TCEQ ORGANIZED SEWAGE COLLECTION SYSTEM PLAN

HTG Red Oaks
11723 N FM 620 Rd.
Austin, TX 78735

February 2024

Prepared For:
HTG Anderson, LLC
3225 Aviation Avenue,
Coconut Grove, FL 33133

Prepared By:
Kimley-Horn and Associates, Inc.
10814 Jollyville Road
Building IV, Suite 200
Austin, TX 78759
TEXAS REGISTRATION #928

Kimley»Horn

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SECTION 1

Edwards Aquifer Application Cover Page
(TCEQ-20705)

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

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

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

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

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

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

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

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

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

Technical Review

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

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

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

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

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

Mid-Review Modifications

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

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

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

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

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

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

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

1. Regulated Entity Name: HTG Red Oaks						**2. Regulated Entity No.:**			
3. Customer Name: HTG Anderson, LLC						**4. Customer No.:**			
5. Project Type: **(Please circle/check one)**	New		Modification			Extension		Exception	
6. Plan Type: **(Please circle/check one)**	WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		Non-residential			**8. Site (acres):**			3.57
9. Application Fee:	$650		**10. Permanent BMP(s):**					Partial sedimentation/biofiltration pond	
11. SCS (Linear Ft.):	475		**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	XAustin __Cedar Park __Florence __Georgetown __Jerrell __Leander __Liberty Hill __Pflugerville __Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	__	__	__	__	__
Region (1 req.)	__	__	__	__	__
County(ies)	__	__	__	__	__
Groundwater Conservation District(s)	__ Edwards Aquifer Authority __Trinity-Glen Rose	__Edwards Aquifer Authority	__Kinney	__EAA __Medina	__EAA __Uvalde
City(ies) Jurisdiction	__Castle Hills __Fair Oaks Ranch __Helotes __Hill Country Village __Hollywood Park __San Antonio (SAWS) __Shavano Park	__Bulverde __Fair Oaks Ranch __Garden Ridge __New Braunfels __Schertz	NA	__San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review. Kyle Moore, P.E.
Print Name of Customer/Authorized Agent 02/02/2024
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):	

SECTION 2

General Info Form

(TCEQ-0587)

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: Kyle Moore, P.E.

Date: 02/02/2024

Signature of Customer/Agent:

Project Information

1. Regulated Entity Name: HTG Red Oaks
2. County: Williamson
3. Stream Basin: Colorado River
4. Groundwater Conservation District (If applicable): _____
5. Edwards Aquifer Zone:

   [X] Recharge Zone
   [ ] Transition Zone

6. Plan Type:

   [ ] WPAP
   [X] SCS
   [X] Modification
   [ ] AST
   [ ] UST
   [ ] Exception Request

7. Customer (Applicant):

Contact Person: Matthew Rieger
Entity: HTG Anderson, LLC
Mailing Address: 3225 Aviation Ave.
City, State: Coconut Grove, FL Zip: _____
Telephone: (786) 347-4554 FAX: _____
Email Address: mattr@htgf.com

8. Agent/Representative (If any):

Contact Person: Kyle Moore, P.E.
Entity: Kimley-Horn and Associates, Inc.
Mailing Address: 10814 Jollyville Rd., Bldg 4, Ste 200
City, State: Austin, TX Zip: _____
Telephone: (512) 418-1771 FAX: _____
Email Address: kyle.moore@kimley-horn.com

9. Project Location:

☒ The project site is located inside the city limits of Austin.
☐ 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.

11723 N FM 620, Austin, TX 78750

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

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

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

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

☐ Survey staking will be completed by this date: _____

14. [X] **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:

- [X] Area of the site
- [X] Offsite areas
- [X] Impervious cover
- [X] Permanent BMP(s)
- [X] Proposed site use
- [X] Site history
- [X] Previous development
- [X] 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)
- [X] Undeveloped (Undisturbed/Uncleared)
- [ ] Other: _____

Prohibited Activities

16. [X] 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. [X] I am aware that the following activities are prohibited on the Transition Zone and are not proposed for this project:

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

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

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

Administrative Information

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

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

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

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

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

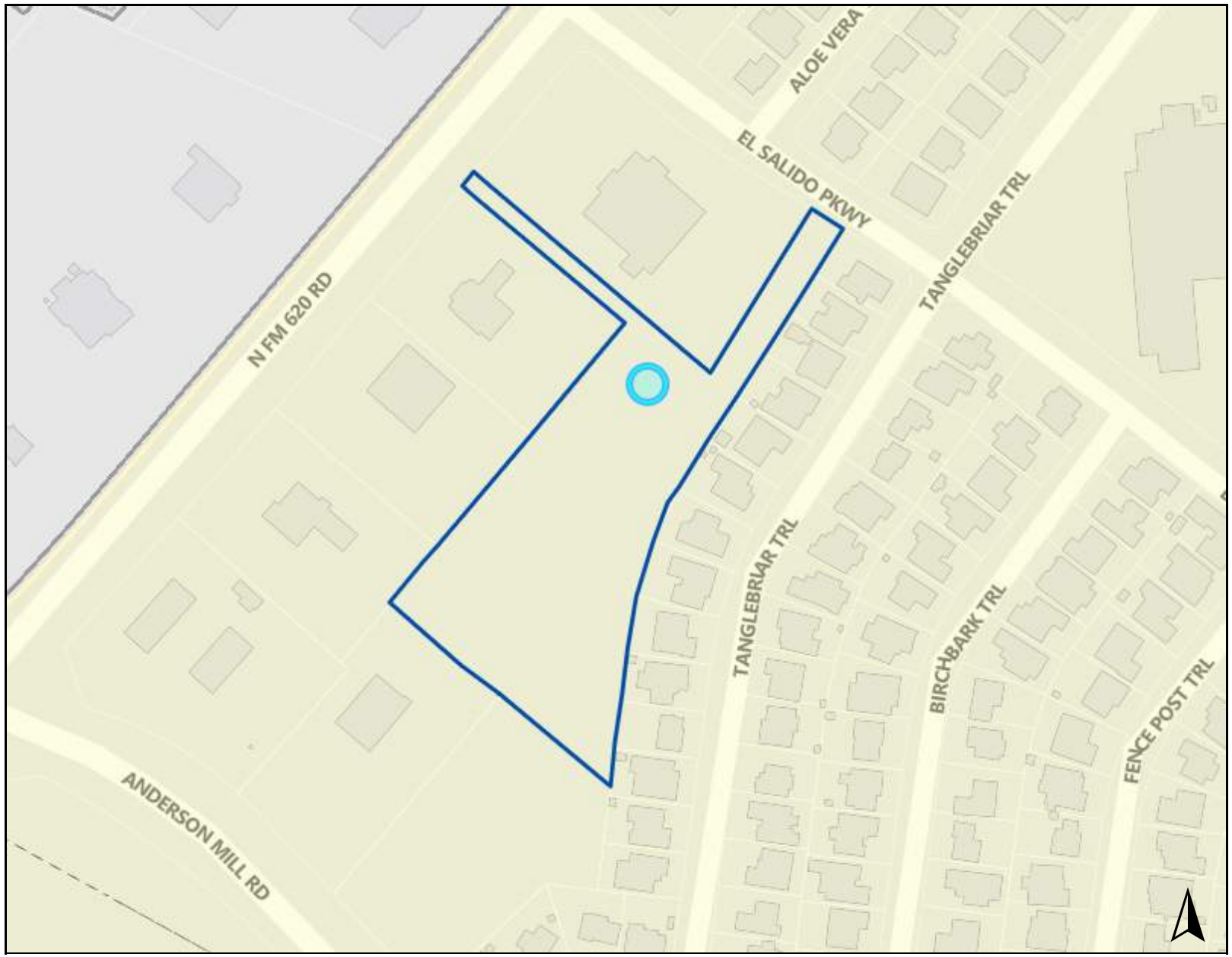
21. ☒ No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.

Attachment A

Road Map

Property Profile

Road Map



Legend

Property

Jurisdictions (No Fill)

- FULL PURPOSE
- OTHER CITY LIMITS
- OTHER CITIES ETJ

Jurisdictions Fill

Jurisdiction

- FULL PURPOSE
- OTHER CITY LIMITS
- OTHER CITIES ETJ

Notes

11723 N FM 620, Austin, TX 78750

0 350 700 ft

8/30/2023

Attachment B
USGS Quadrangle Map

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

JOLLYVILLE QUADRANGLE
TEXAS
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE/4 LAKE TRAVIS 15' QUADRANGLE

Edwards Aquifer Contributing Zone

Edwards Aquifer Contributing Zone

Edwards Aquifer Recharge Zone

Project Site

Mapped, edited and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1967. Field checked 1968. Revised from aerial photographs taken 1985. Field checked 1986. Map edited 1987

Projection and 10,000-foot grid ticks: Texas coordinate system, central zone (Lambert conformal conic)
1000-meter Universal Transverse Mercator grid, zone 14
1927 North American Datum
To place on the predicted North American Datum 1983 move the projection lines 18 meters south and 28 meters east as shown by dashed corner ticks

Fine red dashed lines indicate selected fence lines

UTM GRID AND 1987 MAGNETIC NORTH DECLINATION AT CENTER OF MAP DIAGRAM IS APPROXIMATE

Areas covered by dashed light-blue pattern are subject to controlled inundation

Red tint indicates areas in which only landmark buildings are shown

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY
DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

3097-234

ROAD CLASSIFICATION

Primary highway, hard surface — Light-duty road, hard or improved surface
Secondary highway, hard surface — Unimproved road
Interstate Route — U. S. Route — State Route

JOLLYVILLE, TEX.
NE/4 LAKE TRAVIS 15' QUADRANGLE
30097-D7-TF-024

1987

DMA 6444 IV NE-SERIES V882

INTERIOR-GEOLOGICAL SURVEY, RESTON, VIRGINIA-1987

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program

Regulatory Zones

30 TAC Chapter 213- Edwards Aquifer
Effective March 1990

This map was produced by the Groundwater Planning and Assessment Team of the Texas Commission on Environmental Quality to detail the boundaries of the regulatory zones of the Edwards Aquifer Protection Program, as described in Texas Administrative Code Title 30, Part 1, §213.3. No other claims are made to the accuracy or completeness of the data or to its suitability for a particular use. For more information about the Edwards Aquifer Protection Program, please contact the TCEQ Regional Offices in San Antonio or Austin. Printed June 2006.

Attachment C
Project Narrative

The proposed project is located at 11723 N FM 620, Austin, TX 78735 in the Full-Purpose Jurisdiction of the City of Austin in Williamson County, Texas. The existing platted property is approximately ±3.57 acres and is an undeveloped parcel (COA #: C8J-03-0095.0A). The site is currently undeveloped.

The proposed improvements include an affordable housing 70-unit multifamily complex with associated utility, water quality, drainage, grading, and site improvements. There will be no proposed offsite improvements as part of this project. This project is located within the Lake Creek watershed, a suburban watershed. No demolition will be required. Existing impervious cover area is 3.90% and development will increase cover to 54.59%.

No portion of this site is in the Federal Emergency Management Agency's 100-year flood plain according to Flood Insurance Rate Map #48491C0605F, dated December 20, 2019. The site is located within the Edwards Aquifer Recharge Zone according to City of Austin GIS and no critical water quality zone buffers encroach the site. Proposed best management practices (BMPs) include a partial sedimentation/ biofiltration pond with stacked detention (pond). The pond will be sized to capture site runoff to control flow below existing conditions and is designed in accordance with City of Austin Watershed Protection Ordinance Regulations Summary Table, effective October 28, 2013, City of Austin Environmental Criteria Manual Appendix R-6, and TCEQ Technical Guidance Manual RG-348.

Access will be provided from N FM 620. Detention is required and a partial sedimentation/filtration pond is proposed on-site accordance with the City of Austin requirements. Existing storm infrastructure includes a private storm line along the western property line that gradually increases in size from 24" to 36". Flow travels from the southwest to the northeast and continues to a public storm line in El Salido Pkwy.

SECTION 3

Geological Assessment 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

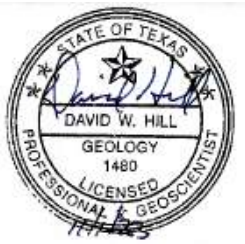
To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Dave Hill Telephone: 512 837 8005

Date: 11 01 23 Fax: _____

Representing: ECS Southwest, LLP Geology Firm 50674 (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: HTG Red Oaks

Project Information

1. Date(s) Geologic Assessment was performed: 10 27 23
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)
GsB 1-3% Slope Georgetown Stony Clay Loam	D	5
EeB 0-3% Slope Eckrant Stony Clay	D	6.7
CfB 1-3% Slope Crawford Clay	D	2.5

** Soil Group Definitions (Abbreviated)*

A. Soils having a high infiltration rate when thoroughly wetted.

B. Soils having a moderate infiltration rate when thoroughly wetted.

C. Soils having a slow infiltration rate when thoroughly wetted.

D. Soils having a very slow infiltration rate when thoroughly wetted.

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

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

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

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

9. Method of collecting positional data:

   ☐ Global Positioning System (GPS) technology.
   ☒ Other method(s). Please describe method of data collection: Google Earth

10. ☒ The project site and boundaries are clearly shown and labeled on the Site Geologic Map.
11. ☒ Surface geologic units are shown and labeled on the Site Geologic Map.
12. ☐ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.

    ☒ Geologic or manmade features were not discovered on the project site during the field investigation.
13. ☒ The Recharge Zone boundary is shown and labeled, if appropriate.
14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

    ☐ There are _____ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    - ☐ The wells are not in use and have been properly abandoned.
    - ☐ The wells are not in use and will be properly abandoned.
    - ☐ The wells are in use and comply with 16 TAC Chapter 76.

    ☒ There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

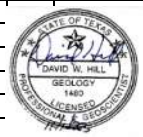
15. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies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

Attachment A
Geological Assessment Table

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: Red Oak ECS Project 51-3774

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	
No features																				



* 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
Gently sloping north

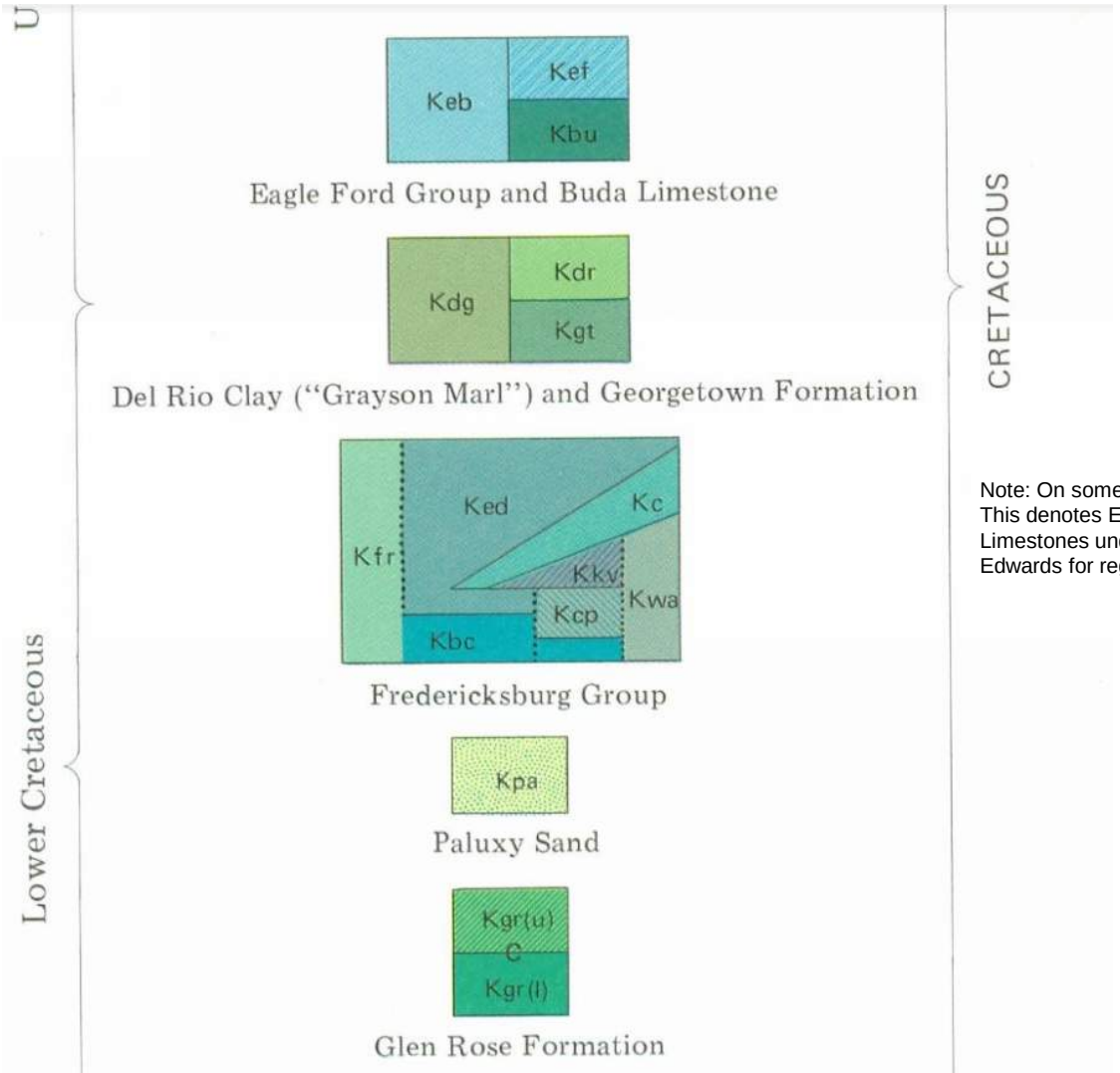
I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.
My signature certifies that I am qualified as a geologist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

Date 10/27/2023

Sheet ___1___ of ___1___

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

Attachment B
Stratigraphic Column



Note: On some maps, KeC is used. This denotes Edwards and Comanche Limestones undivided and is considered Edwards for regulatory purposes

14050 Summit Drive
Suite 104
Austin, Texas 78728

Figure 6B - Stratigraphy

Red Oak Geologic Assessment (GA
El Salido Parkway
Austin, Williamson County, Texas 78006
ECS Project: 51-3774

N

Attachment C
Site Geology

NARRATIVE DESCRIPTION OF SITE-SPECIFIC GEOLOGY

Ranging from north to south, two primary physiographic provinces are present in Travis or Williamson County: the Great Southern Plains and the Gulf Coastal Plain. The Gulf Coastal Plain is comprised mainly of Blackland Prairie. The Great Southern Plain locally merges with the Edwards Plateau which is comprised chiefly of limestone plains.

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 flow 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 Edwards Limestone, undivided (Ked) (Figure 6).

The Bureau of Economic Geology defines the Edwards Limestone (Ked) on the Austin Sheet of the Geologic Atlas (Geologic Atlas of Texas San Antonio Sheet, UT Austin, Texas BEG, 1974, reprinted 1995) as follows: limestone, dolomite, and chert; limestone aphanitic to fine grained, massive to thin bedded, hard, brittle, in part rudistid biostromes, much miliolid biosparite; dolomite fine to very fine grained, porous, medium gray to grayish brown; nodules and plates common, varies in amount from bed to bed, some intervals free of chert, mostly white to light gray; in zone of weathering considerably recrystallized, "honeycombed" and cavernous forming an aquifer; forms flat areas and plateaus bordered by scarps; thickness 60 - 350 feet, thins northward.

ECS did not observe potable water wells on the subject property. Evidence of septic systems was not observed during the site reconnaissance.

Potential natural recharge features such as caves, sinkholes, closed depressions, solution cavities, fractured rock outcrops, faults or lineaments were not observed on the subject property.

Attachment D
Site Geologic Map

ECS Southwest, LLP
14050 Summit Drive, Suite 104
Austin, Texas 78728
Phone: (512) 837-8005
www.ecslimited.com

ECS Project No. 51:3774

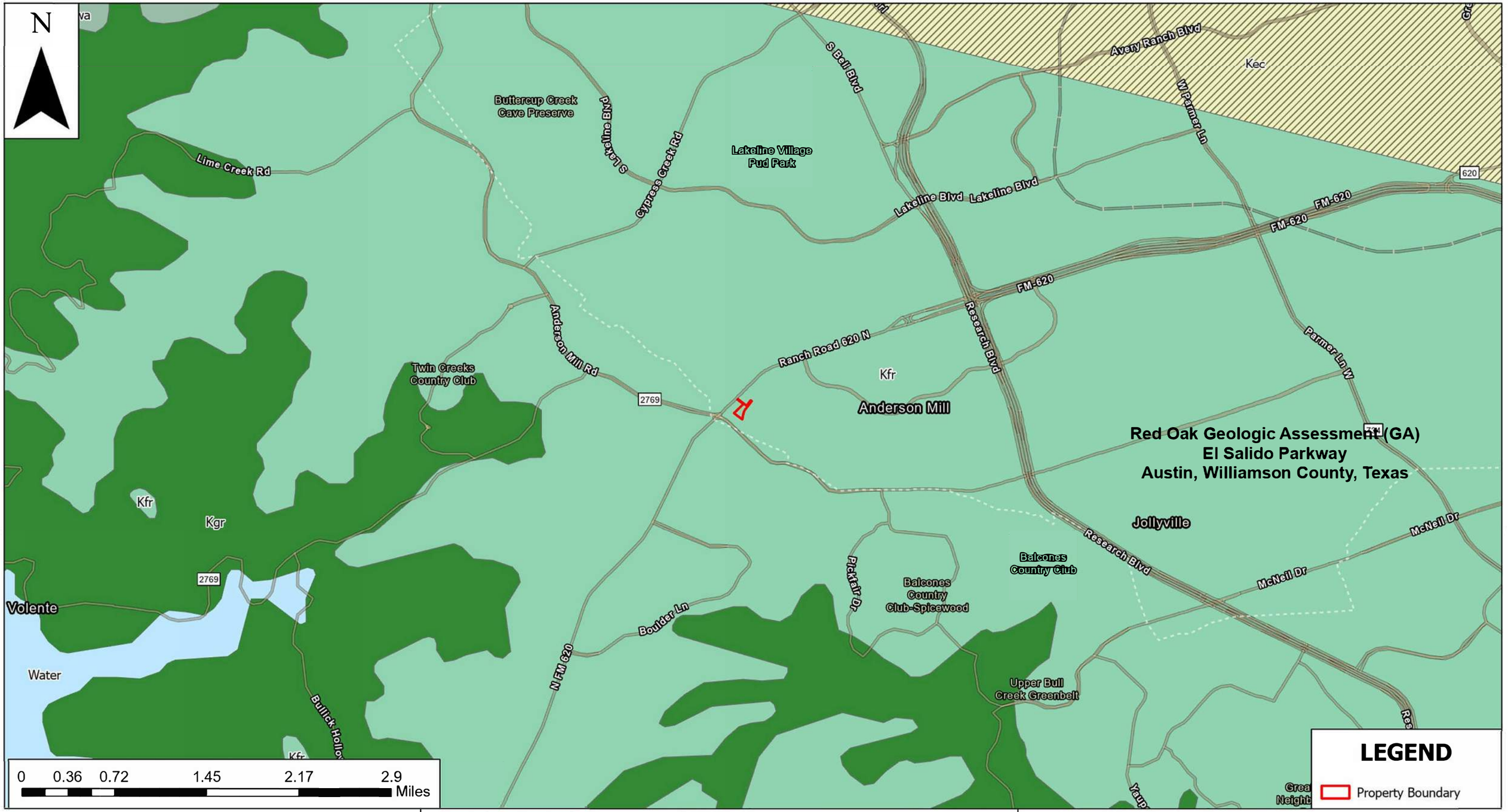
Red Oak Geologic Assessment (GA)
El Salido Parkway
Austin, Williamson County, Texas

Figure #4
NRCS Soils Map

Project Acreage: 3.573

USGS Quadrangle: Jollyville, TX
Watershed: San Gabriel

Service Layer Credits:
World Imagery: Williamson County TX, Maxar, Microsoft
Hybrid Reference Layer: Esri Community Maps Contributors, Austin Community College, City of Austin, County of Williamson, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA
USGS Topographic Map Jollyville, TX Quadrangle 2019
Soils Data: USDA NRCS Web Soil Survey
Wetlands Data: National Wetlands Inventory
Floodplain Data: FEMA National Flood Hazard Layer
LIDAR Data: USGS 3D Elevation Program



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www.ecslimited.com

ECS Project No. 51:3774

Red Oak Geologic Assessment (GA)
El Salido Parkway
Austin, Williamson County, Texas

Figure #6
Area Geologic Map

Project Acreage: 3.573

USGS Quadrangle: Jollyville, TX
Watershed: San Gabriel

Service Layer Credits:
Hybrid Reference Layer: Austin Community College, City of Austin, County of Williamson, Texas Parks & Wildlife, CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA
World Imagery: Williamson County TX, Earthstar Geographics
USGS Topographic Map Jollyville, TX Quadrangle 2019
Soils Data: USDA NRCS Web Soil Survey
Wetlands Data: National Wetlands Inventory
Floodplain Data: FEMA National Flood Hazard Layer
LIDAR Data: USGS 3D Elevation Program

SECTION 4

Organized Sewage Collection System Application
(TCEQ-0600)

Organized Sewage Collection System Application

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(c), 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.

Regulated Entity Name: HTG Red Oaks

1. ☒ **Attachment A – SCS Engineering Design Report**. This Engineering Design Report is provided to fulfill the requirements of 30 TAC Chapter 217, including 217.10 of Subchapter A, §§217.51 – 217.70 of Subchapter C, and Subchapter D as applicable, and is required to be submitted with this SCS Application Form.

Customer Information

2. The entity and contact person responsible for providing the required engineering certification of testing for this sewage collection system upon completion (including private service connections) and every five years thereafter to the appropriate TCEQ region office pursuant to 30 TAC §213.5(c) is:

   Contact Person: Mauricio Teran
   Entity: HTG Anderson, LLC
   Mailing Address: 3225 Aviation Ave.
   City, State: Coconut Grove, FL Zip: 33133
   Telephone: (786) 347-4554 Fax: _____
   Email Address: mauriciot@htgf.com

   The appropriate regional office must be informed of any changes in this information within 30 days of the change.

3. The engineer responsible for the design of this sewage collection system is:

   Contact Person: Justin Kramer, P.E.
   Texas Licensed Professional Engineer's Number: 122309
   Entity: Kimley-Horn and Associates, Inc.
   Mailing Address: 10614 Jollyville Rd., Bldg. 4, Ste. 200
   City, State: Austin, TX Zip: 78759
   Telephone: (512) 418-1771 Fax: _____
   Email Address: justin.kramer@kimley-horn.com

Project Information

4. Anticipated type of development to be served (estimated future population to be served, plus adequate allowance for institutional and commercial flows):

   ☐ Residential: Number of single-family lots: _____
   ☐ Multi-family: Number of residential units: _____
   ☐ Commercial
   ☐ Industrial
   ☒ Off-site system (not associated with any development)
   ☐ Other: _____

5. The character and volume of wastewater is shown below:

   100 % Domestic — 581,918 gallons/day
   _____% Industrial — _____ gallons/day
   _____% Commingled — _____ gallons/day
   Total gallons/day: 581,918

6. Existing and anticipated infiltration/inflow is 750 gallons/day. This will be addressed by: _____.

7. A Water Pollution Abatement Plan (WPAP) is required for construction of any associated commercial, industrial or residential project located on the Recharge Zone.

   ☐ The WPAP application for this development was approved by letter dated _____. A copy of the approval letter is attached.
   ☒ The WPAP application for this development was submitted to the TCEQ on 8/30/2023, but has not been approved.
   ☐ A WPAP application is required for an associated project, but it has not been submitted.
   ☐ There is no associated project requiring a WPAP application.

8. Pipe description:

Table 1 - Pipe Description

Pipe Diameter(Inches)	*Linear Feet (1)*	*Pipe Material (2)*	*Specifications (3)*
12"	195"	SDR-26 PVC	ASTM D3034
12"	280"	SDR-26 PVC	ASTM D3034

Total Linear Feet: 475"

(1) Linear feet - Include stub-outs and double service connections. Do not include private service laterals.
(2) Pipe Material - If PVC, state SDR value.
(3) Specifications - ASTM / ANSI / AWWA specification and class numbers should be included.

9. The sewage collection system will convey the wastewater to the Anderson Mill MUD WWTP Treatment Plant. The treatment facility is:

   ☒ Existing
   ☐ Proposed

10. All components of this sewage collection system will comply with:

   ☒ The City of Austin standard specifications.
   ☐ Other. Specifications are attached.

11. ☒ No force main(s) and/or lift station(s) are associated with this sewage collection system.

   ☐ A force main(s) and/or lift station(s) is associated with this sewage collection system and the **Lift Station/Force Main System Application** form (TCEQ-0624) is included with this application.

Alignment

12. ☒ There are no deviations from uniform grade in this sewage collection system without manholes and with open cut construction.

13. ☒ There are no deviations from straight alignment in this sewage collection system without manholes.

   ☐ **Attachment B - Justification and Calculations for Deviation in Straight Alignment without Manholes**. A justification for deviations from straight alignment in this sewage collection system without manholes with documentation from pipe manufacturer allowing pipe curvature is attached.

   ☐ For curved sewer lines, all curved sewer line notes (TCEQ-0596) are included on the construction plans for the wastewater collection system.

Manholes and Cleanouts

14. ☒ Manholes or clean-outs exist at the end of each sewer line(s). These locations are listed below: (Please attach additional sheet if necessary)

Table 2 - Manholes and Cleanouts

Line	*Shown on Sheet*	*Station*	*Manhole or Clean-out?*
Offsite WWL-A	21 Of 25	1+00.00, 2+96.79	Manholes (both ends)
Offsite WWL-B	22 Of 25	1+00.00, 3+78.91	Manholes (both ends)
	Of		
	Of		
	Of		
	Of		
	Of		

Line	*Shown on Sheet*	*Station*	*Manhole or Clean-out?*
	Of		
	Of		
	Of		

15. ☒ Manholes are installed at all Points of Curvature and Points of Termination of a sewer line.

16. ☒ The maximum spacing between manholes on this project for each pipe diameter is no greater than:

Pipe Diameter (inches)	Max. Manhole Spacing (feet)
6 - 15	500
16 - 30	800
36 - 48	1000
≥54	2000

☐ **Attachment C – Justification for Variance from Maximum Manhole Spacing**. The maximum spacing between manholes on this project (for each pipe diameter used) is greater than listed in the table above. A justification for any variance from the maximum spacing is attached, and must include a letter from the entity which will operate and maintain the system stating that it has the capability to maintain lines with manhole spacing greater than the allowed spacing.

17. ☒ All manholes will be monolithic, cast-in-place concrete.

☐ The use of pre-cast manholes is requested for this project. The manufacturer's specifications and construction drawings, showing the method of sealing the joints, are attached.

Site Plan Requirements

Items 18 - 25 must be included on the Site Plan.

18. ☒ The Site Plan must have a minimum scale of 1" = 400'.

Site Plan Scale: 1" = 40 '.

19. ☒ The Site Plan must include the sewage collection system general layout, including manholes with station numbers, and sewer pipe stub outs (if any). Site plan must be overlain by topographic contour lines, using a contour interval of not greater than ten feet and showing the area within both the five-year floodplain and the 100-year floodplain of any drainage way.

20. Lateral stub-outs:

☐ The location of all lateral stub-outs are shown and labeled.
☒ No lateral stub-outs will be installed during the construction of this sewer collection system.

21. Location of existing and proposed water lines:

☐ The entire water distribution system for this project is shown and labeled.
☐ If not shown on the Site Plan, a Utility Plan is provided showing the entire water and sewer systems.
☒ There will be no water lines associated with this project.

22. 100-year floodplain:

☒ After construction is complete, no part of this project will be in or cross a 100-year floodplain, either naturally occurring or manmade. (Do not include streets or concrete-lined channels constructed above of sewer lines.)
☐ After construction is complete, all sections located within the 100-year floodplain will have water-tight manholes. These locations are listed in the table below and are shown and labeled on the Site Plan. (Do not include streets or concrete-lined channels constructed above sewer lines.)

Table 3 - 100-Year Floodplain

Line	*Sheet*	*Station*
	of	to
	of	to
	of	to
	of	to

23. 5-year floodplain:

☒ After construction is complete, no part of this project will be in or cross a 5-year floodplain, either naturally occurring or man-made. (Do not include streets or concrete-lined channels constructed above sewer lines.)
☐ After construction is complete, all sections located within the 5-year floodplain will be encased in concrete or capped with concrete. These locations are listed in the table below and are shown and labeled on the Site Plan. (Do not include streets or concrete-lined channels constructed above sewer lines.)

Table 4 - 5-Year Floodplain

Line	*Sheet*	*Station*
	of	to
	of	to
	of	to
	of	to

24. ☒ Legal boundaries of the site are shown.

25. ☒ The ***final plans and technical specifications*** are submitted for the TCEQ's review. Each sheet of the construction plans and specifications are dated, signed, and sealed by the Texas Licensed Professional Engineer responsible for the design on each sheet.

Items 26 - 33 must be included on the Plan and Profile sheets.

26. ☐ All existing or proposed water line crossings and any parallel water lines within 9 feet of sewer lines are listed in the table below. These lines must have the type of pressure rated pipe to be installed shown on the plan and profile sheets. Any request for a variance from the required pressure rated piping at crossings must include a variance approval from 30 TAC Chapter 290.

☒ There will be no water line crossings.
☒ There will be no water lines within 9 feet of proposed sewer lines.

Table 5 - Water Line Crossings

Line	*Station or Closest Point*	*Crossing or Parallel*	*Horizontal Separation Distance*	*Vertical Separation Distance*

27. Vented Manholes:

☒ **No part** of this sewer line is within the 100-year floodplain and vented manholes are not required by 30 TAC Chapter 217.
☐ **A portion** of this sewer line is within the 100-year floodplain and vented manholes will be provided at less than 1500 foot intervals. These water-tight manholes are listed in the table below and labeled on the appropriate profile sheets.
☐ **A portion** of this sewer line is within the 100-year floodplain and an alternative means of venting shall be provided at less than 1500 feet intervals. A description of the alternative means is described on the following page.
☐ **A portion** of this sewer line is within the 100-year floodplain; however, there is no interval longer than 1500 feet located within. No vented manholes will be used.

Table 6 - Vented Manholes

Line	*Manhole*	*Station*	*Sheet*

Line	*Manhole*	*Station*	*Sheet*

28. Drop manholes:

☒ There are no drop manholes associated with this project.
☐ Sewer lines which enter new or existing manholes or "manhole structures" higher than 24 inches above the manhole invert are listed in the table below and labeled on the appropriate profile sheets. These lines meet the requirements of 30 TAC §217.55(l)(2)(H).

Table 7 - Drop Manholes

Line	*Manhole*	*Station*	*Sheet*

29. Sewer line stub-outs (For proposed extensions):

☐ The placement and markings of all sewer line stub-outs are shown and labeled.
☒ No sewer line stub-outs are to be installed during the construction of this sewage collection system.

30. Lateral stub-outs (For proposed private service connections):

☐ The placement and markings of all lateral stub-outs are shown and labeled.
☒ No lateral stub-outs are to be installed during the construction of this sewage collection system.

31. Minimum flow velocity (From Appendix A)

☒ Assuming pipes are flowing full; all slopes are designed to produce flows equal to or greater than 2.0 feet per second for this system/line.

32. Maximum flow velocity/slopes (From Appendix A)

☒ Assuming pipes are flowing full, all slopes are designed to produce maximum flows of less than or equal to 10 feet per second for this system/line.
☐ **Attachment D – Calculations for Slopes for Flows Greater Than 10.0 Feet per Second.** Assuming pipes are flowing full, some slopes produce flows which are greater than 10 feet per second. These locations are listed in the table below. Calculations are attached.

Table 8 - Flows Greater Than 10 Feet per Second

Line	*Profile Sheet*	*Station to Station*	*FPS*	*% Slope*	*Erosion/Shock Protection*

33. Assuming pipes are flowing full, where flows are ≥ 10 feet per second, the provisions noted below have been made to protect against pipe displacement by erosion and/or shock under 30 TAC §217.53(l)(2)(B).

☐ Concrete encasement shown on appropriate Plan and Profile sheets for the locations listed in the table above.
☐ Steel-reinforced, anchored concrete baffles/retards placed every 50 feet shown on appropriate Plan and Profile sheets for the locations listed in the table above.
☐ N/A

Administrative Information

34. ☒ The final plans and technical specifications are submitted for TCEQ review. Each sheet of the construction plans and specifications are dated, signed, and sealed by the Texas Licensed Professional Engineer responsible for the design on each sheet.

35. ☐ Standard details are shown on the detail sheets, which are dated, signed, and sealed by the Texas Licensed Professional Engineer, as listed in the table below:

Table 9 - Standard Details

Standard Details	*Shown on Sheet*
Lateral stub-out marking **[Required]**	N/A
Manhole, showing inverts comply with 30 TAC §217.55(l)(2) **[Required]**	N/A
Alternate method of joining lateral to existing SCS line for potential future connections **[Required]**	N/A
Typical trench cross-sections **[Required]**	25 of 25
Bolted manholes **[Required]**	N/A
Sewer Service lateral standard details **[Required]**	N/A
Clean-out at end of line **[Required, if used]**	N/A
Baffles or concrete encasement for shock/erosion protection **[Required, if flow velocity of any section of pipe >10 fps]**	N/A
Detail showing Wastewater Line/Water Line Crossing **[Required, if crossings are proposed]**	N/A
Mandrel detail or specifications showing compliance with 30 TAC §217.57(b) and (c) **[Required, if Flexible Pipe is used]**	19, 21, 22 of 25

Standard Details	*Shown on Sheet*
Drop manholes **[Required, if a pipe entering a manhole is more than 24 inches above manhole invert]**	of

36. ☒ All organized sewage collection system general construction notes (TCEQ-0596) are included on the construction plans for this sewage collection system.

37. ☒ All proposed sewer lines will be sufficiently surveyed/staked to allow an assessment prior to TCEQ executive director approval. If the alignments of the proposed sewer lines are not walkable on that date, the application will be deemed incomplete and returned.

    ☐ Survey staking was completed on this date: _____

38. ☒ 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.

39. ☒ Any modification of this SCS application will require TCEQ approval, prior to construction, and may require submission of a revised application, with appropriate fees.

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 **Organized Sewage Collection System Application** is hereby submitted for TCEQ review and executive director approval. The system was designed in accordance with the requirements of 30 TAC §213.5(c) and 30 TAC §217 and prepared by:

Print Name of Licensed Professional Engineer: Justin Kramer, P.E.

Date: 02/02/2024

Place engineer's seal here:

Signature of Licensed Professional Engineer:

Appendix A-Flow Velocity Table

Flow Velocity (Flowing Full) All gravity sewer lines on the Edwards Aquifer Recharge Zone shall be designed and constructed with hydraulic slopes sufficient to give a velocity when flowing full of not less than 2.0 feet per second, and not greater than 10 feet per second. The grades shown in the following table are based on Manning's formula and an n factor of 0.013 and shall be the minimum and maximum acceptable slopes unless provisions are made otherwise.

