

TCEQ CONTRIBUTING ZONE PLAN - MODIFICATION

METRO DRIVE OFFICE PARK 200 WEST METRO DRIVE LEANDER, TEXAS 78641

PREPARED FOR

NORTH FOREST OFFICE SPACE 305 N. HEATHERWILDE BLVD, SUITE 250 PFLUGERVILLE, TEXAS 78660

PREPARED BY

PARNELL ENGINERING, INC. 500 E. WHITESTONE BLVD P.O BOX #1419 CEDAR PARK, TEXAS 78613 TEXAS ENGINEERING FIRM NO. F-19566





October 25, 2023

Texas Commission on Environmental Quality (TCEQ) 12100 Park 35 Circle Austin, Texas 78753

RE: Engineer's Summary Letter Metro Drive Office Park: Contributing Zone Plan (CZP) – Modification 200 West Metro Drive Leander, TX 78641 Assigned Regulated Entity Number (s) (RN): 111749362 EAPP ID Number (s): 11003608 Customer Number (CN): 606146520

To Whom It May Concern:

Please accept this Engineer's summary letter and report along with the accompanying Contributing Zone Plan (CZP) - Modification application packet as our formal submittal for a CZP Modification of a previously approved CZP for the above referenced project.

Metro Drive Office Park is a proposed office development project that is currently under permitting with the City of Leander and has not commence construction. The original CZP was approved on July 28th, 2023, for the development of nine (9) single stories office buildings with associated parking /drive pavements and sidewalk paved surfaces situated on ±4.007 acres of land. The impervious cover proposed previously was 2.938 acres (73.3 %). This CZP modification proposes ten (10) office buildings with a total of 3.068 acres (76.58%) of impervious cover.

To accommodate for the overtreatment of the additional impervious cover with the new site layout, our design team has coordinated with Contech to add additional cartridges within the previously approved "Jellyfish Filter" to treat the first half inch of rain fall over the impervious areas of the site. The proposed structural quality BMP will provide a TSS removal efficiency of 86% and will be located on the southeast portion of the site and will be built and maintained in compliance with TCEQ. Additionally, immediately downstream outfall of the Jellyfish Filter, there will be an underground drainage system consisting of solid CMP pipes to control the increase in flow of the 2-yr, 10-yr, 25-yr, and 100-yr storm events. Atlas-14 rainfall intensities were utilized in the design of the underground detention ponds.

The project is entirely within the Full Purpose Limits of the City of Leander. The property is legally subdivided and described as Lot 3B, block M of the replat of Lot 1, Block A of the resubdivision of Lot 1, Block A, HEB Leander Subdivision and replat of lot 3, Block M, of Northside Meadow, Phase 1A, A City of Leander, Williamson County, Texas.

The subject site is currently cleared and undeveloped with existing impervious cover totaling $\pm 11,854$ sf (0.27-ac). Existing impervious cover are from existing driveway pavement to west and east of property line.

The subject property is located within the Brushy Creek Watershed. No portion of the property is located within the FEMA defined 100-yr floodplain per FIRM MAP PANEL No. 48491C0455F, having an effective date of December 20, 2019, in Williamson County, TX.

The existing tract is predominantly an open area with little to no tree coverage. A high point of approximately elevation 995-ft. exists along the northwestern portion of the property near the property line and existing driveway that is stubbed to our site from "The Learning Center", case number 19-SD-013. The land slopes away to the southeast typically between 1-5% slope, towards an existing inlet elevation 980-ft. at the intersection of two private roads. The soil on the site consists of Doss Silty Clay, Eckrant cobbly clay, and Georgetown clay loam.

Appropriate erosion control measures have been designed in accordance with the City of Leander technical criteria and City of Austin Environmental Criteria Manual requirements and are included for review with the accompanying plan set attached to this Contributing Zone Plan. The design of the site plan and site engineering improvements are to ensure minimal impacts and effects on the natural and traditional character of the land and surrounding waterways. Hence, we do not anticipate any adverse impacts because of this development.

To our knowledge, the enclosed application materials are complete, correct, and in full compliance with the Technical Criteria Manuals of the TCEQ. Should you have any questions regarding this project or application, please do not hesitate to contact our office.

Sincerely,

Parnell Engineering Inc. Texas Engineering Firm No. F-19566

Devon Vo, P.E. *10/25/23*



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SECTION 1

EDWARDS AQUIFER APPLICATION COVER PAGE (TCEQ-20705)

Texas Commission on Environmental Quality Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

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

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

- 2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.
- 3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.
- 4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.

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

- 5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.
- 6. If the geologic assessment was completed before October 1, 2004 and the site contains "possibly sensitive" features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

Technical Review

- 1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.
- 2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be

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

- 3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or will be denied. Please note that because the technical review is underway, whether the application is withdrawn or denied **the application fee will be forfeited**.
- 4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

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

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

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

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

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

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

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

1. Regulated Entity Name: Metro Drive Office Park				2. Regulated Entity No.:				
3. Customer Name: North Forest Office Space – Austin 2, LLC			4. Customer No.:					
5. Project Type: (Please circle/check one)	New	Modif	icatior		Exter	nsion	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-r	Non-residential 8		8. Sit	e (acres):	±4.007	
9. Application Fee:	\$4,000	10. Permanent BMP(s):			s):	1 – Jelly Fish F	ilter	
11. SCS (Linear Ft.):	N/A	12. AST/UST (No. Tanks):			nks):	N/A		
13. County:	Williamson	14. Watershed:				North Brushy C	Creek Watershed	

Application Distribution

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

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

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

DEVON VO		
Print Name of Customer/Authorized Agent		
C Juron 10	10/25/23	
Signature of Customer/Authorized Agent	Date	

FOR TCEQ INTERNAL USE ONI	.Y		
Date(s)Reviewed:		Date Administratively Complete:	
Received From:	Correct Number of Copies:		Number of Copies:
Received By:		Distribution Date:	
EAPP File Number:		Complex:	
Admin. Review(s) (No.):		No. AR R	Counds:
Delinquent Fees (Y/N):		Review T	'ime Spent:
Lat./Long. Verified:		SOS Cust	tomer Verification:
Agent Authorization Complete/Notarized (Y/N):		Fee	Payable to TCEQ (Y/N):
Core Data Form Complete (Y/N):		Check:	Signed (Y/N):
Core Data Form Incomplete Nos.:			Less than 90 days old (Y/N):

SECTION 2

MODIFICATION OF A PREVIOUSLY APPROVED CZP (TCEQ-10259)

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: Devon Vo

Date: 10/25/23

Signature of Customer/Agent:

Project Information

 Current Regulated Entity Name: <u>Metro Drive Office Park</u> Original Regulated Entity Name: <u>Metro Drive Office Park</u> Assigned Regulated Entity Number(s) (RN): <u>111749362</u> Edwards Aquifer Protection Program ID Number(s): <u>11003608</u>

The applicant has not changed and the Customer Number (CN) is: <u>606146520</u>

- 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	Approved Project	Proposed Modification
Summary		
Acres	4.007	REMAIN THE SAME (4.007)
Type of Development	COMMERICAL - OFFICE	COMMERCIAL - OFFICE
Number of Residential	<u>N/A</u>	<u>N/A</u>
Lots		
Impervious Cover (acres)	<u>2.938</u>	<u>3.068</u>
Impervious Cover (%)	<u>73.3</u>	<u>76.58</u>
Permanent BMPs	JELLY FISH	JELLY FISH
Other	<u>N/A</u>	
AST Modification	Approved Project	Proposed Modification
Summary		
Number of ASTs	<u>N/A</u>	<u>N/A</u>
Other	<u>N/A</u>	<u>N/A</u>
UST Modification	Approved Project	Proposed Modification
Summary		
Number of USTs	<u>N/A</u>	<u>N/A</u>
Other	<u>N/A</u>	<u>N/A</u>

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. X Attachment C: Current Site Plan of the Approved Project. 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. $|\times|$ 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. \square 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 & APPROVED MODIFICATION LETTERS

Jon Niermann, *Chairman* Emily Lindley, *Commissioner* Bobby Janecka, *Commissioner* Kelly Keel, *Interim Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 28, 2023

Mr. Jon Denton North Forest Office Space – Austin 2, LLC. 305 N. Heatherwilde Blvd., Suite 250 Pflugerville, Texas, 78660

Re: Approval of a Contributing Zone Plan (CZP) Metro Drive Office Park; Located 400 feet west of N. US HWY 183 and Metro Drive; Leander, Williamson County, Texas Edwards Aquifer Protection Program ID: 11003608, Regulated Entity No. RN111749362

Dear Mr. Denton:

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 Parnell Engineering, Inc. on behalf of the applicant, North Forest Office Space – Austin 2, LLC. on May 30, 2023. Final review of the application was completed after additional material was received on July 24, 2023.

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.

PROJECT DESCRIPTION

The proposed commercial project will have an area of approximately 4.007-acres. The project will include the development of nine (9) single story office buildings with associated parking/drive pavements and sidewalk paved surfaces. The impervious cover will be 2.938-acres (73.3 percent). Project wastewater will be disposed of by conveyance to the existing City of Leander wastewater treatment plant.

TCEQ Region 11 · P.O. Box 13087 · Austin, Texas 78711-3087 · 512-339-2929 · Fax 512-339-3795

Mr. Jon Denton Page 2 July 28, 2023

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, one (1) Jellyfish filter, 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 2,557 pounds of TSS generated from the 2.938 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.

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. Hunter Patterson of the Edwards Aquifer Protection Program at (210) 403-4026 or the regional office at 512-339-2929.

Sincerely,

Killian Butter

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

LIB/hhp

ATTACHMENT B

NARRATIVE OF PROPOSED MODIFICATION



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

Attachment B Narrative of Proposed Modifications

Metro Drive Office Park is a proposed office development project that is current under permitting with the City of Leander and has not commence construction. The original CZP was approved on July 28th, 2023, for the development of nine (9) single stories office buildings with associated parking /drive pavements, sidewalk paved surfaces, storm drain systems, one (1) Jellyfish Water Quality BMP unit as well as two (2) above ground detention pond situated on ±4.007 acres of land. The impervious cover approved within the original CZP was 2.938 acres (73.3 %). This CZP modification proposes one (1) additional building totaling ten (10) office buildings, replacement of the two (2) existing above ground detention ponds with an underground system and adding additional cartridge filter to the Jellyfish BMP. The newly proposed impervious cover will be 3.068 acres (76.58%) of the total site. The 0.13-acre increase of additional impervious cover with the new proposed site layout/modification consists of one (1) building and parking pavements.

To accommodate for the overtreatment of the additional impervious cover with the new site layout, our design team has coordinated with Contech to add additional cartridges within the previously approved "Jellyfish Filter" to treat the first half inch of rain fall over the impervious areas of the site. The proposed structural quality BMP will provide a TSS removal efficiency of 86% and will be located on the southeast portion of the site and will be built and maintained in compliance with TCEQ. Additionally, immediately downstream outfall of the Jellyfish Filter, there will be an underground drainage system consisting of solid CMP pipes systems to control the increase in flow of the 2-yr, 10-yr, 25-yr, and 100-yr storm events. Atlas-14 rainfall intensities were utilized in the design of the underground detention ponds.

Appropriate erosion control measures have been designed in accordance with the City of Leander technical criteria and City of Austin Environmental Criteria Manual requirements and are included for review with the accompanying plan set attached to this Contributing Zone Plan Modification. The design of the site plan and site-engineering improvements are to ensure minimal impacts and effects on the natural and traditional character of the land and surrounding waterways. Hence, we do not anticipate any adverse impacts because of this development.

ATTACHMENT C

CURRENT SITE PLAN OF THE APPROVED PROJECT



4/2023 10:38:10 AM - J:\2217_NORTH FOREST OFFICE SPACE\2217.02_METRO DRIVE OFFICE PARK\CAD\SHEETFILES\CS-101 OVERALL SITE PLAN.DWG - DEVON

		PARKING PROV	/IDE D
	Parking	Standard :	182
5	Required	Accessible:	8
ōsf	22	Street:	0
ōsf	10		
ōsf	10	Total:	190
ōsf	21	Accessible Spaces	,
ōsf	10	Required:	6
ōsf	20		
ōsf	20		
ōsf	20		
ōsf	22		
	155		

TREE I	<u>_IST</u>	
TAG#	TYPE	DIAMETER
-5411	HACKBBERY	9" (REMOVE)
5412	HACKBBERY	9" (REMOVE)
5413	SWEETGUM	9" (REMOVE)
5414	HACKBERRY	7" (REMOVE)
5415	LIVE OAK	6"
5416	LIVE OAK	6"
5417	LIVE OAK	6"
5418	LIVE OAK	7"
5419	LIVE OAK	7"

PAVEMENT RECOMMENDATION NOTES:

1. A LAYER OF GEOGRID EQUIVALENT TO TENSAR TX5 SHOULD BE PLACED BETWEEN THE SUBGRADE AND BASE COURSE.

2. REFERENCE GEOTECHNICAL REPORT PERFORMED BY TERRADYNE (DATED JANUARY 31, 2023) FOR PAVEMENT RECOMMENDATION.

ARKING AREA - FLEXIBLE PAVEMENT			
ALS: 15,000			
CONSTITUENT	THICKNESS (IN.)		
D	2"		
LIMESTONE BASE MATERIAL	8"		
ED SUBGRADE	8"		

SLES AND FIRE LANE - FLEXIBLE PAVEMENT		
ALS: 150,000		
CONSTITUENT	THICKNESS (IN.)	

PAVEMENT CONSTITUENT	THICKNESS (IN.)
HMAC TYP D	2"
CRUSHED LIMESTONE BASE MATERIAL	12"
COMPACTED SUBGRADE	8"

DUMPSTER PAD - RIDGID PAVEMENT			
ALS: 150,000			
CONSTITUENT	THICKNESS (IN.)		
CEMENT CONCRETE	7"		
D SUBGRADE	8"		





11. FOR 90 GALLON ROLL OUT CONTAINER STORED OUTSIDE, IT IS REQUIRED TO BE ENCLOSED BY PRIVACY FENCE.

LOAD GARBAGE TRUCK.

Know what's **below.**

Call before you dig.

METAL. THE DUMPSTER IS ORIENTED FOR PICKUP BY A FRONT

FOR CITY APPROVAL

Bar Measures 1 inch, otherwise drawing not to scale

Project No: Designed By: D. VO Drawn By: A. ALVAREZ Checked By: W. PARNELL Checked By: W. PARNELL CS-101 Sheet 8 of 39 File No: 23-SD-XXX SECTION 3

CONTRIBUTING ZONE PLAN APPLICATION (TCEQ-10257)

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: Devon Vo

Date: October 25, 2023

Signature of Customer/Agent:

won

Regulated Entity Name: Metro Drive Office Park

Project Information

- 1. County: Williamson
- 2. Stream Basin: Brushy Creek
- 3. Groundwater Conservation District (if applicable): N/A
- 4. Customer (Applicant):

Contact Person: Jon Denton Entity: North Forest Office Space - Austin 2, LLC Mailing Address: <u>305 N. Heatherwilde Blvd, Suite 250</u> City, State: <u>Pflugeville, TX</u> Zip: <u>78660</u> Telephone: <u>512-515-1553 ext 407</u> Fax: <u>n/a</u> Email Address: jond@nforest.com

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5. Agent/Representative (If any):

Contact Person: <u>Devon Vo</u> Entity: <u>Parnell Engineering, Inc.</u> Mailing Address: <u>500 E. Whitestone Blvd, #1419</u> City, State: <u>Cedar Park, Tx</u> Zip: <u>78613</u> Telephone: <u>512-299-5963</u> Fax: _____ Email Address: <u>devon.vo@parnellengineeringinc.com</u>

- 6. Project Location:
 - The project site is located inside the city limits of <u>Leander</u>, <u>Williamson County</u>, <u>TX</u>.
 - 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.

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The subject site is located approximately 400 linear feet west of the intersection of US
HWY 183 & West Metro Drive in Leander, Texas 78641
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- 8. Attachment A Road Map. A road map showing directions to and the location of the project site is attached. The map clearly shows the boundary of the project site.
- 9. Attachment B USGS Quadrangle Map. A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') is attached. The map(s) clearly show:

Project site boundaries.

- 10. Attachment C Project Narrative. A detailed narrative description of the proposed project is attached. The project description is consistent throughout the application and contains, at a minimum, the following details:
 - Area of the site
 Offsite areas
 Impervious cover
 Permanent BMP(s)
 Proposed site use
 Site history
 Previous development
 - \square Area(s) to be demolished
- 11. Existing project site conditions are noted below:

Existing commercial site Existing industrial site

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

12. The type of project is:

Residential: # of Lots:	
Residential: # of Living Unit Equivalents: .	
🔀 Commercial	
🗌 Industrial	
Other:	

13. Total project area (size of site): <u>4.007</u> Acres

Total disturbed area: <u>3.86</u> Acres

- 14. Estimated projected population: 50-100 people
- 15. The amount and type of impervious cover expected after construction is complete is shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	43,214	÷ 43,560 =	0.992
Parking	80,340	÷ 43,560 =	1.844
Other paved surfaces	10,090	÷ 43,560 =	0.232
Total Impervious Cover	133,644	÷ 43,560 =	3.068

Table 1 - Impervious Cover

Total Impervious Cover 3.068 ÷ Total Acreage 4.007 X 100 = 76.58% Impervious Cover

- 16. Attachment D Factors Affecting Surface Water Quality. A detailed description of all factors that could affect surface water quality is attached. If applicable, this includes the location and description of any discharge associated with industrial activity other than construction.
- 17. 🛛 Only inert materials as defined by 30 TAC 330.2 will be used as fill material.

For Road Projects Only

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

🛛 N/A

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

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

A rest stop will not be included in this project.

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

Stormwater to be generated by the Proposed Project

24. 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 <u>Leander WWTP</u> (name) Treatment Plant. The treatment facility is:
Existing.

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

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			
		То	tal x 1.5 = Gallons

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

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

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

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

Table 3 - Secondary Containment

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

Total: _____ Gallons

30. Piping:

] All piping, hoses, and dispensers will be located inside the containment structure.

Some of the piping to dispensers or equipment will extend outside the containment structure.

The piping will be aboveground

] The piping will be underground

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

Tanks clearly labeled

Piping clearly labeled

Dispenser clearly labeled

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

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

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

Site Plan Requirements

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

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

Site Plan Scale: 1" = <u>30</u>'.

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.

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

The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): <u>FEMA PANEL NO. 48491C0455F, DATED DECEMBER 20, 2019 FOR</u> <u>WILLIAMSON COUNTY</u>.

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

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

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

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

39. \boxtimes 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. \boxtimes Locations where soil stabilization practices are expected to occur.

42. Surface waters (including wetlands).

N/A

43. Locations where stormwater discharges to surface water.

There will be no discharges to surface water.

44. Temporary aboveground storage tank facilities.

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

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45. Permanent aboveground storage tank facilities.

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

46. \square 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.

 \boxtimes 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. X 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. X 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.

