WATER POLLUTION ABATEMENT PLAN MODIFICATION

FOR

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

IN

GEORGETOWN, TEXAS

PREPARED FOR

GEORGETOWN LEASED HOUSING ASSOCIATES I, LP
2905 NORTHWEST BLVD., SUITE 150
PLYMOUTH, MINNESOTA 55441

4/10/2024



QUIDDITY

3100 Alvin Devane Boulevard, Suite 150
Austin, Texas 78741
Tel: 512.441.9493
Fax: 512.445.2286

April 2024

QUIDDITY

3100 Alvin Devane Boulevard, Suite 150
Austin, Texas 78741-7425
Tel: 512.441.9493
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April 10, 2024

Water Section Manager
Texas Commission on Environmental Quality
Region 11 Office
12100 Park 35 Circle, Bldg A, Rm 179
Austin, Texas 78753

Re: Water Pollution Abatement Plan Modification
Northside Lot 3 Multi-Family Site Plan
Georgetown, Texas

To whom it may concern:

On behalf of our client, Georgetown Leased Housing Associates I, LP, we are pleased to submit this Water Pollution Abatement Plan Modification for your consideration. Please find enclosed the following items for your review:

1. Edwards Aquifer Application Cover Page (TCEQ-20705)
2. General Information Form (TCEQ-0587)
3. Geologic Assessment Form (TCEQ-0585)
4. Modification of a Previously Approved Plan (TCEQ-0590)
5. Organized Sewage Collection System Application (TCEQ-0582)
6. Water Pollution Abatement Plan Application (TCEQ-0584)
7. Temporary Stormwater Section (TCEQ-0602)
8. Permanent Stormwater Section (TCEQ-0600)
9. Agent Authorization Form (TCEQ-0599)
10. Application Fee Form (TCEQ-0574)
11. Application Fee Check
12. Core Data Form (TCEQ-10400)
13. Northside Lot 3 Multi-Family Site Plans (Attachment in TCEQ-0584)

If you have any questions about any of the items included in this submittal, please call.

Sincerely,

Justin Cadieux, P.E.

Water Pollution Abatement Plan Modification

FOR

NORTHSIDE LOT 3 MULTI-FAMILY SITE PLANS

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Water Pollution Abatement Plan Application Form (TCEQ-0584)

Organized Sewage Collection System Application (TCEQ-0582)

Temporary Stormwater Section (TCEQ-0602) - Storm Water Pollution Prevention Plan

Permanent Stormwater Section (TCEQ-0600)

Agent Authorization Form (TCEQ-0599)

Application Fee Form (TCEQ-0574)

Core Data Form (TCEQ-10400)

Northside Lot 3 Multi-Family Site Plans (Attachment in TCEQ-0584)

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: Northside Lot 3					**2. Regulated Entity No.:** RN111804993				
3. Customer Name: Georgetown Leased Housing Associates I, LP					**4. Customer No.:** N/A				
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):**		44.43	
9. Application Fee:	8,840		**10. Permanent BMP(s):**			Batch Detention Pond			
11. SCS (Linear Ft.):	1,679		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Williamson		**14. Watershed:**			Dry Berry Creek			

Application Distribution

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

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

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

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	___	___	_X_
Region (1 req.)	___	___	_X_
County(ies)	___	___	_X_
Groundwater Conservation District(s)	___Edwards Aquifer Authority ___Barton Springs/ Edwards Aquifer ___Hays Trinity ___Plum Creek	___Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda ___Dripping Springs ___Kyle ___Mountain City ___San Marcos ___Wimberley ___Woodcreek	___Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	___Austin ___Cedar Park ___Florence _X_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. Justin M. Cadieux
Print Name of Customer/Authorized Agent
Signature of Customer/Authorized Agent — Date: 4/8/2024

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

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: Justin M. Cadieux

Date: 5/7/2024

Signature of Customer/Agent:



Project Information

1. Regulated Entity Name: Northside Lot 3 Multi-family
2. County: Williamson
3. Stream Basin: Berry Creek
4. Groundwater Conservation District (If applicable): N/A
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

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

7. Customer (Applicant):

   Contact Person: Jeffery S. Spicer
   Entity: Georgetown Leased Housing Associates I, LP
   Mailing Address: 2905 Northwest Blvd. Suite 150
   City, State: Plymouth, Minnesota Zip: 55441
   Telephone: 214-971-8747 FAX: _____
   Email Address: austin.holmes@dominiuminc.com

8. Agent/Representative (If any):

   Contact Person: Justin M. Cadieux
   Entity: Quiddity Engineering, LLC
   Mailing Address: 3100 Alvin Devane Blvd, Ste 150
   City, State: Austin, Texas Zip: 78741
   Telephone: 512-685-5152 FAX: _____
   Email Address: jcadieux@quiddity.com

9. Project Location:

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

    The project site is located 0.28 miles northwest of the intersection of IH 35 and SH 195. The site lies on a central tract with access off of SH 195, across SH 195 from and northeast of 455 SH-195

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: 11/26/21

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

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

15. Existing project site conditions are noted below:

☐ Existing commercial site
☐ Existing industrial site
☐ Existing residential site
☐ Existing paved and/or unpaved roads
☒ Undeveloped (Cleared)
☒ Undeveloped (Undisturbed/Uncleared)
☐ Other: _____

Prohibited Activities

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

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

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

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

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

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

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

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

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

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

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

Administrative Information

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

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

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

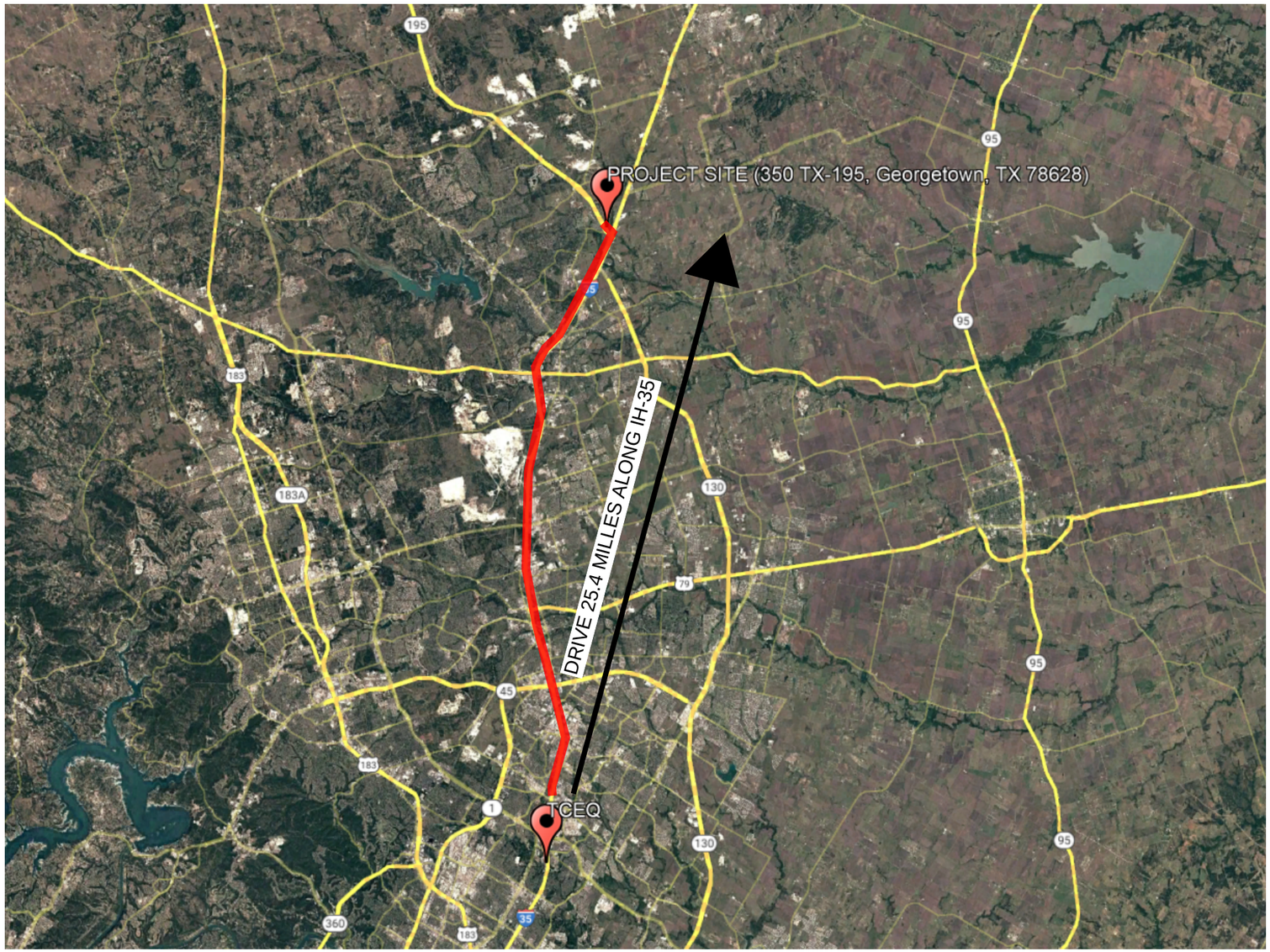
☐ TCEQ cashier
☒ Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
☐ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

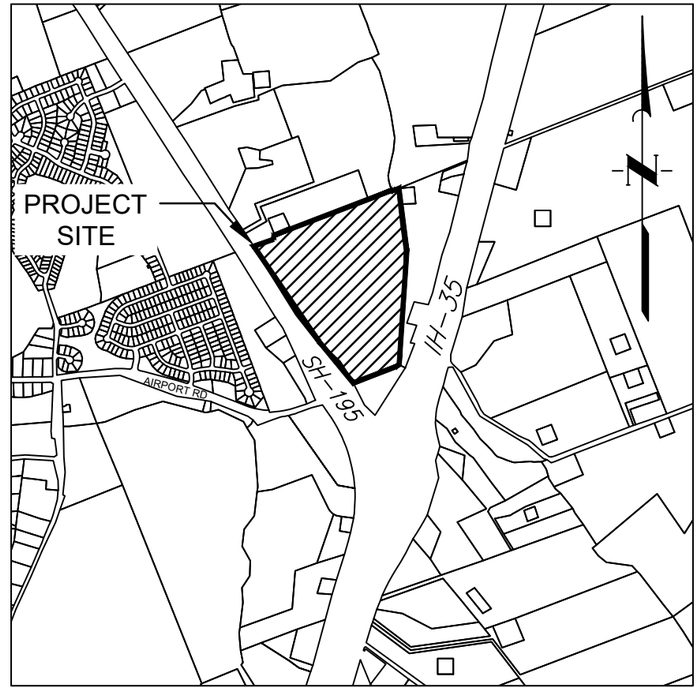
20. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies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

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

GENERAL INFORMATION FORM – ATTACHMENT A

Road Map





VICINITY MAP

1"=2,000'

TRAILS, LLC
WILLIAMSON COUNTY, TEXAS

JOB
NORTHSIDE SUBDIVISION

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
3100 Alvin Devane Boulevard, Suite 150 ◆ Austin, TX 78741 ◆ 512.441.9493

ATTACHMENT A

DATE: JUNE 2023

JOB NO. 16705-0003-00

\\onescarter.corp\cls\Projects\16705\16705-0003-00 Northside Georgetown Subdivision\2 Design Phase\Reports\TCEQ\WPAP\Individual Files\02 General Information Form (TCEQ-0587)\Working\CAD FILE FOR ATTACHMENT A\Attachment A.dwg Jun 15,2023 - 1:21pm jsh

GENERAL INFORMATION FORM – ATTACHMENT B

USGS/ Edwards Aquifer Recharge Zone Map

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

GEORGETOWN QUADRANGLE
TEXAS–WILLIAMSON CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

Project Location

Edwards Aquifer Recharge Zone

Edwards Aquifer Contributing Zone

Edwards Aquifer Transition Zone

LAKE GEORGETOWN
ELEVATION 791

GEORGETOWN

Produced by the United States Geological Survey

Control by USGS and NOS/NOAA

Compiled from aerial photographs taken 1974. Field checked 1975
Map edited 1982

North American Datum of 1927 (NAD 27). Projection and 10000-foot ticks: Texas Coordinate System, central zone (Lambert Conformal Conic)
Blue 1000-meter Universal Transverse Mercator ticks, zone 14

North American Datum of 1983 (NAD 83) is shown by dashed corner ticks. The values of the shift between NAD 27 and NAD 83 for 7.5-minute intersections are obtainable from National Geodetic Survey NADCON software

Red tint indicates areas in which only landmark buildings are shown

Fine red dashed lines indicate selected fence lines

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

UTM GRID AND 1982 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 10 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

3097-313

ROAD CLASSIFICATION

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

GEORGETOWN, TX
30097-H6-TF-024

1982

DMA 6445 II NW-SERIES V882

ISBN 0-607-51004-6

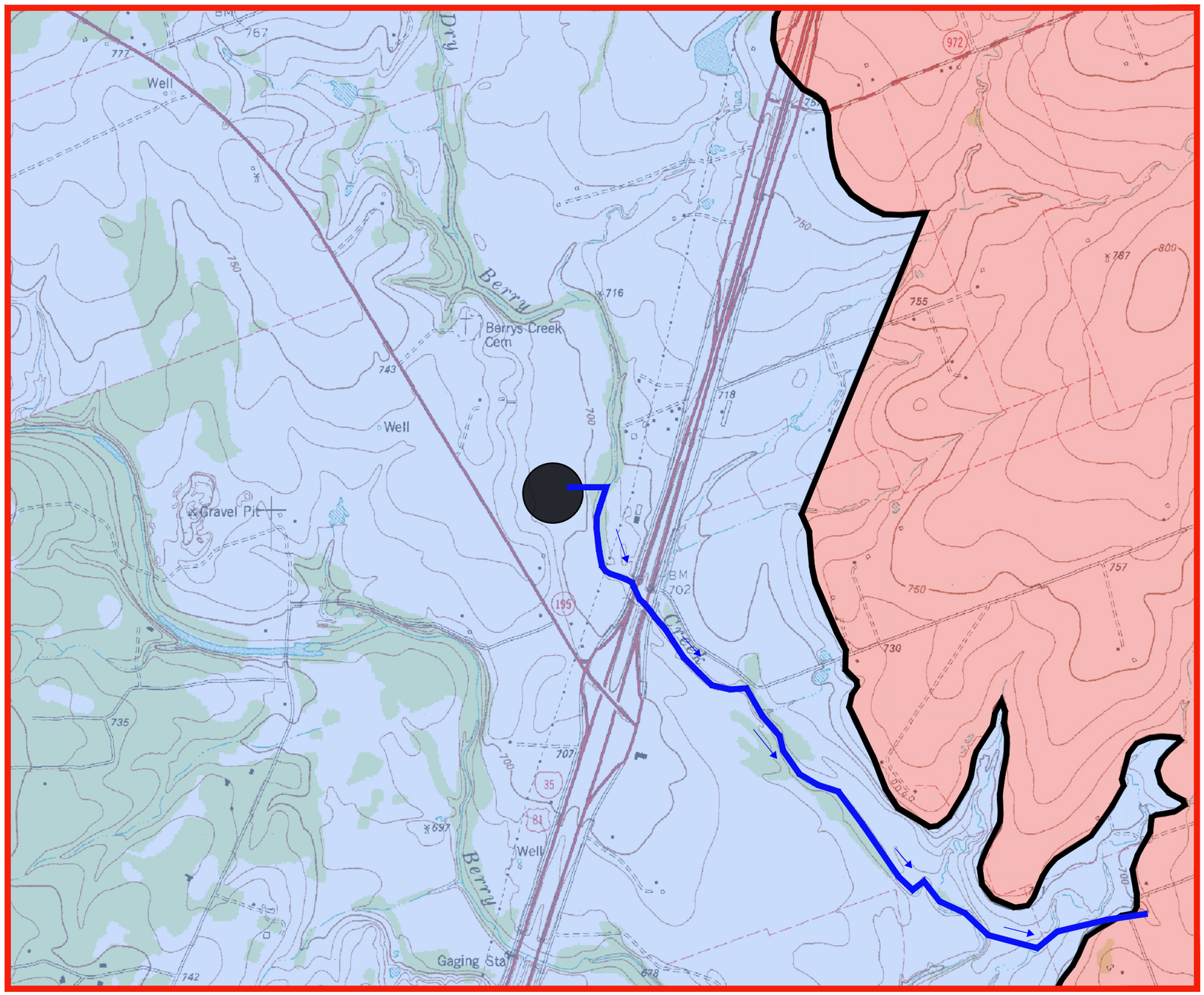
INTERIOR-GEOLOGICAL SURVEY, RESTON, VIRGINIA—1995

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program

Regulatory Zones

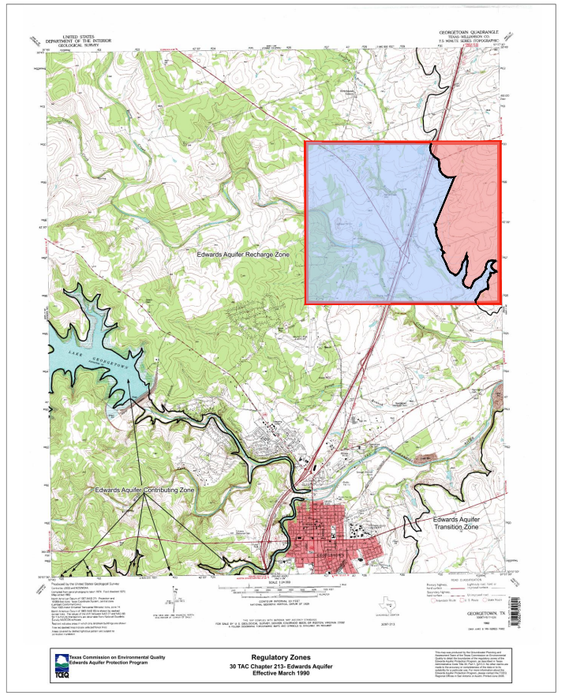
30 TAC Chapter 213- Edwards Aquifer
Effective March 1990

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.



ZONE MAP

N.T.S



VICINITY MAP

N.T.S

LEGEND

- TRANSITION ZONE
- RECHARGE ZONE
- APPROX. LOCATION OF PROJECT SITE
- FLOWPATH TO TRANSITION ZONE
- ZONE BOUNDARY

TRAILS, LLC
WILLIAMSON COUNTY, TEXAS

JOB
NORTHSIDE SUBDIVISION

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
3100 Alvin Devane Boulevard, Suite 150 ♦ Austin, TX 78741 ♦ 512.441.9493

ATTACHMENT B

DATE: JUNE 2023

JOB NO. 16705-0003-00

\\jonescarter.corp\cfs\Projects\16705\16705-0003-00 Northside Georgetown Subdivision\2 Design Phase\Reports\TCEQ\WPAP\Individual Files\02 General Information Form (TCEQ-0587)\Working\CAD FILE FOR ATTACHMENT B\Attachment B.dwg Jun 15,2023 - 1:20pm jsh

GENERAL INFORMATION FORM – ATTACHMENT C

Project Description

The Northside Subdivision (RN111804993) project of 71.997 acres entails the ultimate construction of one (1) multi-family lot, three (3) commercial lots, and one (1) detention pond. As a part of this WPAP modification, the original project, Northside Subdivision, included only the public and private infrastructure to accommodate these lots and the proposed modifications includes the development of a 44.43-acre multi-family site delegated as Northside Lot 3 Multi-family (2023-64-SDP). The Northside Subdivision includes roadways, utilities, grading, water quality, detention, and connection points for the proposed Northside Lot 3 site development. The water quality for each of these lots will be provided by an existing onsite batch storm water quality and detention system that was oversized to accommodate the anticipated ultimate buildout of the subdivision, including Lot 3. The project is located at 350 Hwy. 195, Georgetown, TX 78633 in Williamson County. The subdivision infrastructure to be developed is owned by The Trails, LLC with the proposed modifications to lot 3 being developed by Georgetown Leased Housing Associates I, LLLP. This area is currently developed mostly as agricultural land with four existing structures onsite (one house, a shed, a silo, and a pump house). The project is currently zoned for commercial, multifamily, and agricultural use.

The site is located in the Dry Berry Creek Watershed, which is also classified as the recharge zone for the Edward's Aquifer by TCEQ. The offsite areas to the north consist of the Dry Berry Creek, and across the creek, an area with brush and grasslands with no development. The offsite to the east consists of undeveloped land. The offsite to the south of the property is SH-195. The offsite areas to the west consist of an area with brush and grasslands with a residence.

The existing site topography consists of a natural slope ranging from approximately 1–8%. The high point of the site sits at an elevation of 726' in the northwest corner of the site, and the low point is at an elevation of 703' located north of the site. The site is currently developed as agricultural land and vegetated with natural grass, brush, and trees. The existing site slopes generally towards Dry Berry Creek, which runs north to south through the eastern side of the site. Four distinct sub-basins labeled E-1, E-2, E-3, and E-4 were identified. Runoff from area E-1 flows south, runoff from areas E-2 and E-3 flows southeast, and runoff from area E-4 flows northeast. All four existing drainage areas have an existing impervious cover of 0.0%.

Drainage areas P-1, O-1, P-2, and O-2 were identified based on the proposed development layout. The impervious cover was calculated for each individual drainage area. The impervious cover for the drainage areas are as follows: the multifamily portion of the site, P1, was calculated to have 59.02% impervious cover, the proposed private access road portion, P2, was calculated to have 71.95% impervious cover, the off-site area south of P1, O2, is calculated to have 24.39% impervious cover and the 27-acre off-site area east of P1, O1, was calculated to have 1.90% impervious cover. See the table below for the comparison of the impervious cover values used for the three lots.

Table 1 Impervious Cover Table

Drainage Area	Zoning	AC	Current IC%	Proposed IC%
O1	Agriculture	27.00	**0.00%**	**1.90%**
P1	Multi-Family	13.79	**0.00%**	**59.02%**
O2	Multi-Family	0.43	**0.00%**	**24.39%**
P2	Commercial	0.44	**0.00%**	**71.95%**
Per UDC 11.02.010.A.1.b and 11.02.010.B				

The off-site pond constructed as a part of the Northside Subdivision (2023-13-CON) will accommodate peak flows generated by drainage areas P1, P2 and O2, and has been sized according to the maximum impervious cover and flows for the multifamily portion of the site. Impervious cover in the development will be asphalt and concrete and is calculated depending on the area of roadways and shoulders, along with the impervious cover assumptions for the four (4) drainage areas previously mentioned. A majority of the runoff will be controlled and detained with the use of the off-site detention pond before being released into Dry Berry Creek. This pond will also control and detain the runoff for nearby commercial lots. Table 2 shows the summary of permanent BMP coverage of each lot along with the proposed impervious cover within each lot and area covered under each proposed BMP for future site plan developments.

Table 2 Summary Table

Drainage Area	Permanent BMP	Area (Acre)	Areas to be Controlled By Permanent BMPs (Acre)	Area Not Covered By Permanent BMPs (Acre)	Proposed Impervious Cover (Acre)	Proposed Impervious Cover Percent (%)	IC Controlled By Permanent BMPs (Acre)
P1	Batch Detention Pond	13.79	13.79	0.00	8.14	59.02%	8.14
O1	N/A	27.00	0.00	27.00	0.51	1.90%	0.00
P2	N/A	0.44	0.44	0.00	0.32	71.95%	0.32
O2	Batch Detention Pond	0.43	0.43	0.00	0.10	24.39%	0.10
Detention Pond (2023-13-CON)		3.25	0.00	3.18	0.00	0.00%	0.00
	Total	**44.91**	**14.66**	**30.25**	**9.07**	**20.20%**	**8.56**

***Note that only P1, P2, and O2 are included in the sizing of the BMP and will be calculated for the current TSS calculations.*

Based on the Northside Subdivision Construction Plans (2023-13-CON), the proposed detention pond that will accommodate peak flows from our site and off-site was originally sized for an ultimate buildout of the subdivision. The maximum ultimate impervious cover anticipated for the accommodated areas is 25.92% and the detention pond was designed for an expected 18.66 acres of future impervious cover. Since the total proposed impervious cover of Northside Lot 3 multi-family to be controlled by the pond is less than the anticipated, ultimate buildout, the detention pond to be constructed for Northside Subdivision (2023-13-CON) is appropriately sized for the discharge generated by our site (2023-64-SDP) within the subdivision.

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

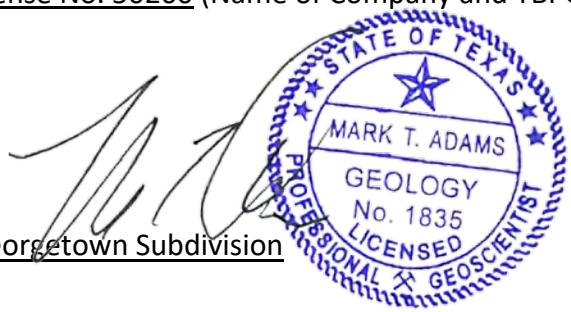
To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Mark T. Adams Telephone: (512) 347-9000

Date: 5/19/2022 Fax: (512) 306-0974

Representing: aci Group LLC TBPG License No. 50260 (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: Northside Georgetown Subdivision

Project Information

1. Date(s) Geologic Assessment was performed: 02/22/22 & 03/01/22
2. Type of Project:
   - ☒ WPAP
   - ☒ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

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GEOLOGIC ASSESSMENT FOR THE APPROXIMATELY 72-ACRE NORTHSIDE GEORGETOWN SUBDIVISION

Williamson County, Texas

May 2022

Submitted to:
Trails, LLC
1127 North Shorewood
Granite Shoals, TX 78654

Prepared by:
aci consulting
1001 Mopac Circle
Austin, Texas 78746
TBPG Firm License No. 50260

aci project #: 22-22-031

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)
See section 4.0		

** Soil Group Definitions (Abbreviated)*

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

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

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

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

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

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

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

   Applicant's Site Plan Scale: 1" = 100'
   Site Geologic Map Scale: 1" = 500'
   Site Soils Map Scale (if more than 1 soil type): 1" = 400'

9. Method of collecting positional data:

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

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

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

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

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

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

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

    ☒ There are 1 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    - ☐ The wells are not in use and have been properly abandoned.
    - ☒ The wells are not in use and will be properly abandoned.
    - ☐ The wells are in use and comply with 16 TAC Chapter 76.

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

Administrative Information

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

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Feature Descriptions and Recommendations
Georgetown Water Quality Oridnance Stream Buffer Map (Figure 6)

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Historic Aerial Photographs

May 2022

Geologic Assessment for the Northside Georgetown Subdivision located in Williamson County, Texas

1.0 INTRODUCTION

The Texas Commission on the Environmental Quality (TCEQ) regulates activities that have the potential to pollute the Edwards Aquifer through the Edwards Aquifer Protection Program. Projects meeting a certain criterion over the Edwards Aquifer Recharge Zone must submit an Edwards Aquifer Protection Plan (EAPP).

The purpose of this report is to identify all potential pathways for contaminant movement to the Edwards Aquifer and provide sufficient geologic information so that the appropriate Best Management Practices (BMPs) can be proposed in the Edwards Aquifer Protection Plan (EAPP). This report complies with the requirements of Title 30, Texas Administrative Code (TAC) Chapter 213 relating to the protection of the Edwards Aquifer Recharge Zone. Per the Rules, the Geologic Assessment must be completed by a Geologist licensed according to the Texas Geoscience Practice Act.

2.0 PROJECT INFORMATION

The Northside Georgetown Subdivision Tract, hereafter referred to as the subject area or site, is located north of the intersection of Interstate Highway 35 (I-35) and Highway (Hwy) 195, in the city of Georgetown, Williamson County, Texas (**Attachment A, Figure 1**). Pedestrian investigations of the 72-acre tract were performed on February 22 and March 1, 2022, by Marcos Cardenas and Andrew Marlow, under the supervision of Mark Adams, P.G. with **aci consulting**.

This report is intended to satisfy the requirements for a Geologic Assessment, which shall be included as a component of a Water Pollution Abatement Plan (WPAP) and Sewage Collection System Plan (SCS). The site is approximately 72 acres in total. The proposed site use is for multi-family and commercial development. The scope of the report consists of a site reconnaissance, field survey, and review of existing data and reports. Features identified during the field survey were ranked utilizing the Texas Commission on

Environmental Quality (TCEQ) matrix for Edwards Aquifer Recharge Zone features. The ranking of the features will determine their viability as "sensitive" features.

3.0 INVESTIGATION METHODS

The following investigation methods and activities were used to develop this report:

- Review of existing files and literature to determine the regional geology and any known caves associated with the project area;
- Review of past geological field reports, cave studies, and correspondence regarding the existing geologic features on the project area, if available;
- Site reconnaissance by a registered professional geologist to identify and examine caves, recharge features, and other significant geological structures;
- Evaluation of collected field data and a ranking of features using the TCEQ Ranking Table 0585 for the Edwards Aquifer Recharge Zone; and
- Review of historic aerial photographs to determine if there are any structural features present, and to determine any past disturbances on the subject property.

4.0 SOILS AND GEOLOGY

The following includes a site-specific description of the soils, geologic stratigraphy, geologic structure, and karstic characteristics as they relate to the Edwards aquifer. Also included in this section is a review of historic aerials for presence of geologic changes or changes to manmade features in bedrock.

Soils

According to the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey (2022), six soil units occur within the project alignment (**Attachment A, Figure 2**):

- EaD—Eckrant cobbly clay, 1 to 8 percent slopes

The Eckrant component makes up 85 percent of the map unit. Slopes are 1 to 8 percent. This component is on ridges on dissected plateaus. The parent material consists of residuum weathered from limestone. Depth to a root restrictive layer, bedrock, lithic, is 4 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is high. This soil is not flooded. It is not ponded.

There is no zone of water saturation within a depth of 72 inches. This soil does not meet hydric criteria. Hydrologic Soil Group: D.

- KrA—Krum silty clay, 0 to 1 percent slopes

The Krum component makes up 100 percent of the map unit. Slopes are 0 to 1 percent. This component is on stream terraces on dissected plains. The parent material consists of clayey alluvium of Pleistocene age derived from mixed sources. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. This soil does not meet the criteria for hydric soils. Hydrologic Soil Group: C.

- KrB—Krum silty clay, 1 to 3 percent slopes

The Krum component makes up 100 percent of the map unit. Slopes are 1 to 3 percent. This component is on stream terraces on dissected plains. The parent material consists of clayey alluvium of Pleistocene age derived from mixed sources. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. This soil does not meet the criteria for hydric soils. Hydrologic Soil Group: C.

- OkA—Oakalla silty clay loam, 0 to 2 percent slopes, frequently flooded

The Oakalla component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on dissected plateaus. The parent material consists of loamy alluvium derived from limestone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. This soil does not meet hydric criteria. Hydrologic Soil Group: B.

- QuC—Queeny clay loam, 1 to 5 percent slopes

The Queeny component makes up 100 percent of the map unit. Slopes are 1 to 5 percent. This component is on paleoterraces on dissected plains. The parent material consists of

gravelly alluvium of Quaternary age derived from mixed sources. Depth to a root restrictive layer, petrocalcic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. This soil does not meet the criteria for hydric soils. Hydrologic Soil Group: D.

- SvA—Sunev silty clay loam, 0 to 1 percent slopes

The Sunev component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on stream terraces on dissected plains. The parent material consists of loamy alluvium derived from limestone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. This soil does not meet the criteria for hydric soils. Hydrologic Soil Group: B.

Geologic Stratigraphy

According to the Geologic Map of the Georgetown Quadrangle, Texas, three geologic units occur within the project alignment (**Attachment A, Figure 3**). These units and a description by Collins (1997) are as follows:

- Alluvium (Qal)

"Gravel, sand, silt, and clay along streams and rivers; inundated regularly. Gravel is mostly limestone and chert. Along minor drainages, includes undivided low terrace deposits. Includes some local bedrock outcrops that are undivided."

- Terrace Deposits (Qt)

"Gravel, sand, silt, and clay along streams and rivers. Mostly above flood level along entrenched streams and rivers. Larger deposits along San Gabriel River, Berry Creek, and Brush Creek are as thick as 36 ft and locally may be thicker. Deposits of adjacent terraces at different elevations are mapped separately."

- Georgetown Formation (Kgt)

"Limestone and marl. Nodular, very fossiliferous, diagnostic marine megafossils include *Waconell wacoensis* (formerly *Kingena wacoensis*) and *Gryphaea washitaensis*. Rare small vugs. Uppermost Edwards aquifer strata. Thickness increases northward from ~65ft to 110ft"

Site-Specific Stratigraphic Column

Formation	Members	Thickness (Collins, 1997)
Quaternary Alluvium (Qal)	Quaternary Alluvium	-
Quaternary Terrace Deposits (Qt)	N/A	-
Georgetown Formation (Kgt)	Georgetown Limestone	65-110 feet

Geologic Structure

The geologic strata associated with the Edwards Aquifer include the Georgetown Limestone Formation of the Washita Group, the Edwards Limestone Group, which is interfingered with the Comanche Peak Formation, followed by the Walnut formation, and finally the Glen Rose Formation of the Trinity Group. These Groups dip gently to the southeast and are a characterized by the Balcones Fault Escarpment, a zone of en echelon normal faults downthrown to the southeast. Locally, the dominant structural trend of faults within the area is 25°, as evidenced by the mapped fault patterns (**Attachment A, Figure 4**). Thus, all features that have a trend ranging from 10° to 40° are considered "on trend" and were awarded the additional 10 points in the Geologic Assessment Table.

The subject area is underlain by Qal, Qt, and Kgt (Collins 1997). The geologic strata associated within the entire mapped site include the Georgetown Formation (Kgt) underlaying (in successive order) the Quaternary Terrace and Alluvial deposits. The trend for the contacts between these geologic units is roughly in a north/south direction.

Karstic Characteristics

In limestone landscapes, karst is expressed by erratically developed cavernous porosity from dissolution of bedrock as water combined with weak acids moves through the subsurface. Karst terrains are typical of the Edwards Limestone, occurring across a vast region of Central Texas, including the Balcones Fault Escarpment. The features produced by karst processes include, but are not limited to, sinkholes, solution cavities, solution enlarged fractures, and caves. These features can eventually provide conduits for fluid movement such as surface water runoff, as "point recharge" to the Edwards Aquifer. Faults and manmade features within bedrock can also provide conduits for point recharge in many cases.

According to Edwards aquifer zone map produced by the TCEQ (2005), the entire subject area is within the northern segment of the Edwards aquifer Recharge Zone. Thus, all karst features identified as sensitive within the project limits have the potential to be point recharge features into the Edwards aquifer.

Review of Historic Aerials

Aerial photographs were reviewed for the site, and it was determined that ranching and agricultural activities occurred on the site since the first aerial image dated 1941 (**Attachment C**). Several small structures near the eastern portion of the site are visible in the 1941 aerial. Additional structures (likely related to agriculture) appear in the vicinity, near the eastern property boundary, in the 1954 aerial. Vegetation clearing along the western and eastern property boundaries is visible in the 1954 aerial. Interstate Highway 35 (I-35), located east of the subject area, appears to be expanding in the 1964 aerial. Additional structures to the north, east, and south of the site appear in the 1974 aerial and continue through the 1981 aerial. Additional developments around the subject area, including the resurfacing of nearby roads, and structures appear to the east, west, and north of the subject area appear in the 1995 aerial. I-35 appears to be expanded in the 2004 aerial, commercial structures appear to the west and east of the site, and an area in the eastern portion of the site appears to be inundated. Additional feeder roads for SH 195 as well as a residential subdivision to the west of the site first appear in the 2010 aerial. Several structures near the western boundary of the site are no longer visible in the 2010 aerial No major changes are visible within the subject area between the 2016 and 2020 aerial images.

5.0 SUMMARY OF FINDINGS

This report documents the findings of a geologic assessment conducted by **aci consulting** personnel on February 22, 2022, and March 01, 2022. A total of 13 features (manmade features in bedrock and non-karst features) were noted on the site. Comprehensive descriptions and recommendations for each feature can be found in **Attachment B**. All 11 manmade features in bedrock have been determined to be sensitive in order to call to the attention of the engineer. Both naturally occurring non-karst features, F-01 and F-02, have been determined to be non-sensitive and do not require any setbacks. No springs were identified within the subject area. A creek, Dry Berry Creek, runs through portions of the property along the eastern boundary.

6.0 GEORGETOWN WATER QUALITY ORDINANCE

As part of the Geologic Assessment, the subject area was surveyed to include pertinent information on springs, streams, and Georgetown Salamander Critical Habitat Units (CHUs). **aci consulting** verified that the site is within the Edwards Aquifer Recharge Zone based on the mapped boundaries. There were no springs, mapped salamander sites, or known surface or subsurface CHUs within the subject area. One stream, Dry Berry Creek, runs through portions of the property along the eastern boundary.

According to the City of Georgetown Edwards Aquifer Recharge Zone Water Quality Ordinance, the boundaries of the "Stream Buffer" are to coincide with the boundaries of the FEMA 1% floodplain or a calculated 1% floodplain, whichever is smaller. Based on project information, minor floodplain modifications are planned for the subject area and the site plan avoids the majority of the FEMA 1% floodplain areas. A calculated 1% floodplain has been determined for the site and will serve as the stream buffer (**Figure 6)**. In the future, minor hiking trail improvements may be located in the floodplain park area

7.0 REFERENCES

Collins, E.W., 1997. *Geologic Map of the Georgetown Quadrangle, Texas*. Bureau of Economic Geology. Austin, Texas.

(TCEQ) Texas Commission on Environmental Quality. 2004. Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones. October 1, 2004. Austin, Texas.

(TCEQ) Texas Commission on Environmental Quality. 2005. "Edwards Aquifer Protection Program, Chapter 213 Rules - Recharge Zone, Transition Zone, Contributing Zone, and Contributing Zone within the Transition Zone." Map. Digital data. September 1, 2005. Austin, Texas.

(TWDB) Texas Water Development Board. 2022. Water Data Interactive Groundwater Data Viewer. Accessed on March 22, 2022. Available at: http://www2.twdb.texas.gov/apps/waterdatainteractive/groundwaterdataviewer

(USDA NRCS) U.S. Department of Agriculture Natural Resources Conservation Service. 2022. WebSoilSurvey.com. Soil Survey Area: Williamson County, Texas. Date accessed: March 22, 2022.

Georgetown, Tx., Ordinance No.: 2013-59 (2013).

ATTACHMENT A

Site Maps

\\ACI-Group.net\ACI\Public\Project Folders\22-22-031 72-acre 350 Hwy 195 Tract\gis\maps\Working_MC.mxd



This map is intended for planning purposes only. All map data should be considered preliminary. All boundaries and designations are subject to confirmation.

N

400 200 0 400 Feet

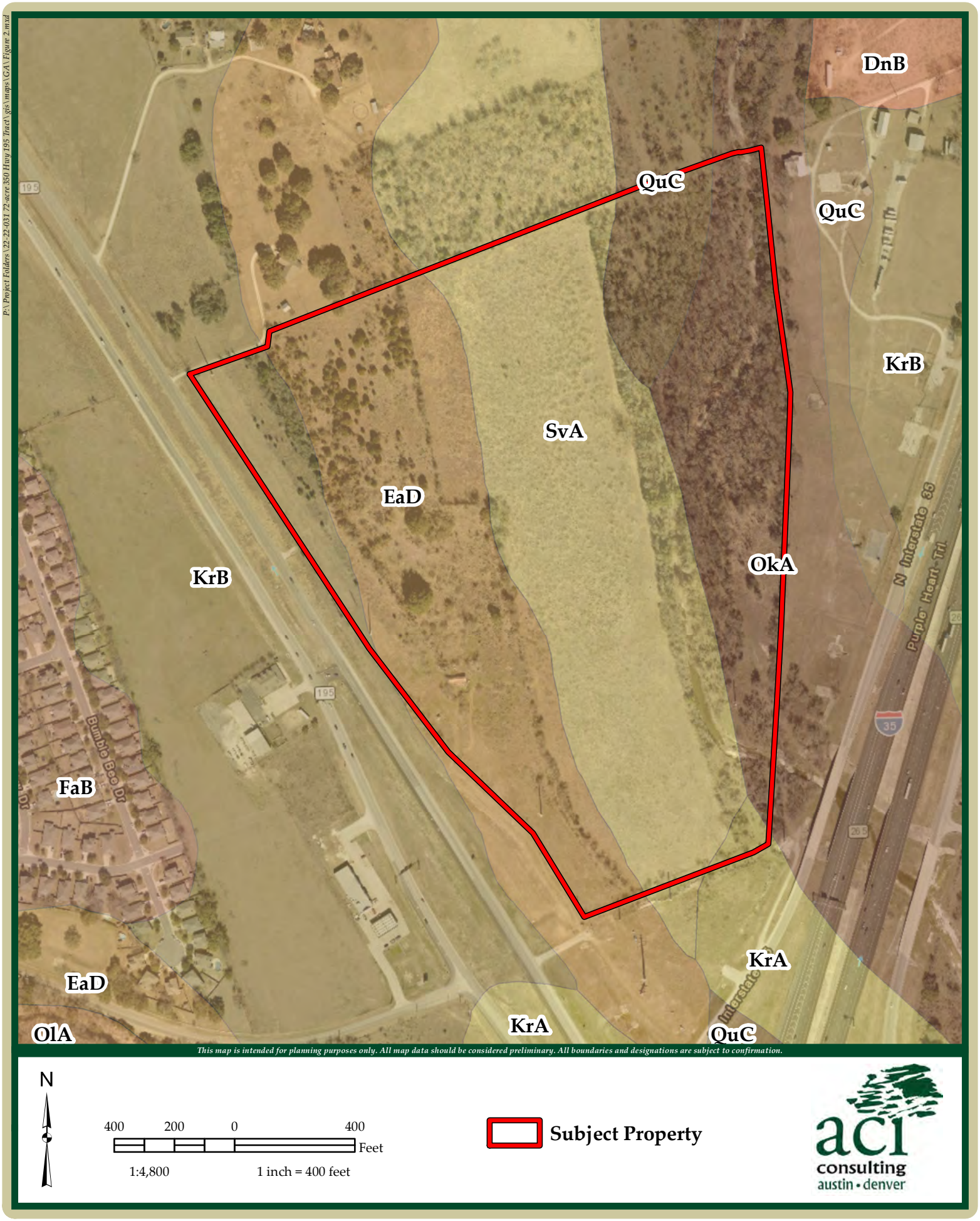
1:4,800 1 inch = 400 feet

Subject Property

aci consulting austin • denver

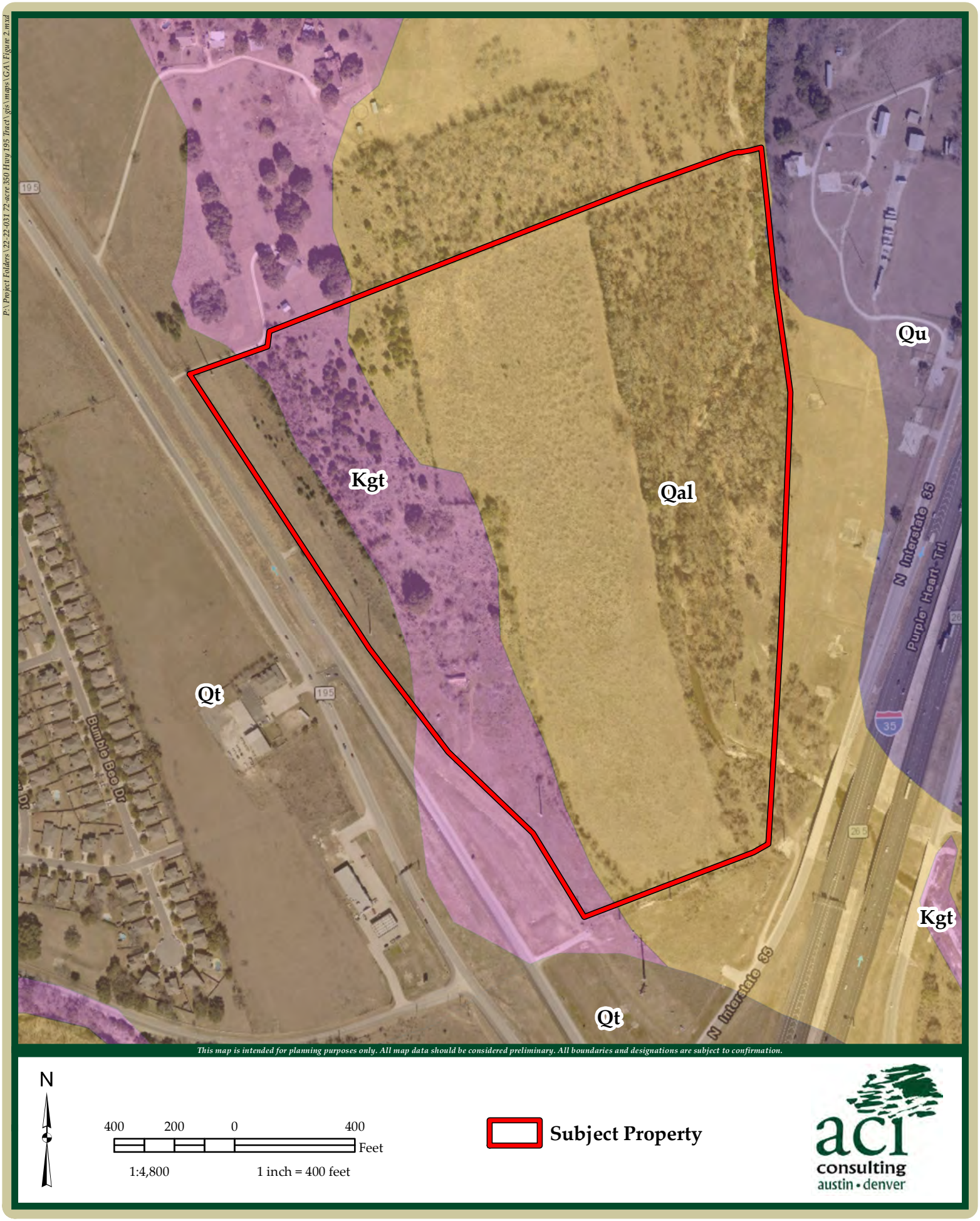
72-acre Northside Georgetown Subdivision Tract **aci Project No.: 22-22-031**

Figure 1: Site Location Map **May 2022**



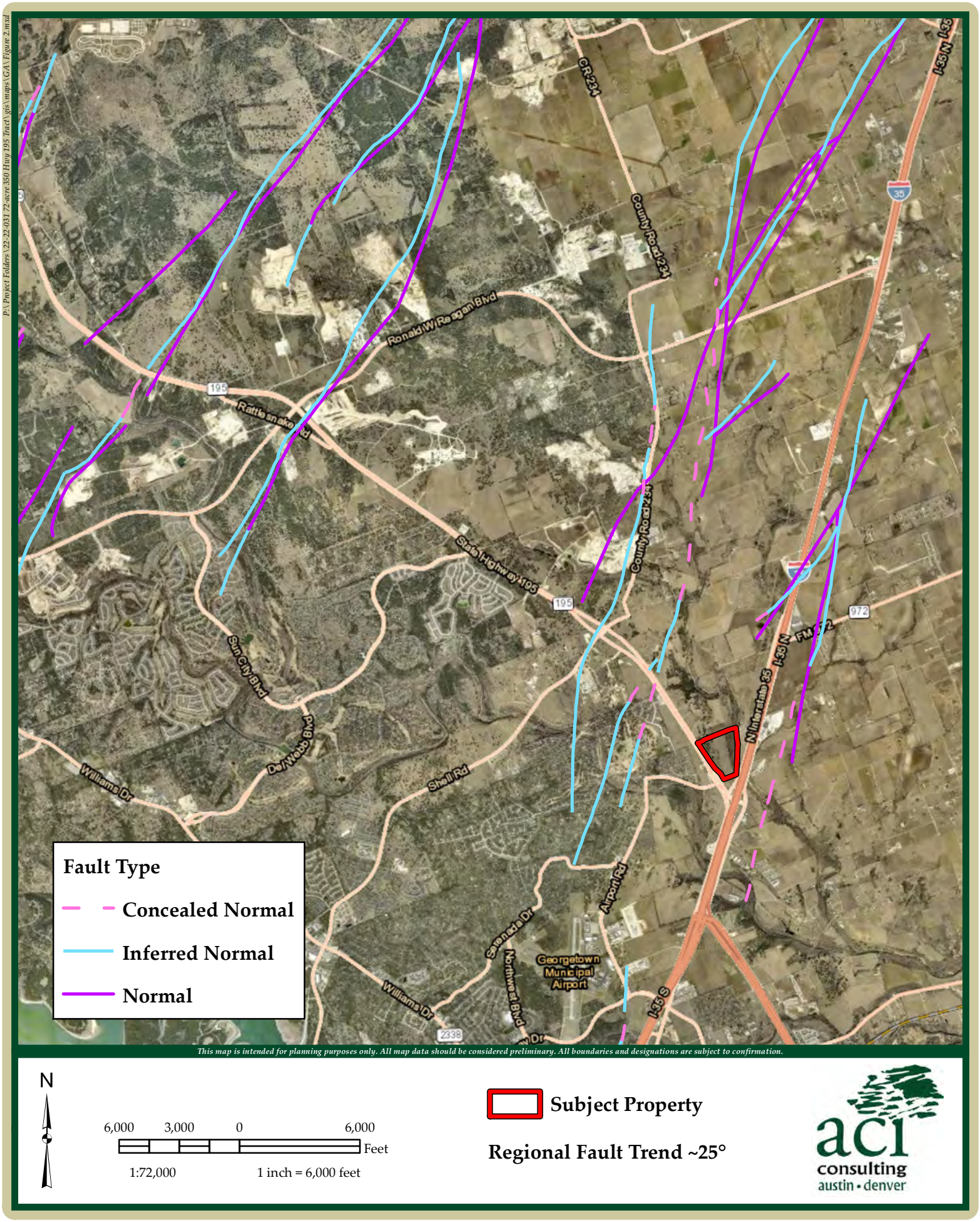
72-acre Northside Georgetown Subdivision Tract **aci Project No.: 22-22-031**

Figure 2: Soils **May 2022**



72-acre Northside Georgetown Subdivision Tract **aci Project No.: 22-22-031**

Figure 3: Geology **May 2022**



72-acre Northside Georgetown Subdivision Tract **aci Project No.: 22-22-031**

Figure 4: Regional Trend **May 2022**

ATTACHMENT B

Geologic Table
Geologic and Manmade Feature Map (Figure 5)
Feature Descriptions and Recommendations

GEOLOGIC ASSESSMENT TABLE — PROJECT NAME: 72-acre Northside Georgetown Subdivision

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
MB-01	30.709588	-97.65752	MB	30	Qt	6	6	?	-		-	-	?	10	40		X	X		Hillside
MB-02	30.709711	-97.657324	MB	30	Qt	3	3	?	-		-	-	?	10	40		X	X		Hillside
MB-03	30.710287	-97.655611	MB	30	Qal	3	3	?	-		-	-	?	10	40		X	X		Hillside
MB-04	30.7109	-97.65383	MB	30	Qal	3	3	?	-		-	-	?	10	40		X	X		Hillside
MB-05	30.707172	-97.65592	MB	30	Qt	6	6	?	-		-	-	?	10	40		X	X		Hillside
MB-06	30.706416	-97.655212	MB	30	Kgt	10	8	?	-		-	-	?	10	40		X	X		Hillside
MB-07	30.706296	-97.654978	MB	30	Kgt	0.4	0.4	?	-		-	-	?	10	40		X	X		Hillside
MB-08	30.705464	-97.654177	MB	30	Kgt	6	6	?	-		-	-	?	10	40		X	X		Hillside
MB-09	30.706673	-97.655019	MB	30	Kgt	65	35	?	-		-	-	?	10	40		X	X		Hillside
MB-10	30.706838	-97.655124	MB	30	Kgt	25	15	?	-		-	-	?	10	40		X	X		Hillside
MB-11	30.706451	-97.652083	MB	30	Qal	95	20	?	-		-	-	?	10	40		X	X		Floodplain
F-01	30.709529	-97.651775	CD	5	Qal	20	12	5	-		-	-	O, V	10	15	X		X		Floodplain
F-02	30.706354	-97.651659	CD	5	Qal	14	13	5	-		-	-	C, V, X	15	20	X		X		Floodplain

* DATUM: NAD 1983 State Plane 4203

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

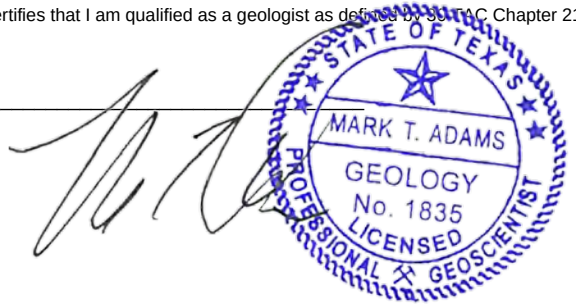
8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave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

12 TOPOGRAPHY

Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I 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 5/19/2022

Sheet __1___ of __1____

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

P:\Project Folders\22-22-031 72-acre 350 Hwy 195 Tract\GIS\mxds\GA Feature 5.mxd

MB-01
MB-02
MB-03
MB-04
MB-05
MB-06
MB-07
MB-08
MB-09
MB-10
MB-11
F-01
F-02

This map is intended for planning purposes only. All map data should be considered preliminary. All boundaries and designations are subject to confirmation.

N

100 50 0 100
Feet

1:1,200 1 inch = 100 Feet

STATE OF TEXAS
MARK T. ADAMS
GEOLOGY
No. 1835
LICENSED
PROFESSIONAL GEOSCIENTIST

Subject Property
Flowlines (NHD)
Wetlands (NWI)

FEMA Flood Hazard Zones
A - 1% Annual Chance Flood
AE - Regulatory Floodway
X - Area of Minimal Flood Hazard

Geology
Kgt
Qal
Qt
Qu

Features
Manmade Feature in Bedrock
Geologic Feature (Non-Sensitive)

The entire subject area is within the Edwards Aquifer Recharge Zone.

aci consulting
austin • denver

72-acre Northside Georgetown Subdivision Tract
Figure 5: Geologic Feature Map

aci Project No.: 22-22-031
May 2022

MB-01
GPS: 30.709588, -97.65752

This feature is a 'manmade feature in bedrock', an electric transmission pole, located on a gently sloping hillside in Terrace Deposits (Qt). The feature is approximately 6 feet long by 6 feet wide with an unknown depth. The infill material for this feature is unknown, and the catchment area is less than 1.6 acres. In using Figure 1 from Instructions to Geologists, the relative infiltration rate for this feature was determined to be low and assigned a point value of 10 points. This feature has been deemed sensitive to bring to the attention of the engineer; however, no setbacks are required.

Recommendation: Notify engineer for proper handling.



MB-01

MB-02
GPS: 30.709711, -97.657324

This feature is a 'manmade feature in bedrock', a fire hydrant, located on a gently sloping hillside in Terrace Deposits (Qt). The feature is approximately 3 feet long by 3 feet wide with an unknown depth. The infill material for this feature is unknown, and the catchment area is less than 1.6 acres. In using Figure 1 from Instructions to Geologists, the relative infiltration rate for this feature was determined to be low and assigned a point value of 10 points. This feature has been deemed sensitive to bring to the attention of the engineer; however, no setbacks are required.

Recommendation: Notify engineer for proper handling.



MB-02

MB-03

GPS: 30.710287, -97.655611

This feature is a 'manmade feature in bedrock', a fire hydrant, located on a gently sloping hillside in Alluvium Deposits (Qal). The feature is approximately 3 feet long by 3 feet wide with an unknown depth. The infill material for this feature is unknown, and the catchment area is less than 1.6 acres. In using Figure 1 from Instructions to Geologists, the relative infiltration rate for this feature was determined to be low and assigned a point value of 10 points. This feature has been deemed sensitive to bring to the attention of the engineer; however, no setbacks are required.

Recommendation: Notify engineer for proper handling.



MB-03

MB-04
GPS: 30.7109, -97.65383

This feature is a 'manmade feature in bedrock', a fire hydrant, located on a gently sloping hillside in Alluvium Deposits (Qal). The feature is approximately 3 feet long by 3 feet wide with an unknown depth. The infill material for this feature is unknown, and the catchment area is less than 1.6 acres. In using Figure 1 from Instructions to Geologists, the relative infiltration rate for this feature was determined to be low and assigned a point value of 10 points. This feature has been deemed sensitive to bring to the attention of the engineer; however, no setbacks are required.

Recommendation: Notify engineer for proper handling.



MB-04

F-01

GPS: 30.709529, W. -97.651775

This feature is a non-karst closed depression, located within a floodplain, in Alluvium Deposits (Qal). The feature is approximately 20 feet long by 12 feet wide by 5 feet deep. This feature is located on the opposite side of a stream bank, adjacent to Dry Berry Creek, and appears to be a scour-type erosional feature. No apertures or portals exhibiting vertical development were noted within the feature. The infill material for this feature consisted of cobbles, loose soils, organics, and vegetation including hackberry and catchweed bedstraw. The catchment area was determined to be less than 1.6 acres. In using Figure 1 from Instructions to Geologists, the relative infiltration rate for this feature was determined to be low and assigned a point value of 10 points. This feature is non-sensitive.

Recommendation: There are no recommended setbacks as this feature is non-sensitive.



F-01

MB-05
GPS: 30.707172, -97.65592

This feature is a 'manmade feature in bedrock', an electric transmission pole, located on a gently sloping hillside in Terrace Deposits (Qt). The feature is approximately 6 feet long by 6 feet wide with an unknown depth. The infill material for this feature is unknown, and the catchment area is less than 1.6 acres. In using Figure 1 from Instructions to Geologists, the relative infiltration rate for this feature was determined to be low and assigned a point value of 10 points. This feature has been deemed sensitive to bring to the attention of the engineer; however, no setbacks are required.

Recommendation: Notify engineer for proper handling.



MB-05

MB-06

GPS: 30.706416, -97.655212

This feature is a 'manmade feature in bedrock', a well, located on a gently sloping hillside in the Georgetown Limestone Formation. The feature is approximately 10 feet long by 8 feet wide with an unknown depth. The infill material for this feature is unknown, and the catchment area is less than 1.6 acres. In using Figure 1 from Instructions to Geologists, the relative infiltration rate for this feature was determined to be low and assigned a point value of 10 points. This feature has been deemed sensitive to bring to the attention of the engineer; however, no setbacks are required.

Recommendation: Notify engineer for proper handling.



MB-06

MB-07
GPS: 30.706296, -97.654978

This feature is a 'manmade feature in bedrock', a sewage line, located on a gently sloping hillside in the Georgetown Limestone Formation. The feature is approximately 0.4 feet in diameter with an unknown depth. The infill material for this feature is unknown, and the catchment area is less than 1.6 acres. In using Figure 1 from Instructions to Geologists, the relative infiltration rate for this feature was determined to be low and assigned a point value of 10 points. This feature has been deemed sensitive to bring to the attention of the engineer; however, no setbacks are required.

Recommendation: Notify engineer for proper handling.



MB-07

MB-08
GPS: 30.705464, -97.654177

This feature is a 'manmade feature in bedrock', an electric transmission pole, located on a gently sloping hillside in the Georgetown Limestone Formation. The feature is approximately 6 feet long by 6 feet wide with an unknown depth. The infill material for this feature is unknown, and the catchment area is less than 1.6 acres. In using Figure 1 from Instructions to Geologists, the relative infiltration rate for this feature was determined to be low and assigned a point value of 10 points. This feature has been deemed sensitive to bring to the attention of the engineer; however, no setbacks are required.

Recommendation: Notify engineer for proper handling.



MB-08

MB-09
GPS: 30.706673, -97.655019

This feature is a 'manmade feature in bedrock', an ancillary structure, located on a gently sloping hillside in the Georgetown Limestone Formation. The feature is approximately 65 feet long by 35 feet wide with an unknown depth. The infill material for this feature is unknown, and the catchment area is less than 1.6 acres. In using Figure 1 from Instructions to Geologists, the relative infiltration rate for this feature was determined to be low and assigned a point value of 10 points. This feature has been deemed sensitive to bring to the attention of the engineer; however, no setbacks are required.

Recommendation: Notify engineer for proper handling.



MB-09

MB-10
GPS: 30.706838, -97.655124

This feature is a 'manmade feature in bedrock', an ancillary structure, located on a gently sloping hillside in the Georgetown Limestone Formation. The feature is approximately 25 feet long by 15 feet wide with an unknown depth. The infill material for this feature is unknown, and the catchment area is less than 1.6 acres. In using Figure 1 from Instructions to Geologists, the relative infiltration rate for this feature was determined to be low and assigned a point value of 10 points. This feature has been deemed sensitive to bring to the attention of the engineer; however, no setbacks are required.

Recommendation: Notify engineer for proper handling.



MB-10

F-02
GPS: 30.706354, -97.651659

This feature is a non-karst closed depression located in a floodplain within Alluvium Deposits (Qal). The feature is approximately 14 feet long by 13 feet wide by 5 feet deep. This feature appears to be a scour-type erosional feature located within the 1% annual chance flood zone. No apertures or portals exhibiting vertical development were noted within the feature. The infill material for this feature consisted of flood debris such as tires and chunks of concrete, as well as cobbles, loose soils, organics, and vegetation including hackberry and catchweed bedstraw. The catchment area was determined to be less than 1.6 acres. In using Figure 1 from Instructions to Geologists, the relative infiltration rate for this feature was determined to be low and assigned a point value of 10 points. This feature is non-sensitive.

Recommendation: There are no recommended setbacks as this feature is non-sensitive.



F-02

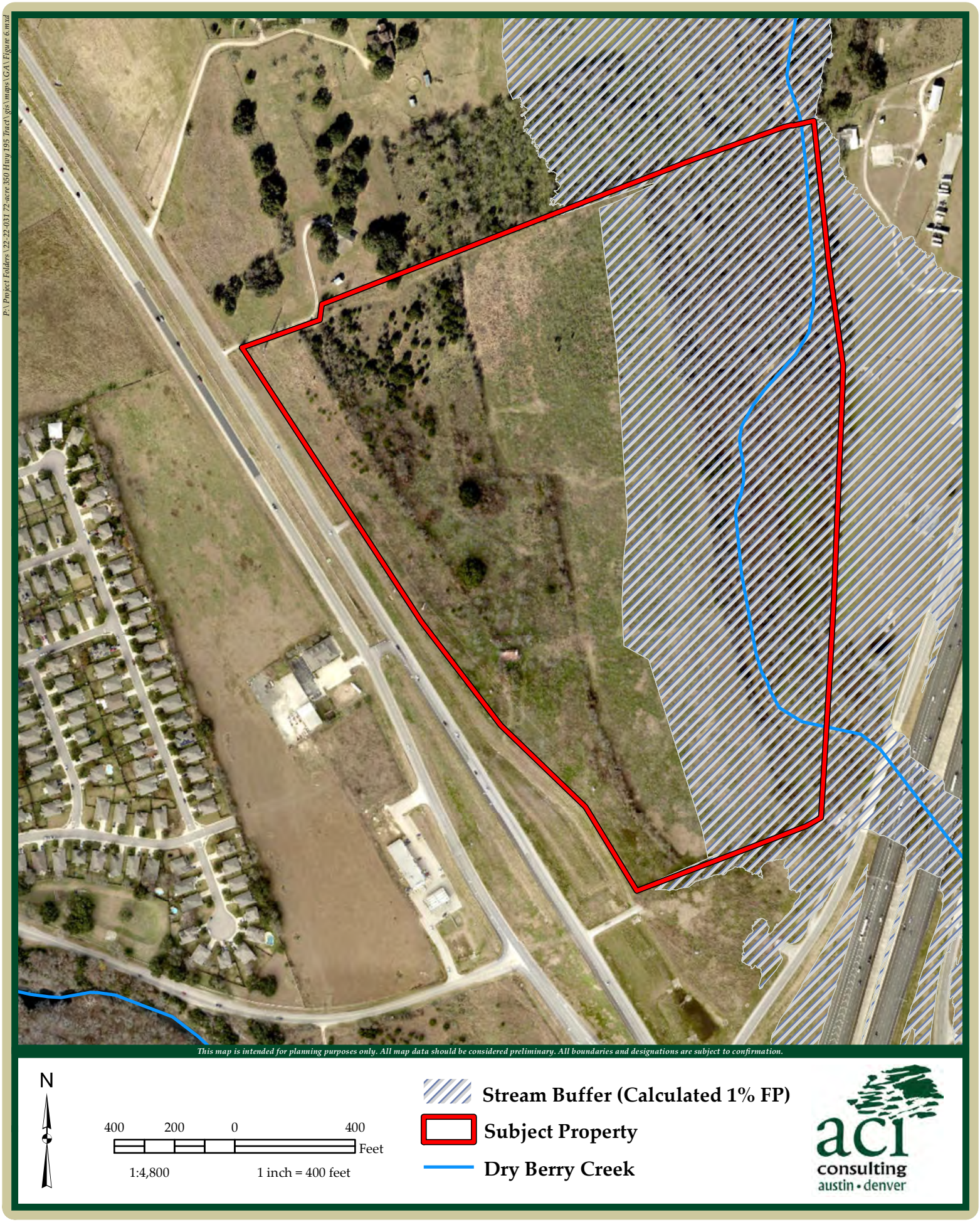
MB-11
GPS: 30.706451, -97.652083

This feature is a 'manmade feature in bedrock', an electric transmission pole, located in a floodplain within Alluvium Deposits (Qal). The feature is approximately 6 feet long by 6 feet wide with an unknown depth. The infill material for this feature is unknown, and the catchment area is less than 1.6 acres. In using Figure 1 from Instructions to Geologists, the relative infiltration rate for this feature was determined to be low and assigned a point value of 10 points. This feature has been deemed sensitive to bring to the attention of the engineer; however, no setbacks are required.

Recommendation: Notify engineer for proper handling.



MB-11



72-acre 350 Hwy 195 Tract **aci Project No.: 22-22-031**

Figure 6: Georgetown Water Quality Ordinance Stream Buffer Map **March 2022**

ATTACHMENT C

Historic Aerial Photographs

Prepared for:

ACI CONSULTING
1001 Mopac Circle
Austin, TX 78746

BANKS ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP

Historical Aerial Photographs

72-acre 350 Hwy 195 Tract

350 Hwy 195

Georgetown, TX 78628

Williamson County

PO #: 22-22-031

ES-139022

Monday, March 7, 2022



Date: 2020
Source: USDA

0 250 500 1,000 Feet

BANKS
ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP



Date: 2016
Source: USDA

0 250 500 1,000 Feet

BANKS
ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP



Date: 2010
Source: USDA

0 250 500 1,000 Feet

BANKS
ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP



Date: 2004
Source: USDA

0 250 500 1,000 Feet

BANKS
ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP



Date: 1995
Source: USGS

0 250 500 1,000 Feet

BANKS ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP



Date: 1981
Source: USGS

0 250 500 1,000 Feet

BANKS ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP



Date: 1974
Source: USGS

0 250 500 1,000 Feet

BANKS ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP



Date: 1964
Source: ASCS

0 250 500 1,000 Feet

BANKS ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP



Date: 1954
Source: AMS

0 250 500 1,000 Feet

BANKS ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP



Date: 1941
Source: ASCS

0 250 500 1,000 Feet

BANKS
ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP

AERIAL SOURCE DEFINITIONS

Acronym	Agency
NASA	National Aeronautics & Space Administration
AMS	Army Mapping Service
ASCS	Agricultural Stabilization & Conservation Service
SCS	Soil Conservation Service
USBR	United States Bureau of Reclamation
Fairchild	Fairchild Aerial Surveys
TXDOT	Texas Department of Transportation
BLM	Bureau of Land Management
USAF	United States Air Force
USCOE	United States Corps of Engineers
USDA	United States Department of Agriculture
USGS	United States Geological Survey
WALLACE	Wallace-Zingery Aerial Surveys
TNRIS	Texas Natural Resources Information System

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Modification of a Previously Approved Plan

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Transition Zone and Relating to 30 TAC 213.4(j), Effective June 1, 1999

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

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

Signature

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

Print Name of Customer/Agent: Justin Cadieux, P.E.

Date: 04/04/24

Signature of Customer/Agent:



Project Information

1. Current Regulated Entity Name: Northside Lot 3 Multifamily
   Original Regulated Entity Name: Northside Subdivision
   Regulated Entity Number(s) (RN): RN111804993 (Northside Subdivision)
   Edwards Aquifer Protection Program ID Number(s): 11003700 (WPAP) & 11003701 (SCS)
   ☐ The applicant has not changed and the Customer Number (CN) is: N/A
   ☒ The applicant or Regulated Entity has changed. A new Core Data Form has been provided.

2. ☒ **Attachment A: Original Approval Letter and Approved Modification Letters**. A copy of the original approval letter and copies of any modification approval letters are attached.

3. A modification of a previously approved plan is requested for (check all that apply):
   - ☐ Physical or operational modification of any water pollution abatement structure(s) including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
   - ☒ Change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;
   - ☒ Development of land previously identified as undeveloped in the original water pollution abatement plan;
   - ☒ Physical modification of the approved organized sewage collection system;
   - ☐ Physical modification of the approved underground storage tank system;
   - ☐ Physical modification of the approved aboveground storage tank system.

4. ☒ Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

WPAP Modification Summary	***Approved Project***	***Proposed Modification***
Acres	71.997	44.43
Type of Development	Mixed-Use	Mixed-Use
Number of Residential Lots	1	1
Impervious Cover (acres)	1.83	7.72
Impervious Cover (%	2.55	17.38
Permanent BMPs	Batch Detention Pond	Batch Detention Pond
Other	____	____

SCS Modification Summary	***Approved Project***	***Proposed Modification***
Linear Feet	2,625	1,652 (4,277 Total)
Pipe Diameter	8"	6", 8", 10", 12"
Other	____	____

AST Modification Summary	***Approved Project***	***Proposed Modification***
Number of ASTs	_____	_____
Volume of ASTs	_____	_____
Other	_____	_____

UST Modification Summary	***Approved Project***	***Proposed Modification***
Number of USTs	_____	_____
Volume of USTs	_____	_____
Other	_____	_____

5. ☒ **Attachment B: Narrative of Proposed Modification**. A detailed narrative description of the nature of the proposed modification is attached. It discusses what was approved, including any previous modifications, and how this proposed modification will change the approved plan.

6. ☒ **Attachment C: Current Site Plan of the Approved Project**. A current site plan showing the existing site development (i.e., current site layout) at the time this application for modification is attached. A site plan detailing the changes proposed in the submitted modification is required elsewhere.
   - ☐ The approved construction has not commenced. The original approval letter and any subsequent modification approval letters are included as Attachment A to document that the approval has not expired.
   - ☐ The approved construction has commenced and has been completed. Attachment C illustrates that the site was constructed as approved.
   - ☐ The approved construction has commenced and has been completed. Attachment C illustrates that the site was **not** constructed as approved.
   - ☐ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was constructed as approved.
   - ☐ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was **not** constructed as approved.

7. ☐ The acreage of the approved plan has increased. A Geologic Assessment has been provided for the new acreage.
   ☒ Acreage has not been added to or removed from the approved plan.

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

MODIFICATION OF A PREVIOUSLY APPROVED PLAN – ATTACHMENT A

Original Approval Letter

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

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 17, 2023

Mr. Doug Moss
Trails, LLC
1127 N. Shorewood Dr.
Granite Shoals, Texas 78654

Re: Approval of a Water Pollution Abatement Plan (WPAP) and Approval of an Organized Sewage Collection System (SCS) Plan
Northside Subdivision; Located Northwest of IH-35 and SH-195, Georgetown, Williamson County, Texas
Edwards Aquifer Protection Program ID: 11003700 (WPAP) and 11003701 (SCS), Regulated Entity No. RN111804993

Dear Mr. Moss:

The Texas Commission on Environmental Quality (TCEQ) has completed its review on the applications for the above-referenced project submitted to the Edwards Aquifer Protection Program (EAPP) by Quiddity Engineering, LLC on behalf of the applicant, Trails, LLC, on September 5, 2023. Final review of the applications was completed after additional material was received on November 7, 2023, and November 10, 2023.

As presented to the TCEQ, the application was prepared in general compliance with the requirements of 30 Texas Administrative Codes (TAC) Chapter §213 and Chapter §217. The permanent best management practices (BMPs), engineering design report, technical specifications and final design plans were prepared by a Texas licensed professional engineer (PE). All construction plans and design information were sealed, signed, and dated by a Texas licensed PE. Therefore, the application for the construction of the proposed project and methods to protect the Edwards Aquifer are hereby **approved,** subject to applicable state rules and the conditions in this letter.

This approval expires two years from the date of this letter, unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been officially requested. This approval or extension will expire, and no extension will be granted if more than 50 percent of the project has not been completed within ten years from the date of this letter.

The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer protection plan. A motion for reconsideration must be filed in accordance with 30 TAC §50.139.

PROJECT DESCRIPTION

WPAP DESCRIPTION

The proposed mixed-use project will have an area of approximately 72.0 acres. The project will include site grading and construction of roadways, utilities, a water quality basin, and associated drainage infrastructure. The impervious cover will be 1.84 acres (2.6 percent).

SCS DESCRIPTION

The proposed sewage collection system will provide disposal service for the mixed-use development. The system includes gravity lines and other appurtenance necessary for conveying wastewater to a treatment plant.

The 2,804 linear feet proposed SCS will consist of approximately 2,768 linear feet of 8-inch SDR 26 PVC ASTM D3034 pipe, and 36 linear feet of 8-inch SDR 26 PVC ASTM D2241 pipe.

TREATMENT FACILITY

The system will be connected to an approved City of Georgetown wastewater interceptor for conveyance to the San Gabriel Treatment Plant for treatment and disposal. **The proposed system and the wastewater interceptor will be connected for conveyance prior to use of the development.** The project will conform to all applicable codes, ordinances, and requirements of the City of Georgetown.

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, a batch detention basin, designed using the TCEQ technical guidance, *RG-348, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices,* will be constructed to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 1,602 pounds of TSS generated from the 1.84 acres of impervious cover. The approved water quality basin is sized for future development with a provided capacity of 243,936 cubic feet. The approved permanent BMPs and measures meet the required 80 percent removal of the increased load in TSS caused by the project.

The permanent BMPS shall be operational prior to occupancy or use of the proposed project. Inspection, maintenance, repair, and retrofit of the permanent BMPs shall be in accordance with the approved application.

GEOLOGY

According to the Geologic Assessment (GA) included with the application, the surficial unit of the site is the Georgetown Limestone Formation (Kgt) in the Edwards Aquifer Recharge Zone. No sensitive geologic features were identified in the GA. The site assessment conducted on November 14, 2023 by TCEQ staff determined the site to be generally as described by the GA.

STANDARD CONDITIONS

1. The plan holder (applicant) must comply with all provisions of 30 TAC Chapter §213 and technical specifications contained in the approved plan. The plan holder should also acquire and comply with additional and separate approvals, permits, registrations or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, Dam Safety, Underground Injection Control, Water Quality) as required based on the specifics of the plan.
2. In addition to the rules of the Commission, the plan holder must also comply with state and local ordinances and regulations providing for the protection of water quality as applicable.

Prior to Commencement of Construction:

3. Within 60 days of receiving written approval of an Edwards Aquifer protection plan, the plan holder must submit to the EAPP proof of recordation of notice in the county deed records, with the volume and page number(s) of the county record. A description of the property boundaries shall be included in the deed recordation in the county deed records. TCEQ form, Deed Recordation Affidavit (TCEQ-0625), may be used.

4. The plan holder of any approved Edwards Aquifer protection plan must notify the EAPP and obtain approval from the executive director prior to initiating any modification to the activities described in the referenced application following the date of the approval.
5. The plan holder must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the EAPP no later than 48 hours prior to commencement of the regulated activity. Notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person.
6. Temporary erosion and sedimentation (E&S) controls as described in the referenced application, must be installed prior to construction, and maintained during construction. Temporary E&S controls may be removed when vegetation is established, and the construction area is stabilized. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.
7. All borings with depths greater than or equal to 20 feet must be plugged with non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring or gravel. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation.

<u>During Construction:</u>

8. This approval does not authorize the installation of temporary or permanent aboveground storage tanks on this project that will have a total storage capacity of 500 gallons or more of static hydrocarbons or hazardous substances without prior approval of an Aboveground Storage Tank facility application.
9. If any sensitive feature is encountered during construction, replacement, or rehabilitation on this project, all regulated activities must be **immediately** suspended near it and notification must be made to TCEQ EAPP staff. Temporary BMPs must be installed and maintained to protect the feature from pollution and contamination. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality.
10. All water wells, including injection, dewatering, and monitoring wells shall be identified in the geologic assessment and must be in compliance with the requirements of the Texas Department of Licensing and Regulation 16 TAC Chapter §76 and all other locally applicable rules, as appropriate.
11. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.
12. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge must be filtered through appropriately selected BMPs.
13. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

14. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

15. Owners of permanent BMPs and temporary measures must ensure that the BMPs and measures are constructed and function as designed. A Texas licensed PE **must certify** in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the EAPP within 30 days of site completion.
16. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property or the ownership of the property is transferred to the entity. A copy of the transfer of responsibility must be filed with the executive director through the EAPP within 30 days of the transfer. TCEQ form, Change in Responsibility for Maintenance on Permanent BMPs and Measures (TCEQ-10263), may be used.
17. No part of the organized sewage collection system may be used as a sewage holding tank, as defined in 30 TAC §213.3 (excluding lift stations), over the Edwards Aquifer recharge zone.
18. A Texas licensed PE **must certify** in writing that the new sewage collection system (including force mains) has passed all required testing. The certification shall be submitted to the EAPP within 30 days of test completion and prior to the new sewage collection system being put into service.
19. A Texas licensed PE **must certify** subsequent testing required every five years of the existing sewage collection system after being put into use to determine types and locations of structural damage and defects such as offsets, open joints, or cracked or crushed lines that would allow exfiltration to occur. The test results must be retained by the plan holder for five years and made available to the executive director upon request.

The holder of the approved Edwards Aquifer protection plan is responsible for compliance with Chapter §213 and any condition of the approved plan through all phases of plan implementation. Failure to comply with any condition within this approval letter is a violation of Chapter §213 and is subject to administrative rule or orders and penalties as provided under §213.10 of this title (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. Upon legal transfer of this property, the new owner is required to comply with all terms of the approved Edwards Aquifer protection plan.

This action is taken as delegated by the executive director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Ms. Miki Chilarescu of the Edwards Aquifer Protection Program at 512-239-6175 or the regional office at 512-339-2929.

Sincerely,

Lillian Butler

Lillian Butler, Section Manager
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality
LIB/mec

cc: Mr. John Alvarez II, P.E. - Quiddity, LLC.

MODIFICATION OF A PREVIOUSLY APPROVED PLAN – ATTACHMENT B

Narrative of Proposed Modification

The approved WPAP and SCS for the 71.997-acre Northside Subdivision (RN111804993) project entailed the ultimate construction of one (1) multi-family lot, three (3) commercial lots, and one (1) detention pond. This included only the public and private infrastructure to accommodate these lots with roadways, utilities, grading, water quality and detention. The approved project BMPs consist of a batch detention pond that was purposely upsized to accommodate the potential ultimate buildout of the subdivision. The drainage sub-basins were broken into six areas with P-3 being the area of the batch detention pond which will accommodate drainage areas P-1, P-2, and P-7. More details on this can be found in the subdivision construction plans (2023-13-CON) and the TSS calculations can be found at the end of Attachment F in the Permanent Stormwater Section (TCEQ-0600) of this report. The subdivision will be owned by Trails, LLC.

The proposed modifications to this WPAP and SCS will be contained within lot 3 of the subdivision. This 44.43-acre site will be a site development project entitled Northside Lot 3 Multi-Family (2023-64-SDP) and will consist of residential buildings, private drive aisles, parking, private utilities, grading and drainage. The wastewater plan for this site will be included in this modification as an extension of the Sewage Collection System already approved in the subdivision. The site lies within the P-2 drainage area and is proposed to have an impervious cover of 59.02%. While the pond in the approved plans has been sized to accommodate a future ultimate impervious cover of only 49.96% (assuming P-2 from 2023-13-CON and P1 from 2023-64-SDP are approximately the same drainage area with the same acreage) within P-2, the drainage basins in the Northside Lot 3 Multi-Family project were redistributed appropriately to meet the impervious cover area requirement for detention. The proposed site development lying within the Northside Subdivision, Northside Lot 3 Multi-Family, will be developed and owned by Dominium. See the tables and the Northside Lot 3 Site Plans (2023-64-SDP) for more detail.

Table 1 Summary Table for 2023-64-SDP

Drainage Area	Permanent BMP	Area (Acre)	Areas to be Controlled By Permanent BMPs (Acre)	Area Not Covered By Permanent BMPs (Acre)	Proposed Impervious Cover (Acre)	Proposed Impervious Cover Percent (%)	IC Controlled By Permanent BMPs (Acre)
P1	Batch Detention Pond	13.79	13.79	0.00	8.14	59.02%	8.14
O1	N/A	27.00	0.00	27.00	0.51	1.90%	0.00
P2	N/A	0.44	0.44	0.00	0.32	71.95%	0.32
O2	Batch Detention Pond	0.43	0.43	0.00	0.10	24.39%	0.10
Detention Pond (2023-13-CON)		3.25	0.00	3.25	0.00	0.00%	0.00
	Total	**44.91**	**14.66**	**30.25**	**9.07**	**20.20%**	**8.56**

Table 2 Summary Table for 2023-13-CON

Drainage Area	Permanent BMP	Area (Acre)	Areas to be Controlled By Permanent BMPs (Acre)	Area Not Covered By Permanent BMPs (Acre)	Ultimate Impervious Cover (Acre)	Ultimate Impervious Cover (%)	IC Controlled By Permanent BMPs (Acre)
P-1	Batch Detention Pond	14.47	14.47	0.00	8.70	60.15%	8.70
P-2	Batch Detention Pond	13.77	13.77	0.00	6.88	49.96%	6.88
P-3 DET	N/A	3.25	0	3.25	0	0%	0.00
P-4	N/A	14.27	0	14.27	0	0%	0.00
P-5	N/A	10.75	0	10.75	0	0%	0.00
P-6	N/A	11.05	0	11.05	0	0%	0.00
P-7	Batch Detention Pond	4.40	4.40	0.00	3.08	70%	3.08
	Total	**71.997**	**32.64**	**39.32**	**18.66**	**25.92%**	**18.66**

***Note that only P-1, P-2, and P-7 are included in the sizing of the BMP and will be calculated for the current TSS calculations.*

Based on the Northside Subdivision Construction Plans (2023-13-CON), the proposed detention pond that will accommodate peak flows from our site and off-site was originally sized for an ultimate buildout of the subdivision. The maximum ultimate impervious cover anticipated for the accommodated areas is 25.92% and the detention pond was designed for an expected 18.66 acres of future impervious cover. Since the total proposed impervious cover of Northside Lot 3 multi-family to be controlled by the pond is less than the anticipated, ultimate buildout, the detention pond to be constructed for Northside Subdivision (2023-13-CON) is appropriately sized for the discharge generated by our site (2023-64-SDP) within the subdivision.

The 44.43-acre site has recently changed owners, previously owned within the entire 71.997-acre subdivision by Trails, LLC. The current owner is Georgetown Leased Housing Associates I, LP and the recently executed deed has been included as Attachment D within this portion of the application (TCEQ-0590).

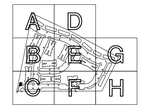
MODIFICATION OF A PREVIOUSLY APPROVED PLAN – ATTACHMENT C

Current Site Plan of the Approved Project

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

100 0 50 100

SCALE: 1" = 100'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- EASEMENT
- AG ZONING
- C3 ZONING
- MF-1 ZONING
- MF-2 ZONING
- IN ZONING

No.	Date	REVISIONS	App.

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Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN
DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024
DESIGN LEAD: OOI
JOB NO.: 17951-0002-01
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

OVERALL SITE DEVELOPMENT PLAN

SHEET NO.
13 OF 132

2023-64-SDP

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BUILDING			
Building Cover*	119,970 SF	2.75 Ac	10.75%
Gross SF	363,949 SF	8.36 Ac	N/A
Floor-to-Area-Ratio*	0.3:1.0		
Foundation Type	Concrete slab underground		
Use	Multi-family		
Total Site Area	1,935,321 SF	44.43 Ac	N/A
MF-1 Site Area*	1,116,060 SF	25.62 Ac	N/A

*Uses MF-1 zoning boundary

IMPERVIOUS COVER	EXISTING			PROPOSED		
Building	0 SF	0 Ac	N/A	119,970 SF	2.75 Ac	N/A
Pavement	11,669 SF	0.27 Ac	N/A	153,228 SF	3.52 Ac	N/A
Sidewalk/Misc Conc.	0 SF	0 Ac	N/A	62,883 SF	1.44 Ac	N/A
Total Impervious Cover	11,669 SF	0.27 Ac	0.60%	336,081 SF	7.72 Ac	17.37%
Total MF-1 Impervious Cover*	0 SF	0 Ac	0.00%	317,383 SF	7.29 Ac	28.44%

*Uses MF-1 zoning boundary

SITE AREA	EXISTING		PROPOSED	
Total Site Area	1,935,321 SF	44.43 Ac	1,935,321 SF	44.43 Ac
MF-1 Site Area*	1,116,060 SF	25.62 Ac	1,116,060 SF	25.62 Ac
C-3 Site Area	20,889 SF	0.48 Ac	20,889 SF	0.48 Ac
AG Site Area	797,609 SF	18.31 Ac	797,609 SF	18.31 Ac
MF-2 Site Area	1 SF	0 Ac	1 SF	0 Ac

*Uses MF-1 zoning boundary

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- LIMITS OF CONSTRUCTION
- ADA ROUTE
- ADA RAMP
- FIRE LANE
- OPEN SPACE

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

50 0 25 50

SCALE: 1" = 50'

KEY MAP

BUILDING ZONING DATA						
ZONING: MF-1	ALLOWABLE			PROVIDED		
Building Coverage*	N/A			119,970 SF	2.75 Ac	10.75%
Impervious Cover*	558,030 SF	12.81 Ac	50%	317,383 SF	7.29 Ac	28.44%
Building Height	35 FT			35 FT (3 Stories)		
Max F.A.R.	N/A			0.3:1.0		
Total Site Area	N/A			1,935,321 SF	44.43 Ac	N/A
MF-1 Site Area*	N/A			1,116,060 SF	25.62 Ac	N/A

*Uses MF-1 zoning boundary

ZONING: C-3	ALLOWABLE			PROVIDED		
Building Coverage*	N/A			N/A	N/A	N/A
Impervious Cover*	11,489 SF	0.26 Ac	55%	12,897 SF	0.3 Ac	61.74%
Building Height	60 FT			N/A		
Max F.A.R.	N/A			N/A		
Total Site Area	N/A			1,935,321 SF	44.43 Ac	N/A
C-3 Site Area*	N/A			20,889 SF	0.48 Ac	N/A

*Uses C-3 zoning boundary

ZONING: AG	ALLOWABLE			PROVIDED		
Building Coverage*	N/A			N/A	N/A	N/A
Impervious Cover*	159,522 SF	3.66 Ac	20%	5,801 SF	0.13 Ac	0.73%
Building Height	35 FT			N/A		
Max F.A.R.	N/A			N/A		
Total Site Area	N/A			1,935,321 SF	44.43 Ac	N/A
AG Site Area*	N/A			797,609 SF	18.31 Ac	N/A

*Uses AG zoning boundary

ZONING: MF-2	ALLOWABLE			PROVIDED		
Building Coverage*	N/A			N/A	N/A	N/A
Impervious Cover*	1 SF	0 Ac	50%	0 SF	0 Ac	0.00%
Building Height	35 FT			N/A		
Max F.A.R.	N/A			N/A		
Total Site Area	N/A			1,935,321 SF	44.43 Ac	N/A
MF-2 Site Area*	N/A			1 SF	0 Ac	N/A

*Uses MF-2 zoning boundary

Site plan notes

1. *10% parking reduction has been granted via 2023-29-AE City of Georgetown section 9.06.010.*
2. *The impervious cover in the C-3 zoning area of this site was permitted with the Northside Subdivision Construction Plans (2023-13-CON).*

OPEN SPACE						
TYPE	REQUIRED			PROVIDED		
Pool & Deck	N/A	N/A	N/A	27,231 SF	0.63 Ac	1.41%
Courtyard	N/A	N/A	N/A	14,500 SF	0.33 Ac	0.75%
Open space	N/A	N/A	N/A	56,000 SF	1.29 Ac	2.89%
Total	96,766 SF	2.22 Ac	5.00%	97,731 SF	2.24 Ac	5.05%

REQUIRED AMENITIES	
Number of required amenities (250 units)	5
Amenity # / Type	Location
Amenity 1 Playground	Outside
Amenity 2 Clubhouse	Inside
Amenity 3 Private fitness center	Inside
Amenity 4 Swimming pool	Outside
Amenity 5 Laundry facility	Inside

PARKING	UNITS	SPACES/UNIT	REQUIRED	PROVIDED
1 Bedroom	0	1.5	0	0
2 Bedroom	78	2	156	141
3 Bedroom	108	2.5	270	243
4 Bedroom	64	2.5	160	144
+5% guest parking	-	-	29	26
-10% reduction*	-	-	-61	-
Off street parking	-	-	-	554
Total	250	Total	554	554

*10% reduction allowed per administrative exemption 2023-29-AE

Standard	498	518
Compact	Max 56	36
% Compact	Max 10%	6%
Garage	0	0
Handicap	12	34
Van	2 min	34
Standard	10	0
Bicycle	0	0

SHEET A

SHEET B

SHEET C

SHEET D

SHEET E

SHEET F

SHEET G

SHEET H

SYLVIA ANN THOMAS DEED
15 ACRES SAVE & EXCEPT 1.51 ACRES
VOL. 1322, PG 593
O.R.W.C.T.

CALLED 0.785 ACRES
GEORGETOWN
WATERLINE EASEMENT
DOC NO.2010079383
WCOPR

WILLIAM ROBERTS SURVEY
ABSTRACT NO. 324

FOUND 1/2" IRON ROD "CHAPARRAL"

S 60°24'37" W 1266.88'

S 31°56'42" E 606.42'

S 31°57'34" E 577.37'

ZONING: MF-1
USE: MULTI-FAMILY

10' wide mutli-use concrete regional trail per Parks Master Plan - Georgetown 2030 Plan Parkland trail easement by separate instrument Doc No. _____

All ADA ramps shall have a 5'x5' flat landing (max 2%). For ramps over 6" in height see detail SD28 on sheet 82.

12' Pond Berm Reference Northside Subdivision Construction Plans (2023-13-CON)

DRAINAGE EASEMENT PER NORTHSIDE SUBDIVISION FINAL PLAT DOC NO. ####

GEORGETOWN EXCLUSIVE UTILITY EASEMENT

50' JOINT ACCESS EASEMENT DOC. NO.

