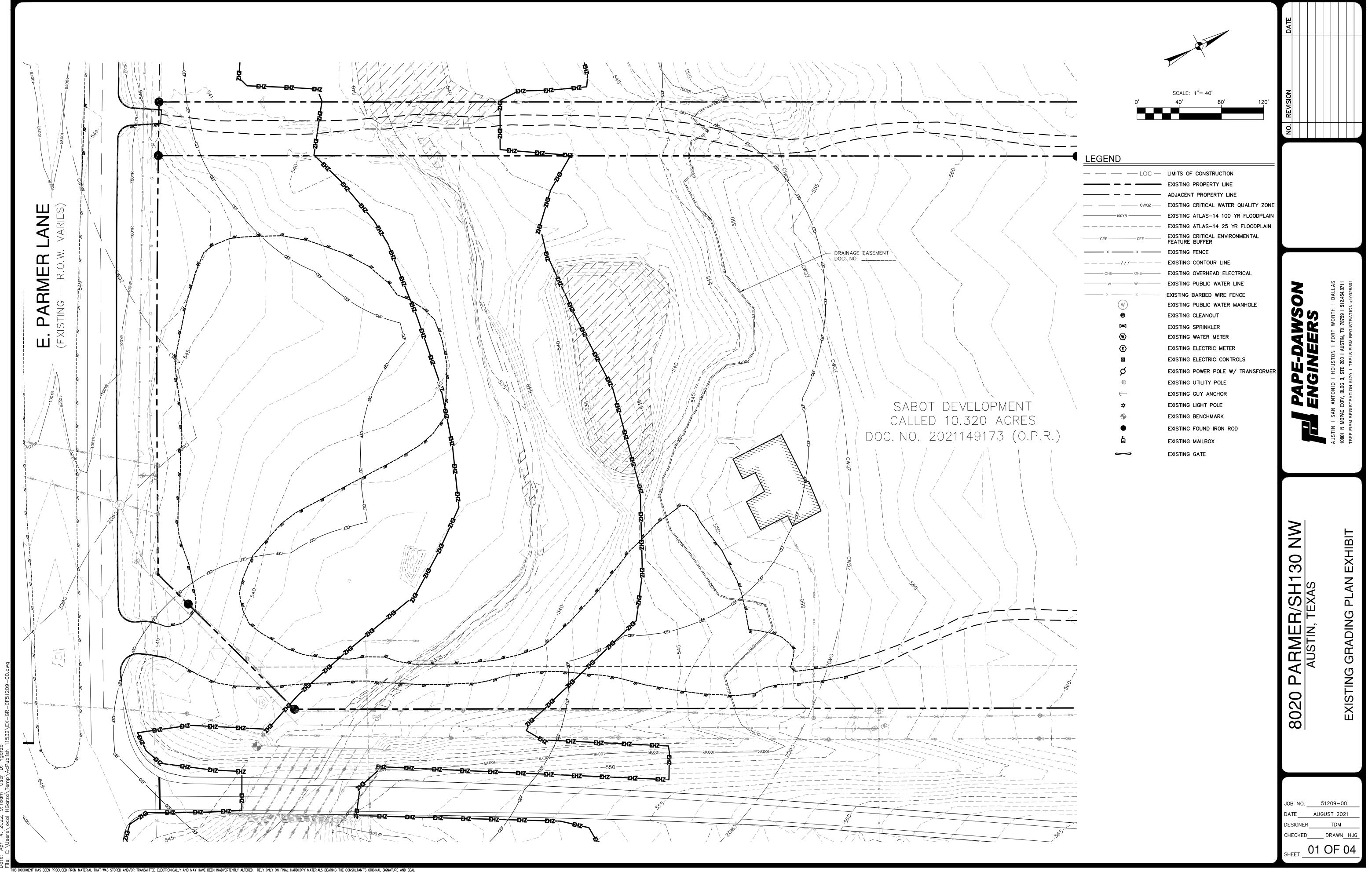
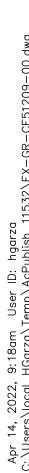
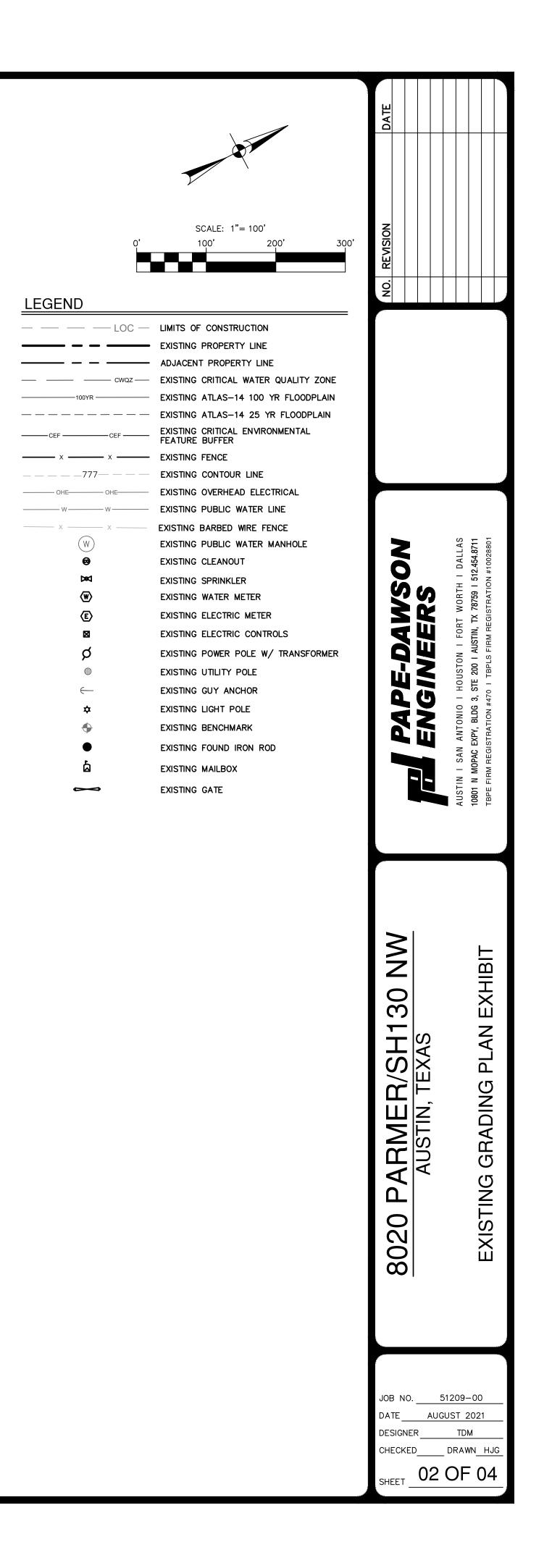


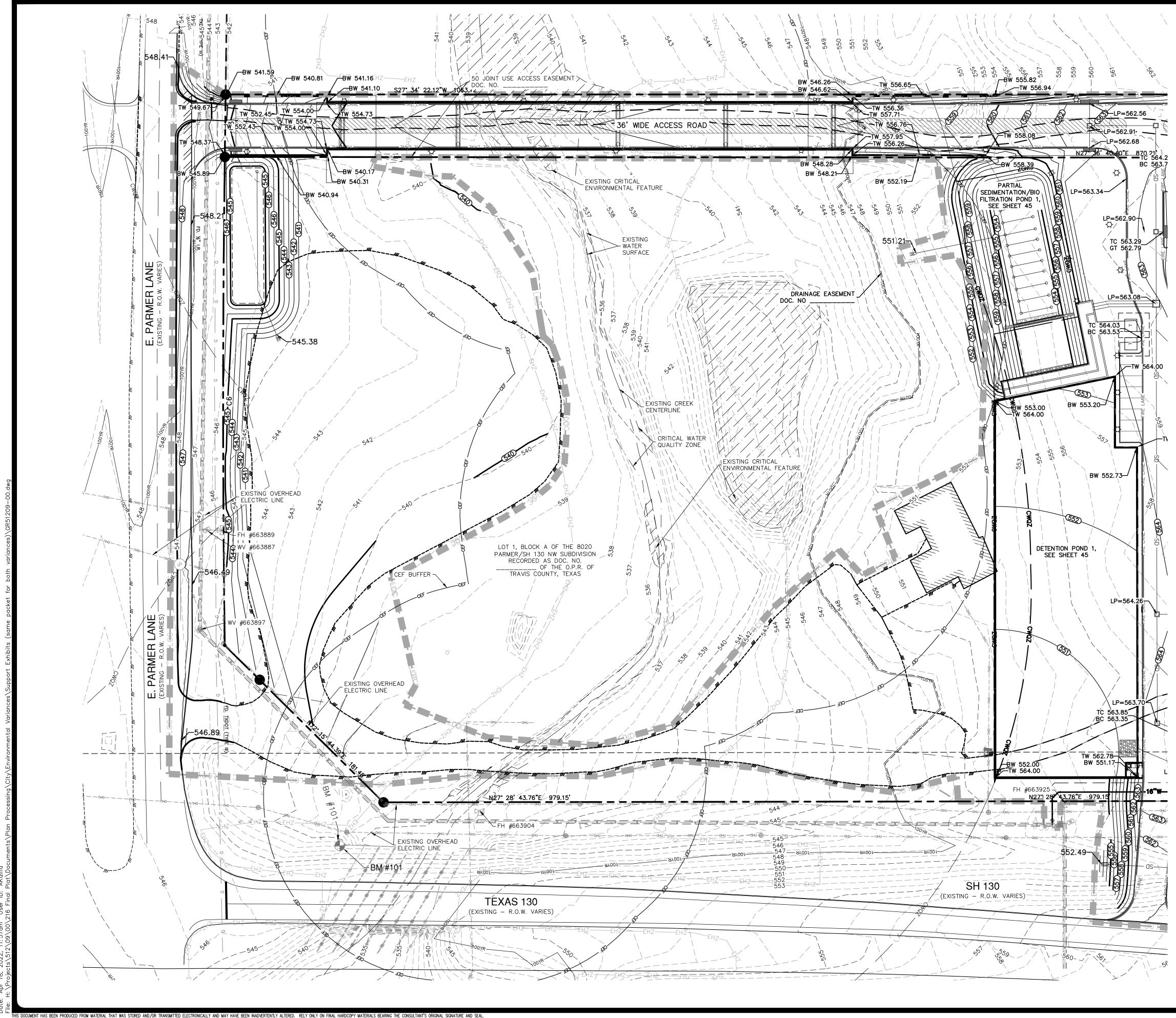
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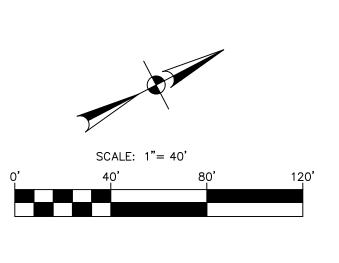












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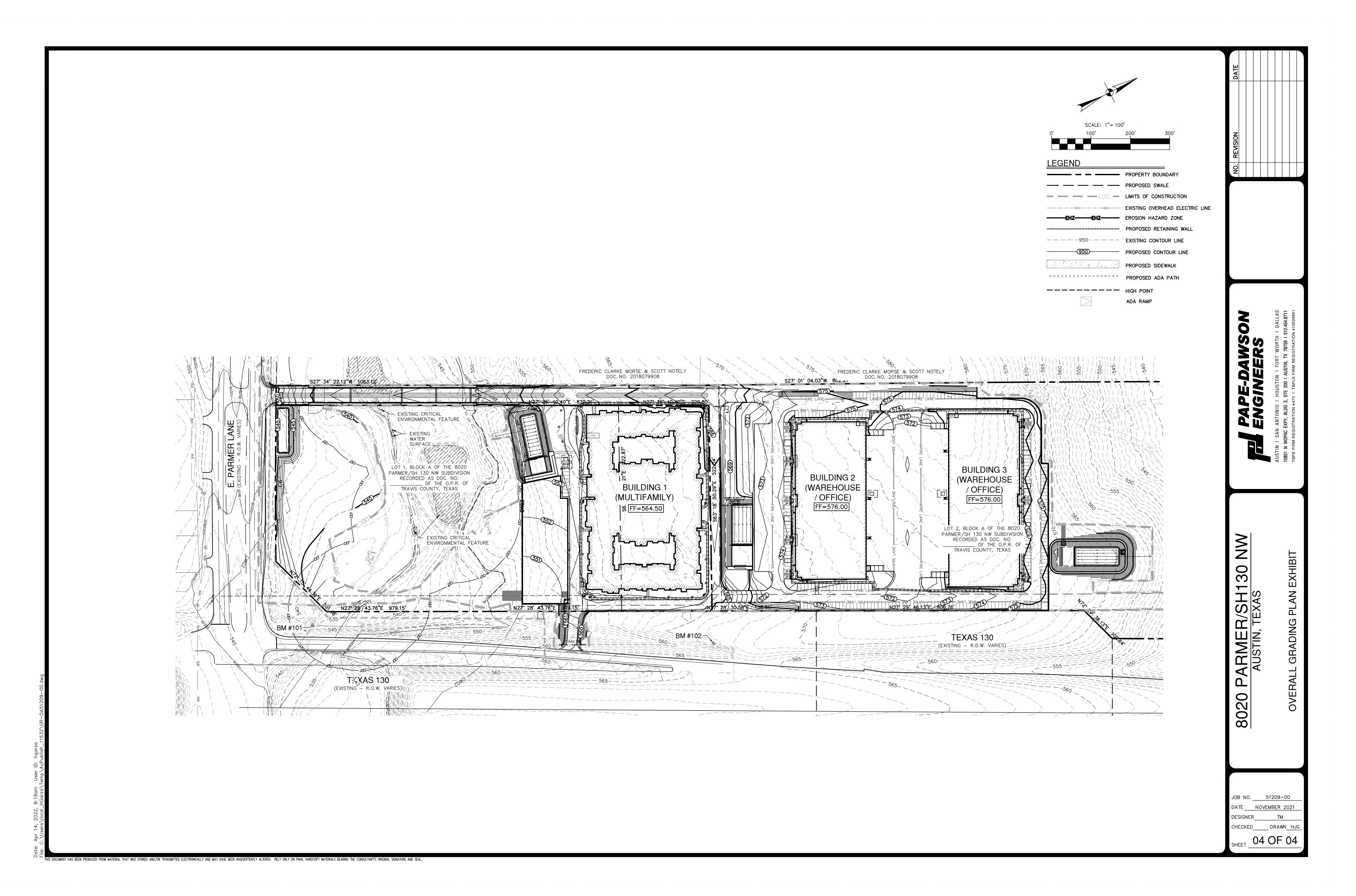
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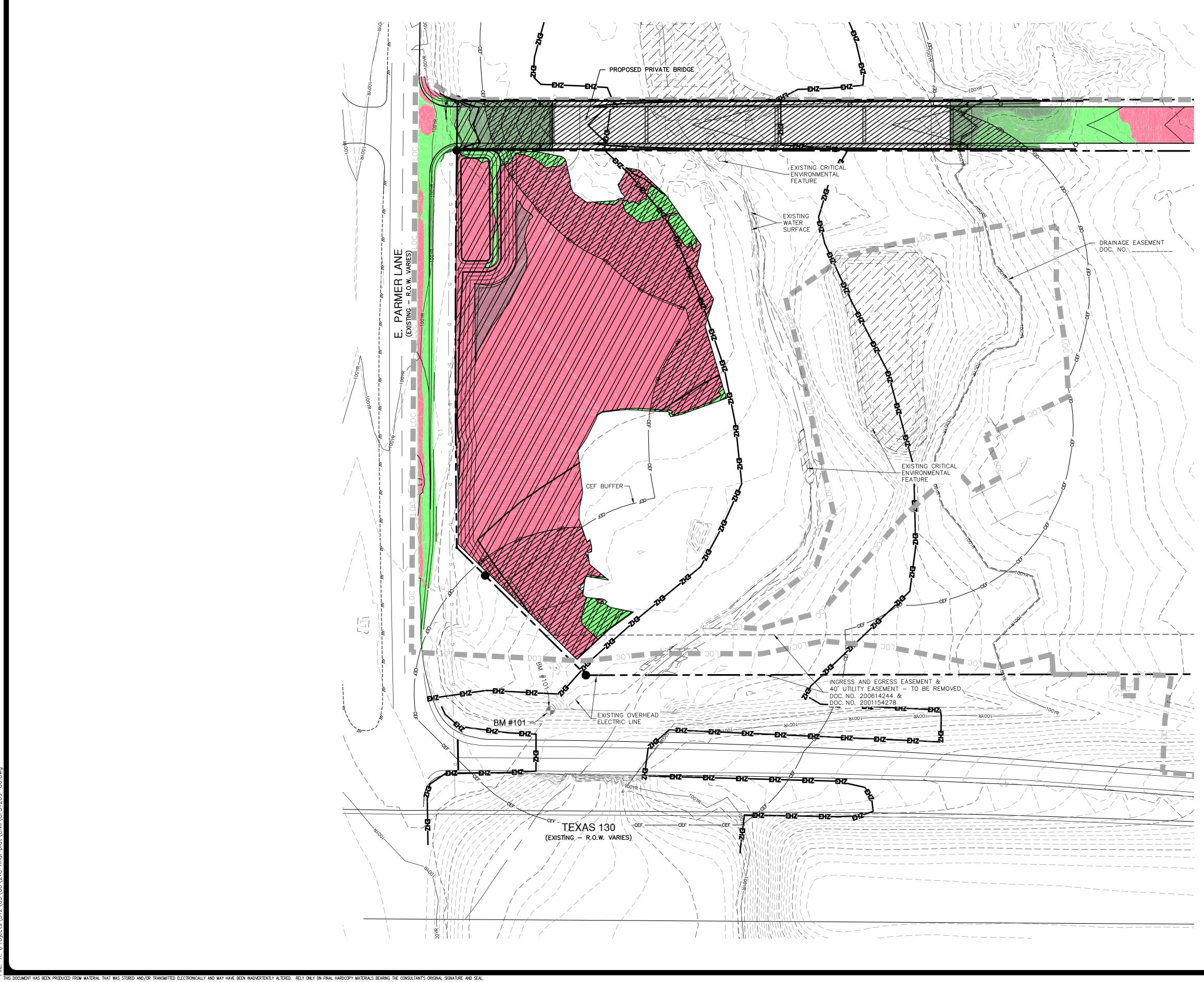
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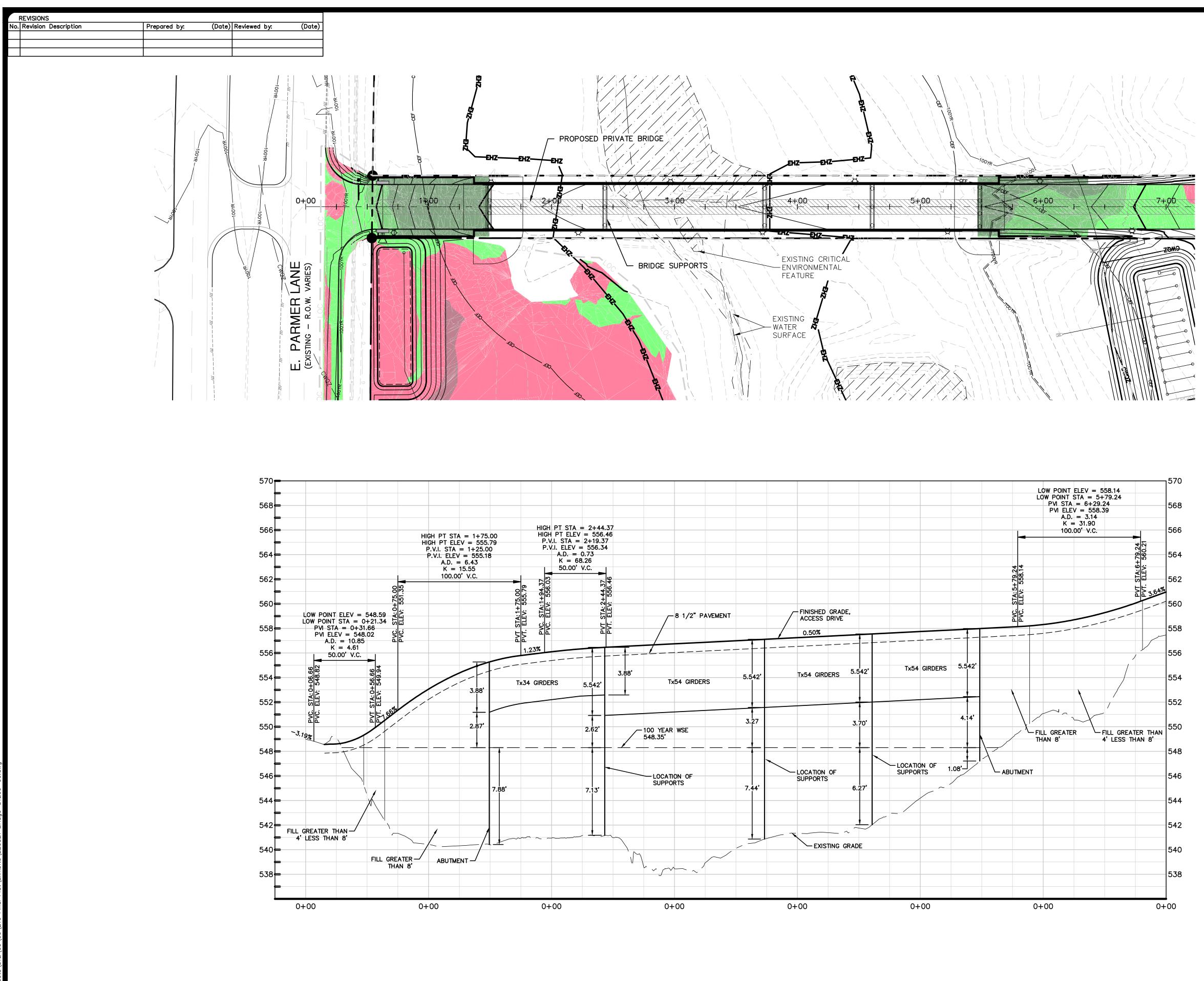
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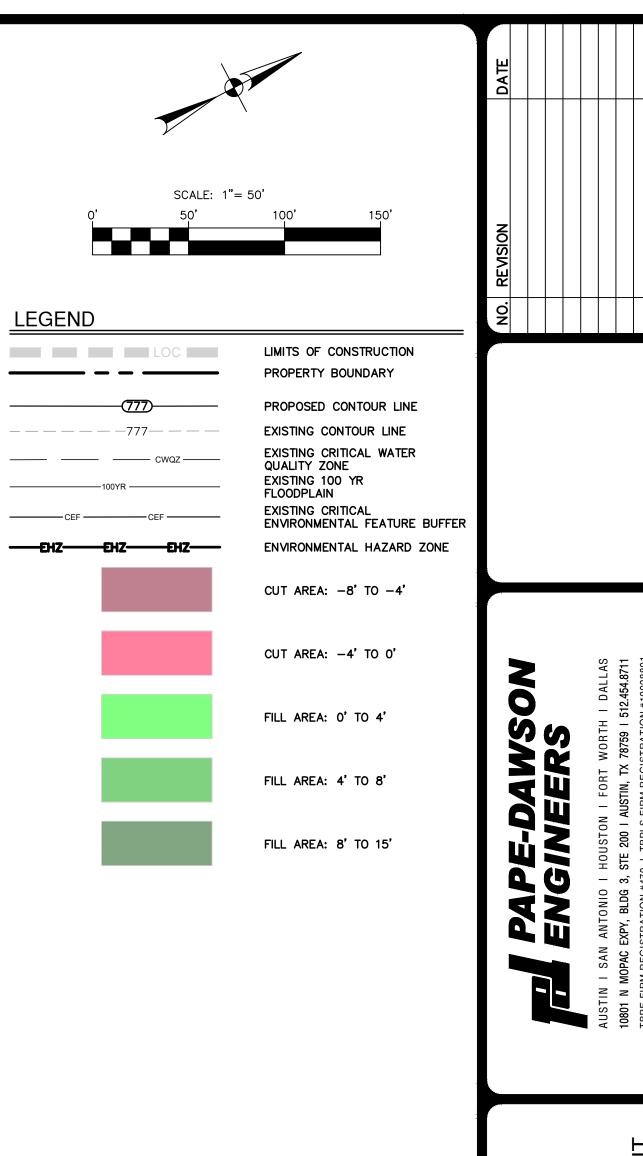
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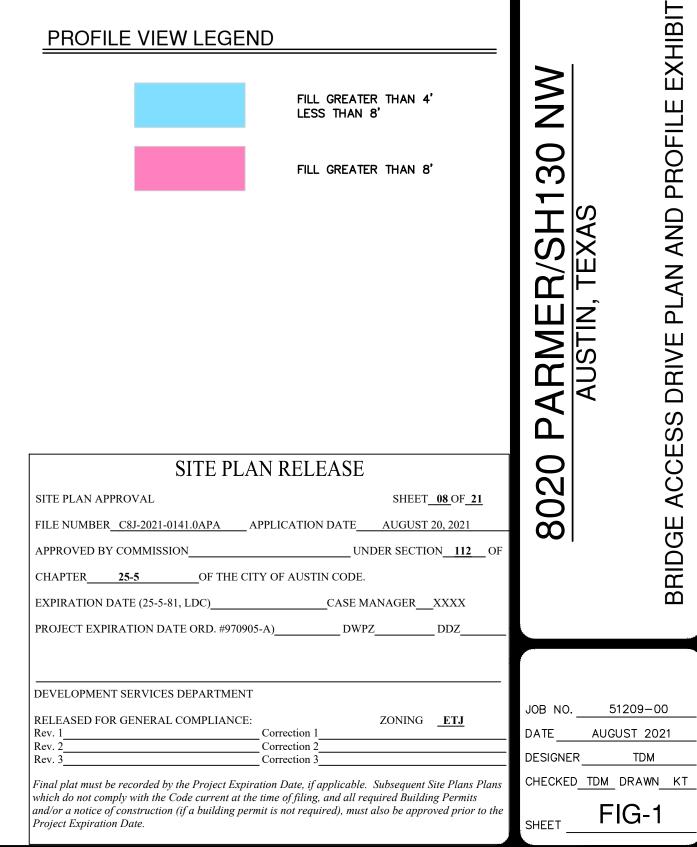
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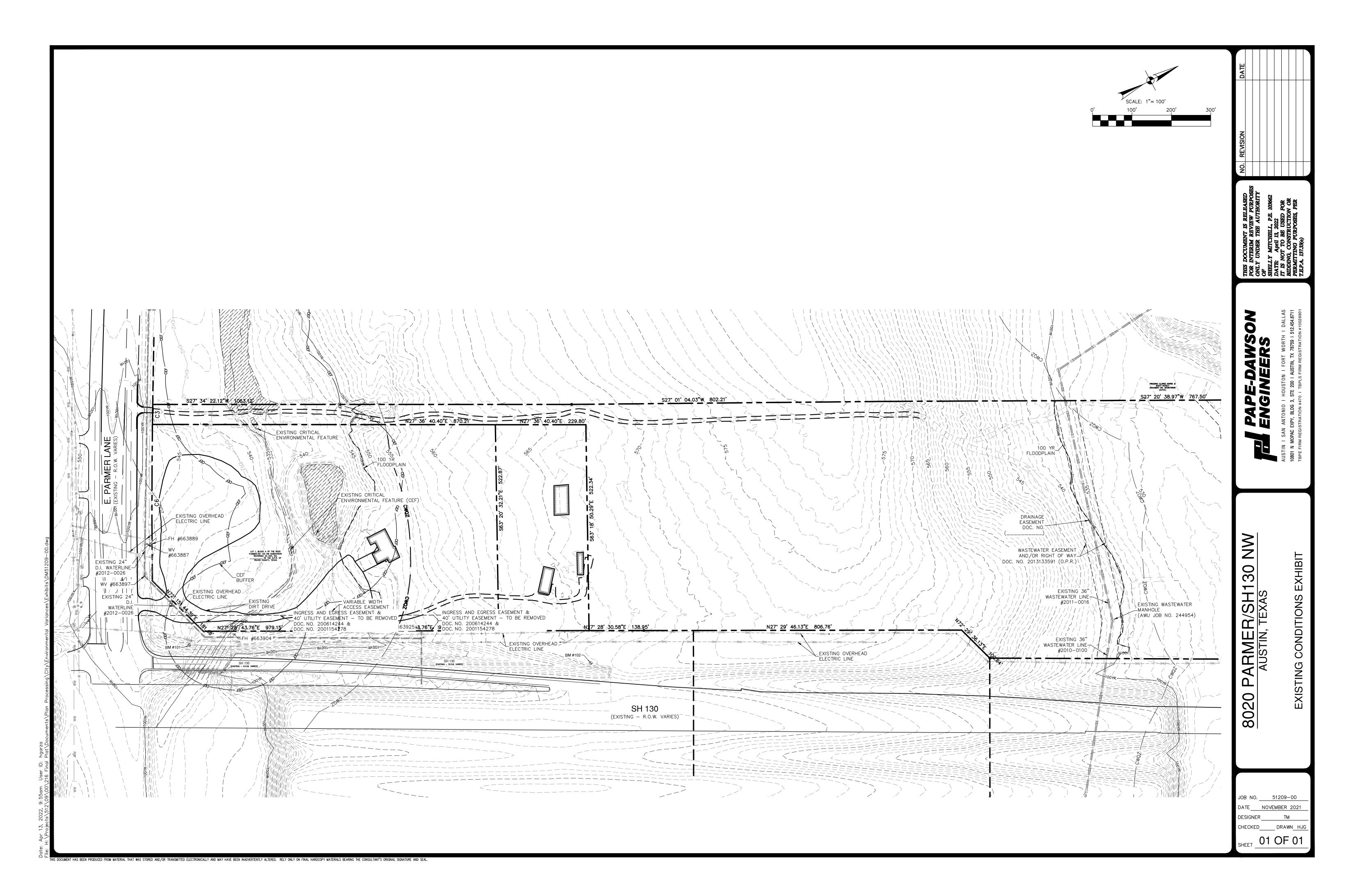
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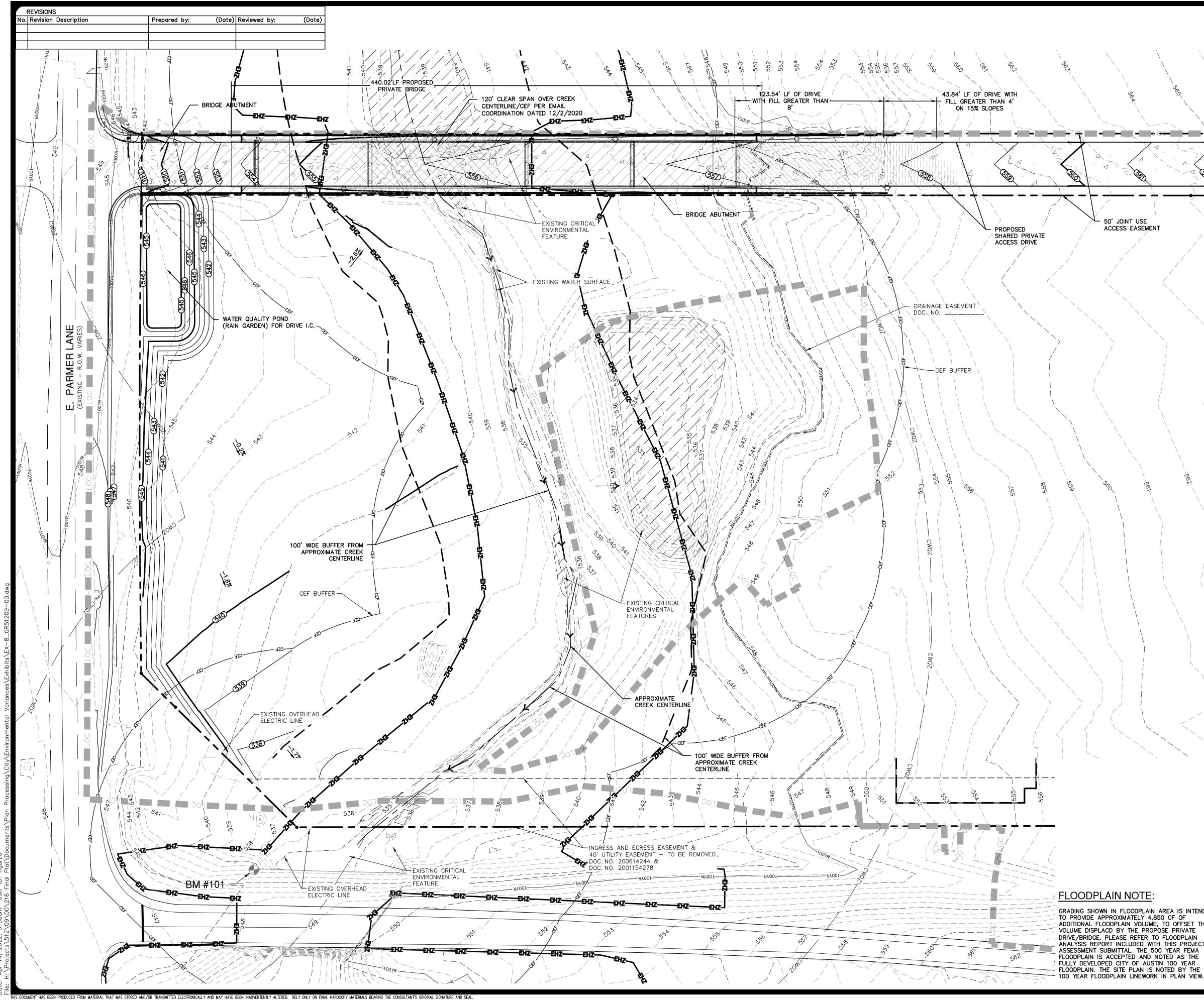
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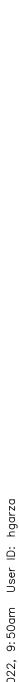
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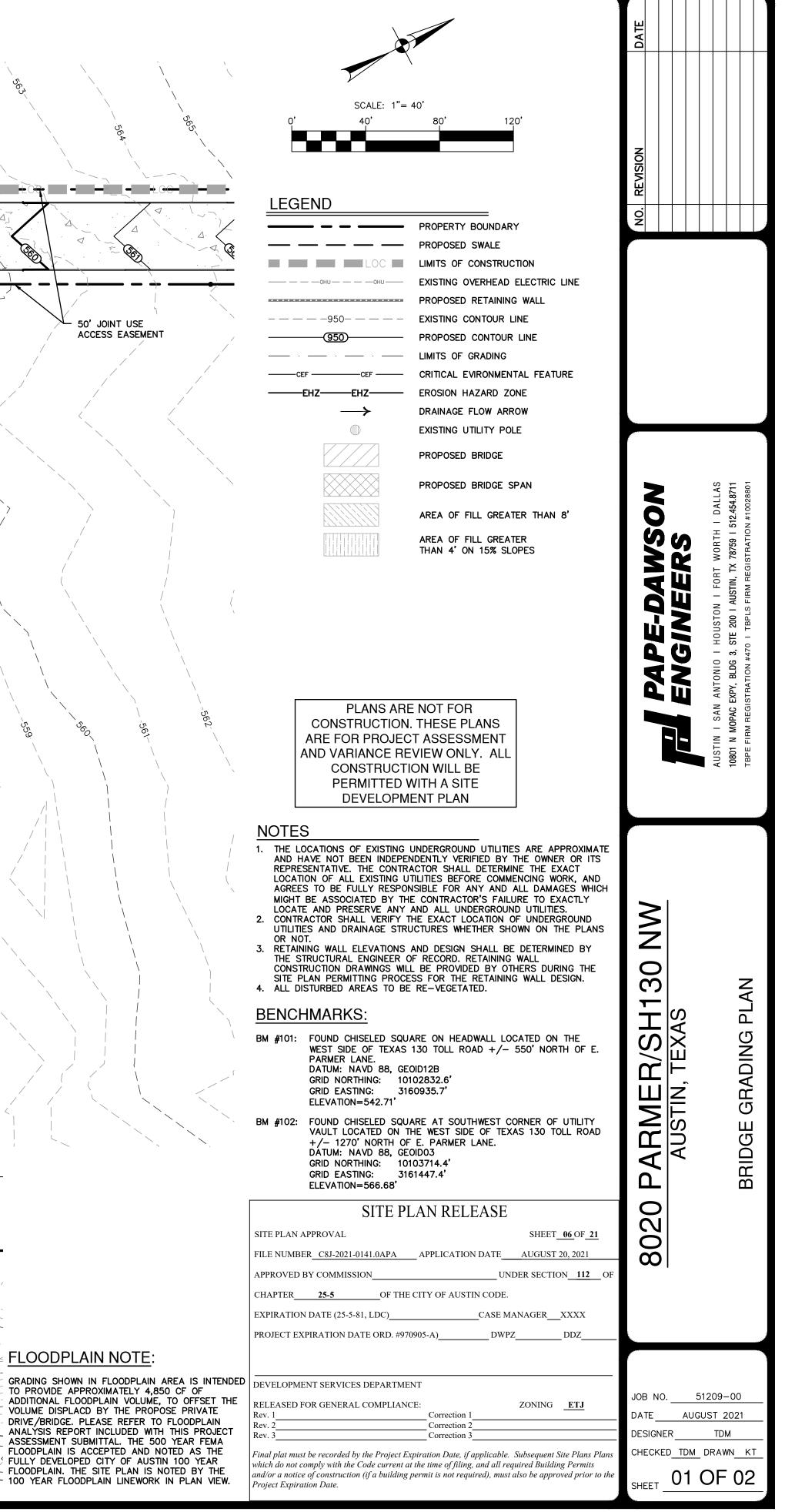