- 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
Posponsibility for Maintonance of Dermanent PMDs and

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



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Copyright



ATTACHMENT B

USGS QUADRANGLE MAP


6/2/2023 12:12:17 PM - J:/2217_NORTH FOREST OFFICE SPACE/2217.02_METRO DRIVE OFFICE PARKICADIEXHIBITS/USGS QUADRANGLE EXHIBIT.DWG - ADRIAN ALVAREZ

Bar Measures 1 incl

ATTACHMENT C

PROJECT NARRATIVE



Attachment C Project Narrative

Metro Drive Office Park is a proposed office development project that is currently under permitting with the City of Leander and has not commence construction. The original CZP was approved on July 28th, 2023. This updated/modify CZP application for Metro Drive Office Park is a proposed office development project comprised of ten (10) single stories office buildings situated on ±4.007 acres of land located approximately 400 linear feet west of the intersection of N US HWY 183 and West Metro Drive, Leander, Texas. The project is entirely within the Full Purpose Limits of the City of Leander. The property is legally subdivided and described as Lot 3B, block M of the replat of Lot 1, Block A of the resubdivision of Lot 1, Block A, HEB Leander Subdivision and replat of lot 3, Block M, of Northside Meadow, Phase 1A, A City of Leander, Williamson County, Texas.

The subject site is currently cleared and undeveloped with existing impervious cover totaling $\pm 11,854$ sf (0.27-ac). Existing impervious cover are from existing driveway pavement to west and east of property line. The planned development will consist of ten (10) single stories office building. The development in proposes 43,214 sf of structure roof tops, 80,340 sf of parking/drive pavements and 10,090 sidewalks/other paved surfaces totaling 133,644 sf (3.068-ac, 76.58% of the total site), as denoted on the Table 1 – Impervious Cover on page 3 of the Contributing Zone Application.

To accommodate for the overtreatment of the additional impervious cover generated with the new site layout, our design team has coordinated with Contech to add additional cartridges within the previously approved "Jellyfish Filter" to treat the first half inch of rain fall over the impervious areas of the site. The proposed structural quality BMP will provide a TSS removal efficiency of 86% and will be located on the southeast portion of the site and will be built and maintained in compliance with TCEQ. Additionally, immediately downstream outfall of the Jellyfish Filter, there will be an underground drainage system consisting of solid CMP pipes to control the increase in flow of the 2-yr, 10-yr, 25-yr, and 100-yr storm events. Atlas-14 rainfall intensities were utilized in the design of the underground detention ponds.

The subject property is located within the Brushy Creek Watershed. No portion of the property is located within the FEMA defined 100-yr floodplain per FIRM MAP PANEL No. 48491C0455F, having an effective date of December 20, 2019, in Williamson County, TX.

The existing tract is predominantly an open area with little to no tree coverage. A high point of approximately elevation 995-ft. exists along the northwestern portion of the property near the property line and existing driveway that is stubbed to our site from "The Learning Center", case number 19-SD-013. The land slopes away to the southeast typically between 1-5% slope, towards an existing inlet elevation 980-ft. at the intersection of two private roads. The soil on the site consists of Doss Silty Clay, Eckrant cobbly clay, and Georgetown clay loam.

Appropriate erosion control measures have been designed in accordance with the City of Leander technical criteria and City of Austin Environmental Criteria Manual requirements and are included for review with the accompanying plan set attached to this Contributing Zone Plan. The design of the site plan and site-engineering improvements are to ensure minimal impacts and effects on the natural and traditional character of the land and surrounding waterways. Hence, we do not anticipate any adverse impacts because of this development.

ATTACHMENT D

FACTORS AFFECTING SURFACE WATER QUALITY



Attachment D Factors Affecting Surface Water Quality

The factors that could potentially affect surface water quality attributable to the construction of the site consist of the following:

- 1. Erosion to soil disturbance during clearing and grubbing excavation, embankment, trenching, and backfilling utilities, final grading.
- 2. Oil and grease from the asphalt pavement and vehicle traffic.
- 3. Construction activity during the construction process (temporary). All activities will be conducted in a manner to minimize the potential for impact to the environment.
- 4. Normal silt build-up.
- 5. Trash which becomes loose from the subdivision residents.
- 6. Storage or equipment on-site.
- 7. Accidental spills of minor number of petroleum-based products such as paint, glue and sealants during construction.
- 8. Fertilizers used in the landscaping around the buildings.
- 9. Waste generation, storage and disposal.

Temporary Best Management Practices

These factors associated with the construction of the various improvements are kept in check through the Temporary Best Management Practices.

Permanent Best Management Practices

After construction of the various improvements and the site is restored and revegetated, the factors that could affect water quality consist of the following:

- 1. Pollutants associated with runoff from paved areas.
- 2. Pollutants associated with runoff from maintained vegetation.
- 3. Litter.

For all factors, pollutants effects will be reduced by the treatment of the onsite Jellyfish Filter BMP system that will capture and treat the runoff.

ATTACHMENT E

VOLUME AND CHARACTER OF STORMWATER



Attachment E Volume and Character of Stormwater

The increase in impervious cover and vehicular traffic associated with this development will increase the pollutants which could potentially drain into the stormwater runoff. Runoff from this project will consist of runoff from roofs, parking, and driveways. Runoff contaminants will most likely include oil and grease from vehicular use on the proposed private driveway and parking as well as lawn fertilizers and clippings (please reference Attachment D of this section for more information).

The runoffs will be conveyed via on-site storm sewer systems to the proposed Jellyfish Filter (BMPs) to capture the runoff from the proposed impervious cover. The proposed Jellyfish Filter has been designed by Contech and uses the TCEQ TSS Removal Calculations Spreadsheet which provides 86% remove efficiency. The spreadsheet can be found on the "Water Quality Control Plan", denoted as sheet CG-301 in the attached construction plan set.

Storm water runoff from the site in the pre-developed and post developed conditions were calculated using the SCS curve number method with Atlas-14 rainfall data for the City of Leander. The pre-construction runoff curve number varies from 80 to 84 and the post construction coefficients varies similarity from 80 to 84. All corresponding calculations can be found on the "Existing and Proposed Drainage Area Map", denoted as CG-201 & CG-202 of the attached construction plan set.

ATTACHMENT F

SUITABILITY LETTER FROM AUTHORIZED AGENT

NOT APPLICABLE





Attachment F Suitability Letter from Authorized Agent (If OSSF is proposed)

Not applicable

No on-site sewage facilities are proposed with this project.

ATTACHMENT G

ALTERNATIVE SECONDARY CONTAINMENT METHOD

NOT APPLICABLE



Attachment G Alternative Secondary Containment Methods

Not applicable

ATTACHMENT H

AST CONTAINMENT STRUCTURE DRAWINGS

NOT APPLICABLE



Attachment H AST Containment Structure Drawings

Not applicable

ATTACHMENT I

20% OR LESS IMPERVIOUS COVER WAIVER



Attachment I 20% or Less Impervious Cover Waiver

Not applicable

ATTACHMENT J

BMPS FOR UPGRADIENT STORMWATER



Attachment J BMPs for Upgradient Stormwater

Based on the existing topography map of the area, a portion west of the site denoted as OS-1, OS-2 and OS-3 on the "Proposed Drainage Area Map" naturally sheet flow and eventually shallow concentrated to four (4) distinct analysis point. In proposed conditions, OS-1 and OS-2 will naturally flow through the site as that on existing conditions and will be captured and conveyed via on-site storm sewer systems to the onsite BMPs and into underground detention systems consist of solid CMP pipes with outflow control structures to further minimized any pollution to surface and/or storm water downstream of the site. OS-3 will be kept in natural grass vegetation to the existing analysis point. Additional measures such as silt fences, stabilized construction entrance and concrete washouts area will be used as temporary Best Management Practices (BMPs) for stormwater that originates upstream of the subject site to prevent silts and debris washing across the site along with the storm water runoffs. Please reference the "Erosion and Sedimentation Control" on C-201-203 of the plan set.

ATTACHMENT K

BMPS FOR ON-SITE STORMWATER



Attachment K BMPs for On-Site Stormwater

BMP's for on-site stormwater include the following:

Temporary BMP's

- 1. Silt Fence
- 2. Silt Fence with Jay Hooks
- 3. Inlet Protection
- 4. Stabilized Construction Entrances
- 5. Concrete Washout Areas

The Jellyfish Filter has been designed per TCEQ Technical Guidance on Best Management Practice (RG-348) to provide water quality treatment for all on-site flow generated from the proposed impervious cover. Flows from the site will first drain to the Jellyfish Filter to be treated and then discharge to an underground detention system that are hydraulically connected with low flow orifice and high flow weirs at the outfall. The on-site underground detention systems are designed to reduce post developed flows to predeveloped rates for the 2-, 10-, 25- and 100-years storm events. The underground detention systems were modeled and designed by utilizing Atlas-14 rain fall data for the City of Leander and HEC-HMS software.

ATTACHMENT L

BMPS FOR SURFACE STREAMS



Attachment L BMPs for Surface Streams

The proposed Erosion and Sedimentation Controls (such as silt fence, inlet protection, stabilized construction entrances and concrete washout areas) will aid in preventing pollution from entering the existing streams located off-site of the project during the construction phase. The on-site BMPs will remove at least 86% of the potential pollutants from entering surface stream.

ATTACHMENT M

CONSTRUCTION PLANS



Attachment M Construction Plans

Construction plans have been included with this application.

DEVELOPER

NORTH FOREST OFFICE SPACE 305 N. HEATHERWIDE BLVD. SUITE 250 PFLUGERVILLE, TEXAS 78660 (515) 515-1553 CONTACT: JON DENTON; ADAM BURKE EMAIL: JOND@NFOREST.COM ADAMB@NFOREST.COM

SURVEYOR

ATS ENGINEERS INSPECTORS & SURVEYORS 4910 WEST HWY 290 AUSTIN, TEXAS 78735 (512) 328-6996

CIVIL ENGINEER | AGENT

PARNELL ENGINEERING INC. 500 E WHITESTONE BLVD. (#1419) CEDAR PARK, TEXAS 78613 (512) 431-8411; (512) 299-5963 CONTACT: WILL PARNELL, P.E.; DEVON VO , P.E EMAIL: WILL.PARNELL@PARNELLENGINEERINGINC.COM DEVON.VO@PARNELLENGINEERINGINC.COM

ARCHITECT NORTH FOREST DEVELOPMENT, LLC.

2829 WEHRLE DR. SUITE 1 WILLIAMSVILLE, NY 14221 (716) 626-9764

PROJECT DESCRIPTION

THIS PROJECT CONSIST OF NINE OFFICE BUILDINGS WITH ASSOCIATED PARKING AND UTILITIES, AS WELL AS, WATER QUALITY AND DETENTION FACILITIES SITUATED ON 4.007 ACRES TRACT LOCATED ON WEST METRO DRIVE WILLIAMSON COUNTY, LEANDER, TEXAS 78641

ZONING

GC-4-C - GENERAL COMMERCIAL

FLOOD PLAIN INFORMATION THIS TRACT IS LOCATED IN ZONE "X" - AREA OF MINIMAL FLOOD HAZARD AS SHOWN ON THE FLOODPLAIN INSURANCE RATE MAP PANEL NO. 48491C0455F, WILLIAMSON COUNTY, TEXAS DATED DECEMBER 20,2019

WATERSHED

THE SUBJECT PROPERTY IS LOCATED WITHIN TURKEY CREEK - BRUSHY CREEK

THE SITE IS LOCATED WITHIN THE EDWARDS AQUIFER CONTRIBUTING ZONE. DEVELOPMENT OF THIS SITE WILL COMPLY WITH ALL APPLICABLE TCEQ EDWARDS AQUIFER RULES.

LEGAL DESCRIPTION

4.007 ACRES (4.006 SURVEYED) OUT OF THE ATS ENGINEERS INSPECTORS & SURVEYORS SURVEY, LOT 3 B, BLOCK M, REPLAT OF LOT 1 BLOCK A, HEB LEANDER SUBDIVISION AND LOT 3 BLOCK M, OF NORTHSIDE MEADOW, PHASE 1A, RECORD IN DOCUMENT NO. 2019049397

BENCHMARK NOTE

TBM #1 - MAG NAIL IN ASPHALT IN THE PRIVATE DRIVE AISLE RIGHT OFF OS W. METRO DRIVE IN BETWEEN W. BROADE STREET AND HIGHWAY 183, N 10185945.36 E 3075316.68. ELEVATION =985.76'.

NOTES:

- 1. APPROVAL OF THESE PLANS BY THE CITY OF LEANDER INDICATES COMPLIANCE WITH APPLICABLE CITY REGULATIONS ONLY. APPROVAL BY OTHER GOVERNMENTAL ENTITIES MAY BE REQUIRED PRIOR TO THE START OF CONSTRUCTION. THE APPLICANT IS RESPONSIBLE FOR DETERMINING IF ADDITIONAL APPROVALS ARE NECESSARY.
- IF AT ANY TIME DURING CONSTRUCTION OF THIS PROJECT AN UNDERGROUND STORAGE TANK (UST) IS FOUND, CONSTRUCTION IN THAT AREA MUST STOP UNTIL A CITY OF LEANDER UST CONSTRUCTION PERMIT IS APPLIED FOR AND APPROVED. ANY UST REMOVAL WORK MUST BE CONDUCTED BY A UST CONTRACTOR THAT IS REGISTERED WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ). CONTACT BRUCE CALDER AT (512) 974-2922 IF YOU HAVE ANY QUESTIONS. [COA TITLE 6]"
- RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/ HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.
- THE PLAN IS COMPLETE, ACCURATE AND IN COMPLIANCE WITH TITLE 30 OF THE LAND DEVELOPMENT CODE. 5. BY THE ACT OF SUBMITTING A BID FOR THE PROPOSED CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS HE INTENDS TO USE HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS AND HAVE FOUND THEM COMPLETE AND FREE FROM ANY AMBIGUITIES AND SUFFICIENT FOR THE PURPOSE INTENDED. THE BIDDER FURTHER WARRANTS THAT TO THE BEST OF HIS OR HIS SUBCONTRACTORS AND MATERIAL SUPPLIERS KNOWLEDGE ALL MATERIALS AND PRODUCTS SPECIFIED OR INDICATED HEREIN ARE ACCEPTABLE FOR ALL APPLICABLE CODES AND AUTHORITIES.
- THE SIZE AND LOCATION OF UTILITY STRUCTURES, (IF SHOWN), MAY BE EXAGGERATED FOR GRAPHICAL CLARITY.
- 7. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION. (OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 611 EAST 6TH STREET, LEANDER, TEXAS).
- PURSUANT TO 15-12-131 OF THE CITY CODE, THE CONTRACTOR MAY NOT BLOCK, DIRECT, IMPEDE, OR REROUTE PEDESTRIAN AND VEHICULAR TRAFFIC, NOR PLACE A BARRICADE OR OTHER TRAFFIC DEVICE IN A RIGHT-OF-WAY, WITHOUT FIRST OBTAINING A TEMPORARY USE OF RIGHT-OF-WAY PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.
- CONTRACTOR SHALL RESTORE ALL SIGNS AND PAVEMENT MARKINGS TO EXISTING CONDITIONS FOLLOWING THE COMPLETION OF EACH PHASE OF CONSTRUCTION. CONTRACTORS SHALL REFER TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) FOR SIGN AND MARKING DIMENSIONS AND COLORS.
- 10. ALL CONSTRUCTION HEREIN SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF LEANDER /OR TXDOT STANDARD SPECIFICATION, UNLESS OTHER WISE NOTED. NO SEPARATE SPECIFICATIONS WILL BE PROVIDED BY PARNELL ENGINEERING, INC.
- 9. THE APPLICANT/OWNER MUST COORDINATE WITH UTILITY COMPANIES PRIOR TO CONSTRUCTION. 10. CONTRACTOR SHALL COORDINATE CONTINUOUSLY AND AS NECESSARY WITH PROPERTY/BUSINESS OWNERS
- TO MAINTAIN CONTINUATION OF TRAFFIC CONTROL AND ACCESS. 11. BE INFORMED THAT THE CONTRACTOR MUST OBTAIN A SEPARATE PERMIT TO WORK WITHIN THE COUNTY
- ROW. 12. THE ENGINEER WHO PREPARED THESE PLANS IS RESPONSIBLE FOR THEIR ADEQUACY. IN APPROVING THESE
- PLANS, WILLIAMSON COUNTY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER. 13. NO EQUIPMENT, MATERIALS, AND/OR SPOILS SHALL BE STORED OVERNIGHT WITHIN THE FEMA 100-YR FLOODPLAIN. THE CREEK, AND THE CWQZ.
- 14. OWNER SHALL MAINTAIN ALL ONSITE WATER QUALITY UNITS AND DETENTION POND STRUCTURES.

SITE DEVELOPMENT PLAN FOR METRO DRIVE OFFICE PARK SD-23-0113 200 WEST METRO DRIVE

WILLIAMSON COUNTY, LEANDER, TEXAS, 78641

OCTOBER 2023



VICINITY MAP SCALE: 1"=2000'

SUBMITTAL DATE: INITIAL SUBMITTAL / FILING DATE: MAY 30, 2023 UPDATE 1: OCTOBER 5, 2023

UPDATE 2: OCTOBER 20, 2023

RELATED CASE NUMBERS:

TAX I.D NO: R586913, R586912 FINAL PLAT (18-SFP-010)

LAND USE SUMMARY

ZONING:	GC-4-C - GENERAL COMMERCIAL
LAND USE:	OFFICE SPACE
ACREAGE:	4.006 ACRES (174,507 SQ. FT.)
TOTAL IMPERVIOUS COVER:	3.068 ACRES (133,644 SQ.FT.)
BUILDING IMPERVIOUS COVER:	0.992 ACRES (43,214 SQ.FT.)
FUTURE LAND USE:	ACTIVITY CENTER

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "TEXAS ONE CALL" AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN PER THE APPROPRIATE REMEDIAL ACTION AGREED UPON BY THE ENGINEER.

