

# **ORGANIZED SEWAGE COLLECTION SYSTEM PLAN**

**VALOR SOUTHWEST  
AUSTIN, TRAVIS COUNTY, TEXAS**

*Prepared For:*

**VALOR TEXAS EDUCATION FOUNDATION**

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Austin, TX 78745  
(214) 514-3356

*Prepared By:*

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Firm No. 928  
KHA Project No. 068910605

March 20, 2023

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# **SECTION 1: EDWARDS AQUIFER APPLICATION COVER PAGE**

# Texas Commission on Environmental Quality

## Edwards Aquifer Application Cover Page

### *Our Review of Your Application*

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

### *Administrative Review*

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

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

2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.
3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.
4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.

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

5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.
6. If the geologic assessment was completed before October 1, 2004 and the site contains “possibly sensitive” features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

### *Technical Review*

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

2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be clearly marked, features identified in the geologic assessment should be flagged, roadways marked and the alignment of the Sewage Collection System and manholes should be staked at the time the application is submitted. If the site is not marked the application may be returned.
3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or if not withdrawn the application will be denied and the application fee will be forfeited.
4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

### **Mid-Review Modifications**

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

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

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

- You can withdraw your application, and your fees will be refunded or credited for a resubmittal.
- TCEQ can continue the technical review of the application as it was submitted, and a modification application can be submitted at a later time.

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

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

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

<b>1. Regulated Entity Name:</b> Valor Texas Education Foundation					<b>2. Regulated Entity No.:</b>				
<b>3. Customer Name:</b> Valor Texas Education Foundation					<b>4. Customer No.:</b>				
<b>5. Project Type:</b> (Please circle/check one)	<input checked="" type="checkbox"/> New		Modification		Extension		Exception		
<b>6. Plan Type:</b> (Please circle/check one)	WPAP	CZP	<input checked="" type="checkbox"/> SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
<b>7. Land Use:</b> (Please circle/check one)	Residential		<input checked="" type="checkbox"/> Non-residential			<b>8. Site (acres):</b>		25.42	
<b>9. Application Fee:</b>	\$726		<b>10. Permanent BMP(s):</b>			Retention-Reirrigation Pond			
<b>11. SCS (Linear Ft.):</b>	1,452 ft		<b>12. AST/UST (No. Tanks):</b>			N/A			
<b>13. County:</b>	Travis		<b>14. Watershed:</b>			Slaughter Creek			

## Application Distribution

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

[http://www.tceq.texas.gov/assets/public/compliance/field\\_ops/eapp/EAPP%20GWCD%20map.pdf](http://www.tceq.texas.gov/assets/public/compliance/field_ops/eapp/EAPP%20GWCD%20map.pdf)

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

Austin Region			
County:	Hays	Travis	Williamson
Original (1 req.)	—	<u>X</u>	—
Region (1 req.)	—	<u>X</u>	—
County(ies)	—	<u>X</u>	—
Groundwater Conservation District(s)	<u>  </u> Edwards Aquifer Authority <u>  </u> Barton Springs/ Edwards Aquifer <u>  </u> Hays Trinity <u>  </u> Plum Creek	<u>X</u> Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	<u>  </u> Austin <u>  </u> Buda <u>  </u> Dripping Springs <u>  </u> Kyle <u>  </u> Mountain City <u>  </u> San Marcos <u>  </u> Wimberley <u>  </u> Woodcreek	<u>  </u> Austin <u>  </u> Bee Cave <u>  </u> Pflugerville <u>  </u> Rollingwood <u>  </u> Round Rock <u>  </u> Sunset Valley <u>  </u> West Lake Hills	<u>X</u> Austin <u>  </u> Cedar Park <u>  </u> Florence <u>  </u> Georgetown <u>  </u> Jerrell <u>  </u> Leander <u>  </u> Liberty Hill <u>  </u> Pflugerville <u>  </u> Round Rock

San Antonio Region					
County:	Bexar	Comal	Kinney	Medina	Uvalde
Original (1 req.)	—	—	—	—	—
Region (1 req.)	—	—	—	—	—
County(ies)	—	—	—	—	—
Groundwater Conservation District(s)	<u>  </u> Edwards Aquifer Authority <u>  </u> Trinity-Glen Rose	<u>  </u> Edwards Aquifer Authority	<u>  </u> Kinney	<u>  </u> EAA <u>  </u> Medina	<u>  </u> EAA <u>  </u> Uvalde
City(ies) Jurisdiction	<u>  </u> Castle Hills <u>  </u> Fair Oaks Ranch <u>  </u> Helotes <u>  </u> Hill Country Village <u>  </u> Hollywood Park <u>  </u> San Antonio (SAWS) <u>  </u> Shavano Park	<u>  </u> Bulverde <u>  </u> Fair Oaks Ranch <u>  </u> Garden Ridge <u>  </u> New Braunfels <u>  </u> Schertz	NA	<u>  </u> San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.

C.J. Ponton, P.E.

Print Name of Customer/Authorized Agent



03/21/2023

Signature of Customer/Authorized Agent

Date

**\*\*FOR TCEQ INTERNAL USE ONLY\*\***

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

# SECTION 2: GENERAL INFORMATION



# General Information Form

## Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge and Transition Zones and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B) Effective June 1, 1999

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

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

## Signature

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

Print Name of Customer/Agent: C.J. Ponton, P.E.

Date: 03/21/2023

Signature of Customer/Agent:



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## Project Information

1. Regulated Entity Name: Valor Texas Education Foundation

2. County: Travis

3. Stream Basin: Slaughter

4. Groundwater Conservation District (If applicable): N/A

5. Edwards Aquifer Zone:

Recharge Zone

Transition Zone

6. Plan Type:

WPAP

SCS

Modification

AST

UST

Exception Request

7. Customer (Applicant):

Contact Person: Jesse Bates

Entity: Valor Texas Education Foundation

Mailing Address: 220 Foremost Drive

City, State: Austin, TX

Zip: 78745

Telephone: (214) 514-3356

Fax: N/A

Email Address: jbates@valoreducation.org

8. Agent/Representative (If any):

Contact Person: C.J. Ponton, P.E.

Entity: Kimley-Horn & Associates

Mailing Address: 5301 Southwest Parkway, Building 2, Suite 100

City, State: Austin, Texas

Zip: 78735

Telephone: 737-787-8750

Fax: N/A

Email Address: cj.ponton@kimley-horn.com

9. Project Location:

- The project site is located inside the city limits of Austin.
- The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of the city of \_\_\_\_\_.
- The project site is not located within any city's limits or ETJ.

10.  The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

The project site is located at 11720 South Mopac Expressway, Austin, TX 78739

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

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

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

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

- Survey staking will be completed by this date: 12/15/2022

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

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

15. Existing project site conditions are noted below:

- Existing commercial site
- Existing industrial site
- Existing residential site
- Existing paved and/or unpaved roads
- Undeveloped (Cleared)
- Undeveloped (Undisturbed/Uncleared)
- Other: \_\_\_\_\_

### ***Prohibited Activities***

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

- (1) Waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);
- (2) New feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;
- (3) Land disposal of Class I wastes, as defined in 30 TAC §335.1;
- (4) The use of sewage holding tanks as parts of organized collection systems; and
- (5) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).
- (6) New municipal and industrial wastewater discharges into or adjacent to water in the state that would create additional pollutant loading.

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

- (1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);
- (2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and

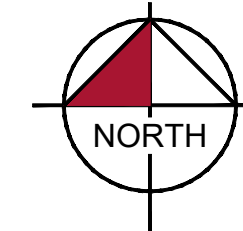
- (3) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

### ***Administrative Information***

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

- For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
  - For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines.
  - For a UST Facility Plan or Modification or an AST Facility Plan or Modification, the total number of tanks or piping systems.
  - A request for an exception to any substantive portion of the regulations related to the protection of water quality.
  - A request for an extension to a previously approved plan.
19.  Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:
- TCEQ cashier
  - Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
  - San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)
20.  Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
21.  No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.

## ***Attachment A - Road Map***



GRAPHIC SCALE IN FEET  
 0 75 150 300  
 SCALE: 1" = 150'

**LEGEND**

	PROPERTY LINE
	ADJACENT PROPERTY LINE

**DIRECTIONS FROM TCEQ HEADQUARTERS TO PROJECT SITE**

1. TURN RIGHT ONTO PARK 35 CIRCLE
2. TURN RIGHT ONTO S-135 FRONTAGE ROAD
3. TAKE THE RAMP ON THE LEFT ONTO I-35 S
4. KEEP LEFT AT THE FORK TO CONTINUE ON I-35 S / US-290 W / N INTERSTATE 35
5. FOLLOW SIGNS FOR 32ND STREET
6. KEEP LEFT TO CONTINUE ON I-35 S
7. TAKE EXIST 290 TO MERGE ONTO TX-71 W / US-290 W
8. KEEP LEFT TO CONTINUE ON US-290 W
9. TAKE THE TX-1 LOOP S EXIT
10. SLIGHT RIGHT ONTO TX-1 LOOP S / S MOPAC EXPRESSWAY
11. KEEP RIGHT AT THE FORK
12. TURN RIGHT INTO THE SITE

# Valor Southwest - Road Map

Austin, Texas  
 November 2022



5301 Southwest Parkway, Building 2, Suite 100  
 Austin, TX 78735 - Ph: (512) 646-2237  
 State of Texas Registration No. F-928

NOTE: THIS PLAN IS CONCEPTUAL IN NATURE AND HAS BEEN PROVIDED WITHOUT THE BENEFIT OF A SURVEY OR CONTACT WITH THE CITY, COUNTY, ETC.

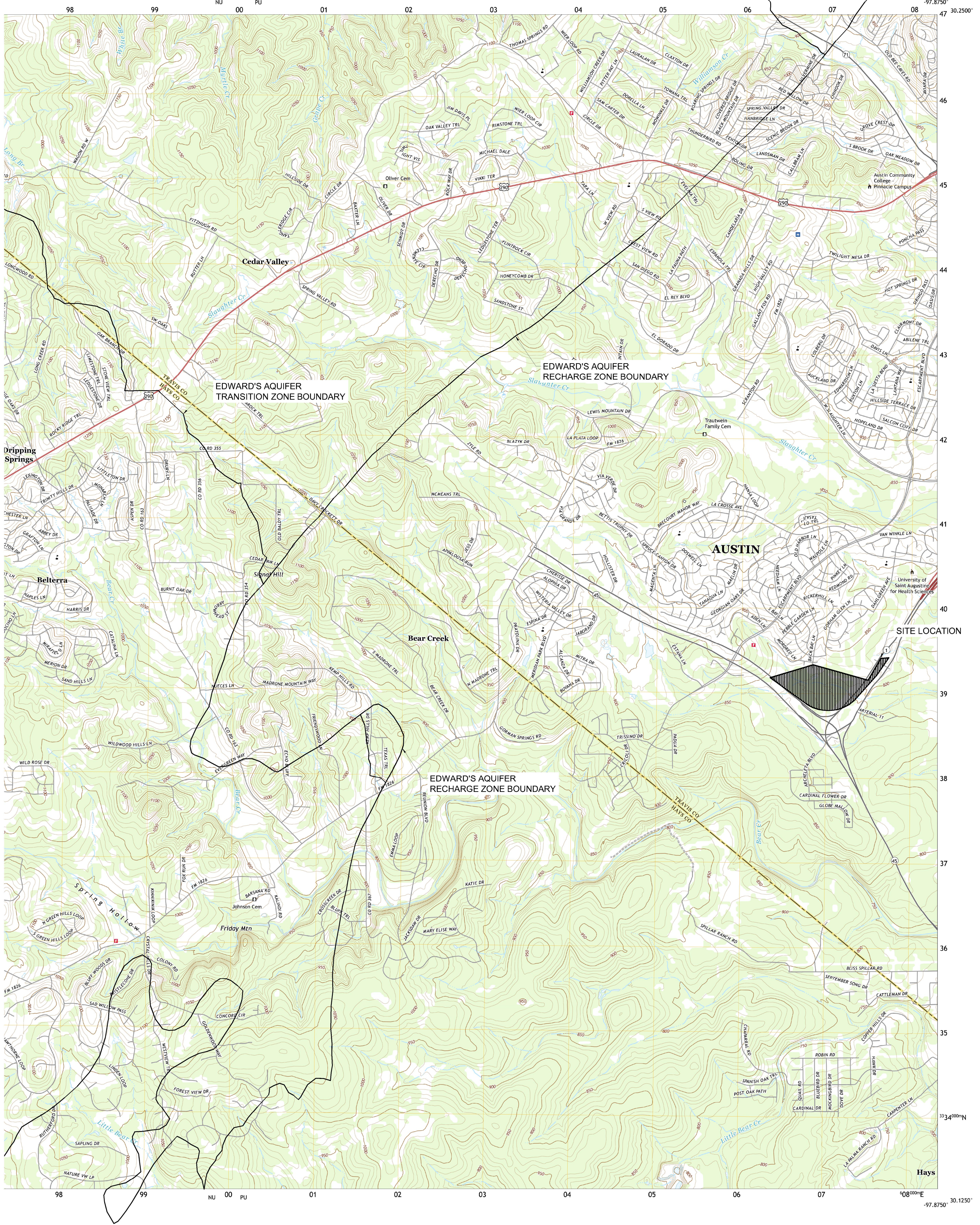
***Attachment B - USGS/Edwards Recharge Zone Map***



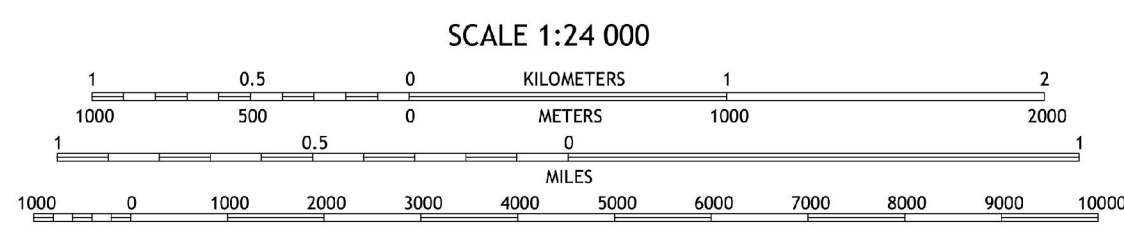
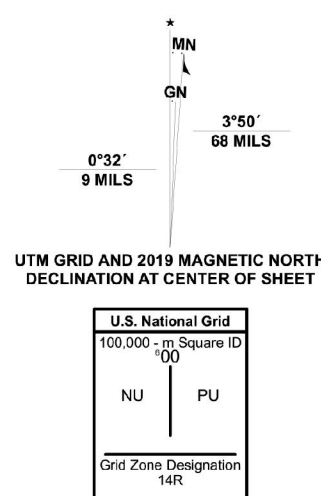
U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY



SIGNAL HILL QUADRANGLE  
TEXAS  
7.5-MINUTE SERIES



the United States Geological Survey  
datum of 1983 (NAD83)  
system of 1984 (NAD84). Projection and  
Universal Transverse Mercator, Zone 14R  
legal document. Boundaries may be  
its map scale. Private lands within government  
not be shown. Obtain permission before  
ands.  
.....NAIP, October 2016 - November 2016  
..... U.S. Census Bureau, 2010 - 2019  
..... National Hydrography Dataset, 1979 - 2022  
..... National Hydrography Dataset, 2002 - 2018  
..... National Elevation Dataset, 2019  
..... Multiple sources; see metadata file 2019 - 2021  
..... FWS National Wetlands Inventory Not Available



CONTOUR INTERVAL 10 FEET  
NORTH AMERICAN VERTICAL DATUM OF 1988  
This map was produced to conform with the  
National Geospatial Program US Topo Product Standard.



1	2	3	1 Shingle Hills
4	5	5	2 Bee Cave
6	7	8	3 Austin West
			4 Dripping Springs
			5 Oak Hill
			6 Driftwood
			7 Mountain City
			8 Buda

ROAD CLASSIFICATION	
Expressway	Local Connector
Secondary Hwy	Local Road
Ramp	4WD
Interstate Route	US Route
	State Route

SIGNAL HILL, TX  
2022



# Valor Southwest - USGS Map

Austin, Texas  
November 2022



5301 Southwest Parkway, Bldg 2, Suite 100  
Austin, Texas 78735  
State of Texas Registration No. F-928



## Project Description

### Introduction

The Valor Southwest Public School is located at the intersection of I-45 and MoPac Expressway, Austin, Travis County, Texas. The existing tract (TCAD ID 0431470126) consists of one +/-25.42 acre tract located in the Austin Full-Purpose jurisdiction. The proposed development will include a K-12 Charter School and Gymnasium, that totals approximately 116,000 square-feet, and associated parking and utility improvements. A site plan application has been submitted to the City of Austin for approval. The development is located within the Edwards Aquifer Recharge Zone. Subsequently, water quality requirements set forth by the Texas Commission on Environmental Quality (TCEQ) will need to be met. Best managements practices (BMPs) used is a retention-reirrigation pond. This project is located within the Slaughter Creek Watershed. The proposed 25.42-acre site is not located in the Federal Emergency Management Agency's 100-year floodplain according to the FEMA FIRM map 48453C0595H. The site is located within the Edwards Aquifer Recharge Zone, per Edward's Aquifer GIS databases. The site contains five (5) environmental features as identified in the Environmental Resource Inventory. The development identifies the City of Austin appropriate Critical Environmental Feature (CEF) buffers for each feature and no impacts are proposed or mitigations have been identified to any of these areas.

### Legal Description

The legal description of the subject tract is as follows:

ABS 340 SUR 163 HAMILTON S ACR 25.4150 by deed recorded in Document No. 2011060286TR of the Official Public Records of Travis County, Texas.

### Land Use

The existing Valor Southwest Public School tract is undeveloped land.

### Existing Drainage Conditions

The existing site has one drainage area. The runoff from the existing site is currently not treated. The existing drainage generally flows northeast to southwest. The total existing impervious cover is zero acres.

### Proposed Development

The proposed Valor Southwest Public School project includes the construction of a school building, gymnasium, basketball court, and a retention-reirrigation pond.

### Proposed Drainage Conditions

The proposed site has two drainage areas. all drainage on-site flows northeast to Danz Creek adjacent to the subject tract. Proposed flows on site will flow to a retention-reirrigation pond. Stormwater collected in the retention/irrigation pond will be used to irrigate landscaped areas and stormwater collected in the retention pond will discharge into Danz Creek.

Basin "PDA-2" will use retention proposed within the Valor Southwest Development Plans to reduce peak flows to existing conditions. For basin "PDA-1", no detention is proposed, as this area flows offsite and result in peak flows that are less than or equal to existing. These basins were analyzed using the SCS method and follow the City of Austin Drainage Criteria Manual.

### Detention and Water Quality

The project proposes the use of a retention-reirrigation pond to provide retention and water quality measures for the proposed development. Drainage area PDA-2 will flow into the proposed pond and drainage area PDA-1 will bypass the pond. The flow from both drainage areas will meet at the point of analysis 1 (POA-1) discharge point. The proposed total flow from the development will be less than existing and the required TSS removal rate will be met.

## **Erosion and Sedimentation Controls**

Temporary erosion and sedimentation controls during construction are proposed on the Erosion Control Plan and include silt fences, inlet protection, and a stabilized construction entrance designed to City of Austin criteria. The land disturbed during construction will drain into the proposed on-site storm sewer system where it will be conveyed to the proposed retention and retention-irrigation pond located on-site.

# SECTION 3: GEOLOGIC ASSESSMENT

**GEOLOGIC ASSESSMENT  
FOR THE APPROXIMATELY 25-ACRE  
VALOR SOUTHWEST TRACT**

Travis County, Texas

December 2022

**Submitted to:**

Kimley-Horn  
10814 Jollyville Road  
Avallon IV, Suite 200  
Austin, Texas 78759

**Prepared by:**

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

aci project No.: 38-21-062

# Geologic Assessment

## Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

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

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

### Signature

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

Print Name of Geologist: Mark Adams

Telephone: (512) 347-9000

Date: 12/19/2022

Fax: (512) 306-0974

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

Signature of Geologist:

12-19-2022



Regulated Entity Name: Valor Southwest

### Project Information

1. Date(s) Geologic Assessment was performed: 8/27/2021 & 9/7/2021

2. Type of Project:

WPAP

AST

SCS

UST

3. Location of Project:

Recharge Zone

Transition Zone

Contributing Zone within the Transition Zone

4.  **Attachment A - Geologic Assessment Table.** Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.
5.  Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups\* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
SsC—Speck clay loam, moist, 1 to 5 percent slopes, stony	D	0-3.3

Soil Name	Group*	Thickness(feet)

*\* Soil Group Definitions (Abbreviated)*

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

6.  **Attachment B – Stratigraphic Column.** A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.
7.  **Attachment C – Site Geology.** A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.
8.  **Attachment D – Site Geologic Map(s).** The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'  
 Applicant's Site Plan Scale: 1" = 80'  
 Site Geologic Map Scale: 1" = 80'  
 Site Soils Map Scale (if more than 1 soil type): 1" = 400'
9. Method of collecting positional data:
  - Global Positioning System (GPS) technology.
  - Other method(s). Please describe method of data collection: \_\_\_\_\_
10.  The project site and boundaries are clearly shown and labeled on the Site Geologic Map.

- 11.  Surface geologic units are shown and labeled on the Site Geologic Map.
- 12.  Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.
  - Geologic or manmade features were not discovered on the project site during the field investigation.
- 13.  The Recharge Zone boundary is shown and labeled, if appropriate.
- 14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.
  - There are \_\_\_\_\_ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    - The wells are not in use and have been properly abandoned.
    - The wells are not in use and will be properly abandoned.
    - The wells are in use and comply with 16 TAC Chapter 76.
  - There are no wells or test holes of any kind known to exist on the project site.

*Administrative Information*

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

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December 2022

## Geologic Assessment for the Valor Southwest Tract located in Travis County, Texas

### 1.0 INTRODUCTION

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

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

### 2.0 PROJECT INFORMATION

The Valor Southwest Tract, hereafter referred to as the subject area or site, is located north of the Highway 1 (Mopac Boulevard) and State Highway (SH) 45 interchange, in the full purpose jurisdiction of Austin, Travis County, Texas (**Attachment A, Figure 1**). Pedestrian investigations of the 25-acre tract were initially performed by **aci consulting** staff in 2008. A Geologic Assessment and feature re-evaluation of previously identified features was conducted on August 27, 2021 and September 7, 2021 by Marcos Cardenas, Andrew Marlow, and Mason Finely, under the supervision of Mark Adams, P.G., and Stan Reece, P.G., with **aci consulting**. Subsequent features identified by the City of Austin (CoA) staff have been reviewed by **aci consulting** throughout the year 2022. Information from work performed by **aci consulting** in 2008, 2021, and 2022, as well as information from the CoA, was compiled to generate this report.

This report is intended to satisfy the requirements for a GA, which shall be included as a component of a Water Pollution Abatement Plan (WPAP) and Sewage Collection System (SCS). The site is approximately 25 acres in total. The proposed site use is for low-density,

single-family, residential development. The scope of the report consists of a site reconnaissance, field survey, and review of existing data and reports. Features identified during the field survey were ranked utilizing the TCEQ matrix for Edwards Aquifer Recharge Zone features. The ranking of the features will determine their viability as “sensitive” features.

### 3.0 INVESTIGATION METHODS

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

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

### 4.0 SOILS AND GEOLOGY

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

#### Soils

According to the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey (2021), one soil unit, *Speck clay loam, moist, 1 to 5 percent slopes, stony (SsC)*, occurs within the site. A description of the unit according to the NRCS (2021) is as follows (**Attachment A, Figure 2**):

- *SsC - Speck clay loam, moist, 1 to 5 percent slopes, stony*

The Speck, moist, stony component makes up approximately 95 percent of the map unit. Slopes are 1 to 5 percent. This component is found on ridges on dissected plateaus. The

parent material consists of residuum weathered from limestone. Depth to a root restrictive layer, bedrock, lithic, is 14 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. This soil does not meet the criteria for hydric soils. Hydrologic Soil Group: D.

### Geologic Stratigraphy

According to the Geologic Map of the Barton Springs Segment of the Edwards Aquifer, one geologic unit, *Kirshberg Evaporite Member (Lower Cretaceous) (ks)*, occurs within the project area (**Attachment A, Figure 3**). A description of the unit by Small et al. (1996) is as follows:

- *Kirshberg Evaporite Member (Lower Cretaceous) (ks)*

The Kirshberg Evaporite Member overlies the Dolomitic Member of the Kainer Formation of the Edwards Group and is described by Small et al. (1996) as consisting of light-gray, crystalline limestone and chalky to mudstone commonly containing chert nodules and lenses with Boxwork structure common locally. Most cave formation within the Edwards falls within the Kirshberg Evaporite Member, and it is one of the most porous and permeable members (Small et al. 1996). Average thickness ranges from 65 to 75 feet (ft).

### Site-Specific Stratigraphic Column

Formation	Members	Thickness (Small et al. 1996)
Kainer	Kirshberg Evaporite	65-75

### Geologic Structure

The geologic strata associated with the Edwards Aquifer include the Georgetown Limestone Formation of the Washita Group, the Edwards Limestone Group which is interfingering with the Comanche Peak Formation, followed by the Walnut formation,

and finally the Glen Rose Formation of the Trinity Group. These Groups dip gently to the southeast and are characterized by the Balcones Fault Escarpment, a zone of en echelon normal faults downthrown to the southeast. Locally, the dominant structural trend of faults within the area is 15°, as evidenced by the mapped fault patterns (**Attachment A, Figure 4**). Thus, all features that have a trend ranging from 0° to 30° are considered “on trend” and were awarded the additional 10 points in the Geologic Assessment Table.

### Karstic Characteristics

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

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

### Review of Historic Aerials

Aerial photographs were reviewed for the site, and it was determined that ranching, hunting, and or agricultural activities occurred on the site since the first aerial image dated 1995 (**Attachment C**). The site has been undeveloped and undisturbed from surrounding developments except for minor vegetation clearing throughout the aerial images.

## 5.0 SUMMARY OF FINDINGS

This report documents the findings of a geologic assessment conducted by **aci consulting** personnel on August 27, 2021 through December 2022. Additional features identified by the CoA staff have been reviewed and incorporated into this report as required. Sixteen features (manmade features in bedrock, karst, and non-karst features) were noted on the

site. Comprehensive descriptions and recommendations for each feature can be found in **Attachment B**. Based on assessment of each feature, it was determined that there are six sensitive karst features on the subject property, the remaining six naturally occurring features were determined to be non-sensitive. Four features were man-made features in bedrock and have been designated as sensitive for the purpose of bringing to the attention of the project engineer.

## 6.0 REFERENCES

Hauwert, N., et. al.

2002. Geologic Map of the Barton Springs Segment of the Edwards Aquifer. Barton Springs Edwards Aquifer Conservation District and the United States Geologic Survey. Austin, Texas.

Small, T.A.; J.A. Hanson; and N.M. Hauwert.

1996. Geologic Framework and Hydrogeologic Characteristics of the Edwards Aquifer Outcrop, (Barton Springs Segment) Northeastern Hays and Southwestern Travis Counties, Texas. U.S. Geological Survey Water Resources Investigations Report 96-4306.

(SCS) Soil Conservation Survey

1983 Soil Survey of Travis County, Texas. United States Department of Agriculture. Texas Agriculture Experiment Station.

(TCEQ) Texas Commission on Environmental Quality

2004 Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones. October 1, 2004. Austin, Texas.

(TCEQ) Texas Commission on Environmental Quality

2005 "Edwards Aquifer Protection Program, Chapter 213 Rules - Recharge Zone, Transition Zone, Contributing Zone, and Contributing Zone within the Transition Zone." Map. Digital data. September 1, 2005. Austin, Texas.

(TWDB) Texas Water Development Board

2021 Water Data Interactive Groundwater Data Viewer. Accessed on September 6, 2021. Available at: <http://www2.twdb.texas.gov/apps/waterdatainteractive/groundwaterdataviewer>

(USDA NRCS) United States Department of Agriculture Natural Resources Conservation Service

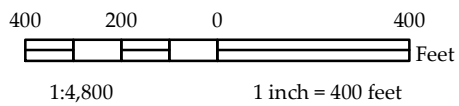
2021 WebSoilSurvey.com. Soil Survey Area: Travis County, Texas. Date accessed: September 6, 2021.

**ATTACHMENT A**

Site Maps



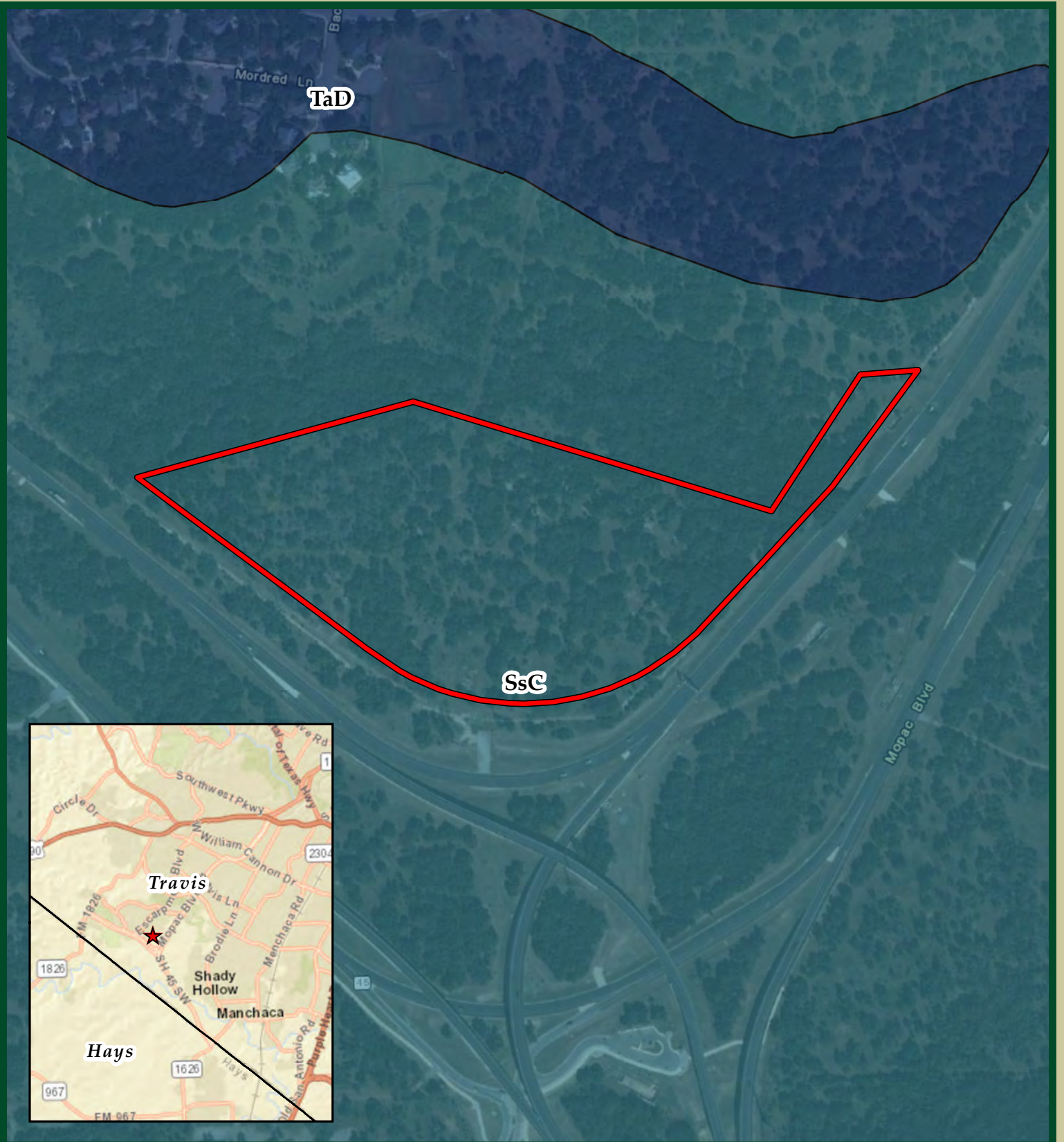
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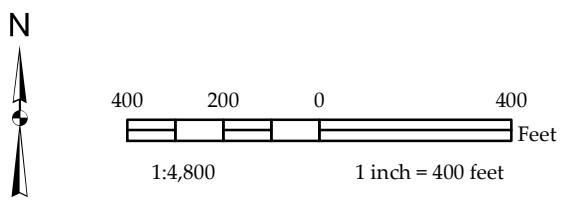
 Subject Area (~ 25 acres)





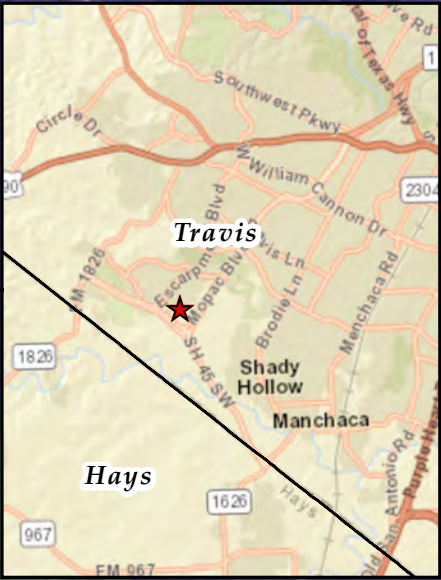
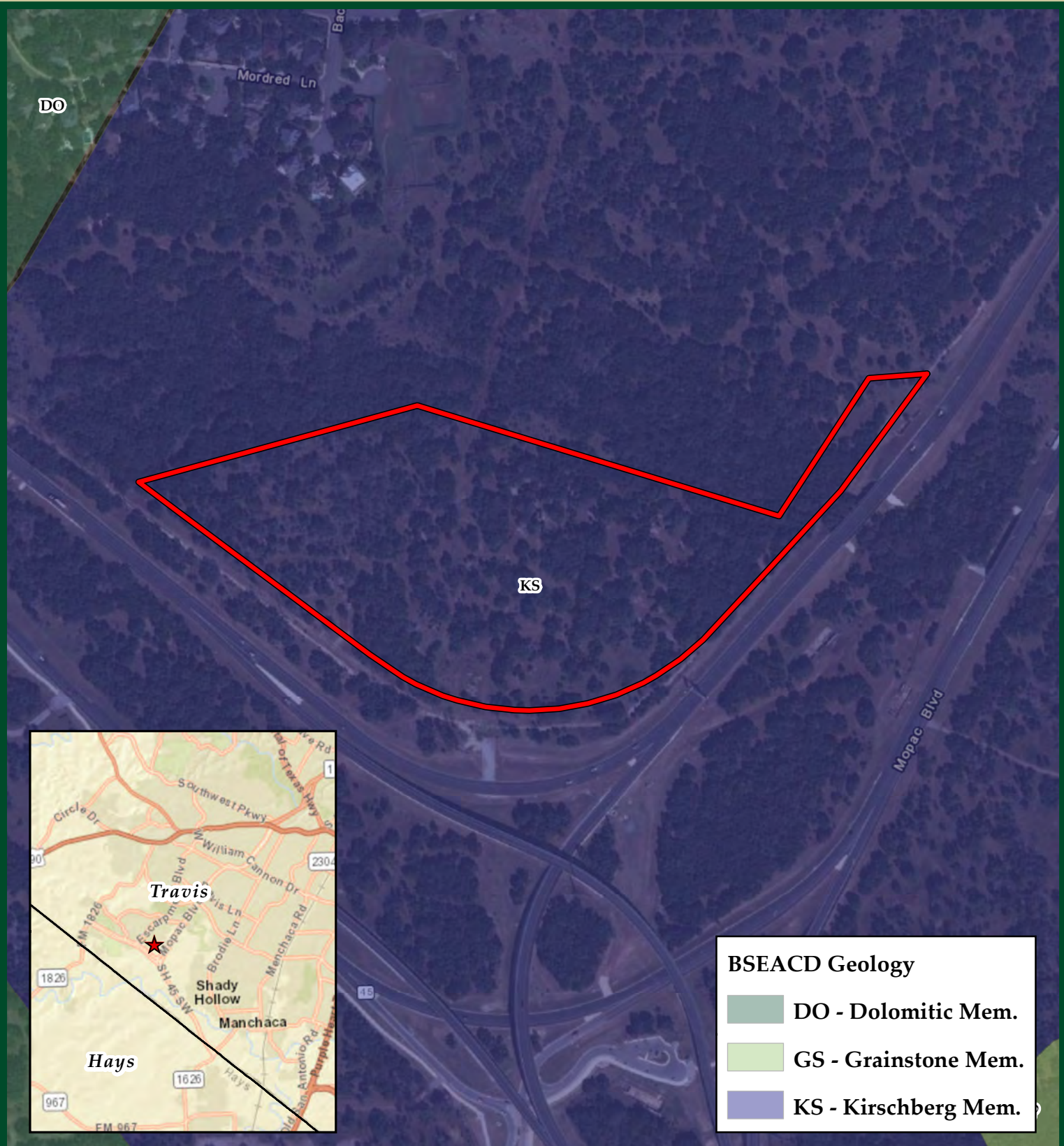


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 Subject Area (~ 25 acres)

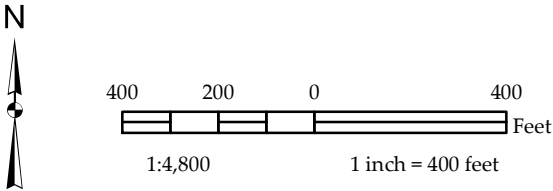




**BSEACD Geology**

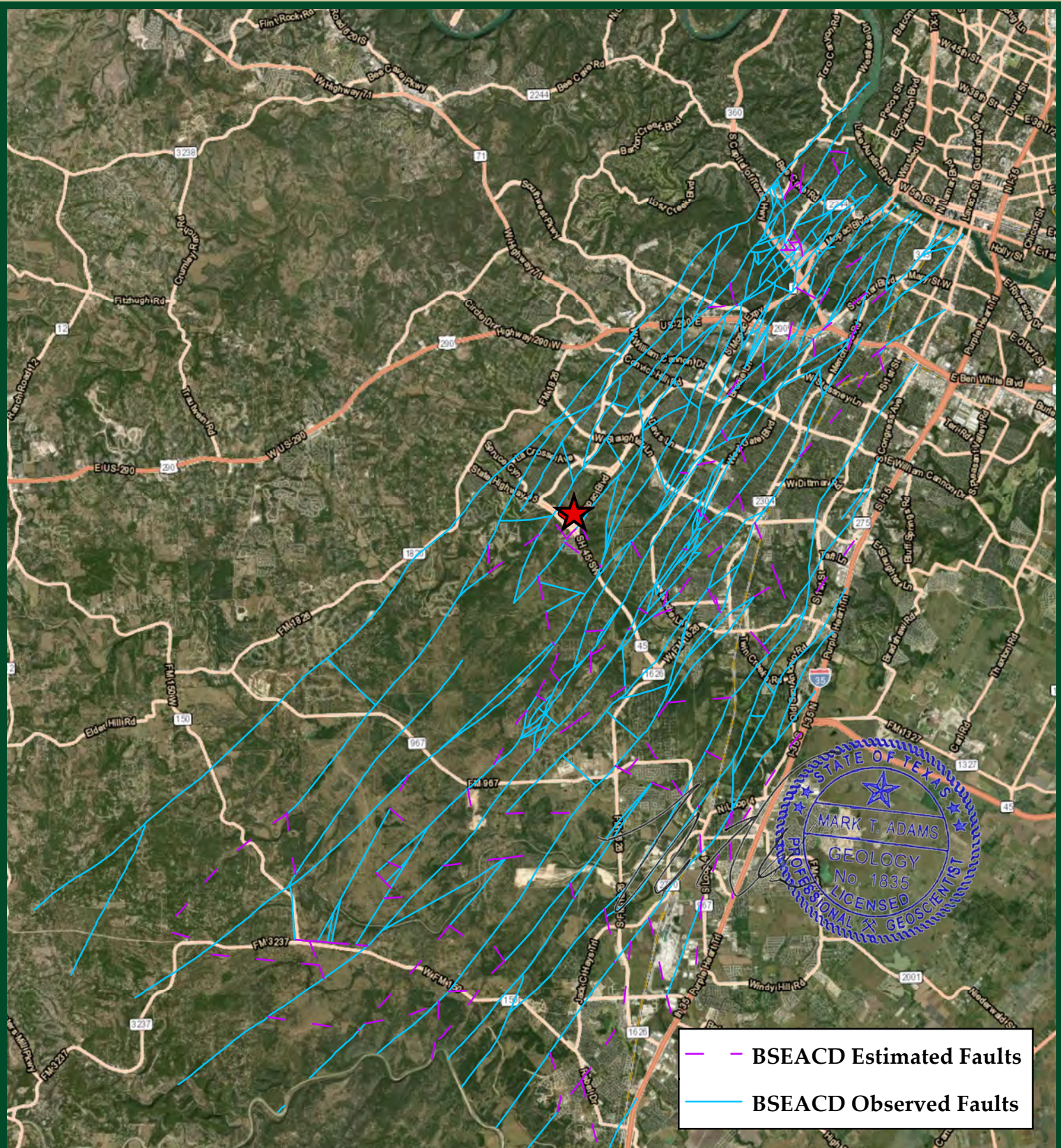
- DO - Dolomitic Mem.
- GS - Grainstone Mem.
- KS - Kirschberg Mem.

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



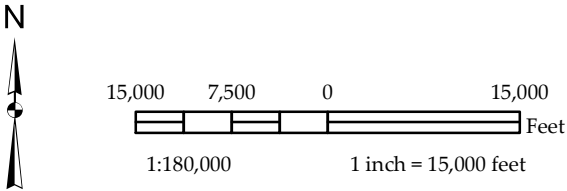
Subject Area (~ 25 acres)





--- BSEACD Estimated Faults  
--- BSEACD Observed Faults

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



Subject Area (~ 25 acres)  
 Regional Fault Trend: 15° - 45°



**Valor Southwest Tract**  
**Figure 4 - Regional Fault Trend**

## **ATTACHMENT B**

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

GEOLOGIC ASSESSMENT TABLE						PROJECT NAME: Valor Southwest														
LOCATION			FEATURE CHARACTERISTICS										EVALUATION		PHYSICAL SETTING					
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10	11		12	
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	MOD	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY	CATCHMENT AREA (ACRES)		TOPOGRAPHY	
						X	Y	Z		10						<40	≥40	<1.6	≥1.6	
COA1	30.176807	-97.88769	SC	20	ks	1.5	1.5	1	-		-	-	N, O	15	35	X		X		Hillside
COA2	30.176679	-97.887139	CD	5	ks	2	2	-	-		-	1x1x1	O, V	10	15	X		X		Hillside
COA3	30.178059	-97.889543	SC	20	ks	1	1	1	-		-	-	N, O	18	38	X		X		Hillside
HCC1	30.178003	-97.888489	SC	20	ks	2	2	-	-		-	1x1x3	C, O, V	25	45		X	X		Hillside
HCC2	30.177282	-97.886562	O	5	ks	3	2	0.5	-		-	-	O, V	5	10	X		X		Hillside
HCC4	30.177843	-97.885821	O	5	ks	25	15	2	30°	10	-	-	N, O, V	9	24	X			X	Drainage
HCC4-1	30.177831	-97.885668	SF	20	ks	3	0.5	1.5	30°	10	-	-	N, O	9	39	X			X	Drainage
HCC5	30.177211	-97.888277	CD	5	ks	3	3	0.5	-		-	-	O, V	10	40		X	X		Hillside
HCC8	30.176387	-97.889802	SF	20	ks	4	2.5	1	-		-	-	N, O, V	20	40		X	X		Hillside
HCC9	30.176501	-97.889619	Z	30	ks	3.5	2.5	4	25°	10	4/30	4	N, O, V	35	75		X	X		Hillside
HCC10	30.176185	-97.889524	SC	20	ks	4	3	2	-		-	-	N, O, V	20	40		X	X		Hillside
DH Sink	30.177643	-97.889004	SH	20	ks	2	2	1.5	-		-	-	O, V	20	40		X	X		Hillside
<b>Additional man-made features in bedrock on the next table.</b>																				

\* DATUM: NAD 1983 State Plane 4203

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

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

12 TOPOGRAPHY
Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

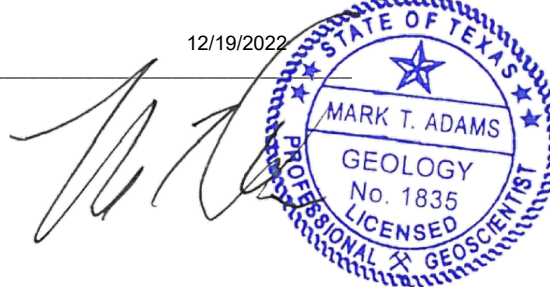
I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field. My signature certifies that I am qualified as a geologist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

12/19/2022

Date

Sheet   1   of   2  

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



GEOLOGIC ASSESSMENT TABLE			PROJECT NAME: Valor Southwest																	
LOCATION			FEATURE CHARACTERISTICS											EVALUATION		PHYSICAL SETTING				
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10	11		12	
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY	CATCHMENT AREA (ACRES)		TOPOGRAPHY	
						X	Y	Z		10						<40	≥40	<1.6	≥1.6	
MB01	30.177127	-97.890918	MB	30	ks	1	1	?	-		-	-	?	10	40		X	X	Hillside	
MB02	30.177218	-97.8892	MB	30	ks	1	1	?	-		-	-	?	10	40		X	X	Hillside	
MB03	30.178518	-97.884814	MB	30	ks	4	2.5	?	-		-	-	?	10	40		X	X	Hillside	
MB04	30.176955	-97.886363	MB	30	ks	4	2.5	?	-		-	-	?	10	40		X	X	Hillside	

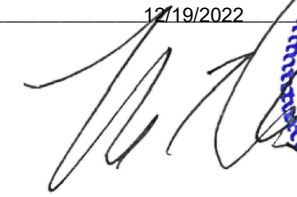
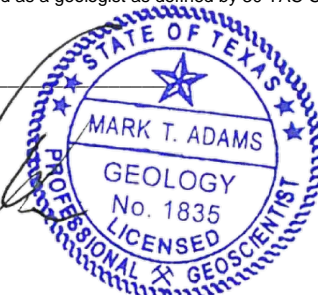
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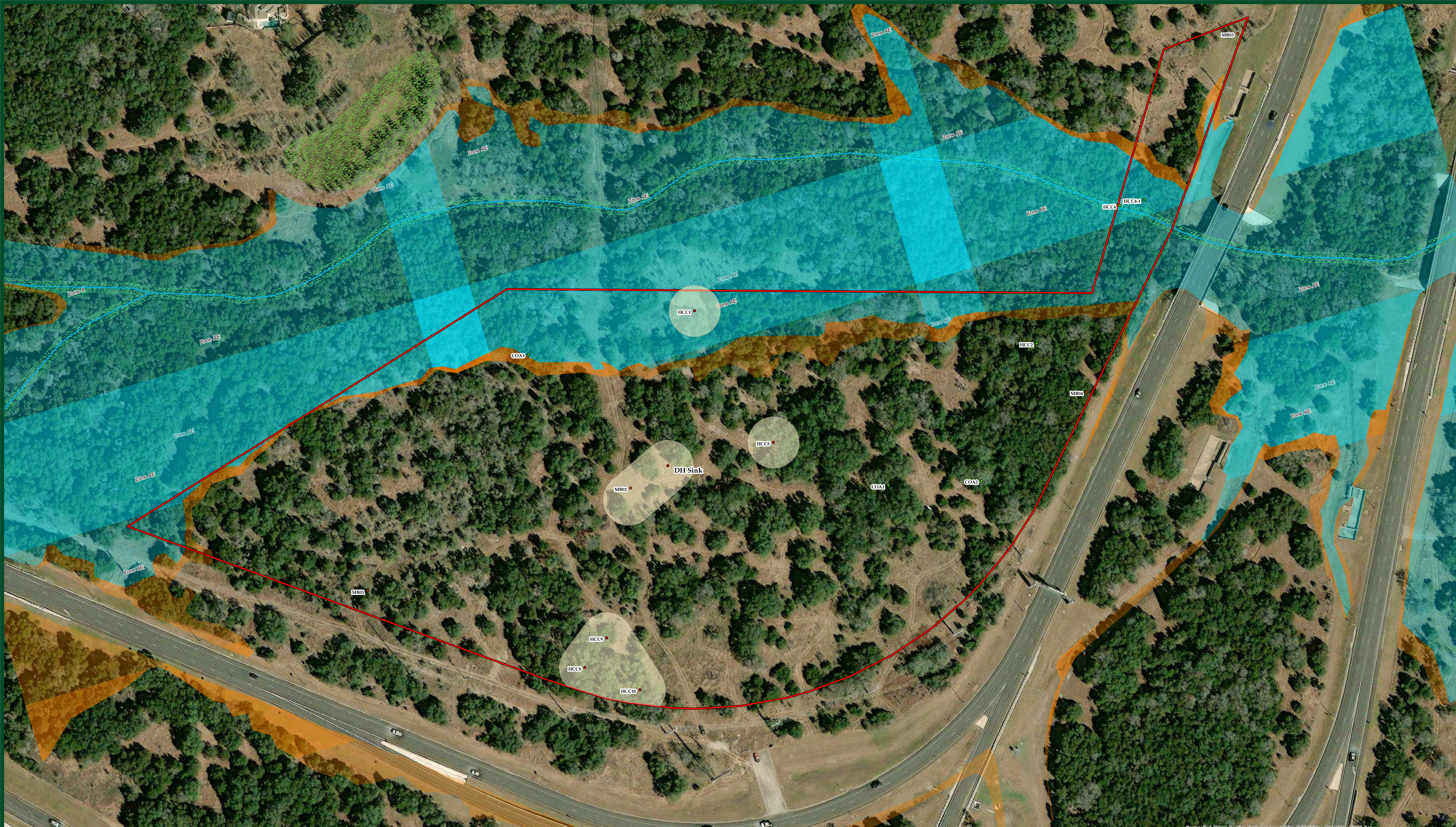
2A TYPE	TYPE	2B POINTS
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SH	Sinkhole	20
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Z	Zone, clustered or aligned features	30

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V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials

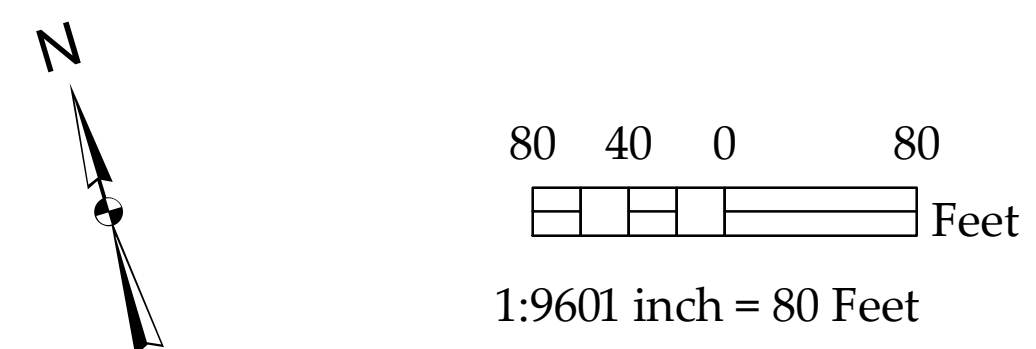
12 TOPOGRAPHY  
Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

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 Date 12/19/2022
   

  
 Sheet 2 of 2



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



Subject Area (~ 25 acres)  
 Setbacks

- Geologic Features (all)**
- MANMADE FEATURE IN BEDROCK
  - NON-SENSITIVE
  - SENSITIVE

- Hydrography**
- NHD Flowlines
  - Wetlands (NWI)

The entire subject area is underlain by the Kirschberg evaporite member of the Kainer Formation.  
 The entire subject area is located over the Edwards Aquifer recharge zone.  
 The northern segment of the subject area is within the FEMA Flood Hazard Zone A (1% Annual Chance Flood Hazard), and Zone AE (0.2% Annual Chance Flood Hazard).

12/19/2022



## COA1

GPS: 30.176807 -97.88769

This feature is a solution cavity with an approximate diameter of 1.5 ft and a depth of approximately 1 ft. Light hand excavation was performed to assess extent of the feature and it was noted that the feature extended laterally for an addition 2.5 ft. The interior of this feature was rock lined, and contained loose leaf organics, dark, compact soils, roots and small cobbles. The feature is located in the Kirschberge Evaporite Member of the Edwards Limestone Group on a gently sloping hillside. This feature has a catchment area of less than 1.6-acres, and it was determined to have a low infiltration rate with a point value of 15. This feature is non-sensitive.

**Recommendation:** No recommendations are required as this feature is non-sensitive.



Photo of COA1.



## COA2

GPS: 30.176679 -97.887139

This feature is a non-karst closed depression with an approximate diameter of 2 ft. One aperture approximately 1 ft long by 1 ft wide by 1 ft deep was noted within the depression. Light hand excavation was performed to assess extent of the feature and it was noted that there was no vertical or lateral development within the aperture. The feature is located in the Kirschberge Evaporite Member of the Edwards Limestone Group on a gently sloping hillside. The interior of this feature was not rock lined, and contained loose leaf organics, dark, loose soils, roots and vegetation including green briar and a juvenile hackberry. The catchment area was determined to be less than 1.6-acres, and the infiltration rate was determined to be low with a point value of 10. This feature is non-sensitive.

**Recommendation:** No recommendations are required as this feature is non-sensitive.



Photo of COA2.

### COA3

GPS: 30.178059 -97.889543

This feature is a solution with an approximate diameter of 1 ft and a depth of approximately 1 ft. The feature is located in the Kirschberge Evaporite Member of the Edwards Limestone Group on a gently sloping hillside. The interior of the cavity was investigated for additional portals. It was noted that there was lateral development within the cavity extending for approximately 2 ft in multiple directions. The catchment area for this feature was less than 1.6 acres. Infill material consisted of loose organics and exposed bedrock. The infiltration rate for this feature was determined to be low and assigned a point value of 18. This feature was previously determined to be non-sensitive, and the City of Austin (COA) had dismissed any setbacks for this feature

**Recommendation:** No recommendations are required as this feature is non-sensitive.



Photo of COA3.



Interior view of CoA 3.

## HCC1

GPS: 30.178003 -97.888489

This feature is a solution cavity within a depression with an approximate diameter of 2 ft. The feature is located in the Kirschberge Evaporite Member of the Edwards Limestone Group on a gently sloping hillside. Light hand excavation was performed to assess the extent of this feature. After pulling away loose cobbles, the solution cavity was discovered. The approximate dimensions of this cavity were 1 ft long by 1 ft wide by 3 ft deep, at its maximum observable distance. The interior of the cavity contained medium, rounded cobbles, loose organics, grasses and roots. The catchment area for this feature was less than 1.6 acres. The infiltration rate for this feature was determined to be intermediate and assigned a point value of 25. Thus, this feature is determined to be sensitive.

**Recommendation:** A setback of 50 ft around this feature is to be established.



Photo of HCC1.



Close up of portal within HCC1 after light hand excavation.

## HCC2

GPS: 30.177282 -97.886562

This feature is a non-karst closed depression approximately 3 ft long by 2 ft wide by 0.5 ft deep. The feature is located in the Kirschberge Evaporite Member of the Edwards Limestone Group on a gently sloping hillside. Light hand excavation was performed to determine if any portals existed within the feature. There were no portals or vertical development observed within the feature. The infill material consisted of loose soils, organics, leaves, and vegetation including yaupon and live oak. The catchment area for this feature was less than 1.6 acres. The infiltration rate for this feature was determined to be low and assigned a point value of 5. Thus, this feature is determined to be non-sensitive.

**Recommendation:** No recommendations are required as this feature is non-sensitive.



Photo of HCC2.



Photo of HCC2 after light hand excavation.

#### HCC4

GPS: 30.177843 -97.885821

This feature is an “other natural bedrock feature”, a fractured rock outcrop. The approximate dimensions of this feature are 25 ft long by 15 ft wide by 2 ft deep. The feature is located in the Kirschberge Evaporite Member of the Edwards Limestone Group within a drainage. The general trend of the fractures within this outcrop was approximately 30°, however, there were no portals or vertical development observed within this outcrop. The infill material consisted of loose soils, organics, leaves, and vegetation and large cobbles. The catchment area for this feature was greater than 1.6 acres. The infiltration rate for this feature was determined to be low and assigned a point value of 9. Thus, this feature is determined to be non-sensitive.

**Recommendation:** No recommendations are required as this feature is non-sensitive.



Photo of HCC4.



## HCC4-1

GPS: 30.177831 -97.885668

This feature is a solution fracture approximately 3 ft long by 0.5 ft wide by 1.5 ft deep. The feature is located in the Kirschberge Evaporite Member of the Edwards Limestone Group within a drainage. The general trend of this fracture was approximately 30°, however, there were no portals or vertical development observed within feature. The infill material consisted of loose soils, organics, leaves, and vegetation and large cobbles. The catchment area for this feature was greater than 1.6 acres. The infiltration rate for this feature was determined to be low and assigned a point value of 9. Thus, this feature is determined to be non-sensitive.

**Recommendation:** No recommendations are required as this feature is non-sensitive.



Photo of HCC4-1.

## HCC5

GPS: 30.177211 -97.888277

This feature is a sinkhole with an approximate diameter of 3 ft and a depth of approximately 0.5 ft. The feature is located in the Kirschberge Evaporite Member of the Edwards Limestone Group on a gently sloping hillside. There were no portals identified within the feature during the inspection. It was determined that the catchment area for this feature was less than 1.6 acres. Infill material consisted of loose organics, dark soils and vegetation. The infiltration rate for this feature was determined to be low and assigned a point value of 10. This feature is sensitive, and the COA had previously approved a setback of 50 ft around this feature.

**Recommendation:** A setback of 50 ft around this feature is to be established.



Photo of HCC5.

## HCC8

GPS: 30.176387 -97.889802

This feature is a solution cavity/solution fracture with an approximate of 4 ft in length, 2.5 ft in width, and 1 ft in depth. The feature is located in the Kirschberge Evaporite Member of the Edwards Limestone Group on a gently sloping hillside. It was determined that the catchment area for this feature was less than 1.6 acres. Infill material consisted of loose organics, dark soils, tree roots and vegetation. The infiltration rate for this feature was determined to be intermediate and assigned a point value of 20. This feature is sensitive, and the COA had previously approved a setback of 50 ft around this feature.

**Recommendation:** A combined setback with feature HCC8, HCC9, and HCC10 is to be established.



Photo of HCC8.

## HCC9

GPS: 30.176501 -97.889619

This feature is a zone of solution cavities and solution fractures. Located less than 100 ft northeast of HCC8. The dimensions of the features within this zone vary in size, though it was noted that the general trend of observable fractures was ranging between 25° and 38°, concluding that these features are on trend. The approximate depth, where visible, for features within this zone ranged from 3-6 ft in depth. Light hand excavation was performed near HCC9 where a solution cavity was observed. Clean, washed, rounded bedrock was observed within this solution cavity and the relative infiltration rate was determined to be high, and assigned a point value of 35. The catchment area was less than 1.6 acres. Infill material consisted of loose organics, cobbles and exposed bedrock. This feature is sensitive, and the COA had previously approved a setback combined with the setback for feature HCC8.

**Recommendation:** A combined setback with feature HCC8, HCC9, and HCC10 is to be established.



Photo of HCC9.



View of HCC 9-1, a solution cavity within the zone of HCC9 showing clean, washed bedrock extending to a depth of approximately 4 ft deep.

## HCC10

GPS: 30.176185 -97.889524

This feature is a solution cavity approximately 4 ft long by 3 ft wide with a vertical depth of 2 ft, located on a gently sloping hillside. There was approximately 4 ft of lateral development noted within the feature. The feature is located in the Kirschberge Evaporite Member of the Edwards Limestone Group. The infill material consisted of loose, dark soils, leaf litter and organics, roots from a nearby oak, and exposed bedrock. The feature has no trend, and a drainage area of less than 1.6 acres. It was determined that this feature had an intermediate infiltration rate and was assigned a point value of twenty (20). This feature is sensitive, and the COA had previously approved a setback of 50 ft around this feature.

**Recommendation:** A combined setback with feature HCC8, HCC9, and HCC10 is to be established.



Photo of HCC10.



Interior view of HCC10.

## Dryer Hose Sink

GPS: 30.177643, -97.889004

This feature is a sink approximately 2 feet in diameter by 1.5 feet deep, located on a gently sloping hillside. The feature is located in the Kirschberge Evaporite Member of the Edwards Limestone Group. The infill material consisted of loose, dark soils, leaf litter and organics, and nearby vegetation including green briar, agarita, and Texas persimon. The feature has no trend, and a drainage area of less than 1.6 acres. Anecdotal information on this feature was provided by the CoA and the feature was identified during field investigations by **aci consulting** and CoA Staff on September 7, 2022. It was determined that this feature has an intermediate infiltration rate with a point value of twenty (20). This feature has been deemed sensitive, and a buffer of 150 feet upslope and 50 feet down and across the sink of the feature is being recommended.

**Recommendation:** A setback of 150 feet upslope and 50 feet across and downslope is recommended.



Overview of Dryer Hose Sink.



### MB01

GPS: 30.177127 -97.890918

This feature is a manmade feature in bedrock (a fire hydrant) with an apparent diameter of 1 ft extending below the surface for an unknown depth. The feature is located in the Kirschberge Evaporite Member of the Edwards Limestone Group on a gently sloping hillside. Infill material is unknown. The feature has no trend, and a drainage area of less than 1.6 acres. This feature was assigned a low infiltration rate of 10 points to designate it as sensitive, in order to bring it to the attention of the project engineer.

**Recommendation:** Bring to the attention of the project engineer.



Photo of MB01.

## MB02

GPS: 30.177218 -97.889200

This feature is a manmade feature in bedrock (a fire hydrant and associated underground water utilities) with an apparent diameter of 1 ft extending below the surface for an unknown depth. A 2.5-ft by 2.5-ft concrete pad with underground water utilities is located adjacent to this hydrant. The feature is located in the Kirschberge Evaporite Member of the Edwards Limestone Group on a gently sloping hillside. Infill material is unknown. The feature has no trend, and a drainage area of less than 1.6 acres. This feature was assigned a low infiltration rate of 10 points to designate it as sensitive, in order to bring it to the attention of the project engineer.

**Recommendation:** Bring to the attention of the project engineer.



Photo of MB02.

### MB03

GPS: 30.178518 -97.884814

This feature is a manmade feature in bedrock (underground telecommunications utilities). A concrete pad approximately 4 ft long by 2.5 ft wide was noted, as well as a fiber optic cable marker. The feature is located in the Kirschberge Evaporite Member of the Edwards Limestone Group on a gently sloping hillside. Infill material is unknown. The feature has no trend, and a drainage area of less than 1.6 acres. This feature was assigned a low infiltration rate of 10 points to designate it as sensitive, in order to bring it to the attention of the project engineer.

**Recommendation:** Bring to the attention of the project engineer.



Photo of MB03.

## MB04

GPS: 30.176955 -97.88636

This feature is a manmade feature in bedrock (underground telecommunications utilities). A concrete pad approximately 4 ft long by 2.5 ft wide was noted, as well as a fiber optic cable marker. The feature is located in the Kirschberge Evaporite Member of the Edwards Limestone Group on a gently sloping hillside. Infill material is unknown. The feature has no trend, and a drainage area of less than 1.6 acres. This feature was assigned a low infiltration rate of 10 points to designate it as sensitive, in order to bring it to the attention of the project engineer.

**Recommendation:** Bring to the attention of the project engineer.



Photo of MB04.

**ATTACHMENT C**

Historic Aerial Photographs



1995



2003



2006





2008



2009



2011



2012



2013



2014



2016



2017





2018



2020



2021

# **SECTION 4: ORGANIZED SEWAGE COLLECTION SYSTEM PLAN**

# Organized Sewage Collection System Application

## Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(c), Effective June 1, 1999

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

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

**Regulated Entity Name:** Valor Texas Education Foundation

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

## Customer Information

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

Contact Person: Jesse Bates

Entity: Valor Texas Education Foundation

Mailing Address: 220 Foremost Drive

City, State: Austin, Texas

Zip: 78745

Telephone: (214)514-335

Fax: \_\_\_\_\_

Email Address: jbates@valoreducation.org

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

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

Contact Person: C.J. Ponton, P.E.

Texas Licensed Professional Engineer's Number: 127280

Entity: Kimley-Horn & Associates

Mailing Address: 5301 Southwest Parkway, Building 2, Suite 100

City, State: Austin, Texas

Zip: 78735

Telephone: 737-787-8750

Fax: \_\_\_\_\_

Email Address: cj.ponton@kimley-horn.com

## Project Information

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

- Residential: Number of single-family lots: \_\_\_\_\_  
 Multi-family: Number of residential units: \_\_\_\_\_  
 Commercial  
 Industrial  
 Off-site system (not associated with any development)  
 Other: Charter School

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

100% Domestic 10,350 gallons/day  
 \_\_\_\_\_% Industrial \_\_\_\_\_gallons/day  
 \_\_\_\_\_% Commingled \_\_\_\_\_gallons/day  
 Total gallons/day: 10,350

6. Existing and anticipated infiltration/inflow is 0 gallons/day. This will be addressed by: N/A.

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

- The WPAP application for this development was approved by letter dated \_\_\_\_\_. A copy of the approval letter is attached.  
 The WPAP application for this development was submitted to the TCEQ on 03/21/2023, but has not been approved.  
 A WPAP application is required for an associated project, but it has not been submitted.  
 There is no associated project requiring a WPAP application.

8. Pipe description:

**Table 1 - Pipe Description**

<i>Pipe Diameter(Inches)</i>	<i>Linear Feet (1)</i>	<i>Pipe Material (2)</i>	<i>Specifications (3)</i>
6"	1,452 ft	PVC SDR-26	ASTM D-3034

**Total Linear Feet: 1,452 ft**

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

9. The sewage collection system will convey the wastewater to the South Regional Wastewater Treatment Plant (name) Treatment Plant. The treatment facility is:

- Existing
- Proposed

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

- The City of Austin standard specifications.
- Other. Specifications are attached.

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

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

### **Alignment**

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

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

- Attachment B - Justification and Calculations for Deviation in Straight Alignment without Manholes.** A justification for deviations from straight alignment in this sewage collection system without manholes with documentation from pipe manufacturer allowing pipe curvature is attached.
- For curved sewer lines, all curved sewer line notes (TCEQ-0596) are included on the construction plans for the wastewater collection system.

### **Manholes and Cleanouts**

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

**Table 2 - Manholes and Cleanouts**

<i>Line</i>	<i>Shown on Sheet</i>	<i>Station</i>	<i>Manhole or Clean-out?</i>
WWTR-1	29 Of 50	1+16.70	Manhole
WWTR-1	29 Of 50	3+21.79	Manhole
WWTR-1	29 Of 50	6+21.57	Manhole
WWTR-1	29 Of 50	9+04.65	Manhole
WWTR-1	29 Of 50	11+70.04	Manhole
WWTR-1	29 Of 50	14+67.57	Manhole
WWTR-1	29 Of 50	15+52.09	Manhole

15.  Manholes are installed at all Points of Curvature and Points of Termination of a sewer line.
16.  The maximum spacing between manholes on this project for each pipe diameter is no greater than:

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

- Attachment C – Justification for Variance from Maximum Manhole Spacing.** The maximum spacing between manholes on this project (for each pipe diameter used) is greater than listed in the table above. A justification for any variance from the maximum spacing is attached, and must include a letter from the entity which will operate and maintain the system stating that it has the capability to maintain lines with manhole spacing greater than the allowed spacing.
17.  All manholes will be monolithic, cast-in-place concrete.
- The use of pre-cast manholes is requested for this project. The manufacturer's specifications and construction drawings, showing the method of sealing the joints, are attached.

## Site Plan Requirements

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

18.  The Site Plan must have a minimum scale of 1" = 400'.
- Site Plan Scale: 1" = 30, 40, 60, 100'.
19.  The Site Plan must include the sewage collection system general layout, including manholes with station numbers, and sewer pipe stub outs (if any). Site plan must be overlain by topographic contour lines, using a contour interval of not greater than ten feet and showing the area within both the five-year floodplain and the 100-year floodplain of any drainage way.
20. Lateral stub-outs:
- The location of all lateral stub-outs are shown and labeled.
- No lateral stub-outs will be installed during the construction of this sewer collection system.



21. Location of existing and proposed water lines:

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

22. 100-year floodplain:

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

**Table 3 - 100-Year Floodplain**

<i>Line</i>	<i>Sheet</i>	<i>Station</i>
WWTR-1	29 of 50	3+21.79 to 6+21.57

23. 5-year floodplain:

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

**Table 4 - 5-Year Floodplain**

<i>Line</i>	<i>Sheet</i>	<i>Station</i>
N/A	N/A	N/A

24.  Legal boundaries of the site are shown.

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

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

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

There will be no water line crossings.

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

**Table 5 - Water Line Crossings**

<i>Line</i>	<i>Station or Closest Point</i>	<i>Crossing or Parallel</i>	<i>Horizontal Separation Distance</i>	<i>Vertical Separation Distance</i>
WWTR-1	13+84.75	Crossing	0	5.5 feet

27. Vented Manholes:

**No part** of this sewer line is within the 100-year floodplain and vented manholes are not required by 30 TAC Chapter 217.

**A portion** of this sewer line is within the 100-year floodplain and vented manholes will be provided at less than 1500 foot intervals. These water-tight manholes are listed in the table below and labeled on the appropriate profile sheets.

**A portion** of this sewer line is within the 100-year floodplain and an alternative means of venting shall be provided at less than 1500 feet intervals. A description of the alternative means is described on the following page.

**A portion** of this sewer line is within the 100-year floodplain; however, there is no interval longer than 1500 feet located within. No vented manholes will be used.

**Table 6 - Vented Manholes**

<i>Line</i>	<i>Manhole</i>	<i>Station</i>	<i>Sheet</i>
N/A	N/A	N/A	N/A

28. Drop manholes:

There are no drop manholes associated with this project.

Sewer lines which enter new or existing manholes or "manhole structures" higher than 24 inches above the manhole invert are listed in the table below and labeled on the appropriate profile sheets. These lines meet the requirements of 30 TAC §217.55(I)(2)(H).

**Table 7 - Drop Manholes**

<i>Line</i>	<i>Manhole</i>	<i>Station</i>	<i>Sheet</i>
WWTR-1	Drop Manhole	17+00.82	29 of 50

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

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

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

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

31. Minimum flow velocity (From Appendix A)

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

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

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

**Table 8 - Flows Greater Than 10 Feet per Second**

<i>Line</i>	<i>Profile Sheet</i>	<i>Station to Station</i>	<i>FPS</i>	<i>% Slope</i>	<i>Erosion/Shock Protection</i>
N/A	N/A	N/A	N/A	N/A	N/A

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

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

**Administrative Information**

- 34.  The final plans and technical specifications are submitted for TCEQ review. Each sheet of the construction plans and specifications are dated, signed, and sealed by the Texas Licensed Professional Engineer responsible for the design on each sheet.
- 35.  Standard details are shown on the detail sheets, which are dated, signed, and sealed by the Texas Licensed Professional Engineer, as listed in the table below:

**Table 9 - Standard Details**

<i>Standard Details</i>	<i>Shown on Sheet</i>
Lateral stub-out marking <b>[Required]</b>	N/A
Manhole, showing inverts comply with 30 TAC §217.55(l)(2) <b>[Required]</b>	29 of 50
Alternate method of joining lateral to existing SCS line for potential future connections <b>[Required]</b>	N/A
Typical trench cross-sections <b>[Required]</b>	N/A
Bolted manholes <b>[Required]</b>	29 of 50
Sewer Service lateral standard details <b>[Required]</b>	29 of 50
Clean-out at end of line <b>[Required, if used]</b>	29 of 50
Baffles or concrete encasement for shock/erosion protection <b>[Required, if flow velocity of any section of pipe &gt;10 fps]</b>	N/A
Detail showing Wastewater Line/Water Line Crossing <b>[Required, if crossings are proposed]</b>	34 of 50
Mandrel detail or specifications showing compliance with 30 TAC §217.57(b) and (c) <b>[Required, if Flexible Pipe is used]</b>	34 of 50

<b>Standard Details</b>	<b>Shown on Sheet</b>
Drop manholes [Required, if a pipe entering a manhole is more than 24 inches above manhole invert]	29 of 50

36.  All organized sewage collection system general construction notes (TCEQ-0596) are included on the construction plans for this sewage collection system.
37.  All proposed sewer lines will be sufficiently surveyed/staked to allow an assessment prior to TCEQ executive director approval. If the alignments of the proposed sewer lines are not walkable on that date, the application will be deemed incomplete and returned.
- Survey staking was completed on this date: \_\_\_\_\_
38.  Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
39.  Any modification of this SCS application will require TCEQ approval, prior to construction, and may require submission of a revised application, with appropriate fees.

## Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Organized Sewage Collection System Application** is hereby submitted for TCEQ review and executive director approval. The system was designed in accordance with the requirements of 30 TAC §213.5(c) and 30 TAC §217 and prepared by:

Print Name of Licensed Professional Engineer: C.J. Ponton, P.E.

Date: 03/21/2023

Place engineer's seal here:



Signature of Licensed Professional Engineer:

*C.J. Ponton*

---

## Appendix A-Flow Velocity Table

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

**Table 10 - Slope Velocity**

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

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

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

**Figure 1 - Manning's Formula**

Where:

$v$  = velocity (ft/sec)

$n$  = Manning's roughness coefficient (0.013)

$R_h$  =hydraulic radius (ft)  $S$  = slope (ft/ft)

$S$  = slope (ft/ft)

# **Attachment A**

## **Engineering Design Report**

### **Engineer's Design Report**

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

### **Project Description**

#### **Introduction**

The Valor Southwest Public School is located at the intersection of I-45 and MoPac Expressway, Austin, Travis County, Texas. The existing tract (TCAD ID 0431470126) consists of one +/-25.42 acre tract located in the Austin Full-Purpose jurisdiction. The proposed development will include a K-12 Charter School and Gymnasium, that totals approximately 116,000 square-feet, and associated parking and utility improvements. A site plan application has been submitted to the City of Austin for approval. The development is located within the Edwards Aquifer Recharge Zone. Subsequently, water quality requirements set forth by the Texas Commission on Environmental Quality (TCEQ) will need to be met. Best managements practices (BMPs) used is a retention-reirrigation pond. This project is located within the Slaughter Creek Watershed. The proposed 25.42-acre site is not located in the Federal Emergency Management Agency's 100-year floodplain according to the FEMA FIRM map 48453C0595H. The site is located within the Edwards Aquifer Recharge Zone, per Edward's Aquifer GIS databases. The site contains five (5) environmental features as identified in the Environmental Resource Inventory. The development identifies the City of Austin appropriate Critical Environmental Feature (CEF) buffers for each feature and no impacts are proposed or mitigations have been identified to any of these areas.

### **Pipe Design**

#### **Flow Design Basis**

The build-out of the 25.42-acre site will be served by this wastewater system. The City of Austin Criteria Manuals were used to determine the parameters for the design of the wastewater line extension.

#### **Gravity Pipe and Joint Materials**

The proposed pipe to be used for the 6 wastewater line will be ASTM D3034 SDR-26 PVC pipe (cell class 12454). The joints for this pipe shall meet the requirements of ASTM D3212. The pipe joints shall have an integral bell and rubber gasket seal with the locked-in type gasket.

#### **Separation Distances for Water and Wastewater**

At all waterline crossings a two-foot vertical separation is maintained. A nine-foot minimum horizontal separation is maintained between all proposed wastewater infrastructure and existing and proposed public water supply lines.

### ***Building Laterals and Taps***

A two service laterals are provided for the development.

### ***Boring and Tunneling of Crossings***

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

### ***Corrosion Potential***

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

### ***Odor Control***

All flows contributing to the proposed wastewater lines are domestic sewage. No odor control is used.

### ***Active Geologic Faults***

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

### ***Capacity Analysis***

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

Capacity:

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

Where:

Q<sub>full</sub> = flow rate of fluid in pipe at full flow (ft<sup>3</sup>/s) (cfs)

Q<sub>90%</sub> = flow rate of fluid in pipe at 90% full flow (ft<sup>3</sup>/s) (cfs)

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

d = internal pipe diameter (ft) = D<sub>o</sub> - 2t

D<sub>o</sub> = outside diameter (in)

t = pipe wall thickness (in)

n = Manning's Roughness coefficient = 0.013

R<sub>full</sub> = hydraulic radius of pipe (full flow) = A/P = D/4 (ft)

R<sub>90%</sub> = hydraulic radius of pipe (90% full flow) = 0.9\*A/P = 0.9\*D/4 (ft)

PW = wetted perimeter of pipe =  $\pi$  \* D (ft)

S = slope of energy line



PIPE-ID	LENGTH	AVERAGE SLOPE	PIPE DIAMETER		MANNING'S	PW	A	Rfull	R90%	Qfull	Qfull	Q90% (Qcap)	Q90% (Qcap)	Vfull	V90%
	FT	FT/FT	IN	FT		FT	SF	FT	FT	CFS	MGD	CFS	MGD	FPS	FPS
1	99.72	0.0100	6	0.50	0.013	1.57	0.20	0.13	0.11	0.56	0.36	0.50	0.33	2.85	2.56
2	105.38	0.0100	6	0.50	0.013	1.57	0.20	0.13	0.11	0.56	0.36	0.50	0.33	2.85	2.56
3	289.76	0.0100	6	0.50	0.013	1.57	0.20	0.13	0.11	0.56	0.36	0.50	0.33	2.85	2.56
4	283.08	0.0100	6	0.50	0.013	1.57	0.20	0.13	0.11	0.56	0.36	0.50	0.33	2.85	2.56
5	265.39	0.0100	6	0.50	0.013	1.57	0.20	0.13	0.11	0.56	0.36	0.50	0.33	2.85	2.56
6	297.53	0.0100	6	0.50	0.013	1.57	0.20	0.13	0.11	0.56	0.36	0.50	0.33	2.85	2.56
7	84.52	0.0100	6	0.50	0.013	1.57	0.20	0.13	0.11	0.56	0.36	0.50	0.33	2.85	2.56

Project Flows:

**6" ASTM D3034 SDR-26**

LUE = Living Unit Equivalent = Population of Service

SA = Service Acreage: 2.55-Acres

Existing LUE's: 0

Valor Southwest LUE's: 109

**Total LUE's: 109**

*Peak Dry Flows*

$$PDWF = F * LUE * PF / 1,000,000$$

Where:

PDWF = Peak Dry Weather Flow (MGD)

F = Flow per capita per day = 70 GPD

PF = Peaking Factor = 4.0 Used for Lines <15"

$$PDWF = 70 * 109 * 4 / 1,000,000$$

**PDWF = 0.03 MGD**

*Minimum Dry Weather Flows*

$$MDWF = [0.2 * (0.0144 * ADWF * 1,000,000)^{0.198}] * ADWF / 1,000,000$$

Where:

MDWF = Minimum Dry Weather Flow (MGD)

ADWF = Average Dry Weather Flow (GPD) = 0.38 MGD Per City of Austin Model

ADWF = 0.38 \* 1,000,000 = 380,000 GPD

$$MDWF = [0.2 * (0.144 * 380,000)^{0.198}] * 380,000 / 1,000,000$$

**MDWF = 0.42 MGD**

*Infiltration & Inflow*

$$I\&I = 750 * SA / 1,000,000 \text{ (MGD)}$$

$$I\&I = 750 * 2.55 / 1,000,000$$

$$I\&I = \mathbf{0.0019 \text{ MGD}}$$

#### *Peak Wet Flows*

$$PWWF = PDWF + I\&I$$

Where:

$$PWWF = \text{Peak Wet Weather Flow (MGD)}$$

$$PWWF = 0.03 + 0.0019$$

$$PWWF = \mathbf{0.0319 \text{ MGD}}$$

#### *Minimum and Maximum Velocity*

Minimum Velocity occurs during Average Dry Weather Flow. Flow calculations are based on Partial flow velocity calculations for pipe's flowing less than half full as noted in tables above.

Maximum Velocity occurs during Peak Wet Weather Flow. Flow calculations are based on Partial flow velocity calculations for pipe's flowing greater than half full as noted in tables above.

#### *Capacity*

The proposed wastewater lines will have a higher slope and capacity than the controlling existing 10" wastewater line with slope of 2.05 %, full flow capacity of 14.66 MGD, and 90% capacity of 13.20 MGD.

$$PWWF \mathbf{0.0319 \text{ MGD}} < Q_{90} = \mathbf{13.20 \text{ MGD}}$$

#### **6" ASTM D3034 SDR-26**

The 6" wastewater lines proposed as part of this each serve approximately 0.0319 MGD of PWWF. The private laterals are also designed to meet applicable plumbing codes. No additional wastewater flow above the 0.04 MGD is anticipated to be added to the private 6" laterals.

#### ***Structural Analysis***

Flexible pipe is proposed on this project. Structural calculations are provided for the flexible pipe to be installed. The proposed collection system piping is designed to have a minimum structural life of 50 years. As previously mentioned, all proposed PVC pipe shall be cell class 12454 with a tensile strength of 7,000 psi.

Live Load Calculations – no significant live loads are anticipated on any segment of this project.

