	870.85	5.74	6.33	0.51	0.62	0.75	0.38	0.47	871.31	868.34	868.55	875.97	45° WYE, LAT E-1
LAT D-1																																		
0+00.00	0+28.04	28.04	D-1	0.870	0.870	0.97	0.844	0.844	5.00	0.00	5.00	10.13	12.79	8.55	10.79	0.00	10.79	18	0.013	0.0254	872.38	873.09	0.00	9.04	0.00	1.27	1.25	0.00	1.59	874.68	871.30	872.01	875.98	CURB INLET
LAT E-1																																		
0+00.00	0+12.73	12.73	E-1	1.100	1.100	0.97	1.067	1.067	5.00	0.00	5.00	10.13	12.79	10.81	13.64	0.00	13.64	18	0.013	0.0600	871.31	872.08	0.00	12.84	0.00	2.56	1.25	0.00	3.20	875.28	869.30	870.06	876.19	CURB INLET
LINE SP																																		
1+01.85	1+06.56	4.71	WQ SPLITTER	10.530	10.530	0.97	10.214	10.214	5.00	0.00	5.00	10.13	12.79	103.43	130.61	0.00	130.61	54	0.013	0.1211	846.08	846.65	0.00	27.39	0.00	11.66	1.25	0.00	14.57	845.00	842.43	843.00	849.70	HEADWALL
0+78.04	1+01.85	23.81			10.530	0.97		10.214	5.00	0.00	5.00	10.13	12.79	-	-	0.00	130.60	54	0.013	0.1211	843.20	846.08	27.39	27.39	11.66	11.65	0.35	4.08	4.08	843.97	839.55	842.43	849.70	45° BEND
0+00.00	0+78.04	78.04			10.530	0.97		10.214	5.00	0.02	5.02	10.12	12.78	-	-	0.00	130.52	54	0.013	0.0071	842.06	842.61	27.39	10.34	11.65	1.66	0.35	4.08	0.58	843.20	838.99	839.55	849.70	45° BEND
LINE F																																		
5+87.62	5+93.73	6.11	OFF-1	4.980	4.980	0.97	4.831	4.831	5.00	0.00	5.00	10.13	12.79	48.92	61.77	0.00	61.77	30	0.013	0.0227	877.11	877.25	0.00	12.58	0.00	2.46	0.75	0.00	1.85	879.10	873.28	874.00	877.88	CONNECT TO PIPE
5+63.95	5+87.62	23.67	OFF-2	1.510	6.490	0.97	1.465	6.295	5.00	0.01	5.01	10.12	12.78	14.83	18.72	0.00	80.49	36	0.013	0.0146	875.98	876.33	12.58	11.39	2.46	2.02	0.50	1.23	0.78	877.11	868.61	868.73	878.11	JUNCTION BOX LAT F-1
5+48.58	5+63.95	15.37			6.490	0.97		6.295	5.00	0.04	5.04	10.11	12.77	-	-	0.00	80.37	36	0.013	0.0145	875.06	875.28	11.39	11.37	2.02	2.01	0.35	0.71	0.70	875.98	868.53	868.61	878.39	45° BEND
3+69.10	5+48.58	179.48			6.490	0.97		6.295	5.00	0.07	5.07	10.10	12.76	-	-	0.00	80.30	36	0.013	0.0145	871.75	874.36	11.37	11.36	2.01	2.01	0.35	0.70	0.70	875.06	866.45	868.53	878.27	45° BEND
3+44.16	3+69.10	24.94			6.490	0.97		6.295	5.00	0.33	5.33	9.99	12.63	-	-	0.00	79.49	36	0.013	0.0142	871.20	871.56	11.36	11.25	2.01	1.97	0.10	0.20	0.20	871.75	866.16	866.45	877.64	PIPE SLOPE CHANGE
1+85.54	3+44.16	158.62			6.490	0.97		6.295	5.00	0.37	5.37	9.97	12.61	-	-	0.00	79.38	36	0.013	0.0142	868.27	870.52	11.25	11.23	1.97	1.96	0.35	0.69	0.69	871.20	863.78	866.16	877.34	45° BEND
0+50.05	1+85.54	135.49			6.490	0.97		6.295	5.00	0.60	5.60	9.88	12.50	-	-	0.00	78.67	36	0.013	0.0139	866.19	868.08	11.23	11.13	1.96	1.93	0.10	0.20	0.19	868.27	861.75	863.78	876.66	PIPE SLOPE CHANGE
0+40.05	0+50.05	10.00			6.490	0.97		6.295	5.00	0.80	5.80	9.79	12.40	-	-	0.00	78.08	36	0.013	0.0137	865.39	865.53	11.13	11.05	1.93	1.90	0.35	0.67	0.66	866.19	861.60	861.75	872.51	45° BEND
0+00.00	0+40.05	40.05			6.490	0.97		6.295	5.00	0.82	5.82	9.79	12.40	-	-	0.00	78.03	36	0.013	0.0150	864.00	864.60	11.05	12.07	1.90	2.26	0.35	0.66	0.79	865.39	861.00	861.60	872.46	45° BEND
LINE G																																		
0+00.00	3+45.85	345.85		4.201	4.201	0.97	4.075	4.075	5.00	0.00	5.00	10.13	12.79	41.27	52.11	0.00	52.11	36	0.013	0.0061	876.84	878.95	0.00	7.37	0.00	0.84	1.25	0.00	1.06	880.01	873.84	876.47		HEADWALL
LAT F-1																																		
0+00.00	0+20.10	20.10	OFF-2	1.510	1.510	0.97	1.465	1.465	5.00	0.00	5.00	10.13	12.79	14.83	18.73	0.00	18.73	36	0.013	0.0008	877.25	877.27	0.00	2.65	0.00	0.11	1.25	0.00	0.14	877.40	868.73	873.79	877.50	HEADWALL
LINE F-2																																		
0+00.00	2+03.55	203.55	PARMER B-4, B-5	1.490	1.490	0.97	1.445	1.445	5.00	0.00	5.00	10.13	12.79	14.64	18.48	0.00	18.48	36	0.013	0.0008	877.25	877.41	0.00	2.61	0.00	0.11	1.25	0.00	0.13	877.54	868.74	873.38	877.88	AREA DRAIN

DRAINAGE INLET CALCULATIONS

INLET NUMBER	Drainage Area	Station	Inlet Type	Inlet Size	SAG OR ON GRADE	Q-25 (CFS)	Q-100 (CFS)	L (ft)	W (ft)	d (ft)	A_g (ft^2)	Qi (cfs)
Lat D-1	D-1	0+28.04	S-1	10' CI	SAG	8.55	10.79	10.00	1.50	0.729	N/A	18.19
Lat E-1	E-1	0+12.73	S-1	10' CI	SAG	10.81	13.64	10.00	1.50	0.729	N/A	18.19
Line A	A-1	8+06.10	S-2	4'x4' GI	SAG	3.72	4.71	N/A	N/A	0.50	3.40	12.90
Line A	A-2	10+85.08	S-2	24" AD	SAG	0.88	1.12	N/A	N/A	0.50	1.10	4.18
Line B	B-2	0+00.00	S-2	4'x4' GI	SAG	3.67	4.88	N/A	N/A	0.50	3.40	12.90
Line B	B-3	0+81.11	S-2	4'x4' GI	SAG	3.67	4.88	N/A	N/A	0.50	3.40	12.90
Line B	B-4	1+65.69	S-2	4'x4' GI	SAG	4.01	5.09	N/A	N/A	0.50	3.40	12.90
Line B	B-5	2+52.06	S-2	4'x4' GI	SAG	8.99	11.42	N/A	N/A	0.50	3.40	12.90
Line B	B-6	4+22.50	S-2	4'x4' GI	SAG	4.06	5.14	N/A	N/A	0.50	3.40	12.90
Line B	B-7	6+74.82	S-2	4'x4' GI	SAG	5.89	7.44	N/A	N/A	0.50	3.40	12.90
Line C	C-1	0+31.64	G-2	4'x4' GI	SAG	12.74	16.14	N/A	N/A	0.50	3.40	12.90
Line C	C-2	2+27.56	S-2	24" AD	SAG	0.10	0.12	N/A	N/A	0.50	1.10	4.18
Line D	D-2	1+99.26	S-2	24" AD	SAG	0.10	0.12	N/A	N/A	0.50	1.10	4.18
Line E	E-2	1+55.78	G-2	4'x4' GI	SAG	7.07	8.93	N/A	N/A	0.50	3.40	12.90
Line F	F-2	0+00.00	G-2	4'x4' GI	SAG	14.64	18.48	N/A	N/A	0.50	3.40	12.92

Weir Equation 4-1 from Austin DCM used for Types S-1 and S-4. $Q_i = C_w \cdot (L + 1.8 \cdot W) \cdot d^{1.5}$

$C_w = 2.3$

L = Length of opening (ft)

W = Lateral width of depression (ft)

d = Depth at curb measured from the normal cross slope (ft)

Grate Inlets in Sag Condition for Type S-2. $Q_i = C_o * A_g * (2gd)^{0.5}$ (Orifice Equation 4-6)

C_o = Orifice Coefficient = 0.67

A_g = Clear Opening Area of the Grate (ft^2);

A_g of 30" grate = 489 in^2 per Park USA Detail = 3.4 ft^2 (Same 30" grate is used on all boxes)

A_g of 24" area drain = 1.1 ft^2

d = average depth across the grate; 0.5 ft

g = 32.16 ft/s^2

BY	DATE	REVISIONS	No.
RPS	08/19/2024		

REVISION

Kimley»Horn

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WWW.KIMLEY-HORN.COM TX F-928

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT	069274402				
DATE	DECEMBER 2022				
SCALE	AS SHOWN	DESIGNED BY	RPS	DRAWN BY	AH	CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

DRAINAGE CALCULATIONS

SD-20-00020

SHEET NUMBER

SHEET 44 OF 92

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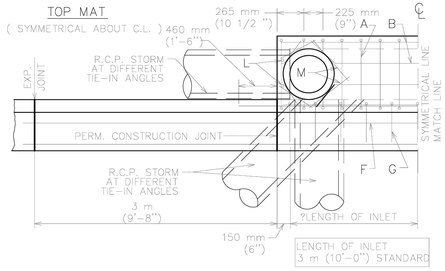
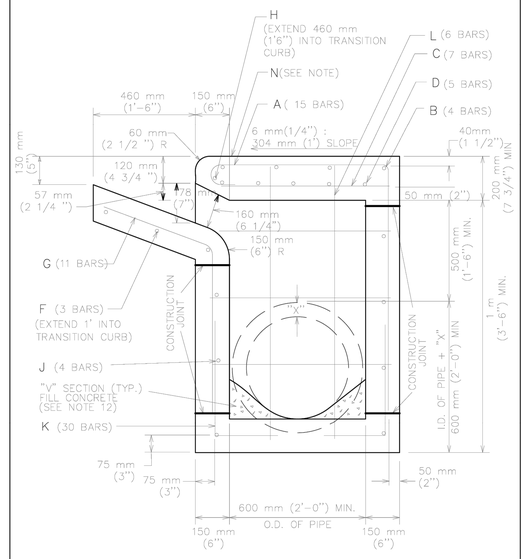
MARK Gray
LAST SAVED 8/19/2024, 10:37 AM
LAST PLOTTED 10/21/2024, 7:03 PM
DWG PATH K:\AUS_CPK\069274402\CEDAR PARK - PARMER (1 ACRE CAPLANS)\SHEETS
DWG NAME DRAINAGE CALCULATIONS(1 ACRE CAPLANS).DWG [1 SHEET(S) CALCULATIONS]



NOTE: INSTALL ALMETEK 4" DISC "NO DUMPING DRAINS TO WATERWAY" MARKER

CITY OF CEDAR PARK DEPARTMENT OF PUBLIC WORKS	TYPICAL DETAILS FOR CURB INLET	
12/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1 OF 4



ELEVATION – SECTION

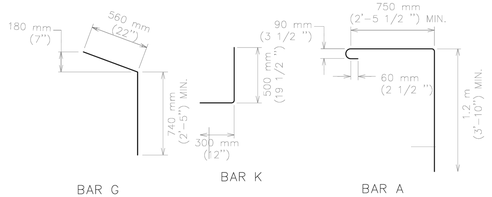
NOTE: INSTALL ALMETEK 4" DISC "NO DUMPING DRAINS TO WATERWAY" MARKER

CITY OF CEDAR PARK DEPARTMENT OF PUBLIC WORKS	TYPICAL DETAILS FOR CURB INLET	
12/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 2 OF 4

TABLE OF QUANTITIES
FOR 18" OUTLET PIPE
REINFORCING STEEL QUANTITIES

BARS	SIZE	SPACING	NUMBER	LENGTH	WEIGHT
A	4	230mm (9")*	15	2 m (7'-0")	73
B	4	250 mm (10")	4	3.25 m (10'-8")	29
C	4	460 mm (18")	7	760 mm (2'-6")	12
D	6	150 mm (6")	5	3.25 m (10'-8")	80
E	4	300 mm (12")	6	760 mm (2'-6")	10
F	4	250 mm (10")	3	4 m (13'-0")	35
G	4	300 mm (12")	11	1.25 m (4'-3")	31
H	6	–	1	4.25 m (14'-0")	20
J	4	300 mm (12")	7	3.25 m (10'-8")	50
K	4	230 mm (9")*	30	800 mm (2'-7 1/2")	52
L	4	300 mm (12")*	6	1.3 m (4'-4")	17
M	4	–	4	500 mm (1'-8") AVG.	4
N	ALMETEK 4" DISC "NO DUMPING DRAINS TO WATERWAY" MARKER MODEL SD-SP, SQUARE HOLE OPTION, SYMBOL: FISH, COLOR: BLUE. USE ALMETEK SPECS FOR THEFT RESISTANT RIVET SURFACE MOUNT W/ ADHESIVE FOR DRY CONCRETE INSTALLATION.				
TOTAL STEEL, LB.					413
TOTAL CONCRETE, C.Y.					4.06

* EXCEPT AS SHOWN ON PLAN



CITY OF CEDAR PARK DEPARTMENT OF PUBLIC WORKS	TYPICAL DETAILS FOR CURB INLET	
12/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 3 OF 4

NOTES:
1. ALL CONCRETE SHALL BE CLASS "A"
2. ALL REINFORCING STEEL SHALL BE GRADE 60
3. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.
4. VERTICAL STEEL MAY BE SPLICED (380 mm or 15" MIN. LAP) IN THE LOWER ONE-HALF OF ALL INLET WALLS.5. IN AREAS OF CONFLICT BETWEEN REINFORCING STEEL, PIPES AND MANHOLE FRAME, THE REINFORCEMENT SHALL BE BENT OR ADJUSTED TO CLEAR AS DIRECTED BY THE ENGINEER.
6. QUANTITIES SHOWN HEREON ARE FOR THE CONTRACTOR'S INFORMATION ONLY. PAYMENT WILL BE MADE FOR EACH INLET OF THE TYPE SPECIFIED, COMPLETE IN PLACE INCLUDING MANHOLE FRAME AND OVER.
7. CHAMFER ALL EXPOSED EDGES 20 mm (3/4 ").
8. MANHOLE FRAME AND COVER SHALL BE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD 503S-1.
9. THE CONTRACTOR MAY PROPOSE ALTERNATE PROCEDURES FOR THE CONSTRUCTION OF INLETS, INCLUDING PRECAST UNITS. PLANS FOR SUCH PROPOSED ALTERNATES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BEFORE CONSTRUCTION.
10. ALL INLET WALLS SHALL BE FORMED EXCEPT WHERE THE NATURE OF THE SURROUNDING MATERIAL IS SUCH THAT IT CAN BE TRIMMED TO A SMOOTH VERTICAL FACE. WHEN INLET WALLS ARE PLACED TO NEAT EXCAVATION LINES THE WALL THICKNESS SHALL NOT EXCEED 10 INCHES.
11. PAYMENT FOR INLET AT THE CONTRACT PRICE SHALL INCLUDE THE TRANSITION CURB.
12. INVERT OF INLET SHALL BE SLOPED 1:20 WITH FILL CONCRETE, SHAPED AS "V" SECTION
13. NO SPLICING OF REINFORCING STEEL SHALL BE PERMITTED UNLESS OTHERWISE NOTED ON THE PLANS OR PERMITTED IN WRITING BY THE ENGINEER.
14. INSTALL ALMETEK 4" DISC "NO DUMPING DRAINS TO WATER" MARKER, MODEL SD-SP, SQUARE OPTION, SYMBOL: FISH, COLOR: BLUE. USE ALMETEK INSTALL SPECIFICATIONS FOR THEFT RESISTANT RIVET SURFACE MOUNT W/ADHESIVE FOR DRY CONCRETE INSTALL.

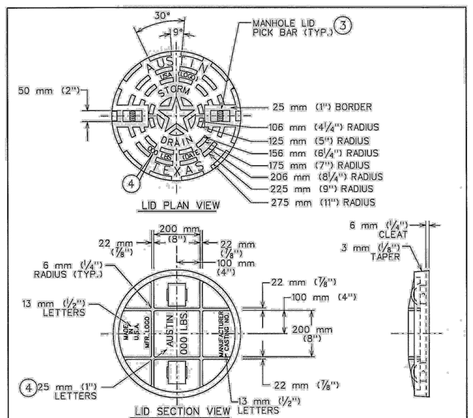
REFERENCES:

FOR EXPANSION JOINT DOWEL AND DOWEL LOCATION DETAILS SEE STD. 430S-3, "CURB EXPANSION JOINT DOWEL DETAIL".

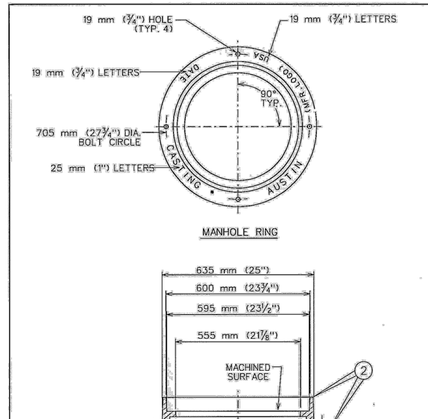
FOR 18" MANHOLE FRAME AND COVER DETAILS SEE STD. 503S-1, "18" COVER AND FRAME".

ALMETEK "NO DUMPING DRAINS TO WATERWAY" MARKERS WWW.ALMETEK.COM

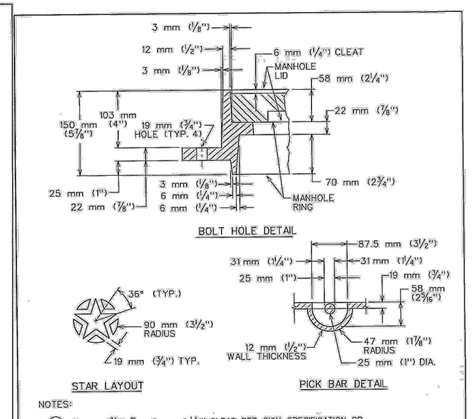
CITY OF CEDAR PARK DEPARTMENT OF PUBLIC WORKS	TYPICAL DETAILS FOR CURB INLET	
12/03/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 4 OF 4



CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	STORM DRAIN MANHOLE RING AND 610 mm (24") COVER	
ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-2S 1 OF 3



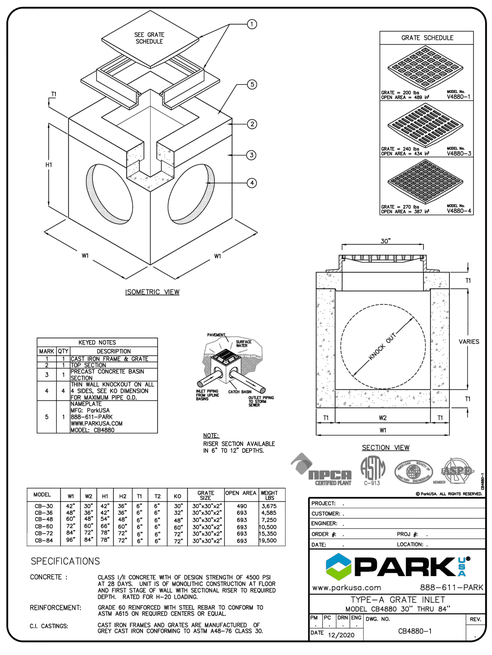
CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	STORM DRAIN MANHOLE RING AND 610 mm (24") COVER	
ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-2S 2 OF 3



NOTES:
1. 19 mm (3/4") R. + 6 mm (1/4") CLEAT PER CITY SPECIFICATION, OR 25 mm (1") R. + 6 mm (1/4") CLEAT IN STATE MAINTAINED R.O.W.
2. BREAK ALL SHARP CORNERS 1.5 mm (.06") x 45° MIN.
3. LID IS CAST WITH TWO 25 mm x 88 mm (1" x 3½") STEEL PICK BARS.
4. LID WEIGHT 667 OR 778 N (150 OR 175 LBS) CAST TOP & BOTTOM.