	REVISIONS / CORRECTIONS					
NO	DESCRIPTION	SHEETS IN PLAN SET	NET CHANGE IMP. COVER (sq. ft.)	TOTAL SITE IMP. COVER (sq. ft.)/%	CITY OF LEANDER APPROVAL DATE	DATE IMAGED

	S	HEET INDEX
SHT NO.	SHT ID.	DESCRIPTION
1	G-001	COVER SHEET AND SHEET INDEX
2	G-002	GENERAL NOTES AND ABBREVIATIONS
3	V-101	FINAL PLAT - SHEET 1
4	V-102	FINAL PLAT - SHEET 2
5	V-103	FINAL PLAT - SHEET 3
6	C-101	EXISTING CONDITIONS AND DEMOLITION PLAN
7	C-201	EROSION AND SEDIMENT CONTROL PLAN - STAGE 1-2
8	C-202	EROSION AND SEDIMENT CONTROL PLAN - STAGE 3-4
9	C-203	EROSION AND SEDIMENT CONTROL DETAILS
10	CS-101	OVERALL SITE PLAN
11	CS-102	PHASING PLAN
12	- CS-103	FIRE PROTECTION PLAN
13	CS-104	ADDRESSING PLAN
	- CS-105	SIDEWALK AND ROAD CLOSURE PLAN
15	CG-101	GRADING AND DRAINAGE PLAN
16	CG-102	DETAILED GRADING
17	CG-201	EXISTING DRAINAGE MAP
18	CG-202	PROPOSED DRAINAGE AREA MAP
19	CG-203	INLET DRAINAGE AREA MAP
20	CG-301	WATER QUALITY CONTROL PLAN
21	CG-302	UNDERGROUND DETENTION POND PLAN
22	CG-303	UNDERGROUND DETENTION POND DETAILS
23	CU-101	OVERALL UTILITY PLAN
24	CU-201	UTILITY DETAILS - SHEET 1
25	CU-202	UTILITY DETAILS - SHEET 2
26	CU-203	UTILITY DETAILS - SHEET 3
27	C-501	CONSTRUCTION DETAILS - SHEET 1
28	C-502	CONSTRUCTION DETAILS - SHEET 2
29	C-503	CONSTRUCTION DETAILS - SHEET 3
30	C-504	CONSTRUCTION DETAILS - SHEET 4
31	LS-101	LANDSCAPE PLAN
32	LS-102	LANDSCAPE CALCULATIONS AND SPECIFICATIONS
33	LS-103	LANDSCAPE AND TREE PROTECTION DETAILS

ENGINEER'S CERTIFICATION:

I. WILL PARNELL, AM AUTHORIZED UNDER THE LAWS OF THE STATE OF TEXAS TO PRACTICE THE PROFESSION OF ENGINEERING AND HEREBY CERTIFY THAT THIS PLAN IS FEASIBLE FROM AN ENGINEERING STANDPOINT AND COMPLIES WITH THE ENGINEERING RELATED PORTIONS OF TITLE 30 OF THE CITY OF LEANDER LAND DEVELOPMENT CODE, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

APPROVED BY:	
ROBIN M. GRIFFIN, AICP, EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	DATE
EMILY TRUMAN, P.E., CFM, CITY ENGINEER	DATE
MARK TUMMONS, CPRP, DIRECTOR OF PARKS AND RECREATION	DATE
CHIEF JOSHUA DAVIS, FIRE MARSHALL	DATE
SD-23-0113	
SITE DEVELOPMENT PERMIT NUMBER	
Г	FOR CITY APPROVA

Know what's **below.**

Call before you dig.



1	CITY OF LEANDER GENERAL SITE NOTES	11. BEGIN INSTALLATI PARTICULARI Y CH
	REVISED March 27, 2023	12. DELIVER FINAL GF
	CITY CONTACTS:	13. REGRADE ALL STF 14. INSURE THAT ALL
	ENGINEERING MAIN LINE: 512-528-2721	SHEETS
	PUBLIC WORKS MAIN LINE: 512-259-2640	15. INSTALL CURB AN 16. LAY FINAL BASE C
F	UTILITIES MAIN LINE: 512-285-0055 512-259-1142	17. POUR CONCRETE
	UTILITIES ON-CALL: 512-690-4760	18. COMPLETE ALL RO
	GENERAL NOTES:	SPOILS & STAGING
	 CONTRACTORS SHALL HAVE AN APPROVED SET OF PLANS WITH APPROVED REVISIONS ON SITE AT ALL TIMES. FAILURE TO HAVE APPROVED PLANS ON SITE MAY RESULT IN ISSUANCE OF WORK STOPPAGE 	20. COMPLETE PERM 21. REMOVE AND DISI
	2. CONTACT 811 SYSTEM FOR EXISTING WATER AND WASTEWATER LOCATIONS 48 HOURS PRIOR TO CONSTRUCTION.	22. COMPLETE ANY N
	a. REFRESH ALL LOCATES <u>BEFORE</u> 14 DAYS - LOCATE REFRESH REQUESTS <u>MUST INCLUDE A COPY OF YOUR 811 TICKET</u> . TEXAS PIPELINE DAMAGE PREVENTION LAWS REQUIRE THAT A LOCATE REFRESH REQUEST BE SUBMITTED BEFORE 14	23. IF DISTURBED ARE RE-VEGETATION, I
_	DAYS, OR IF LOCATION MARKERS ARE NO LONGER VISIBLE.	
	CONTACT THE CITY OF LEANDER BY PHONE AT 512-259- 2640.	1. THE CONTRACTOR
	3. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR 48 HOURS BEFORE: a BEGINNING FACH PHASE OF CONSTRUCTION, CONTACT ASSIGNED CITY INSPECTOR	SIGNIFICANT RAIN RESPONSIBLE FOI
	b. ANY TESTING. CONTRACTOR SHALL PROVIDE QUALITY TESTING FOR ALL INFRASTRUCTURES TO BE ACCEPTED AND	
	MAINTAINED BY THE CITY OF LEANDER AFTER COMPLETION. c. PROOF ROLLING SUB-GRADE AND EVERY LIFT OF ROADWAY EMBANKMENT, IN-PLACE DENSITY TESTING OF EVERY BASE	 THE TEMPORARY ANY ON-SITE SPO
Е	COURSE, AND ASPHALT CORES. ALL OF THIS TESTING MUST BE WITNESSED BY A CITY OF LEANDER REPRESENTATIVE.	PLANS. <u>THE DEPT</u>
	e. THE INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A DRAINAGE EASEMENT OR STREET ROW. THE METHOD OF	TOPSOIL AND CON
	PLACEMENT AND COMPACTION OF BACKFILL IN THE CITY'S ROW MUST BE APPROVED PRIOR TO THE START OF BACKFILL OPERATIONS.	TOPSOIL AND COM 5. SEEDING FOR REE
	4. ALL RESPONSIBILITILY FOR THE ACCURACY OF THESE PLANS REMAINS WITH THE ENGINEER OF RECORD WHO PREPARED	COUNTY'S PROTO
	THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY ON THE ADEQUACY OF THE WORK OF THE ENGINEER OF RECORD.	6. STABILIZED CONS
	5. EXCESS SOIL SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE. NOTIFY THE CITY OF LEANDER IF THE DISPOSAL SITE IS INSIDE THE CITY'S JURISDICTIONAL BOUNDARIES.	PROJECT ONTO E ROADWAYS SHALI
-	6. BURNING IS PROHIBITED.	7. TEMPORARY STO
	 NO WORK IS TO BE PERFORMED BETWEEN THE HOURS OF 9:00 P.M. AND 7:00 A.M. OR WEEKENDS. THE CITY INSPECTOR RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO UNCOVER ALL WORK PERFORMED WITHOUT INSPECTION. 	8. IN THE EVENT OF
	8. CONTACT THE CITY INSPECTOR 4 DAYS PRIOR TO WORK FOR APPROVAL TO SCHEDULE ANY INSPECTIONS ON WEEKENDS	INLET PROTECTIO
	9. NO BLASTING IS ALLOWED.	WATER AND WAS
	10. ANY CHANGES OR REVISIONS TO THESE PLANS MUST FIRST BE SUBMITTED TO THE CITY BY THE DESIGN ENGINEER FOR REVIEW AND WRITTEN APPROVAL PRIOR TO CONSTRUCTION OF THE REVISION. ALL CHANGES AND REVISIONS SHALL USE	1. ALL NEWLY INSTA INSTITUTE/NATION
D	REVISION CLOUDS TO HIGHLIGHT ALL REVISIONS AND CHANGES WITH EACH SUBMITTAL. REVISION TRIANGLE MARKERS	
	MUST BE REMOVED. REVISION INFORMATION SHALL BE UPDATED ON COVER SHEET AND AFFECTED PLAN SHEET TITLE	2. ALL WATER OLIV
	BLOCK. 11. THE CONTRACTOR AND ENGINEER SHALL KEEP ACCURATE RECORDS OF ALL CONSTRUCTION THAT DEVIATES FROM THE	WATER SERVICE WASTEWATER SE
	PLANS. THE ENGINEER SHALL FURNISH THE CITY OF LEANDER ACCURATE "RECORD DRAWINGS" FOLLOWING THE COMPLETION OF ALL CONSTRUCTION. THESE "RECORD DRAWINGS" SHALL MEET THE SATISFACTION OF THE	VALVE
	ENGINEERING DEPARTMENTS PRIOR TO FINAL ACCEPTANCE.	3. OPEN UTILITIES S
	TO ANY PUBLIC INFRASTRUCTURE WITHIN CITY EASEMENT OR PUBLIC RIGHT-OF-WAY, REGARDLESS OF THESE PLANS.	RESTRAINTS SHAL
-	13. WHEN CONSTRUCTION IS BEING CARRIED OUT WITHIN EASEMENTS, THE CONTRACTOR SHALL CONFINE HIS WORK TO WITHIN THE PERMANENT AND TEMPORARY EASEMENTS. PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL BE	4. INTERIOR SURFAC SEAL COATED AS
	RESPONSIBLE FOR REMOVING ALL TRASH AND DEBRIS WITHIN THE PERMANENT EASEMENTS. CLEANUP SHALL BE TO THE SATISFACTION OF THE ENGINEER OF RECORD AND CITY.	5. SAND, AS DESCRI WASTEWATER LIN
	14. CONTRACTOR TO LOCATE, PROTECT, AND MAINTAIN BENCHMARKS, MONUMENTS, CONTROL POINTS AND PROJECT	
	LAND SURVEYOR IN THE STATE OF TEXAS, AT NO ADDITIONAL COST TO THE PROPERTY OWNER.	MEETING THE FOL
	15. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). OSHA STANDARDS MAY BE PURCHASED FROM THE	SIEVE SIZE PER 1/2"
с	GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA,	3/8" #4
	16. ALL MANHOLE FRAMES/COVERS AND WATER VALVE/METER BOXES MUST BE ADJUSTED TO FINISHED GRADE AT THE	#10
	OWNER'S EXPENSE BY THE CONTRACTOR FOR CITY CONSTRUCTION INSPECTOR INSPECTION. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING. CONTRACTOR SHALL BACKFILL AROUND MANHOLES AND VALVE BOXES	6. DENSITY TESTING
	WITH CLASS A CONCRETE. 17 ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT WHERE NOT SPECIFICALLY	WATER
	COVERED IN THE PROJECT SPECIFICATIONS SHALL CONFORM TO ALL CITY OF LEANDER DETAILS AND CITY OF AUSTIN	1. SAMPLING TAPS S
	18. PROJECT SPECIFICATIONS TAKE PRECEDENCE OVER PLANS AND SPECIAL CONDITIONS GOVERN OVER TECHNICAL	BE COLLECTED BY
_	SPECIFICATIONS. 19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES	2. CITY PERSONNEL
	REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.	THROUGH THE CI
	COPY OF THIS PERMIT MUST BE CARRIED AT ALL TIMES BY ALL WHO USE WATER.	VALVE.
	21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADS AND DRIVES ADJACENT TO AND NEAR THE SITE FREE FROM SOIL, SEDIMENT AND DEBRIS. CONTRACTOR WILL NOT REMOVE SOIL, SEDIMENT OR DEBRIS FROM ANY AREA OR	LINES MAY HAVE
	VEHICLE BY MEANS OF WATER. ONLY SHOVELING AND SWEEPING WILL BE ALLOWED. THE CONTRACTOR WILL BE RESPONSIBLE FOR DUST CONTROL FROM THE SITE. THE CONTRACTOR SHALL KEEP THE SITE AREA CLEAN AND	POSSIBLY BETWE AFFECTED PROPE
в	MAINTAINED AT ALL TIMES, TO THE SATISFACTION OF THE CITY. THE SUBDIVISION (OR SITE) WILL NOT BE ACCEPTED (OR CERTIFICATE OF OCCUPANCY ISSUED) UNTIL THE SITE HAS BEEN CLEANED TO THE SATISFACTION OF THE CITY	4. PRESSURE TAPS (CONTRACTOR SH
	22. TREES IN EXISTING ROW SHOULD BE PROTECTED OR NOTED IN THE PLANS TO BE REMOVED.	
	CONSTRUCTION SEQUENCE NOTES	BY THE USE OF AN
	NOTE: BELOW IS GENERAL SEQUENCE OF CONSTRUCTION. THE ENGINEER OF RECORD SHALL UPDATE BELOW WITH NOTES	BEHIND AND UNDE THRUST BLOCKS
		5. FIRE HYDRANTS C TAPED INTO PLAC
_	1. CALL CITY OF LEANDER PUBLIC WORKS DEPARTMENT AT 512-259-2640 48 HOURS PRIOR TO BEGINNING ANY WORK, CALL THE ONE CALL CENTER AT 512-472-2822 FOR UTILITY LOCATIONS AND OBTAIN PERMIT FOR ANY WORK WITHIN CITY OF	6. THRUST BLOCKS
	LEANDER R.O.W 2. THE CONTRACTOR SHALL INSTALL TEMPORARY EROSION SEDIMENTATION CONTROL AND TREE PROTECTION MEASURES	THRUST BLOCKS
	AS SHOWN WITHIN THESE PLANS.	7. ALL DEAD END WA "BLOW-OFF VALVE
	4. WITH THE APPROVAL OF ALL AFFECTED PARTIES, THE CONTRACTOR MAT BEGIN CLEARING AND GRUBBING.	PIPE LENGTHS (ST MANI FACTUREPS
	5. ROUGH-CUT ALL REQUIRED OR NECESSARY PONDS. EITHER THE PERMANENT OUTLET STRUCTURE OR A TEMPORARY OUTLET MUST BE CONSTRUCTED PRIOR TO DEVELOPMENT OF ANY EMBANKMENT OR EXCAVATION THAT LEADS TO	8. PIPE MATERIAL FC
	PONDING CONDITIONS. THE OUTLET SYSTEM MUST CONSIST OF A LOW-LEVEL OUTLET AND AN EMERGENCY OVERFLOW	SERVICES (2" OR I ARE NOT ALLOWE
А	MEETING THE REQUIREMENTS OF THE DRAINAGE CRITERIA MANUAL (SECTION 8.3) AND/OR THE ENVIRONMENT CRITERIA MANUAL (SECTION 1.42.K) AS REQUIRED. THE OUTLET SYSTEM SHALL BE PROTECTED FROM EROSION AND SHALL BE	
	MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION UNTIL FINAL RESTORATION IS ACHIEVED 6. DELIVER APPROVED ROUGH CUT SHEETS TO THE CITY OF LEANDER PRIOR TO CLEARING AND GRUBBING	10. ALL IRON PIPE AN
	7. ROUGH GRADE STREETS. NO DEVELOPMENT OF EMBANKMENT WILL BE PERMITTED AT THIS TIME, EXCEPT AS REQUIRED	11. LINE FLUSHING OF DEPARTMENT
	FOR UTILITY CONSTRUCTION. GEOTECHNICAL ENGINEER TO VERIFY SUBGRADE AND REQUIRED BASE THICKNESS. 8. DELIVER WATER & WASTEWATER CUT SHEETS TO CITY OF LEANDER.	
	9. INSTALL ALL UTILITIES YO BE LOCATED UNDER THE PROPOSED PAVEMENT.	
	IV. DELIVER OF ONLY OF ONE TO THE OFF OF LEANDER.	

3	4
ATION OF STORM SEWER LINES. UPON (COMPLETION, RESTORE AS MUCH DISTURBED AREA AS POSSIBL
CHANNELS AND LARGE OPEN AREAS. II	NSTALL INLET PROTECTION AS PLANS
)FR

RADE CUT SHEETS TO CITY OF LEANDER REETS TO SUBGRADE

. UNDERGROUND UTILITY CROSSINGS ARE COMPLETED. LAY FIRST COURSE BASE MATERIAL ON ALL

ND GUTTER.

COURSE ON ALL STREETS.

PAVEMENT

OUGH GRADING AND UNDERGROUND INSTALLATIONS WITHIN THE R.O.W. GRADING AND INSTALL SIDEWALK IN R.O.W. ALONG AREAS DESIGNATED. RESTORE CONSTRUCTION G AREA TO NATURAL GRADE.

ANENT EROSION CONTROL AND RESTORATION OF SITE VEGETATION.

POSE OF TEMPORARY EROSION CONTROL, INCLUDING CONSTRUCTION SPOILS AREA.

IECESSARY FINAL DRESS UP OF AREAS DISTURBED.

REA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY MULCH, TARP OR REVEGETATION MATTING,

ROL NOTES

R IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER NFALL EVENTS TO ENSURE THAT THEY ARE FUNCTIONING PROPERLY. THE CONTRACTOR IS

- OR MAINTENANCE OF CONTROLS AND FENCES AND SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS EAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
- SPOILS DISPOSAL SITE IS TO BE SHOWN IN THE EROSION CONTROL MAP. ILS DISPOSAL SHALL BE REMOVED PRIOR TO ACCEPTANCE UNLESS SPECIFICALLY SHOWN ON THE H OF SPOIL SHALL NOT EXCEED 10 FEET IN ANY AREA.
- RBED OR EXPOSED DURING CONSTRUCTION SHALL BE RESTORED WITH A MINIMUM OF 6 INCHES OF MPOST BLEND. TOPSOIL ON SINGLE FAMILY LOTS MAY BE INSTALLED WITH HOME CONSTRUCTION. THE MPOST BLEND SHALL CONSIST OF 75% TOPSOIL AND 25% COMPOST.
- ESTABLISHING VEGETATION SHALL COMPLY WITH THE AUSTIN GROW GREEN GUIDE OR WILLIAMSON OCOL FOR SUSTAINABLE ROADSIDES (SPEC 164--WC001 SEEDING FOR EROSION CONTROL). RESEEDING RMUDA SHALL NOT BE USED.
- TRUCTION ENTRANCE IS REQUIRED AT ALL POINTS WHERE CONSTRUCTION TRAFFIC IS EXITING THE XISTING PAVEMENT. LINEAR CONSTRUCTION PROJECTS MAY REQUIRE SPECIAL CONSIDERATION.
- REMAIN CLEAR OF SILT AND MUD. P SIGNS SHOULD BE INSTALLED AT ALL CONSTRUCTION ENTRANCES WHERE A STOP CONDITION DOES

INCLEMENT WEATHER THAT MAY RESULT IN A FLOODING SITUATION, THE CONTRACTOR SHALL REMOVE ON MEASURES UNTIL SUCH TIME AS THE WEATHER EVENT HAS PASSED.

STEWATER GENERAL NOTES

ALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS NAL SANITATION FOUNDATION (ANSI/NSF) STANDARD 61 AND MUST BE CERTIFIED BY AND ORGANIZATION

(ICE, WASTEWATER SERVICE AND VALVE LOCATIONS SHALL BE APPROPRIATELY STAMPED AS FOLLOWS:

- "W" ON TOP OF CURB ERVICE "S" ON TOP OF CURB
- "V" ON TOP OF CURB

HALL NOT BE PERMITTED ACROSS THE EXISTING PAVED SURFACES. WATER AND WASTEWATER LINES STING PAVED SURFACES SHALL BE BORED AND INSTALLED IN STEEL ENCASEMENT PIPES. BELL LL BE PROVIDED AT JOINTS.

- CES OF ALL DUCTILE IRON POTABLE OR RECLAIMED WATER PIPE SHALL BE CEMENT-MORTAR LINED AND REQUIRED BY AWWA C104.
- BED IN AUSTIN SPECIFICATION ITEM 510 PIPE, SHALL NOT BE USED AS BEDDING FOR WATER AND IES. ACCEPTABLE BEDDING MATERIALS ARE PIPE BEDDING STONE, PEA GRAVEL AND IN LIEU OF SAND, A RRING OR MANUFACTURED STONE MATERIAL CONFORMING TO ASTM C33 FOR STONE QUALITY AND LLOWING GRADATION SPECIFICATION:

RCENT RETAINED BY WEIGHT

0-2 40-85

95-100

FOR TRENCH BACKFILL SHALL BE DONE IN MAXIMUM 12" LIFTS.

