halff

Firm Registration No. 312

TCEQ Edwards Aquifer Protection Program Recharge and Transition Zone

Brush Creek MUD Pedestrian Improvement Exemption Request

Prepared for:

Brushy Creek Municipal Utility District

16318 Great Oaks Drive

Round Rock, Texas 78641

Prepared by

Halff

AVO 052691
July 2024

Prepared for Brushy Creek MUD

TCEQ Edwards Aquifer Protection Program Recharge and Transition Zone Exemption Request

AVO 052691
July 2024

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

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

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

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

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

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

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

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

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

Technical Review

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

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

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

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

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

Mid-Review Modifications

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

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

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

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

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

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

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

1. Regulated Entity Name: **Brushy Creek MUD Park Improvements**						**2. Regulated Entity No.: 101931327**			
3. Customer Name: Brushy Creek MUD						**4. Customer No.: 600646574**			
5. Project Type: **(Please circle/check one)**	New		Modification			Extension	Exception		
6. Plan Type: **(Please circle/check one)**	WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		Non-residential			**8. Site (acres):**		11.662	
9. Application Fee:	$500		**10. Permanent BMP(s):**			N/A			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Williamson		**14. Watershed:**			Lake Creek			

Application Distribution

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

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

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

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	___	___	X
Region (1 req.)	___	___	X
County(ies)	___	___	X
Groundwater Conservation District(s)	___Edwards Aquifer Authority ___Barton Springs/ Edwards Aquifer ___Hays Trinity ___Plum Creek	___Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda ___Dripping Springs ___Kyle ___Mountain City ___San Marcos ___Wimberley ___Woodcreek	___Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	___Austin ___Cedar Park ___Florence ___Georgetown ___Jerrell ___Leander ___Liberty Hill ___Pflugerville _X_ Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	___	___	___	___	___
Region (1 req.)	___	___	___	___	___
County(ies)	___	___	___	___	___
Groundwater Conservation District(s)	___ Edwards Aquifer Authority ___Trinity-Glen Rose	___Edwards Aquifer Authority	___Kinney	___EAA ___Medina	___EAA ___Uvalde
City(ies) Jurisdiction	___Castle Hills ___Fair Oaks Ranch ___Helotes ___Hill Country Village ___Hollywood Park ___San Antonio (SAWS) ___Shavano Park	___Bulverde ___Fair Oaks Ranch ___Garden Ridge ___New Braunfels ___Schertz	NA	___San Antonio ETJ (SAWS)	NA

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

Jason Reece, PE / Project Manager/ Halff Associates, Inc.
Print Name of Customer/Authorized Agent

Signature of Customer/Authorized Agent — Date: July 9, 2024

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

Section 1
General Information

Brush Creek MUD Pedestrian Improvement Exemption Request

AVO 52691

General Information Form

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge and Transition Zones and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B) 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.

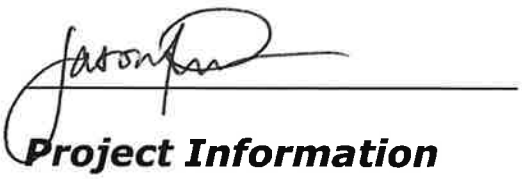
Signature

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 **General Information Form** is hereby submitted for TCEQ review. The application was prepared by:

Print Name of Customer/Agent: Jason Reece, PE/ Project Manager/ Halff Associates

Date: 6/10/2024

Signature of Customer/Agent:



Project Information

1. Regulated Entity Name: Brushy Creek MUD Park Improvements
2. County: Williamson
3. Stream Basin: Brushy Creek
4. Groundwater Conservation District (If applicable): N/A
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

   ☐ WPAP
   ☐ SCS
   ☐ Modification
   ☐ AST
   ☐ UST
   ☒ Exception Request

7. Customer (Applicant):

   Contact Person: Bradley Holsapple
   Entity: Brushy Creek Municipal Utility District
   Mailing Address: 16318 Great Oaks
   City, State: Round Rock, Texas Zip: 78681
   Telephone: 512-225-7871 FAX: _____
   Email Address: B.Holsapple@bcmud.org

8. Agent/Representative (If any):

   Contact Person: Jason Reece, PE
   Entity: Halff Associates, Inc.
   Mailing Address: 13620 Briarwick Dr, Building C Suite 100
   City, State: Austin, Tx Zip: 78729
   Telephone: 512-777-4600 FAX: _____
   Email Address: Jreece@halff.com

9. Project Location:

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

10. ☒ The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

    Cat Hollow Park, 8320 O'Connor Drive, Round Rock, Texas. See Attachment A - Overall Site Map for detailed project location.

11. ☒ **Attachment A – Road Map**. A road map showing directions to and the location of the project site is attached. The project location and site boundaries are clearly shown on the map.

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

    ☒ Project site boundaries.
    ☒ USGS Quadrangle Name(s).
    ☒ Boundaries of the Recharge Zone (and Transition Zone, if applicable).
    ☒ Drainage path from the project site to the boundary of the Recharge Zone.

13. ☒ **The TCEQ must be able to inspect the project site or the application will be returned**. Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment.

☐ Survey staking will be completed by this date: _____

14. ☒ **Attachment C – Project Description**. Attached at the end of this form is a detailed narrative description of the proposed project. The project description is consistent throughout the application and contains, at a minimum, the following details:

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

15. 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/Uncleared)
    ☒ Other: Park

Prohibited Activities

16. ☒ I am aware that the following activities are prohibited on the Recharge Zone and are not proposed for this project:

    (1) Waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);

    (2) New feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;

    (3) Land disposal of Class I wastes, as defined in 30 TAC §335.1;

    (4) The use of sewage holding tanks as parts of organized collection systems; and

    (5) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).

    (6) New municipal and industrial wastewater discharges into or adjacent to water in the state that would create additional pollutant loading.

17. ☒ I am aware that the following activities are prohibited on the Transition Zone and are not proposed for this project:

    (1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);

(2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and

(3) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

Administrative Information

18. The fee for the plan(s) is based on:

- ☐ For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
- ☐ For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines.
- ☐ For a UST Facility Plan or Modification or an AST Facility Plan or Modification, the total number of tanks or piping systems.
- ☒ A request for an exception to any substantive portion of the regulations related to the protection of water quality.
- ☐ A request for an extension to a previously approved plan.

19. ☒ Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

- ☐ TCEQ cashier
- ☒ Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
- ☐ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

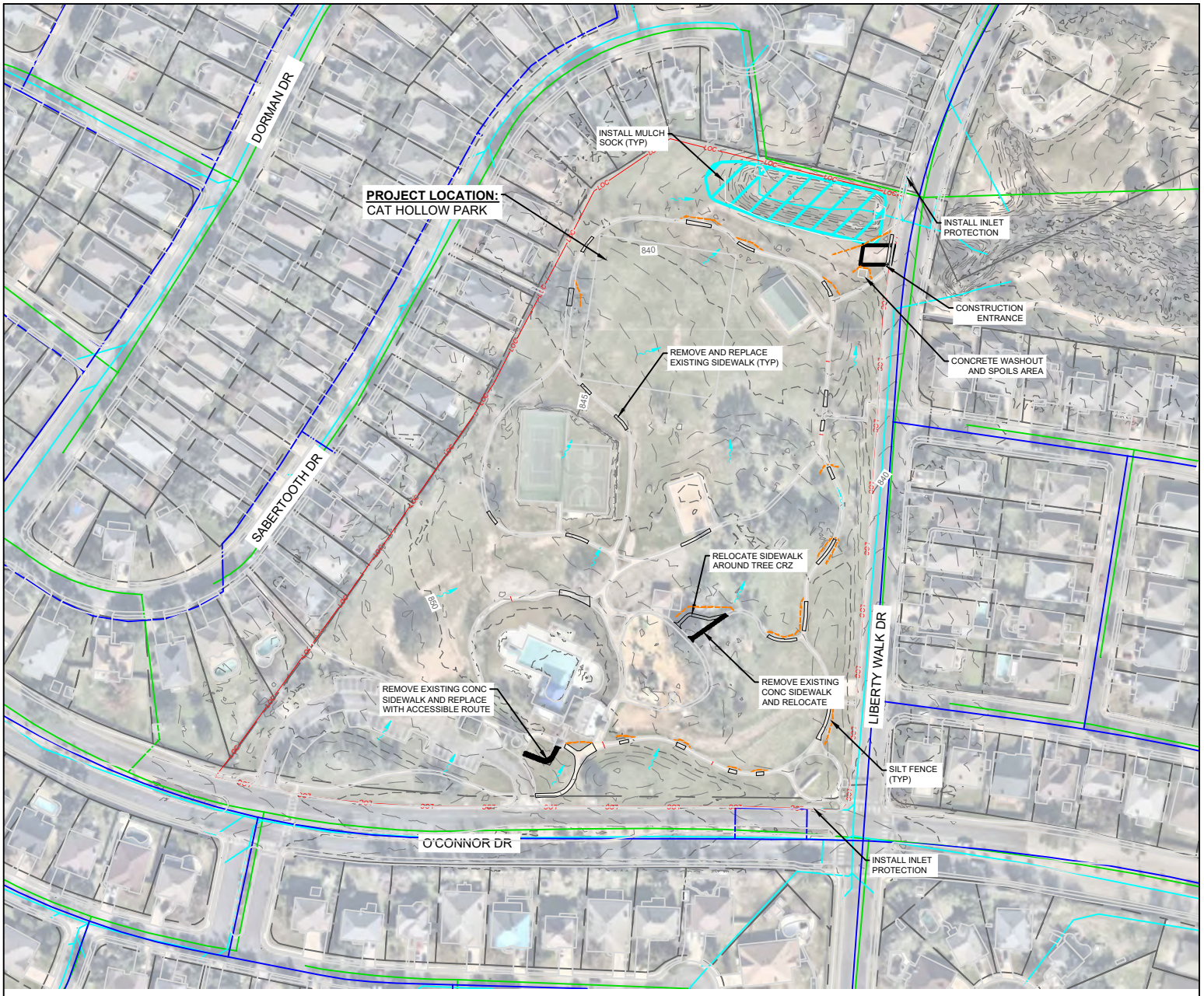
20. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies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

21. ☒ No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.