TYP. WEIGHT	LID	RING	SET
CITY/STATE	667/778 N (150/175 LBS)	667 N (150 LBS	1335/1445 N (300/325 LBS)

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	STORM DRAIN MANHOLE RING AND 610 mm (24") COVER	
ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-2S 3 OF 3



MODEL	W1	W2	H1	H2	T1	T2	KO	GRATE SIZE	OPEN AREA	WEIGHT LBS
CB-30	42"	30"	42"	36"	6"	6"	30"	30"x30"x2"	490	3,675
CB-36	48"	36"	42"	36"	6"	6"	36"	30"x30"x2"	693	4,585
CB-48	60"	48"	54"	48"	6"	6"	48"	30"x30"x2"	693	7,250
CB-60	72"	60"	66"	60"	6"	6"	60"	30"x30"x2"	693	10,500
CB-72	84"	72"	78"	72"	6"	6"	72"	30"x30"x2"	693	15,350
CB-84	96"	84"	78"	72"	6"	6"	72"	30"x30"x2"	693	19,500

SPECIFICATIONS

CONCRETE : CLASS I/II CONCRETE WITH 0F DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. UNIT IS OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED DEPTH. RATED FOR H-20 LOADING.

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

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

PROJECT: .
CUSTOMER: .
ENGINEER: .
ORDER #: . PROJ #: .
DATE: . LOCATION: .

PARK it
www.parkusa.com 888-611-PARK

TYPE-A GRATE INLET
MODEL CB4880 30" THRU 84"

PM	PC	DRN	ENG	DWG. NO.	REV.
DATE 12/2020				CB4880-1	

No.	REVISIONS	DATE	BY

Kimley»Horn
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280 EAST DAVIS STREET, SUITE 100, MCKINNEY, TX 75069
PHONE: 469-301-2580 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM TX F-928

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402	
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

DRAINAGE DETAILS

SD-20-00020

SHEET NUMBER

SHEET 45 OF 92

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IMAGES:
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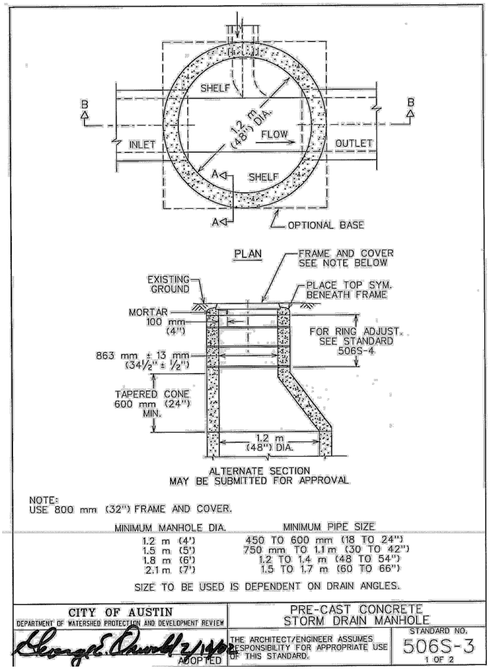
LAST SAVED: 4/1/2024 10:22 AM
PLOTTED BY: KAUS, ORLON
DWG PATH: K:\AUS_ORL\069274402-CEDAR PARK - PHASE\11 ACRE\CAD\PLANSHEETS
DWG NAME: DRAINAGE DETAILS-SHEET_1 (STORMCAD EDITION).DWG
Cedar Park Logo :

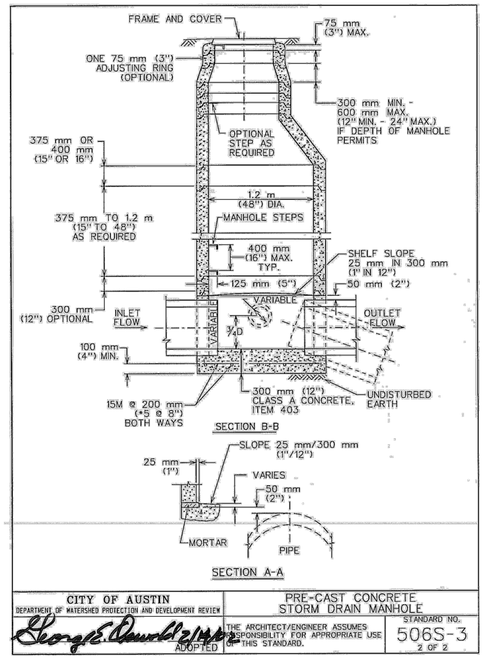


NOTE:
USE 800 mm (32") FRAME AND COVER.

MINIMUM MANHOLE DIA.	MINIMUM PIPE SIZE
1.2 m (4')	450 TO 600 mm (18 TO 24")
1.5 m (5')	750 mm TO 1.1 m (30 TO 42")
1.8 m (6')	1.2 TO 1.4 m (48 TO 54")
2.1 m (7')	1.5 TO 1.7 m (60 TO 66")

SIZE TO BE USED IS DEPENDENT ON DRAIN ANGLES.

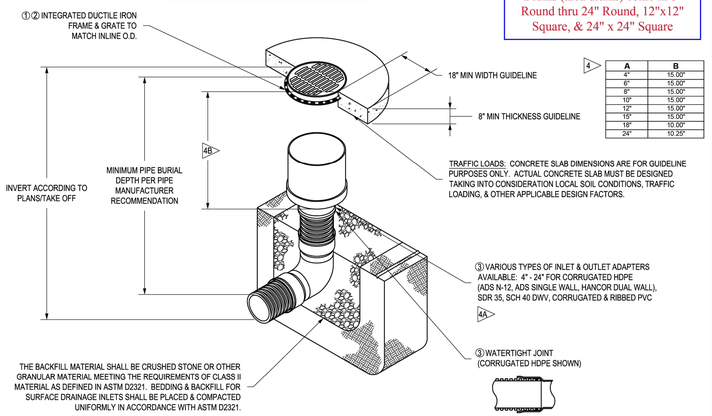
CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	PRE-CAST CONCRETE STORM DRAIN MANHOLE	
George E. Rawald 3/15/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-3 1 OF 2



CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	PRE-CAST CONCRETE STORM DRAIN MANHOLE	
George E. Rawald 3/15/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-3 2 OF 2

NYLOPLAST 24 " INLINE DRAIN: 2724AG _ _ X

Grates Sizes Available for Inline Drains (area drains) come in 8" Round thru 24" Round, 12"x12" Square, & 24" x 24" Square



① - GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
② - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
③ - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	2499CGP	7001-110-216
STANDARD	MEETS H-20	2499CGS	7001-110-217
SOLID COVER	MEETS H-20	2499CGC	7001-110-218
DOME	N/A	2499CGD	7001-110-219
DROP IN GRATE	LIGHT DUTY	2401DI	7001-110-075

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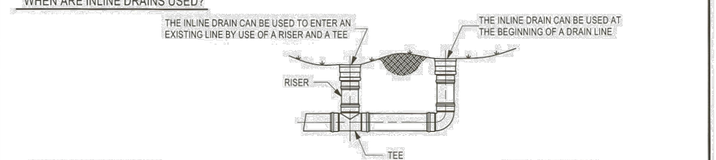
DRAWN BY	EBC	MATERIAL	
DATE	4-3-06		
APPD BY	CJA	PROJECT NO./NAME	
DATE	4-3-06		
DWG SIZE	A	SCALE 1:40	SHEET 1 OF 1

Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

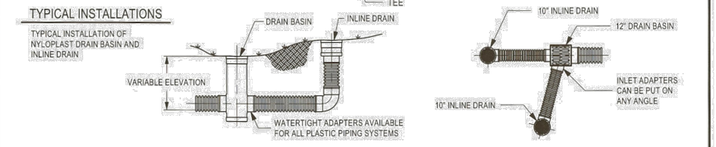
TITLE: 24 IN INLINE DRAIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7003-110-028 REV B

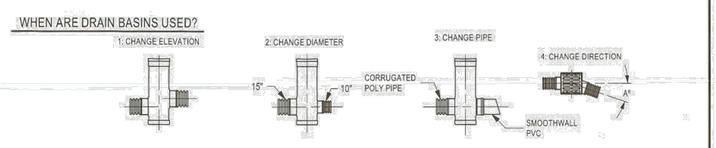
WHEN ARE INLINE DRAINS USED?



TYPICAL INSTALLATIONS



WHEN ARE DRAIN BASINS USED?



AVAILABLE IN SIZES 8" THROUGH 30".
ADAPT TO PIPE SIZES 4" THROUGH 30".

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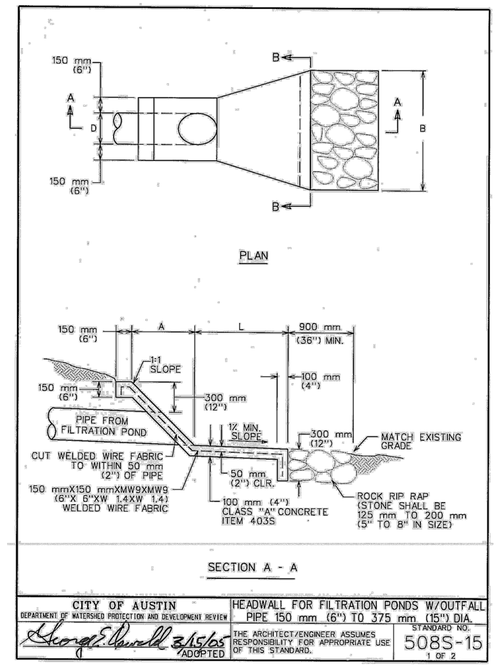
DRAWN BY	AWA	MATERIAL	
DATE	18AUG00		
APPD BY	CJA	PROJECT NO./NAME	
DATE	18AUG00	DRAIN BASIN / INLINE DRAIN	
DWG SIZE	A	SCALE 1:80	SHEET 1 OF 1

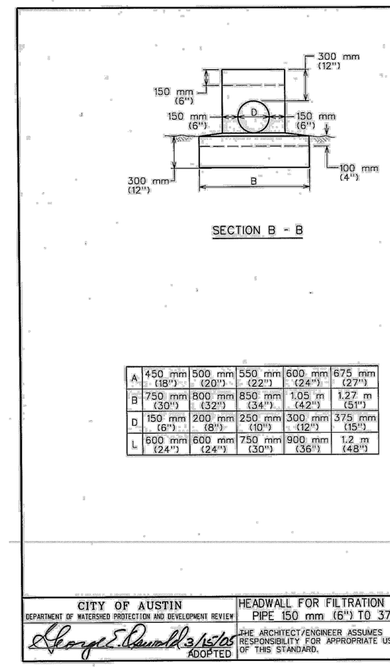
Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

TITLE: 8" - 30" TYPICAL INSTALLATION OPTIONS

DWG NO. 7001-110-042 REV: B

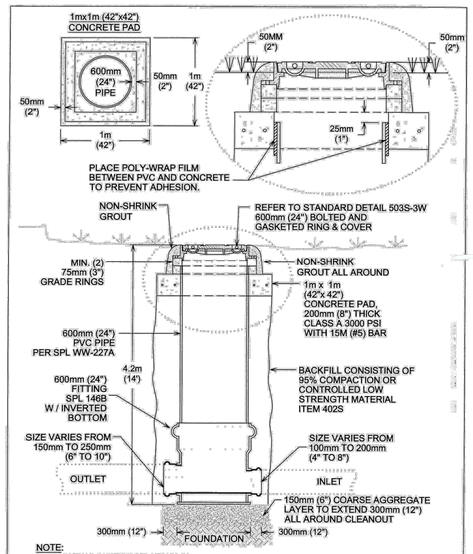


CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	HEADWALL FOR FILTRATION PONDS W/OUTFALL PIPE 150 mm (6") TO 375 mm (15") DIA.	
George E. Rawald 3/15/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-15 1 OF 2



A	450 mm (18")	500 mm (20")	550 mm (22")	600 mm (24")	675 mm (27")
B	750 mm (30")	800 mm (32")	850 mm (34")	1.05 m (42")	1.27 m (51")
D	150 mm (6")	200 mm (8")	250 mm (10")	300 mm (12")	375 mm (15")
L	600 mm (24")	600 mm (24")	750 mm (30")	900 mm (36")	1.2 m (48")

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	HEADWALL FOR FILTRATION PONDS W/OUTFALL PIPE 150 mm (6") TO 375 mm (15") DIA.	
George E. Rawald 3/15/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-15 2 OF 2



NOTE:
1. CLEAN OUT FOUNDATION SHALL MEET OR EXCEED STD, SPEC 506.5B.

CITY OF AUSTIN AUSTIN WATER UTILITY	LARGE DIAMETER CLEANOUT	
Kathi K Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-14

No.	REVISIONS	DATE	BY

Kimley»Horn

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PHONE: 469-301-2580 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM TX F-928

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402			
DATE	DECEMBER 2022		
SCALE	AS SHOWN	DESIGNED BY	RPS
		DRAWN BY	AH
		CHECKED BY	RPS

VELSA RANCH
CEDAR PARK, TEXAS

CEDAR PARK

DRAINAGE DETAILS

SD-20-00020
SHEET NUMBER
SHEET 46 OF 92

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DWG NAME:

Cedar Park Logo ;
default
4/1/2024 10:22 AM
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K:\AUS_ORL\069274402\CEDAR PARK - PHASE II (1 ACRE CAP)\SHEETS
DRAINAGE DETAILS.dwg

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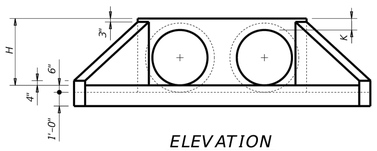
TABLE OF VARIABLE DIMENSIONS AND QUANTITIES FOR ONE HEADWALL (5)

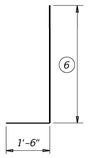
Slope	Dia of Pipe (D)	Values for One Pipe: W	X	Y	L	Reinf (Lbs)	Conc (CY) (1)	Values to be Added for Each Addt'l Pipe: X and W	Reinf (Lbs)	Conc (CY) (1)
2:1	12"	4'-7 1/2"	2'-6"	2'-10"	3'-3 1/4"	88	0.6	1'-9"	20	0.2
	15"	5'-5 3/4"	2'-9 1/2"	3'-4"	3'-10 1/4"	103	0.7	2'-2"	24	0.3
	18"	6'-4 1/4"	3'-1"	3'-10"	4'-5"	124	0.9	2'-8"	32	0.3
	21"	7'-2 3/4"	3'-4 1/2"	4'-4"	5'-0"	143	1.1	3'-1"	43	0.4
	24"	8'-2 1/2"	3'-9 1/2"	4'-10"	5'-7"	164	1.3	3'-7"	50	0.5
	27"	9'-1"	4'-1"	5'-4"	6'-2"	179	1.5	3'-11"	56	0.6
	30"	9'-11 1/2"	4'-4 1/2"	5'-10"	6'-8 3/4"	203	1.7	4'-4"	65	0.8
	33"	10'-10"	4'-8"	6'-4"	7'-3 3/4"	224	2.0	4'-8"	71	0.9
	36"	11'-8 1/4"	4'-11 1/2"	6'-10"	7'-10 3/4"	249	2.2	5'-1"	81	1.0
	42"	13'-5 1/2"	5'-6 1/2"	7'-10"	9'-0 1/2"	298	2.8	5'-10"	97	1.3
	48"	15'-9"	6'-1 1/2"	9'-4"	10'-9 1/4"	360	3.8	6'-7"	117	1.7
	54"	17'-5 3/4"	6'-8 1/2"	10'-4"	11'-11 1/4"	427	4.5	7'-6"	151	2.1
	60"	19'-2 3/4"	7'-3 1/2"	11'-4"	13'-1"	481	5.3	8'-3"	174	2.5
	66"	20'-11 1/2"	7'-10 1/2"	12'-4"	14'-3"	544	6.2	8'-9"	194	2.9
	72"	22'-8 1/2"	8'-5 1/2"	13'-4"	15'-4 3/4"	601	7.1	9'-4"	213	3.3
3:1	12"	6'-3"	2'-6"	4'-3"	4'-11"	118	0.8	1'-9"	22	0.2
	15"	7'-5"	2'-9 1/2"	5'-0"	5'-9 1/8"	137	1.1	2'-2"	28	0.3
	18"	8'-6 3/4"	3'-1"	5'-9"	6'-7 3/8"	170	1.3	2'-8"	37	0.5
	21"	9'-8 3/4"	3'-4 1/2"	6'-6"	7'-6"	195	1.6	3'-1"	48	0.6
	24"	11'-0"	3'-9 1/2"	7'-3"	8'-4 1/2"	227	2.0	3'-7"	58	0.7
	27"	12'-2"	4'-1"	8'-0"	9'-2 3/4"	251	2.3	3'-11"	67	0.8
	30"	13'-4"	4'-4 1/2"	8'-9"	10'-1 1/8"	293	2.7	4'-4"	77	1.0
	33"	14'-5 3/4"	4'-8"	9'-6"	10'-11 3/4"	318	3.1	4'-8"	84	1.2
	36"	15'-7 3/4"	4'-11 1/2"	10'-3"	11'-10"	351	3.5	5'-1"	96	1.4
	42"	17'-11 1/2"	5'-6 1/2"	11'-9"	13'-6 3/8"	432	4.5	5'-10"	119	1.7
	48"	21'-1 3/4"	6'-1 1/2"	14'-0"	16'-2"	537	6.1	6'-7"	146	2.3
	54"	23'-5 1/2"	6'-8 1/2"	15'-6"	17'-10 3/4"	630	7.3	7'-6"	186	2.9
	60"	25'-9 1/4"	7'-3 1/2"	17'-0"	19'-7 1/2"	719	8.7	8'-3"	219	3.4
	66"	28'-1"	7'-10 1/2"	18'-6"	21'-4 1/8"	811	10.1	8'-9"	242	3.9
	72"	30'-4 3/4"	8'-5 1/2"	20'-0"	23'-1 1/4"	924	11.7	9'-4"	272	4.4
4:1	12"	7'-10 3/4"	2'-6"	5'-8"	6'-6 1/2"	148	1.1	1'-9"	24	0.3
	15"	9'-4"	2'-9 1/2"	6'-8"	7'-8 1/2"	181	1.5	2'-2"	32	0.4
	18"	10'-9 1/2"	3'-1"	7'-8"	8'-10 1/4"	221	1.9	2'-8"	42	0.5
	21"	12'-2 3/4"	3'-4 1/2"	8'-8"	10'-0"	260	2.3	3'-1"	57	0.7
	24"	13'-9 1/2"	3'-9 1/2"	9'-8"	11'-2"	301	2.8	3'-7"	67	0.9
	27"	15'-3"	4'-1"	10'-8"	12'-3 3/8"	334	3.3	3'-11"	77	1.0
	30"	16'-8 1/4"	4'-4 1/2"	11'-8"	13'-5 3/8"	385	3.8	4'-4"	89	1.3
	33"	18'-1 3/4"	4'-8"	12'-8"	14'-7 1/2"	425	4.5	4'-8"	101	1.4
	36"	19'-7"	4'-11 1/2"	13'-8"	15'-9 1/2"	472	5.1	5'-1"	115	1.7
	42"	22'-5 3/4"	5'-6 1/2"	15'-8"	18'-1"	583	6.5	5'-10"	141	2.1
	48"	26'-6 1/4"	6'-1 1/2"	18'-8"	21'-6 3/4"	730	8.9	6'-7"	175	2.8
	54"	29'-5"	6'-8 1/2"	20'-8"	23'-10 1/8"	875	10.7	7'-6"	226	3.6
	60"	32'-3 3/4"	7'-3 1/2"	22'-8"	26'-2"	996	12.7	8'-3"	264	4.3
	66"	35'-2 1/2"	7'-10 1/2"	24'-8"	28'-5 3/8"	1,140	14.9	8'-9"	300	4.9
	72"	38'-1 1/4"	8'-5 1/2"	26'-8"	30'-9 1/2"	1,297	17.3	9'-4"	334	5.6
6:1	12"	11'-2"	2'-6"	8'-6"	9'-9 3/4"	224	1.9	1'-9"	28	0.4
	15"	13'-2 1/4"	2'-9 1/2"	10'-0"	11'-6 1/2"	268	2.5	2'-2"	37	0.5
	18"	15'-2 1/2"	3'-1"	11'-6"	13'-3 1/8"	330	3.2	2'-8"	50	0.7
	21"	17'-2 3/4"	3'-4 1/2"	13'-0"	15'-0 1/8"	387	3.9	3'-1"	69	0.9
	24"	19'-4 1/2"	3'-9 1/2"	14'-6"	16'-9"	453	4.8	3'-7"	80	1.2
	27"	21'-4 3/4"	4'-1"	16'-0"	18'-5 3/8"	512	5.7	3'-11"	96	1.4
	30"	23'-5 1/4"	4'-4 1/2"	17'-6"	20'-2 1/2"	593	6.7	4'-4"	110	1.7
	33"	25'-5 1/2"	4'-8"	19'-0"	21'-11 1/8"	675	7.8	4'-8"	127	2.0
	36"	27'-5 3/4"	4'-11 1/2"	20'-6"	23'-8"	735	9.0	5'-1"	144	2.3
	42"	31'-6 1/4"	5'-6 1/2"	23'-6"	27'-1 1/2"	922	11.5	5'-10"	179	3.0
	48"	37'-3 1/2"	6'-1 1/2"	28'-0"	32'-4"	1,191	15.9	6'-7"	231	4.0
	54"	41'-4 1/4"	6'-8 1/2"	31'-0"	35'-9 1/2"	1,424	19.2	7'-6"	300	5.0
	60"	45'-4 3/4"	7'-3 1/2"	34'-0"	39'-3"	1,631	22.9	8'-3"	353	6.0

DATE:
FILE:

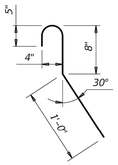


ELEVATION

(Showing dimensions.)