SHALL BE BROUGHT UP TO 3 FEET ABOVE GRADE AND SHALL BE EASILY ACCESSIBLE FOR CITY HE CONTRACTORS' REQUEST, AND IN HIS PRESENCE, SAMPLES FOR BACTERIOLOGICAL TESTING WILL Y THE CITY OF LEANDER NOT LESS THAN 24 HOURS AFTER THE TREATED LINE HAS BEEN FLUSHED OF TED CHLORINE SOLUTION AND CHARGED WITH WATER APPROVED BY THE CITY.

WILL OPERATE OR AUTHORIZE THE CONTRACTOR TO OPERATE ALL WATER VALVES THAT WILL PASS TY'S POTABLE WATER. THE CONTRACTOR MAY BE FINED \$500 OR MORE, INCLUDING ADDITIONAL THEFT , IF A WATER VALVE IS OPERATED IN AN UNAUTHORIZED MANNER, REGARDLESS OF WHO OPERATED THE

OR IS HEREBY NOTIFIED THAT CONNECTING TO, SHUTTING DOWN, OR TERMINATING EXISTING UTILITY TO OCCUR AT OFF-PEAK HOURS. SUCH HOURS ARE USUALLY OUTSIDE NORMAL WORKING HOURS AND EEN 12 AM AND 6 AM AFTER COORDINATING WITH CITY CONSTRUCTION INSPECTORS AND INFORMING ERTIES.

OR HOT TAPS SHALL BE IN ACCORDANCE WITH CITY OF LEANDER STANDARD SPECIFICATIONS. THE HALL PERFORM ALL EXCAVATION AND SHALL FURNISH, INSTALL AND AIR TEST THE SLEEVE AND VALVE. A INSPECTOR MUST BE PRESENT WHEN THE CONTRACTOR MAKES A TAP, AND/OR ASSOCIATED TESTS. A (2) WORKING DAYS NOTICE IS REQUIRED. "SIZE ON SIZE" TAPS SHALL NOT BE PERMITTED UNLESS MADE N APPROVED FULL-CIRCLE GASKETED TAPPING SLEEVE. CONCRETE THRUST BLOCKS SHALL BE PLACED ER ALL TAP SLEEVES A MINIMUM OF 24 HOURS PRIOR TO THE BRANCH BEING PLACED INTO SERVICE. SHALL BE INSPECTED PRIOR TO BACKFILL.

ON MAINS UNDER CONSTRUCTION SHALL BE SECURELY WRAPPED WITH A BLACK POLY WRAP BAG AND CE. THE POLY WRAP SHALL BE REMOVED WHEN THE MAINS ARE ACCEPTED AND PLACED INTO SERVICE. OR RESTRAINTS SHALL BE IN ACCORDANCE WITH THE CITY OF LEANDER STANDARD SPECIFICATIONS T ALL FITTINGS PER DETAIL OR MANUFACTURER'S RECOMMENDATION. ALL FITTINGS SHALL HAVE BOTH AND RESTRAINTS.

ATER MAINS SHALL HAVE "FIRE HYDRANT ASSEMBLY" OR "BLOW-OFF VALVE AND THRUST BLOCK" OR AND THRUST RESTRAINTS". THRUST RESTRAINTS SHALL BE INSTALLED ON THE MINIMUM LAST THREE ANDARD 20' LAYING LENGTH). ADDITIONAL THRUST RESTRAINTS MAY BE REQUIRED BASED UPON THE RECOMMENDATION AND/OR ENGINEER'S DESIGN.

OR PUBLIC WATER MAINS SHALL BE PVC (AWWA C900-DR14 MIN. 305 PSI PRESSURE RATING). WATER LESS) SHALL BE POLYETHYLENE TUBING (BLACK, 200PSI, AND SDR-(9)). COPPER PIPES AND FITTINGS ED IN THE PUBLIC RIGHT OF WAY. ALL PLASTIC PIPES FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR ANITATION FOUNDATION SEAL OF APPROVAL (NSF-PW).

NT LEADS SHALL BE DUCTILE IRON PIPE (AWWA C115/C151 PRESSURE CLASS 350).

ND FITTINGS SHALL BE WRAPPED WITH MINIMUM 8-MIL POLYETHYLENE. OR ANY ACTIVITY USING A LARGE QUANTITY OF WATER MUST BE COORDINATED WITH THE PUBLIC WORKS

12. ALL WATER METER BOXES SHALL BE:

- a. SINGLE, 1" METER AND BELOW
- b. DUAL, 1" METERS AND BELOW
- c. 1.5" SINGLE METER
- d. 2" SINGLE METER
- 13. ALL WATER VALVE COVERS ARE TO BE PAINTED BLUE.

WASTEWATER

- CURVILINEAR WASTEWATER DESIGN LAYOUT IS NOT PERMITTED. MANDREL TESTING SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.
- 3. MANHOLES SHALL BE COATED PER CITY OF AUSTIN SPL WW-511 (RAVEN 405 OR SPRAYWALL). PENETRATIONS TO EXISTING WASTEWATER MANHOLES REQUIRE THE CONTRACTOR TO RECOAT THE ENTIRE MANHOLE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATIONS SECTION NO. 506.5.
- 4. RECLAIMED AND RECYCLED WATER LINE SHALL BE CONSTRUCTED OF "PURPLE PIPE." ALL RECLAIMED AND RECYCLED WATER VALVE COVERS SHALL BE SQUARE AND PAINTED PURPLE.
- 5. FORCE MAIN PIPES NEED TO HAVE SWEEPING WYES FOR JOINTS.

STREET AND DRAINAGE NOTES

- THE CITY OF LEANDER HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA). IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE COMPLIANCE WITH ALL LEGISLATION RELATED TO ACCESSIBILITY WITHIN THE LIMITS OF CONSTRUCTION SHOWN IN THESE PLANS. ALL SIDEWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND TEXAS ACCESSIBILITY STANDARDS (TAS).
- 2. BACKFILL BEHIND THE CURB SHALL BE COMPACTED TO OBTAIN A MINIMUM OF 95% MAXIMUM DENSITY TO WITHIN 6" OF TOP OF CURB. MATERIAL USED SHALL BE PRIMARILY GRANULAR WITH NO ROCKS LARGER THAN 6" IN THE GREATEST DIMENSION. THE REMAINING 6" SHALL BE CLEAN TOPSOIL FREE FROM ALL CLODS AND SUITABLE FOR SUSTAINING PLANT LIFE.
- 3. A MINIMUM OF 6" OF TOPSOIL SHALL BE PLACED BETWEEN THE CURB AND RIGHT-OF-WAY AND IN ALL DRAINAGE CHANNELS EXCEPT CHANNELS CUT IN STABLE ROCK.
- 4. DEPTH OF COVER FOR ALL CROSSINGS UNDER PAVEMENT, INCLUDING GAS, ELECTRIC TELEPHONE, CABLE TV. ETC.. SHALL BE A MINIMUM OF 36" BELOW SUBGRADE
- 5. STREET RIGHT-OF-WAY SHALL BE GRADED AT A SLOPE OF 1/4" PER FOOT TOWARD THE CURB UNLESS OTHERWISE INDICATED.
- 6. ALL DRAINAGE PIPE IN PUBLIC RIGHT OF WAY OR EASEMENTS SHALL BE REINFORCED CONCRETE PIPE MINIMUM CLASS III OF TONGUE AND GROOVE OR O-RING JOINT DESIGN. CORRUGATED METAL PIPE IS NOT ALLOWED IN PUBLIC RIGHT OR WAY OR EASEMENTS.
- 7. THE CONTRACTOR MUST PROVIDE A PNEUMATIC TRUCK PER TXDOT SPEC FOR PROOF ROLLING.
- 8. ALL STRIPING, WITH THE EXCEPTION OF STOP BARS, CROSS WALKS, WORDS AND ARROWS, IS TO BE TYPE II (WATER BASED). STOP BARS, CROSS WALKS, WORDS AND ARROWS REQUIRE TYPE I THERMOPLASTIC.
- 9. MANHOLE FRAMES, COVERS, VALVES, CLEAN-OUTS, ETC. SHALL BE RAISED TO GRADE PRIOR TO FINAL PAVEMENT CONSTRUCTION.
- 10. A STOP BAR SHALL BE PLACED AT ALL STOP SIGN LOCATIONS. 11. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE FOR COMPLIANCE WITH THE DESIGN ASSUMPTIONS MADE DURING PREPARATION OF THE SOILS REPORT. ANY ADJUSTMENTS THAT ARE REQUIRED SHALL BE MADE THROUGH
- REVISIONS OF THE APPROVED CONSTRUCTION PLANS. 12. GEOTECHNICAL INVESTIGATION INFORMATION AND PAVEMENT RECOMMENDATIONS WERE PROVIDED BY TERRADYNE ENGINEERING, INC. REPORT NO. A221178, DATED JANUARY 31, 2023. PAVEMENT RECOMMENDATIONS CAN BE FOUND ON SHEET CS-101
- 13. A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL, CITY OF LEANDER STANDARD DETAILS AND TEXAS DEPARTMENT OF TRANSPORTATION CRITERIA, SHALL BE SUBMITTED TO THE CITY OF LEANDER FOR REVIEW AND APPROVAL PRIOR TO ANY PARTIAL OR COMPLETE ROADWAY CLOSURES. TRAFFIC CONTROL PLANS MUST BE SITE SPECIFIC AND SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
- 14. ALL LANE CLOSURES SHALL OCCUR ONLY BETWEEN THE HOURS OF 9 AM AND 4 PM UNLESS OTHERWISE NOTED ON THE PLANS. ANY NIGHT TIME LANE CLOSURES REQUIRE APPROVAL OF THE CITY ENGINEER AND SHALL OCCUR BETWEEN THE HOURS OF 8 PM AND 6 AM. LANE CLOSURES OBSERVED BY THE CITY DURING PEAK HOURS OF 6 AM TO 9 AM OR 4 PM TO 8 PM WILL BE SUBJECT TO A FINE AND/OR SUBSEQUENT ISSUANCE OF WORK STOPPAGE.
- 15. TEMPORARY ROCK CRUSHING IS NOT ALLOWED. ALL SOURCES OF FLEXIBLE BASE MATERIAL ARE REQUIRED TO BE APPROVED BY THE CITY. PRIOR TO BASE PLACEMENT ALL CURRENT TRIAXIAL TEST REPORTS FOR PROPOSED STOCK PILES ARE TO BE SUBMITTED TO THE CITY CONSTRUCTION INSPECTOR FOR REVIEW AND APPROVAL.
- 16. AT ROAD INTERSECTIONS THAT HAVE A VALLEY GUTTER, THE CROWN TO THE INTERSECTING ROAD WILL BE CULMINATED AT A DISTANCE OF 40 FEET FROM THE INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
- 17. NO PONDING OF WATER SHALL BE ALLOWED TO COLLECT ON OR NEAR THE INTERSECTION OF PRIVATE DRIVEWAYS AND PUBLIC STREETS. RECONSTRUCTION OF THE DRIVEWAY APPROACH SHALL BE AT THE CONTRACTOR'S EXPENSE.
- APPROVED IN WRITING BY THE ENGINEERING DEPARTMENT.
- WHICH RETAINS OPERATIONS OF NOT LESS THAN HALF OF THE DRIVEWAY TO REMAIN OPEN AT ALL TIMES. FULL CLOSURE OF SUCH DRIVEWAY CAN BE CONSIDERED WITH WRITTEN AUTHORIZATION OBTAINED BY THE CONTRACTOR FROM ALL PROPERTY OWNERS AND ACCESS EASEMENT RIGHT HOLDERS ALLOWING THE FULL CLOSURE OF THE DRIVEWAY.
- 20. CONTRACTOR MUST CLEAR FIVE (5) FEET BEYOND ALL PUBLIC RIGHT OF WAY TO PREVENT FUTURE VEGETATIVE GROWTH INTO THE SIDEWALK AREAS.
- 21. SLOPE OF NATURAL GROUND ADJACENT TO THE PUBLIC RIGHT OF WAY SHALL NOT EXCEED 3:1 SLOPE. IF A 3:1 SLOPE IS NOT POSSIBLE, SLOPE PROTECTION OR RETAINING WALL MUST BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO FINAL ACCEPTANCE.
- 22. THERE SHALL BE NO WATER, WASTEWATER OR DRAINAGE APPURTENANCES, INCLUDING BUT NOT LIMITED TO VALVES, FITTINGS, METERS, CLEAN-OUTS, MANHOLES, OR VAULTS IN ANY DRIVEWAY, SIDEWALK, TRAFFIC OR PEDESTRIAN AREA.
- CONTROL BOXES, METERS, CHECK VALVE VAULTS, COMMUNICATION VAULTS, OR OTHER BURIED OR PARTIALLY BURIED INFRASTRUCTURE AS A VEHICULAR OR PEDESTRIAN SURFACE. 24. ALL WET UTILITIES SHALL BE INSTALLED AND ALL DENSITIES MUST HAVE PASSED INSPECTION(S) PRIOR TO THE
- INSTALLATION OF DRY UTILITIES. 25. DRY UTILITIES SHALL BE INSTALLED AFTER SUBGRADE IS CUT AND BEFORE THE FIRST COURSE OF BASE. NO TRENCHING COMPACTED BASE. IF NECESSARY DRY UTILITIES INSTALLED AFTER FIRST COURSE BASE SHALL BE BORED ACROSS THE
- FULL WIDTH OF THE PUBLIC RIGHT-OF-WAY.
- 26. A MINIMUM OF SEVEN (7) DAYS OF CURE TIME IS REQUIRED FOR HMAC PRIOR TO THE INTRODUCTION OF VEHICULAR TRAFFIC TO ALL STREETS.

TRENCH SAFETY NOTES

1. TRENCH SAFETY SYSTEMS TO BE UTILIZED FOR THIS PROJECT ARE DESCRIBED IN ITEM 509S "TRENCH SAFETY SYSTEMS" OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS AND SHALL BE IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U.S. OCCUPATION SAFETY AND HEALTH ADMINISTRATION REGULATIONS.

GRADING NOTES

- 1. POSITIVE DRAINAGE SHALL BE MAINTAINED ON ALL SURFACE AREAS WITHIN THE SCOPE OF THIS PROJECT. CONTRACTOR SHOULD TAKE PRECAUTIONS NOT TO ALLOW ANY PONDING OF WATER.
- 2. THE CONTRACTOR SHALL CONSTRUCT EARTHEN EMBANKMENTS WITH SLOPES NO STEEPER THAN 3:1 AND COMPACT SOIL TO 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS.
- 3. AREAS OF SOIL DISTURBANCE ARE LIMITED TO GRADING AND IMPROVEMENTS SHOWN. ALL OTHER AREAS WILL NOT BE DISTURBED.

BENCHMARK NOTES

TBM #1 - SQUARE CUT MONUMENT FOUND NORTH OF THE INTERSECTION OF N. HWY. 183 AND SAN GABRIEL PARKWAY ON THE ON THE NORTHWEST SIDE OF N. HWY, 183. N 10188756.03 E 3074594.27. ELEVATION =982.00'.

DFW37F-12-1CA, OR EQUAL DFW39F-12-1CA, OR EQUAL DFW65C-14-1CA, OR EQUAL DFW1730F-12-1CA, OR EQUAL

18. ALL DRIVEWAY APPROACHES SHALL HAVE A UNIFORM TWO PERCENT SLOPE WITHIN THE PUBLIC RIGHT OF WAY UNLESS

19. IMPROVEMENTS THAT INCLUDE RECONSTRUCTION OF AN EXISTING TYPE II DRIVEWAY SHALL BE DONE IN A MANNER

23. PUBLIC SIDEWALKS SHALL NOT USE CURB INLETS AS PARTIAL WALKING SURFACE. SIDEWALKS SHALL NOT USE TRAFFIC



NOTE: SOME ABBREVIATIONS LISTED BELOW ARE NOT USED IN THIS PLAN SET. ACRE APPROXIMATELY ASPHALT BEGIN BACK OF CURB CENTER LINE CLEAN-OUT CITY OF AUSTIN CONCRETE CRITICAL WATER QUALITY ZONE DIAMETER EASTING ELECTRIC ELEVATION EDGE OF PAVEMENT **EROSION & SEDIMENTATION CONTROL** FILTER DIKE FINISH FLOOR ELEVATION FINISH GRADE FIRE HYDRANT FLOW LINE FORCE MAIN FOUND FIBER OPTIC FACE OF CURB FLOOD PLAIN GUTTER GROUND FINISHED GRATE AT WALL HIGH-DENSITY POLYETHYLENE HORIZONTAL **HIGH POINT** HEIGHT INFORMATION STORM INLET PROTECTION IRON ROD LATERAL LINEAR FOOT LIMITS OF CONSTRUCTION LOW POINT LEFT LAND USE PLAN MECHANICAL, ELECTRICAL & PLUMBING MANHOLE MINIMUM NORTHING NUMBER NOT TO SCALE ON CENTER (CL TO CL) OFFSET OVERHEAD UTILITY PIPELINE **TANGENT - CURVE INTERSECTION** POINT OF CURVE INTERSECTION TANGENT - TANGENT INTERSECTION POINT OF BEGINNING PROPOSED CURVE - TANGENT INTERSECTION POLYVINYL CHLORIDE PAVEMENT RADIUS ROCK BERM REINFORCED CONCRETE PIPE REFERENCE TOP OF MANHOLE LID ELEVATION RIGHT OF WAY ROW / R.O.W. RESILIENT SEAT GATE VALVE RIGHT SILT FENCE SHEET SHEETS SQUARE FEET SANITARY SEWER STATION STORM DRAIN TELEPHONE TEMPORARY BENCHMARK TIME OF CONCENTRATION TOP OF CURB TREE PROTECTION TOP OF WALL UNDERGROUND ELECTRIC UNKNOWN VERTICAL VOLUME WATER WATER LINE WITH WATER METER WATER QUALITY TRANSITION ZONE WATER SURFACE ELEVATION WASTEWATER YFAR

ABBREVIATIONS:

APPROX

ASPH

BGN

BOC

CL

CO

CONC

CWQZ

ELEC

ESC

FD

FG

FH

FM

FND

FO

FP

FOC

GRND

GW

HP

HT

I AT

IF

LP

LT

LUP

MEP

MH

NO

O/S

OU

PC

PG

PCC

POB

PROF

PVC

RCP

REF

RIM

RT

SF

SHT

SS

STA

TBM

TOC

TOW

UNK

VERT

VOL

WI

WM

WQTZ

WSE

WW

YR

Тс

TP

UE

STM / SD

SHTS

SQ. FT.

RSGV

PVMT

PT

NTS / N.T.S.

LOC

INFO

HDPE

HORIZ

ELEV / EL EOP

FF / FFE

DIA

COA / C.O.A.