Table 10 - Slope Velocity

Pipe Diameter(Inches)	*% Slope required for minimum flow velocity of 2.0 fps*	*% Slope which produces flow velocity of 10.0 fps*
6	0.50	12.35
8	0.33	8.40
10	0.25	6.23
12	0.20	4.88
15	0.15	3.62
18	0.11	2.83
21	0.09	2.30
24	0.08	1.93
27	0.06	1.65
30	0.055	1.43
33	0.05	1.26
36	0.045	1.12
39	0.04	1.01
>39	*	*

**For lines larger than 39 inches in diameter, the slope may be determined by Manning's formula (as shown below) to maintain a minimum velocity greater than 2.0 feet per second when flowing full and a maximum velocity less than 10 feet per second when flowing full.*

$$v = \frac{1.49}{n} \times R_h^{0.67} \times \sqrt{S}$$

Figure 1 - Manning's Formula

Where:

v = velocity (ft/sec)
n = Manning's roughness coefficient (0.013)
Rh = hydraulic radius (ft)
S = slope (ft/ft)

Attachment A
SCS Engineering Design Report

This Engineering Design Report has been prepared to comply with the Texas Commission on Environmental Quality Design Criteria for Domestic Wastewater Systems, 30 TAC Chapter 217, including 217.10 of Subchapter A, §§217.51 – 217.70 of Subchapter C, and Subchapter D as applicable. Please note that throughout this application, the more stringent of AWU or TCEQ regulations shall apply.

Project description

Introduction

Red Oaks is an undeveloped ±3.57-acre lot located at 11723 N FM 620 and within the Full Purpose city limits of the City of Austin, Texas. The project includes the development of a 70-unit multifamily complex. The project will also include a parking lot, proposed utility connections, drainage, water quality and detention pond, other site improvements, and offsite wastewater improvements.

The site is not located in the Federal Emergency Management Agency's 100-year floodplain according to FIRM 48491C0605F. The site is located within the North Edwards Aquifer Recharge Zone according to TCEQ Edwards Aquifer Map.

On-site infrastructure is comprised of private domestic/fire water, gas, electric, wastewater, and storm sewer lines. The offsite wastewater service outlined in this report will consist of two lines that will convey wastewater from existing manhole that is not part of a previous approved SCS as the lines were installed prior to the SCS rule (installed in 1980-81). The project consists of the replacement of two segments of 8" PVC pipe with 12" PVC with no proposed laterals or stubs. The manholes located at both ends of both pipes are existing. All proposed wastewater lines will be installed within the Edwards Aquifer Recharge Zone (EARZ).

Pipe Design

Flow Design Basis

Service for the build-out of the project site will be served by these wastewater extensions These segments of wastewater pipes serve neighboring properties to the project site. The City of Austin Criteria Manuals were used to determine the parameters for the design of the wastewater line extensions.

Gravity Pipe and Joint Materials

The proposed pipe to be used for the 12-inch wastewater lines will be ASTM D3034 SDR-26 PVC pipe. The joints for this pipe shall meet the requirements of ASTM D3212. The pipe joints shall have an integral bell and rubber gasket seal with the locked-in type gasket.

Separation Distances for Water and Wastewater

A nine-foot minimum horizontal separation is maintained between all proposed wastewater infrastructure and existing and proposed public water supply lines. There is one (1) perpendicular water line crossing on 'Offsite WWL-A' at the intersection of El Salido Pkwy. and Tanglebriar Trl. This portion of water line is asbestos concrete and will be replaced with a different pipe material and encased in steel.

Building Laterals and Taps

There are no laterals and taps proposed with the offsite wastewater lines.

Boring and Tunneling of Crossings

No boring or tunneling of crossings are proposed for this project.

Corrosion Potential

PVC pipe will be utilized for or all proposed wastewater lines. No deterioration of the proposed pipe or its associated components is anticipated in this application.

Odor Control

All flows contributing to the proposed wastewater lines are domestic sewage. There are no significant generators of sulfide or other odorous compounds (such as lift stations) immediately upstream of the proposed wastewater lines. Therefore, no odor control measures are proposed for this project.

Active Geologic Faults

Per the Geologic Assessment, no active geologic faults were located within the area of the project.

Capacity Analysis

The capacity of each proposed wastewater segment is calculated below based on Manning's Equation. The calculation for each segment is based on the minimum proposed slope.

$$Q = \frac{1.49}{n} * A * R^{0.67} * S^{0.5}$$

Where:

Qfull = flow rate of fluid in pipe at full flow (ft^3/s) (cfs)

Q90%= flow rate of fluid in pipe at 90% full flow (ft^3/s) (cfs)

A = area of pipe (ft^2) = $\frac{\pi * d^2}{4}$

d = internal pipe diameter (ft) = Do – 2t

Do = outside diameter (in)

t = pipe wall thickness (in)

n = Manning's Roughness coefficient = 0.013

Rfull = hydraulic radius of pipe (full flow) = A/P = D/4 (ft)

R90%= hydraulic radius of pipe (90% full flow) = 0.9*A/P = 0.9*D/4 (ft)

P = wetted perimeter of pipe = π *D (ft)

S = slope of energy line

Pipe	Length (ft)	Slope (ft/ft)	Diameter (in)	Diameter (ft)	Pipe Material	Manning's	P (ft)	A (sf)	R_{full} (ft)	$R_{90\%}$ (ft)	Q_{full} (cfs)	$Q_{90\%}$ (cfs)	V_{full} (fps)	$V_{90\%}$ (fps)
Offsite WWL-A	195.00	0.016	12	1.00	PVC	0.012	3.14	0.79	0.25	0.23	4.83	4.34	6.15	5.53
Offsite WWL-B	280.00	0.012	12	1.00	PVC	0.012	3.14	0.79	0.25	0.23	4.13	3.72	5.26	4.73

The proposed wastewater line installed at the slope specified provides capacity in excess of the calculated peak wet weather design flows at full and 90% flow conditions.

Attachment B

Justification and Calculations for Deviation in Straight Alignment without Manholes

(Not applicable)

Attachment C

Justification for Variance from Maximum Manhole Spacing

(Not applicable)

Attachment D
Construction Plans

CIVIL SITE DEVELOPMENT PLANS
FOR
RED OAKS
11723 N FM 620 RD
AUSTIN, TEXAS 78750
WILLIAMSON COUNTY

REVISIONS/CORRECTIONS							
NO.	DESCRIPTION	REVISE (R) VOID (V) ADD (A) SHEET NO.'S	TOTAL NO. SHEETS IN PLAN SET	NET CHANGE IMP. COVER (SQ. FT.)	TOTAL SITE IMP. COVER (SQ. FT.)/%	CITY OF AUSTIN APPROVAL DATE	DATE IMAGED

GENERAL PLAN NOTES:

1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE REGISTERED PROFESSIONAL ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS THE CITY OF AUSTIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
2. NO PORTION OF THIS SITE IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN. FIRM PANEL NO. 48491C0605F, WILLIAMSON COUNTY, TEXAS AND INCORPORATED AREAS (EFFECTIVE DATE DECEMBER 20, 2019).
3. WATER AND WASTEWATER SERVICE WILL BE PROVIDED BY AUSTIN WATER UTILITY, CONDITIONED UPON ALL FEES AND CHARGES ARE PAID.
4. THERE ARE NATURAL SLOPES ON THIS SITE IN EXCESS OF 15%.
5. THERE ARE NO KNOWN CRITICAL ENVIRONMENTAL FEATURES ON THIS SITE.
6. NO STRUCTURES CAN BE BUILT WITHIN WATER & WASTEWATER EASEMENTS.
7. RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.
8. AS PART OF THIS SITE PLAN, THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO BE ON SITE AT ALL TIMES.
9. SITE IS SUBJECT TO THE WATERSHED PROTECTION REGULATIONS.
10. THIS SITE IS LOCATED IN THE EDWARDS AQUIFER RECHARGE ZONE.
11. APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN INDICATES COMPLIANCE WITH APPLICABLE CITY REGULATIONS ONLY. APPROVAL BY OTHER GOVERNMENTAL ENTITIES MAY BE REQUIRED PRIOR TO THE START OF CONSTRUCTION. THE APPLICANT IS RESPONSIBLE FOR DETERMINING WHAT ADDITIONAL APPROVALS MAY BE NECESSARY.
12. THIS PROJECT IS SUBJECT TO THE VOID AND WATER FLOW MITIGATION RULE (COA ECM 1.12.0 AND COA ITEM NO. 658S OF THE SSM) PROVISION THAT ALL TRENCHING GREATER THAN 5 FEET DEEP MUST BE INSPECTED BY A GEOLOGIST (TEXAS P.G.) OR GEOLOGIST'S REPRESENTATIVE.
13. IF AT ANY TIME DURING CONSTRUCTION OF THIS PROJECT AN UNDERGROUND STORAGE TANK (UST) IS FOUND, CONSTRUCTION IN THAT AREA MUST STOP UNTIL A CITY OF AUSTIN UST CONSTRUCTION PERMIT IS APPLIED FOR AND APPROVED. ANY UST REMOVAL WORK MUST BE CONDUCTED BY A UST CONTRACTOR THAT IS REGISTERED WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ). CONTACT ELIZABETH SIMMONS AT ELIZABETH.SIMMONS@AUSTINTEXAS.GOV IF YOU HAVE ANY QUESTIONS. [COA TITLE 6]
14. A FEE-IN-LIEU OF PARKLAND DEDICATION AND PARK DEVELOPMENT HAS BEEN PAID FOR 0 MARKET-RATE DWELLING UNITS. AN EXEMPTION TO THE PARKLAND DEDICATION ORDINANCE HAS BEEN GRANTED FOR 70 SMART CERTIFIED AFFORDABLE DWELLING UNITS. THE PARKLAND DEDICATION ORDINANCE IS SUBJECT TO ENFORCEMENT IF THIS DEVELOPMENT NO LONGER COMPLIES WITH AFFORDABLE HOUSING REQUIREMENTS SET FORTH IN THE APPROVAL FROM THE HOUSING AND PLANNING DEPARTMENT.
15. A CONDITIONAL LETTER OF APPROVAL IS REQUIRED BY AUSTIN ENERGY GREEN BUILDING PROGRAM PRIOR TO BUILDING PERMIT.
16. ALL PONDS WILL BE PRIVATELY MAINTAINED.

OWNER/DEVELOPER NAME AND ADDRESS
HTG ANDERSON, LLC
MAURICIO TERAN
3225 AVIATION AVENUE
COCONUT GROVE, FL 33133

SUBDIVISION CASE NO.:
C8J-03-0095.0A

ZONING CASE NO.:
C14-2021-0090
C14-95-0167

ZONING ORDINANCES.:
20080320-011
20211014-078
960229-B

ZONING.:
GR-CO

WATERSHED:
LAKE CREEK (SUBURBAN)

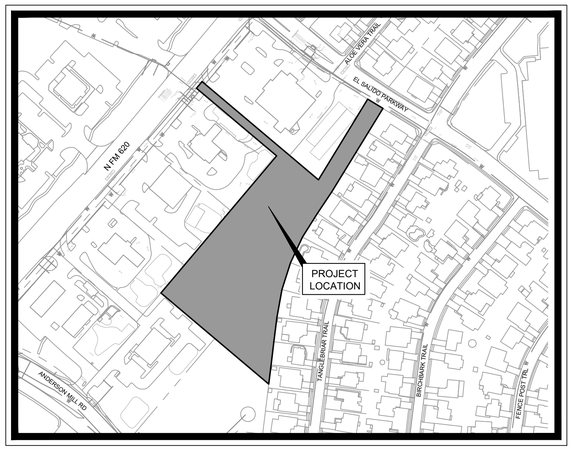
PRESSURE ZONE:
NORTHWEST B

SUBMITTAL DATE:
06/30/2023

LEGAL DESCRIPTION:
S8431 - 620 HILL COUNTRY CENTER
(LTS 5 & 6 BLK A AMENDED), BLOCK A,
LOT 6, ACRES 3.573 [TU PCTS]

INTEGRATED PEST MANAGEMENT:
FOR INTEGRATED PEST MANAGEMENT PLAN, SEE AGREEMENT FILED IN DOCUMENT NO._____ OFFICIAL PUBLIC RECORDS, WILLIAMSON COUNTY, TEXAS.

ADMINISTRATIVE ENVIRONMENTAL VARIANCE
AN ADMINISTRATIVE ENVIRONMENTAL VARIANCE HAS BEEN GRANTED TO ALLOW FILL BETWEEN 4 AND 8 FEET.



COA GRID: E38
MAPSCO: 433J, 433K, 433N, 433P

VICINITY MAP
SCALE: 1" = 200'

06/30/2023

DESIGNERS:

ARCHITECT
FUGLEBERG-KOCH ARCHITECTURE
TED HUNTON, AIA
2555 TEMPLE TRAIL
WINTER PARK, FL 32789
PH: (407) 629-0595

LANDSCAPE ARCHITECT
KIMLEY-HORN
LEO O'BRIAN, PLA ASLA
10101 REUNION PLACE, SUITE 400
SAN ANTONIO, TX 78216
PH: (210) 331-7886

SURVEY
DA MAWYER LAND SURVEYING
FIRM #10191500
5151 W. SH 46
NEW BRAUNFELS, TX 78132
PH: (830) 730-4449

STANTEC
TBPELS # F-6324; #10194230
221 WEST SIXTH STREET, SUITE 600
AUSTIN, TX 78701

LISTS OF CONTACTS:

WATER & SANITARY SEWER
AUSTIN WATER
625 E 10TH STREET
AUSTIN, TX 78701
PH: (512) 972-1000 (OPTION 3)

GAS
TEXAS GAS SERVICE
LINDA BARGAR
5613 AVENUE F
AUSTIN, TX 78751
PH: (512) 465-1134
LBARGAR@TXGAS.COM

STORM SEWER
CITY OF AUSTIN
PLANNING & DEVELOPMENT
REVIEW DEPARTMENT
505 BARTON SPRINGS ROAD
AUSTIN, TX 78704
PH: (512) 974-2680

FIRE
AUSTIN FIRE DEPARTMENT
ONE TEXAS CENTER SUITE 200
505 BARTON SPRINGS ROAD
AUSTIN, TX 78704
PH: (512) 974-0192

ELECTRIC
PEDERNALES ELECTRIC COOP
JIM ROWIN
2412 KRAMER LANE, BUILDING C
AUSTIN, TEXAS 78758
PH: 512) 505-7665

TELECOM
CHARTER/SPECTRUM
STEVEN SCHUH
12012 N MOPAC EXPRESSWAY
AUSTIN, TX 78759
PH: (512) 485-6360
STEVEN.SCHUH@CHARTER.COM

PREPARED BY:

Kimley»Horn

10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200
AUSTIN, TEXAS 78759
CERTIFICATE OF REGISTRATION #928

Tel. No. (512) 418-1771
Fax No. (512) 418-1791

AUSTIN WATER UTILITY _____ DATE _____

CITY OF AUSTIN FIRE DEPARTMENT _____ DATE _____

DEVELOPMENT SERVICES DEPARTMENT _____ DATE _____

I CERTIFY THAT THESE ENGINEERING DOCUMENTS ARE COMPLETE, ACCURATE AND ADEQUATE FOR THE INTENDED PURPOSES, INCLUDING CONSTRUCTION, BUT ARE NOT AUTHORIZED FOR CONSTRUCTION PRIOR TO FORMAL CITY APPROVAL.

Know what's below. Call before you dig.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

SHEET INDEX

THIS NOTE IS BEING PLACED ON THE PLAN SET IN PLACE OF A TEMPORARY TRAFFIC CONTROL STRATEGY WITH THE FULL UNDERSTANDING THAT, AT A MINIMUM OF 6 WEEKS PRIOR TO THE START OF CONSTRUCTION, A TEMPORARY TRAFFIC CONTROL PLAN MUST BE REVIEWED AND APPROVED BY THE RIGHT OF WAY MANAGEMENT DIVISION. THE OWNER/REPRESENTATIVE FURTHER RECOGNIZES THAT A REVIEW FEE, AS PRESCRIBED BY THE MOST CURRENT VERSION OF THE CITY'S FEE ORDINANCE, SHALL BE PAID EACH TIME A PLAN OR PLAN REVISION IS SUBMITTED TO RIGHT OF WAY MANAGEMENT DIVISION FOR REVIEW. THE FOLLOWING MUST BE TAKEN INTO CONSIDERATION WHEN DEVELOPING FUTURE TRAFFIC CONTROL STRATEGIES:

PEDESTRIAN AND BICYCLE TRAFFIC ACCESS MUST BE MAINTAINED AT ALL TIMES, UNLESS OTHER WISE AUTHORIZED BY RIGHT OF WAY MANAGEMENT.

NO LONG-TERM LANE CLOSURES WILL BE AUTHORIZED, UNLESS RIGHT OF WAY MANAGEMENT DETERMINES THAT ADEQUATE ACCOMMODATIONS HAVE BEEN MADE TO MINIMIZE TRAFFIC IMPACT.

PROJECT SHOULD BE PHASED SO THAT UTILITY INSTALLATION MINIMALLY IMPACTS EXISTING OR TEMPORARY PEDESTRIAN FACILITIES.

AUSTIN FIRE DEPARTMENT		
DESIGN STANDARDS	2021 INTERNATIONAL FIRE CODE WITH CITY OF AUSTIN LOCAL AMENDMENTS	
FIRE FLOW DEMAND @ 20 PSI	5,000	GPM
INTENDED USE	AFFORDABLE MULTIFAMILY	
CONSTRUCTION CLASSIFICATION	TYPE V-A	
BUILDING FIRE AREA	84,477	SF
AUTOMATIC FIRE SPRINKLER SYSTEM	NFPA-13R (APARTMENTS) & NFPA 13 (CLUBHOUSE/AMENITIES)	
REDUCED FIRE FLOW DEMAND @ 20 PSI	1,500	GPM MINIMUM
FIRE HYDRANT FLOW TEST DATE	5/26/2023	
FIRE HYDRANT FLOW TEST LOCATIONS	11700 BLK N FM 620 RD (#56990)	
HIGH-RISE	NO	
ALTERNATIVE METHOD OF COMPLIANCE	N/A	
WILDLAND URBAN INTERFACE CODE	2015 INTERNATIONAL WILDLAND-URBAN INTERFACE CODE (IWUIC) WITH CITY OF AUSTIN LOCAL AMENDMENTS. ALL BUILDINGS SHALL BE CONSTRUCTED TO THE WUI PROXIMITY CLASS C IGNITION-RESISTANT REQUIREMENTS OF THE CODE.	

SITE PLAN APPROVAL SHEET 01 OF 39
FILE NUMBER SP-2023-0252C.SH APPLICATION DATE 06/30/2023
APPROVED BY COMMISSION ON _____ UNDER SECTION 112 OF
CHAPTER 25-5 OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC) _____ CASE MANAGER CHRIS SAPUPPO
PROJECT EXPIRATION DATE (ORD.#970905-A) _____ DWPZ _____ DDZ _____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: _____ ZONING GR-CO
Rev. 1 _____ Correction 1 _____
Rev. 2 _____ Correction 2 _____
Rev. 3 _____ Correction 3 _____

Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

BENCHMARKS

IRFC ALUMCAP RPLS-5086
ELEVATION=102418'
NORTHING=10138868.8950'
EASTING=3087269.3740'

No.	REVISIONS	DATE	BY

RED OAKS - SITE PLAN

Kimley»Horn
10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200,
AUSTIN TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TBPE Firm No. 928

STATE OF TEXAS
JUSTIN J. KRAMER
122309
LICENSED PROFESSIONAL ENGINEER
2/2/2024

KHA PROJECT 069418500	DATE 06/30/2023	SCALE: AS SHOWN
DESIGNED BY: JK/KM	DRAWN BY: SA/AM	CHECKED BY: JK/KM

COVER SHEET

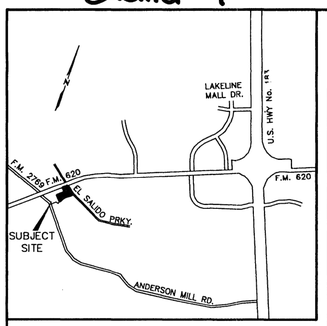
RED OAKS
SITE PLAN
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
01
OF 25

SP-2023-0252C.SH

Cabinet Y Slide 87 Document # 2003111996

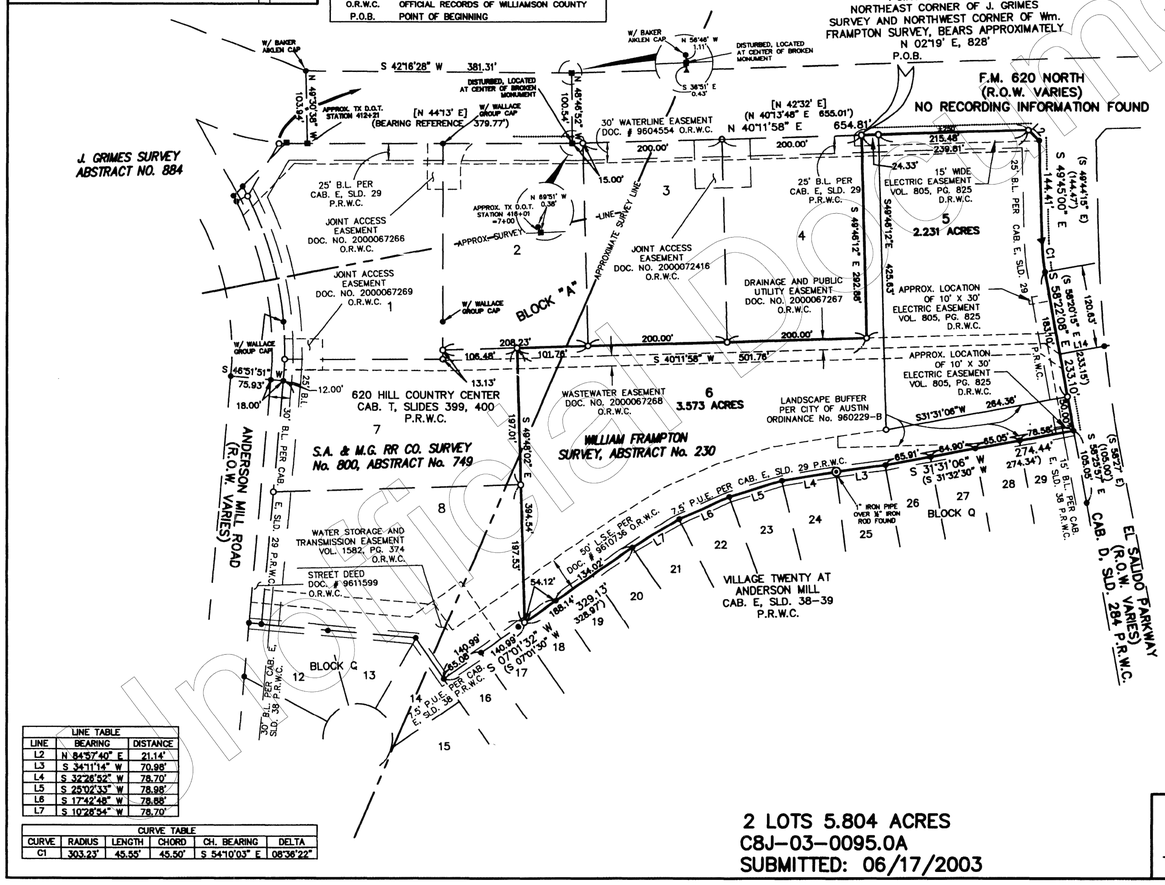
AMENDED PLAT OF LOTS 5 AND 6, BLOCK A
620 HILL COUNTRY CENTER



LEGEND

●	½" IRON ROD FOUND (UNLESS STATED)
O	½" IRON ROD W/ CAP SET (UNLESS STATED)
■	CONCRETE HIGHWAY MONUMENT FOUND
▲	NAIL FOUND
A.E.	JOINT ACCESS EASEMENT
B.L.	BUILDING LINE
D.E.	DRAINAGE EASEMENT
P.U.E.	PUBLIC UTILITY EASEMENT
L.S.E.	LANDSCAPE EASEMENT
----------	PROPOSED SIDEWALK
[ ]	RECORD INFORMATION F.M. 620 R/W MAP & VOL. 354, PG. 310
( )	RECORD INFORMATION CAB. E, SLD. 29
[ ]	RECORD INFORMATION DOC. # 9611599
P.R.W.C.	PLAT RECORDS WILLIAMSON COUNTY
D.R.W.C.	DEED RECORDS OF WILLIAMSON COUNTY
O.R.W.C.	OFFICIAL RECORDS OF WILLIAMSON COUNTY
P.O.B.	POINT OF BEGINNING

GRAPHIC SCALE
100 0 50 100 200
(IN FEET)
1 inch = 100 ft.



LINE TABLE		
LINE	BEARING	DISTANCE
L2	N 84°57'40" E	21.14'
L3	S 34°11'14" W	70.98'
L4	S 32°26'52" W	78.70'
L5	S 25°02'33" W	78.98'
L6	S 17°42'48" W	78.88'
L7	S 10°28'54" W	78.70'

CURVE TABLE					
CURVE	RADIUS	LENGTH	CHORD	CH. BEARING	DELTA
C1	303.23'	45.55'	45.50'	S 54°10'03" E	08°36'22"

2 LOTS 5.804 ACRES
C8J-03-0095.0A
SUBMITTED: 06/17/2003

DESCRIPTION

DESCRIPTION OF 5.804 ACRES OF LAND, BEING SITUATED IN THE S.A. & M.G. RR CO. SURVEY NO. 800, ABSTRACT NO. 749, AND THE WILLIAM FRAMPTON SURVEY, ABSTRACT 230, WILLIAMSON COUNTY, TEXAS, BEING ALL OF LOTS 5 AND 6, BLOCK A, 620 HILL COUNTRY CENTER, A SUBDIVISION IN WILLIAMSON COUNTY, TEXAS, ACCORDING TO THE MAP OR PLAT THEREOF RECORDED IN CABINET T, SLIDE 399, PLAT RECORDS OF WILLIAMSON COUNTY, TEXAS; SAID 5.804 ACRES BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a 1/2 inch iron rod with cap set in the southeast right of way line of F.M. Highway No. 620 North (R.O.W. Varies), for the north corner of Lot 4, Block A, of said 620 Hill Country Center, the west corner of said Lot 5, and the westernmost corner of the herein described tract, from which a Highway Right-of-way Marker found (Type 1) in the southeast right of way line of said F.M. 620 North, in the northwest line of Lot 2, Block A, of said 620 Hill Country Center, bears S 40°11'58" W a distance of 415.00 feet;

THENCE with the southeast right of way line of said F.M. 620 North, the northeast line of said Lot 5 and the northeast line of the herein described tract, N 40°11'58" E a distance of 239.81 feet to a 1/2 inch iron rod with cap set at the intersection of the southeast right of way said F.M.. 620 North with the south right of way line of El Salido Parkway, as dedicated by Elementary School at Anderson Mill Phase Two, a subdivision in Williamson County, Texas according to the map or plat thereof recorded in Cabinet D, Slide 284, Plat Records of Williamson County, Texas, for the westernmost northwest corner of said Lot 5, and of the herein described tract;

THENCE with the south right of way line of said El Salido Parkway, the north line of said Lot 5 and Lot 6 and of the herein described tract, the following four (4) courses and distances:

1. N 84° 57' 40" E a distance of 21.14 feet to a 1/2 inch rod found for the northernmost northeast corner of said Lot 5;
2. S 49° 45' 00" E a distance of 144.41 feet to a nail found at the beginning of a curve to the left.;
3. With said curve to the left having a control angle of 08° 36' 22", a radius of 303.23 feet, an arc length of 45.55 feet, and a chord bearing and distance of S 54° 10' 03" E 45.50 feet, to a 1/2 inch iron rod found at the end of said curve;
4. S 58° 22' 08" E a distance of 233.10 feet to a 1/2 inch iron rod found for the northeast corner of said Lot 5, the northwest corner of Lot 29, Block Q, Village Twenty at Anderson Mill, a subdivision in Williamson County, Texas according to the map or plat thereof recorded in Cabinet E, Slide 38-38, Plat Records of Williamson County, Texas, and for the northeast corner of the herein described tract, from which a 1/2 inch iron rod found in the south right of way line of said El Salido Parkway, and for the northeast corner of said Lot 29, Block Q bears S 58° 25'57" E a distance of 105.00 feet;

THENCE with the west line of Lots 18 through 29, Block Q of said Village Twenty at Anderson Mill, the east line of said Lot 5, and the east line of the herein described tract the following seven (7) courses and distances:

1. S 31° 31' 06" W passing a 1/2 inch iron rod found at a distance of 78.58 feet, passing a 1/2 inch iron rod found at a distance of 143.63 feet, passing a 1/2 inch rod found at a distance of 208.53 feet, and continuing for a total distance of 274.44 feet to 1/2 inch iron rod found for an angle corner of said Lot 6;
2. S 34° 11' 14" W a distance of 70.98 feet to a 1 inch iron pipe over a 1/2 inch iron rod found;
3. S 32° 26'52" W a distance of 78.70 feet to a 1/2 inch iron rod found;
4. S 25° 02' 33" W a distance of 78.98 feet to a 1/2 inch iron rod found;
5. S 17°42'48" W a distance of 78.88 feet to a 1/2 inch iron rod found;
6. S 10° 28'54" W a distance of 78.70 feet to a 1/2 inch iron rod found;
7. S 07°01'32" W passing a 1/2 inch rod found at a distance of 134.02 feet, and continuing for a total distance of 188.14 feet to a 1/2 inch iron rod with cap set for the southeast corner of said Lot 6 and the northeast corner of Lot 8, Block A, of said 620 Hill Country Center and the southeast corner of the herein described tract from which a 1/2 inch rod found for the most easterly corner of said Lot 8 bears S 07°01'32" W a distance of 140.99 feet.;

THENCE with the north line of said Lot 6 and Lot 7, Block A, of said 620 Hill Country Center and the south line of said Lot 6, and the most southerly line of the herein described tract, N 49°46'02" W a distance of 394.54 feet to a 1/2 inch iron rod with cap set in the southeast line of Lot 2 of said 620 Hill Country Center from which a 1/2 inch iron rod with cap set for the south corner of said Lot 2, bears S 40°11'58" W a distance of 108.48 feet;

THENCE with the southeast lines of said Lots 2 through 4 and the west line of said Lot 6 and a west line of the herein described tract, N 40°11'58" E a distance of 501.76 feet to the east corner of said Lot 4 and the south corner of said Lot 5;

THENCE with the north line of said Lot 4 and the a south line of the herein describe tract N49°46'12" W a distance of 292.86 feet to the POINT OF BEGINNING, containing 5.804 acres of land within these metes and bounds.

CA Cunningham | Allen Engineers Surveyors
3103 Bee Cave Road, Suite 202
Austin, Texas 78746-6819
Tel.: (512) 327-2946
Fax: (512) 327-2973

DATE: 6/2003	PROJECT NO.: 260.0104.230
DRAWN BY: DED	SHEET 1 OF 2

Kimley»Horn
10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN TX. 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
TBPE Firm No. 928

No.	REVISIONS	DATE	BY

STATE OF TEXAS
JUSTIN J. KRAMER
122309
LICENSED PROFESSIONAL ENGINEER
2/2/2024

KHA PROJECT 069418500	DATE 06/30/2023	DESIGNED BY: JK/KM	CHECKED BY: JK/KM
	SCALE: AS SHOWN	DRAWN BY: SA/AM	

PLAT

RED OAKS
SITE PLAN
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
02
OF 25

SP-2023-0252C.SH

GENERAL NOTES

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

2. CONTRACTOR SHALL CALL TEXAS 811 (811 OR 1-800-344-8377) FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET R.O.W.

3. CONTRACTOR SHALL NOTIFY THE CITY OF AUSTIN - SITE & SUBDIVISION TO SUBMIT REQUIRED DOCUMENTATION, PAY CONSTRUCTION INSPECTION FEES, AND TO SCHEDULE THE REQUIRED SITE & SUBDIVISION PRE-CONSTRUCTION MEETING. THIS MEETING MUST BE HELD PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN THE R.O.W. OR PUBLIC EASEMENTS. PLEASE VISIT HTTP://AUSTINTEXAS.GOV/PAGE/COMMERCIAL-SITE-AND-SUBDIVISION-INSPECTIONS FOR A LIST OF SUBMITTAL REQUIREMENTS, INFORMATION CONCERNING FEES, AND CONTACT INFORMATION.

4. FOR SLOPES OR TRENCHES GREATER THAN FIVE (5) FEET IN DEPTH, A NOTE MUST BE ADDED STATING: "ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION." (OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 611 EAST 6TH STREET, AUSTIN, TEXAS.)

5. ALL SITE WORK SHALL COMPLY WITH ENVIRONMENTAL REQUIREMENTS.

6. UPON COMPLETION OF THE PROPOSED SITE IMPROVEMENTS AND PRIOR TO THE FOLLOWING: THE ENGINEER SHALL CERTIFY IN WRITING THAT THE PROPOSED DRAINAGE, FILTRATION, AND DETENTION FACILITIES WERE CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS:

   [ ] RELEASE OF THE CERTIFICATE OF OCCUPANCY BY THE DEVELOPMENT SERVICES DEPARTMENTS (INSIDE THE CITY LIMITS)

   [ ] INSTALLATION OF AN ELECTRIC OR WATER METER (IN THE FIRE-MILE ETJ)

7. OWNER/DEVELOPER INFORMATION

A. OWNER/DEVELOPER:
   DEVELOPER: HTG ANDERSON LLC
   COMPANY: HOUSING TRUST GROUP LLC
   CONTACT: MAURICIO TERAN
   EMAIL: MAURICIOT@HTGF.COM
   PHONE: (786) 347-4554

B. OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:
   COMPANY: KIMLEY-HORN & ASSOCIATES, INC.
   CONTACT: JUSTIN J. KRAMER, P.E.
   EMAIL: JUSTIN.KRAMER@KIMLEY-HORN.COM
   PHONE: (512) 418-1771

C. PERSON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE:
   DEVELOPER: HTG ANDERSON LLC
   COMPANY: HOUSING TRUST GROUP LLC
   CONTACT: MAURICIO TERAN
   EMAIL: MAURICIOT@HTGF.COM
   PHONE: (786) 347-4554

D. PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA CONTROL MAINTENANCE:
   DEVELOPER: HTG ANDERSON LLC
   COMPANY: HOUSING TRUST GROUP LLC
   CONTACT: MAURICIO TERAN
   EMAIL: MAURICIOT@HTGF.COM
   PHONE: (786) 347-4554

8. ALL CONSTRUCTION SHALL COMPLY WITH THE "CITY OF AUSTIN STANDARD SPECIFICATIONS," AS AMENDED BY SPECIAL PROVISION, CURRENT AT THE TIME OF BIDDING.

9. CONTRACTOR TO TAKE ALL DUE PRECAUTIONS TO PROTECT EXISTING FACILITIES FROM DAMAGE. ANY DAMAGE TO EXISTING FACILITIES INCURRED AS A RESULT OF THESE CONSTRUCTION OPERATIONS TO BE REPAIRED IMMEDIATELY BY THE CONTRACTOR, AT NO ADDITIONAL COST TO OWNER.

10. CONTRACTOR TO GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR TO MAKE CERTAIN THAT ALL CONSTRUCTION PERMITS THAT CAN ONLY BE ISSUED TO THE CONTRACTOR HAVE BEEN OBTAINED BY THE CONTRACTOR AT ITS EXPENSE PRIOR TO COMMENCEMENT OF WORK.

11. CONTRACTOR TO COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS REGARDING EXCESS AND WASTE MATERIAL, INCLUDING METHODS OF HANDLING AND DISPOSAL.

12. CONTRACTOR TO COORDINATE INTERRUPTIONS OF ALL UTILITIES AND SERVICES. ALL WORK TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY COMPANY OR AGENCY INVOLVED.

13. LOCATION OF EXISTING UTILITIES SHOWN ON PLANS WAS COMPILED FROM RECORD INFORMATION. NO WARRANTY IS IMPLIED AS TO THE ACTUAL LOCATION OF EXISTING UTILITIES.

14. WHEN UNLOCATED OR INCORRECTLY LOCATED UNDERGROUND PIPING, OR A BREAK LOCATED IN THE LINE, OR OTHER UTILITIES AND SERVICES ARE ENCOUNTERED DURING SITE WORK OPERATIONS, NOTIFY THE APPLICABLE UTILITY COMPANY IMMEDIATELY TO OBTAIN PROCEDURE DIRECTIONS. COOPERATE WITH THE APPLICABLE UTILITY COMPANY IN MAINTAINING ACTIVE SERVICES IN OPERATION.

15. CONTRACTOR TO LOCATE, PROTECT, AND MAINTAIN BENCHMARKS, MONUMENTS, CONTROL POINTS, AND PROJECT ENGINEERING REFERENCE POINTS. RE-ESTABLISH DISTURBED OR DESTROYED ITEMS BY REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, AT NO ADDITIONAL COST TO OWNER.

16. CONTRACTOR TO CONTROL DUST CAUSED BY THE WORK AND COMPLY WITH POLLUTION CONTROL REGULATIONS OF GOVERNING AUTHORITIES. (NO SEPARATE PAY.)

17. THROUGHOUT THE CONSTRUCTION, AND AT THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR TO ENSURE THAT DRAINAGE OF STORM WATER RUNOFF IS NOT BLOCKED.

18. THESE PLANS, PREPARED BY KIMLEY-HORN & ASSOCIATES, DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF KIMLEY-HORN & ASSOCIATES REGISTERED PROFESSIONAL ENGINEER(S) HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR TO PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS, INCLUDING THE PLANS AND SPECIFICATIONS REQUIRED BY HOUSE BILLS 662 AND 665 ENACTED BY THE TEXAS LEGISLATURE IN THE 70TH LEGISLATURE - REGULAR SESSION.

19. TRAFFIC CONTROLS TO BE CONTRACTOR'S RESPONSIBILITY AND INSTALLED IN ACCORDANCE WITH THE "CITY OF AUSTIN MANUAL OF UNIFORM CONSTRUCTION BARRICADING STANDARDS," OCTOBER 1986. ADDITIONALLY, THE CONTRACTOR IS TO SCHEDULE THE WORK AND TRAFFIC CONTROLS TO ACHIEVE THE FOLLOWING TRAFFIC GUIDELINES:

   PARKING LOTS:
   MINIMUM OF ONE ACCESS POINT TO PARKING LOTS TO REMAIN OPEN AT ALL TIMES.

20. CONTRACTOR TO EXERCISE CAUTION DURING CONSTRUCTION NEAR AND AROUND GAS LINES. NOTIFY GAS COMPANY 24 HOURS PRIOR TO CONSTRUCTION.

21. NO BLASTING WITHIN 15 FEET OF EXISTING UTILITIES OR STRUCTURES. IF BLASTING IS TO BE USED BY THE CONTRACTOR, A BLASTING PERMIT MUST BE SECURED PRIOR TO COMMENCEMENT OF WORK. BLASTING TO BE IN ACCORDANCE WITH "CITY OF AUSTIN STANDARD SPECIFICATIONS" AND CRITERIA OF THE NATIONAL FIRE PROTECTION ASSOCIATION.