Attachment A
Road Map

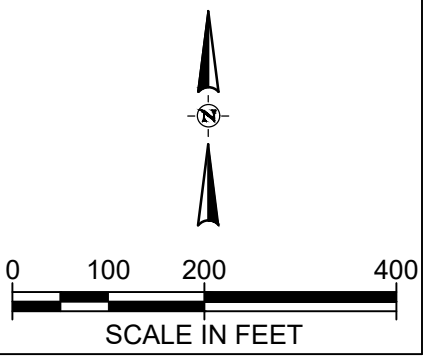
Brush Creek MUD Pedestrian Improvement Exemption Request

AVO 52691



GENERAL EROSION CONTROL NOTES:

1. ALL TREES WITHIN THE LIMITS OF CONSTRUCTION NEED TO BE PROTECTED UNLESS OTHERWISE NOTED. ALL TREES WITHIN THE CONSTRUCTION LIMITS NOT SHOWN TO BE CONSIDERED TO REMAIN, CONTRACTOR SHALL PROTECT IF NECESSARY. TREE PROTECTION AND REMOVAL SHALL BE CONSIDERED SUBSIDIARY TO ITEM 101S PREPARING ROW.
2. EROSION/SEDIMENTATION CONTROLS MUST BE IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITIES.
3. CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY.
4. LIMITS OF CONSTRUCTION AT ROW UNLESS OTHERWISE SHOWN.
5. CONCRETE WASHOUT AND SPOILS AREA LOCATIONS SUBJECT TO CHANGE PER ENVIRONMENTAL REVIEW.
6. CONTRACTOR SHALL MODIFY SILT FENCE LAYOUT AS NEEDED TO APPROPRIATELY CAPTURE WASHOFF.
7. SIDEWALK REMOVAL AND INSTALLATION WITHIN 1/2 CRITICAL ROOT ZONE SHALL BE PERFORMED BY HAND TOOLS ONLY. DO NOT IMPACT MORE THAN 4". CONTRACTOR TO COORDINATE WITH CITY ARBORIST.



halff
13620 BRIARWICK DR., SUITE 100
AUSTIN, TEXAS 78729
TEL. (512) 777-4600

Attachment A - Road Map

BCMUD PEDESTRIAN IMPROVEMENTS

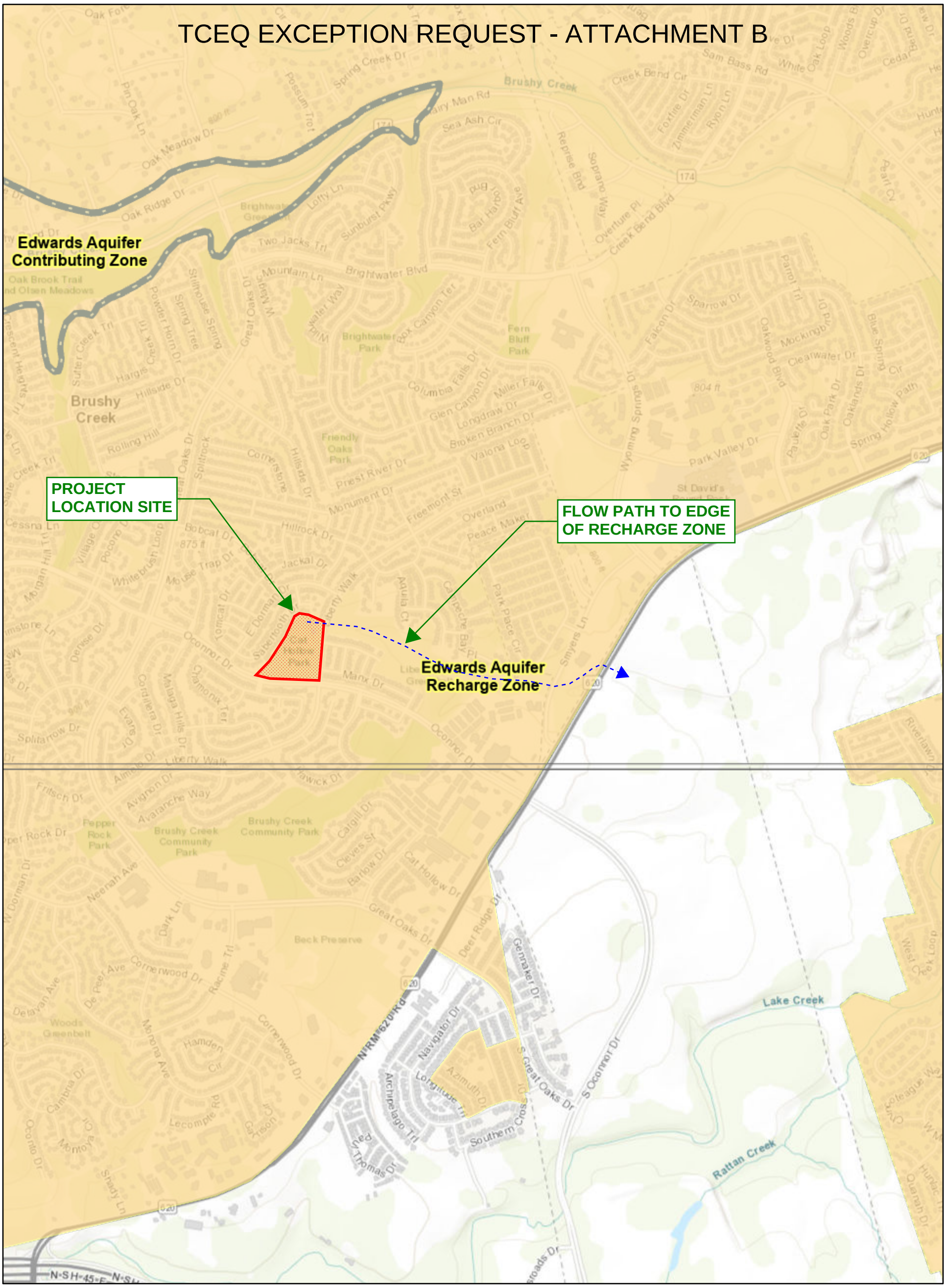
PROJECT NO.:	52691-002
ISSUED:	JUNE 2024
DRAWN BY:	FF
CHECKED BY:	JR
SCALE:	1" = 200'

Attachment B
USGS/Edwards Recharge Zone Map

Brush Creek MUD Pedestrian Improvement Exemption Request

AVO 52691

Brush Creek MUD - USGS/Edwards Recharge Zone Map



6/17/2024, 3:40:59 PM

- Edwards Aquifer Label
- Edwards Aquifer Boundary
- Edwards Aquifer Boundary central line
- City/Place
- TX Counties
- 7.5 Minute Quad Grid
- TCEQ_EDWARDS_OFFICIAL_MAPS

1:18,056

0 0.15 0.3 0.6 mi

0 0.25 0.5 1 km

Austin Community College, City of Austin, County of Williamson, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA
TCEQ

Attachment C

Project Description

Site Location

Cat Hollow Park is located at 83200 O'Connor Drive, Round Rock and can be found more generally at the northwest corner of the intersection of O'Connor Drive and Liberty Walk Drive between Great Oaks Drive and R.M. 620 in the extraterritorial jurisdiction of the city of Round Rock, within Williamsons County. The project is owned and operated by the Brushy Creek Municipal Utility District (MUD). The park is located in the Edwards Aquifer Recharge Zone and within the Lake Creek watershed.

Project Description

The scope of the proposed improvements to Cat Hollow Park are replace-in-kind improvements to existing concrete trail systems to improve accessibility issues that are not compliant to federal ADA standards and Texas Department of Licensing and Regulation standards. Existing facilities at this location include water and wastewater, a swimming pool, parking lot, playscapes, tennis court, basketball court, hike and bike trail, and sand volleyball court.

Areas of Improvement and Disturbance

The Cat Hollow Park is approximately 11.62 acres and is one of sixteen (16) parks Brushy Creek MUD owns and operates. The total anticipated amount of disturbed area for the proposed improvements is approximately 571 square yards. The majority of the project will remove and replace the existing concrete sidewalk in place to correct any accessibility issues or fix cracks in the trail system. However roughly 8.5 square yards of new impervious cover will be added to the site. The two areas of increase are at the entrance to the pool building and the rerouting of the sidewalk around the critical root zone of the heritage tree adjacent to the playground equipment.

BMP'S

Temporary BMP's will include silt fence, mulch socks, and a stabilized construction entrance. Any disturbed impervious areas other than the concrete sidewalks will be replaced with sod. All runoff from this site will be discharged as sheet flow to the adjacent earthen detention pond at the north end of the park. No permanent BMP's are proposed.

Section 2
Geologic Assessment

Brush Creek MUD Pedestrian Improvement Exemption Request

AVO 52691

ZARA
ENVIRONMENTAL LLC
Integrity | Science | Expertise
2104 Hunter Road
San Marcos, Texas 78666
512-291-4555
www.zaraenvironmental.com

GEOLOGIC ASSESSMENT FOR
BRUSHY CREEK MUNICIPAL UTLITY DISTRICT PARK IMPROVEMENTS
BRUSHY CREEK, WILLIAMSON COUNTY, TEXAS

Cat Hollow Park sign on O'Connor Drive, Brushy Creek, Williamson County, Texas

Prepared for
Halff Associates, Inc.
13620 Briarwick Drive
Building C, Suite 100
Austin, Texas 78729

9 April 2024

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Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), 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. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Date: 4/9/2024

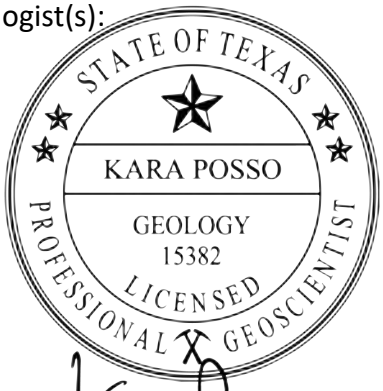
Michael Jones, P.G. (#15517) Telephone: 512-291-4555 (Zara Office)

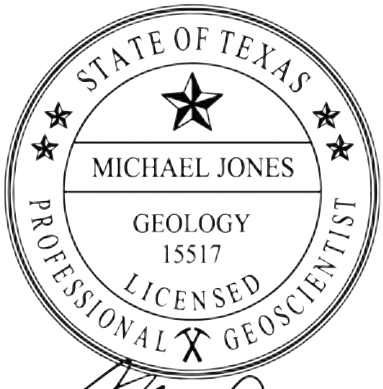
Kara Posso, P.G. (#15382) Fax: 866-908-9137

Representing:

Zara Environmental LLC/ TBPG No. 50365

Signature of Geologist(s):





Regulated Entity Name: Brushy Creek MUD Park Improvements

Project Information

1. Date(s) Geologic Assessment was performed: 3/11/2024

2. Type of Project

☒ WPAP (Exception Plan) ☐ AST
☐ SCS ☐ UST

3. Location of Project:

☒Recharge Zone
☐Transition Zone
☐Contributing Zone within the Transition Zone

4. ☒ **Attachment A - Geologic Assessment Table**. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.

5. ☒ Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness (feet)
Eckrant stony clay, 0 to 3 percent slopes, stony (EeB)	D	6.7
Eckrant-Rock outcrop association, 1 to 10 percent slopes (ErE)	D	6.7
Georgetown stony clay loam, 1 to 3 percent slopes (GsB)	D	5.0

** Soil Group Definitions (Abbreviated)*
A. Soils having a high infiltration rate when thoroughly wetted.
B. Soils having a moderate infiltration rate when thoroughly wetted.
C. Soils having a slow infiltration rate when thoroughly wetted.
D. Soils having a very slow infiltration rate when thoroughly wetted.

6. ☒ **Attachment B – Stratigraphic Column**. A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.