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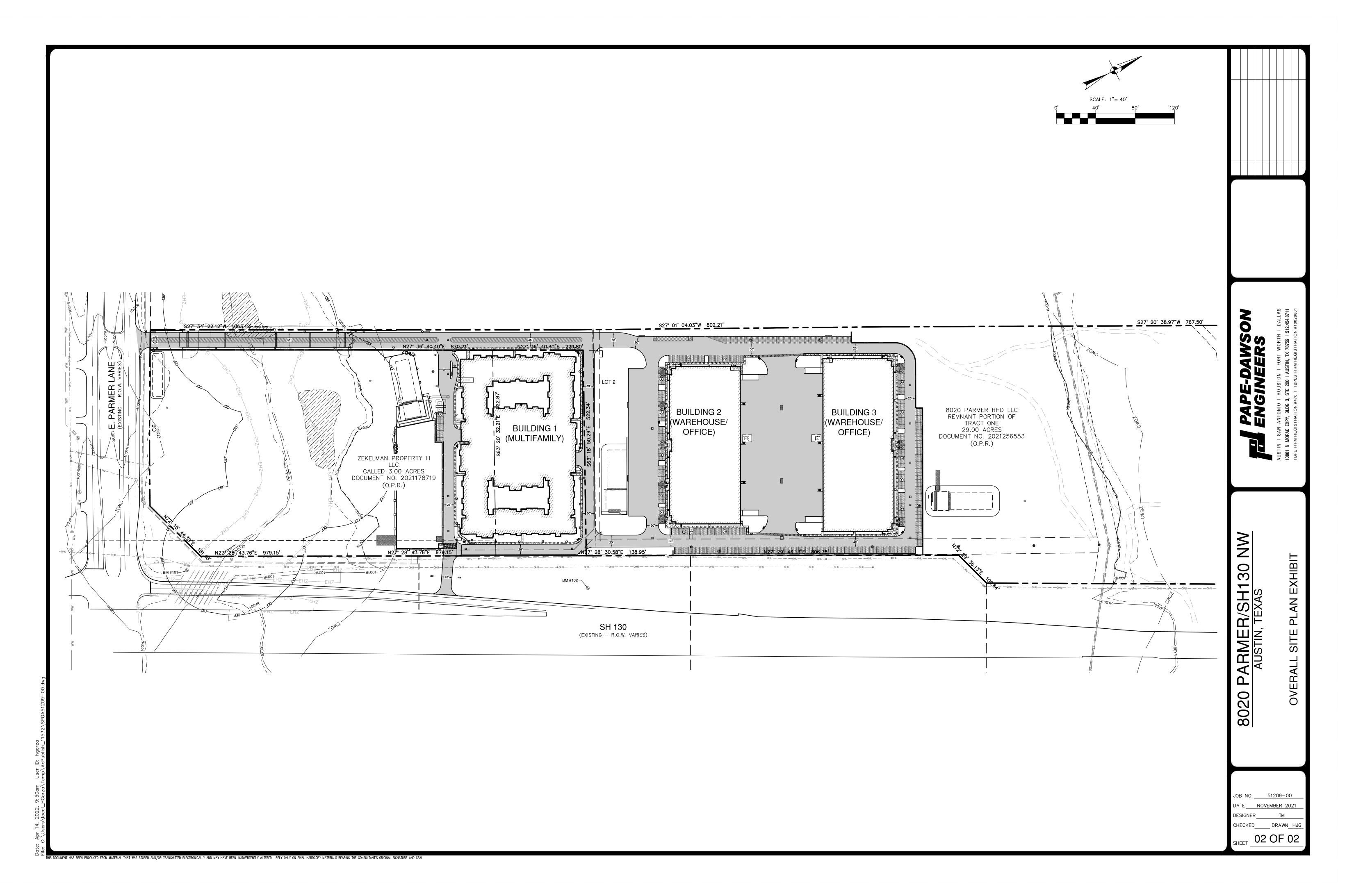
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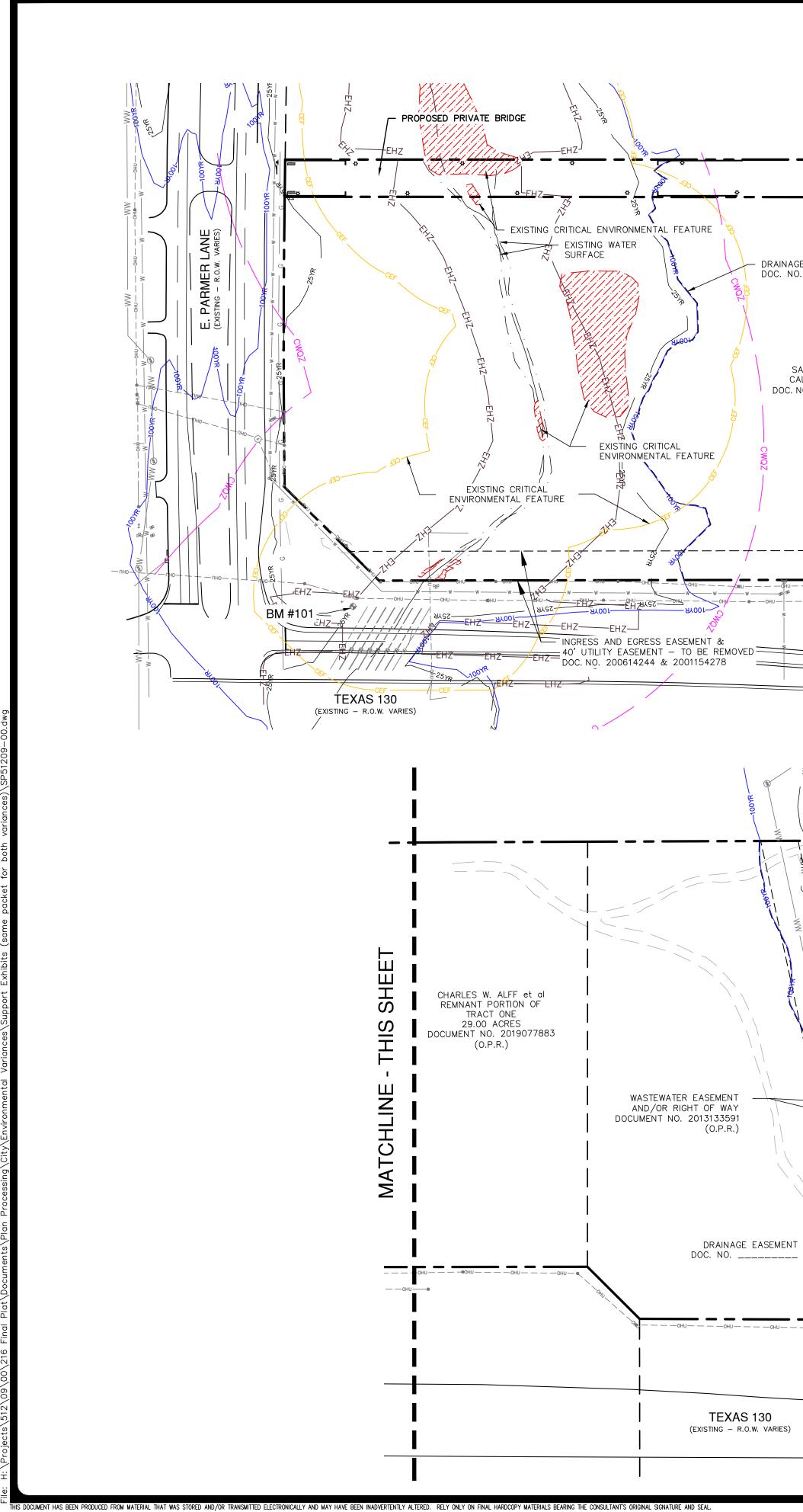




C8J-2021-0141.0APA



# EXHIBIT 9 – ENVIRONMENTAL MAP



SCOTT MORSE & FREDERIC C MORSE III DOC. NO. 2018079908 SCOTT MORSE & FREDERIC C MORSE III DOC. NO. 2018079908 50' JOINT USE ACCESS EASEMENT DRAINAGE EASEMENT - PROPOSED 40' SHARED PRIVATE ACCESS DRIVE DOC. NO. \_\_\_\_\_ SHEET CHARLES W. ALFF et al REMNANT PORTION OF TRACT ONE 29.00 ACRES DOCUMENT NO. 2019077883 - THIS SABOT DEVELOPMENT CALLED 3.00 ACRES (0.P.R.) SABOT DEVELOPMENT CALLED 10.320 ACRES DOC. NO. 2021148368 (O.P.R.) DOC. NO. 2021149173 (O.P.R.) MATCHLINE -(\_\_\_\_+ - -– — они — — — — они — е — — — они — — — они — — — — они — | — — — они — — —они — — — еони — — — они — BM #102 -RF R  $\sim$ **\_** \_ / SCOTT MORSE & FREDERIC C MORSE III DOC. NO. 2018079908 TRAFALGAR, LLP CALLED 269.567 ACRES DOCUMENT NO. 2000102360 (0.P.R.) CHARLES W. ALFF et al REMNANT PORTION OF TRACT TWO 25.00 ACRES DOCUMENT NO. 2019077883 (0.P.R.) WASTEWATER LINE EASEMENT \_\_\_\_\_ N'I VOL. 10768, PG. 2101 (R.P.R.) 1 1 1 TRAVIS COUNTY CALLED 4.187 ACRES DOCUMENT NO. 2015123188 (O.P.R.) 1 1 1 1 1 1 ' | \_\_\_\_ \_ \_ \_ \_ \_ \_ \_ -они — — — они — — — они — — — они — — — они — — — Сни — —25YR



# EXHIBIT **10** – ENVIRONMENTAL RESOURCE INVENTORIES



July 28, 2021

Mr. Warren Hayes – Senior Vice President Z Modular 227 West Monroe Street., Suite 2600 Chicago, IL 60606

Re: ±14.34-Acre Parmer MF Environmental Resource Inventory

Dear Mr. Hayes,

Pape-Dawson Engineers, Inc. (Pape-Dawson) conducted a Environmental Resource Inventory (ERI) for the  $\pm 14.34$ -acre Parmer MF project site located in Travis County, Texas. The purpose of this report is to identify any critical environmental features (CEFs) that may exist within the project site.

Based on Pape-Dawson's ERI, the proposed project contains two freshwater scrub-shrub wetlands and four freshwater emergent wetlands which would be considered critical environmental features (CEFs). In addition to the wetlands identified, one intermittent stream was mapped within the project site.

The conclusions presented in this report represent the professional opinion of Pape-Dawson Engineers and are limited to the conditions observed at the project site at the time and date of the field investigation.

If you have questions or require additional information, please do not hesitate to contact me at (210) 375-9000 at your earliest convenience.

Sincerely, Pape-Dawson Engineers, Inc.

Valerie Collins, M.S., AICP Associate Vice President

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Transportation | Water Resources | Land Development | Surveying | Environmental

### **Environmental Resource Inventory**

For the City of Austin Related to LDC 25-8-121, City Code 30-5-121, ECM 1.3.0 & 1.10.0

The ERI is required for projects that meet one or more of the criteria listed in LDC 25-8-121(A), City Code 30-5-121(A).

- 1. SITE/PROJECT NAME: 14.34-Acre Parmer MF
- 2. COUNTY APPRAISAL DISTRICT PROPERTY ID (#'s): 236741, 236750, 526010
- 3. ADDRESS/LOCATION OF PROJECT: Northwest of Intersection of E Parmer Lane and SH 130
- 4. WATERSHED: Gilleland Creek Watershed
- 5. THIS SITE IS WITHIN THE (Check all that apply)

Edwards Aquifer Recharge Zone* (See note below)	⊡No
Edwards Aquifer Contributing Zone*	⊠No
Edwards Aquifer 1500 ft Verification Zone* DYES	
Barton Spring Zone* DYES	₫No
*(as defined by the City of Austin – I DC 25-8-2 or City Code 30-5-2)	

Note: If the property is over the Edwards Aquifer Recharge zone, the Hydrogeologic Report and karst surveys must be completed and signed by a Professional Geoscientist Licensed in the State of Texas.

- 6. DOES THIS PROJECT PROPOSE FLOODPLAIN MODIFICATION?....... <sup>[]</sup>YES<sup>\*\*</sup> □NO If yes, then check all that apply:
  - (1) The floodplain modifications proposed are necessary to protect the public health and safety;
  - ✓ (2) The floodplain modifications proposed would provide a significant, demonstrable environmental benefit, as determined by a *functional assessment* of floodplain health as prescribed by the Environmental Criteria Manual (ECM), or
  - (3) The floodplain modifications proposed are necessary for development allowed in the critical water quality zone under LDC 25-8-261 or 25-8-262, City Code 30-5-261 or 30-5-262.
  - (4) The floodplain modifications proposed are outside of the Critical Water Quality Zone in an area determined to be in poor or fair condition by a **functional assessment** of floodplain health.

\*\* If yes, then a functional assessment must be completed and attached to the ERI (see ECM 1.7 and Appendix X for forms and guidance) unless conditions 1 or 3 above apply.

\*\*\*If yes, then riparian restoration is required by LDC 25-8-261(E) or City Code 30-5-261(E) and a functional assessment must be completed and attached to the ERI (see ECM1.5 and Appendix X for forms and guidance).

There is a total of <u>7</u> (#'s) Critical Environmental Feature(s)(CEFs) on or within150 feet of the project site. If CEF(s) are present, attach a detailed **DESCRIPTION** of the CEF(s), color **PHOTOGRAPHS**, the **CEF WORKSHEET** and provide **DESCRIPTIONS** of the proposed CEF buffer(s) and/or wetland mitigation. Provide the number of each type of CEFs on or within 150 feet of the site (*Please provide the number of CEFs*):

(#'s) Spring(s)/Seep(s)	(#'s) Point Recharge Feature(s)	(#'s) Bluff(s)
(#'s) Canyon Rimrock(s)	(#'s) Wetland(s)	

Note: Standard buffers for CEFs are 150 feet, with a maximum of 300 feet for point recharge features. Except for wetlands, if the standard buffer is <u>not provided</u>, you must provide a written request for an administrative variance from LDC 25-8-281(C)(1) and provide written findings of fact to support your request. <u>Request forms for administrative variances from requirements stated in LDC 25-8-281 are available from Watershed Protection Department.</u>

9. The following site maps are attached at the end of this report (Check all that apply and provide):

All ERI reports must include:

- ☑ Site Specific Geologic Map with 2-ft Topography
- ☑ Historic Aerial Photo of the Site
- Site Soil Map
- ☑ Critical Environmental Features and Well Location Map on current Aerial Photo with 2-ft Topography

Only if present on site (Maps can be combined):

- □ Edwards Aquifer Recharge Zone with the 1500-ft Verification Zone (Only if site is over or within 1500 feet the recharge zone)
- **Edwards Aquifer Contributing Zone**
- □ Water Quality Transition Zone (WQTZ)
- ☑ Critical Water Quality Zone (CWQZ)
- □ City of Austin Fully Developed Floodplains for all water courses with up to 64-acres of drainage
- 10. **HYDROGEOLOGIC REPORT** Provide a description of site soils, topography, and site specific geology below (*Attach additional sheets if needed*):

**Surface Soils** on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups\*. If there is more than one soil unit on the project site, show each soil unit on the site soils map.

Soil Series Unit Nam Characteristics &		on
Soil Series Unit Name & Subgroup**	Group*	Thickness (feet)
See Table 1 & Exhibit 7		

### \*Soil Hydrologic Groups Definitions *(Abbreviated)*

- A. Soils having a <u>high infiltration</u> rate when thoroughly wetted.
- B. Soils having a <u>moderate</u> <u>infiltration</u> rate when thoroughly wetted.
- C. Soils having a <u>slow infiltration</u> rate when thoroughly wetted.
- D. Soils having a <u>very slow</u> <u>infiltration</u> rate when thoroughly wetted.

\*\*Subgroup Classification – See <u>Classification of Soil Series</u> Table in County Soil Survey.

### **Description of Site Topography and Drainage** (Attach additional sheets if needed):

Elevation at the project site ranged from 570 feet above sea level on the northern portion of the project site to approximately 540 feet above sea level on the southern portion. The project site had a general southeast sloping gradient.

### List surface geologic units below:

Ge	ologic Units Exposed at Surface	<u>,</u>
Group	Formation	Member
Taylor Group	Navarro and Taylor Groups	N/A

### **Brief description of site geology** (Attach additional sheets if needed):

The project site is located on the Navrro and Taylor Groups, undivided (Knt) geologic unit. The USGS describes the upper 250 feet of the geologic unit as mostly silty, calcar. clay with sandst beds and concentrionary masses near top, some interbeds of sandst. near base. The lower 200 feet are quartz sand, fine grained, silty, locally calcar. concentrations in discontin. beds.

The project site site is located outside the Edwards Aquifer and any associated zones.

**Wells** – Identify all recorded and unrecorded wells on site (test holes, monitoring, water, oil, unplugged, capped and/or abandoned wells, etc.):

There are  $\underline{0}_{(\#)}$  wells present on the project site and the locations are shown and labeled

<u>0</u> (#'s)The wells are not in use and have been properly abandoned.

<u>0</u> (#'s)The wells are not in use and will be properly abandoned.

<u>0 (</u>#'s)The wells are in use and comply with 16 TAC Chapter 76.

There are  $0_{\#s}$  wells that are off-site and within 150 feet of this site.

### 11. **THE VEGETATION REPORT** – Provide the information requested below:

### Brief description of site plant communities (Attach additional sheets if needed):

The project site is depicted within the "Northern Blackland Prairie Level IV Ecoregion of Texas. The vegetation identified on the project site largely reflected vegetation common to this ecoregion. Examples of vegetation identified on the project site include Cedar Elm (ulmus crassifolia), Ashe Juniper (Juniperus ashei), Sugar Hackberry (Celtis Laevigata), Texas Pricklypear (Opuntia engelmannii), annual bastardcabbage (Rapistrum rugosum), Johnson grass (Sorghum halepense), and maximilian sunflower (Helianthus maximiliani).