*Buckling Pressure* - the following equations utilized for the calculation of buckling pressure are taken from the *Handbook of PVC Pipe: Design and Construction* (Uni-Bell PVC Pipe Association, 2001).

$$P_{cr} = \frac{2 * E}{(1 - \nu^2) * (DR - 1)^3} \quad (\text{Equation 7.14})$$

$$P_b = 1.15 * \sqrt{P_{cr} * E'}$$

(Equation 7.18)

$$H = (P_b * 144) / w \quad (\text{Equation 6.7})$$

Where:

- P<sub>cr</sub> = critical buckling pressure (psi)
- E = modulus of elasticity (psi) = 400,000 psi for PVC
- ν = Poisson's Ratio = 0.38 for PVC
- DR = dimension ratio
- P<sub>b</sub> = buckling pressure in soil (psi)
- E' = modulus of soil reaction (psi) = 2,000 psi for crushed rock compacted to greater than 95% relative density
- H = maximum allowable cover height of soil (ft)
- w = weight of soil (lbs/ft<sup>3</sup>) = 120 lbs/ft<sup>3</sup>

**6" ASTM D3034 SDR-26**

$$P_{cr} = \frac{2 * 400,000}{(1 - 0.38^2) * (26 - 1)^3}$$

P<sub>cr</sub> = 59.84 psi

$$P_b = 1.15 * \sqrt{59.84 * 2,000}$$

P<sub>b</sub> = 397.84 psi

H = (397.84 \* 144) / 120

**H = 477.41 ft height of soil to cause pipe buckling**

*Prism Load Calculations* - the following equations utilized for the calculation of prism loads are taken from the *Handbook of PVC Pipe: Design and Construction* (Uni-Bell PVC Pipe Association, 2001).

$$P = H * w \text{ (Equation 6.7)}$$

Where:

- P = prism load pressure due to soil weight (lbs/ft<sup>2</sup>)
- H = depth of pipe (ft)
- w = soil density (lbs/ft<sup>3</sup>) = 120 lbs/ft<sup>3</sup>

**6" ASTM D3034 SDR-26**

$$H = 20' \text{ (Max Depth for System)}$$

$$P = 20 * 120$$

$$P = 2,400 \text{ lbs/ft}^2 \text{ or } 12.50 \text{ psi}$$

*Long Term Deflection Calculations* - the following equations utilized for the calculation of long term deflection are taken from the *Handbook of PVC Pipe: Design and Construction* (Uni-Bell PVC Pipe Association, 2001).

$$\Delta Y/D = \frac{DL * K * P + K * W_1}{[2E / (3(DR - 1)^3)] + 0.061 * E'} * 100 \text{ (Equation 7.10)}$$

Where:

- $\Delta Y/D$  = long term deflection (%)
- DL = Deflection Lag Factor = 1.0 for prism load calculation
- K = bedding constant = 0.096 for 90°
- P = prism load pressure due to soil weight (lbs/ft<sup>2</sup>)
- W<sub>1</sub> = live load (psi) = 0 psi
- E = modulus of elasticity (psi) = 400,000 psi for PVC
- DR = dimension ratio
- E' = modulus of soil reaction (psi) = 2,000 psi for crushed rock bedding compacted to greater than 95% relative density

Note: Leonhardt's Zeta factor is assumed to equal 1, and thus is not required in the calculation. This is a conservative assumption that results in a more conservatively calculated value for long term deflection.

**6" ASTM D3034 SDR-26**

$$\Delta Y/D = \frac{1.0 * 0.096 * 12.50 + 0.096 * 0}{[2(400,000) / (3(26 - 1)^3)] + 0.061 * 2,000} * 100$$

$$\Delta Y/D = 0.86\%$$

Wall Crushing Calculations - the following equations utilized for the calculation of wall crushing are taken from the Handbook of PVC Pipe: Design and Construction (Uni-Bell PVC Pipe Association, 2001).

$$P_y = \frac{\sigma_c * 2 * A}{D} \quad (\text{Equation 7.20})$$

$$H = P_y / w \quad (\text{Equation 6.7})$$

Where:

- $P_y$  = pressure due to soil weight (psi)
- $\sigma_c$  = compressive stress (psi) = 4,000 psi for PVC pipe
- $A$  = surface area of the pipe wall (in<sup>2</sup>/in)
- $D$  = mean pipe diameter (in) =  $D_o - t$
- $t$  = pipe wall thickness (in)
- $H$  = maximum allowable height of cover (ft)
- $w$  = soil density (lbs/ft<sup>3</sup>) = 120 lbs/ft<sup>3</sup>

#### **6" ASTM D3034 SDR-26**

$$D = 6.275 - 0.241 = 6.034 \text{ in}, A = 2.89 \text{ in}^2/\text{ft} (0.241 \text{ in} * 12 \text{ in}/\text{ft})$$

$$P_y = \frac{4,000 * 2 * (2.89/12)}{6.034}$$

$$P_y = 319.30 \text{ psi}$$

$$H = (319.30 * 144) / 120$$

**H = 383.16 ft height of soil to cause wall crushing**

Strain Calculations - the following equations utilized for the calculation of strain are taken from the *Handbook of PVC Pipe: Design and Construction* (Uni-Bell PVC Pipe Association, 2001).

$$\epsilon_h = \frac{P * D}{2 * t * E} \quad (\text{Equation 7.22})$$

$$\epsilon_f = \frac{t}{D} * \frac{[3 * \Delta Y / D]}{[1 - 2 * \Delta Y / D]} \quad (\text{Equation 7.24})$$

$$\epsilon = \epsilon_h + \epsilon_f \quad (\text{Equation 7.25})$$

Where:

- $\epsilon_h$  = maximum strain in the pipe wall due to hoop stress (in/in)
- P = prism load pressure due to soil weight (psi)
- D = mean pipe diameter (in) =  $D_o - t$
- t = pipe wall thickness (in)
- E = modulus of elasticity (psi) = 400,000 psi for PVC
- $\epsilon_f$  = maximum strain in the pipe due to ring deflection or flexure (in/in)
- $\Delta Y / D$  = long term deflection
- $\epsilon$  = maximum combined strain in pipe wall (in/in)

**6" ASTM D3034 SDR-26**

$$\epsilon_h = \frac{12.50 * 6.034}{2 * 0.241 * 400,000}$$

$$\epsilon_h = 0.00039 \text{ in/in}$$

$$\epsilon_f = \frac{0.241}{6.034} * \frac{[3 * 0.0086]}{[1 - 2 * 0.0086]}$$

$$\epsilon_f = 0.00105 \text{ in/in}$$

$$\epsilon = 0.00039 + 0.00105$$

$$\epsilon = \mathbf{0.00144 \text{ in/in}}$$

Per the *Handbook of PVC Pipe: Design and Construction* (Uni-Bell PVC Pipe Association, 2001), deflection test samples have experienced a pipe wall strain of up to 0.025 in/in and have not "showed any failures or cracks". The calculated strains for this project are significantly below this level, so no failure due to strain is anticipated.

Pipe Stiffness Calculation - the following equations utilized for the calculation of pipe stiffness are taken from the *Handbook of PVC Pipe: Design and Construction* (Uni-Bell PVC Pipe Association, 2001).

$$P_s = 4.47 * \frac{E}{(DR - 1)^3} \quad (\text{Equation 7.3})$$

Where:

- Ps = pipe stiffness (psi)
- DR = Dimensional Ratio = Do / t
- Do = Outside diameter (in)
- t = pipe wall thickness (in)
- E = modulus of elasticity (psi) = 400,000 psi for PVC

**6", 8" & 10" ASTM D3034 SDR-26**

DR = 26

$$P_s = 4.47 * \frac{400,000}{(26 - 1)^3}$$

Ps = 115 psi

***Criteria for Laying Pipe***

***Pipe Embedment***

Bedding and initial backfill material selection and installation will be carried out in accordance with applicable governing procedures contained within the *City of Austin Criteria Manual, TCEQ Chapter 217.54(a)*, and in accordance with the City of Austin. Brush, debris, and junk shall not be utilized as a backfilling material.

***Compaction***

Trench compaction will be carried out in accordance with the *City of Austin Code of Ordinances* and *TCEQ Chapter 217.54(b)*. Proper placement of the backfill and compaction per City of Austin requirements will not negatively impact the structural integrity of the pipe.

***Envelope Size***

Envelope size will be in accordance with *City of Austin Code of Ordinances* and *TCEQ Chapter 217.54(c)*. Per the City of Austin, a minimum of 6-inch and maximum of 24-inch space shall be allowed between the outside diameter of the pipe and the trench wall and floor. The embedment and initial backfill must be installed to a minimum depth of 12 inches above the crown of the pipe.

***Trench Width***

Trench width will be in accordance with the *City of Austin Code of Ordinances* and *TCEQ Chapter 217.54(d)*. Per the City of Austin, a minimum of 6-inch and maximum of 24-inch space shall be allowed between the outside diameter of the pipe and the trench wall and floor. These limits shall be maintained to protect the structural integrity of the pipe and will be sufficient for the placement of materials and use of compaction equipment in the pipe zone.

***Manholes and Related Structures***

***Manhole and Appurtenance Placement***

Manholes are located at all points of change in alignment or grade and at the intersection of all pipes for this project.

***Manhole Stub Outs***

No manhole stub outs are proposed in this project.

### ***Cleanouts***

Cleanouts are proposed along the wastewater line and all dead ends.

### ***Manhole Material***

Monolithic or precast manholes are acceptable for the contractor to utilize.

### ***Manhole Spacing***

Manhole spacing meets the requirements of Table C.2 in TCEQ Chapter 217.55.

### ***Manholes within Waterways***

No manholes will be located within flow paths of waterways or in areas where water ponding is probable.

### ***Manhole Covers, Inlets, and Bases***

Manhole covers shall be constructed of cast iron and have no openings for water to infiltrate. No proposed manholes are located within the 100-year flood plain. All manholes shall be watertight, with watertight rings and covers, as shown per the Austin detail on the Utility Detail Sheet.

### ***Manhole Steps***

No steps shall be allowed in any proposed manholes.

### ***Manhole Connections***

Manhole-pipe connections shall be watertight per City of Austin Code of Ordinances.

### ***Manhole Venting***

The proposed manholes are spaced at less than 500-foot intervals and none are located within the 100-year flood plain. Therefore, no vented manholes are proposed in this project.

### ***Trenchless Pipe Installation***

There will be no trenchless pipe installation.

### ***Testing Requirements for Gravity Pipes***

### ***Infiltration/Exfiltration and Low Pressure Air Test***

All testing will be in compliance with Texas Administrative Code title 30 Part 1 Chapter 217 Subchapter C 217.57 and 217.58. Infiltration and exfiltration or low-pressure air testing in accordance with ASTM C828, C924 or F1417 are required for all proposed gravity wastewater pipe as specified in the project notes. The requirements specified are in accordance with *TCEQ Chapter 217.57*.

### ***Deflection Testing***

For the proposed 8-inch wastewater line, deflection shall be measured with a rigid mandrel. The requirements specified are in accordance with *TCEQ Chapter 217.57*.

### ***Owner Inspection***

The Owner shall have an inspector onsite during construction of the project. A professional engineer registered in the state of Texas (C.J. Ponton, P.E.) shall be present to witness the testing of the wastewater lines.



**Testing Requirements for Manholes**

Manhole testing in accordance with *TCEQ Chapter 217.58* is specified in the project notes. Manholes will be tested after assembly and backfilling for leakage by either a hydrostatic test and/or a vacuum test.

For the vacuum test, all lift holes and exterior joints shall be plugged with an approved non-shrink grout and no grout shall be placed in horizontal joints before testing. All pipes entering the manhole shall be plugged, taking care to securely brace the plugs from being drawn into the manhole. Stub outs, manhole boots and pipe plugs shall be secured to prevent movement while the vacuum is drawn. A minimum 60-inch/lb torque wrench shall be used to tighten the external clamps that secure the test cover to the top of the manhole. The test head shall be placed at the inside of the top of the cone section and the seal inflated in accordance with the manufacturer’s recommendation. A vacuum of 10 inches of mercury shall be drawn and the vacuum pump shut off. With the valves closed, the time shall be measured for the vacuum to drop to 9 inches of mercury. The manhole shall pass if the time is greater than 2 minutes. If the manhole fails the initial test, necessary repairs shall be made with a non-shrink grout while the vacuum is still being drawn. If the manhole fails a second time, repairs should again be made and the manhole shall be tested by means of a hydrostatic test. If any manhole fails the hydrostatic test, after failing the vacuum test twice, the contractor should consider replacing that manhole. If the contractor chooses to attempt to repair that manhole, the manhole must be retested by means of the hydrostatic test until it passes.

Inspection will be provided during critical phases of construction by a qualified inspector under the direction of a P.E. (C.J. Ponton, P.E.). Critical phases of construction are deemed at a minimum to include testing of pipe and manholes for leakage, and testing of flexible pipe for installed deflection.

TCEQ approval letters for plans and specifications review contain the requirement that once the project is completed, a P.E. registered in the state of Texas (C.J. Ponton, P.E.) must certify that the construction was performed substantially in accordance with the approved plans and specifications.

**Notification and Inspection**

*TCEQ Chapter 213* requires that the applicant must provide written notification to the Austin regional office at least 48 hours prior to commencing construction on the regulated activity. If any sensitive feature is discovered during construction then the work shall be suspended immediately and the Austin regional office shall be notified to then determine the appropriate course of action. All other notification and inspection requirements identified in *TCEQ Chapter 213.5(c)* shall be met. Justification and Calculations for Deviation in Straight Alignment without Manholes.



03/21/23

## ***Attachment B***

### ***Justification and Calculations for Deviation in Straight Alignment Manholes***

Not applicable.

## ***Attachment C***

### ***Justification of Variance for Manhole Spacing***

Not applicable.

## ***Attachment D***

### ***Exception of Slopes for Flows Greater Than 10.0 FPS***

Not applicable.

# SECTION 5: TEMPORARY STORMWATER SECTION

# Temporary Stormwater Section

## Texas Commission on Environmental Quality

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

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

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

## Signature

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

Print Name of Customer/Agent: C.J. Ponton, P.E.

Date: 03/21/2023

Signature of Customer/Agent:



---

Regulated Entity Name: Valor Texas Education Foundation

## Project Information

### Potential Sources of Contamination

*Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.*

1. Fuels for construction equipment and hazardous substances which will be used during construction:

The following fuels and/or hazardous substances will be stored on the site: \_\_\_\_\_

These fuels and/or hazardous substances will be stored in:

Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.

Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.

- Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.
- Fuels and hazardous substances will not be stored on the site.
- 2.  **Attachment A - Spill Response Actions.** A site-specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.
- 3. **N/A** Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.
- 4.  **Attachment B - Potential Sources of Contamination.** A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

### ***Sequence of Construction***

- 5.  **Attachment C - Sequence of Major Activities.** A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.
  - For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.
  - For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.
- 6.  Name the receiving water(s) at or near the site which will be disturbed, or which will receive discharges from disturbed areas of the project: Danz Creek

### ***Temporary Best Management Practices (TBMPs)***

*Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. All structural BMPs must be shown on the site plan.*

- 7.  **Attachment D – Temporary Best Management Practices and Measures.** TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information is attached:
  - A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.

- A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.
  - A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.
  - A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.
8.  The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.
- Attachment E - Request to Temporarily Seal a Feature.** A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.
  - There will be no temporary sealing of naturally-occurring sensitive features on the site.
9.  **Attachment F - Structural Practices.** A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.
10.  **Attachment G - Drainage Area Map.** A drainage area map supporting the following requirements is attached:
- For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.
  - For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.
  - For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.
  - There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.
  - There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.



11.  **Attachment H - Temporary Sediment Pond(s) Plans and Calculations.** Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.
- N/A
12.  **Attachment I - Inspection and Maintenance for BMPs.** A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.
13.  All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.
14.  If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
15.  Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.
16.  Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

### ***Soil Stabilization Practices***

*Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.*

17.  **Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices.** A schedule of the interim and permanent soil stabilization practices for the site is attached.
18.  Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
19.  Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

## ***Administrative Information***

20.  All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
21.  If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.
22.  Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

# Attachment A

## Spill Response Actions

If there is an accidental spill on site, the contractor shall respond with appropriate action. The contractor will be required to contact the owner and in turn the owner will contact the TCEQ in the event of a spill on site. In addition to the following guidance, reference the latest version of TCEQ's Technical Guidance Manual (TGM) RG-348 Section 1.4.16 and [https://www.tceq.texas.gov/response/spills/spill\\_rq.html](https://www.tceq.texas.gov/response/spills/spill_rq.html) for reportable quantities.

### Cleanup and Good House Keeping

- Clean up leaks and spills immediately.
- Neat and orderly storage of any chemicals, pesticides, fertilizers, fuels, etc. that are being stored on site.
- Regular garbage, rubbish, construction waste and sanitary waste disposal.
- Cleanup of sediments that have been tracked by vehicles or have been transported by wind or storm water about the site or onto nearby roads.
- Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.
- Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

### Minor Spills

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

### Semi-Significant Spills

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

Manufacturer's recommended methods of spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and the cleanup supplies. Spills should be cleaned up immediately:

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

- If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

### **Significant/Hazardous Spills**

For significant or hazardous spills that are in reportable quantities:

- Notify the TCEQ by telephone as soon as possible and within 24 hours at (512)339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
- For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
- Notification should first be made by telephone and followed up with a written report.
- The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
- Other agencies which may need to be consulted include, but not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc. The local emergency authority, as necessary, will implement its emergency management plans, which may include notifying and evacuating affected personnel. In the absence of a local emergency authority, the contractor shall take reasonable measure to notify potentially affected persons of the imminent health threat.

# Attachment B

## Potential Sources of Contamination

*Potential Source:* Oil, grease, fuel, and hydraulic fluid contamination from construction equipment and vehicle dripping. Any spills shall be handled according to the Spill Response Actions in *Attachment A*.

Preventative Measures: Vehicle maintenance will be performed within the construction staging area or a local maintenance shop.

*Potential Source:* Asphalt wash -off after unexpected rain.

Preventative Measures: After placement of asphalt, emulsion, or coatings, the applicant will be responsible for immediate cleanup should an unexpected rain occur. During the entirety of the asphalt curing time, the applicant should maintain standby personnel and equipment to contain any asphalt wash-off.

*Potential Source:* Miscellaneous trash and litter from construction workers and material wrappings.

Preventative Measures: Trash containers will be placed throughout the site to encourage proper disposal of trash.

*Potential Source:* Silt leaving the site.

Preventative Measures: Contractor will install all temporary best management practices, described in *Attachment D*, prior to start of construction including the stabilized construction entrance to prevent tracking onto adjoining streets and to prevent the discharge of sediment to the San Gabriel River.

*Potential Source:* Construction Debris.

Preventative Measures: Construction debris will be monitored daily by contractor. Debris will be collected weekly and placed in disposal bins. Situations requiring immediate attention will be addressed on a case by case basis.

*Potential Source:* Soil and Mud from Construction Vehicle tires as they leave the site.

Preventative Measures: A stabilized construction exit shall be utilized as vehicles leave the site. Any soil, mud, etc. carried from the project onto public roads shall be cleaned up within 24 hours.

*Potential Source:* Sediment from soil, sand, gravel and excavated materials stock piled on site.

Preventative Measures: Silt fence shall be installed on the down gradient side of the stock piled materials. Reinforced rock berms shall be installed at all downstream discharge locations.

*Potential Source:* Portable toilet spill.

Preventative Measures: Toilets on the site will be emptied on a regular basis by the contracted toilet company.

# Attachment C

## Sequence of Major Activities

The installation of erosion and sedimentation controls shall occur prior to any excavation of materials or major disturbances on the site. The sequence of major construction activities will be as follows. Approximate acreage to be disturbed is listed in parentheses next to each activity. The location of the temporary erosion control measures is shown on the Erosion & Sedimentation Control Sheets.

### Intended Schedule or Sequence of Major Activities:

Site Construction:

1. Construct Access (0.05 acres)
2. Installation of Temporary BMPs (2,506 LF silt fence, 20 LF rock berm, 18 EA inlet protection)
3. Initiate Grubbing and Topsoil Stripping of Site (15.41 acres onsite)
4. Rough Subgrade Preparation (earthwork, grading, street and drainage excavation and embankment) (15.41 acres onsite)
5. Wet and Dry Utility Construction (0.42 acres)
6. Final Subgrade Preparation (15.41 acres)
7. Installation of Base Materials (15.41 acres)
8. Concrete (foundations, curbs, flatwork) (1.19 acres)
9. Building Construction (1.19 acres)
10. Paving Activities (3.35 acres)
11. Topsoil, Irrigation and Landscaping (10.29 acres)
12. Site cleanup and Removal of Temporary BMPs (2,506 LF silt fence, 20 LF rock berm, 18 EA inlet protection)

Complete any necessary final dress up of areas. Conduct a final inspection and complete all punch list items.

# Attachment D

## Temporary Best Management Practices and Measures

- A. There is no storm water that originates up gradient from the site that will flow across the site.
- B. Temporary BMPs will be installed prior to soil disturbing construction activity. Silt fencing will be placed along the down-gradient sides of the property to prevent silt from escaping the construction area. A temporary construction entrance will be placed on site to reduce vehicle “tracking” onto adjoining streets. A concrete washout pit will be used to collect all excess concrete during construction. Inlet protection will be placed over all existing and proposed inlets to stop the discharge of sediments into the sewer system. Please reference the attached copy of the Erosion and Sedimentation Control Plans for specific locations and details of all controls.

BMPs for this project will protect surface water or groundwater from turbid water, phosphorus, sediment, oil, and other contaminants, which may mobilize in storm water flows by slowing the flow of runoff to allow sediment and suspended solids to settle out of the runoff.

Practices may also be implemented on site for interim and permanent stabilization. Stabilization practices may include but are not limited to: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of existing trees and vegetation, and other similar measures.

The contractor is expected to inspect the controls weekly and after significant rainfalls to ensure proper function.

- C. There are sensitive features and surface streams within the boundaries of the project. The temporary onsite BMPs will be used to treat stormwater runoff before it leaves the project and prevent pollutants from entering into surface streams or any sensitive features down-gradient of the site.
- D. There are sensitive features on the 25.41-acre site identified during the geologic assessment. However, the BMPs for this project are designed to allow water to pass through after sedimentation has occurred. Existing flow patterns will be maintained to any naturally occurring sensitive features that are discovered during construction.

## **Attachment E**

### **Request to Temporarily Seal a Feature**

Naturally-occurring features will not be sealed on the site; therefore this section is not applicable.



# Attachment F

## Structural Practices

Structural BMPs will be used to limit runoff discharge of pollutants from exposed areas of the site. BMPs will be installed prior to soil disturbing construction activity. Silt fencing will be placed along the down-gradient sides of the property to prevent silt from escaping the construction area. A temporary construction entrance will be placed at the site entry/exit point to reduce tracking onto adjoining streets. A construction staging area will be used onsite to perform all vehicle maintenance and for equipment and material storage. A concrete truck washout pit will be placed on site to provide containment and easier cleanup of waste from concrete operations. The location of all structural temporary BMP's are shown on the erosion control plan sheet and details and specifications are provided on the erosion control details sheet which can be found at the end of this report under Section 9.

### Description of Temporary BMPs

#### Temporary Construction Entrance/Exit

The purpose of a temporary gravel construction entrance is to provide a stable entrance/exit condition from the construction site and keep mud and sediment off public roads. A stabilized construction entrance is a stabilized pad of crushed stone located at any point traffic will be entering or leaving the construction site from a public right-of-way, street, alley, sidewalk or parking area. The purpose of a stabilized construction entrance is to reduce or eliminate the tracking or flowing of sediment onto public rights-of-way. This practice should be used at all points of construction ingress and egress.

Excessive amounts of mud can also present a safety hazard to roadway users. To minimize the amount of sediment loss to nearby roads, access to the construction site should be limited to as few points as possible and vegetation around the perimeter should be protected where access is not necessary. A rock stabilized construction entrance should be used at all designated access points.

#### Silt Fence

The purpose of a silt fence is to intercept and detain water-borne sediment from unprotected areas of a limited extent. Silt fence is used during the period of construction near the perimeter of a disturbed area to intercept sediment while allowing water to percolate through. This fence should remain in place until the disturbed area is permanently stabilized. Silt fence should not be used where there is a concentration of water in a channel or drainage way. If concentrated flow occurs after installation, corrective action must be taken such as placing a rock berm in the areas of concentrated flow.

Silt fencing within the site may be temporarily moved during the day to allow construction activity provided it is replaced and properly anchored to the ground at the end of the day. Silt fences on the perimeter of the site or around drainage ways should not be moved at any time.

#### Concrete Washout Area

The purpose of concrete washout areas is to prevent or reduce the discharge of pollutants to stormwater from concrete waste by conducting washout offsite, performing onsite washout in a designated area, and training employees and subcontractors.

The following steps will help reduce stormwater pollution from concrete wastes:

- Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.
- Avoid mixing excess amounts of fresh concrete.
- Perform washout of concrete trucks in designated areas only.
- Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.

- Do not allow excess concrete to be dumped onsite, except in designated areas.
- For onsite washout:
- Locate washout area at least 50 feet from sensitive features, storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
- Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.

Below grade concrete washout facilities are typical. These consist of a lined excavation sufficiently large to hold expected volume of washout material. Above grade facilities are used if excavation is not practical. Temporary concrete washout facility (type above grade) should be constructed as shown on the details at the end of this section, with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. Plastic lining material should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.

When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of. Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

## **Rock Berm**

The purpose of a rock berm is to serve as a check dam in areas of concentrated flow, to intercept sediment-laden runoff, detain the sediment and release the water in sheet flow. The rock berm should be used when the contributing drainage area is less than 5 acres. Rock berms are used in areas where the volume of runoff is too great for a silt fence to contain. They are less effective for sediment removal than silt fences, particularly for fine particles, but are able to withstand higher flows than a silt fence. As such, rock berms are often used in areas of channel flows (ditches, gullies, etc.). Rock berms are most effective at reducing bed load in channels and should not be substituted for other erosion and sediment control measures further up the watershed.

## **Triangular Filter Dike**

The purpose of a triangular sediment filter dike is to intercept and detain water-borne sediment from unprotected areas of limited extent. The triangular sediment filter dike is used where there is no concentration of water in a channel or other drainage way above the barrier and the contributing drainage area is less than one acre. If the uphill slope above the dike exceeds 10%, the length of the slope above the dike should be less than 50 feet. If concentrated flow occurs after installation, corrective action should be taken such as placing rock berm in the areas of concentrated flow. This measure is effective on paved areas where installation of silt fence is not possible or where vehicle access must be maintained. The advantage of these controls is the ease with which they can be moved to allow vehicle traffic and then reinstalled to maintain sediment.

## **Inlet Protection**

In developments for which drainage is to be conveyed by underground storm sewers (i.e., streets with curbs and gutters), all inlets that may receive storm runoff from disturbed areas should be protected. Temporary inlet protection is a series of different measures that provide protection against silt transport or accumulation in storm sewer systems. This clogging can greatly reduce or completely stop the flow in the pipes. The different measures are used for different site conditions and inlet types

# **Attachment G**

## **Drainage Area Map**

An existing and proposed drainage area map is provided at the end of this report in Section 9 to support the aforementioned requirement.

# **Attachment H**

## **Temporary Sediment Pond(s) Plans and Calculations**

The proposed development will disturb areas over 10 acres. Therefore, a temporary sediment pond is proposed and will be located in the area proposed to be used for the retention and retention-irrigation pond. A surface skimmer will be utilized for dewatering during construction if warranted. Any excess sediment generated during construction will be spoiled in the location outlined on the construction plans. The entire system shall be protected from erosion and maintained throughout the course of construction until final site restoration is complete.

# Attachment I

## Inspection and Maintenance for BMPs

### Personnel Responsible for Inspections

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

### Inspection Guidelines for BMPs

The following sections address inspection and maintenance taken from the TNRCC Manual, "Complying with Edwards Aquifer Rules: Technical Guidance on Best Management Practices."

#### *Silt Fence:*

1. Inspection shall be made weekly and after each rainfall event, in accordance with Section 1.4.3 of RG-348.
2. Torn fabric shall be replaced or a second line of fencing parallel to the torn section shall be implemented as needed.
3. Accumulated silt shall be removed when it reaches a depth of six (6) inches. The silt shall be disposed of on an approved site and in such a manner that will not contribute to additional siltation.
4. Silt fence shall be removed when the site is completely stabilized so as not to block or impede storm flow or drainage.

#### *Inlet Protection:*

1. Daily inspection shall be made by the contractor and silt accumulation must be removed when depth reaches 50 millimeters (two (2) inches).
2. Contractor shall monitor the performance of inlet protection during each rainfall event and immediately remove the inlet protections if the stormwater begins to overtop the curb.
3. Inlet protections shall be removed as soon as the source of sediment is stabilized.

#### *Stabilized Construction Fence:*

1. The entrance shall be maintained in a condition that will prevent tracking or flowing of sediment onto public roadway. This may require periodic top dressing with additional stone as conditions demand. As well as repair and clean out of any measure device used to trap sediment. All sediments that are spilled, dropped, washed or tracked onto a public roadway must be removed immediately.
2. Entrance shall be properly graded to prevent run-off from leaving the construction site.

#### *Sediment Basins:*

1. Inspection should be made weekly and after each rainfall in accordance to Section 1.4.13 of RG-348.
2. To prevent clogging of the outlet structure of proposed water quality facilities implemented as temporary sediment basins, trash and other debris shall be removed promptly after each rainfall event.
3. Silt accumulation should be removed as well as basin re-graded to original dimensions once the capability of the facility has been reduced to 75% of original storage capacity.
4. Removed sediment should be redistributed in the respective phases' stockpiling area.

#### *Rock Berm:*

1. Inspection should be made weekly and after each rainfall in accordance to Section 1.4.5 of RG-348. If placed in streambeds, inspection should occur daily.
2. Accumulated silt shall be removed when it reached a depth of six (6) inches. The silt shall be disposed of on an approved site and in such a manner that will not contribute to additional siltation.
3. Loose wire sheathing shall be repaired immediately when necessary and the berm shall be reshaped as needed during inspection.

4. Berm shall be replaced if the structure ceases to function as initially intended due to factors such as silt accumulation, washout, construction traffic damage, etc.
5. When all upstream areas are stabilized and the accumulated silt has been removed, the rock berm should be removed and disposed of.

## Inspection Schedule

The primary operator is required to complete inspections as specified above, and choose one of the two inspections listed below for all temporary stormwater controls not specifically listed.

- Option 1:** Once every seven calendar days. If this alternative schedule is developed, then the inspection must occur regardless of whether or not there has been a rainfall event since the previous inspection.
- Option 2:** Once every 14 calendar days and within 24 hours of the end of a storm event of two inches or greater.

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

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

Personnel provided by the permittee must inspect:

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

## Reductions in Inspection Frequency

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

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

## Inspection Report Forms

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

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

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

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

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

## ***Corrective Action***

### **Personnel Responsible for Corrective Actions**

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

### **Corrective Action Forms**

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

# Attachment J

## Schedule of Interim and Permanent Soil Stabilization

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

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

Records of the following shall be maintained:

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

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

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

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

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

### **Maintenance**

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

- All measures will be maintained in good working order. The operator should correct any damage or deficiencies as soon as practicable after the inspection, but in no case later than seven (7) calendar days after the inspection.
- BMP Maintenance (as applicable)
- Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50%. For perimeter controls such as silt fences, berms, etc., the trapped sediment must be removed before it reaches 50% of the above-ground height.



- Silt fence will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Drainage swale will be inspected and repaired as necessary.
- Inlet control will be inspected and repaired as necessary.
- Check dam will be inspected and repaired as necessary.
- Straw bale dike will be inspected and repaired as necessary.
- Diversion dike will be inspected, and any breaches promptly repaired.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- If sediment escapes the site, accumulations must be removed at a frequency that minimizes off-site impacts, and prior to the next rain event, if feasible. If the permittee does not own or operate the off-site conveyance, then the permittee must work with the owner or operator of the property to remove the sediment.
- Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking.

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

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

### Inspector Qualifications Log\*

Inspector Name: \_\_\_\_\_  
Qualifications (Check as appropriate and provide description):  
 Training Course \_\_\_\_\_  
 Supervised Experience \_\_\_\_\_  
 Other \_\_\_\_\_

Inspector Name: \_\_\_\_\_  
Qualifications (Check as appropriate and provide description):  
 Training Course \_\_\_\_\_  
 Supervised Experience \_\_\_\_\_  
 Other \_\_\_\_\_

Inspector Name: \_\_\_\_\_  
Qualifications (Check as appropriate and provide description):  
 Training Course \_\_\_\_\_  
 Supervised Experience \_\_\_\_\_  
 Other \_\_\_\_\_

Inspector Name: \_\_\_\_\_  
Qualifications (Check as appropriate and provide description):  
 Training Course \_\_\_\_\_  
 Supervised Experience \_\_\_\_\_  
 Other \_\_\_\_\_

Inspector Name: \_\_\_\_\_  
Qualifications (Check as appropriate and provide description):  
 Training Course \_\_\_\_\_  
 Supervised Experience \_\_\_\_\_  
 Other \_\_\_\_\_

Inspector Name: \_\_\_\_\_  
Qualifications (Check as appropriate and provide description):  
 Training Course \_\_\_\_\_  
 Supervised Experience \_\_\_\_\_  
 Other \_\_\_\_\_

\* The agent that performs the inspections should be knowledgeable of this general permit, familiar with the construction site, and knowledgeable of the SWPPP for the site. The contractor is to provide an inspector with a CPESC, CESSWI, or CISEC certification.

### Amendment Log

No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

***Construction Activity Sequence Log***

Name of Operator	Projected dates Month/year	Activity Disturbing Soil clearing, excavation, etc.	Location on-site where activity will be conducted	Acreage being disturbed

\*Construction activity sequences for linear projects may be conducted on a rolling basis. As a result, construction activities may be at different stages at different locations in the project area. The Contractor is required to complete and update the schedule and adjust as necessary.

### ***Stormwater Control Installation and Removal Log***

Stormwater Control	Location On-Site	Installation Date	Removal Date

### **Stabilization Activities Log**

<b>Date Activity Initiated</b>	<b>Description of Activity</b>	<b>Description of Stabilization Measure and Location</b>	<b>Date Activity Ceased (Indicate Temporary or Permanent)</b>	<b>Date When Stabilization Measures Initiated</b>

Stabilization and erosion control practices may include, but are not limited to: establishing temporary or permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, and protecting existing trees and vegetation. List practices used where they are located, when they will be implemented, and whether they are temporary (interim) or permanent.

***Inspection Frequency Log***

Date	Frequency Schedule and Reason for Change





General Information					
<b>Name of Project</b>		<b>Tracking No.</b>		<b>Inspection Date</b>	
<b>Inspector Name, Title &amp; Contact Information</b>					
<b>Present Phase of Construction</b>					
<b>Inspection Location</b> (if multiple inspections are required, specify location where this inspection is being conducted)					
<p><b>Inspection Frequency</b></p> <p><b>Standard Frequency:</b> <input type="checkbox"/> Weekly    <input type="checkbox"/> Every 14 days and within 24 hours of a 0.25" rain</p> <p><b>Increased Frequency:</b> <input type="checkbox"/> Every 7 days and within 24 hours of a 0.25" rain</p> <p><b>Reduced Frequency:</b></p> <ul style="list-style-type: none"> <li>- <input type="checkbox"/> Once per month (for stabilized areas)</li> <li>- <input type="checkbox"/> Once per month and within 24 hours of a 0.25" rain (for arid, semi-arid, or drought-stricken areas during seasonally dry periods or during drought)</li> <li>- <input type="checkbox"/> Once per month (for frozen conditions where earth-disturbing activities are being conducted)</li> </ul>					
<p><b>Was this inspection triggered by a 0.25" storm event?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><b>If yes, how did you determined whether a 0.25" storm event has occurred?</b></p> <p><input type="checkbox"/> Rain gauge on site    <input type="checkbox"/> Weather station representative of site. Specify weather station source:</p> <p><b>Total rainfall amount that triggered the inspection</b> (in inches):</p>					
<p><b>Unsafe Conditions for Inspection</b></p> <p><b>Did you determine that any portion of your site was unsafe for inspection?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><b>If "yes", complete the following:</b></p> <ul style="list-style-type: none"> <li>- Describe the conditions that prevented you from conducting the inspection in this location:</li>     <li>- Location(s) where conditions were found:</li> </ul>					

Condition and Effectiveness of Erosion and Sediment (E&S) Controls				
Type/Location of E&S Control	Repairs or Other Maintenance Needed?	Corrective Action Required?	Date on Which Maintenance or Corrective Action First Identified?	Notes
1.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
2.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
3.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
4.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
5.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
6.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
7.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
8.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
9.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
10.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		

Condition and Effectiveness of Pollution Prevention (P2) Practices				
Type/Location of P2 Practices	Repairs or Other Maintenance Needed?	Corrective Action Required?	Identification Date	Notes
1.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
2.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
3.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
4.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
5.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
6.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
7.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
8.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
9.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
10.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		

Stabilization of Exposed Soil			
Stabilization Area	Stabilization Method	Have You Initiated Stabilization?	Notes
1.		<input type="checkbox"/> YES <input type="checkbox"/> NO If yes, provide date:	
2.		<input type="checkbox"/> YES <input type="checkbox"/> NO If yes, provide date:	
3.		<input type="checkbox"/> YES <input type="checkbox"/> NO If yes, provide date:	
4.		<input type="checkbox"/> YES <input type="checkbox"/> NO If yes, provide date:	
5.		<input type="checkbox"/> YES <input type="checkbox"/> NO If yes, provide date:	
Description of Discharges			
<b>Was a stormwater discharge or other discharge occurring from any part of your site at the time of the inspection?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>If “yes”, provide the following information for each point of discharge:</b>			
Discharge Location	Observations		
1.	Describe the discharge:  At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:		
2.	Describe the discharge:  At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:		
3.	Describe the discharge:  At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:		

## Contractor or Subcontractor Certification and Signature

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

**Signature of Contractor or Subcontractor:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Printed Name and Affiliation:** \_\_\_\_\_

## Certification and Signature by Permittee

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

**Signature of Permittee or  
“Duly Authorized Representative”:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Printed Name and Affiliation:** \_\_\_\_\_

<b>Section A – Initial Report</b>				
(Complete this section <u>within 24 hours</u> of discovering the condition that triggered corrective action)				
Name of Project		Tracking No.		Today's Date
Date Problem First Discovered			Time Problem First Discovered	
Name and Contact Information of Individual Completing this Form				
What site conditions triggered the requirement to conduct corrective action: <input type="checkbox"/> A required stormwater control was never installed, was installed incorrectly, or not in accordance with the requirements in Part 2 and/or 3 <input type="checkbox"/> The stormwater controls that have been installed and maintained are not effective enough for the discharge to meet applicable water quality standards <input type="checkbox"/> A prohibited discharge has occurred or is occurring  Provide a description of the problem:   Deadline for completing corrective action ( <i>Enter date that is either: (1) no more than 7 calendar days after the date you discovered the problem, or (2) if it is infeasible to complete work within the first 7 days, enter the date that is as soon as practicable following the 7th day</i> ):   If your estimated date of completion falls after the 7-day deadline, explain (1) why you believe it is infeasible to complete work within 7 days, and (2) why the date you have established for making the new or modified stormwater control operational is the soonest practicable timeframe:				
<b>Section B – Corrective Action Progress</b>				
(Complete this section <u>no later than 7 calendar days</u> after discovering the condition that triggered corrective action)				
<b>Section B.1 – Why the Problem Occurred</b>				
Cause(s) of Problem (Add an additional sheet if necessary)			How This Was Determined and the Date You Determined the Cause	
1.			1.	
2.			2.	
3.			3.	
<b>Section B.2 – Stormwater Control Modifications to be Implemented to Correct the Problem</b>				
List of Stormwater Control Modification(s) Needed to Correct Problem (Add an additional sheet if necessary)	Completion Date	SWPPP Update Necessary?	Notes	
1.		<input type="checkbox"/> Yes <input type="checkbox"/> No Date:		
2.		<input type="checkbox"/> Yes <input type="checkbox"/> No Date:		
3.		<input type="checkbox"/> Yes <input type="checkbox"/> No Date:		

<b>Section A – Initial Report</b>				
(Complete this section <u>within 24 hours</u> of discovering the condition that triggered corrective action)				
Name of Project		Tracking No.		Today's Date
Date Problem First Discovered			Time Problem First Discovered	
Name and Contact Information of Individual Completing this Form				
<p>What site conditions triggered the requirement to conduct corrective action:</p> <input type="checkbox"/> A required stormwater control was never installed, was installed incorrectly, or not in accordance with the requirements in Part 2 and/or 3 <input type="checkbox"/> The stormwater controls that have been installed and maintained are not effective enough for the discharge to meet applicable water quality standards <input type="checkbox"/> A prohibited discharge has occurred or is occurring				
Provide a description of the problem:				
Deadline for completing corrective action ( <i>Enter date that is either: (1) no more than 7 calendar days after the date you discovered the problem, or (2) if it is infeasible to complete work within the first 7 days, enter the date that is as soon as practicable following the 7th day</i> ):				
If your estimated date of completion falls after the 7-day deadline, explain (1) why you believe it is infeasible to complete work within 7 days, and (2) why the date you have established for making the new or modified stormwater control operational is the soonest practicable timeframe:				
<b>Section B – Corrective Action Progress</b>				
(Complete this section <u>no later than 7 calendar days</u> after discovering the condition that triggered corrective action)				
<b>Section B.1 – Why the Problem Occurred</b>				
Cause(s) of Problem (Add an additional sheet if necessary)			How This Was Determined and the Date You Determined the Cause	
1.			1.	
2.			2.	
3.			3.	
<b>Section B.2 – Stormwater Control Modifications to be Implemented to Correct the Problem</b>				
List of Stormwater Control Modification(s) Needed to Correct Problem (Add an additional sheet if necessary)	Completion Date	SWPPP Update Necessary?	Notes	
1.		<input type="checkbox"/> Yes <input type="checkbox"/> No Date:		
2.		<input type="checkbox"/> Yes <input type="checkbox"/> No Date:		
3.		<input type="checkbox"/> Yes <input type="checkbox"/> No Date:		

## Contractor or Subcontractor Certification and Signature

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

**Signature of Contractor or Subcontractor:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Printed Name and Affiliation:** \_\_\_\_\_

## Certification and Signature by Permittee

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

**Signature of Permittee or  
“Duly Authorized Representative”:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Printed Name and Affiliation:** \_\_\_\_\_



# SECTION 6: ADDITIONAL FORMS

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

I \_\_\_\_\_ Jesse Bates \_\_\_\_\_,  
Print Name

\_\_\_\_\_ Owner \_\_\_\_\_,  
Title - Owner/President/Other

of \_\_\_\_\_ Valor Texas Education Foundation \_\_\_\_\_,  
Corporation/Partnership/Entity Name

have authorized \_\_\_\_\_ C.J. Ponton, P.E. \_\_\_\_\_,  
Print Name of Agent/Engineer

of \_\_\_\_\_ Kimley-Horn and Associates, LLC \_\_\_\_\_,  
Print Name of Firm

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

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to \$10,000 per day per violation.
2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.
3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.
4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.
5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Jesse Bates  
Applicant's Signature

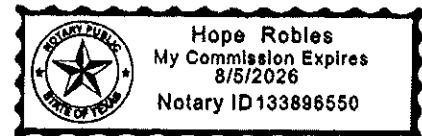
11/28/22  
Date

THE STATE OF Texas §  
County of Travis §

BEFORE ME, the undersigned authority, on this day personally appeared Jesse Bates known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 28<sup>th</sup> day of November.

Hope Robles  
NOTARY PUBLIC  
Hope Robles  
Typed or Printed Name of Notary



MY COMMISSION EXPIRES: 08/05/2026

# Application Fee Form

## Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Valor Texas Education Foundation

Regulated Entity Location: 220 Foremost Drive, Austin, Texas 78745

Name of Customer: Jesse Bates

Contact Person: CJ Ponton

Phone: 737-787-8750

Customer Reference Number (if issued): CN

Regulated Entity Reference Number (if issued): RN

### Austin Regional Office (3373)

Hays

Travis

Williamson

### San Antonio Regional Office (3362)

Bexar

Medina

Uvalde

Comal

Kinney

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment.** This payment is being submitted to:

Austin Regional Office

San Antonio Regional Office

Mailed to: TCEQ - Cashier

Overnight Delivery to: TCEQ - Cashier

Revenues Section

12100 Park 35 Circle

Mail Code 214

Building A, 3rd Floor

P.O. Box 13088

Austin, TX 78753

Austin, TX 78711-3088

(512)239-0357

### Site Location (Check All That Apply):

Recharge Zone

Contributing Zone

Transition Zone

<i>Type of Plan</i>	<i>Size</i>	<i>Fee Due</i>
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	\$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	\$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	Acres	\$
Sewage Collection System	1,452 L.F.	\$ 726
Lift Stations without sewer lines	Acres	\$
Underground or Aboveground Storage Tank Facility	Tanks	\$
Piping System(s)(only)	Each	\$
Exception	Each	\$
Extension of Time	Each	\$

Signature: 

Date: 03/21/2023

## Application Fee Schedule

Texas Commission on Environmental Quality

Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

### Water Pollution Abatement Plans and Modifications

#### Contributing Zone Plans and Modifications

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

#### Organized Sewage Collection Systems and Modifications

<i>Project</i>	<i>Cost per Linear Foot</i>	<i>Minimum Fee- Maximum Fee</i>
Sewage Collection Systems	<b>\$0.50</b>	\$650 - \$6,500

#### Underground and Aboveground Storage Tank System Facility Plans and Modifications

<i>Project</i>	<i>Cost per Tank or Piping System</i>	<i>Minimum Fee- Maximum Fee</i>
Underground and Aboveground Storage Tank Facility	\$650	\$650 - \$6,500

#### Exception Requests

<i>Project</i>	<i>Fee</i>
Exception Request	\$500

#### Extension of Time Requests

<i>Project</i>	<i>Fee</i>
Extension of Time Request	\$150

***Check Payable to the "Texas Commission on Environmental Quality"***

***Core Data Form***



TCEQ Use Only

# TCEQ Core Data Form

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

## SECTION I: General Information

<b>1. Reason for Submission</b> (If other is checked please describe in space provided.)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)	<input type="checkbox"/> Other	
<b>2. Customer Reference Number</b> (if issued)	<a href="#">Follow this link to search for CN or RN numbers in Central Registry**</a>	<b>3. Regulated Entity Reference Number</b> (if issued)
CN		RN

## SECTION II: Customer Information

<b>4. General Customer Information</b>		<b>5. Effective Date for Customer Information Updates</b> (mm/dd/yyyy)	
<input checked="" type="checkbox"/> New Customer		<input type="checkbox"/> Update to Customer Information	
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)		<input type="checkbox"/> Change in Regulated Entity Ownership	
<b>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</b>			
<b>6. Customer Legal Name</b> (If an individual, print last name first: eg: Doe, John)		If new Customer, enter previous Customer below:	
Valor Texas Education Foundation			
<b>7. TX SOS/CPA Filing Number</b>	<b>8. TX State Tax ID</b> (11 digits)	<b>9. Federal Tax ID</b> (9 digits)	<b>10. DUNS Number</b> (if applicable)
<b>11. Type of Customer:</b>	<input checked="" type="checkbox"/> Corporation	<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Other	<input type="checkbox"/> Sole Proprietorship	<input type="checkbox"/> Other:	
<b>12. Number of Employees</b>		<b>13. Independently Owned and Operated?</b>	
<input type="checkbox"/> 0-20 <input checked="" type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>14. Customer Role</b> (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following			
<input type="checkbox"/> Owner		<input type="checkbox"/> Operator	
<input type="checkbox"/> Occupational Licensee		<input checked="" type="checkbox"/> Owner & Operator	
<input type="checkbox"/> Responsible Party		<input type="checkbox"/> Voluntary Cleanup Applicant	
<input type="checkbox"/> Other:			
<b>15. Mailing Address:</b>	2022 Foremost Drive		
	City	Austin	State TX ZIP 78745 ZIP + 4
<b>16. Country Mailing Information</b> (if outside USA)		<b>17. E-Mail Address</b> (if applicable)	
		jbbates@valoreducation.org	
<b>18. Telephone Number</b>		<b>19. Extension or Code</b>	
( 214 ) 514-3356			
		<b>20. Fax Number</b> (if applicable)	
		( ) -	

## SECTION III: Regulated Entity Information

<b>21. General Regulated Entity Information</b> (If 'New Regulated Entity' is selected below this form should be accompanied by a permit application)	
<input checked="" type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information	
<b>The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).</b>	
<b>22. Regulated Entity Name</b> (Enter name of the site where the regulated action is taking place.)	
Valor Texas Education Foundation	



23. Street Address of the Regulated Entity: <i>(No PO Boxes)</i>	2022 Foremost Drive						
	City	Austin	State	TX	ZIP	78745	ZIP + 4
24. County	Travis						

**Enter Physical Location Description if no street address is provided.**

25. Description to Physical Location:	11720 South Mopac Expressway						
26. Nearest City	Austin				State	TX	Nearest ZIP Code
27. Latitude (N) In Decimal:	30.176712			28. Longitude (W) In Decimal:	97.888517		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds		
30	17	67.12	97	88	85.17		
29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)	31. Primary NAICS Code (5 or 6 digits)	32. Secondary NAICS Code (5 or 6 digits)				
33. What is the Primary Business of this entity? <i>(Do not repeat the SIC or NAICS description.)</i>							
34. Mailing Address:	2022 Foremost Drive						
	City	Austin	State	TX	ZIP	78745	ZIP + 4
35. E-Mail Address:	jbates@valoreducation.org						
36. Telephone Number	37. Extension or Code			38. Fax Number (if applicable)			
( 214 ) 514-3356				( ) -			

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


<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input checked="" type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

**SECTION IV: Preparer Information**

40. Name:	CJ Ponton	41. Title:	Project Manager
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
( 737 ) 787-8750		( ) -	cj.ponton@kimley-horn.com

**SECTION V: Authorized Signature**

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

Company:	Kimley-Horn	Job Title:	Project Manager
Name (In Print):	C.J. Ponton, P.E.	Phone:	( 737 ) 787- 8750
Signature:		Date:	03/21/23

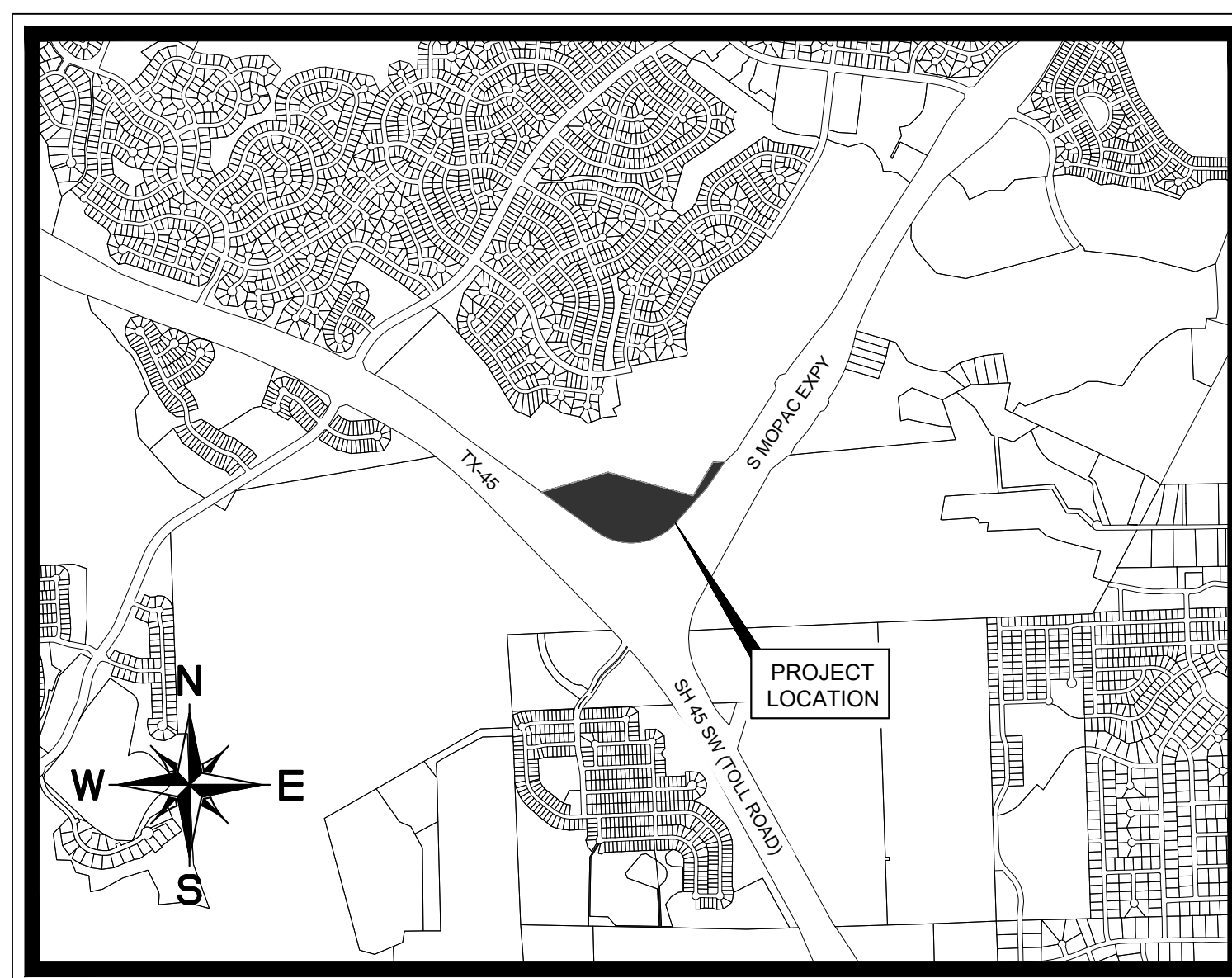
# SECTION 8: EXHIBITS

***Civil Design Plan Set***

# CIVIL SITE DEVELOPMENT PLANS FOR

# VALOR SOUTHWEST

## 11720 SOUTH MOPAC EXPRESSWAY, AUSTIN, TX



VICINITY MAP  
SCALE: 1" = 2,000'  
COA GRID: B14  
MAPSCO: 671L, 671M

# JUNE 10, 2022

AUSTIN WATER UTILITY	DATE
AUSTIN INDUSTRIAL WASTE DEPARTMENT	DATE
CITY OF AUSTIN FIRE DEPARTMENT	DATE
FOR DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT	DATE

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

APPLICABLE WATERSHED ORDINANCE
OPERATING PERMIT WHERE APPLICABLE UNDER 25-8-233
WPDR SIGN-OFF AND DATE

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

### GENERAL PLAN NOTES:

- ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE REGISTERED PROFESSIONAL ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS THE CITY OF AUSTIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
- A PORTION OF THIS SITE IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN. FIRM PANEL NO. 48453C0595H, TRAVIS COUNTY, TEXAS AND INCORPORATED AREAS (EFFECTIVE DATE SEPTEMBER 26, 2008).
- WATER AND WASTEWATER SERVICE WILL BE PROVIDED BY AUSTIN WATER UTILITY, CONDITIONED UPON ALL FEES AND CHARGES ARE PAID.
- THERE ARE NO NATURAL SLOPES ON THIS SITE IN EXCESS OF 15%.
- CRITICAL ENVIRONMENTAL FEATURES (CEF) ARE PRESENT ON SITE. ALL ACTIVITIES WITHIN THE CEF SETBACK MUST COMPLY WITH THE CITY OF AUSTIN CODE AND CRITERIA.
- NO STRUCTURES CAN BE BUILT WITHIN WATER & WASTEWATER EASEMENTS.
- RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL. WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.
- AS PART OF THIS SITE PLAN, THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO BE ON SITE AT ALL TIMES.
- SITE IS SUBJECT TO THE WATERSHED PROTECTION REGULATIONS.
- THIS SITE IS LOCATED IN THE EDWARDS AQUIFER RECHARGE ZONE.
- APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN INDICATES COMPLIANCE WITH APPLICABLE CITY REGULATIONS ONLY. APPROVAL BY OTHER GOVERNMENTAL ENTITIES MAY BE REQUIRED PRIOR TO THE START OF CONSTRUCTION. THE APPLICANT IS RESPONSIBLE FOR DETERMINING WHAT ADDITIONAL APPROVALS MAY BE NECESSARY.
- THIS PROJECT IS LOCATED IN THE SLAUGHTER CREEK WATERSHED, WHICH IS CLASSIFIED AS A BARTON SPRINGS ZONE WATERSHED.
- THIS PROJECT IS SUBJECT TO THE VOID AND WATER FLOW MITIGATION RULE (COA ECM 1.12.0 AND COA ITEM NO.688S OF THE SSM) PROVISION THAT ALL TRENCHING GREATER THAN 5 FEET DEEP MUST BE INSPECTED BY A GEOLOGIST (TEXAS P.G.) OR A GEOLOGIST'S REPRESENTATIVE
- IF AT ANY TIME DURING CONSTRUCTION OF THIS PROJECT AN UNDERGROUND STORAGE TANK (UST) IS FOUND, CONSTRUCTION IN THAT AREA MUST STOP UNTIL A CITY OF AUSTIN UST CONSTRUCTION PERMIT IS APPLIED FOR AND APPROVED. ANY UST REMOVAL WORK MUST BE CONDUCTED BY A UST CONTRACTOR THAT IS REGISTERED WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ). CONTACT ELIZABETH SIMMONS AT ELIZABETH.SIMMONS@AUSTINTEXAS.GOV IF YOU HAVE ANY QUESTIONS. [COA TITLE 6].
- ALL PERMANENT FENCING MUST BE INSTALLED AT THE PERIMETER OF THE CRITICAL ENVIRONMENTAL FEATURES (CEF) SETBACK PRIOR TO THE INITIATION OF ANY CONSTRUCTION OR CLEANING ACTIVITY. THE FENCE MATERIAL SHALL BE IN ACCORDANCE WITH COA ITEM NO. 701S OF THE SSM, UNLESS OTHER MATERIALS ARE APPROVED BY THE CITY OF AUSTIN. A LOCKABLE ACCESS GATE SHALL BE INSTALLED FOR EACH CRITICAL ENVIRONMENTAL FEATURE (CEF) SETBACK.
- DEVELOPMENT OF STRUCTURES THAT REQUIRE A BUILDING PERMIT WITHIN THIS SITE PLAN, OR REVISIONS THEREOF, ARE REQUIRED TO COMPLY WITH THE CITY OF AUSTIN STREET IMPACT FEE ORDINANCES 20201220-061 [HTTPS://WWW.AUSTINTEXAS.GOV/EDIMS/DOCUMENT.CFM?ID=352887] AND 20201210-062 [HTTPS://WWW.AUSTINTEXAS.GOV/EDIMS/DOCUMENT.CFM?ID=352739], AS APPLICABLE. PRIOR TO ACQUIRING THE BUILDING PERMIT, THE CITY SHALL START COLLECTING STREET IMPACT FEES WITH ALL BUILDING PERMITS ISSUED ON OR AFTER JUNE 21, 2022. FOR MORE INFORMATION PLEASE VISIT THE STREET IMPACT FEE WEBSITE [AUSTINTEXAS.GOV/STREETIMPACTFEE].

### OWNER/DEVELOPER NAME AND ADDRESS:

VALOR PUBLIC SCHOOLS  
220 FOREMOST DRIVE  
AUSTIN, TX 78745  
WWW.VALORPUBLICSCHOOLS.ORG

ZONING CASE NO.: N/A

PREVIOUS RELATED SITE DEVELOPMENT CASE NO.: N/A

ZONING: GR-CO

WATERSHED: SLAUGHTER CREEK (BARTON SPRINGS ZONE)

PRESSURE ZONE: SOUTHWEST A

SUBMITTAL DATE: 06/10/2022

### LEGAL DESCRIPTION

BEING ALL OF A 25.4200 ACRE (1,107,296 SQUARE FEET) TRACT OF LAND OUT OF THE SAMUEL HAMILTON SURVEY NO. 16, ABSTRACT NO. 340, AND BEING THE SAME TRACT CONVEYED TO RDD 45 LP, RECORDED IN DOCUMENT NO. 2011060286 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS

### INTEGRATED PEST MANAGEMENT:

FOR INTEGRATED PEST MANAGEMENT PLAN. SEE AGREEMENT FILED IN DOCUMENT NO. \_\_\_\_\_, OFFICIAL PUBLIC RECORDS, TRAVIS COUNTY, TEXAS.

### DESIGNERS:

**ARCHITECT**  
HADDON + COWAN ARCHITECTS  
MIKE HADDON  
2301 E. RIVERSIDE DRIVE  
BUILDING A, SUITE 80  
AUSTIN, TX 78741  
PH. (512) 374-9120

### LANDSCAPE ARCHITECT

SEC PLANNING, LLC  
BEN DEBELLIS  
4201 W FARMER LN.  
AUSTIN, TX 78727  
PH. (512) 537-2384

### SURVEYOR

4WARD LAND SURVEYING  
JASON WARD  
4120 FREIDRICH LANE SUITE  
200  
AUSTIN, TX 78744  
PH. (512) 537-2384

### PREPARED BY:

**Kimley»Horn**

5301 Southwest Pkwy Suite 100, Building 2,  
Austin, TX 78735  
CERTIFICATE OF REGISTRATION #928

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

### LISTS OF CONTACTS:

**WATER & SANITARY SEWER**  
AUSTIN WATER UTILITY  
625 E. 10TH STREET, SUITE 715  
AUSTIN, TX 78701  
PH. (512) 972-0207

**FIRE**  
AUSTIN FIRE DEPARTMENT  
KRISHA ALLEN  
ONE TEXAS CENTER SUITE 200  
505 BARTON SPRING ROAD  
AUSTIN, TX 78704  
PH. (512) 974-0191

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

**ELECTRIC**  
AUSTIN ENERGY  
JIM ROWIN  
2412 KRAMER LANE, BUILDING C  
AUSTIN, TEXAS 78758  
PH. (512) 505-7665

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

**TELEPHONE**  
ATT  
DAVID A. WILLIAMS  
712 EAST HUNTLAND, ROOM 229  
AUSTIN, TX 78752  
PH. (512) 870-4760  
DW8132@ATT.COM

### HELPFUL WEBSITES:

AUSTIN WATER PIPELINE ENGINEERING  
<http://austintexas.gov/page/pipeline-engineering>

CITY OF AUSTIN EASEMENT TEMPLATES  
<http://www.austintexas.gov/page/common-easement-and-restrictive-covenants#pdr>

SERVICE EXTENSION REQUESTS (SER)  
<http://www.austintexas.gov/department/service-extension-requests>

RELINER DROP MANHOLE RESOURCES  
<https://reliner.com/parts-pricing-submittals-cad-pdf>

### SHEET INDEX

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2	LAND STATUS
3	GENERAL NOTES
4	KIMLEY-HORN GENERAL NOTES
5	AWU GENERAL NOTES
6	EXISTING CONDITIONS AND DEMO PLAN
7	TREE LIST
8	OVERALL EROSION CONTROL PLAN
9	EROSION CONTROL PLAN (SHEET 1 OF 2)
10	EROSION CONTROL PLAN (SHEET 2 OF 2)
11	OVERALL SITE PLAN
12	DIMENSION CONTROL PLAN (SHEET 1 OF 2)
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19	EXISTING DRAINAGE AREA MAP
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30	UTILITY PLAN AND PROFILE
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38	LN-1
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44	LP-5
45	LP-6
46	LPD-1
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49	IRWQ-3
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THIS NOTE IS BEING PLACED ON THE PLAN SET IN PLACE OF A TEMPORARY TRAFFIC CONTROL STRATEGY WITH THE FULL UNDERSTANDING THAT, AT A MINIMUM OF 6 WEEKS PRIOR TO THE START OF CONSTRUCTION, A TEMPORARY TRAFFIC CONTROL PLAN MUST BE REVIEWED AND APPROVED BY THE RIGHT OF WAY MANAGEMENT DIVISION. THE OWNER/REPRESENTATIVE FURTHER RECOGNIZES THAT A REVIEW FEE, AS PRESCRIBED BY THE MOST CURRENT VERSION OF THE CITY'S FEE ORDINANCE, SHALL BE PAID EACH TIME A PLAN OR PLAN REVISION IS SUBMITTED TO RIGHT OF WAY MANAGEMENT DIVISION FOR REVIEW. THE FOLLOWING MUST BE TAKEN INTO CONSIDERATION WHEN DEVELOPING FUTURE TRAFFIC CONTROL STRATEGIES:

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

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

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

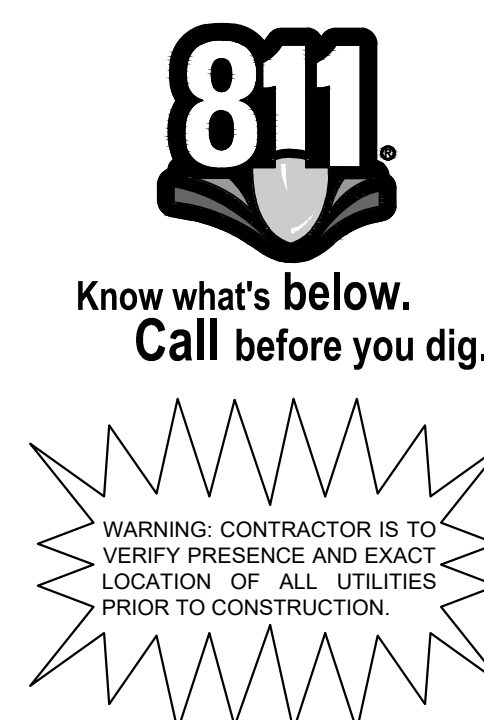
### BENCHMARKS

- TBM:
- SQUARE CUT IN CONCRETE, ON THE EAST SIDE OF THE BASE OF A UTILITY POLE, AND BEING ALONG THE NORTH SIDE OF STATE HIGHWAY 45, ± 1200' SOUTHEAST OF SUBJECT TRACTS NORTHWEST CORNER, ± 100' NORTHWEST OF A STORM SEWER MANHOLE AND ± 78' NORTHEAST OF A REFLECTOR.  
ELEVATION=817.59'
  - SQUARE CUT ON TOP OF A CONCRETE CURB INLET, ALONG THE CURB LINE OF A RAMP OF STATE HIGHWAY 45, ± 740' SOUTHEAST OF SUBJECT TRACTS NORTHWEST CORNER, ± 3' NORTHWEST OF A STORM SEWER MANHOLE AND ± 124' SOUTHEAST FROM A "DO NOT ENTER/MERGE" SIGN.  
ELEVATION=824.35'

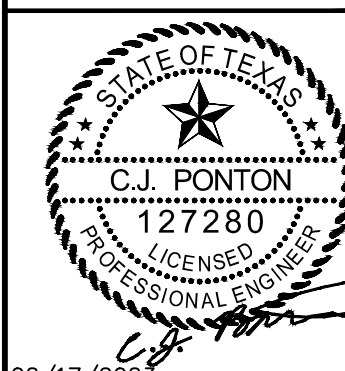
SITE PLAN APPROVAL SHEET 1 OF 45  
FILE NUMBER **SP-2022-0296CE** APPLICATION DATE **06/10/2022**  
APPROVED BY COMMISSION ON \_\_\_\_\_ UNDER SECTION \_\_\_\_ OF CHAPTER **25-5** OF THE CITY OF AUSTIN CODE.  
EXPIRATION DATE (25-5-81.LDC) \_\_\_\_\_ CASE MANAGER **C. CAMPBELL**  
PROJECT EXPIRATION DATE (ORD.#970905-A) \_\_\_\_\_ DWG# \_\_\_\_\_ DDZ \_\_\_\_\_

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

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



**Kimley»Horn**  
5301 Southwest Pkwy Suite 100, Building 2, Austin, TX  
PHONE: 512-418-1771 FAX: 512-418-1791  
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TPEE Firm No. 928



02/17/2023  
KHA PROJECT 068910605  
DATE JUNE 10, 2022  
SCALE: AS SHOWN  
DESIGNED BY: CJP  
DRAWN BY: PTK  
CHECKED BY: CJP

**COVER SHEET**  
**VALOR SOUTHWEST**  
11720 S MOPAC EXPR SB  
CITY OF AUSTIN  
TRAVIS COUNTY, TEXAS

SHEET NUMBER  
**1 OF 50**



**Development Services Department  
Land Status Determination  
Legal Tract Platting Exception  
Certification**

**May 18, 2022**

File Number: **C8I-2022-0167**

Address: **S SH 45 W**

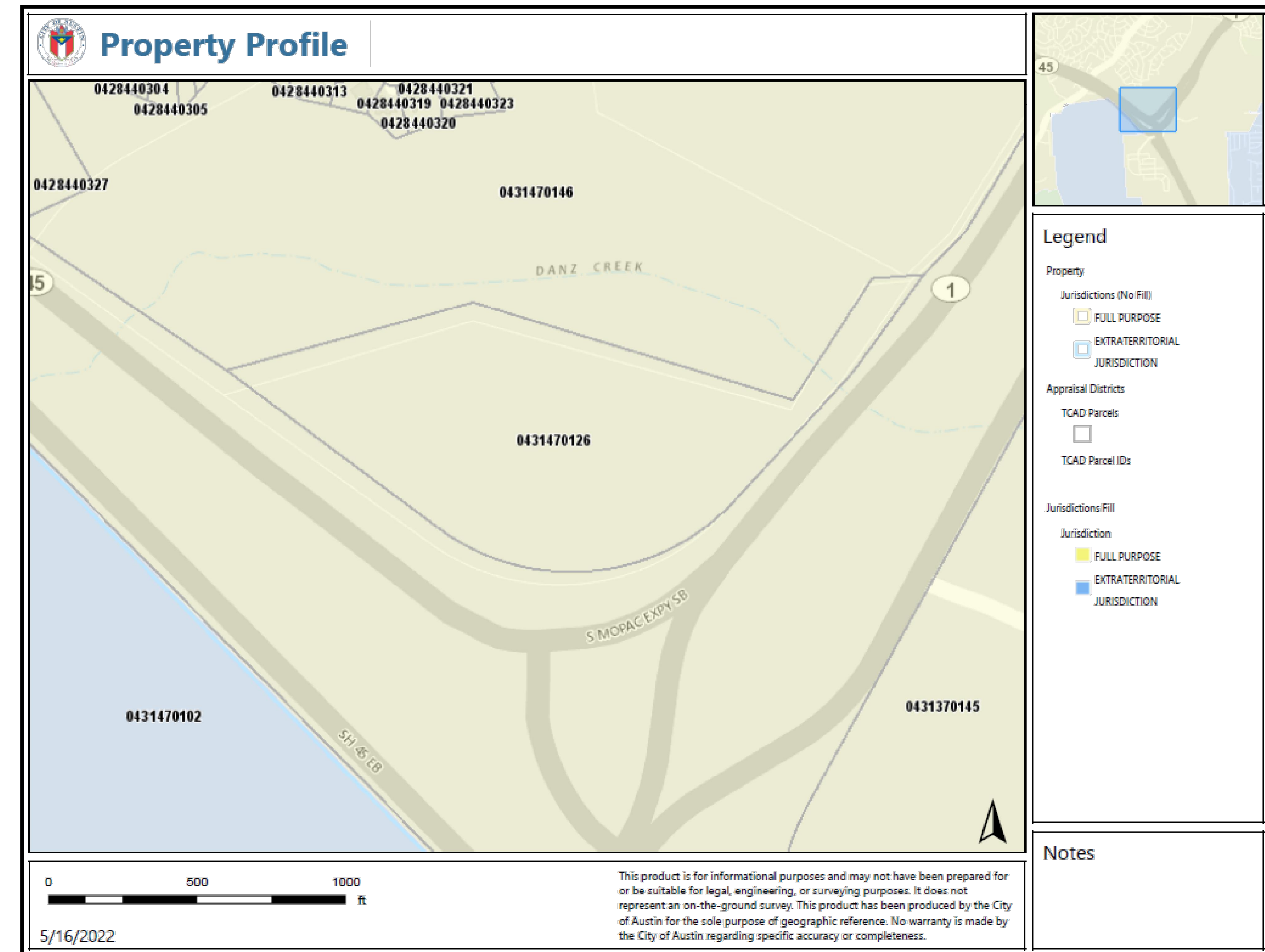
Tax Parcel I.D.# **0431470126** Tax Map Date: **05/16/2022**

The Development Services Department has determined that the property described below and **as shown on the attached tax map:**

is over five acres consisting of **THAT CERTAIN TRACT OR PARCEL OF LAND CONTAINNG 25.415 ACRES, MORE OR LESS, SITUATED IN THE SAMUEL HAMILTON SURVEY NO. 16, TRAVIS COUNTY, TEXAS** in Travis County, Texas, according to the deed recorded in **Document #2011060286**, of the **Travis County Deed Records** on **Apr. 28, 2011** and is **eligible to receive utility service**. The cost of water and/or wastewater service improvements, including easements, tap and impact fees, are the landowner's responsibility and expense, and must be accomplished according to the City of Austin Utility Design Criteria, Specifications and Procedures.

This determination of the status of the property is based on the five-acre subdivision exception provided in Texas Local Government Code, Section 212.004(a). Recognition hereby does not imply approval of any other portion of the Austin City Code or any other regulation.

By: Joey de la Garza  
**Joey de la Garza**, Representative of the Director  
**Development Services Department**



Plotted By:McClorinon, Serena Date:March 22, 2023 01:58:35pm File Path:K:\saw\_civil\068910605-wat-southwest\Cad\planstests\VC - Final Plat.dwg This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

No.	REVISIONS	DATE	BY

**Kimley >>> Horn**  
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PHONE: 512-418-7171 FAX: 512-418-7791  
www.kimley-horn.com  
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TBPE Firm No. 928

STATE OF TEXAS  
C. J. PINTON  
LICENSED PROFESSIONAL ENGINEER  
02/17/2023

KHA PROJECT	068910605
DATE	JUNE 10, 2022
SCALE:	AS SHOWN
DESIGNED BY:	CJP
DRAWN BY:	PTK
CHECKED BY:	CJP

**LAND STATUS**

**VALOR SOUTHWEST**  
11720 S MOPAC EXPY SB  
CITY OF AUSTIN  
TRAVIS COUNTY, TEXAS

SHEET NUMBER  
**2 OF 50**





### GENERAL NOTES

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER. APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN DOES NOT REMOVE THESE RESPONSIBILITIES.  
"REVIEWED BY AUSTIN WATER" APPLIES ONLY TO AW PUBLIC FACILITIES. ALL OTHER WATER AND WASTEWATER FACILITIES INSIDE PRIVATE PROPERTY ARE UNDER THE JURISDICTION OF BUILDING INSPECTIONS.

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

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

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

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

### PROJECT INFORMATION

FIRE, DOMESTIC AND IRRIGATION DEMAND DATA	
GRID NUMBER:	B14
MAPSCO NUMBER:	671L, 671M
AW INTERSECTION NUMBER:	33314
BUILDING SIZE IN SQUARE FEET:	MAIN BLDG = 102,173, GYM = 13,064
BUILDING TYPE PER IFC:	II-B
BUILDING HEIGHT:	MAIN BLDG = 53', GYM = 31'
AVAILABLE FIRE FLOW CALCS AT 20 PSI:	3594
REQUIRED BUILDING FIRE FLOW PER IFC TABLE B105.1(2):	7000
REDUCED FIRE FLOW PER 75% FIRE SPRINKLER REDUCTION PER IFC TABLE B105.2:	1750
MINIMUM FIRE FLOW (SEE NOTE #2 BELOW):	1500
DOMESTIC WATER DEMAND IN GPM:	240 (MAIN BLDG = 155, GYM = 85)
WATER SUPPLY FIXTURE UNITS (WSFU) FLUSH TANKS OR FLUSHMETERS (CIRCLE APPLICABLE ITEM):	740 (MAIN BLDG = 580, GYM = 160)
AUSTIN WATER PRESSURE ZONE:	SOUTHWEST A
STATIC WATER PRESSURE IN PSI:	77
STATIC PRESSURE AT THE HIGHEST LOT SERVED IN PSI:	77
STATIC PRESSURE AT THE LOWEST LOT SERVED IN PSI:	77
MAXIMUM IRRIGATION DEMAND:	100 GPM
FIRE LINE VELOCITY: 8" SIZE OF FIRE LINE IN FT/S	8.96
DOMESTIC LINE VELOCITY: 2" SIZE OF DOMESTIC LINE IN FT/S	2.31
LIVING UNIT EQUIVALENTS (LUEs)	109

NOTE: LOTS WITH 65 PSI OR GREATER REQUIRE A PRV TO BE INSTALLED ON THE PROPERTY OWNERS SIDE OF THE DOMESTIC WATER METER.

- WITH THE EXCEPTION OF PROVIDING THE REQUIRED INFORMATION, DO NOT REVISE THESE TABLES IN ANYWAY.
- MIN FIRE FLOW: DESIGN ENGINEER MUST INDICATE VALUES WHICH COMPLY WITH IFC TABLES B105.1(2) OR B105.2 (REQUIRED OR REDUCED FIRE FLOWS). MIN FIRE FLOW VALUE SHALL BE NO LESS THAN 1000 GPM FOR NFPA 13 SYSTEMS OR 1500 GPM FOR NFPA 13R SYSTEMS (FOOTNOTES a and b FOR TABLE B105.2).
- IF DEMAND, OTHER THAN MINIMUM FIRE FLOW, IS UTILIZED IN FIRE LINE VELOCITY DETERMINATION, ENGINEERING JUSTIFICATION SHALL BE SHOWN ON THIS SHEET WITH APPLICABLE DATA AND CALCULATIONS.

### INSPECTION NOTES

Please contact Development Services Department, Site and Subdivision Inspection at sitesubintake@austintexas.gov for arrangements for payment of inspection fees and job assignment for inspection of the public utilities to this site. Inspection fees must be paid before any Pre-construction meeting can be held.

### SERVICE EXTENSION REQUESTS

Hi Paula,

I've reviewed the SER application and have determined that the existing 24-inch wastewater interceptor and 16-inch water main are suitable and sufficient to serve this project. Therefore, a formal SER review will not be necessary. This determination is based on the following project description:

- 725 student high school
- 800 student elementary school
- 109 LUEs
- 2,000 gpm fire demand

If the proposed use and/or density changes, please let me know.

Thank you,

Katie Frazier, P.E. | Engineer, SER Program | 512-972-0232 | [Katie.Frazier@austintexas.gov](mailto:Katie.Frazier@austintexas.gov)

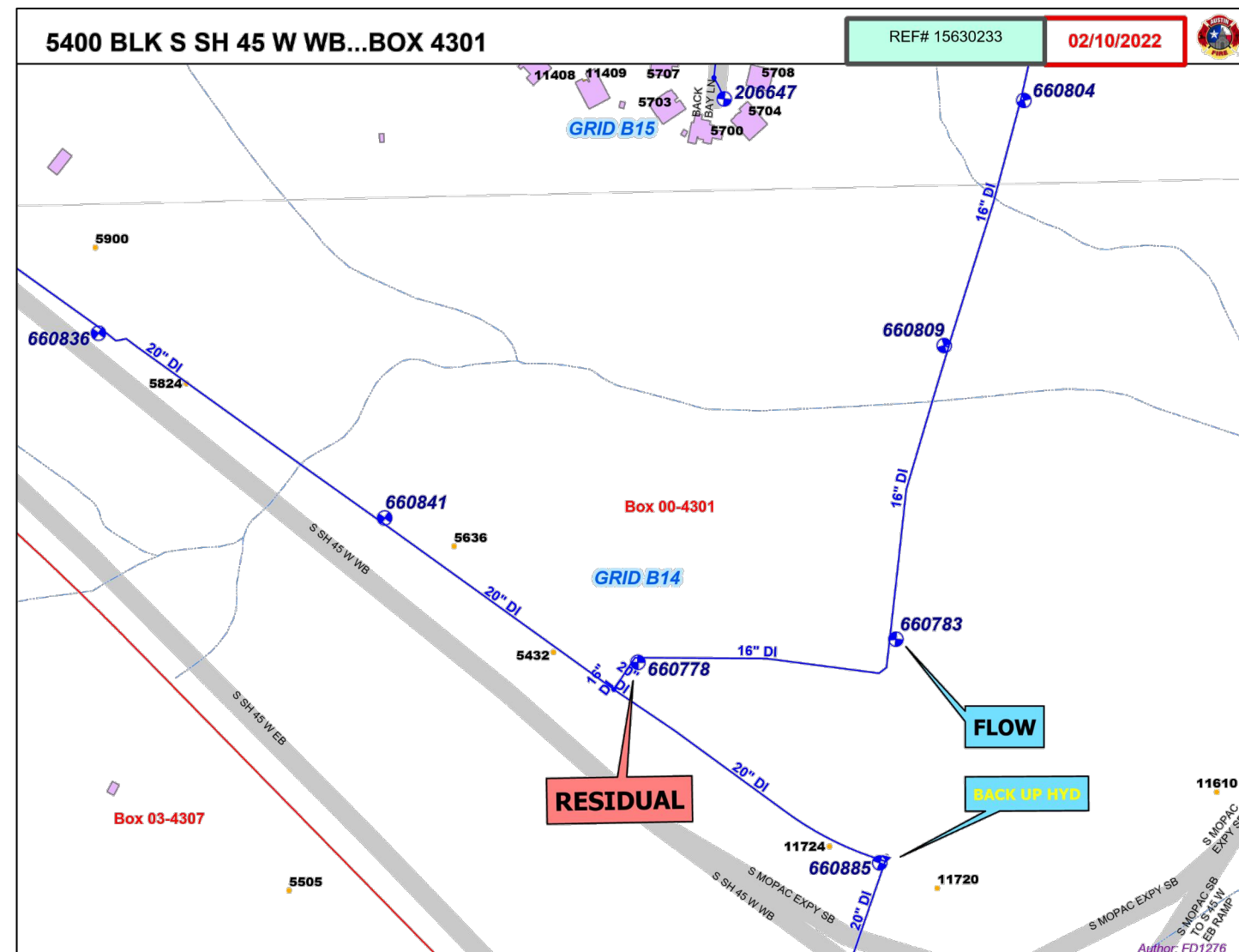


### OFFSITE UTILITY LETTER

AUSTIN FIRE DEPARTMENT FIRE PREVENTION DIVISION 6310 Wilhelmina DeLoe Dr., Austin, Texas 78752 afd.hydrants@austintexas.gov					
<b>Hydrant Flow Test Report</b>					
TEST DATE:	02/17/2022	FIRE BOX:	4301	COMPANY:	
TIME:	1500 hrs	MAP GRID ID:	B14	AFD STAFF:	BALOGHI, RANDY
<b>RESIDUAL HYDRANT</b>					
RESIDUAL HYDRANT #		660778	MAIN SIZE (in.)		16
BLK #	DIRECTION	STREET NAME	TYPE		
5400	S	SH 45 W WB			
STATIC PRESSURE (PSI)		77	RESIDUAL PRESSURE (PSI)		67
<b>FLOW HYDRANT</b>					
FLOW HYDRANT #		660783	MAIN SIZE (in.)		16
BLK #	DIRECTION	STREET NAME	TYPE		
11700	S	MOPAC EXPY SB			
STATIC PRESSURE (PSI)		82	RESIDUAL PRESSURE (PSI)		70
Comments					
de = discharge coefficient straight 2 1/2" hose = 0.9 w/ 45° elbow = 0.75				0.9	
FLOW RATE (GPM) =				1404	
NOTE: This information represents the water supply characteristics in the immediate area on the date and time tested. The City of Austin does not guarantee this data will be representative of the water supply characteristics at any time in the future. It is the requesting party's responsibility to ensure that this test information is appropriate to the location of the project in question and that any differences in elevation between the test location and project are accounted for and included in the hydraulic calculations.					