22. BURNING IS NOT ALLOWED ON THIS PROJECT.

23. CONTRACTOR TO INSTALL 1/2-INCH-DIAMETER BY 12-INCH-LONG REBAR VERTICALLY, WITH TWO (2) FEET OF SURVEYOR'S RIBBON ATTACHED, AT END OF ALL PIPE STUBS. TOP OF BAR TO BE NOT LESS THAN 12 INCHES BELOW THE FINISHED GRADE.
   A. BLUE RIBBON- WATER LINE
   B. GREEN RIBBON- WASTEWATER LINE
   C. YELLOW RIBBON- GAS LINE
   D. ORANGE RIBBON- TELECOM DUCT BANK
   E. RED RIBBON- ELECTRICAL DUCT BANK

24. MAKE CONNECTION BETWEEN NEW AND EXISTING ASPHALT STREETS BY REMOVING EXISTING STREET FROM END BACK, UNTIL FULL DEPTH BASE AND HMAC ARE ENCOUNTERED AND HMAC APPEARS TO BE IN SOUND CONDITION. PROVIDE EXPANSION JOINT AND DOWELS WHERE CONNECTING EXISTING CURB TO NEW.

25. A CURB LAYDOWN IS REQUIRED AT ALL POINTS WHERE THE PROPOSED SIDEWALK INTERSECTS THE CURB.

26. UNLESS OCCURRING AT AN EXPANSION JOINT, MAKE CONNECTION BETWEEN NEW AND EXISTING SIDEWALK BY EXPOSING AND CLEANING A ONE-FOOT LENGTH OF WELDED WIRE REINFORCEMENT AND LAPPING NEW REINFORCEMENT ONTO THIS LENGTH.

27. CONCRETE FOR SITE WORK, OTHER THAN CONCRETE PAVEMENT AND STRUCTURES, TO BE CLASS "A" (5 SACK, 3000 PSI @ 28-DAYS) AND ALL REINFORCING STEEL TO BE ASTM A615 60, UNLESS OTHERWISE NOTED. REFER TO GEOTECHNICAL REPORT AND ARCHITECTURAL DRAWINGS FOR PAVEMENT STRUCTURAL SPECIFICATIONS.

28. TREE SURVEY, CONTOURS, AND BENCHMARK INFORMATION SUPPLIED BY OTHERS. ACTUAL LOCATION OF TREES AND ELEVATION OF NATURAL GROUND ON THE PROJECT SITE MAY VARY FROM WHAT IS DEPICTED ON THE PLAN SHEETS. KIMLEY-HORN & ASSOCIATES IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION REGARDING SURVEYS OR BENCHMARK LOCATIONS. BENCHMARKS ARE AS FOLLOWS:

29. DEMOLITION PERMITS (IF NEEDED) ARE TO BE OBTAINED BY THE CONTRACTOR AT THEIR EXPENSE.

30. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL INVESTIGATION REPORT FOR THIS SITE FOR SUBSURFACE INFORMATION REGARDING THIS PROJECT, AT ITS EXPENSE THE CONTRACTOR IS ENCOURAGED TO MAKE ADDITIONAL SUBSURFACE INVESTIGATIONS.

31. CONTRACTOR TO FIELD VERIFY LOCATION AND FLOWLINES OF EXISTING UTILITIES PRIOR TO INSTALLATION OF PROPOSED UTILITY. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

32. PUMPING OF STORMWATER FROM EXCAVATIONS IS PROHIBITED UNLESS THE STORMWATER IS DISCHARGED TO ENCOURAGE SHEET/OVERLAND FLOW. ADDITIONAL EROSION AND SEDIMENTATION CONTROLS MAY BE REQUIRED, AT NO ADDITIONAL COST TO THE OWNER.

33. UNLESS OTHERWISE NOTED, STORM SEWERS TO BE:
   6'-15" SDR 35 PVC, 18" AND GREATER RCP ASTM-C76 CLASS III.

34. ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS ONE SQUARE FOOT IN TOTAL AREA, BLOWS AIR FROM WITHIN THE SUBSTRATE, AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO IMMEDIATELY CONTACT A CITY OF AUSTIN ENVIRONMENTAL INSPECTOR FOR FURTHER INVESTIGATION.

TREE PROTECTION NOTES

1. ALL TREES AND NATURAL AREAS SHOWN ON PLANS TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING.

2. PROTECTIVE FENCES TO BE ERECTED ACCORDING TO CITY OF AUSTIN "STANDARDS FOR TREE PROTECTION."

3. PROTECTIVE FENCES TO BE INSTALLED PRIOR TO THE START OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR GRADING), AND TO BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT.

4. EROSION AND SEDIMENTATION CONTROL BARRIERS TO BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILDUP WITHIN TREE DRIPLINES.

5. PROTECTIVE FENCES TO SURROUND THE TREE OR GROUP OF TREES, AND TO BE LOCATED AT THE OUTERMOST LIMIT OF BRANCHES (DRIPLINE) OR, FOR DESIGNATED PROTECTED NATURAL AREAS, PROTECTIVE FENCES TO FOLLOW THE LIMIT OF CONSTRUCTION LINE. CONTRACTOR IS TO AVOID THE FOLLOWING:
   A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIALS;
   B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN SIX (6) INCHES CUT OR FILL), OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY ARBORIST;
   C. WOUNDS TO EXPOSED ROOTS, TRUNK, OR LIMBS BY MECHANICAL EQUIPMENT;
   D. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CONCRETE TRUCK CLEANING, AND FIRES.

6. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIPLINES MAY BE PERMITTED IN THE FOLLOWING CASES:
   A. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH DEVELOPMENT, ERECT THE FENCE APPROXIMATELY TWO TO FOUR (2-4) FEET BEHIND THE AREA IN QUESTION;
   B. WHERE PERMEABLE PAVING IS TO BE INSTALLED WITHIN A TREE'S DRIPLINE, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA (PRIOR TO SITE GRADING SO THAT THIS AREA IS GRADED SEPARATELY PRIOR TO PAVING INSTALLATION TO MINIMIZE ROOT DAMAGE);
   C. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE TO ALLOW SIX TO TEN (6-10) FEET OF WORK SPACE BETWEEN THE FENCE AND THE BUILDING;
   D. WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE OR OTHER SPECIAL REQUIREMENTS, CONTACT THE CITY ARBORIST AT 974-1876 TO DISCUSS ALTERNATIVES.

   NOTE: FOR THE PROTECTION OF NATURAL AREAS, NO EXCEPTIONS TO INSTALLING FENCES AT THE LIMIT OF CONSTRUCTION LINE WILL BE PERMITTED.

7. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE BEING CLOSER FIVE (5) FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF EIGHT (8) FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.

8. TREES APPROVED FOR REMOVAL TO BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.

9. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY TO BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN TWO DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.

10. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION TO BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.

11. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN FOUR (4) INCHES SHALL BE PERMITTED WITHIN THE DRIPLINE OF TREES. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.

12. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC, AND EQUIPMENT TO TAKE PLACE BEFORE DAMAGE OCCURS (RIPPING OF BRANCHES, ETC.).

13. ALL FINISHED PRUNING TO BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE "NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES", AVAILABLE ON REQUEST FROM THE CITY ARBORIST).

14. DEVIATIONS FROM THE ABOVE NOTES ARE CONSIDERED ORDINANCE VIOLATIONS IF THERE IS SUBSTANTIAL NONCOMPLIANCE, OR IF A TREE SUSTAINS DAMAGE AS A RESULT.

FIRE DEPARTMENT NOTES

1. THE WILLIAMSON COUNTY EMERGENCY SERVICES DISTRICT 2 REQUIRES ASPHALT OR CONCRETE PAVEMENT PRIOR TO CONSTRUCTION AS AN "ALL-WEATHER DRIVING SURFACE."

2. HYDRANTS MUST BE INSTALLED WITH THE CENTER OF THE FOUR-INCH OPENING AT LEAST 18 INCHES ABOVE FINISHED GRADE. THE FOUR-INCH OPENING MUST FACE THE DRIVEWAY OR STREET WITH THREE- TO SIX-FOOT SETBACKS FROM THE CURBLINE(S). NO OBSTRUCTION IS ALLOWED WITHIN THREE FEET OF ANY HYDRANT AND THE FOUR-INCH OPENING MUST BE TOTALLY UNOBSTRUCTED FROM THE STREET.

3. TIMING OF INSTALLATION: WHEN FIRE PROTECTION FACILITIES ARE INSTALLED BY THE DEVELOPER, SUCH FACILITIES SHALL INCLUDE ALL SURFACE ACCESS ROADS WHICH SHALL BE INSTALLED AND SERVICEABLE PRIOR TO AND DURING THE TIME OF CONSTRUCTION. WHERE ALTERNATIVE METHODS OF PROTECTION, AS APPROVED BY THE FIRE CHIEF, ARE PROVIDED, THE ABOVE MAY BE MODIFIED OR WAIVED.

4. ALL PERVIOUS/DECORATIVE PAVING SHALL BE ENGINEERED AND INSTALLED FOR 80,000 LB. LIVE-VEHICLE LOADS. ANY PERVIOUS/DECORATIVE PAVING WITHIN 100 FEET OF ANY BUILDING MUST BE APPROVED BY THE FIRE DEPARTMENT.

5. COMMERCIAL DUMPSTERS AND CONTAINERS WITH AN INDIVIDUAL CAPACITY OF 1.5 CUBIC YARDS OR GREATER SHALL NOT BE STORED OR PLACED WITHIN TEN FEET OF OPENINGS, COMBUSTIBLE WALLS, OR COMBUSTIBLE EAVE LINES.

6. FIRE LANES DESIGNATED ON SITE PLAN SHALL BE REGISTERED WITH WILLIAMSON COUNTY EMERGENCY SERVICES DISTRICT 2 FIRE MARSHAL'S OFFICE AND INSPECTED FOR FINAL APPROVAL.

7. VERTICAL CLEARANCE REQUIRED FOR FIRE APPARATUS IS 14 FEET FOR FULL WIDTH OF ACCESS DRIVE.

8. ALL CURBS LOCATED WITHIN FIRE LANES SHALL BE MARKED WITH RED PAINT OR WHITE PAINT WITH RED STENCILING READING WITH WHITE STENCILING "FIRE LANE/ TOW-AWAY ZONE" IN LETTERING AT LEAST 3 INCHES IN HEIGHT. IDENTIFIED AT BOTH ENDS AND AT INTERVALS OF 35 FEET OR LESS. IN ADDITION, SUCH STENCILING SHALL BE ZONE AND AT INTERVALS SIGNS SHALL BE POSTED AT BOTH ENDS OF A FIRE ALTERNATIVE MARKINGS OF THE FIRE LANES MAY BE OF 50 FEET OR LESS. APPROVED BY THE FIRE CHIEF PROVIDED THE FIRE LANES ARE CLEARLY AT INTERVALS NOT TO EXCEED 35 FEET.

AMERICANS WITH DISABILITIES ACT

THE CITY OF AUSTIN HAS REVIEWED THIS PLAN FOR COMPLIANCE WITH CITY DEVELOPMENT REGULATIONS ONLY. THE APPLICANT, PROPERTY OWNER, AND OCCUPANT OF THE PREMISES ARE RESPONSIBLE FOR DETERMINING WHETHER THE PLAN COMPLIES WITH ALL OTHER LAWS, REGULATIONS, AND RESTRICTIONS WHICH MAY BE APPLICABLE TO THE PROPERTY AND ITS USE.

SPECIAL CONSTRUCTION TECHNIQUES:

1. PRIOR TO EXCAVATION WITHIN TREE DRIPLINES OR THE REMOVAL OF TREES ADJACENT TO OTHER TREES THAT ARE TO REMAIN, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE ROOT DAMAGE.

2. IN CRITICAL ROOT ZONE AREAS THAT CANNOT BE PROTECTED DURING CONSTRUCTION WITH FENCING AND WHERE HEAVY VEHICULAR TRAFFIC IS ANTICIPATED, COVER THOSE AREAS WITH A MINIMUM OF 12 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION. IN AREAS WITH HIGH SOIL PLASTICITY GEOTEXTILE FABRIC,PER STANDARD SPECIFICATION 620S, SHOULD BE PLACED UNDER THE MULCH TO PREVENT EXCESSIVE MIXING OF THE SOIL AND MULCH. ADDITIONALLY, MATERIAL SUCH AS PLYWOOD AND METAL SHEETS, COULD BE REQUIRED BY THE CITY ARBORIST TO MINIMIZE ROOT IMPACTS FROM HEAVY EQUIPMENT. ONCE THE PROJECT IS COMPLETED, ALL MATERIALS SHOULD BE REMOVED, AND THE MULCH SHOULD BE REDUCED TO A DEPTH OF 3 INCHES.

3. PERFORM ALL GRADING WITHIN CRITICAL ROOT ZONE AREAS BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE.

4. WATER ALL TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. SPRAY TREE CROWNS WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.

5. WHEN INSTALLING CONCRETE ADJACENT TO THE ROOT ZONE OF A TREE, USE A PLASTIC VAPOR BARRIER BEHIND THE CONCRETE TO PROHIBIT LEACHING OF LIME INTO THE SOIL.

APPENDIX P-1 - EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS, TREE/NATURAL AREA PROTECTIVE FENCING, AND CONDUCT "PRE-CONSTRUCTION" TREE FERTILIZATION (IF APPLICABLE) PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR EXCAVATION).

2. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE ENVIRONMENTAL CRITERIA MANUAL AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN. THE COA ESC PLAN SHALL BE CONSULTED AND USED AS THE BASIS FOR A TPDES REQUIRED SWPPP. IF A SWPPP IS REQUIRED, IT SHALL BE AVAILABLE FOR REVIEW BY THE CITY OF AUSTIN ENVIRONMENTAL INSPECTOR AT ALL TIMES DURING CONSTRUCTION, INCLUDING AT THE PRE-CONSTRUCTION MEETING. THE CHECKLIST BELOW CONTAINS THE BASIC ELEMENTS THAT SHALL BE REVIEWED FOR PERMIT APPROVAL BY COA EV PLAN REVIEWERS AS WELL AS COA EV INSPECTORS.

3. THE PLACEMENT OF TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION AND THE APPROVED GRADING/TREE AND NATURAL AREA PLAN.

4. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD ON-SITE WITH THE CONTRACTOR, DESIGN ENGINEER/PERMIT APPLICANT AND ENVIRONMENTAL INSPECTOR AFTER INSTALLATION OF THE EROSION/SEDIMENTATION CONTROLS, TREE/NATURAL AREA PROTECTION MEASURES AND "PRE-CONSTRUCTION" TREE FERTILIZATION (IF APPLICABLE) PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE OWNER OR OWNER'S REPRESENTATIVE SHALL NOTIFY THE DEVELOPMENT SERVICES DEPARTMENT, 512-974-2278 OR BY EMAIL AT ENVIRONMENTAL.INSPECTIONS@AUSTINTEXAS.GOV, AT LEAST THREE DAYS PRIOR TO THE MEETING DATE. COA APPROVED ESC PLAN AND TPDES SWPPP (IF REQUIRED) SHOULD BE REVIEWED BY COA EV INSPECTOR AT THIS TIME.

5. ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE REVIEWING ENGINEER, ENVIRONMENTAL SPECIALIST OR CITY ARBORIST AS APPROPRIATE. MAJOR REVISIONS MUST BE APPROVED BY AUTHORIZED COA STAFF. MINOR CHANGES TO BE MADE AS FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES.

6. THE CONTRACTOR IS REQUIRED TO PROVIDE A CERTIFIED INSPECTOR THAT IS EITHER A LICENSED ENGINEER (OR PERSON DIRECTLY SUPERVISED BY THE LICENSED ENGINEER) OR CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC OR CPESC - IT), CERTIFIED EROSION, SEDIMENT AND STORMWATER - INSPECTOR (CESSWI OR CESSWI - IT) OR CERTIFIED INSPECTOR OF SEDIMENTATION AND EROSION CONTROLS (CISEC OR CISEC - IT) CERTIFICATION TO INSPECT THE CONTROLS AND FENCES AT WEEKLY OR BI-WEEKLY INTERVALS AND AFTER ONE-HALF (½) INCH OR GREATER RAINFALL EVENTS TO INSURE 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 OR ONE-THIRD (⅓) OF THE INSTALLED HEIGHT OF THE CONTROL WHICHEVER IS LESS.

7. PRIOR TO FINAL ACCEPTANCE BY THE CITY, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING DEBRIS SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.

8. ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS; ONE SQUARE FOOT IN TOTAL AREA, BLOWS AIR FROM WITHIN THE SUBSTRATE AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO IMMEDIATELY CONTACT A CITY OF AUSTIN ENVIRONMENTAL INSPECTOR FOR FURTHER INVESTIGATION. IN ADDITION, IF THE PROJECT SITE IS LOCATED WITHIN THE EDWARDS AQUIFER, THE PROJECT MANAGER MUST NOTIFY THE TRAVIS COUNTY BALCONES CANYONLANDS CONSERVATION PRESERVE (BCCP) BY EMAIL AT BCCP@TRAVISCOUNTYTX.GOV. CONSTRUCTION ACTIVITIES WITHIN 50 FEET OF THE VOID MUST STOP.

9. TEMPORARY AND PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW.
   ALL DISTURBED AREAS TO BE REVEGETATED ARE REQUIRED TO PLACE A MINIMUM OF SIX (6) INCHES OF TOPSOIL [SEE STANDARD SPECIFICATION ITEM NO. 601S.3(A)]. DO NOT ADD TOPSOIL WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES.
   - TOPSOIL SALVAGED FROM THE EXISTING SITE IS ENCOURAGED FOR USE, BUT IT SHOULD MEET THE STANDARDS SET FORTH IN 601S.
   - AN OWNER/ENGINEER MAY PROPOSE USE OF ONSITE SALVAGED TOPSOIL WHICH DOES NOT MEET THE CRITERIA OF STANDARD SPECIFICATION 601S BY PROVIDING A SOIL ANALYSIS AND A WRITTEN STATEMENT FROM A QUALIFIED PROFESSIONAL IN SOILS, LANDSCAPE ARCHITECTURE, OR AGRONOMY INDICATING THE ONSITE TOPSOIL WILL PROVIDE AN EQUIVALENT GROWTH MEDIA AND SPECIFYING WHAT, IF ANY, SOIL AMENDMENTS ARE REQUIRED.
   - SOIL AMENDMENTS SHALL BE WORKED INTO THE EXISTING ONSITE TOPSOIL WITH A DISC OR TILLER TO CREATE A WELL-BLENDED MATERIAL.

10. DEVELOPER INFORMATION:

A. OWNER/DEVELOPER:
   DEVELOPER: HTG ANDERSON LLC
   COMPANY: HOUSING TRUST GROUP LLC
   CONTACT: MAURICIO TERAN
   EMAIL: MAURICIOT@HTGF.COM
   PHONE: (786) 347-4554

A. OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:
   COMPANY: KIMLEY-HORN & ASSOCIATES, INC.
   CONTACT: JUSTIN J. KRAMER, P.E.
   EMAIL: JUSTIN.KRAMER@KIMLEY-HORN.COM
   PHONE: (512) 418-1771

B. PERSON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE:
   DEVELOPER: HTG ANDERSON LLC
   COMPANY: HOUSING TRUST GROUP LLC
   CONTACT: MAURICIO TERAN
   EMAIL: MAURICIOT@HTGF.COM
   PHONE: (786) 347-4554

C. PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA CONTROL MAINTENANCE:
   DEVELOPER: HTG ANDERSON LLC
   COMPANY: HOUSING TRUST GROUP LLC
   CONTACT: MAURICIO TERAN
   EMAIL: MAURICIOT@HTGF.COM
   PHONE: (786) 347-4554

11. THE CONTRACTOR SHALL NOT DISPOSE OF SURPLUS EXCAVATED MATERIAL FROM THE SITE WITHOUT NOTIFYING THE DEVELOPMENT SERVICES DEPARTMENT AT 512-974-2278 AT LEAST 48 HOURS PRIOR WITH THE LOCATION AND A COPY OF THE PERMIT ISSUED TO RECEIVE THE MATERIAL.

TEMPORARY VEGETATIVE STABILIZATION:

1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH OR INCLUDE A COOL SEASON COVER CROP (WESTERN WHEATGRASS (PASCOPYRUM SMITHII) AT 5.6 POUNDS PER ACRE, OATS (AVENA SATIVA) AT 4.0 POUNDS PER ACRE, CEREAL RYE GRAIN (SECALE CEREALE) AT 45 POUNDS PER ACRE. CONTRACTOR MUST ENSURE THAT ANY SEED APPLICATION REQUIRING A COOL SEASON COVER CROP DOES NOT UTILIZE ANNUAL RYEGRASS (LOLIUM MULTIFLORUM) OR PERENNIAL RYEGRASS (LOLIUM PERENNE). COOL SEASON COVER CROPS ARE NOT PERMANENT EROSION CONTROL.

2. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 45 POUNDS PER ACRE OR A NATIVE PLANT SEED MIX CONFORMING TO ITEM 604S OR 609S. .
   A. FERTILIZER SHALL BE APPLIED ONLY IF WARRANTED BY A SOIL TEST AND SHALL CONFORM TO ITEM NO. 606S, FERTILIZER. FERTILIZATION SHOULD NOT OCCUR WHEN RAINFALL IS EXPECTED OR DURING SLOW PLANT GROWTH OR DORMANCY. CHEMICAL FERTILIZER MAY NOT

KH GENERAL NOTES

OVERALL:

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THESE PLANS, CITY (OR TOWN) STANDARD DETAILS AND SPECIFICATIONS, THE FINAL GEOTECHNICAL REPORT AND ALL ISSUED ADDENDA, AND COMMONLY ACCEPTED CONSTRUCTION STANDARDS. THE CITY SPECIFICATIONS SHALL GOVERN WHERE OTHER SPECIFICATIONS DO NOT EXIST. IN CASE OF CONFLICTING SPECIFICATIONS OR DETAILS, THE MORE RESTRICTIVE SPECIFICATION AND DETAIL SHALL BE FOLLOWED.
2. THE CONTRACTOR SHALL COMPLY WITH CITY (OR TOWN) "GENERAL NOTES" FOR CONSTRUCTION, IF EXISTING AND REQUIRED BY THE CITY. FOR INSTANCES WHERE THEY CONFLICT WITH THESE KH GENERAL NOTES, THEN THE MORE RESTRICTIVE SHALL APPLY.
3. THE CONTRACTOR SHALL FURNISH ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE AUTHORITIES' SPECIFICATIONS AND REQUIREMENTS.
4. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO DETERMINE EXISTING CONDITIONS.
5. THE EXISTING CONDITIONS SHOWN ON THESE PLANS WERE PROVIDED BY THE TOPOGRAPHIC SURVEY PREPARED BY THE PROJECT SURVEYOR, AND ARE BASED ON THE BENCHMARKS SHOWN. THE CONTRACTOR SHALL REFERENCE THE SAME BENCHMARKS.
6. THE CONTRACTOR SHALL REVIEW AND VERIFY THE EXISTING TOPOGRAPHIC SURVEY SHOWN ON THE PLANS REPRESENTS EXISTING FIELD CONDITIONS PRIOR TO CONSTRUCTION, AND SHALL REPORT ANY DISCREPANCIES FOUND TO THE OWNER AND ENGINEER IMMEDIATELY.
7. IF THE CONTRACTOR DOES NOT ACCEPT THE EXISTING TOPOGRAPHIC SURVEY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY A TRUE AND ACCURATE, A TOPOGRAPHIC SURVEY BY A REGISTERED PROFESSIONAL LAND SURVEYOR TO THE OWNER AND ENGINEER FOR REVIEW.
8. CONTRACTOR SHALL PROVIDE ALL CONSTRUCTION SURVEYING AND STAKING.
9. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL CONTROL, INCLUDING BENCHMARKS PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF IMPROVEMENTS. PROPERTY LINES AND CORNERS SHALL BE HELD AS THE HORIZONTAL CONTROL.
10. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS, ELEVATIONS, AND FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE ARCHITECT, ENGINEER, AND IF APPLICABLE THE CITY AND OWNER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE CITY, ENGINEER, AND OWNER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
11. CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, LANDSCAPE, MEP, ARCHITECTURAL, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER/ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO COMMENCING WITH CONSTRUCTION.
12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK TO HAVE THEM LOCATE THEIR EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE AN ADEQUATE MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
13. CONTRACTOR SHALL CALL TEXAS 811 AN ADEQUATE AMOUNT OF TIME PRIOR TO COMMENCING CONSTRUCTION OR ANY EXCAVATION.
14. CONTRACTOR SHALL USE EXTREME CAUTION AS THE SITE CONTAINS VARIOUS KNOWN AND UNKNOWN PUBLIC AND PRIVATE UTILITIES.
15. THE LOCATIONS, ELEVATIONS, DEPTH, AND DIMENSION OF EXISTING UTILITIES SHOWN ON THESE PLANS WERE OBTAINED FROM AVAILABLE UTILITY COMPANY MAPS AND PLANS, AND ARE CONSIDERED APPROXIMATE AND INCOMPLETE. IT SHALL BE THE CONTRACTORS' RESPONSIBILITY TO VERIFY THE PRESENCE, LOCATION, ELEVATION, DEPTH, AND DIMENSION OF EXISTING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION SO THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES. THE ENGINEER SHALL BE NOTIFIED WHEN A PROPOSED IMPROVEMENT CONFLICTS WITH AN EXISTING UTILITY.
16. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ANY ADJUSTMENTS AND RELOCATIONS OF EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO, ADJUSTING EXISTING MANHOLES TO MATCH PROPOSED GRADE, RELOCATING EXISTING POLES AND GUY WIRES THAT ARE LOCATED IN PROPOSED DRIVEWAYS, ADJUSTING THE HORIZONTAL OR VERTICAL ALIGNMENT OF EXISTING UNDERGROUND UTILITIES TO ACCOMMODATE PROPOSED GRADE OR CROSSING WITH A PROPOSED UTILITY, AND ANY OTHERS THAT MAY BE ENCOUNTERED THAT ARE UNKNOWN AT THIS TIME AND NOT SHOWN ON THESE PLANS.
17. CONTRACTOR SHALL ARRANGE FOR OR PROVIDE, AT ITS EXPENSE, ALL GAS, TELECOMMUNICATIONS, CABLE, OVERHEAD AND UNDERGROUND POWER LINE, AND UTILITY POLE ADJUSTMENTS NEEDED.
18. CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION OF FRANCHISE UTILITIES THAT ARE NECESSARY FOR ON-SITE AND OFF-SITE CONSTRUCTION, AND SERVICE TO THE PROPOSED DEVELOPMENT.
19. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL DAMAGES DUE TO THE CONTRACTORS' FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED BY THE CONTRACTOR AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
20. BRACING OF UTILITY POLES MAY BE REQUIRED BY THE UTILITY COMPANIES WHEN TRENCHING OR EXCAVATING IN CLOSE PROXIMITY TO THE POLES. THE COST OF BRACING POLES WILL BE BORNE BY THE CONTRACTOR, WITH NO SEPARATE PAY ITEM FOR THIS WORK. THE COST IS INCIDENTAL TO THE PAY ITEM.
21. CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND POWER LINES. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, FEDERAL AND UTILITY OWNER REGULATIONS PERTAINING TO WORK SETBACKS FROM POWER LINES.
22. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL REQUIRED CONSTRUCTION PERMITS, APPROVALS, AND BONDS PRIOR TO CONSTRUCTION.
23. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES A COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, GEOTECHNICAL REPORT AND ADDENDA, PROJECT AND CITY SPECIFICATIONS, AND SPECIAL CONDITIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, EROSION CONTROL PLANS, SWPPP AND INSPECTION REPORTS.
24. ALL SHOP DRAWINGS AND OTHER DOCUMENTS FOR ENGINEER REVIEW SHALL BE SUBMITTED BY THE CONTRACTOR SUFFICIENTLY IN ADVANCE OF CONSTRUCTION OF THAT ITEM, SO THAT NO LESS THAN 10 BUSINESS DAYS FOR REVIEW AND RESPONSE IS AVAILABLE.
25. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES, JURISDICTIONAL AGENCIES, AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO USE OF THE FACILITY AND THE FINAL CONNECTION OF SERVICES.
26. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
27. CONTRACTOR'S BID PRICE SHALL INCLUDE ALL INSPECTION FEES.
28. ALL SYMBOLS SHOWN ON THESE PLANS (E.G. FIRE HYDRANT, METERS, VALVES, INLETS, ETC....) ARE FOR PRESENTATION PURPOSES ONLY AND ARE NOT TO SCALE. CONTRACTOR SHALL COORDINATE FINAL SIZES AND LOCATIONS WITH APPROPRIATE CITY INSPECTOR.
29. THE SCOPE OF WORK FOR THE CIVIL IMPROVEMENTS SHOWN ON THESE PLANS TERMINATES 5-FEET FROM THE BUILDING. REFERENCE THE BUILDING PLANS (E.G. ARCHITECTURAL, STRUCTURAL, MEP) FOR AREAS WITHIN 5-FEET OF THE BUILDING AND WITHIN THE BUILDING FOOTPRINT.
30. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR ALL FINAL BUILDING DIMENSIONS.
31. THE PROPOSED BUILDING FOOTPRINT(S) SHOWN IN THESE PLANS WAS PROVIDED TO KIMLEY-HORN AND ASSOCIATES, INC. (KH) BY THE PROJECT ARCHITECT AT THE TIME THESE PLANS WERE PREPARED. IT MAY NOT BE THE FINAL CORRECT VERSION BECAUSE THE BUILDING DESIGN WAS ONGOING. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONFIRMING THE FINAL CORRECT VERSION OF THE BUILDING FOOTPRINT WITH THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO LAYOUT. DIMENSIONS AND/OR COORDINATES SHOWN ON THESE PLANS WERE BASED ON THE ABOVE STATED ARCHITECTURAL FOOTPRINT, AND ARE THEREFORE A PRELIMINARY LOCATION OF THE BUILDING. THE CONTRACTOR IS SOLELY RESPONSIBLE TO VERIFY WHAT PART OF THE BUILDING THE ARCHITECT'S FOOTPRINT REPRESENTS (E.G. SLAB, OUTSIDE WALL, MASONRY LEDGE, ETC....) AND TO CONFIRM ITS FINAL POSITION ON THE SITE BASED ON THE FINAL ARCHITECTURAL DIMENSION CONTROL PLAN, SURVEY BOUNDARY AND/OR PLAT. ANY DIFFERENCES FOUND SHALL BE REPORTED TO KH IMMEDIATELY.
32. ALL CONSTRUCTION SHALL COMPLY WITH THE PROJECT'S FINAL GEOTECHNICAL REPORT (OR LATEST EDITION), INCLUDING SUBSEQUENT ADDENDA.
33. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIALS TESTING AND CERTIFICATION, UNLESS SPECIFIED OTHERWISE BY OWNER. ALL MATERIALS TESTING SHALL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR AND COMPLY WITH CITY STANDARD SPECIFICATIONS AND GEOTECHNICAL REPORT. TESTING SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY FOR TESTING MATERIALS. OWNER SHALL APPROVE THE AGENCY NOMINATED BY THE CONTRACTOR FOR MATERIALS TESTING.
34. ALL COPIES OF MATERIALS TEST RESULTS SHALL BE SENT TO THE OWNER, ENGINEER AND ARCHITECT DIRECTLY FROM THE TESTING AGENCY.
35. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SHOW, BY THE STANDARD TESTING PROCEDURES OF THE MATERIALS, THAT THE WORK CONSTRUCTED MEETS THE PROJECT REQUIREMENTS AND CITY SPECIFICATIONS.
36. DUE TO THE POTENTIAL FOR DIFFERENTIAL SOIL MOVEMENT ADJACENT TO THE BUILDING, THE CONTRACTOR SHALL ADHERE TO GEOTECHNICAL REPORT'S RECOMMENDATION FOR SUBGRADE PREPARATION SPECIFIC TO FLATWORK ADJACENT TO THE PROPOSED BUILDING. THE OWNER AND CONTRACTOR ARE ADVISED TO OBTAIN A GEOTECHNICAL ENGINEER RECOMMENDATION SPECIFIC TO FLATWORK ADJACENT TO THE BUILDING, IF NONE IS CURRENTLY EXISTING.
37. ALL CONTRACTOR'S MUST CONFINE THEIR ACTIVITIES TO THE WORK AREA. NO ENCROACHMENTS OUTSIDE OF THE WORK AREA WILL BE ALLOWED. ANY DAMAGE RESULTING THEREFROM SHALL BE CONTRACTOR'S SOLE RESPONSIBILITY TO REPAIR.
38. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, UTILITIES, MANHOLES, POLES, GUY WIRES, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, COMMUNICATION BOXES/PEDESTALS, AND OTHER FACILITIES TO REMAIN AND SHALL REPAIR ANY DAMAGES AT NO COST TO THE OWNER.
39. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY PHYSICAL DAMAGE TO PRIVATE PROPERTY OR PUBLIC IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO, FENCES, WALLS, SIGNS, PAVEMENT, CURBS, UTILITIES, SIDEWALKS, GRASS, TREES, LANDSCAPING, AND IRRIGATION SYSTEMS, ETC... TO ORIGINAL CONDITION OR BETTER AT NO COST TO THE OWNER.
40. ALL AREAS IN EXISTING RIGHT-OF-WAY DISTURBED BY SITE CONSTRUCTION SHALL BE REPAIRED TO ORIGINAL CONDITION OR BETTER, INCLUDING AS NECESSARY GRADING, LANDSCAPING, CULVERTS, AND PAVEMENT.
41. THE CONTRACTOR SHALL SALVAGE ALL EXISTING POWER POLES, SIGNS, WATER VALVES, FIRE HYDRANTS, METERS, ETC... THAT ARE TO BE RELOCATED DURING CONSTRUCTION.
42. CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING MAINTAINING EXISTING DITCHES OR CULVERTS FREE OF OBSTRUCTIONS AT ALL TIMES.
43. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
44. THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.
45. SITE SAFETY IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
46. THESE PLANS DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE ENGINEER'S SEAL HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF ALL REQUIRED SAFETY PROCEDURES AND PROGRAMS.
47. SIGNS RELATED TO SITE OPERATION OR SAFETY ARE NOT INCLUDED IN THESE PLANS.
48. CONTRACTOR OFFICE AND STAGING AREA SHALL BE AGREED ON BY THE OWNER AND CONTRACTOR PRIOR TO BEGINNING OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITTING REQUIREMENTS FOR THE CONSTRUCTION OFFICE, TRAILER, STORAGE, AND STAGING OPERATIONS AND LOCATIONS.
49. LIGHT POLES, SIGNS, AND OTHER OBSTRUCTIONS SHALL NOT BE PLACED IN ACCESSIBLE ROUTES.
50. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
51. TOP RIM ELEVATIONS OF ALL EXISTING AND PROPOSED MANHOLES SHALL BE COORDINATED WITH TOP OF PAVEMENT OR FINISHED GRADE AND SHALL BE ADJUSTED TO BE FLUSH WITH THE ACTUAL FINISHED GRADE AT THE TIME OF PAVING.
52. CONTRACTOR SHALL ADJUST ALL EXISTING AND PROPOSED VALVES, FIRE HYDRANTS, AND OTHER UTILITY APPURTENANCES TO MATCH ACTUAL FINISHED GRADES AT THE TIME OF PAVING.
53. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION SEQUENCING AND PHASING, AND SHALL CONTACT THE APPROPRIATE CITY OFFICIALS, INCLUDING BUILDING OFFICIAL, ENGINEERING INSPECTOR, AND FIRE MARSHALL TO LEARN OF ANY REQUIREMENTS.
54. CONTRACTOR IS RESPONSIBLE FOR PREPARATION, SUBMITTAL, AND APPROVAL BY THE CITY OF A TRAFFIC CONTROL PLAN PRIOR TO THE START OF CONSTRUCTION, AND THEN THE IMPLEMENTATION OF THE PLAN.
55. CONTRACTOR SHALL KEEP A NEAT AND ACCURATE RECORD OF CONSTRUCTION, INCLUDING ANY DEVIATIONS OR VARIANCES FROM THE PLANS.
56. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT PLANS TO THE ENGINEER AND CITY IDENTIFYING ALL DEVIATIONS AND VARIATIONS FROM THESE PLANS MADE DURING CONSTRUCTION.

