512.439.4700
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TBPELS 10110501
www.LJA.com
7500 Rialto Boulevard, Building II, Suite 100, Austin, Texas 78735

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CONTRIBUTING ZONE PLAN

FOR

BARTON CREEK SECTIONS K, L, & O PHASE 1

MAY 2025

PREPARED FOR

HOLDEN HILLS, L.P.
212 LAVACA STREET, SUITE 300
AUSTIN, TEXAS 78701
(512) 478-5788

PREPARED BY

LJA ENGINEERING, INC.
7500 RIALTO BLVD, BUILDING II, SUITE 100
AUSTIN, TEXAS 78735
(512) 439-4700
FIRM NO. F-1386

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: Barton Creek Sections K, L, & O Phase 1					**2. Regulated Entity No.: 111435921**				
3. Customer Name: Holden Hills., L.P.					**4. Customer No.: CN606123644**				
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):**		341.51 acres	
9. Application Fee:	$10,000		**10. Permanent BMP(s):**			Sedimentation/Filtration			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Travis		**14. Watershed:**			Barton 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	_X_ Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda ___Dripping Springs ___Kyle ___Mountain City ___San Marcos ___Wimberley ___Woodcreek	___Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	___Austin ___Cedar Park ___Florence ___Georgetown ___Jerrell ___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.
Lauren Crone LAUREN CRONE Print Name of Customer/Authorized Agent
Lauren Crone 6/12/25 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):	

Modification of a Previously Approved Contributing Zone Plan Checklist

X **Edwards Aquifer Application Cover Page (TCEQ-20705)**

X **Modification of a Previously Approved Contributing Zone Plan Form (TCEQ-10259)**

Attachment A - Original Approval Letter and Approved Modification Letters
Attachment B - Narrative of Proposed Modification
Attachment C - Current site plan of the approved project

X **Contributing Zone Plan Application (TCEQ-10257)**

X **Storm Water Pollution Prevention Plan (SWPPP)**

-OR-

– **Temporary Stormwater Section (TCEQ-0602)**

– **Copy of Notice of Intent (NOI)**

X **Agent Authorization Form (TCEQ-0599), if application submitted by agent**

X **Application Fee Form (TCEQ-0574)**

– **Check Payable to the "Texas Commission on Environmental Quality"**

X **Core Data Form (TCEQ-10400)**

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: Lauren Crone, P.E.

Date: 6/12/25

Signature of Customer/Agent:

Lauren Crone

Project Information

1. Current Regulated Entity Name: Barton Creek Sections K, L, & O Phase 1
   Original Regulated Entity Name: Barton Creek Sections K, L, & O Phase 1
   Assigned Regulated Entity Number(s) (RN): RN111435921
   Edwards Aquifer Protection Program ID Number(s): 11002939
   ☒ The applicant has not changed and the Customer Number (CN) is: 606123644
   ☐ The applicant or Regulated Entity has changed. A new Core Data Form has been provided.

2. ☒ **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):

☒ 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. ☒ 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.

CZP Modification Summary	***Approved Project***	***Proposed Modification***
Acres	341.51	341.51
Type of Development	Residential	Residential
Number of Residential Lots	367	367
Impervious Cover (acres)	17.95	15.25
Impervious Cover (%)	5.26	4.47
Permanent BMPs	Retention/Irrigation	Sedimentation/Filtration
Other	N/A	_____

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

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

5. ☒ **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. ☒ **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.
   - ☐ 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. ☒ 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. ☒ 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.

ATTACHMENT A – Original Approval Letter and Approved Modification Letters

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

May 13, 2022

Ms. Erin Pickens
Stratus Properties Operating Co., L.P.
212 Lavaca Street, Suite 300
Austin, Texas 78701-3955

Re: Edwards Aquifer, Travis County

NAME OF PROJECT: Barton Creek Sections K, L, and O Phase 1; Located from Tacoma Circle to Lost Creek Blvd; ETJ of Austin, 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. RN111435921; Additional Program ID No. 11002939

Dear Ms. Pickens:

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 LJA Engineering, Inc. on behalf of Stratus Properties Operating Co., L.P. on February 17, 2022. Final review of the CZP was completed after additional material was received on May 4, 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 341.51 acres. It will include 12 single-family lots, 2 landscape lots and 1 Open Space lot, 9 multi-family lots, 1 Water Quality lot and spray-irrigation fields, drainage, and roadway improvements. The impervious cover will be 17.95 acres (5.26 percent). Project wastewater will be disposed of by conveyance to the existing Travis County MUD No. 4 South Water Recycling Center owned by the Travis County MUD No. 4.

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, three retention ponds with irrigation fields, 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 15,624 pounds of TSS generated from the 17.95-acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project.

The individual treatment measures will consist of three retention ponds (A, B, and C) with a combined water quality volume of 204,209 cubic-feet, each with dedicated spray irrigation fields totaling 4.43-acres.

SPECIAL CONDITIONS

I. All permanent pollution abatement measures shall be operational prior to occupancy of the facility.

II. All sediment and/or media removed from the water quality basins 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.

<u>During Construction:</u>

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.

<u>After Completion of Construction:</u>

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 Austin Regional Office at 512-339-2929.

Sincerely,

Lillian Butler

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

LIB/dv

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

cc: Ms. Lauren Crone, PE, LJA Engineering, Inc.

Jon Niermann, *Chairman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 26, 2024

Ms Erin Pickens
Holden Hills, LP
212 Lavaca Street, Suite 300
Austin, Texas 78701

Re: Modification of an approved Contributing Zone Plan (CZPMOD)
Barton Creek Sections K L & O Phase 1; Location extends from Tacoma Circle to Lost Creek Boulevard; Travis County, Texas
Edwards Aquifer Protection Program ID: 11004014, Regulated Entity No. RN111435921

Dear Ms. Pickens:

The Texas Commission on Environmental Quality (TCEQ) has completed its review on the application for the above-referenced project submitted to the Edwards Aquifer Protection Program (EAPP) by LJA Engineering, Inc. on behalf of the applicant, Holden Hills, LP on May 21, 2024. Final review of the application was completed after additional material was received on July 19, 2024 and July 25, 2024.

As presented to the TCEQ, the application was prepared in general compliance with the requirements of 30 Texas Administrative Codes (TAC) Chapter §213. The permanent best management practices (BMPs) and measures represented in the application were prepared by a Texas licensed professional engineer (PE). All construction plans and design information were sealed, signed, and dated by a Texas licensed PE. Therefore, the application for the construction of the proposed project and methods to protect the Edwards Aquifer are **approved,** subject to applicable state rules and the conditions in this letter.

This approval expires two 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 officially requested. This approval or extension will expire, and no extension will be granted if more than 50 percent of the project has not been completed within ten years from the date of 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 contributing zone plan or modification to a plan. A motion for reconsideration must be filed in accordance with 30 TAC §50.139.

BACKGROUND

A CZP was approved by letter dated May 13, 2022 (EAPP ID No. 11002939). The plan included three retention/irrigation systems for water quality treatment.

PROJECT DESCRIPTION

The proposed residential project will have an area of approximately 341.51 acres. The modification will change the three retention/irrigation systems (EAPP ID No 11002939) to three partial sedimentation/filtration basin. The impervious cover will be 17.95 acres (5.26 percent). Project wastewater will be disposed of by conveyance to the existing Travis County MUD No. 4 Wastewater Treatment Plant.

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, three partial sedimentation/filtration basins, designed using the TCEQ technical guidance, *RG-348, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices,* will be constructed to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 15,624 pounds of TSS generated from the 17.95 acres of impervious cover. The approved permanent BMPs and measures meet the required 80 percent removal of the increased load in TSS caused by the project.

The permanent BMPS shall be operational prior to occupancy or use of the proposed project. Inspection, maintenance, repair, and retrofit of the permanent BMPs shall be in accordance with the approved application.

SPECIAL CONDITIONS

I. This modification is subject to all the special and standard conditions listed in the approval letter dated May 13, 2022 (EAPP ID No. 11002939).

STANDARD CONDITIONS

1. The plan holder (applicant) must comply with all provisions of 30 TAC Chapter §213 and all technical specifications in the approved plan. The plan holder should also acquire and comply with additional and separate approvals, permits, registrations or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, Dam Safety, Underground Injection Control) as required based on the specifics of the plan.

2. In addition to the rules of the Commission, the plan holder must also comply with state and local ordinances and regulations providing for the protection of water quality as applicable.

Prior to Commencement of Construction:

3. The plan holder of any approved contributing zone plan must notify the EAPP and obtain approval from the executive director prior to initiating any modification to the activities described in the referenced application following the date of the approval.

4. The plan holder must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the EAPP no later than 48 hours prior to commencement of the regulated activity. Notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person.

5. Temporary erosion and sedimentation (E&S) controls as described in the referenced application, 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. 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:

6. The application must indicate the placement of permanent aboveground storage tanks facilities for static hydrocarbons and hazardous substances with cumulative storage capacity of 500 gallons or more. Subsequent permanent storage tanks on this project site require a modification to be submitted and approved prior to installation.

7. 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 reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.

8. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge must be filtered through appropriately selected BMPs.

9. 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.

10. 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.

After Completion of Construction:

11. Owners of permanent BMPs and temporary measures must ensure that the BMPs and measures are constructed and function as designed. A Texas licensed PE **must certify** in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the EAPP within 30 days of site completion.

12. 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 or the ownership of the property is transferred to the entity. A copy of the transfer of responsibility must be filed with the executive director through the EAPP within 30 days of the transfer. TCEQ form, Change in Responsibility for Maintenance on Permanent BMPs and Measures (TCEQ-10263), may be used.

The holder of the approved contributing zone plan is responsible for compliance with Chapter §213 subchapter B and any condition of the approved plan through all phases of plan implementation. Failure to comply with any condition within this approval letter is a violation of Chapter §213 subchapter B and is subject to administrative rule or orders and penalties as provided under §213.25 of this title (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. Upon legal transfer of this property, the new owner is required to comply with all terms of the approved contributing zone plan.

This action is taken as delegated by the executive director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Mr. James "Bo" Slone, P.G. of the Edwards Aquifer Protection Program at (512) 239-6994 or the regional office at 512-339-2929.

Sincerely,

Monica Reyes

Monica Reyes, Section Manager
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality

MR/jcs

cc: Ms. Lauren Crone, P.E., LJA Engineering, Inc.

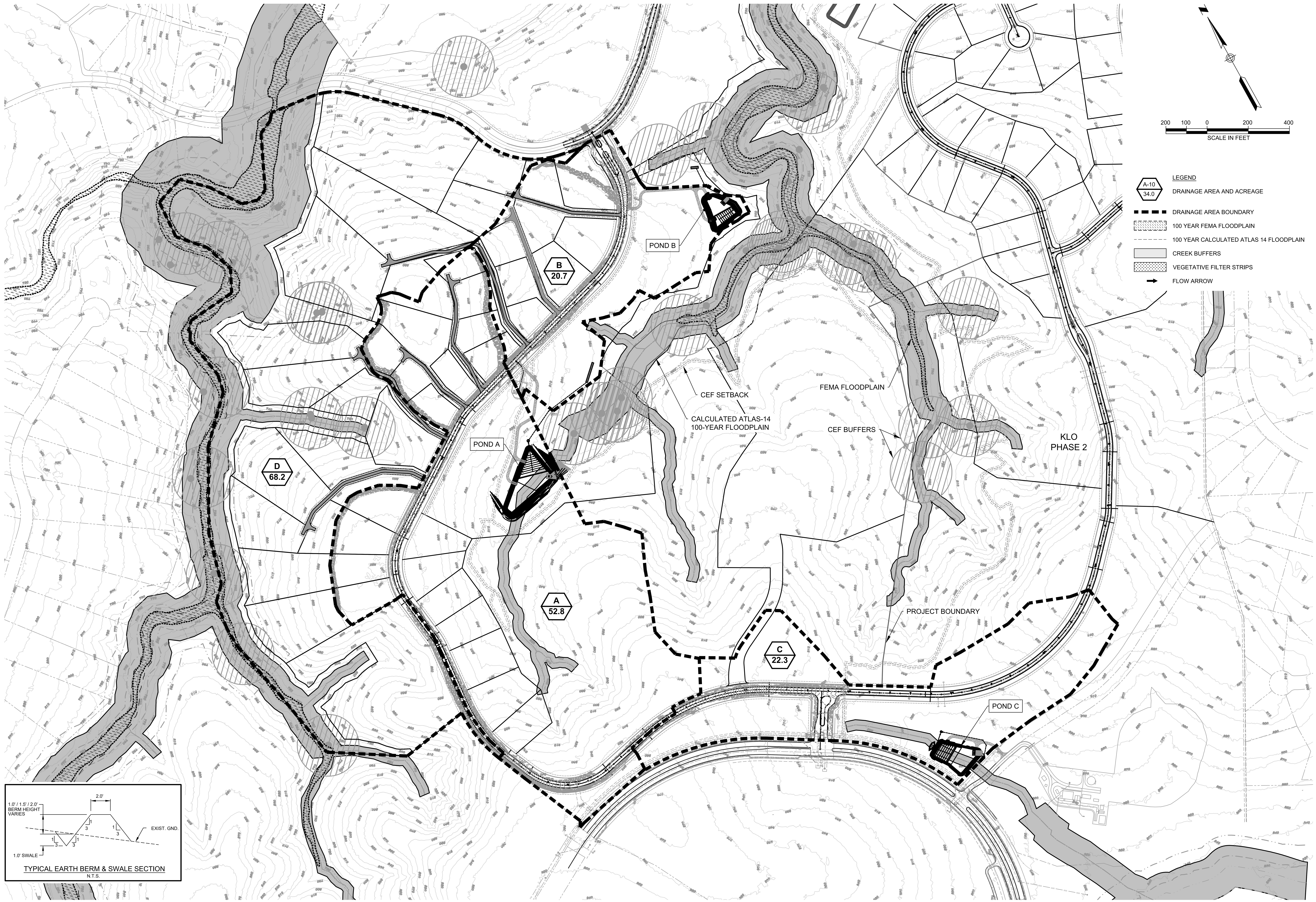
ATTACHMENT B – Project Narrative of Proposed Modification

In the previous application, Barton Creek Sections K, L, & O Phase 1 was a proposed 341.51-acre single-family development consisting of 34 residential lots; 7 condo/multi-family lots; 1 open space, drainage and WQE lot; and 1 residential accessory amenity lot. Note that each of the condo/multi-family lots would provide their own CZP submittal and proposed BMPs. The development consists of paved roads, sidewalks, water, wastewater, drainage and dry utilities that remain unchanged since the previous CZP submittal. The only change associated with this CZP Modification is the addition of 7 single family driveways and the associated impervious cover. The limits of construction consists of 58.05 acres and the proposed impervious cover totals to 4.47 percent of the site area.

The project is bounded on the north by Lost Creek Country Club, the west by Barton Creek Section J, Phase 2, the east by City of Austin property/Gaines Ranch/Regents and the south by Barton Creek Section N.

A previous modification was submitted and approved to change the three water quality ponds from retention/irrigation to sedimentation/filtration. The approval is included within this application.

ATTACHMENT C – Current Site Plan of the Approved Project



BARTON CREEK
SECTIONS 'K', 'L', & 'O' (PHASE 1)
PAVING & DRAINAGE IMPROVEMENTS
WATER QUALITY PLAN

REVISIONS			
NO.	DESCRIPTION	BY	DATE

DATE: MAY 2025
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: KLO-Ph1-DNG.dwg

LAUREN CRONE
128018
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
5/20/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A208-440-426

SHEET NO. 4 OF 123 SHEETS

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: Lauren Crone, P.E.

Date: 6/12/25

Signature of Customer/Agent:

Lauren Crone

Regulated Entity Name: Barton Creek Section K, L & O Phase 1

Project Information

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

   Contact Person: Erin Pickens
   Entity: Holden Hills LP
   Mailing Address: 212 Lavaca Street, Suite 300
   City, State: Austin, TX Zip: 78701
   Telephone: 512-478-5788 Fax: _____
   Email Address: epickens@stratusproperties.com

5. Agent/Representative (If any):

   Contact Person: Lauren Crone, P.E.
   Entity: LJA Engineering, Inc.
   Mailing Address: 7500 Rialto Boulevard, Building II, Suite 100
   City, State: Austin, TX Zip: 78735
   Telephone: 512-439-4700 Fax: _____
   Email Address: lcrone@lja.com

6. Project Location:

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

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

   The project is bounded on the north by Lost Creek Boulevard, the west by Barton Creek Section J, Phase 2, the east by City of Austin property/Gaines Ranch/Regents and the south by Barton Creek Section N.

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: 367
☐ Commercial
☐ Industrial
☐ Other: _____

13. Total project area (size of site): 341.51 Acres

    Total disturbed area: 58.05 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		÷ 43,560 =	
Parking		÷ 43,560 =	
Other paved surfaces	664,290	÷ 43,560 =	15.25
Total Impervious Cover	664,290	÷ 43,560 =	15.25

Total Impervious Cover 15.25 **÷ Total Acreage** 341.51 **X 100 =** 4.47**% Impervious Cover**

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

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

For Road Projects Only

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

☒ N/A

18. Type of project:

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

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

☐ Concrete
☐ Asphaltic concrete pavement
☐ Other: _____

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

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

21. Pavement Area:

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

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

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

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

Stormwater to be generated by the Proposed Project

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

Wastewater to be generated by the Proposed Project

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

☒ N/A

26. Wastewater will be disposed of by:

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

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

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

☒ Sewage Collection System (Sewer Lines):

The sewage collection system will convey the wastewater to the Travis County MUD No. 4 Barton 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" = 200'.

35. 100-year floodplain boundaries:

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

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

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

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

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

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

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

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

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

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

42. ☒ Surface waters (including wetlands).

    ☐ N/A

43. ☒ Locations where stormwater discharges to surface water.

    ☐ There will be no discharges to surface water.

44. ☐ Temporary aboveground storage tank facilities.

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

45. ☐ Permanent aboveground storage tank facilities.

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

46. ☒ Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

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

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

☐ N/A

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

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

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

☐ N/A

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

☐ N/A

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ N/A

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

dated. Construction plans for the proposed permanent BMPs and measures are attached and include: Design calculations, TCEQ Construction Notes, all proposed structural plans and specifications, and appropriate details.

☐ N/A

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

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

    ☐ N/A

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

    ☒ N/A

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

    ☐ N/A

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

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

60. ☒ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a

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

Administrative Information

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

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

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

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

ATTACHMENT A – Road Map

LJA Engineering

7500 Rialto Blvd, Building II
Suite 100
Austin, Texas 78735

Phone 512.439.4700
Fax 512.439.4716

BARTON CREEK K, L, & O
ROAD MAP

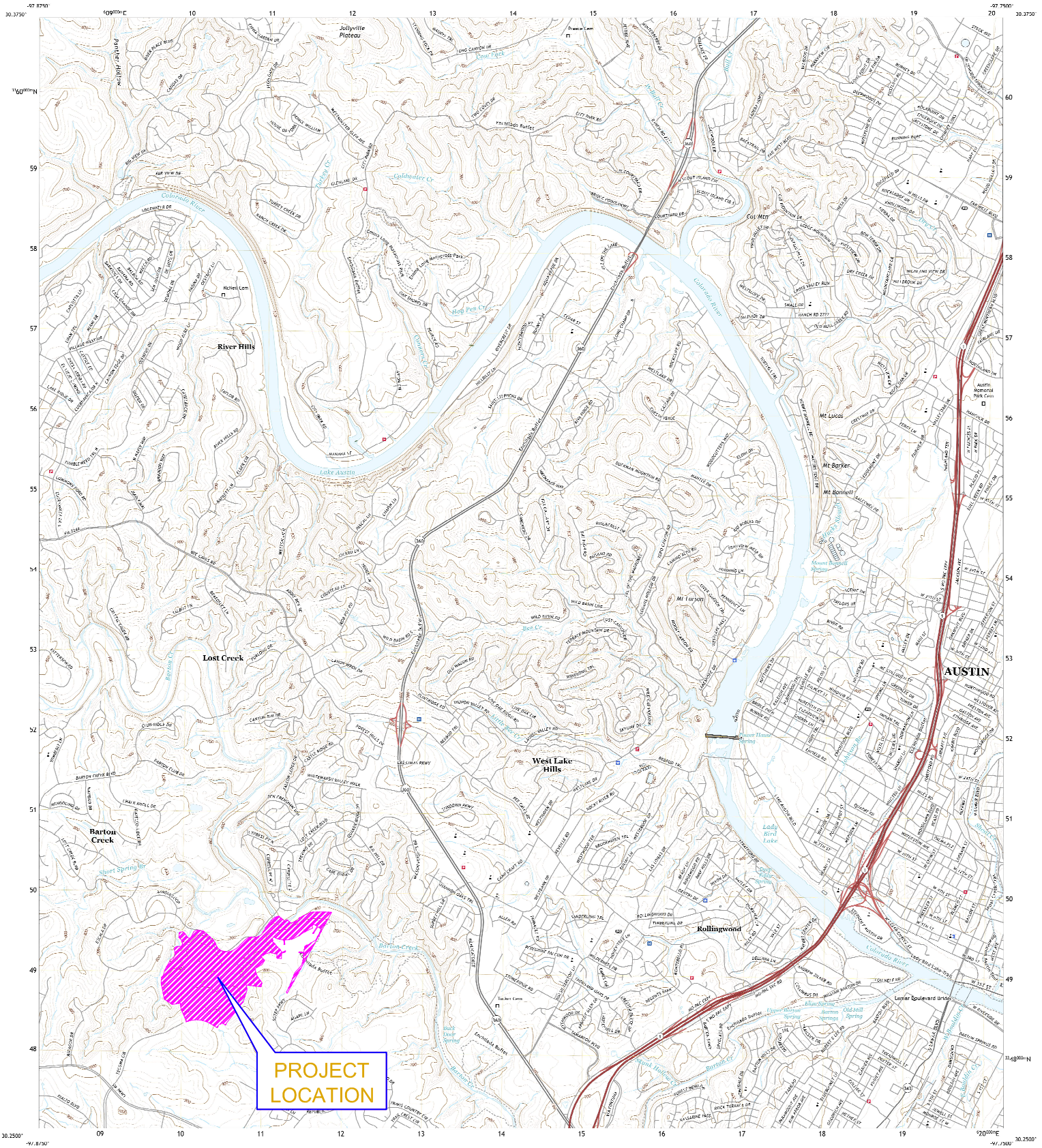
SCALE: 1" = 2000'

ATTACHMENT B – USGS Quadrangle Map

USGS
science for a changing world
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map
US Topo

AUSTIN WEST QUADRANGLE
TEXAS - TRAVIS COUNTY
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

SCALE 1:24 000

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

CONTOUR INTERVAL 20 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

TEXAS
QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

ADJOINING QUADRANGLES
1 Mansfield Dam
2 Jollyville
3 Pflugerville West
4 Rew Cove
5 Austin East
6 Signal Hill
7 Oak Hill
8 Montopolis

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

AUSTIN WEST, TX
2019

ATTACHMENT C – Project Narrative of Proposed Modification

In the previous application, Barton Creek Sections K, L, & O Phase 1 was a proposed 341.51-acre single-family development consisting of 34 residential lots; 7 condo/multi-family lots; 1 open space, drainage and WQE lot; and 1 residential accessory amenity lot. Note that each of the condo/multi-family lots would provide their own CZP submittal and proposed BMPs. The development consists of paved roads, sidewalks, water, wastewater, drainage and dry utilities that remain unchanged since the previous CZP submittal. The only change associated with this CZP Modification is the addition of 7 single family driveways and the associated impervious cover. The limits of construction consists of 58.05 acres and the proposed impervious cover totals to 4.47 percent of the site area.

The project is bounded on the north by Lost Creek Country Club, the west by Barton Creek Section J, Phase 2, the east by City of Austin property/Gaines Ranch/Regents and the south by Barton Creek Section N.

A previous modification was submitted and approved to change the three water quality ponds from retention/irrigation to sedimentation/filtration. The approval is included within this application.

ATTACHMENT D – Factors Affecting Surface Water Quality

Potential sources of sediment to stormwater runoff:

- Clearing and grubbing operations
- Grading and site excavation operations
- Vehicle tracking
- Topsoil stripping and stockpiling
- Landscaping operation

Potential sources other than sediment:

- small fueling activities
- minor equipment maintenance
- sanitary facilities
- solvents, adhesives, paints, etc.
- paving materials, concrete, mortar

ATTACHMENT E – Volume and Character of Stormwater

Due to a watershed divide located on site, the property drains to the south and to the northeast. Approximately 13.4 acres drain south towards Sycamore Creek. The remaining acreage drains to the northeast towards Barton Creek. Approximately 9.2 acres of upgradient stormwater is conveyed onto the property from the west. The proposed development will cause an increase in runoff due to impervious cover and reduced time of concentration; however, that increase will be offset through water quality ponds. The water quality calculations to demonstrate the removal of the minimum eighty percent (80%) pollutant load for the developed site are provided following these attachments.

Runoff coefficients for the 25-year and 100-year events before construction are estimated to be 0.36 and 0.46, respectively. The post construction runoff coefficients are expected to be 0.56 and 0.64, respectively.

As a result of these measures, the volume and character of the stormwater runoff from the site will be effectively unchanged from predevelopment levels.

ATTACHMENT F – Suitability Letter from Authorized Agent (if OSSF is proposed)

Not Applicable.

ATTACHMENT G – Alternative Secondary Containment Methods (if AST with an alternative method of secondary containment is proposed)

Not Applicable.

ATTACHMENT H – AST Containment Structure Drawings (if AST is proposed)

Not Applicable.

ATTACHMENT I – 20% or Less Impervious Cover Waiver

Not Applicable.

ATTACHMENT J – BMPs for Upgradient Stormwater

Due to a watershed divide located on site, the property drains to the south and to the northeast. Approximately 13.4 acres drain south towards Sycamore Creek. The remaining acreage drains to the northeast towards Barton Creek. Approximately 9.2 acres of upgradient stormwater is conveyed into the property from the west into the proposed section. 0.7 acres of impervious cover is included within the 9.2 acres of upgradient stormwater.

ATTACHMENT K – BMPs for On-Site Stormwater

Temporary Controls: Prior to site clearing, grading and excavation, the stabilized construction entrance will be installed, tree protection/limit of construction fencing will be installed, and silt fencing and rock berms will be installed at the downstream edge of disturbed areas where shallow sheet runoff occurs. Rock berms will be placed where more concentrated flow occurs. The water quality ponds will act as sediment basins for the project. There are 58.05 acres of disturbed area draining to the sediment basins while under construction. All three basins provide the required storage for the 2-year, 24-hour storm. During all aspects of construction, the contractor shall maintain these controls. The contractor will be responsible for stabilization practices (revegetation). The contractor will be responsible for removing the temporary controls once the revegetation is established.

Permanent Controls: After construction there will be runoff from paved areas and managed lawn/landscape areas. These areas will be mitigated by permanent revegetation of disturbed areas and through use of three sedimentation/filtration ponds.

There are three water quality areas in the Barton Creek Sections K, L, & O Phase 1 subdivision. The provided water quality volume is 205,709 cf.

ATTACHMENT L – BMPs for Surface Streams

Temporary Controls: Prior to site clearing, grading and excavation, the stabilized construction entrance will be installed, tree protection/limit of construction fencing will be installed, and silt fencing and rock berms will be installed at the downstream edge of disturbed areas where shallow sheet runoff occurs. Rock berms will be placed where more concentrated flow occurs. The water quality ponds will act as a sediment trap for the project. There are 58.05 acres of disturbed area draining to the sediment basins while under construction. All three basins provide the required storage for the 2-year, 24-hour storm. During all aspects of construction, the contractor shall maintain these controls. The contractor will be responsible for stabilization practices (revegetation). The contractor will be responsible for removing the temporary controls once the revegetation is established.

Permanent Controls: After construction there will be runoff from paved areas and managed lawn/landscape areas. These areas will be mitigated by permanent revegetation of disturbed areas and through use of three sedimentation/filtration ponds. There are three water quality areas in the Barton Creek K, L, & O Phase 1 subdivision. The required water quality volume is 165,858 cf. The provided water quality volume is 205,709 cf.

ATTACHMENT M – Construction Plans

Copies of the construction plans are included with this submittal.

ATTACHMENT N – Inspection, Maintenance, Repair, and Retrofit Plan

See attached document labeled “Maintenance Plan for Permanent Best Management Practices for Barton Creek Sections K, L, & O Phase 1”.

ATTACHMENT O – Pilot-Scale Field Testing Plan, if BMPs not based on Complying with the Edwards Aquifer Rules: Technical Guidance for BMPs

Not Applicable

ATTACHMENT P – Measures for Minimizing Surface Stream Contamination

Temporary Controls: Prior to site clearing, grading and excavation, the stabilized construction entrance will be installed, tree protection/limit of construction fencing will be installed, and silt fencing and rock berms will be installed at the downstream edge of disturbed areas where shallow sheet runoff occurs. Rock berms will be placed where more concentrated flow occurs. The water quality ponds will act as a sediment trap for the project. There are 58.05 acres of disturbed area draining to the sediment basins while under construction. All three basins provide the required storage for the 2-year, 24-hour storm. During all aspects of construction, the contractor shall maintain these controls. The contractor will be responsible for stabilization practices (revegetation). The contractor will be responsible for removing the temporary controls once the revegetation is established.

Permanent Controls: After construction there will be runoff from paved areas and managed lawn/landscape areas. These areas will be mitigated by permanent revegetation of disturbed areas and through use of three sedimentation/filtration ponds. There are three water quality areas in the Barton Creek K, L, & O Phase 1 subdivision. The required water quality volume for the drainage areas is 165,858 cf. The provided water quality volume is 205,709 cf.

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Barton Creek Section K, L & O Phase 1
Date Prepared: 5/22/2025

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

Page 3-29 Equation 3.3: $L_M = 27.7(A_N \times P)$

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 =	Travis	
Total project area included in plan * =	164.00	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	15.25	acres
Total post-development impervious cover fraction * =	0.09	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	8077	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = 4

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER
6/12/25

WATER QUALITY SUMMARY TABLE - BARTON CREEK SECTIONS K,L, & O PHASE 1 (S.F. DRIVEWAYS)						
WATER QUALITY DRAINAGE AREA	DRAINAGE AREA (acre)	I.C. (acre)	L_m REQ. (lbs.)	= L_m DES. (lbs.)	WQV REQ. (c.f.)	WQV DES. (c.f.)
A - SAND FILTER	52.80	3.14	2733	3858	79618	110174
B - SAND FILTER	20.70	4.37	3804	4557	45024	45795
C - SAND FILTER	22.30	1.77	1541	2060	41217	49740
UNTREATED (*LESS THAN 15% I.C.)	68.20	5.97	WQ NOT REQUIRED AS I.C. FOR THIS AREA IS UNDER 15%			
TOTAL	164.00	15.25	8077	10475	165858	205709

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Barton Creek Section K, L & O Phase 1
Date Prepared: 5/22/2025

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

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

where:

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

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

County =	Travis	
Total project area included in plan * =	164.00	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	15.25	acres
Total post-development impervious cover fraction * =	0.09	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	8077	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = 4

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

Drainage Basin/Outfall Area No. = A

Total drainage basin/outfall area =	52.80	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	3.14	acres
Post-development impervious fraction within drainage basin/outfall area =	0.06	
$L_{M\ THIS\ BASIN}$ =	2733	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP =	Sand Filter	
Removal efficiency =	89	percent

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

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:

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

A_C =	52.80	acres
A_I =	3.14	acres
A_P =	49.66	acres
L_R =	3858	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 3858 lbs.

F = 1.00

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

Rainfall Depth =	4.00	inches
Post Development Runoff Coefficient =	0.09	
On-site Water Quality Volume =	66348	cubic feet

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

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

Storage for Sediment = 13270

Total Capture Volume (required water quality volume(s) x 1.20) = 79618 cubic feet

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

9. Filter area for Sand Filters

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

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin =	**79618**	cubic feet	
Minimum filter basin area =	**3686**	square feet	
Maximum sedimentation basin area =	**33174**	square feet	**For minimum water depth of 2 feet**
Minimum sedimentation basin area =	**8294**	square feet	**For maximum water depth of 8 feet**

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins =	**79618**	cubic feet	
Minimum filter basin area =	**6635**	square feet	
Maximum sedimentation basin area =	**26539**	square feet	**For minimum water depth of 2 feet**
Minimum sedimentation basin area =	**1659**	square feet	**For maximum water depth of 8 feet**

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

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Date Prepared: 5/22/2025

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

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

where:

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

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

County =	Travis	
Total project area included in plan * =	164.00	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	15.25	acres
Total post-development impervious cover fraction * =	0.09	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	8077	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = 4

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

Drainage Basin/Outfall Area No. = B

Total drainage basin/outfall area =	20.70	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	4.37	acres
Post-development impervious fraction within drainage basin/outfall area =	0.21	
$L_{M\ THIS\ BASIN}$ =	3804	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Sand Filter
Removal efficiency = 89 percent

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

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:

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

A_C =	20.70	acres
A_I =	4.37	acres
A_P =	16.33	acres
L_R =	4557	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 4300 lbs.

