HAGOOD
ENGINEERING ASSOCIATES
Registration No. F-12709

RECHARGE AND TRANSITION ZONE EXCEPTION REQUEST

FOR

ROUND ROCK CHRISTIAN ACADEMY

800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

APPLICANT:
ROUND ROCK CHRISTIAN ACADEMY
301-A N. LAKE CREEK
ROUND ROCK, TX 78681

SUBMITTED TO:
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
REGION 11 OFFICE
12100 PARK 35 CIRCLE, BLDG A.
AUSTIN, TEXAS 78753

MAY 2023

HEA#22-025

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 if not withdrawn the application will be denied and 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 to you:

- You can withdraw your application, and your fees will be refunded or credited for a resubmittal.
- 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 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 effected 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: ROUND ROCK CHRISTIAN ACADEMY						**2. Regulated Entity No.: 110717196**				
3. Customer Name: ROUND ROCK CHRISTIAN ACADEMY						**4. Customer No.: 605631290**				
5. Project Type: (Please circle/check one)	New		Modification			Extension		Exception XX		
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 XX			**8. Site (acres):**		8.733		
9. Application Fee:	$500.00		**10. Permanent BMP(s):**			SED/FIL POND				
11. SCS (Linear Ft.):			**12. AST/UST (No. Tanks):**							

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	___Bulverde ___Fair Oaks Ranch ___Garden Ridge ___New Braunfels ___Schertz	NA	___San Antonio ETJ (SAWS)	NA

	__San Antonio (SAWS) __Shavano Park				

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. TOM ASUQUO
Print Name of Customer/Authorized Agent 05/15/2023
Signature of Customer/Authorized Agent Date

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

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.

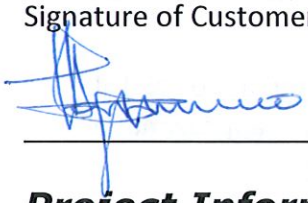
Signature

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: TOM ASUQUO

Date: 05/15/2023

Signature of Customer/Agent:



Project Information

1. Regulated Entity Name: ROUND ROCK CHRISTIAN ACADEMY
2. County: WILLIAMSON
3. Stream Basin: LAKE CREEK
4. Groundwater Conservation District (If applicable): _____
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

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

7. Customer (Applicant):

Contact Person: REBECCA BLAUSER
Entity: ROUND ROCK CHRISTIAN ACADEMY
Mailing Address: 3800 WESTWOOD DR
City, State: ROUND ROCK, TX Zip: 78681
Telephone: 512.255.4491 FAX: _____
Email Address: BECKYBLAUSER@RRCA-TX.ORG

8. Agent/Representative (If any):

Contact Person: TOM ASUQUO
Entity: HAGOOD ENGINEERING ASSOCIATES
Mailing Address: 900 E. MAIN STREE
City, State: ROUND ROCK, TX Zip: 78664
Telephone: 512.244.1546 FAX: _____
Email Address: TOMA@HEAENG.COM

9. Project Location:

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

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.

This site is a flag lot located behind the Central Baptist Church situated at 301 N. Lake Creek Drive. The lot is situated at the termination of Westwood Drive approximately 168LF from the intersection of Westwood Drive and Bonwood Drive

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: Already completed.

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: _____

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)

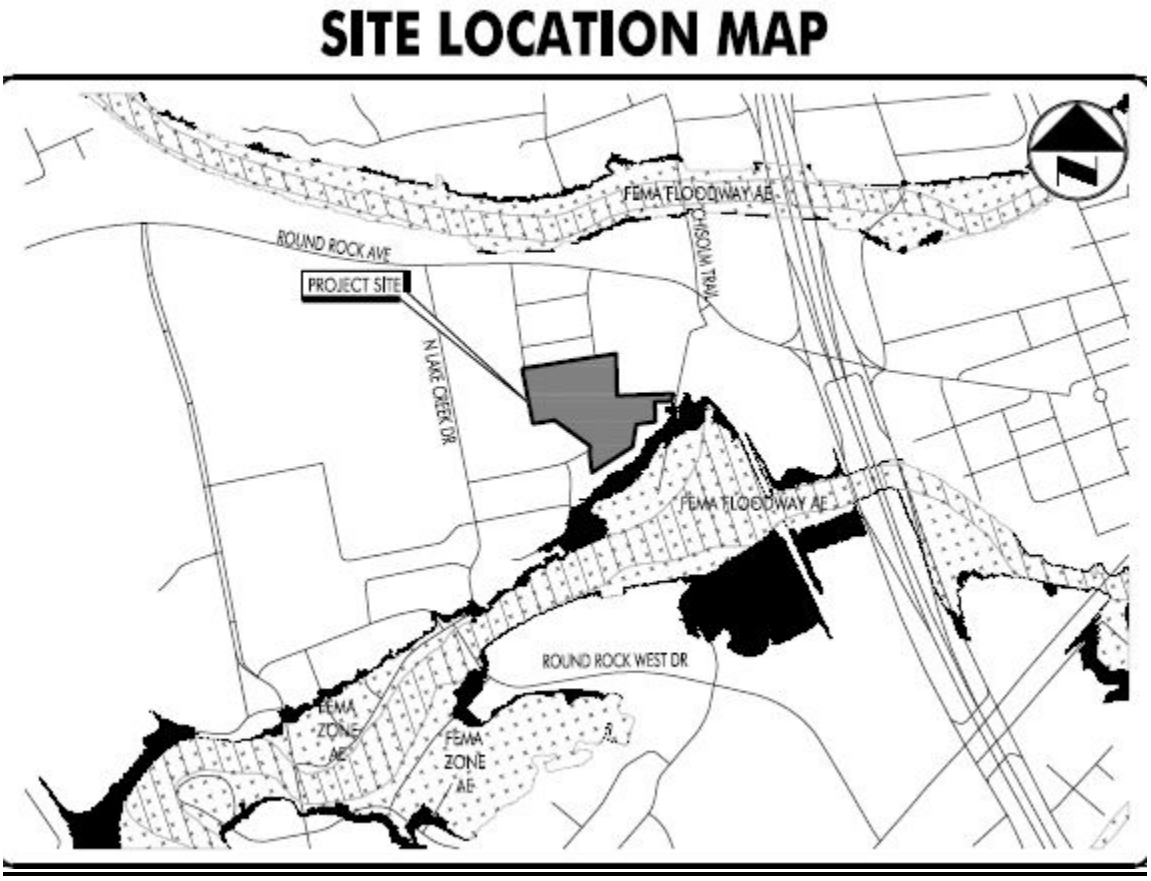
20. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies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

GENERAL INFORMATION

Attachments to form TCEQ-0587

ATTACHMENT A - Road Map



GENERAL INFORMATION

Attachments to form TCEQ-0587

ATTACHMENT B - USGS / Edwards Recharge Zone Map

See attached

ATTACHMENT C - Project Description

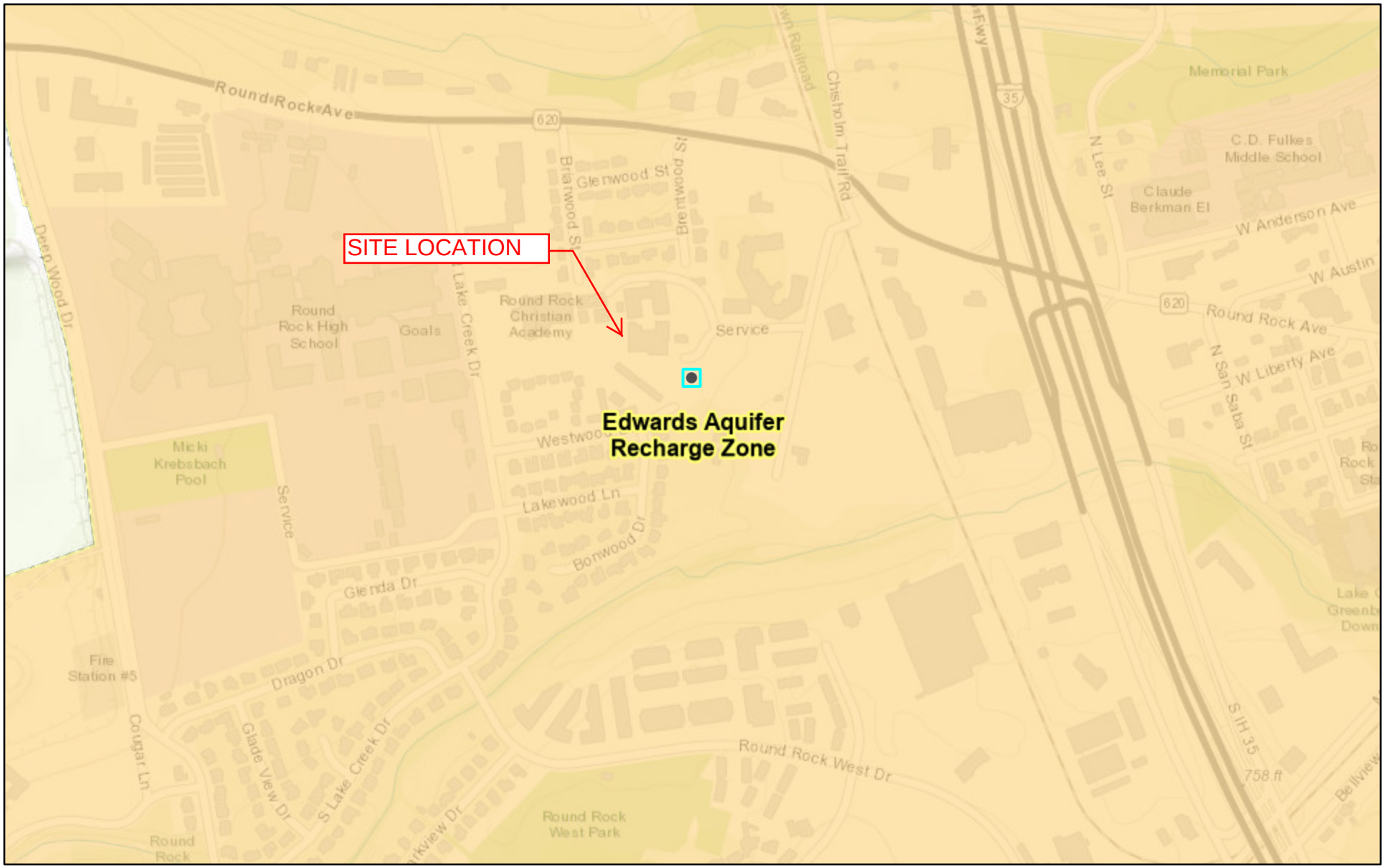
Please refer to the attached plans for site improvement layout. The site is located within the City of Round Rock's Corporate Limits. This site is also located with the Edwards Aquifer Recharge Zone.

This exception request is for the construction of a 2065-sf classroom addition to the existing building which was included as part of the modification with the EAPP ID number 11001467.

The project site is currently developed with an existing shared partial sedimentation and filtration pond located off site. This permanent BMP was originally permitted under the Round Rock Retirement Residences under the EAPP 1D: 11-05021501. This was further modified under EAPP ID: 11-06060101. This plan was again modified under the EAPP ID number 11001467.

This pond was designed to treat a total of 10 acres with 60% impervious cover (6 acres). The existing Round Rock Retirement Residences currently has a total impervious cover of 2.26 acres. The fully developed RRCA site (including the classroom) will have a total impervious cover of 3.44 acres. This bring the total proposed impervious cover acreage to be treated by the pond to 5.70 acres which is within the allowable limits of the design acreage for the pond.

Edwards Aquifer Viewer Custom Print



5/30/2023, 9:36:56 AM

Edwards Aquifer Label

City/Place

TX Counties

7.5 Minute Quad Grid

TCEQ_EDWARDS_OFFICIAL_MAPS

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

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

Web AppBuilder for ArcGIS

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

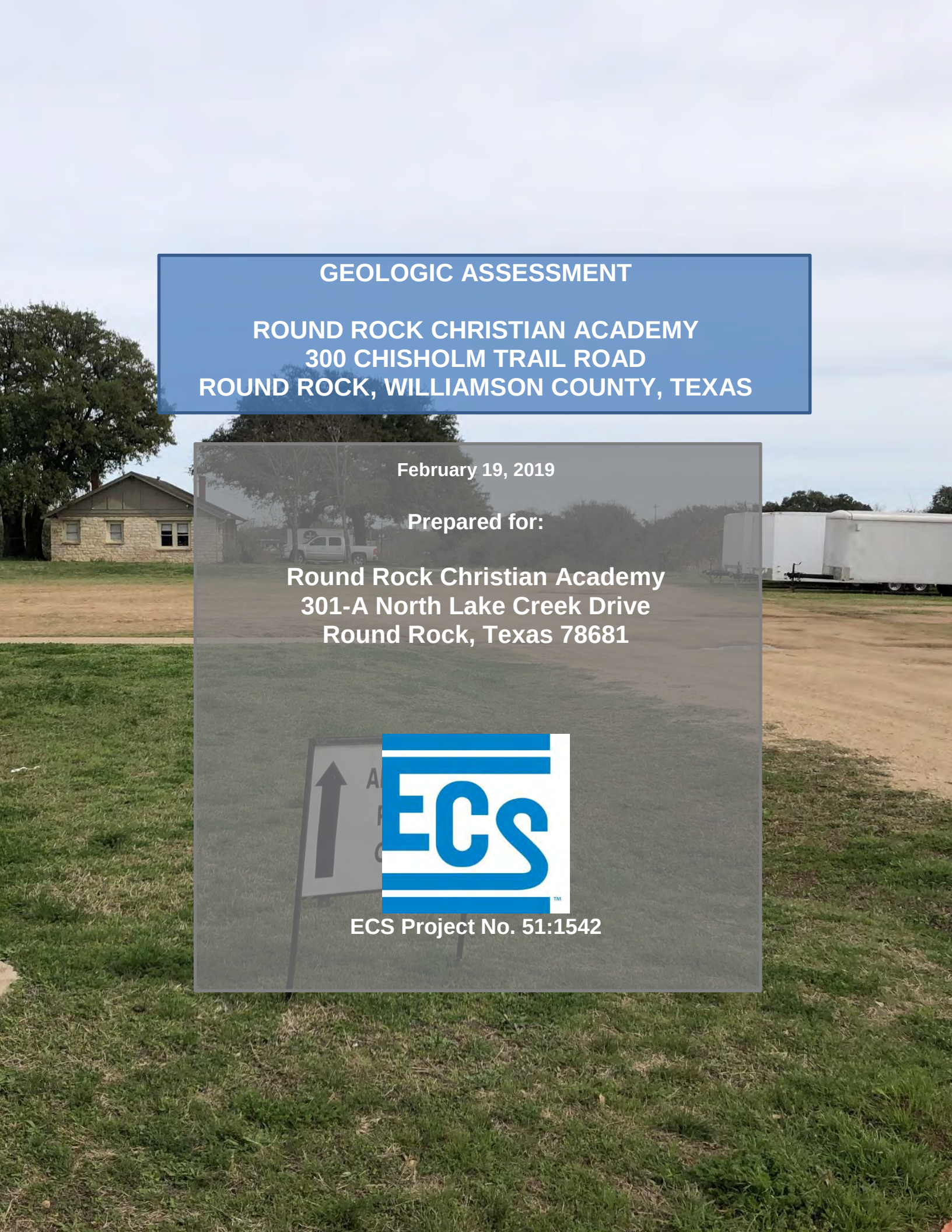
GEOLOGIC ASSESSMENT

ROUND ROCK CHRISTIAN ACADEMY
300 CHISHOLM TRAIL ROAD
ROUND ROCK, WILLIAMSON COUNTY, TEXAS

February 19, 2019

Prepared for:

Round Rock Christian Academy
301-A North Lake Creek Drive
Round Rock, Texas 78681



ECS Project No. 51:1542

February 19, 2019

Ms. Rebecca K. Blauser
Round Rock Christian Academy
301-A North Lake Creek Drive
Round Rock, Texas 78681

Subject: Geologic Assessment for Round Rock Christian Academy, 300 Chisholm Trail Road, Round Rock, Williamson County, Texas

Dear Ms. Blauser:

We are pleased to provide Round Rock Christian Academy with a Geologic Assessment for the above referenced property. ECS' services were conducted in accordance with the services outlined in ECS Proposal 51-0920 dated and authorized on January 31, 2019.

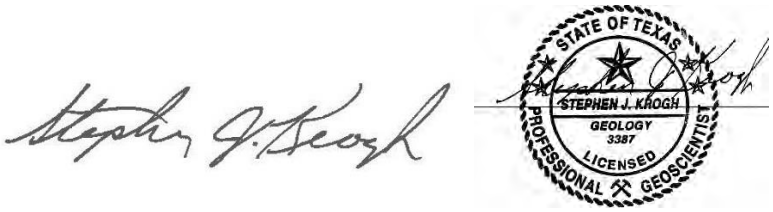
ECS did not observe recharge features on the site. The lack of features observed on this property do not appear to meet the TCEQ's criteria for sensitive features in the Edwards Aquifer Recharge Zone; and as such, the site should not be subject to protection under applicable regulations.

If there are questions regarding this report, or a need for further information, please contact the undersigned at (512) 837-8005.

Respectfully submitted,

Roger S. Willis, M.S.
Environmental Project Manager

Craig Hiatt, M.S.
Environmental Director



Stephen Krogh, P.G.
Geoscientist

Electronic Seal approved by Daniel Tibbals, P.G. on February 18, 2019

GEOLOGIC ASSESSMENT FOR DEVELOPMENT
OVER THE EDWARDS AQUIFER

Round Rock Christian Academy
300 Chisholm Trail Road
Round Rock, Williamson County, Texas

TABLE OF CONTENTS

1.0	**Introduction**	**1**
2.0	**Soil Unit**	**1**
3.0	**Regional Geology**	**2**
4.0	**Site Geology**	**3**
5.0	**Site Hydrology**	**3**
5.1	**Surface Water Hydrology**	**3**
6.0	**Site Investigation**	**3**
7.0	**Summary**	**4**
8.0	**References**	**5**

Attachments:

Figures

Figure 1: Subject Property Location
Figure 2: Topographic Map
Figure 3: Subject Property Map
Figure 4: Edwards Aquifer Map of the Subject Site
Figure 5: Soil Survey Map
Figure 6: Geologic Map

Appendices

Completed Form TCEQ-0585
Stratigraphic Column
Narrative Description of Site Specific Geology
Photo Documentation

Attachments

Soil Survey

1.0 Introduction

The geologic assessment provided here, as part of the applicant's plan, addresses the required items as cited in Title 30 of the Texas Administrative Code (TAC), Part 1, Chapter 213, Subchapter A, Rule 213.5, relating to development over the Edwards Aquifer (Figure 1). This report identifies observed potential pathways for contaminant movement into the underlying Edwards Aquifer as required by the Texas Commission on Environmental Quality (TCEQ).

The subject property consists of a portion of one (1) parcel of land containing approximately 8.8 acres of partially developed land located at 300 Chisholm Trail Road in Round Rock, Williamson County, Texas. *The subject property is located within the Edwards Aquifer Recharge Zone.*

The purpose of this Geologic Assessment is to fulfill the requirements for the applicant's plan for site improvements on the property. This report will describe surficial geologic units and identify the locations and extent of significant features that may impact the underlying Edwards Aquifer recharge zone.

2.0 Soil Units

According to the United States Department of Agriculture (USDA) Soil Survey of Williamson County, Texas, there are two (2) soil units mapped on the site. The soils on site consist of Doss silty clay, moist, 1 to 5 percent slopes (DoC) and Eckrant extremely stony clay, 0 to 3 percent slopes (EeB).

Doss silty clay, moist, 1 to 5 percent slopes (DoC) consists shallow soils formed in residuum weathered from limestone located on the back and side slopes of ridges. Slopes range from 1 to 5 percent. The Hydrologic Soil Group is listed as D, and the soil is well drained. Flooding or ponding is reported as "none." Capacity of the most limiting layer to transmit water (Ksat) is listed as moderately low (0.06 to 0.57 in/hr). The depth to a restrictive layer is reported as 11-20 inches to paralithic bedrock, and the available water storage (in profile) is listed as very low. This soil is listed as "not prime farmland."

Eckrant extremely stony clay, 0 to 3 percent slopes (EeB) consists shallow soils formed in residuum weathered from limestone located on the summit and side slopes of ridges. Slopes range from 0 to 3 percent. The Hydrologic Soil Group is listed as D, and the soil is well drained. Flooding or ponding is

reported as “none.” Capacity of the most limiting layer to transmit water (Ksat) is listed as moderately low to moderately high (0.06 to 0.57 in/hr). The depth to a restrictive layer is reported to be 10 to 20 inches to lithic bedrock, and the available water storage (in profile) is listed as very low. This soil is listed as not prime farmland.”

3.0 Regional Geology

Ranging from east to west, two primary physiographic provinces are present in Williamson County, the Gulf Coastal Plain and the Great Plain. The Gulf Coastal Plain is comprised mainly of Blackland prairie. The Great plain is comprised chiefly of limestone plains, which merges with the Edwards Plateau in the vicinity of the Colorado River.

Groundwater recharge and flow are controlled by faulted Edwards Aquifer and adjacent strata. Water enters the aquifer by means of solution features controlled by faults, fractures and solution conduits. Solution features are created by the dissolution of limestone primarily from rainwater and groundwater. Deformation of the Balcones fault system controls both the large and small scale flow barriers and pathways present in the Edwards Aquifer.

4.0 Site Geology

Geological information pertaining to the area was obtained from the Geologic Atlas of Texas, Austin Sheet, published by University of Texas at Austin, Bureau of Economic Geology (BEG), 1997. The subject property is situated on Edwards Limestone (Ked). BEG describes the formation as gray, calcareous and gypsiferous clay that contains pyrite and marine megafossils. No faulting was observed or mapped on the site. *The subject property is located within the Edwards Aquifer Recharge Zone.*

5.0 Site Hydrology

Based upon interpretation of the United States Geological Survey 7.5 Minute Series topographic quadrangle map, Georgetown, Texas, and the onsite reconnaissance, the estimated regional shallow groundwater flow direction is southeasterly. It should be noted that shallow groundwater flow direction is estimated based on a review of published maps, surface topography, and site reconnaissance. Local

conditions that may influence the subsurface hydrology would be local topography (hills and valleys), geologic anomalies, utilities, and nearby wells or sumps.

5.1 Surface Water Hydrology

The western portion of subject property drains to the west towards N Lake Creek Drive. The eastern portion of the subject property drains towards the southeast towards Lake Creek. Field observations and analysis are supported from the Round Rock, Texas USGS Topographic Quadrangle map. There were no observed groundwater seeps or discharges of any type from bedrock observed on the subject site.

6.0 Site Investigation

The site reconnaissance was performed on February 14, 2019. The site investigation was performed by traversing the subject property in meandering transects, spaced 10 to 15 meters apart. Photographs were taken to document any features observed during the reconnaissance.

The subject property consists of a 8.8-acre partially developed parcel of land. The developed portions of the subject property consists of three (3) temporary buildings, one (1) permanent building, athletic fields consisting of manicured turf areas on the central and northern portions. The southern portion of the subject property is essentially undeveloped. The vegetation consists of manicured turf grass, naturalized grasses, herbs and forbs. Scattered ashe juniper and oak trees are present on the central and southern portions of the subject property.

No potential natural recharge features such as caves, sinkholes, closed depressions, solution cavities, fractured rock outcrops, faults or lineaments were observed on the subject property. Four (4) buildings, as well as one (1) water well were observed on the subject property. The water well is located within a pump house adjacent to the permanent building on the central portion of the subject property. The well system consists of an electric pump and pressure tank. An intact annular seal at the ground surface appears to prevent groundwater infiltration into the well. Evidence of standing water or surface water infiltration was not observed in the vicinity of the well or annular seal. Petroleum products or hazardous materials were not located within the pump house, or in the vicinity of the pump house, at the time of the geologic assessment.

7.0 Summary

The subject property consists of one (1) parcel that contains 8.8 acres of partially developed land located at 300 Chisholm Trail Road in Round Rock, Williamson County, Texas. *The subject property is located within the Edwards Aquifer Recharge Zone.*

Karst features were not identified on the site. No caves or cavities were observed on the subject property at the time of the site reconnaissance with the potential for contaminant movement into the Edwards Aquifer. Four (4) buildings and one (1) water well were observed on the subject property.

It appears that the property drains to the west. No improved drainage features were observed on the subject property.

8.0 References

(BEG) The University of Texas at Austin Bureau of Economic Geology, Geologic Map of Texas, Austin Sheet, 1997.

(USDA) United States Department of Agriculture (USDA) Custom Soil Survey of Williamson County, 2019.

United States Geologic Survey (USGS), Round Rock, Texas Topographic Quadrangle, 2013.

ATTACHMENTS

FIGURES

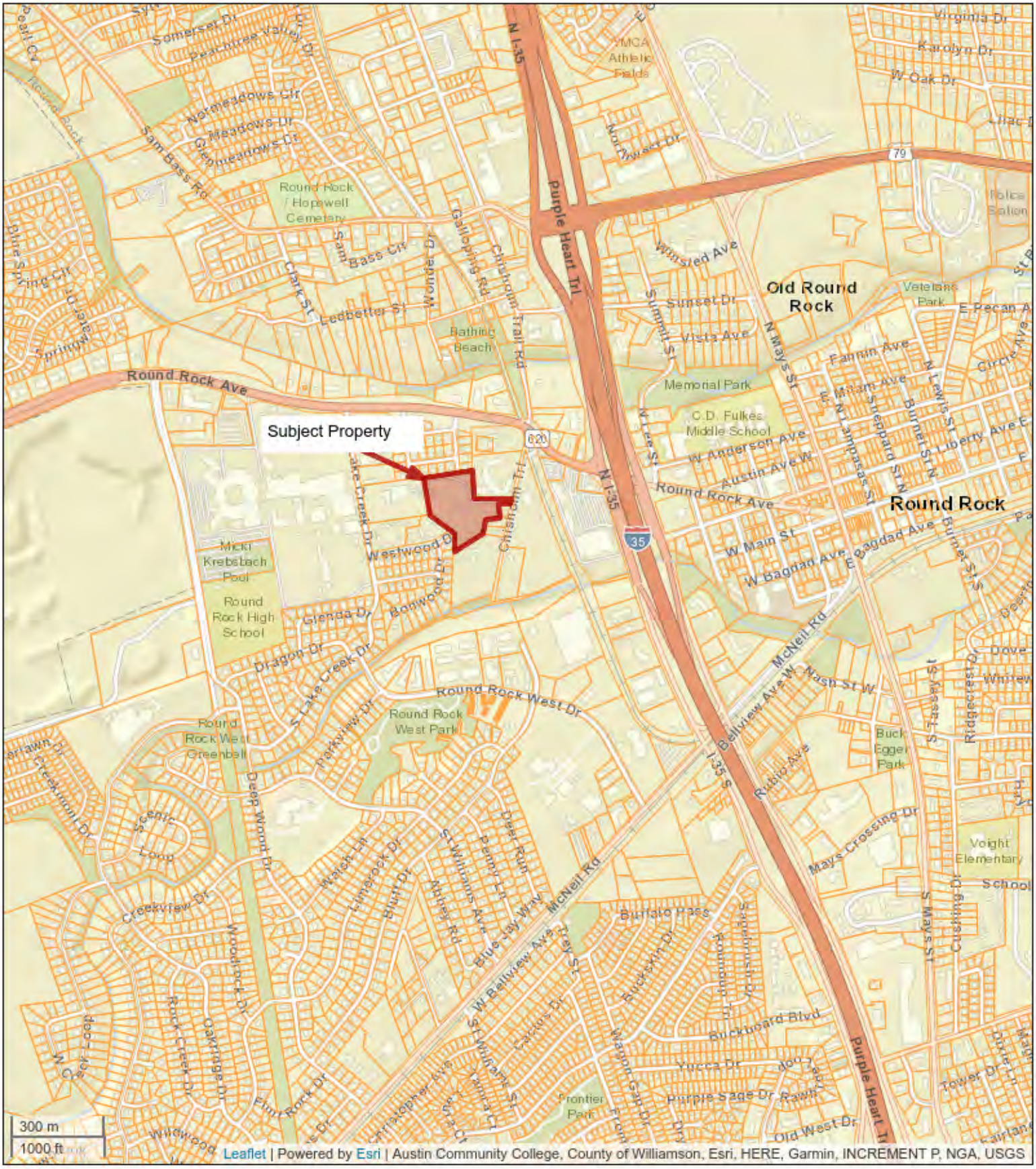


Figure 1 -- Subject Property Location Map

Round Rock Christian Academy
300 Chisholm Trail Road
Round Rock, Texas 78681
ECS Project 51:1542

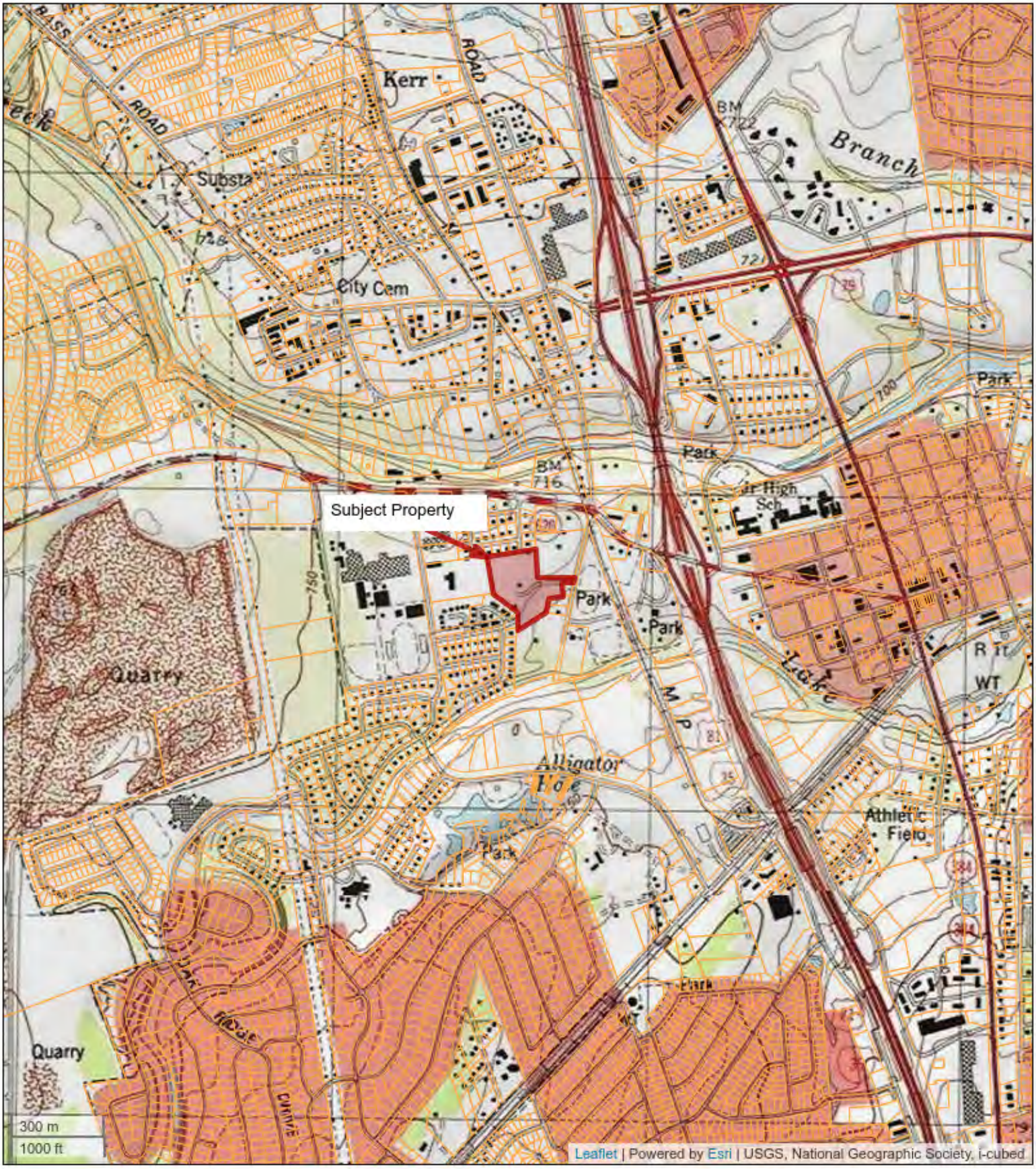


Figure 2 -- Topographic Map

Round Rock Christian Academy
300 Chisholm Trail Road
Round Rock, Texas 78681
ECS Project 51:1542

Figure 3 -- Subject Property Map

Round Rock Christian Academy
300 Chisholm Trail Road
Round Rock, Texas 78681
ECS Project 51:1542

Figure 6 -- Geologic Map

Round Rock Christian Academy
300 Chisholm Trail Road
Round Rock, Texas 78681
ECS Project 51:1542

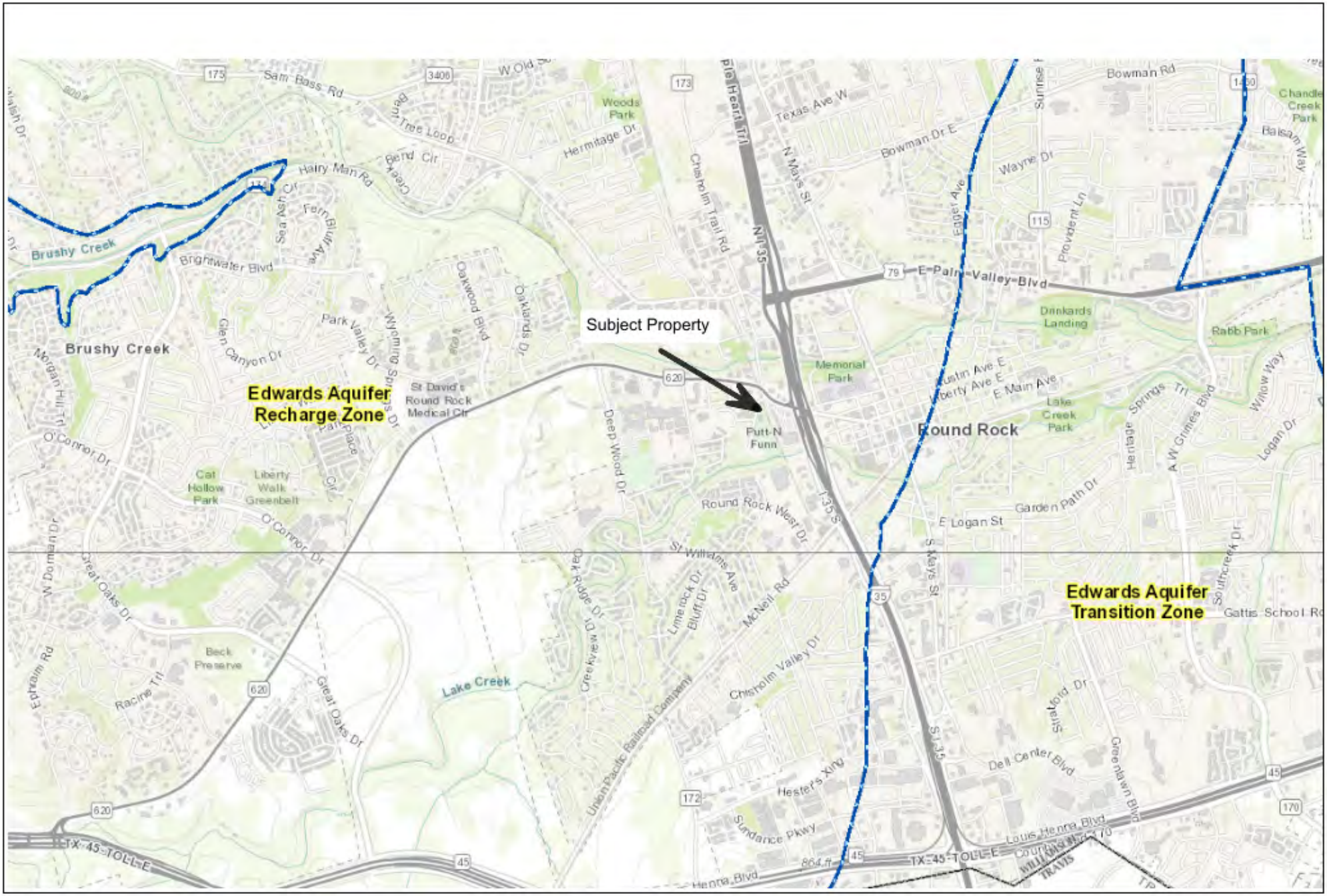


Figure 4 -- Edwards Aquifer Map

Round Rock Christian Academy
300 Chisholm Trail Road
Round Rock, TX 78681
ECS Project 51:1542

Figure 5 -- Soils Map

Round Rock Christian Academy
300 Chisholm Trail Road
Round Rock, TX 78681
ECS Project 51:1542

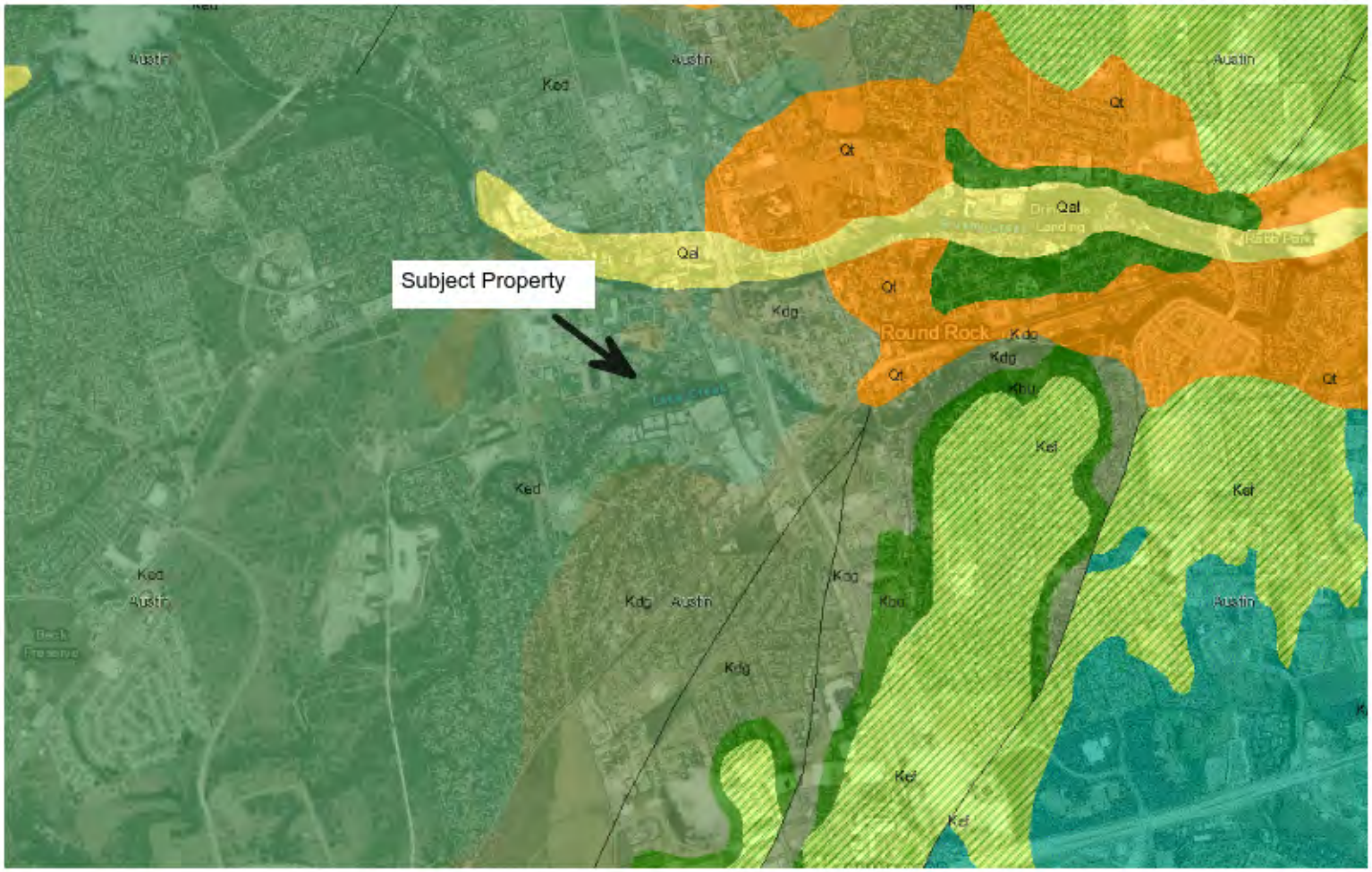


Figure 6 -- Geologic Map

Round Rock Christian Academy
300 Chisholm Trail Road
Round Rock, Texas 78681
ECS Project 51:1542

APPENDIX

Completed Form TCEQ-0585

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: Stephen Krogh Telephone: 512-837-8005

Date: 2/18/2019 Fax: 512-837-8221

Representing: ECS Southwest, LLP, PG 3387 (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:

Regulated Entity Name: Round Rock Christian Academyt

Project Information

1. Date(s) Geologic Assessment was performed: February 13, 2019
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)

Soil Name	Group*	Thickness(feet)
Doss silty clay, moist, 1-5% slopes (DoC)	D	>1
Eckrant extremely stony clay, 0-2% slopes (EeB)	D	<1

** 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" = 400'
   Site Geologic Map Scale: 1" = 400'
   Site Soils Map Scale (if more than 1 soil type): 1" = 400'

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 1 (#) 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.

