Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

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

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

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

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

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

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

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

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

Technical Review

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

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

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

3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or will be denied. Please note that because the technical review is underway, whether the application is withdrawn or denied **the application fee will be forfeited**.
4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

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

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

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

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

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

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

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

1. Regulated Entity Name: City of Austin Zilker Park						**2. Regulated Entity No.: 102761764**			
3. Customer Name: City of Austin						**4. Customer No.: 600135198**			
5. Project Type: **(Please circle/check one)**	(New)		Modification			Extension		Exception	
6. Plan Type: **(Please circle/check one)**	(WPAP)	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		(Non-residential)			**8. Site (acres):**			20.02
9. Application Fee:	$6500		**10. Permanent BMP(s):**			1			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			0			
13. County:	Travis		**14. Watershed:**			Colorado River			

Application Distribution

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

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

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

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	___	_**X**_	___
Region (1 req.)	___	_**X**_	___
County(ies)	___	_**X**_	___
Groundwater Conservation District(s)	___Edwards Aquifer Authority ___Barton Springs/ Edwards Aquifer ___Hays Trinity ___Plum Creek	_**X**_Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda ___Dripping Springs ___Kyle ___Mountain City ___San Marcos ___Wimberley ___Woodcreek	_**X**_Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	___Austin ___Cedar Park ___Florence ___Georgetown ___Jerrell ___Leander ___Liberty Hill ___Pflugerville ___Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	___	___	___	___	___
Region (1 req.)	___	___	___	___	___
County(ies)	___	___	___	___	___
Groundwater Conservation District(s)	___ Edwards Aquifer Authority ___Trinity-Glen Rose	___Edwards Aquifer Authority	___Kinney	___EAA ___Medina	___EAA ___Uvalde
City(ies) Jurisdiction	___Castle Hills ___Fair Oaks Ranch ___Helotes ___Hill Country Village ___Hollywood Park ___San Antonio (SAWS) ___Shavano Park	___Bulverde ___Fair Oaks Ranch ___Garden Ridge ___New Braunfels ___Schertz	NA	___San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review. Dain Chernick, P.E.
Print Name of Customer/Authorized Agent  04-17-2024 Signature of Customer/Authorized Agent Date

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

GENERAL INFORMATION FORM (TCEQ 0587)

General Information Form

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Dain Chernick, P.E.

Date: 04-17-2024

Signature of Customer/Agent:

Project Information

1. Regulated Entity Name: City of Austin Zilker Park
2. County: Travis
3. Stream Basin: Colorado River
4. Groundwater Conservation District (If applicable): Barton Springs/Edwards Aquifer
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

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

7. Customer (Applicant):

   Contact Person: George Maldonado
   Entity: City of Austin Parks and Recreation
   Mailing Address: 919 W 28th Half Street
   City, State: Austin, TX Zip: 78705
   Telephone: 512-974-9525 FAX: _____
   Email Address: george.maldonado@austintexas.gov

8. Agent/Representative (If any):

   Contact Person: Dain Chernick, P.E.
   Entity: Weston Solutions, Inc.
   Mailing Address: 5301 Southwest Pkwy, Suite 450
   City, State: Austin, TX Zip: 78735
   Telephone: 352-359-6768 FAX: _____
   Email Address: Dain.Chernick@westonsolutions.com

9. Project Location:

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

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

    Located within the boundaries of Zilker Park. The proposed driveway is located on the east side of Columbus Drive apporximately 1,000 feet northwest of the intersection of Columbus Drive and William Barton Drive.

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

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

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

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

☒ Survey staking will be completed by this date: 06/17/2020

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: Public Park

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)

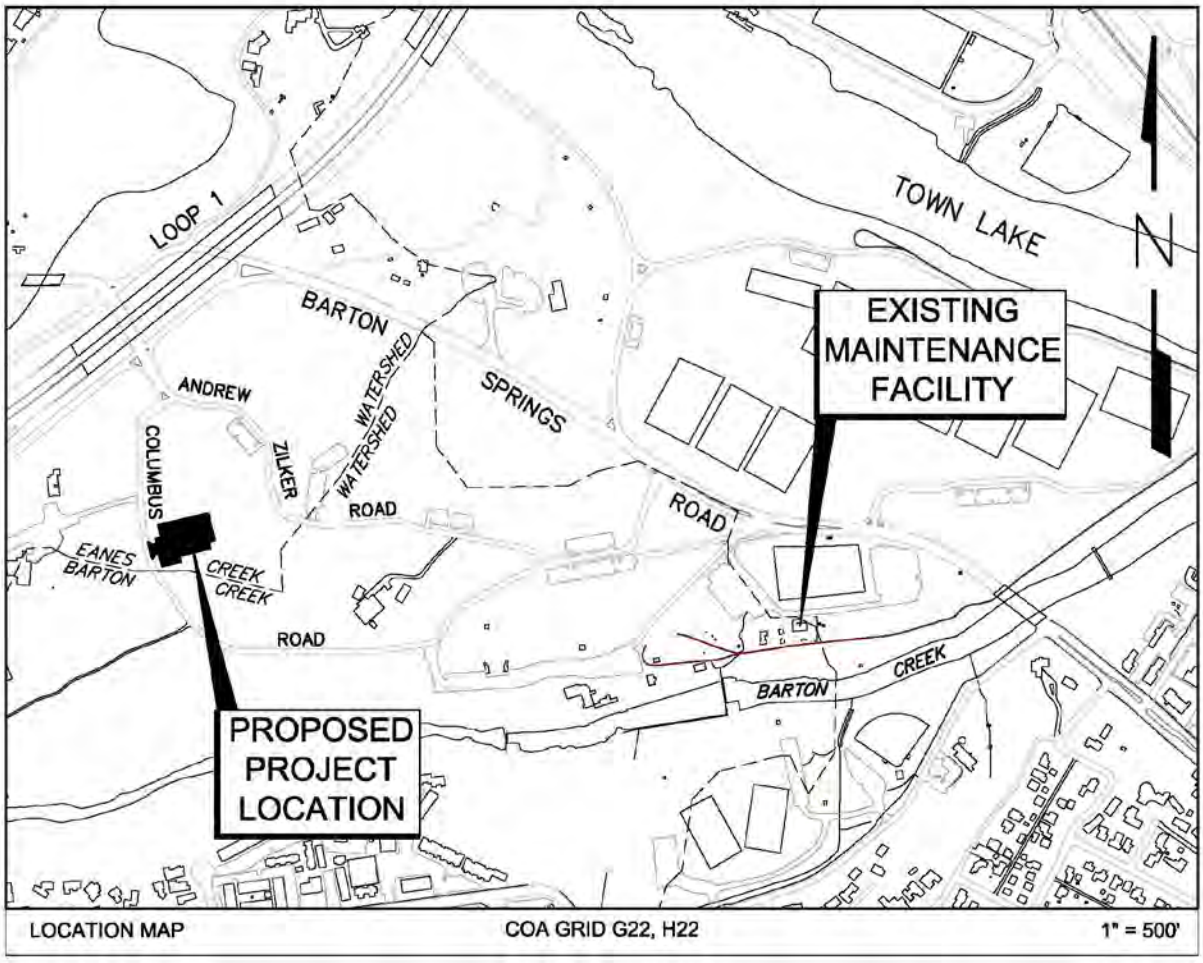
20. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies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

ATTACHMENT A
ROAD MAP



ATTACHMENT B

USGS/EDWARDS AQUIFER RECHARGE ZONE MAP

Attachment B - Edwards Recharge Map

6/10/2020, 10:15:05 PM

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Edwards Aquifer Label

Edwards Aquifer Boundary

Edwards Aquifer Boundary central line

TX Counties

7.5 Minute Quad Grid

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,

Web AppBuilder for ArcGIS

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

ATTACHMENT C

PROJECT DESCRIPTION

ATTACHMENT C
DETAILED PROJECT DESCRIPTION

The Zilker Metro Park Maintenance Barn Replacement Project represents the replacement of the existing under-sized and outdated maintenance facility within Zilker Metro Park in southwest Austin. The limits of construction will occupy approximately 4.58 acres of land which is a portion of the 20.02 acres of land within the park. The project area currently contains only park equipment such as concrete picnic tables and disc golf goals.

The proposed development will consist of four structures; a 4,305 square foot maintenance facility with office space, maintenance bays and storage and a separate 400 square foot chemical storage building as well as two open-air pole barns for vehicle and equipment storage. The total gross square footage of all structures, including pole barns, is about 5,905 square feet. Associated improvements will include the site grading, drainage and water quality improvements, utility improvements, parking areas, sidewalks and associated appurtenances. The project lies entirely within the full purpose jurisdiction of the City of Austin and within the Drinking Water Protection Zone. The project will be submitted to the City of Austin as a Revision to the existing Consolidated Administrative Site Plan in place for Zilker Park. The property is currently zoned P.

GEOLOGICAL ASSESSMENT (TCEQ 0585)

Geologic Assessment

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Geologist: Garrett Haas Telephone: 210-630-1098

Date: 23 April 2024 Fax: 512-651-7101

Representing: Weston Solutions, Inc. TBPG #50258 (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:

Regulated Entity Name:

Project Information

1. Date(s) Geologic Assessment was performed: April 15, 2009; May 7, 2009; November 11, 2009, December 3, 2019
2. Type of Project:
   - ☒ WPAP
   - ☒ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

4. ☒ **Attachment A - Geologic Assessment Table**. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.

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

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)

Soil Name	Group*	Thickness(feet)
Ecktrant soils and Urban land (TeA)	D	0.5 - 2.5
Eckrant soils, very stony clay (TaD)	D	0.5 - 2.5
Ecktrant-Rock outcrop complex (TdF)	D	0.5 - 2.5
Altoga soils and Urban land (AID)	B	0.5 - 5.0

** Soil Group Definitions (Abbreviated)*

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

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

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

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

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

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

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

   Applicant's Site Plan Scale: 1" = 500'
   Site Geologic Map Scale: 1" = 2,000'
   Site Soils Map Scale (if more than 1 soil type): 1" = 2,000'

9. Method of collecting positional data:

   ☒ Global Positioning System (GPS) technology.
   ☒ Other method(s). Please describe method of data collection: Unable to collect GPS data in areas of dense tree coverage at the site for features G1-G6 observed in 2009. Datum generated by cross-referencing tree survey, aerial map and Google Earth. Observed features G7-G18 were located using a Trimble Geo 7x hand-held GPS in 2019.

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

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

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

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

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

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

    ☐ There are _____ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
       ☐ The wells are not in use and have been properly abandoned.
       ☐ The wells are not in use and will be properly abandoned.
       ☐ The wells are in use and comply with 16 TAC Chapter 76.
    ☒ There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

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

ATTACHMENT A
GEOLOGIC ASSESSMENT TABLE

GEOLOGIC ASSESSMENT TABLE			PROJECT NAME: Zilker Park Maintenance Barn Relocation																	
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	
G1	30° 15' 58.82"	-97° 46' 33.97"	CD	5	Kep	5	3	0.75				0.0	O	5	10	x		x		Hillside
G2	30° 15' 58.89"	-97° 46' 34.05"	CD	5	Kep	2	1.5	0.5				0.33	O	5	10	x		x		Hillside
G3	30° 15' 58.38"	-97° 46' 33.49"	CD	5	Kep	2	1.5	0.5				0.33	O	5	10	x		x		Hillside
G4	30° 15' 58.06"	-97° 46' 33.57"	CD	5	Kep	1.5	1.5	0.5				0.33	O	5	10	x		x		Hillside
G5	30° 15' 58.16"	-97° 46' 37.59"	CD	5	Kep	6	3	0.5				0.0	O	5	10	x		x		Hillside
G6	30° 15' 59.66"	-97° 46' 33.21"	O	5	Kep	6	1	0.0				0.0	O	5	10	x		x		Hillside
G7	30° 16' 2.85"	-97° 46' 33.86"	CD	5	Kep	46	20	0.2				0.0	V	5	10	x		x		Hilltop
G8	30° 16' 0.85"	-97° 46' 32.22"	CD	5	Kep	44	23	0.2				0.0	V	5	10	x		x		Hilltop
G9	30° 16' 2.99"	-97° 46' 35.14"	CD	5	Kep	66	34	0.3				0.0	V	5	10	x		x		Hilltop
G10	30° 16' 2.32"	-97° 46' 35.16"	CD	5	Kep	2	1	0.1				0.0	V	5	10	x		x		Hilltop
G11	30° 15' 59.69"	-97° 46' 31.90"	CD	5	Kep	15	12	0.3				0.0	V	5	10	x		x		Hilltop
G12	30° 15' 59.12"	-97° 46' 31.70"	CD	5	Kep	12	10	0.2				0.0	V	5	10	x		x		Hilltop
G13	30° 15' 54.84"	-97° 46' 35.34"	CD	5	Kep	30	32	0.2				0.0	O	5	10	x		x		Hillside
G14	30° 15' 53.56"	-97° 46' 34.08"	O	5	Kep	47	4	4				0.5	N	5	10	x		x		Hillside
G15	30° 15' 53.60"	-97° 46' 32.11"	O	5	Kep	170	4	4				0.5	N	5	10	x		x		Hillside
G16	30° 15' 53.43"	-97° 46' 27.58"	O	5	Kep	200	4	5				0.5	N	5	10	x		x		Hillside
G17	30° 15' 56.76"	-97° 46' 37.68"	O	5	Kep	16	3	0.2				0.0	N	5	10	x		x		Hillside
G18	30° 15' 53.57"	-97° 46' 34.88"	O	5	Kep	135	3	4				0.0	N	5	10	x		x		Hillside

* DATUM: Unable to collect GPS data for G1 - G6 due to dense tree coverage found at the site in 2009. Datum generated by cross-referencing tree survey, aerial map, and Google Earth. Location data for features G7 - G18 were collected with a Trimble Geo 7x in 2019.

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

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

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

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.

My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Date: 23 April 2024

Sheet 1 of 1

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

ATTACHMENT B

STRATIGRAPHY OF THE GEOLOGIC UNITS IN THE AUSTIN AREA

SYSTEM/ SERIES		GROUP	FORMATION	MEMBER	THICKNESS	
Q	Quaternary Terraces and Alluvial Deposits				~20	
CRETACEOUS	Gulf Series	Taylor			~300	
		Austin (Kau)	Austin Chalk		~130-250	
		Eagle Ford (Keb)	Eagle Ford		~20-40	
			Buda		~35-50	
		Washita (Kdg)	Del Rio		~60-75	
			Georgetown		~50-55	
	Comanche Series	Fredericksburg (Kfr)	Edwards/Person	Member 4*	~70-125	~40
				Member 3*		~10
			Edwards/Kainer	Member 2	~300	~40
				Member 1		~200
			Walnut	Bee Cave	~30	
				Bull Creek	~35	
		Trinity	Glen Rose (Kgr)	Member 5	~90-100	
				Member 4	~125	
				Member 3	~70	
				Member 2	~120	
				Member 1	~250	

* Refer to Attachment C1 for details on Person Formation.

Adapted from *Hydrogeology of the Edwards Aquifer, Austin Area, Central Texas* , Report of Investigtaions No. 141, Bureau of Economic Geology, The University of Texas at Austin, W.L. Fisher, Director, Rainer K. Senger and Charles Kreitler and *The Geology of Texas, Volume 1, Stratigraphy,* Bureau of Economic Geology, 1990, The University of Texas, E.H. Sellards, W.S. Adkins, and F.B. Plummer.

ATTACHMENT B-1

STRATIGRAPHIC COLUMN – PERSON FORMATION

Formation	Mbr.	Description	Thickness
Person (Kep)*	Kplc (3)	**Leached and Collapsed Member** – Crystalline limestone; mudstone to wackestone with chert, extensive collapsed breccias, and locally stromatolitic; fossil coral *Montastrea* present. Classified as having highly leached, solution breccias, nonfabric-selective porosity and very high permeability rates.	(16 to 24 ft)
	Kprd (4)	**Regional Dense Member** – Dense, argillaceous mudstone; unit most susceptible to erosion in the Fredericksburg Group; also considered a vertical barrier to flow throughout the Edwards Aquifer. Rare to no open fractures, very low matrix permeability.	(70-100 ft)

*Person Formation (Kep) not shown in Attachment D-2. Kep is represented within the Fredericksburg Group (Kfr).

Adapted from Texas Water Development Board, Groundwater Reports, *Geohydrologic Subdivision of the Edwards Aquifer Northeast of San Antonio*.

ATTACHMENT C

NARRATIVE GEOLOGIC DESCRIPTION

This attachment describes the site-specific geology of the Zilker Park Maintenance Barn Relocation Project area in accordance with Edwards Aquifer Protection Plans described in the Texas Commission on Environmental Quality (TCEQ) Edwards Aquifer Rules promulgated in 30 TAC 213.5(b)(3), Geologic Assessments. The Geologic Assessment survey took place in 2009 and again in 2019, as the project's limits of construction (LOC) expanded.

Geologic Assessment Tables (TCEQ Form 0585) are provided as **Attachment A**. These tables were completed in the field as part of the geologic assessment. The forms identify each feature encountered during the assessment and provide information on the location, type, dimensions, orientation, catchment area, and relative infiltration rate of each. Points are assigned to each feature encountered based on the above-listed characteristics. The points are summed on the forms to calculate a sensitivity number for each feature. The sensitivity and location of each feature may be used to make decisions for the protection of each feature, with the broader goal of protecting the quality of recharge to the Edwards Aquifer.

This geologic assessment is part of the information requirements of the water pollution abatement plan portion of the Edwards Aquifer Protection Plan. This section identifies potential pathways for contaminant transport into the Edwards Aquifer.

The project area for the proposed Zilker Park Maintenance Barn is situated in Central Austin, Travis County, Texas. The proposed project area is 4.68 acres of land located within Zilker Park, west and southwest of Andrew Zilker Road and east and northeast of Columbus Drive. In addition, the project area extends along the southernmost end of Columbus Drive as it trends east before intersecting William Barton Drive. This Geologic Assessment includes the proposed project area and the surrounding land (approximately 7 acres total area) as indicated in the topographic map provided in **Attachment D-1**.

PROJECT AREA GEOLOGY

Most of the geologic formations present at the surface in the Austin Area are Cretaceous in age. The Comanche Series Cretaceous rocks are the rock units of interest in Travis County and include, in order of increasing age, the Eagle Ford, Buda, Del Rio, Georgetown, Person, Kainer, Walnut, and Glen Rose formations (Bureau of Economic Geology, 1974). The Glen Rose and Walnut formations are carbonate strata that underlie the Fredericksburg Group (also referred to as the Edwards Group). These units form the base of the Fredericksburg Group and the associated Edwards Aquifer in the subsurface.

The Fredericksburg Group contains the formation of interest as it is present at the surface of the proposed Zilker Maintenance Barn project. The Fredericksburg Group has been subdivided into two formations and four distinct members, the Kainer (members 1 and 2) and the Person (members 3 and 4). The Fredericksburg Group and Georgetown Formation are considered to be in hydrologic communication in Travis County, forming the Edwards Aquifer in this area. The Del Rio Formation overlies the Georgetown Formation and is the confining layer for the Edwards Aquifer in the subsurface. The Buda and Eagle Ford formations overlie the Del Rio Formation. Quaternary-aged sediments have been deposited over the Cretaceous rocks in stream and river valleys. A stratigraphic column illustrating the stratigraphy of the Cretaceous formations present in the Austin area is provided as **Attachment B**. A geologic map of the project area is provided as **Attachment D-2**.

The project area is located in the Edwards Aquifer Recharge Zone. The outcrop of the Fredericksburg Group within the Balcones Fault Zone defines the Edwards Aquifer Recharge Zone in the Austin area, as shown in **Attachment D-3**. Portions of the Fredericksburg Group form an important underground karst aquifer that is characterized by large-diameter secondary porosity, fracture porosity, and high velocity, fracture- and conduit-dominated flow characteristics (TWDB Report 360, 2004). In Central Texas, the Balcones Fault Zone, a belt of northeast-trending, downthrown, normal faults, has created hydrologic connectivity between exposed Fredericksburg Group at the surface and the Edwards Aquifer in the subsurface. Blocks of exposed Fredericksburg Group on the west side of the fault zone are adjacent to downthrown blocks of Fredericksburg Group in the subsurface, resulting in the communication of groundwater from the exposed blocks

to the aquifer-bearing subsurface blocks of the Fredericksburg Group. Precipitation and surface runoff can rapidly enter the karst-dominated Fredericksburg Group exposed at the surface and quickly be transmitted to (recharge) the underground aquifer.

According to the Geologic Map of the Edwards Aquifer Recharge Zone, South-Central Texas (USGS, 2005), the site stratigraphy consists of the Person Formation at the surface. Both members of the Person Formation were observed at the site as described in **Attachment B-1**. The future building construction area and associated driveway are situated over the Leached and Collapsed Member of the Person Formation while much of the sewer line area is underlain by the Regional Dense Member of the Person Formation.

During the field reconnaissance, the rock outcrop was described as buff to tan and light grey, dense, hard, microcrystalline limestone (biomicrite). Calcite replaced small-scale fractures, calcite replaced shell fragments, and weathered chert nodules were noted in the outcrop. Primary porosity was estimated to be between 1% and 5%. The outcrop weathers grey to dark grey and black with some freshly dissolved surfaces that are white. The outcrop is characterized by some secondary porosity, possibly generated by the dissolution of rock concentrated at fossils and fractures in the formation. Several rimrock features were observed along Columbus Drive, adjacent to the roadway and perpendicular to local topography. These rimrock features follow similar topography and are intermittently exposed. The observed rimrock present ledge features but do not meet the height or gradient requirements for canyon rimrock classification per City of Austin Code of Ordinances §30-5-1. Observed rimrock features do not appear to present significant potential for infiltration as the position of the rimrock would generally preclude infiltration between bedding plane openings. Locations where the rimrock was observed to be exposed are presented on **Attachment D-1** and in photographs presented in **Attachment E**.

The project area was surveyed for any structural control on the geology of the area. No surface evidence of faulting was observed.

TOPOGRAPHY

Most of the project area is situated on a hill slope with an average grade of approximately 5%. The project area north of Columbus Drive is on a hillside with a grade ranging from 18% - 50%. The elevation of the project area ranges from approximately 510 ft above mean sea level (amsl) on the northern extreme of the project area to 480 ft amsl in the southeastern extreme along Columbus Drive. The project is within portions of both the Eanes Creek Watershed and Barton Creek Watershed, as shown in **Attachment D-3**. According to FEMAs Flood Insurance Rate Map (FIRM, 2016) the majority of the subject area is rated as an area of minimal flood hazard and is determined to be outside the 500-year floodplain. A portion of the subject area is located in the 500-year floodplain. Flood plain boundaries are presented on **Attachment D-1**.

GROUNDWATER

The Edwards Aquifer constitutes a major aquifer in the Austin, Texas area. The Edwards Aquifer is a unique and sensitive carbonate aquifer that serves as a major source of drinking water. The Edwards Aquifer is a karst aquifer that also provides sensitive habitat for karst-dwelling vertebrate and invertebrate species. Water occurs in the subsurface in solution collapse zones, large interconnected secondary porosity, and cavernous conduit-like secondary porosity through which large quantities of water can move quickly. In addition, a network of faults and joints is present that intersect vugs and caverns, and provides further channels for the concentration of rapid water movement through the aquifer. The network of solution-enlarged faults and joints is especially prominent within the Balcones Fault Zone.

RECHARGE FEATURES

The entire project area lies within the Edwards Aquifer Recharge Zone. Recharge areas often include sensitive recharge features, which are defined as permeable geologic features with the potential for hydraulic interconnectedness and rapid infiltration to the subsurface.

The field reconnaissance was intended to identify and document specific sensitive karst features for the purpose of determining whether setbacks, storm water engineering controls, or other Best Management Practices (BMP) should be considered for use to protect groundwater recharge in the area, during and after construction of the Zilker Maintenance Barn. The field assessment in the

area of the disc golf course in the northern and eastern-most portion of the project area was conducted on 50-ft transect lines across the project area. The remaining project area, however, was thickly vegetated, making walking straight-line transects virtually impossible. The better ensure complete coverage where straight-line transects were difficult to achieve, and as instructed by TCEQ guidance for geologists performing geologic assessments on Edwards Aquifer Recharge Zones, transects were walked at 25-ft intervals, as was practicable. The field reconnaissance did not indicate the presence of caves or any recharge features on the subject property.

A total of 18 non-recharge features (G1-G18) were observed and documented during the field reconnaissance, as illustrated in **Attachment D-1**. The features identified during the field reconnaissance included 12 non-karst closed depressions and 6 other natural bedrock features. Photographs 1 through 12, photographs 15-20 and photograph 28 illustrate the non-karst closed features (G1-G5, G7-G12 and G17) identified at the site. Photographs of the natural bedrock features (G6, G13-G16 and G18) were observed during the field survey and documented as photographs 13 and 14, photographs 21-27 and photographs 29-31. The features were assessed in the field using a form published by TCEQ for use in geologic assessments performed on the Edwards Aquifer Recharge Zone. TCEQ rules governing the Edwards Aquifer are published in 30 TAC Chapter 213. Photographs are presented in **Attachment E** and a completed TCEQ Form 0585 is provided in **Attachment A**.

Non-karst closed depressions encountered during the field reconnaissance consisted of shallow depressions in the ground surface and ranged from manicured grass-covered depressions in open grassy areas to non-karst closed depressions in more densely vegetated areas which were generally in-filled with soil, humus, leaf litter, and tree roots. Animal burrows, trees, tree stumps, and tree roots commonly were found exploiting existing depressions in more heavily vegetated areas. Depressions located in the open-space and manicured areas were large with diameters ranging from 12 ft to 66 ft. Depths of these depressions were typically no more than 0.5 ft to 1 ft. The depressions observed in the densely vegetated locations were generally small, with the dimensions of the depressions ranging from 1 ft in diameter to as large as 3 ft in diameter. Depths below grade of the depressions ranged from 0.5 ft to 1 ft. Natural bedrock features ranged from surface exposure of bedrock to outcroppings of rimrock ledge features. The natural bedrock features include exposed bedrock and canyon rimrock out cropping. Exposed bedrock ranged from unfractured to

highly fractured with compacted foot-trafficked soil infilling the fracture voids. Exposed bedrock was generally less than 2-inches above the ground surface. Canyon rimrock was observed along the east and south side of Columbus Drive. The exposures were intermittent but appeared to be fairly continuously aligned, if not always visible. Voids between the bedding planes could be as large as 5-6 inches, though because of their position on the hillslope, it was unlikely that surface water would infiltrate through bedding plane voids. The TCEQ forms attached in **Attachment A** are designed to assist with the determination of the sensitivity of geologic features.

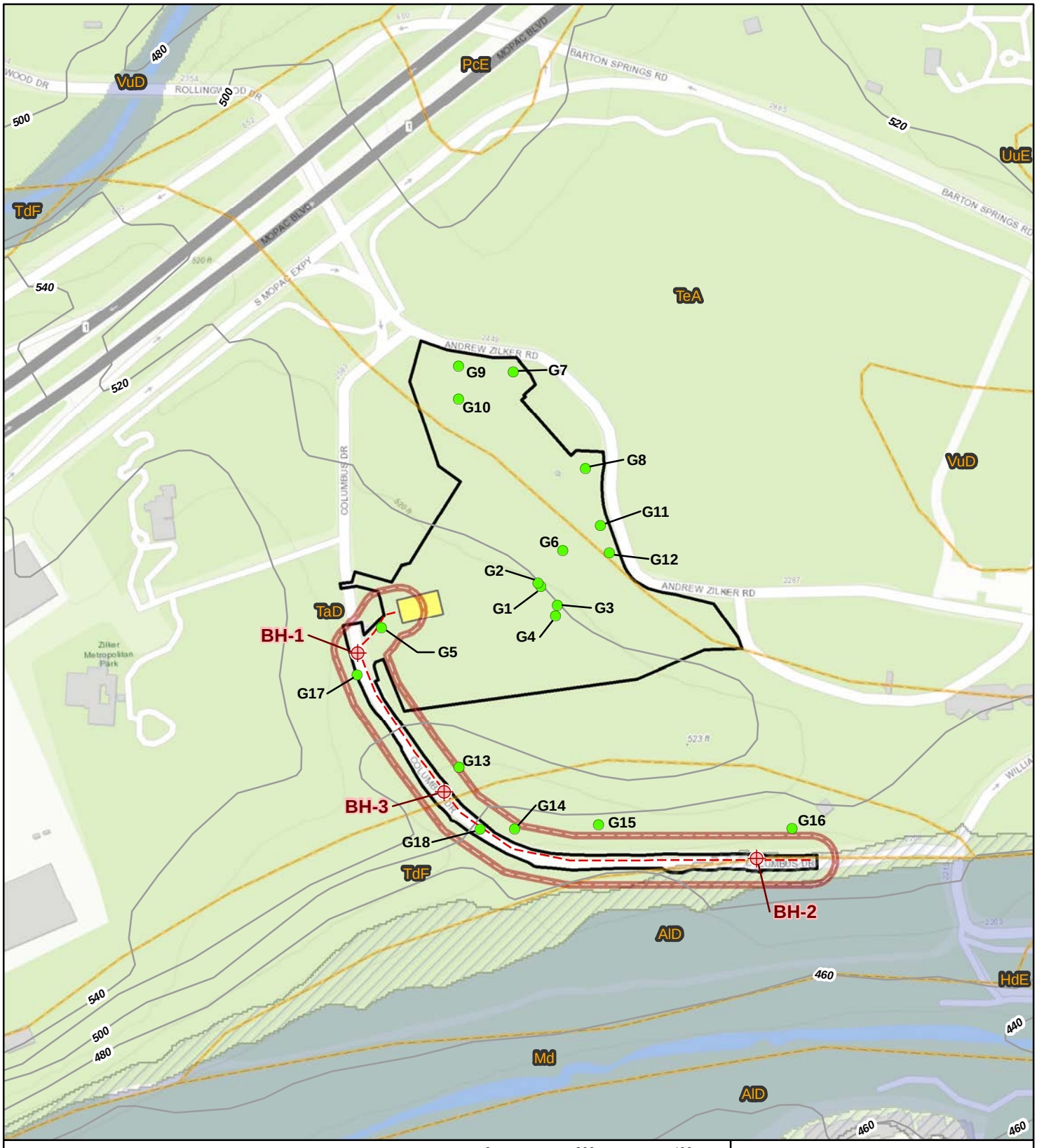
The geologic assessment was conducted during 4 separate site visits, the first 3 visits were conducted in 2009 and another was conducted in 2019. During the 3 site visits in 2009, available GPS technology was not advanced enough to collect reliable coordinates in dense tree coverage. Consequently, each non-recharge feature that was observed during the karst terrain survey assessment (G1-G6) was field located by cross-referencing tree survey, aerial map, and Google Earth. During the 2019 site visit, the limits of construction had been changed and a follow-up geologic assessment of the area not previously field-reviewed was conducted using a Trimble® Geo 7x hand-held GPS device. The location coordinates for each feature are provided in the TCEQ Form 0585 in **Attachment A**.

SPRINGS

There were no springs encountered during the field reconnaissance of the project area.

ATTACHMENT D

Site Figures



LEGEND

- Geologic Features
- Project Area Boundary
- Proposed Barn Area

FEMA Flood Zone Areas

- Flood Zone X (0.2 Percent Annual Hazard)
- Flood Zone AE
- Flood Zone AE Floodway

- Boring Location
- Sewer Line
- 100-Ft Sewer Envelope
- Elevation Contour Line (feet AMSL)
- TaD Soil Classification (See text for description)

0 200 400
Feet

SOURCE: U.S. GEOLOGIC SURVEY 7.5 MIN TOPOGRAPHIC QUADRANGLE, AUSTIN WEST, TEXAS 2013.

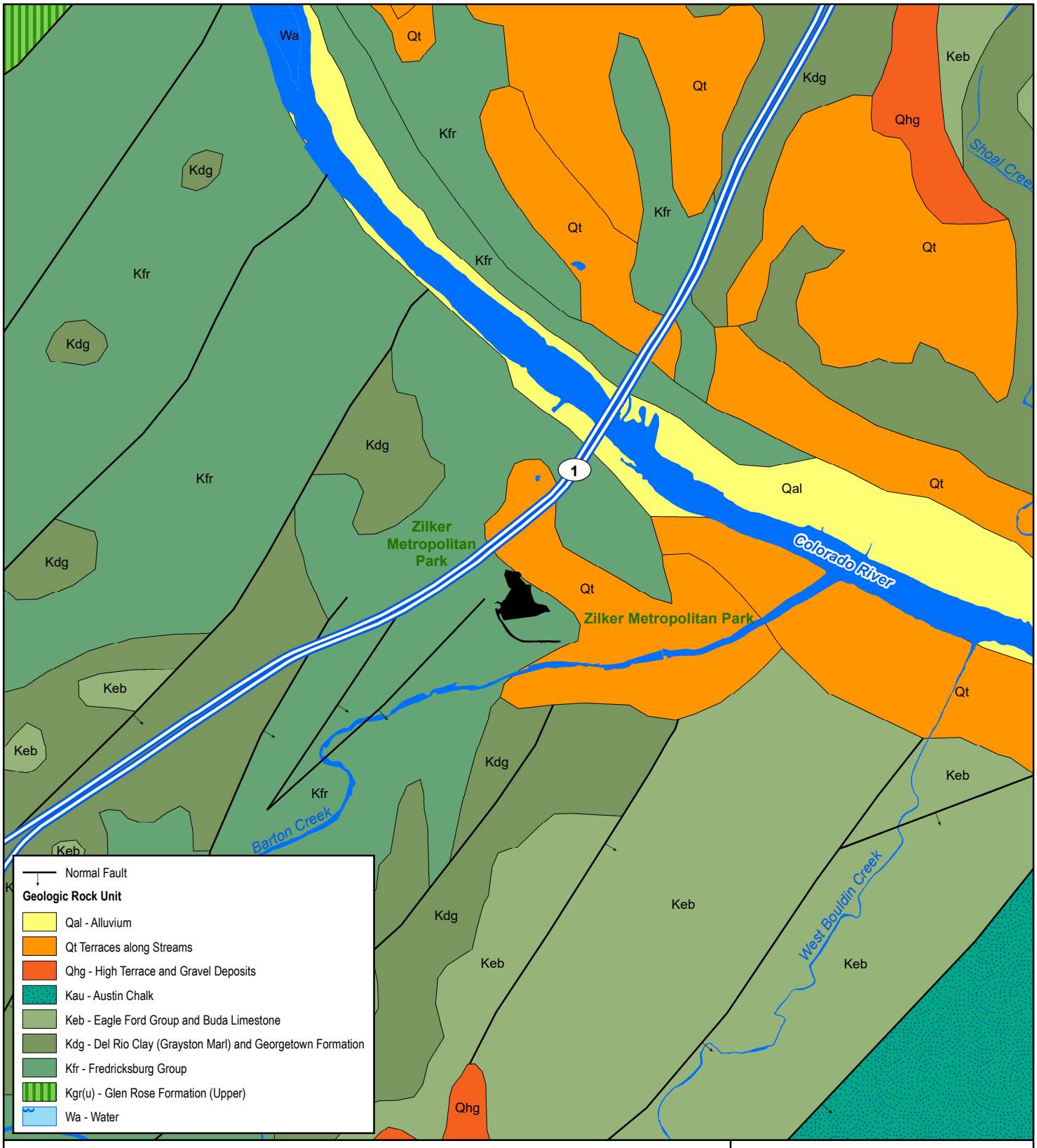
DISCLAIMER: THIS FIGURE IS PREPARED FOR REFERENCE PURPOSES ONLY AND SHOULD NOT BE USED, AND IS NOT INTENDED FOR, SURVEY OR ENGINEERING PURPOSES.