EROSION CONTROL:

1. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL EROSION CONTROL AND WATER QUALITY REQUIREMENTS, LAWS, AND ORDINANCES THAT APPLY TO THE CONSTRUCTION SITE LAND DISTURBANCE.
2. CONTRACTOR SHALL COMPLY WITH THE TERMS AND CONDITIONS OF THE "TCEQ GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM TXR 150000".
3. EROSION CONTROL DEVICES SHOWN ON THE EROSION CONTROL PLAN FOR THE PROJECT SHALL BE INSTALLED PRIOR TO THE START OF LAND DISTURBANCE.
4. ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS FOR THE PROJECT.
5. CONTRACTOR IS SOLELY RESPONSIBLE FOR INSTALLATION, IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL EROSION CONTROL DEVICES, BEST MANAGEMENT PRACTICES (BMPS), AND FOR UPDATING THE EROSION CONTROL PLAN DURING CONSTRUCTION AS FIELD CONDITIONS CHANGE.
6. CONTRACTOR SHALL DOCUMENT THE DATES OF INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL FOR EACH BMP EMPLOYED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IF APPLICABLE.
7. AS STORM SEWER INLETS ARE INSTALLED ON-SITE, TEMPORARY EROSION CONTROL DEVICES SHALL BE INSTALLED AT EACH INLET PER APPROVED DETAILS.
8. THE EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL THE AREA IT PROTECTS HAS BEEN PERMANENTLY STABILIZED.
9. CONTRACTOR SHALL PROVIDE ADEQUATE EROSION CONTROL DEVICES NEEDED DUE TO PROJECT PHASING.
10. CONTRACTOR SHALL OBSERVE THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES AND MAKE FIELD ADJUSTMENTS AND MODIFICATIONS AS NEEDED TO PREVENT SEDIMENT FROM LEAVING THE SITE. IF THE EROSION CONTROL DEVICES DO NOT EFFECTIVELY CONTROL EROSION AND PREVENT SEDIMENTATION FROM WASHING OFF THE SITE, THEN THE CONTRACTOR SHALL NOTIFY THE ENGINEER.
11. OFF-SITE SOIL BORROW, SPOIL, AND STORAGE AREAS (IF APPLICABLE) ARE CONSIDERED AS PART OF THE PROJECT SITE AND MUST ALSO COMPLY WITH THE EROSION CONTROL REQUIREMENTS FOR THIS PROJECT. THIS INCLUDES THE INSTALLATION OF BMP'S TO CONTROL EROSION AND SEDIMENTATION AND THE ESTABLISHMENT OF PERMANENT GROUND COVER ON DISTURBED AREAS PRIOR TO FINAL APPROVAL OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR MODIFYING THE SWPPP AND EROSION CONTROL PLAN TO INCLUDE BMPS FOR ANY OFF-SITE THAT ARE NOT ANTICIPATED OR SHOWN ON THE EROSION CONTROL PLAN.
12. ALL STAGING, STOCKPILES, SPOIL, AND STORAGE SHALL BE LOCATED SUCH THAT THEY WILL NOT ADVERSELY AFFECT STORM WATER QUALITY. PROTECTIVE MEASURES SHALL BE PROVIDED IF NEEDED TO ACCOMPLISH THIS REQUIREMENT, SUCH AS COVERING OR ENCIRCLING THE AREA WITH AN APPROPRIATE BARRIER.
13. CONTRACTORS SHALL INSPECT ALL EROSION CONTROL DEVICES, BMPS, DISTURBED AREAS, AND VEHICLE ENTRY AND EXIT AREAS WEEKLY AND WITHIN 24 HOURS OF ALL RAINFALL EVENTS OF 0.5 INCHES OR GREATER, AND KEEP A RECORD OF THIS INSPECTION IN THE SWPPP BOOKLET (IF APPLICABLE), TO VERIFY THAT THE DEVICES AND EROSION CONTROL PLAN ARE FUNCTIONING PROPERLY.
14. CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL PRIMARY POINTS OF ACCESS IN ACCORDANCE WITH CITY SPECIFICATIONS. CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION TRAFFIC USES THE STABILIZED ENTRANCE AT ALL TIMES FOR ALL INGRESS/EGRESS.
15. SITE ENTRY AND EXITS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT THE TRACKING AND FLOWING OF SEDIMENT AND DIRT ONTO OFF-SITE ROADWAYS. ALL SEDIMENT AND DIRT FROM THE SITE THAT IS DEPOSITED ONTO AN OFF-SITE ROADWAY SHALL BE REMOVED IMMEDIATELY.
16. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SILT AND DEBRIS FROM THE AFFECTED OFF-SITE ROADWAYS THAT ARE A RESULT OF THE CONSTRUCTION, AS REQUESTED BY OWNER AND CITY. AT A MINIMUM, THIS SHOULD OCCUR ONCE PER DAY FOR THE OFF-SITE ROADWAYS.
17. WHEN WASHING OF VEHICLES IS REQUIRED TO REMOVE SEDIMENT PRIOR TO EXITING THE SITE, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP BMP.
18. CONTRACTOR SHALL INSTALL A TEMPORARY SEDIMENT BASIN FOR ANY ON-SITE DRAINAGE AREAS THAT ARE GREATER THAN 10 ACRES, PER TCEQ AND CITY STANDARDS. IF NO ENGINEERING DESIGN HAS BEEN PROVIDED FOR A SEDIMENTATION BASIN ON THESE PLANS, THEN THE CONTRACTOR SHALL ARRANGE FOR AN APPROPRIATE DESIGN TO BE PROVIDED.
19. ALL FINES IMPOSED FOR SEDIMENT DEPOSITED ONTO ROADWAYS FROM THE SITE SHALL BE PAID BY THE RESPONSIBLE CONTRACTOR.
20. WHEN SEDIMENT OR DIRT HAS CLOGGED THE CONSTRUCTION ENTRANCE VOID SPACES BETWEEN STONES OR DIRT IS BEING TRACKED ONTO A ROADWAY, THE AGGREGATE PAD MUST BE WASHED DOWN OR REPLACED. RUNOFF FROM THE WASH-DOWN OPERATION SHALL NOT BE ALLOWED, INCLUDING DIRECT DISCHARGE TO A DOWNSTREAM INLET. ANOTHER BMP TO CONTROL SEDIMENTATION MAY BE PERIODIC RE-GRADING OR NEW STONE MAY BE REQUIRED TO MAINTAIN THE EFFECTIVENESS OF THE CONSTRUCTION ENTRANCE.
21. TEMPORARY SEEDING OR OTHER APPROVED STABILIZATION SHALL BE INITIATED WITHIN 14 DAYS OF THE LAST DISTURBANCE OF ANY AREA, UNLESS ADDITIONAL CONSTRUCTION IN THE AREA IS EXPECTED WITHIN 21 DAYS OF THE LAST DISTURBANCE.
22. CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING CONSTRUCTION. ALWAYS CLEANUP DIRT, LOOSE MATERIAL, AND TRASH AS CONSTRUCTION PROGRESSES.
23. UPON COMPLETION OF FINE GRADING, ALL SURFACES OF DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED. STABILIZATION IS ACHIEVED WHEN THE PERCENTAGE OF VEGETATIVE COVER MEETS THE PERMANENT IMPERVIOUS STRUCTURES, SUCH AS BUILDINGS, SIDEWALK, PAVEMENT, OR A UNIFORM PERENNIAL VEGETATIVE COVER.
24. AT THE CONCLUSION OF THE PROJECT, ALL INLETS, DRAIN PIPE, CHANNELS, DRAINAGEWAYS AND BORROW DITCHES AFFECTED BY THE CONSTRUCTION SHALL BE CLEANED OF ALL SEDIMENT GENERATED BY THE PROJECT SHALL BE REMOVED AND DISPOSED IN ACCORDANCE WITH APPLICABLE REGULATIONS.

STORM WATER DISCHARGE AUTHORIZATION:

1. CONTRACTOR SHALL COMPLY WITH ALL TCEQ AND EPA STORM WATER POLLUTION PREVENTION REQUIREMENTS.
2. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE TCEQ GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM.
3. THE CONTRACTOR SHALL ENSURE THAT ALL PRIMARY OPERATORS SUBMIT A NOI TO TCEQ AT LEAST SEVEN DAYS PRIOR TO COMMENCING CONSTRUCTION (IF APPLICABLE), OR IF UTILIZING ELECTRONIC SUBMITTAL, PRIOR TO COMMENCING CONSTRUCTION. ALL PRIMARY OPERATORS SHALL PROVIDE A COPY OF THE SIGNED NOI TO THE OPERATOR OF ANY MS4 (TYPICALLY THE CITY) RECEIVING DISCHARGE FROM THE SITE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IF APPLICABLE, INCLUDING SITE NOTICE, INSPECTIONS, DOCUMENTATION, AND SUBMISSION OF ANY INFORMATION REQUIRED BY THE TCEQ AND EPA (E.G. NOI).
5. ALL CONTRACTORS AND SUBCONTRACTORS PROVIDING SERVICES RELATED TO THE SWPPP SHALL SIGN THE REQUIRED CONTRACTOR CERTIFICATION STATEMENT ACKNOWLEDGING THEIR RESPONSIBILITIES AS DEFINED IN THE SWPPP.
6. A COPY OF THE SWPPP, INCLUDING NOI, SITE NOTICE, CONTRACTOR CERTIFICATIONS, AND ANY REVISIONS, SHALL BE SUBMITTED TO THE CITY BY THE CONTRACTOR AND SHALL BE RETAINED ON-SITE DURING CONSTRUCTION.
7. A NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO TCEQ BY ANY PRIMARY OPERATOR WITHIN 30 DAYS AFTER ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND A UNIFORM VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY STRUCTURES, A TRANSFER OF OPERATIONAL CONTROL HAS OCCURRED, OR THE OPERATOR HAS OBTAINED ALTERNATIVE AUTHORIZATION UNDER A DIFFERENT PERMIT. A COPY OF THE NOT SHALL BE PROVIDED TO THE OPERATOR OF ANY MS4 RECEIVING DISCHARGE FROM THE SITE.

DEMOLITION:

1. KH IS NOT RESPONSIBLE FOR THE MEANS AND METHODS EMPLOYED BY THE CONTRACTOR TO IMPLEMENT THIS DEMOLITION PLAN. THIS PRELIMINARY DEMOLITION PLAN SIMPLY INDICATES THE KNOWN OBJECTS ON THE SUBJECT TRACT THAT ARE TO BE DEMOLISHED AND REMOVED FROM THE SITE.
2. KH DOES NOT WARRANT OR REPRESENT THAT THE PLAN, WHICH WAS PREPARED BASED ON SURVEY AND UTILITY INFORMATION PROVIDED BY OTHERS, SHOWS ALL IMPROVEMENTS AND UTILITIES, THAT THE IMPROVEMENTS AND UTILITIES ARE SHOWN ACCURATELY, OR THAT THE UTILITIES SHOWN CAN BE REMOVED. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ITS OWN SITE RECONNAISSANCE TO SCOPE OUT AND CONFIRM WITH THE OWNERS OF IMPROVEMENTS AND UTILITIES THE ABILITY AND PROCESS FOR THE REMOVAL OF THEIR FACILITIES.
3. THIS PLAN IS INTENDED TO GIVE A GENERAL GUIDE TO THE CONTRACTOR, NOTHING MORE. THE GOAL OF THE DEMOLITION IS TO LEAVE THE SITE IN A CONDITION SUITABLE FOR THE PROPOSED DEVELOPMENT. REMOVAL OR PRESERVATION OF IMPROVEMENTS, UTILITIES, ETC. TO ACCOMPLISH THIS GOAL ARE THE RESPONSIBILITY OF THE CONTRACTOR.
4. CONTRACTOR IS STRONGLY CAUTIONED TO REVIEW THE FOLLOWING REPORTS DESCRIBING SITE CONDITIONS PRIOR TO BIDDING AND IMPLEMENTING THE DEMOLITION PLAN:
   a. ENVIRONMENTAL SITE ASSESSMENT PROVIDED BY THE OWNER,
   b. ASBESTOS BUILDING INSPECTION REPORT(S) PROVIDED BY THE OWNER,
   c. GEOTECHNICAL REPORT PROVIDED BY THE OWNER.
   d. OTHER REPORTS THAT ARE APPLICABLE AND AVAILABLE.
5. CONTRACTOR SHALL CONTACT THE OWNER TO VERIFY WHETHER ADDITIONAL REPORTS OR AMENDMENTS TO THE ABOVE CITED REPORTS HAVE BEEN PREPARED AND TO OBTAIN/REVIEW/AND COMPLY WITH THE RECOMMENDATION OF SUCH STUDIES PRIOR TO STARTING ANY WORK ON THE SITE.
6. CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS REGARDING THE DEMOLITION OF OBJECTS ON THE SITE AND THE DISPOSAL OF THE DEMOLISHED MATERIALS OFF-SITE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REVIEW THE SITE, DETERMINE THE APPLICABLE REGULATIONS, RECEIVE THE REQUIRED PERMITS AND AUTHORIZATIONS, AND COMPLY.
7. KH DOES NOT REPRESENT THAT THE DEMOLITION PLAN DEPICTED ABOVE ARE ACCURATE, COMPLETE, OR COMPREHENSIVE SHOWING ALL ITEMS THAT WILL NEED TO BE DEMOLISHED AND REMOVED.
8. SURFACE PAVEMENT INDICATED MAY OVERLAY OTHER HIDDEN STRUCTURES, SUCH AS ADDITIONAL LAYERS OF PAVEMENT, FOUNDATIONS OR WALLS, THAT ARE ALSO TO BE REMOVED.

GRADING:

1. THE CONTRACTOR AND GRADING SUBCONTRACTOR SHALL VERIFY THE SUITABILITY OF EXISTING AND PROPOSED SITE CONDITIONS, INCLUDING GRADES AND DIMENSIONS BEFORE START OF CONSTRUCTION. THE CIVIL ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
2. CONTRACTOR SHALL OBTAIN ANY REQUIRED GRADING PERMITS FROM THE CITY
3. UNLESS OTHERWISE NOTED, PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN IN PAVED AREA REFLECT TOP OF PAVEMENT SURFACE. IN LOCATIONS ALONG A CURB LINE, ADD 6-INCHES (OR THE HEIGHT OF THE CURB) TO THE PAVING GRADE FOR TOP OF CURB ELEVATION.
4. PROPOSED SPOT ELEVATION

GENERAL NOTES

ALL RESPONSIBILITY FOR THE ADEQUECY OF THESE PLANS REMAINS WITH THE ENGINEER. APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN DOES NOT REMOVE THESE RESPONSIBILITIES.

"REVIEWED BY AUSTIN WATER" APPLIES ONLY TO AW PUBLIC FACILITIES. ALL OTHER WATER AND WASTEWATER FACILITIES INSIDE PRIVATE PROPERTY ARE UNDER THE JURISDICATION OF BUILDING INSPECTIONS.

Use of Electronic Files General Disclaimer: Use of the attached files in any manner indicates your acceptance of terms and conditions as set forth below. If you do not agree to all of the terms and conditions, please contact Austin Water Pipeline Engineering, project coordinator prior to use of the referenced information. Please be advised that the attached files are in a format that can be altered by the user. Due to this fact, any reuse of the data will be at the user's sole risk without liability or legal exposure to The City of Austin and user shall indemnify and hold harmless The City of Austin from all claims, damages, losses and expenses including attorney's fees arising out of or resulting from using the digital file. In addition, it is the responsibility of the user to compare all data with the PDF version of this drawing. In the event there is a conflict between the PDF version drawing and the electronic file, the PDF version drawing shall prevail.

Automated Metering Infrastructure: Effective March 2022, new water meters installed shall be in conformance with AW's automated metering infrastructure technology, and with the applicable standard product list. Applicants filing a site plan or subdivision plan will be required to coordinate with the Austin Water Plan Reviewer for details on approval and installation.

Prior to the handling and disposal of Asbestos Pipe, the Contractor's work plans will be reviewed and coordinated through Austin Water's Asbestos Program Manager who can be reached at 512-972-0915. It is the Contractor's responsibility to utilize a trained, certified and licensed Asbestos Abatement Contractor in accordance with the Federal, State and Local regulations.

Modifications to Austin Water signed and stamped sheets are not permitted. All design modifications will need to be submitted via the ABC portal for a Plan Correction or Revision. All unethical engineering practices, including modifying City Stamped plan sheets, shall be reported to the Texas Board of Professional Engineers and Land Surveyors (PELS).

Reference: Texas Engineering Practice Act and Rules, Subchapter C: Professional Conduct and Ethics

FIRE FLOW TEST DATA

AUSTIN FIRE DEPARTMENT
FIRE PREVENTION DIVISION
6310 Wilhelmina Delco Dr., Austin, Texas 78752
afd.hydrants@austintexas.gov

Hydrant Flow Test Report

TEST DATE	05/26/2023	FIRE BOX	3802	COMPANY	PREVENTION
TIME	1030 HRS	MAP GRID ID	E38	AFD STAFF	DECUIR, SCOTT

RESIDUAL HYDRANT

RESIDUAL HYDRANT #	57291	MAIN SIZE (in.)	12

BLK #	DIRECTION	STREET NAME	TYPE
11700	N	FM 620	RD

STATIC PRESSURE (PSI)	82	RESIDUAL PRESSURE (PSI)	80

FLOW HYDRANT

FLOW HYDRANT #	56990	MAIN SIZE (in.)	12

BLK #	DIRECTION	STREET NAME	TYPE
11700	N	FM 620	RD

STATIC PRESSURE (PSI)	84	RESIDUAL PRESSURE (PSI)	74

Comments

dc = discharge coefficient straight 2½" butt = 0.9 w/ 45° elbow = 0.75	0.9
FLOW RATE (GPM) =	1443

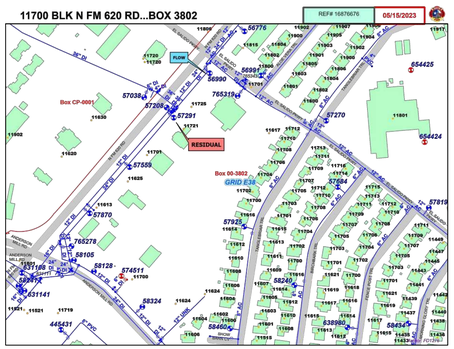
NOTE: This information represents the water supply characteristics in the immediate area on the date and time tested. The City of Austin does not guarantee this data will be representative of the water supply characteristics at any time in the future. It is the requesting party's responsibility to ensure that this test information is appropriate to the location of the project in question and that any differences in elevation between the test location and project are accounted for and included in the hydraulic calculations.

HFTR #16912686

FIRE FLOW MAP

11700 BLK N FM 620 RD...BOX 3802

REF# 16676676 05/15/2023



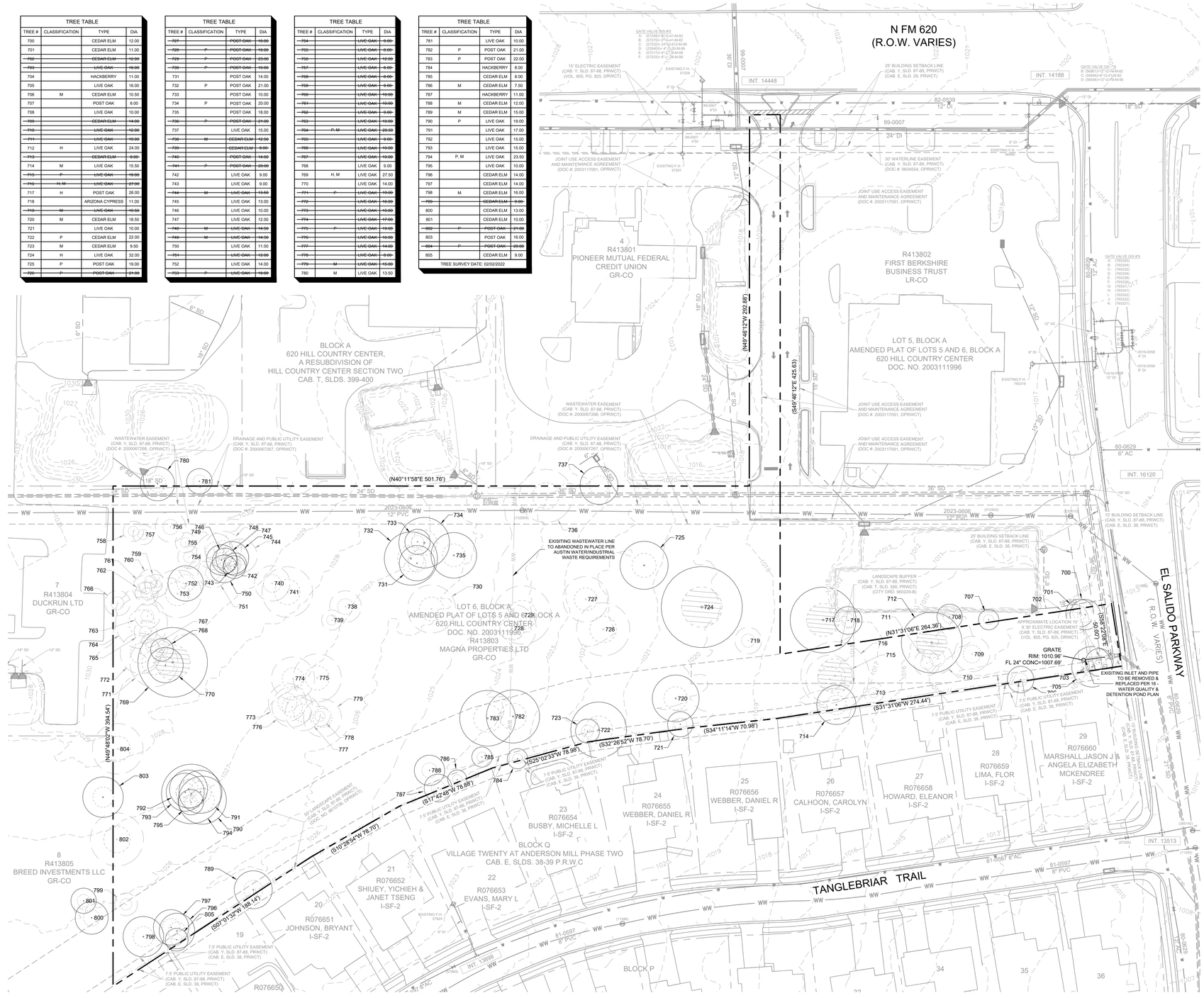
TREE TABLE			
TREE #	CLASSIFICATION	TYPE	DIA
700		CEDAR ELM	12.00
701		CEDAR ELM	11.00
~~702~~		~~CEDAR ELM~~	~~12.00~~
~~703~~		~~LIVE OAK~~	~~15.00~~
704		HACKBERRY	11.00
705		LIVE OAK	16.00
706	M	CEDAR ELM	10.50
707		POST OAK	8.00
708		LIVE OAK	10.00
~~709~~		~~CEDAR ELM~~	~~14.00~~
~~710~~		~~LIVE OAK~~	~~12.00~~
~~711~~		~~LIVE OAK~~	~~10.00~~
712	H	LIVE OAK	24.00
~~713~~		~~CEDAR ELM~~	~~8.00~~
714	M	LIVE OAK	15.50
~~715~~	P	~~LIVE OAK~~	~~19.00~~
~~716~~	H, M	~~LIVE OAK~~	~~27.00~~
717	H	POST OAK	26.00
718		ARIZONA CYPRESS	11.00
~~719~~	M	~~LIVE OAK~~	~~10.50~~
720	M	CEDAR ELM	18.50
721		LIVE OAK	10.00
722	P	CEDAR ELM	22.00
723	M	CEDAR ELM	9.50
724	H	LIVE OAK	32.00
725	P	POST OAK	19.00
~~726~~	P	~~POST OAK~~	~~21.00~~

TREE TABLE			
TREE #	CLASSIFICATION	TYPE	DIA
~~727~~		~~POST OAK~~	~~18.00~~
~~728~~	P	~~POST OAK~~	~~19.00~~
~~729~~	P	~~POST OAK~~	~~23.00~~
~~730~~	P	~~POST OAK~~	~~19.00~~
731		POST OAK	14.00
732	P	POST OAK	21.00
733		POST OAK	10.00
734	P	POST OAK	20.00
735		POST OAK	18.00
~~736~~	P	~~POST OAK~~	~~21.00~~
737		LIVE OAK	15.00
~~738~~	M	~~CEDAR ELM~~	~~12.50~~
~~739~~		~~CEDAR ELM~~	~~8.00~~
~~740~~		~~CEDAR ELM~~	~~14.00~~
~~741~~	P	~~POST OAK~~	~~20.00~~
742		LIVE OAK	9.00
743		LIVE OAK	9.00
~~744~~	M	~~LIVE OAK~~	~~13.50~~
745		LIVE OAK	13.00
746		LIVE OAK	10.00
747		LIVE OAK	12.00
~~748~~	M	~~LIVE OAK~~	~~14.50~~
~~749~~	M	~~LIVE OAK~~	~~14.50~~
750		LIVE OAK	11.00
~~751~~		~~LIVE OAK~~	~~10.00~~
752		LIVE OAK	14.00
~~753~~	P	~~LIVE OAK~~	~~19.00~~

TREE TABLE			
TREE #	CLASSIFICATION	TYPE	DIA
~~754~~		~~LIVE OAK~~	~~9.00~~
~~755~~		~~LIVE OAK~~	~~8.00~~
~~756~~		~~LIVE OAK~~	~~12.00~~
~~757~~		~~LIVE OAK~~	~~8.00~~
~~758~~		~~LIVE OAK~~	~~8.00~~
~~759~~		~~LIVE OAK~~	~~9.00~~
~~760~~		~~LIVE OAK~~	~~10.00~~
~~761~~		~~LIVE OAK~~	~~10.00~~
~~762~~		~~LIVE OAK~~	~~9.00~~
~~763~~		~~LIVE OAK~~	~~10.00~~
~~764~~	P, M	~~LIVE OAK~~	~~20.50~~
~~765~~		~~LIVE OAK~~	~~9.00~~
~~766~~		~~LIVE OAK~~	~~10.00~~
~~767~~		~~LIVE OAK~~	~~15.00~~
768		LIVE OAK	9.00
769	H, M	LIVE OAK	27.50
770		LIVE OAK	14.00
~~771~~	P	~~LIVE OAK~~	~~19.00~~
~~772~~		~~LIVE OAK~~	~~16.00~~
~~773~~		~~LIVE OAK~~	~~15.00~~
~~774~~		~~LIVE OAK~~	~~17.00~~
~~775~~	P	~~LIVE OAK~~	~~19.00~~
776		LIVE OAK	10.00
~~777~~		~~LIVE OAK~~	~~14.00~~
~~778~~	M	~~LIVE OAK~~	~~8.00~~
~~779~~		~~LIVE OAK~~	~~15.00~~
780	M	LIVE OAK	13.50

TREE TABLE			
TREE #	CLASSIFICATION	TYPE	DIA
781		LIVE OAK	10.00
782	P	POST OAK	21.00
783	P	POST OAK	22.00
784		HACKBERRY	8.00
785		CEDAR ELM	8.00
786	M	CEDAR ELM	7.50
787		HACKBERRY	11.00
788	M	CEDAR ELM	12.00
789	M	CEDAR ELM	15.00
790	P	LIVE OAK	19.00
791		LIVE OAK	17.00
792		LIVE OAK	15.00
793		LIVE OAK	15.00
794	P, M	LIVE OAK	23.50
795		LIVE OAK	10.00
796		CEDAR ELM	14.00
797		CEDAR ELM	14.00
798	M	CEDAR ELM	16.00
~~799~~		~~CEDAR ELM~~	~~9.00~~
800		CEDAR ELM	13.00
801		CEDAR ELM	10.00
~~802~~	P	~~POST OAK~~	~~21.00~~
803		POST OAK	16.00
~~804~~	P	~~POST OAK~~	~~30.00~~
805		CEDAR ELM	9.00

TREE SURVEY DATE: 02/02/2022



LEGEND

- PROPERTY LINE
- EXISTING EASEMENT
- EXISTING EDGE OF PAVEMENT
- W — EXISTING WATER LINE
- GAS — EXISTING GAS LINE
- XXX — EXISTING MAJOR CONTOUR
- XXX — EXISTING MINOR CONTOUR
- XXXXX — EXISTING TREE TO REMAIN
- XXXXX — EXISTING TREE TO BE REMOVED
- HERITAGE TREE

NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL OF EXISTING PAVEMENT SECTION, STRUCTURAL FOUNDATION, AND UTILITIES ON THE SITE. CONTRACTOR SHALL DISPOSE OF ALL DEMOLITION SPOILS OFF-SITE IN A LEGAL MANNER.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO EXISTING UTILITIES, IRRIGATION LINES, PAVEMENT, ETC., TO REMAIN RESULTING FROM DEMOLITION ACTIVITIES AND REPAIR AT HIS OWN EXPENSE.
3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
4. ALL ITEMS TO BE REMOVED SHALL BE DISPOSED OFF-SITE IN A MANNER ACCEPTABLE TO ALL APPLICABLE REGULATIONS.
5. PERIMETER EROSION CONTROL DEVICES SHALL BE IN PLACE PRIOR TO DEMOLITION. REFERENCE EROSION CONTROL PLAN ON SHEET 07 AND EROSION CONTROL DETAILS SHEETS 26 FOR TYPE AND LOCATION.
6. CONTRACTOR SHALL REMOVE ANY EXISTING ON-SITE DEBRIS OR TRASH (TIRES, CONCRETE PADS, AND METAL BUILDINGS THAT ARE FALLING DOWN).
7. A PRECONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR IS REQUIRED PRIOR TO ANY SITE DISTURBANCE.
8. LOCATIONS OF PUBLIC AND FRANCHISE UTILITIES SHOWN ARE APPROXIMATE AND MAY NOT BE COMPLETE. CONTRACTOR SHALL CALL THE ONE CALL CENTER (472-2822) AT LEAST 48 HOURS PRIOR TO COMMENCING DEMOLITION OR CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL CONTACT ANY OTHER UTILITY COMPANIES WHO DO NOT SUBSCRIBE TO THE ONE CALL PROGRAM FOR LINE MARKINGS. THE CONTRACTOR BEARS SOLE RESPONSIBILITY FOR VERIFYING LOCATIONS OF EXISTING UTILITIES, SHOWN OR NOT SHOWN, AND FOR ANY DAMAGE DONE TO THESE FACILITIES.
9. REMOVAL OR RELOCATION OF EXISTING PUBLIC AND PRIVATE FRANCHISE UTILITIES (ELECTRIC, GAS, TELECOM, ETC.) WITHIN THE LIMITS OF THE SITE DEMOLITION SHALL BE COORDINATED WITH THE APPLICABLE UTILITY AGENCIES.
10. ALL UTILITIES IN STREET RIGHT-OF-WAY TO REMAIN IN PLACE UNLESS NOTED OTHERWISE.
11. SURFACE PAVEMENT INDICATED HEREON (SUCH AS ASPHALT OR CONCRETE) MAY OVERLAY OTHER HIDDEN STRUCTURES (SUCH AS OTHER LAYERS OF PAVEMENT, BUILDING SLAB, ETC.) THAT ARE ALSO TO BE REMOVED.
12. UTILITY POLE AND GUY WIRE RELOCATION SHALL BE COORDINATED BY CONTRACTOR WITH AUSTIN ENERGY, AS REQUIRED.
13. ABANDON AT MAIN ALL WATER AND WASTEWATER SERVICES THAT WILL NOT BE USED PER COA STANDARD DETAILS.

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

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

BENCHMARKS

IRFC ALUMCAP RPLS-5086
ELEVATION=1024.18'
NORTHING=10138988.8950'
EASTING=3087269.3740'

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200,
AUSTIN TX, 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM

TBPE Firm No. 928

STATE OF TEXAS
JUSTIN J. KRAMER
122309
LICENSED
PROFESSIONAL ENGINEER
2/2/2024

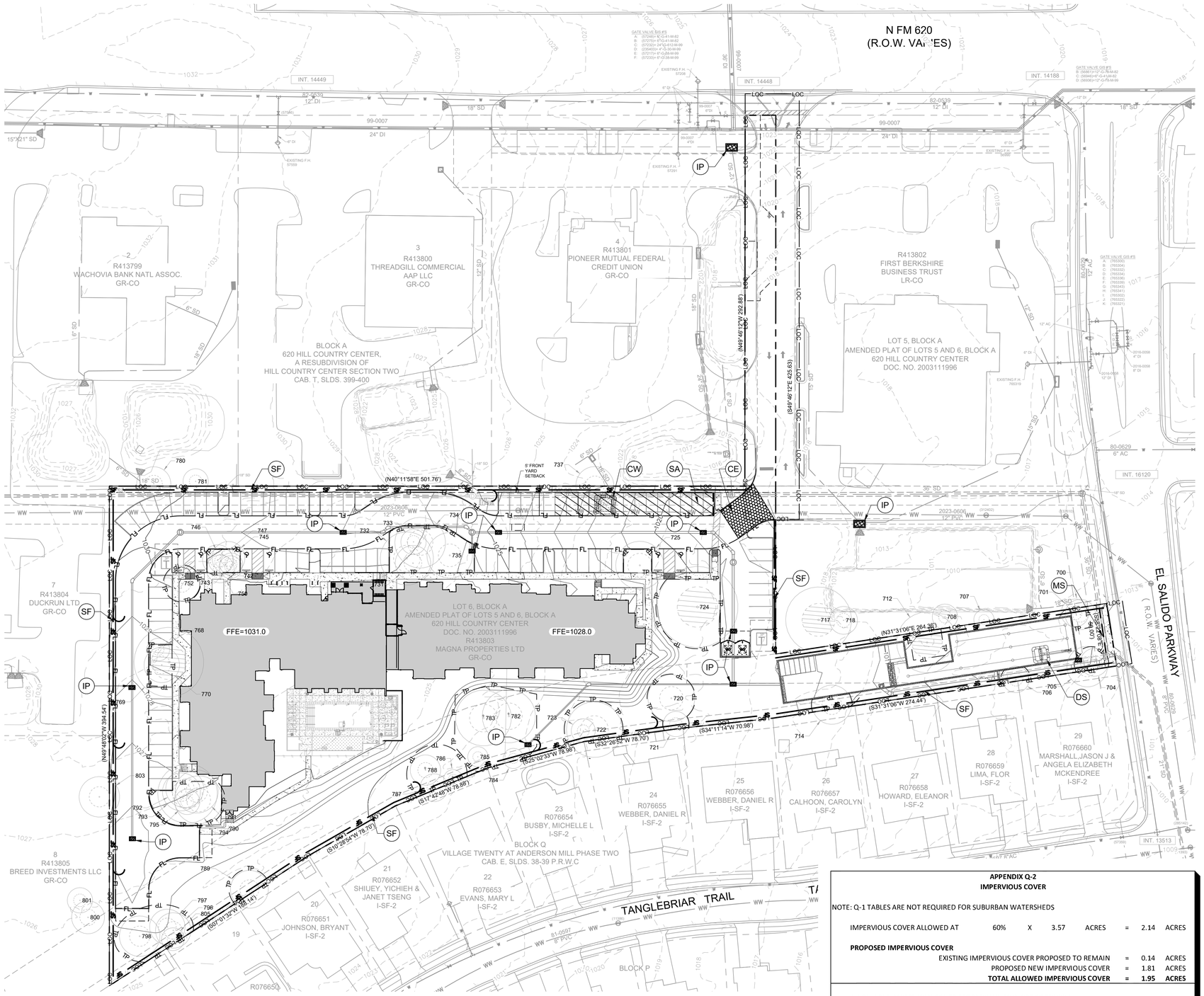
KHA PROJECT	069418500
DATE	06/30/2023
SCALE:	AS SHOWN
DESIGNED BY:	JK/KM
DRAWN BY:	SA/AM
CHECKED BY:	JK/KM

EXISTING CONDITIONS & DEMOLITION PLAN

RED OAKS
SITE PLAN
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
06
OF 25

SP-2023-0252C.SH



0 40' 80'
GRAPHIC SCALE 40'

LEGEND

		PROPERTY LINE
LOC	LOC	LIMITS OF CONSTRUCTION
XXX		EXISTING MAJOR CONTOUR
XXX		EXISTING MINOR CONTOUR
XXX		PROPOSED MAJOR CONTOUR
XXX		PROPOSED MINOR CONTOUR
CWQZ		CRITICAL WATER QUALITY ZONE
SF	SF	SILT FENCE
	MS	MULCH SOCK
	CE	CONSTRUCTION ENTRANCE
	SA	STAGING AREA
	CW	CONCRETE WASHOUT
	IP	INLET PROTECTION
TP	TP	TREE PROTECTION
	DS	DEWATERING SKIMMER
XXXXX		EXISTING TREE TO REMAIN

NOTES

1. CONTRACTOR IS SOLELY RESPONSIBLE FOR IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL SWPPP CONTROLS - CONTROLS SHOWN ON THIS SITE MAP ARE SUGGESTED CONTROLS ONLY.
2. CONTRACTOR SHALL RECORD INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL DATES FOR EACH BMP EMPLOYED (WHETHER CALLED OUT ON ORIGINAL SWPPP OR NOT) DIRECTLY ON THE SITE MAP.
3. THE ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF CEDAR PARK RULES AND REGULATIONS
4. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(D) OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
5. TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT THE EARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. AS AN EXAMPLE, PERIMETER SILT FENCE SHALL BE INSTALLED BEFORE COMMENCEMENT OF ANY GRADING ACTIVITIES. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED UNTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY LANDSCAPING, THE BUILDING(S), AND SITE PAVING.
6. BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER. FOR EXAMPLE: SILT FENCES LOCATED AT TOE OF SLOPE AND INLET PROTECTION FOR INLETS RECEIVING SEDIMENT FROM SITE RUN-OFF.
7. ADDITIONAL EROSION AND SEDIMENTATION CONTROLS MAY BE REQUIRED BY THE CITY DURING CONSTRUCTION.
8. REFERENCE EROSION CONTROL NOTES ON SHEET 04 AND DETAILS ON SHEET 26.
9. IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP, OR REVEGETATION MATTING [ECM 1.4.4.B.3, SECTION 5, I.]. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY [ECM 1.4.4.D.4].
10. ALL DISTURBED AREAS TO BE RE-VEGETATED PER CITY OF AUSTIN STANDARDS.
11. SEE LANDSCAPE ARCHITECT PLANS FOR TREE PRESERVATION PLAN AND TREE LIST.
12. PER LDC 25-8-323(C), FOR AREAS ON THE SITE THAT ARE TO REMAIN PERVIOUS AFTER DEVELOPMENT, ANY SOILS THAT ARE COMPACTED DURING SITE GRADING AND CONSTRUCTION MUST BE DE-COMPACTED IN COMPLIANCE WITH THE ECM AND IN COMPLIANCE WITH SSM 661S.
13. FINISHED ELEVATION FOR PARKING LOT ISLANDS, MEDIANS, PENINSULAS, AND SIMILAR LANDSCAPE AREAS MUST BE AT LEAST SIX (6) INCHES BELOW THE FINISHED PARKING LOT ELEVATION TO ALLOW FOR PLACEMENT OF SIX (6) INCHES OF TOPSOIL [ECM 1.4.7].
14. CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY SEDIMENT TRANSPORTED FROM THE LOC TO THE OFFSITE DETENTION/WATER QUALITY POND(S).