FOR CITY APPROVAL

X LIAM F PARNI D - ____ Ð Ð G 0 U Ο NO NO RA BR ШМ ZA ВР ວ ທ Project No: D. VO Designed By: A. ALVAREZ Drawn By: Checked By: W. PARNEL G-002 Sheet 2 of 33 File No: SD-23-011 Bar Measures 1 inch, otherwise drawing not to scale





















DEMOLITION NOTES:

- 1. ALL ITEM ARE TO BE FURNISHED & INSTALLED BY CONTRACTOR. REFERENCE CONSTRUCTION DETAILS SHEETS FOR ADDITIONAL INFORMATION.
- 2. ALL SITE DIMENSIONS ARE TO THE FACE OF CURB, EDGE OF ROAD, CENTER OF STRIPING, AND PROPERTY LINE UNLESS OTHERWISE NOTED.
- 3. LIMITS OF CONSTRUCTION ARE SHOWN ON THE EROSION & SEDIMENTATION CONTROL PLAN(S).
- 4. REFER TO THE GENERAL NOTES SHEET FOR ADDITIONAL SITE NOTES.
- 5. CONTRACTOR TO REPAIR AND/OR REPLACE ALL DAMAGED PAVEMENT, SIDEWALKS AND CURBS AROUND THE SITE IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD DETAILS AND SPECIFICATIONS.
- 6. WHERE A STATE OR LOCAL MUNICIPAL STANDARD DETAIL DUPLICATES A DETAIL SHOWN IN THE PLANS, THE MORE STRINGENT DETAIL, AS DETERMINED BY THE REVIEWING AGENCY, SHALL APPLY.
- 7. NO SITE DISTURBANCE SHALL OCCUR UNTIL THE PRE-CONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR IS HELD.

TREE LIST

Know what's **below**.

Call before you dig.

0 15'

SCALE: 1" = 30'

30'

TAG#	TYPE	DIAMETER
5411	HACKBBERY	-9" (REMOVE)
5412	HACKBBERY	9" (REMOVE)
5413	SWEETGUM	9" (REMOVE)
5414	HACKBERRY	7" (REMOVE)
5415	LIVE OAK	6"
5416	LIVE OAK	6"
5417	LIVE OAK	6"
5418	LIVE OAK	7"
5419	LIVE OAK	7"



Bar Measures 1 inch, otherwise drawing not to scale

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A. ALVAREZ

Drawn By:

File No:

Checked By: W. PARNEL

C-101

Sheet 6 of 33

SD-23-011



STAGE 1-2	
STABILIZED CONSTRUCTION ENTRANCE:	<u>1</u> EACH
LIMITS OF CONSTRUCTION:	± <u>3.85</u> AC.
NLET PROTECTION	7 EACH
TOTAL LENGTH OF SILT FENCE:	± <u>1,660 </u> LF

Bar Measures 1 inch, otherwise drawing not to scale



STABILIZED CONSTRUCTION ENTRANCE:	0 EACH
LIMITS OF CONSTRUCTION:	± <u>0.92</u> AC.
NLET PROTECTION	1 EACH
TOTAL LENGTH OF SILT FENCE:	± <u>1,400 </u> LF





Table 1.4.5.G.1: Maximum spacing between silt fences on slopes		
Slope	Spacing Interval (ft)	Max. Drainage Area (sf)
100:1 to 50:1 (1-2%)	500	25,000
50:1 to 30:1 (2-3.3%)	250	15,000
30:1 to 25:1 (3.3-4%)	150	12,000
25:1 to 20:1 (4-5%)	120	10,000
20:1 to 10:1 (5-10%)	100	5,000
10:1 to 5:1 (10-20%)	50	2,500
5:1 to 2:1 (20-50%)	10	1,000

SILT FENCE SPACING TABLE

Physical Properties	Method	Requirements
Fabric Weight in ounces per square yard (grams/square meter)	TEX-616-J ¹	5.0 minimum (150 minimum)
Equivalent Sieve Opening Size: US Standard (SI Standard sieve size)	CW-02215 ²	40 to 100 (425 to 150 μm)
Mullen Burst Strength: Ibs. per sq. inch (psi) megaPascal (mPa)	ASTM D-37863	280 minimum (1.9 minimum)
Ultraviolet Resistance; % Strength Retention	ASTM D-16824	70 minimum
TxDoT Test Method Tex-616-J, "Testing of Co ² US Army Corps of Engineers Civil Wor Specification CW-02215, "Plastic Filter Fabric". ASTM D-3786, "Test Method for Hydraulic B	onstruction Fabric ks Construction (ursting Strength (:s". Guide of

Fabrics: Diaphragm Bursting Strength Tester Method".

⁴ ASTM D-1682, "Test Methods for Breaking Load and Elongation of Textile Fabrics ".

SILT FENCE FABRIC REQUIREMENTS





FIGURE 1.4.5.G.4 SILT FENCE J - HOOK DETAILS

FOR CITY APPROVAL

Bar Measures 1 inch, otherwise drawing not to scale



SD-23-011

File No:



	•
	•

Parking	
Required	
22	
10	
10	
21	
10	
20	
10	
22	
10	
22	
157	
	•

Standard :		
	196	
Accessible:	8	
Street:	0	
Totd:	204	
Accessible Spaces	_	
Required	/	

1. ALL ITEMS ARE TO BE FURNISHED & INSTALLED BY CONTRACTOR. REFERENCE CONSTRUCTION DETAILS SHEETS FOR ADDITIONAL INFORMATION.

2. ALL SITE DIMENSIONS ARE TO THE FACE OF CURB, EDGE OF ROAD, CENTER OF STRIPING, AND PROPERTY LINE UNLESS

3. LIMITS OF CONSTRUCTION ARE SHOWN ON THE EROSION & SEDIMENTATION CONTROL PLAN(S).

4. REFER TO THE GENERAL NOTES SHEET FOR ADDITIONAL SITE

5. CONTRACTOR TO REPAIR AND/OR REPLACE ALL DAMAGED PAVEMENT, SIDEWALKS AND CURBS AROUND THE SITE IN ACCORDANCE WITH THE CITY OF LEANDER STANDARD DETAILS AND SPECIFICATIONS.

6. ALL SITE UTILITY LINES ARE PROPOSED TO BE LOCATED

7. EXTERIOR LIGHTING SHALL BE SHIELDED SUCH THAT THE LIGHT SOURCE IS NOT DIRECTLY VISIBLE FROM THE PUBLIC ROW OR ADJACENT RESIDENTIAL DISTRICTS OR USES AT THE PROPERTY LINE. UNSHIELDED "WALL PACK" LIGHTING IS NOT

8. AL CLAWSON DISPOSAL, INC. SHALL BE THE SOLE PROVIDER OF WASTE HAULING FOR THIS SITE AFTER CONSTRUCTION.

9. AIR CONDITIONING UNITS ARE NOT PROPOSED FORWARD THE FRONT WALL OF THE BUILDING.

10. GARBAGE DUMPSTERS ARE LOCATED NO CLOSER TO A ROADWAY THAN THE FRONT WALL OF THE PRINCIPAL STRUCTURE LOCATED CLOSEST TO THE ROADWAY. GARBAGE DUMPSTERS ARE SCREENED BY A WALL (COMPRISED OF MASONRY COMPATIBLE WITH THE STRUCTURE OR WOODCRETE) AT LEAST AS HIGH AS THE CONTAINER. THE OPEN SIDE TO THE DUMPSTER OR OTHER TRASH RECEPTACLE IS A GATE CONSTRUCTED OF SOLID WOOD OR METAL. THE DUMPSTER IS ORIENTED FOR PICKUP BY A FRONT

11. FOR 90 GALLON ROLL OUT CONTAINER STORED OUTSIDE, IT IS REQUIRED TO BE ENCLOSED BY PRIVACY FENCE.

12. ALL EASEMENTS OF RECORD AS INDICATED ON THE MOST RECENT TITLE RUN (DATED: 01/12/23, CONDUCTED BY TITLE RESOURCES GUARANTY COMPANY) FOR THIS PROPERTY ARE

	DIAMETER
BERY	9" (REMOVE)
BERY	9" (REMOVE)
GUM	9" (REMOVE)
ERRY	7" (REMOVE)
λK	6"
٨K	6"
٨K	6"
٨K	7"
λK	7"



I	7					
W. MET	ODR	PROJECT LOCATION		WILLIAM	OF 7.54 E. PARI 21598 ENSE NAL	NELL NELL NELL
	HER VICINITY MA SCALE: NTS PROPERTY BOU PROPERTY LINE EASEMENT LINE ASPHALT LINE	OWAY AP INDARY			H 🌲 FOREST	ICE SPACE [®]
#WW #W OE OT G (````````````````````````````````	CONCRETE CUF WASTEWATER L WATER LINE OVERHEAD POV OVERHEAD COM GAS LINE TREE TO REMAI AND TREE ID NO	RB LINE LINE VER LINE MMUNICATION LINE N D.		D	om NORT (#1419)	566
PROPOSED FIRE FIRE ## #W #WW UE UE UT	CONCRETE CUP FIRE LANE STRI WATER LINE WASTEWATER L UNDERGROUND UNDERGROUND	RB PING LINE 9 POWER LINE 9 COMMUNICATION LINE	lanal	endineeri	www.parnellengineeringinc.c 500 E WHITESTONE BLVD (CEDAR PARK, TX 78613 512-431-8411 STRATION FIRM NO F-19!
	BUILDING					TFXAS RFG
₽ ^{FH}	ASPHALT FIRE HYDRANT		BY			
⊗ ^{WV} WM	WATER VALVE					
ww	WASTEWATER	MANHOLE				
CO	WASTEWATER	CLEANOUT				
			SCRIPTION			
1. A LAYER OF GEO SHOULD BE PLAC BASE COURSE.	GRID EQUIVALEN ED BETWEEN THI	T TO TENSAR TX5 E SUBGRADE AND	DATE DE			
2. REFERENCE GEC TERRADYNE (DAT PAVEMENT RECC	TECHNICAL REPO TED JANUARY 31, MMENDATION.	ORT PERFORMED BY 2023) FOR	MARK			
PARKING AF	REA - FLEXIBLE P	AVEMENT				
FLEXIBLE PAVEMENT	SECTION	THICKNESS (IN.)		8641		
HOT MIX ASPHALTIC C AGGREGRATE BASE	ONCRETE	2" 12"	×	LC AS 7	7	
COMPACTED SUBGRA	DE	8"	AR	NT, L TEX	AN-	
DRIVE AISLES AND	FIRE LANE - FLEX		CEF	PME DER,	Ц Ц	
DESIGN ESALS: 150,00	0)FFI	/ELC EAN	Ш	
FLEXIBLE PAVEMENT		THICKNESS (IN.)	Ц С Ц Ц	VE L	 ∟	
AGGREGATE BASE		12"	JRIV	REST	ALI	
COMPACTED SUBGRA	DE	8"		FOR	Ř	

DUMPSTER PAD - RIDGID PAVEMENT			
DESIGN ESALS: 150,000			
PAVEMENT CONSTITUENT	THICKNESS (IN.)		
PORTLAND CEMENT CONCRETE	7"		
COMPACTED SUBGRADE	8"		



Know what's **below**.

Call before you dig

File No: Bar Measures 1 inch, otherwise drawing not to scale

0

Project No:

Designed By:

Drawn Bv: A. ALVAREZ

Checked By: W. PARNEL

CS-10[°]

Sheet 10 of 33

SD-23-011

D. VO







Engine	
Pamell	
oyright:	

SD-23-0113

File No:

Bar Measures 1 inch, otherwise drawing not to scale








ITIONS IC TABLE					
Impervious Co	ver				
Paved, Road & Compact Surfaces (sf)	Total IC (ac)	Total IC %	Point of Analysis		
1205	0.03	5.40%	А		
6603	0.15	19.49%	В		
4046	0.09	3.69%	С		
-	-	0.00%	D		

	Condition	CN	Area (ac)	CN x Area
grass cover 75%)	Good	80	0.49	38.8
S	Good	98	0.03	2.7
			0.51	41.5
		Weigh	nted CN	81
grass cover 75%)	Good	80	0.63	50.1
S	Good	98	0.15	14.9
			0.78	65.0
		Weigł	nted CN	84
grass cover 75%)	Good	80	2.42	193.8
S	Good	98	0.09	9.1
			2.52	202.9
		Weigh	nted CN	81
grass cover 7 <u>5%</u>)	Good	80	0.75	59.7
S	Good	98	0.00	0.0
			0.75	59.7
		Weigh	nted CN	80

ION CALCULATIONS							
ntrated	Flow	Increm	Lag	Imp			
S	Тс	Тс	min	Cover	CN		
%	min	min		%			
3.50%	1.3	13.87	8.32	5.40%	81		
2.05%	2.5	4.04	2.42	19.49%	84	*	
2.38%	3.5	12.41	7.45	3.69%	81		
2.32%	2.3	13.13	7.88	0.00%	80]	

ONS RESULTS - LEANDER ATLAST 14							
a	2-Yr Peak Discharge	ak 10-Yr 25-Y ge Discharge Dischar		100-Yr Peak Discharge			
	cfs	cfs	cfs	cfs			
	1.33	2.51	3.33	4.72			
3	2.68	4.81	6.26	8.74			
2	6.77	12.78	16.94	24.02			
5	1.95	3.76	5.02	7.17			
	1.33	2.51	3.33	4.72			
3	2.68	4.81	6.26	8.74			
2	6.77	12.78	16.94	24.02			
5	1.95	3.76	5.02	7.17			











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Bar Measures 1 inch, otherwise drawing not to scale

Project No: Designed By:

File No:

Drawn By: A. ALVAREZ Checked By: W. PARNEL

CG-20²

Sheet 17 of 33

SD-23-011

D. VO



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



Tota IC (ac)	Total IC %	Discharge Location	Point of Analysis
2.80	86.45%	Underground Pond	С
0.05	25.32%	-	А
-	0.00%	-	В
0.06	16.80%	-	С
-	0.00%	-	D
-	0.00%	Underground Pond	С
-	0.00%	Underground Pond	С
-	0.00%	-	D
ation Cal	ulations		

centrated FI	ntrated Flow Increm Lag I		Imp	Ċ.		
S	Tc	Tc		000	CN	
%	min	min	min	%		
1.48%	2.7	4.44	2.67	86.45%	81	;
2.00%	1.1	2.44	1.47	25.32%	81	;
5.23%	0.3	10.36	6.21	0.00%	81	
1.28%	1.4	2.89	1.74	16.80%	81	;
1.00%	0.8	3.70	2.22	0.00%	81	;
0.61%	4.3	5.13	3.08	0.00%	84	;
1.58%	2.9	5.33	3.20	0.00%	81	;
1.40%	3.7	15.44	9.26	0.00%	80	

TIONS RESULTS - LEANDER ATLAST 14								
a	2-Yr Peak Discharge	10-Yr Peak Discharge	25-Yr Peak Discharge	100-Yr Peak Discharge				
	cfs	cfs	cfs	cfs				
6	15.53	23.82	29.55	39.41				
9	0.69	1.21	1.57	2.18				
6	0.19	0.35	0.46	0.66				
2	1.10	1.97	2.57	3.60				
3	0.40	0.75	1.00	1.41				
9	0.67	1.20	1.57	2.18				
6	0.20	0.38	0.50	0.71				
2	0.76	1.47	1.96	2.80				
6	5.83	9.52	12.39	21.87				
9	0.69	1.21	1.57	2.18				
6	0.19	0.35	0.46	0.66				
4	6.32	10.42	13.62	23.94				
5	1.09	2.09	2.78	3.97				
HE I								

	2-Yr	10-Yr	25-Yr	100-Yr
` [cfs	cfs	cfs	cfs
ond.	1.33	2.51	3.33	4.72
Cond.	0.69	1.21	1.57	2.18
	-0.64	-1.30	-1.76	-2.54
	2-Yr	10-Yr	25-Yr	100-Yr
`	cfs	cfs	cfs	cfs
ond.	2.68	4.81	6.26	8.74
Cond.	0.19	0.35	1.57	0.66
	-2.49	-4.46	-4.69	-8.08
、	2-Yr	10-Yr	25-Yr	100-Yr
· [cfs	cfs	cfs	cfs
ond.	6.77	12.78	16.94	24.02
Cond.	6.32	10.42	13.62	23.94
	-0.45	-2.36	-3.32	-0.08
	2-Yr	10-Yr	25-Yr	100-Yr
	cfs	cfs	cfs	cfs
ond.	1.95	3.76	5.02	7.17
Cond.	1.09	2.09	2.78	3.97
	-0.86	-1.67	-2.24	-3.20

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SCALE: 1" = 30'

Know what's **below**.

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OF ANALYSIS



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c2) Clo	og Factor 0.50	Grate Redu	iction E	ffective Area		PROPERTY LINE EASEMENT LINE	
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% 38%	2 yr 0.70	10 yr 0.78	25 y	r 100 yr	#\VV	WASTEWATER LINE	
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00%	0.73 0.73	0.81	0.86 0.86	0.95 0.95		AND I REE ID NU.	in the second se
00%	0.73	0.81	0.86	0.95		TREE TO BE REMOVED	engine ESTO AK, TX
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7 4.61 7 3.14	0.79	11.30 6.04 11.30 4.11	0.88	15.00 8.90 15.00 6.04		CONCRETE CURB DRAINAGE AREA BOUNDARY	
0.52 0.24	0.86	11.300.6811.300.32	0.95	15.000.9915.000.47		T.C. FLOW PATH FLOW DIRECTION ARROW	
9 0.51	0.86	11.30 0.66	0.95	15.00 0.97		DENOTES BASIN	
2		25		100	DENOTES BASIN		≻
0.73	0.81	0.80		0.49	ACREAGE	±AC X.XX% DENOTES BAS IMPERVIOUS	
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Know what's **below. Call before you dig**.

SCALE: 1" = 30'

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Bar Measures 1 inch, otherwise drawing not to scale

jht: Parnell Enginee

D. VO

A. ALVAREZ

SD-23-011

Checked By: W. PARNEL

CG-203

Sheet 19 of 33

Designed By:

Drawn By:

File No:



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Bar Measures 1 inch, otherwise drawing not to scale

Sheet 22 of 33

File No:

SD-23-011

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RTATION	UNDER CURB & GUT1	ER
/29/99	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE	standard no. $430S-4$
OPTED	OF THIS STANDARD.	

Ν	0	Т	E	S

1. THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE, A MINIMUM OF 12" (300 mm) WIDER THAN UNDISTURBED SIDES OF THE TRENCH AND SYMMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION.