WESTON SOLUTIONS

ATTACHMENT D-1
TOPOGRAPHIC MAP WITH FLOOD HAZARD AND SOIL TYPES
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
AUSTIN, TRAVIS COUNTY, TEXAS

DATE	PROJECT NO	SCALE
SEPTEMBER 2020	06141.036.005.1000	AS SHOWN

FILE: G:\Local\Texas\City of Austin\Zilker Park\MBarn Replacement 2009 2019\mxd\Attachment D-1 Topgraphic Map WITH SOIL AND FLOOD 2019 Rev1 20200831.mxd 11:02:25 AM 9/1/2020 greenr



LEGEND

Survey Area

0 2,000 4,000

Feet

N

SOURCE: U.S. GEOLOGIC SURVEY 7.5 MIN TOPOGRAPHIC QUADRANGLE, AUSTIN WEST, TEXAS 2013

DISCLAIMER: THIS FIGURE IS PREPARED FOR REFERENCE PURPOSES ONLY AND SHOULD NOT BE USED, AND IS NOT INTENDED FOR, SURVEY OR ENGINEERING PURPOSES.

WESTON SOLUTIONS

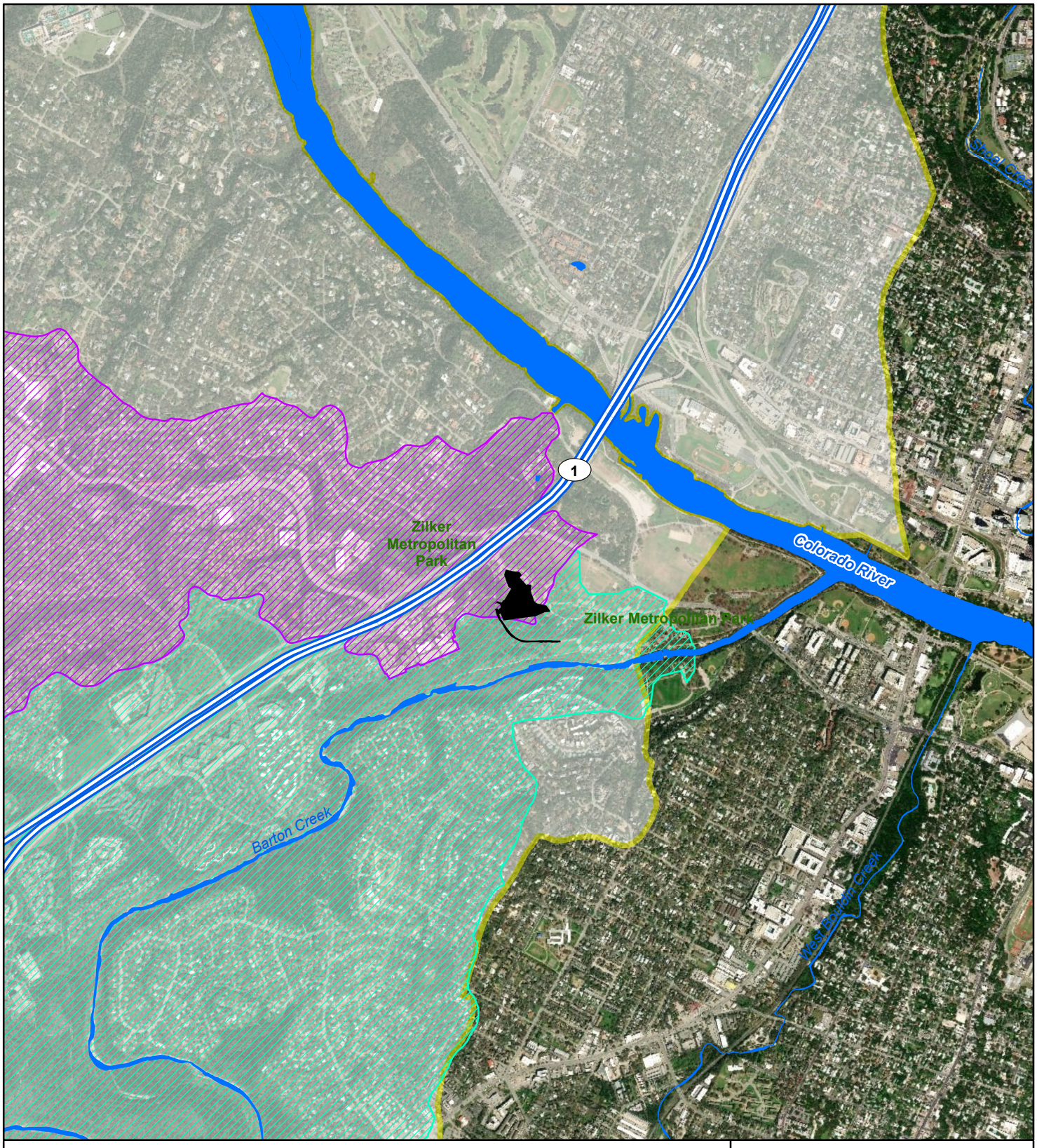
ATTACHMENT D-2

REGIONAL GEOLOGIC MAP

CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
AUSTIN, TRAVIS COUNTY, TEXAS

DATE	PROJECT NO	SCALE
DECEMBER 2019	06141.036.005.1000	AS SHOWN

FILE: \\nasatxgis1\ATX_GIS_Data\Local\Texas\City of Austin\Zilker Park\MBarn Replacement 2009 2019\mxd\Attachment D-2 Geologic Map 2019.mxd 2:28:48 PM 12/4/2019 greenr



LEGEND

- Survey Area
- Barton Creek Watershed
- Eanes Creek Watershed
- Edwards Aquifer Recharge Zone

0 2,000 4,000

Feet

N

SOURCE: U.S. GEOLOGIC SURVEY 7.5 MIN TOPOGRAPHIC QUADRANGLE, AUSTIN WEST, TEXAS 2013

DISCLAIMER: THIS FIGURE IS PREPARED FOR REFERENCE PURPOSES ONLY AND SHOULD NOT BE USED, AND IS NOT INTENDED FOR, SURVEY OR ENGINEERING PURPOSES.

WESTON SOLUTIONS

ATTACHMENT D-3

WATERSHED AND RECHARGE ZONE MAP

CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
AUSTIN, TRAVIS COUNTY, TEXAS

DATE	PROJECT NO	SCALE
DECEMBER 2019	06141.036.005.1000	AS SHOWN

FILE: \\nasatxgis1\ATX_GIS_Data\Local\Texas\City of Austin\Zilker Park\MBarn Replacement 2009 2019\mxd\Attachment D-3 Watershed Map 2019.mxd 2:36:20 PM 12/4/2019 greenr

ATTACHMENT E

Photographs

PHOTOGRAPH NO. 1

Date: 04/17/09
Direction: NA

Description:

Geologic Feature 01

PHOTOGRAPH NO. 2

Date: 04/17/09
Direction: NA

Description:

Geologic Feature 01

PHOTOGRAPH NO. 3

Date: 11/11/09
Direction: NA

Description:

Geologic Feature 02

PHOTOGRAPH NO. 4

Date: 04/17/09
Direction: NA

Description:

Geologic Feature 03

PHOTOGRAPH NO. 5

Date: 11/11/09
Direction: NA

Description:

Geologic Feature 03

PHOTOGRAPH NO. 6

Date: 04/17/09
Direction: NA

Description:

Geologic Feature 03

PHOTOGRAPH NO. 7

Date: 04/17/09
Direction: NA

Description:

Geologic Feature 04

PHOTOGRAPH NO. 8

Date: 04/17/09
Direction: NA

Description:

Geologic Feature 04

PHOTOGRAPH NO. 9

Date: 11/11/09
Direction: NA

Description:

Geologic Feature 04

PHOTOGRAPH NO. 10

Date: 04/17/09
Direction: NA

Description:

Geologic Feature 05

PHOTOGRAPH NO. 11

Date: 04/17/09
Direction: NA

Description:

Geologic Feature 05

PHOTOGRAPH NO. 12

Date: 04/17/09
Direction: NA

Description:

Geologic Feature 05

PHOTOGRAPH NO. 13

Date: 11/11/09
Direction: NA

Description:

Geologic Feature 06

PHOTOGRAPH NO. 14

Date: 04/17/09
Direction: NA

Description:

Geologic Feature 06

PHOTOGRAPH NO. 15

Date: 12/03/19
Direction: NA

Description:

Geologic Feature 07

PHOTOGRAPH NO. 16

Date: 12/03/19
Direction: NA

Description:

Geologic Feature 08

PHOTOGRAPH NO. 17

Date: 12/03/19
Direction: NA

Description:

Geologic Feature 09

PHOTOGRAPH NO. 18

Date: 12/03/19
Direction: NA

Description:

Geologic Feature 10

PHOTOGRAPH NO. 19

Date: 12/03/19
Direction: NA
Description:
Geologic Feature 11

PHOTOGRAPH NO. 20

Date: 12/03/19
Direction: NA
Description:
Geologic Feature 12

PHOTOGRAPH NO. 21

Date: 12/03/19
Direction: NA

Description:

Geologic Feature 13

PHOTOGRAPH NO. 22

Date: 12/03/19
Direction: NA

Description:

Geologic Feature 14

PHOTOGRAPH NO. 23

Date: 12/03/19
Direction: NA

Description:

Geologic Feature 14

PHOTOGRAPH NO. 24

Date: 12/03/19
Direction: NA

Description:

Geologic Feature 15

PHOTOGRAPH NO. 25

Date: 12/03/19
Direction: NA

Description:

Geologic Feature 15

PHOTOGRAPH NO. 26

Date: 12/03/19
Direction: NA

Description:

Geologic Feature 16

PHOTOGRAPH NO. 27

Date: 12/03/19
Direction: NA

Description:

Geologic Feature 16

PHOTOGRAPH NO. 28

Date: 12/03/19
Direction: NA

Description:

Geologic Feature 17

PHOTOGRAPH NO. 29

Date: 12/03/19
Direction: NA

Description:

Geologic Feature 18

PHOTOGRAPH NO. 30

Date: 12/03/19
Direction: NA

Description:

Geologic Feature 18

PHOTOGRAPH NO. 31

Date: 12/03/19
Direction: NA

Description:

Geologic Feature 18

WATER POLLUTION ABATEMENT PLAN (TCEQ 0584)

Water Pollution Abatement Plan Application

Texas Commission on Environmental Quality

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

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

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

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Water Pollution Abatement Plan Application Form** is hereby submitted for TCEQ review and Executive Director approval. The form was prepared by:

Print Name of Customer/Agent: Dain Chernick, P.E.

Date: 04-17-2024

Signature of Customer/Agent:

Regulated Entity Name: City of Austin Zilker Park

Regulated Entity Information

1. The type of project is:

   ☐ Residential: Number of Lots:_____
   ☐ Residential: Number of Living Unit Equivalents:_____
   ☐ Commercial
   ☐ Industrial
   ☒ Other:Public Park

2. Total site acreage (size of property):20.02

3. Estimated projected population:25

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

Table 1 - Impervious Cover Table

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	5,929	÷ 43,560 =	0.14
Parking	25,860	÷ 43,560 =	0.59
Other paved surfaces	0	÷ 43,560 =	0
Total Impervious Cover	31,789	÷ 43,560 =	0.73

Total Impervious Cover 0.73 **÷ Total Acreage** 4.58 (LOC) **X 100 =** 15.9**% Impervious Cover**

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

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

For Road Projects Only

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

7. Type of project:

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

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

   ☐ Concrete
   ☐ Asphaltic concrete pavement
   ☐ Other: _____

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

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

10. Length of pavement area: _____ feet.

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

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

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

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

Stormwater to be generated by the Proposed Project

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

Wastewater to be generated by the Proposed Project

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

100% Domestic	7,650 Gallons/day
_____% Industrial	_____ Gallons/day
_____% Commingled	_____ Gallons/day

TOTAL gallons/day 7,650 (peak dry weather)

15. Wastewater will be disposed of by:

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

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

☒ Sewage Collection System (Sewer Lines):

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

- ☒ The SCS was previously submitted on 4/5/2024.
- ☐ The SCS was submitted with this application.
- ☐ The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

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

☒ Existing.
☐ Proposed.

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

Site Plan Requirements

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

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

Site Plan Scale: 1" = 40'.

18. 100-year floodplain boundaries:

☐ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
☒ No part of the project site is located within the 100-year floodplain.
The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): Flood Insurance Rate Map No. 48453C0445J (Panel 445 of 730) dated 1/1/2016

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

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

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

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

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

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

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

☒ All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.
☐ No sensitive geologic or manmade features were identified in the Geologic Assessment.

☐ **Attachment D - Exception to the Required Geologic Assessment**. A request and justification for an exception to a portion of the Geologic Assessment is attached.

22. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.
23. ☒ Areas of soil disturbance and areas which will not be disturbed.
24. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
25. ☒ Locations where soil stabilization practices are expected to occur.
26. ☐ Surface waters (including wetlands).

    ☒ N/A
27. ☐ Locations where stormwater discharges to surface water or sensitive features are to occur.

    ☒ There will be no discharges to surface water or sensitive features.
28. ☒ Legal boundaries of the site are shown.

Administrative Information

29. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
30. ☒ Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

ATTACHMENT A

FACTORS AFFECTING SURFACE WATER QUALITY

ATTACHMENT A
FACTORS AFFECTING WATER QUALITY

Potential sources of sediment to stormwater runoff:

Surface runoff of dirt, tracking of mud and wind blown dust will be controlled through the use of temporary erosion control practices.

Potential pollutants and sources, other than sediment, to stormwater runoff:

Temporary potential sources of contamination include:

1. *Equipment Fuel and Oil*
2. *Concrete*
3. *Asphalt Pavement Products*.

Pollution Control procedures and devices:

Pollution Control procedures include the following:

- Erosion and sedimentation controls will be installed and maintained during the course of the project according to the *Erosion and Sedimentation Control Plan*. Temporary erosion controls will be provided by silt fence and inlet protection filters. Silt fence will be deployed at all locations of potential discharge around the perimeter of the site. Silt fence prevents the escape of sediment from the site by discharging water through a filter fabric, trapping sediment.
- All temporary fuel storage on site will comply with TCEQ requirements. All storage will be above ground and will be accompanied by appropriate containment.
- Runoff from concrete truck cleanouts will be prevented by requiring cleanouts in specific staging locations. Each staging area will contain independent erosion and sedimentation controls and will be maintained on a regular basis.
- The project will include hot mix asphaltic concrete pavement (HMAC) in several areas. The prime coat, tack coat and HMAC all contain asphalt emulsions. The placement of each of these products will occur in such a manner as to prevent excessive quantities, which may be subject to removal by rainfall runoff. Additionally, the time between the placement of the initial coats and the final pavement surface will be minimized to reduce the possibility of rainfall runoff from partially completed pavement.

ATTACHMENT B

VOLUME AND CHARACTER OF STORMWATER

ATTACHMENT B
QUALITY AND QUANTITY OF STORMWATER

Quality of Stormwater

All stormwater flowing from the impervious surfaces in the proposed development will be routed to a single biofiltration pond. The pond is sized to capture a volume that exceeds the volume required by the code, thus the treatment of the stormwater flowing from this site is of a better quality than is required.

Quantity of Stormwater

Drainage calculations were performed for the site using the methodology outlined in the *City of Austin Drainage Criteria Manual.* The construction plans contain copies of the existing and proposed condition drainage area maps for the developed portion of the site as well as storm water runoff calculations for both existing and proposed conditions. Times of concentration were calculated by estimating flow lengths for three runoff conditions including overland flow, shallow concentrated flow and channelized flow. Composite curve number values were determined using a weighted average of impervious cover and lawn area. Due to its proximity to the Colorado River, On-site detention is not proposed for the site.

ATTACHMENT C

SUITABILITY LETTER FROM AUTHORIZED AGENT (NOT APPLICABLE)

ATTACHMENT D

EXCEPTION TO THE REQUIRED GEOLOGIC ASSESSMENT (NOT APPLICABLE)

TEMPORARY STORMWATER (TCEQ 0602)

Temporary Stormwater Section

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Dain Chernick, P.E.

Date: 04-17-2024

Signature of Customer/Agent:

Regulated Entity Name: City of Austin Zilker Park

Project Information

Potential Sources of Contamination

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

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

   ☐ The following fuels and/or hazardous substances will be stored on the site: _____

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

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

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

☐ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.

☒ Fuels and hazardous substances will not be stored on the site.

2. ☒ **Attachment A - Spill Response Actions**. A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.

3. ☒ Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

4. ☒ **Attachment B - Potential Sources of Contamination**. A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Sequence of Construction

5. ☒ **Attachment C - Sequence of Major Activities**. A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.

   ☒ For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.

   ☒ For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

6. ☒ Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: Colorado River

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

ATTACHMENT A
SPILL RESPONSE

Upon determination that a spill of petroleum products has occurred exceeding the Final Reportable Quantity of 25 gallons, immediate action is required. These actions include abating and containing the spill by stopping the spill, minimizing impact to the public health and environment, neutralizing the effects of the incident, removing the spilled substance, and managing the wastes. The contractor shall notify the TCEQ as soon as possible but not more than 24 hours after discovery of the spill. The notification report will include the following:

1. The name address and telephone number of the person making the report;
2. The date, time and location of the spill;
3. A specific description of the substance that was spilled;
4. An estimate of the quantity of the spill;
5. The duration of the incident;
6. The source of the spill;
7. A description of the extent of actual or potential harmful impacts to the environment or anticipated health risks;
8. A description of any actions that have been taken, are being taken, or will be taken to contain and respond to the spill;
9. The identity of any third parties responding to the spill.

The report shall be submitted to the State Emergency Response Center at 1-800-832-8224 or to the regional office of the TCEQ if the notification report is submitted during normal business hours.

If the spill constitutes an immediate health threat, the contractor shall immediately notify and cooperate with local emergency authorities to support and implement appropriate notification and response actions. Within two weeks of the spill, the contractor will reasonably attempt to notify the owner or occupant of the property upon which the spill occurred as well as the occupants of any property that the contractor reasonably believes will be adversely affected.

Within 30 days of the spill, the contractor shall submit in writing to the TCEQ regional manager details of the spill and verification that the spill response was adequate. The submission will include one of the following:

1. A statement that the spill response actions have been completed and a description of how the response action was conducted. The statement must include the information contained in the notification report.
2. A request for an extension of time to complete the response action along with the reasons for the request. A projected work schedule outlining the time required to complete the response action is also should also be included. The executive director may grant an extension of up to six months from the sate of the spill was reported.
3. A statement that the spill response has not been completed and will not be completed within the maximum allowable six month extension. The statement should include why the completion of the response actions is not feasible and a projected work schedule outlining the remaining tasks necessary to complete the response actions.

ATTACHMENT B

POTENTIAL SOURCES OF CONTAMINATION

ATTACHMENT B
POTENTIAL SOURCES OF CONTAMINATION

Potential sources of sediment to stormwater runoff:

Surface runoff of dirt, tracking of mud and wind blown dust will be controlled through the use of temporary erosion control practices.

Potential pollutants and sources, other than sediment, to stormwater runoff:

Temporary potential sources of contamination include:

1. *Equipment Fuel and Oil*
2. *Concrete*
3. *Asphalt Pavement Products*.

ATTACHMENT C

SEQUENCE OF MAJOR ACTIVITIES

ATTACHMENT C
SCHEDULE OF MAJOR ACTIVITIES

ACTIVITY	AREA DISTURBED (ac)
Clear and grub the project site.	4.6
Rough cut water quality pond.	0.1
Install underground utilities and construct the building foundation.	1.0
Complete drainage improvements and water quality pond.	0.4
Construct the buildings	0.4
Final grade site and install sidewalks, landscaping and pavement.	4.6
Final dress site and remove temporary erosion controls.	4.6

ATTACHMENT D

TEMPORARY BEST MANAGEMENT PRACTICES AND MEASURES

ATTACHMENT D
TEMPORARY BEST MANAGEMENT PRACTICES AND MEASURES

The general construction sequence will be as follows:

1. Install temporary erosion controls and pedestrian protection measures.
2. Schedule and conduct the preconstruction conference.
3. Clear and grub the project site.
4. Rough cut water quality pond
5. Install underground utilities and construct the building foundation.
6. Complete drainage improvements and water quality ponds.
7. Construct the buildings.
8. Final grade site and install sidewalks, landscaping and pavement.
9. Complete primary building finish out.
10. Final dress site and remove temporary erosion controls.

As stated in 1. the temporary erosion controls will be installed before any other construction activity commences.

The temporary erosion controls are listed below. The silt fence, inlet protection filters, rough cutting the water quality pond, and the stabilized construction entrance will prevent the pollution of surface water, groundwater and stormwater by not allowing the sediment from construction activities to leave the site. All sediment contained in flows that cross the site, including flow that originates upstream of the site, will be filtered by the temporary erosion controls listed. The silt fence and inlet protection filters will filter out sediment in the stormwater as it leaves the site. The measures will then be cleaned, as described on the schedule below, to ensure that they remain functioning. Rough cutting the water quality ponds will serve as a catch basin for runoff during the construction phase of the project.

BMP Description: Silt Fence	
Installation Schedule:	Prior to commencement of construction activity
Maintenance and Inspection:	Weekly and after each significant rainfall
Responsible Staff:	TBD

BMP Description: Inlet Protection Filters	
Installation Schedule:	Prior to commencement of construction activity
Maintenance and Inspection:	Weekly and after each significant rainfall
Responsible Staff:	TBD

BMP Description: Stabilized Construction Entrance	
Installation Schedule:	Prior to commencement of construction activity
Maintenance and Inspection:	At least once every 14 calendar days and within 24 hours of the end of a storm event producing 0.5 inches or greater of rainfall
Responsible Staff:	TBD

BMP Description: Rough Cut Water Quality Ponds	
Installation Schedule:	Immediately following demolition phase
Maintenance and Inspection:	Weekly and after each significant rainfall
Responsible Staff:	TBD

ATTACHMENT E

REQUEST TO TEMPORARILY SEAL A FEATURE (NOT APPLICABLE)

ATTACHMENT F

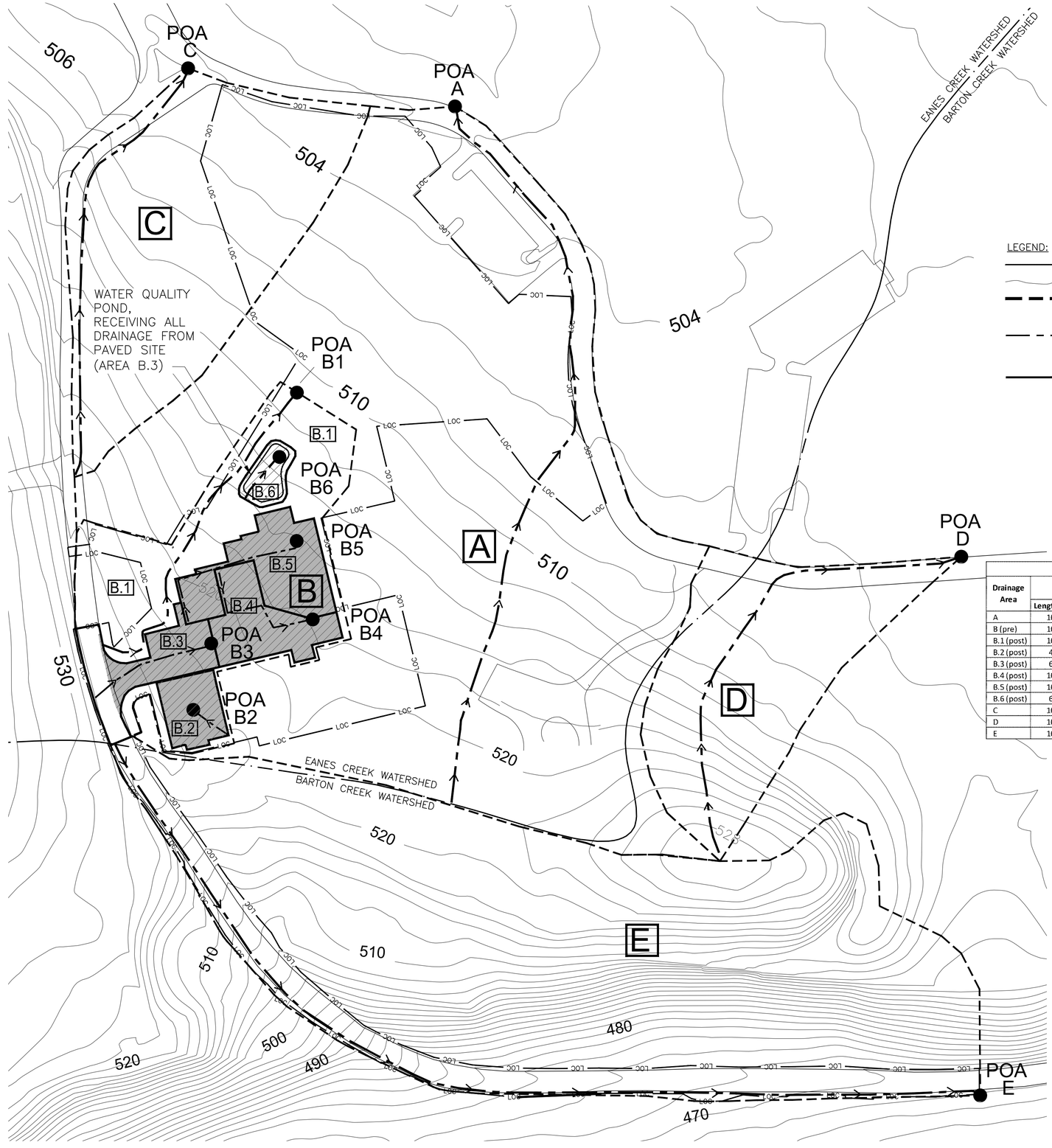
STRUCTURAL PRACTICES

ATTACHMENT F
STRUCTURAL PRACTICES

The project site will be protected from upstream off-site stormwater runoff by the use of diversion berms/swales. As shown on the grading plan, diversion berms will be located along the eastern edge of Columbus Drive and will divert flows around the project site. The water quality pond will be rough graded to act as a temporary sediment trap during construction. Temporary erosion controls will be utilized downstream of the project to filter stormwater before leaving the site.

ATTACHMENT G

DRAINAGE AREA MAP



NOTES:

1. WATERSHED:
   A. THIS PROJECT IS LOCATED WITHIN THE EANES CREEK WATER SUPPLY SUBURBAN WATERSHED AND IS SUBJECT TO THE RULES AND REGULATIONS OF THE EANES CREEK WATERSHED ORDINANCE.
   B. THIS PROJECT IS ALSO LOCATED IN THE BARTON CREEK WATERSHED, CLASSIFIED AS THE BARTON CREEK ZONE AND SHALL BE DEVELOPED, CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH CHAPTER 25 OF THE CODE OF THE CITY OF AUSTIN.
2. 100–YEAR FLOOD PLAIN – NO PORTION OF THIS SITE IS LOCATED WITHIN THE 100–YEAR FLOOD AS PER FLOOD INSURANCE RATE MAP NUMBER 48453C0445J (PANEL 445 OF 730) FOR TRAVIS COUNTY, TEXAS AND INCORPORATED AREAS, MAP REVISED JANUARY 1, 2016.
3. EDWARDS AQUIFER RECHARGE ZONE – THIS PROJECT IS LOCATED WITHIN THE EDWARDS AQUIFER RECHARGE ZONE AND IS SUBJECT TO TCEQ RULES AND REGULATIONS, THE TCEQ's EDWARDS AQUIFER PROTECTION PROGRAM, AND 30 TAC 213. AN EDWARDS AQUIFER PROTECTION PLAN HAS BEEN PREPARED FOR THIS SITE.
4. WATER QUALITY POND RECEIVES STORMWATER FROM ONLY THE BUILDING ROOFTOP AND THE PAVED SITE (EXCLUDING THE STAFF PARKING LOT), REPRESENTED BY POA B3.
5. POA B2 REPRESENTS THE STORMWATER AT THE STAFF PARKING LOT AND THE VEGETATIVE FILTER STRIP.

LEGEND:

- WATERSHED BOUNDARY
- 510 — EXISTING CONTOUR
- DRAINAGE AREA BOUNDARY
- B — DRAINAGE AREA DESIGNATION
- TIME OF CONCENTRATION PATHWAY
- POA — POINT OF ANALYSIS
- LOC — LIMIT OF CONSTRUCTION
- PROPOSED BIOFILTRATION POND AREA
- PROPOSED IMPERVIOUS AREA TO DRAIN TO BIOFILTRATION POND

Ground Cover Calculations

Drainage Area	Area (Square Feet)	Area (Acres)	Total Flow Length (ft)	Impervious Acres (CN=98)	Pervious Acres	Pervious CN
A	277,398	6.37	825	0.60	5.77	82
B (pre)	70,566	1.62	412	0.07	1.55	82
B.1 (post)	35,381	0.81	380	0.03	0.78	-
B.2 (post)	4,976	0.11	43	0.11	0.00	-
B.3 (post)	8,489	0.19	137	0.19	0.00	-
B.4 (post)	8,394	0.19	150	0.19	0.00	-
B.5 (post)	10,592	0.24	150	0.24	0.00	-
B.6 (post)	2,734	0.06	63	0.00	0.06	-
C	79,419	1.82	482	0.21	1.62	82
D	53,324	1.22	526	0.19	1.03	82
E	224,544	5.15	1,100	0.59	4.57	82

Time of Concentration Calculations

Drainage Area	Sheet Flow				Shallow Concentrated Flow 1 or Channel Flow 1				Shallow Concentrated Flow 2 or Channel Flow 2				Tc (hr)
	Length (ft)	Slope (ft/ft)	n	Sub Tc (hr)	Length (ft)	Slope (ft/ft)	Paved?	Sub Tc (hr)	Length (ft)	Slope (ft/ft)	Paved?	Sub Tc (hr)	
A	100	0.015	0.400	0.353	334	0.020	No	0.041	391	0.010	Yes	0.053	0.447
B (pre)	100	0.020	0.400	0.315	312	0.014	No	0.045	-	-	-	-	0.360
B.1 (post)	100	0.010	0.150	0.190	280	0.010	No	0.048	-	-	-	-	0.238
B.2 (post)	43	0.040	0.011	0.007	-	-	-	-	-	-	-	-	0.100
B.3 (post)	60	0.070	0.011	0.007	77	0.010	Yes	0.011	-	-	-	-	0.100
B.4 (post)	100	0.010	0.011	0.023	50	0.010	Yes	0.007	-	-	-	-	0.100
B.5 (post)	100	0.010	0.011	0.023	50	0.010	Yes	0.025	-	-	-	-	0.100
B.6 (post)	65	0.010	0.150	0.131	-	-	-	-	-	-	-	-	0.131
C	100	0.020	0.400	0.315	302	0.023	Channel	0.000	80	0.012	Channel	0.000	0.315
D	100	0.040	0.400	0.239	217	0.016	No	0.030	209	0.005	Yes	0.040	0.309
E	100	0.025	0.400	0.288	420	0.048	Channel	0.000	580	0.010	Channel	0.000	0.288

Drainage Area	Description	Proposed PEAK FLOWS (cfs) 2-yr	10-yr	25-yr	100-yr
A	POA A	11.17	21.95	30.18	45.42
B.1	POA B1	1.72	3.42	4.72	7.14
B.2	POA B2	0.37	0.62	0.81	1.16
B.3	POA B3	0.68	1.13	1.47	2.11
B.4	POA B4	0.68	1.13	1.47	2.11
B.5	POA B5	0.84	1.39	1.81	2.59
B.6	POA B6	0.13	0.27	0.37	0.56
B Sum	Sum B1 - B6	4.42	7.96	10.65	15.67
C	POA C	3.67	7.21	9.90	14.89
D	POA D	2.47	4.84	6.65	10.01
E	POA E	10.65	20.92	28.68	43.27
Total	A, B, C Eanes Creek	19.26	37.12	50.73	75.98
Total	D, E Barton Creek	13.12	25.76	35.33	53.28

N

GRAPHIC SCALE
60 0 30 60 120
(SCALE IN FEET)
1 inch = 60'

SITE PLAN APPROVAL Sheet 177 of 216
FILE NO: SPC–2012–0104D(R4) APPLICATION DATE: 11/16/2018
APPROVED BY COMMISSION ON: _____ UNDER SECTION 112 OF CHAPTER 25–5 OF THE AUSTIN CITY CODE.
EXPIRATION DATE (25–5–81,LDC)_____ CASE MANAGER: J SILTALA
PROJECT EXPIRATION DATE(ORD.#97905–A)_____ DWPZ X DDZ___

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE P ZONING
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 Permit and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

REV. NO.	BY	DATE	REVISION DESCRIPTION
.	.	.	.