PROPOSED CITY OF GEORGETOWN HWY FLOODPLAIN

FIRE HYDRANT AND WATER VALVE

BWF UP TO 3.5' INSIDE BOUNDARY

Proposed building T1
Proposed building T2
Proposed building T3
Proposed building T4
Proposed building T5
Proposed building T6
Proposed building T7
Proposed building T8
Proposed building T9
Proposed building F1
Proposed building F2
Proposed building F3
Proposed building F4
Proposed building F5
Proposed building F6
Proposed building F7
Proposed building F8
Proposed building F9
Proposed Clubhouse building
Proposed Parking and Drive Circulation
Proposed Sidewalk, typ.
Proposed Building, typ.
Proposed ADA Parking and Sidwalk Ramp, typ.
Proposed amenity 1
Proposed amenity 2
Proposed amenity 3
Proposed amenity 4
Proposed amenity 5
Pool equipment area
Proposed Dumpster with Masonry Enclosure
Proposed mailbox hub
Proposed Transportation and Ride Share Shaded Pickup Location
Northside Lot 3 Multi-Family (2023-64-SDP) private parking
Proposed Fire Lane, typ.
FIRELANE
20' BSL
10' BSL
R35
R15
R25
29'

REVISIONS	No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

DESIGNED BY: JMC
DESIGN LEAD: OOI
DRAWN BY: JDE
SCALE: AS SHOWN
DATE: 02 - MARCH 2024
DWG ISSUANCE:
JOB NO.: 17951-0002-01

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

OVERALL SITE PLAN

SHEET NO. 14 OF 132

2023-64-SDP

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100 0 50 100

SCALE: 1" = 100'

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

TREE LEGEND

- TREE TO REMAIN (8"-18")
- TREE TO BE REMOVED (8"-18")
- PROTECTED TREE TO REMAIN (12"-25")
- PROTECTED TREE TO BE REMOVED (12"-25")
- HERITAGE TREE TO REMAIN (26"+)
- HERITAGE TREE TO BE REMOVED (26"+)

DEMOLITION LEGEND

- LIMITS OF CONSTRUCTION
- DEMOLITION AREA
- DEMOLITION LINE
- TREE PROTECTION

Notes

1. *For Tree Table see sheet 4 & 5*
2. *Proposed City of Georgetown 100-year floodplain delineated as part of the Northside Subdivision (2023-13-CON)*

Channel Improvement to be completed by separate contract Northside Subdivision Development Plans Permit No. 2023-13-CON

NORTHSIDE SUBDIVISION
LOT 3, BLOCK A
44.43 ACRES
ZONING:
USE: MULTI-FAMILY

NORTHSIDE SUBDIVISION
LOT 1, BLOCK A
5.34 ACRES
ZONING: C-3
USE: COMMERCIAL

NORTHSIDE SUBDIVISION
LOT 2, BLOCK 1
8.79 ACRES
ZONING: C-3
USE: COMMERCIAL

NORTHSIDE SUBDIVISION
LOT 4, BLOCK A
13.43 ACRES
ZONING: C-3, AG
USE: COMMERCIAL

SH 195
(PUBLIC R.O.W. VARIES)

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K:\17951\17951-0002-01 northside multifamily\2 design phase\CAD\site development plans\17951-0002-01 EXISTCOND.dwg ki: December 12, 2023

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COMP. SEPT. 2023 | DESIGN LEAD: OOI
DWG ISSUANCE: | DRAWN BY: JDE
JOB NO.: 17951-0002-01

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLP

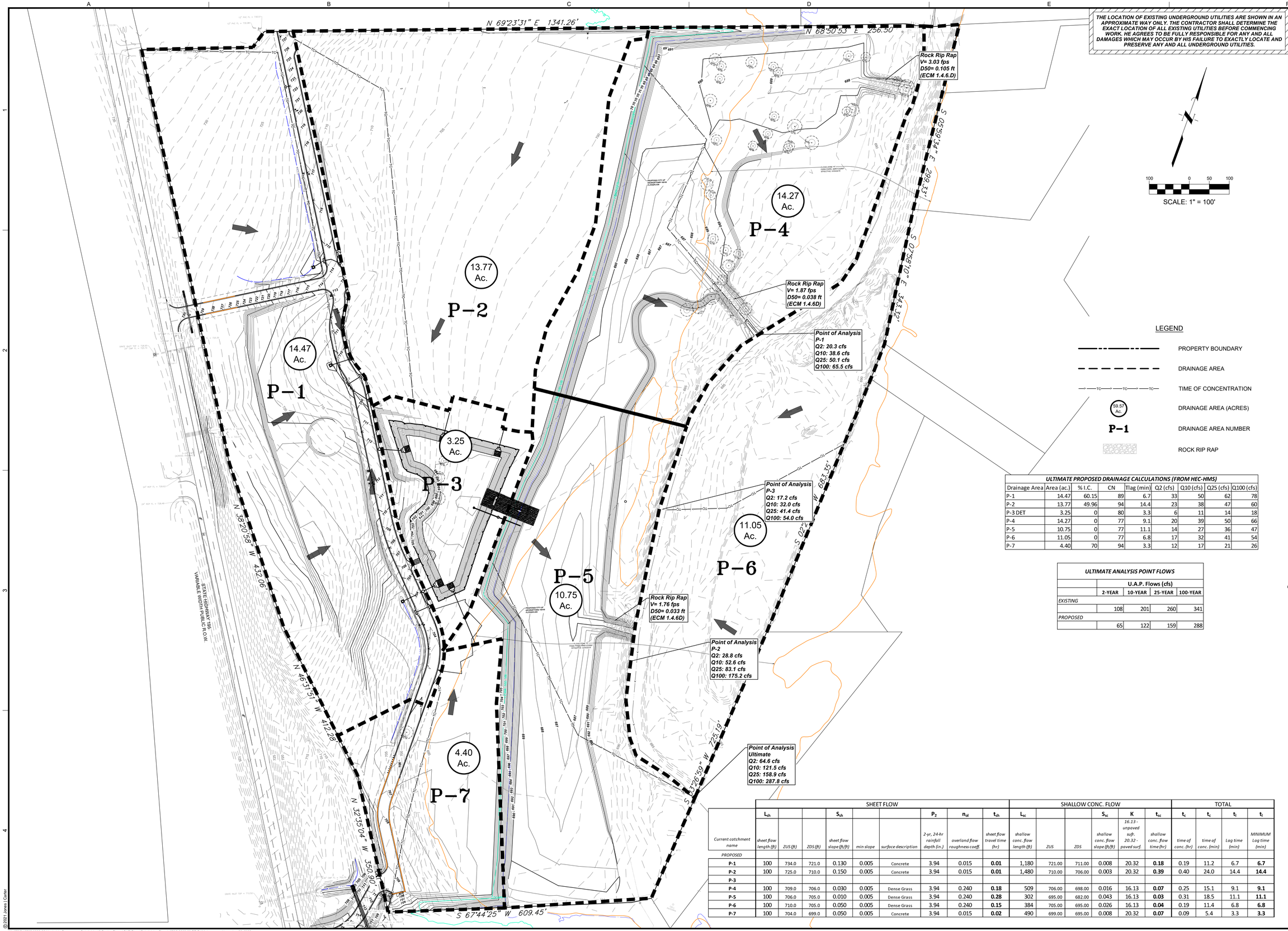
NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

EXISTING CONDITIONS AND DEMOLITION

SHEET NO. **6** OF 125

2023-64-SDP



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LEGEND

- PROPERTY BOUNDARY
- DRAINAGE AREA
- TIME OF CONCENTRATION
- 59.57 Ac. — DRAINAGE AREA (ACRES)
- P-1 — DRAINAGE AREA NUMBER
- ROCK RIP RAP

ULTIMATE PROPOSED DRAINAGE CALCULATIONS (FROM HEC-HMS)

Drainage Area	Area (ac.)	% I.C.	CN	Tlag (min)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
P-1	14.47	60.15	89	6.7	33	50	62	78
P-2	13.77	49.96	94	14.4	23	38	47	60
P-3 DET	3.25	0	80	3.3	6	11	14	18
P-4	14.27	0	77	9.1	20	39	50	66
P-5	10.75	0	77	11.1	14	27	36	47
P-6	11.05	0	77	6.8	17	32	41	54
P-7	4.40	70	94	3.3	12	17	21	26

ULTIMATE ANALYSIS POINT FLOWS

	U.A.P. Flows (cfs)			
	2-YEAR	10-YEAR	25-YEAR	100-YEAR
EXISTING				
	108	201	260	341
PROPOSED				
	65	122	159	288

Current catchment name	SHEET FLOW L_{sh} (sheet flow length (ft))	ZUS (ft)	ZDS (ft)	S_{sh} (sheet flow slope (ft/ft))	min slope	surface description	P_2 (2-yr, 24-hr rainfall depth (in.))	n_{ol} (overland flow roughness coef.)	t_{sh} (sheet flow travel time (hr))	SHALLOW CONC. FLOW L_{sc} (shallow conc. flow length (ft))	ZUS	ZDS	S_{sc} (shallow conc. flow slope (ft/ft))	K (16.13 - unpaved surf., 20.32 - paved surf.)	t_{sc} (shallow conc. flow time (hr))	TOTAL t_c (time of conc. (hr))	t_c (time of conc. (min))	t_l (Lag time (min))	t_l (MINIMUM Lag time (min))
PROPOSED																			
P-1	100	734.0	721.0	0.130	0.005	Concrete	3.94	0.015	**0.01**	1,180	721.00	711.00	0.008	20.32	**0.18**	0.19	11.2	6.7	**6.7**
P-2	100	725.0	710.0	0.150	0.005	Concrete	3.94	0.015	**0.01**	1,480	710.00	706.00	0.003	20.32	**0.39**	0.40	24.0	14.4	**14.4**
P-3																			
P-4	100	709.0	706.0	0.030	0.005	Dense Grass	3.94	0.240	**0.18**	509	706.00	698.00	0.016	16.13	**0.07**	0.25	15.1	9.1	**9.1**
P-5	100	706.0	705.0	0.010	0.005	Dense Grass	3.94	0.240	**0.28**	302	695.00	682.00	0.043	16.13	**0.03**	0.31	18.5	11.1	**11.1**
P-6	100	710.0	705.0	0.050	0.005	Dense Grass	3.94	0.240	**0.15**	384	705.00	695.00	0.026	16.13	**0.04**	0.19	11.4	6.8	**6.8**
P-7	100	704.0	699.0	0.050	0.005	Concrete	3.94	0.015	**0.02**	490	699.00	695.00	0.008	20.32	**0.07**	0.09	5.4	3.3	**3.3**

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: FR
DATE: 7/31/2023 | CHECKED BY: JAA
JOB NO.: 167050003-00 | DRAWN BY: SLH

STATE OF TEXAS
JOHN A. ALVAREZ II
127206
LICENSED
PROFESSIONAL ENGINEER
11/29/2023

TRAILS, LLC

NORTHSIDE SUBDIVISION

350 HWY 195, GEORGETOWN, TX 78633

PROPOSED DRAINAGE AREA MAP

SHEET NO. **51** OF **70**

2023-13-CON

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K:\16705\16705-0003-00 Northside Georgetown Subdivision\2 Design Phase\CAD\Plans\Subdivision Plans\16705-0003-00 PR DAM.dwg ec: November 29, 2023

MODIFICATION OF A PREVIOUSLY APPROVED PLAN – ATTACHMENT D

Executed Deed Verifying New Owner

Capital Title
GF# 22-707419-WL

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

SPECIAL WARRANTY DEED

STATE OF TEXAS §
§
COUNTY OF WILLIAMSON §

THE TRAILS, LLC, a Texas limited liability company ("**Grantor**"), for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged and confirmed, does hereby GRANT, BARGAIN, SELL AND CONVEY unto **GEORGETOWN LEASED HOUSING ASSOCIATES I, LIMITED PARTNERSHIP**, a Texas limited partnership ("**Grantee**"), with an address of 2905 Northwest Blvd., Suite 150, Plymouth, Minnesota 55441, that certain parcel of land described in **Exhibit A** attached hereto and made a part hereof (the "**Property**").

This conveyance is made and accepted subject to (a) standby fees, taxes and assessments by any taxing authority for the current year, which have been prorated, and subsequent years, which standby fees, taxes and assessments Grantee assumes and agrees to pay, and (b) the matters set forth on **Exhibit B** attached hereto and made a part hereof for all purposes (all of those items described in (a) through (b) above are hereinafter collectively referred to as the "**Permitted Encumbrances**").

TO HAVE AND TO HOLD the Property, together with all and singular the rights and appurtenances thereto in anywise belonging, unto Grantee and its successors and assigns, forever, and Grantor does hereby bind itself and its successors to forever warrant and defend all and singular the Property unto Grantee and its successors and assigns against every person whomsoever lawfully claiming, or to claim the same, or any part thereof, by, through or under Grantor, but not otherwise; subject, however to the Permitted Encumbrances.

IN WITNESS WHEREOF, Grantor executes this Special Warranty Deed on the date set forth in the acknowledgment below, to be effective as of March 22, 2024.

[Signature and Notary Pages Follow]

SELLER:

THE TRAILS, LLC,
a Texas limited liability company

By: Silveredge Development & Construction, LLC,
a Texas limited liability company, its Manager

By: _____
Charles Holbrook,
Managing Member

By: Moss RE Investments, Inc., a Texas
corporation, its Manager

By: _____
Douglas Moss, Director

STATE OF TEXAS §
§
COUNTY OF TRAVIS §

I HEREBY CERTIFY that this 22 day of March, 2024, before me, a Notary Public for the state aforesaid, personally appeared CHARLES HOLBROOK, Managing Member of Silveredge Development & Construction, LLC, a Texas limited liability company, on behalf of and in its capacity as Manager of THE TRAILS, LLC, a Texas limited liability company, and has executed, such instrument on its behalf for the purposes therein set forth; and that the same is its act and deed.

IN WITNESS WHEREOF, I have set my hand and Notarial Seal, the day and year first above written.

_____
Notary Public, State of Texas

My commission expires on: _____.

SHELLEY HILL
Notary Public, State of Texas
My Comm. Exp. 08/26/2025
Notary ID 445363-0

STATE OF TEXAS §
§
COUNTY OF TRAVIS §

I HEREBY CERTIFY that this 22 day of March, 2024, before me, a Notary Public for the state aforesaid, personally appeared DOUGLAS MOSS, Director of Moss RE Investments, Inc., a Texas corporation, on behalf of and in its capacity as Manager of THE TRAILS, LLC, a Texas limited liability company, and has executed, such instrument on its behalf for the purposes therein set forth; and that the same is its act and deed.

IN WITNESS WHEREOF, I have set my hand and Notarial Seal, the day and year first above written.

Notary Public, State of Texas

My commission expires on: _____.

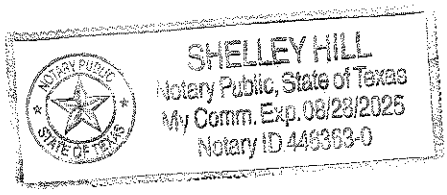

Exhibit A
Description of the Land

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Austin, Texas 78745
Tel: 512.441.9493
www.quiddity.com

LEGAL DESCRIPTION

BEING a 44.429-acre tract of land situated in the John Berry Survey, Abstract No. 51, City of Georgetown, Williamson County, Texas, being a portion of that certain tract of land called to contain 71.997-acres in a Special Warranty Deed to The Trail, LLC as described in Document No. 2022094181 of the Official Public Records of Williamson County, Texas; said 44.429-acre tract of land being more particularly described as follows, with bearings based on the Texas Coordinate System of 1983, Central Zone:

BEGINNINING: at a 5/8-inch iron rod with cap stamped "Jones|Carter" set on the northwestern line of said 71.997-acres, the southeastern line of a 15-acre tract of land, save and except 1.51 acres to Sylvia Ann Thomas as described in a Deed in Volume 1322, Page 593 of the Official Public Records of Williamson County, Texas, for the northwestern corner of this herein described tract;

THENCE: North 69°23'31" East a distance of 1268.88 feet along the northwestern line of the said 71.997-acre tract, the southeastern line of the said 15-acre tract to a 1/2-inch iron rod found for the southeastern corner of said 15-acre tract, the southwestern corner of a 45-acres tract of land to GT 195 Holdings, LLC as described in a Special Warranty Deed in Document No. 2021150671 of the Official Public Records of Williamson County, Texas, for a corner of the said 71.997-acre tract, for a corner of this herein described tract;

THENCE: North 68°50'53" East a distance of 256.47 feet along the southeastern line of said 45-acre tract, a northwestern line of said 71.997-acre tract to a 1/2-inch iron rod with cap stamped "Forest" found for a corner of said 45-acre tract, a corner of the said 71.997-acre tract, for a corner of this herein described tract;

THENCE: North 74°44'22" East a distance of 26.69 feet continuing along the southeastern line of said 45-acre tract, a northwestern line of said 71.997-acre tract to a 1/2-inch iron rod found for a corner of said 45-acre tract, a corner of said 71.997-acre tract, for a corner of this herein described tract;

THENCE: South 54°32'09" East a distance of 2.45 feet continuing along a southern line of said 45-acre tract, a northern line of said 71.997-acre tract to a 1/2-inch iron rod with cap stamped "Forest" found for a corner of said 45-acre tract, a corner of said 71.997-acre tract, for a corner of this herein described tract;

THENCE: North 73°36'07" East a distance of 46.37 feet continuing along the southeastern line of said 45-acre tract, a northwestern line of said 71.997-acre tract to a calculated point in or near the centerline of Dry Berry Creek, for the southeastern corner of said 45-acre tract, the southwestern corner of a 224.705-acre tract of land to JSACA/Georgetown, LP as described in a Special Warranty Deed in Document No. 2022012116 of the Official Public Records of Williamson County, Texas, a corner of said 71.997-acre tract, for a corner of this herein described tract;

THENCE: North 65°18'08" East a distance of 65.53 feet along the southeastern line of said 224.705-acre tract, a northwestern line of said 71.997-acre tract to 1/2-inch iron rod found for the northwestern corner of a 1.249-acres to Howard Neal Landry as described in a Warranty Deed in Volume 1732, Page 249 of the Official Public

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Records of Williamson County, Texas, on the southeastern line of said 224.705-acres tract, for the northeastern corner of said 71.997-acre tract, for the northeastern corner of this herein described tract;

THENCE: South 05°57'48" East a distance of 176.49 feet along an eastern line of said 71.997-acre tract, the western line of said 1.249-acre tract to a 1/2-inch iron rod with cap stamped "Forest" found for the southwestern corner of said 1.249-acre tract, a northwestern corner of a 4.095-acre tract of land to Howard Neal Landry in said Volume 1732, Page 249, for a corner of this herein described tract;

THENCE: South 05°59'34" East a distance of 299.33 feet along a western line of said 4.095-acre tract, an eastern line of said 71.997-acre tract to a 1-inch iron pipe found for the southwestern corner of said 4.095-acre tract, the northwestern corner of a 6.28-acre tract of land to Howard Neal Landry in said Volume 1732, Page 249, for a corner of said 71.997-acre tract, for a corner of this herein described tract;

THENCE: South 07°58'10" East a distance of 343.28 feet along a western line of said 6.28-acre tract, an eastern line of said 71.997-acre tract to a 1-inch iron pipe found for the southwestern corner of said 6.28-acre tract, the northwestern corner of a 1.0-acre tract of land to Howard Neal Landry in said Volume 1732, Page 249, for a corner of said 71.997-acre tract, for a corner of this herein described tract;

THENCE: South 01°23'26" West a distance of 94.73 feet along the western line of said 1.0-acre tract, an eastern line of said 71.997-acre tract to a nail found for the southwestern corner of said 1.0-acre tract, a corner of said 71.997-acre tract, the northwestern corner of a 2.53-acre tract of land to Howard Neal Landry in said Volume 1732, Page 249, for a corner of this herein described tract;

THENCE: South 02°21'36" West a distance of 537.28 feet along the western line of said 2.53-acre tract, an eastern line of said 71.997-acre tract to a 5/8-inch iron rod with cap stamped "Jones|Carter" set for the southeastern corner of this herein described tract;

THENCE: Across said 71.997-acre tract with the following courses and distances:

1. South 58°02'41" West a distance of 880.54 feet to a 5/8-inch iron rod with cap stamped "Jones|Carter" set;
2. A non-tangent curve to the left having a Delta angle of 26°26'16", a Radius of 201.90 feet, an Arc length of 93.16 feet with the chord of the curve North 32°58'11" West a distance of 92.34 feet to a 5/8-inch iron rod with cap stamped "Jones|Carter" set;
3. North 44°23'14" West a distance of 168.14 feet to a 5/8-inch iron rod with cap stamped "Jones|Carter" set;
4. A curve to the right having a Delta angle of 12°26'36", a Radius of 475.00 feet, an Arc length of 103.16 feet with the chord of curve North 38°09'56" West a distance of 102.96 feet to a 5/8-inch iron rod with cap stamped "Jones|Carter" set;
5. North 31°57'34" West a distance of 577.37 feet to a 5/8-inch iron rod with cap stamped "Jones|Carter" set;

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6. South 58°01'17" West a distance of 379.43 feet to a 5/8-inch iron rod with cap stamped "Jones|Carter" set on the northeaster Right-of-Way line of State Highway 195 (R.O.W. Varies), a southwestern line of said 71.997-acre tract, for a corner of this herein described tract;

THENCE: North 31°58'49" West a distance of 50.00 feet along the northeasterly line of said State Highway 195 to a 5/8-inch iron rod with cap stamped "Jones|Carter" set on a southwestern line of said 71.997-acre tract, for a corner of this herein described tract;

THENCE: Across said 71.997-acre tract with the following courses and distances:

1. North 58°01'17" East a distance of 379.63 feet to a 5/8-inch iron rod with cap stamped "Jones|Carter" set;
2. North 31°56'42" West a distance of 606.42 feet to the **POINT OF BEGINNING** and **CONTAINING** an area of 44.429-acres of land.

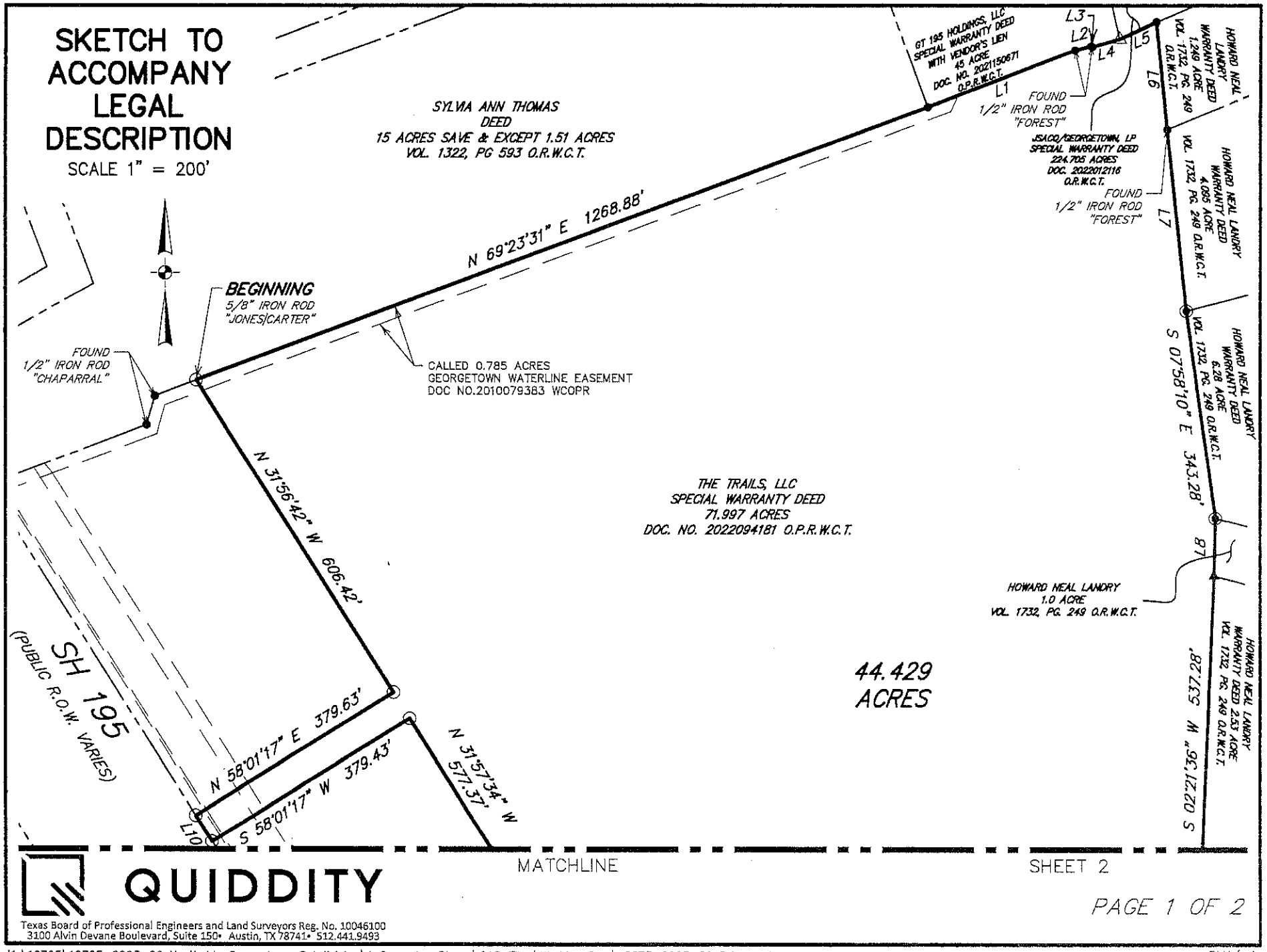
Rex L. Hackett
Registered Professional Land Surveyor No. 5573
rhackett@quiddity.com

9-29-2022
Date:



SKETCH TO ACCOMPANY LEGAL DESCRIPTION

SCALE 1" = 200'



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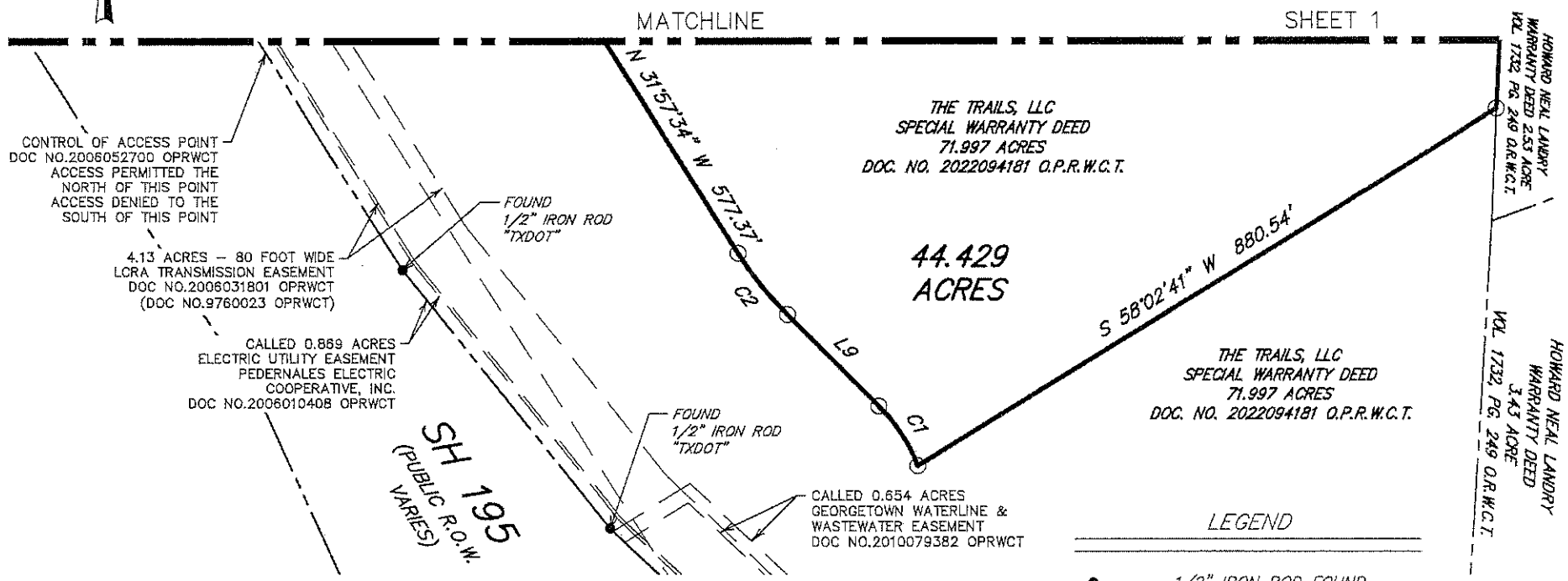
K:\16705\16705-0003-00 Northside Georgetown Subdivision\1 Surveying Phase\CAD Files\Working Dwg\16075-0003-00 Primary.dwg

RLH/ash

SKETCH TO ACCOMPANY LEGAL DESCRIPTION

SCALE 1" = 200'



CURVE TABLE					
CURVE	DELTA ANGLE	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	26°26'16"	201.90'	93.16'	N 32°58'11" W	92.34'
C2	12°26'36"	475.00'	103.16'	N 38°09'56" W	102.96'

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 68°50'53" E	256.47'
L2	N 74°44'22" E	26.69'
L3	S 54°32'09" E	2.45'
L4	N 73°36'07" E	46.37'
L5	N 65°18'08" E	65.53'
L6	S 05°57'48" E	176.49'
L7	S 05°59'34" E	299.33'
L8	S 01°23'26" W	94.73'
L9	N 44°23'14" W	168.14'
L10	N 31°58'49" W	50.00'

STATE OF TEXAS
REGISTERED
REX L. HACKETT
5573
PROFESSIONAL
LAND SURVEYOR

9-29-2022

LEGEND

●	1/2" IRON ROD FOUND
◉	1" IRON PIPE FOUND
○	5/8" IRON ROD SET W/CAP STAMPED "JONES|CARTER"
▲	NAIL FOUND
△	CALCULATED POINT
D.R.T.C.T.	DEED RECORDS OF TRAVIS COUNTY, TEXAS
O.R.T.C.T.	OFFICIAL RECORDS OF TRAVIS COUNTY, TEXAS
O.P.R.T.C.T.	OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS

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Exhibit B
Permitted Encumbrances

1. Rights of parties in possession.

2. Easement, Right of Way and/or Agreement by and between Ben Vogler and wife Mildred Vogler husband and wife and Brazos River Transmission Electric Cooperative Inc., a cooperative corporation by instrument dated May 7, 1948 filed July 20, 1948 recorded in/under Volume 349 Page 451 Deed Records, Williamson County, Texas, as noted / shown on Survey dated November 15, 2022, last revised August 22, 2023, prepared by Rex L. Hackett, R.P.L.S. No. 5573, in Job No. 16705-0003-00.

3. Easement, Right of Way and/or Agreement by and between Linda Vogler Futrell., individually and as independent Executrix of the Estate of Mildred Vogler, deceased, and husband, Billy R. Futrell and Michael H. Vogler and wife, Mary Gene Vogler and Lower Colorado River Authority by instrument dated December 29, 1997, filed December 30, 1997, recorded in/under Clerk's File No. 9760023, Official Public Records, Williamson County, Texas and amended by County Clerk's File No. 2006031801, of the Official Public Records of Williamson County, Texas, as noted / shown on Survey dated November 15, 2022, last revised August 22, 2023, prepared by Rex L. Hackett, R.P.L.S. No. 5573, in Job No. 16705-0003-00.

4. Easement, Right of Way and/or Agreement by and between Linda Vogler Futrell and Michael Vogler and Pedernales Electric Cooperative Inc, by instrument dated August 1, 2005, filed February 10, 2006, recorded in/under Clerk's File No. 2006010408, Official Public Records, Williamson County, Texas, as noted / shown on Survey dated November 15, 2022, last revised August 22, 2023, prepared by Rex L. Hackett, R.P.L.S. No. 5573, in Job No. 16705-0003-00.

5. All terms, conditions, and provisions of that certain Agreed Judgment, Case No. 04-0559-CC1 recorded in/under County Clerk's File No. 2006052700 of the Official Public Records of Williamson County, Texas, as noted / shown on Survey dated November 15, 2022, last revised August 22, 2023, prepared by Rex L. Hackett, R.P.L.S. No. 5573, in Job No. 16705-0003-00.

6. Easement, Right of Way and/or Agreement by and between NWC SH 195 and 135, Ltd., a Texas limited partnership and City of Georgetown, a Texas home rule municipal corporation, by instrument dated October 10, 2010, filed November 11, 2010, Clerk's File No. 2010079383, Official Public Records, Williamson County, Texas, as noted / shown on Survey dated November 15, 2022, last revised August 22, 2023, prepared by Rex L. Hackett, R.P.L.S. No. 5573, in Job No. 16705-0003-00.

7. All leases, grants, exceptions or reservations of coal, lignite, oil, gas and other minerals, together with all rights, privileges, and immunities relating thereto, appearing in the Public Records whether listed in Schedule B or not. There may be leases, grants, exceptions or reservations of mineral interests that are not listed.

8. Any rights, easements, interests or claims which may exist by reason of the following matters, as reflected on survey drawing dated November 15, 2022, last revised August 22, 2023, prepared by Rex L. Hackett, R.P.L.S. No. 5573, in Job No. 16705-0003-00:
    a. The fence lines running outside of the property boundary lines.
    b. The overhead electric lines encroaching over the property.

Water Pollution Abatement Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(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 **Water Pollution Abatement Plan Application Form** is hereby submitted for TCEQ review and Executive Director approval. The form was prepared by:

Print Name of Customer/Agent: Justin M. Cadieux

Date: 04/04/2024

Signature of Customer/Agent:



Regulated Entity Name: Northside Subdivision

Regulated Entity Information

1. The type of project is:

   ☒ Residential: Number of Lots: 1
   ☒ Residential: Number of Living Unit Equivalents: 175
   ☒ Commercial
   ☐ Industrial
   ☐ Other: _____

2. Total site acreage (size of property): 44.43

3. Estimated projected population: 736

4. The amount and type of impervious cover expected after construction are shown below:

Table 1 - Impervious Cover Table

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	119,970	÷ 43,560 =	2.75
Parking	153,228	÷ 43,560 =	3.52
Other paved surfaces	62,883	÷ 43,560 =	1.44
Total Impervious Cover	336,081	÷ 43,560 =	7.72

Total Impervious Cover 7.72 **÷ Total Acreage** 44.43 **X 100 =**17.38**% Impervious Cover**

5. ☒ **Attachment A - Factors Affecting Surface Water Quality**. A detailed description of all factors that could affect surface water and groundwater quality that addresses ultimate land use is attached.

6. ☒ Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

For Road Projects Only

Complete questions 7 - 12 if this application is exclusively for a road project.

7. Type of project:

   ☐ TXDOT road project.
   ☐ County road or roads built to county specifications.
   ☐ City thoroughfare or roads to be dedicated to a municipality.
   ☐ Street or road providing access to private driveways.

8. Type of pavement or road surface to be used:

   ☐ Concrete
   ☐ Asphaltic concrete pavement
   ☐ Other: _____

9. Length of Right of Way (R.O.W.): _____ feet.

   Width of R.O.W.: _____ feet.
   L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.

10. Length of pavement area: _____ feet.

    Width of pavement area: _____ feet.
    L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.
    Pavement area _____ acres ÷ R.O.W. area _____ acres x 100 = _____% impervious cover.

11. ☐ A rest stop will be included in this project.

    ☐ A rest stop will not be included in this project.

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

Stormwater to be generated by the Proposed Project

13. ☒ **Attachment B - Volume and Character of Stormwater**. A detailed description of the volume (quantity) and character (quality) of the stormwater runoff which is expected to occur from the proposed project is attached. The estimates of stormwater runoff quality and quantity are based on the area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

Wastewater to be generated by the Proposed Project

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

100% Domestic	43,750 Gallons/day
_____% Industrial	_____Gallons/day
_____% Commingled	_____Gallons/day
TOTAL gallons/day 43,750	

15. Wastewater will be disposed of by:

☐ On-Site Sewage Facility (OSSF/Septic Tank):

- ☐ **Attachment C - Suitability Letter from Authorized Agent**. An on-site sewage facility will be used to treat and dispose of the wastewater from this site. The appropriate licensing authority's (authorized agent) written approval is attached. It states that the land is suitable for the use of private sewage facilities and will meet or exceed the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285 relating to On-site Sewage Facilities.
- ☐ Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

☒ Sewage Collection System (Sewer Lines):

- ☐ Private service laterals from the wastewater generating facilities will be connected to an existing SCS.
- ☒ Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.

- ☐ The SCS was previously submitted on_____.
- ☒ The SCS was submitted with this application.
- ☐ The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

☒ The sewage collection system will convey the wastewater to the Pecan Branch Treatment Plant. The treatment facility is:

☒ Existing.
☐ Proposed.

16. ☒ All private service laterals will be inspected as required in 30 TAC §213.5.

Site Plan Requirements

Items 17 – 28 must be included on the Site Plan.

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

Site Plan Scale: 1" = 100'.

18. 100-year floodplain boundaries:

☒ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
☐ No part of the project site is located within the 100-year floodplain.
The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): _____

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

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

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):

☒ There are 1 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)

☐ The wells are not in use and have been properly abandoned.
☒ The wells are not in use and will be properly abandoned.
☐ The wells are in use and comply with 16 TAC §76.

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

21. Geologic or manmade features which are on the site:

☒ All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.
☐ No sensitive geologic or manmade features were identified in the Geologic Assessment.
☐ **Attachment D - Exception to the Required Geologic Assessment**. A request and justification for an exception to a portion of the Geologic Assessment is attached.

22. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.

23. ☒ Areas of soil disturbance and areas which will not be disturbed.

24. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

25. ☒ Locations where soil stabilization practices are expected to occur.

26. ☒ Surface waters (including wetlands).

    ☐ N/A

27. ☒ Locations where stormwater discharges to surface water or sensitive features are to occur.

    ☐ There will be no discharges to surface water or sensitive features.

28. ☒ Legal boundaries of the site are shown.

Administrative Information

29. ☒ 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.

30. ☒ Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

WPAP – ATTCHEMENT A

Factors Affecting Surface Water Quality

Factors that may affect surface water quality are as follows:

Site Development Criteria

- The Site will be used to create multi-family development.
- The future proposed development will increase the impervious cover of the project area to 20.20% which will increase the levels of TSS in the storm runoff.
- When necessary, rock rip-rap or concrete outfall aprons will be designed to reduce runoff velocities resulting in settlement of suspended solids and minimizing scouring conditions.

Construction Stage

- Clearing will disturb areas and create the potential for pollutants to runoff from rainfall.
- Measures such as stabilizes construction entrance/exit, slit fencing, inlet protection, rock berms, and other measures which will reduce TSS in runoff leaving the site.

Vehicular Traffic

- Mud or fine particles may be left behind from vehicular traffic.
- Fluid may be left behind from vehicular traffic.

Landscape and Property Maintenance

- Pesticides or herbicides used for landscape maintenance may not be applied at a proper rate and may leak into groundwater or runoff into surface drains.
- Fine particles may be washed from driveway surfaces into roadways and drains.
- A maintenance plan will be implemented for all permanent BMP's in accordance with WPAP - Attachment G - Inspection, Maintenance, Repair, and Retrofit Plan.

WPAP – ATTCHEMENT B

Volume and Character of stormwater

The stormwater runoff calculations included in this section were based on the Soil Conservation Service (SCS) Method, available in HEC-HMS software. The USGS Web Soil Survey was used to determine the hydrologic soil groups of the site. One the hydrologic soil group was identified, the Runoff Curve Number (RCN) was determined in accordance with the City of Georgetown Drainage Criterial Manual. An RCN was calculated for each drainage area based on the soil group classification and proportion of each classification within each drainage area. The RCN was based off Table 3-6 Runoff Curve Numbers for Agricultural Land in the Georgetown DCM. The existing site was calculated to have a different RCN per drainage area with all four drainage areas having 0.00% impervious cover. A table detailing the proposed drainage calculations for the proposed multi-family development can be found in Northside Lot 3 Multi-family site plans on the proposed drainage area map (sheet 63). For the purposes of quantifying volume of stormwater, the proposed site was calculated to have a different RCN per sub-drainage area. A table with the proposed Northside Lot 3 multi-family sub-drainage area calculations can be found on sheet 65 of the site plans (2023-64-SDP).

The Existing and Proposed Drainage Area Maps for the proposed site are included in the section and show the drainage areas and flow patterns within the project. The drainage area map sheets also show the pre-construction and post-construction runoff rates at the analysis point including the offsite runoff paths, as well as a table summarizing the components of the HEC-HMS model for both the existing and proposed conditions.

On site impervious cover areas include paving for future multifamily and commercial developments.

WATER POLLUTION ABATEMENT PLAN APPLICATION

Northside Lot 3 Multi-Family Site Plans

QUIDDITY

DATE OF INITIAL SUBMITTAL: 09/05/2023

DEVELOPER:
GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
2905 NORTHWEST BLVD # 150
PLYMOUTH, MINNESOTA 55441
214-971-8747
ATTN: AUSTIN HOLMES

ENGINEER:
QUIDDITY ENGINEERING, LLC
3100 ALVIN DEVANE BLVD, SUITE 150
AUSTIN, TEXAS 78741
https://quiddity.com/
jcadieux@quiddity.com
512-441-9493
ATTN: JUSTIN M. CADIEUX, P.E.

LANDSCAPE ARCHITECT:
BKV GROUP
222 NORTH 2ND STREET, SUITE 101
MINNEAPOLIS, MINNESOTA 55401
612-373-9156
ATTN: SPENCER BAUER

LEGAL DESCRIPTION:
LOT 3, OF NORTHSIDE SUBDIVISION, DOC NO. _____

RELATED CASES: **2023-13-CON, 2023-37-FP, 2022-15-PP, 2023-29-AE**

ZONING:
MF-1 - LOW DENSITY MULTIFAMILY
MF-2 - HIGH DENSITY MULTIFAMILY
C-3 - GENERAL COMMERCIAL
AG - AGRICULTURE

ZONING USE:
MULTIFAMILY, ATTACHED DWELLING UNITS

WATERSHED: BERRY CREEK

FEMA FIRM:
48491C0285F AND 484991C0283F
EFF. DECEMBER 20, 2019

OWNER:
THE TRAILS LLC
213 PLAYING CYPRESS
SAN MARCOS, TEXAS 78666
512-567-5003
ATTN: DOUGLAS G. MOSS

ARCHITECT:
BKV GROUP
222 NORTH 2ND STREET, SUITE 101
MINNEAPOLIS, MINNESOTA 55401
612-373-9156
ATTN: MAT NUGENT

GENERAL PLAN NOTES:

1. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER, AND SUCCESSORS TO THE CURRENT PROPERTY OWNER, TO ENSURE THE SUBJECT PROPERTY AND ANY IMPROVEMENTS ARE MAINTAINED IN CONFORMANCE WITH THIS SITE DEVELOPMENT PLAN.
2. THIS DEVELOPMENT SHALL COMPLY WITH ALL STANDARDS OF THE UNIFIED DEVELOPMENT CODE (UDC), THE CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND SPECIFICATIONS MANUAL, THE DEVELOPMENT MANUAL AND ALL OTHER APPLICABLE CITY STANDARDS.
3. THIS SITE DEVELOPMENT PLAN SHALL MEET THE UDC STORMWATER REQUIREMENTS.
4. ALL SIGNAGE REQUIRES A SEPARATE APPLICATION AND APPROVAL FROM THE INSPECTION SERVICES DEPARTMENT. NO SIGNAGE IS APPROVED WITH THE SITE DEVELOPMENT PLAN.
5. SIDEWALKS SHALL BE PROVIDED IN ACCORDANCE WITH THE UDC.
6. DRIVEWAYS WILL REQUIRE APPROVAL BY THE DEVELOPMENT ENGINEER OF THE CITY OF GEORGETOWN.
7. OUTDOOR LIGHTING SHALL COMPLY WITH SECTION 7.04 OF THE UDC.
8. SCREENING OF MECHANICAL EQUIPMENT, DUMPSTERS AND PARKING SHALL COMPLY WITH CHAPTER 8 OF THE UDC. THE SCREENING IS SHOWN ON THE LANDSCAPE AND ARCHITECTURAL PLANS, AS APPLICABLE.
9. THE COMPANION LANDSCAPE PLAN HAS BEEN DESIGNED AND PLANT MATERIALS SHALL BE INSTALLED TO MEET ALL REQUIREMENTS OF THE UDC.
10. ALL MAINTENANCE OF REQUIRED LANDSCAPE SHALL COMPLY WITH THE MAINTENANCE STANDARDS OF CHAPTER 8 OF THE UDC.
11. A SEPARATE IRRIGATION PLAN SHALL BE REQUIRED AT THE TIME OF BUILDING PERMIT APPLICATION.
12. FIRE FLOW REQUIREMENTS OF 1500 GALLONS PER MINUTE ARE BEING MET BY THIS PLAN (PER 2015 IFC WITH CITY OF GEORGETOWN LOCAL AMENDMENTS).
13. ANY HERITAGE TREE NOTED ON THIS SITE DEVELOPMENT PLAN IS SUBJECT, IN PERPETUITY, TO THE MAINTENANCE, CARE, PRUNING AND REMOVAL REQUIREMENTS OF THE UNIFIED DEVELOPMENT CODE.
14. THE CONSTRUCTION PORTION OF THESE PLANS WERE PREPARED, SEALED, SIGNED AND DATED BY A TEXAS LICENSED PROFESSIONAL ENGINEER. THEREFORE, BASED ON THE ENGINEER'S CONCURRENCE OF COMPLIANCE, THE CONSTRUCTION PLANS FOR CONSTRUCTION OF THE PROPOSED PROJECT ARE HEREBY APPROVED SUBJECT TO THE STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS MANUAL AND ALL OTHER APPLICABLE CITY, STATE AND FEDERAL REQUIREMENTS AND CODES.
15. THIS PROJECT IS SUBJECT TO ALL CITY STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS IN EFFECT AT THE TIME OF SUBMITTAL OF THE PROJECT TO THE CITY.
16. WHERE NO EXISTING OVERHEAD INFRASTRUCTURE EXISTS, UNDERGROUND ELECTRIC UTILITY LINES SHALL BE LOCATED ALONG THE STREET AND WITHIN THE SITE. WHERE EXISTING OVERHEAD INFRASTRUCTURE IS TO BE RELOCATED, IT SHALL BE RE-INSTALLED UNDERGROUND AND THE EXISTING FACILITIES SHALL BE REMOVED AT THE DISCRETION OF THE DEVELOPMENT ENGINEER.
17. ALL ELECTRIC AND COMMUNICATION INFRASTRUCTURE SHALL COMPLY WITH UDC SECTION 13.06.
18. THE PROPERTY SUBJECT TO THIS APPLICATION IS SUBJECT TO THE WATER QUALITY REGULATIONS OF THE CITY OF GEORGETOWN.
19. A GEOLOGIC ASSESSMENT, IN ACCORDANCE WITH THE CITY OF GEORGETOWN WATER QUALITY REGULATIONS, WAS COMPLETED IN MAY 2022. ANY SPRINGS AND STREAMS AS IDENTIFIED IN THE GEOLOGIC ASSESSMENT ARE SHOWN HEREIN.

REVISIONS/CORRECTIONS

NO.	DESCRIPTION	SHEET # DELETE (D) REVISE (R) ADD (A)	PLAN SET SHEET TOTAL	IMP COVER NET CHANGE (SF)	IMP COVER TOTAL SITE (SF/%)	COG APPROVAL DATE	IMAGE DATE

BENCHMARKS:

THE ELEVATIONS (AND/OR CONTOURS) SHOWN HEREON ARE REFERENCED TO TBM #100, MAG NAIL 735.14 FEET AND TBM #101, MAG NAIL 697.39 FEET, NAVD 88.

SITE DEVELOPMENT PLANS

FOR

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

GEORGETOWN, TEXAS 78633

FOR

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

VICINITY MAP

1" = 2,000'

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER

03/27/2024

JUSTIN M. CADIEUX, P.E.

09/05/2023

TEXAS ONE CALL SYSTEM
1-800-245-4545
CALL BEFORE YOU. TEXAS ONE CALL PARTICIPANTS REQUEST 72 HOURS NOTICE BEFORE YOU DIG, DRILL, OR BLAST

PREPARED BY

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

JOB NUMBER 17951-0002-01

WATER PROVIDER:
CITY OF GEORGETOWN: GEORGETOWN UTILITY SYSTEMS
300 INDUSTRIAL AVE #1,
GEORGETOWN, TX 78626
(512) 930-3640
https://gus.georgetown.org/

WASTEWATER PROVIDER:
CITY OF GEORGETOWN: GEORGETOWN UTILITY SYSTEMS
300 INDUSTRIAL AVE #1,
GEORGETOWN, TX 78626
(512) 930-3640
https://gus.georgetown.org/

ELECTRIC PROVIDER:
PEDERNALES ELECTRIC COOPERATIVE
201 S AVENUE F,
JOHNSON CITY, TX 78636
(830) 868-7155
https://www.pec.coop/

GEOTECHNICAL REPORT:
DATE: FEBRUARY 17, 2023
PROJECT NUMBER: B2210179.02

SITE INFORMATION:
AM PEAK HOUR TRAFFIC: 100
PM PEAK HOUR TRAFFIC: 128
AVERAGE DAILY TRAFFIC: 1678
MF-1 ZONING BOUNDARY IMPERVIOUS COVER: 7.29 AC./28.44%
MF-2 ZONING BOUNDARY IMPERVIOUS COVER: 0.00 AC./0.00%
C-3 ZONING BOUNDARY IMPERVIOUS COVER: 0.30 AC./61.74%
AG ZONING BOUNDARY IMPERVIOUS COVER: 0.13 AC./0.73%
TOTAL SITE IMPERVIOUS COVER: 7.72 AC./17.37%
TOTAL SITE ACREAGE: 44.43 AC.
TURN LANES WILL BE REQUIRED AS THE SITE GENERATES MORE THAN 50 PEAK HOUR TRIPS

LIST OF LEGAL DOCUMENTS
EXCLUSIVE WATER VAULT EASEMENT BY SEPARATE INSTRUMENT DOC NO. _____
EXCLUSIVE WATER VAULT EASEMENT BY SEPARATE INSTRUMENT DOC NO. _____
EXCLUSIVE WATER VAULT EASEMENT BY SEPARATE INSTRUMENT DOC NO. _____
PARKLAND TRAIL EASEMENT BY SEPARATE INSTRUMENT DOC NO. _____

PRIVATE JOINT-USE ACCESS EASEMENT PER NORTHSIDE GEORGETOWN SUBDIVISION FINAL PLAT DOC NO. ####
GEORGETOWN EXCLUSIVE UTILITY EASEMENT PER NORTHSIDE GEORGETOWN SUBDIVISION FINAL PLAT DOC NO. ####
PUBLIC UTILITY EASEMENT PER NORTHSIDE GEORGETOWN SUBDIVISION FINAL PLAT DOC NO. ####
DRAINAGE EASEMENT PER NORTHSIDE GEORGETOWN SUBDIVISION FINAL PLAT DOC NO. ####
WATERLINE EASEMENT PER NORTHSIDE GEORGETOWN SUBDIVISION FINAL PLAT DOC NO. ####
DRY BERRY CREEK INTERCEPTOR DOC NO._____

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DATE OF INIT. SUBMITTAL: 09/05/2023

DWG ISSUANCE: U2 - MARCH 2024

SITE DEVELOPMENT PLANS

NORTHSIDE LOT 3 MULTI-FAMILY

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

JOB NUMBER 17951-0002-01

SHEET NO. 1 OF 132

2023-64-SDP

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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 GEORGETOWN 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. FOR SLOPES OR TRENCHES GREATER THAN FIVE 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."
4. ALL SITE WORK MUST ALSO COMPLY WITH ENVIRONMENTAL REQUIREMENTS.
5. 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:
6. DEVELOPER INFORMATION
   A. OWNER:
      GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
      PHONE NO: 214-971-8747
   B. OWNERS REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:
      CONSULTING ENGINEER, QUIDDITY ENGINEERING, LLC
      PHONE NO: (512) 441-9493
   C. PERSON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL:
      CONTRACTOR
   D. PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA CONTROL:
      CONTRACTOR
7. 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.
8. 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 HIS EXPENSE PRIOR TO COMMENCEMENT OF WORK.
9. CONTRACTOR TO COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS REGARDING EXCESS AND WASTE MATERIAL, INCLUDING METHODS OF HANDLING AND DISPOSAL.
10. 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.
11. 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.
12. CONTRACTOR TO CONTROL DUST CAUSED BY THE WORK AND COMPLY WITH POLLUTION CONTROL REGULATIONS OF GOVERNING AUTHORITIES. (NO SEPARATE PAY.)
13. THESE PLANS, PREPARED BY QUIDDITY ENGINEERING, LLC, 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 QUIDDITY ENGINEERING, LLC'S 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.
14. CONTRACTOR TO EXERCISE CAUTION DURING CONSTRUCTION NEAR AND AROUND GAS LINES. NOTIFY GAS COMPANY 72 HOURS PRIOR TO CONSTRUCTION.
15. BURNING IS NOT ALLOWED ON THIS PROJECT.
16. 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. RED RIBBON - WASTEWATER LINE
   C. WHITE RIBBON - GAS LINE
   D. YELLOW RIBBON - TELECOM DUCT BANK
   E. ORANGE RIBBON - ELECTRICAL DUCT BANK
17. MAKE CONNECTION BETWEEN NEW AND EXISTING ASPHALT BY REMOVING EXISTING ASPHALT, 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.
18. A CURB LAYDOWN IS REQUIRED AT ALL POINTS WHERE THE PROPOSED SIDEWALK INTERSECTS THE CURB.
19. 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.
21. CONCRETE FOR SITE WORK TO BE 3600 PSI FOR LIGHT-DUTY AND MEDIUM-DUTY PAVEMENT AND 4500 PSI FOR HEAVY-DUTY PAVEMENT PER GEOTECHNICAL REPORT BY BRAUN INTERTEC PROJECT B2210179.02. ALL REINFORCING STEEL TO BE ASTM A615 60, UNLESS OTHERWISE NOTED.
22. CONTRACTOR SHALL REFER TO THE TECHNICAL INVESTIGATION REPORT FOR THIS SITE FOR SUBSURFACE INFORMATION REGARDING THIS PROJECT. AT ITS EXPENSE THE CONTRACTOR IS ENCOURAGED TO MAKE ADDITIONAL SUBSURFACE INVESTIGATIONS.
23. ALL PRIVATE DRIVEWAYS WILL NOT EXCEED A GRADE OF 14% FOR THE FIRST 25' FROM EDGE OF RIGHT-OF-WAY AND WILL NOT REQUIRE CUT OR FILL OVER 8'.
24. SCREENING MATERIALS FOR SOLID WASTE COLLECTION AND LOADING AREAS SHALL BE THE SAME AS, OR OF EQUAL QUALITY TO, THE MATERIALS USED FOR THE PRINCIPLE BUILDING.
25. PRIOR TO BEGINNING CONSTRUCTION, THE OWNER OR HIS AUTHORIZED REPRESENTATIVE SHALL CONVENE A PRE-CONSTRUCTION CONFERENCE BETWEEN THE CITY OF GEORGETOWN, CONSULTING ENGINEER, CONTRACTOR, AND ANY OTHER AFFECTED PARTIES.
26. BARRICADES, BUILT TO CITY OF GEORGETOWN STANDARD SPECIFICATIONS, SHALL BE CONSTRUCTED ON ALL DEAD-END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB SAFETY. (STREETS, ETC. MAY BE LISTED IN ADDITION TO OR INSTEAD OF NOTE.)
27. IF BLASTING IS PLANNED BY THE CONTRACTOR, A BLASTING PERMIT MUST BE SECURED PRIOR TO COMMENCEMENT OF ANY BLASTING.
28. ANY EXISTING PAVEMENT, CURBS, AND/ OR SIDEWALKS DAMAGED OR REMOVED WILL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE BEFORE ACCEPTANCE OF THE SUBDIVISION.
29. THE LOCATION OF ANY WATER AND / OR WASTEWATER LINES SHOWN ON THE PLANS MUST BE VERIFIED BY THE WATER AND WASTEWATER DEPARTMENT.
30. USE ONE CALL UTILITY SYSTEM: DIAL 472-2822, 48 HOURS BEFORE YOU DIG.
31. DO NOT DIG OR GRADE WITHIN 15 FEET OF THE TRANSMISSION STRUCTURES. GRADING NEAR ELECTRIC TRANSMISSION FACILITIES MUST BE COORDINATED WITH ELECTRIC PROVIDER PRIOR TO COMMENCEMENT OF GRADING.
32. WHEN THE CONSTRUCTION OF BUILDINGS AND THE USE OF SCAFFOLDING OCCURS WITHIN THE VICINITY OF TREES TO BE PRESERVED, THE CONTRACTOR IS LIMITED TO A MAXIMUM PRUNING OF 25% OF THE TREE CROWN/CANOPY.
33. WATER SERVICE WILL BE PROVIDED BY GEORGETOWN UTILITY SYSTEMS. WASTEWATER SERVICE WILL BE PROVIDED BY GEORGETOWN UTILITY SYSTEMS. ELECTRIC SERVICE WILL BE PROVIDED BY PEDERNALES ELECTRIC COOPERATIVE.

ADA NOTES

1. THE MINIMUM CLEAR WIDTH OF AN ACCESSIBLE ROUTE IS 36 IN. IF THE ACCESSIBLE ROUTE IS LESS THAN 60 IN. WIDE AND LONGER THAN 200 FT., PASSING SPACES AT LEAST 60 IN. BY 60 IN. MUST BE LOCATED EVERY 200 FT.
2. SLOPES ON ACCESSIBLE ROUTES MAY NOT EXCEED 1:20 (5.0%) UNLESS DESIGNED AS A RAMP.
3. ACCESSIBLE PARKING SPACES MUST BE LOCATED ON A SURFACE WITH A SLOPE NOT EXCEEDING 1:50 (2.0%) IN ALL DIRECTIONS.
4. ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:50 (2.0%).

SITE CLEARING

1. CONDUCT SITE CLEARING OPERATIONS TO THE EXTENT SHOWN ON THE DRAWINGS, INCLUDING BUT NOT LIMITED TO: REMOVAL OF TREES AND OTHER VEGETATION, TOPSOIL STRIPPING, CLEARING AND GRUBBING, AND REMOVAL ALL IMPROVEMENTS ABOVE OR BELOW GRADE. REFER TO THE GEOTECHNICAL REPORT FOR THIS PROJECT FOR ADDITIONAL SITE PREPARATION REQUIREMENTS.

EXECUTION

1. SITE CLEARING OPERATIONS SHALL NOT DAMAGE OR INTERFERE WITH THE PUBLIC USE OF ROADS, WALKS, ADJACENT LAND OR FACILITIES AND EXISTING IMPROVEMENTS INTENDED TO REMAIN.
2. EXISTING TREES TO REMAIN SHALL BE PROTECTED IN COMPLIANCE WITH EROSION CONTROL PLANS.
3. CONTRACTOR SHALL REMOVE TREES, SHRUBS, GRASS AND OTHER VEGETATION, IMPROVEMENTS OR OBSTRUCTIONS INTERFERING WITH THE INSTALLATION OF NEW CONSTRUCTION OR AS SHOWN ON PLANS. CLEARING OPERATIONS SHALL INCLUDE REMOVAL OF STUMPS AND ROOTS.
4. CONTRACTOR SHALL STRIP TOPSOIL IN A MANNER APPROPRIATE TO SEGREGATE FROM UNDERLYING SUBSOIL. TOPSOIL STRIPPING NEAR TREES INTENDED TO REMAIN SHALL BE COMPLETED IN COMPLIANCE LANDSCAPE PLANS.
5. SPOIL SHALL BE STORED ONLY IN AREAS SHOWN ON THE PLANS AND SHALL BE MAINTAINED IN ACCORDANCE WITH APPLICABLE POLLUTION PREVENTION PLANS OR PERMITS.
6. WASTE MATERIAL OR EXCESS TOPSOIL GENERATED AS A RESULT OF CLEARING AND GRADING OPERATIONS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. APPROPRIATE DISPOSAL OF ALL SPOIL MATERIAL SHALL BE AT THE CONTRACTOR'S EXPENSE. BURNING ON THE OWNER'S PROPERTY IS NOT PERMITTED.

DEMOLITION NOTES

1. EXPLOSIVES: THE USE OF EXPLOSIVES WILL NOT BE PERMITTED.
2. TRAFFIC: CONDUCT DEMOLITION OPERATIONS AND THE REMOVAL OF DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND ADJACENT OCCUPIED OR USED FACILITIES.
3. PROTECTION: ENSURE THE SAFE PASSAGE OF PERSONS AROUND THE AREA OF DEMOLITION. CONDUCT OPERATIONS TO PREVENT INJURY TO ADJACENT BUILDINGS, STRUCTURES, FACILITIES, AND PERSONS.
4. DAMAGES: PROMPTLY REPAIR DAMAGES CAUSED TO ADJACENT FACILITIES BY DEMOLITION OPERATIONS AT NO COST TO OWNER.
5. UTILITY SERVICES: THE CONTRACTOR WILL DISCONNECT AND SEAL THE UTILITIES SERVING STRUCTURE(S) TO BE DEMOLISHED, PRIOR TO START OF DEMOLITION WORK.
6. REMOVE FROM THE SITE DEBRIS, RUBBISH AND MATERIALS RESULTING FROM DEMOLITION OPERATIONS.
7. BURNING ON-SITE WILL ONLY BE ALLOWED IF APPROVED BY THE EPA AND LOCAL AUTHORITIES HAVING JURISDICTION. OTHERWISE, MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN AN APPROPRIATE MANNER MEETING LOCAL, STATE, AND FEDERAL GUIDELINES.
8. ALL REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN A LEGAL, ENVIRONMENTALLY SAFE MANNER; RECYCLING OR SALVAGE OF MATERIALS IS STRONGLY RECOMMENDED AND ENCOURAGED - SEE MATERIAL SALVAGE NOTES.
9. POLLUTION CONTROLS: USE WATER SPRINKLING AND TEMPORARY ENCLOSURES TO LIMIT THE AMOUNT OF DUST AND DIRT RISING IN THE AIR TO THE LOWEST PRACTICAL LEVEL. DO NOT USE WATER WHEN IT MAY CREATE HAZARDOUS CONDITIONS, ICE, FLOODING, OR POLLUTION.
10. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT, AND DEBRIS CAUSED BY DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING PRIOR TO THE START OF THE WORK.
11. ITEMS OF SALVAGEABLE VALUE AND NOT USABLE FOR SITE INFRASTRUCTURE MAY BE REMOVED FROM THE STRUCTURE AND/OR SITE AND WILL BECOME THE PROPERTY OF THE CONTRACTOR. SALVAGEABLE ITEMS MUST BE REMOVED FROM THE STRUCTURE AND/OR SITE AS THE WORK PROGRESSES. STORAGE OR SALE OF REMOVED ITEMS ON THE SITE WILL NOT BE PERMITTED.
12. OWNER SHALL RECEIVE CREDIT FOR ITEMS OF SALVAGEABLE VALUE AND USABLE FOR SITE INFRASTRUCTURE.

FIRE DEPARTMENT NOTES

1. FIRE HYDRANTS SHALL BE INSTALLED WITH THE CENTER OF THE FOUR (4) INCH OPENING (STEAMER) AT LEAST 18 INCHES ABOVE FINISHED GRADE. THE STEAMER OPENING OF FIRE HYDRANTS SHALL FACE THE APPROVED FIRE ACCESS DRIVEWAY OR PUBLIC STREET AND SETBACK FROM THE CURB LINE(S) AN APPROVED DISTANCE, TYPICALLY THREE (3) TO SIX (6) FEET. THE AREA WITHIN THREE (3) FEET IN ALL DIRECTIONS FROM ANY FIRE HYDRANT SHALL BE FREE FROM OBSTRUCTIONS, AND THE AREA BETWEEN THE STEAMER OPENING AND THE STREET OR DRIVEWAY GIVING EMERGENCY VEHICLE ACCESS SHALL BE FREE OF OBSTRUCTIONS.
2. TIMING OF INSTALLATIONS: WHEN FIRE PROTECTION FACILITIES ARE INSTALLED BY THE CONTRACTOR, SUCH FACILITIES SHALL INCLUDE SURFACE ACCESS ROADS. EMERGENCY ACCESS ROADS OR DRIVES SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO AND DURING THE TIME OF CONSTRUCTION. WHEN THE FIRE DEPARTMENT APPROVES AN ALTERNATIVE METHOD OF PROTECTION, THIS REQUIREMENT MAY BE MODIFIED AS DOCUMENTED IN THE APPROVAL OF THE ALTERNATE METHOD.
3. ALL EMERGENCY ACCESS ROADWAYS AND FIRE LANES, INCLUDING PERVIOUS/DECORATIVE PAVING SHALL BE ENGINEERED AND INSTALLED AS REQUIRED TO SUPPORT THE AXLE LOADS OF EMERGENCY VEHICLES. A LOAD CAPACITY SUFFICIENT TO MEET THE REQUIREMENTS FOR HS-20 LOADING (16 KIPS/WHEEL) AND A TOTAL VEHICLE LIVE LOAD OF 80,000 POUNDS IS CONSIDERED COMPLIANT WITH THIS REQUIREMENT.
4. THE MINIMUM VERTICAL CLEARANCE REQUIRED FOR EMERGENCY VEHICLES ACCESS ROADS OR DRIVES IS 14 FEET FOR THE FULL WIDTH OF THE ROADWAY OR DRIVEWAY.
5. DUMPSTERS AND CONTAINERS WITH AN INDIVIDUAL CAPACITY OF 1.5 CUBIC YARDS OR MORE SHALL NOT BE STORED IN BUILDINGS OR PLACED WITHIN TEN FEET OF COMBUSTIBLE WALLS, OPENINGS, OR COMBUSTIBLE ROOF EAVE LINES.

ELECTRIC UTILITY NOTES

1. THE OWNER SHALL BE RESPONSIBLE FOR INSTALLATION OF TEMPORARY EROSION CONTROL, REVEGETATION AND TREE PROTECTION. IN ADDITION, THE OWNER SHALL BE RESPONSIBLE FOR ANY INITIAL TREE PRUNING AND TREE REMOVAL THAT IS WITHIN TEN FEET OF THE CENTER LINE OF THE PROPOSED OVERHEAD ELECTRICAL FACILITIES DESIGNED TO PROVIDE ELECTRIC SERVICE TO THIS PROJECT.
2. THE OWNER OF THE PROPERTY IS RESPONSIBLE FOR MAINTAINING CLEARANCES REQUIRED BY THE NATIONAL ELECTRIC SAFETY CODE, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS, CITY OF GEORGETOWN RULES AND REGULATIONS AND TEXAS STATE LAWS PERTAINING TO CLEARANCES WHEN WORKING IN CLOSE PROXIMITY TO OVERHEAD POWER LINES AND EQUIPMENT.
3. ANY RELOCATION OF ENERGY TRANSMISSION FACILITIES OR OUTAGES CAUSED BY THIS PROJECT WILL BE CHARGED TO THE PROPERTY OWNER.
4. WARNING SIGNS MUST BE PLACED UNDER THE OVERHEAD TRANSMISSION FACILITIES AS NOTIFICATION OF THE ELECTRICAL HAZARD.
5. FOR SAFETY REASONS, AERIAL EQUIPMENT, DUMPSTERS, STAGING OR SPOILS AREAS ARE RESTRICTED TO A MAXIMUM HEIGHT OF 20 FEET AROUND THE TRANSMISSION WIRE AND STRUCTURES.
6. 24-HOUR ACCESS TO ELECTRIC FACILITIES SHALL BE MAINTAINED.
7. PROPERTY OWNER AND CONTRACTOR ARE RESPONSIBLE FOR DUST CONTROLS TO MINIMIZE CONTAMINATION OF WIRE AND INSULATORS CAUSED BY DUST FROM THIS PROJECT. ANY SUBSEQUENT CLEANING OR ELECTRICAL OUTAGES CAUSED BY DUST FROM THIS PROJECT WILL BE CHARGED TO THE PROPERTY OWNER AND CONTRACTOR.
8. PROPERTY OWNER IS RESPONSIBLE FOR ALL DAMAGES TO CURBNG, LANDSCAPING AND WALL PLACED AROUND THE ELECTRIC TRANSMISSION STRUCTURES/POLES/LINES CAUSED BY AUSTIN ENERGY DURING MAINTENANCE AND REPAIRS.
9. WATER SERVICE WILL BE PROVIDED BY GEORGETOWN UTILITY SYSTEMS. WASTEWATER SERVICE WILL BE PROVIDED BY GEORGETOWN UTILITY SYSTEMS. ELECTRIC SERVICE WILL BE PROVIDED BY PEDERNALES ELECTRIC COOPERATIVE.

CITY OF GEORGETOWN GENERAL NOTES

1. THESE CONSTRUCTION PLANS WERE PREPARED, SEALED AND DATED BY A TEXAS LICENSED PROFESSIONAL ENGINEER. THEREFORE BASED ON THE ENGINEER'S CONCURRENCE OF COMPLIANCE, THE CONSTRUCTION PLANS FOR CONSTRUCTION OF THE PROPOSED PROJECT ARE HEREBY APPROVED SUBJECT TO THE STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS MANUAL AND ALL OTHER APPLICABLE CITY, STATE AND FEDERAL REQUIREMENTS AND CODES.
2. THIS PROJECT IS SUBJECT TO ALL CITY STANDARD SPECIFICATIONS AND DETAILS IN EFFECT AT THE TIME OF SUBMITTAL OF THE PROJECT OF THE CITY.
3. THE SITE CONSTRUCTION PLANS SHALL MEET ALL REQUIREMENTS OF THE APPROVED PLANS.
4. WASTEWATER MAINS AND SERVICE LINES SHALL BE SDR 26 PVC.
5. WASTEWATER MAINS SHALL BE INSTALLED WITHOUT HORIZONTAL OR VERTICAL BENDS.
6. MAXIMUM DISTANCE BETWEEN WASTEWATER MANHOLES IS 500 FEET.
7. WASTEWATER MAINS SHALL BE LOW PRESSURE AIR TESTED AND MANDREL TESTED BY THE CONTRACTOR ACCORDING TO CITY OF GEORGETOWN AND TCEQ REQUIREMENTS.
8. WASTEWATER MANHOLES SHALL BE VACUUM TESTED AND COATED BY THE CONTRACTOR ACCORDING TO THE CITY OF GEORGETOWN AND TCEQ REQUIREMENTS.
9. WASTEWATER MAINS SHALL BE CAMERA TESTED BY THE CONTRACTOR AND SUBMITTED TO THE CITY ON DVD FORMAT PRIOR TO PAVING THE STREETS.
10. PRIVATE WATER SYSTEM FIRE LINES SHALL BE TESTED BY THE CONTRACTOR TO 200 PSI FOR 2 HOURS.
11. PRIVATE WATER SYSTEM SYSTEM FIRE LINES SHALL BE 200 PSI C900 PVC PIPING FROM THE WATER MAIN TO THE SPRINKLER SYSTEM, AND 200 PSI C900 PVC FOR ALL OTHERS.
12. PUBLIC WATER SYSTEM MAINS SHALL BE 150 PSI C900 OVC AND TESTED BY THE CONTRACTOR AT 150 PSI FOR 4 HOURS.
13. ALL BENDS AND CHANGES IN DIRECTION ON WATER MAINS SHALL BE RESTRAINED AND THRUST BLOCKED.
14. LONG FIRE HYDRANT LEADS SHALL BE RESTRAINED.
15. ALL WATER LINES ARE TO BACTERIA TESTED BY THE CONTRACTOR ACCORDING TO THE CITY STANDARDS AND SPECIFICATIONS.
16. WATER AND SEWER MAIN CROSSINGS SHALL MEET ALL REQUIREMENTS OF THE TCEQ AND THE CITY.
17. FLEXIBLE BASE MATERIAL FOR PUBLIC STREETS SHALL BE TXDOT TYPE A GRADE 1.
18. HOT MIX ASPHALTIC CONCRETE PAVEMENT SHALL BE TYPE D UNLESS OTHERWISE SPECIFIED AND SHALL BE A MINIMUM OF 2 INCHES THICK ON PUBLIC STREETS AND ROADWAYS.
19. ALL SIDEWALK RAMPS ARE TO BE INSTALLED WITH THE PUBLIC INFRASTRUCTURE.
20. A MAINTENANCE BOND IS REQUIRED TO BE SUBMITTED TO THE CITY PRIOR TO ACCEPTANCE OF THE PUBLIC IMPROVEMENTS. THIS BOND SHALL BE ESTABLISHED FOR 2 YEARS IN THE AMOUNT OF 10% OF THE COST OF THE PUBLIC IMPROVEMENTS AND SHALL FOLLOW THE CITY FORMAT.
21. RECORD DRAWINGS OF THE PUBLIC IMPROVEMENTS SHALL BE SUBMITTED TO THE CITY BY THE DESIGN ENGINEER PRIOR TO ACCEPTANCE OF THE PROJECT. THESE DRAWINGS SHALL BE ON MYLAR OR ON TIFF OR PDF (300P DPI). IF A DISK IS SUBMITTED, A BOND SET SHALL BE INCLUDED WITH THE DISK.

No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23295 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512-441-9493

SCALE: AS SHOWN
DESIGNED BY: JMC
DESIGN LEAD: OOI
DRAWN BY: JDE
DWG ISSUANCE: U2 - MARCH 2024
JOB NO.: 17951-0002-01

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

GENERAL NOTES

SHEET NO. **2** OF **132**

2023-64-SDP

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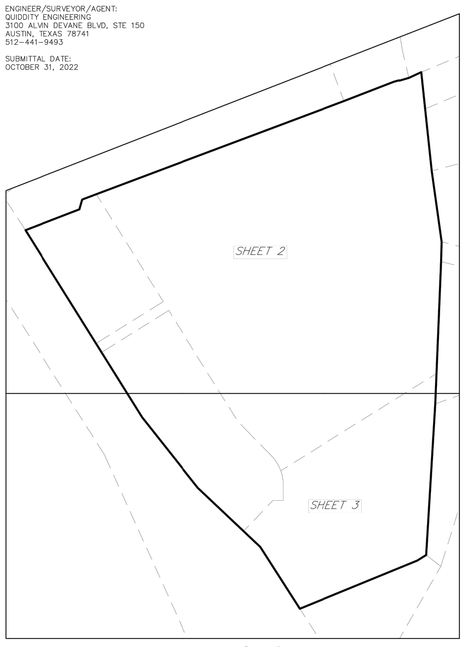
NORTHSIDE GEORGETOWN SUBDIVISION FINAL PLAT

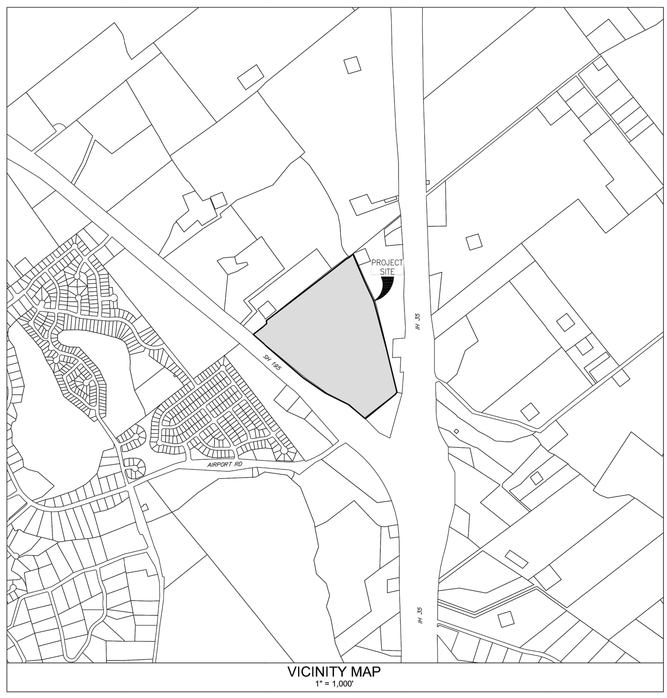
DEVELOPER:
THE TRAILS, LLC
MR. CHARLES HOLBROOK
& DOUG MOSS
213 FLAMING CYPRESS
SAN MARCOS, TX 78666
512-567-5003

ENGINEER/SURVEYOR/AGENT:
QUIDDITY ENGINEERING
3100 ALVIN DEVANE BLVD, STE 150
AUSTIN, TEXAS 78741
512-441-9493

SUBMITTAL DATE:
OCTOBER 31, 2022



INDEX MAP - 1" = 300'



VICINITY MAP
1" = 1,000'

BEARING BASIS NOTE:

HORIZONTAL DATUM BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, TEXAS CENTRAL ZONE. COORDINATES AND DISTANCES ARE GRID VALUES.

FILE:	\\jonescarter.corp\cfe\Projects\16705\16705-0003-00 Northside Georgetown Subdivision\2 Design Phase\CAD\Plans\Subdivision Plans\Survey\16705-0003-00 Plat.dwg
JOB NO: 16705-0003-00	DRAWN BY: ASH
DATE: July 3, 2023	CHECKED BY: RLH
SCALE: 1" = 100'	SHEET: 1 OF 6

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. 10046100
3100 Alvin Devane Boulevard, Suite 150 • Austin, TX 78741 • 512.441.9493

Engineer's Preliminary Review Note:

"For Review. This document is released for the purpose of review under the authority of John A. Alvarez II 127206 on June 30, 2023. It is not to be used for bidding, permit or construction."

SHEET INDEX	
#	SHEET TITLE
SHEET 1	COVER & INDEX
SHEET 2	PLAT (NORTH)
SHEET 3	PLAT (SOUTH)
SHEET 4	TREE LIST
SHEET 5	TREE LIST & LEGAL DESCRIPTION
SHEET 6	CERTIFICATIONS

LOT TABLE			
USE	LOTS	BLOCK	SIZE (AC.)
MULTI-FAMILY	1	A	44.43
NON-RESIDENTIAL	3	A	27.56
TOTAL	4	1	71.99

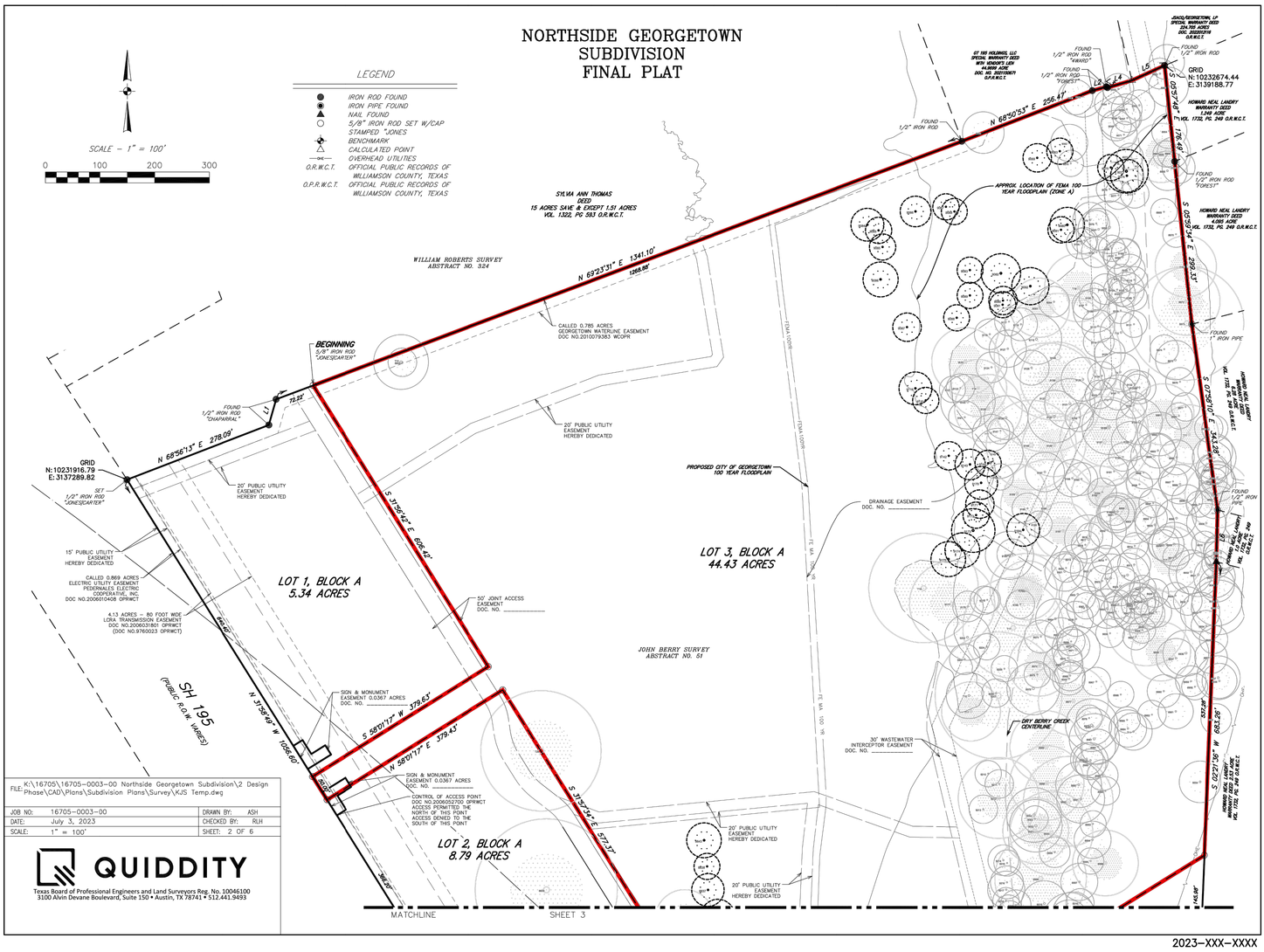
2023-XXX-XXXX

NORTHSIDE GEORGETOWN SUBDIVISION FINAL PLAT

LEGEND

- IRON ROD FOUND
- IRON PIPE FOUND
- NAIL FOUND
- 5/8" IRON ROD SET W/CAP STAMPED "JONES"
- BENCHMARK
- CALCULATED POINT
- OVERHEAD UTILITIES
- O.R.W.C.T. OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS
- O.P.R.W.C.T. OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS

SCALE - 1" = 100'
0 100 200 300



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JOB NO: 16705-0003-00	DRAWN BY: ASH
DATE: July 3, 2023	CHECKED BY: RLH
SCALE: 1" = 100'	SHEET: 2 OF 6

QUIDDITY
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2023-XXX-XXXX

SHEET NO. 3 OF 132

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

FINAL PLAT (1 OF 3)

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE:	AS SHOWN	DESIGNED BY:	JMC
DWG ISSUANCE:	U2 - MARCH 2024	DESIGN LEAD:	OOI
JOB NO.:	17951-0002-01	DRAWN BY:	JDE

No.	Date	REVISIONS	App.

2023-64-SDP

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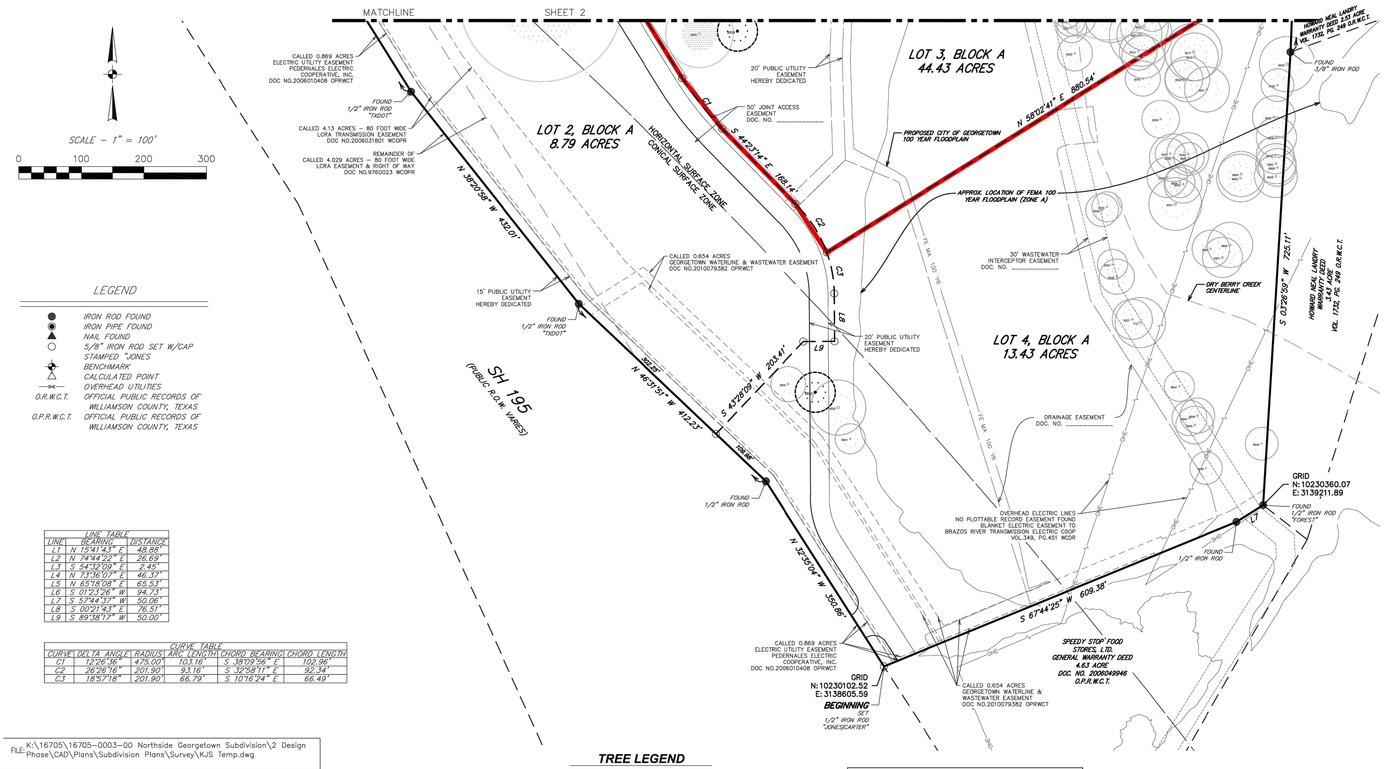
NORTHSIDE GEORGETOWN SUBDIVISION FINAL PLAT



LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 15°41'43" E	48.68'
L2	N 74°44'25" E	26.69'
L3	S 54°09'09" E	2.45'
L4	N 73°58'10" E	66.33'
L5	N 62°18'08" E	65.51'
L6	S 01°21'46" W	94.72'
L7	S 57°44'17" W	50.06'
L8	S 00°21'43" E	76.51'
L9	S 89°38'17" W	50.00'

CURVE TABLE						
CURVE	DELTA ANGLE	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	12°26'26"	475.00'	103.16'	S 39°09'56" E	102.96'
C2	26°26'16"	201.90'	93.16'	S 32°38'11" E	92.34'
C3	19°57'19"	201.90'	68.79'	S 10°18'24" E	68.45'

TREE LEGEND

- PROTECTED TREE TO REMAIN (12"-25")
- PROTECTED TREE TO BE REMOVED (12"-25")
- HERITAGE TREE TO REMAIN (25"+)
- HERITAGE TREE TO BE REMOVED (25"+)

Tree Removal Summary	
Trees Surveyed	397
Protected Trees	350
Heritage Trees	47
Tree Density (# Trees/Total Ac)	4.86
Protected Trees Required to Remain	120
Protected Trees to be Removed	17
Heritage Trees to be Removed	0

FILE: K:\16705\16705-0003-00 Northside Georgetown Subdivision\2 Design Phase\CAD\Plans\Subdivision Plans\Survey\KJS Temp.dwg

JOB NO: 16705-0003-00	DRAWN BY: ASH
DATE: July 3, 2023	CHECKED BY: RLH
SCALE: 1" = 100'	SHEET: 3 OF 6

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. 10046100
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2023-XXX-XXXX

NORTHSIDE GEORGETOWN SUBDIVISION FINAL PLAT

Tree Schedule					Tree Schedule					Tree Schedule					Tree Schedule				
Key	Tree #	Size (individual trunks)	Half Critical Root Zone'	Species	Key	Tree #	Size (individual trunks)	Half Critical Root Zone'	Species	Key	Tree #	Size (individual trunks)	Half Critical Root Zone'	Species	Key	Tree #	Size (individual trunks)	Half Critical Root Zone'	Species
P	8831	12"	6'	ELM	P	8887	13"	6.5'	ELM	P	8943	12"	6'	PECAN	P	8999	14"	7'	PECAN
P	8832	22"	11'	ELM	P	8888	18"	9'	ELM	P	8944	19"	9.5'	PECAN	HT	9000	38"	19'	PECAN
R	8833	16"	8'	ELM	P	8889	20"	10'	ELM	P	8945	13"	6.5'	PECAN	HT	9001	30"	15'	ASH
P	8834	14"	7'	ELM	P	8890	14"	7'	ELM	P	8946	13"	6.5'	PECAN	P	9002	24"	12'	ASH
HT	8835	27"	13.5'	OAK	P	8891	14"	7'	ELM	P	8947	16"	8'	ASH	P	9003	12"	6'	ELM
R	8836	16"	8'	ELM	P	8892	12"	6'	ELM	P	8948	13"	6.5'	ASH	P	9004	25"	12.5'	PECAN
R	8837	15"	7.5'	ELM	P	8893	18"	9'	ELM	P	8949	14"	7'	ASH	P	9005	15"	7.5'	ELM
R	8838	12"	6'	ELM	P	8894	12"	6'	PECAN	P	8950	18"	9'	ELM	P	9006	13"	6.5'	ASH
HT	8839	65"	32.5'	OAK	P	8895	14"	7'	ELM	P	8951	19" (13, 12)	9.5'	ASH	P	9007	12"	6'	ASH
HT	8840	55" (36, 28, 21)	27.5'	OAK	P	8896	18"	9'	PECAN	P	8952	12"	6'	ASH	P	9008	12"	6'	ASH
P	8841	25" (14, 12, 10)	12.5'	OAK	P	8897	13"	6.5'	PECAN	P	8953	17"	8.5'	ELM	P	9010	19"	9.5'	ELM
P	8842	13"	6.5'	OAK	P	8898	12"	6'	ELM	P	8954	18"	9'	ELM	P	9011	25"	12.5'	ELM
R	8843	16"	8'	ELM	HT	8899	27"	13.5'	ELM	P	8955	15"	7.5'	ELM	P	9012	18"	9'	ELM
P	8844	14"	7'	ELM	P	8900	17"	8.5'	PECAN	P	8956	13"	6.5'	ELM	P	9013	17"	8.5'	ELM
P	8845	15"	7.5'	ELM	P	8901	17"	8.5'	PECAN	P	8957	15"	7.5'	ELM	P	9014	15"	7.5'	ELM
P	8846	14"	7'	ELM	P	8902	17"	8.5'	ELM	P	8958	12"	6'	ELM	P	9015	21"	10.5'	ASH
P	8847	12"	6'	ELM	P	8903	21"	10.5'	ELM	P	8959	14"	7'	ASH	P	9016	13"	6.5'	OSAGE
P	8848	13"	6.5'	ELM	P	8904	15"	7.5'	ASH	P	8960	15"	7.5'	ASH	P	9017	23"	11.5'	ELM
P	8849	13"	6.5'	OAK	P	8905	18"	9'	ELM	P	8961	16"	8'	ELM	P	9018	19"	9.5'	ELM
P	8850	18"	9'	ELM	P	8906	14"	7'	ASH	P	8962	13"	6.5'	ASH	P	9019	14"	7'	ELM
P	8851	16"	8'	ELM	P	8907	16"	8'	ASH	P	8963	17" (12,11)	8.5'	ELM	P	9020	15"	7.5'	ELM
P	8852	15"	7.5'	ELM	P	8908	20"	10'	ASH	P	8964	17"	8.5'	ELM	P	9021	18"	9'	ELM
P	8853	19"	9.5'	ELM	P	8909	18"	9'	ELM	P	8965	12"	6'	ELM	P	9022	15"	7.5'	ELM
P	8854	18"	9'	ELM	P	8910	12"	6'	PECAN	P	8966	12"	6'	ASH	P	9023	18" (11, 8, 7)	9'	ELM
P	8855	17"	8.5'	ELM	P	8911	12"	6'	ASH	P	8967	13"	6.5'	ASH	P	9024	17"	8.5'	ELM
P	8856	15"	7.5'	ELM	HT	8912	30" (22, 17)	15'	ASH	P	8968	14"	7'	ELM	P	9025	12"	6'	ELM
P	8857	16"	8'	ELM	P	8913	15"	7.5'	ASH	P	8969	18"	9'	ELM	P	9026	19"	9.5'	ELM
P	8858	15"	7.5'	ELM	P	8914	12"	6'	ELM	P	8970	13"	6.5'	ELM	P	9027	12"	6'	ELM
P	8859	16"	8'	ELM	P	8915	13"	6.5'	ELM	P	8971	22"	11'	ELM	P	9028	16"	8'	ELM
P	8860	17"	8.5'	OAK	P	8916	12"	6'	ASH	P	8972	15"	7.5'	ELM	P	9029	12"	6'	ELM
P	8861	16"	8'	ELM	P	8917	22"	11'	ASH	P	8973	15"	7.5'	ASH	P	9030	15"	7.5'	ELM
P	8862	14"	7'	ELM	P	8918	13"	6.5'	ASH	HT	8974	28"	14'	PECAN	P	9031	21"	10.5'	ELM
P	8863	18"	9'	ELM	P	8919	13"	6.5'	ASH	P	8975	12"	6'	ELM	P	9032	13"	6.5'	ELM
P	8864	16"	8'	ELM	P	8920	13"	6.5'	ASH	P	8976	24"	12'	PECAN	P	9033	22"	11'	ELM
P	8865	14"	7'	ELM	P	8921	18"	9'	ASH	HT	8977	32"	16'	PECAN	P	9034	19"	9.5'	ELM
P	8866	12"	6'	ELM	P	8922	19"	9.5'	ELM	P	8978	12"	6'	ELM	P	9035	14"	7'	ELM
HT	8867	27"	13.5'	ASH	P	8923	14"	7'	ASH	P	8979	24"	12'	ELM	P	9036	16"	8'	ELM
P	8868	18"	9'	OAK	P	8924	22" (12, 12, 7)	11'	ELM	P	8980	17"	8.5'	ELM	P	9037	20"	10'	ELM
P	8869	12"	6'	OAK	P	8925	18"	9'	ASH	P	8981	23"	11.5'	ELM	P	9038	25"	12.5'	ELM
P	8870	12"	6'	ELM	P	8926	20" (14, 12)	10'	ASH	P	8982	16"	8'	ELM	P	9039	23"	11.5'	ELM
HT	8871	28" (21, 15)	14'	ELM	P	8927	12"	6'	ELM	P	8983	16"	8'	ELM	P	9040	16"	8'	ELM
HT	8872	31"	15.5'	ELM	P	8928	13"	6.5'	ASH	P	8984	15"	7.5'	ELM	P	9041	19"	9.5'	ELM
HT	8873	52"	26'	OAK	P	8929	12"	6'	ASH	P	8985	14"	7'	ELM	P	9042	13"	6.5'	ELM
P	8874	13"	6.5'	ASH	P	8930	13"	6.5'	ASH	P	8986	14"	7'	ELM	P	9043	15"	7.5'	ELM
P	8875	18"	9'	ELM	P	8931	20"	10'	ASH	P	8987	21"	10.5'	PECAN	P	9044	16"	8'	ELM
P	8876	13"	6.5'	ELM	P	8932	20"	10'	ASH	HT	8988	34"	17'	ASH	P	9045	16"	8'	ELM
P	8877	13"	6.5'	ELM	P	8933	18"	9'	ELM	HT	8989	33"	16.5'	PECAN	P	9046	24" (12, 11 ,11)	12'	ELM
P	8878	13"	6.5'	ELM	P	8934	14"	7'	ASH	HT	8990	41"	20.5'	PECAN	HT	9047	30" (15, 13, 9, 8)	15'	ELM
HT	8879	27" (22, 11)	13.5'	ELM	P	8935	13"	6.5'	ELM	P	8991	22"	11'	ELM	P	9048	17"	8.5'	ELM
P	8880	12"	6'	ELM	P	8936	21"	10.5'	ASH	P	8992	13"	6.5'	ELM	P	9049	15"	7.5'	ELM
HT	8881	28"	14'	ASH	P	8937	18"	9'	ELM	P	8993	12"	6'	ELM	P	9050	16"	8'	ELM
P	8882	20"	10'	ELM	HT	8938	27"	13.5'	PECAN	P	8994	17"	8.5'	ELM	P	9051	12"	6'	ELM
P	8883	16"	8'	ELM	HT	8939	36"	18'	ASH	P	8995	12"	6'	ELM	P	9052	15"	7.5'	ELM
P	8884	21"	10.5'	ELM	P	8940	14"	7'	PECAN	HT	8996	30"	15'	ELM	P	9053	14"	7'	ASH
P	8885	16"	8'	ELM	P	8941	14"	7'	ASH	P	8997	17"	8.5'	ELM	P	9054	13"	6.5'	ASH
P	8886	15"	7.5'	ELM	P	8942	23"	11.5'	ASH	HT	8998	42"	21'	ASH	P	9055	14"	7'	PECAN

FILE: \\jonescarter.corp\cfs\Projects\16705\16705-0003-00 Northside Georgetown Subdivision\2 Design Phase\CAD\Plans\Subdivision Plans\Survey\16705-0003-00 Plat.dwg

JOB NO: 16705-0003-00	DRAWN BY: ASH
DATE: July 3, 2023	CHECKED BY: RLH
SCALE: 1" = 100'	SHEET: 4 OF 6

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. 10046100
3100 Alvin Devane Boulevard, Suite 150 • Austin, TX 78741 • 512.441.9493

Tree Removal Summary	
Trees Surveyed	397
Protected Trees	350
Heritage Trees	47
Tree Density (# Trees/Total Ac)	4.86
Protected Trees Required to Remain	120
Protected Trees to be Removed	17
Heritage Trees to be Removed	0

Legend	
	P = Protected
	HT = Heritage Tree
	R = Removal of Protected Tree
	R-HT = Removal of Heritage Tree
	D = Dead or Diseased
	NP = Not Protected
	C = Credit Tree
	X = Prohibited Species (must be removed)

2023-XXX-XXXX

SHEET NO. 4 OF 132

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

FINAL PLAT (2 OF 3)

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN
DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024
DESIGN LEAD: OOI
JOB NO.: 17951-0002-01
DRAWN BY: JDE

No.	Date	REVISIONS	App.