BARS V



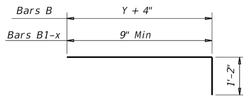
BARS CL
(Length = 2'-5")

TABLE OF REINFORCING STEEL (5)

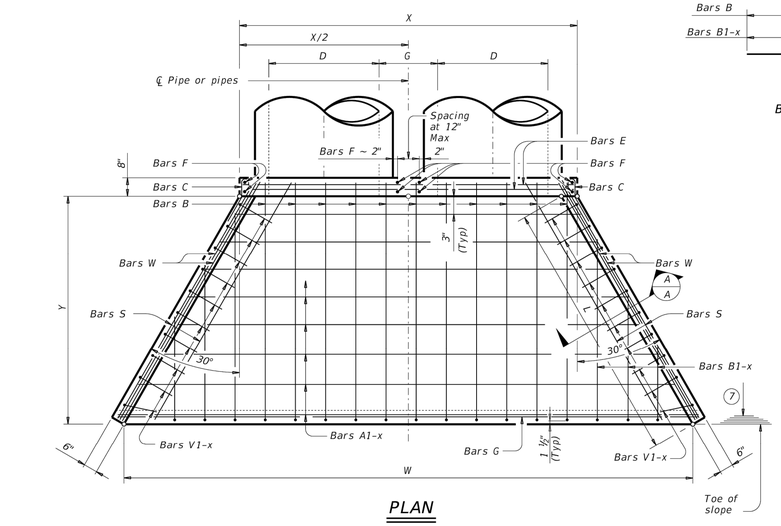
Bar	Size	Spa	No.
A	#4	1'-0"	~
B	#3	1'-6"	~
C	#4	1'-0"	~
D	#3	1'-0"	~
E	#5	~	4
F	#5	~	~
G	#3	~	2
S	#4	~	6
V	#4	1'-0"	~
W	#5	~	4

TABLE OF CONSTANT DIMENSIONS

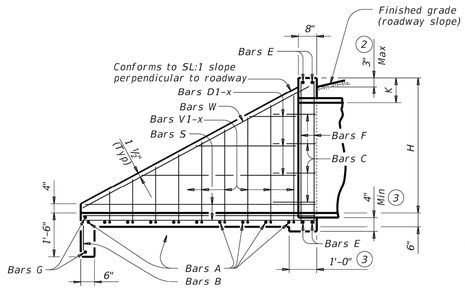
Dia of Pipe (D)	G	K (4)	H
12"	0'-9"	1'-0"	2'-0"
15"	0'-11"	1'-0"	2'-3"
18"	1'-2"	1'-0"	2'-6"
21"	1'-4"	1'-0"	2'-9"
24"	1'-7"	1'-0"	3'-0"
27"	1'-8"	1'-0"	3'-3"
30"	1'-10"	1'-0"	3'-6"
33"	1'-11"	1'-0"	3'-9"
36"	2'-1"	1'-0"	4'-0"
42"	2'-4"	1'-0"	4'-6"
48"	2'-7"	1'-3"	5'-3"
54"	3'-0"	1'-3"	5'-9"
60"	3'-3"	1'-3"	6'-3"
66"	3'-3"	1'-3"	6'-9"
72"	3'-4"	1'-3"	7'-3"



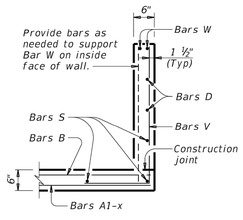
BARS B and B1-x



PLAN



TYPICAL WING ELEVATION



SECTION A-A

(1) *Quantities shown are for concrete pipe and will increase slightly for metal pipe installations.*

(2) *For vehicle safety, construct curbs no more than 3" above finished grade. Reduce curb heights, if necessary, to meet these requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.*

(3) *Provide a 1'-0" footing as shown where required to maintain 4" minimum cover for pipes.*

(4) *Dimensions shown are usual and maximum.*

(5) *Quantities shown are for one structure end only (one headwall).*

(6) *Min Length = 6" + 3" x* $\left(\frac{12 \times H - 7}{12 \times L}\right)$

Max Length = 12 x H - 3" x $\left(\frac{12 \times H - 7}{12 \times L}\right)$ *- 1"*

(7) *Lengths of wings based on SL:1 slope along this line.*

MATERIAL NOTES:
Provide Grade 60 reinforcing steel.
Provide Class C concrete (f'c = 3,600 psi).

GENERAL NOTES:
Designed according to AASHTO LRFD Bridge Design Specifications.
Do not mount bridge rails of any type directly to these culvert headwalls.
This standard may not be used for wall heights, H, exceeding the values shown.

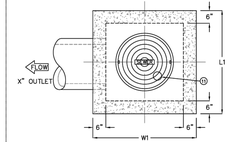
Cover dimensions are clear dimensions, unless noted otherwise. Reinforcing dimensions are out-to-out of bars.

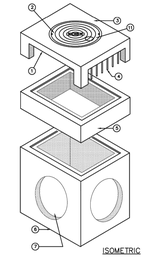
Texas Department of Transportation — Bridge Division Standard

CONCRETE HEADWALLS WITH FLARED WINGS FOR 0° SKEW PIPE CULVERTS

CH-FW-0

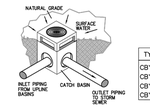
FILE: chfw00se-20.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY		SHEET NO.





KEYED NOTES

MARK	QTY	DESCRIPTION
1	1	OPENING ALL FOUR SIDES (VERTICAL REBAR GRATE IF REQUIRED)
2	1	20" CAST-IN RING AND COVER
3	1	TOP SECTION
4	1	SAFETY BARS (OPTIONAL)
5	1	MUD SECTION
6	1	BASIN SECTION
7	1	THINWALL KNOCKOUT PIPE OPENING "K" DIAMETER
8	1	NOT USED
9	–	REBAR AS REQUIRED
10	1	DUCTILE IRON RING AND COVER
11	1	NAMEPLATE INDICATING: MFG: PARKUSA 888-611-PARK WWW.PARKUSA.COM MODEL: CBY-* DATE MANUFACTURED



TYPE	L1	W1	K
CBY-36	4'-0"	4'-0"	32"
CBY-48	5'-0"	5'-0"	48"
CBY-60	6'-0"	6'-0"	60"
CBY-72	7'-0"	7'-0"	72"

SPECIFICATIONS

CONCRETE : CLASS I/II CONCRETE WITH OF DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. UNIT IS OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED DEPTH. RATED FOR H-20 LOADING.

REINFORCEMENT: GRADE 60 REINFORCED. NO. 4 STEEL REBAR TO CONFORM TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.

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

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PROJECT:	
CUSTOMER:	
ENGINEER:	
ORDER # :	PROJ # :
DATE:	LOCATION:

PARK — www.parkusa.com 888-611-PARK

TYPE-Y INLET
MODEL CBY 36" THRU 72"

PM	PC	DRN	ENG	DWG. NO.	REV.
DATE	01/2019			CBY-1	

No.	REVISIONS	DATE	BY

Kimley»Horn

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280 EAST DAVIS STREET, SUITE 100, MCKINNEY, TX 75069
PHONE: 469-301-2580 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM TX F-928

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402	DATE DECEMBER 2022	SCALE AS SHOWN	DESIGNED BY RPS	DRAWN BY AH	CHECKED BY RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

DRAINAGE DETAILS

SD-20-00020

SHEET NUMBER

SHEET 47 OF 92

IMAGES Cedar Park Logo :
JOB NUMBER 069274402
LAST SAVED 8/7/2024 10:23 AM
PLOTTED BY Jessica Wilson 10/21/2024 7:04 PM
DWG PATH K:\AUS_CIVIL\069274402\CEDAR PARK - PARMER 17 ACRE\CAD\PLANSHEETS
DWG NAME K:\AUS_CIVIL\069274402\CEDAR PARK - PARMER 17 ACRE\CAD\PLANSHEETS\DRAINAGE DETAILS.DWG [K:\PW\MKC\SD-20.PMP]

IMAGES
Cedar Park Logo - Cedar Park Logo :
MAP DATA
data © AccuMark
LAST SAVED
8/15/2024 11:45 AM
LAST SAVED BY
KYLE.OWSIANY@KIMLEY-HORN.COM
DWG PATH
K:\AUS_CWI\069714402-CEDAR PARK - PHASE\1 IT ACRE\CAD\PLANSHEETS
DWG NAME
K:\AUS_CWI\069714402-CEDAR PARK - PHASE\1 IT ACRE\CAD\PLANSHEETS
\SSWR LAT C-1 SSWR LAT C-2 SSWR LAT C-3 SSWR LAT C-4 SSWR LAT C-5 SSWR LAT D-1 SSWR LAT D-2 SSWR LINE E PROFILES.DWG
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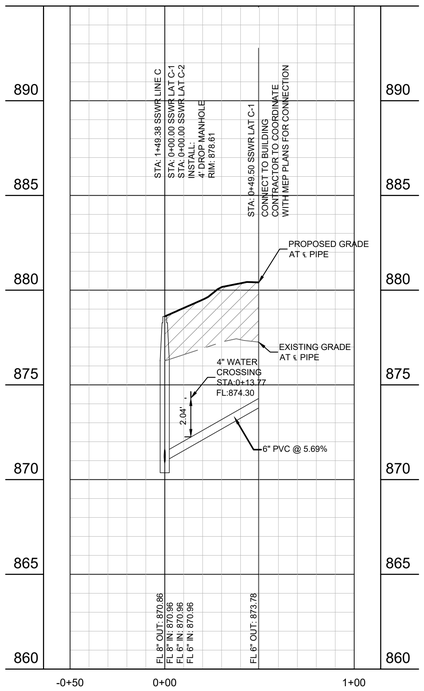
SSWR LAT C-1



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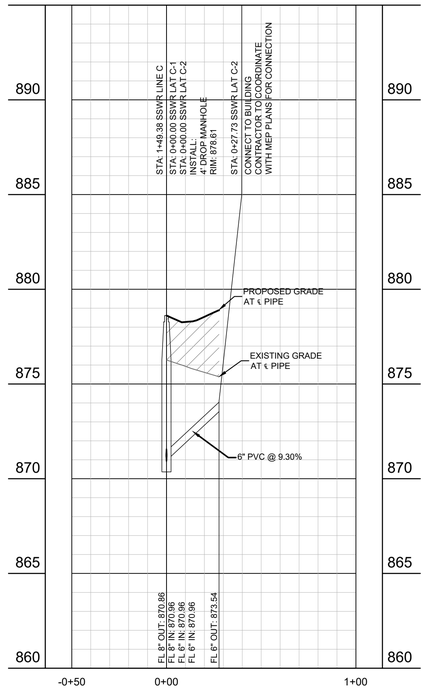

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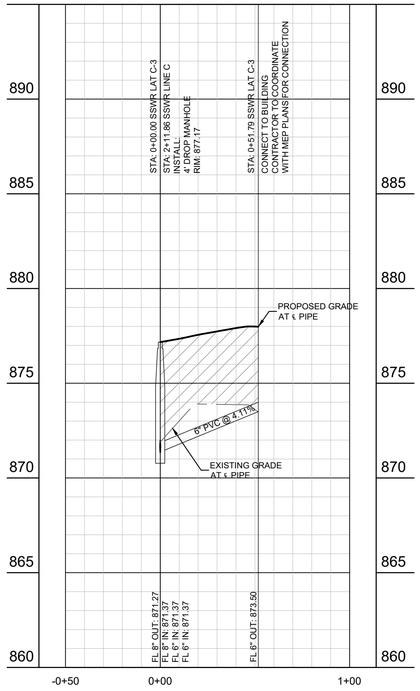

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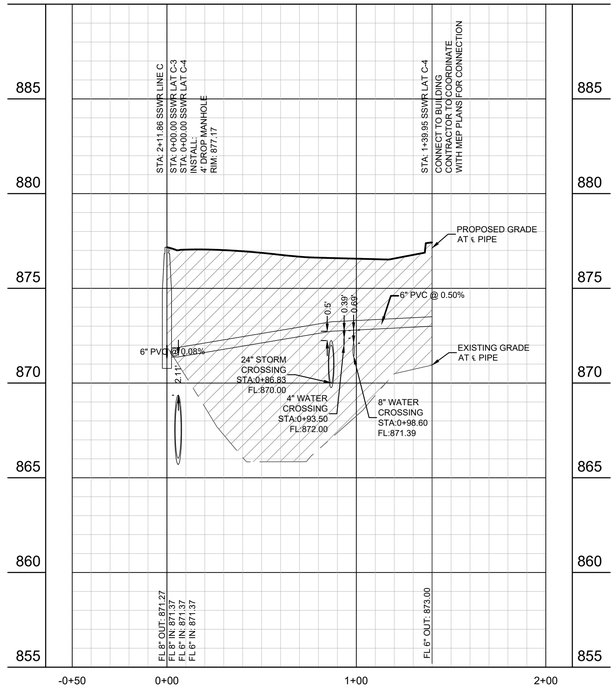

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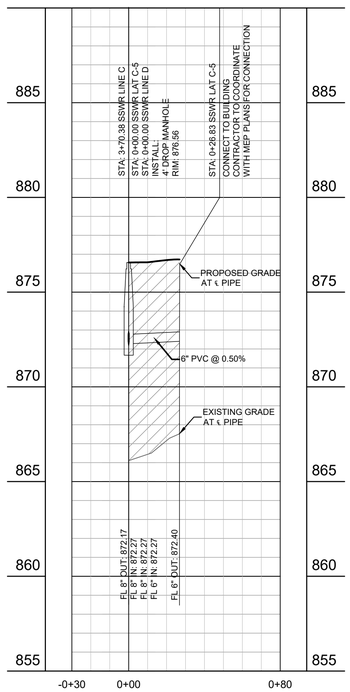

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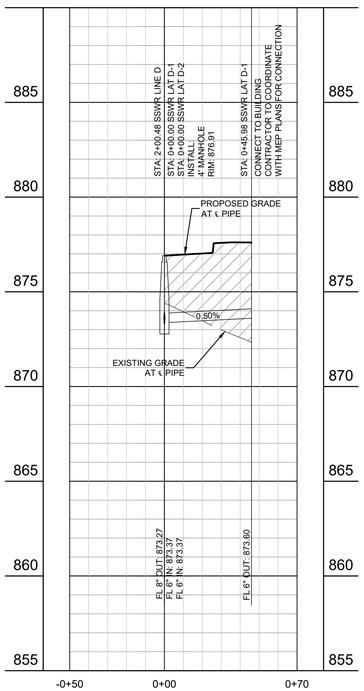

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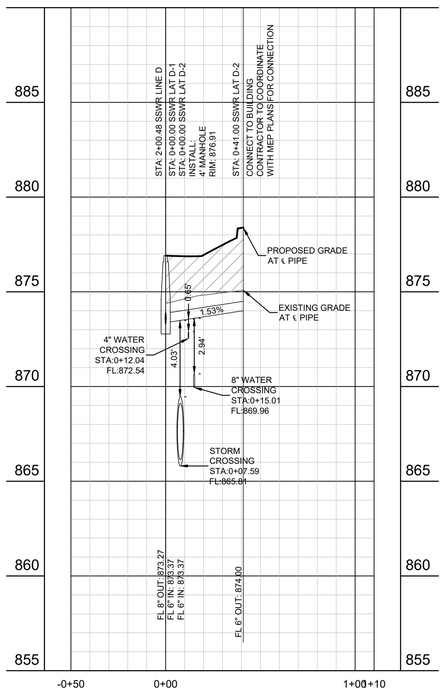
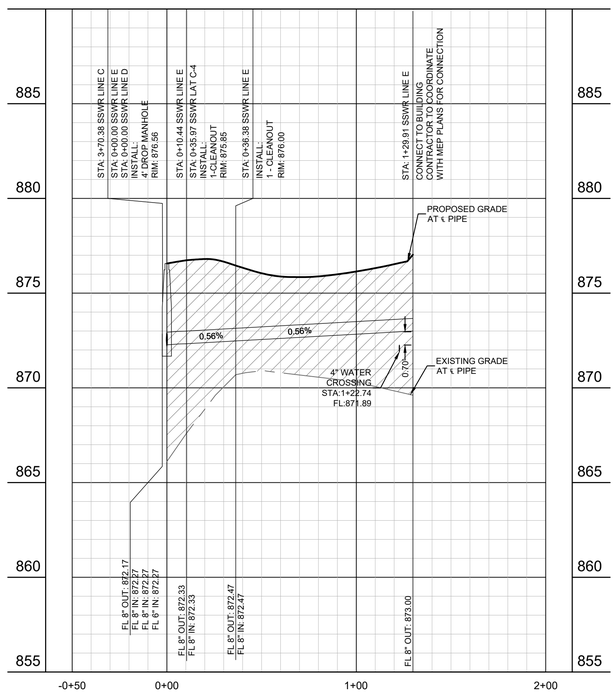


SSWR LINE E



No.	REVISIONS	DATE	BY

Kimley»Horn

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WWW.KIMLEY-HORN.COM TX F-928

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT	069274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

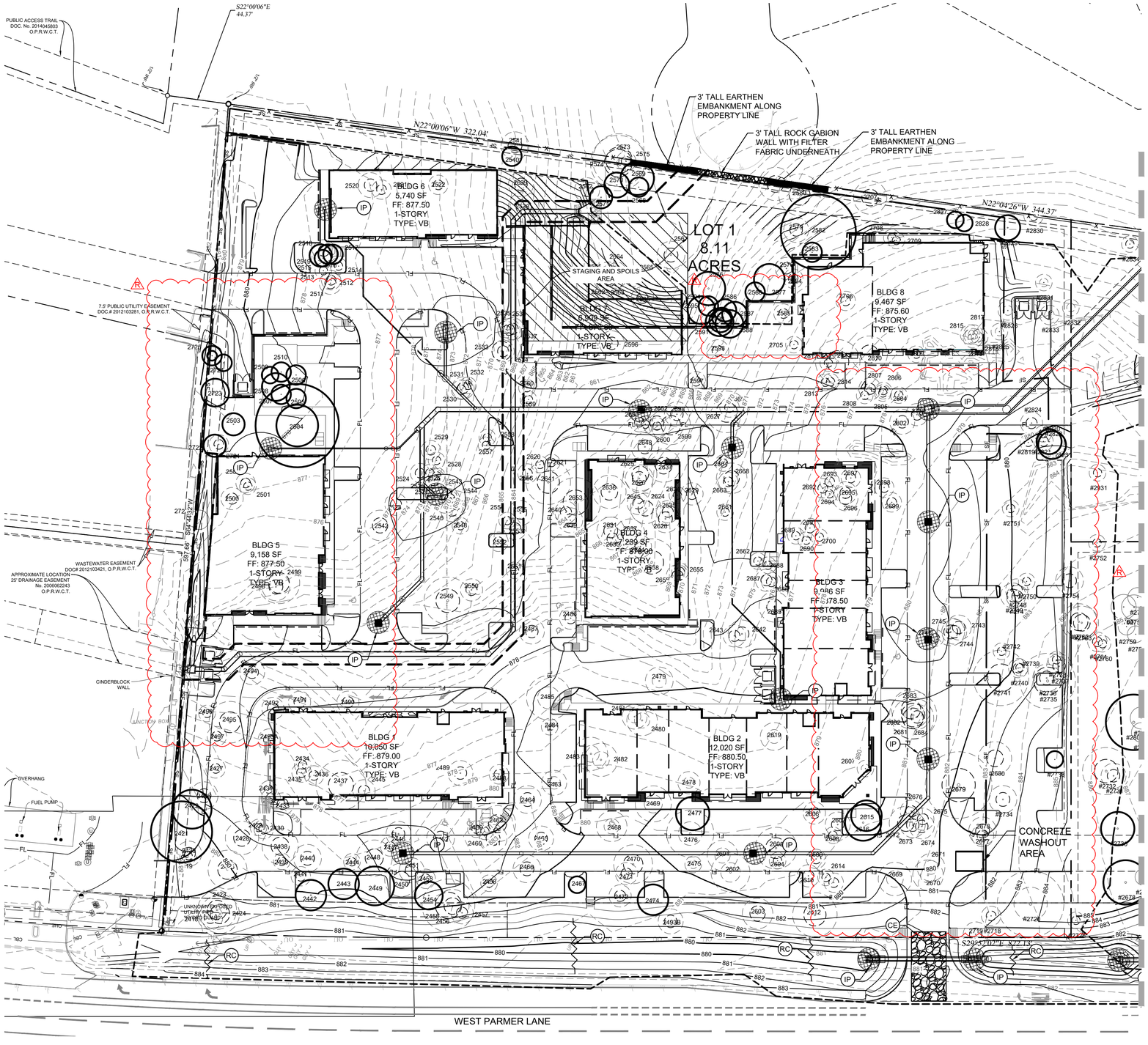
VELSA RANCH

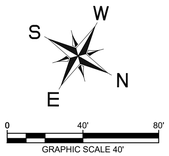
CEDAR PARK

CEDAR PARK, TEXAS

PRIVATE SANITARY SEWER PROFILES

SD-20-00020
SHEET NUMBER
SHEET 52 OF 92





LEGEND

- CE — STABILIZED CONSTRUCTION ENTRANCE
- CX — CURLEX
- SF — SILT FENCE
- RC — ROCK CHECK DAM
- IP — PROPOSED INLETS TO BE PROTECTED
- FLOW PATH
- LIMITS OF DISTURBANCE 12.38 ACRES
- TREE TO REMAIN
- TREE PROTECTION
- TREES TO BE REMOVED

DEMOLITION NOTE

1. ALL DISTURBED AREAS SHALL BE RE-VEGETATED TO MEET THE REQUIREMENTS OF THE CITY OF CEDAR PARK'S ORDINANCES.
2. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY INSPECTOR AT TIME OF CONSTRUCTION.