APPENDIX Q-2
IMPERVIOUS COVER

NOTE: Q-1 TABLES ARE NOT REQUIRED FOR SUBURBAN WATERSHEDS

IMPERVIOUS COVER ALLOWED AT	60%	X	3.57	ACRES	=	2.14 ACRES
PROPOSED IMPERVIOUS COVER						
EXISTING IMPERVIOUS COVER PROPOSED TO REMAIN					=	0.14 ACRES
PROPOSED NEW IMPERVIOUS COVER					=	1.81 ACRES
TOTAL ALLOWED IMPERVIOUS COVER					=	**1.95 ACRES**

ALLOWABLE IMPERVIOUS COVER BREAKDOWN BY SLOPE CATEGORY
TOTAL ACREAGE WITH SLOPES 15-25% = 0.20 ACRES X 10% = 0.02 ACRES

PROPOSED IMPERVIOUS COVER ON SLOPES

SLOPES		IMPERVIOUS COVER		
		BUILDINGS & OTHER IMPERVIOUS COVER		DRIVEWAYS/ ROADWAYS
SLOPE CATEGORIES	ACRES	ACRES	% OF CATEGORY	ACRES
0-15%	3.38	0.60	17.82%	0.14
15-25%	0.20	0.00	0.00%	0.00
25-35%	0.00	0.00	0.00%	0.00
OVER 35%	0.00	0.00	0.00%	0.00
GROSS SITE AREA	3.57			

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

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BENCHMARKS

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No.	REVISIONS	DATE	BY

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10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200,
AUSTIN TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
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TBPE Firm No. 928

STATE OF TEXAS
JUSTIN J. KRAMER
122309
LICENSED
PROFESSIONAL ENGINEER
2/2/2024

KHA PROJECT	DATE	SCALE: AS SHOWN	DESIGNED BY: JK/KM	DRAWN BY: SA/AM	CHECKED BY: JK/KM
069418500	06/30/2023				

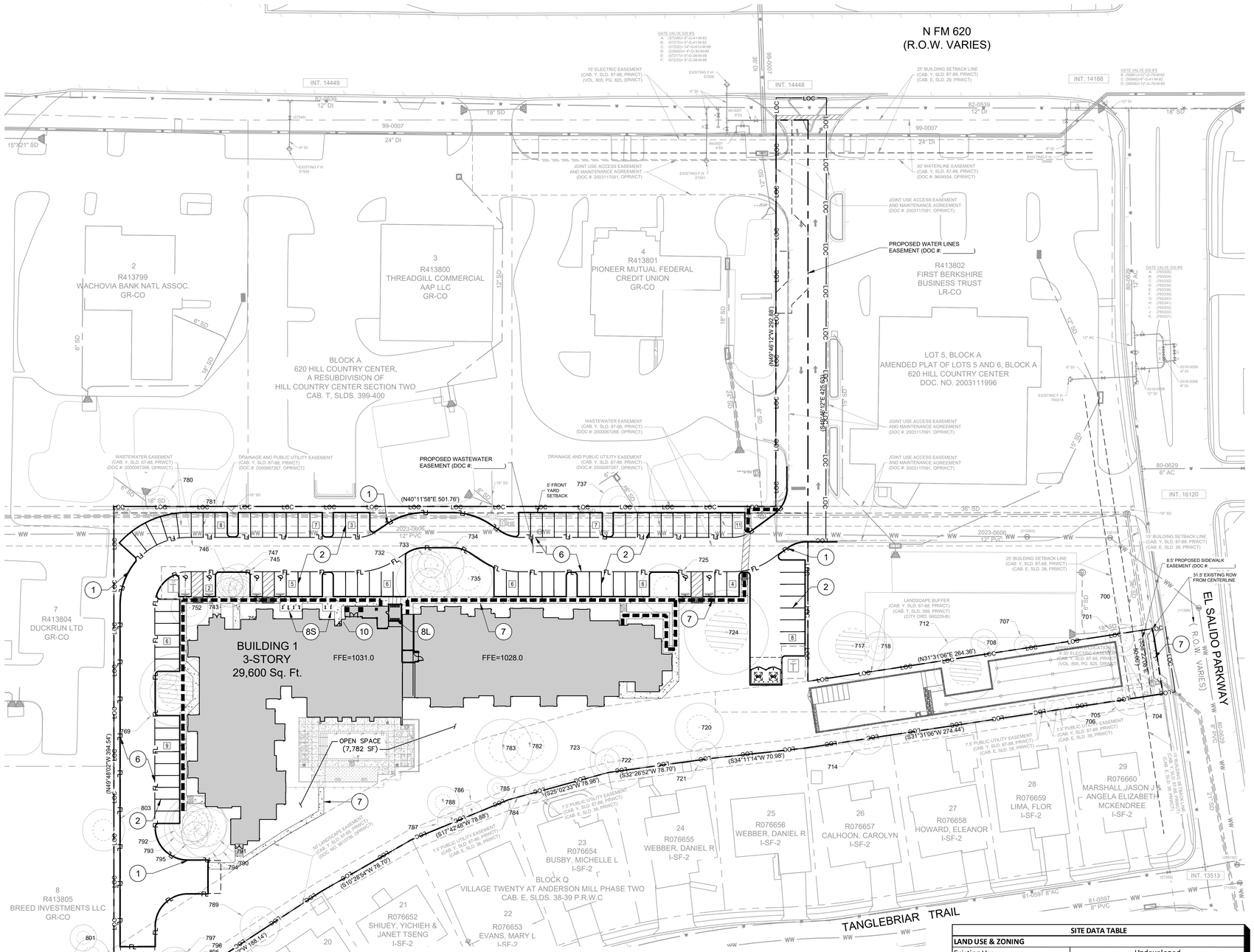
EROSION CONTROL PLAN

RED OAKS SITE PLAN

11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
07
OF 25

SP-2023-0252C.SH



LEGEND

- PROPERTY LINE
- ADA ACCESSIBLE ROUTE
- BUILDING SETBACK
- 1 — PROPOSED 6" CURB
- 2 — 4" PAINTED WHITE STRIPE
- 3 — PAINTED ACCESSIBLE PARKING SYMBOL
- 4 — ACCESSIBLE PARKING SIGN
- 5 — BARRIER FREE RAMP
- 6 — FIRE LANE STRIPING
- 7 — CONCRETE SIDEWALK
- 8S/L — BIKE RACK (S=SHORT-TERM, L=LONG-TERM)
- 9 — DRY STACK WALL
- 10 — FIRE RISER ROOM
- X — PARKING STALL COUNT
- XXXXX — EXISTING TREE TO REMAIN

NOTES

1. TREES AND TOPOGRAPHY BASED UPON SURVEY BY STANTEC ON FEBRUARY 2, 2022. ALTA SURVEY BASED UPON SURVEY BY DA MAWYER LAND SURVEYING, INC. ON FEBRUARY 2022. NO WARRANTY IS EXPRESSED OR IMPLIED AS TO THEIR ACCURACY.
2. ALL FIRE DEPARTMENT ACCESS DRIVES/ROADS TO HAVE A MINIMUM 14' VERTICAL CLEARANCE.
3. ESTABLISH FIRE ZONES AS SHOWN ON SITE BY PAINTING CURB RED. STENCIL THE WORDS, "FIRE ZONE/TOW-AWAY ZONE", IN WHITE LETTERS AT LEAST 3 INCHES HIGH AT 35-FOOT INTERVALS ALONG THE CURB. ALSO, SIGNS SHALL BE POSTED AT BOTH ENDS OF A FIRE ZONE. ALTERNATE MARKING OF THE FIRE LANES MAY BE APPROVED BY THE FIRE CHIEF PROVIDED THE FIRE LANES ARE CLEARLY IDENTIFIED AT BOTH ENDS AND AT INTERVALS NOT TO EXCEED 35 FEET. SEC. 901.4.2
4. ALL PARKING SPACES SHALL HAVE MINIMUM 7'-0" VERTICAL CLEARANCE.
5. WARNING SIGNS ARE REQUIRED TO BE PLACED UNDER THE OVERHEAD ELECTRIC LINES TO MAKE ALL PERSONNEL AWARE OF THE ELECTRIC HAZARD.
6. EVERY HANDICAP ACCESSIBLE PARKING SPACE SHALL BE IDENTIFIED BY A SIGN CENTERED 5 FEET ABOVE THE PARKING SURFACE, AT THE HEAD OF THE PARKING SPACE. THE SIGN MUST INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND STATE RESERVED, OR EQUIVALENT LANGUAGE. SUCH SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE AND SHALL MEET THE CRITERIA SET FORTH IN UBC, 3108(c) AND ANSI A1171-1986-4.6.2.
7. CONTRACTOR TO COORDINATE WITH PROJECT ARBORIST TO TRIM TREES.
8. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
9. CAUTION: DO NOT PLACE THE STAGING AREA IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES.
10. ALL UTILITIES IN STREET RIGHT-OF-WAY TO REMAIN IN PLACE UNLESS NOTED OTHERWISE.
11. ALL RADII TO BE 3' UNLESS OTHERWISE NOTED.
12. SLOPES ON ACCESSIBLE ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP.
13. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12. THE MAXIMUM RISE FOR ANY RAMP RUN IS 30 IN.
14. ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:50.
15. GROUND SURFACES ALONG ACCESSIBLE ROUTES MUST BE STABLE, FIRM, AND SLIP RESISTANT.
16. ALL LANDSCAPED AREAS ARE TO BE PROTECTED BY SIX-INCH WHEEL CURBS, WHEELSTOPS, OR OTHER APPROVED BARRIERS AS PER ECM 2.4.7.
17. COMPLIANCE WITH THE COMMERCIAL AND MULTI-FAMILY RECYCLING ORDINANCE IS MANDATORY FOR MULTI-FAMILY COMPLEXES WITH 100 OR MORE UNITS AND BUSINESSES WITH 100 OR MORE EMPLOYEES (AUSTIN CITY CODE, SEC. 15-6-91).
18. REFER TO CITY OF AUSTIN ELECTRICAL DEPARTMENT FOR CONSTRUCTION PLANS AND DETAILS. CONTACT REY MARTINEZ (512) 505-7643.
19. ADEQUATE BARRIERS BETWEEN ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS, SUCH AS A 6" CONCRETE CURB ARE REQUIRED. IF A STANDARD 6" CURB AND GUTTER ARE NOT PROVIDED FOR ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS, COMPLY WITH ECM, SECTION 2.4.7, "PROTECTION OF LANDSCAPE AREAS".
20. RETAINING WALLS OVER FOUR FEET IN HEIGHT MEASURED FROM THE BOTTOM OF THE FOOTING TO THE TOP OF THE WALL SHALL BE ENGINEERED AND REQUIRE A SEPARATE BUILDING PERMIT. [IBC CODE 105.2]
21. EACH COMPACT PARKING SPACE/AISLE WILL BE SIGNED "SMALL CAR ONLY."
22. ALL FDC's TO BE TWO 2½" SIAMESE CONNECTIONS.
23. A CONDITIONAL LETTER OF APPROVAL IS REQUIRED BY AUSTIN ENERGY GREEN BUILDING PROGRAM PRIOR TO BUILDING PERMIT.

SUBCHAPTER E NOTES:

1. ALL EXTERIOR LIGHTING WILL BE FULL CUT-OFF AND FULLY SHIELDED IN COMPLIANCE WITH SUBCHAPTER E 2.5. ALL SITE LIGHTING TO BE LOCATED ON THE BUILDING WILL BE IN COMPLIANCE WITH SUBCHAPTER E 2.5, AND WILL BE REVIEWED DURING BUILDING PLAN REVIEW. ANY CHANGE OR SUBSTITUTION OF LAMP/LIGHT FIXTURES SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL IN ACCORDANCE WITH [SECTION 2.5.2.E].
2. ALL INTERNAL UTILITIES WILL BE LOCATED IN THE DRIVE AISLES AND NOT IN THE PARKING AREAS.
3. SCREENING FOR SOLID WASTE COLLECTION AND LOADING AREAS SHALL BE THE SAME AS, OR OF EQUAL QUALITY TO, PRINCIPAL BUILDING MATERIALS.

COMPATIBILITY NOTES:

1. ALL EXTERIOR LIGHTING WILL BE HOODED OR SHIELDED FROM THE VIEW OF ADJACENT RESIDENTIAL PROPERTY [SECTION 25-2-1064].
2. ALL DUMPSTERS AND ANY PERMANENTLY PLACED REFUSE RECEPTACLES WILL BE LOCATED AT A MINIMUM OF TWENTY (20) FEET FROM A PROPERTY USED OR ZONED AS SF-5 OR MORE RESTRICTIVE.
3. THE USE HIGHLY REFLECTIVE SURFACES, SUCH AS REFLECTIVE GLASS AND REFLECTIVE METAL ROOFS, WHOSE PITCH IS MORE THAN A RUN OF SEVEN (7) RO A RISE OF TWELVE (12), WILL BE PROHIBITED [SECTION 25-2-1067].
4. THE NOISE LEVEL OF MECHANICAL EQUIPMENT WILL NOT EXCEED 70 DBA AT THE PROPERTY LINE ADJACENT TO RESIDENTIAL USES [SECTION 25-2-1067].

SUBCHAPTER E CONNECTIVITY IMPROVEMENT OPTIONS	
Option 1	Limit curb cuts
Option 2	Provide secure indoor bicycle storage in building or parking structure

PARKING TABLE				
	USE	# OF BEDROOMS	PARKING RATIO	PARKING REQUIRED
1	1 BEDROOM	70	1.5:1	105
2	EACH ADDITIONAL BEDROOM	46	0.5:1	23
			REQUIRED PARKING*	**128**
			TOTAL PROVIDED PARKING	**88**
			COMPACT SPACES PROVIDED (<10%)	**0**
			ADA SPACES PROVIDED	**6**
			TOTAL BICYCLE PARKING REQUIRED (5%)	**7**
			SHORT-TERM BICYCLE PARKING PROVIDED (50%)	**12**
			LONG-TERM BICYCLE PARKING PROVIDED (50%)	**12**
			TOTAL BICYCLE PARKING PROVIDED	**24**

*Participation in Affordability Unlocked waives COA LDC Chapter 25-6, Article 9, Appendix A parking requirements. Required ADA parking spaces based on Appendix A parking requirement prior to reductions.

SITE DATA TABLE			
LAND USE & ZONING			
Existing Use:	Undeveloped		
Proposed Use:	Affordable Multifamily		
Zoning:	GR-CO		
SITE INFO & IMPERVIOUS COVER	**Provided**		**Allowed**
Site Area	3.57 Ac / 155,640 SF		
Site Area without Flagpoles	3.10 Ac / 135,078 SF		
Open Space	0.18 Ac / 7,782 SF	5.00%	5%
Existing Impervious Cover Area	0.14 Ac / 6,072 SF	3.90%	60%
Proposed Impervious Cover Area	1.82 Ac / 79,300 SF	54.62%	
BUILDING SETBACKS			
Front	5 Ft Minimum*		
Street Side	10 Ft Minimum		
Interior Side	N/A		
Rear	N/A		
BUILDING INFO	**Provided**		**Allowed**
Building Coverage	0.68 Ac / 28,676 SF	18.42%	75%
Gross Floor Area	1.97 Ac / 86,028 SF	55.27%	-
Building Height	42 Ft		90 Ft*
Floor-to-Area Ratio	0.55 : 1		-*
Foundation Type	Stepped Slab-On-Grade		

*Revised allowance due to Affordability Unlocked Type 2 building

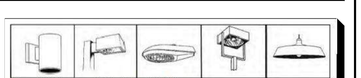


Figure 4-19: Examples of fully-shielded light fixtures

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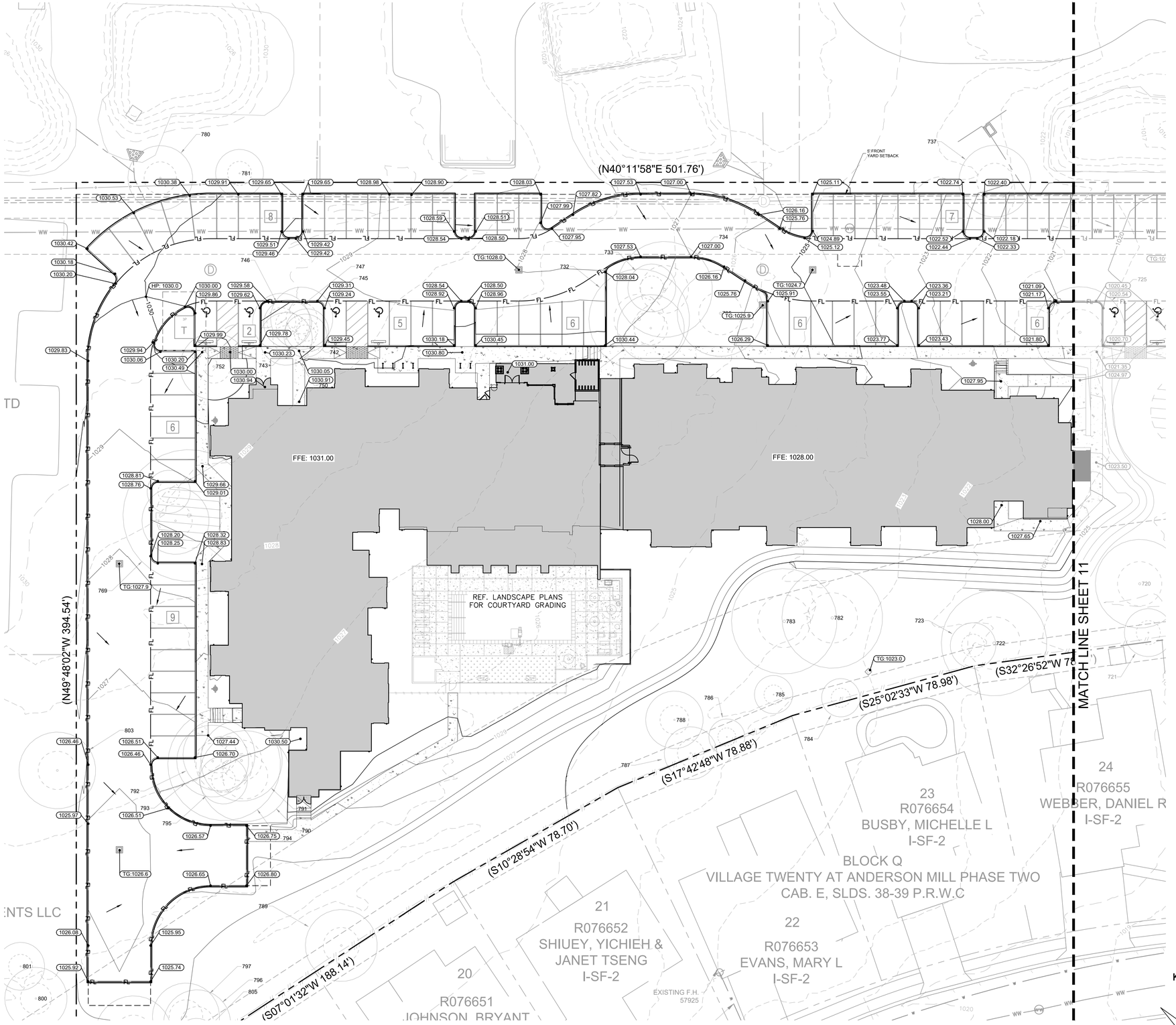
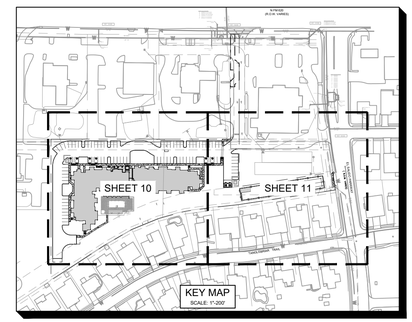
SP-2023-0252C.SH





0 20' 40'
GRAPHIC SCALE 20'

LEGEND

	PROPERTY LINE
XXX	EXISTING MAJOR CONTOUR
XXX	EXISTING MINOR CONTOUR
XXX	PROPOSED MAJOR CONTOUR
XXX	PROPOSED MINOR CONTOUR
	PROPOSED DRY STACK WALL
HP	HIGH POINT
FFE XXX.XX	PROPOSED FINISHED FLOOR ELEVATION
995.70	PROPOSED TOP OF PAVEMENT ELEVATION
TW: 995.84	PROPOSED GRADE AT TOP OF WALL
BW: 996.0	PROPOSED GRADE AT BOTTOM OF WALL
EW: 996.03	PROPOSED GRADE AT END OF WALL
TG: 996.21	PROPOSED TOP OF GRATE ELEVATION
EX 996.21	EXISTING GRADE
HP: 996.03	PROPOSED GRADE HIGHEST POINT
XXXXX	EXISTING TREE TO REMAIN

NOTES

1. ALL PROPOSED ELEVATIONS ARE TOP OF PAVEMENT OR NATURAL GROUND UNLESS OTHERWISE NOTED.
2. ALL TOP OF WALL ELEVATIONS ARE TO TOP OF GRADE AT WALL.
3. ALL BOTTOM OF WALL ELEVATIONS ARE TO BOTTOM OF GRADE AT WALL.
4. CONTRACTOR TO VERIFY A.D.A. COMPLIANCE FOR GRADES IN ALL SIDEWALK ACCESSIBLE ROUTES, INCLUDING DRIVEWAY CROSSINGS, SHALL CONFORM TO ALL APPLICABLE A.D.A. STANDARDS: NOT EXCEED 5.0% ALONG TRAVEL PATH WITH NOT MORE THAN 2.0% CROSS SLOPE AND NOT EXCEED 2.0% IN ANY DIRECTION IN ACCESSIBLE PARKING AREAS.
5. MAINTAIN EXISTING GRADE IN TREE WELLS. CONTRACTOR TO ENSURE POSITIVE DRAINAGE TO AREA INLETS.

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

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

BENCHMARKS

IRFC ALUMCAP RPLS-5086
ELEVATION=102418'
NORTHING=10138988.8950'
EASTING=3087269.3740'

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200,
AUSTIN TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

STATE OF TEXAS
JUSTIN J. KRAMER
122309
LICENSED
PROFESSIONAL ENGINEER
2/2/2024

KHA PROJECT	069418500
DATE	06/30/2023
SCALE:	AS SHOWN
DESIGNED BY:	JK/KM
DRAWN BY:	SA/AM
CHECKED BY:	JK/KM

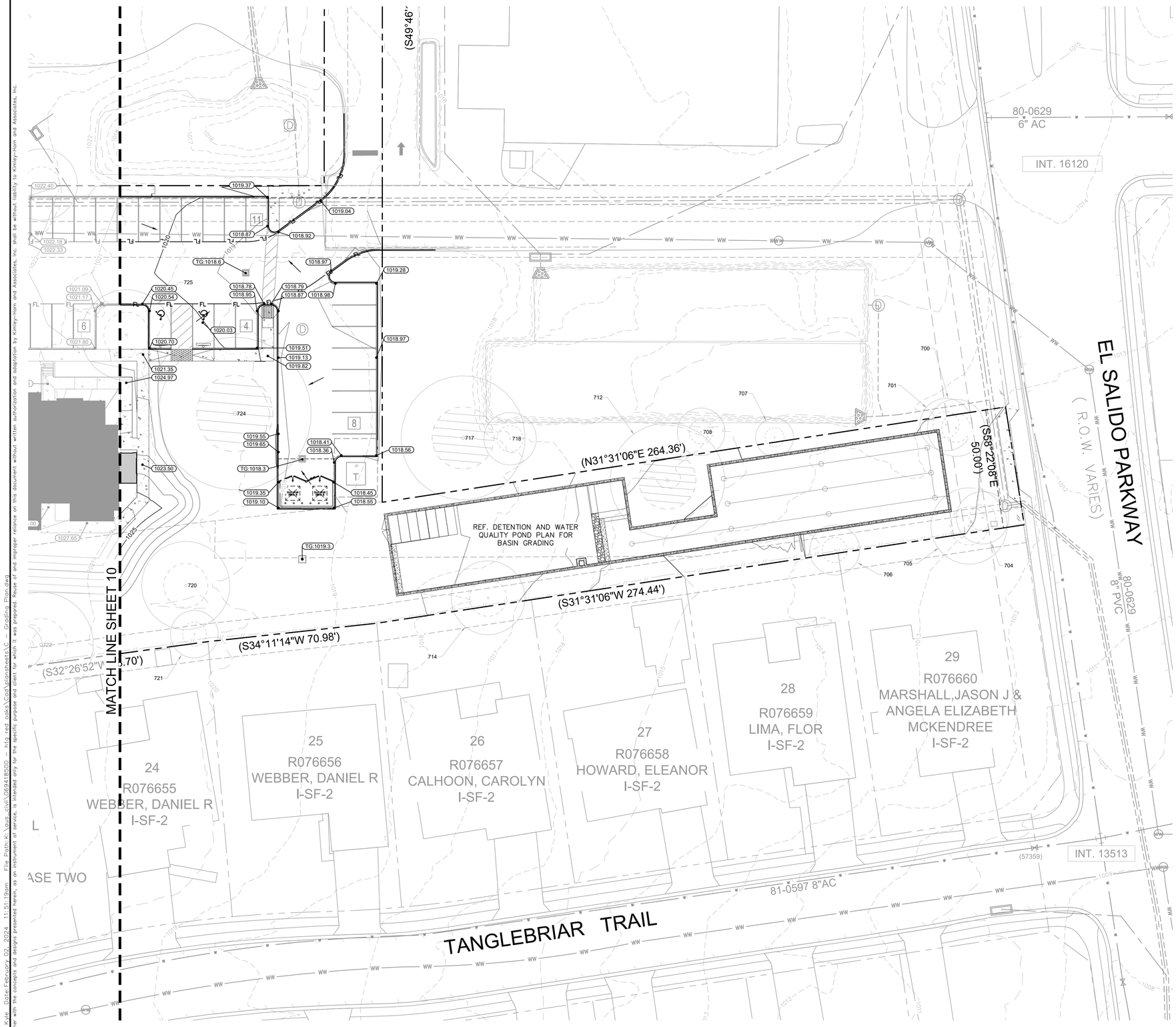
GRADING PLAN (SHEET 1 OF 2)

RED OAKS SITE PLAN

11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
09
OF 25

SP-2023-0252C.SH



LEGEND

	PROPERTY LINE
XXX	EXISTING MAJOR CONTOUR
XXX	EXISTING MINOR CONTOUR
XXX	PROPOSED MAJOR CONTOUR
XXX	PROPOSED MINOR CONTOUR
	PROPOSED DRY STACK WALL
HP	HIGH POINT
FFE XXX.XX	PROPOSED FINISHED FLOOR ELEVATION
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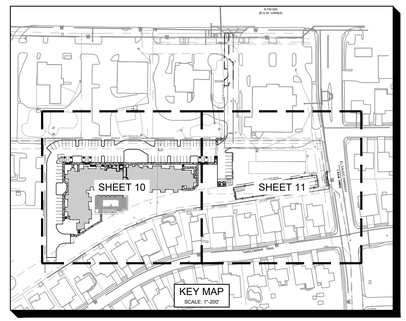

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STATE OF TEXAS
JUSTIN J. KRAMER
122309
LICENSED
PROFESSIONAL ENGINEER
2/2/2024

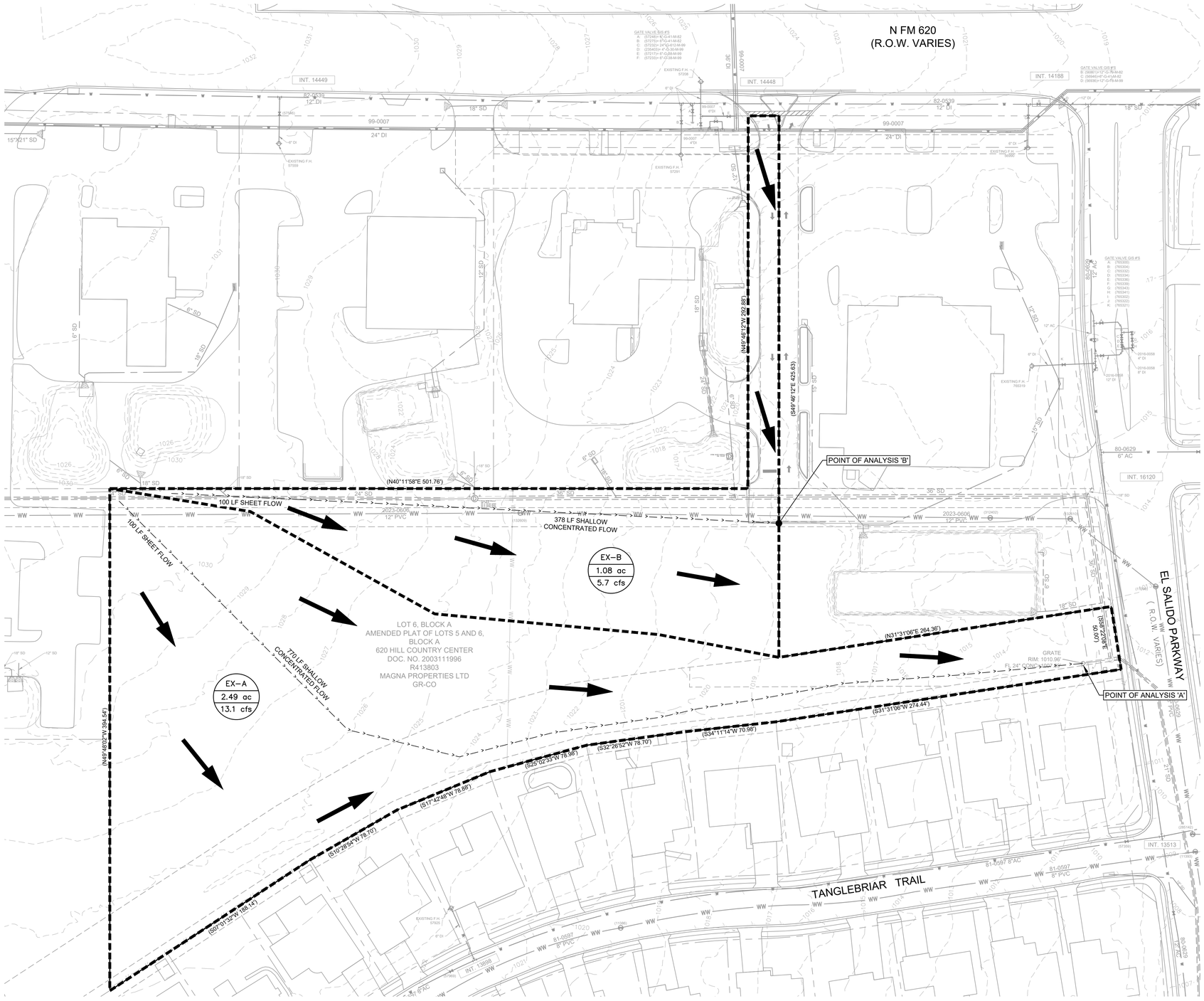
KHA PROJECT 069418500
DATE 06/30/2023
SCALE: AS SHOWN
DESIGNED BY: JK/KM
DRAWN BY: SA/AM
CHECKED BY: JK/KM

GRADING PLAN (SHEET 2 OF 2)

RED OAKS
SITE PLAN
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
10
OF 25

SP-2023-0252C.SH



0 40' 80'
GRAPHIC SCALE 40'

LEGEND

X-1 / 9.9 ac / 5.5 cfs	AREA DESIGNATOR / AREA IN ACRES / Q100 FLOW IN CFS
A-1	INLET NUMBER
	PROPERTY LINE
	EXISTING STORM DRAIN LINE
	PROPOSED DRAINAGE DIVIDE
	PROPOSED STORM DRAIN LINE
	PROPOSED STORM DRAIN INLET
	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN HEADWALL
	PROPOSED FLOW DIRECTION
XXX	EXISTING MAJOR CONTOUR
XXX	EXISTING MINOR CONTOUR
	TIME OF CONCENTRATION PATH

EXISTING CONDITIONS

Time of Concentration Calculations - SCS Method

DRAINAGE AREA	SHEET FLOW					SHALLOW CONCENTRATED FLOW								TOTAL Tc**	Q2	Q5	Q10	Q25	Q50	Q100
	P-2yr24hr 4.06 (In)					Grass Surface				Paved Surface										
	n	L (ft)	S (ft/ft)	Tt (min)		L (ft)	V (fps)	S (ft/ft)	Tt (min)	L (ft)	V (fps)	S (ft/ft)	Tt (min)	(min)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
EX-A	0.32	100	0.022	15.35		770	2.39	0.022	5.36	-	-	-	0.00	20.71	5.55	8.29	10.20	13.43	18.98	18.79
EX-B	0.32	100	0.025	14.59		378	2.55	0.025	2.47	-	-	-	0.00	17.06	2.83	4.15	5.04	6.52	9.16	8.97

**The minimum Tc is 6 minutes per the TR-55.
**Based on Atlas 14

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

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TBPE Firm No. 928

STATE OF TEXAS
JUSTIN J. KRAMER
122309
LICENSED
PROFESSIONAL ENGINEER
2/2/2024

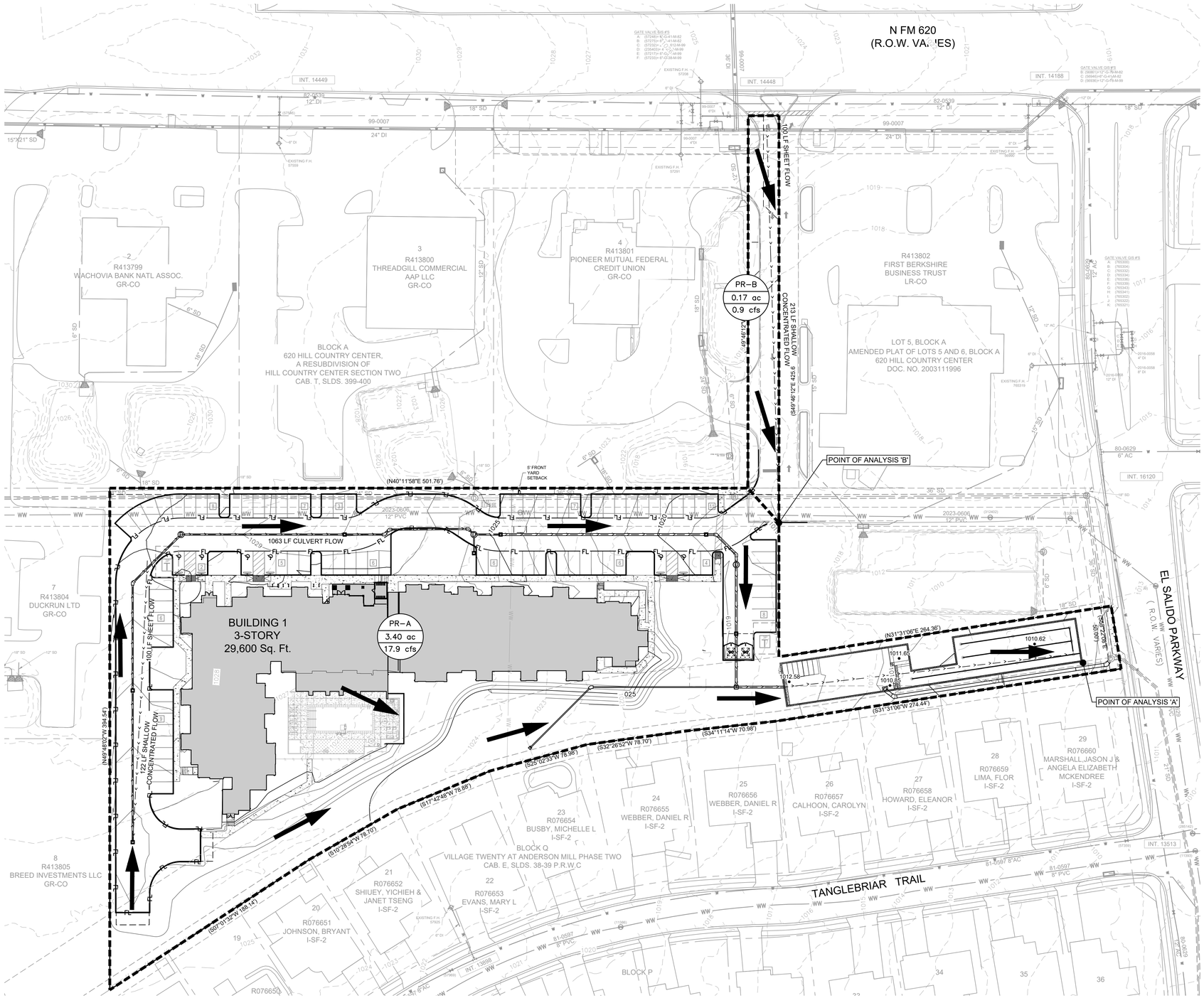
KHA PROJECT 069418500	DATE 06/30/2023	SCALE: AS SHOWN	DESIGNED BY: JK/KM	DRAWN BY: SA/AM	CHECKED BY: JK/KM

EXISTING DRAINAGE AREA MAP

RED OAKS
SITE PLAN
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
11
OF 25

SP-2023-0252C.SH


N FM 620
(R.O.W. VARIES)
INT. 14449
INT. 14448
INT. 14188
INT. 16120
INT. 13513
INT. 13696
99-0007
24" DI
82-0539
12" DI
80-0629
6" AC
2016-0058
12" DI
2016-0058
8" DI
2023-0606
12" PVC
81-0597
8" PVC
81-0597 8" AC
15"/21" SD
18" SD
12" SD
6" SD
24" SD
30" SD
36" SD
EXISTING F.H. 57599
EXISTING F.H. 57598
EXISTING F.H. 57591
EXISTING F.H. 57925
EXISTING F.H. 57600
EXISTING F.H. 57601
EXISTING F.H. 57602
EXISTING F.H. 57603
EXISTING F.H. 57604
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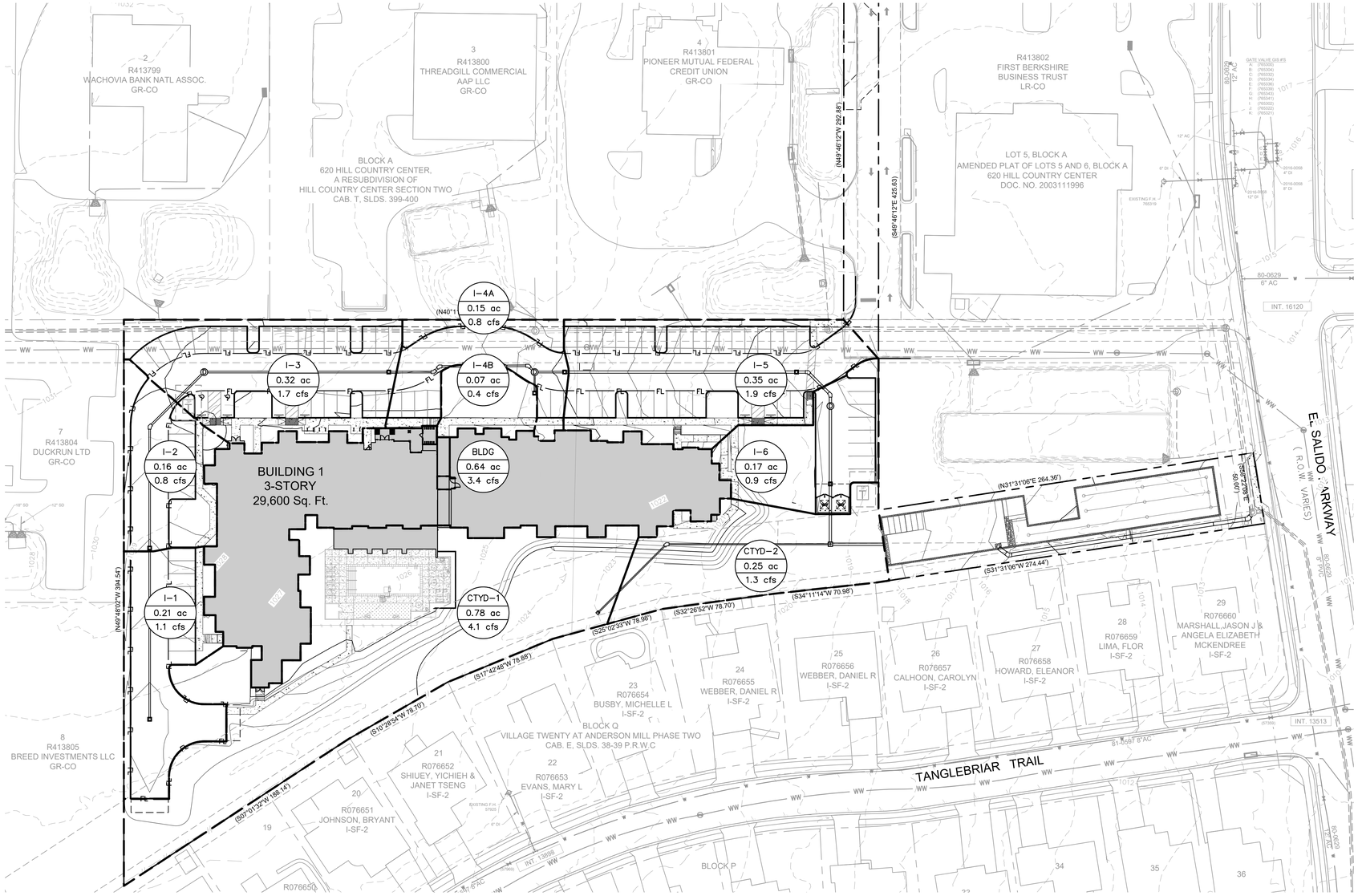
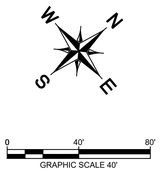
EXISTING F.H. 57611
EXISTING F.H. 57612
EXISTING F.H.