Woo	dland species
Common Name	Scientific Name
Cedar Elm	Ulmus crassifolia
Ashe Juniper	Juniperus ashei
Sugar Hackberry	Celtis laevigata

There is grassland/prairie/savanna on site...... $\square$  ES  $\square$  NO *(Check one).* If yes, list the dominant species below:

Grassland/prairi	e/savanna species
Common Name	Scientific Name
Maximilian Sunflower	Helianthus maximiliani
Annual Bastard Cabbage	Rapistrum rugosum
Johnson Grass	Sorghum halepense
Bermuda grass	Cynodon dactylon
Southern dewberry	Rubus trivialis

Hyd	rophytic plant species	
Common Name	Scientific Name	Wetland Indicator Status
Spike Rush	Eleocharis palustris	OBL
Broadleaf Cattail	Typha latifolia	OBL
Seaside Brookweed	Samolus parviflorus	OBL

A tree survey of all trees with a diameter of at least eight inches measured four and onehalf feet above natural grade level has been completed on the site.

YES NO (Check one).

### 12. **WASTEWATER REPORT –** Provide the information requested below.

Wastewater for the site will be treated by (Check of that Apply):

 $\Box$  On-site system(s)



- City of Austin Centralized sewage collection system
- Other Centralized collection system

Note: All sites that receive water or wastewater service from the Austin Water Utility must comply with City Code Chapter 15-12 and wells must be registered with the City of Austin

The site sewage collection system is designed and will be constructed to in accordance to all State, County and City standard specifications.  $\square$  YES  $\square$  NO (*Check one*).

Calculations of the size of the drainfield or wastewater irrigation area(s) are attached at the end of this report or shown on the site plan. □YES □ NO □ Not Applicable (*Check one*).

Wastewater lines are proposed within the Critical Water Quality Zone?

Is the project site is over the Edwards Aquifer?  $\Box$  YES  $\checkmark$  NO (*Check one*).

If yes, then describe the wastewater disposal systems proposed for the site, its treatment level and effects on receiving watercourses or the Edwards Aquifer.

13. One (1) hard copy and one (1) electronic copy of the completed assessment have been provided.

Date(s) ERI Field Assessment was performed: 03/30/2021

Date(s)

My signature certifies that to the best of my knowledge, the responses on this form accurately reflect all information requested.

John Lee Gonzalez III	(361) 585-8628
Print Name	Telephone
John Lee Gonzalez AAA	johngonzalez@pape-dawson.com
Signature	Email Address
Pape-Dawson Engineers, Inc.	05/03/2021
Name of Company	Date

For project sites within the Edwards Aquifer Recharge Zone, my signature and seal also certifies that I am a licensed Professional Geoscientist in the State of Texas as defined by ECM 1.12.3(A).

P.G. Seal

	Project Name:	14.34-Acre Parmer MF	mer MF			5		Primary Coi	Primary Contact Name:	John Lee Gonzalez III	Gonzale	III Ze				6
_	Project Address:		8020 East Parmer Lane, Manor, TX 78653			9		Pho	Phone Number:	: (361) 585-8628	8628					
	Site Visit Date:	03/30/2021				7		Ч	Prepared By:	John Lee Gonzalez III	Gonzale	ez III				
	Environmental Resource Inventory Date:	05/04/2021				8		Ē	Email Address:	johngonzalez@pape-dawson.com	lez@pa	pe-daw	vson.co	ε		
	FEATURE TYPE {Wetland Rimmork Bluffs Renharse	FEATURE ID	FEATURE LONGITUDE (WGS 1984 in Meterc)	DE rs)	FEATURE LATITUDE (WGS 1984 in Meters)		WETLAND DIMENSIONS ( <del>[1</del> )	AND ONS (ft)	RIMRO	RIMROCK/BLUFF DIMENSIONS (#)	8	ECHAR	CHARGE FEATU	RECHARGE FEATURE	Springs Est. Discharge	<b>—</b>
	wedany/winow, bians/vediarge Feature,Spring}	(eg S-1)	coordinate	notation	coordinate	notation	X	γ	Length	Avg Height	×	> >	Z	Trend	cfs	T
	Wetland	W-01	-97.353869°	pp	30.211576°	pp	35	10								
_	Wetland	W-02	-97.353833°	pp	30.211557°	pp	50	4								
_	Wetland	W-03	-97.353585°	pp	30.211682°	pp	202	106								
_	Wetland	W-04	-97.353530°	pp	30.211597°	pp	197	42								
	Wetland	W-05	-97.353468°	pp	30.211482°	pp	52	11								
	Wetland	M-06	-97.353341°	pp	30.211278°	pp	42	10								
	Wetland	70-W	-97.353350°	pp	30.211252°	pp	26	32								
	City of Austin Use Only CASE NUMBER:							Please state precision an Method	the method d accuracy o	Please state the method of coordinate data collection and the approximate precision and accuracy of the points and the unit of measurement. Method	e data c nd the	ollectic unit of	on and measu	the appro	dimate	1
	For rimrock, locate the midpoint of the segment that describes the feature.	For wetland approximate feature and	For wetlands, locate the approximate centroid of the feature and the estimated area.	theo theo theo theo theo theo theo theo	For a spring or seep locate the source of groundwater that feeds a pool or stream.			GPS Surveyed Other	<ul> <li>✓</li> <li>□</li> <li>□</li> <li>Professiona</li> </ul>	✓ sub-meter      ✓     sub-meter      →     meter      →     professional Geologists apply seal below	apply = 2	, seal b	elow			
		/	**		to											84 of 235

# City of Austin Environmental Resource Inventory - Critical Environmental Feature Worksheet

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# **±14.34-ACRE PARMER MF** Environmental Resource Inventory



July 2021

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Field Methods	
RESULTS	
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### **EXHIBITS**

Exhibit 1 – Location Map

- Exhibit 2 Site Map
- Exhibit 3 USGS Topographic Map (2019)
- Exhibit 4 Floodplain Map
- Exhibit 5 National Wetlands Inventory Map
- Exhibit 6 Soils Map
- Exhibit 7 Geologic Map
- Exhibit 8 Edwards Aquifer Zone Map
- Exhibit 9 Historical Aerial Photograph Map (1995)
- Exhibit 10 Delineated Critical Environmental Features Map

### **APPENDICES**

- Appendix A Site Photographs
- Appendix B Wetland Determination Form



### **INTRODUCTION**

Pape-Dawson Engineers, Inc. was contracted to conduct a City of Austin (COA) Environmental Resource Inventory (ERI) according to the Land Development Code (LDC) Section 25-8-121(A) and Title 30-5 for the approximately 14.34-acre Parmer MF project site in Travis County, Texas (**Exhibit 1**). The project site is located northwest of the intersection of East Parmer Lane and State Highway 130 in Austin, Texas (**Exhibit 2**).

The purpose of an ERI is to identify any critical environmental features (CEFs) within the project site. CEFs include bluffs, canyon rimrocks, caves, faults/fractures, seeps, sinkholes, springs, and wetlands (LDC 25-8-1; LDC 30-5-1).

### **METHODS**

### **Desktop Review**

Prior to a site investigation, a desktop review was performed utilizing the following resources to evaluate the project site for potential critical environmental features.

- COA environmental data;
- Railroad Commission of Texas (RRC) oil/gas well data;
- Texas Water Development Board (TWDB) water well data;
- Texas Commission of Environmental Quality (TCEQ) water well data;
- U.S. Geological Survey (USGS) historical and current topographic maps;
- Federal Emergency Management Agency (FEMA)'s digital flood insurance rate maps (dFIRM);
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI);
- National Resources Conservation Service (NRCS)' Web Soil Survey; and
- USGS geologic and structural feature data;
- TCEQ Edwards Aquifer zone data; and
- Google Earth Pro readily available historical and readily available current aerial imagery



### **Field Methods**

A Pape-Dawson environmental scientist familiar with the requirements of an ERI conducted a site investigation on March 30, 2021. Wetlands and other aquatic resources were delineated using the routine method described in the "Corps of Engineers Wetlands Delineation Manual" (Environmental Laboratory 1987) and the "U.S. Army Corps of Engineers (USACE) Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0)" (Great Plains Regional Supplement Version 2010). The site was evaluated for other potential CEFs with transects similar to the protocols for assessing wetlands and consistent with the guidelines set forth by the City of Austin.

### RESULTS

### **Desktop Review**

Elevation at the site ranged from 570 feet above sea level (ASL) on the northern portion of the project site to approximately 540 feet ASL on the southern portion of the project site and had a general southeast sloping gradient. The COA depicts three tributaries within the project site. Two of the tributaries converge near the center of the project site and drain into the main tributary that transects the project site from west to east and drains southeast off the project site. The RRC, TWDB, and TCEQ do not depict any wells within 150 feet of the project site (**Exhibit 2**) (COA 2021; RRC 2021; TWDB 2021; TCEQ 2021).

The project site is depicted on the 2019 USGS Manor, TX 7.5-minute series topographic quadrangle map. The USGS depicts one pond near the center of the project site and one tributary just south of the depicted pond. The tributary transects the project site from west to east and drains southeast off the project site (**Exhibit 3**) (USGS 2019).

Review of FEMA's dFIRM panels 48453C0480J (effective August 18, 2014) reveal that the southern half of the project site is transected by the 100-year floodplain of Gilleland Creek Tributary 1C. This tributary feature is depicted to drain southeast into Gilleland Creek. Two additional unnamed tributary features are depicted to converge near the center of the project site before draining south into Gilleland Creek Tributary 1C (**Exhibit 4**) (FEMA 2021).

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USFWS NWI depict a freshwater pond near the center of the project site and a riverine wetland that transects the project site from west to east before draining off the project site (**Exhibit 5**) (USFWS 2021).

According to the NRCS Web Soil Survey, four soil units are mapped within the project site Ferris-Heiden complex, 8 to 20 percent slopes, severely eroded (FhF3); Heiden clay, 3 to 5 percent slopes, eroded (HeC2); Heiden clay, 5 to 8 percent (HeD2); and Tinn clay, 0 to 1 percent slopes, frequently flooded (Tw) are all depicted within the project site (**Exhibit 6**). The soil unit's characteristics mapped within the project site are summarized in **Table 1** (NRCS 2020b). Only Tw is considered a hydric soil by the National Technical Committee for Hydric Soils (NRCS 2020a).

Mapping Unit	Soil Hydrologic Group	Drainage Class	Thickness	
Ferris-Heiden complex, 8				
to 20 percent slopes,	D	D Well drained 36-60 ir	36-60 inches	
severely eroded (FhF3)				
Heiden clay, 3 to 5				
percent slopes, eroded	D	Well drained	40-65 inches	
(HeC2)				
Heiden clay, 5 to 8	D	Well drained	40-65 inches	
percent (HeD2)	U	wen dramed	40-05 menes	
Tinn clay, 0 to 1 percent				
slopes, frequently flooded	D	Moderately well drained	>80 inches	
(Tw)				

Table 1. Soil units within the project site according to the NRCS Web Soil Survey.

The project site is depicted wholly within the Navarro and Taylor groups, undivided (Knt) geologic unit (**Exhibit 7**). This geologic unit is described as areas where the Pecan Gap Chalk is not present because of gradation to marl, similar to that of the Marlbrook and Ozon Formations. The upper 250 feet is comprised of mostly silty, calcareous clay with sandstone beds and concretionary masses near the top, with some interbeds of sandstone near the base. The lower 200 feet of the unit is primarily composed of quartz sand, fine grained, silty locally calcareous concentrations in discontinued beds. The geologic age of the geologic unit is the Late Cretaceous epoch (Barnes 1983).

3

The project site is not located within any designated TCEQ Edwards Aquifer zone (Exhibit 8) (TCEQ 2021).

A historical aerial photograph from 1995 was available and utilized to effectively investigate the site for CEFs. One tributary feature is depicted to transect the southern portion of the project site from west to east. A pond is visible north of the tributary feature. No direct surface water connections exist between the tributary or the pond identified (**Exhibit 9**) (Google Earth Pro 2021).

### **Field Results**

No bluffs, canyon rimrock, caves, faults/fractures, seeps, sinkholes, or springs were found within the study area during the time of the site visit.

One intermittent stream, two freshwater scrub-shrub wetlands, four freshwater emergent wetlands, and one freshwater excavated pond were identified and mapped within the project site. Characteristics of the environmental features identified are described in **Table 2** below.

ID	Feature Type	OHWM (Linear Feet)	Length (Linear Feet)	Area (Acres)	Jurisdictional Opinion
W-01	Freshwater Emergent Wetland	N/A	N/A	0.0567	Jurisdictional
W-02	Freshwater Scrub-Shrub Wetland	N/A	N/A	0.0072	Jurisdictional
W-03	Freshwater Emergent Wetland	N/A	N/A	0.0990	Jurisdictional
OW-01	Freshwater Pond	N/A	N/A	0.2444	Non-Jurisdictional
W-04	Freshwater Scrub-Shrub Wetland	N/A	N/A	0.0036	Jurisdictional
W-05	Freshwater Emergent Wetland	N/A	N/A	0.0047	Jurisdictional
W-06	Freshwater Emergent Wetland	N/A	N/A	0.0021	Jurisdictional
S-01	Intermittent Stream	8	799	0.280	Jurisdictional

 Table 2. Environmental Features Identified Within the Project Site.



The intermittent stream identified (S-01) displayed flowing water and a consistent and well-defined ordinary high-water mark (OHWM) at the time of the site visit. A portion of S-01 had pooled near the south-central boundary of the project site. S-01 drains southeast and off the project site.

Two freshwater scrub-shrub wetlands (W-02, W-04) were identified within the project site. These freshwater scrub-shrub wetlands were identified within the riparian corridor of the intermittent stream (S-01) identified. Specifically, W-02 was identified on the southwestern portion of the project site, within the OHWM of S-01, on a topographically elevated portion of the stream. W-04 abutted S-01 near the center of the project site.

Four freshwater emergent wetlands (W-01, W-03, W-05, W-06) were identified within the project site. These wetlands were identified within the riparian corridor of the intermittent stream (S-01). W-01 is located east and on the edge of the project site. W-05 and W-06 are located where the intermittent steam drains southeast and off the project site. W-03 surrounds the freshwater pond (W-03) and is located near the center of the project site.

A freshwater pond (W-03) was identified within the project site. The freshwater pond is located approximately 75 feet north of S-01, near the center of the project site. This pond is separated by a natural berm. No direct channelized surface water connection was observed between the pond and S-01.

Site Photographs are included in **Appendix A**. Wetland Determination Forms are included in **Appendix B**.

### DISCUSSION

Based on Pape-Dawson's ERI, seven environmental features were identified within the project site. Of the seven environmental features, Pape-Dawson would not consider the freshwater pond (W-03) to be a CEF.

The freshwater pond (OW-01) is excavated and would likely not be considered jurisdictional by the USACE. The earliest available USGS topographic map from 1968 does not depict a pond at the present-day location of the pond. USACE guidance mandates that artificial lakes and ponds are not jurisdictional if they are constructed or excavated in upland or non-jurisdictional waters. Because this pond is separated by a

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natural berm, there is likely no contribution of surface water flow to the pond in a typical year. Additionally, because the pond is artificial in nature and constructed in an upland; the freshwater pond (W-03) identified would likely not be considered jurisdictional. The COA mandates that permitted water quality wet ponds, roadside ditches, and ponds fed by wells or other artificial sources of hydrology are not considered wetlands. Because W-03 would not exist without artificial manipulation, Pape-Dawson would not consider W-03 to be a CEF.

The intermittent stream and two freshwater scrub-shrub wetlands were delineated and mapped according to USACE and COA protocols. The COA's critical water quality zone for the intermittent stream identified was utilized for this report. A 150-foot buffer was added to both freshwater scrub-shrub wetlands identified, in accordance with COA guidance. The intermittent stream (OW-01), two freshwater scrub-wetlands (W-02, W-04), four freshwater emergent wetlands, and associated buffers are depicted in **Exhibit 10**.

### CONCLUSION

Based on Pape-Dawson's ERI, the proposed project contains two freshwater scrub-shrub wetlands and four freshwater emergent wetlands which would be considered critical environmental features (CEFs). In addition to the wetlands identified, one intermittent stream was mapped within the project site.

The conclusions presented in this report represent the professional opinion of Pape-Dawson Engineers and are limited to the conditions observed at the project site at the time and date of the field investigation.

6



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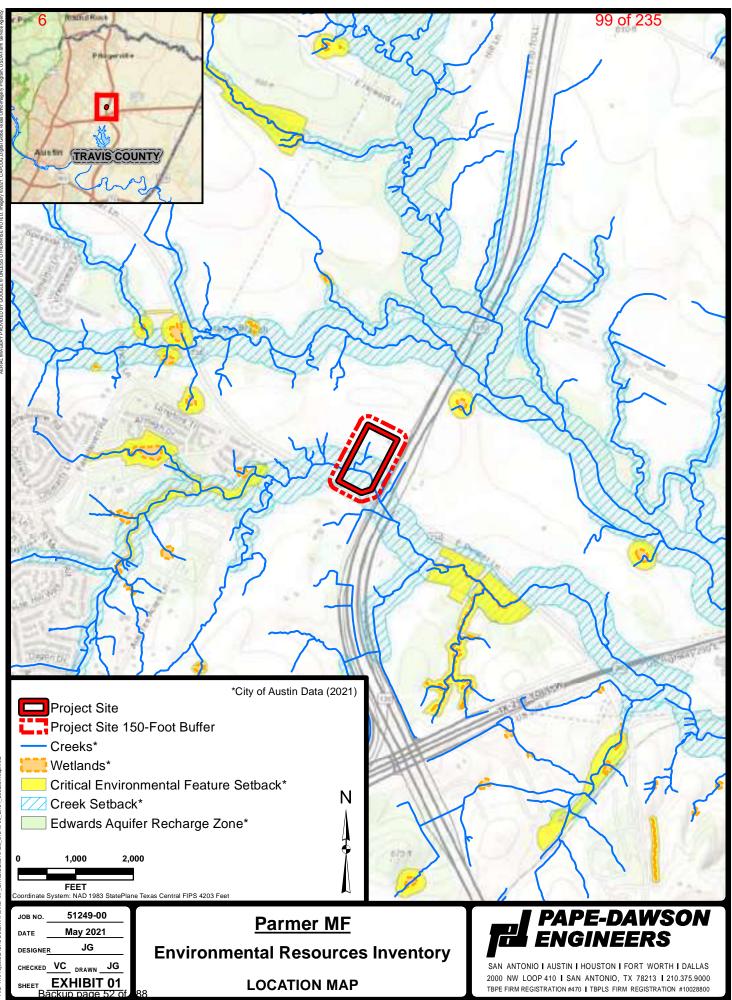
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### **EXHIBITS**

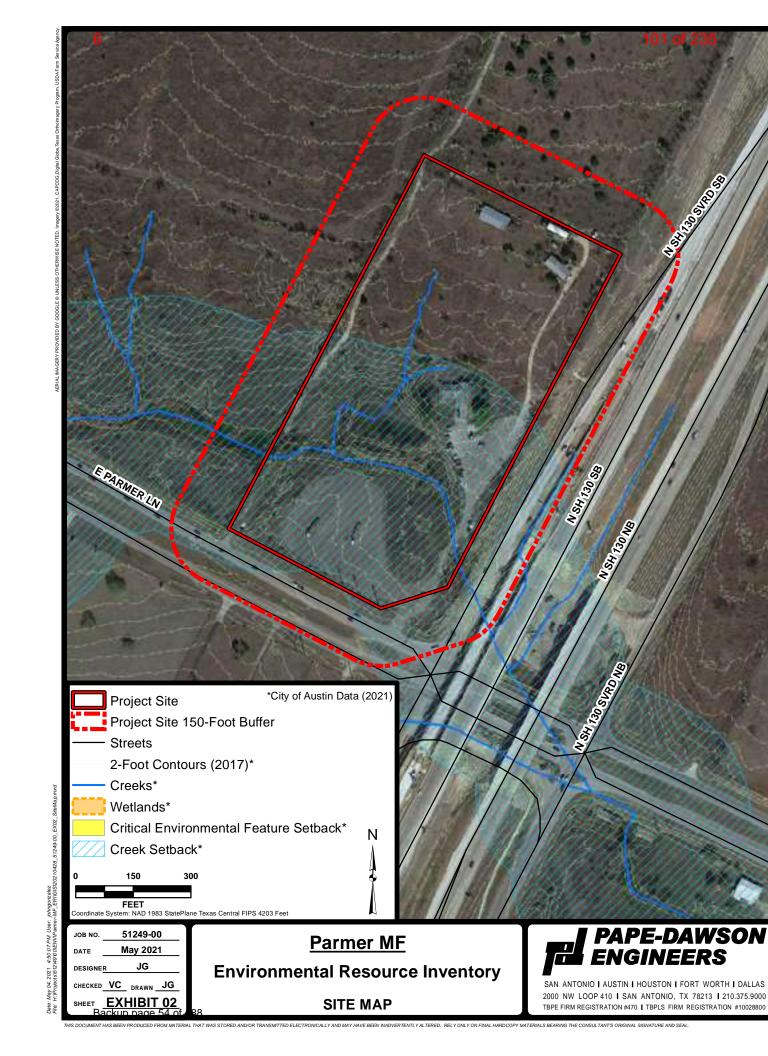
### EXHIBIT 1 Location Map



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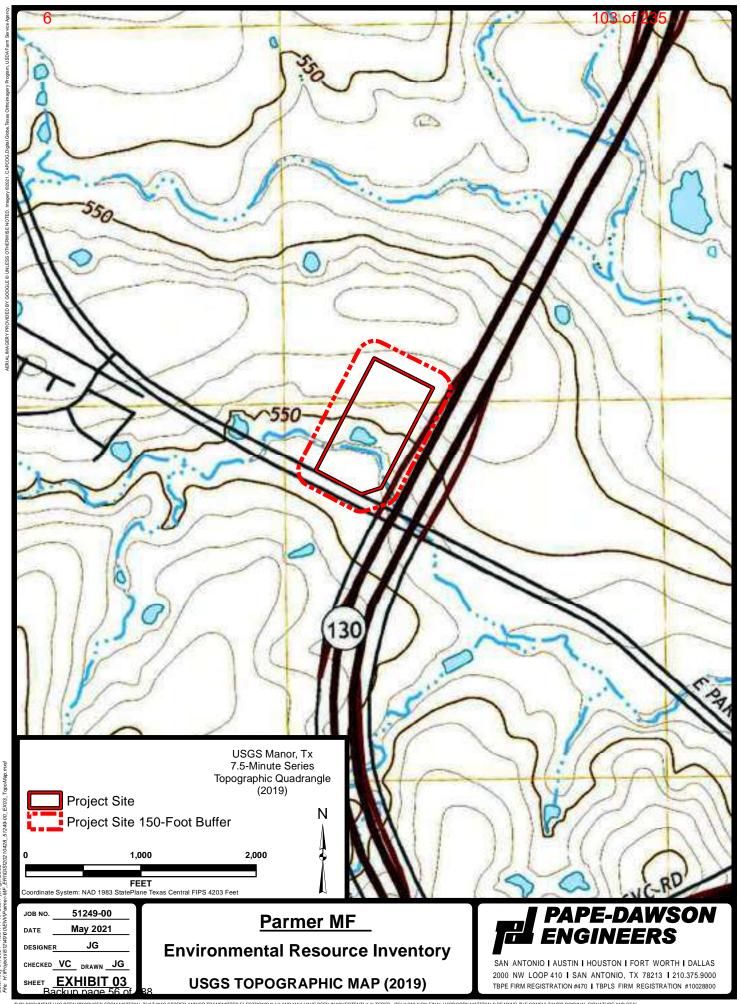
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### EXHIBIT 2 Site Map



# EXHIBIT 3 USGS Topographic Map (2019)

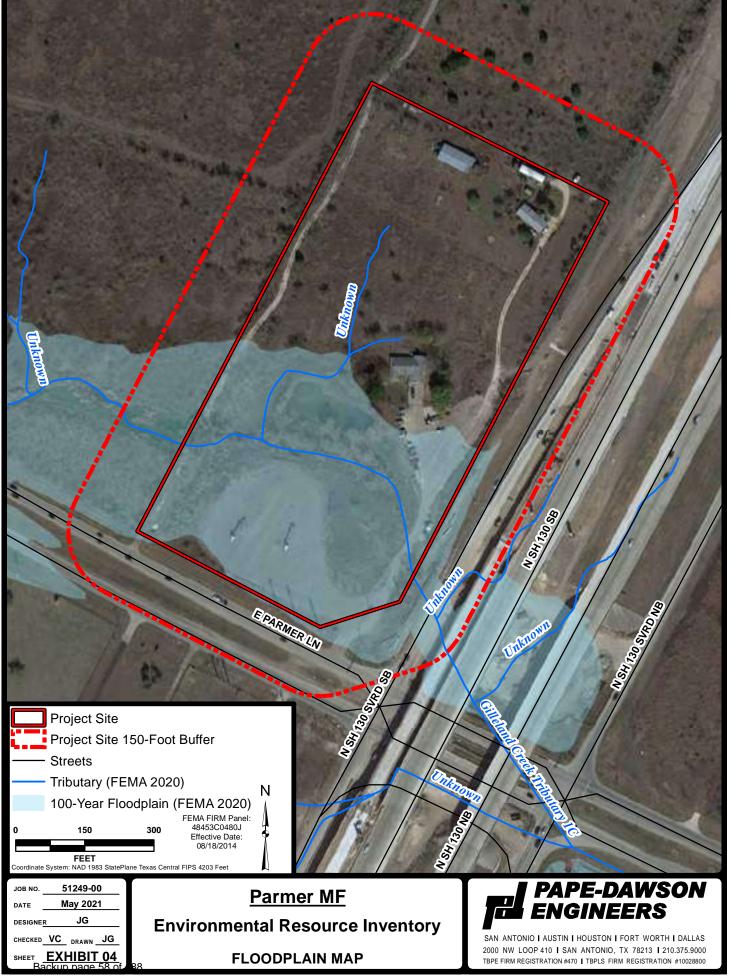
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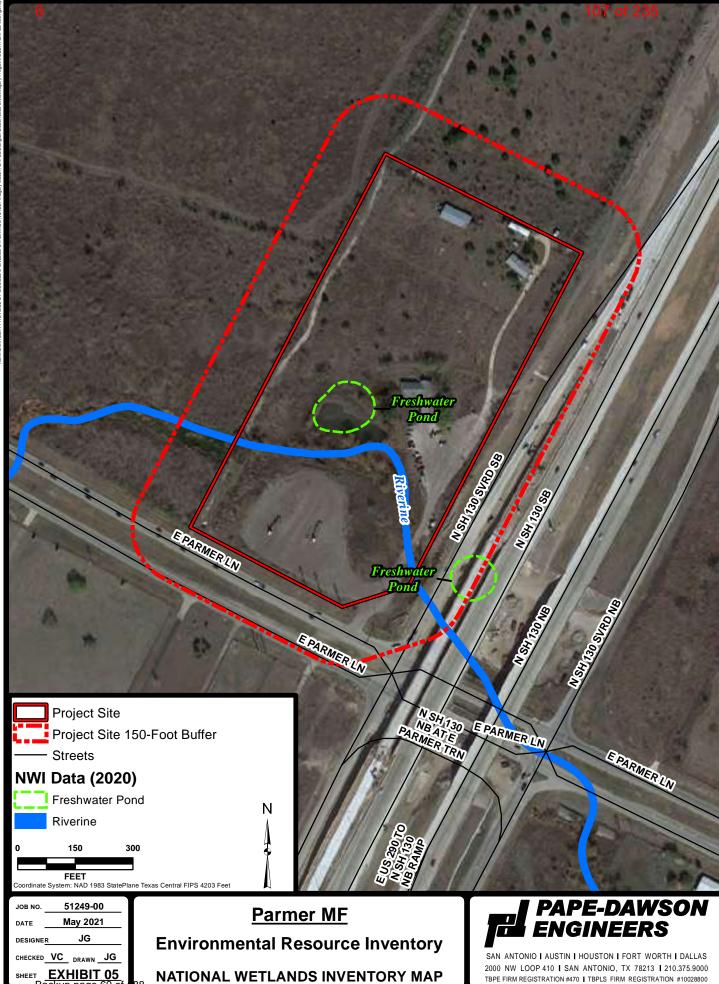
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### EXHIBIT 4 Floodplain Map