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

BENCH MARK LIST

BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

ELEV. = 860.56'

BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN. THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'

No.	REVISIONS	DATE	BY

Kimley»Horn
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280 EAST DAVIS STREET, SUITE 100, MCKINNEY, TX 75069
PHONE: 469-301-2580 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM TX F-928

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT	069274402
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK

CEDAR PARK, TEXAS

EROSION CONTROL PLAN PHASE I

SD-20-00020

SHEET NUMBER

SHEET 58 OF 92

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IMAGES
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Kimley»Horn Logo
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PLOTTED BY
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DWG NAME
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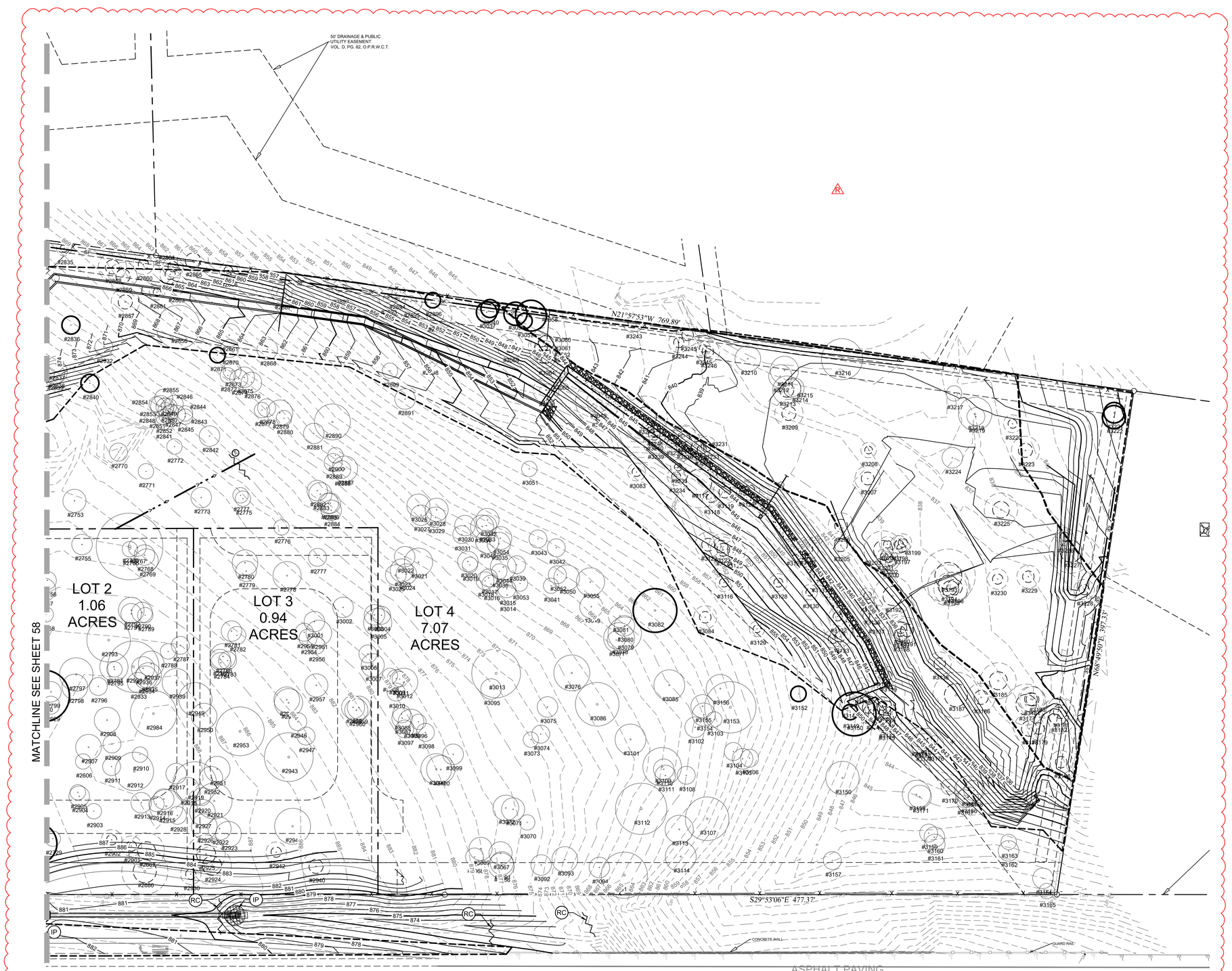

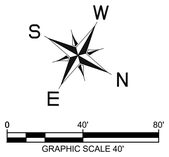

LEGEND

- CE — STABILIZED CONSTRUCTION ENTRANCE
- CX — CURLEX
- SF — SILT FENCE
- RC — ROCK CHECK DAM
- IP — PROPOSED INLETS TO BE PROTECTED
- FLOW PATH
- LIMITS OF DISTURBANCE 12.38 ACRES
- TREE TO REMAIN
- TREE PROTECTION
- TREES TO BE REMOVED

DEMOLITION NOTE

1. ALL DISTURBED AREAS SHALL BE RE-VEGETATED TO MEET THE REQUIREMENTS OF THE CITY OF CEDAR PARK'S ORDINANCES.
2. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY INSPECTOR AT TIME OF CONSTRUCTION.

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

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ELEV.= 882.07'

No.	REVISIONS	DATE	BY
1		08/19/2024	RPS

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VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

EROSION CONTROL PLAN PHASE I

SD-20-00020

SHEET NUMBER

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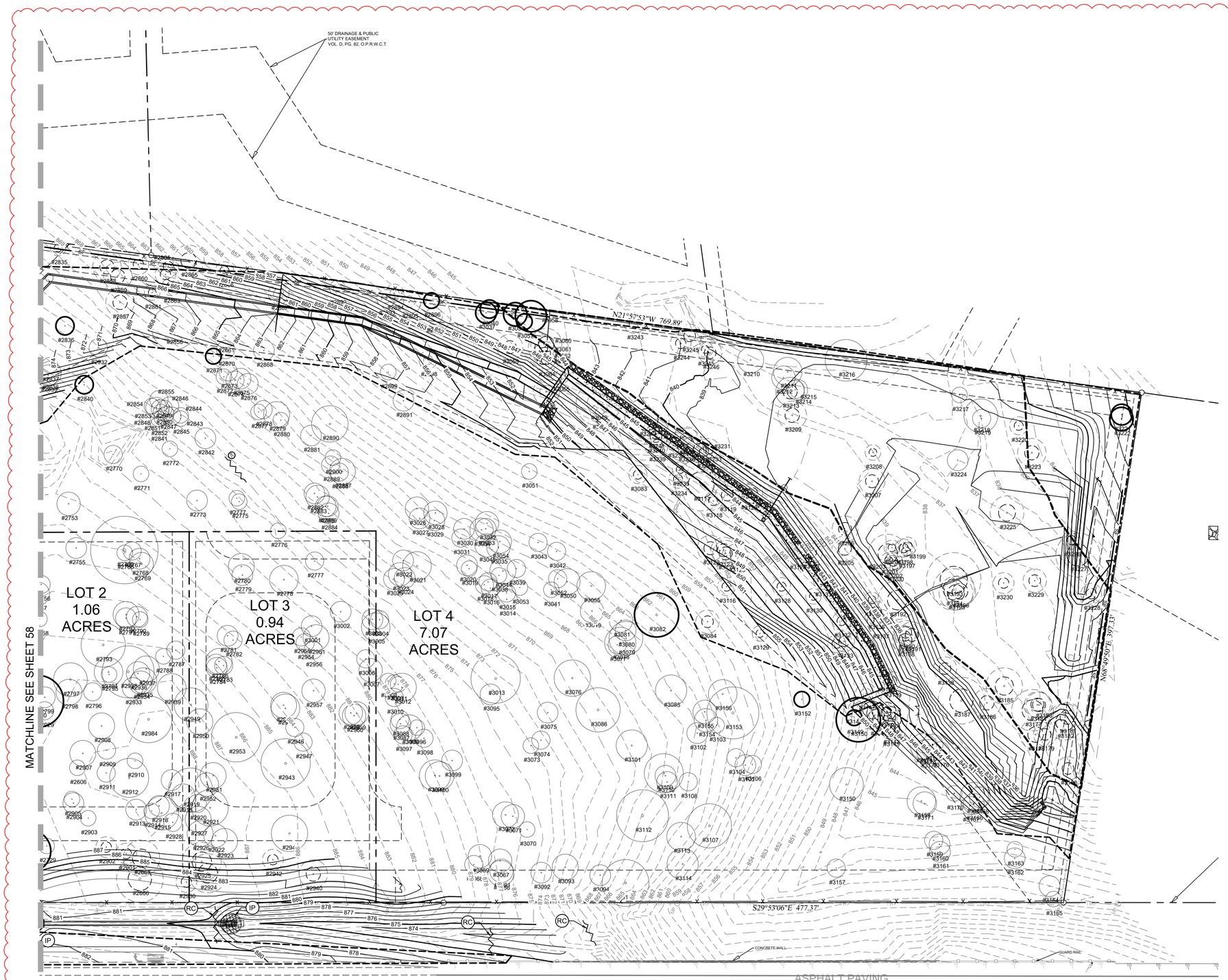

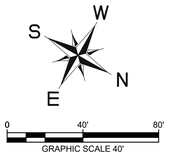

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ELEV.= 882.07'

No.	REVISION	DATE	BY
1	REVISIONS	08/19/2024	RPS

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DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

EROSION CONTROL PLAN PHASE II

SD-20-00020

SHEET NUMBER

SHEET 60 OF 92

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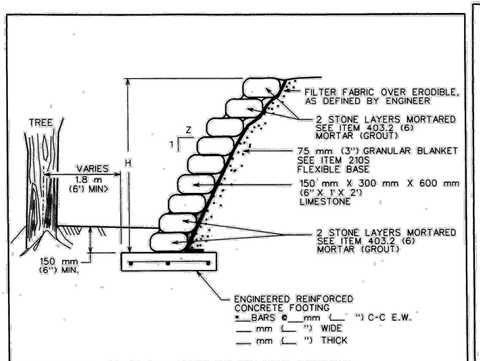
069274402-EROSION CONTROL PLAN PHASE II (SD-20-00020) CONTROL PLAN PHASE II



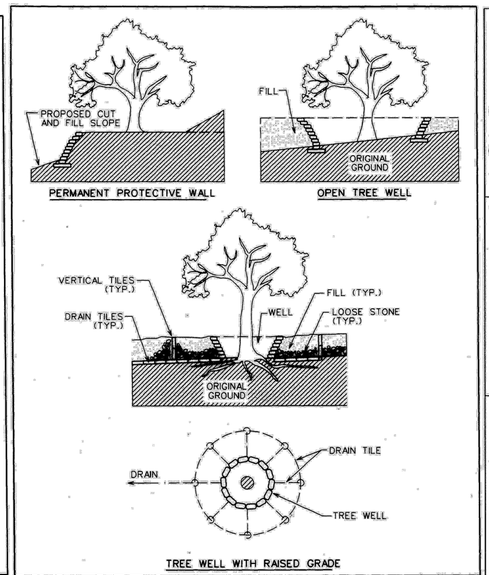
THIS STANDARD APPLIES ONLY UNDER THE FOLLOWING CONDITIONS:

A. H AND Z ARE SPECIFIED ON THE DRAWING.
B. GROUNDWATER IS NO HIGHER THAN THE BOTTOM OF THE FOOTING.
C. THE MATERIAL BELOW THE FOOTING IS FIRM AND STABLE.
D. THE MATERIAL BEHIND THE WALL HAS A LEVEL SURFACE.
E. THE MATERIAL IN FRONT OF THE WALL HAS A SLOPE NO STEEPER THAN 4 HORIZONTAL TO 1 VERTICAL.
F. THE FACE OF THE WALL IS NO STEEPER THAN 1 HORIZONTAL TO 2 VERTICAL.
G. SURCHARGE LOADS BEHIND THE WALL ARE NO CLOSER THAN DISTANCE H FROM THE TOP OF WALL.

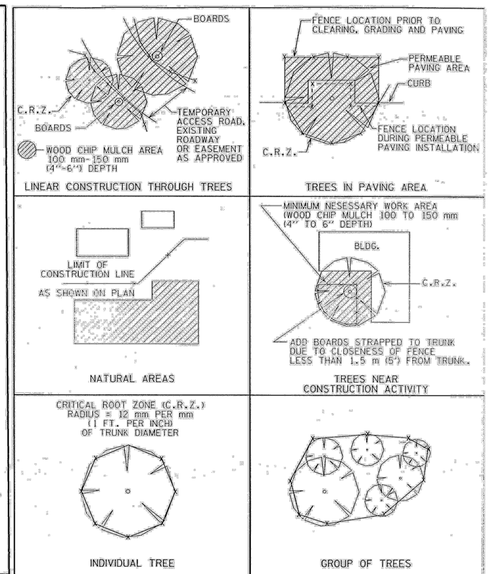
NOTES:

1. DESIGN AND CONSTRUCTION OF ROCK WALL SHALL CONFORM TO THE REQUIREMENTS OF CITY COSE 16-7-25, PLACEMENT OF FENCES IN STREET CORNER AREAS, AND THE CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL FOR MINIMUM SIGHT DISTANCE.
2. CONCRETE SHALL CONFORM TO ITEM 403S, "CONCRETE FOR STRUCTURES".

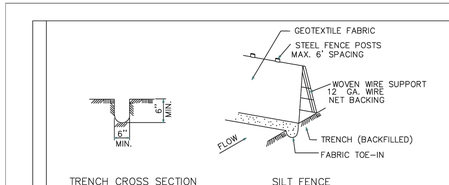
CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	SLOPE PROTECTION AND TREE WELLS	
ADOPTED 11/9/00	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-6 1 OF 2



CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	SLOPE PROTECTION AND TREE WELLS	
ADOPTED 11/9/00	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-6 2 OF 2



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROTECTION FENCE LOCATIONS	
ADOPTED 11/9/22	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-1



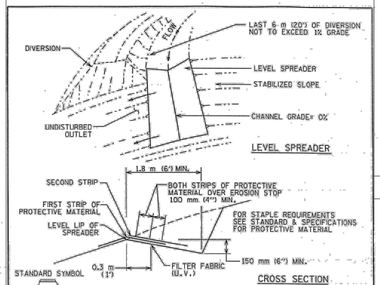
GENERAL NOTES:

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

STANDARD SYMBOL SF

REV. DATE: 09/13/01

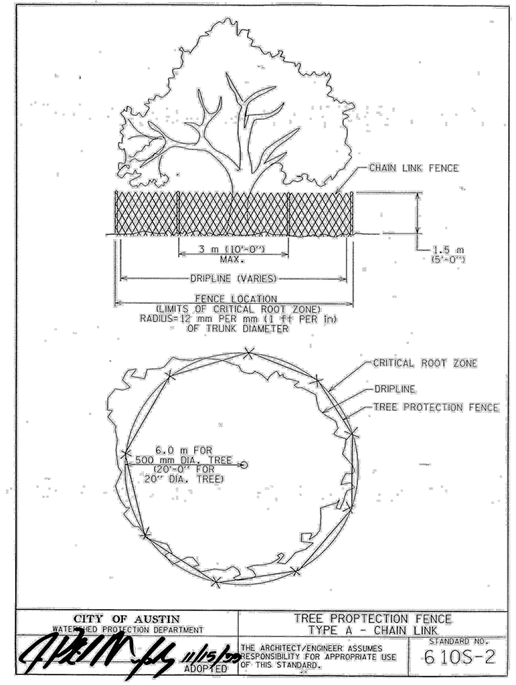
CITY OF CEDAR PARK ENGINEERING DEPARTMENT	SILT FENCE	
DARWIN MARCHELL 09/13/2001 APPROVED DATE	ADOPTED: 09/13/2001 SCALE: N.T.S. INITIAL:	



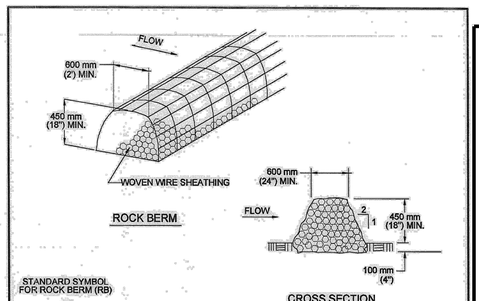
GENERAL NOTES:

1. LEVEL SPREADERS SHALL BE INSTALLED UNDER THE DIRECT SUPERVISION OF THE ENGINEER.
2. CONSTRUCT LEVEL LIP ON ZERO PERCENT GRADE TO INSURE UNIFORM SPREADING OF SEDIMENT-FREE RUNOFF (CONVERTING CHANNEL FLOW TO SHEET FLOW).
3. LEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL (NOT ON FILL).
4. A MATTING EROSION STOP SHALL BE PLACED VERTICALLY AND AT LEAST 150 mm (6") DEEP IN A SILT TRENCH 0.3 m (1') BACK OF AND PARALLEL WITH THE LIP. THIS EROSION STOP SHALL EXTEND THE ENTIRE LENGTH OF THE LEVEL LIP AND SHALL BE TRIMMED AFTER BACKFILLING WITH TAMPED SOIL, SO THAT THE UPPER EDGE IS FLUSH WITH THE SOIL SURFACE.
5. THE ENTIRE LEVEL LIP AREA SHALL BE PROTECTED BY PLACING 2 STRIPS OF JUTE, EXCELSIOR OR OTHER APPROVED PROTECTIVE MATERIAL AS SHOWN ABOVE.
6. THE ENTRANCE CHANNEL SHALL NOT EXCEED A 1% GRADE FOR AT LEAST 6 m (20') BEFORE ENTERING SPREADER.
7. STORM RUNOFF CONVERTED TO SHEET FLOW SHALL OUTLET ONTO STABILIZED AREAS, WATER SHALL NOT BE RECONCENTRATED IMMEDIATELY BELOW THE POINT OF DISCHARGE.
8. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	LEVEL SPREADER	
ADOPTED 3.27.00	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 634S-1



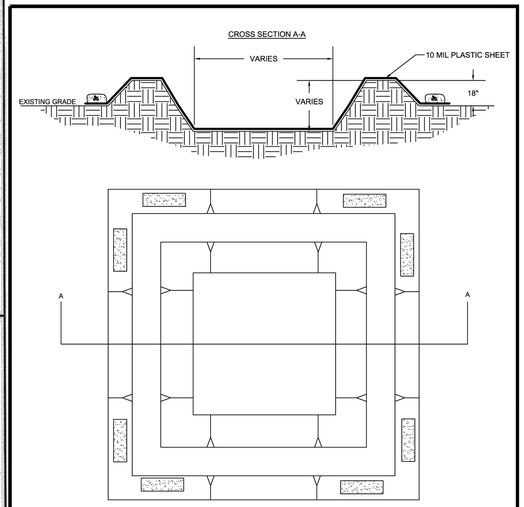
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROPTECTION FENCE TYPE A - CHAIN LINK	
ADOPTED 11/15/00	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-2



NOTES:

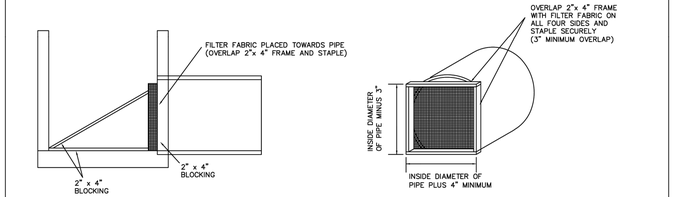
1. USE ONLY OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE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

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



NOTES:
1. SET LENGTH AND WIDTH AS NECESSARY TO PROVIDE ADEQUATE SPACE FOR WASHOUT ACTIVITIES.
2. IF RESTRICTED BY DEPTH DUE TO BELOW GRADE APPURTENANCES, PLACE EARTHEN BERMS AT GRADE.
3. USE EXCAVATED MATERIAL TO CREATE EARTHEN BERMS SURROUNDING THE AREA TO BE DESIGNATED AS A CONCRETE WASHOUT.
4. PLACE 10MIL OR GREATER PLASTIC SHEETING.
5. SECURE SHEETING ON OUTSIDE OF BERM AREA USING SAND BAGS OR ROCK EQUIVALENT.

CONCRETE WASHOUT DETAIL
N.T.S.



NOTES:
STORM INLET SEDIMENT TRAPS SHALL BE PLACED IN ALL PROPOSED CURB INLETS AND AREA INLETS AS DIRECTED BY THE CITY OF CEDAR PARK'S PROJECT REPRESENTATIVE.

THE LATERAL BRACING SHALL BE PLACED IN A MANNER AS TO ADEQUATELY SECURE THE FILTER FRAME TO THE SIDE OF THE INLET, INSURING THE PROPER FUNCTION OF THE SEDIMENT TRAP.