F = 0.94

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

Rainfall Depth =	2.40	inches
Post Development Runoff Coefficient =	0.21	
On-site Water Quality Volume =	37520	cubic feet

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

Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	7504	
Total Capture Volume (required water quality volume(s) x 1.20) =	45024	cubic feet

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

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

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin =	**45024**	cubic feet	
Minimum filter basin area =	**2084**	square feet	
Maximum sedimentation basin area =	**18760**	square feet	**For minimum water depth of 2 feet**
Minimum sedimentation basin area =	**4690**	square feet	**For maximum water depth of 8 feet**

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins =	**45024**	cubic feet	
Minimum filter basin area =	**3752**	square feet	
Maximum sedimentation basin area =	**15008**	square feet	**For minimum water depth of 2 feet**
Minimum sedimentation basin area =	**938**	square feet	**For maximum water depth of 8 feet**

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Barton Creek Section K, L & O Phase 1
Date Prepared: 5/22/2025

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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 =	Travis	
Total project area included in plan * =	164.00	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	15.25	acres
Total post-development impervious cover fraction * =	0.09	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	8077	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = 4

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

Drainage Basin/Outfall Area No. = C

Total drainage basin/outfall area =	22.30	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	1.77	acres
Post-development impervious fraction within drainage basin/outfall area =	0.08	
$L_{M\ THIS\ BASIN}$ =	1541	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Sand Filter
Removal efficiency = 89 percent

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

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:

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

A_C =	**22.30**	acres
A_I =	**1.77**	acres
A_P =	**20.53**	acres
L_R =	**2060**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = **2060** lbs.

F = **1.00**

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

Rainfall Depth =	**4.00**	inches
Post Development Runoff Coefficient =	**0.11**	
On-site Water Quality Volume =	**34347**	cubic feet

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

Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**6869**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**41217**	cubic feet

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

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

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin =	**41217**	cubic feet	
Minimum filter basin area =	**1908**	square feet	
Maximum sedimentation basin area =	**17174**	square feet	**For minimum water depth of 2 feet**
Minimum sedimentation basin area =	**4293**	square feet	**For maximum water depth of 8 feet**

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins =	**41217**	cubic feet	
Minimum filter basin area =	**3435**	square feet	
Maximum sedimentation basin area =	**13739**	square feet	**For minimum water depth of 2 feet**
Minimum sedimentation basin area =	**859**	square feet	**For maximum water depth of 8 feet**

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Barton Creek Section K, L & O Phase 1
Date Prepared: 5/22/2025

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where:

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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 =	Travis	
Total project area included in plan * =	164.00	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	15.25	acres
Total post-development impervious cover fraction * =	0.09	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	8077	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = 4

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

Drainage Basin/Outfall Area No. = D

Total drainage basin/outfall area =	68.20	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	5.97	acres
Post-development impervious fraction within drainage basin/outfall area =	0.09	
$L_{M\ THIS\ BASIN}$ =	5196	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP =	Untreated	
Removal efficiency =	0	percent

ATTACHMENT N – Inspection, Maintenance, Repair and Retrofit Plan

Maintenance Plan
For Permanent Best Management Practices
Barton Creek Development – Sections K, L, & O Phase 1

PROJECT NAME: *Barton Creek Development – Sections K, L, & O Phase 1*

ADDRESS: *3101 Lost Creek Blvd*
CITY, STATE ZIP: *Austin, TX 78746*

The Best Management Practices associated with Water Quality for this project includes the use of sedimentation/filtration ponds.

MAINTENANCE FOR VEGETATED BMPS

Routine Maintenance for All Vegetated BMPs

Once a vegetated area is well established, little additional maintenance is generally necessary. The key to establishing a viable vegetated feature is the care and maintenance it receives in the first few months after it is planted. Once established, all vegetated BMPs require some basic maintenance to insure the health of the plants including:

All vegetated BMPs shall be inspected twice annually for erosion or damage to vegetation. Additional inspections after periods of heavy runoff is most desirable.

Bare spots and areas of erosion identified during semi-annual inspections must be replanted and restored. Construction of a level spreader device may be necessary to re-establish shallow overland flow.

Sediment built up in vegetated BMPs, especially along the upstream boundary and in the level spreader, must be removed during semi-annual inspections.

If level spreaders are needed, they shall be inspected at least semi-annually and repairs made as necessary.

Irrigation system shall be inspected at least semi-annually during operation. Maintenance and spray adjustments shall occur to maintain proper operation.

MAINTENANCE FOR SENSITIVE FEATURES AND BUFFER AREAS

Routine Maintenance for All Sensitive Features and Buffer Areas

All sensitive features and buffer areas shall be inspected twice annually for erosion or damage to vegetation or the feature itself. Additional inspections after periods of heavy runoff is most desirable.

Bare spots and areas of erosion or damage to the feature identified during semi-annual inspections must be replanted and restored to natural conditions. Excessive sediment build up must also be removed during semi-annual inspections. Debris and litter accumulated must also be removed.

Protective fences around buffer areas shall be inspected during semi-annual inspections to ensure damage has not occurred.

MAINTENANCE FOR STRUCTURAL (STORMWATER CAPTURE) SYSTEMS

Routine Maintenance for All Structural Systems

Water quality ponds of all types have similar routine maintenance requirements, although most ponds have some unique maintenance needs, as detailed in this section. The following general maintenance requirements apply to all pond BMPs.

BMP facilities must be inspected at least six times per year (twice during or immediately following wet weather) to evaluate facility operation.

During each inspection, erosion areas inside and downstream of the BMP must be identified and repaired or revegetated immediately.

Grass areas in and around earthen ponds must be mowed at least twice annually to limit vegetation height to 18 inches. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas. When mowing of grass is performed, a mulching mower must be used, or grass clippings must be caught and removed, as with all water quality BMPs.

Debris and litter accumulated in the facility must be removed during each inspection.

Excessive sediment must be removed and properly disposed of in an approved off-site disposal area. Remove excessive sediment at least two times per year or when accumulations reach 3 inches in depth.

Design drawdown times must not be exceeded by more than 24 hours. The design drawdown time is 72 hours from the first accumulation of stormwater or when the pond reaches full capacity. If drawdown times are excessive, repairs should occur immediately.

With each inspection, any damage to the structural elements of the system (pipes, concrete drainage structures, gabions, retaining walls, etc.) must be identified and repaired immediately.

A maintenance access route shall extend to the pond from a public or private road. The maintenance access shall have a slope of no greater than 15 percent.

Inlet and outlet structures should be inspected and cleaned out of any debris or sediment. If there are major damage to either the inlet or outlet controls, the damaged areas should be repaired.

RECORD KEEPING OF INSPECTIONS, MAINTENANCE AND REPAIRS SHALL BE MAINTAINED BY THE RESPONSIBLE PARTY.

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 for Maintenance: Holden Hills, L.P.

Address: 212 Lavaca Street, Suite 300

City, State Zip: Austin, Texas 78701

Telephone Number: (512) 478-5788

Erin D Pickens

Signature of Responsible Party
Erin D. Pickens, Senior Vice President

2/7/2022

Date

BARTON CREEK SECTIONS K, L, & O PHASE 1

TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM

STORMWATER POLLUTION PREVENTION PLAN

MAY 2025

PREPARED FOR:

STRATUS PROPERTIES OPERATING CO., L.P.
212 LAVACA STREET, SUITE 300
Austin, Texas 78701
(512) 477-2400

PREPARED BY:

LJA ENGINEERING, INC.
7500 RIALTO BLVD., BUILDING II
SUITE 100
AUSTIN, TEXAS 78735
(512) 439-4700
FRN-F-1386

TABLE OF CONTENTS

BARTON CREEK SECTIONS K, L, & O PHASE 1

TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM

STORMWATER POLLUTION PREVENTION PLAN

A. SITE DESCRIPTION

1. Project Name: BARTON CREEK SECTIONS K, L, & O PHASE 1

2. Location: The project is bounded on the north by Lost Creek Country Club, the west by Barton Creek Section J, Phase 2, the east by City of Austin property/Gaines Ranch/Regents and the south by Barton Creek Section N. (see *Exhibit 1*).

3. Facility Operators: Stratus Properties Operating Co., L.P. *(Plans and Specifications)*
   212 Lavaca Street
   Austin, Texas 78701
   512-478-5788
   Date N.O.I. submitted:
   General Permit Authorization No.:

   _____ *(Contractor)*

   Date N.O.I. submitted:
   General Permit Authorization No.:

4. Property Owner: Stratus Properties Operating Co., L.P.
   212 Lavaca Street
   Austin, Texas 78701
   512-478-5788

5. Project Description: Barton Creek Sections K, L, & O Phase 1 is a proposed 341.51 acre development that will consist of single family homes and condos. The development will include a paved drive, concrete sidewalks, utilities that will include water, wastewater, and drainage, and dry utilities. The limits of construction consists of 58.05 acres. The proposed impervious cover equals 15.25 acres or 4.47% of the site area. The site is located in the Colorado river Watershed. The property is located on a divide with the south draining to Sycamore creek and the north draining to Barton creek.

6. Site Area: The construction limits and disturbance caused by construction will include approximately 58.05 acres.

7. Runoff Coefficient: Currently, the site area for the Barton Creek Sections K, L, & O Phase 1 property is represented by a composite 25-year and 100-year runoff coefficient of 0.39 and 0.46, respectively. After construction is completed, the composite 25-year and 100-year runoff coefficient will be 0.56 and 0.64, respectively.

8. Existing Soils: According to the USDA Soil Survey of Travis County, the soil classifications within the proposed subdivision are Real-Comfort-Doss (RcD), Brackett-Rock outcrop-Comfort (BtD) Bolar Clay (BrB) and Anhalt Clay (AnB).

   Real-Comfort-Doss (RcD): This gently sloping soil is mostly on the low hills and ridges on uplands in the Edwards Plateau. Typically this soil has a dark brown gravelly loam about 8 inches thick. The subsoil, which extends down to a depth of about 12 inches, is reddish brown clay that is about 15 percent limestone and caliche gravel. The underlying material is weakly cemented limestone interbedded with thin layers of indurated limestone. The soil is moderately alkaline. The soil is well drained. Permeability is moderate and surface runoff is medium to rapid. The available water capacity is very low.

   Brackett-Rock outcrop-Comfort (BtD): This gently sloping soil is mostly on the on uplands in the Edwards Plateau. Typically this soil has a greyish brown gravelly clay loam about 6 inches thick. The subsoil, which extends down to a depth of about 17 inches, is pale brown and pale yellow gravelly clay loam. The underlying material is weakly cemented limestone interbedded with thin layers of indurated limestone. The soil is moderately alkaline. The soil is well drained. Permeability is moderately slow and surface runoff is medium to rapid. The available water capacity is very low.

   Bolar Clay (BrB): This gently sloping to moderately steep soil is mostly on the on uplands in the Edwards Plateau. Typically this soil has a dark grayish brown clay loam about 14 inches thick. The subsoil, which extends down to a depth of about 28 inches, is brown clay loam that is about 50 percent calcium carbonate indurated limestone interbedded with marl. The soil is moderately alkaline. The soil is well drained. Permeability is moderate and surface runoff is medium. The available water capacity is low.

   Anhalt Clay (AnB): This is a nearly level soil on plane to slightly concave slopes on uplands. It is generally near streams. Typically this soil has a dark brown, mildly alkaline clay about 18 inches thick. The subsoil, which extends down to a depth of about 28 inches, is dark reddish brown clay. The underlying material is fractured, hard limestone. The soil is moderately alkaline. The soil is well drained. Permeability is very slow and surface runoff is slow. The available water capacity is low.

9. Factors Affecting Surface Water Quality:

   Potential sources of sediment to stormwater runoff:
   - Clearing and grubbing operations
   - Grading and site excavation operations
   - Vehicle tracking
   - Topsoil stripping and stockpiling
   - Landscaping operations

   Potential sources other than sediment:
   - small fueling activities
   - minor equipment maintenance
   - sanitary facilities

- solvents, adhesives, paints, etc.
- paving materials, concrete, mortar

10. Location of Receiving Waters: The Barton Creek Sections K, L, & O, Phase 1 project is located within the Colorado river Watershed. Based on boundary maps prepared by the Texas Commission on Environmental Quality, the property is not located in the Edward's Aquifer Recharge Zone, but it is located in the Edwards Aquifer Contributing Zone. There are no wetlands associated with this project.

11. Off-Site Operations: Disposal of spoil material will be the responsibility of the Contractors. Spoil shall be temporarily disposed of at the designated onsite temporary disposal area and permanently removed to a permitted off-site spoil disposal area. The Contractors shall be independently responsible as Operators for obtaining necessary permits in conjunction with the off-site disposal of spoil material or acquisition of borrow material.

12. Endangered Species: There are no known endangered species within the boundaries of the project.

B. POLLUTION PREVENTION CONTROLS

1. Sequence of Construction:

(1) Install tree protection. (1 week) (1.2 acres)

(2) Install temporary erosion and sedimentation controls. (1 week) (32.0 acres)

(3) Clear and grub for roadways, underground utilities, and pond. (1 week) (6.2 acres)

(4) Excavate and place embankment to roadway subgrade. (4 weeks) (6.2 acres)

(5) Construct all underground utilities. (2 months) (6.2 acres)

(6) Test utilities. (2 weeks)

(7) Assure all utilities have been placed within roadway. (1 week) (6.2 acres)

(8) Once all utilities below subgrade have been tested, finish subgrade and test. (1 Month) (6.2 acres)

(9) Lay first coarse of base (2 weeks) (5.0 acres)

(10) Lay curb and gutter and sidewalk ramp turn downs. (4 weeks) (3.0 acres)

(11) Dress up behind back of curb. (2 weeks) (2.5 acres)

(12) Lay second coarse base. (2 weeks) (5.0 acres)

(13) After base has been tested and passed, lay asphalt. (2 weeks) (4.0 acres)

(14) Complete sidewalk ramps. (2 weeks) (1.0 acres)

(15) Finish grading behind curb and revegetate. (2 weeks) (1.0 acres)

(16) After vegetation is established, remove temporary erosion controls. (1 week)

2. Erosion and Sedimentation Controls:

Temporary vegetative stabilization:

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

2. From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 1 pound per 1000 SF.
   a. Fertilizer shall be water soluble with an analysis of 15-15-15 to be applied once at planting and once during the period of establishment at a rate of ½ pound per 1000 SF.
   b. Hydromulch shall comply with Table 1, below.
   c. Temporary erosion control shall be acceptable when the grass has grown at least 1 ½ inches high with 95% coverage, provided no bare spots larger than 16 square feet exist.
   d. When required, native grass seeding shall comply with requirements of the City of Austin Environmental Criteria Manual.

Table 1 Hydromulching for Temporary Vegetative Stabilization

Material	Description	Longevity	Typical Applications	Applications Rates
100% or any blend of wood, cellulose, straw, and/or cotton plant material (except no mulch shall exceed 30% paper)	70% or greater wood/straw 30% or less paper or natural fibers	0-3 Months	Moderate slopes From flat to 3:1	1500 to 2000 lbs per acre

Permanent vegetative stabilization:

1. From September 15 to March 1, seeding is considered to be temporary stabilization only. If cool season cover crops exist where permanent vegetation stabilization is desired, the grasses shall be mowed to a height of less than one half (1/2) inch and the area shall be re-seeded in accordance with 2. below.

2. From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 1 pound per 1000 SF with a purity of 95% with 85% germination. Bermuda grass is a warm season grass and is considered permanent erosion control.
   a. Fertilizer shall be water soluble with an analysis of 15-15-15 to be applied once at planting and once during the period of establishment at a rate of ½ pound per 1000 SF.
   b. Hydromulch shall comply with table 2,below.
   c. The planted area shall be irrigated or sprinkled in a manner that will not erode the topsoil, but will sufficiently soak the soil to a depth of six inches. The irrigation shall occur at daily intervals (minimum) during the first two months. Rainfall occurrences of ½ inch or more shall postpone the watering schedule for one week.

d. Permanent erosion control shall be acceptable when the grass has grown at least 1 ½ inches high with 95% coverage, provided no bare spots larger than 16 square feet exist.
e. When required, native grass seeding shall comply with requirements of the City of Austin Environmental Criteria Manual.

Table 2 Hydromulching for Permanent Vegetation Stabilization

Material	Description	Longevity	Typical Applications	Applications Rates
Bonded Fiber Matrix (BFM)	80% Organic Defibrated Fibers 10% Tackifier	6 Months	On slopes up to 2:1 and erosive soil conditions	2500 to 4000 lbs per acre (see manufacturers recommendations)
Fiber Reinforced Matrix (FRM)	65% Organic Defibrated Fibers 25% Reinforcing Fibers or less 10% Tackifier	Up to 12 Months	On slopes up to 1:1 and erosive soil conditions	3000 to 4500 lbs per acre (see manufacturers recommendations)

b. Structural Controls:

(i) Erosion and sediment structural controls have been designed to retain sediment on-site to the extent practicable with consideration for local topography, soil type, and rainfall.

(ii) Control measures must be properly selected, installed, and maintained according to the manufacturer's or designer's specifications.

(iii) Stratus Properties Operating Co., LP will be the facility operator with control over the construction plans and specifications, including the ability to make modifications in the plans and specifications. Prior to site clearing, grading and excavation, stabilized construction entrances will be installed, tree protection/limit of construction fencing will be installed, and silt fences will be installed at the downstream edge of disturbed areas where shallow sheet runoff occurs. Rock berms will be placed downstream of the areas where concentrated runoff occurs. To insure that no additional areas are disturbed other than those included in the limits of construction, orange mesh fences will be placed on the upstream side of the limits of construction to keep construction activity out of areas not designated for construction. The Contractor will install the stabilized construction entrance and silt fence prior to the start of any construction and be responsible for maintenance of those facilities throughout construction. The Contractor will be responsible for stabilization (revegetation). The Contractor will also be responsible for removing the temporary controls once the revegetation is established.

3. Stormwater Management Controls:

a. Temporary Sediment Controls: A stabilized construction entrance will be place as shown on the *Erosion/Sedimentation Control & Tree Protection Plan* and silt fences will be constructed at the downstream edge of the disturbed areas. Silt fence will also be used at selected locations of significant fill, around material stockpile sites, and around any other area that would be a pollutant source during storm events. The rock

berms will be placed immediately downstream of areas where concentrated runoff occurs, and within defined channels downstream from development, as appropriate. Additionally, silt fence will typically be utilized on the downstream side of rock berms to supplement sediment removal. The sedimentation/filtration ponds will be rough graded at the beginning of construction so it can be used as a sediment trap during construction. The utility trenches will also be utilized as temporary sediment traps to the extent feasible during construction.

The contractor will install the erosion/sedimentation controls prior to the start of any construction. The contractor will be responsible for maintaining the erosion control measures and removing the controls once the revegetation is established. The locations of such controls are shown in *the Erosion/Sedimentation Control & Tree Protection Plan*.

b. Permanent Stormwater Controls: Once construction associated with this project is completed, the site will be revegetated in accordance with the stabilization practices identified in this plan. Three sedimentation/filtration ponds will provide water quality control and treatment for stormwater runoff from the developed areas being conveyed to the creeks.

4. Other Controls:

a. Waste Disposal: All construction-related waste materials will be collected and stored at a temporary onsite spoil disposal site. The Contractors will be independently responsible as Operators for controlling and preventing offsite migration of litter, construction debris, and construction materials.

b. Sanitary Waste: The Contractors will be responsible for placing portable units onsite during construction, and waste will be collected and disposed of in accordance with state and local regulations.

c. Off-site Vehicle Tracking: Stabilized construction entrances will be provided at the entry location to the construction project. The Contractors will be responsible for maintaining the entrances, and removing any sediment deposited onto adjacent streets. Vehicles leaving the site will be washed, as required.

d. Dust Control: Contractors will spray water on disturbed areas and spoils areas, and apply mulch, as required, to control dust.

e. Dewatering: When it becomes necessary to pump standing water from the site, the Contractors shall utilize the methods depicted in the Dewatering Detail included with this plan. Standing water removed via open channel will be routed through silt fence and/or rock berm before leaving the site.

5. Timing of Controls and Measures: Erosion and sediment structural control measures will be in place prior to clearing, grading or construction of any portion of the site. Construction phasing may occur, but in all instances erosion and sedimentation control measures will be in place in those areas prior to start of construction. Disturbed areas will be restored as described under Stabilization Practices. Temporary erosion and sediment controls will be removed only after all disturbed areas have been restored.

C. STATE AND LOCAL REQUIREMENTS

The stormwater pollution prevention plan complies with the requirements of the City of Austin, Travis County, and the Texas Commission on Environmental Quality (TCEQ) in effect at the time of permitting.

D. INSPECTION AND MAINTENANCE PROCEDURES

Stratus Properties Operating Co., L.P (and/or their qualified agents) and Contractors, as Operators, shall be independently responsible for inspection of the controls, and for required record keeping (reference Appendix A). All Operators will be responsible for revisions to the controls, as necessary, based on inspections. The Contractors will be responsible for maintenance of the controls.

1. Inspection of Controls:

   a. Personnel provided by the Operators shall inspect disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, discharge locations, and structural controls for evidence of, or the potential for, pollutants entering the drainage system. Personnel conducting these inspections must be knowledgeable of TPDES General Permit No. TXR150000, familiar with the construction site, and knowledgeable of this plan. Sediment and erosion control measures identified in this plan shall be inspected to ensure that they are operating correctly. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site sediment tracking. Inspections must be conducted at least once every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.

   b. Where sites have been finally or temporarily stabilized, inspections shall be conducted at least once every month.

   c. 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.

   d. This plan must be modified based on the results of inspections, as necessary, to better control pollutants in runoff. Revisions to the plan must be completed within seven (7) calendar days following the inspection. If existing controls are modified or if additional controls are necessary, an implementation schedule must be described in this plan and/or Inspection and Maintenance Report, 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.

   e. An Inspection and Maintenance Report summarizing the scope of the inspection, the dates of the inspection, and major observations relating to the implementation and/or revision of this plan must be made and retained as part of the plan. Major observations should include: The locations of discharges of sediment or other pollutants from the site; locations of controls that need to be maintained; locations of controls that failed to operate as designed or proved inadequate for a particular location; and locations where additional controls are needed. Reports must identify any incidents of non-compliance.

2. Maintenance of Controls:

   a. All protective measures and controls identified in this plan shall be maintained in effective operating condition. If, through inspections or other means, it is determined that controls are not operating effectively, then the Contractors, as Operators, shall perform maintenance as necessary to maintain the continued effectiveness of stormwater controls, and prior to the next rain event if feasible. If maintenance prior to the next anticipated storm event is impracticable, the reason shall be documented in the plan and maintenance must be scheduled and accomplished as soon as practicable. Erosion and sediment controls that have been intentionally disabled, run-over, removed, or otherwise rendered ineffective must be replaced or corrected immediately upon discovery.

   b. If periodic inspections or other information indicates a control has been used incorrectly, is performing inadequately, or is damaged, then the Operators shall replace or modify the control as soon as practicable after making the discovery.

   c. Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50%.

   d. For perimeter controls such as silt fences, berms, etc., the trapped sediment must be removed before it reaches 50% of the above-ground height.

   e. 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 Operators do not own or operate the off-site conveyance, then the Operators must work with the owner or operator of the property to remove the sediment.

E. POLLUTION PREVENTION MEASURES

1. Non-Storm Water Discharges: The following non-stormwater discharges may occur from the site during the construction period:

   a. discharges from fire fighting activities;

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

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

d. uncontaminated water used to control dust;

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

f. uncontaminated air conditioning condensate;

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

h. lawn watering and similar irrigation drainage.

2. Material Inventory: The materials or substances listed below are expected to be present onsite during construction:

- Concrete and concrete products
- Asphalt and asphalt products
- Metal reinforcing materials - rebar, welded wire fabric
- Fertilizers
- Petroleum based products
- Wood
- Plastic (PVC) and metal pipe and fittings
- Rock, gravel, sand, and soil
- Paint

3. Material Management Practices: The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff:

a. Good Housekeeping: The following good housekeeping practices will be followed onsite during the construction project:

- An effort will be made to store only enough product required to do the job.
- All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers.
- Materials will be stored in the temporary spoils disposal area as shown on erosion/sedimentation control plan, or an area as may otherwise be approved by Standard Pacific of Texas, Inc. and Engineer.
- Products will be kept in their original containers with the original manufacturers'

labels.

- Whenever possible, all of a product will be used before disposing of the container.
- Manufacturers' recommendations for proper use and disposal will be followed.
- The Contractor will inspect daily to ensure proper use and disposal of materials onsite.

b. Hazardous Products: These practices are used to reduce the risks associated with hazardous materials (if applicable):

- Products will be kept in original containers unless they are not resealable.
- Original labels and material safety data will be retained, as they contain important product information.
- If surplus product must be disposed of, manufacturers' and/or local and state recommended methods for proper disposal will be followed.

c. The following product specific practices will be followed onsite:

- Petroleum Products: All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers that are clearly labeled. Any asphaltic substances used onsite will be applied according to the manufacturers' recommendations.
- Fertilizers: Fertilizers will be applied only in the minimum amounts recommended by the manufacturer or as otherwise indicated on the plans. Once applied, fertilizer will be worked into the soil to limit exposure to stormwater. The contents of any partially used bags of fertilizer will be stored in a manner so as to avoid spills.
- Concrete: Onsite concrete truck wash out is allowed, but is restricted as noted below. Excess dried concrete will be removed from the site and transported to a permitted off-site spoil disposal area.
    - Direct discharge of concrete truck wash out water to surface water in the state, including discharge to storm sewers, is prohibited.
    - Concrete truck wash out water shall be discharged to areas at the construction site where structural controls have been established to prevent direct discharge to surface waters, or to areas that have minimal slope that allow infiltration and filtering of wash out water to prevent direct discharge to surface waters. Structural controls may consist of temporary berms, temporary shallow pits, temporary storage tanks with slow rate release, or other reasonable measure to prevent runoff from the construction site.
    - Wash out of concrete trucks during rainfall events shall be minimized. The

direct discharge of concrete truck washout water is prohibited at all times, and the Operators shall insure that controls are sufficient to prevent the discharge of concrete truck wash out as the result of rain.

- The discharge of wash out water shall not cause or contribute to groundwater contamination.

4. Spill Control Practices: In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

    - Site personnel will be made aware of the manufacturers' recommended methods for spill cleanup and the location of the information and cleanup supplies.

    - Materials and equipment necessary for spill cleanup will be kept onsite in an accessible location known to site personnel.

    - All spills will be cleaned up immediately upon discovery.

5. Releases of Reportable Quantities (RQ): The EPA has issued regulations that define what reportable quantity levels are for oil and hazardous substances. These regulations can be found at 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302. The TCEQ has issued similar regulations under 30 TAC Chapter 327. If there is an RQ release during the construction period, then the following steps must be taken:

    - For quantities less than the reportable quantity* – The contractor will contain and isolate the spilled substance. The remaining spilled substance and contaminated soil will be removed and disposed of properly.

    - For quantities more than the reportable quantity* – The contractor will contain and isolate the spilled substance in accordance with 30 TAC Chapter 327. The contractor will then contact the appropriate spill response team and the TCEQ Austin Regional Office (512)339-2929 or the State Emergency Response Center at 1 (800)832-8224 and the National Response Center immediately at (800) 424-8802. The remaining spilled substance and contaminated soil will be removed and disposed of in an using approved emergency response methods. The proper authorities shall be kept informed during the cleanup process. Within 14 days, modify the SWPPP with a written description of the release providing the date and circumstances of the release and the steps to be taken to prevent another release.

* Reportable quantity (RQ) is defined in 30 TAC Chapter 327. The RQ for petroleum products, oil, and industrial solid waste are shown below. For hazardous substances see 30 TAC Chapter 327.4 and 40 CFR Chapter 302.4.

The RQ for *oil, petroleum product and used oil* is as follows:

(1) The RQ for crude oil and oil other than that defined as petroleum product or used oil shall be:
    (A) for spills or discharges onto land – 210 gallons (five barrels); or
    (B) for spills or discharges directly into water in the state – quantity sufficient to create a sheen.

(2) The RQ for petroleum product or used oil shall be:
   (A) except as noted under (B) below, for spills or discharges onto land – 25 gallons;
   (B) for spills or discharges to land from PST exempted facilities – 210 gallons (five barrels); or
   (C) for spills or discharges directly into water in the state – quantity sufficient to create a sheen.

The RQ for spills or discharges into water in the state for *industrial solid waste or other substances* shall be 100 pounds.

6. Spill Response Handbook: The TCEQ Small-Business Handbook for Spill Response (RG-285) is provided as a supplementary resource and can be found in *Appendix D*.

F. POLLUTION PREVENTION PLAN CERTIFICATION

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

Facility Operator *(Plans and Specifications)*:

By: _____ _____
Name Title Date

Printed Name: _____
Company: _____
Address: _____
_____

F. POLLUTION PREVENTION PLAN CERTIFICATION

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

Facility Operator *(Contractor)*:

By: _____ _____

Name Title Date

Printed Name: _____

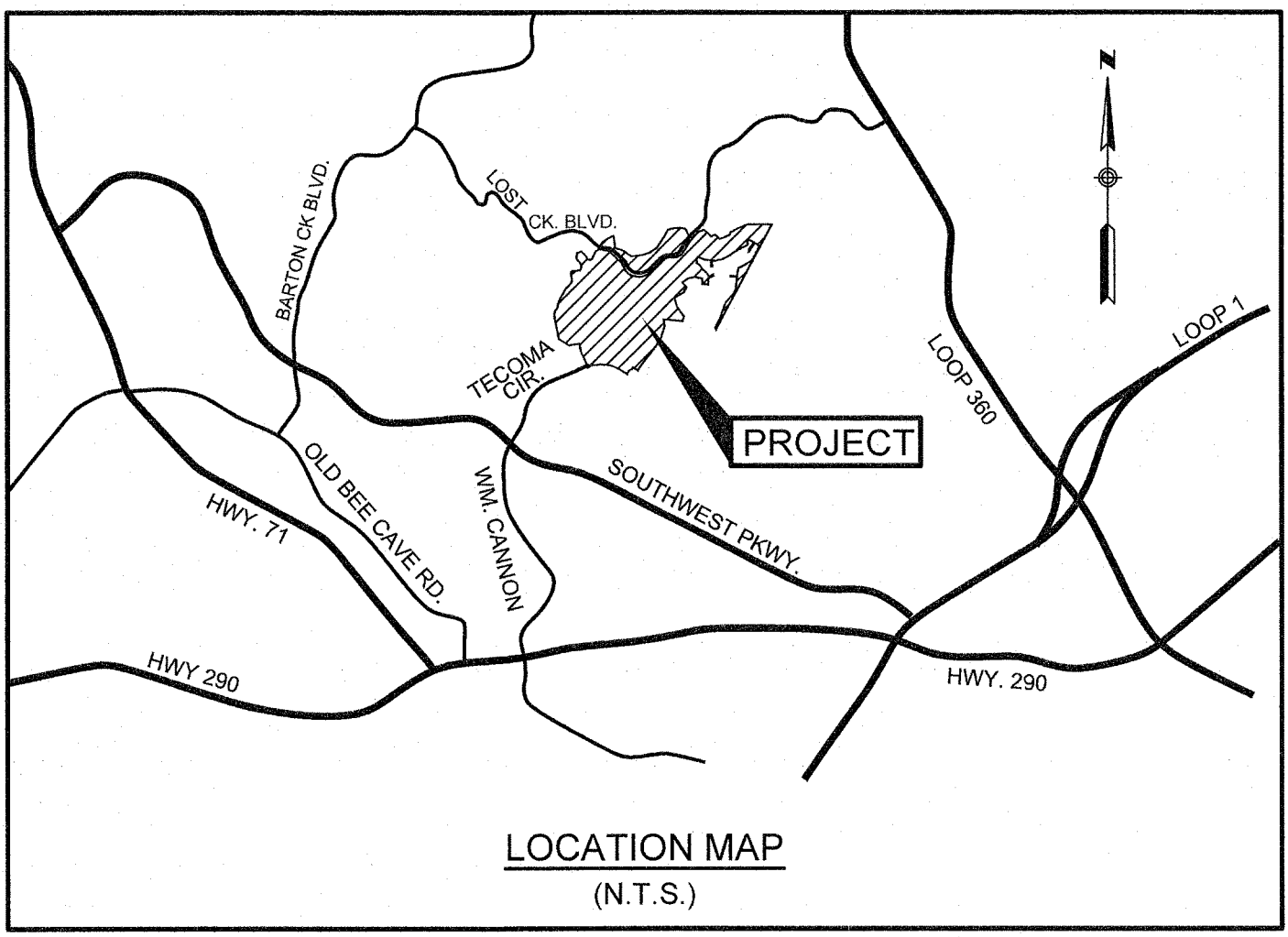
Company: _____

Address: _____

_____

EXHIBIT 1

PROJECT LOCATION MAP



LOCATION MAP

(N.T.S.)