# EXHIBIT 5 National Wetlands Inventory Map

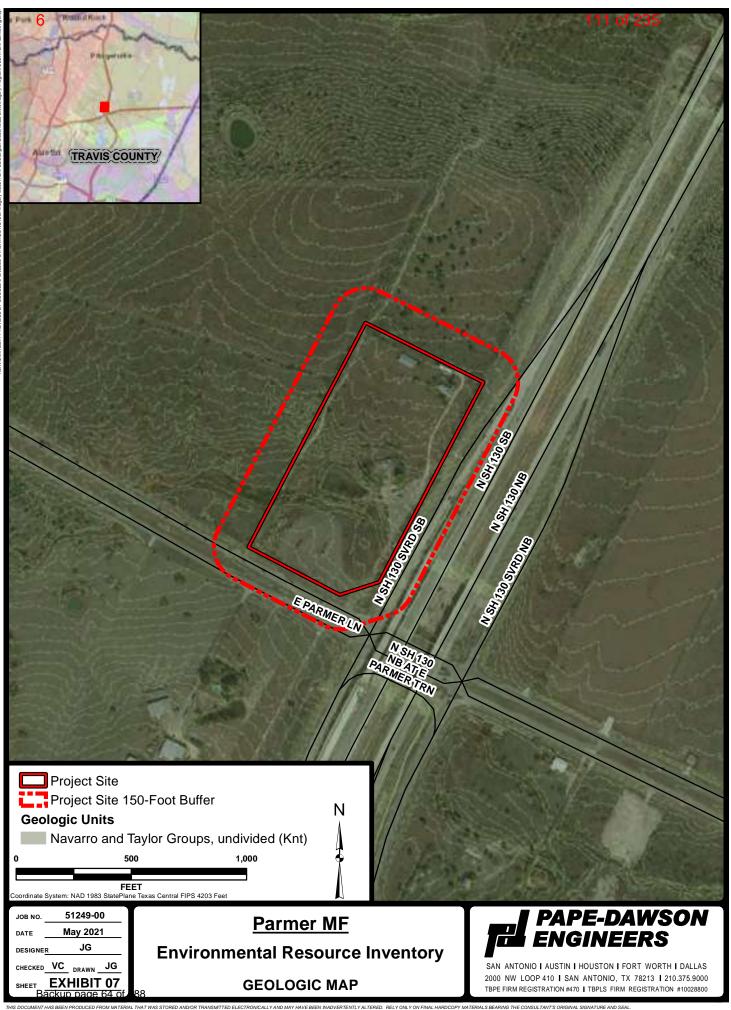


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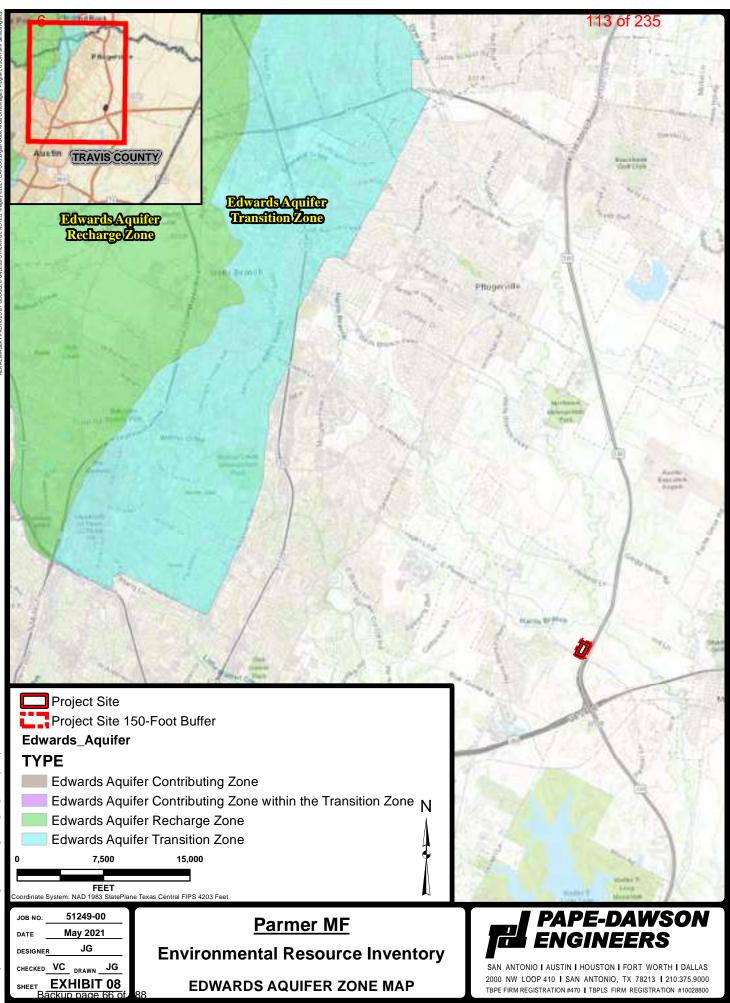
### EXHIBIT 6 Soils Map



### EXHIBIT 7 Geologic Map



## EXHIBIT 8 Edwards Aquifer Zone Map



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### EXHIBIT 9 1995 Historical Aerial Photograph Map



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# EXHIBIT 10 Delineated Critical Environmental Features Map



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### **APPENDIX**

## APPENDIX A Site Photographs

Photo No.	Date:	
1	03-30-2021	
Description	:	
View of the		
portion of t	he project	
	outheast, on	
	istern corner	7 - F
of the proje	ct site.	+ + +
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		STATE OF STREET
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Photo No.	Date:		
3	03-30-2021	Z VIII VIII VIII	
Description		The second s	
A typical vie			
intermitten	t stream (S-	1	
01) identifie			
	facing east,		
near the sou			
site.	f the project		
Site			
Photo No.	Date:		
4	03-30-2021		
Description A view of or			
freshwater			
wetlands (W			
identified o	n the project	A STATE AND A STAT	
site. This we			
	ally elevated		
	he OHWM of		
(S-01) ident	tent stream		
(5-01) Idein	ineu.		
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		And the transmission of the second	





Photo No. 5 Description: A view of the freshwater s wetland (W- on the proje wetland abu intermittent 01) identifie	e second scrub-shrub -02) observed ect site. This utted the stream (S-	
pond (W-03) on the proje pond is locat the intermit (S-01) identi pond was topographic	e freshwater ) observed ect site. This ted north of tent stream fied. The ally nd separated	





Photo No.	Date:	
7	03-30-2021	
Description		
Another vie		
intermitten	t stream (S-	
	ed. This photo	
was taken o		
	undary of the	
	S-01 drained	
road and div	kisting cobble	
around the		
	wetland (W-	
01) identifie		
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		Real And a second s
Photo No.	Date:	
8	03-30-2021	
Description		the set was a set of the set of t
A typical vie habitat neai	ew of upland	La hall have the second state of the
	ect site, facing	A REAL PROPERTY AND A REAL
northeast.	ct site, facilig	
nor theast.		



Photo No.	Date:	
9	03-30-2021	
<b>Description</b> A view of th	: e upland erved on the ortion of the	
Photo No. 10 Description A view of pil observed or southwester the project s southwest.	les of fill In the rn portion of	<image/>



### APPENDIX B Wetland Determination Forms

### WETLAND DETERMINATION DATA FORM - Great Plains Region

120 01 200
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Project Site:	pject Site: Parmer MF		(	City/ County:	Travis County	у		Sampling Date: 3/30/2021		
Applicant/Owner: Z Modular			State:	ТХ			Sampling Point: DP-01			
Investigator(s): JG			Section, Townshi		ship, Range:		N/A			
Landform (hillside, terrace, etc.): Plains		I	Local relief (concave, conve		none):	None	Slope (%):	1-2%		
Subregion (LRRA or MLR	RA):	LRR-J	Lat:	30.353935		Long:	-97.593634	Datum: NAI	D83	
Soil Map Unit Name:	Tinn clay, 0 to 1	percent slopes, freque	ently floode	ntly flooded (Tw)		-	NWI	Classification: N/A	cation: N/A	
Are climatic/hydrological conditions on the site typical for this tir Are Vegetation, Soil, or Hydrology significantly disturbed? Are Vegetation, Soil, or Hydrology naturally problematic?			ΞY	es 🗹 No es 🗹 No	s 🔲 No (lf n		r Remarks) I Circumstances" Prese explain any answers in F		No	
SUMMARY OF FINDI	NGS- Attach s	ite map showing s	ample po	int locations	, transects, i	important f	eatures, etc.			
Hydrophytic vegetatior Hydric Soils Present? Wetland Hydrology Pre		Yes Yes Yes	No No No		ls	s the Sample	ed Area within a Wetland	d? Yes: No:		

Remarks: None of the three parameters, hydrophytic vegetation, wetland hydrology, and hydric soil indicators, were observed. The Data Point (DP) is not within a wetland. This Data Point was taken on the paved parking lot on the southern portion of the project site.

Habitat ID:

6

Habitat Type: N/A

Vegetation - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
Tree stratum (Plot size : 30')				
1				Number of Dominant Species
2.				That Are OBL, FACW, or FAC: 0 (A)
3.				
4.				Total Number of Dominant
Sapling/Shrub Stratum (Plot size: 15')				Species Across All Strata:(B)
1.				Percent of Dominant Species
2.				That are OBL, FACW, or FAC: (A/B)
3.				
4.				Prevalence Index worksheet:
5				Total % Cover of: Multiply by:
				OBL Species x 1 =
Herb Stratum (Plot size : 5')				FACW Species x 2 =
1.				FAC Species x 3 =
2				FACU Species x 4 =
3.				
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =
6				
7.				Hydrophytic Vegetation Indicators:
8.				Dominance Test is >50%
9				Prevalence Index is ≤3.01
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size : 30')				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2.				
				Hydrophytic Vegetation Present?
% Bare Ground in Herb Stratum: 100				Yes: 🗂 No: 🖻
Remarks: (if observed, list morphological adaptations below).				_
Percentage of dominant plants that are OBL, FACW, or FAC is	s less than or equal to 50%	. The hydrophy	/tic vegetatic	on parameter is not met.
			0	

SOIL								Sampling Point:	
Profile Description: (D	Describe to the c	lepth nee	ded to document	the indicator or	confirm th	ne absend	ce of indicators.)		
Depth	Matrix			Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
			,						
					_				
					-	· ·			
					-				
					_				
					-				
<sup>1</sup> Type: C=Concentration,	D=Depletion, RM	-Reduced	Matrix, CS=Covered	d or Coated Sand G	rains.	<sup>2</sup> Locat	ion: PL=Pore Lining, M=Matrix.		
Hydric Soil Indicator	rs:						Indicators for Problematic	Hydric Soils <sup>3</sup> :	
Histosal (A1)			Sandy Gleyed	Matrix (\$4)			1 cm Muck (A9) (L881, J)	58 <sup>-</sup>	
2000 Address (2000 - 0000	8		Sandy Redox	New Address of the second s			Coast Prairie Redox (A16)	CARACTERISTIC IN	
Histic Epipedon (A)	29		Stripped Mat				- 전전에서 전 전 전 전 전 전 전 전 전 전 전 전 전 전 전 전 전		
Black Histic (A3)			and the second se	Mineral (F1) (LRF	LOL		Dark Surface (S7) (LRB G)		
🔲 Hydrogen Sulfide (/	A4)		Loamy Gleyed				🛄 High Plains Depressions (	- 1997	
Stratified Layers (A	5)		Depleted Ma	0.14942330101401010			(LRR H outside of MI	LRA 75 & 73)	
1 cm Muck (A9) (LL	R P. T)		Redox Dark S	YON PARALLAND			Reduced Vertic (F18) (ou	tside MIRA 150A,	
Depleted Below Da	ark Surface (A11)	8		k Surface (F7)			Piedmont Floodplain Soils	(F19) (LRR P. S, T)	
Thick Dark Surface			101219/00/06/26/26/26/26/26/26/26/26/26/26/26/26/26				Red Parent Material (TF2		
Sandy Mucky Mine		2	Redox Depre				Very Shallow Dark Surfac	Sanare	
2.5 cm Mucky Peat	그 배가 나는 것은 것은 것은 것을 알았다.		(MLRA 72.8)	epressions (F16) 73 of LRRH1			Other (Explain in Remark		
the second second second second second		and the second	(inclusion)	a ci chistij			ALL AND A COMPANY AND A COMPANY AND A COMPANY	25	
5 cm Mucky Peat o	ir Peat (SZ) LRRG	2月)					present, unless disturbe	tic vegetation and wetland hyded or problematic.	arology must
Restrictive Layer (if obs	erved):								
Туре:							Hudria Saila Procent?	厂 Yes F 杯	lo
Type: Depth (inches): Remarks: Indicators of hydric sc	bils lacking; hydi	ric soils p	arameter is not n	net.			Hydric Soils Present?	ΓYes ₽Γ	ło
Type: Depth (inches): Remarks: Indicators of hydric sc Iydrology /etland Hydrology In	dicators: imum of one re		neck all that apply	/) Crust (B11) tic Invertebrates			Secondary In Surface So Source V Drainage	dicators (minimum of two r	equired)
Type: Depth (inches): Remarks: Indicators of hydric sc Iydrology /etland Hydrology In rimary indicators (min Surface Water [A1 []] High Water Table	dicators: imum of one rei (A2)		neck all that apply Salt ( Aqua Hydr	y) Trust (B11) tic Invertebrates ogen Sulfide Odor	(C1)		Secondary In i Surface So Drainage Oesdoed	dicators (minimum of two r bl Cracks (B6) ngetated Concisie Serface (B Patterns (B10)	equired)
Type: Depth (inches): Remarks: Indicators of hydric sc Indicators of hydric sc	dicators: imum of one re (A2)		neck all that apply Salt ( Aqua Hydr Drr !	/) Trust (B11) tic Invertebrates ogen Sulfide Odør casso Worg: Tet.	(C1) k: (C21	users (CI)	Secondary In Surface Sc Searcher V Drainage Deodeed	dicators (minimum of two r oll Cracks (86) Ingetated Concave Sectace (8 Patterns (810)	equired)
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Type: Depth (inches): Remarks: Indicators of hydric sc Indicators of hydric sc	dicators: imum of one re (A2) (A2)		neck all that apply Solk ( Aqua Hydr Drp ! Cod	/) Crust (B31) tic Invertebrates ogen Sulfide Odor casoo Watt: Tot casoo Watt: Tot casoo Watt: Tot casoo Watt: Tot	(C1)  c (C2)  n Uning <sup>1</sup>  ed	usets (CI)	Secondary In Surface So Surface So Drainage Crayfish B Grayfish B	dicators (minimum of two r bil Cracks (86) Ingetated Concort Serface (1) Patterns (810) Thuongherm on Living Roots Where tilled urrows (C8)	equired) I) (CSI
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ype: Depth (inches): Remarks: Indicators of hydric sc ydrology etland Hydrology In imary indicators (min Surface Water [A1 High Water Table Saturation (A3) Water Marks (B1) Saturation (A3) Drift Deposits (B3) Algal Mat or Crust Inton Deposits (B5)	dicators: imum of one real (A2) :ne2) : (84)	quired; cł	neck all that apply Salt ( Aqua Hydr Drr Prese	/) Crust (B11) tic Invertebrates ogen Sulfide Odor cason Watt Tpt. red Threashperen Where not till ence of Reduced I & Muck Surface (C:	(C1) In (C2) In Linny <sup>2</sup> Ied ron (C4)	ussca (CI)	Secondary In Surface Sc Searndary Drainage Crayfish B Grownapi Crayfish B Grownapi Crayfish B	dicators (minimum of two r oll Cracks (86) Ingetated Concore Seriace (1) Patterns (810) Thumpterns on Living Roots Where tilled urrows (C8) In Public on Aeric I Inggeng X) Ing Public on Aeric I Inggeng X) Ing Public on Aeric I Inggeng X) Ing Public on Aeric I Inggeng X)	equired) I) (CSI
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Type: Depth (inches): Remarks: Indicators of hydric sc <b>ydrology</b> <b>/etland Hydrology In</b> rimary indicators (min Surface Water [A1 Surface Water Table Saturation (A3) Water Marks (B1) Saturation (A3) Drift Deposits (B3) Algal Mat or Crust Drift Deposits (B3) Algal Mat or Crust Water-Stained Lea ield Observations: urface Water Present /ater Table Present? aturation Present?	dicators: imum of one re- (A2) (A2) (A2) (B4) (B4) (B4) (B4) (Constant of the second o	quired; cf	heck all that apply Solt ( Aqua Hydr Drr ! Const Press Thick Depth (Inche Depth (Inche Depth (Inche	/) Crust (B11) tic Invertebrates ogen Sulfide Odor caso Hocc Ter. terd Threadport Where not till ence of Reduced I: t Muck Surface (C: s): s): s): s):	(C3) le (C2) led ron (C4) 7)	Wetland	Secondally In Surface So Searchy V Drainage Crayfish B Growfish B FAC-Neuti FAC-Neuti Neut Heat d Hydrology Present?:	dicators (minimum of two r bil Cracks (86) right and Concord Serface (8 Patterns (810) Thumpteres on Living Roots Where tilled urrows (C8) In 1946 an Aeriel Imagen (2) In FVH- en (02) rai Test (05) We Hammools (07) (JRK F)	equired) ID IC31
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### WETLAND DETERMINATION DATA FORM - Great Plains Region

Project Site: Parmer MF		City/ County:	Travis County		Sampling Date: 3/30/2021			
Applicant/Owner:	Z Modular		State:	ТХ	ТХ		Sampling Point: DP-02	
Investigator(s):	JG		Section, Towns	Section, Township, Range:				
Landform (hillside, terrace, etc.): Plains Subregion (LRRA or MLRA): LRR-J		Local relief (concave, convex, none):		Concave	Slo	Slope (%):		
		LRR-J	Lat: 30.353604	Lo	ng: <u>-97.592881</u>	Dat	Datum: NAD83	
Soil Map Unit Name:	Tinn clay, 0 to	o 1 percent slopes, frequ	ntly flooded (Tw)		NWI Classification	n: N/A		
Are climatic/hydrologic	al conditions on	the site typical for this tin	ne of year?	s 🔲 No (If no, expl	ain in Remarks)			
Are Vegetation, Soil, or	r Hydrology sign	ficantly disturbed?	Yes 🗹 No	Are "N	ormal Circumstanc	ces" Present?	Yes	No
Are Vegetation, Soil, or	r Hydrology natu	rally problematic?	🗌 Yes 🗹 No	(If nee	ded, explain any ar	ny answers in Remarks.)		

#### SUMMARY OF FINDINGS- Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic vegetation present? Hydric Soils Present? Wetland Hydrology Present?	Yes No Yes No Yes No	Is the Sampled Area within a Wetland?	Yes: 🔲 No: 🗹
Remarks:			
Hydric soils were observed; however, hydrop	ohytic vegetation and hydrology were not.	The data point is not within a wetland.	
Habitat ID:		Habitat Type: N/A	

Vegetation - Use scientific names of plants.

6

	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
Tree stratum (Plot size: 30')				
1				Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
4.				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
Sapling/Shrub Stratum (Plot size : 15')				Demonst of Deminent Creation
1. 2. 3.				Percent of Dominant Species That are OBL, FACW, or FAC: 0% (A/B)
4.	·······			Prevalence Index worksheet:
5.				Total % Cover of:Multiply by:OBL Speciesx 1 =
Herb Stratum (Plot size : 5')				OBL Species         x 1 =           FACW Species         x 2 =
1. Helianthus maximiliani	45	Yes	FACU	FAC Species x 3 =
2. Bromus japonicus	25	Yes	FACU	FACU Species 100 x 4 = 400
3. Cynodon dactylon	15	No	FACU	UPL Species x 5 =
4. Bowlesia incana	15	No	FACU	Column Totals: 100 (A) 400 (B)
5				Prevalence Index = $B/A = 4.00$
7.				Hydrophytic Vegetation Indicators:
8.				No Dominance Test is >50%
9.				No Prevalence Index is ≤3.01
10.				No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	100			
Woody Vine Stratum (Plot size: 30')				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2				
				Hydrophytic Vegetation Present?
% Bare Ground in Herb Stratum: 0				Yes: 🗋 No: 🗹
Remarks: (if observed, list morphological adaptations below).				
Percentage of dominant plants that are OBL, FACW, or FAC is less	s than or equal to 50%	. The hydroph	ytic vegetatic	n parameter is not met.
	•			•

Depth	Matrix		R	edox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Text	ure	R	Remarks	
0-6	10YR 4/1	100					Cla	av			
6-14	10YR 5/2	85	5YR 5/6	15	С	М	Cla		Rocks throughout		
/pe: C=Concentratio dric Soil Indicat ] Histosof (A1)		I-Reduced	Matrix, CS=Covered o		ains.	 	<u>19.00</u> 0710327692696	0	c Hydric Soils <sup>3</sup> :		
Histic Epipedon ( Black Histic (A3) Hydrogen Sulfide Stratified Lavers 1 cm Muck (A9) ( Depleted Below 1 Thick Dark Surfac Sendy Mucky Min 2.5 cm Mucky Peat S cm Mucky Peat	: (A4) (A5) Dark Surface (A11 ce (A12) nerel (S1) (LRR O, S sat or Peat (S2) (LR t or Peat (S2) LRRG	5) RR (5, H)	Sandy Redox (S) Stripped Matrix Loamy Mucky N Loamy Gleyed N Depleted Matri Redox Dark Sur Depleted Dark Redox Depressi Redox Depressi High Plains Dep (MLRA 72.& 73	(S6) Fineral (F1) (LRR fatrix (F2) « (F3) ace (F6) surface (F7) ons (F8) ressions (F16)	0)		Dark Surfa High Plain (LRR H Reduced 1 Pledmont Red Paren Very Shall Other (Ex) <sup>3</sup> Indicate	ice (S7) (LRR G is Depressions outside of M Vertic (F18) (or Floodplain Soil it Material (TF ow Dark Surfa dain in Remar ors of hydrophy	(F16) ILRA 75 & 73) utside MIRA 150A, Is (F19) (LRK P, 5, T) (2) ce (TF12)	etland hydrolog	gy mu
pe:									E	÷ •1-	
epth (inches): emarks:	soils were observ	/ed; hydrid	c soil parameter is r	net.			Hydric S	Soils Present?	I r Yes	[ <sup>™</sup> No	
epth (inches): emarks: idicators of hydric :	soils were observ	ved; hydrid	c soil parameter is r	net.			Hydric S	Soils Present?	I r Yes	[ <sup>™</sup> No	
Depth (inches): Remarks: ndicators of hydric : ydrology etland Hydrology	Indicators:		· 	net.							
Depth (inches): Remarks: Indicators of hydric : Indicators (Indicators (Indic	Indicators: inimum of one re A1; ile (A2) i ist (A2) ist (B4) 5) if an Aerial mage	equired; ch	neck all that apply) Səlt Cru Aquatic Hydrog Drr See Oxden Presenv		(C1) 2 ((21) n Linn n ed on (C4)			Second a ly li Surface S Drainage Orainage Crayfish I Groewer Groewer FAC-Neur	Ves Adicators (minimum Soll Cracks (86) Vigetatud Constant for Patterns (810) Fibiospheretain for Where tilled Burrows (C8) an alskie un Aeriel In plus Point on To2] trai Test (05) and Hammoch (07) (	n of two requir Kerlace (MI) Key Moots (C3) Nage of X55	red)
High Water Tab Saturation (A3) Water Marks (B Sedmens Depose Drift Deposits (B Algal Mat or Cru Itron Deposits (B)	Indicators: inimum of one re A1; de (A2) 1] 13) 13) 14 (B4) 5) 14 m Arrial m age 14 m Arrial m age 15) 15 m Arrial m age 16 m Arrial m age 17 m Arrial m age 18 m Arrial m age 19 m Arrial	equired; ch	neck all that apply) Səlt Cru Aquatic Hydrog Dry Sce Present Thick M	st (B11) Invertebrates (I en Sulfide Odor ( ISO Wort Tock d Threachpercol Where not tille te of Reduced In Juck Surface (C7)	(C1) 2 ((21) n Linn n ed on (C4)			Secondary Ir Surface S Drainage Drainage Crayfish I Crayfish I Crayfish I Goorwap FAC-Neur Drochag	ndicators (minimun soll Cracks (86) Vigetatind Constant Patterns (810) I Thursdament on the Where tilled Burrows (C8) sin alstellan Agrictin sher Pumuen (52) trai Test (85)	n of two requir Kerlace (MI) Key Moots (C3) Nage of X55	red)

### WETLAND DETERMINATION DATA FORM - Great Plains Region

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LC.	<b>D</b>	U	2	. <b>.</b>	J

Project Site: Parmer MF		City/ County:	Travis County		Sampling Date: 3/30/2021		
Applicant/Owner:	Z Modular		State:	ТХ		Sampling Point: DP-03	
Investigator(s):	JG		Section, Towns	ship, Range:	N/A		
Landform (hillside, terra	ice, etc.):	Plains	Local relief (co	ncave, convex, none):	Concave	Slope (%):	2-5%
Subregion (LRRA or MI	_RA):	LRR-J	Lat: 30.353982	Long:	-97.592778	Datum: NAD83	
Soil Map Unit Name:	Tinn clay, 0 to	o 1 percent slopes, freque	ently flooded (Tw)		N	IWI Classification: N/A	
Are climatic/hydrologica	al conditions on	the site typical for this tin	ne of year?	s 🔲 No (If no, explain	in Remarks)		
Are Vegetation, Soil, or	Hydrology sign	ificantly disturbed?	Yes 🔽 No	Are "Norm	al Circumstances" P	resent? Yes	No
Are Vegetation, Soil, or	Hydrology natu	rally problematic?	Yes 🗹 No	(If needed	, explain any answers	s in Remarks.)	