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT
CITY OF AUSTIN PARKS & RECREATION
DRAINAGE PLAN
(DEVELOPED CONDITIONS)

CITY OF AUSTIN PARKS AND RECREATION DEPARTMENT

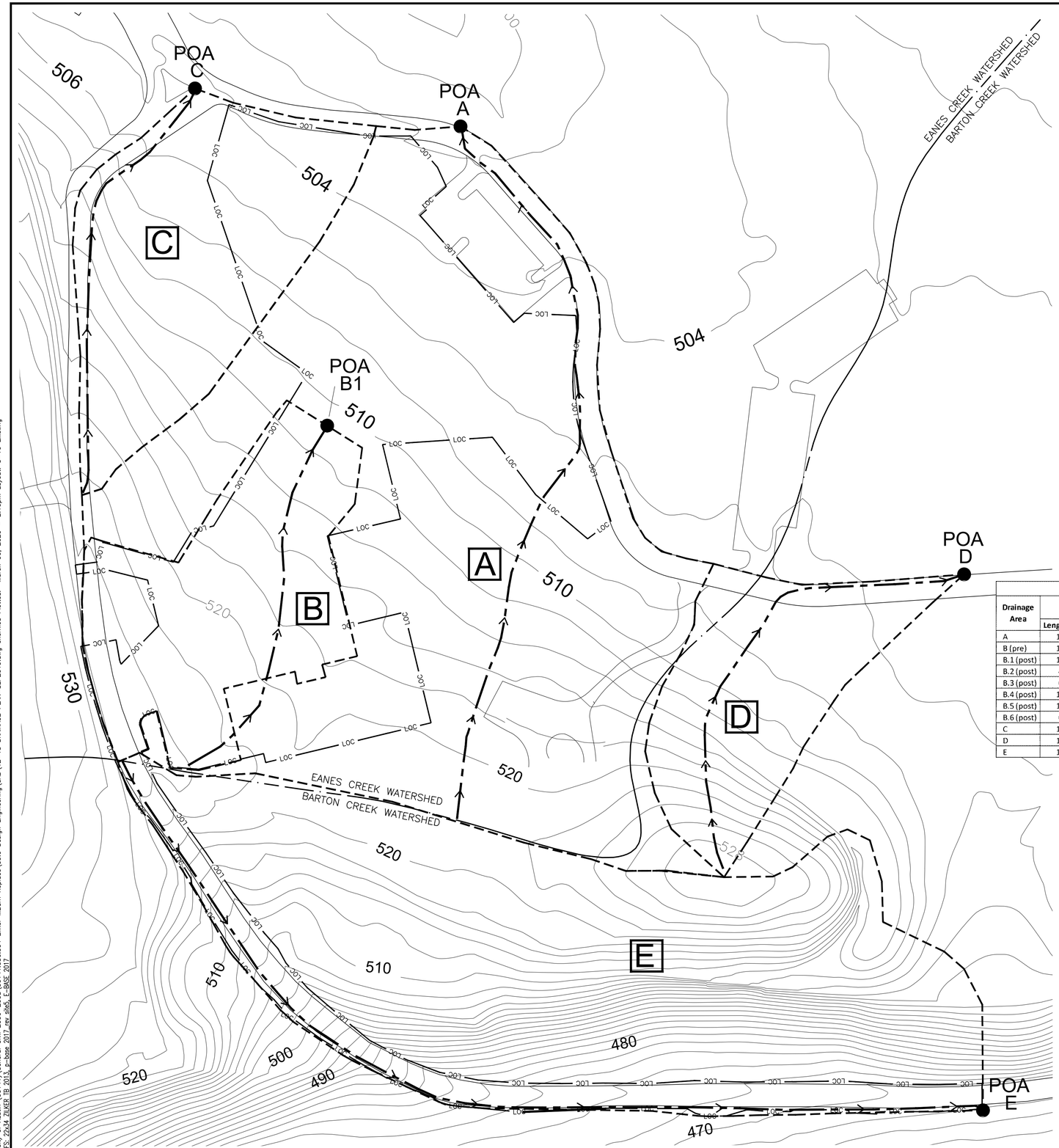
NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

SHEET NUMBER C-112
177 OF 216

C.O.A. FILE NO. SPC–2012–0104D(R4)

NEW SHEET

H:\City of Austin (061411)\General Civil 2006–2008\061411.036.004 Zilker MBarn Replace\09.0 Design Engineering\CAD\12–13 DRAINAGE PLAN–SEP2019.dwg chernicd Plotted: March 06, 2020 – 2:11pm Layout: C–17 Developed
XREFS: 22x34 ZILKER TB 2013, p–base 2017_rev sia5, E–BASE 2017



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- D — DRAINAGE AREA DESIGNATION
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- LOC — LIMIT OF CONSTRUCTION

Ground Cover Calculations

Drainage Area	Area (Square Feet)	Area (Acres)	Total Flow Length (ft)	Impervious Acres (CN=98)	Pervious Acres	Pervious CN
A	277,398	6.37	825	0.60	5.77	82
B (pre)	70,566	1.62	412	0.07	1.55	82
B.1 (post)	35,381	0.81	380	0.03	0.78	-
B.2 (post)	4,976	0.11	43	0.11	0.00	-
B.3 (post)	8,489	0.19	137	0.19	0.00	-
B.4 (post)	8,394	0.19	150	0.19	0.00	-
B.5 (post)	10,592	0.24	150	0.24	0.00	-
B.6 (post)	2,734	0.06	63	0.00	0.06	-
C	79,419	1.82	482	0.21	1.62	82
D	53,324	1.22	526	0.19	1.03	82
E	224,544	5.15	1,100	0.59	4.57	82

Time of Concentration Calculations

Drainage Area	Sheet Flow				Shallow Concentrated Flow 1 or Channel Flow 1				Shallow Concentrated Flow 2 or Channel Flow 2				Tc (hr)
	Length (ft)	Slope (ft/ft)	n	Sub Tc (hr)	Length (ft)	Slope (ft/ft)	Paved?	Sub Tc (hr)	Length (ft)	Slope (ft/ft)	Paved?	Sub Tc (hr)	
A	100	0.015	0.400	0.353	334	0.020	No	0.041	391	0.010	Yes	0.053	0.447
B (pre)	100	0.020	0.400	0.315	312	0.014	No	0.045	-	-	-	-	0.360
B.1 (post)	100	0.010	0.150	0.190	280	0.010	No	0.048	-	-	-	-	0.238
B.2 (post)	43	0.040	0.011	0.007	-	-	-	-	-	-	-	-	0.100
B.3 (post)	60	0.070	0.011	0.007	77	0.010	Yes	0.011	-	-	-	-	0.100
B.4 (post)	100	0.010	0.011	0.023	50	0.010	Yes	0.007	-	-	-	-	0.100
B.5 (post)	100	0.010	0.011	0.023	50	0.010	Yes	0.025	-	-	-	-	0.100
B.6 (post)	65	0.010	0.150	0.131	-	-	-	-	-	-	-	-	0.131
C	100	0.020	0.400	0.315	302	0.023	Channel	0.000	80	0.012	Channel	0.000	0.315
D	100	0.040	0.400	0.239	217	0.016	No	0.030	209	0.005	Yes	0.040	0.309
E	100	0.025	0.400	0.288	420	0.048	Channel	0.000	580	0.010	Channel	0.000	0.288

Drainage Area	Description	Existing PEAK FLOWS (cfs) 2-yr	10-yr	25-yr	100-yr
A	POA A	11.17	21.95	30.18	45.42
B	POA B	2.99	5.96	8.23	12.47
C	POA C	3.67	7.21	9.90	14.89
D	POA D	2.47	4.84	6.65	10.01
E	POA E	10.65	20.92	28.68	43.27
Total	**A, B, C Eanes Creek**	**17.83**	**35.12**	**48.31**	**72.78**
Total	**D, E Barton Creek**	**13.12**	**25.76**	**35.33**	**53.28**

N

GRAPHIC SCALE
60 0 30 60 120
(SCALE IN FEET)
1 inch = 60'

SITE PLAN APPROVAL Sheet 176 of 216
FILE NO: SPC-2012-0104D(R4) APPLICATION DATE: 11/16/2018
APPROVED BY COMMISSION ON: _____ UNDER SECTION 112 OF CHAPTER 25-5 OF THE AUSTIN CITY CODE.
EXPIRATION DATE (25-5-81,LDC)_____CASE MANAGER: J SILTALA
PROJECT EXPIRATION DATE(ORD.#97905-A)_____DWPZ X DDZ___

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE___P___ZONING
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 Permit and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

REV. NO.	BY	DATE	REVISION DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT CITY OF AUSTIN PARKS & RECREATION CREATION
DRAINAGE PLAN (EXISTING CONDITIONS)

CITY OF AUSTIN FOUNDED 1839
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

SHEET NUMBER C-111
176 OF 216

C.O.A. FILE NO. SPC-2012-0104D(R4)

NEW SHEET

H:\City of Austin (06141)\General Civil 2006-2008\06141.036.004 Zilker MBarn Replace\09.0 Design Engineering\CAD\12-13 DRAINAGE PLAN-SEP2019.dwg chernicd Plotted: March 06, 2020 – 2:10pm Layout: C-16 Existing
XREFS: 22x34 ZILKER TB 2013_p-base 2017_rev ale5_E-BASE 2017

ATTACHMENT H

TEMPORARY SEDIMENT POND PLANS AND CALCULATIONS (NOT APPLICABLE)

ATTACHMENT I

INSPECTION AND MAINTENANCE FOR BEST MANAGEMENT PRACTICES

Project Name:

BEST MANAGEMENT PRACTICE
INSPECTION AND MAINTENANCE REPORT FORM

SILT FENCE

Name of Inspector: _____ Inspection Date: _____
Days Since Last Rainfall: _____ Amount of Last Rainfall: _____inches

Where is the Silt Fence Located?	Is the Bottom of the Fabric Still Buried?	Is the Fabric Torn or Sagging?	Are the Posts Tipping Over?	How Deep is the Sediment?

MAINTENANCE REQUIRED FOR SILT FENCE: _____

_____

_____

_____

_____

_____

_____

TO BE PERFORMED BY: _____ **ON OR BEFORE:** _____

Project Name:

BEST MANAGEMENT PRACTICE
INSPECTION AND MAINTENANCE REPORT FORM

INLET PROTECTION BARRIERS

Name of Inspector: _____ Inspection Date: _____
Days Since Last Rainfall: _____ Amount of Last Rainfall: ____inches

Location	In Place?	Depth of Sediment	Condition of Inlet

MAINTENANCE REQUIRED FOR INLET PROTECTION BARRIERS: _____

_____

_____

_____

_____

_____

_____

_____

_____

TO BE PERFORMED BY: _____ **ON OR BEFORE:** _____

Project Name:

BEST MANAGEMENT PRACTICE
INSPECTION AND MAINTENANCE REPORT FORM

STABILIZED CONSTRUCTION ENTRANCE

Name of Inspector: _____ Inspection Date: _____
Days Since Last Rainfall: _____ Amount of Last Rainfall: ____inches

Location	Is Sediment Being Tracked onto Road?	Is the Entry Surface Clean or Sediment Filled?	Does All Traffic Use the Entrance?

MAINTENANCE REQUIRED FOR STABILIZED CONSTRUCTION ENTRANCES: _____

_____

_____

_____

_____

_____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

Project Name:

BEST MANAGEMENT PRACTICE
INSPECTION AND MAINTENANCE REPORT FORM

ROUGH CUT RETENTION/IRRIGATION POND

Name of Inspector: _____ Inspection Date: _____
Days Since Last Rainfall: _____ Amount of Last Rainfall: _____inches

Which Pond?	Is Pond Functioning as a Sediment Trap?	What is the condition of the outfall?

MAINTENANCE REQUIRED FOR ROUGH CUT POND: _____

_____

_____

_____

_____

_____

_____

_____

TO BE PERFORMED BY: _____ **ON OR BEFORE:** _____

Project Name:

BEST MANAGEMENT PRACTICE
INSPECTION AND MAINTENANCE REPORT FORM
(Completed weekly or as soon as possible after a significant storm event)

Name of Inspector: _____ Inspection Date: _____
Days Since Last Rainfall: _____
Amount of Last Rainfall: _____

STABILIZATION MEASURES					
Area or Drainage Areas*	**Date Since Last Disturbance**	**Date of Next Disturbance**	**Stabilized (Yes or No)**	**Control Measures Implemented**	**Current Conditions of Control Measures**

* See site map for drainage areas. Site may include borrow sources, haul roads, contractor's yard, stockpiles, etc.
** Areas that will be exposed more than 21 days must be stabilized within 14 days

STABILIZATION REQUIRED: _____

_____

_____

_____

TO BE PERFORMED BY: _____ **ON OR BEFORE:** _____

Control Measure Codes

1. Temporary Seeding
2. Permanent Plant, Sod, or Seed
3. Mulch
4. Soil Retention Blanket
5. Buffer Zone
6. Preserve Natural Resources
7. Silt Fence
8. Hay Bales
9. Rock Berm
10. Diversion Dike
11. Diversion Swale
12. Pipe Slope Drain
13. Paved Flume
14. Rock Bed at Construction Exit
15. Timber Mat at Construction Entrance
16. Channel Liner
17. Sediment Trap
18. Sediment Basin
19. Storm Inlet Sediment Trap
20. Stone Outlet Structure
21. Curb and Gutter
22. Storm Sewers
23. Velocity Control Devices
24. Excess Dirt Removed From Road
25. Haul Roads Dampened for Dust
26. Cleanup of Possible Contaminants

Condition Codes

U – Upgrade Needed
R – Replacement Needed
M – Maintenance Needed
C – Cleaning Needed
I – Increase Measures
S – Stable (no action required)

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 or the person 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: _____ Date: _____

ATTACHMENT J

SCHEDULE OF INTERIM AND PERMANENT SOIL STABILIZATION PRACTICES

ATTACHMENT J
SCHEDULE OF INTERIM AND
PERMANENT SOIL STABILIZATION PRACTICES

Permanent soil stabilization practices will include:

1. Limitations on the steepness of finished exposed slopes (3:1 maximum).
2. Permanent revegetation of finished areas with native and/or lawn grasses.

No permanent soils slopes steeper than three horizontal to one vertical will be created as a result of this project.

BMP Description: Limitations on the steepness of finished slopes	
Installation Schedule:	Per sequence of construction
Maintenance and Inspection:	N/A
Responsible Staff:	TBD

BMP Description: Permanent revegetation of finished areas	
Installation Schedule:	Upon completion of grading
Maintenance and Inspection:	Weekly
Responsible Staff:	TBD

PERMANENT STORMWATER (TCEQ 0600)

Permanent Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(C), (D)(Ii), (E), and (5), Effective June 1, 1999

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

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

Signature

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

Print Name of Customer/Agent: Dain Chernick, P.E.

Date: Dain Chernick, P.E.

Signature of Customer/Agent

Regulated Entity Name: City of Austin Zilker Park

Permanent Best Management Practices (BMPs)

Permanent best management practices and measures that will be used during and after construction is completed.

1. ☒ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.

   ☐ N/A

2. ☒ These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.

   ☒ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

☐ A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is: _____

☐ N/A

3. ☒ Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

   ☐ N/A

4. Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

   ☐ The site will be used for low density single-family residential development and has 20% or less impervious cover.
   ☐ The site will be used for low density single-family residential development but has more than 20% impervious cover.
   ☒ The site will not be used for low density single-family residential development.

5. The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

   ☐ **Attachment A - 20% or Less Impervious Cover Waiver**. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached.
   ☐ The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.
   ☒ The site will not be used for multi-family residential developments, schools, or small business sites.

6. ☒ **Attachment B - BMPs for Upgradient Stormwater**.

☐ A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is attached.

☒ No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.

☐ Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.

7. ☒ **Attachment C - BMPs for On-site Stormwater**.

☒ A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is attached.

☐ Permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, and an explanation is attached.

8. ☒ **Attachment D - BMPs for Surface Streams**. A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is attached. Each feature identified in the Geologic Assessment as sensitive has been addressed.

☐ N/A

9. ☒ The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.

☒ The permanent sealing of or diversion of flow from a naturally-occurring sensitive feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed.

☐ **Attachment E - Request to Seal Features**. A request to seal a naturally-occurring sensitive feature, that includes, for each feature, a justification as to why no reasonable and practicable alternative exists, is attached.

10. ☒ **Attachment F - Construction Plans**. All construction plans and design calculations for the proposed permanent BMP(s) and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. The plans are attached and, if applicable include:

☒ Design calculations (TSS removal calculations)

☒ TCEQ construction notes

☒ All geologic features

☒ All proposed structural BMP(s) plans and specifications

☐ N/A

11. ☒ **Attachment G - Inspection, Maintenance, Repair and Retrofit Plan**. A plan for the inspection, maintenance, repairs, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan includes all of the following:

    ☒ Prepared and certified by the engineer designing the permanent BMPs and measures
    ☒ Signed by the owner or responsible party
    ☒ Procedures for documenting inspections, maintenance, repairs, and, if necessary retrofit
    ☒ A discussion of record keeping procedures

    ☐ N/A

12. ☐ **Attachment H - Pilot-Scale Field Testing Plan**. Pilot studies for BMPs that are not recognized by the Executive Director require prior approval from the TCEQ. A plan for pilot-scale field testing is attached.

    ☒ N/A

13. ☐ **Attachment I -Measures for Minimizing Surface Stream Contamination**. A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is attached. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity, which increase erosion that results in water quality degradation.

    ☒ N/A

Responsibility for Maintenance of Permanent BMP(s)

Responsibility for maintenance of best management practices and measures after construction is complete.

14. ☒ The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.

    ☐ N/A

15. ☐ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

    ☒ N/A

ATTACHMENT A

20% OR LESS IMPERVIOUS COVER WAIVER (NOT APPLICABLE)

ATTACHMENT B

BEST MANAGEMENT PRACTICES FOR UPGRADIENT STORMWATER

BMPs FOR UPGRADIENT STORMWATER

Since there is no surface water, groundwater, or stormwater that originates upgradient from the site or that flows across the site, BMPs for Upgradient Stormwater are not needed.

ATTACHMENT C

BEST MANAGEMENT PRACTICES FOR ON-SITE STORMWATER

ATTACHMENT C
BMP'S FOR ON-SITE STORMWATER

The Biofiltration Pond was designed to filter runoff from the site. The pond will receive stormwater runoff from the entire site via an 18-inch storm sewer located at the northeast corner of the parking lot. The storm sewer will enter a splitter box that will direct flows to the sedimentation chamber, through a gabion fence to the biofiltration basin and discharge through a 6-inch PVC to a flow diffusor and recharge trench to the north of the project. When the pond reaches its capacity, additional stormwater will overflow the splitter wall and be discharged to the northeast. The pond overflow pipes will be equipped with a gabion mattress and gabion fence to spread the flow to sheet flow conditions.

The required capture volume requirement for the site is 3,441 cubic feet. The proposed water quality volume provided (below the splitter elevation) is on the order of 4,080 cubic feet, fully meeting the volume requirement for a partial biofiltration pond. Due to topographic constraints, the pond outfall could not be located within 100-feet of the proposed pond embankment utilizing full sedimentation. As such, partial sedimentation with a flow diffusor and recharge trench is proposed. Volumetric calculations for the sedimentation and filtration chambers are included on plan sheet 193 (Sheet C-511). The drainage time of the pond is just over 49 hours with a 0.64-inch diameter orifice on the pond outfall pipe. The filter pond is also sized in full accordance with the *TCEQ Technical Guidance Manual* requirements and the construction plans include noes and specifications for the biofiltration media and bed with underdrain.

Since the site is located over the Edwards Aquifer Zone, the pond will be constructed with a synthetic EPDM impermeable liner. Notes and details construction, protection and handling of the liner and any liner penetrations are included in the construction plans. Plants meeting the requirements in the *City of Austin Environmental Criteria Manual* were selected by the project's Landscape Architect and consist of different species of rooted plants.

ATTACHMENT D

BMPS FOR SURFACE STREAMS

ATTACHMENT D
BMP'S FOR SURFACE STREAMS

Surface Streams:

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Sensitive Features:

Eighteen non-recharge features were identified during the geologic assessment; 12 non-karst closed depressions and 6 other natural bedrock features. According to the report, no caves or recharge features were identified on the project site. As such, no additional protective measures are proposed.

ATTACHMENT E

REQUEST TO SEAL FEATURES (NOT APPLICABLE)

ATTACHMENT F

CONSTRUCTION PLANS

SITE CALCULATIONS – SEE SHT. C–103 AND C–104 FOR SITE LAYOUT

MOTOR VEHICLE PARKING SUMMARY

LAND USE	AREA (S.F.)	PARKING RATIO (SP/S.F.)	REQUIRED SPACES PER APPENDIX A
CIVIC USE: MAINTENANCE AND SERVICE FACILITIES:			
OFFICE/ADMIN	1,800	1 SP/275 SF	7
INDOOR STORAGE/WAREHOUSE	2,529	1 SP/1,000 SF	3
		TOTAL	10
TOTAL SPACES PROVIDED			20
TOTAL REQUIRED STANDARD HC SPACES			2
TOTAL REQUIRED VAN ACCESSIBLE HC SPACES			1

PARKING TYPE	TOTAL PROVIDED
STANDARD HANDICAPPED PARKING	0
VAN ACCESSIBLE PARKING	2
COMPACT PARKING	0
STANDARD PARKING	18
TOTAL	20
ON–SITE BICYCLE SPACES (2 REQUIRED)	3 IN SIDEWALK

UTILITY SUMMARY

GARBAGE DISPOSAL: PRIVATE
WATER AND WASTEWATER SERVICE: CITY OF AUSTIN
ELECTRIC SERVICE: AUSTIN ENERGY
GAS SERVICE: TEXAS GAS SERVICE

BUILDING SUMMARY

	MAINTENANCE BARN
PROPOSED USE	OFFICE/WAREHOUSE STORAGE
TOTAL AREA (S.F.)	4,329
NO. OF STORIES	1
BUILDING HEIGHT (FT.)	23.3 FT
FINISHED FLOOR ELEVATION	520.5
FOUNDATION TYPE	CONCRETE SLAB

TOTAL LOC AREA (S.F.)	211,557
TOTAL LOC AREA (AC.)	4.86
ZONING	P
EXISTING CONDITIONS:	
TOTAL FLOOR AREA (SF)	0
FLOOR AREA RATIO	0.00:1.00
TOTAL IMPERVIOUS COVER (SF)	30,166
TOTAL IMPERVIOUS COVER (AC)	0.69
TOTAL IMPERVIOUS COVER (%)	14.3
BUILDING COVERAGE (SF)	0
BUILDING COVERAGE (%)	0
PROPOSED CONDITIONS:	
TOTAL FLOOR AREA (SF)	4,729
FLOOR AREA RATIO	0.02:1.00
TOTAL IMPERVIOUS COVER (SF)	59,711
TOTAL IMPERVIOUS COVER (AC)	1.37
TOTAL IMPERVIOUS COVER (%)	28.2
BUILDING COVERAGE (SF)	4,729
BUILDING COVERAGE (%)	2.2

TCEQ WATER POLLUTION ABATEMENT PLAN GENERAL CONSTRUCTION NOTES

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

TCEQ ORGANIZED SEWAGE COLLECTION SYSTEM GENERAL CONSTRUCTION NOTES

1. THIS ORGANIZED SEWAGE COLLECTION SYSTEM (SCS) MUST BE CONSTRUCTED IN ACCORDANCE WITH 30 TEXAS ADMINISTRATIVE CODE (TAC) §213.5(C), THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S (TCEQ) EDWARDS AQUIFER RULES AND ANY LOCAL GOVERNMENT STANDARD SPECIFICATIONS.
2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROPOSED REGULATED PROJECT MUST BE PROVIDED WITH COPIES OF THE SCS PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS MUST BE REQUIRED TO KEEP ON–SITE COPIES OF THE PLAN AND THE APPROVAL LETTER.
3. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE PRESIDING TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
   - THE NAME OF THE APPROVED PROJECT;
   - THE ACTIVITY START DATE; AND
   - THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
4. ANY MODIFICATION TO THE ACTIVITIES DESCRIBED IN THE REFERENCED SCS APPLICATION FOLLOWING THE DATE OF APPROVAL MAY REQUIRE THE SUBMITTAL OF AN SCS APPLICATION TO MODIFY THIS APPROVAL, INCLUDING THE PAYMENT OF APPROPRIATE FEES AND ALL INFORMATION NECESSARY FOR ITS REVIEW AND APPROVAL.
5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
6. IF ANY SENSITIVE FEATURES ARE DISCOVERED DURING THE WASTEWATER LINE TRENCHING ACTIVITIES, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPLICANT MUST IMMEDIATELY NOTIFY THE APPROPRIATE REGIONAL OFFICE OF THE TCEQ OF THE FEATURE DISCOVERED. A GEOLOGIST'S ASSESSMENT OF THE LOCATION AND EXTENT OF THE FEATURE DISCOVERED MUST BE REPORTED TO THAT REGIONAL OFFICE IN WRITING AND THE APPLICANT MUST SUBMIT A PLAN FOR ENSURING THE STRUCTURAL INTEGRITY OF THE SEWER LINE OR FOR MODIFYING THE PROPOSED COLLECTION SYSTEM ALIGNMENT AROUND THE FEATURE. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE EXECUTIVE DIRECTOR HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY WHILE MAINTAINING THE STRUCTURAL INTEGRITY OF THE LINE.
7. SEWER LINES LOCATED WITHIN OR CROSSING THE 5–YEAR FLOODPLAIN OF A DRAINAGE WAY WILL BE PROTECTED FROM INUNDATION AND STREAM VELOCITIES WHICH COULD CAUSE EROSION AND SCOURING OF BACKFILL. THE TRENCH MUST BE CAPPED WITH CONCRETE TO PREVENT SCOURING OF BACKFILL, OR THE SEWER LINES MUST BE ENCASED IN CONCRETE. ALL CONCRETE SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES.
8. BLASTING PROCEDURES FOR PROTECTION OF EXISTING SEWER LINES AND OTHER UTILITIES WILL BE IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION CRITERIA. SAND IS NOT ALLOWED AS BEDDING OR BACKFILL IN TRENCHES THAT HAVE BEEN BLASTED. IF ANY EXISTING SEWER LINES ARE DAMAGED, THE LINES MUST BE REPAIRED AND RETESTED.
9. ALL MANHOLES CONSTRUCTED OR REHABILITATED ON THIS PROJECT MUST HAVE WATERTIGHT SIZE ON SIZE RESILIENT CONNECTORS ALLOWING FOR DIFFERENTIAL SETTLEMENT. IF MANHOLES ARE CONSTRUCTED WITHIN THE 100–YEAR FLOODPLAIN, THE COVER MUST HAVE A GASKET AND BE BOLTED TO THE RING. WHERE GASKETED MANHOLE COVERS ARE REQUIRED FOR MORE THAN THREE MANHOLES IN SEQUENCE OR FOR MORE THAN 1500 FEET, ALTERNATE MEANS OF VENTING WILL BE PROVIDED. BRICKS ARE NOT AN ACCEPTABLE CONSTRUCTION MATERIAL FOR ANY PORTION OF THE MANHOLE.

   THE DIAMETER OF THE MANHOLES MUST BE A MINIMUM OF FOUR FEET AND THE MANHOLE FOR ENTRY MUST HAVE A MINIMUM CLEAR OPENING DIAMETER OF 30 INCHES. THESE DIMENSIONS AND OTHER DETAILS SHOWING COMPLIANCE WITH THE COMMISSION'S RULES CONCERNING MANHOLES AND SEWER LINE/MANHOLE INVERTS DESCRIBED IN 30 TAC §217.55 ARE INCLUDED ON PLAN SHEET ___ OF ___.

   IT IS SUGGESTED THAT ENTRANCE INTO MANHOLES IN EXCESS OF FOUR FEET DEEP BE ACCOMPLISHED BY MEANS OF A PORTABLE LADDER. THE INCLUSION OF STEPS IN A MANHOLE IS PROHIBITED.
10. WHERE WATER LINES AND NEW SEWER LINE ARE INSTALLED WITH A SEPARATION DISTANCE CLOSER THAN NINE FEET (I.E., WATER LINES CROSSING WASTEWATER LINES, WATER LINES PARALLELING WASTEWATER LINES, OR WATER LINES NEXT TO MANHOLES) THE INSTALLATION MUST MEET THE REQUIREMENTS OF 30 TAC §217.53(D) (PIPE DESIGN) AND 30 TAC §290.44(E) (WATER DISTRIBUTION).
11. WHERE SEWERS LINES DEVIATE FROM STRAIGHT ALIGNMENT AND UNIFORM GRADE ALL CURVATURE OF SEWER PIPE MUST BE ACHIEVED BY THE FOLLOWING PROCEDURE WHICH IS RECOMMENDED BY THE PIPE MANUFACTURER: _____.

    IF PIPE FLEXURE IS PROPOSED, THE FOLLOWING METHOD OF PREVENTING DEFLECTION OF THE JOINT MUST BE USED: _____.

    SPECIFIC CARE MUST BE TAKEN TO ENSURE THAT THE JOINT IS PLACED IN THE CENTER OF THE TRENCH AND PROPERLY BEDDED IN ACCORDANCE WITH 30 TAC §217.54.
12. NEW SEWAGE COLLECTION SYSTEM LINES MUST BE CONSTRUCTED WITH STUB OUTS FOR THE CONNECTION OF ANTICIPATED EXTENSIONS. THE LOCATION OF SUCH STUB OUTS MUST BE MARKED ON THE GROUND SUCH THAT THEIR LOCATION CAN BE EASILY DETERMINED AT THE TIME OF CONNECTION OF THE EXTENSIONS. SUCH STUB OUTS MUST BE MANUFACTURED WYES OR TEES THAT ARE COMPATIBLE IN SIZE AND MATERIAL WITH BOTH THE SEWER LINE AND THE EXTENSION. AT THE TIME OF ORIGINAL CONSTRUCTION, NEW STUB–OUTS MUST BE CONSTRUCTED SUFFICIENTLY TO EXTEND BEYOND THE END OF THE STREET PAVEMENT. ALL STUB–OUTS MUST BE SEALED WITH A MANUFACTURED CAP TO PREVENT LEAKAGE. EXTENSIONS THAT WERE NOT ANTICIPATED AT THE TIME OF ORIGINAL CONSTRUCTION OR THAT ARE TO BE CONNECTED TO AN EXISTING SEWER LINE NOT FURNISHED WITH STUB OUTS MUST BE CONNECTED USING A MANUFACTURED SADDLE AND IN ACCORDANCE WITH ACCEPTED PLUMBING TECHNIQUES.

    IF NO STUB–OUT IS PRESENT AN ALTERNATE METHOD OF JOINING LATERALS IS SHOWN IN THE DETAIL ON PLAN SHEET ___ OF ___. (FOR POTENTIAL FUTURE LATERALS).

    THE PRIVATE SERVICE LATERAL STUB–OUTS MUST BE INSTALLED AS SHOWN ON THE PLAN AND PROFILE SHEETS ON PLAN SHEET ___ OF ___ AND MARKED AFTER BACKFILLING AS SHOWN IN THE DETAIL ON PLAN SHEET ___ OF ___.
13. TRENCHING, BEDDING AND BACKFILL MUST CONFORM WITH 30 TAC §217.54. THE BEDDING AND BACKFILL FOR FLEXIBLE PIPE MUST COMPLY WITH THE STANDARDS OF ASTM D–2321, CLASSES IA, IB, II OR III. RIGID PIPE BEDDING MUST COMPLY WITH THE REQUIREMENTS OF ASTM C 12 (ANSI A 106.2) CLASSES A, B OR C.
14. SEWER LINES MUST BE TESTED FROM MANHOLE TO MANHOLE. WHEN A NEW SEWER LINE IS CONNECTED TO AN EXISTING STUB OR CLEAN–OUT, IT MUST BE TESTED FROM EXISTING MANHOLE TO NEW MANHOLE. IF A STUB OR CLEAN–OUT IS USED AT THE END OF THE PROPOSED SEWER LINE, NO PRIVATE SERVICE ATTACHMENTS MAY BE CONNECTED BETWEEN THE LAST MANHOLE AND THE CLEANOUT UNLESS IT CAN BE CERTIFIED AS CONFORMING WITH THE PROVISIONS OF 30 TAC §213.5(c)(3)(E).
15. ALL SEWER LINES MUST BE TESTED IN ACCORDANCE WITH 30 TAC §217.57. THE ENGINEER MUST RETAIN COPIES OF ALL TEST RESULTS WHICH MUST BE MADE AVAILABLE TO THE EXECUTIVE DIRECTOR UPON REQUEST. THE ENGINEER MUST CERTIFY IN WRITING THAT ALL WASTEWATER LINES HAVE PASSED ALL REQUIRED TESTING TO THE APPROPRIATE REGIONAL OFFICE WITHIN 30 DAYS OF TEST COMPLETION AND PRIOR TO USE OF THE NEW COLLECTION SYSTEM. TESTING METHOD WILL BE:
    (a) FOR A COLLECTION SYSTEM PIPE THAT WILL TRANSPORT WASTEWATER BY GRAVITY FLOW, THE DESIGN MUST SPECIFY AN INFILTRATION AND EXFILTRATION TEST OR A LOW–PRESSURE AIR TEST. A TEST MUST CONFORM TO THE FOLLOWING REQUIREMENTS:
    (1) LOW PRESSURE AIR TEST.
    (A) A LOW PRESSURE AIR TEST MUST FOLLOW THE PROCEDURES DESCRIBED IN AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) C–828, ASTM C–924, OR ASTM F–1417 OR OTHER PROCEDURE APPROVED BY THE EXECUTIVE DIRECTOR, EXCEPT AS TO TESTING TIMES AS REQUIRED IN TABLE C.3 IN SUBPARAGRAPH (C) OF THIS PARAGRAPH OR EQUATION C.3 IN SUBPARAGRAPH (B)(II) OF THIS PARAGRAPH.
    (B) FOR SECTIONS OF COLLECTION SYSTEM PIPE LESS THAN 36 INCH AVERAGE INSIDE DIAMETER, THE FOLLOWING PROCEDURE MUST APPLY, UNLESS A PIPE IS TO BE TESTED AS REQUIRED BY PARAGRAPH (2) OF THIS SUBSECTION.
    (i) A PIPE MUST BE PRESSURIZED TO 3.5 POUNDS PER SQUARE INCH (PSI) GREATER THAN THE PRESSURE EXERTED BY GROUNDWATER ABOVE THE PIPE.
    (ii) ONCE THE PRESSURE IS STABILIZED, THE MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 PSI GAUGE TO 2.5 PSI GAUGE IS COMPUTED FROM THE FOLLOWING EQUATION:

EQUATION C.3 $$T = \frac{0.085 \times D \times K}{Q}$$

WHERE:

T = TIME FOR PRESSURE TO DROP 1.0 POUND PER SQUARE INCH GAUGE IN SECONDS
K = 0.000419 X D X L, BUT NOT LESS THAN 1.0
D = AVERAGE INSIDE PIPE DIAMETER IN INCHES
L = LENGTH OF LINE OF SAME SIZE BEING TESTED, IN FEET
Q = RATE OF LOSS, 0.0015 CUBIC FEET PER MINUTE PER SQUARE FOOT INTERNAL SURFACE

(C) SINCE A K VALUE OF LESS THAN 1.0 MAY NOT BE USED, THE MINIMUM TESTING TIME FOR EACH PIPE DIAMETER IS SHOWN IN THE FOLLOWING TABLE C.3:

PIPE DIAMETER (INCHES)	MINIMUM TIME (SECONDS)	MAXIMUM LENGTH FOR MINIMUM TIME (FEET)	TIME FOR LONGER LENGTH (SECOND/FOOT)
6	340	398	0.855
8	454	298	1.520
10	567	239	2.374
12	680	199	3.419
15	850	159	5.342
18	1020	133	7.693
21	1190	114	10.471
24	1360	100	13.676
27	1530	88	17.309
30	1700	80	21.369
33	1870	72	25.856

(2) INFILTRATION/EXFILTRATION TEST.
(A) THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH OF DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF 2.0 FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE.
(B) AN OWNER SHALL USE AN INFILTRATION TEST IN LIEU OF AN EXFILTRATION TEST WHEN PIPES ARE INSTALLED BELOW THE GROUNDWATER LEVEL. THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE, OR AT LEAST TWO FEET ABOVE EXISTING GROUNDWATER LEVEL, WHICHEVER IS GREATER.
(C) FOR CONSTRUCTION WITHIN A 25–YEAR FLOOD PLAIN, THE INFILTRATION OR EXFILTRATION MUST NOT EXCEED 10 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT THE SAME MINIMUM TEST HEAD AS IN SUBPARAGRAPH (C) OF THIS PARAGRAPH.
(D) IF THE QUANTITY OF INFILTRATION OR EXFILTRATION EXCEEDS THE MAXIMUM QUANTITY SPECIFIED, ANOWNER SHALL UNDERTAKE REMEDIAL ACTION IN ORDER TO REDUCE THE INFILTRATION OR EXFILTRATION TO AN AMOUNT WITHIN THE LIMITS SPECIFIED. AN OWNER SHALL RETEST A PIPE FOLLOWING A REMEDIATION ACTION.