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME:

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	
Well	30.508933°	-97.691521°	MB	30	KeD	1	1	Unk	0				X	0	30	X		X		Hilltop

* DATUM:_____

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
Hilltop

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.

Date 2/18/2019

Sheet ___1___ of ___1___

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

Stratigraphic Column

Stratigraphic Column
Proposed Express Car Wash
Smyers Lane at FM 620
Round Rock, Williamson County, Texas

Formation	Thickness (ft)	Description
Edwards Formation (Ked)	100-300	The Edwards Formation consists of approximately 100 to 300 feet) of limestone, dolomitic limestone, and some marl. Known to contain karstic solution cavities and accounts for most of the Edwards Aquifer strata.

Narrative Description of Site Specific Geology

NARRATIVE DESCRIPTION OF SITE SPECIFIC GEOLOGY

The property is situated on the Edwards Aquifer Recharge Zone. Ranging from north to south, two primary physiographic provinces are present in Bexar County: the Great Plain and the Gulf Coastal Plain. The Gulf Coastal Plain is comprised mainly of Blackland prairie. The Great Plain is comprised chiefly of limestone plains, which merges with the Edwards Plateau in the vicinity of the Colorado River.

Groundwater recharge and flow are controlled by faulted Edwards Aquifer and adjacent strata. Water enters the aquifer by means of solution features controlled by faults, fractures and solution conduits. Solution features are created by the dissolution of limestone primarily from rainwater and groundwater. Deformation of the Balcones fault system controls both the large and small scale flow barriers and pathways present in the Edwards Aquifer.

Geological information pertaining to the area was obtained from the Geologic Atlas of Texas, Austin Sheet, published by University of Texas at Austin, Bureau of Economic Geology (BEG), 1997. The subject property is situated on the Edwards Limestone (Ked). BEG describes the formation as medium gray to grayish brown, fine to coarse grained, fossiliferous, limestone with abundant chert. Solution zones and collapse breccia are common in the Edwards Limestone. No faulting was observed on the site.

Vegetation on the site consists of manicured turf grass on athletic fields, naturalized grasses, herbs, and forbs, as well as sycamores associated with landscaping and natural stands of scrub live oak and ashe juniper.

No potential natural recharge features such as caves, sinkholes, closed depressions, solution cavities, fractured rock outcrops, faults or lineaments were observed on the subject property. One (1) water well was observed within a pump house on the central portion of the subject property.

Photo Documentation

1 - View of western portion of subject property

2 - View of western portion of subject property near temporary buildings

3 - View of well head and pressure tank

4 - View of temporary buildings

5 - View of southeastern portion of the property

6 - View of permanent building

7 - View of permanent building and well pump house

8 - View of eastern portion of subject property

ATTACHMENTS

Soil Survey

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Williamson County, Texas

Round Rock Christian Academy

February 13, 2019

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface.....2
How Soil Surveys Are Made.....5
Soil Map.....8
Soil Map.....9
Legend.....10
Map Unit Legend.....11
Map Unit Descriptions.....11
Williamson County, Texas.....13
DoC—Doss silty clay, moist, 1 to 5 percent slopes.....13
EeB—Eckrant extremely stony clay, 0 to 3 percent slopes.....15
References.....17

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:2,190 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Williamson County, Texas
Survey Area Data: Version 19, Sep 15, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 8, 2015—Mar 14, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
DoC	Doss silty clay, moist, 1 to 5 percent slopes	8.8	99.9%
EeB	Eckrant extremely stony clay, 0 to 3 percent slopes	0.0	0.1%
Totals for Area of Interest		**8.8**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Williamson County, Texas

DoC—Doss silty clay, moist, 1 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2s0st
Elevation: 630 to 1,840 feet
Mean annual precipitation: 30 to 36 inches
Mean annual air temperature: 66 to 68 degrees F
Frost-free period: 210 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Doss and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Doss

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from limestone

Typical profile

A - 0 to 9 inches: silty clay
Bk - 9 to 17 inches: silty clay
Cr - 17 to 80 inches: bedrock

Properties and qualities

Slope: 1 to 5 percent
Depth to restrictive feature: 11 to 20 inches to paralithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 70 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Ecological site: Shallow 29-35" PZ (R081CY574TX)
Hydric soil rating: No

Minor Components

Brackett

Percent of map unit: 7 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder, backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: Steep Adobe 29-35" PZ (R081CY362TX)
Hydric soil rating: No

Bolar

Percent of map unit: 5 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: Clay Loam 29-35" PZ (R081CY357TX)
Hydric soil rating: No

Purves

Percent of map unit: 1 percent
Landform: Plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: Shallow 29-35" PZ (R081CY574TX)
Hydric soil rating: No

Eckrant

Percent of map unit: 1 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: Low Stony Hill 29-35" PZ (R081CY360TX)
Hydric soil rating: No

Denton

Percent of map unit: 1 percent
Landform: Plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Clay Loam 29-35" PZ (R081CY357TX)
Hydric soil rating: No

EeB—Eckrant extremely stony clay, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: djpv
Elevation: 1,000 to 2,400 feet
Mean annual precipitation: 22 to 32 inches
Mean annual air temperature: 66 to 70 degrees F
Frost-free period: 210 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Eckrant and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Eckrant

Setting

Landform: Ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Typical profile

H1 - 0 to 4 inches: extremely stony clay
H2 - 4 to 11 inches: extremely stony clay
H3 - 11 to 16 inches: bedrock

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 8 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Very low (about 0.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: Low Stony Hill 29-35" PZ (R081CY360TX)
Hydric soil rating: No

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

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: TOM ASUQUO
Date: 05/15/2023
Signature of Customer/Agent:

Regulated Entity Name: ROUND ROCK CHRISTIAN ACADEMY

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.

RECHARGE AND TRANSITION ZONE EXCEPTION REQUEST

Attachments to form TCEQ-0628

ATTACHMENT A – NATURE OF EXCEPTION

This exception request is for the construction of a 2065-sf classroom addition to the existing classroom building which was included as part of the modification with the EAPP ID number 11001467. The project site is currently developed with an existing shared partial sedimentation and filtration pond located on site

The aforementioned permanent BMP was originally permitted under the Round Rock Retirement Residences under the EAPP ID: 11-05021501. A modification was done to this original WPAP to include additional impervious cover and BMP under EAPP ID: 11-06060101.
This plan was further modified under the EAPP ID number 11001467 for the construction of 8.73 acres of Round Rock Christian Academy (including two classroom buildings, a gymnasium, and an auditorium with associated driveways, sidewalks, drainage and utility infrastructure). Impervious cover for this proposed development (gymnasium) was accounted for in the previous WPAP Mod. The existing partial sed-fil pond that shall be utilized for this development has an existing water quality volume of 42,984 c.f. The Water Quality volume required to account for all contributing drainage areas for this shared pond is 22,975 c.f. It can be demonstrated that there is adequate capacity within the said water quality pond.

ATTACHMENT B - EQUIVALENT WATER QUALITY PROTECTION

The existing shared partial sedimentation and filtration pond shall provide water quality for this project. This pond has a water quality volume of 42,984 c.f. and a required WQ volume of 22,975 c.f.

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: TOM ASUQUO

Date: 05/15/2023

Signature of Customer/Agent:

_____

Regulated Entity Name: ROUND ROCK CHRISTIAN ACADEMY

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: N/A

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.

TEMPORARY STORWATER SECTION

Attachments to form TCEQ-0602

ATTACHMENT A

There are several factors that could affect surface and ground water quality. During construction, fuels and hazardous substances could spill. These spills shall be contained on-site and immediately cleaned up and properly discarded. Any spills or discharges of oil, petroleum products and used oil onto land having a volume greater than as included in https://www.tceq.texas.gov/response/spills/spill_rq.html, shall be reported immediately to TCEQ at (512) 339-2929 or the State Emergency Response Center at 1-800-832-8224. There are no significant factors proposed which could affect surface and ground water quality relating to the permanent use of the facility.

ATTACHMENT B

Potential Sources of Contamination:

1. Soil disturbance during construction.
2. Hydrocarbon-based fluids from Construction Equipment.
3. Landscaping – Fertilizer and Pesticides.

ATTACHMENT C

Sequence of major activities for each phase is as follows:

1. The installation of Erosion/Sedimentation Controls –0.01 Ac. Disturbed
2. Clearing, grubbing, and removal of topsoil from entire site – 0.05 Ac. Disturbed
   - Temporary control measures to be used include tree protection fencing, silt fences and filter dykes
3. Rough grading and building pad excavation – 0.05 Ac. Disturbed
   - Temporary control measures to be used include tree protection fencing, silt fences and inlet protection
4. Excavating for utilities – 0 Ac. Disturbed
   - Temporary control measures to be used include tree protection fencing, silt fences and inlet protection.
5. Finish grading and landscaping – 0.05 Ac. Disturbed
   - Temporary control measures to be used include tree protection fencing, silt fences and inlet protection.

ATTACHMENT D

The Temporary Best Management Practices (TBMP) for this project will consist of:

1. A stabilized construction entrance.
2. Silt fencing around down gradient boundary of site.
3. Filter dykes
4. Inlet Protection to protect all existing and proposed inlets.
5. Concrete washout

All TBMP's will be in place prior to any regulated activities commencing. The stabilized construction entrance will remove excess spoils from construction vehicles leaving the site. The silt fencing will collect silt runoff and debris during construction activities.

TEMPORARY STORWATER SECTION

Attachments to form TCEQ-0602

These controls will be maintained during construction and will remain until after all construction activities are complete and permanent re-vegetation is established.

ATTACHMENT E

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

ATTACHMENT F

Due to the limited area of the site, the silt fence will provide control to retain any runoff from the exposed site.

ATTACHMENT G

Refer to the drawings, sheet EDA and PDA.

ATTACHMENT H

N/A

ATTACHMENT I

The contractor is required to inspect all of the erosion and sediment controls and fences at weekly intervals and after significant rainfall events to ensure that they are functioning properly. The person(s) responsible for maintenance of controls and fences shall immediately make any necessary repairs to damaged areas. Silt accumulation at controls must be removed when the depth reaches six (6) inches. Records described in the SWPPP must be retained on site for 5 years beyond the date of the cover letter notifying the facility of coverage under a storm water permit, and shall be made available to the state or federal compliance inspection officer upon request. Additionally, employee training records and waste and recycling receipts or vouchers shall also be maintained.

ATTACHMENT J

Schedule of Interim Soil Stabilization Practices:

1. Erosion and sediment control measures including perimeter sediment controls must be in place before vegetation is disturbed and must remain in place and be maintained and repaired.
2. Temporary stabilization or covering of soil stockpiles and protection of stockpile located away from construction activity must be maintained
3. Should construction activities cease for fifteen (15) days or more on any significant portion of the construction site, temporary stabilization is required for that portion of the site to prevent soil and wind erosion until work resumes on that portion of the site.
4. Should all construction activities cease for thirty days or more, the entire site must be temporarily stabilized using vegetation or a heavy mulch layer, temporary seeding or other method.
5. Bare soils should be seeded or otherwise stabilized within 14 calendar days after final grading or where construction activity has temporarily ceased for more than 21 days.

TEMPORARY STORWATER SECTION

Attachments to form TCEQ-0602

Schedule of Permanent Soil Stabilization Practices:

1. Stabilized any unpaved area that is final grade or remain unpaved for the next two weeks. Permanent stabilization may consist of sodding, seeding, or mulching that must be maintained to prevent erosion from the site until re-vegetation has achieved 70% coverage
2. Once construction is complete, remove all the pollution prevention measures that were temporary.

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

I REBECCA BLAUSER,
Print Name

HEAD OF SCHOOL,
Title - Owner/President/Other

of ROUND ROCK CHRISTIAN ACADEMY,
Corporation/Partnership/Entity Name

have authorized TERRY HAGOOD
Print Name of Agent/Engineer

of HAGOOD ENGINEERING 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:

Rebecca Blauser
Applicant's Signature

5/11/23
Date

THE STATE OF TEXAS §

County of WILLIAMSON §

BEFORE ME, the undersigned authority, on this day personally appeared REBECCA BLAUSER 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 11th day of May, 2023

Cynthia J Potts
NOTARY PUBLIC

Cynthia J. Potts
Typed or Printed Name of Notary

CYNTHIA J. POTTS
My Notary ID # 128052943
Expires November 13, 2025

MY COMMISSION EXPIRES: November 13, 2025

TCEQ

TCEQ Core Data Form

TCEQ Use Only

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

SECTION I: General Information

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

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

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

2. Attachments — Describe Any Attachments: *(ex. Title V Application, Waste Transporter Application, etc.)*

☒ Yes ☐ No — EXCEPTION REQUEST

3. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	4. Regulated Entity Reference Number *(if issued)*
CN 605631290		RN 110717196

SECTION II: Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy): 2/28/2019

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

☐ Owner ☐ Operator ☒ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other: _____

7. General Customer Information

☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State) ☒ No Change**

If "No Change" and Section I is complete, skip to Section III – Regulated Entity Information.

8. Type of Customer:			
☐ Corporation	☐ Individual	☐ Sole Proprietorship- D.B.A	
☐ City Government	☐ County Government	☐ Federal Government	☐ State Government
☐ Other Government	☐ General Partnership	☐ Limited Partnership	☐ Other: NON PROFIT

9. Customer Legal Name *(If an individual, print last name first: ex: Doe, John)* — *If new Customer, enter previous Customer below* — *End Date:*

ROUND ROCK CHRISTIAN ACADEMY

10. Mailing Address:

800 WEST WOOD DR

City	State	ZIP	ZIP + 4
ROUND ROCK	TX	78681	

11. Country Mailing Information *(if outside USA)*

12. E-Mail Address *(if applicable)*

13. Telephone Number	14. Extension or Code	15. Fax Number *(if applicable)*
(512) 255-4491		( ) -

16. Federal Tax ID *(9 digits)*	17. TX State Franchise Tax ID *(11 digits)*	18. DUNS Number *(if applicable)*	19. TX SOS Filing Number *(if applicable)*
27-392264	32042999790		801341395

20. Number of Employees

☐ 0-20 ☒ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

21. Independently Owned and Operated?

☒ Yes ☐ No

SECTION III: Regulated Entity Information

22. General Regulated Entity Information *(If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)*

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information ☒ No Change** *(See below)*

**If "NO CHANGE" is checked and Section I is complete, skip to Section IV, Preparer Information.

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

ROUND ROCK CHRISTIAN ACADEMY

24. Street Address of the Regulated Entity: *(No P.O. Boxes)*	800 WESTWOOD DRIVE							
	City	ROUND ROCK	State	TX	ZIP	78681	ZIP + 4	
25. Mailing Address:	301-A N. LAKE CREEK DRIVE							
	City	ROUND ROCK	State	TX	ZIP	78681	ZIP + 4	

26. E-Mail Address:	BECKYBLAUSER@RRCA-TX.ORG		
27. Telephone Number	28. Extension or Code	29. Fax Number *(if applicable)*	
(512) 255-4491		( ) -	
30. Primary SIC Code (4 digits)	31. Secondary SIC Code (4 digits)	32. Primary NAICS Code (5 or 6 digits)	33. Secondary NAICS Code (5 or 6 digits)
8299		611110	
34. What is the Primary Business of this entity? *(Please do not repeat the SIC or NAICS description.)*			
SCHOOL			

Questions 34 – 37 address geographic location. Please refer to the instructions for applicability.

35. Description to Physical Location:	This site is a flag lot located behind the Central Baptist Church situated at 301 N. Lake Creek Drive. The lot is situated at the termination of Westwood Drive approximately 168LF from the intersection of Westwood Drive and Bonwood Drive							
36. Nearest City		County		State		Nearest ZIP Code		
ROUND ROCK		WILLIAMSON		TX		78681		
37. Latitude (N) In Decimal:	30.509026			38. Longitude (W) In Decimal:	-97.692354			
Degrees	Minutes	Seconds		Degrees	Minutes	Seconds		

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form or the updates may not be made. If your Program is not listed, check other and write it in. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☒ Edwards Aquifer	☐ Industrial Hazardous Waste	☐ Municipal Solid Waste
		11-05021501; 06060601		
☐ New Source Review – Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS	☐ Sludge
☐ Stormwater	☐ Title V – Air	☐ Tires	☐ Used Oil	☐ Utilities
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	RAQUEL SAENZ	41. Title:	PROJECT ASSISTANT
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512) 244-1546		( ) -	RAQUELR@HEAENG.CO,

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 9 and/or as required for the updates to the ID numbers identified in field 39.

(See the Core Data Form instructions for more information on who should sign this form.)

Company:	HAGOOD ENGINEERING ASSOC.	Job Title:	E.I.T		
Name *(In Print)*:	TOM ASUQUO			Phone:	(512) 244-1546
Signature:				Date:	05/15/2023

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Round Rock Christian Academy
Regulated Entity Location: 800 Westwood Drive Round Rock, TX 78681
Name of Customer: Round Rock Christian Academy
Contact Person: Rebecca Blauser Phone: 512.255.4491
Customer Reference Number (if issued):CN 605631290
Regulated Entity Reference Number (if issued):RN 110717196
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	1 Each	$ 500.00
Extension of Time	Each	$

Signature: _____ Date: 05/15/2023

TCEQ-0574 (Rev. 02-24-15)

Application Fee Schedule

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

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

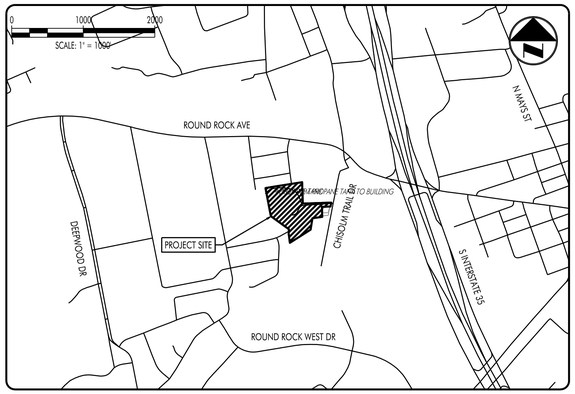
Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

SITE LOCATION MAP



BENCHMARKS

TBM #1 - MNS "JPH BENCHMARK" (SEE SP1)	TBM #2 - MNS "JPH BENCHMARK" (SEE SP1)
ELEV = 741.41 NAVD88 (GEOID18)	ELEV = 747.71 NAVD88 (GEOID18)

LEGAL DESCRIPTION

LOT 1, BLOCK A CENTRAL BAPTIST CHURCH, LOT 1A & 1B, BLOCK "A" SUBDIVISION INST #2016106475

PLAN SUBMITTALS

NO.	DATE	COMMENTS
1	6/15/2022	ISSUED FOR PRELIMINARY PRICING
2	8/12/2022	ISSUED FOR AGENCY REVIEW
3	11/4/2022	ISSUED FOR PRICING
4	12/12/2022	UPDATE SUBMITTAL TO CITY OF ROUND ROCK
5	12/12/2022	UPDATE SUBMITTAL TO TCEQ
6	1/18/2022	ASAP TO CITY OF ROUND ROCK
7	2/8/2023	ISSUED FOR CONSTRUCTION
8	5/15/2023	UPDATE SUBMITTAL TO TCEQ
9		
10		

NOTES:

1. A PORTION OF THE ABOVE LEGALLY DESCRIBED PROPERTY IS WITHIN THE DESIGNATED .2% ANNUAL CHANCE FLOODPLAIN AREA AS DESIGNATED BY F.E.M.A. FLOOD INSURANCE RATE MAP (FIRM) ON COMMUNITY PANEL NO. 48491C0489F, DATED DECEMBER 19, 2019 FOR THE CITY OF ROUND ROCK, WILLIAMSON COUNTY, TEXAS.
2. THIS PROPERTY IS WITHIN THE EDWARDS AQUIFER RECHARGE ZONE.
3. SEE SHEET C00 FOR GENERAL NOTES.
4. A PORTION OF THIS TRACT IS ENCROACHED BY THE ULTIMATE 1% ANNUAL CHANCE FLOODPLAIN.

SITE DEVELOPMENT IMPROVEMENTS
SUBMITTED FOR
ROUND ROCK CHRISTIAN ACADEMY ADDITION
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78665
SDP2205-0006

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN ACCEPTING THESE PLANS, THE CITY OF ROUND ROCK MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

STATE OF TEXAS ★
COUNTY OF WILLIAMSON ★

I, TERRY R. HAGOOD, DO HEREBY CERTIFY THAT THE PUBLIC WORKS AND DRAINAGE IMPROVEMENTS DESCRIBED HEREIN HAVE BEEN DESIGNED IN COMPLIANCE WITH THE SUBDIVISION AND BUILDING REGULATION ORDINANCES AND STORM WATER DRAINAGE POLICY ADOPTED BY THE CITY OF ROUND ROCK, TEXAS.

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED PROFESSIONAL ENGINEER

05/15/2023

ACCEPTED FOR CONSTRUCTION BY:

Planning and Development Services — Date
City of Round Rock, Texas

Sheet List Table

SHEET NUMBER	SHEET TITLE	SHEET DESCRIPTION
01	CVR	COVER
02	SP	OVERALL SITE PLAN
03	PRK	PARKING PLAN
04	SRV	SURVEY
05	PLAT	PLAT
06	EDA	EXISTING DRAINAGE AREA
07	PDA	DEVELOPED DRAINAGE AREA
08	DA INLETS	INLET DRAINAGE AREA
09	CALC 1	HYDROLOGIC CALCULATIONS
10	CALC 2	WATER QUALITY CALCULATIONS
11	C00	GENERAL NOTES
12	C10A	EROSION AND SEDIMENTATION CONTROL PLAN
13	C10B	EROSION AND SEDIMENTATION CONTROL PLAN
14	C11A	DEMOLITION PLAN
15	C11B	DEMOLITION PLAN
16	C20A	DIMENSION CONTROL PLAN
17	C20B	DIMENSION CONTROL PLAN
18	C30A	PAVING AND STRIPING PLAN
19	C30B	PAVING AND STRIPING PLAN
20	C40A	GRADING PLAN
21	C40B	GRADING PLAN
22	C50A	DRAINAGE PLAN
23	C50B	DRAINAGE PLAN
24	C51	DRAINAGE PROFILE
25	C60A	UTILITY PLAN
26	C60B	UTILITY PLAN
27	C61	UTILITY PROFILE
28	C70	CONSTRUCTION DETAILS
29	C71	EROSION DETAILS
30	C72	UTILITY DETAILS
31	L1	LANDSCAPE PLAN
32	L2	LANDSCAPE CALCULATIONS

OWNER
ROUND ROCK CHRISTIAN ACADEMY
301-A N. LAKE CREEK DRIVE
ROUND ROCK, TEXAS 78681
BECKY BLAUSER
(512)796-7386

ARCHITECT
SPENCER-PIERCE ARCHITECTURE + INTERIORS, INC.
110 N. STONE STREET
ROUND ROCK, TEXAS 78664
BO SPENCER, AIA
(512) 388-0677

SURVEYOR
JPH LAND SURVEYING INC
1516 E. PALM VALLEY BLVD
ROUND ROCK, TEXAS 78664
CHRIS HENDERSON, RPLS

ENGINEER
HAGOOD ENGINEERING ASSOCIATES, INC.
900 E. MAIN STREET
ROUND ROCK, TEXAS 78664
TERRY R. HAGOOD, P.E.
(512) 244-1546

LANDSCAPE ARCHITECT
BLAIR LANDSCAPING
100 CONGRESS AVE, STE, 2000
AUSTIN, TEXAS 78701
WILL BLAIR, AIA
512-522-8979

SITE PLAN PERMIT NO.	SDP2205-0006	
RECORDED FINAL PLAT DOC. NO.	2016106475	
SCS CASE NUMBER & DATE	11001468	2019/06/03
WPAP # & DATE	11001467	2019/06/03
WPAP EXCEPTION # & DATE	11003277	2022/12/14
IMPERVIOUS COVER		
STREET, CURB AND GUTTER	N/A	
EX. BUILDING FOOTPRINT	54,397 SF	
NEW BUILDING FOOTPRINT	19,101 SF	
EX. PARKING, PRIVATE SIDEWALK	75,126 SF	
NEW PARKING, PRIVATE SIDEWALK	19,188 SF	
EX. TOTAL	129,523 SF	
NEW TOTAL	38,289 SF	
TOTAL AREA OF DISTURBANCE (LOC)	108,040 SF	

REVISIONS

NO.	DATE	DESCRIPTION	APPROVED BY
1			
2			
3			
4			
5			

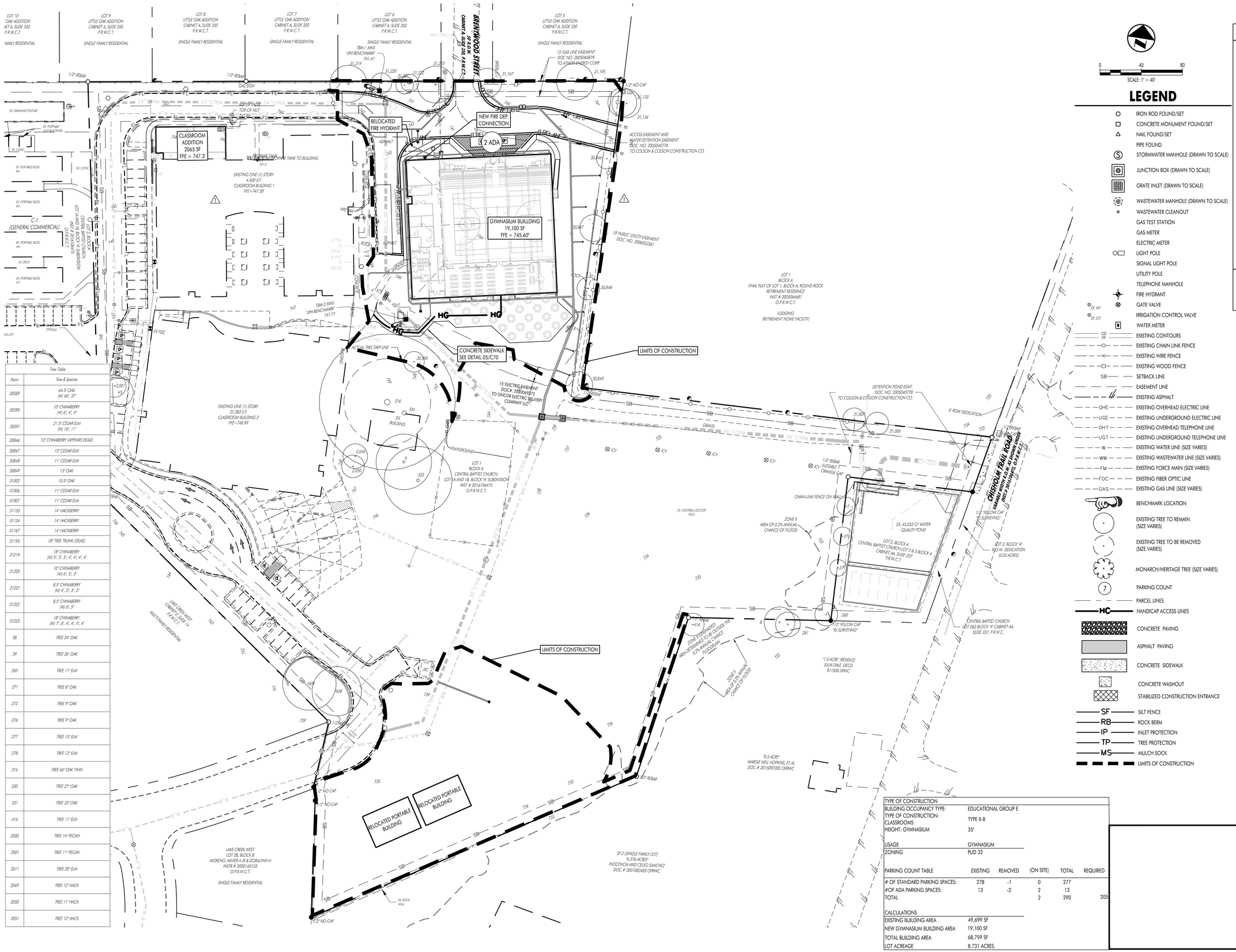
Texas 811 Know what's below. Call before you dig.

900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.hea.eng.pro
TBPE Registration No. F-12709

JOB NO. 21-025 © 2022 HEA, Inc.

HAGOOD ENGINEERING ASSOCIATES

JOB NO:	21-025
DRAWN BY:	TA
CHECKED BY:	TRH
P.I.C.:	TRH
FILE NO:	21-025 CVR
DATE:	05/15/2023
SHEET:	01 OF 32



Tree Table	
Point	Size & Species
30589	64.5" OAK (M) 46', 37"
30590	10" CHINABERRY (M) 6', 4', 4'
30591	21.5" CEDAR ELM (M) 16', 11"
30846	10" CHINABERRY (APPEARS DEAD)
30847	13" CEDAR ELM
30848	11" CEDAR ELM
30849	13" OAK
31002	10.5" OAK
31006	11" CEDAR ELM
31007	11" CEDAR ELM
31133	14" HACKBERRY
31134	14" HACKBERRY
31167	14" HACKBERRY
31195	18" TREE TRUNK (DEAD)
31219	18" CHINABERRY (M) 5', 5', 5', 4', 4', 4', 4'
31220	10" CHINABERRY (M) 6', 5', 3'
31221	8.5" CHINABERRY (M) 4', 3', 3', 3'
31222	8.5" CHINABERRY (M) 6', 5'
31223	18" CHINABERRY (M) 7', 6', 4', 4', 4', 4'
38	TREE 24" OAK
39	TREE 26" OAK
260	TREE 11" ELM
271	TREE 8" OAK
272	TREE 9" OAK
276	TREE 9" OAK
277	TREE 15" ELM
278	TREE 12" ELM
316	TREE 66" OAK TWIN
330	TREE 27" OAK
331	TREE 33" OAK
416	TREE 11" ELM
2000	TREE 14" PECAN
2001	TREE 11" PECAN
2011	TREE 20" ELM
2049	TREE 12" HACK
2050	TREE 11" HACK
2051	TREE 12" HACK

LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
- ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- GATE VALVE
- IRRIGATION CONTROL VALVE
- WATER METER
- EXISTING CONTOURS
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING WATER LINE (SIZE VARIES)
- EXISTING WASTEWATER LINE (SIZE VARIES)
- EXISTING FORCE MAIN (SIZE VARIES)
- EXISTING FIBER OPTIC LINE
- EXISTING GAS LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK
- CONCRETE WASHOUT
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- ROCK BERM
- INLET PROTECTION
- TREE PROTECTION
- MULCH SOCK
- LIMITS OF CONSTRUCTION

TYPE OF CONSTRUCTION					
BUILDING OCCUPANCY TYPE:	EDUCATIONAL GROUP E				
TYPE OF CONSTRUCTION: CLASSROOMS	TYPE II-B				
HEIGHT: GYMNASIUM	35'				
USAGE	GYMNASIUM				
ZONING	PUD 32				
PARKING COUNT TABLE	EXISTING	REMOVED	(ON SITE)	TOTAL	REQUIRED
# OF STANDARD PARKING SPACES:	278	-1	0	277	
#OF ADA PARKING SPACES:	13	-2	2	13	
TOTAL			2	290	205
CALCULATIONS					
EXISTING BUILDING AREA	49,699 SF				
NEW GYMNASIUM BUILDING AREA	19,100 SF				
TOTAL BUILDING AREA	68,799 SF				
LOT ACREAGE	8.731 ACRES.				

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

OVERALL SITE PLAN

DATE: 05/15/2023
REV: 1 ADD BUILDING DIMENSIONS, REVISE FIRELANE HAMMERHEAD
DRW. SPai CHK. SPai

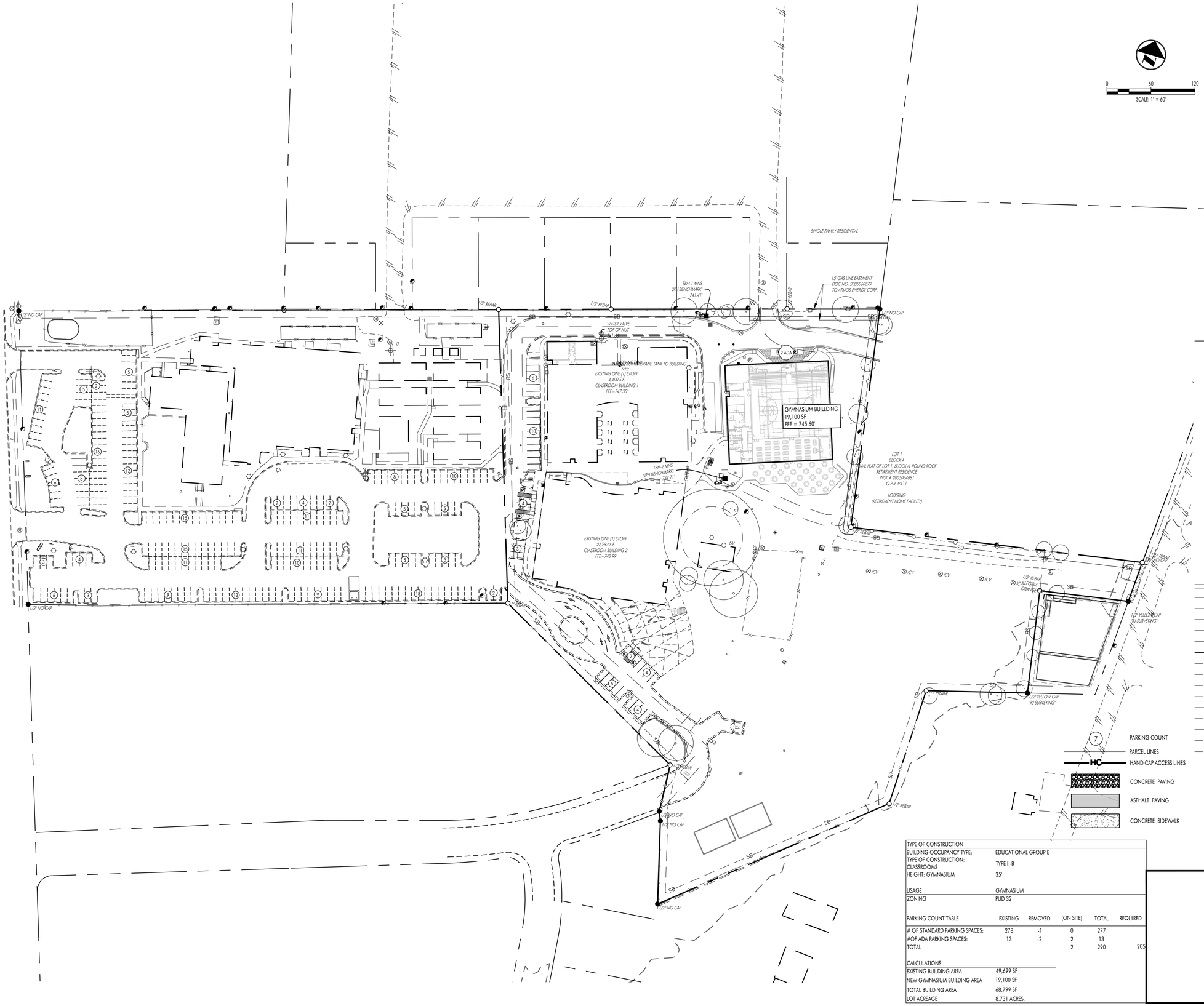
SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-9477
Fax: (512) 388-0752
Email: spai@sp-pi.com Web Site: www.sp-pi.com

Copyright

SHEET
SP
02 of 32
SDP2205-0006

May 15,2023-1:26pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\21-025 SP.dwg
Copyright Notice: These plans are subject to copyright protection as "architectural works" under sections 102 and 120 of the Copyright Act of 1990. The protection includes, but is not limited to the overall form as well as the arrangement and composition of spaces and elements in the design. Unauthorized use of these plans without the express written permission of the architect is prohibited.



LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
- ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- GATE VALVE
- IRRIGATION CONTROL VALVE
- WATER METER
- 100 / 99 EXISTING CONTOURS
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SB SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- OHE EXISTING OVERHEAD ELECTRIC LINE
- UGE EXISTING UNDERGROUND ELECTRIC LINE
- OHT EXISTING OVERHEAD TELEPHONE LINE
- UGT EXISTING UNDERGROUND TELEPHONE LINE
- W EXISTING WATER LINE (SIZE VARIES)
- WW EXISTING WASTEWATER LINE (SIZE VARIES)
- FM EXISTING FORCE MAIN (SIZE VARIES)
- FOC EXISTING FIBER OPTIC LINE
- GAS EXISTING GAS LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)

7 PARKING COUNT

PARCEL LINES

HC HANDICAP ACCESS LINES

CONCRETE PAVING

ASPHALT PAVING

CONCRETE SIDEWALK

TYPE OF CONSTRUCTION					
BUILDING OCCUPANCY TYPE:	EDUCATIONAL GROUP E				
TYPE OF CONSTRUCTION: CLASSROOMS	TYPE II-B				
HEIGHT: GYMNASIUM	35'				
USAGE	GYMNASIUM				
ZONING	PUD 32				
PARKING COUNT TABLE	EXISTING	REMOVED	(ON SITE)	TOTAL	REQUIRED
# OF STANDARD PARKING SPACES:	278	-1	0	277	
#OF ADA PARKING SPACES:	13	-2	2	13	
TOTAL			2	290	205
CALCULATIONS					
EXISTING BUILDING AREA	49,699 SF				
NEW GYMNASIUM BUILDING AREA	19,100 SF				
TOTAL BUILDING AREA	68,799 SF				
LOT ACREAGE	8.731 ACRES.				

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS · TERRY R. HAGOOD · 52960 · REGISTERED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.