HFR #15653935

### FIRE FLOW MAP



Additional Review Acknowledgement	
<b>Onsite Water Reuse &amp; AW Reclaimed Information</b>	
Does this development have a total gross floor building area of 250,000 square feet or more? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Distance to nearest existing AW reclaimed main? <input type="checkbox"/> 250' or less <input type="checkbox"/> 251' to 500' <input checked="" type="checkbox"/> Greater than 500'	
<b>Automated Metering Information</b>	
Is this project within the current service area of AW's Data Collection Units (DCUs)? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Does this project require a dedicated easement for DCU infrastructure? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
<b>AULCC Requirement</b>	
Does this project require an AULCC review? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
IF YES, PLEASE PROVIDE UCC# _____	

### STANDARD CONSTRUCTION NOTES

October 1, 2021

- THE CITY STANDARD CONSTRUCTION SPECIFICATIONS CURRENT AT THE TIME OF BIDDING SHALL COVER MATERIALS AND METHODS USED TO DO THIS WORK.
- CONTRACTOR MUST OBTAIN A ROW PERMIT FROM AUSTIN TRANSPORTATION DEPT, RIGHT OF WAY MANAGEMENT DIVISION BEFORE BEGINNING CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR ALLEY. ACTIVITY WITHIN RIGHT-OF-WAY SHALL COMPLY WITH APPROVED TCP.
- AT LEAST 48 HOURS PRIOR TO BEGINNING ANY UTILITY CONSTRUCTION ACTIVITY IN PUBLIC EASEMENT, THE CONTRACTOR SHALL NOTIFY THE APPLICABLE CITY OF AUSTIN INSPECTION GROUP (AUSTIN TRANSPORTATION, DEVELOPMENT SERVICES, OR PUBLIC WORKS). SEE CURRENT NOTIFICATION REQUIREMENTS AT WWW.AUSTINTEXAS.GOV.
- THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM AT 1-800-344-4377 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION IN ADVANCE OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES TO BE EXTENDED, TIED TO, OR ALTERED, OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS. THE CITY OF AUSTIN WATER AND WASTEWATER MAINTENANCE RESPONSIBILITY ENDS AT R.O.W./EASEMENT LINES.
- NO OTHER UTILITY SERVICE/APURTENANCES SHALL BE PLACED NEAR THE PROPERTY LINE, OR OTHER ASSIGNED LOCATION DESIGNATED FOR WATER AND WASTEWATER UTILITY SERVICE THAT WOULD INTERFERE WITH THE WATER AND WASTEWATER SERVICES.
- MINIMUM TRENCH SAFETY MEASURES SHALL BE PROVIDED, AS REQUIRED BY OSHA, CITY SPECIFICATION 509S, AND CITY/COUNTY CONSTRUCTION INSPECTORS.
- ALL MATERIALS TESTS ORDERED BY THE OWNER FOR QUALITY ASSURANCE PURPOSES, SHALL BE CONDUCTED BY AN INDEPENDENT LABORATORY AND FUNDED BY THE OWNER IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 1804S.04.
- PRESSURE TAPS SHALL BE ALLOWED ON A CASE BY CASE BASIS, AS DETERMINED BY THE DIRECTOR'S DESIGNEE. NORMALLY PRESSURE TAPS 4 INCHES AND LARGER SHALL BE ALLOWED IN THE FOLLOWING CASES: A) A TEST SHUT OUT INDICATES AN ADEQUATE SHUT OUT TO PERFORM THE WORK IS NOT FEASIBLE B) MORE THAN 30 CUSTOMERS OR A SINGLE CRITICAL CUSTOMER (AS DEFINED BY AUSTIN WATER) WOULD BE IMPACTED BY THE SHUT OUT OR C) THE EXISTING WATER LINE WARRANTS IT.
- WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEMS 510.3 (27)-(29). FORCE MAIN PRESSURE TESTING SHALL BE CONDUCTED AND FALL UNDER THE SPECIFICATIONS AS WATER LINES (PRESSURE PIPE) OR AT THE PRESSURES SHOWN ON THE APPROVED PLANS.
- ALL MATERIAL USED ON THIS PROJECT MUST BE LISTED ON THE STANDARD PRODUCTS LISTING. ANY MATERIAL NOT LISTED HAS TO GO THROUGH THE REVIEW OF THE STANDARDS COMMITTEE FOR REVIEW AND APPROVAL PRIOR TO START OF PROJECT. TESTING AND EVALUATION OF PRODUCTS ARE REQUIRED BEFORE APPROVAL WILL BE GIVEN ANY CONSIDERATION.
- WHEN WATER SERVICES ARE DAMAGED AND THE SERVICE MATERIAL IS POLYETHYLENE (PE), THE LINE SHALL BE REPAIRED ONLY BY HEAT FUSION WELD, AT BRASS FITTINGS, OR THE FULL LENGTH SHALL BE REPLACED PER CURRENT STANDARD DETAIL(S). WHEN POLYBUTYLENE (PB) TUBING IS DAMAGED OR TAMPED WITH IN ANY WAY, THE FULL LENGTH OF SERVICE LINE SHALL BE REPLACED. (NOTE: FULL LENGTH IS FROM THE CORPORATION STOP TO THE METER.) REPAIR COUPLINGS ARE NOT ALLOWED FOR ANY WATER OR WASTEWATER SERVICE LINE REPAIR, RECONNECT, OR REPLACEMENT.
- WHEN AN EXISTING WATERLINE SHUT OUT IS NECESSARY AND POSSIBLE, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR WHO WILL THEN NOTIFY AUSTIN WATER DISPATCH AND THE AFFECTED CUSTOMERS A MINIMUM OF FORTY-EIGHT (48) HOURS IN ADVANCE.
- THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR SO THAT HE CAN NOTIFY THE AUSTIN WATER AT 972-0000 AT A MINIMUM OF 72 HOURS PRIOR TO RELOCATING ANY DOMESTIC OR FIRE DEMAND WATER METERS. THE CONTRACTOR SHALL CAREFULLY REMOVE ALL METERS AND METERS BOXES THAT ARE INDICATED TO BE RELOCATED OR SALVAGED. THE CONTRACTOR SHALL INSTALL THE REMOVED METER OR CITY PROVIDED METER AT THE NEW LOCATION INDICATED ON THE CONSTRUCTION PLANS.
- THE CONTRACTOR SHALL VERIFY ALL VERTICAL AND HORIZONTAL LOCATIONS OF EXISTING UTILITIES, BELOW GROUND AND OVERHEAD, PRIOR TO STARTING ONSITE UTILITY WORK.
- ALL WATER, WASTEWATER, AND RECLAIMED MAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE SEPARATION DISTANCES INDICATED ON THE PLANS, PER UTILITY CRITERIA MANUAL AND TC&D CHAPTERS 210, 217, AND 290.
- PROJECT-SPECIFIC SHOP DRAWINGS SHALL BE SUBMITTED FOR AW APPROVAL FOR PRE-CAST CIRCULAR VERTICAL MANHOLE SECTIONS LARGER THAN 48" DIAMETER. THE SHOP DRAWINGS SHALL INCLUDE THE FLOWLINE ELEVATION OF ALL CONNECTING PIPES; ELEVATIONS OF TRANSITIONS FROM LARGE DIAMETER SECTIONS TO 48" DIAMETER SECTIONS; TOP OF MANHOLE AND SURROUNDING GROUND ELEVATIONS; AND DETAILS OF SPECIAL CONSTRUCTION CONSIDERATIONS SPECIFIED IN THE CONTRACT DOCUMENTS.
- WHEN CONCRETE MANHOLES LARGER THAN 48 INCH DIAMETER ARE USED, DRAWINGS THAT ARE SEALED BY A PROFESSIONAL ENGINEER SHALL BE SUBMITTED FOR BASE SLABS, FLAT TOP LIDS (IF USED), AND FLAT TYPE CONCRETE PIECES USED TO TRANSITION FROM LARGER TO SMALLER DIAMETER MANHOLE SECTIONS.
- ALL FIRE HYDRANTS AND VALVES THAT ARE TO BE ABANDONED SHALL BE REMOVED, SALVAGED AND RETURNED TO AUSTIN WATER. NOTICE SHOULD BE GIVEN 48 HOURS PRIOR. TO PIPELINE OPERATIONS DISTRIBUTION SYSTEM VALVES AND HYDRANT SERVICES SUPERVISOR AT 512-972-1290.
- ALL EXISTING WATER METERS IDENTIFIED TO BE RELOCATED OR ABANDONED AT THE DEVELOPMENT SHALL BE REMOVED FROM THE METER BOX PRIOR TO CONSTRUCTION AND GIVEN IMMEDIATELY TO THE CITY OF AUSTIN INSPECTOR.
- THE ENGINEER SHALL CALL OUT THE SIZE, TYPE AND USE (DOMESTIC OR IRRIGATION) OF ALL EXISTING WATER METERS TO BE RELOCATED OR REPURPOSED. WATER METER NUMBERS WILL NOT BE REQUIRED TO BE PLACED ON THE PLAN SHEET. A SEPARATE AUSTIN WATER TAPS OFFICE FORM WILL BE USED TO PROVIDE RELEVANT DATA FOR THE EXISTING INFORMATION ON EXISTING METERS TO RECEIVE APPROPRIATE CREDITS. THIS FORM SHALL BE DIRECTLY SUBMITTED TO AUSTIN WATER TAPS OFFICE FOR REVIEW AND PROCESSING.
- NO CONNECTION MAY BE MADE BETWEEN THE PRIVATE PLUMBING AND AUSTIN WATER INFRASTRUCTURE UNTIL A CITY APPROVED WATER METER HAS BEEN INSTALLED.
- METER BOXES AND CLEAN OUTS SHALL NOT BE LOCATED WITHIN PAVED AREAS SUCH AS DRIVEWAYS AND SIDEWALKS.

AW INFRASTRUCTURE INFORMATION			
PROPOSED PRODUCT TYPE (TO BE INSTALLED)	LENGTH OF PIPE (L.F.)	SIZE OF PIPE (INCH)	NO. OF SERVICES
WATER SERVICE	20	10	1
WASTEWATER SERVICE	142	8	1

THE INFORMATION INCLUDED IN THIS TABLE ARE APPROXIMATE VALUES ESTIMATED BASED ON GENERAL ENGINEERING GUIDELINES

No.	REVISIONS	DATE



KHA PROJECT	068910605
DATE	JUNE 10, 2022
SCALE	AS SHOWN
DESIGNED BY:	CJP
DRAWN BY:	PTK
CHECKED BY:	CJP

### AWU GENERAL NOTES

**VALOR SOUTHWEST**  
11720 S MOPAC EXPY SB  
CITY OF AUSTIN  
TRAVIS COUNTY, TEXAS

SHEET NUMBER  
**5 OF 50**



Plotted: E:\McClintock\_Sereno\_Demo\3-22-2023\_02:00:05pm File Path: K:\saw\_civil\068910605-water\_southwest\Cond\plansheets\C - Existing Conditions and Demo Plan.dwg  
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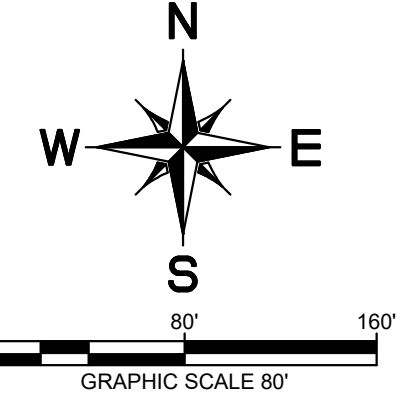


**LEGEND**

	PROPERTY LINE
	ADJACENT PROPERTY LINE
	EASEMENT LINE
	TREE TO REMAIN
	EXISTING TREE TO BE REMOVED
	HERITAGE TREE TO REMAIN
	HERITAGE TREE TO BE REMOVED
	EXISTING WASTEWATER
	EXISTING WATER
	EXISTING OVERHEAD POWER
	EXISTING STORM PIPE
	EXISTING ASPHALT PAVEMENT TO BE REMOVED
	EXISTING CONCRETE PAVEMENT TO BE REMOVED

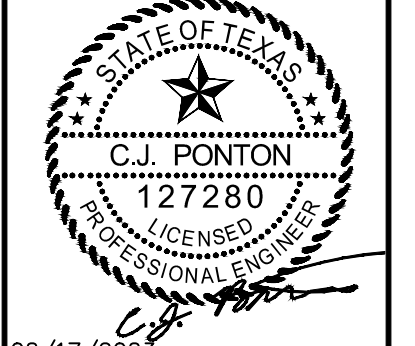
**NOTES:**

- TREES AND TOPOGRAPHY BASED UPON GROUND SURVEY BY 4WARD LAND SURVEYING ON FEBRUARY 15, 2022.
- A PRECONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR IS REQUIRED PRIOR TO ANY SITE DISTURBANCE.
- LOCATIONS OF PUBLIC AND FRANCHISE UTILITIES SHOWN ARE APPROXIMATE AND MAY NOT BE COMPLETE. CONTRACTOR SHALL CALL THE ONE CALL CENTER (472-2822) AT LEAST 48 HOURS PRIOR TO COMMENCING DEMOLITION OR CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL CONTACT ANY OTHER UTILITY COMPANIES WHO DO NOT SUBSCRIBE TO THE ONE CALL PROGRAM FOR LINE MARKINGS. THE CONTRACTOR BEARS SOLE RESPONSIBILITY FOR VERIFYING LOCATIONS OF EXISTING UTILITIES, SHOWN OR NOT SHOWN, AND FOR ANY DAMAGE DONE TO THESE FACILITIES.
- REMOVAL OR RELOCATION OF EXISTING PUBLIC AND PRIVATE FRANCHISE UTILITIES (WATER, ELECTRIC, AND GAS ETC.) WITHIN THE LIMITS OF THE SITE DEMOLITION SHALL BE COORDINATED WITH THE APPLICABLE UTILITY AGENCIES.
- ALL UTILITIES IN STREET RIGHT-OF-WAY TO REMAIN IN PLACE UNLESS NOTED OTHERWISE.
- THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL OF EXISTING PAVEMENT SECTION, STRUCTURAL SUBGRADE, STRUCTURAL FOUNDATION AND UTILITIES WITHIN THE SITE. CONTRACTOR TO DISPOSE ALL DEMOLITION SPOILS OFF-SITE IN A LEGAL MANNER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO EXISTING UTILITIES, IRRIGATION LINES, PAVEMENT, ETC., TO REMAIN RESULTING FROM DEMOLITION ACTIVITIES AND REPAIR AT THEIR OWN EXPENSE.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
- ALL ITEMS TO BE REMOVED SHALL BE DISPOSED OFF-SITE IN A MANNER ACCEPTABLE TO ALL APPLICABLE REGULATIONS.
- PERIMETER EROSION CONTROL DEVICES SHALL BE IN PLACE PRIOR TO DEMOLITION. REFERENCE EROSION CONTROL PLAN AND DETAILS FOR TYPE AND LOCATION.
- CONTRACTOR TO RESTORE ANY CONCRETE CURB & GUTTER AND FIRELANE STRIPING PROPOSED TO REMAIN THAT IS DAMAGED DURING CONSTRUCTION.
- BUILDINGS LABELED AS EXISTING ON THIS SHEET ARE OUTSIDE THE SCOPE OF THIS PROJECT.
- EXISTING BUILDING OCCUPANCY CLASS: EDUCATION GROUP E AND GROUP A-3 FOR GYMNASIUM
- CONTRACTOR TO REMOVE ALL SUBSURFACE BUILDING FOUNDATION THAT EXISTS ON SITE FOR THE ORIGINAL BUILDING WITHIN THE PARKING AREA. BUILDING WAS DEMOLISHED WITH ECOTECH INSTITUTE; TENANT IMPROVEMENT PLANS (PROJECT NO. 5005.54) DATED 10-10-2011. CONTRACTOR TO REFERENCE AS BUILT PLANS FOR LIMITS OF POTENTIAL SUBSURFACE BUILDING FOUNDATION.



No.	REVISIONS	DATE	BY

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 TBPE Firm No. 928



KHA PROJECT	068910605
DATE	JUNE 10, 2022
SCALE	AS SHOWN
DESIGNED BY:	CJP
DRAWN BY:	PTK
CHECKED BY:	CJP

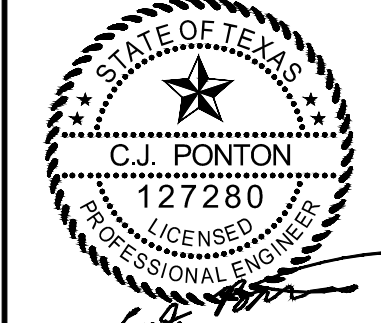
**EXISTING CONDITIONS AND DEMO PLAN**

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

TREE LIST

Table with columns: Tag, Description, Size (in), Saved/Removed, Type. Contains multiple columns of tree data.

Kimley-Horn & Associates, Inc. logo and contact information including address and phone number.



Project information: KHA PROJECT 068910605, DATE: JUNE 10, 2022, SCALE: AS SHOWN, DESIGNED BY: CJP, DRAWN BY: PTK, CHECKED BY: CJP.

TREE LIST

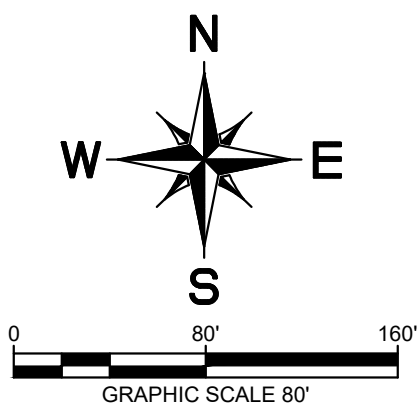
VALOR SOUTHWEST 11720 S WOPAC EXPY SB CITY OF AUSTIN TRAVIS COUNTY, TEXAS SHEET NUMBER 7 OF 50

Plotted By: Mcdonnell, Serena Date: March 22, 2023 02:01:02pm File Path: K:\saw\_evl\068910605-vator\_southwest\068910605- Erosion Control Plan.dwg  
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**NOTES:**

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- THE ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS
- CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURE DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(D) OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
- TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT THE EARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. TEMPORARY SEDIMENT BASIN SHALL BE EXCAVATED PRIOR TO COMMENCEMENT OF GRADING OR VEGETATION REMOVAL PERIMETER SILT FENCE SHALL BE INSTALLED BEFORE COMMENCEMENT OF GRADING OR VEGETATION REMOVAL. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED UNTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY LANDSCAPING, THE BUILDING(S), AND SITE PAVING.
- BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER. FOR EXAMPLE, SILT FENCES LOCATED AT TOE OF SLOPE AND INLET PROTECTION FOR INLETS RECEIVING SEDIMENT FROM SITE RUN-OFF.
- ADDITIONAL EROSION AND SEDIMENTATION CONTROLS MAY BE REQUIRED BY THE CITY DURING CONSTRUCTION.
- REFERENCE EROSION CONTROL NOTES AND DETAILS ON SHEET 7.
- IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING [ECM 1.4.4.B.3, SECTION 5, I]. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY [ECM 1.4.4.D.4].
- ALL DISTURBED AREAS TO BE RE-VEGETATED PER CITY OF AUSTIN STANDARDS.
- SEE LANDSCAPE ARCHITECT PLANS FOR TREE PRESERVATION PLAN AND TREE LIST.
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SEDIMENTATION POND VOLUME				
BEST MANAGEMENT PRACTICE	DRAINAGE AREA (AC)	REQUIRED VOLUME (CF)	PROVIDED VOLUME (CF)	AVERAGE SLOPE
SEDIMENT BASIN	8.40	22,691	53,726	.0135



**LEGEND**

	LOC	LIMITS OF CONSTRUCTION AREA
	SF	SILT FENCE
	IP	PROPOSED INLET PROTECTION
	CE	CONSTRUCTION ENTRANCE
	RB	ROCK BERM
	450	EXISTING CONDITIONS
	450	PROPOSED CONDITIONS
		PROPERTY LINE
		TREE TO REMAIN
		EXISTING TREE TO BE REMOVED
		HERITAGE TREE TO REMAIN
		HERITAGE TREE TO BE REMOVED
	CW	CONCRETE WASHOUT
	SA	STAGING AREA
	TSA	TEMPORARY SPOILS AREA
	SK	DEWATERING SKIMMER
	TFD	TRIANGULAR FILTER DIKE
	TP	TEMPORARY SEDIMENTATION BASIN
	TP	TREE PROTECTION

No.	REVISIONS	DATE	BY

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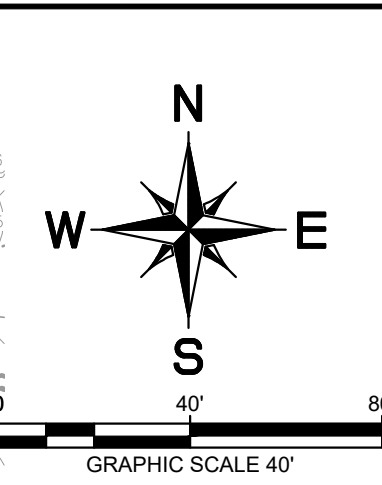
STATE OF TEXAS  
 C.J. BENTON  
 LICENSED PROFESSIONAL ENGINEER  
 02/17/2023

KHA PROJECT: 068910605  
 DATE: JUNE 10, 2022  
 SCALE: AS SHOWN  
 DESIGNED BY: CJP  
 DRAWN BY: PTK  
 CHECKED BY: CJP

**OVERALL EROSION CONTROL PLAN**

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

Plotted By: MCDorrison, Serena Date: March 22, 2023 02:01:25pm File Path: K:\saw\_civil\0688910605-water\_southwest\Coord\plan\erosion\_control\plan.dwg  
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LEGEND	
— LOC —	(LC) LIMITS OF CONSTRUCTION AREA
— SF —	(SF) SILT FENCE
■	(IP) PROPOSED INLET PROTECTION
▨	(CE) CONSTRUCTION ENTRANCE
— RB —	(RB) ROCK BERM
---	EXISTING CONDITIONS
---	PROPOSED CONDITIONS
---	PROPERTY LINE
○	TREE TO REMAIN
○	EXISTING TREE TO BE REMOVED
○	HERITAGE TREE TO REMAIN
○	HERITAGE TREE TO BE REMOVED
+	(CW) CONCRETE WASHOUT
▨	(SA) STAGING AREA
▨	(TSA) TEMPORARY SPOILS AREA
— SK —	DEWATERING SKIMMER
— TFD —	TRIANGULAR FILTER DIKE
▨	TEMPORARY SEDIMENTATION BASIN
— TP —	TREE PROTECTION

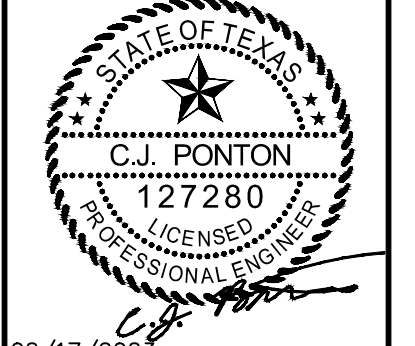
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- CONTRACTOR SHALL RECORD INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL DATES FOR EACH BMP EMPLOYED (WHETHER CALLED OUT ON ORIGINAL SWPPP OR NOT) DIRECTLY ON THE SITE MAP.
- THE ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS.
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MATCH LINE - SEE SHEET 10

NO.	REVISIONS	DATE	BY

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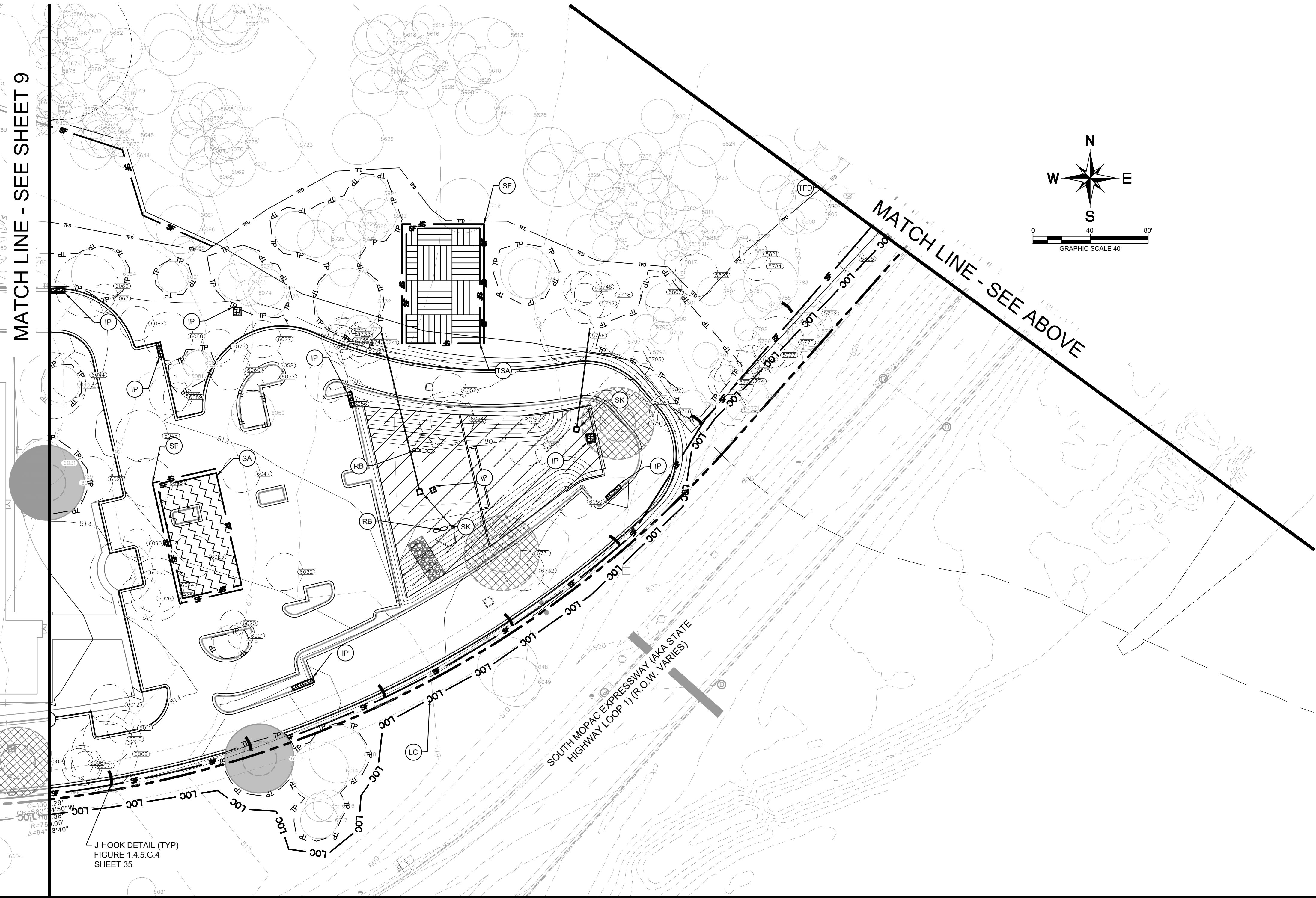
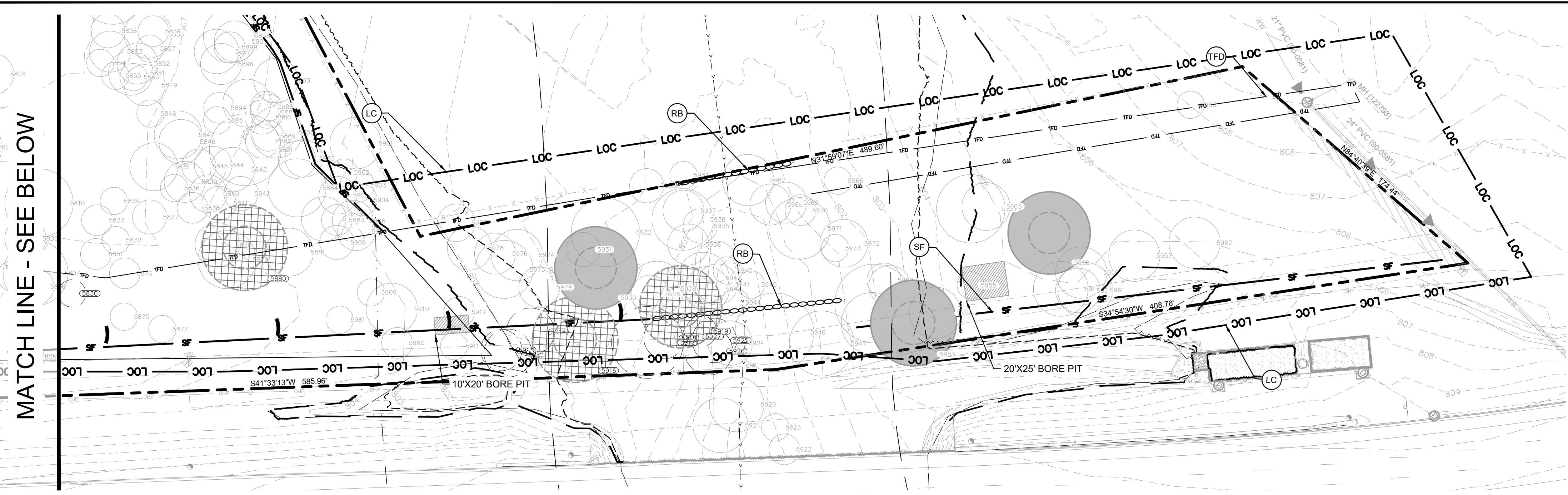


KHA PROJECT	068910605
DATE	JUNE 10, 2022
SCALE	AS SHOWN
DESIGNED BY:	CJP
DRAWN BY:	PTK
CHECKED BY:	CJP

**EROSION CONTROL PLAN (SHEET 1 OF 2)**

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

Plotted By: MCDorrison, Serena Date: March 22, 2023 02:01:56pm File Path: K:\New\_civil\068910605-water\_southwest\Coord\plan\sheet\02-01-26.dwg  
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### LEGEND

— LOC —	(LC)	LIMITS OF CONSTRUCTION AREA
— SF —	(SF)	SILT FENCE
[Symbol]	(IP)	PROPOSED INLET PROTECTION
[Symbol]	(CE)	CONSTRUCTION ENTRANCE
[Symbol]	(RB)	ROCK BERM
— 450 —		EXISTING CONDITIONS
— 450 —		PROPOSED CONDITIONS
---		PROPERTY LINE
(Symbol)		TREE TO REMAIN
(Symbol)		EXISTING TREE TO BE REMOVED
(Symbol)		HERITAGE TREE TO REMAIN
(Symbol)		HERITAGE TREE TO BE REMOVED
[Symbol]	(CW)	CONCRETE WASHOUT
[Symbol]	(SA)	STAGING AREA
[Symbol]	(TSA)	TEMPORARY SPOILS AREA
[Symbol]	(SK)	DEWATERING SKIMMER
[Symbol]	(TFD)	TRIANGULAR FILTER DIKE
[Symbol]		TEMPORARY SEDIMENTATION BASIN
— TP —	(TP)	TREE PROTECTION

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  - ADDITIONAL EROSION AND SEDIMENTATION CONTROLS MAY BE REQUIRED BY THE CITY DURING CONSTRUCTION.
  - REFERENCE EROSION CONTROL NOTES AND DETAILS ON SHEET 7.
  - IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING [ECM 1.4.4.B.3, SECTION 5.1]. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY [ECM 1.4.4.D.4].
  - ALL DISTURBED AREAS TO BE RE-VEGETATED PER CITY OF AUSTIN STANDARDS.
  - SEE LANDSCAPE ARCHITECT PLANS FOR TREE PRESERVATION PLAN AND TREE LIST.
  - ALL SPOILS ARE TO BE PLACED BACK IN TRENCH EVERY NIGHT; OR IF THE SPOILS PILES ARE TO BE REMAIN OVERNIGHT, SPOILS MUST BE PLACED ON THE UPHILL SIDE OF TRENCH WITHIN THE LOC.
  - ONLY RUBBER-TIRED EQUIPMENT IS ALLOWED WITHIN THE CWQZ AND FLOODPLAIN. NO TRACK EQUIPMENT IS ALLOWED. ALL EQUIPMENT AND SPOILS ARE TO BE REMOVED FROM THE CREEK, THE CWQZ, AND 100-YEAR FLOODPLAIN NIGHTLY.
  - ALL PERMANENT FENCING MUST BE INSTALLED AT THE PERIMETER OF THE CRITICAL ENVIRONMENTAL FEATURE (CEF) SETBACK PRIOR TO THE INITIATION OF ANY CONSTRUCTION OR CLEANING ACTIVITY. THE FENCE MATERIAL SHALL BE IN ACCORDANCE WITH COA ITEM NO. 701'S OF THE SSM, UNLESS OTHER MATERIALS ARE APPROVED BY THE CITY OF AUSTIN. A LOCKABLE ACCESS GATE SHALL BE INSTALLED FOR EACH CRITICAL ENVIRONMENTAL FEATURE (CEF) SETBACK.

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 TBPE Firm No. 928

STATE OF TEXAS  
 PROFESSIONAL ENGINEER  
 J. P. FORTSON  
 LICENSE NO. 127230

DATE: JUNE 10, 2022  
 SCALE: AS SHOWN  
 DESIGNED BY: CJP  
 DRAWN BY: PITK  
 CHECKED BY: CJP

**EROSION CONTROL PLAN (SHEET 2 OF 2)**

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

SHEET NUMBER  
**10 OF 50**

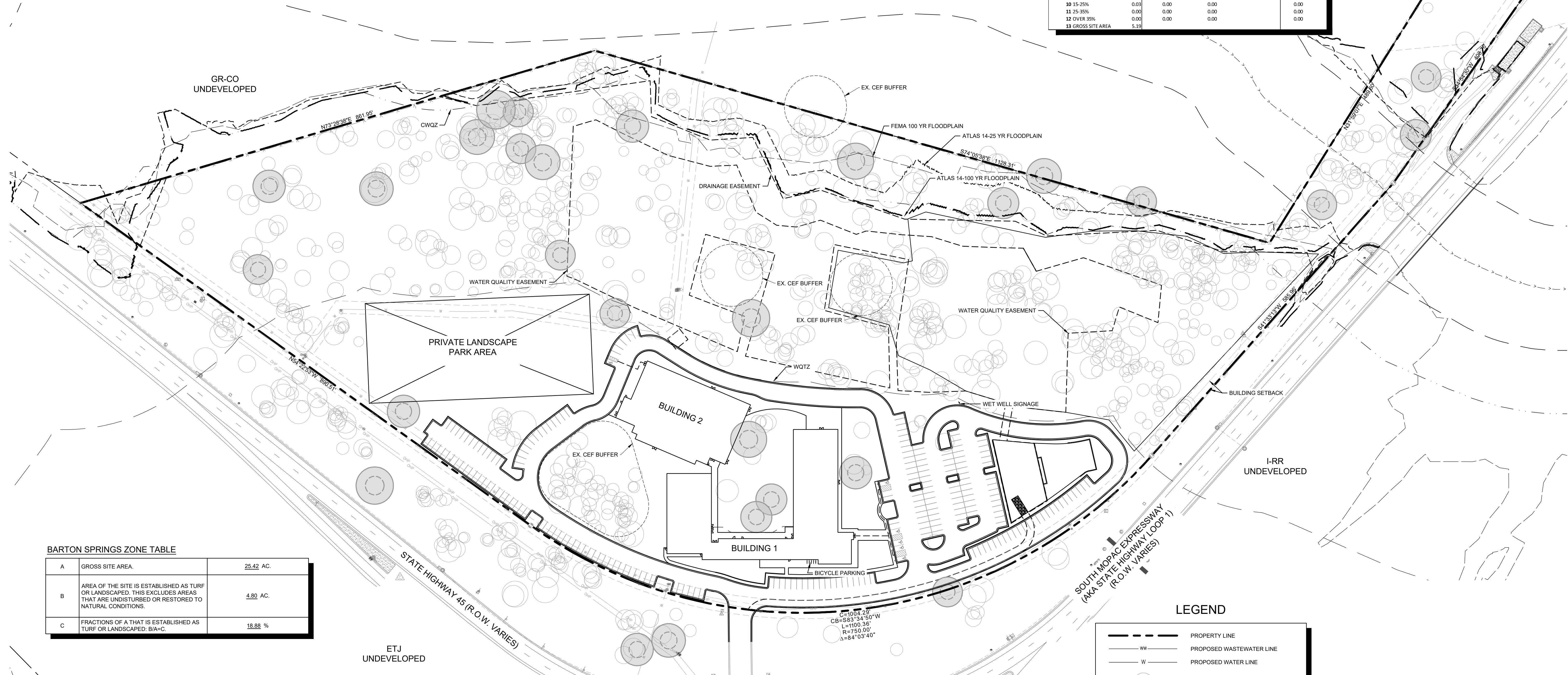
REVISIONS	DATE

CODE PARKING REQUIREMENTS						
1.5 SPACES FOR EACH STAFF MEMBER PLUS 1 SPACE FOR EACH 3 STUDENTS ENROLLED IN 11TH AND 12 GRADES						
	TOTAL STAFF	100				
	11-12TH ENROLLMENT	200				
	CODE MINIMUM PARKING FOR TOTAL ENROLLMENT	217				
PARKING TABLE						
REQUIRED PARKING						
LAND USE	CODE REQUIRED PARKING	GSF/UNITS	MINIMUM PARKING FOR TOTAL ENROLLMENT	ADA PARKING PROVIDED	REGULAR PARKING PROVIDED	TOTAL PARKING PROVIDED
	PUBLIC OR PRIVATE SECONDARY EDUCATIONAL FACILITIES		217	6	218	224
CHARTER SCHOOL	PUBLIC OR PRIVATE SECONDARY EDUCATIONAL FACILITIES	102,173		5	162	167
GYMNASIUM	PUBLIC OR PRIVATE SECONDARY EDUCATIONAL FACILITIES	13,064		1	56	57

SITE DATA TABLE	
TOTAL SITE AREA = 25.42 AC (1,107,295 SF)	
OPEN SPACE = 166,444 SF (15.03%)	
ZONING: GR-CO	
PROPOSED USE: PRIVATE PRIMARY EDUCATION FACILITIES	
TOTAL STAFF COUNT = 100	
TOTAL STUDENTS COUNT = 690	
BUILDING 1 HEIGHT = 52' 7"; 3 STORIES; 28,729 SF (2.59%)	
BUILDING 2 HEIGHT = 38' 0"; 1 STORY; 21,320 SF (1.93%)	
BLDG HEIGHT ALLOWED = 75'	
FAR = 0.104:1	
BUILDING 1 GSF = 81,945 GSF (1ST FLOOR ~ 28,729 SF, 2ND FLOOR ~ 26,608 SF, 3RD FLOOR ~ 26,608 SF)	
BUILDING 2 GSF = 21,320 SF	
TOTAL GROSS FLOOR AREA = 103,265 SF	
BLDG GSF ALLOWED = 1,107,295 SF	
BUILDING COVERAGE = 51,575 SF; (4.67%)	
IMPERVIOUS COVER = 192,110 SF (17.35%)	
FEE BLDG 1 = 818.50' & 815.50'; BLDG 2 = 819.50'	
FOUNDATION TYPE = SLAB ON DRILLED PIERS	

APPENDIX Q-1: NET SITE AREA	
TOTAL GROSS SITE AREA	25.42 ACRES
1107295.58 SF	
SITE DEDUCTIONS:	
CRITICAL WATER QUALITY ZONE (CWQZ)	3.61 ACRES
WATER QUALITY TRANSITION ZONE (WQTZ)	12.48 ACRES
WASTEWATER IRRIGATION AREAS	0.00 ACRES
DEDUCTION SUBTOTAL	16.04 ACRES
UPLAND AREA (GROSS AREA MINUS TOTAL DEDUCTIONS)	9.38 ACRES
NET SITE AREA CALCULATION:	
AREA OF UPLANDS WITH SLOPES 0-15% X100%	9.38 ACRES
AREA OF UPLANDS WITH SLOPES 15-25% X40%	0.00 ACRES
AREA OF UPLANDS WITH SLOPES 25-35% X20%	0.00 ACRES
AREA OF UPLANDS WITH SLOPES >35% X0%	0.00 ACRES

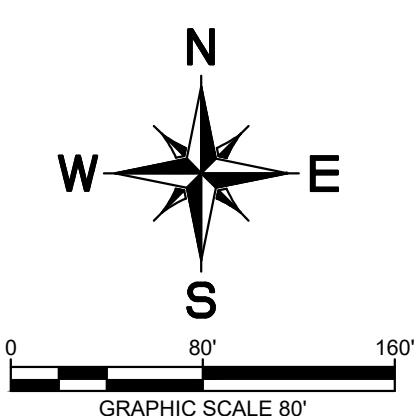
APPENDIX Q-2: IMPERVIOUS COVER				
WATER QUALITY TRANSITION ZONE (WQTZ)				
1 WQTZ OUTSIDE OF 100-YEAR FLOODPLAIN (NON-FP WQTZ)	= 12.35 ACRES			
ALLOWABLE IMPERVIOUS COVER				
2 IMPERVIOUS COVER ALLOWED AT 0.00 %X (NON-FP WQTZ)	= 0.00 ACRES			
3 IMPERVIOUS COVER ALLOWED AT "SEE NOTE" (NET SITE AREA)	= 6.00 ACRES			
4 *6 ACRES OF IMPERVIOUS COVER IS ALLOWABLE ON PROPERTY PER THE BRADLEY AGREEMENT	= 6.00 ACRES			
PROPOSED IMPERVIOUS COVER				
5 IMPERVIOUS COVER IN NON-FP WQTZ	= 0.00 ACRES			
5A EXISTING PROPOSED TO REMAIN	= 0.00 ACRES			
5B PROPOSED NEW	= 0.00 ACRES			
5C SUBTOTAL	= 0.00 ACRES			
6 IMPERVIOUS COVER IN UPLANDS ZONE	= 0.00 ACRES			
6A EXISTING PROPOSED TO REMAIN	= 0.00 ACRES			
6B PROPOSED NEW	= 5.16 ACRES			
6C SUBTOTAL	= 5.16 ACRES			
7 TOTAL PROPOSED IMPERVIOUS COVER	= 5.16 ACRES			
ALLOWABLE IMPERVIOUS COVER BREAKDOWN BY SLOPE CATEGORY				
8 TOTAL ACREAGE WITH SLOPES 15-25% =	0.03 ACRES X 10% = 0.00 ACRES			
PROPOSED IMPERVIOUS COVER ON SLOPES				
SLOPE CATEGORIES	ACRES	ACRES	% OF CATEGORY	DRIVES / ROADWAYS
9 0-15%	5.16	5.11	99.031	0.05
10 15-25%	0.03	0.00	0.00	0.00
11 25-35%	0.00	0.00	0.00	0.00
12 OVER 35%	0.00	0.00	0.00	0.00
13 GROSS SITE AREA	5.19			



BARTON SPRINGS ZONE TABLE		
A	GROSS SITE AREA	25.42 AC.
B	AREA OF THE SITE IS ESTABLISHED AS TURF OR LANDSCAPED. THIS EXCLUDES AREAS THAT ARE UNDISTURBED OR RESTORED TO NATURAL CONDITIONS.	4.80 AC.
C	FRACTIONS OF A THAT IS ESTABLISHED AS TURF OR LANDSCAPED: B/A=C	18.88 %

- NOTES:
- TREES AND TOPOGRAPHY BASED UPON SURVEY BY CHAPPARAL PROFESSIONAL LAND SURVEYING, INC. ON JUNE 18, 2015. NO WARRANTY IS EXPRESSED OR IMPLIED AS TO THEIR ACCURACY.
  - ALL FIRE DEPARTMENT ACCESS DRIVES/ROADS TO HAVE A MINIMUM 14" VERTICAL CLEARANCE.
  - ESTABLISH FIRE ZONES AS SHOWN ON SITE BY PAINTING CURB RED. STENCIL THE WORDS, "FIRE ZONE/TOW-AWAY ZONE", IN WHITE LETTERS AT LEAST 3 INCHES HIGH AT 35-FOOT INTERVALS ALONG THE CURB. ALSO, SIGNS SHALL BE POSTED AT BOTH ENDS OF A FIRE ZONE. ALTERNATE MARKING OF THE FIRE LANES MAY BE APPROVED BY THE FIRE CHIEF PROVIDED THE FIRE LANES ARE CLEARLY IDENTIFIED AT BOTH ENDS AND AT INTERVALS NOT TO EXCEED 35 FEET. SEC. 901.4.2
  - ALL PARKING SPACES SHALL HAVE MINIMUM 7'-0" VERTICAL CLEARANCE.
  - WARNING SIGNS ARE REQUIRED TO BE PLACED UNDER THE OVERHEAD ELECTRIC LINES TO MAKE ALL PERSONNEL AWARE OF THE ELECTRIC HAZARD.
  - EVERY HANDICAP ACCESSIBLE PARKING SPACE SHALL BE IDENTIFIED BY A SIGN CENTERED 5 FEET ABOVE THE PARKING SPACE, AT THE HEAD OF THE PARKING SPACE. THE SIGN MUST INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND STATE RESERVED, OR EQUIVALENT LANGUAGE. SUCH SIGNS SHALL NOT BE OBTAINED BY A VEHICLE PARKED IN THE SPACE AND SHALL MEET THE CRITERIA SET FORTH IN UBC, 3108(C) AND ANSI A117.1-1996-4.6.2.
  - CONTRACTOR TO COORDINATE WITH PROJECT ARCHITECT TO TRIM TREES TO ENSURE VISIBILITY NEAR PARKING AREAS.
  - CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  - CAUTION: DO NOT PLACE THE STAGING AREA IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES.
  - ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
  - ALL RADII TO BE 2' OR 10' UNLESS OTHERWISE NOTED.
  - SLOPES ON ACCESSIBLE ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP.
  - THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12. THE MAXIMUM RISE FOR ANY RAMP RUN IS 30 IN.
  - ACCESSIBLE ROUTES MUST HAVE A GROSS-SLOPE NO GREATER THAN 1:50.
  - GROUND SURFACES ALONG ACCESSIBLE ROUTES MUST BE STABLE, FIRM, AND SLIP RESISTANT.
  - ALL LANDSCAPED AREAS ARE TO BE PROTECTED BY SIX-INCH WHEEL CURBS, WHEELSTOPS, OR OTHER APPROVED BARRIERS AS PER ECM 2.4.7.
  - COMPLIANCE WITH THE COMMERCIAL AND MULTI-FAMILY RECYCLING ORDINANCE IS MANDATORY FOR MULTI-FAMILY COMPLEXES WITH 100 OR MORE UNITS AND BUSINESSES WITH 100 OR MORE EMPLOYEES (AUSTIN CITY CODE, SEC. 15-6-91).
  - REFER TO CITY OF AUSTIN ELECTRICAL DEPARTMENT FOR CONSTRUCTION PLANS AND DETAILS. CONTACT JIM ROWIN (512-505-7665).
  - ADEQUATE BARRIERS BETWEEN ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS, SUCH AS A 6" CONCRETE CURB AND GUTTER ARE NOT PROVIDED FOR ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS. COMPLY WITH ECM, SECTION 2.4.7, "PROTECTION OF LANDSCAPE AREAS".
  - RETAINING WALLS OVER FOUR FEET IN HEIGHT MEASURED FROM THE BOTTOM OF THE FOOTING TO THE TOP OF THE WALL SHALL BE ENGINEERED AND REQUIRE A SEPARATE BUILDING PERMIT. [IBC CODE 105.2]
  - ALL FDC'S TO BE TWO 2 1/2" SIAMENSE CONNECTIONS.
  - THERE ARE NO EXISTING BUILDING WITHIN 50' OF THIS PROPERTY.
  - NO FENCING ALLOWED BLOCKING ACCESS TO ANY ALL LAW INFRASTRUCTURE.

- SITE PLAN NOTES:
- ALL IMPROVEMENT SHALL BE MADE IN ACCORDANCE WITH THE RELEASED SITE PLAN. ANY ADDITIONAL IMPROVEMENTS WILL REQUIRE SITE PLAN REVISION OR CORRECTION AND APPROVAL OF THE DEVELOPMENT SERVICES DEPARTMENT.
  - APPROVAL OF THIS SITE PLAN DOES NOT INCLUDE BUILDING AND FIRE CODE APPROVAL NOR BUILDING PERMIT APPROVAL.
  - ALL SIGNS MUST COMPLY WITH REQUIREMENTS OF THE LAND DEVELOPMENT CODE (CHAPTER 25-10).
  - ADDITIONAL ELECTRIC EASEMENT MAY BE REQUIRED AT A LATER DATE.
  - WATER AND WASTEWATER SERVICE WILL BE PROVIDED BY THE CITY OF AUSTIN.
  - ALL EXISTING STRUCTURES SHOWN TO BE REMOVED WILL REQUIRE A DEMOLITION PERMIT FROM THE CITY OF AUSTIN DEVELOPMENT SERVICES DEPARTMENT.
  - A DEVELOPMENT PERMIT MUST BE ISSUED PRIOR TO AN APPLICATION FOR BUILDING PERMIT FOR NON-CONSOLIDATED OR PLANNING COMMISSION APPROVED SITE PLANS.
  - FOR DRIVEWAY CONSTRUCTION: THE OWNER IS RESPONSIBLE FOR ALL COSTS FOR RELOCATION OF, OR DAMAGE TO UTILITIES.
  - FOR CONSTRUCTION WITHIN THE RIGHT-OF-WAY, A ROW EXCAVATION PERMIT IS REQUIRED.
- EXISTING WATER LINE MAINTENANCE NOTE:
- THE PROPERTY OWNER ACKNOWLEDGES THAT AUSTIN WATER UTILITY SHALL HAVE RIGHTS TO ACCESS THE EXISTING WATER LINE WITHIN THE "20" WATERLINE EASEMENT DOC. NO. 2008062002 O.P.R.T.C.T." FOR MAINTENANCE PURPOSES INCLUDING TRENCHING THROUGH THE PROPOSED ACCESS DRIVE AND PARKING LOT THAT ENROACHES INTO THE EASEMENT AS SHOWN ON THE SITE PLAN.



LEGEND	
---	PROPERTY LINE
---ww---	PROPOSED WASTEWATER LINE
---w---	PROPOSED WATER LINE
○	TREE TO REMAIN
○*	HERITAGE TREE TO REMAIN
○*	PROPOSED WASTEWATER MANHOLE
○*	PROPOSED WASTEWATER CLEANOUT
○*	PROPOSED FIRE HYDRANT
○*	PROPOSED TAPPING SLLEEVE & VALVE
---	EXISTING OVERHEAD POWER LINE
---w---	EXISTING WATER LINE
---ww---	EXISTING WASTEWATER LINE
---	EXISTING STORM SEWER LINE
○*	EXISTING POWER POLE
○*	EXISTING FIRE HYDRANT
○*	EXISTING WATER METER
○*	EXISTING WASTEWATER MANHOLE
---	ADA ROUTE

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 TBP Firm No. 928

STATE OF TEXAS  
 C. J. PANTON  
 1212 N. 60  
 LICENSED PROFESSIONAL ENGINEER  
 02/17/2023

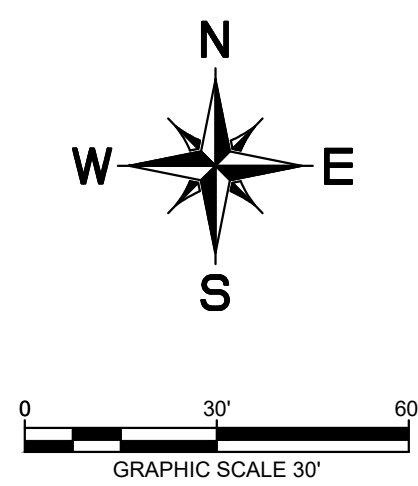
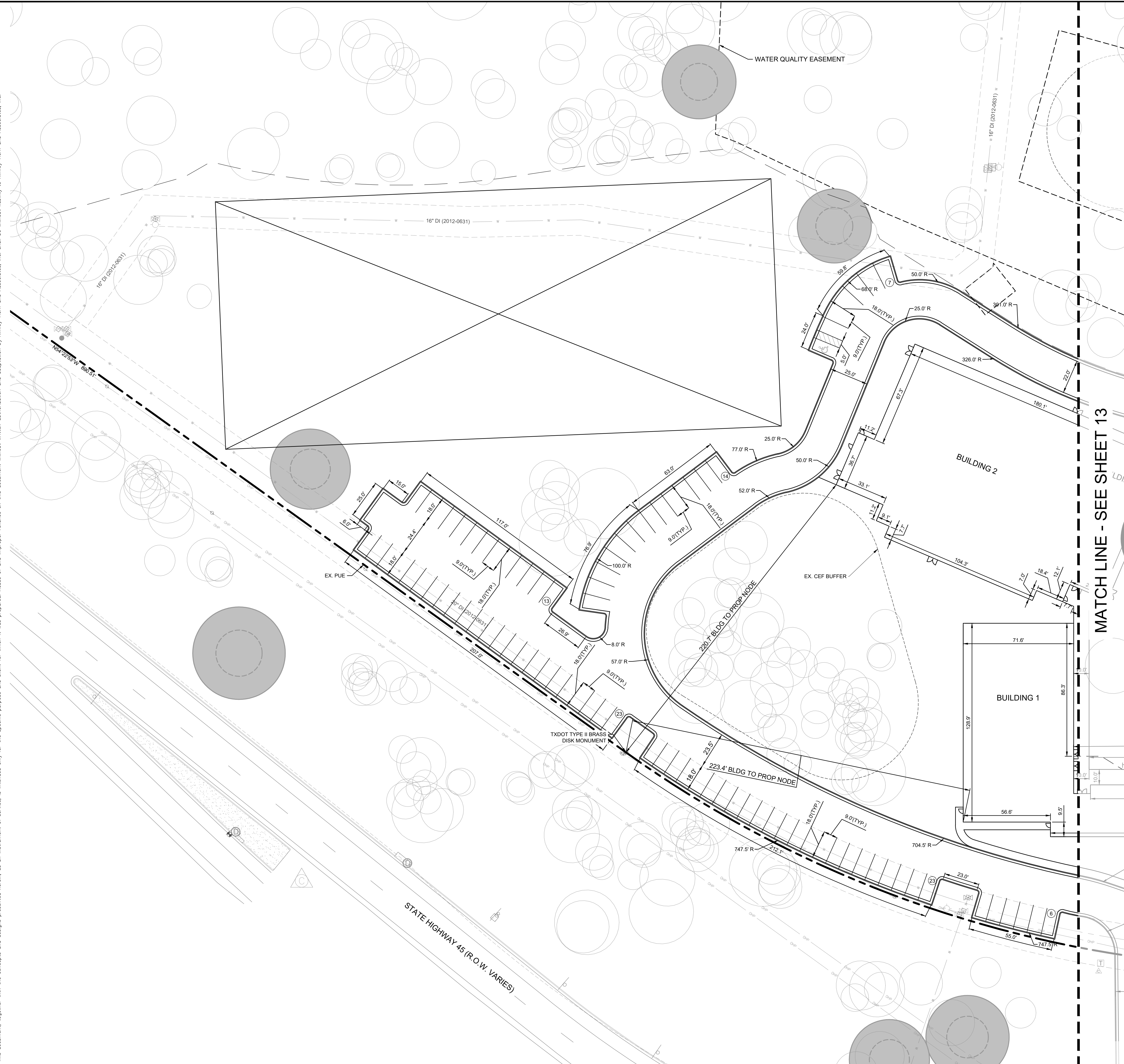
KHA PROJECT 068910605  
 DATE JUNE 10, 2022  
 SCALE: AS SHOWN  
 DESIGNED BY: CJP  
 DRAWN BY: PTK  
 CHECKED BY: CJP

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

OVERALL SITE PLAN

SHEET NUMBER  
**11 OF 50**

Plotted By: McClarrin, Serena Date: March 22, 2023 02:02:55pm File Path: k:\scw\_civil\068910605-water\_southwest\Cad\plansheets\C - Site Plan - Area 1 & 2.dwg  
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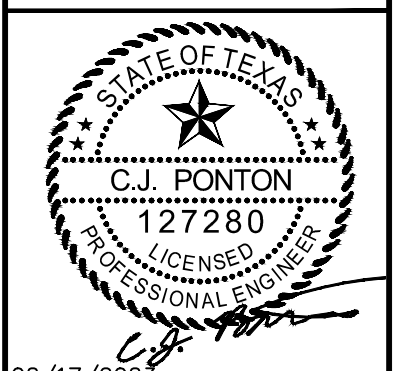
**LEGEND**

	PROPERTY LINE
	PROPOSED WASTEWATER LINE
	PROPOSED WATER LINE
	TREE TO REMAIN
	HERITAGE TREE TO REMAIN
	PROPOSED WASTEWATER MANHOLE
	PROPOSED WASTEWATER CLEANOUT
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	EXISTING OVERHEAD POWER LINE
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	EXISTING WASTEWATER LINE
	EXISTING STORM SEWER LINE
	EXISTING POWER POLE
	EXISTING FIRE HYDRANT
	EXISTING WATER METER
	EXISTING WASTEWATER MANHOLE
	ADA ROUTE
	ADA SIGNAGE

- NOTES:**
- TREES AND TOPOGRAPHY BASED UPON SURVEY BY AWARD ON FEBRUARY 14, 2022. NO WARRANTY IS EXPRESSED OR IMPLIED AS TO THEIR ACCURACY.
  - ALL FIRE DEPARTMENT ACCESS DRIVES/ROADS TO HAVE A MINIMUM 14' VERTICAL CLEARANCE.
  - ESTABLISH FIRE ZONES AS SHOWN ON SITE BY PAINTING CURB RED. STENCIL THE WORDS "FIRE ZONE/TOW-AWAY ZONE" IN WHITE LETTERS AT LEAST 3 INCHES HIGH AT 35-FOOT INTERVALS ALONG THE CURB. ALSO, SIGNS SHALL BE POSTED AT BOTH ENDS OF A FIRE ZONE. ALTERNATE MARKING OF THE FIRE LANES MAY BE APPROVED BY THE FIRE CHIEF PROVIDED THE FIRE LANES ARE CLEARLY IDENTIFIED AT BOTH ENDS AND AT INTERVALS NOT TO EXCEED 35 FEET. SEC. 901.4.2
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  - ADEQUATE BARRIERS BETWEEN ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS, SUCH AS A 6" CONCRETE CURB ARE REQUIRED. IF A STANDARD 6" CURB AND GUTTER ARE NOT PROVIDED FOR ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS, COMPLY WITH ECM, SECTION 2.4.7, "PROTECTION OF LANDSCAPE AREAS".
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NO.	REVISIONS	DATE	BY

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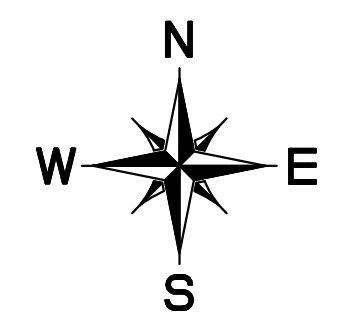
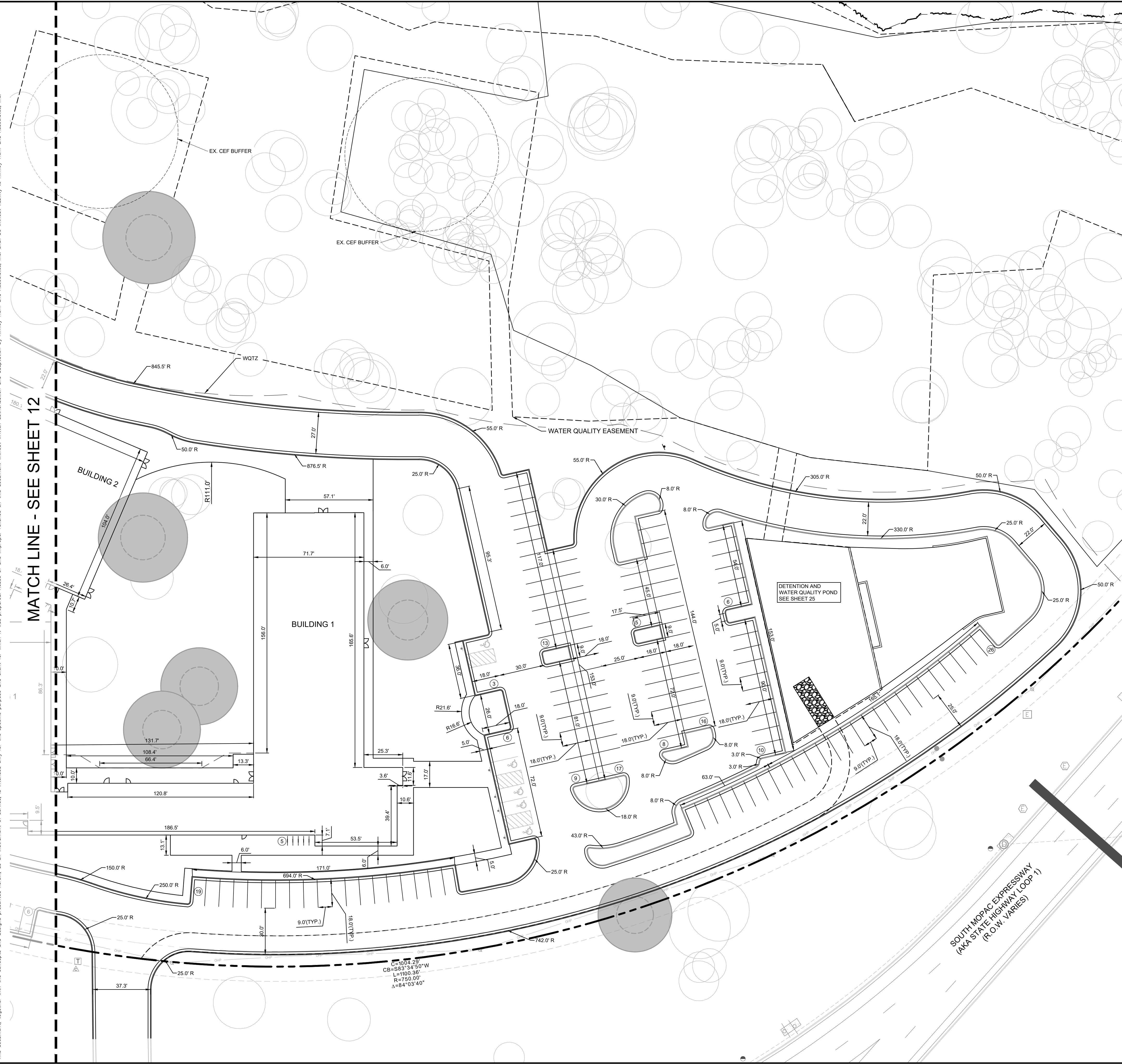


KHA PROJECT	068910605
DATE	JUNE 10, 2022
SCALE	AS SHOWN
DESIGNED BY:	CJP
DRAWN BY:	PTK
CHECKED BY:	CJP

**DIMENSION CONTROL PLAN (SHEET 1 OF 2)**

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

Plotted By: McLarrin, Serena Date: March 22, 2023 02:03:10pm File Path: K:\saw\_civil\068910605-wator\_southwest\Coord\planstree\VC - Site Plan - Area 1 & 2.dwg  
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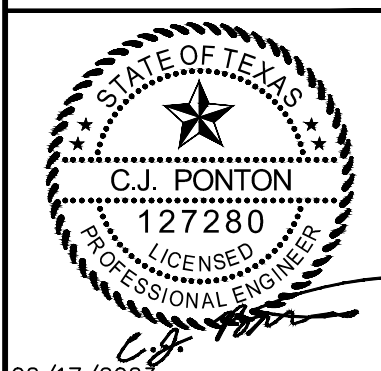
**LEGEND**

	PROPERTY LINE
	PROPOSED WASTEWATER LINE
	PROPOSED WATER LINE
	TREE TO REMAIN
	HERITAGE TREE TO REMAIN
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  - ALL PARKING SPACES SHALL HAVE MINIMUM 7'-0" VERTICAL CLEARANCE.
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  - ALL LANDSCAPED AREAS ARE TO BE PROTECTED BY SIX-INCH WHEEL CURBS, WHEELSTOPS, OR OTHER APPROVED BARRIERS AS PER ECM 2.4.7.
  - COMPLIANCE WITH THE COMMERCIAL AND MULTI-FAMILY RECYCLING ORDINANCE IS MANDATORY FOR MULTI-FAMILY COMPLEXES WITH 100 OR MORE UNITS AND BUSINESSES WITH 100 OR MORE EMPLOYEES (AUSTIN CITY CODE, SEC. 15-6-91). REFER TO CITY OF AUSTIN ELECTRICAL DEPARTMENT FOR CONSTRUCTION PLANS AND DETAILS. CONTACT REY MARTINEZ (512-505-7843).
  - ADEQUATE BARRIERS BETWEEN ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS, SUCH AS A 6" CONCRETE CURB ARE REQUIRED, IF A STANDARD 6" CURB AND GUTTER ARE NOT PROVIDED FOR ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS. COMPLY WITH ECM, SECTION 2.4.7, "PROTECTION OF LANDSCAPE AREAS".
  - RETAINING WALLS OVER FOUR FEET IN HEIGHT MEASURED FROM THE BOTTOM OF THE FOOTING TO THE TOP OF THE WALL SHALL BE ENGINEERED AND REQUIRE A SEPARATE BUILDING PERMIT. [IBC CODE 105.2]
  - ALL FDC's TO BE TWO 2 1/2" SIAMSESE CONNECTIONS.

No.	REVISIONS	DATE	BY

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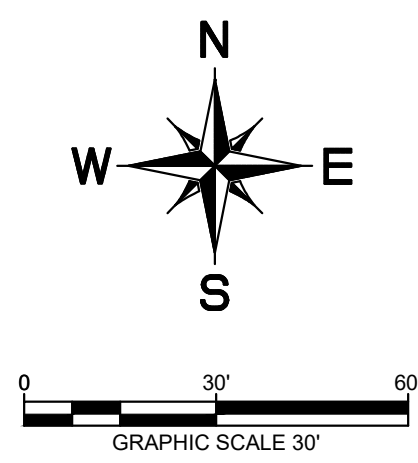
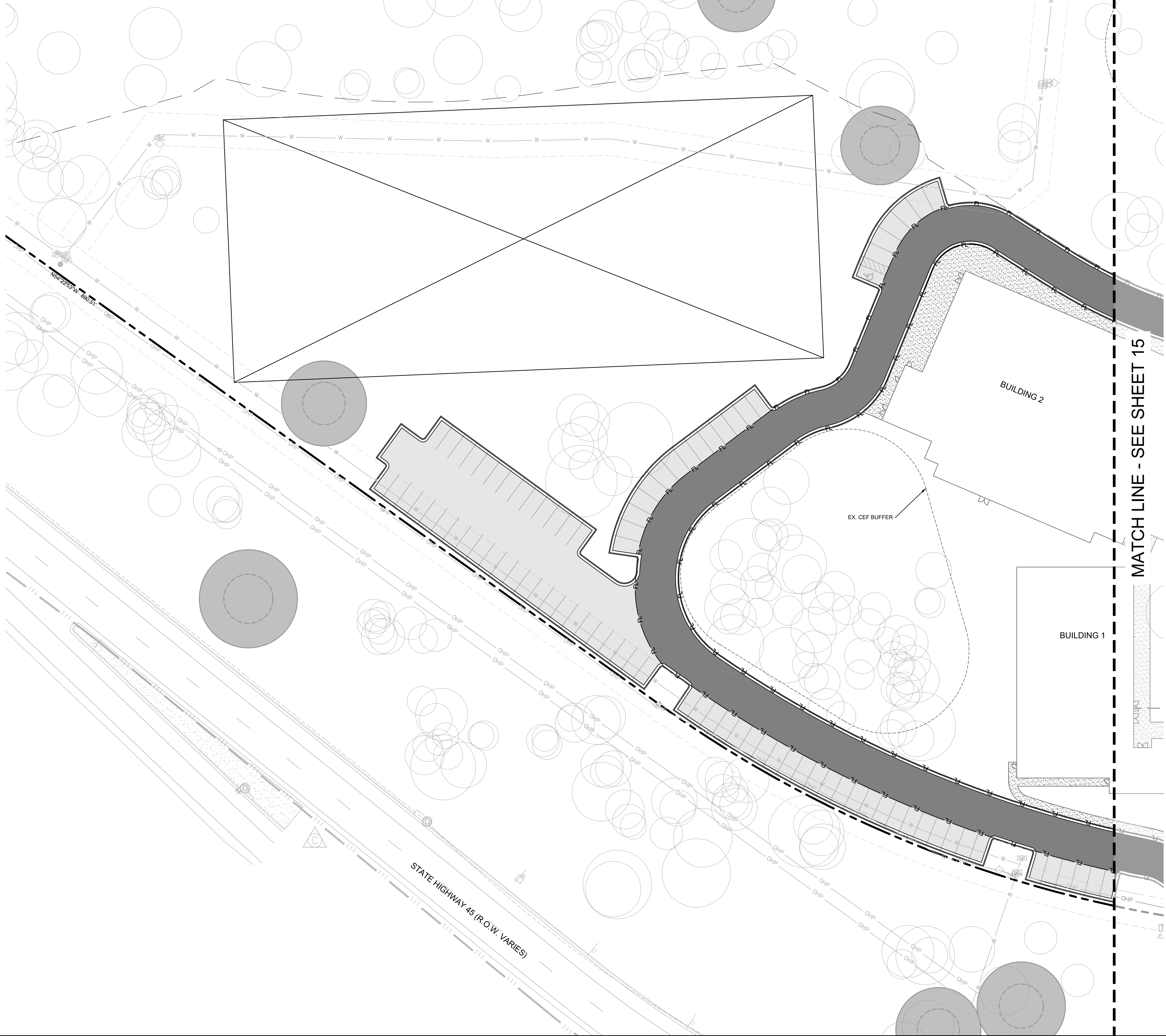
KHA PROJECT	068910605
DATE	JUNE 10, 2022
SCALE	AS SHOWN
DESIGNED BY:	CJP
DRAWN BY:	PTK
CHECKED BY:	CJP

**DIMENSION CONTROL PLAN (SHEET 2 OF 2)**

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS



Plotted By: McClorin, Serena Date: March 22, 2023 02:03:42pm File Path: K:\saw\_civil\068910605\valor\_southwest\cod\plansheets\c - Paving Plan - Area 1 & 2.dwg  
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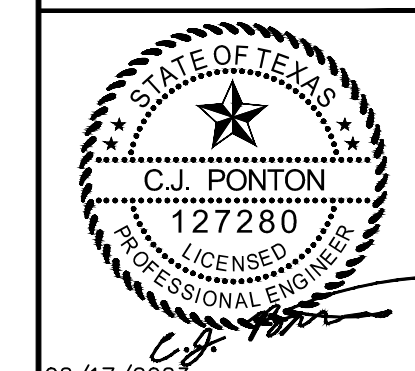


**LEGEND**

	PROPERTY LINE
	PROPOSED FIRE LANE
	TREE TO REMAIN
	HERITAGE TREE TO REMAIN
	PUBLIC ROADWAY PAVEMENT
	SIDEWALK PAVEMENT
	HEAVY DUTY PAVEMENT
	LIGHT DUTY PAVEMENT

No.	REVISIONS	DATE	BY

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KHA PROJECT 068910605	DATE JUNE 10, 2022	SCALE: AS SHOWN 1" = 20' 0"	DESIGNED BY: CJP	DRAWN BY: PTK	CHECKED BY: CJP
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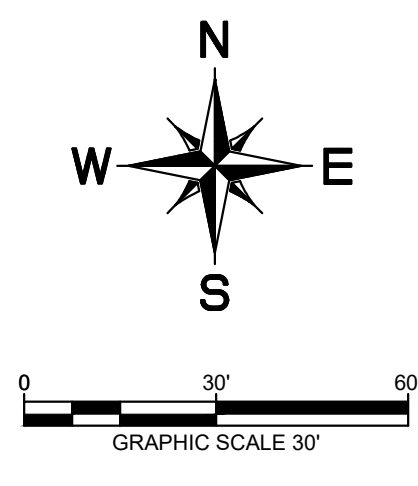
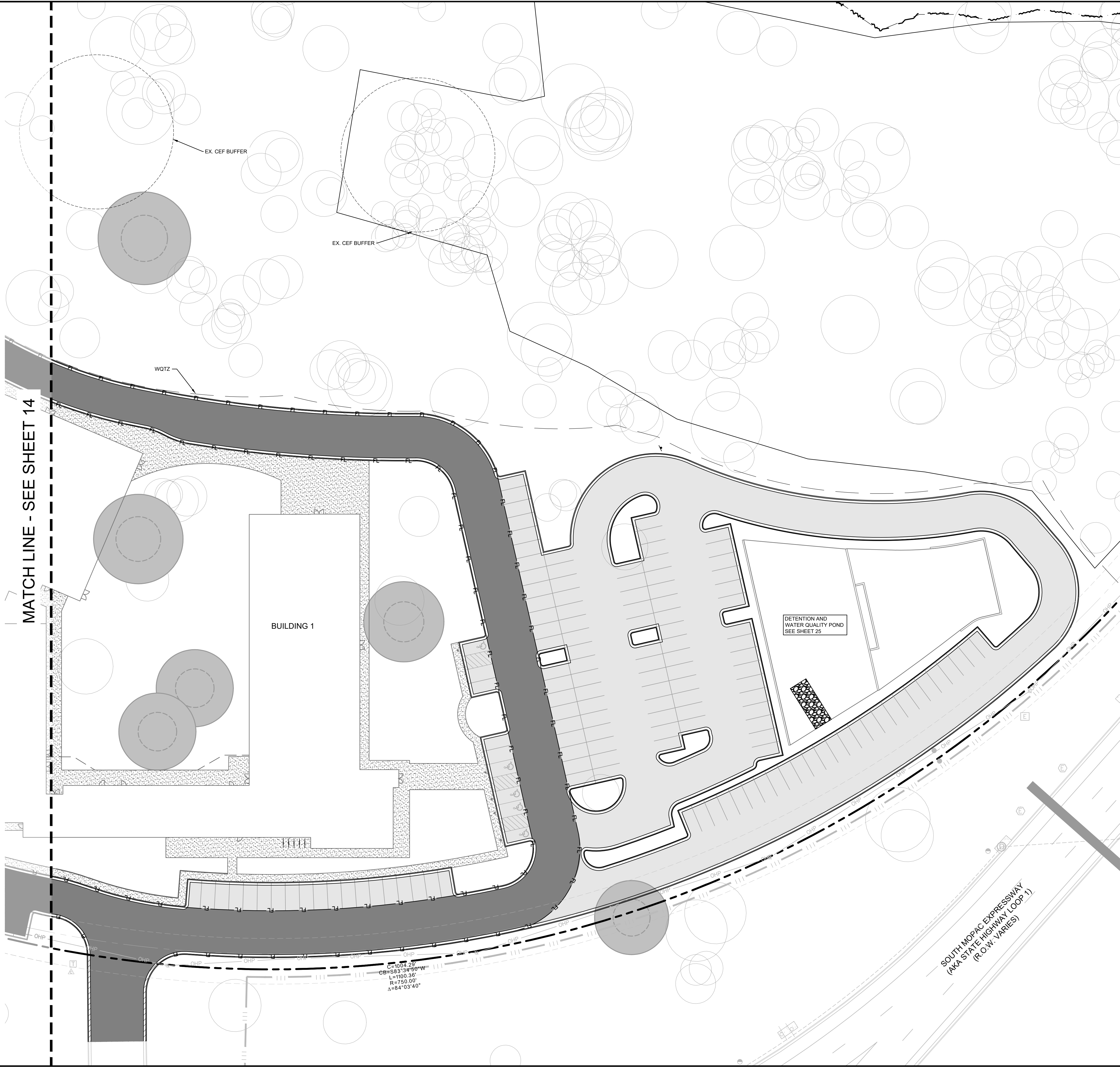
**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

**PAVING PLAN**  
 (SHEET 1 OF 2)

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

SHEET NUMBER  
**14 OF 50**

Plotted By: McClerrin, Serena Date: March 22, 2023 02:04:01pm File Path: K:\saw\_civil\068910605-water\_southwest\Cad\planstree\02\_Paving\_Plan - Area 1 & 2.dwg  
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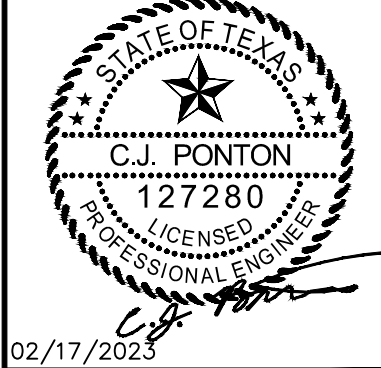


**LEGEND**

	PROPERTY LINE
	PROPOSED FIRE LANE
	TREE TO REMAIN
	HERITAGE TREE TO REMAIN
	PUBLIC ROADWAY PAVEMENT
	SIDEWALK PAVEMENT
	HEAVY DUTY PAVEMENT
	LIGHT DUTY PAVEMENT

No.	REVISIONS	DATE	BY

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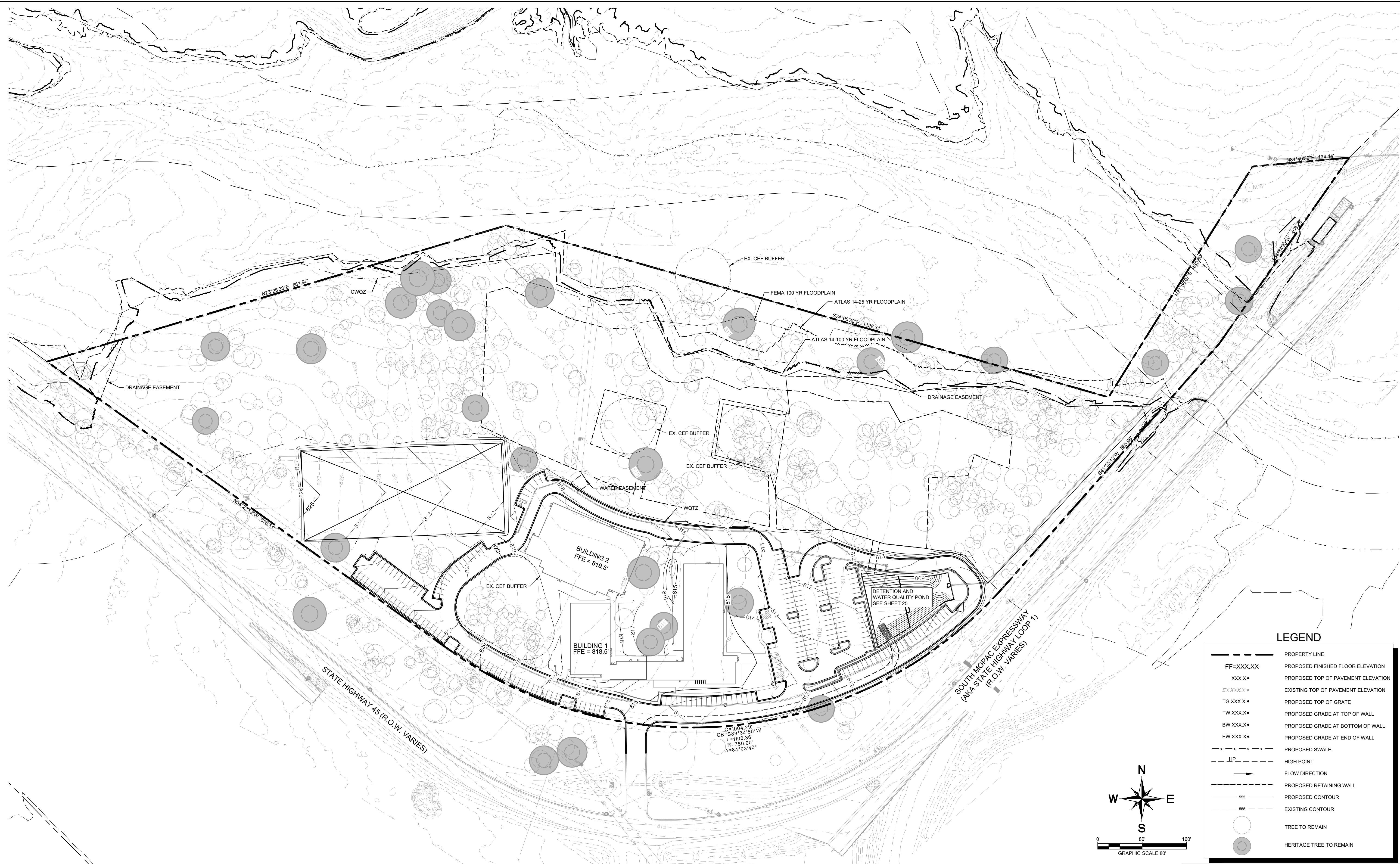
KHA PROJECT	068910605
DATE	JUNE 10, 2022
SCALE	AS SHOWN
DESIGNED BY:	CJP
DRAWN BY:	PTK
CHECKED BY:	CJP

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

**PAVING PLAN**  
**(SHEET 2 OF 2)**

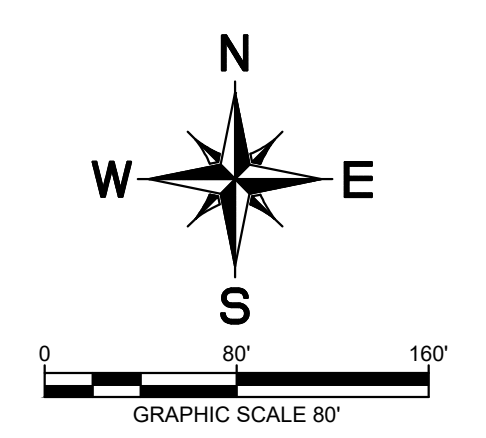
**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
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Plotted: E:\McClarrion, Serena - Date: March 22, 2023 - 02:04:35pm - File Path: k:\saw\_civil\068910605-water\_southwest\Cad\plansheets\C - Grading Plan.dwg  
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**LEGEND**

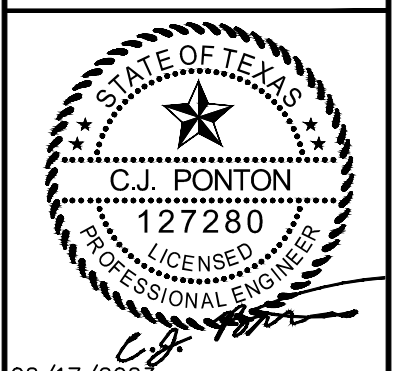
---	PROPERTY LINE
FF=XXX.XX	PROPOSED FINISHED FLOOR ELEVATION
XXX.X*	PROPOSED TOP OF PAVEMENT ELEVATION
EX XXX.X*	EXISTING TOP OF PAVEMENT ELEVATION
TG XXX.X*	PROPOSED TOP OF GRATE
TW XXX.X*	PROPOSED GRADE AT TOP OF WALL
BW XXX.X*	PROPOSED GRADE AT BOTTOM OF WALL
EW XXX.X*	PROPOSED GRADE AT END OF WALL
---	PROPOSED SWALE
HP	HIGH POINT
→	FLOW DIRECTION
---	PROPOSED RETAINING WALL
SSS	PROPOSED CONTOUR
SSS	EXISTING CONTOUR
○	TREE TO REMAIN
●	HERITAGE TREE TO REMAIN



- NOTES:**
1. ALL PROPOSED ELEVATIONS ARE TOP OF PAVEMENT OR NATURAL GROUND UNLESS OTHERWISE NOTED.
  2. ALL TOP OF WALL ELEVATIONS ARE TO TOP OF GRADE AT WALL.
  3. ALL BOTTOM OF WALL ELEVATIONS ARE TO BOTTOM OF GRADE AT WALL. CONTRACTOR TO VERIFY A.D.A. COMPLIANCE FOR GRADES IN ALL SIDEWALK ACCESSIBLE ROUTES, INCLUDING DRIVEWAY CROSSINGS. SHALL CONFORM TO ALL APPLICABLE A.D.A. STANDARDS; NOT EXCEED 5.0% ALONG TRAVEL PATH WITH NOT MORE THAN 2.0% CROSS SLOPE AND NOT EXCEED 2.0% IN ANY DIRECTION IN ACCESSIBLE PARKING AREAS.
  4. MAINTAIN EXISTING GRADE IN TREE WELLS. CONTRACTOR TO ENSURE POSITIVE DRAINAGE TO AREA INLETS.
  5. ALL GRADING WITHIN TREES 50% CRITICAL ROOT ZONE SHALL BE DONE BY HAND AND LIMITED TO 4" OF CUT OR FILL. THERE SHALL BE NO GRADING WITHIN THE 25% CRITICAL ROOT ZONE.