FILTER FABRIC MAY BE IDENTICAL TO THAT SPECIFIED AS "TEMPORARY SEDIMENT CONTROL FENCE". OTHER MATERIAL MAY BE USED UPON APPROVAL OF THE CITY OF CEDAR PARK'S PROJECT REPRESENTATIVE.

THE "STORM INLET SEDIMENT TRAPS" SHALL BE INSTALLED UPON COMPLETION OF THE PROPOSED INLET WALLS OR AS DIRECTED BY THE CITY OF CEDAR PARK'S PROJECT REPRESENTATIVE.

THE CONTRACTOR WILL BE REQUIRED TO PERFORM PERIODIC MAINTENANCE OF THE SEDIMENT TRAP AND REMOVE ACCUMULATED SILT AS DIRECTED BY THE CITY OF CEDAR PARK'S PROJECT REPRESENTATIVE.

"STORM INLET SEDIMENT TRAPS" SHALL REMAIN IN PLACE UNTIL CONSTRUCTION OF THE PROPOSED INLET DECK BEGINS.

ALL WOOD SHALL BE PRESSURE TREATED.

STORM INLET SEDIMENT TRAP

CITY OF CEDAR PARK PUBLIC WORKS ENGINEERING	STANDARD DETAIL STORM INLET SEDIMENT TRAP	
DARWIN MARCHELL, P.E.	ADOPTED: 01/02/01 SCALE: NTS INITIAL:	

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DWG NAME
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PROFESSIONAL ENGINEER
10/21/2024

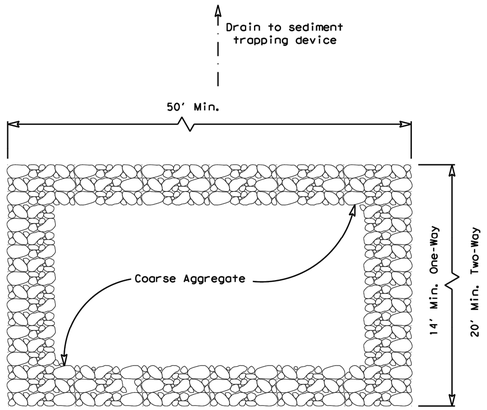
KHA PROJECT 069274402	DATE DECEMBER 2022	SCALE AS SHOWN	DESIGNED BY RPS	DRAWN BY AH	CHECKED BY RPS

VELSA RANCH
CEDAR PARK, TEXAS

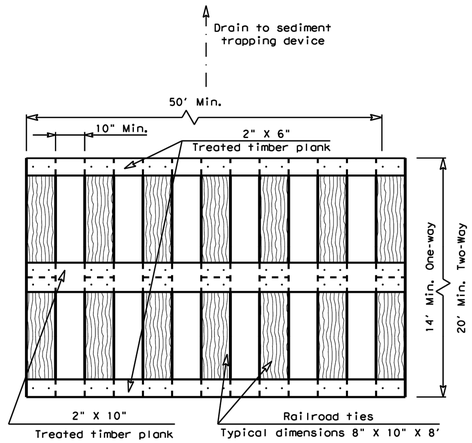
CEDAR PARK

EROSION CONTROL DETAILS

SD-20-00020
SHEET NUMBER
SHEET 61OF 92



PLAN VIEW



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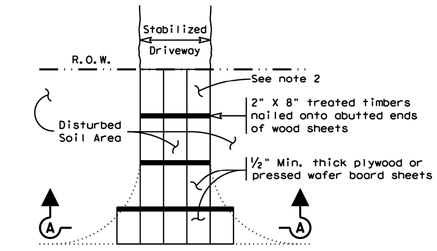

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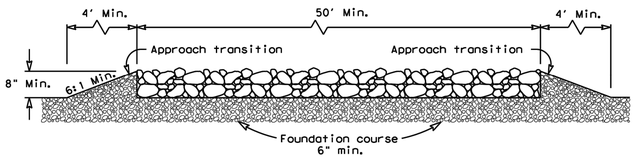
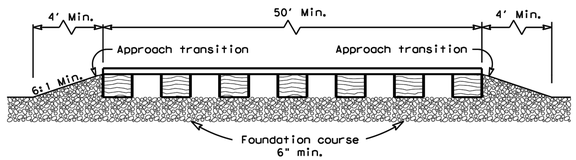


ELEVATION VIEW

CONSTRUCTION EXIT (TYPE 1)

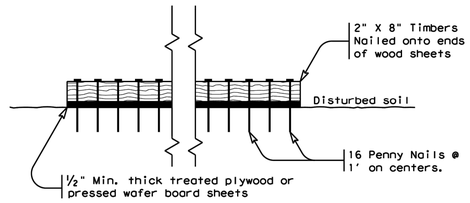
ROCK CONSTRUCTION (LONG TERM)



ELEVATION VIEW

CONSTRUCTION EXIT (TYPE 2)

TIMBER CONSTRUCTION (LONG TERM)



SECTION A-A

CONSTRUCTION EXIT (TYPE 3)

SHORT TERM

GENERAL NOTES (TYPE 1)

1. The length of the type 1 construction exit shall be as indicated on the plans, but not less than 50'.
2. The coarse aggregate should be open graded with a size of 4" to 8".
3. The approach transitions should be no steeper than 6:1 and constructed as directed by the Engineer.
4. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other materials approved by the Engineer.
5. The construction exit shall be graded to allow drainage to a sediment trapping device.
6. The guidelines shown hereon are suggestions only and may be modified by the Engineer.
7. Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed by the engineer.

GENERAL NOTES (TYPE 2)

1. The length of the type 2 construction exit shall be as indicated on the plans, but not less than 50'.
2. The treated timber planks shall be attached to the railroad ties with ½"x 6" min. lag bolts. Other fasteners may be used as approved by the Engineer.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The approach transitions shall be no steeper than 6:1 and constructed as directed by the Engineer.
5. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other material as approved by the Engineer.
6. The construction exit should be graded to allow drainage to a sediment trapping device.
7. The guidelines shown hereon are suggestions only and may be modified by the Engineer.
8. Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed by the engineer.

GENERAL NOTES (TYPE 3)

1. The length of the type 3 construction exit shall be as shown on the plans, or as directed by the Engineer.
2. The type 3 construction exit may be constructed from open graded crushed stone with a size of two to four inches spread a min. of 4" thick to the limits shown on the plans.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

Texas Department of Transportation | Design Division Standard

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES

CONSTRUCTION EXITS

EC(3)-16

FILE: ec316	DN: TxDOT		CK: KM	DW: VP	CK: LS
©TxDOT: JULY 2016	CONT	SECT	JOB	HIGHWAY	
REVISIONS	C	S	J	HWY	
	DIST	COUNTY		SHEET NO.	
	DST	CTY		$EC(3A-16$	

DISCLAIMER:
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IMAGES: Cedar Park Logo :
LAST SAVED: 4/1/2024 10:29 AM
LAST PLOTTED: 10/21/2024 7:09 PM
DWG PATH: K:\AUS_CPK\069274402-CEDAR PARK - FARMER 71 ACRE\CAD\PLANSHEETS
DWG NAME: EROSION CONTROL DETAILS.DWG [EROSION CONTROL DETAILS]

No.	REVISIONS	DATE	BY

Kimley»Horn
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PHONE: 469-301-2580 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM TX F-928

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402		DESIGNED BY	RPS
DATE DECEMBER 2022		DRAWN BY	AH
SCALE AS SHOWN		CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

EROSION CONTROL DETAILS

SD-20-00020

SHEET NUMBER

SHEET 62 OF 92

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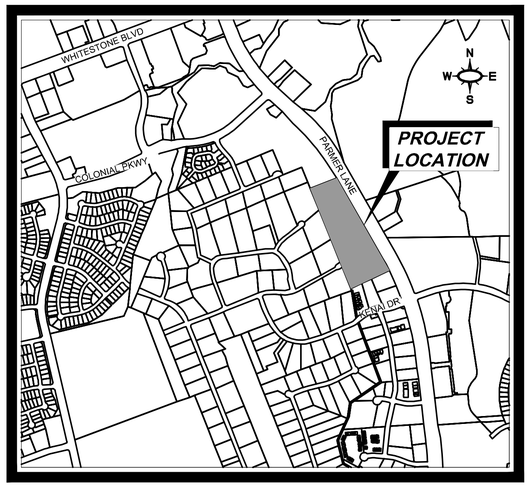
TxDOT PLANS
FOR
VELSA RANCH
IN THE
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS

THE PURPOSE OF THESE PLANS IS TO OBTAIN A DRIVEWAY PERMIT FROM THE TEXAS DEPARTMENT OF TRANSPORTATION TO GAIN ACCESS OFF OF F.M. 0734 TO OUR PROPOSED DEVELOPMENT.

SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, NOVEMBER 1, 2014, AND SPECIFICATION ITEMS LISTED AS FOLLOWS SHALL GOVERN ON THIS PROJECT FOR ALL WORK WITHIN THE STATE RIGHT OF WAY.

TXDOT UTILITY PERMIT REQUIRED FOR ANY MODIFICATION OF EXISTING OR INSTALLATION OF NEW UTILITIES WITHIN THE STATE RIGHT OF WAY.



VICINITY MAP
N.T.S.

Sheet List Table	
Sheet Number	Sheet Title
63	COVER SHEET
64	DIMENSION CONTROL AND STRIPING PLAN
65	GRADING
66	EROSION CONTROL PLAN
67	DETAILS (SHEET 1 OF 12)
68	DETAILS (SHEET 2 OF 12)
69	DETAILS (SHEET 3 OF 12)
70	DETAILS (SHEET 4 OF 12)
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77	DETAILS (SHEET 11 OF 12)
78	DETAILS (SHEET 12 OF 12)

NOTES:
1. IF REPRODUCED, THE SCALES SHOWN ON THESE PLANS ARE BASED ON A 11"X17" SHEET.
2. ALL CONSTRUCTION WITHIN THE STATE RIGHT OF WAY WILL REQUIRE COMPLIANCE TO TXDOT STANDARD SPECIFICATIONS, STANDARD PLANS, AND THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. POSTED SPEED LIMIT ON FM 734 (WEST PARMER LANE) IS 65 MILES PER HOUR.
4. BY SEALING AND SIGNING THESE PERMIT PLANS AS A PROFESSIONAL CIVIL ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS, I CERTIFY THAT THE PROPOSED DRIVEWAY OR PUBLIC STREET CONNECTION(S) TO THE STATE ROADWAY MEETS OR EXCEEDS THE MINIMUM STOPPING SIGHT DISTANCE REQUIRED FOR A POSTED SPEED LIMIT OF 70 MILES PER HOUR, BASED ON THE MOST RECENT TXDOT DESIGN MANUAL REQUIREMENTS.
5. CONTRACTOR SHALL SCHEDULE A PRE-WORK INSPECTION WITH THE TXDOT INSPECTOR, 512) 832-7000, AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING WORK.
6. NO LANE CLOSURES ALLOWED DURING PEAK HOURS OF 6-9 AM and DURING 4-7 PM. LANE CLOSURES BETWEEN THE HOURS OF 9 AM AND 4 PM BY TxDOT PERMIT ONLY. NIGHT TIME WORK BETWEEN 9 PM and 5 AM IS ENCOURAGED AND PREFERRED FOR IMPROVEMENTS WITHIN TxDOT R.O.W.
7. DRAINAGE FOR THIS DEVELOPMENT HAS BEEN DESIGNED SUCH THAT THERE WILL BE NO ADVERSE IMPACTS ON THE CAPACITY, FUNCTION OR INTEGRITY OF TEXAS DEPARTMENT OF TRANSPORTATION RIGHT OF WAY DRAINAGE FACILITIES. ALL HYDRAULICS PLANS AND CALCULATIONS ARE SHOWN IN SD-20-00020.

APRIL 2024

OWNER:
VLS PROPERTIES, LLC.
3109 Kenai Drive, Ste. 109
Cedar Park, Texas 78613
Tel. No. 972-839-9600
Contact: Venkat Gudapuri

ENGINEER
Kimley»Horn
260 East Davis Street, Suite 100
McKinney, Texas 75069
Tel. No. 469-301-2580
Contact: Michael Doggett, P.E.
STATE OF TEXAS
REGISTRATION NO. F-928

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PHONE: 469-301-2580 FAX: 972-239-3820
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MICHAEL T. DOGGETT
98628
LICENSED
PROFESSIONAL ENGINEER
5/1/2024

KHA PROJECT	069274402
DATE	JANUARY 2021
SCALE	AS SHOWN
DESIGNED BY	MD
DRAWN BY	AB
CHECKED BY	MD

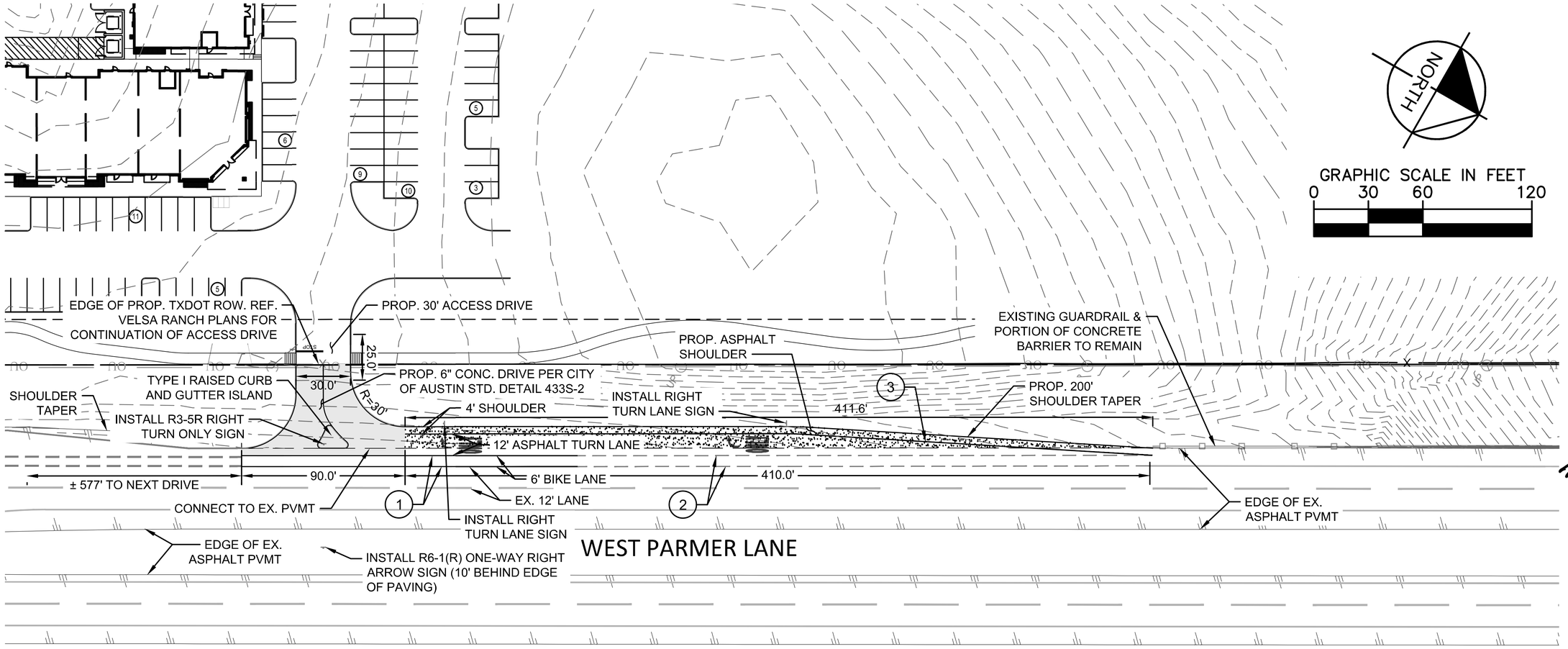
VELSA RANCH
CEDAR PARK, TEXAS

CEDAR PARK

COVER SHEET

SD-20-00020

SHEET NUMBER
63 of 92



LEGEND

- PROPERTY/R.O.W. LINE
- PROPOSED 7" CONC. PAVEMENT ON 6" COMPACTED SUBGRADE
- PROPOSED ASPHALT PAVEMENT (2" OF TYPE D, 6" OF TYPE B HOT MIX ASPHALT, ON 12" FLEX BASE)

NOTES

1. ALL DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, OR PROPERTY LINE UNLESS OTHERWISE NOTED
2. SITE BOUNDARY, TOPOGRAPHY, UTILITIES AND ROAD INFORMATION TAKEN FROM A SURVEY PREPARED BY KIRKMAN ENGINEERING DATED FEBRUARY 12, 2019
3. FULL-DEPTH SAW CUT ALL JOINTS MADE FOR REMOVAL OF EXISTING STATE FACILITIES.
4. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
5. CONTRACTOR TO SEAL COAT EXISTING PAVEMENT MARKINGS WHERE NEW STRIPING IS PROPOSED.

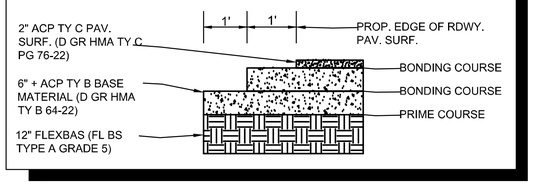
KEY NOTES

1. 185' OF 8" WHITE SOLID STRIPE
2. 315' OF 8" WHITE DASHED STRIPE
3. 412' OF 8" WHITE SOLID STRIPE

TxDOT R.O.W. RIGHT TURN LANE PAVEMENT SECTION

PLAN SYMBOL

+ ACP TY B MATERIAL PLACED IN APPROX. EQUAL LIFTS (MAX. LIFT 5")



CAUTION!!

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

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STATE OF TEXAS
MICHAEL T. DOGGETT
98628
LICENSED
PROFESSIONAL ENGINEER
5/1/2024

KHA PROJECT 069274402	DATE JANUARY 2021	SCALE AS SHOWN	DESIGNED BY MD
DRAWN BY AB	CHECKED BY MD		

VELSA RANCH
CEDAR PARK, TEXAS

CEDAR PARK

DIMENSION CONTROL AND STRIPING PLAN

SD-20-00020

SHEET NUMBER
64 of 92

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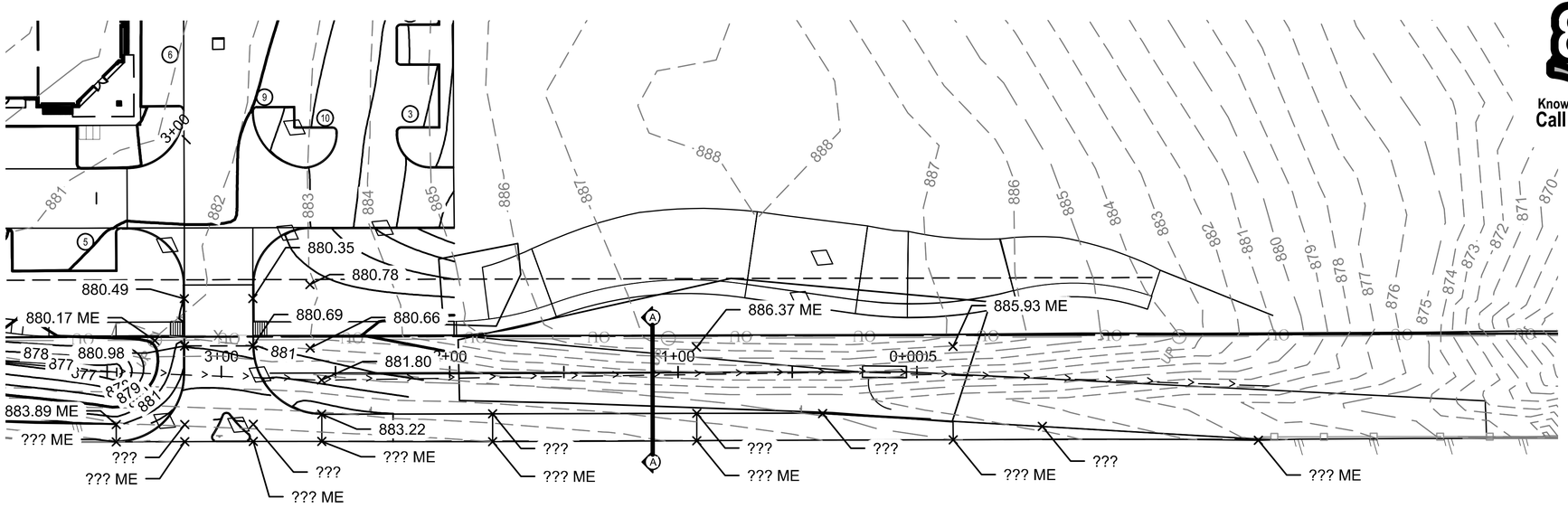


Know what's below. Call before you dig.