DATE SIGNED: 05/15/2023

ISSUED FOR: AGENCY REVIEW

PARKING PLAN

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

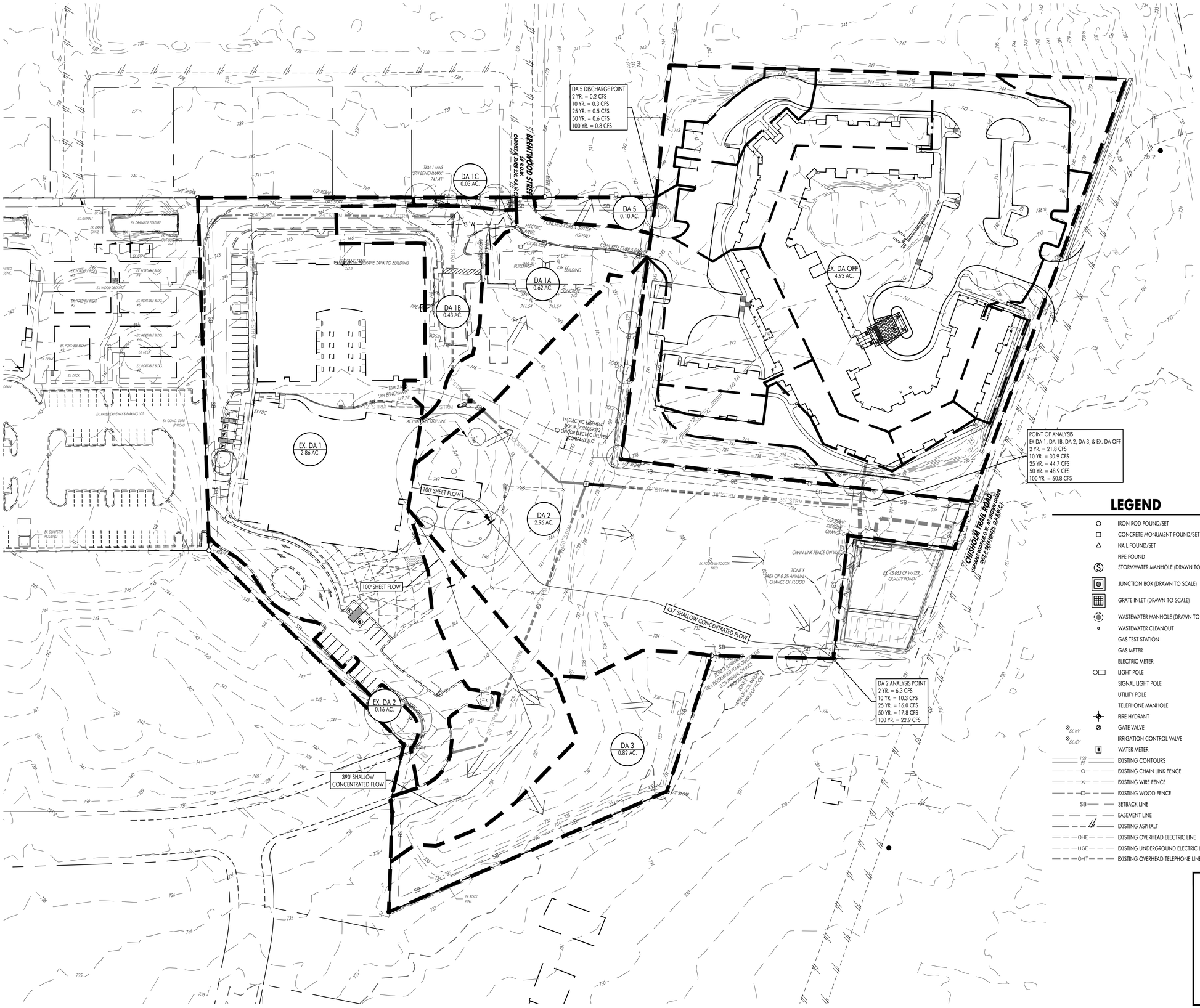
SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-8477
Fax: (512) 388-0792
Email: spai@sp-ai.com Web Site: www.sp-ai.com

Copyright
COPYRIGHT NOTICE: THESE PLANS ARE COPYRIGHTED AND THE SUBJECT TO COPYRIGHT PROTECTION AS AN "ARCHITECTURAL WORK" UNDER SECTION 102 OF THE COPYRIGHT ACT, 17 U.S.C. AS AMENDED DECEMBER 1990. THE COPYRIGHT PROTECTION INCLUDES, BUT IS NOT LIMITED TO, THE OVERALL FORM AS WELL AS THE ARRANGEMENT AND COMPOSITION OF SPACES AND ELEMENTS IN THE DESIGN. UNDER SUCH PROTECTION, UNAUTHORIZED USE OF THESE PLANS WITHOUT THE PERMISSION OF THE ARCHITECT IS PROHIBITED.

SHEET
PRK
03 of 32
SDP2205-0006

May 15,2023-1:26pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\21-025 PRK.dwg



SCALE: 1" = 50'

NOTE:
1. ALL DIMENSIONS ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED.
2. REFER TO RRCA PROJECT WITH PERMIT NUMBER SDP 1809-0001 FOR BREAKDOWN OF EX DA1

LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
- ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- GATE VALVE
- IRRIGATION CONTROL VALVE
- WATER METER
- EXISTING CONTOURS
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING WATER LINE (SIZE VARIES)
- EXISTING WASTEWATER LINE (SIZE VARIES)
- EXISTING FORCE MAIN (SIZE VARIES)
- EXISTING FIBER OPTIC LINE
- EXISTING GAS LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK
- CONCRETE WASHOUT
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- ROCK BERM
- INLET PROTECTION
- TREE PROTECTION
- MULCH SOCK
- LIMITS OF CONSTRUCTION

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960.
THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

EXISTING DRAINAGE AREA

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

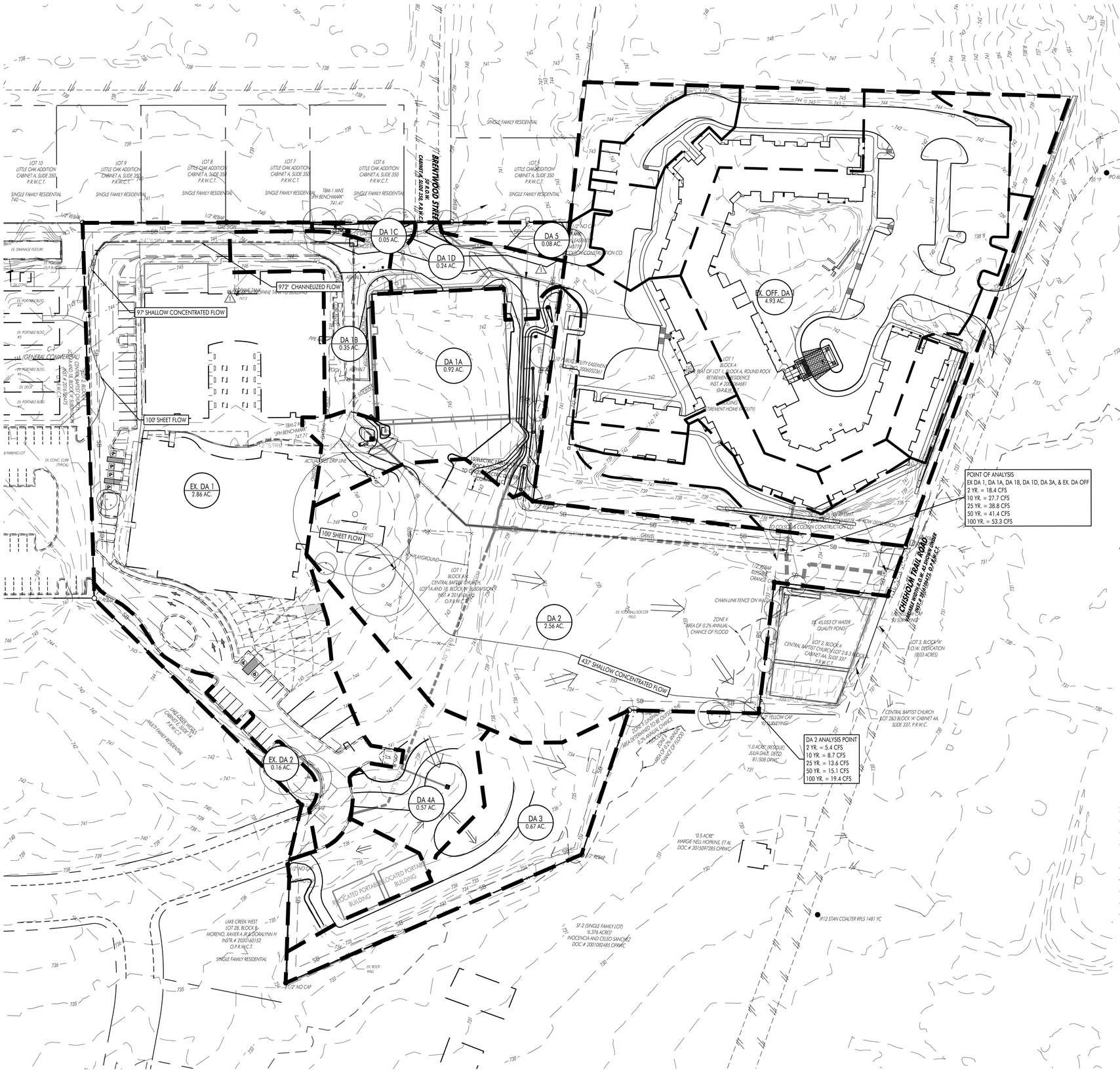
Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-0677
Fax: (512) 388-0752
Email: spai@sp-ai.com Web Site: www.sp-ai.com

Copyright

SHEET
EDA
06 of 32
SDP2205-0006

May 15,2023-1:27pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Acadamy Addition\CAD Files\Civil\SD\21-025 EDA.dwg

Copyright Notice: These plans are copyrighted and are subject to copyright protection as an "Architectural Work" under section 102 of the copyright act, 17 U.S.C. as amended December 1990 and Mason as Architectural Works Copyright protection Act of 1990. The protection includes but is not limited to the overall form as well as the arrangement and composition of spaces and elements of the design. Under such protection, unauthorized use of these plans, work or building represented, can legally result in the cessation of construction, or buildings being seized and/or monetary compensation to SPai.



NOTE:
1. REFER TO RRCA PROJECT WITH PERMIT NUMBER SDP 1809-0001 FOR BREAKDOWN OF EX DA1

LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
- ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- GATE VALVE
- IRRIGATION CONTROL VALVE
- WATER METER
- EXISTING CONTOURS
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING WATER LINE (SIZE VARIES)
- EXISTING WASTEWATER LINE (SIZE VARIES)
- EXISTING FORCE MAIN (SIZE VARIES)
- EXISTING FIBER OPTIC LINE
- EXISTING GAS LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK
- CONCRETE WASHOUT
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- ROCK BERM
- INLET PROTECTION
- TREE PROTECTION
- MULCH SOCK
- LIMITS OF CONSTRUCTION

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

DEVELOPED DRAINAGE AREA

DATE: 05/15/2023
REV: 1 ADD BUILDING EXTENSION, REVISE FIRELANE HAMMERHEAD
DRW. SPai CHK. SPai

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

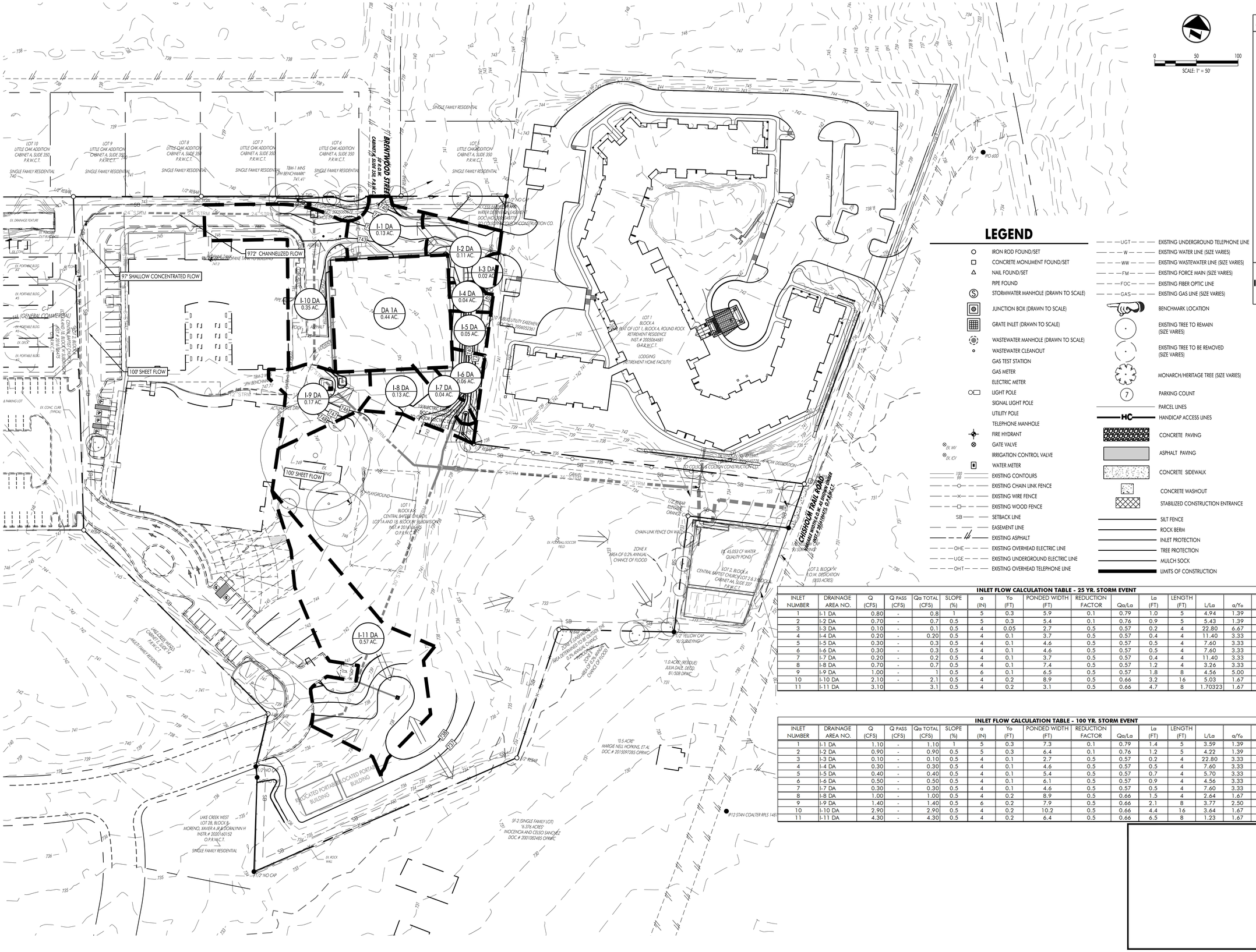
Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-8477
Fax: (512) 388-0732
Email: spai@sp-ai.com Web Site: www.sp-ai.com

Copyright

SHEET
PDA
07 of 32
SDP2205-0006

Copyright © 2023 Spencer-Pierce Architecture + Interiors, Inc. All rights reserved. This drawing is the property of Spencer-Pierce Architecture + Interiors, Inc. and is not to be used in any way without the permission of the owner. All ideas, designs, arrangements and plans indicated or represented by this drawing are owned by and the property of Spencer-Pierce Architecture + Interiors, Inc. and were created, evolved and developed for use on and in connection with the specified project. None of such ideas, designs, arrangements or plans shall be used by or disclosed to any person, firm or corporation for any purpose whatsoever without the written permission of Spencer-Pierce Architecture + Interiors, Inc.

May 15,2023-4:19pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\21-025 PDA.dwg



LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
- ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- GATE VALVE
- IRRIGATION CONTROL VALVE
- WATER METER
- EXISTING CONTOURS
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING WATER LINE (SIZE VARIES)
- EXISTING WASTEWATER LINE (SIZE VARIES)
- EXISTING FORCE MAIN (SIZE VARIES)
- EXISTING FIBER OPTIC LINE
- EXISTING GAS LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK
- CONCRETE WASHOUT
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- ROCK BERM
- INLET PROTECTION
- TREE PROTECTION
- MULCH SOCK
- LIMITS OF CONSTRUCTION

INLET FLOW CALCULATION TABLE - 25 YR. STORM EVENT

INLET NUMBER	DRAINAGE AREA NO.	Q (CFS)	Q PASS (CFS)	Qa TOTAL (CFS)	SLOPE (%)	n (IN)	Yo (FT)	PONDED WIDTH (FT)	REDUCTION FACTOR	Qa/La	La (FT)	LENGTH (FT)	L/La	a/Yo	Q/Qa	Q (CFS)	Qpass (cfs)
1	I-1 DA	0.80	-	0.8	1	5	0.3	5.9	0.1	0.79	1.0	5	4.94	1.39	1	0.8	0
2	I-2 DA	0.70	-	0.7	0.5	5	0.3	5.4	0.1	0.76	0.9	5	5.43	1.39	1	0.7	0
3	I-3 DA	0.10	-	0.1	0.5	4	0.05	2.7	0.5	0.57	0.2	4	22.80	6.67	1	0.1	0
4	I-4 DA	0.20	-	0.20	0.5	4	0.1	3.7	0.5	0.57	0.4	4	11.40	3.33	1	0.2	0
5	I-5 DA	0.30	-	0.3	0.5	4	0.1	4.6	0.5	0.57	0.5	4	7.60	3.33	1	0.3	0
6	I-6 DA	0.30	-	0.3	0.5	4	0.1	4.6	0.5	0.57	0.5	4	7.60	3.33	1	0.3	0
7	I-7 DA	0.20	-	0.2	0.5	4	0.1	3.7	0.5	0.57	0.4	4	11.40	3.33	1	0.2	0
8	I-8 DA	0.70	-	0.7	0.5	4	0.1	7.4	0.5	0.57	1.2	4	3.26	3.33	1	0.7	0
9	I-9 DA	1.00	-	1	0.5	6	0.1	6.5	0.5	0.57	1.8	8	4.56	5.00	1	1	0
10	I-10 DA	2.10	-	2.1	0.5	4	0.2	8.9	0.5	0.66	3.2	16	5.03	1.67	1	2.1	0
11	I-11 DA	3.10	-	3.1	0.5	4	0.2	3.1	0.5	0.66	4.7	8	1.70323	1.67	1	3.1	0

INLET FLOW CALCULATION TABLE - 100 YR. STORM EVENT

INLET NUMBER	DRAINAGE AREA NO.	Q (CFS)	Q PASS (CFS)	Qa TOTAL (CFS)	SLOPE (%)	n (IN)	Yo (FT)	PONDED WIDTH (FT)	REDUCTION FACTOR	Qa/La	La (FT)	LENGTH (FT)	L/La	a/Yo	Q/Qa	Q (CFS)	Qpass (cfs)
1	I-1 DA	1.10	-	1.10	1	5	0.3	7.3	0.1	0.79	1.4	5	3.59	1.39	1	1.1	0
2	I-2 DA	0.90	-	0.90	0.5	5	0.3	6.4	0.1	0.76	1.2	5	4.22	1.39	1	0.9	0
3	I-3 DA	0.10	-	0.10	0.5	4	0.1	2.7	0.5	0.57	0.2	4	22.80	3.33	1	0.1	0
4	I-4 DA	0.30	-	0.30	0.5	4	0.1	4.6	0.5	0.57	0.5	4	7.60	3.33	1	0.3	0
5	I-5 DA	0.40	-	0.40	0.5	4	0.1	5.4	0.5	0.57	0.7	4	5.70	3.33	1	0.4	0
6	I-6 DA	0.50	-	0.50	0.5	4	0.1	6.1	0.5	0.57	0.9	4	4.56	3.33	1	0.5	0
7	I-7 DA	0.30	-	0.30	0.5	4	0.1	4.6	0.5	0.57	0.5	4	7.60	3.33	1	0.3	0
8	I-8 DA	1.00	-	1.00	0.5	4	0.2	8.9	0.5	0.66	1.5	4	2.64	1.67	1	1	0
9	I-9 DA	1.40	-	1.40	0.5	6	0.2	7.9	0.5	0.66	2.1	8	3.77	2.50	1	1.4	0
10	I-10 DA	2.90	-	2.90	0.5	4	0.2	10.2	0.5	0.66	4.4	16	3.64	1.67	1	2.9	0
11	I-11 DA	4.30	-	4.30	0.5	4	0.2	6.4	0.5	0.66	6.5	8	1.23	1.67	1	4.3	0

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

INLET DRAINAGE AREA

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Email: spai@sp-ai.com Web Site: www.sp-ai.com
Phone: (512) 388-9477
Fax: (512) 388-0752

Copyright

SHEET
DA INLETS
08 of 32
SDP2205-0006

May 15,2023 1:28pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\21-025 PDA 2.dwg
Copyright Notice: These plans are protected by the Federal Work Copyright Protection Act of 1990. The protection includes, but is not limited to the overall form as well as the arrangement and composition of spaces and elements in the design. Unauthorized use of these plans without the permission of the author is prohibited.

PREDEVELOPED CONDITIONS

HYDROLOGIC SUMMARY for DA 1A

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0	0.62	0.0833	79	1.7	2.4	3.6	4	5
Length (ft)	Length (ft)	Length (ft)	0								
Slope (%)	Slope (%)	Slope (%)	0								
2-yr, 24 hr rainfall		Velocity (fps)	0								
segment total	segment total	segment total	0.0833	Impervious Cover		47%					
USER DEFINED		*time of conc.(hrs)*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.05					

HYDROLOGIC SUMMARY for DA 1B

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0	0.43	0.0833	79	1.3	1.8	2.6	2.9	3.5
Length (ft)	Length (ft)	Length (ft)	0								
Slope (%)	Slope (%)	Slope (%)	0								
2-yr, 24 hr rainfall		Velocity (fps)	0								
segment total	segment total	segment total	0.0833	Impervious Cover		68%					
USER DEFINED		*time of conc.(hrs)*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.05					

HYDROLOGIC SUMMARY for DA 1C

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0	0.03	0.0833	79	0.1	0.1	0.2	0.2	0.2
Length (ft)	Length (ft)	Length (ft)	0								
Slope (%)	Slope (%)	Slope (%)	0								
2-yr, 24 hr rainfall		Velocity (fps)	0								
segment total	segment total	segment total	0.0833	Impervious Cover		0%					
USER DEFINED		*time of conc.(hrs)*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.05					

HYDROLOGIC SUMMARY for DA 2

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0	2.96	0.0833	79	6.3	10.3	16	17.8	22.9
Length (ft)	Length (ft)	Length (ft)	0								
Slope (%)	Slope (%)	Slope (%)	0								
2-yr, 24 hr rainfall		Velocity (fps)	0								
segment total	segment total	segment total	0.0833	Impervious Cover		1%					
USER DEFINED		*time of conc.(hrs)*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.05					

HYDROLOGIC SUMMARY for DA 3

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0	0.82	0.0833	79	1.7	2.8	4.3	4.8	6.2
Length (ft)	Length (ft)	Length (ft)	0								
Slope (%)	Slope (%)	Slope (%)	0								
2-yr, 24 hr rainfall		Velocity (fps)	0								
segment total	segment total	segment total	0.0833	Impervious Cover		0%					
USER DEFINED		*time of conc.(hrs)*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.05					

HYDROLOGIC SUMMARY for DA 4

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0.75	0.0833	79	1.1	1.8	2.9	3.2	4.1
Length (ft)	Length (ft)	Length (ft)								
Slope (%)	Slope (%)	Slope (%)								
2-yr, 24 hr rainfall		Velocity (fps)								
segment total	segment total	segment total	0.0833	Impervious Cover		0%				
USER DEFINED		*time of conc.(hrs)*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.05				

HYDROLOGIC SUMMARY for DA 5

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0	0.1	0.0833	79	0.2	0.3	0.5	0.6	0.8
Length (ft)	Length (ft)	Length (ft)	0								
Slope (%)	Slope (%)	Slope (%)	0								
2-yr, 3 hr rainfall		Velocity (fps)	0								
segment total	segment total	segment total	0.0833	Impervious Cover		0%					
USER DEFINED		*time of conc.(hrs)*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.05					

HYDROLOGIC SUMMARY for EX. DA 1

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	2.86	0.0833	79	9.4	12.2	17.8	19.9	23.8
Length (ft)	Length (ft)	Length (ft)								
Slope (%)	Slope (%)	Slope (%)								
2-yr, 24 hr rainfall		Velocity (fps)								
segment total	segment total	segment total	0.0833	Impervious Cover		83%				
USER DEFINED		*time of conc.(hrs)*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.05				

HYDROLOGIC SUMMARY for EX. DA 2

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0.16	0.0833	79	0.3	0.5	0.8	0.9	1.2
Length (ft)	Length (ft)	Length (ft)								
Slope (%)	Slope (%)	Slope (%)								
2-yr, 24 hr rainfall		Velocity (fps)								
segment total	segment total	segment total	0.0833	Impervious Cover		0%				
USER DEFINED		*time of conc.(hrs)*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.05				

HYDROLOGIC SUMMARY for EX. DA OFF

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	4.93	0.0833	79	13.5	19.1	28.7	31.9	39.3
Length (ft)	Length (ft)	Length (ft)								
Slope (%)	Slope (%)	Slope (%)								
2-yr, 24 hr rainfall		Velocity (fps)								
segment total	segment total	segment total	0.0833	Impervious Cover		46%				
USER DEFINED		*time of conc.(hrs)*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.05				

DEVELOPED CONDITIONS

HYDROLOGIC SUMMARY for DA 1A

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0	0.92	0.083	79	2.8	3.8	5.6	6.2	7.5
Length (ft)	Length (ft)	Length (ft)	0								
Slope (%)	Slope (%)	Slope (%)	0								
2-yr, 24 hr rainfall		Velocity (fps)	0								
segment total	0.083 segment total	segment total	0	Impervious Cover		63%					
USER DEFINED		*time of conc.(h*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.0498					

HYDROLOGIC SUMMARY for DA 1B

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0	0.35	0.083	79	1.1	1.4	2.1	2.4	2.9
Length (ft)	Length (ft)	Length (ft)	0								
Slope (%)	Slope (%)	Slope (%)	0								
2-yr, 24 hr rainfall		Velocity (fps)	0								
segment total	0.083 segment total	segment total	0	Impervious Cover		68%					
USER DEFINED		*time of conc.(h*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.0498					

HYDROLOGIC SUMMARY for DA 1C

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0	0.05	0.083	79	0.1	0.2	0.3	0.3	0.4
Length (ft)	Length (ft)	Length (ft)	0								
Slope (%)	Slope (%)	Slope (%)	0								
2-yr, 24 hr rainfall		Velocity (fps)	0								
segment total	0.083 segment total	segment total	0	Impervious Cover		0%					
USER DEFINED		*time of conc.(h*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.0498					

HYDROLOGIC SUMMARY for DA 1D

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0	0.24	0.083	79	0.7	1	1.5	1.6	2
Length (ft)	Length (ft)	Length (ft)	0								
Slope (%)	Slope (%)	Slope (%)	0								
2-yr, 24 hr rainfall		Velocity (fps)	0								
segment total	0.083 segment total	segment total	0	Impervious Cover		89%					
USER DEFINED		*time of conc.(h*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.0498					

HYDROLOGIC SUMMARY for DA 2

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0	2.56	0.0833	79	5.4	8.7	13.6	15.1	19.4
Length (ft)	Length (ft)	Length (ft)	0								
Slope (%)	Slope (%)	Slope (%)	0								
2-yr, 24 hr rainfall		Velocity (fps)	0								
segment total	0.08333 segment total	segment total	0	Impervious Cover		1%					
USER DEFINED		*time of conc.(h*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.05					

HYDROLOGIC SUMMARY for DA 3

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0	0.67	0.083	79	1.4	2.3	3.5	3.9	5.1
Length (ft)	Length (ft)	Length (ft)	0								
Slope (%)	Slope (%)	Slope (%)	0								
2-yr, 24 hr rainfall		Velocity (fps)	0								
segment total	0.083 segment total	segment total	0	Impervious Cover		8%					
USER DEFINED		*time of conc.(h*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.0498					

HYDROLOGIC SUMMARY for DA 4A

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0	0.57	0.083	79	1.2	2	3.1	3.4	4.3
Length (ft)	Length (ft)	Length (ft)	0								
Slope (%)	Slope (%)	Slope (%)	0								
2-yr, 24 hr rainfall		Velocity (fps)	0								
segment total	0.083 segment total	segment total	0	Impervious Cover		0%					
USER DEFINED		*time of conc.(h*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.0498					

HYDROLOGIC SUMMARY for DA 4B

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0	0.26	0.083	79	0.6	1	1.5	1.6	2
Length (ft)	Length (ft)	Length (ft)	0								
Slope (%)	Slope (%)	Slope (%)	0								
2-yr, 24 hr rainfall		Velocity (fps)	0								
segment total	0.083 segment total	segment total	0	Impervious Cover		5%					
USER DEFINED		*time of conc.(h*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.0498					

HYDROLOGIC SUMMARY for DA 5

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0	0.08	0.083	79	0.2	0.3	0.4	0.5	0.6
Length (ft)	Length (ft)	Length (ft)	0								
Slope (%)	Slope (%)	Slope (%)	0								
2-yr, 24 hr rainfall		Velocity (fps)	0								
segment total	0.083 segment total	segment total	0	Impervious Cover		0%					
USER DEFINED		*time of conc.(h*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.0498					

HYDROLOGIC SUMMARY for EX. DA 1

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	2.86	0.0833	79	9.4	12.2	17.8	19.9	23.8
Length (ft)	Length (ft)	Length (ft)								
Slope (%)	Slope (%)	Slope (%)								
2-yr, 24 hr rainfall		Velocity (fps)								
segment total	segment total	segment total	0.0833	Impervious Cover		83%				
USER DEFINED		*time of conc.(h*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.05				

HYDROLOGIC SUMMARY for EX. DA 2

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	0.16	0.0833	79	0.3	0.5	0.8	0.9	1.2
Length (ft)	Length (ft)	Length (ft)								
Slope (%)	Slope (%)	Slope (%)								
2-yr, 24 hr rainfall		Velocity (fps)								
segment total	segment total	segment total	0.0833	Impervious Cover		0%				
USER DEFINED		*time of conc.(h*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.05				

HYDROLOGIC SUMMARY for EX. DA OFF

TR-55 SCS Lag Time (hours)						Flow Summary						
Segment #1	Segment #2	Segment #3	Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow	Shallow Concent	Channelized	acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	Unpaved	Mannings "n"	4.93	0.0833	79	13.5	19.1	28.7	31.9	39.3
Length (ft)	Length (ft)	Length (ft)								
Slope (%)	Slope (%)	Slope (%)								
2-yr, 24 hr rainfall		Velocity (fps)								
segment total	segment total	segment total	0.0833	Impervious Cover		46%				
USER DEFINED		*time of conc.(h*	***0.083***	***SCS Lag Time (.6 x Tc)=***		0.05				

Detention Pond Depth v. Storage v. Outflow for MOD. J-BOX

Elevation	Depth (ft.)	Accumulated Depth (ft.)	Area (sf.)	Volume (cf.)	Accumulated Volume (cf.)	allow.rel	Outflow (cfs.)	Remarks
731.5	**0**	**0**	**25.00**	**0.00**	**0.00**			
732	0.5	0.5	25.00	12.50	12.50			
733	**1**	**1.5**	**25.00**	**25.00**	**37.50**		**10.30**	**2 YR.**
733.4	**0.4**	**1.9**	**25.00**	**10.00**	**47.50**		**14.60**	**10 YR.**
734	0.6	2.5	25.00	15.00	62.50			
734.2	**0.2**	**2.7**	**25.00**	**5.00**	**67.50**		**19.90**	**25 YR.**
734.5	**0.3**	**3**	**25.00**	**7.50**	**75.00**		**21.20**	**50 YR.**
735	0.5	3.5	25.00	12.50	87.50			
735.6	**0.6**	**4.1**	**25.00**	**15.00**	**102.50**		**26.70**	**100 YR.**
736	0.4	4.5	25.00	10.00	112.50			
737	1	5.5	25.00	25.00	137.50			
738	1	6.5	25.00	25.00	162.50			
739	1	7.5	25.00	25.00	187.50			
740	1	8.5	25.00	25.00	212.50			
741	1	9.5	25.00	25.00	237.50			

Detention Pond Depth v. Storage v. Outflow for MOD. J-BOX 2

Elevation	Depth (ft.)	Accumulated Depth (ft.)	Area (sf.)	Volume (cf.)	Accumulated Volume (cf.)	allow.rel	Outflow (cfs.)	Remarks
731.46	**0**	**0**	**25.00**	**0.00**	**0.00**			
732	0.54	0.54	25.00	13.50	13.50			
733	1	1.54	25.00	25.00	38.50			
733.6	**0.6**	**2.14**	**25.00**	**15.00**	**53.50**		**8.80**	**2 YR.**
734	0.4	2.54	25.00	10.00	63.50			
734.2	**0.2**	**2.74**	**25.00**	**5.00**	**68.50**		**13.30**	**10 YR.**
734.6	**0.4**	**3.14**	**25.00**	**10.00**	**78.50**		**17.2**	**25 YR.**
							17.7	**50 YR.**
735	0.4	3.54	25.00	10.00	88.50			
735.1	**0.1**	**3.64**	**25.00**	**2.50**	**91.00**		**23.30**	**100 YR.**
736	0.9	4.54	25.00	22.50	113.50			
737	1	5.54	25.00	25.00	138.50			
738	1	6.54	25.00	25.00	163.50			
739	1	7.54	25.00	25.00	188.50			
740	1	8.54	25.00	25.00	213.50			
741	1	9.54	25.00	25.00	238.50			

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

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960
THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

HYDROLOGIC CALCULATIONS

Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Email: spai@sp-ai.com Web Site: www.sp-ai.com
Phone: (512) 388-0477
Fax: (512) 388-0752

Copyright

SHEET
CALC 1
09 of 32
SDP2205-0006

Copyright © SPai. Federal laws copyright protection Act of 1976. The protection includes, but is not limited to the overall form as well as the arrangement and composition of spaces and elements in the design. Ideas, designs and plans including all graphic representations may not be used by any person, firm or corporation for any purpose whatsoever without written permission. Submission or distribution of these plans to meet official regulations does not constitute publication in derogation of SPai's reserved rights.

May 15,2023 1:28pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\21-025 PDA.dwg

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: RRRR
Date Prepared: 12/2/2022

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

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

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

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

County =	Williamson	
Total project area included in plan * =	4.91	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	2.26	acres
Total post-development impervious cover fraction * =	0.46	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	1967	lbs.

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

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

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

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area =	10.00	acres
Predevelopment impervious area within drainage basin/outfall area =	0.13	acres
Post-development impervious area within drainage basin/outfall area =	5.70	acres
Post-development impervious fraction within drainage basin/outfall area =	0.57	
$L_{M\ THIS\ BASIN}$ =	4848	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Sand Filter
Removal efficiency = 89 percent

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

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

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

A_C =	10.00	acres
A_I =	5.70	acres
A_P =	4.30	acres
L_R =	5683	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 4848 lbs.

F = 0.85

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

Rainfall Depth =	1.32	inches
Post Development Runoff Coefficient =	0.40	
On-site Water Quality Volume =	19146	cubic feet

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

Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	3829	
Total Capture Volume (required water quality volume(s) x 1.20) =	22975	cubic feet

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

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin =	22975	cubic feet	
Minimum filter basin area =	1064	square feet	
Maximum sedimentation basin area =	9573	square feet	For minimum water depth of 2 feet
Minimum sedimentation basin area =	2393	square feet	For maximum water depth of 8 feet

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins =	22975	cubic feet	
Minimum filter basin area =	1915	square feet	
Maximum sedimentation basin area =	7658	square feet	For minimum water depth of 2 feet
Minimum sedimentation basin area =	479	square feet	For maximum water depth of 8 feet

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: RRCA
Date Prepared: 12/2/2022

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

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

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

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

County =	Williamson	
Total project area included in plan * =	8.73	acres
Predevelopment impervious area within the limits of the plan * =	0.13	acres
Total post-development impervious area within the limits of the plan* =	3.44	acres
Total post-development impervious cover fraction * =	0.39	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	2881	lbs.

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

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

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

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area =	10.00	acres
Predevelopment impervious area within drainage basin/outfall area =	0.13	acres
Post-development impervious area within drainage basin/outfall area =	5.70	acres
Post-development impervious fraction within drainage basin/outfall area =	0.57	
$L_{M\ THIS\ BASIN}$ =	4848	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Sand Filter
Removal efficiency = 89 percent

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

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

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

A_C =	10.00	acres
A_I =	5.70	acres
A_P =	4.30	acres
L_R =	5683	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 4848 lbs.

F = 0.85

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

Rainfall Depth =	1.32	inches
Post Development Runoff Coefficient =	0.40	
On-site Water Quality Volume =	19146	cubic feet

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

Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	3829	
Total Capture Volume (required water quality volume(s) x 1.20) =	22975	cubic feet

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

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin =	22975	cubic feet	
Minimum filter basin area =	1064	square feet	
Maximum sedimentation basin area =	9573	square feet	For minimum water depth of 2 feet
Minimum sedimentation basin area =	2393	square feet	For maximum water depth of 8 feet

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins =	22975	cubic feet	
Minimum filter basin area =	1915	square feet	
Maximum sedimentation basin area =	7658	square feet	For minimum water depth of 2 feet
Minimum sedimentation basin area =	479	square feet	For maximum water depth of 8 feet

BMP ACCOUNTING TABLE

Contributing Projects	Lm (lbs.)	WQV Required (cf)	WQV Provided (cf)
Round Rock Christian Academy	2881	22975	44214
Round Rock Retirement Residences	1967		

Depth Vs Storage Sedimentation Pond

Elevation	Depth	Accumul. Depth	Area	Volume	Accumul. Volume	Remarks
728.25	0	0	0	0	0	
729	0.75	0.75	6550	2456.3	2456.25	
730	1	1.75	6550	6550	9006.25	
731	1	2.75	6550	6550	15556	> WQ Vol.
732	1	3.75	6550	6550	22106.3	
733	1	4.75	6550	6550	28656.3	

Depth Vs Storage Filtration Pond

Elevation	Depth	Accumul. Depth	Area	Volume	Accumul. Volume	Remarks	Sed/Fil Combined Volume
728	0	0	2593	0	0		0
729	1	1	2593	5186	5186		7642.25
730	1	2	2593	2593	7779		16785.25
731	1	3	2593	2593	10372	> WQ Vol.	25928.25
732	1	4	2593	2593	12965		35071.25
733	1	5	2593	2593	15558		44214.25

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

WATER QUALITY CALCULATIONS

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-8477
Fax: (512) 388-0722
Email: spai@sp-ai.com Web Site: www.sp-ai.com

Copyright

SHEET
CALC 2
10 of 32
SDP2205-0006

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

Copyright Notice: These plans are copyrighted and the property of the Architect and may not be reproduced, published or used in any way without the Architect's consent. Copyright protection as a "work of architecture" extends to any portion of the design set. This includes but is not limited to the overall form as well as the arrangement and composition of spaces and elements in the design. Unauthorized use of these plans and designs without the express written permission of the Architect is a violation of applicable state and federal laws.