CITY OF AUSTIN GRID NUMBERS D22, C22, and D21
MAPSCO PAGES 582U, 582T, 582X, 582Y

Land Development Jurisdiction: 2-Mile ETJ

EXHIBIT 2

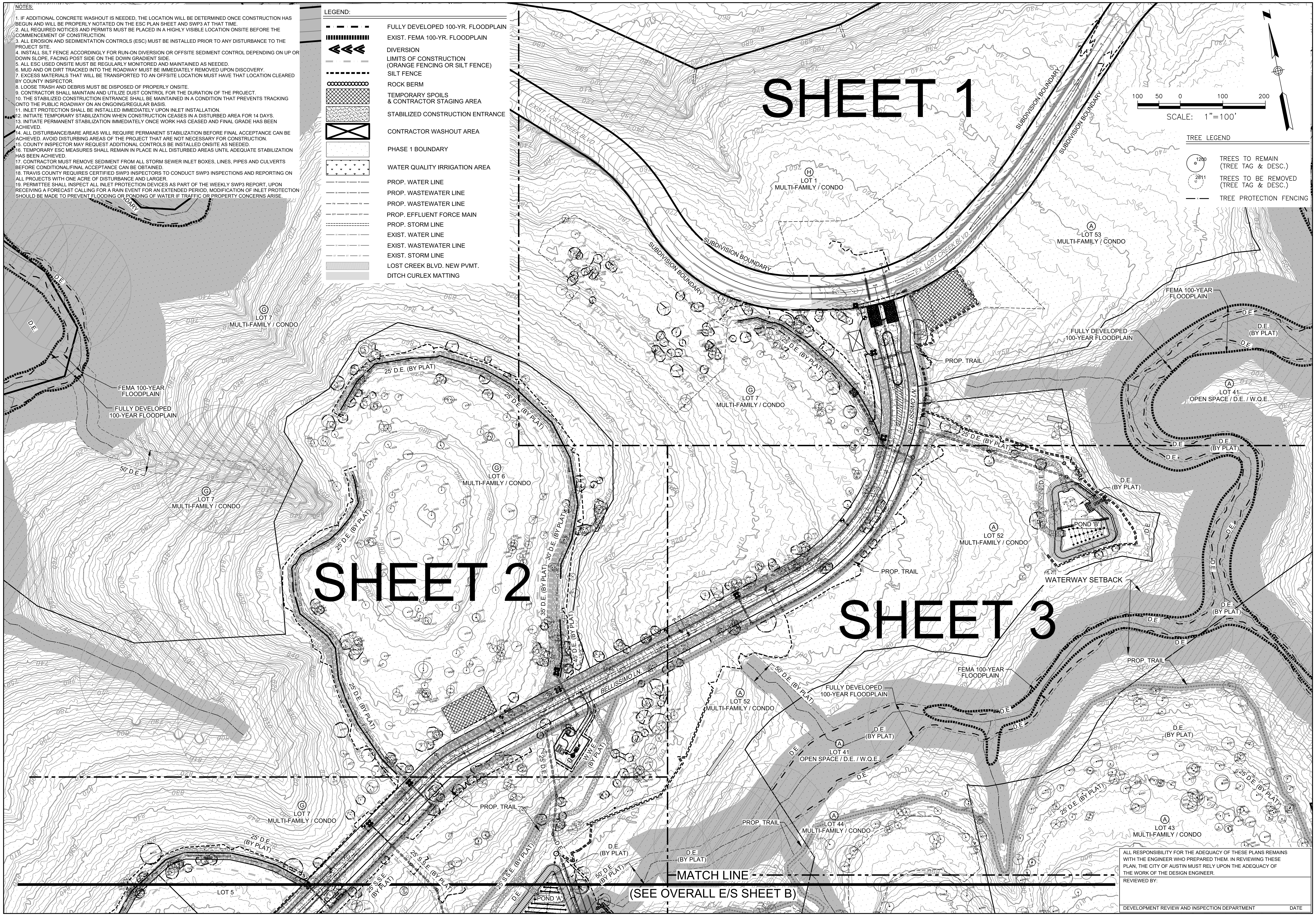
SITE MAP / TEMPORARY EROSION/SEDIMENTATION CONTROL & TREE PROTECTION PLAN

NOTES:

1. IF ADDITIONAL CONCRETE WASHOUT IS NEEDED, THE LOCATION WILL BE DETERMINED ONCE CONSTRUCTION HAS BEGUN AND WILL BE PROPERLY NOTATED ON THE ESC PLAN SHEET AND SWP3 AT THAT TIME.
2. ALL REQUIRED NOTICES AND PERMITS MUST BE PLACED IN A HIGHLY VISIBLE LOCATION ONSITE BEFORE THE COMMENCEMENT OF CONSTRUCTION.
3. ALL EROSION AND SEDIMENTATION CONTROLS (ESC) MUST BE INSTALLED PRIOR TO ANY DISTURBANCE TO THE PROJECT SITE.
4. INSTALL SILT FENCE ACCORDINGLY FOR RUN-ON DIVERSION OR OFFSITE SEDIMENT CONTROL DEPENDING ON UP OR DOWN SLOPE, FACING POST SIDE ON THE DOWN GRADIENT SIDE.
5. ALL ESC USED ONSITE MUST BE REGULARLY MONITORED AND MAINTAINED AS NEEDED.
6. MUD AND OR DIRT TRACKED INTO THE ROADWAY MUST BE IMMEDIATELY REMOVED UPON DISCOVERY.
7. EXCESS MATERIALS THAT WILL BE TRANSPORTED TO AN OFFSITE LOCATION MUST HAVE THAT LOCATION CLEARED BY COUNTY INSPECTOR.
8. LOOSE TRASH AND DEBRIS MUST BE DISPOSED OF PROPERLY ONSITE.
9. CONTRACTOR SHALL MAINTAIN AND UTILIZE DUST CONTROL FOR THE DURATION OF THE PROJECT.
10. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT PREVENTS TRACKING ONTO THE PUBLIC ROADWAY ON AN ONGOING/REGULAR BASIS.
11. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY UPON INLET INSTALLATION.
12. INITIATE TEMPORARY STABILIZATION WHEN CONSTRUCTION CEASES IN A DISTURBED AREA FOR 14 DAYS.
13. INITIATE PERMANENT STABILIZATION IMMEDIATELY ONCE WORK HAS CEASED AND FINAL GRADE HAS BEEN ACHIEVED.
14. ALL DISTURBANCE/BARE AREAS WILL REQUIRE PERMANENT STABILIZATION BEFORE FINAL ACCEPTANCE CAN BE ACHIEVED. AVOID DISTURBING AREAS OF THE PROJECT THAT ARE NOT NECESSARY FOR CONSTRUCTION.
15. COUNTY INSPECTOR MAY REQUEST ADDITIONAL CONTROLS BE INSTALLED ONSITE AS NEEDED.
16. TEMPORARY ESC MEASURES SHALL REMAIN IN PLACE IN ALL DISTURBED AREAS UNTIL ADEQUATE STABILIZATION HAS BEEN ACHIEVED.
17. CONTRACTOR MUST REMOVE SEDIMENT FROM ALL STORM SEWER INLET BOXES, LINES, PIPES AND CULVERTS BEFORE CONDITIONAL/FINAL ACCEPTANCE CAN BE OBTAINED.
18. TRAVIS COUNTY REQUIRES CERTIFIED SWP3 INSPECTORS TO CONDUCT SWP3 INSPECTIONS AND REPORTING ON ALL PROJECTS WITH ONE ACRE OF DISTURBANCE AND LARGER.
19. PERMITTEE SHALL INSPECT ALL INLET PROTECTION DEVICES AS PART OF THE WEEKLY SWP3 REPORT, UPON RECEIVING A FORECAST CALLING FOR A RAIN EVENT FOR AN EXTENDED PERIOD, MODIFICATION OF INLET PROTECTION SHOULD BE MADE TO PREVENT FLOODING OR PONDING OF WATER IF TRAFFIC OR PROPERTY CONCERNS ARISE.

LEGEND:

- FULLY DEVELOPED 100-YR. FLOODPLAIN
- EXIST. FEMA 100-YR. FLOODPLAIN
- DIVERSION
- LIMITS OF CONSTRUCTION (ORANGE FENCING OR SILT FENCE)
- SILT FENCE
- ROCK BERM
- TEMPORARY SPOILS & CONTRACTOR STAGING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- CONTRACTOR WASHOUT AREA
- PHASE 1 BOUNDARY
- WATER QUALITY IRRIGATION AREA
- PROP. WATER LINE
- PROP. WASTEWATER LINE
- PROP. WASTEWATER LINE
- PROP. EFFLUENT FORCE MAIN
- PROP. STORM LINE
- EXIST. WATER LINE
- EXIST. WASTEWATER LINE
- EXIST. STORM LINE
- LOST CREEK BLVD. NEW PVMT.
- DITCH CURLEX MATTING



ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLAN, THE CITY OF AUSTIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

REVIEWED BY:

DEVELOPMENT REVIEW AND INSPECTION DEPARTMENT — DATE

BARTON CREEK
SECTIONS 'K', 'L', & 'O' (PHASE 1)
PAVING & DRAINAGE IMPROVEMENTS
EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN - OVERALL - (SHEET A)

NO.	REVISIONS DESCRIPTION	BY	DATE

DATE: OCTOBER 2020
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: JAC
DRAWING NAME: KLO-Ph1-ES.dwg

LAUREN CRONE 128018 LICENSED PROFESSIONAL ENGINEER
11/19/2024

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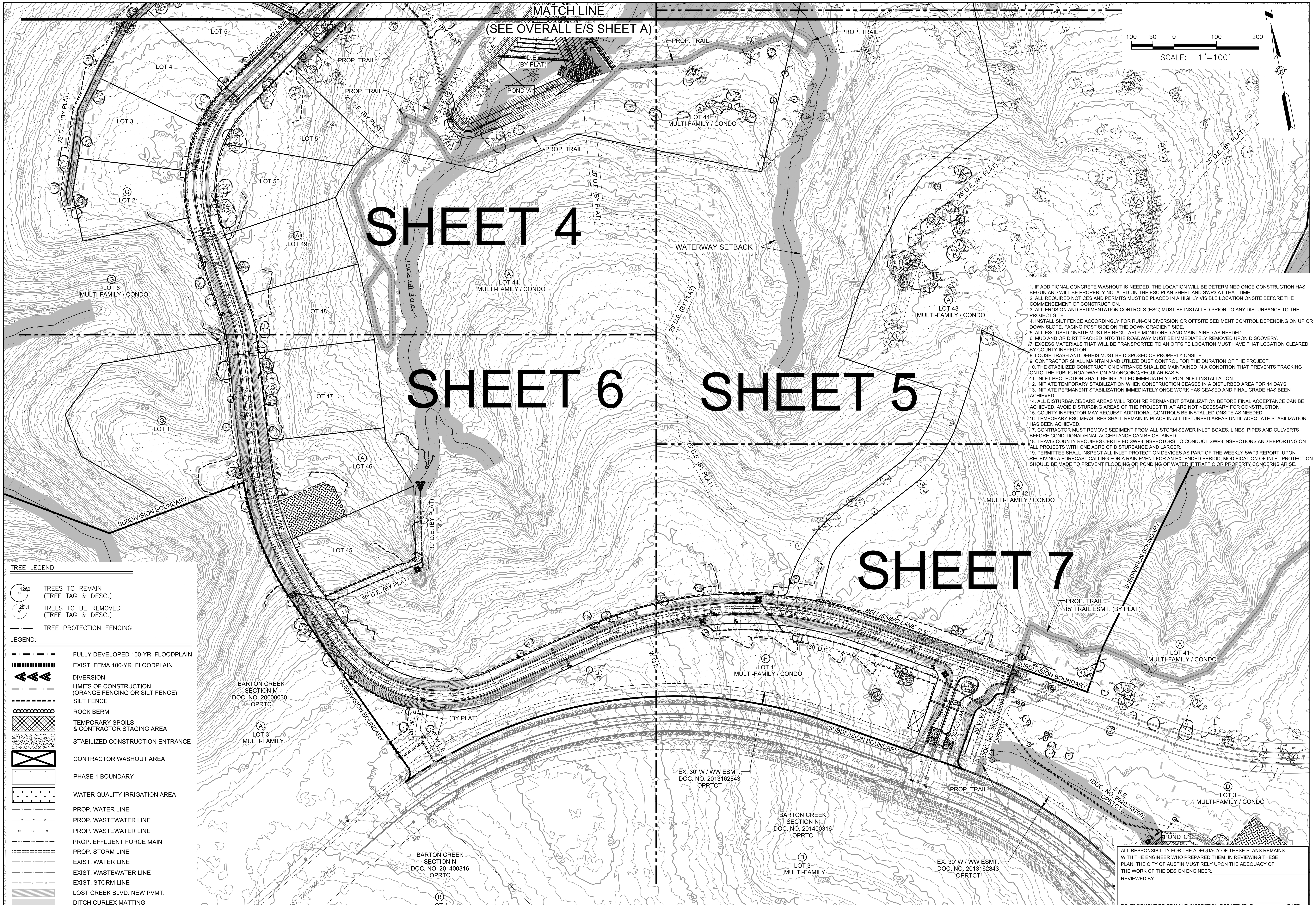
FRN - F-1386

JOB NUMBER: A208-440-426

SHEET NO. 17 OF 123 SHEETS

C8-2017-0277-.1B

R1 - REPLACEMENT SHEET



TREE LEGEND

- TREES TO REMAIN (TREE TAG & DESC.)
- TREES TO BE REMOVED (TREE TAG & DESC.)
- TREE PROTECTION FENCING

LEGEND:

- FULLY DEVELOPED 100-YR. FLOODPLAIN
- EXIST. FEMA 100-YR. FLOODPLAIN
- DIVERSION
- LIMITS OF CONSTRUCTION (ORANGE FENCING OR SILT FENCE)
- SILT FENCE
- ROCK BERM
- TEMPORARY SPOILS & CONTRACTOR STAGING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- CONTRACTOR WASHOUT AREA
- PHASE 1 BOUNDARY
- WATER QUALITY IRRIGATION AREA
- PROP. WATER LINE
- PROP. WASTEWATER LINE
- PROP. WASTEWATER LINE
- PROP. EFFLUENT FORCE MAIN
- PROP. STORM LINE
- EXIST. WATER LINE
- EXIST. WASTEWATER LINE
- EXIST. STORM LINE
- LOST CREEK BLVD. NEW PVMT.
- DITCH CURLEX MATTING

NOTES:

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REVIEWED BY:

DEVELOPMENT REVIEW AND INSPECTION DEPARTMENT — DATE

BARTON CREEK

SECTIONS 'K', 'L', & 'O' (PHASE 1)
PAVING & DRAINAGE IMPROVEMENTS
EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN - OVERALL - (SHEET B)

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: OCTOBER, 2020
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: JAC
DRAWING NAME: KLO-Ph1-ES.dwg

LAUREN CRONE 128018 LICENSED PROFESSIONAL ENGINEER — STATE OF TEXAS
11/19/2024

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A208-440-426

SHEET NO. 18 OF 123 SHEETS

C8-2017-0277-.1B

R1 - REPLACEMENT SHEET

TREE LEGEND

- TREES TO REMAIN (TREE TAG & DESC.)
- TREES TO BE REMOVED (TREE TAG & DESC.)
- TREE PROTECTION FENCING

LEGEND:

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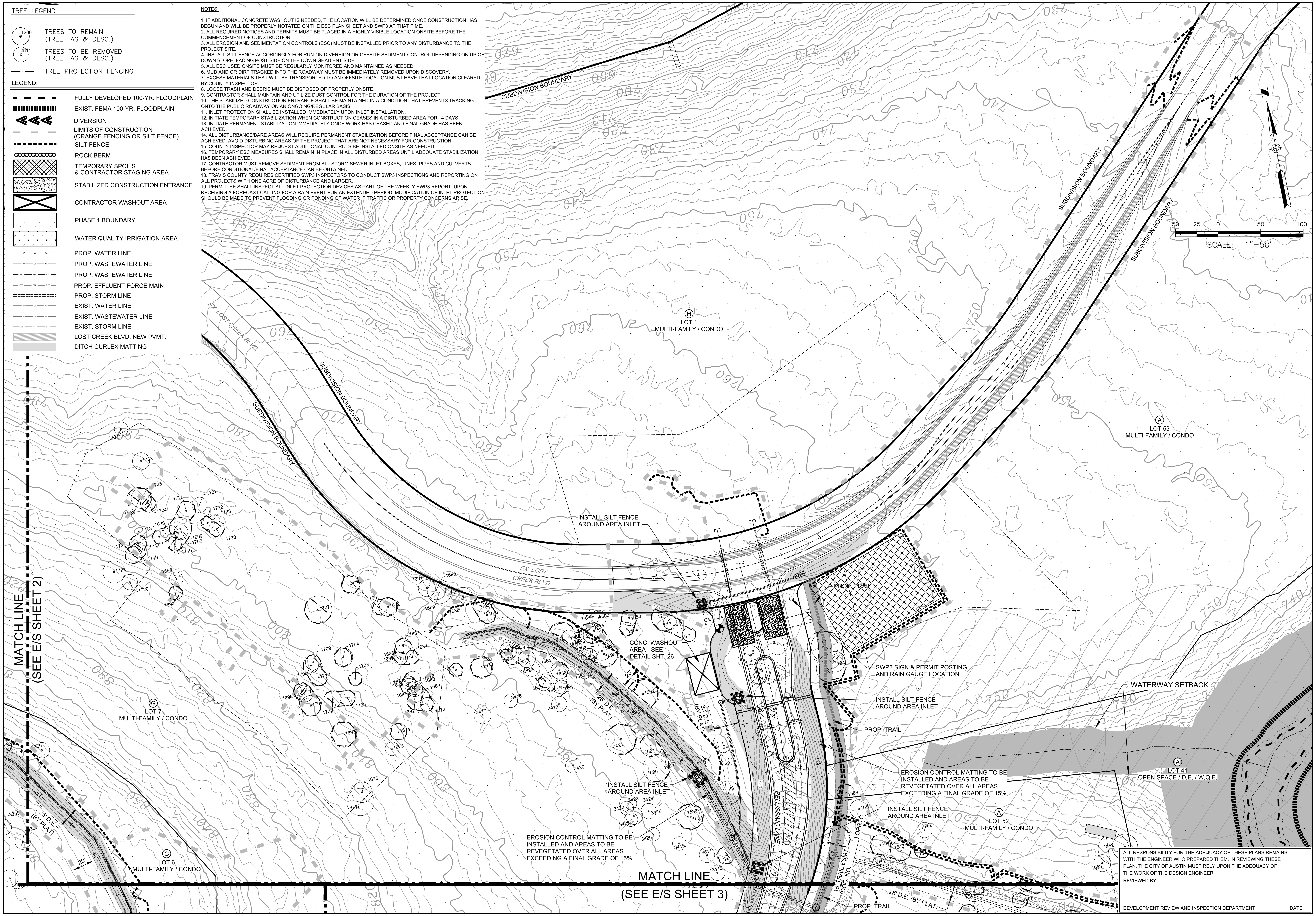

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REVIEWED BY:

DEVELOPMENT REVIEW AND INSPECTION DEPARTMENT DATE

BARTON CREEK
SECTIONS 'K', 'L', & 'O' (PHASE 1)
PAVING & DRAINAGE IMPROVEMENTS
EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN - (SHEET 1)

REVISIONS			
NO.	DESCRIPTION	BY	DATE

DATE: OCTOBER 2020
DESIGNED BY: JCN
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CHECKED BY: JAC
DRAWING NAME: KLO-Ph1-ES.dwg

LAUREN CRONE
128018
LICENSED PROFESSIONAL ENGINEER
11/19/2024

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FRN - F-1386

JOB NUMBER: A208-440-426

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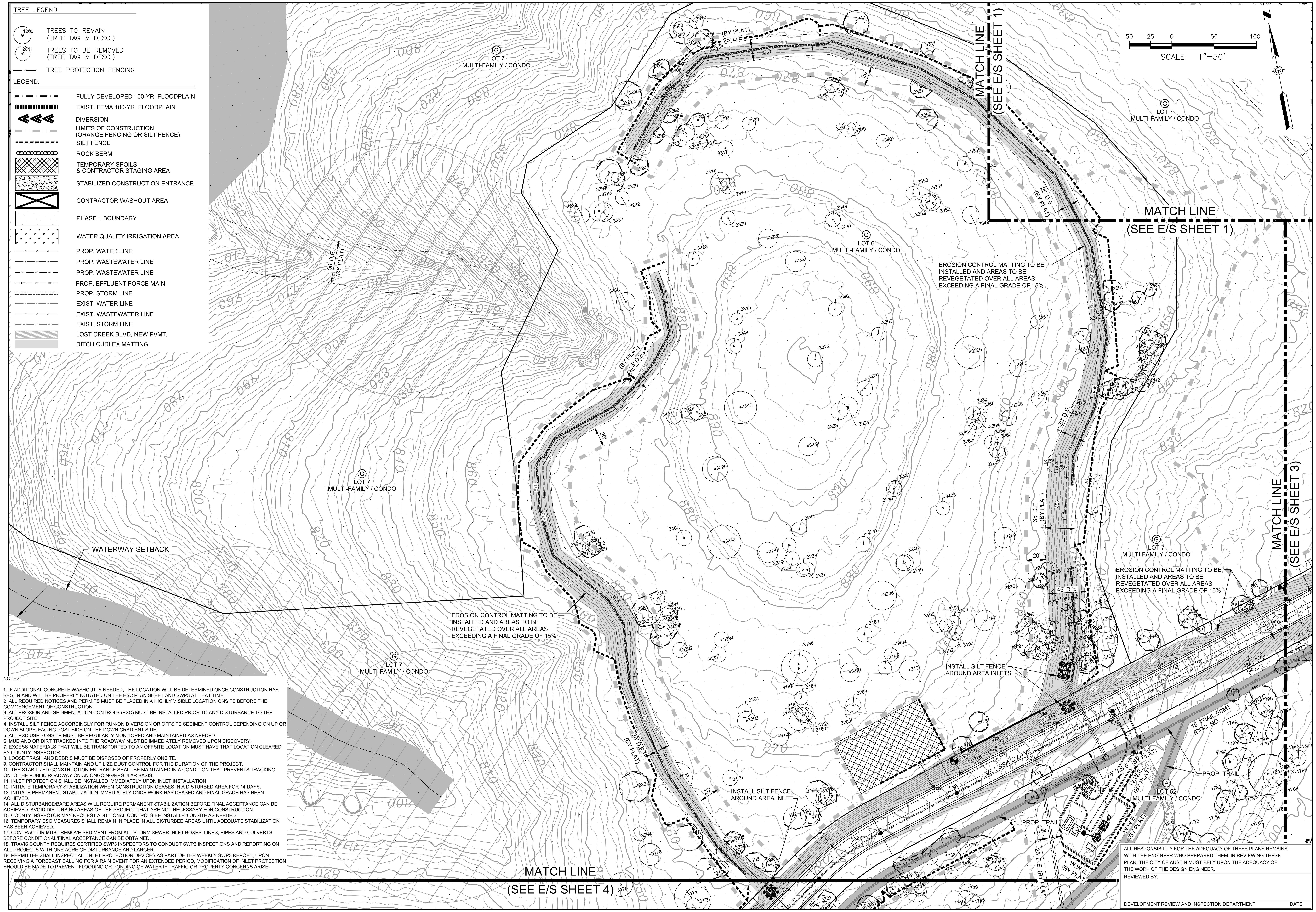
R1 - REPLACEMENT SHEET



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REVIEWED BY:

DEVELOPMENT REVIEW AND INSPECTION DEPARTMENT — DATE

C8-2017-0277-.1B

BARTON CREEK
SECTIONS 'K', 'L', & 'O' (PHASE 1)
PAVING & DRAINAGE IMPROVEMENTS
EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN - (SHEET 2)

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: OCTOBER 2020
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: JAC
DRAWING NAME: KLO-Ph1-ES.dwg

LAUREN CRONE 128018 LICENSED PROFESSIONAL ENGINEER
11/19/2024

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Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A208-440-426

SHEET NO. 20 OF 123 SHEETS

R1 - REPLACEMENT SHEET

LEGEND:

- FULLY DEVELOPED 100-YR. FLOODPLAIN
- EXIST. FEMA 100-YR. FLOODPLAIN
- DIVERSION
- LIMITS OF CONSTRUCTION (ORANGE FENCING OR SILT FENCE)
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- ROCK BERM
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TREE LEGEND

- 1200 TREES TO REMAIN (TREE TAG & DESC.)
- 2811 TREES TO BE REMOVED (TREE TAG & DESC.)
- TREE PROTECTION FENCING

MATCH LINE (SEE E/S SHEET 1)

MATCH LINE (SEE E/S SHEET 2)

MATCH LINE (SEE E/S SHEET 5)

SCALE: 1"=50'

INSTALL SILT FENCE AROUND AREA INLET

PROP. TRAIL

30' D.E. (BY PLAT)

25' D.E. (BY PLAT)

50' D.E. (BY PLAT)

15' TRAIL ESMT. (DOC. NO. _____) OPRTC

BELLISSIMO LANE

LOT 7 MULTI-FAMILY / CONDO

LOT 52 MULTI-FAMILY / CONDO

LOT 41 OPEN SPACE / D.E. / W.Q.E.

LOT 43 MULTI-FAMILY / CONDO

LOT 44 MULTI-FAMILY / CONDO

POND 'B'

POND B OUTFALL

FULLY DEVELOPED 100-YEAR FLOODPLAIN

FEMA 100-YEAR FLOODPLAIN

100-YEAR FEMA FLOODPLAIN

D.E. (BY PLAT)

WATERWAY SETBACK

EROSION CONTROL MATTING TO BE INSTALLED AND AREAS TO BE REVEGETATED OVER ALL AREAS EXCEEDING A FINAL GRADE OF 15%

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DEVELOPMENT REVIEW AND INSPECTION DEPARTMENT DATE

C8-2017-0277-.1B

BARTON CREEK
SECTIONS 'K', 'L', & 'O' (PHASE 1)
PAVING & DRAINAGE IMPROVEMENTS
EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN - (SHEET 3)

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: OCTOBER, 2020
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: JAC
DRAWING NAME: KLO-Ph1-ESS.dwg

LAUREN CRONE 128018 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS

11/19/2024

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JOB NUMBER: A208-440-426

SHEET NO. 21 OF 123 SHEETS

R1 - REPLACEMENT SHEET

I:\A111\427 KLO_Revision #1\KLO-Ph1-ESS.dwg
User: ccornea
Last Modified: Nov. 19, 24 - 10:13
Plot Date/Time: Nov. 19, 24 - 10:14:27

I:\A111\427 KLO_Revision #1\KLO-Ph1-Base-c7.dwg
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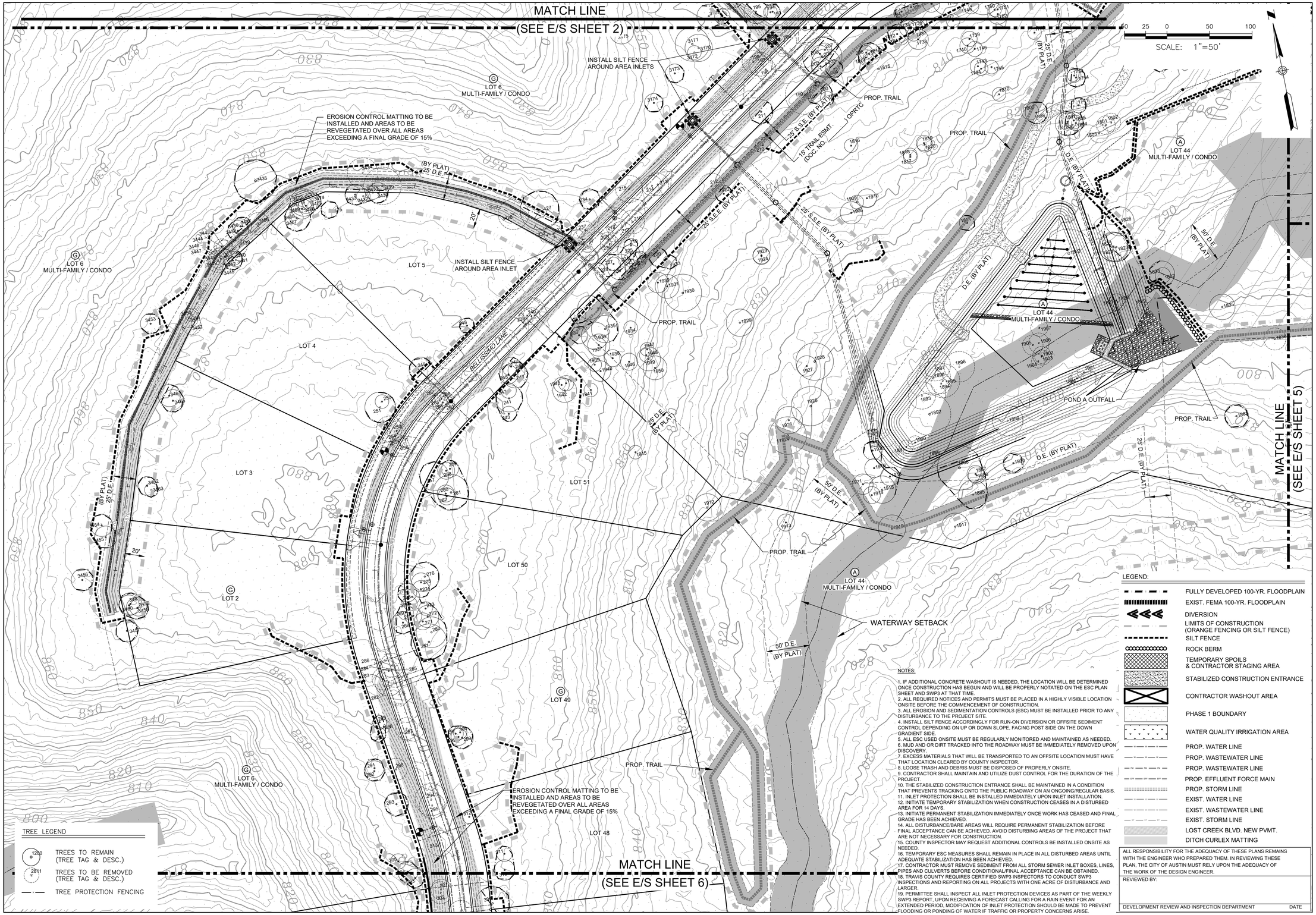
\XMatch.dwg



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R1 - REPLACEMENT SHEET

BARTON CREEK
SECTIONS 'K', 'L', & 'O' (PHASE 1)
PAVING & DRAINAGE IMPROVEMENTS
EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN - (SHEET 4)

REVISIONS			
NO.	DESCRIPTION	BY	DATE

DATE: OCTOBER, 2020
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: JAC
DRAWING NAME: KLO-PH1-ES.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED PROFESSIONAL ENGINEER
11/19/2024

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JOB NUMBER: A208-440-426

SHEET NO. 22 OF 123 SHEETS

I:\A111\427 KLO_Revision #1\KLO-Ph1-ES.dwg
User: ccormas
Last Modified: Nov. 19, 24 - 10:13
Plot Date/Time: Nov. 19, 24 - 10:14:32

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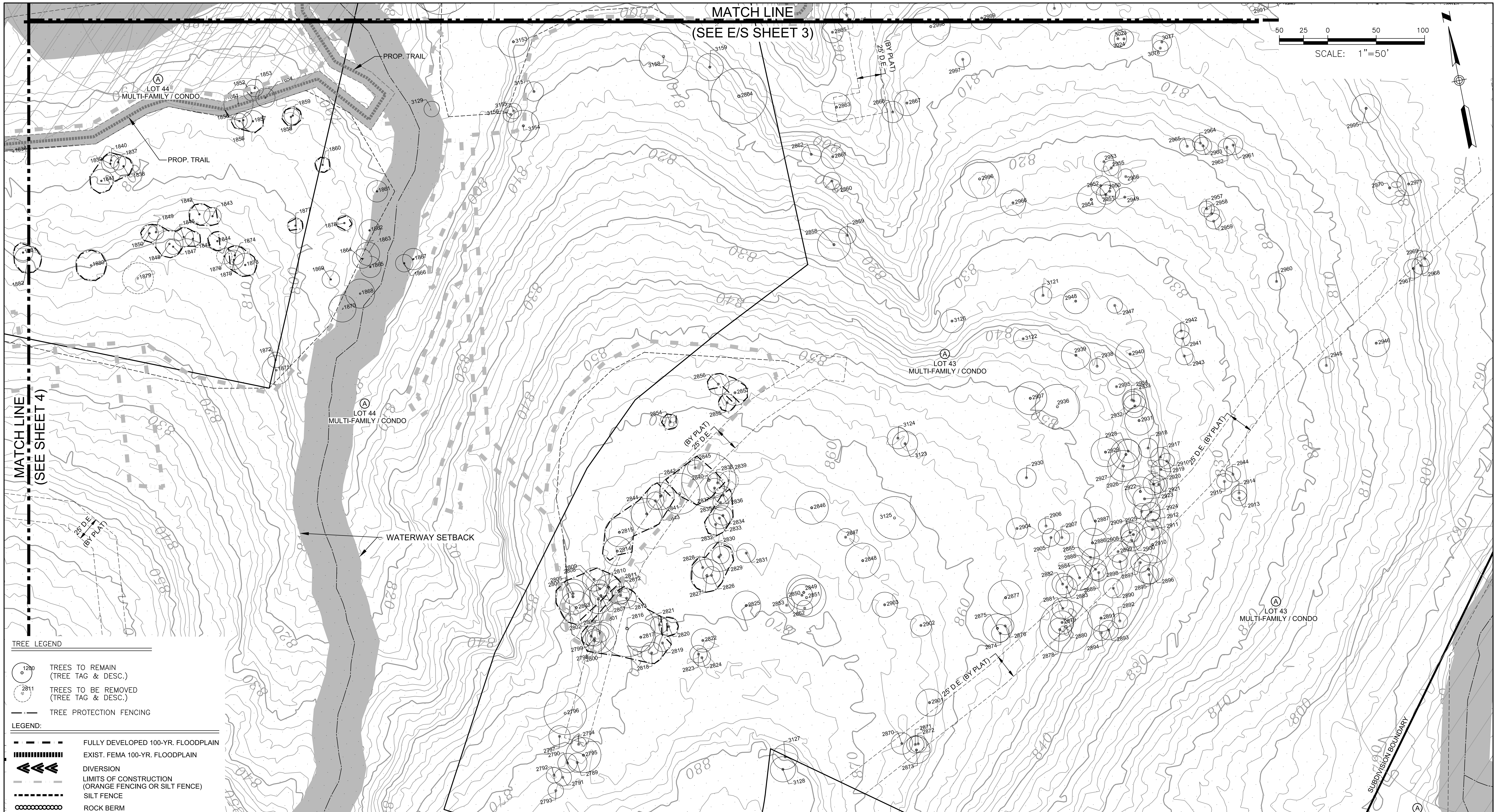

TREE LEGEND

- TREES TO REMAIN (TREE TAG & DESC.)
- TREES TO BE REMOVED (TREE TAG & DESC.)
- TREE PROTECTION FENCING

LEGEND:

- FULLY DEVELOPED 100-YR. FLOODPLAIN
- EXIST. FEMA 100-YR. FLOODPLAIN
- DIVERSION
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- SILT FENCE
- ROCK BERM
- TEMPORARY SPOILS & CONTRACTOR STAGING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- CONTRACTOR WASHOUT AREA
- PHASE 1 BOUNDARY
- WATER QUALITY IRRIGATION AREA
- PROP. WATER LINE
- PROP. WASTEWATER LINE
- PROP. WASTEWATER LINE
- PROP. EFFLUENT FORCE MAIN
- PROP. STORM LINE
- EXIST. WATER LINE
- EXIST. WASTEWATER LINE
- EXIST. STORM LINE
- LOST CREEK BLVD. NEW PVMT.
- DITCH CURLEX MATTING

NOTES:

1. IF ADDITIONAL CONCRETE WASHOUT IS NEEDED, THE LOCATION WILL BE DETERMINED ONCE CONSTRUCTION HAS BEGUN AND WILL BE PROPERLY NOTATED ON THE ESC PLAN SHEET AND SWP3 AT THAT TIME.
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6. MUD AND OR DIRT TRACKED INTO THE ROADWAY MUST BE IMMEDIATELY REMOVED UPON DISCOVERY.
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REVIEWED BY:

DEVELOPMENT REVIEW AND INSPECTION DEPARTMENT DATE

BARTON CREEK
SECTIONS 'K', 'L', & 'O' (PHASE 1)
PAVING & DRAINAGE IMPROVEMENTS
EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN - (SHEET 5)

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: OCTOBER 2020
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: JAC
DRAWING NAME: KLO-Ph1-ES.dwg

LAUREN CRONE
128018
LICENSED PROFESSIONAL ENGINEER
11/19/2024

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Austin, Texas 78735
Phone 512.439.4700
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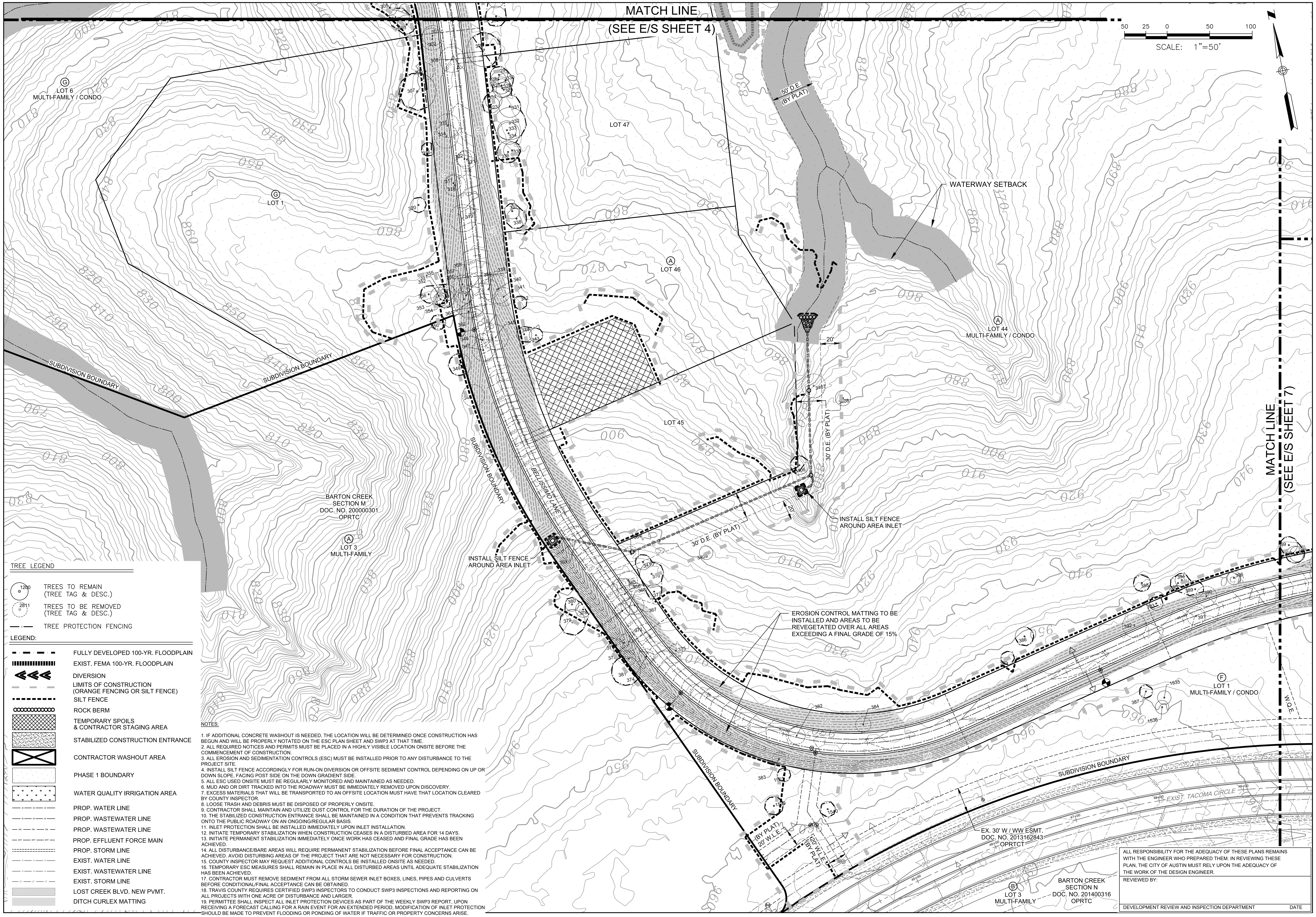
FRN - F-1386

JOB NUMBER: A208-440-426

SHEET NO. 23 OF 123 SHEETS

C8-2017-0277-.1B

R1 - REPLACEMENT SHEET



TREE LEGEND

1200	TREES TO REMAIN (TREE TAG & DESC.)
2811	TREES TO BE REMOVED (TREE TAG & DESC.)
	TREE PROTECTION FENCING

LEGEND:

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REVIEWED BY:

DEVELOPMENT REVIEW AND INSPECTION DEPARTMENT DATE

C8-2017-0277-.1B

BARTON CREEK

SECTIONS 'K', 'L', & 'O' (PHASE 1)
PAVING & DRAINAGE IMPROVEMENTS
EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN - (SHEET 6)

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: OCTOBER 2020
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: JAC
DRAWING NAME: KLO-Ph1-ES.dwg

STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER
11/19/2024

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7500 Rialto Boulevard
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Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A208-440-426

SHEET NO. 24 OF 123 SHEETS

R1 - REPLACEMENT SHEET

MATCH LINE
(SEE E/S SHEET 5)

MATCH LINE
(SEE E/S SHEET 6)

25' D.E. (BY PLAT)

LOT 44
MULTI-FAMILY / CONDO

LOT 43
MULTI-FAMILY / CONDO

LOT 42
MULTI-FAMILY / CONDO

LOT 41
MULTI-FAMILY / CONDO

LOT 1
MULTI-FAMILY / CONDO

LOT 3
MULTI-FAMILY / CONDO

EX. 30' W / WW ESMT.
DOC. NO. 2013162843
OPRTCT

30' S.S.E.

BELLISSIMO LANE

PICCOLO LANE

EXIST. TACOMA CIRCLE

SUBDIVISION BOUNDARY

PROP. TRAIL

15' TRAIL ESMT. (DOC. NO. 2020243680) OPRTCT

20' W.W.E. (DOC. NO. 2020243680) OPRTCT

S.S.E. (DOC. NO. 2020243700) OPRTCT

EX. 30' W / WW ESMT
DOC. NO. 2013162843
OPRTCT

D.E. (DOC. NO. 2020243680) OPRTCT

ACCESS & W.Q.E. (DOC. NO. 2013162833) OPRTCT

POND 'C'

W.Q.E.

EROSION CONTROL MATTING TO BE INSTALLED AND AREAS TO BE REVEGETATED OVER ALL AREAS EXCEEDING A FINAL GRADE OF 15%

INSTALL SILT FENCE AROUND AREA INLETS

INSTALL SILT FENCE AROUND AREA INLET

CONC. WASHOUT AREA - SEE DETAIL SHT. 26

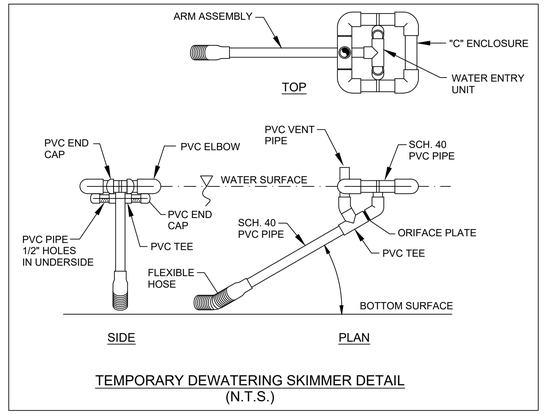
BARTON CREEK
SECTION N
DOC. NO. 201400316
OPRTC

LOT 3
MULTI-FAMILY

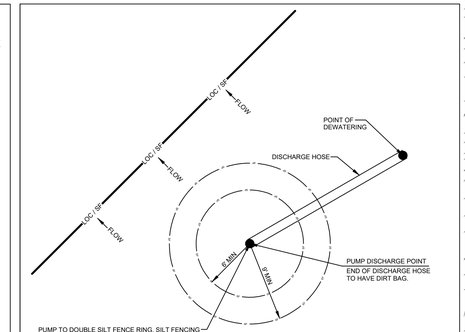
MATCH LINE
(SEE E/S DETAIL SHT. 1)

SCALE: 1"=50'

50 25 0 50 100



TEMPORARY DEWATERING SKIMMER DETAIL
(N.T.S.)



DEWATERING DETAIL
SCALE: NTS

TREE LEGEND

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REVIEWED BY:

DEVELOPMENT REVIEW AND INSPECTION DEPARTMENT DATE

C8-2017-0277-.1B

R1 - REPLACEMENT SHEET

BARTON CREEK
SECTIONS 'K', 'L', & 'O' (PHASE 1)
PAVING & DRAINAGE IMPROVEMENTS
EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN - (SHEET 7)

REVISIONS			
NO.	DESCRIPTION	BY	DATE

DATE: OCTOBER, 2020
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: JAC
DRAWING NAME: KLO-Ph1-ES.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
126018
LICENSED PROFESSIONAL ENGINEER
11/19/2024

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A208-440-426

SHEET NO. 25 OF 123 SHEETS

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User: ccorrea
Last Modified: Nov. 19, 24 - 10:13
Plot Date/Time: Nov. 19, 24 - 10:14:49

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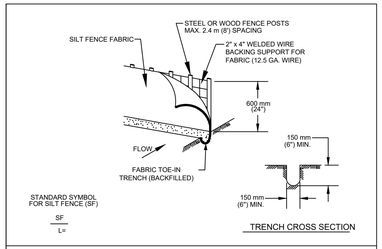


1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 inches) DEPTH, USE STEEL POSTS.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.

3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

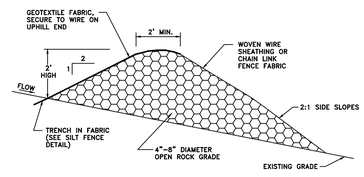
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		SILT FENCE	
RECORD COPY SIGNED BY MORGAN BYARS	*09/01/2011* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1

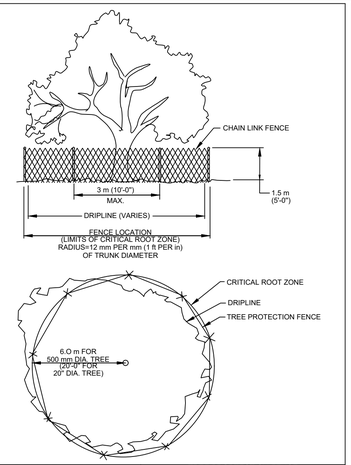
SEVERE SERVICE ROCK BERM WITH FILTER FABRIC



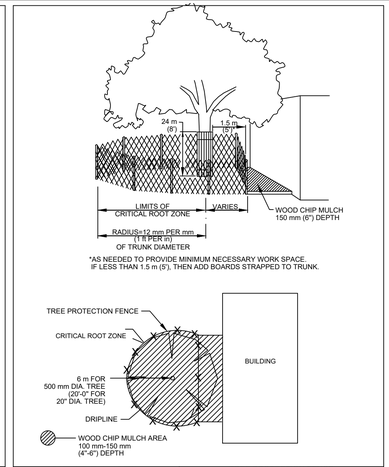
GENERAL NOTES:

1. **USE ONLY OPEN GRADED ROCK 4–8 INCHES IN DIAMETER FOR STREAMFLOW CONDITIONS**
2. **THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING A MAXIMUM 1 INCH OPENING AND MINIMUM WIRE DIAMETER OF 20 GAUGE SECURED WITH HOG RINGS. FOR SEVERE SERVICE, THE SHEATHING MUST BE SECURED OR STAKED TO THE STREAM BED.**
3. **SEVERE SERVICE BERMS SHALL BE INSPECTED DAILY, AND THE STONE AND/OR FABRIC AND WOVEN WIRE SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC. SILT SHALL BE REMOVED BEFORE ACCUMULATION REACHES 6 INCHES.**
4. **ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED SITE AND IN A MANNER AS TO NOT CREATE A SILTATION PROBLEM.**
5. **THE ENVIRONMENTAL CODE REVIEW AND INSPECTION DIVISION WILL DETERMINE WHETHER THE SEVERE SERVICE ROCK BERM WILL REMAIN ON THE SITE AFTER CONSTRUCTION/DEVELOPMENT ACTIVITY HAS ENDED.**

SOURCE: COA



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TREE PROPTECTION FENCE TYPE A - CHAIN LINK	
RECORD COPY SIGNED BY J. PATRICK MURPHY	11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-2



*AS NEEDED TO PROVIDE MINIMUM NECESSARY WORK SPACE. IF LESS THAN 1.5 m (5'), THEN ADD BOARDS STRAPPED TO TRUNK.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TREE PROTECTION FENCE MODIFIED TYPE A - CHAIN LINK	
RECORD COPY SIGNED BY J. PATRICK MURPHY	11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-4

NOTES:

1. MATERIAL - THE FABRIC MUST CORRESPOND TO THE FOLLWING REQUIREMENTS:

PROPERTY	ASTM TEST METHOD	REQUIREMENTS
FABRIC WEIGHT	D 3776	≥ 3.0 OUNCES/SQUARE YPAD
ULTRAVIOLET (UV) RADIATION STABILITY	D 4355	70% STRENGTH RETAINED MIN., AFTER 500 HOURS IN XENON ARC DEVICE
MULLEN BURST STRENGTH	D 3786	≥ 120 POUND PER SQUARE INCH
WATER FLOW RATE	D 4491	≥ 275 GALLONS/MINUTE/SQUARE FEET

2. THIS MATERIAL SHOULD HAVE A MAXIMUM EXPECTED USEFUL LIFE OF APPROXIMATELY EIGHTEEN (18) MONTHS. THE INLET PROTECTION DEVICES SHOULD BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN OUT AND DISPOSAL OF TRAPPED SEDIMENT WHILE MINIMIZING INTERFERENCE WITH CONSTRUCTION ACTIVITIES. THEY SHOULD ALSO BE CONSTRUCTED SUCH THAT ANY PONDING OF STORM WATER WILL NOT CAUSE EXCESSIVE R.O.W. FLOODING (I.E. ≤ 4 INCHES OF STANDING WATER) OR DAMAGE TO THE STRUCTURE OR ADBWFENTAREAS.

3. COVERAGE - THE FABRIC/WIRE SHOULD COMPLETELY COVER THE OPENING OF THE INLET AND DEVICES SHOULD BE INSTALLED WITHOUT PROTRUDING PARTS THAT COULD BE A TRAFFIC, WORKER, OR PEDESTRIAN HAZARD. WHERE SECTIONS OF THE FABRIC OVERLAP, THEY SHALL OVERLAP AT LEAST THREE(3) INCHES.

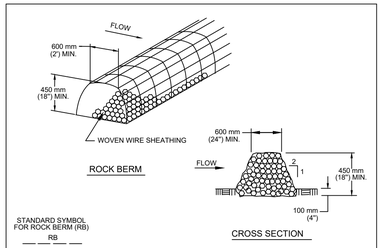
4. THE INLET FILTER SHALL BE ATTACHED IN A WAY THAT THEY CAN EASILY BE REMOVED AND ARE NOT SECURED OR ATTACHED BY THE USE OF SAND BAGS. THE INLET FILTER MUST BE REMOVED UPON COMPLETION OF WORK. IF REMOVAL DAMAGES THE CONCRETE CURB, THE CURB MUST BE REPAIRED IMMEDIATELY.

5. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN THE DEPTH REACHES 50 MM (2 INCHES) INCHES OR ONE - THIRD THE HEIGHT OF THE INLET THROAT, AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.

6. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORMWATER BEGINS TO OVERTOP THE CURB.

7. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT HAS ACHIEVED FINAL STABILIZATION CONDITIONS.

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



NOTES:

1. USE ONLY OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.

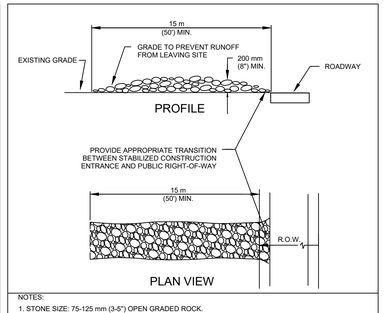
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).

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 SEDIMENTATION PROBLEM.

5. WHEN THE SITE IS COMPLETELY STABILIZED,THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

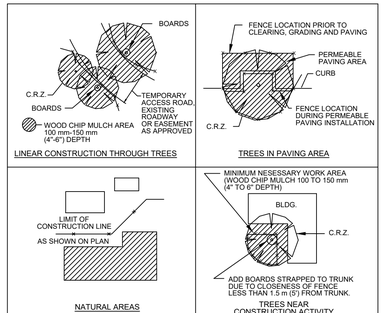
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		ROCK BERM	
RECORD COPY SIGNED BY MORGAN BYARS	8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S-1



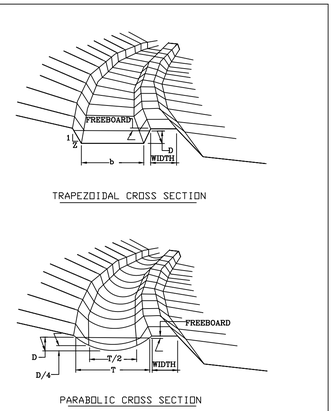
NOTES:

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

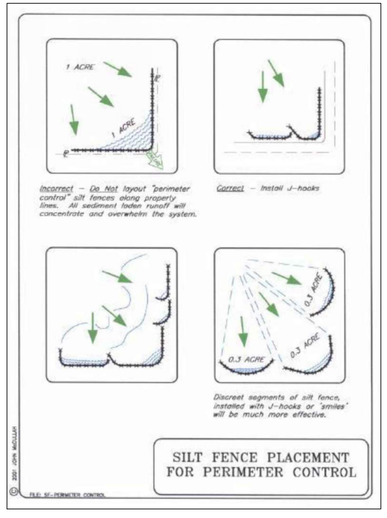
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		STABILIZED CONSTRUCTION ENTRANCE	
RECORD COPY SIGNED BY J. PATRICK MURPHY	5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1

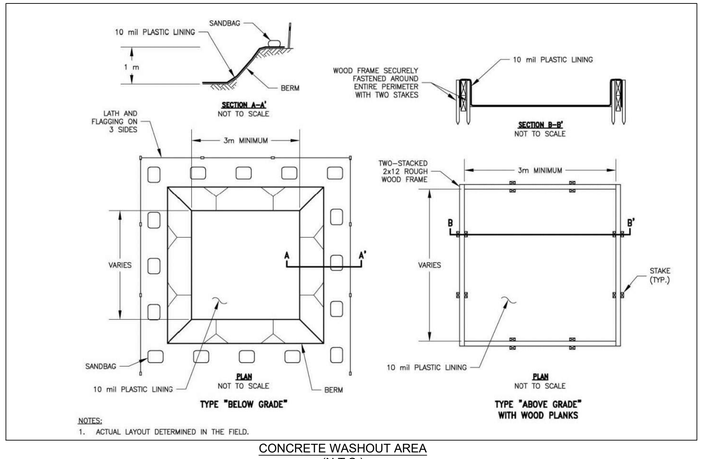


CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TREE PROTECTION FENCE LOCATIONS	
RECORD COPY SIGNED BY J. PATRICK MURPHY	11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-1



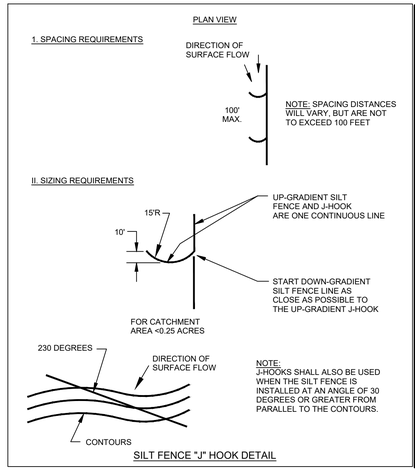
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		DIVERSION	
RECORD COPY SIGNED BY J. PATRICK MURPHY	*3/27/00* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 621S-1



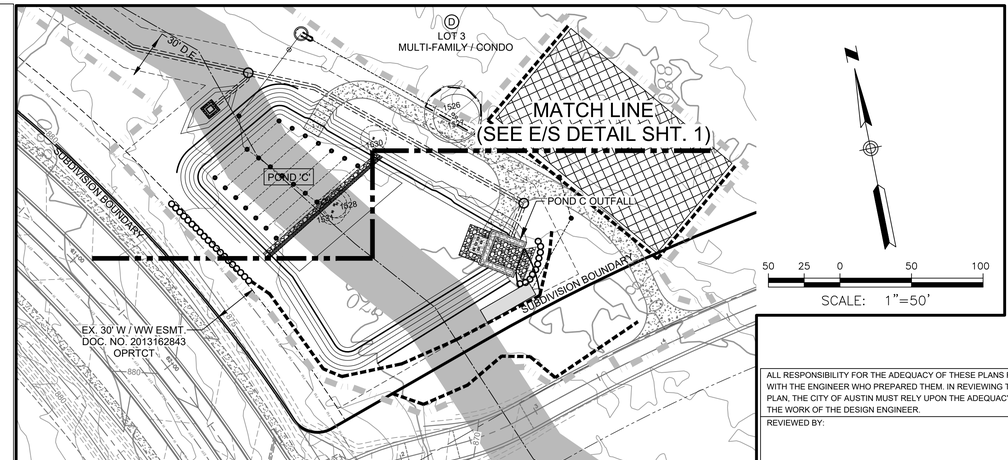


NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.

CONCRETE WASHOUT AREA
(N.T.S.)



SILT FENCE "J" HOOK DETAIL



ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLAN, THE CITY OF AUSTIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

REVIEWED BY:

DEVELOPMENT REVIEW AND INSPECTION DEPARTMENT DATE

C8-2017-0277-.1B

R1 - REPLACEMENT SHEET

BARTON CREEK
SECTIONS 'K', 'L', & 'O' (PHASE 1)
PAVING & DRAINAGE IMPROVEMENTS
EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN - NOTES & DETAILS - (SHEET 1)

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: OCTOBER, 2020
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: JAC
DRAWING NAME: KLO-Ph1-ES.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER
11/19/2024

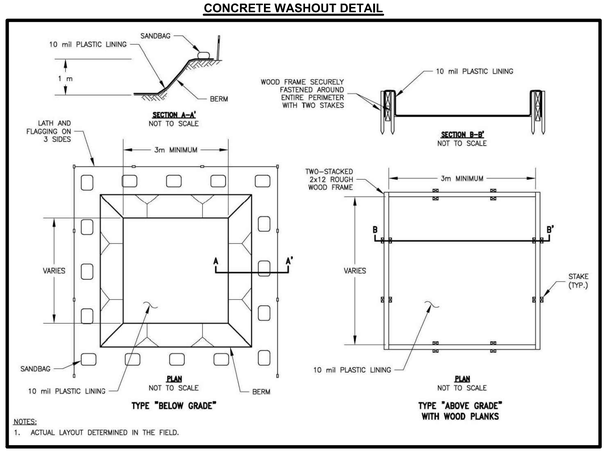
LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A208-440-426

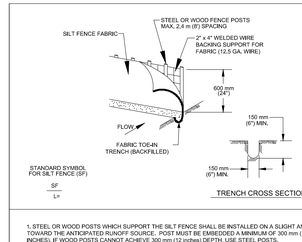
SHEET NO. 26 OF 123 SHEETS

I:\VKLO_Ph1_Revision #1\VKLO_Ph1_ES.dwg
User Name: Vivek Kumar
Last Modified: Nov. 19, 24 - 10:13
Plot Date/Time: Nov. 19, 24 - 10:14:54

CONCRETE WASHOUT DETAIL



NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.



1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 inches) DEPTH, USE STEEL POSTS.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.

3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

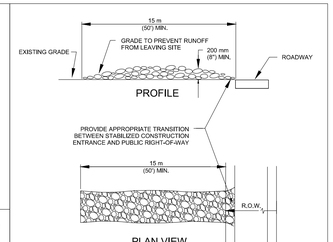
4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	
RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1



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

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STABILIZED CONSTRUCTION ENTRANCE	
RECORD COPY SIGNED BY J. PATRICK MURPHY 5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1

NOTES:

1. ALL REQUIRED NOTICES AND PERMITS MUST BE PLACED IN A HIGHLY VISIBLE LOCATION ONSITE BEFORE THE COMMENCEMENT OF CONSTRUCTION.

2. ALL EROSION AND SEDIMENTATION CONTROLS (ESC) MUST BE INSTALLED PRIOR TO ANY DISTURBANCE TO THE PROJECT SITE.

3. ALL ESC USED ONSITE MUST BE REGULARLY MONITORED AND MAINTAINED AS NEEDED.

4. MUD AND OR DIRT TRACKED INTO THE ROADWAY MUST BE IMMEDIATELY REMOVED UPON DISCOVERY.

5. EXCESS MATERIALS THAT WILL BE TRANSPORTED TO AN OFFSITE LOCATION MUST HAVE THAT LOCATION CLEARED BY COUNTY INSPECTOR.

6. LOOSE TRASH AND DEBRIS MUST BE DISPOSED OF PROPERLY ONSITE.

7. CONTRACTOR SHALL MAINTAIN AND UTILIZE DUST CONTROL FOR THE DURATION OF THE PROJECT.

8. INITIATE PERMANENT STABILIZATION IMMEDIATELY ONCE WORK HAS CEASED AND FINAL GRADE HAS BEEN ACHIEVED.

9. ALL DISTURBED/BARE AREAS WILL REQUIRE PERMANENT STABILIZATION BEFORE FINAL ACCEPTANCE CAN BE ACHIEVED. AVOID DISTURBING AREAS OF THE PROJECT THAT ARE NOT NECESSARY FOR CONSTRUCTION.

10. COUNTY INSPECTOR MAY REQUEST ADDITIONAL CONTROLS BE INSTALLED ONSITE AS NEEDED.

11. TEMPORARY ESC MEASURES SHALL REMAIN IN PLACE IN ALL DISTURBED AREAS UNTIL ADEQUATE STABILIZATION HAS BEEN ACHIEVED.

TOTAL AREA OF DISTURBANCE = 32,161 SF (0.74 AC)

TOTAL PROPOSED IMPERVIOUS COVER = 9,816 SF (0.23 AC)

SPOILS MANAGEMENT AND DISPOSAL NOTES

1. TEMPORARY HOLDING SITES AS NECESSARY TO STOCKPILE EXCAVATED SOILS, EMBEDMENT MATERIAL, AND/OR PIPING AND APPURTENANCES MAY BE LOCATED WITHIN THE LIMITS OF CONSTRUCTION AS SHOWN ON THE PLANS.

2. NO PERMANENT SPOILS DISPOSAL SHALL BE ALLOWED ON-SITE, UNLESS APPROVED BY THE OWNER AND GOVERNING AUTHORITY.

3. ALL SPOILS MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED SPOIL DISPOSAL SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND SECURING A PERMIT FOR THE SITE; AND SHALL NOTIFY THE OWNER AND/OR ENGINEER AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO DISPOSAL OF ANY SPOILS MATERIAL.

BARTON CREEK HOLDEN HILLS
PHASE 1 BLOCK C, LOTS 6, 7 AND 8
DRIVEWAY IMPROVEMENTS
EROSION CONTROL AND TREE PLAN

NO.	DESCRIPTION	BY	DATE

REVISIONS

DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: I:\A111-2403 (Victor SF)\Driveway Permits\Drive A\10-EROS CONT AND TREE PLAN.dwg

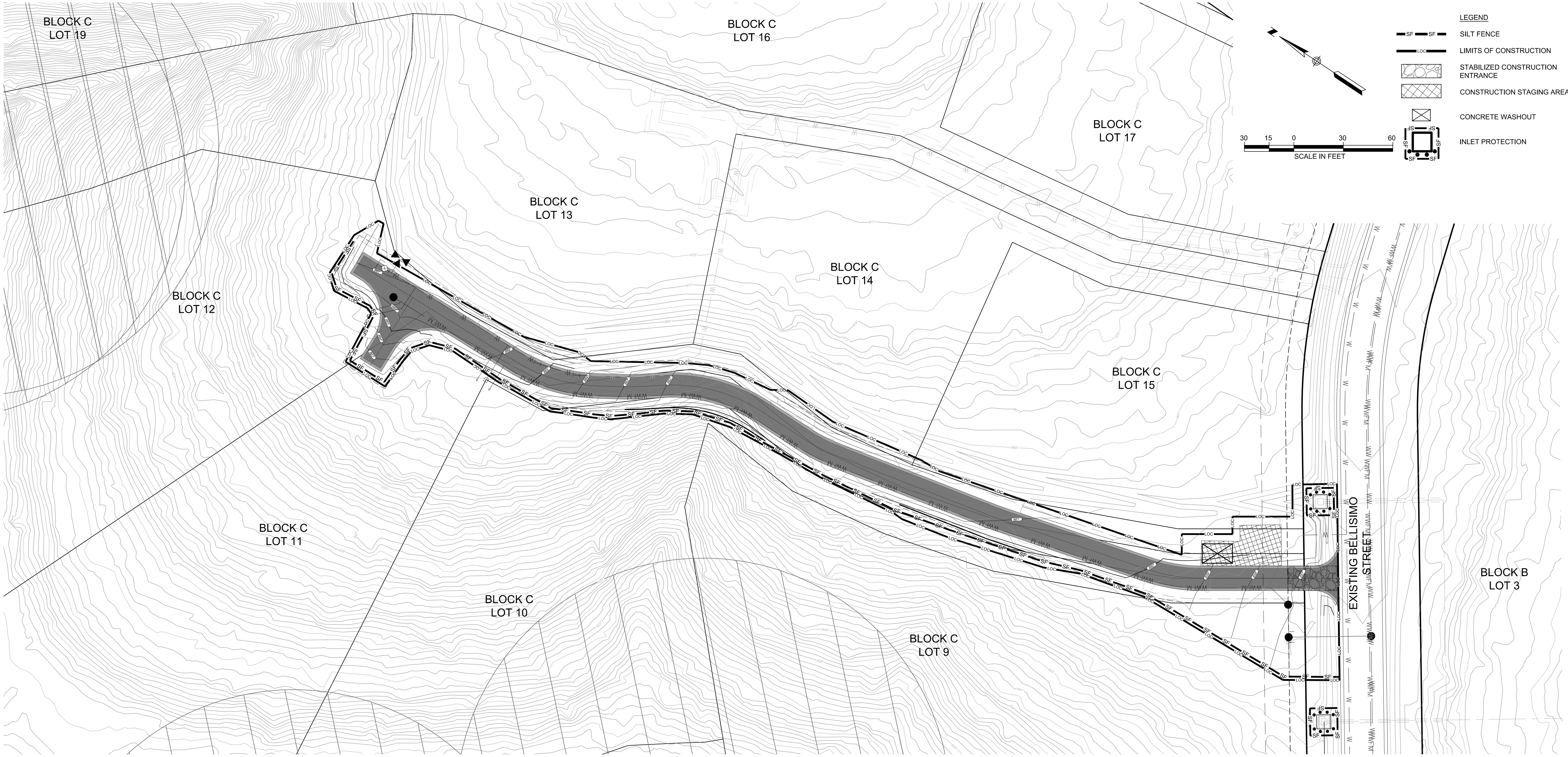
Lauren Crone
STATE OF TEXAS
LAUREN CRONE
126018
LICENSED
PROFESSIONAL ENGINEER
3/18/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

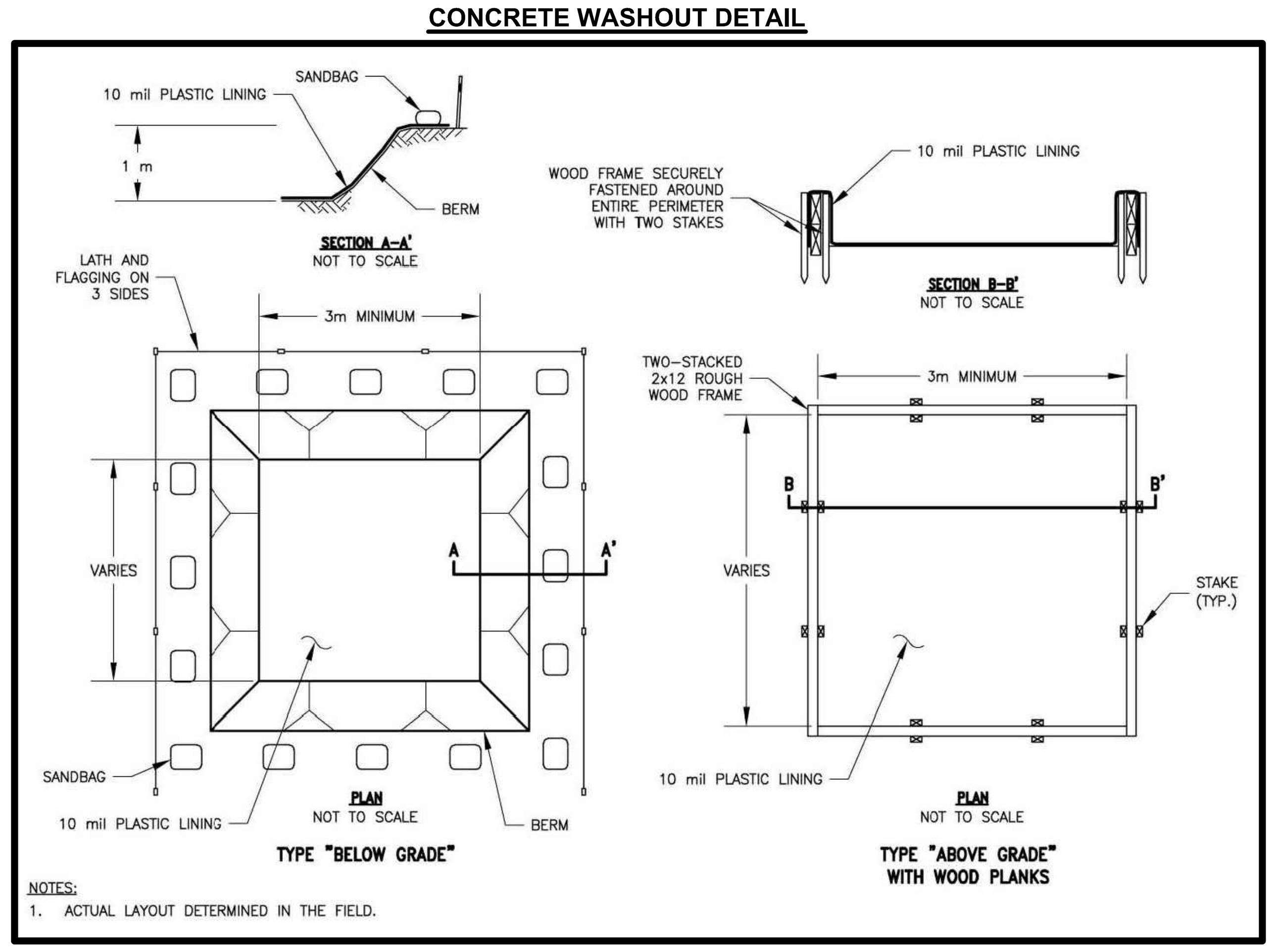
JOB NUMBER: A111-2403

SHEET NO. 10 OF 16 SHEETS

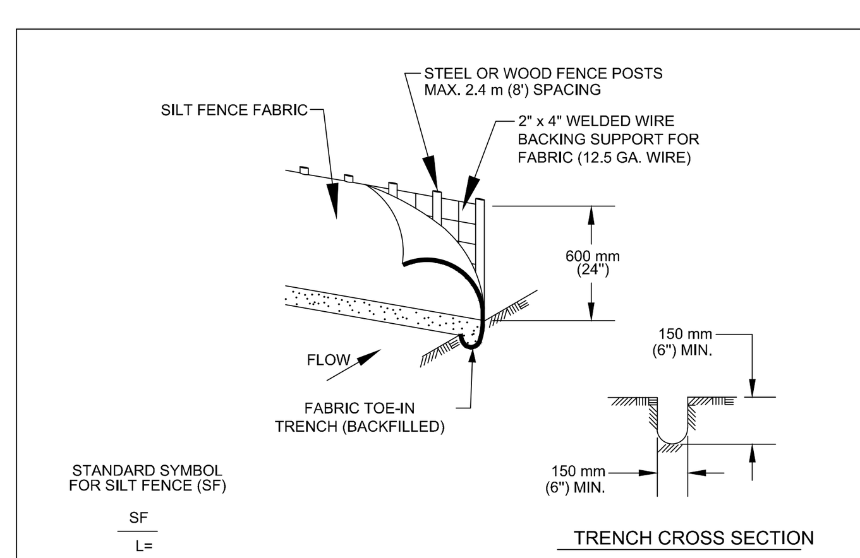
I:\A111-2403 (Victor SF)\Driveway Permits\Drive A\10-EROS CONT AND TREE PLAN.dwg
User: dhayes
Last Modified: Mar. 18, 25 - 14:39
Plot Date/Time: Mar. 18, 25 - 16:50:52



CONCRETE WASHOUT DETAIL



NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.