NORTH

GRAPHIC SCALE IN FEET
0 30 60 120

LEGEND

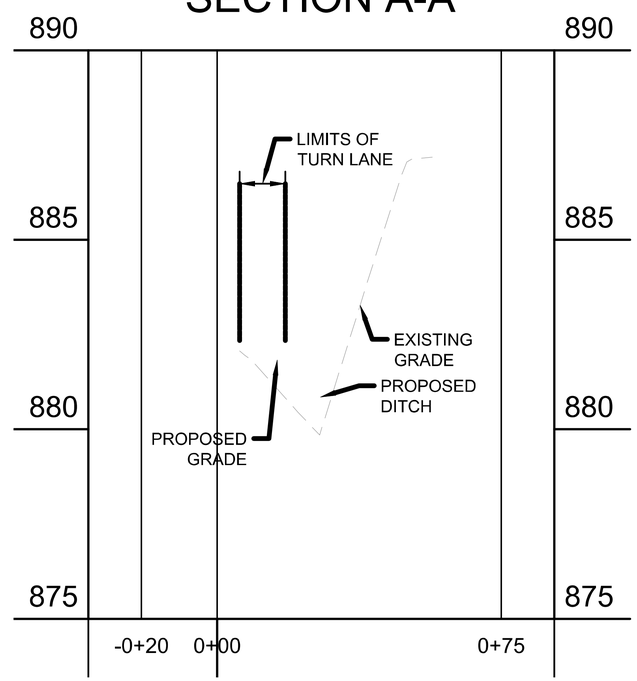
	PROPERTY LINE
594	PROPOSED CONTOUR
596	EXISTING CONTOUR
597.00 ×	PROPOSED SPOT ELEVATION
ME	MATCH EXISTING ELEVATION

CAUTION!!
CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

GRADING NOTES

1. ALL CONSTRUCTION SHALL BE IN GENERAL ACCORDANCE WITH THESE PLANS, THE FINAL GEOTECHNICAL REPORT, CITY OF CEDAR PARK AND NCTCOG CONSTRUCTION STANDARDS.
2. UNLESS OTHERWISE NOTED, PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN ON PAVED AREAS REFLECT TOP OF PAVEMENT SURFACE. ADD .50' TO PAVING GRADE FOR TOP OF CURB GRADE.
3. FOR AREAS OUTSIDE OF PAVEMENT, PLAN ELEVATIONS ARE TO TOP OF FINISH GRADE.
4. FINISH GRADES SHALL BE PLUS OR MINUS ONE TENTH OF A FOOT (±0.10') OF DESIGN GRADE.
5. THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AND SHALL NOTIFY THE CONSTRUCTION MANAGER AND ENGINEER OF ANY CONFLICTS DISCOVERED. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES (SHOWN OR NOT SHOWN) WITHIN SCOPE OF CONSTRUCTION. IF ANY EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL REPLACE THEM AT HIS OWN EXPENSE.
6. THE CONTRACTOR SHALL TAKE ALL AVAILABLE PRECAUTIONS TO CONTROL DUST. CONTRACTOR SHALL CONTROL DUST BY SPRINKLING WATER, OR BY OTHER MEANS APPROVED BY THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.
7. ALL EXCAVATION IS UNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED. UNUSABLE EXCAVATED MATERIAL AND ALL WASTE RESULTING FROM SITE CLEARING AND GRUBBING SHALL BE DISPOSED OF OFF SITE BY THE GRADING CONTRACTOR AT HIS EXPENSE.
8. BEFORE ANY EARTHWORK IS PERFORMED, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF PAVEMENT AND OTHER ITEMS ESTABLISHED BY THE PLANS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY ENGINEERING AND SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK.
9. REFERENCE STRUCTURAL DRAWINGS AND SPECIFICATIONS AND GEOTECHNICAL REPORT FOR BUILDING PAD AND PAVING SUBGRADE PREPARATION. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING FOOTPRINT DIMENSIONS.
10. THE CONTRACTOR SHALL CLEAR AND GRUB THE SITE AND PLACE, COMPACT, AND MOISTURE CONDITION ALL FILL PER THE PROJECT GEOTECHNICAL ENGINEER'S SPECIFICATIONS. THE FILL MATERIAL TO BE USED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.
11. GRADING CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES FOR ANY REQUIRED UTILITY ADJUSTMENTS AND/OR RELOCATIONS.
12. TESTING OF MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE PAVING IMPROVEMENTS SHALL BE PERFORMED BY AN APPROVED AGENCY FOR TESTING MATERIALS. THE NOMINATION OF THE TESTING LABORATORY AND THE PAYMENTS FOR SUCH TESTING SERVICES SHALL BE MADE BY THE CONTRACTOR. THE OWNER SHALL APPROVE THE LABORATORY NOMINATED TO DO THE TESTING OF MATERIALS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SHOW BY STANDARD TESTING PROCEDURES THAT THE WORK CONSTRUCTED DOES MEET THE REQUIREMENTS OF THE SPECIFICATIONS AND THESE PLANS.
13. OWNER SHALL CALL DIGTESS AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION FOR FIELD LOCATIONS OF UTILITIES IN THE VICINITY OF THE SITE.
14. PROPOSED CONTOURS ARE APPROXIMATE. PROPOSED SPOT ELEVATIONS AND DESIGNATED GRADIENT ARE TO BE USED IN CASE OF DISCREPANCY.
15. REFER TO DIMENSION CONTROL PLAN FOR HORIZONTAL DIMENSIONS.
16. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND APPROVALS PRIOR TO CONSTRUCTION.
17. REFER TO EROSION CONTROL PLAN FOR EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO COMMENCING CONSTRUCTION.
18. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL CONTROL PRIOR TO COMMENCING CONSTRUCTION AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE CONSTRUCTION COMMENCES.
19. AFTER PLACEMENT OF SUBGRADE AND PRIOR TO PLACEMENT OF PAVEMENT, CONTRACTOR SHALL TEST AND OBSERVE PAVEMENT AREAS FOR EVIDENCE OF PONDING. ALL AREAS SHALL ADEQUATELY DRAIN TOWARDS THE INTENDED STRUCTURE TO CONVEY STORM RUNOFF. CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER AND ENGINEER IF ANY DISCREPANCIES ARE DISCOVERED.
20. THE CONTRACTOR SHALL TAKE ALL AVAILABLE PRECAUTIONS TO CONTROL EROSION UNDER EXISTING PAVEMENT ALONG THE PROJECT LIMITS DURING CONSTRUCTION.
21. GRADING FOR ALL SIDEWALKS AND ACCESSIBLE ROUTES INCLUDING CROSSING DRIVEWAYS SHALL CONFORM TO ADA STANDARDS. SLOPES SHALL NOT EXCEED 5% LONGITUDINAL SLOPE OR 2% CROSS SLOPE. SIDEWALK ACCESS TO EXTERNAL BUILDING DOORS SHALL BE ADA COMPLIANT. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF ADA CRITERIA CANNOT BE MET AT ANY LOCATION.
22. CONTRACTOR SHALL ADJUST RIMS, VALVES, HYDRANTS, AND OTHER APPURTENANCES TO MATCH FINISH GRADE.
23. TOPOGRAPHIC INFORMATION IS TAKEN FROM A TOPOGRAPHIC SURVEY BY KIRKMAN ENGINEERING DATED FEBRUARY 12, 2019. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.

SECTION A-A



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MICHAEL T. DOGGETT 98628 LICENSED PROFESSIONAL ENGINEER
5/1/2024

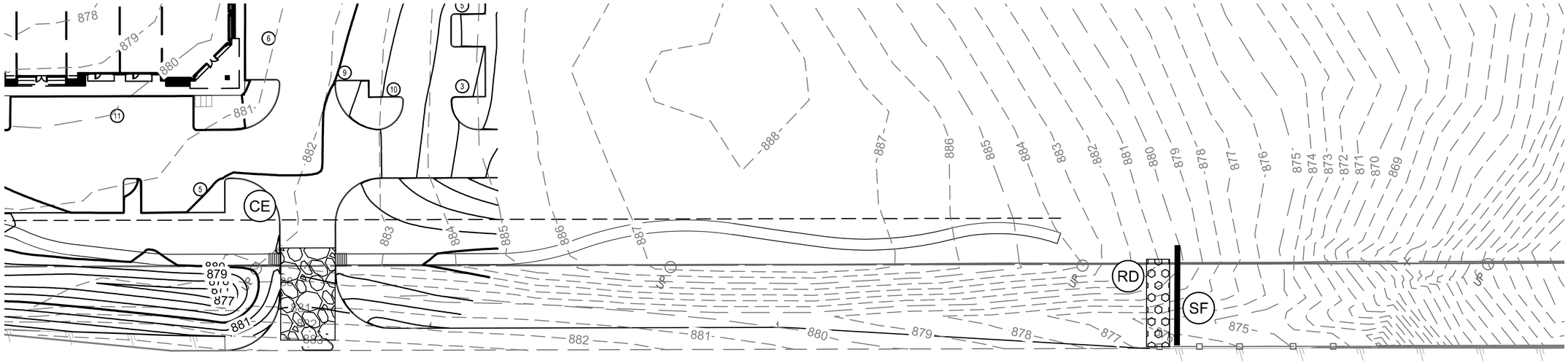
KHA PROJECT	069274402
DATE	JANUARY 2021
SCALE	AS SHOWN
DESIGNED BY	MD
DRAWN BY	AB
CHECKED BY	MD

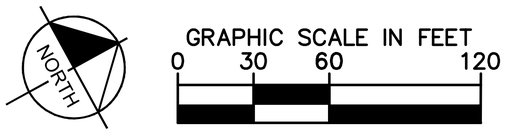
VELSA RANCH
CEDAR PARK
CEDAR PARK, TEXAS

GRADING AND DRAINAGE PLAN

SD-20-00020

SHEET NUMBER
65 of 92





EROSION CONTROL GENERAL NOTES

1. EROSION CONTROL DEVICES AS SHOWN ON THE EROSION CONTROL PLAN FOR THE PROJECT SHALL BE INSTALLED PRIOR TO THE START OF LAND DISTURBING ACTIVITIES ON THE PROJECT.
2. ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS FOR THE PROJECT. CHANGES ARE TO BE APPROVED BEFORE CONSTRUCTION BY THE DESIGN ENGINEER AND THE CITY OF CEDAR PARK ENGINEERING DIVISION.
3. IF THE EROSION CONTROL PLAN AS APPROVED CANNOT CONTROL EROSION AND OFF-SITE SEDIMENTATION FROM THE PROJECT THE EROSION CONTROL PLAN WILL BE REQUIRED TO BE REVISED AND/OR ADDITIONAL EROSION CONTROL DEVICES WILL BE REQUIRED ON SITE.
4. OFF-SITE SOIL BORROW AND SPOIL AREAS ARE CONSIDERED AS PART OF THE PROJECT SITE AND MUST ALSO COMPLY WITH THE EROSION CONTROL REQUIREMENTS FOR THIS PROJECT. THIS INCLUDES THE INSTALLATION OF BMP'S TO CONTROL OFFSITE SEDIMENTATION AND THE ESTABLISHMENT OF PERMANENT GROUND COVER ON DISTURBED AREAS PRIOR TO FINAL APPROVAL OF THE PROJECT.
5. INSPECTIONS SHALL BE MADE WEEKLY AND AFTER STORM EVENTS TO INSURE THAT THE DEVICES ARE FUNCTIONING PROPERLY. WHEN SEDIMENT OR MUD HAS CLOGGED THE VOID SPACES BETWEEN STONES OR MUD IS BEING TRACKED ONTO A PUBLIC ROADWAY, THE AGGREGATE PAD MUST BE WASHED DOWN OR REPLACED. RUNOFF FROM THE WASHDOWN OPERATION SHALL NOT BE ALLOWED TO DRAIN DIRECTLY OFF SITE WITHOUT FIRST FLOWING THROUGH ANOTHER BMP TO CONTROL OFF SITE SEDIMENTATION. PERIODIC RE-GRADING OR THE ADDITION OF NEW STONE MAY BE REQUIRED TO MAINTAIN THE EFFICIENCY OF THE INSTALLATION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTAL OF N.O.I., N.O.T. AND ANY ADDITIONAL INFORMATION REQUIRED BY THE E.P.A. CONTRACTOR SHALL COMPLY WITH ALL E.P.A. STORMWATER POLLUTION PREVENTION REQUIREMENTS.

LEGEND

- 691 — EXISTING CONTOUR
- 697 — PROPOSED CONTOUR
- SF — SILT FENCE
- CE — CONSTRUCTION ENTRANCE
- RD — ROCK CHECK DAM

CAUTION!!

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

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STATE OF TEXAS
MICHAEL T. DOGGETT
98628
LICENSED
PROFESSIONAL ENGINEER
5/1/2024

KHA PROJECT	069274402
DATE	JANUARY 2021
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DRAWN BY	AB
CHECKED BY	MD

VELSA RANCH
CEDAR PARK, TEXAS

CEDAR PARK

EROSION CONTROL PLAN

SD-20-00020

SHEET NUMBER
66 OF 92

INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

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

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

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

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

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

Responsible Party: VLS Properties, LLC
Mailing Address: 3109 Kenai Drive, Unit 109
City, State: Cedar Park, Texas Zip: 78613

Telephone: (512) 337-0418 Fax: N/A

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

Signature of Responsible Party _____ Date 9/9/24

This Maintenance Plan is based on City of Austin Environmental Criteria Manual.

By: _____ Date 9/9/2024

Inspection and Maintenance For BMPs

BATCH DETENTION SYSTEM

- Grease. The smartPOND valve includes a grease fitting on the valve itself which should be greased twice per year. It is also recommended that a thick, mildly heat-resistant grease be used to avoid grease melting out of the groove in warmer temperatures.
- Flange Bolts. There are 6 bolts connecting the smartPOND valve's flange to the outfall pipe or fixture. During routine maintenance intervals, these bolts should be checked for tightness. All bolts should be tightened evenly.
- Perforated Riser. Silt, sediment, and debris can build up around the perforated riser with time. An annual inspection of the unit is necessary to ensure that excess debris or sediment has not limited the drainage capacity of the perforated riser. To access the perforated riser for maintenance, lift the trash cage off of the riser, dig out any accumulated sediment, and clear all perforations.
- Trash Cage. As a part of routine maintenance, it is advisable to remove trash and debris that has accumulated on the trash cage and properly dispose.
- Solar Panel. On all inspection visits, it is necessary to confirm that the solar panel is facing south and is well secured. The solar panel is commonly utilized by birds and insects. It is important to keep the surface clean of bird litter, insect nests and debris in order to maintain optimal performance.
- Battery. Over time, battery terminals may corrode. Check annually for corrosion and clean as needed. The battery should be replaced every 4 to 6 years.
- Storage. The smartPOND valve is shipped in a near-fully assembled configuration and should be stored likewise. The systems are transported and stored on pallets and must remain secured via straps or steel bands to said pallet at all times. The solar panel is not installed at times of transport or storage and should not be installed until the unit is ready to begin operation. The battery may be stored inside the electronics box and if removed, should never be stored on a concrete surface.

Personnel Responsible for Inspections

The agent that performs the inspections should be knowledgeable of this general permit, familiar with the construction site, and knowledgeable of the SWPPP for the site. The contractor is to provide an inspector with a CPESC, CESSWI, or CISEC certification. Documentation of the inspector's qualifications is to be included in the attached Inspector Qualifications Log.

Inspection Schedule

The primary operator is required to choose one of the two inspections listed below.

☐ **Option 1:** Once every seven calendar days. If this alternative schedule is developed, then the inspection must occur regardless of whether or not there has been a rainfall event since the previous inspection.

☒ **Option 2:** Once every 14 calendar days and within 24 hours of the end of a storm event of two inches or greater.

The inspections may occur on either schedule provided that documentation reflects the current schedule and that any changes to the schedule are conducted in accordance with the following provisions: the schedule may be changed a maximum of one time each month, the schedule change must be implemented at the beginning of a calendar month, and the reason for the schedule change must be documented (e.g., end of “dry” season and beginning of “wet” season).

If option 2 is the chosen frequency of inspections a rain gauge must be properly maintained on site or the storm event information from a weather station that is representative of the site location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, proper documentation of the total rainfall measured for that day must be recorded.
Personnel provided by the permittee must inspect:

- disturbed areas of the construction site that have not been finally stabilized;
- areas used for storage of materials that are exposed to precipitation;
- structural controls (for evidence of, or the potential for, pollutants entering the drainage system);
- sediment and erosion control measures identified in the SWP3 (to ensure they are operating correctly); and
- locations where vehicles enter or exit the site (for evidence of off-site sediment tracking).

Reductions in Inspection Frequency

Where sites have been finally or temporarily stabilized or where runoff is unlikely due to winter conditions (e.g. site is covered with snow, ice, or frozen ground exists), inspections must be conducted at least once every month. In arid, semi-arid, or drought-stricken areas, inspections must be conducted at least once every month and within 24 hours after the end of a storm event of 0.5 inches or greater. A record of the total rainfall measured, as well as the approximate beginning and ending dates of winter or drought conditions resulting in monthly frequency of inspections in the attached Rain Gauge Log.

In the event of flooding or other uncontrollable situations which prohibit access to the inspection sites, inspections must be conducted as soon as access is practicable.

Inspection Report Forms

Use the Inspection Report Forms given as a checklist to ensure that all required areas of the construction site are addressed. There is space to document the inspector's name as well as when the inspections regularly take place. The tables will document that the required area was inspected. (If there were any areas of concern, briefly describe them in this space with a more detailed description in the narrative section. Use the last table to document any discharges found during the inspections).
Describe how effective the installed BMPs are performing. Describe any BMP failures that were noted during the investigation and describe any maintenance required due to the failure. If new BMPs are needed as the construction site changes, the inspector can use the space at the bottom of the section to list BMPs to be implemented before the next inspection.

Describe the inspector's qualifications, how the inspection was conducted, and describe any areas of non-compliance in detail. If an inspection report does not identify any incidents of non-compliance, then it must contain a certifying signature stating that the facility or site is in compliance. The report must be signed by a person and in a manner required by 30 TAC 305.128. There is space at the end of the form to allow for this certifying signature.

Whenever an inspection shows that BMP modifications are needed to better control pollutants in runoff, the changes must be completed within seven calendar days following the inspection. If existing BMPs are modified or if additional BMPs are needed, you must describe your implementation schedule, and wherever possible, make the required BMP changes before the next storm event.

The Inspection Report Form functions as the required report and must be signed in accordance with TCEQ rules at 30 TAC 305.128.

Corrective Action

Personnel Responsible for Corrective Actions

Both Primary and Secondary Operators are responsible for maintaining all necessary Corrective Actions. If an individual is specifically identified as the responsible party for modifying the contact information for that individual should be documented in the attached Inspector Qualifications Log.

Corrective Action Forms

The Temporary BMPs must be modified based on the results of inspections, as necessary, to better control pollutants in runoff. Revisions must be completed within seven (7) calendar days following the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in the attached forms and wherever possible those changes implemented before the next storm event. If implementation before the next anticipated storm event is impracticable, these changes must be implemented as soon as practicable. Actions taken as a result of inspections must be properly documented by completing the corrective action forms given.

Schedule of Interim and Permanent Soil Stabilization

Construction practices shall disturb the minimal amount of existing ground cover as required for land clearing, grading, and construction activity for the shortest amount of time possible to minimize the potential of erosion and sedimentation from the site. Existing vegetation shall be maintained and left in place until it is necessary to disturb for construction activity. For this project the following stabilization practices will be implemented:

1. Silt Fencing: As per the project erosion control plan, silt fencing will be applied to the perimeter of the site where the drainage flows offsite.
2. Inlet Protection: As per the project erosion control plan, the newly constructed inlets will be covered by inlet protection to avoid additional silt and sediment from infiltrating the storm system.

Records of the following shall be maintained:

a) The dates when major grading activities occur;
b) The dates when construction activities temporarily or permanently cease on a portion of the site; and
c) The dates when stabilization measures are initiated.

Stabilization measures must be initiated as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, and except as provided in the following, must be initiated no more that fourteen (14) days after the construction activity in that portion of the site has temporarily or permanently ceased:

Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practical.

Where construction activity on a portion of the site is temporarily ceased and earth disturbing activities will be resumed within twenty-one (21) days, temporary stabilization measures do not have to be initiated on that portion of the site.

In arid areas (areas with an average rainfall of 0-10 inches), semiarid areas (areas with an average annual rainfall of 10 to 20 inches), and areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonably arid conditions, stabilization measures must be initiated as soon as practical.

Maintenance

Below are some maintenance practices to be used to maintain erosion and sediment controls:

- All measures will be maintained in good working order. The operator should correct any damage or deficiencies as soon as practicable after the inspection, but in no case later than seven (7) calendar days after the inspection.
- BMP Maintenance (as applicable)
- Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50%. For perimeter controls such as silt fences, berms, etc., the trapped sediment must be removed before it reaches 50% of the above-ground height.
- Silt fence will be inspected for depth of sediment, tears, to see of the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Drainage swale will be inspected and repaired as necessary.
- Inlet control will be inspected and repaired as necessary.
- Diversion dike will be inspected and any breaches promptly repaired.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- If sediment escapes the site, accumulations must be removed at a frequency that minimizes off-site impacts, and prior to the next rain event, if feasible. If the permittee does not own or operate the off-site conveyance, then the permittee must to work with the owner or operator of the property to remove the sediment.
- Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking.

To maintain the above practices, the following will be performed:

- Maintenance and repairs will be conducted before the next anticipated storm event or as necessary to maintain the continued effectiveness of storm water controls. Following an inspection, deficiencies should be corrected no later than seven (7) calendar days after the inspection.

Inspector Qualifications Log*

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

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

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

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

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

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

* The agent that performs the inspections should be knowledgeable of this general permit, familiar with the construction site, and knowledgeable of the SWPPP for the site. The contractor is to provide an inspector with a CPESC, CESSWI, or CISEC certification.