7. ☒ **Attachment C – Site Geology**. A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.

8. ☒ **Attachment D – Site Geologic Map(s)**. The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'

   Applicant's Site Plan Scale: 1" = 50'
   Site Geologic Map Scale: 1" = 50'
   Site Soils Map Scale (if more than 1 soil type): 1" = 200'

9. Method of collecting positional data:

   ☒ Global Positioning System (GPS) technology.
   ☒ Other method(s). Please describe method of data collection: Mapped Surface Geology and Faults derived from Geologic Atlas of Texas Data (GAT 2010). Public Utilities derived from geospatial data provided by BCMUD and/or Halff & Associates.

10. ☒ The project and boundaries are clearly shown and labeled on the Site Geologic Map.

11. ☒ Surface geologic units are shown and labeled on the Site Geologic Map.

12. ☒ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.

    ☐ Geologic or manmade features were not discovered on the project site during the field investigation.

13. ☒ The Recharge Zone boundary is shown and labeled, if appropriate.

14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

    ☐ There are _____(#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    ☐ The wells are not in use and have been properly abandoned.
    ☐ The wells are not in use and will be properly abandoned.
    ☐ The wells are in use and comply with 16 TAC Chapter 76.
    ☒ There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

15. ☐ 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

GEOLOGIC ASSESSMENT TABLE — PROJECT NAME: Brushy Creek MUD Park Improvements

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B [+]	1C [+]	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	≥40	<1.6	≥1.6	
MB-01	30.50580	-97.73096	MB	30	Ked	180	50	8	-	-	-	-	N,F,V	5	35	x			X	Drainage
MB-02*	30.50355	-97.73094	MB	30	Ked	5	5	unk	-	-	-	-	X	5	35			X		Hillside
MB-03*	30.50595	-97.73110	MB	30	Ked	0.75	0.75	unk	-	-	-	-	X	5	35			X		Hillside
MB-04*	30.50497	-97.73150	MB	30	Ked	1	1	unk	-	-	-	-	X	5	35			X		Hillside
MB-05	30.50412	-97.73208	MB	30	Ked	75	70	6	-	-	-	-	X	5	35			X		Hillside

*Features MB-02 (Drainage Culvert), MB-03 (Sanitary Sewer Main) and MB-04 (Water Main) are linear alignments; the GPS coordinates above represent a single location for that feature class within or adjacent to the Survey Area. The location and orientation of these features may be seen in Figure 3 and Attachment D. [+] DATUM: NAD 1983.

2A	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

	8A INFILLING
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials

12 TOPOGRAPHY

Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

STATE OF TEXAS — KARA POSSO — GEOLOGY 15382 — LICENSED PROFESSIONAL GEOSCIENTIST

STATE OF TEXAS — MICHAEL JONES — GEOLOGY 15517 — LICENSED PROFESSIONAL GEOSCIENTIST

Date 3/11/2024

Sheet 1 of 1

TCEQ-0585-Table (Rev. 10-01-04)

ATTACHMENT B

Period or Hydrogeologic Subdivision		Group, Formation, or Member			Approx. Thickness (feet)
Quaternary		Quaternary Alluvium (Qal)			< 20
		Terrace Deposits, undivided (Qt)			< 36
Upper Cretaceous	Upper Confining Units	Austin Group	Austin Chalk (Kau)		360-425
		Eagle Ford Group	Eagle Ford Formation (Kef)		23-65
		Washita Group	Buda Limestone (Kbu)		3-30
			Del Rio Clay ((Kdr)		65
			Georgetown Formation (Kgt)		60-110
Lower Cretaceous	Edwards Aquifer (Northern Segment)	Fredericksburg Group	Edwards Limestone (Ked)	Person Formation	100-300
				Kainer Formation	
			Comanche Peak Formation (Kc)		40-70
	Lower Confining Units		Walnut Formation	Keys Valley Member (Kwkv)	50
				Whitestone, Cedar Park, Bee Cave and Bull Creek Members, undivided and Edwards Formation, undivided (Kwwh+Kwcpbc+Ked)	30 - 50
	Upper Trinity Aquifer	Trinity Group	Glen Rose Formation	Upper Glen Rose Member (Kgru)	350 – 500

This stratigraphic column shows the regional geologic units adapted from Collins, E.W. (1997). Outcropping unit(s) are specified in gray.

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ATTACHMENT C

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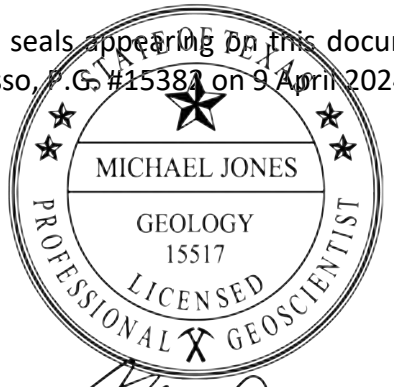
GEOLOGIC ASSESSMENT FOR
BRUSHY CREEK MUNICIPAL UTLITY DISTRICT PARK IMPROVEMENTS
BRUSHY CREEK, WILLIAMSON COUNTY, TEXAS

Prepared for
Halff Associates, Inc.
13620 Briarwick Drive
Building C, Suite 100
Austin, Texas 78729

9 April 2024

In accordance with the Texas Board of Professional Geologists rules at 22 Texas Administrative Code, Part 39, Chapter 851, Subchapter C, §851.156, this report is signed and sealed on the title page to assure the user that the work has been performed by or directly supervised by the following professional geologist who takes full responsibility for this work.

The computer-generated seals appearing on this document was authorized by Michael Jones, P.G. #15517 and Kara Posso, P.G. #15382 on 9 April 2024.



Michael Jones, Texas Professional Geoscientist No. 15517
Kara Posso, Texas Professional Geoscientist No. 15382
Zara Environmental LLC Geoscience Firm Registration No. 50365

ATTACHMENT C

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ATTACHMENT C

Introduction

A Geologic Assessment (GA) was conducted on the 11.6-acre Cat Hollow Park (Survey Area) in support of proposed sidewalk improvements (Project) in the Brushy Creek Municipal Utility District (BCMUD) of Williamson County, Texas (Figure 1). Cat Hollow Park consists of maintained grass fields, paved and unpaved sidewalk loops, parking lots, playscapes, tennis courts, swimming pool facilities, pavilions, and other general park amenities resulting in impervious cover. The entire Survey Area lies within the Edwards Aquifer Recharge Zone and as such, it meets the Texas Commission of Environmental Quality's (TCEQ) requirements for regulation under the Edwards Rules at Title 30 Texas Administrative Code (TAC) Chapter 213.5. However, due to the limited ground disturbance activities associated with improvement to existing sidewalk infrastructure, this Geologic Assessment has been prepared in support of a Water Pollution Abatement Plan (WPAP) Exception Plan application.

Methods

Background Data Collection

The Geologic Map of the Round Rock Quadrangle, Texas (Collins 1997) and the Geologic Atlas of Texas (GAT 2010) were reviewed. Soil descriptions were compiled from the Web Soil Survey of the U.S. Department of Agriculture (USDA 2024). The Texas Water Development Board groundwater database (TWDB 2024) was reviewed for information regarding water wells within the Survey Area and vicinity. Floodplain maps from the Federal Emergency Management Agency (FEMA 2024) were reviewed to determine if flood zones were present within the Survey Area. Staff geologists reviewed previous GAs performed on the Survey Area and on other parkland in the vicinity, as provided by Halff & Associates. BCMUD staff were also consulted for records of nearby cave and karst feature locations. Public utilities such as water mains, sanitary sewer mains, and stormwater drainage culverts were obtained from geospatial data provided by BCMUD and/or Halff & Associates.

Field Survey

Karst survey methods followed protocols outlined in TCEQ Instructions to Geologists for Geologic Assessments (TCEQ 2004). Walking ground surveys, as defined by Veni and Reddell (2002), TCEQ (2004), and Barrett (2005), were conducted throughout the project survey area and reconnaissance excavations were conducted at all potential karst features. Positions of all features were documented using Global Positioning System (GPS) technology and checked with field maps based on digital orthoimagery. All features identified were evaluated by a licensed Professional Geoscientist for potential impact to Edwards Aquifer recharge. This is completed by ranking the recharge sensitivity of each feature using the point scheme defined by TCEQ (2004). Fieldwork was conducted on 11 March 2024 by Kara Posso and Michael Jones, who also jointly prepared the report.

ATTACHMENT C

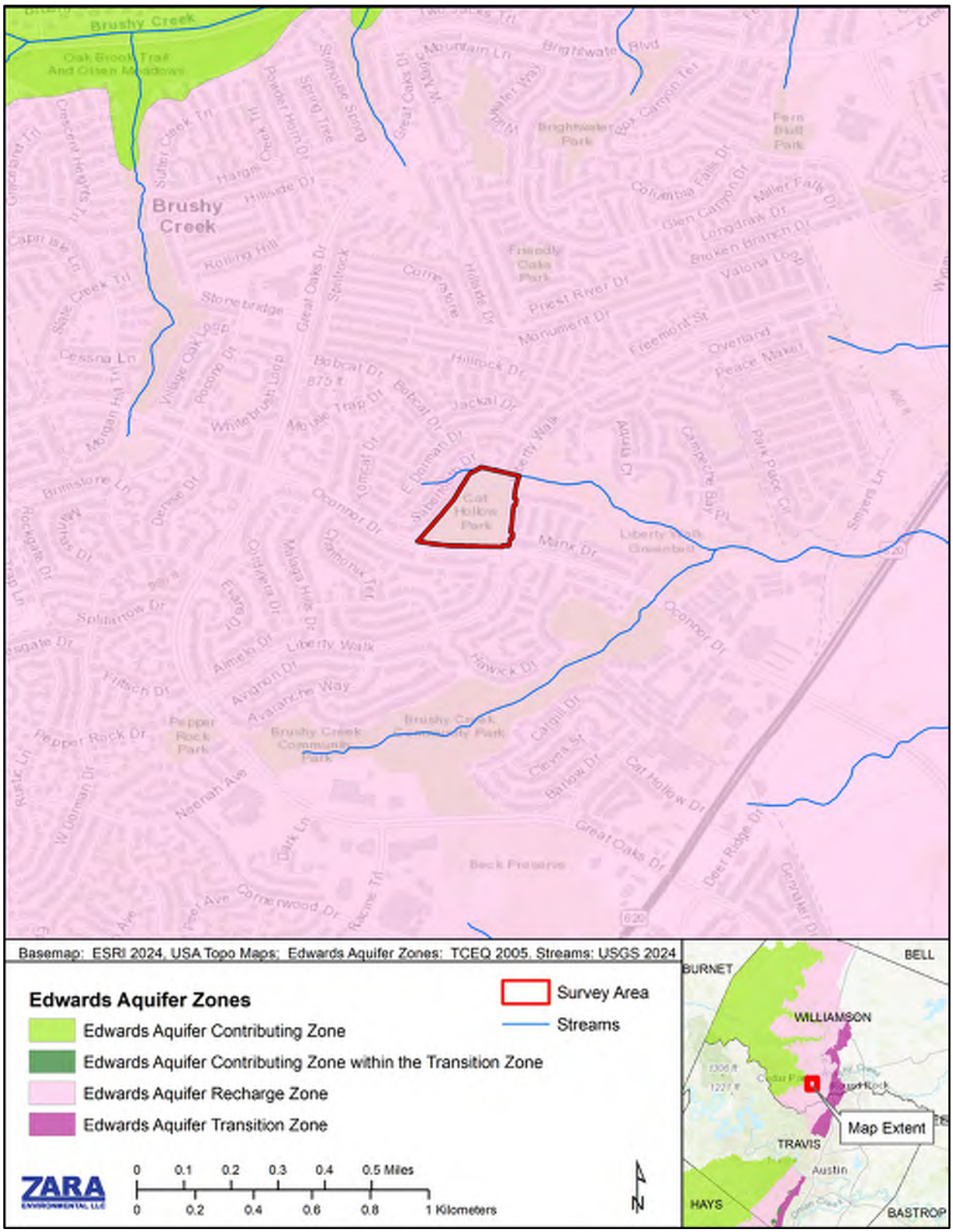

Figure 1. The Survey Area location in BCUMD, Williamson County, Texas relative to the Edwards Aquifer Zones (TCEQ 2005).