(b) IF A GRAVITY COLLECTION PIPE IS COMPOSED OF FLEXIBLE PIPE, DEFLECTION TESTING IS ALSO REQUIRED. THE FOLLOWING PROCEDURES MUST BE FOLLOWED:
(1) FOR A COLLECTION PIPE WITH INSIDE DIAMETER LESS THAN 27 INCHES, DEFLECTION MEASUREMENT REQUIRES A RIGID MANDREL.
(A) MANDREL SIZING.
(i) A RIGID MANDREL MUST HAVE AN OUTSIDE DIAMETER (OD) NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER (ID) OR AVERAGE ID OF A PIPE, AS SPECIFIED IN THE APPROPRIATE STANDARD BY THE ASTMS, AMERICAN WATER WORKS ASSOCIATION, UNI–BELL, OR AMERICAN NATIONAL STANDARDS INSTITUTE, OR ANY RELATED APPENDIX.
(ii) IF A MANDREL SIZING DIAMETER IS NOT SPECIFIED IN THE APPROPRIATE STANDARD, THE MANDREL MUST HAVE AN OD EQUAL TO 95% OF THE ID OF A PIPE. IN THIS CASE, THE ID OF THE PIPE, FOR THE PURPOSE OF DETERMINING THE OD OF THE MANDREL, MUST EQUAL BE THE AVERAGE OUTSIDE DIAMETER MINUS TWO MINIMUM WALL THICKNESSES FOR OD CONTROLLED PIPE AND THE AVERAGE INSIDE DIAMETER FOR ID CONTROLLED PIPE.
(iii) ALL DIMENSIONS MUST MEET THE APPROPRIATE STANDARD.
(B) MANDREL DESIGN.
(i) A RIGID MANDREL MUST BE CONSTRUCTED OF A METAL OR A RIGID PLASTIC MATERIAL THAT CAN WITHSTAND 200 PSI WITHOUT BEING DEFORMED.
(ii) A MANDREL MUST HAVE NINE OR MORE ODD NUMBER OR RUNNERS OR LEGS.
(iii) A BARREL SECTION LENGTH MUST EQUAL AT LEAST 75% OF THE INSIDE DIAMETER OF A PIPE.
(iv) EACH SIZE MANDREL MUST USE A SEPARATE PROVING RING.
(C) METHOD OPTIONS.
(i) AN ADJUSTABLE OR FLEXIBLE MANDREL IS PROHIBITED.
(ii) A TEST MAY NOT USE TELEVISION INSPECTION AS A SUBSTITUTE FOR A DEFLECTION TEST.
(iii) IF REQUESTED, THE EXECUTIVE DIRECTOR MAY APPROVE THE USE OF A DEFLECTOMETER OR A MANDREL WITH REMOVABLE LEGS OR RUNNERS ON A CASE–BY–CASE BASIS.
(2) FOR A GRAVITY COLLECTION SYSTEM PIPE WITH AN INSIDE DIAMETER 27 INCHES AND GREATER, OTHER TEST METHODS MAY BE USED TO DETERMINE VERTICAL DEFLECTION.
(3) A DEFLECTION TEST METHOD MUST BE ACCURATE TO WITHIN PLUS OR MINUS 0.2% DEFLECTION.
(4) AN OWNER SHALL NOT CONDUCT A DEFLECTION TEST UNTIL AT LEAST 30 DAYS AFTER THE FINAL BACKFILL.
(5) GRAVITY COLLECTION SYSTEM PIPE DEFLECTION MUST NOT EXCEED FIVE PERCENT (5%).
(6) IF A PIPE SECTION FAILS A DEFLECTION TEST, AN OWNER SHALL CORRECT THE PROBLEM AND CONDUCT A SECOND TEST AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.

16. ALL MANHOLES MUST BE TESTED TO MEET OR EXCEED THE REQUIREMENTS OF 30 TAC §217.58.
    (a) ALL MANHOLES MUST PASS A LEAKAGE TEST.
    (b) AN OWNER SHALL TEST EACH MANHOLE (AFTER ASSEMBLY AND BACKFILLING) FOR LEAKAGE, SEPARATE AND INDEPENDENT OF THE COLLECTION SYSTEM PIPES, BY HYDROSTATIC EXFILTRATION TESTING, VACUUM TESTING, OR OTHER METHOD APPROVED BY THE EXECUTIVE DIRECTOR.
    (1) HYDROSTATIC TESTING.
    (A) THE MAXIMUM LEAKAGE FOR HYDROSTATIC TESTING OR ANY ALTERNATIVE TEST METHODS IS 0.025 GALLONS PER FOOT DIAMETER PER FOOT OF MANHOLE DEPTH PER HOUR.
    (B) TO PERFORM A HYDROSTATIC EXFILTRATION TEST, AN OWNER SHALL SEAL ALL WASTEWATER PIPES COMING INTO A MANHOLE WITH AN INTERNAL PIPE PLUG, FILL THE MANHOLE WITH WATER, AND MAINTAIN THE TEST FOR AT LEAST ONE HOUR.
    (C) A TEST FOR CONCRETE MANHOLES MAY USE A 24–HOUR WETTING PERIOD BEFORE TESTING TO ALLOW SATURATION OF THE CONCRETE.
    (2) VACUUM TESTING.
    (A) TO PERFORM A VACUUM TEST, AN OWNER SHALL PLUG ALL LIFT HOLES AND EXTERIOR JOINTS WITH A NON–SHRINK GROUT AND PLUG ALL PIPES ENTERING A MANHOLE.
    (B) NO GROUT MUST BE PLACED IN HORIZONTAL JOINTS BEFORE TESTING.
    (C) STUB–OUTS, MANHOLE BOOTS, AND PIPE PLUGS MUST BE SECURED TO PREVENT MOVEMENT WHILE A VACUUM IS DRAWN.
    (D) AN OWNER SHALL USE A MINIMUM 60 INCH/LB TORQUE WRENCH TO TIGHTEN THE EXTERNAL CLAMPS THAT SECURE A TEST COVER TO THE TOP OF A MANHOLE.
    (E) A TEST HEAD MUST BE PLACED AT THE INSIDE OF THE TOP OF A CONE SECTION, AND THE SEAL INFLATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
    (F) THERE MUST BE A VACUUM OF 10 INCHES OF MERCURY INSIDE A MANHOLE TO PERFORM A VALID TEST.
    (G) A TEST DOES NOT BEGIN UNTIL AFTER THE VACUUM PUMP IS OFF.
    (H) A MANHOLE PASSES THE TEST IF AFTER 2.0 MINUTES AND WITH ALL VALVES CLOSED, THE VACUUM IS AT LEAST 9.0 INCHES OF MERCURY.
17. ALL PRIVATE SERVICE LATERALS MUST BE INSPECTED AND CERTIFIED IN ACCORDANCE WITH 30 TAC §213.5(C)(3)(I). AFTER INSTALLATION OF AND, PRIOR TO COVERING AND CONNECTING A PRIVATE SERVICE LATERAL TO AN EXISTING ORGANIZED SEWAGE COLLECTION SYSTEM, A TEXAS LICENSED PROFESSIONAL ENGINEER, TEXAS REGISTERED SANITARIAN, OR APPROPRIATE CITY INSPECTOR MUST VISUALLY INSPECT THE PRIVATE SERVICE LATERAL AND THE CONNECTION TO THE SEWAGE COLLECTION SYSTEM, AND CERTIFY THAT IT IS CONSTRUCTED IN CONFORMITY WITH THE APPLICABLE PROVISIONS OF THIS SECTION. THE OWNER OF THE COLLECTION SYSTEM MUST MAINTAIN SUCH CERTIFICATIONS FOR FIVE YEARS AND FORWARD COPIES TO THE APPROPRIATE REGIONAL OFFICE UPON REQUEST. CONNECTIONS MAY ONLY BE MADE TO AN APPROVED SEWAGE COLLECTION SYSTEM.

REV. NO.	BY	DATE	REVISION DESCRIPTION

S. IRRINKI 84348 — 14 OCTOBER 2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

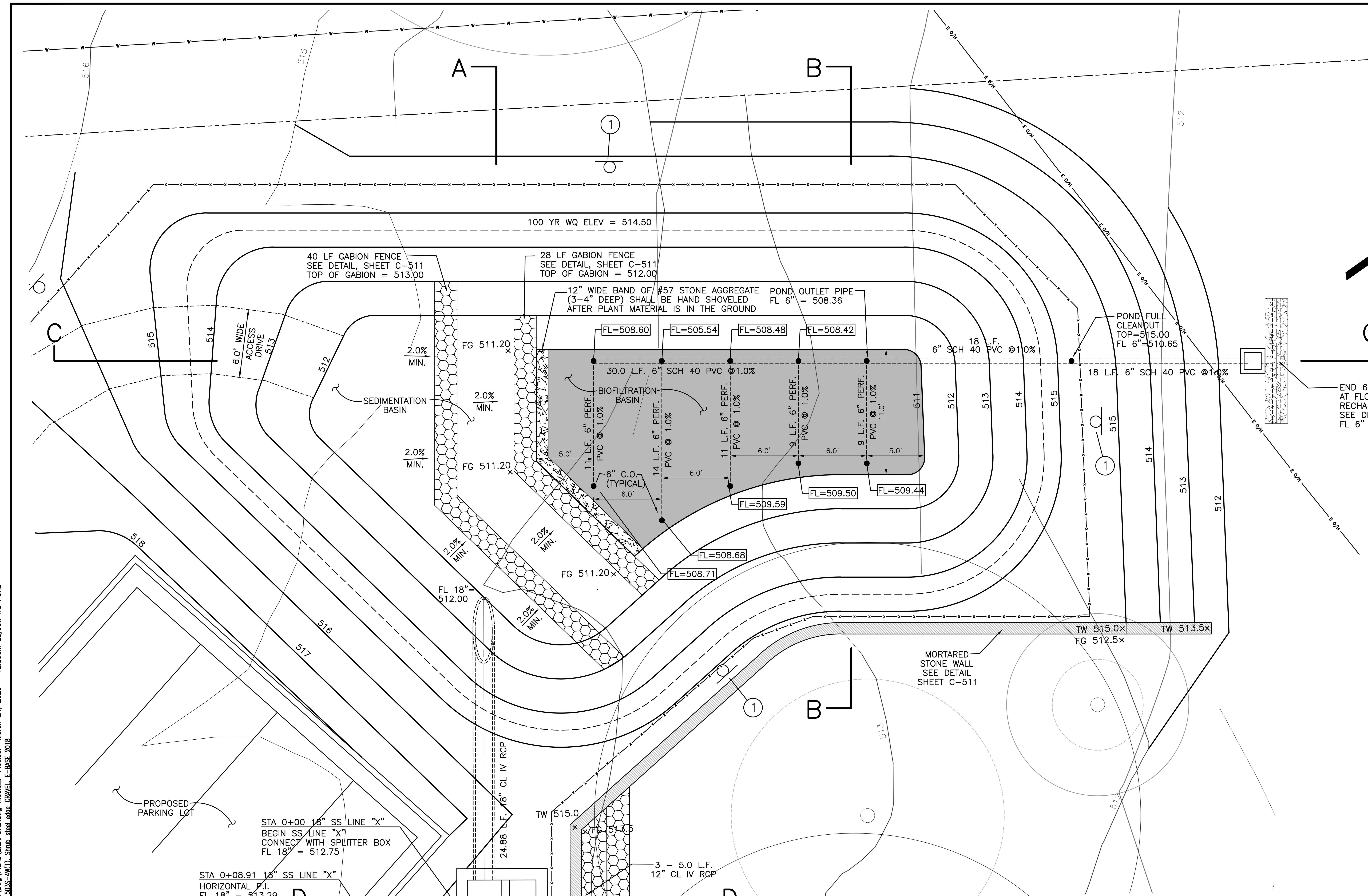
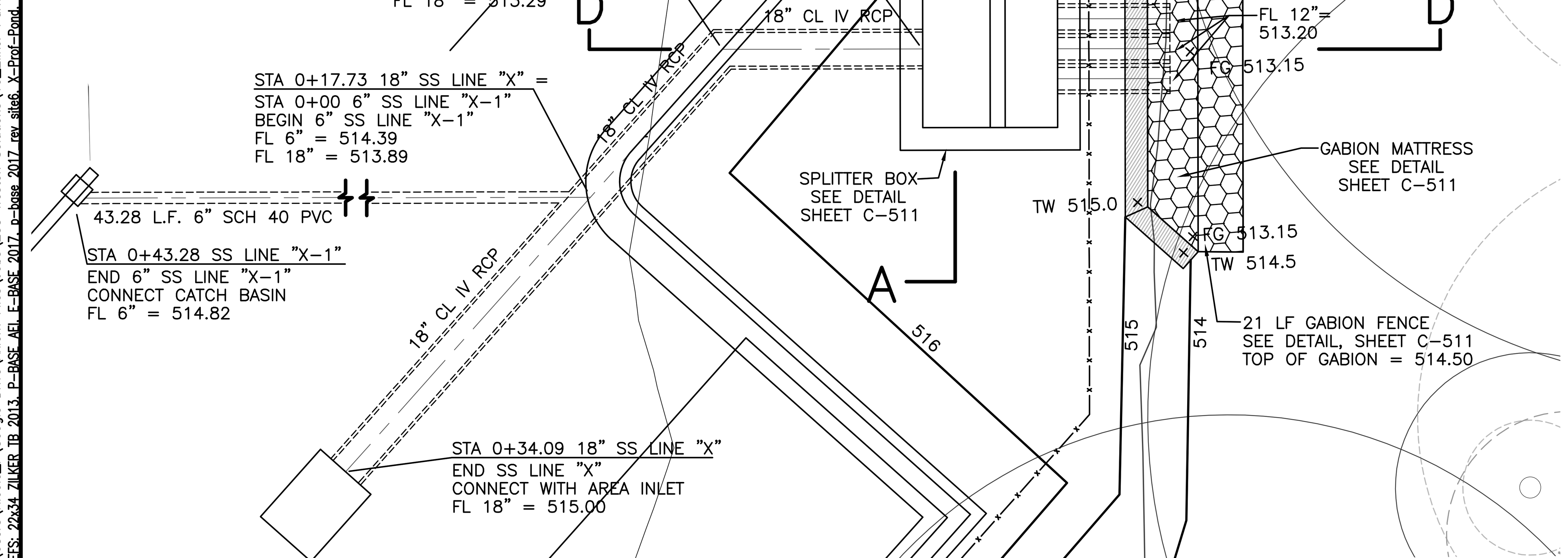
ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE

GENERAL NOTES

CITY OF AUSTIN FOUNDED 1839 — PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

SHEET NUMBER G-005

NOTES:

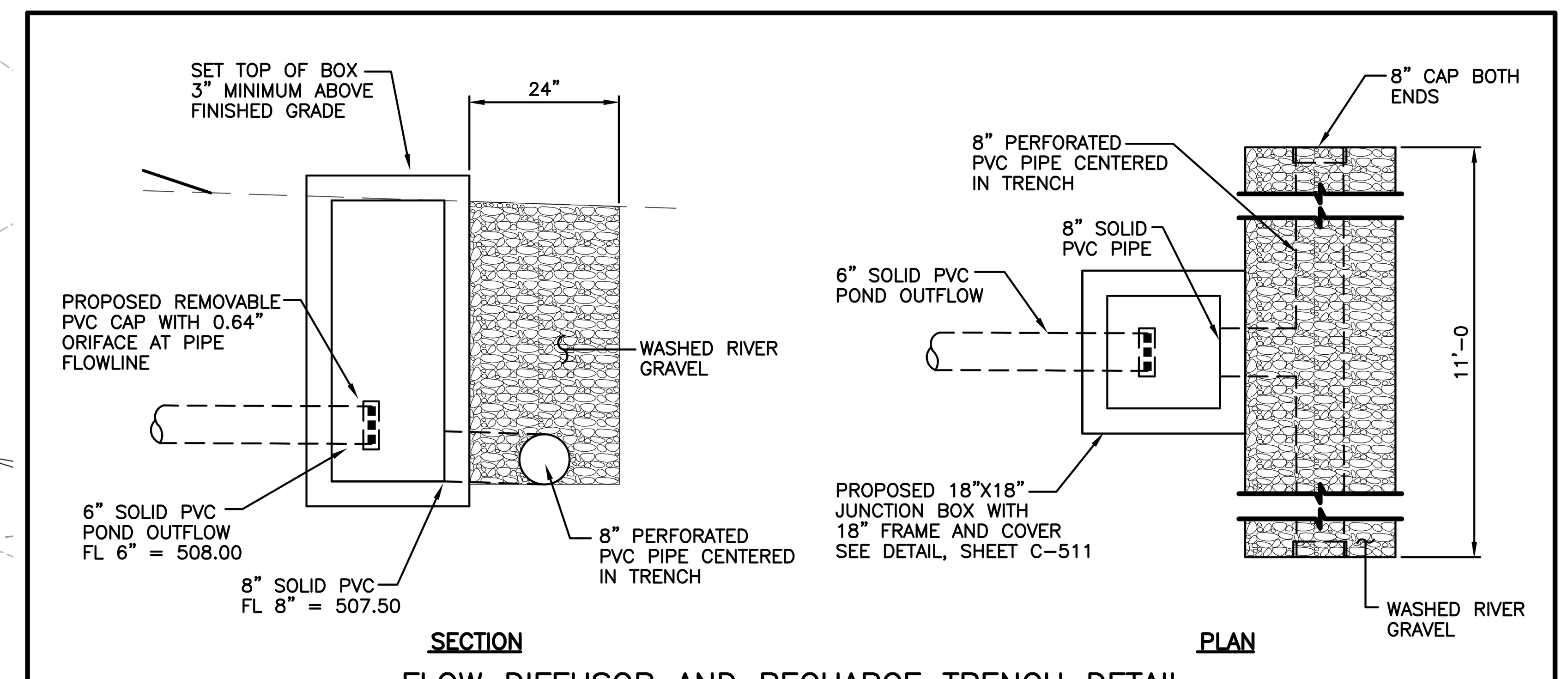
1. ALL POND BOTTOMS, SIDE SLOPES AND EARTHAN EMBANKMENTS SHALL BE COMPACTED TO NINTY-FIVE PERCENT (95%) MAXIMUM DENSITY IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATIONS.
2. POND SHALL BE EQUIPPED WITH A SYNTHETIC LINER. SEE DETAILS, SHEET C-510.

CONSTRUCTION NOTES:

(1) STORMWATER FACILITY SIGN – SEE DETAIL 662S-3 SHEET C-511

ABBREVIATIONS:

X	SPOT ELEVATION
( )	RECORD INFORMATION
CL IV	CLASS IV
COA	CITY OF AUSTIN
FG	FINISHED GRADE
FL	FLOWLINE
FS	FINISHED SURFACE
GB	GRADE BREAK
IE	INVERT ELEVATION
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT-OF-WAY
TB	THRUST BLOCK
TC	TOP OF CURB
TP	TOP OF PIPE
TW	TOP OF WALL
WQ	WATER QUALITY



FLOW DIFFUSOR AND RECHARGE TRENCH DETAIL
NOT TO SCALE

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SITE PLAN APPROVAL Sheet 173 of 217
FILE NO: SPC-2012-0104D(R4) APPLICATION DATE: 11/16/2018
APPROVED BY COMMISSION ON: ________ UNDER SECTION 112 OF CHAPTER 25-5 OF THE AUSTIN CITY CODE.
EXPIRATION DATE (25-5-81,LDC) ________ CASE MANAGER: J. Siltala
PROJECT EXPIRATION DATE (ORD.#97905-A) N/A DWPZ ___ DDZ X

Director, Development Services Department
RELEASED FOR GENERAL COMPLAIANCE ________ ZONING P
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 Permit and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

REV. NO.	BY	DATE	REVISION DESCRIPTION

NICOLE FOLTA FINDEISEN 91778 LICENSED PROFESSIONAL ENGINEER 03/19/2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

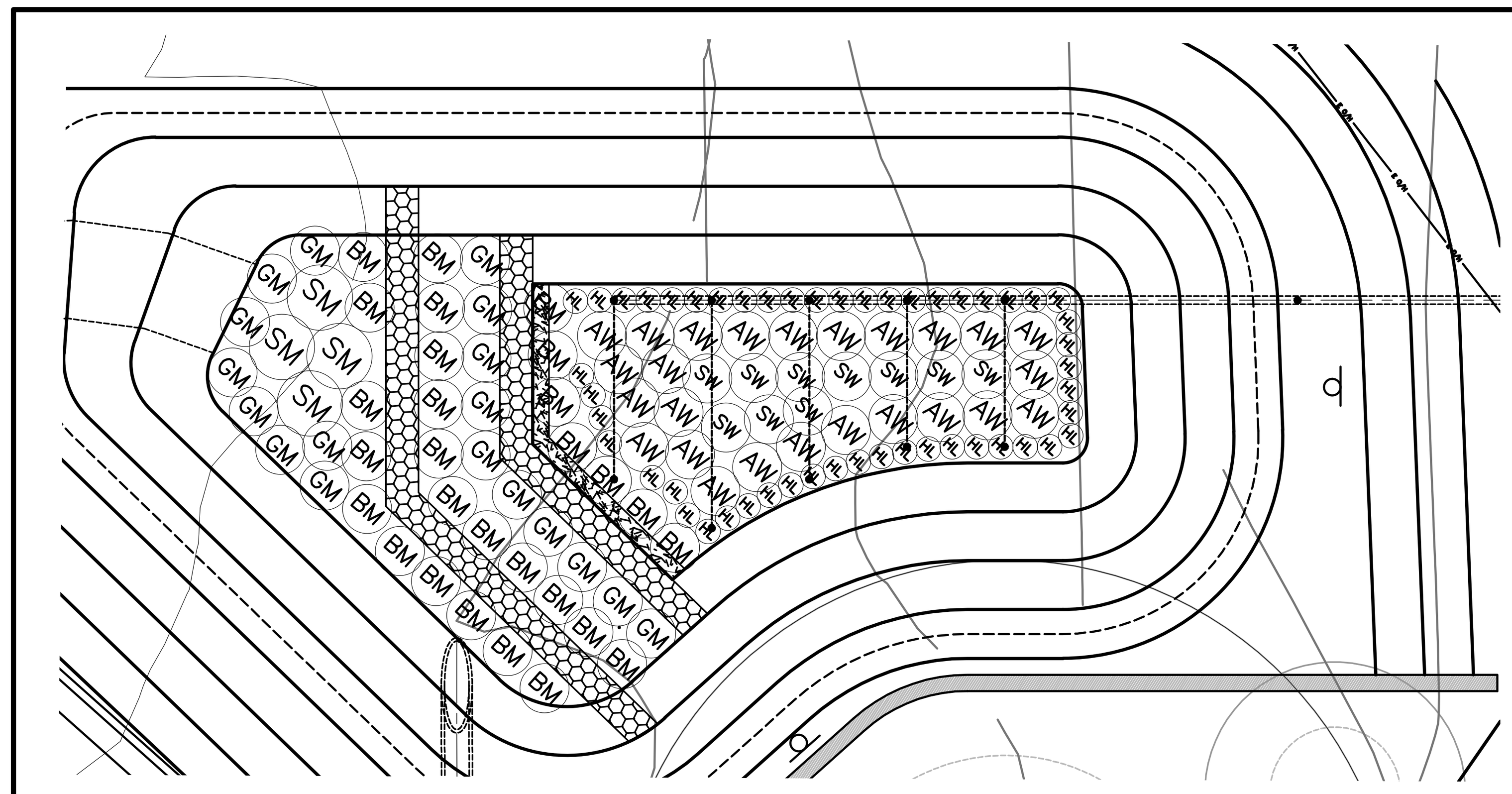
ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT
CITY OF AUSTIN PARKS & RECREATION
WATER QUALITY POND PLAN

CITY OF AUSTIN FOUNDED 1839 — PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	–	–
CHECKED BY	–	–
DESIGNED BY	–	–
REVIEWED BY	–	–
SCALE:	AS SHOWN	
SHEET NUMBER	C-108	173 OF 217

C.O.A. FILE NO. SPC-2012-0104D(R4)

NEW SHEET



Sedimentation Basin			475 SF X 0.10 = 48 Plants Required		
Abbreviation	Common Name	Size	Spacing	Quantity	1 Gallon Equivalent
GM	Gulf Muhly	3 Gal.	36" o.c.	18	36
BM	Big Muhly	5 Gal.	36" o.c.	21	84
SM	Dwarf Palmeto	30 Gal.	48" o.c.	4	16
				Total Plants Provided	136

Biofiltration Basin			439 SF X 0.20 = 88 Plants Required		
Abbreviation	Common Name	Size	Spacing	Quantity	1 Gallon Equivalent
HL	Spider Lily	3 Gal.	18" o.c.	50	100
AW	Flameleaf Acanthus	5 Gal.	36" o.c.	25	100
SW	Switch Grass	3 Gal.	36" o.c.	10	20
BM	Big Muhly	5 Gal.	36" o.c.	7	28
				Total Plants Provided	248

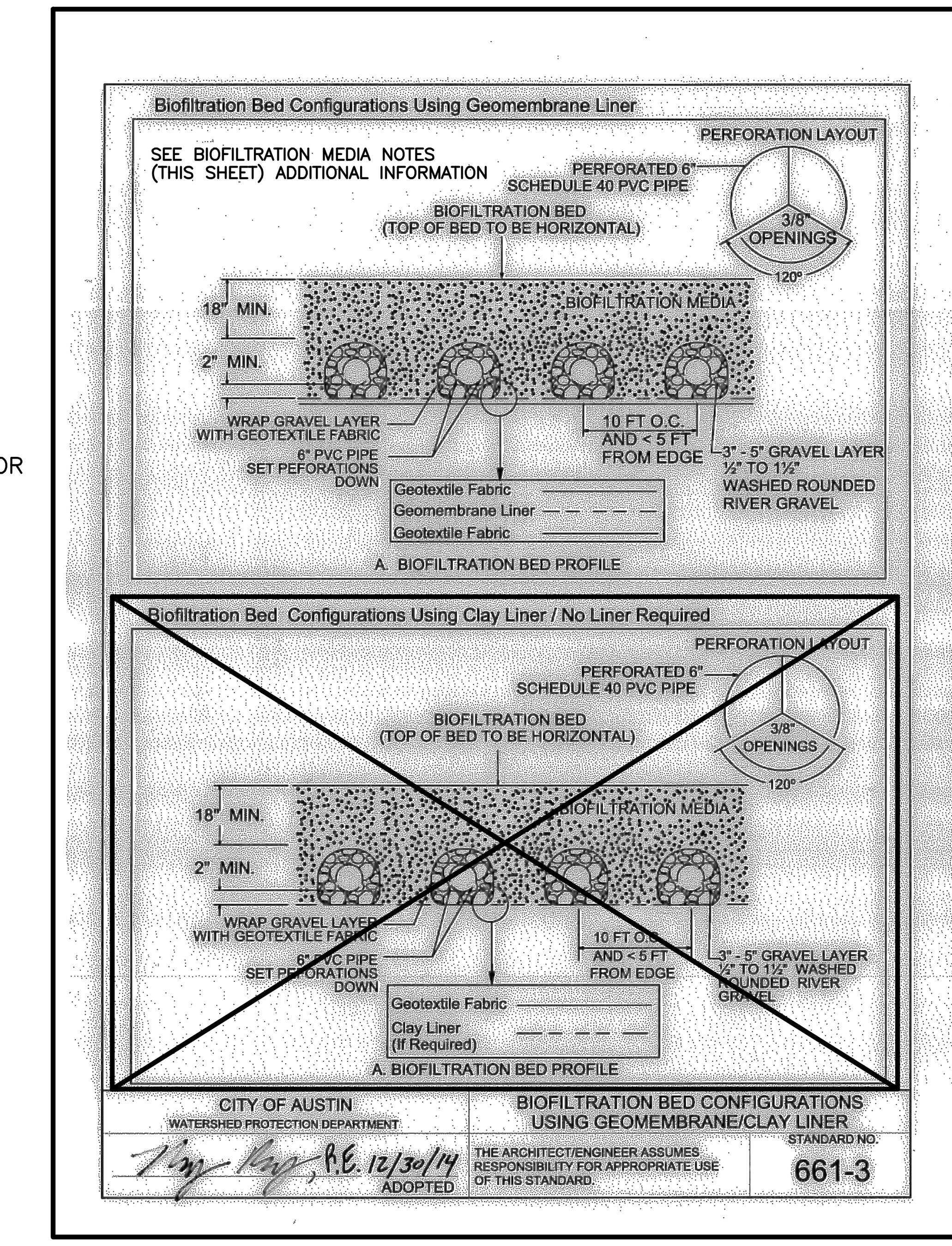
GRAPHIC SCALE
10 0 5 10 20
(SCALE IN FEET)
1 inch = 10'

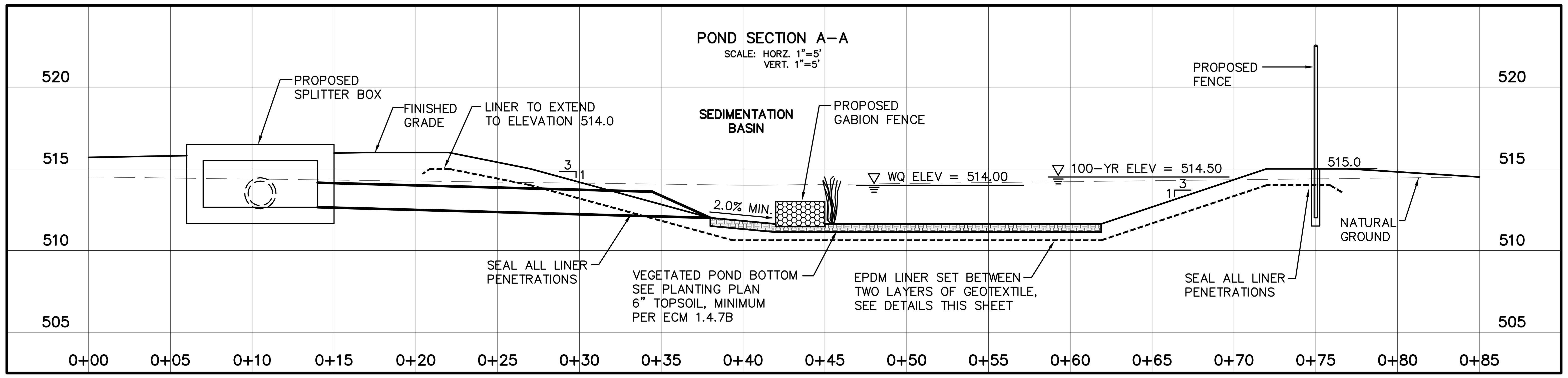
SEE LANDSCAPE PLANS FOR PLANTING NOTES AND DETAILS

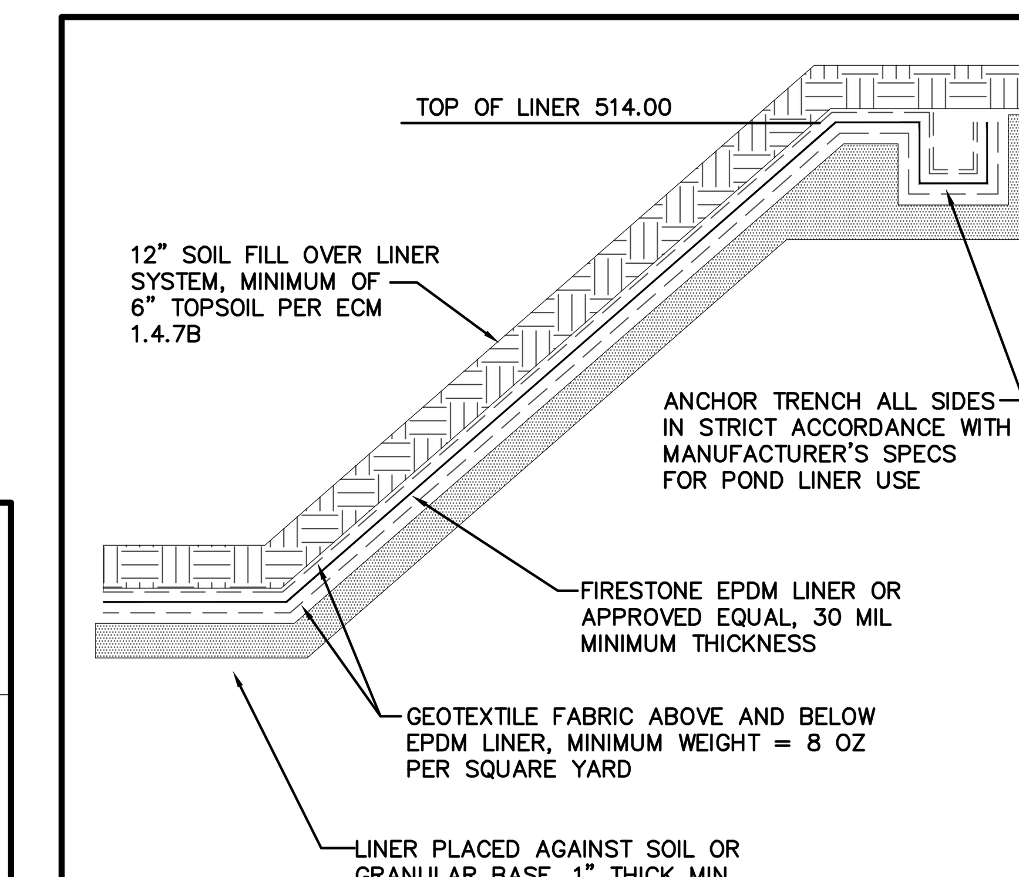
POND PLANTING PLAN

BIOFILTRATION MEDIA NOTES:

1. BIOFILTRATION MEDIA SHALL MEET THE PERFORMANCE CRITERIA OULINED IN ECM1.6.7.5.C.4.A.
2. FOR CREATING BIOFILTRATION MIXTURE, SEE COA STANDARD SPECIFICATION 660S, BIOFILTRATION MEDIA.
3. LABORATORY TESTING IS REQUIRED TO VERIFY PERCENT ORGANIC MATTER AND TEXTURE ANALYSIS.
4. THE HYDRAULIC CONDUCTIVITY OF THE BIOFILTRATION MEDIA SHALL BE HIGH ENOUGH TO PROVIDE ADEQUATE DRAINAGE, SUPPORT HEALTHY PLANT GROWTH AND PREVENT NUISANCE CONDITIONS. THE MEDIA MUST DEMONSTRATE SUFFICIENT WATER HOLDING CAPACITY TO SUPPORT VIGOROUS PLANT GROWTH. THE CONTRACTOR OR HIS/HER DESIGNEE (E.G. SOIL SUPPLIER) MUST BE CERTIFIED AS MEETING THESE PERFORMANCE CRITERIA BASED ON SUBMITTAL TICKETS, TEST RESULTS, ETC. BEFORE ACCEPTANCE BY THE CITY.