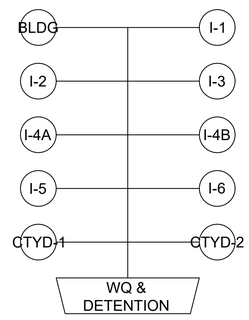


LEGEND

X-1 / 9.9 ac / 5.5 cfs	AREA DESIGNATOR / AREA IN ACRES / Q100 FLOW IN CFS
A-1	INLET NUMBER
	PROPERTY LINE
CWQZ	CRITICAL WATER QUALITY ZONE
	EXISTING STORM DRAIN LINE
	PROPOSED DRAINAGE DIVIDE
	PROPOSED STORM DRAIN LINE
	PROPOSED STORM DRAIN INLET
	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN HEADWALL
	PROPOSED FLOW DIRECTION
XXX	EXISTING MAJOR CONTOUR
XXX	EXISTING MINOR CONTOUR
XXX	PROPOSED MAJOR CONTOUR
XXX	PROPOSED MINOR CONTOUR
	AUSTIN CITY LIMITS
	LANDSCAPE INLET CAPTURE

NOTES

1. RATIONAL METHOD DRAINAGE CALCULATIONS RELY ON CITY OF AUSTIN ATLAS-14 FIGURES.
2. THE FLOW OFF THE SITE HAS NOT BEEN INCREASED FROM THE EXISTING CONDITION.
3. PROPOSED DEVELOPMENT DOES NOT ADVERSELY AFFECT ANY DOWNSTREAM PROPERTIES.



RATIONAL METHOD Q CALCULATIONS

INLET DRAINAGE AREA	AREA (Ac.)	IMPERVIOUS COVER (Ac.)	IMPERVIOUS COVER %	WEIGHTED RUNOFF COEF. C - 2YR	WEIGHTED RUNOFF COEF. C - 5YR	WEIGHTED RUNOFF COEF. C - 10YR	WEIGHTED RUNOFF COEF. C - 25YR	WEIGHTED RUNOFF COEF. C - 50YR	WEIGHTED RUNOFF COEF. C - 100YR	TOTAL Tc (min)	Q_2 (cfs)	Q_5 (cfs)	Q_{10} (cfs)	Q_{25} (cfs)	Q_{50} (cfs)	Q_{100} (cfs)
I-1	0.21	0.18	87.15%	0.69	0.74	0.77	0.82	0.86	0.90	**6.00**	0.87	1.18	1.45	1.90	2.30	2.77
I-2	0.16	0.11	67.14%	0.60	0.64	0.67	0.72	0.76	0.80	**6.00**	0.56	0.76	0.94	1.24	1.51	1.83
I-3	0.32	0.24	77.02%	0.64	0.69	0.72	0.77	0.81	0.85	**6.00**	1.22	1.65	2.04	2.68	3.24	3.92
I-4A	0.15	0.11	79.21%	0.65	0.70	0.73	0.78	0.82	0.86	**6.00**	0.57	0.77	0.95	1.24	1.51	1.82
I-4B	0.07	0.01	13.86%	0.35	0.39	0.42	0.46	0.49	0.53	**6.00**	0.14	0.20	0.25	0.34	0.42	0.52
I-5	0.35	0.29	82.57%	0.67	0.72	0.75	0.79	0.83	0.88	**6.00**	1.41	1.90	2.35	3.08	3.73	4.50
I-6	0.18	0.10	52.78%	0.53	0.57	0.60	0.65	0.68	0.73	**6.00**	0.58	0.79	0.98	1.30	1.58	1.92
CTYD-1	0.78	0.13	16.77%	0.37	0.40	0.43	0.47	0.50	0.55	**6.00**	1.71	2.36	3.01	4.07	5.01	6.19
CTYD-2	0.25	0.01	2.92%	0.30	0.33	0.36	0.40	0.43	0.47	**6.00**	0.45	0.63	0.82	1.11	1.38	1.72
BLDG	0.64	0.64	100.00%	0.75	0.80	0.83	0.88	0.92	0.97	**6.00**	2.88	3.90	4.79	6.25	7.55	9.07

Assumptions:
2-year intensity = 5.97 (ATLAS)
5-year intensity = 7.56 (ATLAS)
10-year intensity = 8.96 (ATLAS)
25-year intensity = 11.02 (ATLAS)
50-year intensity = 12.74 (ATLAS)
100-year intensity = 14.52 (ATLAS)

Notes:
Runoff Coefficient (C) per City of Austin Drainage Criteria Manual; Runoff Coefficient C=Cperv(Aperv/Atotal)+Cimperv*(Aimperv/Atotal): Rainfall Intensity I=a/(Tc+b)^c
**Peak Flow Q = CIA
***The minimum Tc is 6 minutes per the TR-55.

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BENCHMARKS

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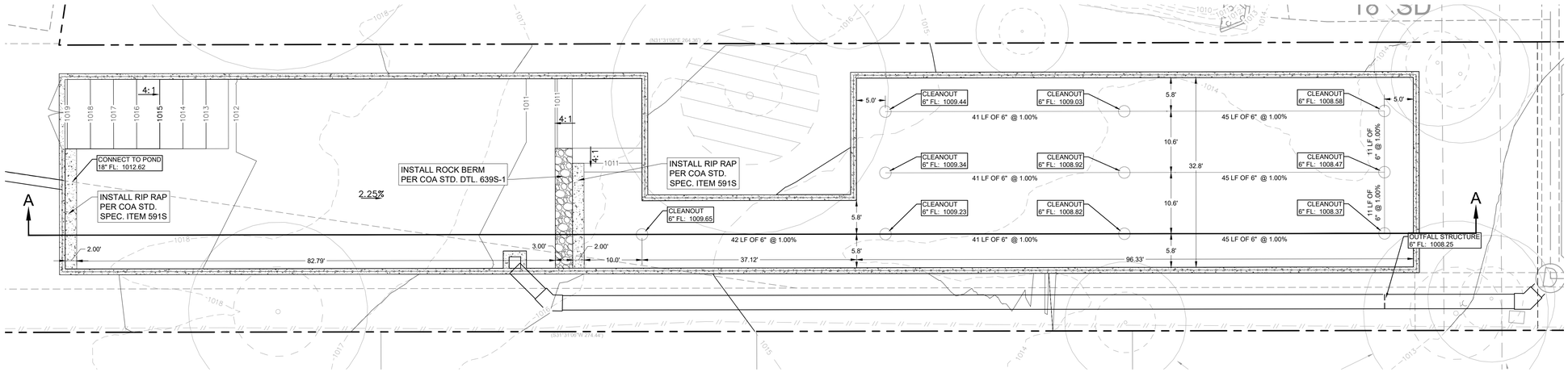
DATE 06/30/2023	DRAWN BY: SA/AM
SCALE: AS SHOWN	CHECKED BY: JK/KM

INLET DRAINAGE AREA MAP

RED OAKS
SITE PLAN
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

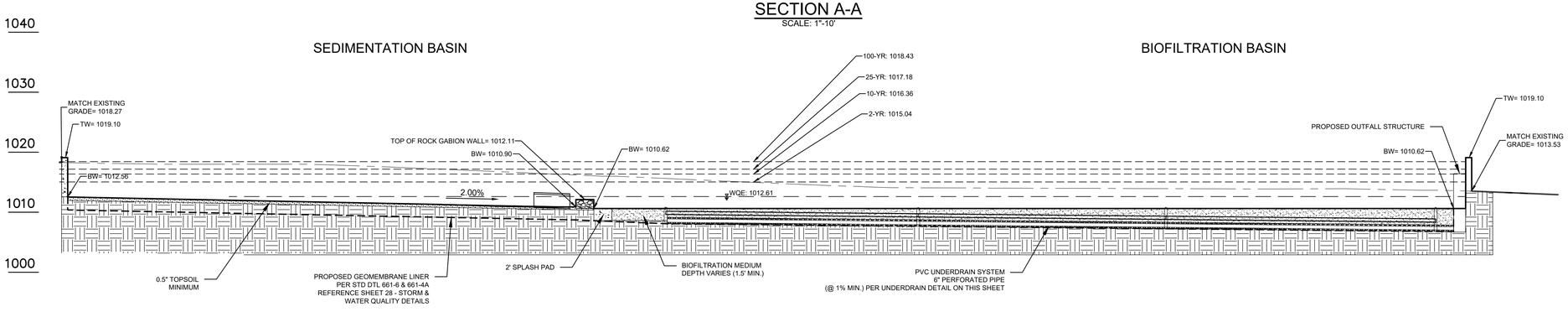
SHEET NUMBER
13
OF 25

SP-2023-0252C.SH



SECTION A-A

SCALE: 1"-10'



APPENDIX R-6:
FULL OR PARTIAL BIOFILTRATION POND CALCULATIONS FOR DEVELOPMENT PERMITS
HTG Red Oaks, SP-2023-0252C.SH

DRAINAGE AREA DATA:

Drainage area to control (DA)	3.40	ac
Drainage area Impervious Cover	53.28%	
Capture Depth (CD) = (0.5+(IC-20)/100)	0.83	in

WATER QUALITY CONTROL CALCULATIONS:	Required		Provided	
The Water Quality Control is to be BIOFILTRATON				
25-year peak flow rate to control (Q25)	13.43	cfs		
100-year peak flow rate to control (Q100)	18.79	cfs		
Water Qualtiy Volume (WQV=CD*DA*3630) @ WQE	10,278	cf	10,328	cf
Maximum Ponding Depth above Sand Bed (H)			2.17	ft
Sedimentation Pond Area			2,398.68	sf
For Full Sedimentation Pond Volume (min. of WQV)	≥	cf		cf
For Partial Sedimentation Pond Volume (min of 20% of WQV)	≥ 2,065.56	cf	2,527.45	cf
For Full Filtration Pond Area , Af = WQV/(7 + 2.33*H)	≥	sf		sf
For Partial Filtration Pond Area , Af = WQV/(4 + 1.33*H)	≥ 1499.81	sf	4007.06	sf
Filtration Pond Volume			7,800.36	cf
Water Qualtiy Elevation			1012.79	ft msl
Elevation of Splitter/Overflow Weir (min WQ elev)	≥ 1012.79	ft msl	1012.79	ft msl
Length of Splitter Weir			7.5	ft
Required head to Pass Q100 (max 1ft)	≤ 1.00	ft	0.82	ft
Pond freeboard to pass Q100 (min 0.25 ft)	≥ 0.25	ft	5.49	ft
Top of Gabion Wall (elev)			1012.29	ft msl
Biofiltration Pond Drawdown Time (min.48 hrs)	≥ 48	hrs	48	hrs
Underdrain Orifice Size (diameter)		in	6.00	in
Underdrain Orifice Size (area)		sq in	28.27	sq in
BIOLOGICAL ELEMENTS CALCULATIONS:				
Surface Area of Entire Pond Bottom (SA)	≥ 400	sf	6,405.74	sf
Total Plantings Required (Min 10% of SA)	≥ 40	plants	641	plants
Sedimentation Pond Plantings (Min. 20% of Total Plantings)	≥ 8	plants	129	plants
Filtration Pond Plantings (Min. 50% of Total Planitings)	≥ 20	plants	512	plants

WQ POND A
POND DRAW DOWN CALCULATIONS

Minimum Drawdown Time = 48 hours =	172,800	seconds
Pond volume to be removed =	10,328	cf
Volume removed per second =	0.06	cfs

Orifice equation is "Q = 0.6*A*(2*g*h)^.5
A = area of orifice g= 32.2
h = average depth of pond= 2.17 ft

A = Q/ (0.6* (2*g*h)^.5) = p*r^2 =	0.008	sf
r =	0.05	ft
r =	0.62	in
d =	1.24	in Calculated
d=	1.00	in Provided

Sedimentation Basin

Stage (Elev) (ft msl)	Area (sf)	Storage (Vol) (cf)
1010.90	0.00	0.00
1011.00	168.39	5.61
1012.00	1,836.76	859.38
1012.79	2,398.68	2,527.45

*In one foot or less increments

Biofiltration Basin

Stage (Elev) (ft msl)	Area (sf)	Storage (Vol) (cf)
1010.62	0.00	0.00
1011.00	3,813.70	724.60
1012.00	4,006.84	4,634.87
1012.79	4,007.06	7,800.36

*In one foot or less increments

Detention Pond Staging

Stage	Contour Area (sf)	Contour Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)	Cumulative Volume (cf)
1012.79	0.00	N/A	N/A	N/A	0.00
1013.00	6577.35	0.15	0.08	0.08	6234.54
1014.00	6626.21	0.15	0.15	0.23	12836.32
1015.00	6675.09	0.15	0.15	0.38	19486.97
1016.00	6723.98	0.15	0.15	0.53	26186.51
1017.00	6772.90	0.16	0.15	0.69	32934.95
1018.00	6821.84	0.16	0.16	0.84	39732.32
1019.00	6870.79	0.16	0.16	1.00	46578.63
1019.10	0.00	0.00	0.00	1.00	46578.63

Point of Analysis A	5.55	8.29	10.20	13.43	18.98	18.79
	4.38	6.91	8.88	12.15	17.76	18.35
	-1.17	-1.38	-1.32	-1.28	-1.22	-0.44
WSEL	1015.04	1015.82	1016.36	1017.18	1018.37	1018.43

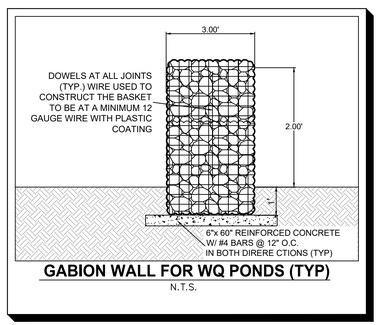
ROCK RIP RAP D_{50} ANALYSIS

$D_{50} = 0.0105V^{2.06}$

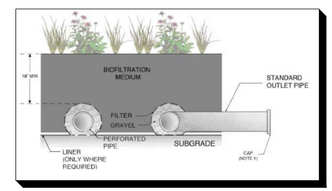
D_{50} = MEDIAN ROCK DIAMETER (FT)
V = AVERAGE VELOCITY (FT/S)

DESCRIPTION	VELOCITY (FT/S)	D50 (IN)	Rock Riprap Class by Median Particle Diameter (D50)
POND OUTFALL	10.38	15.6	Class IV
PROVIDED		16.0	Class IV

Calculations based on City of Austin Environmental Criteria Manual section 1.4.6



GABION WALL FOR WQ PONDS (TYP)
N.T.S.



NOTES

1. ACCUMULATED PAPER, TRASH, AND DEBRIS SHALL BE REMOVED EVERY SIX (6) MONTHS OR AS NECESSARY TO MAINTAIN PROPER OPERATION.
2. STRUCTURAL INTEGRITY SHALL BE MAINTAINED AT ALL TIMES. BASINS AND ALL APPURTENANCES SHALL BE INSPECTED ANNUALLY, OR MORE FREQUENTLY IF SPECIFIED, AND REPAIRS SHALL BE MADE IF NECESSARY. WHEN MAINTENANCE OR REPAIRS ARE PERFORMED, THE STORMWATER CONTROL MEASURE SHALL BE RESTORED TO THE ORIGINAL LINES AND GRADES.
3. CORRECTIVE MAINTENANCE SHALL OCCUR ANY TIME DRAWDOWN OF THE WATER QUALITY VOLUME DOES NOT OCCUR WITHIN NINETY-SIX (96) HOURS, UNLESS A GREATER MAXIMUM DRAWDOWN TIME IS SPECIFIED IN THE PLANS.
4. THE INLET AND OUTLET OF STORMWATER CONTROL MEASURES SHALL BE MAINTAINED UNIMPEDED IN ORDER TO CONVEY FLOW AT ALL TIMES. OBSERVED BLOCKAGES TO THE INLET AND OUTLET, DUE TO VEGETATION, SEDIMENT, DEBRIS, OR ANY OTHER CAUSE, SHALL BE REMOVED.
5. NO UNVEGETATED AREA SHALL EXCEED TEN (10) SQUARE FEET. THIS PERFORMANCE REQUIREMENT APPLIES TO THE ENTIRE POND INCLUDING THE POND BOTTOM, SIDE SLOPES, AND AREAS ADJACENT TO THE POND, AND IS INTENDED TO LIMIT EROSION.
6. THE MINIMUM VEGETATION HEIGHT SHALL BE FOUR (4) INCHES IN THE STORMWATER CONTROL MEASURE AND ALL APPURTENANCES, INCLUDING THE TOE OF THE BERM OR WALL OUTSIDE THE STORMWATER CONTROL MEASURE, WHERE APPLICABLE.
7. SEDIMENT BUILD-UP SHALL BE REMOVED WHEN THE ACCUMULATION EXCEEDS SIX (6) INCHES IN SPLITTER BOXES,WET WELLS AND BASINS. WHEN SEDIMENT TRAPS ARE FULL, AND WHEN SEDIMENT, OF ANY AMOUNT, CAUSES STANDING WATER CONDITIONS OR REDUCES BASIN STORAGE BY MORE THAN 10%.
8. WHEN SEDIMENT IS REMOVED, IRRIGATION SHALL BE PROVIDED, AS NEEDED, UNTIL VEGETATION IS ESTABLISHED, THE DESIGN DEPTH OF THE FILTRATION MEDIA SHALL BE VERIFIED, AND TILLING OF THE FILTRATION MEDIUM NOT ALLOWED.
9. VEGETATION WITHIN THE STORMWATER CONTROL MEASURE SHALL NOT EXCEED EIGHTEEN (18) INCHES IN HEIGHT AT ANY TIME, EXCEPT AS CALLED FOR IN THE DESIGN. VEGETATION THAT IS MOWED OR CUT SHALL BE REMOVED FROM THE STORMWATER CONTROL MEASURE

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

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

BENCHMARKS

IRFC ALUMCAP RPLS-5086
ELEVATION=102418'
NORTHING=10138988.8950'
EASTING=3087269.3740'

LEGEND

- PROPERTY LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- WASTEWATER FLOW DIRECTION
- PROPOSED FIRE HYDRANT
- PROPOSED TAPPING SLEEVE & VALVE
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN INLET
- EXISTING OVERHEAD POWER LINE
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTEWATER MANHOLE

0 10' 20'
GRAPHIC SCALE 10'

No.	REVISIONS	DATE	BY

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TX REGISTERED ENGINEERING FIRM F-928

STATE OF TEXAS
JUSTIN J. KRAMER
122309
LICENSED
PROFESSIONAL ENGINEER
2/2/2024

KHA PROJECT 069418500
DATE 06/30/2023
SCALE: AS SHOWN
DESIGNED BY: JK/KM
DRAWN BY: SA/AM
CHECKED BY: JK/KM

WATER QUALITY & DETENTION POND PLAN

RED OAKS SITE PLAN
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
14
OF 25

SP-2023-0252C.SH

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: HTG Red Oaks
Date Prepared: 11/8/2023

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

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 * =	3.57	acres
Predevelopment impervious area within the limits of the plan * =	0.14	acres
Total post-development impervious area within the limits of the plan* =	1.94	acres
Total post-development impervious cover fraction * =	0.54	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	1567	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 =	3.40	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	1.81	acres
Post-development impervious fraction within drainage basin/outfall area =	0.53	
$L_{M\ THIS\ BASIN}$ =	1575	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Sand Filter
Removal efficiency = 89 percent

Aqualogic Cartridge Filter
Bioretention
Contech StormFilter
Constructed Wetland
Extended Detention
Grassy Swale
Retention / Irrigation
Sand Filter
Stormceptor
Vegetated Filter Strips
Vortechs
Wet Basin
Wet Vault

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

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

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

A_C =	3.40	acres
A_I =	1.81	acres
A_P =	1.59	acres
L_R =	1808	lbs

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

Desired $L_{M\ THIS\ BASIN}$ * = 1575 lbs.

F = 0.87

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 =	1.44	inches
Post Development Runoff Coefficient =	0.38	
On-site Water Quality Volume =	6682	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 =	1336	
Total Capture Volume (required water quality volume(s) x 1.20) =	8019	cubic feet

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

7. Retention/Irrigation System Designed as Required in RG-348 Pages 3-42 to 3-46

Required Water Quality Volume for retention basin = NA cubic feet

Irrigation Area Calculations:

Soil infiltration/permeability rate =		in/hr	Enter determined permeability rate or assumed value of 0.1
Irrigation area =	NA	square feet	
	NA	acres	

8. Extended Detention Basin System Designed as Required in RG-348 Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin = NA 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 = 8019 cubic feet

Minimum filter basin area = 371 square feet

Maximum sedimentation basin area = 3341 square feet For minimum water depth of 2 feet
Minimum sedimentation basin area = 835 square feet For maximum water depth of 8 feet

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = 8019 cubic feet

Minimum filter basin area = 668 square feet

Maximum sedimentation basin area = 2673 square feet For minimum water depth of 2 feet
Minimum sedimentation basin area = 107 square feet For maximum water depth of 8 feet

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TBPE Firm No. 928

No.	REVISIONS	DATE	BY

STATE OF TEXAS
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LICENSED
PROFESSIONAL ENGINEER
2/2/2024

KHA PROJECT	069418500
DATE	06/30/2023
SCALE:	AS SHOWN
DESIGNED BY:	JK/KM
DRAWN BY:	SA/AM
CHECKED BY:	JK/KM

TCEQ NOTES & CALCULATIONS

RED OAKS
SITE PLAN
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
15
OF 25

SP-2023-0252C.SH

N FM 620
(R.O.W. VARIES)

INT. 14449 | INT. 14448 | INT. 14188

15' ELECTRIC EASEMENT (CAB. Y, SLD. 87-88, PRWCT) (VOL. 805, PG. 825, DRWCT)

25' BUILDING SETBACK LINE (CAB. Y, SLD. 87-88, PRWCT) (CAB. E, SLD. 29, PRWCT)

30' WATERLINE EASEMENT (CAB. Y, SLD. 87-88, PRWCT) (DOC. NO. 9604554, OPRWCT)

JOINT USE ACCESS EASEMENT AND MAINTENANCE AGREEMENT (DOC. NO. 2003117091, OPRWCT)

JOINT USE ACCESS EASEMENT AND MAINTENANCE AGREEMENT (DOC. NO. 2003117091, OPRWCT)

JOINT USE ACCESS EASEMENT AND MAINTENANCE AGREEMENT (DOC. NO. 2003117091, OPRWCT)

(N49°46'12"W 292.88')

(S49°46'12"E 425.63')

(N40°11'58"E 501.76')

(N49°46'02"W 394.54')

(S10°26'54"W 78.70')

(S17°42'48"W 78.88')

(S07°01'12"W 188.14')

(S25°02'33"W 76.98')

(S32°26'52"W 78.70')

(S31°31'06"W 274.44')

(N31°31'06"E 284.36')

EL SALIDO PARKWAY
(R.O.W. VARIES)

TANGLEBRIAR TRAIL

STA: 4+61.90 SD-B
INSTALL:
1 - 45° BEND
℄ 12": 1020.51

6 LF OF 12" HDPE @ 0.50%

62 LF OF 12" HDPE @ 0.50%

STA: 5+23.87 SD-B
INSTALL:
1 - 45° BEND
℄ 12": 1020.82

STA: 4+55.64 SD-B
INSTALL:
1 - 4' MANHOLE
RIM: 1025.49
℄ 12" IN: 1020.48
℄ 12" OUT: 1020.48
℄ 8" IN: 1020.82

21 LF OF 12" HDPE @ 0.50%

STA: 6+89.37 SD-B
INSTALL:
1 - 4' MANHOLE
RIM: 1029.62
℄ 12" IN: 1021.65
℄ 12" OUT: 1021.65

6 LF OF 12" HDPE @ 0.50%

31 LF OF 12" HDPE @ 0.50%

54 LF OF 12" HDPE @ 0.50%

STA: 7+43.11 SD-B
INSTALL:
1 - 45° BEND
℄ 12": 1021.92

129 LF OF 12" HDPE @ 0.50%

STA: 5+60.76 SD-B
INSTALL:
1 - 2'x2' GRATE INLET
℄ 12" : 1021.01
℄ 12" : 1021.01
TG: 1027.98

STA: 4+55.64 SD-B
INSTALL:
1 - 2'x2' GRATE INLET
℄ 8" : 1020.96
TG: 1025.87

STA: 5+29.42 SD-B
INSTALL:
1 - 45° BEND
℄ 12": 1020.85

STA: 4+34.71 SD-B
INSTALL:
1 - 2'x2' GRATE INLET
℄ 12" : 1020.38
℄ 18" : 1019.88
TG: 1024.66

85 LF OF 12" HDPE @ 0.50%

STA: 8+27.73 SD-B
INSTALL:
1 - 2'x2' GRATE INLET
℄ 12" : 1022.34
℄ 12" : 1022.34
TG: 1027.88

19 LF OF 12" HDPE @ 0.50%

STA: 9+47.07 SD-B
INSTALL:
1 - 2'x2' GRATE INLET
℄ 12" : 1022.94
TG: 1025.49

STA: 4+11.51 SD-B
INSTALL:
1 - 18" YARD INLET
℄ 8" : 1015.66
TG: 1022.99

67 LF OF 8" HDPE @ -1.00%

15 LF OF 8" HDPE @ 1.00%

CROSSING
STA: 4+19.32 SD-B
℄ : 1019.37
=STA: 1+17.32 WWL-A
℄:1016.52

CROSSING
STA: 2+48.31 SD-B
℄ : 1014.10
=STA: 4+82.01 WL-A
℄ :1010.46

54 LF OF 18" HDPE @ 1.00%

STA: 1+38.67 SD-B
INSTALL:
1 - 45° BEND
℄ 8": 1014.98
℄ 8": 1014.98

STA: 1+80.71 SD-B
INSTALL:
1 - 2'x2' GRATE INLET
℄ 18": 1013.43
TG: 1018.25

114 LF OF 8" HDPE @ 1.00%

STA: 1+38.67 SD-B
INSTALL:
1 - 2'x2' AREA INLET
℄ 18" : 1013.01
℄ 18" : 1013.01
℄ 8" : 1013.84
TG: 1019.35

162 LF OF 18" HDPE @ 3.30%

STA: 2+73.14 SD-B
INSTALL:
1 - 2'x2' GRATE INLET
℄ 18" : 1014.55
℄ 18" : 1014.35
TG: 1018.55

8 LF OF 18" HDPE @ 1.00%

STA: 2+65.14 SD-B
INSTALL:
1 - 45° BEND
℄ 18": 1014.27

22 LF OF 18" HDPE @ 1.00%

STA: 2+42.99 SD-B
INSTALL:
1 - 45° BEND
℄ 18": 1014.05

STA: 2+34.99 SD-B
INSTALL:
1 - 4' MANHOLE
RIM: 1018.74
℄ 18" IN: 1013.97
℄ 18" OUT: 1013.97

42 LF OF 18" HDPE @ 1.00%

39 LF OF 18" HDPE @ 1.00%

STA: 2+74.79 SD-A
INSTALL:
1 - 45° BEND
℄ 24": 1010.83

6 LF OF 24" RCP @ 2.31%

144 LF OF 24" RCP @ 2.31%

8 LF OF 24" RCP @ 2.31%

STA: 1+00.00 SD-B
CONNECT TO POND
℄ 18" : 1012.62

STA: 2+83.27 SD-A
INSTALL:
OUTLET PIPE
℄ 24": 1011.03

STA: 1+00.00 SD-A
CONNECT TO
EX. PRIVATE 5'
MANHOLE
℄ 21": 1006.50

STA: 1+05.66 SD-A
INSTALL:
1 - 45° BEND
℄ 24": 1006.93

NOTES

1. INSTALL WYES AS SHOWN OR SIZE ON SIZE WYE WITH REDUCER AS NEEDED.
2. ALL GRATES IN PAVEMENT AREA TO BE TRAFFIC RATED.
3. ALL PIPES TO BE HDPE UNLESS OTHERWISE NOTED ON PLANS.
4. CONTRACTOR TO ENSURE STORM DRAIN CROSSES ABOVE SANITARY SEWER LINE.
5. CONTRACTOR TO TIE ALL DOWNSPOUTS TO STORM SEWER SYSTEM - SEE ARCHITECTURAL PLANS FOR CONNECTION TO DOWNSPOUT. ALL DOWNSPOUTS SHALL CONNECT TO UNDERGROUND PIPING DESIGNATED AS "RD". THE "RD" PIPING ALIGNMENTS SHOWN ARE SCHEMATIC IN NATURE. ALL FLOWLINES OF PIPE AT DOWNSPOUT ADJACENT TO BUILDING TO BE 2' BELOW FFE. ALL PIPE TO BE 8" PVC UNLESS THE PIPE COLLECTS MORE THAN ONE DOWNSPOUT. THEN THE PIPE IS TO BE 12" PVC. MINIMUM SLOPE IS 0.3%.

Know what's below.
Call before you dig.

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BENCHMARKS

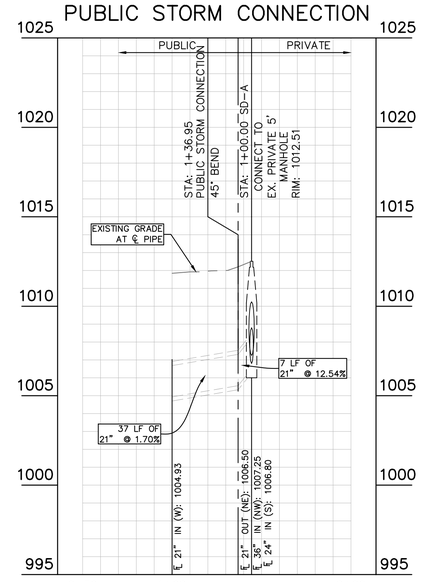
IRFC ALUMCAP RPLS-5086
ELEVATION=102418'
NORTHING=10138988.8950'
EASTING=3087269.3740'

0 40' 80'
GRAPHIC SCALE 40'

LEGEND

- PROPERTY LINE
- XXX EXISTING MAJOR CONTOUR
- XXX EXISTING MINOR CONTOUR
- XXX PROPOSED MAJOR CONTOUR
- XXX PROPOSED MINOR CONTOUR
- AUSTIN CITY LIMITS
- W PROPOSED WATER LINE
- PROPOSED FIRE HYDRANT
- WW PROPOSED WASTEWATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN INLET
- W EXISTING WATER LINE
- WW EXISTING WASTEWATER LINE
- EXISTING STORM DRAIN LINE
- EXISTING FIRE HYDRANT
- EXISTING WASTEWATER MANHOLE

PUBLIC STORM CONNECTION



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No.	REVISIONS	DATE	BY

STATE OF TEXAS
JUSTIN J. KRAMER
122309
LICENSED
PROFESSIONAL ENGINEER
2/2/2024

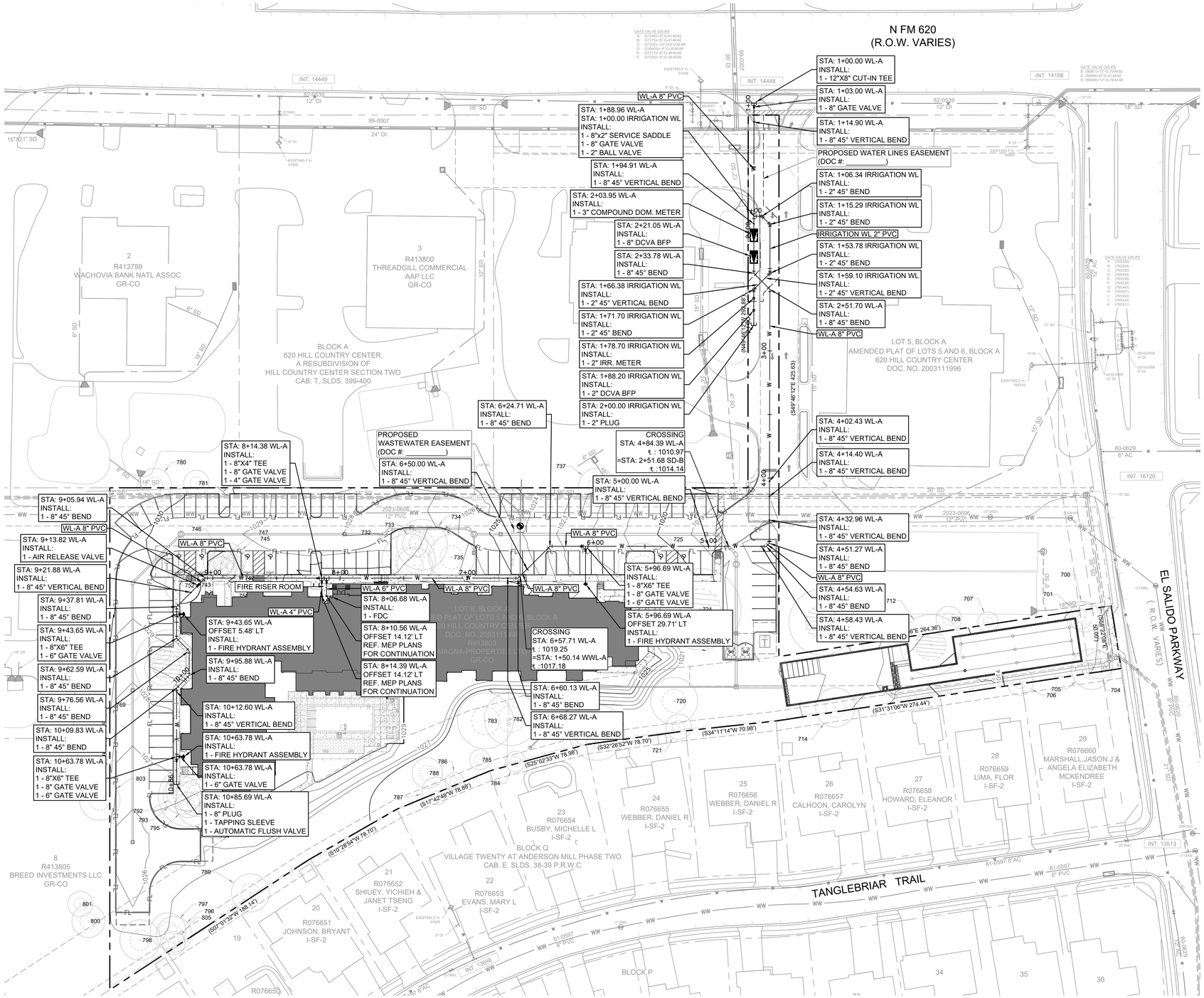
KHA PROJECT 069418500	DATE 06/30/2023	SCALE: AS SHOWN	DESIGNED BY: JK/KM	DRAWN BY: SA/AM	CHECKED BY: JK/KM

STORM PLAN

RED OAKS
SITE PLAN
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
16
OF 25

SP-2023-0252C.SH



LEGEND

	PROPERTY LINE
XXX	EXISTING MAJOR CONTOUR
XXX	EXISTING MINOR CONTOUR
XXX	PROPOSED MAJOR CONTOUR
XXX	PROPOSED MINOR CONTOUR
W	PROPOSED WATER LINE
	PROPOSED FIRE HYDRANT
WW	PROPOSED WASTEWATER LINE
WW	PROPOSED WASTEWATER MANHOLE
	PROPOSED WASTEWATER CLEANOUT
	PROPOSED STORM DRAIN LINE
	PROPOSED STORM DRAIN INLET
W	EXISTING WATER LINE
WW	EXISTING WASTEWATER LINE
	EXISTING STORM DRAIN LINE
	EXISTING FIRE HYDRANT
WW	EXISTING WASTEWATER MANHOLE

NOTES

1. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES.
2. CONTRACTOR TO COORDINATE WITH MEP PLANS FOR ALL UTILITY STUB OUTS.
3. CONTRACTOR TO REFERENCE IRRIGATION PLANS BY LANDSCAPE ARCHITECT.
4. WATER SERVICE AND FIRE SERVICE LINES SHALL TERMINATE 5' FROM BUILDING. REFER TO MEP PLANS FOR CONTINUATION.
5. ALL WATER AND WASTEWATER LINE CROSSINGS TO BE INSTALLED PER TCEQ REQUIREMENTS.
6. CONTRACTOR TO INSTALL FIRE SERVICE LINES IN ACCORDANCE WITH NFPA REQUIREMENTS.
7. UNDERGROUND MAINS SUPPLYING PRIVATE HYDRANTS MUST BE INSTALLED AND TESTED IN ACCORDANCE WITH NFPA 24, AND THE FIRE CODE, BY A LICENSED CONTRACTOR WITH A PLUMBING PERMIT. THE ENTIRE MAIN MUST BE HYDROSTATICALLY TESTED AT ONE TIME, UNLESS ISOLATION VALVES ARE PROVIDED BETWEEN TESTED SECTIONS.