#### SUMMARY OF FINDINGS- Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic vegetation present? Hydric Soils Present? Wetland Hydrology Present?	Yes No Yes No Yes No		Is the Sampled Area within a Wetland?	Yes: No:	
Remarks:					
Hydric Soils were observed; however hydrolo	bgy and hydrophytic vegetation	n were not. The data poi	nt is not within a wetland.		
Habitat ID:		Habita	t Type: N/A		

#### Vegetation - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
Tree stratum (Plat size $\cdot$ 20)	Cover	Opecies:	Otatus	
Tree stratum (Plot size : 30') 1. <i>Celtis laevigata</i>	25	Yes	FAC	Number of Dominant Species
1. Celtis laevigata 2.	20	165	FAC	That Are OBL, FACW, or FAC:2 (A)
3.				
4.		. <u> </u>		Total Number of Dominant
···	25			Species Across All Strata: 4 (B)
Sapling/Shrub Stratum (Plot size : 15')				(-)
1. Celtis laevigata	10	Yes	FAC	Percent of Dominant Species
2.				That are OBL, FACW, or FAC: 50% (A/B)
3.				
4.				Prevalence Index worksheet:
5.				Total % Cover of: Multiply by:
	10			OBL Species x 1 =
Herb Stratum (Plot size: 5')				FACW Species <u>5</u> x 2 = <u>10</u>
1. Rubus trivialis	45	Yes	FACU	FAC Species 35 x 3 = 105
2. Helianthus maximiliani	45	Yes	FACU	FACU Species 105 x 4 = 420
3. Solidago altissima	15	No	FACU	UPL Species $5 \times 5 = 25$
4. Polytaenia texana	5	No	UPL	Column Totals: <u>150</u> (A) <u>560</u> (B)
5. <u>Helenium autumnale</u> 6.	5	No	FACW	Prevalence Index = $B/A = 3.73$
7.				Hydrophytic Vegetation Indicators:
8.				No Dominance Test is >50%
9.				No Prevalence Index is ≤3.01
10.				No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	115			
Woody Vine Stratum (Plot size : 30')				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2.				
<i></i>				Hydrophytic Vegetation Present?
% Bare Ground in Herb Stratum: 0				
				Yes: 🗍 No: 🗹
Remarks: (if observed, list morphological adaptations below).				•
Percentage of dominant plants that are OBL, FACW, or FAC is less t	han or equal to 50%	. The hydroph	ytic vegetatio	on parameter is not met.
			-	

Depth Matrix	R	edox Features			
(inches) Color (moist) %			ype <sup>1</sup> Loc <sup>2</sup>	Texture	e Remarks
0-8 10YR 4/1 100	_ , ,			Clay Loa	
8-14 10YR 5/2 85			C M	Clay Loa	
ype: C=Concentration, D=Depletion, RM-Red	uced Matrix, CS=Covered of	or Coated Sand Grain	s. <sup>2</sup> Lo	cation: PL=Pore Lining	, M=Matrix.
vdric Soil Indicators:	<u></u>			Indicators for P	roblematic Hydric Soils <sup>3</sup> :
Histosof (A1)	Sandy Gleyed M	latrix (S4)		🛄 1 cm Muck (A	A9) (LR.W. I., J)
Histic Epipedon (A2)	Sandy Redox (S	5)		🛄 Coast Prairie	Redox (AIG  (LRR F, G, H)
Black Histic (A3)	Stripped Matrix			🔲 Dark Surface	(S7) (LR8 G)
Hydrogen Sulfide (A4)	·····································	/lineral (F1) (LRR O)		🛄 High Plains D	epressions (F16)
Stratified Layers (A5)	Loamy Gleyed I	1900 (MILLOVOID		(LRR H ou	utside of MLRA 75 & 73)
1 cm Muck (A9) (LLR P, T)	Depleted Matr	(247) (3.5) (3.5) (3.5)		Reduced Ver	tic (F18) (outside MIRA 150A,
Depleted Below Dark Surface (A11)	Depleted Dark	CALLS & CALLS IN		🔲 Pledmont Flo	odplain Soils (F19) (LRR P. S, T)
	Redox Depress	8. A 89. A 4 4 4		🔲 Red Parent N	Aaterial (TF2)
Sendy Mucky Mineral (S1) (LRR O, S)	High Plains Dep			Very Shallow	Dark Surface (TF12)
2.5 cm Mucky Peat or Peat (S2) (URR G,				Other (Explai	같은 방법은 방법은 방법은 <sup>19</sup> 10년 72년
S cm Mucky Peat or Peat (S2) LRRG, H)	256			2010/2010/00/2010/2010/2010	of hydrophytic vegetation and wetland hydrology
					less disturbed or problematic.
estrictive Layer (if observed):					
Гуре:					
					🗹 Yes 🗋 No
Depth (inches): Remarks: Indicators of hydric soils were observed; I	nydric soil parameter is	met.		Hydric Soil:	s Present?
Remarks: ndicators of hydric soils were observed; I	nydric soil parameter is	met.		Hydric Soil:	s Present? Yes No
Remarks: ndicators of hydric soils were observed; I ydrology	nydric soil parameter is	met.		Hydric Soil:	s Present? FYes TNo
Remarks: Indicators of hydric soils were observed; I Iydrology Yetland Hydrology Indicators:		met.			s Present? Yes No
Remarks: Indicators of hydric soils were observed; I Iydrology /etland Hydrology Indicators: rimary indicators (minimum of one require		met.		Se	s Present?
Remarks: Indicators of hydric soils were observed; I Iydrology Yetland Hydrology Indicators: rimary indicators (minimum of one require Surface Water [A1]			:	Se	condary indicators (minimum of two require
Remarks:         Indicators of hydric soils were observed;	ed; check all that apply) Salt Cri Aquati	ust (B11) c Invertebrates (B1)		Se	s Present? scondally Indicators (minimum of two require "I Surface Soll Cracks (86) Spanishr Vigetariad Concern Serface (81) T Drainage Patterns (810)
Remarks: Indicators of hydric soils were observed; I Verland Hydrology Indicators: rimary indicators (minimum of one require Surface Water [A1] High Water Table (A2)	ed; check all that apply) [] Səlt Cri [_] Aquati [_] Hydrog	ist (B11) c Invertebrates (B1) con Sulfide Odor (C1	}	Se	condary Indicators (minimum of two require "] Surface Soll Cracks (B6) Sparedy Viget and Concern Surface (B1) ] Drainage Patterns (810) ] Drainage Patterns (810)
Remarks: Indicators of hydric soils were observed; I Addicators of hydric soils were observed; I Addicators of hydrology Indicators: Indicators (minimum of one require Surface Water [A1] High Water Table (A2) Saturation (A3) Water Marks (B1)	ed; check all that apply) Salt Cri Aquati Hydrog	ust (B31) c Invertebrates (B1 con Sulfide Odor (C1 seon Word: Table ()	) 23	Se f L L	condary Indicators (minimum of two require "Surface Soll Cracks (86) Sparedy Vigetated Concern Surface (81) Drainage Patterns (810) Occident Hubbertman Living Roots (C3) Where tilled
Remarks: Indicators of hydric soils were observed; I ydrology Yetland Hydrology Indicators: rimary indicators (minimum of one required Surface Water [A1] High Water Table (A2) Saturation (A3] Water Marks (B1) Sedmen Dependent 2)	ed; check all that apply) Salt Cri Aquati Hydrog	ist (B11) c Invertebrates (B1) cen Sulfide Odor (C1 agen Worg: Tiptle () cellingesigner en in L	) 23	Se f I I I I	condary Indicators (minimum of two require "Surface Soll Cracks (B6) Sparedr Vigetated Concret Serface (Min) "Drainage Patterns (B10) Drainage Patterns (B10) Crayfish Burrows (C8)
Remarks: Indicators of hydric soils were observed; I Indicators of hydric soils were observed; I Indicators (minimum of one required Surface Water [A1] High Water Table (A2) Saturation (A3] Water Marks (B1) Saturation (A3] Drift Deposits (B3)	ed; check all that apply) Səlt Cri Aquati Hydrog Drp Iso Cooder	ust (B11) c Invertebrates (B1 en Sulfide Odor (C1 sen Watt Totle () d Inconfectuain L Where not tilled	) (21 Juling Rossia (1	Se f I I I I I I I I I I I I I I I I I I	s Present? condally indicators (minimum of two require "Surface Soll Cracks (86) Sparedr Vegetated Consider Serface (80) Drainage Patterns (810) Drainage Patterns (810) Crayfish Burrows (C8) Sararawan 1):555 an Aeriel Imagen X S
Remarks: Indicators of hydric soils were observed; I Vetland Hydrology Indicators: rimary indicators (minimum of one require Surface Water [A1] High Water Table (A2) Saturation (A3] Saturation (A3] Water Marks (B1) Saturation (Cast (B2)) Algal Mat or Crust (B4)	ed; check all that apply) Salt Cri Aquati Hydrog Dri So Presen	ust (B11) c Invertebrates (B1 cen Sulfide Odor (C1 cen Sulfide Odor (C1 cen Tecke () centreshperen in L Where not tilled ce of Reduced Iron	) (21 Juling Rossia (1	Se F E E E E	s Present? condary Indicators (mnimum of two require "I Surface Soll Cracks (86) Spanicly Vegetated Concore Serface (88) Drainage Patterns (810) Drainage Patterns (810) Decident Ebuescheren on Energy Boots (C3) Where tilled Crayfish Burrows (C8) Serenause all Skie en Seriel Imagem X Ski Generation flykk en Seriel Imagem X Ski
Remarks:         ndicators of hydric soils were observed; I         ydrology         'etland Hydrology Indicators:         imary indicators (minimum of one required)         Surface Water [A1]         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sectorer Jopacts (83)	ed; check all that apply) Salt Cri Aquati Hydrog Dry Lo Coeffee Thick 0	ust (B11) c Invertebrates (B1 en Sulfide Odor (C1 sen Watt Totle () d Inconfectuain L Where not tilled	) (21 Juling Rossia (1	Se [ ] ] ] ] ] [ ] [ ] [ ] [ ] [ ] [ ] [	s Present? condally indicators (minimum of two require "Surface Soll Cracks (86) Sparedr Vegetated Consider Serface (80) Drainage Patterns (810) Drainage Patterns (810) Crayfish Burrows (C8) Sararawan 1):555 an Aeriel Imagen X S
Remarks:         Indicators of hydric soils were observed; I         ydrology         etland Hydrology Indicators:         imary indicators (minimum of one required)         Surface Water [A1]         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Saturation (A3)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Itom Deposits (B5)	ed; check all that apply) Səlt Cri Aquati Hydrog Dri Ico Presen Thick 6	ust (B11) c Invertebrates (B1 cen Sulfide Odor (C1 cen Sulfide Odor (C1 cen Tecke () centreshperen in L Where not tilled ce of Reduced Iron	) (21 Juling Rossia (1	Se [ ] ] ] ] ] [ ] [ ] [ ] [ ] [ ] [ ] [	condary Indicators (mnimum of two require "] Surface Soll Cracks (B6) Sparedy Viget and Concern Surface (III) ] Drainage Patterns (810) ] Drainage Patterns (810) ] Drainage Patterns (810) ] Occodered Thuesdorm ton Living Noots (C3) Where tilled ] Crayfish Burrows (C8) ] Growwaphy: Power To2] ] FAC-Neutral Test (05)
Remarks:         ndicators of hydric soils were observed; I         ydrology         etland Hydrology Indicators:         timary indicators (minimum of one require         Surface Water [A1]         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sedment Deposits (B3)         Algal Mat or Crust (B4)         Itron Deposits (B5)         Indicators (B9)	ed; check all that apply) Salt Cri Aquati Hydrog Dry Lo Coeffee Thick 0	ust (B11) c Invertebrates (B1 cen Sulfide Odor (C1 cen Sulfide Odor (C1 cen Tecke () centreshperen in L Where not tilled ce of Reduced Iron	) (21 Juling Rossia (1	Se [ ] ] ] ] ] [ ] [ ] [ ] [ ] [ ] [ ] [	condary Indicators (mnimum of two require "] Surface Soll Cracks (B6) Sparedy Viget and Concern Surface (III) ] Drainage Patterns (810) ] Drainage Patterns (810) ] Drainage Patterns (810) ] Occodered Thuesdorm ton Living Noots (C3) Where tilled ] Crayfish Burrows (C8) ] Growwaphy: Power To2] ] FAC-Neutral Test (05)
Remarks: ndicators of hydric soils were observed; I ydrology Yetland Hydrology Indicators: rimary indicators (minimum of one required Surface Water [A1] High Water Table (A2) Saturation (A3] Water Marks (B1) Saturation (A3] Unit Deposits (B3) Algal Mat or Crust (B4) I tron Deposits (B5) Mater-Stained Leaves (B9) eld Observations:	ed; check all that apply) Səlt Cri Aquati Hydrog Dri Icc Cood an Presen Thick 0 Other	ust (B31) c Invertebrates (B1) on Sulfide Odor (C3 SEN Water Totle () d Incompetential Where not tilled ce of Reduced Iron Auck Surface (C7)	) (21 Juling Rossia (1	Se [ ] ] ] ] ] [ ] [ ] [ ] [ ] [ ] [ ] [	condary Indicators (mnimum of two require "] Surface Soll Cracks (B6) Sparedy Viget and Concern Surface (III) ] Drainage Patterns (810) ] Drainage Patterns (810) ] Drainage Patterns (810) ] Occodered Thuesdorm ton Living Noots (C3) Where tilled ] Crayfish Burrows (C8) ] Growwaphy: Power To2] ] FAC-Neutral Test (05)
Remarks:         Indicators of hydric soils were observed; I         ydrology         retland Hydrology Indicators:         rimary indicators (minimum of one require         Surface Water [A1]         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sedmem Deposits (B3)         Algal Mat or Crust (B4)         Itron Deposits (B5)         Indications:         urface Water Present?         Yes	ed; check all that apply) Salt Cri Aquati Hydrog Drp bo Presen Thick 0 Other No Depth (Inches)	Ist (B11) c Invertebrates (B1) con Sulfide Odor (C1 a Sulfide Odor (C1 a Sulfide Odor (C1 a Sulfide Odor (C1 a Sulfide Odor (C1) a Sulface International Ce of Reduced Iron Auck Surface (C7)	} ;25 Juling Reeks () (C4) :	Se f I I I I I I I I I I I I I I I I I I	s Present? cond& y Indicators (mnimum of two require "Surface Soll Cracks (86) Spanicity Vegetated Concern Serface (86) Drainage Patterns (810) Drainage Patterns (810) Decident Ebuescheren on Energy Moots (C3) Where tilled Crayfish Burrows (C8) Serenation all We an Aerik I mapping X Sy Groenenplex Ports en (52) "FAC-Neutral Test (55) Treat Heave Hammodia (07) (188 f)
Remarks:         Indicators of hydric soils were observed; I         ydrology         Yetland Hydrology Indicators:         rimary indicators (minimum of one require         Surface Water [A1]         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sectors (Crust (B4))         Itom Deposits (B3)         High Water Stained Leaves (B9)         eld Observations:         urface Water Present?       Yes         Yes       Yes	ed; check all that apply) Səlt Cri Aquati Hydrog Dri Icc Code au Presen Thick 0 Other No Depth (Inches) No Depth (Inches)	ust (B11) c Invertebrates (B1: con Sulfide Odor (C1 con Worg: Tacke () d Introspheres in L Where not tilled ce of Reduced Iron Auck Surface (C7)	} ;25 Juling Reeks () (C4) :	Se [ ] ] ] ] ] [ ] [ ] [ ] [ ] [ ] [ ] [	s Present? acondally Indicators (mnimum of two require "Surface Soll Cracks (86) Soundar Vegetated Concern Serface (86) Drainage Patterns (810) Decidered Photosofters on Using Boots (C3) Where tilled Crayfish Burrows (C8) Grayfish Burrows (C8)
Remarks:         Indicators of hydric soils were observed; I         ydrology         Yetland Hydrology Indicators:         rimary indicators (minimum of one required         Surface Water [A1]         High Water Table (A2)         Saturation (A3]         Water Marks (B1)         Sectment Deposits (B3)         Algal Mat or Crust (B4)         It ron Deposits (B5)         Indicators:         water-Stained Leaves (B9)         eld Observations:         water Table Present?       Yes         Yets       Yes	ed; check all that apply) Səlt Cri Aquati Hydrog Dri Icc Code au Presen Thick 0 Other No Depth (Inches) No Depth (Inches)	ust (B11) c Invertebrates (B1: con Sulfide Odor (C1 con Worg: Tacke () d Introspheres in L Where not tilled ce of Reduced Iron Auck Surface (C7)	} ;25 Juling Reeks () (C4) :	Se f I I I I I I I I I I I I I I I I I I	s Present? cond& y Indicators (mnimum of two require "Surface Soll Cracks (86) Spanicity Vegetated Concern Serface (86) Drainage Patterns (810) Drainage Patterns (810) Decident Ebuescheren on Energy Moots (C3) Where tilled Crayfish Burrows (C8) Serenation all We an Aerik I mapping X Sy Groenenplex Ports en (52) "FAC-Neutral Test (55) Treat Heave Hammodia (07) (188 f)
Remarks: Indicators of hydric soils were observed; I ydrology retland Hydrology Indicators: rimary indicators (minimum of one required Surface Water [A1] High Water Table (A2) Saturation (A3] Water Marks (B1) Saturation (A3] Water Marks (B1) Saturation (A3] Water Marks (B1) Saturation (A3) Water Marks (B1) Saturation (A3) Water Marks (B1) Saturation (A3) Water Marks (B1) Saturation (A3) Water Marks (B1) Saturation (A3) High Water Stalled (A2) Saturation (A3) Water Stalled (B3) High Water Stalled (B4) High Water Stalled Leaves (B9) eld Observations: Urface Water Present? Yes Alter Table Present? Yes Saturation Present? Yes Yes Yes Yes Yes Yes Yes Yes	ed; check all that apply) Salt Cri Aquati Hydrog Drr loc Coder Thick to Coher No Depth (Inches) No Depth (Inches) No Depth (Inches)	Ist (B11) c Invertebrates (B13 con Sulfide Odor (C1 a Sulfide Odor (C1 a Sulfide Odor T pde () d Intershiper calls L Where not tilled ce of Reduced Iron Auck Surface (C7)	) 25 Juling Russis () (C4) : : Wetta	Se	s Present? cond& y Indicators (mnimum of two require "Surface Soll Cracks (86) Spanicity Vegetated Concern Serface (86) Drainage Patterns (810) Drainage Patterns (810) Decident Ebuescheren on Energy Moots (C3) Where tilled Crayfish Burrows (C8) Serenation all We an Aerik I mapping X Sy Groenenplex Ports en (52) "FAC-Neutral Test (55) Treat Heave Hammodia (07) (188 f)
Remarks:         ndicators of hydric soils were observed; I         ydrology         etland Hydrology Indicators:         imary indicators (minimum of one required         Surface Water [A1}         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sectment Deposits (B3)         Algal Mat or Crust (B4)         It ron Deposits (B5)         montation Water Present?         Water Table Present?         Yes         aturation Present?         Yes	ed; check all that apply) Salt Cri Aquati Hydrog Drr loc Coder Thick to Coher No Depth (Inches) No Depth (Inches) No Depth (Inches)	Ist (B11) c Invertebrates (B13 con Sulfide Odor (C1 a Sulfide Odor (C1 a Sulfide Odor T pde () d Intershiper calls L Where not tilled ce of Reduced Iron Auck Surface (C7)	) 25 Juling Russis () (C4) : : Wetta	Se	s Present? cond& y Indicators (mnimum of two require "Surface Soll Cracks (86) Spanicity Vegetated Concern Serface (86) Drainage Patterns (810) Drainage Patterns (810) Decident Ebuescheren on Energy Moots (C3) Where tilled Crayfish Burrows (C8) Serenation all We an Aerik I mapping X Sy Groenenplex Ports en (52) "FAC-Neutral Test (55) Treat Heave Hammodia (07) (188 f)

1 2	2	of	225
10	2	U	200

Project Site:	Parmer MF		City/ County:	Travis County	Sampling Date: 3/30/2021				
Applicant/Owner: Z Modular			State:	ТХ		Sampling Point: DP-04			
Investigator(s):	vestigator(s): JG			Section, Township, Range:					
Landform (hillside, terrace, etc.):     Plains       Subregion (LRRA or MLRA):     LRR-J		Local relief (concave, convex, none):		Concave	Slope (%):	2-5%			
		Lat: 30.354116	Lat: 30.354116 Long:		Datum: NAD83				
Soil Map Unit Name:	Tinn clay, 0 to	o 1 percent slopes, frequ	ently flooded (Tw)		١	NWI Classification: N/A			
Are climatic/hydrologic	al conditions on	the site typical for this tin	ne of year?	s 🔲 No (lf no, explain )	n Remarks)				
Are Vegetation, Soil, o	r Hydrology sign	ficantly disturbed?	Yes 🔽 No	Are "Norm	al Circumstances" P	Present? Yes	No		
Are Vegetation, Soil, o	r Hydrology natu	rally problematic?	🗌 Yes 🗹 No	(If needed,	explain any answer	s in Remarks.)			

#### SUMMARY OF FINDINGS- Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic vegetation present? Hydric Soils Present? Wetland Hydrology Present?	✔ Yes ✔ Yes ✔ Yes	No No No	Is the Sampled Area within a Wetland?	Yes: No:	
Remarks:					
Hydrophytic vegetation, wetland hydrology	and hydric soil indica	tors were all observ	ed. The Data Point (DP) is within a wetland.		
Habitat ID:			Habitat Type: Freshwater Forested Wetland		

#### Vegetation - Use scientific names of plants.

	Absolute %	Dominant	Indicator	Dominance Test Worksheet:
	Cover	Species?	Status	
Tree stratum (Plot size: 30')				
1. Ptelea trifoliata	5	Yes	FAC	Number of Dominant Species
<ol> <li>Celtis laevigata</li> <li>3.</li> </ol>	5	Yes	FAC	That Are OBL, FACW, or FAC: 5 (A)
3.				
4.				Total Number of Dominant
	10			Species Across All Strata: 7 (B)
Sapling/Shrub Stratum (Plot size : 15')				
1. Ptelea trifoliata	20	Yes	FAC	Percent of Dominant Species
2. Celtis laevigata 3.	15	Yes	FAC	That are OBL, FACW, or FAC: 71% (A/B)
3.				
4. 5.				Prevalence Index worksheet:
5				Total % Cover of: Multiply by:
Harb Stratum (Blat aiza : 51)	35			OBL Species $25$ $x 1 =$ $25$ FACW Species10 $x 2 =$ 20
Herb Stratum (Plot size : 5') 1. Rubus trivialis	25	Yes	FACU	FACW Species10 $x 2 =$ 20FAC Species45 $x 3 =$ 135
2. Solidago altissima	15	Yes	FACU	FAC Species $40$ $x = 160$
<ol> <li>Solidago altissima</li> <li>Eleocharis palustris</li> </ol>	15	Yes	OBL	$\frac{1}{100}$
4. Ptilimnium capillaceum	10	No	FACW	Column Totals: 120 (A) 340 (B)
<ol> <li>Samolus parviflorus</li> <li>Typha latifolia</li> <li>Type latifolia</li> </ol>	5	No No	OBL OBL	Prevalence Index = $B/A = 2.83$
6. <u>Typha latifolia</u>	5	INO	OBL	Hydrophytic Vegetation Indicators:
8.				Yes Dominance Test is >50%
9.				Yes Prevalence Index is ≤3.01
10.				No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10.	75			
M(a sta) (in a Otration (Plat sing a OOI)	75			
Woody Vine Stratum (Plot size : 30')				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2.				
				Hydrophytic Vegetation Present?
% Bare Ground in Herb Stratum: 25				Yes: 🔽 No: 🚺
Remarks: (if observed, list morphological adaptations below).				
Percentage of dominant plants that are OBL, FACW, or FAC is greate	er than 50%. The hy	drophytic vege	etation param	ieter is met.