No.	REVISIONS	DATE	BY

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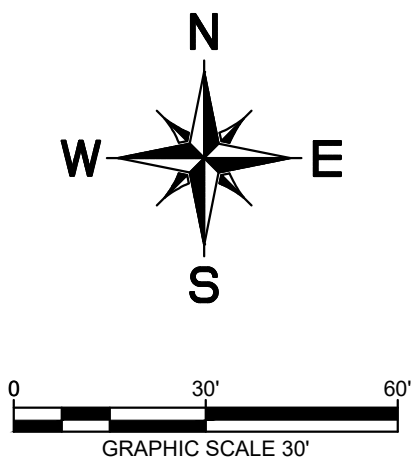
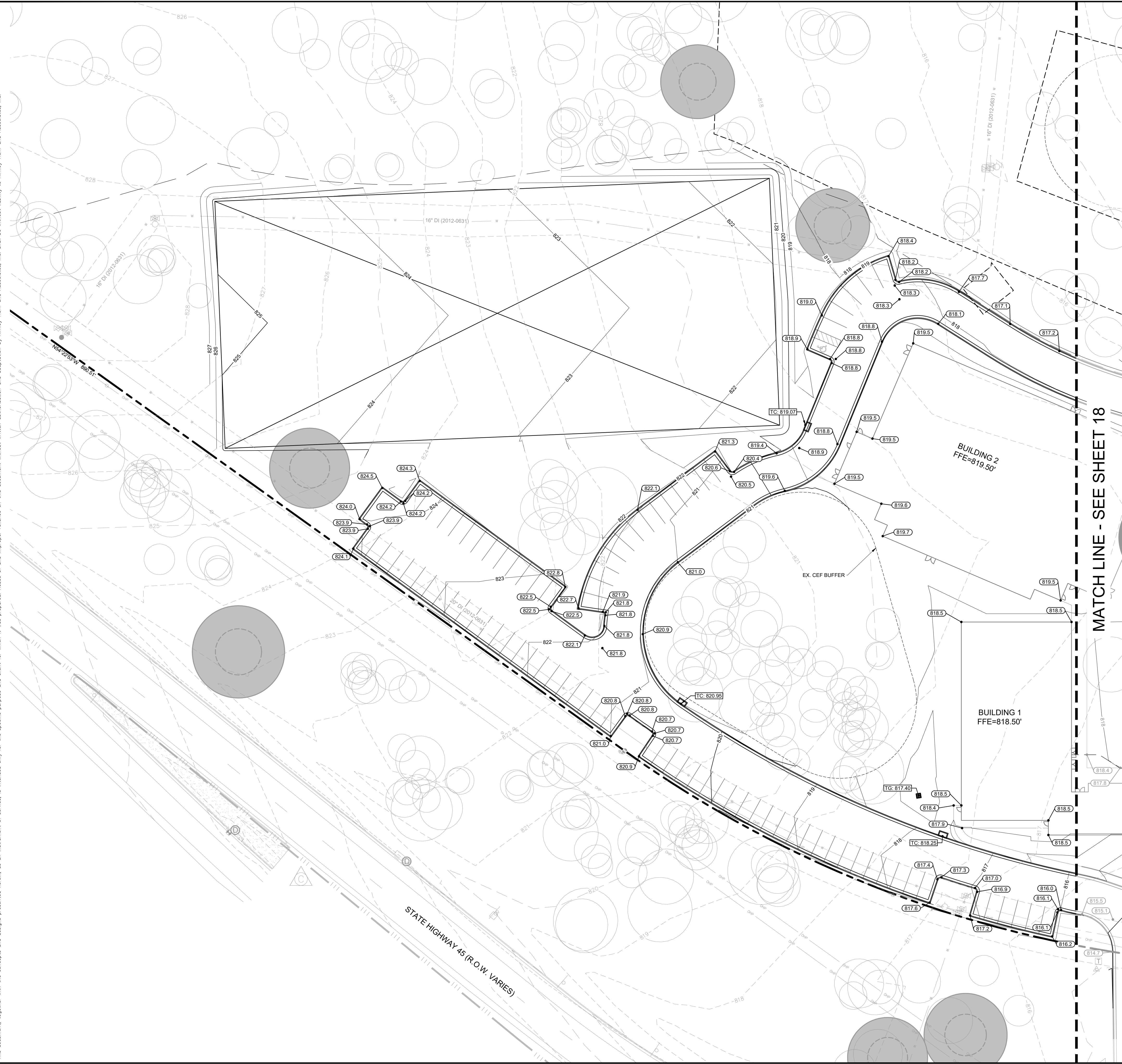


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DATE	JUNE 10, 2022
SCALE	AS SHOWN
DESIGNED BY:	CJP
DRAWN BY:	PTK
CHECKED BY:	CJP

**OVERALL GRADING PLAN**

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

Plotted By: McClorin, Serena Date: March 22, 2023 02:05:15pm File Path: K:\saw\_civil\068910605-wat-southwest\Coord\plan\068910605-Grading Plan - Area 1 & 2.dwg  
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**LEGEND**

FF=XXX.XX	PROPERTY LINE
XXX.X	PROPOSED FINISHED FLOOR ELEVATION
EX XXX.X	PROPOSED TOP OF PAVEMENT ELEVATION
TG XXX.X	EXISTING TOP OF PAVEMENT ELEVATION
TW XXX.X	PROPOSED TOP OF GRATE
BW XXX.X	PROPOSED GRADE AT TOP OF WALL
EW XXX.X	PROPOSED GRADE AT BOTTOM OF WALL
---	PROPOSED GRADE AT END OF WALL
---	PROPOSED SWALE
▲	HIGH POINT
→	FLOW DIRECTION
---	PROPOSED RETAINING WALL
---	PROPOSED CONTOUR
---	EXISTING CONTOUR
○	TREE TO REMAIN
⊙	HERITAGE TREE TO REMAIN

**NOTES:**

1. ALL PROPOSED ELEVATIONS ARE TOP OF PAVEMENT OR NATURAL GROUND UNLESS OTHERWISE NOTED.
2. ALL TOP OF WALL ELEVATIONS ARE TO TOP OF GRADE AT WALL.
3. ALL BOTTOM OF WALL ELEVATIONS ARE TO BOTTOM OF GRADE AT WALL. CONTRACTOR TO VERIFY A.D.A. COMPLIANCE FOR GRADES IN ALL SIDEWALK ACCESSIBLE ROUTES, INCLUDING DRIVEWAY CROSSINGS. SHALL CONFORM TO ALL APPLICABLE A.D.A. STANDARDS. NOT EXCEED 5.0% ALONG TRAVEL PATH WITH NOT MORE THAN 2.0% CROSS SLOPE AND NOT EXCEED 2.0% IN ANY DIRECTION IN ACCESSIBLE PARKING AREAS.
4. MAINTAIN EXISTING GRADE IN TREE WELLS. CONTRACTOR TO ENSURE POSITIVE DRAINAGE TO AREA INLETS.
5. ALL GRADING WITHIN TREES 50% CRITICAL ROOT ZONE SHALL BE DONE BY HAND AND LIMITED TO 4" OF CUT OR FILL. THERE SHALL BE NO GRADING WITHIN THE 25% CRITICAL ROOT ZONE.

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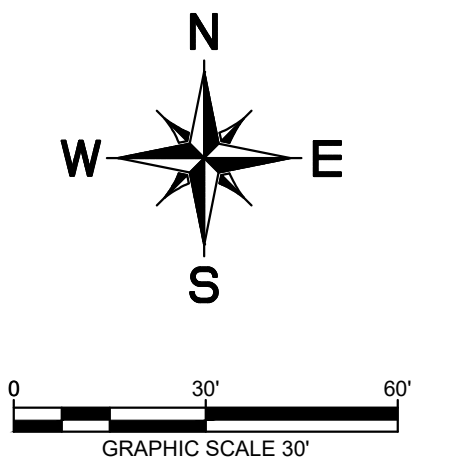
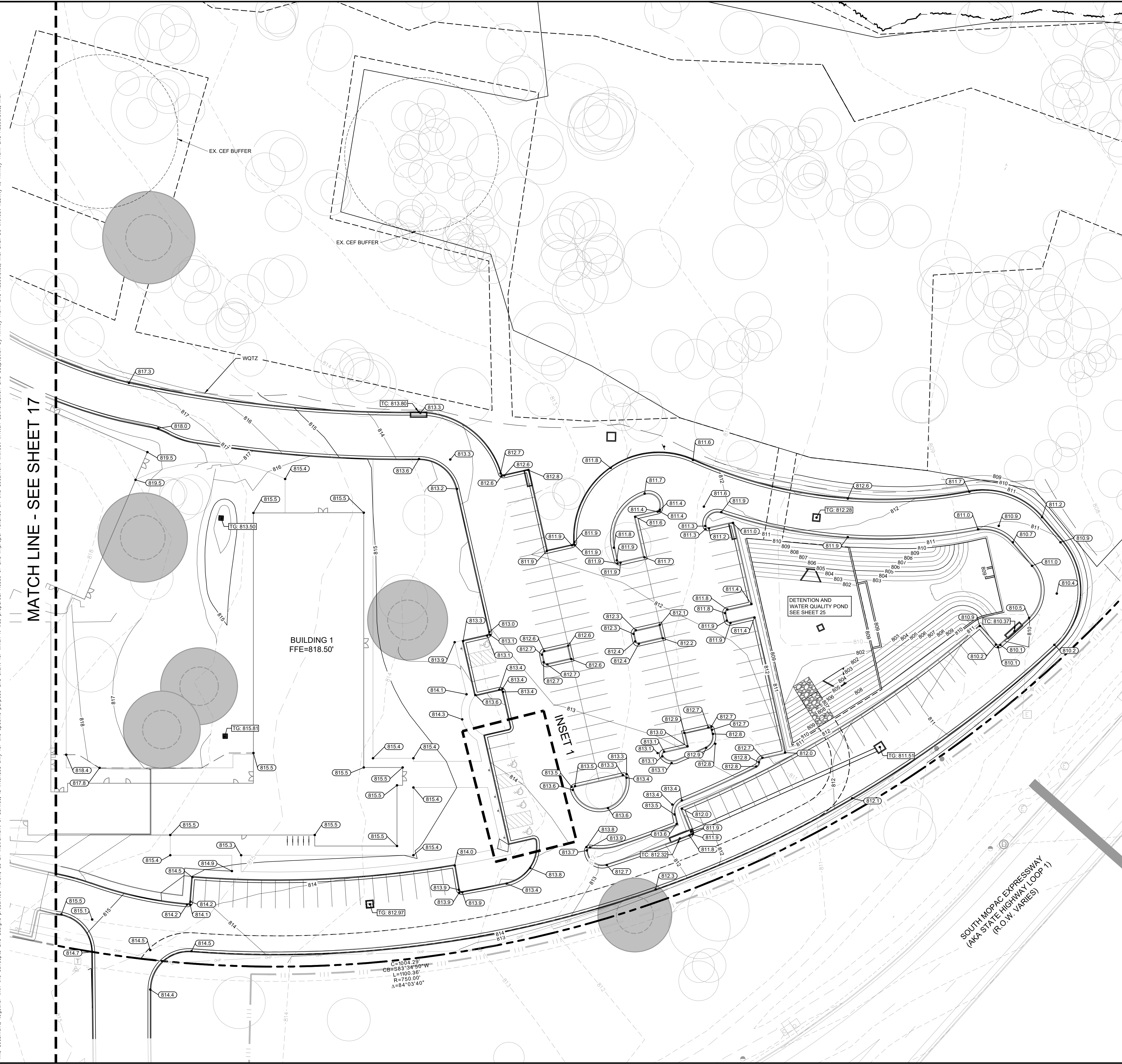
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 CIVIL ENGINEER  
 LICENSE NO. 127230  
 02/17/2023  
 KHA PROJECT: 068910605  
 DATE: JUNE 10, 2022  
 SCALE: AS SHOWN  
 DESIGNED BY: CJP  
 DRAWN BY: PTK  
 CHECKED BY: CJP

**GRADING PLAN  
 (SHEET 1 OF 2)**

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

Plotted: E:\McClintock\_Serena - Date: March 22, 2023 - 02:05:32pm - File Path: K:\saw\_civil\068910605-wator\_southwest\Coord\shedsheets\Area 1 & 2.dwg  
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MATCH LINE - SEE SHEET 17



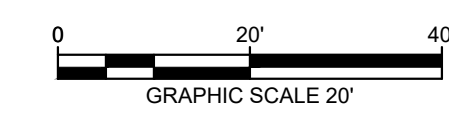
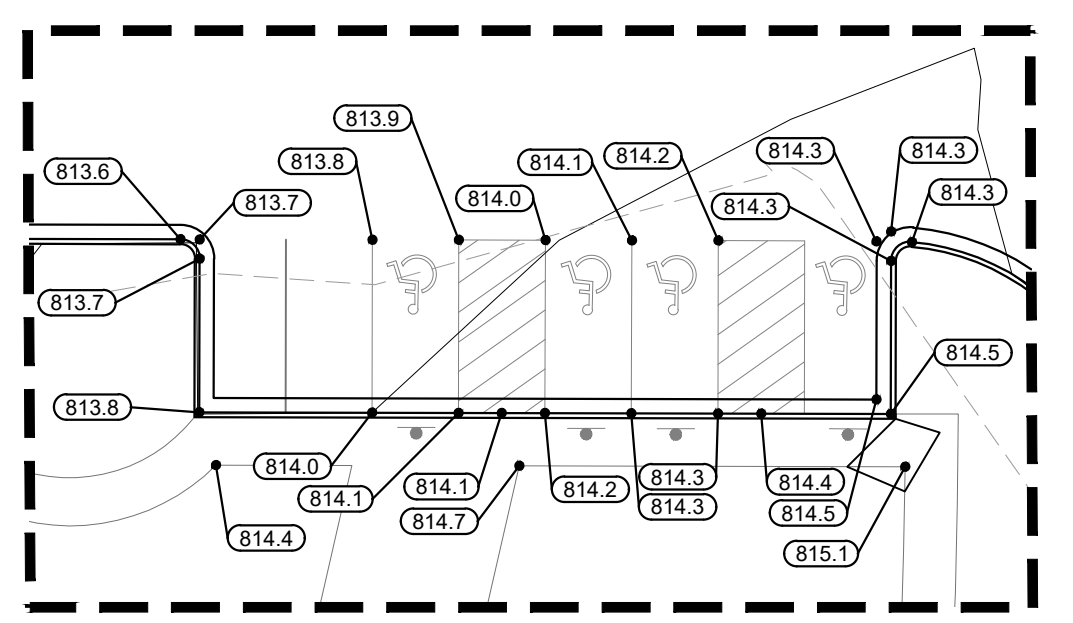
**LEGEND**

FF=XXX.XX	PROPERTY LINE
XXXX*	PROPOSED FINISHED FLOOR ELEVATION
EX XXXX*	PROPOSED TOP OF PAVEMENT ELEVATION
TG XXXX*	EXISTING TOP OF PAVEMENT ELEVATION
TW XXXX*	PROPOSED TOP OF GRATE
BW XXXX*	PROPOSED GRADE AT TOP OF WALL
EW XXXX*	PROPOSED GRADE AT BOTTOM OF WALL
---	PROPOSED GRADE AT END OF WALL
---	PROPOSED SWALE
---	HIGH POINT
---	FLOW DIRECTION
---	PROPOSED RETAINING WALL
---	PROPOSED CONTOUR
---	EXISTING CONTOUR
○	PROTECTED TREE TO REMAIN
⊙	HERITAGE TREE TO REMAIN

**NOTES:**

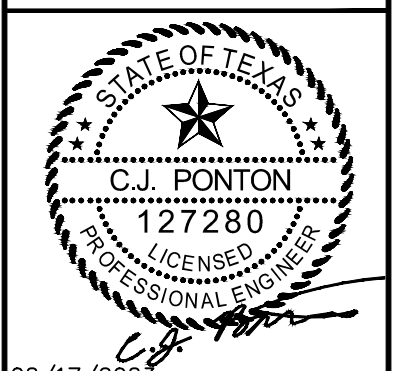
- ALL PROPOSED ELEVATIONS ARE TOP OF PAVEMENT OR NATURAL GROUND UNLESS OTHERWISE NOTED.
- ALL TOP OF WALL ELEVATIONS ARE TO TOP OF GRADE AT WALL.
- ALL BOTTOM OF WALL ELEVATIONS ARE TO BOTTOM OF GRADE AT WALL.
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- MAINTAIN EXISTING GRADE IN TREE WELLS. CONTRACTOR TO ENSURE POSITIVE DRAINAGE TO AREA INLETS.
- ALL GRADING WITHIN TREES 50% CRITICAL ROOT ZONE SHALL BE DONE BY HAND AND LIMITED TO 4" OF CUT OR FILL. THERE SHALL BE NO GRADING WITHIN THE 25% CRITICAL ROOT ZONE.

**INSET 1**



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DATE	JUNE 10, 2022
SCALE	AS SHOWN
DESIGNED BY:	CJP
DRAWN BY:	PTK
CHECKED BY:	CJP

**GRADING PLAN  
(SHEET 2 OF 2)**

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

Plotted: E:\McClerrin, Serena - Date: March 22, 2023 - 02:05:05pm File Path: K:\saw\_civil\068910605-vator\_southwest\Coord\plansheets\c - Existing Drainage Area Map.dwg  
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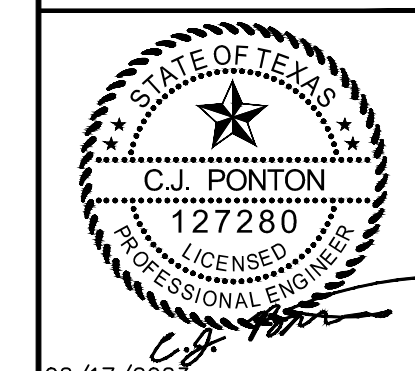


**LEGEND**

- AREA DESIGNATOR  
AREA IN ACRES  
Q100 FLOW IN CFS
- POINT OF ANALYSIS
- PROPERTY LINE
- EXISTING STORM DRAIN LINE
- EXISTING DRAINAGE DIVIDE
- EXISTING STORM DRAIN INLET
- EXISTING STORM DRAIN MANHOLE
- EXISTING STORM DRAIN HEADWALL
- EXISTING FLOW DIRECTION
- EXISTING CONTOUR

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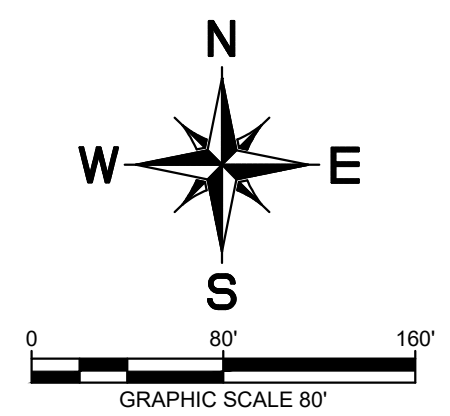
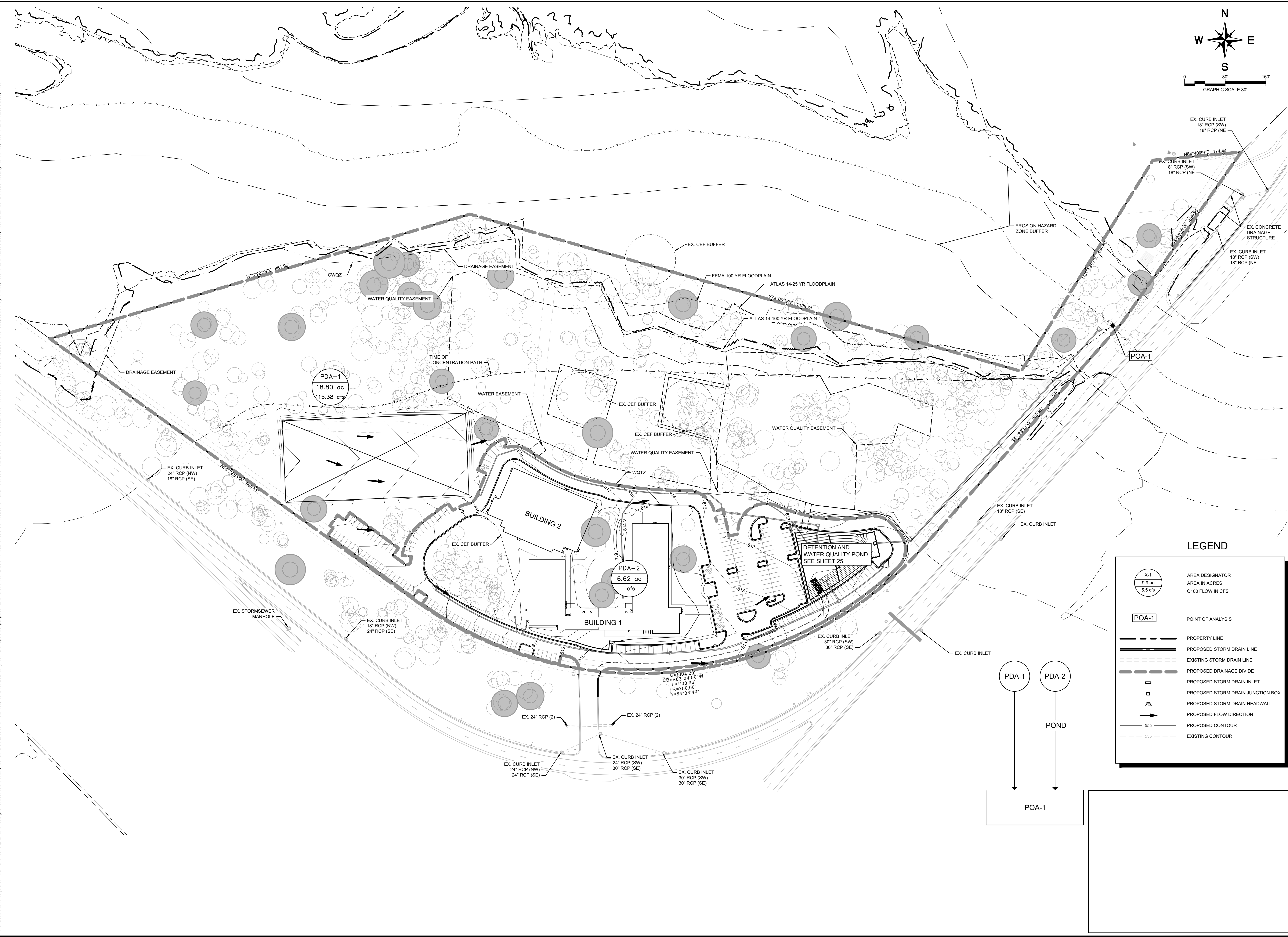


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DATE	JUNE 10, 2022
SCALE	AS SHOWN
DESIGNED BY:	CJP
DRAWN BY:	PTK
CHECKED BY:	CJP

**EXISTING DRAINAGE AREA MAP**

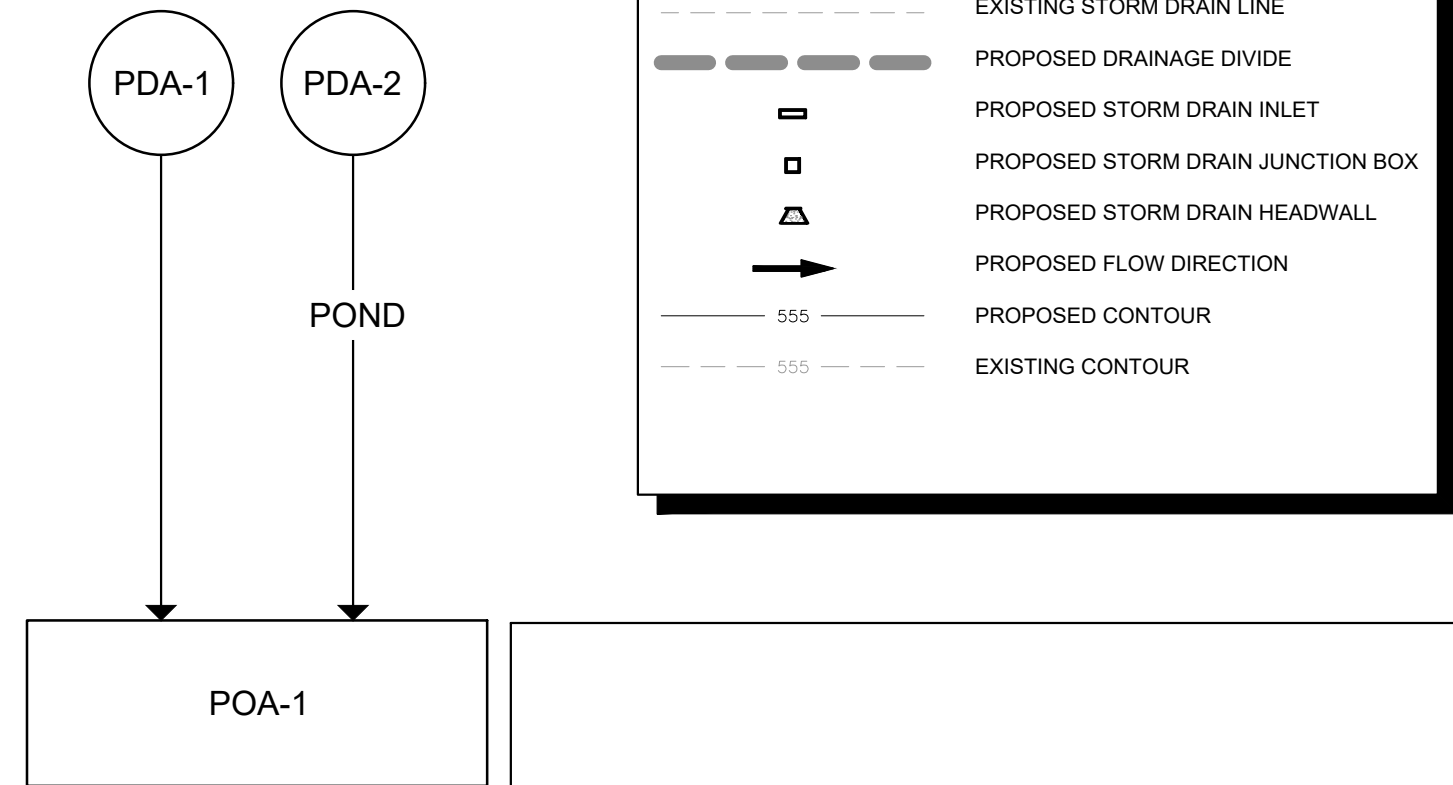
**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
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 TRAVIS COUNTY, TEXAS

Plotted By: McClerron, Serena Date: March 22, 2023 02:05:41pm File Path: K:\saw\_civil\068910605-water\_southwest\Coord\planstree\VC - Proposed Drainage Area Map.dwg  
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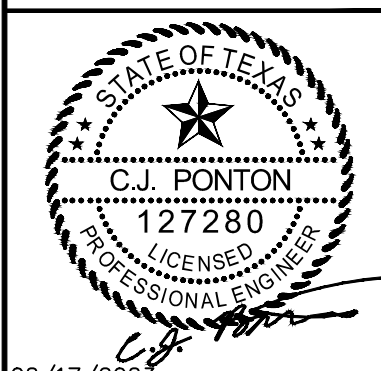
### LEGEND

	AREA DESIGNATOR AREA IN ACRES Q100 FLOW IN CFS
	POINT OF ANALYSIS
	PROPERTY LINE
	PROPOSED STORM DRAIN LINE
	EXISTING STORM DRAIN LINE
	PROPOSED DRAINAGE DIVIDE
	PROPOSED STORM DRAIN INLET
	PROPOSED STORM DRAIN JUNCTION BOX
	PROPOSED STORM DRAIN HEADWALL
	PROPOSED FLOW DIRECTION
	PROPOSED CONTOUR
	EXISTING CONTOUR



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DRAWN BY:	PTK
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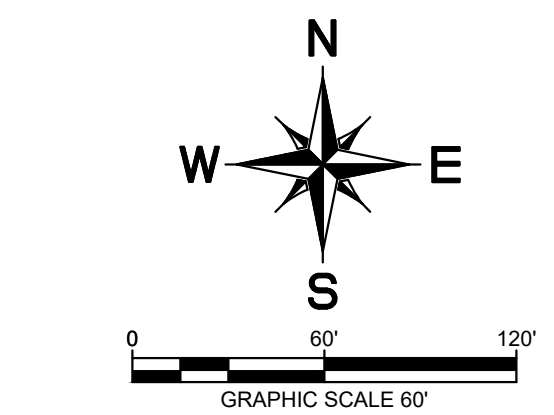
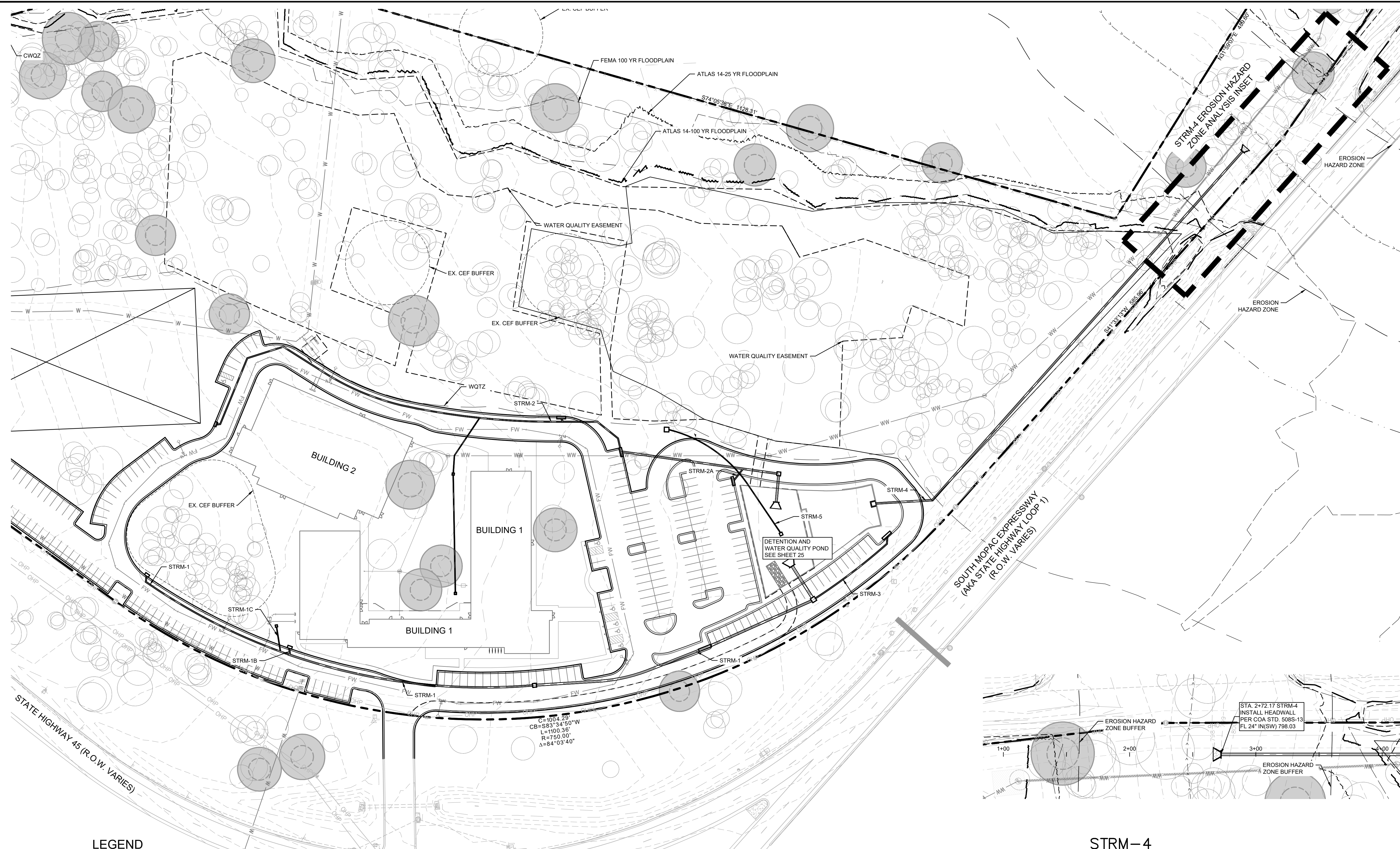
## PROPOSED DRAINAGE AREA MAP

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS



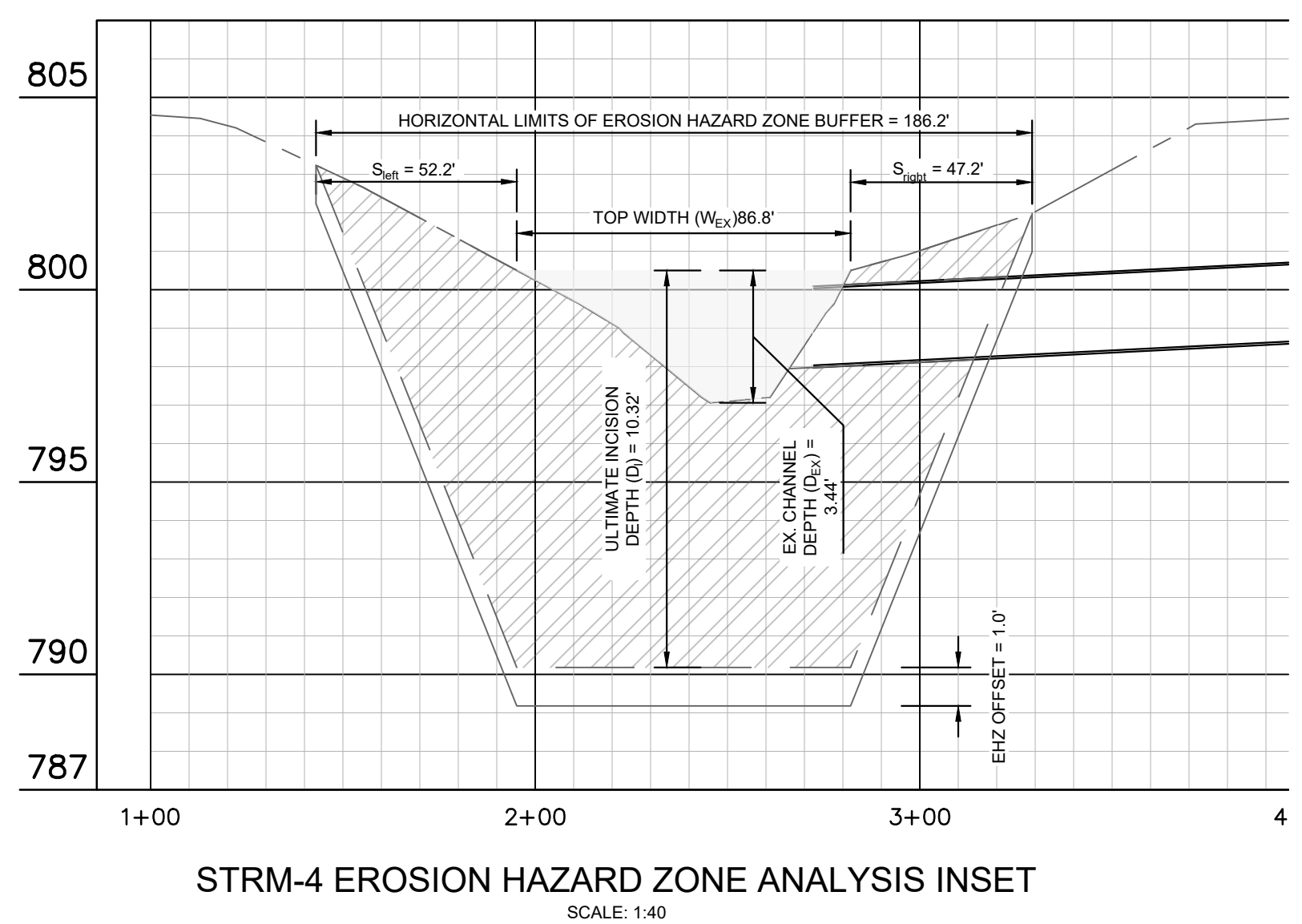
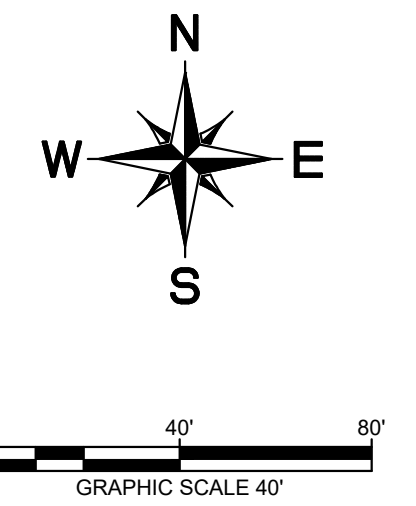
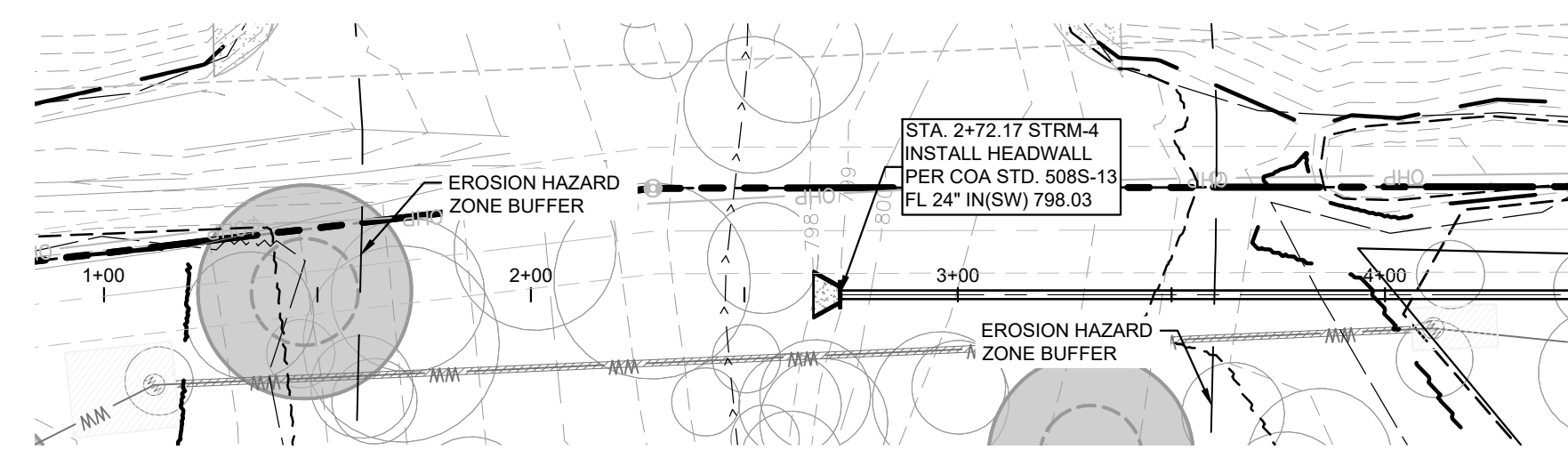


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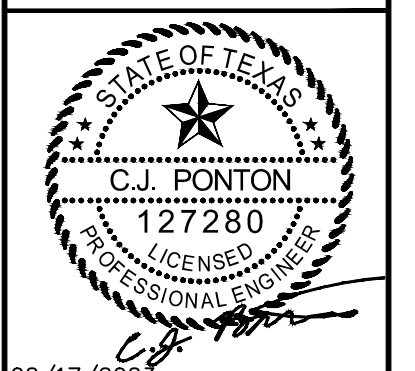
- NOTES:
- ALL STORM SEWER STRUCTURAL ELEMENTS AND PIPING SHALL BE WATER TIGHT, ACCEPTABLE WATER TIGHT PIPING INCLUDES GASKETED RCP, PVC, AND WASTEWATER GRADE HDPE.
  - ALL STORM SEWER INLETS SHALL HAVE A STENCILED SIGN WHICH INDICATES THE INLET DRAINS TO LOCAL CREEKS OR WATERWAYS AND THAT NO WASTE SHOULD BE DUMPED, AS REQUIRED BY SECTION 1.6.3.14 OF THE ENVIRONMENTAL CRITERIA MANUAL. THE DESIGN OF THE STENCIL MUST BE APPROVED BY THE DIRECTOR OF THE WPDOR PRIOR TO ITS USE ON THE SITE.

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



NO.	REVISIONS	DATE	BY

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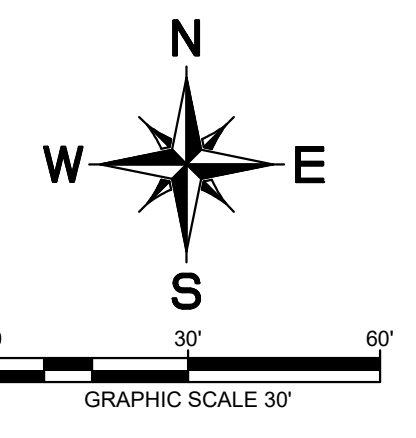
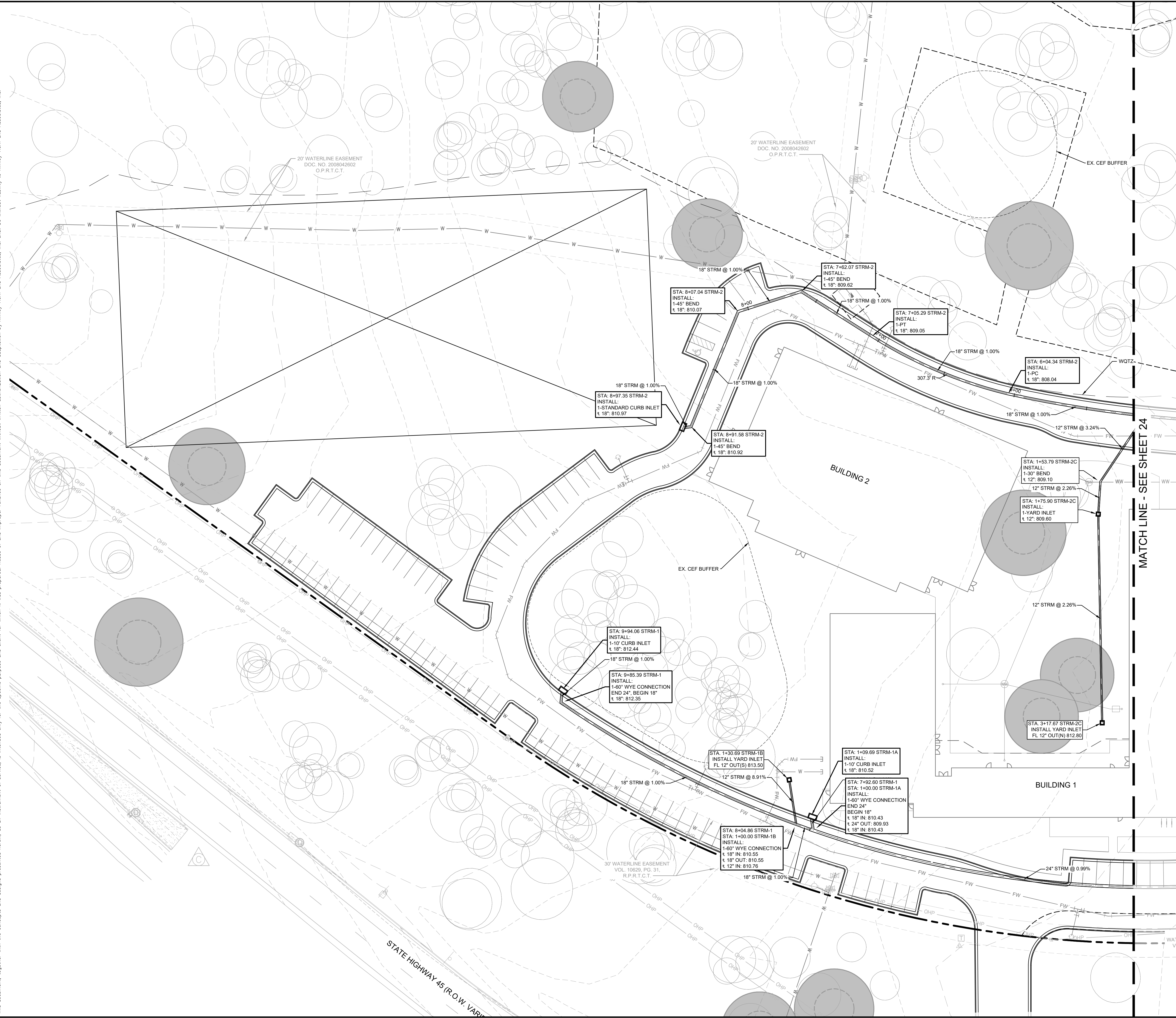


KHA PROJECT	068910605
DATE	JUNE 10, 2022
SCALE	AS SHOWN
DESIGNED BY:	CJP
DRAWN BY:	PTK
CHECKED BY:	CJP

**OVERALL STORM PLAN**

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

Plotted By: MCDorrison, Serena Date: March 22, 2023 02:08:07pm File Path: K:\saw\_civil\068910605-water\_southwest\_Cad\plansheets\C Overall Storm Plan.dwg  
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- NOTES:
- ALL STORM SEWER STRUCTURAL ELEMENTS AND PIPING SHALL BE WATERTIGHT. ACCEPTABLE WATERTIGHT PIPING INCLUDES GASKETED RCP, PVC, AND WASTEWATER GRADE HDPE.
  - ALL STORM SEWER INLETS SHALL HAVE A STENCILED SIGN WHICH INDICATES THE INLET DRAINS TO LOCAL CREEKS OR WATERWAYS AND THAT NO WASTE SHOULD BE DUMPED, AS REQUIRED BY SECTION 16.9.1A OF THE ENVIRONMENTAL CRITERIA MANUAL. THE DESIGN OF THE STENCIL MUST BE APPROVED BY THE DIRECTOR OF THE WPCR PRIOR TO ITS USE ON THE SITE.

**LEGEND**

---	PROPERTY LINE
--- WW ---	PROPOSED WASTEWATER LINE
---	PROPOSED WATER LINE
○	TREE TO REMAIN
●	HERITAGE TREE TO REMAIN
⊙	PROPOSED WASTEWATER MANHOLE
○	PROPOSED WASTEWATER CLEANOUT
→	WASTEWATER FLOW DIRECTION
⊙	PROPOSED FIRE HYDRANT
⊙	PROPOSED TAPPING SLEEVE & VALVE
---	PROPOSED STORM DRAIN LINE
---	PROPOSED STORM DRAIN INLET
---	EXISTING OVERHEAD POWER LINE
---	EXISTING WATER LINE
---	EXISTING WASTEWATER LINE
---	EXISTING STORM SEWER LINE
⊙	EXISTING POWER POLE
⊙	EXISTING FIRE HYDRANT
⊙	EXISTING WATER METER
⊙	EXISTING WASTEWATER MANHOLE

NO.	REVISIONS	DATE	BY

**Kimley >>> Horn**

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 TBP# Firm No. 928

STATE OF TEXAS  
 J. L. PITTON  
 PROFESSIONAL ENGINEER  
 No. 127230  
 02/17/2023

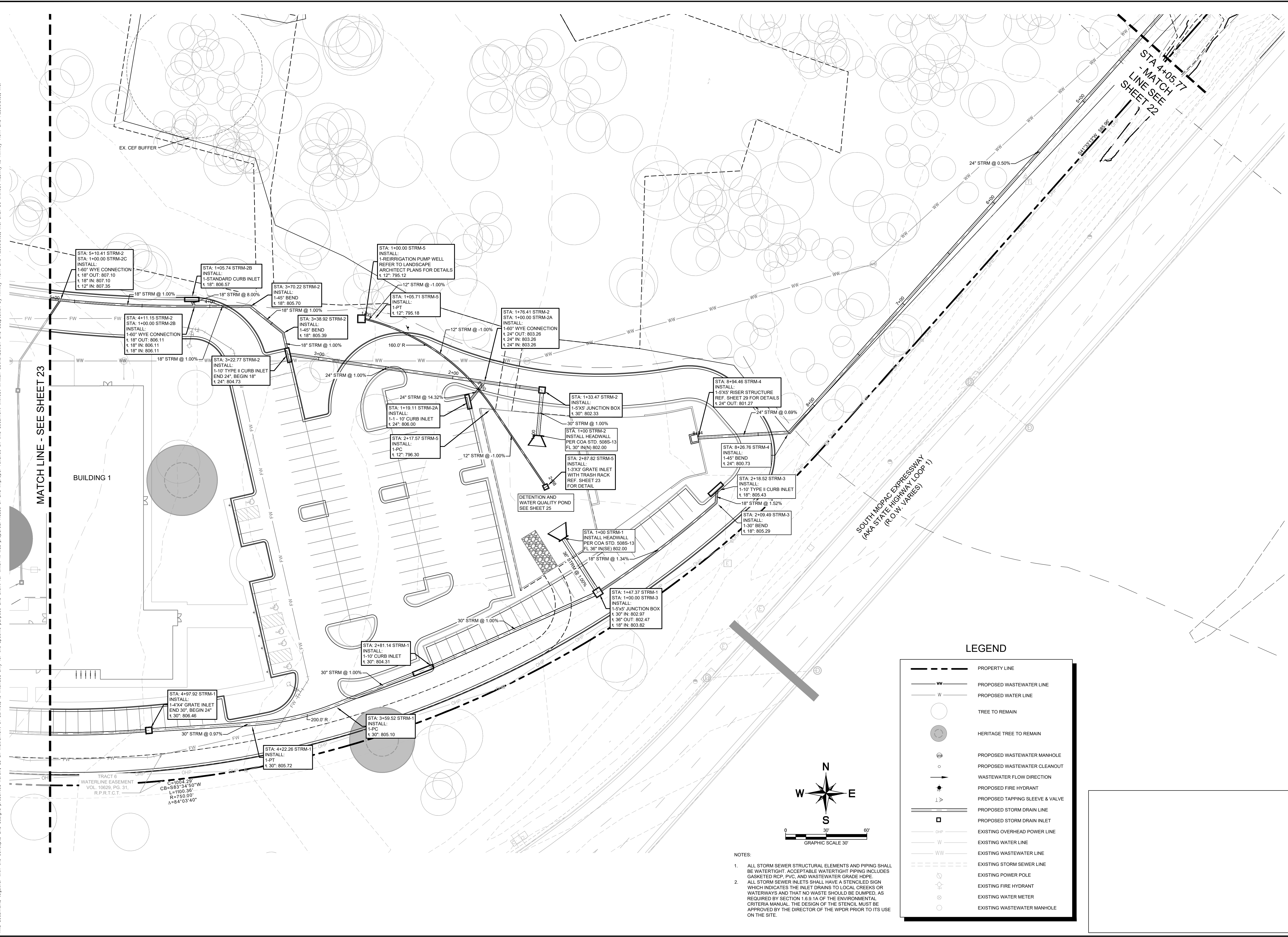
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**STORM PLAN**  
 (SHEET 1 OF 2)

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

SHEET NUMBER  
**23 OF 50**

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MATCH LINE - SEE SHEET 23

STA 4+05.77  
- MATCH  
LINE SEE  
SHEET 22

BUILDING 1

SOUTH MOPAC EXPRESSWAY  
(AKA STATE HIGHWAY LOOP 1)  
(R.O.W. VARIES)

LEGEND

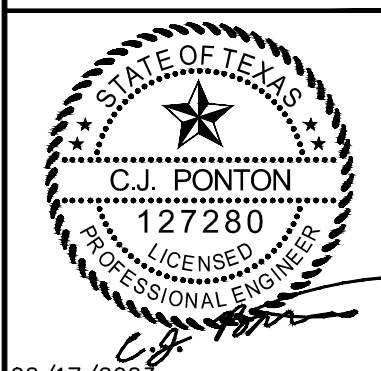
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	PROPOSED WASTEWATER LINE
	PROPOSED WATER LINE
	TREE TO REMAIN
	HERITAGE TREE TO REMAIN
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	PROPOSED WASTEWATER CLEANOUT
	WASTEWATER FLOW DIRECTION
	PROPOSED FIRE HYDRANT
	PROPOSED TAPPING SLEEVE & VALVE
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	EXISTING WATER LINE
	EXISTING WASTEWATER LINE
	EXISTING STORM SEWER LINE
	EXISTING POWER POLE
	EXISTING FIRE HYDRANT
	EXISTING WATER METER
	EXISTING WASTEWATER MANHOLE

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No.	REVISIONS	DATE	BY

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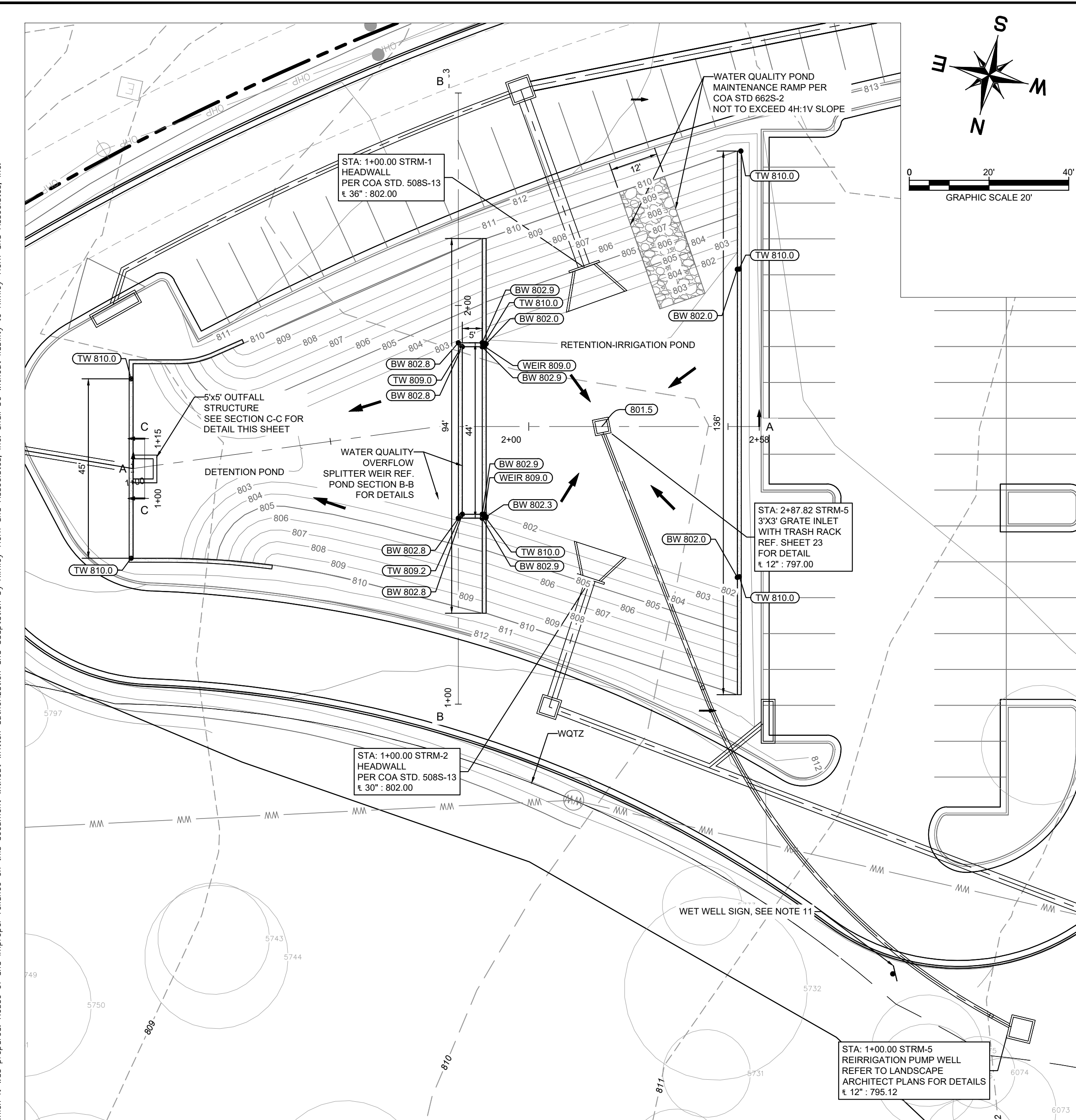


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STORM PLAN  
(SHEET 2 OF 2)

**VALOR SOUTHWEST**  
11720 S MOPAC EXPY SB  
CITY OF AUSTIN  
TRAVIS COUNTY, TEXAS

Plotted By: McClintock, Serena Date: March 22, 2023 02:09:01pm File Path: K:\saw\_civil\068910605-wator\_southwest\Coord\068910605- Pond Plan.dwg  
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WATER QUALITY CALCULATIONS

APPENDIX R-5  
 RETENTION/IRRIGATION POND CALCULATIONS  
 FOR DEVELOPMENT PERMITS  
 Valor Southwest, SP-2022-0296C

DRAINAGE AREA DATA:

Drainage area to control (DA)	6 620 ac.
Drainage area Impervious Cover	66.00%
Capture Depth (CD)	1.788 in

WATER QUALITY CONTROL CALCULATIONS

	Required	Provided
The Water Quality Control is to be Retention Irrigation		
100-year peak flow rate to control (Q100)	64.91 cfs	
Water Quality Volume (WQV=CD*DA*3630)	≥ 42,967 cf	43,281 cf
Retention Pond Volume (min WQV)	≥ 43,281 cf	43,281 cf
Water Quality Elevation		809.00 ft msl
Elevation of Splitter/Overflow Weir (min WQ elevation)	≥ 809 ft msl	809.00 ft msl
Length of Splitter Weir		44.00 ft
Required Head to Pass Q100 (maximum 1.0 ft)	≤ 1.00 ft	0.58 ft
Pond Freeboard Provided to Pass Q100 (minimum 0.25 ft)	≥ 0.4039 ft	0.42 ft

IRRIGATION AREA CALCULATIONS

Soil Permeability, k (minimum 0.03 in/hr)	≥ 0.03 in/hr	0.20 in/hr
Pond Drawdown Time, DT (maximum 72 hrs)	≤ 72 hrs.	72 hrs.
Irrigation Rate, r	≥ 0.20 in/hr	0.20 in/hr
Irrigation Area [WQV/(3630*(k or r)*(DT-12)*50%)]	≥ 1.987 ac.	2.500 ac.

\*Note above: if 0.03 ≤ r ≤ k, then r; else greater of k or 0.03

RETENTION POND  
 STAGE STORAGE TABLE

Stage (ft msl)	Area (sf)	Storage (cf)
801.50	0.00	0
802.00	4,000.00	5,481
803.00	4,400.00	9,681
804.00	4,800.00	14,281
805.00	5,200.00	19,281
806.00	5,600.00	24,681
807.00	6,000.00	30,481
808.00	6,400.00	36,681
809.00	6,800.00	43,281
810.00	7,200.00	50,281

WQV

DETECTION  
 STAGE-STORAGE-FLOW TABLE

Water Surface Elevation (ft)	Storage Volume (cf)	Flow (ft <sup>3</sup> /s)
801.25	-	0.00
801.50	45	0.11
801.75	146	0.32
802.00	325	0.58
802.25	594	0.9
802.50	960	1.26
802.75	1,438	1.65
803.00	2,045	2.08
803.25	2,735	2.55
803.50	3,455	3.04
803.75	4,207	3.56
804.00	4,991	4.1
804.25	5,806	4.68
804.50	6,652	5.27
804.75	7,529	5.89
805.00	8,438	6.54
805.25	9,375	7.2
805.50	10,337	7.89
805.75	11,324	8.59
806.00	12,336	9.32
806.25	13,377	10.06
806.50	14,448	10.83
806.75	15,550	11.61
807.00	16,684	12.41
807.24	17,780	14.46
807.25	17,846	14.61
807.50	19,033	17.99
807.75	20,245	22.12
808.00	21,483	26.88
808.25	22,745	34.06
808.26	22,814	34.52
808.50	24,032	43.26
808.59	24,499	46.93
808.75	25,344	53.93
808.94	26,373	63
809.00	26,681	65.81
809.25	28,044	78.79
809.50	29,431	92.76
809.75	30,843	107.65
810.00	32,280	123.4

**Legend**  
 Not In Compliance  
 Do Not Modify Values

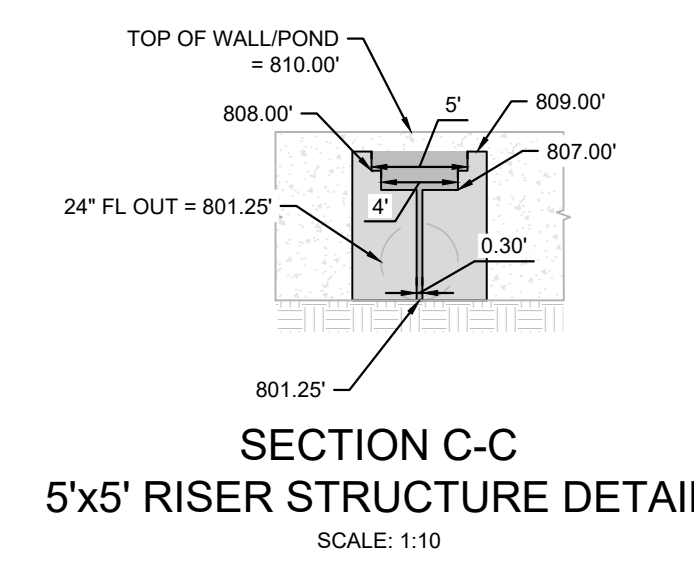
RETENTION POND  
 STAGE STORAGE TABLE

Stage (ft msl)	Area (sf)	Storage (cf)
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805.00	5,200.00	19,281
806.00	5,600.00	24,681
807.00	6,000.00	30,481
808.00	6,400.00	36,681
809.00	6,800.00	43,281
810.00	7,200.00	50,281

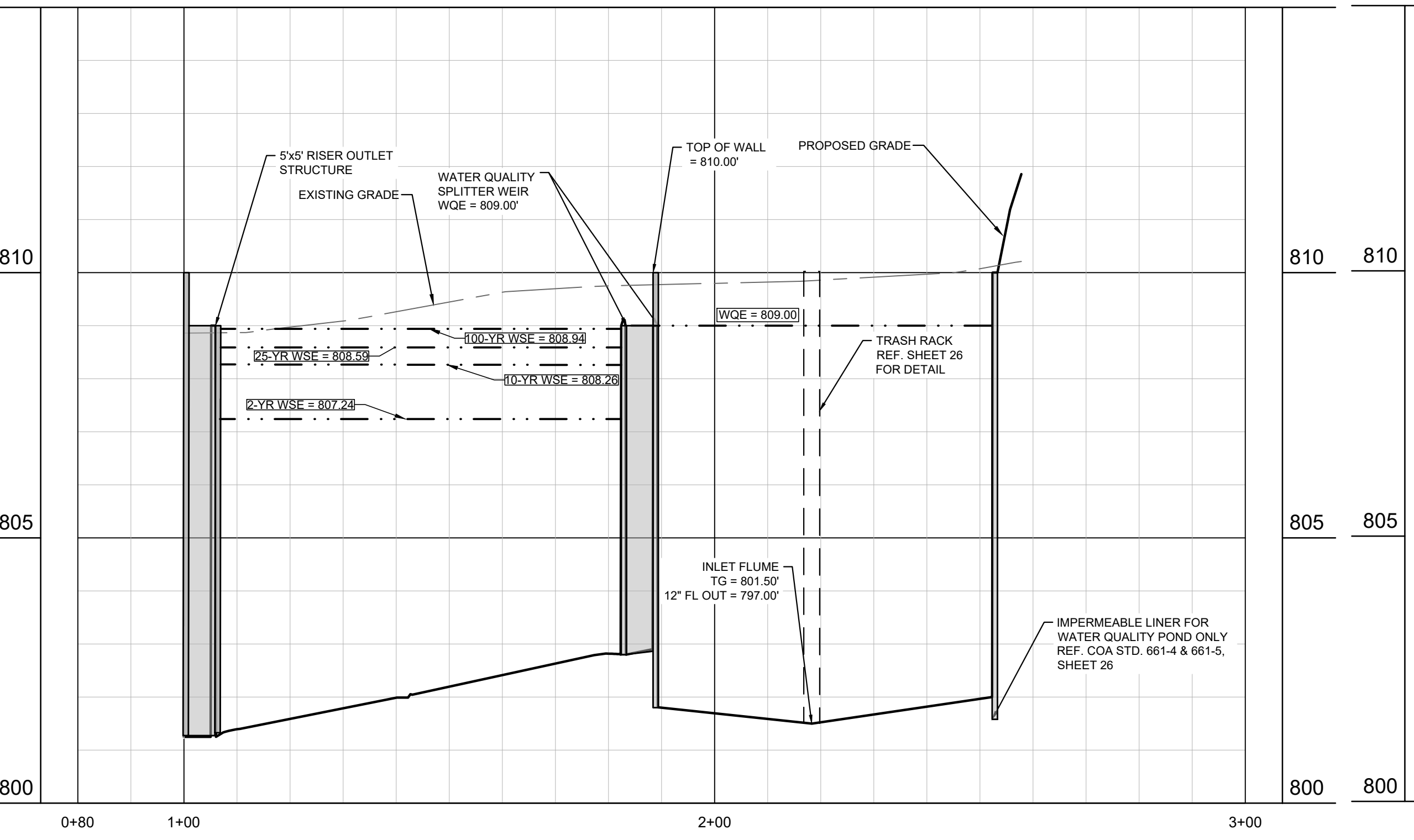
WQV

DETECTION  
 ELEVATION - AREA TABLE

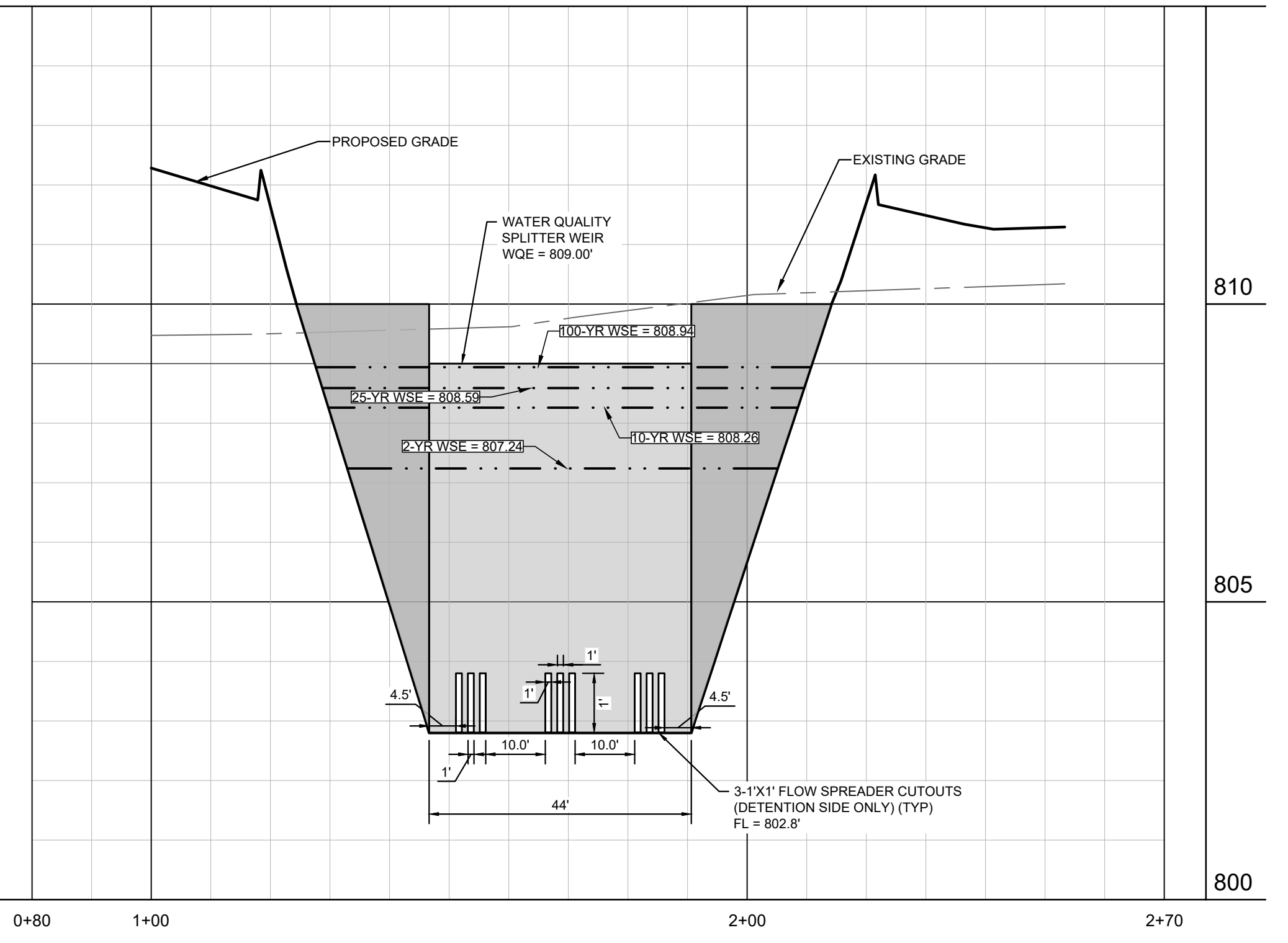
Pond Elevation (ft)	Pond Area (ft <sup>2</sup> )
801.25	100
802.00	900
803.00	2,700
804.00	3,200
805.00	3,700
806.00	4,100
807.00	4,600
808.00	5,000
809.00	5,400
810.00	5,800



POND SECTION A-A



POND SECTION B-B



- NOTES:**  
 1. STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.  
 2. THICKNESS: NOT LESS THAN 200 mm (8").  
 3. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.

CITY OF AUSTIN  
 DEPARTMENT OF PUBLIC WORKS  
 POND MAINTENANCE ROAD  
 CROSS SECTION  
 STANDARD NO. 662S-2  
 1/9/2016 ADOPTED

- WATER QUALITY NOTES**  
 1. A DUAL PUMP SYSTEM IS REQUIRED WITH EACH PUMP CAPABLE OF DELIVERING 100% OF THE DESIGN CAPACITY. ECM 1.6.7(A)(2)  
 2. PLUG VALVES MUST BE LOCATED OUTSIDE THE WET WELL ON THE DISCHARGE SIDE OF EACH PUMP TO ISOLATE PUMPS FOR MAINTENANCE AND THROTTLING. PLEASE INCLUDE THE REQUIRED PLUG VALVES IN THE DESIGN. ECM 1.6.7(A)(2)  
 3. FLOAT CONTROLS. FOUR CONTROL SETTING MUST BE USED: (1) ONE FOR STARTING THE PUMP, (2) ONE FOR SHUTTING OFF THE PUMP AT THE NORMAL LOW WATER LEVEL, (3) ONE FOR BACK UP SHUT OFF THE PUMP IN CASE THE FIRST SHUT-OFF FAILS, AND (4) ONE TO INDICATE A HIGH-WATER LEVEL. [ECM 1.6.7(A)(2)]  
 4. AN ALARM SYSTEM SHALL BE PROVIDED CONSISTING OF A RED LIGHT LOCATED AT A HEIGHT OF AT LEAST 5 FEET ABOVE THE GROUND LEVEL AT THE WET WELL. THE ALARM SHALL ACTIVATE WHEN:  
 \* THE HIGH-WATER LEVEL HAS BEEN MAINTAINED IN EXCESS OF 72 HOURS.  
 \* THE WATER LEVEL IS BELOW THE SHUTOFF FLOAT AND THE PUMP HAS NOT TURNED OFF. THE HIGH-LOW-PRESSURE PUMP SHUT OFF SWITCH HAS BEEN ACTIVATED.  
 5. THE ALARM MUST BE VANDAL PROOF AND WEATHER RESISTANT. ECM 1.6.7(A)(2)  
 6. A GREEN "PUMP RUN LIGHT" SHALL BE PROVIDED WHICH IS ACTIVATED ANY TIME A PUMP IS RUNNING. THE GREEN LIGHT SHOULD BE LOCATED DIRECTLY ADJACENT TO THE RED ALARM LIGHT. PROVIDE PUMP DETAILS INDICATING THIS. ECM 1.6.7(A)(2)  
 7. ALL IRRIGATION SYSTEM DISTRIBUTION AND LATERAL PIPING (I.E. FROM THE PUMPS TO THE SPRAY HEADS) MUST BE SCHEDULE 80 PVC. ALL PIPES AND ELECTRICAL BUNDLES PASSING BENEATH DRIVEWAYS OR PAVED AREAS MUST BE SLEEVED WITH PVC CLASS 200 PIPE WITH SOLVENT WELDED JOINTS. SLEEVE DIAMETER MUST EQUAL TWICE THAT OF THE PIPE OR ELECTRICAL BUNDLE.  
 8. ALL VALVES MUST BE DESIGNED SPECIFICALLY FOR SEDIMENT BEARING WATER AND BE OF APPROPRIATE DESIGN FOR THE INTENDED PURPOSE. ALL REMOTE CONTROL, GATE AND QUICK COUPLING VALVES MUST BE LOCATED IN TEN-INCH OR LARGER PLASTIC VALVE BOXES. ALL PIPES AND VALVES MUST BE MARKED TO INDICATE THAT THEY CONTAIN NON-POTABLE WATER. ALL PIPING MUST BE BURIED TO PROTECT IT FROM WEATHER AND VANDALISM. THE DEPTH AND METHOD OF BURIAL MUST BE ADEQUATE TO PROTECT THE PIPE FROM VEHICULAR TRAFFIC SUCH AS MAINTENANCE EQUIPMENT. VELOCITIES IN ALL PIPELINES SHOULD BE SUFFICIENT TO PREVENT SETTLING OF SOLIDS. THE IRRIGATION DESIGN AND LAYOUT MUST BE INTEGRATED WITH THE TREE PROTECTION PLAN AND PRESENTED AS PART OF THE SITE PLAN OR SUBDIVISION CONSTRUCTION PLAN.  
 9. SYSTEMS MUST INCLUDE A PLUG VALVE TO ALLOW FLUSHING AT THE END OF EVERY LINE. SPECIFICATIONS FOR ALL EQUIPMENT/COMPONENTRY OF THE WATER QUALITY CONTROL SYSTEMS SHALL BE SUBMITTED TO THE OPERATING PERMIT (OP) INSPECTION STAFF AND ENGINEER OF RECORD PRIOR TO THE INSTALLATION OF PUMP STATIONS AND IRRIGATION SYSTEMS, AND PRIOR TO THE MID-CONSTRUCTION MEETING FOR REVIEW AND APPROVAL. THIS IS INCLUDING BUT NOT LIMITED TO MECHANICAL EQUIPMENT SUCH AS PUMPS, PANELS, PIPING, DISTRIBUTION COMPONENTS AND ANY OTHER ANCLINARY EQUIPMENT. FINAL APPROVAL OF SUBMITTAL AND EQUIPMENT, AND TESTING OF ALL COMPONENTS OF WATER QUALITY SYSTEM, IS REQUIRED BY WPD OP INSPECTION STAFF PRIOR TO CO. FINAL DOCUMENTATION OF OPERATIONS/MAINTENANCE MANUAL AND AS-BUILTS SHALL BE SUBMITTED TO OP INSPECTION STAFF AFTER BUILD OUT AND MUST BE APPROVED BY STAFF PRIOR TO THE END OF THE ONE-YEAR PERFORMANCE PERIOD.  
 11. WET WELL PRIVATE MAINTENANCE SIGN WITH NAME AND PHONE NUMBER OR RESPONSIBLE PARTY WHO MAY BE CONTACT IF ALARM GOES OFF.