ATTACHMENT C

Results

Background Data

Soils

Three different soil types were identified in the Survey Area by the Natural Resources Conservation Service Soil Survey (USDA 2024) (Figure 2). Soil type descriptions are below.

Eckrant stony clay, 0 to 3 percent slopes, stony (EeB). This ridge forming soil is characterized as stony clay with depths between 0 and 4 inches to extremely stony clay with depths between 4 and 11 inches overlying bedrock with depths between 11 and 80 inches (USDA 2024).The soil's capacity to transmit water is moderately low to moderately high (0.06 to 0.57 in/hr) through its most limiting layer, placing it in Hydrologic Soil Group D. The soil promotes runoff rather than infiltration. This soil comprises 67.8% of the Survey Area.

Eckrant-Rock outcrop association, 1 to 10 percent slopes (ErE). This ridge forming soil is characterized as very cobbly clay with depths between 0 and 4 inches to extremely cobbly clay with depths between 4 and 11 inches overlying bedrock with depths of 11 to 80 inches (USDA 2024).The soil's capacity to transmit water is moderately low to moderately high (0.06 to 0.57 in/hr) through its most limiting layer, placing it in Hydrologic Soil Group D. This soil comprises 18.2% of the Survey Area.

Georgetown stony clay loam, 1 to 3 percent slopes (GsB). This ridge forming soil is characterized as stony clay loam with depths between 0 and 7 inches to cobbly clay with depths between 7 and 35 inches overlying bedrock with depths between 35 and 60 inches (USDA 2024).The soil's capacity to transmit water is very low to moderately high (0.00 to 0.06 in/hr) through its most limiting layer, placing it in Hydrologic Soil Group D. This soil comprises 14% of the Survey Area.

Site Geology

Mapped surface geology from the Geologic Atlas of Texas (GAT 2010) is presented in Figure 3 and Attachment D. According to Collins (1997), the entire Survey Area is mapped as the Edwards Limestone (Ked) and there are no mapped faults in the direct vicinity of the Survey Area. The Edwards Limestone ranges from 100 to 300 feet thick within the northern segment of the Edwards Aquifer and is underlain the Comanche Peak Formation (Kc) (Collins 1997), the lower confining unit of the Edwards Aquifer in the northern segment. The site is developed as a neighborhood park and consists of gentle slopes where outcrops of native bedrock are rare. Elevation within the Survey Area ranged from 826 to 858 feet above mean seal level (asml), approximately 36 feet above the nearest Comanche Peak Formation contact, which occurred at approximately 790 feet amsl (Collins 1997). Exposed outcrops within the Survey Area consist of massive dolomitic limestone with chert nodules, consistent with the lower to middle Edwards Limestone. Surface runoff would be predominantly conveyed as sheet flow to a low order, unnamed intermittent drainage in the northern portion of the site that immediately discharges offsite; thus, rapid infiltration into the subsurface is unlikely due to lack of ponding and point recharge features.

ATTACHMENT C

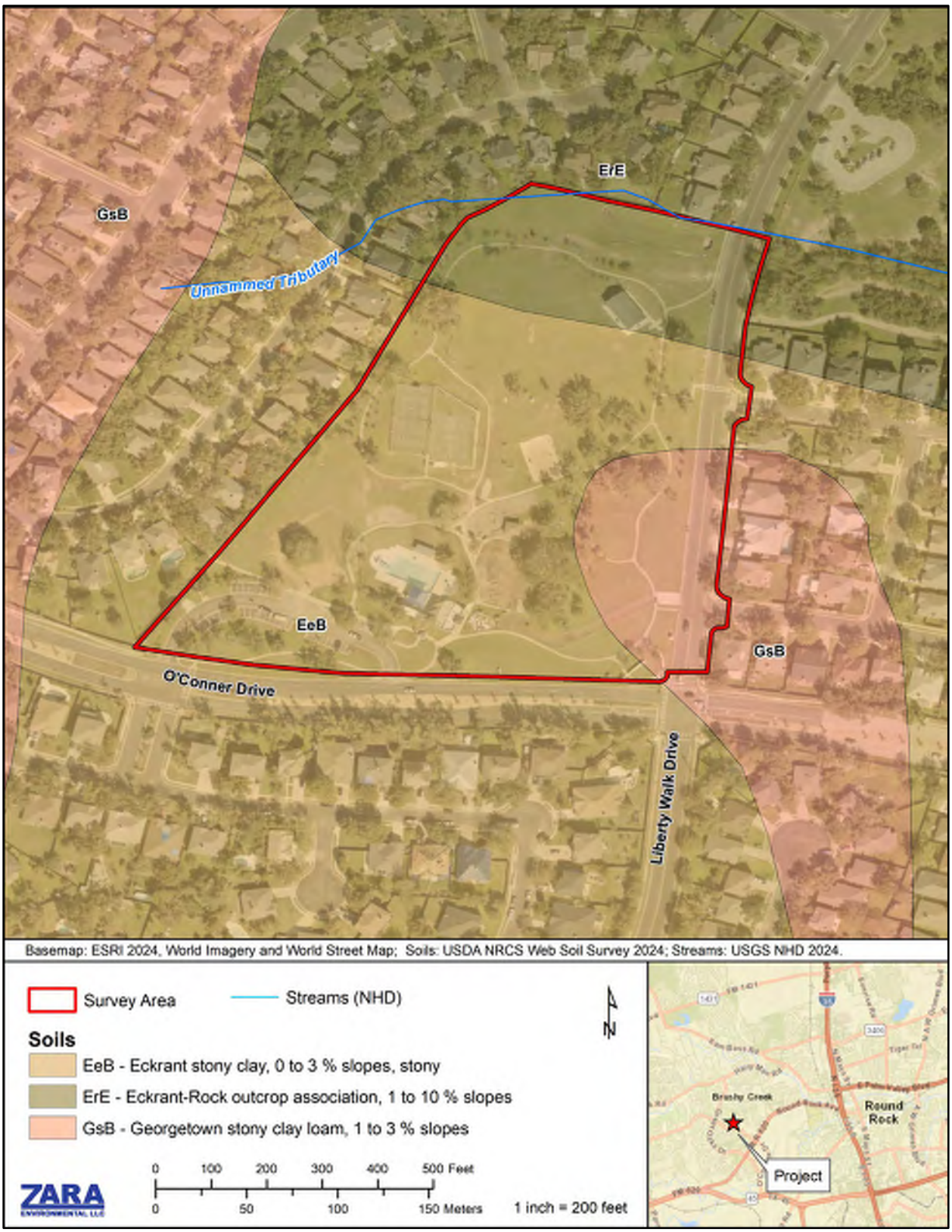

Figure 2. Soil types occurring in the Survey Area.

ATTACHMENT C

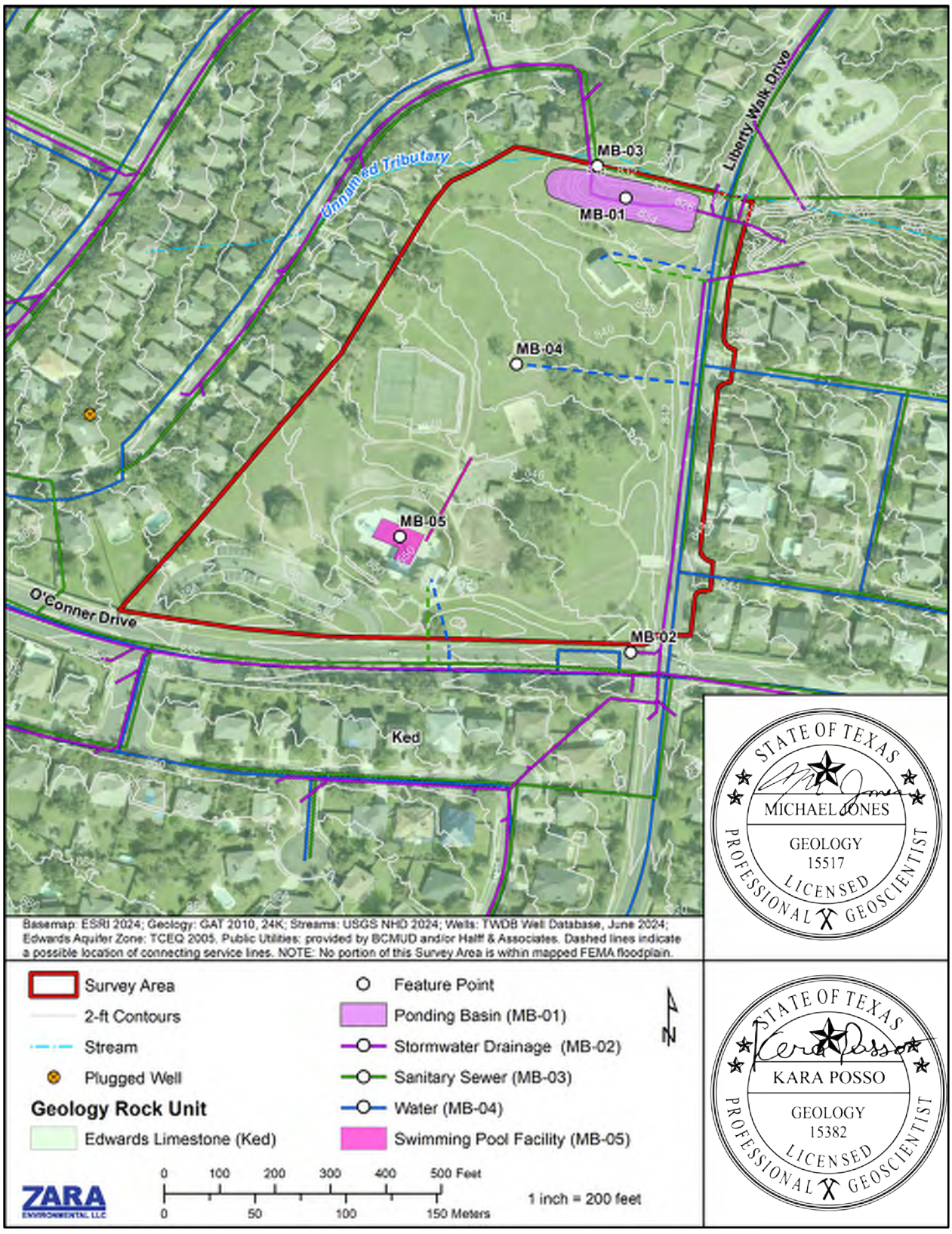

Figure 3. Geology of Survey Area including locations of all features discovered during pedestrian surveys.