Depth       Matrix       Redox Features         (inches)       Color (moist)       %       Type <sup>1</sup> Loc <sup>2</sup> 0-4       10YR 4/1       100	Texture       Remarks         Clay
0-4       10YR 4/1       100         0-4       10YR 4/1       100         0-4       10YR 6/1       65       7.5YR 5/8       35       C       M         0-4       10YR 6/1       65       7.5YR 5/8       35       C       M         0-4       10YR 6/1       65       7.5YR 5/8       35       C       M         0-4       10YR 6/1       65       7.5YR 5/8       35       C       M         0-4       10YR 6/1       65       7.5YR 5/8       35       C       M         0-4       10YR 6/1       65       7.5YR 5/8       35       C       M         0-4       10YR 6/1       65       7.5YR 5/8       35       C       M         0-4       10YR 6/1       65       7.5YR 5/8       35       C       M         0-4       10	Clay         Clay         Clay         ion: PL=Pore Lining, M=Matrix.         Indicators for Problematic Hydric Soils <sup>3</sup> :         1 cm Muck (A3) (LRR 1, J)         Coast Prairie Redex (A1G) (LRR F, G, H)         Dark Surface (S7) (LRR G)         High Flains Depressions (F16)         (LRR H outside of MLRA 75 & 73)         Reduced Vertic (F18) loutside MIRA 150A,         Piedmont Floodplain Soils (F19) (LRR P, 5, T)         Red Parent Material (TF2)         Very Shallow Dark Surface (TF12)         Other (Explain in Remarks) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology mus present, unless disturbed or problematic.
4-8       10YR 6/1       65       7.5YR 5/8       35       C       M         Type: C=Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains.       *Loca         tydric Soil Indicators:	Clay Clay Clay Clay Clay Clay Clay Clay
Type: C=Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Loca         Hybrosoft (A1)       Sandy Redux (S5)         Hybrosoft (A1)       Sandy Redux (S5)         Black Histic (A3)       Stripped Matrix (S4)         Hybrosoft (A1)       Sandy Redux (S5)         Black Histic (A3)       Stripped Matrix (S4)         Hybrogen Suffide (A4)       Loamy Mucky Mineral (F1) (LRR O)         Stratified Lavers (A5)       Depleted Matrix (F3)         Depleted Balow Dark Surface (A11)       Depleted Cark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F6)         Sandy Mucky Mineral (S1) (LRR O, S)       High Plains Depressions (F6)         2.5 cm Mucky Peat or Peat (S2) LRR G, H)       Mick 72 & 73 of LRRHi         setrictive Layer (if observed):       Wpe:         tept (inches):       Imarks:         indicators of hydric soils were observed; hydric soil parameter is met.         ydrology         ettand Hydrology Indicators:         imary indicators (minimum of one required; check all that apply)         Surface Water [A1]:       Solt Crust [B13]         Ydrate Water Table (A2)       Acoustic Invertebrates (B13)	ion: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> :  I cm Muck (A3) (LRR 1, J) Coast Prairie Redox (AIG) (LRR F, G, H) Dark Surface (S7) (LRR G) High Plains Depressions (F10) (LRR H outside of MLRA 75 & 73) Reduced Vertic (F18) (outside MIRA 150A, Pledmont Floodplain Soils (F19) (LRR P, 5, T) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology mus present, unless disturbed or problematic.
ydric Soil Indicators:       Sandy Gleved Matrix (54)         Histosol (A1)       Sandy Redux (55)         Histosol (A2)       Sandy Redux (55)         Bleck Histic (A3)       Coamy Mucky Mineral (F1) (LRR O)         Hydrogen Suffide (A4)       Coamy Gleved Matrix (52)         Stretified Lavers (A5)       Depleted Matrix (53)         I om Muck (A9) (LLR P, T)       Redox Dark Surface (F6)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F6)         Sandy Mucky Mineral (S1) (LRR O, S)       High Plains Depressions (F6)         2.5 cm Mucky Peat or Peat (S2) (LRR G, H)       (MLRA 72.& 73 of LRRH)         strictive Layer (if observed):       ype:         epit (inches):       emarks:         idicators of hydric soils were observed; hydric soil parameter is met.         ydrology         surface Water [A1]:       Salt Crust (B11)         Surface Water [A1]:       Salt Crust (B11)         High Water Table (A2)       Aquatic Invertebrates (B13)	Indicators for Problematic Hydric Soils <sup>3</sup> : 1 cm Muck (AS) (LRR I, J) Coast Prairie Redox (AIG) (LRR F, G, H) Dark Surface (S7) (LRR G) High Plains Depressions (PIG) (LRR H outside of MLRA 75 & 73) Reduced Vertic (FIB) Joutside MIRA 150A, Pledmont Floodplain Soils (FI9) (LRR P, 5, T) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology mus present, unless disturbed or problematic.
ydric Soil Indicators: Histosul (A1) Histosul (A1) Histosul (A1) Histosul (A1) Histosul (A1) Histosul (A1) Histosul (A1) Histosul (A2) Stripped Matrix (55) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Sordy Mucky Mineral (S1) (LRR O, S) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) Strictive Layer (if observed): repe: apth (inches): amarks: dicators of hydric soils were observed; hydric soil parameter is met.	Indicators for Problematic Hydric Soils <sup>3</sup> : 1 cm Muck (AS) (LRR I, J) Coast Prairie Redox (AIG) (LRR F, G, H) Dark Surface (S7) (LRR G) High Plains Depressions (PIG) (LRR H outside of MLRA 75 & 73) Reduced Vertic (FIB) Joutside MIRA 150A, Pledmont Floodplain Soils (FI9) (LRR P, 5, T) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology mus present, unless disturbed or problematic.
Hotic tpipedon (A2) Sandy Redux (S5)   Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O)   Hydrogen Sulfide (A4) Loamy Gleved Matrix (F2)   Stretified Lavers (A5) Depleted Matrix (F3)   1 cm Muck (A9) (LLR P, T) Redox Dark Surface (F6)   Depleted Below Dark Surface (A11) Depleted Gark Surface (F7)   Thick Dark Surface (A12) Redox Depressions (F8)   Sandy Mucky Mineral (S1) (LRR O, S) High Plains Depressions (F6)   2.5 cm Mucky Peat or Peat (S2) (LRR 5, H) High Plains Depressions (F6)   strictive Layer (if observed): Image: Strictive Layer (if observed):   pe: spht (inches):   amarks: dicators of hydric soils were observed; hydric soil parameter is met.    defology  tand Hydrology Indicators:  mary indicators (minimum of one required; check all that apply)  Surface Water Table (A2)  High Vater Table (A2	Coast Prairie Redox (AIG) (LRR F, G, H) Dark Surface (S7) (LRR G) (High Flains Depressions (F10) (LRR H outside of MLRA 75 & 73) Reduced Vertic (F18) (outside MIRA 150A, Piedmont Floodplain Soils (F19) (LRR P, 5, T) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology muspresent, unless disturbed or problematic.
Stratified Lavers (A5) <ul> <li>Depleted Matrix (F3)</li> <li>Redox Dark Surface (F6)</li> <li>Depleted Balow Dark Surface (A11)</li> <li>Depleted Dark Surface (F7)</li> <li>Redox Depressions (F8)</li> <li>Sandy Mucky Mineral (S1) (LRR 0, S)</li> <li>2.5 cm Mucky Peat or Peat (S2) (LRR 5, H)</li> <li>S cm Mucky Peat or Peat (S2) (LRR 5, H)</li> </ul> High Plans Depressions (F16)           2.5 cm Mucky Peat or Peat (S2) (LRR 5, H)              High Plans Depressions (F16)           2.5 cm Mucky Peat or Peat (S2) (LRR 5, H)              High Plans Depressions (F16)           estrictive Layer (if observed):             rpe:                 apth (inches):               marks:          dicators of hydric soils were observed; hydric soil parameter is met.               rdrology               ttand Hydrology Indicators:               mary indicators (minimum of one required; check all that apply)               Surface Water [A1]               Sait Crust (B11)                High Water Table (A2)               Sait Crust (P31)	Reduced Vertic (F18) Joutside MIRA 150A,  Pledmont Floodplain Soils (F19) JURR P. 5, T)  Red Parent Material (TF2)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology mus present, unless disturbed or problematic.  Very Yes No
/pe:         epth (inches):         emarks:         idicators of hydric soils were observed; hydric soil parameter is met.         /drology         ettand Hydrology Indicators:         mary indicators (minimum of one required; check all that apply)         Surface Water [A1]         Yesting Water Table [A2]         Aquatic Invertebrates (B13)	Hydric Soils Present?
epth (inches):         emarks:         idicators of hydric soils were observed; hydric soil parameter is met.         /drology         etland Hydrology Indicators:         mary indicators (minimum of one required; check all that apply)         Surface Water [A1] :         Yeigh Water Table [A2] :         Aquatic Invertebrates (B13) :	Hydric Soils Present?
temarks:         indicators of hydric soils were observed; hydric soil parameter is met.         ydrology         etland Hydrology Indicators:         imary indicators (minimum of one required; check all that apply)         Surface Water [A1]         Year Table (A2)         Aquatic Invertebrates (B13)	Hydric Soils Present?
Vetland Hydrology Indicators:         rimary indicators (minimum of one required; check all that apply)         Surface Water [A1]         Yesting Water Table (A2)         High Water Table (A2)         Aquatic Invertebrates (B13)	
mary indicators (minimum of one required; check all that apply)  Surface Water [A1]  High Water Table (A2)  Aquatic Invertebrates (B13)	
Surface Water (A1)	
High Water Table (A2)  High Water Table (A2)  Aquatic Invertebrates (B13)	Secondary Indicators (minimum of two required)
Water Marks (B1)	<ul> <li>Surface Soll Cracks (B6)</li> <li>Sparede Vegetated Constant Sectors (B1)</li> <li>Drainage Patterns (B10)</li> <li>Deodered Elibergheres on Living Boots (C3)</li> <li>Where tilled</li> </ul>
<ul> <li>Sedmenn Deposits (83)</li> <li>Drift Deposits (83)</li> <li>Algal Mat or Crust (84)</li> <li>Itron Deposits (85)</li> <li>Itron Deposits (85)</li> <li>Industation Visible on Aerial Integery (87)</li> <li>Water-Stained Leaves (89)</li> </ul>	Crayfish Burrows (C8) Serenausa al 956e an Aeriel Imagen; X,S) Crowneplat Pone an G2] Crowneplat Pone an G2] Crowney Farmacch, (07) (188, f)
eld Observations:         urface Water Present?       Yes       No       Depth (Inches):	d Hydrology Present?: Yes 🖃 No 🔲
escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava	ilable:
emarks:	

1	3	4	of	: 2	3	5
	-			_	· · ·	-

Project Site:	Parmer MF		City/ County:	Travis County	Sampling Date: 3/30/2021					
Applicant/Owner: Z Modular		State:	ТХ			Sampling Point: DP-05				
Investigator(s):	vestigator(s): JG		Section, Towns	Section, Township, Range:		N/A				
Landform (hillside, terrace, etc.): Plains Subregion (LRRA or MLRA): LRR-J		Local relief (concave, convex, none):		Concave		Slope (%):		2-5%		
		Lat: 30.354325	at: <u>30.354325</u> Long:		-97.593924	_ C	Datum: NAD83			
Soil Map Unit Name:	Tinn clay, 0 t	o 1 percent slopes, freque	ently flooded (Tw)				NWI Classificat	ion:	Riverine	
Are climatic/hydrologica	al conditions on	the site typical for this tin	ne of year?	s 🔲 No (lf no, ex	olain ir	n Remarks)				
Are Vegetation, Soil, or	Hydrology sign	ificantly disturbed?	Yes 🔽 No	Are	"Norma	l Circumstances	" Present?		Yes 🗌	No
Are Vegetation, Soil, or	Hydrology natu	rally problematic?	Yes 🗹 No	(If ne	eeded,	explain any answ	vers in Remarks.)			

#### SUMMARY OF FINDINGS- Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic vegetation present? Hydric Soils Present? Wetland Hydrology Present?	✔ Yes ✔ Yes ✔ Yes	No No No	Is the Sampled Area within a Wetland?	Yes: No:	
Remarks:					
Hydrophytic vegetation, wetland hydrology	and hydric soil indica	tors were all observ	ed. The Data Point (DP) is within a wetland.		
Habitat ID:			Habitat Type: Freshwater Forested Wetland		

#### Vegetation - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
Tree stratum (Plot size : 30')	Oover	Opecies:	Olalus	
1. Ulmus crassifolia	10	Yes	FAC	Number of Dominant Species
2. Celtis laevigata		Yes	FAC	That Are OBL, FACW, or FAC: 5 (A)
<ol> <li>Celtis laevigata</li> <li>3.</li> </ol>				()
4.				Total Number of Dominant
	20			Species Across All Strata: 6 (B)
Sapling/Shrub Stratum (Plot size : 15')				
1. Ptelea trifoliata	10	Yes	FAC	Percent of Dominant Species
2. Celtis laevigata	5	Yes	FAC	That are OBL, FACW, or FAC: 83% (A/B)
3				
Ptelea trifoliata     Celtis laevigata     .      .				Prevalence Index worksheet:
5				Total % Cover of: Multiply by:
	15			OBL Species 10 x 1 = 10
Herb Stratum (Plot size : 5')	45	Vee		FACW Species 10 $x 2 = 20$
<ol> <li>Torilis arvensis</li> <li>Valerianella radiata</li> <li>Anemone berlandieri</li> </ol>	<u> </u>	Yes Yes		FAC Species         35         x 3 =         105           FACU Species         x 4 =         105         105
3. Anemone berlandieri		No	FACW UPL	$\begin{array}{c} x 4 = \\ UPL \text{ Species} \\ 20 \\ x 5 = \\ 100 \\ \end{array}$
4. Eleocharis palustris		No	OPL	Column Totals: 75 (A) 235 (B)
				$\frac{1}{233}$
5. <u>Typha latifolia</u>	5	No	OBL	Prevalence Index = $B/A = 3.13$
5. <i>Typha latifolia</i> 6. 7.				I halve when the Mensetation in directory
7				Hydrophytic Vegetation Indicators: Yes Dominance Test is >50%
8				No Prevalence Index is $\leq 3.01$
10.				No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10.	40			
	40			The discriminant bundles are the order of the other terms are set.
Woody Vine Stratum (Plot size: 30')				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2.				
				Hydrophytic Vegetation Present?
% Bare Ground in Herb Stratum: 60				Yes: 🗹 No: 📋
Remarks: (if observed, list morphological adaptations bel	ow).			
Percentage of dominant plants that are OBL, FACW, or F	AC is greater than 50%. The hyd	Irophytic vege	etation param	neter is met.

Depth	Matrix		eded to document the indicator or confirm the a Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-8	10YR 4/1	85	5YR 5/6	15	C	 	Clay	
0-0			311(3/0				Cidy	
				·				
ype: C=Concentratio	n, D=Depletion, RN	M-Reduced	Matrix, CS=Covered o	r Coated Sand	Grains.	<sup>2</sup> Loca	tion: PL=Pore Lining, M=Matrix	
dric Soil Indicate	ors:						Indicators for Problemat	ic Hydric Soils <sup>3</sup> :
Histosof (A1)			Sandy Gleyed M	latrix (S4)			1 cm Muck (AS) (LRR I,	.0
Histic Epipedon (/	AZ)		Sandy Redox (S	5]			Coast Prairie Redox (A)	(G) (LRR F, G, H)
Black Histic (A3)			Stripped Matrix	(\$6)			Dark Surface (S7) (LRR	G)
Hydrogen Sulfide	(A4)		Loamy Mucky N	지거에게 방송을 수가에서 주셨다.	R O)		High Plains Depression	RAN HARN
Stratified Loyers			Loamy Gleyed N	1923 Self Star On Co			(LRR H outside of	N 7-0727
1 cm Muck (A9) (	228-238-4		Depleted Matri	CPA-120.000.00			Reduced Vertic (F18)	outside MIRA 150A,
Depleted Below I	Stand State Strengthere and the second	6	Redox Dark Sur	C			Piedmont Floodplain Sc	HIS (F19) (LRR P. 5, T)
Thick Dark Surfac		201	Redox Depressi				🔲 Red Parent Material (1	a poeta en acestra en la construir de la construir : Estas est
Sendy Mucky Mir		51	High Plains Dep				Very Shallow Dark Surl	ace (TF12)
2.5 cm Mucky Pe	비가 가지 않는 것은 것은 것은 것을 했다.	CARD THE LASE	(MLRA 72 & 73				🔲 Other (Explain in Rema	
S cm Mucky Peat or Peat (S2) LRRG, H)							- 70404/05/00044/95/05/00000000000	hytic vegetation and wetland hydrology mu
		ocean.					present, unless distu	
lestrictive Layer (if ol	bserved):							
Гуре:								🖙 Yes 🗋 No
							Libertation Optilian Dana a set	
Depth (inches): Remarks: ndicators of hydric s	soils were observ	ved; hydri	c soil parameter is i	met.			Hydric Soils Present?	2
Remarks: ndicators of hydric s	soils were observ	ved; hydri	c soil parameter is i	met.			Hydric Soils Present?	<u>}   </u>
Remarks:		ved; hydri	c soil parameter is i	met.			Hydric Soils Present?	<u></u>
Remarks: ndicators of hydric s ydrology	Indicators:		·	met.				Indicators (minimum of two required)
Remarks: ndicators of hydric s ydrology /etland Hydrology I	Indicators:		heck all that apply)				Secondally §1] Surface	Indicators (minimum of two required) Soll Cracks (B6)
Remarks: ndicators of hydric s ydrology fetland Hydrology I rimary indicators (m	Indicators: inimum of one re		heck all that apply)	st (B11)			Secondary Surface	Indicators (minimum of two required) Soll Cracks (B6) (Vegetated Concern Seriace (Bit)
Remarks: ndicators of hydric s ydrology /etland Hydrology I	Indicators: inimum of one re 41) le (A2)		heck all that apply) Solt Cru	ist (B11) : Invertebrate:			Second a ly Surface	Indicators (minimum of two required) Soll Cracks (B6) (Vigotating Concave Santace (Bit) ze Patterns (B10)
Armarks: ndicators of hydric s ydrology /etland Hydrology l rimary indicators (m Surface Water  A []] High Water Tabl	Indicators: inimum of one re 41) le (A2)		heck all that apply) 5əlt Cru Aquatic Hydrog	ist (B11) : Invertebrate: :en Sulfide Odo	r (C1)		Second a ly Surface	Indicators (minimum of two required) Soll Cracks (B6) (Vegetated Concern Seriace (Bit)
Remarks: ndicators of hydric s ydrology /etland Hydrology I rimary indicators (m Surface Water [A High Water Tabl Saturation (A3)	Indicators: inimum of one re 41; le (A2)		heck all that apply) Səlt Cru Aquatic Hydrog Dre kee	ist (811) : Invertebrate: :en Sulfide Odd	er (C1) Gle (C2)		Secondary Surface Spared Drainas	Indicators (minimum of two required) Soll Cracks (86) r Vigetated Concern Sectace (84) ze Patterns (810) of Rhumpherits on Living Roots (63)
Remarks: ndicators of hydric s ydrology fetland Hydrology I rimary indicators (m Surface Water [4 ] High Water Tabl Saturation (A3] Water Marks (B)	Indicators: inimum of one re 41; le (A2) 1]		heck all that apply) Səlt Cru Aquatic Hydrog Dry ket Conder	ist (B11) : Invertebrate: en Sulfide Odo 150 Wott: TB	or (C1) Gle (C25 Sin Living <sup>3</sup>	basis (CI)	Second a ry Surface Spared Drainas Drainas Crayfish	Indicators (minimum of two required) Soll Cracks (B6) rVigetated Concore Sertace (Bit) ze Patterns (B10) of TheoryTerns on Living Noots (C3) Where tilled
Remarks:         ndicators of hydric s         ydrology         retland Hydrology I         imary indicators (m         Surface Water [A         High Water Table         Saturation (A3)         Water Marks (B)         Settmens Deposition	Indicators: inimum of one re 41) ie (A2) 1) 1) 1) 13)		heck all that apply) Səlt Cru Aquatic Hydrog Dre kor Qoodba	ast (B11) : Invertebrate: :en Sulfide Odo 15:: Wort - T B d Threashger r Where not ti	r (C1) tie (C2) tin Lidne <sup>1</sup> illed	lusis (CI)	Secondary Surface Spared Drainas Drador Crayfist	Indicators (minimum of two required) Soll Cracks (86) (Vigetated Containt Sectors (81) re Patterns (810) of Rhumpferms on Living Roots (63) Where tilled (Sturrows (68))
Remarks: ndicators of hydric s ydrology fetland Hydrology I rimary indicators (m Surface Water [A High Water Tabl Saturation (A3) Saturation (A3) Water Marks (B) Drift Deposits (B Algal Mat or Cru Iton Deposits (B)	Indicators: inimum of one re 41; le (A2) 1 1 3) ist (84) 5)	equired; c	heck all that apply) Səlt Cru Aquatic Hydrog Dr Lex Present	ast (831) : Invertobrato: :en Sulfide Odo ISO Watt TB d Throshpere Where not ti ce of Reduced	r (C3) tile (C2) tiln Lidng <sup>a</sup> illed iron (C4)		Second Bily Surface Sparred Drainas Drainas Crayfish Grayfish Grayfish Grayfish Grayfish Grayfish Grayfish Grayfish Grayfish Grayfish	Indicators (minimum of two required) Soll Cracks (B6) (Vigetated Concore Serface (Bit) ze Patterns (B10) in theorytemic on Living Noots (C3) Where tilled (Burrows (C8) (Burrows (C8) (C1) Excerning (C2) (C1) Excerning (C2) (C1) Excerning (C2) (C1) Excerning (C2) (C1) Excerning (C2)
Remarks:         ndicators of hydric s         ydrology         retland Hydrology I         imary indicators (m         Surface Water [A         High Water Table         Saturation (A3)         Water Marks (B)         Store Marks (B)         Drift Deposits (B)         Internation Cru         Itom Deposits (B)	Indicators: inimum of one re 41; ie (A2) 1] 3) 3) ist (B4) 5)	equired; c	heck all that apply) Səlt Cru Aquatic Hydrog Dr Lex Present	ast (B11) : Invertebrate: :en Sulfide Odo 15:: Wott T B d Threashger r Where not ti	r (C3) tile (C2) tiln Lidng <sup>a</sup> illed iron (C4)		Second Bily Surface Sparred Drainas Drainas Crayfish Grayfish Grayfish Grayfish Grayfish Grayfish Grayfish Grayfish Grayfish Grayfish	Indicators (minimum of two required) Soll Cracks (86) (Vigetated Concore Sertain (81) ze Patterns (810) of Education (810) of Education (810) Where tilled (80) Surrows (C8) (8) (8) (8) (8) (8) (8) (8) (8) (8) (
emarks: ndicators of hydric s ydrology etland Hydrology I imary indicators (m Surface Water [A High Water Tabl Saturation (A3) Water Marks (B) Water Marks (B) Drift Deposits (B Algal Mat or Cru Iron Deposits (B)	Indicators: inimum of one re 41; ie (A2) 1] 3) 3) ist (B4) 5)	equired; c	heck all that apply) Səlt Cru Aquatic Hydrog Drr Set Presen Thick A	ast (831) : Invertobrato: :en Sulfide Odo ISO Watt TB d Throshpere Where not ti ce of Reduced	r (C3) tile (C2) tiln Lidng <sup>a</sup> illed iron (C4)	lesis (CI)	Second Bily Surface Sparred Drainas Drainas Crayfish Grayfish Grayfish Grayfish Grayfish Grayfish Grayfish Grayfish Grayfish Grayfish	Indicators (minimum of two required) Soll Cracks (B6) (Vigetated Concore Serface (Bit) ze Patterns (B10) in theorytemic on Living Noots (C3) Where tilled (Burrows (C8) (Burrows (C8) (C1) Excerning (C2) (C1) Excerning (C2) (C1) Excerning (C2) (C1) Excerning (C2) (C1) Excerning (C2)
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Project Site: Parmer MF			City/ County: Travis County		y Samp		Sampling Da	mpling Date: 3/30/2021	
Applicant/Owner:	Z Modular		State:	ТХ			Sampling Point: DP-06		
nvestigator(s): JG		Section, Towns	Section, Township, Range:		N/A				
Landform (hillside, terrace, etc.):     Plains       Subregion (LRRA or MLRA):     LRR-J		Local relief (concave, convex, none):		Convex	Slope (%):		2-5%		
		Lat: 30.354441	L	Long: -97.593651		Datum: NAD83			
Soil Map Unit Name:	Tinn clay, 0 to	o 1 percent slopes, freque	ently flooded (Tw)			N	WI Classification	N/A	
Are climatic/hydrologic	al conditions on	the site typical for this tin	ne of year?	s 🔲 No (lf no, ex	olain in	Remarks)			
Are Vegetation, Soil, o	r Hydrology sign	ficantly disturbed?	Yes 🔽 No	Are "	"Norma	I Circumstances" P	resent?	Yes	No
Are Vegetation, Soil, o	r Hydrology natu	rally problematic?	🗌 Yes 🗹 No	(If needed, explai		explain any answer	lain any answers in Remarks.)		

#### SUMMARY OF FINDINGS- Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic vegetation present? Hydric Soils Present? Wetland Hydrology Present?	Yes INO Yes No Yes No	Is the Sampled Area within a Wetland? Yes: No:
Remarks:		
None of the three parameters, hydrophytic ve	getation, wetland hydrology, and	I hydric soil indicators, were observed. The Data Point (DP) is not within a wetland.
Habitat ID:		Habitat Type: N/A

Vegetation - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
Tree stratum (Plot size: 30')				
1.				Number of Dominant Species
2.				That Are OBL, FACW, or FAC: 1 (A)
3.				
4.				Total Number of Dominant
				Species Across All Strata: <u>3</u> (B)
Sapling/Shrub Stratum (Plot size : 15')	_			
1. Ulmus crassifolia	5	Yes	FAC	Percent of Dominant Species
2. Prosopis glandulosa	5	Yes	FACU	That are OBL, FACW, or FAC: <u>33%</u> (A/B)
3				Prevalence Index worksheet:
4 5				<u>Total % Cover of:</u> Multiply by:
5.	10			OBL Species         x 1 =
Herb Stratum (Plot size : 5')	10			FACW Species x 2 =
1. Solidago altissima	85	Yes	FACU	FAC Species 5 $x^2 = 15$
2. Torilis arvensis	15	No	UPL	FACU Species 90 $x 4 = 360$
3.				UPL Species $15 \times 5 = 75$
4.				Column Totals: 110 (A) 450 (B)
5.				
6.				Prevalence Index = $B/A = 4.09$
7.				Hydrophytic Vegetation Indicators:
8.				No Dominance Test is >50%
9.				No Prevalence Index is ≤3.01
10.				No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	100			
Woody Vine Stratum (Plot size : 30')				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1.				be present, unless disturbed or problematic.
2.				
				Hydrophytic Vegetation Present?
% Bare Ground in Herb Stratum: 0				
				Yes: 🗍 No: 🗹
Remarks: (if observed, list morphological adaptations below).				
Percentage of dominant plants that are OBL, FACW, or FAC is le	ess than or equal to 50%	. The hydroph	ytic vegetatic	on parameter is not met.
	-	-	-	

Drofile Descriptions												
•	(Describe to the	depth nee	eded to docum			confirm th	e absend	e of indicators.)				
Depth	Matrix				x Features	1	. 2					
(inches)	Color (moist)	%	Color (moi	st)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	ə	Re	marks	
0-8	10YR 4/1	100						Clay				
ype: C=Concentratio	n, D=Depletion, RM	/-Reduced	Matrix, CS=Cov	rered or Co	pated Sand G	rains.		ion: PL=Pore Lining	, M=Matrix.			
ydric Soil Indicat	ors:							Indicators for P	roblematic H	lydric Soils <sup>3</sup> :		
Histosof (A1)			🔲 Sandy Sle	yed Matr	ix (S4)			1 cm Muck //	(1) (LRR 1, J)			
Histic Epipedon (	A75		Sandy Rec	Jox (55)	000.000			100000000000000000000000000000000000000	Redox (A16) (	LRR F. G. H)		
	ri-r		Stripped M		ă			프랑카카카카카카		899034928908		
Black Histic (A3)	12222		and the second second second second	A CONTRACTOR OF A	ral (F1) (LRF	0		Dark Surface	(14.163)(90)(90)(4.15) -	83		
Hydrogen Sulfide			Loamy Gk			0128		A MARY DOWNLING SOUTHING.	epressions (F1	NAN		
Stratified Loyers	(A5)		Depleted	CONTRACT INTERACT				CONCRETE/PROPERTY	utside of MLF	0.00 Sector 80.00 Figure 1		
🗌 1 cm Muck (A9) (	LLR P, T)		Redox Da	rk Surface	: (F6)			100000000000000000000000000000000000000	200700700000	ide MIRA 150A,		
Depleted Below	Dark Surface (A11	1	Depleted	Oark Surf	ace (F7)			Piedmont Flo	odplain Soils (i	E19) (LRR P. S. T)		
Thick Dark Surfac	ce (A12)		Redox De	pressions	(F8)			🔲 Red Parent N	daterial (TF2)			
Sandy Mucky Min	neral (S1) (LRR O,	5)	2002 000 000 000 000 000 000 000 000 00	28 m 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	sions (F16)			Very Shallow	Dark Surface	(TF12)		
2.5 cm Mucky Pe	누가 그 한다는 것이 좀 가면 전망했다.		(MLRA 72					Other (Expla	in in Remarks)			
5 cm Mucky Pear		36.34 casar						100000000000000000000000000000000000000	00.000/05/0644662	vegetation and wet	land hydr	
S cm Mouty real	of mean (szy chine	5.97								or problematic.	liana nyai	ology Ind
Restrictive Layer (if o	bserved):											
Гуре:											<i>17</i> • •	
Type: Depth (inches): Remarks: Indicators of hydric :	soils lacking; hyd	Iric soils p	parameter is n	ot met.				Hydric Soil	s Present?	∏ Yes	₽ No	>
Depth (inches): Remarks: ndicators of hydric ydrology /etland Hydrology	Indicators:											
Depth (inches): Remarks: Indicators of hydric Indicators of hydric Indicators of hydrology Vetland Hydrology	Indicators:							S	condary Indi	cators (minimum		
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	~	<u> </u>	<u> </u>	200

Project Site:	ect Site: Parmer MF		City/ County:	Travis County			Sampling Date: 3/30/2021				
Applicant/Owner:	Z Modular	Z Modular		ТХ			Sampling Point: DP-07				
Investigator(s): JG Landform (hillside, terrace, etc.): Plains			Section, Town	Section, Township, Range: N/A		N/A					
		Local relief (co	Local relief (concave, convex, none):		Concave	Slope (%):		1-8%			
Subregion (LRRA or MI	_RA):	LRR-J	Lat: 30.354709	L	ong:	-97.593271	_	Datum	: NAD83		
Soil Map Unit Name:	Ferris-Heider	n complex, 8 to 20 percen	t slopes, severely eroded	l (FhF3)			NWI Classifica	ation:	Freshwate	er Pond	
Are climatic/hydrologica	al conditions on	the site typical for this tim	ne of year?	es 🔲 No (lf no, exp	plain in	Remarks)					
Are Vegetation, Soil, or	Hydrology sign	ificantly disturbed?	Yes 🔽 No	Are "	Norma	Circumstances	" Present?	•	Yes 🗌	No	
Are Vegetation, Soil, or	Hydrology natu	rally problematic?	🗌 Yes 🗹 No	(If ne	eded, e	explain any answ	vers in Remarks	.)			