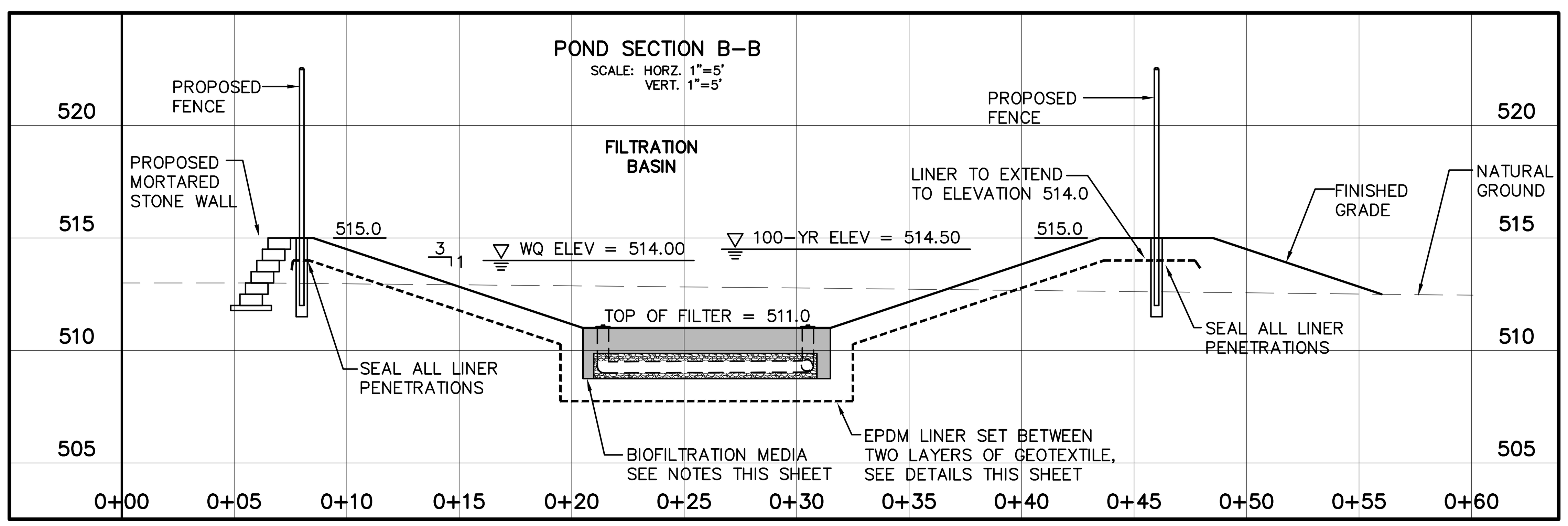


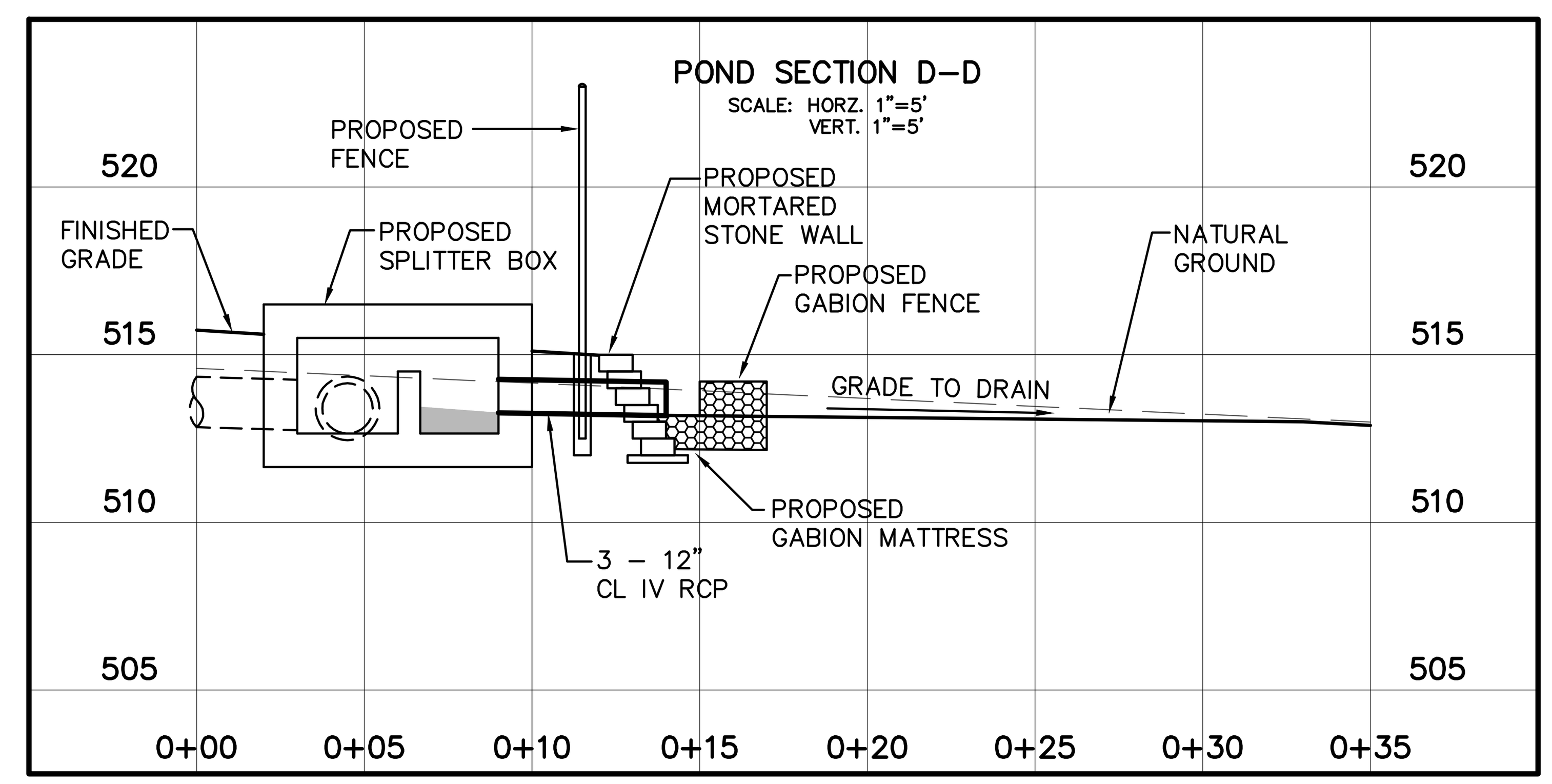


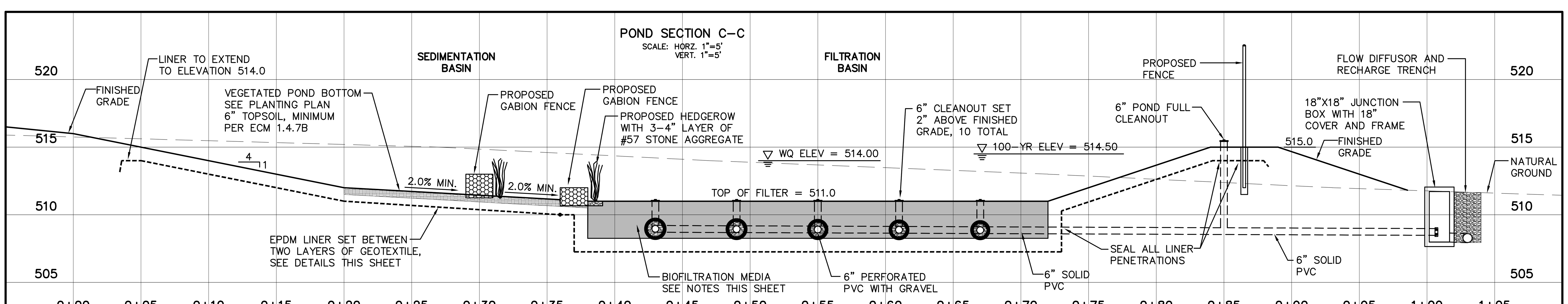
NOTES:

1. LINER SHALL BE FIRESTONE POND GUARD EPDM OR APPROVED EQUAL.
2. MINIMUM LINER THICKNESS SHALL BE 30 MILS.
3. GEOTEXTILE FABRIC SHALL A MINIMUM PUNCTURE STRENGTH OF 125 LBS, A MINIMUM TENSILE STRENGTH OF 200 LBS AND A MINIMUM MULLEN BURST STRENGTH OF 400 LBS.
4. LINER INSTALLATION IS SUBJECT TO CITY OF AUSTIN REQUIREMENTS FOR INSPECTION AND QUALITY CONTROL, REFER TO QA/QC PLAN FOR LINER INSTALLATION FOR DETAILS.
5. ALL LINER PENETRATIONS SHALL BE SEALED.

SYNTHETIC LINER DETAIL
NOT TO SCALE







AXIOM Engineers Inc
P.O. Box 25
New Ulm, Texas 78950
Ph: (512) 784-5892
www.axiomtexas.com
Texas P.E. Firm No. F-43

SITE PLAN APPROVAL Sheet 192 of 217
FILE NO: SPC-2012-0104D(R4) APPLICATION DATE: 11/16/2018
APPROVED BY COMMISSION ON: ________ UNDER SECTION 112 OF CHAPTER 25-5 OF THE AUSTIN CITY CODE.
EXPIRATION DATE (25-5-81,LDC) ________ CASE MANAGER: J. Siltala
PROJECT EXPIRATION DATE (ORD.#97905-A) N/A DWPZ ___ DDZ X

Director, Development Services Department
RELEASED FOR GENERAL COMPLAIANCE ________ ZONING P
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 Permit and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

REV. NO.	BY	DATE	REVISION DESCRIPTION

NICOLE FOLTA FINDEISEN 91778 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS
03/19/2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT
CITY OF AUSTIN PARKS & RECREATION
WATER QUALITY POND DETAILS I

CITY OF AUSTIN FOUNDED 1839
PARKS AND RECREATION DEPARTMENT

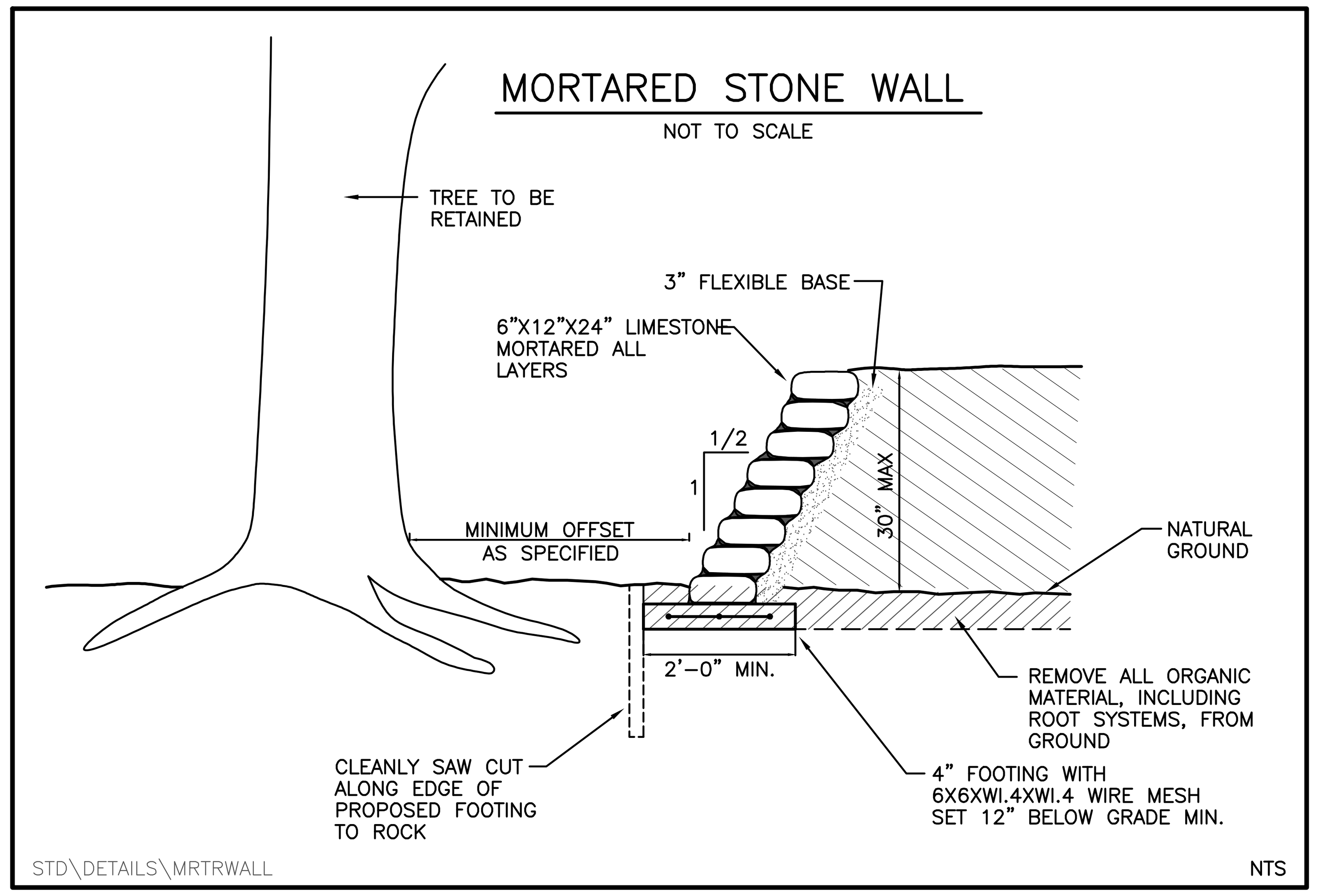
NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	–	–
CHECKED BY	–	–
DESIGNED BY	–	–
REVIEWED BY	–	–
SCALE:	AS SHOWN	

SHEET NUMBER C-510
192 OF 217

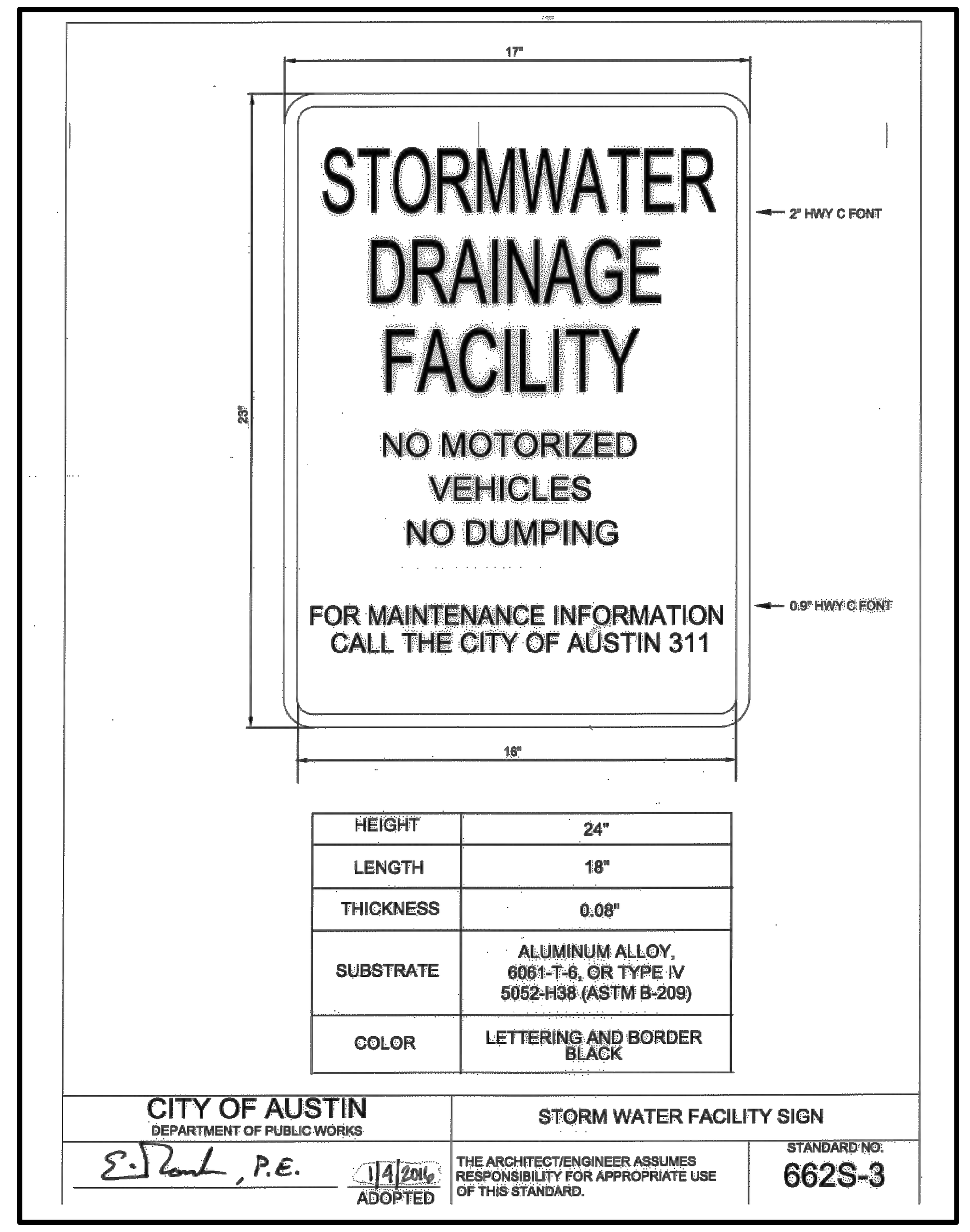
C.O.A. FILE NO. SPC-2012-0104D(R4)

NEW SHEET

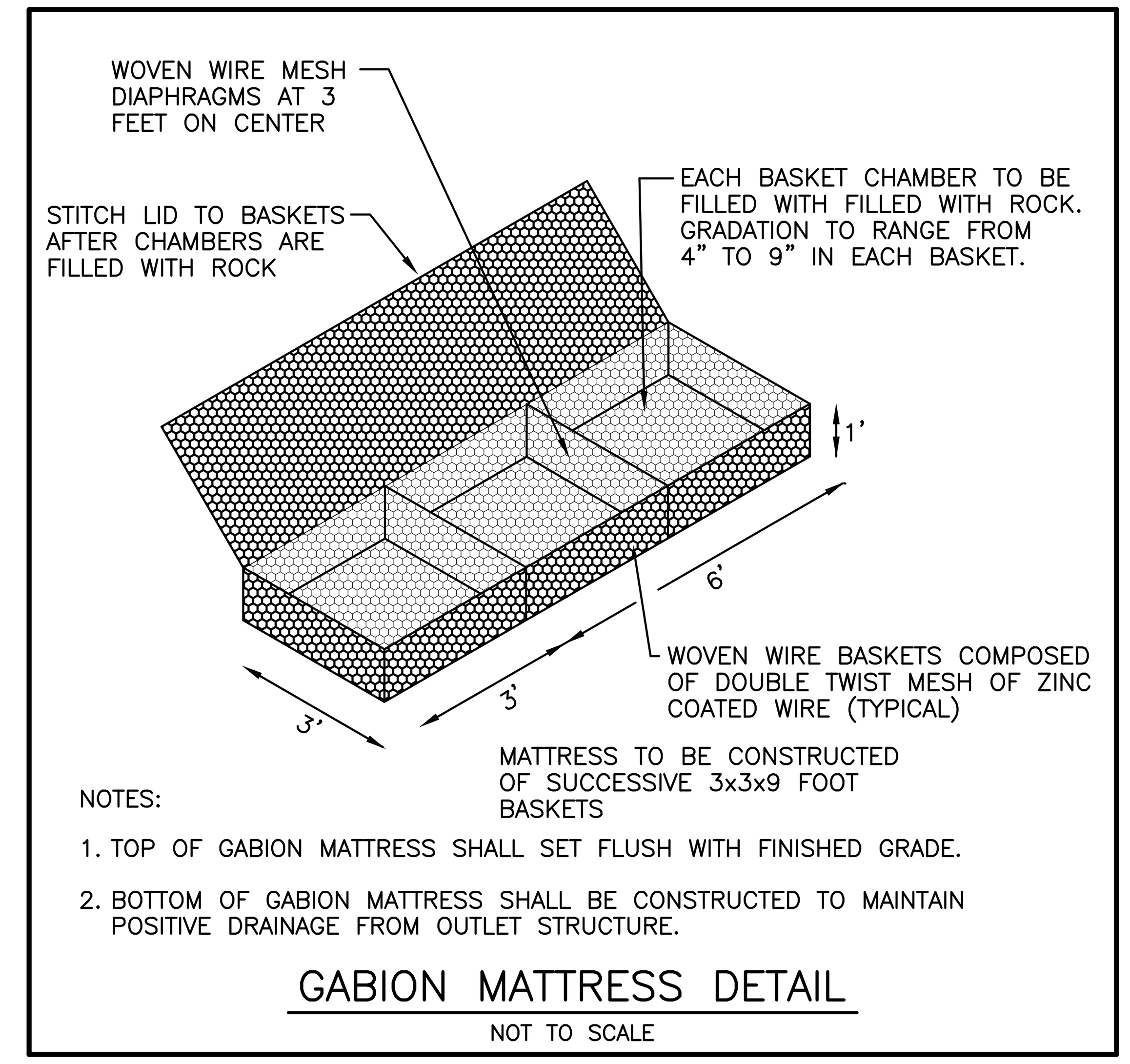
C:\Users\Nicole_F\Google Drive\Axiom Files\Jobs\253 Weston Solutions\10_Zilker Park\Dwg\Plans\ZILKPOND.dwg Nicole_F Plotted: March 23, 2020 - 11:12pm Layout: POND DETAIL 1



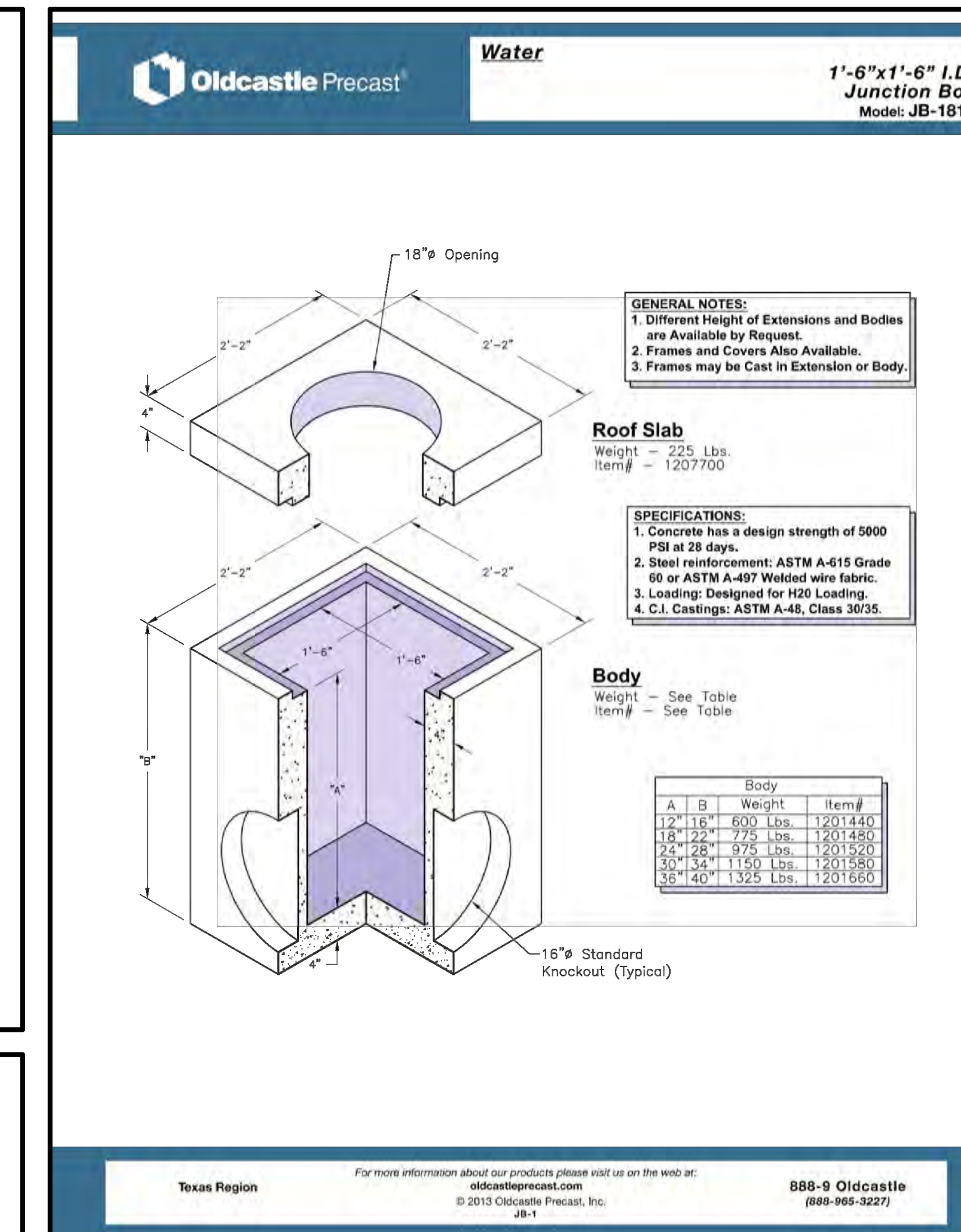
MORTARED STONE WALL
NOT TO SCALE
TREE TO BE RETAINED
3" FLEXIBLE BASE
6"X12"X24" LIMESTONE MORTARED ALL LAYERS
1/2
1
30" MAX
MINIMUM OFFSET AS SPECIFIED
NATURAL GROUND
2'-0" MIN.
REMOVE ALL ORGANIC MATERIAL, INCLUDING ROOT SYSTEMS, FROM GROUND
CLEANLY SAW CUT ALONG EDGE OF PROPOSED FOOTING TO ROCK
4" FOOTING WITH 6X6XW1.4XW1.4 WIRE MESH SET 12" BELOW GRADE MIN.
STD\DETAILS\MRTRWALL
NTS

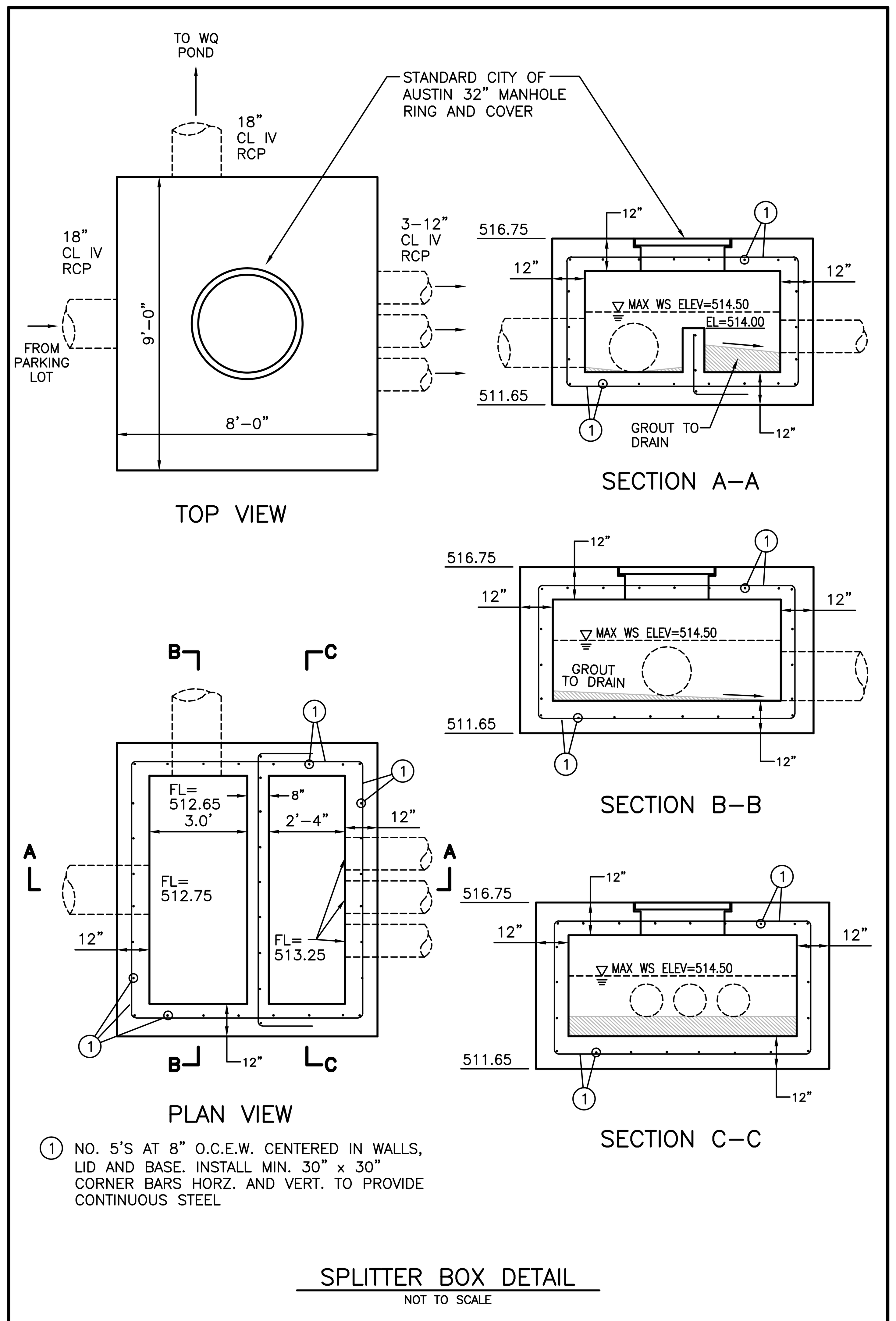


STORMWATER DRAINAGE FACILITY
NO MOTORIZED VEHICLES
NO DUMPING
FOR MAINTENANCE INFORMATION CALL THE CITY OF AUSTIN 311
HEIGHT 24"
LENGTH 18"
THICKNESS 0.08"
SUBSTRATE ALUMINUM ALLOY, 6061-T-6, OR TYPE IV 5052-H38 (ASTM B-209)
COLOR LETTERING AND BORDER BLACK
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
STORM WATER FACILITY SIGN
P.E.
1/4/2016
ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO.
662S-3



WOVEN WIRE MESH DIAPHRAGMS AT 3 FEET ON CENTER
STITCH LID TO BASKETS AFTER CHAMBERS ARE FILLED WITH ROCK
EACH BASKET CHAMBER TO BE FILLED WITH FILLED WITH ROCK. GRADATION TO RANGE FROM 4" TO 9" IN EACH BASKET.
1'
6'
3'
3'
WOVEN WIRE BASKETS COMPOSED OF DOUBLE TWIST MESH OF ZINC COATED WIRE (TYPICAL)
MATTRESS TO BE CONSTRUCTED OF SUCCESSIVE 3x3x9 FOOT BASKETS
NOTES:
1. TOP OF GABION MATTRESS SHALL SET FLUSH WITH FINISHED GRADE.
2. BOTTOM OF GABION MATTRESS SHALL BE CONSTRUCTED TO MAINTAIN POSITIVE DRAINAGE FROM OUTLET STRUCTURE.
GABION MATTRESS DETAIL
NOT TO SCALE





TO WQ POND
STANDARD CITY OF AUSTIN 32" MANHOLE RING AND COVER
18" CL IV RCP
18" CL IV RCP
FROM PARKING LOT
9'-0"
8'-0"
3-12" CL IV RCP
TOP VIEW
516.75
12"
MAX WS ELEV=514.50
EL=514.00
511.65
GROUT TO DRAIN
SECTION A-A
516.75
MAX WS ELEV=514.50
GROUT TO DRAIN
511.65
SECTION B-B
FL= 512.65
3.0'
8"
2'-4"
FL= 512.75
FL= 513.25
PLAN VIEW
516.75
MAX WS ELEV=514.50
511.65
SECTION C-C
① NO. 5'S AT 8" O.C.E.W. CENTERED IN WALLS, LID AND BASE. INSTALL MIN. 30" x 30" CORNER BARS HORZ. AND VERT. TO PROVIDE CONTINUOUS STEEL
SPLITTER BOX DETAIL
NOT TO SCALE

TCEQ WATER QUALITY POND SIZING CALCULATIONS

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

Drainage Basin/Outfall Area No. =	1	
Total drainage basin/outfall area =	0.79	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.73	acres
Post-development impervious fraction within drainage basin/outfall area =	0.92	
$L_{M\ THIS\ BASIN}$ =	636	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP =	Sand Filter	
Removal efficiency =	89	percent

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

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

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

A_C =	0.79	acres
A_I =	0.73	acres
A_P =	0.06	acres
L_R =	720	lbs

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

Desired $L_{M\ THIS\ BASIN}$ =	636	lbs.
F =	0.88	

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area.