ATTACHMENT C

Regional Geology

The Survey Area is in the north-central portion of the Edwards Plateau Physiographic Province of Central Texas, along the northern segment of the Balcones Fault Zone (BFZ). The BFZ also forms the Balcones Escarpment, a highly eroded region bordering the Edwards Plateau on its southern and western boundaries. The area is typified by higher elevations to the north and west, generally sloping in a southeastern direction. Surface flow formed the canyons and drainage basins of the Brazos River, including Lake Creek-Brushy Creek, the southernmost tributary of the San Gabriel River.

The geologic formations occurring within the region are comprised mostly of Cretaceous age-rocks with some overlaying Quaternary alluvium and terrace deposits along surface drainages. The limestone bedrock developed from the accumulation of thick sequences of marine sediments deposited in a lagoon environment on the San Marcos Platform, an area protected by a barrier reef during the Cretaceous period about 100 million years ago (Rose 1972). In northern Travis, Williamson, and southern Bell counties, the Cretaceous strata slightly dip towards the east and outcrop along their western margins (Jones 2019).

Regional Stratigraphy

From youngest to oldest, the strata at the surface and subsurface in this region consist of the Georgetown Formation (Kgt), Edwards Limestone (Ked), Comanche Peak Formation (Kc), Walnut Formation (Kwa), and the Glen Rose Formation (Kgr). A stratigraphic column showing the regional geology is included as Attachment B. The regional depositional environments varied from supertidal to tidal flat to open shelf marine. The geologic formations that comprise the Edwards Aquifer are from top to bottom the Georgetown, Person, and Kainer (also known as the Edwards Limestone, and the Commanche Peak Formation (Jones 2019, TCEQ 2004). A stratigraphic column showing regional geology is included as Attachment B. Geologic unit descriptions for the Georgetown Formation, Edwards Limestone, and Comanche Peak Formation are presented below.

The Georgetown Formation is interbedded nodular, massive fine-grained limestone and marl, argillaceous, moderately indurated, and light gray. The Georgetown Formation is 65 to 110 feet thick (Collins 1997). It is overlain by the Del Rio Clay and underlain by the Edwards Limestone. Although permeable, it is less permeable than the underlaying Edwards Limestone and is often considered the upper confining unit of the Edwards Aquifer (Hauwert 2009).

According to Collins (1997), the Edwards Limestone [Group] comprises massive to thinly bedded limestones, dolomitic limestones, wackestones, packstones, and grainstones from 100 to 300 feet thick in the Northern Segment of the Edwards Aquifer. The Edwards Group contains two formations, the Person and Kainer Formations (Rose 1972). The composition of the Person Formation ranges from crystalline limestone to grainstone to mudstone and is generally comprised of three members: the Cyclic and Marine members, undivided; the Leached and Collapsed members, undivided; and the Regional Dense member (Maclay and Small 1976). The Kainer Formation ranges from mudstone to milinoid grainstones to crystalline limestone and is generally comprised of four members: the Grainstone Member; the Kirschberg Evaporite; the

Dolomitic Member; and the Basal Nodular Member (Maclay and Small 1976). Unit subdivisions within the Edwards Limestone are not formally mapped north of the Colorado River and may be absent all together, although recent geologic mapping and borings by City of Austin Watershed Protection indicate that some geologic members mapped south of the Colorado River are present in the northern segment of the Edwards Aquifer (Hauwert 2010). While not well defined in the study area, each member of the Edwards Limestone is discussed below.

The Cyclic and Marine Members are composed of a chert-bearing wackestone and can be somewhat variable in thickness because of the erosional unconformity between the Person and Georgetown Formations (Small et al. 1996). The Leached and Collapsed Members are a light-colored wackestone with interbedded mudstone and grainstone intervals that form one of the more porous and permeable subdivisions of the Edwards Aquifer. The Leached member is a dense, bioturbated micrite, and the collapsed member is composed of several one-to-five-foot thick zones of collapsed stromatolitic limestone (Small et al. 1996).

The lowermost member of the Person Formation is the Regional Dense Member (RDM). The RDM is composed of a dense argillaceous mudstone and is easily identified in the outcrop and on a variety of geophysical logs (Small et al. 1996). The RDM can function as a confining unit between the upper and lower portions of the Edwards Aquifer (i.e., between the Kainer and the Person Formation); however, the RDM is probably not an effective barrier to lateral flow at faults because of the relatively thin section. The flow of water tends to circumvent the RDM because of the impermeable nature of this unit (Hauwert 2009).

The Kainer Formation is subdivided into four informal members that include the Grainstone, Kirschberg Evaporite, Dolomitic, and Basal Nodular Members (Rose 1972). The Grainstone Member is the uppermost unit of the Kainer Formation. It is composed of thick sequences of dense, tightly cemented, miliolid grainstone (Small et al. 1996). Primary matrix porosity, as measured on geophysical logs, is some of the lowest in the Edwards Aquifer. Secondary fracture porosity accounts for the bulk of effective porosity in this aquifer unit.

The Kirschberg Evaporite Member underlies the Grainstone Member and consists of crystalline limestone and chalky pulverulite with chert nodules and lenses (Hauwert 2009). Collapse features are common. Dissolution of evaporite minerals, such as gypsum and anhydrite, and the existence of contorted beds in the Kirschberg Evaporite Member, result in extensive secondary porosity, which creates one of the most permeable subdivisions in the Edwards Aquifer. The Dolomitic Member is a resistant, highly-bedded wackestone with interbedded grainstone, burrowed mudstone, and some chert nodules (Small et al. 1996). Effective porosity and probable pathways of water in this unit are restricted to solution enlarged bedding planes, joints, fractures, and faults. These solution-collapse-zones are the main water-bearing horizons in the northern segment of the Edwards Aquifer (Jones 2019; Brune and Duffin 1983; Flores 1990).

The Basal Nodular Member is the lowermost unit of the Edwards Group and is a fossiliferous, nodular limestone with negligible porosity and permeability (Small et al. 1996) and can function

as part of the lower confining unit; however, in outcrop the Basal Nodular Member often displays extensive karstification, which has generated secondary porosity in the form of large lateral caves.

The Comanche Peak Formation defines the base of the Edwards Aquifer and is considered the lower confining unit in the northern segment of the aquifer (TCEQ 2004). The Commanche Peak Formation is recognized by nodular, fossiliferous limestone and marl, and often displays significant jointing (Jones 2019; Brune and Duffin 1983). Springs and seeps commonly occur at the contact between the Edwards Limestone and the Commanche Peak Formation. The unit generally thickens northward from approximately 40 to 70 feet amsl (Collins 1997).

Regional Groundwater

The northern segment of the Edwards Aquifer is part of the Balcones Fault Zone and is one of the most permeable and productive limestone aquifers in the United States. Located north of the Colorado River in Travis, Williamson, and Bell counties, the northern segment of the Edwards Aquifer supplies water to communities in Round Rock, Pflugerville, Georgetown, and Salado (Jones 2023). In addition, the northern Edwards Aquifer provides habitat for several protected aquatic salamander species (USFWS 2021). Karst aquifers are, by their nature, extremely vulnerable to contamination. Soils in karst areas can be thin and patchy. Thus, the filtration of diffuse recharge afforded by soils may be relatively low and is only decreased by human activity. Recharge in karst systems commonly occurs as point recharge into specific karst features, bypassing what little filtration a limited soil zone might afford.

The Project is within the Recharge Zone of the northern segment of the Edwards Aquifer, as delineated by the TCEQ Edwards Rules (30 TAC §213). The Recharge Zone of the Edwards Aquifer is defined as the land surface area where caves, sinkholes, faults, fractures, or other permeable features provide pathways for recharge of surface waters into the Edwards Aquifer. This zone is regulated due to the vulnerability of this karst aquifer to pollution. Recharge into the Edwards Aquifer occurs both as diffuse flow in the bedrock matrix and conduit flow. During heavy rainfall, diffuse autogenic recharge might surge through the vadose zone, where water percolates through the soil (Williams 2008). Conduit flow primarily occurs in losing streams, where surface water from the Contributing Zone flows over faults, fractures, and karst features that have been solutionally enlarged in the Recharge Zone (Sharp and Banner 1997). Locally, groundwater generally flows west to east towards Brushy Creek and emerges as springs and seeps fractures and cavities near the contact between the Edwards Limestone and underlying confining unit, the Commanche Peak Formation (Jones 2003; Jones 2006; Jones 2019).

Water Wells

According to the TWDB groundwater database (TWDB 2024), no wells were mapped within the Survey Area, and no wells were discovered on the ground during field inspection. A 60-foot deep well completed in the Edwards Aquifer on private property was plugged in 2006 and is within 250 feet to the west of the southwestern boundary of the Survey Area.

ATTACHMENT C

Floodplains

No portion of the Survey Area was mapped within a flood zone (FEMA 2024). Cat Hollow Park drains north and east to an ephemeral channel in adjacent park space, which becomes Lake Creek Tributary 5 several miles downstream. The ephemeral channel has been modified for stormwater control and is discussed as feature MB-01.

Previously Identified Features

Previous Geologic Assessments conducted on Cat Hollow Park Pavilion (BCMUD 2015) and the Brushy Creek Community Center Trail (Zara 2020a) were provided by Halff & Associates for review. No caves or sensitive karst features identified within the Survey Area. However, several cave and karst features were present in the vicinity. Additional information on previously documented cave and karst features was obtained from BCMUD, who own and manage over 30 caves within the district, several of which are occupied by the federally endangered Bone Cave harvestman (*Texella reyesi*) (Zara 2020b). The nearest known caves and karst features are located across Liberty Walk Drive in the Brushy Creek Community Center Trail, just 500 feet northeast of the Survey Area, and several other caves are known in the trail system and neighborhoods further east. Additionally, several caves and karst features without a natural surface expression have been encountered during development activities in the BCMUD area. The presence of occupied caves and other karst features in the vicinity highlight the significance of karst development near the Survey Area and high potential to encounter a previously undocumented feature during bedrock disturbance.