### SUMMARY OF FINDINGS- Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic vegetation present? Hydric Soils Present? Wetland Hydrology Present?	Yes No Yes No Yes No	Is the Sampled Area within a Wetland?	Yes: 🔲 No: 🗹
Remarks:			
None of the three parameters, hydrophytic v	egetation, wetland hydrology, and hydric soi	I indicators, were observed. The Data Point (DP) is not within	n a wetland.
Habitat ID:		Habitat Type: N/A	

Vegetation - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
Tree stratum (Plot size: 30')				
1				Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
3				Total Number of Dominant Species Across All Strata: 1 (B)
Sapling/Shrub Stratum (Plot size: 15')				Species Across All Strata: 1 (B)
1				Percent of Dominant Species That are OBL, FACW, or FAC: <u>0%</u> (A/B)
4.		·		Prevalence Index worksheet:
5.				Total % Cover of: Multiply by:
				OBL Species x 1 =
Herb Stratum (Plot size : 5')				FACW Species x 2 =
1. Torilis arvensis	75	Yes	UPL	FAC Species $10 \times 3 = 30$
2. Sonchus asper 3. Galium aparine	<u> </u>	No No	FAC FACU	FACU Species5 $x 4 =$ 20UPL Species80 $x 5 =$ 400
<ol> <li>Galium aparine</li> <li>Rapistrum rugosum</li> </ol>	5	No	UPL	Column Totals: 95 (A) $450$ (B)
	5	INU	UFL	Column Totals. 95 (A) 450 (B)
5				Prevalence Index = $B/A = 4.74$
6. 7.		<u> </u>		Hydrophytic Vegetation Indicators:
8				No Dominance Test is >50%
0				No Prevalence Index is $\leq 3.01$
10.				No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	95	·······		
Woody Vine Stratum (Plot size : 30')				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2.				
		·		Hydrophytic Vegetation Present?
% Bare Ground in Herb Stratum: 5				Yes: C No: E
Remarks: (if observed, list morphological adaptations below).			-	
Percentage of dominant plants that are OBL, FACW, or FAC is less th	nan or equal to 50%	6. The hydroph	ytic vegetatic	on parameter is not met.
		-		

Depth	Matrix		F	Redox Features	6			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-16	10YR 4/1	100					Clay	
				_				
				_				
		·						
				_				
pe: C=Concentrat	tion, D=Depletion, RM	-Reduced	Matrix, CS=Covered	or Coated Sand (	Grains.	<sup>2</sup> Locat	ion: PL=Pore Lining, M=N	Aatrix.
dric Soil Indica							Indicators for Proble	
Histosol (A1)			Sandy Gleyed P	Viatrix (S4)			1 cm Muck (A9) (L	0.050 NO
Histic Epipedon	14.21		Sandy Redox (S				1000 Contract of the Second	x (A16) (LRR F, G, H)
Black Histic (A3			Stripped Matri				Dark Surface (S7) [	
Hydrogen Sulfic	S 8330		Loamy Mucky I	Mineral (F1) (LR	R O)		High Plains Depres	NY RECORDER TO A CONTRACT OF A CONTRACT. CONTRACT OF A CONTRACT. CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT. CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT. CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT. CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT. CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT. CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT. CONTRACT OF A CONTRACT OF A CONTRACT OF A CON
	100000		Loamy Gleyed	Matrix (F2)			<ul> <li>A subscription of the contraction of the contraction</li> </ul>	e of MLRA 75 & 73)
Stratified Layer 1 cm Muck (A9)	1997-1998-1997-19		Depleted Matr	and the second			CLASSIC REPORT OF A DEC	18) (outside MLRA 150A,
		8	Redox Dark Su	YO (3/2/07/2010) 11			A TOM AND A STATE AND A STA	in Soils (F19) (LRR P. 5, T)
	v Dark Surface (A11)		Depleted Dark	() 등에는 () () () () () () () () () () () () ()			Red Parent Mater	
Thick Dark Surf	064 - COMMENSION - COMPLEX	2	Redax Depress				Very Shallow Dark	NO STREET, STRE
	fineral (S1) (LRR O, 5 Peat or Peat (S2) (LR		(MLRA 72 & 73	pressions (F16) S of LRRH1			Other (Explain in F	수상 소설 방법 사업 가격 가격 가 있는 것 같아.
A Contract of the Contract of the	and a support of the second second second	Section of the	function of the state	a caracterit			and a second	2010/02/201
T a curi Mintoli Me	at or Peat (52) LRRG	979). 1979						drophytic vegetation and wetland hydrology mu disturbed or problematic.
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drology tland Hydrology tland Hydrology nary indicators (i Surface Water Saturation (A3 Water Marks ( Confit Deposits) Drift Deposits ( Confit Deposits) Hard Marks ( Confit Deposits)	y Indicators: minimum of one re- [A1] Htt (-12] } (B3)	quired; c	heck all that apply) Salt Cr Hydrog Hydrog Org Se Occess The in Other Depth (Inches)	ust (8:11) ic Inventiciantes gen Sulfide Odo a son Water Tai ed Rhizoulyser c Where not ti nce of Roduced anych Sur(ser 1: ;	r (C3) ble (C2) sin Lbing A lled https:/C4		Second Sar Dra Dra Cra Cra Cra Cra Cra Cra Cra Cra Cra C	Sent? Sary Indicators (minimum of two required) ribce Sall Cracks (Bin) medy Vigetated Concise Surface (Bil) ainage Patterns (BLO) Godt of Britesjol and (BLO) Godt of Britesjol and (BLO) Godt of Britesjol and (BLO) Godt of Britesjol and (BLO) Salespolie (CS) Intertion Visible on Annal Imageny (CS) conceptie (DS) Intertion Test (DS) Intertion Hummodis (CR) (LRR 1)
pth (inches): marks: dicators of hydrid drology tland Hydrology hary indicators (i ] Surface Water ] Het Harts { ] Saturation (A3 ] Water Marks { ] Terfirem Hyprosits ] Drift Deposits { ] Het Harts for the ] Drift Deposits { ] Het Harts for the ] Terfirem Hyprosits { ] Het Harts for the ] Terfirem Hyprosits { ] Het Harts for the ] Terfirem Hyprosits { ] Het Harts for the Hyprosits { ] Het Hyprosits { ] Hyprosits {	y Indicators: minimum of one re- [A1] HE (J2] [B1] (B3) [B3] [B5] [B6] [B5] [B6] [B5] [B6] [B6] [B7]	quired; c rr (87) Q No Q No	heck all that apply)	ust (8:11) ic Inventiciantes gen Sulfide Odo a son Water Tai ed Rhizoulyser c Where not ti nce of Roduced anych Sur(ser 1: ;	r (C3) ble (C2) sin Lbing A lled https:/C4		Second Sar Dra Dra Cra Cra Cra Cra Cra Cra Cra Cra Cra C	Sent? Sary Indicators (minimum of two required) ribce Sall Cracks (Bin) medy Vigetated Concave Surface (Bin) ainage Patterns (BLD) Godt of Britesjol and Concave Surface (Bin) Godt of Brite
th (inches): marks: dicators of hydrid drology land Hydrology hary indicators (i Surface Water J Surface Water J Saturation (A3 Saturation (A3 J Water Marks ( J Saturation (A3 J Water Marks ( J Saturation (A3 J Water Marks ( J Saturation (A3 J Saturation (A) J Saturation (A) J Saturation (A) J Saturation (A) J Saturation (A) J Saturation (A) J	y Indicators: minimum of one re- [A1] HE (J2] [B1] (B3) [B3] [B5] [B6] [B5] [B6] [B5] [B6] [B6] [B7]	quired; c rv (87] P No No P No	heck all that apply)	ust (811) ic Inventicipation gen Sulfide Ode a son Water Tai a difficultation Where not ti noe of Poduced invet Surface I: 	r (C3) ble (C2) sin Living 9 lied http://C4 (7)	Wetland	Second Second Sur Dra Dra Dra Dra Dra Dra Dra Dra Dra Dr	Sent? Sary Indicators (minimum of two required) rice Sal Cracks (Bin) anage Patterns (BLO) Godt ed Briussjol erst on timing Boots (CB) Where tilled ayfish Burrows (CB) turation Visible on Andal Imagery (C9) caterplin, Purkura (D2) C-Neutral Test (D5) al-Heave Hummodis (C7) (LRR F)

1	4	0	of	23	5
		-			-

Project Site:	Parmer MF		City/ County:	Travis County		Sampl	Sampling Date: 3/30/2021	
Applicant/Owner:	Z Modular	Z Modular		ТХ		Sampling Point: DP-08		
Investigator(s): JG		S		ship, Range:	N/A			
Landform (hillside, terrace, etc.): Plains		Local relief (co	Local relief (concave, convex, none):			Slope (%):		
Subregion (LRRA or MLRA): LRR-J		Lat: 30.355375	Lo	ng: <u>-97.59302</u>	9	Datum: NAD83		
Soil Map Unit Name:	Heiden clay,	3 to 5 percent slopes, erc	oded (HeC2)			NWI Classifi	cation: N/A	
Are climatic/hydrologic	al conditions on	the site typical for this tin	ne of year?	s 🔲 No (lf no, expl	ain in Remarks)			
Are Vegetation, Soil, o	r Hydrology sign	ificantly disturbed?	Yes 🔽 No	Are "N	ormal Circumstan	ces" Present?	Yes	No
Are Vegetation, Soil, o	r Hydrology natu	rally problematic?	🗌 Yes 🗹 No	(If nee	ded, explain any a	inswers in Remark	(S.)	

#### SUMMARY OF FINDINGS- Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic vegetation present? Hydric Soils Present? Wetland Hydrology Present?	Yes INO Yes No Yes No	Is the Sampled Area within a Wetland? Yes: No:
Remarks:		
None of the three parameters, hydrophytic ve	getation, wetland hydrology, and	I hydric soil indicators, were observed. The Data Point (DP) is not within a wetland.
Habitat ID:		Habitat Type: N/A

Vegetation - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
Tree stratum (Plot size: 30')				
1.				Number of Dominant Species
2.				That Are OBL, FACW, or FAC: 0 (A)
3.				
4.				Total Number of Dominant
				Species Across All Strata: <u>2</u> (B)
Sapling/Shrub Stratum (Plot size : 15')				
1. Prosopis glandulosa	15	Yes	FACU	Percent of Dominant Species
2.				That are OBL, FACW, or FAC: 0% (A/B)
3.				Prevalence Index worksheet:
4 5				<u>Total % Cover of:</u> Multiply by:
5.	15			OBL Species x 1 =
Herb Stratum (Plot size : 5')	15			FACW Species x 2 =
1. Schizachyrium scoparium	75	Yes	FACU	FAC Species x 3 =
2. Engelmannia peristenia	10	No	UPL	FACU Species 90 $x 4 = 360$
3. Anemone berlandieri	5	No	UPL	UPL Species $15 \times 5 = 75$
4.			0.12	Column Totals: 105 (A) 435 (B)
5				Prevalence Index = $B/A = 4.14$
7				Hydrophytic Vegetation Indicators:
o				No Dominance Test is >50%
				No Prevalence Index is $\leq 3.01$
				No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10	90			
Woody Vine Stratum (Plot size : 30')				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1.				be present, unless disturbed or problematic.
2				
				Hydrophytic Vegetation Present?
% Bare Ground in Herb Stratum: 10				Yes: 🗍 No: 🗹
Remarks: (if observed, list morphological adaptations below).				
Percentage of dominant plants that are OBL, FACW, or FAC is less	s than or equal to 50%	. The hydroph	vtic vegetatic	on parameter is not met.
		<i>y</i> 1	, 0	•

Remarks
M=Matrix.
oblematic Hydric Soils <sup>3</sup> :
) (LNR (, J)
edox (A16) (LRR F, G, H)
57) (LRR G)
pressions (F16)
side of MLRA 75 & 73)
c (F18) (outside MLRA 150A,
dplain Soils (F19) (LRR P, 5, T)
iterial (TF2)
lark Surface (TF12)
in Remarks)
hydrophytic vegetation and wetland hydrology mu
ss disturbed or problematic.
TYes P No
Present?
ondary indicators (minimum of two required)
Surface Soli Cracks (Bui)
Spanishy Vegetiated Concave Surface (BII)
Drainage Patterns (810) Oxida ed Knippsphere: on tiwing Rooms (13)
Where tilled
Crayfish Burrows (C8)
Saturation Visible on Ainual Imagery (CS)
Occurrentine Publicer (D2)
FAC-Neutral Test (D5)
fred-Heave Hammools (07) (LRR F)
ent?: Yes 🗔 No 🔽
ent?: Yes 🛄 No 🗹

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Project Site:	Parmer MF		City/ County:	Travis County		Samp	ling Date: 3/30/20	21
Applicant/Owner:	Z Modular		State: TX Sampling Point: DP-09					
Investigator(s):	JG		Section, Towns	nship, Range: N/A				
Landform (hillside, terrace, etc.): Plains			Local relief (concave, convex, none):		None		Slope (%):	
Subregion (LRRA or M	LRA):	LRR-J	Lat: 30.355675	Loi	ng: <u>-97.59260</u>	02	Datum: NAD83	
Soil Map Unit Name:	Heiden clay,	3 to 5 percent slopes, erc	oded (HeC2)			NWI Classifi	cation: N/A	
Are climatic/hydrologic	al conditions on	the site typical for this tin	ne of year?	s 🔲 No (lf no, expl	ain in Remarks)			
Are Vegetation, Soil, o	r Hydrology sign	ificantly disturbed?	Yes 🔽 No	Are "N	ormal Circumstar	nces" Present?	Yes	No
Are Vegetation, Soil, o	r Hydrology natu	rally problematic?	🗌 Yes 🗹 No	(If need	ded, explain any	answers in Remark	<s.)< td=""><td></td></s.)<>	

#### SUMMARY OF FINDINGS- Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic vegetation present? Hydric Soils Present? Wetland Hydrology Present?	Yes INO Yes No Yes No	Is the Sampled Area within a Wetland? Yes: No:
Remarks:		
None of the three parameters, hydrophytic ve	getation, wetland hydrology, and	I hydric soil indicators, were observed. The Data Point (DP) is not within a wetland.
Habitat ID:		Habitat Type: N/A

Vegetation - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
Tree stratum (Plot size : 30')				
1				Number of Dominant Species
2.				That Are OBL, FACW, or FAC: 1 (A)
3.				
4.				Total Number of Dominant
				Species Across All Strata: 2 (B)
Sapling/Shrub Stratum (Plot size: 15')				
1. Prosopis glandulosa	5	Yes	FACU	Percent of Dominant Species
2				That are OBL, FACW, or FAC: 50% (A/B)
3.				
4.				Prevalence Index worksheet:
5	<u> </u>			Total % Cover of: Multiply by:
	5			OBL Species x 1 =
Herb Stratum (Plot size : 5')	05	Vaa	FAC	FACW Species $x 2 =$ FAC Species $85 = x 3 = 255$
Paspalum notatum     Schizachyrium scoparium	<u> </u>	Yes No	FAC FACU	FAC Species         85         x 3 =         255           FACU Species         10         x 4 =         40
Schizacnynum scopanum     Engelmannia peristenia	5	No	UPL	$\begin{array}{c} \text{PACU Species} \\ \text{UPL Species} \\ 5 \\ \text{x} \\ 5 \\ \text{z} \\ 5 \\ 1 \\ 5 \\ 1 \\ 5 \\ 1 \\ 5 \\ 1 \\ 5 \\ 1 \\ 1$
4.	5	INU	UFL	Column Totals: 100 (A) $320$ (B)
5				Prevalence Index = $B/A = 3.20$
7.			·	Hydrophytic Vegetation Indicators:
8.				No Dominance Test is >50%
9.				No Prevalence Index is ≤3.01
10.				No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
····	95			
Woody Vine Stratum (Plot size: 30')				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
2.				be present, unless disturbed of problematic.
<sup>2.</sup>			·	Hydrophytic Vegetation Present?
0/ Para Craund in Harb Stratum: 5				
% Bare Ground in Herb Stratum: 5				Yes: 🗂 No: 🗹
Remarks: (if observed, list morphological adaptations below).				
Percentage of dominant plants that are OBL, FACW, or FAC is less	than or equal to 50%	. The hydroph	ytic vegetatic	on parameter is not met.

Depth Matrix	R	edox Features				
(inches) Color (moist) %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-16 10YR 3/1 100		·			Clay loam	
					·	
pe: C=Concentration, D=Depletion, RM-Reduced	Matrix. CS=Covered of	or Coated Sand G	rains.	<sup>2</sup> Locat	ion: PL=Pore Lining, M=Ma	trix.
dric Soil Indicators:					Indicators for Problem	
Histosol (A1)	Sandy Gleyed N	fatrix (S4)			1 cm Muck (A9) (LN	ASING
Histic Epipedon (A2)	Sandy Redox (S				Coast Prairie Redox	A CONTRACTOR CONTRACTOR AND A
Black Histic (A3)	Stripped Matrix	2.795-77-5			Dark Surface (S7) (L	
Hydrogen Sulfide (A4)	Loamy Mucky I	Aineral (F1) (LRR	0		High Plains Depress	(PSO) Marca Alexandria (PSO) Alexandria
그렇게 잘 안 안 다 안 다 잘 못 한다.	Loamy Gleyed I	Matrix (F2)			<ul> <li>A leader of the state of the st</li></ul>	of MLRA 75 & 73)
Stratified Layers (A5)	Depleted Matr				CLASS CASE 25 (NRTH) CARE OF	8) (outside MLRA 150A,
] 1 cm Muck (A9) (LLR P, T) Depleted Below Dark Surface (A11)	Redox Dark Sur	6.6399333333			and while the second second second	Soils (F19) (LRR P. S, T)
프랑생상 방법 방법 방법 가지는 것 같아요. 그 여기 있는 것이 같아요. 그 것이 나는 것이 나요. 나는 것이 것이 것이 것이 것이 나는 것이 나는 것이 나는 것이 나는 것이 않아. 것이 나는 것이 나는 것이 나는 것이 나는 것이 나는 것이 않아. 것이 나는 것이 나는 것이 나는 것이 않아. 것이 나는 것이 나는 것이 않아. 것이 것이 것이 않아. 것이 나는 것이 않아. 것이 않아. 것이 않아. 것이 나는 것이 않아. 않아. 것이 않아. 않아. 것이 않아. 않아. 것이 않아. 것이 않아. 않아. 것이 않아. 것이 않아. 않아. 것이 않아. 않아. 것이 않아. 것이 않아.	Depleted Dark				Red Parent Materia	
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR O, S)	Redox Depress				Very Shallow Dark 5	V SSE CONTRACTOR
2.5 cm Mucky Peat or Peat (52) (LRR G, H)	(MLRA 72 & 73				Other (Explain in Re	
and the second	10000314-9433	as particip			Aller and the second	ophytic vegetation and wetland hydrology mu
S cm Mucky Peat or Peat (\$2) LRRG, H)						sturbed or problematic.
estrictive Layer (if observed):						
ype:						TYes 🔽 No
epth (inches):						1 185 27 190
Remarks:	parameter is not me	et.			Hydric Soils Prese	ent?
emarks:	parameter is not me	et.			Hydric Soils Prese	ent?
emarks: ndicators of hydric soils lacking; hydric soils	parameter is not me	et.			Hydric Soils Prese	ent?
Remarks: Indicators of hydric soils lacking; hydric soils	parameter is not me	ət.			Hydric Soils Prese	ent?
temarks: Indicators of hydric soils lacking; hydric soils ydrology etland Hydrology Indicators:						iny indicators (minimum of two required)
temarks: ndicators of hydric soils lacking; hydric soils ydrology etland Hydrology Indicators: imary indicators (minimum of one required; o	check all that apply)				Seconda	int? iny Indicators (minimum of two required) see Sol Cracks (Brit
emarks: ndicators of hydric soils lacking; hydric soils ydrology etland Hydrology Indicators: imary indicators (minimum of one required; o	check all that apply)	ust (811)			Seconda	int? In functions (minimum of two required) ace Sal Cracks (Be) cally Vegeturied Concave SanGace (BH)
temarks:         indicators of hydric soils lacking; hydric soils         ydrology         etland Hydrology Indicators:         imary indicators (minimum of one required; of Surface Water [A1)	check all that apply)	ust (811) c invertiebraties			Seconds	int? iny Indicators (minimum of two required) ace foll Cracks (Ben cally Vegetation Concave Surface (BH) mage Patterns (B10)
emarks: ndicators of hydric soils lacking; hydric soils ydrology etland Hydrology Indicators: imary indicators (minimum of one required; of Surface Water [A1) Surface Water [A1) Saturation (A3)	check all that apply) Salt Cra Hydrog	ust (811) c Inventiebraties sen Sulfide Odor	(C3)		Seconds	int? In functions (minimum of two required) ace Sal Cracks (Be) cally Vegeturied Concave SanGace (BH)
temarks:         indicators of hydric soils lacking; hydric soils         ydrology         etland Hydrology Indicators:         imary indicators (minimum of one required; of         Surface Water [A1]         Surface Water [A1]         Image: Second S	check all that apply) Salt Cra Hydrog Cry Sc	ust (811) c Invertiebraties gen Sulfide Odor ason Water Tabl	(C3) E (C2)		Seconda Seconda Sec Span Drai Drai	ing Indicators (minimum of two required) see Soli Cracks (Bin edg Vigetated Concave Surface (Bit) mage Patterns (B10) of 2 of Britisphere: on Union Boots (13) Where tilled
temarks:         indicators of hydric soils lacking; hydric soils         ydrology         etland Hydrology Indicators:         imary indicators (minimum of one required; of         Surface Water [A1]         1+1+ Water 1+1+1 (-2)         Saturation (A3)         Water Marks (B1)         +	check all that apply) Salt Cra Hydrog Cry Sc	ust (811) c Inverticionates gen Sulfide Odor ason Weter Tabl ed Bhassinger ca	(C3) ie (C2) in Liding R	icots (CI)	Seconda Seconda Sart Dorai Orai Cray	ing Indicators (minimum of two required) ace sal Gracks (Bin edg Vigetatical Concave Surface (Bit) mage Patterns (B10) db ad Bini asphare: anti-ang Boots (C3)
Remarks:         ndicators of hydric soils lacking; hydric soils         ydrology         etland Hydrology Indicators:         imary indicators (minimum of one required; of         Surface Water [A1]         [] I+a+ Harc- 1+bt (-22]         Saturation (A3)         [] Heff Marks (B1)         [] Heff Marks (B1)	check all that apply) Salt Cru Hydrog Cry Sc Cooder	ust (811) c Inventichnatics gen Sulfide Odor uson Water Tabl ed Rhizouhger ca Where not till	(C3) ie (C2) in Lluing A ed	eers (CI)	Seconda Sart Sart Dorai Dorai Cray	ing Indicators (minimum of two required) see Sall Gracks (Bill) cale Viget Intel Concare Surface (Bill) nage Patterns (B10) db 2d Rinu (Soft and: and Roots (13) Where tilled fish Burrows (C8)
Remarks:         Indicators of hydric soils lacking; hydric soils         ydrology         etland Hydrology Indicators:         imary indicators (minimum of one required; of         Surface Water [A1]         Surface Water [A1]         Iter Water IA1;         Saturation (A3;         Water Marks [B1;         Term Import_1A2;         Drift Deposits (B3;         Iten Marks (B3;         Image Marker Inter Import_1A2;         Iten Deposits (B5;	check all that apply) Salt Cra Auuri Hydrog Cry Sc Codat	ust (811) c Inventionales gen Sulfide Odor ison Weter Tub cd Bhizoshperca Where not till ice of Fechacchin	(C3) e (C2) in Llaing A ed T <b>C4(C4</b> )		Seconda Sart Sart Drai Urai Cray	ent? Ty Indicators (minimum of two required) ace Soli Cracks (Bin cally Vigetaried Concave Surface (Bin) maxe Patterns (B10) debet Relicion (B10) de
temarks:         indicators of hydric soils lacking; hydric soils         ydrology         etland Hydrology Indicators:         imary indicators (minimum of one required; of         Surface Water [A1]         1141* Water 1444 (32)         Saturation (A3)         Water Marks (81)         fedfirem )         Drift Deposits (83)         Hat of D La (E41)         Iron Deposits (85)         Insentition Watter on Aertal mageny (87)	check all that apply) Salt Cra Auuri Hydrog Cry Sc Codat	ust (811) c Inventichnatics gen Sulfide Odor uson Water Tabl ed Rhizouhger ca Where not till	(C3) e (C2) in Llaing A ed T <b>C4(C4</b> )	icots (CI)	Seconda Source Drai Drai Cray Cray Cray Cray Cray	ing Indicators (minimum of two required) see Soli Cracks (Ben cally Vegetated Concave Surface (BR) mage Patterns (B10) d2 of Reflespiness: on Concave Surface (BR) where tilled fish Burrows (C8) interplue (C9) interplue Parkage (C9)
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Project Site:	oject Site: Parmer MF		City/ County: Travis County		,	Sam		ampling Date: 3/30/2021	
Applicant/Owner:	Z Modular		State:	ТХ	ТХ		Sampling Point: DP-10		
Investigator(s):	JG		Section, Tow	nship, Range:		N/A			
Landform (hillside, terra	ace, etc.):	Plains	Local relief (	concave, convex,	none):	Convex	Slop	e (%):	1-2%
Subregion (LRRA or M	LRA):	LRR-J	Lat: 30.355130		Long:	-97.592482	Datu	m: NAD83	
Soil Map Unit Name:	Ferris-Heider	n complex, 8 to 20 percen	t slopes, severely erode	ed (FhF3)		N	WI Classification:	N/A	
Are climatic/hydrologica	al conditions on	the site typical for this tim	e of year?	/es 🔲 No (If no	o, explain ir	1 Remarks)			
Are Vegetation, Soil, or	· Hydrology sign	ificantly disturbed?	Yes 🔽 No		Are "Norma	I Circumstances" P	resent?	Yes	No
Are Vegetation, Soil, or	Hydrology natu	rally problematic?	🗌 Yes 🗹 No		(If needed,	explain any answer	s in Remarks.)		