1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 inches) DEPTH, USE STEEL POSTS.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.

3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

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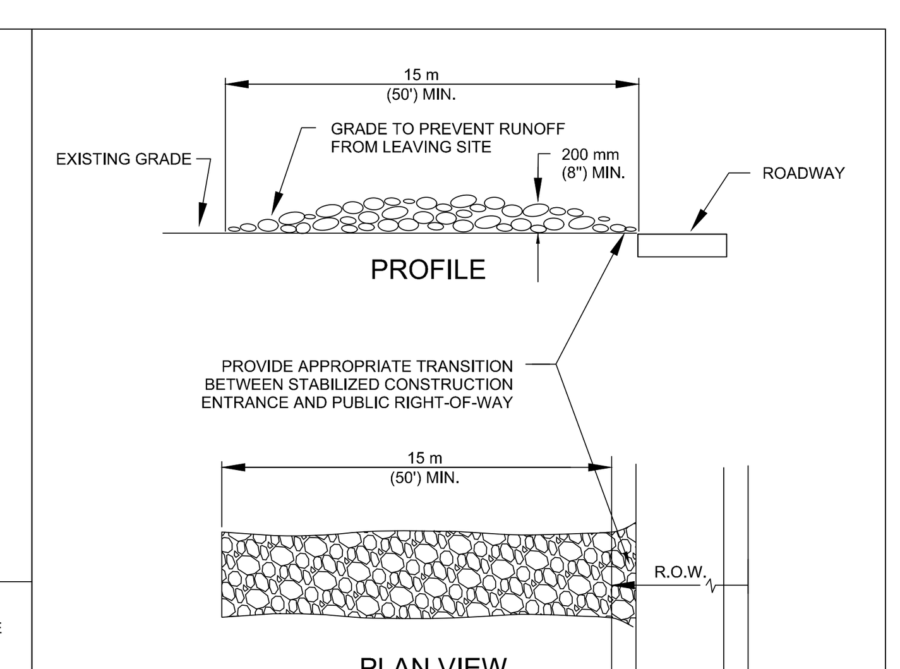
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		SILT FENCE	
RECORD COPY SIGNED BY MORGAN BYARS	09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1



NOTES:

1. STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
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7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		STABILIZED CONSTRUCTION ENTRANCE	
RECORD COPY SIGNED BY J. PATRICK MURPHY	5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1

NOTES:

1. ALL REQUIRED NOTICES AND PERMITS MUST BE PLACED IN A HIGHLY VISIBLE LOCATION ONSITE BEFORE THE COMMENCEMENT OF CONSTRUCTION.

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10. COUNTY INSPECTOR MAY REQUEST ADDITIONAL CONTROLS BE INSTALLED ONSITE AS NEEDED.

11. TEMPORARY ESC MEASURES SHALL REMAIN IN PLACE IN ALL DISTURBED AREAS UNTIL ADEQUATE STABILIZATION HAS BEEN ACHIEVED.

TOTAL AREA OF DISTURBANCE = 28,268 SF (0.65 AC)

TOTAL PROPOSED IMPERVIOUS COVER = 10,561 SF (0.24 AC)

SPOILS MANAGEMENT AND DISPOSAL NOTES

1. TEMPORARY HOLDING SITES AS NECESSARY TO STOCKPILE EXCAVATED SOILS, EMBEDMENT MATERIAL, AND/OR PIPING AND APPURTENANCES MAY BE LOCATED WITHIN THE LIMITS OF CONSTRUCTION AS SHOWN ON THE PLANS.
2. NO PERMANENT SPOILS DISPOSAL SHALL BE ALLOWED ON-SITE, UNLESS APPROVED BY THE OWNER AND GOVERNING AUTHORITY.
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BARTON CREEK HOLDEN HILLS PHASE 1 BLOCK C, LOTS 10, 11 AND 12 DRIVEWAY IMPROVEMENTS

EROSION CONTROL & TREE PLAN

REVISIONS: NO. | DESCRIPTION | BY | DATE

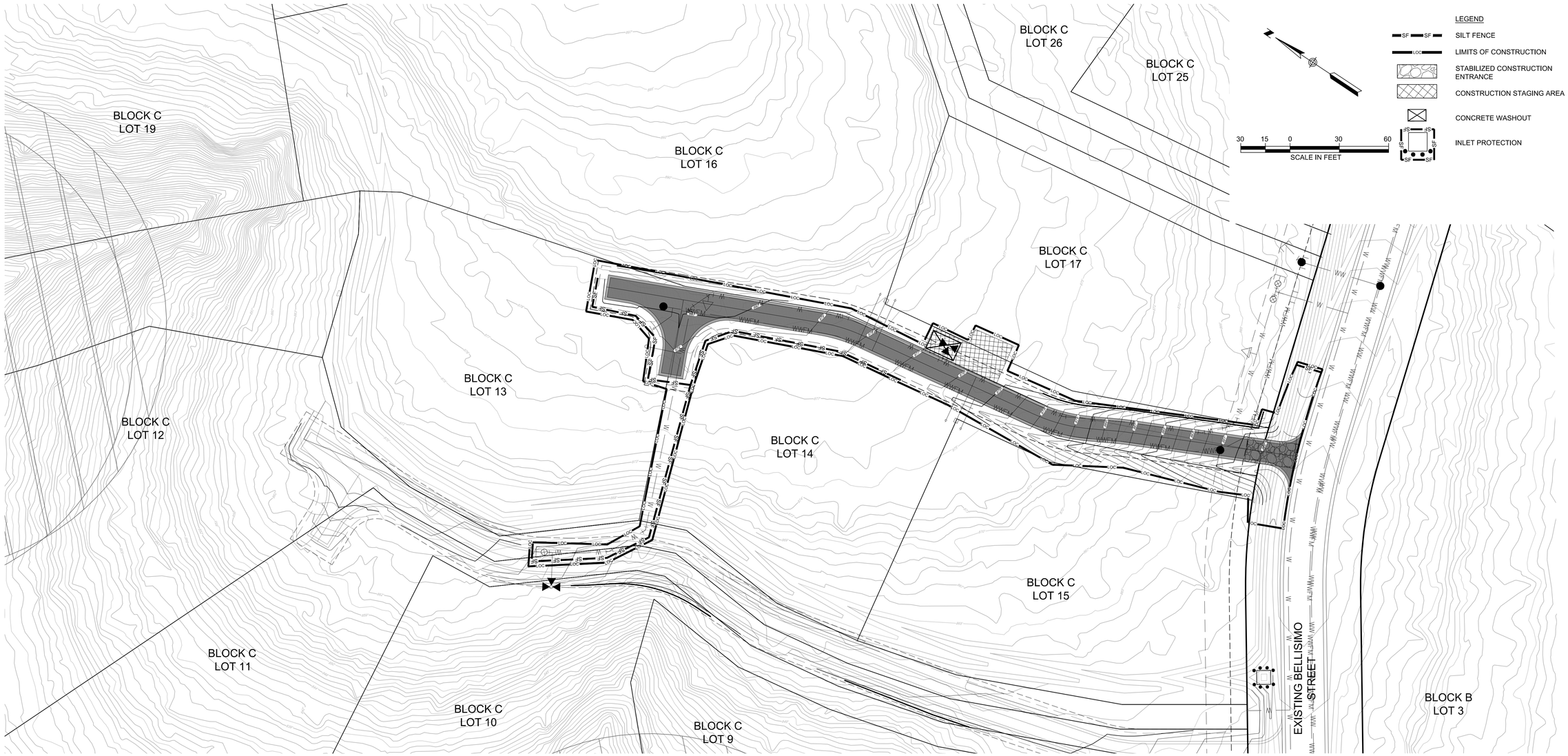
DATE: | DESIGNED BY: | DRAWN BY: | CHECKED BY: | DRAWING NAME: CONT AND TREE PLAN.dwg

LAUREN CRONE 126016 LICENSED PROFESSIONAL ENGINEER, STATE OF TEXAS — 3/18/2025

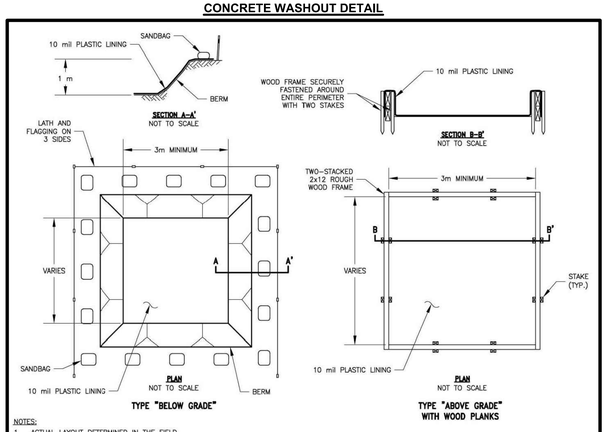
LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-2403

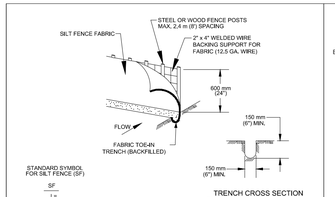
SHEET NO. 10 OF 15 SHEETS



CONCRETE WASHOUT DETAIL



NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.



TRENCH CROSS SECTION

1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES), IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 inches) DEPTH, USE STEEL POSTS.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.

3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

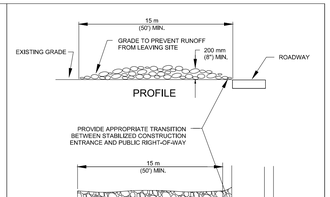
4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	
RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1



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

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STABILIZED CONSTRUCTION ENTRANCE	
RECORD COPY SIGNED BY J. PATRICK MURPHY 5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1

NOTES:

1. ALL REQUIRED NOTICES AND PERMITS MUST BE PLACED IN A HIGHLY VISIBLE LOCATION ONSITE BEFORE THE COMMENCEMENT OF CONSTRUCTION.

2. ALL EROSION AND SEDIMENTATION CONTROLS (ESC) MUST BE INSTALLED PRIOR TO ANY DISTURBANCE TO THE PROJECT SITE.

3. ALL ESC USED ONSITE MUST BE REGULARLY MONITORED AND MAINTAINED AS NEEDED.

4. MUD AND OR DIRT TRACKED INTO THE ROADWAY MUST BE IMMEDIATELY REMOVED UPON DISCOVERY.

5. EXCESS MATERIALS THAT WILL BE TRANSPORTED TO AN OFFSITE LOCATION MUST HAVE THAT LOCATION CLEARED BY COUNTY INSPECTOR.

6. LOOSE TRASH AND DEBRIS MUST BE DISPOSED OF PROPERLY ONSITE.

7. CONTRACTOR SHALL MAINTAIN AND UTILIZE DUST CONTROL FOR THE DURATION OF THE PROJECT.

8. INITIATE PERMANENT STABILIZATION IMMEDIATELY ONCE WORK HAS CEASED AND FINAL GRADE HAS BEEN ACHIEVED.

9. ALL DISTURBED/BARE AREAS WILL REQUIRE PERMANENT STABILIZATION BEFORE FINAL ACCEPTANCE CAN BE ACHIEVED. AVOID DISTURBING AREAS OF THE PROJECT THAT ARE NOT NECESSARY FOR CONSTRUCTION.

10. COUNTY INSPECTOR MAY REQUEST ADDITIONAL CONTROLS BE INSTALLED ONSITE AS NEEDED.

11. TEMPORARY ESC MEASURES SHALL REMAIN IN PLACE IN ALL DISTURBED AREAS UNTIL ADEQUATE STABILIZATION HAS BEEN ACHIEVED.

SPOILS MANAGEMENT AND DISPOSAL NOTES

1. TEMPORARY HOLDING SITES AS NECESSARY TO STOCKPILE EXCAVATED SOILS, EMBEDMENT MATERIAL, AND/OR PIPING AND APPURTENANCES MAY BE LOCATED WITHIN THE LIMITS OF CONSTRUCTION AS SHOWN ON THE PLANS.

2. NO PERMANENT SPOILS DISPOSAL SHALL BE ALLOWED ON-SITE, UNLESS APPROVED BY THE OWNER AND GOVERNING AUTHORITY.

3. ALL SPOILS MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED SPOIL DISPOSAL SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND SECURING A PERMIT FOR THE SITE; AND SHALL NOTIFY THE OWNER AND/OR ENGINEER AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO DISPOSAL OF ANY SPOILS MATERIAL.

TOTAL AREA OF DISTURBANCE = 20,654 SF (0.47 AC)

TOTAL PROPOSED IMPERVIOUS COVER = 7,496 SF (0.17 AC)

BARTON CREEK HOLDEN HILLS PHASE 1 BLOCK C, LOTS 13, 14 AND 16 DRIVEWAY IMPROVEMENTS

EROSION CONTROL AND TREE PLAN

NO.	DESCRIPTION	BY	DATE

REVISIONS

DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: CONT AND TREE PLAN.dwg

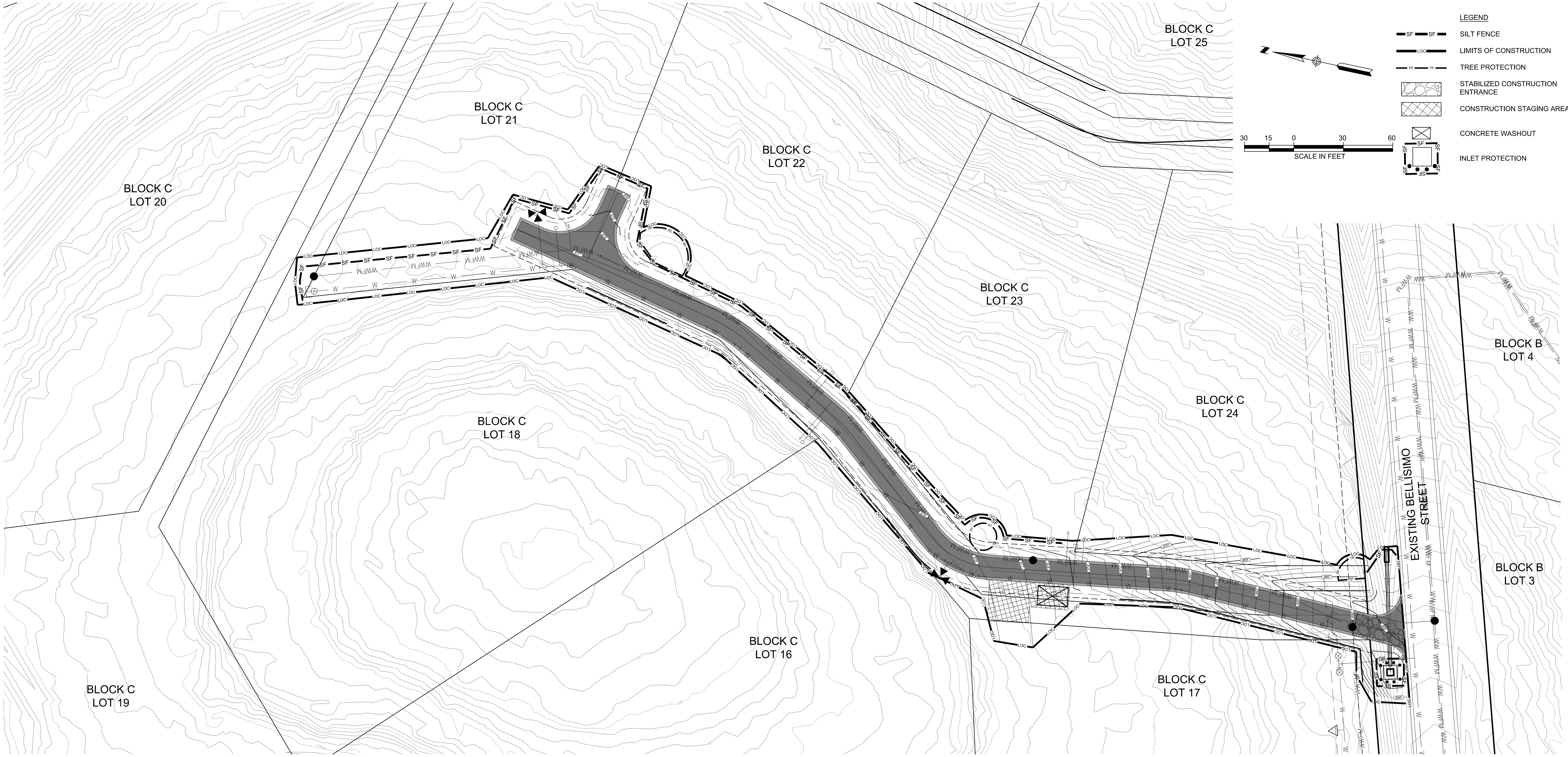
LAUREN CRONE
128018
LICENSED PROFESSIONAL ENGINEER
3/18/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

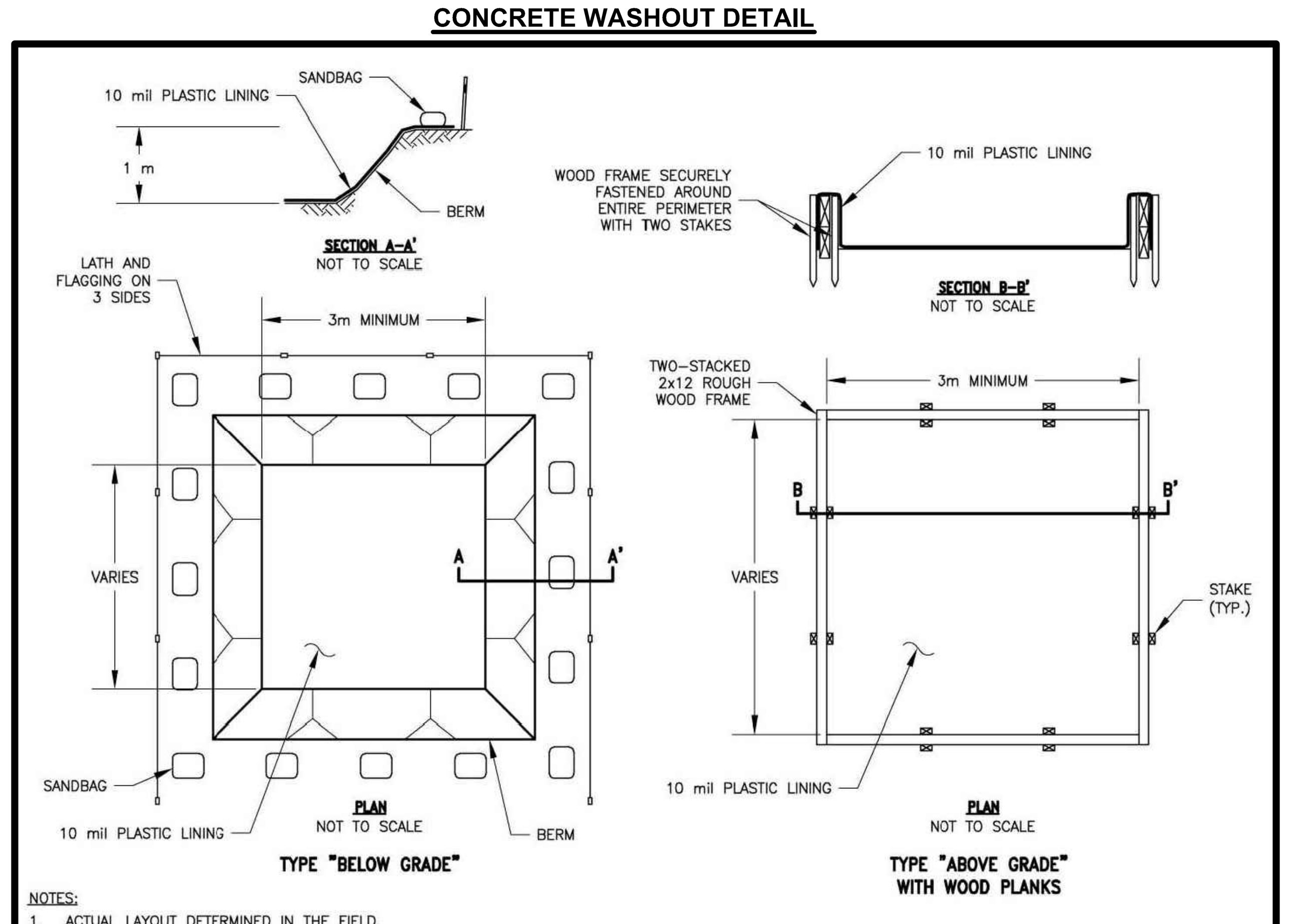
JOB NUMBER: A111-2403

SHEET NO. 10 OF 16 SHEETS

I:\A111-2403 (Victor ST)\Driveway Permits\Drive CV10-ERO CONT AND TREE PLAN.dwg
User: dhayes
Last Modified: Mar. 18, 25 - 11:08
Plot Date/Time: Mar. 18, 25 - 11:03



CONCRETE WASHOUT DETAIL



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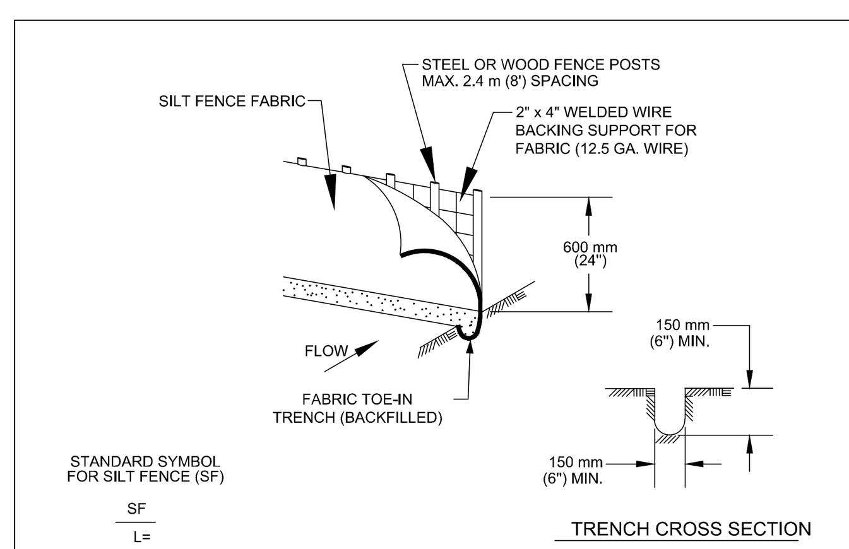

1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 inches) DEPTH, USE STEEL POSTS.

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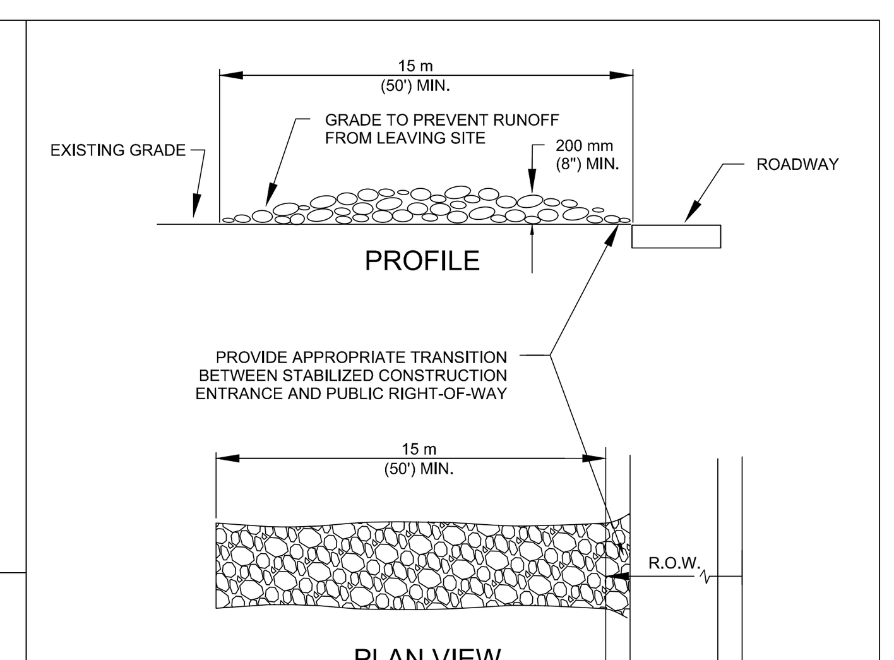
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		SILT FENCE	
RECORD COPY SIGNED BY MORGAN BYARS	09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1



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CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		STABILIZED CONSTRUCTION ENTRANCE	
RECORD COPY SIGNED BY J. PATRICK MURPHY	5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1

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TOTAL AREA OF DISTURBANCE =32,890 SF (0.76 AC)

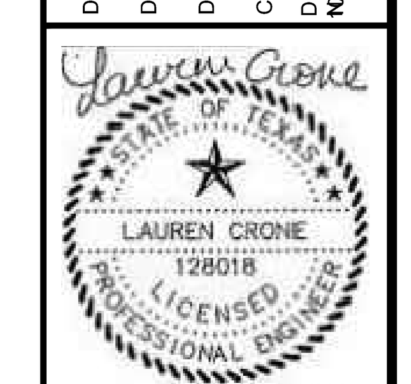
TOTAL PROPOSED IMPERVIOUS COVER = 10,245 SF (0.24 AC)

BARTON CREEK HOLDEN HILLS PHASE 1 BLOCK C, LOTS 21, 22 AND 23 DRIVEWAY IMPROVEMENTS

EROSION CONTROL & TREE PLAN

NO.	REVISIONS DESCRIPTION	BY	DATE

DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: ERO CONT AND TREE PLAN.dwg

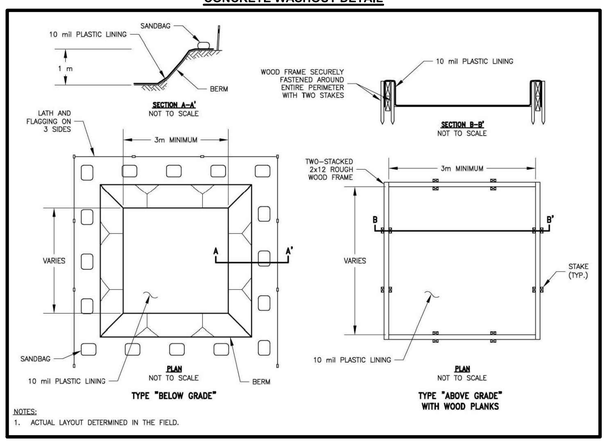


LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-2403

SHEET NO. 10 OF 16 SHEETS

CONCRETE WASHOUT DETAIL



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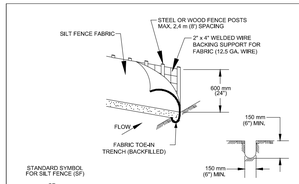

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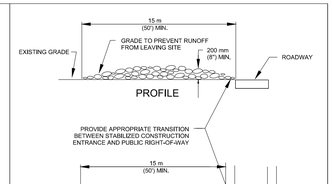
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	
RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1



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CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STABILIZED CONSTRUCTION ENTRANCE	
RECORD COPY SIGNED BY J. PATRICK MURPHY 5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1

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TOTAL AREA OF DISTURBANCE =60,463 SF (1.39 AC)

TOTAL PROPOSED IMPERVIOUS COVER = 16,499 SF (0.38 AC)

BARTON CREEK HOLDEN HILLS PHASE 1 BLOCK C, LOTS 18, 19 AND 20 DRIVEWAY IMPROVEMENTS

EROSION CONTROL AND TREE PLAN

NO.	DESCRIPTION	BY	DATE

REVISIONS

DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: CONT AND TREE PLAN.dwg

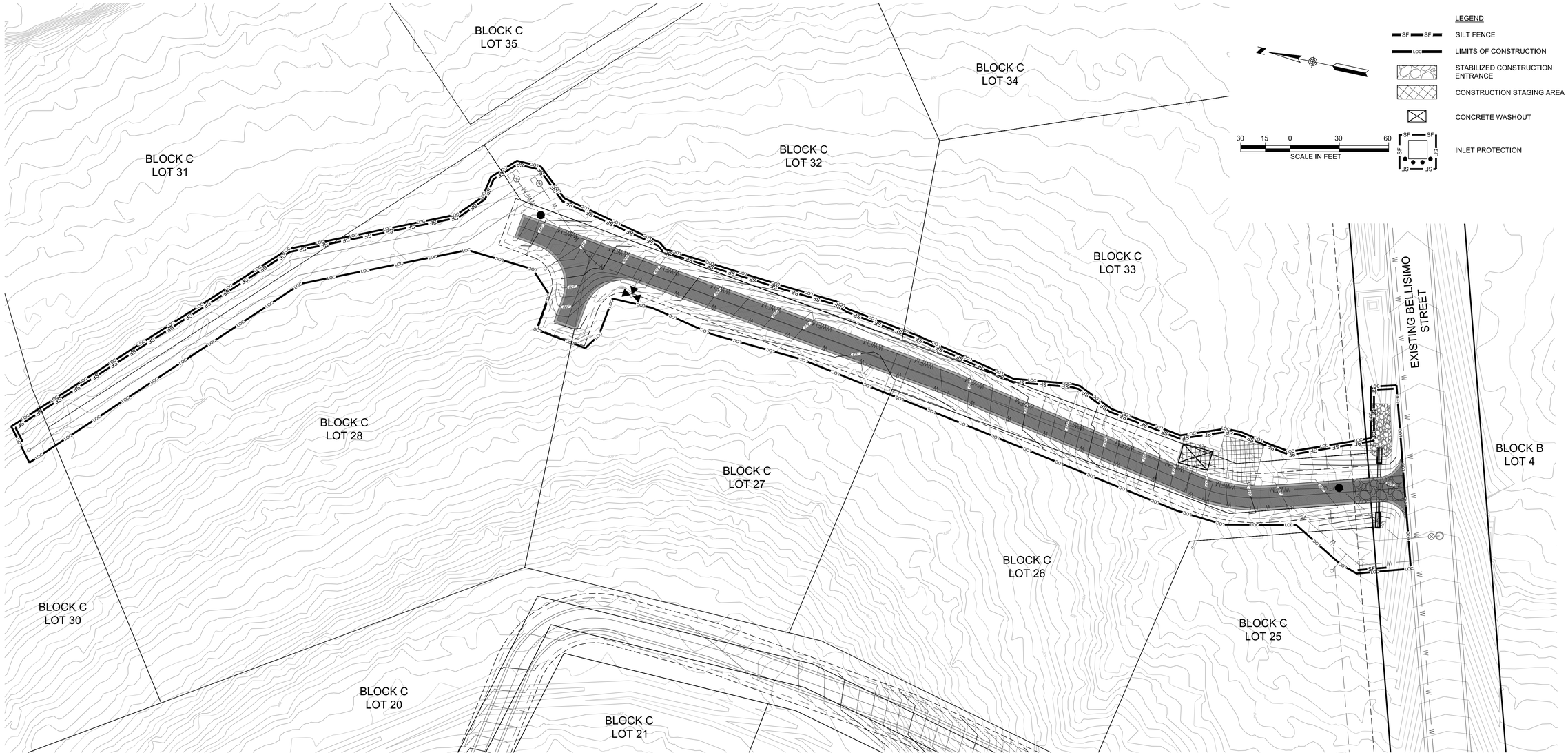
Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED PROFESSIONAL ENGINEER
3/18/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

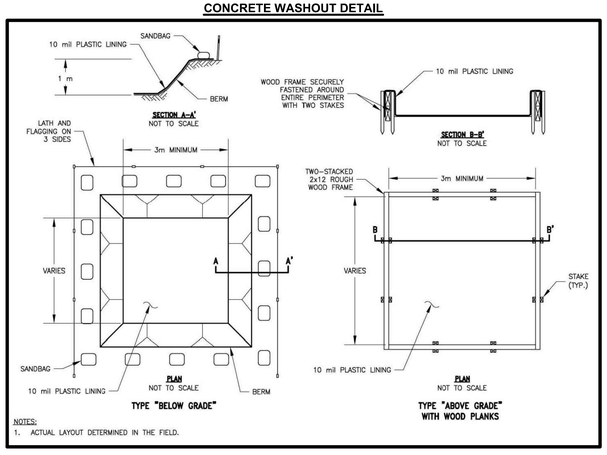
JOB NUMBER: A111-2403

SHEET NO. 10 OF 16 SHEETS

I:\A111-2403 (River SF)\Drawing Permits\Drive E\10-ERO CONT AND TREE PLAN.dwg
User: dhoyes
Last Modified: Mar. 18, 25 - 17:54
Plot Date/Time: Mar. 18, 25 - 19:10:03



CONCRETE WASHOUT DETAIL



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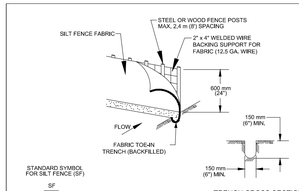

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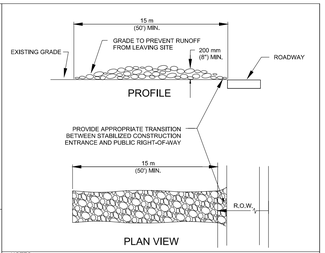
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	
RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1



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

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STABILIZED CONSTRUCTION ENTRANCE	
RECORD COPY SIGNED BY J. PATRICK MURPHY 5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1

NOTES:

1. ALL REQUIRED NOTICES AND PERMITS MUST BE PLACED IN A HIGHLY VISIBLE LOCATION ONSITE BEFORE THE COMMENCEMENT OF CONSTRUCTION.