Description of Features

Results of the surface karst feature survey are presented in the TCEQ Geologic Assessment Table (Attachment A) and discussed below. Five man-made features in bedrock were identified within the Survey Area. All features were ranked for recharge sensitivity according to TCEQ standards. Locations are displayed on maps in Figure 3 and Attachment D.

ATTACHMENT C

MB01; Stormwater Ponding Basin

MB-01 is man-made feature in bedrock at the northside of the Survey Area (Figure 4). MB-01 is a modified natural drainage channel that has been excavated to include a flow-through ponding basin for stormwater conveyance. This feature receives runoff from a significant portion of the Survey Area and the neighborhood to the north of the Survey Area, resulting in a catchment area greater than 1.6 acres. The excavated ponding basin is approximately 180 feet long, 50 feet wide, by 8 feet deep. There is one inlet tunnel on the north side ponding basin that captures water from the neighborhood north of the park and two discharge tunnels on the east side of the basin that flow into an unnamed tributary coinciding with the Brushy Creek Community Center Trail just east of the Survey Area. Excavation on the southeast side of MB-01 revealed a few feet of clay-rich soils overlying in situ bedrock. The base of the pond did not appear lined with clay or other synthetic materials, however there were no visible point recharge features in the pond and the tunnels function is to rapidly convey water downstream and offsite to the adjoining drainage; therefore, there is a low potential for this feature to rapidly transmit water to the subsurface. This feature is not rated as sensitive according to the Edwards Aquifer Rules (30 TAC §213.5(b)(3)).

Figure 4. Overview of MB-01, a stormwater ponding basin.

ATTACHMENT C

MB-02; Stormwater Drainage Culvert

MB-02 corresponds to a stormwater drainage culvert and associated infrastructure within the Survey Area along Liberty Walk Drive (Figure 5). The drainage culvert was concealed under the roadway and only one inlet was seen at the corner of Liberty Walk Drive and O'Conner Drive. The location and orientation of the culvert was obtained from geospatial files provided by BCMUD via Halff & Associates. According to the geospatial files, the culvert is 12 inches in diameter, with an unknown depth, and discharges into an unnamed tributary coinciding with the Brushy Creek Community Center Trail just east of the Survey Area. This feature class has a low potential to transmit water to the subsurface rapidly, assuming proper construction and maintenance. This feature class has not been rated as sensitive according to the Edwards Aquifer Rules (30 TAC §213.5(b)(3)).

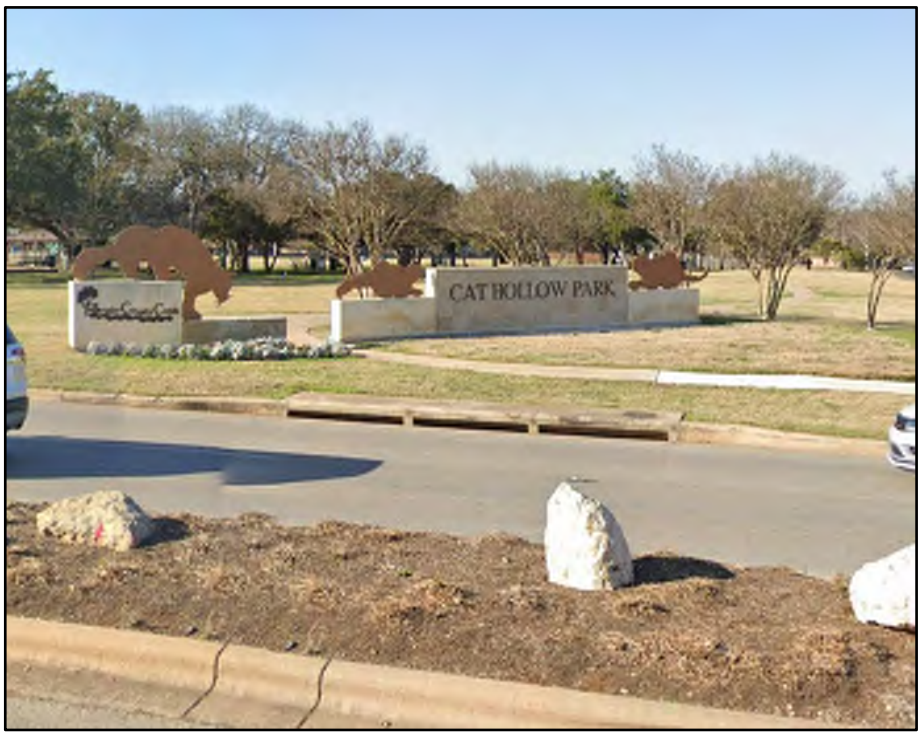

Figure 5. Drainage culvert and stormwater infrastructure associated with MB-02.

ATTACHMENT C

MB-03; Sanitary Sewer Main and Associated Infrastructure

MB-03 corresponds to wastewater mains and associated infrastructure within the Survey Area (Figure 6). Wastewater infrastructure was evident through manhole covers and clean outs near bathroom facilities and other developed portions of the Survey Area. The location and orientation of this feature class was obtained from geospatial files provided by BCMUD via Halff & Associates, except where dashed; dashed lines indicate a possible location of connecting service lines that could not be verified. According to the geospatial files, the sewer main is 8 inches in diameter, however the depth is unknown. This feature class has a low potential to transmit water to the subsurface rapidly, assuming proper construction and maintenance. This feature class was not rated as sensitive according to the Edwards Aquifer Rules (30 TAC §213.5(b)(3)).

Figure 6. Example of public wastewater infrastructure associated with MB-03.

ATTACHMENT C

MB-04; Water Main and Associated Infrastructure

MB-04 corresponds to water mains and associated infrastructure within the Survey Area (Figure 7). Public water infrastructure was evident through manholes, water meters, fire hydrants, cleanouts, and various other connections to water mains. The location and orientation of this feature class was obtained from geospatial files provided by BCMUD via Halff & Associates, except where dashed; dashed lines indicate a possible location of connecting service lines that could not be verified. According to the geospatial files, the water main is 12 inches in diameter, however the depth is unknown. This feature class has a low potential to transmit water to the subsurface rapidly, assuming proper construction and maintenance. This feature class has not been rated as sensitive according to the Edwards Aquifer Rules (30 TAC §213.5(b)(3)).

Figure 7. Example of public water infrastructure associated with MB-04.

ATTACHMENT C

MB-05; Swimming Pool and Community Pool Facility

MB-05 is a community swimming pool and the associate facilities (Figure 8). The swimming pool was excavated from bedrock and is lined with concrete. The pool is approximately 75 feet long, 70 feet wide, and 6 feet deep. Associated facilities include the pool house, bathrooms, planted vegetation with irrigation and other typical pool infrastructure. No karst features were documented during construction of the swimming pool. This feature has a low potential to transmit water to the subsurface rapidly, assuming proper construction and maintenance. This feature is not rated as sensitive according to the Edwards Aquifer Rules (30 TAC §213.5(b)(3)).

Figure 8. Overview of MB-05, the Cat Hollow Park community swimming pool.

ATTACHMENT C

Discussion and Recommendations

A Geologic Assessment was conducted on approximately 11.6 acres of Cat Hollow Park in support of a WPAP Exception Plan application in support of proposed sidewalk improvements by the Brushy Creek Municipal Utility District. Five manmade features in bedrock were documented during site reconnaissance. None of the five features qualified as hydrologically sensitive point recharge features per the Edwards Aquifer Rules (30 TAC §213.5(b)(3)), thus no protective feature buffers have been recommended. However, these results do not rule out the potential to encounter sensitive features during ground-disturbing activities. If a karst feature is encountered during ground disturbance, all work should stop within 50 feet of the feature, a Professional Geoscientist should evaluate the feature for hydrologic sensitivity, and coordination with the TECQ Edwards Aquifer Protection Program should occur, as appropriate. Additionally, due to the presence of occupied endangered species caves in the vicinity, a scientist holding a valid Section 10(a)(1)(A) permit for karst invertebrates should evaluate the feature for the potential to have suitable species habitat and to conduct presence/absence surveys, as appropriate. General project recommendations include using proper stormwater best management practices (BMPs) before and during construction activities to protect water quality. BMPs should be installed, monitored, and maintained throughout the Project to ensure compliance with local, state, and federal requirements.

ATTACHMENT C

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ATTACHMENT D

Attachment D. Site Geologic Maps

Survey Area
Stream
2-ft Contours
Plugged Well

Geology Rock Unit

Edwards Limestone (Ked)

Feature Point
Ponding Basin (MB-01)
Stormwater Drainage (MB-02)
Sanitary Sewer (MB-03)
Water (MB-04)
Swimming Pool Facility (MB-05)

N

0 100 200 300 400 500 Feet

0 50 100 150 Meters

1 inch = 50 feet

ZARA ENVIRONMENTAL LLC

STATE OF TEXAS
KARA POSSO
GEOLOGY
15382
LICENSED
PROFESSIONAL GEOSCIENTIST

STATE OF TEXAS
MICHAEL JONES
GEOLOGY
15517
LICENSED
PROFESSIONAL GEOSCIENTIST

Basemap: ESRI 2024; Geology: GAT 2010, 24K; Streams: USGS NHD 2024; Wells: TWDB Well Database, June 2024; Edwards Aquifer Zone: TCEQ 2005. Public Utilities: provided by BCMUD and/or Halff & Associates. Dashed lines indicate a possible location of connecting service lines. NOTE: No portion of this Survey Area is within mapped FEMA floodplain.

Section 3
Recharge and Transition Zone Exception Request

Brush Creek MUD Pedestrian Improvement Exemption Request

AVO 52691

Recharge and Transition Zone Exception Request Form

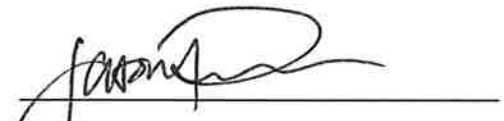
Texas Commission on Environmental Quality
30 TAC §213.9 Effective June 1, 1999

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 **Recharge and Transition Zone Exception Request Form** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Print Name of Customer/Agent: Jason Reece, PE
Date: June 10, 2024
Signature of Customer/Agent:



Regulated Entity Name: Brushy Creek MUD - Park Improvements

Exception Request

1. ☒ **Attachment A - Nature of Exception**. A narrative description of the nature of each exception requested is attached. All provisions of 30 TAC §213 Subchapter A for which an exception is being requested have been identified in the description.
2. ☒ **Attachment B - Documentation of Equivalent Water Quality Protection**. Documentation demonstrating equivalent water quality protection for the Edwards Aquifer is attached.

Administrative Information

3. ☒ 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.
4. ☒ The applicant understands that no exception will be granted for a prohibited activity in Chapter 213.
5. ☒ The applicant understands that prior approval under this section must be obtained from the executive director for the exception to be authorized.

Attachment A

Nature of Exception

Cat Hollow Park is located in a fully developed suburban district and features various amenities which includes: a swimming pool, tennis court, basketball court, baseball/kickball field, and nature-themed playground, as well as open fields, shade trees, picnic tables, and two (2) covered pavilions. The park currently has approximately 0.57 acres of impervious cover equating to roughly five percent (5%) of the total area of the park. The proposed improvements include removing and replacing the existing concrete walkway to remove uneven joints and restore accessible route throughout the park.