2023-64-SDP

© 2023 Quiddity

NORTHSIDE GEORGETOWN SUBDIVISION FINAL PLAT

Tree Schedule				Tree Schedule				Tree Schedule			
Key	Tree #	Size (individual trunks)	Half Critical Root Zone'	Species	Key	Tree #	Size (individual trunks)	Half Critical Root Zone'	Species	Key	Tree #	Size (individual trunks)	Half Critical Root Zone'	Species
P	9056	14"	7'	ASH	P	9113	15"	7.5'	PECAN	HT	9169	27"	13.5'	PECAN
P	9057	13"	6.5'	PECAN	P	9114	14"	7'	ASH	R	9170	15"	7.5'	PECAN
P	9058	19"	9.5'	PECAN	P	9115	23"	11.5'	PECAN	R	9171	13"	6.5'	OSAGE
P	9059	14"	7'	PECAN	P	9116	15"	7.5'	ELM	R	9172	12"	6'	OSAGE
P	9060	19"	9.5'	ELM	P	9117	13"	6.5'	ELM	R	9173	20"	10'	OSAGE
P	9061	16"	8'	ELM	P	9118	14"	7'	ELM	R	9174	16"	8'	PECAN
P	9062	17"	8.5'	ELM	R	9119	15"	7.5'	PECAN	R	9175	16"	8'	ELM
R	9063	12"	6'	ELM	R	9120	12"	6'	PECAN	HT	9176	50" (21, 14, 11, 11)	25'	PECAN
P	9064	19"	9.5'	ELM	P	9121	12"	6'	PECAN	HT	9177	39"	19.5'	PECAN
R	9065	12"	6'	ELM	P	9122	13"	6.5'	PECAN	P	9178	14"	7'	ELM
R	9066	14"	7'	ELM	HT	9123	31"	15.5'	PECAN	P	9179	12"	6'	ELM
R	9067	12"	6'	ELM	P	9124	14"	7'	PECAN	P	9180	22"	11'	PECAN
R	9068	12"	6'	ELM	HT	9125	26" (15, 14, 9)	13'	PECAN	P	9181	14"	7'	PECAN
R	9069	13"	6.5'	ELM	P	9126	16"	8'	PECAN	HT	9182	33"	16.5'	ASH
P	9070	12"	6'	ELM	P	9127	17"	8.5'	ELM	HT	9183	27"	13.5'	ASH
P	9071	12"	6'	PECAN	HT	9128	58"	29'	PECAN	R	9184	15"	7.5'	PECAN
P	9072	12"	6'	PECAN	P	9129	14"	7'	ASH	P	9185	14"	7'	OAK
R	9073	20"	10'	PECAN	P	9130	19" (13, 12)	9.5"	ASH	HT	9186	44"	22'	PECAN
R	9074	15"	7.5'	PECAN	P	9131	12"	6'	ASH	HT	9187	26"	13'	ASH
R	9075	12"	6'	OSAGE	P	9132	13"	6.5'	ASH	P	9188	12"	6'	PECAN
P	9076	12"	6'	ELM	P	9133	12"	6'	PECAN	P	9189	12"	6'	OSAGE
P	9077	13"	6.5'	ASH	P	9134	13"	6.5'	OAK	P	9190	13"	6.5'	OSAGE
P	9078	12"	6'	ELM	P	9135	20"	10'	PECAN	P	9191	12"	6'	OSAGE
P	9079	16"	8'	ELM	HT	9136	34"	17'	PECAN	P	9192	14"	7'	OSAGE
R	9080	16"	8'	OSAGE	HT	9137	50"	25'	PECAN	P	9193	12"	6'	OSAGE
R	9081	12"	6'	OSAGE	P	9138	20"	10'	PECAN	P	9194	14"	7'	OSAGE
R	9082	18"	9'	ELM	HT	9139	31"	15.5'	PECAN	P	9195	18" (10, 9, 8)	9'	OSAGE
R	9083	12"	6'	ELM	P	9140	25"	12.5'	PECAN	P	9196	15"	7.5'	PECAN
R	9084	15"	7.5'	OAK	P	9141	15"	7.5'	ELM	P	9197	16"	8'	OSAGE
R	9085	12"	6'	ASH	R	9142	13"	6.5'	PECAN	P	9198	19" (13,12)	9.5'	OSAGE
R	9086	16"	8'	ELM	R	9143	14"	7'	PECAN	P	9199	13"	6.5'	ASH
R	9087	13"	6.5'	ELM	R	9144	12"	6'	PECAN	HT	9201	46" (13, 17, 13)	23'	ASH
R	9088	12"	6'	ELM	P	9145	23"	11.5'	PECAN	P	9202	21"	10.5'	PECAN
R	9089	12"	6'	ELM	P	9146	17" (12, 11)	8.5'	PECAN	P	9203	14"	7'	PECAN
R	9090	13"	6.5'	OSAGE	P	9147	12"	6'	PECAN	P	9204	12"	6'	ASH
R	9091	12"	6'	OSAGE	HT	9148	41"	20.5'	PECAN	P	9205	12"	6'	ASH
R	9092	17"	8.5'	ELM	HT	9149	29"	14.5'	PECAN	P	9206	13"	6.5'	ELM
HT	9093	27"	13.5'	PECAN	P	9150	24"	12'	PECAN	HT	9207	58"	29'	OAK
P	9094	14"	7'	OSAGE	P	9151	23"	11.5'	PECAN	P	9208	21" (12, 10, 9)	10.5'	OAK
HT	9095	31" (22, 18)	15.5'	PECAN	P	9152	13"	6.5'	ASH	HT	9209	27" (19, 17)	13.5'	OAK
P	9096	12"	6'	ELM	P	9153	13"	6.5'	ASH	P	9210	12"	6'	ELM
P	9097	19"	9.5'	ELM	P	9154	12"	6'	OAK	P	9211	13"	6.5'	ELM
P	9098	24"	12'	ELM	P	9155	21"	10.5'	ASH	HT	9212	37"	18.5'	OAK
P	9099	17"	8.5'	ASH	P	9156	18"	9'	ASH	P	9213	13"	6.5'	ELM
P	9100	14"	7'	PECAN	HT	9157	41"	20.5'	PECAN	P	9214	14"	7'	ELM
P	9101	13"	6.5'	ASH	HT	9158	36"	18'	PECAN	P	9215	12"	6'	ELM
P	9102	16"	8'	ASH	P	9159	25"	12.5'	ASH	P	9216	15"	7.5'	ELM
P	9103	12"	6'	ASH	P	9160	13"	6.5'	ASH	P	9217	17"	8.5'	OAK
P	9104	12"	6'	PECAN	P	9161	13"	6.5'	ASH	P	9218	12"	6'	ELM
P	9105	14"	7'	ASH	HT	9162	26"	13'	PECAN	P	9219	14"	7'	ELM
P	9106	13"	6.5'	OAK	P	9163	13"	6.5'	ASH	P	9220	12"	6'	ELM
P	9107	13"	6.5'	OAK	P	9164	13"	6.5'	OSAGE	P	9221	12"	6'	ELM
P	9108	20"	10'	OAK	P	9165	15"	7.5'	OSAGE	P	9222	14"	7'	ELM
P	9109	12"	6'	ASH	P	9166	17"	8.5'	OSAGE	P	9223	12"	6'	OAK
P	9110	12"	6'	ASH	P	9167	18"	9'	PECAN	P	9224	13"	6.5'	OAK
P	9111	13"	6.5'	PECAN	P	9168	12"	6'	OSAGE	P	9225	12"	6'	ELM
										P	9227	16"	8'	ELM
										P	9228	20" (14, 12)	10'	ELM
										P	9229	13" (9, 8)	6.5'	ELM
										P	9230	16"	8'	ELM

LEGAL DESCRIPTION:

BEING a 71.994-acre tract of land situated in the John Berry Survey, Abstract No. 51, City of Georgetown, Williamson County, Texas, being all of that certain tract of land called to contain 71.997-acres as described in a Special Warranty Deed to The Trails, LLC in Document No. 2022094181 of the Official Public Records of Williamson County, Texas; said 71.994-acre tract of land being more particularly described as follows, with bearings based on the Texas Coordinate System of 1983, Central Zone:

BEGINNING: at a 1/2-inch iron rod with cap stamped "JONES|CARTER" set in the northeasterly right-of-way of State Highway 195 (variable width R.O.W.) for the southwestern corner of the said 71.997-acre tract, the northwestern corner of that certain tract of land called to contain 4.63 acres as described in a General Warranty Deed to Speedy Stop Foods Stores, Ltd in Document No. 2006049946 of the Official Public Records of Williamson County, Texas;

THENCE: Along the northeasterly right-of-way line of said State Highway 195 with the following courses and distances;

1. North 32°35'04" West a distance of 350.86 feet to a 1/2-inch iron rod with TXDOT aluminum cap found;
2. North 46°31'51" West a distance of 412.23 feet to a 1/2-inch iron rod with TXDOT aluminum cap found;
3. North 38°20'58" West a distance of 432.01 feet to a 1/2-inch iron rod with TXDOT aluminum cap found;

THENCE: North 31°58'49" West a distance of 1056.60 feet continuing along the northeasterly line of said State Highway 195 to a 1/2-inch iron rod with cap stamped "JONES|CARTER" set for the southwestern corner of the remainder of that certain tract of land called to contain 15 acres as described in a deed from the Texas Veterans Land Board of the State of Texas to James Russel Thomas in Volume 1322, Page 593 of the Official Public Records of Williamson County, Texas, for the northwestern corner of this herein described tract;

THENCE: Along the southeasterly line of the said 15-acre tract, the northwestern line of the said 71.997-acre tract with the following courses and distances;

1. North 68°56'13" East a distance of 278.09 feet to a 1/2-inch iron rod with cap stamped "Chaparral" found;
2. North 15°41'43" East a distance of 48.88 feet to a 1/2-inch iron rod with cap stamped "Chaparral" found
3. North 69°23'31" East a distance of 1341.10 feet to a 1/2-inch iron rod found for the southeastern corner of the said 15-acre tract, a southwestern corner of the certain tract of land called to contain 44.9699 acres as described in a Special Warranty Deed with Vendor's Lien to GT 195 Holdings, LLC in Document No. 2021150671 of the Official Public Records of Williamson County, Texas;

THENCE: Along the southeasterly line of the said 44.9699-acre tract, the northwestern line of the said 71.997-acre tract with the following courses and distances;

1. North 68°50'53" East a distance of 256.47 feet to a 1/2- inch iron rod with cap stamped "Forest" found;
2. North 74°44'22" East a distance of 26.69 feet to a 1/2-inch iron rod found
3. South 54°32'09" East a distance of 2.45 feet to a 1/2-inch iron rod with cap stamped "Forest" found;
4. North 73°36'07" East a distance of 46.37 feet to a calculated point in the centerline of Dry Berry Creek for the southeastern corner of the said 44.9699-acre tract, the southwestern corner of that certain tract of land called to contain 224.705-acres as described in a Special Warranty Deed to JSACQ / Georgetown, LP in Document No. 2022012116 of the Official Public Records of Williamson County, Texas;

THENCE: North 65°18'08" East a distance of 65.53 feet continuing along a northwestern line of the said 71.997-acre tract and a southeastern line of said 224.705-acre tract to a 1/2-inch iron rod with yellow cap found for the northeastern corner of said 71.997-acre tract, the northwestern corner of a 1.249-acre tract of land as described in a Warranty Deed to Howard Neal Landry in Volume 1732, Page 249 of the Official Records of Williamson County, Texas, on the southeastern line of said 224.705-acre tract, for the northeastern corner of this herein described tract;

THENCE: Along the northeastern line of said 71.997-acre tract and the southwestern line of a 1.249-acre tract, a 4.095-acre tract, a 6.28-acre tract, a 1.0-acre tract, a 2.53-acre tract and a called 3.43-acre tract all being described in said Volume 1732, Page 249, with the following courses and distances;

1. South 05°57'48" East a distance of 176.49 feet to a 1/2-inch iron rod with cap stamped "FOREST" found for the southwestern corner of said 1.249-acre tract, the northwestern corner of said 4.095-acre tract;
2. South 05°59'34" East a distance of 299.33 feet to a 1-inch iron pipe found for the southwestern corner of said 4.095-acre tract, the northwestern corner of said 6.28-acre tract;
3. South 07°58'10" East a distance of 343.28 feet to a 1/2-inch iron pipe found for the southwestern corner of said 6.28-acre tract, the northwestern corner of said 1.0-acre tract;
4. South 01°23'26" West a distance of 94.73 feet to a nail found for the southwestern corner of said 1.0-acre tract, the northwestern corner of said 2.53-acre tract;
5. South 02°21'36" West a distance of 683.26 feet to a 3/8-inch iron rod found for the common corner of the said 2.53-acre tract and the said 3.43-acre tract

THENCE: South 03°26'59" West a distance of 725.11 feet continuing along the eastern line of the said 71.997-acre tract, the western line of the said 3.43-acre tract to a 1/2-inch iron rod with cap stamped "Forest" found for the southwestern corner of the said 3.43-acre tract, the southeastern corner of the said 71.997-acre tract, the northeastern corner of the said 4.63-acre tract in Document No. 2006049946, for the southeastern corner of this herein described tract;

THENCE: Along the northwesterly line of the said 3.43-acre tract, the southeasterly line of the old 71.997-acre tract with the following courses and distances;

1. South 57°44'37" West a distance of 50.06 feet to a 1/2-inch iron rod found
2. South 67°44'25" West a distance of 609.38 feet to the POINT OF BEGINNING and CONTAINING an area of 71.994-acres of land.

FILE:	\\jonescarter.corp\cfs\Projects\16705\16705-0003-00 Northside Georgetown Subdivision\2 Design Phase\CAD\Plans\Subdivision Plans\Survey\16705-0003-00 Plat.dwg
JOB NO:	16705-0003-00
DRAWN BY:	ASH
DATE:	July 3, 2023
CHECKED BY:	RLH
SCALE:	1" = 100'
SHEET:	5 OF 6

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. 10046100
3100 Alvin Devane Boulevard, Suite 150 • Austin, TX 78741 • 512.441.9493

Tree Removal Summary	
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	R-HT = Removal of Heritage Tree
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	NP = Not Protected
	C = Credit Tree
	X = Prohibited Species (must be removed)

2023-XXX-XXXX

NORTHSIDE GEORGETOWN SUBDIVISION FINAL PLAT

NOTES

1. Utility providers for this development are Water: Georgetown Utility Systems, Wastewater/septic: Georgetown Utility Systems, and Electric: Pedernales Electric Cooperative.
2. All structures/ obstructions are prohibited in drainage easements.
3. There are areas within the boundaries of this subdivision in the 100-year floodplain as defined by FIRM Map Number 48491C0285F and 48491C0283F, effective date of December 20, 2019.
4. No development shall begin prior to the issuance of a Floodplain Development Permit for each of the following lots: Lots 3 and 4.
5. Property owner shall provide for access to drainage easements as may be necessary and shall not prohibit access by the City of Leander.
6. Prior to any channel alteration or bridge construction, which will change existing flood patterns or elevations, a Letter of Map Amendment must be submitted to the City of Georgetown Floodplain Administrator for approval and approval by the Federal Emergency Management Agency.
7. In order to promote drainage away from a structure, the slab elevation should be built at least one-foot above the surrounding ground, and the ground should be graded away from the structure at a slope of 1/2"per foot for a distance of at least 10 feet.
8. All sedimentation, filtration, detention, and/or retention basins and related appurtenances shown shall be situated within a drainage easement or drainage lot. The owners, HOA, or assignees of the tracts upon which are located such easements, appurtenances, and detention facilities shall maintain same and be responsible for their maintenance, routine inspection, and upkeep.
9. Parkland Dedication requirements are being met at time of Site Plan for each individual lot as they are developed.
10. Any Heritage Tree as noted on this plat is subject, in perpetuity, to the maintenance, care, pruning and removal requirements of the City of Georgetown. Approved removal does not require modification of the plat.
11. All individual lots containing Heritage Trees are configured and designed so that the lot is developable for the intended purpose without requiring removal of the Heritage Trees or exceeding the percentage of allowable disturbance within the Heritage Trees CRZ.
12. A 10-foot or 15-foot Public Utility Easement is dedicated along all street frontages within this plat.
13. The monuments of this plat have been orientated to the NAD 83/93 HARN – Texas Central Zone and NAVD 88.
14. Impervious Coverage Plat Notes – Residential Lots: The maximum impervious coverage per residential lot is 50 percent.
15. Impervious Coverage Plat Notes – Non-Residential Lots: The maximum impervious coverage per non-residential lot is according to the following table:
16. The building of all streets, roads, and other public thoroughfares and any bridges or culverts necessary to be constructed or placed is the responsibility of the owners of the tract of land covered by this plat in accordance with the plans and specifications prescribed by the City of Georgetown and/or Williamson County, Texas. Neither the City of Georgetown nor Williamson County assumes any obligation to build any of the streets, roads, or other public thoroughfares shown on this plat or of constructing any of the bridges or drainage improvements in connection therewith. Neither the City of Georgetown nor Williamson County assumes any responsibility for drainage ways or easements in the subdivision, other than those draining or protecting the road system and streets in their respective jurisdictions.
17. Neither the City of Georgetown nor Williamson County assumes any responsibility for the accuracy of representations by other parties in this plat. Floodplain data, in particular, may change depending on subsequent development. It is further understood that the owners of the tract of land covered by this plat must install at their own expense all traffic control devices and signage that may be required before the streets in the subdivision have finally been accepted for maintenance by the City and / or County.
18. Right-of-way easements for widening roadways or improving drainage shall be maintained by the landowner until road or drainage improvements are actually constructed on the property. The City and/or County have the right at any time to take possession of any road widening easement for construction, improvement, or maintenance of the adjacent road.
19. Unless otherwise noted herein, all easements dedicated to the City of Georgetown by this plat shall be EXCLUSIVE to the City of Georgetown, and Grantor covenants that Grantor and Grantor's heirs, successors, and assigns shall not convey any other easement, license, or conflicting right to use in any manner, the area (or any portion thereof) covered by this grant.
20. All easements dedicated to the City of Georgetown by this plat additionally include the following rights: (1) the right of the City to change the size of any facilities installed, maintained, or operated within the easement area; (2) the right of the City to relocate any facilities within the easement area; and (3) the right of the City to remove from the easement area all trees and parts thereof, or other obstructions, which endanger or may interfere with the efficiency and maintenance of any facilities within the easement area.
21. This plat is subject to the provisions of the City of Georgetown Water Conservation Ordinance.
22. The subdivision subject to this application is subject to the Water Quality Regulations of the City of Georgetown. (for properties over the Edwards Aquifer Recharge Zone)
23. A Geologic Assessment, in accordance with the City of Georgetown Water Quality Regulations, was completed on 3/29/2022. Any springs and streams as identified in the Geologic Assessment are shown herein. (for properties over the Edwards Aquifer Recharge Zone)
24. State-owned riverbeds and beds of navigable streams in the public domain are held in trust for the public. There is hereby granted for the use and benefit of the public a continuing access easement for the free and unobstructed use of the navigable river and the right of portage along its banks, across any portion of the Property between the mean high-water marks of the river in its natural state.

Additional Notes for Noise and Avigation Easements

25. "There is hereby granted for the use and benefit of the public a continuing avigation easement for the free and unobstructed flight of aircraft (which term shall include any contrivance now or hereafter used for flight through the air) and the right of flight for the passage of aircraft in the air space above the surface of the Property, together with such noise and other effects as may be inherent in the operation of aircraft landing at, taking off from, or engaged in other flight activities at the Georgetown Municipal Airport."
26. "Grantors do hereby grant and convey an easement for the Approach Zone, as that term is defined in Section 12.36 of the City of Georgetown Code of Ordinances and as shown on this plat, being further described as (describe Zone as it relates to the Property)."
27. "Grantors do hereby grant and convey an easement for the Transition Zone, as that term is defined in Section 12.36 of the City of Georgetown Code of Ordinances and as shown on this plat, being further described as (describe Zone as it relates to the Property)."
28. "Grantors do hereby grant and convey an easement for the Horizontal Zone, as that term is defined in Section 12.36 of the City of Georgetown Code of Ordinances and as shown on this plat, being further described as (describe Zone as it relates to the Property)."
29. "Grantors do hereby grant and convey an easement for the Conical Zone, as that term is defined in Section 12.36 of the City of Georgetown Code of Ordinances and as shown on this plat, being further described as (describe Zone as it relates to the Property)."
30. "These easements shall be perpetual and shall be binding on Grantor and its assigns, heirs, and successors."

MAX IMPERVIOUS COVER TABLE			
LOT NUMBER	USE	SIZE (AC.)	MAX I.C.(*)
1	NON-RESIDENTIAL	5.35	69.00%
2	NON-RESIDENTIAL	8.79	63.53%
3	MULTI-FAMILY	44.43	50.00%
4	NON-RESIDENTIAL	13.43	60.59%
*FOR NON-RESIDENTIAL LOTS, THE FIRST 5 ACRES HAVE A MAXIMUM IC VALUE OF 70%. THE REMAINING ACREAGE OF THE LOT HAS A MAXIMUM IC VALUE OF 55%			

THE STATE OF TEXAS §
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF WILLIAMSONN §

That The Trails, LLC, a Texas Limited Liability Company, sole owner of the certain 72.012 acre tract of land shown hereon and described in a deed recorded in Document No. 2022094181 of the Official Records of Williamson County, Texas, do hereby state that there are no lien holders of the certain tract of land; do hereby certify there are no easement holders except as shown hereon; do hereby subdivide said tract as shown hereon; do hereby covenant to all restrictions listed herein, which shall run with the land; and do hereby dedicate to the City of Georgetown or the public, the streets, alleys, rights-of-way, easements, and public places shown hereon for such public successors, and assigns to warrant and forever defend such dedications, all and singular, to the City of Georgetown or the public against every person whomsoever claiming or to claim the same or any part thereof. This subdivision is to be known as "Northside Georgetown Subdivision Final Plat".

TO CERTIFY WHICH, WITNESS by my hand this _____day of _____, 20____.

(signature)_____
Owners Name: _____
Address: _____

THE STATE OF TEXAS §
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF WILLIAMSON §

BEFORE ME, the undersigned, a Notary Public in and for said County and State, on this day personally appeared (owners name)_____, known to me to be the person whose name is subject to the foregoing instrument.

GIVEN UNDER MY HAND AND SEAL of office this _____ day of _____ 20____.

_____
Notary Public-State of Texas
My Commission Expires: _____

THE STATE OF TEXAS §
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF WILLIAMSON §

I, John A. Alvarez II, Registered Professional Engineer in the State of Texas, do hereby certify that this subdivision is in the Edwards Aquifer Recharge Zone and is encroached by a Zone A Flood area, as denoted herein, and as defined by Federal Emergency Management Administration Flood Hazard Boundary Map, Community Panel Number 48491C0285F, effective date December 20, 2019, and Number 48491C0283F, effective date December 20, 2019, and that each lot conforms to the City of Georgetown regulations.

TO CERTIFY WHICH, WITNESS my hand and seal at the City of Austin, Travis County, Texas, this _____ day of _____ 20____.

_____
John A. Alvarez II
Registered Professional Engineer
No. 127206 State of Texas

THE STATE OF TEXAS §
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF WILLIAMSON §

I, Rex L. Hackett, Registered Professional Land Surveyor in the State of Texas, do hereby certify that this plat is true and correctly made from an actual survey made on the ground of the property legally described hereon, and that there are no apparent discrepancies, conflicts, overlapping of improvements, visible utility lines or roads in place, except as shown on the accompanying plat, and that the corner monuments shown thereon were properly placed under my supervision in accordance with the subdivision regulations of the City of Georgetown, Texas.

TO CERTIFY WHICH, WITNESS my hand and seal at the City of Austin, Travis County, Texas, this _____ day of _____, 20____.

_____
Rex L. Hackett
Registered Professional Surveyor
No. 5573 State of Texas

This subdivision to be known as Northside Georgetown Subdivision Final Plat has been accepted and approved for filing of record with the County Clerk of Williamson County, Texas, according to the minutes of the meeting of the Georgetown Planning and Zoning Commission on the _____day of _____, 20____A.D.

_____ _____
Travis Perthuis, Chairman Date

_____ _____
Stephen Dickey, Secretary Date

I, Sofia Nelson, Planning Director of the City of Georgetown, Texas, do hereby certify this plat is approved for filing of record with the County Clerk of Williamson County, Texas.

_____ _____
Sofia Nelson, Planning Director Date

Based upon the above representations of the Engineer or Surveyor whose seal is affixed hereto, and after a review of the plat as represented by the said Engineer or Surveyor, I find that this plat complies with the requirements of Chapter 15.44, Flood Damage Prevention, of the Georgetown Municipal Code. This certification is made solely upon such representations and should not be relied upon for verifications of the facts alleged. The City of Georgetown disclaims any responsibility to any member of the public or independent verifications of the representation, factual or otherwise, contained in this plat and the documents associated with it.

_____ _____
Glen Holcomb, Building Official Date
City of Georgetown

THE STATE OF TEXAS §
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF WILLIAMSON §

I, Nancy Rister, Clerk of the County Court of said County, do hereby certify that the foregoing instrument in writing, with its certificate of authentication was filed for record in my office on the _____day of _____, 20____A.D., at _____o'clock, __M., and duly recorded this the _____day of _____, 20____A.D., at _____o'clock, __M., in the Official Public Records of said County in Document No._____.

TO CERTIFY WHICH, WITNESS my hand and seal at the County Court of said County, at my office in Georgetown, Texas, the date last shown above written.

Nancy Rister, Clerk
County Court of Williamson County, Texas

By: _____ Deputy

FILE:	\\jonescarter.corp\cfs\Projects\16705\16705-0003-00 Northside Georgetown Subdivision\2 Design Phase\CAD\Plans\Subdivision Plans\Survey\16705-0003-00 Plat.dwg
JOB NO:	16705-0003-00
DRAWN BY:	ASH
DATE:	July 3, 2023
CHECKED BY:	RLH
SCALE:	1" = 100'
SHEET:	6 OF 6

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. 10046100
3100 Alvin Devane Boulevard, Suite 150 • Austin, TX 78741 • 512.441.9493

2023-XXX-XXXX

SHEET NO. 5 OF 132

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

FINAL PLAT (3 OF 3)

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-12000 & 10046100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE:	AS SHOWN	DESIGNED BY:	JMC
DWG ISSUANCE:	U2 - MARCH 2024	DESIGN LEAD:	OOI
JOB NO.:	17951-0002-01	DRAWN BY:	JDE

No.	Date	REVISIONS	App.

2023-64-SDP

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

200'-0"

100 0 50 100

SCALE: 1" = 100'

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

TREE LEGEND

- PROTECTED TREE TO REMAIN (12"-25")
- PROTECTED TREE TO BE REMOVED (12"-25") WITH NORTHSIDE SUBDIVISION CONSTRUCTION PLAN (2023-13-CON)
- PROTECTED TREE TO BE REMOVED (12"-25") WITH THIS SITE PLAN (2023-64-SDP)
- HERITAGE TREE TO REMAIN (26"+)
- HERITAGE TREE TO BE REMOVED (26"+) WITH NORTHSIDE SUBDIVISION CONSTRUCTION PLAN (2023-13-CON)
- HERITAGE TREE TO BE REMOVED (26"+) WITH THIS SITE PLAN (2023-64-SDP)

CRITICAL ROOT ZONE

1/2 CRITICAL ROOT ZONE

TREES REMOVED WITH NORTHSIDE SUBDIVISION CONSTRUCTION PLAN (2023-13-CON)

TREES TO REMAIN

- LIMITS OF CONSTRUCTION
- TREE PROTECTION

Notes

1. *Proposed City of Georgetown 100-year floodplain delineated as part of the Northside Subdivision (2023-13-CON).*
2. *For overall tree list showing which trees are removed with Northside Subdivision (2023-13-CON) mass grading, see sheets 7-8.*
3. *For tree list reflecting the remaining trees that are the starting condition for the site development permit, see sheet 10.*
4. *All trees shown in red were removed/mitigated with the Northside Subdivision construction plans (2023-13-CON) and are not shown on the Tree Preservation Plan on sheet 9, since these trees will have been removed when the Northside Subdivision (2023-13-CON) mass site grading occurs.*

No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

EXISTING CONDITIONS

SHEET NO. **6** OF 132

2023-64-SDP

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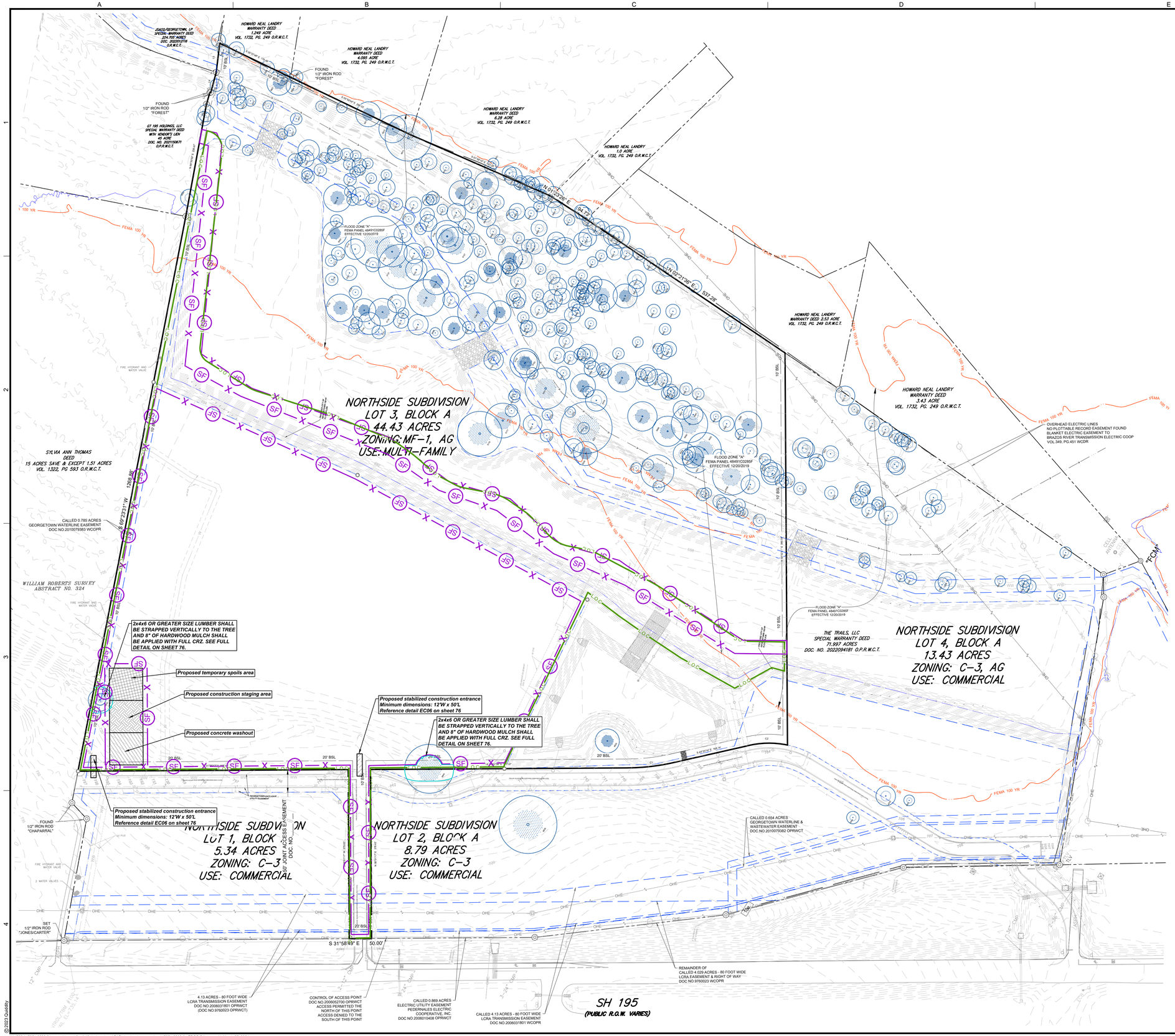
K:\17951\17951-0002-01 northside multifamily2 design phase\CAD\site development plans\17951-0002-01 EXISTCOND.dwg ki: March 27, 2024



THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

100 0 50 100

SCALE: 1" = 100'

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE

TREE LEGEND

- PROTECTED TREE TO REMAIN (12"-25")
- PROTECTED TREE TO BE REMOVED (12"-25") WITH NORTHSIDE SUBDIVISION CONSTRUCTION PLAN (2023-13-CON)
- PROTECTED TREE TO BE REMOVED (12"-25") WITH THIS SITE PLAN (2023-64-SDP)
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- HERITAGE TREE TO BE REMOVED (26"+) WITH THIS SITE PLAN (2023-64-SDP)

CRITICAL ROOT ZONE

1/2 CRITICAL ROOT ZONE

TREES REMOVED WITH NORTHSIDE SUBDIVISION CONSTRUCTION PLAN (2023-13-CON)

TREES TO REMAIN

EROSION LEGEND

- LIMITS OF CONSTRUCTION
- SILT FENCE
- INLET PROTECTION
- ROCK BERM
- TREE PROTECTION
- MULCH LOG
- STABILIZED CONSTRUCTION ENTRANCE
- CONSTRUCTION STAGING AREA
- TEMPORARY SPOILS AREA
- CONCRETE WASHOUT LOCATION
- FLOW DIRECTION

DEMOLITION LEGEND

- LIMITS OF CONSTRUCTION
- DEMOLITION AREA
- DEMOLITION LINE
- TREE PROTECTION

Notes

1. ***See sheet 10 for Existing SDP Condition Tree List.***

No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23264 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN
DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024
DESIGN LEAD: OOI
JOB NO.: 17951-0002-01
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

PRE-CONSTRUCTION EROSION CONTROL AND DEMOLITION PLAN

SHEET NO. **11** OF 132

2023-64-SDP

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K:\17951\17951-0002-01 northside multifamily\2 design phase\CAD\site development plans\17951-0002-01 EROSION.dwg kl. March 27, 2024

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

100 0 50 100

SCALE: 1" = 100'

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE

TREE LEGEND

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- PROTECTED TREE TO BE REMOVED (12"-25") WITH THIS SITE PLAN (2023-64-SDP)
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- HERITAGE TREE TO BE REMOVED (26"+) WITH THIS SITE PLAN (2023-64-SDP)

CRITICAL ROOT ZONE — 26" — 1/2 CRITICAL ROOT ZONE

TREES REMOVED WITH NORTHSIDE SUBDIVISION CONSTRUCTION PLAN (2023-13-CON)

TREES TO REMAIN

EROSION LEGEND

- LIMITS OF CONSTRUCTION
- SILT FENCE
- INLET PROTECTION
- ROCK BERM
- TREE PROTECTION
- MULCH LOG
- STABILIZED CONSTRUCTION ENTRANCE
- CONSTRUCTION STAGING AREA
- TEMPORARY SPOILS AREA
- CONCRETE WASHOUT AREA
- FLOW DIRECTION

Notes

1. ***See sheet 10 for Existing SDP Condition Tree List.***

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23264 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

MID-CONSTRUCTION EROSION CONTROL PLAN

SHEET NO. 12 OF 132

2023-64-SDP

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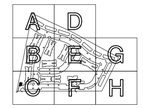
THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

100 0 50 100

SCALE: 1" = 100'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- EASEMENT
- AG ZONING
- C3 ZONING
- MF-1 ZONING
- MF-2 ZONING
- IN ZONING

No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN
DESIGNED BY: JMC
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DESIGN LEAD: OOI
JOB NO.: 17951-0002-01
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

OVERALL SITE DEVELOPMENT PLAN

SHEET NO.
13 OF 132

2023-64-SDP

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BUILDING			
Building Cover*	119,970 SF	2.75 Ac	10.75%
Gross SF	363,949 SF	8.36 Ac	N/A
Floor-to-Area-Ratio*	0.3:1.0		
Foundation Type	Concrete slab underground		
Use	Multi-family		
Total Site Area	1,935,321 SF	44.43 Ac	N/A
MF-1 Site Area*	1,116,060 SF	25.62 Ac	N/A

*Uses MF-1 zoning boundary

IMPERVIOUS COVER	EXISTING			PROPOSED		
Building	0 SF	0 Ac	N/A	119,970 SF	2.75 Ac	N/A
Pavement	11,669 SF	0.27 Ac	N/A	153,228 SF	3.52 Ac	N/A
Sidewalk/Misc Conc.	0 SF	0 Ac	N/A	62,883 SF	1.44 Ac	N/A
Total Impervious Cover	11,669 SF	0.27 Ac	0.60%	336,081 SF	7.72 Ac	17.37%
Total MF-1 Impervious Cover*	0 SF	0 Ac	0.00%	317,383 SF	7.29 Ac	28.44%

*Uses MF-1 zoning boundary

SITE AREA	EXISTING		PROPOSED	
Total Site Area	1,935,321 SF	44.43 Ac	1,935,321 SF	44.43 Ac
MF-1 Site Area*	1,116,060 SF	25.62 Ac	1,116,060 SF	25.62 Ac
C-3 Site Area	20,889 SF	0.48 Ac	20,889 SF	0.48 Ac
AG Site Area	797,609 SF	18.31 Ac	797,609 SF	18.31 Ac
MF-2 Site Area	1 SF	0 Ac	1 SF	0 Ac

*Uses MF-1 zoning boundary

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- LIMITS OF CONSTRUCTION
- ADA ROUTE
- ADA RAMP
- FIRE LANE
- OPEN SPACE

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

50 0 25 50

SCALE: 1" = 50'

KEY MAP

BUILDING ZONING DATA						
ZONING: MF-1	ALLOWABLE			PROVIDED		
Building Coverage*	N/A			119,970 SF	2.75 Ac	10.75%
Impervious Cover*	558,030 SF	12.81 Ac	50%	317,383 SF	7.29 Ac	28.44%
Building Height	35 FT			35 FT (3 Stories)		
Max F.A.R.	N/A			0.3:1.0		
Total Site Area	N/A			1,935,321 SF	44.43 Ac	N/A
MF-1 Site Area*	N/A			1,116,060 SF	25.62 Ac	N/A

*Uses MF-1 zoning boundary

ZONING: C-3	ALLOWABLE			PROVIDED		
Building Coverage*	N/A			N/A	N/A	N/A
Impervious Cover*	11,489 SF	0.26 Ac	55%	12,897 SF	0.3 Ac	61.74%
Building Height	60 FT			N/A		
Max F.A.R.	N/A			N/A		
Total Site Area	N/A			1,935,321 SF	44.43 Ac	N/A
C-3 Site Area*	N/A			20,889 SF	0.48 Ac	N/A

*Uses C-3 zoning boundary

ZONING: AG	ALLOWABLE			PROVIDED		
Building Coverage*	N/A			N/A	N/A	N/A
Impervious Cover*	159,522 SF	3.66 Ac	20%	5,801 SF	0.13 Ac	0.73%
Building Height	35 FT			N/A		
Max F.A.R.	N/A			N/A		
Total Site Area	N/A			1,935,321 SF	44.43 Ac	N/A
AG Site Area*	N/A			797,609 SF	18.31 Ac	N/A

*Uses AG zoning boundary

ZONING: MF-2	ALLOWABLE			PROVIDED		
Building Coverage*	N/A			N/A	N/A	N/A
Impervious Cover*	1 SF	0 Ac	50%	0 SF	0 Ac	0.00%
Building Height	35 FT			N/A		
Max F.A.R.	N/A			N/A		
Total Site Area	N/A			1,935,321 SF	44.43 Ac	N/A
MF-2 Site Area*	N/A			1 SF	0 Ac	N/A

*Uses MF-2 zoning boundary

Site plan notes

1. *10% parking reduction has been granted via 2023-29-AE City of Georgetown section 9.06.010.*
2. *The impervious cover in the C-3 zoning area of this site was permitted with the Northside Subdivision Construction Plans (2023-13-CON).*

OPEN SPACE						
TYPE	REQUIRED			PROVIDED		
Pool & Deck	N/A	N/A	N/A	27,231 SF	0.63 Ac	1.41%
Courtyard	N/A	N/A	N/A	14,500 SF	0.33 Ac	0.75%
Open space	N/A	N/A	N/A	56,000 SF	1.29 Ac	2.89%
Total	96,766 SF	2.22 Ac	5.00%	97,731 SF	2.24 Ac	5.05%

REQUIRED AMENITIES	
Number of required amenities (250 units)	5
Amenity # / Type	Location
Amenity 1 Playground	Outside
Amenity 2 Clubhouse	Inside
Amenity 3 Private fitness center	Inside
Amenity 4 Swimming pool	Outside
Amenity 5 Laundry facility	Inside

PARKING	UNITS	SPACES/UNIT	REQUIRED	PROVIDED
1 Bedroom	0	1.5	0	0
2 Bedroom	78	2	156	141
3 Bedroom	108	2.5	270	243
4 Bedroom	64	2.5	160	144
+5% guest parking	-	-	29	26
-10% reduction*	-	-	-61	-
Off street parking	-	-	-	554
Total	250	Total	554	554

*10% reduction allowed per administrative exemption 2023-29-AE

Standard	498	518
Compact	Max 56	36
% Compact	Max 10%	6%
Garage	0	0
Handicap	12	34
Van	2 min	34
Standard	10	0
Bicycle	0	0

SHEET A

SHEET B

SHEET C

SHEET D

SHEET E

SHEET F

SHEET G

SHEET H

SYLVIA ANN THOMAS DEED
15 ACRES SAVE & EXCEPT 1.51 ACRES
VOL. 1322, PG 593
O.R.W.C.T.

CALLED 0.785 ACRES
GEORGETOWN
WATERLINE EASEMENT
DOC NO.2010079383
WCOPR

WILLIAM ROBERTS SURVEY
ABSTRACT NO. 324

FOUND 1/2" IRON ROD "CHAPARRAL"

S 60°24'37" W 1266.88'

S 31°56'42" E 606.42'

S 31°57'34" E 577.37'

ZONING: MF-1
USE: MULTI-FAMILY

10' wide mutli-use concrete regional trail per Parks Master Plan - Georgetown 2030 Plan Parkland trail easement by separate instrument Doc No. _____

All ADA ramps shall have a 5'x5' flat landing (max 2%). For ramps over 6" in height see detail SD28 on sheet 82.

12' Pond Berm Reference Northside Subdivision Construction Plans (2023-13-CON)

DRAINAGE EASEMENT PER NORTHSIDE SUBDIVISION FINAL PLAT DOC NO. ####

GEORGETOWN EXCLUSIVE UTILITY EASEMENT

50' JOINT ACCESS EASEMENT DOC. NO.

PROPOSED CITY OF GEORGETOWN HWY FLOODPLAIN

FIRE HYDRANT AND WATER VALVE

BWF UP TO 3.5' INSIDE BOUNDARY

Proposed building T1
Proposed building T2
Proposed building T3
Proposed building T4
Proposed building T5
Proposed building T6
Proposed building T7
Proposed building T8
Proposed building T9
Proposed building F1
Proposed building F2
Proposed building F3
Proposed building F4
Proposed building F5
Proposed building F6
Proposed building F7
Proposed building F8
Proposed building F9
Proposed Clubhouse building
Proposed Parking and Drive Circulation
Proposed Sidewalk, typ.
Proposed Building, typ.
Proposed ADA Parking and Sidwalk Ramp, typ.
Proposed amenity 1
Proposed amenity 2
Proposed amenity 3
Proposed amenity 4
Proposed amenity 5
Pool equipment area
Proposed Dumpster with Masonry Enclosure
Proposed mailbox hub
Proposed Transportation and Ride Share Shaded Pickup Location
Northside Lot 3 Multi-Family (2023-64-SDP) private parking
Proposed Fire Lane, typ.
FIRELANE
20' BSL
10' BSL
R35
R15
R25
29'

REVISIONS	No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

DESIGNED BY: JMC
DESIGN LEAD: OOI
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STATE OF TEXAS
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03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

OVERALL SITE PLAN

SHEET NO. 14 OF 132

2023-64-SDP

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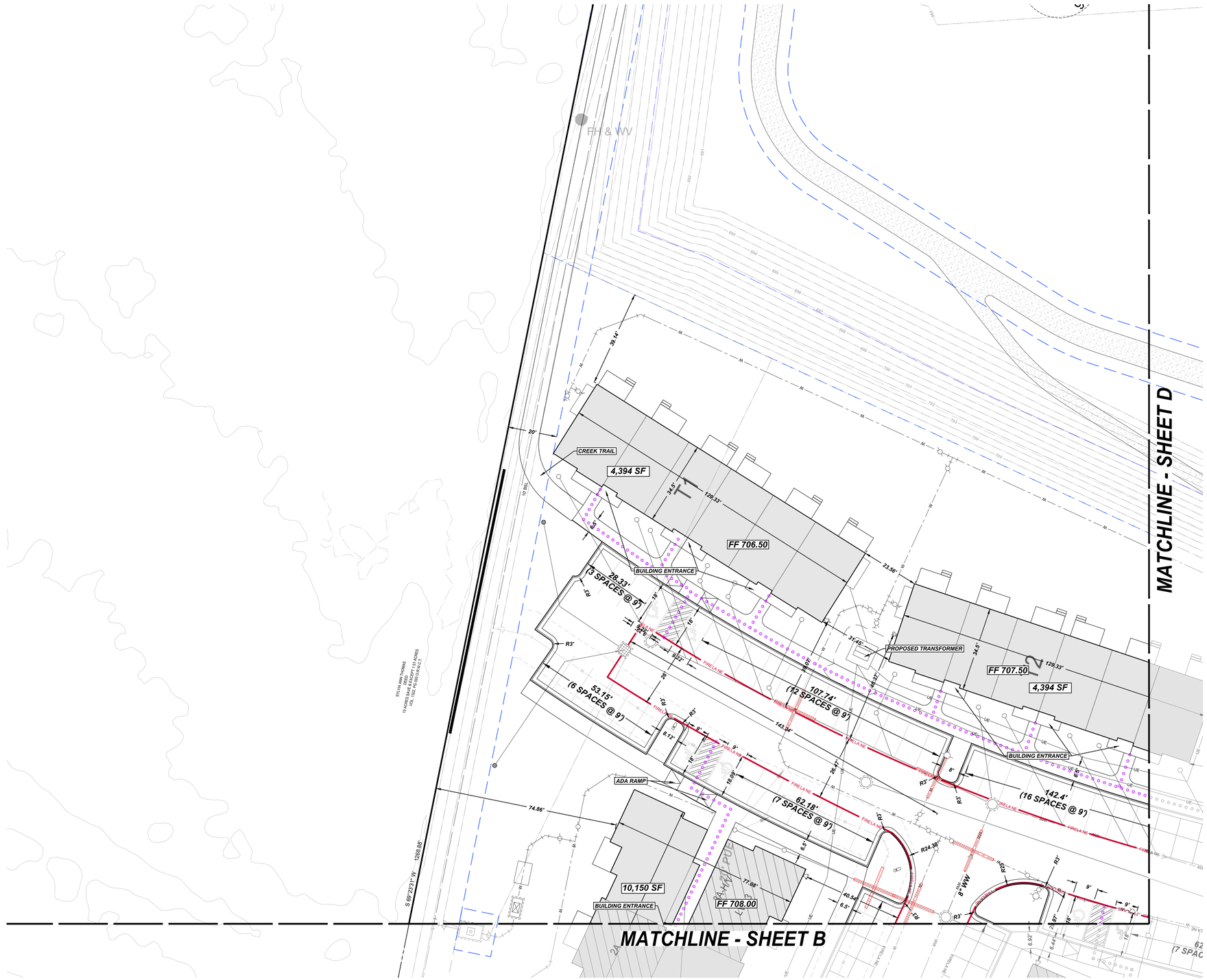
THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



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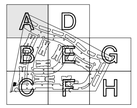
SCALE: 1" = 20'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- LIMITS OF CONSTRUCTION
- ADA ROUTE
- ADA RAMP
- FIRE LANE
- OPEN SPACE

All ADA ramps shall have a 5'x5' flat landing (max 2%). For ramps over 6" in height see detail SD28 on sheet 82.

DIMENSION SITE PLAN NOTES:

1. All lighting fixtures shall be designed to completely conceal and fully shield, within an opaque housing, the light source from visibility from any street right-of-way. The cone of light shall not cross any adjacent property line.
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No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23264 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195
SITE PLAN - A

SHEET NO. **15** OF **132**

2023-64-SDP

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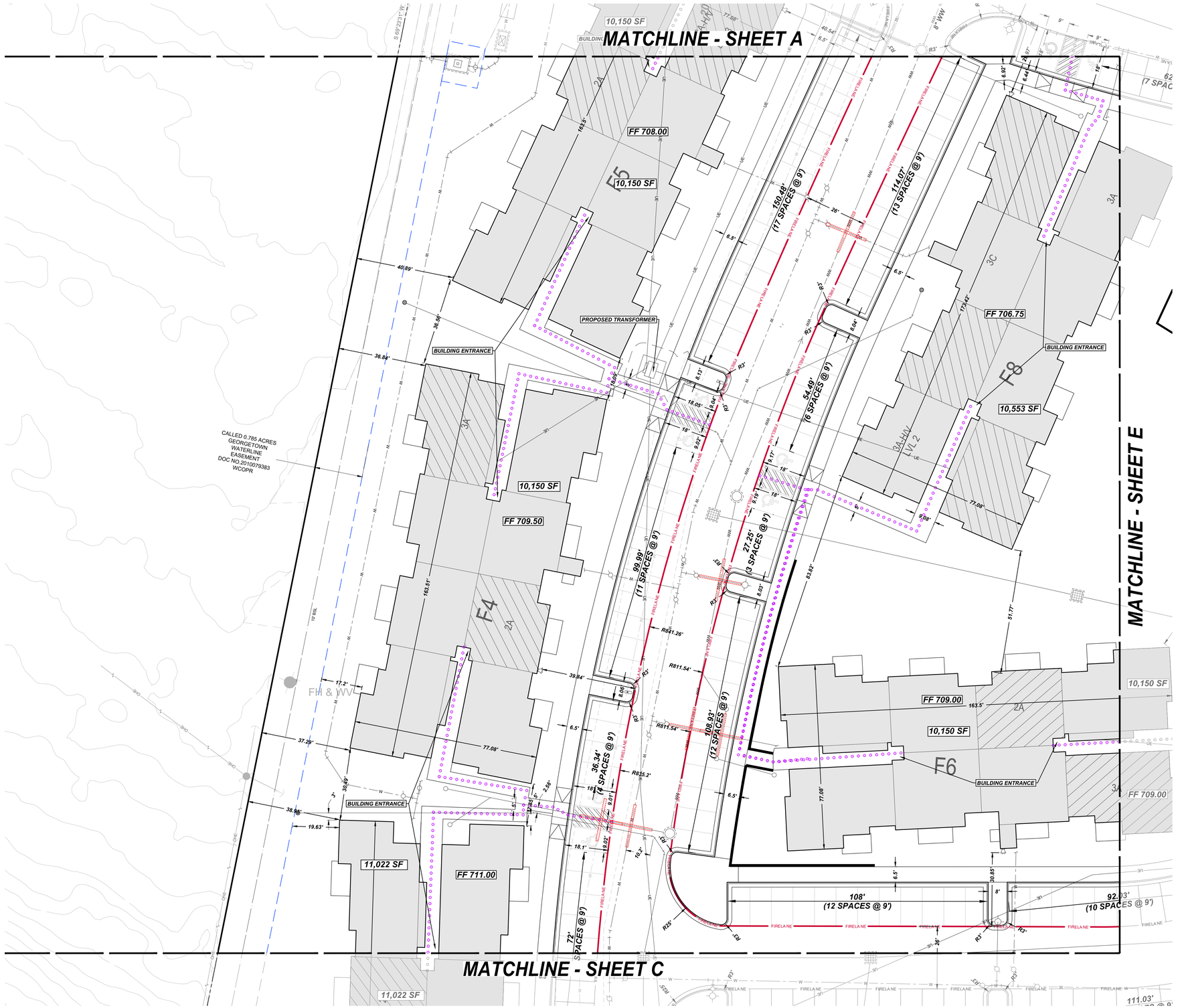

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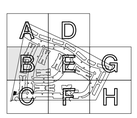
SCALE: 1" = 20'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- LIMITS OF CONSTRUCTION
- ADA ROUTE
- ADA RAMP
- FIRE LANE
- OPEN SPACE

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STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

SITE PLAN - B

SHEET NO. **16** OF **132**

2023-64-SDP

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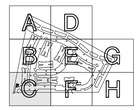

KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- 700 GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- L.O.C LIMITS OF CONSTRUCTION
- ADA ROUTE
- ADA RAMP
- FIRELANE FIRE LANE
- OPEN SPACE

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3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

DESIGNED BY: JMC
DESIGN LEAD: OOI
DRAWN BY: JDE
SCALE: AS SHOWN
DWG ISSUANCE: U2 - MARCH 2024
JOB NO.: 17951-0002-01

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

SITE PLAN - C

SHEET NO. **17** OF **132**

2023-64-SDP

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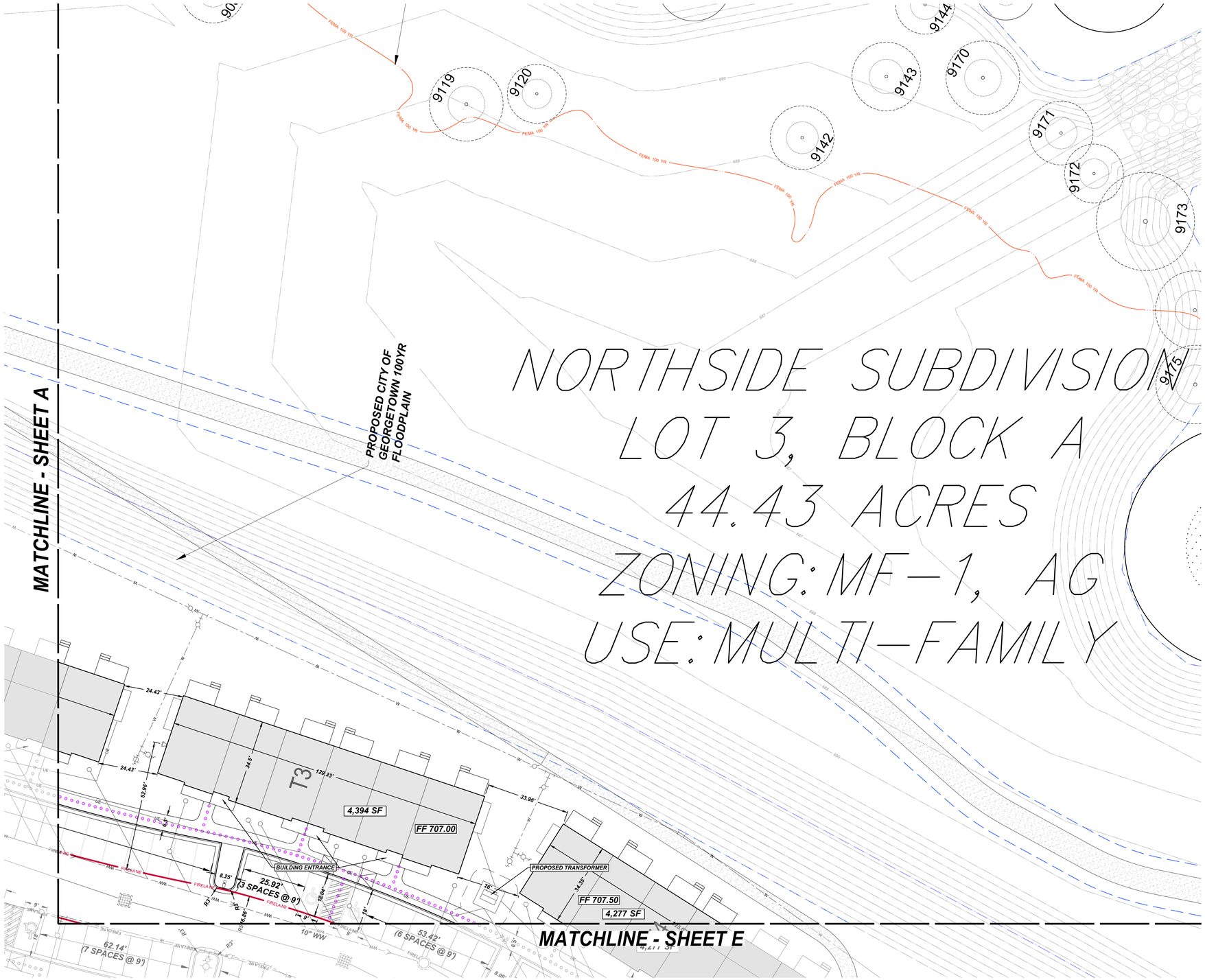
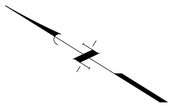
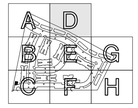




SCALE: 1" = 20'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- LIMITS OF CONSTRUCTION
- ADA ROUTE
- ADA RAMP
- FIRE LANE
- OPEN SPACE

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QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004 & 10064300
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195
SITE PLAN - D

SHEET NO. **18** OF **132**

2023-64-SDP

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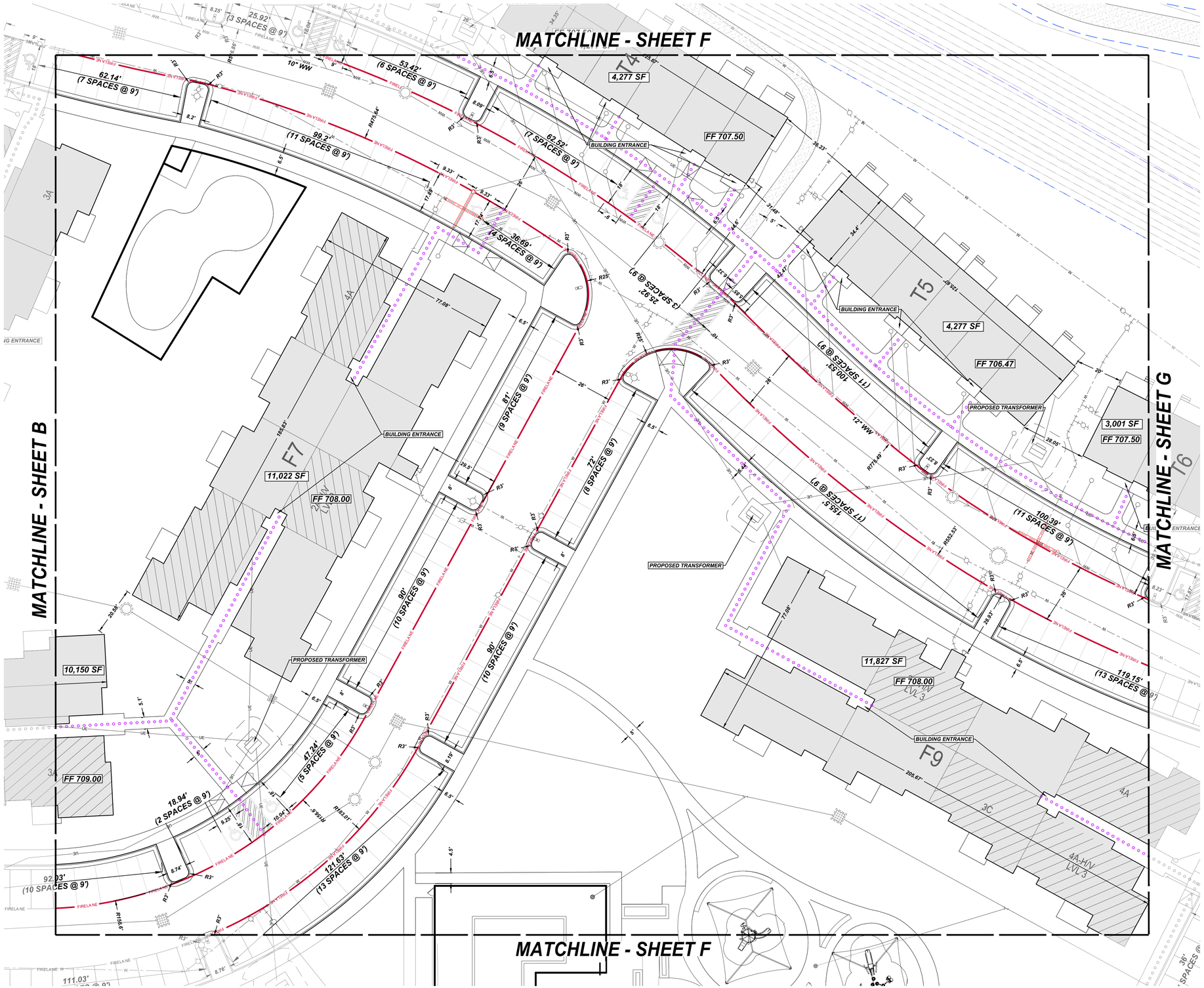

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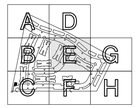

KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- LIMITS OF CONSTRUCTION
- ADA ROUTE
- ADA RAMP
- FIRE LANE
- OPEN SPACE

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3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

SITE PLAN - E

SHEET NO. **19** OF 132

2023-64-SDP

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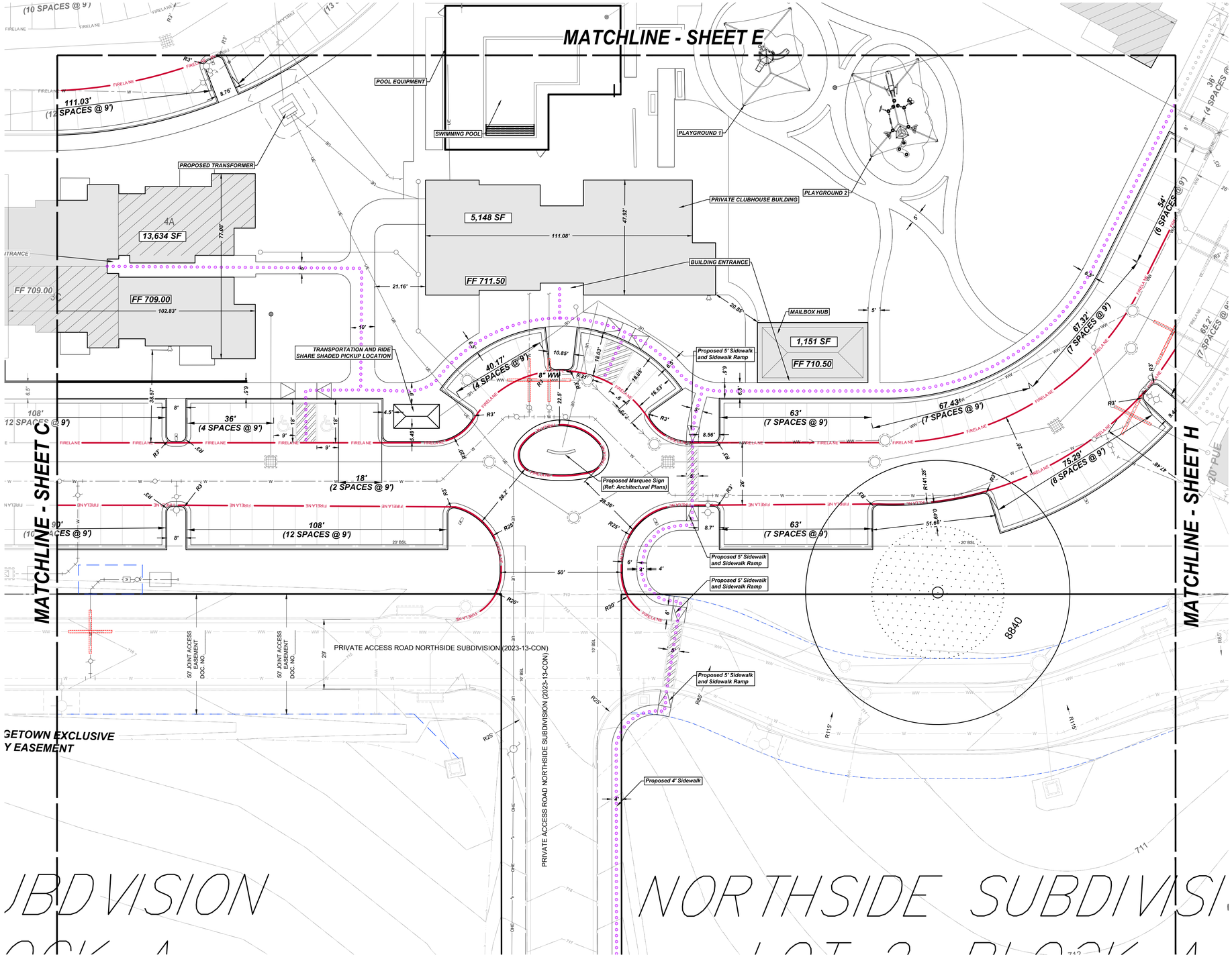

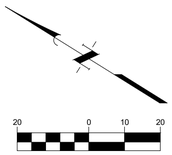

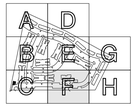

KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- 700 GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- L.O.C. LIMITS OF CONSTRUCTION
- ADA ROUTE
- ADA RAMP
- FIRELANE FIRE LANE
- OPEN SPACE

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3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
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STATE OF TEXAS
JUSTIN M. CADIEUX IV
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

SITE PLAN - F

SHEET NO. **20** OF 132

2023-64-SDP

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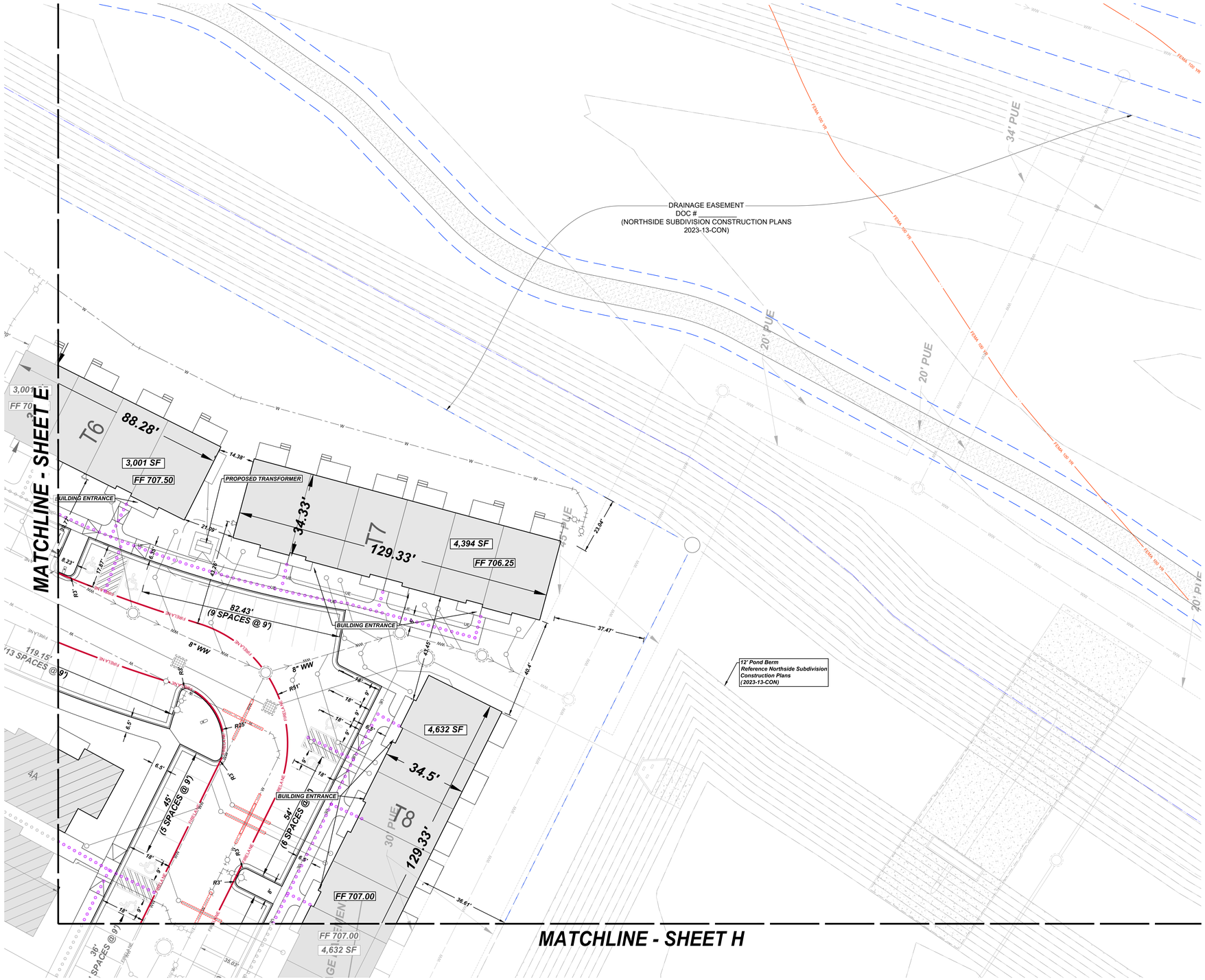

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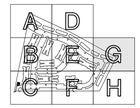

KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- LIMITS OF CONSTRUCTION
- ADA ROUTE
- ADA RAMP
- FIRE LANE
- OPEN SPACE

All ADA ramps shall have a 5'x5' flat landing (max 2%). For ramps over 6" in height see detail SD28 on sheet 82.

DIMENSION SITE PLAN NOTES:

1. All lighting fixtures shall be designed to completely conceal and fully shield, within an opaque housing, the light source from visibility from any street right-of-way. The cone of light shall not cross any adjacent property line.
2. The illumination shall not exceed 2 foot candles at a height of three feet at the property line. Only incandescent, fluorescent, color-corrected high-pressure sodium or metal halide may be used. All vehicle or pedestrian access shall be sufficiently lighted to ensure security of property and persons.
3. All roof, wall and ground mounted mechanical equipment must be screened in accordance with Chapter 8 of the UDC. If roof and wall mounted equipment of any type including duct work and large vents is proposed it shall be shown on the Site Plan and screening identified. Screening of mechanical equipment shall result in the mechanical equipment blending in with the primary building and not appearing separate from the building and shall be screened from view of any rights-of-way or adjoining properties.
4. Per Chapter 8, the dumpster enclosures must be one (1) foot above the height of the waste container. Use protective poles in corners and at impact areas. Fence posts shall be of of rust protected metal or concrete. A minimum 6" slab is required and must be sloped to drain; the enclosure must have steel framed gates with spring loaded hinges and fasteners to keep closed. Screening must be on all four sides by masonry wall or approved fence or screening with opaque gates.

No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23264 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN
DWG ISSUANCE: U2 - MARCH 2024
JOB NO.: 17951-0002-01

DESIGNED BY: JMC
DESIGN LEAD: OOI
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

SITE PLAN - G

SHEET NO. **21** OF **132**

2023-64-SDP

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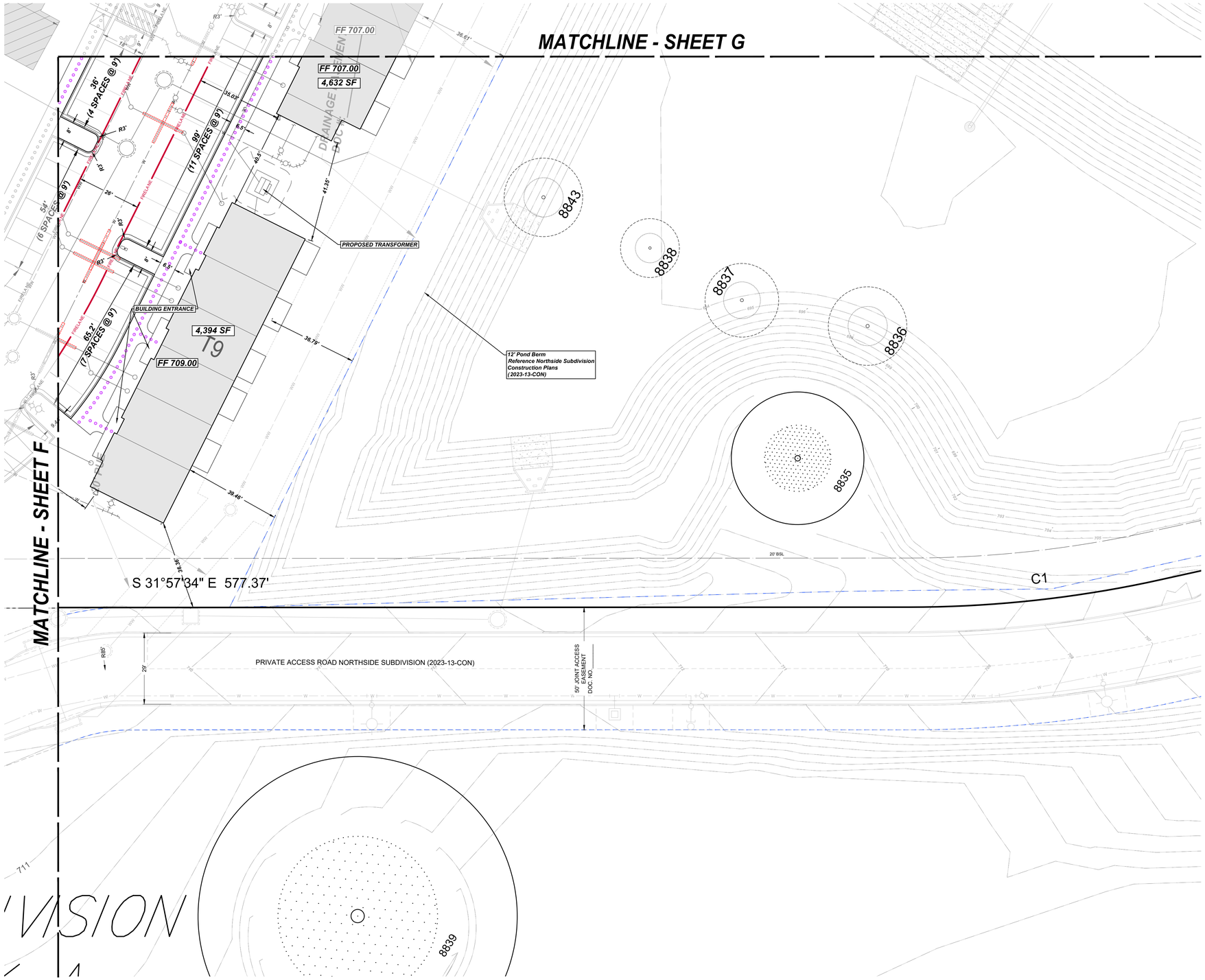
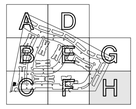


SCALE: 1" = 20'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
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JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

SITE PLAN - H

SHEET NO. **22** OF 132

2023-64-SDP

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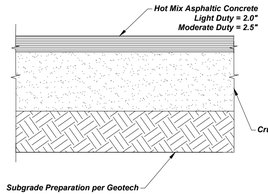
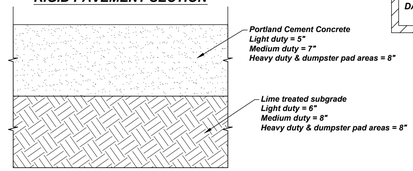
FLEXIBLE PAVEMENT SECTION



RIGID PAVEMENT SECTION



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50 0 25 50

SCALE: 1" = 50'

PAVING LEGEND

- LIGHT DUTY PAVEMENT
- HEAVY DUTY PAVEMENT
- ADA RAMP
- FIRELANE — FIRE LANE

SYLVIA ANN THOMAS DEED
15 ACRES SAVE & EXCEPT 1.51 ACRES
VOL. 1322, PG 593
O.R.W.C.T.

WILLIAM ROBERTS SURVEY
ABSTRACT NO. 324

CALLED 0.785 ACRES
GEORGETOWN WATERLINE EASEMENT
DOC NO.2010079383
WCOPR

FIRE HYDRANT AND WATER VALVE

BWF UP TO 3.5' INSIDE BOUNDARY

PROPOSED CITY OF GEORGETOWN HWY FLOODPLAIN

ZONING: MF

USE: MULTI-FAMILY

S 69°23'31" W 1266.89'

S 31°56'42" E 606.42'

S 31°57'34" E 577.37'

GEORGETOWN EXCLUSIVE UTILITY EASEMENT

50' JOINT ACCESS EASEMENT DOC. NO.

PRIVATE ACCESS ROAD NORTHSIDE SUBDIVISION (2023-13-CON)

NORTHSIDE SUBDIVISION

NORTHSIDE SUBDIVISION

Construction Notes:

1. *The pavement section materials thickness shall be in accordance with the latest geotechnical report by Braun Intertec project B2210179.02.*
2. *The subgrade material was tested by Braun Intertec project B2210179.02. The results are described in the Geotechnical Report dated 2/17/2023.*
3. *Per Geotechnical report, a flexible pavement section is not recommended for light duty, medium duty or heavy duty areas.*
4. *The pavement section for non-TxDOT items shall be in accordance with the Geotechnical Report dated February 17, 2023 by Braun Intertec Corporation, Project No. B2210179.02*
5. *The subgrade shall be in accordance with subgrade recommendations from the Geotechnical Report Dated February 17, 2023 by Braun Intertec Corporation, Project No. B2210179.02.*
6. *Per Geotechnical Report, Light Duty is designed for 45,000 ESAL. Medium Duty is designed for 250,000 ESAL. Heavy Duty is designed for 1,000,000 ESAL. The type of heavy duty pavement to be used for the site is based entirely on the end user.*
7. *Geotechnical Report No. B2210179.02 also references flexible pavement options for light and moderate duty pavement sections as an alternative to rigid pavement options for these sections only.*

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JOB NO.: 17951-0002-01 — DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

PAVEMENT PLAN

SHEET NO. **23** OF **132**

2023-64-SDP

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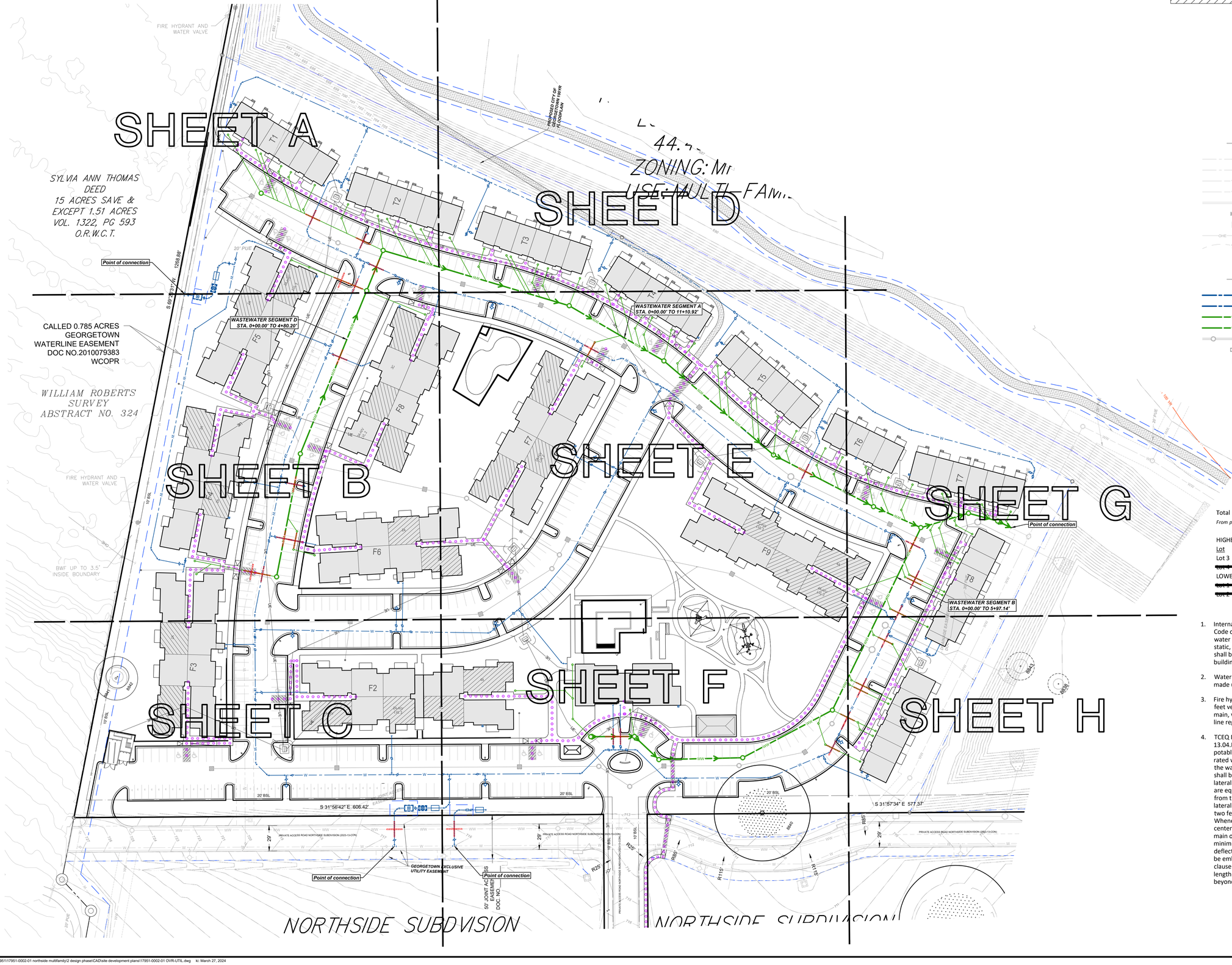

50 0 25 50

SCALE: 1" = 50'

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN

Total Head: 906 ft

From pressure plane provided by David Munk on 9/22/23

HIGHEST PRESSURE LOTS

Lot	Elevation (ft)	P (psi)
Lot 3	705.5	86.80
~~Lot 4~~	~~705.64~~	~~86.74~~

LOWEST PRESSURE LOTS

~~Lot 1~~	~~751.18~~	~~75.88~~
~~Lot 2~~	~~725.45~~	~~75.01~~

UTILITY PLAN NOTES

1. International Plumbing Code 2012 (adopted in Code of Ordinances 15.12.010) 604.8: Where water pressure within a building exceeds 80 psi static, an approved water pressure reducing valve shall be installed to reduce the pressure in the building to not greater than 80 psi.
2. Water connections to existing water lines shall be made using hot taps.
3. Fire hydrants shall not be installed within nine feet vertically or horizontally of any wastewater main, wastewater lateral, or wastewater service line regardless of construction.
4. TCEQ Design Requirements (adopted in UDC 13.04.E) Rule 290.44.e.4.B.ii: Where a new potable waterline crosses a new, non-pressure rated wastewater main or lateral, the segment of the waterline pipe shall be centered over and shall be perpendicular to the wastewater main or lateral such that the joints of the waterline pipe are equidistant and at least nine feet horizontally from the centerline of the wastewater main or lateral. The potable waterline shall be at least two feet above the wastewater main or lateral. Whenever possible, the crossing shall be centered between the joints of the wastewater main or lateral. The wastewater pipe shall have a minimum pipe stiffness of 115 psi at 5.0% deflection. The wastewater main or lateral shall be embedded in cement stabilized sand (see clause (v) of this subparagraph) for the total length of one pipe segment plus 12 inches beyond the joint on each end.

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03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

OVERALL UTILITY PLAN

SHEET NO. **24** OF 132

2023-64-SDP

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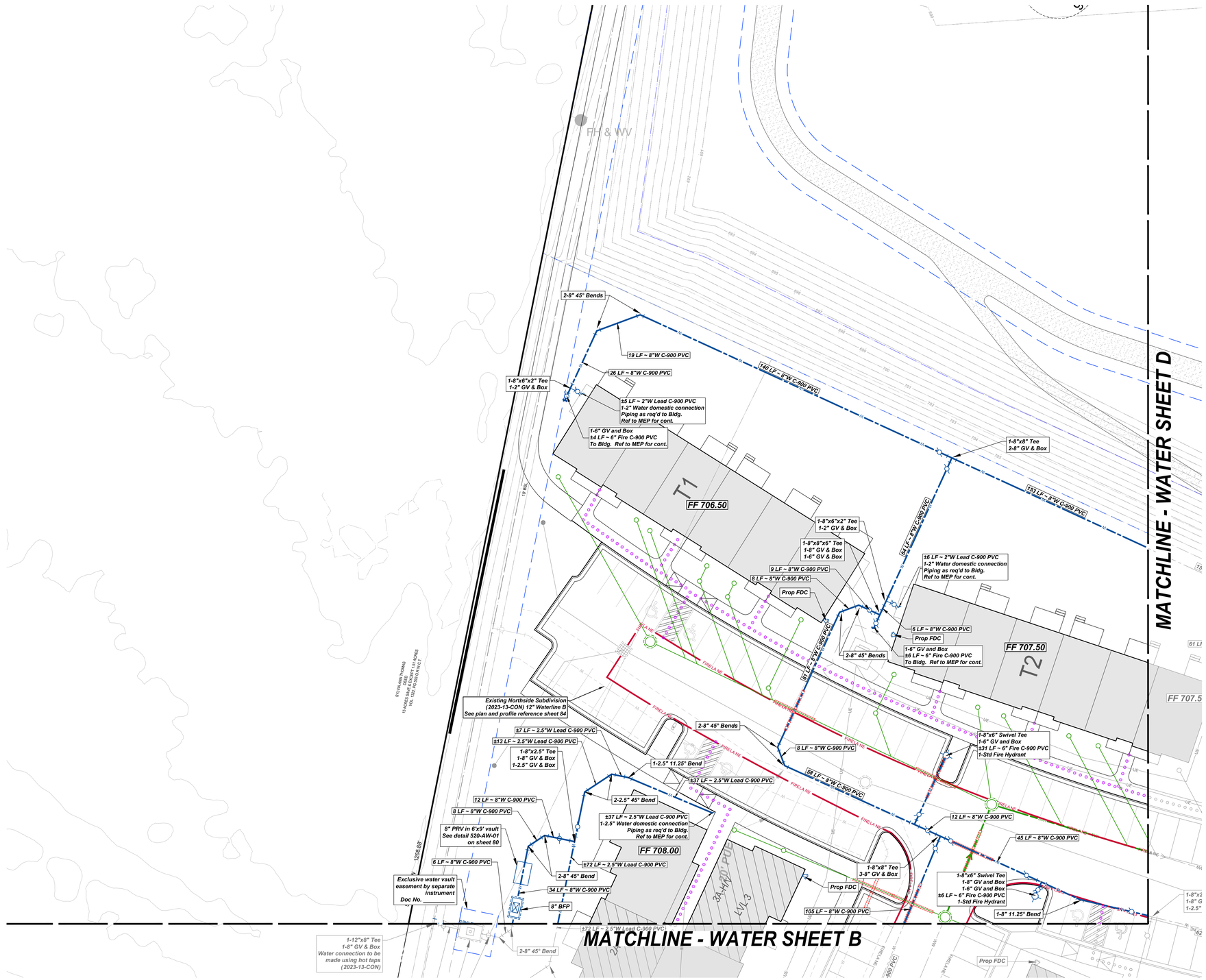

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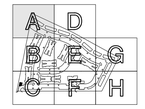
SCALE: 1" = 20'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

WATER PLAN NOTES

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REVISIONS

No.	Date	App.