2. ALL EROSION AND SEDIMENTATION CONTROLS (ESC) MUST BE INSTALLED PRIOR TO ANY DISTURBANCE TO THE PROJECT SITE.

3. ALL ESC USED ONSITE MUST BE REGULARLY MONITORED AND MAINTAINED AS NEEDED.

4. MUD AND OR DIRT TRACKED INTO THE ROADWAY MUST BE IMMEDIATELY REMOVED UPON DISCOVERY.

5. EXCESS MATERIALS THAT WILL BE TRANSPORTED TO AN OFFSITE LOCATION MUST HAVE THAT LOCATION CLEARED BY COUNTY INSPECTOR.

6. LOOSE TRASH AND DEBRIS MUST BE DISPOSED OF PROPERLY ONSITE.

7. CONTRACTOR SHALL MAINTAIN AND UTILIZE DUST CONTROL FOR THE DURATION OF THE PROJECT.

8. INITIATE PERMANENT STABILIZATION IMMEDIATELY ONCE WORK HAS CEASED AND FINAL GRADE HAS BEEN ACHIEVED.

9. ALL DISTURBED/BARE AREAS WILL REQUIRE PERMANENT STABILIZATION BEFORE FINAL ACCEPTANCE CAN BE ACHIEVED. AVOID DISTURBING AREAS OF THE PROJECT THAT ARE NOT NECESSARY FOR CONSTRUCTION.

10. COUNTY INSPECTOR MAY REQUEST ADDITIONAL CONTROLS BE INSTALLED ONSITE AS NEEDED.

11. TEMPORARY ESC MEASURES SHALL REMAIN IN PLACE IN ALL DISTURBED AREAS UNTIL ADEQUATE STABILIZATION HAS BEEN ACHIEVED.

SPOILS MANAGEMENT AND DISPOSAL NOTES

1. TEMPORARY HOLDING SITES AS NECESSARY TO STOCKPILE EXCAVATED SOILS, EMBEDMENT MATERIAL, AND/OR PIPING AND APPURTENANCES MAY BE LOCATED WITHIN THE LIMITS OF CONSTRUCTION AS SHOWN ON THE PLANS.

2. NO PERMANENT SPOILS DISPOSAL SHALL BE ALLOWED ON-SITE, UNLESS APPROVED BY THE OWNER AND GOVERNING AUTHORITY.

3. ALL SPOILS MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED SPOIL DISPOSAL SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND SECURING A PERMIT FOR THE SITE; AND SHALL NOTIFY THE OWNER AND/OR ENGINEER AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO DISPOSAL OF ANY SPOILS MATERIAL.

TOTAL AREA OF DISTURBANCE =36,894 SF (0.85 AC)

TOTAL PROPOSED IMPERVIOUS COVER = 9,509 SF (0.21 AC)

BARTON CREEK HOLDEN HILLS PHASE 1 BLOCK C, LOTS 26, 27 AND 28 DRIVEWAY IMPROVEMENTS

EROSION CONT AND TREE PLAN

NO.	DESCRIPTION	BY	DATE

REVISIONS

DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: CONT AND TREE PLAN.dwg

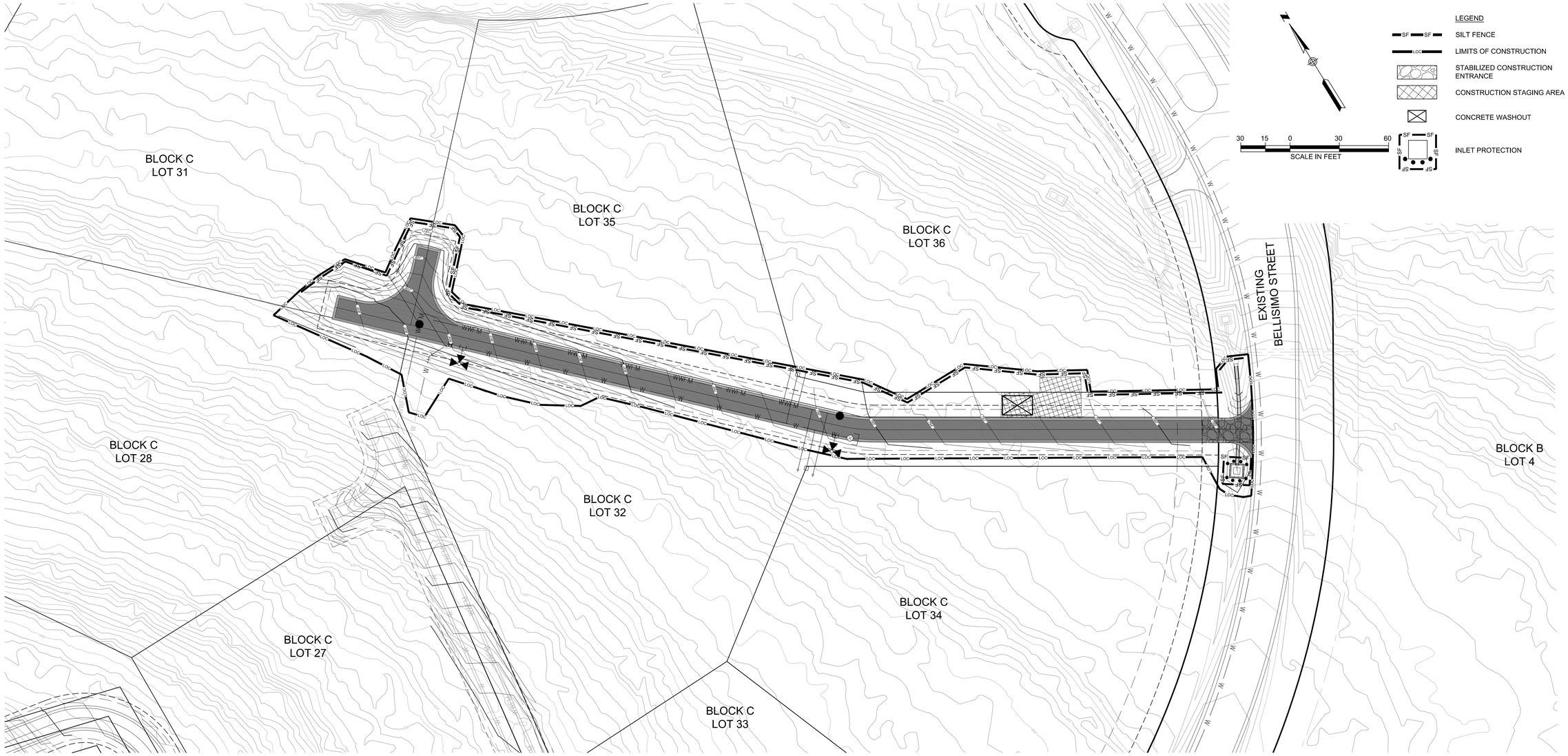
LAUREN CRONE
12/2018
LICENSED PROFESSIONAL ENGINEER
3/18/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

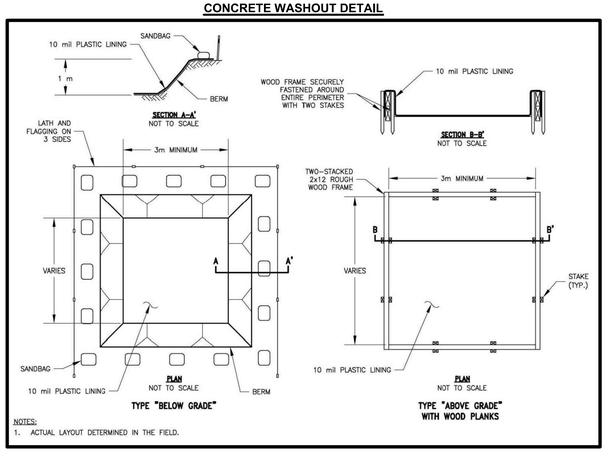
JOB NUMBER: A111-2403

SHEET NO. 10 OF 16 SHEETS

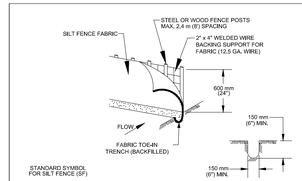
I:\A111-2403 (Victor SF)\Driveway Permits\Drive F\10-ERO CONT AND TREE PLAN.dwg
User: dhayes
Last Modified: Mar. 18, 25 - 18:54
Plot Date/Time: Mar. 18, 25 - 19:58



CONCRETE WASHOUT DETAIL

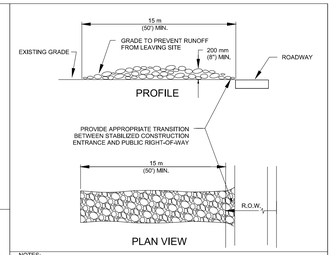


NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.



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

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	
RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1



NOTES:
1. STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
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4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
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6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STABILIZED CONSTRUCTION ENTRANCE	
RECORD COPY SIGNED BY J. PATRICK MURPHY 5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1

NOTES:

1. ALL REQUIRED NOTICES AND PERMITS MUST BE PLACED IN A HIGHLY VISIBLE LOCATION ONSITE BEFORE THE COMMENCEMENT OF CONSTRUCTION.
2. ALL EROSION AND SEDIMENTATION CONTROLS (ESC) MUST BE INSTALLED PRIOR TO ANY DISTURBANCE TO THE PROJECT SITE.
3. ALL ESC USED ONSITE MUST BE REGULARLY MONITORED AND MAINTAINED AS NEEDED.
4. MUD AND OR DIRT TRACKED INTO THE ROADWAY MUST BE IMMEDIATELY REMOVED UPON DISCOVERY.
5. EXCESS MATERIALS THAT WILL BE TRANSPORTED TO AN OFFSITE LOCATION MUST HAVE THAT LOCATION CLEARED BY COUNTY INSPECTOR.
6. LOOSE TRASH AND DEBRIS MUST BE DISPOSED OF PROPERLY ONSITE.
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8. INITIATE PERMANENT STABILIZATION IMMEDIATELY ONCE WORK HAS CEASED AND FINAL GRADE HAS BEEN ACHIEVED.
9. ALL DISTURBED/BARE AREAS WILL REQUIRE PERMANENT STABILIZATION BEFORE FINAL ACCEPTANCE CAN BE ACHIEVED. AVOID DISTURBING AREAS OF THE PROJECT THAT ARE NOT NECESSARY FOR CONSTRUCTION.
10. COUNTY INSPECTOR MAY REQUEST ADDITIONAL CONTROLS BE INSTALLED ONSITE AS NEEDED.
11. TEMPORARY ESC MEASURES SHALL REMAIN IN PLACE IN ALL DISTURBED AREAS UNTIL ADEQUATE STABILIZATION HAS BEEN ACHIEVED.

TOTAL AREA OF DISTURBANCE =30,511 SF (0.70 AC)

TOTAL PROPOSED IMPERVIOUS COVER = 9,498 SF (0.22 AC)

SPOILS MANAGEMENT AND DISPOSAL NOTES

1. TEMPORARY HOLDING SITES AS NECESSARY TO STOCKPILE EXCAVATED SOILS, EMBEDMENT MATERIAL, AND/OR PIPING AND APPURTENANCES MAY BE LOCATED WITHIN THE LIMITS OF CONSTRUCTION AS SHOWN ON THE PLANS.
2. NO PERMANENT SPOILS DISPOSAL SHALL BE ALLOWED ON-SITE, UNLESS APPROVED BY THE OWNER AND GOVERNING AUTHORITY.
3. ALL SPOILS MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED SPOIL DISPOSAL SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND SECURING A PERMIT FOR THE SITE; AND SHALL NOTIFY THE OWNER AND/OR ENGINEER AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO DISPOSAL OF ANY SPOILS MATERIAL.

BARTON CREEK HOLDEN HILLS PHASE 1 BLOCK C, LOTS 31, 32 AND 35 DRIVEWAY IMPROVEMENTS

EROSION CONTROL AND TREE PLAN

NO.	DESCRIPTION	BY	DATE

REVISIONS

DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: CONT AND TREE PLAN.dwg

LAUREN CRONE
128018
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
3/18/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

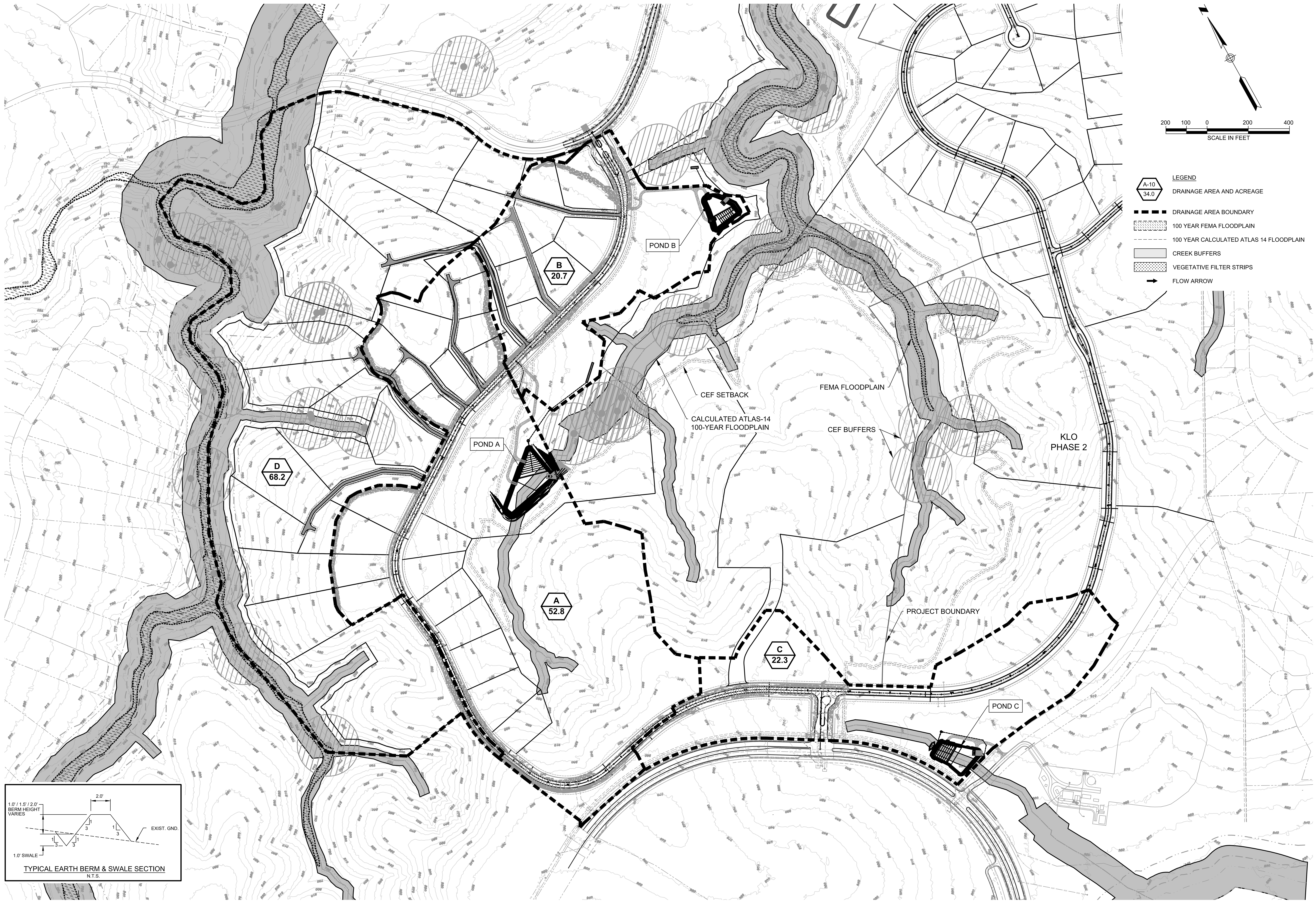
JOB NUMBER:
A111-2403

SHEET NO.
10
OF 16 SHEETS

I:\A111\2403 (Victor SF)\Driveway Permits\Drive G\10-ERO CONT AND TREE PLAN.dwg
User: dhynes
Last Modified: Mar 18, 25 - 18:22
Plot Date/Time: Mar 18, 25 - 10:54:13

EXHIBIT 3

WATER QUALITY PLAN / PERMANENT CONTROLS



BARTON CREEK
SECTIONS 'K', 'L', & 'O' (PHASE 1)
PAVING & DRAINAGE IMPROVEMENTS
WATER QUALITY PLAN

REVISIONS			
NO.	DESCRIPTION	BY	DATE

DATE: MAY 2025
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: KLO-PH1-DNG.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED PROFESSIONAL ENGINEER
5/20/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
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Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A208-440-426

SHEET NO. 4

OF 123 SHEETS

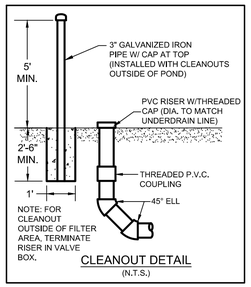
LCRA HIGHLAND LAKES WATERSHED ORDINANCE
WATER QUALITY MANAGEMENT DESIGN TOOL

Project	Barton Creek KLO PH1		
Drainage Area	ID	No.	A
	Area	Acres	54.7
		Total IC ac	14.40
		Impervious Cover %	26.3
1-year, 3-hour rainfall =		in	1.93
Compute Runoff Volume for the 1-year storm =		in	0.53
Compute Water Quality Volume (WQV) =		cf	104,913
Primary BMP (needs secondary BMP in series)			
Sand Filter	Volume	cf	110,159

DAM CERTIFICATION FOR WATER QUALITY POND

I, DANIEL RYAN, P.E., TEXAS LICENSE NUMBER 89458, CERTIFY THAT THE DESIGN OF THE WATER QUALITY POND DAM IN THIS SET OF PLANS CAN SAFELY PASS 75-PERCENT OF THE PROBABLE MAXIMUM FLOOD BASED ON THE HYDROLOGIC, HYDRAULIC, STRUCTURAL, AND GEOTECHNICAL ANALYSIS USING STANDARD ACCEPTED ENGINEERING PRACTICES.

STATE OF TEXAS · DANIEL RYAN · 89458 · LICENSED PROFESSIONAL ENGINEER · 8/10/2022

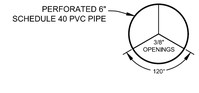


CLEANOUT DETAIL
(N.T.S.)

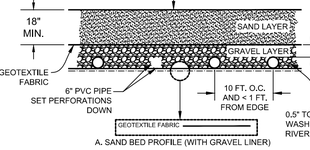
SAND BED SPECIFICATION

THE TOP LAYER SHALL BE TWELVE (12) TO EIGHTEEN (18) INCHES OF 0.02-0.04 INCH DIAMETER SAND WHICH CORRESPONDS WITH ASTM C-33 CONCRETE SAND (SMALLER SAND SIZE IS NOT ACCEPTABLE). UNDER THE SAND SHALL BE A LAYER OF ONE-HALF (0.5) TO ONE AND ONE-HALF (1.5) INCH DIAMETER WASHED, ROUND RIVER GRAVEL WHICH PROVIDES A MINIMUM OF THREE (3) INCHES OF COVER OVER THE TOP OF THE UNDERDRAIN LATERAL PIPES. TWO (2) INCHES OF GRAVEL IS REQUIRED UNDER THE LATERAL PIPES. THE SAND AND GRAVEL MUST BE SEPERATED BY A LAYER OF GEOTEXTILE FABRIC MEETING THE SPECIFICATIONS LISTED BELOW.
THE GEOTEXTILE FABRIC SPECIFICATION ARE SHOWN IN STANDARD SPECIFICATION 602S, TABLE 2: HIGH FLOW FILTER FABRIC REQUIREMENTS.

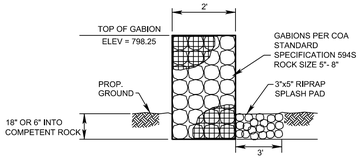
NOTES:
1. ALL LATERALS SHALL BE SCH-40 PVC PERFORATED PIPE. PERFORATIONS SHOULD BE THREE-EIGHTHS (3/8) INCH. MAXIMUM SPACING BETWEEN ROWS OF PERFORATIONS SHOULD NOT EXCEED SIX (6) INCHES.



(N.T.S.)

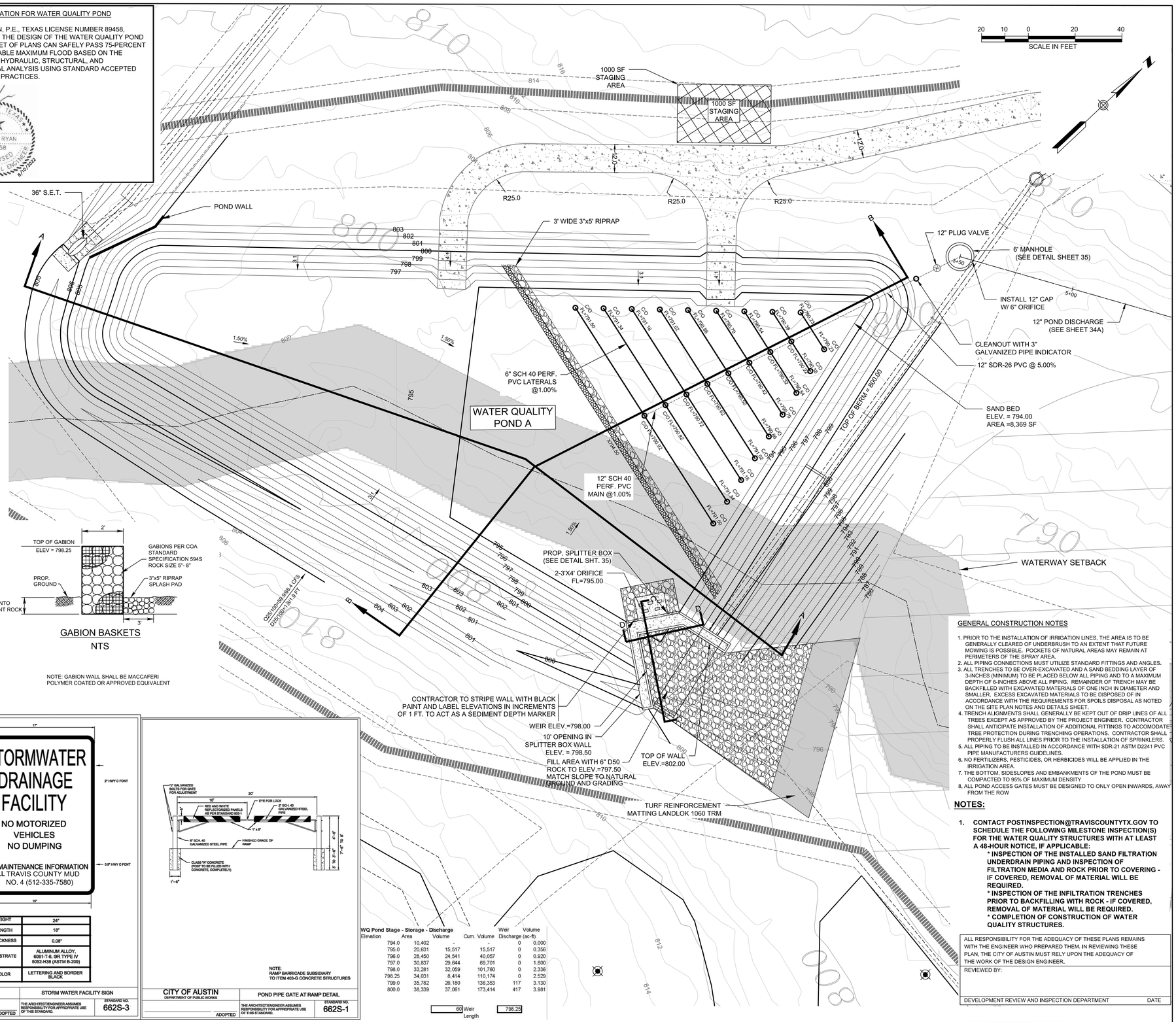


SAND BED DETAIL
(N.T.S.)



GABION BASKETS
NTS

NOTE: GABION WALL SHALL BE MACCAFERI POLYMER COATED OR APPROVED EQUIVALENT



GENERAL CONSTRUCTION NOTES

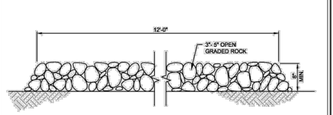
1. PRIOR TO THE INSTALLATION OF IRRIGATION LINES, THE AREA IS TO BE GENERALLY CLEARED OF UNDERBRUSH TO AN EXTENT THAT FUTURE MOWING IS POSSIBLE. POCKETS OF NATURAL AREAS MAY REMAIN AT PERIMETERS OF THE SPRAY AREA.
2. ALL PIPING CONNECTIONS MUST UTILIZE STANDARD FITTINGS AND ANGLES.
3. ALL TRENCHES TO BE OVER-EXCAVATED AND A SAND BEDDING LAYER OF 3-INCHES (MINIMUM) TO BE PLACED BELOW ALL PIPING AND TO A MAXIMUM DEPTH OF 6-INCHES ABOVE ALL PIPING. REMAINDER OF TRENCH MAY BE BACKFILLED WITH EXCAVATED MATERIALS OF ONE INCH IN DIAMETER AND SMALLER. EXCESS EXCAVATED MATERIALS TO BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS FOR SPOILS DISPOSAL AS NOTED ON THE SITE PLAN NOTES AND DETAILS SHEET.
4. TRENCH ALIGNMENTS SHALL GENERALLY BE KEPT OUT OF DRIP LINES OF ALL TREES EXCEPT AS APPROVED BY THE PROJECT ENGINEER. CONTRACTOR SHALL ANTICIPATE INSTALLATION OF ADDITIONAL FITTINGS TO ACCOMODATE TREE PROTECTION DURING TRENCHING OPERATIONS. CONTRACTOR SHALL PROPERLY FLUSH ALL LINES PRIOR TO THE INSTALLATION OF SPRINKLERS.
5. ALL PIPING TO BE INSTALLED IN ACCORDANCE WITH SDR-21 ASTM D2241 PVC PIPE MANUFACTURERS GUIDELINES
6. NO FERTILIZERS, PESTICIDES, OR HERBICIDES WILL BE APPLIED IN THE IRRIGATION AREA.
7. THE BOTTOM, SIDESLOPES AND EMBANKMENTS OF THE POND MUST BE COMPACTED TO 95% OF MAXIMUM DENSITY
8. ALL POND ACCESS GATES MUST BE DESIGNED TO ONLY OPEN INWARDS, AWAY FROM THE ROW

NOTES:

1. **CONTACT POSTINSPECTION@TRAVISCOUNTYTX.GOV TO SCHEDULE THE FOLLOWING MILESTONE INSPECTION(S) FOR THE WATER QUALITY STRUCTURES WITH AT LEAST A 48-HOUR NOTICE, IF APPLICABLE:**
   - *** INSPECTION OF THE INSTALLED SAND FILTRATION / UNDERDRAIN PIPING AND INSPECTION OF FILTRATION MEDIA AND ROCK PRIOR TO COVERING - IF COVERED, REMOVAL OF MATERIAL WILL BE REQUIRED.**
   - *** INSPECTION OF THE INFILTRATION TRENCHES PRIOR TO BACKFILLING WITH ROCK - IF COVERED, REMOVAL OF MATERIAL WILL BE REQUIRED.**
   - *** COMPLETION OF CONSTRUCTION OF WATER QUALITY STRUCTURES.**

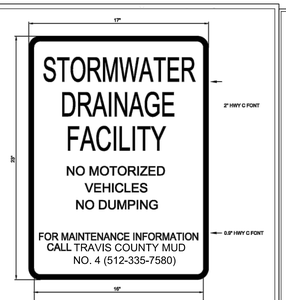
WQ Pond Stage - Storage - Discharge						
Elevation	Area	Volume	Cum. Volume	Weir Discharge	Volume (ac-ft)	
794.0	10,402	-	-	0	0.000	
795.0	20,631	15,517	15,517	0	0.356	
796.0	28,450	24,541	40,057	0	0.920	
797.0	30,837	29,644	69,701	0	1.600	
798.0	33,281	32,059	101,760	0	2.336	
798.25	34,031	8,414	110,174	0	2.529	
799.0	35,782	26,180	136,353	117	3.130	
800.0	38,339	37,061	173,414	417	3.981	

60 Weir Length — 798.25



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

CITY OF AUSTIN — DEPARTMENT OF PUBLIC WORKS
POND MAINTENANCE ROAD CROSS SECTION — STANDARD NO. 662S-2
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. — ADOPTED



HEIGHT	24"
LENGTH	18"
THICKNESS	0.08"
SUBSTRATE	ALUMINUM ALLOY, 6061-T-6, OR TYPE IV 5052-H38 (ASTM B-209)
COLOR	LETTERING AND BORDER BLACK

CITY OF AUSTIN — DEPARTMENT OF PUBLIC WORKS
STORM WATER FACILITY SIGN — STANDARD NO. 662S-3
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. — ADOPTED

NOTE:
RAMP BARRICADE SUBSIDIARY TO ITEM 403-G CONCRETE STRUCTURES

CITY OF AUSTIN — DEPARTMENT OF PUBLIC WORKS
POND PIPE GATE AT RAMP DETAIL — STANDARD NO. 662S-1
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. — ADOPTED

REVISIONS			
NO.	DESCRIPTION	BY	DATE
R1	ADJUSTED DISCHARGE AND ADDED RIPRAP	CRC	8/28/24

DATE: OCTOBER, 2019
DESIGNED BY: ICN
DRAWN BY: ICN
CHECKED BY: JAC
DRAWING NAME: KLO-PH1-LDNG.dwg

LAUREN CRONE · STATE OF TEXAS · 128018 · LICENSED PROFESSIONAL ENGINEER
11/13/2024

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A208-440-426

SHEET NO. 34 OF 123 SHEETS

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLAN, THE CITY OF AUSTIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