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BENCHMARKS

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LICENSED
PROFESSIONAL ENGINEER
2/2/2024

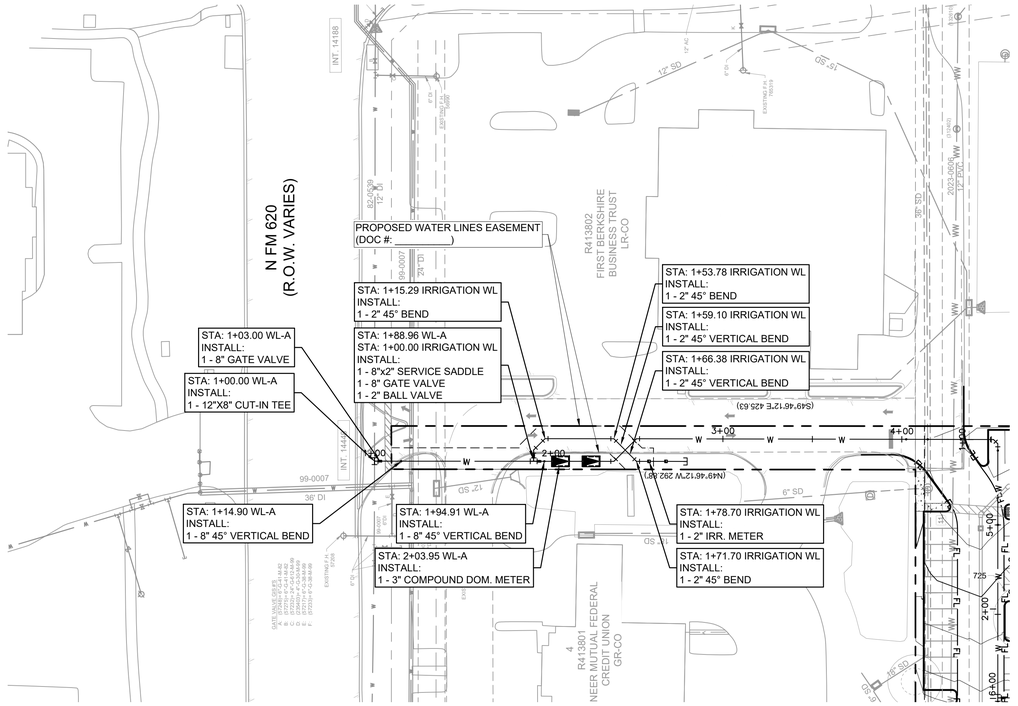
KHA PROJECT	DESIGNED BY:	DRAWN BY:	CHECKED BY:
069418500	JK/KM	SA/AM	JK/KM
DATE: 06/30/2023			
SCALE: AS SHOWN			

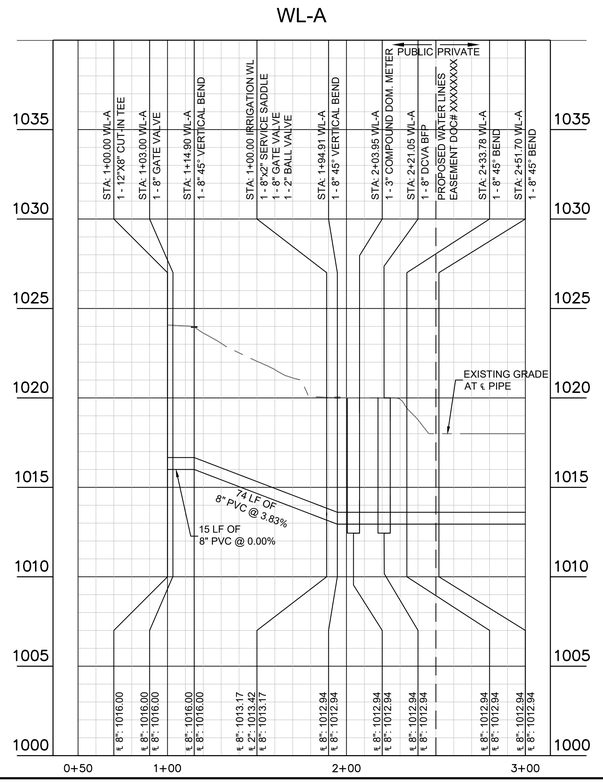
OVERALL WATER PLAN

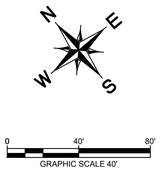
RED OAKS SITE PLAN
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
17
OF 25

SP-2023-0252C.SH







LEGEND

- PROPERTY LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED WATER LINE
- PROPOSED FIRE HYDRANT
- PROPOSED WASTEWATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN INLET
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM DRAIN LINE
- EXISTING FIRE HYDRANT
- EXISTING WASTEWATER MANHOLE

NOTES

1. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES.
2. CONTRACTOR TO COORDINATE WITH MEP PLANS FOR ALL UTILITY STUB OUTS.
3. CONTRACTOR TO REFERENCE IRRIGATION PLANS BY LANDSCAPE ARCHITECT.
4. WATER SERVICE AND FIRE SERVICE LINES SHALL TERMINATE 5' FROM BUILDING. REFER TO MEP PLANS FOR CONTINUATION.
5. ALL MANHOLES LOCATED IN PAVEMENT ARE TO BE RAISED TO FINISHED GRADE.
6. ALL WATER AND WASTEWATER LINE CROSSINGS TO BE INSTALLED PER TCEQ REQUIREMENTS.
7. CONTRACTOR TO INSTALL FIRE SERVICE LINES IN ACCORDANCE WITH NFPA REQUIREMENTS.
8. ALL PVC LINES TO BE SDR-26

Know what's **below.**
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BENCHMARKS

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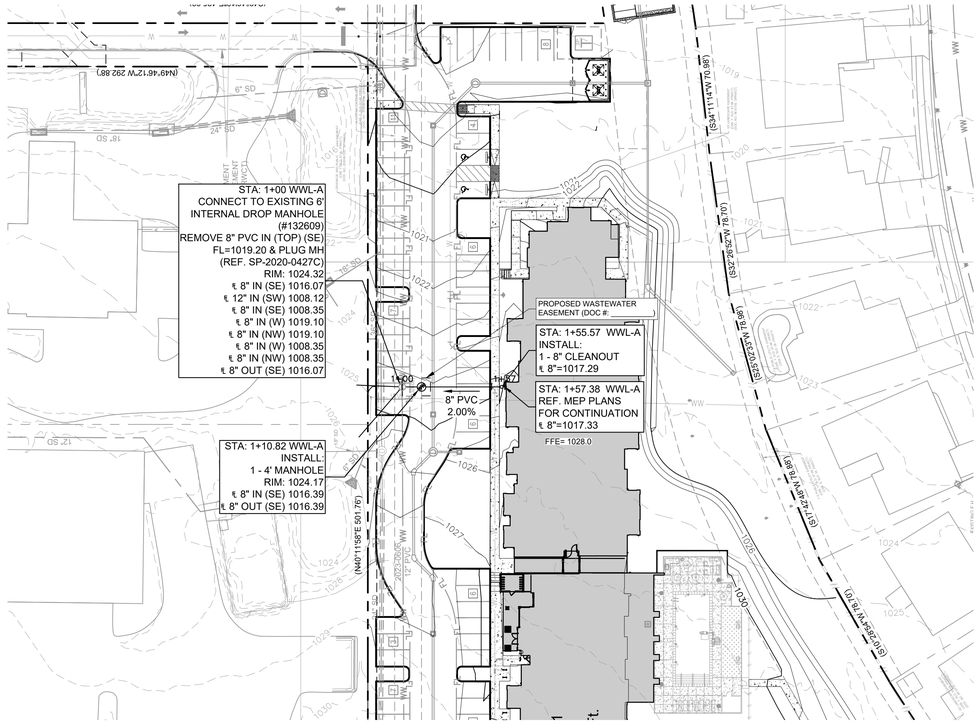
DATE	06/30/2023
SCALE:	AS SHOWN
DESIGNED BY:	JK/KM
DRAWN BY:	SA/AM
CHECKED BY:	JK/KM

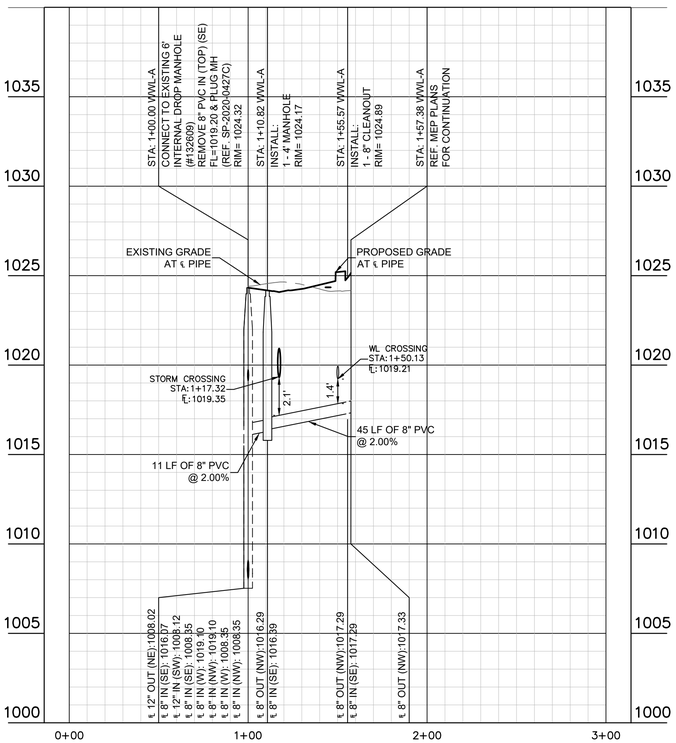
PUBLIC WATER PLAN & PROFILE

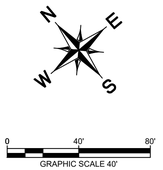
RED OAKS
SITE PLAN
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
18
OF 25

SP-2023-0252C.SH





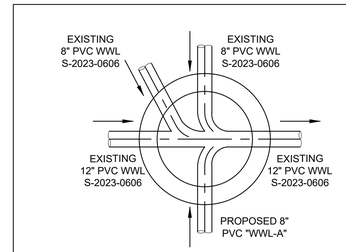


LEGEND

- PROPERTY LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- CRITICAL WATER QUALITY ZONE
- AUSTIN CITY LIMITS
- PROPOSED WATER LINE
- PROPOSED FIRE HYDRANT
- PROPOSED WASTEWATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN INLET
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM DRAIN LINE
- EXISTING FIRE HYDRANT
- EXISTING WASTEWATER MANHOLE

NOTES

1. ALL DIMENSIONS ARE TO CENTERLINE OF PIPE UNLESS NOTED OTHERWISE.
2. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTACT ENGINEER IF FIELD CONDITIONS VARY.
3. SEE ARCHITECTURAL AND MEP PLANS FOR EXACT UTILITY TIE-IN AT BUILDING.
4. WASTEWATER SERVICE WILL BE PROVIDED BY THE CITY OF AUSTIN.
5. CONTRACTOR SHALL PROVIDE 48 HOUR NOTICE TO THE UTILITY PRIOR TO TESTING THE NEW WASTEWATER CONSTRUCTION AT (866) 654-7992.
6. PROPOSED WASTEWATER MANHOLES OUTSIDE OF PAVED AREAS REQUIRE BOLTED MANHOLE COVERS.
7. MANDREL TO BE USED ON PVC PIPE SHOWING COMPLIANCE WITH 30 TAC §217.57(B) AND (C).



EXISTING 6' WWMH (#132609)
LINE "WWL-A" 1+00.00
NTS

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

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

BENCHMARKS

IRFC ALUMCAP RPLS-5086
ELEVATION=102418'
NORTHING=10138988.8950'
EASTING=3087269.3740'

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200,
AUSTIN TX, 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
KIMLEY-HORN AND ASSOCIATES, INC.

TBPE Firm No. 928

STATE OF TEXAS
JUSTIN J. KRAMER
122309
LICENSED
PROFESSIONAL ENGINEER
2/2/2024

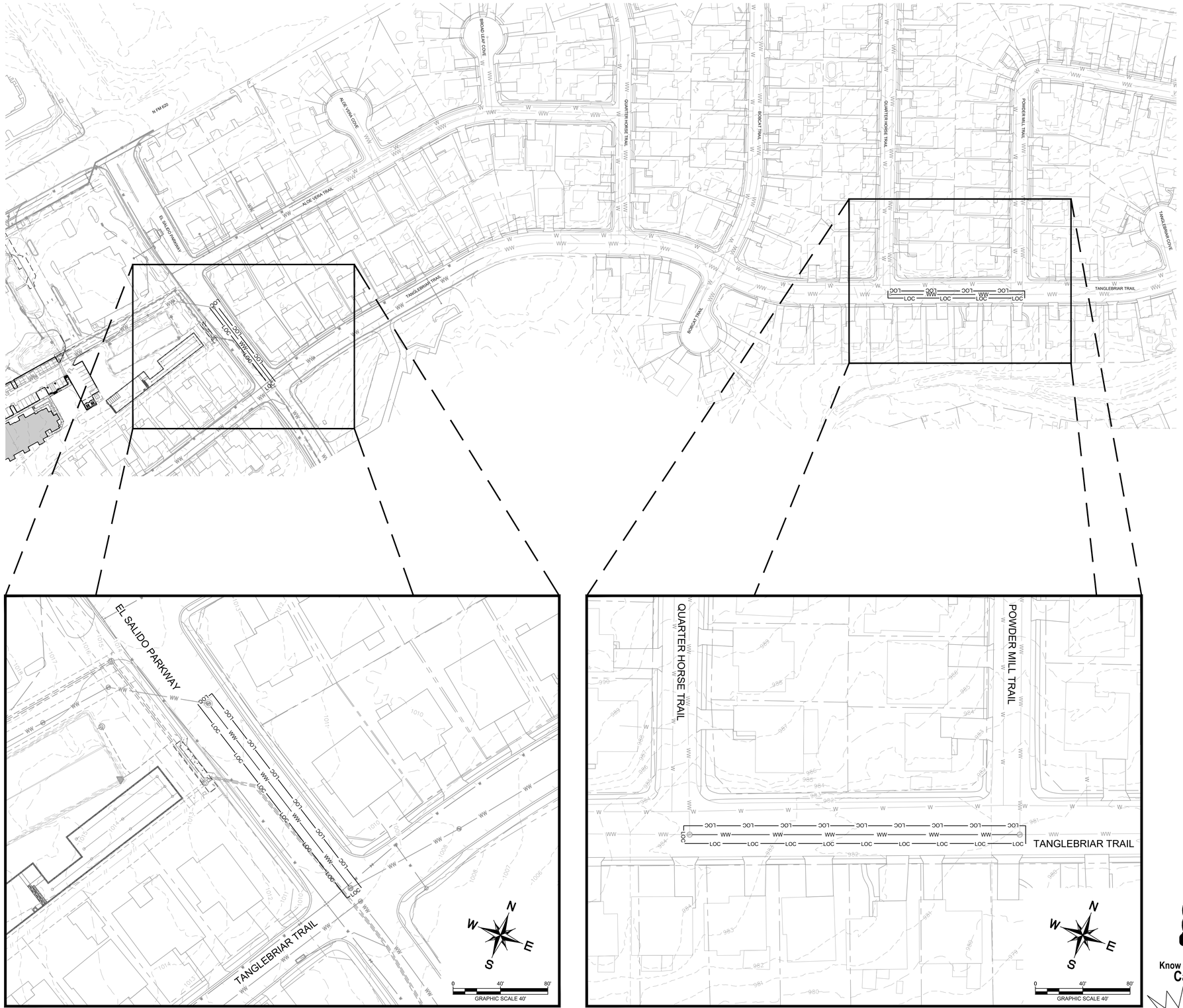
KHA PROJECT 069418500
DATE 06/30/2023
SCALE: AS SHOWN
DESIGNED BY: JK/KM
DRAWN BY: SA/AM
CHECKED BY: JK/KM

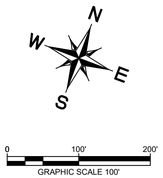
WASTEWATER PLAN & PROFILE

RED OAKS
SITE PLAN
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
19
OF 25

SP-2023-0252C.SH





LEGEND

- PROPERTY LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- CRITICAL WATER QUALITY ZONE
- AUSTIN CITY LIMITS
- PROPOSED WATER LINE
- PROPOSED FIRE HYDRANT
- PROPOSED WASTEWATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN INLET
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM DRAIN LINE
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BENCHMARKS

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EASTING=3087269.3740'

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200,
AUSTIN TX, 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
KIMLEY-HORN AND ASSOCIATES, INC.
TBPE Firm No. 928

STATE OF TEXAS
JUSTIN J. KRAMER
122309
LICENSED
PROFESSIONAL ENGINEER
2/2/2024

KHA PROJECT	069418500
DATE	06/30/2023
SCALE:	AS SHOWN
DESIGNED BY:	JK/KM
DRAWN BY:	SA/AM
CHECKED BY:	JK/KM

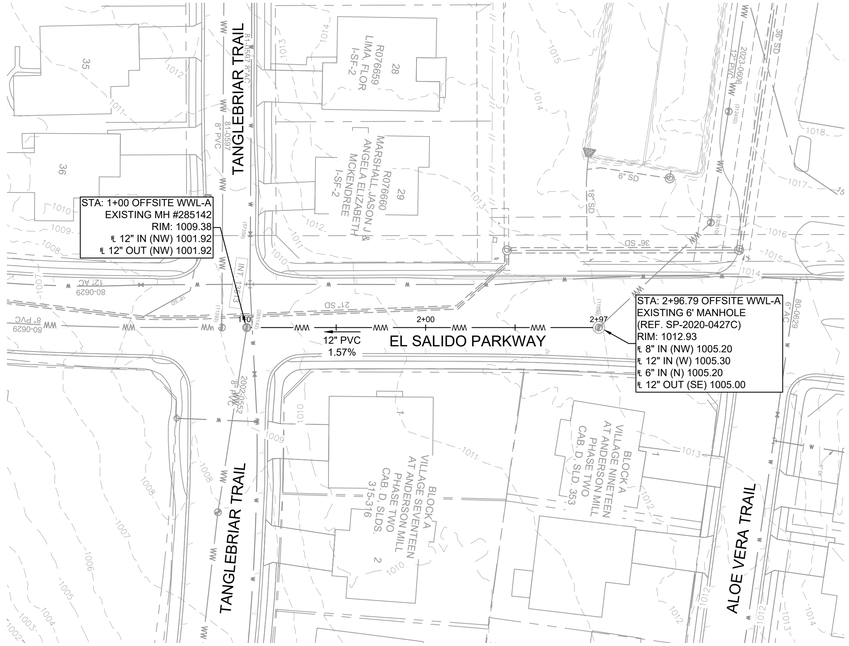
OVERALL OFFSITE WASTEWATER PLAN

RED OAKS SITE PLAN

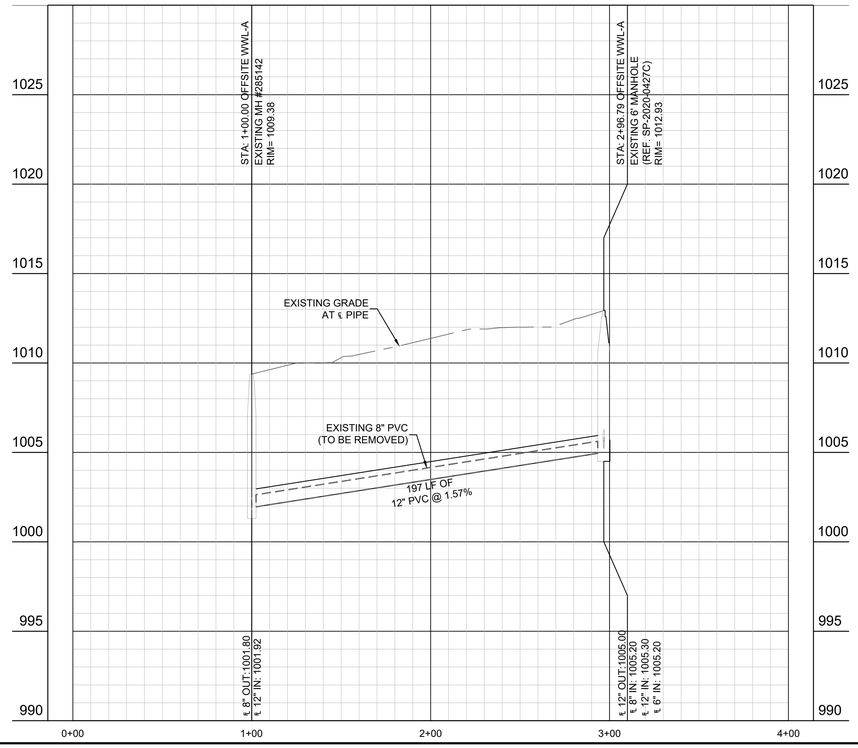
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

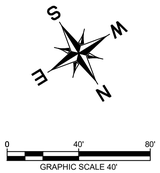
SHEET NUMBER
20
OF 25

SP-2023-0252C.SH



OFFSITE WWL-A





LEGEND

- PROPERTY LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- CRITICAL WATER QUALITY ZONE
- AUSTIN CITY LIMITS
- PROPOSED WATER LINE
- PROPOSED FIRE HYDRANT
- PROPOSED WASTEWATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN INLET
- EXISTING WATER LINE
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JUSTIN J. KRAMER
122309
LICENSED
PROFESSIONAL ENGINEER

2/2/2024

KHA PROJECT	069418500
DATE	06/30/2023
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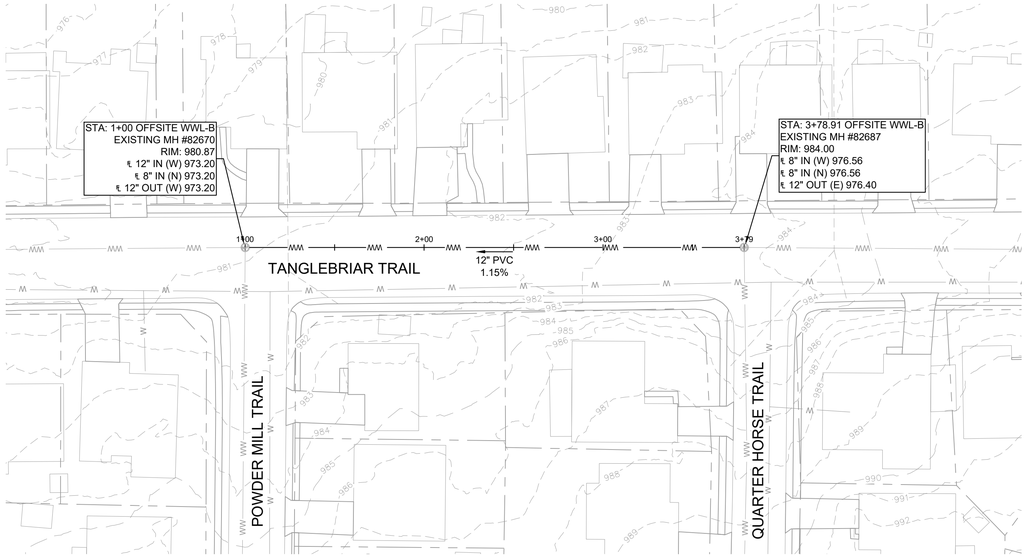
DESIGNED BY:	JK/KM
DRAWN BY:	SA/AM
CHECKED BY:	JK/KM

OFFSITE WASTEWATER LINE 'A' PLAN & PROFILE

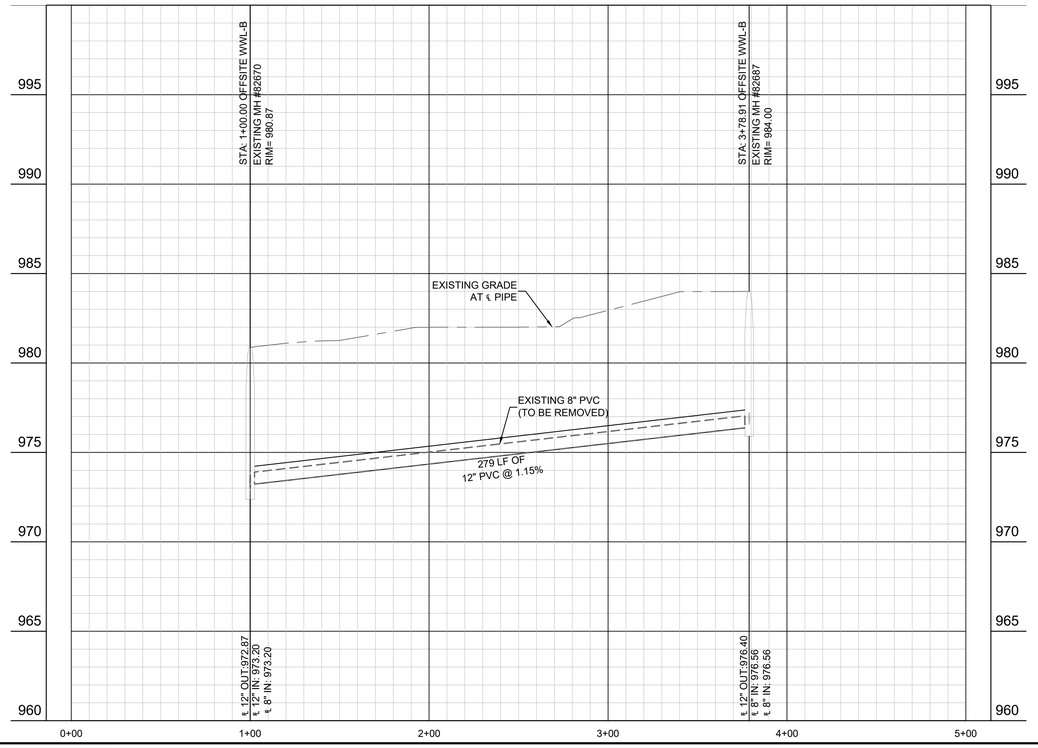
RED OAKS
SITE PLAN
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
21
OF 25

SP-2023-0252C.SH



OFFSITE WWL-B



LEGEND

	PROPERTY LINE
XXX	EXISTING MAJOR CONTOUR
XXX	EXISTING MINOR CONTOUR
XXX	PROPOSED MAJOR CONTOUR
XXX	PROPOSED MINOR CONTOUR
CWQZ	CRITICAL WATER QUALITY ZONE
	AUSTIN CITY LIMITS
W	PROPOSED WATER LINE
	PROPOSED FIRE HYDRANT
WW	PROPOSED WASTEWATER LINE
WW	PROPOSED WASTEWATER MANHOLE
	PROPOSED WASTEWATER CLEANOUT
	PROPOSED STORM DRAIN LINE
	PROPOSED STORM DRAIN INLET
W	EXISTING WATER LINE
WW	EXISTING WASTEWATER LINE
	EXISTING STORM DRAIN LINE
	EXISTING FIRE HYDRANT
WW	EXISTING WASTEWATER MANHOLE

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No.	REVISIONS	DATE	BY

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AUSTIN TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

STATE OF TEXAS
JUSTIN J. KRAMER
122309
LICENSED
PROFESSIONAL ENGINEER
2/2/2024

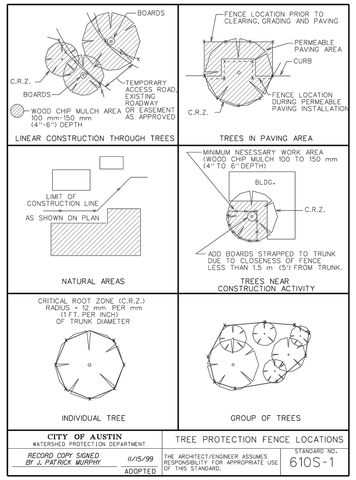
KHA PROJECT	069418500
DATE	06/30/2023
SCALE:	AS SHOWN
DESIGNED BY:	JK/KM
DRAWN BY:	SA/AM
CHECKED BY:	JK/KM

OFFSITE WASTEWATER LINE 'B' PLAN & PROFILE

RED OAKS
SITE PLAN
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
22
OF 25

SP-2023-0252C.SH



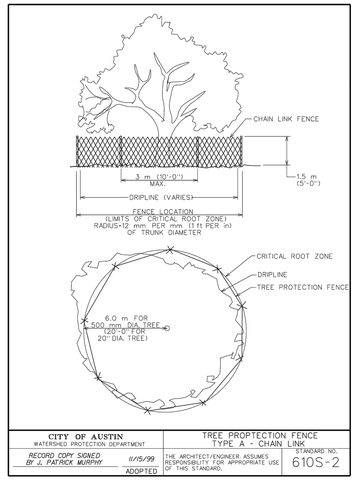
CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

TREE PROTECTION FENCE LOCATIONS

RECORD COPY SIGNED BY J. PATRICK MURPHY 11/15/99 ADOPTED

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

STANDARD NO. 610S-1



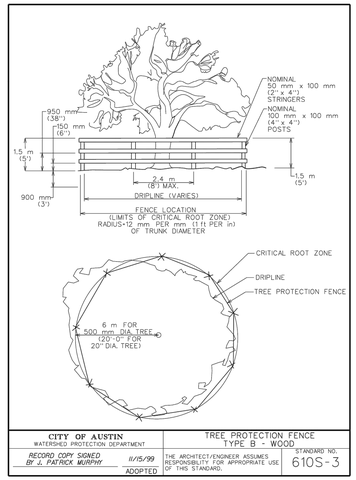
CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

TREE PROPTECTION FENCE
TYPE A - CHAIN LINK

RECORD COPY SIGNED BY J. PATRICK MURPHY 11/15/99 ADOPTED

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

STANDARD NO. 610S-2



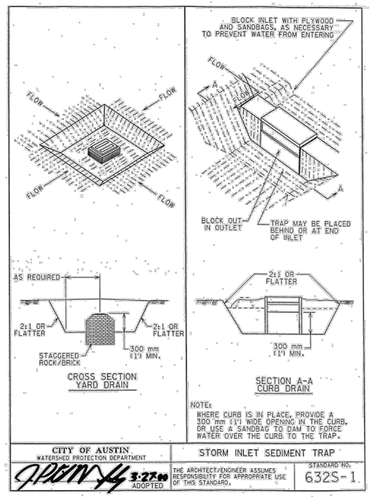
CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

TREE PROTECTION FENCE
TYPE B - WOOD

RECORD COPY SIGNED BY J. PATRICK MURPHY 11/15/99 ADOPTED

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

STANDARD NO. 610S-3



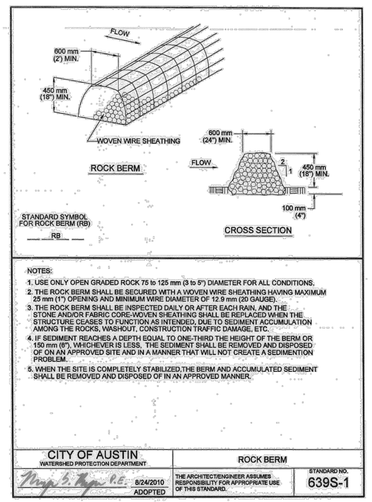
CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

STORM INLET SEDIMENT TRAP

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

STANDARD NO. 632S-1

ADOPTED 3-27-00



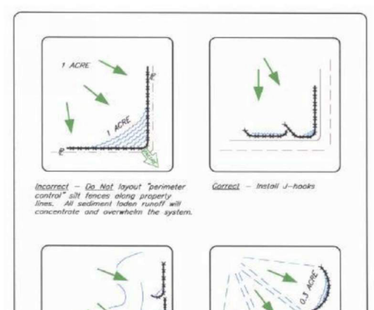
CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

ROCK BERM

Mary S. Knapp, P.E. 8/24/2010 ADOPTED

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

STANDARD NO. 639S-1



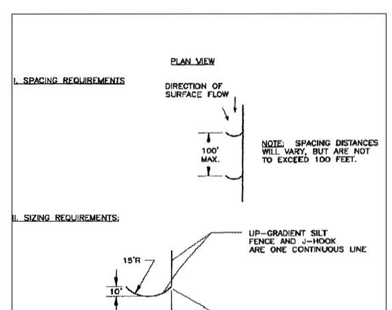
CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

STABILIZED CONSTRUCTION ENTRANCE

Thomas Bender 5/23/00 ADOPTED

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

STANDARD NO. 641S-1



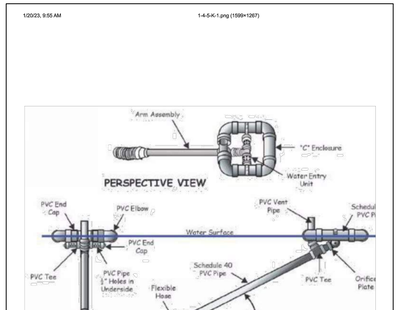
CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

MULCH SOCK

Mary S. Knapp, P.E. 08/24/2010 ADOPTED

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

STANDARD NO. 648S-1



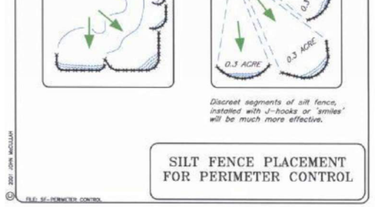
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

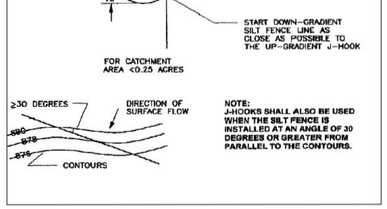
POND MAINTENANCE ROAD CROSS SECTION

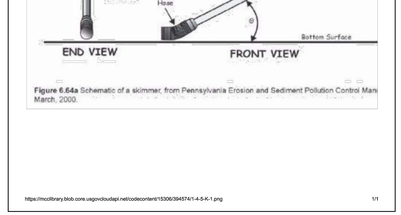
E. J. Rivera, P.E. 1/4/2016 ADOPTED

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

STANDARD NO. 662S-2







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TBPE Firm No. 928

No.	REVISIONS	DATE	BY

STATE OF TEXAS
JUSTIN J. KRAMER
122309
LICENSED
PROFESSIONAL ENGINEER
2/2/2024

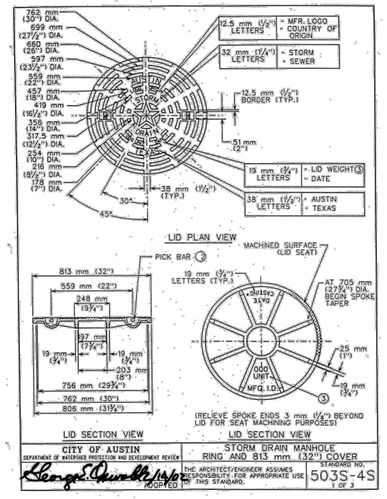
KHA PROJECT 069418500
DATE 06/30/2023
SCALE: AS SHOWN
DESIGNED BY: JK/KM
DRAWN BY: SA/AM
CHECKED BY: JK/KM

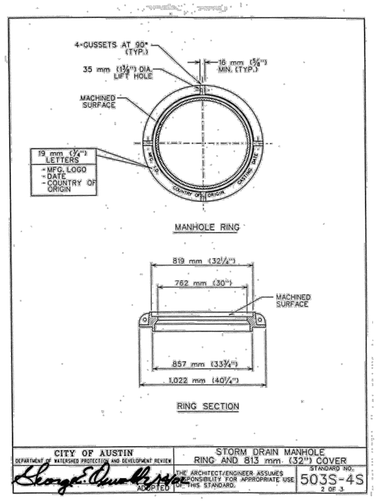
EROSION CONTROL DETAILS

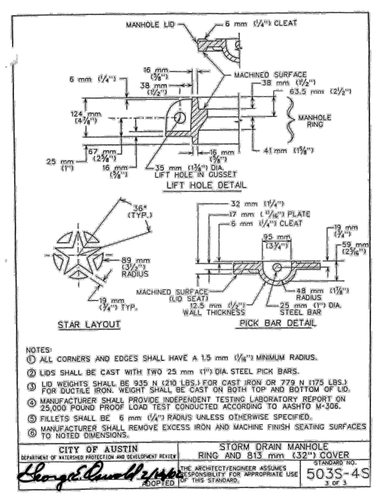
RED OAKS
SITE PLAN
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

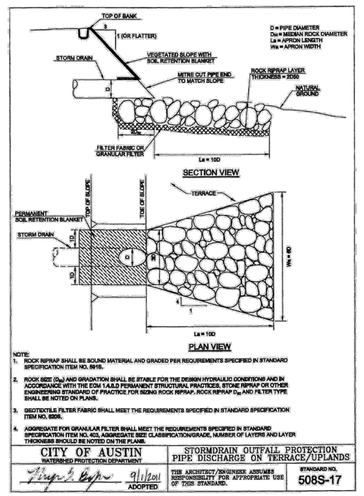
SHEET NUMBER
23
OF 25

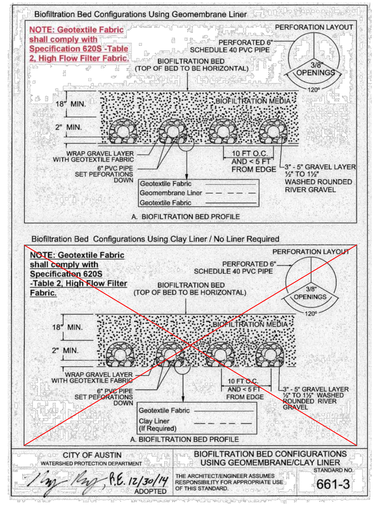
SP-2023-0252C.SH

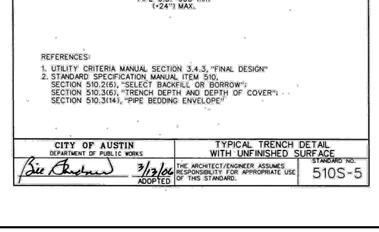












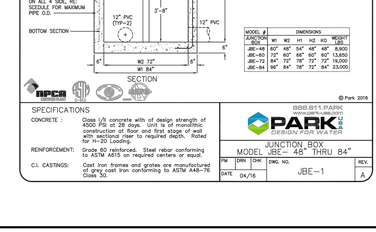
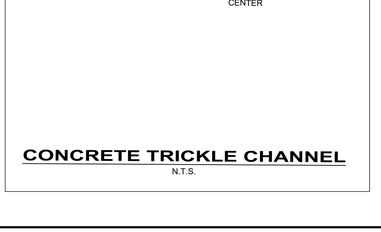


TABLE OF QUANTITIES
FOR 18" OUTLET PIPE
REINFORCING STEEL QUANTITIES

BARS	SIZE	SPACING	NUMBER	LENGTH	WEIGHT
A	4	230mm (9")±	15	2 m (7'-0")	73
B	4	250 mm (10")	4	3.25 m (10'-8")	29
C	4	460 mm (18")	7	760 mm (2'-6")	12
D	6	150 mm (6")	5	3.25 m (10'-8")	80
E	4	300 mm (12")	6	760 mm (2'-6")	10
F	4	250 mm (10")	3	4 m (13'-0")	35
G	4	300 mm (12")	11	1.25 m (4'-3")	31
H	6	-	1	4.25 m (14'-0")	20
J	4	300 mm (12")	7	3.25 m (10'-8")	50
K	4	230 mm (9")±	30	800 mm (2'-7 1/2")	52
L	4	300 mm (12")±	6	1.3 m (4'-4")	17
M	4	-	4	500 mm (1'-8") AVG	4
TOTAL STEEL, LB.					413
TOTAL CONCRETE, C.Y.					4.06

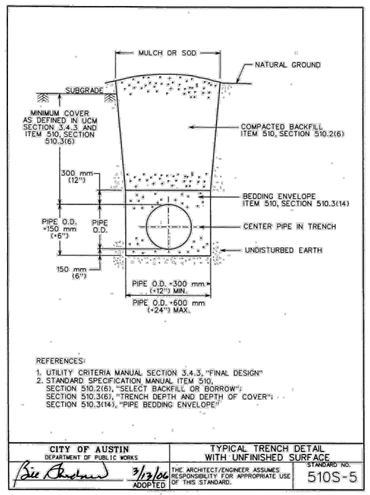
• EXCEPT AS SHOWN ON PLAN

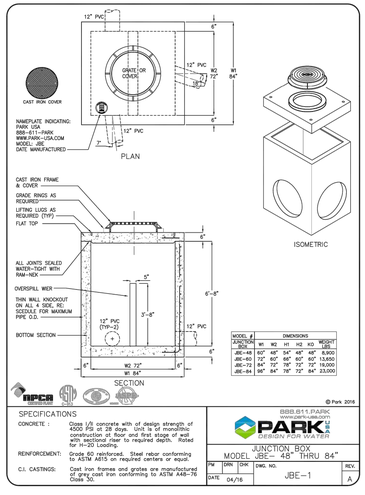


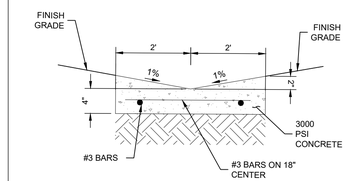
NOTES:
1. ALL CONCRETE SHALL BE CLASS "A"
2. ALL REINFORCING STEEL SHALL BE GRADE 60
3. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.
4. VERTICAL STEEL MAY BE SPLICED (380 mm or 15" MIN. LAP) IN THE LOWER ONE-HALF OF ALL INLET WALLS.S. IN AREAS OF CONFLICT BETWEEN REINFORCING STEEL, PIPES AND MANHOLE FRAME, THE REINFORCEMENT SHALL BE BENT OR ADJUSTED TO CLEAR AS DIRECTED BY THE ENGINEER.
5. QUANTITIES SHOWN HEREON ARE FOR THE CONTRACTORS INFORMATION ONLY. PAYMENT WILL BE MADE FOR EACH INLET OF THE TYPE SPECIFIED, COMPLETE IN PLACE INCLUDING MANHOLE FRAME AND OVER.
6. CHAMFER ALL EXPOSED EDGES 20 mm (3/4 ").
8. MANHOLE FRAME AND COVER SHALL BE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD 503S-1.
9. THE CONTRACTOR MAY PROPOSE ALTERNATE PROCEDURES FOR THE CONSTRUCTION OF INLETS, INCLUDING PRECAST UNITS. PLANS FOR SUCH PROPOSED ALTERNATES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BEFORE CONSTRUCTION.
10. ALL INLET WALLS SHALL BE FORMED EXCEPT WHERE THE NATURE OF THE SURROUNDING MATERIAL IS SUCH THAT IT CAN BE TRIMMED TO A SMOOTH VERTICAL FACE. WHEN INLET WALLS ARE PLACED TO NEAT EXCAVATION LINES THE WALL THICKNESS SHALL NOT EXCEED 10 INCHES.
11. PAYMENT FOR INLET AT THE CONTRACT PRICE SHALL INCLUDE THE TRANSITION CURB.
12. INVERT OF INLET SHALL BE SLOPED 1:20 WITH FILL CONCRETE, SHAPED AS "H" SECTION.
13. NO SPLICING OF REINFORCING STEEL SHALL BE PERMITTED UNLESS OTHERWISE NOTED ON THE PLANS OR PERMITTED IN WRITING BY THE ENGINEER.