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3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

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JOB NO.: 17951-0002-01
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STATE OF TEXAS
JUSTIN M. CADIEUX
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PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

UTILITY PLAN WATER- A

SHEET NO.
25 OF **132**

2023-64-SDP

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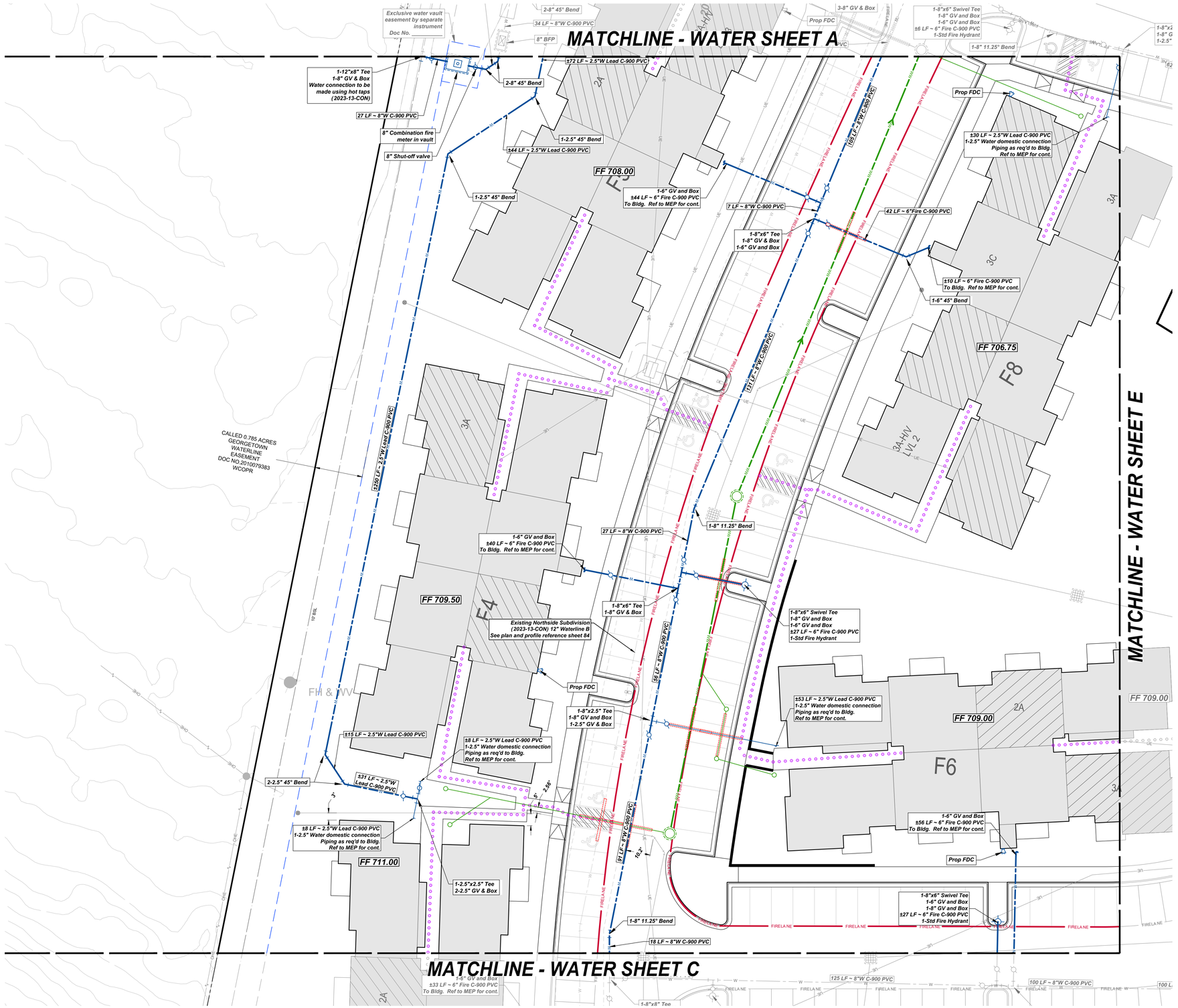

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- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
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- GRATE INLET
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- GROUND CONTOUR

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No.	Date	REVISIONS	App.

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3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

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STATE OF TEXAS
JUSTIN M. CADIEUX
146526
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PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

UTILITY PLAN WATER - B

SHEET NO. **26** OF **132**

2023-64-SDP

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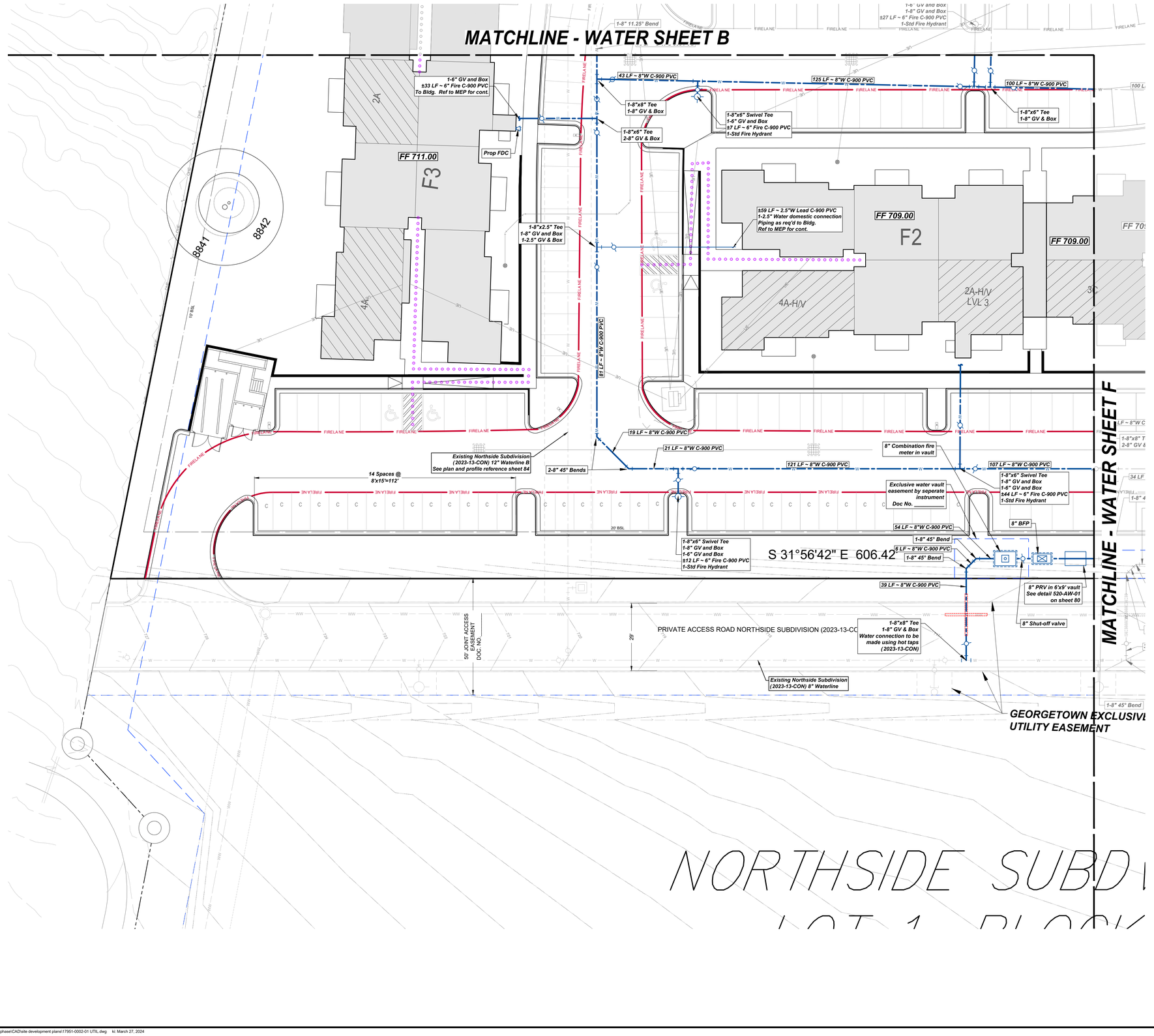

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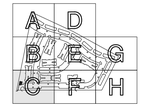
20 0 10 20

SCALE: 1" = 20'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- 700 GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- 700 GROUND CONTOUR

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STATE OF TEXAS
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03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

UTILITY PLAN WATER - C

SHEET NO. 27 OF 132

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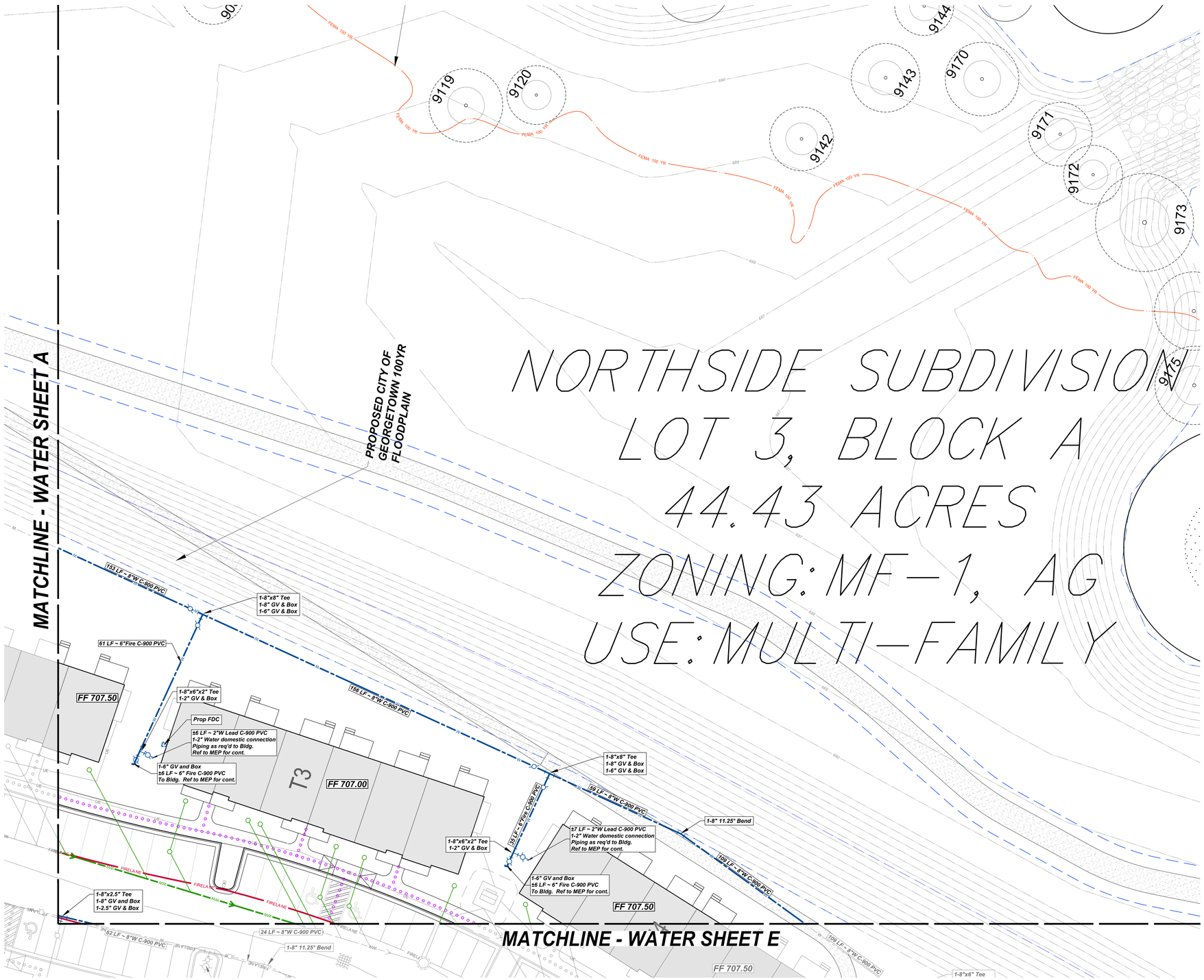

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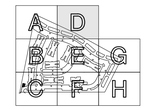

KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

WATER PLAN NOTES

1. International Plumbing Code 2012 (adopted in Code of Ordinances 15.12.010) 604.8: Where water pressure within a building exceeds 80 psi static, an approved water pressure reducing valve shall be installed to reduce the pressure in the building to not greater than 80 psi.
2. Water connections to existing water lines shall be made using hot taps.
3. Fire hydrants shall not be installed within nine feet vertically or horizontally of any wastewater main, wastewater lateral, or wastewater service line regardless of construction.
4. TCEQ Design Requirements (adopted in UDC 13.04.E) Rule 290.44.e.4.B.ii: Where a new potable waterline crosses a new, non-pressure rated wastewater main or lateral, the segment of the waterline pipe shall be centered over and shall be perpendicular to the wastewater main or lateral such that the joints of the waterline pipe are equidistant and at least nine feet horizontally from the centerline of the wastewater main or lateral. The potable waterline shall be at least two feet above the wastewater main or lateral. Whenever possible, the crossing shall be centered between the joints of the wastewater main or lateral. The wastewater pipe shall have a minimum pipe stiffness of 115 psi at 5.0% deflection. The wastewater main or lateral shall be embedded in cement stabilized sand (see clause (v) of this subparagraph) for the total length of one pipe segment plus 12 inches beyond the joint on each end.

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SCALE: AS SHOWN
DWG ISSUANCE: U2 - MARCH 2024
JOB NO.: 17951-0002-01
DESIGNED BY: JMC
DESIGN LEAD: OOI
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

UTILITY PLAN WATER - D

SHEET NO. 28 OF 132

2023-64-SDP

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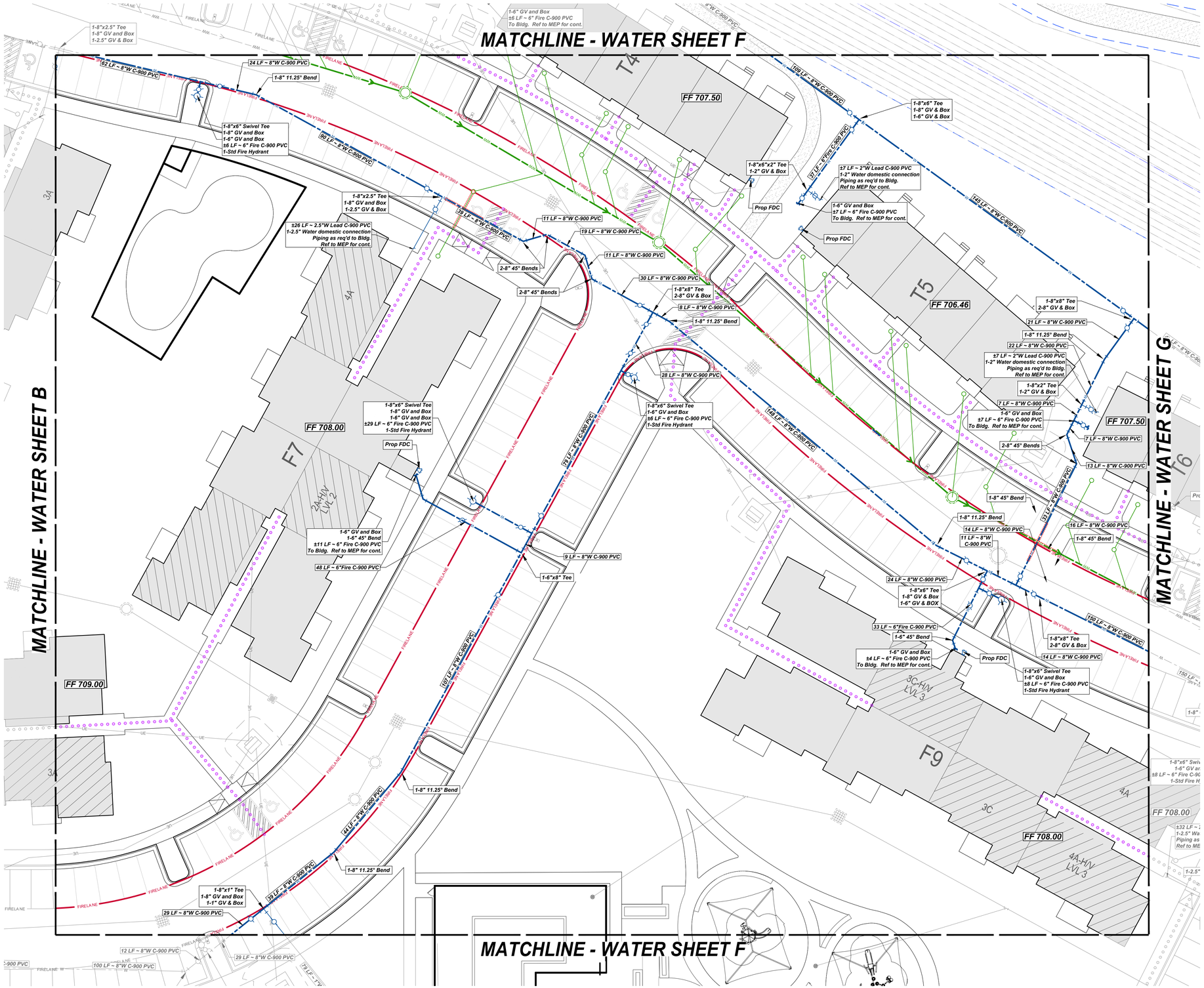

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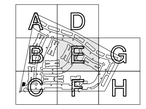
SCALE: 1" = 20'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- 700 GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- 700 GROUND CONTOUR

WATER PLAN NOTES

1. International Plumbing Code 2012 (adopted in Code of Ordinances 15.12.010) 604.8: Where water pressure within a building exceeds 80 psi static, an approved water pressure reducing valve shall be installed to reduce the pressure in the building to not greater than 80 psi.
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No.	Date	REVISIONS	App.

QUIDDITY
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JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

UTILITY PLAN WATER - E

SHEET NO. **29** OF **132**

2023-64-SDP

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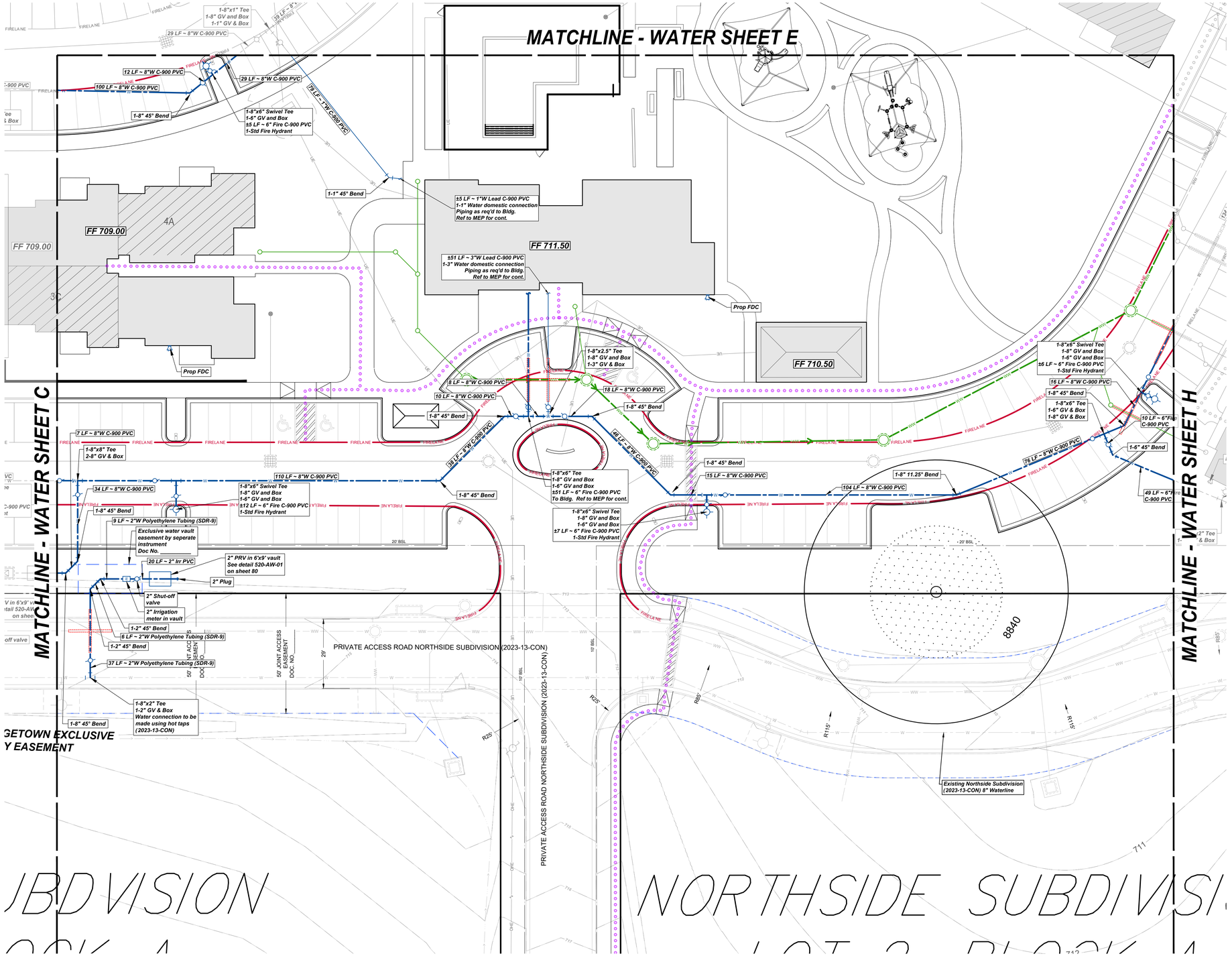
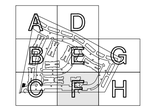


SCALE: 1" = 20'

KEY MAP



EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
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WATER PLAN NOTES

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JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

UTILITY PLAN WATER - F

SHEET NO. **30** OF **132**

2023-64-SDP

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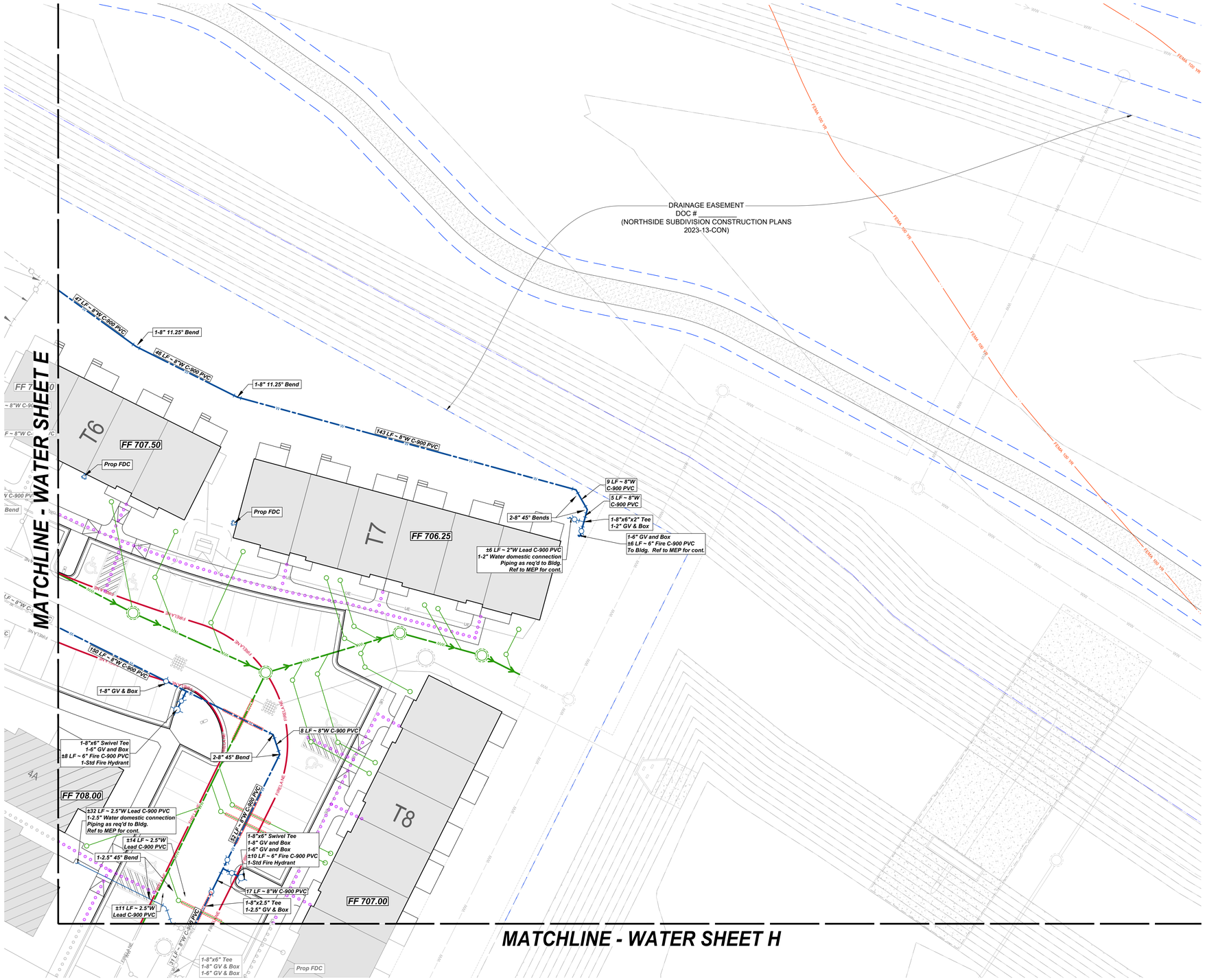

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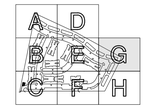

KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
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- LANDSCAPE DRAIN
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WATER PLAN NOTES

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JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

UTILITY PLAN WATER - G

SHEET NO. **31** OF 132

2023-64-SDP

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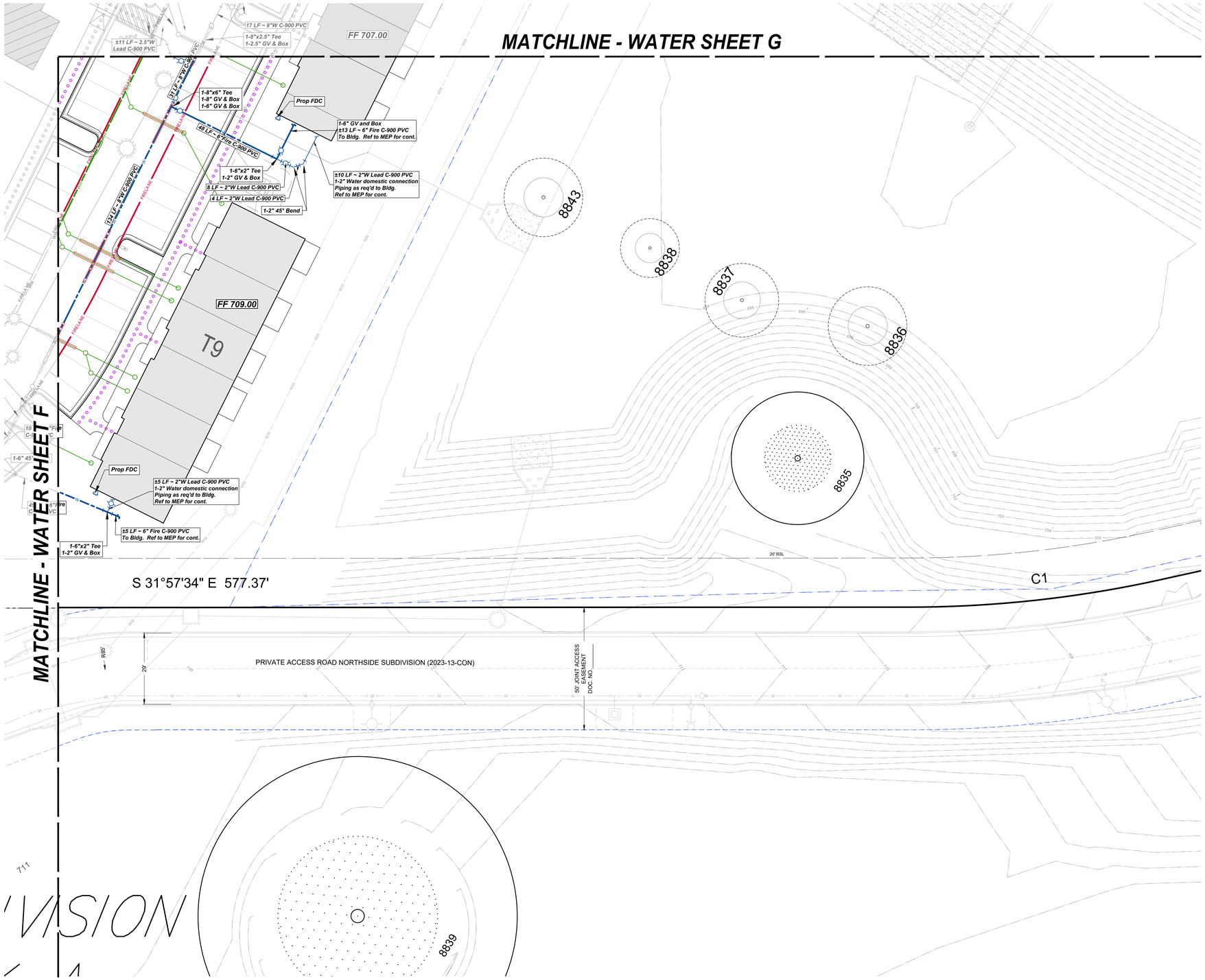

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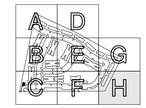

KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
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QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23264 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN
DWG ISSUANCE: U2 - MARCH 2024
JOB NO.: 17951-0002-01
DESIGNED BY: JMC
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STATE OF TEXAS
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PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

UTILITY PLAN WATER - H

SHEET NO. **32** OF **132**

2023-64-SDP

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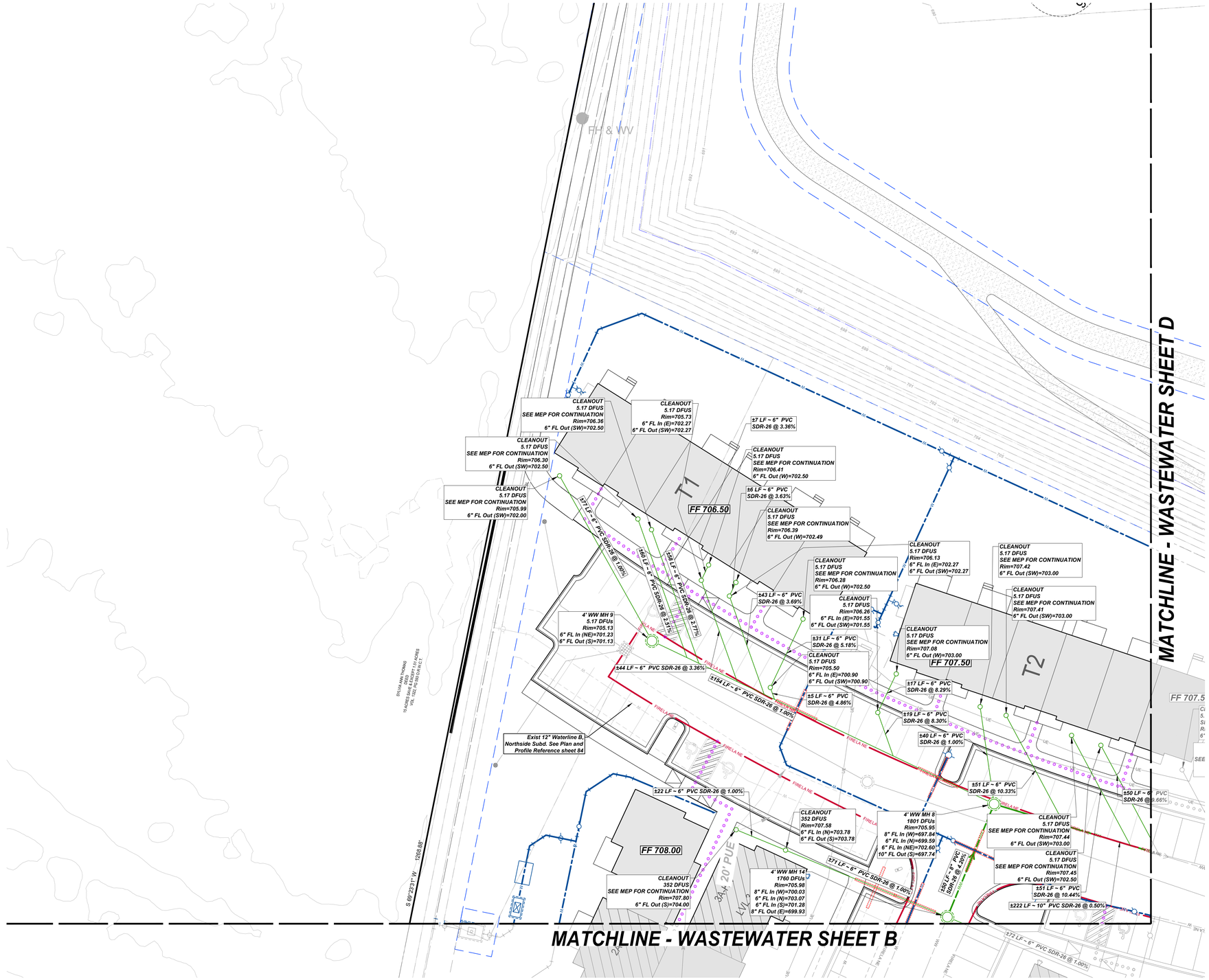

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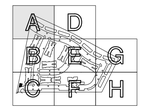

KEY MAP

EXISTING LEGEND

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- WATERLINE W/ GATE VALVE
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- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
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- GRATE INLET
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STATE OF TEXAS
JUSTIN M. CADIEUX
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LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

UTILITY PLAN WASTEWATER - A

SHEET NO.
33 OF **132**

2023-64-SDP

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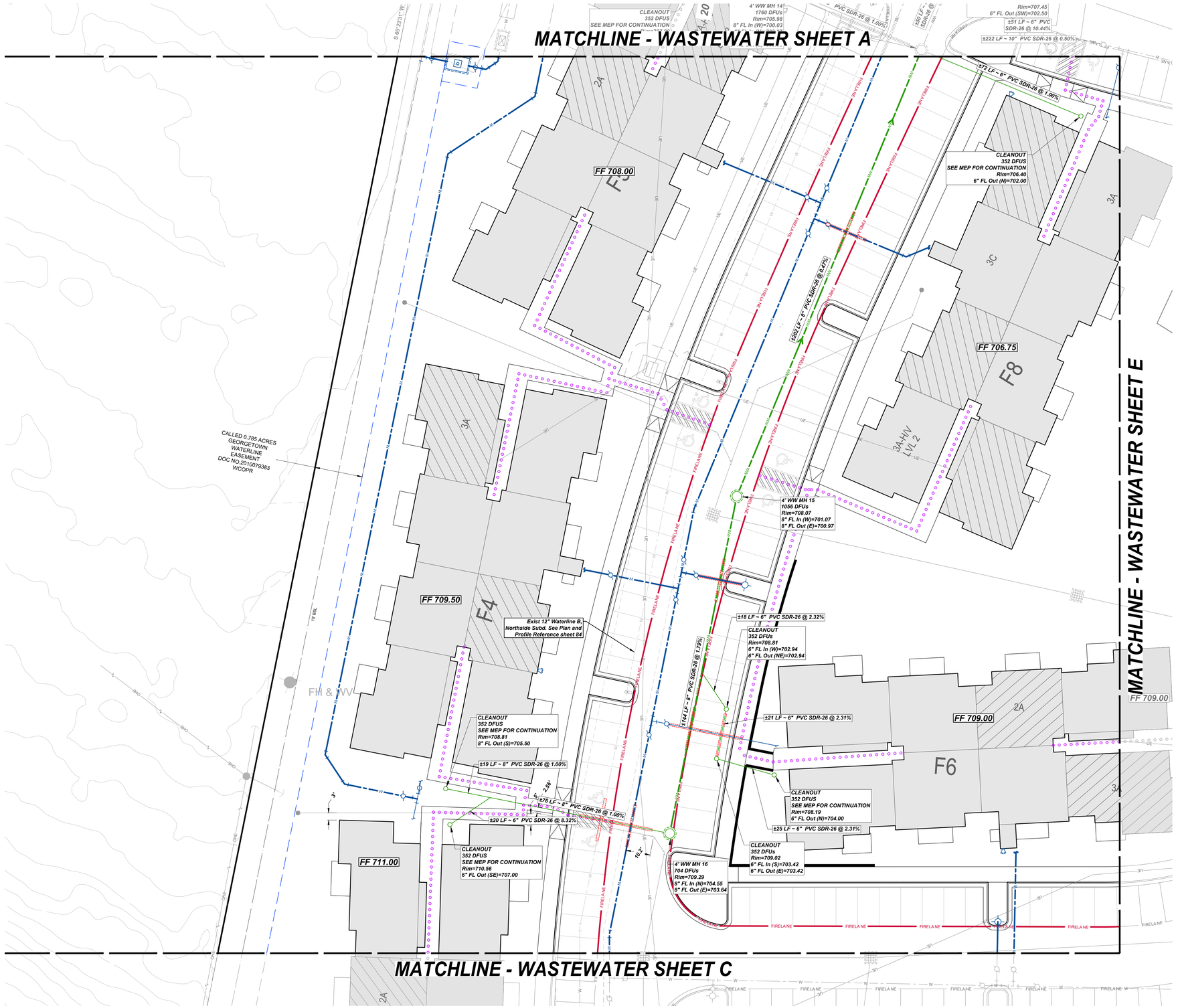
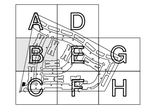


SCALE: 1" = 20'

KEY MAP



EXISTING LEGEND

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- WATERLINE W/ GATE VALVE
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- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
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DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

UTILITY PLAN WASTEWATER - B

SHEET NO. **34** OF **132**

2023-64-SDP

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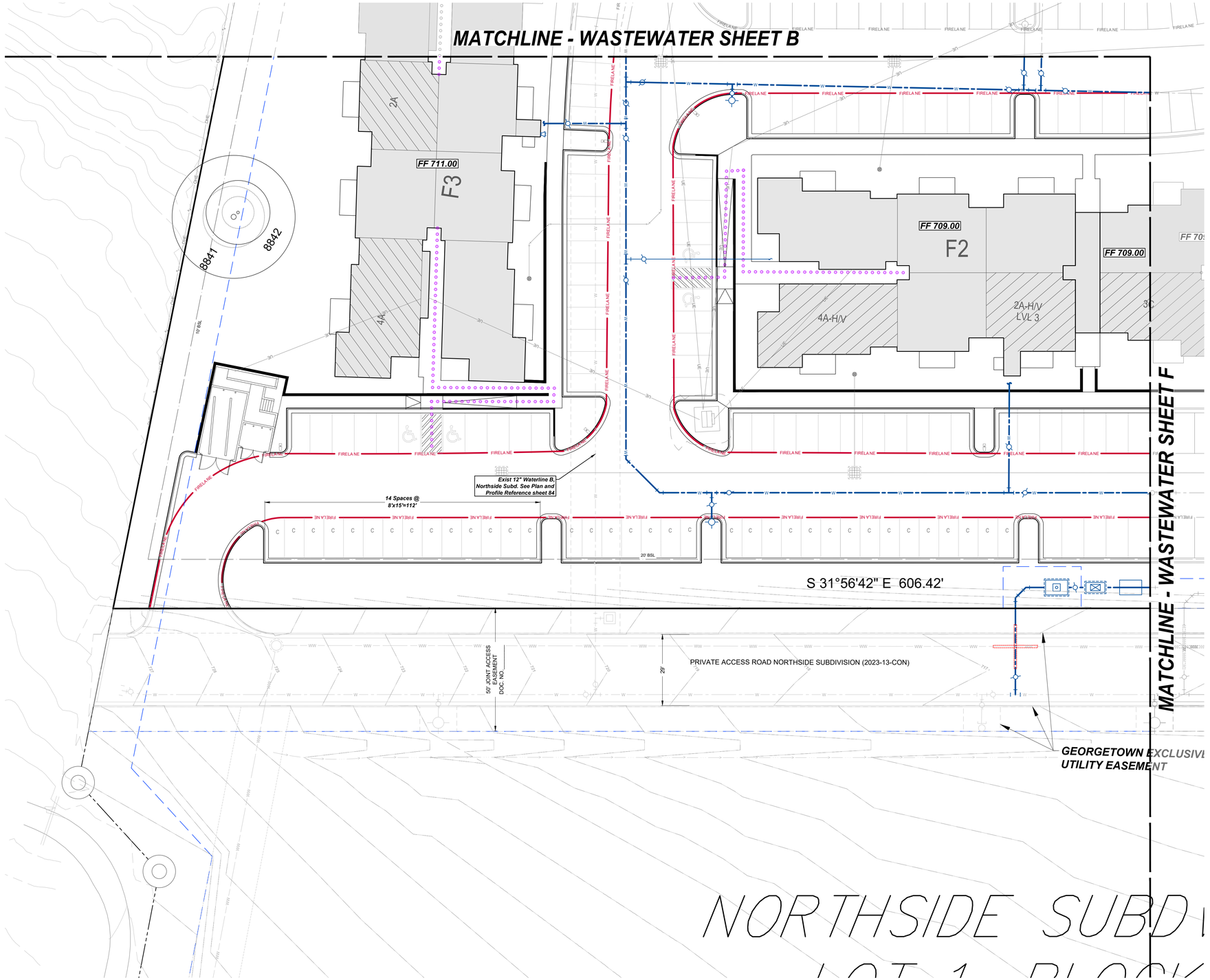
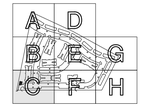


THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

20 0 10 20

SCALE: 1" = 20'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

WASTEWATER PLAN NOTES

1. Fire hydrants shall not be installed within nine feet vertically or horizontally of any wastewater main, wastewater lateral, or wastewater service line regardless of construction.
2. TCEQ Design Requirements (adopted in UDC 13.04.E) Rule 290.44.e.4.B.ii: Where a new potable waterline crosses a new, non-pressure rated wastewater main or lateral, the segment of the waterline pipe shall be centered over and shall be perpendicular to the wastewater main or lateral such that the joints of the waterline pipe are equidistant and at least nine feet horizontally from the centerline of the wastewater main or lateral. The potable waterline shall be at least two feet above the wastewater main or lateral. Whenever possible, the crossing shall be centered between the joints of the wastewater main or lateral. The wastewater pipe shall have a minimum pipe stiffness of 115 psi at 5.0% deflection. The wastewater main or lateral shall be embedded in cement stabilized sand (see clause (v) of this subparagraph) for the total length of one pipe segment plus 12 inches beyond the joint on each end.

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STATE OF TEXAS
JUSTIN M. CADIEUX
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PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

UTILITY PLAN WASTEWATER - C

SHEET NO. **35** OF **132**

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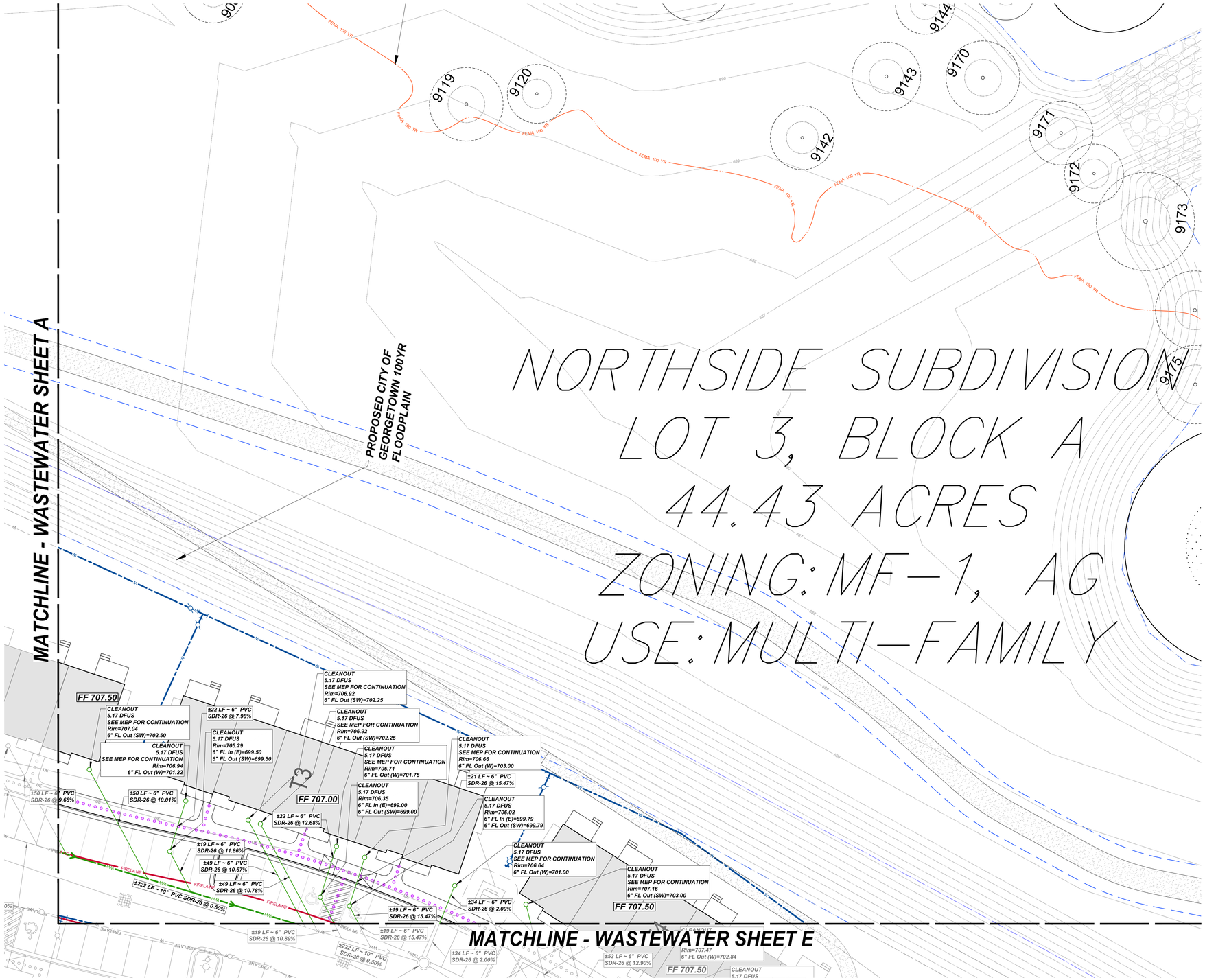

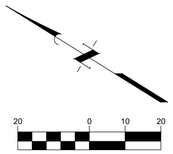

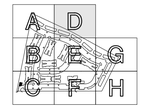

KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

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STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

UTILITY PLAN WASTEWATER - D

SHEET NO. **36** OF 132

2023-64-SDP

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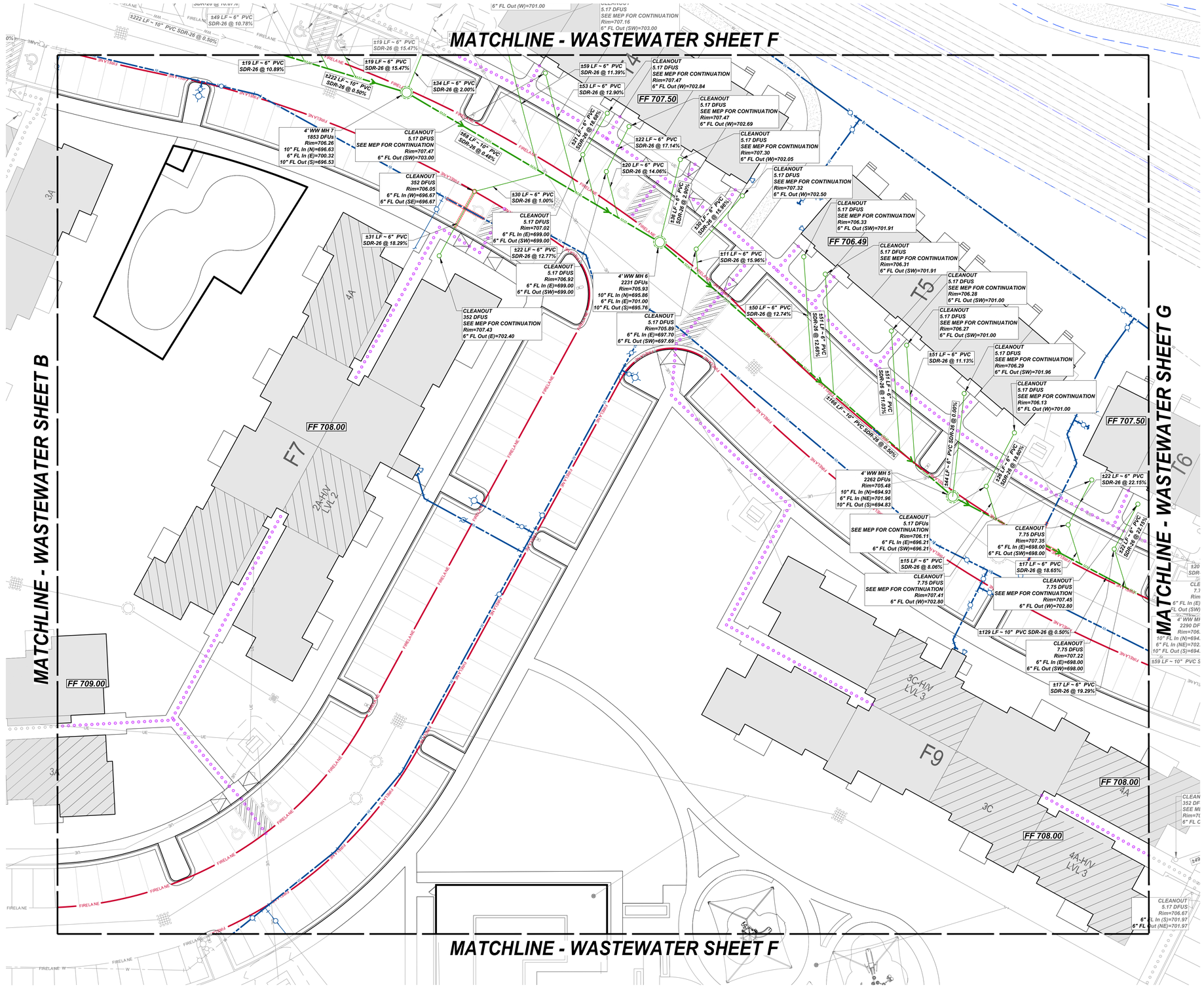

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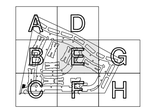
20 0 10 20

SCALE: 1" = 20'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

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JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

UTILITY PLAN WASTEWATER - E

SHEET NO. **37** OF 132

2023-64-SDP

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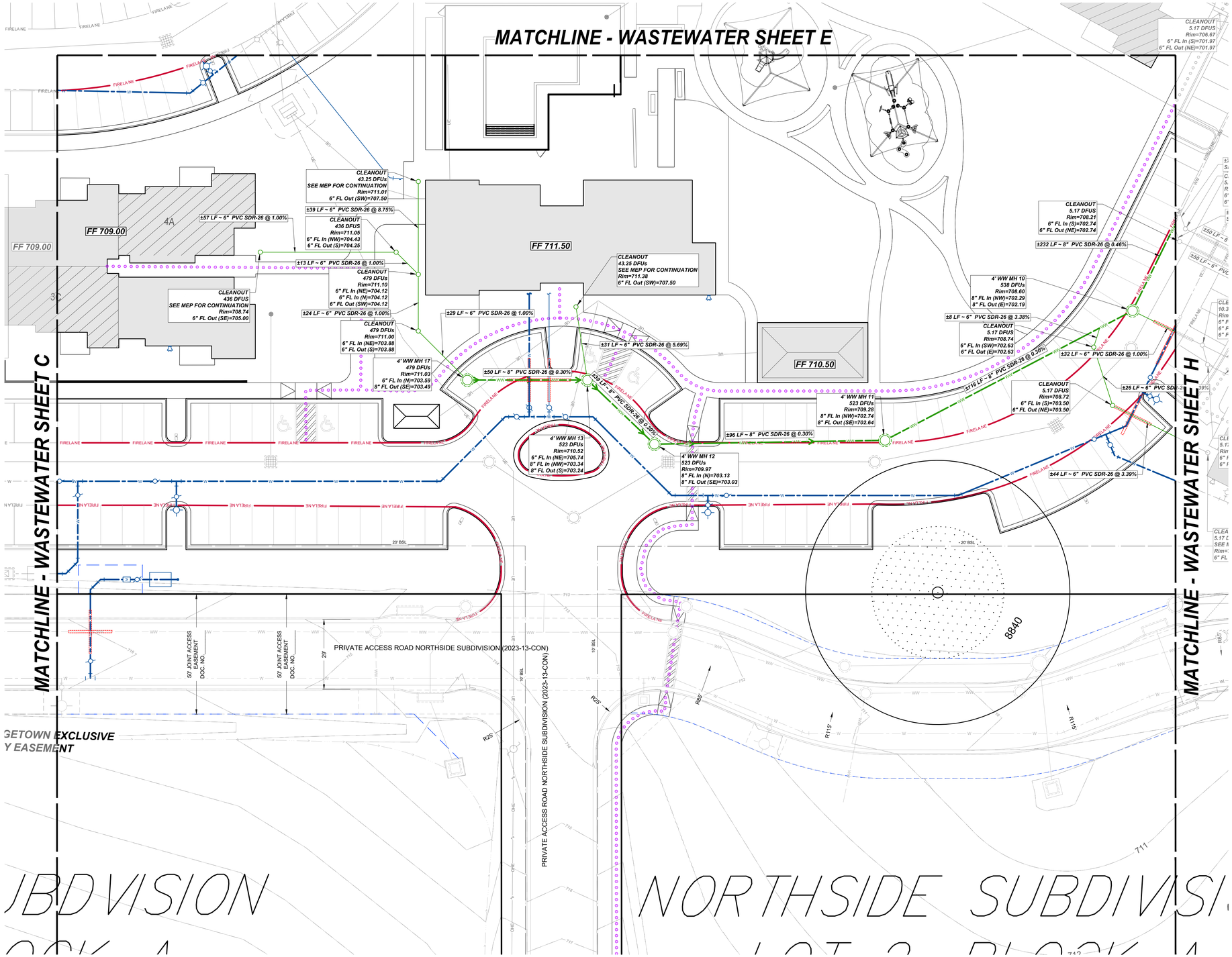
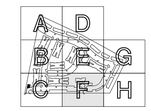


SCALE: 1" = 20'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

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DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

UTILITY PLAN WASTEWATER - F

SHEET NO. **38** OF **132**

2023-64-SDP

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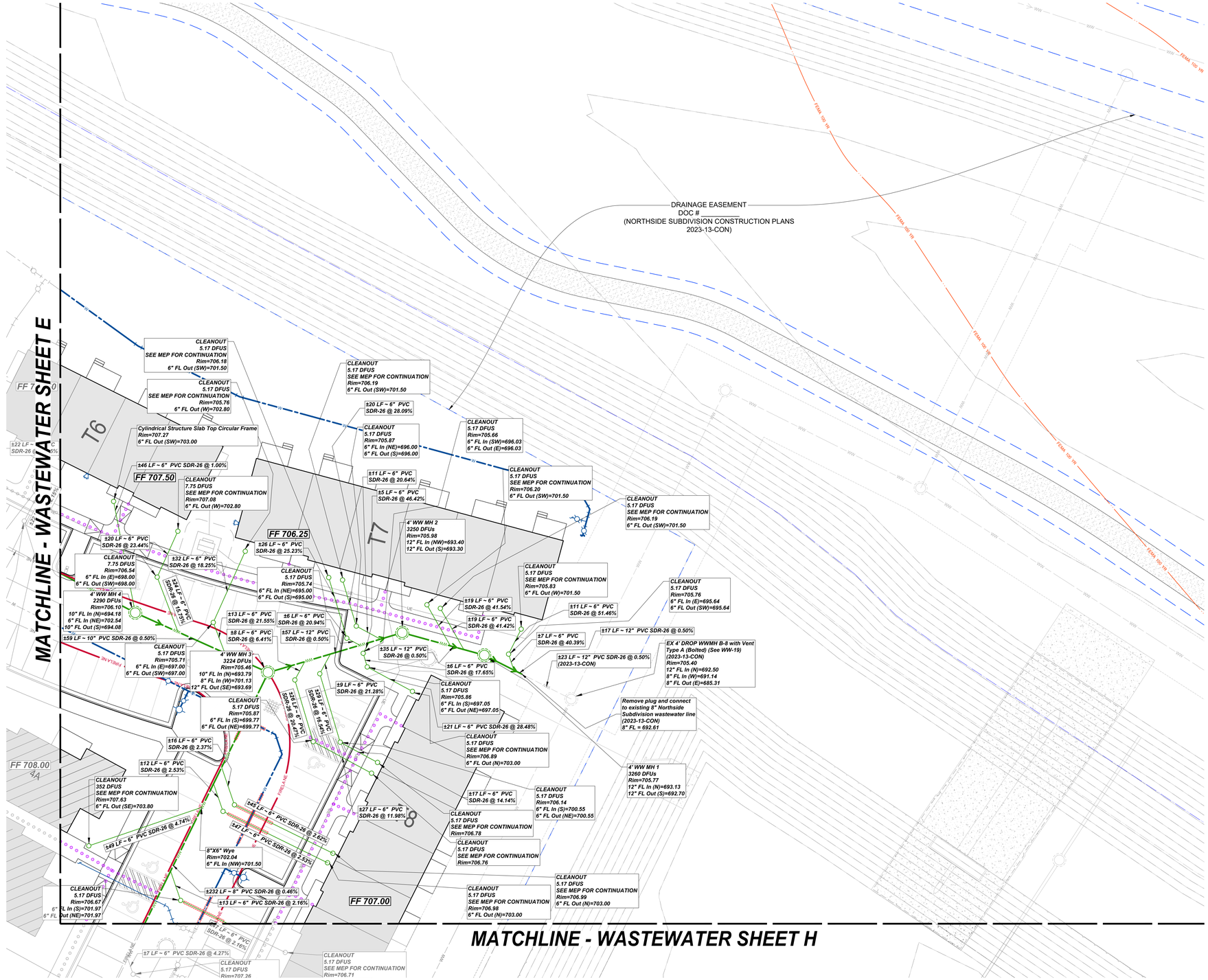

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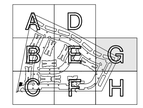
SCALE: 1" = 20'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
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DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

UTILITY PLAN WASTEWATER - G

SHEET NO. **39** OF 132

2023-64-SDP

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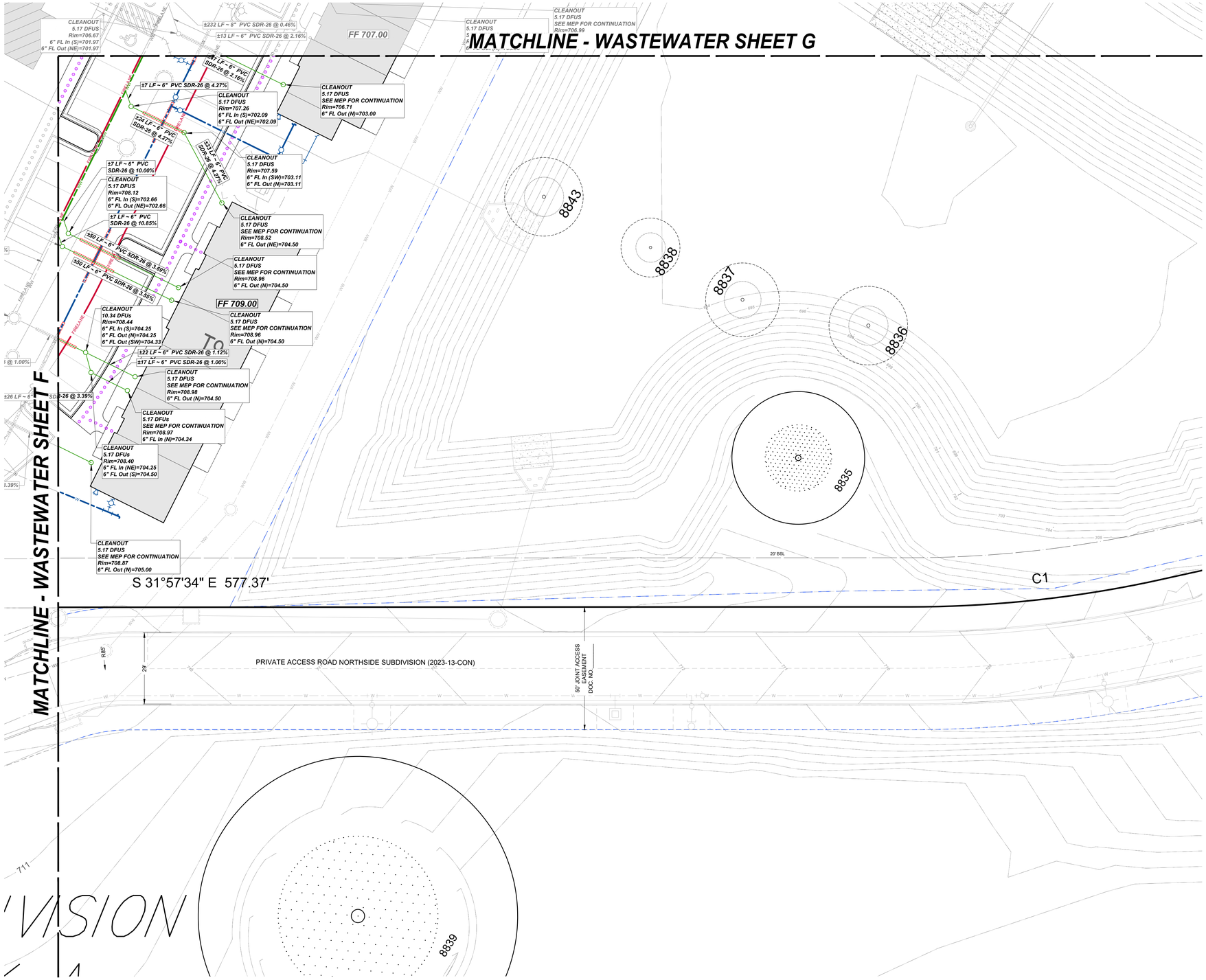

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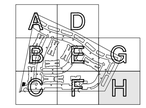
SCALE: 1" = 20'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
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GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

UTILITY PLAN WASTEWATER - H

SHEET NO. **40** OF **132**

2023-64-SDP

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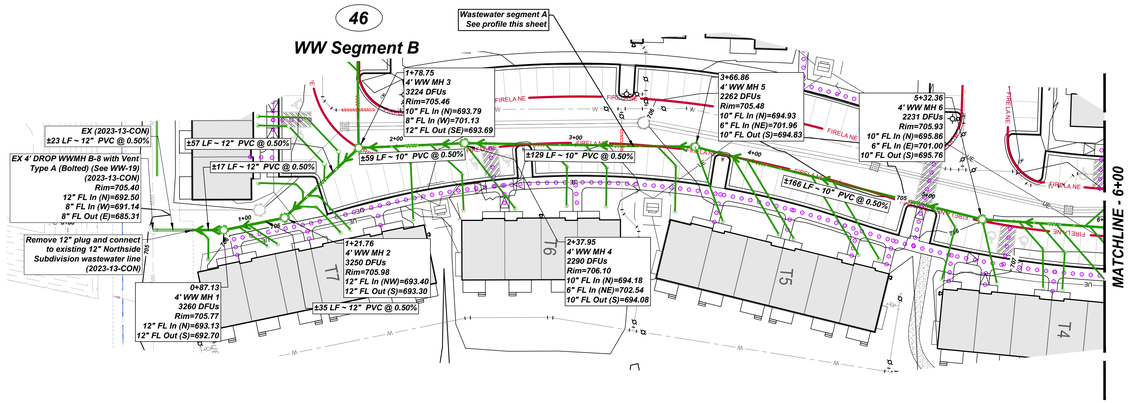
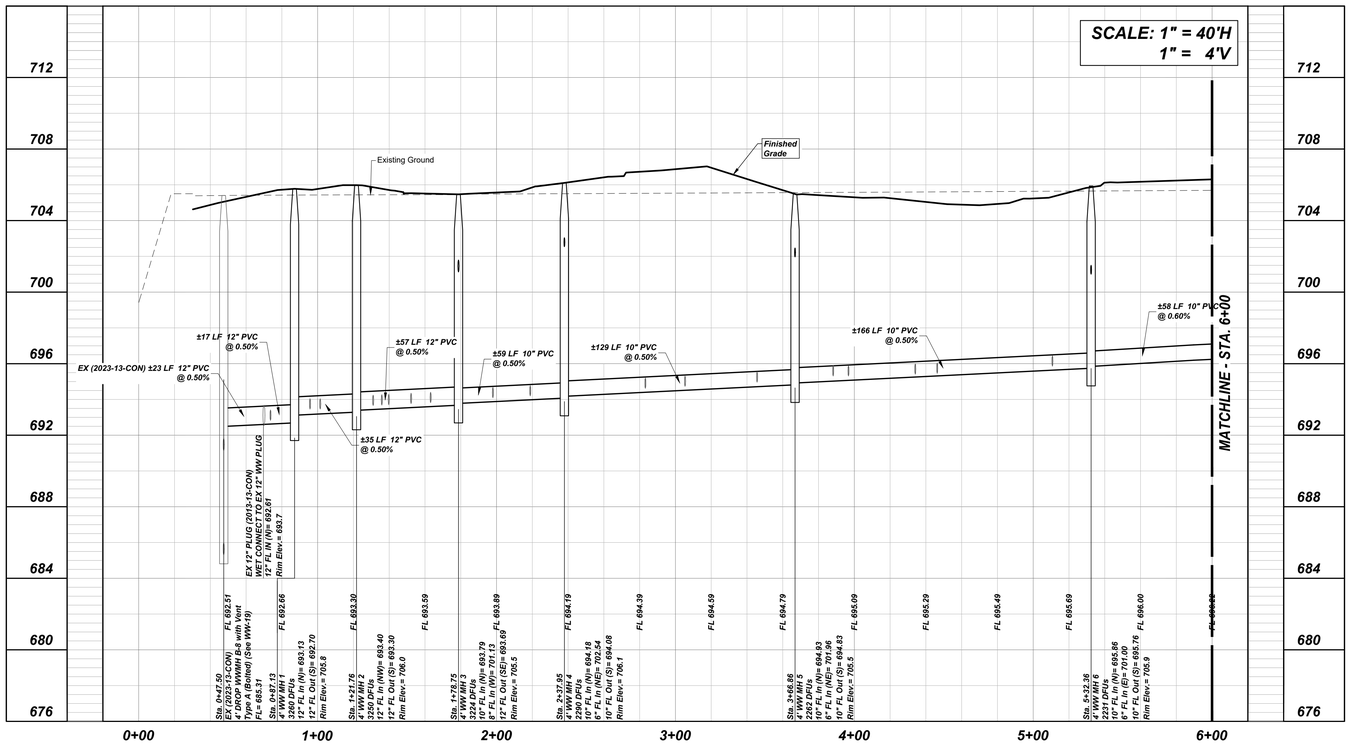


Prop WW Segment A



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40 0 20 40

SCALE: 1" = 40'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
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- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
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- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

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NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

WASTEWATER SEGEMENT A (STA. 0+00 - 6+00)

SHEET NO. **44** OF 132

2023-64-SDP

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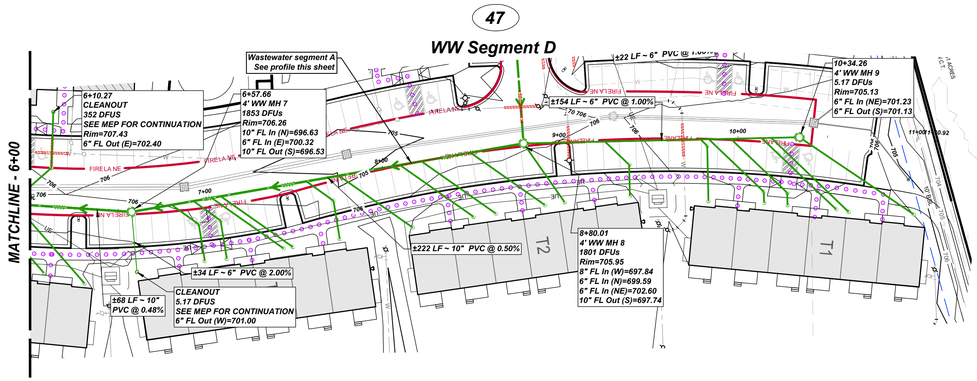
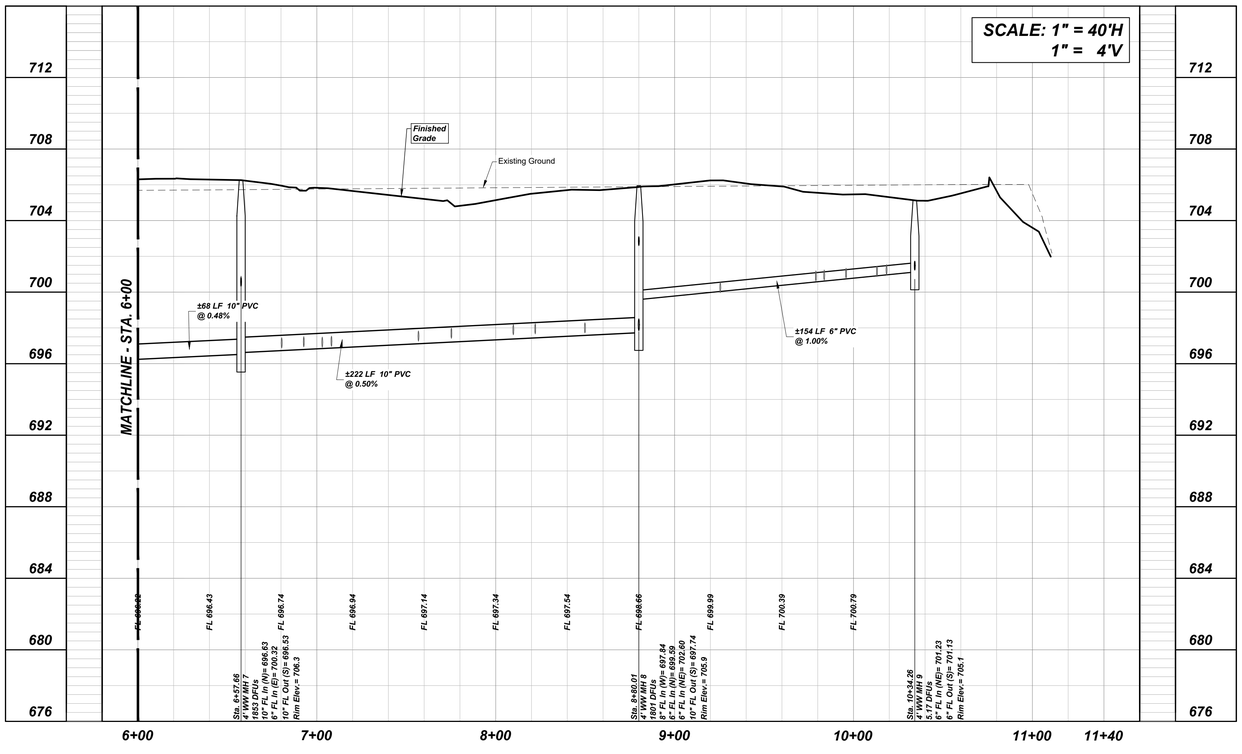


Prop WW Segment A







KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23264 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN
DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024
DESIGN LEAD: OOI
JOB NO.: 17951-0002-01
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

WASTEWATER SEGEMENT A (STA. 6+00 - 11+40)

SHEET NO.
45 OF 132

2023-64-SDP

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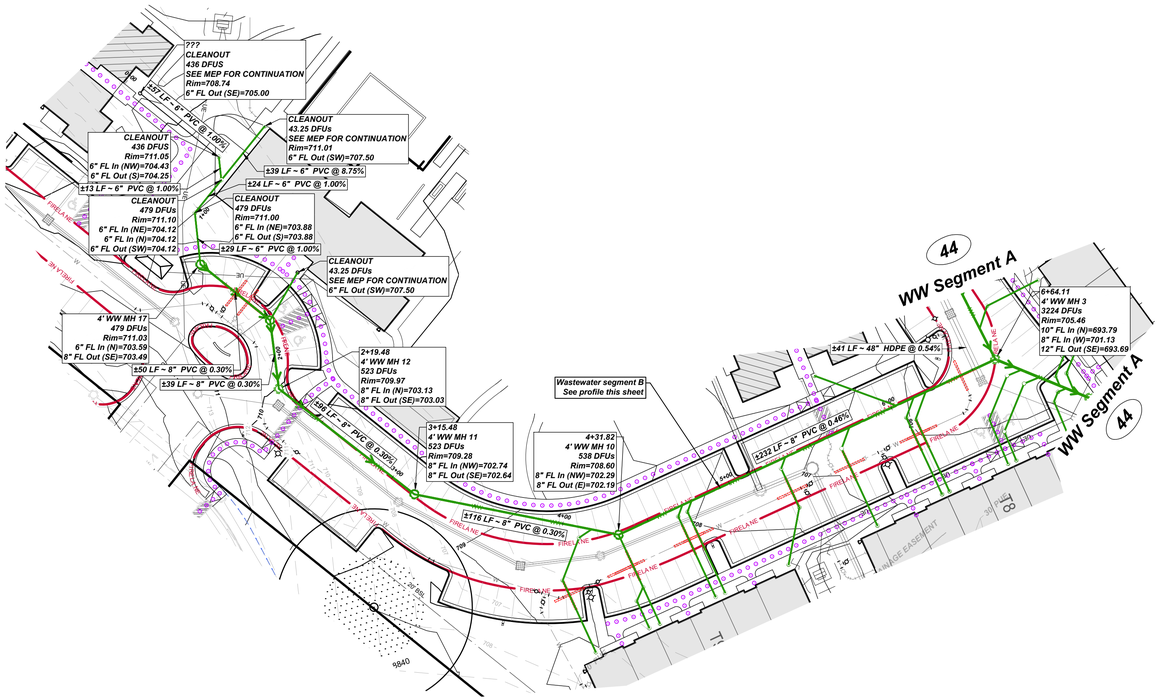
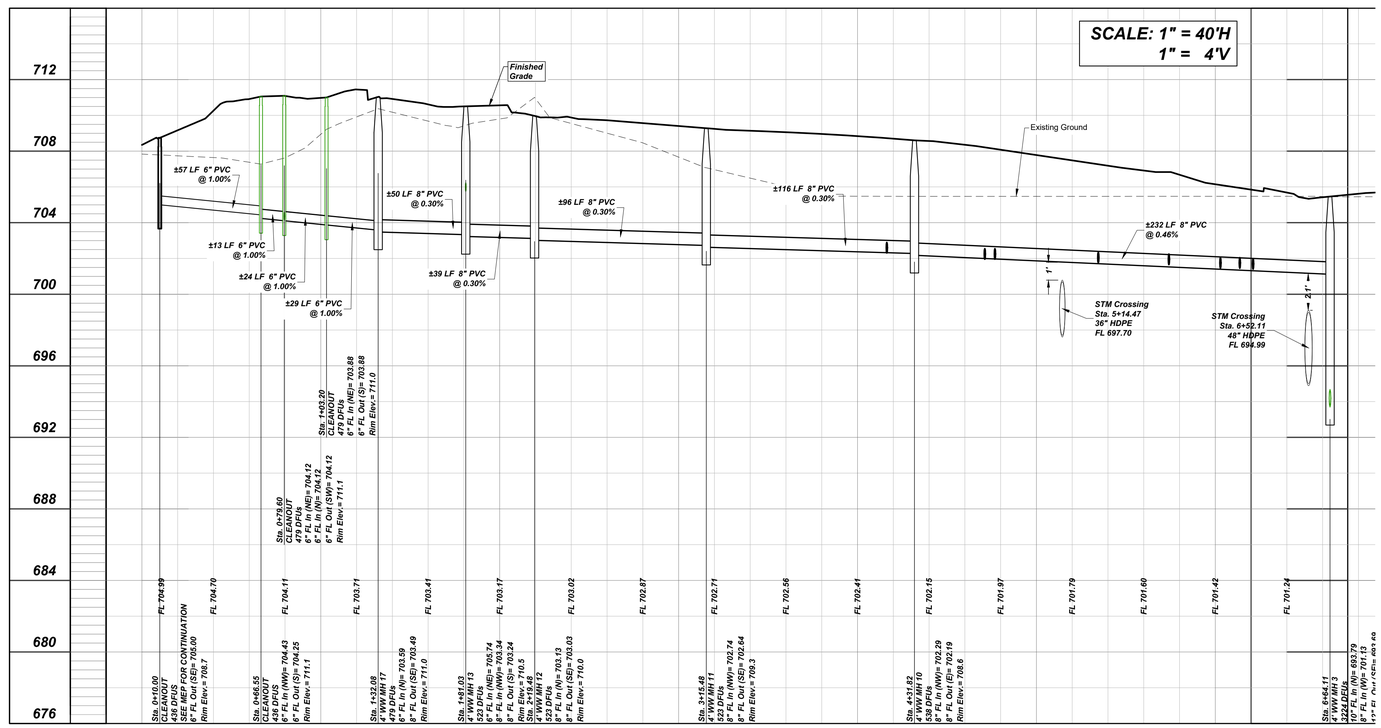
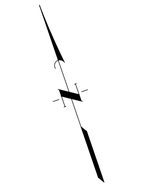




Prop WW Segment B

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



SCALE: 1" = 40'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23264 & 10064100
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DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

WASTEWATER SEGEMENT B (STA. 0+00 - 6+00)

SHEET NO. **46** OF 132

2023-64-SDP

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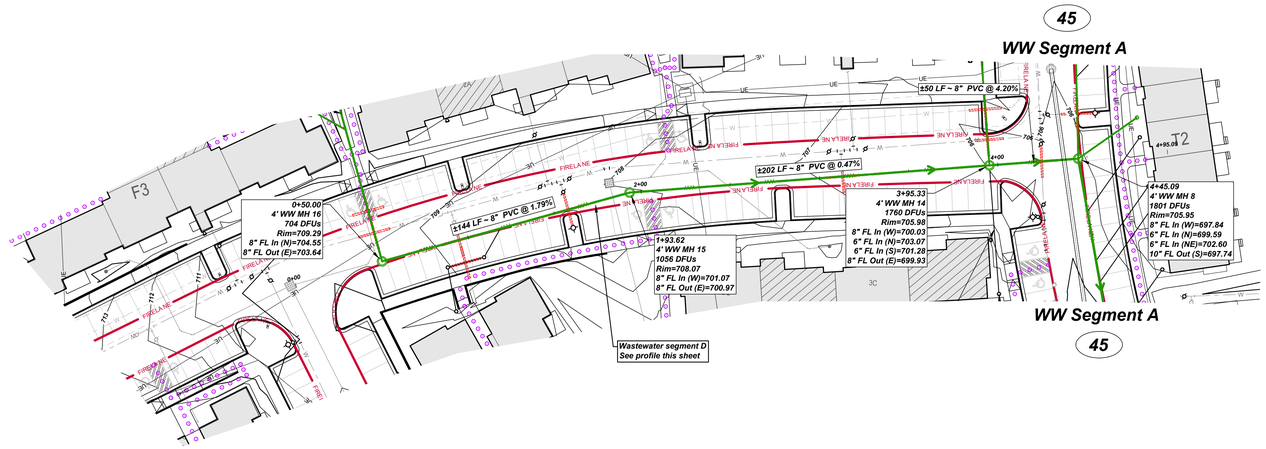
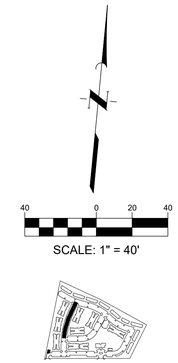




KEY MAP

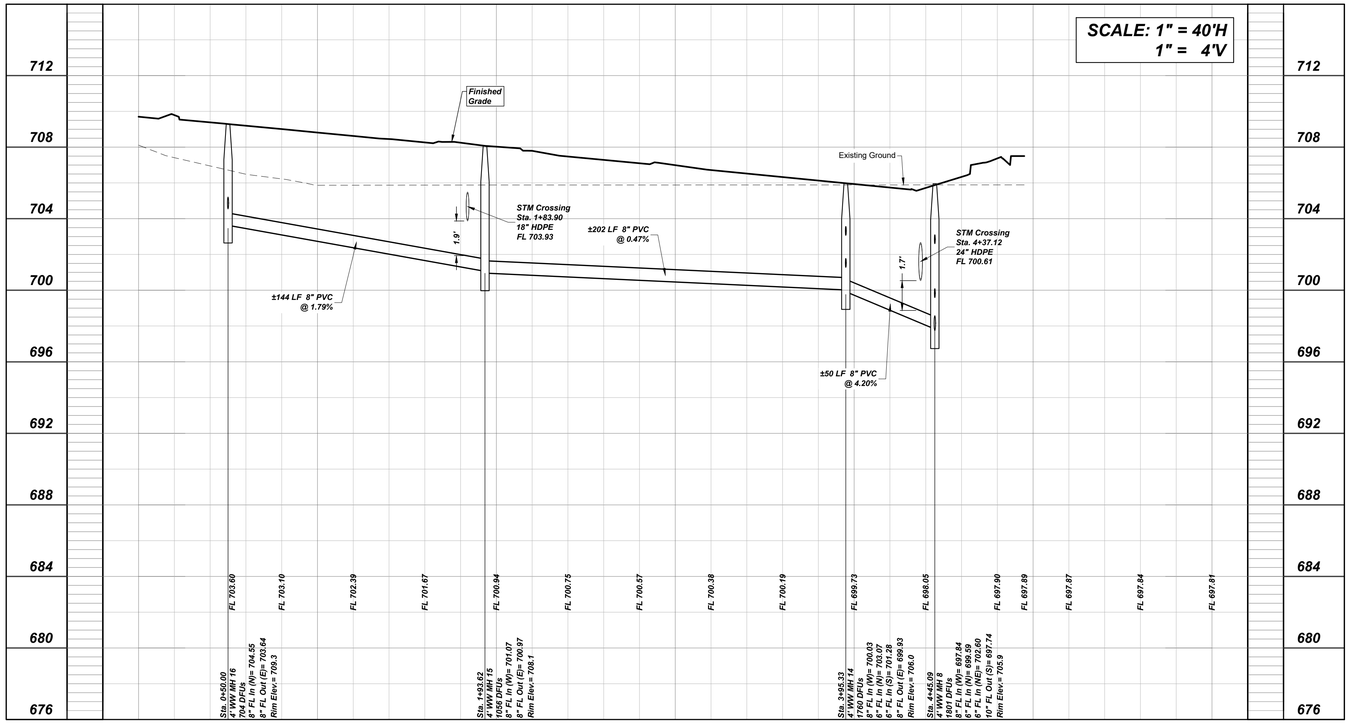
EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

Prop WW Segment D



REVISIONS

No.	Date	App.

QUIDDITY

Texas Board of Professional Engineers and Land Surveyors Registration No. F-23200 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN
DWG ISSUANCE: U2 - MARCH 2024
JOB NO.: 17951-0002-01
DESIGNED BY: JMC
DESIGN LEAD: OOI
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

WASTEWATER SEGEMENT D (STA. 0+00 - 6+00)

SHEET NO. 47 OF 132

2023-64-SDP

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100 0 50 100

SCALE: 1" = 100'

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

OVERHEAD ELECTRIC LINES
NO PLOTTABLE RECORD EASEMENT FOUND
BLANKET ELECTRIC EASEMENT TO
BRAZOS RIVER TRANSMISSION ELECTRIC COOP
VOL 349, PG 401 WCDR

NORTHSIDE SUBDIVISION
LOT 3, BLOCK A
44.43 ACRES
ZONING: MF-1, AG
USE: MULTI-FAMILY

NORTHSIDE SUBDIVISION
LOT 1, BLOCK A
5.34 ACRES
ZONING: C-3
USE: COMMERCIAL

NORTHSIDE SUBDIVISION
LOT 2, BLOCK A
8.79 ACRES
ZONING: C-3
USE: COMMERCIAL

NORTHSIDE SUBDIVISION
LOT 4, BLOCK A
13.43 ACRES
ZONING: C-3, AG
USE: COMMERCIAL

Pad grading external to this boundary to occur from Northside Subdivision Plans (2023-13-CON). Site specific grading from pad conditions shown on sheets 50-57.

SH 195
(PUBLIC R.O.W. VARIES)

SYLVIA ANN THOMAS DEED
15 ACRES SAVE & EXCEPT 1.51 ACRES
VOL. 1322, PG. 593 O.R.W.C.T.

WILLIAM ROBERTS SURVEY
ABSTRACT NO. 324

HOWARD NEAL LANDRY WARRANTY DEED 1.249 ACRE VOL. 1732, PG. 249 O.R.W.C.T.

HOWARD NEAL LANDRY WARRANTY DEED 4.095 ACRE VOL. 1732, PG. 249 O.R.W.C.T.

HOWARD NEAL LANDRY WARRANTY DEED 6.28 ACRE VOL. 1732, PG. 249 O.R.W.C.T.

HOWARD NEAL LANDRY WARRANTY DEED 1.0 ACRE VOL. 1732, PG. 249 O.R.W.C.T.

HOWARD NEAL LANDRY WARRANTY DEED 2.53 ACRE VOL. 1732, PG. 249 O.R.W.C.T.

HOWARD NEAL LANDRY WARRANTY DEED 3.43 ACRE VOL. 1732, PG. 249 O.R.W.C.T.

GT 195 HOLDINGS, LLC SPECIAL WARRANTY DEED WITH VENDOR'S LIEN 10.000 ACRES DOC. NO. 2021150671 O.R.W.C.T.

ISAGO/GEORGETOWN, LP SPECIAL WARRANTY DEED 224.705 ACRES DOC. 2022012719 O.R.W.C.T.

THE TRAILS, LLC SPECIAL WARRANTY DEED 71.997 ACRES DOC. NO. 20220094181 O.P.R.W.C.T.

CALLED 0.785 ACRES GEORGETOWN WATERLINE EASEMENT DOC NO.2010079383 WCOPR

CALLED 0.654 ACRES GEORGETOWN WATERLINE & WASTEWATER EASEMENT DOC NO.2010079382 OPRWCT

4.13 ACRES - 80 FOOT WIDE LCRA TRANSMISSION EASEMENT DOC NO.2006031801 OPRWCT (DOC NO.9760023 OPRWCT)

CONTROL OF ACCESS POINT DOC NO.2006052700 OPRWCT ACCESS PERMITTED THE NORTH OF THIS POINT ACCESS DENIED TO THE SOUTH OF THIS POINT

CALLED 0.869 ACRES ELECTRIC UTILITY EASEMENT PEDERNALES ELECTRIC COOPERATIVE, INC. DOC NO.2006010408 OPRWCT

CALLED 4.13 ACRES - 80 FOOT WIDE LCRA TRANSMISSION EASEMENT DOC NO.2006031801 WCOPR

REMAINDER OF CALLED 4.029 ACRES - 80 FOOT WIDE LCRA EASEMENT & RIGHT OF WAY DOC NO.9760023 WCOPR

FOUND 1/2" IRON ROD "FORESTT"

SET 1/2" IRON ROD "JONES/CARTER"

N 10°23'26" E 1047.75'

N 02°21'36" E 537.28'

S 31°58'49" E 50.00'

S 89°23'31" W 1068.88'

FLOOD ZONE "A" FEMA PANEL 48491C0285F EFFECTIVE 12/20/2019

FF 707.50 · FF 707.00 · FF 708.00 · FF 709.50 · FF 706.75 · FF 709.00 · FF 711.00 · FF 706.44 · FF 707.50 · FF 706.25 · FF 708.00 · FF 707.00 · FF 709.00 · FF 711.50 · FF 710.50 · FF 709.00

FEMA 100 YR · AE · 10' BSL · 20' BSL · 50' JOINT ACCESS EASEMENT DOC. NO. 2023... · 60' ROW · FIRE LA NE · 2 WATER VALVES · FIRE HYDRANT AND WATER VALVE · OHE · SSMH · SSCO · CURB INLET · GRATE INLET · 4-SIDED AREA INLET · LANDSCAPE DRAIN · CELL ANTENNA TOWER

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No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23264 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN · DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 · DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 · DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

OVERALL GRADING DEVELOPMENT PLAN

SHEET NO. **48** OF 132

2023-64-SDP

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

50 0 25 50

SCALE: 1" = 50'

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

SHEET A

SHEET B

SHEET C

SHEET D

SHEET E

SHEET F

SHEET G

SHEET H

SYLVIA ANN THOMAS DEED
15 ACRES SAVE & EXCEPT 1.51 ACRES
VOL. 1322, PG 593
O.R.W.C.T.

CALLED 0.785 ACRES
GEORGETOWN WATERLINE EASEMENT
DOC NO.2010079383
WCOPR

WILLIAM ROBERTS SURVEY
ABSTRACT NO. 324

PROPOSED CITY OF GEORGETOWN HWY FLOODPLAIN

ZONING: MI

USE: MULTI FAMI

FIRE HYDRANT AND WATER VALVE

FF 706.50 · FF 707.50 · FF 707.00 · FF 707.50 · FF 708.00 · FF 706.75 · FF 706.44 · FF 709.50 · FF 708.00 · FF 707.50 · FF 709.00 · FF 708.00 · FF 706.25 · FF 707.00 · FF 711.00 · FF 709.00 · FF 711.50 · FF 709.00 · FF 710.50

20' PUE · 20' BSL · 10' BSL · 10' BPL · 25' BSL · 10' WW EASEMENT · 50' JOINT ACCESS EASEMENT DOC. NO. · GEORGETOWN EXCLUSIVE UTILITY EASEMENT

S 89°26'37" W 1266.88'

S 31°56'42" E 606.