#### SUMMARY OF FINDINGS- Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic vegetation present? Hydric Soils Present? Wetland Hydrology Present?	Yes Yes Yes	IVO IVO IVO IVO	Is the Sampled Area within a Wetland?	Yes: No:	
Remarks:					
None of the three parameters, hydrophytic veg	getation, wetland	hydrology, and hydric soi	l indicators, were observed. The Data Point (DP) is not within a	a wetland.	
			I		
Habitat ID:			Habitat Type: N/A		

Vegetation - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
Tree stratum (Plot size : 30')				
1.				Number of Dominant Species
2.				That Are OBL, FACW, or FAC: 1 (A)
3.				
4.				Total Number of Dominant
				Species Across All Strata: <u>3</u> (B)
Sapling/Shrub Stratum (Plot size : 15')				
1. Prosopis glandulosa	15	Yes	FACU	Percent of Dominant Species
2. Ulmus crassifolia	5	Yes	FAC	That are OBL, FACW, or FAC: <u>33%</u> (A/B)
3.				Prevalence Index worksheet:
4. 5.				Total % Cover of: Multiply by:
5	20			OBL Species x 1 =
Herb Stratum (Plot size : 5')	20			FACW Species         x 1 =           x 2 =
1. Schizachyrium scoparium	75	Yes	FACU	FAC Species $5 \times 3 = 15$
2. Engelmannia peristenia	10	No	UPL	FACU Species 90 $x 4 = 360$
3. Anemone berlandieri	5	No	UPL	UPL Species $15 \times 5 = 75$
4.				Column Totals: 110 (A) 450 (B)
5.				
				Prevalence Index = $B/A = 4.09$
7				Hydrophytic Vegetation Indicators:
8				No Dominance Test is >50%
9.				No Prevalence Index is ≤3.01
10.				No Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
····	90			
Woody Vine Stratum (Plot size : 30')				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
1. 2.				be present, unless disturbed of problematic.
Z				Hydrophytic Vegetation Present?
0/ Dave Crevend in Llorb Stratum, 10				
% Bare Ground in Herb Stratum: <u>10</u>				Yes: 🗂 No: 🗹
Remarks: (if observed, list morphological adaptations below).	1			
Percentage of dominant plants that are OBL, FACW, or FAC is less th	an or equal to 50%	6. The hydroph	vtic vegetatic	on parameter is not met.
	·		, .	·

Re	edox Features			
Color (moist)	% T	ype <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
			Clay loam	
	,		·	
	······			
Matrix, CS=Covered or	Coated Sand Grain	s. <sup>2</sup> Loca	tion: PL=Pore Lining, M=Matrix.	
			Indicators for Problematic	: Hydric Soils <sup>3</sup> :
Sandy Gleyed M	atrix (S4)		<ul> <li>International Constraints of the International Constr</li></ul>	ee -
Sandy Redox (55	) }		The second s	New reparations
Loamy Mucky M	lineral (F1) (LRR O)			\$P\$15.2.6
the second se			<ul> <li>Aliabete Child Lice Structure: Accession in State</li> </ul>	
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11.1. <b>1</b> Perford of 2008 (			Aller of Revenues and the behavior parents	tic vegetation and wetland hydrology mu
			Hydric Soils Present?	🗆 Yes 🛛 🖓 No
heck all that apply)			Secondary II	ndicators (minimum of two required)
			🗖 Sarlace S	ial Cracks (Bill)
heck all that apply)	st (811)		Sarlace S Sparesty	all Cracks (Bri) Vegetaried Concave Surface (Bil)
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Salt Cru     Anustic     Hydroga	Invertiebrates (81) en Sulfide Odor (C1	)	☐ Surface ( ☐ Sparred) ☐ Orainage	all Cracks (Bri) Vegetaried Concave Surface (Bil)
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	Color (moist) Color (moist) Matrix, CS=Covered of Sandy Gleyed M Sandy Redox (S5 Stripped Matrix Loamy Mucky M Loamy Gleyed N Depleted Matrix Redox Dark Surf Redox Depressi High Plains Dep	Matrix, CS=Covered or Coated Sand Grain  Matrix, CS=Covered or Coated Sand Grain  Sandy Redox (55)  Stripped Matrix (56)  Loamy Mucky Mineral (F1) (LRR O)  Loamy Gleved Matrix (F2)  Depleted Matrix (F3)  Redox Dark Surface (F6)  Depleted Dark Surface (F7)  Redox Depressions (F8)  High Plains Depressions (F16) (MLRA 72 & 73 of LRRH)	Color (moist)       %       Type1       Loc2         Matrix, CS       Color (moist)       2       2         Matrix, CS=Covered or Coated Sand Grains.       2       2         Matrix, CS=Covered or Coated Sand Grains.       2       2         Sandy Bieted Matrix (55)       1       2       2         Sandy Redux (55)       Stripped Matrix (55)       1       2       2         Loamy Mucky Mineral (F1) (LRR O)       1       2       2       2         Depleted Matrix (F3)       Redox Dark Surface (F5)       2       2       2       3       3         Matrix Plains Depressions (F8)       High Plains Depressions (F16)       3       3       4       3       3       4         Mura 72 & 73 of LRRH)       3       5       5       5       5       5       5       5       5       5       5       5       5       5       5<	Color (moist)       %       Type1       Loc2       Texture         Clay loam       Clay loam         Matrix, CS=Covered or Coated Sand Grains.       2Location: PL=Pore Lining, M=Matrix.         Matrix, CS=Covered or Coated Sand Grains.       2Location: PL=Pore Lining, M=Matrix.         Indicators for Problematic         Sandy Gleyed Matrix (54)       1 cm Muck (A9) (LtR; L)         Sandy Rectox (55)       Coast Prairie Redox (A16         Stripped Matrix (58)       Dark Surface (57) (LRR G)         Loamy Mucky Mineral (F1) (LRR O)       High Plaina Depressions         Loamy Gleyed Matrix (F2)       Clay LRR G)         Depleted Matrix (F3)       Reduced Vertic (F18) (o         Redox Dark Surface (F6)       Piedmont Floodplain Solf         Depleted Dark Surface (F7)       Red Parent Material (TF         Redox Depressions (F8)       Very Shallow Dark Surface         High Plains Depressions (F16)       Other (Explain in Remar-         Mitcators of hydrophy present, unless disturb       Hydric Soils Present?



# CITY OF AUSTIN ENVIRONMENTAL RESOURCE INVENTORY FOR THE 8020 EAST PARMER TRACT

Travis County, Texas

November 2020

### Submitted to:

Vincent F. Barletta BDG Acquisitions, LLC 40 Shamut Road, Suite 200 Canton, Massachusetts 02021

### **Prepared By:**

aci consulting 1001 Mopac Circle Austin, Texas 78746

aci Project No.: 35-20-174

aci consulting Backup page 99 of 188 Austin (512) 347.9000 • Denver (720) 440.5320 a division of aci group, LLC

www.aci-consulting.net

### **Environmental Resource Inventory**

For the City of Austin Relating to the Land Development Code (LDC) Section 25-8, Title 30-5, ECM 1.3.0 & 1.10.0

Effective October 28, 2013

The ERI is required for projects that meet one or more of the criteria listed in (LDC) Section 25-8-121(A), Title 30-5-121(A).

- 1. SITE/PROJECT NAME: <sup>8020 East Parmer ERI</sup>
- 2. COUNTY APPRAISAL DISTRICT PROPERTY ID (#'s): 236741 & 247979
- 3. ADDRESS/LOCATION OF PROJECT: <sup>8020 East Parmer Lane, Manor, Texas 78653</sup>
- 4. WATERSHED: Harris Branch and Gilleland Creek
- 5. THIS SITE IS WITHIN THE (Check all that apply) Edwards Aquifer Recharge Zone\* (See note below) ......□YES ⊠No Edwards Aquifer Contributing Zone\*.....□YES ⊠No Edwards Aquifer 1500 ft Verification Zone\* .....□YES ⊠No Barton Spring Zone\* .....□YES ⊠No \*(as defined by the City of Austin – LDC 25-8-2)

Note: If the property is over the Edwards Aquifer Recharge zone, the Hydrogeologic Report and karst surveys must be completed and signed by a Professional Geoscientist Licensed in the State of Texas.

- 6. DOES THIS PROJECT PROPOSE FLOODPLAIN MODIFICATION?.......⊠YES\*\* □NO If yes, then check all that apply:
  - (1) The floodplain modifications proposed are necessary to protect the public health and safety;
  - (2) The floodplain modifications proposed would provide a significant, demonstrable environmental benefit, as determined by a **functional assessment** of floodplain health as prescribed by the Environmental Criteria Manual, or
  - (3) The floodplain modifications proposed are necessary for development allowed in the critical water **quality zone under Section 25-8-261 or 25-8-262 of the LDC**.
  - (4) The floodplain modifications proposed are outside of the Critical Water Quality Zone in an area determined to be in poor or fair condition by a **functional assessment** of floodplain health.

\*\* If yes, then a functional assessment must be completed and attached to the ERI (see Section 1.7 and Appendix X in the Environmental Criteria Manual for forms and guidance) unless conditions 1 or 3 above apply.

\*\*\*If yes, then riparian restoration is required by Section 25-8-261(E) of the LDC and a functional assessment must be completed and attached to the ERI (see Section 1.5 and Appendix X in the Environmental Criteria Manual for forms and guidance).

8. There is a total of <u>1</u> (#'s) Critical Environmental Feature(s)(CEFs) on or within150 feet of the project site. If CEF(s) are present, attach a detailed **DESCRIPTION** of the CEF(s), color **PHOTOGRAPHS**, the **CEF WORKSHEET** and provide **DESCRIPTIONS** of the proposed CEF buffer(s) and/or wetland mitigation. Provide the number of each type of CEFs on or within 150 feet of the site (*Please provide the number of CEFs*):

(#'s) Spring(s)/Seep(s) (#'s) Point Recharge Feature(s) (#'s) Bluff(s)

\_\_\_\_\_ (#'s) Canyon Rimrock(s) \_\_\_\_\_ (#'s) Wetland(s)

Note: Standard buffers for CEFs are 150 feet, with a maximum of 300 feet for point recharge features. Except for wetlands, if the standard buffer is <u>not provided</u>, you must provide a written request for an administrative variance from Section 25-8-281(C)(1) and provide written findings of fact to support your request. <u>Request forms for administrative variances from requirements stated in LDC 25-8-281 are available from Watershed Protection Department.</u>

9. The following site maps are attached at the end of this report (Check all that apply and provide):

All ERI reports must include:

- Site Specific Geologic Map with 2-ft Topography
- ☑ Historic Aerial Photo of the Site
- ⊠ Site Soil Map
- ☑ Critical Environmental Features and Well Location Map on current Aerial Photo with 2-ft Topography

Only if present on site (Maps can be combined):

- □ Edwards Aquifer Recharge Zone with the 1500-ft Verification Zone (Only if site is over or within 1500 feet the recharge zone)
- □ Edwards Aquifer Contributing Zone
- □ Water Quality Transition Zone (WQTZ)
- ☑ Critical Water Quality Zone (CWQZ)
- □ City of Austin Fully Developed Floodplains for all water courses with up to 64-acres of drainage
- 10. **HYDROGEOLOGIC REPORT** Provide a description of site soils, topography, and site specific geology below (*Attach additional sheets if needed*):

**Surface Soils** on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups\*. If there is more than one soil unit on the project site, show each soil unit on the site soils map.

Soil Series Unit Names, Infiltration Characteristics & Thickness					
Soil Series Unit Name & Subgroup**	Group*	Thickness (feet)			
See Q10-1. Surface Soils					

\*Soil Hydrologic Groups Definitions *(Abbreviated)* 

- A. Soils having a <u>high infiltration</u> rate when thoroughly wetted.
- B. Soils having a <u>moderate</u> <u>infiltration</u> rate when thoroughly wetted.
- C. Soils having a <u>slow infiltration</u> rate when thoroughly wetted.
- D. Soils having a <u>very slow</u> <u>infiltration</u> rate when thoroughly wetted.

\*\*Subgroup Classification – See <u>Classification of Soil Series</u> Table in County Soil Survey.

#### Description of Site Topography and Drainage (Attach additional sheets if needed):

According to the Manor U.S. Geologic Survey (USGS) 7.5-Minute Topographic Quadrangle and the City of Austin 2015 two-foot contours, the elevation within the subject area ranges from 450 feet above mean sea level (MSL) to 432 feet above MSL. The subject area slopes from southwest to northwest across the subject area (USGS 1988).

(COA) City of Austin. 2015. Two-foot Topographic Lines. City of Austin: Austin, TX.

(USGS) U.S. Geologic Survey. 1988. Manor Texas Quadrangle. USGS - Department of the Interior: Denver, CO.

#### List surface geologic units below:

Geologic Units Exposed at Surface							
Group	Group Formation Member						
Taylor Group	Navarro and Taylor Groups	N/A					
	undivided (Knt)						
N/A	Alluvium (Qal)	N/A					

#### Brief description of site geology (Attach additional sheets if needed):

The subject area is mapped as Navarro and Taylor Groups undivided (Knt) and Alluvium (Qal)

Knt - "in areas where Pecan Gap Chalk is not present because of gradation of marl similar to that of the Marlbrook and Ozan Formations"

Qal - "Floodplain deposits, including indistinct low terrace deposite; clay, sand, and gravel; silt and clay, calcareous to surface, dark gray to dark brown; sand largely quartz; gravel, siliceous, mostly chert, quartzite, limestone, and petrified wood, along Colorado River much igneous and metamorphic rock, probably mostly reworked from terrace deposits; fluviatile morphology well preserved with point bars, oxbows, and abandoned channel segments"

(USGS) U.S. Geologic Survey. 2020a. Texas Geology Web Map. Last accessed: November 25, 2020. https:// txpub.usgs.

**Wells** – Identify all recorded and unrecorded wells on site (test holes, monitoring, water, oil, unplugged, capped and/or abandoned wells, etc.):

There are 1 (#) wells present on the project site and the locations are shown and labeled

 $\frac{0}{(\#'s)}$  (#'s)The wells are not in use and have been properly abandoned.

 $\frac{0}{1}$  (#'s)The wells are not in use and will be properly abandoned.

 $\frac{1}{2}$  (#'s)The wells are in use and comply with 16 TAC Chapter 76.

There are  $\_0$  (#'s) wells that are off-site and within 150 feet of this site.

#### 11. **THE VEGETATION REPORT** – Provide the information requested below:

#### Brief description of site plant communities (Attach additional sheets if needed):

The subject area contains but is not limited to honey mesquite (Prosopis glandulosa), sugar hackberry (Celtis laevigata), common hackberry (Celtis occidentalis), green ash (Fraxinus pennsylvanica), southern bristle grass (Setaria scheelei), late bonset (Eupatorium serotinum), spike rush (Eleocharis palustris), cedar elm (Ulmus crassifolia), Johnson grass (Sorghum halepense), velvety goldenrod (Solidago mollis), balloon vine (Cardiospermum halicacabum), redosier dogwood (Cornus sericea), annual bastardcabbage (Rapistrum rugosum), eastern red cedar (Juniperus virginiana), silver bluestem (Bothriochloa saccharoides), maximilian sunflower (Helianthus maximiliani), Texas pricklypear (Opuntia engelmannii), gum bumelia (Sideroxylon lanuginosum), antelope horn (spider milkweed), broom-corn (Sorghum bicolor), common hoptree (Ptelea trifoliata), and broadleaf cattail (Typha latifolia).

Woodland species					
Common Name	Scientific Name				
eastern red cedar	Juniperus virginiana				
cedar elm	Ulmus crassifolia				
common hoptree	Ptelea trifoliata				
green ash	Fraxinus pennsylvanica				
common hackberry	Celtis occidentalis				

Grassland/prairie/savanna species					
Common Name	Scientific Name				
silver bluestem	Bothriochloa saccharoides				
Johnson grass	Sorghum halepense				
southern bristle grass	Setaria scheelei				

There is hydrophytic vegetation on site ...... $\boxtimes$  YES  $\square$  NO *(Check one).* If yes, list the dominant species in table below *(next page):* 

Hydrophytic plant species							
Common Name Scientific Name Ind							
spike rush	Eleocharis palustris	OBL					
broadleaf cattail	Typha latifolia	OBL					

A tree survey of all trees with a diameter of at least eight inches measured four and onehalf feet above natural grade level has been completed on the site.

 $\Box$ YES  $\boxtimes$  NO (Check one).

#### 12. **WASTEWATER REPORT –** Provide the information requested below.

Wastewater for the site will be treated by (Check of that Apply):

- $\Box$  On-site system(s)
- City of Austin Centralized sewage collection system
- Other Centralized collection system

Note: All sites that receive water or wastewater service from the Austin Water Utility must comply with Chapter 15-12 of Austin City Code and wells must be registered with the City of Austin

The site sewage collection system is designed and will be constructed to in accordance to all State, County and City standard specifications.  $\blacksquare$ YES  $\square$  NO (*Check one*).

Calculations of the size of the drainfield or wastewater irrigation area(s) are attached at the end of this report or shown on the site plan.  $\Box$ YES  $\Box$  NO  $\boxtimes$  Not Applicable (*Check one*).

Wastewater lines are proposed within the Critical Water Quality Zone?  $\Box$  YES  $\boxtimes$  NO *(Check one)*. If yes, then provide justification below:

Is the project site is over the Edwards Aquifer?  $\Box$  YES  $\boxtimes$  NO *(Check one).* 

If yes, then describe the wastewater disposal systems proposed for the site, its treatment level and effects on receiving watercourses or the Edwards Aquifer.

13. One (1) hard copy and one (1) electronic copy of the completed assessment have been provided.

Date(s) ERI Field Assessment was performed: 12/01/2020

Date(s)

My signature certifies that to the best of my knowledge, the responses on this form accurately reflect all information requested.

Stephen Meyer	(512) 852-3860		
Print Name	Telephone		
Dig they	smeyer@aci-group.net		
Signature	Email Address		
aci consulting	12/7/2020		
Name of Company	Date		

For project sites within the Edwards Aquifer Recharge Zone, my signature and seal also certifies that I am a licensed Professional Geoscientist in the State of Texas as defined by ECM 1.12.3(A).

P.G. Seal

### List of Attachments for the Environmental Resource Inventory Form

### **Question 8:**

- Q8-1. CEF Worksheet
- Q8-2. CEF Description

#### **Question 9:**

- Q9-1. Site Specific Geologic Map with 2-ft Topography
- Q9-2. Historic Aerial Photo of the Site (1996)
- Q9-3. Site Soils Map
- Q9-4.Critical Environmental Features (CEF) current Aerial Photo with 2-ft Topography
- Q9-5. City of Austin Critical Water Quality Zones (CRQZ)

Q9-6. FEMA Flood Hazard Zones

#### **Question 10:**

Q10-1. Surface Soils

Q10-2. Wells

Q10-3. Functional Assessment of Floodplain Health

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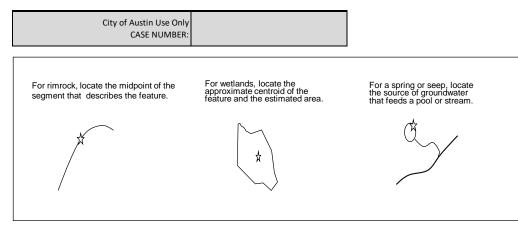
### **Question 8 Attachments**

#### City of Austin Environmental Resource Inventory - Critical Environmental Feature Worksheet

1	Project Name:	8020 East Parmer ERI
2	Project Address:	8020 East Parmer Lane,Manor, TX 78653
3	Site Visit Date:	12/1/2020
4	Environmental Resource Inventory Date:	12/3/2020

5	Primary Contact Name:	Stephen Meyer
6	Phone Number:	(512) 347-3860
7	Prepared By:	Stephen Meyer
8	Email Address:	<u>smeyer@aci-group.net</u>

9	FEATURE TYPE {Wetland,Rimrock, Bluffs,Recharge	FEATURE ID	FEATURE LONGITU (WGS 1984 in Mete		FEATURE LATITUD (WGS 1984 in Mete		WETI DIMENS	LAND		CK/BLUFF SIONS (ft)	RI		EATURE	Springs Est. Discharge
3	Feature,Spring}	(eg S-1)	coordinate	notation	coordinate	notation	X	Y	Length	Avg Height	х	 Z	Trend	cfs
		CEF-1	30.35432	DD	-97.594091	DD	22	5.5						
		-												
									<u></u>					



Please state the method of coordinate data collection and the approximate precision and accuracy of the points and the unit of measurement.

Method		<u>Accuracy</u>	
GPS	Х	sub-meter	
Surveyed		meter	
Other		>1 meter	Х
	Profession	al Geologists a	pply seal below

### **Q8-2.** CEF Description

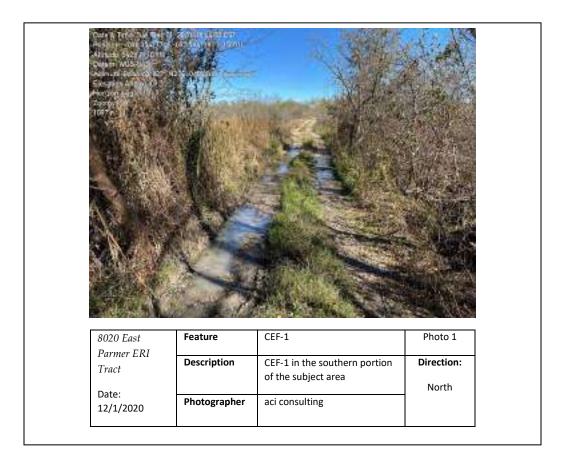
Section 25-8-1 of the City of Austin (COA) LDC defines Critical Environmental Features (CEF) as "features that are of critical importance to the protection of environmental resources, and include bluffs, canyon rimrocks, caves, faults and fractures, seeps, sinkholes, springs, and wetlands."

Aerial photographs and topographic maps were utilized to orient surveyors in the field. If potential CEFs were identified in the field, they were carefully examined and recorded, and each potential feature was described, photographed and its location recorded using a handheld Garmin GPS unit.

Field reconnaissance was conducted on December 1, 2020. One CEF was identified within the subject area.

### CEF-1

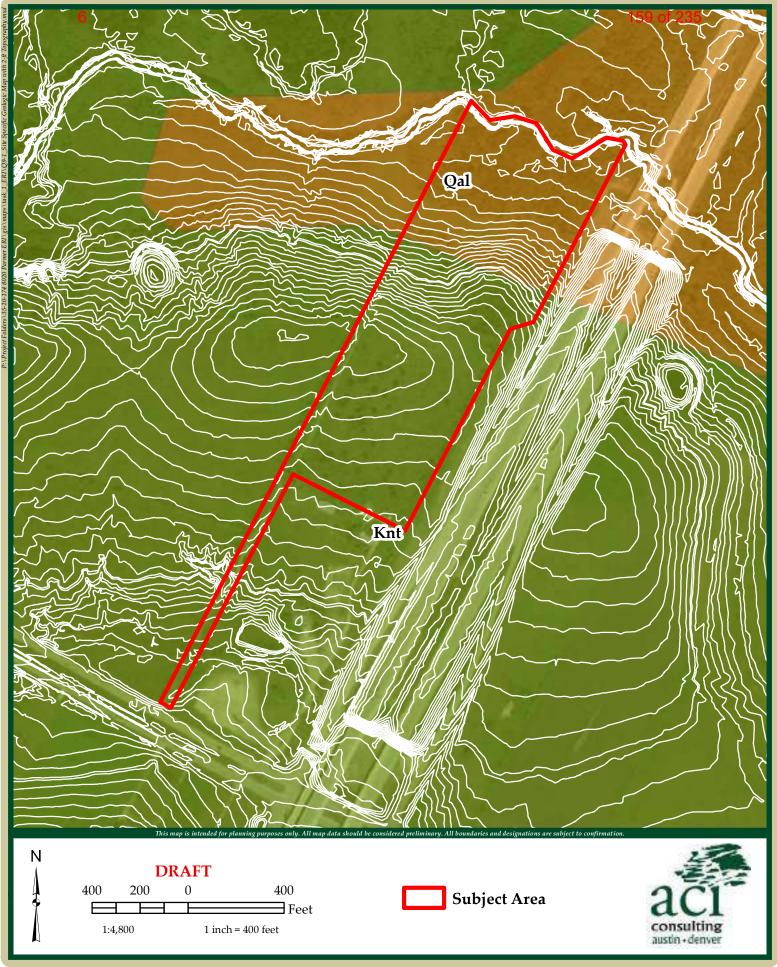
CEF-1 is an emergent wetland located in the southern portion of the subject area. CEF-1 was inundated at the time of the field visit. CEF-1 has wetland hydrology, hydric soils, and is dominated by hydrophytic vegetation such as spike rush and cattails. The boundary between CEF-1 and the adjacent non-wetland was identified based on changes in hydrology, dominant plant composition, and soils. The 1% Annual Chance FEMA Flood Hazard Zone extends on subject area at CEF-1. The total area of CEF-1 is approximately 1,012 square feet, or approximately 0.023 acre within the subject area (Photo 1).



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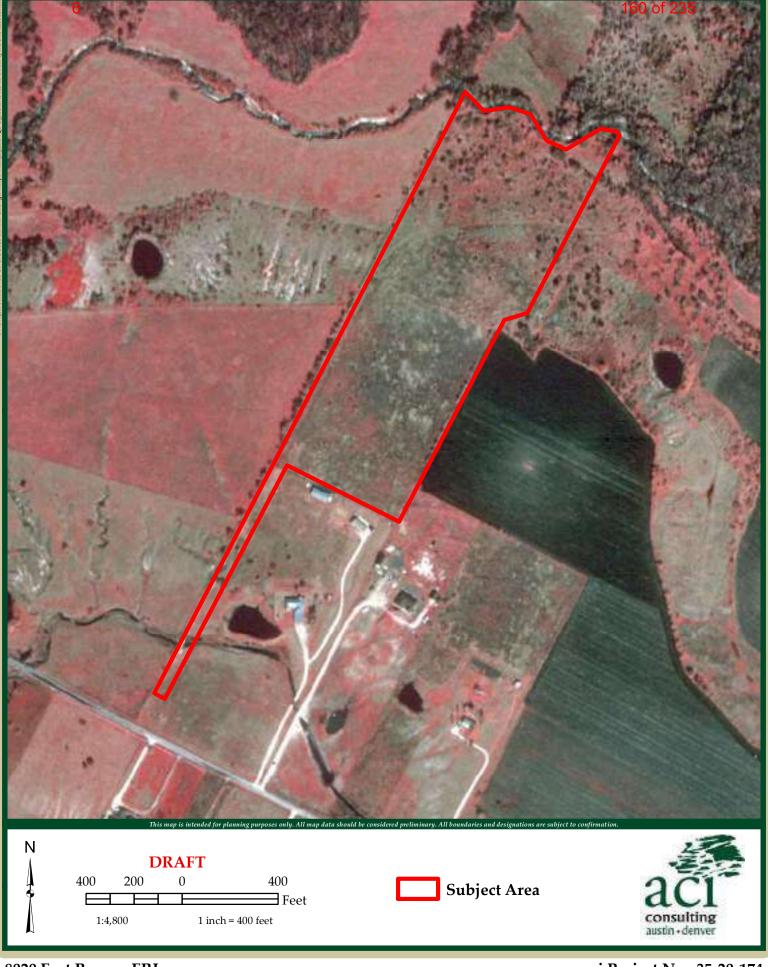


### **Question 9 Attachments**



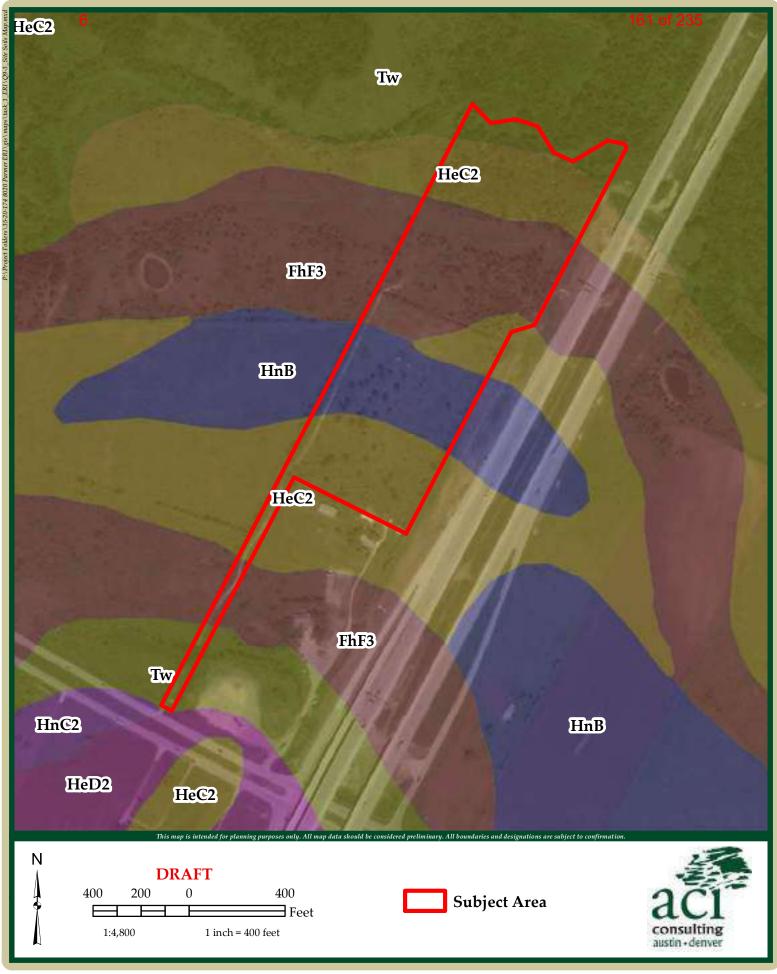
#### 8020 East Parmer ERI Backup page 112 of 188 Q9-1. Site Specific Geologic Map with 2-ft Topography

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8020 East Parmer ERI Backup page 113 of 188 Q9-2. Historic Aerial Photo of the Site (1996)

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8020 East Parmer ERI Backup page 114 of 188 Q9-3: Site Soils Map aci Project No.: 35-20-174 December 2020