Rainfall Depth =	1.50	inches
Post Development Runoff Coefficient =	0.75	
On-site Water Quality Volume =	3245	cubic feet
	Calculations from RG-348	
Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	649	
Total Capture Volume (required water quality volume(s) x 1.20) =	3894	cubic feet

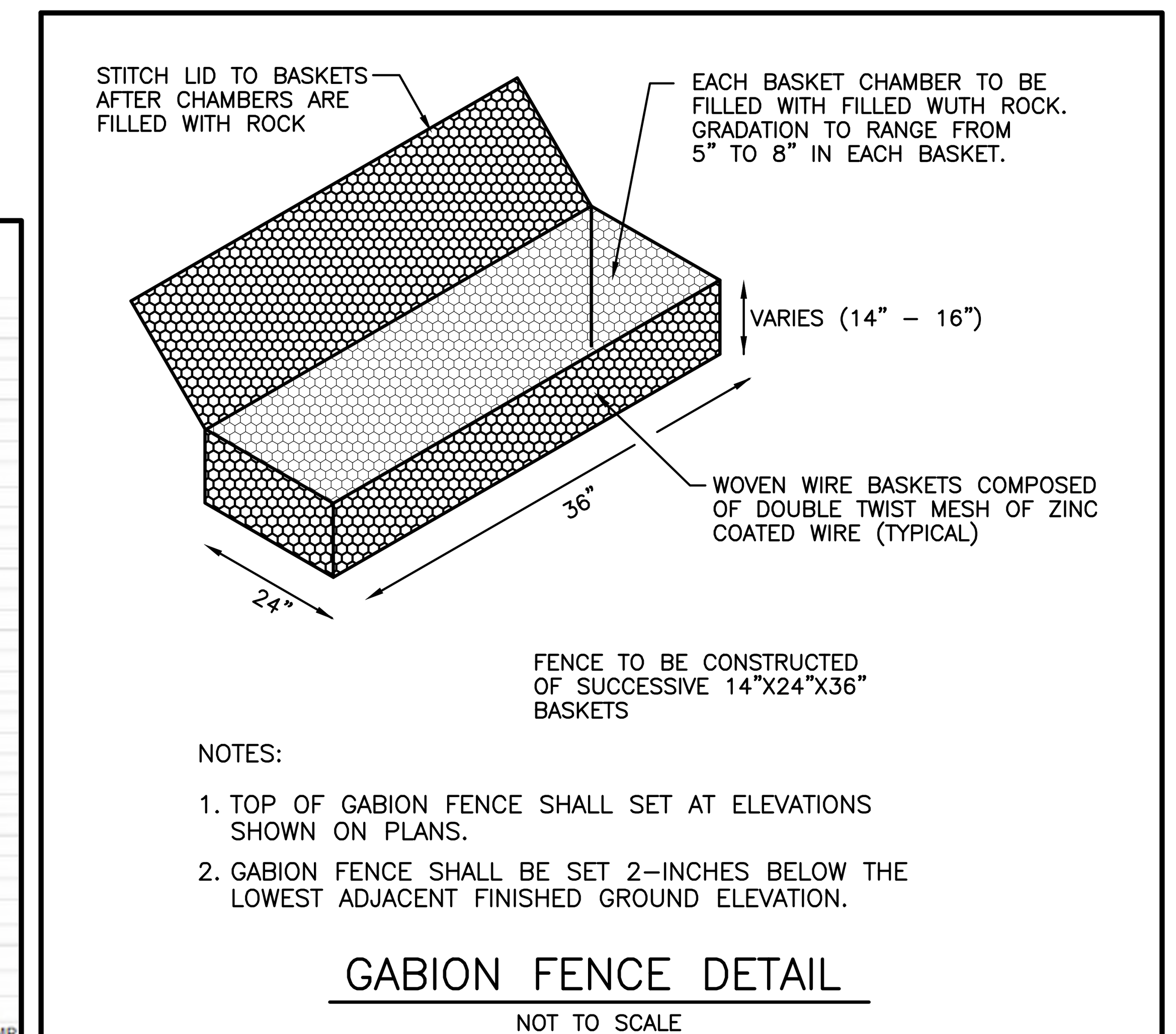
9. Filter area for Sand Filters — Designed as Required in RG-348

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin =	3894	cubic feet
Minimum filter basin area =	180	square feet
Maximum sedimentation basin area =	1623	square feet
Minimum sedimentation basin area =	406	square feet

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins =	3894	cubic feet
Minimum filter basin area =	326	square feet
Maximum sedimentation basin area =	1298	square feet
Minimum sedimentation basin area =	81	square feet



STITCH LID TO BASKETS AFTER CHAMBERS ARE FILLED WITH ROCK
EACH BASKET CHAMBER TO BE FILLED WITH FILLED WUTH ROCK. GRADATION TO RANGE FROM 5" TO 8" IN EACH BASKET.
VARIES (14" – 16")
WOVEN WIRE BASKETS COMPOSED OF DOUBLE TWIST MESH OF ZINC COATED WIRE (TYPICAL)
36"
24"
FENCE TO BE CONSTRUCTED OF SUCCESSIVE 14"X24"X36" BASKETS
NOTES:
1. TOP OF GABION FENCE SHALL SET AT ELEVATIONS SHOWN ON PLANS.
2. GABION FENCE SHALL BE SET 2-INCHES BELOW THE LOWEST ADJACENT FINISHED GROUND ELEVATION.
GABION FENCE DETAIL
NOT TO SCALE

Stage	Area	Storage
FT MSL	SF	CF
511.00	439	0
512.00	1135	787
513.00	1627	2168
514.00	2196	4080
515.00	2842	6599

Appendix R-6
Partial Biofiltration Pond Calculations for Development Permits

DRAINAGE DATA:

Drainage Area to Control (DA)	0.79	Ac
Drainage Area Impvervious Cover	92	%
Capture Depth (CD)	1.2	Inches
25 Year Peak Flow Rate to Control (Q25)	5.9	cfs
100 Year Peak Flow Rate to Control (Q100)	8.5	cfs

WATER QUALITY CONTROL CALCULATIONS:	Required		Provided	
Water Quality Volume (WQV=CD*DA*3630)	3441	cf	4080	cf
For Partial Sedimentation Biofiltration Pond Volume (Min. 20% WQV)	688	cf	4080	cf
Filtration Pond Area	246	sf	439	sf
Water Quality Elevation	514.0	ft. msl		
Elevation of Splitter Box/Overflow Weir	514.0	ft. msl		
Length of Splitter Weir	7	ft		
Required Head to Pass Q100 (Max. 1.0 ft)	1.0 Max.	ft	0.5	ft
Pond Freeboard Provided to Pass Q100 (Min. 0.25 ft)	0.25 Min.	ft	1.0	ft

AXIOM Engineers Inc
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New Ulm, Texas 78950
Ph: (512) 784-5892
www.axiomtexas.com
Texas P.E. Firm No. F-43

SITE PLAN APPROVAL Sheet 193 of 217
FILE NO: SPC-2012-0104D(R4) APPLICATION DATE: 11/16/2018
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EXPIRATION DATE (25-5-81,LDC)________ CASE MANAGER: J. Siltala
PROJECT EXPIRATION DATE (ORD.#97905-A) N/A DWPZ____ DDZ X

Director, Development Services Department
RELEASED FOR GENERAL COMPLAIANCE________ ZONING P
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 Permit and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

REV. NO.	BY	DATE	REVISION DESCRIPTION

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

STATE OF TEXAS
NICOLE FOLTA FINDEISEN
91778
LICENSED PROFESSIONAL ENGINEER
03/19/2020

ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT
CITY OF AUSTIN PARKS & RECREATION
WATER QUALITY POND DETAILS II

CITY OF AUSTIN FOUNDED 1839
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	–	–
CHECKED BY	–	–
DESIGNED BY	–	–
REVIEWED BY	–	–
SCALE:	AS SHOWN	

SHEET NUMBER C-511
193 OF 217

C.O.A. FILE NO. SPC-2012-0104D(R4)

NEW SHEET

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ATTACHMENT G

INSPECTION, MAINTENANCE, REPAIR, AND RETROFIT PLAN

ZILKER METRO PARK –

MAINTENANCE BARN REPLACEMENT

2338 Columbus Drive

Austin, Texas 78746

SPC-2012-00104D(R4)

WATER QUALITY FACILITIES

INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

Prepared by:

Axiom Engineers Inc.

P.O. Box 25

New Ulm, Texas 78950

(512) 784-5892

TBPE Firm No. F-43

March 2020

INTRODUCTION

The Zilker Metro Park – Maintenance Barn Replacement project contains one water quality control system:

Biofiltration Pond

This system requires regular maintenance and monitoring to operate efficiently. This document is intended to provide a description of the operation of each system and recommended maintenance intervals.

OPERATION

The project will be served by a biofiltration pond. Inflow into the pond will be regulated by a splitter box containing an internal weir wall that will serve as a flow splitter. The elevation of the top of the splitter wall defines the operational volume of the proposed pond. After the pond is full, subsequent flow into the splitter box will overflow the wall and will be discharged and redistributed back to overland flow prior to leaving the site. Flow will exit the biofiltration pond through a biofiltration media and will be discharged into a subsurface flow diffusor and recharge trench. The biofiltration pond will be underlain by an impermeable liner system designed to prevent the escape of water from the pond into the underlying Edwards formation.

The splitter box is intended to assure that the relatively dirty initial runoff from a storm is captured in the biofiltration pond and relatively clean runoff (after the initial storm flush) bypasses the box. Once captured, water will slowly (over 48 hours) drain out of the biofiltration pond through a biofiltration layer. Sediment, trash and other pollutants will be captured in the pond and must be periodically removed.

REQUIRED MAINTENANCE ACTIVITIES

All components of the water quality protection system shall be inspected twice annually (in approximate six month increments) to assure proper operation of the system. One of these inspections must occur during or after a rainfall event. At a minimum, the following items shall be inspected and proper operation verified:

A. Splitter Box Assemblies. The splitter assembly shall be kept free of significant debris. Any eroded areas around the inlet shall be regraded and revegetated.

B. Biofiltration Pond Inlets. The pond inlet shall be kept free of significant debris. Any eroded areas around the inlet shall be regraded and revegetated.

C. Gabion Mattresses and Fences. Gabion mattresses and fences shall be inspected to verify the all rocks are in place and the structure maintains a uniform profile across the pond to discourage concentrating flow in one location. All eroded areas shall be filled and leveled and all missing rock replaced. In the event the rock rubble becomes covered with debris, it shall be removed whenever it exceeds 1 inch in depth or impedes the designed function of the apron.

D. Biofiltration Pond Vegetation. Pond vegetation must be maintained to provide 95 percent vegetative coverage at all times. Dead or diseased plants shall be removed and replaced in kind.

E. Pond Outflow Box and Flow Diffusor and Recharge Trench. The pond outflow junction box shall be kept free of any debris. The recharge trench shall be inspected for any eroded or settled areas. All eroded or settled areas shall be filled and leveled.

F. Outfall Pipe and Gabion Mattress/Fence. The outfall pipe and gabion mattress/fence shall be inspected for proper grade and function. Remove any woody vegetation growing in the gabion mat (grass is acceptable). Inspect the profile of the mat to assure that the mat serves it intended function as a flow spreader. Repair any downstream eroded pockets to prevent the development of significant eroded rills and/or gullies.

G. Embankments. Identify and repair any subsidence, leakage and cracking along pond embankments. Identify and repair any structural damage to concrete components including sealing voids, removing vegetation from joints and repairing cracked concrete

H. General Housekeeping. All areas shall be inspected for general cleanliness. Grass areas in and around the pond must be mowed at least twice annually and shall be maintained additionally as required to limit vegetation height to 8 inches. Grass clippings shall be mulched (with a mulching mower) on site or removed after mowing. All debris and litter must be removed and disposed of in a proper manner. Repair grading deficiencies caused by erosion and/or deposition to prevent standing water.

I. All structural elements of the system (inlets, pipe, walls, etc.) shall be inspected for integrity and repaired immediately if defects are identified.

J. The water quality basins are designed to be completely drained in approximately 48 hours. Should draw down time significantly exceed 48 hours, the system shall be inspected and cleaned to assure proper drainage. Should the system drain in less than 24 hours, the system shall be inspected for leaks, broken pipes, etc. and all identified damage repaired promptly.

RECORD KEEPING

A written record of the maintenance and operation of the water quality system shall be maintained by the Responsible Party. Records shall be kept under single cover (three ring binder, notebook, etc) and shall be made available for inspection by the TCEQ upon reasonable notice. At a minimum, the notebook shall document the following:

A. The date, time and participants in all required inspections.

B. For each required inspection, an indication that each system component was adequately inspected and was either deemed to be in good working order or in need of repair. The date that any required repairs were completed.

C. The dates and a brief description of routine maintenance. Routine maintenance includes semiannual mowing, significant trash removal and significant sediment removal. Weekly maintenance activities associated with overall project site maintenance do not require documentation.

D. A least one assessment annually of the remaining life of each inlet and outlet structure and, if replacement is anticipated within a five year period, an estimate of the replacement cost.

SPARE PARTS

Listed below are major components of the water quality system which may require periodic maintenance and/or replacement.

Pipe Schedule 40 PVC, available at all home improvement centers.

PERMITTING

The biofiltration pond requires an operating permit from the City of Austin. The permit is renewed annually.

Signature of Owner/Responsible Party

George Maldonado, Project Manager
City of Austin Parks and Recreation Dept.

Printed Name and Organization*

5/6/2024

Date

*The City of Austin Parks and Recreation Department understands the Water Quality Facility Inspection, Maintenance, Repair and Retrofit Plan and at a later date will develop an Interdepartmental Agreement with the City of Austin Watershed Protection Department to fulfill the requirements as a joint responsibility.

ATTACHMENT H

PILOT-SCALE FIELD TESTING PLAN (NOT APPLICABLE)

ATTACHMENT I

MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION (NOT APPLICABLE)

AGENT AUTHORIZATION FORM (TCEQ 0599)

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

I Anthony Collier,
Print Name

Project Manager,
Title - Owner/President/Other

of City of Austin, Capital Delivery Services,
Corporation/Partnership/Entity Name

have authorized **Dain Chernick, P.E.**
Print Name of Agent/Engineer

of **Weston Solutions, Inc.**
Print Name of Firm

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

I also understand that:

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

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

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

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

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

SIGNATURE PAGE:

Applicant's Signature

4/4/23
Date

THE STATE OF Texas §

County of Travis §

BEFORE ME, the undersigned authority, on this day personally appeared Anthony Collier 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 4th day of April, 2024.

Diana Justice
NOTARY PUBLIC

DIANA JUSTICE
My Notary ID # 132338601
Expires January 30, 2028

Diana Justice
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: January 30, 2028

APPLICATION FEE FORM (TCEQ 0574)

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: City of Austin Zilker Park
Regulated Entity Location: 2338 Columbus Drive, Austin, TX 78746
Name of Customer: City of Austin
Contact Person: George Maldonado Phone: 512-974-9525
Customer Reference Number (if issued):CN 600135198
Regulated Entity Reference Number (if issued):RN 102761764

Austin Regional Office (3373)

☐ Hays ☒ Travis ☐ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde
☐ Comal ☐ Kinney

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

☒ Austin Regional Office
☐ Mailed to: TCEQ - Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☐ San Antonio Regional Office
☐ Overnight Delivery to: TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
(512)239-0357

Site Location (Check All That Apply):

☒ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	20.02 Acres	$ 6500
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: _____ Date: 04-17-2024

Application Fee Schedule

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

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

CORE DATA FORM (TCEQ 10400)

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN 600135198		**RN 102761764**

SECTION II: Customer Information

4. General Customer Information	**5. Effective Date for Customer Information Updates** (mm/dd/yyyy)	04/03/2024

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

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

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

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

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

12. Number of Employees	**13. Independently Owned and Operated?**
☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☒ 501 and higher	☒ **Yes** ☐ **No**

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

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

15. Mailing Address:	PO Box 1088							
	City	Austin	**State**	TX	**ZIP**	78767	**ZIP + 4**	1088

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*
	anthony.collier@austintexas.gov

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(512) - 974-7883		( ) -

SECTION III: Regulated Entity Information

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

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

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

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

City of Austin Zilker Park

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	2328 Columbus Drive							
	City	Austin	**State**	TX	**ZIP**	78746	**ZIP + 4**	
24. County	Travis							

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

25. Description to Physical Location:	

26. Nearest City	**State**	**Nearest ZIP Code**
Austin	TX	78746

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

27. Latitude (N) In Decimal:			**28. Longitude (W) In Decimal:**		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	15	54	97	46	33

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)
7999		712190	

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

Public Park

34. Mailing Address:	**PO Box 1088**							
	City	**Austin**	**State**	**TX**	**ZIP**	**78767**	**ZIP + 4**	**1088**
35. E-Mail Address:								

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(512) - 974-7883		( ) -

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

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

SECTION IV: Preparer Information

40. Name:	Dain Chernick, P.E.	**41. Title:**	Agent
42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(352) 359-6768		( ) -	Dain.Chernick@westonsolutions.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:	City of Austin - Capital Delivery Services	**Job Title:**	Project Manager
Name *(In Print):*	Anthony Collier	**Phone:**	(512) - 974-7883
Signature:	Anthony Collier Digitally signed by Anthony Collier Date: 2024.04.04 15:48:24 -05'00'	**Date:**	04/04/24

RELEVANT PLAN SHEETS

ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT REBID

SHEET INDEX:

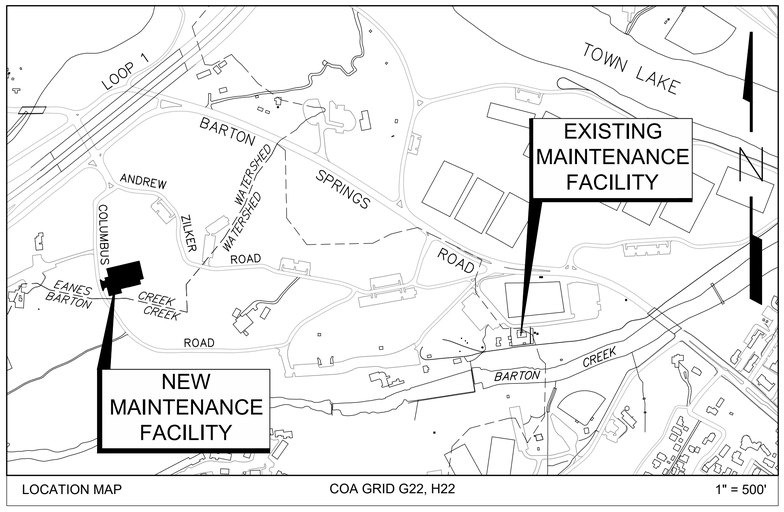
PREPARED FOR:

PARKS AND RECREATION DEPARTMENT
CITY OF AUSTIN, TEXAS

SDP REV - SPC-2012-0104D(R4)
BUILDING PERMIT 2020-088634 PR

CIP NO. 6066.036
IFB NO. 6100 CLMC821A

08 DECEMBER 2020



LOCATION MAP COA GRID G22, H22 1" = 500'

LEGAL DESCRIPTION:

APPROXIMATELY 4.86 ACRES WITHIN THE TRACT OF LAND DESCRIBED AS ABS 14 SUR 21 HILL H P ACR 20.02 IN THE CITY OF AUSTIN, TRAVIS COUNTY.

WATERSHED NOTE:

1. THIS PROJECT IS LOCATED WITHIN THE EANES CREEK WATER SUPPLY SUBURBAN WATERSHED AND IS SUBJECT TO THE RULES AND REGULATIONS OF THE EANES CREEK WATERSHED ORDINANCE.
2. THIS PROJECT IS ALSO LOCATED WITHIN THE BARTON CREEK WATERSHED, CLASSIFIED AS THE BARTON CREEK ZONE, AND SHALL BE DEVELOPED, CONSTRUCTED, AND MAINTAINED IN ACCORDANCE WITH CHAPTER 25 OF THE CODE OF THE CITY OF AUSTIN.

100-YEAR FLOOD PLAIN:

NO PORTION OF THIS SITE IS LOCATED WITHIN THE 100-YEAR FLOOD AS PER FLOOD INSURANCE RATE MAP NUMBER 48453C0445J (PANEL 445 OF 730) FOR TRAVIS COUNTY, TEXAS AND INCORPORATED AREAS, MAP REVISED JANUARY 1, 2016.

EDWARDS AQUIFER RECHARGE ZONE:

1. THIS PROJECT IS LOCATED WITHIN THE EDWARDS AQUIFER RECHARGE ZONE AND IS SUBJECT TO TCEQ RULES AND REGULATIONS. THE TCEQ's EDWARDS AQUIFER PROTECTION PROGRAM, AND 30 TAC 213. AN EDWARDS AQUIFER PROTECTION PLAN HAS BEEN PREPARED FOR THIS SITE.
2. THIS PROJECT IS SUBJECT TO THE VOID AND WATER FLOW MITIGATION RULE (COA ECM 1.12.0 AND COA ITEM NO. 658S OF THE SSM) PROVISION THAT ALL TRENCHING GREATER THAN 5 FEET DEEP MUST BE INSPECTED BY A PROFESSIONAL GEOLOGIST (TEXAS P.G.) OR A GEOLOGIST'S REPRESENTATIVE.

NOTES:

1. THERE ARE CRITICAL ENVIRONMENTAL FEATURES WITHIN 150' OF ANY PORTION OF THIS PROJECT. A FIELD INVESTIGATION HAS BEEN PERFORMED AS PART OF THIS PROJECT.
2. RELEASE OF THIS APPLICATION DOES NOT CONSTITUE 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 THE CITY ENGINEERS.
3. APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN INDICATED 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 IF ADDITIONAL APPROVALS ARE NECESSARY.
4. AN ADMINISTRATIVE VARIANCE TO LDC 25-8-281(C)(1)(A) WAS GRANTED TO ALLOW CONSTRUCTION WITHIN THE 150-FOOT CEF BUFFER ZONES FOR A RIMROCK CEF.
5. PARD WILL OWN AND MAINTAIN ALL WATER QUALITY FEATURES CONTAINED WITHIN THE PARK BOUNDARIES IN ACCORDANCE WITH THE WATER QUALITY FACILITIES MAINTENANCE PLAN.
6. PARD WILL UTILIZE THE INTEGRATED PEST MANAGEMENT PLAN PREPARED BY THE GROUNDS MAINTENANCE DIVISION.
7. ALL ACTIVITIES WITHIN THE CEF BUFFER MUST COMPLY WITH THE CITY OF AUSTIN CODE AND CRITERIA. THE NATURAL VEGETATIVE COVER MUST BE RETAINED TO THE MAXIMUM EXTENT PRACTICABLE; CONSTRUCTION IS PROHIBITED EXCEPT WHERE ADMINISTRATIVELY APPROVED AND OUTLINED ON THIS SITE PLAN; AND WASTEWATER DISPOSAL OR IRRIGATION IS PROHIBITED.

PROJECT INFORMATION:

SITE ADDRESS:
2338 COLUMBUS DRIVE
AUSTIN, TEXAS 78746

PROPERTY:
ABS 14 SUR 21 HILL
H P ACR 20.02

OWNER:
PARKS AND RECREATION DEPARTMENT
CITY OF AUSTIN

ZONING CASE:
C14-87-112

CONTACT:
KALPANA SUTARIA, PROJECT MANAGER
PUBLIC WORKS DEPARTMENT
15 WALLER STREET, RBJ BUILDING 4TH FLOOR
AUSTIN, TX 78702
(512) 974-7225

SUBMITTAL PREPARED BY:

CONTACT AND PRIMARY DESIGN ENGINEER:

SAM IRRINKI, P.E.
PROJECT MANAGER
WESTON SOLUTIONS, INC.
5301 SOUTHWEST PARKWAY, SUITE 450
AUSTIN, TX 78735
(512) 651-7106
SAM.IRRINKI@WESTONSOLUTIONS.COM

DESIGN TEAM:

ARCHITECT
CASABELLA ARCHITECTS
JAIME BEAMAN, AIA
3821 JUNIPER TRACE, #104
AUSTIN, TX 78738
(512) 458-5700

LANDSCAPE ARCHITECT
COLEMAN & ASSOCIATES
9890 SILVER MOUNTAIN DRIVE
AUSTIN, TX 78737

ELECTRICAL ENGINEER
JRSA
6101 WEST COURTYARD DRIVE
BUILDING 1, SUITE 200
AUSTIN, TX 78730

PERMITTING AND WATER QUALITY
AXIOM ENGINEERS, INC.
P.O. BOX 25
NEW ULM, TX 78950

SUSTAINABILITY CONSULTANT
CENTER FOR MAXIMUM POTENTIAL BUILDING SYSTEMS
8604 FM 969
AUSTIN, TX 78724

CONFORMED SET

DECLARATION OF USE NOTE:

WHEN APPROPRIATE, SEND ALL PROPOSED DECLARATION DRAFTS AND METES AND BOUNDS TO AWPE REVIEWER ELECTRONICALLY FOR REVIEW. AWPE WILL REVIEW FOR THE COMPLIANCE OF THE DECLARATION AND METES AND BOUNDS PRIOR TO RECORDATION. ONCE ACCEPTABLE AND SIGNED BY THE LAW DEPARTMENT AND THE PARTICIPATING COA DEPARTMENT DIRECTORS, THE DECLARATION MUST BE RECORDED BY THE COUNTY AND THE RECORDATION NUMBER(S) INCLUDED ON THE CAD FILE, NOT HAND WRITTEN ON THE PLANS.

IF THIS SITE PLAN HAS BEEN APPROVED PRIOR TO THE RECORDATION OF THE DECLARATION, A FORMAL CORRECTION MUST BE PROCESSED TO INCLUDE THE RECORDATION NUMBER(S) ON THIS PLAN SET AS DESCRIBED ABOVE.

MAINTENANCE BUILDING IS TO BE CERTIFIED LEED SILVER, v2009

REV. NO.	BY	DATE	REVISION DESCRIPTION

S. IRRINKI 84348 — 08 DECEMBER 2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK -
MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE

COVER SHEET AND SHEET INDEX

CITY OF AUSTIN FOUNDED 1839
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

SHEET NUMBER G-001

X:\City of Austin (06141)\General Civil 2006-2008\06141.036.004 Zilker MBarn Replace\09.0 Design Engineering\CAD\01 COVER.dwg STAUDTS Plotted: December 08, 2020 - 4:14pm Layout: IFB Set
XREFS: LOCATION MAP, 22x34 ZILKER TB 2013

GENERAL LEGEND:

- BM △ — BENCHMARK SET
- BM ▲ — BENCHMARK FOUND
- ● — PROPERTY PIN FOUND
- ≡ — MONUMENT FOUND (DESCRIBED)
- ▲ — CONTROL POINT FOUND
- ◬ — CONTROL POINT SET
- CONCRETE IMPROVEMENTS
- ROCK/GRAVEL
- DIRT/SAND
- EXISTING EDGE OF PAVEMENT
- GAS — GAS — EXISTING GAS LINE
- E O/H — EXISTING ELECTRIC–OVERHEAD
- W — EXISTING WATER LINE
- WW — EXISTING WASTEWATER LINE
- WMH ○ — EXISTING WATER MANHOLE
- WW ○ — EXISTING WASTEWATER MANHOLE
- ◉ — PROPOSED WASTEWATER MANHOLE
- ◉ — PROPOSED WASTEWATER CLEANOUT
- EXISTING OVERHEAD ELECTRIC/TELEPHONE LINE POWER POLE WITH GUY WIRE AND ANCHOR
- EXISTING STREET LIGHT POLE
- EXISTING STREET SIGN
- 100+ — TREE SYMBOL, TAG NUMBER, AND CRITICAL ROOT ZONE
- 100+ — TREE TO BE REMOVED
- EXISTING CONCRETE BENCH
- LOC — LIMITS OF CONSTRUCTION
- LOC — SF — LIMITS OF CONSTRUCTION/SILT FENCE
- PROPOSED STORMWATER LINE
- W — PROPOSED WATER LINE
- WW — PROPOSED WASTEWATER LINE
- GAS — PROPOSED GAS LINE
- E — ELECTRIC LINE
- 520 — EXISTING CONTOUR
- 520 — PROPOSED CONTOUR
- CEF — CRITICAL ENVIRONMENTAL FEATURE
- CEF–150 — CEF BUFFER BOUNDARY
- CEF BUFFER AREA
- WQTZ — WATER QUALITY TRANSITION ZONE BOUNDARY
- CWQZ — CRITICAL WATER QUALITY ZONE BOUNDARY
- 100Y — 100–YEAR FLOODPLAIN BOUNDARY
- EASEMENT/DECLARATION OF USE BOUNDARY
- GATE VALVE
- REDUCED PRESSURE ZONE BACKFLOW PREVENTER
- W — WATER METER
- FIRE HYDRANT
- CHAIN LINK FENCE
- CHAIN LINK GATE
- BUILDING DOOR
- CONCRETE WHEEL STOP
- VEGETATION
- SAWCUT/REPAVE
- ADA ACCESSIBLE ROUTE
- DIRECTION OF FLOW
- BORE–P3 ELEV.=513.35 — BORING LOCATION
- DISC GOLF TEE BOX
- DISC GOLF GOAL STAND
- BIKE RACK

ABBREVIATIONS:

X	SPOT ELEVATION
( )	RECORD INFORMATION
CL	CLASS
COA	CITY OF AUSTIN
DI	DUCTILE IRON
DCVA	DOUBLE CHECK VALVE ASSEMBLY
D.R.T.C.T.	DEED RECORDS TRAVIS COUNTY, TEXAS
FFE	FINISHED FLOOR ELEVATION
FG	FINISHED GRADE
FL	FLOWLINE
FS	FINISHED SURFACE
GB	GRADE BREAK
GV	GATE VALVE
HC	HANDICAP
IE	INVERT ELEVATION
O.P.R.T.C.T.	OFFICIAL PUBLIC RECORDS TRAVIS COUNTY, TEXAS
PARD	PARKS AND RECREATION DEPARTMENT
PG	PROPOSED GRADE
P.R.T.C.T.	PLAT RECORDS TRAVIS COUNTY, TEXAS
PVC	POLYVINYL CHLORIDE PIPE
RPZ	REDUCED PRESSURE BACKFLOW ASSEMBLY
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT–OF–WAY
R.P.R.T.C.T.	REAL PROPERTY RECORDS TRAVIS COUNTY, TEXAS
TB	THRUST BLOCK
TC	TOP OF CURB
TP	TOP OF PIPE
XG	EXISTING GRADE

CITY OF AUSTIN PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES DIVISION

GENERAL CONSTRUCTION NOTES:

1. THE PROJECT MANUAL CONTAINS IMPORTANT INFORMATION THAT IS NOT REPEATED IN THE PLAN SET. THE CONTRACTOR SHALL KEEP THE PROJECT MANUAL ON SITE AND IMMEDIATELY AVAILABLE TO THOSE PERSONS PERFORMING THE WORK. UPON REQUEST, THE CONTRACTOR SHALL PRESENT THIS COPY OF THE PROJECT MANUAL TO THE CONSTRUCTION INSPECTOR, ENGINEER OR PROJECT MANAGER.
2. THE CONTRACTOR WILL NOTIFY THE OWNER'S REPRESENTATIVE FORTY–EIGHT (48) HOURS IN ADVANCE OF BEGINNING ANY CONSTRUCTION IN THE RIGHT OF WAY OR EASEMENTS.
3. CONTRACTOR AND SUB–CONTRACTORS MUST BE LICENSED BY THE CITY OF AUSTIN FOR CONDUCTING WORK WITHIN THE STREET RIGHT OF WAY, ALLEYS, OR EASEMENTS.
4. CONTRACTOR MUST OBTAIN RIGHT OF WAY EXCAVATION PERMITS, FOR EACH PROJECT LOCATION, FROM ROW MANAGEMENT DIVISION (512–974–7180) PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL PROVIDE A ONE CALL CENTER CONFIRMATION NUMBER BEFORE BEING ISSUED AN EXCAVATION PERMIT.
   "ONE CALL" PHONE NUMBER: 811.
5. PRE–CONSTRUCTION MEETINGS: THERE ARE TWO ENTITIES THAT HOLD PRE–CONSTRUCTION MEETINGS. THESE MEETINGS TYPICALLY DO NOT OCCUR AT THE SAME TIME. FOR PRE–CONSTRUCTION MEETING HELD BY CONSTRUCTION INSPECTION DIVISION, SEE PROJECT MANUAL SECTION 01200; FOR ENVIRONMENTAL PRE–CONSTRUCTION MEETING, SEE ENVIRONMENTAL NOTES.
6. THE CONTRACTOR SHALL NOTIFY EACH OF THE FOLLOWING ENTITIES OF THE CONSTRUCTION SCHEDULE AT LEAST TWO WEEKS IN ADVANCE OF PROPOSED CONSTRUCTION OPERATIONS AND PROVIDE PERTINENT INFORMATION ABOUT LANE CLOSURES AND DETOURS.

AUSTIN FIRE DEPARTMENT	512–974–0130
AUSTIN POLICE DEPARTMENT	512–974–5000
EMERGENCY MEDICAL SERVICES	512–978–0440
AUSTIN INDEPENDENT SCHOOL DISTRICT	512–414–9832
CAPITAL METRO TRANSIT AUTHORITY	512–389–7400
U.S. POSTAL SERVICE	512–342–1236
UNIVERSITY OF TEXAS	
(Facilities Services)	512–471–4110
(Parking and Trans)	512–471–7275
(Utilities and Energy Mgmt)	512–471–1600
(University Police)	512–471–4441
(Project Mgmt & Const. Svcs)	512–471–3042
STATE OF TEXAS	
DPS TEXAS HWY PATROL (Region 7 Austin Capitol)	512–463–3473

7. THE INFORMATION SHOWN ON THESE DRAWINGS INDICATING TYPE AND LOCATION OF SURFACE, SUBSURFACE, AND AERIAL UTILITIES IS NOT GUARANTEED TO BE EXACT OR COMPLETE. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT TYPE AND LOCATION OF ALL UTILITIES AFFECTED BY THE CONSTRUCTION IN ORDER TO AVOID DAMAGING THOSE UTILITIES.
8. THE CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS AND UTILITIES IN THE VICINITY OF THIS PROJECT. THIS INCLUDES, BUT IS NOT LIMITED TO, GAS, WATER, WASTEWATER ELECTRIC, TELEPHONE, CABLE TELEVISION, PETROLEUM PIPELINES, FIBER OPTIC, STREET, DRAINAGE, AND ANY OTHER WORK OCCURRING IN OR NEAR THE PROJECT SITE. ONCE THE CONTRACTOR BECOMES AWARE OF A POSSIBLE CONFLICT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY, BUT NO LATER THAN TWENTY–FOUR (24) HOURS AFTER DISCOVERY.
9. SHOULD THE CONTRACTOR DAMAGE A UTILITY DURING THE COURSE OF THE WORK, THE CONTRACTOR SHALL IMMEDIATELY ARRANGE FOR REPAIR AND RESTORATION OF THE DAMAGED UTILITY. THE EXPENSE FOR THESE REPAIRS WILL BE AT THE CONTRACTOR'S SOLE EXPENSE.
10. ALL EXISTING STRUCTURES, FACILITIES, AND UTILITIES DAMAGED BY CONSTRUCTION SHALL BE REMOVED AND RESTORED WITH MATERIALS EQUAL TO OR BETTER THAN THE ORIGINAL AND TO CONDITIONS EQUAL TO OR BETTER THAN THE ORIGINAL. UNLESS OTHERWISE NOTED IN THE PLANS, THIS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT SHALL BE AT THE CONTRACTOR'S SOLE EXPENSE.
11. SLOPES OF ROADWAY CUTS AND EMBANKMENTS DAMAGED BY ANY OPERATION OF THE CONTRACTOR DURING THE EXECUTION OF THIS PROJECT SHALL BE REPAIRED AND RESTORED TO THE ORIGINAL PRE–CONSTRUCTION CONDITION. BACKFILL AND FILL PLACED DURING REMEDIAL GRADING SHALL BE COMPACTED TO AT LEAST 95% COMPACTION AND TO THE SATISFACTION OF THE ENGINEER AND GOVERNING AUTHORITIES.
12. GEOTECHNICAL INFORMATION IS PROVIDED IN THE PROJECT MANUAL SECTION 00220.
13. SEE PROJECT MANUAL SECTION 01300 FOR RECORD DRAWINGS INFORMATION.

CITY OF AUSTIN ELECTRIC UTILITY NOTES:

1. AUSTIN ENERGY HAS THE RIGHT TO PRUNE AND/OR REMOVE TREES, SHRUBBERY, AND OTHER OBSTRUCTIONS TO THE EXTENT NECESSARY TO KEEP THE EASEMENTS CLEAR. AUSTIN ENERGY WILL PERFORM ALL TREE WORK IN COMPLIANCE WITH CHAPTER 25–8, SUBCHAPTER 8 OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.
2. THE OWNER/DEVELOPER OF THIS SUBDIVISION/LOT SHALL PROVIDE AUSTIN ENERGY WITH ANY EASEMENT AND/OR ACCESS REQUIRED, IN ADDITION TO THOSE INDICATED, FOR THE INSTALLATION AND ONGOING MAINTENANCE OF OVERHEAD AND UNDERGROUND ELECTRIC FACILITIES. THESE EASEMENTS AND/OR ACCESS ARE REQUIRED TO PROVIDE ELECTRIC SERVICE TO THE BUILDING(S) AND WILL NOT BE LOCATED SO AS TO CAUSE THE SITE TO BE OUT OF COMPLIANCE WITH CHAPTER 25–8 OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.
3. THE OWNER SHALL BE RESPONSIBLE FOR ANY INSTALLATION OF TEMPORARY EROSION CONTROL, REVEGETATION, AND TREE PROTECTION. IN ADDITION, THE OWNER SHALL BE RESPONSIBLE FOR ANY TREE PRUNING AND TREE REMOVAL THAT IS WITHIN TEN (10) FEET OF THE CENTERLINE OF THE OVERHEAD ELECTRICAL FACILITIES DESIGNED TO PROVIDE ELECTRIC SERVICE TO THIS PROJECT. THE OWNER SHALL INCLUDE AUSTIN ENERGY'S WORK WITHIN THE LIMITS OF CONSTRUCTION FOR THIS PROJECT.
4. THE OWNER OF THE PROPERTY IS RESPONSIBLE FOR MAINTAINING CLEARANCES REQUIRED BY THE NATIONAL ELECTRIC SAFETY CODE, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS, CITY OF AUSTIN RULES AND REGULATIONS AND TEXAS STATE LAWS PERTAINING TO CLEARANCES WITH WORKING IN CLOSE PROXIMITY TO OVERHEAD POWER LINES AND EQUIPMENT. AUSTIN ENERGY WILL NOT RENDER ELECTRIC SERVICE UNLESS REQUIRED CLEARANCES ARE MAINTAINED. ALL COSTS INCURRED BECAUSE OF FAILURE TO COMPLY WITH THE REQUIRED CLEARANCES WILL BE CHARGED TO THE OWNER. CONTACT SHERRY CALDERON AT 505–7649 FOR QUESTIONS REGARDING CLEARANCES.