1 OF 3

- 2. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX AC OR TEMPORARY HMAC. TEMPORARY MIX SHALL BE PLACED OVER FLEXIBLE BASE.
- 3. ROAD BASE SHALL BE REPLACED IN KIND WITH BASE THICKNESS EQUAL TO EXISTING BASE THICKNESS PLUS 3" (75 mm), BUT IN NO CASE LESS THAN 12" (300 mm).
- 4. DAMAGED PAVEMENT OUTSIDE THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH A BASE THICKNESS OF 10" (250 mm) OR A THICKNESS MATCHING EXISTING, WHICHEVER IS GREATER.
- 5. REPLACEMENT AC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION. a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL
- STREETS. b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL
- STREETS. SEE ITEM 340S, SECTION 340S.4.
- 6. CLASS "J" PC CONCRETE (ITEM 403S) OR CONTROLLED LOW STRENGTH MATERIAL (CLSM) MAY BE SUBSTITUTED IN THESE REPAIRS FOR THE FLEXIBLE BASE AND COMPACTED BACKFILL. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
- 7. TACK COAT ALL EXPOSED EDGES AND SURFACES (SPEC ITEM 307S).
- 8. AS PER CITY OF AUSTIN STANDARD SPECIFICATION 510, SECTION 510.2(8)(K)5, FOR ALL NON-METALLIC PIPE, DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND A MINIMUM OF 12" (300 mm) BELOW THE SUBGRADE, OR A MINIMUM OF 18" (450 mm) BELOW FINISHED GRADE ON AREAS OUTSIDE THE LIMITS OF PAVEMENT, SHALL BE PLACED INDUCTIVE TRACER TAPE IN ACCORDANCE WITH THE MANUFACTURER'S RE-QUIREMENTS. THE TAPE SHALL BE ENCASED IN A PROTECTIVE, INERT, PLASTIC JACKET AND COLOR CODED IN ACCORDANCE WITH APWA UNIFORM COLOR CODE.

	FLEXIBLE BASE WITH ASPH TRENCH REPAIR-EXISTING	ALT SURFACE		CITY OF AUSTIN DEPARTMENT OF PUBLIC WORI	٨S	FLEXIBLE BASE WITH ASPH TRENCH REPAIR-EXISTING	ALT SURFACE
01/04/11	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE	STANDARD NO. 1100S-2		RECORD COPY SIGNED BY KERI JUAREZ	01/04/11	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE	standard no. 1100S-2
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NOTES: 1. ALL CONCRETE SHALL BE 2. ALL REINFORCING STEEL 3. DIMENSIONS RELATING TO 4. VERTICAL STEEL MAY BE LOWER ONE-HALF OF ALL INLET REINFORCING STEEL, PIPES AN BE BENT OR ADJUSTED TO CLEA 6. QUANTITIES SHOWN HERE PAYMENT WILL BE MADE FOR TO IN PLACE INCLUDING MANHOLE 7. CHAMFER ALL EXPOSED B 8. MANHOLE FRAME AND CO AUSTIN STANDARD 503S-1. 9. THE CONTRACTOR MAY P CONSTRUCTION OF INLETS, INC PROPOSED ALTERNATES SHALL APPROVAL BEFORE CONSTRUCT 10. ALL INLET WALLS SHALL B SURROUNDING MATERIAL IS SU VERTICAL FACE. WHEN INLET W THE WALL THICKNESS SHALL NO 11. PAYMENT FOR INLET AT T TRANSITION CURB. 12. INVERT OF INLET SHALL B AS "V" SECTION 13. NO SPLICING OF REINFOR OTHERWISE NOTED ON THE PLA	CLASS "A" SHALL BE GRADE 60 D REINFORCING STEEL ARE SPLICED (380 mm or 15" MIN WALLS.5. IN AREAS OF D MANHOLE FRAME, THE RE AR AS DIRECTED BY THE EN EON ARE FOR THE CONTRAC EACH INLET OF THE TYPE S FRAME AND OVER. EDGES 20 mm (3/4 "). DVER SHALL BE IN ACCORD/ ROPOSE ALTERNATE PROC CLUDING PRECAST UNITS. PI BE SUBMITTED TO THE EN CTION. BE FORMED EXCEPT WHERE CH THAT IT CAN BE TRIMME (ALLS ARE PLACED TO NEAT OT EXCEED 10 INCHES. HE CONTRACT PRICE SHALL E SLOPED 1:20 WITH FILL C	TO CENTERS OF BARS. . LAP) IN THE CONFLICT BETWEEN EINFORCEMENT SHALL IGINEER. CTOR'S INFORMATION ONLY. PECIFIED, COMPLETE ANCE WITH CITY OF EDURES FOR THE LANS FOR SUCH GINEER FOR REVIEW AND E THE NATURE OF THE ED TO A SMOOTH T EXCAVATION LINES L INCLUDE THE CONCRETE, SHAPED MITTED UNLESS TING BY THE ENGINEER.		LIAM E. PARNELL 121598 CENSES NAL INAL
REFERENCES: FOR EXPANSION J SEE STD. 4 FOR 18" MANHOLE SEE STD. 5	IOINT DOWEL AND DOWEL L 430S-3, "CURB EXPANSION J FRAME AND COVER DETAIL 503S-1, "18" COVER AND FRA	OCATION DETAILS OINT DOWEL DETAIL". _S ME".	barnel	Construction Construction www.parnellengineeringinc.com www.parnellengineeringinc.com \$00 E WHITESTONE BLVD (#1419) CEDAR PARK, TX 78613 \$12-431-8411 TEXAS REGISTRATION FIRM NO. F-19566
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 18" MIN WIDTH GUIDELINE 8" MIN THICKNESS GUIDELINE 8" MIN THICKNESS GUIDELINE 20ADS: CONCRETE SLAB DIMENSIONS ARE FOR PURPOSES ONLY. ACTUAL CONCRETE SLAB MUST BE TAKING INTO CONSIDERATION LOCAL SOIL CONDITIONS, OADING, & OTHER APPLICABLE DESIGN FACTORS. ING NO. 7001-110-111 FOR NON TRAFFIC INSTALLATION. 			MARK DATE DESCRIPTION	
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Bar Measures 1 inch, otherwise drawing not to scale

Bar Measures 1 inch, otherwise drawing not to scale

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FOR CITY APPROVAL

ATTACHMENT N

INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

Contributing Zone Application (TCEQ-10257)

Attachment N Inspection, Maintenance, Repair, and Retrofit Plan

- Jellyfish cartridges are passively backwashed automatically after each storm event, which
 removes accumulated sediment from the membranes and significantly extends the service life of
 the cartridges and the maintenance interval.
- If required, the cartridges can be easily manually backwashed without removing the cartridges. Additionally, the lightweight cartridges can be removed by hand and externally rinsed, and rinsed cartridges then re-installed. These simple maintenance options allow for cartridge regeneration, thereby minimizing cartridge replacement costs and life-cycle treatment costs while ensuring long-term treatment performance.
- 3. Regular inspection and maintenance are proven, cost-effective ways to maximize water resource protection for all stormwater pollution control practices and are required to insure proper functioning of the Jellyfish® Filter.
- 4. Inspection of the Jellyfish® Filter is performed from the surface, while proper maintenance requires a combination of procedures conducted from the surface and with worker entry into the structure.
- 5. Please refer to the following information and guidelines before conducting inspection and maintenance activities.
 - a. Post-construction inspections is required prior to putting the Jellyfish Filter into service.
 - b. Routine inspections are recommended quarterly during the first year of operation to accurately assess the sediment and floatable pollutant accumulation, and to ensure that the automatic backwash feature is functioning properly.
 - c. Inspection frequency in subsequent years is based on the maintenance plan developed in the first year but must occur annually at a minimum.
 - d. Inspections should also be performed immediately after oil, fuel or other chemical spill.
 - e. The unit must be cleared Annually.
 - i. This includes removal and appropriate disposal of all water, sediment, oil and grease and debris that has accumulated within the unit.
 - f. Jellyfish Filter is to be inspected and maintained by professional vacuum cleaning service providers with experience in the maintenance of underground tanks, sewers and catch basins.
 - g. Filter cartridges should be tested for an adequate flow rate, every 12 months and cleaned and re-commissioned, or replaced if necessary.
 - h. A manual backflush must be performed on a single draindown cartridge using Jellyfish Cartridge Backflush Pipe (described in the Jellyfish Filter Owner's Manual). If the time required to drain 14 gallons of backflush water from the Backflush Pipe (from top of pipe to the top of the open flapper valve) exceeds 15 seconds, it is recommended to perform a manual backflush on each of the cartridges. After the manual backflush, the draindown test should be repeated on a single cartridge to determine if the cartridge can drain 14 gallons of water in 15 seconds. If the cartridge still does not achieve the design flow rate, it must be replaced.
 - i. The unit should be cleaned out immediately after an oil, fuel or chemical spill.
 - j. This cartridge cleaning procedure is performed by removing the cartridge from the cartridge deck and externally rinsing the filtration tentacles using a low-pressure water sprayer, as described in the Jellyfish® Filter Owner's Manual.
 - k. If this procedure is performed within the structure, the cartridge or individual filtration tentacles should be rinsed while safely suspended over the maintenance access wall opening in the cartridge deck, such that rinsate flows into the lower chamber of the Jellyfish® Filter.
 - If the rinsing procedure is performed outside the structure, the cartridge or individual filtration tentacles should be rinsed in a suitable basin such as a plastic barrel or tub, and rinsate subsequently poured into the maintenance access wall opening in the cartridge deck. Sediment is subsequently removed from the lower chamber by standard vacuum service.

North Forest Office Space | Leander, Williamson County, TX | TCEQ | CZP Application - Attachment N

- 6. During construction, the SWPPP will be followed, and accurate records of inspections will take place.
- 7. Additional maintenance guidelines along with inspection maintenance log can be found on *Exhibit A* of this Inspection, Maintenance, Repair and Retrofit Plan.

North Forest Office Space. by signing this document, is certifying that it will be responsible for ensuring that the water quality controls required to meet the standards of the Texas Commission on Environmental Quality (TCEQ) are inspected as necessary, given the appropriate maintenance, repaired as necessary and will be retrofit if any site revisions are proposed. The items above describe the measures which may be taken to provide these requirements.

Signature CAA

Printed Name and Position

202 Date

Exhibit:

A. Jellyfish Filter Inspection and Maintenance Guide

North Forest Office Space | Leander, Williamson County, TX | TCEQ | CZP Application - Attachment N

Jellyfish[®] Filter Maintenance Guide

JELLYFISH[®] FILTER INSPECTION & MAINTENANCE GUIDE

Jellyfish units are often just one of many structures in a more comprehensive stormwater drainage and treatment system.

In order for maintenance of the Jellyfish filter to be successful, it is imperative that all other components be properly maintained. The maintenance and repair of upstream facilities should be carried out prior to Jellyfish maintenance activities.

In addition to considering upstream facilities, it is also important to correct any problems identified in the drainage area. Drainage area concerns may include: erosion problems, heavy oil loading, and discharges of inappropriate materials.

TABLE OF CONTENTS

Inspection and Maintenance Overview	3
Inspection Procedure	3
Maintenance Procedure	4
Cartridge Assembly & Cleaning	5
Inspection Process	7

1.0 Inspection and Maintenance Overview

The primary purpose of the Jellyfish® Filter is to capture and remove pollutants from stormwater runoff. As with any filtration system, these pollutants must be removed to maintain the filter's maximum treatment performance. Regular inspection and maintenance are required to insure proper functioning of the system.

Maintenance frequencies and requirements are site specific and vary depending on pollutant loading. Additional maintenance activities may be required in the event of non-storm event runoff, such as base-flow or seasonal flow, an upstream chemical spill or due to excessive sediment loading from site erosion or extreme runoff events. It is a good practice to inspect the system after major storm events.

Inspection activities are typically conducted from surface observations and include:

- Observe if standing water is present
- Observe if there is any physical damage to the deck or cartridge lids
- Observe the amount of debris in the Maintenance
 Access Wall (MAW) or inlet bay for vault systems

Maintenance activities include:

- Removal of oil, floatable trash and debris
 - Removal of collected sediments
 - Rinsing and re-installing the filter cartridges
- Replace filter cartridge tentacles, as needed

2.0 Inspection Timing

Inspection of the Jellyfish Filter is key in determining the maintenance requirements for, and to develop a history of, the site's pollutant loading characteristics. In general, inspections should be performed at the times indicated below; *or per the approved project stormwater quality documents (if applicable), whichever is more frequent.*

- 1. A minimum of quarterly inspections during the first year of operation to assess the sediment and floatable pollutant accumulation, and to ensure proper functioning of the system.
- 2. Inspection frequency in subsequent years is based on the inspection and maintenance plan developed in the first year of operation. Minimum frequency should be once per year.
- 3. Inspection is recommended after each major storm event.
- 4. Inspection is required immediately after an upstream oil, fuel or other chemical spill.

3.0 Inspection Procedure

The following procedure is recommended when performing inspections:

- 1. Provide traffic control measures as necessary.
- 2. Inspect the MAW or inlet bay for floatable pollutants such as trash, debris, and oil sheen.
- 3. Measure oil and sediment depth in several locations, by lowering a sediment probe until contact is made with the floor of the structure. Record sediment depth, and presences of any oil layers.
- 4. Inspect cartridge lids. Missing or damaged cartridge lids to be replaced.
- 5. Inspect the MAW (where appropriate), cartridge deck and receptacles, and backwash pool weir, for damaged or broken components.

3.1 Dry weather inspections

- Inspect the cartridge deck for standing water, and/or sediment on the deck.
- No standing water under normal operating conditions.
- Standing water inside the backwash pool, but not outside the backwash pool indicates, that the filter cartridges need to be rinsed.

Inspection Utilizing Sediment Probe

- Standing water outside the backwash pool is not anticipated and may indicate a backwater condition caused by high water elevation in the receiving water body, or possibly a blockage in downstream infrastructure.
- Any appreciable sediment (≥1/16") accumulated on the deck surface should be removed.

3.2 Wet weather inspections

- Observe the rate and movement of water in the unit. Note the depth of water above deck elevation within the MAW or inlet bay.
- Less than 6 inches, flow should be exiting the cartridge lids of each of the draindown cartridges (i.e. cartridges located outside the backwash pool).
- Greater than 6 inches, flow should be exiting the cartridge lids of each of the draindown cartridges and each of the hi-flo cartridges (i.e. cartridges located inside the backwash pool), and water should be overflowing the backwash pool weir.
- 18 inches or greater and relatively little flow is exiting the cartridge lids and outlet pipe, this condition indicates that the filter cartridges need to be rinsed.

4.0 Maintenance Requirements

Required maintenance for the Jellyfish Filter is based upon results of the most recent inspection, historical maintenance records, or the site specific water quality management plan; whichever is more frequent. In general, maintenance requires some combination of the following:

- 1. Sediment removal for depths reaching 12 inches or greater, or within 3 years of the most recent sediment cleaning, whichever occurs sooner.
- 2. Floatable trash, debris, and oil removal.
- 3. Deck cleaned and free from sediment.
- 4. Filter cartridges rinsed and re-installed as required by the most recent inspection results, or within 12 months of the most recent filter rinsing, whichever occurs sooner.
- 5. Replace tentacles if rinsing does not restore adequate hydraulic capacity, remove accumulated sediment, or if damaged or missing. It is recommended that tentacles should remain in service no longer than 5 years before replacement.
- 6. Damaged or missing cartridge deck components must be repaired or replaced as indicated by results of the most recent inspection.
- The unit must be cleaned out and filter cartridges inspected immediately after an upstream oil, fuel, or chemical spill.
 Filter cartridge tentacles should be replaced if damaged or compromised by the spill.

5.0 Maintenance Procedure

The following procedures are recommended when maintaining the Jellyfish Filter:

- 1. Provide traffic control measures as necessary.
- 2. Open all covers and hatches. Use ventilation equipment as required, according to confined space entry procedures. *Caution: Dropping objects onto the cartridge deck may cause damage*.

- 3. Perform Inspection Procedure prior to maintenance activity.
- 4. To access the cartridge deck for filter cartridge service, descend into the structure and step directly onto the deck. Caution: Do not step onto the maintenance access wall (MAW) or backwash pool weir, as damage may result. Note that the cartridge deck may be slippery.
- 5. Maximum weight of maintenance crew and equipment on the cartridge deck not to exceed 450 lbs.

5.1 Filter Cartridge Removal

- 1. Remove a cartridge lid.
- 2. Remove cartridges from the deck using the lifting loops in the cartridge head plate. Rope or a lifting device (available from Contech) should be used. *Caution: Should a snag occur, do not force the cartridge upward as damage to the tentacles may result. Wet cartridges typically weigh between 100 and 125 lbs.*
- 3. Replace and secure the cartridge lid on the exposed empty receptacle as a safety precaution. Contech does not recommend exposing more than one empty cartridge receptacle at a time.

5.2 Filter Cartridge Rinsing

1. Remove all 11 tentacles from the cartridge head plate. Take care not to lose or damage the O-ring seal as well as the plastic threaded nut and connector.

- Position tentacles in a container (or over the MAW), with the threaded connector (open end) facing down, so rinse water is flushed through the membrane and captured in the container.
- 3. Using the Jellyfish rinse tool (available from Contech) or a low-pressure garden hose sprayer, direct water spray onto the tentacle membrane, sweeping from top to bottom along the length of the tentacle. Rinse until all sediment is removed from the membrane. *Caution: Do not use a high pressure sprayer or focused stream of water on the membrane. Excessive water pressure may damage the membrane.*

- 4. Collected rinse water is typically removed by vacuum hose.
- 5. Reassemble cartridges as detailed later in this document. Reuse O-rings and nuts, ensuring proper placement on each tentacle.

5.3 Sediment and Flotables Extraction

- 1. Perform vacuum cleaning of the Jellyfish Filter only after filter cartridges have been removed from the system. Access the lower chamber for vacuum cleaning only through the maintenance access wall (MAW) opening. Be careful not to damage the flexible plastic separator skirt that is attached to the underside of the deck on manhole systems. Do not lower the vacuum wand through a cartridge receptacle, as damage to the receptacle will result.
- 2. Vacuum floatable trash, debris, and oil, from the MAW opening or inlet bay. Alternatively, floatable solids may be removed by a net or skimmer.

Vacuuming Sump Through MAW

- 3. Pressure wash cartridge deck and receptacles to remove all sediment and debris. Sediment should be rinsed into the sump area. Take care not to flush rinse water into the outlet pipe.
- 4. Remove water from the sump area. Vacuum or pump equipment should only be introduced through the MAW or inlet bay.
- 5. Remove the sediment from the bottom of the unit through the MAW or inlet bay opening.

Vacuuming Sump Through MAW

6. For larger diameter Jellyfish Filter manholes (≥8-ft) and some vaults complete sediment removal may be facilitated by removing a cartridge lid from an empty receptacle and inserting a jetting wand (not a vacuum wand) through the receptacle. Use the sprayer to rinse loosened sediment toward the vacuum hose in the MAW opening, being careful not to damage the receptacle.

5.4 Filter Cartridge Reinstallation and Replacement

- Cartridges should be installed after the deck has been cleaned. It is important that the receptacle surfaces be free from grit and debris.
- 2. Remove cartridge lid from deck and carefully lower the filter cartridge into the receptacle until head plate gasket is seated squarely in receptacle. *Caution: Do not force the cartridge downward; damage may occur.*
- 3. Replace the cartridge lid and check to see that both male threads are properly seated before rotating approximately 1/3 of a full rotation until firmly seated. Use of an approved rim gasket lubricant may facilitate installation. See next page for additional details.
- 4. If rinsing is ineffective in removing sediment from the tentacles, or if tentacles are damaged, provisions must be made to replace the spent or damaged tentacles with new tentacles. Contact Contech to order replacement tentacles.

5.5 Chemical Spills

Caution: If a chemical spill has been captured, do not attempt maintenance. Immediately contact the local hazard response agency and contact Contech.