REFERENCES:
FOR EXPANSION JOINT DOWEL AND DOWEL LOCATION DETAILS SEE STD. 430S-3, "CURB EXPANSION JOINT DOWEL DETAIL".
FOR 18" MANHOLE FRAME AND COVER DETAILS SEE STD. 503S-1, "18" COVER AND FRAME".

CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
TYPICAL DETAILS FOR CURB INLET
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO.
508S-3
12/9/08
ADOPTED
4 OF 4







CONCRETE TRICKLE CHANNEL
N.T.S.

Kimley»Horn
10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200,
AUSTIN TX, 78759
PHONE: 512-418-1771 FAX: 512-418-1791
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TBPE Firm No. 928

No.	REVISIONS	DATE	BY

STATE OF TEXAS
JUSTIN J. KRAMER
122309
LICENSED
PROFESSIONAL ENGINEER
2/2/2024

KHA PROJECT 069418500
DATE 06/30/2023
SCALE: AS SHOWN
DESIGNED BY: JK/KM
DRAWN BY: SA/AM
CHECKED BY: JK/KM

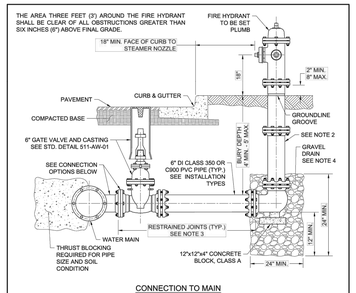
STORM & WATER QUALITY DETAILS

RED OAKS SITE PLAN

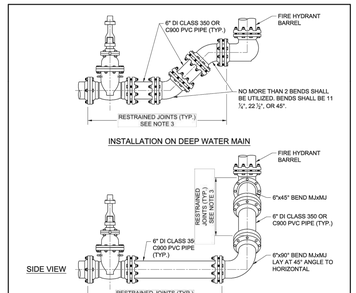
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
24
OF 25

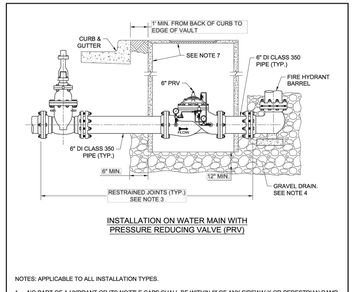
SP-2023-0252C.SH



CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 511-AW-02 1 OF 3



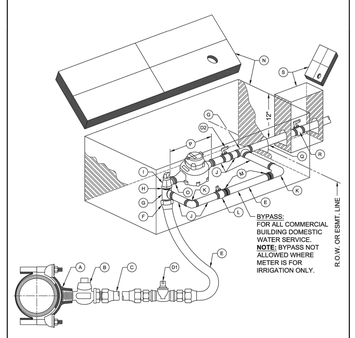
CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 511-AW-02 2 OF 3



NOTES: APPLICABLE TO ALL INSTALLATION TYPES.

1. NO PART OF A HYDRANT OR ITS NOZZLE CAPS SHALL BE WITHIN 6" OF ANY SIDEWALK OR PEDESTRIAN RAMP. ANY FIRE HYDRANT PLACED NEAR A STREET CORNER SHALL BE LOCATED OUTSIDE THE CURVE RADIUS AND A MINIMUM OF 4' FROM RAMPS.
2. ONE BARREL EXTENSION NOT EXCEEDING 2" LENGTH MAY BE INSTALLED DIRECTLY BELOW THE FIRE HYDRANT IN ORDER TO MEET THE REQUIRED BURY DEPTH OF 4' - 5'. BREAK-AWAY BOLTS (SHOE TYPES) SHALL BE PROPERLY SPACED AND PLACED.
3. FIRE LINE SHALL HAVE ALL JOINTS RESTRAINED FROM MAIN TO FIRE HYDRANT. JOINTS SHOWN MAY VARY. SEE SPL WW-27, WW-27A, AND WW-27B FOR RESTRAINT OPTIONS.
4. BELOW EACH HYDRANT, A DRAINAGE PIT 24" IN DIAMETER AND 12" DEEP SHALL BE EXCAVATED AND FILLED WITH COMPACTED COARSE GRAVEL OR BROKEN STONE MIXED WITH COARSE SAND UNDER AND AROUND THE BOWL OF THE HYDRANT, AND TO A LEVEL 12" ABOVE THE HYDRANT DRAIN OPENING (SEE STD. SPEC. 510). THE HYDRANT DRAINAGE PIT SHALL NOT BE CONNECTED TO A SANITARY SEWER. THE DRAIN GRAVEL SHALL BE COVERED WITH FILTER FABRIC PER STD. SPEC. 620S. FOR PRV, GRAVEL SHALL EXTEND UNDER THE PRV VAULT 12" MIN. DEPTH UNDER THE VAULT AND 6" MIN. BEYOND VAULT.
5. FOR FIRE HYDRANT LEADS AT A MAIN OUTLET LARGER THAN 6" DIAMETER, OUTLET SHALL BE FLANGED AND A FLG x FLG REDUCER SHALL BE INSTALLED DIRECTLY ON THE OUTLET.
6. WRAP 8 MIL POLY-FILM WRAP ON ALL BURIED PIPE AND FITTINGS.
7. FOR HYDRANTS WITH PRV: CLASS III RCP VAULT 60" MIN. I.D. WITH REINFORCED PRECAST CONCRETE LID (AASHTO H-20 LOADING) WITH COA FRAME AND 32" COVER WITH LETTERING MODIFIED FOR WATER.

CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 511-AW-02 3 OF 3



CITY OF AUSTIN AUSTIN WATER	1 ½" - 2" METER INSTALLATION SHOWING OPTIONAL BYPASS	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 520-AW-04 1 OF 2

MATERIALS LIST:

A. 2" SERVICE CLAMP
B. 2" CORPORATION STOP MALE THREAD INLET BY COMPRESSION OUTLET
C. 2" COPPER WATER SERVICE TUBING EXTENDED BEYOND PAVEMENT
D1. 2" BALL VALVE, SPL WW-27S
D2. 2" BALL VALVE, SPL WW-27S
E. 2" COPPER SERVICE TUBING
F. 2" BRASS COUPLING - COMPRESSION TO MALE IPT
G. 2" BRASS TEE
H. 2" BRASS CLOSE-NIPPLE
I. 2" ANGLE METER STOP; SERVICE TUBING INLET x FLANGED OUTLET
J. 2" BRASS NIPPLE
K. 2" BRASS ELBOW
L. 2" LOCKABLE CURB STOP - FEMALE IPT INLET BY COMPRESSION OUTLET
M. 2" BRASS COUPLING - SERVICE TUBING TO MALE IPT
N. RECTANGULAR METER BOX AND COVER, SPL WW-145A
O. BRASS ADAPTER (2" x 1 ½") FOR 1 ½" METER ONLY
P. WATER METER, LENGTH 13", (PURCHASED FROM AUSTIN WATER)
Q. 2" COPPER SERVICE TUBING (PRIVATE PLUMBING PER CODE)
R. CUSTOMER CUT-OFF VALVE
S. CUSTOMER VALVE BOX AND LID

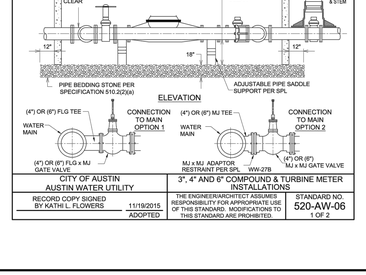
NOTES:

1. SERVICE CLAMP SHALL BE WRAPPED COMPLETELY WITH 8 MIL. POLYETHYLENE FILM.
2. BRANCH CONNECTIONS AND ALL ANGLE METER STOPS MUST BE INSTALLED PRIOR TO ANY METER INSTALLATION.
3. TOP OF BOXES SHOULD BE 1" ABOVE GROUND.
4. PIPING AND TUBING IN STREET RIGHT-OF-WAY SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY SECTION 510.3 (14) OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS; BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED BY SECTION 510.3 (25).
5. BOX MUST BE BEHIND CURB NEXT TO PROPERTY LINE OR EASEMENT AND OUT OF VEHICULAR TRAFFIC AREA AND SIDEWALK.
6. BALL VALVE "D1" SHALL NOT BE LOCATED UNDER SIDEWALK, CURB, OR PAVEMENT, AND NOT BE LOCATED MORE THAN 24" HORIZONTALLY FROM METER BOX OR 36" BELOW FINAL GRADE.
7. COPPER SERVICE SHALL BE COPPER TUBING SIZE; ANNEALED SEAMLESS TYPE "K" MEETING ASTM B88 WITH NO SWEAT OR SOLDERED JOINTS.

RECLAIMED WATER:

FOR RECLAIMED WATER SERVICES AND METERS, ALL RECLAIMED TUBING SHALL BE MANUFACTURED PURPLE TUBING. ALL OTHER TUBING AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL TUBING AND FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL BURIED DI AND CI PIPE AND FITTINGS SHALL ALSO BE WRAPPED IN PURPLE POLYETHYLENE PER SPL WW-27D. ALL COVERS SHALL HAVE **"RECLAIMED WATER"** CAST INTO THEM.

CITY OF AUSTIN AUSTIN WATER	1 ½" - 2" METER INSTALLATION SHOWING OPTIONAL BYPASS	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 520-AW-04 2 OF 2

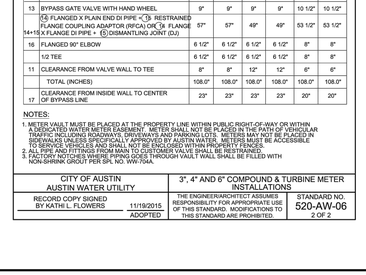


NOTES:

1. WELD SOCKET 2⅝" x 2" DEEP TO 1" SCH. 40 CARBON STEEL ROUND STEM EXTENSION, FITTED ON OPERATING NUT, (SCH. 80 FOR LENGTHS OVER 10').
2. VALVE CASTING SHALL BE 6" DI PIPE WITH BELL OR COLLAR CENTERED OVER VALVE BOOT.
3. NUT AT TOP OF VALVE EXTENSION ROD SHALL BE SQUARE 2" LONG WELDED TO TOP OF ROD.
4. VALVE STEM EXTENSIONS ARE REQUIRED ON ALL VALVES THAT EXCEED 3' DEEP FROM FINISHED GRADE. VALVE EXTENSIONS SHALL BE PLACED SUCH THAT THE EXTENSION NUT IS BETWEEN 12" AND 18" FROM FINISHED GRADE.

RECLAIMED WATER: ALL RECLAIMED PVC PIPE SHALL BE MANUFACTURED PURPLE PIPE. HDPE PIPE SHALL BE MANUFACTURED WITH PURPLE STRIPES. ALL OTHER PIPE AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL PIPE AND FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL BURIED DI AND CI PIPE AND FITTINGS SHALL ALSO BE WRAPPED IN PURPLE POLYETHYLENE PER SPL WW-27D. ALL COVERS SHALL HAVE **"RECLAIMED WATER"** CAST INTO THEM.

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 511-AW-01 1 OF 4



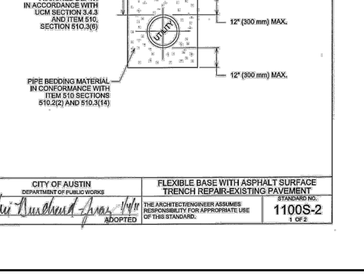
WEIGHTS:
C7 LID: 13 LBS
RECLAIMED LID: 15 LBS
C6 FRAME: 23 LBS
RECLAIMED FRAME: 33 LBS
C5 BASE: 78 LBS

* LETTERING SHALL BE 1 ½" 2 PICK BAR SLOTS REQUIRED

NOTES:

1. MATERIAL SHALL BE GRAY CAST IRON, ASTM A48, GRADE 30B.
2. THE MANUFACTURER'S IDENTIFICATION AND CASTING NUMBER, AND THE COUNTRY WHERE CAST, SHALL BE DISTINCTLY CAST ONTO EACH LID, FRAME, COLLAR AND BASE.
3. DRAFT AND SHRINKAGE ALLOWANCE SHALL BE IN ACCORDANCE WITH NORMAL FOUNDRY PRACTICE.
4. CASTING FINISH BY MANUFACTURER SHALL INCLUDE REMOVAL OF FINS AND FLASHING, AND PAINT WITH BLACK ASPHALT COATING.

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 511-AW-01 2 OF 4



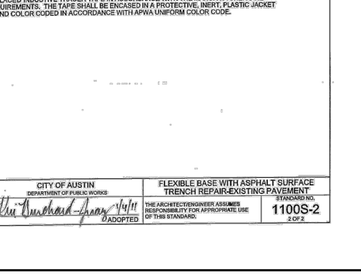
NOTES:

1. SUB-GRADE/TRENCH BACKFILL SHALL BE COMPACTED AS PER ITEM 201S, SUB-GRADE PREPARATION.
2. TO ADJUST VALVE CASTINGS TO FINAL GRADE, REMOVE RISER PIPE BELOW SUB-GRADE AND INSTALL APPROPRIATE LENGTH OF NEW RISER PIPE TO ACHIEVE FINAL GRADE. CONNECT THE TWO PIECES OF RISER PIPE WITH A 6" COLLAR MIN. 12" LENGTH APPROXIMATELY CENTERED ON THE JOINT WITH THE TOP OF SLEEVE LOCATED ½" - 18" BELOW SUB-GRADE. THE INSIDE "LIP" OF COLLAR TO BE PAINTED WITH FLUORESCENT WHITE PAINT OR COVERED WITH FLUORESCENT WHITE TAPE, ALTERNATE: FOR OPTIONAL SINGLE PIECE RISER INSTALLATION SEE SHEET 4 OF 4.
3. CLEAN VALVE BOX OF ALL DEBRIS DOWN TO THE NUT OF THE VALVE; NUT SHALL OPERATE WITH NO OBSTRUCTION.
4. WHERE CASTINGS TO BE REMOVED REQUIRE EXCAVATION GREATER THAN 20" DEEP, CONTRACTOR MAY ELECT TO FILL EXCAVATION WITH CONTROLLED LOW STRENGTH MATERIAL (SPEC. ITEM 402S) TO THE UNDERSIDE OF THE CONCRETE. PAVEMENT PATCH IN LIEU OF COMPACTED BACKFILL.
5. REINFORCING STEEL SHALL MEET SPEC. ITEM 406S.7.
6. NO MORE THAN 2 SECTIONS OF PIPE SHALL BE USED FROM VALVE TO FINAL GRADE.
7. BELL AND SPIGOT IS ACCEPTABLE FOR DEPTH OVER 18'.

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 511-AW-01 3 OF 4

NOTES (CONT):

8. PAVING FRAME SHALL BE FLUSH WITH THE CONC. PAD AND PLACED ½" - 2" ABOVE RISER PIPE (FRAME SHALL NOT REST ON RISER.)
9. IN UNPAVED AREAS, INSTALL ONE DELINEATOR STAKE IMMEDIATELY ADJACENT TO THE EDGE OF THE CONCRETE PAD. DELINEATOR SHALL BE BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER AND SHALL EXTEND AT LEAST 60" ABOVE GROUND. DELINEATORS SHALL HAVE 2" WIDE, WHITE IN COLOR, TYPE I REFLECTIVE TAPE MOUNTED DIAGONALLY AT 12" SPACING ON BOTH SIDES.
10. VALVE SHALL TYPICALLY BE CENTERED IN CONCRETE DIAMOND BUT MAY BE OFFSET WITH A MIN. OF 12" FROM CENTER OF VALVE LID TO EDGE OF CONCRETE IN ALL DIRECTIONS.
11. MIN. TOTAL DEPTH OF ASPHALT PLUS CONC. IS 9" AND MIN. DEPTH OF CONC. PAD SHALL BE 5"



CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
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WTCPUA CONSTRUCTION STANDARDS AND DETAILS	
TRACER WIRE INSTALLATION AND TEST STATION LOCATION	STANDARD NO. 511-AW-01 4 OF 4

CITY OF AUSTIN AUSTIN WATER UTILITY	3", 4" AND 6" COMPOUND & TURBINE METER INSTALLATIONS	
RECORD COPY SIGNED BY KATHI L FLOWERS 11/19/2015 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 520-AW-06 1 OF 2

LARGE METER INSTALLATIONS

DIMENSIONS IN INCHES		1"TURBINE	1"COMPOUND	1"TURBINE	1"COMPOUND	1"TURBINE	1"COMPOUND
No.	METER UNIT	1"SPRING	1"SPRING	1"SPRING	1"SPRING	1"SPRING	1"SPRING
1	CLEARANCE FROM VALVE WALL TO TEE	8"	8"	12"	12"	6"	6"
2	FLANGED TEE	13"	13"	13"	13"	16"	16"
3	COA GATE VALVE SQUARE NUT	9"	9"	9"	9"	10 1/2"	10 1/2"
4	3" X 4" FLANGED REDUCER (3" METER ONLY)	7"	7"	--	--	--	--
5	METER	17"	19"	20"	23"	24"	27"
6	3" X 4" FLANGED REDUCER (3" METER ONLY)	7"	7"	--	--	--	--
7+8	(7) FLANGED X PLAIN END DI PIPE + (8) RESTRAINED FLANGE COUPLING ADAPTER (RFCA) OR (7) FLANGE X DI PIPE + (8) DISMANTLING JOINT (DJ)	17"	15"	20"	17"	19"	16"
9	COA GATE VALVE SQUARE NUT	9"	9"	9"	9"	10 1/2"	10 1/2"
10	FLANGED TEE	13"	13"	13"	13"	16"	16"
11	CLEARANCE FROM INSIDE WALL TO TEE	8"	8"	12"	12"	6"	6"
	TOTAL (INCHES)	108.0"	108.0"	108.0"	108.0"	108.0"	108.0"
	BYPASS LINE						
1	CLEARANCE FROM INSIDE WALL TO TEE	8"	8"	12"	12"	6"	6"
	1/2 TEE	6 1/2"	6 1/2"	6 1/2"	6 1/2"	8"	8"
12	FLANGED 90° ELBOW	6 1/2"	6 1/2"	6 1/2"	6 1/2"	8"	8"
13	BYPASS GATE VALVE WITH HAND WHEEL	9"	9"	9"	9"	10 1/2"	10 1/2"
14+15	(5) FLANGED X PLAIN END DI PIPE + (3) RESTRAINED FLANGE COUPLING ADAPTOR (RFCA) OR (3) FLANGE X FLANGE DI PIPE + (5) DISMANTLING JOINT (DJ)	57"	57"	49"	49"	53 1/2"	53 1/2"
16	FLANGED 90° ELBOW	6 1/2"	6 1/2"	6 1/2"	6 1/2"	8"	8"
	1/2 TEE	6 1/2"	6 1/2"	6 1/2"	6 1/2"	8"	8"
11	CLEARANCE FROM VALVE WALL TO TEE	8"	8"	12"	12"	6"	6"
	TOTAL (INCHES)	108.0"	108.0"	108.0"	108.0"	108.0"	108.0"
17	CLEARANCE FROM INSIDE WALL TO CENTER OF BYPASS LINE	23"	23"	23"	23"	20"	20"

NOTES:

1. METER VAULT MUST BE PLACED AT THE PROPERTY LINE WITHIN PUBLIC RIGHT-OF-WAY OR WITHIN A DEDICATED WATER METER EASEMENT. METER SHALL NOT BE PLACED IN THE PATH OF VEHICULAR TRAFFIC INCLUDING ROADWAYS, DRIVEWAYS AND PARKING LOTS. METERS MAY NOT BE PLACED IN SIDEWALKS UNLESS APPROVED BY AUSTIN WATER UTILITY. METERS MUST BE ACCESSIBLE 365 DAYS/YEAR, 24 HOURS/DAY AND SHALL NOT BE RESTRICTED WITH FENCING.
2. ALL PIPE AND FITTINGS FROM MAIN TO CUSTOMER VALVE SHALL BE RESTRAINED.
3. FACTORY NOTCHES WHERE PIPING GOES THROUGH VAULT WALL SHALL BE FILLED WITH NON-SHRINK GROUT PER SPL NO. WW-704A.

CITY OF AUSTIN AUSTIN WATER UTILITY	3", 4" AND 6" COMPOUND & TURBINE METER INSTALLATIONS	
RECORD COPY SIGNED BY KATHI L FLOWERS 11/19/2015 ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 520-AW-06 2 OF 2

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	FLEXIBLE BASE WITH ASPHALT SURFACE TRENCH REPAIR-EXISTING PAVEMENT	
Kevi Burkhardt-Lynar 11/1/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-2 1 OF 2

NOTES:

1. THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE, A MINIMUM OF 12" (300 mm) WIDER THAN UNDISTURBED SIDES OF THE TRENCH AND SYMMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION.
2. 8" EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX AC OR TEMPORARY HMAC. TEMPORARY MIX SHALL BE PLACED OVER FLEXIBLE BASE.
3. ROAD BASE SHALL BE REPLACED IN KIND WITH BASE THICKNESS EQUAL TO EXISTING BASE THICKNESS PLUS 3" (75 mm), BUT IN NO CASE LESS THAN 12" (300 mm).
4. DAMAGED PAVEMENT OUTSIDE THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH A BASE THICKNESS OF 10" (250 mm) OR A THICKNESS MATCHING EXISTING, WHICHEVER IS GREATER.
5. REPLACEMENT AC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION:
   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS;
   b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS;
   SEE ITEM 340S, SECTION 340S.4.
6. CLASS "J" PC CONCRETE (ITEM 403S) OR CONTROLLED LOW STRENGTH MATERIAL (CLSM) MAY BE SUBSTITUTED IN THESE REPAIRS FOR THE FLEXIBLE BASE AND COMPACTED BACKFILL. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
7. TACK COAT ALL EXPOSED EDGES AND SURFACES (SPEC ITEM 3078).
8. AS PER CITY OF AUSTIN STANDARD SPECIFICATION 510, SECTION 510.2(6)K5. FOR ALL NON-METALLIC PIPE, DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND A MINIMUM OF 12" (300 mm) BELOW THE SUBGRADE, OR A MINIMUM OF 18" (450 mm) BELOW FINISHED GRADE WHICHEVER IS GREATER ON AREAS OUTSIDE THE LIMITS OF PAVEMENT, SHALL BE PLACED INDUCTIVE TRACER TAPE IN ACCORDANCE WITH THE MANUFACTURER'S RE-QUIREMENTS. THE TAPE SHALL BE ENCASED IN A PROTECTIVE, INERT, PLASTIC JACKET AND COLOR CODED IN ACCORDANCE WITH APWA UNIFORM COLOR CODE.

| CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS | FLEXIBLE BASE WITH ASPHALT SURFACE TRENCH REPAIR-EXISTING PAVEMEN

SECTION 5

Temporary Storm Water Section
(TCEQ-0602)

Temporary Stormwater Section

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Kyle Moore, P.E.

Date: 02/02/2024

Signature of Customer/Agent:

Regulated Entity Name: HTG Red Oaks

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.

Attachment A
Spill Response Actions

If there is an accidental spill on site, the contractor shall respond with appropriate action. The contractor will be required to contact the owner and in turn the owner will contact the TCEQ in the event of a spill on site. In addition to the following guidance, reference the latest version of TCEQ's Technical Guidance Manual (TGM) RG-348 Section 1.4.16.

Cleanup

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

Minor Spills

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

Semi-Significant Spills

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

Spills should be cleaned up immediately:

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

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

- Notify the TCEQ by telephone as soon as possible and within 24 hours at (512)339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
- For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
- Notification should first be made by telephone and followed up with a written report.
- The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.

Other agencies which may need to be consulted include, but not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

Attachment B
Potential Sources of Contamination

Examples of items and activities to be expected with the proposed development include saw cutting the existing asphalt, dripping petroleum-based fuels and fluids used in vehicles during driving, dirt from moving vehicles, and landscape debris such as grass and leaves. During construction, water quality could be affected by the runoff carrying sediments from the open construction area. Filter dike will be installed along the downstream portion of the installation. After construction, the site will be backfilled and repaved, and runoff will continue to follow the existing drainage patterns. No other industrial activity other than construction will occur.

Attachment C
Sequence of Major Activities

Major activities involved in the installation of the proposed improvements include first saw-cutting the pavement and excavating the fill above the existing pipe, followed by temporarily rerouting wastewater service and replacement of the existing pipe, and finished with the backfill and repaving of the installation area. Each activity in the construction sequence will disturb 0.071 acres for offsite segment A and 0.099 acres for offsite segment B. Triangular filter dike will be implemented for the duration of the installation process where necessary.

Attachment D
Temporary Best Management Practices and Measures

There is approximately 0.61 acres of storm water that originates up gradient from Offsite WWL-A and 2.01 acres from Offsite WWL-B that will flow across the sites or be routed around the sites. Triangular filter dike will be placed at the upstream side of each installation location that will prevent sediment from entering the utility trench and downstream to prevent sediment from the trench from continuing downstream. There are no surface streams or sensitive features in the area.

Attachment E

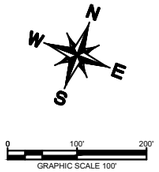
Request to Temporarily Seal a Feature

(Not applicable)

Attachment F
Structural Practices

No structural practices will be used to divert flows away from the exposed areas outside of typical erosion controls. Neither installation location is located within a floodplain.

Attachment G
Drainage Area Map



LEGEND

X-1 / 9.9 ac / 5.5 cfs	AREA DESIGNATOR / AREA IN ACRES / Q100 FLOW IN CFS
A-1	INLET NUMBER
	PROPERTY LINE
	EXISTING STORM DRAIN LINE
	PROPOSED DRAINAGE DIVIDE
	PROPOSED STORM DRAIN LINE
	PROPOSED STORM DRAIN INLET
	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN HEADWALL
	PROPOSED FLOW DIRECTION
XXX	EXISTING MAJOR CONTOUR
XXX	EXISTING MINOR CONTOUR
	TIME OF CONCENTRATION PATH

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

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

BENCHMARKS

IRFC ALUMCAP RPLS-5086
ELEVATION=102418'
NORTHING=10138988.8950'
EASTING=3087269.3740'

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200,
AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM

TBPE Firm No. 928

STATE OF TEXAS
JUSTIN J. KRAMER
122309
LICENSED
PROFESSIONAL ENGINEER
2/1/2024

KHA PROJECT	069418500
DATE	06/30/2023
SCALE:	AS SHOWN
DESIGNED BY:	JK/KM
DRAWN BY:	SA/AM
CHECKED BY:	JK/KM

OFFSITE DRAINAGE AREA MAP

RED OAKS
SITE PLAN
11723 N FM 620
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

SHEET NUMBER
EXHIBIT

SP-2023-0252C.SH

Plotted By:Moore, Kyle Date:February 01, 2024 11:49:56am File Path:K:\aus_civil\069418500 - htg red oaks\Cad\plansheets\C - Offsite Wastewater Overall Plan.dwg

Attachment H
Temporary Sediment Pond(s) Plans and Calculations

(Not applicable)

Attachment I
Inspection and Maintenance for BMPs

Personnel Responsible for Inspections

The agent that performs the inspections should be knowledgeable of this general permit, familiar with the construction site, and knowledgeable of the SWPPP for the site. The contractor is to provide an inspector with a CPESC, CESSWI, or CISEC certification. Documentation of the inspector's qualifications is to be included in the attached Inspector Qualifications Log.

Inspection Schedule

The primary operator is required to choose one of the two inspections listed below.

☐ **Option 1:** Once every seven calendar days. If this alternative schedule is developed, then the inspection must occur regardless of whether or not there has been a rainfall event since the previous inspection.

☐ **Option 2:** Once every 14 calendar days and within 24 hours of the end of a storm event of two inches or greater.

The inspections may occur on either schedule provided that documentation reflects the current schedule and that any changes to the schedule are conducted in accordance with the following provisions: the schedule may be changed a maximum of one time each month, the schedule change must be implemented at the beginning of a calendar month, and the reason for the schedule change must be documented (e.g., end of “dry” season and beginning of “wet” season).

If option 2 is the chosen frequency of inspections a rain gauge must be properly maintained on site or the storm event information from a weather station that is representative of the site location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, proper documentation of the total rainfall measured for that day must be recorded.

Personnel provided by the permittee must inspect:

- disturbed areas of the construction site that have not been finally stabilized;
- areas used for storage of materials that are exposed to precipitation;
- structural controls (for evidence of, or the potential for, pollutants entering the drainage system);
- sediment and erosion control measures identified in the SWP3 (to ensure they are operating correctly); and
- locations where vehicles enter or exit the site (for evidence of off-site sediment tracking).

Reductions in Inspection Frequency

Where sites have been finally or temporarily stabilized or where runoff is unlikely due to winter conditions (e.g. site is covered with snow, ice, or frozen ground exists), inspections must be conducted at least once every month. In arid, semi-arid, or drought-stricken areas, inspections must be conducted at least once every month and within 24 hours after the end of a storm event of 0.5 inches or greater. A record of the total rainfall measured, as well as the approximate beginning and ending dates of winter or drought conditions resulting in monthly frequency of inspections in the attached Rain Gauge Log.

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

Inspection Report Forms

Use the Inspection Report Forms given as a checklist to ensure that all required areas of the construction site are addressed. There is space to document the inspector's name as well as when the inspections regularly take place. The tables will document that the required area was inspected. (If there were any areas of concern, briefly describe them in this space with a more detailed description in the narrative section. Use the last table to document any discharges found during the inspections).

Describe how effective the installed BMPs are performing. Describe any BMP failures that were noted during the investigation and describe any maintenance required due to the failure. If new BMPs are needed as the construction site changes, the inspector can use the space at the bottom of the section to list BMPs to be implemented before the next inspection.

Describe the inspector's qualifications, how the inspection was conducted, and describe any areas of non-compliance in detail. If an inspection report does not identify any incidents of non-compliance, then it must contain a certifying signature stating that the facility or site is in compliance. The report must be signed by a person and in a manner required by 30 TAC 305.128. There is space at the end of the form to allow for this certifying signature.

Whenever an inspection shows that BMP modifications are needed to better control pollutants in runoff, the changes must be completed within seven calendar days following the inspection. If existing BMPs are modified or if additional BMPs are needed, you must describe your implementation schedule, and wherever possible, make the required BMP changes before the next storm event.

The Inspection Report Form functions as the required report and must be signed in accordance with TCEQ rules at 30 TAC 305.128.

Corrective Action

Personnel Responsible for Corrective Actions

Both Primary and Secondary Operators are responsible for maintaining all necessary Corrective Actions. If an individual is specifically identified as the responsible party for modifying the contact information for that individual should be documented in the attached Inspector Qualifications Log.

Corrective Action Forms

The Temporary BMPs must be modified based on the results of inspections, as necessary, to better control pollutants in runoff. Revisions must be completed within seven (7) calendar days following the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in the attached forms and wherever possible those changes implemented before the next storm event. If implementation before the next anticipated storm event is impracticable, these changes must be implemented as soon as practicable. Actions taken as a result of inspections must be properly documented by completing the corrective action forms given.

Attachment J
Schedule of Interim and Permanent Soil Stabilization Practices

Construction practices shall disturb the minimal amount of existing ground cover as required for land clearing, grading, and construction activity for the shortest amount of time possible to minimize the potential of erosion and sedimentation from the site. Existing vegetation shall be maintained and left in place until it is necessary to disturb for construction activity. For this project the following stabilization practices will be implemented:

1. Hydraulic Mulch and Seeding: Disturbed areas subject to erosion shall be stabilized with hydraulic mulch and/or seeded and watered to provide interim stabilization. For areas that are not to be sodded as per the project landscaping plan, a minimum of 85% vegetative cover will be established to provide permanent stabilization.
2. Sodding and Wood Mulch: As per the project landscaping plan, sodding and wood mulch will be applied to landscaped areas to provide permanent stabilization prior to project completion.

Records of the following shall be maintained:

a) The dates when major grading activities occur;
b) The dates when construction activities temporarily or permanently cease on a portion of the site; and
c) The dates when stabilization measures are initiated.

Stabilization measures must be initiated as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, and except as provided in the following, must be initiated no more that fourteen (14) days after the construction activity in that portion of the site has temporarily or permanently ceased:

Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practical.

Where construction activity on a portion of the site is temporarily ceased and earth disturbing activities will be resumed within twenty-one (21) days, temporary stabilization measures do not have to be initiated on that portion of the site.

In arid areas (areas with an average rainfall of 0-10 inches), semiarid areas (areas with an average annual rainfall of 10 to 20 inches), and areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonably arid conditions, stabilization measures must be initiated as soon as practical.

Maintenance

Below are some maintenance practices to be used to maintain erosion and sediment controls:

- All measures will be maintained in good working order. The operator should correct any damage or deficiencies as soon as practicable after the inspection, but in no case later than seven (7) calendar days after the inspection.
- BMP Maintenance (as applicable)
- Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50%. For perimeter controls such as silt fences, berms, etc., the trapped sediment must be removed before it reaches 50% of the above-ground height.
- Silt fence will be inspected for depth of sediment, tears, to see of the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Drainage swale will be inspected and repaired as necessary.
- Inlet control will be inspected and repaired as necessary.
- Check dam will be inspected and repaired as necessary.
- Straw bale dike will be inspected and repaired as necessary.
- Diversion dike will be inspected and any breaches promptly repaired.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- If sediment escapes the site, accumulations must be removed at a frequency that minimizes off-site impacts, and prior to the next rain event, if feasible. If the permittee does not own or operate the off-site conveyance, then the permittee must to work with the owner or operator of the property to remove the sediment.
- Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking.

To maintain the above practices, the following will be performed:

Maintenance and repairs will be conducted before the next anticipated storm event or as necessary to maintain the continued effectiveness of storm water controls. Following an inspection, deficiencies should be corrected no later than seven (7) calendar days after the inspection.

SECTION 6

Agent Authorization Form

(TCEQ-0599)

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

I Matthew Rieger,
Print Name

Manager,
Title - Owner/President/Other

of HTG Anderson, LLC,
Corporation/Partnership/Entity Name

have authorized Kyle Moore
Print Name of Agent/Engineer

of Kimley-Horn
Print Name of Firm

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

I also understand that:

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

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

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

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

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

SIGNATURE PAGE:

Applicant's Signature

7/14/2023
Date

By: Matthew Rieger, Manager

THE STATE OF Florida §

County of Miami-Dade §

BEFORE ME, the undersigned authority, on this day personally appeared Matthew Rieger 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 14 day of July 2023

NOTARY PUBLIC

Glenda Brown
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 6/12/2026

Notary Public State of Florida
Glenda Brown
My Commission
HH 274894
Exp. 6/12/2026

May 19TH, 2023

Myrna Rios, City Clerk
City of Austin
301 W. Second St., Suite 2030
Austin, TX 78701

RE: Authorization Letter from Owner to Developer in order to apply for and obtain the necessary municipal approvals for the development of the property located at 11617 El Salido Pkwy, Austin Texas 78750, identified by Tax Parcel #R413803 (the "Property").

Dear City Clerk:

Magna Properties, LTD (the "Owner") hereby authorizes HTG Anderson, LLC (the "Developer"), its representatives, affiliates and/or consultants to act as agents on behalf of the Owner in connection with applying for and obtaining the necessary applications, agreements, approvals and other documents related to the development of a 70-unit multifamily affordable housing project called Red Oaks on the Property.

These may include, but not be limited to, applications for and related to site plan approvals, building permits, and other applications similar in nature, and executing various applications and agreements with public or provide utility providers, municipalities or other government authorities, related to obtaining a final building permit and/or permit ready letter for the development of the Property.

Sincerely,

MAGNA PROPERTIES, LTD

By: E. Sarkis

Printed Name: ELIAS SARKIS

Title: MANAGING PARTNER

Date: 5-19-2023

STATE OF Texas
COUNTY OF Jefferson

The foregoing instrument was acknowledged before me, by means of (check one): ✓ physical presence or ____ online notarization, this 19th day of May, 2023 by Elias Sarkis, who is the Managing Partner of Magna Properties, LTD who is personally known to me or who has produced Drivers Licenses as identification.

Amberly Marie Woodside
My Commission Expires
3/24/2027
Notary ID134269959

Notary Public

Typed, printed or stamped name of Notary Public

My Commission Expires:

SECTION 7

Application Fee Form

(TCEQ-0574)

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Red Oaks (HTG Anderson, LLC)
Regulated Entity Location: 11723 N FM 620 Rd., Austin, TX 78750
Name of Customer: HTG Anderson, LLC
Contact Person: Mauricio Teran Phone: 786-347-4554
Customer Reference Number (if issued):CN _____
Regulated Entity Reference Number (if issued):RN _____
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	475 L.F.	$ 650
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: _____ Date: 7/14/2023
Matthew Rieger, Manager

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

SECTION 8

Core Data Form
(TCEQ-10400)

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

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

SECTION II: Customer Information

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

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

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

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

HTG Anderson LLC

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
0804305476	32081837422	87-4384755	

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

12. Number of Employees
☐ 0-20 ☐ 21-100 ☒ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?
☒ **Yes** ☐ **No**

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

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

15. Mailing Address:	3225 Aviation Avenue						
	City	Coconut Grove	**State**	FL	**ZIP**	33133	**ZIP + 4** 4741

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*
	mauriciot@htgf.com

18. Telephone Number	**19. Extension or Code**	**20. Fax Number** *(if applicable)*

(786) 347-4554		( ) -

SECTION III: Regulated Entity Information

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

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

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

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

HTG Red Oaks

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	11723 N FM 620 Rd.							
	City	Austin	**State**	TX	**ZIP**	78750	**ZIP + 4**	1348
24. County	Williamson							

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

25. Description to Physical Location:					
26. Nearest City			**State**		**Nearest ZIP Code**

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

27. Latitude (N) In Decimal:	30.456613		**28. Longitude (W) In Decimal:**	-97.822611	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
6500			

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

Land development

34. Mailing Address:	**3225 Aviation Avenue**							
	City	**Coconut Grove**	**State**	**FL**	**ZIP**	**33133**	**ZIP + 4**	**4741**
35. E-Mail Address:	**mauriciot@htgf.com**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(786) 347-4554		( ) -

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

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

SECTION IV: Preparer Information

40. Name:	Kyle Moore, P.E.	**41. Title:**	Civil Engineer

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512 **)** 489-6376	N/A	**( )** -	kyle.moore@kimley-horn.com

SECTION V: Authorized Signature

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

Company:	Kimley-Horn and Associates Inc	**Job Title:**	Civil Engineer	
Name *(In Print):*	Kyle Moore, P.E.		**Phone:**	**(** 512 **)** 489- **6376**
Signature:			**Date:**	7/18/2023