AMERICANS WITH DISABILITIES ACT:

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

STREET AND BRIDGE SPECIAL NOTE:

1. ALL DAMAGE CAUSED DIRECTLY OR INDIRECTLY TO THE STREET SURFACE, SIDEWALK, DRIVEWAY, CURB & GUTTER, OR SUBSURFACE OUTSIDE OF THE PAVEMENT CUT AREA SHALL BE REGARDED AS A PART OF THE STREET CUT REPAIR. THIS INCLUDES ANY SCRAPES,GOUGES, CUTS, CRACKING, DEPRESSIONS, AND/OR ANY OTHER DAMAGE CAUSED BY THE CONTRACTOR DURING THE EXECUTION OF THE WORK. THESE REPAIR AREAS WILL BE INCLUDED IN THE TOTAL AREA OF RESTORATION. THESE AREAS SHALL BE SAW CUT IN STRAIGHT, NEAT LINES PARALLEL TO THE EXCAVATION OR UTILITY TRENCH AND TO THE NEXT EXISTING JOINT FOR SIDEWALKS AND CURB & GUTTER. ALL SUCH REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE AND SHALL MEET ALL CITY TESTING REQUIREMENTS, STANDARDS, AND SPECIFICATIONS.

SEQUENCE OF CONSTRUCTION

1. SEE REMEDIAL TREE CARE NOTE (ECM P–6).
2. HOLD PRE–CONSTRUCTION CONFERENCE.
3. TEMPORARY EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSTALLED AS INDICATED ON THE APPROVED SITE PLAN OR SUBDIVISION CONSTRUCTION PLAN AND IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) THAT IS REQUIRED TO BE POSTED ON THE SITE. INSTALL TREE PROTECTION AND INITIATE TREE MITIGATION MEASURES.
4. THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR MUST CONTACT THE WATERSHED PROTECTION DEPARTMENT, ENVIRONMENTAL INSPECTION, AT 512–974–2278, 72 HOURS PRIOR TO THE SCHEDULED DATE OF THE REQUIRED ON–SITE PRECONSTRUCTION MEETING.
5. THE ENVIRONMENTAL PROJECT MANAGER, AND/OR SITE SUPERVISOR, AND/OR DESIGNATED RESPONSIBLE PARTY, AND THE GENERAL CONTRACTOR WILL FOLLOW THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE REVISED, IF NEEDED, TO COMPLY WITH CITY INSPECTORS' DIRECTIVES, AND REVISED CONSTRUCTION SCHEDULE RELATIVE TO THE WATER QUALITY PLAN REQUIREMENTS AND THE EROSION PLAN.
6. ROUGH GRADE THE POND(S) AT 100% PROPOSED CAPACITY. EITHER THE PERMANENT OUTLET STRUCTURE OR A TEMPORARY OUTLET MUST BE CONSTRUCTED PRIOR TO DEVELOPMENT OF EMBANKMENT OR EXCAVATION THAT LEADS TO PONDING CONDITIONS. THE OUTLET SYSTEM MUST CONSIST OF A SUMP PIT OUTLET AND AN EMERGENCY SPILLWAY MEETING THE REQUIREMENTS OF THE DRAINAGE CRITERIA MANUAL AND/OR THE ENVIRONMENTAL CRITERIA MANUAL, AS REQUIRED. THE OUTLET SYSTEM SHALL BE PROTECTED FROM EROSION AND SHALL BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION UNTIL INSTALLATION OF THE PERMANENT WATER QUALITY POND(S).
7. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE.
8. BEGIN SITE CLEARING/CONSTRUCTION (OR DEMOLITION) ACTIVITIES.
9. IN THE BARTON SPRINGS ZONE, THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR WILL SCHEDULE A MID–CONSTRUCTION CONFERENCE TO COORDINATE CHANGES IN THE CONSTRUCTION SCHEDULE AND EVALUATE EFFECTIVENESS OF EROSION CONTROL PLAN AFTER POSSIBLE CONSTRUCTION ALTERATIONS TO THE SITE. PARTICIPANTS SHALL INCLUDE THE CITY INSPECTOR, PROJECT ENGINEER, GENERAL CONTRACTOR AND ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR. THE ANTICIPATED COMPLETION DATE AND FINAL CONSTRUCTION SEQUENCE AND INSPECTION SCHEDULE WILL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR.
10. PERMANENT WATER QUALITY PONDS OR CONTROLS WILL BE CLEANED OUT AND FILTER MEDIA WILL BE INSTALLED PRIOR TO/CONCURRENTLY WITH REVEGETATION OF SITE.
11. COMPLETE CONSTRUCTION AND START REVEGETATION OF THE SITE AND INSTALLATION OF LANDSCAPING.
12. UPON COMPLETION OF THE SITE CONSTRUCTION AND REVEGETATION OF A PROJECT SITE, THE DESIGN ENGINEER SHALL SUBMIT AN ENGINEER'S LETTER OF CONCURRENCE TO THE WATERSHED PROTECTION AND DEVELOPMENT REVIEW DEPARTMENT INDICATING THAT CONSTRUCTION, INCLUDING REVEGETATION, IS COMPLETE AND IN SUBSTANTIAL CONFORMITY WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
13. UPON COMPLETION OF LANDSCAPE INSTALLATION OF A PROJECT SITE, THE LANDSCAPE ARCHITECT SHALL SUBMIT A LETTER OF CONCURRENCE TO THE WATERSHED PROTECTION AND DEVELOPMENT REVIEW DEPARTMENT INDICATING THAT THE REQUIRED LANDSCAPING IS COMPLETE AND IN SUBSTANTIAL CONFORMITY WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
14. AFTER A FINAL INSPECTION HAS BEEN CONDUCTED BY THE CITY INSPECTOR AND WITH APPROVAL FROM THE CITY INSPECTOR, REMOVE THE TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND COMPLETE ANY NECESSARY FINAL REVEGETATION RESULTING FROM REMOVAL OF THE CONTROLS. CONDUCT ANY MAINTENANCE AND REHABILITATION OF THE WATER QUALITY PONDS OR CONTROLS.
15. COMPLETE PERMANENT EROSION CONTROL AND SITE RESTORATION. REMOVE TEMPORARY EROSION/SEDIMENTATION CONTROLS AND TREE PROTECTION. RESTORE ANY AREAS DISTURBED DURING REMOVAL OF EROSION/SEDIMENTATION CONTROLS.

REV. NO.	BY	DATE	REVISION DESCRIPTION

S. IRRINKI 84348 LICENSED PROFESSIONAL ENGINEER

14 OCTOBER 2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE
LEGEND, ABBREVIATIONS, AND GENERAL NOTES

CITY OF AUSTIN FOUNDED 1839

PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	
SHEET NUMBER	G-002	

APPENDIX P–1 – EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS, TREE/NATURAL AREA PROTECTIVE FENCING, AND CONDUCT "PRE–CONSTRUCTION" TREE FERTILIZATION (IF APPLICABLE) PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR EXCAVATION).
2. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE ENVIRONMENTAL CRITERIA MANUAL AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN. THE COA ESC PLAN SHALL BE CONSULTED AND USED AS THE BASIS FOR A TPDES REQUIRED SWPPP. IF A SWPPP IS REQUIRED, IT SHALL BE AVAILABLE FOR REVIEW BY THE CITY OF AUSTIN ENVIRONMENTAL INSPECTOR AT ALL TIMES DURING CONSTRUCTION, INCLUDING AT THE PRE–CONSTRUCTION MEETING.
3. THE PLACEMENT OF TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION AND THE APPROVED GRADING/TREE AND NATURAL AREA PLAN.
4. A PRE–CONSTRUCTION CONFERENCE SHALL BE HELD ON–SITE WITH THE CONTRACTOR, DESIGN ENGINEER/PERMIT APPLICANT AND ENVIRONMENTAL INSPECTOR AFTER INSTALLATION OF THE EROSION/SEDIMENTATION CONTROLS, TREE/NATURAL AREA PROTECTION MEASURES AND "PRE–CONSTRUCTION" TREE FERTILIZATION (IF APPLICABLE) PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE OWNER OR OWNER'S REPRESENTATIVE SHALL NOTIFY THE DEVELOPMENT SERVICES DEPARTMENT, 512–974–2278 OR BY EMAIL AT ENVIRONMENTAL.INSPECTIONS@AUSTINTEXAS.GOV, AT LEAST THREE DAYS PRIOR TO THE MEETING DATE. COA APPROVED ESC PLAN AND TPDES SWPPP (IF REQUIRED) SHOULD BE REVIEWED BY COA EV INSPECTOR AT THIS TIME.
5. ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE REVIEWING ENGINEER, ENVIRONMENTAL SPECIALIST OR CITY ARBORIST AS APPROPRIATE. MAJOR REVISIONS MUST BE APPROVED BY AUTHORIZED COA STAFF. MINOR CHANGES TO BE MADE AS FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES.
6. THE CONTRACTOR IS REQUIRED TO PROVIDE A CERTIFIED INSPECTOR THAT IS EITHER A LICENSED ENGINEER (OR PERSON DIRECTLY SUPERVISED BY THE LICENSED ENGINEER) OR CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC OR CPESC – IT), CERTIFIED EROSION, SEDIMENT AND STORMWATER – INSPECTOR (CESSWI OR CESSWI – IT) OR CERTIFIED INSPECTOR OF SEDIMENTATION AND EROSION CONTROLS (CISEC OR CISEC – IT) CERTIFICATION TO INSPECT THE CONTROLS AND FENCES AT WEEKLY OR BI–WEEKLY INTERVALS AND AFTER ONE–HALF (½) INCH OR GREATER RAINFALL EVENTS TO INSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES OR ONE–THIRD (⅓) OF THE INSTALLED HEIGHT OF THE CONTROL WHICHEVER IS LESS.
7. PRIOR TO FINAL ACCEPTANCE BY THE CITY, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING DEBRIS SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.
8. ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS; ONE SQUARE FOOT IN TOTAL AREA; BLOWS AIR FROM WITHIN THE SUBSTRATE AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO IMMEDIATELY CONTACT A CITY OF AUSTIN ENVIRONMENTAL INSPECTOR FOR FURTHER INVESTIGATION. IN ADDITION, IF THE PROJECT SITE IS LOCATED WITHIN THE EDWARDS AQUIFER, THE PROJECT MANAGER MUST NOTIFY THE TRAVIS COUNTY BALCONES CANYONLANDS CONSERVATION PRESERVE (BCCP) BY EMAIL AT BCCP@TRAVISCOUNTYTX.GOV. CONSTRUCTION ACTIVITIES WITHIN 50 FEET OF THE VOID MUST STOP.
9. TEMPORARY AND PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW:

   A. ALL DISTURBED AREAS TO BE REVEGETATED ARE REQUIRED TO PLACE A MINIMUM OF SIX (6) INCHES OF TOPSOIL [SEE STANDARD SPECIFICATION ITEM NO. 601S.3(A)]. DO NOT ADD TOPSOIL WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES.

   TOPSOIL SALVAGED FROM THE EXISTING SITE IS ENCOURAGED FOR USE, BUT IT SHOULD MEET THE STANDARDS SET FORTH IN 601S.

   AN OWNER/ENGINEER MAY PROPOSE USE OF ONSITE SALVAGED TOPSOIL WHICH DOES NOT MEET THE CRITERIA OF STANDARD SPECIFICATION 601S BY PROVIDING A SOIL ANALYSIS AND A WRITTEN STATEMENT FROM A QUALIFIED PROFESSIONAL IN SOILS, LANDSCAPE ARCHITECTURE, OR AGRONOMY INDICATING THE ONSITE TOPSOIL WILL PROVIDE AN EQUIVALENT GROWTH MEDIA AND SPECIFYING WHAT, IF ANY, SOIL AMENDMENTS ARE REQUIRED.

   SOIL AMENDMENTS SHALL BE WORKED INTO THE EXISTING ONSITE TOPSOIL WITH A DISC OR TILLER TO CREATE A WELL–BLENDED MATERIAL. THE VEGETATIVE STABILIZATION OF AREAS DISTURBED BY CONSTRUCTION SHALL BE AS FOLLOWS:

TEMPORARY VEGETATIVE STABILIZATION:

1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH OR INCLUDE A COOL SEASON COVER CROP: (WESTERN WHEATGRASS (PASCOPYRUM SMITHII) AT 5.6 POUNDS PER ACRE, OATS (AVENA SATIVA) AT 4.0 POUNDS PER ACRE, CEREAL RYE GRAIN (SECALE CEREALE) AT 45 POUNDS PER ACRE. CONTRACTOR MUST ENSURE THAT ANY SEED APPLICATION REQUIRING A COOL SEASON COVER CROP DOES NOT UTILIZE ANNUAL RYEGRASS (LOLIUM MULTIFLORUM) OR PERENNIAL RYEGRASS (LOLIUM PERENNE). COOL SEASON COVER CROPS ARE NOT PERMANENT EROSION CONTROL.
2. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 45 POUNDS PER ACRE OR A NATIVE PLANT SEED MIX CONFORMING TO ITEM 604S OR 609S.
   A. FERTILIZER SHALL BE APPLIED ONLY IF WARRANTED BY A SOIL TEST AND SHALL CONFORM TO ITEM NO. 606S, FERTILIZER. FERTILIZATION SHOULD NOT OCCUR WHEN RAINFALL IS EXPECTED OR DURING SLOW PLANT GROWTH OR DORMANCY. CHEMICAL FERTILIZER MAY NOT BE APPLIED IN THE CRITICAL WATER QUALITY ZONE.
   B. HYDROMULCH SHALL COMPLY WITH TABLE 1, BELOW.
   C. TEMPORARY EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1½ INCHES HIGH WITH A MINIMUM OF 95% TOTAL COVERAGE SO THAT ALL AREAS OF A SITE THAT RELY ON VEGETATION FOR TEMPORARY STABILIZATION ARE UNIFORMLY VEGETATED, AND PROVIDED THERE ARE NO BARE SPOTS LARGER THAN 10 SQUARE FEET.
   D. WHEN REQUIRED, NATIVE PLANT SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL, AND STANDARD SPECIFICATION 604S OR 609S.

TABLE 1: HYDROMULCHING FOR TEMPORARY VEGETATIVE STABILIZATION

MATERIAL	DESCRIPTION	LONGEVITY	TYPICAL APPLICATIONS	APPLICATION RATES
100% OR ANY BLEND OF WOOD, CELLULOSE, STRAW, AND/OR COTTON PLANT MATERIAL (EXCEPT NO MULCH SHALL EXCEED 30% PAPER)	70% OR GREATER WOOD/STRAW 30% OR LESS PAPER OR NATURAL FIBERS	0–3 MONTHS	MODERATE SLOPES; FROM FLAT TO 3:1	1,500 TO 2,000 lbs PER ACRE

PERMANENT VEGETATIVE STABILIZATION:

1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING IS CONSIDERED TO BE TEMPORARY STABILIZATION ONLY. IF COOL SEASON COVER CROPS EXIST WHERE PERMANENT VEGETATIVE STABILIZATION IS DESIRED, THE GRASSES SHALL BE MOWED TO A HEIGHT OF LESS THAN ONE–HALF (½) INCH AND THE AREA SHALL BE RE–SEEDED IN ACCORDANCE WITH TABLE 2 BELOW. ALTERNATIVELY, THE COOL SEASON COVER CROP CAN BE MIXED WITH BERMUDAGRASS OR NATIVE SEED AND INSTALLED TOGETHER, UNDERSTANDING THAT GERMINATION OF WARM–SEASON SEED TYPICALLY REQUIRES SOIL TEMPERATURES OF 60 TO 70 DEGREES.
2. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 45 POUNDS PER ACRE WITH A PURITY OF 95% AND A MINIMUM PURE LIVE SEED (PLS) OF 0.83. BERMUDA GRASS IS A WARM SEASON GRASS AND IS CONSIDERED PERMANENT EROSION CONTROL. PERMANENT VEGETATIVE STABILIZATION CAN ALSO BE ACCOMPLISHED WITH A NATIVE PLANT SEED MIX CONFORMING TO ITEM 604S OR 609S.
   A. FERTILIZER USE SHALL FOLLOW THE RECOMMENDATION OF A SOIL TEST. SEE ITEM 606S, FERTILIZER. APPLICATIONS OF FERTILIZER (AND PESTICIDE) ON CITY–OWNED AND MANAGED PROPERTY REQUIRES THE YEARLY SUBMITTAL OF A PESTICIDE AND FERTILIZER APPLICATION RECORD, ALONG WITH A CURRENT COPY OF THE APPLICATOR'S LICENSE. FOR CURRENT COPY OF THE RECORD TEMPLATE CONTACT THE CITY OF AUSTIN'S IPM COORDINATOR.
   B. HYDROMULCH SHALL COMPLY WITH TABLE 2, BELOW.
   C. THY STAND OF PLANTS THAT CAN ULTIMATELY SURVIVE WITHOUT SUPPLEMENTAL WATER. APPLY THE WATER UNIFORMLY TO THE PLANTED AREAS WITHOUT CAUSING DISPLACEMENT OR EROSION OF THE MATERIALS OR SOIL. MAINTAIN THE SEEDBED IN A MOIST CONDITION FAVORABLE FOR PLANT GROWTH. ALL WATERING SHALL COMPLY WITH CITY CODE CHAPTER 6–4 (WATER CONSERVATION), AT RATES AND FREQUENCIES DETERMINED BY A LICENSED IRRIGATOR OR OTHER QUALIFIED PROFESSIONAL, AND AS ALLOWED BY THE AUSTIN WATER UTILITY AND CURRENT WATER RESTRICTIONS AND WATER CONSERVATION INITIATIVES.
   D. PERMANENT EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1½ INCHES HIGH WITH A MINIMUM OF 95 PERCENT FOR THE NON–NATIVE MIX, AND 95 PERCENT COVERAGE FOR THE NATIVE MIX SO THAT ALL AREAS OF A SITE THAT RELY ON VEGETATION FOR STABILITY MUST BE UNIFORMLY VEGETATED, AND PROVIDED THERE ARE NO BARE SPOTS LARGER THAN 10 SQUARE FEET.
   E. WHEN REQUIRED, NATIVE PLANT SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL, ITEMS 604S AND 609S.

TABLE 2: HYDROMULCHING FOR PERMANENT VEGETATIVE STABILIZATION

MATERIAL	DESCRIPTION	LONGEVITY	TYPICAL APPLICATIONS	APPLICATION RATES
BONDED FIBER MATRIX (BFM)	80% ORGANIC DEFIBRATED FIBERS			
10% TACKIFIER	6 MONTHS	ON SLOPES UP TO 2:1 AND EROSIVE SOIL CONDITIONS	2,500 TO 4,000 lbs PER ACRE (SEE MANUFACTURERS RECOMMENDATIONS)	
FIBER REINFORCED	65% ORGANIC DEFIBRATED FIBERS	UP TO 12 MONTHS	ON SLOPES UP TO 1:1 AND EROSIVE SOIL CONDITIONS	3,000 TO 4,500 lbs PER ACRE (SEE MANUFACTURERS RECOMMENDATIONS)
MATRIX (FRM)	25% REINFORCING FIBERS OR LESS 10% TACKIFIER			

10. DEVELOPER INFORMATION:

    OWNER CITY OF AUSTIN PARKS AND RECREATION DEPARTMENT (PARD)

    PHONE # 512–974–9510

    ADDRESS 2525 S. LAKESHORE BLVD.

    OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS: WESTON SOLUTIONS, INC.

    PHONE # 512–651–7106

    PERSON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENTATION

    CONTROL MAINTENANCE: CONTRACTOR PHONE # _____

    PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA

    PROTECTION MAINTENANCE: CONTRACTOR PHONE # _____

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

SOURCE: RULE NO. R161–15.13, 1–4–2016 ; RULE NO. R161–17.03 , 3–2–2017; RULE NO. R161–19.02 , 3–14–2019.

APPENDIX P–3 ADDITIONAL EROSION CONTROL NOTES FOR BARTON SPRINGS CONTRIBUTING ZONE

1. DESIGNATION OF AN ENVIRONMENTAL PROJECT MANAGER WHO IS ON SITE >90% OF THE TIME, WHO IS REQUIRED TO BE AT THE PRECONSTRUCTION AND MID–CONSTRUCTION MEETINGS, AND IS RESPONSIBLE FOR COMPLIANCE ON SITE OF THE TEMPORARY EROSION AND SEDIMENTATION CONTROLS. THE ENVIRONMENTAL PROJECT MANAGER IS RESPONSIBLE FOR ENSURING COMPLIANCE OF THE CONTROLS DURING THE CONSTRUCTION PERIOD. SHOULD THE PROJECT MANAGER NEED TO BE ABSENT FROM THE SITE FOR AN EXTENDED PERIOD (IN EXCESS OF ONE WEEK), THE ENVIRONMENTAL INSPECTOR WITH THE WATERSHED PROTECTION AND DEVELOPMENT REVIEW DEPARTMENT SHOULD BE INFORMED OF THE NAME OF A DESIGNATED REPLACEMENT.
2. THE MAXIMUM LENGTH OF TIME BETWEEN CLEARING AND FINAL REVEGETATION OF A PROJECT SHALL NOT EXCEED 18 MONTHS, UNLESS EXTENDED BY THE DIRECTOR OF THE WATERSHED PROTECTION AND DEVELOPMENT REVIEW DEPARTMENT (THIS DOES NOT AFFECT THE EXPIRATION OF THE SITE PLAN OR BUILDING PERMIT. THIS REQUIREMENT APPLIES TO SITES THAT HAVE SUSPENDED WORK AND ARE EXPERIENCING EROSION CONTROL PROBLEMS DUE TO DISTURBED SOIL CONDITIONS.) DISTURBED AREAS MUST BE MAINTAINED TO PREVENT EROSION AND SEDIMENT LOADING OF ANY WATERWAYS OR DRAINAGE FACILITIES.
3. IT IS A VIOLATION OF THE CODE AND THIS DEVELOPMENT PERMIT TO ALLOW SEDIMENT FROM A CONSTRUCTION SITE TO ENTER A CLASSIFIED WATERWAY DUE TO A FAILURE TO MAINTAIN THE REQUIRED EROSION AND SEDIMENTATION CONTROLS OR TO FOLLOW THE APPROVED CONSTRUCTION SEQUENCE.

STANDARD ENVIRONMENTAL NOTES:

ADDITIONAL AREAS:

1. ANY ADDITIONAL AREAS REQUIRED FOR CONSTRUCTION OF THIS PROJECT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR MUST SECURE CITY OF AUSTIN APPROVAL OF PROPOSED ADDITIONAL AREAS PRIOR TO USE. APPROVAL OF "CORRECTION REQUEST" MUST BE SECURED FROM THE GENERAL PERMIT PROGRAM OFFICE OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT.
2. ALL ASSOCIATED PERMITS AND FEES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
3. IN ORDER TO SECURE APPROVAL FOR USE OF ADDITIONAL AREAS, CONTRACTOR MUST PROVIDE COMPLETE "CORRECTION REQUEST" SUBMITTAL TO GENERAL PERMIT PROGRAM OFFICE AND ALLOW A ONE WEEK COMMENT PERIOD FOR EACH REVIEW. CONTRACTOR SHOULD REQUEST INFORMATION ON THE ELEMENTS REQUIRED TO BE INCLUDED IN THE SUBMITTAL FROM THE OWNER'S REPRESENTATIVE OR THE GENERAL PERMIT PROGRAM OFFICE.
4. CONTRACTOR MUST INSTALL AND MAINTAIN EROSION/SEDIMENTATION CONTROLS AND TREE PROTECTION FOR ALL SUCH AREAS IN ACCORDANCE WITH THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL AND AS INCLUDED IN THE APPROVED SUBMITTAL OR DIRECTED IN THE FIELD BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE.
5. A SIGNED COPY OF THE PLANS PERMITTED THROUGH THE GENERAL PERMIT PROGRAM MUST BE KEPT ON SITE AND ACCESSIBLE AT ALL TIMES DURING PROJECT CONSTRUCTION.

STANDARD ENVIRONMENTAL NOTES CONTINUED:

DEWATERING:

CONTRACTOR IS RESPONSIBLE FOR DEWATERING OF WORK AREA. CONTRACTOR MUST SECURE CITY OF AUSTIN APPROVAL OF PROPOSED DEWATERING PROCEDURES PRIOR TO INSTALLATION OR USE. APPROVAL MUST BE SECURED FROM THE GENERAL PERMIT PROGRAM (GPP) OFFICE OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT. CONTRACTOR MUST PROVIDE COMPLETE SUBMITTAL TO GPP OFFICE AND ALLOW AN ONE WEEK (MIN.) COMMENT PERIOD FOR EACH REVIEW. CONTACT THE GPP OFFICE FOR SUBMITTAL REQUIREMENTS.

FUEL STORAGE:

FUEL STORAGE IS PROHIBITED ON THIS PROJECT. ADDITIONALLY, THE CONTRACTOR IS REQUIRED TO NOTIFY THE GENERAL PERMIT PROGRAM OFFICE IMMEDIATELY FOLLOWING ANY SPILL OF FUEL OR OTHER TOXIC MATERIAL. CONTRACTOR IS REQUIRED TO FOLLOW–UP WITH WRITTEN DOCUMENTATION, INCLUDING A COMPLETE DESCRIPTION OF THE INCIDENT, MATERIAL SPILLED, AND ACTIONS TAKEN TO CONTAIN AND CLEAN–UP MATERIAL.

FUGITIVE DUST CONTROL:

ALL PROJECTS APPROVED THROUGH THE GENERAL PERMIT PROGRAM (GPP) MUST COMPLY WITH THE CODE OF THE CITY OF AUSTIN AND THE ENVIRONMENTAL CRITERIA MANUAL REQUIREMENTS TO CONTROL AIRBORNE DUST. COMPLIANCE IS REQUIRED FOR ENTIRE PROJECT SITE AS WELL AS ASSOCIATED OPERATIONS. CONTACT THE GPP OFFICE FOR RECOMMENDED CONTROL METHODS.

SPOILS STORAGE:

NO SPOILS STORAGE IS ALLOWED WITHIN A CRITICAL WATER QUALITY ZONE, A 100–YEAR FLOODPLAIN, OR ON A SLOPE WITH A GRADIENT OF MORE THAN 15 PERCENT.

E/S CONTROLS FOR BORE / RECEIVING PIT LOCATIONS:

TEMPORARY E/S CONTROLS MUST SURROUND THE ENTIRETY OF BORING OPERATIONS, INCLUDING PIT, EQUIPMENT, ETC. FOR LOCATIONS WITHIN IMPERVIOUS AREAS, TEMPORARY CONTROL WILL BE TRIANGULAR FILTER DIKE (COA STANDARD DETAIL #628S). DIKE FLAP WILL BE CONTINUOUSLY WEIGHTED DOWN THROUGH THE USE OF 1" BY 4" WOOD STRIPS NAILED TO THE PAVEMENT, EXCEPT FOR THE ACCESS POINT. PLACEMENT OF TEMPORARY E/S CONTROLS ACROSS ACCESS POINT WILL BE REQUIRED WHENEVER THE SITE IS NOT ACTIVELY USED. FOR LOCATIONS WITHIN PERVIOUS AREAS, TEMPORARY CONTROL WILL BE SILT FENCE (COA STANDARD DETAIL #642S–1) OR MULCH SOCKS (COA STANDARD DETAIL #648S–1), AS INDICATED ON APPROVED PLANS.

SOIL RETENTION BLANKET:

UNLESS OTHERWISE INDICATED IN THE PROJECT DOCUMENTS, INSTALLATION OF SOIL RETENTION BLANKET WILL BE REQUIRED FOR ALL IMPACTED SLOPES GREATER THAN 3:1 AND ALL IMPACTED AREAS WITHIN DRAINAGE CONVEYANCES. (CITY OF AUSTIN STANDARD SPECIFICATION ITEM 605S) SOIL RETENTION BLANKET SUBMITTAL MUST BE APPROVED BY PROJECT ENGINEER AND GENERAL PERMIT PROGRAM (GPP) REPRESENTATIVE PRIOR TO USE AND MUST INCLUDE PRODUCT AND INSTALLATION DETAILS PROVIDED BY MANUFACTURER. FINISH GRADING MUST BE INSPECTED AND APPROVED BY GPP INSPECTOR PRIOR TO BLANKET INSTALLATION. INSTALLATION MUST BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND MUST BE INSPECTED AND APPROVED BY GPP REPRESENTATIVE PRIOR TO ACCEPTANCE.

SOD INSTALLATION:

REVEGETATION WITHIN MANAGED TURF AREAS MUST BE ACCOMPLISHED THROUGH THE INSTALLATION OF SOLID BLOCK GRASS SOD. SOD TYPE MUST MATCH ADJACENT GRASS TYPE. QUESTIONS REGARDING SOD TYPE WILL BE RESOLVED BY THE GENERAL PROGRAM PERMIT REPRESENTATIVE. REFER TO CITY OF AUSTIN STANDARD SPECIFICATION ITEM NO. 602S: SODDING FOR EROSION CONTROL, UNLESS OTHERWISE NOTED ON THE APPROVED PLANS.

TxDOT RIGHTS–OF–WAY:

TOPSOIL (TxDOT ITEM NO. 160), SOIL RETENTION BLANKET (TxDOT ITEM NO. 169), AND REVEGETATION (TxDOT ITEM NO. 164) INSTALLED WITHIN TEXAS DEPARTMENT OF TRANSPORTATION (TxDOT) RIGHT–OF–WAY SHALL COMPLY WITH "REQUIREMENTS FOR INSTALLATION OF UTILITIES WITHIN THE STATE RIGHT–OF–WAY, AUSTIN DISTRICT".

PROJECT SEQUENCE:

(REFER TO FULL PLAN SET FOR PROJECT–SPECIFIC ADDITIONS, IF APPLICABLE.)

PRIOR TO CONSTRUCTION:

1. SECURE APPLICABLE COA PERMITS, INCLUDING APPROVAL UNDER GENERAL PERMIT PROGRAM AND RIGHT–OF–WAY EXCAVATION PERMIT.
2. NOTIFY GENERAL PERMIT PROGRAM REPRESENTATIVE PRIOR TO PLACEMENT OF E/S CONTROLS AND TREE PROTECTION FENCING. ALL PROPOSED PHASING OF CONTROLS MUST BE SUBMITTED TO AND APPROVED BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE PRIOR TO THE FIELD PRE–CONSTRUCTION CONFERENCE.
3. NOTIFY COA TEMPORARY TRAFFIC CONTROL REPRESENTATIVE PRIOR TO PLACEMENT OF TEMPORARY TRAFFIC CONTROLS. ALL PROPOSED PHASING OF CONTROLS MUST BE INDICATED ON APPROVED TEMPORARY TRAFFIC CONTROL PLAN AND SEALED BY PROFESSIONAL ENGINEER.
4. PLACE TEMPORARY E/S CONTROLS AND TREE PROTECTION FENCING PRIOR TO BEGINNING ANY EXCAVATION. INSTALL C.I.P. SIGN, IF APPLICABLE.
5. HOLD ENVIRONMENTAL PRE–CONSTRUCTION CONFERENCE ON SITE WITH THE CONTRACTOR, OWNER'S REPRESENTATIVE, AND GENERAL PERMIT PROGRAM REPRESENTATIVE AFTER INSTALLATION OF E/S CONTROLS AND TREE PROTECTION FENCING AND PRIOR TO ANY TRENCHING OPERATIONS.
6. PLACE TEMPORARY TRAFFIC CONTROL DEVICES.

PROJECT CONSTRUCTION:

1. BEGIN CONSTRUCTION. NOTIFY GENERAL PERMIT PROGRAM REPRESENTATIVE A MINIMUM OF 48 HOURS IN ADVANCE OF TRANSITION BETWEEN PHASES.
2. CONTACT GENERAL PERMIT OFFICE TO SCHEDULE FIELD INSPECTION PRIOR TO BEGINNING INSTALLATION OF PERMANENT E/S CONTROLS.
3. COMPLETE RESTORATION OF ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES FOR THIS PROJECT. (PERMANENT E/S CONTROLS)
4. REMOVE TEMPORARY TRAFFIC CONTROL DEVICES RELATED TO WORK AREAS OUTSIDE OF THE STREET.
5. HOLD ENVIRONMENTAL POST–CONSTRUCTION CONFERENCE ON SITE WITH THE CONTRACTOR, OWNER'S REPRESENTATIVE, AND GENERAL PERMIT PROGRAM REPRESENTATIVE. ALL PERMANENT E/S CONTROLS MUST BE ACCEPTED BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE. PERMANENT CONTROLS SHALL CONSIST OF REVEGETATION PER DETAILS 602, 604S, AND 609S AS INDICATED ON APPROVED PLANS.
6. FOLLOWING FINAL ACCEPTANCE OF PERMANENT E/S CONTROLS BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE, REMOVE TEMPORARY E/S CONTROLS. CLEAN EXISTING STORM DRAINAGE SYSTEMS AS NECESSARY DUE TO CONSTRUCTION OPERATIONS.
7. DRESS–UP AND RESTORE ANY AREAS DISTURBED BY REMOVAL OF TEMPORARY E/S CONTROLS DESCRIBED ABOVE.

REQUIRED SUBMITTALS:

SUBMITTALS REQUIRED TO BE APPROVED BY GENERAL PERMIT PROGRAM REPRESENTATIVE INCLUDE: SUBMITTALS TRIGGERED BY CITY OF AUSTIN SERIES 600 SPECIFICATIONS AND RELATED SPECIAL PROVISIONS/SPECIFICATIONS, CONSTRUCTION SCHEDULE, TREE PROTECTION, P–6 AND OTHER ROOT ZONE PROTECTION/MITIGATION MEASURES, DEWATERING PLAN, WATERING SCHEDULE FOR REVEGETATION AREAS, AND ANY VEGETATIVE REPLACEMENT PROPOSALS, IF NOT ALREADY PART OF THE PERMITTED PLAN SET.

REV. NO.	BY	DATE	REVISION DESCRIPTION

S. IRRINKI 84348 — 14 OCTOBER 2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE

GENERAL NOTES

CITY OF AUSTIN TEXAS FOUNDED 1839 — PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

SHEET NUMBER G-003

CITY OF AUSTIN
TREE AND NATURAL AREA PROTECTION NOTES

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

2. PROTECTIVE MEASURES SHALL BE INSTALLED ACCORDING TO CITY OF AUSTIN STANDARDS FOR TREE PROTECTION.

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

4. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP, COMPACTION OR CUTTING OF CRITICAL ROOT ZONE WITHIN TREE DRIP LINES.

5. TREE PROTECTION SHALL COMPLETELY SURROUND THE TREES OR GROUP OF TREES AND WILL BE LOCATED AT THE OUTERMOST LIMIT OF BRANCHES (DRIP LINE). FOR NATURAL AREAS, PROTECTIVE MEASURES SHALL FOLLOW THE LIMIT OF CONSTRUCTION LINE, IN ORDER TO PREVENT THE FOLLOWING:

   A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIALS;
   B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6 INCHES CUT OR FILL) OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE GENERAL PERMIT PROGRAM OFFICE OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT;
   C. WOUNDS TO EXPOSED ROOTS, TRUNK OR LIMBS BY MECHANICAL EQUIPMENT;
   D. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING, AND FIRES.