S 31°57'34" E 177.37'

PRIVATE ACCESS ROAD

PRIVATE ACCESS RD

NORTHSIDE SUBDIVISION

NORTHSIDE SUBDIVISION

R25' · R65' · R115'

No.	Date	REVISIONS	App.

QUIDDITY

Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23264 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN
DWG ISSUANCE: U2 - MARCH 2024
JOB NO.: 17951-0002-01

DESIGNED BY: JMC
DESIGN LEAD: OOI
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

OVERALL GRADING PLAN

SHEET NO. **49** OF **132**

2023-64-SDP

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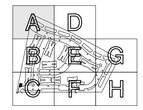
THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



20 0 10 20

SCALE: 1" = 20'



KEY MAP

TREE LEGEND

- PROTECTED TREE TO REMAIN (12"-25")
- PROTECTED TREE TO BE REMOVED (12"-25") WITH NORTHSIDE SUBDIVISION CONSTRUCTION PLAN (2023-13-CON)
- PROTECTED TREE TO BE REMOVED (12"-25") WITH THIS SITE PLAN (2023-64-SDP)
- HERITAGE TREE TO REMAIN (26"+)
- HERITAGE TREE TO BE REMOVED (26"+) WITH NORTHSIDE SUBDIVISION CONSTRUCTION PLAN (2023-13-CON)
- HERITAGE TREE TO BE REMOVED (26"+) WITH WITH THIS SITE PLAN (2023-64-SDP)

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- 700 GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- 700 GROUND CONTOUR
- TC TOP OF CURB
- TP TOP OF PAVEMENT
- FG FINISHED GROUND
- TW TOP OF WALL
- TS TOP OF SIDEWALK
- ADA ROUTE
- GRASS SWALE

No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23264 & 10064100
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SCALE: AS SHOWN
DWG ISSUANCE: U2 - MARCH 2024
JOB NO.: 17951-0002-01
DESIGNED BY: JMC
DESIGN LEAD: OOI
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

GRADING PLAN - A

SHEET NO. **50** OF **132**

2023-64-SDP

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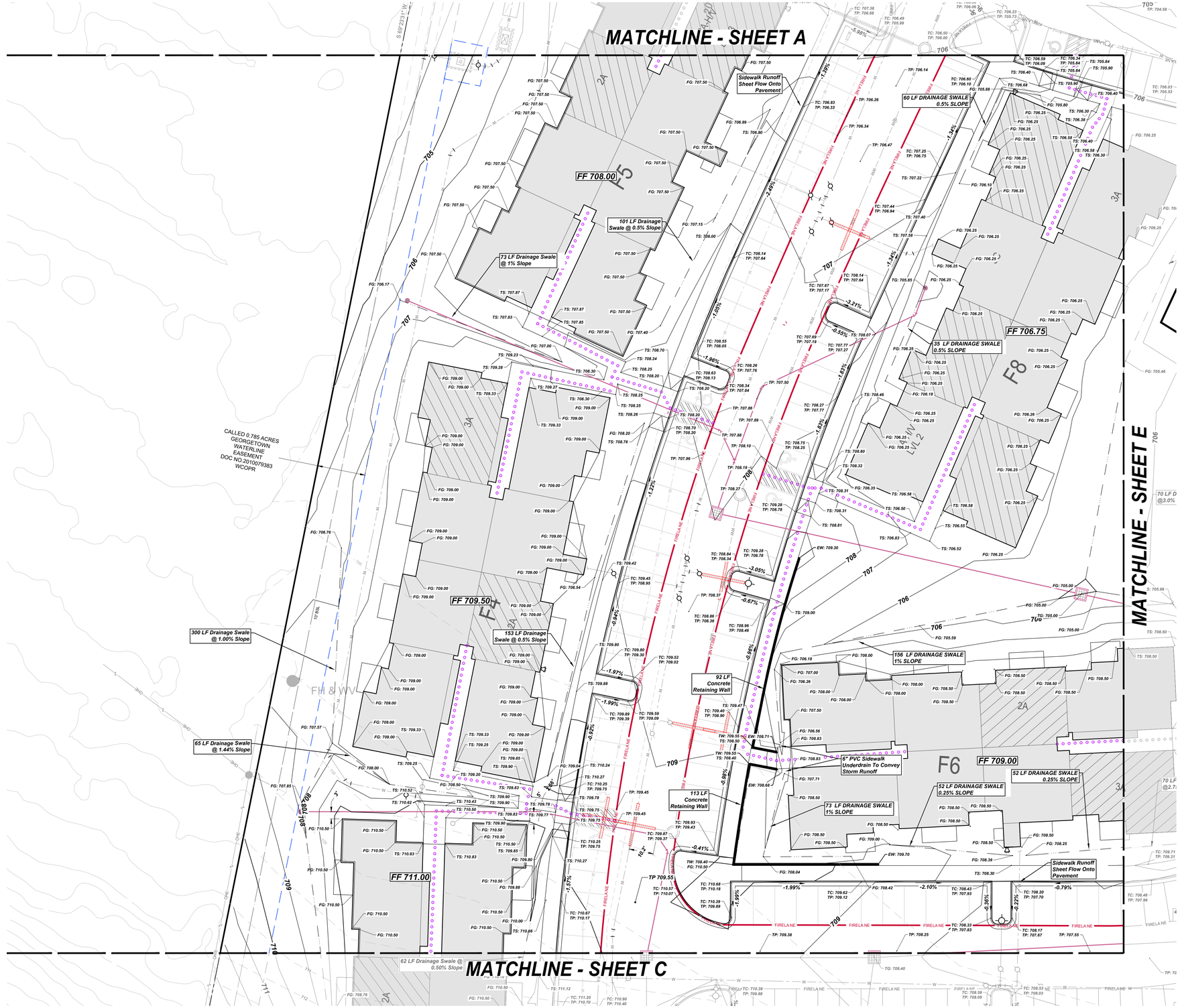

SCALE: 1" = 20'

KEY MAP

TREE LEGEND

- PROTECTED TREE TO REMAIN (12"-25")
- PROTECTED TREE TO BE REMOVED (12"-25") WITH NORTHSIDE SUBDIVISION CONSTRUCTION PLAN (2023-13-CON)
- PROTECTED TREE TO BE REMOVED (12"-25") WITH THIS SITE PLAN (2023-64-SDP)
- HERITAGE TREE TO REMAIN (26"+)
- HERITAGE TREE TO BE REMOVED (26"+) WITH NORTHSIDE SUBDIVISION CONSTRUCTION PLAN (2023-13-CON)
- HERITAGE TREE TO BE REMOVED (26"+) WITH WITH THIS SITE PLAN (2023-64-SDP)

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- 700 GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- 700 GROUND CONTOUR
- TC TOP OF CURB
- TP TOP OF PAVEMENT
- FG FINISHED GROUND
- TW TOP OF WALL
- TS TOP OF SIDEWALK
- ADA ROUTE
- GRASS SWALE

No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration No. F-23090 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN
DWG ISSUANCE: U2 - MARCH 2024
JOB NO.: 17951-0002-01
DESIGNED BY: JMC
DESIGN LEAD: OOI
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

GRADING PLAN - B

SHEET NO. 51 OF 132

2023-64-SDP

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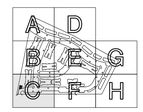
SCALE: 1" = 20'



KEY MAP

TREE LEGEND

- PROTECTED TREE TO REMAIN (12"-25")
- PROTECTED TREE TO BE REMOVED (12"-25") WITH NORTHSIDE SUBDIVISION CONSTRUCTION PLAN (2023-13-CON)
- PROTECTED TREE TO BE REMOVED (12"-25") WITH THIS SITE PLAN (2023-64-SDP)
- HERITAGE TREE TO REMAIN (26"+)
- HERITAGE TREE TO BE REMOVED (26"+) WITH NORTHSIDE SUBDIVISION CONSTRUCTION PLAN (2023-13-CON)
- HERITAGE TREE TO BE REMOVED (26"+) WITH THIS SITE PLAN (2023-64-SDP)

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR
- TC — TOP OF CURB
- TP — TOP OF PAVEMENT
- FG — FINISHED GROUND
- TW — TOP OF WALL
- TS — TOP OF SIDEWALK
- ADA ROUTE
- GRASS SWALE

No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23264 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE:	AS SHOWN	DESIGNED BY:	JMC
DWG ISSUANCE:	U2 - MARCH 2024	DESIGN LEAD:	OOI
JOB NO.:	17951-0002-01	DRAWN BY:	JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

GRADING PLAN - C

SHEET NO. **52** OF 132

2023-64-SDP

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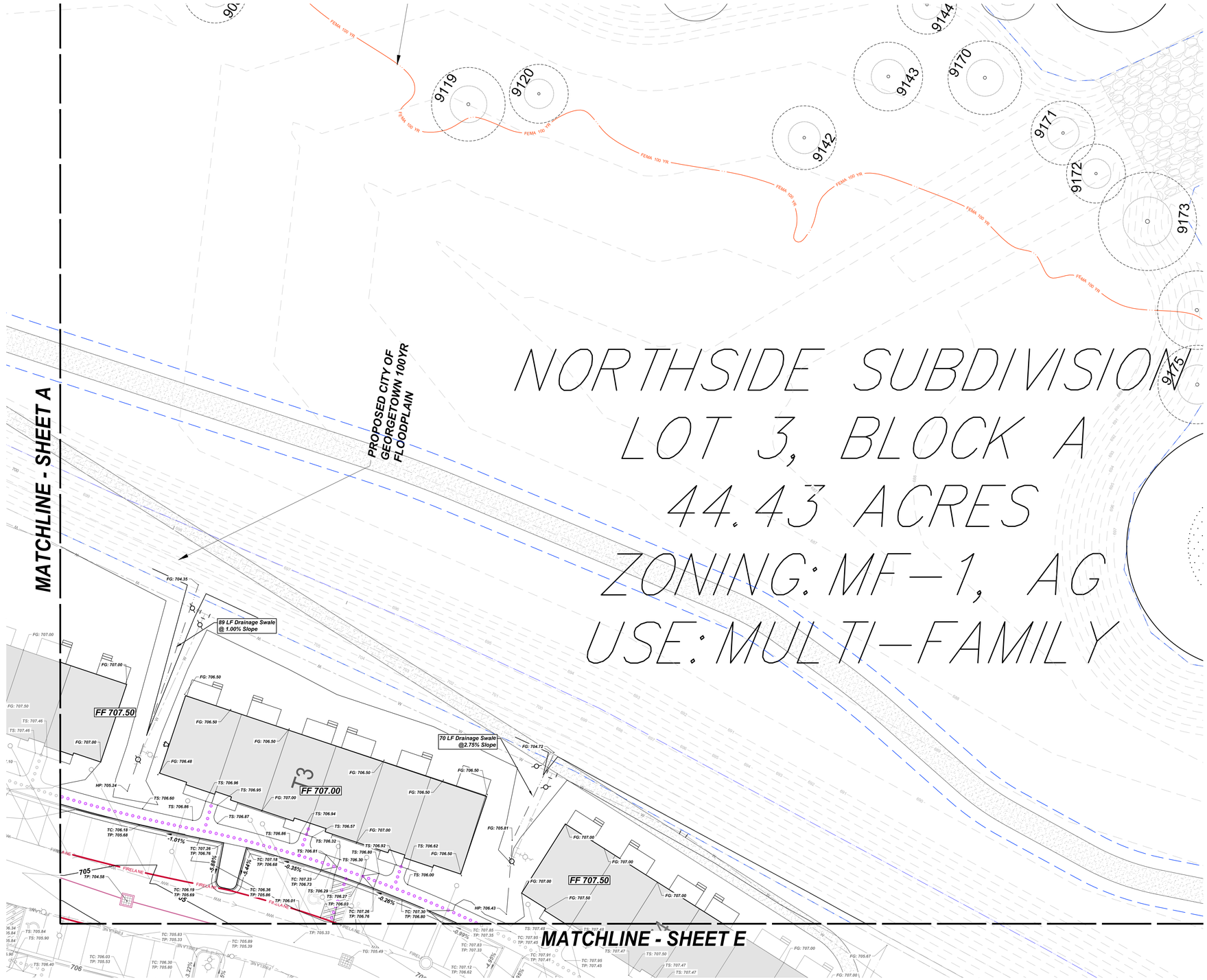

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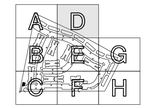
SCALE: 1" = 20'



KEY MAP

TREE LEGEND

- PROTECTED TREE TO REMAIN (12"-25")
- PROTECTED TREE TO BE REMOVED (12"-25") WITH NORTHSIDE SUBDIVISION CONSTRUCTION PLAN (2023-13-CON)
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EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- 700 GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- 700 GROUND CONTOUR
- TC TOP OF CURB
- TP TOP OF PAVEMENT
- FG FINISHED GROUND
- TW TOP OF WALL
- TS TOP OF SIDEWALK
- ADA ROUTE
- GRASS SWALE

No.	Date	REVISIONS	App.

QUIDDITY
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DWG ISSUANCE: U2 - MARCH 2024
JOB NO.: 17951-0002-01
DESIGNED BY: JMC
DESIGN LEAD: OOI
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

GRADING PLAN - D

SHEET NO.
53 OF **132**

2023-64-SDP

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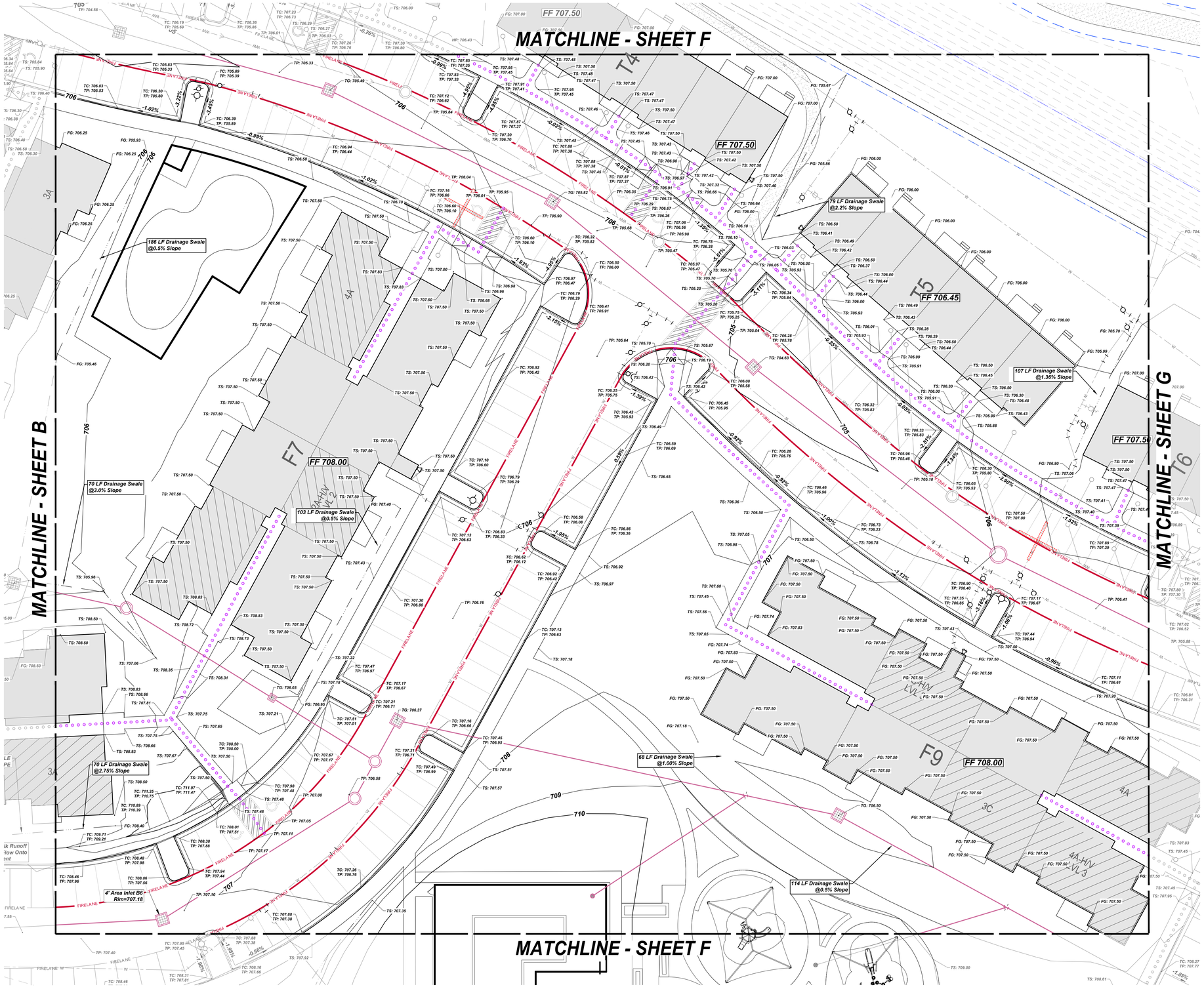

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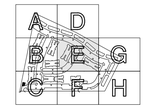
SCALE: 1" = 20'



KEY MAP

TREE LEGEND

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EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- 700 GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- *700* GROUND CONTOUR
- *TC* TOP OF CURB
- *TP* TOP OF PAVEMENT
- *FG* FINISHED GROUND
- *TW* TOP OF WALL
- *TS* TOP OF SIDEWALK
- ADA ROUTE
- GRASS SWALE

No.	Date	REVISIONS	App.

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JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195
GRADING PLAN - E

SHEET NO. **54** OF 132

2023-64-SDP

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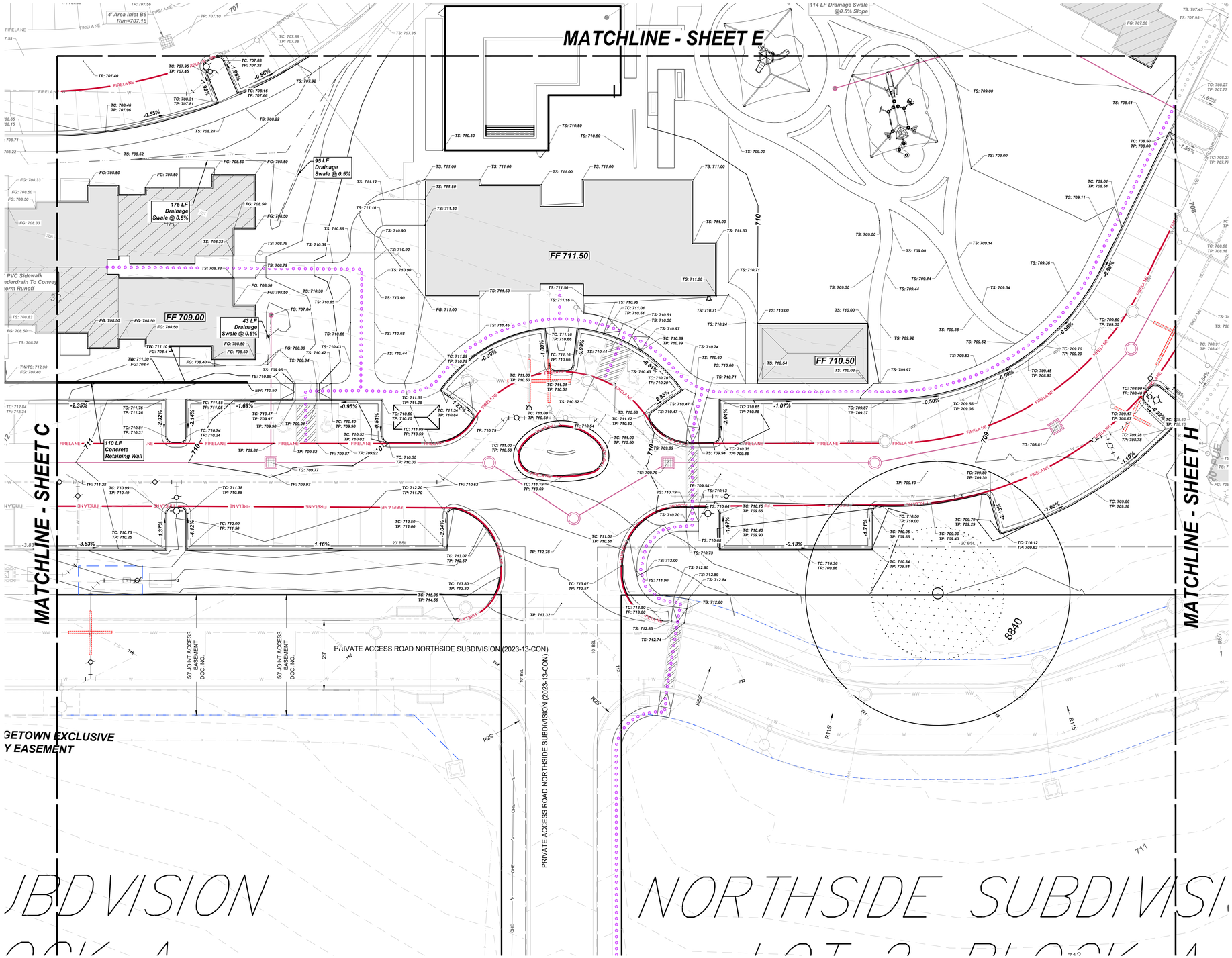

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SCALE: 1" = 20'

KEY MAP

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EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
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- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
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- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

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- TW TOP OF WALL
- TS TOP OF SIDEWALK
- ADA ROUTE
- GRASS SWALE

No.	Date	REVISIONS	App.

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DESIGN LEAD: OOI
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

GRADING PLAN - F

SHEET NO. 55 OF 132

2023-64-SDP

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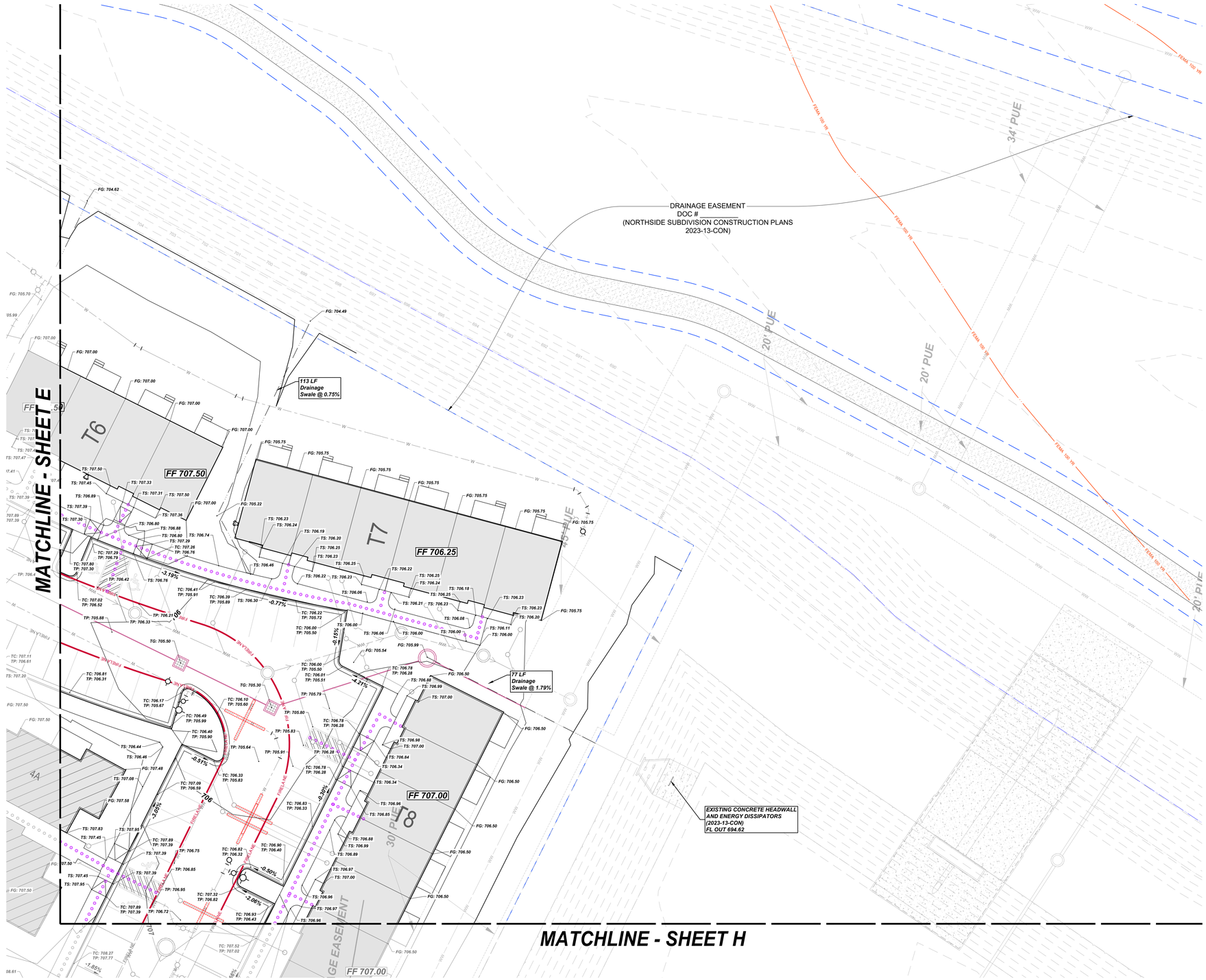
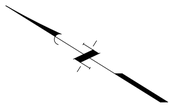
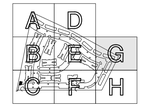




SCALE: 1" = 20'



KEY MAP

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- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- 700 GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- 700 GROUND CONTOUR
- TC TOP OF CURB
- TP TOP OF PAVEMENT
- FG FINISHED GROUND
- TW TOP OF WALL
- TS TOP OF SIDEWALK
- ADA ROUTE
- GRASS SWALE

No.	Date	REVISIONS	App.

QUIDDITY
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DESIGN LEAD: OOI
JOB NO.: 17951-0002-01
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

GRADING PLAN - G

SHEET NO.
56 OF **132**

2023-64-SDP

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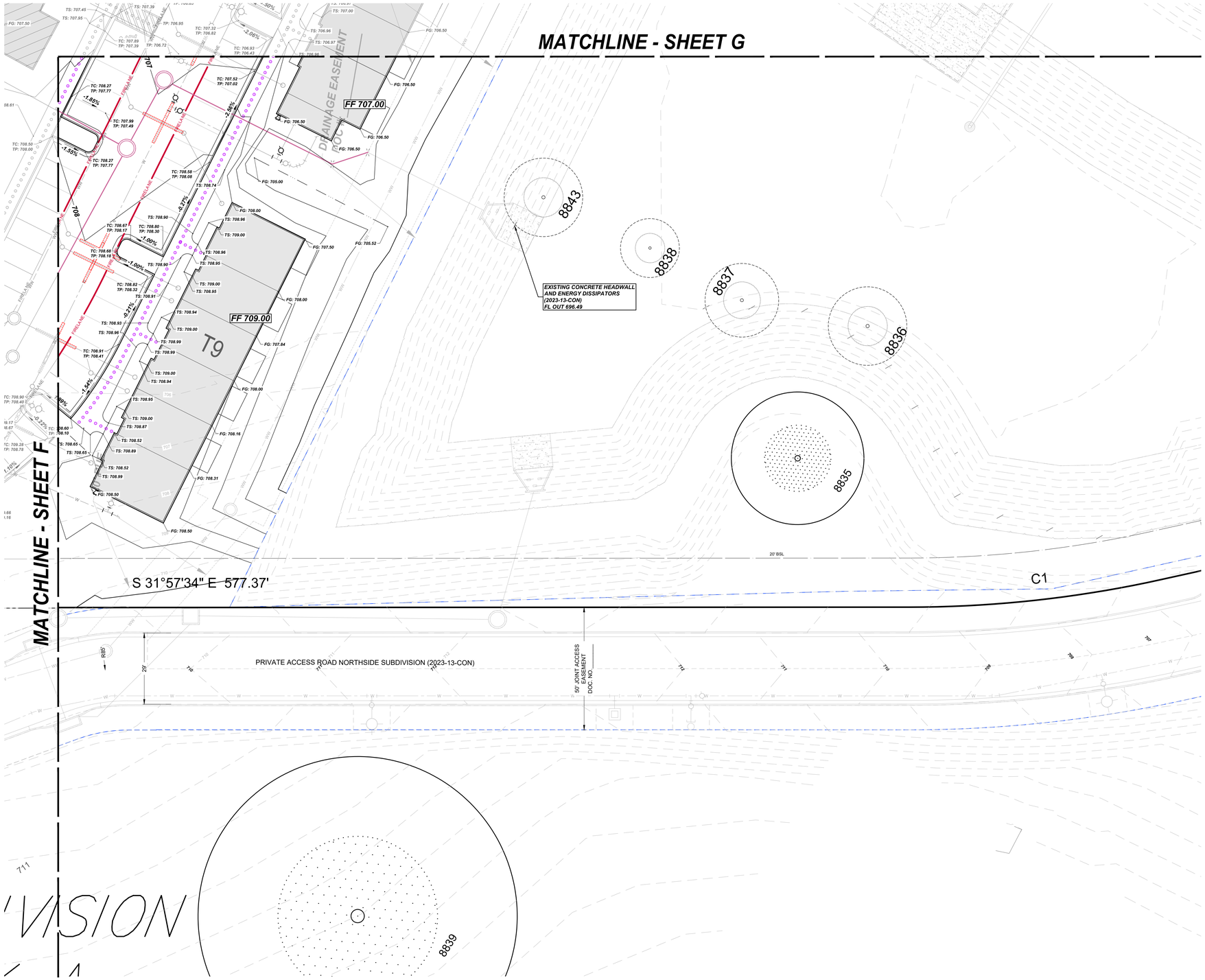

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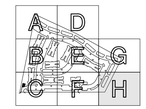
SCALE: 1" = 20'



KEY MAP

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EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
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- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- 700 GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- 700 GROUND CONTOUR
- TC TOP OF CURB
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- FG FINISHED GROUND
- TW TOP OF WALL
- TS TOP OF SIDEWALK
- ADA ROUTE
- GRASS SWALE

No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-20209 & 10064100
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JOB NO.: 17951-0002-01
DESIGNED BY: JMC
DESIGN LEAD: OOI
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

GRADING PLAN - H

SHEET NO. 57 OF 132

2023-64-SDP

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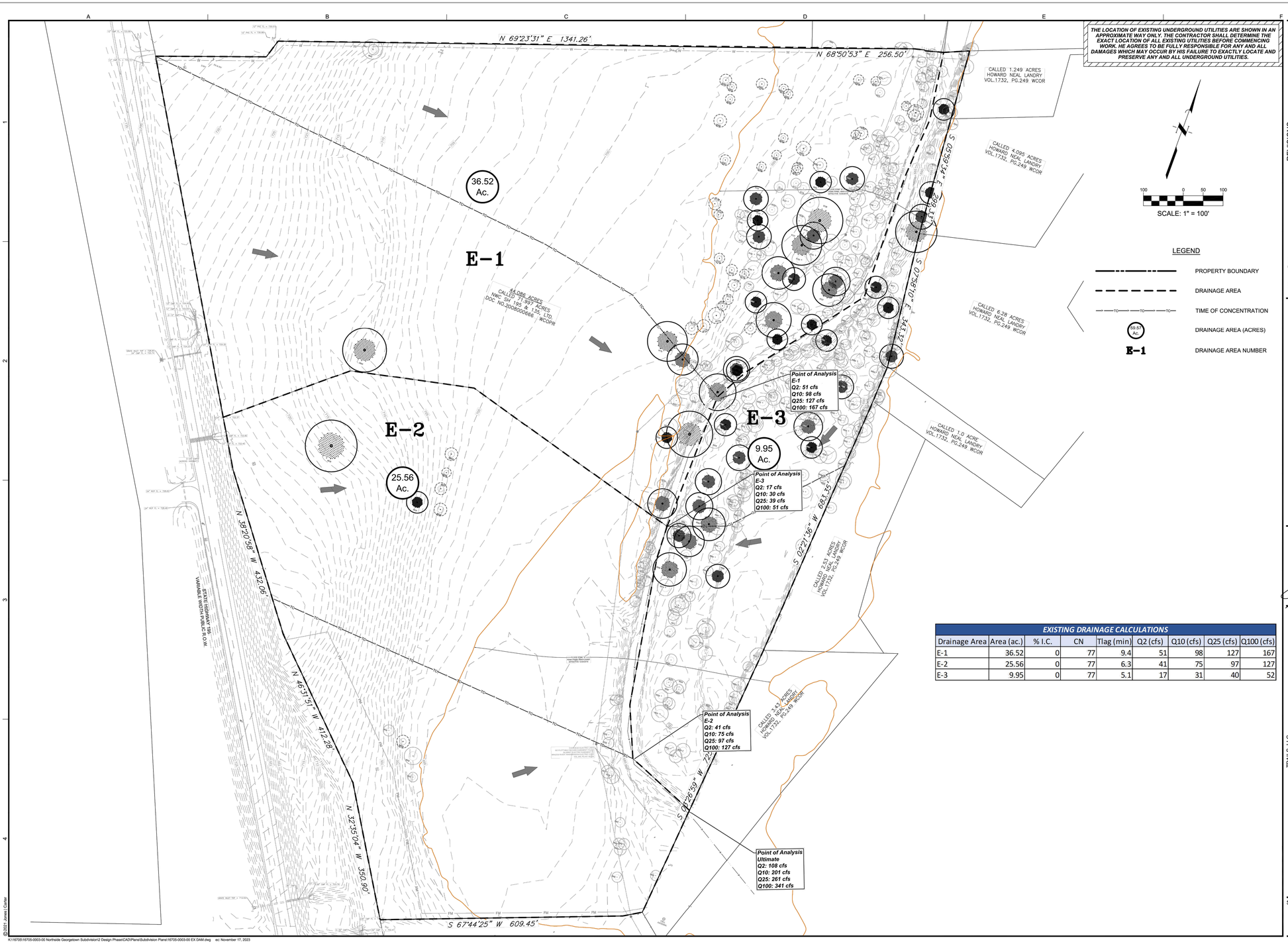

100 0 50 100

SCALE: 1" = 100'

LEGEND

- PROPERTY BOUNDARY
- DRAINAGE AREA
- TIME OF CONCENTRATION
- 09.07 Ac. — DRAINAGE AREA (ACRES)
- E-1 — DRAINAGE AREA NUMBER

EXISTING DRAINAGE CALCULATIONS

Drainage Area	Area (ac.)	% I.C.	CN	Tlag (min)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
E-1	36.52	0	77	9.4	51	98	127	167
E-2	25.56	0	77	6.3	41	75	97	127
E-3	9.95	0	77	5.1	17	31	40	52

N.T.S.

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K:\16700\16705-0003-00 Northside Georgetown Subdivision\2 Design Phase\CAD\Plans\Subdivision Plans\16705-0003-00 EX DAM.dwg ec: November 17, 2023

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004, 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: JMC
DATE: 7/31/2023 | CHECKED BY: JAA
JOB NO.: 16705-0003-00 | DRAWN BY: SLH

STATE OF TEXAS
JOHN A. ALVAREZ II
127206
LICENSED PROFESSIONAL ENGINEER
7/31/2023

TRAILS, LLC
NORTHSIDE SUBDIVISION
350 HWY 195, GEORGETOWN, TX 78633

EXISTING DRAINAGE AREA MAP

SHEET NO. **50** OF 70

2023-13-CON

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004, 10064100
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JOB NO.: 17951-0002-01 | DRAWN BY: JDE

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

REFERENCE - 2023-13-CON
EXISTING DRAINAGE AREA MAP

SHEET NO. **58** OF 132

2023-64-SDP

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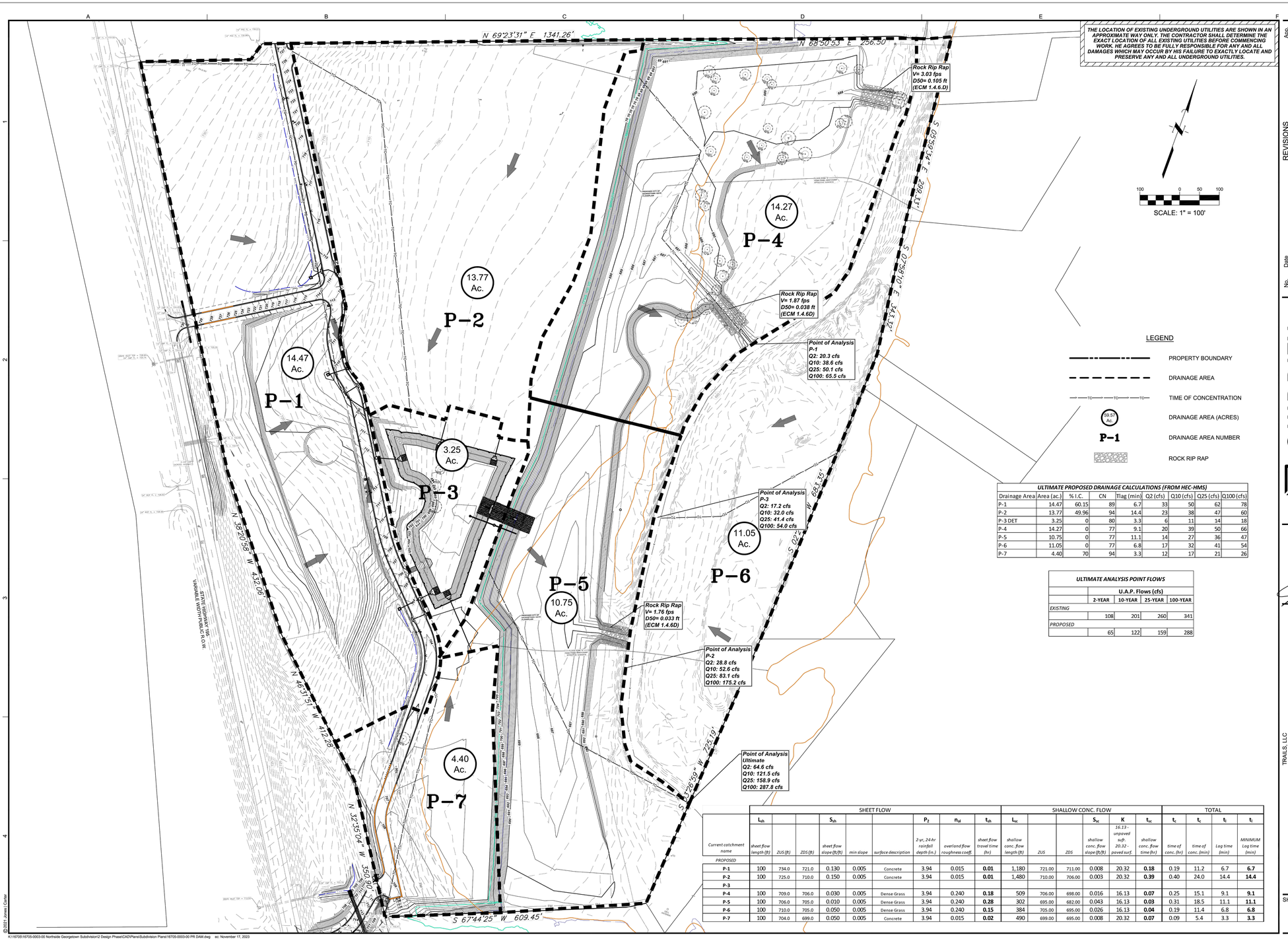

LEGEND

- PROPERTY BOUNDARY
- DRAINAGE AREA
- TIME OF CONCENTRATION
- DRAINAGE AREA (ACRES)
- DRAINAGE AREA NUMBER
- ROCK RIP RAP

ULTIMATE PROPOSED DRAINAGE CALCULATIONS (FROM HEC-HMS)

Drainage Area	Area (ac.)	% I.C.	CN	Tlag (min)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
P-1	14.47	60.15	89	6.7	33	50	62	78
P-2	13.77	49.96	94	14.4	23	38	47	60
P-3 DET	3.25	0	80	3.3	6	11	14	18
P-4	14.27	0	77	9.1	20	39	50	66
P-5	10.75	0	77	11.1	14	27	36	47
P-6	11.05	0	77	6.8	17	32	41	54
P-7	4.40	70	94	3.3	12	17	21	26

ULTIMATE ANALYSIS POINT FLOWS

	U.A.P. Flows (cfs)			
	2-YEAR	10-YEAR	25-YEAR	100-YEAR
EXISTING				
	108	201	260	341
PROPOSED				
	65	122	159	288

	SHEET FLOW									SHALLOW CONC. FLOW						TOTAL			
	L_{sh}			S_{sh}			P_2	n_{sl}	t_{sh}	L_{sc}			S_{sc}	K	t_{sc}	t_c	t_c	t_t	t_t
Current catchment name	*sheet flow length (ft)*	*ZUS (ft)*	*ZDS (ft)*	*sheet flow slope (ft/ft)*	*min slope*	*surface description*	*2-yr, 24-hr rainfall depth (in.)*	*overland flow roughness coeff.*	*sheet flow travel time (hr)*	*shallow conc. flow length (ft)*	*ZUS*	*ZDS*	*shallow conc. flow slope (ft/ft)*	*16.13 - unpaved sqft. 20.32 - paved surf.*	*shallow conc. flow time (hr)*	*time of conc. (hr)*	*time of conc. (min)*	*Lag time (min)*	*MINIMUM Lag time (min)*
PROPOSED																			
P-1	100	734.0	721.0	0.130	0.005	Concrete	3.94	0.015	**0.01**	1,180	721.00	711.00	0.008	20.32	**0.18**	0.19	11.2	6.7	**6.7**
P-2	100	725.0	710.0	0.150	0.005	Concrete	3.94	0.015	**0.01**	1,480	710.00	706.00	0.003	20.32	**0.39**	0.40	24.0	14.4	**14.4**
P-3																			
P-4	100	709.0	706.0	0.030	0.005	Dense Grass	3.94	0.240	**0.18**	509	706.00	698.00	0.016	16.13	**0.07**	0.25	15.1	9.1	**9.1**
P-5	100	706.0	705.0	0.010	0.005	Dense Grass	3.94	0.240	**0.28**	302	695.00	682.00	0.043	16.13	**0.03**	0.31	18.5	11.1	**11.1**
P-6	100	710.0	705.0	0.050	0.005	Dense Grass	3.94	0.240	**0.15**	384	705.00	695.00	0.026	16.13	**0.04**	0.19	11.4	6.8	**6.8**
P-7	100	704.0	699.0	0.050	0.005	Concrete	3.94	0.015	**0.02**	490	699.00	695.00	0.008	20.32	**0.07**	0.09	5.4	3.3	**3.3**

N.T.S.

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K:\16705\16705-0003-00 Northside Georgetown Subdivision\2 Design Phase\CAD\Plans\Subdivision Plans\16705-0003-00 PR DAM.dwg ec: November 17, 2023

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K:\17951\17951-0002-01 northside multifamily\2 design phase\CAD\site development plans\17951-0002-01 REFERENCE SUBDIVISION SHEETS.dwg ki: March 27, 2024

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

REVISIONS

No.	Date	App.

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23295 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: FR | DESIGNED BY: JMC
DATE: 7/31/2023 | CHECKED BY: JAA | DESIGN LEAD: OOI
JOB NO.: 16705-0003-00 | DRAWN BY: SLH | DRAWN BY: JDE
DWG ISSUANCE: U2 - MARCH 2024 | JOB NO.: 17951-0002-01

STATE OF TEXAS
JOHN A. ALVAREZ II
127206
LICENSED
7/31/2023

TRAILS, LLC
NORTHSIDE SUBDIVISION
350 HWY 195, GEORGETOWN, TX 78633

PROPOSED DRAINAGE AREA MAP

SHEET NO. **51** OF 70

2023-13-CON

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

REFERENCE - 2023-13-CON
PROPOSED DRAINAGE AREA MAP

SHEET NO. **59** OF 132

2023-64-SDP

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

N 69°23'31" E 1341.26'
N 68°50'53" E 256.50'
S 07°59'34" E 299.37'
S 07°59'10" E 343.57'
S 02°21'36" W 683.35'
S 61°26'59" W 725.19'
S 67°44'25" W 609.45'
N 38°20'58" W 432.06'
N 46°31'51" W 412.28'
N 32°35'04" W 350.90'
DA 1 0.33 Acre
DA 2 0.56 Acre
DA 3 4.64 Acre
DA 4 0.47 Acre
DA 5 0.29 Acre
DA 6 4.69 Acre
DA 7 1.02 Acre
DA 8 0.67 Acre
DA 9 2.98 Acre
DA 12 3.09 Acre
DA 13 3.27 Acre
DA 14 13.77 Acre
DA 15 11.19 Acre
DA 16 14.26 Acre
DA 18 10.69 Acre
45.08± ACRES CALLED 71.997 ± ACRES NWC I - SH 195 & FM 1325, LTD DOC. NO.2008003686 WCOPR
CALLED 1.249 ACRES HOWARD NEAL LANDRY VOL.1732, PG.249 WCOR
CALLED 4.095 ACRES HOWARD NEAL LANDRY VOL.1732, PG.249 WCOR
CALLED 6.28 ACRES HOWARD NEAL LANDRY VOL.1732, PG.249 WCOR
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CALLED 3.43 ACRES HOWARD NEAL LANDRY VOL.1732, PG.249 WCOR
STATE HIGHWAY 195 VARIABLE WIDTH PUBLIC R.O.W.
PROPOSED EDGE OF PAVEMENT
PROPOSED TOP OF CURB
PROPOSED FLOW LINE OF CURB
PROPOSED TOP OF BERM
PROPOSED FLOW LINE OF BERM
PROPOSED EDGE OF SIDEWALK
PROPOSED TOP OF RETAINING WALL
PROPOSED BOTTOM OF RETAINING WALL
PROPOSED FENCE
PROPOSED CONTOUR
EXISTING CONTOUR
EXISTING TREE LINE
EXISTING FENCE
EXISTING EDGE OF PAVEMENT
EXISTING TOP OF CURB
EXISTING FLOW LINE OF CURB
EXISTING TOP OF BERM
EXISTING FLOW LINE OF BERM
EXISTING EDGE OF SIDEWALK
EXISTING TOP OF RETAINING WALL
EXISTING BOTTOM OF RETAINING WALL
EXISTING OVERHEAD UTILITY LINE
EXISTING UNDERGROUND UTILITY LINE
EXISTING GAS LINE
EXISTING WATER LINE
EXISTING SANITARY SEWER LINE
EXISTING STORM SEWER LINE
EXISTING FIRE HYDRANT
EXISTING WATER VALVE
EXISTING SANITARY SEWER MANHOLE
EXISTING STORM SEWER MANHOLE
EXISTING STORM SEWER INLET
EXISTING GAS VALVE
EXISTING GAS METER
EXISTING UTILITY POLE
EXISTING GUY WIRE
EXISTING LIGHT POLE
EXISTING TRAFFIC SIGNAL POLE
EXISTING TRAFFIC SIGNAL BOX
EXISTING TRAFFIC SIGNAL CONTROL BOX
EXISTING TRAFFIC SIGNAL CONDUIT
EXISTING TRAFFIC SIGNAL LOOP
EXISTING TRAFFIC SIGNAL PEDESTRIAN PUSH BUTTON
EXISTING TRAFFIC SIGNAL PEDESTRIAN SIGNAL
EXISTING TRAFFIC SIGNAL VEHICULAR SIGNAL
EXISTING TRAFFIC SIGNAL VIDEO DETECTION CAMERA
EXISTING TRAFFIC SIGNAL RADAR DETECTION
EXISTING TRAFFIC SIGNAL SIGN
EXISTING TRAFFIC SIGNAL MAST ARM
EXISTING TRAFFIC SIGNAL SPAN WIRE
EXISTING TRAFFIC SIGNAL CABINET
EXISTING TRAFFIC SIGNAL CONTROLLER
EXISTING TRAFFIC SIGNAL METER
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STORM SEWER 25 yr

25-yr Intensity = a/(t+b)^c	
a_{25} =	111.07
b_{25} =	17.23
c_{25} =	0.7815

Trunk Line Design

"*" Indicates an inlet lateral connection with unique formula for junction loss.

Drainage Area	Inlet / MH From	Inlet / MH To	Area (acres)	Total Area (acres)	Time Conc. (min)	Runoff "C"	C (Weighted)	Intensity "I" (in/hr)	Q_{25} (cfs)	Mannings "n"	Length (ft.)	Pipe Diam. or Box Rise (in.)	Box Span (in.)	Grade (ft./ft.)	Full Flow Velocity (fps)	**Full Flow Capacity (cfs)**	Actual Velocity (out)	Hydraulic Gradient (ft/ft)	K (Constant)	Junction/ MH Loss (feet)	Hydraulic Grade Elevation (ft)	Dwnstm Flowline (ft)	Vert Adj (ft)	Upstrm Flowline (ft)	Rise in Pipe (ft)	Pipe Crown (ft)	Top of MH/Inlet Elevation (ft)
1	A1	Bend 1	0.33	0.33	5.00	0.76	0.76	9.84	**2.47**	0.013	11.3	24		0.0160	9.11	**28.61**	0.79	0.0001	0.25	0.0024	710.66	708.56	0	708.66	0.18	710.66	714.33
	Bend 1	MH1	0.00	0.33	5.02	0.00	0.76	9.83	**2.47**	0.013	12.6	24		0.0150	8.82	**27.70**	0.79	0.0001	0.25	0.0024	710.56	708.52	0	708.56	0.19	710.56	714.04
2	A2	Bend 2	0.56	0.56	5.00	0.76	0.76	9.84	**4.21**	0.013	16.5	24		0.0125	8.05	**25.29**	1.34	0.0003	0.25	0.0070	710.61	708.52	0	708.61	0.21	710.61	714.04
	Bend 2	MH1	0.00	0.56	5.03	0.00	0.76	9.83	**4.21**	0.013	24.9	24		0.0072	6.11	**19.19**	1.34	0.0003	0.25	0.0070	710.52	708.49	0.85	708.52	0.18	710.52	713.96
3	A3	A2	4.64	4.64	5.00	0.82	0.82	9.84	**37.28**	0.013	32.7	36		0.0101	9.48	**67.03**	5.27	0.0031	1	0.4320	710.64	707.15	0	707.64	0.33	710.64	713.96
	MH1	MH2	0.00	0.89	5.10	0.00	0.76	9.80	**6.66**	0.013	91.7	36		0.0150	11.56	**81.68**	0.94	0.0001	0.25	0.0034	710.15	706.14	0.65	707.15	1.38	710.15	714.02
	MH2	MH3	0.00	0.89	5.23	0.00	0.76	9.76	**6.63**	0.013	70.5	36		0.0124	10.51	**74.27**	0.94	0.0001	0.25	0.0034	708.49	704.16	0	705.49	0.87	708.49	713.64
	MH3	MH4	0.00	0.89	5.35	0.00	0.76	9.72	**6.61**	0.013	81.2	36		0.0216	13.87	**98.02**	0.93	0.0001	0.25	0.0034	707.16	702.79	0.5	704.16	1.75	707.16	711.72
6	A6	MH4	4.69	4.69	5.00	0.77	0.77	9.84	**35.50**	0.013	52.4	36		0.0043	6.19	**43.73**	5.02	0.0028	1	0.3916	706.01	702.79	0.5	703.01	0.23	706.01	711.91
	MH4	MH5	0.00	5.58	5.44	0.00	0.77	9.69	**41.54**	0.013	61.7	42		0.0128	11.83	**113.82**	4.32	0.0017	0.25	0.0724	705.79	701.53	0.34	702.29	0.79	705.79	709.75
	MH5	MH7	0.00	5.58	5.53	0.00	0.77	9.66	**41.41**	0.013	54.0	48		0.0041	7.32	**91.97**	3.30	0.0008	0.1	0.0169	705.54	701.32	1.42	701.54	0.22	705.54	709.8
5	A5	A4	0.29	0.29	5.00	0.76	0.76	9.84	**2.17**	0.013	33.0	24		0.0050	5.09	**16.00**	0.69	0.0001	1	0.0074	705.27	703.13	1.84	703.27	0.17	705.27	709.65
4	A4	Bend 3	0.47	0.76	5.00	0.76	0.76	9.84	**5.71**	0.013	8.0	24		0.0113	7.65	**24.05**	1.82	0.0006	0.35	0.0179	705.13	703.04	5.05	703.13	0.09	705.13	709.66
	Bend 3	MH7	0.00	0.76	5.02	0.00	0.76	9.83	**5.70**	0.013	55.6	24		0.0099	7.16	**22.51**	1.81	0.0006	0.35	0.0179	705.04	702.49	0	703.04	0.55	705.04	709.74
	MH7	MH6	0.00	6.34	5.65	0.00	0.77	9.62	**46.82**	0.013	124.9	48		0.0042	7.41	**93.09**	3.73	0.0011	1	0.2155	705.32	700.79	0	701.32	0.52	705.32	710.37
	MH6	Outfall 1	0.00	6.34	5.93	0.00	0.77	9.53	**46.37**	0.013	64.0	48		0.0107	11.82	**148.58**	3.69	0.0010	1	0.2115	699.59	694.90	0.51	695.59	0.68	699.59	712.86
7	B7	B8	1.02	1.02	5.00	0.76	0.76	9.84	**7.65**	0.013	33.0	24		0.0182	9.71	**30.52**	2.43	0.0011	0.25	0.0230	702.24	696.05	0.51	696.65	0.60	698.65	705.61
8	B8	MH12	0.67	1.69	5.00	0.76	0.76	9.84	**12.67**	0.013	40.8	24		0.0035	4.26	**13.38**	4.03	0.0031	0.01	0.0025	702.18	696.49	3.65	696.05	0.14	698.05	705.61
9	B9	MH12	2.98	2.98	5.00	0.77	0.77	9.84	**22.50**	0.013	56.8	30		0.0096	8.19	**40.19**	4.58	0.0030	0.25	0.0815	702.30	695.82	0.39	698.53	0.55	701.03	705.3
	MH12	Outfall 2	0.00	4.67	5.16	0.00	0.77	9.78	**34.97**	0.013	41.0	42		0.0066	8.49	**81.73**	3.63	0.0012	0.25	0.0513	702.05	695.23	0	698.55	0.27	702.05	705.72
12	Lot 4	Outfall 3	3.09	3.09	8.22	0.97	0.97	8.85	**26.53**	0.013	152.0	36		0.0020	4.22	**29.83**	3.75	0.0016	0.25	0.0547	702.87	699.57	0	699.87	0.30	702.87	703.39
14b	Lot 3	Outfall 4	3.62	3.62	5.00	0.71	0.71	9.84	**25.29**	0.013	62.0	36		0.0026	4.79	**33.88**	3.58	0.0014	1.25	0.2484	700.44	695.82	0	697.44	0.16	700.44	700.95
14a	Lot 3	Outfall 5	6.47	6.47	5.00	0.71	0.71	9.84	**45.20**	0.013	62.0	48		0.0113	12.15	**152.68**	3.60	0.0010	1.25	0.2511	703.38	694.03	0	699.38	0.70	703.38	699.38

STORM SEWER 100 yr

100-yr Intensity = a/(t+b)^c	
a_{100} =	129.03
b_{100} =	17.83
c_{100} =	0.7625

Trunk Line Design

"*" Indicates an inlet lateral connection with unique formula for junction loss.

Drainage Area	Inlet / MH From	Inlet / MH To	Area (acres)	Total Area (acres)	Time Conc. (min)	Runoff "C"	C (Weighted)	Intensity "I" (in/hr)	Q_{100} (cfs)	Mannings "n"	Length (ft.)	Pipe Diam. or Box Rise (in.)	Box Span (in.)	Grade (ft./ft.)	Full Flow Velocity (fps)	**Full Flow Capacity (cfs)**	Actual Velocity (out)	Hydraulic Gradient (ft/ft)	K (Constant)	Junction/ MH Loss (feet)	Hydraulic Grade Elevation (ft)	Dwnstm Flowline (ft)	Vert Adj (ft)	Upstrm Flowline (ft)	Rise in Pipe (ft)	Pipe Crown (ft)	Top of MH/Inlet Elevation (ft)
1	A1	Bend 1	0.33	0.33	0.00	0.79	0.79	14.34	**3.76**	0.013	11.3	24		0.0160	9.11	**28.61**	1.20	0.0003	0.25	0.0056	710.66	708.56		708.66	0.18	710.66	714.33
	Bend 1	MH1	0.00	0.33	0.02	0.00	0.79	14.33	**3.75**	0.013	12.6	24		0.0150	8.82	**27.70**	1.20	0.0003	0.25	0.0055	710.56	708.52		708.56	0.19	710.56	714.04
2	A2	Bend 2	0.56	0.56	0.00	0.80	0.80	14.34	**6.39**	0.013	16.5	24		0.0125	8.05	**25.29**	2.04	0.0008	0.25	0.0161	710.61	708.52		708.61	0.21	710.61	714.04
	Bend 2	MH1	0.00	0.56	0.03	0.00	0.80	14.32	**6.39**	0.013	24.9	24		0.0072	6.11	**19.19**	2.03	0.0008	0.25	0.0160	710.52	708.49	0.85	708.52	0.18	710.52	713.96
3	A3	A2	4.64	4.64	0.00	0.84	0.84	14.34	**55.93**	0.013	32.7	36		0.0101	9.48	**67.03**	7.91	0.0070	1	0.9720	710.64	707.15		707.64	0.33	710.64	713.96
	MH1	MH2	0.00	0.89	0.10	0.00	0.80	14.28	**10.11**	0.013	91.7	36		0.0150	11.56	**81.68**	1.43	0.0002	0.25	0.0079	710.15	706.14	0.65	707.15	1.38	710.15	714.02
	MH2	MH3	0.00	0.89	0.23	0.00	0.80	14.20	**10.05**	0.013	70.5	36		0.0124	10.51	**74.27**	1.42	0.0002	0.25	0.0079	708.49	704.16		705.49	0.87	708.49	713.64
	MH3	MH4	0.00	0.89	0.35	0.00	0.80	14.14	**10.01**	0.013	81.2	36		0.0216	13.87	**98.02**	1.42	0.0002	0.25	0.0078	707.16	702.79	0.50	704.16	1.75	707.16	711.72
6	A6	MH4	4.69	4.69	0.00	0.80	0.80	14.34	**53.83**	0.013	52.4	36		0.0043	6.19	**43.73**	7.62	0.0065	1	0.9006	706.01	702.79	0.50	703.01	0.23	706.01	711.91
	MH4	MH5	0.00	5.58	0.44	0.00	0.80	14.08	**62.80**	0.013	61.7	42		0.0128	11.83	**113.82**	6.53	0.0039	0.25	0.1654	705.79	701.53	0.34	702.29	0.79	705.79	709.75
	MH5	MH7	0.00	5.58	0.53	0.00	0.80	14.03	**62.57**	0.013	54.0	48		0.0041	7.32	**91.97**	4.98	0.0019	0.1	0.0385	705.54	701.32	1.42	701.54	0.22	705.54	709.80
5	A5	A4	0.29	0.29	0.00	0.79	0.79	14.34	**3.30**	0.013	33.0	24		0.0050	5.09	**16.00**	1.05	0.0002	1	0.0172	705.27	703.13	1.84	703.27	0.17	705.27	709.65
4	A4	Bend 3	0.47	0.76	0.11	0.80	0.79	14.28	**8.62**	0.013	8.0	24		0.0113	7.65	**24.05**	2.75	0.0014	0.35	0.0410	705.13	703.04		703.13	0.09	705.13	709.66
	Bend 3	MH7	0.00	0.76	0.13	0.00	0.79	14.27	**8.62**	0.013	55.6	24		0.0099	7.16	**22.51**	2.74	0.0014	0.35	0.0409	705.04	702.49		703.04	0.55	705.04	709.74
	MH7	MH6	0.00	6.34	0.65	0.00	0.80	13.96	**70.68**	0.013	124.9	48		0.0042	7.41	**93.09**	5.62	0.0024	1	0.4913	705.32	700.79	5.05	701.32	0.52	705.32	710.37
	MH6	Outfall 1	0.00	6.34	0.93	0.00	0.80	13.80	**69.87**	0.013	64.0	48		0.0107	11.82	**148.58**	5.56	0.0024	1	0.4801	705.03	694.90		695.59	0.68	699.59	712.86
7	B7	B8	1.02	1.02	0.00	0.79	0.79	14.34	**11.62**	0.013	33.0	24		0.0182	9.71	**30.52**	3.70	0.0026	0.25	0.0531	705.07	696.05	0.51	696.65	0.60	698.65	705.61
8	B8	MH12	0.67	1.69	0.06	0.79	0.79	14.31	**19.20**	0.013	40.8	24		0.0035	4.26	**13.38**	6.11	0.0071	0.01	0.0058	704.93	696.49	3.65	696.63	0.14	698.63	705.61
9	B9	MH12	2.98	2.98	0.00	0.80	0.80	14.34	**34.13**	0.013	56.8	30		0.0096	8.19	**40.19**	6.95	0.0069	0.25	0.1877	705.21	695.82	0.39	696.37	0.55	698.87	705.30
	MH12	Outfall 2	0.00	4.67	0.22	0.00	0.80	14.21	**52.89**	0.013	41.0	42		0.0066	8.49	**81.73**	5.50	0.0027	0.25	0.1173	704.63	695.23		695.50	0.27	699.00	705.72
12	Lot 4	Outfall 3	3.09	3.09	0.00	0.97	0.97	14.34	**43.00**	0.013	152.0	36		0.0020	4.22	**29.83**	6.08	0.0041	0.25	0.1436	705.17	699.57		699.87	0.30	702.87	703.39
14b	Lot 3	Outfall 4	3.62	3.62	0.00	0.75	0.75	14.34	**38.95**	0.013	62.0	36		0.0026	4.79	**33.88**	5.51	0.0034	1.25	0.5892	705.20	695.82		697.44	0.16	700.44	700.95
14a	Lot 3	Outfall 5	6.47	6.47	0.00	0.75	0.75	14.34	**69.61**	0.013	62.0	48		0.0113	12.15	**152.68**	5.54	0.0023	1.25	0.5955	703.38	694.03		699.38	0.70	703.38	699.38

N.T.S.

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: FR
DATE: 7/31/2023 | CHECKED BY: JAA
JOB NO.: 16705-0003-00 | DRAWN BY: SLH

STATE OF TEXAS — JOHN A. ALVAREZ II — 127206 — LICENSED PROFESSIONAL ENGINEER — 7/31/2023

TRAILS, LLC
NORTHSIDE SUBDIVISION
350 HWY 195, GEORGETOWN, TX 78633

DRAINAGE CALCS

SHEET NO. **53** OF 70

2023-13-CON

©2021 James I Carter

K:\16705\16705-0003-00 Northside Georgetown Subdivision\2 Design Phase\CAD\Plans\Subdivision Plans\16705-0003-00 PR DAM.dwg ec: November 17, 2023

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

REVISIONS

No.	Date	App.

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SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

REFERENCE - 2023-13-CON
DRAINAGE CALCULATIONS

SHEET NO. **61** OF 132

2023-64-SDP

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K:\17951\17951-0002-01 northside multifamily\2 design phase\CAD\site development plans\17951-0002-01 REFERENCE SUBDIVISION SHEETS.dwg ki: March 27, 2024

catchment name	L_{sh} sheet flow length	S_{sh} sheet flow slope (ft/ft)	surface description	P_2 2-yr, 24-hr rainfall depth (in.)	n_{ol} overland flow roughness coeff.	t_{sh} sheet flow travel time (hr)	L_{sc} shallow conc. flow length (ft)	S_{sc} shallow conc. flow slope (ft/ft)	K 20.32 - paved / 16.13 unpaved	t_{sc} shallow conc. flow time (hr)	Channel #	L_{ch} channel Length (ft)	S_{ch} channel flow slope (ft/ft)	n Manning's roughness coeff.	R hydraulic radius (ft)	t TC	t_c time of conc. (hr)	t_c time of conc. (min)	t_L lag time (min)
E1	100.00	0.1101	Dirt/grass cover	4.20	0.011	**0.0089**	520.3	0.010	16.13	**0.0897**	1	1515.00	0.001	0.055	1.9416	**0.267**	**0.3656**	**21.94**	**13.16**
E2	100.00	0.0677	Soil	4.20	0.011	**0.0108**	1048.83	0.014	16.13	**0.1541**	**0.1649**	**9.90**	**5.94**						
E3	74.17	0.0050	Dirt	4.20	0.011	**0.0242**	N/A	N/A	N/A	**N/A**	**0.0242**	**1.45**	**0.87**						
E4	10.89	0.0339	Asphalt	4.20	0.011	**0.0024**	380.43	0.042	20.32	**0.0254**	**0.0279**	**1.67**	**1.00**						

Existing Drainage Calculations								
Undeveloped Flows: Soil group "B, C and D"								
					Peak Out-Flow from HEC-HMS Model			
Drainage Areas	Area (ac)	% I.C.	CN	Tlag (min)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
E1	27.00	0.00	74.61	13.16	29.90	61.20	80.90	107.90
E2	13.79	0.00	90.73	5.94	34.00	0.00	62.90	77.80
E3	0.43	0.00	88.44	0.87	1.30	0.00	2.30	2.80
E4	0.44	0.00	91.01	1.00	1.30	0.00	2.30	2.80
Analysis point 1					**29.90**	**61.20**	**80.90**	**107.90**
Analysis point 2					**34.30**	**52.40**	**64.00**	**79.40**
Analysis point 3					**1.30**	**1.90**	**2.30**	**2.80**

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

100 0 50 100

SCALE: 1" = 100'

DAMAP LEGEND

1.82 Ac. — DRAINAGE AREA IN ACRES

TIME OF CONCENTRATION

DRAINAGE AREA LINE

A−1 — DRAINAGE AREA NUMBER

FLOW DIRECTION

E1 — 27.00 Ac. — NORTHSIDE SUBDIVISION LOT 3, BLOCK A 44.43 ACRES ZONING: MF−1, AG USE: MULTI−FAMILY

E2 — 13.79 Ac. — NORTHSIDE SUBDIVISION LOT 4, BLOCK A 13.43 ACRES ZONING: C−3, AG USE: COMMERCIAL

E3 — 0.43 Ac. — NORTHSIDE SUBDIVISION LOT 2, BLOCK A 8.79 ACRES ZONING: C−3 USE: COMMERCIAL

E4 — 0.44 Ac. — NORTHSIDE SUBDV LOT 1, BLOCK 5.34 ACRES ZONING: C−3 USE: COMMERCI

Point of Analysis 1
Q2: 29.90 cfs
Q10: 61.20 cfs
Q25: 80.90 cfs
Q100: 107.90 cfs

Point of Analysis 2
Q2: 34.30 cfs
Q10: 52.40 cfs
Q25: 64.00 cfs
Q100: 79.40 cfs

Point of Analysis 3
Q2: 1.30 cfs
Q10: 1.90 cfs
Q25: 2.30 cfs
Q100: 2.80 cfs

FOUND 1/2" IRON ROD "FOREST"

FOUND 1/2" IRON ROD "FOREST"

SET 1/2" IRON ROD "JONES|CARTER"

CALLED 0.785 ACRES GEORGETOWN WATERLINE EASEMENT DOC NO.2010079383 WCOPR

WILLIAM ROBERTS SURVEY ABSTRACT NO. 324

ROBERTS SURVEY ABSTRACT NO. 324

PROPOSED CITY OF GEORGETOWN 100YR FLOODPLAIN

FLOOD ZONE "A" FEMA PANEL 48491C0285F EFFECTIVE 12/20/2019

OVERHEAD ELECTRIC LINES NO PLOTTABLE RECORD EASEMENT FOUND BLANKET ELECTRIC EASEMENT TO BRAZOS RIVER TRANSMISSION ELECTRIC COOP VOL.349, PG.451 WCDR

NORTHSIDE SUBDIVISION LOT 4, BLOCK A 13.43 ACRES ZONING: C−3, AG USE: COMMERCIAL

CALLED 0.654 ACRES GEORGETOWN WATERLINE & WASTEWATER EASEMENT DOC NO.2010079382 OPRWCT

4.13 ACRES - 80 FOOT WIDE LCRA TRANSMISSION EASEMENT DOC NO.2006031801 OPRWCT (DOC NO.9760023 OPRWCT)

CONTROL OF ACCESS POINT DOC NO.2006052700 OPRWCT ACCESS PERMITTED THE NORTH OF THIS POINT ACCESS DENIED TO THE SOUTH OF THIS POINT

CALLED 0.869 ACRES ELECTRIC UTILITY EASEMENT PEDERNALES ELECTRIC COOPERATIVE, INC. DOC NO.2006010408 OPRWCT

CALLED 4.13 ACRES - 80 FOOT WIDE LCRA TRANSMISSION EASEMENT DOC NO.2006031801 WCOPR

REMAINDER OF CALLED 4.029 ACRES - 80 FOOT WIDE LCRA EASEMENT & RIGHT OF WAY DOC NO.9760023 WCOPR

SH 195 (PUBLIC R.O.W. VARIES)

S 31°58'49" E 50.00'

S 31°58'27" E 886.42'

N 31°58'27" W 1266.89'

N 31°58'27" W 1266.89'

S 31°58'27" E 537.28'

No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23264 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

PRE-DEVELOPMENT DRAINAGE AREA MAP

SHEET NO. **62** OF 132

2023-64-SDP

©2023 Quiddity

catchment name	L_{sh} sheet flow length	S_{sh} sheet flow slope (ft/ft)	surface description	P_2 2-yr, 24-hr rainfall depth (in.)	n_{ol} overland flow roughness coeff.	t_{sh} sheet flow travel time (hr)	L_{sc} shallow conc. flow length (ft)	S_{sc} shallow conc. flow slope (ft/ft)	K 20.32 - paved / 16.13 unpaved	t_{sc} shallow conc. flow time (hr)	Channel #	L_{ch} channel Length (ft)	S_{ch} channel flow slope (ft/ft)	n Manning's roughness coeff.	R hydraulic radius (ft)	t TC	t_c time of conc. (hr)	t_c time of conc. (min)	t_L lag time (min)
O1	100.00	0.1101	Dirt/grass cover	4.20	0.011	**0.0089**	520.3	0.010	16.13	**0.0897**	1	1515.00	0.001	0.055	1.9416	**0.267**	**0.3656**	**21.94**	**13.16**
P1	100.00	0.0747	Asphalt	4.20	0.011	**0.0104**	79.03	0.030	20.32	**0.0063**	1	1132.13	0.012	0.010	0.75	**0.024**	**0.0403**	**2.42**	**1.45**
O2	74.17	0.0050	Dirt	4.20	0.011	**0.0242**	N/A	N/A	N/A	**N/A**	**0.0242**	**1.45**	**0.87**						
P2	10.89	0.0339	Asphalt	4.20	0.011	**0.0024**	380.43	0.042	20.32	**0.0254**	**0.0279**	**1.67**	**1.00**						

Proposed Drainage Calculations								
Developed Flows: Soil group "B, C and D"								
					Peak Out-Flow from HEC-HMS Model			
Drainage Areas	Area (ac)	% I.C.	CN	Tlag (min)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
O1	27.00	1.90	74.61	13.16	30.50	61.70	81.40	108.30
P1	13.79	59.02	90.73	1.45	43.40	60.90	73.20	89.20
O2	0.43	24.39	88.44	0.87	1.30	1.90	2.30	2.80
P2	0.44	71.95	91.01	1.00	1.40	2.00	2.40	2.90
Analysis point 1					**30.50**	**61.70**	**81.40**	**108.30**
Analysis point 2					**44.70**	**62.80**	**75.50**	**92.00**
Analysis point 3					**1.40**	**2.00**	**2.40**	**2.90**

Comparison Table				
Undeveloped vs Developed Flows: Soil group "B, C and D"				
	Peak Out-Flow from HEC-HMS Model			
Drainage Areas	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
Net analysis point 1	0.60	0.50	0.50	0.40
Net analysis point 2	10.40	10.40	11.50	12.60
Net analysis point 3	0.10	0.10	0.10	0.10

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

100 0 50 100

SCALE: 1" = 100'

DAMAP LEGEND

- 1.82 Ac. — DRAINAGE AREA IN ACRES
- TIME OF CONCENTRATION
- DRAINAGE AREA LINE
- A−1 — DRAINAGE AREA NUMBER
- FLOW DIRECTION

Point of Analysis 1
Q2: 30.50 cfs
Q10: 61.70 cfs
Q25: 81.40 cfs
Q100: 108.30 cfs

Point of Analysis 2
Q2: 44.70 cfs
Q10: 62.80 cfs
Q25: 75.50 cfs
Q100: 92.00 cfs

Point of Analysis 3
Q2: 1.40 cfs
Q10: 2.00 cfs
Q25: 2.40 cfs
Q100: 2.90 cfs

Northside Subdivision (2023-13-CON) Outfall- 5 Matches outfall name per sheet 61

Northside Subdivision (2023-13-CON) Outfall- 4 Matches outfall name per sheet 61

DRAINAGE PLAN NOTES:

1. THIS SITE IS BEING DEVELOPED AS ONE OF THE LOTS WITHIN THE NORTHSIDE SUBDIVISION (2023-13-CON). THE PRIVATE BATCH DETENTION POND PROPOSED IN THE SUBDIVISION CONSTRUCTION PLANS WILL BE USED TO CAPTURE THE FLOWS GENERATED FROM THE SITE. PER THE DRAINAGE PLAN INCLUDED IN THE SUBDIVISION CONSTRUCTION PLANS, THE POND HAS BEEN ADEQUATELY SIZED TO ACCOUNT FOR THE STORM RUNOFF FLOWS THAT WILL BE PRODUCED BY THE FULLY DEVELOPED NORTHSIDE LOT 3 MULTI-FAMILY SITE (2023-64-SDP).
2. POST DEVELOPED FLOWS ARE IN COMPLIANCE WITH NORTHSIDE SUBDIVISION (2023-13-CON) DRAINAGE AND POND CALCULATIONS. SEE SHEETS 58-61 FOR REFERENCE NORTHSIDE SUBDIVISION SHEETS DEMONSTRATING ALLOWABLE FLOWS TO EXISTING POND.
3. REFERENCE SHEET 65 FOR SITE DEVELOPMENT PLAN (2023-64-SDP) DRAINAGE CALCULATIONS.

No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004, 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

POST-DEVELOPMENT DRAINAGE AREA MAP

SHEET NO. **63** OF *132*

2023-64-SDP

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K:\17951\17951-0002-01 northside multifamily\2 design phase\CAD\site development plans\17951-0002-01 DAM-P.dwg ki: March 27, 2024

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

100 0 50 100

SCALE: 1" = 100'

DAMAP LEGEND

- 1.82 Ac. — DRAINAGE AREA IN ACRES
- TIME OF CONCENTRATION
- DRAINAGE AREA LINE
- A−1 — DRAINAGE AREA NUMBER
- FLOW DIRECTION

NORTHSIDE SUBDIVISION
LOT 3, BLOCK A
44.43 ACRES
ZONING: MF−1, AG
USE: MULTI−FAMILY

NORTHSIDE SUBDIVISION
LOT 4, BLOCK A
13.43 ACRES
ZONING: C−3, AG
USE: COMMERCIAL

NORTHSIDE SUBDIVISION
LOT 1, BLOCK A
5.34 ACRES
ZONING: C−3
USE: COMMERCIAL

NORTHSIDE SUBDIVISION
LOT 2, BLOCK A
8.79 ACRES
ZONING: C−3
USE: COMMERCIAL

Northside Subdivision (2023-13-CON) Outfall- 5 Matches outfall name per sheet 61

Northside Subdivision (2023-13-CON) Outfall- 4 Matches outfall name per sheet 61

SH 195 (PUBLIC R.O.W. VARIES)

DRAINAGE PLAN NOTES:

1. THIS SITE IS BEING DEVELOPED AS ONE OF THE LOTS WITHIN THE NORTHSIDE SUBDIVISION (2023-13-CON). THE PRIVATE BATCH DETENTION POND PROPOSED IN THE SUBDIVISION CONSTRUCTION PLANS WILL BE USED TO CAPTURE THE FLOWS GENERATED FROM THE SITE. PER THE DRAINAGE PLAN INCLUDED IN THE SUBDIVISION CONSTRUCTION PLANS, THE POND HAS BEEN ADEQUATELY SIZED TO ACCOUNT FOR THE STORM RUNOFF FLOWS THAT WILL BE PRODUCED BY THE FULLY DEVELOPED NORTHSIDE LOT 3 MULTI-FAMILY SITE (2023-64-SDP).
2. POST DEVELOPED FLOWS ARE IN COMPLIANCE WITH NORTHSIDE SUBDIVISION (2023-13-CON) DRAINAGE AND POND CALCULATIONS. SEE SHEETS 58-61 FOR REFERENCE NORTHSIDE SUBDIVISION SHEETS DEMONSTRATING ALLOWABLE FLOWS TO EXISTING POND.
3. REFERENCE SHEET 65 FOR SITE DEVELOPMENT PLAN (2023-64-SDP) DRAINAGE CALCULATIONS.

REVISIONS

No.	Date	App.

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STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

SUB-DRAINAGE AREA MAP

SHEET NO. 64 OF 132

2023-64-SDP

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THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

SEWER 25 yr

25-yr Intensity = a/(t+b)^c	
a_{25} =	111.07
b_{25} =	17.23
c_{25} =	0.7815

"*" Indicates an inlet lateral connection with unique formula for junction loss.

Drainage Area	Inlet / MH From	Inlet / MH To	Area (acres)	Total Area (acres)	Time Conc. (min)	Runoff "C"	C (Weighted)	Intensity "I" (in/hr)	Q_{25} (cfs)	Mannings "n"	Trunk Line Design: Length (ft.)	Pipe Diam. or Box Rise (in.)	Box Span (in.)	Grade (ft./ft.)	Full Flow Velocity (fps)	Full Flow Capacity (cfs)	Actual Velocity (out)	Hydraulic Gradient (ft/ft)	K (Constant)	Junction/ MH Loss (feet)	Hydraulic Grade Elevation (ft)	Dwnstm Flowline (ft)	Vert Adj (ft)	Upstrm Flowline (ft)	Rise in Pipe (ft)	Pipe Crown (ft)	Top of MH/Inlet Elevation (ft)	Cover	HGL
A1	Inlet A1	MH A12	1.17	1.17	5.00	0.87	0.87	9.84	**9.97**	0.012	49.0	24		0.0049	5.46	**17.15**	3.17	0.0016	0.1	0.0156	703.42	701.18	0.00	701.42	0.24	703.42	704.99	1.57	1.57
-	MH A12	MH A11	0.00	1.17	5.15	0.00	0.87	9.79	**9.92**	0.012	64.0	24		0.0050	5.52	**17.33**	3.16	0.0016	0.15	0.0232	703.18	700.86	0.00	701.18	0.32	703.18	705.15	1.97	1.97
-	MH A11	MH A10	0.00	1.17	5.34	0.00	0.87	9.72	**9.85**	0.012	45.0	24		0.0051	5.58	**17.52**	3.14	0.0016	0.1	0.0153	702.86	700.63	0.00	700.86	0.23	702.86	706.01	3.15	3.15
-	MH A10	Inlet A2	0.00	1.17	5.48	0.00	0.87	9.68	**9.81**	0.012	105.0	24		0.0050	5.49	**17.25**	3.12	0.0016	0.1	0.0151	702.63	700.11	0.00	700.63	0.52	702.63	705.80	3.17	3.17
A2	Inlet A2	MH A9	1.82	2.99	9.06	0.81	0.83	8.63	**21.53**	0.012	56.0	36		0.0050	7.23	**51.09**	3.05	0.0009	0.1	0.0144	702.11	698.83	0.00	699.11	0.28	702.11	704.61	2.50	2.50
-	MH A9	Inlet A3	0.00	2.99	9.19	0.00	0.83	8.60	**21.45**	0.012	36.0	36		0.0050	7.23	**51.09**	3.03	0.0009	0.1	0.0143	701.83	698.65	0.00	698.83	0.18	701.83	705.13	3.30	3.30
A3	Inlet A3	MH A8	0.19	3.18	9.27	0.87	0.84	8.58	**22.81**	0.012	59.0	36		0.0051	7.29	**51.52**	3.23	0.0010	0.1	0.0162	701.65	698.35	0.00	698.65	0.30	701.65	705.41	3.76	3.76
-	MH A8	Inlet A4	0.00	3.18	9.41	0.00	0.84	8.54	**22.72**	0.012	48.0	36		0.0050	7.23	**51.09**	3.21	0.0010	0.1	0.0160	701.35	698.11	0.00	698.35	0.24	701.35	705.94	4.59	4.59
A4	Inlet A4	MH A7	0.18	3.36	9.52	0.87	0.84	8.51	**23.97**	0.012	48.0	36		0.0025	5.11	**36.13**	3.39	0.0011	0.1	0.0179	700.72	696.99	0.00	697.11	0.12	700.11	705.57	5.46	4.85
-	MH A7	Inlet A5	0.00	3.36	9.67	0.00	0.84	8.48	**23.86**	0.012	63.0	36		0.0068	8.44	**59.69**	3.38	0.0011	0.1	0.0177	700.65	696.56	0.00	696.99	0.43	699.99	705.08	5.09	4.43
A5	Inlet A5	MH A6	1.61	4.97	9.80	0.79	0.82	8.45	**34.49**	0.012	119.0	48		0.0050	8.79	**110.49**	2.74	0.0005	0.15	0.0175	700.56	695.96	0.00	696.56	0.60	700.56	704.50	3.94	3.94
-	MH A6	MH A5	0.00	4.97	10.02	0.00	0.82	8.39	**34.27**	0.012	90.0	48		0.0050	8.76	**110.03**	2.73	0.0005	0.1	0.0115	699.96	695.51	0.00	695.96	0.45	699.96	705.72	5.76	5.76
-	MH A5	Inlet A6	0.00	4.97	10.20	0.00	0.82	8.35	**34.10**	0.012	47.0	48		0.0051	8.85	**111.19**	2.71	0.0005	0.1	0.0114	699.51	695.27	0.00	695.51	0.24	699.51	705.57	6.06	6.06
A6	Inlet A6	MH A4	0.47	5.44	10.28	0.81	0.82	8.33	**37.20**	0.012	47.0	48		0.0049	8.66	**108.85**	2.96	0.0006	0.35	0.0476	699.27	695.04	0.00	695.27	0.23	699.27	705.20	5.93	5.93
-	MH A4	Inlet A7	0.00	5.44	10.38	0.00	0.82	8.31	**37.10**	0.012	8.4	48		0.0047	8.52	**107.11**	2.95	0.0006	0.1	0.0135	699.04	695.00	0.00	695.04	0.04	699.04	704.84	5.80	5.80
A7	Inlet A7	MH A3	1.03	6.47	10.39	0.71	0.80	8.30	**43.16**	0.012	57.0	48		0.0051	8.83	**110.99**	3.43	0.0008	0.35	0.0641	699.00	694.71	0.00	695.00	0.29	699.00	704.75	5.75	5.75
-	MH A3	OUTFALL A	0.00	6.47	10.50	0.00	0.80	8.28	**43.03**	0.012	104.0	48		0.0066	10.04	**126.19**	3.42	0.0008	0.1	0.0182	698.71	694.03	0.00	694.71	0.68	698.71	705.64	6.93	6.93
	POND A																				**702.80**								
B1	Inlet B1	Inlet B15	0.93	0.93	12.97	0.71	0.71	7.74	**5.11**	0.012	156.0	18		0.0059	4.94	**8.74**	2.89	0.0020	0.15	0.0195	705.48	703.06	0.00	703.98	0.92	705.48	707.98	2.50	2.50
B4	Inlet B4	Inlet B5	0.74	0.74	5.00	0.71	0.71	9.84	**5.17**	0.012	101.0	18		0.0101	6.47	**11.44**	2.93	0.0020	0.1	0.0133	707.20	704.68	0.00	705.70	1.02	707.20	709.76	2.56	2.56
B5	Inlet B5	Inlet B6	0.23	0.97	5.26	0.81	0.73	9.75	**6.95**	0.012	150.0	18		0.0100	6.44	**11.38**	3.93	0.0037	0.15	0.0360	706.18	803.18	0.00	704.68	1.50	706.18	708.39	2.21	2.21
B6	Inlet B6	MH B6	0.51	1.48	5.65	0.76	0.74	9.62	**10.59**	0.012	34.0	24		0.0100	7.80	**24.51**	3.37	0.0019	0.15	0.0265	704.68	702.34	0.00	702.68	0.34	704.68	707.19	2.51	2.51
-	MH B6	MH B4	0.00	1.48	5.72	0.00	0.74	9.60	**10.57**	0.012	80.0	24		0.0100	7.80	**24.51**	3.36	0.0018	0.15	0.0264	704.34	701.54	0.00	702.34	0.80	704.34	707.25	2.91	2.91
-	MH B4	Inlet B2	0.00	1.48	5.89	0.00	0.74	9.54	**10.51**	0.012	20.0	24		0.0060	6.04	**18.98**	3.34	0.0018	0.1	0.0174	703.54	701.42	0.00	701.54	0.12	703.54	706.49	2.95	2.95
B2	Inlet B2	Inlet B3	0.51	1.99	14.23	0.68	0.73	7.50	**10.88**	0.012	46.0	36		0.0059	7.83	**55.35**	1.54	0.0002	1	0.0368	703.42	700.15	0.00	700.42	0.27	703.42	706.35	2.93	2.93
B3	Inlet B3	Wye B12	0.47	2.46	14.33	0.71	0.73	7.48	**13.35**	0.012	184.0	36		0.0059	7.87	**55.61**	1.89	0.0003	0.1	0.0055	703.15	699.06	0.00	700.15	1.09	703.15	706.09	2.94	2.94
0	Wye B12	MH B2	0.00	2.46	14.72	0.00	0.73	7.41	**13.22**	0.012	184.0	36		0.0059	7.87	**55.61**	1.87	0.0003	1	0.0543	702.06	697.97	0.00	699.06	1.09	702.06	708.01	5.95	5.95
B7	Inlet B7	Inlet B8	0.33	0.33	5.00	0.81	0.81	9.84	**2.64**	0.012	144.0	18		0.0100	6.44	**11.38**	1.50	0.0005	0.1	0.0035	709.12	706.18	0.00	707.62	1.44	709.12	716.55	7.43	7.43
B8	Inlet B8	Inlet B9	0.29	0.62	5.37	0.87	0.84	9.71	**5.05**	0.012	209.0	18		0.0100	6.44	**11.38**	2.86	0.0020	0.1	0.0127	707.68	704.09	0.00	706.18	2.09	707.68	713.98	6.30	6.30
B9	Inlet B9	MH B9	0.78	1.40	20.42	0.71	0.77	6.52	**7.00**	0.012	91.0	24		0.0111	8.22	**25.82**	2.23	0.0008	0.1	0.0077	705.59	702.58	0.00	703.59	1.01	705.59	709.77	4.18	4.18
-	MH B8	Inlet B10	0.00	1.40	20.71	0.00	0.00	6.48	-	0.012	46.0	24		0.0075	6.76	**21.22**	-	0.0000	0.1	0.0000	704.28	701.93	0.00	702.28	0.35	704.28	711.63	7.35	7.35
-	MH B8	Inlet B10	0.00	1.40	20.71	0.00	0.00	6.48	-	0.012	46.0	24		0.0075	6.76	**21.22**	-	0.0000	0.1	0.0000	704.28	701.93	0.00	702.28	0.35	704.28	711.63	7.35	7.35
B10	Inlet B10	MH B7	0.23	1.63	20.83	0.87	0.12	6.46	**1.29**	0.012	86.0	24		0.0100	7.80	**24.51**	0.41	0.0000	0.1	0.0003	703.93	701.07	0.00	701.93	0.86	703.93	709.78	5.85	5.85
-	MH B7	Inlet B11	0.00	1.63	21.01	0.00	0.12	6.44	**1.28**	0.012	77.0	24		0.0117	8.44	**26.51**	0.41	0.0000	0.1	0.0003	703.07	700.17	0.00	701.07	0.90	703.07	709.26	6.19	6.19
B11	Inlet B11	MH B6	0.41	2.04	21.16	0.81	0.26	6.42	**3.42**	0.012	45.0	24		0.0243	12.16	**38.20**	1.09	0.0002	0.15	0.0028	702.17	699.08	0.00	700.17	1.09	702.17	708.82	6.65	6.65
-	MH B6	MH B2	0.00	3.52	21.22	0.00	0.46	6.41	**10.48**	0.012	97.0	24		0.0050	5.52	**17.33**	3.34	0.0018	0.1	0.0173	701.08	698.60	0.00	699.08	0.49	701.08	708.61	7.53	7.53
-	Bend B1.1	OUTFALL B	0.00	5.98	21.74	0.00	0.00	6.35	-	0.012	67.0	36		0.0100	10.22	**72.25**	-	0.0000	0.35	0.0000	699.49	695.83	0.00	696.49	0.67	699.49	705.89	6.40	6.40
-	MH B1	Bend B1	0.00	5.98	21.59	0.00	0.00	6.36	-	0.012	77.0	36		0.0101	10.27	**72.61**	-	0.0000	1	0.0000	700.41	696.64	0.00	697.41	0.78	700.41	706.91	6.50	6.50
-	Bend B1	Bend B1.1	0.00	5.98	21.74	0.00	0.00	6.35	-	0.012	15.0	36		0.0097	10.07	**71.16**	-	0.0000	0.35	0.0000	699.49	695.83	0.00	696.49	0.67	699.49	705.89	6.40	6.40
-	Bend B1.1	OUTFALL B	0.00	5.98	21.74	0.00	0.00	6.35	-	0.012	67.0	36		0.0100	10.22	**72.25**	-	0.0000	0.35	0.0000	699.49	695.83	0.00	696.49	0.67	699.49	705.89	6.40	6.40
B12	Inlet B12	Wye B12	0.47	0.47	5.00	0.71	0.71	9.84	**3.28**	0.012	85.0	12		0.0500	10.99	**8.63**	4.18	0.0072	0.1	0.0271	706.32	701.08	0.00	705.32	4.25	706.32	709.00	2.68	2.68
-	Wye B12	MH B2	0.00	2.93	14.72	0.00	0.61	7.41	**13.22**	0.012	101.0	36		0.0097	10.07	**71.16**	1.87	0.0003	0.35	0.0190	704.08	698.58	0.00	701.08	0.98	704.08			
B13	Inlet B13	Wye B13	0.13	0.13	5.00	0.71	0.71	9.84	**0.91**	0.012	78.0	6		0.0500	6.92	**1.36**	4.63	0.0220	0.1	0.0332	706.19	701.19	0.00	705.69	3.90	706.19	710.50	4.31	4.31
-	Wye B13	Inlet B3	0.00	0.13	5.19	0.00	0.71	9.77	**0.90**	0.012	40.0	36		0.0057	7.72	**54.55**	0.13	0.0000	0.35	0.0001	704.19	699.29	0.00	701.19	0.23	704.19			
B14	Inlet B14	Bend B14	0.03	0.03	5.00	0.71	0.71	9.84	**0.21**	0.012	83.0	6		0.0100	3.10	**0.61**	1.07	0.0012	0.1	0.0018	708.30	706.97	0.00	707.80	0.83	708.30	709.75	1.45	1.45
-	bend B14	Inlet B4	0.00	0.03	5.45	0.00	0.71	9.69	**0.21**	0.012	27.0	6		0.0100	3.10	**0.61**	1.05	0.0011	0.35	0.0060	707.47	706.70	0.00	706.97	0.27	707.47	710.35	2.88	2.88
B15	Inlet B15	MH B4	0.39	1.32	13.50	0.71	0.71	7.64	**7.16**	0.012	48.0	18		0.0059	4.95	**8.74**	4.05	0.0039	0.1	0.0255	705.11	702.77	0.00	703.06	0.28	704.56	706.12	1.56	1.01
-	MH B4	Inlet B17	0.00	2.80	13.66	0.00	0.39	7.61	**8.38**	0.012	73.0	18		1.0059	64.58	**114.12**	4.74	0.0054	0.15	0.0524	704.90	702.34	0.00	702.77	73.43	704.27	706.82	2.55	1.92
B16	Inlet B16	Bend B16	0.08	0.08	5.00	0.71	0.71	9.84	**0.56**	0.012	71.0	6		0.0050	2.19	**0.43**	2.85	0.0083	0.1	0.0126	706.43	705.32	0.00	705.67	0.36	706.17	707.04	0.87	0.61
-	Bend B16	Inlet B1	0.00	0.08	5.54	0.00	0.71	9.66	**0.55**	0.012	67.0	6		0.0050	2.19	**0.43**	2.79	0.0080	0.35	0.0424	705.82	704.98	0.00	705.32	0.34	705.82	707.35	1.53	1.53
B17	Inlet B17	MH B3	0.25	3.05	13.68	0.71	0.42	7.61	**9.73**	0.012	51.0	18		0.0059	4.95	**8.74**	5.50	0.0072	0.1	0.0470	704.46	702.04	0.00	702.34	0.30	703.84	706.03	2.19	1.57
-	MH B3	Inlet B2	0.00	3.05	13.85	0.00	0.00	7.57	-	0.012	20.0	24		1.0059	78.23	**245.78**	-	0.0000	1	0.0000	704.04	701.15	0.00	702.04	20.12	704.04	707.03	2.99	2.99
B18	Inlet B18	Inlet B5	0.14	0.14	5.00	0.71	0.71	9.84	**0.98**	0.012	44.0	6		0.0100	3.10	**0.61**	4.98	0.0256	0.1	0.0385	706.63	705.68	0.00	706.13	0.44	706.63	707.53	0.90	0.90
B19	Inlet B19	Inlet B8	0.19	0.19	5.00	0.71	0.71	9.84	**1.33**	0.012	40.0	6		0.0100	3.10	**0.61**	6.76	0.0471	0.1	0.0710	708.08	707.18	0.00	707.58	0.40	708.08	713.98	5.90	5.90
B20	Inlet B20	Inlet B9	0.16	0.16	5.00	0.71	0.71	9.84	**1.12**	0.012	61.0	6		0.0100	3.10	**0.61**	5.69	0.0334	0.1	0.0503	706.20	705.09	0.00	705.70	0.61	706.20	707.84	1.64	1.64
	POND A																				**702.80**								

SEWER 100 yr

100-yr Intensity = a/(t+b)^c	
a_{100} =	129.03
b_{100} =	17.83
c_{100} =	0.7625

"*" Indicates an inlet lateral connection with unique formula for junction loss.