May 15,2023-1:28pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\21-025 PDA.dwg

CITY OF ROUND ROCK GENERAL CONSTRUCTION NOTES

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF ROUND ROCK STANDARD SPECIFICATIONS MANUAL
2. ANY EXISTING UTILITIES, PAVEMENT, CURBS, SIDEWALKS, STRUCTURES, TREES, ETC., NOT PLANNED FOR DEMOLITION OR REMOVAL THAT ARE DAMAGED OR REMOVED SHALL BE REPAIRED OR REPLACED AT CONTRACTOR'S EXPENSE.
3. THE CONTRACTOR SHALL VERIFY ALL DEPTHS AND LOCATIONS OF EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. ANY DISCREPANCIES WITH THE CONSTRUCTION PLANS FOUND IN THE FIELD SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ENGINEER WHO SHALL BE REPONSIBLE FOR REVISING THE PLANS AS APPROPRIATE.
4. MANHOLE FRAMES, COVERS, VALVES, CLEANOUTS, ETC. SHALL BE RAISED TO FINISHED GRADE PRIOR TO FINAL PAVING CONSTRUCTION.
5. THE CONTRACTOR SHALL GIVE THE CITY OF ROUND ROCK 48 HOURS NOTICE BEFORE BEGINNING EACH PHASE OF CONSTRUCTION. TELEPHONE (512)-218-5428 (PLANNING AND DEVELOPMENT SERVICES).
6. ALL AREAS DISTURBED OR EXPOSED DURING CONSTRUCTION SHALL BE REVEGETATED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AS WELL AS THE STANDARD SPECIFICATIONS MANUAL SERIES 600. REVEGETATION OF ALL DISTURBED OR EXPOSED AREAS SHALL CONSIST OF SODDING OR SEEDING, AT THE CONTRACTOR'S OPTION. HOWEVER, THE TYPE OF REVEGETATION MUST EQUAL OR EXCEED THE TYPE OF VEGETATION PRESENT BEFORE CONSTRUCTION UNLESS.
7. PRIOR TO ANY CONSTRUCTION, THE ENGINEER SHALL CONVENE A PRECONSTRUCTION CONFERENCE BETWEEN THE CITY OF ROUND ROCK, HIMSELF, THE CONTRACTOR, OTHER UTILITY COMPANIES, ANY AFFECTED PARTIES AND ANY OTHER ENTITIY THE CITY OR ENGINEER MAY REQUIRE.
8. THE CONTRACTOR AND THE ENGINEER SHALL KEEP ACCURATE RECORDS OF ALL CONSTRUCTION THAT DEVIATES FROM THE PLANS. ANY DEVIATIONS SHALL BE INCORPORATED INTO A REVISION AND APPROVED BY PLANNING AND DEVELOPMENT SERVICES. THE ENGINEER SHALL FURNISH THE CITY OF ROUND ROCK ACCURATE "AS-BUILT" RECORD DRAWINGS FOLLOWING COMPLETION OF ALL CONSTRUCTION. THESE "AS-BUILT" RECORD DRAWINGS SHALL MEET WITH THE SATISFACTION OF THE PLANNING AND DEVELOPMENT SERVICES DEPARTMENT PRIOR TO FINAL ACCEPTANCE.
9. THE ROUND ROCK CITY COUNCIL SHALL NOT BE PETITIONED FOR ACCEPTANCE UNTIL ALL NECESSARY EASEMENT DOCUMENTS HAVE BEEN SIGNED AND RECORDED.
10. WHEN CONSTRUCTION IS BEING CARRIED OUT WITHIN EASEMENTS, THE CONTRACTOR SHALL CONFINE HIS WORK TO WITHIN THE PERMANENT AND ANY TEMPORARY EASEMENTS. PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TRASH AND DEBRIS WITHIN THE PERMANENT AND TEMPORARY EASEMENTS. CLEAN-UP SHALL BE TO THE SATISFACTION OF THE PLANNING AND DEVELOPMENT SERVICES INSPECTOR.
11. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL APPLY FOR AND SECURE ALL PROPER PERMITS FROM THE APPROPRIATE AUTHORITIES.
12. AVAILABLE BENCHMARKS THAT MAY BE UTILIZED FOR THE CONSTRUCTION OF THIS PROJECT ARE DESCRIBED AS FOLLOWS:

TBM #1 - MNS "JPH BENCHMARK" (SEE SP1)
ELEV = 741.41 NAVD'88 (GEOID 18)

TBM #2 - MNS "JPH BENCHMARK" (SEE SP1)
ELEV = 747.71 NAVD'88 (GEOID 18)

TRENCH SAFETY NOTES:

1. IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U. S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, ALL TRENCHES OVER 5 FEET IN DEPTH IN EITHER HARD AND COMPACT OR SOFT AND UNSTABLE SOIL SHALL BE SLOPED, SHORED, SHEETED, BRACED OR OTHERWISE SUPPORTED. FURTHERMORE, ALL TRENCHES LESS THAN 5 FEET IN DEPTH SHALL ALSO BE EFFECTIVELY PROTECTED WHEN HAZARDOUS GROUND MOVEMENT MAY BE EXPECTED. A SITE SPECIFIC TRENCH SAFETY SYSTEM, ACCEPTED BY PLANNING AND DEVELOPMENT SERVICES, SHALL BE UTILIZED BY THIS PRODUCT.
2. IN ACCORDANCE WITH THE U. S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, WHEN PERSONS ARE IN TRENCHES 4 FEET DEEP OR MORE, ADEQUATE MEANS OF EXIT, SUCH AS A LADDER OR STEPS, MUST BE PROVIDED AND LOCATED SO AS TO REQUIRE NO MORE THAN 25 FEET OF LATERAL TRAVEL.
3. IF TRENCH SAFETY SYSTEM DETAILS WERE NOT PROVIDED IN THE PLANS BECAUSE TRENCHES WERE ANTICIPATED TO BE LESS THAN 5 FEET IN DEPTH AND DURING CONSTRUCTION IT IS FOUND THAT TRENCHES ARE IN FACT 5 FEET OR MORE IN DEPTH OR TRENCHES LESS THAN 5 FEET IN DEPTH ARE IN AN AREA WHERE HAZARDOUS GROUND MOVEMENT IS EXPECTED, ALL CONSTRUCTION SHALL CEASE, THE TRENCHED AREA SHALL BE BARRICADED AND THE ENGINEER NOTIFIED IMMEDIATELY. CONSTRUCTION SHALL NOT RESUME UNTIL APPROPRIATE TRENCH SAFETY SYSTEM DETAILS, AS DESIGNED BY A PROFESSIONAL ENGINEER, ARE RETAINED AND COPIES SUBMITTED TO THE CITY OF ROUND ROCK.

STREET AND DRAINAGE NOTES:

1. ALL TESTING SHALL BE DONE BY AN INDEPENDENT LABORATORY AT THE OWNER'S EXPENSE. ANY RETESTING SHALL BE PAID FOR BY THE CONTRACTOR. A CITY INSPECTOR SHALL BE PRESENT DURING ALL TESTS. TESTING SHALL BE COORDINATED WITH THE CITY INSPECTOR AND HE SHALL BE GIVEN A MINIMUM OF 24 HOURS NOTICE PRIOR TO ANY TESTING.
2. BACKFILL BEHIND THE CURB SHALL BE COMPACTED TO OBTAIN A MINIMUM OF 95% MAXIMUM DENSITY TO WITHIN 3" OF TOP OF CURB. MATERIAL USED SHALL BE PRIMARILY GRANULAR WITH NO ROCKS LARGER THAN 6" IN THE GREATEST DIMENSION. THE REMAINING 3" SHALL BE CLEAN TOPSOIL FREE FROM ALL CLODS AND SUITABLE FOR SUSTAINING PLANT LIFE.
3. DEPTH OF COVER FOR ALL CROSSINGS UNDER PAVEMENT INCLUDING GAS, ELECTRIC, TELEPHONE, CABLE TV, WATER SERVICES, ETC., SHALL BE A MINIMUM OF 30" BELOW SUBGRADE.
4. STREET RIGHTS-OF-WAY SHALL BE GRADED AT A SLOPE OF 1/4" PER FOOT TOWARD THE CURB UNLESS OTHERWISE INDICATED. HOWEVER, IN NO CASE SHALL THE WIDTH OF RIGHT-OF-WAY AT 1/4" PER FOOT SLOPE BE LESS THAN 10 FEET UNLESS A SPECIFIC REQUEST FOR AN ALTERNATE GRADING SCHEME IS MADE TO AND ACCEPTED BY THE CITY OF ROUND ROCK PLANNING AND DEVELOPMENT SERVICES DEPARTMENT.
5. BARRICADES BUILT TO CITY OF ROUND ROCK STANDARDS SHALL BE CONSTRUCTED ON ALL DEAD-END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB AND PUBLIC SAFETY.
6. ALL R.C.P. SHALL BE MINIMUM CLASS III.
7. THE SUBGRADE MATERIAL FOR THE STREETS SHOWN HEREIN WAS TESTED BY: ____ALLIANCE ENGINEERING GROUP, INC.____ IN A REPORT DATED 12/27/2022, AND THE PAVING SECTIONS DESIGNED IN ACCORDANCE WITH THE CURRENT CITY OF ROUND ROCK DESIGN CRITERIA. THE PAVING SECTIONS ARE TO BE CONSTRUCTED AS FOLLOWS: SEE DETAIL 02/C70

   THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE FOR COMPLIANCE WITH THE DESIGN ASSUMPTIONS MADE DURING PREPARATION OF THE SOILS REPORT. ANY ADJUSTMENTS THAT ARE REQUIRED SHALL BE MADE THROUGH REVISION OF THE CONSTRUCTION PLANS.
8. WHERE PI'S ARE OVER 20, SUBGRADES MUST BE STABILIZED UTILIZING A METHOD ACCEPTABLE TO THE CITY ENGINEER. THE GEOTECHNICAL ENGINEER SHALL RECOMMEND AN APPROPRIATE SUBGRADE STABILIZATION IF SULFATES ARE DETERMINED TO BE PRESENT.

WATER AND WASTEWATER NOTES:

1. PIPE MATERIAL AND ACCESSORIES SHALL BE OF NEW MATERIALS ONLY. WATER MAINS SHALL BE DUCTILE IRON (AWWA C-110, C104, AND ANSI/AWWA C-153/A21.53-84, MIN PRESSURE CLASS 200) OR PVC (AWWA C-900/C905, ASTM F477 AND D3139, MIN PRESSURE CLASS 200) OR HDPE (AWWA C-906, ASTM F714, NSF 61 AND PE 3408 BY ASTM 3350) WITH A MINIMUM 11 DIMENSION RATIO AND (DR) DUCTILE IRON PIPE SIZE (DIPS). SERVICE PIPING SHALL BE COPPER SEAMLESS TYPE K OR POLYETHYLENE (BLACK, 200 PSI, DR 9) AS ACCEPTED BY THE CITY.
2. PIPE MATERIAL FOR PRESSURE WASTEWATER MAINS SHALL BE SDR 26 HIGHER PRESSURE RATED (150+PSI) OR DUCTILE IRON (AWWA C-100, MIN. CLASS 200). PIPE MATERIAL FOR GRAVITY WASTEWATER MAINS SHALL BE PVC (ASTM D2241 OR D3034, MAX. DR-26), DUCTILE IRON (AWWA C-100, MIN. CLASS 200).
3. UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER, DEPTH OF COVER FOR ALL LINES OUT OF THE PAVEMENT SHALL BE 42" MINIMUM AND DEPTH OF COVER FOR ALL LINES UNDER PAVEMENT SHALL BE A MINIMUM OF 30" BELOW SUBGRADE.
4. ALL FIRE HYDRANT LEADS SHALL BE DUCTILE IRON PIPE (AWWA C-100, MIN. CLASS 200).
5. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH MINIMUM 8-MIL POLYETHYLENE AND SEALED WITH DUCT TAPE OR EQUAL ACCEPTED BY THE CITY ENGINEER.
6. THE CONTRACTOR SHALL CONTACT THE CITY OF ROUND ROCK CIVIL INSPECTOR TO COORDINATE UTILITY TIE-INS AND NOTIFY HIM AT LEAST 48 HOURS PRIOR TO CONNECTING TO EXISTING LINES.
7. ALL MANHOLES SHALL BE CONCRETE WITH CAST IRON RING AND COVER. ALL MANHOLES LOCATED OUTSIDE OF THE PAVEMENT SHALL HAVE BOLTED COVERS. TAPPING OF FIBERGLASS MANHOLES SHALL NOT BE ALLOWED.
8. THE CONTRACTOR MUST OBTAIN A BULK WATER PERMIT OR PURCHASE AND INSTALL A WATER METER FOR ALL WATER USED DURING CONSTRUCTION. A COPY OF THIS PERMIT MUST BE CARRIED AT ALL TIMES BY ALL WHO USE WATER.
9. LINE FLUSHING OR ANY ACTIVITY USING A LARGE QUANTITY OF WATER MUST BE SCHEDULED WITH THE CITY OF ROUND ROCK CIVIL INSPECTOR.
10. THE CONTRACTOR, AT HIS EXPENSE, SHALL PERFORM STERILIZATION OF ALL POTABLE WATER LINES CONSTRUCTED AND SHALL PROVIDE ALL EQUIPMENT (INCLUDING TEST GAUGES), SUPPLIES (INCLUDING CONCENTRATED CHLORINE DISINFECTING MATERIAL), AND NECESSARY LABOR REQUIRED FOR THE STERILIZATION PROCEDURE. THE STERILIZATION PROCEDURE SHALL BE MONITORED BY CITY OF ROUND ROCK PERSONNEL. WATER SAMPLES WILL BE COLLECTED BY THE CITY OF ROUND ROCK TO VERIFY EACH TREATED LINE HAS ATTAINED AN INITIAL CHLORINE CONCENTRATION OF 50 PPM. WHERE MEANS OF FLUSHING IS NECESSARY, THE CONTRACTOR, AT HIS EXPENSE, SHALL PROVIDE FLUSHING DEVICES AND REMOVE SAID DEVICES PRIOR TO FINAL ACCEPTANCE BY THE CITY OF ROUND ROCK.
11. SAMPLING TAPS SHALL BE BROUGHT UP TO 3 FEET ABOVE GRADE AND SHALL BE EASILY ACCESSIBLE FOR CITY PERSONNEL AT THE CONTRACTOR'S REQUEST, AND IN HIS PRESENCE, SAMPLES FOR BACTERIOLOGICAL TESTING WILL BE COLLECTED BY THE CITY OF ROUND ROCK NOT LESS THAN 24 HOURS AFTER THE TREATED LINE HAS BEEN FLUSHED OF THE CONCENTRATED CHLORINE SOLUTION AND CHARGED WITH WATER APPROVED BY THE CITY. THE CONTRACTOR SHALL SUPPLY A CHECK OR MONEY ORDER, PAYABLE TO THE CITY OF ROUND ROCK, TO COVER THE FEE CHARGED FOR TESTING EACH WATER SAMPLE. CITY OF ROUND ROCK FEE AMOUNTS MAY BE OBTAINED BY CALLING THE CITY OF ROUND ROCK CIVIL INSPECTOR.
12. THE CONTRACTOR, AT HIS EXPENSE, SHALL PERFORM QUALITY TESTING FOR ALL WASTEWATER PIPE INSTALLED AND PRESSURE PIPE HYDROSTATIC TESTING OF ALL WATER LINES CONSTRUCTED AND SHALL PROVIDE ALL EQUIPMENT (INCLUDING PUMPS AND GAUGES), SUPPLIES AND LABOR NECESSARY TO PERFORM THE TESTS. QUALITY AND PRESSURE TESTING SHALL BE MONITORED BY CITY OF ROUND ROCK PERSONNEL.
13. THE CONTRACTOR SHALL COORDINATE TESTING WITH THE CITY OF ROUND ROCK INSPECTOR AND PROVIDE NO LESS THAN 24 HOURS NOTICE PRIOR TO PERFORMING STERILIZATION, QUALITY TESTING OR PRESSURE TESTING.
14. THE CONTRACTOR SHALL NOT OPEN OR CLOSE ANY VALVES UNLESS AUTHORIZED BY THE CITY OF ROUND ROCK.
15. ALL VALVE BOXES AND COVERS SHALL BE CAST IRON.
16. ALL WATER SERVICE, WASTEWATER SERVICE AND VALVE LOCATIONS SHALL BE APPROPRIATELY MARKED THROUGH CHISELING AND PAINTING AS FOLLOWS:

WATER SERVICE	"W" ON TOP OF CURB
WASTEWATER SERVICE	"S" ON TOP OF CURB
CURB VALVE	"V" ON FACE OF CURB

   TOOLS FOR MARKING THE CURB SHALL BE PROVIDED BY THE CONTRACTOR. OTHER APPROPRIATE MEANS OF MARKING SERVICE AND VALVE LOCATIONS SHALL BE PROVIDED IN AREAS WITHOUT CURBS. SUCH MEANS OF MARKING SHALL BE AS SPECIFIED BY THE ENGINEER AND ACCEPTED BY THE CITY OF ROUND ROCK.
17. CONTACT THE CITY OF ROUND ROCK PLANNING AND DEVELOPMENT SERVICES DEPARTMENT AT (512) 218-5428 FOR ASSISTANCE IN OBTAINING EXISTING WATER AND WASTEWATER LOCATIONS.
18. THE CITY OF ROUND ROCK FIRE DEPARTMENT SHALL BE NOTIFIED 48 HOURS PRIOR TO TESTING OF ANY BUILDING SPRINKLER PIPING IN ORDER THAT THE FIRE DEPARTMENT MAY MONITOR SUCH TESTING.
19. SAND, AS DESCRIBED IN SPECIFICATION ITEM 510 PIPE, SHALL NOT BE USED AS BEDDING FOR WATER AND WASTEWATER LINES. ACCEPTABLE BEDDING MATERIALS ARE PIPE BEDDING STONE, PEA GRAVEL AND IN LIEU OF SAND, A NATURALLY OCCURRING OR MANUFACTURED STONE MATERIAL CONFORMING TO ASTM C33 FOR STONE QUALITY AND MEETING THE FOLLOWING GRADATION SPECIFICATION.

SIEVE SIZE	PERCENT RETAINED BY WEIGHT
1/2"	0
3/8"	0-2
#4	40-85
#10	95-100

20. THE CONTRACTOR IS HEREBY NOTIFIED THAT CONNECTING TO, SHUTTING DOWN, OR TERMINATING EXISTING UTILITY LINES, MAY HAVE TO OCCUR AT OFF-PEAK HOURS. SUCH HOURS ARE USUALLY OUTSIDE NORMAL WORKING HOURS AND POSSIBLY BETWEEN 12 A.M. AND 6 A.M. ANY WATER SHUTDOWN OR TIE-IN MUST BE SCHEDULED TEN (10) DAYS IN ADVANCE.
21. ALL WASTEWATER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) REGULATIONS, 30 TAC CHAPTER 213 AND 317 OR 217, AS APPLICABLE. WHENEVER TCEQ AND CITY OF ROUND ROCK SPECIFICATIONS CONFLICT, THE MORE STRINGENT SHALL APPLY.

TRAFFIC MARKING NOTES:

1. ANY METHODS, STREET MARKINGS AND SIGNAGE NECESSARY FOR WARNING MOTORISTS, WARNING PEDESTRIANS OR DIVERTING TRAFFIC DURING CONSTRUCTION SHALL CONFORM TO THE TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, LATEST EDITION.
2. ALL PAVEMENT MARKINGS, MARKERS, PAINT, TRAFFIC BUTTONS, TRAFFIC CONTROLS AND SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES AND, THE TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, LATEST EDITIONS.

EROSION AND SEDIMENTATION CONTROL NOTES:

1. EROSION CONTROL MEASURES, SITE WORK AND RESTORATION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF ROUND ROCK EROSION AND SEDIMENTATION CONTROL ORDINANCE.
2. ALL SLOPES SHALL BE SODDED OR SEEDED WITH APPROVED GRASS, GRASS MIXTURES OR GROUND COVER SUITABLE TO THE AREA AND SEASON IN WHICH THEY ARE APPLIED.
3. SILT FENCES, ROCK BERMS, SEDIMENTATION BASINS AND SIMILARLY RECOGNIZED TECHNIQUES AND MATERIALS SHALL BE EMPLOYED DURING CONSTRUCTION TO PREVENT POINT SOURCE SEDIMENTATION LOADING OF DOWNSTREAM FACILITIES. SUCH INSTALLATION SHALL BE REGULARLY INSPECTED BY THE CITY OF ROUND ROCK FOR EFFECTIVENESS. ADDITIONAL MEASURES MAY BE REQUIRED IF, IN THE OPINION OF THE CITY ENGINEER, THEY ARE WARRANTED.
4. ALL TEMPORARY EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL FINAL INSPECTION AND APPROVAL OF THE PROJECT BY THE ENGINEER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL TEMPORARY EROSION CONTROL STRUCTURES AND TO REMOVE EACH STRUCTURE AS APPROVED BY THE ENGINEER.
5. ALL MUD, DIRT, ROCKS, DEBRIS, ETC., SPILLED, TRACKED OR OTHERWISE DEPOSITED ON EXISTING PAVED STREETS, DRIVES AND AREAS USED BY THE PUBLIC SHALL BE CLEANED UP IMMEDIATELY.
6. ONCE REVEGETATION REQUIREMENTS HAVE BEEN MET, ALL TEMPORARY SEDIMENT CONTROLS (E.G. SILT FENCE, ROCK BERMS, INLET PROTECTION, ETC.) SHALL BE REMOVED FROM THE SITE AND DISPOSED, ANY DISTURBED AREAS SHALL BE CLEANSED OF DIRT AND DEBRIS AND PROPERLY RAKED AND GRADED.

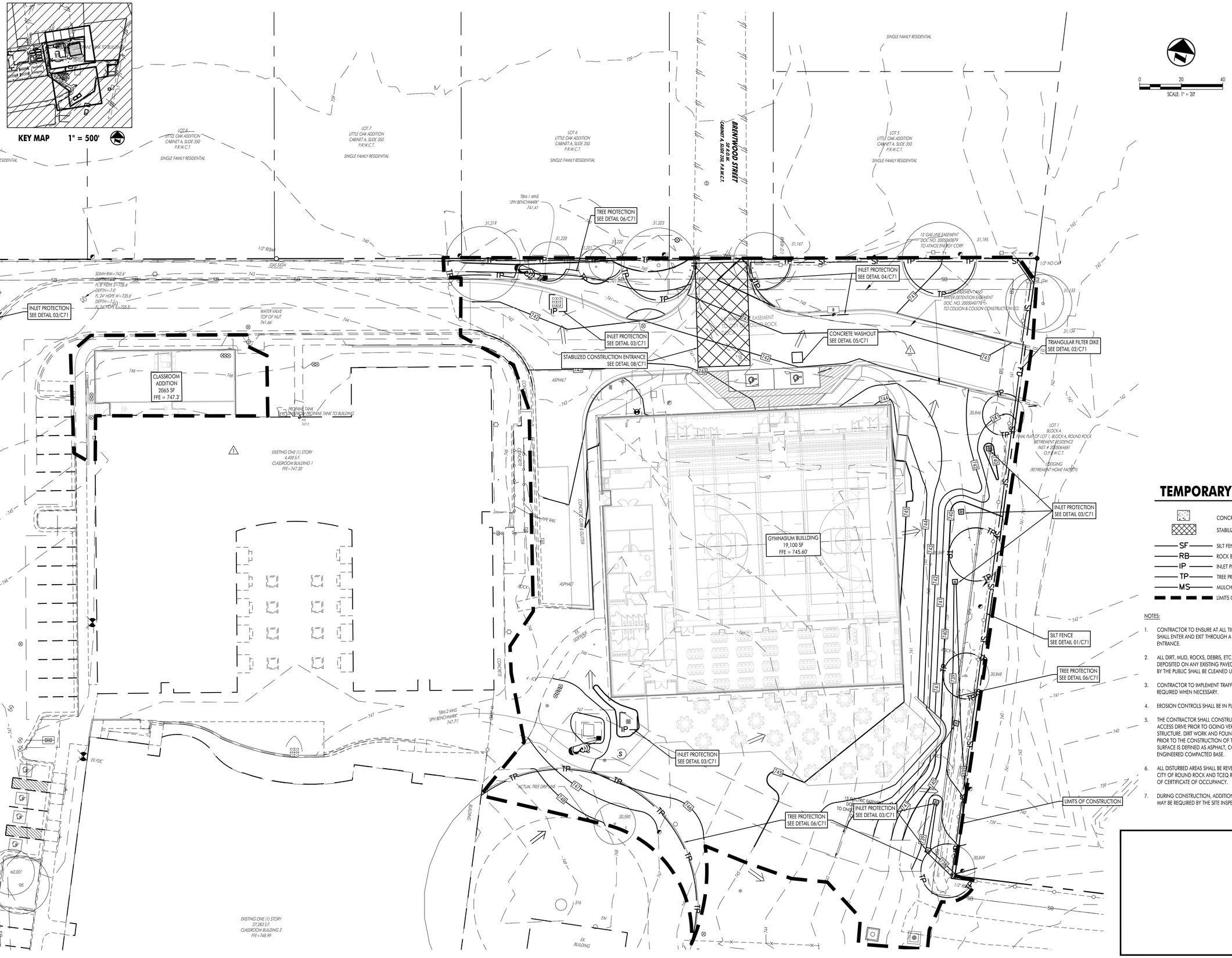
TREE PROTECTION NOTES:

1. ALL TREES NOT LOCATED WITHIN THE LIMITS OF CONSTRUCTION AND OUTSIDE OF DISTURBED AREAS SHALL BE PRESERVED. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL TREES TO BE PRESERVED FROM HIS ACTIVITIES.
2. ALL TREES SHOWN TO BE RETAINED WITHIN THE LIMITS OF CONSTRUCTION ON THE PLANS, SHALL BE PROTECTED DURING CONSTRUCTION WITH FENCING. SEE: TREE PROTECTION TREE WELLS (EC-06), TREE PROTECTION TREE LOCATION (EC-07) AND TREE PROTECTION FENCE-CHAIN LINK (EC-08).
3. TREE PROTECTION FENCES SHALL BE ERECTED ACCORDING TO CITY STANDARDS FOR TREE PROTECTION, INCLUDING TYPES OF FENCING AND SIGNAGE.
4. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR GRADING) AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT.
5. EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP WITHIN TREE DRIPLINES.
6. FENCES SHALL COMPLETELY SURROUND THE TREE OR CLUSTERS OF TREES, LOCATED AT THE OUTERMOST LIMITS OF THE TREE BRANCHES (DRIPLINE) OR CRITICAL ROOT ZONE (CRZ), WHICHEVER IS GREATER; AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PREVENT THE FOLLOWING:
   6.1. SOIL COMPACTION IN CRZ AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIAL.
   6.2. CRZ DISTURBANCES DUE TO GRADE CHANGES OR TRENCHING NOT REVIEWED AND UTHORIZED BY THE FORESTRY MANAGER.
   6.3. WOUNDS TO EXPOSED ROOTS, TRUNK, OR LIMBS BY MECHANICAL EQUIPMENT
   6.4. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CONCRETE TRUCK CLEANING, AND FIRES.
7. EXCEPTIONS TO INSTALLING TREE FENCES AT THE TREE DRIPLINES OR CRZ, WHICHEVER IS GREATER, MAY BE PERMITTED IN THE FOLLOWING CASES:
   7.1. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, OR TREE WELL;
   7.2. HERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
   7.3. HERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN 6 FEET TO THE BUILDING.
   7.4. HERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER SPECIAL REQUIREMENTS, CONTACT THE FORESTRY MANAGER TO DISCUSS ALTERNATIVES.
8. HERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE THAT IS CLOSER THAN 5 FEET TO A TREE TRUNK, THE TRUNK SHALL BE PROTECTED BY STRAPPED-ON PLANKING TO A HEIGHT OF 8 FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.
9. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN AREAS OF UNPROTECTED ROOT ZONES UNDER THE DRIPLINE OR CRZ, WHICHEVER IS GREATER, THOSE AREAS SHOULD BE COVERED WITH 4 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION.
10. ALL GRADING WITHIN CRZ AREAS SHALL BE DONE BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE. PRIOR TO GRADING, RELOCATE PROTECTIVE FENCING TO 2 FEET BEHIND THE GRADE CHANGE AREA.
11. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL AND BACKFILLED WITH GOOD QUALITY TOP SOIL WITHIN TWO DAYS. IF EXPOSED ROOT AREAS CANNOT BE BACKFILLED WITHIN 2 DAYS, AN ORGANIC MATERIAL WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION SHALL BE PLACED TO COVER THE ROOTS UNTIL BACKFILL CAN OCCUR.
12. PRIOR TO EXCAVATION OR GRADE CUTTING WITHIN TREE DRIPLINES, A CLEAN CUT SHALL BE MADE WITH A ROCK SAW OR SIMILAR EQUIPMENT, IN A LOCATION AND TO A DEPTH APPROVED BY THE FORESTRY MANAGER, TO MINIMIZE DAMAGE TO REMAINING ROOTS.
13. TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES WILL BE WATERED DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. TREE CROWNS ARE TO BE SPRAYED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON LEAVES.
14. WHEN INSTALLING CONCRETE ADJACENT TO THE ROOT ZONE OF A TREE, A PLASTIC VAPOR BARRIER SHALL BE PLACED BEHIND THE CONCRETE TO PROHIBIT LEACHING OF LIME INTO THE CRZ.
15. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
16. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN FOUR (4) INCHES SHALL BE PERMITTED WITHIN THE DRIPLINE OR CRZ OF TREES, WHICHEVER IS GREATER. NO TOPSOIL IS PERMITTED ON ROOT FLARES OF ANY TREE.
17. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC, AND CONSTRUCTION EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS. ALL PRUNING MUST BE DONE ACCORDING TO CITY STANDARDS AND AS OUTLINED IN LITERATURE PROVIDED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA PRUNING TECHNIQUES).
18. ALL OAK TREE CUTS, INTENTIONAL OR UNINTENTIONAL, SHALL BE SEALED WITH AN APPROVED PRUNING SEALER IMMEDIATELY (WITHIN 10 MINUTES). TREE PAINT MUST BE KEPT ON SITE AT ALL TIMES.
19. THE FORESTRY MANAGER HAS THE AUTHORITY TO REQUIRE ADDITIONAL TREE PROTECTION BEFORE OR DURING CONSTRUCTION.
20. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED. REFER TO THE CITY OF ROUND ROUND ROCK TREE TECHNICAL MANUAL FOR APPROPRIATE REMOVAL METHODS.
21. PRIOR TO CONSTRUCTION, ALL LOWER TREE LIMBS OVER ROADWAYS MUST BE PRUNED TO A HEIGHT OF 14 FEET USING THE TECHNIQUES DESCRIBED IN THE CITY OF ROUND ROCK TREE TECHNICAL MANUAL.
22. DEVIATIONS FROM THE ABOVE REQUIREMENTS AND NEGLIGENT DAMAGE TO TREES MAY BE CONSIDERED AS ORDINANCE VIOLATIONS.

TCEQ WPAP NOTES

(REV. 7/15/15)
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
WATER POLLUTION ABATEMENT PLAN
GENERAL CONSTRUCTION NOTES

1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
   - THE NAME OF THE APPROVED PROJECT;
   - THE ACTIVITY START DATE; AND
   - THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN (WPAP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.
3. IF ANY SENSITIVE FEATURE(S) (CAVES, SOLUTION CAVITY, SINK HOLE, ETC.) IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. CONSTRUCTION ACTIVITIES MAY NOT BE RESUMED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE APPROPRIATE PROTECTIVE MEASURES IN ORDER TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.
4. NO TEMPORARY OR PERMANENT HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.
5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND MANUFACTURER'S SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
6. ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.
7. SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS NOT LATER THAN TCEQ-0592 WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.
8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.
9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.
10. IF PORTIONS OF THE SITE WILL HAVE A TEMPORARY OR PERMANENT CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.
11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST:
   - THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
   - THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND
   - THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.
12. THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
   A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BU



TEMPORARY ESC LEGEND

- CONCRETE WASHOUT
- STABILIZED CONSTRUCTION ENTRANCE
- SF — SILT FENCE
- RB — ROCK BERM
- IP — INLET PROTECTION
- TP — TREE PROTECTION
- MS — MULCH SOCK
- LIMITS OF CONSTRUCTION

NOTES:

1. CONTRACTOR TO ENSURE AT ALL TIMES, CONSTRUCTION TRAFFIC SHALL ENTER AND EXIT THROUGH A STABILIZED CONSTRUCTION ENTRANCE.
2. ALL DIRT, MUD, ROCKS, DEBRIS, ETC. SPILLED, TRACKED, OR OTHERWISE DEPOSITED ON ANY EXISTING PAVED STREETS, DRIVES AND AREAS USED BY THE PUBLIC SHALL BE CLEANED UP IMMEDIATELY.
3. CONTRACTOR TO IMPLEMENT TRAFFIC CONTROL MEASURES AS REQUIRED WHEN NECESSARY.
4. EROSION CONTROLS SHALL BE IN PLACE PRIOR TO ANY DEMOLITION.
5. THE CONTRACTOR SHALL CONSTRUCT AN ALL WEATHER SURFACE ACCESS DRIVE PRIOR TO GOING VERTICAL WITH THE BUILDING STRUCTURE. DIRT WORK AND FOUNDATION WORK MAY BE DONE PRIOR TO THE CONSTRUCTION OF THIS REQUIREMENT. ALL WEATHER SURFACE IS DEFINED AS ASPHALT, CONCRETE OR CHIP SEAL OVER AN ENGINEERED COMPACTED BASE.
6. ALL DISTURBED AREAS SHALL BE REVEGETATED AND ESTABLISHED PER CITY OF ROUND ROCK AND TCEQ REQUIREMENTS PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.
7. DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY THE SITE INSPECTOR.

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS — TERRY R. HAGOOD — 52960 — REGISTERED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

EROSION AND SEDIMENTATION CONTROL PLAN

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

DATE: 05/15/2023
REV: 1 ADD BUILDING EXPANSION, REVISE FIRELANE HAMMERHEAD
DRW. SPai CHK. SPai

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

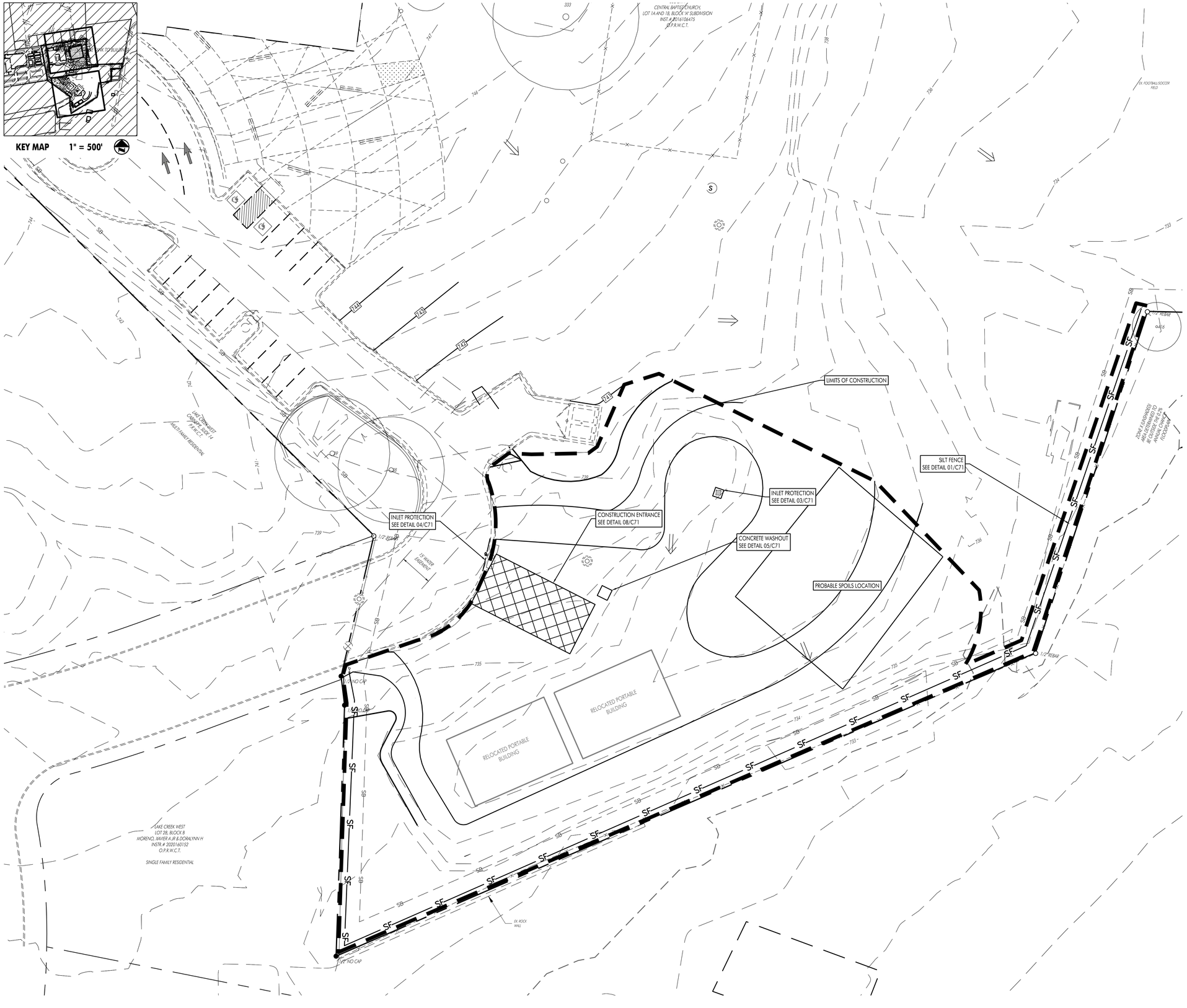
Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-8677
Fax: (512) 388-8732
Email: spai@sp-ai.com Web Site: www.sp-ai.com

Copyright

SHEET
C10A
12 of 32
SDP2205-0006

May 15,2023-1:29pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\21-025 C10.dwg

Copyright notice: This drawing is the property of the author. It is not to be used for any purpose other than the specific project for which it was prepared. Unauthorized use of or modification to this drawing is prohibited. Copyright protection as to this drawing extends to all media now known or hereafter developed, including but not limited to electronic media. Unauthorized use of or modification to this drawing is prohibited. Copyright protection as to this drawing extends to all media now known or hereafter developed, including but not limited to electronic media.



TEMPORARY ESC LEGEND

	CONCRETE WASHOUT
	STABILIZED CONSTRUCTION ENTRANCE
SF	SILT FENCE
RB	ROCK BERM
IP	INLET PROTECTION
TP	TREE PROTECTION
MS	MULCH SOCK
	LIMITS OF CONSTRUCTION

NOTES:

1. CONTRACTOR TO ENSURE AT ALL TIMES, CONSTRUCTION TRAFFIC SHALL ENTER AND EXIT THROUGH A STABILIZED CONSTRUCTION ENTRANCE.
2. ALL DIRT, MUD, ROCKS, DEBRIS, ETC. SPILLED, TRACKED, OR OTHERWISE DEPOSITED ON ANY EXISTING PAVED STREETS, DRIVES AND AREAS USED BY THE PUBLIC SHALL BE CLEANED UP IMMEDIATELY.
3. CONTRACTOR TO IMPLEMENT TRAFFIC CONTROL MEASURES AS REQUIRED WHEN NECESSARY.
4. EROSION CONTROLS SHALL BE IN PLACE PRIOR TO ANY DEMOLITION.
5. THE CONTRACTOR SHALL CONSTRUCT AN ALL WEATHER SURFACE ACCESS DRIVE PRIOR TO GOING VERTICAL WITH THE BUILDING STRUCTURE. DIRT WORK AND FOUNDATION WORK MAY BE DONE PRIOR TO THE CONSTRUCTION OF THIS REQUIREMENT. ALL WEATHER SURFACE IS DEFINED AS ASPHALT, CONCRETE OR CHIP SEAL OVER AN ENGINEERED COMPACTED BASE.
6. ALL DISTURBED AREAS SHALL BE REVEGETATED AND ESTABLISHED PER CITY OF ROUND ROCK AND TCEQ REQUIREMENTS PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.
7. DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY THE SITE INSPECTOR.