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POND PLAN

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

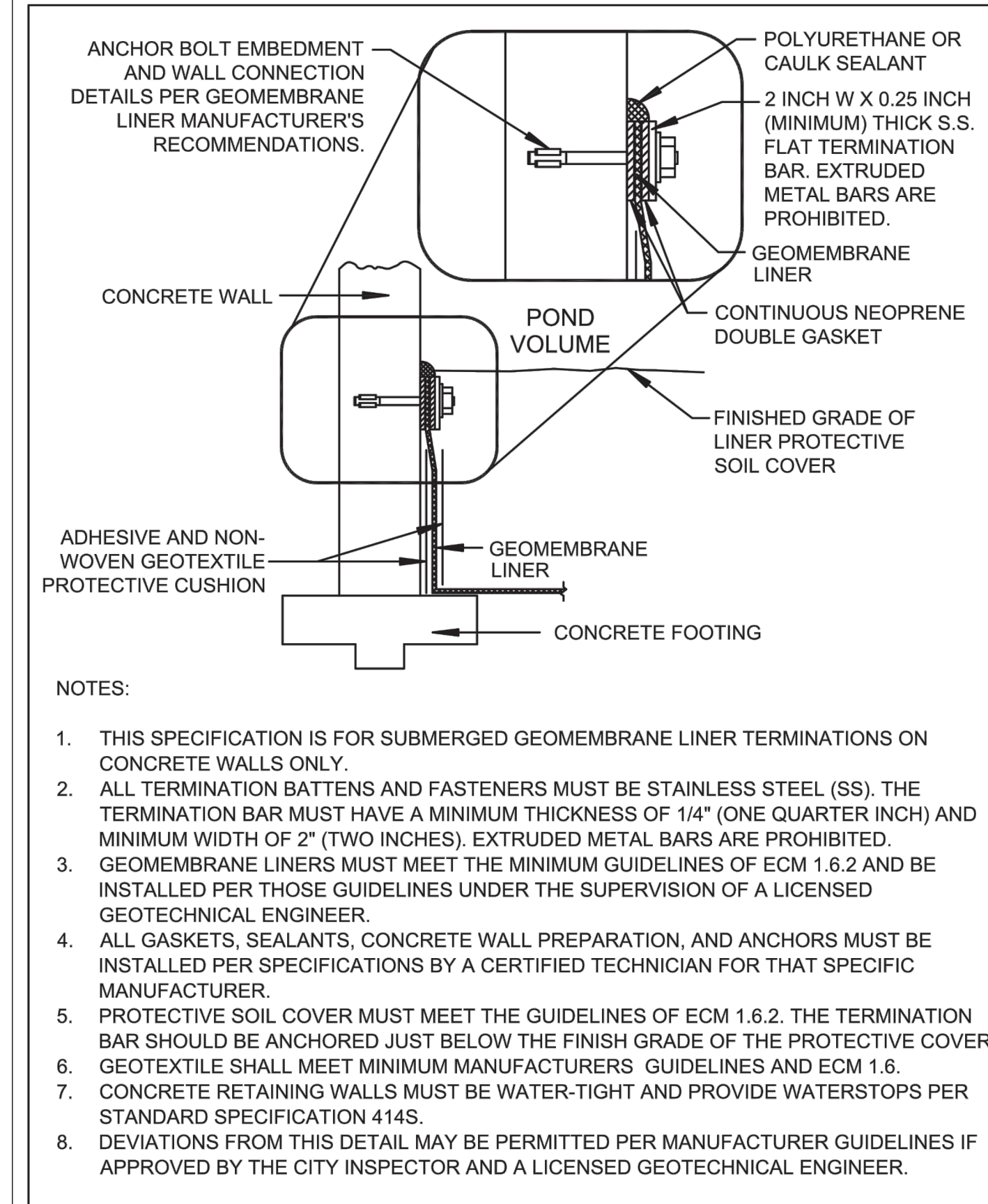
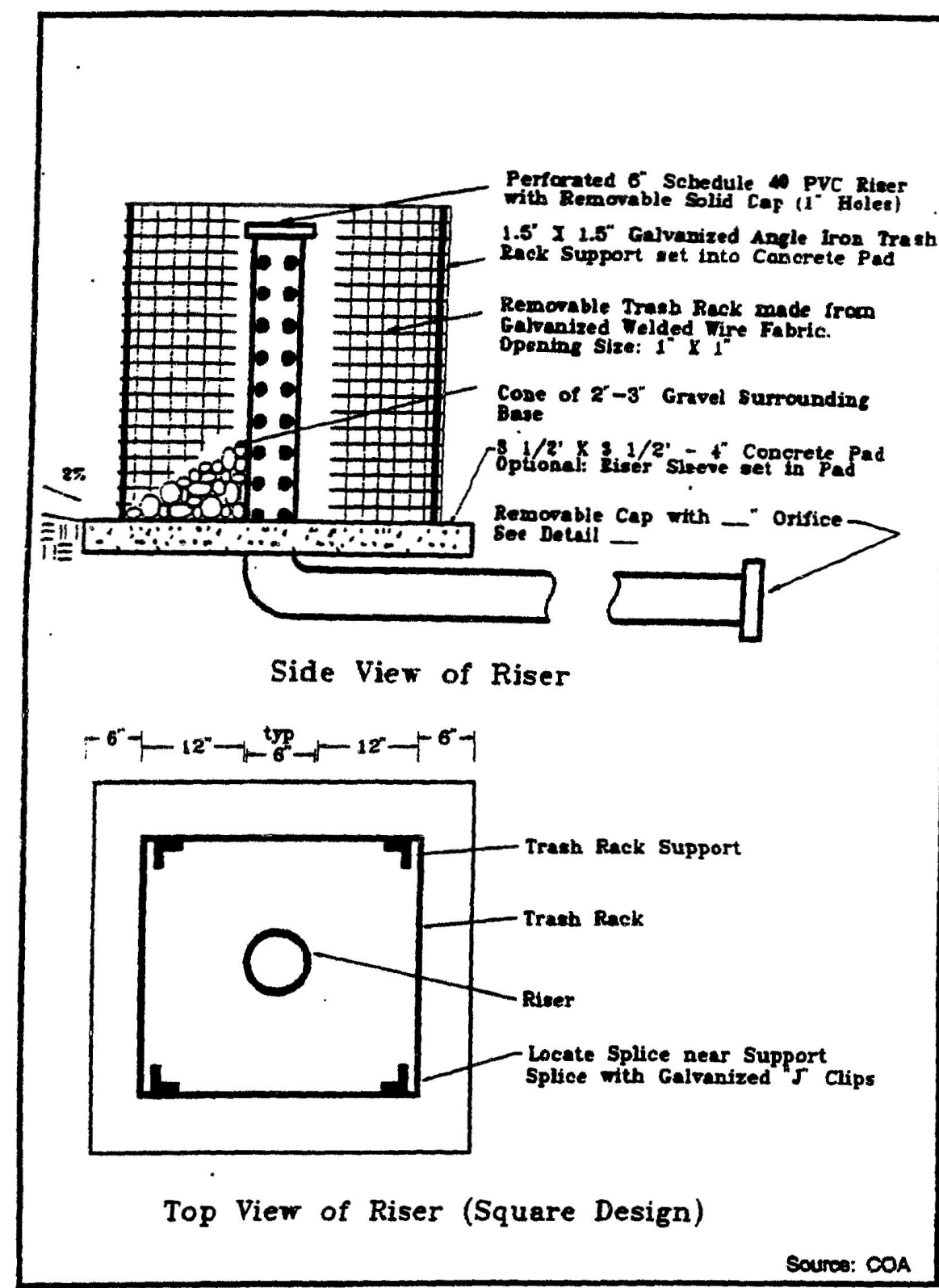
**MAJOR MAINTENANCE REQUIREMENTS**

1. THE FOLLOWING MAINTENANCE ACTIVITIES SHALL BE PERFORMED ON ALL SCMS, IN ADDITION TO THE REQUIREMENTS LISTED FOR THE INDIVIDUAL SCM TYPES, TO ENSURE PROPER FUNCTION:

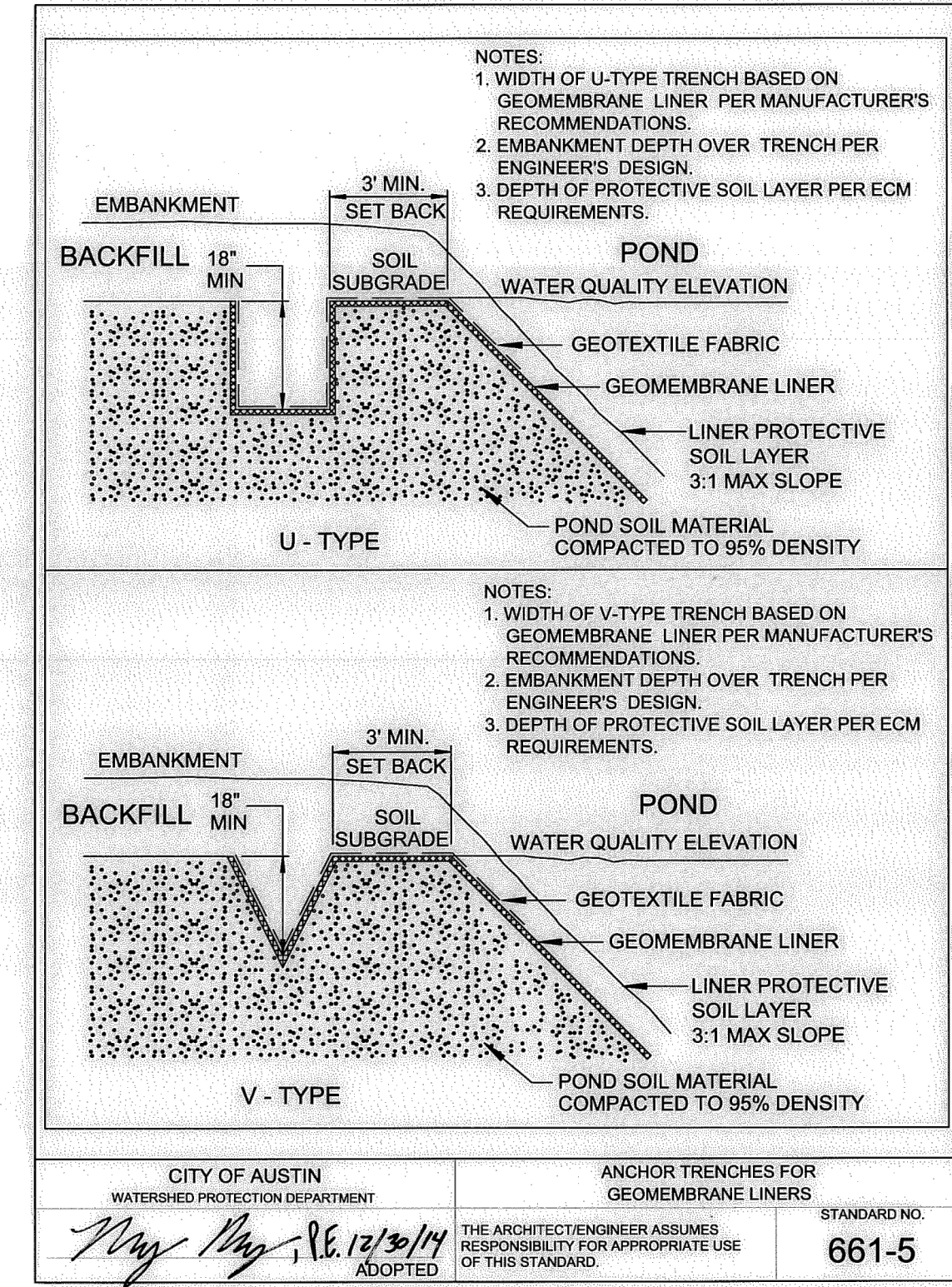
- A) ACCUMULATED PAPER, TRASH AND DEBRIS SHALL BE REMOVED EVERY SIX (6) MONTHS OR AS NECESSARY TO MAINTAIN PROPER OPERATION.
- B) STRUCTURAL INTEGRITY SHALL BE MAINTAINED AT ALL TIMES. BASINS AND ALL APPURTENANCES SHALL BE INSPECTED ANNUALLY, OR MORE FREQUENTLY IF SPECIFIED, AND REPAIRS SHALL BE MADE IF NECESSARY. WHEN MAINTENANCE OR REPAIRS ARE PERFORMED, THE SCM SHALL BE RESTORED TO THE ORIGINAL LINES AND GRADES.
- C) CORRECTIVE MAINTENANCE SHALL OCCUR: I. ANY TIME DRAWDOWN OF THE WATER QUALITY VOLUME DOES NOT OCCUR WITHIN NINETY-SIX (96) HOURS (I.E., NO STANDING WATER IS ALLOWED), UNLESS A GREATER MAXIMUM DRAWDOWN TIME IS SPECIFIED IN THE PLANS. II. FOR DETENTION PONDS ONLY, ANY TIME DRAWDOWN DOES NOT OCCUR WITHIN TWENTY-FOUR (24) HOURS.
- D) THE INLET AND OUTLET OF SCMS SHALL BE MAINTAINED UNIMPEDED IN ORDER TO CONVEY FLOW AT ALL TIMES. OBSERVED BLOCKAGES TO THE INLET AND OUTLET, DUE TO VEGETATION, SEDIMENT, DEBRIS, OR ANY OTHER CAUSE, SHALL BE REMOVED.
- E) NO UNVEGETATED AREA SHALL EXCEED TEN (10) SQUARE FEET. THIS PERFORMANCE REQUIREMENT APPLIES TO THE ENTIRE POND INCLUDING THE POND BOTTOM, SIDE SLOPES, AND AREAS ADJACENT TO THE POND, AND IS INTENDED TO LIMIT EROSION.
- F) INTEGRATED PEST MANAGEMENT SHALL BE PERFORMED AND SHALL ADHERE TO SECTION 1.6.2.F, INTEGRATED PEST MANAGEMENT GUIDELINES.
- G) THE MINIMUM VEGETATION HEIGHT SHALL BE FOUR (4) INCHES IN THE SCM AND ALL APPURTENANCES, INCLUDING THE TOE OF THE BERM OR WALL OUTSIDE THE SCM, WHERE APPLICABLE.
- H) SEDIMENT BUILD-UP SHALL BE REMOVED:
  - I. WHEN THE ACCUMULATION EXCEEDS SIX (6) INCHES IN SPLITTER BOXES, WET WELLS AND BASINS.
  - II. WHEN SEDIMENT TRAPS ARE FULL.
  - III. WHEN SEDIMENT, OF ANY AMOUNT, CAUSES STANDING WATER CONDITIONS OR REDUCES BASIN STORAGE BY MORE THAN 10%.
- I) WHEN SEDIMENT IS REMOVED, THE FOLLOWING REQUIREMENTS APPLY:
  - I. IRRIGATION SHALL BE PROVIDED, AS NEEDED, UNTIL VEGETATION IS ESTABLISHED (WELL ROOTED). SEE SECTION 1.6.3.D, IRRIGATION GUIDELINES.
  - II. THE DESIGN DEPTH OF THE FILTRATION MEDIA SHALL BE VERIFIED. SEE SECTION 1.6.3.B.5.
  - III. TILLING OF THE FILTRATION MEDIUM IS NOT ALLOWED.

**RETENTION-IRRIGATION SYSTEMS (SECTION 1.6.7.A)**

- A) BASINS: STRUCTURAL INTEGRITY OF BASINS SHALL BE MAINTAINED AT ALL TIMES. WOODY VEGETATION SHOULD BE CONTROLLED/REMOVED TO PREVENT BASIN LEAKAGE. THE ABILITY OF THE BASIN TO RETAIN THE WATER QUALITY VOLUME SHALL BE EVALUATED BY THE COA.
- B) IRRIGATION AREAS. TO THE GREATEST EXTENT PRACTICABLE, IRRIGATION AREAS ARE TO REMAIN IN THEIR NATURAL STATE. HOWEVER, VEGETATION MUST BE MAINTAINED IN THE IRRIGATION AREA SUCH THAT IT DOES NOT IMPEDE THE SPRAY OF WATER FROM THE IRRIGATION HEADS. TREE AND SHRUB TRIMMINGS AND OTHER LARGE DEBRIS MUST BE REMOVED FROM THE IRRIGATION AREA. SEE REQUIREMENTS IN SECTION 1.6.7.A.3.(G) AND (H) REGARDING REQUIREMENTS FOR SOIL AND VEGETATION IN IRRIGATION AREAS.
- C) PUMPS AND IRRIGATION SYSTEM. THE PUMPS AND IRRIGATION SYSTEM MUST BE INSPECTED OR TESTED A MINIMUM OF SIX (6) TIMES PER YEAR TO SHOW ALL COMPONENTS ARE OPERATING AS INTENDED. TWO (2) OF THESE SIX (6) INSPECTIONS SHOULD BE AFTER RAIN EVENTS TO ENSURE THAT THE IRRIGATION SYSTEM AND ALL OF ITS COMPONENTS PERFORM AS DESIGNED. THIS INCLUDES CONTROLS SUCH AS WEATHER STATIONS OR RAIN SENSORS, DELAYS, VALVES, ALARM SYSTEM, DISTRIBUTION LINES, OR OTHER COMPONENTS AS SPECIFIED IN THE SYSTEM DESIGN. SPRINKLER HEADS MUST BE CHECKED TO DETERMINE IF ANY ARE BROKEN, CLOGGED, OR NOT SPRAYING PROPERLY. ALL INSPECTION AND TESTING REPORTS MUST BE KEPT ON SITE AND ACCESSIBLE TO THE CITY OF AUSTIN.
- D) THE OVERALL SYSTEM SHALL BE INSPECTED FOR THE ABILITY TO RETAIN THE WATER QUALITY VOLUME ON SITE PER ECM SECTION 1.6.7.A.



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	CONCRETE WALL GEOMEMBRANE LINER ATTACHMENT	STANDARD NO. <b>661-4A</b>
12/27/22 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	ANCHOR TRENCHES FOR GEOMEMBRANE LINERS	STANDARD NO. <b>661-5</b>
12/30/19 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	

Plotted By: McClintock, Serena Date: March 22, 2023 02:09:16pm File Path: K:\saw\_civil\068910605-valor\_southwest\Cad\plansheets\VC - Pond Plan.dwg This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

**SLAT STORMWATER LOAD ANALYSIS TOOL 2.1** 1/2

Site Name: Valor Southwest By: PMM Date: 44965

RESULTS: COMPLIANCE TABLE SLAT 2.1 - 08/2022

POLLUTANT	DEVELOPED LOAD, WITH CONTROLS				TOTAL LOAD	EXISTING LOAD	LOAD EQUIV. FACTOR,	COMPLIES?
	Drainage Area A	Drainage Area B	Drainage Area C	Drainage Area D				
COD	lbs/yr 3.34E+01	0.00E+00	0.00E+00	0.00E+00	3.34E+01	7.60E+01	0.44	YES
E.coli	10 <sup>6</sup> MPN/yr 4.84E+04	0.00E+00	0.00E+00	0.00E+00	4.84E+04	7.42E+04	0.65	YES
Pb	lbs/yr 6.93E-03	0.00E+00	0.00E+00	0.00E+00	6.93E-03	8.37E-03	0.83	YES
TN	lbs/yr 1.51E+00	0.00E+00	0.00E+00	0.00E+00	1.51E+00	2.33E+00	0.65	YES
TP	lbs/yr 2.18E-01	0.00E+00	0.00E+00	0.00E+00	2.18E-01	2.42E-01	0.90	YES
TSS	lbs/yr 3.45E+01	0.00E+00	0.00E+00	0.00E+00	3.45E+01	3.25E+02	0.11	YES
Zn	lbs/yr 4.25E-02	0.00E+00	0.00E+00	0.00E+00	4.25E-02	4.61E-02	0.92	YES

ERROR CHECK PASSED  
COMPLIANT

Change Inputs Print Results  
Jump to Loads Removed Table

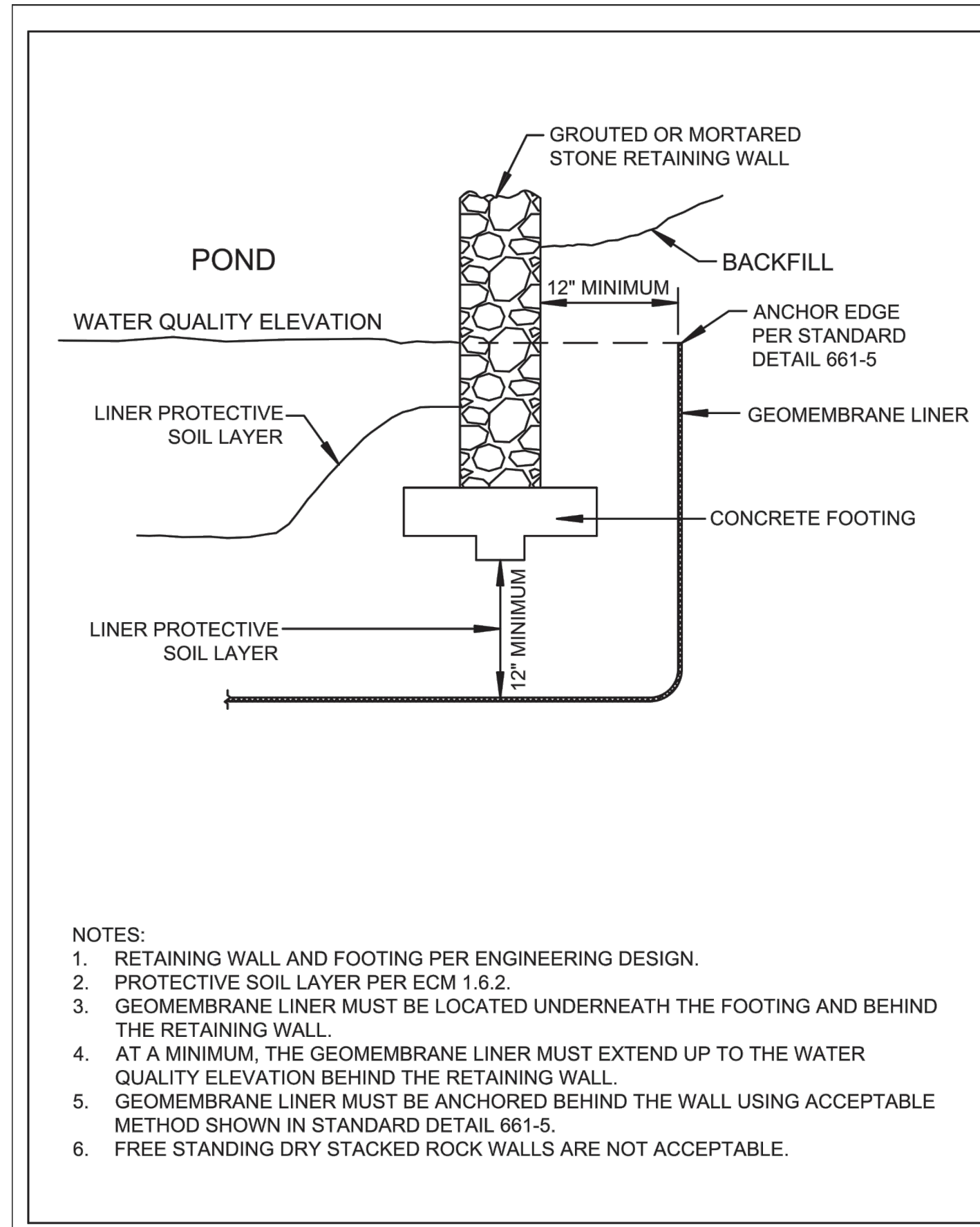
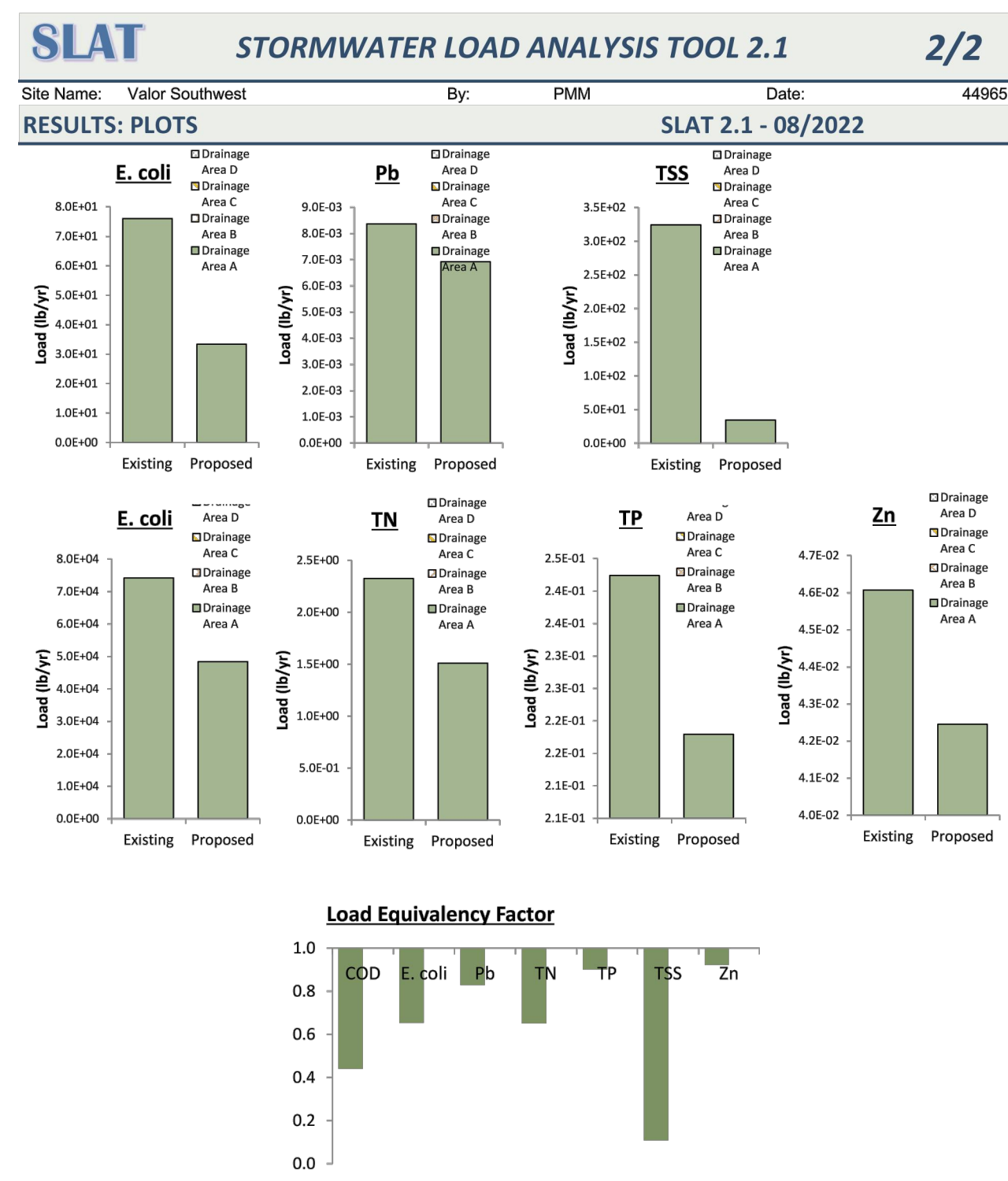
**SUMMARY OF INPUTS**

Site Location: Within Barton Springs Zone - Compare to Existing Loads

Drainage Area	Area A	Area B	Area C	Area D	TOTALS
Drainage Area, An (Ac)	6.62	N/A	N/A	N/A	<b>6.62</b>
Developed IC, IC <sub>d</sub> (%)	66.0	N/A	N/A	N/A	<b>66%</b>

SCM	Retention Basin	N/A	N/A	N/A	-
Water Qual. Vol, WQV (in)	1.80	N/A	N/A	N/A	-
Actual Volume (ft <sup>3</sup> )	43281	N/A	N/A	N/A	<b>43281</b>
Drawdown Time, DDT (hrs)	60	N/A	N/A	N/A	-
Flowrate (gpm)	89.93	N/A	N/A	N/A	-

SCM	Infiltration Field	N/A	N/A	N/A	-
Infiltration Rate (in/hr)	0.20	N/A	N/A	N/A	-
Appx. Min. Infil. Field Area (Ac)	2.13	N/A	N/A	N/A	<b>2.13</b>
Irrigation Rate (gpm)	96.3	N/A	N/A	N/A	-
Error with Input Values?	NO	NO	NO	NO	-



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	GRADED OR MORTARED STONE RETAINING WALL GEOMEMBRANE LINER	STANDARD NO. <b>661-4B</b>
12/27/22 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	

**Kimley >>> Horn**

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**VALOR SOUTHWEST**  
 11720 S WOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

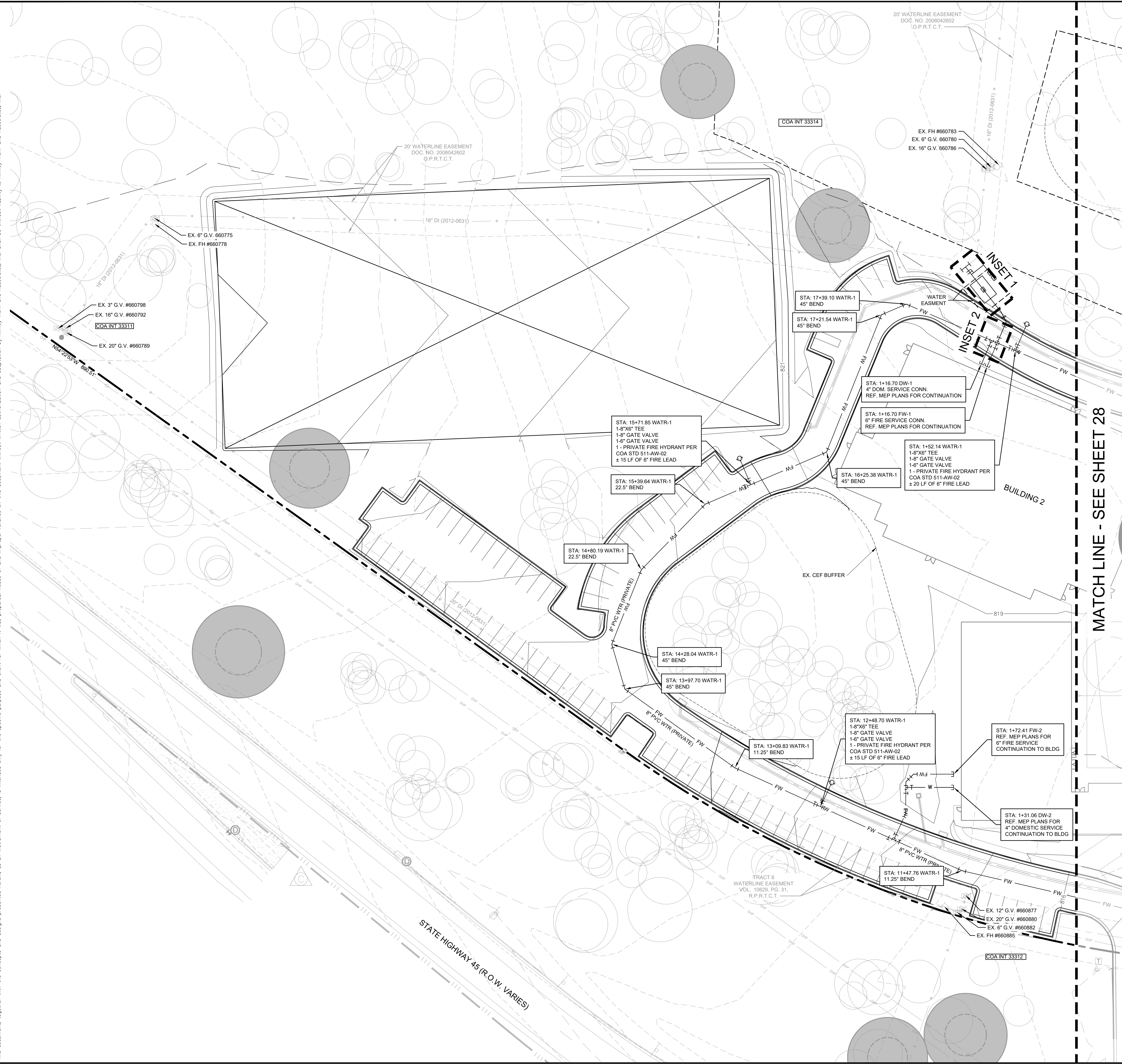
**POND DETAILS**

KHA PROJECT: 068910605  
 DATE: JUNE 10, 2022  
 SCALE: AS SHOWN  
 DESIGNED BY: CJP  
 DRAWN BY: PTK  
 CHECKED BY: CJP

SHEET NUMBER  
**26 OF 50**

SP-2022-0296CE

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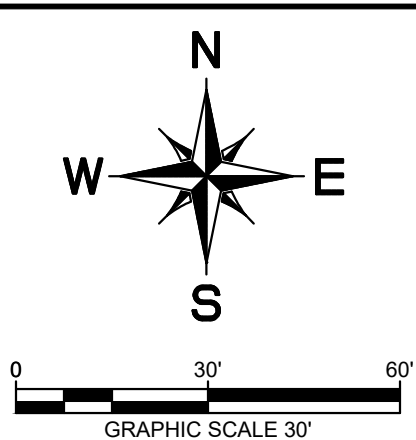
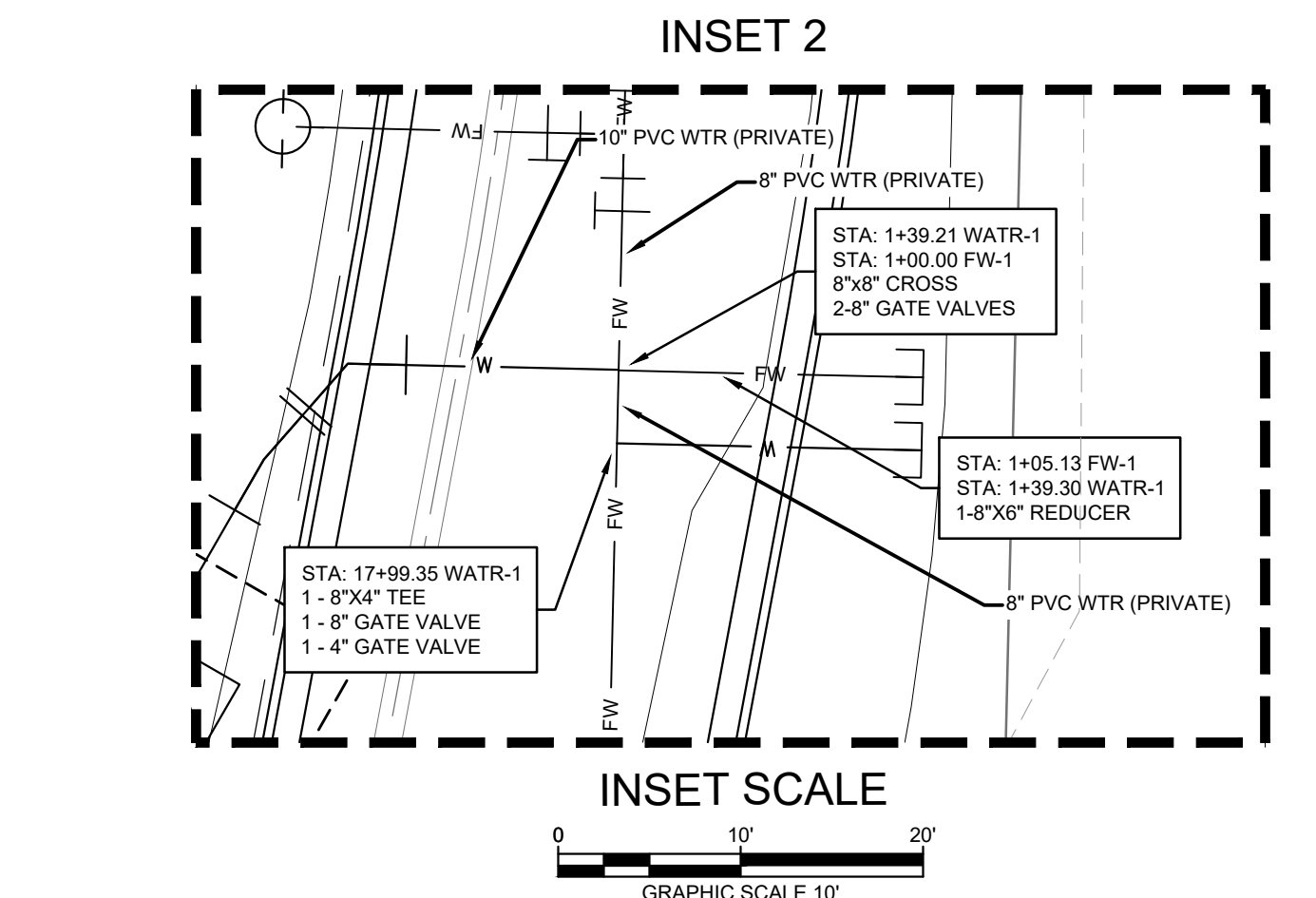
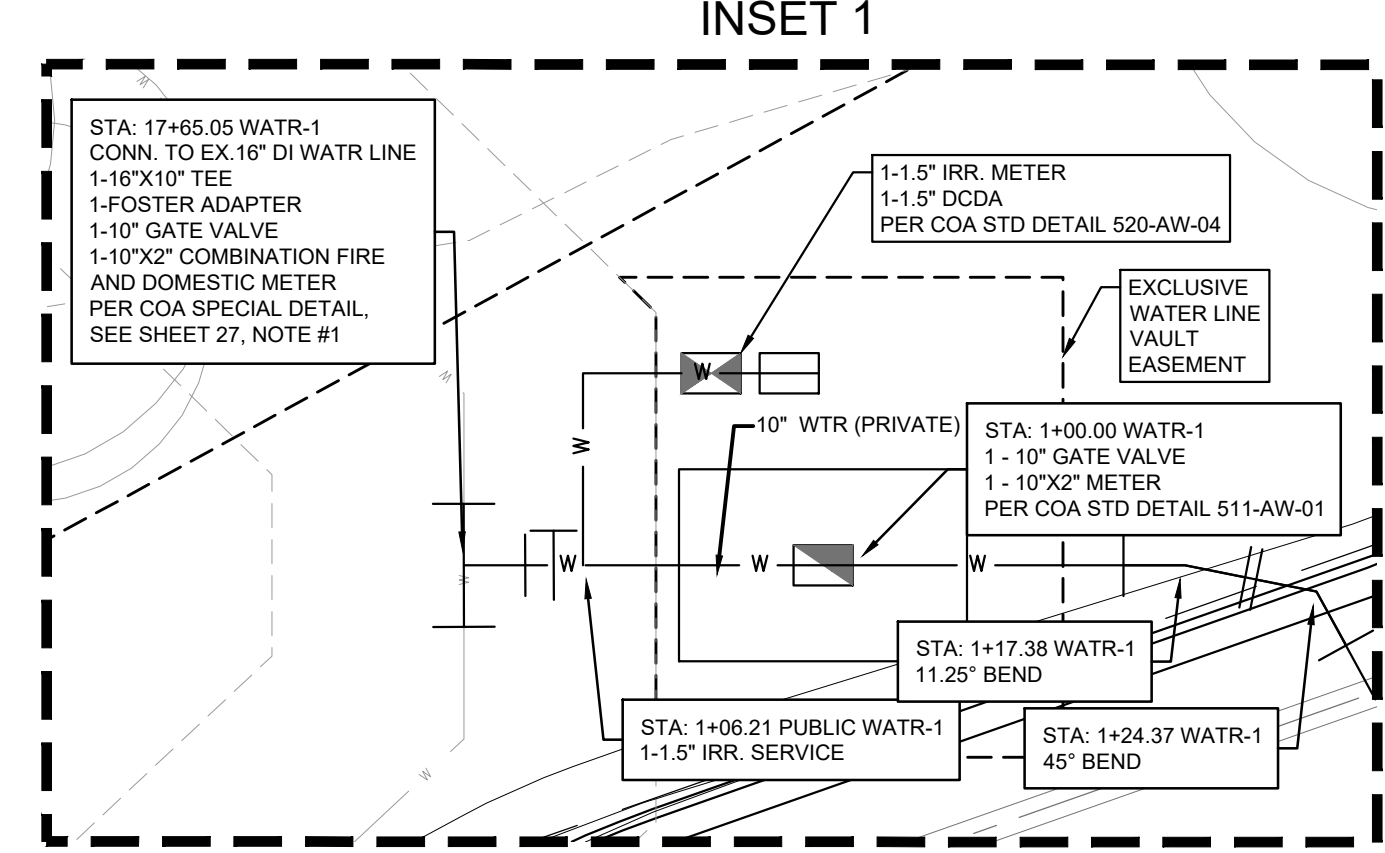


**LEGEND**

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

**WATER PLAN NOTES**

1. CONTRACTOR AND INSPECTOR TO CONFIRM METER AND STRAINER MANUFACTURER PRIOR TO INSTALLING METER PIPING AND VAULT AS CONFIGURATION MAY VARY FROM DETAIL TO DETAIL. IF METER/STRAINER IS MANUFACTURED BY SENSUS (OMNI), THEN CONTRACTOR SHALL INSTALL FLX.I DI SPOOL BETWEEN THE MAIN AND BYPASS TO EXTEND BYPASS AWAY FROM STRAINER TO ALLOW 12" (MINIMUM) SEPARATION BETWEEN BYPASS PIPING AND STRAINER. CONTRACTOR TO COMPLY WITH ALL OTHER APPLICABLE REQUIREMENTS OF AUSTIN WATER SPECIAL DETAIL ON SHEET 34.



MATCH LINE - SEE SHEET 28

No.	REVISIONS	DATE	BY

**Kimley-Horn**

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78735  
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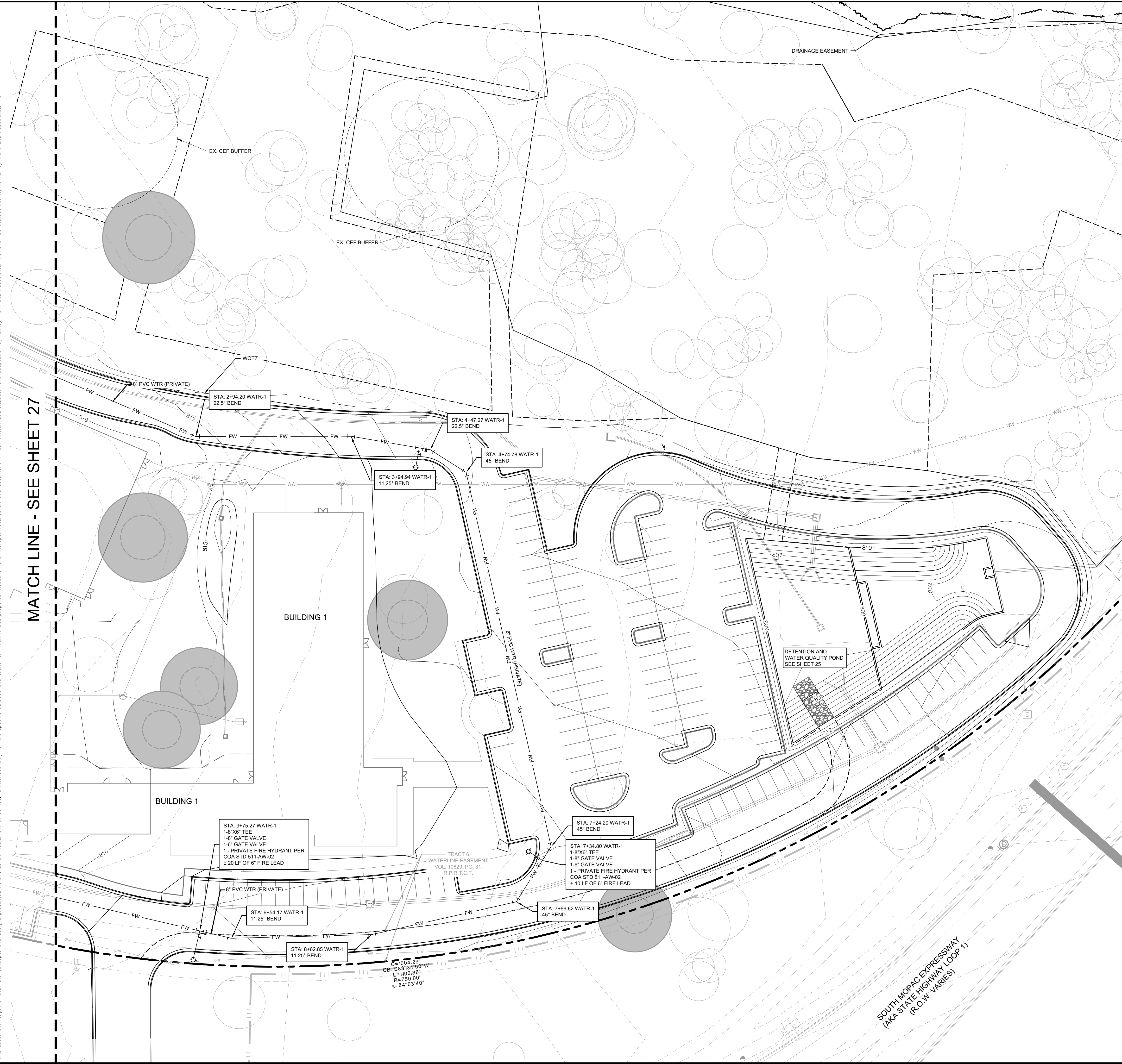
STATE OF TEXAS  
CIVIL ENGINEER  
J. J. FORTSON  
LICENSED PROFESSIONAL ENGINEER  
02/17/2023

KHA PROJECT 068910605  
DATE JUNE 10, 2022  
SCALE: AS SHOWN  
DESIGNED BY: CJP  
DRAWN BY: PTK  
CHECKED BY: CJP

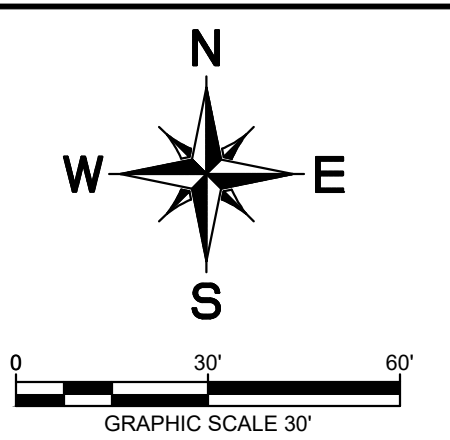
**PRIVATE WATER PLAN  
(SHEET 1 OF 2)**

**VALOR SOUTHWEST**  
11720 S MOPAC EXPY SB  
CITY OF AUSTIN  
TRAVIS COUNTY, TEXAS

Plotted By: MCDorrison, Serena Date: March 22, 2023 02:10:14pm File Path: K:\saw\_civil\068810605-wator\_southwest\068810605-wator\_Plan.dwg  
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MATCH LINE - SEE SHEET 27



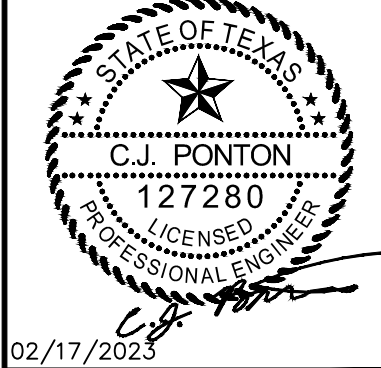
**LEGEND**

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

**WATER PLAN NOTES**  
 1. CONTRACTOR AND INSPECTOR TO CONFIRM METER AND STRAINER MANUFACTURER PRIOR TO INSTALLING METER PIPING AND VAULT AS CONFIGURATION MAY VARY FROM DETAIL TO DETAIL. IF METER/STRAINER IS MANUFACTURED BY SENSUS (OMNI), THEN CONTRACTOR SHALL INSTALL FLX DI SPOOL BETWEEN THE MAIN AND BYPASS TO EXTEND BYPASS AWAY FROM STRAINER TO ALLOW 12" (MINIMUM) SEPARATION BETWEEN BYPASS PIPING AND STRAINER. CONTRACTOR TO COMPLY WITH ALL OTHER APPLICABLE REQUIREMENTS OF AUSTIN WATER SPECIAL DETAIL ON SHEET 54.

No.	REVISIONS	BY	DATE

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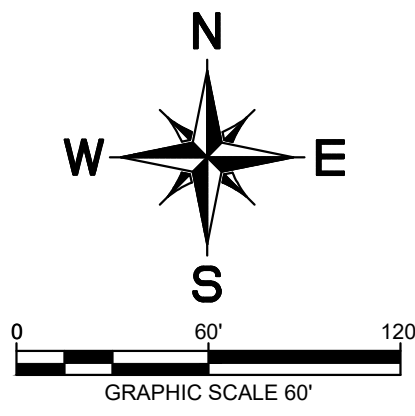
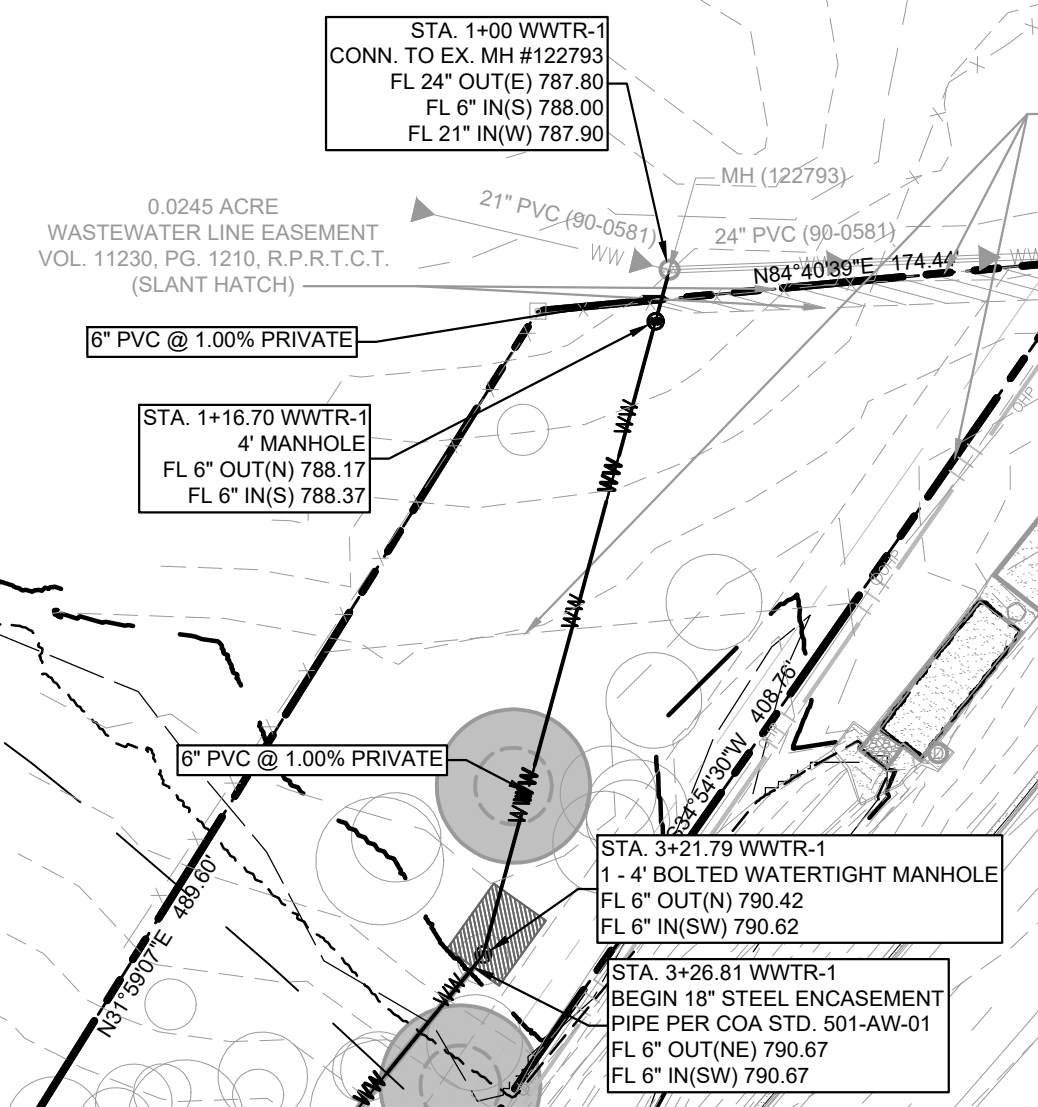
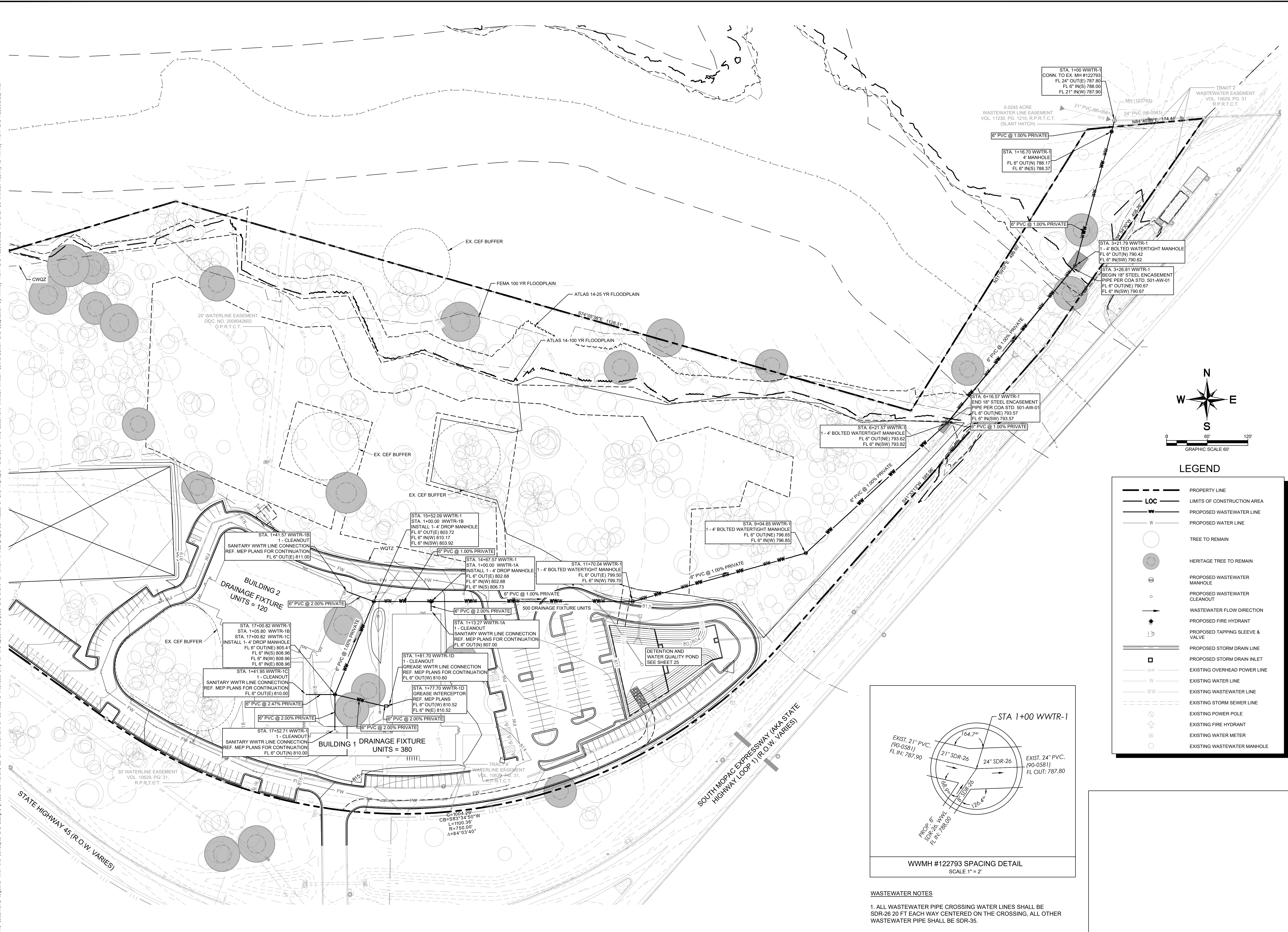


KHA PROJECT	068810605
DATE	JUNE 10, 2022
SCALE	AS SHOWN
DESIGNED BY:	CJP
DRAWN BY:	PTK
CHECKED BY:	CJP

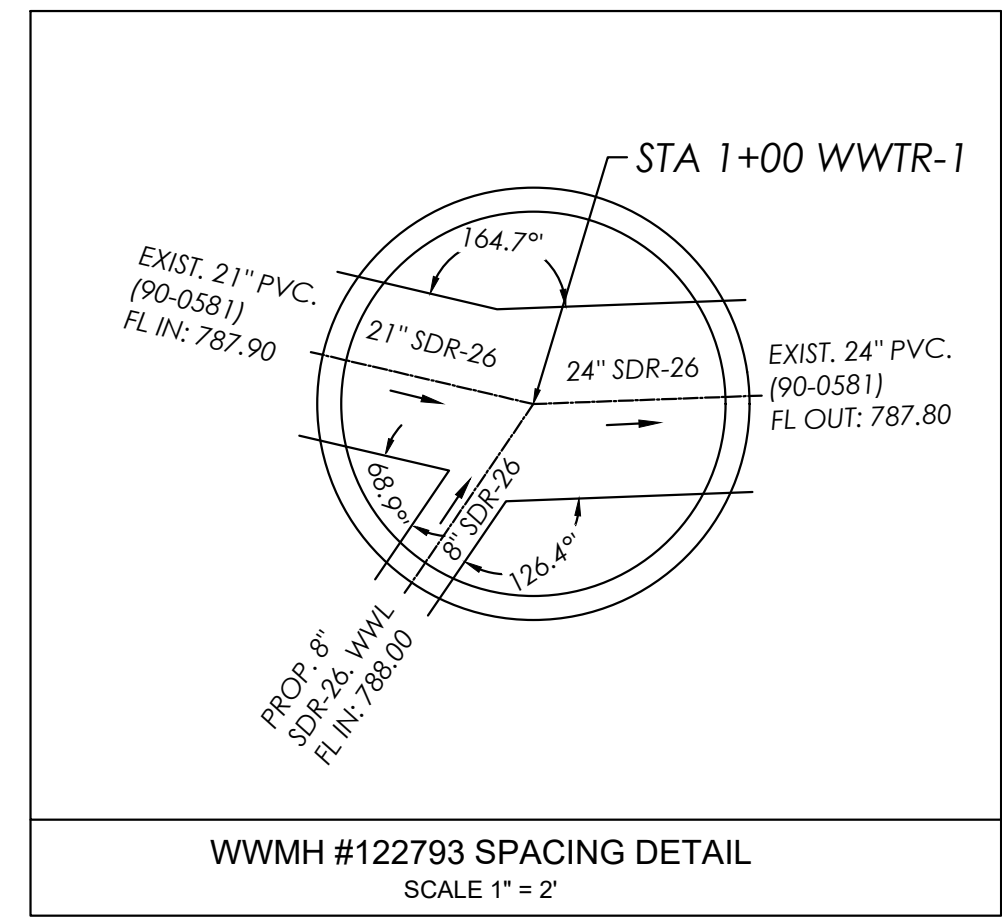
**PRIVATE WATER PLAN**  
**(SHEET 2 OF 2)**

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

Plotted By: MCDorrison, Serena Date: March 22, 2023 02:10:53 pm File Path: K:\sww\civil\068910605\valor\_southwest\068910605\_wastewater\Plan.dwg Wastewater Plan.dwg  
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LEGEND	
	PROPERTY LINE
	LIMITS OF CONSTRUCTION AREA
	PROPOSED WASTEWATER LINE
	PROPOSED WATER LINE
	TREE TO REMAIN
	HERITAGE TREE TO REMAIN
	PROPOSED WASTEWATER MANHOLE
	PROPOSED WASTEWATER CLEANOUT
	WASTEWATER FLOW DIRECTION
	PROPOSED FIRE HYDRANT
	PROPOSED TAPPING SLEEVE & VALVE
	PROPOSED STORM DRAIN INLET
	EXISTING OVERHEAD POWER LINE
	EXISTING WATER LINE
	EXISTING WASTEWATER LINE
	EXISTING STORM SEWER LINE
	EXISTING POWER POLE
	EXISTING FIRE HYDRANT
	EXISTING WATER METER
	EXISTING WASTEWATER MANHOLE

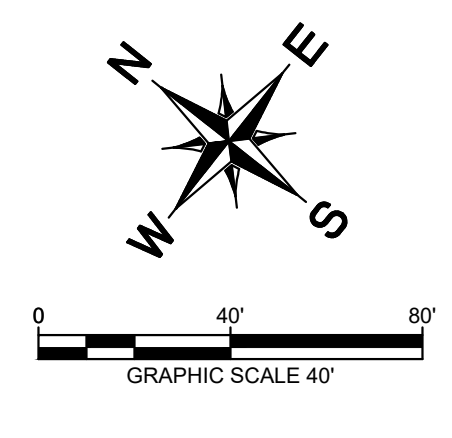
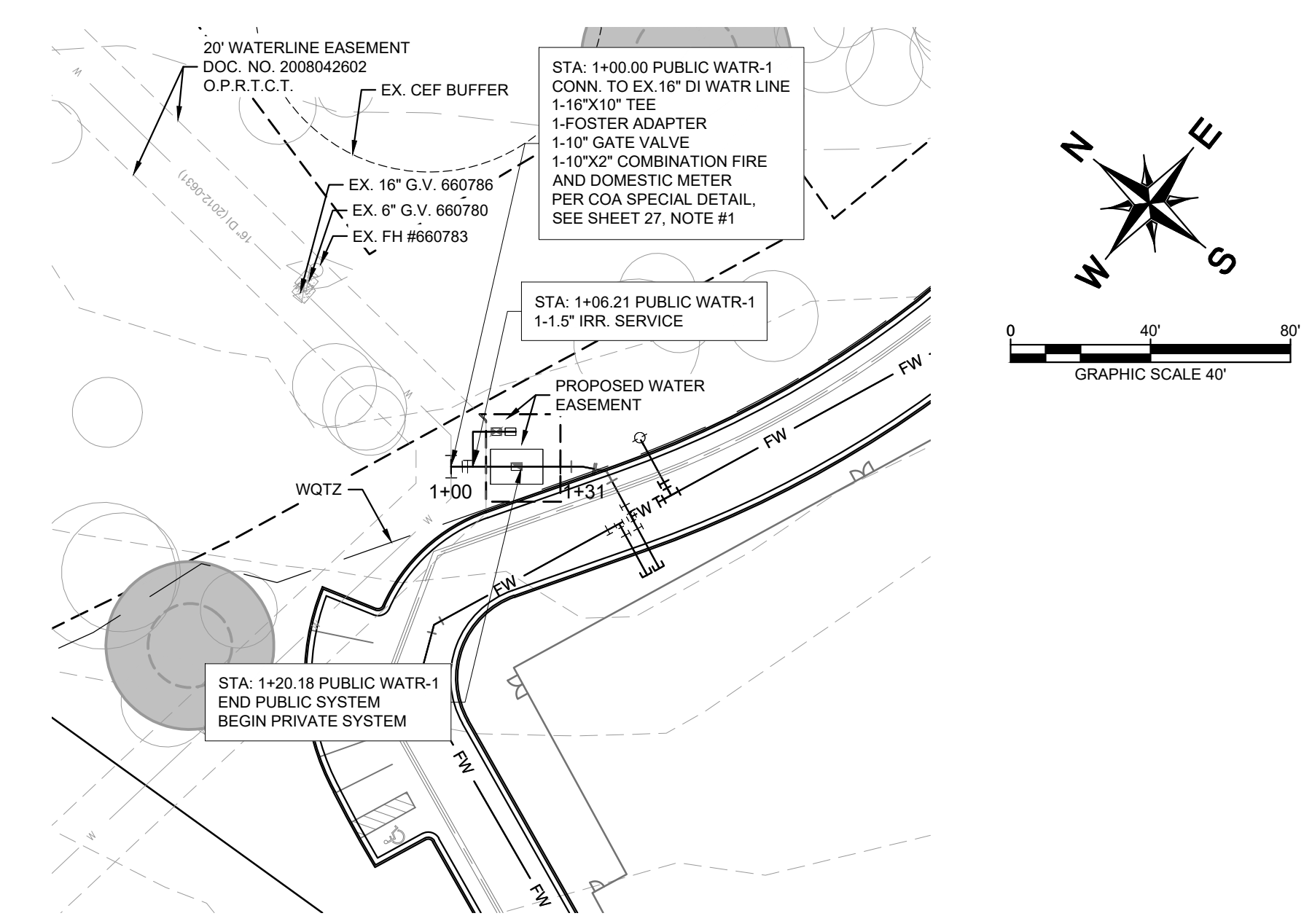
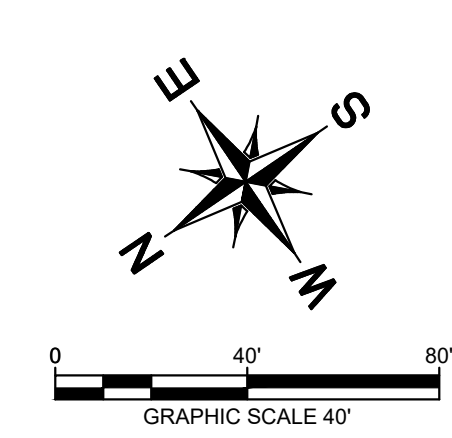
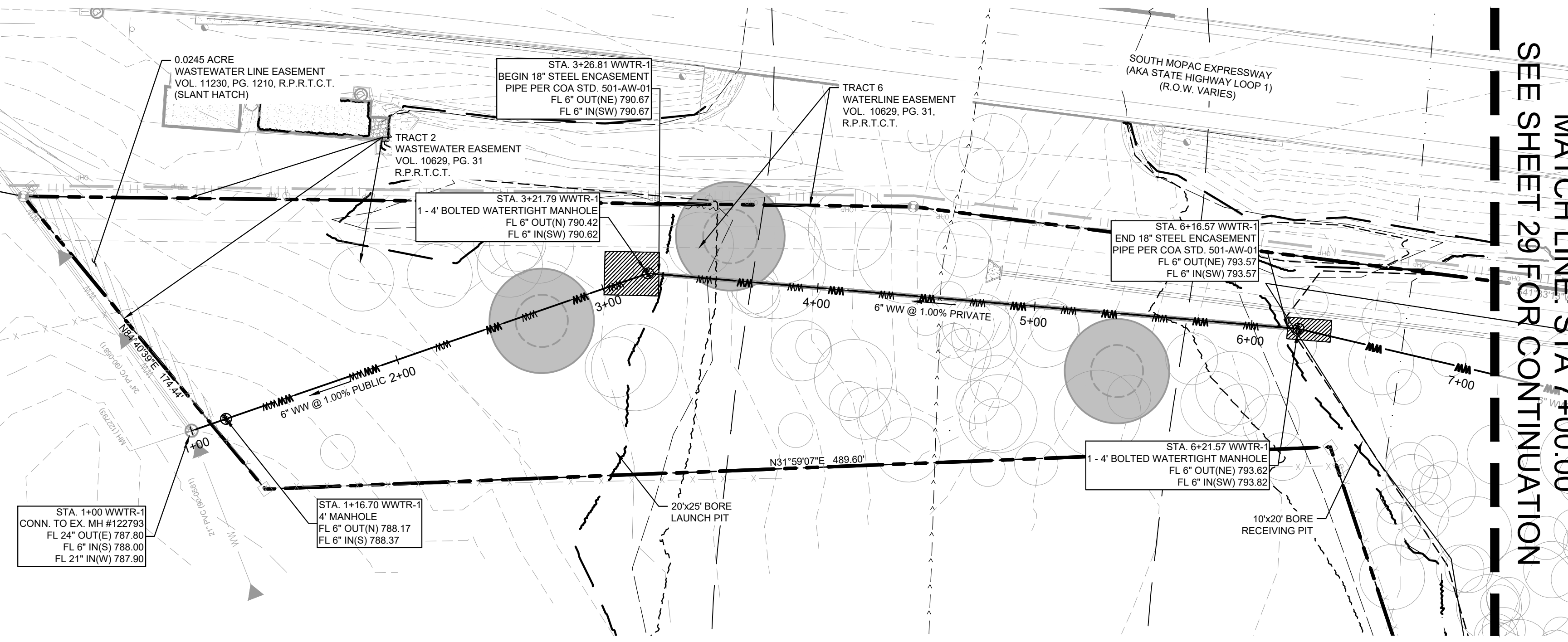


**WASTEWATER NOTES**  
 1. ALL WASTEWATER PIPE CROSSING WATER LINES SHALL BE SDR-26 20 FT EACH WAY CENTERED ON THE CROSSING. ALL OTHER WASTEWATER PIPE SHALL BE SDR-35.

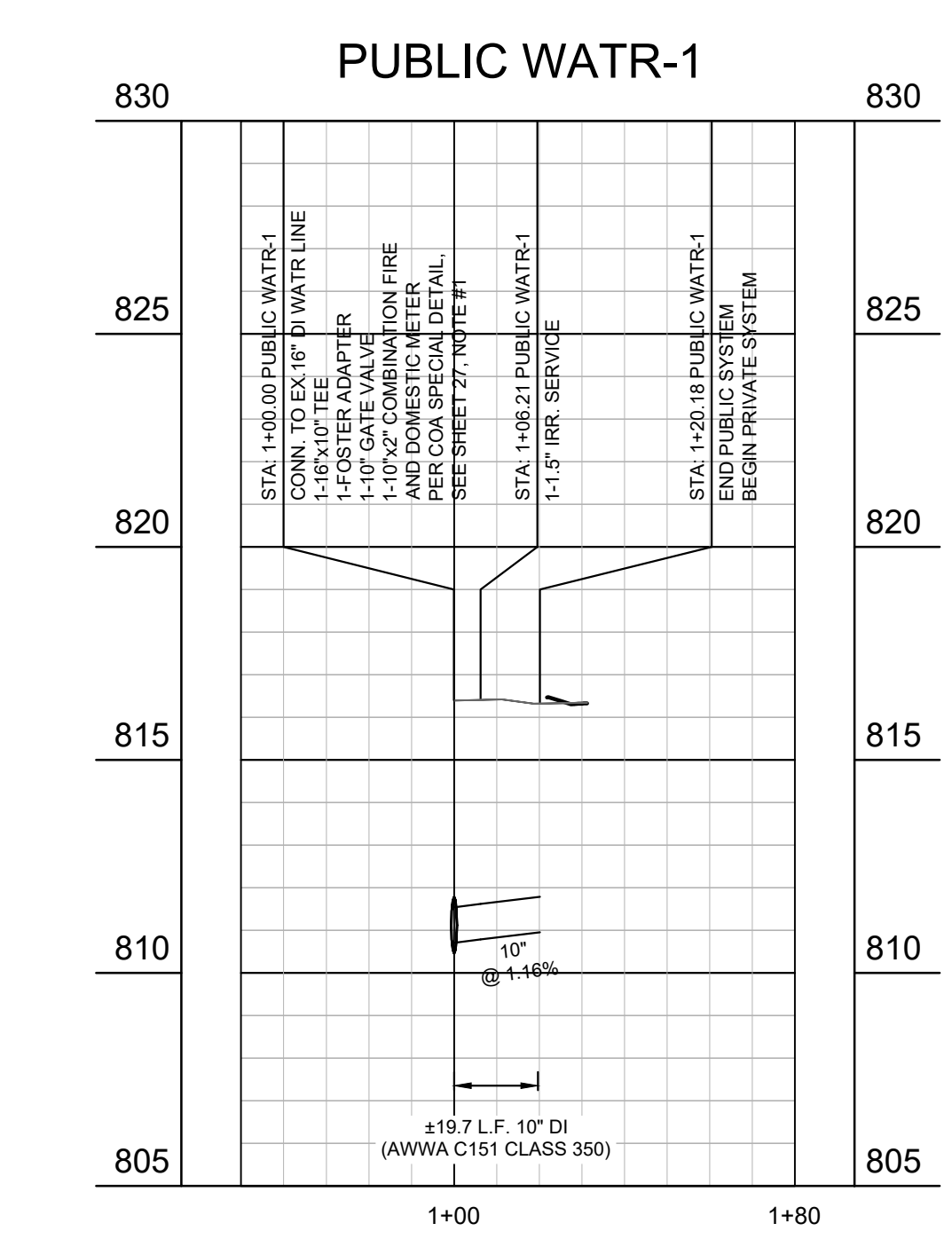
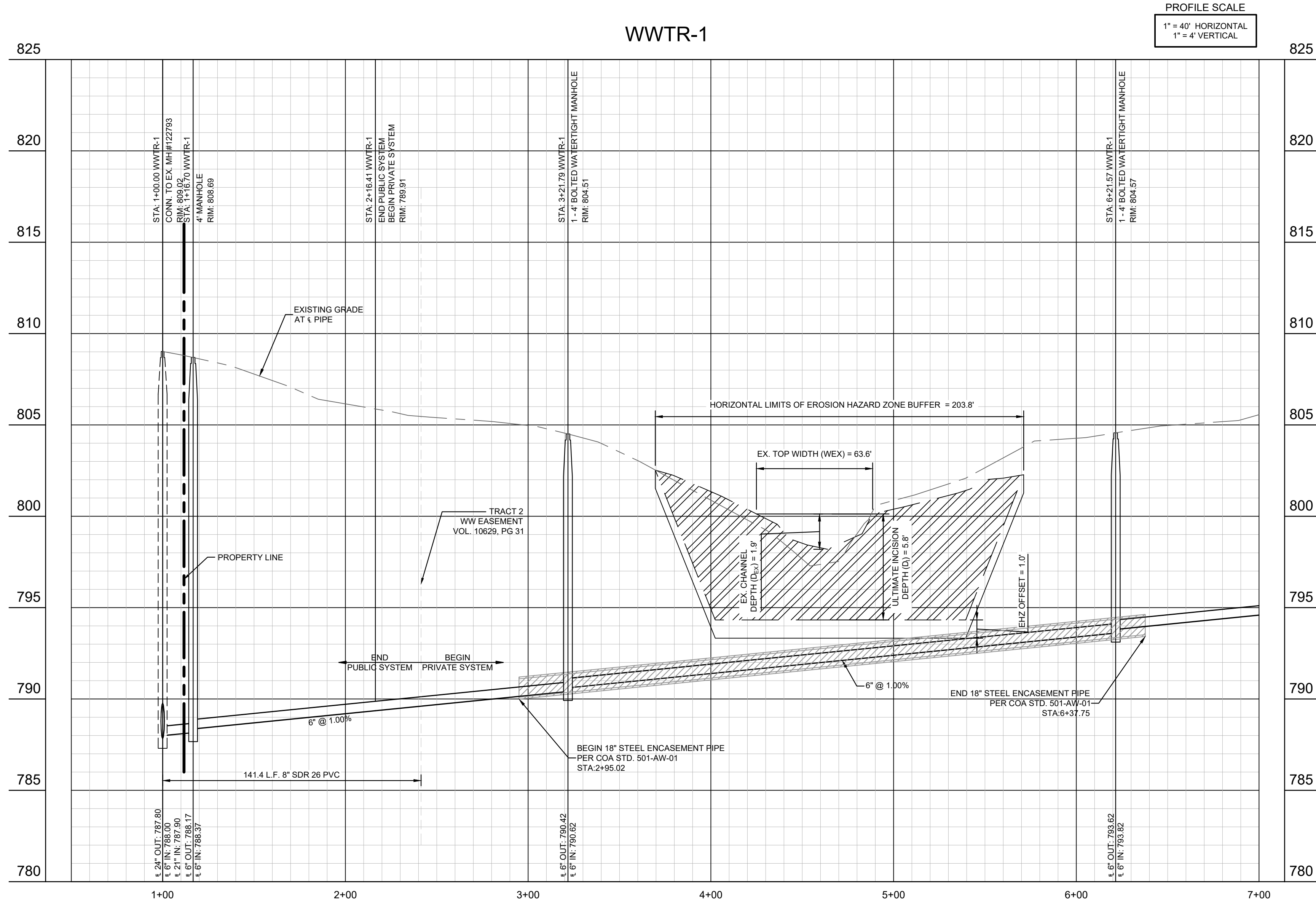
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	<b>WASTEWATER PLAN</b>	
	<b>VALOR SOUTHWEST</b> 11720 S MOPAC EXPY SB CITY OF AUSTIN TRAVIS COUNTY, TEXAS	
SHEET NUMBER <b>29 OF 50</b>		KHA PROJECT 068910605
DATE JUNE 10, 2022		SCALE: AS SHOWN 1" = 2'
DESIGNED BY: CJP DRAWN BY: PITK CHECKED BY: CJP		



Plotted By: McClintock, Serena Date: March 22, 2023 02:11:35pm File Path: K:\saw\_civil\068810605-wator\_southwest\_Coast\plan\_sheets\VC - Utility Profiles.dwg  
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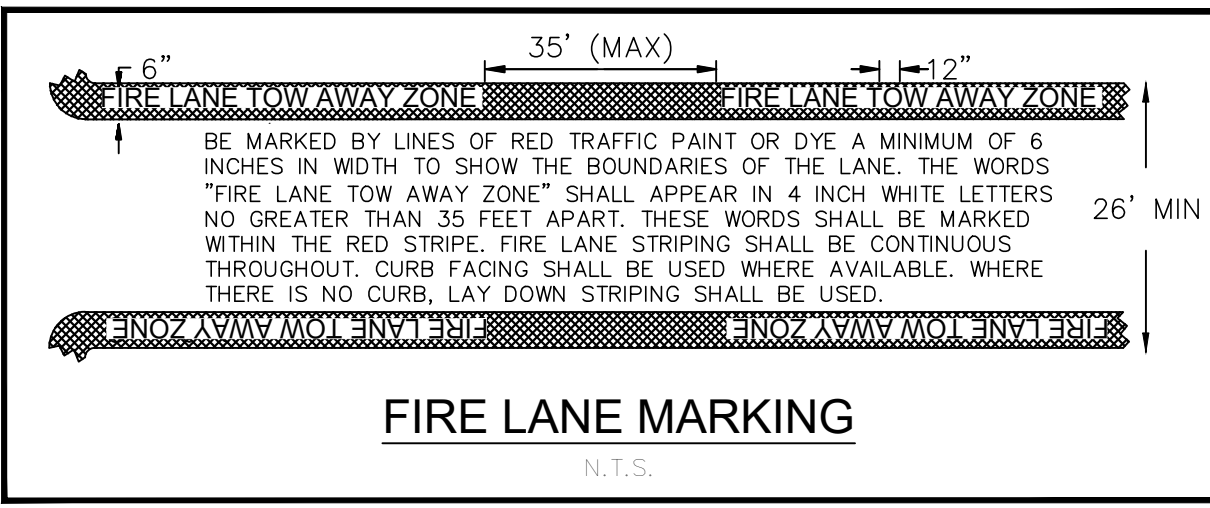
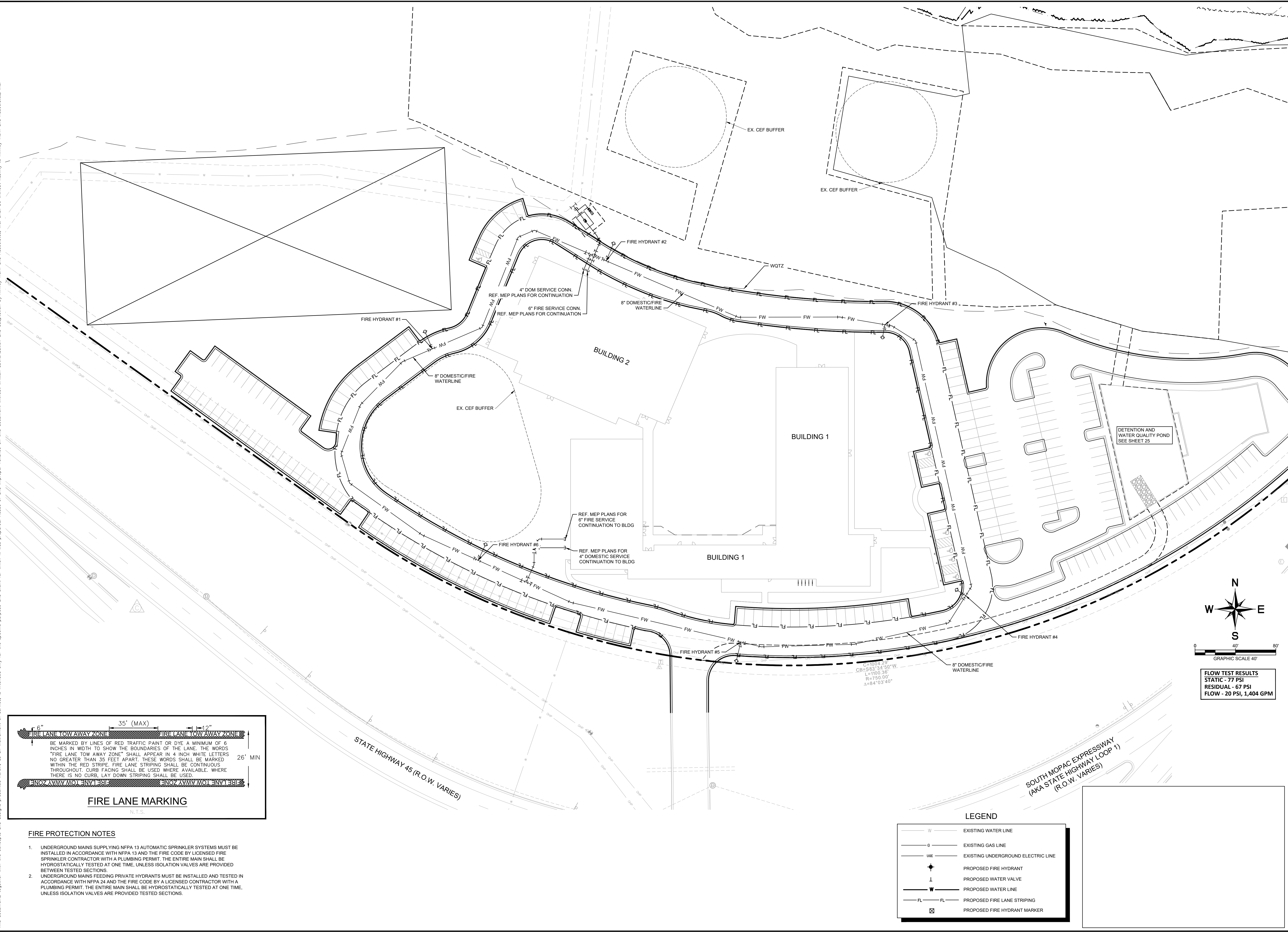
**MATCH LINE: STA 7+00.00**  
**SEE SHEET 29 FOR CONTINUATION**



**WASTEWATER NOTES**  
 1. ALL WASTEWATER PIPE CROSSING WATER LINES SHALL BE SDR-26 20 FT EACH WAY CENTERED ON THE CROSSING. ALL OTHER WASTEWATER PIPE SHALL BE SDR-35.

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<b>UTILITY PLAN AND PROFILE</b>	
<b>VALOR SOUTHWEST</b> 11720 S MOPAC EXPY SB CITY OF AUSTIN TRAVIS COUNTY, TEXAS	
SHEET NUMBER <b>30 OF 50</b>	

Plotted: E:\McClintock\_Sereno - Date: March 22, 2023 02:12:13pm File Path: K:\user\civil\068810605\valor\_southwest\02\volansheets\c - Fire Protection Plan.dwg  
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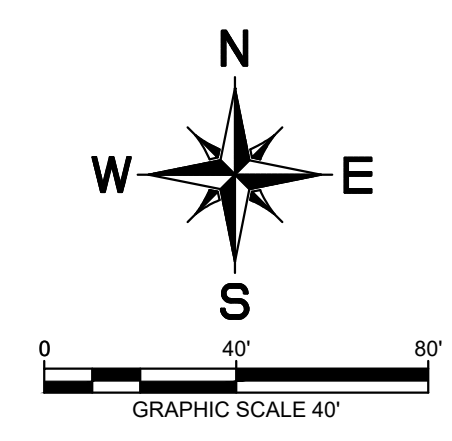
**FIRE LANE MARKING**  
N.T.S.

**FIRE PROTECTION NOTES**

- UNDERGROUND MAINS SUPPLYING NFPA 13 AUTOMATIC SPRINKLER SYSTEMS MUST BE INSTALLED IN ACCORDANCE WITH NFPA 13 AND THE FIRE CODE BY LICENSED FIRE SPRINKLER CONTRACTOR WITH A PLUMBING PERMIT. THE ENTIRE MAIN SHALL BE HYDROSTATICALLY TESTED AT ONE TIME, UNLESS ISOLATION VALVES ARE PROVIDED BETWEEN TESTED SECTIONS.
- UNDERGROUND MAINS FEEDING PRIVATE HYDRANTS MUST BE INSTALLED AND TESTED IN ACCORDANCE WITH NFPA 24 AND THE FIRE CODE BY A LICENSED CONTRACTOR WITH A PLUMBING PERMIT. THE ENTIRE MAIN SHALL BE HYDROSTATICALLY TESTED AT ONE TIME, UNLESS ISOLATION VALVES ARE PROVIDED TESTED SECTIONS.