5.6 Material Disposal

The accumulated sediment found in stormwater treatment and conveyance systems must be handled and disposed of in accordance with regulatory protocols. It is possible for sediments to contain measurable concentrations of heavy metals and organic chemicals (such as pesticides and petroleum products). Areas with the greatest potential for high pollutant loading include industrial areas and heavily traveled roads. Sediments and water must be disposed of in accordance with all applicable waste disposal regulations. When scheduling maintenance, consideration must be made for the disposal of solid and liquid wastes. This typically requires coordination with a local landfill for solid waste disposal. For liquid waste disposal a number of options are available including a municipal vacuum truck decant facility, local waste water treatment plant or on-site treatment and discharge.

Jellyfish Filter Components & Filter Cartridge Assembly and Installation

TABLE 1: BOM	
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DESCRIPTION
JF HEAD PLATE
JF TENTACLE
JF O-RING
JF HEAD PLATE
GASKET
JF CARTRIDGE EYELET
JF 14IN COVER
JF RECEPTACLE
BUTTON HEAD CAP
SCREW M6X14MM SS
JF CARTRIDGE NUT

TABLE 2: APPROVED GASKET LUBRICANTS

PART NO.	MFR	DESCRIPTION
78713	LA-CO	LUBRI-JOINT
40501	HERCULES	DUCK BUTTER
30600	OATEY	PIPE LUBRICANT
PSLUBXL1Q	PROSELECT	PIPE JOINT LUBRICANT

NOTES:

Head Plate Gasket Installation:

Install Head Plate Gasket (Item 4) onto the Head Plate (Item 1) and liberally apply a lubricant from Table 2: Approved Gasket Lubricants onto the gasket where it contacts the Receptacle (Item 7) and Cartridge Lide (ITem 6). Follow Lubricant manufacturer's instructions.

Lid Assembly:

Rotate Cartridge Lid counter-clockwise until both male threads drop down and properly seat. Then rotate Cartridge Lid clock-wise approximately one-third of a full rotation until Cartridge Lid is firmly secured, creating a watertight seal.

Jellyfish Filter Inspection and Maintenance Log

Owner:				Jellyfish Model No:		
Location:			GPS Coordinates:			
Land Use:	Commercial: Industr		Industrial:		Service Station:	
Roadway/Highway:			Airport:		Residential:	

Date/Time:			
Inspector:			
Maintenance Contractor:			
Visible Oil Present: (Y/N)			
Oil Quantity Removed:			
Floatable Debris Present: (Y/N)			
Floatable Debris Removed: (Y/N)			
Water Depth in Backwash Pool			
Draindown Cartridges externally rinsed and recommissioned: (Y/N)			
New tentacles put on Draindown Cartridges: (Y/N)			
Hi-Flo Cartridges externally rinsed and recommissioned: (Y/N)			
New tentacles put on Hi-Flo Cartridges: (Y/N)			
Sediment Depth Measured: (Y/N)			
Sediment Depth (inches or mm):			
Sediment Removed: (Y/N)			
Cartridge Lids intact: (Y/N)			
Observed Damage:			
Comments:			

800.338.1122 www.ContechES.com

- Drawings and specifications are available at www.conteches.com/jellyfish.
- Site-specific design support is available from Contech Engineered Solutions.
- Find a Certified Maintenance Provider at www.conteches.com/ccmp

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Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, sanitary sewer, stormwater, wastewater treatment and earth stabilization products. For information on other Contech segment offerings, visit ContechES.com or call 800.338.1122

Support

ATTACHMENT O

PILOT-SCALE FIELD TESTING PLAN

NOT APPLICABLE

Contributing Zone Application (TCEQ-10257)

Attachment O Pilot Scale Field Testing

Not Applicable.

ATTACHMENT P

MEASURES FOR MINIMIZING

SURFACE STREAM CONTAMINATION

Contributing Zone Application (TCEQ-10257)

Attachment P Measures for Minimizing Surface Stream Contamination

During construction this project will use silt fencing and inlet protection to prevent contamination to the existing streams. Once the site is constructed and developed, the Jellyfish Filter will be the permanent BMP and storm water will have its pollutant loading reduced prior to being released into the Brushy Creek watershed. The underground detention systems will have an outlet structure designed to prevent erosion and decrease flows and velocities of the discharge water. Additionally, the proposed Jellyfish Filter will minimize surface stream contamination by removing at least 86% of potential pollutants. An "Erosion and Sedimentation Control Plan" has been included in plan set. This plan outlines temporary BMPs to be used throughout the construction process which will ensure Surface Stream Contamination is minimized.

SECTION 4

TEMPORARY STORMWATER SECTION (TCEQ-0602)

Temporary Stormwater Section

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Devon Vo

Date: October 25, 2023

Signature of Customer/Agent:

evon

Regulated Entity Name: Metro Drive Office Park

Project Information

Potential Sources of Contamination

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

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

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

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

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

Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.

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

Sequence of Construction

5. Attachment C - Sequence of Major Activities. A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.

For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.

- For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.
- 6. Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: <u>Brushy Creek</u>

Temporary Best Management Practices (TBMPs)

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

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

	A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site
	A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.
	A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.
	A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.
8.] The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.
	 Attachment E - Request to Temporarily Seal a Feature. A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature. There will be no temporary sealing of naturally-occurring sensitive features on the
	site.
9. 🔀	Attachment F - Structural Practices. A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.
10. 🔀	Attachment G - Drainage Area Map. A drainage area map supporting the following requirements is attached:
	For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.
	For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.
	For areas that will have more than 10 acres within a common drainage area
	attainable, but other TBMPs and measures will be used in combination to protect
	There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.

- 11. Attachment H Temporary Sediment Pond(s) Plans and Calculations. Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.
 - 🛛 N/A
- 12. Attachment I Inspection and Maintenance for BMPs. A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.
- 13. All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.
- 14. If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
- 15. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.
- 16. 🖂 Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

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

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

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

Administrative Information

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

ATTACHMENT A

SPILL RESPONSE ACTIONS

Temporary Stormwater Section (TCEQ-0602)

Attachment A Spill Response Actions

In the event of accidental spills of hazardous materials or hydrocarbons, the contractor will be required to maintain a stockpile of sand material in the construction staging area. This sand material will be used to provide a dike to contain large spills and to provide an absorbent material that can be disposed of off the Edwards Aquifer Recharge, Contributing and Transition Zones during the cleanup process. The contractor will be required to contact the owner, who will notify the Texas Commission on Environmental Quality (TCEQ) in the event of a spill. It is required that all contaminated soils be removed from the project site and disposed of in accordance with applicable regulations off of the Edwards Aquifer Recharge, Contributing and Transition Zones. Below are measure outlined by the TCEQ for spill prevention and response.

Education

- 1. Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills. Employees should also be aware of when spill must be reported to the TCEQ. Additional information is available in 30 TAC 327.4 and 40 CFR 302.4.
- 2. Educate employees and subcontractors on potential dangers to humans and the
- 3. Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).
- 4. Establish a continuing education program to indoctrinate new employees.
- 5. Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

- 1. To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
- 2. Store hazardous materials and wastes in covered containers and protect from vandalism.
- 3. Place a stockpile of spill cleanup materials where it will be readily accessible.
- 4. Train employees in spill prevention and cleanup.
- 5. Designate responsible individuals to oversee and enforce control measures.
- 6. Spills should be covered and protected from storm water run-on during rainfall to the extent that it doesn't compromise cleanup activities.
- 7. Do not bury or wash spills with water.
- 8. Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.
- 9. Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.
- 10. Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.
- 11. Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.

12. Keep waste storage areas clean, well-organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

- 1. Clean up leaks and spills immediately.
- 2. Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.
- 3. Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

Minor Spills

- 1. Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.
- 2. Use absorbent materials on small spills rather than hosing down or burying the spill.
- 3. Absorbent materials should be promptly removed and disposed of properly.
- 4. Follow the practice below for a minor spill
 - a. Contain the spread of the spill.
 - b. Recover spilled materials.
 - c. Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.

Spills should be cleaned up immediately:

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

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

- 1. Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
- 2. For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at 1-800-424-8802.
- 3. Notification should first be made by telephone and followed up with a written report.
- 4. The services of a spills contractor or a Hazmat team should be obtained immediately.

Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.

- 5. Other agencies which may need to be consulted including, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.
- 6. More information on spill rules and appropriate responses is available on the TCEQ website at: http://www.tnrcc.state.tx.us/enforcement/emergency_response.html

Vehicle and Equipment Maintenance

- 1. If maintenance must occur on-site, use a designated area and a secondary containment, located away from drainage courses, to prevent the run-on of storm water and the runoff of spills.
- 2. Regularly inspect onsite vehicles and equipment for leaks and repair immediately
- 3. Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.
- 4. Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.
- 5. Place drip pans or absorbent materials under paving equipment when not in use.
- 6. Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.
- 7. Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.
- 8. Oil filters disposed of in trashcans or dumpsters can leak oil and pollute storm water. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.
- 9. Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

- 1. If fueling must occur on site, use designated areas, located away from drainage courses, to prevent the run-on of storm water and the runoff of spills.
- 2. Discourage "topping off" of fuel tanks.
- 3. Always use secondary containment, such as a drain pan, when fueling to catch spills/ leaks.

ATTACHMENT B

POTENTIAL SOURCES OF CONTAMINATION




Attachment B Potential Sources of Contamination

Potential Sources of Pollutants during Construction

- 1. Soil erosion due to construction.
- 2. Oil, grease, fuel and hydraulic fluid contamination from construction equipment and vehicle drippings.
- 3. Miscellaneous trash and debris from construction and material wrappings.
- 4. Portable toilet spills.
- 5. Concrete and concrete products
- 6. Asphaltic products
- 7. Fertilizers
- 8. Paints
- 9. Lumber

Potential Sources of Pollutants after Construction

- 1. Traffic related pollutants from cars, roads and driveways.
- 2. Improper disposal of trash.
- 3. Pesticides, herbicides and fertilizers.

Please refer to **Attachment A: Spill Response Actions** of this report for more information and details for preventative and responsive actions to treat potential sources of contamination.

ATTACHMENT C

SEQUENCE OF MAJOR ACTIVITIES



Attachment C Sequence of Major Activities

The construction activities for the of <u>Metro Drive Office Park</u> project involves general site preparation, which consists of silt fencing, a construction staging area, a concrete truck washout pit, a temporary construction entrance, clearing and grubbing of vegetation, excavation and grading within the entire acreage of the project site. See the attached Site Plan for details of sequencing and installation of temporary measures. All disturbed soil areas shall be re-vegetated.

Major Construction Activities and Sequencing

The major construction activities for this project will include and be sequenced as follows:

- 1. Clear, grub, site preparation and installing silt fencing, a construction staging area, a concrete truck washout pit, and a temporary construction entrance. *(Estimated area to be disturbed ±3.85 Ac.)*
- 2. Rough Grade including ponds. (Estimated area to be disturbed ±3.85 Ac.)
- 3. Installation of utility service and connection and storm sewer systems. (Estimated area to be disturbed ±0.20 Ac.)
- 4. Base and paving application. (Estimated area to be disturbed ±3.07 Ac.)
- 5. Restoration of site with vegetation. (Estimated area to be disturbed ±1.00 Ac.)

Protective fences shall be put in place according to the City of Leander standards for tree protection prior to start of any site preparation work. Fences shall be maintained throughout all phases of the construction project. During the installation of utilities and base paving application, the contractor shall use dust control measures such as irrigator trucks and mulching. Contractor will clean up spoils that migrate onto the roads a minimum once daily. The contractor is responsible for implementing and maintaining the storm water pollution prevention plan.

ATTACHMENT D

TEMPORARY BEST MANAGEMENT PRATICES AND MEASURES



Attachment D Temporary Best Management Practices and Measures

The following Temporary Best Management Practices (BMP) and measures will be utilized during construction and remain in place until final site stabilization:

- 1. Rough cut the detention ponds, which will be used as sediment basins. Inlet protection will be installed to stop the pollution of stormwater runoff by preventing soil and debris entering storm drain inlets.
- 2. Silt fencing, a construction staging area, a concrete truck washout pit, and a temporary construction entrance / exit will be used in accordance with the latest edition TCEQ Technical Guidance Manual details and criteria, to prevent pollution of surface water and groundwater that originates both up-gradient and on-site.
- 3. Silt fences, a construction entrance / exit and a concrete truck washout pit shall be in place before the first phase of construction for the commercial site is to begin. The temporary construction entrance / exit, construction staging area and concrete wash out pit will prevent sediments from flowing into public right-of-ways. The fencing will be installed downstream of cut/fill areas. The locations of the silt fence were based on the criteria to limit the drainage area of disturbed soil to ¼ acres per 100 linear feet of fencing.
- 4. Silt fences will intercept any pollutants from entering the surfaces waters of <u>Brushy</u> <u>Creek</u>. The locations of the silt fences were based on the criteria to limit the drainage area of disturbed soil to less than 5 acres. The placement of the temporary measures was based on the layout of streets and drains.
- 5. The BMP design for the site has been planned to prevent construction runoff and pollutants from directly entering surface streams, sensitive features or the aquifer. <u>No</u> <u>features on site.</u>

ATTACHMENT E

REQUEST TO TEMPORARILY SEAL A FEATURE

NOT APPLICABLE



Attachment E Request to Temporarily Seal a Feature

This section/attachment does not apply to this submittal. There will be no temporary sealing of sensitive features on the site.

ATTACHMENT F

STRUCTURAL PRACTICES



Attachment F Structural Practice

The following structural measures will be installed prior to constructions of the project and in accordance with the latest edition of "Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices" (TCEQ RG-348) and its details and criteria.

- 1. Installation of silt fences along the boundary of the road right-of-ways and limits of construction.
- 2. Installation of a stabilized construction entrance/ exit to minimize the tracking of mud and debris offsite by vehicles.
- 3. Installation of construction staging areas and concrete washout pit.
- 4. Installation of rock berms (if applicable).

ATTACHMENT G

DRAINAGE AREA MAP



DITIONS IC TABLE					
Impervious Co	ver				
Paved, Road & Compact Surfaces (sf)	TotalIC (ac)	Tota I IC %	Point of Ana lysis		
1205	0.03	5.40%	А		
6603	0.15	19.49%	В		
4046	0.09	3.69%	C		
_	-	0.00%	D		

	Condition	CN	Area (ac)	CNx Area
rass cover 75%)	Good	80	0.49	38.8
S	Good	98	0.03	2.7
			0.51	41.5
	81			
rass cover 75%)	Good	80	0.63	50.1
S	Good	98	0.15	14.9
			0.78	65.0
		Weigh	nted CN	84
rass cover 75%)	Good	80	2.42	193.8
s	Good	98 0.09		9.1
			2.52	202.9
	81			
rass cover 75%)	Good	80	0.75	59.7
S	Good	98	0.00	0.0
			0.75	59.7
	80			

ION CALCULATIONS							
ntrated How		rated Flow Increm Lag		Imp			
S	Тс	Тс	min	Cover	CN		
%	min	min		%			
3.50%	1.3	13.87	8.32	5.40%	81		
2.05%	2.5	4.04	2.42	19.49%	84	*	
2.38%	3.5	12.41	7.45	3.69%	81		
2.32%	2.3	13.13	7.88	0.00%	80		

UNS RESULIS - LEANDER A ILASI 14					
а	2-Yr Peak Discharge	10-Yr Peak Discharge	25-Yr Peak Discharge	100-Yr Peak Discharge	
	cfs	cfs	cfs	cfs	
1	1.33	2.51	3.33	4.72	
3	2.68	4.81	6.26	8.74	
2	6.77	12.78	16.94	24.02	
5	1.95	3.76	5.02	7.17	
1	1.33	2.51	3.33	4.72	
3	2.68	4.81	6.26	8.74	
2	6.77	12.78	16.94	24.02	
5	1.95	3.76	5.02	7.17	







- DENOTES POINT OF ANALYSIS



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FOR	CITY	APPR	OVAL



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

Bar Measures 1 inch, otherwise drawing not to scale

Project No: Designed By:

File No:

Drawn By: A. ALVAREZ Checked By: W. PARNEL

CG-202

Sheet 17 of 33

SD-23-011

D. VO



TotaIC (ac)	Total IC %	Discharge Location	Point of Analysis
2.80	86.45%	Underground Pond	С
0.05	25.32%	-	А
-	0.00%	-	В
0.06	16.80%	-	С
-	0.00%	-	D
-	0.00%	Underground Pond	С
-	0.00%	Underground Pond	С
-	0.00%	-	D
124 1141 124			

centrated Flow		Increm	Lag	Imp Cover	CN	
s	Тс	Тс		Oover		
%	min	min	min	%		
1.48%	2.7	4.44	2.67	86.45%	81	,
2.00%	1.1	2.44	1.47	25.32%	81	,
5.23%	0.3	10.36	6.21	0.00%	81	
1.28%	1.4	2.89	1.74	16.80%	81	,
1.00%	0.8	3.70	2.22	0.00%	81	
0.61%	4.3	5.13	3.08	0.00%	84	•
1.58%	2.9	5.33	3.20	0.00%	81	•
1.40%	3.7	15.44	9.26	0.00%	80	

IONS RESULTS - LEANDER ATLAST 14						
2-Yr Peak Discharge	10-Yr Peak Discharge	25-Yr Peak Discharge	100-Yr Peak Discharge			
cfs	cfs	cfs	cfs			
15.53	23.82	29.55	39.41			
0.69	1.21	1.57	2.18			
0.19	0.35	0.46	0.66			
1.10	1.97	2.57	3.60			
0.40	0.75	1.00	1.41			
0.67	1.20	1.57	2.18			
0.20	0.38	0.50	0.71			
0.76	1.47	1.96	2.80			
5.83	9.52	12.39	21.87			
0.69	1.21	1.57	2.18			
0.19	0.35	0.46	0.66			
6.32	10.42	13.62	23.94			
1.09	2.09	2.78	3.97			
	S RESULTS - 1 2-Yr Peak Disc harge c fs 15.53 0.69 0.19 1.10 0.40 0.40 0.40 0.20 0.76 5.83 0.69 0.19 6.32 1.09	S RESULTS - LANDER A 10-Yr Peak Discharge Cfs Cfs 15.53 23.82 0.69 1.21 0.19 0.35 1.10 1.97 0.40 0.75 0.67 1.20 0.20 0.38 0.76 1.47 5.83 9.52 0.69 1.21 0.20 0.38 0.76 1.47 0.19 0.35 0.21 0.38 0.76 1.47 0.20 0.38 0.76 1.47 0.19 0.35 0.69 1.21 0.19 0.35 0.32 10.42 1.09 2.09	SRESULTS - LEANDER ALAST 14 2-Yr Peak Discharge 10-Yr Peak Discharge 25-Yr Peak Discharge cfs cfs Peak 15.53 23.82 29.55 0.69 1.21 1.57 0.19 0.35 0.46 1.10 1.97 2.57 0.40 0.75 1.00 0.40 0.75 1.00 0.40 0.75 1.00 0.40 0.75 1.00 0.40 0.75 1.00 0.50 1.20 1.57 0.20 0.38 0.50 0.76 1.47 1.96 5.83 9.52 12.39 0.69 1.21 1.57 0.19 0.35 0.46 6.32 10.42 13.62 1.09 2.09 2.78			

^	2-Yr	10-Yr	25-Yr	100-Yr
` [c fs	cfs	c fs	c fs
ond.	1.33	2.51	3.33	4.72
Cond.	0.69	1.21	1.57	2.18
	-0.64	-1.30	-1.76	-2.54
a	2-Yr	10-Yr	25-Yr	100-Yr
,	cfs	cfs	cfs	cfs
ond.	2.68	4.81	6.26	8.74
Cond.	0.19	0.35	1.57	0.66
	-2.49	-4.46	-4.69	-8.08
	2-Yr	10-Yr	25-Yr	100-Yr
	c fs	cfs	cfs	cfs
ond.	6.77	12.78	16.94	24.02
Cond.	6.32	10.42	13.62	23.94
	-0.45	-2.36	-3.32	-0.08
п	2-Yr	10-Yr	25-Yr	100-Yr
J	cfs	cfs	cfs	cfs
ond.	1.95	3.76	5.02	7.17
Cond.	1.09	2.09	2.78	3.97
	-0.86	-1.67	-2.24	-3.20



FOR CITY APPROVAL

Bar Measures 1 inch, otherwise drawing not to scale

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D. VO

A. ALVAREZ

SD-23-011

Checked By: W. PARNEL

CG-202

Sheet 18 of 33

Project No:

Designed By:

Drawn By:

File No:





ATTACHMENT H

TEMPORARY SEDIMENT PONDS PLANS AND CALCULATIONS

NOT APPLICABLE





Attachment H Temporary Sediment Ponds Plans and Calculations

This attachment does not apply to this submittal. There will be no common drainage area with more than 10 acres of disturbed area within the project limits.