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960.
THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

EROSION AND SEDIMENTATION CONTROL PLAN

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-0677
Fax: (512) 388-0752
Email: spai@sp-ai.com Web Site: www.sp-ai.com

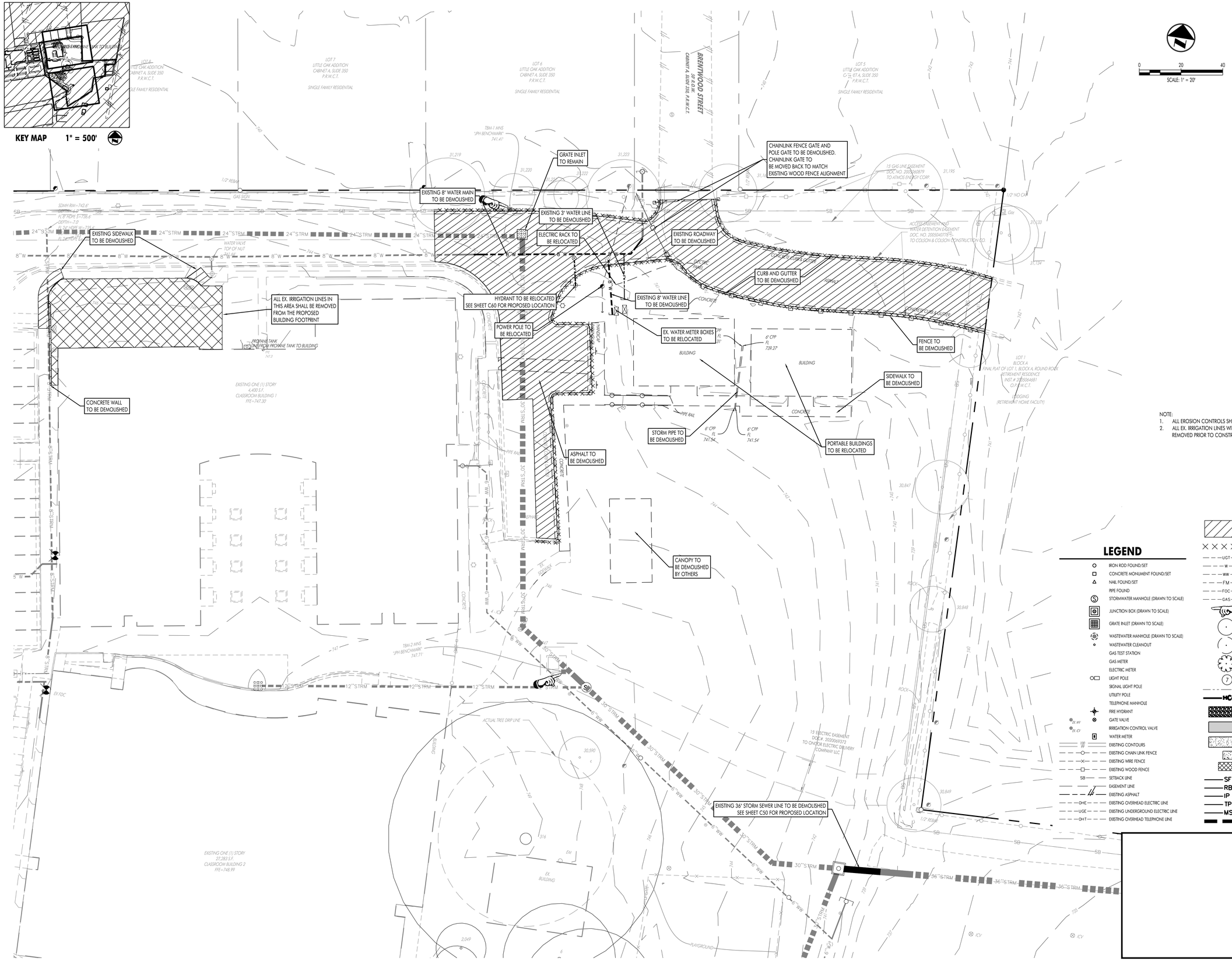
Copyright

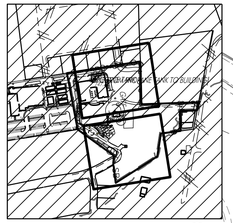
SHEET
C10B
13 of 32
SDP2205-0006

Copyright Notice: These plans are copyrighted and are subject to copyright protection as an "Architectural Work" under section 102 of the copyright act, 17 U.S.C. as amended December 1990 and shall not be reproduced, copied, or used in any manner without the express written consent of the Spencer Pierce Architecture + Interiors, Inc. Under such protection, unauthorized use of these plans, work or building represented, can legally result in the cessation of construction, or buildings being seized and/or monetary compensation to SPai.

May 15,2023-1:29pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Acadamy Addition\CAD Files\Civil\SD\21-025 C10.dwg

KEY MAP 1" = 500'


LOT 7
LITTLE OAK ADDITION
CABINET A, SLIDE 350
P.R.W.C.T.
SINGLE FAMILY RESIDENTIAL
LOT 6
LITTLE OAK ADDITION
CABINET A, SLIDE 350
P.R.W.C.T.
SINGLE FAMILY RESIDENTIAL
BRENTWOOD STREET
59' R.O.W.
CABINET A, SLIDE 358, P.R.W.C.T.
LOT 5
LITTLE OAK ADDITION
CABINET A, SLIDE 350
P.R.W.C.T.
SINGLE FAMILY RESIDENTIAL
TBM-1 MNS
"3PH BENCHMARK"
741.41
TBM-2 MNS
"3PH BENCHMARK"
747.71'
1/2" REBAR
GAS SIGN
SDMH RIM = 742.6'
INVERT = 4.4'
FLR TRAP, S = 736.6
DEPTH = 7.0
FLR SAFWAY W = 736.6
FLR SAFWAY E = 736.6
WATER VALVE
TOP OF NUT
EXISTING SIDEWALK TO BE DEMOLISHED
ALL EX. IRRIGATION LINES IN THIS AREA SHALL BE REMOVED FROM THE PROPOSED BUILDING FOOTPRINT
PROPANE TANK
LINE FROM PROPANE TANK TO BUILDING
CONCRETE WALL TO BE DEMOLISHED
EXISTING ONE (1) STORY
6,400 S.F.
CLASSROOM BUILDING 1
FFE=747.30
EXISTING ONE (1) STORY
27,283 S.F.
CLASSROOM BUILDING 2
FFE=748.99
EX. BUILDING
EX TOC
EX BOC
EX TOW
EX BOW
EX TOS
EX BOS
EX TOP
EX BOP
EX TOB
EX BOB
EX TOE
EX BOE
EX TOR
EX BOR
EX TOG
EX BOG
EX TOM
EX BOM
EX TOD
EX BOD
EX TOF
EX BOF
EX TOH
EX BOH
EX TOI
EX BOI
EX TOJ
EX BOJ
EX TOK
EX BOK
EX TOL
EX BOL
EX TOA
EX BOA
EX TOO
EX BOO
EX TOQ
EX BOQ
EX TOT
EX BOT
EX TOU
EX BOU
EX TOV
EX BOV
EX TOX
EX BOX
EX TOY
EX BOY
EX TOZ
EX BOZ
EX TOAA
EX BOAA
EX TOAB
EX BOAB
EX TOAC
EX BOAC
EX TOAD
EX BOAD
EX TOAE
EX BOAE
EX TOAF
EX BOAF
EX TOAG
EX BOAG
EX TOAH
EX BOAH
EX TOAI
EX BOAI
EX TOAJ
EX BOAJ
EX TOAK
EX BOAK
EX TOAL
EX BOAL
EX TOAM
EX BOAM
EX TOAN
EX BOAN
EX TOAO
EX BOAO
EX TOAP
EX BOAP
EX TOAQ
EX BOAQ
EX TOAR
EX BOAR
EX TOAS
EX BOAS
EX TOAT
EX BOAT
EX TOAU
EX BOAU
EX TOAV
EX BOAV
EX TOAW
EX BOAW
EX TOAX
EX BOAX
EX TOAY
EX BOAY
EX TOAZ
EX BOAZ
EX TOBA
EX BOBA
EX TOBB
EX BOBB
EX TOBC
EX BOBC
EX TOBD
EX BOBD
EX TOBE
EX BOBE
EX TOBF
EX BOBF
EX TOBG
EX BOBG
EX TOBH
EX BOBH
EX TOBI
EX BOBI
EX TOBJ
EX BOBJ
EX TOBK
EX BOBK
EX TOBL
EX BOBL
EX TOBM
EX BOBM
EX TOBN
EX BOBN
EX TOBO
EX BOBO
EX TOBP
EX BOBP
EX TOBQ
EX BOBQ
EX TOBR
EX BOBR
EX TOBS
EX BOBS
EX TOBT
EX BOBT
EX TOBU
EX BOBU
EX TOBV
EX BOBV
EX TOBW
EX BOBW
EX TOBX
EX BOBX
EX TOBY
EX BOBY
EX TOBZ
EX BOBZ
EX TOCA
EX BOCA
EX TOCB
EX BOCB
EX TOCC
EX BOCC
EX TOCD
EX BOCD
EX TOCE
EX BOCE
EX TOCF
EX BOCF
EX TOCG
EX BOCG
EX TOCH
EX BOCH
EX TOCI
EX BOCI
EX TOCJ
EX BOCJ
EX TOCK
EX BOCK
EX TOCL
EX BOCL
EX TOCM
EX BOCM
EX TOCN
EX BOCN
EX TOCO
EX BOCO
EX TOCP
EX BOCP
EX TOCQ
EX BOCQ
EX TOCR
EX BOCR
EX TOCS
EX BOCS
EX TOCT
EX BOCT
EX TOCU
EX BOCU
EX TOCV
EX BOCV
EX TOCW
EX BOCW
EX TOCX
EX BOCX
EX TOCY
EX BOCY
EX TOCZ
EX BOCZ
EX TODA
EX BODA
EX TODB
EX BODB
EX TODC
EX BODC
EX TODD
EX BODD
EX TODE
EX BODE
EX TODF
EX BODF
EX TODG
EX BODG
EX TODH
EX BODH
EX TODI
EX BODI
EX TODJ
EX BODJ
EX TODK
EX BODK
EX TODL
EX BODL
EX TODM
EX BODM
EX TODN
EX BODN
EX TODO
EX BODO
EX TODP
EX BODP
EX TODQ
EX BODQ
EX TODR
EX BODR
EX TODS
EX BODS
EX TODT
EX BODT
EX TODU
EX BODU
EX TODV
EX BODV
EX TODW
EX BODW
EX TODX
EX BODX
EX TODY
EX BODY
EX TODZ
EX BODZ
EX TOEA
EX BOEA
EX TOEB
EX BOEB
EX TOEC
EX BOEC
EX TOED
EX BOED
EX TOEE
EX BOEE
EX TOEF
EX BOEF
EX TOEG
EX BOEG
EX TOEH
EX BOEH
EX TOEI
EX BOEI
EX TOEJ
EX BOEJ
EX TOEK
EX BOEK
EX TOEL
EX BOEL
EX TOEM
EX BOEM
EX TOEN
EX BOEN
EX TOEO
EX BOEO
EX TOEP
EX BOEP
EX TOEQ
EX BOEQ
EX TOER
EX BOER
EX TOES
EX BOES
EX TOET
EX BOET
EX TOEU
EX BOEU
EX TOEV
EX BOEV
EX TOEW
EX BOEW
EX TOEX
EX BOEX
EX TOEY
EX BOEY
EX TOEZ
EX BOEZ
EX TOFA
EX BOFA
EX TOFB
EX BOFB
EX TOFC
EX BOFC
EX TOFD
EX BOFD
EX TOFE
EX BOFE
EX TOFF
EX BOFF
EX TOFG
EX BOFG
EX TOFH
EX BOFH
EX TOFI
EX BOFI
EX TOFJ
EX BOFJ
EX TOFK
EX BOFK
EX TOFL
EX BOFL
EX TOFM
EX BOFM
EX TOFN
EX BOFN
EX TOFO
EX BOFO
EX TOFP
EX BOFP
EX TOFQ
EX BOFQ
EX TOFR
EX BOFR
EX TOFS
EX BOFS
EX TOFT
EX BOFT
EX TOFU
EX BOFU
EX TOFV
EX BOFV
EX TOFW
EX BOFW
EX TOFX
EX BOFX
EX TOFY
EX BOFY
EX TOFZ
EX BOFZ
EX TOGA
EX BOGA
EX TOGB
EX BOGB
EX TOGC
EX BOGC
EX TOGD
EX BOGD
EX TOGE
EX BOGE
EX TOGF
EX BOGF
EX TOGG
EX BOGG
EX TOGH
EX BOGH
EX TOGI
EX BOGI
EX TOGJ
EX BOGJ
EX TOGK
EX BOGK
EX TOGL
EX BOGL
EX TOGM
EX BOGM
EX TOGN
EX BOGN
EX TOGO
EX BOGO
EX TOGP
EX BOGP
EX TOGQ
EX BOGQ
EX TOGR
EX BOGR
EX TOGS
EX BOGS
EX TOGT
EX BOGT
EX TOGU
EX BOGU
EX TOGV
EX BOGV
EX TOGW
EX BOGW
EX TOGX
EX BOGX
EX TOGY
EX BOGY
EX TOGZ
EX BOGZ
EX TOHA
EX BOHA
EX TOHB
EX BOHB
EX TOHC
EX BOHC
EX TOHD
EX BOHD
EX TOHE
EX BOHE
EX TOHF
EX BOHF
EX TOHG
EX BOHG
EX TOHH
EX BOHH
EX TOHI
EX BOHI
EX TOHJ
EX BOHJ
EX TOHK
EX BOHK
EX TOHL
EX BOHL
EX TOHM
EX BOHM
EX TOHN
EX BOHN
EX TOHO
EX BOHO
EX TOHP
EX BOHP
EX TOHQ
EX BOHQ
EX TOHR
EX BOHR
EX TOHS
EX BOHS
EX TOHT
EX BOHT
EX TOHU
EX BOHU
EX TOHV
EX BOHV
EX TOHW
EX BOHW
EX TOHX
EX BOHX
EX TOHY
EX BOHY
EX TOHZ
EX BOHZ
EX TOIA
EX BOIA
EX TOIB
EX BOIB
EX TOIC
EX BOIC
EX TOID
EX BOID
EX TOIE
EX BOIE
EX TOIF
EX BOIF
EX TOIG
EX BOIG
EX TOIH
EX BOIH
EX TOII
EX BOII
EX TOIJ
EX BOIJ
EX TOIK
EX BOIK
EX TOIL
EX BOIL
EX TOIM
EX BOIM
EX TOIN
EX BOIN
EX TOIO
EX BOIO
EX TOIP
EX BOIP
EX TOIQ
EX BOIQ
EX TOIR
EX BOIR
EX TOIS
EX BOIS
EX TOIT
EX BOIT
EX TOIU
EX BOIU
EX TOIV
EX BOIV
EX TOIW
EX BOIW
EX TOIX
EX BOIX
EX TOIY
EX BOIY
EX TOIZ
EX BOIZ
EX TOJA
EX BOJA
EX TOJB
EX BOJB
EX TOJC
EX BOJC
EX TOJD
EX BOJD
EX TOJE
EX BOJE
EX TOJF
EX BOJF
EX TOJG
EX BOJG
EX TOJH
EX BOJH
EX TOJI
EX BOJI
EX TOJJ
EX BOJJ
EX TOJK
EX BOJK
EX TOJL
EX BOJL
EX TOJM
EX BOJM
EX TOJN
EX BOJN
EX TOJO
EX BOJO
EX TOJP
EX BOJP
EX TOJQ
EX BOJQ
EX TOJR
EX BOJR
EX TOJS
EX BOJS
EX TOJT
EX BOJT
EX TOJU
EX BOJU
EX TOJV
EX BOJV
EX TOJW
EX BOJW
EX TOJX
EX BOJX
EX TOJY
EX BOJY
EX TOJZ
EX BOJZ
EX TOKA
EX BOKA
EX TOKB
EX BOKB
EX TOKC
EX BOKC
EX TOKD
EX BOKD
EX TOKE
EX BOKE
EX TOKF
EX BOKF
EX TOKG
EX BOKG
EX TOKH
EX BOKH
EX TOKI
EX BOKI
EX TOKJ
EX BOKJ
EX TOKK
EX BOKK
EX TOKL
EX BOKL
EX TOKM
EX BOKM
EX TOKN
EX BOKN
EX TOKO
EX BOKO
EX TOKP
EX BOKP
EX TOKQ
EX BOKQ
EX TOKR
EX BOKR
EX TOKS
EX BOKS
EX TOKT
EX BOKT
EX TOKU
EX BOKU
EX TOKV
EX BOKV
EX TOKW
EX BOKW
EX TOKX
EX BOKX
EX TOKY
EX BOKY
EX TOKZ
EX BOKZ
EX TOLA
EX BOLA
EX TOLB
EX BOLB
EX TOLC
EX BOLC
EX TOLD
EX BOLD
EX TOLE
EX BOLE
EX TOLF
EX BOLF
EX TOLG
EX BOLG
EX TOLH
EX BOLH
EX TOLI
EX BOLI
EX TOLJ
EX BOLJ
EX TOLK
EX BOLK
EX TOLL
EX BOLL
EX TOLM
EX BOLM
EX TOLN
EX BOLN
EX TOLO
EX BOLO
EX TOLP
EX BOLP
EX TOLQ
EX BOLQ
EX TOLR
EX BOLR
EX TOLS
EX BOLS
EX TOLT
EX BOLT
EX TOLU
EX BOLU
EX TOLV
EX BOLV
EX TOLW
EX BOLW
EX TOLX
EX BOLX
EX TOLY
EX BOLY
EX TOLZ
EX BOLZ
EX TOMA
EX BOMA
EX TOMB
EX BOMB
EX TOMC
EX BOMC
EX TOMD
EX BOMD
EX TOME
EX BOME
EX TOMF
EX BOMF
EX TOMG
EX BOMG
EX TOMH
EX BOMH
EX TOMI
EX BOMI
EX TOMJ
EX BOMJ
EX TOMK
EX BOMK
EX TOML
EX BOML
EX TOMM
EX BOMM
EX TOMN
EX BOMN
EX TOMO
EX BOMO
EX TOMP
EX BOMP
EX TOMQ
EX BOMQ
EX TOMR
EX BOMR
EX TOMS
EX BOMS
EX TOMT
EX BOMT
EX TOMU
EX BOMU
EX TOMV
EX BOMV
EX TOMW
EX BOMW
EX TOMX
EX BOMX
EX TOMY
EX BOMY
EX TOMZ
EX BOMZ
EX TONA
EX BONA
EX TONB
EX BONB
EX TONC
EX BONC
EX TOND
EX BOND
EX TONE
EX BONE
EX TONF
EX BONF
EX TONG
EX BONG
EX TONH
EX BONH
EX TONI
EX BONI
EX TONJ
EX BONJ
EX TONK
EX BONK
EX TONL
EX BONL
EX TONM
EX BONM
EX TONN
EX BONN
EX TONO
EX BONO
EX TONP
EX BONP
EX TONQ
EX BONQ
EX TONR
EX BONR
EX TONS
EX BONS
EX TONT
EX BONT
EX TONU
EX BONU
EX TONV
EX BONV
EX TONW
EX BONW
EX TONX
EX BONX
EX TONY
EX BONY
EX TONZ
EX BONZ
EX TOOA
EX BOOA
EX TOOB
EX BOOB
EX TOOC
EX BOOC
EX TOOD
EX BOOD
EX TOOE
EX BOOE
EX TOOF
EX BOOF
EX TOOG
EX BOOG
EX TOOH
EX BOOH
EX TOOI
EX BOOI
EX TOOJ
EX BOOJ
EX TOOK
EX BOOK
EX TOOL
EX BOOL
EX TOOM
EX BOOM
EX TOON
EX BOON
EX TOOO
EX BOOO
EX TOOP
EX BOOP
EX TOOQ
EX BOOQ
EX TOOR
EX BOOR
EX TOOS
EX BOOS
EX TOOT
EX BOOT
EX TOOU
EX BOOU
EX TOOV
EX BOOV
EX TOOW
EX BOOW
EX TOOX
EX BOOX
EX TOOY
EX BOOY
EX TOOZ
EX BOOZ
EX TOPA
EX BOPA
EX TOPB
EX BOPB
EX TOPC
EX BOPC
EX TOPD
EX BOPD
EX TOPE
EX BOPE
EX TOPF
EX BOPF
EX TOPG
EX BOPG
EX TOPH
EX BOPH
EX TOPI
EX BOPI
EX TOPJ
EX BOPJ
EX TOPK
EX BOPK
EX TOPL
EX BOPL
EX TOPM
EX BOPM
EX TOPN
EX BOPN
EX TOPO
EX BOPO
EX TOPP
EX BOPP
EX TOPQ
EX BOPQ
EX TOPR
EX BOPR
EX TOPS
EX BOPS
EX TOPT
EX BOPT
EX TOPU
EX BOPU
EX TOPV
EX BOPV
EX TOPW
EX BOPW
EX TOPX
EX BOPX
EX TOPY
EX BOPY
EX TOPZ
EX BOPZ
EX TOQA
EX BOQA
EX TOQB
EX BOQB
EX TOQC
EX BOQC
EX TOQD
EX BOQD
EX TOQE
EX BOQE
EX TOQF
EX BOQF
EX TOQG
EX BOQG
EX TOQH
EX BOQH
EX TOQI
EX BOQI
EX TOQJ
EX BOQJ
EX TOQK
EX BOQK
EX TOQL
EX BOQL
EX TOQM
EX BOQM
EX TOQN
EX BOQN
EX TOQO
EX BOQO
EX TOQP
EX BOQP
EX TOQQ
EX BOQQ
EX TOQR
EX BOQR
EX TOQS
EX BOQS
EX TOQT
EX BOQT
EX TOQU
EX BOQU
EX TOQV
EX BOQV
EX TOQW
EX BOQW
EX TOQX
EX BOQX
EX TOQY
EX BOQY
EX TOQZ
EX BOQZ
EX TORA
EX BORA
EX TORB
EX BORB
EX TORC
EX BORC
EX TORD
EX BORD
EX TORE
EX BORE
EX TORF
EX BORF
EX TORG
EX BORG
EX TORH
EX BORH
EX TORI
EX BORI
EX TORJ
EX BORJ
EX TORK
EX BORK
EX TORL
EX BORL
EX TORM
EX BORM
EX TORN
EX BORN
EX TORO
EX BORO
EX TORP
EX BORP
EX TORQ
EX BORQ
EX TORR
EX BORR
EX TORS
EX BORS
EX TORT
EX BORT
EX TORU
EX BORU
EX TORV
EX BORV
EX TORW
EX BORW
EX TORX
EX BORX
EX TORY
EX BORY
EX TORZ
EX BORZ
EX TOSA
EX BOSA
EX TOSB
EX BOSB
EX TOSC
EX BOSC
EX TOSD
EX BOSD
EX TOSE
EX BOSE
EX TOSF
EX BOSF
EX TOSG
EX BOSG
EX TOSH
EX BOSH
EX TOSI
EX BOSI
EX TOSJ
EX BOSJ
EX TOSK
EX BOSK
EX TOSL
EX BOSL
EX TOSM
EX BOSM
EX TOSN
EX BOSN
EX TOSO
EX BOSO
EX TOSP
EX BOSP
EX TOSQ
EX BOSQ
EX TOSR
EX BOSR
EX TOSS
EX BOSS
EX TOST
EX BOST
EX TOSU
EX BOSU
EX TOSV
EX BOSV
EX TOSW
EX BOSW
EX TOSX
EX BOSX
EX TOSY
EX BOSY
EX TOSZ
EX BOSZ
EX TOTA
EX BOTA
EX TOTB
EX BOTB
EX TOTC
EX BOTC
EX TOTD
EX BOTD
EX TOTE
EX BOTE
EX TOTF
EX BOTF
EX TOTG
EX BOTG
EX TOTH
EX BOTH
EX TOTI
EX BOTI
EX TOTJ
EX BOTJ
EX TOTK
EX BOTK
EX TOTL
EX BOTL
EX TOTM
EX BOTM
EX TOTN
EX BOTN
EX TOTO
EX BOTO
EX TOTP
EX BOTP
EX TOTQ
EX BOTQ
EX TOTR
EX BOTR
EX TOTS
EX BOTS
EX TOTT
EX BOTT
EX TOTU
EX BOTU
EX TOTV
EX BOTV
EX TOTW
EX BOTW
EX TOTX
EX BOTX
EX TOTY
EX BOTY
EX TOTZ
EX BOTZ
EX TOUA
EX BOUA
EX TOUB
EX BOUB
EX TOUC
EX BOUC
EX TOUD
EX BOUD
EX TOUE
EX BOUE
EX TOUF
EX BOUF
EX TOUG
EX BOUG
EX TOUH
EX BOUH
EX TOUI
EX BOUI
EX TOUJ
EX BOUJ
EX TOUK
EX BOUK
EX TOUL
EX BOUL
EX TOUM
EX BOUM
EX TOUN
EX BOUN
EX TOUO
EX BOUO
EX TOUP
EX BOUP
EX TOUQ
EX BOUQ
EX TOUR
EX BOUR
EX TOUS
EX BOUS
EX TOUT
EX BOUT
EX TOUU
EX BOUU
EX TOUV
EX BOUV
EX TOUW
EX BOUW
EX TOUX
EX BOUX
EX TOUY
EX BOUY
EX TOUZ
EX BOUZ
EX TOVA
EX BOVA
EX TOVB
EX BOVB
EX TOVC
EX BOVC
EX TOVD
EX BOVD
EX TOVE
EX BOVE
EX TOVF
EX BOVF
EX TOVG
EX BOVG
EX TOVH
EX BOVH
EX TOVI
EX BOVI
EX TOVJ
EX BOVJ
EX TOVK
EX BOVK
EX TOVL
EX BOVL
EX TOVM
EX BOVM
EX TOVN
EX BOVN
EX TOVO
EX BOVO
EX TOVP
EX BOVP
EX TOVQ
EX BOVQ
EX TOVR
EX BOVR
EX TOVS
EX BOVS
EX TOVT
EX BOVT
EX TOVU
EX BOVU
EX TOVV
EX BOVV
EX TOVW
EX BOVW
EX TOVX
EX BOVX
EX TOVY
EX BOVY
EX TOVZ
EX BOVZ
EX TOWA
EX BOWA
EX TOWB
EX BOWB
EX TOWC
EX BOWC
EX TOWD
EX BOWD
EX TOWE
EX BOWE
EX TOWF
EX BOWF
EX TOWG
EX BOWG
EX TOWH
EX BOWH
EX TOWI
EX BOWI
EX TOWJ
EX BOWJ
EX TOWK
EX BOWK
EX TOWL
EX BOWL
EX TOWM
EX BOWM
EX TOWN
EX BOWN
EX TOWO
EX BOWO
EX TOWP
EX BOWP
EX TOWQ
EX BOWQ
EX TOWR
EX BOWR
EX TOWS
EX BOWS
EX TOWT
EX BOWT
EX TOWU
EX BOWU
EX TOWV
EX BOWV
EX TOWW
EX BOWW
EX TOWX
EX BOWX
EX TOWY
EX BOWY
EX TOWZ
EX BOWZ
EX TOXA
EX BOXA
EX TOXB
EX BOXB
EX TOXC
EX BOXC
EX TOXD
EX BOXD
EX TOXE
EX BOXE
EX TOXF
EX BOXF
EX TOXG
EX BOXG
EX TOXH
EX BOXH
EX TOXI
EX BOXI
EX TOXJ
EX BOXJ
EX TOXK
EX BOXK
EX TOXL
EX BOXL
EX TOXM
EX BOXM
EX TOXN
EX BOXN
EX TOXO
EX BOXO
EX TOXP
EX BOXP
EX TOXQ
EX BOXQ
EX TOXR
EX BOXR
EX TOXS
EX BOXS
EX TOXT
EX BOXT
EX TOXU
EX BOXU
EX TOXV
EX BOXV
EX TOXW
EX BOXW
EX TOXX
EX BOXX
EX TOXY
EX BOXY
EX TOXZ
EX BOXZ
EX TOYA
EX BOYA
EX TOYB
EX BOYB
EX TOYC
EX BOYC
EX TOYD
EX BOYD
EX TOYE
EX BOYE
EX TOYF
EX BOYF
EX TOYG
EX BOYG
EX TOYH
EX BOYH
EX TOYI
EX BOYI
EX TOYJ
EX BOYJ
EX TOYK
EX BOYK
EX TOYL
EX BOYL
EX TOYM
EX BOYM
EX TOYN
EX BOYN
EX TOYO
EX BOYO
EX TOYP
EX BOYP
EX TOYQ
EX BOYQ
EX TOYR
EX BOYR
EX TOYS
EX BOYS
EX TOYT
EX BOYT
EX TOYU
EX BOYU
EX TOYV
EX BOYV
EX TOYW
EX BOYW
EX TOYX
EX BOYX
EX TOYY
EX BOYY
EX TOYZ
EX BOYZ
EX TOZA
EX BOZA
EX TOZB
EX BOZB
EX TOZC
EX BOZC
EX TOZD
EX BOZD
EX TOZE
EX BOZE
EX TOZF
EX BOZF
EX TOZG
EX BOZG
EX TOZH
EX BOZH
EX TOZI
EX BOZI
EX TOZJ
EX BOZJ
EX TOZK
EX BOZK
EX TOZL
EX BOZL
EX TOZM
EX BOZM
EX TOZN
EX BOZN
EX TOZO
EX BOZO
EX TOZP
EX BOZP
EX TOZQ
EX BOZQ
EX TOZR
EX BOZR
EX TOZS
EX BOZS
EX TOZT
EX BOZT
EX TOZU
EX BOZU
EX TOZV
EX BOZV
EX TOZW
EX BOZW
EX TOZX
EX BOZX
EX TOZY
EX BOZY
EX TOZZ
EX BOZZ
GRATE INLET TO REMAIN
EXISTING 8" WATER MAIN TO BE DEMOLISHED
EXISTING 3" WATER LINE TO BE DEMOLISHED
ELECTRIC RACK TO BE RELOCATED
CHAINLINK FENCE GATE AND POLE GATE TO BE DEMOLISHED. CHAINLINK GATE TO BE MOVED BACK TO MATCH EXISTING WOOD FENCE ALIGNMENT
EXISTING ROADWAY TO BE DEMOLISHED
15' GAS LINE EASEMENT DOC. NO. 2005048979 TO ATMOS ENERGY CORP.
ACCESS EASEMENT AND WATER DETENTION EASEMENT DOC. NO. 2005040776 TO COLSON & COLSON CONSTRUCTION CO.
CURB AND GUTTER TO BE DEMOLISHED
HYDRANT TO BE RELOCATED SEE SHEET C60 FOR PROPOSED LOCATION
EXISTING 8" WATER LINE TO BE DEMOLISHED
POWER POLE TO BE RELOCATED
EX. WATER METER BOXES TO BE RELOCATED
FENCE TO BE DEMOLISHED
SIDEWALK TO BE DEMOLISHED
STORM PIPE TO BE DEMOLISHED
PORTABLE BUILDINGS TO BE RELOCATED
ASPHALT TO BE DEMOLISHED
CANOPY TO BE DEMOLISHED BY OTHERS
EXISTING 36" STORM SEWER LINE TO BE DEMOLISHED SEE SHEET C50 FOR PROPOSED LOCATION
LOT 1
BLOCK A
FINAL PLAT OF LOT 1, BLOCK A, ROUND ROCK RETIREMENT RESIDENCE
INST. # 2015064681
O.P.R.W.C.T.
LODGING
(RETIREMENT HOME FACILITY)
ACTUAL TREE DRIP LINE
15' ELECTRIC EASEMENT DOC#. 2020069370 TO ONCOR ELECTRIC DELIVERY COMPANY LLC
PLAYGROUND
EX TOC
EX BOC
EX TOP
EX BOP
EX TOB
EX BOB
EX TOE
EX BOE
EX TOR
EX BOR
EX TOG
EX BOG
EX TOM
EX BOM
EX TOD
EX BOD
EX TOF
EX BOF
EX TOH
EX BOH
EX TOI
EX BOI
EX TOJ
EX BOJ
EX TOK
EX BOK
EX TOL
EX BOL
EX TOA
EX BOA
EX TOO
EX BOO
EX TOQ
EX BOQ
EX TOT
EX BOT
EX TOU
EX BOU
EX TOV
EX BOV
EX TOX
EX BOX
EX TOY
EX BOY
EX TOZ
EX BOZ
EX TOAA
EX BOAA
EX TOAB
EX BOAB
EX TOAC
EX BOAC
EX TOAD
EX BOAD
EX TOAE
EX BOAE
EX TOAF
EX BOAF
EX TOAG
EX BOAG
EX TOAH
EX BOAH
EX TOAI
EX BOAI
EX TOAJ
EX BOAJ
EX TOAK
EX BOAK
EX TOAL
EX BOAL
EX TOAM
EX BOAM
EX TOAN
EX BOAN
EX TOAO
EX BOAO
EX TOAP
EX BOAP
EX TOAQ
EX BOAQ
EX TOAR
EX BOAR
EX TOAS
EX BOAS
EX TOAT
EX BOAT
EX TOAU
EX BOAU
EX TOAV
EX BOAV
EX TOAW
EX BOAW
EX TOAX
EX BOAX
EX TOAY
EX BOAY
EX TOAZ
EX BOAZ
EX TOBA
EX BOBA
EX TOBB
EX BOBB
EX TOBC
EX BOBC
EX TOBD
EX BOBD
EX TOBE
EX BOBE
EX TOBF
EX BOBF
EX TOBG
EX BOBG
EX TOBH
EX BOBH
EX TOBI
EX BOBI
EX TOBJ
EX BOBJ
EX TOBK
EX BOBK
EX TOBL
EX BOBL
EX TOBM
EX BOBM
EX TOBN
EX BOBN
EX TOBO
EX BOBO
EX TOBP
EX BOBP
EX TOBQ
EX BOBQ
EX TOBR
EX BOBR
EX TOBS
EX BOBS
EX TOBT
EX BOBT
EX TOBU
EX BOBU
EX TOBV
EX BOBV
EX TOBW
EX BOBW
EX TOBX
EX BOBX
EX TOBY
EX BOBY
EX TOBZ
EX BOBZ
EX TOCA
EX BOCA
EX TOCB
EX BOCB
EX TOCC
EX BOCC
EX TOCD
EX BOCD
EX TOCE
EX BOCE
EX TOCF
EX BOCF
EX TOCG
EX BOCG
EX TOCH
EX BOCH
EX TOCI
EX BOCI
EX TOCJ
EX BOCJ
EX TOCK
EX BOCK
EX TOCL
EX BOCL
EX TOCM
EX BOCM
EX TOCN
EX BOCN
EX TOCO
EX BOCO
EX TOCP
EX BOCP
EX TOCQ
EX BOCQ
EX TOCR
EX BOCR
EX TOCS
EX BOCS
EX TOCT
EX BOCT
EX TOCU
EX BOCU
EX TOCV
EX BOCV
EX TOCW
EX BOCW
EX TOCX
EX BOCX
EX TOCY
EX BOCY
EX TOCZ
EX BOCZ
EX TODA
EX BODA
EX TODB
EX BODB
EX TODC
EX BODC
EX TODD
EX BODD
EX TODE
EX BODE
EX TODF
EX BODF
EX TODG
EX BODG
EX TODH
EX BODH
EX TODI
EX BODI
EX TODJ
EX BODJ
EX TODK
EX BODK
EX TODL
EX BODL
EX TODM
EX BODM
EX TODN
EX BODN
EX TODO
EX BODO
EX TODP
EX BODP
EX TODQ
EX BODQ
EX TODR
EX BODR
EX TODS
EX BODS
EX TODT
EX BODT
EX TODU
EX BODU
EX TODV
EX BODV
EX TODW
EX BODW
EX TODX
EX BODX
EX TODY
EX BODY
EX TODZ
EX BODZ
EX TOEA
EX BOEA
EX TOEB
EX BOEB
EX TOEC
EX BOEC
EX TOED
EX BOED
EX TOEE
EX BOEE
EX TOEF
EX BOEF
EX TOEG
EX BOEG
EX TOEH
EX BOEH
EX TOEI
EX BOEI
EX TOEJ
EX BOEJ
EX TOEK
EX BOEK
EX TOEL
EX BOEL
EX TOEM
EX BOEM
EX TOEN
EX BOEN
EX TOEO
EX BOEO
EX TOEP
EX BOEP
EX TOEQ
EX BOEQ
EX TOER
EX BOER
EX TOES
EX BOES
EX TOET
EX BOET
EX TOEU
EX BOEU
EX TOEV
EX BOEV
EX TOEW
EX BOEW
EX TOEX
EX BOEX
EX TOEY
EX BOEY
EX TOEZ
EX BOEZ
EX TOFA
EX BOFA
EX TOFB
EX BOFB
EX TOFC
EX BOFC
EX TOFD
EX BOFD
EX TOFE
EX BOFE
EX TOFF
EX BOFF
EX TOFG
EX BOFG
EX TOFH
EX BOFH
EX TOFI
EX BOFI
EX TOFJ
EX BOFJ
EX TOFK
EX BOFK
EX TOFL
EX BOFL
EX TOFM
EX BOFM
EX TOFN
EX BOFN
EX TOFO
EX BOFO
EX TOFP
EX BOFP
EX TOFQ
EX BOFQ
EX TOFR
EX BOFR
EX TOFS
EX BOFS
EX TOFT
EX BOFT
EX TOFU
EX BOFU
EX TOFV
EX BOFV
EX TOFW
EX BOFW
EX TOFX
EX BOFX
EX TOFY
EX BOFY
EX TOFZ
EX BOFZ
EX TOGA
EX BOGA
EX TOGB
EX BOGB
EX TOGC
EX BOGC
EX TOGD
EX BOGD
EX TOGE
EX BOGE
EX TOGF
EX BOGF
EX TOGG
EX BOGG
EX TOGH
EX BOGH
EX TOGI
EX BOGI
EX TOGJ
EX BOGJ
EX TOGK
EX BOGK
EX TOGL
EX BOGL
EX TOGM
EX BOGM
EX TOGN
EX BOGN
EX TOGO
EX BOGO
EX TOGP
EX BOGP
EX TOGQ
EX BOGQ
EX TOGR
EX BOGR
EX TOGS
EX BOGS
EX TOGT
EX BOGT
EX TOGU
EX BOGU
EX TOGV
EX BOGV
EX TOGW
EX BOGW
EX TOGX
EX BOGX
EX TOGY
EX BOGY
EX TOGZ
EX BOGZ
EX TOHA
EX BOHA
EX TOHB
EX BOHB
EX TOHC
EX BOHC
EX TOHD
EX BOHD
EX TOHE
EX BOHE
EX TOHF
EX BOHF
EX TOHG
EX BOHG
EX TOHH
EX BOHH
EX TOHI
EX BOHI
EX TOHJ
EX BOHJ
EX TOHK
EX BOHK
EX TOHL
EX BOHL
EX TOHM
EX BOHM
EX TOHN
EX BOHN
EX TOHO
EX BOHO
EX TOHP
EX BOHP
EX TOHQ
EX BOHQ
EX TOHR
EX BOHR
EX TOHS
EX BOHS
EX TOHT
EX BOHT
EX TOHU
EX BOHU
EX TOHV
EX BOHV
EX TOHW
EX BOHW
EX TOHX
EX BOHX
EX TOHY
EX BOHY
EX TOHZ
EX BOHZ
EX TOIA
EX BOIA
EX TOIB
EX BOIB
EX TOIC
EX BOIC
EX TOID
EX BOID
EX TOIE
EX BOIE
EX TOIF
EX BOIF
EX TOIG
EX BOIG
EX TOIH
EX BOIH
EX TOII
EX BOII
EX TOIJ
EX BOIJ
EX TOIK
EX BOIK
EX TOIL
EX BOIL
EX TOIM
EX BOIM
EX TOIN
EX BOIN
EX TOIO
EX BOIO
EX TOIP
EX BOIP
EX TOIQ
EX BOIQ
EX TOIR
EX BOIR
EX TOIS
EX BOIS
EX TOIT
EX BOIT
EX TOIU
EX BOIU
EX TOIV
EX BOIV
EX TOIW
EX BOIW
EX TOIX
EX BOIX
EX TOIY
EX BOIY
EX TOIZ
EX BOIZ
EX TOJA
EX BOJA
EX TOJB
EX BOJB
EX TOJC
EX BOJC
EX TOJD
EX BOJD
EX TOJE
EX BOJE
EX TOJF
EX BOJF
EX TOJG
EX BOJG
EX TOJH
EX BOJH
EX TOJI
EX BOJI
EX TOJJ
EX BOJJ
EX TOJK
EX BOJK
EX TOJL
EX BOJL
EX TOJM
EX BOJM
EX TOJN
EX BOJN
EX TOJO
EX BOJO
EX TOJP
EX BOJP
EX TOJQ
EX BOJQ
EX TOJR
EX BOJR
EX TOJS
EX BOJS
EX TOJT
EX BOJT
EX TOJU
EX BOJU
EX TOJV
EX BOJV
EX TOJW
EX BOJW
EX TOJX
EX BOJX
EX TOJY
EX BOJY
EX TOJZ
EX BOJZ
EX TOKA
EX BOKA
EX TOKB
EX BOKB
EX TOKC
EX BOKC
EX TOKD
EX BOKD
EX TOKE
EX BOKE
EX TOKF
EX BOKF
EX TOKG
EX BOKG
EX TOKH
EX BOKH
EX TOKI
EX BOKI
EX TOKJ
EX BOKJ
EX TOKK
EX BOKK
EX TOKL
EX BOKL
EX TOKM
EX BOKM
EX TOKN
EX BOKN
EX TOKO
EX BOKO
EX TOKP
EX BOKP
EX TOKQ
EX BOKQ
EX TOKR
EX BOKR
EX TOKS
EX BOKS
EX TOKT
EX BOKT
EX TOKU
EX BOKU
EX TOKV
EX BOKV
EX TOKW
EX BOKW
EX TOKX
EX BOKX
EX TOKY
EX BOKY
EX TOKZ
EX BOKZ
EX TOLA
EX BOLA
EX TOLB
EX BOLB
EX TOLC
EX BOLC
EX TOLD
EX BOLD
EX TOLE
EX BOLE
EX TOLF
EX BOLF
EX TOLG
EX BOLG
EX TOLH
EX BOLH
EX TOLI
EX BOLI
EX TOLJ
EX BOLJ
EX TOLK
EX BOLK
EX TOLL
EX BOLL
EX TOLM
EX BOLM
EX TOLN
EX BOLN
EX TOLO
EX BOLO
EX TOLP
EX BOLP
EX TOLQ
EX BOLQ
EX TOLR
EX BOLR
EX TOLS
EX BOLS
EX TOLT



KEY MAP 1" = 500'

CENTRAL BAPTIST CHURCH,
LOT 1A AND 1B, BLOCK "A" SUBDIVISION
INST.# 2011010475
O.P.R.W.C.T.

