

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: Russell C Ford

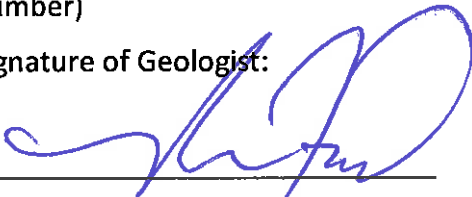
Telephone: 512 442-1122

Date: 3/27/18

Fax: _____

Representing: Terracon Consultants, Inc. (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: Former McCoy Elementary School Tract, Williams Drive, Georgetown, Texas

Project Information

1. Date(s) Geologic Assessment was performed: 3/19/18

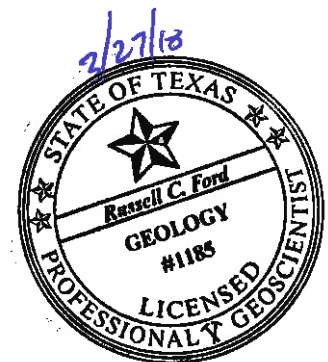
2. Type of Project:

- WPAP
 SCS

- AST
 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)
GsB	D	0-3

* 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" = _'
 Site Geologic Map Scale: 1" = 100'
 Site Soils Map Scale (if more than 1 soil type): 1" = _'
9. Method of collecting positional data:
 - Global Positioning System (GPS) technology.
 - Other method(s). Please describe method of data collection: _____
10. The project site 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 NO FEATURES OBSERVED

GEOLOGIC ASSESSMENT TABLE		PROJECT NAME: Former McCoy Elementary School Tract, Williams Drive, Georgetown, Texas															
FEATURE CHARACTERISTICS												EVALUATION		PHYSICAL SETTING			
LOCATION	1A	1B*	1C*	2A	2B	3	4	5	5A	6	7	8A	8B	9	10	11	12
FEATURE ID	LONGITUDE		FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)		TREND (DEGREES)	DENSITY DOM (NOFT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL SENSITIVITY	CATCHM ENT AREA (ACRES)	TOPOGRAPHY		
						X	Y	Z	10					<40	>40	<1.6	>1.6

* DATUM NAD27

2A TYPE	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 understand, and I have followed the Texas Natural Resource Conservation Commission'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 213

Date 3/27/18

Attachment B
 Stratigraphic Column
 Former McCoy Elementary School Tract
 Williams Drive, Georgetown, Texas

HYDROGEOLOGIC SUBDIVISION	FORMATION	THICKNESS (feet)	LITHOLOGY
Edwards Aquifer	Edwards Limestone	150	Mudstone to packstone, crystalline limestone, wackestone

Source: Senger, Collins and Kreitler, 1990





Attachment C

SITE-SPECIFIC GEOLOGY

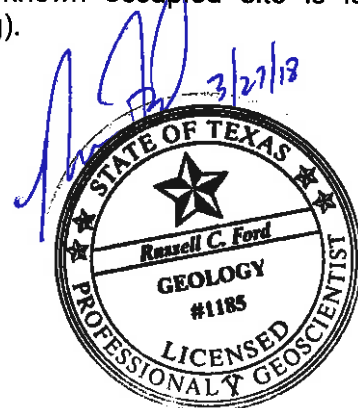
The Geologic Assessment (GA) of the Former McCoy Elementary School Tract was performed by Mr. Russell C. Ford, P.G., of Terracon on March 19, 2018. The site is located on the north corner of Williams Drive and Park Lane in Georgetown, Texas. The site is approximately 16.161-acres in size and is developed with the former McCoy Elementary School buildings.