Drainage Area	Inlet / MH From	Inlet / MH To	Area (acres)	Total Area (acres)	Time Conc. (min)	Runoff "C"	C (Weighted)	Intensity "I" (in/hr)	Q_{100} (cfs)	Mannings "n"	Trunk Line Design: Length (ft.)	Pipe Diam. or Box Rise (in.)	Box Span (in.)	Grade (ft./ft.)	Full Flow Velocity (fps)	Full Flow Capacity (cfs)	Actual Velocity (out)	Hydraulic Gradient (ft/ft)	K (Constant)	Junction/ MH Loss (feet)	Hydraulic Grade Elevation (ft)	Dwnstm Flowline (ft)	Vert Adj (ft)	Upstrm Flowline (ft)	Rise in Pipe (ft)	Pipe Crown (ft)	Top of MH/Inlet Elevation (ft)	Cover	HGL
A1	Inlet A1	MH A12	1.17	1.17	5.00	0.88	0.88	11.88	**12.26**	0.012	49	24	0	0.0049	5.46	**17.15**	3.90	0.0025	0.1	0.0236	706.20	701.18		701.42	0.24	703.42	704.99	1.57	-1.21
-	MH A12	MH A11	0.00	1.17	5.15	0.00	0.88	11.82	**12.20**	0.012	64	24	0	0.0050	5.52	**17.33**	3.88	0.0025	0.15	0.0351	706.05	700.86		701.18	0.32	703.18	705.15	1.97	-0.90
-	MH A11	MH A10	0.00	1.17	5.34	0.00	0.88	11.75	**12.12**	0.012	45	24	0	0.0051	5.58	**17.52**	3.86	0.0024	0.1	0.0231	705.86	700.63		700.86	0.23	702.86	706.01	3.15	0.15
-	MH A10	Inlet A2	0.00	1.17	5.48	0.00	0.88	11.69	**12.07**	0.012	105	24	0	0.0050	5.49	**17.25**	3.84	0.0024	0.1	0.0229	705.73	700.11		700.63	0.52	702.63	705.80	3.17	0.07
A2	Inlet A2	MH A9	1.82	2.99	9.06	0.84	0.86	10.49	**26.81**	0.012	56	36	0	0.0050	7.23	**51.09**	3.79	0.0014	0.1	0.0223	705.45	698.83		699.11	0.28	702.11	704.61	2.50	-0.84
-	MH A9	Inlet A3	0.00	2.99	9.19	0.00	0.86	10.45	**26.72**	0.012	36	36	0	0.0050	7.23	**51.09**	3.78	0.0014	0.1	0.0222	705.35	698.65		698.83	0.18	701.83	705.13	3.30	-0.22
A3	Inlet A3	MH A8	0.19	3.18	9.27	0.88	0.86	10.42	**28.40**	0.012	59	36	0	0.0051	7.29	**51.52**	4.02	0.0015	0.1	0.0251	705.28	698.35		698.65	0.30	701.65	705.41	3.76	0.13
-	MH A8	Inlet A4	0.00	3.18	9.41	0.00	0.86	10.38	**28.29**	0.012	48	36	0	0.0050	7.23	**51.09**	4.00	0.0015	0.1	0.0249	705.17	698.11		698.35	0.24	701.35	705.94	4.59	0.77
A4	Inlet A4	MH A7	0.18	3.36	9.52	0.88	0.86	10.35	**29.85**	0.012	48	36	0	0.0025	5.11	**36.13**	4.22	0.0017	0.1	0.0277	705.07	696.99		697.11	0.12	700.11	705.57	5.46	0.50
-	MH A7	Inlet A5	0.00	3.36	9.67	0.00	0.86	10.31	**29.72**	0.012	63	36	0	0.0068	8.44	**59.69**	4.20	0.0017	0.1	0.0275	704.96	696.56		696.99	0.43	699.99	705.08	5.09	0.12
A5	Inlet A5	MH A6	1.61	4.97	9.80	0.82	0.84	10.27	**43.11**	0.012	119	48	0	0.0050	8.79	**110.49**	3.43	0.0008	0.15	0.0274	704.83	695.96		696.56	0.60	700.56	704.50	3.94	-0.33
-	MH A6	MH A5	0.00	4.97	10.02	0.00	0.84	10.21	**42.85**	0.012	90	48	0	0.0050	8.76	**110.03**	3.41	0.0008	0.1	0.0181	704.71	695.51		695.96	0.45	699.96	705.72	5.76	1.01
-	MH A5	Inlet A6	0.00	4.97	10.20	0.00	0.84	10.16	**42.65**	0.012	47	48	0	0.0051	8.85	**111.19**	3.39	0.0007	0.1	0.0179	704.62	695.27		695.51	0.24	699.51	705.57	6.06	0.95
A6	Inlet A6	MH A4	0.47	5.44	10.28	0.84	0.84	10.14	**46.54**	0.012	47	48	0	0.0049	8.66	**108.85**	3.70	0.0009	0.35	0.0745	704.57	695.04		695.27	0.23	699.27	705.20	5.93	0.63
-	MH A4	Inlet A7	0.00	5.44	10.38	0.00	0.84	10.11	**46.42**	0.012	8	48	0	0.0047	8.52	**107.11**	3.69	0.0009	0.1	0.0212	704.45	695.00		695.04	0.04	699.04	704.84	5.80	0.39
A7	Inlet A7	MH A3	1.03	6.47	10.39	0.75	0.83	10.11	**54.21**	0.012	57	48	0	0.0051	8.83	**110.99**	4.31	0.0012	0.35	0.1011	704.42	694.71		695.00	0.29	699.00	704.75	5.75	0.33
-	MH A3	OUTFALL A	0.00	6.47	10.50	0.00	0.83	10.08	**54.05**	0.012	104	48	0	0.0066	10.04	**126.19**	4.30	0.0012	0.1	0.0287	704.25	694.03		694.71	0.68	698.71	705.64	6.93	1.39
	OUTFALL A																				**704.10**								
B1	Inlet B1	Inlet B15	0.93	0.93	12.97	0.75	0.75	9.46	**6.59**	0.012	156	18	0	0.0059	4.94	**8.74**	3.73	0.0033	0.15	0.0324	709.52	703.06		703.98	0.92	705.48	707.98	2.50	-1.54
B4	Inlet B4	Inlet B5	0.74	0.74	5.00	0.75	0.75	11.88	**6.59**	0.012	101	18	0	0.0101	6.47	**11.44**	3.73	0.0033	0.1	0.0216	707.20	704.68		705.70	1.02	707.20	709.76	2.56	2.56
B5	Inlet B5	Inlet B6	0.23	0.97	5.26	0.84	0.77	11.78	**8.81**	0.012	150	18	0	0.0100	6.44	**11.38**	4.98	0.0059	0.15	0.0579	706.25	803.18		704.68	1.50	706.18	708.39	2.21	2.14
B6	Inlet B6	MH B6	0.51	1.48	5.65	0.79	0.78	11.63	**13.40**	0.012	34	24	0	0.0100	7.80	**24.51**	4.27	0.0030	0.15	0.0424	705.31	702.34		702.68	0.34	704.68	707.19	2.51	1.88
-	MH B6	MH B4	0.00	1.48	5.72	0.00	0.78	11.60	**13.37**	0.012	80	24	0	0.0100	7.80	**24.51**	4.26	0.0030	0.15	0.0422	705.16	701.54		702.34	0.80	704.34	707.25	2.91	2.09
-	MH B4	Inlet B2	0.00	1.48	5.89	0.00	0.78	11.54	**13.30**	0.012	20	24	0	0.0060	6.04	**18.98**	4.23	0.0029	0.1	0.0278	704.88	701.42		701.54	0.12	703.54	706.49	2.95	1.61
B2	Inlet B2	Inlet B3	0.51	1.99	14.23	0.73	0.77	9.17	**13.98**	0.012	46	36	0	0.0059	7.83	**55.35**	1.98	0.0004	1	0.0607	704.80	700.15		700.42	0.27	703.42	706.35	2.93	1.55
B3	Inlet B3	Wye B12	0.47	2.46	14.33	0.75	0.76	9.15	**17.17**	0.012	184	36	0	0.0059	7.87	**55.61**	2.43	0.0006	0.1	0.0092	704.72	699.06		700.15	1.09	703.15	706.09	2.94	1.37
-	Wye B12	MH B2	0.00	2.46	14.72	0.00	0.76	9.07	**17.01**	0.012	184	36	0	0.0059	7.87	**55.61**	2.41	0.0006	1	0.0899	704.61	697.97		699.06	1.09	702.06	708.01	5.95	3.40
B7	Inlet B7	Inlet B8	0.33	0.33	5.00	0.84	0.84	11.88	**3.29**	0.012	144	18	0	0.0100	6.44	**11.38**	1.86	0.0008	0.1	0.0054	709.12	706.18		707.62	1.44	709.12	716.55	7.43	7.43
B8	Inlet B8	Inlet B9	0.29	0.62	5.37	0.88	0.86	11.73	**6.25**	0.012	209	18	0	0.0100	6.44	**11.38**	3.53	0.0030	0.1	0.0194	707.68	704.09		706.18	2.09	707.68	713.98	6.30	6.30
B9	Inlet B9	MH B9	0.78	1.40	20.42	0.75	0.80	8.02	**8.96**	0.012	91	24	0	0.0111	8.22	**25.82**	2.85	0.0013	0.1	0.0126	705.59	702.58		703.59	1.01	705.59	709.77	4.18	4.18
-	MH B9	MH B8	0.00	1.40	20.61	0.00	0.80	7.99	**8.92**	0.012	42

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

100 0 50 100

SCALE: 1" = 100'

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- 700 GROUND CONTOUR
- ## STORM PIPE SIZE

DRAINAGE PLAN NOTES:

1. ALL ROOF DRAINGS TO BE CONNECTED TO PRIVATE DRIVE AISLES

No.	Date	REVISIONS	App.

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Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004; 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

OVERALL STORM DRAINAGE DEVELOPMENT PLAN

SHEET NO. **66** OF **132**

2023-64-SDP

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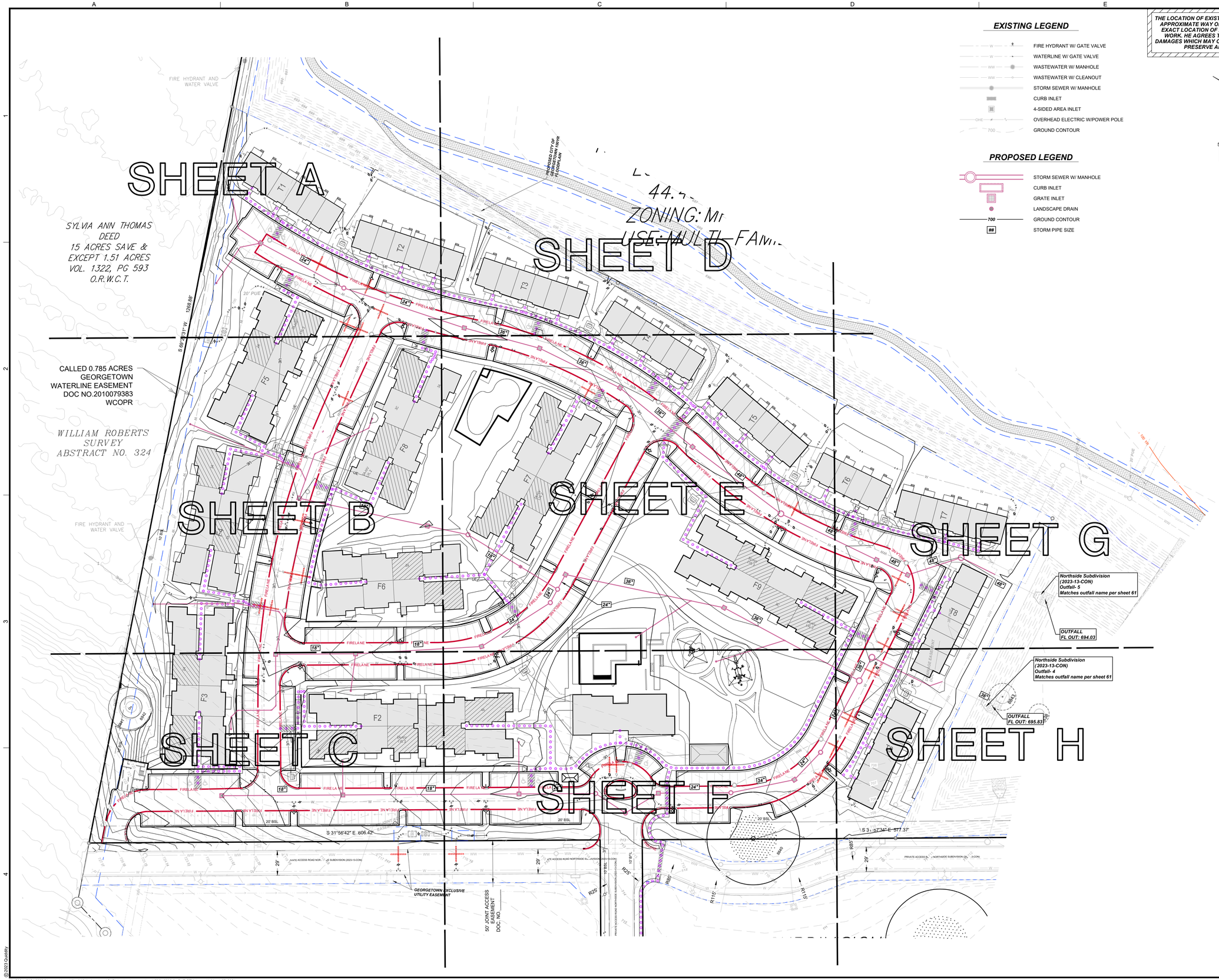

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR
- STORM PIPE SIZE

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

SCALE: 1" = 50'

No.	Date	REVISIONS	App.

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JOB NO.: 17951-0002-01
DESIGNED BY: JMC
DESIGN LEAD: OOI
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

OVERALL STORM DRAINAGE PLAN

SHEET NO. 67 OF 132

2023-64-SDP

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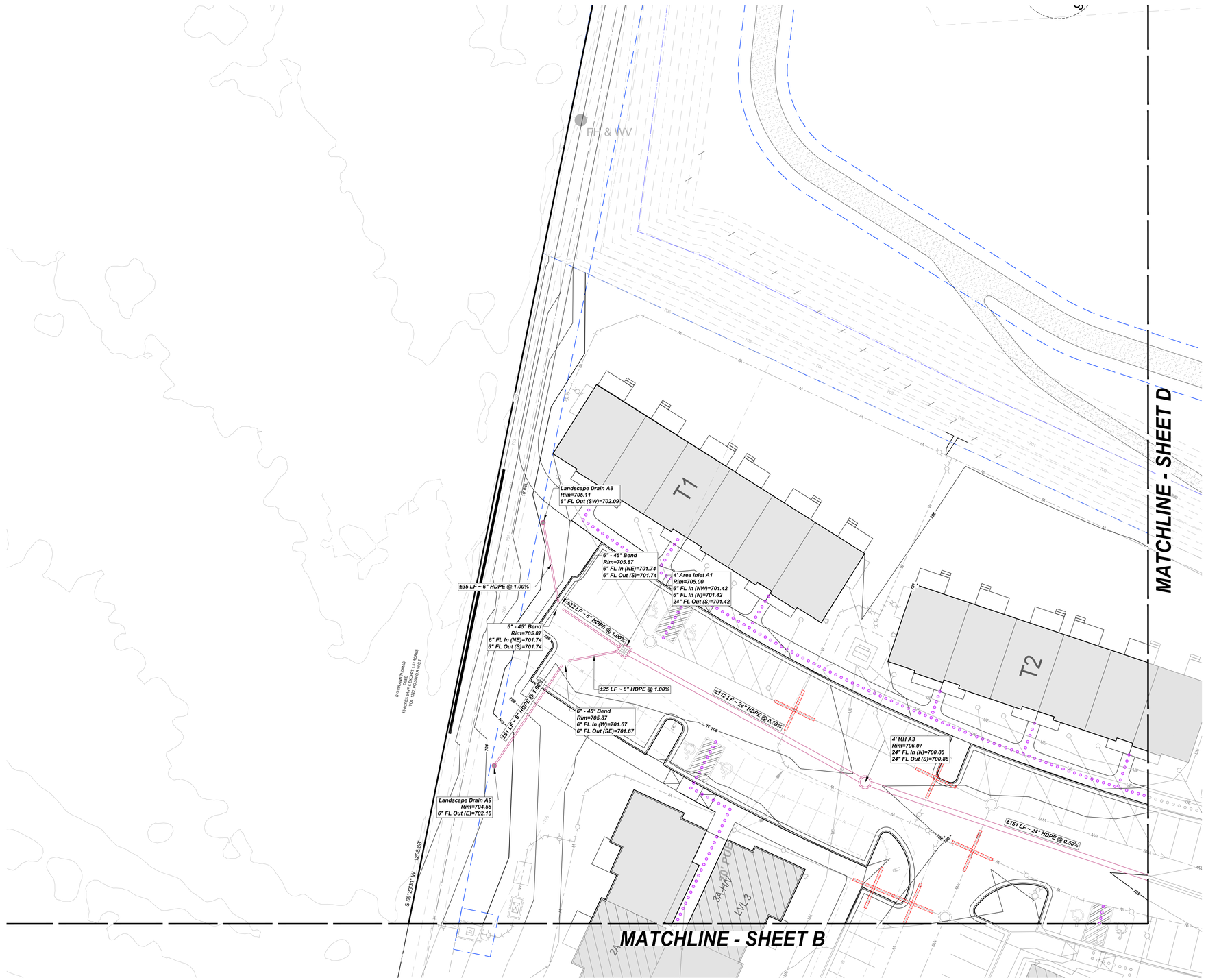

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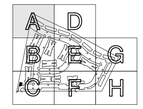
SCALE: 1" = 20'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

REVISIONS

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JOB NO.: 17951-0002-01
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DESIGN LEAD: OOI
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

STORM DRAINAGE PLAN - A

SHEET NO.
68 OF **132**

2023-64-SDP

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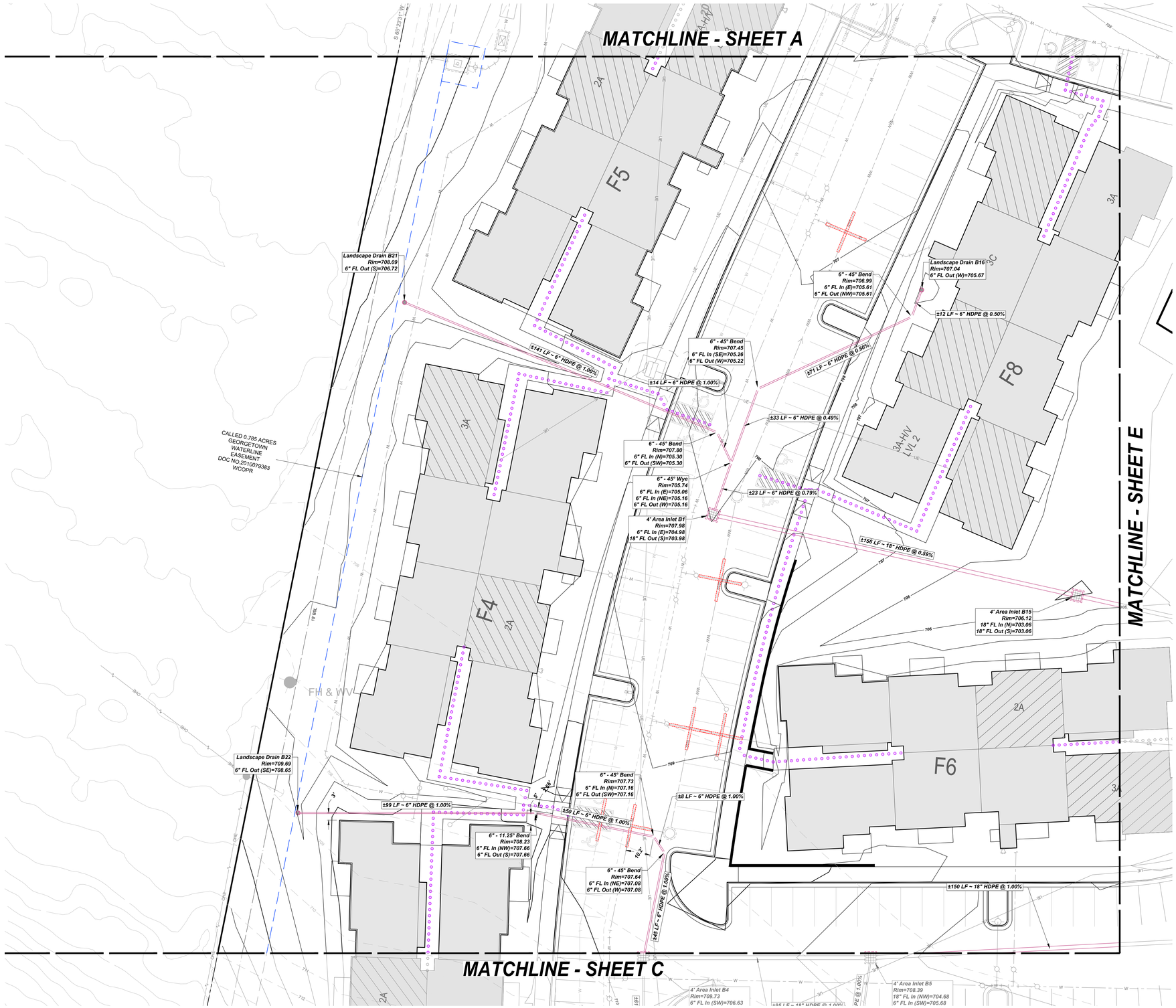
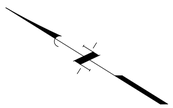
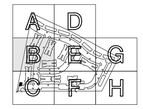




SCALE: 1" = 20'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

No.	Date	REVISIONS	App.

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DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

STORM DRAINAGE PLAN - B

SHEET NO. **69** OF **132**

2023-64-SDP

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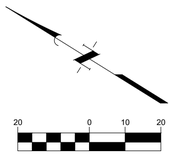

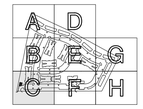

KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

No.	Date	REVISIONS	App.

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146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

STORM DRAINAGE PLAN - C

SHEET NO. **70** OF **132**

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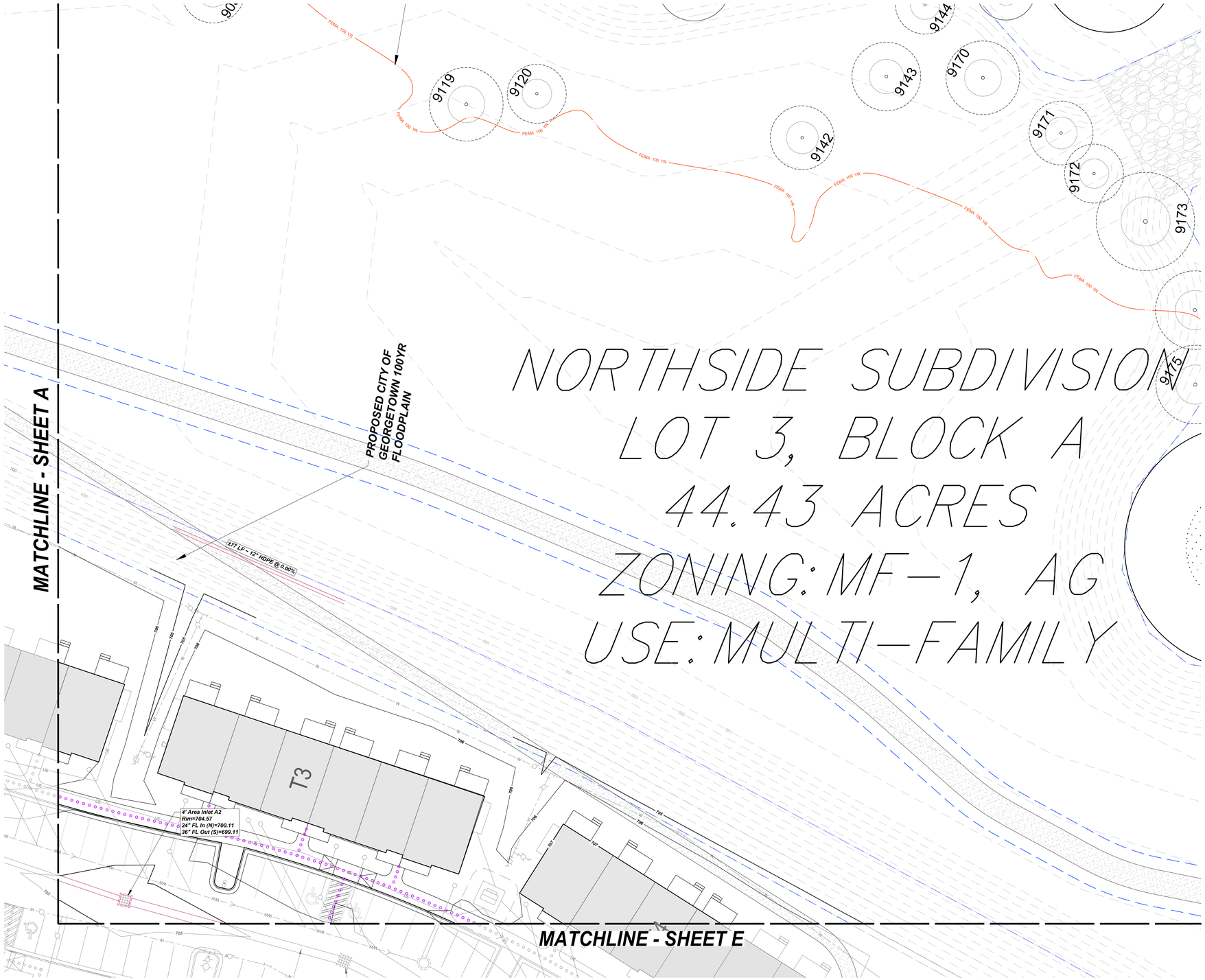
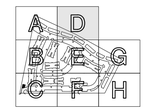


NORTHSIDE SUBDIVISION
LOT 3, BLOCK A
44.43 ACRES
ZONING: MF-1, AG
USE: MULTI-FAMILY

20 0 10 20

SCALE: 1" = 20'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

No.	Date	REVISIONS	App.

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STATE OF TEXAS
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146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

STORM DRAINAGE PLAN - D

SHEET NO. **71** OF **132**

2023-64-SDP

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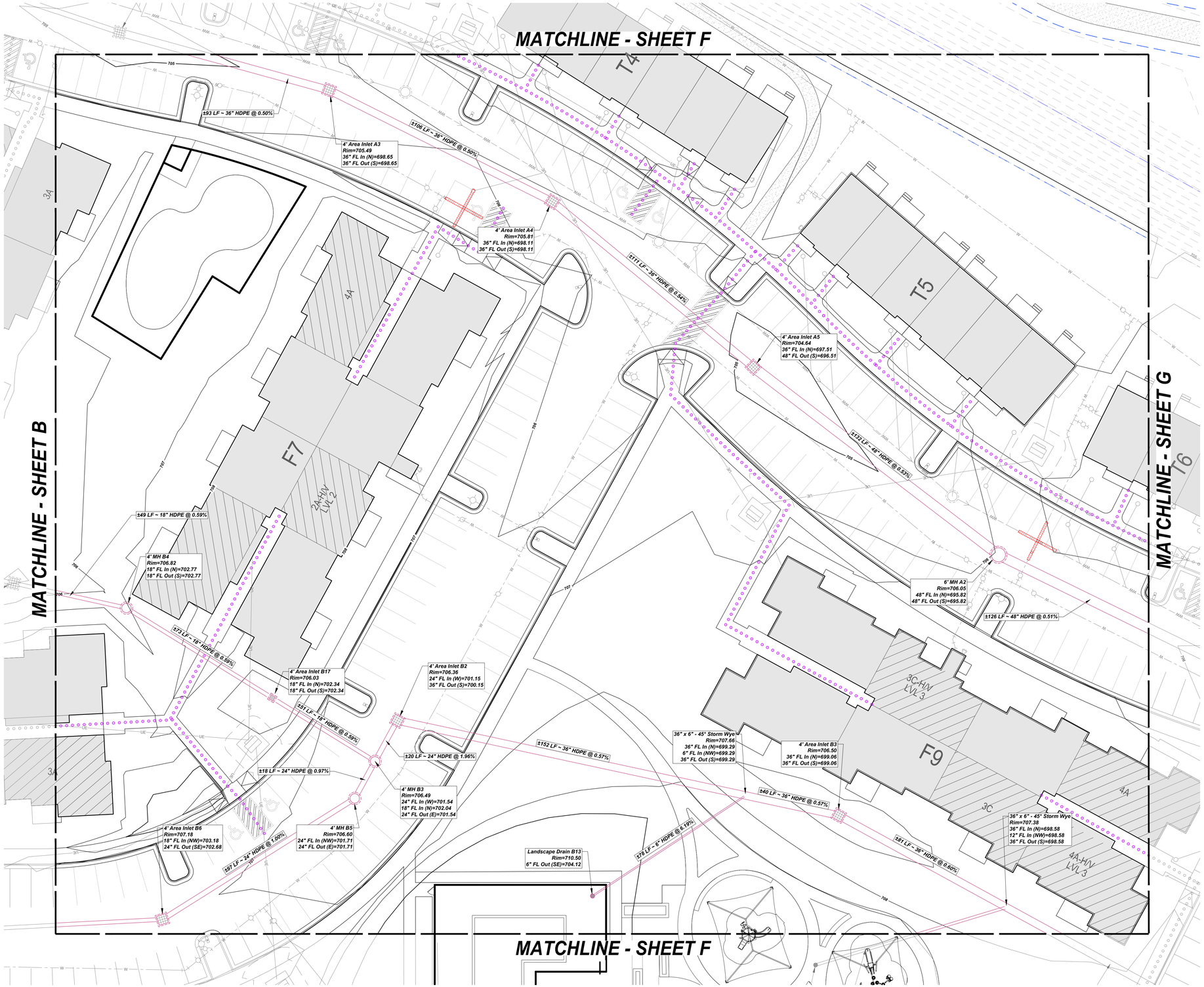
K:\17951\17951-0002-01 northside multifamily\2 design phase\CAD\site development plans\17951-0002-01 STORM.dwg ki: March 27, 2024



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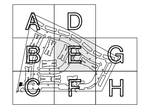
SCALE: 1" = 20'



KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

No.	Date	REVISIONS	App.

QUIDDITY

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DWG ISSUANCE: U2 - MARCH 2024
DESIGN LEAD: OOI
JOB NO.: 17951-0002-01
DRAWN BY: JDE

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LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

STORM DRAINAGE PLAN - E

SHEET NO.
72 OF **132**

2023-64-SDP

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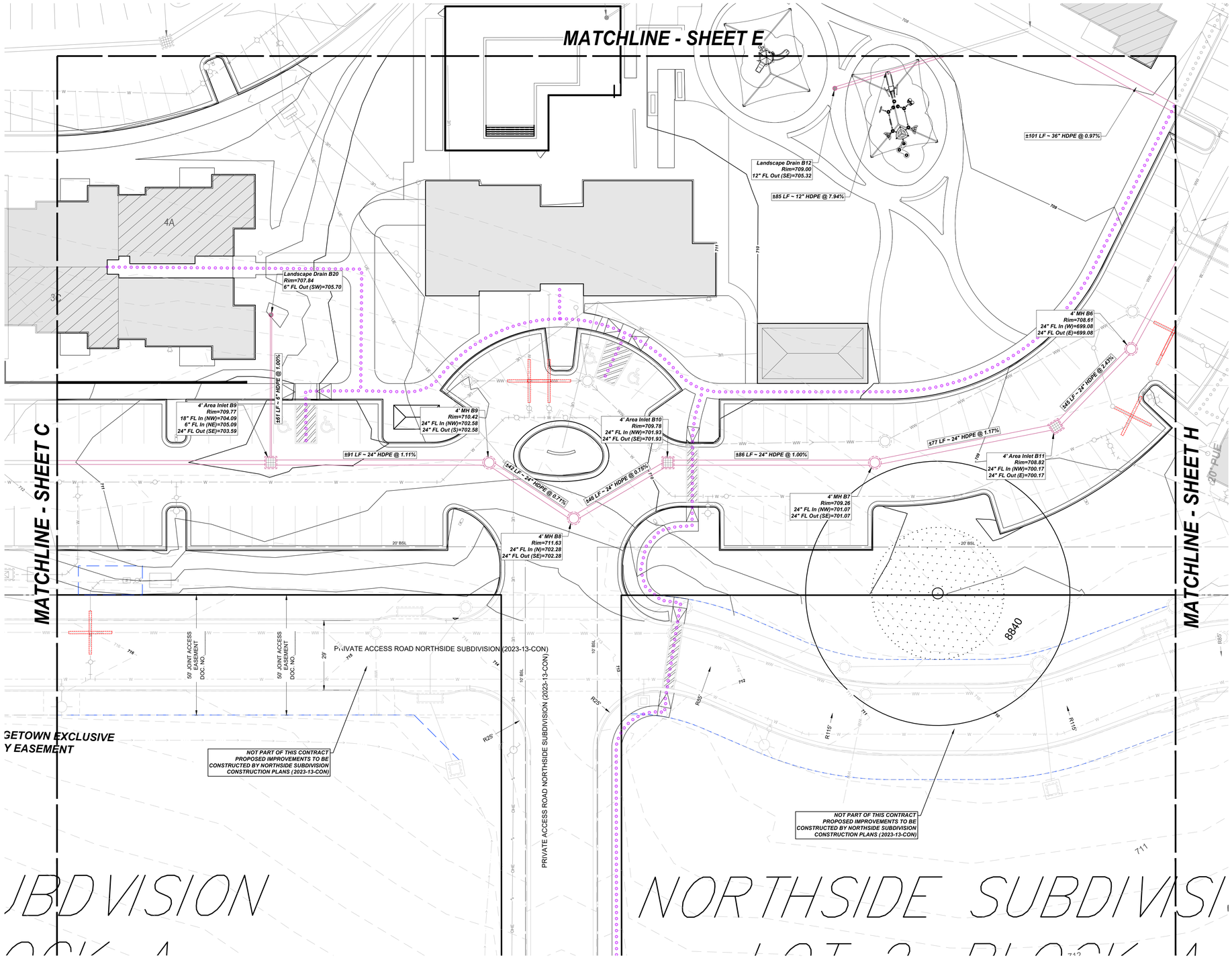

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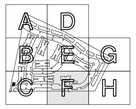

KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

No.	Date	REVISIONS	App.

QUIDDITY

Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-22000 & 10044100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN
DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024
DESIGN LEAD: OOI
JOB NO.: 17951-0002-01
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

STORM DRAINAGE PLAN - F

SHEET NO. 73 OF 132

2023-64-SDP

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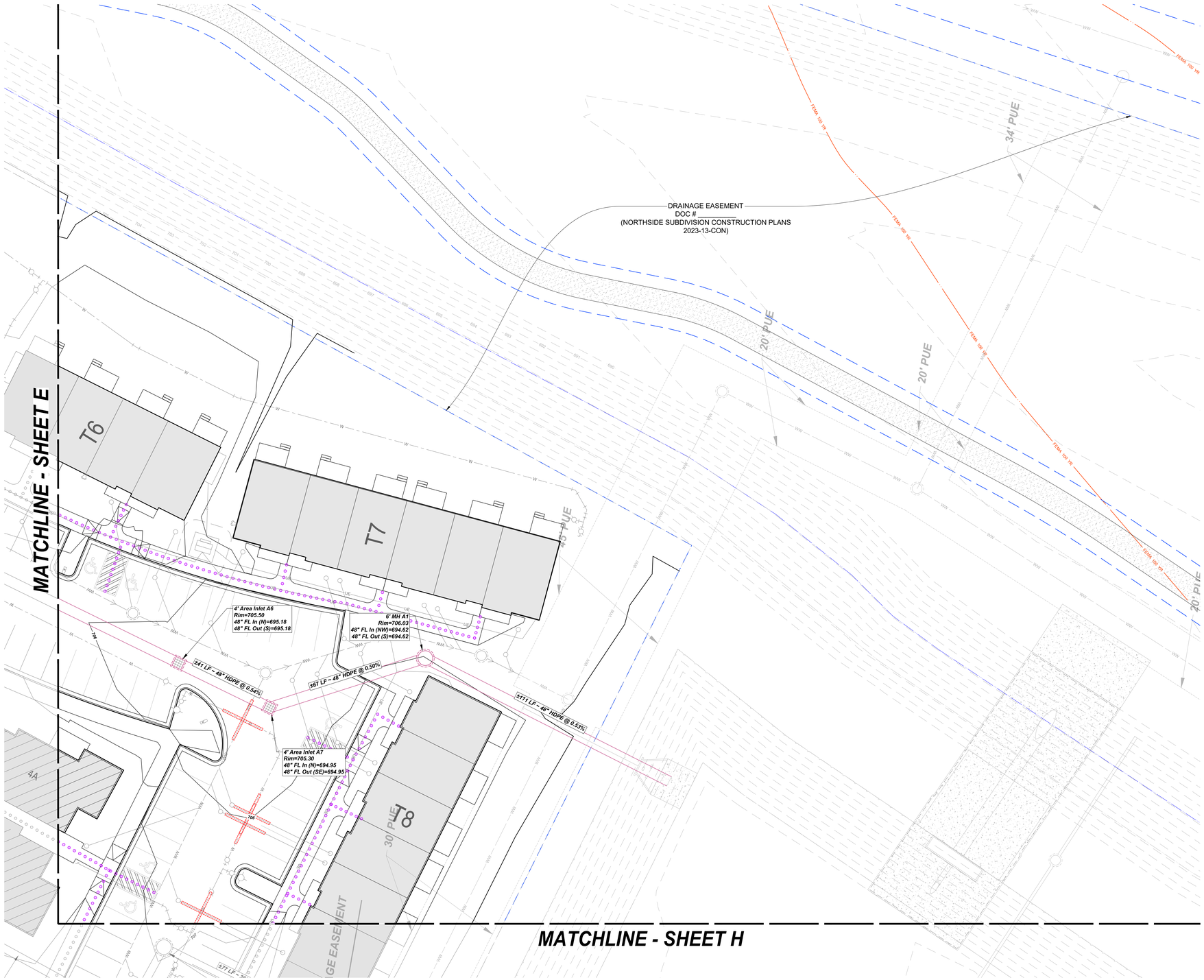
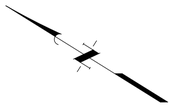
K:\17951\17951-0002-01 northside multifamily\2 design phase\CAD\site development plans\17951-0002-01 STORM.dwg ki: March 27, 2024

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.





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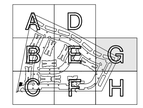

KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- 4-SIDED AREA INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23264 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

STORM DRAINAGE PLAN - G

SHEET NO.
74 OF **132**

2023-64-SDP

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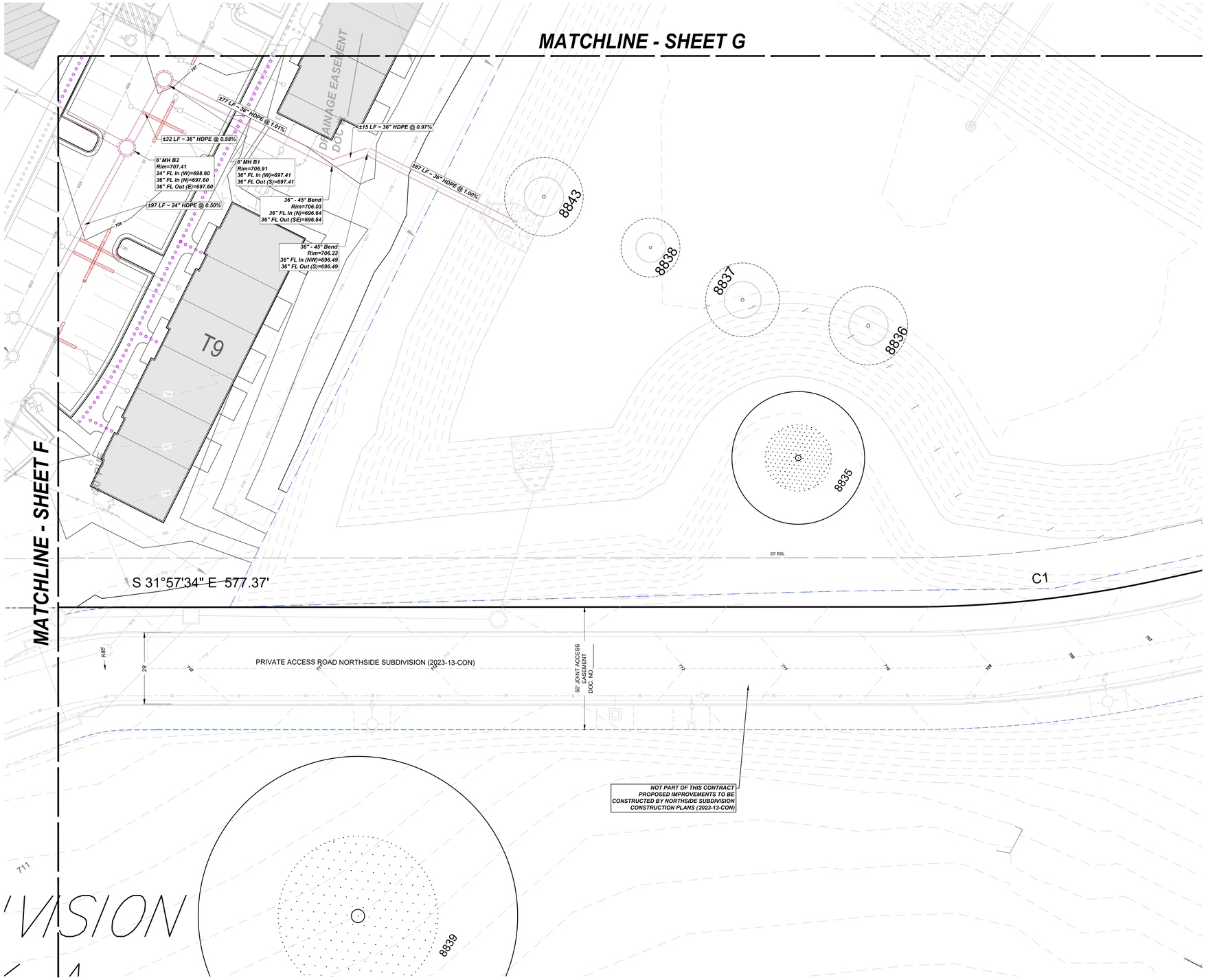

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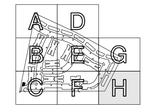

KEY MAP

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
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PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- CURB INLET
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No.	Date	REVISIONS	App.

QUIDDITY
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JOB NO.: 17951-0002-01
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DESIGN LEAD: OOI
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

STORM DRAINAGE PLAN - H

SHEET NO. **75** OF **132**

2023-64-SDP

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GUIDELINES FOR DESIGN AND INSTALLATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROLS

TYPE OF STRUCTURE	REACH LENGTH	MAXIMUM DRAINAGE AREA	SLOPE
SILT FENCE	N/A	2 ACRES	0 – 10%
	200 FEET	2 ACRES	10 – 20%
	100 FEET	1 ACRE	20 – 30%
	50 FEET	1/2 ACRE	> 30%
TRIANGLE FILTER DIKE	100 FEET	1/2 ACRE	< 30% SLOPE
	50 FEET	1/4 ACRE	> 30% SLOPE
ROCK BERM *, **	500 FEET	< 5 ACRES	0 – 10%

* FOR ROCK BERM DESIGN WHERE PARAMETERS ARE OTHER THAN STATED, DRAINAGE AREA CALCULATIONS AND ROCK BERM DESIGN MUST BE SUBMITTED FOR REVIEW.

** HIGH SERVICE ROCK BERMS MAY BE REQUIRED IN AREAS OF ENVIRONMENTAL SIGNIFICANCE AS DETERMINED BY THE CITY OF GEORGETOWN.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

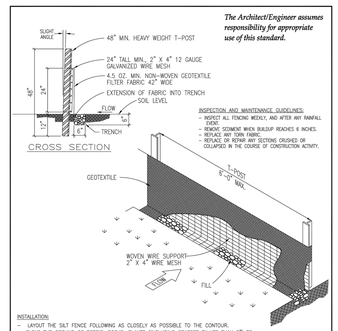
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TEMPORARY EROSION AND SEDIMENTATION CONTROL GUIDELINES
ADOPTED 6/21/2006 — EC01 — SCALE: NTS — DATE: 1/2003 — DRAWN BY: MTS — CHECKED BY: TRB

NOTE: THIS SECTION IS INTENDED TO ASSIST THOSE PERSONS PREPARING WATER POLLUTION ABATEMENT PLANS (WPAP) OR STORM WATER POLLUTION PREVENTION PLANS (SWPP) THAT COMPLY WITH FEDERAL, STATE AND/OR LOCAL STORM WATER REGULATIONS.

1. THE CONTRACTOR TO INSTALL AND MAINTAIN EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING, GRADING), DURING CONSTRUCTION, AND CONTRACTOR TO REMOVE EROSION/SEDIMENTATION CONTROLS AT THE COMPLETION OF PROJECT AND GRASS RESTORATION.
2. ALL PROJECTS WITHIN THE RECHARGE ZONE OF THE EDWARD'S AQUIFER SHALL SUBMIT A BEST MANAGEMENT PRACTICES AND WATER POLLUTION AND ABATEMENT PLAN TO THE TNRCC FOR APPROVAL PRIOR TO THAT CONSTRUCTION.
3. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS TO BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION PLAN. ANY CHANGES OR ADDITIONS TO THE CONTROLS RESULTING FROM THE APPROVED PLANS MUST BE SUBMITTED TO AND APPROVED BY THE OWNER'S REPRESENTATIVE.
4. ALL PLANTING SHALL BE DONE BETWEEN MAY 1 AND SEPTEMBER 15 EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING. IF PLANTING IS AUTHORIZED TO BE DONE OUTSIDE THE DATES SPECIFIED, THE SEED SHALL BE PLANTED WITH THE ADDITION OF WINTER FESCUE (KENTUCKY 31) AT A RATE OF 100lb/AC. GRASS SHALL BE COMMON BERMUDA GRASS, HULLED, SCARIFIED, 99% PURE AND 85% GERMINATION. SEED SHALL BE FREE OF NOXIOUS WEEDS AND 90% RECENT CROP, RECLEANED AND TREATED WITH APPROPRIATE FUNGICIDE, AT TIME OF WORK. SEED SHALL BE FURNISHED IN SEALED, STANDARD CONTAINERS WITH DEALER'S GUARANTEED ANALYSIS.
5. ALL DISTURBED AREAS TO BE RESTORED AS NOTED IN THE WATER POLLUTION ABATEMENT PLAN.
6. THE PLANTED AREA TO BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT erode THE TOPSOIL, BUT WILL SUFFICIENTLY SOAK THE SOIL TO A DEPTH OF FOUR (4) INCHES. THE IRRIGATION TO OCCUR AT 10–DAY INTERVALS DURING THE FIRST TWO MONTHS TO INSURE GERMINATION AND ESTABLISHMENT OF THE GRASS. RAINFALL SUBSTITUTES FOR THE 10–DAY WATERING, BUT NOT FOR THE FOUR (4) INCH DEPTH.
7. RESTORATION TO BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1–1/2 INCHES HIGH WITH 95% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN 25 SQUARE FEET EXIST.
8. A MINIMUM OF FOUR (4) INCHES OF TOPSOIL TO BE PLACED IN ALL AREAS DISTURBED BY CONSTRUCTION.
9. THE CONTRACTOR TO HYDROMULCH OR SOD (AS SHOWN ON PLANS) ALL EXPOSED CUTS AND FILLS UPON COMPLETION OF CONSTRUCTION.
10. EROSION AND SEDIMENTATION CONTROLS TO BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILDUP WITHIN TREE DRIPLINE.
11. TO AVOID SOIL COMPACTION, CONTRACTOR SHALL NOT ALLOW VEHICULAR TRAFFIC, PARKING, OR STORAGE OF EQUIPMENT OR MATERIALS WITHIN THE TREE DRIPLINE.
12. WHERE A FENCE IS CLOSER THAN FOUR (4) 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 FENCING.
13. TREES TO BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.
14. ANY ROOT EXPOSED BY CONSTRUCTION ACTIVITY TO BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOPSOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE BACKFILLED WITHIN TWO DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
15. CONTRACTOR TO PRUNE VEGETATION TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC, AND EQUIPMENT BEFORE DAMAGE OCCURS (TIPPING OF BRANCHES, ETC.). ALL FINISHED PRUNING TO BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE "NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES").
16. THE CONTRACTOR TO INSPECT THE CONTROLS AT WEEKLY INTERVALS AND AFTER EVERY RAINFALL EXCEEDING 1/4 INCH TO VERIFY THAT THEY HAVE NOT BEEN SIGNIFICANTLY DISTURBED AND ACCUMULATED SEDIMENT AFTER A SIGNIFICANT RAINFALL TO BE REMOVED AND PLACED IN THE OWNER DESIGNATED SPOIL DISPOSAL SITE. THE CONTRACTOR TO CONDUCT PERIODIC INSPECTIONS OF ALL EROSION/SEDIMENTATION CONTROLS AND TO MAKE ANY REPAIRS OR MODIFICATIONS NECESSARY TO ASSURE CONTINUED EFFECTIVE OPERATION OF EACH DEVICE.
17. ANY EXISTING WATER WELLS ENCOUNTERED DURING CONSTRUCTION TO BE CAPPED OR SEALED. THESE WELLS, OR OTHER SUCH SITES DISCOVERED IMMEDIATELY ADJACENT TO A PROTECTED TREE, ERECT THE FENCE AUTOMATICALLY TWO TO FOUR FEET (2'–4') BEHIND THE AREA IN QUESTION.
18. NO ABOVE AND/OR BELOW GROUND STORAGE FACILITIES TO BE STORED ON THE PROJECT SITE.
19. IF EROSION AND SEDIMENTATION CONTROL SYSTEMS ARE EXISTING FROM PRIOR CONTRACTS, OWNER'S REPRESENTATIVE AND CONTRACTOR TO EXAMINE THE EXISTING EROSION AND SEDIMENTATION CONTROL SYSTEMS FOR DAMAGE PRIOR TO CONSTRUCTION. ANY DAMAGE TO PREEXISTING EROSION AND SEDIMENTATION CONTROLS NOTED BEFORE WORK BEGINS TO BE REPAIRED.
20. INTENTIONAL RELEASE OF VEHICLE OR EQUIPMENT FLUIDS ONTO THE GROUND IS NOT ALLOWED. CONTAMINATED SOIL RESULTING FROM ACCIDENTAL SPILL TO BE REMOVED AND DISPOSED OF PROPERLY.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
EROSION and SEDIMENTATION and TREE PROTECTION NOTES
ADOPTED 6/21/2006 — EC01A — SCALE: NTS — DATE: 1/2003 — DRAWN BY: MTS — CHECKED BY: TRB

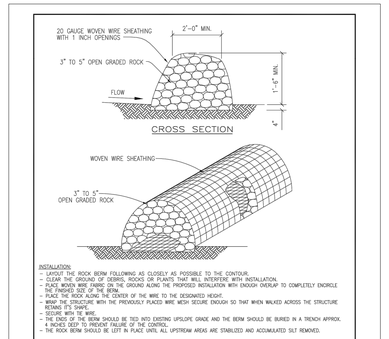


INSPECTION AND MAINTENANCE GUIDELINES:
- INSPECT ALL FENCING WEEKLY AND AFTER ANY RAINFALL EVENT.
- REMOVE SEDIMENT WHEN BUILDUP REACHES 6 INCHES.
- REPLACE ANY TORN FABRIC.
- REPAIR OR REPLACE ANY SECTIONS CRUSHED OR COLLAPSED IN THE COURSE OF CONSTRUCTION ACTIVITY.

INSTALLATION:
- LAYOUT THE SILT FENCE FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
- CLEAR THE GROUND OF DEBRIS, ROCKS, PLANTS, ENCLUDING GRASSES TALLER THAN 2", TO ENSURE GOOD CONTACT BETWEEN THE FABRIC AND SURFACE. EXCAVATE 8" DEEP X 6" WIDE TRENCH ON UPSTREAM SIDE OF FACE PER PLANS.
- DRIVE THE HEAVY DUTY T–POST AT LEAST 12 INCHES INTO THE GROUND AND AT A SLIGHT ANGLE TOWARDS THE FLOW.
- ATTACH THE 2" X 4" 12 GAUGE WELDED WIRE MESH TO THE T–POST WITH 11 1/2 GAUGE GALVANIZED T–POST CLIPS. THE TOP OF THE WIRE TO BE 24" ABOVE GROUND LEVEL. THE WELDED WIRE MESH TO BE OVERLAPPED 6" AND TIED AT LEAST 6 TIMES WITH HOG RINGS.
- THE SILT FENCE TO BE INSTALLED WITH A SKIRT A MINIMUM OF 6" WIDE PLACED ON THE UPHILL SIDE OF THE FENCE INSIDE EXCAVATED TRENCH. THE FABRIC TO OVERLAP THE TOP OF THE WIRE BY 1".
- ANCHOR THE SILT FENCE BY BACKFILLING WITH EXCAVATED DIRT AND ROCKS (NOT LARGER THAN 2").
- SPLICE THE FABRIC TOGETHER ONLY AT A MINIMUM OF 18" WIDE ATTACHED IN 4" LEAST 4 PLACES. SPLICES IN CONCENTRATED FLOW AREAS WILL NOT BE ALLOWED.
- SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
SILT FENCE DETAIL
ADOPTED 6/21/2006 — EC02 — SCALE: NTS — DATE: 1/2003 — DRAWN BY: MTS — CHECKED BY: TRB

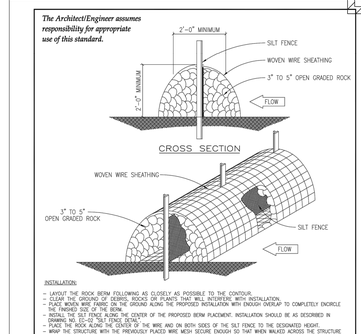


INSTALLATION:
- LAYOUT THE ROCK BERM FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
- CLEAR THE GROUND OF DEBRIS, ROCKS OR PLANTS THAT WILL INTERFERE WITH INSTALLATION.
- PLACE WOVEN WIRE FABRIC ON THE GROUND ALONG THE PROPOSED INSTALLATION WIDTH (ENOUGH OVERLAP TO COMPLETELY ENCIRCLE THE FINISHED SIZE OF THE BERM).
- PLACE STONE EVENLY ALONG THE CENTER OF THE WIRE TO THE DESIGNATED HEIGHT.
- WRAP THE STRUCTURE WITH THE PREVIOUSLY PLACED WIRE MESH SECURE ENOUGH SO THAT WHEN WALKED ACROSS THE STRUCTURE RETAINS IT'S SHAPE.
- SECURE WITH TIE WIRE.
- THE ENDS OF THE BERM SHOULD BE TIED INTO EXISTING UPSLOPE GRADE AND THE BERM SHOULD BE BURIED IN A TRENCH APPROX. 4 INCHES DEEP TO PREVENT FAILURE OF THE CONTROL.
- THE ROCK BERM SHOULD BE LEFT IN PLACE UNTIL ALL UPSTREAM AREAS ARE STABILIZED AND ACCUMULATED SILT REMOVED.

INSPECTION AND MAINTENANCE GUIDELINES:
- INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL EVENT BY THE RESPONSIBLE PARTY. FOR INSTALLATIONS IN STREAMBEDS, ADDITIONAL DAILY INSPECTIONS SHOULD BE MADE.
- REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6 INCHES AND DISPOSE OF THE ACCUMULATED SILT IN AN APPROVED MANNER.
- REPAIR ANY LOOSE WIRE SHEATHING.
- THE BERM SHOULD BE REPAIRED AS NEEDED DURING INSPECTION.
- THE BERM SHOULD BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
ROCK BERM DETAIL
ADOPTED 6/21/2006 — EC03 — SCALE: NTS — DATE: 1/2003 — DRAWN BY: MTS — CHECKED BY: TRB

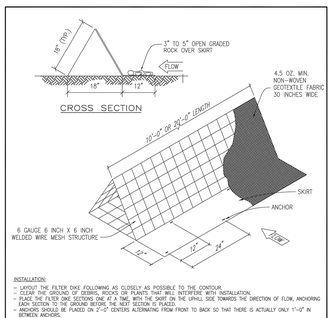


INSTALLATION:
- LAYOUT THE ROCK BERM FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
- CLEAR THE GROUND OF DEBRIS, ROCKS OR PLANTS THAT WILL INTERFERE WITH INSTALLATION.
- PLACE WOVEN WIRE FABRIC ON THE GROUND ALONG THE PROPOSED INSTALLATION WIDTH (ENOUGH OVERLAP TO COMPLETELY ENCIRCLE THE FINISHED SIZE OF THE BERM).
- INSTALL THE SILT FENCE ALONG THE CENTER OF THE PROPOSED BERM PLACEMENT. INSTALLATION SHOULD BE AS DESCRIBED IN DRAWING NO. EC–02 "SILT FENCE DETAIL".
- PLACE STONE EVENLY ALONG THE CENTER OF THE WIRE AND ON BOTH SIDES OF THE SILT FENCE TO THE DESIGNATED HEIGHT.
- WRAP THE STRUCTURE WITH THE PREVIOUSLY PLACED WIRE MESH SECURE ENOUGH SO THAT WHEN WALKED ACROSS THE STRUCTURE RETAINS ITS SHAPE.
- SECURE WITH TIE WIRE.
- THE ROCK BERM SHOULD BE LEFT IN PLACE UNTIL ALL UPSTREAM AREAS ARE STABILIZED AND ACCUMULATED SILT REMOVED.

INSPECTION AND MAINTENANCE GUIDELINES:
- INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL EVENT BY THE CONTRACTOR. FOR THE INSTALLATIONS IN STREAMBEDS, ADDITIONAL DAILY INSPECTIONS SHOULD BE MADE ON ROCK BERM.
- REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6 INCHES AND DISPOSE OF THE ACCUMULATED SILT IN AN APPROVED MANNER.
- REPAIR ANY LOOSE WIRE SHEATHING.
- THE BERM SHOULD BE RESHAPED AS NEEDED DURING INSPECTION.
- THE BERM SHOULD BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
HIGH SERVICE ROCK BERM DETAIL
ADOPTED 6/21/2006 — EC04 — SCALE: NTS — DATE: 1/2003 — DRAWN BY: MTS — CHECKED BY: TRB

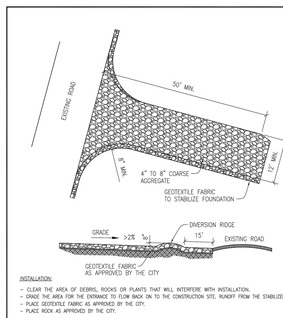


INSTALLATION:
- LAYOUT THE FILTER DIKE FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
- CLEAR THE GROUND OF DEBRIS, ROCKS OR PLANTS THAT WILL INTERFERE WITH INSTALLATION.
- PLACE THE FILTER DIKE SECTIONS ONE AT A TIME, WITH THE SKIRT ON THE UPHILL SIDE TOWARDS THE DIRECTION OF FLOW, ANCHORING EACH SECTION BEFORE PLACING THE NEXT ONE IN LINE.
- ANCHORS SHOULD BE PLACED ON 2'–0" CENTERS ALTERNATING FROM FRONT TO BACK SO THAT THERE IS ACTUALLY ONLY 1'–0" IN BETWEEN ANCHORS.
- SECURELY FASTEN THE SKIRT FROM ONE SECTION OF FILTER DIKE TO THE NEXT.
- FILTER DIKES MUST MAINTAIN CONTINUOUS CONTACT WITH THE GROUND.
- THE ENDS OF THE DIKE TO BE COMPLETELY TURNED UP, ONCE AND OVERLAPPING SILT SHOULD BE REMOVED. SILT SHOULD BE DISPOSED OF IN A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

INSPECTION AND MAINTENANCE GUIDELINES:
- INSPECTION SHOULD BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
- INSPECT AND REALIGN BERMS AS NEEDED TO PREVENT GAPS BETWEEN THE SECTIONS.
- ACCUMULATED SILT SHOULD BE REMOVED AFTER EACH RAINFALL EVENT, AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TRIANGULAR FILTER DIKE
ADOPTED 6/21/2006 — EC05 — SCALE: NTS — DATE: 1/2003 — DRAWN BY: MTS — CHECKED BY: TRB

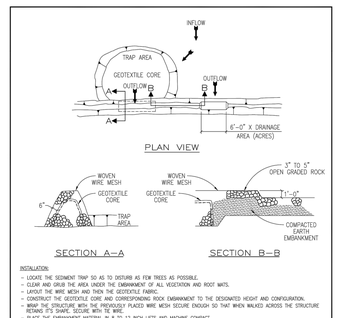


INSTALLATION:
- CLEAR THE AREA OF DEBRIS, ROCKS OR PLANTS THAT WILL INTERFERE WITH INSTALLATION.
- GRADE THE AREA FOR THE ENTRANCE TO FLOW BACK ON TO THE CONSTRUCTION SITE. RUNOFF FROM THE STABILIZED CONSTRUCTION
- PLACE GEOTEXTILE FABRIC AS APPROVED BY THE CITY.
- PLACE ROCK AS APPROVED BY THE CITY.

INSPECTIONS AND MAINTENANCE GUIDELINES:
- THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION, WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ON TO PUBLIC RIGHTS–OF–WAY SHOULD BE REMOVED IMMEDIATELY BY CONTRACTOR.
- WHEN NECESSARY, WHEELS SHOULD BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS–OF–WAY.
- WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
- ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STABILIZED CONSTRUCTION ENTRANCE
ADOPTED 6/21/2006 — EC06 — SCALE: NTS — DATE: 1/2003 — DRAWN BY: MTS — CHECKED BY: TRB

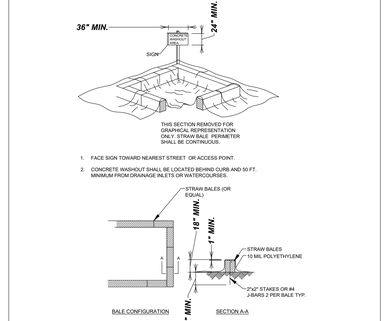


INSTALLATION:
- LOCATE THE SEDIMENT TRAP SO AS TO DISTURB AS FEW TREES AS POSSIBLE.
- CLEAR AND GRUB THE AREA UNDER THE EMBANKMENT OF ALL VEGETATION AND ROOT MATS.
- LAYOUT THE WIRE MESH AND THEN THE GEOTEXTILE FABRIC.
- CONSTRUCT THE GEOTEXTILE CORE AND CORRESPONDING ROCK EMBANKMENT TO THE DESIGNATED HEIGHT AND CONFIGURATION.
- WRAP THE STRUCTURE WITH THE PREVIOUSLY PLACED WIRE MESH SECURE ENOUGH SO THAT WHEN WALKED ACROSS THE STRUCTURE RETAINS IT'S SHAPE. SECURE WITH TIE WIRE.
- PLACE THE EMBANKMENT MATERIAL IN 8 TO 12 INCH LIFTS AND MACHINE COMPACT.

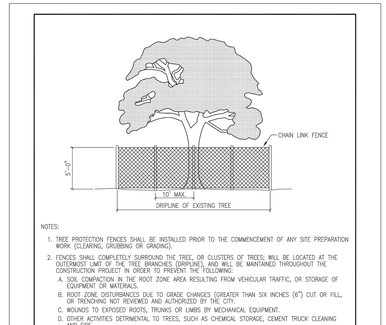
INSPECTION AND MAINTENANCE GUIDELINES:
- INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. REPAIR SHOULD BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
- ALL SEDIMENT AND OTHER DEBRIS SHOULD BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO HALF OF THE DESIGN DEPTH OF THE TRAP.
- SEDIMENT REMOVED FROM THE TRAP SHOULD BE DEPOSITED IN AN APPROVED SPOILS AREA AND IN SUCH A MANNER THAT IT WILL NOT CAUSE ADDITIONAL SILTATION.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
SEDIMENT TRAP DETAIL
ADOPTED 6/21/2006 — EC07 — SCALE: NTS — DATE: 1/2003 — DRAWN BY: MTS — CHECKED BY: TRB



	CONCRETE WASHOUT
	TCEQ RG-348



NOTES:
1. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING).
2. FENCES SHALL COMPLETELY SURROUND THE TREE, OR CLUSTERS OF TREES; WILL BE LOCATED AT THE OUTERMOST LIMIT OF THE TREE BRANCHES (DRIPLINE), AND WILL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PREVENT 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 INCHES (6") CUT OR FILL, OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY.
   C. WOUNDS TO EXPOSED ROOTS, TRUNKS OR LIMBS BY MECHANICAL EQUIPMENT.
   D. OTHER ACTIVITIES DETRIMENTAL TO TREES, SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING AND FIRE.
3. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIPLINES MAY BE PERMITTED IN THE FOLLOWING CASES:
   A. WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
   B. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN SIX FEET (6'–0") TO BUILDING.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TREE PROTECTION – CHAIN LINK FENCE
ADOPTED 6/21/2006 — EC09 — SCALE: NTS — DATE: 1/2003 — DRAWN BY: MTS — CHECKED BY: TRB

NOTES:
1. WHERE ANY EXCEPTIONS RESULT IN A FENCE BEING CLOSER THAN FOUR FEET (4'–0") TO A TREE TRUNK; PROTECT THE TRUNK WITH STRAPPED–ON–PLANKING TO A HEIGHT OF EIGHT FEET (8'–0"), OR TO THE LIMITS OF LOWER BRANCHING IN ADDITION TO THE REDUCED FENCING PROVIDED.
2. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN TWO (2) DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE, AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
3. PRIOR EXCAVATION OR GRADE CUTTING WITHIN TREE DRIPLINE, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT, TO MINIMIZE DAMAGE TO REMAINING ROOTS.
4. TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES SHOULD BE WATERED DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. TREE CROWNS SHOULD BE SPRAYED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.
5. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
6. NO LANDSCAPE TOPSOIL DRESSING GREATER THE FOUR INCHES (4") SHALL BE PERMITTED WITHIN THE DRIPLINE OF A TREE. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
7. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TREE PROTECTION – WOOD SLATS
ADOPTED 6/21/2006 — EC10 — SCALE: NTS — DATE: 1/2003 — DRAWN BY: MTS — CHECKED BY: TRB

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K:\17951\17951-0002-01 northside multifamily\2 design phase\CAD\site development plans\17951-0002-01 DETAILS.dwg ki: March 27, 2024

No. | Date | REVISIONS | App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: 1/2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS — JUSTIN M. CADIEUX — 146526 — LICENSED PROFESSIONAL ENGINEER
03/27/2024

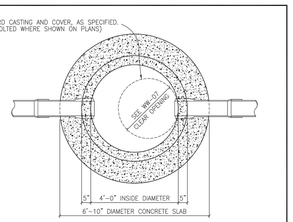
GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

EROSION CONTROL DETAILS

SHEET NO. 76 OF 132

2023-64-SDP

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



MANHOLE PLAN

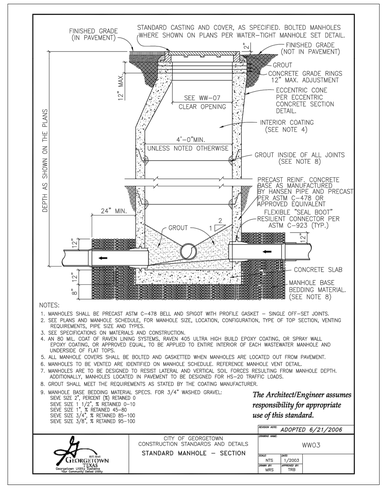
CITY OF GEORGETOWN NOTES:

MANHOLE DETAILS SHALL REFLECT THE CITY'S MINIMUM SPECIFICATIONS, AS STATED BELOW:

A. ALL MANHOLES SHALL BE 48" I.D., R.C.P., CLASS III, WITH RUBBER PROFILE GASKET – SINGLE OFF–SET JOINT CONFORMING TO ASTM C478, C433 AND C76.
B. ALL MANHOLES SHALL HAVE FRAME AND COVER, AS MANUFACTURED BY EAST JORDAN IRON WORKS (AS PER DETAIL # WW–07) OR APPROVED EQUIVALENT.
C. ALL MANHOLES SHALL BE CONCRETE WITH CAST IRON FRAME AND COVER.
D. ALL MANHOLES SHALL HAVE AN ECCENTRIC CONE.
E. MANHOLES MAY HAVE A FLAT LID, IF APPROVED BY CITY OF GEORGETOWN, BEING 12" THICK WITH A MINIMUM 30" OPENING, AS MANUFACTURED BY HANSEN PIPE AND PRECAST OR APPROVED EQUAL M.F.G. CONFORMING TO ASTM C478, 5000 P.S.I. CONCRETE, TRAFFIC BEARING AND WITH PROFILE GASKET – SINGLE OFF–SET JOINT CONFORMING TO ASTM C443.
F. INVERTS AND FLEXIBLE SEAL BOOTS, PER ASTM C–923, SHALL BE CAST INTO BASE SECTION.
G. MINIMUM DROP BETWEEN INVERTS SHALL BE ONE–TENTH OF A FOOT (0.1').
H. GRADE RINGS WITH AN I.D. TO MATCH FRAMES CLEAR OPENING WITH A MAXIMUM ADJUSTMENT OF 12" ARE ALLOWED.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

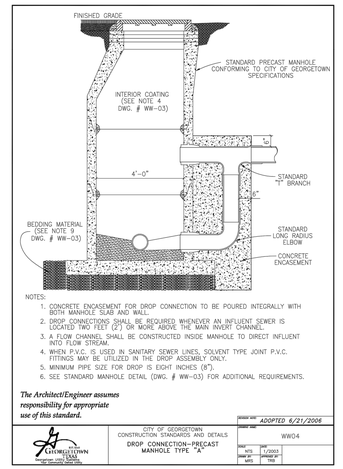
CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS — STANDARD MANHOLE – PLAN — ADOPTED 6/21/2006 — WW02 — SCALE: NTS — 1/2003 — SHEET No. WATS — PAGE No. TRD



NOTES:
1. MANHOLES SHALL BE PRECAST ASTM C–478 BELL AND SPIGOT WITH PROFILE GASKET – SINGLE OFF–SET JOINTS.
2. SEE PLANS AND MANHOLE SCHEDULE, FOR MANHOLE SIZE, LOCATION, CONFIGURATION, TYPE OF TOP SECTION, VENTING REQUIREMENTS, PIPE SIZE AND TYPES.
3. SEE SPECIFICATIONS ON MATERIALS AND CONSTRUCTION.
4. AN 80 MIL. COAT OF RAVEN LINING SYSTEMS, RAVEN 405 ULTRA HIGH BUILD EPOXY COATING, OR SPRAY WALL EPOXY COATING, OR APPROVED EQUIVALENT TO ENTIRE INTERIOR OF EACH WASTEWATER MANHOLE AND UNDERSIDE OF FLAT TOPS.
5. ALL MANHOLE COVERS SHALL BE BOLTED AND GASKETED WHEN MANHOLES ARE LOCATED OUT FROM PAVEMENT.
6. MANHOLES TO BE VENTED ARE IDENTIFIED ON MANHOLE SCHEDULE. REFERENCE MANHOLE VENT DETAIL.
7. MANHOLES ARE TO BE DESIGNED TO RESIST LATERAL AND VERTICAL SOIL FORCES RESULTING FROM MANHOLE DEPTH. ADDITIONALLY, MANHOLES LOCATED IN PAVEMENT TO BE DESIGNED FOR HS–20 TRAFFIC LOADS.
8. GROUT SHALL MEET THE REQUIREMENTS AS STATED BY THE COATING MANUFACTURER.
9. MANHOLE BASE BEDDING MATERIAL SPECS. FOR 3/4" WASHED GRAVEL:
   SIEVE SIZE 2", PERCENT (%) RETAINED: 0
   SIEVE SIZE 1 1/2", % RETAINED: 0–10
   SIEVE SIZE 1", % RETAINED: 45–80
   SIEVE SIZE 3/4", % RETAINED: 85–100
   SIEVE SIZE 3/8", % RETAINED: 95–100

The Architect/Engineer assumes responsibility for appropriate use of this standard.

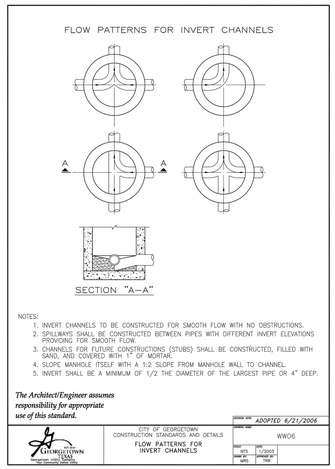
CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS — STANDARD MANHOLE – SECTION — ADOPTED 6/21/2006 — WW03 — SCALE: NTS — 1/2003 — SHEET No. WATS — PAGE No. TRD



NOTES:
1. CONCRETE ENCASEMENT FOR DROP CONNECTION TO BE POURED INTEGRALLY WITH BOTH MANHOLE SLAB AND WALL.
2. DROP CONNECTIONS SHALL BE REQUIRED WHENEVER AN INFLUENT SEWER IS LOCATED TWO FEET (2') OR MORE ABOVE THE MAIN INVERT CHANNEL.
3. A FLOW CHANNEL SHALL BE CONSTRUCTED INSIDE MANHOLE TO DIRECT INFLUENT INTO FLOW STREAM.
4. WHEN P.V.C. IS USED IN SANITARY SEWER LINES, SOLVENT TYPE JOINT P.V.C. FITTINGS MAY BE UTILIZED IN THE DROP ASSEMBLY ONLY.
5. MINIMUM PIPE SIZE FOR DROP IS EIGHT INCHES (8").
6. SEE STANDARD MANHOLE DETAIL (DWG. # WW–03) FOR ADDITIONAL REQUIREMENTS.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS — DROP CONNECTION–PRECAST MANHOLE TYPE "A" — ADOPTED 6/21/2006 — WW04 — SCALE: NTS — 1/2003 — SHEET No. WATS — PAGE No. TRD

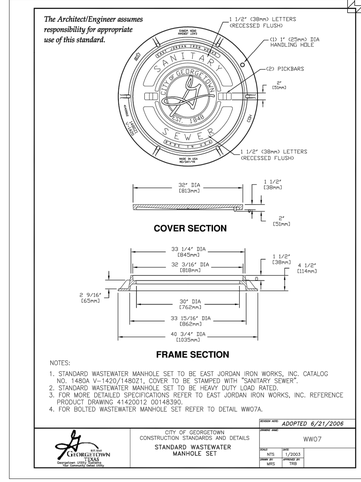


NOTES:
1. INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
2. SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOW.
3. CHANNELS FOR FUTURE CONSTRUCTIONS (STUBS) SHALL BE CONSTRUCTED, FILLED WITH SAND, AND COVERED WITH 1" OF MORTAR.
4. SLOPE MANHOLE ITSELF WITH A 1:12 SLOPE FROM MANHOLE WALL TO CHANNEL.
5. INVERT SHALL BE A MINIMUM OF 1/2 THE DIAMETER OF THE LARGEST PIPE OR 4" DEEP.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS — FLOW PATTERNS FOR INVERT CHANNELS — ADOPTED 6/21/2006 — WW06 — SCALE: NTS — 1/2003 — SHEET No. WATS — PAGE No. TRD

The Architect/Engineer assumes responsibility for appropriate use of this standard.



NOTES:
1. STANDARD WASTEWATER MANHOLE SET TO BE EAST JORDAN IRON WORKS, INC. CATALOG NO. 1480A V–1420/1480211, COVER TO BE STAMPED WITH "SANITARY SEWER".
2. STANDARD WASTEWATER MANHOLE SET TO BE HEAVY DUTY LOAD RATED.
3. FOR MORE DETAILED SPECIFICATIONS REFER TO EAST JORDAN IRON WORKS, INC. REFERENCE PRODUCT DRAWING 41420012, 00148390.
4. FOR BOLTED WASTEWATER MANHOLE SET REFER TO DETAIL WW07A.

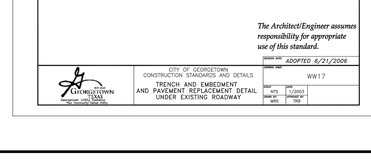
The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS — STANDARD WASTEWATER MANHOLE SET — ADOPTED 6/21/2006 — WW07 — SCALE: NTS — 1/2003 — SHEET No. WATS — PAGE No. TRD

NOTES:
1. BOLTED WASTEWATER MANHOLE SET TO BE EAST JORDAN IRON WORKS, INC. CATALOG NO. 1480APT V–1420/1480211PT, COVER TO BE STAMPED WITH "SANITARY SEWER".
2. BOLTED WASTEWATER MANHOLE SET TO BE HEAVY DUTY LOAD RATED.
3. FOR MORE DETAILED SPECIFICATIONS REFER TO EAST JORDAN IRON WORKS, INC. REFERENCE PRODUCT DRAWING 00148392 41420015.
4. FOR STANDARD WASTEWATER MANHOLE SET REFER TO DETAIL WW07.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

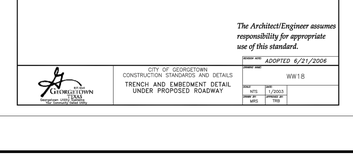
CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS — BOLTED WASTEWATER MANHOLE SET — ADOPTED 6/21/2006 — WW07A — SCALE: NTS — 1/2006 — SHEET No. WATS — PAGE No. TRD



NOTES:
1. AVAILABLE WITH CAST IRON RING AND COVER CAST IN PLACE.
2. PERMITTED ONLY WITH WRITTEN APPROVAL FROM GEORGETOWN UTILITY SYSTEMS, CITY OF GEORGETOWN

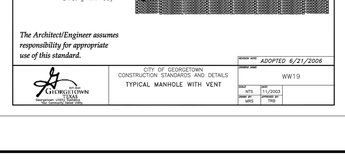
The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS — 48" MANHOLE FLAT LID — ADOPTED 6/21/2006 — WW09 — SCALE: NTS — 1/2003 — SHEET No. WATS — PAGE No. TRD



The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS — FLEXIBLE "SEAL BOOT" CONNECTOR — ADOPTED 6/21/2006 — WW10 — SCALE: NTS — 1/2003 — SHEET No. WATS — PAGE No. TRD

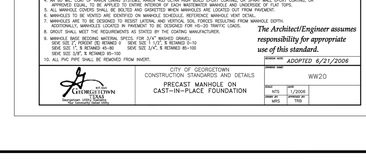


5 1/4" LOCKING LID (F/461–S)

SEWER CLEAN–OUT
CITY OF GEORGETOWN (RESIDENTIAL SERVICE)

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS — SEWER CLEAN–OUT DETAIL — ADOPTED 6/21/2006 — WW12 — SCALE: NTS — 1/2003 — SHEET No. WATS — PAGE No. TRD



NOTES:
1. SERVICE CONNECTION RISERS SHALL TERMINATE 8" IN–SIDE THE PROPERTY LINE.
2. THE END OF EACH SERVICE CONNECTION RISER SHALL BE EXTENDED 12" ABOVE FINISH GRADE.
3. EACH SERVICE CONNECTION SHALL BE PLUGGED WATER–TIGHT WITH AN APPROVED CAP OR PLUG.
4. FOR P.V.C. INSTALLATIONS, CONNECT TO EXISTING "BELL END" AND CONNECT OPPSITE END WITH P.V.C. TO P.V.C. KNOCK ON SLEEVE.
5. SOLIDLY TAMP BACKFILL AT LEAST ONE FOOT (1'–0") ABOVE THE TOP OF THE PIPE. ALL REMAINING BACKFILL SHALL BE BACKFILLED TO THE SAME SPECIFICATIONS AS SHOWN ON PAVEMENT REPLACEMENT DETAIL.
6. CONTRACTOR SHALL MARK ON A CLEAN SET OF PLANS THE FINAL STATIONING OR DISTANCE AND DIRECTION FROM MANHOLE TO EACH SERVICE LATERAL AND GIVE TO ENGINEER FOR RECORD DRAWING PURPOSES.
7. ALL MATERIALS USED SHALL BE NEW AND SHALL BE APPROVED BY THE CITY OF GEORGETOWN ENGINEERING DEPARTMENT.
8. SERVICE LINE MATERIAL SHALL BE P.V.C., SDR–26.
9. SEWER SERVICE SLOPE TO BE 45° OFF CENTERLINE OF MAIN.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS — SEWER SERVICE CONNECTIONS — ADOPTED 6/21/2006 — WW13 — SCALE: NTS — 1/2003 — SHEET No. WATS — PAGE No. TRD

SADDLE TEE				
PART NO.	SIZE	L1	H	P
52635	8"x6"	5.625	5.659	1.448

PLASTIC TRENDS INC. – 1/8 BEND – SPIGOT					
PART NO.	SIZE	A	B	C	D
G 406	6	11.270	6.146	1.870	6.090

NOTES: 1. FLEXIBLE SADDLE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
2. SADDLE TEE SHALL BE ORIENTATED 45° TO MAIN. (SEE SEWER SERVICE CONNECTIONS DETAIL – DWG # WW–13)
3. EXCAVATE AROUND EXISTING 8–INCH PIPE, EXPOSING SUFFICIENT ROOM FOR S.S. CLAMPS.
4. THOROUGHLY CLEAN AND DRY THE MATING SURFACE WITH RAG OR PAPER TOWEL. MAKE SURE THEY ARE FREE OF DUST AND MOISTURE.
5. LOCATE AND CUT HOLE TO BE CUT USING THE GASKET SKIRT ON THE SADDLE ITSELF AS THE TEMPLATE.
6. SAW OUT THE SECTION OF THE PIPE WHERE THE SADDLE WILL BE LOCATED, WITH A SABER OR ACT HOLE SAW.
7. TEST TO MAKE SURE SADDLE FITS HOLE PROPERLY.
8. SERVICE PIPE SHALL NOT EXTEND MORE THAN ONE–HALF INCH INTO THE MAIN.
9. PLACE GASKET SKIRT AND SADDLE OVER OPENING AND TIGHTEN BAND CLAMPS EVENLY UNTIL SADDLE IS FIRMLY ATTACHED TO THE PIPE. APPLY PRESSURE ON THE SADDLE AGAINST THE PIPE WHILE TIGHTENING THE CLAMPS AS INDICATED ABOVE. DO NOT OVER TIGHTEN, DO NOT STRIP THREAD.
10. REPLACE THE BEDDING AND BACKFILL IN ACCORDANCE WITH THE TRENCH EMBEDMENT DETAIL.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS — GASKETED SEWER FITTING FOR SEWER SERVICE CONNECTIONS TO EXISTING MAINS — ADOPTED 6/21/2006 — WW13A — SCALE: NTS — 1/2003 — SHEET No. WATS — PAGE No. TRD

TRENCH WIDTHS
*PIPE LESS THAN 20" DIAMETER
1'–0" + PIPE O.D.
*20" DIAMETER PIPE AND LARGER
2'–0" + PIPE O.D.

NOTES:
1. REPLACED BASE MATERIAL OVER DITCH SHALL BE TWICE THE THICKNESS OF THE ORIGINAL BASE.
2. BASE MATERIAL SHALL BE PLACED IN MULTIPLE LIFTS NOT TO EXCEED 6", EACH LAYER SHALL BE THOROUGHLY ROLLED OR TAMPED TO SPECIFIED MAXIMUM DENSITY.
3. ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED.
4. SURFACE MATERIAL WILL BE CONSISTENT WITH THE EXISTING SURFACE.
5. DENSITY TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS AND STANDARDS.
6. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL (SEE C9 FLOWABLE BACKFILL FOR THE SPECIFICATION).

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS — TRENCH AND EMBEDMENT AND PAVEMENT REPLACEMENT DETAIL UNDER EXISTING ROADWAY — ADOPTED 6/21/2006 — WW17 — SCALE: NTS — 1/2003 — SHEET No. WATS — PAGE No. TRD

TRENCH WIDTHS
*PIPE LESS THAN 20" DIAMETER
1'–0" + PIPE O.D.
*20" DIAMETER PIPE AND LARGER
2'–0" + PIPE O.D.

NOTES:
1. DENSITY TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS AND STANDARDS.
2. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL (SEE C9 FLOWABLE BACKFILL FOR THE SPECIFICATION).

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS — TRENCH AND EMBEDMENT DETAIL UNDER PROPOSED ROADWAY — ADOPTED 6/21/2006 — WW18 — SCALE: NTS — 1/2003 — SHEET No. WATS — PAGE No. TRD

NOTES:
1. SEE STANDARD MANHOLE DETAIL (DWG. # WW–03) FOR ADDITIONAL REQUIREMENTS.
2. VENT OPENING TO BE MIN. 4" ABOVE FINISHED GRADE OR MIN. 1' ABOVE 100 YEAR FLOOD ELEVATION.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS — TYPICAL MANHOLE WITH VENT — ADOPTED 6/21/2006 — WW19 — SCALE: NTS — 1/2003 — SHEET No. WATS — PAGE No. TRD

NOTES:
1. MANHOLES SHALL BE PRECAST ASTM C–478 BELL AND SPIGOT WITH PROFILE GASKET – SINGLE OFF–SET JOINTS.
2. SEE PLANS AND MANHOLE SCHEDULE, FOR MANHOLE SIZE, LOCATION, CONFIGURATION, TYPE OF TOP SECTION, VENTING REQUIREMENTS, PIPE SIZE AND TYPES.
3. SEE SPECIFICATIONS ON MATERIALS AND CONSTRUCTION.
4. AN 80 MIL. COAT OF RAVEN LINING SYSTEMS, RAVEN 405 ULTRA HIGH BUILD EPOXY COATING, OR SPRAY WALL EPOXY COATING, OR APPROVED EQUIVALENT TO ENTIRE INTERIOR OF EACH WASTEWATER MANHOLE AND UNDERSIDE OF FLAT TOPS.
5. ALL MANHOLE COVERS SHALL BE BOLTED AND GASKETED WHEN MANHOLES ARE LOCATED OUT FROM PAVEMENT.
6. MANHOLES TO BE VENTED ARE IDENTIFIED ON MANHOLE SCHEDULE. REFERENCE MANHOLE VENT DETAIL.
7. MANHOLES ARE TO BE DESIGNED TO RESIST LATERAL AND VERTICAL SOIL FORCES RESULTING FROM MANHOLE DEPTH. ADDITIONALLY, MANHOLES LOCATED IN PAVEMENT TO BE DESIGNED FOR HS–20 TRAFFIC LOADS.
8. GROUT SHALL MEET THE REQUIREMENTS AS STATED BY THE COATING MANUFACTURER.
9. MANHOLE BASE BEDDING MATERIAL SPECS. FOR 3/4" WASHED GRAVEL:
   SIEVE SIZE 2", PERCENT (%) RETAINED: 0
   SIEVE SIZE 1 1/2", % RETAINED: 0–10
   SIEVE SIZE 1", % RETAINED: 45–80
   SIEVE SIZE 3/4", % RETAINED: 85–100
   SIEVE SIZE 3/8", % RETAINED: 95–100
10. ALL PVC PIPE SHALL BE REMOVED FROM SHAFT.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS — PRECAST MANHOLE ON CAST–IN–PLACE FOUNDATION — ADOPTED 6/21/2006 — WW20 — SCALE: NTS — 1/2006 — SHEET No. WATS — PAGE No. TRD

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SCALE: AS SHOWN — DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 — DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 — DRAWN BY: JDE

No.	Date	REVISIONS	App.

STATE OF TEXAS — JUSTIN M. CADIEUX — 146526 — LICENSED PROFESSIONAL ENGINEER — 03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

WASTEWATER DETAILS (1 OF 2)

2023-64-SDP

SHEET NO. **77** OF **132**

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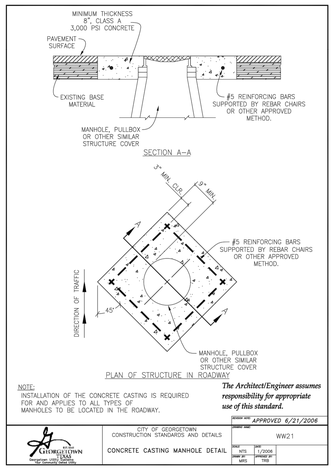
K:\17951\17951-0002-01 northside multifamily\2 design phase\CAD\site development plans\17951-0002-01 DETAILS.dwg ki: March 27, 2024



NOTE:
INSTALLATION OF THE CONCRETE CASTING IS REQUIRED FOR AND APPLIES TO ALL TYPES OF MANHOLES TO BE LOCATED IN THE ROADWAY.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ISSUED: 6/21/2006 APPROVED 6/21/2006

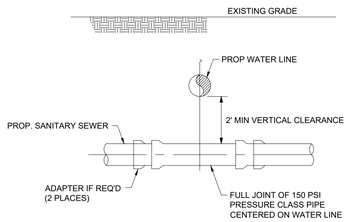
CITY OF GEORGETOWN, TEXAS
INCORPORATED 1848
THE ORIGINAL WATER TOWN

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS

WW21

CONCRETE CASTING MANHOLE DETAIL

SCALE: NTS
DRAWN BY: MTS
DATE: 1/2006
CHECKED BY: TEB



SANITARY SEWER CROSSING WATER LINE

IF A COLLECTION PIPE CROSSES BELOW A WATER SUPPLY PIPE, EACH PORTION OF THE COLLECTION SYSTEM PIPE WITHIN 9 FEET OF THE WATER SUPPLY PIPE MUST BE CONSTRUCTED USING AT LEAST 150 PSI PRESSURE CLASS PIPE.