EX. FOOTBALL/SOCCER FIELD

SCALE: 1" = 20'

LAKE CREEK WEST
LOT 28, BLOCK B
MORENO, XAVIER A JR & DORALYNN H
INSTR.# 202016015Z
O.P.R.W.C.T.

SINGLE FAMILY RESIDENTIAL

MULTI-FAMILY RESIDENTIAL
CAMPUS LOT 1
P.A.R.C.T.

ZONE ESIGNATED AREA REMOVED TO ACCOMODATE FUTURE PHASE 2 PARKING LOT

1/2" REBAR

1/2" NO CAP

5/8" NO CAP

EX. ROCK WALL

24" WATER EASEMENT

LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
- ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- GATE VALVE
- IRRIGATION CONTROL VALVE
- WATER METER
- EXISTING CONTOURS
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING WATER LINE (SIZE VARIES)
- EXISTING WASTEWATER LINE (SIZE VARIES)
- EXISTING FORCE MAIN (SIZE VARIES)
- EXISTING FIBER OPTIC LINE
- EXISTING GAS LINE (SIZE VARIES)
- PAVEMENT TO BE DEMOLISHED
- CURB & GUTTER TO BE DEMOLISHED

- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK
- CONCRETE WASHOUT
- STABILIZED CONSTRUCTION ENTRANCE
- SF — SILT FENCE
- RB — ROCK BERM
- IP — INLET PROTECTION
- TP — TREE PROTECTION
- MS — MULCH SOCK
- LIMITS OF CONSTRUCTION

NOTE:
1. ALL EROSION CONTROLS SHALL BE IN PLACE PRIOR TO DEMOLITION.
2. ALL EX. IRRIGATION LINES WITHIN THE BUILDING FOOTPRINT SHALL BE REMOVED PRIOR TO CONSTRUCTION.

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

DEMOLITION PLAN

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

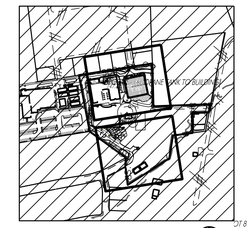
Spencer - Pierce
Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-8477
Fax: (512) 388-9732
Email: spai@sp-ai.com Web Site: www.sp-ai.com

Copyright

SHEET
C11B
15 of 32
SDP2205-0006

Copyright Notice: These plans are copyrighted and the property of the architect and may not be reproduced or used in any manner without the express permission of the architect. Publication of these plans, or any portion thereof, without the express written reservation of common law copyright and other property rights is expressly prohibited. Unauthorized use or copying of these plans, or any portion thereof, is strictly prohibited. Any violation will be subject to legal action. Use of these plans and specifications constitutes acceptance of the above conditions. Under section 102 of the copyright act, 17 U.S.C. as amended December 1990, the design of buildings created by the architect is subject to protection as an architectural work. The protection includes but is not limited to the overall form as well as the arrangement and composition of spaces and elements in the design.

May 15,2023-1:30pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\21-025 C11.dwg



KEY MAP 1" = 500'

SCALE: 1" = 20'

NOTE:
1. ALL DIMENSIONS ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED.
2. ALL FIRELANES SHALL HAVE A RETURN RADIUS OF 25' MIN. (TYP.)
3. FIRE LANE SHALL NOT BE GREATER THAN 7% OR GRADE BREAKS GREATER THAN 3%.

LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
- ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- GATE VALVE
- IRRIGATION CONTROL VALVE
- WATER METER
- EXISTING CONTOURS
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING WATER LINE (SIZE VARIES)
- EXISTING WASTEWATER LINE (SIZE VARIES)
- EXISTING FORCE MAIN (SIZE VARIES)
- EXISTING FIBER OPTIC LINE
- EXISTING GAS LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK
- CONCRETE WASHOUT
- STABILIZED CONSTRUCTION ENTRANCE
- SF SILT FENCE
- RB ROCK BERM
- IP INLET PROTECTION
- TP TREE PROTECTION
- MS MULCH SOCK
- LIMITS OF CONSTRUCTION

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960
THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

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

DATE: 05/15/2023
REV: 1 ADD BUILDING EXTENSION, REVISE FIRELANE HAMMERHEAD
DRW. SPai CHK. SPai

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

JOB NO. 21-075 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

DIMENSION CONTROL PLAN

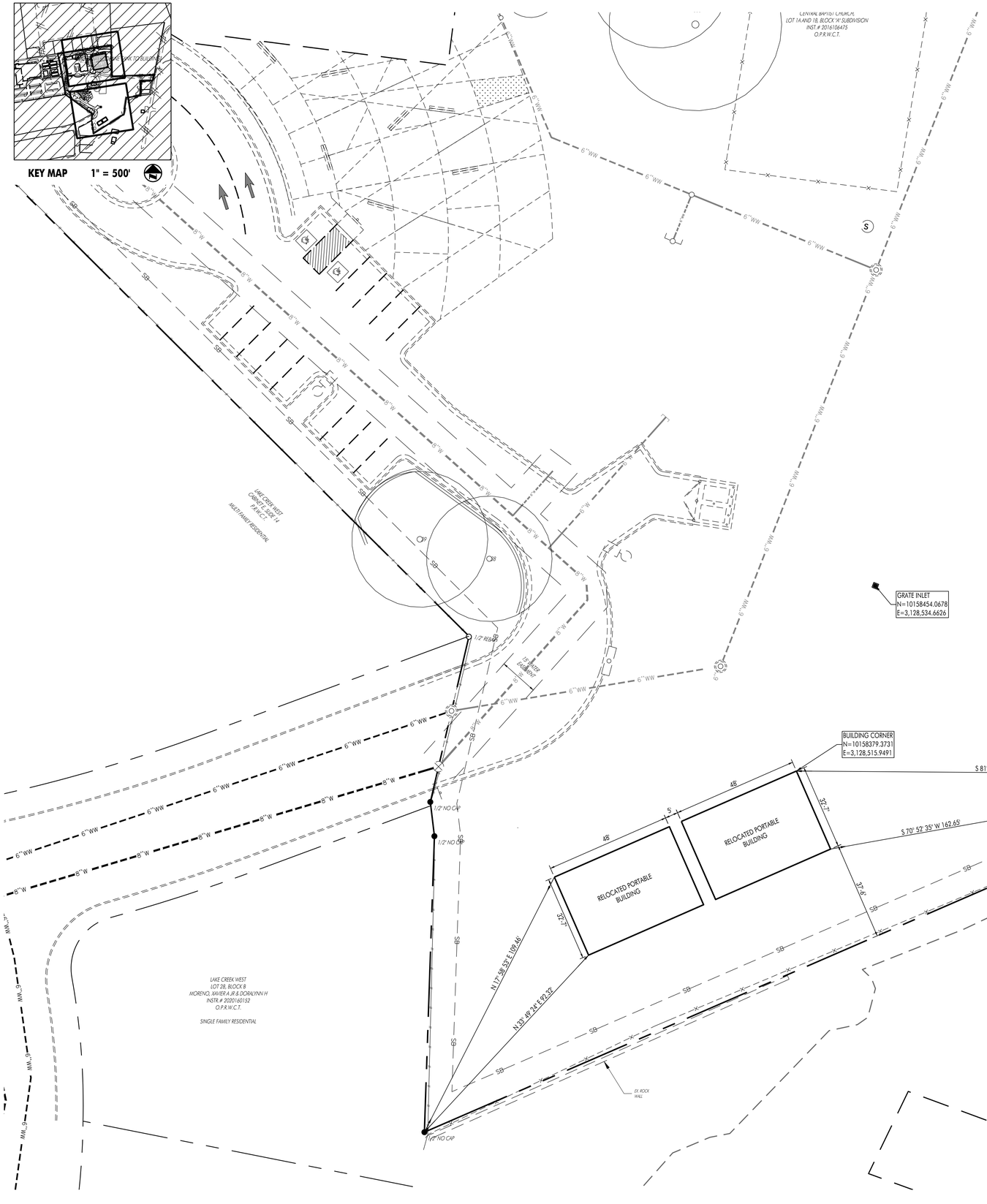
Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-8677
Fax: (512) 388-8732
Email: spai@sp-ai.com Web Site: www.sp-ai.com

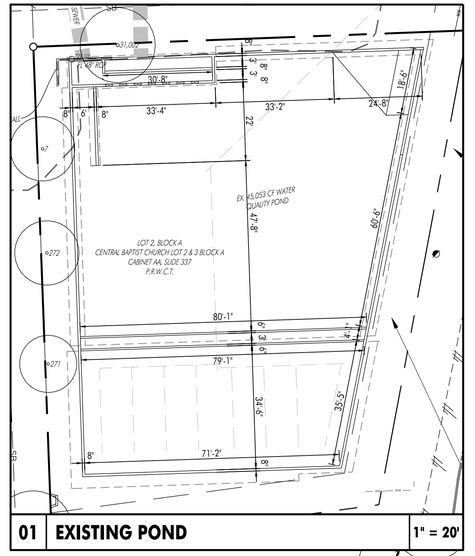
Copyright

SHEET
C20A
16 of 32
SDP2205-0006

Copyright Notice: These plans are protected by the Federal Copyright Protection Act of 1990. The protection includes, but is not limited to the overall form as well as the arrangement and composition of spaces and elements in the design. Unauthorized use of these plans without permission of the Architect is prohibited and is an infringement of copyright.

May 15,2023-1:30pm Z:\HEA\HEA Projects\Projects 21-000\21-075 Round Rock Christian Academy Addition\CAD Files\Civil\SD\07 C20.dwg





01 **EXISTING POND** 1" = 20'

0 20 40
SCALE: 1" = 20'

LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
- ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- GATE VALVE
- IRRIGATION CONTROL VALVE
- WATER METER
- EXISTING CONTOURS
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING WATER LINE (SIZE VARIES)
- EXISTING WASTEWATER LINE (SIZE VARIES)
- EXISTING FORCE MAIN (SIZE VARIES)
- EXISTING FIBER OPTIC LINE
- EXISTING GAS LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK
- CONCRETE WASHOUT
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- ROCK BERM
- INLET PROTECTION
- TREE PROTECTION
- MULCH SOCK
- LIMITS OF CONSTRUCTION

NOTE:
1. ALL DIMENSIONS ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED.
2. ALL FIRELANES SHALL HAVE A RETURN RADIUS OF 25' MIN. (TYP.)
3. FIRE LANE SHALL NOT BE GREATER THAN 7% OR GRADE BREAKS GREATER THAN 3%.

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

DIMENSION CONTROL PLAN

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

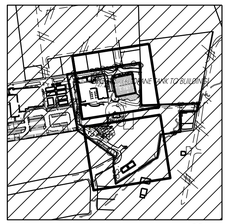
SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-8677
Fax: (512) 388-9732
Email: spai@sp-ai.com Web Site: www.sp-ai.com

Copyright
Copyright ©2023 Spencer-Pierce Architecture + Interiors, Inc. All rights reserved. Unpublished work protected by U.S. copyright law. Notice of this claim does not imply publication or waive our rights. This drawing is the property of the architect and is not to be used in whole or in part for any other project without the written authorization of the architect. Unauthorized use, copying, or distribution is an infringement of copyright and may result in civil and criminal penalties. Any party using this drawing without permission agrees to indemnify and hold harmless the architect from all claims, damages, and expenses, including attorney's fees, arising out of such use.

SHEET
C20B
17 of 32
SDP2205-0006

May 15,2023-1:30pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\07 C20.dwg



KEY MAP 1" = 500'

SCALE: 1" = 20'

LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
- ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- GATE VALVE
- IRRIGATION CONTROL VALVE
- WATER METER
- EXISTING CONTOURS
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING WATER LINE (SIZE VARIES)
- EXISTING WASTEWATER LINE (SIZE VARIES)
- EXISTING FORCE MAIN (SIZE VARIES)
- EXISTING FIBER OPTIC LINE
- EXISTING GAS LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK

NOTES:

1. FIRELANE STRIPING TO BE 6" WIDE RED PAINT WITH "FIRE LANE-NO PARKING" IN 4" TALL WHITE LETTERS. WORDING MAY NOT BE SPACED MORE THAN 30 FEET APART. STRIPING TO BE PAINTED ON FACE OF CURB WHEN PRESENT AND PAINTED FLAT ON PARKING SURFACE WHEN IT IS NOT.
2. ALL DIMENSIONS ARE TO THE FACE OF CURB, OR CENTER OF STRIPING (WHERE APPLICABLE), UNLESS OTHERWISE NOTED.
3. FIRELANES SHALL BE SURFACED SO AS TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES BEFORE ANY COMBUSTIBLE MATERIALS ARE ALLOWED ON SITE.
4. ALL WEATHER SURFACE ROADS OF CONCRETE OR ASPHALT ABLE TO SUPPORT 80,000 LBS. AND SITE HYDRANTS IN-SERVICE BEFORE ANY COMBUSTIBLE MATERIAL ON SITE. 2015 IFC D102.

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

PAVING AND STRIPING PLAN

DATE: 05/15/2023
REV: 1 ADD BUILDING EXTENSION, REVISE FIRELANE HAMMERHEAD

DRW. SPai CHK. SPai

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

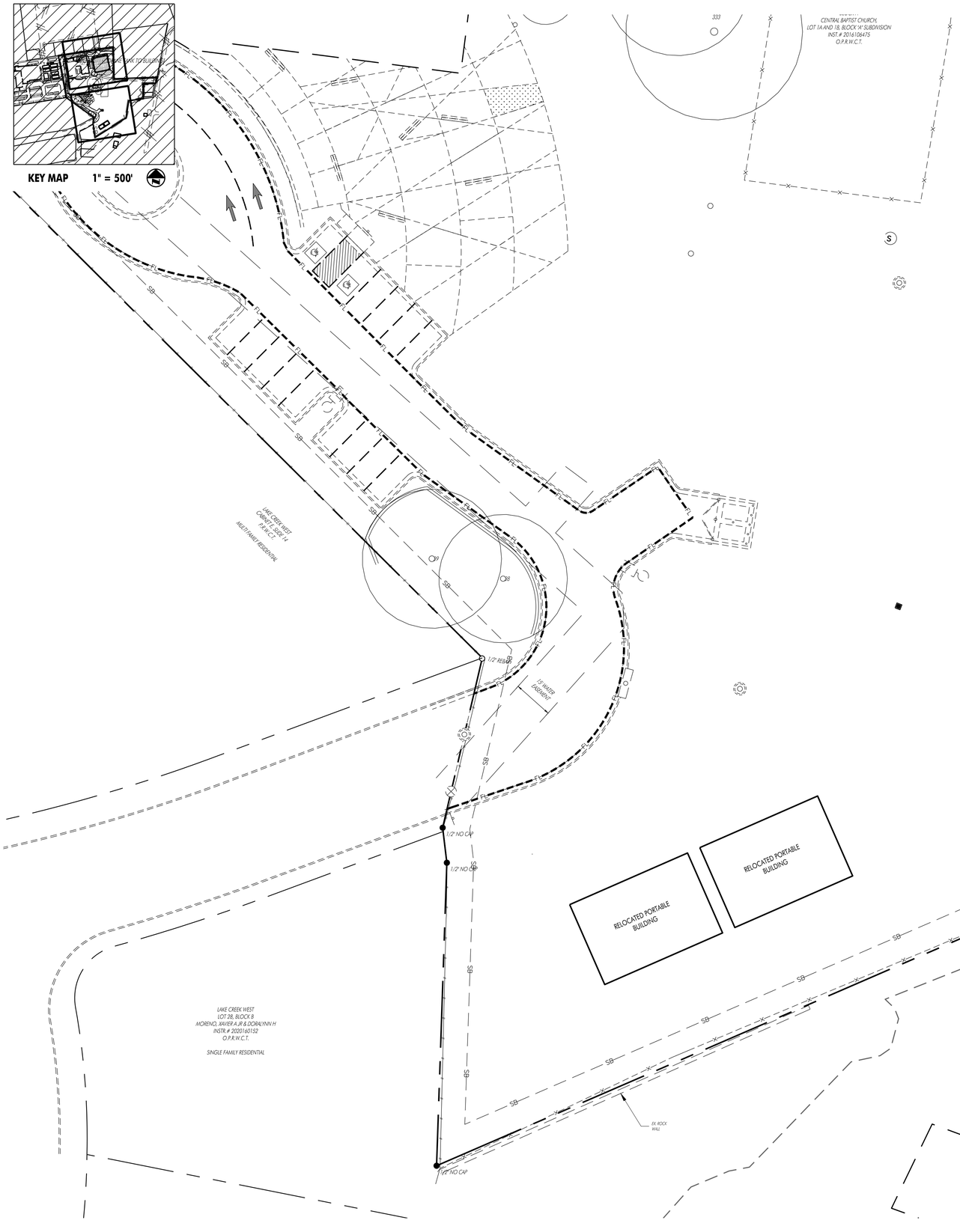
Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-6277
Fax: (512) 2983732
Email: spai@sp-ai.com Web Site: www.sp-ai.com

Copyright

SHEET
C30A
18 of 32
SDP2205-0006

Copyright Protection as to Form: The Architectural Works Copyright Protection Act of 1990 (the "Act") provides protection for the design of buildings created on or after December 1, 1990. Protection is for the entire design of the building, including the overall form as well as the arrangement and composition of spaces and elements in the design, but does not include individual standard features. Protection does not extend to any design that is not entirely original to the architect. Protection does not extend to any design that is not entirely original to the architect. Protection does not extend to any design that is not entirely original to the architect.

May 15,2023 1:30pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\21-025 C30.dwg



LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
- ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- GATE VALVE
- IRRIGATION CONTROL VALVE
- WATER METER
- EXISTING CONTOURS
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING WATER LINE (SIZE VARIES)
- EXISTING WASTEWATER LINE (SIZE VARIES)
- EXISTING FORCE MAIN (SIZE VARIES)
- EXISTING FIBER OPTIC LINE
- EXISTING GAS LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK

NOTES:

1. FIRELANE STRIPING TO BE 6" WIDE RED PAINT WITH "FIRE LANE-NO PARKING" IN 4" TALL WHITE LETTERS. WORDING MAY NOT BE SPACED MORE THAN 30 FEET APART. STRIPING TO BE PAINTED ON FACE OF CURB WHEN PRESENT AND PAINTED FLAT ON PARKING SURFACE WHEN IT IS NOT.
2. ALL DIMENSIONS ARE TO THE FACE OF CURB, OR CENTER OF STRIPING (WHERE APPLICABLE), UNLESS OTHERWISE NOTED.
3. FIRELANES SHALL BE SURFACED SO AS TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES BEFORE ANY COMBUSTIBLE MATERIALS ARE ALLOWED ON SITE.
4. ALL WEATHER SURFACE ROADS OF CONCRETE OR ASPHALT ABLE TO SUPPORT 80,000 LBS. AND SITE HYDRANTS IN-SERVICE BEFORE ANY COMBUSTIBLE MATERIAL ON SITE. 2015 IFC D102.

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

PAVING AND STRIPING PLAN

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

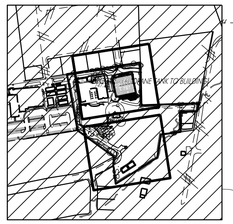
Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-0677
Fax: (512) 388-0702
Email: spai@sp-ai.com Web Site: www.sp-ai.com

Copyright

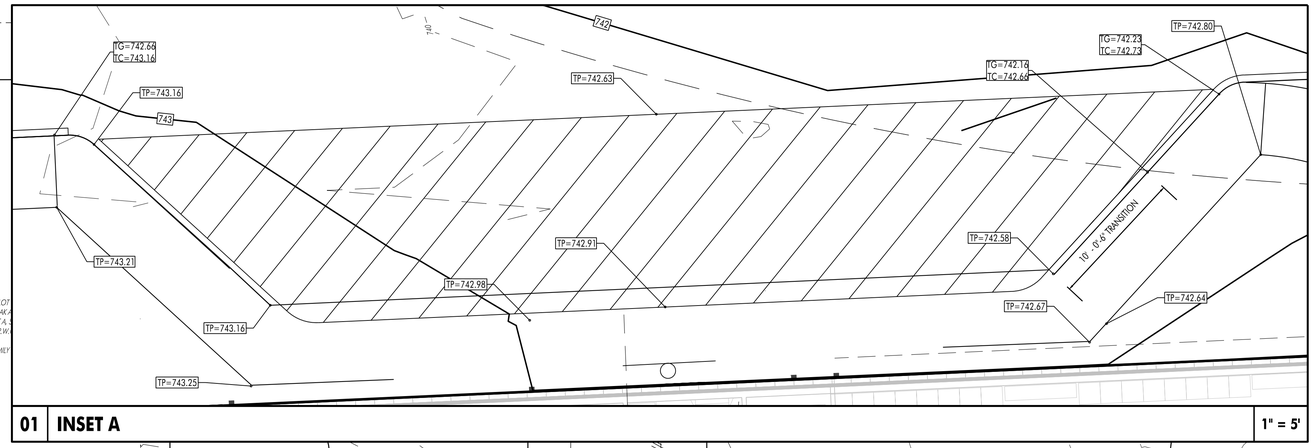
SHEET
C30B
19 of 32
SDP2205-0006

Copyright Notice: These plans are copyrighted by the author, and the reproduction of these plans without the express written permission of the author is prohibited by the Federal Visual Copyright Protection Act of 1990. The protection includes but is not limited to the overall form as well as the arrangement and composition of spaces and elements in the drawings. Any unauthorized use of these plans will be subject to legal action.

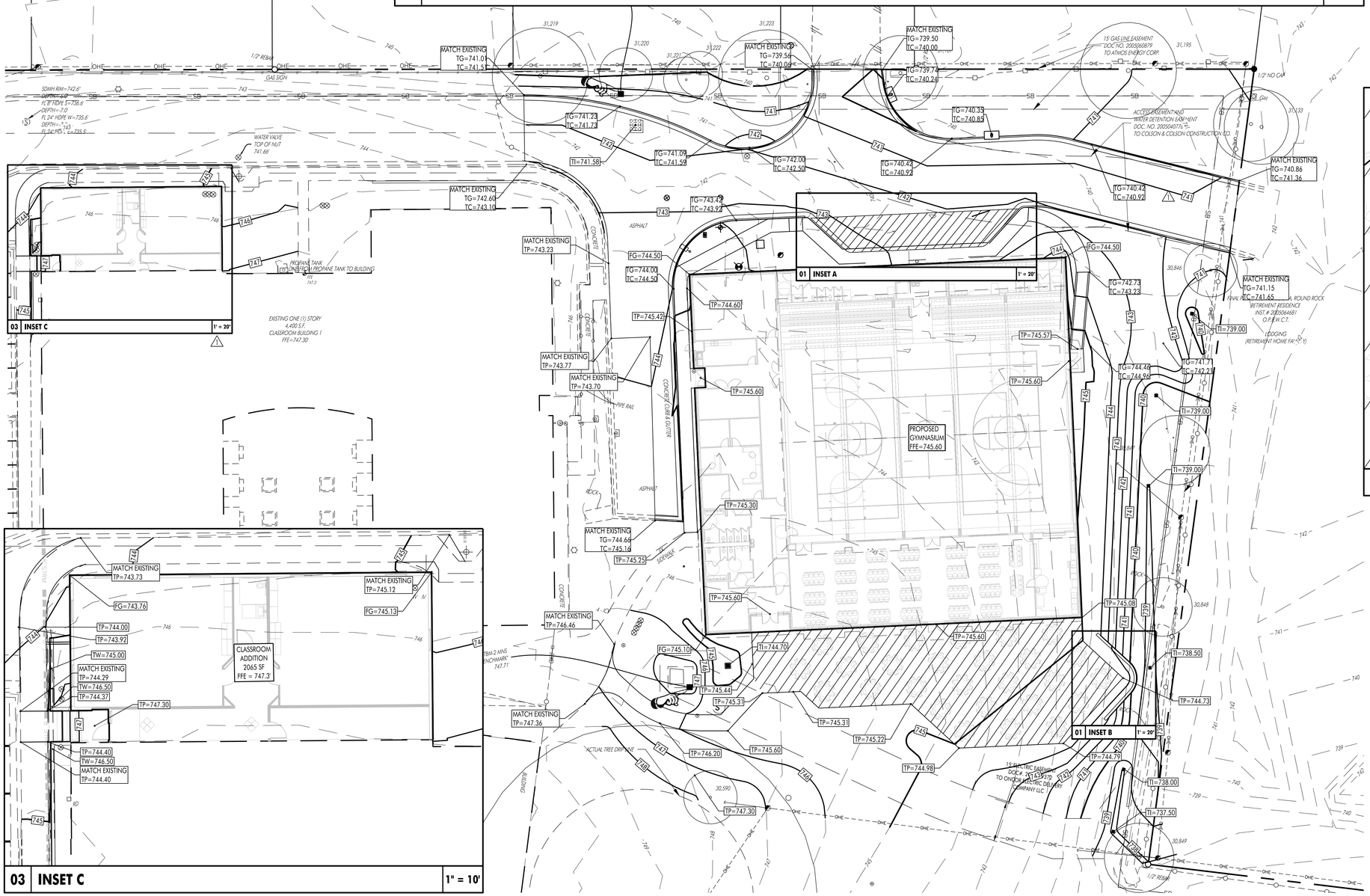
May 15,2023 - 1:31pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SDP\21-025 C30.dwg



KEY MAP 1" = 500'

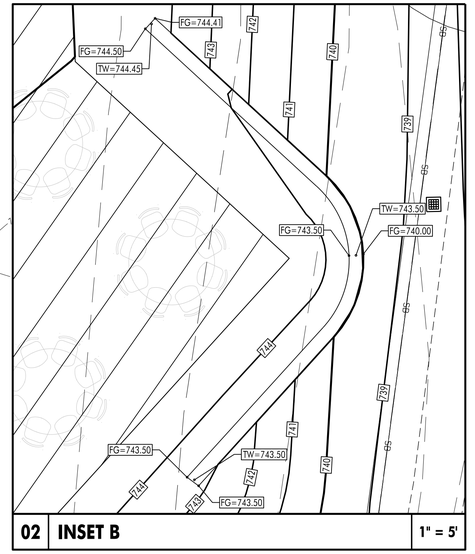


01 INSET A 1" = 5'



03 INSET C 1" = 10'

01 INSET A 1" = 20'



02 INSET B 1" = 5'

NOTES:

1. SLOPES OF ACCESSIBLE ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP.
2. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12. THE MAXIMUM RISE FOR ANY RAMP RUN IS 30". RAMPS SHALL BE PROVIDED WITH HANDRAILS AND GROUND SURFACE EDGE PROTECTION EACH SIDE AND ENTIRE LENGTH OF RAMP PER TDLR ADA REQUIREMENTS.
3. ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:50.
4. GROUND SURFACE ALONG ACCESSIBLE ROUTES MUST BE STABLE, FIRM AND SLIP RESISTANT.
5. SPOT ELEVATION LEGEND:
   - BW = BOTTOM OF WALL
   - EX. = EXISTING ELEVATION
   - FG = FINISHED GRADE
   - FL = FLOW LINE
   - TC = TOP OF CURB
   - TF = TOP OF FOOTING
   - TG = GUTTER
   - TI = TOP OF INLET
   - TP = TOP OF PAVEMENT (CONCRETE/ASPHALT/SIDEWALK)
   - TW = TOP OF WALL
6. FIRE LANE SHALL NOT BE GREATER THAN 7% OR GRADE BREAKS GREATER THAN 3%.

NO SLOPES GREATER THAN 2% ANY DIRECTION IN THIS AREA.

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

GRADING PLAN

DATE: 05/15/2023
REV: 1 ADD BUILDING EXTENSION, REVISE FIRELANE HAMMERHEAD
DRW. SPai CHK. SPai

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

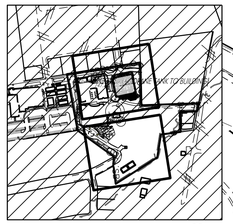
Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Email: spai@sp-ai.com Web Site: www.sp-ai.com
Phone: (512) 388-9477
Fax: (512) 388-0752

Copyright

SHEET
C40A
20 of 32
SDP2205-0006

Copyright Notice: These plans are protected as an "Architectural Work" under Section 102 of the Copyright Act of 1990. The protection includes all of the design elements of the Architectural Work as a whole, including the arrangement of architectural elements, floor plans and elevations. Unauthorized use of these plans without the express written permission of Spencer-Pierce Architecture + Interiors, Inc. is prohibited and will be subject to civil and criminal penalties including monetary damages. All violators will be prosecuted to the fullest extent of the law.

May 15,2023 2:26pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\21-025 C40.dwg



CENTRAL BAPTIST CHURCH,
LOT 1A AND 1B, BLOCK 'A' SUBDIVISION
INST.#2016106475
O.P.R.W.C.T.

TX. FOOTBALL SOCCER FIELD

MATCH EXISTING
TP=744.97

MATCH EXISTING
TP=744.96

TI=737.00

1/2" REBAR

1/2" NO CAP

1A WATER EASEMENT

RELOCATED PORTABLE BUILDING
FFE = 737.80

RELOCATED PORTABLE BUILDING
FFE = 737.80

LAKE CREEK WEST
LOT 28, BLOCK B
MORENO, XAVIER A JR & DORALYNN H
INSTR.# 2020160152
O.P.R.W.C.T.

SINGLE FAMILY RESIDENTIAL

EX. ROCK WALL

(ZONE X UNSHADED)
AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN

0 20 40
SCALE: 1" = 20'

LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
- ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- GATE VALVE
- IRRIGATION CONTROL VALVE
- WATER METER
- EXISTING CONTOURS
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING WATER LINE (SIZE VARIES)
- EXISTING WASTEWATER LINE (SIZE VARIES)
- EXISTING FORCE MAIN (SIZE VARIES)
- EXISTING FIBER OPTIC LINE
- EXISTING GAS LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK

NOTES:
1. SLOPES OF ACCESSIBLE ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP.
2. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12. THE MAXIMUM RISE FOR ANY RAMP RUN IS 30". RAMPS SHALL BE PROVIDED WITH HANDRAILS AND GROUND SURFACE EDGE PROTECTION EACH SIDE AND ENTIRE LENGTH OF RAMP PER TDLR ADA REQUIREMENTS.
3. ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:50.
4. GROUND SURFACE ALONG ACCESSIBLE ROUTES MUST BE STABLE, FIRM AND SLIP RESISTANT.
5. SPOT ELEVATION LEGEND:
   BW = BOTTOM OF WALL
   EX. = EXISTING ELEVATION
   FG = FINISHED GRADE
   FL = FLOW LINE
   TC = TOP OF CURB
   TF = TOP OF FOOTING
   TG = GUTTER
   TI = TOP OF INLET
   TP = TOP OF PAVEMENT (CONCRETE/ASPHALT/SIDEWALK)
   TW = TOP OF WALL
6. FIRE LANE SHALL NOT BE GREATER THAN 7% OR GRADE BREAKS GREATER THAN 3%.

NO SLOPES GREATER THAN 2% ANY DIRECTION IN THIS AREA.

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

GRADING PLAN

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

Spencer - Pierce
Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-8677
Fax: (512) 388-0722
Email: spai@sp-ai.com Web Site: www.sp-ai.com

Copyright

SHEET
C40B
21 of 32
SDP2205-0006

Copyright Notice: These plans are copyrighted and the property of the author, and may not be reproduced or used in any manner without the express written consent of the author. Visual contact with these plans shall constitute prima facie evidence of acceptance of these restrictions. All unauthorized use will be subject to legal action. Any publication of these plans, or portions thereof, without the author's copyright notice is expressly prohibited. Any unauthorized use of these plans will be at the user's sole risk and without liability to the author. Any use of these plans by the owner or others on any other project without the author's specific written consent will be at the user's sole risk and without liability to the author. The user will indemnify and hold the author harmless from all claims, damages, losses and expenses, including attorney's fees, arising out of or resulting from such use. Any such use by the owner or others on any other project without the author's specific written consent will be at the user's sole risk and without liability to the author. The user will indemnify and hold the author harmless from all claims, damages, losses and expenses, including attorney's fees, arising out of or resulting from such use.

May 15,2023-1:31pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\21-025 C40.dwg

KEY MAP 1" = 500'

8'x6' PREFAB WYE
FL = 737.02
CONTRACTOR TO FIELD VERIFY
EXACT FLOWLINE

CLASSROOM ADDITION
2065 SF
FFE = 747.3'

DOWNSPOUT LINE
6" HDPE

PROPANE TANK
ONE 500 GAL PROPANE TANK TO BUILDING

EXISTING ONE (1) STORY
4,400 S.F.
CLASSROOM BUILDING 1
FFE=747.30

EXISTING ONE (1) STORY
27,283 S.F.
CLASSROOM BUILDING 2
FFE=748.99

GYMNASIUM BUILDING
19,100 SF
FFE = 745.60'

BRENTWOOD STREET
50' R.O.W.
CABINET A, SLIDE 326, P.R.W.C.T.

LOT 7
LITTLE OAK ADDITION
CABINET A, SLIDE 350
P.R.W.C.T.
SINGLE FAMILY RESIDENTIAL

LOT 6
LITTLE OAK ADDITION
CABINET A, SLIDE 350
P.R.W.C.T.
SINGLE FAMILY RESIDENTIAL

LOT 5
LITTLE OAK ADDITION
CABINET A, SLIDE 350
P.R.W.C.T.
SINGLE FAMILY RESIDENTIAL

LOT 1
R.O.C.K.A.
ROUND ROCK CHRISTIAN ACADEMY
ADDITION
CABINET A, SLIDE 350
P.R.W.C.T.
SINGLE FAMILY RESIDENTIAL

LOT 8
LITTLE OAK ADDITION
CABINET A, SLIDE 350
P.R.W.C.T.
SINGLE FAMILY RESIDENTIAL

LOT 1
R.O.C.K.A.
ROUND ROCK CHRISTIAN ACADEMY
ADDITION
CABINET A, SLIDE 350
P.R.W.C.T.
SINGLE FAMILY RESIDENTIAL

LOT 1
R.O.C.K.A.
ROUND ROCK CHRISTIAN ACADEMY
ADDITION
CABINET A, SLIDE 350
P.R.W.C.T.
EXISTING CHURCH BUILDING

LOT 1
R.O.C.K.A.
ROUND ROCK CHRISTIAN ACADEMY
ADDITION
CABINET A, SLIDE 350
P.R.W.C.T.
EXISTING ASSISTED LIVING
(RETIREMENT HOME FACILITY)

STA. 3+96.96 SSL A
5' CURB INLET
SEE DETAIL 08/C71
RIM=740.23

STA. 3+53.74 SSL A
5' CURB INLET
SEE DETAIL 08/C71
RIM=740.85

STA. 3+39.09 SSL A
45° BEND

STA. 3+35.88 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

STA. 3+71.77 SSL A
45° BEND

SSL A
12" HDPE @0.50%

STA. 3+02.57 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

DOWNSPOUT A
6" HDPE @0.50%

STA. 3+76.21 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

STA. 2+92.71 SSL A
45° BEND

SSL A
12" HDPE @0.47%

STA. 4+39.80 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

STA. 3+97.51 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

STA. 3+94.54 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

STA. 3+32.90 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

STA. 3+55.21 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

STA. 2+99.34 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

STA. 2+95.50 DOWNSPOUT A
45° BEND

STA. 2+90.50 DOWNSPOUT A
8"X6" REDUCER

STA. 2+56.97 SSL A
PREFAB 12"X6" WYE

STA. 0+27.93 SSL A-6
1'X1' YARD BOX
SEE DETAIL C11/C72
RIM=739.00

SSL A-6
6" HDPE @4.72%

SSL A-5
6" HDPE @2.72%

STA. 0+13.92 SSL A-5
1'X1' YARD BOX
SEE DETAIL C11/C72
RIM=739.00

UTILITY CROSSING

DOWNSPOUT A
8" HDPE @0.50%

STA. 2+46.15 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

STA. 2+26.71 SSL A
PREFAB 12"X6" WYE

STA. 0+10.32 SSL A-4
1'X1' YARD BOX
SEE DETAIL C11/C72
RIM=739.00

SSL A
12" HDPE @0.50%

SSL A-4
6" HDPE @4.15%

STA. 2+21.87 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

STA. 1+93.02 SSL A
PREFAB 12"X6" WYE

STA. 1+19.55 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

STA. 1+63.02 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

STA. 0+98.55 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

STA. 0+56.55 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

STA. 0+16.72 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

STA. 1+41.99 SSL A
PREFABRICATED 12"X12"X12" TEE

DOWNSPOUT A
8" HDPE @0.50%

UTILITY CROSSING
SEE PROFILES FOR CROSSING FLOWLINES

STA. 1+40.49 SSL A
18" - 12" REDUCER

STA. 1+24.99 SSL A
PREFAB 18"X6" WYE

STA. 1+60.59 DOWNSPOUT A
45° BEND

STA. 1+58.47 DOWNSPOUT A
12"X8" REDUCER

STA. 1+39.79 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

STA. 0+77.55 DOWNSPOUT A
WYE DOWNSPOUT CONNECTION

DOWNSPOUT A
12" HDPE @0.50%

STA. 0+09.47 SSL A-3
1'X1' YARD BOX
SEE DETAIL C11/C72
RIM=738.50

SSL A-3
6" HDPE @3.73%

SSL A
18" HDPE @0.47%

STA. 1+56.35 DOWNSPOUT A
45° BEND

DOWNSPOUT A
12" HDPE @0.50%

STA. 1+48.47 DOWNSPOUT A
PREFABRICATED WYE

STA. 1+17.94 SSL A
22.5° BEND

SSL C
10" HDPE @1.00%

STA. 0+07.40 SSL C
2'X2' YARD BOX

SSL A-2
6" HDPE @4.33%

STA. 0+09.79 SSL A-2
1'X1' YARD BOX
SEE DETAIL C11/C72
RIM=738.00

STA. 0+88.54 SSL A
PREFAB 18"X6" WYE

STA. 0+65.80 SSL A
PREFAB 18"X6" WYE

STA. 0+14.48 SSL A-1
1'X1' YARD BOX
SEE DETAIL C11/C72
RIM=737.50

SSL A
18" HDPE @0.50%

CAUTION!
UNDERGROUND ELECTRIC CROSSING

SSL A-1
6" HDPE @4.86%

STA. 0+40.29 SSL A
PREFAB 11.25° BEND

STA. 0+20.06 SSL A
CONNECTION TO EX.
MODIFIED 5'X5' JUNCTION BOX
'MOD J-BOX', SEE DETAIL 10/C72
CORE AND GROUT EX. JUNCTION BOX

STA. 0+00.00 SSL A
5'X5' JUNCTION BOX
'MOD J-BOX 2' SEE DETAIL 10/C72

SSL A
36" RCP @0.25%

15' GAS LINE EASEMENT
DOC NO. 2005060879
TO ATMOS ENERGY CORP.

ACCESS EASEMENT AND
WATER DETENTION EASEMENT
DOC. NO. 2005040778
TO COLSON & COLSON CONSTRUCTION CO.

15' ELECTRIC EASEMENT
DOC # 2004035212
TO ONCOR ELECTRIC DELIVERY
COMPANY LLC

EXISTING CHURCH BUILDING

EX. BUILDING

PLAYGROUND

SCALE: 1" = 20'

NOTES:
1. ALL STORM SEWER WYES, BENDS AND PIPE SIZE TRANSITIONS SHALL BE PREFABRICATED AND FREE FROM DEFECTS.

LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
- ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- GATE VALVE
- IRRIGATION CONTROL VALVE
- WATER METER
- EXISTING CONTOURS
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING WATER LINE (SIZE VARIES)
- EXISTING WASTEWATER LINE (SIZE VARIES)
- EXISTING FORCE MAIN (SIZE VARIES)
- EXISTING FIBER OPTIC LINE
- EXISTING GAS LINE (SIZE VARIES)
- EXISTING STORM LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960
THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

DRAINAGE PLAN

DATE: 05/15/2023
REV: 1 ADD BUILDING EXTENSIONS AND REVISE FIRELANE/HAMMERHEAD
DRW. SPai CHK. SPai

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-0677
Fax: (512) 280-0132
Email: spa@sp-ai.com Web Site: www.sp-ai.com

Copyright

SHEET
C50A
22 of 32
SDP2205-0006

May 15,2023 - 1:32pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SDP 21-025 C50.dwg
Copyright notice: These plans are protected by U.S. Copyright Law and other laws. Unauthorized use of these plans is prohibited. Copyright protection extends to all elements of these plans, including but not limited to the arrangement, location, design, and dimensions of the structures, buildings, improvements, and features shown on these plans. Any unauthorized use, reproduction, or distribution of these plans may result in civil and criminal penalties. All rights reserved.

LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
- ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- GATE VALVE
- IRRIGATION CONTROL VALVE
- WATER METER
- EXISTING CONTOURS
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING WATER LINE (SIZE VARIES)
- EXISTING WASTEWATER LINE (SIZE VARIES)
- EXISTING FORCE MAIN (SIZE VARIES)
- EXISTING FIBER OPTIC LINE
- EXISTING GAS LINE (SIZE VARIES)
- EXISTING STORM LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK

NOTES:
1. ALL STORM SEWER WYES, BENDS AND PIPE SIZE TRANSITIONS SHALL BE PREFABRICATED AND FREE FROM DEFECTS.

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

DRAINAGE PLAN

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

Spencer - Pierce
Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-0677
Fax: (512) 260-0122
Email: spa@spa-pi.com Web Site: www.spa-pi.com

Copyright

SHEET
C50B
23 of 32
SDP2205-0006

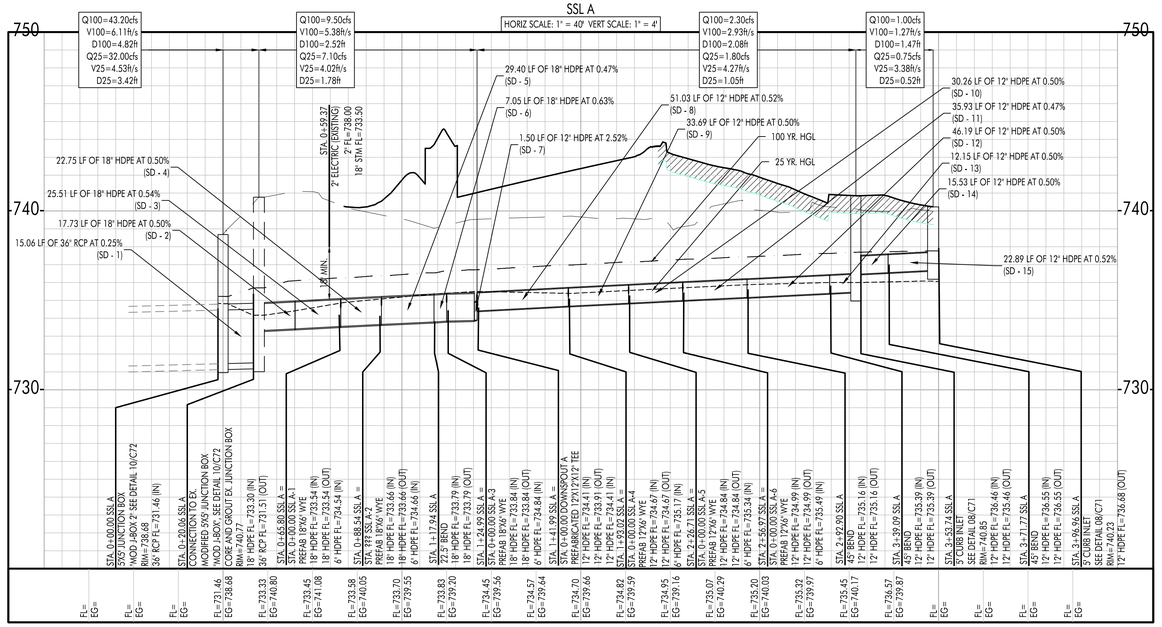
Copyright ©2023 Spencer-Pierce Architecture + Interiors, Inc. All rights reserved. This drawing is the property of the Architect and is not to be used in whole or in part without the written permission of the Architect. Visual contact with these plans shall constitute prima facie evidence of the acceptance of these restrictions.

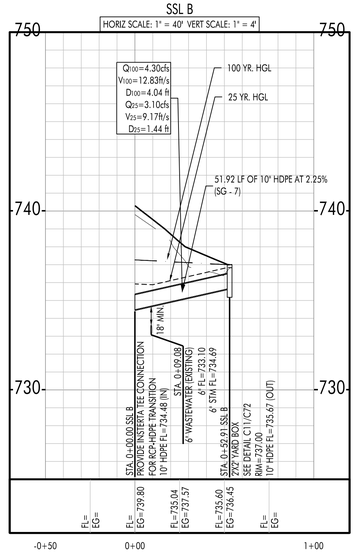
Copyright ©2023 Hagood Engineering Associates. All rights reserved. This drawing is the property of the Engineer and is not to be used in whole or in part without the written permission of the Engineer. Visual contact with these plans shall constitute prima facie evidence of the acceptance of these restrictions.

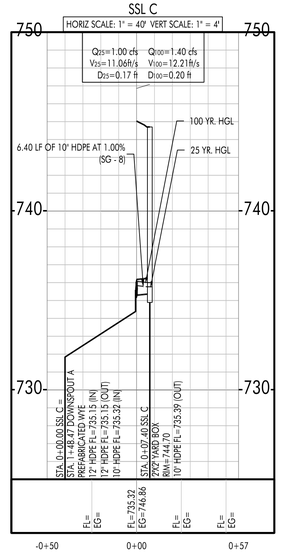
Copyright ©2023 Spencer-Pierce Architecture + Interiors, Inc. All rights reserved. This drawing is the property of the Architect and is not to be used in whole or in part without the written permission of the Architect. Visual contact with these plans shall constitute prima facie evidence of the acceptance of these restrictions.

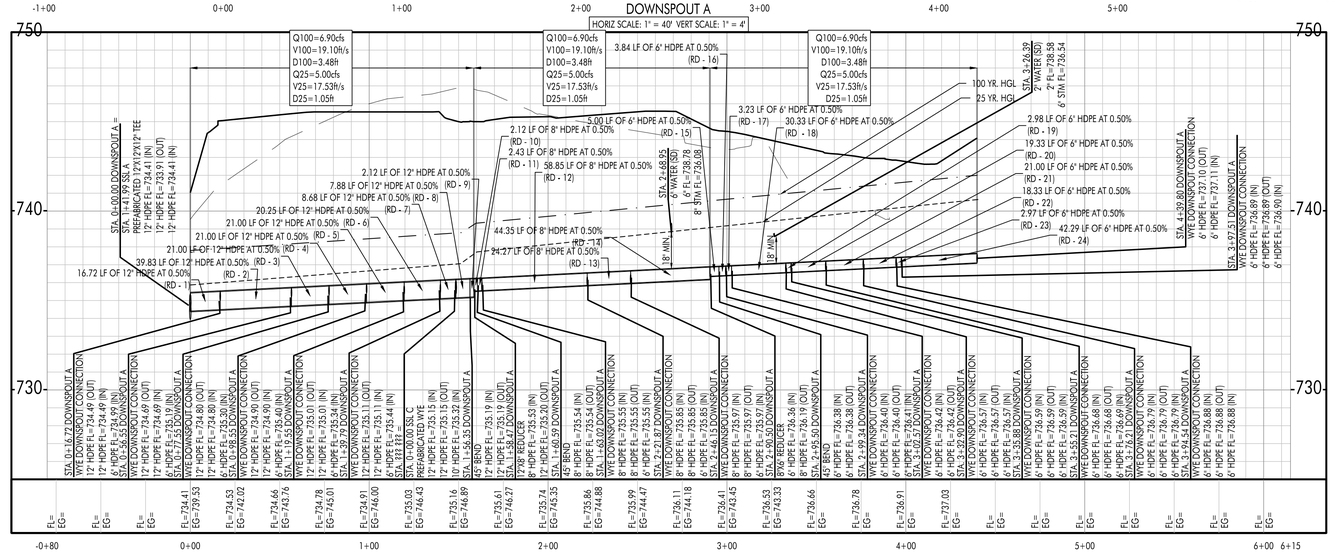
Copyright ©2023 Hagood Engineering Associates. All rights reserved. This drawing is the property of the Engineer and is not to be used in whole or in part without the written permission of the Engineer. Visual contact with these plans shall constitute prima facie evidence of the acceptance of these restrictions.

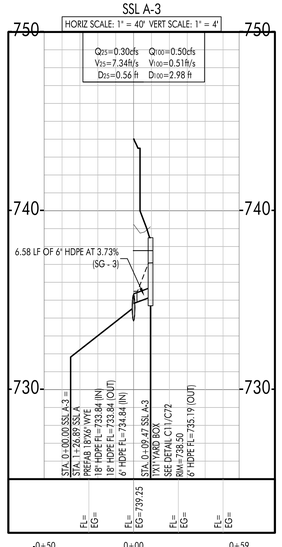
May 15,2023 - 1:32pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\21-025 C50.dwg

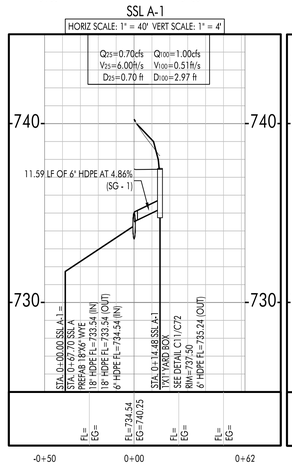


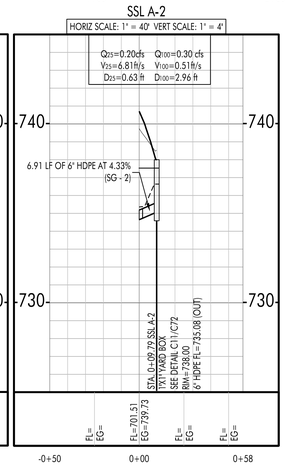


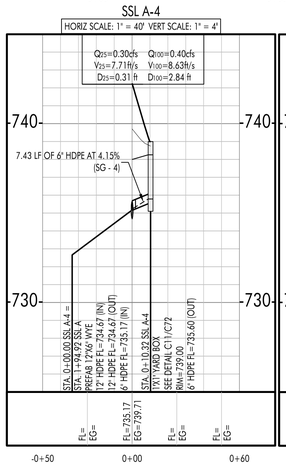


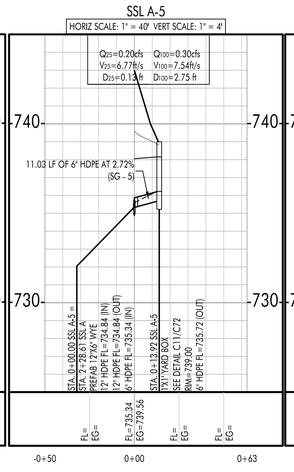


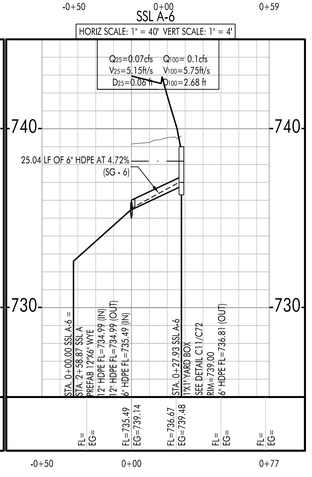












LEGEND

- 25 YR HGL
- 100 YR HGL
- FINISHED/PROPOSED GRADE
- EXISTING GRADE
- SUBGRADE LINE

NOTE:
1. CONTRACTOR SHALL FIELD VERIFY FLOWLINE OF EXISTING UTILITY INFRASTRUCTURE.

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

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

JOB NO. 21-075 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

DRAINAGE PROFILE

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

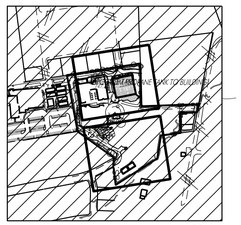
Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone (512) 388-0677
Fax (512) 388-0702
Email: spai@sp-ai.com Web Site: www.sp-ai.com

Copyright

SHEET
C51
24 of 32
SDP2205-0006

Copyright laws protect these plans. Copyright protection as to form includes the architectural concepts, design, arrangement, plans, and specifications shown in these plans, including but not limited to the overall form as well as the spacing and content of any elements. Copyright protection also extends to any derivation of these plans, including any building constructed from these plans. Ownership of these plans is vested in the Architect whether or not the project is completed. Any publication of these plans without the Architect's reservation of rights is expressly prohibited. Any unauthorized use of these plans is at the user's sole risk and without liability to the Architect and the Architect's consultants. Any unauthorized use of these plans will be subject to prosecution to the fullest extent of the law.

May 15,2023 - 1:32pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\21-025 C51.dwg



KEY MAP 1" = 500'

LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
- ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- GATE VALVE
- IRRIGATION CONTROL VALVE
- WATER METER
- EXISTING CONTOURS
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING WATER LINE (SIZE VARIES)
- EXISTING WASTEWATER LINE (SIZE VARIES)
- EXISTING FORCE MAIN (SIZE VARIES)
- EXISTING FIBER OPTIC LINE
- EXISTING GAS LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK

STA. 0+00.00 HYDRANT LEAD A
8"X6" TEE CONNECTION

STA. 0+42.39 DOMESTIC WL A
SERVICE SADDLE CONNECTION
TO EXISTING 8" MAIN

STA. 0+96.11 EX. WATER MAIN REROUTE
45° BEND CONNECTION TO EXISTING WATER MAIN

STA. 0+73.75 EX. WATER MAIN REROUTE
45° BEND

EX. WATER MAIN REROUTE
8" C900 DR-14 PVC

STA. 0+66.01 FIRE SPRINKLER A
8"X6" TEE
1-6" GATE VALVE
SEE NOTE 19

FIRE SPRINKLER A
6" DI

STA. 0+10.49 FIRE SPRINKLER A
45° BEND

APPROXIMATE LOC. OF TELECOMM'S LINE
TO BE EXTENDED TO GYMNASIUM.
CONTRACTOR TO FIELD VERIFY EXACT LOC.

WASTEWATER AND STORM CROSSING
SEE PROFILE FOR CROSSING DETAILS

STA. 0+00.02 WWL A
WYE CONNECTION TO EX 6" WWL
SEE DETAIL 08/C72
SEE C61 FOR FLOWLINES

STA. 0+00.00 EX. WATER MAIN REROUTE
45° BEND CONNECTION TO EXISTING MAIN

HYDRANT LEAD A
6" DI

STA. 0+12.58 HYDRANT LEAD A
HYDRANT ASSEMBLY
SEE DETAIL 04/C72

STA. 0+00.00 DOMESTIC WL A
REF. TO MEP FOR CONTINUATION

DOMESTIC WL A
1-1/2" BLACKPOLY PIPE

NEW FIRE DEP.
CONNECTION

STA. 0+27.00 DOMESTIC WL A
1-1/2" WATER METER
SEE DETAIL 03/C72

STA. 0+00.00 FIRE SPRINKLER A
SEE MEP FOR CONTINUATION

STORM CROSSING
SEE PROFILE FOR CROSSING DETAIL

STA. 0+06.22 FIRE SPRINKLER A
45° BEND

STA. 0+34.63 WWL A
COTG
SEE DETAIL 07/C72

STA. 0+39.63 WWL A
REF. TO MEP FOR CONTINUATION

GYMNASIUM BUILDING
19,100 SF
FFE = 745.60'

CLASSROOM ADDITION
2065 SF
FFE = 747.3'

EXISTING ONE (1) STORY
4,400 S.F.
CLASSROOM BUILDING 1
FFE=747.30'

EXISTING ONE (1) STORY
27,283 S.F.
CLASSROOM BUILDING 2
FFE=748.99

EX. BUILDING

PROPANE TANK
15' FROM PROPANE TANK TO BUILDING

EX FDC

LOT 4
LITTLE OAK ADDITION
CABINET A, SLIDE 350
P.R.W.C.T.
SINGLE FAMILY RESIDENTIAL

LOT 7
LITTLE OAK ADDITION
CABINET A, SLIDE 350
P.R.W.C.T.
SINGLE FAMILY RESIDENTIAL

LOT 6
LITTLE OAK ADDITION
CABINET A, SLIDE 350
P.R.W.C.T.
SINGLE FAMILY RESIDENTIAL

LOT 5
LITTLE OAK ADDITION
CABINET A, SLIDE 350
P.R.W.C.T.
SINGLE FAMILY RESIDENTIAL

BRENTWOOD STREET
50' R.O.W.
(CABINET A, SLIDE 326, P.R.W.C.T.)

TBM-1 MNS
"JPH BENCHMARK"
741.41'

TBM-2 MNS
"JPH BENCHMARK"
747.71'

RIM=739.2

19' GAS LINE EASEMENT
DOC. NO. 2005060879
TO ATMOS ENERGY CORP.

15' WATERLINE EASEMENT
TO CITY OF ROUND ROCK
DOC#

ACCESS EASEMENT AND
WATER DETENTION EASEMENT
DOC. NO. 2005040778
TO COLSON & COLSON CONSTRUCTION CO.

15' ELECTRIC EASEMENT
DOC.# 2014035372
TO ONCOR ELECTRIC DELIVERY
COMPANY LLC

LOT 1
BLOCK A
FINAL PLAT OF LOT 1, BLOCK A, ROUND ROCK
RETIREMENT RESIDENCE
INST. # 2015066481
O.P.R.W.C.T.
LODGING
(RETIREMENT HOME FACILITY)

0 20 40
SCALE: 1" = 20'

NOTES:
1. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. ALL EXISTING GROUND LEVEL APPURTENANCES ARE SUBJECT TO ELEVATION CHANGES AND SHALL BE ADJUSTED TO FINAL GRADE.
3. ALL WASTEWATER MANHOLES SHALL BE COATED AND VACUUM TESTED.
4. MANHOLES OUTSIDE OF PAVEMENT SHALL HAVE BOLTED COVERS.
5. ALL GRAVITY WASTEWATER LINES ARE TO BE CONSTRUCTED OF SDR-26.
6. ALL NON-CITY INFRASTRUCTURE INCLUDING GAS, ELECTRIC CABLE, AND TELECOMMUNICATIONS SHALL TRAVERSE UNDERNEATH CITY INFRASTRUCTURE, INCLUDING BUT NOT LIMITED TO WATERLINES, WASTEWATER LINES, AND STORM SEWERS, WITH A MINIMUM OUTSIDE-TO-OUTSIDE CLEARANCE OF 18" WHERE NON-CITY INFRASTRUCTURE WOULD HAVE TO BE PLACED AT A DEPTH OF 8' OR GREATER TO MEET THE PRECEDING REQUIREMENT, TRAVERSING ABOVE CITY INFRASTRUCTURE MAY BE ALLOWED, SUBJECT TO THE APPROVAL OF THE CITY ENGINEER, BUT ONLY IN CONFORMANCE WITH CROSS-SECTIONS, PROFILES, AND / OR OTHER DETAILED INFORMATION INCORPORATED IN THESE PLANS.
7. CONTRACTOR TO STAKEOUT WATERLINE EASEMENT PRIOR TO THE INSTALLATION OF THE WATERLINE, FOR INSTALLATION ACCURACY.
8. FOR ALL POINTS WHERE A WASTEWATER GRAVITY OR FORCE MAIN LINE CROSSES UNDER A PUBLIC WATER SUPPLY OR WATER SERVICE:
   - 8.1. VERTICAL SEPARATION MUST BE AT LEAST TWO FEET FROM OUTSIDE DIAMETERS OF PIPES;
   - 8.2. WASTEWATER PIPE WITH A MINIMUM PRESSURE RATING OF 150 PSI;
   - 8.3. ONE SEGMENT OF WATER LINE SHALL BE CENTERED ON CROSSING.
9. FOR ALL POINTS WHERE A WASTEWATER GRAVITY OR FORCE MAIN LINE CROSSES OVER A PUBLIC WATER SUPPLY OR WATER SERVICE:
   - 9.1. VERTICAL SEPARATION MUST BE AT LEAST TWO FEET FROM OUTSIDE DIAMETERS OF PIPE;
   - 9.2. WATER SHALL BE PLACED IN AN ENCASEMENT CENTERED ON THE CROSSING, SEALED AT BOTH ENDS WITH CEMENT GROUT OR MANUFACTURED SEAL, AT LEAST TWO NOMINAL SIZES LARGER, AND SUPPORTED BY SPACERS AT 5' INTERVALS;
   - 9.3. ONE SEGMENT OF WATERLINE SHALL BE CENTERED ON CROSSING.
10. FOR WASTEWATER OR FORCE MAIN LINES THAT PARALLEL PUBLIC WATER OR WATER SERVICES:
   - 10.1. SEPARATION MUST BE AT LEAST NINE FEET FROM OUTSIDE DIAMETERS OF PIPE IN ANY DIRECTION;
11. ALL WATER LINE FITTINGS SHALL BE RESTRAINED AND THRUST BLOCKED.
12. UNLESS OTHERWISE SPECIFIED, ALL WATER MAINS SHALL BE CONSTRUCTED OF C900 DR-14 PVC.
13. PROVIDE 3' CLEAR AREA AROUND FIRE HYDRANTS.
14. ALL FIRE SERVICE LEADS SHALL BE DUCTILE IRON.
15. VALVES SHALL BE AMERICAN DARLING BRAND.
16. FIRE HYDRANTS SHALL BE AMERICAN DARLING BRAND.
17. CONTRACTOR SHALL PATCH ALL PAVEMENT PER DETAIL 02-####/C72.
18. ALL EXISTING IRRIGATION LINE WITHIN THE PROJECT AREA ARE TO BE REMOVED.
19. EX. FLUSHING DEVICE ON THE FIRE LINE SHALL BE REMOVED PRIOR TO EXTENDING THE FIRE SPRINKLER LINE.

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960
THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

UTILITY PLAN

DATE: 05/15/2023
REV: 1 ADD BUILDING EXPANSION, REVISE FIRELANE/HAMMERHEAD
DRW. SPai CHK. SPai

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-8477
Fax: (512) 388-8722
Email: spai@sp-ai.com Web Site: www.sp-ai.com

Copyright
Copyright © 2023 Spencer-Pierce Architecture + Interiors, Inc. The reproduction, publication or use of the design, plans, drawings, concepts, ideas, details, and specifications shown on this sheet without the express written consent of Spencer-Pierce Architecture + Interiors, Inc. is prohibited. Unauthorized use of these plans and designs will be subject to legal action.

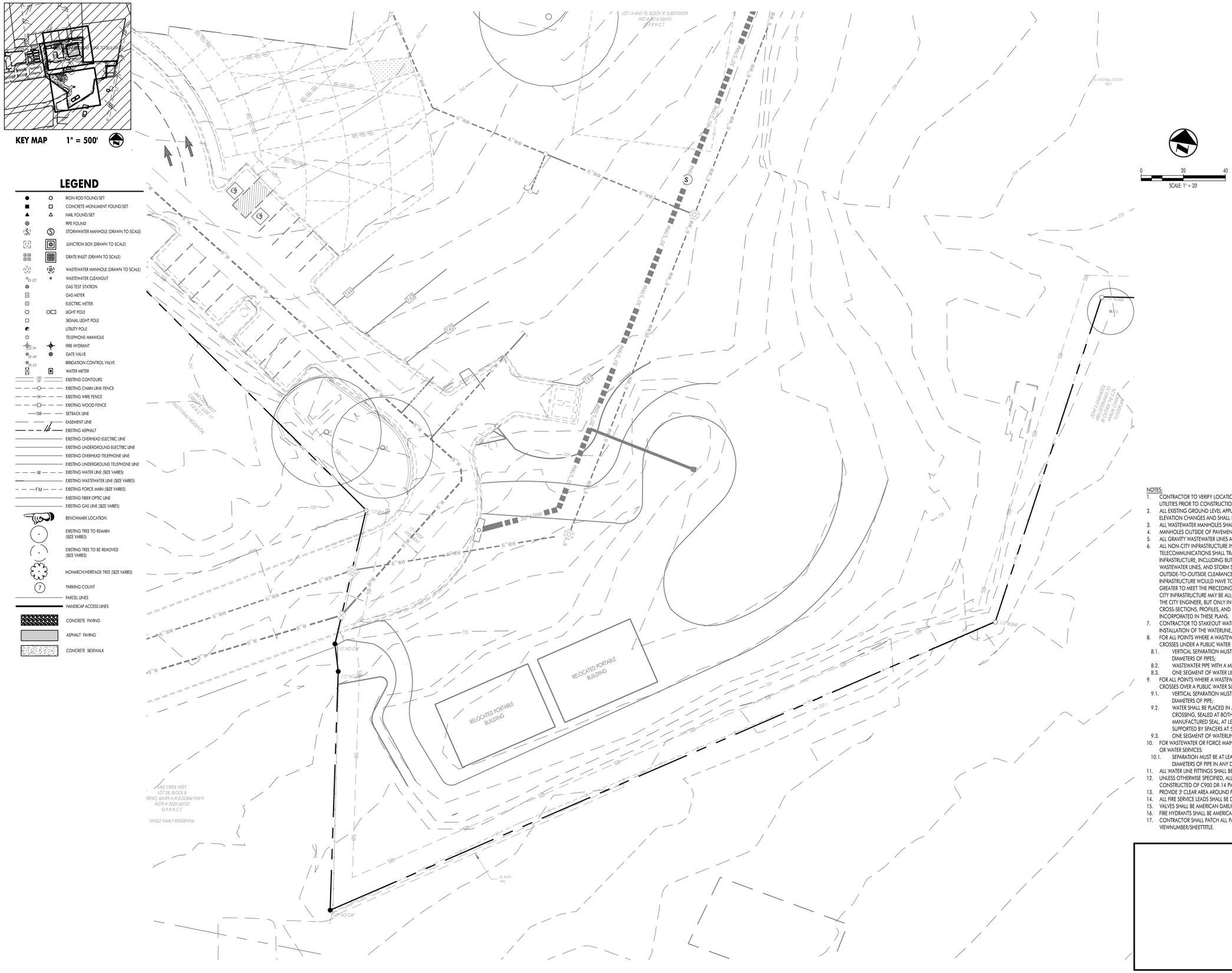
SHEET
C60A
25 of 32
SDP2205-0006

May 15,2023-1:33pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\21-025 C60.dwg

KEY MAP 1" = 500'

LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
- ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- GATE VALVE
- IRRIGATION CONTROL VALVE
- WATER METER
- EXISTING CONTOURS
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING WATER LINE (SIZE VARIES)
- EXISTING WASTEWATER LINE (SIZE VARIES)
- EXISTING FORCE MAIN (SIZE VARIES)
- EXISTING FIBER OPTIC LINE
- EXISTING GAS LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK



NOTES:

1. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. ALL EXISTING GROUND LEVEL APPURTENANCES ARE SUBJECT TO ELEVATION CHANGES AND SHALL BE ADJUSTED TO FINAL GRADE.
3. ALL WASTEWATER MANHOLES SHALL BE COATED AND VACUUM TESTED.
4. MANHOLES OUTSIDE OF PAVEMENT SHALL HAVE BOLTED COVERS.
5. ALL GRAVITY WASTEWATER LINES ARE TO BE CONSTRUCTED OF SDR-26.
6. ALL NON-CITY INFRASTRUCTURE INCLUDING GAS, ELECTRIC CABLE, AND TELECOMMUNICATIONS SHALL TRAVERSE UNDERNEATH CITY INFRASTRUCTURE, INCLUDING BUT NOT LIMITED TO WATERLINES, WASTEWATER LINES, AND STORM SEWERS, WITH A MINIMUM OUTSIDE-TO-OUTSIDE CLEARANCE OF 18" WHERE NON-CITY INFRASTRUCTURE WOULD HAVE TO BE PLACED AT A DEPTH OF 8' OR GREATER TO MEET THE PRECEDING REQUIREMENT, TRAVERSING ABOVE CITY INFRASTRUCTURE MAY BE ALLOWED, SUBJECT TO THE APPROVAL OF THE CITY ENGINEER, BUT ONLY IN CONFORMANCE WITH CROSS-SECTIONS, PROFILES, AND / OR OTHER DETAILED INFORMATION INCORPORATED IN THESE PLANS.
7. CONTRACTOR TO STAKEOUT WATERLINE EASEMENT PRIOR TO THE INSTALLATION OF THE WATERLINE, FOR INSTALLATION ACCURACY.
8. FOR ALL POINTS WHERE A WASTEWATER GRAVITY OR FORCE MAIN LINE CROSSES UNDER A PUBLIC WATER SUPPLY OR WATER SERVICE:
   - 8.1. VERTICAL SEPARATION MUST BE AT LEAST TWO FEET FROM OUTSIDE DIAMETERS OF PIPES;
   - 8.2. WASTEWATER PIPE WITH A MINIMUM PRESSURE RATING OF 150 PSI;
   - 8.3. ONE SEGMENT OF WATER LINE SHALL BE CENTERED ON CROSSING.
9. FOR ALL POINTS WHERE A WASTEWATER GRAVITY OR FORCE MAIN LINE CROSSES OVER A PUBLIC WATER SUPPLY OR WATER SERVICE:
   - 9.1. VERTICAL SEPARATION MUST BE AT LEAST TWO FEET FROM OUTSIDE DIAMETERS OF PIPE;
   - 9.2. WATER SHALL BE PLACED IN AN ENCASEMENT CENTERED ON THE CROSSING, SEALED AT BOTH ENDS WITH CEMENT GROUT OR MANUFACTURED SEAL, AT LEAST TWO NOMINAL SIZES LARGER, AND SUPPORTED BY SPACERS AT 5' INTERVALS;
   - 9.3. ONE SEGMENT OF WATERLINE SHALL BE CENTERED ON CROSSING.
10. FOR WASTEWATER OR FORCE MAIN LINES THAT PARALLEL PUBLIC WATER OR WATER SERVICES:
    - 10.1. SEPARATION MUST BE AT LEAST NINE FEET FROM OUTSIDE DIAMETERS OF PIPE IN ANY DIRECTION;
11. ALL WATER LINE FITTINGS SHALL BE RESTRAINED AND THRUST BLOCKED.
12. UNLESS OTHERWISE SPECIFIED, ALL WATER MAINS SHALL BE CONSTRUCTED OF C900 DR-14 PVC.
13. PROVIDE 3' CLEAR AREA AROUND FIRE HYDRANTS.
14. ALL FIRE SERVICE LEADS SHALL BE DUCTILE IRON.
15. VALVES SHALL BE AMERICAN DARLING BRAND.
16. FIRE HYDRANTS SHALL BE AMERICAN DARLING BRAND.
17. CONTRACTOR SHALL PATCH ALL PAVEMENT PER DETAIL VIEWNUMBER/SHEETTITLE.

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

UTILITY PLAN

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

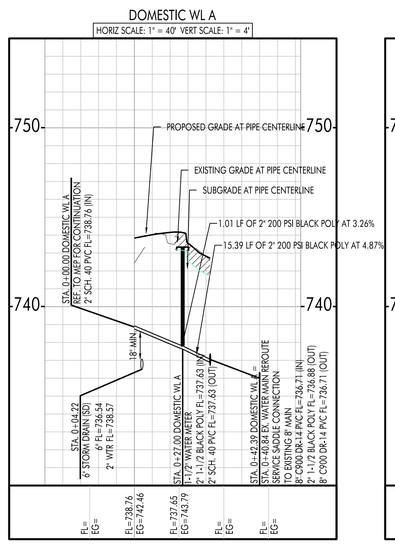
SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

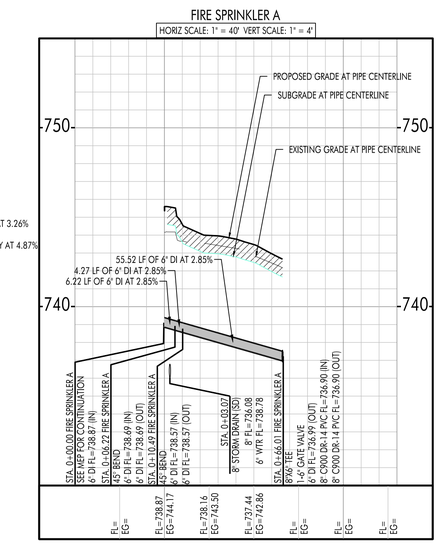
Spencer - Pierce
Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Email: spai@sp-ai.com Web Site: www.sp-ai.com
Phone: (512) 388-0477
Fax: (512) 388-0752

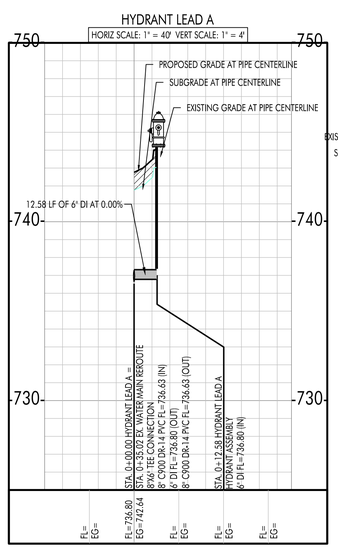
Copyright
Copyright © 2023 Spencer-Pierce Architecture + Interiors, Inc. The protection of copyright protection as to the subject matter of this work includes but is not limited to the overall form as well as the arrangement and composition of spaces and elements in the design. Unauthorized use of this design without the express written permission of Spencer-Pierce Architecture + Interiors, Inc. is prohibited.

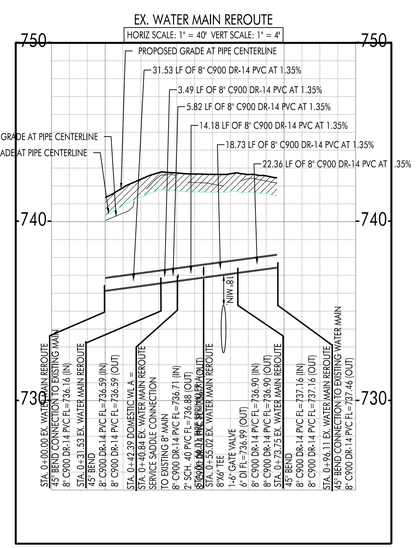
SHEET
C60B
26 of 32
SDP2205-0006

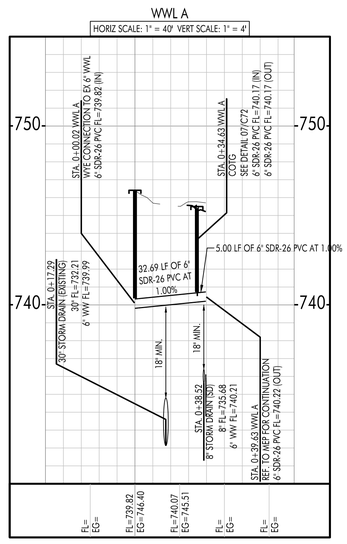
May 15,2023 1:33pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\21-025 C60.dwg











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

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

UTILITY PROFILE

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

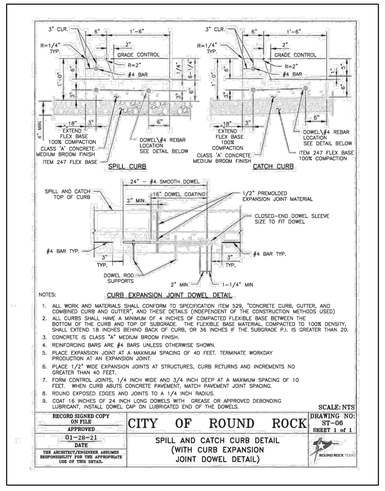
Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-8477
Fax: (512) 388-0722
Email: spai@sp-ai.com Web Site: www.sp-ai.com

Copyright

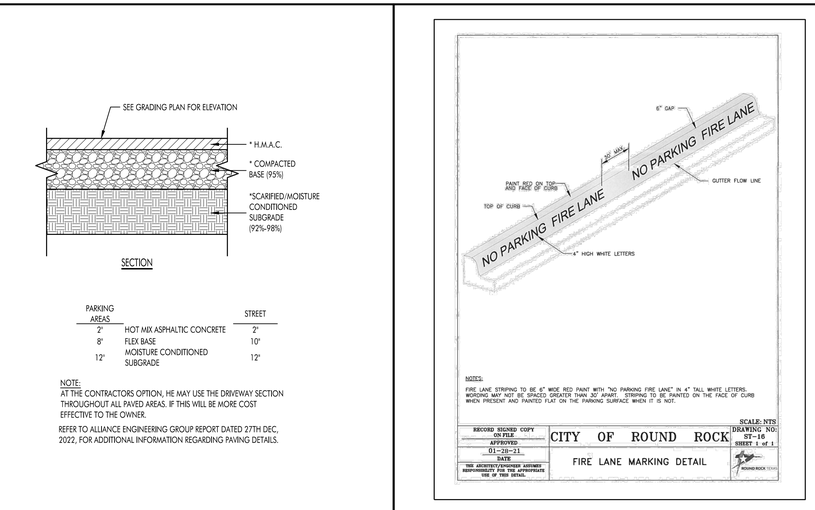
SHEET
C61
27 of 32
SDP2205-0006

Copyright Notice: These plans are copyrighted and the property of the author. Reproduction or use of these plans, whether in whole or in part, by any means whatsoever, without the express written permission of the author is prohibited by law. Unauthorized use of these plans will be subject to civil penalties and criminal prosecution to the fullest extent of the law. Copyright protection is claimed throughout the duration of the design period, and all rights reserved. Copyright protection is claimed for all elements of the design, whether or not they are specifically shown on the drawings. Copyright protection is claimed for all elements of the design, whether or not they are specifically shown on the drawings. Copyright protection is claimed for all elements of the design, whether or not they are specifically shown on the drawings.