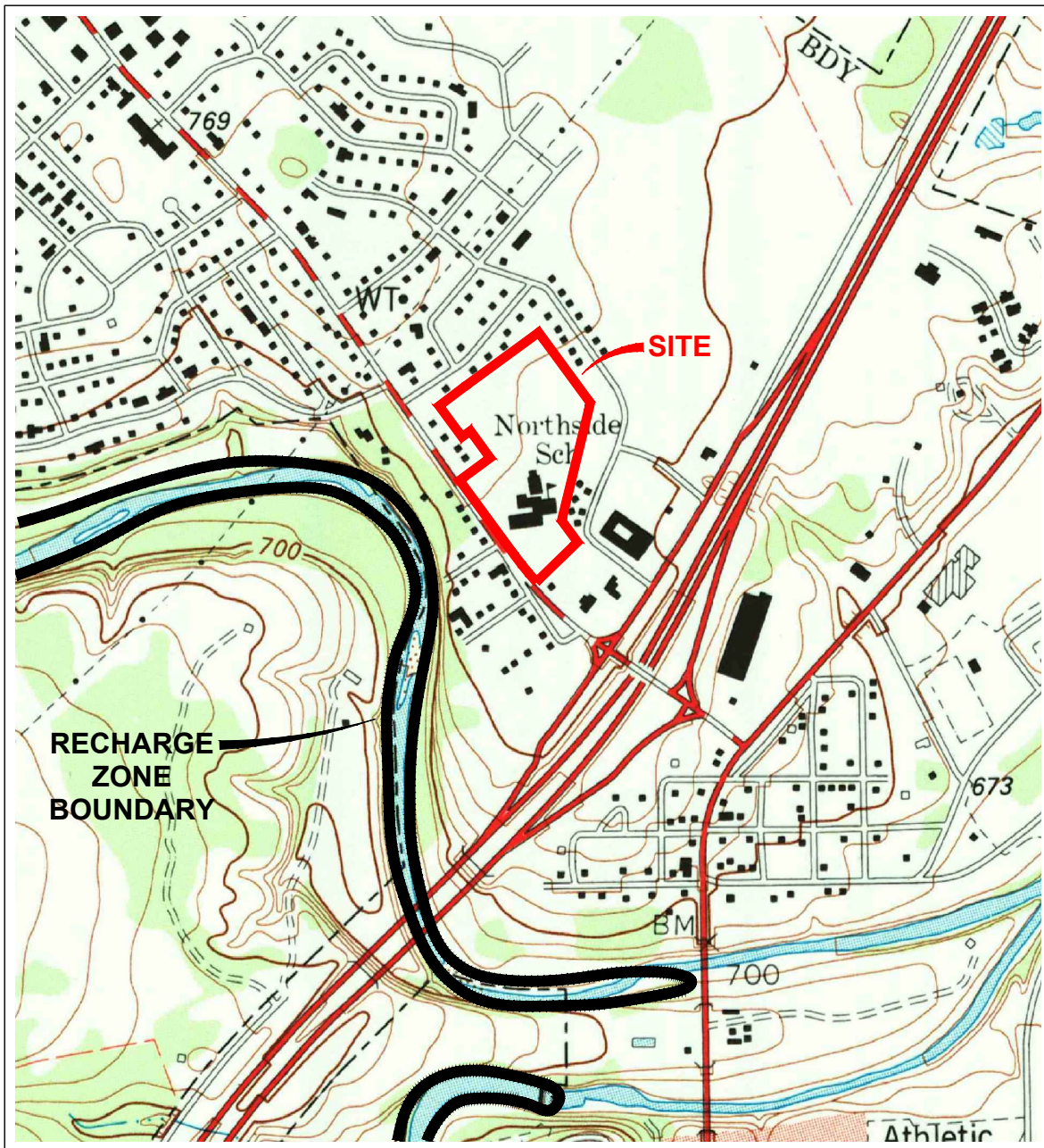
Exhibit 1 (attached) is a site location map depicting the site in relation to the surrounding area. The areas immediately surrounding the site are a mix of residential and commercial properties. The site is characterized as gently sloping to the south and east. Site elevation ranges from about 760 feet above mean sea level (msl) to 750 feet above msl. The North Fork of the San Gabriel River is located offsite to the south.

The surficial geologic unit present at the site has been identified as the Edwards Limestone. Exhibit 2 (attached) is a geologic map of the site. The Edwards consists of massive to thin bedded limestones and dolostones. The formation is characterized by honeycomb textures, collapse breccias and cavern systems, which account for most of the significant porosity within the strata that compose most of the aquifer. The site is located entirely within the recharge zone of the Edwards Aquifer and the recharge zone boundary is located about 500 feet to the south of the site corresponding to the location of the San Gabriel River. Table 1 (attached) is a stratigraphic column prepared for the site. Exposure of this unit onsite is obscured by the existing soil cover and vegetation present. No faulting was observed on the site and the nearest mapped fault is located approximately 1,000 feet east of the site. The fault, which trends toward the northeast, is associated with the Balcones Fault zone which represents the dominant structural trend in the vicinity of the site. The completed Geologic Assessment form is attached.

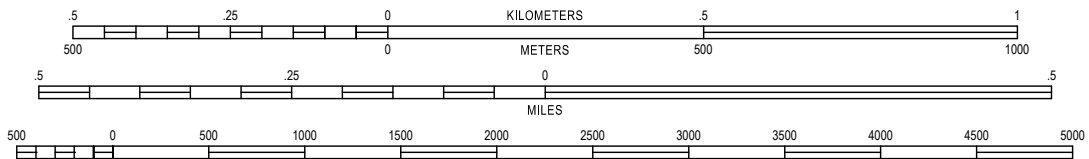
No geologic features were observed on the site. Due to the lack of any significant sensitive recharge features observed on the site, the potential for fluid movement to the Edwards aquifer beneath the project is considered low.

No streams or springs were observed onsite. A review of the site maps contained in the City of Georgetown Ordinance 2015-14 indicated there are no known springs occupied by the Georgetown Salamander on the site and the nearest known occupied site is located approximately one mile east of the site (San Gabriel Spring).





SCALE 1:12,000



CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Georgetown, Texas
30097-F6-TF-024
1982

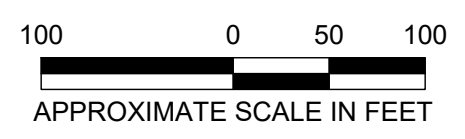
7.5 MINUTE SERIES (TOPOGRAPHIC)

Project Mngr:	RF
Drawn By:	ATX Drafting
Checked By:	RF
Approved By:	RF
Project No:	96187198A
Scale:	AS SHOWN
File No.:	96187198A
Date:	Mar 26, 2018

Terracon
Consulting Engineers and Scientists
5307 INDUSTRIAL OAKS BLVD. - #160 AUSTIN, TX 78735
PH. (512) 442-1122 FAX (512) 442-1181

TOPOGRAPHIC MAP
McCoy Elementary School Tract
Williams Drive
Georgetown, Williamson County, Texas

EXHIBIT
1



LEGEND
 - - - - Site Boundary
Ked Edwards Formation

Project Mgr:	RF	Project No:	96187198A	 Consulting Engineers and Scientists <small>5307 INDUSTRIAL OAKS BLVD. - #160 AUSTIN, TX 78735 PH: (512) 442-1122 FAX: (512) 442-1181</small>	SITE GEOLOGIC MAP McCoy Elementary School Tract Williams Drive Georgetown, Williamson County, Texas	EXHIBIT 2
Drawn By:	ATX Drafting	Scale:	AS SHOWN			
Checked By:	RF	File No:	96187198A			
Approved By:	RF	Date:	Mar 26, 2018			