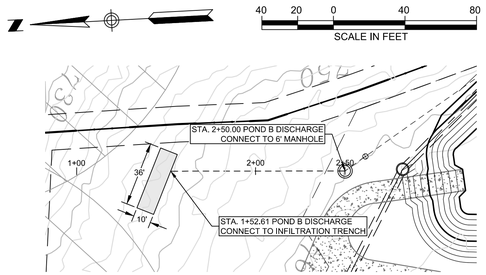
REVIEWED BY:

DEVELOPMENT REVIEW AND INSPECTION DEPARTMENT — DATE

BARTON CREEK
SECTIONS 'K', 'L', & 'O' (PHASE 1)
PAVING & DRAINAGE IMPROVEMENTS
WATER QUALITY POND A

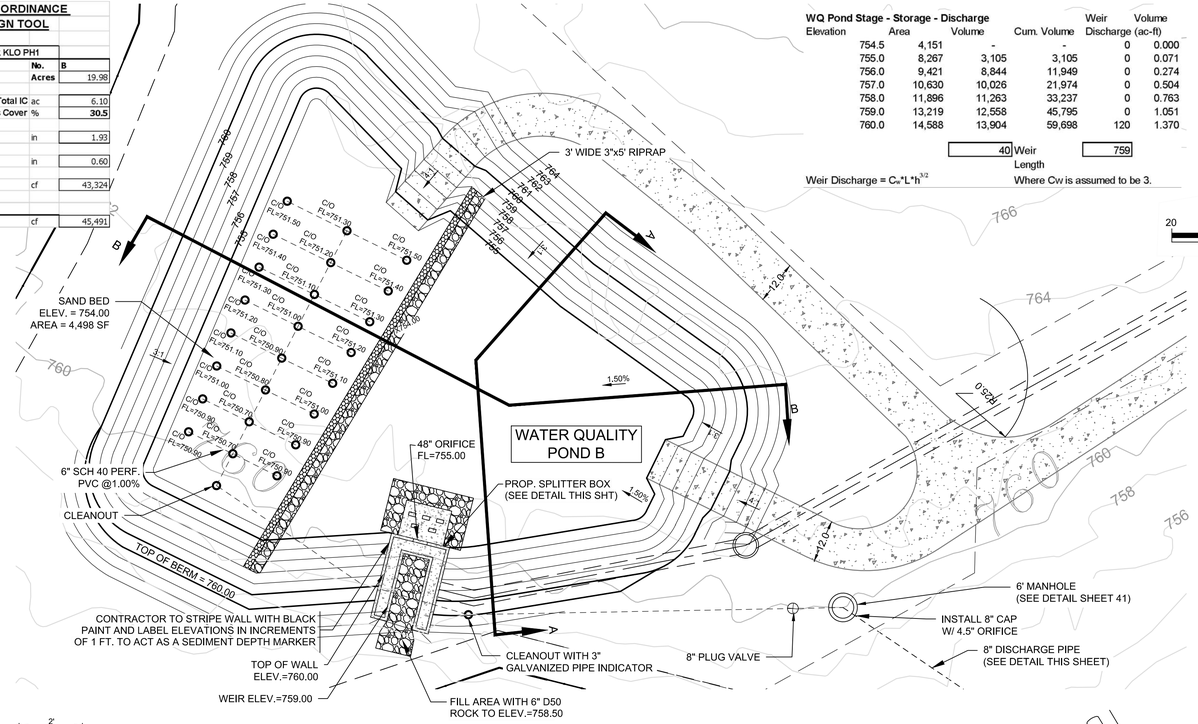
R1 - REPLACEMENT SHEET

User: cronel
Last Saved: Nov. 14, 24 - 08:00
Plot Date/Time: Nov. 14, 24 - 08:02:50



LCRA HIGHLAND LAKES WATERSHED ORDINANCE
WATER QUALITY MANAGEMENT DESIGN TOOL

Project	Barton Creek KLO PH1		
Drainage Area	ID	No.	B
	Area	Acres	19.98
		Total IC ac	6.10
		Impervious Cover %	30.5
1-year, 3-hour rainfall =		in	1.93
Compute Runoff Volume for the 1-year storm =		in	0.60
Compute Water Quality Volume (WQV) =		cf	43,324
Primary BMP (needs secondary BMP in series)			
Sand Filter	Volume	cf	45,491



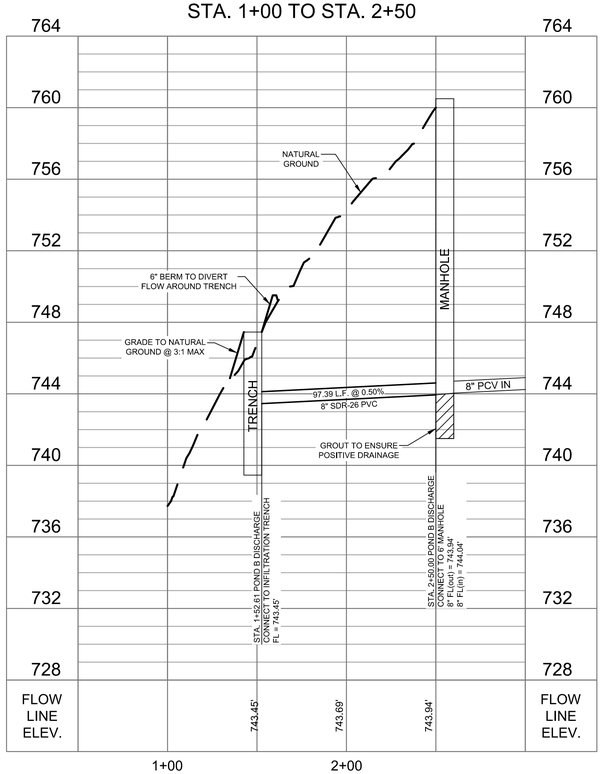
WQ Pond Stage - Storage - Discharge

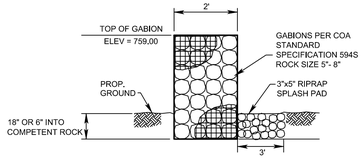
Elevation	Area	Volume	Cum. Volume	Weir Discharge	Volume (ac-ft)
754.5	4,151	-	-	0	0.000
755.0	8,267	3,105	3,105	0	0.071
756.0	9,421	8,844	11,949	0	0.274
757.0	10,630	10,026	21,974	0	0.504
758.0	11,896	11,263	33,237	0	0.763
759.0	13,219	12,558	45,795	0	1.051
760.0	14,588	13,904	59,698	120	1.370

40 Weir Length | 759

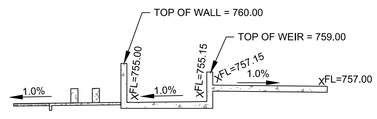
Weir Discharge = $C_w * L * h^{3/2}$ Where Cw is assumed to be 3.

POND B DISCHARGE
STA. 1+00 TO STA. 2+50

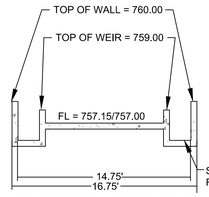




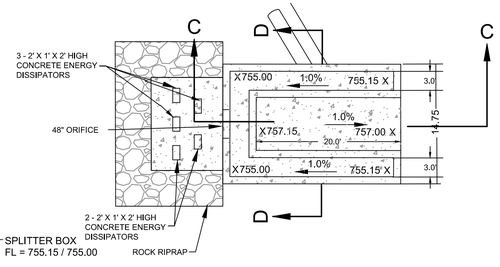
GABION BASKETS
NTS



SPLITTER BOX SECTION C - C
1"=10'

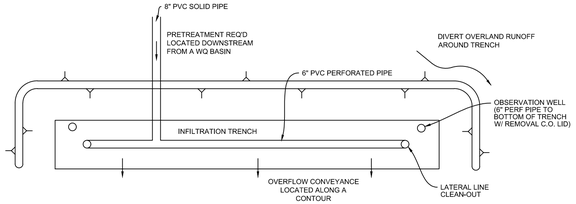


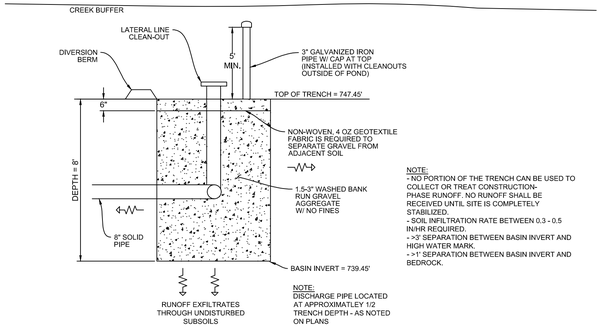
SPLITTER BOX SECTION D - D
1"=10'



SPLITTER BOX PLAN
1"=10'

NOTE: GABION WALL SHALL BE MACCAFERI POLYMER COATED OR APPROVED EQUIVALENT

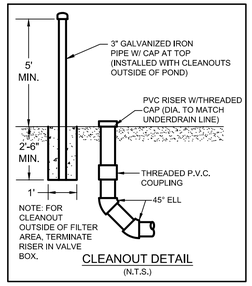




NOTE:
- NO PORTION OF THE TRENCH CAN BE USED TO COLLECT OR TREAT CONSTRUCTION-PHASE RUNOFF. NO RUNOFF SHALL BE RECEIVED UNTIL SITE IS COMPLETELY STABILIZED.
- SOIL INFILTRATION RATE BETWEEN 0.3 - 0.5 IN/HR REQUIRED.
- >3' SEPARATION BETWEEN BASIN INVERT AND HIGH WATER MARK.
- >1' SEPARATION BETWEEN BASIN INVERT AND BEDROCK.

NOTE:
DISCHARGE PIPE LOCATED AT APPROXIMATLEY 1/2 TRENCH DEPTH - AS NOTED ON PLANS

INFILTRATION TRENCH SCHEMATIC



CLEANOUT DETAIL
(N.T.S.)

Infiltration Trench B (Secondary BMP)

Soil Type	Brackett (BiD)	
Permeability	0.3	in/hr
Porosity (n)	0.35	
VR%	0	
WQV_{req}	43324	cf
IT Volume Req. ($V_{IT,req}$)	996	cf
Trench Vol. Req. ($V_{T,req}$)	2,846	cf
Trench Depth	8	ft
Trench Width	10	ft
Trench Length	36	ft
$V_{T,provided}$	2880 cf	OK
$V_{IT,provided}$	1008 cf	OK
Infiltration Area (Ai)	1096 sf	
$V_{provided}$ / Ai < 1	0.92	OK

$$V_{IT,req} = 0.023\ WQV_{req}\ (1 - VR\%)$$

$$V_{T,req} = \frac{V_{IT,req}}{n}$$

$$V_{IT,provided} = V_{T,provided} * n$$

Infiltration Trench Volume Reduction Percentage

Soil Investigation Average k (in/hr)	VR% Infiltration Trench Volume Reduction %
Less than 0.30	Not Permitted
0.30 to 0.49	0%
0.50 to 0.69	24%
0.70 to 0.89	39%
0.90 to 1.09	49%
1.10 to 1.29	56%
1.30 to 1.49	62%
Greater than 1.5	65%

NOTES:

1. **CONTACT POSTINSPECTION@TRAVISCOUNTYTX.GOV TO SCHEDULE THE FOLLOWING MILESTONE INSPECTION(S) FOR THE WATER QUALITY STRUCTURES WITH AT LEAST A 48-HOUR NOTICE, IF APPLICABLE:**
   - *** INSPECTION OF THE INSTALLED SAND FILTRATION UNDERDRAIN PIPING AND INSPECTION OF FILTRATION MEDIA AND ROCK PRIOR TO COVERING - IF COVERED, REMOVAL OF MATERIAL WILL BE REQUIRED.**
   - *** INSPECTION OF THE INFILTRATION TRENCHES PRIOR TO BACKFILLING WITH ROCK - IF COVERED, REMOVAL OF MATERIAL WILL BE REQUIRED.**
   - *** COMPLETION OF CONSTRUCTION OF WATER QUALITY STRUCTURES.**

GENERAL CONSTRUCTION NOTES

1. PRIOR TO THE INSTALLATION OF IRRIGATION LINES, THE AREA IS TO BE GENERALLY CLEARED OF UNDERBRUSH TO AN EXTENT THAT FUTURE MOWING IS POSSIBLE. POCKETS OF NATURAL AREAS MAY REMAIN AT PERIMETERS OF THE SPRAY AREA.
2. ALL PIPING CONNECTIONS MUST UTILIZE STANDARD FITTINGS AND ANGLES.
3. ALL TRENCHES TO BE OVER-EXCAVATED AND A SAND BEDDING LAYER OF 3-INCHES (MINIMUM) TO BE PLACED BELOW ALL PIPING AND TO A MAXIMUM DEPTH OF 6-INCHES ABOVE ALL PIPING. REMAINDER OF TRENCH MAY BE BACKFILLED WITH EXCAVATED MATERIALS OF ONE INCH IN DIAMETER AND SMALLER. EXCESS EXCAVATED MATERIALS TO BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS FOR SPOILS DISPOSAL AS NOTED ON THE SITE PLAN NOTES AND DETAILS SHEET.
4. TRENCH ALIGNMENTS SHALL GENERALLY BE KEPT OUT OF DRIP LINES OF ALL TREES EXCEPT AS APPROVED BY THE PROJECT ENGINEER. CONTRACTOR SHALL ANTICIPATE INSTALLATION OF ADDITIONAL FITTINGS TO ACCOMODATE TREE PROTECTION DURING TRENCHING OPERATIONS. CONTRACTOR SHALL PROPERLY FLUSH ALL LINES PRIOR TO THE INSTALLATION OF SPRINKLERS.
5. ALL PIPING TO BE INSTALLED IN ACCORDANCE WITH SDR-21 ASTM D2241 PVC PIPE MANUFACTURERS GUIDELINES.
6. NO FERTILIZERS, PESTICIDES, OR HERBICIDES WILL BE APPLIED IN THE IRRIGATION AREA.
7. THE BOTTOM, SIDESLOPES AND EMBANKMENTS OF THE POND MUST BE COMPACTED TO 95% OF MAXIMUM DENSITY
8. ALL POND ACCESS GATES MUST BE DESIGNED TO ONLY OPEN INWARDS, AWAY FROM THE ROW

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLAN, THE CITY OF AUSTIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

REVIEWED BY:

DEVELOPMENT REVIEW AND INSPECTION DEPARTMENT DATE

BARTON CREEK
SECTIONS 'K', 'L', & 'O' (PHASE 1)
PAVING & DRAINAGE IMPROVEMENTS
WATER QUALITY POND B

NO.	REVISIONS DESCRIPTION	BY	DATE
R1	ADJUSTED DISCHARGE AND ADDED RIPRAP	CRC	8/28/24

DATE: OCTOBER, 2018
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: JAC
DRAWING NAME: KLO-PH1-ENG.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED PROFESSIONAL ENGINEER
11/13/2024

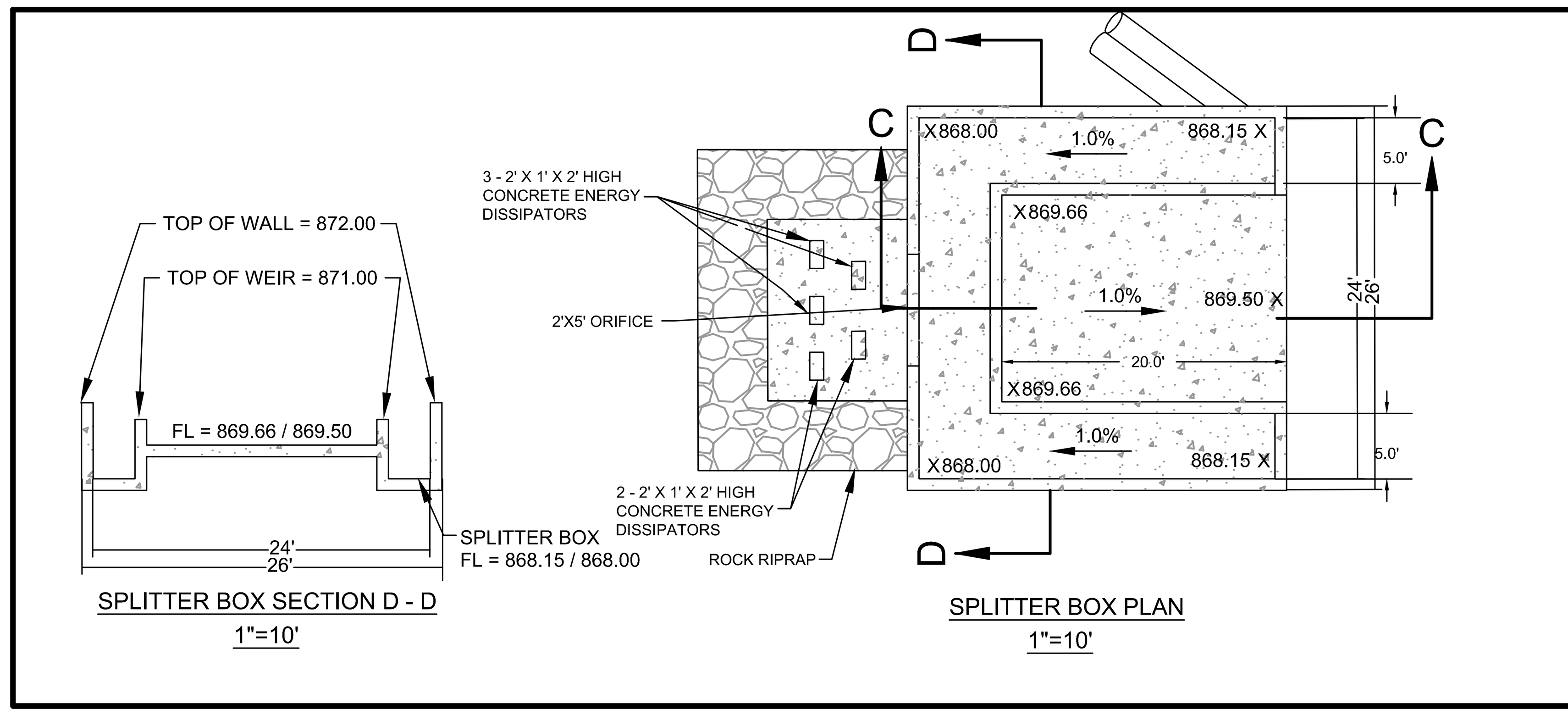
LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

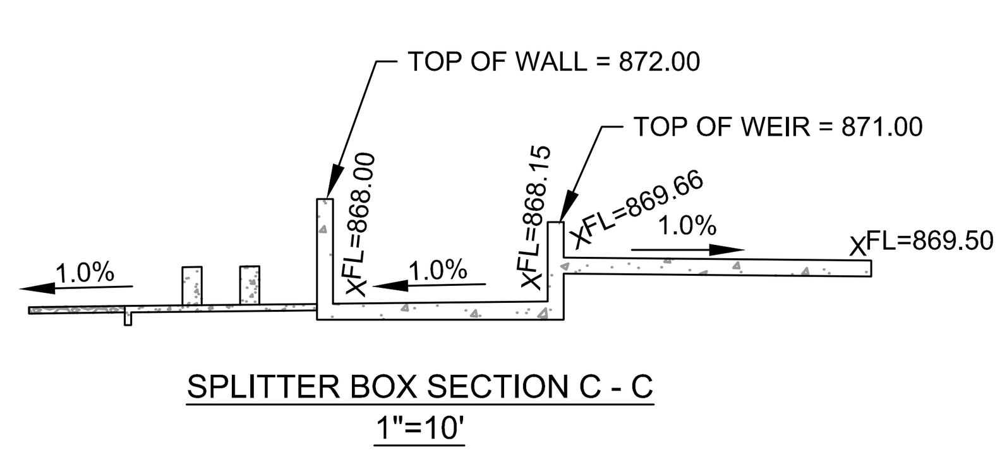
JOB NUMBER: A208-440-426

SHEET NO. 40 OF 123 SHEETS

I:\A11\427 KLO\Correction #7\KLO-Pond3Sx.dwg
User Name: jcrone
Last Modified: Nov. 14, 24 - 08:04
Plot Date/Time: Nov. 14, 24 - 08:05:17

R1 - REPLACEMENT SHEET





WQ Pond Stage - Storage - Discharge

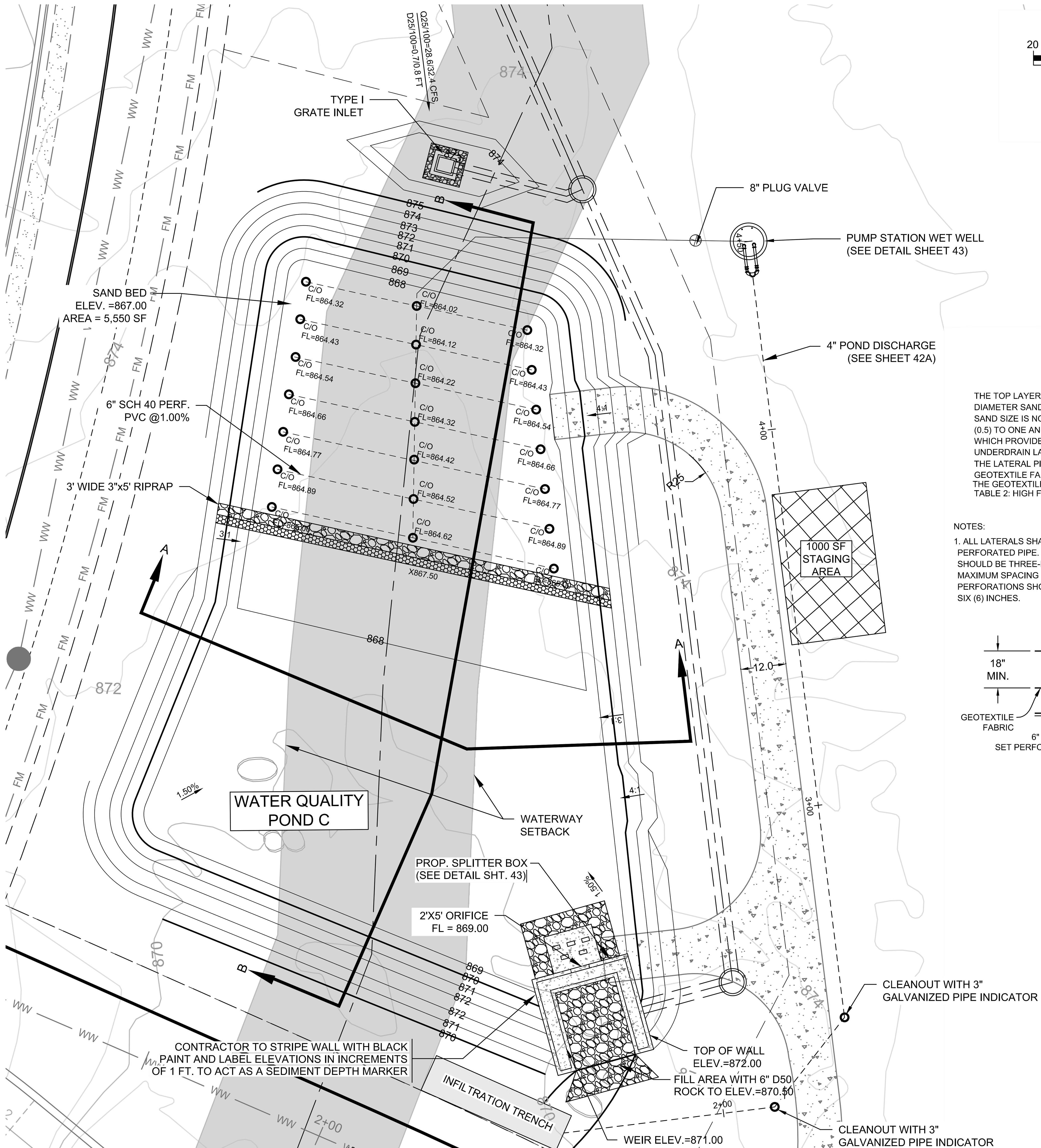
Elevation	Area	Volume	Cum. Volume	Weir Discharge	Volume (ac-ft)
868.0	7573	-	-	0	0.000
869.0	16,933	12,253	12,253	0	0.281
870.0	18,755	17,844	30,097	0	0.691
871.0	20,530	19,643	49,740	0	1.142
872.0	22,355	21,443	71,182	180	1.634

60 Weir Length 871

Weir Discharge = $C_w*L*h^{3/2}$ Where Cw is assumed to be 3.

LCRA HIGHLAND LAKES WATERSHED ORDINANCE
WATER QUALITY MANAGEMENT DESIGN TOOL

Project	Barton Creek KLO PH1		
Drainage Area	**ID**	**No.**	**C**
	Area	**Acres**	22.33
	Total IC	ac	6.60
	Impervious Cover	%	**29.6**
1-year, 3-hour rainfall =		in	1.93
Compute Runoff Volume for the 1-year storm =		in	0.58
Compute Water Quality Volume (WQV) =		cf	47,125
Primary BMP (needs secondary BMP in series)			
Sand Filter	Volume	cf	49,481

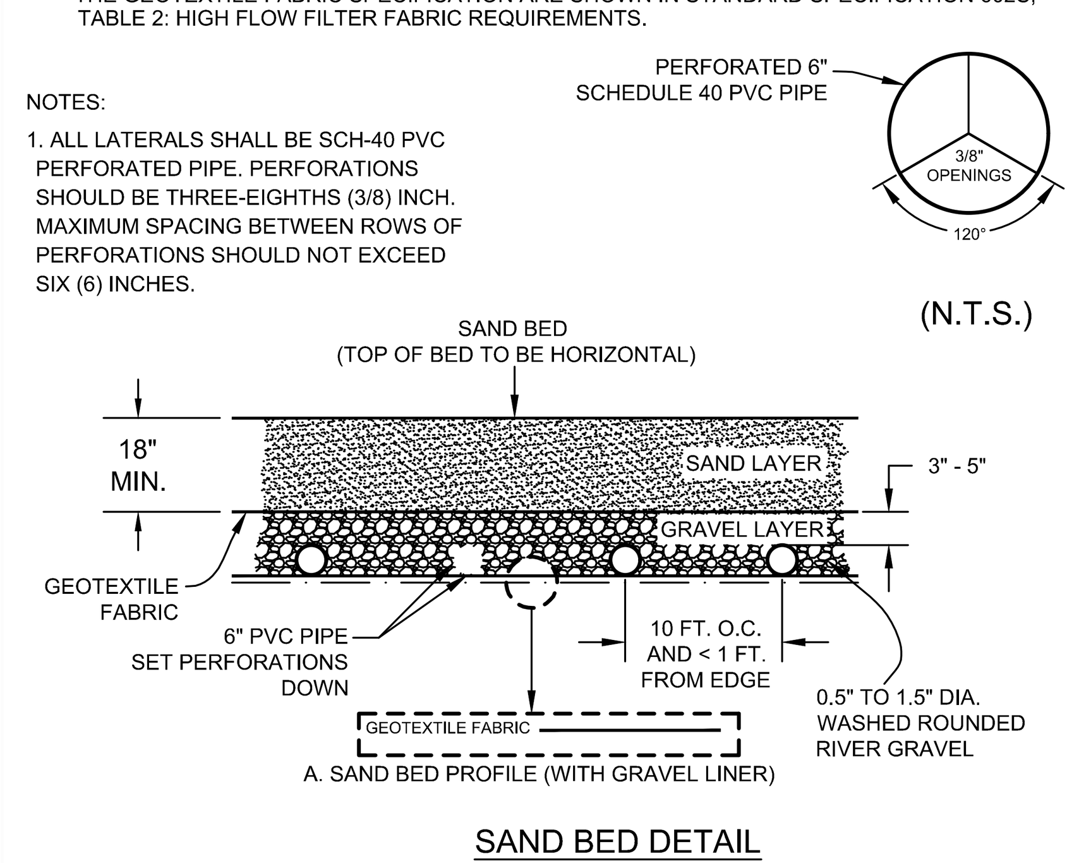


SAND BED SPECIFICATION

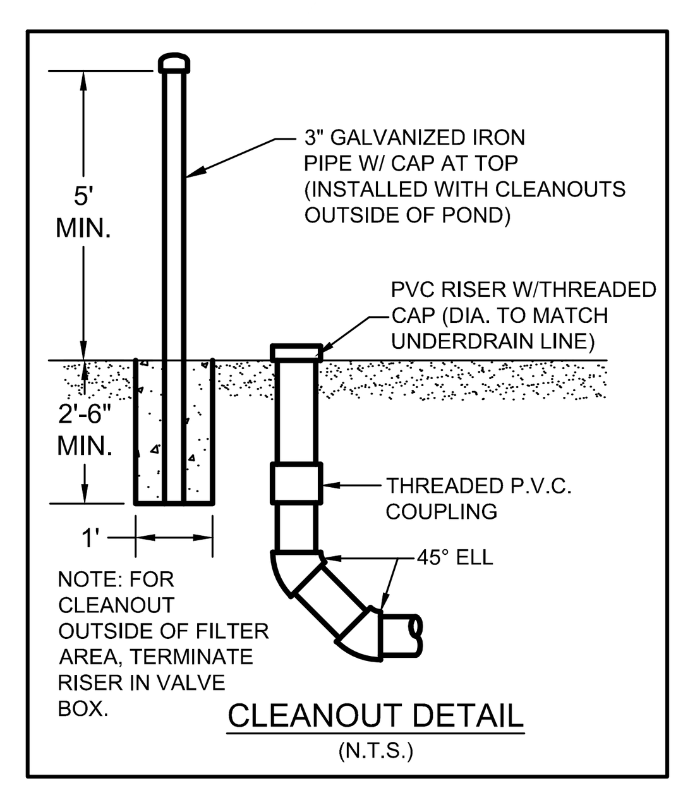
THE TOP LAYER SHALL BE TWELVE (12) TO EIGHTEEN (18) INCHES OF 0.02-0.04 INCH DIAMETER SAND WHICH CORRESPONDS WITH ASTM C-33 CONCRETE SAND (SMALLER SAND SIZE IS NOT ACCEPTABLE). UNDER THE SAND SHALL BE A LAYER OF ONE-HALF (0.5) TO ONE AND ONE-HALF (1.5) INCH DIAMETER WASHED, ROUND RIVER GRAVEL WHICH PROVIDES A MINIMUM OF THREE (3) INCHES OF COVER OVER THE TOP OF THE UNDERDRAIN LATERAL PIPES. TWO (2) INCHES OF GRAVEL IS REQUIRED UNDER THE LATERAL PIPES. THE SAND AND GRAVEL MUST BE SEPERATED BY A LAYER OF GEOTEXTILE FABRIC MEETING THE SPECIFICATIONS LISTED BELOW.
THE GEOTEXTILE FABRIC SPECIFICATION ARE SHOWN IN STANDARD SPECIFICATION 602S, TABLE 2: HIGH FLOW FILTER FABRIC REQUIREMENTS.

NOTES:

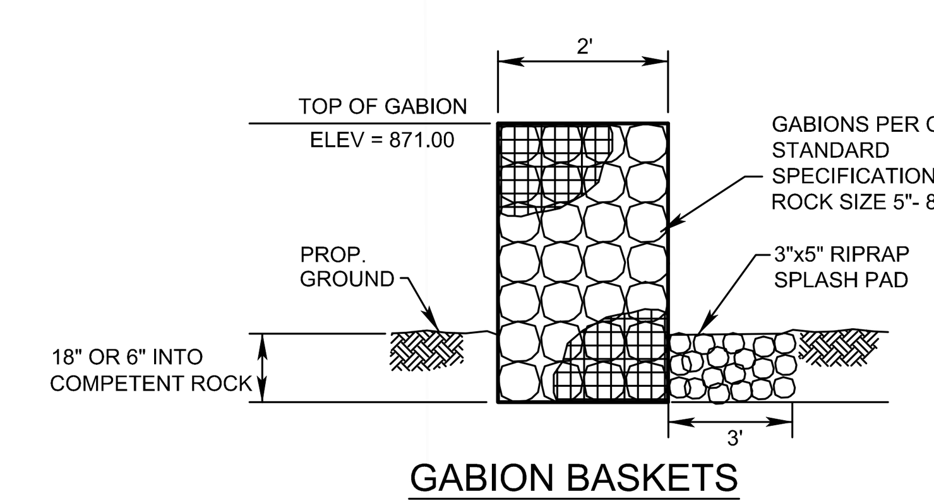
1. ALL LATERALS SHALL BE SCH-40 PVC PERFORATED PIPE. PERFORATIONS SHOULD BE THREE-EIGHTHS (3/8) INCH. MAXIMUM SPACING BETWEEN ROWS OF PERFORATIONS SHOULD NOT EXCEED SIX (6) INCHES.



SAND BED DETAIL
(N.T.S.)



CLEANOUT DETAIL
(N.T.S.)