The total anticipated amount of disturbed area for the proposed improvements is approximately 571 square yards. Of that total, roughly 8.5 square yards of new impervious cover will be added to the site. The two areas of increase are at the entrance to the pool building and the rerouting of the sidewalk around the critical root zone of the heritage tree adjacent to the playground equipment. The impact of these improvements within the recharge zone is very low. Therefore, an exemption request is being submitted outlining several items that are considered to not be applicable to this project situation.

The following are the specific Recharge and Transition Zone Exceptions being requested:

- Due to the very small amount of disturbance and negligible amount of added impervious cover being proposed, an exception to the Permanent Stormwater Section (TCEQ-0602) are being requested.
- Exceptions to several attachments to the Temporary Stormwater Section (TCEQ-0602) are being requested.
- No structural practices used to divert flows away from exposed soils, to store flows, or to limit runoff discharge of pollutants from exposed areas of the site are proposed. Therefore, an Exception to **Attachment F** of the Temporary Stormwater Section (TCEQ-0602) is being requested.
- No large-scale grading or significant alteration to the drainage areas of the site is proposed for this project. Common drainage areas of 10 acres or more are not found on this site. Therefore, an Exception to **Attachment G** of the Temporary Stormwater Section (TCEQ-0602) is being requested.
- No Temporary Sediment Ponds are necessary for the small-scale improvements on this site. Therefore, an Exception to **Attachment H** of the Temporary Stormwater Section (TCEQ-0602) is being requested.

Attachment B

Document of Equivalent Water Quality Protection

Since the improvements to the site are very small and will not significantly affect the overall water quality levels of the entire existing developed site, no permanent water quality controls are proposed with this project.

Water quality levels should not be significantly affected due to the development associated with the improvements. These areas will not experience the same potential for pollution associated with the pedestrian improvements, nor will they carry any other potential for a large level of stormwater pollution. In addition, the proposed improvements are surrounded by vegetated grass and or landscape vegetation. Therefore, during storm events, runoff can be seen as a small amount of water quality treatment resembling the same type of treatment found in a vegetated buffer strip of grass swale.

Section 4
Temporary Stormwater Section

Brush Creek MUD Pedestrian Improvement Exemption Request

AVO 52691

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: Jason Reece, PE, Project Manager

Date: June 10, 2024

Signature of Customer/Agent:

Regulated Entity Name: Brushy Creek MUD Park Improvements

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: Lake Creek

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

11. ☐ **Attachment H - Temporary Sediment Pond(s) Plans and Calculations**. Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.

☒ N/A

12. ☒ **Attachment I - Inspection and Maintenance for BMPs.** A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.

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

14. ☒ If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).

15. ☒ Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.

16. ☒ Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

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

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

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

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

Administrative Information

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

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

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

Attachment A

Spill Response Action

In the unlikely event of a spill of hydrocarbons or hazardous materials, construction workers will be educated on safety and clean-up operations and will be ready to respond appropriately.

In a small spill, the area will be cleaned up using Oil-Dry, which will be stored on-site during construction. An empty 55-gallon drum with an open top will be kept on-site for the discharge of the contaminated soils. This drum will be emptied at a landfill designated to accept contaminated soils.

In the unlikely event of a large spill, the construction workers will be instructed to call 911. The supervisor will call a professional environmental HAZ-MAT trained crew to clean up large spills and dispose of the contaminated soils appropriately.

Reportable spill quantities are classified according to the Spill Rule 30 TAC Section 327.1-327.5. Reportable Quantities for Oil are 210 gallons for Crude oil and used oil or petroleum products, and 25 gallons for all others. Reportable Quantities for Hazardous Substances are classified according to the CERCLA Required Quantities and are found in 40 CFR Table 302.4. A report of an incident can be made by contacting the Environmental Response Hotline at 1-800-832-8224.

During construction, the contractor is allowed to have one temporary storage tank of 499 gallons or less. Secondary containment for this tank shall be provided by the contractor in the form of a double-walled tank or a concrete basin directly below the tank. A concrete basin shall be double the size in area of the outline of the tank and shall have at least 125% of the volumetric capacity of the storage tank.

Attachment B

Potential Sources of Contamination

The Contractor shall keep a list of the construction materials that are brought onto the job site.

Trade Name Material	Stormwater Pollutants	Location
Diesel Fuel	Petroleum distillate, xylenes, naphthalene	Vehicle and Equipment Management
Gasoline	Benzene, ethyl benzene, toluene, xylene, MTBE	Vehicle and Equipment Management
Cleaning Solvents	Perchloroethylene, methylene chloride, petroleum distillates, trichloroethylene	Material Management
Glue, adhesive	Polymers, epoxies	Material Management
Wastewater from equipment washing	Soil, petroleum products, concrete	Waste Management
Paints	Metal oxides, calcium, arsenic	Material Management
Fertilizers	Nitrogen, phosphorus	Material Management

There is no on-site concrete or asphalt batch plant with this project.

The Contractor shall have a Material Safety Data Sheet for each construction material or substance brought on-site. It shall be available to the COR on request.

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Attachment C

Sequence of Major Activities

The sequence of construction will be as follows:
(See Road Map – Attachment A in General Information Section for more details)

- Contractor shall place all temporary erosion control devises prior to the start of construction.
- All existing sidewalk schedule for demolition will be removed and hauled off-site to an approved disposal location. The total amount of sidewalk anticipated to be removed is approximately 476 square yards.
- Forms will be place and new sidewalk will be poured. The total amount of new sidewalk is approximately 484 square yards.
- All vegetated areas disturbed as a result of the proposed improvements will be restored to a condition equal to or better than prior to construction.
- Once construction is complete and all disturbed area have been restored, all temporary erosion control devices will be removed.

Attachment D

Temporary Best Management Practices and Measures

Silt Fence

Silt Fence is used for ponding of disturbed site runoff or as flow diversion device for sheet flow condition (a site with gradient of 2:1 horizontal to vertical or flatter). Silt fence of 100 feet in length shall only collect drainage from a disturbed area of less than 0.25 acre. Silt Fence shall not be used in stream or swale. Sediment at 1/3 height of the fence shall be removed. The Contractor shall verify field conditions, inspect integrity, remove accumulated silt, and maintain silt fence.

Stabilized Construction Ingress/Egress

The Contractor shall establish, inspect, and maintain the stabilized construction ingress/egress at the juncture between the unpaved new access road and the existing paved roadway. The Contractor shall determine locations for stabilized construction entrance/egress on drawing. The stabilized construction entrance/egress shall be away from waterways. For sites over 5 acres, the minimum width and depth of entrance is 30 feet and 80 feet, respectively. The construction access shall have a wheel wash device and sediment trap unless it drains to a construction sediment pond. If the access roadway is the major access roadway for other construction activities, or dusty conditions would post adverse effect for existing facilities in operation, or muddy site conditions may impact emergency vehicle access, the Contractor shall use temporary asphalt pavement for site access roadway.

Contractor Staging, Parking, Material Storage, Borrow and Disposal Areas Protection Device

The Contractor shall establish storm water control structures around the staging, parking, material stockpiled areas, borrow and disposal areas, and concrete or asphalt batch plant, if required for construction. A stabilized area with BMP control structures is required for laydown. The SWPPP drawing shall show locations of support facilities and specify appropriate BMP types and locations. If dusty conditions would post adverse effect to existing facilities in operation, the Contractor shall use gravel for the laydown area. The Contractor shall inspect and maintain the control structures at these locations.

Soil Stabilization

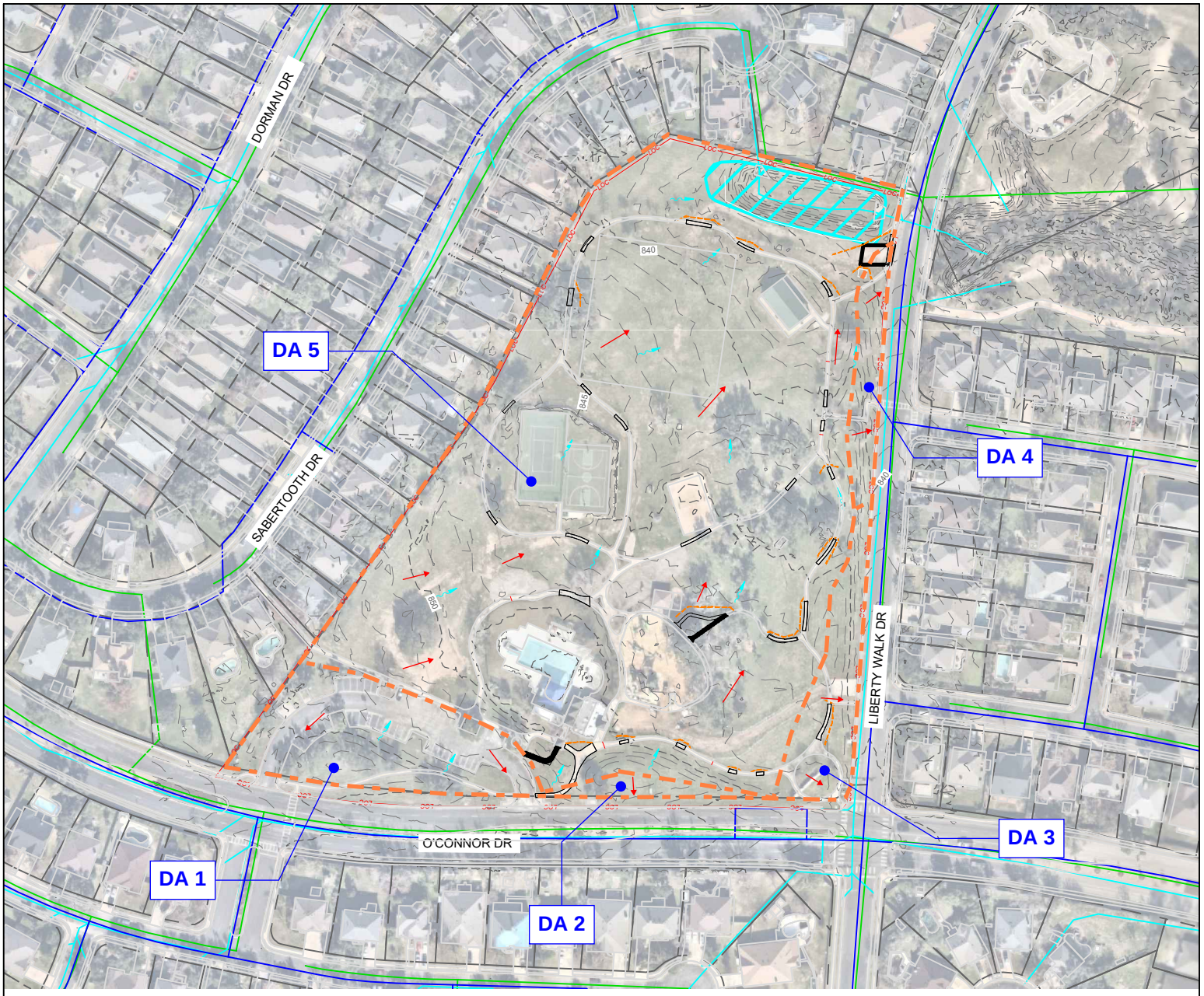
If the interim period between construction activities will be more than 21 days, the exposed soils will be mulched or otherwise stabilized within 14 days. All disturbed areas with slopes greater than or equal to 3:1(except areas to receive turfing or landscaping) shall be seeded and covered by "Soil Erosion Blankets". Flexterra FMG© may be used in areas with slopes less than 3:1 or as indicated on the construction plans. After paving completion. Newly graded areas and all exposed soils will be completely stabilized.