**LEGEND**

— W —	EXISTING WATER LINE
— G —	EXISTING GAS LINE
— UE —	EXISTING UNDERGROUND ELECTRIC LINE
◆	PROPOSED FIRE HYDRANT
⊥	PROPOSED WATER VALVE
— W —	PROPOSED WATER LINE
— FL —	PROPOSED FIRE LANE STRIPING
⊠	PROPOSED FIRE HYDRANT MARKER



**FLOW TEST RESULTS**  
 STATIC - 77 PSI  
 RESIDUAL - 67 PSI  
 FLOW - 20 PSI, 1,404 GPM

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02/17/2023

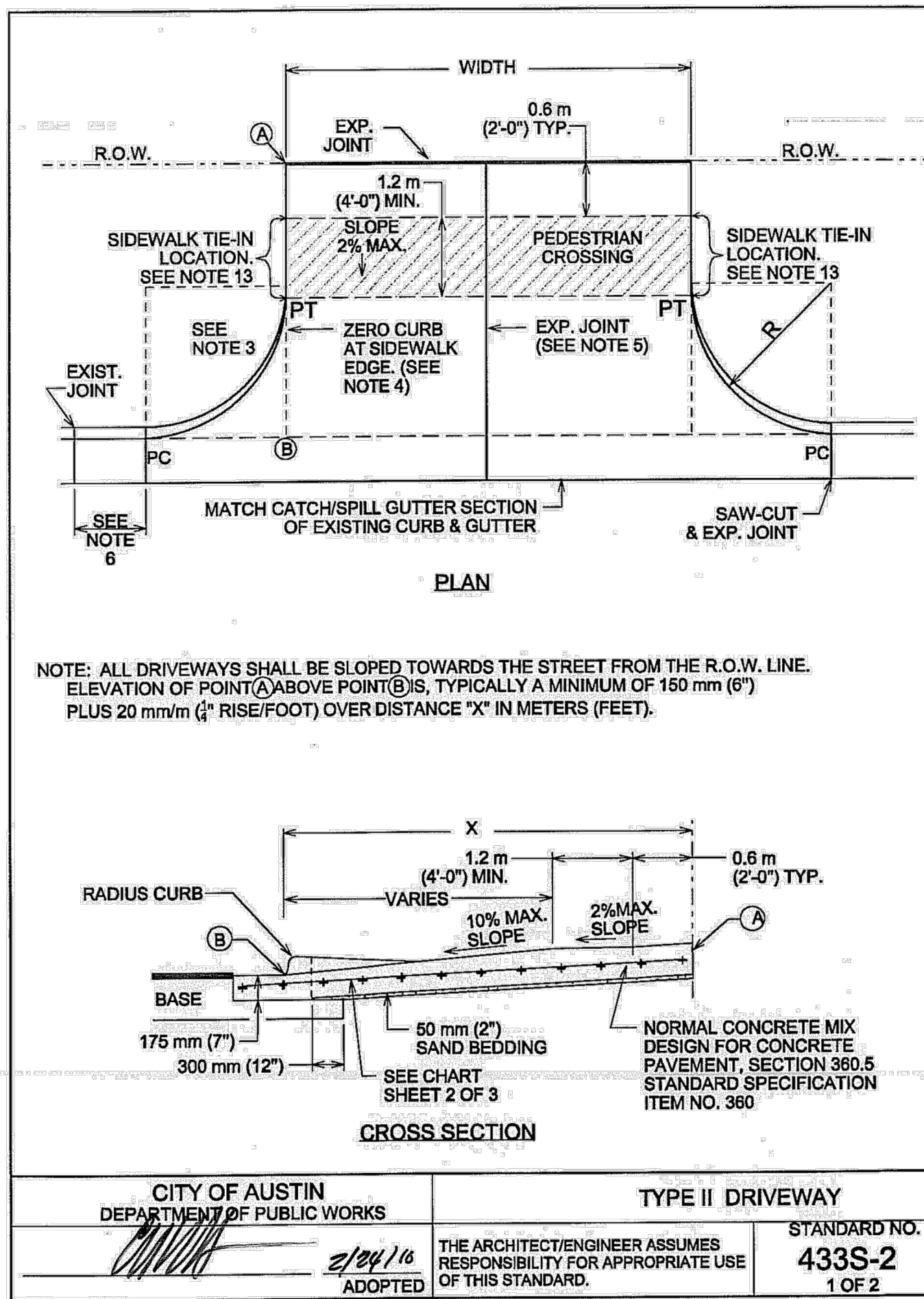
KHA PROJECT	068910605
DATE	JUNE 10, 2022
SCALE	AS SHOWN
DESIGNED BY:	CJP
DRAWN BY:	PTK
CHECKED BY:	CJP

**FIRE PROTECTION PLAN**

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

SHEET NUMBER  
**31 OF 50**

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USE	THICKNESS	REINFORCEMENT
DRIVEWAYS FOR PASSENGER VEHICLE PARKING LOTS	150 mm (6") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF 13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS
ALL OTHERS	175 mm (7") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF 13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS

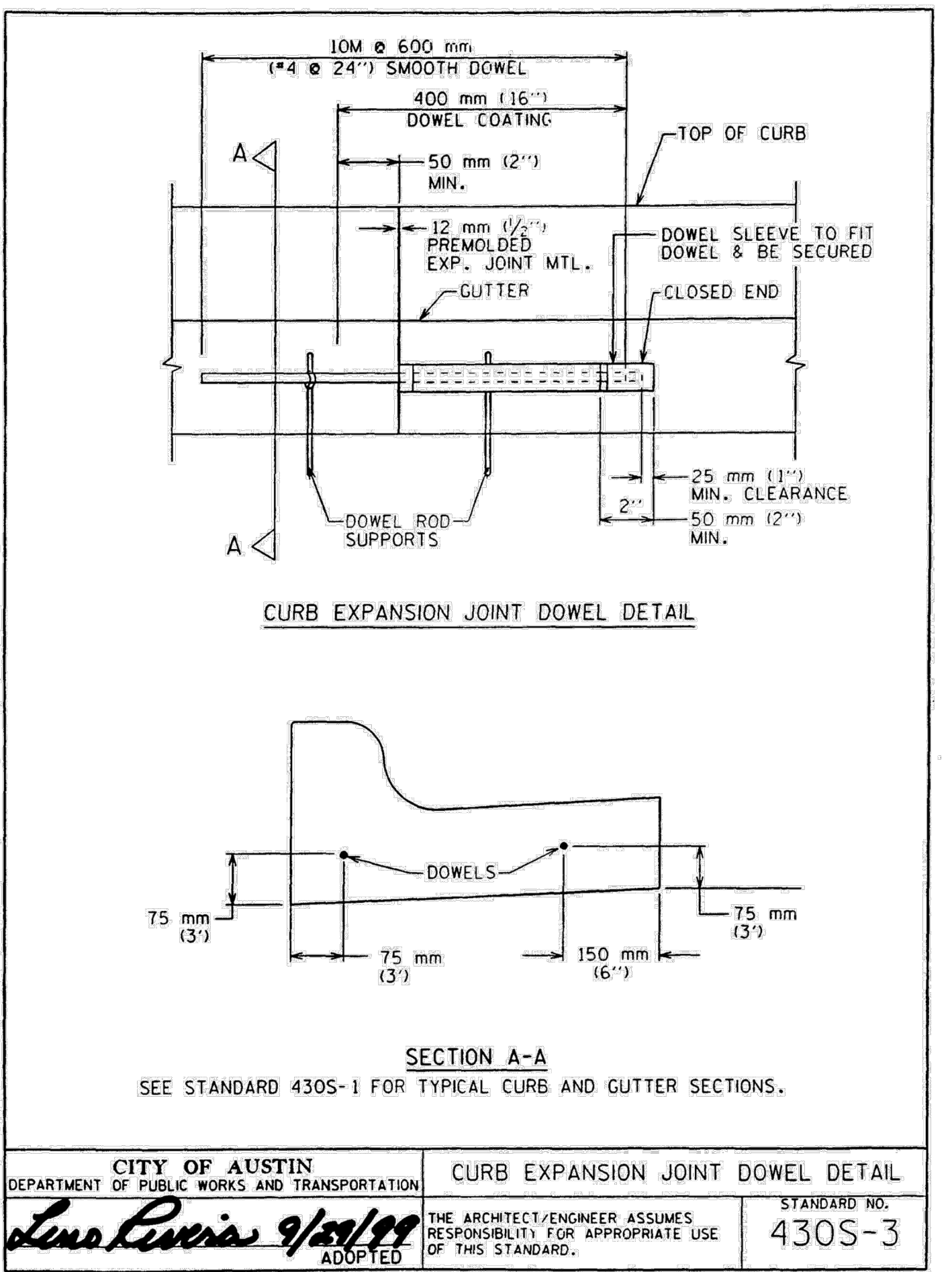
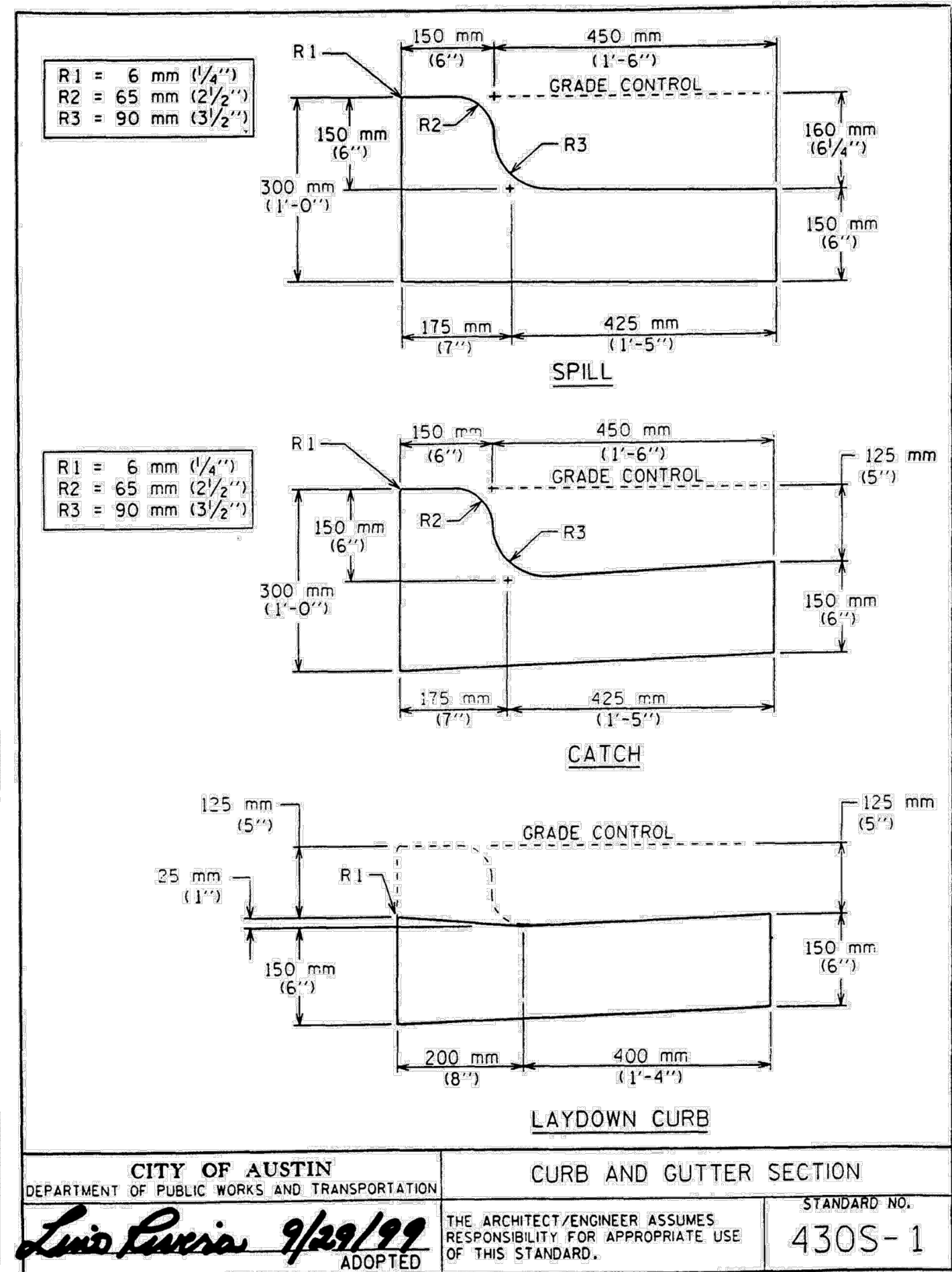
  

DRIVEWAY VOLUME (ADT)	D=GRADE CHANGE
>1500	STD. 0% 3%
600-1500	3% 6%
<600	6% 15%

**ALLOWABLE GRADES**

NOTES:

- ALL TYPE II DRIVEWAYS SHALL HAVE RADIUS ENDS.
- DRIVEWAY WIDTHS AND RADIUS DIMENSIONS, ONE/TWO WAY TRAVEL REQUIREMENTS, AND GEOMETRIC LAY-OUT ARE HIGHLY VARIABLE. SUBJECT TO SITE SPECIFIC CONDITIONS AND REQUIREMENTS. SEE TRANSPORTATION CRITERIA MANUAL, SECTION 5 "DRIVEWAYS".
- THE DRIVEWAY EDGE SHALL BE SMOOTHLY TRANSITIONED INTO THE SIDEWALK TIE-IN LOCATION BEGINNING AT THE RADIUS PC LINE.
- "ZERO" CURB AT PT OR SIDEWALK EDGE, WHICHEVER IS ENCOUNTERED FIRST.
- PLACE AN EXPANSION JOINT DOWN THE CENTER OF DRIVEWAY ALL DRIVEWAYS.
- IF DIMENSION IS LESS THAN 1.5 METERS (5 FEET), REMOVE CURB AND GUTTER TO EXISTING JOINT AND POUR MONOLITHICALLY WITH DRIVEWAY.
- IF THE BASE IS OVER EXCAVATED WHERE THE CURB AND GUTTER WERE REMOVED, BACKFILL WITH CONCRETE MONOLITHICALLY WITH THE DRIVEWAY.
- TYPE II DRIVEWAYS ARE TO BE LOCATED NO CLOSER TO THE CORNER OF INTERSECTING RIGHT OF WAY THAN 65% OF PARCEL FRONTAGE AT 30 METERS (100 FEET); WHICHEVER IS LESS.
- DRIVEWAY SHALL NOT BE CONSTRUCTED WITHIN THE CURB RETURN OF A STREET INTERSECTION.
- WHILE THE PROPERTY OWNER REMAINS RESPONSIBLE FOR GRADE BREAKS WITHIN PRIVATE PROPERTY, THE FIRE DEPARTMENT SHALL BE CONSULTED WHERE THE DRIVEWAY IS ESSENTIAL TO EMERGENCY VEHICLE ACCESS AND "G2 IS GREATER THAN 15%".
- USE 12 MM (1/2") ASPHALT BOARD OR OTHER APPROVED MATERIAL FOR CURB AND GUTTER EXPANSION JOINTS, SIDEWALK, AT THE R.O.W. LINE AND AT MIDWIDTH, SEE NOTE 8.
- SEE TRANSPORTATION CRITERIA MANUAL, SECTION 5 FOR OTHER DRIVEWAY REQUIREMENTS.
- THE SIDEWALK, REGARDLESS OF ITS LOCATION WITH RESPECT TO THE CURB OR PROPERTY LINE, SHALL BE CONNECTED TO THE DRIVEWAY AT THESE LOCATIONS.
- WATER METER BOXES AND WASTEWATER CLEAN OUTS ARE PROHIBITED FROM BEING LOCATED IN DRIVEWAY AREAS.



CITY OF AUSTIN  
DEPARTMENT OF PUBLIC WORKS

TYPE II DRIVEWAY

STANDARD NO. 433S-2  
1 OF 2

2/24/16 ADOPTED

CITY OF AUSTIN  
DEPARTMENT OF PUBLIC WORKS

TYPE II DRIVEWAY

STANDARD NO. 433S-2  
2 OF 2

2/24/16 ADOPTED

CITY OF AUSTIN  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION

CURB AND GUTTER SECTION

STANDARD NO. 430S-1

Luís Rivera 9/29/99 ADOPTED

CITY OF AUSTIN  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION

CURB EXPANSION JOINT DOWEL DETAIL

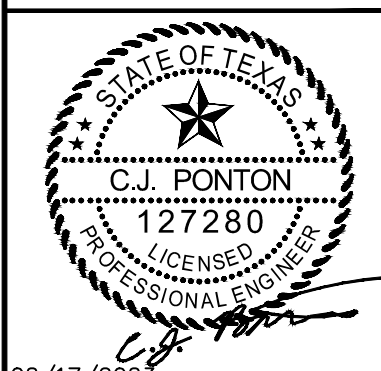
STANDARD NO. 430S-3

Luís Rivera 9/29/99 ADOPTED

NO.	REVISIONS	DATE	BY

**Kimley-Horn**

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KHA PROJECT	068910605
DATE	JUNE 10, 2022
SCALE	AS SHOWN
DESIGNED BY:	CJP
DRAWN BY:	PTK
CHECKED BY:	CJP

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

**PAVING DETAILS**

SHEET NUMBER  
**32 OF 50**

SP-2022-0296CE

Plotted By: McClornin, Serena Date: March 22, 2023 02:13:07pm File Path: K:\\_saw\_civil\068910605-vator\_southwest\Coord\plansheets\VC - Storm Drain Details.dwg  
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RISER	
A	WEIGHT
1'-0"	1.915#
1'-6"	1.664#
2'-0"	2.959#
3'-0"	3.254#

<b>FORTERRA</b>	REGION STATE NORTH TX	GRATE INLET - GALVANIZED 3'-0" x 3'-0"
DATE: 2018	SECT PAGE: 1.4.2	

RISER	
A	WEIGHT
1'-0"	1.915#
1'-6"	1.664#
2'-0"	2.959#
3'-0"	3.254#

<b>FORTERRA</b>	REGION STATE NORTH TX	WYE INLET 3'-0" x 3'-0"
DATE: 2018	SECT PAGE: 1.4.3	

RISER	
A	WEIGHT
1'-0"	1.915#
1'-6"	1.664#
2'-0"	2.959#
3'-0"	3.254#

<b>FORTERRA</b>	REGION STATE NORTH TX	WYE INLET 4'-0" x 4'-0"
DATE: 2018	SECT PAGE: 1.4.13	

<b>FORTERRA</b>	REGION STATE NORTH TX	STANDARD HEADWALL AND ENERGY DISSIPATORS
DATE: 2018	SECT PAGE: 1.4.13	

<b>FORTERRA</b>	REGION STATE NORTH TX	STANDARD HEADWALL AND ENERGY DISSIPATORS
DATE: 2018	SECT PAGE: 1.4.13	

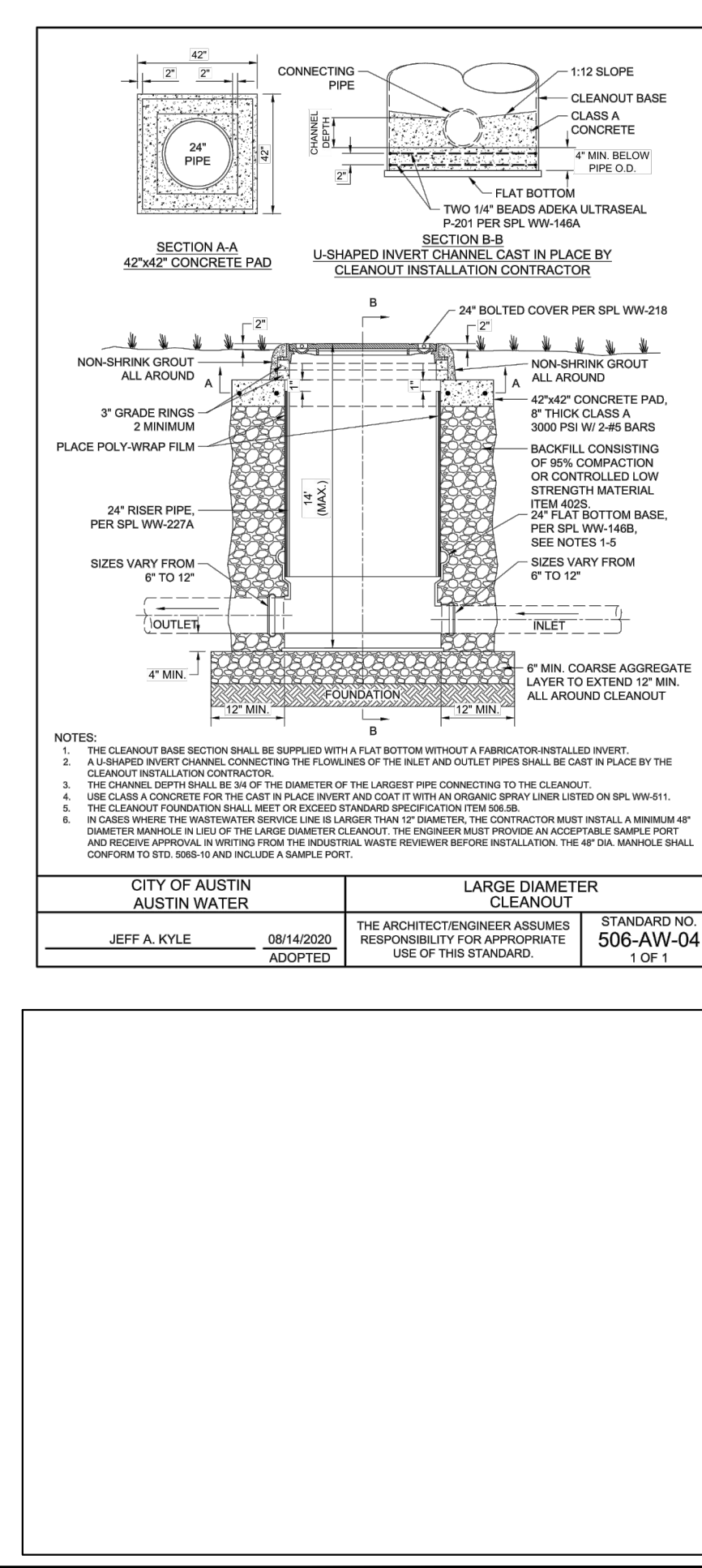
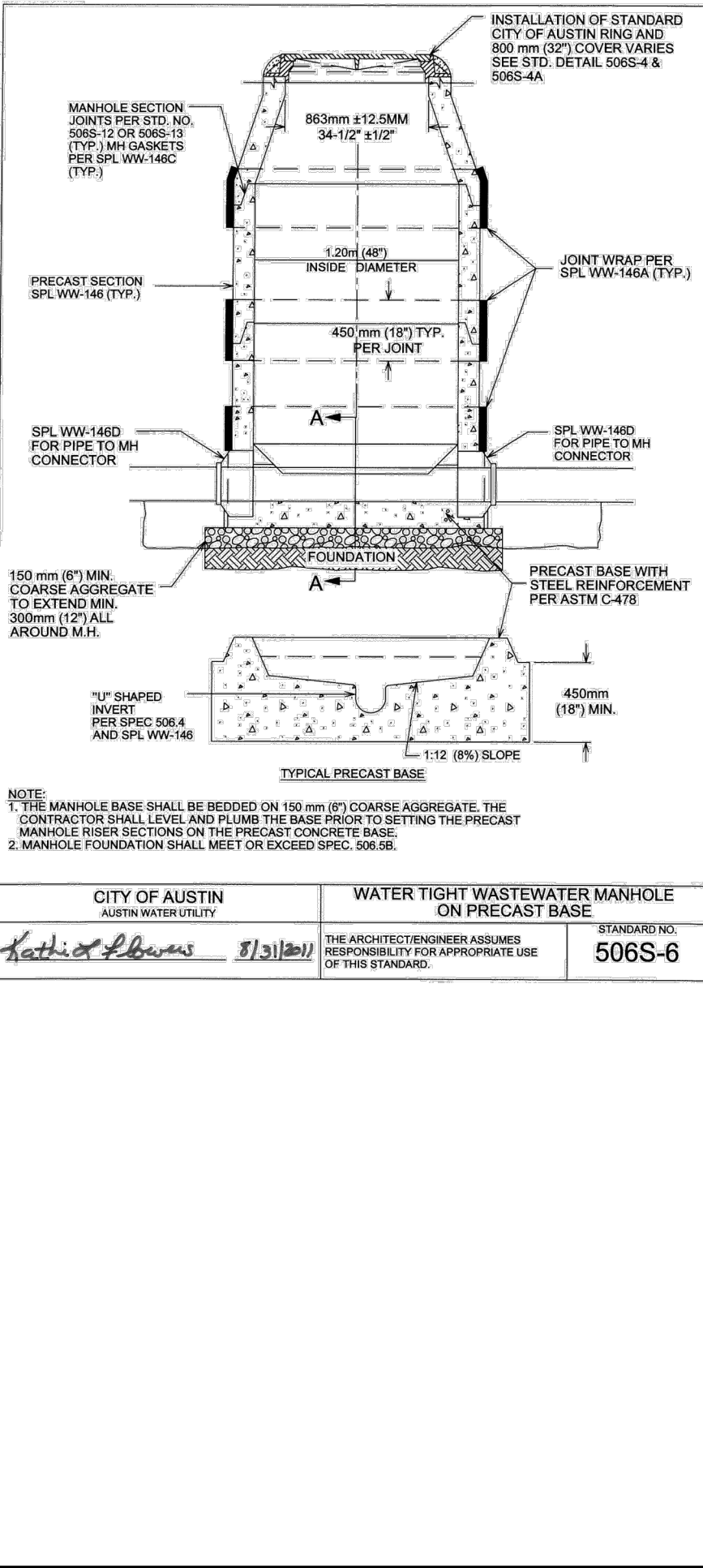
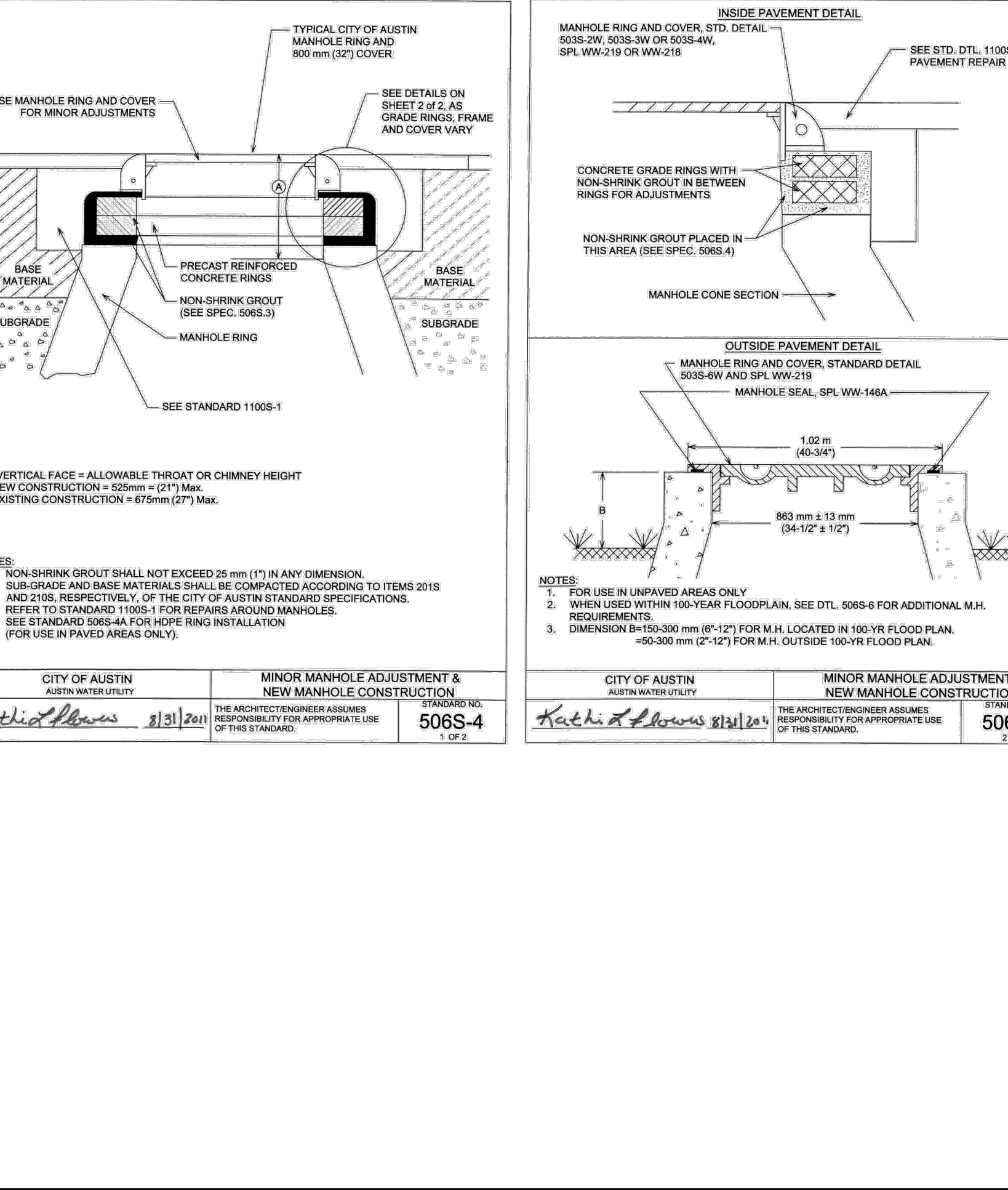
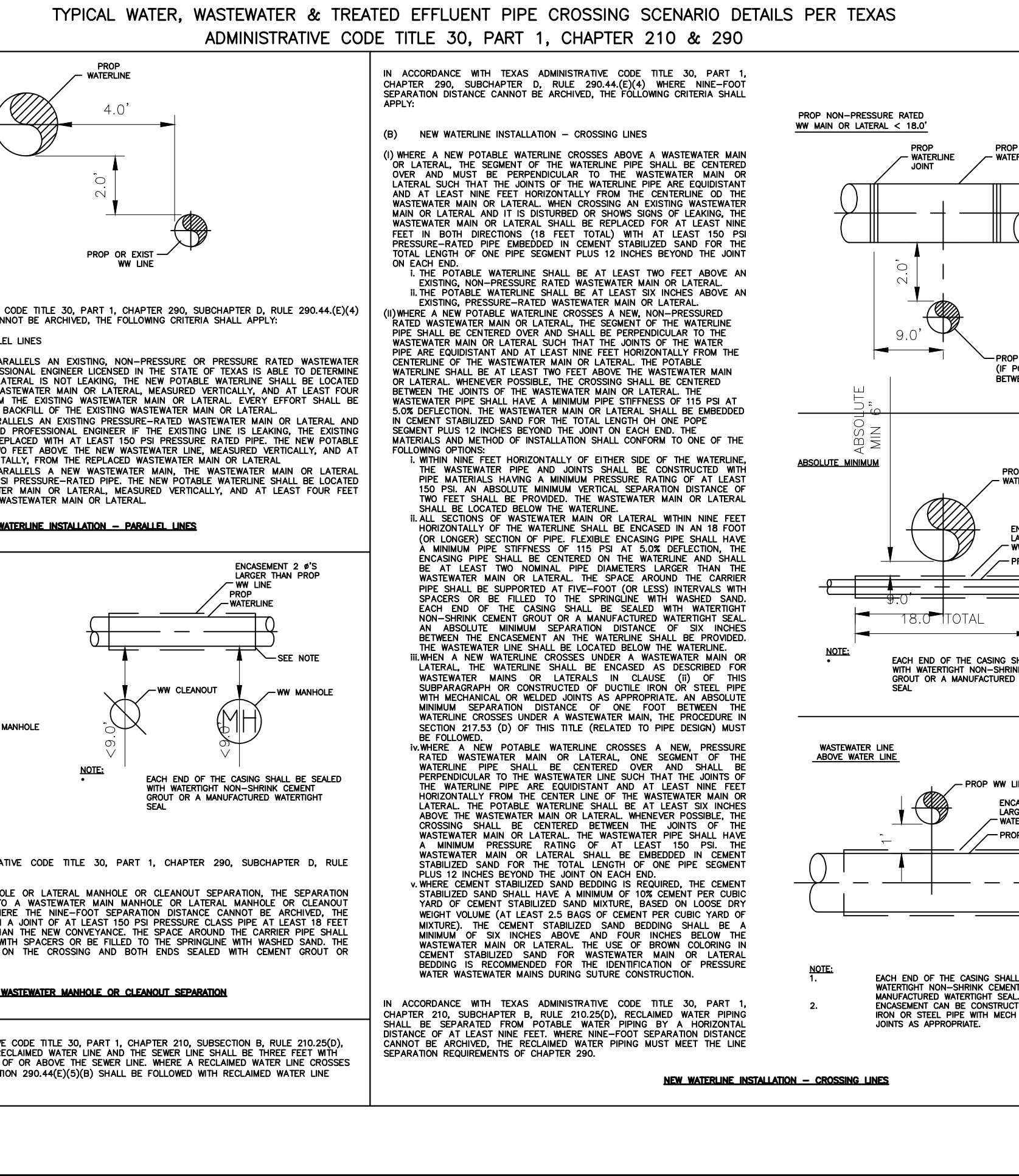
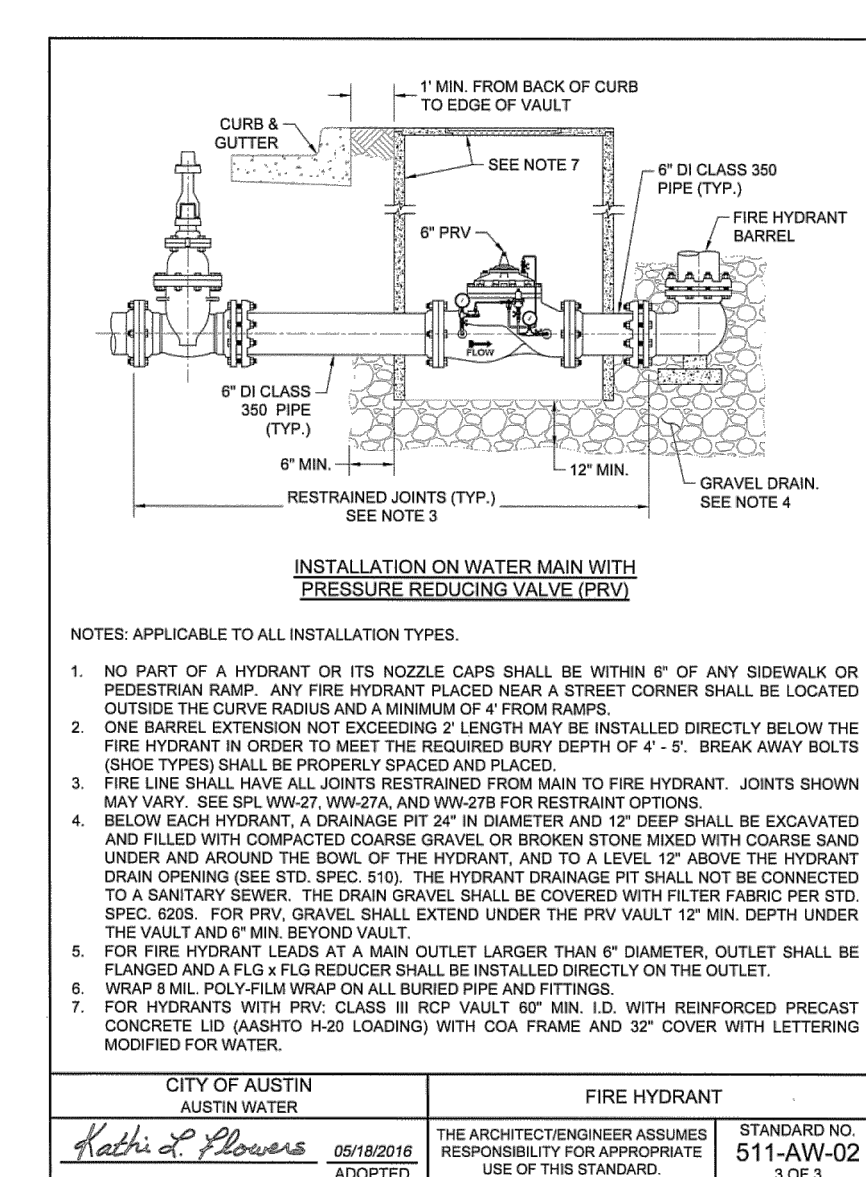
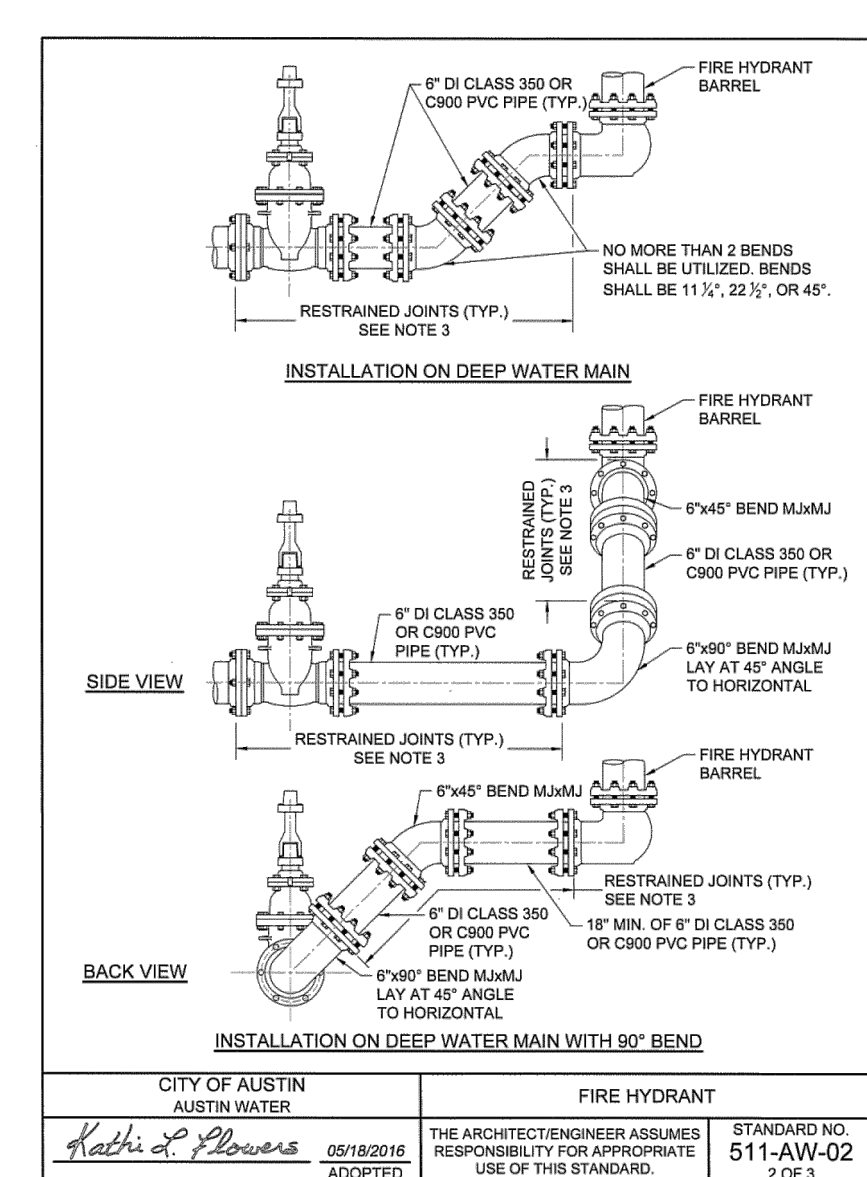
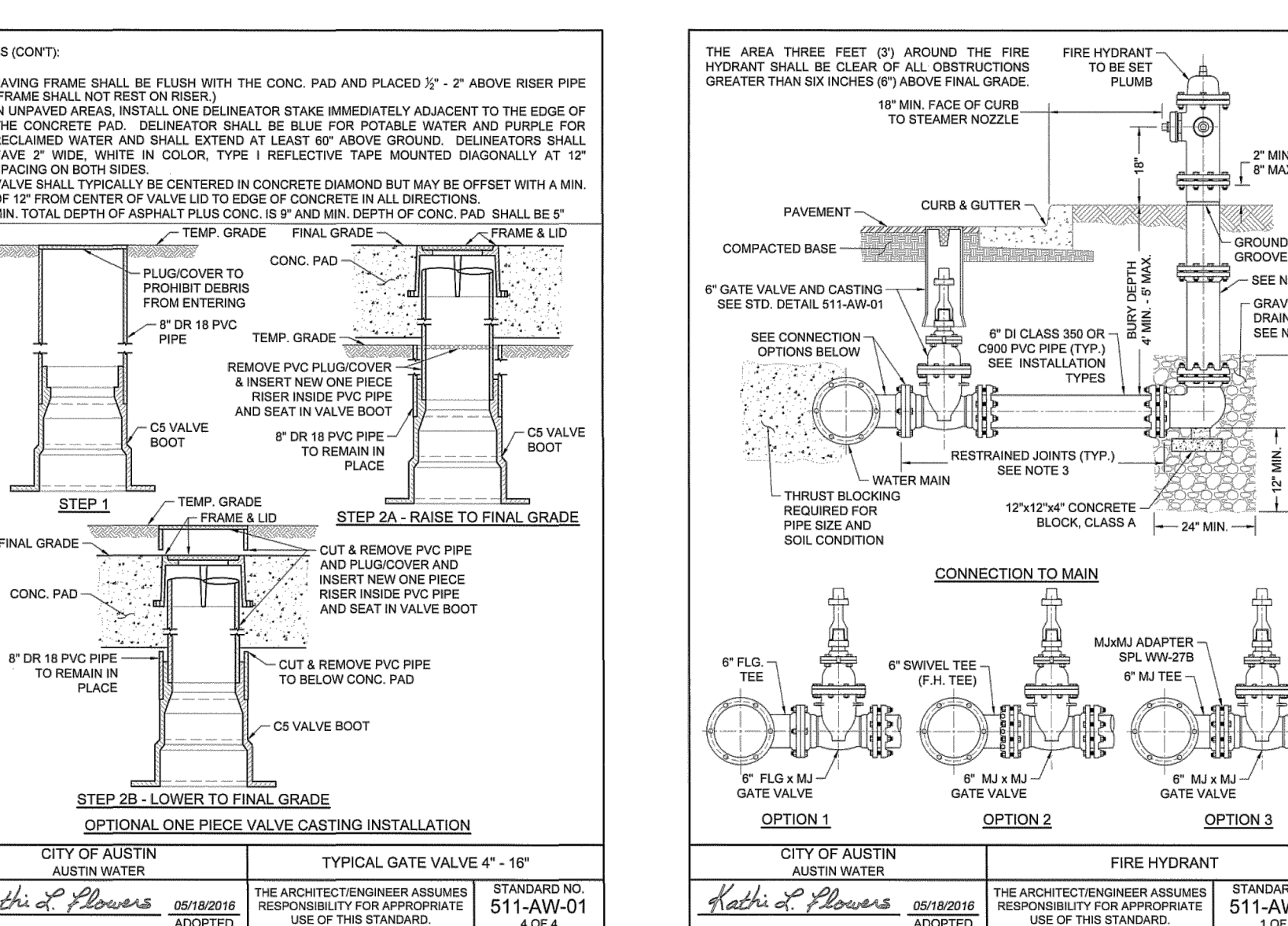
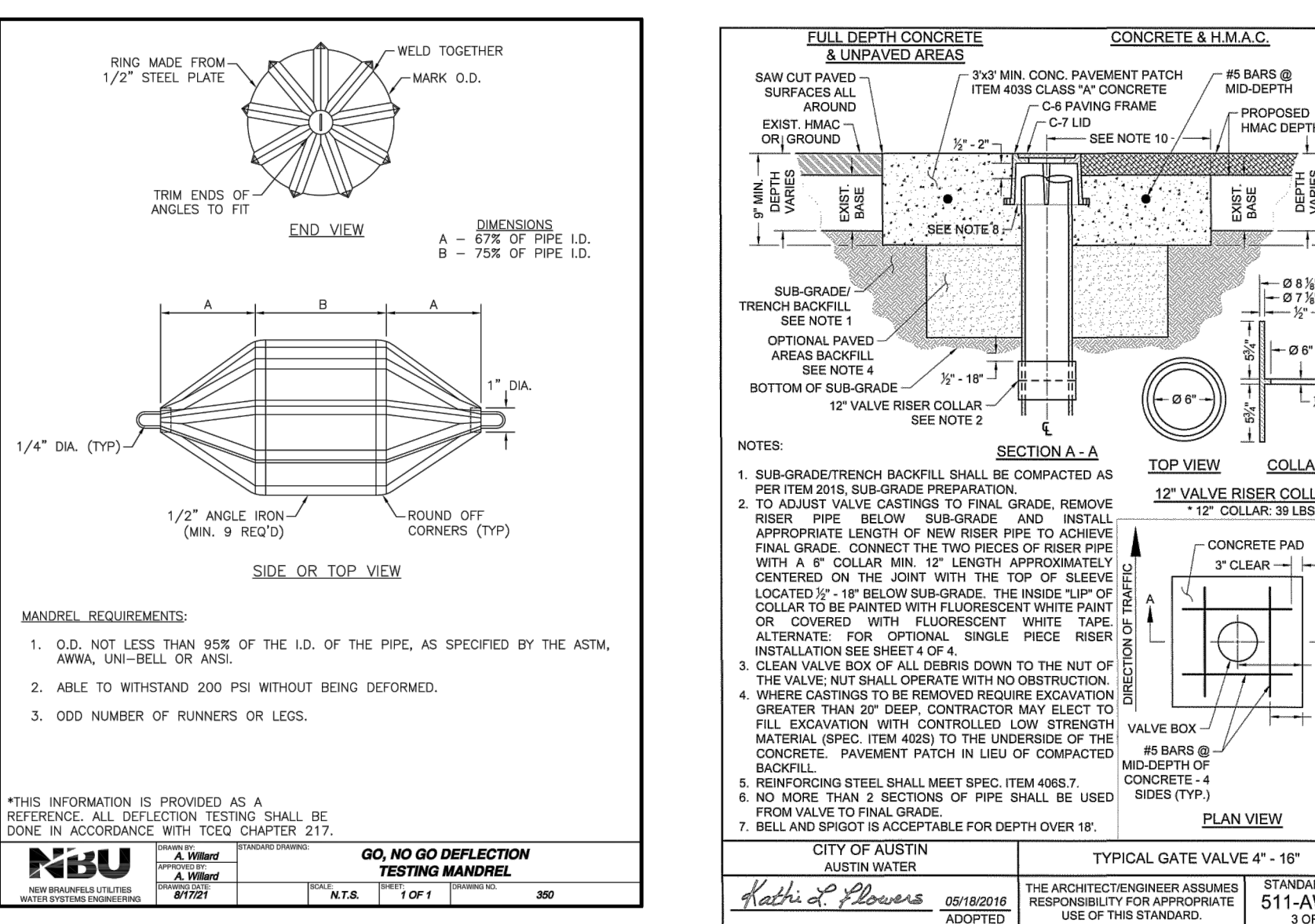
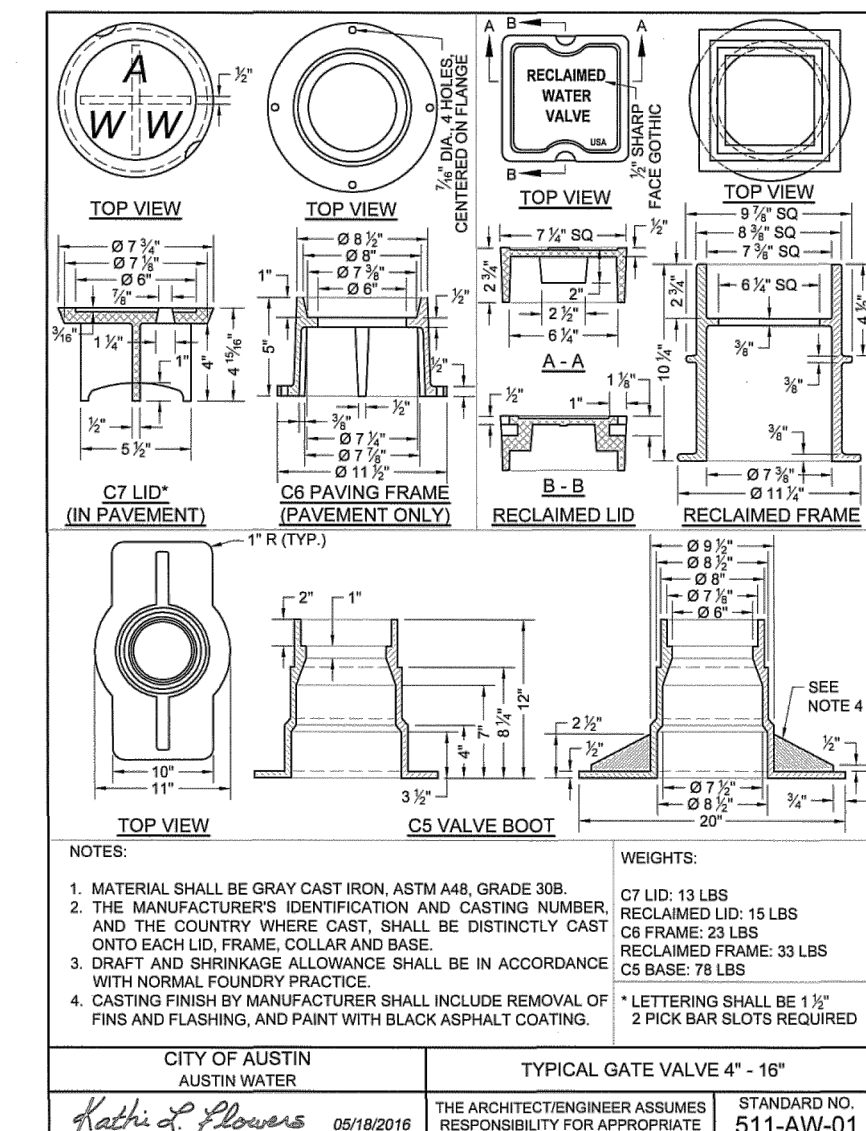
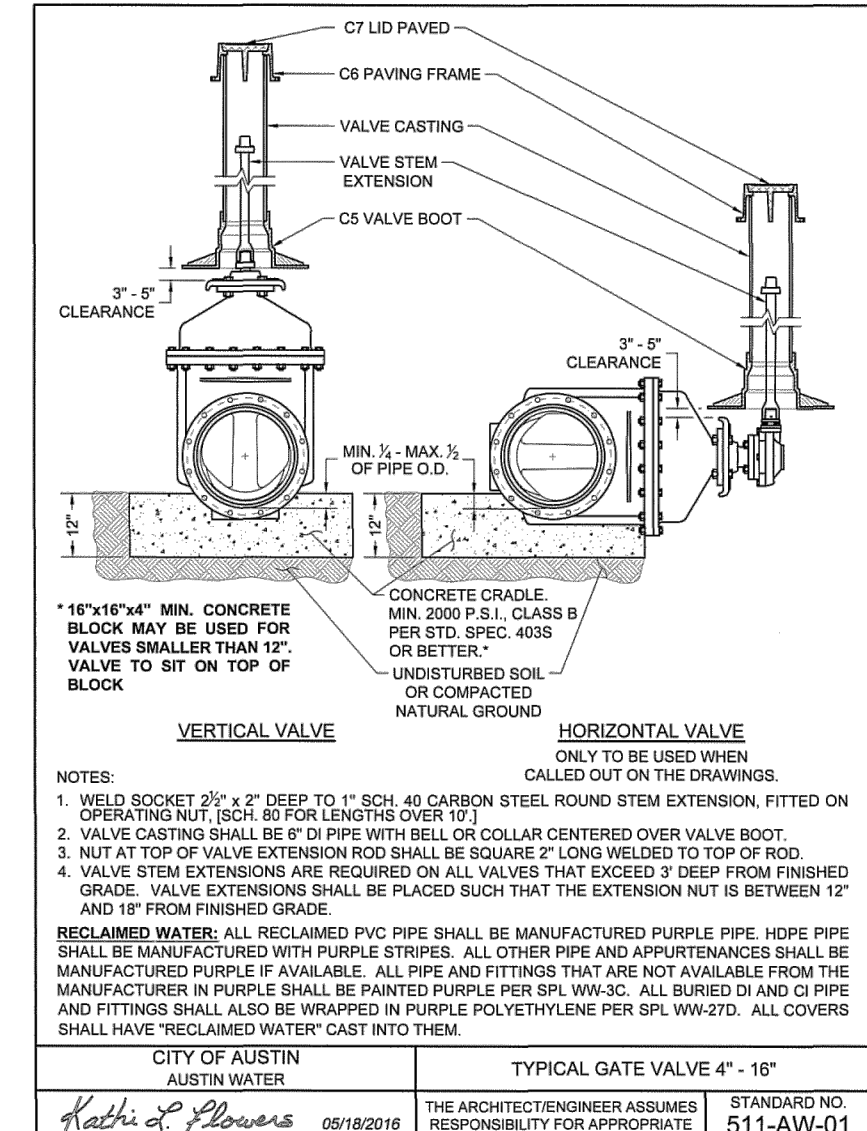
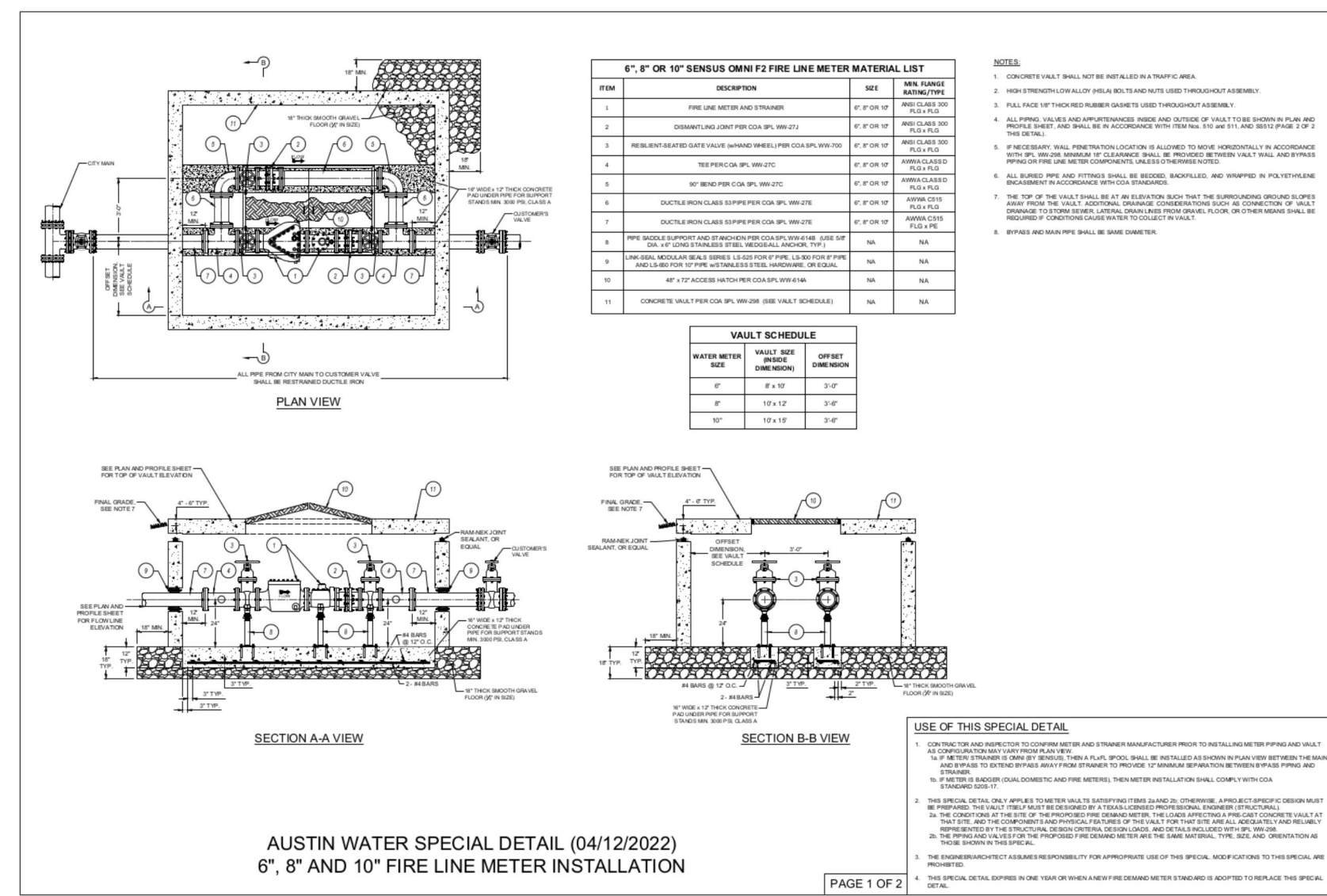
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150 mm (6")	457 mm (18")	225 mm (9")	150 mm (6")	229 mm (9")	137 mm (5.4")	300 mm (12")
200 mm (8")	533 mm (21")	250 mm (10")	175 mm (7")	267 mm (10.5")	160 mm (6.3")	350 mm (14")
300 mm (12")	610 mm (24")	300 mm (12")	200 mm (8")	305 mm (12")	183 mm (7.2")	400 mm (16")
450 mm (18")	685 mm (27")	350 mm (14")	225 mm (9")	343 mm (13.5")	206 mm (8.1")	450 mm (18")
600 mm (24")	765 mm (30")	400 mm (16")	250 mm (10")	381 mm (15")	229 mm (9")	500 mm (20")
750 mm (30")	838 mm (33")	450 mm (18")	275 mm (11")	419 mm (16.5")	251 mm (9.9")	550 mm (22")
900 mm (36")	914 mm (36")	500 mm (20")	300 mm (12")	457 mm (18")	274 mm (10.8")	600 mm (24")
1050 mm (42")	1067 mm (42")	525 mm (21")	350 mm (14")	533 mm (21")	320 mm (12.6")	700 mm (28")
1200 mm (48")	1215 mm (48")	600 mm (24")	400 mm (16")	610 mm (24")	366 mm (14.4")	800 mm (32")
1350 mm (54")	1372 mm (54")	675 mm (27")	450 mm (18")	686 mm (27")	411 mm (16.2")	900 mm (36")
1500 mm (60")	1524 mm (60")	750 mm (30")	500 mm (20")	762 mm (30")	457 mm (18")	1000 mm (40")

DIMENSIONS IN MILLIMETERS, METERS AND (INCHES).  
 DISCHARGE VELOCITIES GREATER THAN 3 METERS/SECOND (10 FPS) REQUIRE ROCK OUTLET PROTECTION.

CITY OF AUSTIN DEPARTMENT OF WATERWAYS PROTECTION AND DEVELOPMENT REVIEW	STANDARD NO. 508S-13 1 OF 2
<i>Bill Gardner</i> / <i>Shelley</i>	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

<b>Kimley-Horn</b> 5301 Southwest Pkwy Suite 100, Building 2, Austin, TX PHONE: 512-418-7171 FAX: 512-418-1791 WWW.KIMLEY-HORN.COM © 2022 KIMLEY-HORN AND ASSOCIATES, INC. TBE Firm No. 928	PROJECT: 068910605 DATE: JUNE 10, 2022 SCALE: AS SHOWN DESIGNED BY: CJP DRAWN BY: PTK CHECKED BY: CJP
	SHEET NUMBER <b>33 OF 50</b>

Plotted by: M. Carrion, Stereo Date: March 22, 2023 02:13:29pm File Path: \\saw-civil\08200000\water-southwest\Cad\plansheets\C... Utility Details.dwg  
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TPE Firm No. 928

**STATE OF TEXAS**  
Professional Seal  
02/17/2023

**UTILITY DETAILS**  
VALOR SOUTHWEST  
11720 S WOPAC EXPY SB  
CITY OF AUSTIN  
TRAVIS COUNTY, TEXAS

**REVISIONS**

No.	DATE	REVISIONS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

**PROJECT INFORMATION**

KHA PROJECT	068910605
DATE	JUNE 10, 2022
SCALE	AS SHOWN
DESIGNED BY	CJP
DRAWN BY	PTK
CHECKED BY	CJP

**SHEET NUMBER**  
34 OF 50

SP-2022-0296CE

Plotted By: McClornin, Serena Date: March 22, 2023 02:13:57pm File Path: K:\saw\_civil\068910605-water\_southwest\Coord\plansheets\0 - Erosion Control Details.dwg  
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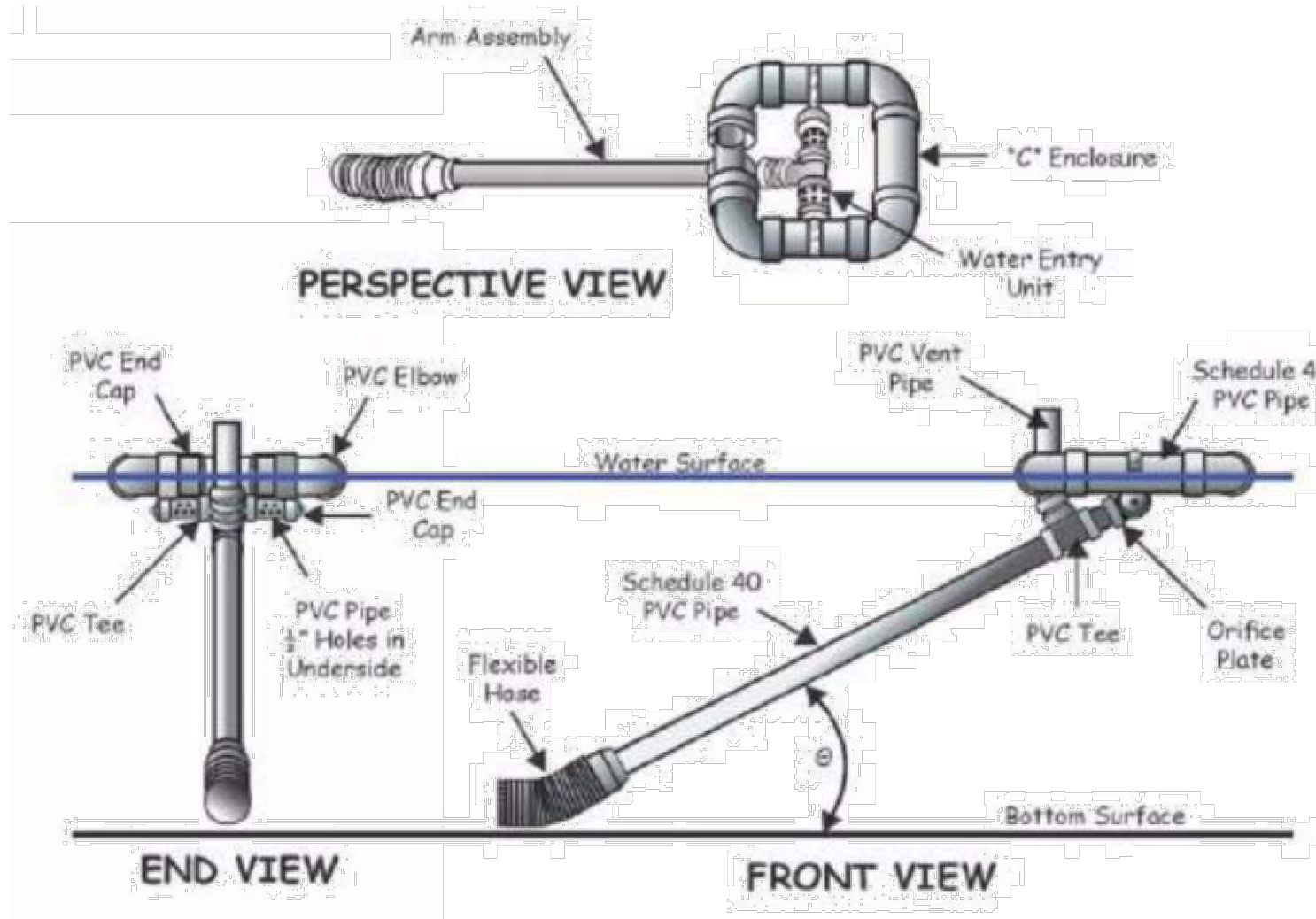
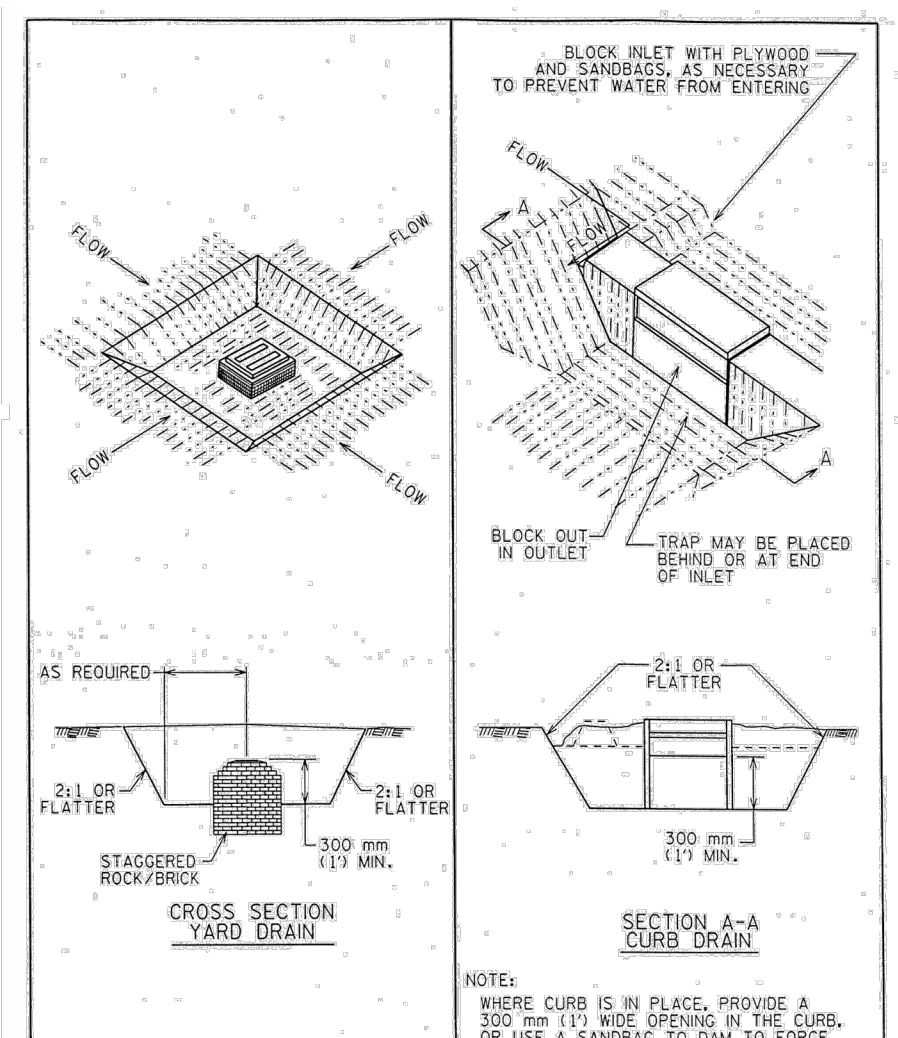
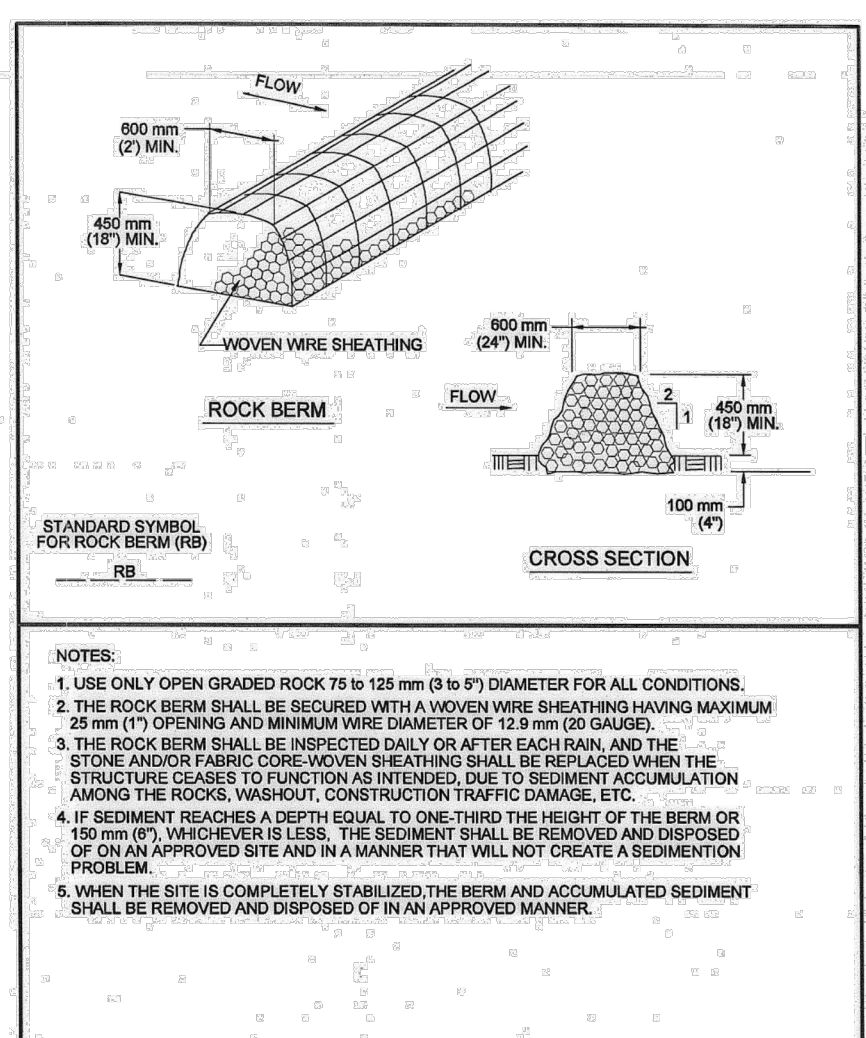


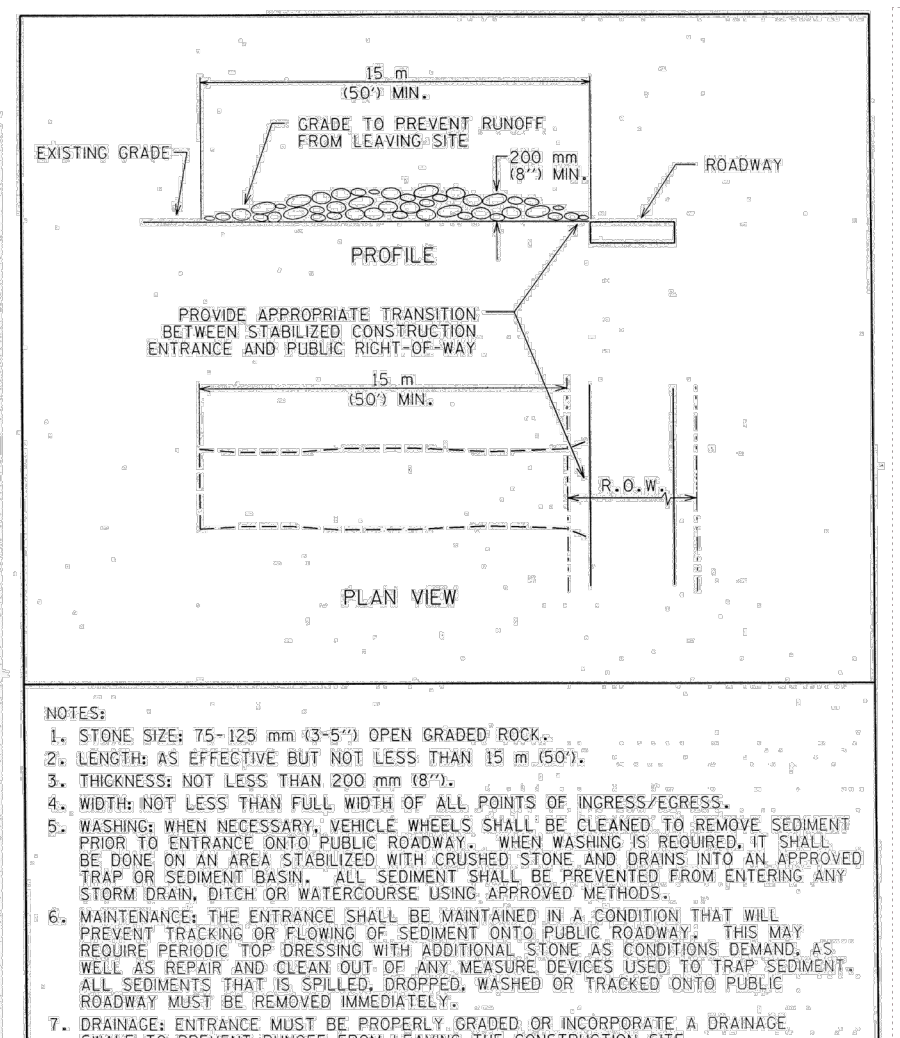
Figure 6.64a Schematic of a skimmer, from Pennsylvania Erosion and Sediment Pollution Control Manual, March, 2000.