A COLLECTION SYSTEM THAT CROSSES BELOW A WATER SUPPLY PIPE AND IS CONSTRUCTED OF AT LEAST 150 PSI PRESSURE CLASS, CORROSION - RESISTANT, NON - BRITTLE PIPE MUST:

- HAVE AT LEAST 2 FEET OF VERTICAL CLEARANCE BETWEEN THE OUTSIDE PIPES
- BE CENTERED ON THE CROSSING
- BE AT LEAST 18 FEET LONG
- TERMINATE AT JOINTS THAT ARE DESIGNED TO SEAL AT ATMOSPHERIC PRESSURE.

PROTECTION REQUIREMENTS AT WATER LINE – SANITARY SEWER CROSSINGS

	PROPOSED WATER LINE				PROPOSED SANITARY SEWER			
	OVER		UNDER		OVER		UNDER	
	EXISTING SS	PROP SS	EXISTING SS	PROP SS	EXISTING WL	PROP WL	EXISTING WL	PROP WL
Minimum 2 feet vertical clearance	✓[1]	✓[1]	✓	✓	NOT ALLOWED	✓	✓[1]	✓[1]
Place 1 full section (min 18ft) of WL centered at SS crossing. Provide restrained joints on WL, spaced at least 9 ft. horizontally from centerline of SS	✓	✓	✓	✓		✓		✓
Place 1 full section (min 18ft) of SS centered at WL crossing. Provide restrained joints on SS, spaced at least 9 ft. horizontally from centerline of WL		✓					✓	✓
Replace 1 full section of existing SS with pressure-rated DIP or pressure rated PVC pipe with adapters and restrained joints centered at WL crossing	✓[2,3]		✓[3]					
Provide DIP for small diameter WL (less than 24 inches), PVC pipe is only allowed if encased per TAC § 290.44, and use restrained joints for both DIP and PVC pipe			✓	✓		✓		
Embed SS with CSS for the total length of 1 pipe segment plus 1 foot beyond the joints on each end	✓[2,3]	✓[4]	✓[3]	✓[4]		✓[4]	✓[4]	✓[4]
Place 1 full section (min 18 ft) of min 150 psi SS centered at WL crossing. Provide restrained joints on SS, Spaced at least 9 ft horizontally from centerline of WL or encase in a joint of 150 psi pressure pipe (18 ft) two nominal sizes larger with spacers at 5 ft interval.				✓		✓		

Note:

1. Minimum clearance is 2 feet for non-pressure rated
2. Required if existing SS is disturbed and/or there is evidence of leakage
3. Not required for augered WL unless there is evidence of leakage; completely fill augered hold with bentonite/clay mixture
4. Not required for augered SS; completely fill augered hole with bentonite/clay mixture

a. Both water lines and wastewater main or lateral must pass a pressure and leakage test as specified in AWWA C600

b. Sanitary Sewers (SS) is applicable to both gravity sanitary sewers and force mains

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

No.	Date	REVISIONS	App.

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SCALE: AS SHOWN
DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024
DESIGN LEAD: OOI
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STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

WASTEWATER DETAILS (2 OF 2)

SHEET NO. **78** OF *132*

2023-64-SDP

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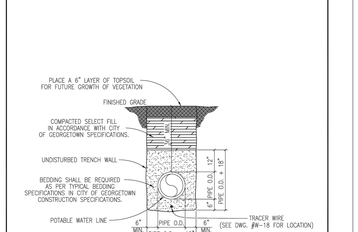
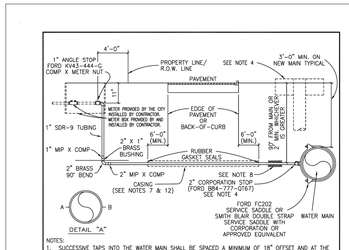
THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



TRENCH WIDTHS
*PIPE LESS THAN 20" DIAMETER
1'-0" + PIPE O.D.
*20" DIAMETER PIPE AND LARGER
2'-0" + PIPE O.D.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

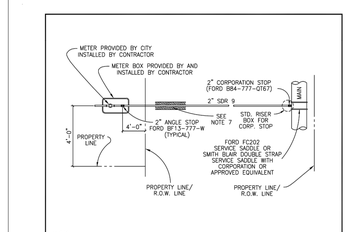
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
TRENCH AND EMBEDMENT DETAIL UNDER NON-PAVED AREAS	W02
	SCALE: NTS; DRAWN BY: TJ/DGS; CHANGE BY: MTS; CHANGE BY: TSB



NOTES:
1. SUCCESSIVE TAPS INTO THE WATER MAIN SHALL BE SPACED A MINIMUM OF 18" OFFSET AND AT THE CENTERLINE AS SHOWN ON DETAIL "A".
2. WHERE NO SIDEWALK EXISTS, METER BOXES SHALL BE SET TO CONFORM TO FINISHED GRADE.
3. AUTHORIZED SERVICE LINE MATERIAL: POLYETHYLENE TUBING SHALL BE SDR-9. CLASS 200, SDR TUBING SHALL HAVE STAINLESS STEEL STIFFENERS.
4. ROTATE THE CORPORATION STOP SO THAT THE OPERATING NUT IS ACTUATED FROM THE VERTICAL POSITION RATHER THAN THE HORIZONTAL. SEE STD. RISER FOR CORP. STOP DETAIL. (DWG # W08).
5. SERVICE LINES SHALL BE CONTINUOUS FROM CORPORATION STOP TO CORPORATION STOP WITH NO FITTINGS IN BETWEEN.
6. SERVICE CASING SHALL NOT BE INSTALLED BY WATER JETTING UNDER ROADWAY.
7. CASING REQUIRED FOR ALL PAVEMENT CROSSINGS. 4" SDR-26 REQUIRED FOR OPEN-CUT. STEEL CASING REQUIRED FOR JACK AND BORE. LIMITS OF CASING SHOULD EXTEND SIX FEET BEYOND THE EDGE OF PAVEMENT OR BACK-OF-CURB.
8. BEDDING MATERIAL AS PER CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS.
9. ANY VARIATIONS ON FITTINGS MUST BE APPROVED BY THE CITY ENGINEER.
10. METER BOX TO BE CAPABLE OF HOUSING ITRON AUTOMATIC METER READING DEVICE. USE DFW-PLASTICS, INC. PART NO. 1200JSMAR OR APPROVED EQUAL.
11. ALL SERVICE LINES SHALL BE PLACED 90° PERPENDICULAR TO THE ROADWAY. SEE DETAIL W23.
12. CASING SHALL EXTEND OUT TO WITHIN 4" INSIDE OF THE R.O.W. LINE, ON BOTH SIDES.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

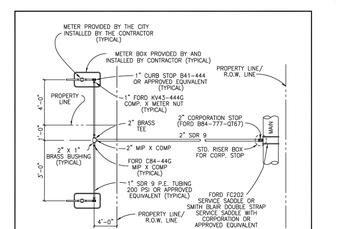
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 01/23/2013
TYPICAL WATER SERVICE-ELEVATION	W03
	SCALE: NTS; DRAWN BY: TJ/2013; CHANGE BY: MTS



NOTES:
1. AUTHORIZED SERVICE LINE MATERIAL: POLYETHYLENE TUBING SHALL BE SDR-9. CLASS 200, SDR TUBING SHALL HAVE STAINLESS STEEL STIFFENERS.
2. ANGLE STOP SHALL BE 1" MINIMUM.
3. 1" ANGLE STOPS WITH 3/4" VALVES SHALL NOT BE PERMITTED.
4. MULTIPLE SERVICE/METER INSTALLATIONS OF MORE THAN 4 METERS PER SERVICE AND SERVICE LINES LARGER THAN 2" IN DIAMETER SHALL BE HANDLED ON AN INDIVIDUAL BASIS.
5. ANGLE STOPS 1 1/2" AND 2" IN SIZE SHALL BE PROVIDED WITH BOTH A LOCKING CAP AND METER FLANGE.
6. ANGLE STOPS SHALL BE INSTALLED 8" BELOW FINISHED GRADE AND MARKED WITH A 2" X 2" X 48" TREATED WOOD STAKE, PAINTED BLUE.
7. BEDDING MATERIAL AS PER CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS.
8. CASING REQUIREMENTS FOR SERVICE LINES CROSSING ROADWAYS SEE DETAIL W-03 NOTE #7.
9. ANY VARIATIONS ON FITTINGS MUST BE APPROVED BY THE CITY ENGINEER.
10. ALL SERVICE LINES SHALL BE PLACED 90° PERPENDICULAR TO THE ROADWAY.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

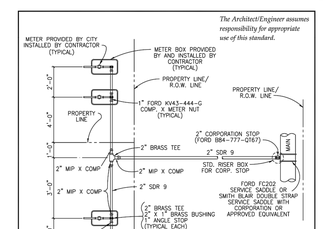
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 01/23/2013
SINGLE WATER SERVICE PLAN	W04
	SCALE: NTS; DRAWN BY: TJ/2013; CHANGE BY: MTS



NOTES:
1. AUTHORIZED SERVICE LINE MATERIAL: POLYETHYLENE TUBING SHALL BE SDR-9. CLASS 200, SDR TUBING SHALL HAVE STAINLESS STEEL STIFFENERS.
2. ANGLE STOP SHALL BE 1" MINIMUM.
3. 1" ANGLE STOPS WITH 3/4" VALVES SHALL NOT BE PERMITTED.
4. MULTIPLE SERVICE/METER INSTALLATIONS OF MORE THAN 4 METERS PER SERVICE AND SERVICE LINES LARGER THAN 2" IN DIAMETER SHALL BE HANDLED ON AN INDIVIDUAL BASIS.
5. ANGLE STOPS 1 1/2" AND 2" IN SIZE SHALL BE PROVIDED WITH BOTH A LOCKING CAP AND METER FLANGE.
6. ANGLE STOPS SHALL BE INSTALLED 8" BELOW FINISHED GRADE AND MARKED WITH A 2" X 2" X 48" TREATED WOOD STAKE, PAINTED BLUE.
7. BEDDING MATERIAL AS PER CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS.
8. CASING REQUIREMENTS FOR SERVICE LINES CROSSING ROADWAYS SEE DETAIL W-03 NOTE #7.
9. ANY VARIATIONS ON FITTINGS MUST BE APPROVED BY THE CITY ENGINEER.
10. ALL SERVICE LINES SHALL BE PLACED 90° PERPENDICULAR TO THE ROADWAY.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

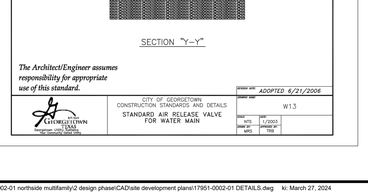
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 01/23/2013
DOUBLE WATER SERVICE PLAN	W05
	SCALE: NTS; DRAWN BY: TJ/2013; CHANGE BY: MTS



The Architect/Engineer assumes responsibility for appropriate use of this standard.

NOTES:
1. AUTHORIZED SERVICE LINE MATERIAL: POLYETHYLENE TUBING SHALL BE SDR-9. CLASS 200, SDR TUBING SHALL HAVE STAINLESS STEEL STIFFENERS.
2. ANGLE STOP SHALL BE 1" MINIMUM.
3. 1" ANGLE STOPS WITH 3/4" VALVES SHALL NOT BE PERMITTED.
4. MULTIPLE SERVICE/METER INSTALLATIONS OF MORE THAN 4 METERS PER SERVICE AND SERVICE LINES LARGER THAN 2" IN DIAMETER SHALL BE HANDLED ON AN INDIVIDUAL BASIS.
5. ANGLE STOPS 1 1/2" AND 2" IN SIZE SHALL BE PROVIDED WITH BOTH A LOCKING CAP AND METER FLANGE.
6. ANGLE STOPS SHALL BE INSTALLED 8" BELOW FINISHED GRADE AND MARKED WITH A 2" X 2" X 48" TREATED WOOD STAKE, PAINTED BLUE.
7. BEDDING MATERIAL AS PER CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS.
8. CASING REQUIREMENTS FOR SERVICE LINES CROSSING ROADWAYS SEE DETAIL W-03 NOTE #7.
9. ANY VARIATIONS ON FITTINGS MUST BE APPROVED BY THE CITY ENGINEER.
10. ALL SERVICE LINES SHALL BE PLACED 90° PERPENDICULAR TO THE ROADWAY.

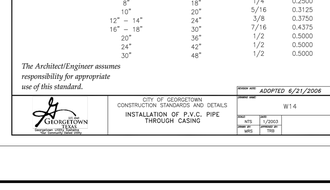
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 01/23/2013
QUADRUPLE WATER SERVICE PLAN	W06
	SCALE: NTS; DRAWN BY: TJ/2013; CHANGE BY: MTS



NOTES:
1. VALVE BOX SHALL BE 5 1/4" CAST IRON ADJUSTABLE HAVING AN ADJUSTABLE RANGE OF + OR – 6 INCHES FROM INSTALLED FINISH GRADE.
2. ACCEPTABLE GATE VALVES ARE:
   A. AMERICAN FLOW CONTROL – SERIES 2500
   B. MUELLER – 2360 SERIES
   C. CLOW

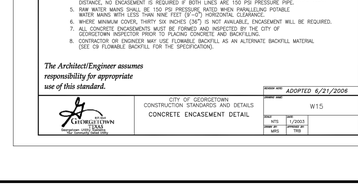
The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
TYPICAL VALVE SETTING	W07
	SCALE: NTS; DRAWN BY: TJ/2003; CHANGE BY: MTS; CHANGE BY: TSB



The Architect/Engineer assumes responsibility for appropriate use of this standard.

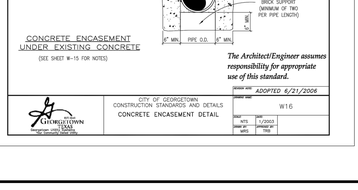
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
STANDARD RISER BOX FOR CORPORATION STOP	W08
	SCALE: NTS; DRAWN BY: TJ/2003; CHANGE BY: MTS; CHANGE BY: TSB



NOTE:
1. ATTACH FIRE HYDRANT CONNECTION AT THE END OF THE BLOW OFF VALVE.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
STANDARD BLOW-OFF	W09
	SCALE: NTS; DRAWN BY: TJ/2003; CHANGE BY: MTS; CHANGE BY: TSB



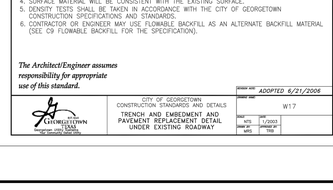
ALL THRUST BLOCKS SHALL BE FORMED, LAID FORMS SHALL BE INSPECTED BY THE CITY OF GEORGETOWN PRIOR TO THE POURING OF CONCRETE AND SHALL ALSO BE INSPECTED BY THE CITY OF GEORGETOWN PRIOR TO COVERING. TYPICAL LOCATIONS WHICH REQUIRE CONCRETE REACTION (THRUST) BLOCKS, FOR PRESSURE MAINS FOUR INCHES (4") AND GREATER, CONCRETE SHALL HAVE 2,500 P.S.I. MINIMUM STRENGTH AT TWENTY EIGHT (28) DAYS AND BEAR AGAINST UNDISTURBED STABLE SOILS. AREA OF CONTACT SHALL BE GOVERNED BY PIPE SIZE, MAXIMUM PRESSURE IN PIPE, AND BEARING CAPACITY OF SOIL. PROTECT FITTINGS, BOLTS, ETC. BY COVERING WITH VISQUEEN OR OTHER ACCEPTABLE MATERIAL. CONCRETE SHALL BE A MINIMUM OF TWELVE INCHES (12") THICK.

PIPE SIZE	THRUST BLOCK AREA REQUIRED	PIPE SIZE	THRUST BLOCK AREA REQUIRED	REMARKS
4"	2.0 SQ. FT.	18"	30.0 SQ. FT.	
6"	4.0 SQ. FT.	20"	37.0 SQ. FT.	VALUES ARE FOR 90° BENDS, BASED ON 2000 P.S.F. SAFE BEARING LOAD AND PIPE PRESSURE OF 150 P.S.I. PLUS 33% SAFETY FACTOR FOR OTHER SOILS AND PRESSURES, THE AREA REQUIRED IS IN DIRECT PROPORTION.
8"	6.6 SQ. FT.	24"	53.0 SQ. FT.	
10"	10.0 SQ. FT.	27"	80.0 SQ. FT.	
12"	14.0 SQ. FT.	30"	98.0 SQ. FT.	
14"	18.0 SQ. FT.	36"	127.0 SQ. FT.	
16"	24.0 SQ. FT.			

* THE ENGINEER OF RECORD SHALL CALCULATE THE SIZE OF THE DEADMAN REQUIRED AS WELL AS ANY INSTALLATION WHICH IS NOT COVERED BY THE ABOVE.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
TYPICAL THRUST BLOCKS FOR WATER AND FORCE MAIN	W11
	SCALE: NTS; DRAWN BY: TJ/2003; CHANGE BY: MTS; CHANGE BY: TSB



The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
STANDARD AIR RELEASE VALVE FOR WATER MAIN	W12
	SCALE: NTS; DRAWN BY: TJ/2003; CHANGE BY: MTS; CHANGE BY: TSB

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
STANDARD AIR RELEASE VALVE FOR WATER MAIN	W13
	SCALE: NTS; DRAWN BY: TJ/2003; CHANGE BY: MTS; CHANGE BY: TSB

NOTES:
1. CASING SPACERS SHALL BE BOLT ON STYLE WITH A SHELL MADE IN TWO SECTIONS OF HEAVY T-304 STAINLESS STEEL. CONNECTING FLANGES SHALL BE RIBBED FOR EXTRA STRENGTH. CASING SPACERS SHALL BE MADE BY CASCADE WATERWORKS MFG. CO. OR APPROVED EQUAL.
2. CASING SPACERS SHALL HAVE RUNNERS MADE OF ULTRA HIGH MOLECULAR WEIGHT POLYMER, WITH A MINIMUM HEIGHT OF 2 INCHES.
3. DO NOT USE WEDGES BETWEEN TOP OF PVC CARRIER PIPE AND INSIDE OF CASING TO KEEP PVC FROM MOVING.
4. PRIOR TO INSERTING PVC CARRIER PIPE, ANY WATER SHOULD BE PUMPED OUT OF THE CASING PIPE SO THAT NO MORE THAN A FEW INCHES OF WATER REMAINS.
5. SPACERS WILL BE REQUIRED WITHIN AT LEAST 3 FEET FROM BOTH OPENINGS OF THE ENCASEMENT PIPE AND SPACED NO GREATER THAN 6 FEET THROUGHOUT THE ENCASEMENT PIPE.
6. ENCASEMENT PIPE SHALL BE SMOOTH STEEL 35,000 PSI YIELD STRENGTH WITH THICKNESS ACCORDING TO THE FOLLOWING TABLE:
7. WHEN CASING IS REQUIRED UNDER PAVEMENT WITHIN THE R.O.W., THE CASING SHALL EXTEND OUT TO WITHIN 4" INSIDE OF THE R.O.W. LINE, ON BOTH SIDES.
8. ALL JOINTS SHALL BE RESTRAINED ON PVC CARRIER PIPE.

PIPE SIZE–CARRIER (DIAMETER)	PIPE SIZE–CASING (DIAMETER)(MIN.)	MINIMUM PIPE THICKNESS (INCHES)	
6"	16"	1/4	0.2500
8"	18"	5/16	0.3125
10"	20"	3/8	0.3750
12" – 14"	24"	7/16	0.4375
16" – 18"	30"	1/2	0.5000
20"	36"	1/2	0.5000
24"	42"	1/2	0.5000
30"	48"	1/2	0.5000

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
INSTALLATION OF P.V.C. PIPE THROUGH CASING	W14
	SCALE: NTS; DRAWN BY: TJ/2003; CHANGE BY: MTS; CHANGE BY: TSB

NOTES:
1. ENCASEMENT TO BE CONSTRUCTED WHERE SEWER LINES PASS OVER OR UNDER A WATER MAIN WITH LESS THAN TWELVE INCHES (12") CLEAR DISTANCE.
2. AT CROSSINGS, ENCASEMENT SHALL EXTEND TEN FEET (10'-0") ON EITHER SIDE OF CROSSING.
3. BEGINNING AND ENDING OF ENCASEMENTS SHALL NOT BE MORE THAN SIX INCHES (6") FROM A PIPE JOINT.
4. WHERE WATER AND SEWER LINES PARALLEL WITH LESS THAN TEN FEET (10'-0") HORIZONTAL CLEAR DISTANCE, NO ENCASEMENT IS REQUIRED IF BOTH LINES ARE 150 PSI PRESSURE PIPE.
5. RAW WATER MAINS SHALL BE 150 PSI PRESSURE RATED WHEN PARALLELING POTABLE WATER MAINS WITH LESS THAN NINE FEET (9'-0") HORIZONTAL CLEARANCE.
6. WHERE MINIMUM COVER, THIRTY SIX INCHES (36") IS NOT AVAILABLE, ENCASEMENT WILL BE REQUIRED.
7. ALL CONCRETE ENCASEMENTS MUST BE FORMED AND INSPECTED BY THE CITY OF GEORGETOWN PRIOR TO POURING OF CONCRETE AND BACKFILLING.
8. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL (SEE C9 FLOWABLE BACKFILL FOR THE SPECIFICATION).

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
CONCRETE ENCASEMENT DETAIL	W15
	SCALE: NTS; DRAWN BY: TJ/2003; CHANGE BY: MTS; CHANGE BY: TSB

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
CONCRETE ENCASEMENT DETAIL	W16
	SCALE: NTS; DRAWN BY: TJ/2003; CHANGE BY: MTS; CHANGE BY: TSB

NOTES:
1. REPLACED BASE MATERIAL OVER DITCH SHALL BE TWICE THE THICKNESS OF THE ORIGINAL BASE.
2. BASE MATERIAL SHALL BE IN LIFTS NOT TO EXCEED 6" AND EACH LIFT THOROUGHLY ROLLED OR TAMPED TO SPECIFIED MAXIMUM DENSITY.
3. ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED.
4. SURFACE MATERIAL WILL BE CONSISTENT WITH THE EXISTING SURFACE.
5. DENSITY TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS AND STANDARDS.
6. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL (SEE C9 FLOWABLE BACKFILL FOR THE SPECIFICATION).

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
TRENCH AND EMBEDMENT AND PAVEMENT REPLACEMENT DETAIL UNDER EXISTING ROADWAY	W17
	SCALE: NTS; DRAWN BY: TJ/2003; CHANGE BY: MTS; CHANGE BY: TSB

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SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: 02 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

WATER DETAILS (1 OF 2)

SHEET NO. 79 OF 132

2023-64-SDP

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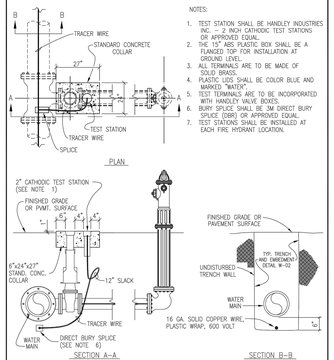
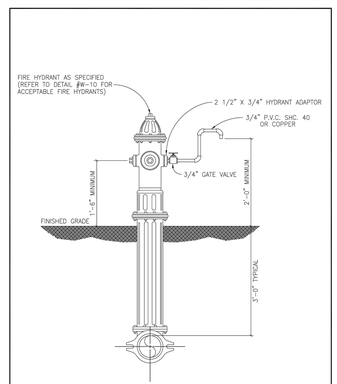
THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



NOTES:
1. TEST STATION SHALL BE HANDLEY INDUSTRIES INC. – 2 INCH CATHODIC TEST STATIONS OR APPROVED EQUAL.
2. THE 15" ABS PLASTIC BOX SHALL BE A FLANGED TOP FOR INSTALLATION AT GROUND LEVEL.
3. ALL TERMINALS ARE TO BE MADE OF SOLID BRASS.
4. PLASTIC LIDS SHALL BE COLOR BLUE AND MARKED "WATER".
5. TEST TERMINALS ARE TO BE INCORPORATED WITH HANDLEY VALVE BOXES.
6. BURY SPLICE SHALL BE 3M DIRECT BURY SPLICE (DBR) OR APPROVED EQUAL.
7. TEST STATIONS SHALL BE INSTALLED AT EACH FIRE HYDRANT LOCATION.

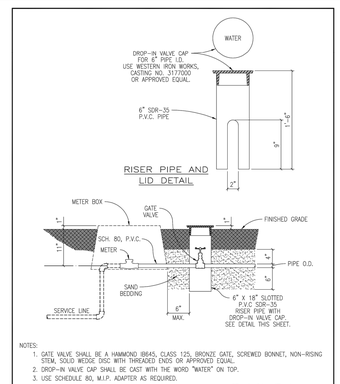
The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	DESIGN SPEC: ADOPTED 6/21/2006
TRACER WIRE INSTALLATION AND TEST STATION LOCATION	DETAIL NO.: W18
GEORGETOWN TEXAS "THE SUN CITY OF TEXAS"	SCALE: NTS; DRAW BY: MRS; 1/2003; CHANGE BY: TRB



The Architect/Engineer assumes responsibility for appropriate use of this standard.

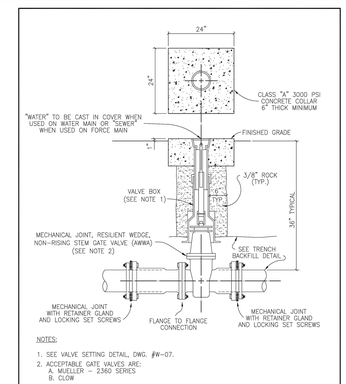
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	DESIGN SPEC: ADOPTED 6/21/2006
FIRE HYDRANT SAMPLING POINT	DETAIL NO.: W19
GEORGETOWN TEXAS "THE SUN CITY OF TEXAS"	SCALE: NTS; DRAW BY: MRS; 1/2003; CHANGE BY: TRB



NOTES:
1. GATE VALVE SHALL BE A HAMMOND IB845, CLASS 125, BRONZE GATE, SCREWED BONNET, NON-RISING STEM, SOLID WEDGE DISC WITH THREADED ENDS OR APPROVED EQUAL.
2. DROP-IN VALVE CAP SHALL BE CAST WITH THE WORD "WATER" ON TOP.
3. USE SCHEDULE 80, M.I.P. ADAPTER AS REQUIRED.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

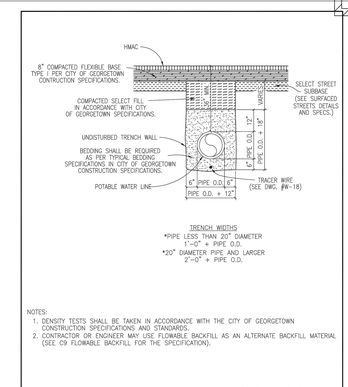
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	DESIGN SPEC: ADOPTED 6/21/2006
CUSTOMER'S CUT-OFF	DETAIL NO.: W20
GEORGETOWN TEXAS "THE SUN CITY OF TEXAS"	SCALE: NTS; DRAW BY: MRS; 1/2003; CHANGE BY: TRB



NOTES:
1. SEE VALVE SETTING DETAIL, DWG. #W-07.
2. ACCEPTABLE GATE VALVES ARE:
   A. MUELLER – 2360 SERIES
   B. CLOW

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	DESIGN SPEC: ADOPTED 6/21/2006
INLINE VALVE INSTALLATION	DETAIL NO.: W21
GEORGETOWN TEXAS "THE SUN CITY OF TEXAS"	SCALE: NTS; DRAW BY: MRS; 1/2003; CHANGE BY: TRB



NOTES:
1. DENSITY TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS AND STANDARDS.
2. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL (SEE C9 FLOWABLE BACKFILL FOR THE SPECIFICATION).

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	DESIGN SPEC: ADOPTED 6/21/2006
TRENCH AND EMBEDMENT DETAIL UNDER PROPOSED ROADWAY	DETAIL NO.: W22
GEORGETOWN TEXAS "THE SUN CITY OF TEXAS"	SCALE: NTS; DRAW BY: MRS; 1/2003; CHANGE BY: TRB

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	DESIGN SPEC: ADOPTED 6/21/2006
METER BOX (NON-TRAFFIC AREAS)	DETAIL NO.: W23
GEORGETOWN TEXAS "THE SUN CITY OF TEXAS"	SCALE: NTS; DRAW BY: MRS; 1/2003; CHANGE BY: TRB

" 8"x4" OR 12"x4" PRV STATION MATERIAL LIST

ITEM	DESCRIPTION	SIZE	TYPE
1	PRESSURE REDUCING VALVE PER COA SPL WIN-315 NOTE: PILOT ARRANGEMENTS SHOWN FOR ILLUSTRATION ONLY	8" OR 12"	FLG x FLG
2	PRESSURE REDUCING VALVE PER COA SPL WIN-315 NOTE: PILOT ARRANGEMENTS SHOWN FOR ILLUSTRATION ONLY	4"	FLG x FLG
3	STRAINER PER COA SPL WIN-316A	8" OR 12"	FLG x FLG
4	STRAINER PER COA SPL WIN-316A	4"	FLG x FLG
5	DISMANTLING JOINT PER COA SPL WIN-251	8" OR 12"	FLG x FLG
6	DISMANTLING JOINT PER COA SPL WIN-251	4"	FLG x FLG
7	RESILIENT-SEATED GATE VALVE (w/HAND WHEEL) PER COA SPL WIN-700	8" OR 12"	FLG x FLG
8	RESILIENT-SEATED GATE VALVE (WHHAND WHEEL) PER COA SPL WIN-700	4"	FLG x FLG
9	TEE PER COA SPL WIN-370	8"x4" OR 12"x4"	FLG x FLG
10	90° BEND PER COA SPL WIN-370	4"	FLG x FLG
11	DUCTILE IRON CLASS 53 PIPE PER COA SPL WIN-278	8" OR 12"	FLG x FLG
12	DUCTILE IRON CLASS 53 PIPE PER COA SPL WIN-278	4"	FLG x FLG
13	PIPE SADDLE SUPPORT SEE STANDARD PER COA SPL WIN-618A (LINE 52" DIA. x 8" LONG STAINLESS STEEL WEDGE ALL ANCHOR, TYP.)	NA	NA
14	LINK SEAL MODULAR SEALS BOOTS (LS-300 FOR 8"x4" OR LS-400 FOR 12"x4") PER COA SPL WIN-618A	NA	NA
15	48" x 72" ACCESS HATCH PER COA SPL WIN-614A	NA	NA
16	CONCRETE VAULT PER COA SPL WIN-288 w/8"x4" PRV OR 12"x4" PRV	VAULT OR SLAB	NA

* SEE NOTE No. 4

" PRV STATION INFORMATION

UPSTREAM (HIGH PRESSURE) ZONE	DOWNSTREAM (LOW PRESSURE) HGL	UPSTREAM (HIGH PRESSURE) ZONE	DOWNSTREAM (LOW PRESSURE) HGL	4" PRV OR 12" PRV
,NA,	,NA,	,NA,	,NA,	NUM PSI

NOTES:
1. CONCRETE VAULT SHALL NOT BE INSTALLED IN A TRAFFIC AREA.
2. HIGH STRENGTH LOW ALLOY (HSLA) BOLTS AND NUTS USED THROUGHOUT ASSEMBLY.
3. FULL FACE 1/8" THICK RED RUBBER GASKETS USED THROUGHOUT ASSEMBLY.
4. ALL ITEMS IN MATERIAL LIST, INCLUDING VAULT AND ALL COMPONENTS WITHIN VAULT, TO BE SUPPLIED AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE. ALL ITEMS AND ARRANGEMENTS OUTSIDE VAULT TO BE SHOWN IN PLAN AND PROFILE SHEET, AND SHALL BE SUPPLIED AND INSTALLED BY CONTRACTOR.
5. ALL WATER MAIN PIPE BETWITH VAULT WALL AS SECHANICALLY RESTRAINED DUCTILE IRON. IN ADDITION, ALL PIPE, VALVES, AND FITTINGS BETWEEN WATER MAIN AND PRV ASSEMBLY SHALL BE RESTRAINED BY USE OF MECHANICAL OR FLANGED CONNECTIONS, AS SHOWN IN PLAN AND PROFILE.
6. 8" MECHANICAL SHALL PENETRATION LOCATION IS ALLOWED TO MOVE HORIZONTALLY ONLY BETWEEN W/O AND W/I IN ACCORDANCE WITH SPL WIN-288. MINIMUM 18" CLEARANCE SHALL BE PROVIDED AROUND ALL PRV COMPONENTS.
7. ALL BURIED PIPE AND FITTINGS SHALL BE BEDDED, BACKFILLED, AND WRAPPED IN ACCORDANCE WITH SPL WIN-220 AND SPL WIN-221 FOR DUCTILE IRON.
8. THE TOP OF THE VAULT SHALL BE AT AN ELEVATION SUCH THAT THE SURROUNDING GROUND SLOPES AWAY FROM THE VAULT. ADDITIONAL DRAINAGE CONSIDERATIONS SUCH AS SUMPS, FRENCH DRAINS, OR OTHER MEANS SHALL BE REQUIRED IF CONDITIONS CAUSE WATER TO COLLECT IN VAULT.

*** DESIGN ENGINEER TO INCLUDE PROJECT SPECIFIC PRV STATION INFORMATION AS PROVIDED BY AUSTIN WATER

USE OF THIS STANDARD	CITY OF AUSTIN AUSTIN WATER	8"x4" AND 12"x4" DUAL PRESSURE REDUCING VALVE STATIONS
THIS STANDARD DRAWING ONLY APPLIES TO PRV STATION VAULTS SATISFYING BOTH OF THE FOLLOWING STIPULATIONS; OTHERWISE, A PROJECT SPECIFIC DESIGN MUST BE PREPARED. THE VAULT ITSELF MUST BE DESIGNED BY A TEXAS LICENSED PROFESSIONAL ENGINEER. 1. THE CONDITIONS AT THE SITE OF THE PROPOSED PRV STATION, THE LOADS AFFECTING A PRE-CAST CONCRETE VAULT AT THAT SITE, AND THE STRUCTURAL DESIGN CRITERIA FOR THE VAULT ARE SUCH THAT THE VAULT DESIGN SHOWN HEREIN ADEQUATELY REPRESENTS BY THE STRUCTURAL DESIGN CRITERIA, DESIGN LOADS, AND DETAILS INCLUDED WITH SPL WIN-288. 2. THE PIPING AND VALVES FOR THE PROPOSED PRV STATION ARE THE SAME MATERIAL, TYPE, SIZE, AND ORIENTATION AS THOSE SHOWN IN THIS STANDARD.	*JEFF A. KYLE* *11/07/2022* ADOPTED	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR PROPER USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	STANDARD NO. 512-AW-01 1 OF 1

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K:\17951\17951-0002-01 northside multifamily\2 design phase\CAD\site development plans\17951-0002-01 DETAILS.dwg ki: March 27, 2024

No. | Date | REVISIONS | App.

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SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: LDI - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

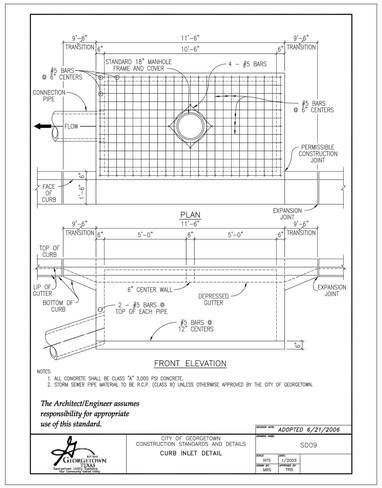
520 SH 195

WATER DETAILS (2 OF 2)

SHEET NO.
80 OF *132*

2023-64-SDP

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

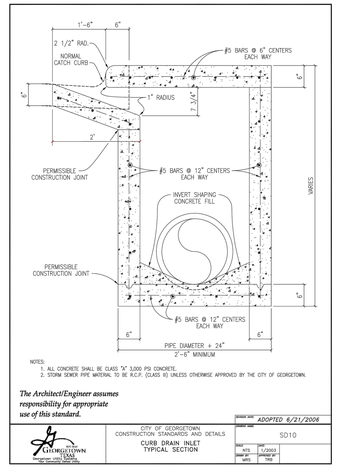


NOTES:
1. ALL CONCRETE SHALL BE CLASS "A" 3,000 PSI CONCRETE.
2. STORM SEWER PIPE MATERIAL TO BE R.C.P. (CLASS III) UNLESS OTHERWISE APPROVED BY THE CITY OF GEORGETOWN.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
CURB INLET DETAIL
SD09



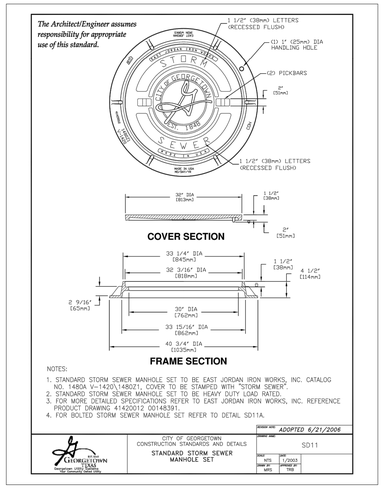
NOTES:
1. ALL CONCRETE SHALL BE CLASS "A" 3,000 PSI CONCRETE.
2. STORM SEWER PIPE MATERIAL TO BE R.C.P. (CLASS III) UNLESS OTHERWISE APPROVED BY THE CITY OF GEORGETOWN.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
CURB DRAIN INLET TYPICAL SECTION
SD10

The Architect/Engineer assumes responsibility for appropriate use of this standard.

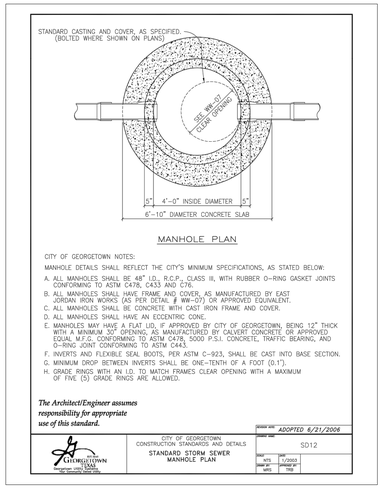


NOTES:
1. STANDARD STORM SEWER MANHOLE SET TO BE EAST JORDAN IRON WORKS, INC. CATALOG NO. 1480A V=1420\1480T1, COVER TO BE STAMPED WITH "STORM SEWER".
2. STANDARD STORM SEWER MANHOLE SET TO BE HEAVY DUTY LOAD RATED.
3. FOR MORE DETAILED SPECIFICATIONS REFER TO EAST JORDAN IRON WORKS, INC. REFERENCE PRODUCT DRAWING 4142001Z 001148391.
4. FOR BOLTED STORM SEWER MANHOLE SET REFER TO DETAIL SD11A.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STANDARD STORM SEWER MANHOLE SET
SD11



CITY OF GEORGETOWN NOTES:

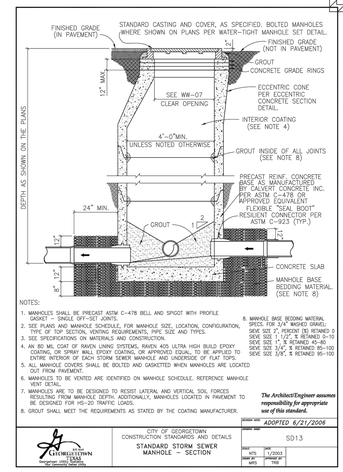
MANHOLE DETAILS SHALL REFLECT THE CITY'S MINIMUM SPECIFICATIONS, AS STATED BELOW.

A. ALL MANHOLES SHALL BE 48" I.D., R.C.P., CLASS III, WITH RUBBER O-RING GASKET JOINTS CONFORMING TO ASTM C478, C433 AND C76.
B. ALL MANHOLES SHALL HAVE FRAME AND COVER, AS MANUFACTURED BY EAST JORDAN IRON WORKS (AS PER DETAIL # WW-07) OR APPROVED EQUIVALENT.
C. ALL MANHOLES SHALL BE CONCRETE WITH CAST IRON FRAME AND COVER.
D. ALL MANHOLES SHALL HAVE AN ECCENTRIC CONE.
E. MANHOLES MAY HAVE A FLAT LID, IF APPROVED BY CITY OF GEORGETOWN, BEING 12" THICK WITH A MINIMUM 30" OPENING, AS MANUFACTURED BY CALVERT CONCRETE OR APPROVED EQUAL M.F.G. CONFORMING TO ASTM C478, 5000 P.S.I. CONCRETE, TRAFFIC BEARING, AND O-RING JOINT CONFORMING TO ASTM C443.
F. INVERTS AND FLEXIBLE SEAL BOOTS, PER ASTM C-923, SHALL BE CAST INTO BASE SECTION.
G. MINIMUM DROP BETWEEN INVERTS SHALL BE ONE-TENTH OF A FOOT (0.1').
H. GRADE RINGS WITH AN I.D. TO MATCH FRAMES CLEAR OPENING WITH A MAXIMUM OF FIVE (5) GRADE RINGS ARE ALLOWED.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STANDARD STORM SEWER MANHOLE PLAN
SD12



NOTES:
1. MANHOLES SHALL BE PRECAST ASTM C-478 BELL AND SPIGOT WITH PROFILE GASKET - SINGLE OFF-SET JOINTS.
2. SEE PLANS AND MANHOLE SCHEDULE, FOR MANHOLE SIZE, LOCATION, CONFIGURATION, TYPE OF TOP SECTION, VENTING REQUIREMENTS, PIPE SIZE AND TYPES.
3. SEE SPECIFICATIONS ON MATERIALS AND CONSTRUCTION.
4. AN 80 MIL COAT OF RAVEN LINING SYSTEMS, RAVEN 405 ULTRA HIGH BUILD EPOXY OR APPROVED EQUAL SHALL BE APPLIED TO THE INTERIOR SURFACE FROM TOP TO ENTIRE INTERIOR OF EACH STORM SEWER MANHOLE AND UNDERSIDE OF FLAT TOPS.
5. ALL MANHOLE COVERS SHALL BE BOLTED AND GASKETTED WHEN MANHOLES ARE LOCATED OUT FROM PAVEMENT.
6. MANHOLES TO BE VENTED ARE IDENTIFIED ON MANHOLE SCHEDULE. REFERENCE MANHOLE VENT DETAIL.
7. MANHOLES ARE TO BE DESIGNED TO RESIST LATERAL AND VERTICAL SOIL FORCES RESULTING FROM MANHOLE DEPTH. ADDITIONALLY, MANHOLES LOCATED IN PAVEMENT TO BE DESIGNED FOR HS-20 TRAFFIC LOADS.
8. GROUT SHALL MEET THE REQUIREMENTS AS STATED BY THE COATING MANUFACTURER.

B. MANHOLE BASE BEDDING MATERIAL SHALL BE 3/4" CRUSHED LIMESTONE MEETING THE FOLLOWING SIEVE SIZE REQUIREMENTS: SIEVE SIZE 1", % RETAINED 0-10 SIEVE SIZE 3/4", % RETAINED 40-80 SIEVE SIZE 3/4", % RETAINED 85-100 SIEVE SIZE 3/8", % RETAINED 95-100

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STANDARD STORM SEWER MANHOLE — SECTION
SD13

NOTES:
1. MINIMUM COVER OVER CULVERT PIPE SHALL BE 6" (SEE NOTE 5).
2. 5" CONCRETE RIP-RAP SHALL BE INSTALLED.
3. CULVERT PIPE TO BE MINIMUM OF 12" DIAMETER.
4. CULVERT PIPE MATERIAL TO BE R.C.P. (CLASS III), UNLESS PRIOR APPROVAL IS GRANTED BY THE CITY OF GEORGETOWN.
5. MINIMUM COVER OVER CULVERT PIPE SHALL PROVIDE H20 LOADING.
6. BACKFILL AROUND CULVERT PIPE SHALL BE SELECT MATERIAL TO BE PLACED AND COMPACTED TO 95% TEX-114E.
7. ROCK RIP-RAP SHALL SHALL EXTEND 10' FROM THE DOWN STREAM SIDE USING THE AVERAGE STONE SIZE DIA. OF 8" AT A DEPTH OF 16" (MINIMUM).
8. MINIMUM CHANNEL SIDE SLOPE SHALL BE 4:1.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
RURAL NON-RESIDENTIAL UNDIVIDED DRIVEWAY APPROACH WITH CULVERT PIPE
SD18

MINIMUM RIP-RAP QUANTITIES	
PIPE	SQ. YDS.
18"	6.2
24"	6.9
27"	7.8
30"	9.5
36"	10.4
42"	12.0
48"	14.3
54"	16.4

NOTES:
1. WHEN HEADWALLS AND WINGWALLS ARE REQUIRED, THEY SHALL CONFORM TO THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARDS, OR AS DIRECTED BY THE CITY.
2. ENERGY DISSIPATERS SHALL BE REQUIRED IF PIPE VELOCITY IS GREATER THAN 5.0 F.P.S. OR AS DIRECTED BY THE CITY OF GEORGETOWN.
3. SUPPORT REINFORCING WIRE MESH REQUIRED AS SUPPORT FOR APPROACH SLAB AND SHALL BE SUPPORTED BY REBAR CHAIRS OR OTHER APPROVED METHODS.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TYPICAL CONCRETE RIP-RAP AT PIPE
SD19

The Architect/Engineer assumes responsibility for appropriate use of this standard.

NOTES:
1. USE CLASS "A" CONCRETE, 3,000 PSI AT 28 DAYS, UNLESS NOTED.
2. REINFORCING STEEL - ASTM A615, GRADE 40, UNLESS NOTED.
3. LAP REINFORCING 30 BAR DIAMETERS MIN. AT SPLICES, UNLESS NOTED.
4. CHAMFER EXPOSED EDGES OF CONCRETE 3/4", UNLESS NOTED.
5. PLACE REINFORCING WITH THE CENTER OF THE OUTSIDE BARS 2 INCHES FROM THE SURFACE OF THE CONCRETE.

TABLE OF DIMENSIONS FOR ENERGY DISSIPATOR DETAIL

D. PIPE DIAMETER (INCHES)	NUMBER OF ROWS OF DISSIPATORS	NUMBER OF DISSIPATORS IN FRONT ROW	H (INCHES)	A (INCHES)	W (INCHES)
12	1	3	4	4	9.1875
18	2	4	4 1/2	9 1/2	15.5625
24	2	5	6	14 3/4	18 1/2
30	3	6	7 1/2	12 1/2	14 3/8
36	3	6	9	18 1/4	18 5/16
42	3	6	10 1/2	20	22 1/4
48	3	6	12	23 3/4	26 1/4
54	3	6	13 1/2	27 1/2	27 3/4
60	3	6	15	31 1/4	31 5/8

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
ENERGY DISSIPATER DETAIL
SD20

NOTES:
1. REPLACED BASE MATERIAL OVER DITCH SHALL BE TWICE THE THICKNESS OF THE ORIGINAL BASE.
2. BASE MATERIAL SHALL BE IN LIFTS NOT TO EXCEED 6" AND EACH LIFT THOROUGHLY ROLLED OR TAMPED TO SPECIFIED MAXIMUM DENSITY.
3. ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED.
4. SURFACE MATERIAL WILL BE CONSISTENT WITH THE EXISTING SURFACE.
5. DENSITY TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS AND STANDARDS.
6. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL (SEE C9 FLOWABLE BACKFILL FOR THE SPECIFICATION).

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TRENCH, EMBEDMENT AND PAVEMENT REPLACEMENT DETAIL UNDER EXISTING ROADWAY FOR STORM SEWER
SD40

NOTES:
1. DENSITY TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS AND STANDARDS.
2. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL (SEE C9 FLOWABLE BACKFILL FOR THE SPECIFICATION).

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TRENCH AND EMBEDMENT DETAIL UNDER PROPOSED ROADWAY FOR STORM SEWER
SD41

NOTES
1. PIPE SHALL BE REINFORCED CONCRETE PIPE CLASS III UNLESS THE DEPTH OF PIPE REQUIRES A STRONGER CLASS.
2. ALL FITTINGS AND WYES SHALL BE MANUFACTURED AND NOT CONSTRUCTED ON THE PROJECT WITHOUT PRIOR APPROVAL FROM THE CITY.
3. ALL JOINTS SHALL BE WRAPPED WITH MARFI-140-N GEOTEXTILE FABRIC OR APPROVED EQUIVALENT. EACH JOINT SHALL BE WRAPPED WITH 18" WIDE FABRIC CENTERED ON THE JOINT.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TRENCH AND EMBEDMENT DETAIL (PROFILE) FOR STORM SEWER
SD42

No.	Date	REVISIONS	App.

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Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN
DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024
DESIGN LEAD: OOI
JOB NO.: 17951-0002-01
DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195
STORM DETAILS

SHEET NO.
81 OF **132**

2023-64-SDP

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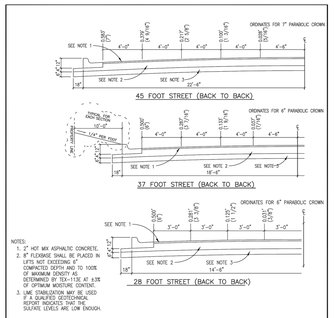
THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



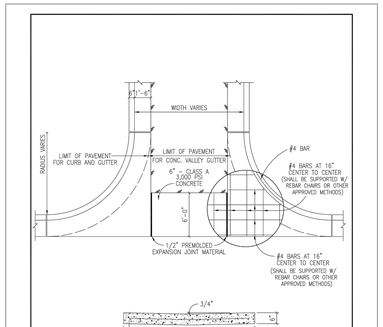
NOTES:
1. 2" HOT MIX ASPHALTIC CONCRETE, 2" FLEXBASE SHALL BE PLACED IN LIFTS NOT EXCEEDING 6" COMPACTED DEPTH AND TO 100% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE TO +3% OF OPTIMUM MOISTURE CONTENT.
3. LIME STABILIZATION MAY BE USED IF A QUALIFIED GEOTECHNICAL REPORT INDICATES THAT THE SULFATE LEVELS ARE LOW ENOUGH.

STREET AND ROADWAY DESIGN CRITERIA

STREET CLASSIFICATION	TOTAL EQUIVALENT 18K AXLE LOAD APPLICATIONS (20 YEAR FLEXIBLE DESIGN)
LOCAL	
RESIDENTIAL LANE	20,000
LOCAL STREET	20,000
COLLECTORS	20,000
RESIDENTIAL	80,000
MAJOR NEIGHBORHOOD	250,000
ARTERIALS	
MINOR ARTERIAL	1,020,000
MAJOR ARTERIAL	5,200,000

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TYPICAL HALF CROSS – SECTIONS FOR H.M.A.C. SURFACED STREETS
ADOPTED 6/21/2006 — SD01 — NTS — 1/2003



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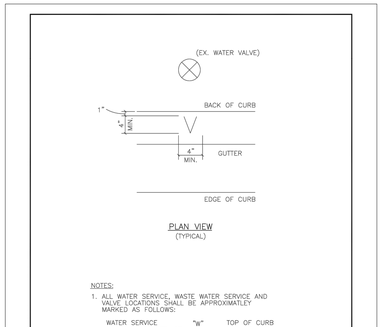
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
CONCRETE VALLEY GUTTER DETAIL
ADOPTED 6/21/2006 — SD03 — NTS — 1/2003



PLAN VIEW
(TYPICAL)

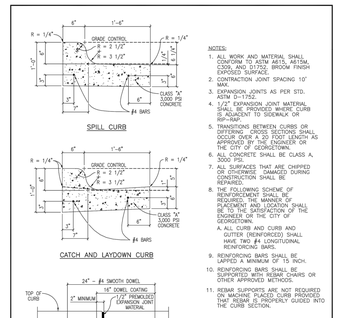
NOTES:
1. ALL WATER SERVICE, WASTE WATER SERVICE AND VALVE LOCATIONS SHALL BE APPROXIMATELY MARKED AS FOLLOWS:

WATER SERVICE	"W"	TOP OF CURB
WASTE WATER SERVICE	"S"	TOP OF CURB
VALVE	"V"	TOP OF CURB

2. LETTERS SHALL HAVE A 1/2" MAX. WIDTH.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

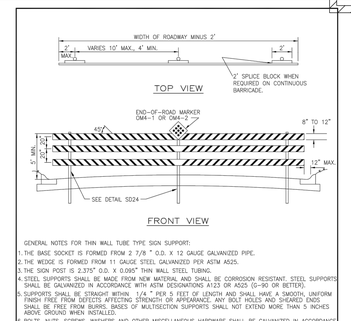
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
CURB STAMP DETAIL
ADOPTED 6/21/2006 — SD05 — NTS — 1/2003



NOTES:
1. ALL WORK AND MATERIAL SHALL CONFORM TO ASTM A615, A615M, C309, AND 317/52, BROOM FINISH EXPOSED SURFACE.
2. CONTRACTION JOINT SPACING 10' MAX.
3. EXPANSION JOINTS AS PER STD. DETAIL SD05.
4. 1/2" EXPANSION JOINT MATERIAL SHALL BE PROVIDED WHERE CURB IS ADJACENT TO SIDEWALK OR CURB.
5. TRANSITIONS BETWEEN CURBS OR DIFFERING CROSS SECTIONS SHALL OCCUR OVER A 20' FOOT LENGTH AS APPROVED BY THE ENGINEER OR THE CITY OF GEORGETOWN.
6. CONCRETE SHALL BE CLASS A, 3000 PSI.
7. ALL SURFACES THAT ARE CHIPPED OR OTHERWISE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED.
8. THE FOLLOWING SCHEME OF PLACEMENT AND LOCATION SHALL BE REQUIRED. THE MANNER OF PLACEMENT AND LOCATION SHALL BE APPROVED BY THE ENGINEER OR THE CITY OF GEORGETOWN.
   A. ALL CURB AND CURB AND GUTTER (REINFORCED) SHALL HAVE TWO #4 LONGITUDINAL REINFORCING BARS.
9. REINFORCING BARS SHALL BE LAPPED A MINIMUM OF 15 INCH.
10. REINFORCING BARS SHALL BE SUPPORTED WITH REBAR CHAIRS OR OTHER APPROVED METHODS.
11. REBAR SUPPORTS ARE NOT REQUIRED ON SLIP FORMED CURB PROVIDED THE REBAR IS PROPERLY GUIDED INTO THE CURB SECTION.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
CURB AND GUTTER DETAILS
ADOPTED 6/21/2006 — SD06 — NTS — 1/2003



GENERAL NOTES FOR THIN WALL TUBE TYPE SIGN SUPPORT:
1. THE BASE SOCKET IS FORMED FROM 2 7/8 " O.D. X 12 GAUGE GALVANIZED PIPE.
2. THE WEDGE IS FORMED FROM 11 GAUGE STEEL GALVANIZED PER ASTM A525.
3. THE SIGN POST IS 2.375" O.D. X 0.095" THIN WALL STEEL TUBING.
4. STEEL SUPPORTS SHALL BE MADE FROM NEW MATERIAL AND SHALL BE CORROSION RESISTANT. STEEL SUPPORTS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATIONS A123 OR A925 (G-90 OR BETTER).
5. SUPPORTS SHALL BE STRAIGHT WITHIN 1/4 " PER 5 FEET OF LENGTH AND SHALL HAVE A SMOOTH, UNIFORM FINISH FREE FROM DEFECTS AFFECTING STRENGTH OR APPEARANCE. ANY BOLT HOLES AND SHEARED ENDS SHALL BE FREE FROM BURRS. BASES OF MULTISECTION SUPPORTS SHALL NOT EXTEND MORE THAN 5 INCHES ABOVE GROUND WHEN INSTALLED.
6. BOLTS, NUTS, SCREWS, WASHERS AND OTHER MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE TO ASTM DESIGNATION: A153 CLASS C OR D, OR B695 CLASS 50.
7. BARRICADE SUPPORTS SYSTEMS USED ON THIS SHEET MAY BE SUITABLE FOR ONLY CERTAIN SOIL TYPES. THE CONTRACTOR IS RESPONSIBLE FOR SELECTING THE APPROPRIATE SUPPORT SYSTEM FOR SOIL CONDITIONS ON EACH PROJECT.
8. ALL BARRICADES TO BE IN CONFORMANCE WITH THE CURRENT EDITION OF THE TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD).
9. RAIL–HIGH DENSITY POLYETHYLENE OR HOLLOW PROFILE PLASTIC LUMBER AND SHEETING SHALL BE RETROREFLECTIVE, INCLUDING SPLICE BLOCKS.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
PERMANENT END–OF–ROAD BARRICADE
ADOPTED 6/21/2006 — SD21 — NTS — 1/2003



1). R11–2 AND M4–10 SIGNS SHOULD BE MOUNTED ON INDEPENDENT SUPPORTS AT 7' MOUNTING HEIGHT IN CENTER OF ROADWAY.
2). ADVANCE SIGNING, INCLYDE CONSTRUCTION WARNING, SIGNS AND DETOUR SIGNING SHALL BE AS SPECIFIED ELSEWHERE IN THE PLANS.
3). THE THREE RAILS ON TYPE III BARRICADES SHALL BE REFLECTIVE ORANGE AND REFLECTIVE WHITE STRIPES ON ONE SIDE FACING ONE–WAY TRAFFIC AND BOTH SIDES FOR TWO–WAY TRAFFIC.
4). BARRICADE STRIPING SHOULD SLANT DOWNWARD IN THE DIRECTION OF DETOUR.
5). ALL SIGNS TO BE IN CONFORMANCE WITH THE CURRENT EDITION OF THE TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD).

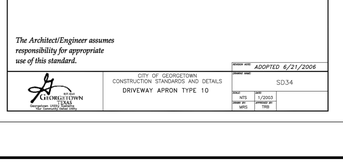
The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TYPE III CONSTRUCTION BARRICADE
ADOPTED 6/21/2006 — SD22 — NTS — 1/2003

NOTES:
1. COMMERCIAL SIDEWALKS WIDTHS – 6'
   RESIDENTIAL SIDEWALKS WIDTHS – 5'
2. ALL SLOPES ARE MAXIMUM ALLOWABLE. FLATTER SLOPES THAT WILL STILL DRAIN PROPERLY ARE ENCOURAGED.
3. ALL CONCRETE SURFACES SHALL RECEIVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE IN THE PLANS.
4. FOR PURPOSES OF WARNING, THE CURB RAMPS SHALL HAVE A LIGHT REFLECTIVE VALUE AND TEXTURE THAT SIGNIFICANTLY CONTRASTS WITH THAT OF ADJOINING PEDESTRIAN ROUTES.
5. TEXTURES MAY CONSIST OF PAVERS WITH TRUNCATED DOMED SURFACES OR GROOVES. TEXTURES ARE REQUIRED TO BE DETECTABLE UNDERFOOT. SURFACES THAT WOULD ALLOW WATER TO ACCUMULATE ARE PROHIBITED.
6. COLOR CONTRAST, FOR EXAMPLE, CAN BE ACCOMPLISHED WITH COLORED CONCRETE PAVERS THAT HAVE TRUNCATED DOMES OR BY COLORED STAINED CONCRETE WITH GROOVES, EITHER OF WHICH WOULD PROVIDE A CONTRAST WITH TYPICALLY LIGHT COLORED CONCRETE.
7. ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, VISIBILITY AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) PREPARED AND ADMINISTERED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION (TDLR).
8. RAISED MEDIANS SEPARATE OPPOSING DIRECTIONS OF TRAFFIC AND PROVIDE A REFUGE AREA FOR PEDESTRIANS IF THEY ARE UNABLE TO CROSS THE ENTIRE ROADWAY IN THE ALLOTTED SIGNAL PHASE. TO SERVE AS A REFUGE AREA, THE MEDIAN SHOULD BE A MINIMUM OF 4 FEET WIDE. MEDIANS SHOULD BE DESIGNED TO PROVIDE ACCESSIBLE PASSAGE OVER OR THROUGH THEM.
9. ALL SIDEWALK PLANS AND DETAILS SHALL BE SUBMITTED AND APPROVED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION (TDLR).
10. ANY PART OF THE ACCESSIBLE ROUTE WITH A SLOPE GRATER THAN 1:20 (5%) SHALL BE CONSIDERED A RAMP. IF A RAMP HAS A RISE GREATER THAN 6 INCHES OR A HORIZONTAL PROJECTION GREATER THAN 72 INCHES, THEN IT SHALL HAVE HANDRAILS ON BOTH SIDES. THE ONLY EXCEPTION IS AT CURB RAMPS. HANDRAILS ARE NOT REQUIRED ON CURB RAMPS. CURB RAMPS SHALL BE PROVIDED WHERE EVER AN ACCESSIBLE ROUTE CROSSES (PENETRATES) A CURB. CURB RAMPS ARE GENERALLY INTERPRETED AS ONLY THE PORTION TYING DIRECTLY INTO THE ROADWAY.
11. TRAFFIC SIGNAL OR ILLUMINATION POLES, GROUND BOXES, CONTROLLER BOXES, SIGNS, DRAINAGE FACILITIES AND OTHER ITEMS SHALL BE PLACED SO NOT TO OBSTRUCT THE ACCESSIBLE ROUTE.
12. ALL SIDEWALKS WILL BE DOWELED INTO EXISTING SIDEWALKS, DRIVEWALKS, DRIVEWAYS, INLET BOXES, RETAINING WALLS, ETC.
13. ALL SIDEWALK CROSS–SLOPES SHALL NOT EXCEED 1:50, UNLESS A VARIANCE IS PROVIDED BY TDLR.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
PEDESTRIAN RAMPS GENERAL NOTES
ADOPTED 6/21/2006 — SD28 — NTS — 1/2003



NOTE: CURB RAMPS WITH RETURNED CURBS INSTEAD OF SIDE FLARES ARE PERMITTED WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TYPICAL INTERSECTON LAYOUT
ADOPTED 6/21/2006 — SD29 — NTS — 1/2003

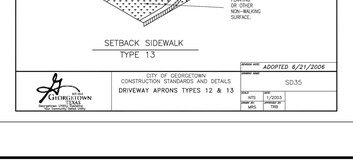
The Architect/Engineer assumes responsibility for appropriate use of this standard.

SINGLE DIAGONAL CURB RAMP

FOR ON–SYSTEM NEW CONSTRUCTION, RECONSTRUCTION AND REHABILITATION PROJECTS WHERE PEDESTRIAN FACILITIES ARE NEWLY CONSTRUCTED OR SUBSTANTIALLY ALTERED, CONSTRUCTION OF SINGLE DIAGONAL RAMPS IS NOT PERMITTED.

FOR ON–SYSTEM PROJECTS SUCH AS RESTORATION, SEAL COAT AND OVERLAY PROJECTS, PLACEMENT OF CURB RAMPS SHOULD BE EVALUATED IN THE FOLLOWING ORDER OF PREFERENCE: PERPENDICULAR, PARALLEL OR COMBINATION, AND SINGLE DIAGONAL. THE MOST PREFERABLE OPTION THAT IS FEASIBLE AT EACH CORNER SHALL BE PROVIDED.

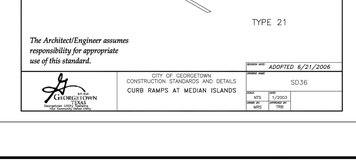
PERPENDICULAR CURB RAMPS



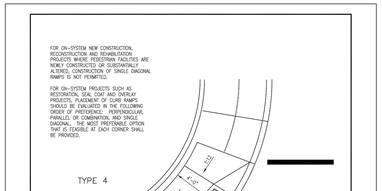
The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
CURB RAMP PLACEMENTS AT INTERSECTIONS
ADOPTED 6/21/2006 — SD30 — NTS — 1/2003

The Architect/Engineer assumes responsibility for appropriate use of this standard.



CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
SIDEWALK RAMP DETAILS TYPE 1–3
ADOPTED 6/21/2006 — SD31 — NTS — 1/2003



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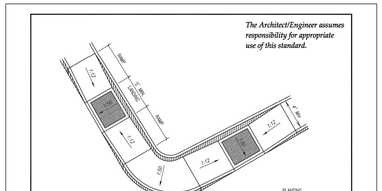
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
SIDEWALK RAMP DETAIL TYPE 4
ADOPTED 6/21/2006 — SD32 — NTS — 1/2003



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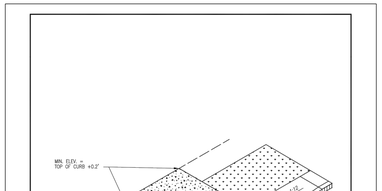
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
SIDEWALK RAMP DETAIL TYPES 5 & 6
ADOPTED 6/21/2006 — SD33 — NTS — 1/2003



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CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
DRIVEWAY APRON TYPE 10
ADOPTED 6/21/2006 — SD34 — NTS — 1/2003

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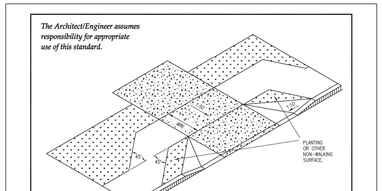

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
DRIVEWAY APRONS TYPES 12 & 13
ADOPTED 6/21/2006 — SD35 — NTS — 1/2003

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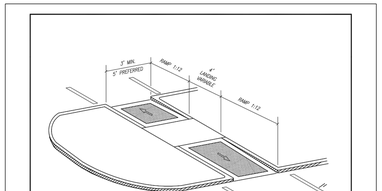

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
CURB RAMPS AT MEDIAN ISLANDS
ADOPTED 6/21/2006 — SD36 — NTS — 1/2003

No.	Date	REVISIONS	App.

QUIDDITY
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3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN — DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 — DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 — DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

SITE DETAILS (1 OF 2)

SHEET NO. **82** OF 132

2023-64-SDP

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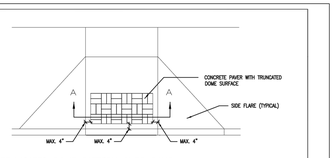
K:\17951\17951-0002-01 northside multifamily\2 design phase\CAD\site development plans\17951-0002-01 DETAILS.dwg kl: March 27, 2024

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



TRUNCATED DOME PATTERN CURB RAMP

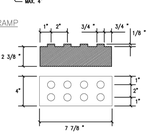
GENERAL NOTES

CONCRETE PAVER UNITS SHALL MEET ALL REQUIREMENTS OF ASTM C-936, C-33, AND SHALL BE LAID IN A TWO BY TWO (90° RADIAL) WEAVE PATTERN, UNLESS SHOWN OTHERWISE IN PLANS.

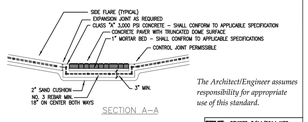
CONCRETE PAVER UNIT SHALL HAVE A TRUNCATED DOME TOP SURFACE FOR DETECTABLE WARNING TO PEDESTRIANS.

CONCRETE PAVER UNIT COLOR FOR THE RAMP SHALL BE A CONTRASTING COLOR TO THE ADJACENT SURFACES. THE COLOR OF THE CONCRETE PAVER UNITS SHALL BE SHOWN ELSEWHERE IN THE PLANS. (ADJACENT SURFACES INCLUDE SIDE FLARES).

CONCRETE PAVER UNITS SHALL BE SAW CUT ONLY AND ANY CUT UNIT SHALL BE NOT LESS THAN 25 PERCENT OF A FULL UNIT.



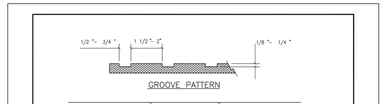
CONCRETE PAVER WITH TRUNCATED DOME SURFACE



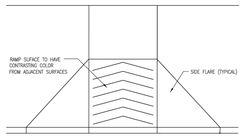
SECTION A–A

The Architect/Engineer assumes responsibility for appropriate use of this standard.

		REVISED 3/14/2014 WBD
		ADOPTED 6/21/2006 TRB
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS		SD37
CURB RAMP TEXTURES TYPE A	SCALE: NTS	DATE: 1/2003
	DRAWN BY: MRVW	CHK: TRB



GROOVE PATTERN



GROOVE PATTERN CURB RAMP (15 DEGREES TO HORIZONTAL)

GENERAL NOTES

CONCRETE SURFACE AREAS THAT ARE IDENTIFIED IN THE PLANS TO RECEIVE SEALER / STAIN TREATMENT, SHALL NOT BE TREATED W/CURING COMPOUND (RETARDANT) AND SHALL BE ALLOWED TO CURE A MINIMUM OF 30 DAYS PRIOR TO APPLICATION OF THE SEALER / STAIN.

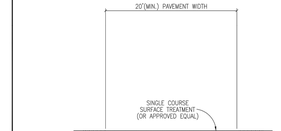
THE SEALER / STAIN FOR THE RAMP SHALL BE A CONTRASTING COLOR TO THE ADJACENT SURFACES (ADJACENT SURFACES INCLUDE THE SIDE FLARES). THE COLOR OF THE SEALER / STAIN SHALL BE SHOWN ELSEWHERE IN THE PLANS.

SEALER / STAIN SHALL BE APPLIED IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS.

AREAS RECEIVING SEALER / STAIN TREATMENT SHALL BE CLEANED USING A "DRY" (SAND) BLAST CLEANING METHOD IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

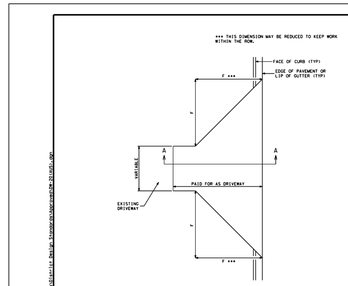
		ADOPTED 6/21/2006
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS		SD38
CURB RAMP TEXTURE TYPE B	SCALE: NTS	DATE: 1/2003
	DRAWN BY: MRS	CHK: TRB



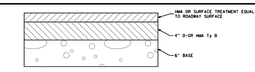
NOTES:
1. EVERY BUILDING CONSTRUCTED SHALL BE ACCESSIBLE TO EMERGENCY APPARATUS BY WAY OF TEMPORARY ALL WEATHER DRIVING SURFACES.
2. A TEMPORARY ALL WEATHER DRIVING SURFACE SHALL EXTEND TO WITHIN 150' OF ALL EXTERIOR PORTIONS OF BUILDINGS.
3. TEMPORARY ALL WEATHER DRIVING SURFACES SHALL BE CONSTRUCTED AS SHOWN ON CONSTRUCTION PLANS AND IN ACCORDANCE WITH ITEM 316 SURFACE TREATMENTS OF THE TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES.
4. TEMPORARY ALL WEATHER DRIVING SURFACES SHALL BE CAPABLE OF SUPPORTING A DESIGN WHEEL LOAD OF 16,000 LB. (H–20 LOADING) IN ORDER TO SUPPORT A GROSS VEHICLE WEIGHT OF 80,000 LB. IF SUBGRADE CONDITIONS CHANGE OR ARE VERY UNSTABLE, AN ADDITIONAL GEOTECHNICAL AND/OR ENGINEERING DESIGN MAY REQUIRE A GREATER CROSS SECTION.
5. CONTRACTOR OR DEVELOPER SHALL MAINTAIN TEMPORARY ALL WEATHER DRIVING SURFACE THROUGHOUT CONSTRUCTION.
6. APPLICABLE SIGNAGE SHALL BE INSTALLED BY THE CONTRACTOR TO DISALLOW PARKING (NO PARKING – FIRE LANE).
7. TEMPORARY ALL WEATHER DRIVING SURFACES SHALL BE INSTALLED PRIOR TO THE ERECTION OF ANY STRUCTURAL FRAMING ABOVE THE FOUNDATION SLAB. CONTACT FIRE SERVICES FOR THE COORDINATION OF TEMPORARY ALL WEATHER DRIVING SURFACES FOR CONSTRUCTION.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

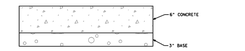
		ADOPTED 6/21/2006
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS		SD43
TEMPORARY ALL WEATHER DRIVING SURFACE	SCALE: NTS	DATE: 1/2003
	DRAWN BY: MRS	CHK: TRB



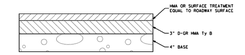
DRIVEWAY PLAN



HMA OR SURFACE TREATMENT – COMMERCIAL

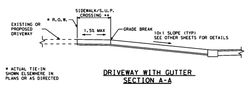


CONCRETE – ALL DRIVEWAY TYPES



HMA OR SURFACE TREATMENT – FARM/RANCH/RESIDENTIAL

FLARE	FARM/RANCH	RESIDENTIAL	COMMERCIAL
4' (FT)	25	15	25



DRIVEWAY WITH GUTTER SECTION A–A

ENSURE GRADE BREAK DOES NOT EXCEED 8% UNLESS OTHERWISE DIRECTED.PROVIDE ABSOLUTE MINIMUM SLOPE OF 0.5% ACROSS WIDTH OF 4' FOR DRIVEWAYS WIDTH OF 20' OR LESS.

++ LOCATE SIDEWALK CROSSING TO ALIGN WITH ADJACENT SIDEWALKs SIDEWALK/S.U.P. WIDTH AND LOCATION SHOWN ELSEWHERE IN PLANS.

GENERAL NOTES

PROVIDE EXPANSION 20 FT C-C FOR WIDTH OR LENGTH OVER 25 FT. EXPANSION JOINT PER AUS STANDARD FOR SIDEWALK (NOTCHING).

REINFORCEMENT WILL BE IN ACCORDANCE WITH ITEM 432.3.1 USING NO. 3 OR NO. 4 BARS.

FIBER REINFORCEMENT IS NOT ALLOWED. CLASS A CONCRETE IS ALLOWED TO USE COARSE AGGREGATE GRADES 1-4.

IN LIEU OF PFC OR TON, SURFACE SHALL BE 1.5" D-OR HMA Ty D. IF SURFACE IS A MULTIPLE COURSE SURFACE TREATMENT, ALL COURSES MUST BE PLACED ON DRIVEWAY.

BLADE LAY HMA IS ALLOWED.

FURNISH BASE MEETING THE REQUIREMENTS FOR ANY TYPE OR GRADE IN ACCORDANCE WITH ITEM 247. BASE COMPRESSIVE STRENGTHS ARE WAIVED.

THE BASE UNDER THE CONCRETE MAY BE REPLACED WITH CONCRETE AT A RATIO OF 3 INCHES OF BASE EQUALS 2 INCHES OF CONCRETE.

IF ROOTS ARE ENCOUNTERED VERIFY WITH THE ENGINEER PRIOR TO ACCOMMODATING OR REMOVING 2 IN. DIAMETER OR LARGER ROOTS. ROOT REMOVAL MUST BE IN ACCORDANCE WITH ITEM 751.4.3. ROOTS MAY REMAIN IN THE BASE. FOR IMPROVEMENTS WITHIN 4 IN. OF A ROOT, THE CONCRETE THICKNESS MAY BE REDUCED TO 4 IN. FOR THE AREA WITHIN 4 IN. OF THE ROOT. FOR ROOTS LARGER THAN 4 IN. IN DIAMETER, THE BASE AND SURFACE PROFILE TO PROVIDE A 2 IN. BASE CUSHION AROUND THE ROOTS. THE SURFACE PROFILE MAY BE ADJUSTED TO THE EXTENT ALLOWED BY ADA. THIS WORK IS SUBSIDIARY.

Texas Department of Transportation | Austin District Standard

DRIVEWAYS

NOT TO SCALE

DW-20 (AUS)

NOTES:
1. MAXIMUM WIDTH OF APPROACH SHALL BE 24'–0" FOR RESIDENTIAL, 30'–0" FOR NON–RESIDENTIAL UNDIVIDED AND 45'–0" FOR NON–RESIDENTIAL DIVIDED.
2. DRIVEWAY PERMITS TO BE ACQUIRED FROM CITY INSPECTION OFFICE.
3. MINIMUM WIDTH OF APPROACH SHALL BE 10'–0" FOR RESIDENTIAL AND 15'–0" FOR NON–RESIDENTIAL.
4. LINEAR "RADIUS" AT CORNERS, PERMITTED FOR "SINGLE FAMILY" OR "TWO FAMILY" RESIDENTIAL DRIVEWAY APPROACH.
5. SIDEWALK LOCATION TO BE APPROVED BY CITY ENGINEER PRIOR TO FINAL DESIGN.
6. SLOPE 1/8" PER FOOT USUAL, NOT TO EXCEED 1/4" PER FOOT.
7. DRIVEWAY APPROACH THICKNESS TO BE A MIN. OF 6".

The Architect/Engineer assumes responsibility for appropriate use of this standard.

		ADOPTED 6/21/2006
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS		SD15
CONCRETE DRIVEWAY APPROACH TYPICAL	SCALE: NTS	DATE: 1/2003
	DRAWN BY: MRS	CHK: TRB

No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

SITE DETAILS (2 OF 2)

SHEET NO. **83** OF **132**

2023-64-SDP

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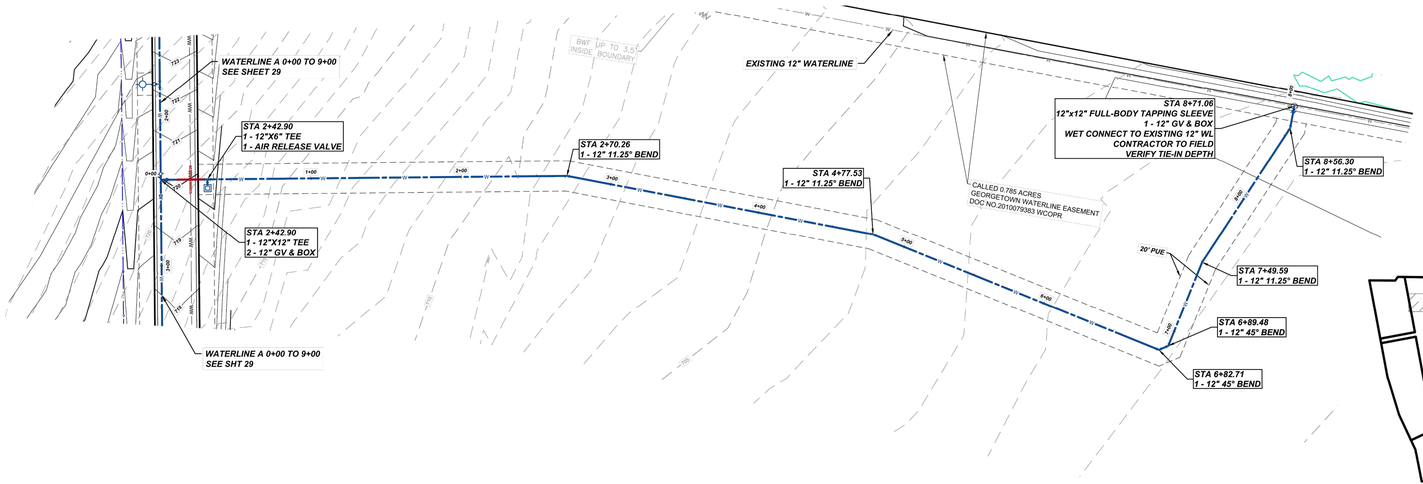
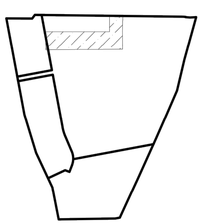
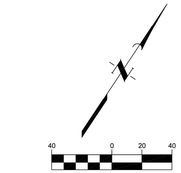
K:\17951\17951-0002-01 northside multifamily2 design phase\CAD\site development plans\17951-0002-01 DETAILS.dwg ki: March 27, 2024

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.





KEY MAP
N.T.S.



EXISTING LEGEND

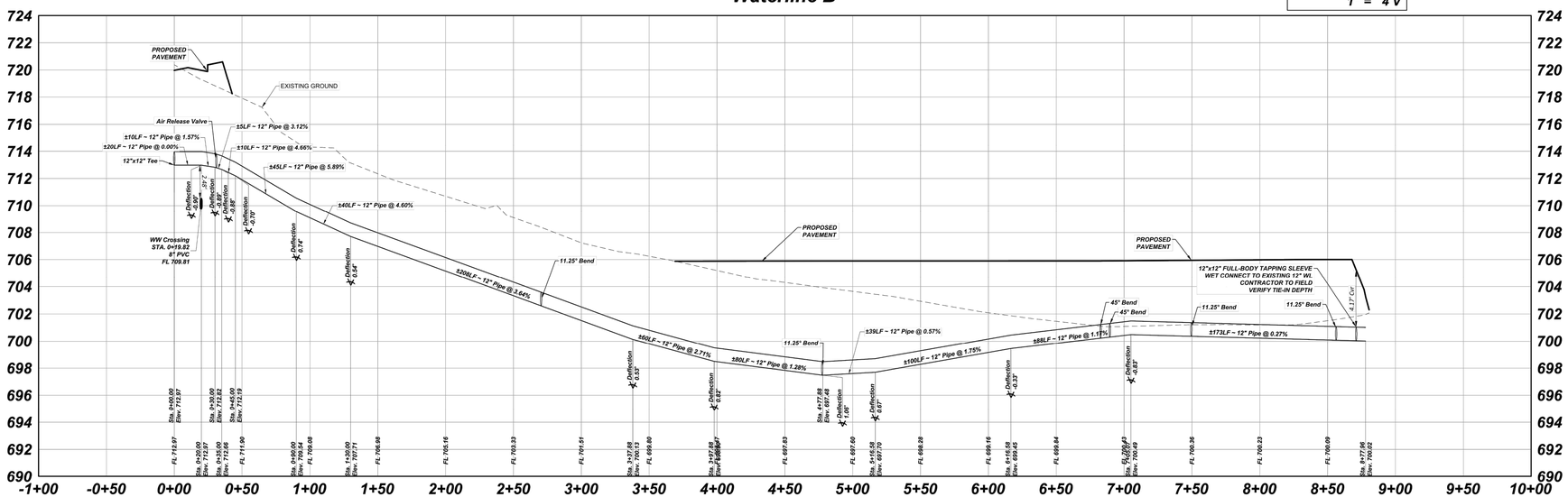
- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- OVERHEAD ELECTRIC W/POWER POLE
- GROUND CONTOUR

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LANDSCAPE DRAIN
- GROUND CONTOUR
- WATER & WASTEWATER CROSSING SEE TCEQ SECTION 217.53. (PIPE DESIGN) TABLE C.1. SEE CROSSING DETAIL SHEET 69

SCALE: 1" = 40'H
1" = 4'V

Waterline B



N.T.S.

© 2021 James I Carter

K:\16705\16705-0003-00 Northside Georgetown Subdivision\2 Design Phase\CAD\Plans\Subdivision Plans\16705-0003-00 WATER.dwg ec: November 17, 2023

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

REVISIONS

No.	Date	App.

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN
DESIGNED BY: JMC
DESIGN LEAD: OOI
DRAWN BY: JDE
CHECKED BY: JAA
DESIGNED BY: FR
DRAWN BY: SLH
DATE:
JOB NO.:

SCALE: AS SHOWN
DESIGNED BY: JMC
DESIGN LEAD: OOI
DRAWN BY: JDE
CHECKED BY: JAA
DESIGNED BY: FR
DRAWN BY: SLH
DATE:
JOB NO.:



TRAILS, LLC
NORTHSIDE SUBDIVISION
350 HWY 195, GEORGETOWN, TX 78633
WATERLINE B

SHEET NO.
31 OF **70**

2023-13-CON

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195
REFERENCE - 2023-13-CON
WATERLINE B

SHEET NO.
84 OF **132**

2023-64-SDP

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K:\17951\17951-0002-01 northside multifamily\2 design phase\CAD\site development plans\17951-0002-01 REFERENCE SUBDIVISION SHEETS.dwg ki: March 27, 2024

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: Northside Lot 3 Multi-family

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.

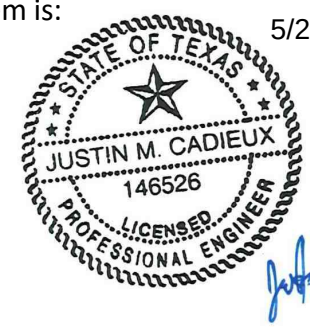
Customer Information

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: Justin Cadieux, P.E.
   Entity: Quiddity Engineering, LLC
   Mailing Address: 3100 Alvin Devane Blvd, Suite 150
   City, State: Austin, Texas Zip: 78741
   Telephone: (512) 441-9493 Fax: _____
   Email Address: jcadieux@quiddity.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: 5/29/2024

   Contact Person: Justin Cadieux, P.E.
   Texas Licensed Professional Engineer's Number: 146526
   Entity: Quiddity Engineering, LLC
   Mailing Address: 3100 Alvin Devane Blvd, Suite 150
   City, State:Austin, Texas Zip: 78741
   Telephone:(512) 441-9493 Fax:_____
   Email Address:jcadieux@quiddity.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: 250
   ☐ Commercial
   ☐ Industrial
   ☐ Off-site system (not associated with any development)
   ☐ Other: _____

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

100% Domestic	43,750 gallons/day
_____% Industrial	_____ gallons/day
_____% Commingled	_____ gallons/day

   Total gallons/day: 43,570

6. Existing and anticipated infiltration/inflow is 44,430 gallons/day. This will be addressed by: Specifying pipe that meets all TCEQ and City Specifications and ensuring all new construction passes the required testing.

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 8/1/2023. A copy of the approval letter is attached.
   ☐ The WPAP application for this development was submitted to the TCEQ on _____, 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)*
6"	533	PVC SDR-26	ASTM D3034
8"	396	PVC SDR-26	ASTM D3034
10"	641	PVC SDR-26	ASTM D3034
12"	109	PVC SDR-26	ASTM D3034

Total Linear Feet: 1,652

(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 Pecan Branch (name) Treatment Plant. The treatment facility is:

☒ Existing
☐ Proposed

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

☒ The City of Georgetown 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?*
Wastewater Line A	44 Of 132	0+47.50	Manhole A-8
Wastewater Line B	46 Of 132	6+64.11	Manhole B-3
	Of		
Wastewater Line D	47 Of 132	4+45.09	Manhole D-8
	Of		
	Of		

Line	*Shown on Sheet*	*Station*	*Manhole or Clean-out?*
	Of		
	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*
N/A	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*
N/A	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*
WW Line A	3+21.11	Crossing	N/A	2.0 ft
WW Line A	9+05.19	Crossing	N/A	2.0 ft
WW Line A	9+69.10	Crossing	N/A	2.0 ft
WW Line B	4+22.17	Crossing	N/A	2.0 ft
WW Line B	4+99.86	Crossing	N/A	2.0 ft
WW Line D	0+79.85	Crossing	N/A	2.0 ft

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*
N/A	N/A	N/A	N/A

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*
Wastewater Line B	MH 3	5+23.48	42

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*
N/A	N/A	N/A	N/A	N/A	N/A

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]**	77 of 132
Manhole, showing inverts comply with 30 TAC §217.55(l)(2) **[Required]**	77 of 132
Alternate method of joining lateral to existing SCS line for potential future connections **[Required]**	N/A of N/A
Typical trench cross-sections **[Required]**	77 of 132
Bolted manholes **[Required]**	77 of 132
Sewer Service lateral standard details **[Required]**	77 of 132
Clean-out at end of line **[Required, if used]**	77 of 132
Baffles or concrete encasement for shock/erosion protection **[Required, if flow velocity of any section of pipe >10 fps]**	77 of 132
Detail showing Wastewater Line/Water Line Crossing **[Required, if crossings are proposed]**	78 of 132
Mandrel detail or specifications showing compliance with 30 TAC §217.57(b) and (c) **[Required, if Flexible Pipe is used]**	N/A of N/A

Standard Details	*Shown on Sheet*
Drop manholes **[Required, if a pipe entering a manhole is more than 24 inches above manhole invert]**	77 of 132

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: 11/26/2021

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 Cadieux, P.E.

Date: 03/04/2024

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)

ORGANIZED SEWEGE COLLECTION SYSTEM PLAN - Attachment A

SCS Engineering Report

DRAINAGE STUDY

TO ACCOMPANY THE

ORGANIZED SEWAGE COLLECTION SYSTEM

FOR

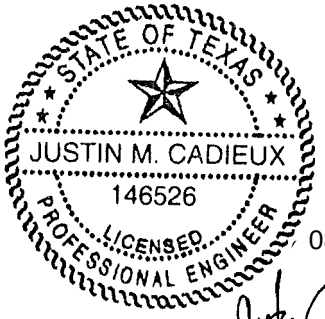
NORTHSIDE LOT 3 MULTI-FAMILY

IN

WILLIMASON COUNTY

FOR

DOMINIUM
4835 LYNDON B JOHNSON FWY SUITE 1000
DALLAS, TX 75244



08/31/2023

QUIDDITY

3100 Alvin Devane Boulevard, Suite 150
Austin, Texas 78741
Tel: 512.441.9493
Fax: 512.445.2286

AUGUST 2023

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PROPOSED HYDROLOGIC CONDITIONS 3

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EXISTING DRAINAGE AREA MAP AND CALCULATIONS….…….…… EXHIBIT 2

PROPOSED DRAINAGE AREA MAP AND CALCULATIONS…… EXHIBIT 3

REFERENCE (2023-13-CON) PROPOSED DRAINAGE AREA MAP…… EXHIBIT 4

HYDROLOGIC SOIL GROUP …….....…… EXHIBIT 5

PROJECT OVERVIEW

On behalf of Dominium, Quiddity Engineering, LLC has prepared the site development plans package for the Northside Lot 3 multi-family project. The 44.43-acre project is located at 350 Hwy 195, Georgetown, TX 78633. The site is currently undeveloped as agricultural land. See **Exhibit 1** for the vicinity map for the site.

The project is part of a 71.997 acre subdivision (2023-13-CON) which consists of 1 multi-family lot, 3 commercial lots and 1 detention pond. This project will include the public and private infrastructure on lot 3 of the Northside Subdivision (2023-13-CON). This includes private roadways, utilities, storm infrastructure, buildings, sidewalks, parking, and related private improvements. The water-quality for this lot will be provided by the Northside Subdivision (2023-13-CON) via an offsite batch storm water quality pond with stacked detention pond. The detention pond proposed in the Northside Subdivision (2023-13-CON) plan set was sized to accommodate the peak runoff generated by the lot 3 site assuming a maximum impervious cover of 50% for the portion of the P2 drainage area per subdivison construction plans (See **Exhibit 4** for refence proposed drainage area map sheet for Northside Subdivision (2023-13-CON) containing the multifamily development.

Water service to the site will be provided by a water tie in point at the north of the site and will be connected to a water line constructed as part of the Northside Subdivision (2023-13-CON). The utility provider is Georgetown Utility Systems. Wastewater on the site will be routed to a tie in point at the south of the site and will be connected to a wastewater line constructed as part of the Northside Subdivision (2023-13-CON). The utility provider is Georgetown Utility Systems

A portion of the site is within the FEMA 100-yr floodplain of the FEMA Zone “A”. Additionally, the ATLAS-14 100-yr floodplain encroaches on the site. A conveyance analysis has been provided to the City of Georgetown as a part of the Northside Subdivision (2023-13-CON) submittal. The conveyance analysis has been provided to the City of Georgetown to compensate for the cut and fill within the ATLAS-14 100-yr floodplain and to show no impacts to downstream users within the floodplain. Additionally, a CLOMR has been submitted to the city as part of the Northside Subdivision (2023-13-CON) submittal.