Attachment F

Structural Practices

The following temporary BMP structural practices will be employed on this site:

A. Silt Fence – Used as barrier protection in grassy areas around the downhill perimeter of the proposed construction. The fence retains sediment primarily by retarding flow and promoting deposition on the uphill side of the slope. Runoff is filtered as it passes through the geotextile. Silt fence will be place outside of the 100-year water surface elevation of the pond.



N

0 100 200 400

SCALE IN FEET

halff
13620 BRIARWICK DR., SUITE 100
AUSTIN, TEXAS 78729
TEL. (512) 777-4600

Attachment G - Drainage Area Map

BCMUD PEDESTRIAN IMPROVEMENTS

PROJECT NO.:	52691-002
ISSUED:	SEPTEMBER 2024
DRAWN BY:	FF
CHECKED BY:	JR
SCALE:	1" = 200'

Attachment I

Inspection and Maintenance for BMPs

Maintenance Procedures

The Contractor shall continually review the BMP effectiveness and revised SWPPP. All deficiencies shall be corrected and recorded in SWPPP INSPECTION AND MAINTENANCE REPORT. Corrections to these problems shall be implemented within seven (7) calendar days. After final stabilization has been achieved, the Contractor shall inspect the site once a month until final inspection and project acceptance by the project engineer.

All protective measures identified in the SWPPP must be maintained in effective operating condition. If through inspections or other means, the permittee determines that the BMPs are not operating effectively, then the permittee shall perform maintenance as necessary to maintain the continued effectiveness of storm water controls, and prior to the next rain event if feasible. In the event of a BMP clogging or excessive ponding, sediment laden runoff required to be filtered through a sediment filter bag prior to being discharged. If maintenance prior to the next anticipated storm event is impracticable, the reason shall be documented in the SWPPP and maintenance must be scheduled and accomplished as soon as practicable. Erosion and sediment controls that have been intentionally disabled, run-over, removed, or otherwise rendered ineffective must be replaced or corrected immediately upon discovery.

Erosion and sediment control measures that have been improperly installed or have been disabled, run-over, removed, or otherwise rendered ineffective must be replaced or corrected immediately. Maintenance and repairs will be conducted within 24 hours of inspection report.

Inspection Procedures

The Contractor shall designate an Inspector on-site and utilize the TCEQ Inspection checklist attached in Appendix A to perform storm water permit quality control. Record of inspection and maintenance and BMP changes shall be recorded.

All BMP and control structures shall be inspected at least once every fourteen (14) calendar days and within twenty-four (24) hours, and after storm event of 0.5 inch or greater. In addition to performing inspection and maintenance of storm control device, the designated SWPPP inspector is also responsible for SWPPP revision, documentation and record-keeping. Any changes to the schedule must be conducted in accordance with the following provisions: the schedule may be changed a maximum of one time each month, the schedule change must be implemented at the beginning of a

Inspection Procedures (continued)

calendar month, and the reason for the schedule change must be documented in the SWP3 {e.g., end of "dry" season and beginning of "wet" season).

The Contractor Designated Storm Water Inspector shall have a basic knowledge of the engineering principles in eliminating pollutants in storm water; past experience and thoroughly understand the requirements of the Storm Water Discharge Construction Permit; BMP; Government requirements as stated herein; approved Contractor's SWPPP. The Contractor shall provide worker briefing and training on SWPPP & BMP prior to start of soil disturbing activities.

Temporary erosion control measures shall be inspected for bare spots and washouts. Discharge points shall be inspected for signs of erosion or sediment. Locations where vehicles enter and leave the site shall be checked for signs of off-site sediment tracking, including erosion control structure at contractor staging, material borrow, disposal, and stockpiled areas. Sediment shall be removed from control structures at one-third of the height of the barrier or 30 percent of the design capacity of the sediment trap or sediment pond.

The Contractor shall inspect the adjacent areas daily, and clean up construction waste materials, debris, and fugitive sediment that have blown or washed off-site.

In the event of flooding or other uncontrollable situations which prohibit access to the inspection sites, inspections must be conducted as soon as access is practicable.

he SWPPP must be modified based on the results of inspections, as necessary, to better control pollutants in runoff. Revisions to the SWPPP must be completed within seven (7) calendar days following the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in the SWPPP and wherever possible those changes implemented before the next storm event. If implementation before the next anticipated storm event is impracticable, these changes must be implemented as soon as practicable.

Attachment J

Schedule of Interim and Permanent Soil Stabilization Practices

Temporary Stabilization

Stabilization measures shall be initiated by the 14th day where construction activities are temporarily ceased and is not anticipated to resume on that portion of the site in the following seven (7) days. All disturbed areas with slopes greater than or equal to 3:1(except areas to receive turfing or landscaping) shall be seeded and covered by "Soil Erosion Blankets". Flexterra FMG© may be used in areas with slopes less than 3:1 or as indicated on the construction plans. The Contractor is responsible to provide all necessary labor, services, equipment, materials (i.e. fertilizer) to obtain, transport, apply, and maintain the temporary stabilized area until final stabilization is established.

Stockpile and excavated trench materials shall have perimeter control and receive temporary stabilization by water sprinkling, soil binders, or erosion control mat. Slopes, banks, and swales shall receive temporary stabilization by native seed mix species and anchored by erosion control blanket when rough grade exceeds 2:1 (horizontal:vertical).

Straw mulching at an application rate of 2 tons per acre with anchoring with soil tackifier is acceptable when it will not affect finished site conditions.

Dust control shall require water sprinkling.

Permanent Stabilization

The construction Contractor storm water quality control personnel shall ensure final stabilization is established for permanent control measures. Final stabilization is defined in the TPDES general permit TXR 150000 as a uniform (e.g. evenly distributed, without large bare areas) perennial vegetative cover with a density of 70% of the native background vegetative cover. Further seeding may be necessary by removal of the "Soil Erosion Blankets" and replacement of blankets. Stabilization will be either grass cover or landscape beds.

Section 5
Agent Authorization Form

Brush Creek MUD Pedestrian Improvement Exemption Request

AVO 52691

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

I Bradley Holsapple ,
Print Name

District Project Manager ,
Title - Owner/President/Other

of Brushy Creek Municipal Utility District (MUD) ,
Corporation/Partnership/Entity Name

have authorized Jason Reece, PE
Print Name of Agent/Engineer

of Halff Associates, Inc.
Print Name of Firm

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

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to $10,000 per day per violation.

2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.

3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.

4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.

5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Applicant's Signature

7/8/24
Date

THE STATE OF TEXAS §

County of Williamson §

BEFORE ME, the undersigned authority, on this day personally appeared BRADLEY HOLSAPPLE 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 8 day of July, 2024.

Grace M Nobles
NOTARY PUBLIC

Grace M. Nobles
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: Jan 15, 27

NOTARY PUBLIC STATE OF TEXAS
GRACE M. NOBLES
ID #128484647
My Commission Expires
January 15, 2027

Section 6
Application Fee Form

Brush Creek MUD Pedestrian Improvement Exemption Request

AVO 52691

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Brushy Creek MUD Park Improvements

Regulated Entity Location: Approx 740' N. of O'Connor Drive on the WS of Liberty Walk Drive

Name of Customer: Brushy Creek MUD

Contact Person: Jason Reece, PE, Project Manager, Halff Phone: 512-777-4500

Customer Reference Number (if issued):CN 600646594

Regulated Entity Reference Number (if issued):RN 102757305

Austin Regional Office (3373)

☐ Hays ☐ Travis ☒ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde

☐ Comal ☐ Kinney

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

☒ Austin Regional Office

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

☐ San Antonio Regional Office

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

Site Location (Check All That Apply):

☐ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	Acres	$
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$ 500
Extension of Time	Each	$

Signature: _____

Date: _____

Application Fee Schedule

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

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*

Project	***Fee***
Extension of Time Request	$150

Section 7
Core Data Form

Brush Creek MUD Pedestrian Improvement Exemption Request

AVO 52691

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

☒ Other **Exception Request**

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN 600646574		**RN 101931327**

SECTION II: Customer Information

4. General Customer Information	**5. Effective Date for Customer Information Updates** (mm/dd/yyyy)	07/08/2024

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

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

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

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

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

12. Number of Employees	**13. Independently Owned and Operated?**
☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher	☐ **Yes** ☒ **No**

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

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

15. Mailing Address:	16318 Great Oaks Drive						
	City	Round Rock	**State**	TX	**ZIP**	78681	**ZIP + 4**

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*
n/a	Bradley Holsapple - B.Holsapple@bcmud.org

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(512) 225-7871		( ) -

SECTION III: Regulated Entity Information

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

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

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

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

Cat Hollow Pak

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	8600 O'Connor Drive							
	City	Round Rock	**State**	TX	**ZIP**	78681	**ZIP + 4**	
24. County	USA							

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

25. Description to Physical Location:	From IH 35 turn west onto N FM 620. Turn northwest onto O'Connor Dr. The project location is Cat Hollow Park, which is situated on the north side of O'Connor Dr between Liberty Walk Dr and Sabertooth Dr

26. Nearest City	State	Nearest ZIP Code
Round Rock	TX	78681

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:	30.504578		28. Longitude (W) In Decimal:	-97.731606	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	30	16.4808	-97	43	53.7816

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

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

Own an operate Utility District.

34. Mailing Address:	**Brushy Creek Municipal Utility District**							
	16318 Great Oaks							
	City	**Round Rock**	**State**	**TX**	**ZIP**	**78681**	**ZIP + 4**	
35. E-Mail Address:	**Bradley Holsapple - B.Holsapple@bcmud.org**							

36. Telephone Number	37. Extension or Code	38. Fax Number *(if applicable)*
(512) 225-7871		**(512) 255-0332**

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

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

SECTION IV: Preparer Information

40. Name:	Jason Reece	**41. Title:**	Civil Engineer

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512) 777-4600		( ) -	jreece@halff.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:	Halff Associates, Inc.	**Job Title:**	Civil Engineer	
Name *(In Print):*	Jason Reece		**Phone:**	(512) 777- **4600**
Signature:			**Date:**	6/19/2024