ATTACHMENT I

INSPECTION AND MAINTENANCE FOR BMPS



Attachment I Inspection and Maintenance for BMPs

Inspection

Designated and qualified person(s) should inspect the Pollution Control Measures every seven (7) days and after each rainfall event. An inspection report that summarizes the scope of the inspection, names and qualifications of personnel conducting the inspection, date of the inspection, major observations and actions that will be taken as a result of the inspection should be kept with the TPDES data for the project. The general contractor will be responsible to review and reference sections 1.3 and 1.4 of "Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices" (TCEQ RG-348) for erosion and sedimentation control and maintenance as applicable.

Construction Entrance / Exit and Construction Staging Area Maintenance

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

Sediment Filter Structure Maintenance

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

Rock Berm Structure Maintenance

1. Inspection should be made weekly and after each rainfall by the responsible party. For



installations in streambeds, additional daily inspections should be made.

- 2. Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.
- 3. The berm should be reshaped as needed during inspection.
- 4. The berm should be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.
- 5. The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

Curb Inlet Gravel Filter Structure Maintenance

- 1. Inspection should be made weekly or after each rainfall event and repair or replacement should be made promptly as needed by the contractor.
- 2. Inspect and realign dikes as needed to prevent gaps between sections.
- 3. Accumulated silt should be removed after each rainfall, and disposed of in a manner which will not cause additional siltation.
- 4. After the site is completely stabilized, the dikes and any remaining silt should be removed. Silt should be disposed of in a manner that will not contribute to additional siltation.



SAMPLE INSPECTION REPORT

NAME & QUALIFICATION OF INSPECTOR:

Date of Inspection: _____

Inspectors shall observe the following items on each inspection:

- Disturbed areas that have not been fully stabilized
- Areas used for storage of materials that are exposed to precipitation
- Control measures outlined in the site plan
- Locations where vehicles enter/exit the site

Inspectors shall denote if any corrective actions are required and when the action was completed.

Major Observations:

Corrective Actions Required:

Corrective Actions Performed:

Signature

Date

ATTACHMENT J

SCHEDULE OF INTERIM AND PERMANENT SOIL STABILIZATION PRACTICES



Attachment J Schedule of Interim and Permanent Soil Stabilization

Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently ceased is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable. Below are guidelines from TCEQ for the installation of sod to stabilized exposed areas.

Materials:

Hydraulic Mulches:

Wood fiber mulch can be applied alone or as a component of hydraulic matrices. Wood fiber applied alone is typically applied at the rate of 2,000 to 4,000 lb/acre. Wood fiber mulch is manufactured from wood or wood waste from lumber mills or from urban sources.

Hydraulic Matrices:

Hydraulic matrices include a mixture of wood fiber and acrylic polymer or other tackifier as binder. Apply as a liquid slurry using a hydraulic application machine (i.e., hydro seeder) at the following minimum rates, or as specified by the manufacturer to achieve complete coverage of the target area: 2,000 to 4,000 lb/acre wood fiber mulch, and 5 to 10% (by weight) of tackifier (acrylic copolymer, guar, psyllium, etc.)

Bonded Fiber Matrix.

Bonded fiber matrix (BFM) is a hydraulically applied system of fibers and adhesives that upon drying forms an erosion resistant blanket that promotes vegetation, and prevents soil erosion. BFMs are typically applied at rates from 3,000 lb/acre to 4,000 lb/acre based on the manufacturer's recommendation. A biodegradable BFM is composed of materials that are 100% biodegradable. The binder in the BFM should also be biodegradable and should not dissolve or disperse upon re-wetting. Typically, biodegradable BFMs should not be applied immediately before, during or immediately after rainfall if the soil is saturated. Depending on the product, BFMs typically require 12 to 24 hours to dry and become effective.

Installation:

- 1. Prior to application, roughen embankment and fill areas by rolling with a crimping or punching type roller or by track walking. Track walking shall only be used where other methods are impractical.
- 2. To be effective, hydraulic matrices require 24 hours to dry before rainfall occurs.



3. Avoid mulch over spray onto roads, sidewalks, drainage channels, existing vegetation, etc.

Inspection and Maintenance Guidelines:

- 1. Mulched areas should be inspected weekly and after each rain event to locate and repair any damage.
- 2. Areas damaged by storms or normal construction activities should be regarded and hydraulic mulch reapplied as soon as practical.

COPY OF NOTICE OF INTENT (NOI) (TCEQ-20022)

SECTION 5

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:
 - Name printed on Check:
- If payment was made via ePay, provide the following:
 - Voucher Number:
 - A copy of the payment voucher is attached to this paper NOI form.

RE	NEWAL (This portion of the NOI is not applicable	le aft	er June 3, 20	18)			
Is t	s this NOI for a renewal of an existing authorization? \Box Yes \Box No						
If Y	Yes, provide the authorization number here: TXF	15		inter text.			
NC	TE: If an authorization number is not provided,	a ne	w number wi	ll be assigned.			
SE	CTION 1. OPERATOR (APPLICANT)						
a)	If the applicant is currently a customer with TC (CN) issued to this entity? CN	EQ, v	vhat is the Cı	ıstomer Number			
	(Refer to Section 1.a) of the Instructions)						
b)	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.)						
c)	What is the contact information for the Operat	or (F	lesponsible A	authority)?			
	Prefix (Mr. Ms. Miss):						
	First and Last Name: Su	ffix:	Click here to	enter text.			
	Title: <u>President</u> Credentials:						
	Phone Number: Fax Num	mber	Click here t	o enter text.			
	E-mail:						
	Mailing Address:						
	City, State, and Zip Code: DRIFTWOOD, TX 786	<u>19</u>					
	Mailing Information if outside USA:						
	Territory:						
	Country Code: Postal C	ode:		enter text.			
d)	Indicate the type of customer:						
	🗆 Individual	\Box F	ederal Govern	nment			
	Limited Partnership	$\Box C$	ounty Goverr	nment			
	🗆 General Partnership		ate Governm	ient			
	🗆 Trust	□ C	ity Governme	ent			
	Sole Proprietorship (D.B.A.)		ther Governr	nent			

□ Other:

e) Is the applicant an independent operator? □ No 🛛 Yes

TCE0-20022	(2/6/2018)	
1000 20022	(1)/0/2010)	

🗆 Estate

 \boxtimes Corporation

Notice of Intent for Construction Stormwater Discharges under TXR150000

	_			_	_		
(If a	ror common on tol	om titre o	anhaidian	on port of a	longon con	nonation	abaal Ma)
ui a g	overnmeniai	enniv a	i suosiciary	or part of a	larger cor	noranon	CHECK NOT
(II G Z	50 CI IIII CII CUI	circity, o	(ouboraidi y,	or pure or u	Tunger cor	por acion,	

- 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:

Federal Tax ID:

Texas Secretary of State Charter (filing) Number:

DUNS Number (if known):

SECTION 2. APPLICATION CONTACT

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

\square	Yes.	go	to	Section	3
	1 C 0,	80	ω	Jeeuon	J

 \Box No, complete this section

Prefix (Mr. Ms. Miss):
First and Last Name:
Title: Credential:
Organization Name:
Phone Number: Fax Number:
E-mail: Click here to enter text
Mailing Address:
Internal Routing (Mail Code, Etc.):
City, State, and Zip Code:
Mailing information if outside USA:
Territory:
Country Code: Postal Code:

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

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

- b) Name of project or site (the name known by the community where it's located):
- c) In your own words, briefly describe the type of construction occurring at the regulated site (residential, industrial, commercial, or other):
- d) County or Counties (if located in more than one):
- e) Latitude: Longitude:
- 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:

City, State, and Zip Code:

Section B:

Location Description:

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

Zip Code where the site is located:

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?
- d) What is the Secondary SIC Code(s), if applicable?
- e) What is the total number of acres to be disturbed?
- f) Is the project part of a larger common plan of development or sale?

TCEQ-20022 (3/6/2018)

🛛 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?
- h) What is the estimated end date of the project?
- i) Will concrete truck washout be performed at the site? \square Yes \square No
- j) What is the name of the first water body(ies) to receive the stormwater runoff or potential runoff from the site?
- k) What is the segment number(s) of the classified water body(ies) that the discharge will eventually reach?
- l) Is the discharge into a Municipal Separate Storm Sewer System (MS4)?

 \Box Yes \boxtimes No

If Yes, provide the name of the MS4 operator:

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?

 \boxtimes Yes, complete the certification below.

 \square 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.

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

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.

🖾 Yes

SECTION 6. APPLICANT CERTIFICATION SIGNATURE

Operator Signatory Name:

Operator Signatory Title:

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:

SECTION 6

AGENT AUTHORIZATION FORM (TCEQ-0599)

Agent Authorization Form For Required Signature Edwards Aquifer Protection Program Relating to 30 TAC Chapter 213 Effective June 1, 1999 JON DENTON Print Name GENERAL MANAGER Title - Owner/President/Other of ______ NORTH FOREST OFFICE SPACE – AUSTIN 2, LLC Corporation/Partnership/Entity Name have authorized _____ DEVON VO Print Name of Agent/Engineer of _____ PARNELL 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.

3 2 Date

Applicant's Signature

THE STATE OF Texas § County of Travis

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

GIVEN under my hand and seal of office on this 21^{st} day of 32023.

CRN Typed or Printed Name of Notary



Typed of Fillded Name of Notary

SECTION 7

APPLICATION FEE FORM (TCEQ-0574)

Application Fee Form

Texas Commission on Environmental Quality				
Name of Proposed Regulated Entity: I	Metro Drive Office	Park		
Regulated Entity Location: 200 West I	Metro Drive, Leand	ler, Texas 78641		
Name of Customer: North Forest Offic	<u>ce Space -Austin 2,</u>	LLC		
Contact Person: <u>Devon Vo</u>	Pho	ne: <u>512-299-5963</u>		
Customer Reference Number (if issue	ed):CN			
Regulated Entity Reference Number (if issued):RN <u>11174</u>	<u>49362</u>		
Austin Regional Office (3373)				
Hays	Travis	⊠w	illiamson	
San Antonio Regional Office (3362)				
Bexar	Medina		valde	
Comal	Kinney			
Application fees must be paid by chec	ck, certified check,	or money order, payab	le to the Texas	
Commission on Environmental Quali	ty. Your canceled	check will serve as you	r receipt. This	
form must be submitted with your fe	ee payment. This p	payment is being subm	itted to:	
🔀 Austin Regional Office		San Antonio Regional C	office	
Mailed to: TCEQ - Cashier		Overnight Delivery to: TCEQ - Cashier		
 Revenues Section		2100 Park 35 Circle		
Mail Code 214		Building A. 3rd Floor		
P.O. Box 13088		Austin. TX 78753		
Austin, TX 78711-3088	512)239-0357			
Site Location (Check All That Apply):				
Recharge Zone X Contributing Zone Transition Zone				
	Contributing 2016			
Type of Plan		Size	Fee Due	
Water Pollution Abatement Plan, Con	tributing Zone			
Plan: One Single Family Residential D	welling	Acres	\$	
Water Pollution Abatement Plan, Con	tributing Zone			
Plan: Multiple Single Family Residenti	Acres	\$		
Water Pollution Abatement Plan, Con				
Plan: Non-residential	4.007 Acres	\$ 4,000		
Sewage Collection System	L.F.	\$		
Lift Stations without sewer lines	Acres	\$		
Underground or Aboveground Storag	Tanks	\$		
Piping System(s)(only)	Each	\$		
Exception	Each	\$		
Extension of Time	Each	\$		

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	\$1,500
	5 < 10	\$3,000
	10 < 40	\$4,000
	40 < 100	\$6,500
	100 < 500	\$8,000
	≥ 500	\$10,000
Non-residential (Commercial, industrial, institutional,	< 1	\$3,000
multi-family residential, schools, and other sites	1 < 5	\$4,000
where regulated activities will occur)	5 < 10	\$5,000
	10 < 40	\$6,500
	40 < 100	\$8,000
	≥ 100	\$10,000

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	Fee
Exception Request	\$500

Extension of Time Requests

Project	Fee
Extension of Time Request	\$150

SECTION 8

CORE DATA FORM (TCEQ-10400)


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.)																
🗌 Renewa	vith the renewal form)			C Other												
2. Customer	Reference	e Number <i>(if iss</i>	ued)	Follow this link to search			3. Regulated Entity Reference Number (if issued)									
CN 6061	46520			for CN Ce	for CN or RN numbers in Central Registry** RN 111749362											
SECTION II: Customer Information																
4. General C	ustomer Ir	nformation	5. Effective	Date f	Date for Customer Information Updates (mm/dd/yyyy) 10/25/2023											
New Cust	omer Legal Nar	ne (Verifiable wit	h the Texas S	Update to Customer Information Change in Regulated Entity Ownership												
The Custo	mer Nan	ne submitted	here may l	be upo	dated	auto	mati	cally	based	on v	vhat	is c	, urrent a	and	active v	with the
Texas Sec	retary of	State (SOS)	or Texas C	compt	roller	of Pı	ıblic	Acco	unts (ĊPA).					
6. Customer	6. Customer Legal Name (If an individual, print last name first: eq: Doe, John) If new Customer, enter previous Customer below:															
NODTUE	CODECT	OFFICE ST										-				
			ACE-AU		N 2, LI			0	Fodor	al Tav	, חו	(disting)	10		Numbo	(if applicable)
08021340	- A Filling I 05	NUITIDEI	3205608				3	45-2973927					DONG		(паррисавіе)	
00021340	05		5205000													
11. Type of C	Sustomer:	🛛 🖂 Corporati	on	Individual				Partnership: General Limited								
Government:	City 🗌 🕻	County 🗌 Federal 🗌	🛾 State 🔲 Othe	Image: Sole Proprietors					orship Other:							
12. Number o	12. Number of Employees				13. Inde					pende	ently	Owne	ed and O	perat	ed?	
□ 0-20										,	,		, , , ,			
14. Custome	r Role (Pro	posed or Actual) -	- as it relates to	the Reg	gulated E	ntity II	sted oi	n this to	rm. Plea	se che	ск оп	e of th	e followin	g		
Owner	nal License	e Cperat	tor Insible Party		⊠ Ov □ Vo	vner & luntary	Oper y Clea	ator anup Aj	oplicant	Ľ]Oth	ner:				
	305 N.	Heatherwild	le Blvd, Si	uite 2	50											
15. Mailing	15. Mailing															
Addless.	City	PFLUGER	VILLE	S	tate	ΤX		ZIP	786	60			ZIP +	4		
16. Country Mailing Information (if outside USA) 17. E-Mail							E-Mail	-Mail Address (if applicable)								
					jond@nforest.com											
18. Telephone Number				19. Extension or Code					20. Fax Number (if applicable)							
(512)515-1553				407				()	-					

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (*If 'New Regulated Entity" is selected below this form should be accompanied by a permit application*) ⊠ New Regulated Entity □ Update to Regulated Entity Name □ Update to Regulated Entity Information

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

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

METRO DRIVE OFFICE PARK

	WEST METRO DRIVE											
23. Street Address of the Regulated Entity:												
(No PO Boxes)	City	LEANDER		State	TX	X ZIP		78641		ZIP + 4		
24. County						•						
		Enter Physic	al Locat	tion Descriptio	n if no	street a	ddress	is provi	ded.			
25. Description to Physical Location: Project site is located approximately 390 linear feet west of the intersection of N US HWY 183 & Metro Drive.										of N US		
26. Nearest City								State		Nea	Nearest ZIP Code	
LEANDER							,	TX		780	541	
27. Latitude (N) In Decin	nal:				28	8. Longi	tude (V	V) In De	cimal:			
Degrees	Minutes	•	Seco	onds	De	egrees		Ν	linutes		Seconds	
30		35		12.897		-9	97		51		30.582	
29. Primary SIC Code (4	30. Secondary	condary SIC Code (4 digits) 31. Pri					ode	32. Se (5 or 6 d	econdary NAICS Code			
8741			561110									
33. What is the Primary	Busines	s of this entity	? (Do r	not repeat the SIC c	or NAICS (description	.)					
PROFESSIONAL	OFFIC	E										
	305 N. HEATHERWILDE BLVD, SUITE 250											
34. Mailing												
Address:	City PFLUGERVIL		VILLE	LE State			ZIP		8660	ZIP + 4		
35. E-Mail Address:					j	ond@nf	orest.c	om				
36. Teleph	one Nur	nber		37. Extensio	de	-	38	. Fax Nur	mber <i>(if applicable)</i>			
(512)	515-1553	}				() -			
39. TCEQ Programs and ID form. See the Core Data Form i) Numbe	rs Check all Prog s for additional gu	rams and idance.	d write in the perr	nits/regis	stration nu	imbers t	hat will b	e affected I	by the updates	submitted on this	
Dam Safety		Districts		🛾 Edwards Aquif	Emissions Inventory Air			ory Air	Industrial Hazardous Waste			
Municipal Solid Waste	New Source Review Air		Air [Petroleum Storage Tank			PWS		
Voluntary Cleanup	Waste Water			Wastewater Ad	griculture	Water Rights				Other:		
					,			0				
	1	T.C				<u> </u>				1		

SECTION IV: Preparer Information

40. Name:	Devon Vo					41. Title:	Vice President
42. Tele Number	phone	43. Ext./Code	44. F	ax Nu	ımber	45. E-Mail	Address
(512)	299-5963		()	-	devon.vo	@parnellengineeringinc.com

SECTION V: Authorized Signature

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

Company:	PARNELL ENGINEERING INC	Job Title:	Vice President			
Name (In Print):	DEVON VO			Phone:	(512) 299- 5963	

Signature:	Date:	10/25/23