Amendment Log

No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

Construction Activity Sequence Log

Name of Operator	Projected dates Month/year	Activity Disturbing Soil clearing, excavation, etc.	Location on-site where activity will be conducted	Acreage being disturbed

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

Stormwater Control Installation and Removal Log

Stormwater Control	Location On-Site	Installation Date	Removal Date

Stabilization Activities Log

Date Activity Initiated	Description of Activity	Description of Stabilization Measure and Location	Date Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures Initiated

Stabilization and erosion control practices may include, but are not limited to: establishing temporary or permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, and protecting existing trees and vegetation. List practices used where they are located, when they will be implemented, and whether they are temporary (interim) or permanent.

Inspection Frequency Log

Date	Frequency Schedule and Reason for Change

Rain Gauge Log

Date	Location of Rain Gauge	Gauge Reading

General Information					
Name of Project		**Tracking No.**		**Inspection Date**	

Inspector Name, Title & Contact Information	
Present Phase of Construction	
Inspection Location (if multiple inspections are required, specify location where this inspection is being conducted)	

Inspection Frequency

Standard Frequency: ☐ Weekly ☐ Every 14 days and within 24 hours of a 0.25" rain

Increased Frequency: ☐ Every 7 days and within 24 hours of a 0.25" rain

Reduced Frequency:

- ☐ Once per month (for stabilized areas)
- ☐ Once per month and within 24 hours of a 0.25" rain (for arid, semi-arid, or drought-stricken areas during seasonally dry periods or during drought)
- ☐ Once per month (for frozen conditions where earth-disturbing activities are being conducted)

Was this inspection triggered by a 0.25" storm event? ☐ Yes ☐ No

If yes, how did you determined whether a 0.25" storm event has occurred?

☐ Rain gauge on site ☐ Weather station representative of site. Specify weather station source:

Total rainfall amount that triggered the inspection (in inches)**:**

Unsafe Conditions for Inspection

Did you determine that any portion of your site was unsafe for inspection? ☐ Yes ☐ No

If "yes", complete the following:

- Describe the conditions that prevented you from conducting the inspection in this location:

- Location(s) where conditions were found:

Condition and Effectiveness of Erosion and Sediment (E&S) Controls				
Type/Location of E&S Control	**Repairs or Other Maintenance Needed?**	**Corrective Action Required?**	**Date on Which Maintenance or Corrective Action First Identified?**	**Notes**
1.	☐Yes ☐No	☐Yes ☐No		
2.	☐Yes ☐No	☐Yes ☐No		
3.	☐Yes ☐No	☐Yes ☐No		
4.	☐Yes ☐No	☐Yes ☐No		
5.	☐Yes ☐No	☐Yes ☐No		
6.	☐Yes ☐No	☐Yes ☐No		
7.	☐Yes ☐No	☐Yes ☐No		
8.	☐Yes ☐No	☐Yes ☐No		
9.	☐Yes ☐No	☐Yes ☐No		
10.	☐Yes ☐No	☐Yes ☐No		

Condition and Effectiveness of Pollution Prevention (P2) Practices				
Type/Location of P2 Practices	**Repairs or Other Maintenance Needed?**	**Corrective Action Required?**	**Identification Date**	**Notes**
1.	☐Yes ☐No	☐Yes ☐No		
2.	☐Yes ☐No	☐Yes ☐No		
3.	☐Yes ☐No	☐Yes ☐No		
4.	☐Yes ☐No	☐Yes ☐No		
5.	☐Yes ☐No	☐Yes ☐No		
6.	☐Yes ☐No	☐Yes ☐No		
7.	☐Yes ☐No	☐Yes ☐No		
8.	☐Yes ☐No	☐Yes ☐No		
9.	☐Yes ☐No	☐Yes ☐No		
10.	☐Yes ☐No	☐Yes ☐No		

Stabilization of Exposed Soil			
Stabilization Area	**Stabilization Method**	**Have You Initiated Stabilization?**	**Notes**
1.		☐ YES ☐ NO If yes, provide date:	
2.		☐ YES ☐ NO If yes, provide date:	
3.		☐ YES ☐ NO If yes, provide date:	
4.		☐ YES ☐ NO If yes, provide date:	
5.		☐ YES ☐ NO If yes, provide date:	

Description of Discharges	
Was a stormwater discharge or other discharge occurring from any part of your site at the time of the inspection? ☐ Yes ☐ No **If "yes", provide the following information for each point of discharge:**	
Discharge Location	**Observations**
1.	Describe the discharge: At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? ☐ Yes ☐ No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:
2.	Describe the discharge: At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? ☐ Yes ☐ No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:
3.	Describe the discharge: At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? ☐ Yes ☐ No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:

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

Kimley»Horn

Section A – Initial Report (Complete this section within 24 hours of discovering the condition that triggered corrective action)					
Name of Project		Tracking No.		Today's Date	
Date Problem First Discovered			Time Problem First Discovered		
Name and Contact Information of Individual Completing this Form					

What site conditions triggered the requirement to conduct corrective action:

☐ A required stormwater control was never installed, was installed incorrectly, or not in accordance with the requirements in Part 2 and/or 3
☐ The stormwater controls that have been installed and maintained are not effective enough for the discharge to meet applicable water quality standards
☐ A prohibited discharge has occurred or is occurring

Provide a description of the problem:

Deadline for completing corrective action (*Enter date that is either: (1) no more than 7 calendar days after the date you discovered the problem, or (2) if it is infeasible to complete work within the first 7 days, enter the date that is as soon as practicable following the 7th day)*:

If your estimated date of completion falls after the 7-day deadline, explain (1) why you believe it is infeasible to complete work within 7 days, and (2) why the date you have established for making the new or modified stormwater control operational is the soonest practicable timeframe:

Section B – Corrective Action Progress
(Complete this section no later than 7 calendar days after discovering the condition that triggered corrective action)

Section B.1 – Why the Problem Occurred

Cause(s) of Problem (Add an additional sheet if necessary)	How This Was Determined and the Date You Determined the Cause
1.	1.
2.	2.
3.	3.

Section B.2 – Stormwater Control Modifications to be Implemented to Correct the Problem

List of Stormwater Control Modification(s) Needed to Correct Problem (Add an additional sheet if necessary)	Completion Date	SWPPP Update Necessary?	Notes
1.		☐Yes ☐No Date:	
2.		☐Yes ☐No Date:	
3.		☐Yes ☐No Date:	

Kimley»Horn

Section A – Initial Report (Complete this section within 24 hours of discovering the condition that triggered corrective action)					
Name of Project		Tracking No.		Today's Date	
Date Problem First Discovered			Time Problem First Discovered		
Name and Contact Information of Individual Completing this Form					

What site conditions triggered the requirement to conduct corrective action:

☐ A required stormwater control was never installed, was installed incorrectly, or not in accordance with the requirements in Part 2 and/or 3
☐ The stormwater controls that have been installed and maintained are not effective enough for the discharge to meet applicable water quality standards
☐ A prohibited discharge has occurred or is occurring

Provide a description of the problem:

Deadline for completing corrective action (*Enter date that is either: (1) no more than 7 calendar days after the date you discovered the problem, or (2) if it is infeasible to complete work within the first 7 days, enter the date that is as soon as practicable following the 7th day)*:

If your estimated date of completion falls after the 7-day deadline, explain (1) why you believe it is infeasible to complete work within 7 days, and (2) why the date you have established for making the new or modified stormwater control operational is the soonest practicable timeframe:

Section B – Corrective Action Progress
(Complete this section no later than 7 calendar days after discovering the condition that triggered corrective action)

Section B.1 – Why the Problem Occurred

Cause(s) of Problem (Add an additional sheet if necessary)	How This Was Determined and the Date You Determined the Cause
1.	1.
2.	2.
3.	3.

Section B.2 – Stormwater Control Modifications to be Implemented to Correct the Problem

List of Stormwater Control Modification(s) Needed to Correct Problem (Add an additional sheet if necessary)	Completion Date	SWPPP Update Necessary?	Notes
1.		☐Yes ☐No Date:	
2.		☐Yes ☐No Date:	
3.		☐Yes ☐No Date:	

Contractor or Subcontractor Certification and Signature

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

Signature of Contractor or Subcontractor: _____ **Date:**

Printed Name and Affiliation: _____

Certification and Signature by Permittee

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

Signature of Permittee or "Duly Authorized Representative": _____ **Date:**

Printed Name and Affiliation: _____

PILOT-SCALE FIELD TESTING PLAN

(NOT APPLICABLE)

MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION

During construction, standard erosion measures will be used as shown in the construction plans. Runoff from the construction site will be contained by a silt fence until construction is complete. Entry and exit from the site will be through a stabilized construction entrance.

After completion of the project, temporary erosion and sedimentation measures (silt fence and rock berm) will remain in place until vegetative cover is established. Details concerning the erosion/sedimentation protection plan can be found on the Erosion & Sedimentation Control Plans of the construction drawings.

SECTION 4:
ADDITIONAL FORMS

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: Ryan Schubert

Date: 09/06/2024

Signature of Customer/Agent:



Regulated Entity Name: VELSA RANCH

Project Information

Potential Sources of Contamination

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

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

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

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

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

☐ Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.

☐ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.

☑ Fuels and hazardous substances will not be stored on the site.

2. ☑ **Attachment A - Spill Response Actions**. A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.

3. ☑ Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

4. ☑ **Attachment B - Potential Sources of Contamination**. A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Sequence of Construction

5. ☑ **Attachment C - Sequence of Major Activities**. A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.

   ☑ For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.

   ☑ For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

6. ☑ Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: BRUSHY CREEK

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ N/A

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

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

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

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

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

Soil Stabilization Practices

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

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

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

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

Administrative Information

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

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

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

ATTACHMENT A

SPILL RESPONSE ACTIONS

If there is an accidental spill on site, the contractor shall respond with appropriate action. The contractor will be required to contact the owner and in turn the owner will contact the TCEQ in the event of a spill on site. In addition to the following guidance, reference the latest version of TCEQ's Technical Guidance Manual (TGM) RG-348 Section 1.4.16.

Cleanup

- Clean up leaks and spills immediately.
- 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 properly. See the waste management BMPs in this section for specific information.

Minor Spills

- Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.
- Use absorbent materials on small spills rather than hosing down or burying the spill.
- Absorbent materials should be promptly removed and disposed of properly.
- Follow the practice below for a minor spill:
  - Contain the spread of the spill.
  - Recover spilled materials.
  - Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.

Spills should be cleaned up immediately:

- 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 spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

- 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 spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
- Other agencies which may need to be consulted include, but not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

ATTACHMENT B

POTENTIAL SOURCES OF CONTAMINATION

During the construction phase, the following are potential sources of contamination:

- Fuel spills (diesel, gasoline, etc.)
- Potential leaks from construction equipment

Other activities or processes which may be a potential source of contamination primarily involve normal vehicular construction traffic which generates a variety of potential contaminants typically represented by nonpoint source pollution in urban runoff. These may include:

- Total suspended solids
- Petroleum related organic compounds
- Trash and litter

Many of the potential contaminants are related to normal vehicle wear, minor oil and gasoline leaks, and construction vehicle emission.

Another potential source of contamination is related to large leaks or spills related to accidents or malfunction of a construction vehicle. These potential contaminants include gasoline, diesel, oil, and many other liquid and dry chemical products.

ATTACHMENT C

SEQUENCE OF MAJOR ACTIVITIES

Sequence of Major Activities that will disturb soils:

1. Clearing and Grubbing – approx. 12.41 +/- acres disturbed
2. Excavation and Grading – approx. 12.41 +/- acres disturbed
3. Installation of Utilities – approx. 12.41 +/- acres disturbed
4. Final Dress up – approx. 12.41+/- acres disturbed

If portions of the site will have a cease in construction activity lasting longer than 14 days, soil stabilization in those areas shall be initiated as soon as possible prior to the 14th day of inactivity. If activity will resume prior to the 21st day, stabilization measures are not required. If drought conditions or inclement weather prevent action by the 14th day, stabilization measures shall be initiated as soon as possible.

ATTACHMENT D

TEMPORARY BEST MANAGEMENT PRACTICES AND MEASURES

Temporary BMPs to be used are as follows:

- Stabilized construction entrances
- Silt Fence
- Rock Berm
- Inlet protection
- Temporary Sedimentation Basin
- Good housekeeping measures
- All spoils hauled to approved spoils site
- Inspection of BMPs

Construction Sequencing (refer to Attachment C, this form):

- Item #1 - Stabilized construction entrances, temporary sedimentation basin, rock berm, and silt fence will all be installed prior to any soil disturbing activities and maintained until final stabilization.
- Items #2 and #3 - Good housekeeping measures and BMP inspection will be performed during these construction activities.
- Item #4 - Following end of construction activities, site restoration will begin as soon as practicable.

ATTACHMENT E

REQUEST TO TEMPORARILY SEAL A FEATURE

Not applicable.

ATTACHMENT F

STRUCTURAL PRACTICES

Structural practices used to divert flows away from exposed soils, to store flows and to otherwise limit runoff discharge of pollutants from exposed areas of the site will consist of the following:

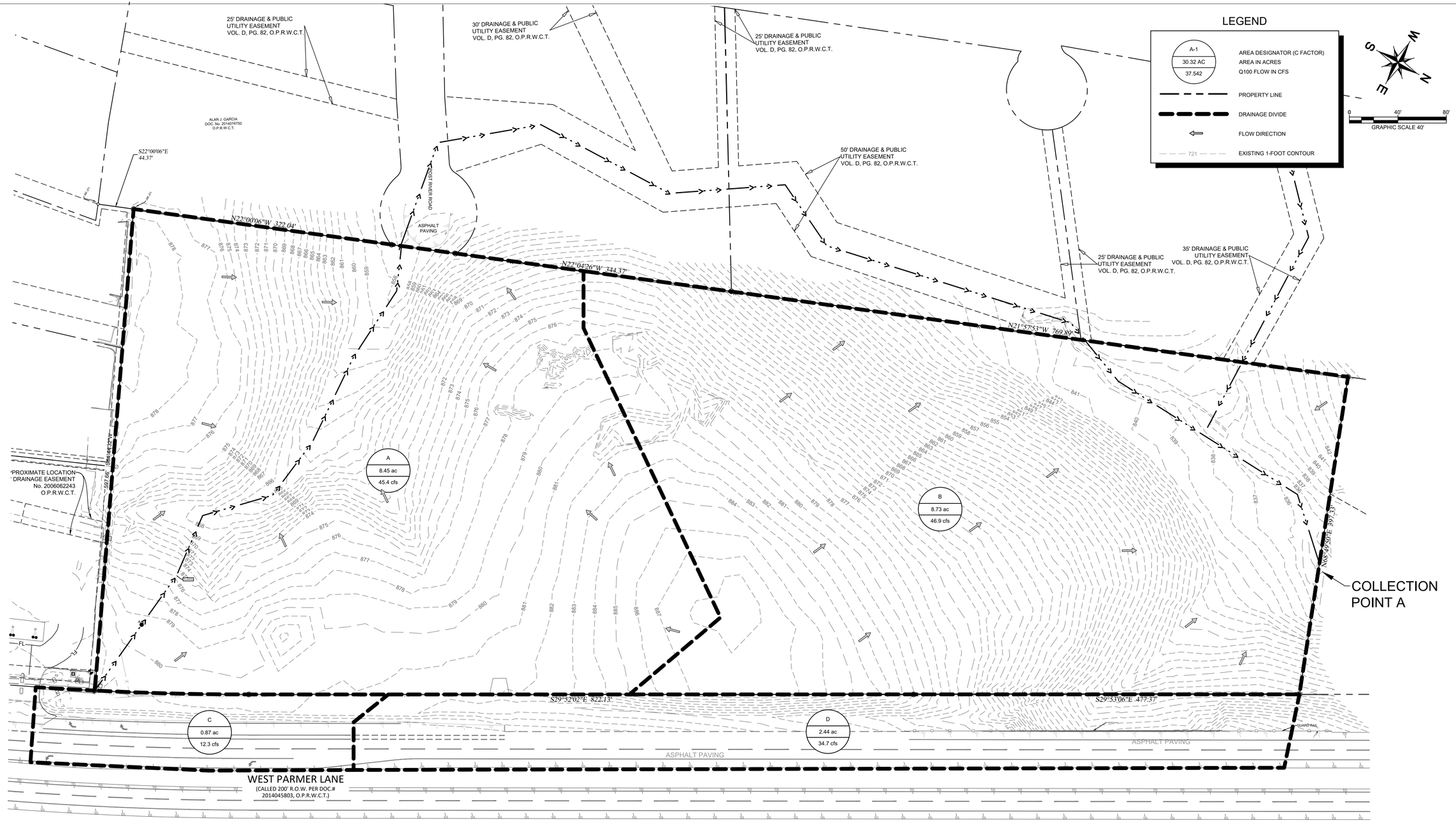
- Silt fence
- Rock berm
- Inlet protection

Each type of structural practice will be placed at locations shown in the plans. During construction, the controls will be maintained and adjusted in the field when necessary to minimize the release of sediment from the project area. Placement of structural practices in floodplains has been avoided to the maximum extent practicable.

ATTACHMENT G

DRAINAGE AREA MAP

See the Drainage Area Map in the construction plan found included in the submittal package.



BENCH MARK LIST

BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

ELEV. = 860.56'

BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN, THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'

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

Drainage Area Table - Allowable Release Summary - DETENTION RELEASE RATE

Condition	A	T_c	C_2	I_2	Q_2	C_{10}	I_{10}	Q_{10}	C_{25}	I_{25}	Q_{25}	C_{100}	I_{100}	Q_{100}	Collection Point
	(ac)	(min)	(in/hr)	(in/hr)	(cfs)	(in/hr)	(in/hr)	(cfs)	(in/hr)	(in/hr)	(cfs)	(in/hr)	(in/hr)	(cfs)	
A	8.45	15.00	0.39	4.14	13.64	0.44	6.14	22.83	0.48	7.54	30.58	0.54	9.94	45.36	Collection Point A
B	8.73	15.00	0.39	4.14	14.10	0.44	6.14	23.58	0.48	7.54	31.60	0.54	9.94	46.86	Collection Point A
C	0.87	5.00	0.73	4.14	26.38	1.44	9.23	11.56	0.48	11.40	47.77	1.54	15.00	201.66	Collection Point A
D	2.44	5.00	0.73	4.14	26.38	2.44	9.23	54.95	0.48	11.40	47.77	2.54	15.00	332.61	Collection Point A
Allowable Release				Q_2	**27.74**		Q_{10}	**46.41**		Q_{25}	**62.18**		Q_{100}	**92.22**	

FLOODPLAIN NOTE

1. THE SITE IS NOT LOCATED WITHIN THE 100 YEAR FLOODPLAIN LIMITS.

No.	REVISIONS	DATE	BY

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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402
DATE DECEMBER 2022
SCALE AS SHOWN
DESIGNED BY RPS
DRAWN BY AH
CHECKED BY RPS