GABION BASKETS
NTS

NOTE: GABION WALL SHALL BE MACCAFERI POLYMER COATED OR APPROVED EQUIVALENT

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NOTES:

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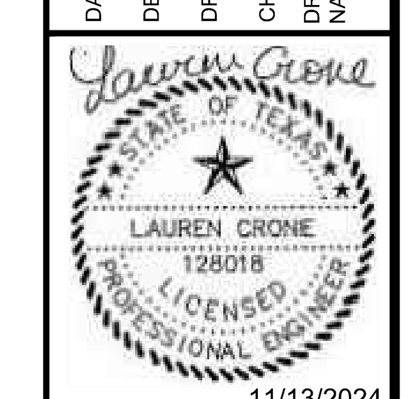
REVIEWED BY:
DEVELOPMENT REVIEW AND INSPECTION DEPARTMENT DATE

BARTON CREEK
SECTIONS 'K', 'L', & 'O' (PHASE 1)
PAVING & DRAINAGE IMPROVEMENTS
WATER QUALITY POND C

REVISIONS

NO.	DESCRIPTION	BY	DATE
R1	ADJUSTED DISCHARGE AND ADDED RIPRAP	CRC	8/28/24

DATE: OCTOBER, 2019
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: JAC
DRAWING NAME: KLO-Ph1-DNG.dwg



11/13/2024

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A208-440-426

R1 - REPLACEMENT SHEET

APPENDIX A

SAMPLE INSPECTION AND MAINTENANCE REPORT FORM

TPDES Construction Inspection and Maintenance Report Form

Project Name: Barton Creek Sections K, L, & O Phase 1

Permit Number: _____

Facility Operators: _____

_____

_____

Inspector's Name: _____
(attach qualifications summary for each inspector) _____

Date of Last Rainfall: _____
Amount of Last Rainfall: _____
Date of Inspection: _____

Inspection Notes

Condition Code*	Area Inspected	Changes Required (if any)
☐	Stabilized Construction Entrance(s)	
☐	Silt fencing and rock berms downstream of improvements	
☐	Severe service rock berm and silt fencing downstream of detention pond	
☐	Severe service rock berm and silt fencing inside Vega Avenue right-of-way	
☐	Sediment Trap (Water Quality Pond)	
☐	Silt fencing downstream of Temporary Spoils/ Construction Staging Areas	
☐	Areas temporarily and/or finally stabilized (inspect at least once every month)	
☐		

*Condition Codes
01 - In compliance with the storm water pollution prevention plan and permit
02 - To be repaired or replaced within 24 hours.
03 - To be repaired or replaced within 48 hours.
04 - To be repaired or replaced within 7 days.

Please note major construction activities taking place. Include dates when major grading activities and/or disturbances occur, dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated. Major observations should include: The locations of discharges of sediment or other pollutants from the site; locations of controls that need to be maintained; locations of controls that failed to operate as designed or proved inadequate for a particular location; and locations where additional controls are needed. (Attach additional pages as required and/or attach daily construction reports.)

_____

_____

_____

_____

_____

_____

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

Signature: _____ Date: _____.

Signature: _____ Date: _____.

APPENDIX B

NAMES AND QUALIFICATIONS OF PERSONNEL MAKING INSPECTIONS

APPENDIX C

CERTIFIED NOTICES OF INTENT AND ACKNOWLEDGEMENT CERTIFICATES

TCEQ Office Use Only
Permit No:
CN:
RN:

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

IMPORTANT INFORMATION

Please read and use the General Information and Instructions prior to filling out each question in the NOI form.

Use the NOI Checklist to ensure all required information is completed correctly. **Incomplete applications delay approval or result in automatic denial.**

Once processed your permit authorization can be viewed by entering the following link into your internet browser: http://www2.tceq.texas.gov/wq_dpa/index.cfm or you can contact TCEQ Stormwater Processing Center at 512-239-3700.

ePERMITS

Effective September 1, 2018, this paper form must be submitted to TCEQ with a completed electronic reporting waiver form (TCEQ-20754).

To submit an NOI electronically, enter the following web address into your internet browser and follow the instructions: https://www3.tceq.texas.gov/steers/index.cfm

APPLICATION FEE AND PAYMENT

The application fee for submitting a paper NOI is $325. The application fee for electronic submittal of a NOI through the TCEQ ePermits system (STEERS) is $225.

Payment of the application fee can be submitted by mail or through the TCEQ ePay system. The payment and the NOI must be mailed to separate addresses. To access the TCEQ ePay system enter the following web address into your internet browser: http://www.tceq.texas.gov/epay.

Provide your payment information for verification of payment:

- If payment was mailed to TCEQ, provide the following:
  - Check/Money Order Number: Click here to enter text
  - Name printed on Check: Click here to enter text
- If payment was made via ePay, provide the following:
  - Voucher Number: Click here to enter text
  - A copy of the payment voucher is attached to this paper NOI form.

RENEWAL (This portion of the NOI is not applicable after June 3, 2018)

Is this NOI for a renewal of an existing authorization? ☐ Yes ☒ No

If Yes, provide the authorization number here: TXR15 Click here to enter text.

NOTE: If an authorization number is not provided, a new number will be assigned.

SECTION 1. OPERATOR (APPLICANT)

a) If the applicant is currently a customer with TCEQ, what is the Customer Number (CN) issued to this entity? CN 606123644

(Refer to Section 1.a) of the Instructions)

b) What is the Legal Name of the entity (applicant) applying for this permit? (The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.)

Holden Hills, LP

c) What is the contact information for the Operator (Responsible Authority)?

Prefix (Mr. Ms. Miss): Mr.

First and Last Name: Erin Pickens Suffix: Click here to enter text.

Title: Senior Vice President Credentials: Click here to enter text.

Phone Number: 512-439-4737 Fax Number: Click here to enter text.

E-mail: Click here to enter text.

Mailing Address: 212 Lavaca Street, Suite 300

City, State, and Zip Code: Austin, TX 78701

Mailing Information if outside USA:

Territory: Click here to enter text.

Country Code: Click here to enter text. Postal Code: Click here to enter text.

d) Indicate the type of customer:

☐ Individual
☐ Limited Partnership
☐ General Partnership
☐ Trust
☐ Sole Proprietorship (D.B.A.)
☒ Corporation
☐ Estate
☐ Federal Government
☐ County Government
☐ State Government
☐ City Government
☐ Other Government
☐ Other: Click here to enter text.

e) Is the applicant an independent operator? ☒ Yes ☐ No

(If a governmental entity, a subsidiary, or part of a larger corporation, check No.)

f) Number of Employees. Select the range applicable to your company.

☒ 0-20 ☐ 251-500

☐ 21-100 ☐ 501 or higher

☐ 101-250

g) Customer Business Tax and Filing Numbers: (**Required** for Corporations and Limited Partnerships. **Not Required** for Individuals, Government, or Sole Proprietors.)

State Franchise Tax ID Number: Click here to enter text.

Federal Tax ID: Click here to enter text.

Texas Secretary of State Charter (filing) Number: Click here to enter text.

DUNS Number (if known): Click here to enter text.

SECTION 2. APPLICATION CONTACT

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

☒ Yes, go to Section 3

☐ No, complete this section

Prefix (Mr. Ms. Miss): Mrs.

First and Last Name: Lauren Crone Suffix: Click here to enter text.

Title: Sr. Project Manager Credential: P.E.

Organization Name: LJA Engineering, Inc.

Phone Number: 512-439-4700 Fax Number: Click here to enter text.

E-mail: lcrone@lja.com

Mailing Address: 7500 Rialto Blvd, Bldg II, Suite 100

Internal Routing (Mail Code, Etc.): Click here to enter text.

City, State, and Zip Code: Austin, TX 78735

Mailing information if outside USA:

Territory: Click here to enter text.

Country Code: Click here to enter text. Postal Code: Click here to enter text.

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

a) If this is an existing permitted site, what is the Regulated Entity Number (RN) issued to this site? RN 111435921

(Refer to Section 3.a) of the Instructions)

b) Name of project or site (the name known by the community where it's located): Barton Creek Sections K, L, & O Phase 1

c) In your own words, briefly describe the type of construction occurring at the regulated site (residential, industrial, commercial, or other): Construction of roads and associated utilities

d) County or Counties (if located in more than one): Travis County

e) Latitude: 30.25532 Longitude: -97.85927

f) Site Address/Location

If the site has a physical address such as 12100 Park 35 Circle, Austin, TX 78753, complete *Section A*.

If the site does not have a physical address, provide a location description in *Section B*. Example: located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1.

Section A:

Street Number and Name: Click here to enter text

City, State, and Zip Code: Click here to enter text

Section B:

Location Description: The project will extend from where Tecoma Circle currently ends approximately 5.745 linear feet to Southwest Parkway, which is immediately across from Vega Avenue.

City (or city nearest to) where the site is located: Austin

Zip Code where the site is located: 78701

SECTION 4. GENERAL CHARACTERISTICS

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

☐ Yes, do not submit this form. You must obtain authorization through EPA Region 6.

☒ No

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

☐ Yes. Note: The construction stormwater runoff may be under jurisdiction of the Railroad Commission of Texas and may need to obtain authorization through EPA Region 6.

☒ No

c) What is the Primary Standard Industrial Classification (SIC) Code that best describes the construction activity being conducted at the site? **1611**

d) What is the Secondary SIC Code(s), if applicable? 1623

e) What is the total number of acres to be disturbed? 58.05

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

☒ Yes

☐ No. The total number of acres disturbed, provided in e) above, must be 5 or more. If the total number of acres disturbed is less than 5, do not submit this form. See the requirements in the general permit for small construction sites.

g) What is the estimated start date of the project? Click here to enter text.

h) What is the estimated end date of the project? Click here to enter text.

i) Will concrete truck washout be performed at the site? ☒ Yes ☐ No

j) What is the name of the first water body(ies) to receive the stormwater runoff or potential runoff from the site? Click here to enter text.

k) What is the segment number(s) of the classified water body(ies) that the discharge will eventually reach? Click here to enter text.

l) Is the discharge into a Municipal Separate Storm Sewer System (MS4)?

☐ Yes ☒ No

If Yes, provide the name of the MS4 operator: Click here to enter text.

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

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

☒ Yes, complete the certification below.

☐ No, go to Section 5

I certify that the copy of the TCEQ-approved Plan required by the Edwards Aquifer Rule (30 TAC Chapter 213) that is included or referenced in the Stormwater Pollution Prevention Plan will be implemented. ☒ Yes

SECTION 5. NOI CERTIFICATION

a) I certify that I have obtained a copy and understand the terms and conditions of the Construction General Permit (TXR150000). ☒ Yes

b) I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas. ☒ Yes

c) I understand that a Notice of Termination (NOT) must be submitted when this authorization is no longer needed. ☒ Yes

d) I certify that a Stormwater Pollution Prevention Plan has been developed, will be implemented prior to construction and to the best of my knowledge and belief is compliant with any applicable local sediment and erosion control plans, as required in the Construction General Permit (TXR150000). ☒ Yes

Note: For multiple operators who prepare a shared SWP3, the confirmation of an operator may be limited to its obligations under the SWP3, provided all obligations are confirmed by at least one operator.

SECTION 6. APPLICANT CERTIFICATION SIGNATURE

Operator Signatory Name: Click here to enter text

Operator Signatory Title: Click here to enter text

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

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

Signature (use blue ink): _____Date: _____

APPENDIX D

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY SMALL-BUSINESS HANDBOOK FOR SPILL RESPONSE (RG-285) & SPILL NOTIFICATION PROCEDURE

APPENDIX D – SPILL NOTIFICATION PROCEDURE

To report an environmental emergency, discharge, spill or air release, contact:

STATE

- State of Texas Spill-Reporting Hotline and the SERC: 1-800-832-8224 (24 hours)
- TCEQ Regional Office – Austin Region 512-339-2929 (M-F 8:00 am – 5:00 pm)

FEDERAL

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

When making a report of a spill or pollution complain, please have the following information at hand:

- The date and time of the spill or release.
- The identity of chemical name of any material released or spilled, as well as whether the substance is extremely hazardous.
- The estimate of the quantity of material released or spilled and the time or duration of the event.
- The exact location of the spill, including the name of receiving waters. Receiving waters for this project include Barton Creek.
- The extent of actual and potential water pollution.
- The source of the release or spill.
- The name, address, and phone number of the party in charge of, or responsible for, the facility, vessel, or activity associated with the release or spill.
- The name and phone number of the party at the site who is in charge of operations.
- The steps being taken or proposed to contain and clean up the released or spilled material and any precautions taken to minimize impacts, including evacuation.
- The extent of any injuries.
- Any known or anticipated health risks associated with the incident and where appropriate, advice regarding medical attention necessary for persons exposed.
- Possible hazards to the environment (air, soil, water, wildlife, etc.) This assessment may include references to accepted chemical databases, material safety data sheets, and health advisories. The TCEQ may request estimated or measured concentrations of contaminant for the state's hazard assessment.
- The identities of any government or private sector representative responding at the scene.

IMPORTANT WEBSITES:

Emergency Response Home (https://www.tceq.texas.gov/response/index.html)
Spills, Discharges, and Releases (https://www.tceq.texas.gov/response/spills/spills.html)

TNRCC REGULATORY GUIDANCE

Pollution Cleanup Division
RG-285
June 1997

SUBJECT: # Small-Business Handbook for Spill Response

Purpose

The purpose of this handbook is to help small businesses to comply with the Texas Natural Resource Conservation Commission's (TNRCC's) Spill Rule. From this document, you will learn when and how to report a spill and how to enlist the aid of the TNRCC and other authorities, as needed, in responding to a spill. This handbook is for guidance only; it does not replace or supersede the official rules and regulations.

The purpose of the Spill Rule, which is found in Title 30 Texas Administrative Code (30 TAC) Chapter 327, is to deal responsibly with threats to human health or the environment posed by incidents that may cause the contamination of groundwater or surface water. The rule sets guidelines for initial notification, response actions, and follow-up reports that the responsible person must follow when a discharge or spill occurs.

The Spill Rule—in a Nutshell

The Spill Rule requires the party responsible for causing a spill that by its nature and size presents the threat of contaminating groundwater or surface water to:

- control and contain the spill (or see that this is done);
- clean up the results of the spill (or see that this is done);
- notify the appropriate authorities, which may range from the local fire department to the TNRCC, depending on the threat posed by the spill;
- make follow-up reports to the TNRCC about the continuing progress or completion of the cleanup.

To explain how to comply with the Spill Rule, this document will address the following questions:

- What is a spill (as far as the Spill Rule is concerned)?
- What should I do when the spill is serious?
- What about less serious spills?
- What kinds of spills need to be reported?
- What should my report say?
- Who can tell me what is in my spill?
- How can the TNRCC help me?
- What happens when I report a spill?
- What kinds of spills are not covered by this rule?
- Where do I look for more information?

What Is a Spill?

As defined in the rule, a spill is any incident in which oil, hazardous substances, industrial waste, or "other substances" contaminate or may contaminate surface water or groundwater in the state of Texas. Because substances spilled on the ground may find their way into groundwater, lakes, rivers, or streams, the definition includes spills on the ground as well as spills that go directly into water.

The definition of a "discharge or spill" is broad; it covers just about any accidental action or oversight that leads to the possible contamination of water. The following examples represent only a few of the many different kinds of incidents that this definition covers:

- A worker at a pest control service discovers that liquid pesticide has leaked from a storage tank into the ground.
- A landscaper rinses tanks that held herbicide, and then the rinse water escapes into a storm sewer.
- A truck loaded with avocados overturns, spilling its cargo and its fuel on the highway.
- A worker at a boat repair shop accidentally pours a solvent-based varnish remover on pavement. Most of the solvent evaporates quickly.
- A trenching crew hits a buried pipeline, causing oil to leak into the surrounding soil.

For simplicity, the term "spill" will be used in this document to refer to any incident covered by the definition

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printed on recycled paper

given in 30 TAC Section (§) 327.2 for *discharge or spill.* Certain kinds of incidents that might threaten water supplies are covered by other rules or are under the authority of other agencies. Incidents that are not covered by the Spill Rule are described at the end of this document.

What Should I Do When the Spill Is Serious?

Whenever a spill or discharge involves an imminent threat to human health, notify local emergency authorities *immediately* and cooperate with them in responding to the spill. "Local emergency authorities" usually means the local fire department and law enforcement agency, but could also mean the local fire marshal, health department, or emergency planning committee.

The rule also calls for the responsible person to take certain reasonable steps to respond to the spill:

- Get to the scene, or make sure that hired response personnel get to the scene.
- Begin efforts to stop the discharge or spill.
- Minimize the impact of the spill to public health, surface water, and the ground or subsurface soil.
- Neutralize the effects of the incident.
- Remove the discharged or spilled substances.
- Manage wastes associated with the spill and cleanup.

What about Less Serious Spills?

Spills that do not present an imminent threat to human health still must be cleaned up. Even if the spill is small enough that a reporting requirement is not triggered, the person responsible for the spill must make sure that the spill is cleaned up.

What Kinds of Spills Need to Be Reported?

Whether a spill needs to be reported to the TNRCC depends on the material spilled, how much of it is spilled, and where it is spilled. General guidelines for determining whether a spill must be reported, based on this rule and federal standards, appear in Table 1. Spills involving less than 1 pound of material, except for oil spills, do not need to be reported to the TNRCC. They must be reported to local authorities if they pose an imminent threat to public health.

If the amount of material spilled or discharged within any 24-hour period is equal to or greater than the amount indicated in Table 1, the rule calls for the party responsible for the spill to notify the TNRCC within 24 hours. There are three ways to satisfy this reporting requirement by phone:

- Call **1-800-832-8224** (the Environmental Response Hot Line). This line is answered 24 hours a day.
- Call the TNRCC Spill Reporting Hot Line, which is also answered 24 hours a day, at 512/463-7727.
- During regular business hours, call the TNRCC regional office that serves the county in which the spill occurred.

The Spill Rule also allows the responsible person to use other reasonable methods to provide this initial notification.

Spills of a Single Hazardous Substance
Whenever an individual hazardous substance is spilled, determining whether a reportable quantity has been spilled only involves developing a reliable estimate of how much material was spilled and comparing that value with the reportable quantity (RQ) found in the column headed "Final RQ" in Table 302.4 of Title 40 Code of Federal Regulations (40 CFR) Part 302.

Spills of Mixtures
Whenever a mixture that contains a hazardous substance is spilled, a federal rule, often called the Mixture Rule, is used to determine whether a reportable quantity has been spilled. The wording of the Mixture Rule makes it particularly important for small businesses to know as much as possible about the composition of the materials they use or handle.

According to the Mixture Rule, if a mixture is known to contain a hazardous substance, but the amount of that substance in the mixture is not known, then all of the material spilled is assumed to be the hazardous substance for the purpose of determining whether a reportable spill has occurred. On the other hand, if the composition of the mixture is known, that information is used to determine whether the amount of mixture spilled contains a reportable quantity of the hazardous substance.

To see how the Mixture Rule works, let's look at two possible outcomes involving the spill of 1 quart of an insecticide containing aldrin. The RQ for aldrin is 1 pound.

First possible outcome. Assume that the person responsible for the spill knows only that the insecticide contains aldrin, not *how much* aldrin is in the insecticide. According to the Mixture Rule, all of the material spilled must be assumed to be aldrin under these circumstances. A quart of a solution weighs about 2 pounds, which is greater than the RQ for aldrin. This spill must be reported.

Second possible outcome. Now assume that the person responsible for the spill knows that the insecticide contains not more than 1 percent aldrin by weight. According to the

Mixture Rule, this person should then calculate how much aldrin could have been in the quart of solution spilled:

2 lb solution × 1 lb aldrin/100 lb = 0.02 lb aldrin

If aldrin is the only hazardous substance in the mixture, then this spill does not have to be reported according to the Comprehensive Emergency Response, Compensation, and Liability Act (CERCLA). Be sure to do this sort of calculation for all the substances in the mixture, even if the product label describes them as "inert" or "filler."

The difference between the outcomes in the above example is not *what* was spilled, but *what was known* about the material that was spilled. Because one business had more information available about the materials it uses, its employee was able to determine that the spill was insignificant without contacting the TNRCC.

Table 1. Reportable Quantities (RQs) According to the Spill Rule

	Site of Spill	
Type of Spill	**On Land**	**In Water**
Hazardous substance		
If CERCLA RQ = 1–100 lb	CERCLA RQ	CERCLA RQ
If CERCLA RQ > 100 lb	CERCLA RQ	100 lb
Crude oil	210 gal	Enough to form a sheen
Used oil or petroleum product		
At a PST exempt facility*	210 gal	Enough to form a sheen
All others	25 gal	Enough to form a sheen
Oil other than crude oil, used oil, or petroleum product	210 gal	Enough to form a sheen
Other substances	No RQ	100 lb
Industrial solid waste	No RQ	100 lb

NOTE: This table applies only to the reporting of spills and discharges according to the Spill Rule, 30 TAC §§327.1–327.5. To find values of CERCLA RQs for hazardous substances, please refer to 40 CFR Table 302.4.

*The term "PST exempt facility" refers to facilities that are exempt from the Aboveground Storage Tank Program. Petrochemical plants, petroleum refineries, and electricity generation, transmission, and distribution facilities are some examples of PST exempt facilities.

What Should My Report Say?

There are a number of different levels of reporting, so let's go through them one at a time.

Initial Notification

Within 24 hours, report the following information as best it is known:

- Your name, address, and telephone number (as the person making the report)
- The date, time, and location of the spill
- A specific description of the substance or substances spilled
- An estimate of how much was spilled
- The duration of the incident
- The name of the body of water affected or threatened by the spill
- The source of the spill
- A description of the extent of actual or potential water pollution or harmful impacts to the environment
- An identification of any environmentally sensitive areas or natural resources at risk
- The name, address, and telephone number of the responsible person (if not you)
- The name, address, and telephone number of the contact person at the site of the spill (if not you)
- A description of any action that has been taken, is being taken, or will be taken to contain and respond to the spill
- Any known or anticipated health risks
- The identity of any governmental authorities or agencies that are already responding to the spill
- Any other information that may be significant to the response action

The Spill Rule requires only that you provide all of the

above information that you know—by phone, in person, or in writing. The rule does not require that a written report be on a standard form. You may decide to develop your own form, but the rule also allows you to use the reporting form of any other agency that requires you to report the spill.

If you use the reporting form of another agency and it does not provide all of the information described above, you must add the rest of the required information on a separate sheet.

Update Notification
If anything happens that would trigger a change in the response to the spill—for better or for worse—notify the agency as soon as possible.

Correction of Records
If you report a spill and later decide that the spill did not have to be reported, you may send the regional office a letter to show your reasoning. Be sure to include all the information staff will need to understand your new decision.

If, after reviewing your letter, the regional office staff agrees that the spill was not reportable, that determination will be added to the agency records. If staff disagrees with your decision, the agency will notify you (that is, the responsible person) within 30 days.

Other Required Notice
In addition to notifying the TNRCC and local governmental authorities, make a reasonable attempt to notify the owner and occupants of any property adversely affected by the spill. Provide this notice as soon as possible, but no later than two weeks after discovering the spill.

Notifying the TNRCC satisfies the federal requirement to notify the State Emergency Response Commission, but does not satisfy the notification requirements of any permit or any other local, state, or federal law.

Reporting the spill to the Environmental Response Hot Line (1-800-832-8224) satisfies the initial notification requirements of the Spill Rule and the Texas Water Code. Depending on the material spilled, there may be other reporting requirements.

Who Can Tell Me What Is in My Spill?

It is the responsibility of a business to ensure that its employees know the nature and contents of the materials they handle or use. It is not feasible for any document to cover the full range of possible combinations of substances. The manufacturer or supplier of a product may be a good source of information about the contents and specific formulation of a proprietary mixture.

Often it is not necessary to know the precise formula of a mixture to know how to classify it under the Spill Rule. The TNRCC regional office is one of a number of possible resources that could help you classify at least some materials into broad reporting categories according to the Spill Rule and CERCLA.

How Can the TNRCC Help Me?

Through your local regional office, the Small Business Assistance Program (1-800-447-2827), and the Emergency Response Section (512/239-2507), the TNRCC can help you prepare for spills before they happen as well as respond to them appropriately when they do.

If minor but reportable spills are an unavoidable part of your business, you might call your regional office to investigate the possibility of making one report on a regular schedule (e.g., once a month) to cover all minor spills that occur in that time frame. Depending on the individual situation, the regional manager may approve such an alternative notification plan for a fixed installation. *Such a plan would require the written approval of the regional manager.*

Your regional manager may also permit you to notify the agency by fax of spills that occur during regular business hours. If you do get permission to notify by fax, you may want to prepare a form that employees can fill out quickly when a spill occurs. You could print information that will not change (e.g., location of the facility, the name of the surface water affected, if any, etc.) as part of the form itself.

What Happens When I Report a Spill?

A number of things:

- Of greatest importance, you ensure that all resources that are available and needed to minimize the impact of the spill are put to use.
- Based on the information you provide, the regional staff of the TNRCC can help you to determine whether the spill is serious and, regardless of whether it is serious, the best ways to control the spill and minimize the damage it may cause.
- If necessary, the TNRCC can help coordinate the response to a spill that poses an imminent threat to public health or sources of water.
- You reduce the range of penalties that could be assessed against you or your business as a result of the spill.

Reporting a spill is not the same as admitting that pollution

has occurred (see "Correction of Records" above).

Does This Rule Cover *All* Spills?

No, it doesn't. Certain spills would fall under the jurisdiction of other agencies in the state of Texas. The following kinds of spills, discharges, or emissions are covered by other rules:

- Oil spills in or near coastal waters. The Railroad Commission of Texas (RRC) regulates such spills when they are relatively small (240 barrels or less). The Texas General Land Office (GLO) has jurisdiction for larger incidents affecting coastal waters. The term *coastal waters* basically includes the Gulf of Mexico and all of its bays, inlets, and estuaries, as well as portions of their navigable tributaries. A detailed definition of *coastal waters* appears in the GLO Rules, 31 TAC §19.2. When reporting a spill, don't worry about this difference in jurisdiction. Use the Environmental Response Hot Line (1-800-832-8224) to report the spill, and your report will be forwarded to the appropriate agency.
- Spills or waste discharges regulated by the RRC. This essentially means incidents related to the exploration, production, and development of oil, gas, geothermal resources, and uranium. Specific details can be found in the Texas Water Code §26.131.
- Emissions only to air. If you spill a liquid and it then evaporates, the spill is not an "emission only to air." A spill that evaporates is covered by the Spill Rule and may be covered by other regulations.
- Lawful discharges or waste disposal. This category includes the lawful placement of waste or accidental discharge of material into a solid waste management unit registered or permitted under 30 TAC Chapter 335 Subchapter A; any discharge that is covered by a specific permit, order, or rule issued under U.S. or Texas law, if that permit, order, or rule provides another specific reporting requirement; and discharges or spills that are continuous and stable in nature, and are reported to the U.S. Environmental Protection Agency according to 40 CFR §302.8.
- The lawful application of fertilizers, pesticides, or other materials to land or water.
- Certain activities associated with aboveground and underground storage tanks, which are covered by Texas Water Code Chapter 26 Subchapter I.
- Discharges or spills that occur during the normal course of rail transportation.

Related Literature

Consider reviewing the following documents or having them available as reference materials.

State of Texas Oil and Hazardous Substances Spill Contingency Plan. This document, currently being developed by the cooperation of all state agencies that participate in spill response, is a compilation of all state rules that cover spills. When it is available, you may obtain copies from the TNRCC Publications Unit (512/239-0028).

State of Texas Coastal Oil Spill Prevention and Response. 31 TAC Chapter 19. This document comprises the GLO's oil spill rules.

The following documents are available from the U.S. Government Printing Office:

Title 40 Code of Federal Regulations Part 302. This is a portion of the federal law dealing with the handling of hazardous substances.

National Oil and Hazardous Substances Pollution Contingency Plan. 40 CFR Part 300. This document covers all federal rules on spills.

Emergency Planning and Notification. 40 CFR Part 355. The regulation establishes the list of extremely hazardous substances, threshold planning quantities, and facility notification responsibilities necessary for developing and implementing state and local emergency response plans.

Hazardous Chemical Reporting and Community Right-to-Know. These regulations establish reporting requirements that provide the public with important information about the hazardous chemicals in their communities.

Toxic Substances Control Act. 40 CFR Parts 700–766. Several specific constituents, such as PCBs and dioxins, require additional regulation because of their direct impact on human health and the environment. The TSCA specifies procedures for handling these materials. Additional reporting may also be required.

APPENDIX E

TPDES GENERAL PERMIT NO. TXR150000 FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

Texas Commission on Environmental Quality

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

GENERAL PERMIT TO DISCHARGE UNDER THE

TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM

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

This permit supersedes and replaces
TPDES General Permit No. TXR150000, issued March 5, 2008

Construction sites that discharge stormwater associated with construction activity

located in the state of Texas

may discharge to surface water in the state

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

This general permit and the authorization contained herein shall expire at midnight, five years from the permit effective date.

EFFECTIVE DATE: March 5, 2013

ISSUED DATE: FEB 19 2013

Bryan W. Shaw

For the Commission

Texas Commission on Environmental Quality

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

GENERAL PERMIT TO DISCHARGE UNDER THE

TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM

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

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

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

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

EFFECTIVE DATE: March 5, 2023

ISSUED DATE: February 27, 2023

For the Commission

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

I Erin D. Pickens,
Print Name

Senior Vice President of Holden Hills GP, L.L.C., a Texas limited liability company, General Partner of Holden Hills, L.P.,
Title - Owner/President/Other

of Holden Hills, L.P. a Texas limited partnership,
Corporation/Partnership/Entity Name

have authorized Lauren Crone, P.E.
Print Name of Agent/Engineer

of LJA Engineering, Inc.
Print Name of Firm

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

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to $10,000 per day per violation.

2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.

3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.

4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.

5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Holden Hills, L.P., a Texas limited partnership
By: Holden Hills GP, L.L.C., a Texas limited liability company, General Partner

Erin D Pickens
Applicant's Signature

02/01/2024
Date

By: Erin D. Pickens, Senior Vice President

THE STATE OF TEXAS §

County of TRAVIS §

BEFORE ME, the undersigned authority, on this day personally appeared Erin D. Pickens, Senior Vice President of Holden Hills GP, L.L.C., a Texas limited liability company, General Partner of Holden Hills, L.P., a Texas limited partnership 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 1st day of February, 2024.

NOTARY PUBLIC

LETICIA L. SILVA
Notary Public, State of Texas
Notary ID# 1975321
My Commission Expires
FEBRUARY 23, 2027

Leticia L. Silva
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: February 23, 2027

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Barton Creek Sections K, L, & O Phase 1

Regulated Entity Location: Tecoma Circle to Lost Creek Boulevard

Name of Customer: Holden Hills, LP

Contact Person: Erin Pickens Phone: 512-478-5788

Customer Reference Number (if issued):CN 606123644

Regulated Entity Reference Number (if issued):RN 111435921

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	341.51 Acres	$ 10,000
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: Lauren Crone

Date: _____

Application Fee Schedule

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

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	***Fee***
Extension of Time Request	$150

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions 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 **Modification**

2. Attachments **Describe Any Attachments:** *(ex. Title V Application, Waste Transporter Application, etc.)*

☒Yes ☐No CZP Modification and associated attachments

3. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	4. Regulated Entity Reference Number *(if issued)*
CN 606123644		RN 111435921

SECTION II: Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy)

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

☒Owner ☐Operator ☐Owner & Operator
☐Occupational Licensee ☐Responsible Party ☐Voluntary Cleanup Applicant ☐Other: _____

7. General Customer Information

☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐Change in Legal Name (Verifiable with the Texas Secretary of State) ☒ No Change**

If "No Change" and Section I is complete, skip to Section III – Regulated Entity Information.

8. Type of Customer:			
☐ Corporation	☐ Individual	☐ Sole Proprietorship- D.B.A	
☐ City Government	☐ County Government	☐ Federal Government	☐ State Government
☐ Other Government	☐ General Partnership	☒ Limited Partnership	☐ Other:

9. Customer Legal Name *(If an individual, print last name first: ex: Doe, John)* *If new Customer, enter previous Customer below* *End Date:*

Holden Hills, L.P.

10. Mailing Address: 212 Lavaca Street, Suite 300

City	State	ZIP	ZIP + 4
Austin	TX	78701	

11. Country Mailing Information *(if outside USA)*

12. E-Mail Address *(if applicable)*

13. Telephone Number (512) 478-5788

14. Extension or Code

15. Fax Number *(if applicable)* ( ) -

16. Federal Tax ID *(9 digits)*

17. TX State Franchise Tax ID *(11 digits)*

18. DUNS Number *(if applicable)*

19. TX SOS Filing Number *(if applicable)*

20. Number of Employees

☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

21. Independently Owned and Operated?

☒ **Yes** ☐ **No**

SECTION III: Regulated Entity Information

22. 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 ☒ No Change** *(See below)*

****If "NO CHANGE" is checked and Section I is complete, skip to Section IV, Preparer Information.**

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

Barton Creek Sections K, L, and O Phase 1

24. Street Address of the Regulated Entity: *(No P.O. Boxes)*								
	City		**State**		**ZIP**		**ZIP + 4**	
25. Mailing Address:	212 Lavaca Street							
	Suite 300							
	City	Austin	**State**	TX	**ZIP**	78701	**ZIP + 4**	

26. E-Mail Address:		
27. Telephone Number	**28. Extension or Code**	**29. Fax Number** *(if applicable)*
(512) 478-5788		( ) -

30. Primary SIC Code (4 digits)	**31. Secondary SIC Code** (4 digits)	**32. Primary NAICS Code** (5 or 6 digits)	**33. Secondary NAICS Code** (5 or 6 digits)
1611	1623	23411	23491

34. What is the Primary Business of this entity? *(Please do not repeat the SIC or NAICS description.)*

Construction of roads and associated utilities.

Questions 34 – 37 address geographic location. Please refer to the instructions for applicability.

35. Description to Physical Location:	The project will extend from where Tecoma Circle currently ends to Lost Creek Boulevard.

36. Nearest City	**County**	**State**	**Nearest ZIP Code**
Austin	Travis	TX	78701

37. Latitude (N) In Decimal:	30.25532	**38. Longitude (W) In Decimal:**	-97.85927

Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	15	58.464	-97	51	12.492

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 or the updates may not be made. If your Program is not listed, check other and write it in. See the Core Data Form instructions for additional guidance.

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

SECTION IV: Preparer Information

40. Name:	Lauren Crone, P.E.	**41. Title:**	Senior Project Manager

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512) 439-4700		( ) -	lcrone@lja.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 9 and/or as required for the updates to the ID numbers identified in field 39.

(See the Core Data Form instructions for more information on who should sign this form.)

Company:	Holden Hills, L.P., a Texas limited partnership	**Job Title:**	By: Holden Hills GP, L.L.C., a Texas limited liability company, General Partner
Name *(In Print)* :	By: Erin D. Pickens, Senior Vice President	**Phone:**	(512) 478-5788
Signature:	Erin D Pickens	**Date:**	02/01/2024