The entirety of the project site drains to the Dry Berry Creek that runs north to south through the eastern side of the site, with slopes ranging from 1% to 8%. The high point of the site sits at an elevation of 726’ in the northwest corner of the site and the low point is at an elevation of 703’ located in the north of the site. The site is currently agricultural land and is vegetated with natural grass, brush, and trees. The property includes one highpoint in the northwest of the site and rainwater on site flows to the east. The proposed development will increase the impervious cover for the multifamily portion of the site from approximately 0% to approximately 50%. Runoff will be controlled and detained with the use of a stacked detention pond (2023-13-CON) before being released at or below pre-development flow rates into the Dry Berry Creek. HEC-HMS 4.8 software was used to calculate pre- and post-development flows.

The site also lies within the Edwards Aquifer Recharge Zone. A Water Pollution Abatement Plan (WPAP) will be submitted to TCEQ to meet the requirement to outline best management practices to protect water quality.

EXISTING HYDROLOGIC CONDITIONS

Existing drainage conditions of the site were analyzed using HEC-HMS 4.8 software. One distinct sub-basin was identified for the site and labeled as E1. Runoff from E1 flows east.

Land cover was evaluated to be agricultural land. Drainage area E1 has an existing impervious cover of approximately 0%. Times of concentration and rainfall intensities were calculated in accordance with city criteria. See **Exhibit 2** for the existing drainage area map showing the existing drainage area and peak discharge calculations.

PROPOSED HYDROLOGIC CONDITIONS

Proposed drainage conditions were analyzed using HEC-HMS 4.8 software. Drainage area P1 was identified based on the proposed development layout. This area is labeled on the proposed drainage area map with associated peak discharge calculations included as **Exhibit 3**. Impervious cover for the multifamily portion of the site was calculated to be 50.74%. The off-site pond constructed as a part of the Northside Subdivision (2023-13-CON) will accommodate the peak flows generated by drainage area P1 and has been sized according to the maximum impervious cover and flows for the multifamily portion of the site. Impervious cover in the development will include asphalt, concrete, buildings, and sidewalks. A proposed layout showing impervious cover is included in **Exhibit 3.** The portion of the drainage area not covered by impervious surface was assumed to be a combination of brush and grass in fair condition. Times of concentration and rainfall intensities were calculated per city criteria.

Additionally, any proposed cut within the ATLAS-14 floodplain has been submitted as a conveyance study to the City of Georgetown as part of the Northside Subdivision (2023-13-CON). Please reference this study for questions relating to the cut and fill activities with these areas.

See **Exhibit 4** for a reference of the Northside Subdivison (2023-13-CON) proposed drainage area map sheets for confirmation of compliance with peak flow assumptions.

ANALYSIS AND DESIGN

Runoff from the multi-family lot will be controlled and detained with detention & batch pond before being released at or below pre-development flow rates. This pond will also control and detain the runoff for nearby commercial lots. The design of this pond is included in the Northside Subdivision construction plans (2023-13-CON).

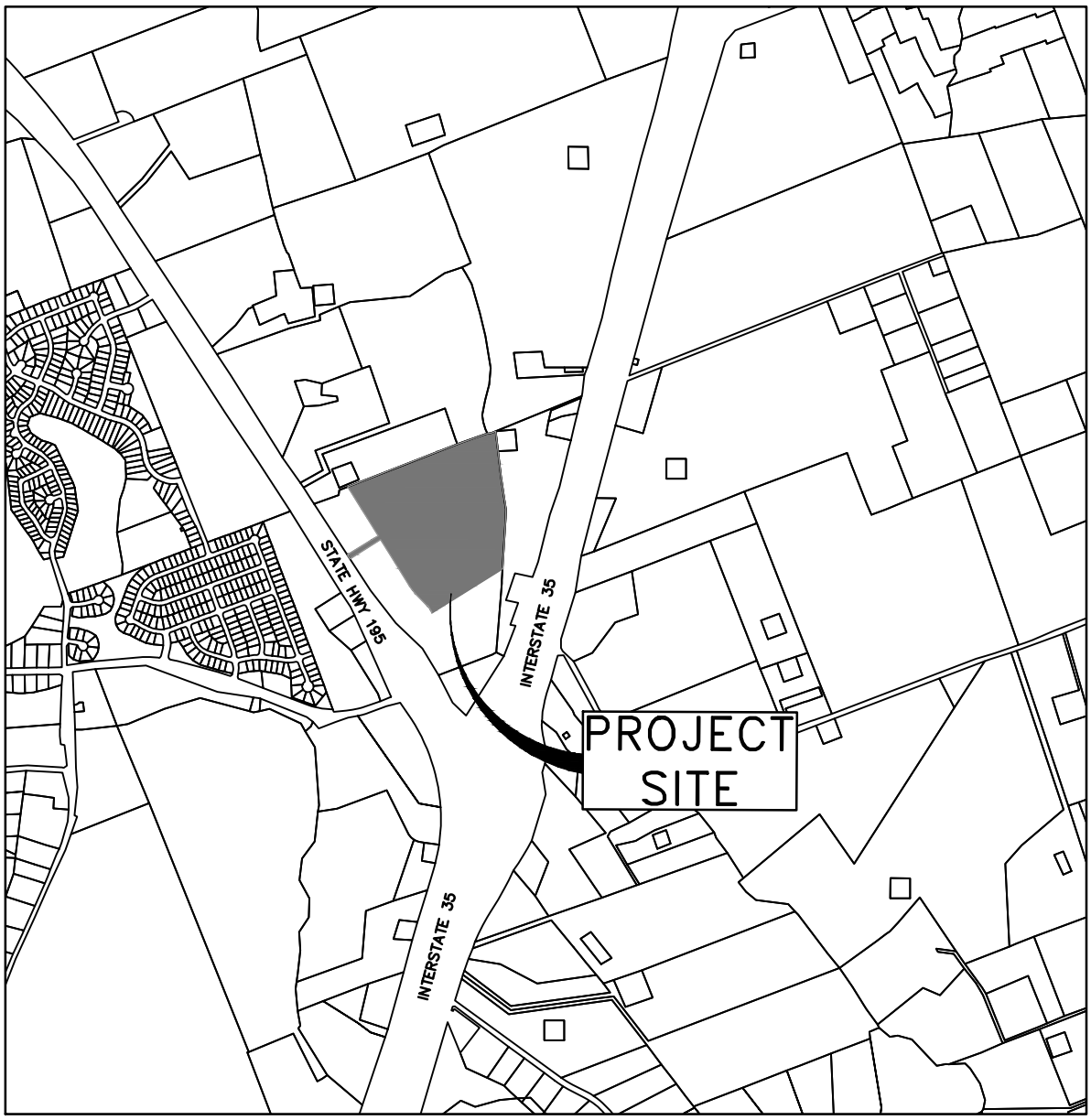
The Soil Conservation Service (SCS) method, available in HEC-HMS software, was used to determine and model runoff to be collected by the detention pond. The USGS Web Soil Survey was used to determine the hydrologic soil groups of the site. A soil report classification is included as **Exhibit 5**.

Once the hydrologic soil group was identified, the Runoff Curve Number (RCN) was determined in accordance with the City of Georgetown Drainage Criteria Manual. An RCN was calculated for each drainage area based on the soil group classification and proportion of each classification

within each drainage area. The RCN was based off Table 3-6 Runoff Curve Numbers for Agricultural Land in the Georgetown DCM. The 3-hour SCS design storm was used to calculate rainfall depths for the 2, 10, 25, and 100-year storms. Cumulative precipitation values were taken from Chapter 3. Hydrology of the City of Georgetown Drainage Criteria Manual. The SCS time of concentration (TOC) was calculated in accordance with the City of Georgetown Drainage Criteria Manual. Lag times were estimated as 0.6*TOC per the City of Georgetown DCM. Proposed conditions can be found in **Exhibit 3**.

Analysis for the drainage areas that have stacked detention, was included in the Northside Subdivision construction plans (2023-13-CON) and was performed using HEC-HMS 4.9 software which indicated that total storage for the 100-year storm is 13.40 acre-feet (109.40 ft^3 total) acre-feet for the stacked detention pond. The pond has been designed to release flow rates at or below pre-development flow rates. There is no adverse impact on adjacent properties as post development flows for the site area detained and released at or less than pre-development rates.

EXHIBIT 1
VICINITY MAP



SITE LOCATION MAP

NORTHSIDE LOT 3 MULTI-FAMILY

GEORGETOWN
WILLIAMSON COUNTY, TX

SCALE:	NTS	DGN. BY:	JCM
DATE:	08/08/2023	DWN. BY:	JCM
JOB NO.	17951-0002-01	DWG. NO.	-
SUBMITTED:	-	SURV. BY:	-
		F.B. NO.	-

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23290 & 10046100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

K:\17951\17951-0002-01 NORTHSIDE MULTIFAMILY\2 DESIGN PHASE\REPORTS\SITE LOCATION MAP - DOMINIUM NORTHSIDE.DWG

EXHIBIT 2
EXISTING DRAINAGE AREA MAP AND CALCULATIONS

catchment name	L_{sh} sheet flow length	S_{sh} sheet flow slope (ft/ft)	surface description	P_2 2-yr, 24-hr rainfall depth (in.)	n_{ol} overland flow roughness coeff.	t_{sh} sheet flow travel time (hr)	L_{sc} shallow conc. flow length (ft)	S_{sc} shallow conc. flow slope (ft/ft)	K 20.32 - paved / 16.13 unpaved	t_{sc} shallow conc. flow time (hr)	Channel #	L_{ch} channel Length (ft)	S_{ch} channel flow slope (ft/ft)	n Manning's roughness coeff.	R hydraulic radius (ft)	t TC	t_c time of conc. (hr)	t_c time of conc. (min)	t_L lag time (min)
E1	100.00	0.1101	Dirt/grass cover	4.20	0.011	**0.0089**	520.3	0.010	16.13	**0.0897**	1	1515.00	0.001	0.055	1.9416	**0.267**	**0.3656**	**21.94**	**13.16**
E2	100.00	0.0677	Soil	4.20	0.011	**0.0108**	1048.83	0.014	16.13	**0.1541**	**0.1649**	**9.90**	**5.94**						
E3	74.17	0.0050	Dirt	4.20	0.011	**0.0242**	N/A	N/A	N/A	**N/A**	**0.0242**	**1.45**	**0.87**						
E4	10.89	0.0339	Asphalt	4.20	0.011	**0.0024**	380.43	0.042	20.32	**0.0254**	**0.0279**	**1.67**	**1.00**						

Existing Drainage Calculations								
Undeveloped Flows: Soil group "B, C and D"								
					Peak Out-Flow from HEC-HMS Model			
Drainage Areas	Area (ac)	% I.C.	CN	Tlag (min)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
E1	27.00	0.00	74.61	13.16	29.90	61.20	80.90	107.90
E2	13.79	0.00	90.73	5.94	34.00	0.00	62.90	77.80
E3	0.43	0.00	88.44	0.87	1.30	0.00	2.30	2.80
E4	0.44	0.00	91.01	1.00	1.30	0.00	2.30	2.80
Analysis point 1					**29.90**	**61.20**	**80.90**	**107.90**
Analysis point 2					**34.30**	**52.40**	**64.00**	**79.40**
Analysis point 3					**1.30**	**1.90**	**2.30**	**2.80**

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

100 0 50 100

SCALE: 1" = 100'

DAMAP LEGEND

1.82 Ac. — DRAINAGE AREA IN ACRES

TIME OF CONCENTRATION

DRAINAGE AREA LINE

A−1 — DRAINAGE AREA NUMBER

FLOW DIRECTION

E1 — 27.00 Ac. — NORTHSIDE SUBDIVISION LOT 3, BLOCK A 44.43 ACRES ZONING: MF−1, AG USE: MULTI−FAMILY

E2 — 13.79 Ac. — NORTHSIDE SUBDIVISION LOT 4, BLOCK A 13.43 ACRES ZONING: C−3, AG USE: COMMERCIAL

E3 — 0.43 Ac. — NORTHSIDE SUBDIVISION LOT 2, BLOCK A 8.79 ACRES ZONING: C−3 USE: COMMERCIAL

E4 — 0.44 Ac. — NORTHSIDE SUBDV LOT 1, BLOCK 5.34 ACRES ZONING: C−3 USE: COMMERCI

Point of Analysis 1
Q2: 29.90 cfs
Q10: 61.20 cfs
Q25: 80.90 cfs
Q100: 107.90 cfs

Point of Analysis 2
Q2: 34.30 cfs
Q10: 52.40 cfs
Q25: 64.00 cfs
Q100: 79.40 cfs

Point of Analysis 3
Q2: 1.30 cfs
Q10: 1.90 cfs
Q25: 2.30 cfs
Q100: 2.80 cfs

FOUND 1/2" IRON ROD "FOREST"

FOUND 1/2" IRON ROD "FOREST"

SET 1/2" IRON ROD "JONES|CARTER"

CALLED 0.785 ACRES GEORGETOWN WATERLINE EASEMENT DOC NO.2010079383 WCOPR

WILLIAM ROBERTS SURVEY ABSTRACT NO. 324

ROBERTS SURVEY ABSTRACT NO. 324

PROPOSED CITY OF GEORGETOWN 100YR FLOODPLAIN

FLOOD ZONE "A" FEMA PANEL 48491C0285F EFFECTIVE 12/20/2019

OVERHEAD ELECTRIC LINES NO PLOTTABLE RECORD EASEMENT FOUND BLANKET ELECTRIC EASEMENT TO BRAZOS RIVER TRANSMISSION ELECTRIC COOP VOL.349, PG.451 WCDR

NORTHSIDE SUBDIVISION LOT 4, BLOCK A 13.43 ACRES ZONING: C−3, AG USE: COMMERCIAL

CALLED 0.654 ACRES GEORGETOWN WATERLINE & WASTEWATER EASEMENT DOC NO.2010079382 OPRWCT

4.13 ACRES - 80 FOOT WIDE LCRA TRANSMISSION EASEMENT DOC NO.2006031801 OPRWCT (DOC NO.9760023 OPRWCT)

CONTROL OF ACCESS POINT DOC NO.2006052700 OPRWCT ACCESS PERMITTED THE NORTH OF THIS POINT ACCESS DENIED TO THE SOUTH OF THIS POINT

CALLED 0.869 ACRES ELECTRIC UTILITY EASEMENT PEDERNALES ELECTRIC COOPERATIVE, INC. DOC NO.2006010408 OPRWCT

CALLED 4.13 ACRES - 80 FOOT WIDE LCRA TRANSMISSION EASEMENT DOC NO.2006031801 WCOPR

REMAINDER OF CALLED 4.029 ACRES - 80 FOOT WIDE LCRA EASEMENT & RIGHT OF WAY DOC NO.9760023 WCOPR

SH 195 (PUBLIC R.O.W. VARIES)

S 31°58'49" E 50.00'

S 31°58'27" E 886.42'

N 31°58'27" W 1266.89'

N 31°58'27" W 1266.89'

S 31°58'27" E 537.28'

No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23264 & 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

PRE-DEVELOPMENT DRAINAGE AREA MAP

SHEET NO. **62** OF 132

2023-64-SDP

©2023 Quiddity

EXHIBIT 3
PROPOSED DRAINAGE AREA MAP AND CALCULATIONS

catchment name	L_{sh} sheet flow length	S_{sh} sheet flow slope (ft/ft)	surface description	P_2 2-yr, 24-hr rainfall depth (in.)	n_{ol} overland flow roughness coeff.	t_{sh} sheet flow travel time (hr)	L_{sc} shallow conc. flow length (ft)	S_{sc} shallow conc. flow slope (ft/ft)	K 20.32 - paved / 16.13 unpaved	t_{sc} shallow conc. flow time (hr)	Channel #	L_{ch} channel Length (ft)	S_{ch} channel flow slope (ft/ft)	n Manning's roughness coeff.	R hydraulic radius (ft)	t TC	t_c time of conc. (hr)	t_c time of conc. (min)	t_L lag time (min)
O1	100.00	0.1101	Dirt/grass cover	4.20	0.011	**0.0089**	520.3	0.010	16.13	**0.0897**	1	1515.00	0.001	0.055	1.9416	**0.267**	**0.3656**	**21.94**	**13.16**
P1	100.00	0.0747	Asphalt	4.20	0.011	**0.0104**	79.03	0.030	20.32	**0.0063**	1	1132.13	0.012	0.010	0.75	**0.024**	**0.0403**	**2.42**	**1.45**
O2	74.17	0.0050	Dirt	4.20	0.011	**0.0242**	N/A	N/A	N/A	**N/A**	**0.0242**	**1.45**	**0.87**						
P2	10.89	0.0339	Asphalt	4.20	0.011	**0.0024**	380.43	0.042	20.32	**0.0254**	**0.0279**	**1.67**	**1.00**						

Proposed Drainage Calculations								
Developed Flows: Soil group "B, C and D"								
					Peak Out-Flow from HEC-HMS Model			
Drainage Areas	Area (ac)	% I.C.	CN	Tlag (min)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
O1	27.00	1.90	74.61	13.16	30.50	61.70	81.40	108.30
P1	13.79	59.02	90.73	1.45	43.40	60.90	73.20	89.20
O2	0.43	24.39	88.44	0.87	1.30	1.90	2.30	2.80
P2	0.44	71.95	91.01	1.00	1.40	2.00	2.40	2.90
Analysis point 1					**30.50**	**61.70**	**81.40**	**108.30**
Analysis point 2					**44.70**	**62.80**	**75.50**	**92.00**
Analysis point 3					**1.40**	**2.00**	**2.40**	**2.90**

Comparison Table				
Undeveloped vs Developed Flows: Soil group "B, C and D"				
	Peak Out-Flow from HEC-HMS Model			
Drainage Areas	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
Net analysis point 1	0.60	0.50	0.50	0.40
Net analysis point 2	10.40	10.40	11.50	12.60
Net analysis point 3	0.10	0.10	0.10	0.10

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

100 0 50 100

SCALE: 1" = 100'

DAMAP LEGEND

- 1.82 Ac. — DRAINAGE AREA IN ACRES
- TIME OF CONCENTRATION
- DRAINAGE AREA LINE
- A−1 — DRAINAGE AREA NUMBER
- FLOW DIRECTION

Point of Analysis 1
Q2: 30.50 cfs
Q10: 61.70 cfs
Q25: 81.40 cfs
Q100: 108.30 cfs

Point of Analysis 2
Q2: 44.70 cfs
Q10: 62.80 cfs
Q25: 75.50 cfs
Q100: 92.00 cfs

Point of Analysis 3
Q2: 1.40 cfs
Q10: 2.00 cfs
Q25: 2.40 cfs
Q100: 2.90 cfs

Northside Subdivision (2023-13-CON) Outfall- 5 Matches outfall name per sheet 61

Northside Subdivision (2023-13-CON) Outfall- 4 Matches outfall name per sheet 61

DRAINAGE PLAN NOTES:

1. THIS SITE IS BEING DEVELOPED AS ONE OF THE LOTS WITHIN THE NORTHSIDE SUBDIVISION (2023-13-CON). THE PRIVATE BATCH DETENTION POND PROPOSED IN THE SUBDIVISION CONSTRUCTION PLANS WILL BE USED TO CAPTURE THE FLOWS GENERATED FROM THE SITE. PER THE DRAINAGE PLAN INCLUDED IN THE SUBDIVISION CONSTRUCTION PLANS, THE POND HAS BEEN ADEQUATELY SIZED TO ACCOUNT FOR THE STORM RUNOFF FLOWS THAT WILL BE PRODUCED BY THE FULLY DEVELOPED NORTHSIDE LOT 3 MULTI-FAMILY SITE (2023-64-SDP).
2. POST DEVELOPED FLOWS ARE IN COMPLIANCE WITH NORTHSIDE SUBDIVISION (2023-13-CON) DRAINAGE AND POND CALCULATIONS. SEE SHEETS 58-61 FOR REFERENCE NORTHSIDE SUBDIVISION SHEETS DEMONSTRATING ALLOWABLE FLOWS TO EXISTING POND.
3. REFERENCE SHEET 65 FOR SITE DEVELOPMENT PLAN (2023-64-SDP) DRAINAGE CALCULATIONS.

No.	Date	REVISIONS	App.

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Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23004, 10064100
3100 Alvin Devane Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

POST-DEVELOPMENT DRAINAGE AREA MAP

SHEET NO. **63** OF *132*

2023-64-SDP

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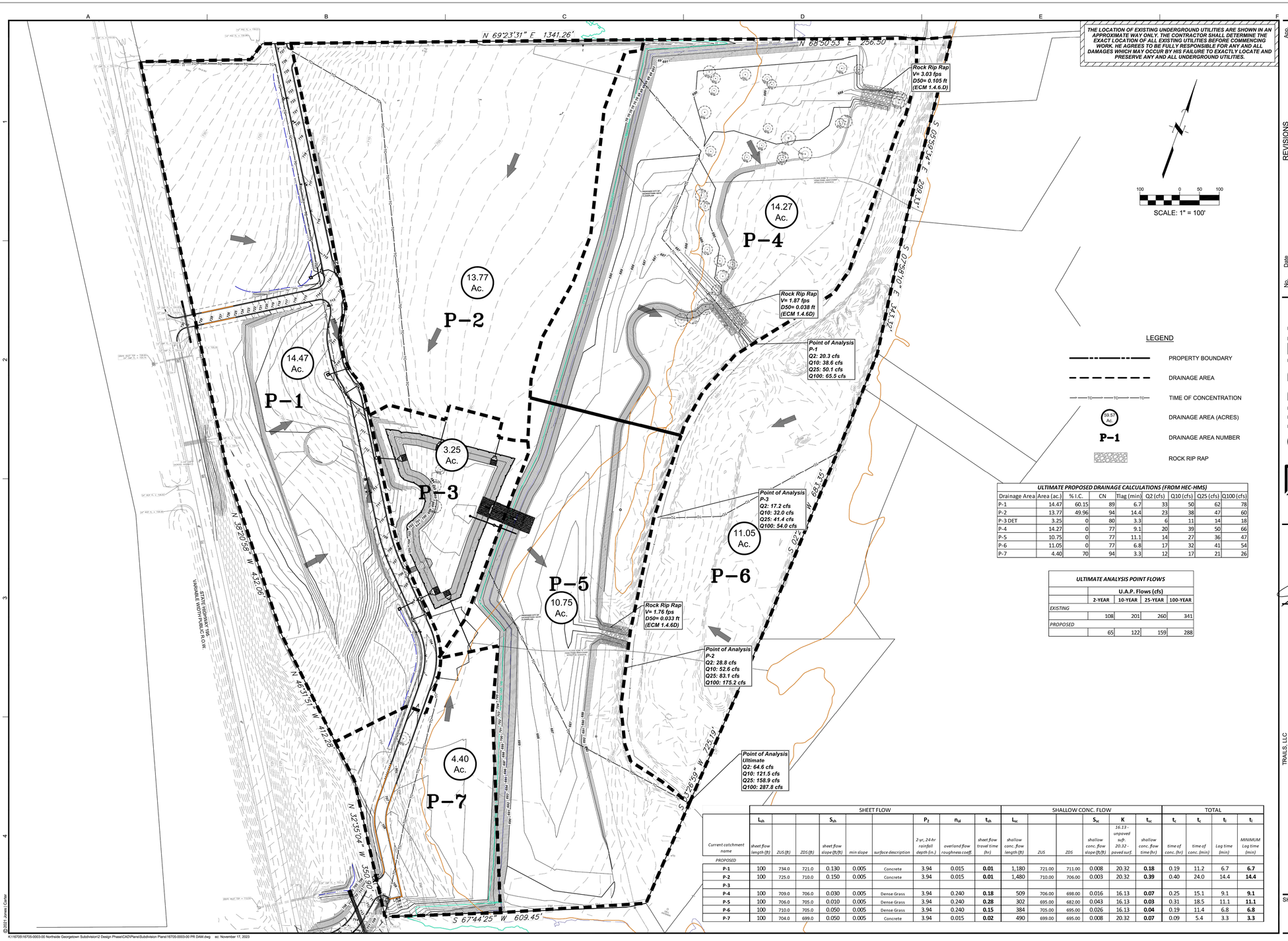
K:\17951\17951-0002-01 northside multifamily\2 design phase\CAD\site development plans\17951-0002-01 DAM-P.dwg ki: March 27, 2024

EXHIBIT 4
REFERENCE NORTHSIDE SUBDIVISON (2023-13-CON)
PROPOSED DRAINAGE AREA MAP

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



LEGEND

- PROPERTY BOUNDARY
- DRAINAGE AREA
- TIME OF CONCENTRATION
- DRAINAGE AREA (ACRES)
- DRAINAGE AREA NUMBER
- ROCK RIP RAP

ULTIMATE PROPOSED DRAINAGE CALCULATIONS (FROM HEC-HMS)

Drainage Area	Area (ac.)	% I.C.	CN	Tlag (min)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
P-1	14.47	60.15	89	6.7	33	50	62	78
P-2	13.77	49.96	94	14.4	23	38	47	60
P-3 DET	3.25	0	80	3.3	6	11	14	18
P-4	14.27	0	77	9.1	20	39	50	66
P-5	10.75	0	77	11.1	14	27	36	47
P-6	11.05	0	77	6.8	17	32	41	54
P-7	4.40	70	94	3.3	12	17	21	26

ULTIMATE ANALYSIS POINT FLOWS

	U.A.P. Flows (cfs)			
	2-YEAR	10-YEAR	25-YEAR	100-YEAR
EXISTING				
	108	201	260	341
PROPOSED				
	65	122	159	288

	SHEET FLOW									SHALLOW CONC. FLOW						TOTAL			
	L_{sh}			S_{sh}			P_2	n_{sl}	t_{sh}	L_{sc}			S_{sc}	K	t_{sc}	t_c	t_c	t_t	t_t
Current catchment name	*sheet flow length (ft)*	*ZUS (ft)*	*ZDS (ft)*	*sheet flow slope (ft/ft)*	*min slope*	*surface description*	*2-yr, 24-hr rainfall depth (in.)*	*overland flow roughness coeff.*	*sheet flow travel time (hr)*	*shallow conc. flow length (ft)*	*ZUS*	*ZDS*	*shallow conc. flow slope (ft/ft)*	*16.13 - unpaved sqft. 20.32 - paved surf.*	*shallow conc. flow time (hr)*	*time of conc. (hr)*	*time of conc. (min)*	*Lag time (min)*	*MINIMUM Lag time (min)*
PROPOSED																			
P-1	100	734.0	721.0	0.130	0.005	Concrete	3.94	0.015	**0.01**	1,180	721.00	711.00	0.008	20.32	**0.18**	0.19	11.2	6.7	**6.7**
P-2	100	725.0	710.0	0.150	0.005	Concrete	3.94	0.015	**0.01**	1,480	710.00	706.00	0.003	20.32	**0.39**	0.40	24.0	14.4	**14.4**
P-3																			
P-4	100	709.0	706.0	0.030	0.005	Dense Grass	3.94	0.240	**0.18**	509	706.00	698.00	0.016	16.13	**0.07**	0.25	15.1	9.1	**9.1**
P-5	100	706.0	705.0	0.010	0.005	Dense Grass	3.94	0.240	**0.28**	302	695.00	682.00	0.043	16.13	**0.03**	0.31	18.5	11.1	**11.1**
P-6	100	710.0	705.0	0.050	0.005	Dense Grass	3.94	0.240	**0.15**	384	705.00	695.00	0.026	16.13	**0.04**	0.19	11.4	6.8	**6.8**
P-7	100	704.0	699.0	0.050	0.005	Concrete	3.94	0.015	**0.02**	490	699.00	695.00	0.008	20.32	**0.07**	0.09	5.4	3.3	**3.3**

N.T.S.

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K:\16705\16705-0003-00 Northside Georgetown Subdivision\2 Design Phase\CAD\Plans\Subdivision Plans\16705-0003-00 PR DAM.dwg ec: November 17, 2023

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K:\17951\17951-0002-01 northside multifamily\2 design phase\CAD\site development plans\17951-0002-01 REFERENCE SUBDIVISION SHEETS.dwg ki: March 27, 2024

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

REVISIONS

No.	Date	App.

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Registration Nos. F-23295 & 10064100
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SCALE: AS SHOWN | DESIGNED BY: FR | DESIGNED BY: JMC
DATE: 7/31/2023 | CHECKED BY: JAA | DESIGN LEAD: OOI
JOB NO.: 16705-0003-00 | DRAWN BY: SLH | DRAWN BY: JDE
DWG ISSUANCE: U2 - MARCH 2024 | JOB NO.: 17951-0002-01

STATE OF TEXAS
JOHN A. ALVAREZ II
127206
LICENSED
7/31/2023

TRAILS, LLC
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350 HWY 195, GEORGETOWN, TX 78633

PROPOSED DRAINAGE AREA MAP

SHEET NO. **51** OF 70

2023-13-CON

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP
NORTHSIDE LOT 3 MULTI-FAMILY
520 SH 195

REFERENCE - 2023-13-CON
PROPOSED DRAINAGE AREA MAP

SHEET NO. **59** OF 132

2023-64-SDP

EXHIBIT 5
HYDROLOGIC SOIL GROUP

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for Williamson County, Texas



July 25, 2023

Preface

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

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

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

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

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

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

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How Soil Surveys Are Made

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

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

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

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

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

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

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

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

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

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

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

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

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

Soil Map

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

Custom Soil Resource Report
Soil Map



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

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

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

MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Williamson County, Texas
Survey Area Data: Version 23, Aug 24, 2022

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

Date(s) aerial images were photographed: Data not available.

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
EaD	Eckrant cobbly clay, 1 to 8 percent slopes	8.2	52.8%
KrB	Krum silty clay, 1 to 3 percent slopes	0.2	1.1%
SvA	Sunev silty clay loam, 0 to 1 percent slopes	7.1	46.1%
Totals for Area of Interest		**15.4**	**100.0%**

Map Unit Descriptions

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

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

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

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

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

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

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

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

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

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

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

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

Williamson County, Texas

EaD—Eckrant cobbly clay, 1 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2t0sg
Elevation: 650 to 1,900 feet
Mean annual precipitation: 30 to 35 inches
Mean annual air temperature: 65 to 69 degrees F
Frost-free period: 210 to 250 days
Farmland classification: Not prime farmland

Map Unit Composition

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

Description of Eckrant

Setting

Landform: Ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Typical profile

A1 - 0 to 4 inches: cobbly clay
A2 - 4 to 11 inches: very cobbly clay
R - 11 to 80 inches: bedrock

Properties and qualities

Slope: 1 to 8 percent
Surface area covered with cobbles, stones or boulders: 2.3 percent
Depth to restrictive feature: 4 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 1.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Ecological site: R081CY360TX - Low Stony Hill 29-35 PZ
Hydric soil rating: No

Minor Components

Brackett

Percent of map unit: 7 percent
Landform: Ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R081CY355TX - Adobe 29-35 PZ
Hydric soil rating: No

Bexar

Percent of map unit: 5 percent
Landform: Ridges
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R081CY361TX - Redland 29-35 PZ
Hydric soil rating: No

Krum

Percent of map unit: 3 percent
Landform: Ridges
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R081CY357TX - Clay Loam 29-35 PZ
Hydric soil rating: No

KrB—Krum silty clay, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: djqf
Elevation: 600 to 1,300 feet
Mean annual precipitation: 26 to 36 inches
Mean annual air temperature: 63 to 70 degrees F
Frost-free period: 230 to 250 days
Farmland classification: All areas are prime farmland

Map Unit Composition

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

Description of Krum

Setting

Landform: Stream terraces

Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Clayey alluvium of pleistocene age derived from mixed sources

Typical profile

H1 - 0 to 6 inches: silty clay
H2 - 6 to 44 inches: silty clay
H3 - 44 to 72 inches: silty clay

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 50 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 3.0
Available water supply, 0 to 60 inches: Moderate (about 8.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: R086AY007TX - Southern Clay Loam
Hydric soil rating: No

SvA—Sunev silty clay loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2s1qh
Elevation: 510 to 640 feet
Mean annual precipitation: 34 to 37 inches
Mean annual air temperature: 67 to 69 degrees F
Frost-free period: 255 to 266 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

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

Description of Sunev

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread

Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loamy alluvium derived from limestone

Typical profile

A - 0 to 12 inches: silty clay loam
Bk - 12 to 42 inches: clay loam
BCk - 42 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 70 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: R086AY007TX - Southern Clay Loam
Hydric soil rating: No

Minor Components

Krum

Percent of map unit: 10 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R086AY007TX - Southern Clay Loam
Hydric soil rating: No

Queeny

Percent of map unit: 5 percent
Landform: Paleoterraces
Landform position (three-dimensional): Riser
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R086AY002TX - Southern Chalky Ridge
Hydric soil rating: No

References

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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: Justin M. Cadieux

Date: 04/04/2024

Signature of Customer/Agent:



Regulated Entity Name: Northside Lot 3 Multifamily

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: Dry Berry Creek

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ N/A

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

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

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

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

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

Soil Stabilization Practices

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

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

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

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

Administrative Information

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

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

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

TEMPORARY STORMWATER SECTION - ATTACHMENT A

Spill Response Actions

Spills of toxic or hazardous material shall be reported to the Owner and to the appropriate State or local government agency, regardless of the size. The following practices shall be followed for spill prevention and cleanup:

General Measures

1. To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes shall be contained and cleaned up immediately. The spill area shall be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.

2. The spill prevention plan shall be adjusted to include measures to prevent this type of spill from reoccurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures shall also be included.

3. Hazardous materials and wastes shall be stored in covered containers and protected from vandalism.

4. Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site shall be located in an open, conspicuous, and accessible location. Manufacturers' recommended methods for spill cleanup shall be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.

5. Materials and equipment necessary for spill cleanup shall be kept in the material storage area onsite. Equipment and materials will include but not be limited to brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.

6. The site superintendent responsible for the day-to-day site operations shall be the spill prevention and cleanup coordinator. He/She shall designate at least three other site personnel who will receive spill prevention and cleanup training. These individuals shall each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel shall be posted in the material storage area and in the office trailer onsite.

7. Spills shall be covered and protected from stormwater run-on during rainfall to the extent that it doesn’t compromise cleanup activities. Spills shall not be buried or washed with water.

8. Used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose shall be stored and disposed of properly.

9. Water used for cleaning and decontamination shall not be allowed to enter storm drains or watercourses. Contaminated water shall be collected and disposed of in accordance with applicable regulations.

10. Water overflow or minor water spillage shall be contained, and not be allowed to discharge into drainage facilities or watercourses.

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

Cleanup

1. Leaks and spills shall be cleaned up immediately.

2. Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and shall be disposed of as hazardous waste.

3. Dry material spills shall never be hosed down or buried. The material shall be cleaned up as quickly as possible and disposed of properly.

Minor Spills

1. Minor spills typically involve small quantities of oil, gasoline, paint, etc. which shall be controlled by the first responder at the discovery of the spill.

2. Absorbent materials shall be used on small spills rather than hosing down or burying the spill, and shall be promptly removed and disposed of properly.

3. The practice below shall immediately be followed for a minor spill:

    a. Contain the spread of the spill.
    b. Recover spilled materials.
    c. Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

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

2. The practice below shall immediately be followed for a semi-significant spill:

    a. Contain spread of the spill.
    b. Notify the project foreman immediately.

c. 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.
d. If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
e. If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

1. The contractor shall 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, the contractor shall contact the Environmental Release Hotline at 1-800-832-8224. It shall be the contractor's responsibility to have all emergency phone numbers at the construction site.

2. For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor shall notify the National Response Center at (800) 424-8802.

3. Notification should first be made by telephone and followed up with a written report.

4. The services of a spills contractor or a Hazardous-Material team shall be obtained immediately. Construction personnel shall not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.

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

Vehicle and Equipment Fueling/Maintenance

1. If maintenance must take place onsite, the contractor shall use a designated area and a secondary containment, located away from drainage courses, to prevent the run-on of stormwater and the runoff of spills.

2. The contractor shall regularly inspect onsite vehicles and equipment for leaks and repair immediately.

3. The contractor shall check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids, and shall not allow leaking vehicles or equipment onsite.

4. The contractor shall always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.

5. The contractor shall place drip pans or absorbent materials under paving equipment when not in use.

6. The contractor shall use absorbent materials on small spills rather than hosing down or burying the spill, and will then remove the absorbent materials promptly and dispose of properly.

7. The contractor shall promptly transfer used fluids to the proper waste or recycling drums, and shall not leave full drip pans or other open containers lying around.

8. Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. The contractor shall place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal.

9. The contractor shall store cracked batteries in a non-leaking secondary container.

10. If fueling must occur on site, the contractor shall use designated areas, located away from drainage courses, to prevent the run-on of stormwater and the runoff of spills.

11. The contractor shall discourage “topping off” of fuel tanks, and always use secondary containment, such as a drain pan, when fueling to catch spills/ leaks.

TEMPORARY STORMWATER SECTION - ATTACHMENT B

Potential Sources of Contamination

Once grading activities begin, erosion of bare soil during rainfall events is the most common source of contamination. Silt fences and mulch socks will be installed at the beginning of the grading operation to minimize the potential for transport of the soil offsite. Inlet protection will be installed at existing and proposed inlets to minimize sediment buildup in the storm system.

During construction activities, potential sources of contamination would include petroleum products leaking from construction equipment. The contractor will be advised to keep the equipment in working order and report any spills per the spill response plan.

QUIDDITY

3100 Alvin Devane Blvd
Austin, Texas 78741-7425
Tel: 512.441.9493
Fax: 512.445.2286
www.quiddity.com

TEMPORARY STORMWATER SECTION - ATTACHMENT C

Sequence of Major Activities

This project shall be fully completed within 180 days from the date of the Notice to Proceed. The sequence of major activities will be as follows:

i. Install all temporary erosion, sedimentation controls and tree protection fencing (44.43 total acres disturbed).
ii. Maintain and inspect erosion controls (44.43 total acres disturbed).
iii. Demolish on site (44.43 acres).
iv. Clear and grub limits of construction (44.43 total acres disturbed).
v. Install underground utilities, including storm sewers, water and wastewater lines with all related appurtenances, and any related site work (1.12 total acres disturbed).
vi. Regrade streets to subgrade (3.25 total acres disturbed)
vii. Install curb and gutter and lay base material and asphalt for paving (3.25 total acres disturbed).
viii. Complete all underground installations within the right-of-way (2.24 total acres disturbed)
ix. Complete installation of pond (1.83 total acres disturbed)
x. Complete permanent erosion control and stabilize all disturbed areas through the restoration of site vegetation (44.43 total acres).
xi. Perform final site cleanup (44.43 total acres).
xii. Remove all temporary erosion controls (44.43 total acres).

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TEMPORARY STORMWATER SECTION - ATTACHMENT D

Temporary Best Management Practices and Measures

Temporary BMP practices and measures will include installing silt fencing, inlet protection, rock berm, stabilized construction entrance, spoils area and concrete washout location prior to beginning mass grading operations on the site. These temporary BMP practices can be found on the construction erosion and sedimentation control plan on the Northside Lot 3 Multi-family Plans (sheets 11-12). As the construction progresses, disturbed areas will be vegetated after the grading operations. Inlet protection measures will be installed on the new inlets throughout the site to minimize sediment buildup in the storm drain system. Dust control measures will be used to minimize airborne transmission of soil from the site. There is no offsite drainage flowing onto the site, and there are no environmentally sensitive features on the site.

The Erosion and Sedimentation control plan can be found on the attached Northside Lot 3 site plan, and it can be found on sheets 11 and 12. The Erosion and Sedimentation and Tree protection notes can be found in 76 in the site plan.

TEMPORARY STORMWATER SECTION - ATTACHMENT E

Request to Temporarily Seal a Feature

Attachment E is not applicable to this project. There is no temporary sealing of naturally-occuring sensitive features on the site proposed.

TEMPORARY STORMWATER SECTION - ATTACHMENT F

Structural Practices

No flows toward exposed soils are anticipated. All runoff from the site will either encounter a silt fence or mulch sock before exiting the property, or will be diverted to the batch detention pond located South center of the property. No structural practices are proposed to be placed in the floodplain.

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TEMPORARY STORMWATER SECTION - ATTACHMENT G

Drainage Area Map

See the attached the Northside Lot 3 Multi-family Site Plans, sheets 62-64, for Development Plans existing drainage and proposed drainage area maps.

catchment name	L_{sh} sheet flow length	S_{sh} sheet flow slope (ft/ft)	surface description	P_2 2-yr, 24-hr rainfall depth (in.)	n_{ol} overland flow roughness coeff.	t_{sh} sheet flow travel time (hr)	L_{sc} shallow conc. flow length (ft)	S_{sc} shallow conc. flow slope (ft/ft)	K 20.32 - paved / 16.13 unpaved	t_{sc} shallow conc. flow time (hr)	Channel #	L_{ch} channel Length (ft)	S_{ch} channel flow slope (ft/ft)	n Manning's roughness coeff.	R hydraulic radius (ft)	t TC	t_c time of conc. (hr)	t_c time of conc. (min)	t_L lag time (min)
E1	100.00	0.1101	Dirt/grass cover	4.20	0.011	**0.0089**	520.3	0.010	16.13	**0.0897**	1	1515.00	0.001	0.055	1.9416	**0.267**	**0.3656**	**21.94**	**13.16**
E2	100.00	0.0677	Soil	4.20	0.011	**0.0108**	1048.83	0.014	16.13	**0.1541**	**0.1649**	**9.90**	**5.94**						
E3	74.17	0.0050	Dirt	4.20	0.011	**0.0242**	N/A	N/A	N/A	**N/A**	**0.0242**	**1.45**	**0.87**						
E4	10.89	0.0339	Asphalt	4.20	0.011	**0.0024**	380.43	0.042	20.32	**0.0254**	**0.0279**	**1.67**	**1.00**						

Existing Drainage Calculations								
Undeveloped Flows: Soil group "B, C and D"								
					Peak Out-Flow from HEC-HMS Model			
Drainage Areas	Area (ac)	% I.C.	CN	Tlag (min)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
E1	27.00	0.00	74.61	13.16	29.90	61.20	80.90	107.90
E2	13.79	0.00	90.73	5.94	34.00	0.00	62.90	77.80
E3	0.43	0.00	88.44	0.87	1.30	0.00	2.30	2.80
E4	0.44	0.00	91.01	1.00	1.30	0.00	2.30	2.80
Analysis point 1					**29.90**	**61.20**	**80.90**	**107.90**
Analysis point 2					**34.30**	**52.40**	**64.00**	**79.40**
Analysis point 3					**1.30**	**1.90**	**2.30**	**2.80**

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

100 0 50 100

SCALE: 1" = 100'

DAMAP LEGEND

1.82 Ac. — DRAINAGE AREA IN ACRES

TIME OF CONCENTRATION

DRAINAGE AREA LINE

A−1 — DRAINAGE AREA NUMBER

FLOW DIRECTION

E1 — 27.00 Ac. — NORTHSIDE SUBDIVISION LOT 3, BLOCK A 44.43 ACRES ZONING: MF−1, AG USE: MULTI−FAMILY

E2 — 13.79 Ac. — NORTHSIDE SUBDIVISION LOT 4, BLOCK A 13.43 ACRES ZONING: C−3, AG USE: COMMERCIAL

E3 — 0.43 Ac. — NORTHSIDE SUBDIVISION LOT 2, BLOCK A 8.79 ACRES ZONING: C−3 USE: COMMERCIAL

E4 — 0.44 Ac. — NORTHSIDE SUBDV LOT 1, BLOCK 5.34 ACRES ZONING: C−3 USE: COMMERCI

Point of Analysis 1
Q2: 29.90 cfs
Q10: 61.20 cfs
Q25: 80.90 cfs
Q100: 107.90 cfs

Point of Analysis 2
Q2: 34.30 cfs
Q10: 52.40 cfs
Q25: 64.00 cfs
Q100: 79.40 cfs

Point of Analysis 3
Q2: 1.30 cfs
Q10: 1.90 cfs
Q25: 2.30 cfs
Q100: 2.80 cfs

FOUND 1/2" IRON ROD "FOREST"

FOUND 1/2" IRON ROD "FOREST"

SET 1/2" IRON ROD "JONES|CARTER"

CALLED 0.785 ACRES GEORGETOWN WATERLINE EASEMENT DOC NO.2010079383 WCOPR

WILLIAM ROBERTS SURVEY ABSTRACT NO. 324

ROBERTS SURVEY ABSTRACT NO. 324

PROPOSED CITY OF GEORGETOWN 100YR FLOODPLAIN

FLOOD ZONE "A" FEMA PANEL 48491C0285F EFFECTIVE 12/20/2019

OVERHEAD ELECTRIC LINES NO PLOTTABLE RECORD EASEMENT FOUND BLANKET ELECTRIC EASEMENT TO BRAZOS RIVER TRANSMISSION ELECTRIC COOP VOL.349, PG.451 WCDR

NORTHSIDE SUBDIVISION LOT 4, BLOCK A 13.43 ACRES ZONING: C−3, AG USE: COMMERCIAL

CALLED 0.654 ACRES GEORGETOWN WATERLINE & WASTEWATER EASEMENT DOC NO.2010079382 OPRWCT

4.13 ACRES - 80 FOOT WIDE LCRA TRANSMISSION EASEMENT DOC NO.2006031801 OPRWCT (DOC NO.9760023 OPRWCT)

CONTROL OF ACCESS POINT DOC NO.2006052700 OPRWCT ACCESS PERMITTED THE NORTH OF THIS POINT ACCESS DENIED TO THE SOUTH OF THIS POINT

CALLED 0.869 ACRES ELECTRIC UTILITY EASEMENT PEDERNALES ELECTRIC COOPERATIVE, INC. DOC NO.2006010408 OPRWCT

CALLED 4.13 ACRES - 80 FOOT WIDE LCRA TRANSMISSION EASEMENT DOC NO.2006031801 WCOPR

REMAINDER OF CALLED 4.029 ACRES - 80 FOOT WIDE LCRA EASEMENT & RIGHT OF WAY DOC NO.9760023 WCOPR

SH 195 (PUBLIC R.O.W. VARIES)

S 31°58'49" E 50.00'

S 31°58'27" E 886.42'

N 31°58'27" W 1266.89'

N 31°58'27" W 1266.89'

S 31°58'27" E 537.28'

No.	Date	REVISIONS	App.

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SCALE: AS SHOWN | DESIGNED BY: JMC
DWG ISSUANCE: U2 - MARCH 2024 | DESIGN LEAD: OOI
JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

PRE-DEVELOPMENT DRAINAGE AREA MAP

SHEET NO. **62** OF 132

2023-64-SDP

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catchment name	L_{sh} sheet flow length	S_{sh} sheet flow slope (ft/ft)	surface description	P_2 2-yr, 24-hr rainfall depth (in.)	n_{ol} overland flow roughness coeff.	t_{sh} sheet flow travel time (hr)	L_{sc} shallow conc. flow length (ft)	S_{sc} shallow conc. flow slope (ft/ft)	K 20.32 - paved / 16.13 unpaved	t_{sc} shallow conc. flow time (hr)	Channel #	L_{ch} channel Length (ft)	S_{ch} channel flow slope (ft/ft)	n Manning's roughness coeff.	R hydraulic radius (ft)	t TC	t_c time of conc. (hr)	t_c time of conc. (min)	t_L lag time (min)
O1	100.00	0.1101	Dirt/grass cover	4.20	0.011	**0.0089**	520.3	0.010	16.13	**0.0897**	1	1515.00	0.001	0.055	1.9416	**0.267**	**0.3656**	**21.94**	**13.16**
P1	100.00	0.0747	Asphalt	4.20	0.011	**0.0104**	79.03	0.030	20.32	**0.0063**	1	1132.13	0.012	0.010	0.75	**0.024**	**0.0403**	**2.42**	**1.45**
O2	74.17	0.0050	Dirt	4.20	0.011	**0.0242**	N/A	N/A	N/A	**N/A**	**0.0242**	**1.45**	**0.87**						
P2	10.89	0.0339	Asphalt	4.20	0.011	**0.0024**	380.43	0.042	20.32	**0.0254**	**0.0279**	**1.67**	**1.00**						

Proposed Drainage Calculations								
Developed Flows: Soil group "B, C and D"								
					Peak Out-Flow from HEC-HMS Model			
Drainage Areas	Area (ac)	% I.C.	CN	Tlag (min)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
O1	27.00	1.90	74.61	13.16	30.50	61.70	81.40	108.30
P1	13.79	59.02	90.73	1.45	43.40	60.90	73.20	89.20
O2	0.43	24.39	88.44	0.87	1.30	1.90	2.30	2.80
P2	0.44	71.95	91.01	1.00	1.40	2.00	2.40	2.90
Analysis point 1					**30.50**	**61.70**	**81.40**	**108.30**
Analysis point 2					**44.70**	**62.80**	**75.50**	**92.00**
Analysis point 3					**1.40**	**2.00**	**2.40**	**2.90**

Comparison Table				
Undeveloped vs Developed Flows: Soil group "B, C and D"				
	Peak Out-Flow from HEC-HMS Model			
Drainage Areas	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
Net analysis point 1	0.60	0.50	0.50	0.40
Net analysis point 2	10.40	10.40	11.50	12.60
Net analysis point 3	0.10	0.10	0.10	0.10

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

100 0 50 100

SCALE: 1" = 100'

DAMAP LEGEND

- 1.82 Ac. — DRAINAGE AREA IN ACRES
- TIME OF CONCENTRATION
- DRAINAGE AREA LINE
- A−1 — DRAINAGE AREA NUMBER
- FLOW DIRECTION

Point of Analysis 1
Q2: 30.50 cfs
Q10: 61.70 cfs
Q25: 81.40 cfs
Q100: 108.30 cfs

Point of Analysis 2
Q2: 44.70 cfs
Q10: 62.80 cfs
Q25: 75.50 cfs
Q100: 92.00 cfs

Point of Analysis 3
Q2: 1.40 cfs
Q10: 2.00 cfs
Q25: 2.40 cfs
Q100: 2.90 cfs

Northside Subdivision (2023-13-CON) Outfall- 5 Matches outfall name per sheet 61

Northside Subdivision (2023-13-CON) Outfall- 4 Matches outfall name per sheet 61

DRAINAGE PLAN NOTES:

1. THIS SITE IS BEING DEVELOPED AS ONE OF THE LOTS WITHIN THE NORTHSIDE SUBDIVISION (2023-13-CON). THE PRIVATE BATCH DETENTION POND PROPOSED IN THE SUBDIVISION CONSTRUCTION PLANS WILL BE USED TO CAPTURE THE FLOWS GENERATED FROM THE SITE. PER THE DRAINAGE PLAN INCLUDED IN THE SUBDIVISION CONSTRUCTION PLANS, THE POND HAS BEEN ADEQUATELY SIZED TO ACCOUNT FOR THE STORM RUNOFF FLOWS THAT WILL BE PRODUCED BY THE FULLY DEVELOPED NORTHSIDE LOT 3 MULTI-FAMILY SITE (2023-64-SDP).
2. POST DEVELOPED FLOWS ARE IN COMPLIANCE WITH NORTHSIDE SUBDIVISION (2023-13-CON) DRAINAGE AND POND CALCULATIONS. SEE SHEETS 58-61 FOR REFERENCE NORTHSIDE SUBDIVISION SHEETS DEMONSTRATING ALLOWABLE FLOWS TO EXISTING POND.
3. REFERENCE SHEET 65 FOR SITE DEVELOPMENT PLAN (2023-64-SDP) DRAINAGE CALCULATIONS.

No.	Date	REVISIONS	App.

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JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
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146526
LICENSED PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

POST-DEVELOPMENT DRAINAGE AREA MAP

SHEET NO. **63** OF *132*

2023-64-SDP

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K:\17951\17951-0002-01 northside multifamily\2 design phase\CAD\site development plans\17951-0002-01 DAM-P.dwg ki: March 27, 2024

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

100 0 50 100

SCALE: 1" = 100'

DAMAP LEGEND

- 1.82 Ac. — DRAINAGE AREA IN ACRES
- TIME OF CONCENTRATION
- DRAINAGE AREA LINE
- A−1 — DRAINAGE AREA NUMBER
- FLOW DIRECTION

NORTHSIDE SUBDIVISION
LOT 3, BLOCK A
44.43 ACRES
ZONING: MF−1, AG
USE: MULTI−FAMILY

NORTHSIDE SUBDIVISION
LOT 4, BLOCK A
13.43 ACRES
ZONING: C−3, AG
USE: COMMERCIAL

NORTHSIDE SUBDIVISION
LOT 1, BLOCK A
5.34 ACRES
ZONING: C−3
USE: COMMERCIAL

NORTHSIDE SUBDIVISION
LOT 2, BLOCK A
8.79 ACRES
ZONING: C−3
USE: COMMERCIAL

Northside Subdivision (2023-13-CON) Outfall- 5 Matches outfall name per sheet 61

Northside Subdivision (2023-13-CON) Outfall- 4 Matches outfall name per sheet 61

SH 195 (PUBLIC R.O.W. VARIES)

DRAINAGE PLAN NOTES:

1. THIS SITE IS BEING DEVELOPED AS ONE OF THE LOTS WITHIN THE NORTHSIDE SUBDIVISION (2023-13-CON). THE PRIVATE BATCH DETENTION POND PROPOSED IN THE SUBDIVISION CONSTRUCTION PLANS WILL BE USED TO CAPTURE THE FLOWS GENERATED FROM THE SITE. PER THE DRAINAGE PLAN INCLUDED IN THE SUBDIVISION CONSTRUCTION PLANS, THE POND HAS BEEN ADEQUATELY SIZED TO ACCOUNT FOR THE STORM RUNOFF FLOWS THAT WILL BE PRODUCED BY THE FULLY DEVELOPED NORTHSIDE LOT 3 MULTI-FAMILY SITE (2023-64-SDP).
2. POST DEVELOPED FLOWS ARE IN COMPLIANCE WITH NORTHSIDE SUBDIVISION (2023-13-CON) DRAINAGE AND POND CALCULATIONS. SEE SHEETS 58-61 FOR REFERENCE NORTHSIDE SUBDIVISION SHEETS DEMONSTRATING ALLOWABLE FLOWS TO EXISTING POND.
3. REFERENCE SHEET 65 FOR SITE DEVELOPMENT PLAN (2023-64-SDP) DRAINAGE CALCULATIONS.

REVISIONS

No.	Date	App.

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JOB NO.: 17951-0002-01 | DRAWN BY: JDE

STATE OF TEXAS
JUSTIN M. CADIEUX
146526
LICENSED
PROFESSIONAL ENGINEER
03/27/2024

GEORGETOWN LEASED HOUSING ASSOCIATES I, LLLP

NORTHSIDE LOT 3 MULTI-FAMILY

520 SH 195

SUB-DRAINAGE AREA MAP

SHEET NO. 64 OF 132

2023-64-SDP

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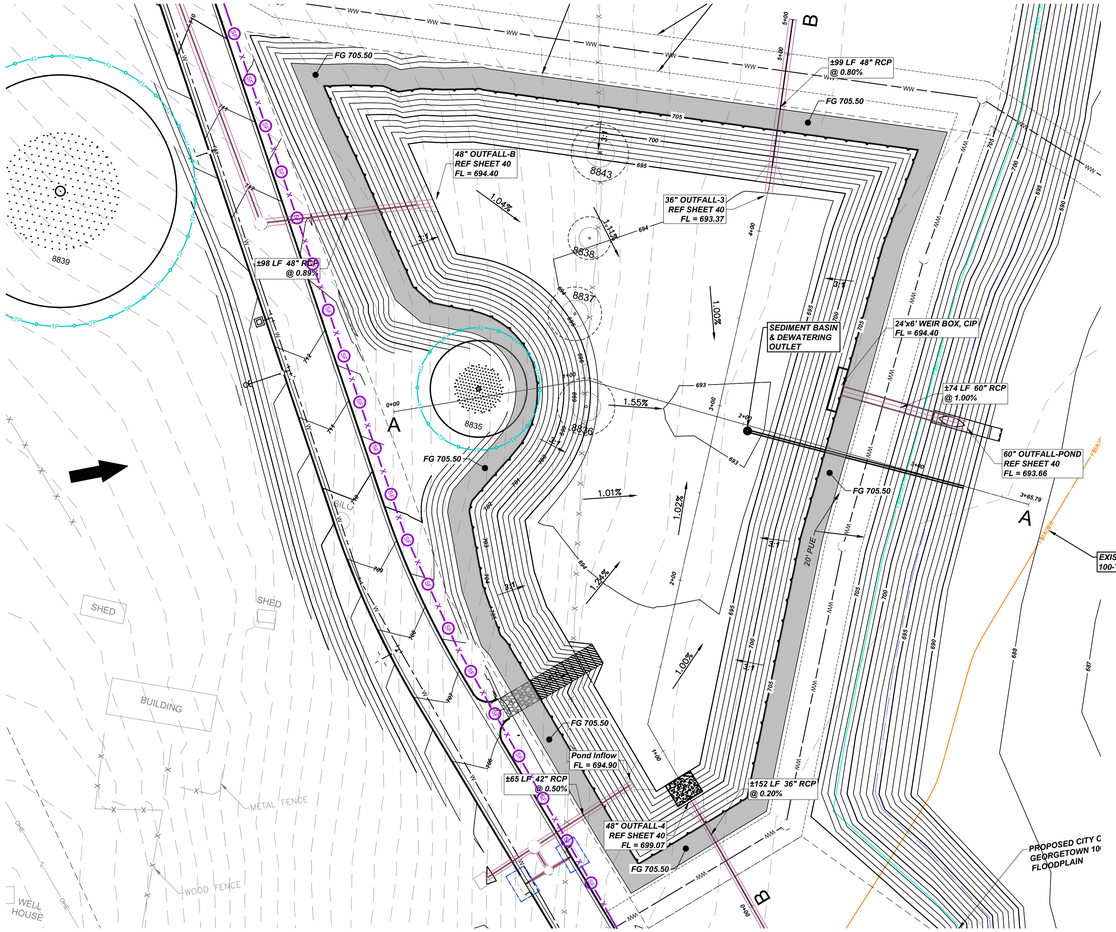
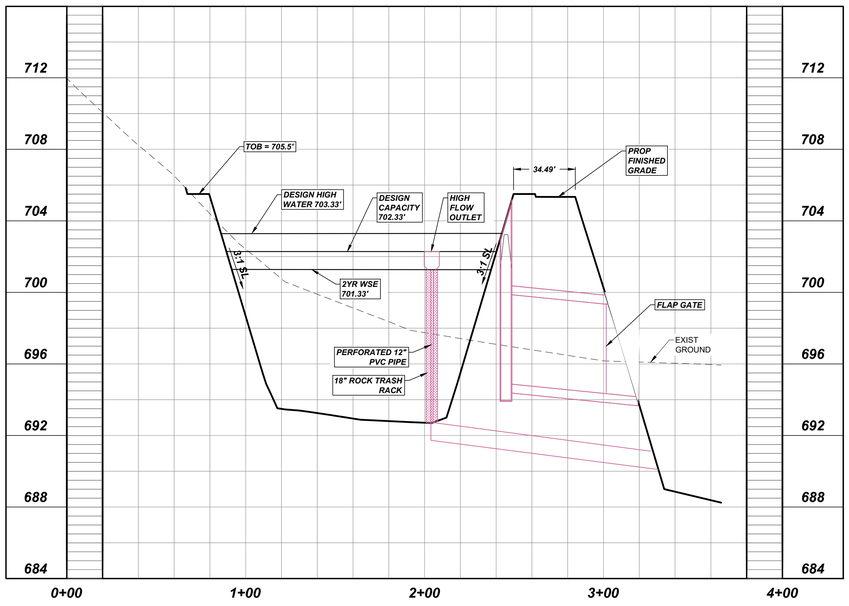


POND SECTION AA



POND A				
DESIGN RAINFALL	AREA OF DRAINAGE	VOLUME	ELEVATION	STORAGE
2-YR 24-HR	33.97 ACRES	9.62 AC-FT	701.33 Ft	9.62 AC-FT

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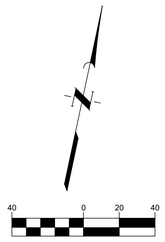

SCALE: 1" = 40'

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- CURB INLET
- GRATE INLET
- LIMITS OF CONSTRUCTION
- GROUND CONTOUR
- SILT FENCE
- INLET PROTECTION
- ROCK BERM
- TREE PROTECTION
- FLOW DIRECTION

NOTE: CONTRACTOR TO DETERMINE TREE PROTECTION TYPE AS NEEDED

No.	Date	REVISIONS	App.

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SCALE: AS SHOWN
DATE: 7/31/2023
JOB NO.: 167/05-0003-00
DESIGNED BY: FR
CHECKED BY: JAA
DRAWN BY: SLH

STATE OF TEXAS
JOHN A. ALVAREZ II
127206
LICENSED PROFESSIONAL ENGINEER
7/31/2023

TRAILS, LLC
NORTHSIDE SUBDIVISION
350 HWY 195, GEORGETOWN, TX 78633

TEMPORARY SEDIMENT BASIN

SHEET NO. **11** OF **68**

2023-13-CON

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K:\16705\16705-0003-00 Northside Georgetown Subdivision\2 Design Phase\CAD\Plans\Subdivision Plans\16705-0003-00 SUBD POND.dwg ec. July 31, 2023

TEMPORARY STORMWATER SECTION - ATTACHMENT I

Inspection and Maintenance for Temporary BMP's

The following guidelines will be followed for inspection and maintenance of temporary BMP's:

Stabilized Construction Entrance/Exit

1. The entrance should be maintained in a condition, which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.

2. All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.

3. When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.

4. When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.

5. All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

Concrete Washout Area

1. A 24" x 36" minimum sign with the text, "Concrete Washout Area" shall face toward the nearest street or access point and indicate the location of the concrete washout.

2. Concrete washout shall be located behind curb and 50 feet minimum from drainage inlets or watercourses.

Silt Fence

1. Inspect all fencing weekly, and after any rainfall.

2. Remove sediment when buildup reaches 6 inches.

3. Replace any torn fabric or install a second line of fencing parallel to the torn section.

4. Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will

provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.

5. When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

Inlet Protection

1. Inspection should be made weekly and after each rainfall. Repair or replacement should be made promptly as needed by the contractor.

2. Remove sediment when buildup reaches a depth of 3 inches. Removed sediment should be deposited in a suitable area and in such a manner that it will not erode.

3. Check placement of device to prevent gaps between device and curb.

4. Inspect filter fabric and patch or replace if torn or missing.

5. Structures should be removed and the area stabilized only after the remaining drainage area has been properly stabilized.

Sediment Basin Inspection and Maintenance Guidelines

1. Inspection should be made weekly and after each rainfall. Check the embankment, spillways and outlet for erosion damage, and inspect the embankment for piping and settlement. Repair should be made promptly as needed by the contractor.

2. Trash and other debris should be removed after each rainfall to prevent clogging of the outlet structure.

3. Accumulated silt should be removed, and basin should be re-graded to its original dimensions at such point that the capacity of the impoundment has been reduced to 75% of its original storage capacity.

4. The removed sediment should be stockpiled or redistributed in areas that are protected from erosion.

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TEMPORARY STORMWATER SECTION - ATTACHMENT J

Schedule of Interim and Permanent Soil Stabilization Practices

For the Northside Lot 3 Multi-family site plans Schedule of Interim and Permanent Soil Stabilization Practices is provided in Table 1

Table 1 – Schedule of Soil Stabilization Practices

Soil Stabilization Practice	Duration
Temporary erosion and sedimentation controls are to be installed as indicated on the approved site plan or subdivision construction plan and in accordance with the stormwater pollution prevention plan (SWPPP) that is required to be posted on the site. Install tree protection and initiate tree mitigation measures	120 days
The environmental project manager, and/or site supervisor, and/or designated responsible party, and the general contractor will follow the storm water pollution prevention plan (SWPPP) posted on the site. Temporary erosion and sedimentation controls will be revised, if needed, to comply with city inspectors' directives, and revised construction schedule relative to the water quality plan requirements and the erosion plan.	180 days
Complete construction and start revegetation of the site and installation of landscaping.	30 days
Upon completion of the site construction and revegetation of a project site, the design engineer shall submit an engineer's letter of concurrence to the appropriate City department indicating that construction, including revegetation, is complete and in substantial conformity with the approved plans. After receiving this letter, a final inspection will be scheduled by the appropriate city inspector.	10 days
Upon completion of landscape installation of a project site, the landscape architect shall submit a letter of concurrence to the appropriate City department indicating that the required landscaping is complete and in substantial conformity with the approved plans. After receiving this letter, a final inspection will be scheduled by the appropriate city inspector.	5 days
After a final inspection has been conducted by the city inspector and with approval from the city inspector, remove the temporary erosion and sedimentation controls and complete any necessary final revegetation resulting from removal of the controls. Conduct any maintenance and rehabilitation of the water quality ponds or controls.	5 days

Permanent 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)(C), (D)(Ii), (E), and (5), 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 **Permanent Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Justin M. Cadieux

Date: 04/04/2024

Signature of Customer/Agent



Regulated Entity Name: Northside Lot 3 Multi-Family

Permanent Best Management Practices (BMPs)

Permanent best management practices and measures that will be used during and after construction is completed.

1. ☒ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.

   ☐ N/A

2. ☒ These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.

   ☒ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

☒ A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is: City of Georgetown Drainage Criteria Manual

☐ N/A

3. ☒ Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

   ☐ N/A

4. Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

   ☐ The site will be used for low density single-family residential development and has 20% or less impervious cover.
   ☐ The site will be used for low density single-family residential development but has more than 20% impervious cover.
   ☒ The site will not be used for low density single-family residential development.

5. The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

   ☐ **Attachment A - 20% or Less Impervious Cover Waiver**. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached.
   ☒ The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.
   ☐ The site will not be used for multi-family residential developments, schools, or small business sites.

6. ☒ **Attachment B - BMPs for Upgradient Stormwater**.

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

☐ No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.

☐ Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.

7. ☒ **Attachment C - BMPs for On-site Stormwater**.

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

☐ Permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, and an explanation is attached.

8. ☒ **Attachment D - BMPs for Surface Streams**. A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is attached. Each feature identified in the Geologic Assessment as sensitive has been addressed.

☐ N/A

9. ☒ The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.

☒ The permanent sealing of or diversion of flow from a naturally-occurring sensitive feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed.

☐ **Attachment E - Request to Seal Features**. A request to seal a naturally-occurring sensitive feature, that includes, for each feature, a justification as to why no reasonable and practicable alternative exists, is attached.

10. ☒ **Attachment F - Construction Plans**. All construction plans and design calculations for the proposed permanent BMP(s) and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. The plans are attached and, if applicable include:

☒ Design calculations (TSS removal calculations)
☒ TCEQ construction notes
☒ All geologic features
☒ All proposed structural BMP(s) plans and specifications

☐ N/A

11. ☒ **Attachment G - Inspection, Maintenance, Repair and Retrofit Plan**. A plan for the inspection, maintenance, repairs, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan includes all of the following:

    ☒ Prepared and certified by the engineer designing the permanent BMPs and measures
    ☒ Signed by the owner or responsible party
    ☒ Procedures for documenting inspections, maintenance, repairs, and, if necessary retrofit
    ☒ A discussion of record keeping procedures

    ☐ N/A

12. ☐ **Attachment H - Pilot-Scale Field Testing Plan**. Pilot studies for BMPs that are not recognized by the Executive Director require prior approval from the TCEQ. A plan for pilot-scale field testing is attached.

    ☒ N/A

13. ☒ **Attachment I -Measures for Minimizing Surface Stream Contamination**. A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is attached. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity, which increase erosion that results in water quality degradation.

    ☐ N/A

Responsibility for Maintenance of Permanent BMP(s)

Responsibility for maintenance of best management practices and measures after construction is complete.

14. ☒ The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.

    ☐ N/A

15. ☒ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

    ☐ N/A

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PERMANENT STORMWATER SECTION - Attachment B

BMPs for upgradient Stormwater

Permanent BMPs will be based off the Northside Subdivision Construction plans (WPAP ID #11003700) which are referenced in the Northside Lot 3 Multi-family site plan (sheets 58-60). This Northside Subdivision is broken up into seven (7) proposed drainage areas. Drainage areas P1, P2, P3 & P7 are upgradient of the permanent BMP (batch detention pond). The site lies within drainage area P2 and a portion of P1 but will only change in impervious cover in the P2 area. P1 flows from west to east and enters the BMP via storm sewer piping. P2 flows from North to south and enters the BMP via storm sewer piping. P2 has an impervious cover of 49.96% and runoff will be collected via a series of inlets, manholes and piping to ultimately discharge into the batch detention pond south of the site via two outfalls. P3 is the area around the pond and sheet flows into the pond from all sides. P7 flows from South to North and enters the BMP via storm sewer piping. Once these four (4) drainage areas have entered the pond, the flow is treated for TSS removal then discharged into P5. P5 & P4 have no proposed impervious cover but will have grading done within them to allow for additional detention. P5 & P4 discharges directly into Berry Creek. P6 has no proposed impervious cover or grading and discharges directly into Berry Creek.

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PERMANENT STORMWATER SECTION – Attachment C

BMPs for On-site Stormwater

The Northside Lot 3 Multi-family project is part of a 71.997 acre subdivision (WPAP ID #11003700) which consists of 1 multi-family lot, 3 commercial lots, 1 detention pond, and 1 open landscape/drainage lot. This project will include the public and private infrastructure on lot 3 of the Northside Subdivision. The project is located within the Dry Berry Creek Watershed. The Northside Lot 3 Multi-family plans show the center line for Dry Berry Creek on sheet 3 and the drainage area in sheet 58. The site is undeveloped and currently drains to the Dry Berry Creek that run north to south through the eastern side of the site

Sub-basins were identified based on the proposed development layout being referenced from Northside Subdivision, which is included in the site plan set on sheet 59 (P-1, P-2, P-3 DET, P-4, P-5, P-6). This area is labeled on the proposed drainage area map and calculations included in the site plan. Impervious cover was calculated using a maximum allowable impervious cover for the lot of 50%. The proposed off-site pond (2023-13-CON) will accommodate the peak flows generated by drainage area P-1 and has been sized according to the maximum impervious cover. Impervious cover in the development will include asphalt, concrete, buildings, and sidewalks. Runoff will be controlled and detained with the use of a batch detention pond (WPAP ID #11003700) before being released at or below pre-development flow rates into the Dry Berry Creek. Table 1 Shows a summary of the permanent BMP for the current and future planned development.

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Table 1 BMP Coverage

Drainage Area	Permanent BMP	Area (Acre)	Areas to be Controlled By Permanent BMPs (Acre)	Area Not Covered By Permanent BMPs (Acre)	Allowed Max Impervious Cover Percent (%)	Allowed Max Impervious Cover Area Controlled By Permanent BMPs (Acre)
Northside Lot 3 Construction:						
P-2	Batch Detention Pond	13.79	13.79	0.00	50.00	7.5
	Total	13.77 ac				
Ultimate Project Construction:						
P-1	Batch Detention Pond	14.47	13.77	0.00	60.15	8.76
P-2	Batch Detention Pond	13.77	13.77	0.00	50.00	7.5
P-3 DET	Batch Detention Pond	3.25	3.25	0.00	0.00	0.00
P-4	N/A	14.27	0.00	14.27	0.00	0.00
P-5	N/A	10.75	0.00	10.75	0.00	0.00
P-6	N/A	11.05	0.00	10.69	0.00	0.00
P-7	Batch Detention Pond	4.40	4.40	0.00	70.00	3.08
	Total	71.96 ac				

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The runoff of the 71.96 acres of drainage area within the Dry Berry Creek Watershed of the Northside subdivision project site will be capture and conveyed through a combination of water quality facility located the south-central of the project site. The impervious cover of the future development of 13.77 acres of the drainage area within the Northside Subdivision will increase from 0% to 49.96% which created the need for water quality treatment through the use of BMPs.

The proposed water quality facility will be a batch detention pond and will be design in accordance with TCEQ design standards, the City of Georgetown environmental Criterial Manual, and the requirements of TCEQ RG-348, Technical guidance manual for complying with the Edwards Aquifer Rules.

Table 2 shows the detail summary of the quantities.

Table 2 BMP Summary

Watershed	Dry Berry Creek
Total Project Area Included in Plans (ac)	44.43
Overall Onsite Impervious Cover (ac)	7.72
BMP Name	Batch Detention Pond
Drainage Area (ac)	13.77
Impervious Cover Treated By BMP (ac)	7.72
Required TSS Removal (lb)	6,369
Provided TSS Removal (lb)	7,195
Required Water Quality Volume (ft^3)	71,439
Provided Water Quality Volume (ft^3)	85,841

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PERMANENT STORMWATER SECTION - Attachment D

BMPs for Surface Streams

The project site will discharge directly into the batch detention pond referenced from the Northside Subdivision construction plans (TCEQ ID #11003700) then it will eventually drain to Dry Berry Creek.

Temporary BMP's

During construction, the following methods will be used to prevent pollutants from entering surface streams. See the Erosion Control plans in the Northside Lot 3 Multi-family site plans for greater detail (Sheets 11-12). The erosion control details can be found

- Stabilized Construction Entrance/Exit
- Silt Fencing
- Inlet protection
- Temporary Spoils Area
- Temporary Sediment Basin
- Construction Staging Area with Silt Fence Boundaries
- Sediment basin

Permanent BMP's

Runoff from the impervious areas of the site will be treated by the proposed batch detention pond form Northside Subdivision (TCEQ ID #11003700) prior to being discharged into the Dry Berry Creek.

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PERMANENT STORMWATER SECTION – Attachment F

Construction Plans

Full size drawings of the Construction Plans (24”X36”) are attached with this submittal. These drawings include the following:

Sheet No.

1. COVER SHEET & INDEX
2. GENERAL NOTES
3. FINAL PLAT (1 OF 3)
4. FINAL PLAT (2 OF 3)
5. FINAL PLAT (3 OF 3)
6. EXISTING CONDITIONS
11. PRE-CONSTRUCTION EROSION CONTROL & DEMOLITION PLAN
12. MID-CONSTRUCTION EROSION CONTROL PLAN
13. OVERALL SITE DEVELOPMENT PLAN
14. OVERALL SITE PLAN
15. SITE PLAN - A
16. SITE PLAN - B
17. SITE PLAN - C
18. SITE PLAN - D
19. SITE PLAN - E
20. SITE PLAN - F
21. SITE PLAN - G
22. SITE PLAN - H
23. PAVEMENT PLAN
24. OVERALL UTILITY PLAN
25. UTILITY PLAN WATER - A
26. UTILITY PLAN WATER - B
27. UTILITY PLAN WATER - C
28. UTILITY PLAN WATER - D
29. UTILITY PLAN WATER - E
30. UTILITY PLAN WATER - F
31. UTILITY PLAN WATER - G
32. UTILITY PLAN WATER - H
33. UTILITY PLAN WASTEWATER - A
34. UTILITY PLAN WASTEWATER - B
35. UTILITY PLAN WASTEWATER - C
36. UTILITY PLAN WASTEWATER - D
37. UTILITY PLAN WASTEWATER - E

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38. UTILITY PLAN WASTEWATER - F
39. UTILITY PLAN WASTEWATER - G
40. UTILITY PLAN WASTEWATER - H
41. ELECTRICAL SERVICE PLAN
42. FIRE UTILITY PLAN
44. WASTEWATER SEGEMENT A (STA. 0+00 – 6+00)
45. WASTEWATER SEGEMENT A (STA. 6+00 – 11+40)
46. WASTEWATER SEGEMENT B (STA. 0+00 – 6+00)
47. WASTEWATER SEGEMENT D (STA. 0+00 – 6+00)
48. OVERALL GRADING DEVELOPMENT PLAN
49. OVERALL GRADING PLAN
50. GRADING PLAN – A
51. GRADING PLAN – B
52. GRADING PLAN – C
53. GRADING PLAN – D
54. GRADING PLAN – E
55. GRADING PLAN – F
56. GRADING PLAN – G
57. GRADING PLAN – H
58. REFERENCE – 2023-13-CON EXISTING DRAINAGE AREA MAP
59. REFERENCE – 2023-13-CON PROPOSED DRAINAGE AREA MAP
60. REFERENCE – 2023-13-CON SUB-DRAINAGE AREA MAP
61. REFERENCE – 2023-13-CON DRAINAGE CALCULATIONS
62. PRE-DEVELOPMENT DRAINAGE AREA MAP
63. POST-DEVELOPMENT DRAINAGE AREA MAP
64. SUB-DRAINAGE AREA MAP
65. DRAINAGE CALCULATIONS
66. OVERALL STORM DRAINAGE DEVELOPMENT PLAN
67. OVERALL STORM DRAINAGE PLAN
68. STORM DRAINAGE PLAN – A
69. STORM DRAINAGE PLAN – B
70. STORM DRAINAGE PLAN – C
71. STORM DRAINAGE PLAN – D
72. STORM DRAINAGE PLAN – E
73. STORM DRAINAGE PLAN – F
74. STORM DRAINAGE PLAN – G
75. STORM DRAINAGE PLAN – H
76. EROSION CONTROL DETAILS
77. WASTEWATER DETAILS (1 OF 2)
78. WASTEWATER DETAILS (2 OF 2)
79. WATER DETAILS (1 OF 2)
80. WATER DETAILS (2 OF 2)
81. STORM DETAILS
82. SITE DETAILS (1 OF 2)

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83. SITE DETAILS (2 OF 2)
84. REFERENCE – 2023-13-CON WATERLINE B

The TCEQ's TSS Removal Calculations for the water quality basin are included as part of this attachment.

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: **Northside Lot 3 Multifamily**

Date Prepared: **4/10/2024**

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 * =	**44.430**	acres
Predevelopment impervious area within the limits of the plan * =	**0.27**	acres
Total post-development impervious area within the limits of the plan* =	**7.72**	acres
Total post-development impervious cover fraction * =	**0.17**	
P =	**32**	inches
$L_{M\ TOTAL\ PROJECT}$ =	**6484**	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 =	**33.97**	acres
Predevelopment impervious area within drainage basin/outfall area =	**1.84**	acres
Post-development impervious area within drainage basin/outfall area =	**9.56**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.28**	
$L_{M\ THIS\ BASIN}$ =	**6719**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Batch Detention Basin**
Removal efficiency = **91** percent

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

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

where:

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

A_C =	**33.97**	acres
A_I =	**20.09**	acres
A_P =	**13.88**	acres
L_R =	**20460**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = **20460** lbs.

F = **1.00**

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 = **4.00** inches
Post Development Runoff Coefficient = **0.41**
On-site Water Quality Volume = **204293** cubic feet

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

Off-site area draining to BMP =	**0.05**	acres
Off-site Impervious cover draining to BMP =	**0.00538**	acres
Impervious fraction of off-site area =	**0.11**	
Off-site Runoff Coefficient =	**0.13**	
Off-site Water Quality Volume =	**96**	cubic feet
Storage for Sediment =	**40878**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**245266**	cubic feet



4/10/2024

PERMANENT STORMWATER SECTION – Attachment G

Inspection, Maintenance, Repair, and Retrofit Plan

Project: **Northside Lot 3 Multi-Family**
Address: **520 SH 195**
City, State, Zip: **Georgetown, Tx 78633**

General Site Maintenance

The following guidelines should be used as an inspection and maintenance plan that should be performed at least twice annually:

(1) Identify, replant, and restore eroded areas. Add a level spreader, energy dissipation, or other repairs as required to ensure that erosion is not repeated.

(2) Identify areas that do not have acceptable vegetated covers (80% or higher for most BMPs). Reseed, add soil, and irrigate as required to ensure that coverage requirements are met.

(3) Mow sites twice annually and as required to keep grass height under 18 inches. Additional mowing may be performed for site aesthetics. Export clippings from site to prevent release of nutrients from decaying plant matter. Remove any woody growth, especially from embankments, berms, and swales. For swales, grass should not be regularly mowed below four inches.

(4) Use non-chemical methods for maintaining health of vegetation. Pesticides, herbicides, or fertilizers should only be used as a last option, and then as minimally as possible. Fertilizer should rarely be required because runoff will typically contain sufficient nutrient loads.

(5) Irrigation may be required in order to maintain acceptable levels of vegetated coverage, especially for engineered vegetated strips.

(6) Never deposit grass clippings, brush, or other debris in BMPs or buffers.

(7) Prevent over-compaction of BMP components that rely partially or wholly on infiltration (vegetation strips, bioretention bed, infiltration trenches and basins). Mowing and other maintenance should be performed with hand equipment or a light-weight lawn tractor.

(8) Remove any built-up sediment and debris, especially along uphill edges, berms, swales, and level spreaders; and around BMP inlets and outlets

(9) Identify any other problems. A detailed inspection may be required.

Wet Basins

A clear requirement for wet basins is that a firm commitment be made to carry out both routine and non-routine maintenance tasks. The nature of the maintenance requirements are outlined below, along with design tips that can help to reduce the maintenance burden (modified from Young et al., 1996).

Routine Maintenance.

- *Mowing.* The side-slopes, embankment, and emergency spillway of the basin should be mowed at least twice a year to prevent woody growth and control weeds.

- *Inspections.* Wet basins should be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. When possible, inspections should be conducted during wet weather to determine if the basin is functioning properly. There are many functions and characteristics of these BMPs that should be inspected. The embankment should be checked for subsidence, erosion, leakage, cracking, and tree growth. The condition of the emergency spillway should be checked. The inlet, barrel, and outlet should be inspected for clogging. The adequacy of upstream and downstream channel erosion protection measures should be checked. Stability of the side slopes should be checked. Modifications to the basin structure and contributing watershed should be evaluated. During semi-annual inspections, replace any dead or displaced vegetation. Replanting of various species of wetland vegetation may be required at first, until a viable mix of species is established. Cracks, voids and undermining should be patched/filled to prevent additional structural damage. Trees and root systems should be removed to prevent growth in cracks and joints that can cause structural damage. The inspections should be carried out with as-built pond plans in hand.

- *Debris and Litter Removal.* As part of periodic mowing operations and inspections, debris and litter should be removed from the surface of the basin. Particular attention should be paid to floatable debris around the riser, and the outlet should be checked for possible clogging.

- *Erosion Control.* The basin side slopes, emergency spillway, and embankment all may periodically suffer from slumping and erosion. Corrective measures such as regrading and revegetation may be necessary. Similarly, the riprap protecting the channel near the outlet may need to be repaired or replaced.

- *Nuisance Control.* Most public agencies surveyed indicate that control of insects, weeds, odors, and algae may be needed in some ponds. Nuisance control is probably the most frequent maintenance item demanded by local residents. If the ponds are properly sized and vegetated, these problems should be rare in wet ponds except under extremely dry weather conditions. Twice a year, the facility should be evaluated in terms of nuisance control (insects, weeds, odors, algae, etc.). Biological control of algae and mosquitoes using fish such as fathead minnows is preferable to chemical applications.

Non-routine maintenance.

- *Structural Repairs and Replacement.* Eventually, the various inlet/outlet and riser works in the wet basin will deteriorate and must be replaced. Some public works experts have estimated that corrugated metal pipe (CMP) has a useful life of about 25 yr, while concrete barrels and risers may last from 50 to 75 yr. The actual life depends on the type of soil, pH of runoff, and other factors. Polyvinyl chloride (PVC) pipe is a corrosion resistant alternative to metal and concrete pipes. Local experience typically determines which materials are best suited to the site conditions. Leakage or seepage of water through the embankment can be avoided if the embankment has been constructed of impermeable material, has been compacted, and if anti-seep collars are used around the barrel. Correction of any of these design flaws is difficult.

- *Sediment Removal.* Wet ponds will eventually accumulate enough sediment to significantly reduce storage capacity of the permanent pool. As might be expected, the accumulated sediment can reduce both the appearance and pollutant removal performance of the pond. Sediment accumulated in the sediment forebay area should be removed from the facility every two years to prevent accumulation in the permanent pool. Dredging of the permanent pool should occur at least every 20 years, or when accumulation of sediment impairs functioning of the outlet structure.

- *Harvesting.* If vegetation is present on the fringes or in the pond, it can be periodically harvested and the clippings removed to provide export of nutrients and to prevent the basin from filling with decaying organic matter.

BioRetention

The primary maintenance requirement for bioretention areas is that of inspection and repair or replacement of the treatment area's components. Generally, this involves nothing more than the routine periodic maintenance that is required of any landscaped area. Plants that are appropriate for the site, climatic, and watering conditions should be selected for use in the bioretention cell. Appropriately selected plants will aide in reducing fertilizer, pesticide, water, and overall maintenance requirements. Bioretention system components should blend over time through plant and root growth, organic decomposition, and the deve lopment of a natural soil horizon. These biologic and physical processes over time will lengthen the facility's life span and reduce the need for extensive maintenance.

Routine maintenance should include a semi-annual health evaluation of the trees and shrubs and subsequent removal of any dead or diseased vegetation. Diseased vegetation should be treated as needed using preventative and low-toxic measures to the extent possible. BMPs have the potential to

create very attractive habitats for mosquitoes and other vectors because of highly organic, often heavily vegetated areas mixed with shallow water. Routine inspections for areas of standing water within the BMP and corrective measures to restore proper infiltration rates are necessary to prevent creating mosquito and other vector habitat. In addition, bioretention BMPs are susceptible to invasion by aggressive plant species such as cattails, which increase the chances of standing water and subsequent vector production if not routinely maintained.

In order to maintain the treatment area's appearance it may be necessary to prune and weed. Furthermore, mulch replacement is suggested when erosion is evident or when the site begins to look unattractive. Specifically, the entire area may require mulch replacement every two to three years, although spot mulching may be sufficient when there are random void areas.

New Jersey's Department of Environmental Protection states in their bioretention systems standards that accumulated sediment and debris removal (especially at the inflow point) will normally be the primary maintenance function. Other potential tasks include replacement of dead vegetation, soil pH regulation, erosion repair at inflow points, mulch replenishment, unclogging the underdrain, and repairing overflow structures.

Other recommended maintenance guidelines include: ·

- Inspections. BMP facilities should be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. During each inspection, erosion areas inside and downstream of the BMP must be identified and repaired or revegetated immediately. 3-95 ·

- Sediment Removal. Remove sediment from the facility when sediment depth reaches 3 inches or when the sediment interferes with the health of vegetation or ability of the facility to meet required drawdown times. Sediment removal should be performed at least every 2 years. ·

- Drain Time. When the drain time exceeds 72 hours as observed in the observation well, the filter media should be removed and replaced with more permeable material. ·

- Vegetation. All dead and diseased vegetation considered beyond treatment shall be removed and replaced during semi-annual inspections. Diseased trees and shrubs should be treated during inspections. Remulch any bare areas by hand whenever needed. Replace mulch annually in the spring, or more frequently if needed, in landscaped areas of the basin where grass or groundcover is not planted. Grass areas in and around bioretention facilities must be mowed at least twice annually to limit vegetation height to 18 inches. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas. ·

- Debris and Litter Removal. Debris and litter will accumulate in the facility and should be removed during regular mowing operations and inspections. ·

- Filter Underdrain. Clean underdrain piping network to remove any sediment buildup every 5 years, or as needed to maintain design drawdown time.

The applicant is responsible for maintaining the permanent VMPs after construction until such time as the maintenance obligation is either assumed in writing by another's entity having ownership or control of the property (such as without limitation, an owner's association, new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity assumes such obligation in writing or ownership is transferred.

An amended copy of this document will be provided to the TCEQ within thirty days of any changes in the following information

Responsible Party for Maintenance: **Georgetown Leased Housing Associates I, LP**
Address: **2905 Northwest Blvd., Suite 150 Plymouth, Minnesota 55441**
Owner Contact: **Jeffery Spicer**
Telephone Number: **214-971-8747**

Signature of Responsible Party: 
Jeffrey S. Spicer

PERMANENT STORMWATER SECTION – Attachment I

Measures for Minimizing Surface Stream Contamination

1. Measures such as a stabilize construction entrance/exit, slit fencing, inlet protection, rock berms, and other measures which will reduce the stream contamination.

2. The pond has been designed to release flow rates at or below pre-development flow rates. Because post-development flows will not be increased there should be no adverse impact on the adjacent properties.

Table 1 shows a comparison between the existing and proposed flows over time. More details can be found in the Northside Lot 3 Multi-family site plans on sheets 59 and 62 (2023-64-SDP).

Table 1. Ultimate Analysis Point Flows

Drainage Flows	2-year (cfs)	10-year(cfs)	25-year(cfs)	100-year(cfs)
Existing	108	201	260	341
Proposed	65	122	159	288

ORGANIZED SEWEGE COLLECTION SYSTEM PLAN

See plan set included in WPAP attachments

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

I Jeffrey S. Spicer,
Print Name

Owner,
Title - Owner/President/Other

of **Georgetown Leased Housing Associates I, LP**,
Corporation/Partnership/Entity Name

have authorized **Justin M. Cadieux, P.E.**
Print Name of Agent/Engineer

of **Quiddity Engineering**
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

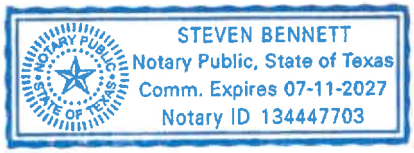
3/26/2024
Date

THE STATE OF TEXAS §

County of Collin §

BEFORE ME, the undersigned authority, on this day personally appeared Jeffrey S. Spicer 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 27th day of March, 2024.



NOTARY PUBLIC

Steven Bennett
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 07/11/2027

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Northside Lot 3 Multi-family
Regulated Entity Location: 520 SH 195 Georgetown, Texas 78633
Name of Customer: Georgetown Leased Housing Associates I, LP
Contact Person: Jeffery S. Spicer Phone: 214-971-8747
Customer Reference Number (if issued):CN _____
Regulated Entity Reference Number (if issued):RN 111804993
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	44.43 Acres	$ 8,000
Sewage Collection System	1,652 L.F.	$ 826
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: 04/04/2024

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

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:*

Dominium

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

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

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 ☐ Other:
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant

15. Mailing Address: 2905 Northwest Blvd., Suite 150

City	Plymouth	**State**	MN	**ZIP**	55441	**ZIP + 4**	

16. Country Mailing Information (*if outside USA*)	**17. E-Mail Address** (*if applicable*)
	austin.holmes@dominiuminc.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(214) 971-8747		( ) -

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.)*

Northside Lot 3 Multi-Family

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	520 SH 195							
	City	Georgetown	**State**	TX	**ZIP**	78633	**ZIP + 4**	
24. County	Williamson							

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

25. Description to Physical Location:	The project is located on SH-195, Georgetown, Tx 78633. Near the instersection of SH195 and IH-35. The project is located directly north of SH-195 and directly west of IH-35, Georgetown, TX 78628.				
26. Nearest City			**State**	**Nearest ZIP Code**	
Georgetown			TX	78633	

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:	30.703216		**28. Longitude (W) In Decimal:**	-97.653672	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	42	11.5776	-97	39	13.2192

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)
1520	6513	531311	531110

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

Multi-Family Residential

34. Mailing Address:	**2905 Northwest Blvd., Suite 150**							
	City	**Plymouth**	**State**	**MN**	**ZIP**	**55441**	**ZIP + 4**	
35. E-Mail Address:	austin.holmes@dominiuminc.com							

36. Telephone Number	37. Extension or Code	38. Fax Number *(if applicable)*
(214) 971-8747		( ) -

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:	Justin M. Cadieux, PE	**41. Title:**	Project Manager

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512) 685-5152		( ) -	jcadieux@quiddity.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:	Georgetown Leased Housing Associates I, LP	**Job Title:**	Owner	
Name *(In Print):*	Jeffrey S. Spicer		**Phone:**	(214) 971- 8747
Signature:			**Date:**	3/26/2024