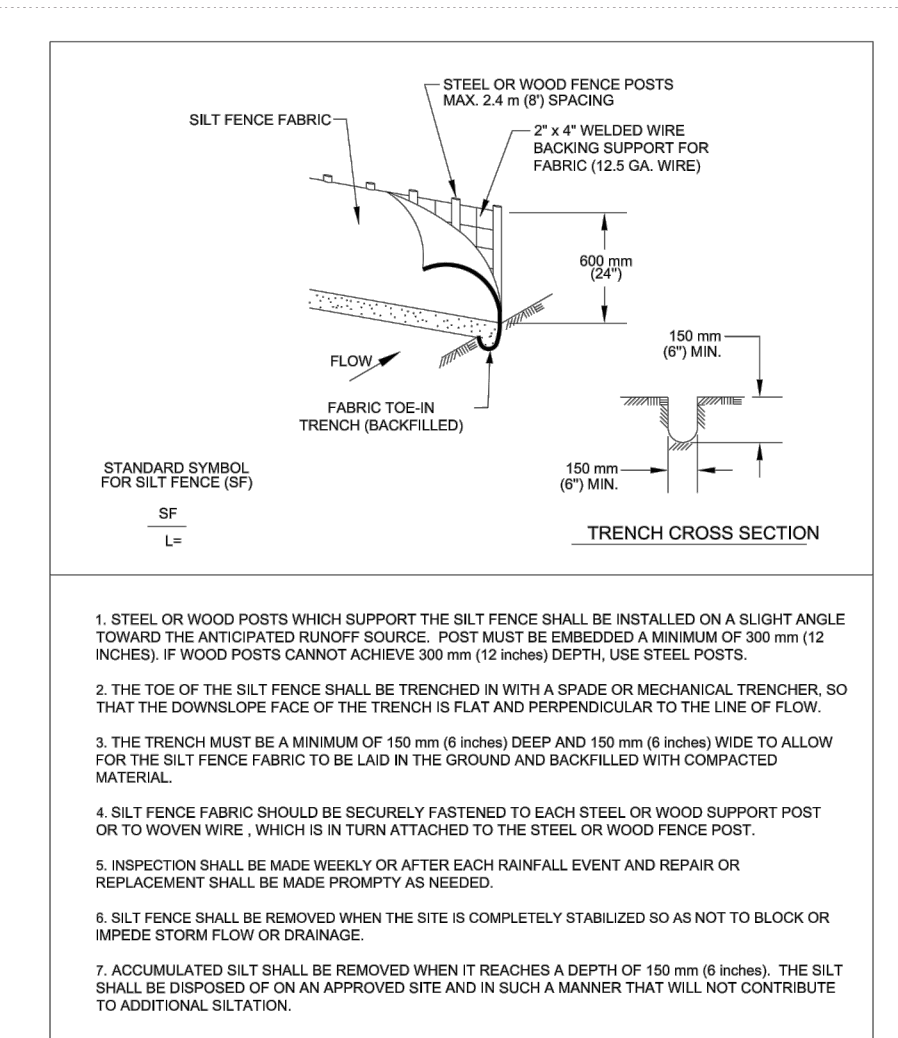
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 STORM INLET SEDIMENT TRAP  
 STANDARD SYMBOL FOR ROCK BERM (RB)  
 632S-1



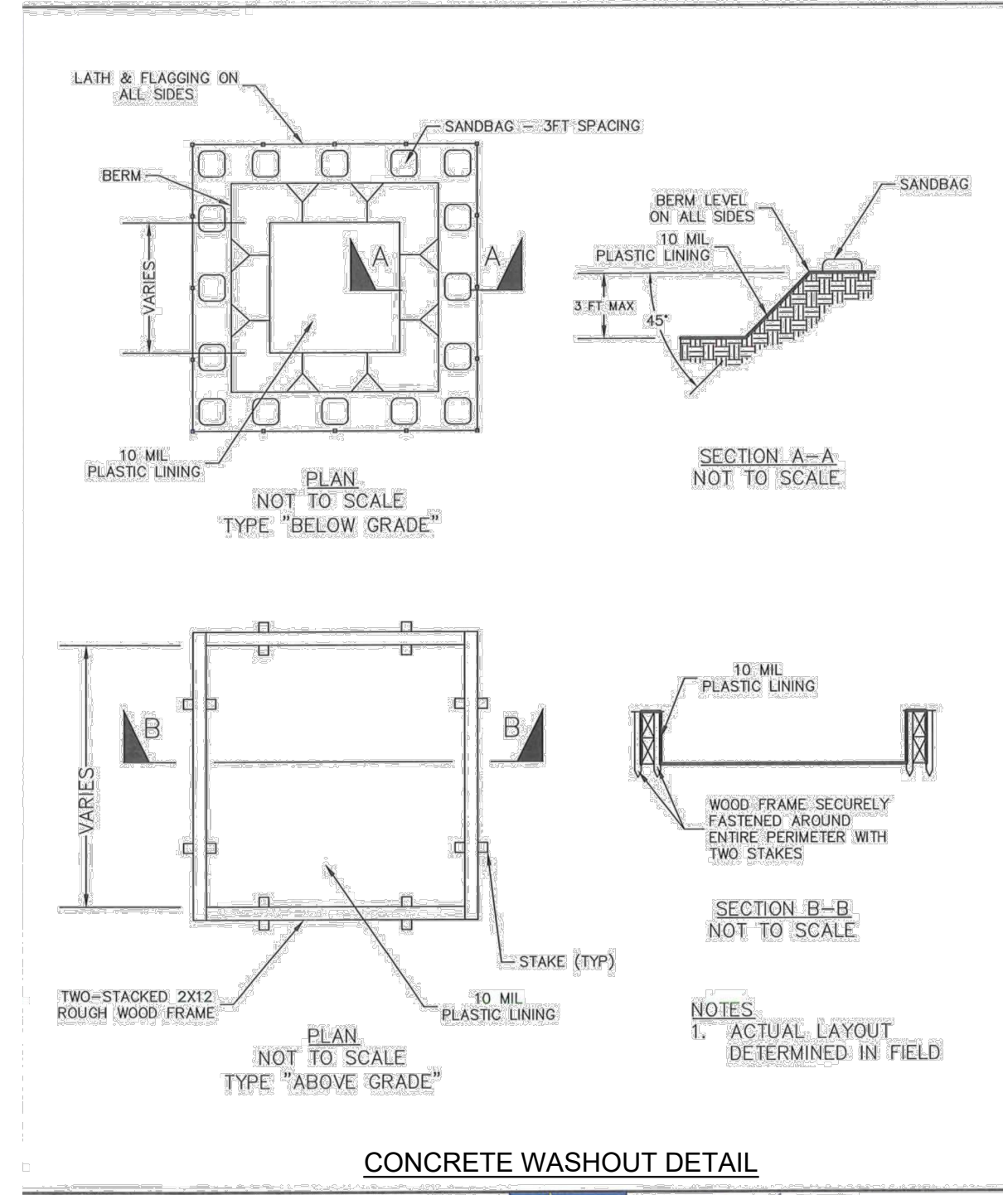
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 ROCK BERM  
 STANDARD SYMBOL FOR ROCK BERM (RB)  
 639S-1



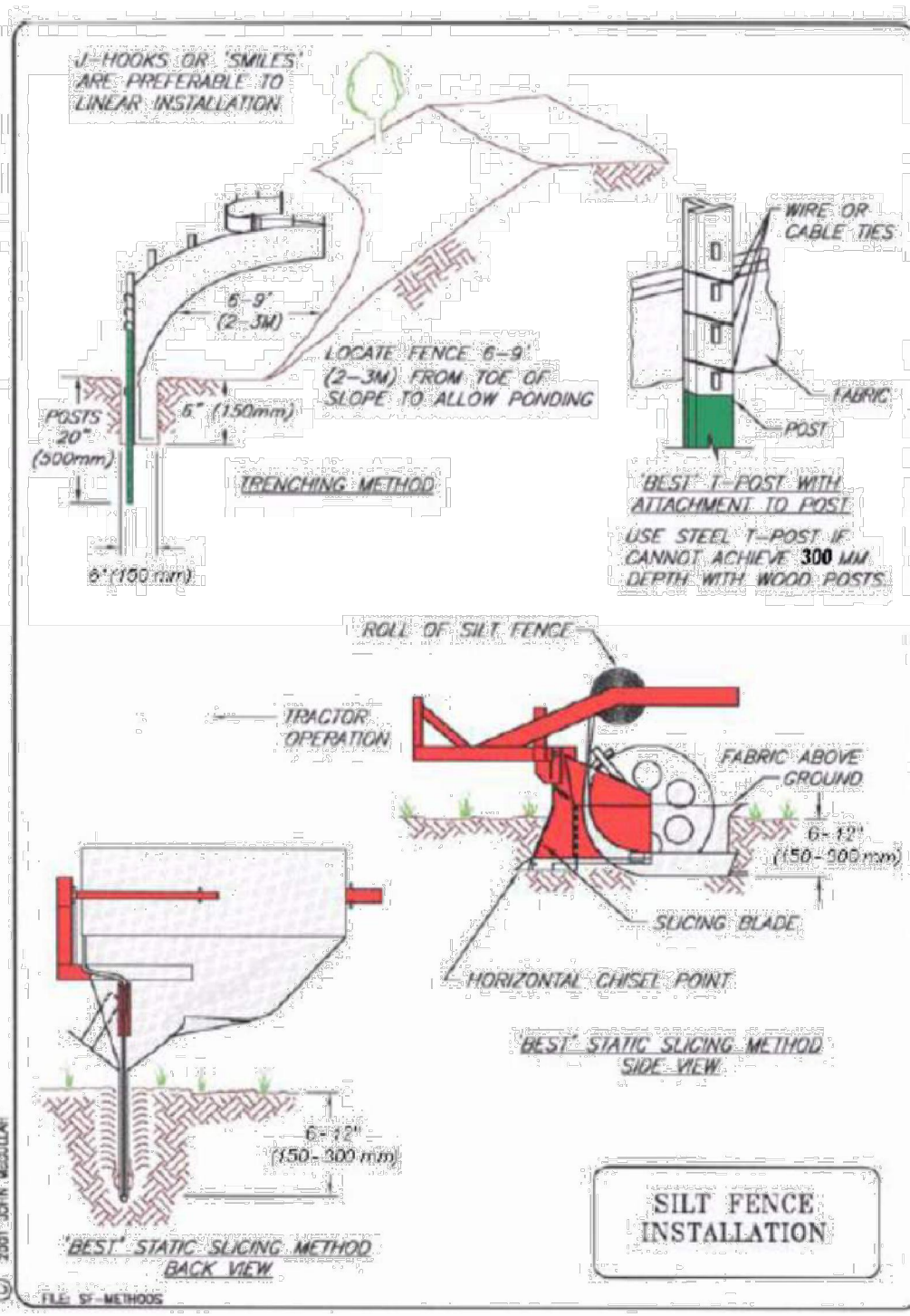
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 STANDARD SYMBOL FOR ROCK BERM (RB)  
 641S-1



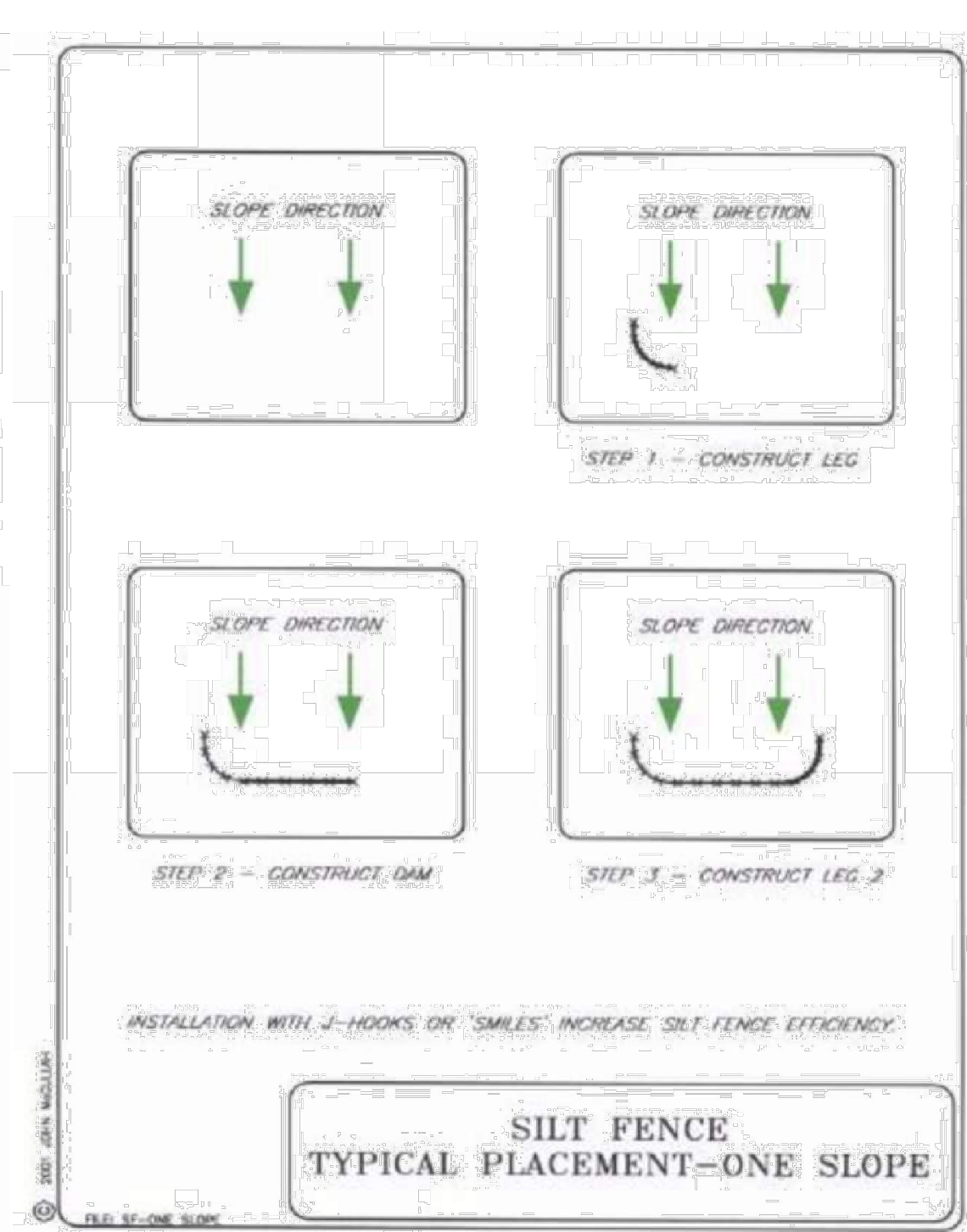
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 SILT FENCE  
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 642S-1



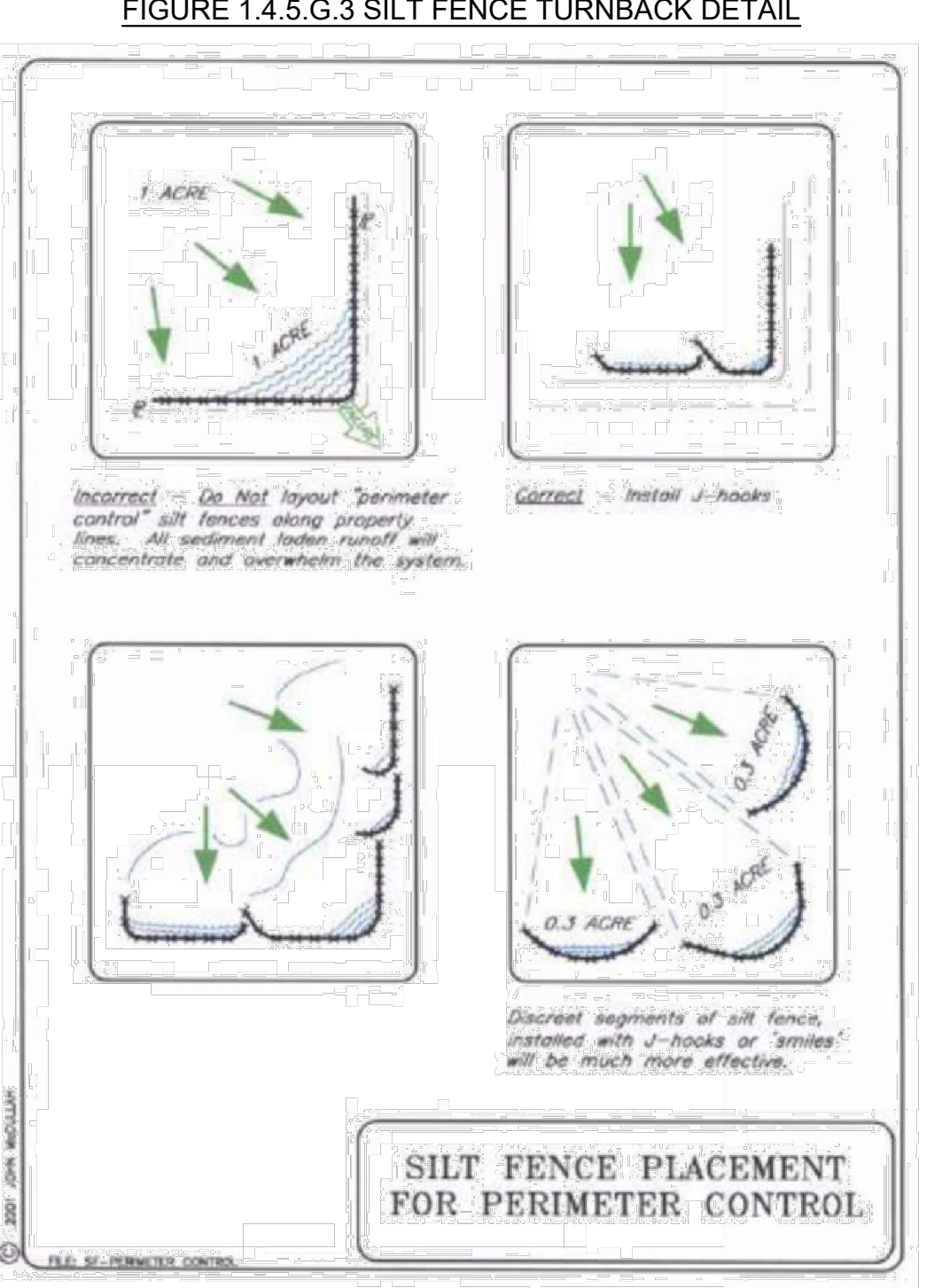
CONCRETE WASHOUT DETAIL



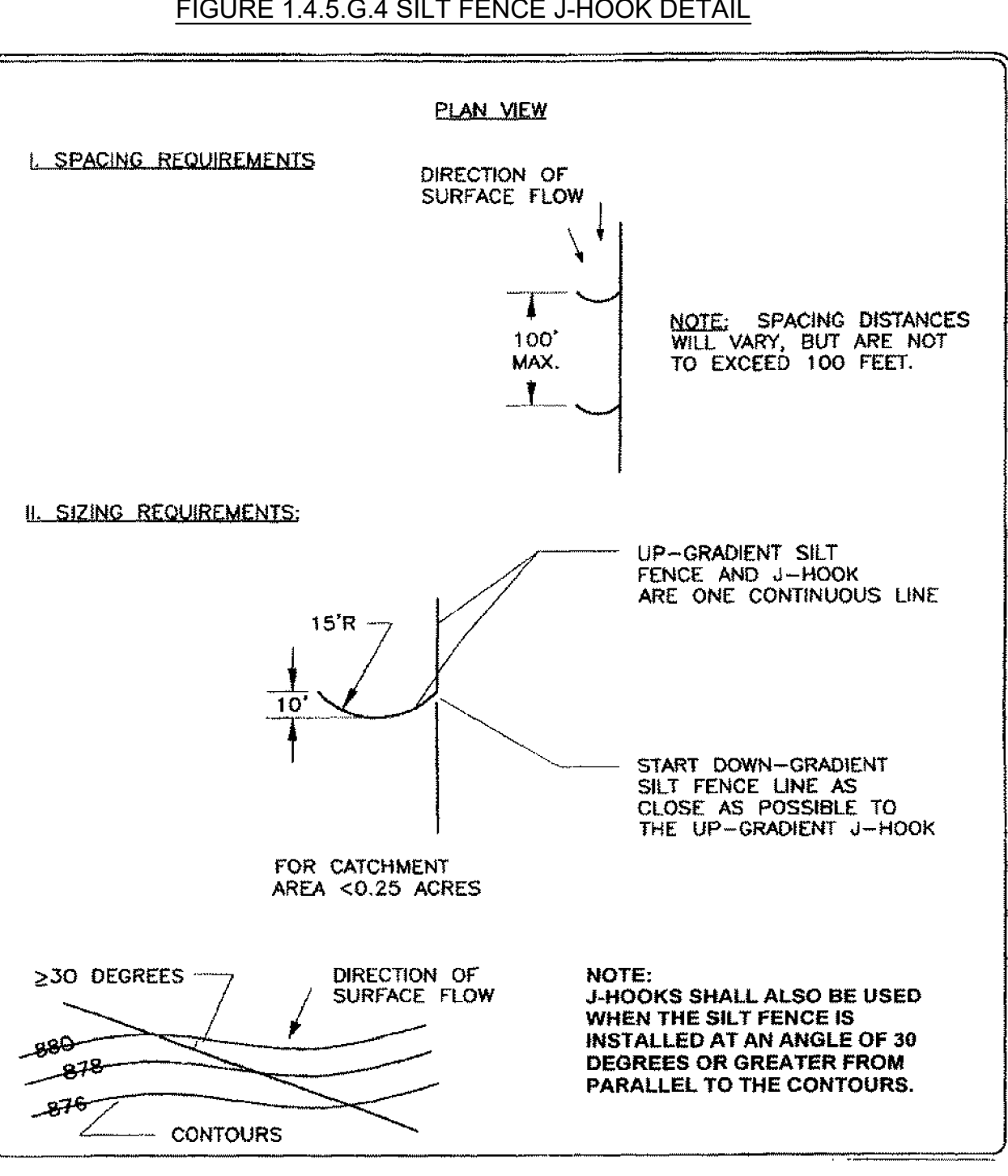
SILT FENCE INSTALLATION



SILT FENCE TYPICAL PLACEMENT-ONE SLOPE



SILT FENCE PLACEMENT FOR PERIMETER CONTROL



SILT FENCE J-HOOK DETAIL

FIGURE 1.4.5.G.3 SILT FENCE TURNBACK DETAIL

FIGURE 1.4.5.G.4 SILT FENCE J-HOOK DETAIL

NO.	REVISIONS	DATE	BY

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STATE OF TEXAS  
 PROFESSIONAL ENGINEERING EXAMINER  
 J. P. FORTSON  
 LICENSED PROFESSIONAL ENGINEER  
 02/17/2023

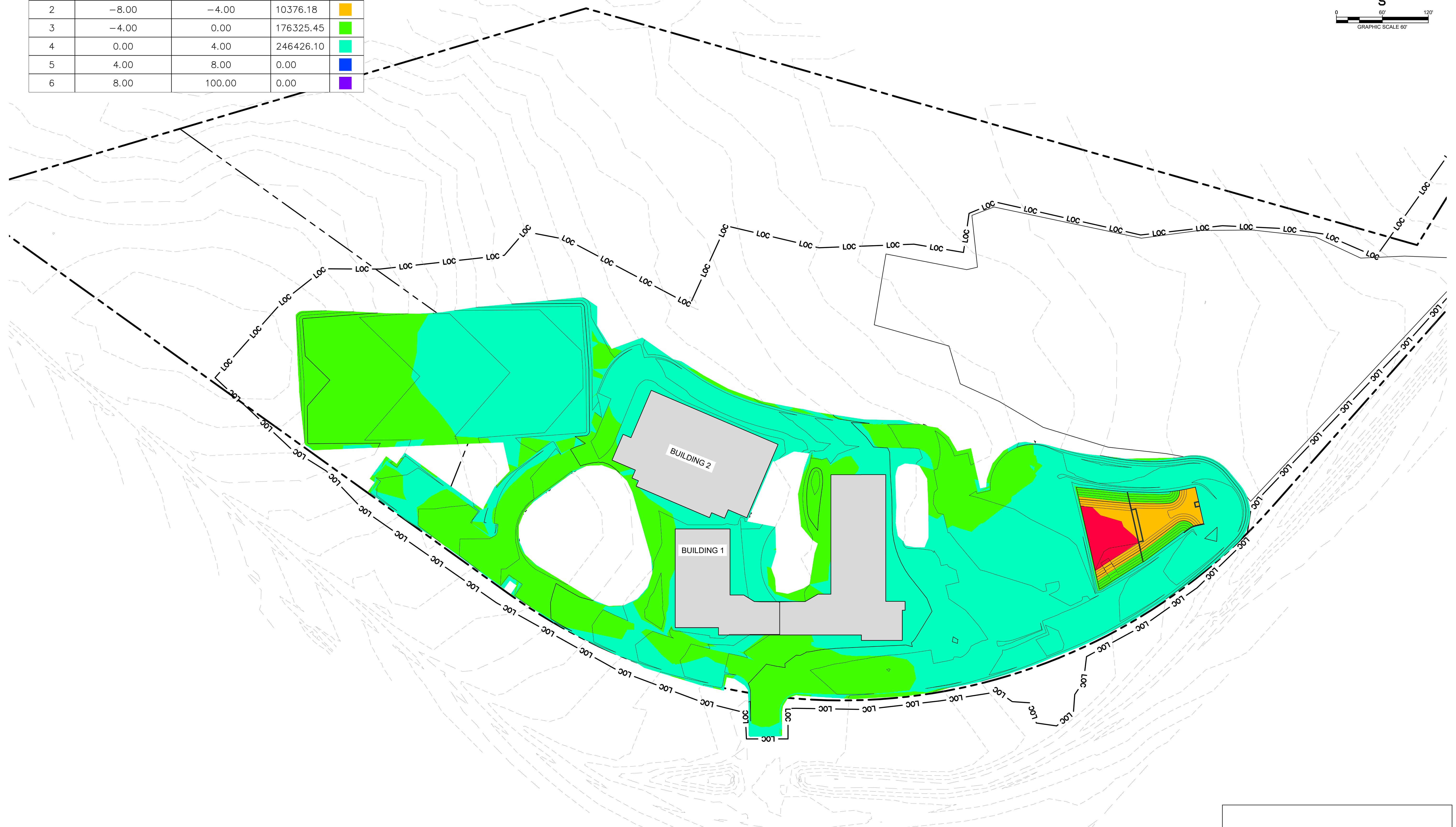
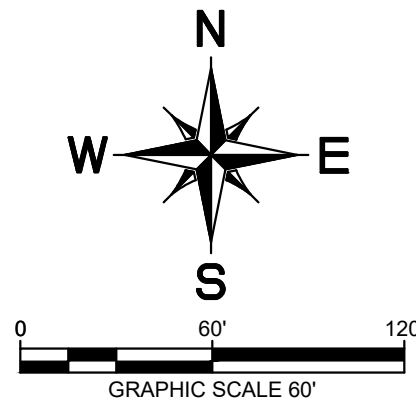
KHA PROJECT 068910605  
 DATE JUNE 10, 2022  
 SCALE: AS SHOWN  
 DESIGNED BY: CJP  
 DRAWN BY: PTK  
 CHECKED BY: CJP

**EROSION CONTROL DETAILS**

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

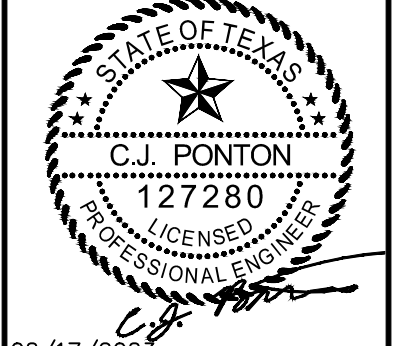
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Cut/Fill Table				
Number	Minimum Cut/Fill	Maximum Cut/Fill	Area	Color
1	-100.00	-8.00	4971.02	Red
2	-8.00	-4.00	10376.18	Orange
3	-4.00	0.00	176325.45	Light Green
4	0.00	4.00	246426.10	Light Blue
5	4.00	8.00	0.00	Blue
6	8.00	100.00	0.00	Purple



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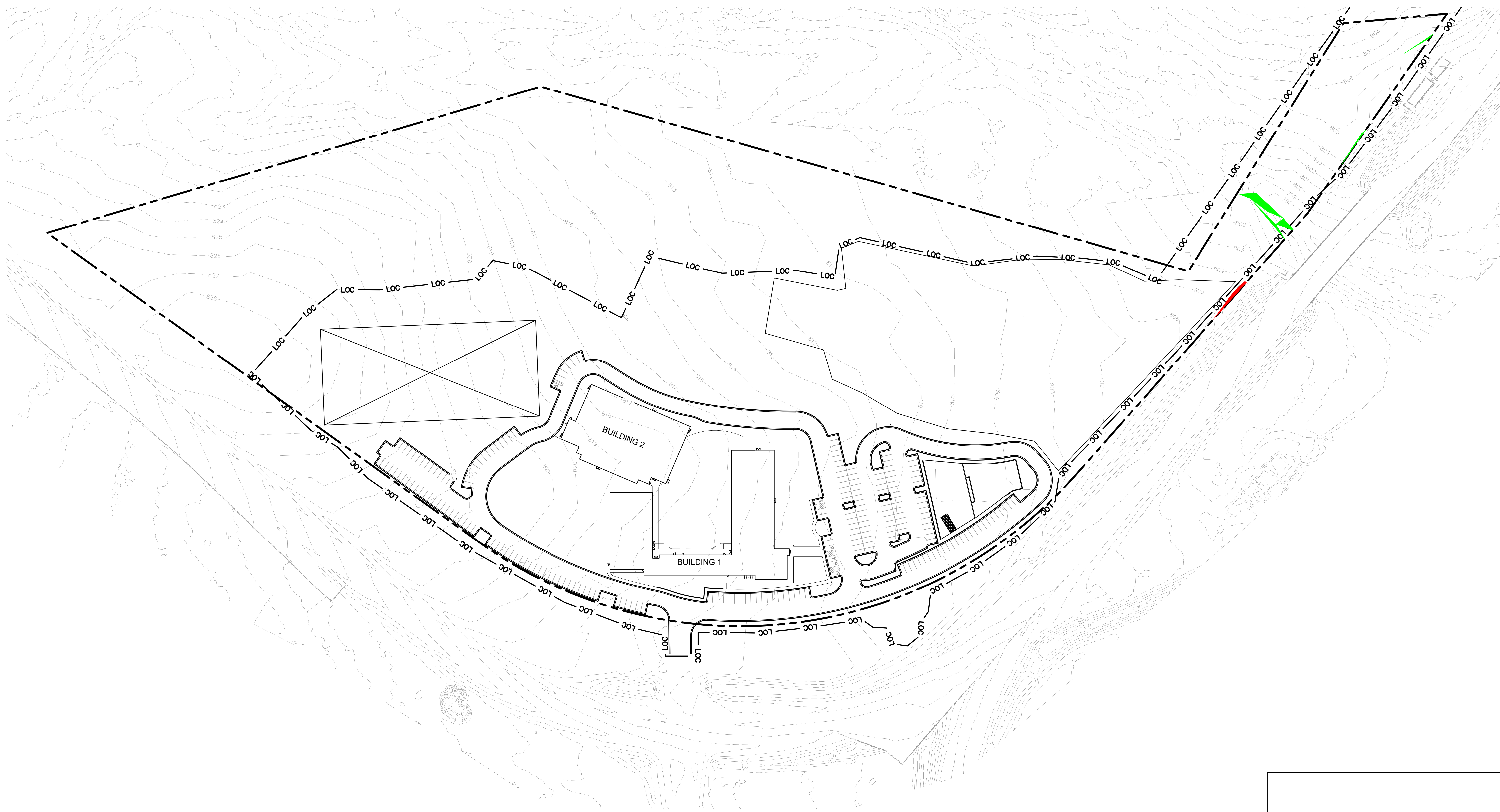
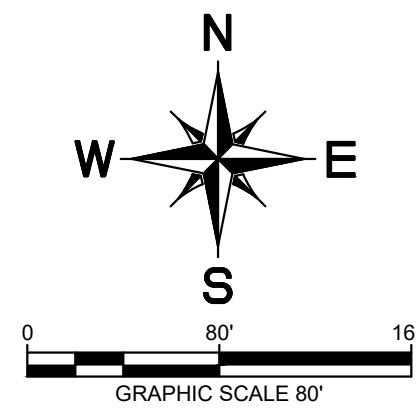


KHA PROJECT	068910605
DATE	JUNE 10, 2022
SCALE	AS SHOWN
DESIGNED BY:	CJP
DRAWN BY:	PTK
CHECKED BY:	CJP

## CUT FILL

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS

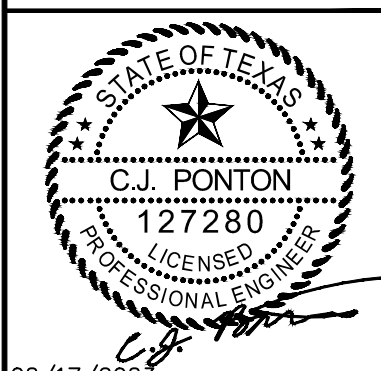
SLOPES TABLE				
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1	15.00%	25.00%	1279.50	Green
2	25.00%	35.00%	0.00	Blue
3	35.00%	100.00%	291.28	Red



Plotted By: McClornon, Serena Date: March 22, 2023 02:14:55pm File Path: K:\saw\_civil\068910605-wat-southwest\cord\plan\streets\c - Slope Map.dwg  
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SCALE	AS SHOWN
DESIGNED BY:	CJP
DRAWN BY:	PTK
CHECKED BY:	CJP

**SLOPE MAP**

**VALOR SOUTHWEST**  
 11720 S MOPAC EXPY SB  
 CITY OF AUSTIN  
 TRAVIS COUNTY, TEXAS



GENERAL CONSTRUCTION NOTES

- 1. These drawings and documents are submitted to the Owner of the project for review and approval prior to any release for bidding or construction. Contractors shall receive all bid information, instructions, bid forms, general terms and conditions, and all other required clarification from the Owner's Authorized Representative administering this project. Unless otherwise indicated, the Owner's Representative for this project shall be a specifically designated Landscape Architect from SEC Planning. The contractor will also be required to coordinate and correspond with the Landscape Architect from SEC Planning and key consultants for the Owner.
2. These drawings supplement other contractual information which includes Bid Instructions and Project Specifications. Anything mentioned in the Project Specifications and not in the drawings, or vice-versa, shall be of like effect as if shown on or mentioned in both. In case of a discrepancy between Drawings or Project Specifications, the matter shall be immediately submitted to the Owners Representative; without his decision said discrepancy shall not be adjusted by the Contractor, save only at his own risk and expense. The contractor shall not take advantage of any apparent error or omission on the Drawings or in the Specifications. In the event the Contractor discovers such error or omission, they shall immediately notify the Owner's Representative. The Owner's Representative will then make such clarification and interpretations as may be deemed necessary for the Contractor to fulfill the intent of the Contract.
3. The intent of these drawings, details and associated specifications is for the Contractor to provide the Owner with a complete, accurate, functionally and technically sound project as generally described in these documents. In most cases, unless explicitly noted otherwise, drawing symbols are used to represent complete-in-place systems to be provided as part of the base bid. All elements shown or implied by the drawings, if not specifically detailed or specified, shall be installed per building codes, manufacturer's recommendations, state highway department standards, city standards and specifications and standard industry practices.
4. All plan quantities provided are approximate only. The Contractor is responsible for their own plan take-offs and accuracy of their bid based on actual site conditions. The contractor shall not take advantage of any apparent error or omission on the Drawings or in the Specifications. In the event the Contractor discovers such error or omission, they shall immediately notify the Owner's Representative. The Owner's Representative will then make such clarification and interpretations as may be deemed necessary for the Contractor to fulfill the intent of the Contract.
5. All work within this project shall conform to current local codes, ordinances, as well as all other applicable governing regulations in effect.
6. All range points, ties, benchmarks or other survey control points which may be encountered during construction, must be preserved or modified/recorded by a registered surveyor at the Contractor's expense. Immediately upon discovery, the Contractor shall notify the Owner's Representative of any survey control points found and obtain direction prior to proceeding with construction.
7. The Contractor shall coordinate and obtain all permits which are necessary to perform the proposed work. Owner is to pay for all construction permits unless otherwise indicated in the Contract Documents. Contractor shall obtain, at his expense, all specialty permits needed for specific items included with the work, unless otherwise indicated in the Contract Documents. Should the Contractor commence work, prior to obtaining the required permits or jurisdictional approvals, the Contractor shall be responsible for corrections, modifications, replacement or removal of the non-permitted work.
8. It is the Contractor's responsibility to be aware of and comply with all notifications and inspection requirements of the Jurisdiction.
9. Unless specifically noted otherwise in the Contract Documents, the Contractor shall obtain and coordinate all technical tests and reports by a certified independent laboratory or agency as outlined in the Specifications or these Drawings. The Owner may, at the Owner's sole discretion, provide separate testing and/or inspection service and the Contractor is required to fully coordinate with those consultants/contractors. Owner is to pay for all soils and materials testing.
10. An Existing Condition Survey may have been provided to the Owner by registered surveyors under separate contracts for the basis of design. It is not to be considered as part of these Contract Documents. If provided, these survey plans may have been reformatted and included in these documents. The Contractor is required to visit the site to verify information. Without exception, any deviations or omissions found between these plans and existing site conditions shall immediately be brought to the attention of the Owner's Representative, but will not be considered as basis for additional payment except as allowed in change order process per General Conditions and Supplementary Conditions under the "Owner-Contractor Agreements/Contracts". For official survey information, Contractor may wish to contact the Owner, or Owner's surveyor at the Contractors expense.
11. Existing utility information and utility information for proposed work by others that is shown in these documents is approximate and for general information only. It is not intended to depict exact locations of all utilities. The Contractor shall notify all utility companies to stake and field verify the locations including depths of all utilities (existing, proposed by others, or currently under construction), prior to commencing any related operations. Contractor shall maintain utility locations/structures during all remaining phases of work. The Contractor shall report to the Owner's Representative any utilities that may conflict with proposed work. This Contractor shall explore, understand, and coordinate (with subcontractors and others) all utilities impacts prior to submitting bid and shall be responsible for any modifications or damages to utility lines, structures or injuries therefrom. For existing utility information contact Texas 811. A minimum notice of 3 business days in advance of locational needs is required.
12. These drawings do not specify safety materials, staffing, equipment, methods or sequencing to protect persons and property. It shall be the Contractor's sole responsibility to direct and implement safety operations, staffing, procedures to protect the Owner and his representatives, new improvements, property, others, contractors, the public and others.
13. The Contractor shall meet periodically with the Owner's Representative to determine marshalling areas, on-site storage, and contractor staff parking and to coordinate security issues, construction sequencing/phasing, scheduling, and maintaining public, emergency, handicapped or operations access before starting the related work. The Contractor shall meet any "Construction Criteria" or requirements shown on any Contract Documents, phasing plans or any imposed plan by the Owner as a part of the Base Bid.
14. Some work in this Contract may occur concurrent with work by others. Phasing, sequencing and coordination, with work by others, and on-going facility operations in and around the site area, is a part of the scope of work for this project. Notice to proceed with work in any general area shall be obtained from the Owner.
15. The Contractor will be required to complete all the work of this project according to these proposed drawings or subsequent clarification. A strict period of performance, including dates of substantial completion (for all and/or portions) and liquidation damages may be an integral element of the Contract.
16. Any site improvements requiring removal under this contract shall be properly and legally disposed off-site or, at the Owner's option, surrendered/stockpiled in an approved on-site location per the direction of the Owner or Owner's Representative.
17. The Contractor is required to maintain a complete and "up-to-date" set of all Contract Documents, including clarifications, change orders, etc., in good condition, at the construction site at all times. This set of documents will be made immediately available for review by the Owner's Representative and/or authorized Consultants upon request. Complete "As-Built" drawings and document submittals are also a requirement of this contract.
18. Maintenance, warranties and performance guarantees may be a requirement of this contract - see specifications.
19. Notes and details on specific drawings shall take precedence over general notes and typical details. The Contractor shall refer to all other Division Notes, Sheets Notes, Drawings and Project Contract Documents for additional information.
20. Contractor shall refer to other related drawings for all other related improvements that will impact this project and require coordination. Drawings may be made available to the Contractors at request.

TREE PROTECTION NOTE

- 1. All existing trees shall be protected from construction activities within construction zone. During which time, the use of a silt or chain link fence is required around each singular or group of protected trees. Parking of construction vehicles, equipment, and stockpiles within tree root zones is strictly prohibited. Contractor shall be responsible for any damage incurred to existing trees, including replacement, fees, fines or reimbursement to owner for said damages and, or, to the City or Jurisdiction with governing authority per the Tree Ordinance.

OAK WILT PREVENTION NOTE

- 1. If Oak Wilt is found on site within work zone, owner must be notified and the following procedures must be followed in accordance with USDA standards, (http://www.na.fs.fed.us) including disinfecting construction removal devices, tree removal and treatment to prevent development of spore mats. These treatments include debarking, chipping and drying the wood, covering dead wood with plastic, burying the edges for six months and air drying for a similar amount of time to kill fungus and associated insects off site at state designated facility.

SIDEWALK NOTES:

- 1. Layout of concrete walkways shall be staked in the field and review by the Owner or Owner's Representative prior to construction. At that time walk may be adjusted as needed, using the Hardscape Plan as a guide. All grades and layout shall be confirmed prior to construction. Notify Owner and Owner's Representative of any conflicts or deviations to the issued plans.
2. All pedestrian paths shall be in compliance with all current Texas Accessibility Standards (T.A.S.) and ADA standards.
3. All walkway grades shall have a running slope of no greater than 4.7% (1:21) and a cross-slope that is not greater than 1.5% (1:66).
4. Slopes at or between 5.0% (1:20) and 8.3% (1:12) must have hand rails on both sides with ADA compliant level landings, and cross-slopes shall not exceed 1.5% (1:66).

HARDSCAPE LAYOUT AND INSTALLATION

- 1. All work shown shall be field staked and subject to field verification, review and approval by the Owner or Owner's Representative prior to any constructions or demolition. Field staking of all proposed work and adjacent construction (even if future work by others) may be required by the Owner's Representative prior to approval of all improvements and adequate stakes shall be provided by Contractor's surveyor.
2. To expedite, the layout of the site layout coordinates and/or grids may have been established in the Drawings. These points shall be field staked by the Contractor's surveyor as a part of this contract. The establishment of these points shall be approved by the Owner's Representative prior to any construction in those areas and will assist the Contractor in the layout of all site improvements as shown on drawing or otherwise.
3. The construction tolerances for this project are minimal and the dimensions shown are to be strictly adhered to.
4. Computed dimensions shall take precedence over scaled dimensions. Large scale drawings shall take precedence over small scale drawings. Dimensions shown with (+/-) shall be the only layout information allowed to vary, and may only vary to the tolerances given.
5. The Contractor is responsible to provide complete-in-place systems, and a complete project. Any intermittent or periodic approvals received for portions of work, stakes, grades, or forms (by the Owner or Owner's Representative, Architects, Engineers, or others) shall not waive the Contractor's requirements to comply with the intent of any and all portions of this contract.
6. All locations for walks, roads, swales, walls, curbs, structures etc. shall be staked by the Contractor. All layout information is based on ground coordinates and the Contractor shall meet with the owner's surveyors and engineers to clarify all datum, benchmark and control point requirements. Specific layout information will be provided to the Contractor by the Owner's Representative in AutoCAD (.dwg) format when requested.
7. It is the intent and requirement of this contract to provide curvilinear walks, walls and curbs with smooth transitions and arcs (both horizontal and vertical). Straight segments and abrupt transitions will not be accepted unless shown as such on the plans. Wood curving forms may be required to obtain the proper effects.
8. Hardscape improvements that are to be constructed per the drawings, shall be coordinated on site with the Owner's Representative, and be field staked or painted for approval of layout by the Owner's Representative prior to installation. Notify the Owner's Representative a minimum of 24 hours in advance for review. Improvements installed without field approval by Owner's Representative may be rejected and will be replaced at Contractors expense. At the time of staking, the Contractor shall confirm the quantity of the improvements match the approved contract. In the event the Contractor discovers such a discrepancy, he shall immediately notify the Owner's or Owner's Representative for direction on how to proceed, prior to commencing work.
9. All lot fencing or lot screen walls shall be placed on the property line or property boundary. Contractor shall confirm final location by field staking, to be reviewed by the Owner or Owner's Representative prior to construction.
10. Rock gravel, rock mulch, synthetic mulch should be installed over weed barrier fabric. Weed barrier fabric should overlap edges a minimum of 6".

GRADING NOTES

- 1. The Contractor shall obtain and review the Summary Report and Recommendations prepared by the geotechnical engineers and fully understand the existing soil conditions encountered prior to submitting bid. The Contractor shall comply with all recommendations made by the geotechnical engineers, civil engineers, structural engineers and Owner's Representative, as designated in the soil report, on these drawings, specified, or as directed during field observations and inspections.
2. All earthwork operations will be subject to full inspection and regular testing by a qualified soils and materials engineer and this Contractor shall be responsible to coordinate scheduling, notification and procuring test results and documentation as required. The Contractor shall notify the Owner's Representative of any subsol conditions encountered, which vary from those found during previous soil investigations and/or that may not have been known during design. Any failed tests which must be retested will be a Contractor's expense.
3. All earthwork operations shall be conducted in strict compliance with the project specifications including but not limited to:
a. Full locating, investigating and protection of ALL existing utilities to remain.
b. Removal of any organic materials or debris.
c. Stripping and stockpiling of all topsoil in approved location(s).
d. Removal of all unstable fill materials encountered.
e. Scarification and re-compaction to the minimum depth as specified and/or directed within all areas to receive fill, pavements or structures.
f. All classifications of "excavation" as required to meet proposed lines, grades, typical cross sections and improvement elevations.
g. Placement, shaping, and structural compaction of all classifications of "fill" or "embankment" as required to meet proposed lines, grades, typical cross sections and improvement elevations.
h. Providing dewatering, optimum moisture control, climate protection, dust control, erosion control and all other specified treatments.
i. Replacement of topsoil after grading changes have been accomplished.
4. See, and comply with, all specifications for depth of moisture density treatments, controls and compaction requirements.
5. These grading plans are intended to show vertical control of the site and are based upon the benchmarks, existing elevations and topography as provided by the Owner's surveyor. However, the Contractor, upon submittal of bid, agrees to accept the site grades and make all adjustments required to accomplish the work as proposed. Additionally proposed design elevations for adjacent construction projects may have to be incorporated if necessary. (Construction drawings for work by others, if applicable, are available upon request). Staking of future adjacent improvements, by this contract phase or by others, may be required if directed by the Owner's Representative to ensure proper coordination and requested staking is to be provided as part of this Base Bid.
6. This Contractor shall verify all existing grades to remain and all adjacent new construction grades for compliance with those shown, prior to bid and construction. All deviations or conflicts with proposed work shall be reported immediately (with follow-up written) notice within 24 hours to the Owner's Representative for direction to proceed, but will not be considered as basis for additional payment except as allowed in change order process per General Conditions and Supplementary Conditions under the existing "Owner-Contractor Agreements/Contracts".
7. The plans may call for specific temporary benchmarks to be transferred to the site by a certified surveyor and accurately established on site as a part of this contract. Contractor shall verify all benchmarks and information used in design and compare to existing conditions.
8. It is this Contractor's responsibility to provide proper positive drainage throughout this contract area. Field conditions shall be verified in conjunction with the proposed elevations to ensure that adequate drainage is provided. Report deviations or conflicts to Owner's Representative. Unless otherwise indicated, minimum slope for paved surfaces shall be 1% and minimum slope for non-paved areas shall be 2%. Slope away from all structures shall be 3% minimum, for a distance of 5' minimum. Maximum ground slopes to be 4' horizontal to 1' vertical, unless otherwise approved in advance.
9. All design elevations shown are "finished grades" unless otherwise indicated. Contractors shall refer to drawings, details and specifications regarding depth of sub-grade materials required to construct project improvements.
10. All topsoil and/or drainage way muck excavation shall be saved and stockpiled in approved locations for future use.

LIGHTING

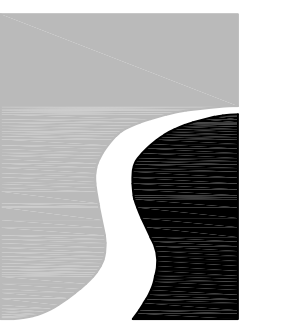
- 1. Landscape lighting system is to be installed by a licensed electrician with documented experience in installing lighting systems of similar scope within the last two years. The Contractor is to supply a complete lighting system including all associated equipment such as conduit, weather proof and/or water proof junction boxes, ballasts, connectors, harnesses, time clocks, photocells, etc.
2. The Contractor shall review proposed layout of lighting system and all related equipment locations with the Owner or Owner's Representative prior to commencing installation.
3. After installation the Contractor will be required to adjust light fixtures until the Owner's Representative is satisfied with the desired effect. This will require the Contractor and/or the Contractor's electrician to meet with the Owner and Owner's Representative after sunset. This adjustment is to be included in the base Bid amount.
4. The Contractor shall provide a two year warranty on all equipment including lamps, ballasts and installation.
5. Independent ballasts, if required, shall be "ganged" in an inconspicuous, accessible location in a horizontal, weatherproof box or tray near ground level. Mounting of ballast in trees will not be allowed without written authorization from the Owner's Representative.
6. All exposed boxes, trays, conduit, etc. shall be painted by the contractor to blend in with surrounding landscape elements.
7. All equipment shall be U.L. listed and installation shall comply with N.E.C. and all other applicable codes.
8. All lights are to be controlled by a photocell on and timer off system unless specified otherwise on the drawings.
9. All wire run underground must be in rigid conduit.
10. Plan layout of underground wiring to minimize disturbance to the roots of existing trees. If underground wiring must pass through the critical root zone of protected trees, trenching and related work must be performed by hand. No mechanical trenching is permitted within the Critical Root Zone.
11. Tree lighting (if applicable):
a) Install Karlock (or equal) flexible conduit from base of tree to a minimum eight foot height above ground. At the end of the conduit install a waterproof hub (for single cable) or W-P bell box for multiple cables. Paint conduit and box to match tree trunk. Use SJTO electrical cord from conduit to light fixture. Attach cord to tree using long galvanized cord staples or other approved method. Provide a 36" loop of extra cord at the light fixture to allow for light adjustment and tree growth.
b) Attach light fixtures to trees utilizing galvanized mounting plates drilled for hub connection with a minimum of two mounting screws. Mounting screws are to be 3/8-20 threads x 5" length (one end wood screw threads and the other end bolt threads). Install at least two inches of thread into tree and install with at least two inches between tree and mounting plate.
c) All tree downlights are to be mounted in the top third of the tree canopy.
d) All fixtures are to be located, adjusted as needed and shielded to prevent glare, light trespass on to adjacent properties or Rights-of-way.

NOTES:

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2/16/2023

VALOR SOUTHWEST CAMPUS
LANDSCAPE IMPROVEMENTS
11720 S MOPAC EXPY SB
TRAVIS COUNTY, TEXAS

Drawing File Name

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Table with columns: Issue#, Description, Date. Includes entries for REVIEW BID SET (5/06/2022), COMMENT RESPONSE U0 (10/24/2022), and COMMENT RESPONSE U1 (2/16/2023). Also includes a Revisions section and Issue Date: 2/16/2023.

Drawn By: ES
Reviewed By: BD

Project No.
210086-HACO

CONSTRUCTION/ PLANTING NOTES

Sheet No.
LN-1

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P-1- CITY OF AUSTIN EROSION CONTROL NOTES

- The contractor shall install erosion/sedimentation controls, tree/natural area protective fencing, and conduct "Pre-Construction" tree fertilization (if applicable) prior to any site preparation work (clearing, grubbing or excavation).
- The placement of erosion/sedimentation controls shall be in accordance with the Environmental Criteria Manual and the approved Erosion and Sedimentation Control Plan. The COA ESC Plan shall be consulted and used as the basis for a TPDES required SWPPP. If a SWPPP is required, it shall be available for review by the City of Austin Environmental Inspector at all times during construction, including at the Pre-Construction meeting. The checklist below contains the basic elements that shall be reviewed for permit approval by COA EV Plan Reviewers as well as COA EV Inspectors.
- The Placement of tree/natural area protective fencing shall be in accordance with the City of Austin standard Notes for Tree and Natural Area Protection and the approved Grading/Tree and Natural Area Plan.
- A pre-construction conference shall be held on-site with the contractor, design Engineer/permit applicant and Environmental Inspector after installation of the erosion/sedimentation controls, tree/natural area protection measures and "Pre-Construction" tree fertilization (if applicable) prior to beginning any site preparation work. The owner or owner's representative shall notify the Development Services Department, 512-974-2278 or by email at environmental.inspections@austintexas.gov, at least three days prior to the meeting date. COA approved ESC Plan and TPDES SWPPP (if required) should be reviewed by COA EV Inspector at this time.
- Any major variation in materials or locations of controls or fences from those shown on the approved plans will require a revision and must be approved by the reviewing Engineer, Environmental Specialist or City Arborist as appropriate. Major revisions must be approved by authorized COA staff. Minor changes to be made as field revisions to the Erosion and Sedimentation Control Plan may be required by the Environmental Inspector during the course of construction to correct control inadequacies.
- The contractor is required to provide a certified inspector that is either a licensed engineer (or person directly supervised by the licensed engineer) or Certified Professional in Erosion and Sediment Control (CPESC or CPESC - IT), Certified Erosion, Sediment and Stormwater - Inspector (CESSWI or CESSWI - IT) or Certified Inspector of Sedimentation and Erosion Controls (CISEC or CISEC - IT) certification to inspect the controls and fences at weekly or bi-weekly intervals and after one-half (1/2) inch or greater rainfall events to insure that they are functioning properly. The person(s) responsible for maintenance of controls and fences shall immediately make any necessary repairs to damaged areas. Silt accumulation at controls must be removed when the depth reaches six (6) inches or one-third (1/3) of the installed height of the control whichever is less.
- Prior to final acceptance by the City, haul roads and waterway crossings constructed for temporary contractor access must be removed, accumulated sediment removed from the waterway and the area restored to the original grade and revegetated. All land clearing debris shall be disposed of in approved spoil disposal sites.
- All work must stop if a void in the rock substrate is discovered which is; one square foot in total area; blows air from within the substrate and/or consistently receives water during any rain event. At this time it is the responsibility of the Project Manager to immediately contact a City of Austin Environmental Inspector for further investigation.
- Temporary and Permanent Erosion Control: All disturbed areas shall be restored as noted below:  
 A. All disturbed areas to be revegetated are required to place a minimum of six (6) inches of topsoil [see Standard Specification Item No. 603.5(A)]. Do not add topsoil within the critical root zone of existing trees.

CITY OF AUSTIN 3.6.2 Standard Plan Note

The following plan note summarizes the contents of the Environmental Criteria Manual as it relates to tree protection on sites with active permits:

BEFORE CONSTRUCTION:

- All Trees and natural areas shown on plan to be preserved shall be protected per ECM 3.6.1.
- Tree protection shall be installed prior to the start of any site work, including demolition or site preparation. Refer to ECM 3.6.1.A.
- Fencing for tree protection shall be chain-link mesh with a minimum height of 5 feet and shall be installed around or beyond the Critical Root Zone except as allowed in ECM 3.6.1.B.4.
- Unfenced sections of the Critical Root Zone shall be covered with mulch at a minimum depth of 8 inches and a maximum depth of 12 inches per ECM 3.6.1.C.
- Where fencing is located 5 feet or less from the trunk of a preserved tree, trunk wrapping shall be installed per ECM 3.6.1.D.
- Erosion and sedimentation controls shall be installed and maintained so as not to cause impacts that exceed preservation criteria listed in ECM 3.5.3.D.

DURING CONSTRUCTION

- Trees approved for removal shall be removed in a manner that does not exceed preservation criteria for the trees to remain. Refer to ECM 3.5.2 A.
- Fencing may not be temporarily moved or removed during development without prior authorization. The fenced Critical Root Zone shall not be used for tool or material storage of any kind and shall be kept free of litter. Refer to ECM 3.6.1.B.3.
- Pruning shall be in compliance with the current ANSI A300 standard for tree care.

AFTER CONSTRUCTION

- Tree protection shall be removed at the end of the project after all construction and final grading is complete, but before final inspection. Refer to ECM 3.6.1.A.
- Landscape installation within the CRZ of preserved trees, including irrigation, soil and plantings, shall not exceed preservation criteria listed in ECM 3.5.2.
- Documentation of tree work performed must be provided to inspector per ECM Appendix P-6

THIS LIST IS NOT EXHAUSTIVE.  
REFER TO APPROPRIATE ECM SECTIONS FOR FULL REQUIREMENTS.

O-1 - CITY OF AUSTIN SITE DEVELOPMENT PERMIT - IRRIGATION NOTES

1. Automatic irrigation systems shall comply with TCEQ Chapter 344, as well as the following requirements:

- These requirements shall be noted on the Site Development Permit and shall be implemented as part of the landscape inspection:
  - the system must provide a moisture level adequate to sustain growth of the plant materials;
  - the system does not include spray irrigation on areas less than ten (10) feet wide (such as medians, buffer strips, and parking lot islands);
  - Circuit remote control valves have adjustable flow controls;
  - Serviceable in-head check valves area adjacent to paved areas where elevation differences may cause low head drainage;
  - A master valve installed on the discharge side of the backflow preventer;
  - Above-ground irrigation emission devices are set back at least six (6) inches from impervious surfaces;
  - An automatic rain shut-off device shuts off the irrigation system automatically after more than a one-half inch (1/2") rainfall; and
  - Newly planted trees shall have permanent irrigation consisting of drip or bubblers.

2. The irrigation installer shall develop and provide an as-built design plan to the City at the time the final irrigation inspection is performed;  
 a. Unless fiscal security is provided to the City for the installation of the system, it must be operational at the time of the final landscape inspection.

3. The irrigation installer shall also provide exhibits to be permanently installed inside or attached to the irrigation controller, including:  
 a. A laminated copy of the water budget containing zone numbers, precipitation rate, gallons per minute and the location of the isolation valve; and an as built plan.

4. The irrigation installer shall provide a report to the City on a form provided by Austin Water certifying compliance with Subsection 1. When the final plumbing inspection is performed by the City.

UPON COMPLETION OF THE PROPOSED SITE IMPROVEMENTS AND PRIOR TO THE RELEASE OF THE CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION/RELEASE BY THE CITY, THE DESIGN ENGINEER SHALL CERTIFY IN WRITING THAT THE PROPOSED DRAINAGE AND DETENTION FACILITIES WERE CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS.

Valor Southwest

Tree Saved/Removed Mitigation Summary  
2/17/2023

SP-2022-0296CE - Subject to the 1993 LDC and Bradley Agreement

Total Surveyed	15,964.0
Total Survey within ROW	2,001.0
Total Appendix F trees inches Surveyed 8"-18.9"	11,585.0
Total Appendix F trees inches Saved 19"+	2,378.0
Total Non-Appendix F tree inches surveyed	0.0
Total Invasive tree inches surveyed	0.0

Total Appendix F trees inches Saved 8"-18.9"	8,361.5
Total Appendix F trees inches Removed 8"-18.9"	3,074.0
Total Appendix F trees inches Saved 19"+	1,458.0
Total Appendix F trees inches Removed 19"+	703.0
Total Non-Appendix F Saved	0.0
Total Non-Appendix F Removed	0.0
Total Invasive saved	0.0
Total Invasive removed	0.0

DDI Appendix F inches removed	366.5
DDI Non-Appendix F inches removed	0.0
DDI Invasive inches removed	0.0

Required Mitigation Rates (Per 1993 LDC)

Inches Removed	Inches to be Mitigated
19"+ DBH, tree located in Appendix F	703.0 50% 351.5
8-18.9" DBH, tree located in Appendix F	3074.0 25% 768.5
19"+ DBH, tree other species	0.0 0% 0.0
8"-18.9" DBH, tree other species	0.0 0% 0.0
Total replacement ROW inches	0.0 0% 0.0
Invasive Species	0.0 0% 0.0
Total Removed Inches	3777.0 1,120.0

Provided Mitigation	QTY	Inches Provided
Mitigation Inches Provided On-Site	79	237.0
House Bill 7 / Calculated 40% Credit for Mitigation		94.8
Total Inches Provided		331.8
Tree Mitigation Inches Remaining		788.2
Tree Mitigation Fee In Lieu (\$75/inch)		\$59,115.00

\*ALL PROPOSED TREES ON SITE ARE SOLELY USED FOR MITIGATION REPLACEMENT INCHES

VALOR SOUTH - LANDSCAPE CALCULATIONS

<b>Streetyard Landscaping</b>	
Total Streetyard Area	343,022 SF
Streetyard Landscape Area Required (20% of Total)	68,604 SF
Streetyard Landscape Area Provided	200,101 SF

<b>Shade Trees Required</b>	97
Existing Tree Credit	186
Proposed Shade Trees Provided	13
Total Trees Provided	199

<b>Parking Calculations</b>	
Total Parking Within Streetyard	127
Required SF of Landscape Area	952.5 SF
Provided SF of Landscape Area	6,789 SF

Total Remaining Parking	97
Required SF of Landscape Area	485 SF
Provided SF of Landscape Area	3,476 SF

Total Parking On Site	224
Total SF of landscape Area Within Parking	10,265 SF

<b>Innovative Water Management</b>	
Required Landscape Area (2.4-9.1) = 68,604 + 485 + 952.5	70,042 SF
50 Percent of Required Landscaped Area	35,021 SF
Provided through Stormwater Re-Irrigation Field	

Undisturbed Natural Areas	Required: 35,021 SF	Provided: 186,219 SF
<b>TOTAL:</b>		186,219 SF

PLANT SCHEDULE

TREES	QTY	BOTANICAL / COMMON NAME	CONTAINER	CALIPER	HT/SPD	WATER USE	NOTES
FRPE	7	Fraxinus pennsylvanica / Green Ash	Container Grown	3" Cal	12-16 H X 8 Spd	M	
QUILA	7	Quercus laevis / Lacey Oak	Container Grown	3" Cal	12-16 H X 8 Spd	L	
QUAMU	8	Quercus muehlenbergii / Chinkapin Oak	Container Grown	3" Cal	12-16 H X 8 Spd	M	
QUSH	6	Quercus shumardii / Shumard Red Oak	Container Grown	3" Cal	12-16 H X 8 Spd	M	
ULCR	7	Ulmus crassifolia / Cedar Elm	Container Grown	3" Cal	12-16 H X 8 Spd	M	Must be from a single Root Stock
CONFERS	QTY	BOTANICAL / COMMON NAME	CONTAINER	CALIPER	HT/SPD	WATER USE	NOTES
JUVI	12	Juniperus virginiana / Eastern Red Cedar	45 gal. cont. grwn.	1" Cal. min.	12-16 H X 8 Spd	L	
SHRUBS	QTY	BOTANICAL / COMMON NAME	CONTAINER	CONTAINER SIZE	NOTES	WATER USE	
COGL	236	Cotoneaster glaucophyllus / Grey Leaf Cotoneaster	Container Grown	5 gallon	Full to Ground	L-M	
RHNR	242	Rhaphirolepis indica / Indian Hawthorn	Container Grown	5 gallon	Full Canopy, Shrub Form	M	
SAGR	368	Salvia greggii / Autumn Sage	Container Grown	5 gallon	Full to Ground	L	

NOTES:

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Know what's below. Call before you dig.

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Valor Public Schools  
220 Foremost Dr.  
Austin, Texas 78745



2/16/2023

VALOR SOUTHWEST CAMPUS  
LANDSCAPE IMPROVEMENTS  
11720 S MOPAC EXPY SB  
TRAVIS COUNTY, TEXAS

Drawing File Name  
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Issued:  
1. REVIEW BID SET 5/06/2022  
2. COMMENT RESPONSE U0 10/24/2022  
3. COMMENT RESPONSE U1 2/16/2023

Revisions:  
1.  
2.  
3.  
4.  
5.  
Issue Date: 2/16/2023

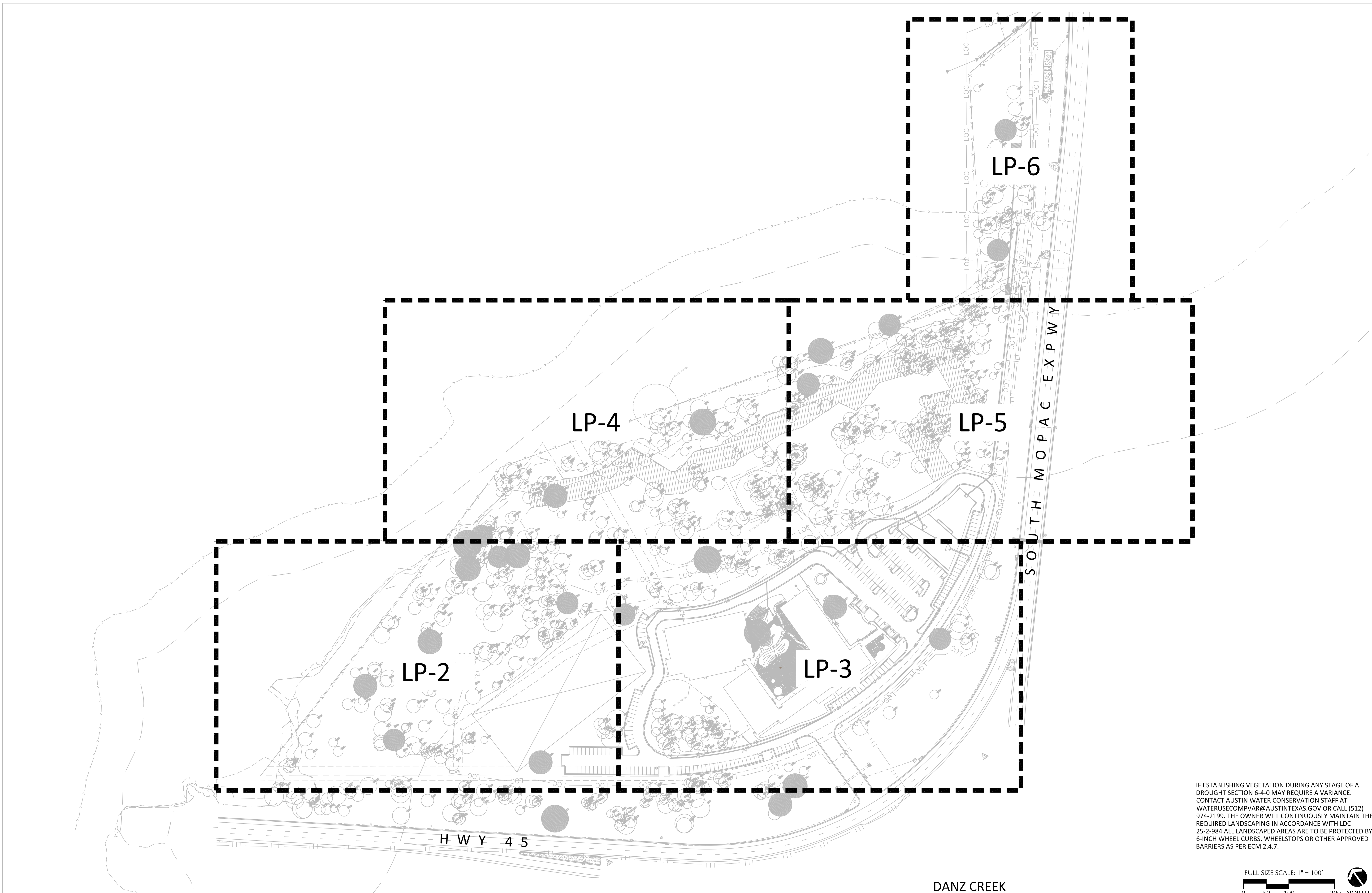
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CONSTRUCTION NOTES

Sheet No.  
LN-2

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2/16/2023

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Issued:	
1. REVIEW BID SET	5/06/2022
2. COMMENT RESPONSE U0	10/24/2022
3. COMMENT RESPONSE U1	2/16/2023
4.	
5.	

Revisions:

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2.	
3.	
4.	
5.	

Issue Date: 2/16/2023

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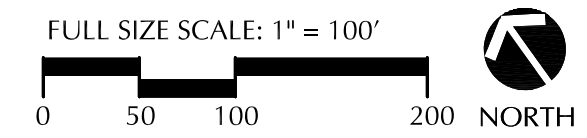
Project No.  
**210086-HACO**

**OVERALL SHEET**

Sheet No.  
**LP-1**

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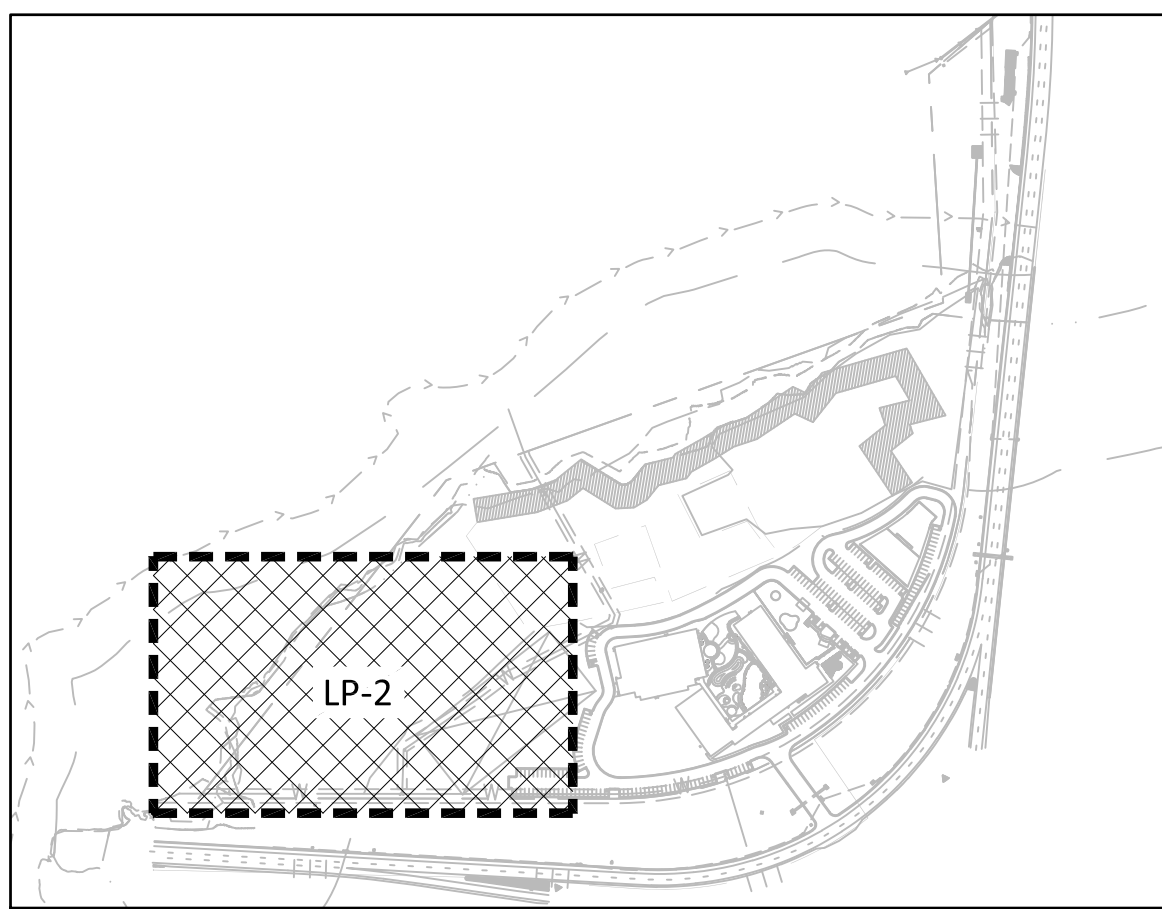
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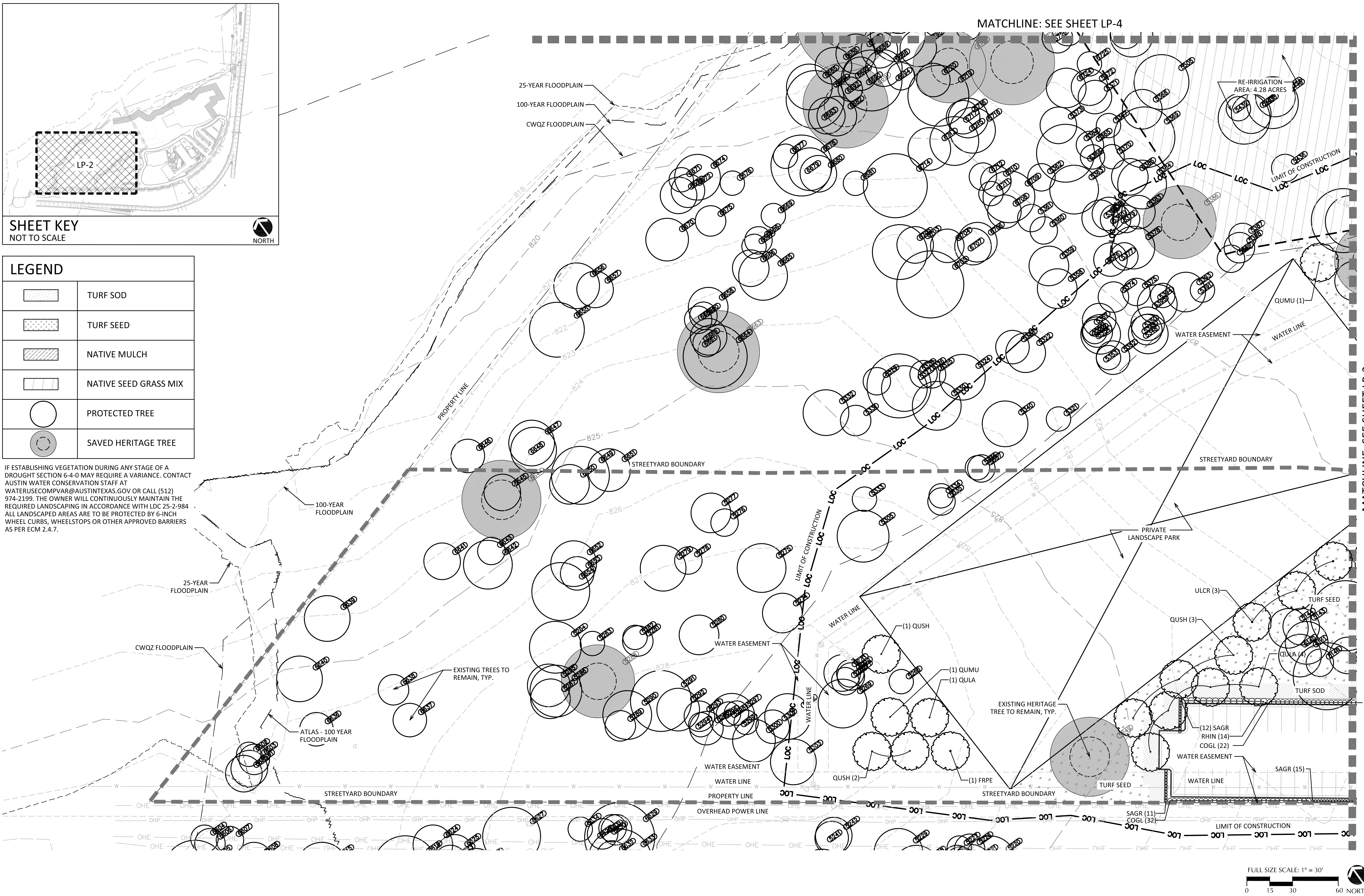
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**SHEET KEY**  
NOT TO SCALE

LEGEND	
	TURF SOD
	TURF SEED
	NATIVE MULCH
	NATIVE SEED GRASS MIX
	PROTECTED TREE
	SAVED HERITAGE TREE

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MATCHLINE: SEE SHEET LP-4

MATCHLINE: SEE SHEET LP-3

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2/16/2023

**VALOR SOUTHWEST CAMPUS  
LANDSCAPE IMPROVEMENTS**  
11720 S MOPAC EXPY SB  
TRAVIS COUNTY, TEXAS

Drawing File Name  
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Revisions:

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Issue Date: 2/16/2023

Drawn By: ES  
Reviewed By: BD  
Project No.  
**210086-HACO**

**PLANTING PLANS**

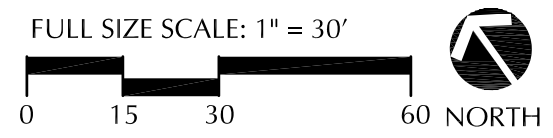
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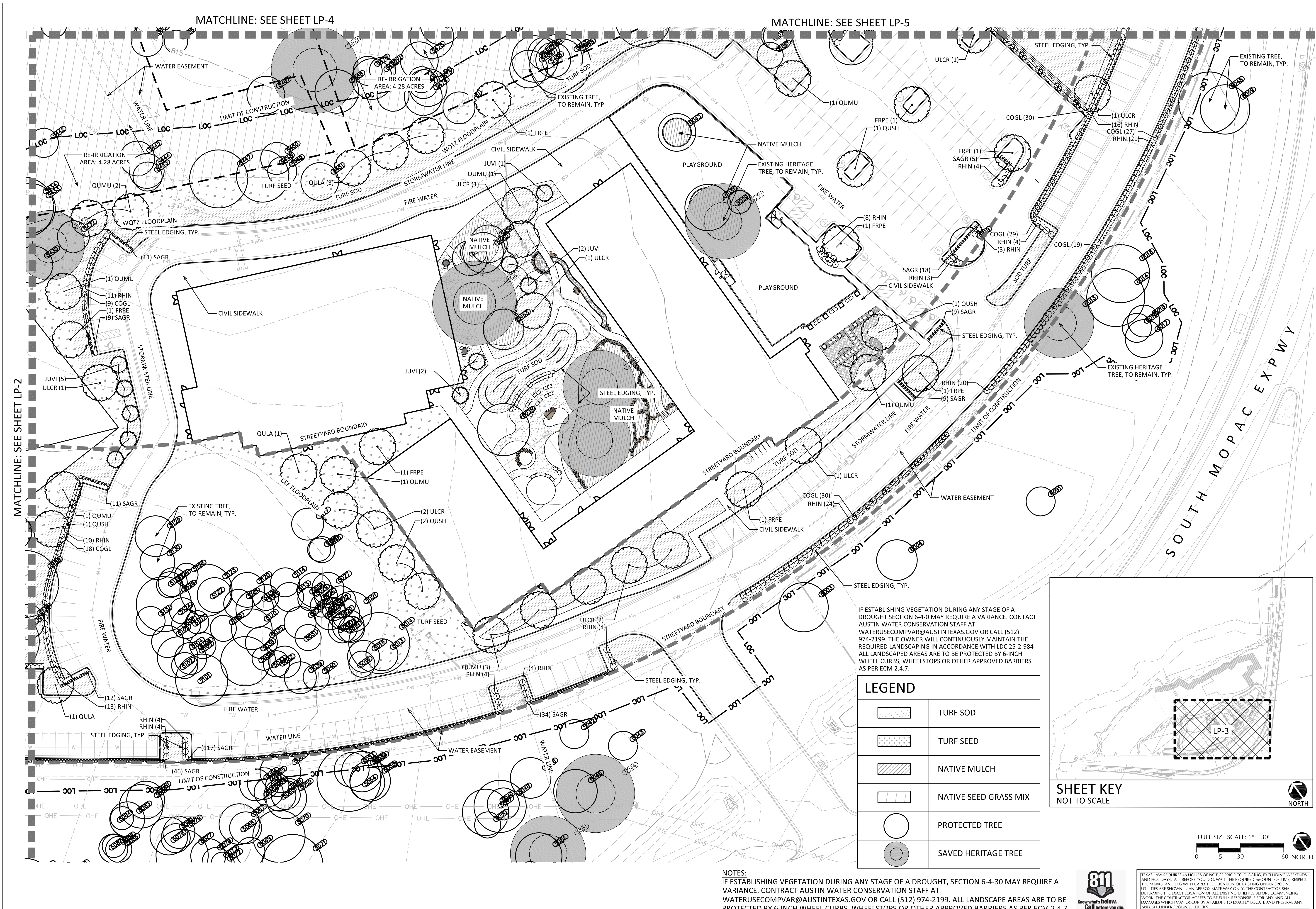
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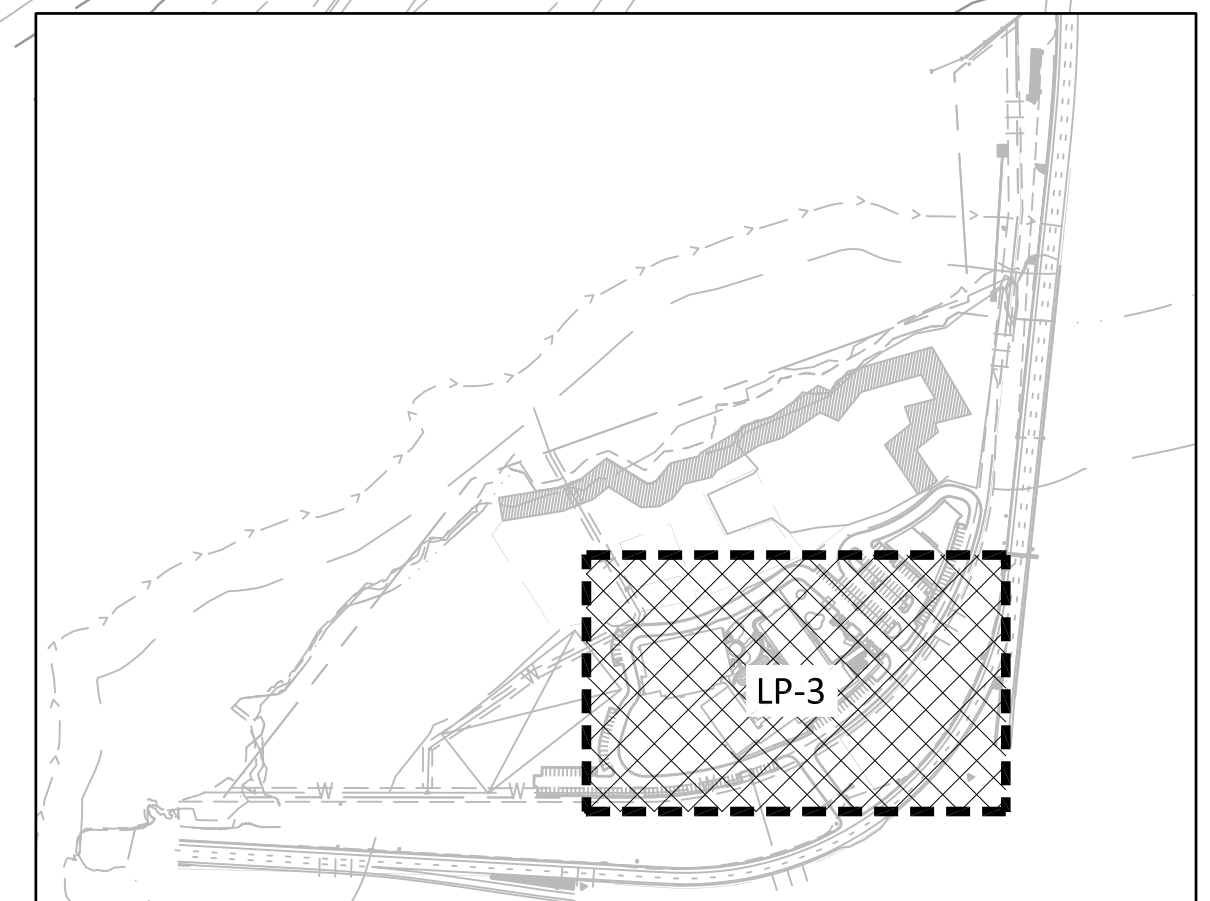
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MATCHLINE: SEE SHEET LP-5

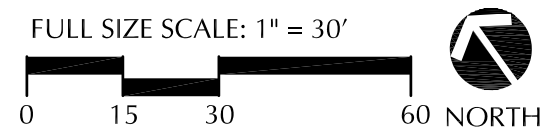
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LEGEND	
	TURF SOD
	TURF SEED
	NATIVE MULCH
	NATIVE SEED GRASS MIX
	PROTECTED TREE
	SAVED HERITAGE TREE



SHEET KEY  
NOT TO SCALE



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Issue Date:	2/16/2023

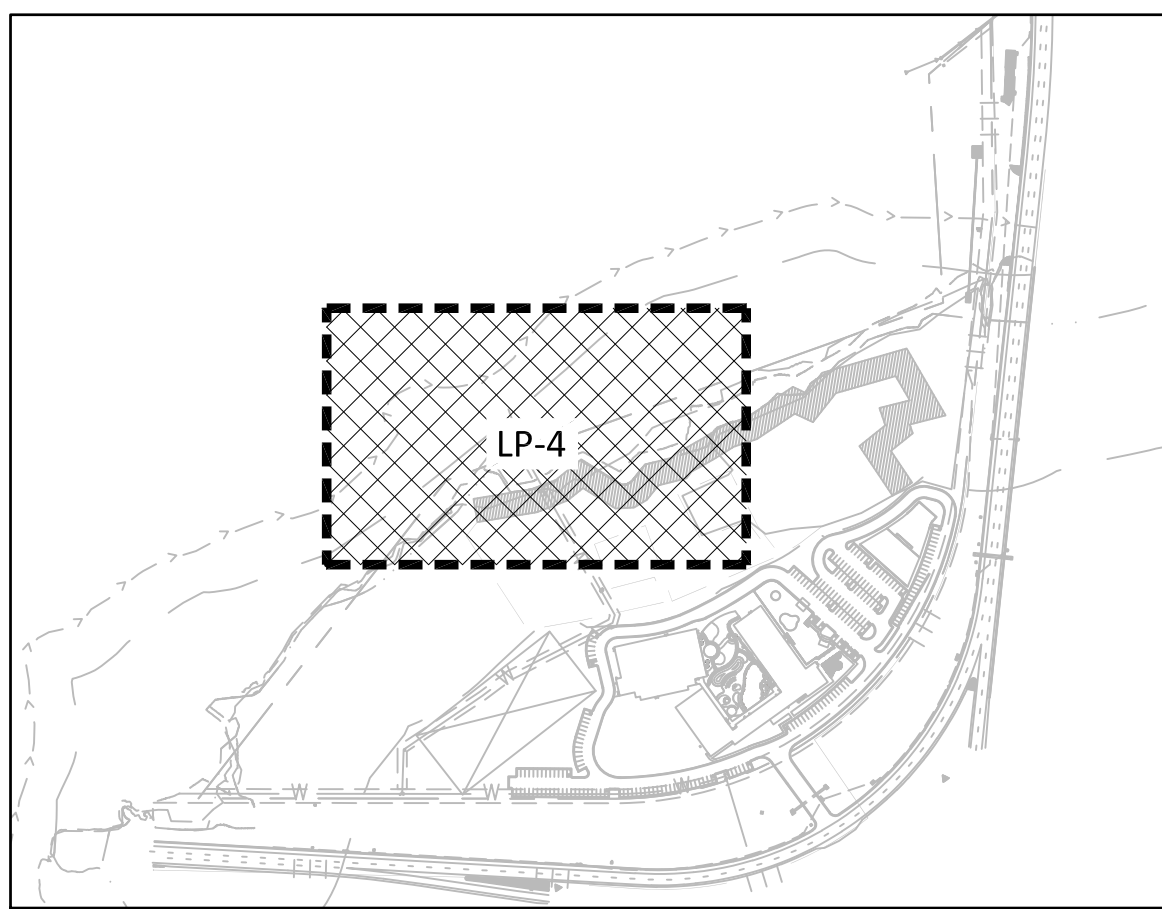
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Reviewed By: BD

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**PLANTING PLANS**

Sheet No.  
**LP-3**

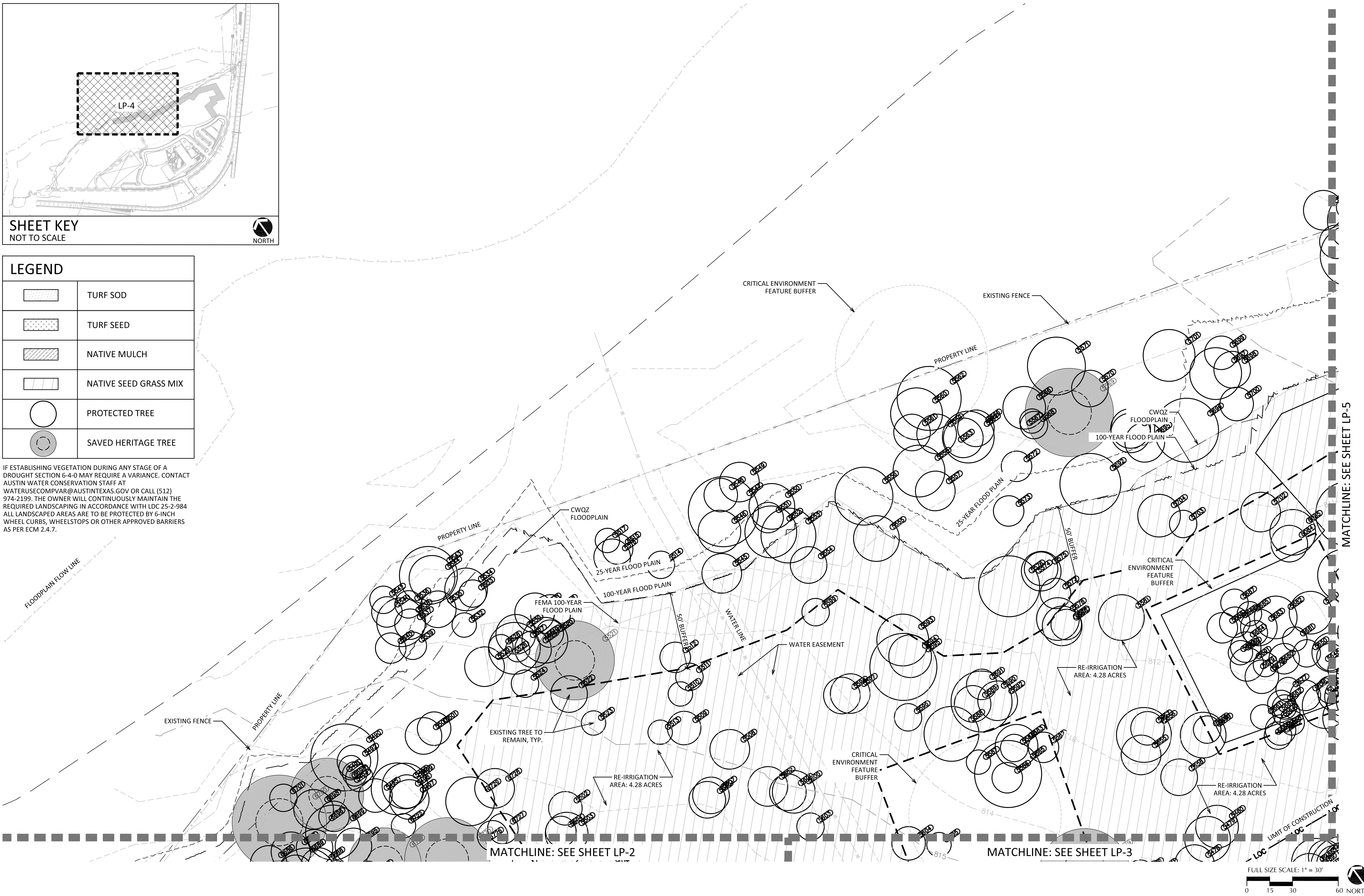
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**SHEET KEY**  
NOT TO SCALE