VELSA RANCH
CEDAR PARK, TEXAS

CEDAR PARK

EXISTING DRAINAGE AREA MAP

SD-20-00020
SHEET NUMBER
SHEET 23 OF 92

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IMAGES
Cedar Park Logo
HIDDEN
Cedar Park Logo dlwr
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LAST PLOTTED
10/21/2024 6:54 PM
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DWG NAME
EXISTING DRAINAGE AREA MAP.DWG
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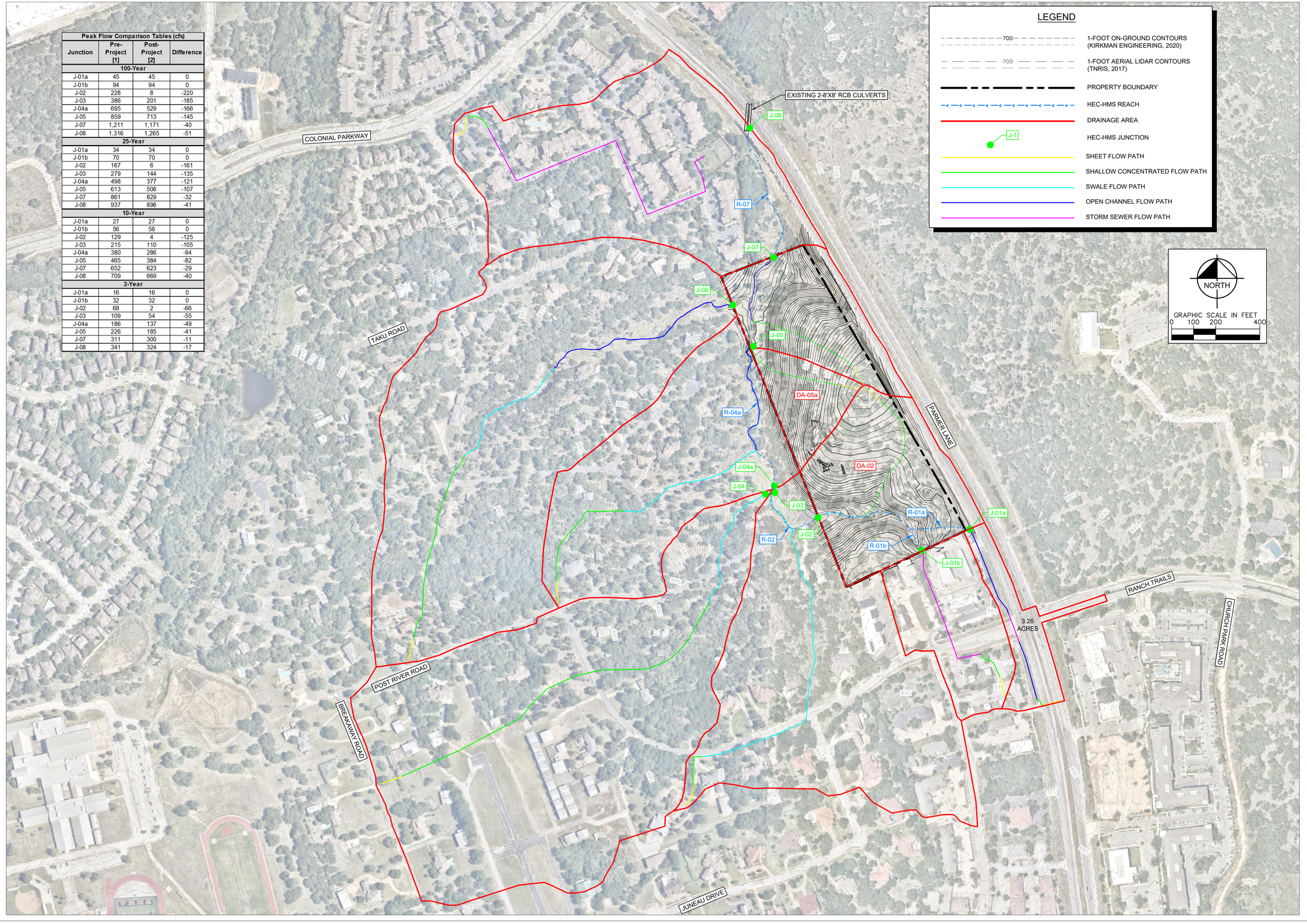
Peak Flow Comparison Tables (cfs)			
Junction	Pre-Project [1]	Post-Project [2]	Difference
100-Year			
J-01a	45	45	0
J-01b	94	94	0
J-02	228	8	-220
J-03	386	201	-185
J-04a	695	529	-166
J-05	859	713	-145
J-07	1,211	1,171	-40
J-08	1,316	1,265	-51
25-Year			
J-01a	34	34	0
J-01b	70	70	0
J-02	167	6	-161
J-03	279	144	-135
J-04a	498	377	-121
J-05	613	506	-107
J-07	861	829	-32
J-08	937	896	-41
10-Year			
J-01a	27	27	0
J-01b	56	56	0
J-02	129	4	-125
J-03	215	110	-105
J-04a	380	286	-94
J-05	465	384	-82
J-07	652	623	-29
J-08	709	669	-40
2-Year			
J-01a	16	16	0
J-01b	32	32	0
J-02	68	2	-66
J-03	109	54	-55
J-04a	186	137	-49
J-05	226	185	-41
J-07	311	300	-11
J-08	341	324	-17



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No.	REVISIONS	DATE	BY

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DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

OVERALL DAM PRE-PROJECT

SD-20-00020
SHEET NUMBER

SHEET 24 OF 92





LEGEND

- A-1 / 30.32 AC / 37.542 — AREA DESIGNATOR (C FACTOR); AREA IN ACRES; Q100 FLOW IN CFS
- PROPERTY LINE
- DRAINAGE DIVIDE
- FLOW DIRECTION
- 721 — PROPOSED 1-FOOT CONTOUR
- 721 — EXISTING 1-FOOT CONTOUR

DRAINAGE AREA TABLE

DRAINAGE AREA NO.	AREA (ac)	RUNOFF COEFFICIENT "C"	TIME OF CONCENTRATION (minutes)	RAINFALL INTENSITY "I"100 (in/hr)	RAINFALL INTENSITY "I"25 (in/hr)	TOTAL FLOW Q100 (cfs)	COLLECTION POINT	TOTAL FLOW Q25 (cfs)
A-1	0.39	0.97	5	15.24	11.450	5.8	GRATE INLET	4.360
A-2	0.09	0.97	5	15.24	11.450	1.3	Y-INLET	0.996
B-2	0.46	0.97	5	15.24	11.450	6.8	GRATE INLET	5.124
B-3	0.33	0.97	5	15.24	11.450	4.9	GRATE INLET	3.690
B-4	0.44	0.97	5	15.24	11.450	6.5	GRATE INLET	4.918
B-5	0.98	0.97	5	15.24	11.450	14.5	GRATE INLET	10.896
B-6	0.43	0.97	5	15.24	11.450	6.4	GRATE INLET	4.773
B-7	0.60	0.97	5	15.24	11.450	8.9	GRATE INLET	6.706
C-1	1.35	0.97	5	15.24	11.450	19.9	GRATE INLET	14.967
C-2	0.01	0.97	5	15.24	11.450	0.2	AREA DRAIN	0.147
D-1	0.87	0.97	5	15.24	11.450	12.8	CURB INLET	9.615
D-2	0.01	0.97	5	15.24	11.450	0.1	AREA DRAIN	0.065
E-1	1.10	0.97	5	15.24	11.450	16.2	CURB INLET	12.179
E-2	0.72	0.97	5	15.24	11.450	10.7	GRATE INLET	8.037
OFF-1	4.98	0.97	5	15.24	11.450	73.6	LINE F	55.264
OFF-2	1.51	0.97	5	15.24	11.450	22.3	Y-INLET	16.763
OFF-3	0.95	0.97	5	15.24	11.450	14.0	OFFSITE	10.534
PARMER B-4	1.18	0.76	5	15.24	11.450	13.7	AREA INLET	10.296
PARMER B-5	0.31	0.79	5	15.24	11.450	3.7	SLOPED END TREATMENT	2.772

Time of Concentration - Parmer B-4

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	434
P2 =	4.03		
T (min) =	1.38	T (min) =	3.17
Total Tc (min) = 4.55			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area E-2

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	315
P2 =	4.03		
T (min) =	1.38	T (min) =	2.30
Total Tc (min) = 3.68			
Total Tc (min) = 5.00			Minimum used

BENCH MARK LIST

BM # 1: THE SITE BENCHMARK IS A COTTON SPINDLE SET IN ASPHALT PAVING ON THE SOUTHWESTERN EDGE OF PARMER LANE. THE BENCHMARK IS LOCATED APPROXIMATELY 50 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.

ELEV. = 860.56'

BM # 2: THE SITE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTHWESTERN EDGE OF A CONCRETE CURB ALONG THE NORTH LINE OF LOT 1B, BREAKAWAY PARK SECTION SEVEN. THE BENCHMARK IS LOCATED APPROXIMATELY 23 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF THE SUBJECT TRACT.

ELEV.= 882.07'

Know what's below. Call before you dig.

Time of Concentration - Area E-1

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	25	L (ft)	0
P2 =	4.03		
T (min) =	0.46	T (min) =	0.00
Total Tc (min) = 0.46			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area D-1

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	20	L (ft)	0
P2 =	4.03		
T (min) =	0.38	T (min) =	0.00
Total Tc (min) = 0.38			
Total Tc (min) = 5.00			Mininum used

Time of Concentration - Offsite

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	244
P2 =	4.03		
T (min) =	1.38	T (min) =	1.78
Total Tc (min) = 3.17			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area C-1

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	15	L (ft)	0
P2 =	4.03		
T (min) =	0.30	T (min) =	0.00
Total Tc (min) = 0.30			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area B-2

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	503
P2 =	4.03		
T (min) =	1.38	T (min) =	3.67
Total Tc (min) = 5.06			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area B-1

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	59
P2 =	4.03		
T (min) =	1.38	T (min) =	0.43
Total Tc (min) = 1.81			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area A-4

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	122
P2 =	4.03		
T (min) =	1.38	T (min) =	0.89
Total Tc (min) = 2.27			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area A-3

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	222
P2 =	4.03		
T (min) =	1.38	T (min) =	1.62
Total Tc (min) = 3.01			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area A-1

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	15
P2 =	4.03		
T (min) =	1.38	T (min) =	0.11
Total Tc (min) = 1.49			
Total Tc (min) = 5.00			Minimum used

Time of Concentration - Area A-2

Sheet Flow		Shallow Concentrated Flow	
n =	0.015	paved?	no
S (ft/ft)	0.02	S (ft/ft)	0.02
L (ft)	100	L (ft)	148
P2 =	4.03		
T (min) =	1.38	T (min) =	1.08
Total Tc (min) = 2.46			
Total Tc (min) = 5.00			Minimum used

No.	REVISIONS	DATE	BY

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STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402	DATE DECEMBER 2022	SCALE AS SHOWN	DESIGNED BY RPS	DRAWN BY AH	CHECKED BY RPS

VELSA RANCH

CEDAR PARK, TEXAS

CEDAR PARK

DRAINAGE AREA MAP

SD-20-00020

SHEET NUMBER

SHEET 25 OF 92

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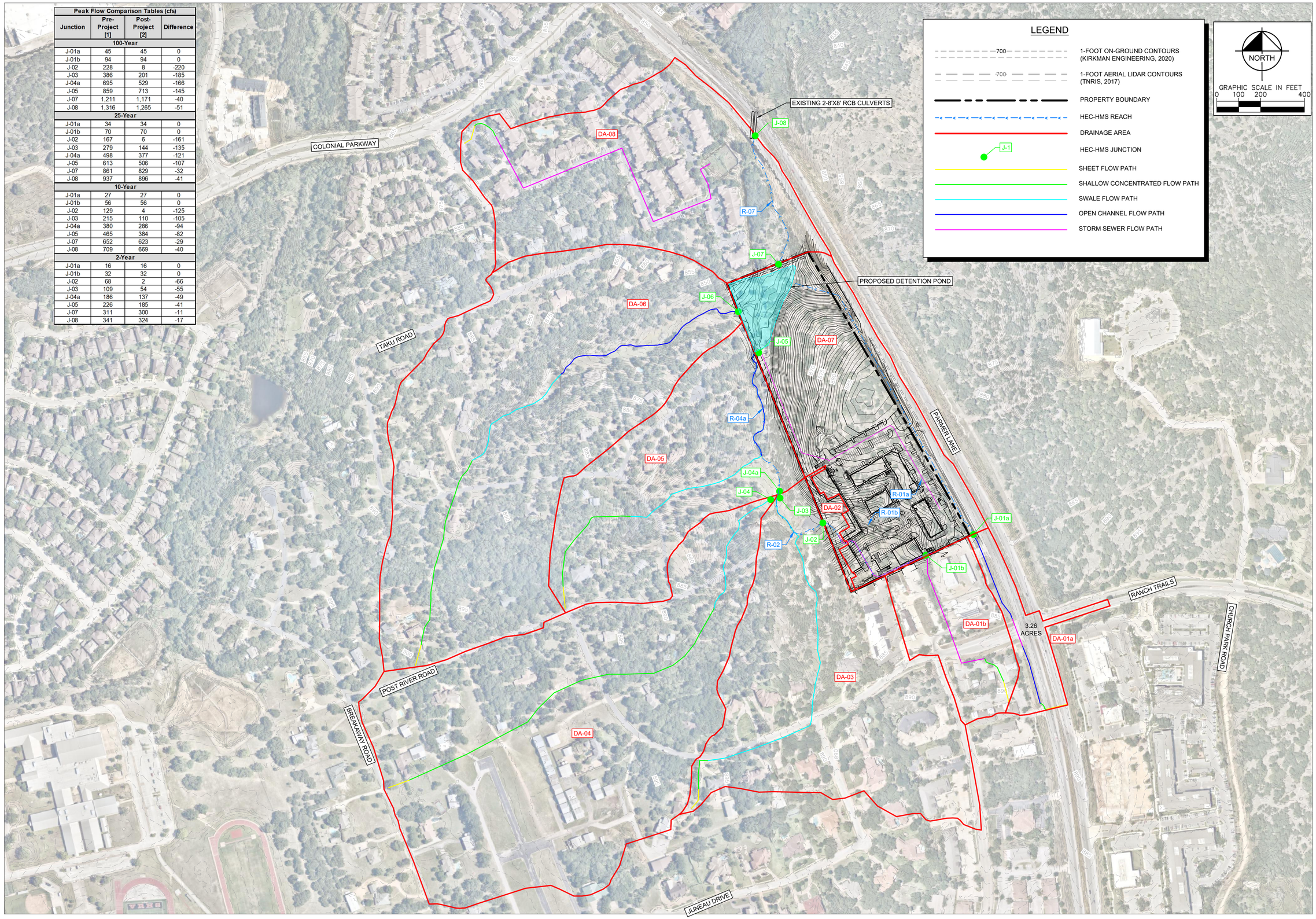
Peak Flow Comparison Tables (cfs)			
Junction	Pre-Project [1]	Post-Project [2]	Difference
100-Year			
J-01a	45	45	0
J-01b	94	94	0
J-02	228	8	-220
J-03	386	201	-185
J-04a	695	529	-166
J-05	859	713	-145
J-07	1,211	1,171	-40
J-08	1,316	1,265	-51
25-Year			
J-01a	34	34	0
J-01b	70	70	0
J-02	167	6	-161
J-03	279	144	-135
J-04a	498	377	-121
J-05	613	506	-107
J-07	861	829	-32
J-08	937	896	-41
10-Year			
J-01a	27	27	0
J-01b	56	56	0
J-02	129	4	-125
J-03	215	110	-105
J-04a	380	286	-94
J-05	465	384	-82
J-07	652	623	-29
J-08	709	669	-40
2-Year			
J-01a	16	16	0
J-01b	32	32	0
J-02	68	2	-66
J-03	109	54	-55
J-04a	186	137	-49
J-05	226	185	-41
J-07	311	300	-11
J-08	341	324	-17



IMAGES
MAP
LAST SAVED
PLOT DATE
PLOT PATH
DWG PATH
DWG NAME
Cedar Park Logo EPSG26914_Data20200518_Lat30.524768_Lon-97.781354_Map0.597
Parcel Layer
12/2/2022 4:29 PM
10/21/2024 6:06 PM
K:\AUS_CIVIL\069274402\CEDAR PARK - FARMER 71 ACRE\CAD\PLANSHEETS
K:\AUS_CIVIL\069274402\CEDAR PARK - FARMER 71 ACRE\CAD\PLANSHEETS\OVERALL EXHIBIT.DWG
OVERALL EXHIBIT.DWG [24 OVERALL EXHIBIT (POST-PROJECT)]

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

No.	REVISIONS	DATE	BY

Kimley»Horn

© 2022 KIMLEY-HORN AND ASSOCIATES, INC.

260 EAST DAVIS STREET, SUITE 100, MCKINNEY, TX 75069
PHONE: 469-301-2580 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM TX F-928

STATE OF TEXAS
RYAN P. SCHUBERT
145714
LICENSED
PROFESSIONAL ENGINEER
10/21/2024

KHA PROJECT 069274402	
DATE	DECEMBER 2022
SCALE	AS SHOWN
DESIGNED BY	RPS
DRAWN BY	AH
CHECKED BY	RPS

VELSA RANCH

CEDAR PARK, TEXAS

OVERALL DAM POST-PROJECT

SD-20-00020

SHEET NUMBER

SHEET 26 OF 92

ATTACHMENT H

TEMPORARY SEDIMENT POND PLAN AND CALCULATION

A temporary sedimentation basin is designed to be provided during the early phases of construction since there are more than 10 acres of land disturbance proposed. These plans and calculations can be found in the Erosion Control Plans in the Civil Plans.

ATTACHMENT I

INSPECTION AND MAINTENANCE FOR BMPs

Silt Fence

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

(2) Remove sediment when buildup reaches 6 inches.

(3) Replace any torn fabric or install a second line of fencing parallel to the torn section.

(4) Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.

(5) When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

Construction Entrance

(1) Inspection should be made weekly or after each rainfall event and repair or replacement should be made promptly as needed by the contractor.

(2) Inspect and realign dikes as needed to prevent gaps between sections.

(3) Accumulated silt should be removed after each rainfall, and disposed of in a manner which will not cause additional siltation.

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

Inlet Protection

(1) Inspection should be made weekly and after each rainfall. Repair or replacement should be made promptly as needed by the contractor.

(2) Remove sediment when buildup reaches a depth of 3 inches. Removed sediment should be deposited in a suitable area and in such a manner that it will not erode.

(3) Check placement of device to prevent gaps between device and curb.

(4) Inspect filter fabric and patch or replace if torn or missing.

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

Rock Berm

(1) Inspection should be made weekly and after each rainfall by the responsible party. For installations in streambeds, additional daily inspections should be made.

(2) Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.

(3) Repair any loose wire sheathing.

(4) The berm should be reshaped as needed during inspection.

(5) The berm should be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.

(6) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

ATTACHMENT J

SCHEDULE OF INTERIM AND PERMANENT SOIL STABILIZATION

If portions of the site will have a cease in construction activity lasting longer than 14 days, soil stabilization in those areas shall be initiated as soon as possible prior to the 14th day of inactivity. If activity will resume prior to the 21st day, stabilization measures are not required. If drought conditions or inclement weather prevent action by the 14th day, stabilization measures shall be initiated as soon as possible.

Records will be kept on the site of the dates when construction activities temporarily and permanently cease on portions of the site, and the dates when stabilization measures are initiated.

Permanent stabilization practices will be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Interim Soil Stabilization Schedule:

- Install silt fence and rock berm prior to all soil disturbing activities.

Permanent Soil Stabilization Schedule:

- Revegetate site as shown on plans after completion of all construction activities.

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

I Shane Rotter,
Print Name

Environmental Project Planner,
Title - Owner/President/Other

of TXDOT,
Corporation/Partnership/Entity Name

have authorized Venkat Gudapuri,
Print Name of Agent/Engineer

of VLS Properties, LLC
Print Name of Firm

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

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to $10,000 per day per violation.

2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.

3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.

4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.

5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Applicant's Signature

10/21/24
Date

THE STATE OF _____ §

County of _____ §

BEFORE ME, the undersigned authority, on this day personally appeared _____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 ____ day of _____,_____.

NOTARY PUBLIC

Typed or Printed Name of Notary

MY COMMISSION EXPIRES: _____

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

I Venkat Gudapuri,
Print Name

Owner,
Title - Owner/President/Other

of VLS Properties LLC,
Corporation/Partnership/Entity Name

have authorized Ryan Schubert
Print Name of Agent/Engineer

of Kimley-Horn
Print Name of Firm

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

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to $10,000 per day per violation.

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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:

Venkat Chudapari
Applicant's Signature

09/09/24
Date

THE STATE OF TEXAS §

County of Williamson §

BEFORE ME, the undersigned authority, on this day personally appeared Venkat Chudapari 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 9th day of September, 2024.

NOTARY PUBLIC

PRARTHANA JAYA PRAKASH NARAYAN
Notary Public, State of Texas
Comm. Expires 04-05-2027
Notary ID 134292004

Prarthana Jayprakash
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 4-05-2027

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Velsa Ranch

Regulated Entity Location: NW Corner of Parmer Lane and Kenai Drive

Name of Customer: VLS Properties, LLC Contact Person: Venkat Gudapuri

Phone: (512) - 337- 0418 Customer Reference Number (if issued):CN CN605903327

Regulated Entity Reference Number (if issued):RN RN111283388

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	17.40 Acres	$6,500
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: 07/11/2024 Application Fee Schedule

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

Check Payable to the "Texas Commission on Environmental Quality"

Core Data Form

TCEQ Core Data Form

TCEQ Use Only

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

SECTION I: General Information

1. Reason 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)	5/20/2021

☒ 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:*
VLS Properties, LLC	Previous Customer

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

11. Type of Customer: ☒ Corporation ☐ Individual Partnership: ☐ General ☐ Limited

Government: ☐ City ☐ County ☐ Federal ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

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

13. Independently Owned and Operated?
☒ Yes ☐ No

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

☒ Owner ☐ Operator ☒ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

15. Mailing Address:	3109 Kenai Drive, Unit 109						
	City	Cedar Park	State	TX	ZIP	78613	ZIP + 4	2540

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*
NA	vgudapuri@gmail.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(512) 337-0418	0	( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (*If 'New Regulated Entity" is selected below this form should be accompanied by a permit application*)

☒ 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 Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).

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

Velsa Ranch

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	N/A							
	City	Cedar Park	**State**	TX	**ZIP**	78613	**ZIP + 4**	
24. County	Williamson County							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	North of the northwest corner of Parmer Lane and Kenai Drive, Cedar Park, TX

26. Nearest City	**State**	**Nearest ZIP Code**
Cedar Park	TX	78613

27. Latitude (N) In Decimal:	30.524513	**28. Longitude (W) In Decimal:**	97.776239

Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	31	28.24	97	46	34.46

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)
5399		455219	

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

Retail, Restaurant, and Office Use

34. Mailing Address:	**3109 Kenai Drive, Unit 109**							
	City	**Cedar Park**	**State**	**TX**	**ZIP**	**78613**	**ZIP + 4**	**2540**

35. E-Mail Address:	**vgudaprui@gmail.com**

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** ***(if applicable)***
(512) 337-418		**( ) -**

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	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Ryan Schubert, P.E.	41. Title:	Civil Engineer

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512) 551-1846		( ) -	Ryan.Schubert@Kimley-Horn.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:	Kimley-Horn	**Job Title:**	Project Engineer
Name *(In Print):*	Ryan Schubert, P.E.	**Phone:**	(512) 551-1846
Signature:		**Date:**	10/22/24