May 15,2023-1:33pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\21-025 C61.dwg

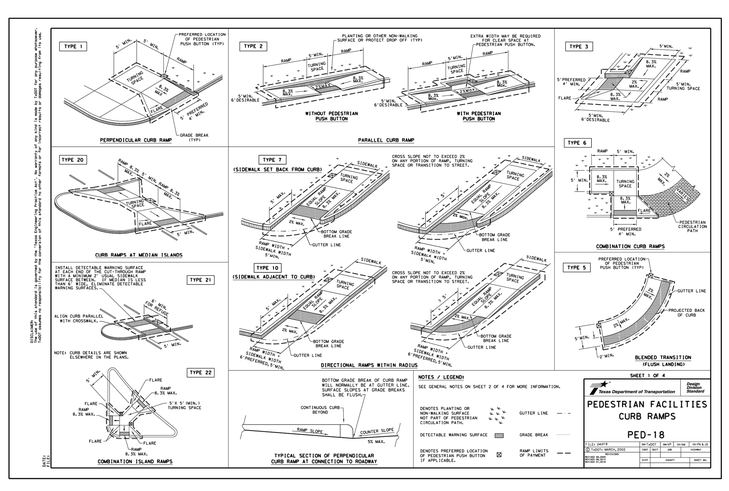


01 CURB AND GUTTER NTS

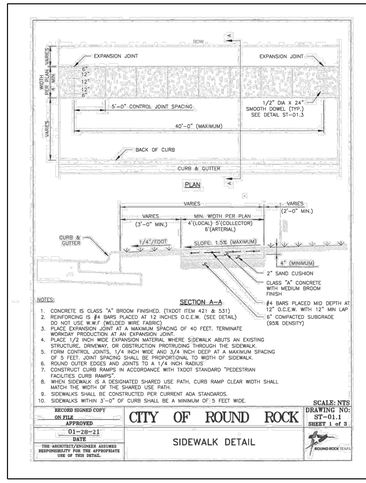


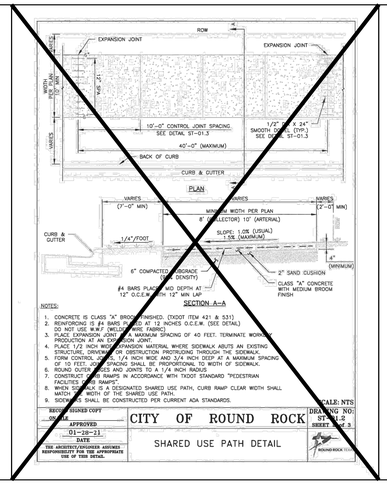
02 ASPHALT PAVING SECTION NTS

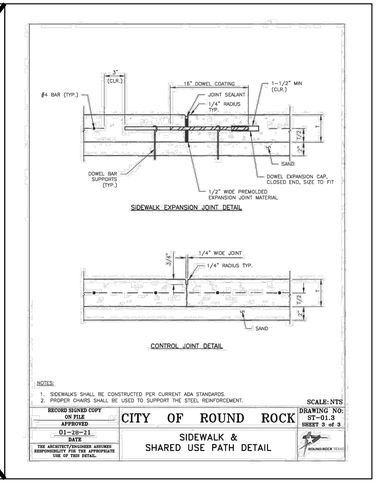
04 FIRE LANE MARKINGS NTS



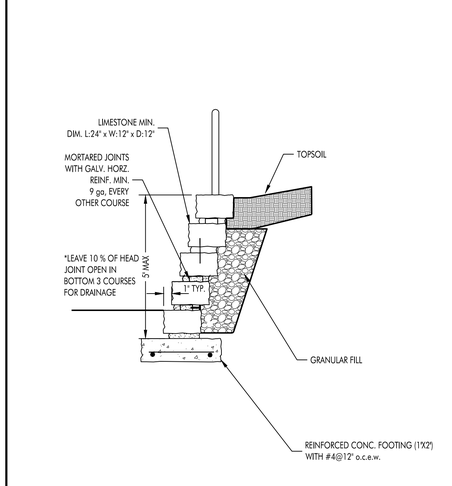
03 CURB RAMP DETAILS NTS



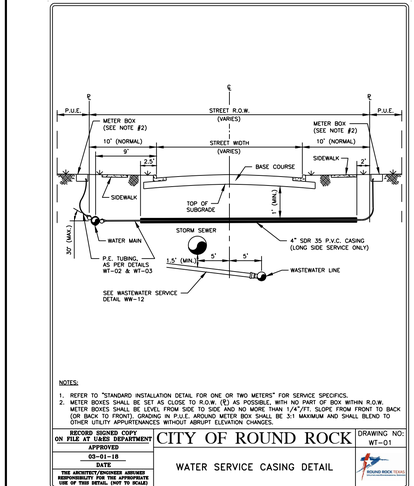




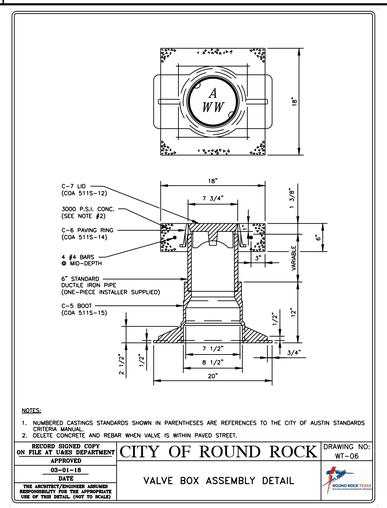
05 SIDEWALK DETAILS NTS



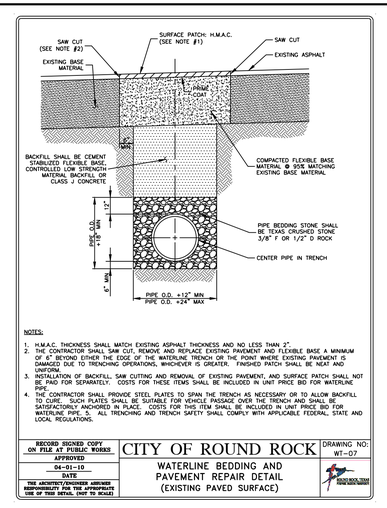
06 LIMESTONE RETAINING WALL NTS



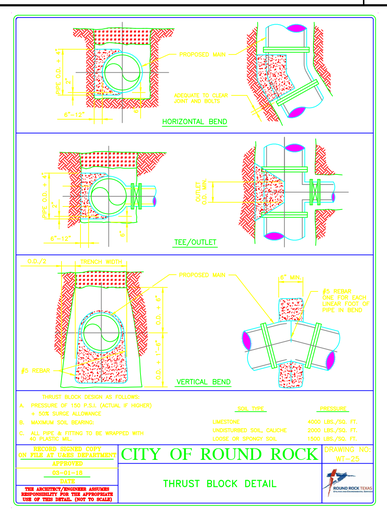
07 WATER SERVICE CASING NTS



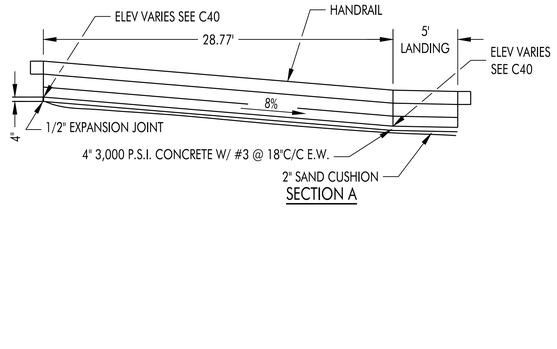
08 VALVE BOX ASSEMBLY NTS



09 WATERLINE BEDDING & PAVE REPAIR NTS



10 THRUST BLOCKING NTS



11 NE RAMP PROFILE NTS

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

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52909
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52909
THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

CONSTRUCTION DETAILS

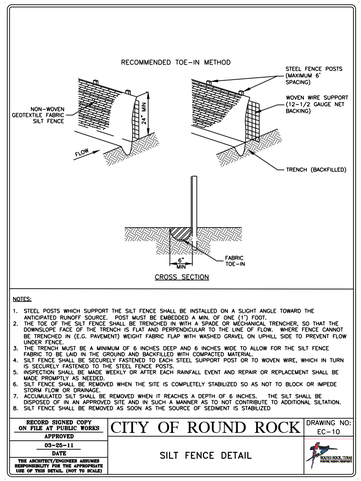
SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-5677
Fax: (512) 388-0752
Email: spai@sp-ai.com Web Site: www.sp-ai.com

Copyright

SHEET
C70
28 of 32
SDP2205-0006

May 15,2023-1:34pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\13 C70.dwg

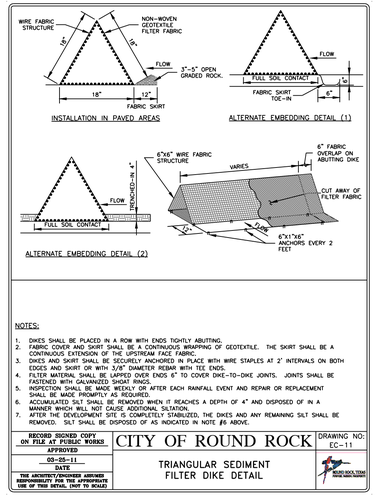


NOTES:

1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MIN. OF ONE (1') FOOT.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G. PAVEMENT) WEIGHT FABRIC FLAP WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHALL BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS SECURELY FASTENED TO THE STEEL FENCE POSTS.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES. THE SILT SHALL BE DISPOSED OF IN AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.
8. SILT FENCE SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED

RECORD SIGNED COPY ON FILE AT PUBLIC WORKS	CITY OF ROUND ROCK	DRAWING NO: EC-10
APPROVED 03-25-11 DATE	SILT FENCE DETAIL	ROUND ROCK, TEXAS FROM NATURE
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL (NOT TO SCALE)		

01 SILT FENCE NTS

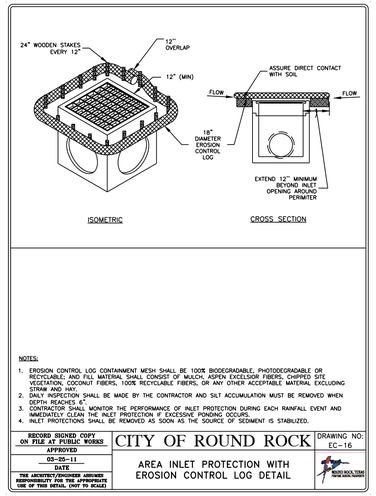


NOTES:

1. DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING.
2. FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE UPSTREAM FACE FABRIC.
3. DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE WITH WIRE STAPLES AT 2' INTERVALS ON BOTH EDGES AND SKIRT OR WITH 3/8" DIAMETER REBAR WITH TEE ENDS.
4. FILTER MATERIAL SHALL BE LAPPED OVER ENDS 6" TO COVER DIKE-TO-DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOAT RINGS.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 4" AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.
7. AFTER THE DEVELOPMENT SITE IS COMPLETELY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED. SILT SHALL BE DISPOSED OF AS INDICATED IN NOTE #6 ABOVE.

RECORD SIGNED COPY ON FILE AT PUBLIC WORKS	CITY OF ROUND ROCK	DRAWING NO: EC-11
APPROVED 03-25-11 DATE	TRIANGULAR SEDIMENT FILTER DIKE DETAIL	ROUND ROCK, TEXAS FROM NATURE
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL (NOT TO SCALE)		

02 TRIANGULAR SEDIMENTATION DIKE NTS

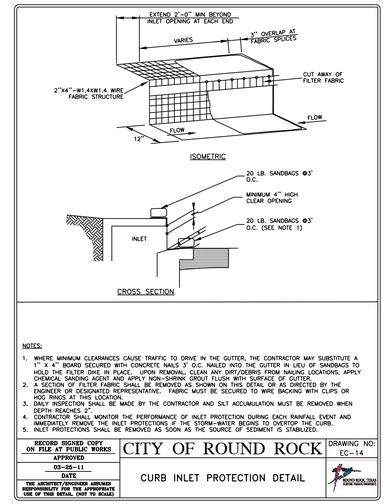


NOTES:

1. EROSION CONTROL LOG CONTAINMENT MESH SHALL BE 100% BIODEGRADABLE, PHOTODEGRADABLE OR RECYCLABLE; AND FILL MATERIAL SHALL CONSIST OF MULCH, ASPEN EXCELSIOR FIBERS, CHIPPED SITE VEGETATION, COCONUT FIBERS, 100% RECYCLABLE FIBERS, OR ANY OTHER ACCEPTABLE MATERIAL EXCLUDING STRAW AND HAY.
2. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 6".
3. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY CLEAN THE INLET PROTECTION IF EXCESSIVE PONDING OCCURS.
4. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

RECORD SIGNED COPY ON FILE AT PUBLIC WORKS	CITY OF ROUND ROCK	DRAWING NO: EC-16
APPROVED 03-25-11 DATE	AREA INLET PROTECTION WITH EROSION CONTROL LOG DETAIL	ROUND ROCK, TEXAS FROM NATURE
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL (NOT TO SCALE)		

03 AREA INLET PROTECTION NTS



NOTES:

1. WHERE MINIMUM CLEARANCES CAUSE TRAFFIC TO DRIVE IN THE GUTTER, THE CONTRACTOR MAY SUBSTITUTE A 1" X 4" BOARD SECURED WITH CONCRETE NAILS 3' O.C. NAILED INTO THE GUTTER IN LIEU OF SANDBAGS TO HOLD THE FILTER DIKE IN PLACE. UPON REMOVAL, CLEAN ANY DIRT/DEBRIS FROM NAILING LOCATIONS, APPLY CONCRETE BONDING AGENT, AND FILL HOLES WITH CONCRETE FLUSH WITH GUTTER.
2. A SECTION OF FILTER FABRIC SHALL BE PROVIDED AS SHOWN ON THIS DETAIL OR AS DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR HOG RINGS AT THIS LOCATION.
3. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2".
4. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORM-WATER BEGINS TO OVERTOP THE CURB.
5. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

RECORD SIGNED COPY ON FILE AT PUBLIC WORKS	CITY OF ROUND ROCK	DRAWING NO: EC-14
APPROVED 03-25-11 DATE	CURB INLET PROTECTION DETAIL	ROUND ROCK, TEXAS FROM NATURE
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL (NOT TO SCALE)		

04 CURB INLET PROTECTION NTS

05 CONCRETE WASHOUT DETAIL NTS

1. ALL TREES NOT LOCATED WITHIN THE LIMITS OF CONSTRUCTION AND OUTSIDE OF DISTURBED AREAS SHALL BE PRESERVED. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL TREES TO BE PRESERVED FROM HIS ACTIVITIES.
2. TREES TO BE PRESERVED SHALL BE PROTECTED BY TREE PROTECTION FENCING, HEREINAFTER CALLED TREE FENCING. SEE: TREE PROTECTION TYPE: WELLS (EC-02), TREE PROTECTION TREE LOCATION (EC-03) AND TREE PROTECTION FENCE-CHAIN LINK (EC-04).
3. TREE PROTECTION FENCES SHALL BE ERECTED ACCORDING TO CITY STANDARDS FOR TREE PROTECTION, INCLUDING TYPES OF FENCING AND SIGNAGE.
4. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR GRADING) AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT.
5. EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP WITHIN TREE ENCLOSURES.
6. TREE FENCES SHALL COMPLETELY SURROUND THE TREE, OR CLUSTERS OF TREES, LOCATED AT THE OUTERMOST LIMITS OF THE TREE BRANCHES (DRIPLINE) OR CRITICAL ROOT ZONE (CRZ), WHICHEVER IS GREATER, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PREVENT THE FOLLOWING:
   6A. SOIL COMPACTION IN CRZ AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIAL.
   6B. CRZ DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6 INCHES CUT OR FILL) OR TRENCHING NOT APPROVED BY THE FORESTRY MANAGER OR DESIGNEE.
   6C. WOUNDS TO EXPOSED ROOTS, TRUNK, OR LIMBS BY MECHANICAL EQUIPMENT.
   6D. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CONCRETE TRUCK CLEANING, AND FIRES.
7. THE LOCATION OF INSTALLING TREE FENCES AT THE TREE DRIPLINES OR CRZ, WHICHEVER IS GREATER, MAY BE PERMITTED IN THE FOLLOWING CASES:
   7A. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, OR TREE WELL.
   7B. WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
   7C. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN 6 FEET TO THE BUILDING.
   7D. WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER SPECIAL REQUIREMENTS, CONTACT THE FORESTRY MANAGER TO DISCUSS ALTERNATIVES.
8. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE THAT IS CLOSER THAN 5 FEET TO A TREE TRUNK, THE TRUNK SHALL BE PROTECTED BY STRAPPED-ON PLANKING TO A HEIGHT OF 8 FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.
9. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN AREAS OF UNPROTECTED ROOT ZONES UNDER THE DRIPLINE OR CRZ, WHICHEVER IS GREATER, THOSE AREAS SHOULD BE COVERED WITH 4 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION.
10. ALL GRADING WITHIN CRZ AREAS SHALL BE DONE BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE. PRIOR TO GRADING, RELOCATE PROTECTIVE FENCING TO 2 FEET BEYOND THE GRADE CHANGE AREA.
11. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL AND BACKFILLED WITH GOOD QUALITY TOP SOIL WITHIN TWO DAYS. IF EXPOSED ROOT AREAS CANNOT BE BACKFILLED WITHIN 2 DAYS, AN ORGANIC MULCH SHALL BE PLACED OVER THE EXPOSED ROOTS WHICH MINIMIZES WATER LOSS DUE TO EVAPORATION SHALL BE PLACED TO COVER THE ROOTS UNTIL BACKFILLING OCCURS.
12. PRIOR TO EXCAVATION OR GRADE CUTTING WITHIN TREE DRIPLINES, A CLEAN CUT SHALL BE MADE BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT, IN A LOCATION AND TO A DEPTH APPROVED BY THE FORESTRY MANAGER, TO MINIMIZE DAMAGE TO REMAINING ROOTS.
13. TREES SHALL BE DEEP WATERED THROUGHOUT CONSTRUCTION. DEEP WATERED DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. TREE CROWNS ARE TO BE SPRAYED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON LEAVES.
14. WHEN INSTALLING CONCRETE ADJACENT TO THE ROOT ZONE OF A TREE, A PLASTIC VAPOR BARRIER SHALL BE PLACED BETWEEN THE CONCRETE TO PREVENT LEACHING OF LIME INTO THE SOIL.
15. ANY PRUNING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
16. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN FOUR (4) INCHES SHALL BE PERMITTED WITHIN THE DRIPLINE OR CRZ, WHICHEVER IS GREATER, OF ANY TREE TO REMAIN ON THE SITE. NO FILL DIRT SHALL BE PLACED.
17. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC, AND CONSTRUCTION EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS. ALL PRUNING MUST BE DONE ACCORDING TO CITY STANDARDS AND AS OUTLINED IN LITERATURE PROVIDED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA PRUNING TECHNIQUES).
18. ALL OAK TREE CUTS, INTENTIONAL OR UNINTENTIONAL, SHALL BE SEALED WITH AN APPROVED PRUNING SEALER IMMEDIATELY AFTER THE CUT IS MADE. PAINT SHALL BE APPLIED WITHIN 20 MINUTES OF THE CUT.
19. THE FORESTRY MANAGER HAS THE AUTHORITY TO RELEASE ADDITIONAL TREE PROTECTION BEFORE OR DURING CONSTRUCTION.
20. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED. REFER TO THE CITY OF ROUND ROCK TREE TECHNICAL MANUAL FOR APPROPRIATE REMOVAL METHODS.
21. ALL PRUNING OF TREES TO REMAIN SHALL BE DONE IN ACCORDANCE WITH ANSI A300 AS ADOPTED TO A HEIGHT OF 14 FEET USING THE TECHNIQUES DESCRIBED IN THE CITY OF ROUND ROCK TREE TECHNICAL MANUAL.
22. DEVIATIONS FROM THE ABOVE NOTES MAY BE CONSIDERED ORDINANCE VIOLATIONS IF THERE IS NON COMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT.

FOR QUESTIONS CONCERNING THIS DETAIL, PLEASE CONTACT THE FORESTRY MANAGER.

SCALE: NTS

RECORD SIGNED COPY ON FILE	CITY OF ROUND ROCK	DRAWING NO: EC-01 SHEET 1 of 1
APPROVED 01-20-21 DATE	TREE PROTECTION NOTES	ROUND ROCK TEXAS
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL (NOT TO SCALE)		

FOR QUESTIONS CONCERNING THIS DETAIL, PLEASE CONTACT THE FORESTRY MANAGER.

SCALE: NTS

RECORD SIGNED COPY ON FILE	CITY OF ROUND ROCK	DRAWING NO: EC-05 SHEET 1 of 1
APPROVED 01-20-21 DATE	TREE PROTECTION FENCE LOCATIONS	ROUND ROCK TEXAS
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL (NOT TO SCALE)		

FOR QUESTIONS CONCERNING THIS DETAIL, PLEASE CONTACT THE FORESTRY MANAGER.

SCALE: NTS

RECORD SIGNED COPY ON FILE	CITY OF ROUND ROCK	DRAWING NO: EC-06 SHEET 1 of 1
APPROVED 01-20-21 DATE	TREE PROTECTION FENCE CHAIN LINK	ROUND ROCK TEXAS
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL (NOT TO SCALE)		

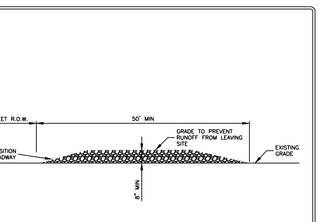
06 TREE PROTECTION DETAILS NTS

NOTES:

1. COVER AND FRAME SHALL COMPLY WITH STANDARD SPECIFICATIONS FOR DRAINAGE, SEWER, UTILITY AND RELATED CASTINGS, ASSHTO DESIGNATION M306-04, INCORPORATED, OR APPROVED EQUAL.
2. INLET COVER SHALL BE MODEL NUMBER: 106L LK (PRODUCT NUMBER: 35106204), AS MANUFACTURED BY EAST JORDAN IRON WORKS, INCORPORATED, OR APPROVED EQUAL.
3. INLET FRAME SHALL BE MODEL NUMBER: 106L LK (PRODUCT NUMBER: 35206004), AS MANUFACTURED BY EAST JORDAN IRON WORKS, INCORPORATED, OR APPROVED EQUAL.
4. INLET COVER AND FRAME ASSEMBLY, IF ORDERED AS A SET, SHALL BE MODEL NUMBER: 106L-HL LK (PRODUCT NUMBER: 35006204), AS MANUFACTURED BY EAST JORDAN IRON WORKS, INCORPORATED, OR APPROVED EQUAL.
5. ALL CORNERS AND EDGES SHALL HAVE A 1/16" MINIMUM AND 1/8" MAXIMUM RADIUS.
6. INLET COVER WEIGHT SHALL BE 106 LBS. FOR DUCTILE IRON. WEIGHT SHALL BE CAST ON BOTH TOP AND BOTTOM OF COVER.
7. FILLETS SHALL BE 1/4" RADIUS UNLESS OTHERWISE SPECIFIED.
8. MANUFACTURER SHALL REMOVE EXCESS IRON AND MACHINE FINISH SEATING SURFACES TO NOTED DIMENSIONS.
9. INLET COVER SHALL BE DIPPED IN A WATER-BASED ASPHALTIC COATING, PRIOR TO SHIPMENT FROM FOUNDRY.

RECORD SIGNED COPY ON FILE AT PUBLIC WORKS	CITY OF ROUND ROCK	DRAWING NO: EC-03
APPROVED 03-25-11 DATE	STORM SEWER INLET COVER AND FRAME DETAIL	ROUND ROCK, TEXAS FROM NATURE
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL		

07 SEWER INLET COVER AND FRAME DETAIL NTS

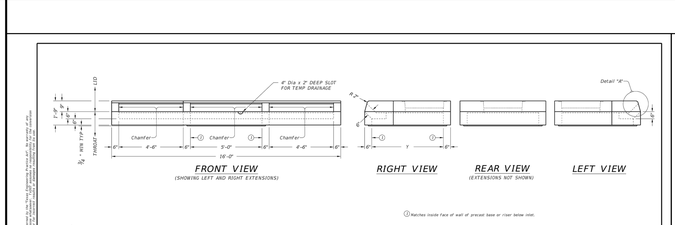


NOTES:

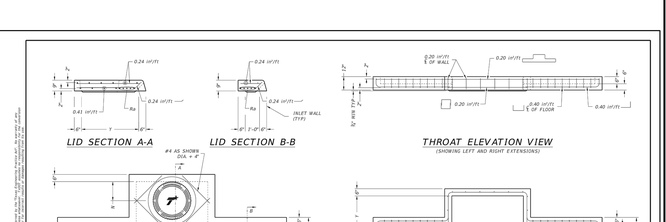
1. STONE SIZE SHALL BE 3" – 8" OPEN GRADED ROCK.
2. THICKNESS OF CRUSHED STONE PAD TO BE NOT LESS THAN 8".
3. LENGTH SHALL BE A MINIMUM OF 50' FROM ACTUAL ROADWAY, AND WIDTH NOT LESS THAN FULL WIDTH OF INGRESS/EGRESS.
4. ENTRANCE SHALL BE PROPERLY GRADED TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.
5. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
6. AS NECESSARY, WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.

RECORD SIGNED COPY ON FILE AT PUBLIC WORKS	CITY OF ROUND ROCK	DRAWING NO: EC-09
APPROVED 03-25-11 DATE	STABILIZED CONSTRUCTION ENTRANCE DETAIL	ROUND ROCK, TEXAS FROM NATURE
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL (NOT TO SCALE)		

08 STABILIZED CONSTRUCTION ENTRANCE NTS



NOTE
THE CITY OF ROUND ROCK RING AND COVER IS TO BE USED FOR BOTH CURB INLETS. PLEASE SEE DETAIL O7/C71 FOR DETAILS



09 CURB INLET NTS

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

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52969
REGISTERED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52969
THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

EROSION DETAILS

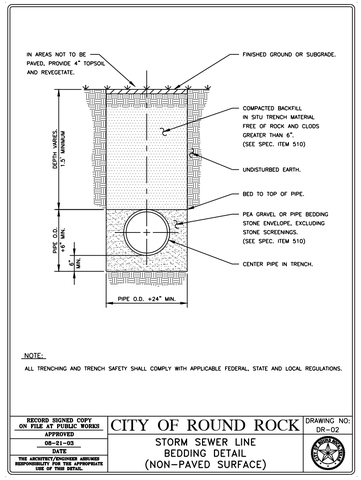
SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-8477
Fax: (512) 388-0702
Email: spai@sp-ai.com Web Site: www.sp-ai.com
Copyright

SHEET
C71
29 of 32
SDP2205-0006

May 15,2023-1:34pm Z:\HEA\HEA Projects\Projects 21-000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SD\14 C71.dwg

COPYRIGHT NOTICE: THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF THE ARCHITECT AND ENGINEER. THEY ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF THE ARCHITECT AND ENGINEER. THESE PLANS ARE PROTECTED BY THE COPYRIGHT LAWS OF THE UNITED STATES (PUBLIC LAW 101-650 DECEMBER 1990) AND OTHER APPLICABLE LAWS. ANY UNAUTHORIZED USE OF THESE PLANS IN WHOLE OR IN PART IS A VIOLATION OF THE COPYRIGHT LAWS AND WILL BE PROSECUTED TO THE FULLEST EXTENT OF THE LAW.



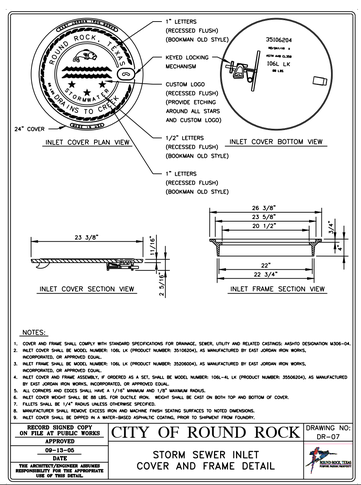
NOTE:

ALL TRENCHING AND TRENCH SAFETY SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

RECORD SIGNED COPY ON FILE AT PUBLIC WORKS	CITY OF ROUND ROCK	DRAWING NO:
APPROVED 08-21-03 DATE	STORM SEWER LINE BEDDING DETAIL (NON-PAVED SURFACE)	DR-02

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL.

01 STORM SEWER BEDDING (NON-PAVED) NTS



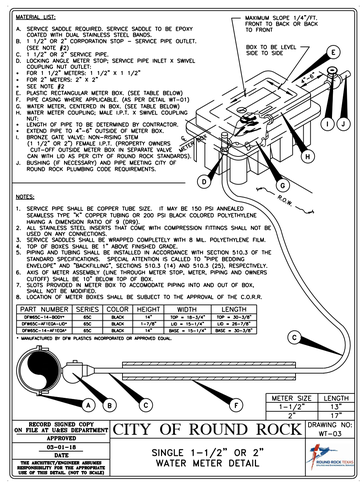
NOTES:

1. COVER AND FRAME SHALL COMPLY WITH STANDARD SPECIFICATIONS FOR DRAINAGE, SEWER, UTILITY AND RELATED CASTINGS, AASHTO DESIGNATION M306-04.
2. INLET COVER SHALL BE MODEL NUMBER: 1106, LK (PRODUCT NUMBER: 3510604X), AS MANUFACTURED BY EAST JORDAN IRON WORKS, INCORPORATED, OR APPROVED EQUAL.
3. INLET FRAME SHALL BE MODEL NUMBER: 1106, LK (PRODUCT NUMBER: 3520604X), AS MANUFACTURED BY EAST JORDAN IRON WORKS, INCORPORATED, OR APPROVED EQUAL.
4. INLET COVER AND FRAME ASSEMBLY, IF ORDERED AS A SET, SHALL BE MODEL NUMBER: 1106-4, LK (PRODUCT NUMBER: 3550620X), AS MANUFACTURED BY EAST JORDAN IRON WORKS, INCORPORATED, OR APPROVED EQUAL.
5. ALL CASTINGS ARE CLASS SHALL HAVE A 1/16" MINIMUM AND 1/8" MAXIMUM RADIUS.
6. INLET COVER WEIGHT SHALL BE 88 LBS. FOR DUCTILE IRON. WEIGHT SHALL BE CAST ON BOTH TOP AND BOTTOM OF COVER.
7. FILLETS SHALL BE 1/4" RADIUS UNLESS OTHERWISE SPECIFIED.
8. MANUFACTURER SHALL REMOVE EXCESS IRON AND MACHINE FINISH SEATING SURFACES TO NOTED DIMENSIONS.
9. INLET COVER SHALL BE DIPPED IN A WATER-BASED ASPHALTIC COATING, PRIOR TO SHIPMENT FROM FOUNDRY.

RECORD SIGNED COPY ON FILE AT PUBLIC WORKS	CITY OF ROUND ROCK	DRAWING NO:
APPROVED 09-13-05 DATE	STORM SEWER INLET COVER AND FRAME DETAIL	DR-07

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL.

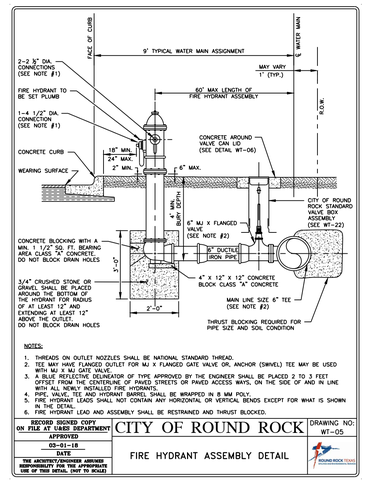
02 STORM SEWER INLET COVER AND FRAME NTS



RECORD SIGNED COPY ON FILE AT UAED DEPARTMENT	CITY OF ROUND ROCK	DRAWING NO:
APPROVED 03-01-18 DATE	SINGLE 1–1/2" OR 2" WATER METER DETAIL	WT-03

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL (NOT TO SCALE)

03 SIGNLE 1.5 IN WATER METER DETAIL NTS



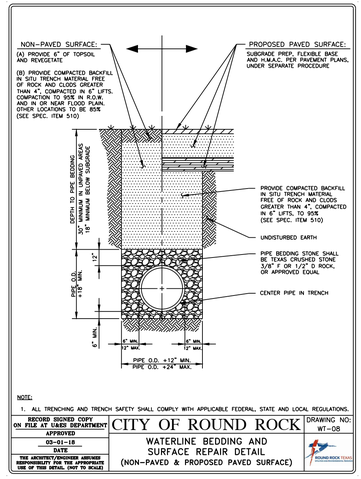
NOTES:

1. THREADS ON OUTLET NOZZLES SHALL BE NATIONAL STANDARD THREAD.
2. TEE MAY HAVE FLANGED OUTLET FOR MJ X FLANGED GATE VALVE OR, ANCHOR (SWIVEL) TEE MAY BE USED WITH MJ X MJ GATE VALVE.
3. A BLUE REFLECTIVE DELINEATOR OF TYPE APPROVED BY THE ENGINEER SHALL BE PLACED 2 TO 3 FEET OFFSET FROM THE CENTERLINE OF PAVED STREETS OR PAVED ACCESS WAYS, ON THE SIDE OF AND IN LINE WITH ALL NEWLY INSTALLED FIRE HYDRANTS.
4. PIPE, VALVE, TEE AND HYDRANT BARREL SHALL BE WRAPPED IN 8 MM POLY.
5. THE HYDRANT LEAD SHALL NOT CONTAIN ANY HORIZONTAL OR VERTICAL BENDS EXCEPT FOR WHAT IS SHOWN IN THE DETAIL.
6. FIRE HYDRANT LEAD AND ASSEMBLY SHALL BE RESTRAINED AND THRUST BLOCKED.

RECORD SIGNED COPY ON FILE AT UAED DEPARTMENT	CITY OF ROUND ROCK	DRAWING NO:
APPROVED 03-01-18 DATE	FIRE HYDRANT ASSEMBLY DETAIL	WT-05

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL (NOT TO SCALE)

04 FIRE HYDRANT ASSEMBLY NTS



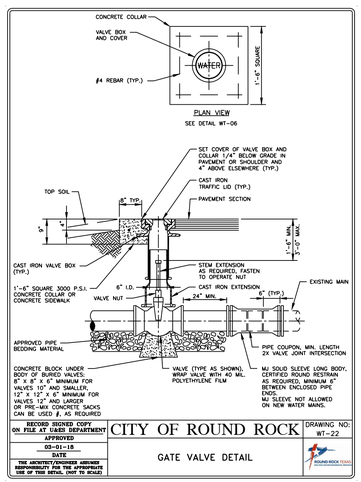
NOTE:

1. ALL TRENCHING AND TRENCH SAFETY SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

RECORD SIGNED COPY ON FILE AT UAED DEPARTMENT	CITY OF ROUND ROCK	DRAWING NO:
APPROVED 03-01-18 DATE	WATERLINE BEDDING AND SURFACE REPAIR DETAIL (NON–PAVED & PROPOSED PAVED SURFACE)	WW-08

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)

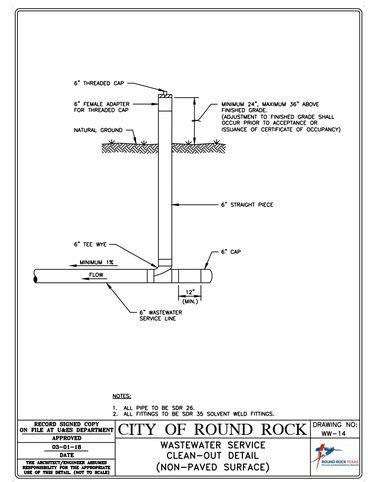
05 WATERLINE BEDDING (PAVED) NTS



RECORD SIGNED COPY ON FILE AT UAED DEPARTMENT	CITY OF ROUND ROCK	DRAWING NO:
APPROVED 03-01-18 DATE	GATE VALVE DETAIL	WT-22

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)

06 GATE VALVE DETAIL NTS



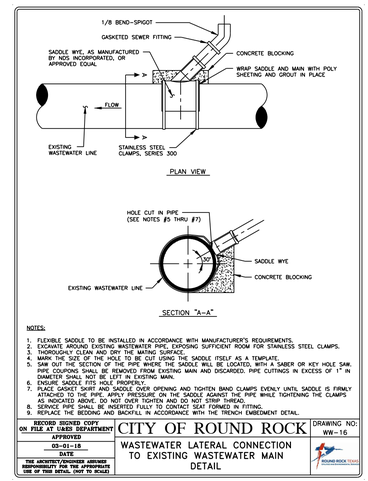
NOTES:

1. ALL PIPE TO BE SDR 26.
2. ALL FITTINGS TO BE SDR 35 SOLVENT WELD FITTINGS.

RECORD SIGNED COPY ON FILE AT UAED DEPARTMENT	CITY OF ROUND ROCK	DRAWING NO:
APPROVED 03-01-18 DATE	WASTEWATER SERVICE CLEAN–OUT DETAIL (NON–PAVED SURFACE)	WW-14

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)

07 WW CLEANOUT DETAIL NTS



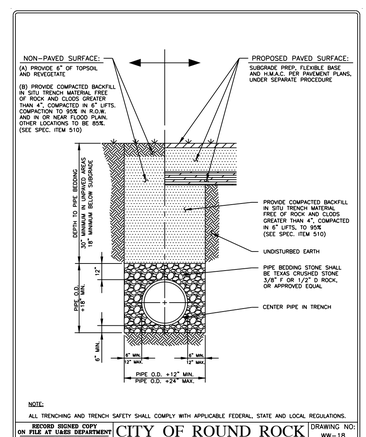
NOTES:

1. FLEXIBLE SADDLE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
2. EXCAVATE AROUND EXISTING WASTEWATER PIPE EXPOSING SUFFICIENT ROOM FOR STAINLESS STEEL CLAMPS.
3. CLEAN AND DRY AREA OF PIPE WHERE SADDLE IS TO BE INSTALLED.
4. MARK THE SIZE OF THE HOLE TO BE CUT USING THE SADDLE ITSELF AS A TEMPLATE.
5. SAW CUT THE SECTION OF THE PIPE WHERE THE SADDLE WILL BE LOCATED, WITH A SABER OR KEY HOLE SAW. PIPE COUPONS SHALL BE REMOVED FROM EXISTING MAIN AND DISCARDED. PIPE CUTTINGS IN EXCESS OF 1" IN DIAMETER SHALL NOT BE LEFT IN EXISTING MAIN.
6. ENSURE SADDLE FITS HOLE PROPERLY.
7. PLACE GASKET INSERT AND SADDLE OVER OPENING AND TIGHTEN BAND CLAMPS EVENLY UNTIL SADDLE IS FIRMLY SEATED. USE TORQUE WRENCH TO TIGHTEN CLAMPS TO MANUFACTURER'S RECOMMENDATIONS AS INDICATED ABOVE. DO NOT OVER TIGHTEN AND DO NOT STRIP THREADS.
8. SERVICE PIPE SHALL BE INSERTED FULLY TO CONTACT SEAT FORMED IN FITTING.
9. REPLACE THE BEDDING AND BACKFILL IN ACCORDANCE WITH THE TRENCH EMBEDMENT DETAIL.

RECORD SIGNED COPY ON FILE AT UAED DEPARTMENT	CITY OF ROUND ROCK	DRAWING NO:
APPROVED 03-01-18 DATE	WASTEWATER LATERAL CONNECTION TO EXISTING WASTEWATER MAIN DETAIL	WW-16

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)

08 WW LATERAL CONNECTION NTS



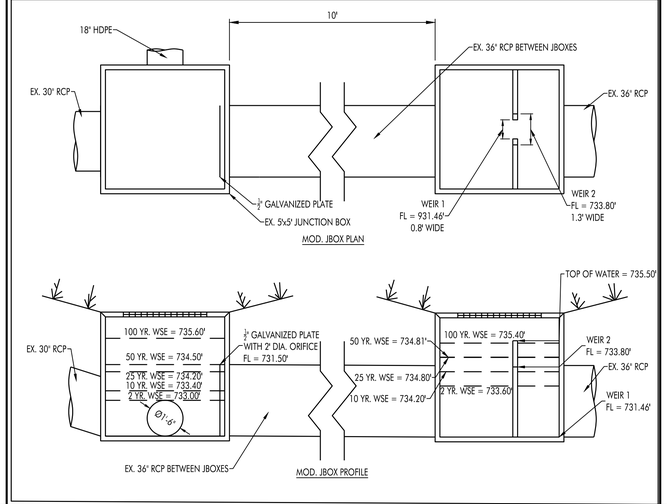
NOTE:

ALL TRENCHING AND TRENCH SAFETY SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

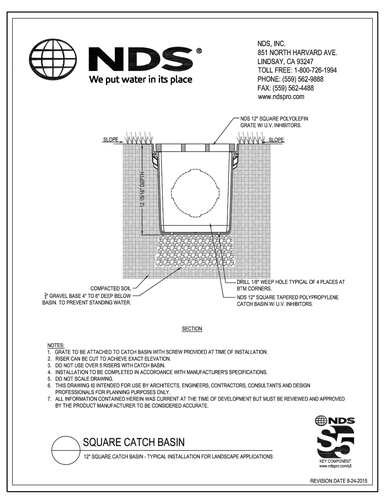
RECORD SIGNED COPY ON FILE AT UAED DEPARTMENT	CITY OF ROUND ROCK	DRAWING NO:
APPROVED 03-01-18 DATE	WASTEWATER LINE BEDDING AND SURFACE REPAIR DETAIL (NON–PAVED & PROPOSED PAVED SURFACE)	WW-18

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)

09 WW LINE BEDDING NTS



10 MOD J-BOXES NTS



11 1'X1' & 2'X2' YARD BOX NTS

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

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52969
REGISTERED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52969

THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 21-025 © 2023 HEA, Inc.
DATE SIGNED: 05/15/2023
ISSUED FOR: AGENCY REVIEW

DATE: 05/15/2023
REV:
DRW. SPai CHK. SPai

SITE DEVELOPMENT IMPROVEMENTS
ROUND ROCK CHRISTIAN ACADEMY
800 WESTWOOD DRIVE
ROUND ROCK, TEXAS 78681

UTILITY DETAILS

Spencer - Pierce Architecture + Interiors, Inc.
110 N. STONE
Round Rock, Texas 78664
Phone: (512) 388-5677
Fax: (512) 388-0702
Email: spai@sp-ai.com Web Site: www.sp-ai.com

Copyright

SHEET
C72
30 of 32
SDP2205-0006

May 15,2023 1:34pm Z:\HEA\HEA Projects\Projects 21.000\21-025 Round Rock Christian Academy Addition\CAD Files\Civil\SDV21-025 C72.dwg