LEGEND	
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	TURF SEED
	NATIVE MULCH
	NATIVE SEED GRASS MIX
	PROTECTED TREE
	SAVED HERITAGE TREE

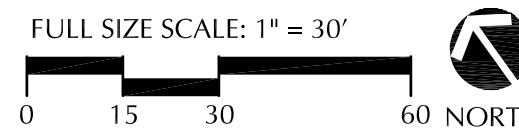
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MATCHLINE: SEE SHEET LP-2

MATCHLINE: SEE SHEET LP-3

MATCHLINE: SEE SHEET LP-5



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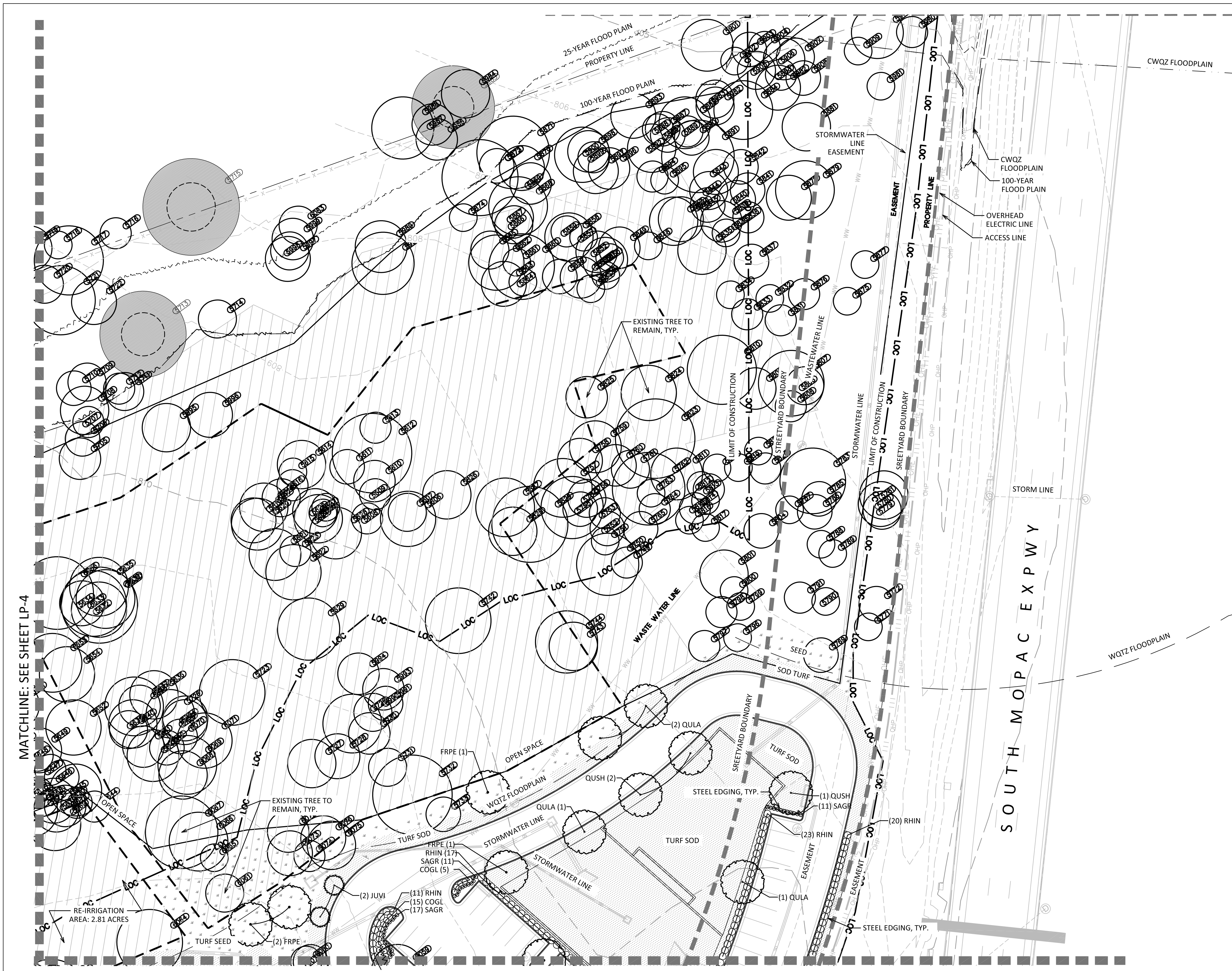
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**PLANTING PLANS**

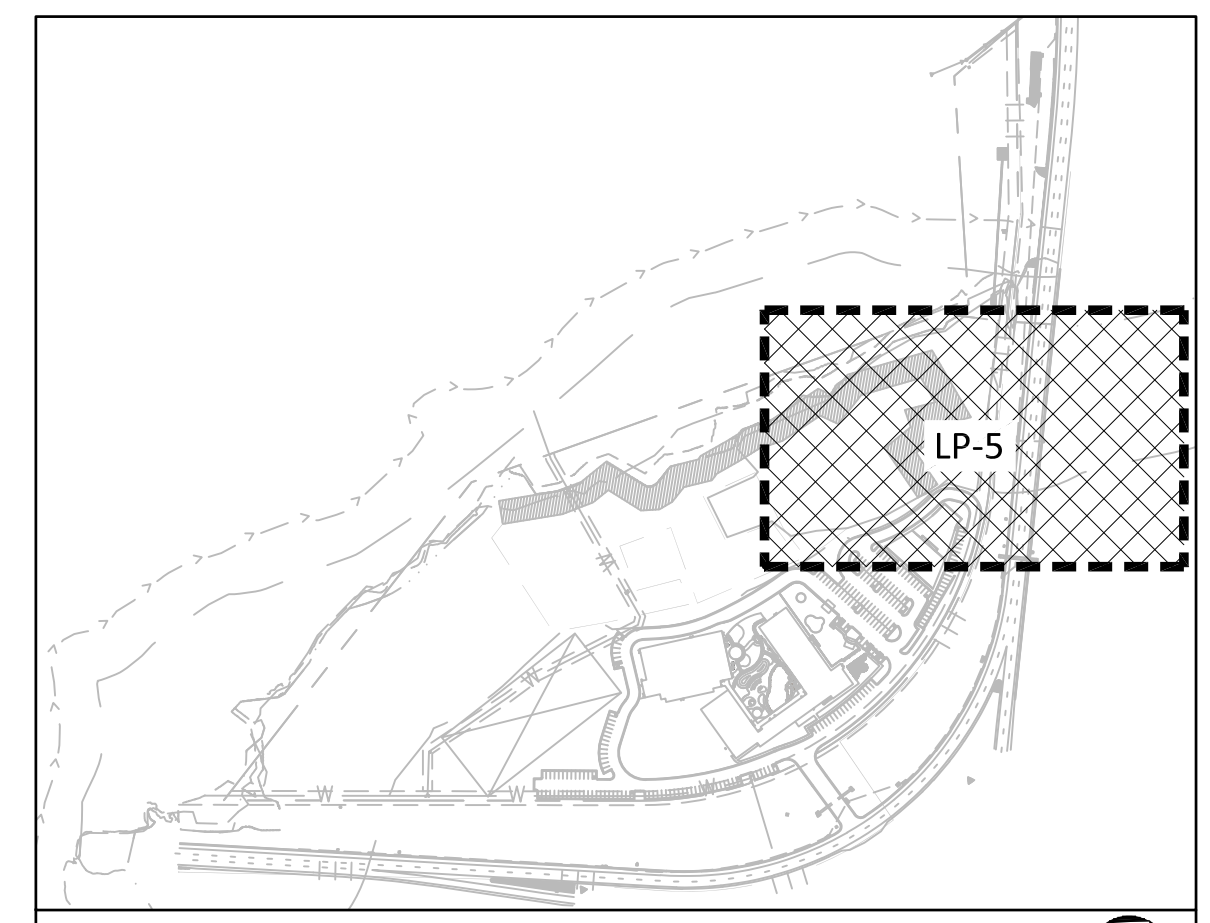
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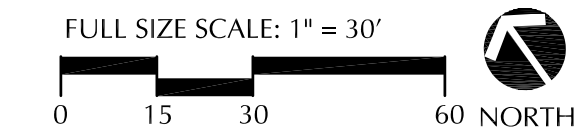


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LEGEND	
	TURF SOD
	TURF SEED
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SHEET KEY  
NOT TO SCALE



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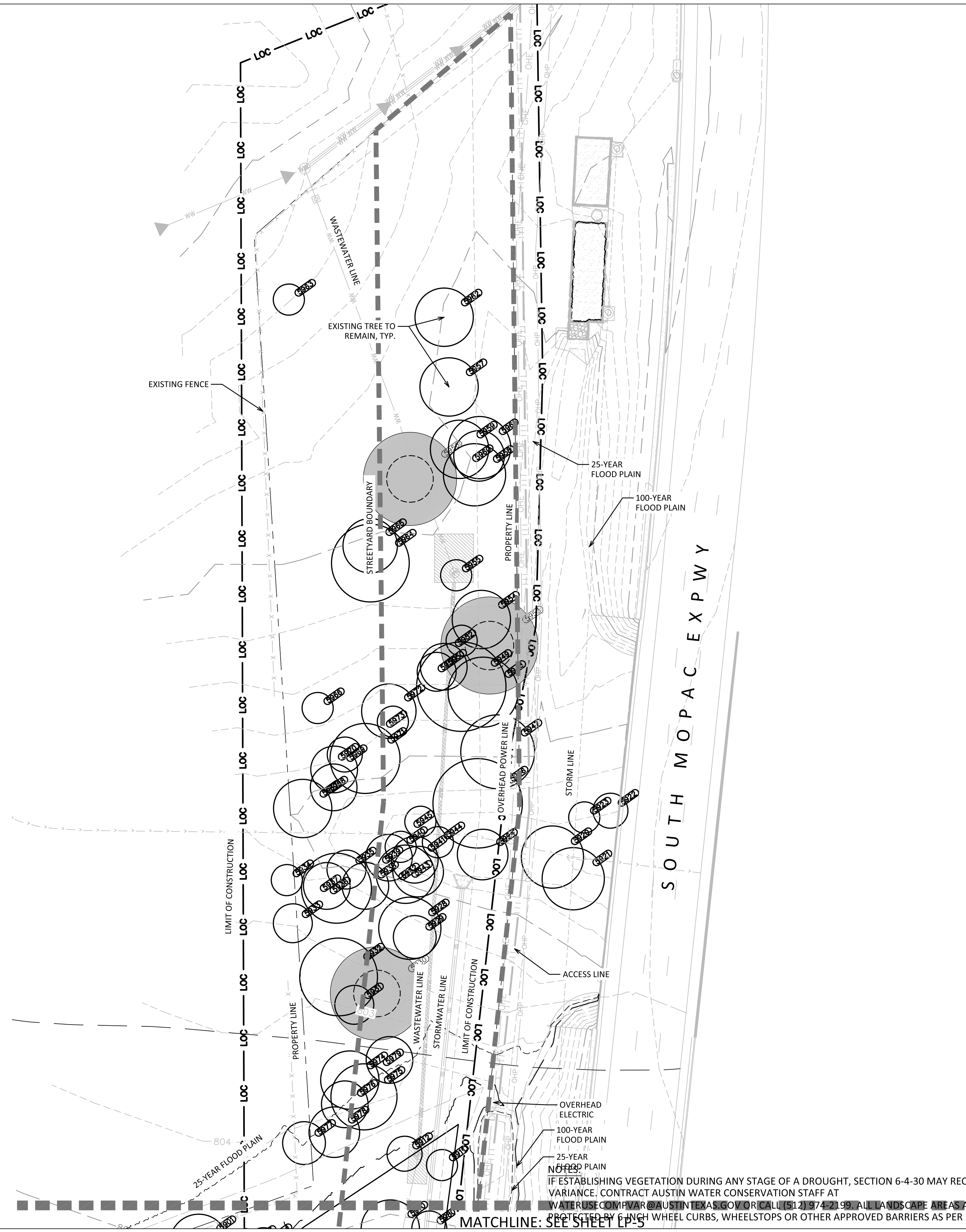
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**PLANTING PLANS**

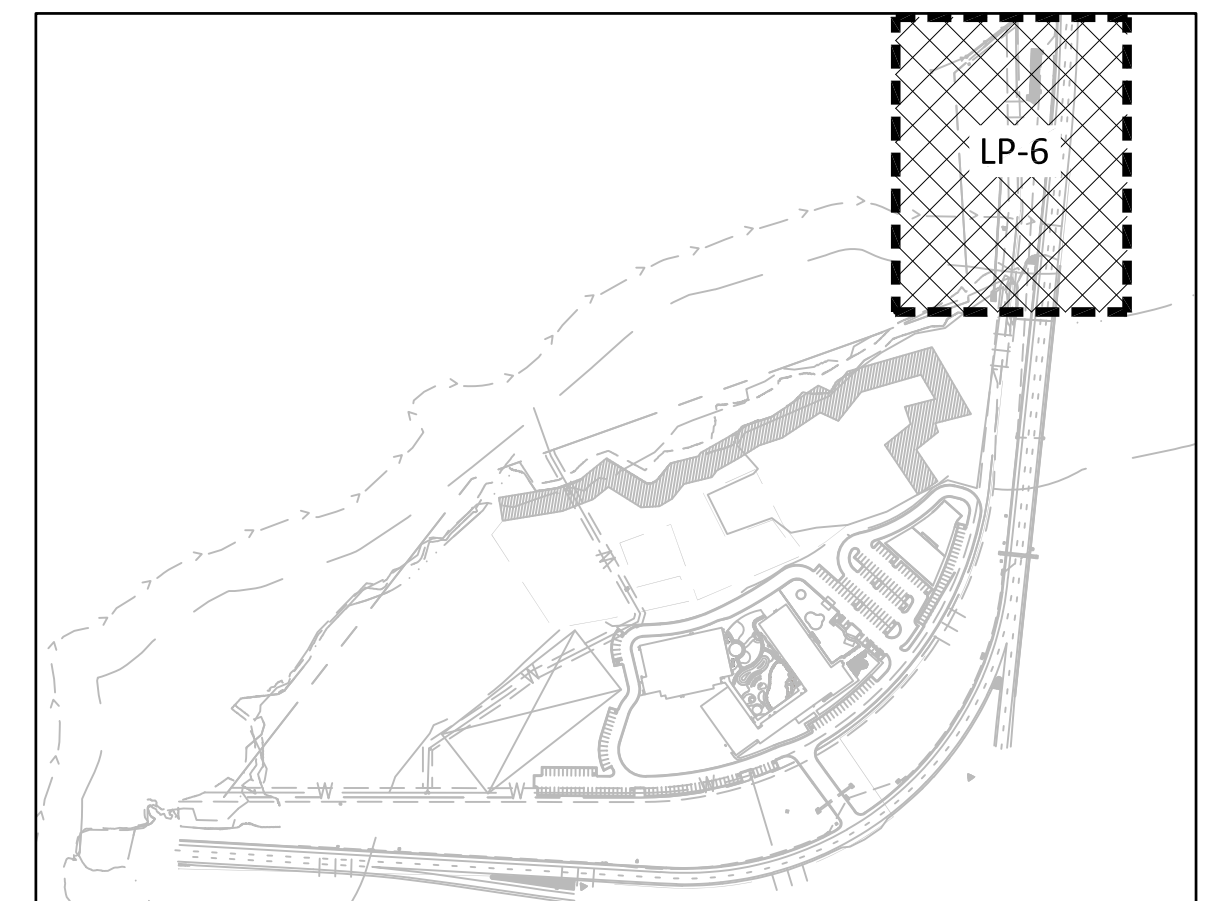
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	TURF SEED
	NATIVE MULCH
	NATIVE SEED GRASS MIX
	PROTECTED TREE
	SAVED HERITAGE TREE



**SHEET KEY**  
NOT TO SCALE

FULL SIZE SCALE: 1" = 30'  
0 15 30 60 NORTH



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2/16/2023

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Revisions:

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Reviewed By: BD

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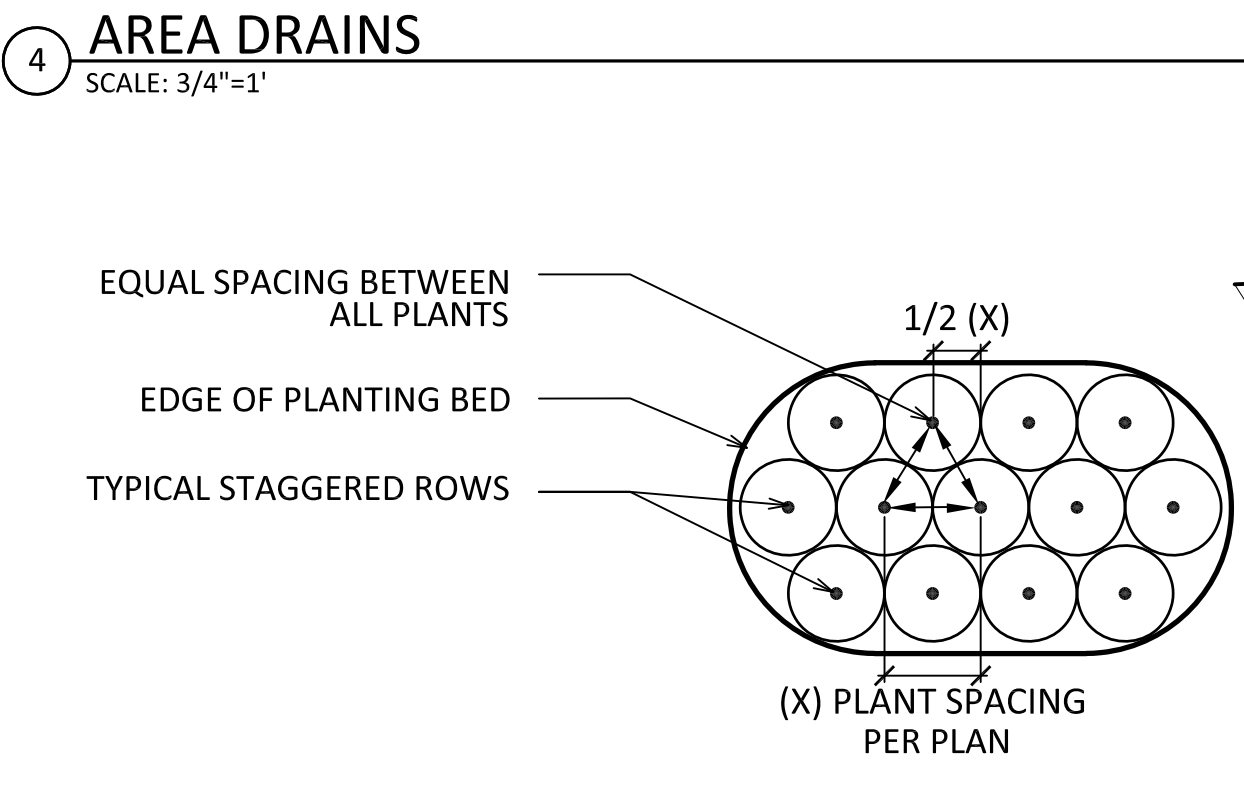
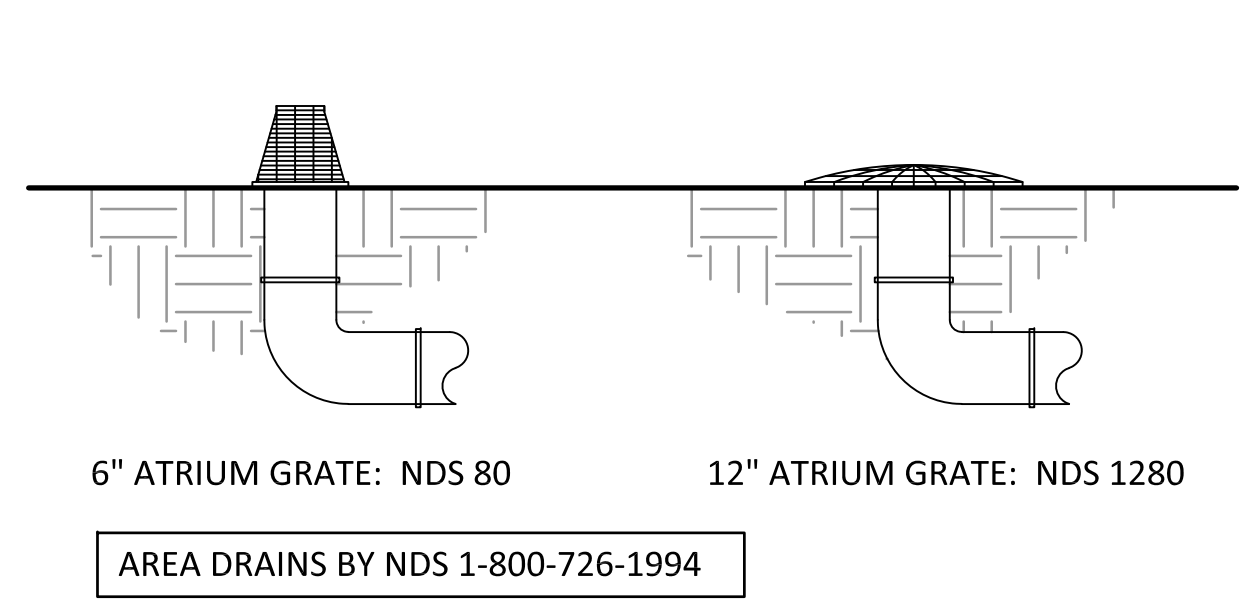
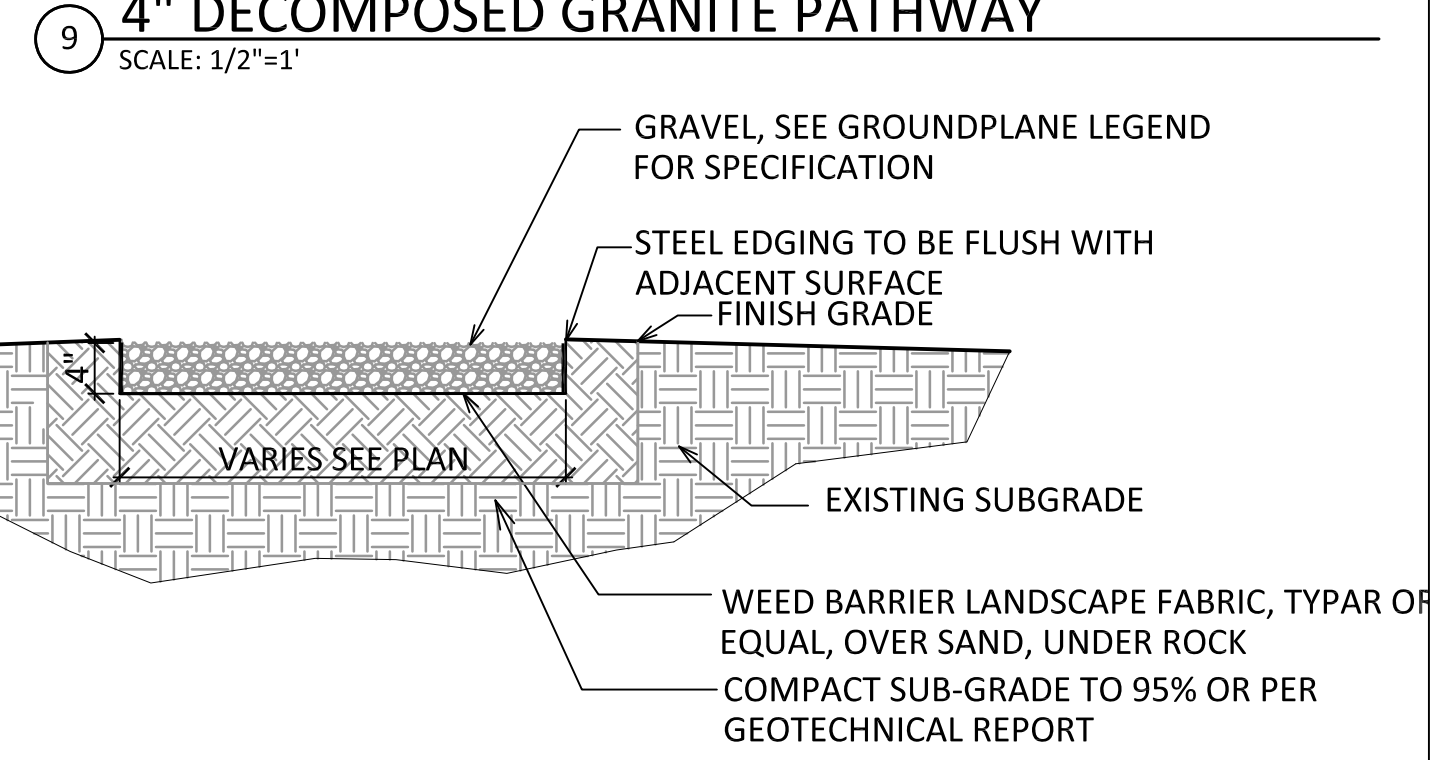
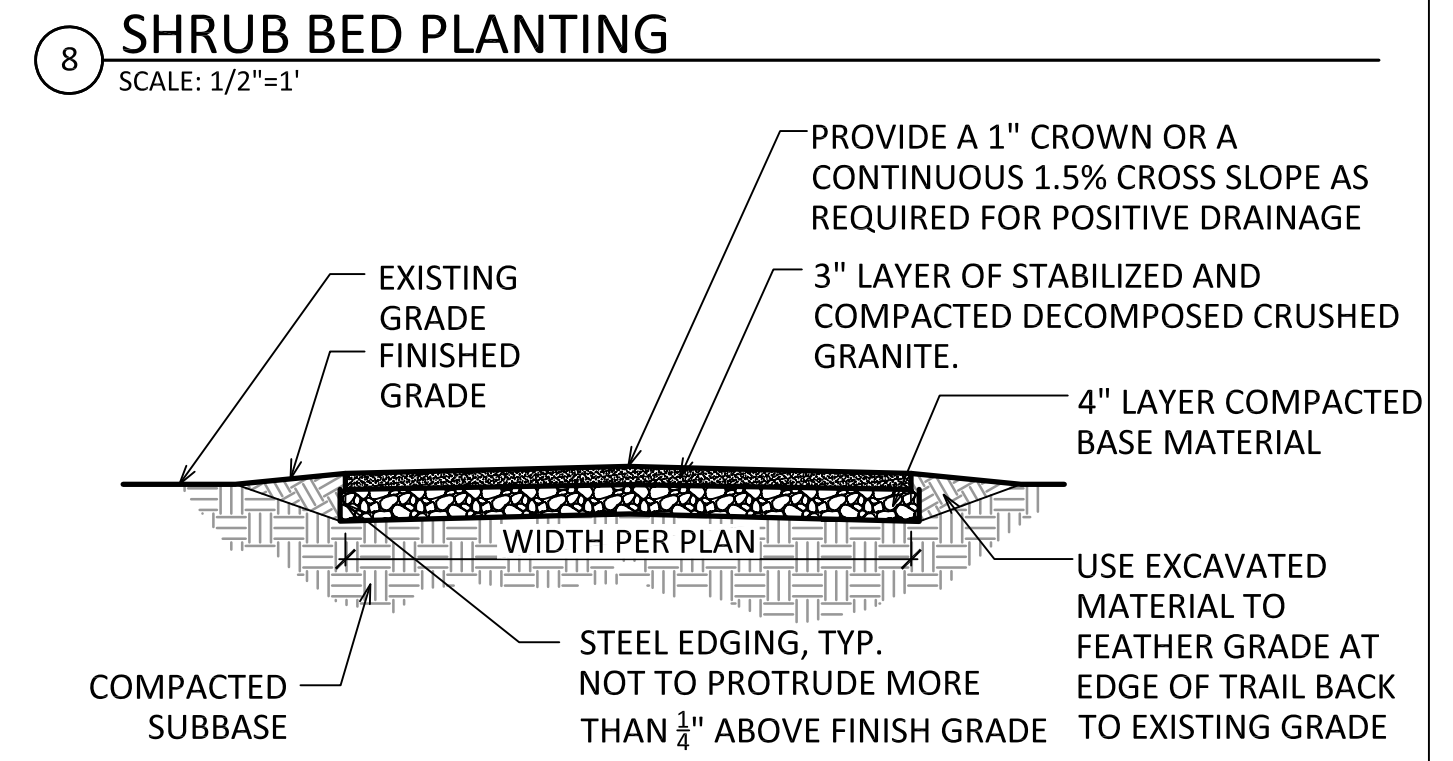
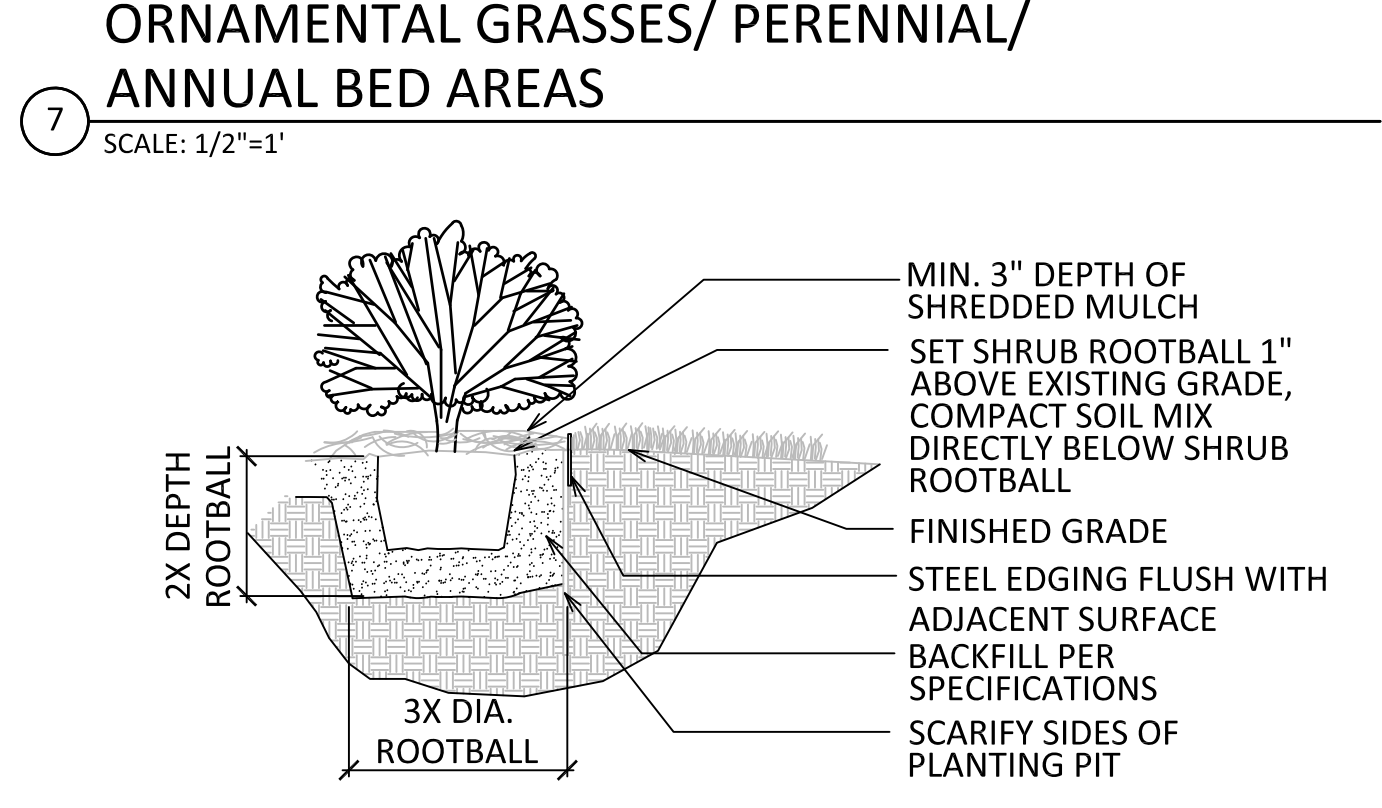
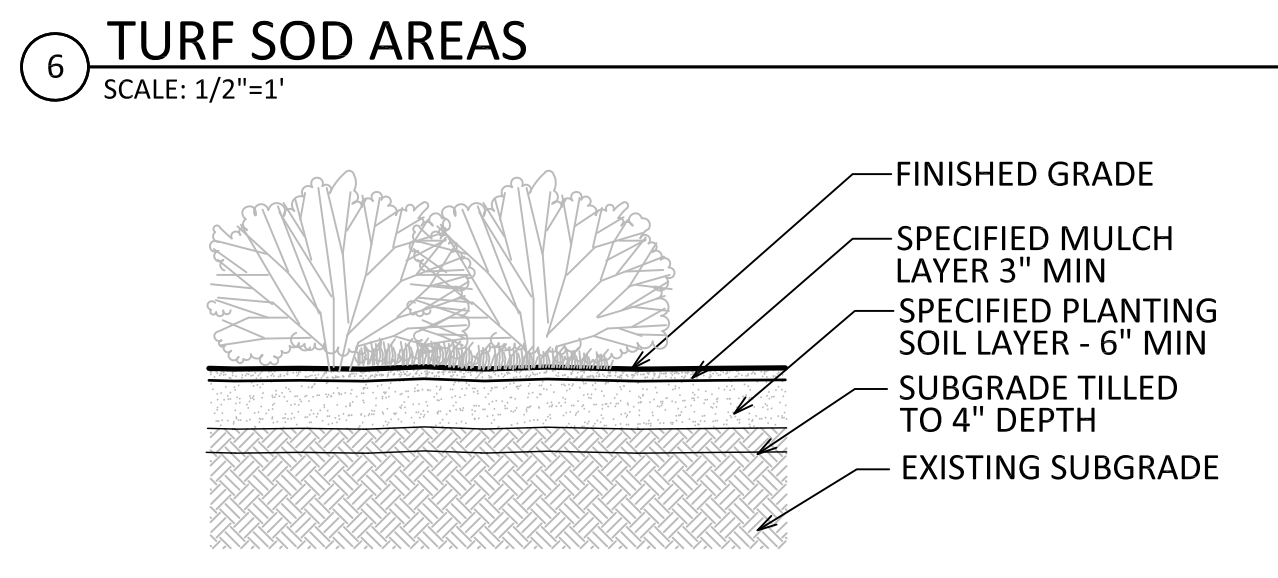
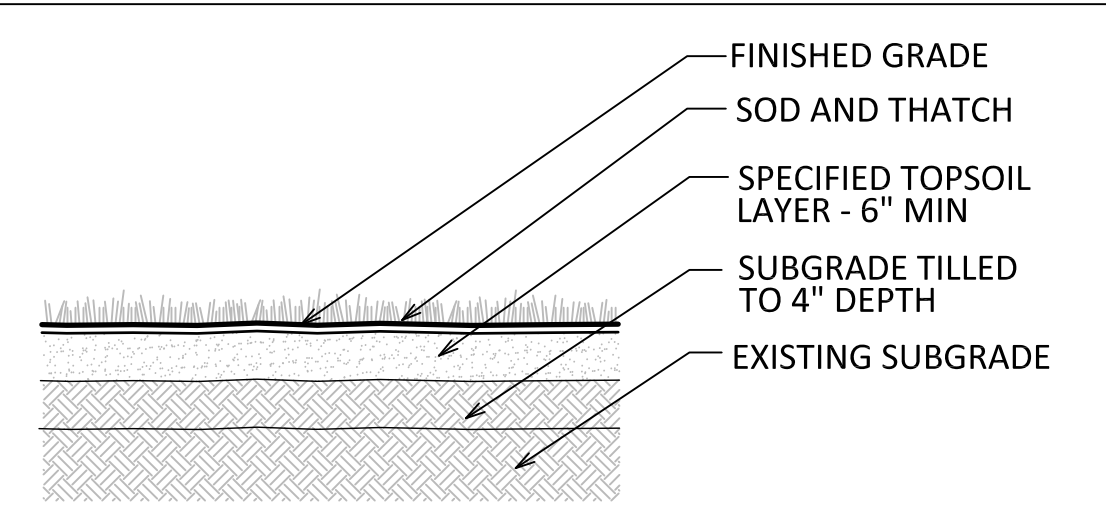
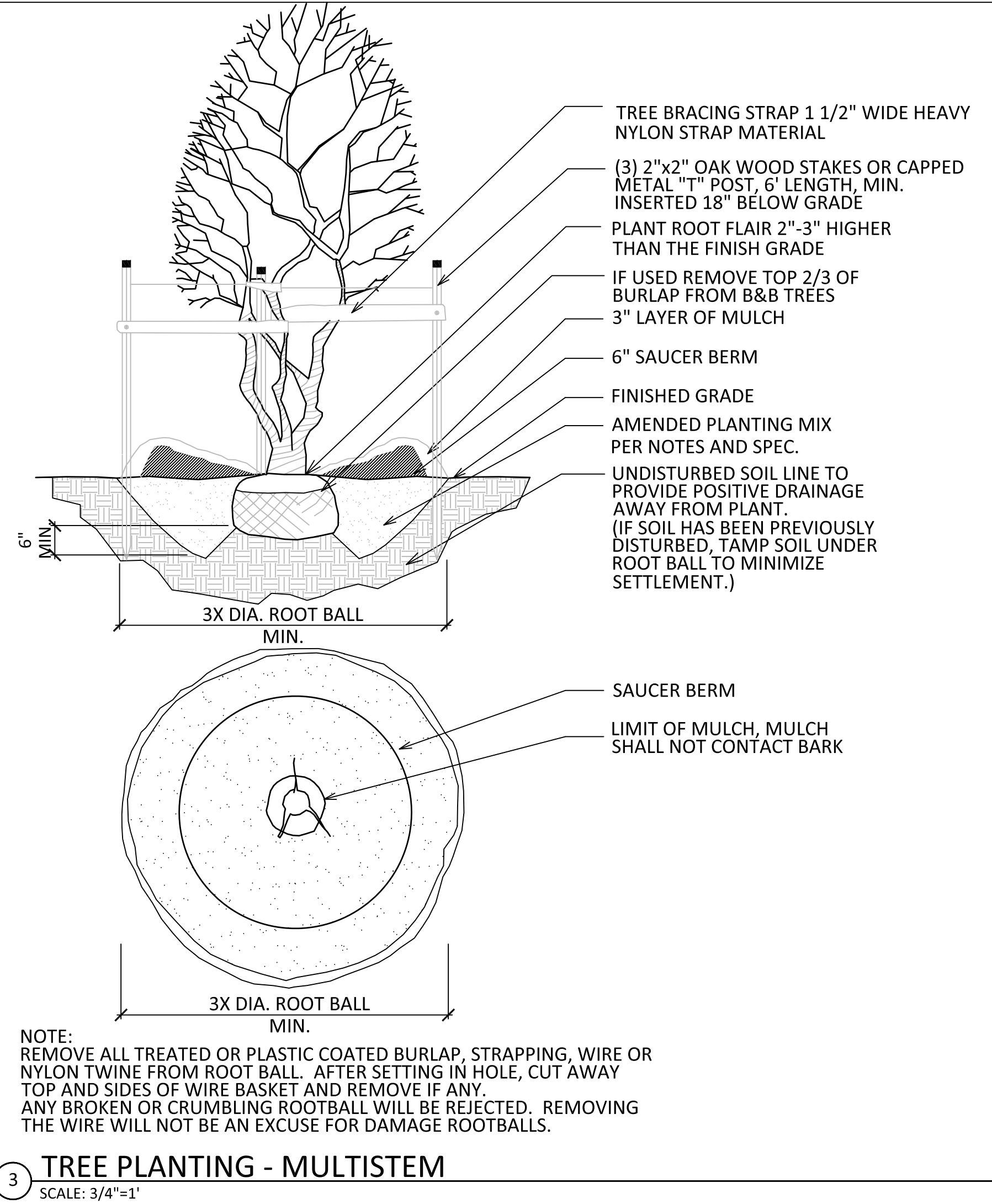
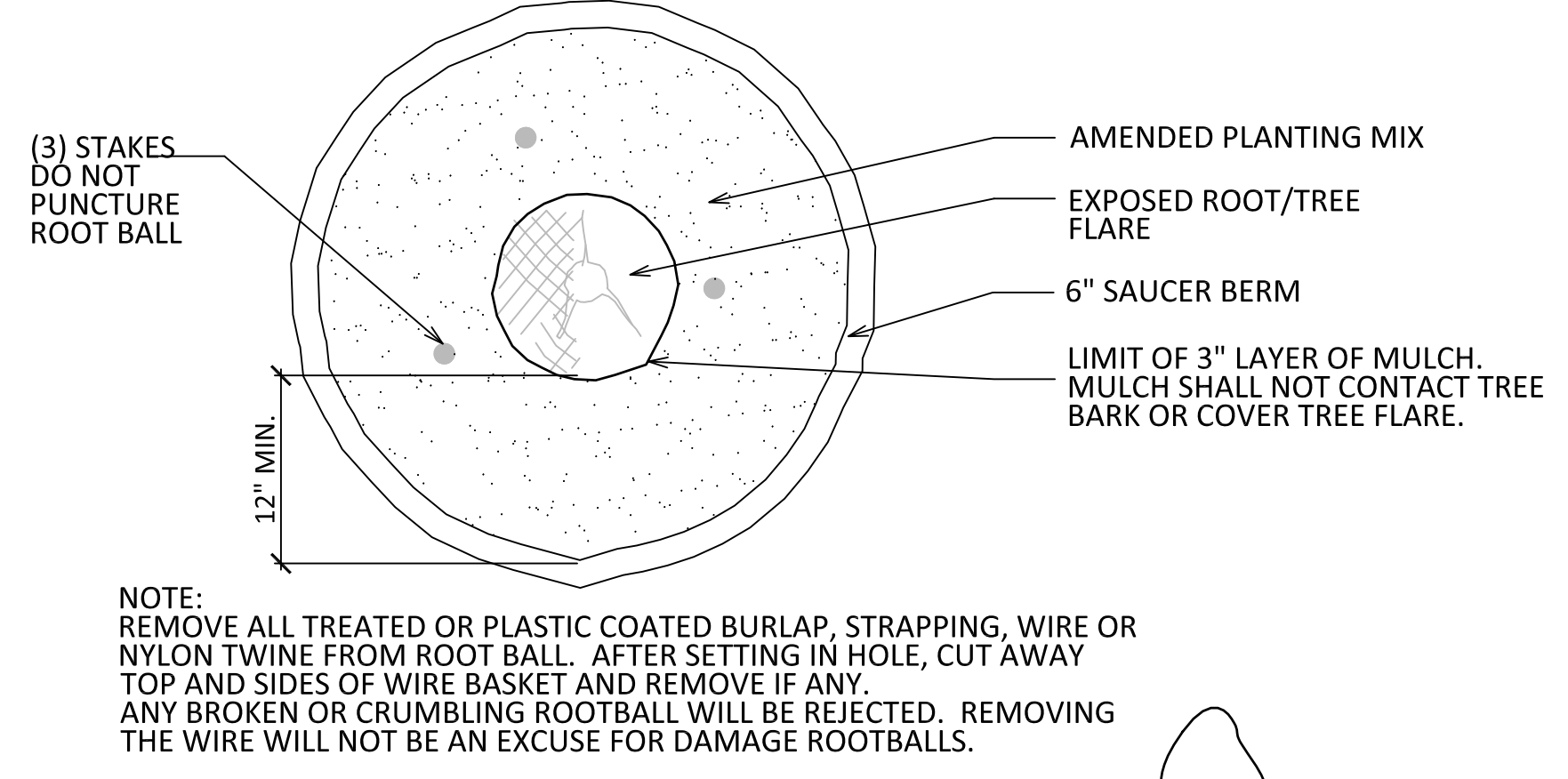
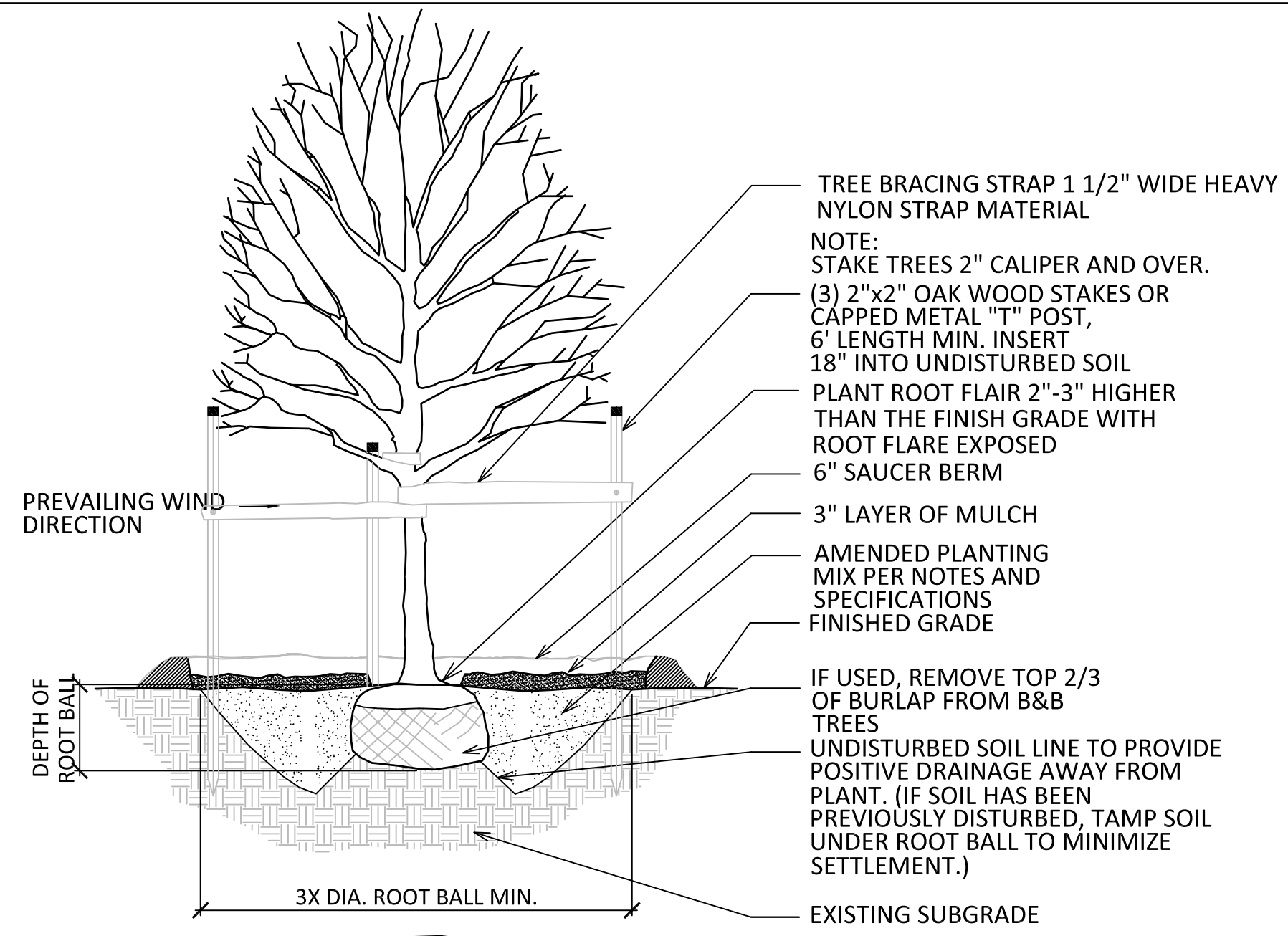
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Sheet No.  
LP-6

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LANDSCAPE IMPROVEMENTS**  
11720 S MOPAC EXPY SB  
TRAVIS COUNTY, TEXAS

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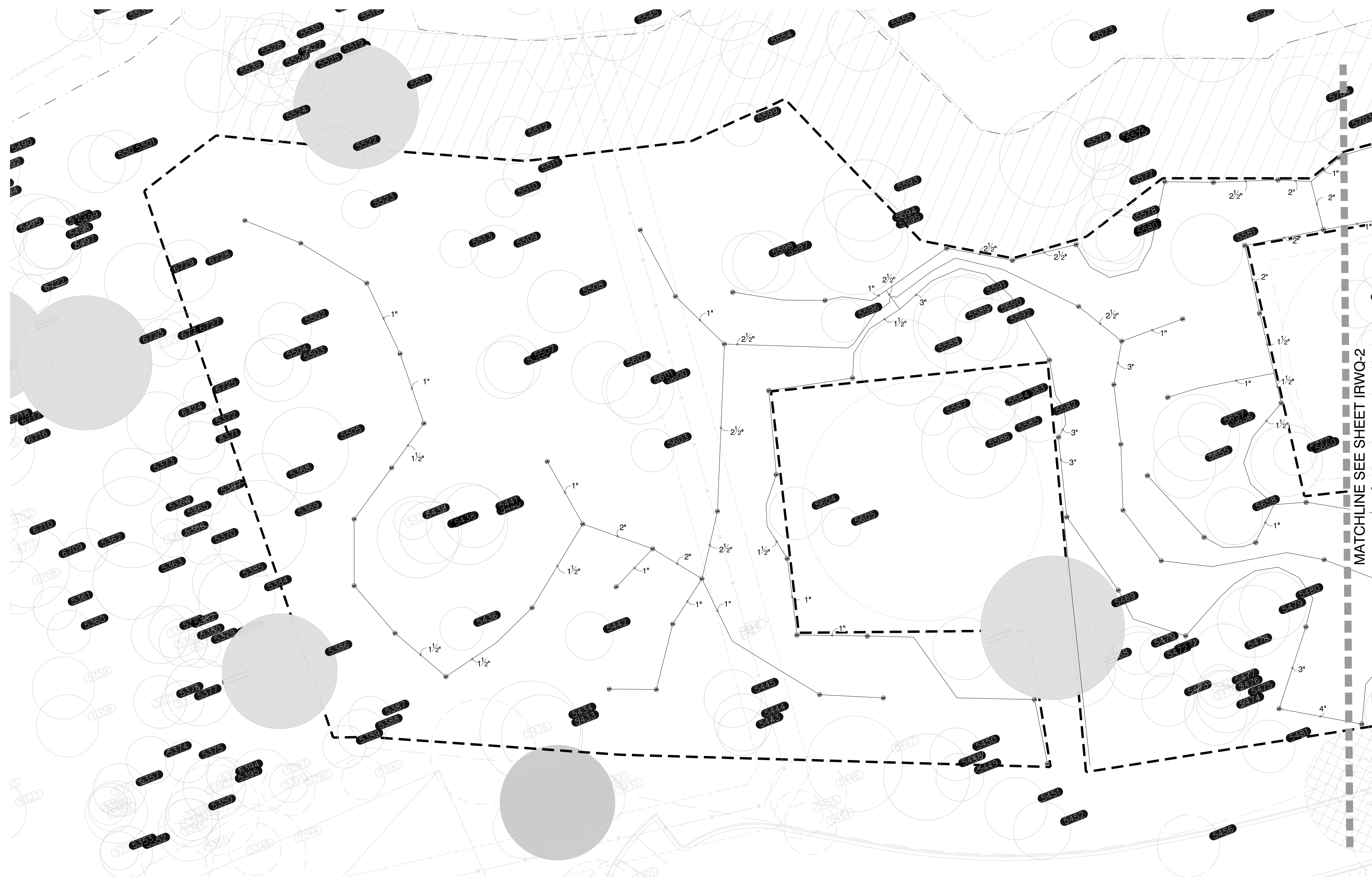
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Issue Date:	2/16/2023	

Drawn By: ES  
Reviewed By: BD  
Project No.: 210086-HACO

**PLANTING DETAILS**

Sheet No.: LP-D1

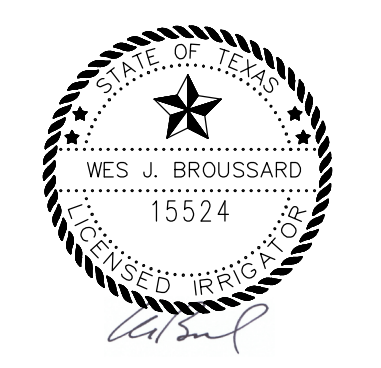
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02/15/2023

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11720 S MOPAC EXPY SB  
TRAVIS COUNTY, TEXAS

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Planning\23-Valor Southwest Water Quality\Production  
Plan (CADD)\CADD\1049.121 IRR Test 3.dwg

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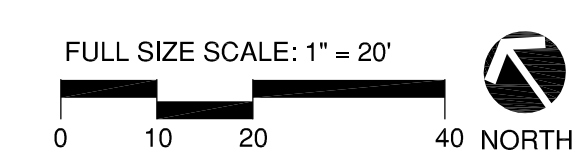
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**WATER QUALITY  
IRRIGATION PLAN**

Sheet No.  
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Austin, Texas 78745



02/15/2023

**VALOR SOUTHWEST CAMPUS  
LANDSCAPE IMPROVEMENTS**  
11720 S MOPAC EXPY SB  
TRAVIS COUNTY, TEXAS

Drawing File Name  
I:\AS-B9-7E-05 Irrigation\Drawings\1049-SEC Planning\21-Valor Southwest Water Quality/Production Plan (CADD)\CADD\1049.121 IRR Test 3.dwg

Issued:  
1. BID SET 5/06/2022  
2. COMMENT RESPONSE U0 10/24/2022  
3. COMMENT RESPONSE U1 2/14/2023  
4.  
5.

Revisions:  
1.  
2.  
3.  
4.  
5.

Issue Date: 02/15/2023

Drawn By: WB  
Reviewed By: BD

Project No.  
**210086-HACO**

**WATER QUALITY  
IRRIGATION PLAN**

Sheet No.  
**IRWQ-2** of

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Drawing File Name  
\\NAS-B9-7E-05\irrigation\C\Items\1049-SEC  
Planning\12-Valor Southwest Water Quality\Production  
Plan (CADD)\CADD\1049.121 IRR Test 3.dwg

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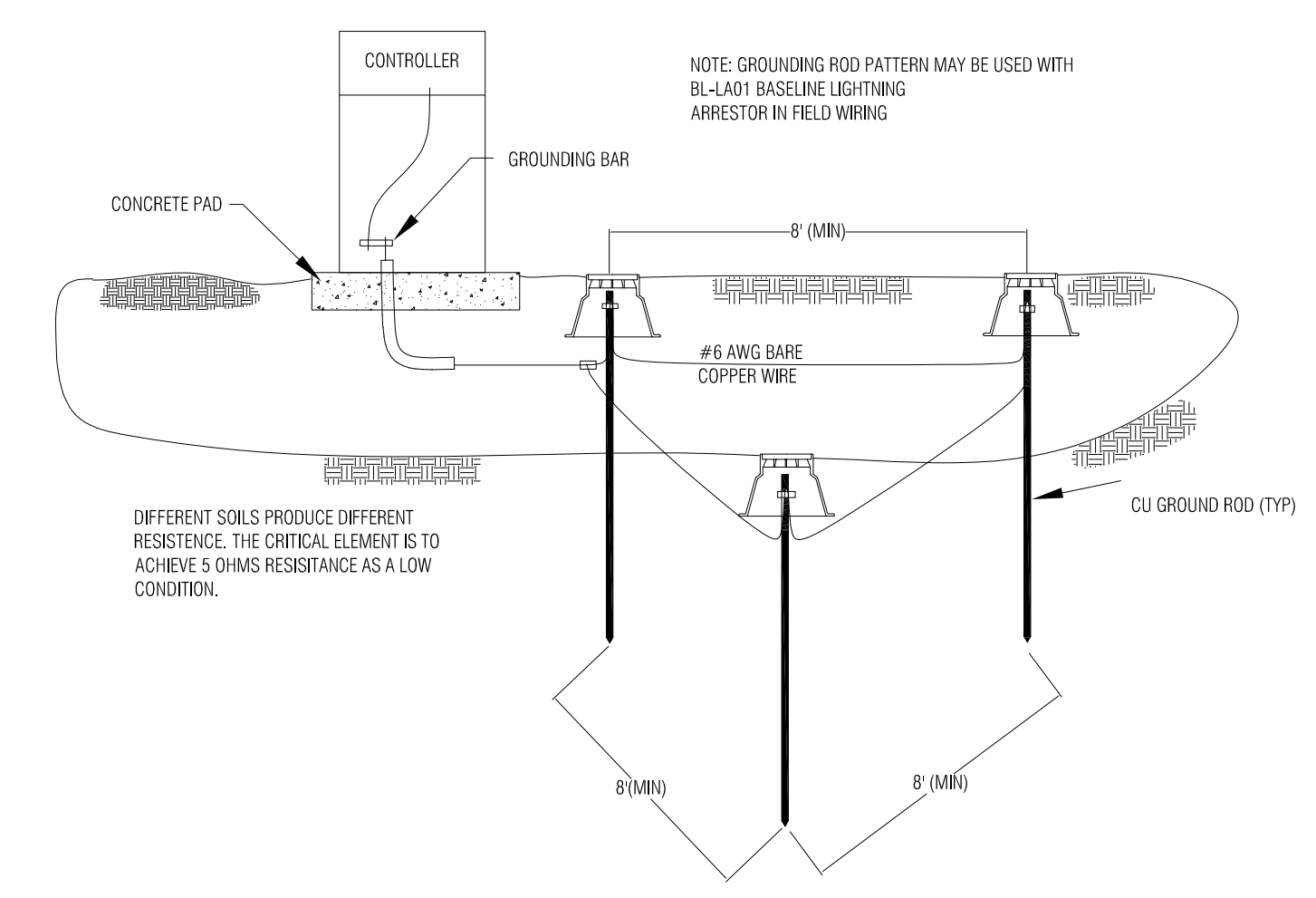
Drawn By: WB  
Reviewed By: BD

Project No.  
210086-HACO

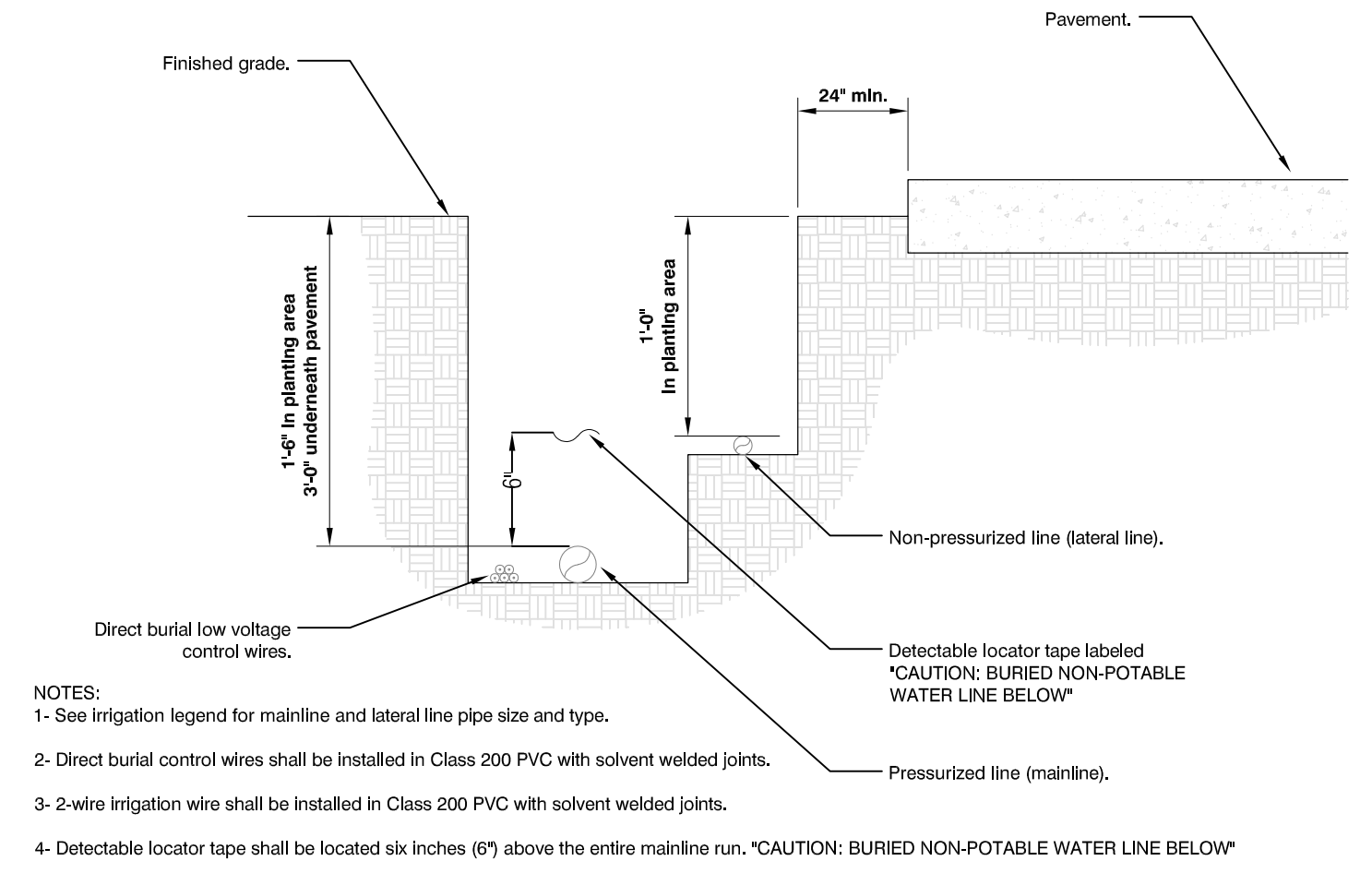
WATER QUALITY  
IRRIGATION DETAILS

Sheet No.  
IRWQ-4 of

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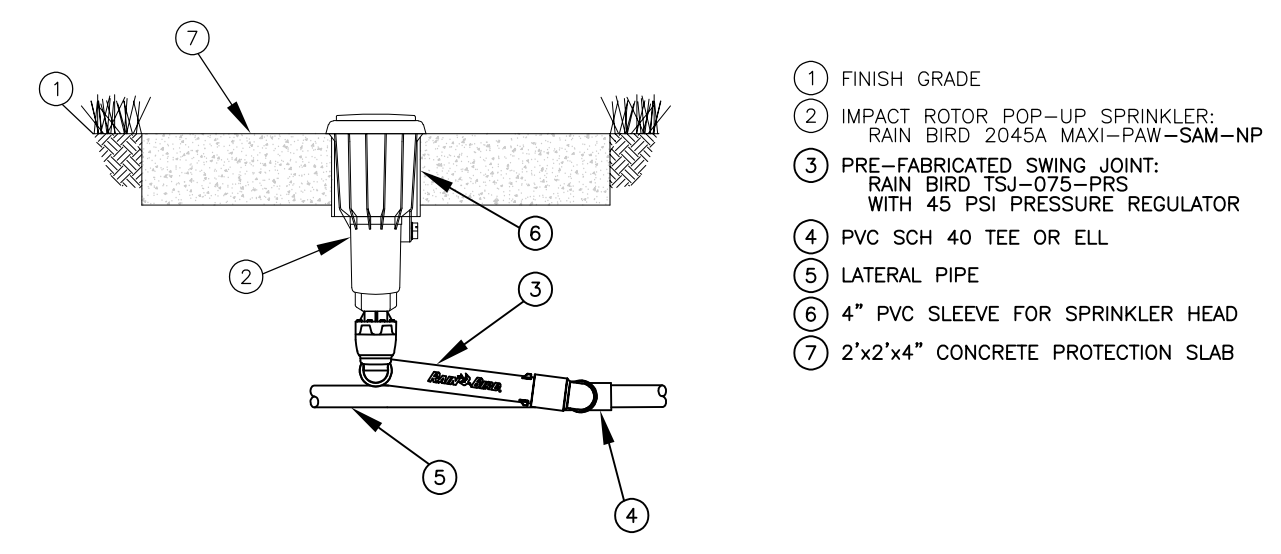


16 BASELINE CONTROLLER IN 'P' PEDESTAL GROUNDING DETAIL



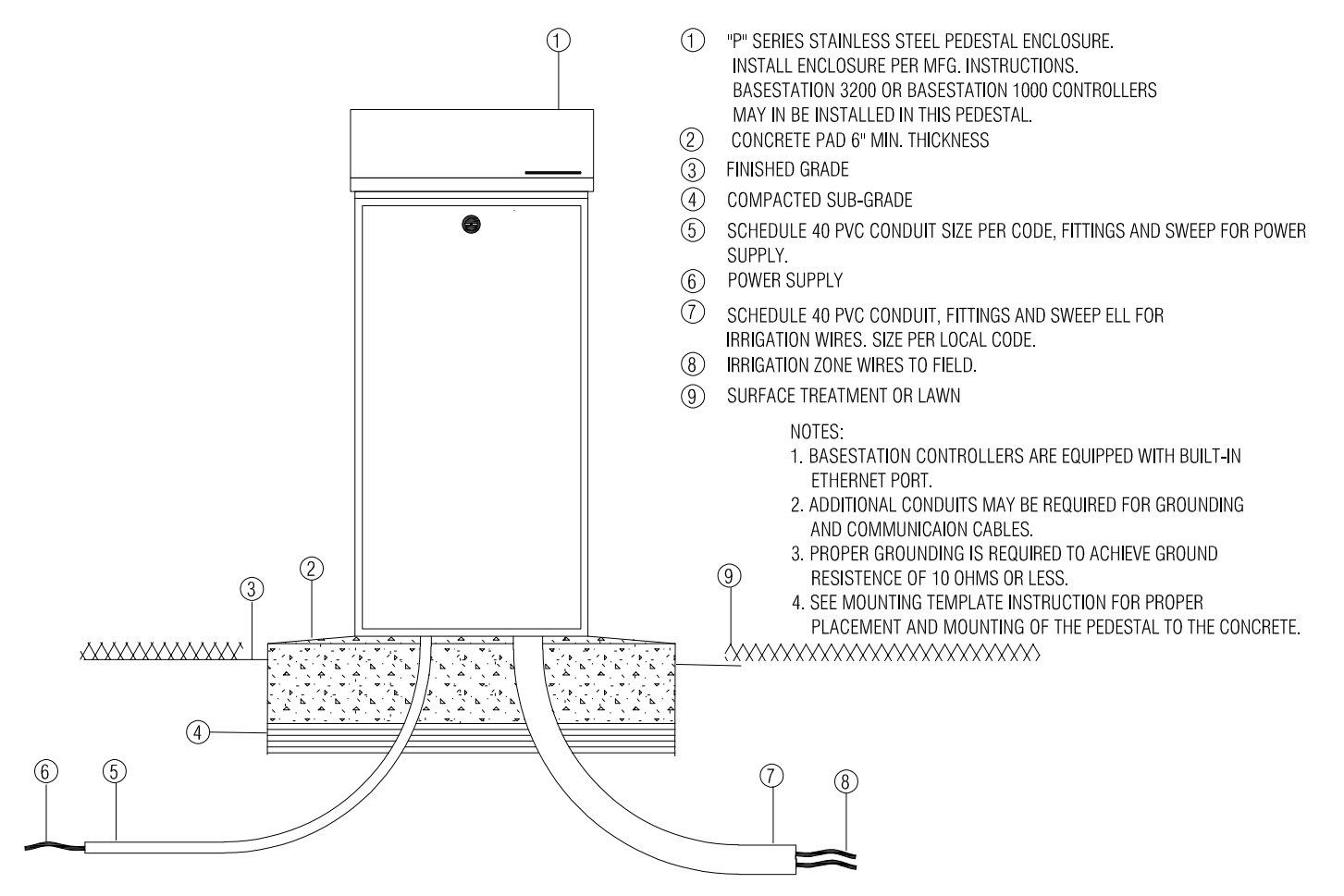
7 IRRIGATION TRENCHING

FX-IR-FX-AUXEQ-08

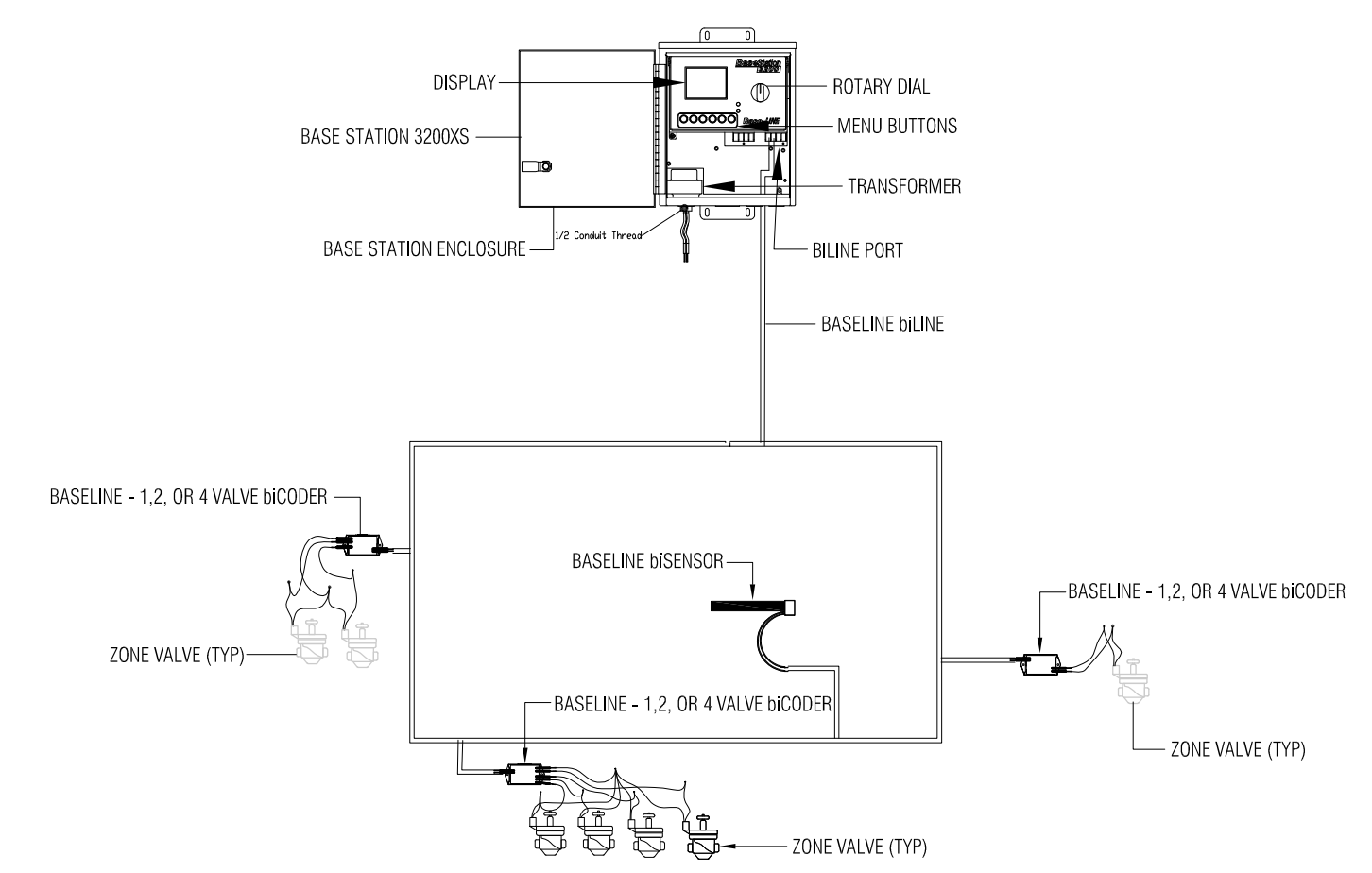


8 RAINBIRD MAXIPAW POPUP IMPACT ROTOR IN 2'x2'x4" CONCRETE PROTECTION SLAB

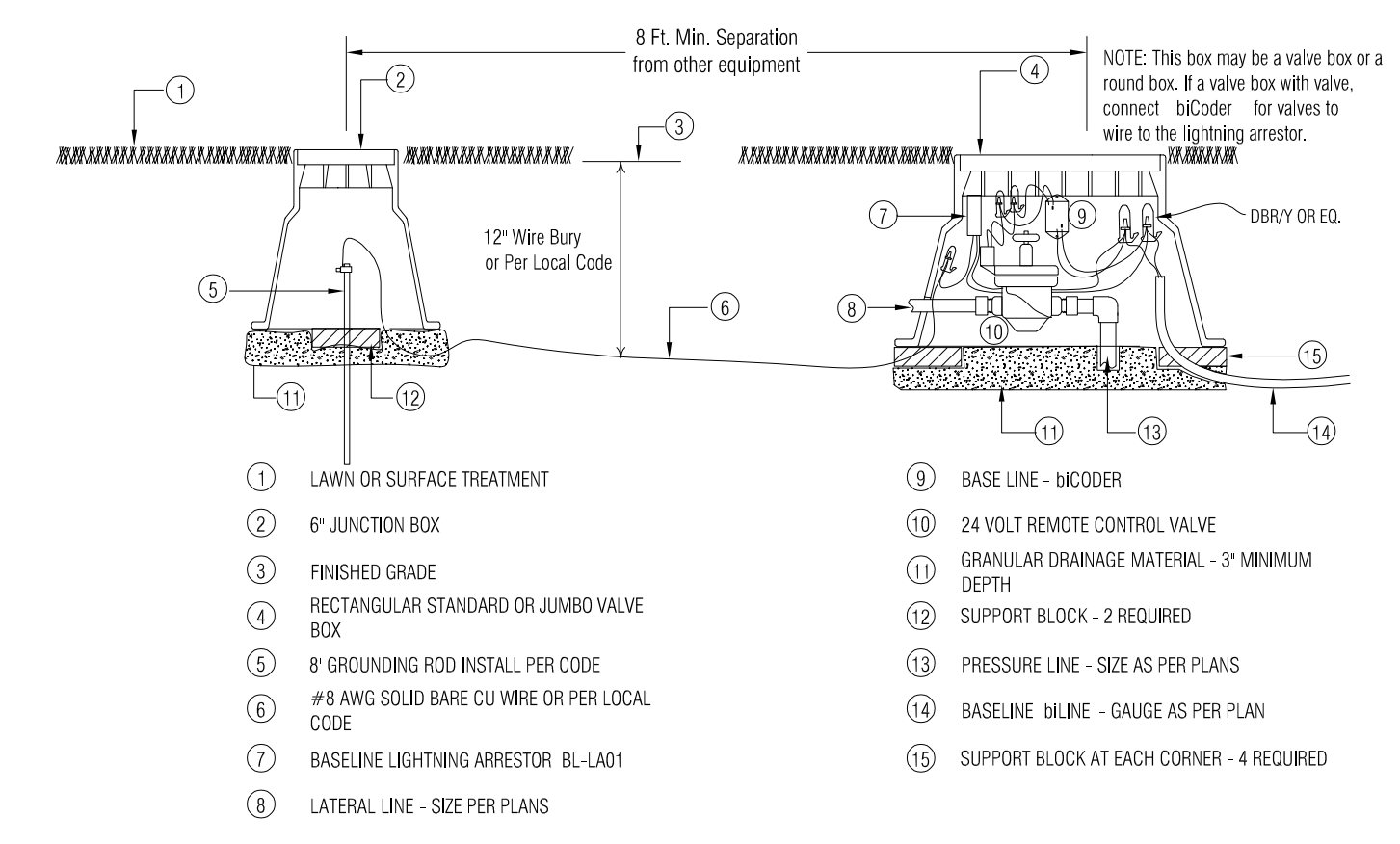
NOTE:  
A SWING PIPE ASSEMBLY MAY BE USED WITH FLOWS LESS THAN 4 GPM.



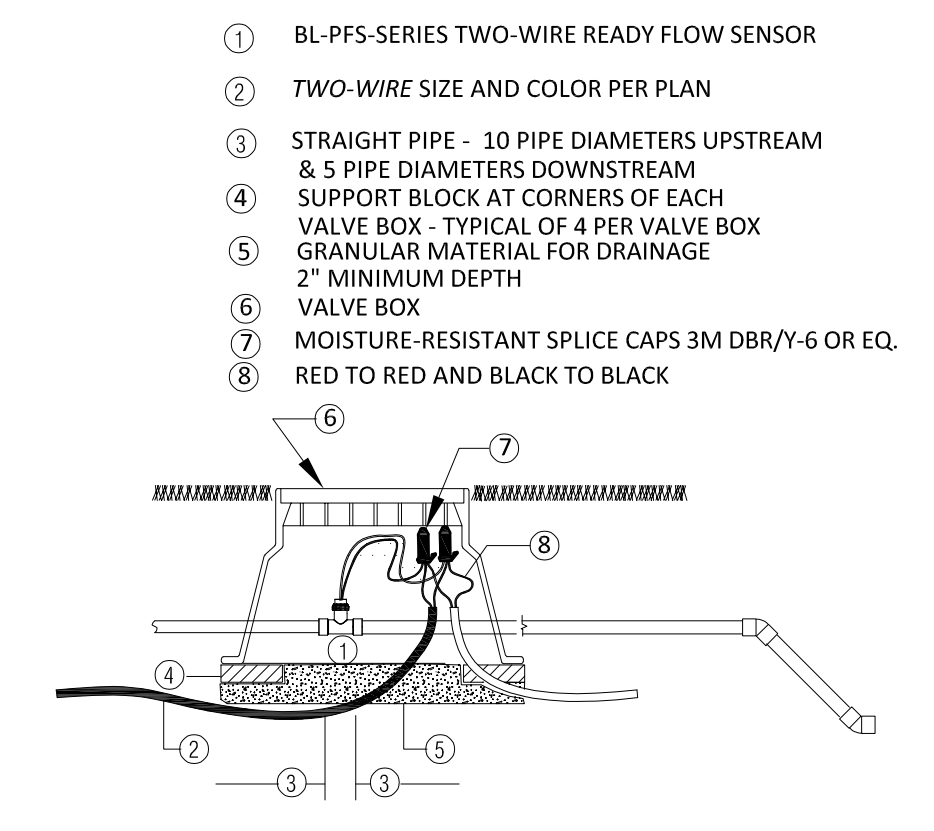
17 BASELINE 3200P IRRIGATION CONTROLLER 'P' STAINLESS STEEL PEDESTAL



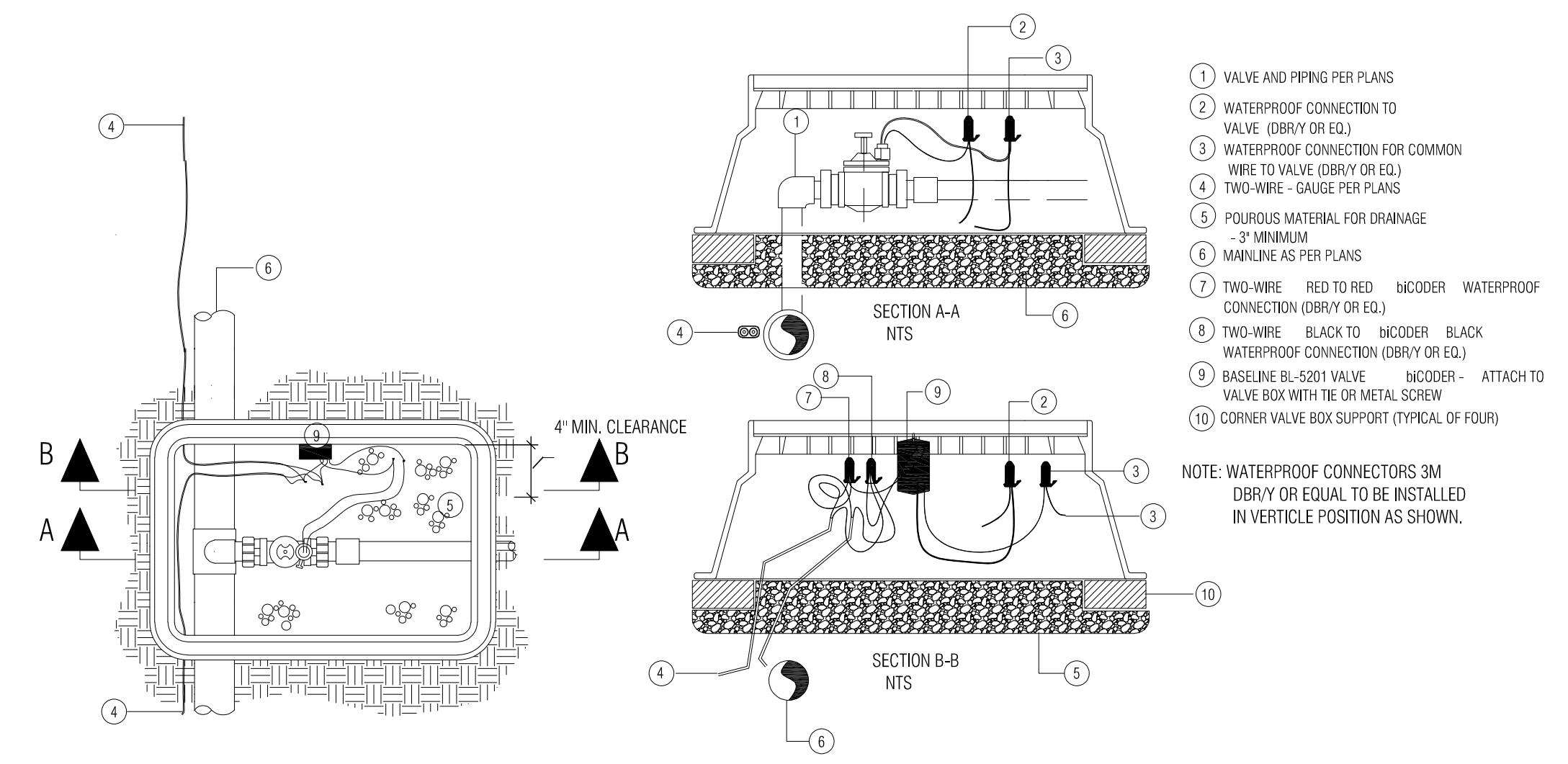
18 BASELINE 3200 SITE CONTROLLER SCHEMATIC



19 BASELINE BL-LA01 LIGHTNING ARRESTOR INSTALLATION & WIRING



20 BASELINE BL-PFS-SERIES FLOW SENSOR INSTALLATION & WIRING



22 BASELINE BL5201 SINGLE STATION VALVE BICODER



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