6. EXCEPTIONS TO INSTALLING PROTECTIVE FENCES AT CRITICAL ROOT ZONES MAY BE PERMITTED IN THE FOLLOWING CASES:

   A. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT, ERECT THE FENCE APPROXIMATELY 2 FEET BEYOND THE AREA DISTURBED;
   B. WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA;
   C. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN 6 FEET TO THE BUILDING;
   D. WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER SPECIAL REQUIREMENTS, CONTACT THE GENERAL PERMIT PROGRAM OFFICE AT 974-6330 TO DISCUSS ALTERNATIVES.

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

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

7. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN AREAS OF UNPROTECTED ROOT ZONES, THOSE AREAS SHOULD BE COVERED WITH 12 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION DURING CONSTRUCTION. FILTER FABRIC UNDERLAYMENT MAY BE REQUIRED AT DIRECTION OF GENERAL PERMIT PROGRAM REPRESENTATIVE BASED ON SITE CONDITIONS AND CONSTRUCTION ACTIVITIES. MAXIMUM FOUR (4) INCHES DEPTH MAY BE LEFT IN PLACE AFTER CONSTRUCTION WITH APPROVAL FROM THE GENERAL PERMIT PROGRAM REPRESENTATIVE.

8. ALL GRADING WITHIN PROTECTED ROOT ZONE AREAS SHALL BE DONE BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE. PRIOR TO GRADING, RELOCATE PROTECTIVE FENCES TO 2 FEET BEHIND THE GRADE CHANGE AREA.

9. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN 2 DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.

10. PRIOR TO EXCAVATION OR GRADE CUTTING WITHIN TREE DRIPLINES, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE DAMAGE TO REMAINING ROOTS.

11. TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES SHOULD BE WATERED DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. TREE CROWNS SHOULD BE SPRAYED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.

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

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

CITY OF AUSTIN
TREE AND NATURAL AREA PROTECTION NOTES CONTINUED

14. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS. SEE NOTE THREE (3) OF SUPPLEMENTAL TREE PROTECTION NOTES FOR ADDITIONAL REQUIREMENTS.

15. ALL FINISHED PRUNING MUST BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES AVAILABLE ON REQUEST FROM THE GENERAL PERMIT PROGRAM OFFICE).

16. DEVIATIONS FROM THE ABOVE NOTES MAY BE CONSIDERED ORDINANCE VIOLATIONS IF THERE IS SUBSTANTIAL NONCOMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT.

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

SUPPLEMENTAL TREE PROTECTION NOTES

1. ALL TREE PROTECTION MUST COMPLY WITH CITY OF AUSTIN REQUIREMENTS AS OUTLINED IN THE ENVIRONMENTAL CRITERIA MANUAL AND AS INDICATED BY STANDARD COA NOTES AND DETAILS INCLUDED WITHIN THIS DOCUMENT SET.CONTRACTOR SHALL INSTALL PROTECTION PRIOR TO PRE-CONSTRUCTION CONFERENCE, MAKE ADJUSTMENTS TO PROTECTION AS DIRECTED BY THE GPP REPRESENTATIVE, AND MAINTAIN PROTECTION UNTIL PROJECT IS COMPLETE.

2. TYPE AND LOCATION OF ALL TREE PROTECTION MUST BE APPROVED IN THE FIELD BY THE GENERAL PERMIT PROGRAM (GPP) REPRESENTATIVE PRIOR TO CONSTRUCTION.

3. WALK-THROUGH: CONTRACTOR SHALL CONDUCT WALK-THROUGH MEETING WITH GENERAL PERMIT PROGRAM REPRESENTATIVE PRIOR TO PERFORMING ANY PRUNING ACTIVITIES ON TREES IN PROJECT AREA. PURPOSE OF WALK-THROUGH WILL BE TWOFOLD. ONE PURPOSE WILL BE TO DETERMINE THE MINIMUM AMOUNT OF PRUNING NECESSARY TO ALLOW CONSTRUCTION WORK TO BE COMPLETED. SECOND PURPOSE WILL BE TO DETERMINE AREAS OF PROJECT IN WHICH EXHAUST DIVERTERS WILL BE REQUIRED ON CONSTRUCTION EQUIPMENT TO PREVENT SCORCHING OF EXISTING TREES.

4. ALL PRUNING MUST BE PERFORMED IN ACCORDANCE WITH ANSI A300 (PART 1) – 2001 AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS (PRUNING), OR LATEST APPROVED VERSION. THIS DOCUMENT MAY BE OBTAINED ONLINE FOR A FEE AT WWW.ANSI.ORG.

5. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS. TO PREVENT BARK TEARS, THE WEIGHT OF THE BRANCH SHALL BE REMOVED BEFORE MAKING FINAL PRUNING CUT.

6. ALL PRUNING SHALL PRESERVE THE NATURAL CHARACTER OF THE TREE.

7. ONLY COLLAR CUTS ARE ACCEPTABLE. NO FLUSH CUTS OR STUB CUTS WILL BE ALLOWED.

8. ALL BRANCHES THAT ARE BROKEN OR DAMAGED DURING CONSTRUCTION SHALL BE REMOVED.

9. PRUNING CUTS OR DAMAGED AREAS ON AN OAK TREE SHALL BE PAINTED WITHIN FIVE MINUTES WITH A STANDARD TREE WOUND DRESSING. TREE WOUND DRESSING SHALL BE EITHER TREEKOTE AEROSOL OR TANGLEFOOT PRUNING SEALER (OR APPROVED EQUAL). THIS ALSO APPLIES TO WOUNDS CREATED BY CONSTRUCTION VEHICLES OR EQUIPMENT. ALL PRUNING MUST BE IN ACCORDANCE WITH COA OAK WILT PREVENTION POLICY.

10. ANY TREE ROOTS THAT ARE EXPOSED, CUT, OR TORN DURING CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SURROUNDING SOIL. (REFER ALSO TO NUMBER 9 OF THE TREE AND NATURAL AREA PROTECTION NOTES INCLUDED IN THIS PLAN SET.)

11. ALL TRENCHING WITHIN THE CRITICAL ROOT ZONE OF A TREE TO BE PRESERVED WILL BE SAW CUT OR EXCAVATED BY HAND, AS APPROVED BY THE GENERAL PERMIT PROGRAM ARBORIST.

12. REFER TO ENVIRONMENTAL CRITERIA MANUAL APPENDIX P-6 FOR FURTHER REMEDIAL TREE CARE REQUIREMENTS. P-6 REMEDIAL TREE CARE WILL BE COORDINATED WITH AND APPROVED BY THE GENERAL PERMIT PROGRAM ARBORIST FOR PROJECTS PERMITTED THROUGH THE GENERAL PERMIT PROGRAM.

STANDARD SITE PLAN NOTES:

ORDINANCE REQUIREMENTS:

1. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE RELEASED SITE PLAN. ANY ADDITIONAL IMPROVEMENTS WILL REQUIRE A SITE PLAN AMENDMENT AND APPROVAL FROM THE DEVELOPMENT SERVICES DEPARTMENT.
2. APPROVAL OF THIS SITE PLAN DOES NOT INCLUDE BUILDING CODE APPROVAL; FIRE CODE APPROVAL; OR BUILDING, DEMOLITION, OR RELOCATION PERMITS APPROVAL. A CITY DEMOLITION OR RELOCATION PERMIT CAN ONLY BE ISSUED ONCE THE HISTORIC REVIEW PROCESS IS COMPLETED.
3. ALL SIGNS MUST COMPLY WITH THE REQUIREMENTS OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.
4. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS OF DAMAGES TO UTILITIES.
5. ADDITIONAL ELECTRIC EASEMENTS MAY BE REQUIRED AT A LATER DATE.
6. A SITE DEVELOPMENT PERMIT MUST BE ISSUED PRIOR TO AN APPLICATION FOR BUILDING PERMIT FOR NON-CONSOLIDATED OR LAND USE COMMISSION APPROVED SITE PLANS.
7. WATER AND WASTEWATER SERVICE WILL BE PROVIDED BY THE CITY OF AUSTIN – OR IDENTIFY THE SERVICE PROVIDER IF OTHER THAN THE CITY OF AUSTIN.
8. NO CERTIFICATE OF OCCUPANCY MAY BE ISSUED FOR THE PROPOSED RESIDENTIAL CONDOMINIUM PROJECT UNTIL THE OWNER OR OWNERS OF THE PROPERTY HAVE COMPLIED WITH CHAPTER 81 AND 82 OF THE PROPERTY CODE OF THE STATED OF TEXAS OR ANY OTHER STATUTES ENACTED BY THE STATE CONCERNING CONDOMINIUMS.
9. FOR CONSTRUCTION WITHIN THE RIGHT-OF-WAY, A R.O.W. EXCAVATION PERMIT IS REQUIRED.

COMPATIBILITY:

1. HIGHLY REFLECTIVE MATERIALS WILL NOT BE USED. MATERIALS MAY NOT EXCEED 20% REFLECTIVITY. THIS REQUIREMENT SHALL NOT APPLY TO SOLAR PANELS OR TO COPPER OR PAINTED METAL ROOFS.
2. THE NOISE LEVEL OF MECHANICAL EQUIPMENT WILL NOT EXCEED 70 d.b.a. AT THE PROPERTY LINE ADJACENT TO RESIDENTIAL USES.
3. ALL EXTERIOR LIGHTING SHALL BE HOODED OR SHIELDED FROM THE VIEW OF ADJACENT RESIDENTIAL USES, OR PROPERTY ZONED RESIDENTIAL.
4. EXTERIOR LIGHTING ABOVE THE SECOND FLOOR IS PROHIBITED WHEN ADJACENT TO RESIDENTIAL PROPERTY.
5. ALL DUMPSTERS AND ANY PERMANENTLY PLACED REFUSE RECEPTACLES WILL BE LOCATED AT A MINIMUM OF TWENTY (20) FEET FROM A PROPERTY USED OR ZONED AS SF-5 OR MORE RESTRICTIVE.

FIRE DEPARTMENT:

1. THE AUSTIN FIRE DEPARTMENT REQUIRES FINAL ASPHALT OR CONCRETE PAVEMENT ON REQUIRED ACCESS ROADS PRIOR TO THE START OF COMBUSTIBLE CONSTRUCTION. ANY OTHER METHOD OF PROVIDING "ALL-WEATHER DRIVING CAPABILITIES" SHALL BE REQUIRED TO BE DOCUMENTED AND APPROVED AS AN ALTERNATE METHOD OF CONSTRUCTION IN ACCORDANCE WITH THE APPLICABLE RULES FOR TEMPORARY ROADS OUTLINED IN THE CITY OF AUSTIN FIRE PROTECTION CRITERIA MANUAL.
2. FIRE HYDRANTS SHALL BE INSTALLED WITH THE CENTER OF THE FOUR (4) INCH OPENING (STEAMER) LOCATED AT LEAST 18 INCHES ABOVE FINISHED GRADE. THE STEAMER OPENING OF FIRE HYDRANTS SHALL FACE THE APPROVED FIRE ACCESS DRIVEWAY OR PUBLIC STREET AND SET BACK FROM THE CURB LINE(S) AN APPROVED DISTANCE, TYPICALLY THREE (3) TO SIX (6) FEET. THE AREA WITHIN THREE (3) FEET IN ALL DIRECTIONS FROM ANY FIRE HYDRANT SHALL BE FREE OF OBSTRUCTIONS, AND THE AREA BETWEEN THE STEAMER OPENING AND THE STREET OR DRIVEWAY GIVING EMERGENCY VEHICLE ACCESS SHALL BE FREE OF OBSTRUCTIONS.
3. TIMING OF INSTALLATIONS: WHEN FIRE PROTECTION FACILITIES ARE INSTALLED BY THE CONTRACTOR, SUCH FACILITIES SHALL INCLUDE SURFACE ACCESS ROADS. EMERGENCY ACCESS ROADS OR DRIVES SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO AND DURING THE TIME OF CONSTRUCTION. WHEN THE FIRE DEPARTMENT APPROVES AN ALTERNATE METHOD OF PROTECTION, THIS REQUIREMENT MAY BE MODIFIED AS DOCUMENTED IN THE APPROVAL OF THE ALTERNATE METHOD. FIRE 08/04/2013 12
4. ALL EMERGENCY ACCESS ROADWAYS AND FIRE LANES, INCLUDING PERVIOUS/DECORATIVE PAVING, SHALL BE ENGINEERED AND INSTALLED AS REQUIRED TO SUPPORT THE AXLE LOADS OF EMERGENCY VEHICLES. A LOAD CAPACITY SUFFICIENT TO MEET THE REQUIREMENTS FOR HS-20 LOADING (16 KIPS/WHEEL) AND A TOTAL VEHICLE LIVE LOAD OF 80,000 POUNDS IS CONSIDERED COMPLIANT WITH THIS REQUIREMENT.
5. FIRE LANES DESIGNATED ON SITE PLANS SHALL BE REGISTERED WITH THE CITY OF AUSTIN FIRE DEPARTMENT AND INSPECTED FOR FINAL APPROVAL.
6. THE MINIMUM VERTICAL CLEARANCE REQUIRED FOR EMERGENCY VEHICLE ACCESS ROADS OR DRIVES IS 14 FEET FOR THE FULL WIDTH OF THE ROADWAY OR DRIVEWAY.

GENERAL CONSTRUCTION NOTES:

1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF AUSTIN MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
2. CONTRACTOR SHALL CALL TEXAS 811 (811 OR 1-800-344-8377) FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET R.O.W.
3. CONTRACTOR SHALL NOTIFY THE CITY OF AUSTIN – SITE & SUBDIVISION DIVISION TO SUBMIT REQUIRED DOCUMENTATION, PAY CONSTRUCTION INSPECTION FEES, AND TO SCHEDULE THE REQUIRED SITE AND SUBDIVISION PRE-CONSTRUCTION MEETING. THIS MEETING MUST BE HELD PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN THE R.O.W. OR PUBLIC EASEMENTS. PLEASE VISIT:

   http://austintexas.gov/page/commercial-site-and-subdivision-inspections

   FOR A LIST OF SUBMITTAL REQUIREMENTS, INFORMATION CONCERNING FEES, AND CONTACT INFORMATION.
4. FOR SLOPES OR TRENCHES GREATER THAN FIVE FEET IN DEPTH, A NOTE MUST BE ADDED STATING: "ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION." (OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 611 EAST 6TH STREET, AUSTIN, TEXAS.)
5. ALL SITE WORK MUST ALSO COMPLY WITH ENVIRONMENTAL REQUIREMENTS.
6. UPON COMPLETION OF THE PROPOSED SITE IMPROVEMENTS AND PRIOR TO THE FOLLOWING, THE ENGINEER SHALL CERTIFY IN WRITING THAT THE PROPOSED DRAINAGE, FILTRATION AND DETENTION FACILITIES WERE CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS:

   ☐ RELEASE OF THE CERTIFICATE OF OCCUPANCY BY THE DEPARTMENT SERVICES DEPARTMENT (INSIDE THE CITY LIMITS); OR

   ☐ INSTALLATION OF AN ELECTRIC OR WATER METER (IN THE FIVE-MILE ETJ)

DEVELOPER INFORMATION:

OWNER: CITY OF AUSTIN PARKS AND RECREATION DEPARTMENT (PARD)
COMPANY: CITY OF AUSTIN
CONTACT: JOHN McKENNIS
ADDRESS: 2525 S. LAKESHORE BLVD.

PHONE: 512-974-9510
E-MAIL: John.McKennis@austintexas.gov

OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:
COMPANY: WESTON SOLUTIONS, INC.
CONTACT: SAM IRRINKI, P.E.
ADDRESS: 5301 SOUTHWEST PARKWAY, SUITE 450, AUSTIN, TEXAS 78735

PHONE: 512-651-7106
E-MAIL: Sam.Irrinki@westonsolutions.com

PARTY RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE:
COMPANY: CONTRACTOR

PARTY RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE:
COMPANY: CONTRACTOR

AMERICANS WITH DISABILITIES ACT:

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

REV. NO.	BY	DATE	REVISION DESCRIPTION

14 OCTOBER 2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK -
MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE

GENERAL NOTES

PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

SHEET NUMBER G-004

SITE CALCULATIONS – SEE SHT. C–103 AND C–104 FOR SITE LAYOUT

MOTOR VEHICLE PARKING SUMMARY

LAND USE	AREA (S.F.)	PARKING RATIO (SP/S.F.)	REQUIRED SPACES PER APPENDIX A
CIVIC USE: MAINTENANCE AND SERVICE FACILITIES:			
OFFICE/ADMIN	1,800	1 SP/275 SF	7
INDOOR STORAGE/WAREHOUSE	2,529	1 SP/1,000 SF	3
		TOTAL	10
TOTAL SPACES PROVIDED			20
TOTAL REQUIRED STANDARD HC SPACES			2
TOTAL REQUIRED VAN ACCESSIBLE HC SPACES			1

PARKING TYPE	TOTAL PROVIDED
STANDARD HANDICAPPED PARKING	0
VAN ACCESSIBLE PARKING	2
COMPACT PARKING	0
STANDARD PARKING	18
TOTAL	20
ON–SITE BICYCLE SPACES (2 REQUIRED)	3 IN SIDEWALK

UTILITY SUMMARY

GARBAGE DISPOSAL: PRIVATE
WATER AND WASTEWATER SERVICE: CITY OF AUSTIN
ELECTRIC SERVICE: AUSTIN ENERGY
GAS SERVICE: TEXAS GAS SERVICE

BUILDING SUMMARY

	MAINTENANCE BARN
PROPOSED USE	OFFICE/WAREHOUSE STORAGE
TOTAL AREA (S.F.)	4,329
NO. OF STORIES	1
BUILDING HEIGHT (FT.)	23.3 FT
FINISHED FLOOR ELEVATION	520.5
FOUNDATION TYPE	CONCRETE SLAB

TOTAL LOC AREA (S.F.)	211,557
TOTAL LOC AREA (AC.)	4.86
ZONING	P
EXISTING CONDITIONS:	
TOTAL FLOOR AREA (SF)	0
FLOOR AREA RATIO	0.00:1.00
TOTAL IMPERVIOUS COVER (SF)	30,166
TOTAL IMPERVIOUS COVER (AC)	0.69
TOTAL IMPERVIOUS COVER (%)	14.3
BUILDING COVERAGE (SF)	0
BUILDING COVERAGE (%)	0
PROPOSED CONDITIONS:	
TOTAL FLOOR AREA (SF)	4,729
FLOOR AREA RATIO	0.02:1.00
TOTAL IMPERVIOUS COVER (SF)	59,711
TOTAL IMPERVIOUS COVER (AC)	1.37
TOTAL IMPERVIOUS COVER (%)	28.2
BUILDING COVERAGE (SF)	4,729
BUILDING COVERAGE (%)	2.2

TCEQ WATER POLLUTION ABATEMENT PLAN GENERAL CONSTRUCTION NOTES

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

TCEQ ORGANIZED SEWAGE COLLECTION SYSTEM GENERAL CONSTRUCTION NOTES

1. THIS ORGANIZED SEWAGE COLLECTION SYSTEM (SCS) MUST BE CONSTRUCTED IN ACCORDANCE WITH 30 TEXAS ADMINISTRATIVE CODE (TAC) §213.5(C), THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S (TCEQ) EDWARDS AQUIFER RULES AND ANY LOCAL GOVERNMENT STANDARD SPECIFICATIONS.
2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROPOSED REGULATED PROJECT MUST BE PROVIDED WITH COPIES OF THE SCS PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS MUST BE REQUIRED TO KEEP ON–SITE COPIES OF THE PLAN AND THE APPROVAL LETTER.
3. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE PRESIDING TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
   - THE NAME OF THE APPROVED PROJECT;
   - THE ACTIVITY START DATE; AND
   - THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
4. ANY MODIFICATION TO THE ACTIVITIES DESCRIBED IN THE REFERENCED SCS APPLICATION FOLLOWING THE DATE OF APPROVAL MAY REQUIRE THE SUBMITTAL OF AN SCS APPLICATION TO MODIFY THIS APPROVAL, INCLUDING THE PAYMENT OF APPROPRIATE FEES AND ALL INFORMATION NECESSARY FOR ITS REVIEW AND APPROVAL.
5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
6. IF ANY SENSITIVE FEATURES ARE DISCOVERED DURING THE WASTEWATER LINE TRENCHING ACTIVITIES, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPLICANT MUST IMMEDIATELY NOTIFY THE APPROPRIATE REGIONAL OFFICE OF THE TCEQ OF THE FEATURE DISCOVERED. A GEOLOGIST'S ASSESSMENT OF THE LOCATION AND EXTENT OF THE FEATURE DISCOVERED MUST BE REPORTED TO THAT REGIONAL OFFICE IN WRITING AND THE APPLICANT MUST SUBMIT A PLAN FOR ENSURING THE STRUCTURAL INTEGRITY OF THE SEWER LINE OR FOR MODIFYING THE PROPOSED COLLECTION SYSTEM ALIGNMENT AROUND THE FEATURE. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE EXECUTIVE DIRECTOR HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY WHILE MAINTAINING THE STRUCTURAL INTEGRITY OF THE LINE.
7. SEWER LINES LOCATED WITHIN OR CROSSING THE 5–YEAR FLOODPLAIN OF A DRAINAGE WAY WILL BE PROTECTED FROM INUNDATION AND STREAM VELOCITIES WHICH COULD CAUSE EROSION AND SCOURING OF BACKFILL. THE TRENCH MUST BE CAPPED WITH CONCRETE TO PREVENT SCOURING OF BACKFILL, OR THE SEWER LINES MUST BE ENCASED IN CONCRETE. ALL CONCRETE SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES.
8. BLASTING PROCEDURES FOR PROTECTION OF EXISTING SEWER LINES AND OTHER UTILITIES WILL BE IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION CRITERIA. SAND IS NOT ALLOWED AS BEDDING OR BACKFILL IN TRENCHES THAT HAVE BEEN BLASTED. IF ANY EXISTING SEWER LINES ARE DAMAGED, THE LINES MUST BE REPAIRED AND RETESTED.
9. ALL MANHOLES CONSTRUCTED OR REHABILITATED ON THIS PROJECT MUST HAVE WATERTIGHT SIZE ON SIZE RESILIENT CONNECTORS ALLOWING FOR DIFFERENTIAL SETTLEMENT. IF MANHOLES ARE CONSTRUCTED WITHIN THE 100–YEAR FLOODPLAIN, THE COVER MUST HAVE A GASKET AND BE BOLTED TO THE RING. WHERE GASKETED MANHOLE COVERS ARE REQUIRED FOR MORE THAN THREE MANHOLES IN SEQUENCE OR FOR MORE THAN 1500 FEET, ALTERNATE MEANS OF VENTING WILL BE PROVIDED. BRICKS ARE NOT AN ACCEPTABLE CONSTRUCTION MATERIAL FOR ANY PORTION OF THE MANHOLE.

   THE DIAMETER OF THE MANHOLES MUST BE A MINIMUM OF FOUR FEET AND THE MANHOLE FOR ENTRY MUST HAVE A MINIMUM CLEAR OPENING DIAMETER OF 30 INCHES. THESE DIMENSIONS AND OTHER DETAILS SHOWING COMPLIANCE WITH THE COMMISSION'S RULES CONCERNING MANHOLES AND SEWER LINE/MANHOLE INVERTS DESCRIBED IN 30 TAC §217.55 ARE INCLUDED ON PLAN SHEET ___ OF ___.

   IT IS SUGGESTED THAT ENTRANCE INTO MANHOLES IN EXCESS OF FOUR FEET DEEP BE ACCOMPLISHED BY MEANS OF A PORTABLE LADDER. THE INCLUSION OF STEPS IN A MANHOLE IS PROHIBITED.
10. WHERE WATER LINES AND NEW SEWER LINE ARE INSTALLED WITH A SEPARATION DISTANCE CLOSER THAN NINE FEET (I.E., WATER LINES CROSSING WASTEWATER LINES, WATER LINES PARALLELING WASTEWATER LINES, OR WATER LINES NEXT TO MANHOLES) THE INSTALLATION MUST MEET THE REQUIREMENTS OF 30 TAC §217.53(D) (PIPE DESIGN) AND 30 TAC §290.44(E) (WATER DISTRIBUTION).
11. WHERE SEWERS LINES DEVIATE FROM STRAIGHT ALIGNMENT AND UNIFORM GRADE ALL CURVATURE OF SEWER PIPE MUST BE ACHIEVED BY THE FOLLOWING PROCEDURE WHICH IS RECOMMENDED BY THE PIPE MANUFACTURER: _____.

    IF PIPE FLEXURE IS PROPOSED, THE FOLLOWING METHOD OF PREVENTING DEFLECTION OF THE JOINT MUST BE USED: _____.

    SPECIFIC CARE MUST BE TAKEN TO ENSURE THAT THE JOINT IS PLACED IN THE CENTER OF THE TRENCH AND PROPERLY BEDDED IN ACCORDANCE WITH 30 TAC §217.54.
12. NEW SEWAGE COLLECTION SYSTEM LINES MUST BE CONSTRUCTED WITH STUB OUTS FOR THE CONNECTION OF ANTICIPATED EXTENSIONS. THE LOCATION OF SUCH STUB OUTS MUST BE MARKED ON THE GROUND SUCH THAT THEIR LOCATION CAN BE EASILY DETERMINED AT THE TIME OF CONNECTION OF THE EXTENSIONS. SUCH STUB OUTS MUST BE MANUFACTURED WYES OR TEES THAT ARE COMPATIBLE IN SIZE AND MATERIAL WITH BOTH THE SEWER LINE AND THE EXTENSION. AT THE TIME OF ORIGINAL CONSTRUCTION, NEW STUB–OUTS MUST BE CONSTRUCTED SUFFICIENTLY TO EXTEND BEYOND THE END OF THE STREET PAVEMENT. ALL STUB–OUTS MUST BE SEALED WITH A MANUFACTURED CAP TO PREVENT LEAKAGE. EXTENSIONS THAT WERE NOT ANTICIPATED AT THE TIME OF ORIGINAL CONSTRUCTION OR THAT ARE TO BE CONNECTED TO AN EXISTING SEWER LINE NOT FURNISHED WITH STUB OUTS MUST BE CONNECTED USING A MANUFACTURED SADDLE AND IN ACCORDANCE WITH ACCEPTED PLUMBING TECHNIQUES.

    IF NO STUB–OUT IS PRESENT AN ALTERNATE METHOD OF JOINING LATERALS IS SHOWN IN THE DETAIL ON PLAN SHEET ___ OF ___. (FOR POTENTIAL FUTURE LATERALS).

    THE PRIVATE SERVICE LATERAL STUB–OUTS MUST BE INSTALLED AS SHOWN ON THE PLAN AND PROFILE SHEETS ON PLAN SHEET ___ OF ___ AND MARKED AFTER BACKFILLING AS SHOWN IN THE DETAIL ON PLAN SHEET ___ OF ___.
13. TRENCHING, BEDDING AND BACKFILL MUST CONFORM WITH 30 TAC §217.54. THE BEDDING AND BACKFILL FOR FLEXIBLE PIPE MUST COMPLY WITH THE STANDARDS OF ASTM D–2321, CLASSES IA, IB, II OR III. RIGID PIPE BEDDING MUST COMPLY WITH THE REQUIREMENTS OF ASTM C 12 (ANSI A 106.2) CLASSES A, B OR C.
14. SEWER LINES MUST BE TESTED FROM MANHOLE TO MANHOLE. WHEN A NEW SEWER LINE IS CONNECTED TO AN EXISTING STUB OR CLEAN–OUT, IT MUST BE TESTED FROM EXISTING MANHOLE TO NEW MANHOLE. IF A STUB OR CLEAN–OUT IS USED AT THE END OF THE PROPOSED SEWER LINE, NO PRIVATE SERVICE ATTACHMENTS MAY BE CONNECTED BETWEEN THE LAST MANHOLE AND THE CLEANOUT UNLESS IT CAN BE CERTIFIED AS CONFORMING WITH THE PROVISIONS OF 30 TAC §213.5(c)(3)(E).
15. ALL SEWER LINES MUST BE TESTED IN ACCORDANCE WITH 30 TAC §217.57. THE ENGINEER MUST RETAIN COPIES OF ALL TEST RESULTS WHICH MUST BE MADE AVAILABLE TO THE EXECUTIVE DIRECTOR UPON REQUEST. THE ENGINEER MUST CERTIFY IN WRITING THAT ALL WASTEWATER LINES HAVE PASSED ALL REQUIRED TESTING TO THE APPROPRIATE REGIONAL OFFICE WITHIN 30 DAYS OF TEST COMPLETION AND PRIOR TO USE OF THE NEW COLLECTION SYSTEM. TESTING METHOD WILL BE:
    (a) FOR A COLLECTION SYSTEM PIPE THAT WILL TRANSPORT WASTEWATER BY GRAVITY FLOW, THE DESIGN MUST SPECIFY AN INFILTRATION AND EXFILTRATION TEST OR A LOW–PRESSURE AIR TEST. A TEST MUST CONFORM TO THE FOLLOWING REQUIREMENTS:
    (1) LOW PRESSURE AIR TEST.
    (A) A LOW PRESSURE AIR TEST MUST FOLLOW THE PROCEDURES DESCRIBED IN AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) C–828, ASTM C–924, OR ASTM F–1417 OR OTHER PROCEDURE APPROVED BY THE EXECUTIVE DIRECTOR, EXCEPT AS TO TESTING TIMES AS REQUIRED IN TABLE C.3 IN SUBPARAGRAPH (C) OF THIS PARAGRAPH OR EQUATION C.3 IN SUBPARAGRAPH (B)(II) OF THIS PARAGRAPH.
    (B) FOR SECTIONS OF COLLECTION SYSTEM PIPE LESS THAN 36 INCH AVERAGE INSIDE DIAMETER, THE FOLLOWING PROCEDURE MUST APPLY, UNLESS A PIPE IS TO BE TESTED AS REQUIRED BY PARAGRAPH (2) OF THIS SUBSECTION.
    (i) A PIPE MUST BE PRESSURIZED TO 3.5 POUNDS PER SQUARE INCH (PSI) GREATER THAN THE PRESSURE EXERTED BY GROUNDWATER ABOVE THE PIPE.
    (ii) ONCE THE PRESSURE IS STABILIZED, THE MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 PSI GAUGE TO 2.5 PSI GAUGE IS COMPUTED FROM THE FOLLOWING EQUATION:

EQUATION C.3 $$T = \frac{0.085 \times D \times K}{Q}$$

WHERE:

T = TIME FOR PRESSURE TO DROP 1.0 POUND PER SQUARE INCH GAUGE IN SECONDS
K = 0.000419 X D X L, BUT NOT LESS THAN 1.0
D = AVERAGE INSIDE PIPE DIAMETER IN INCHES
L = LENGTH OF LINE OF SAME SIZE BEING TESTED, IN FEET
Q = RATE OF LOSS, 0.0015 CUBIC FEET PER MINUTE PER SQUARE FOOT INTERNAL SURFACE

(C) SINCE A K VALUE OF LESS THAN 1.0 MAY NOT BE USED, THE MINIMUM TESTING TIME FOR EACH PIPE DIAMETER IS SHOWN IN THE FOLLOWING TABLE C.3:

PIPE DIAMETER (INCHES)	MINIMUM TIME (SECONDS)	MAXIMUM LENGTH FOR MINIMUM TIME (FEET)	TIME FOR LONGER LENGTH (SECOND/FOOT)
6	340	398	0.855
8	454	298	1.520
10	567	239	2.374
12	680	199	3.419
15	850	159	5.342
18	1020	133	7.693
21	1190	114	10.471
24	1360	100	13.676
27	1530	88	17.309
30	1700	80	21.369
33	1870	72	25.856

(2) INFILTRATION/EXFILTRATION TEST.
(A) THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH OF DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF 2.0 FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE.
(B) AN OWNER SHALL USE AN INFILTRATION TEST IN LIEU OF AN EXFILTRATION TEST WHEN PIPES ARE INSTALLED BELOW THE GROUNDWATER LEVEL. THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE, OR AT LEAST TWO FEET ABOVE EXISTING GROUNDWATER LEVEL, WHICHEVER IS GREATER.
(C) FOR CONSTRUCTION WITHIN A 25–YEAR FLOOD PLAIN, THE INFILTRATION OR EXFILTRATION MUST NOT EXCEED 10 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT THE SAME MINIMUM TEST HEAD AS IN SUBPARAGRAPH (C) OF THIS PARAGRAPH.
(D) IF THE QUANTITY OF INFILTRATION OR EXFILTRATION EXCEEDS THE MAXIMUM QUANTITY SPECIFIED, ANOWNER SHALL UNDERTAKE REMEDIAL ACTION IN ORDER TO REDUCE THE INFILTRATION OR EXFILTRATION TO AN AMOUNT WITHIN THE LIMITS SPECIFIED. AN OWNER SHALL RETEST A PIPE FOLLOWING A REMEDIATION ACTION.

(b) IF A GRAVITY COLLECTION PIPE IS COMPOSED OF FLEXIBLE PIPE, DEFLECTION TESTING IS ALSO REQUIRED. THE FOLLOWING PROCEDURES MUST BE FOLLOWED:
(1) FOR A COLLECTION PIPE WITH INSIDE DIAMETER LESS THAN 27 INCHES, DEFLECTION MEASUREMENT REQUIRES A RIGID MANDREL.
(A) MANDREL SIZING.
(i) A RIGID MANDREL MUST HAVE AN OUTSIDE DIAMETER (OD) NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER (ID) OR AVERAGE ID OF A PIPE, AS SPECIFIED IN THE APPROPRIATE STANDARD BY THE ASTMS, AMERICAN WATER WORKS ASSOCIATION, UNI–BELL, OR AMERICAN NATIONAL STANDARDS INSTITUTE, OR ANY RELATED APPENDIX.
(ii) IF A MANDREL SIZING DIAMETER IS NOT SPECIFIED IN THE APPROPRIATE STANDARD, THE MANDREL MUST HAVE AN OD EQUAL TO 95% OF THE ID OF A PIPE. IN THIS CASE, THE ID OF THE PIPE, FOR THE PURPOSE OF DETERMINING THE OD OF THE MANDREL, MUST EQUAL BE THE AVERAGE OUTSIDE DIAMETER MINUS TWO MINIMUM WALL THICKNESSES FOR OD CONTROLLED PIPE AND THE AVERAGE INSIDE DIAMETER FOR ID CONTROLLED PIPE.
(iii) ALL DIMENSIONS MUST MEET THE APPROPRIATE STANDARD.
(B) MANDREL DESIGN.
(i) A RIGID MANDREL MUST BE CONSTRUCTED OF A METAL OR A RIGID PLASTIC MATERIAL THAT CAN WITHSTAND 200 PSI WITHOUT BEING DEFORMED.
(ii) A MANDREL MUST HAVE NINE OR MORE ODD NUMBER OR RUNNERS OR LEGS.
(iii) A BARREL SECTION LENGTH MUST EQUAL AT LEAST 75% OF THE INSIDE DIAMETER OF A PIPE.
(iv) EACH SIZE MANDREL MUST USE A SEPARATE PROVING RING.
(C) METHOD OPTIONS.
(i) AN ADJUSTABLE OR FLEXIBLE MANDREL IS PROHIBITED.
(ii) A TEST MAY NOT USE TELEVISION INSPECTION AS A SUBSTITUTE FOR A DEFLECTION TEST.
(iii) IF REQUESTED, THE EXECUTIVE DIRECTOR MAY APPROVE THE USE OF A DEFLECTOMETER OR A MANDREL WITH REMOVABLE LEGS OR RUNNERS ON A CASE–BY–CASE BASIS.
(2) FOR A GRAVITY COLLECTION SYSTEM PIPE WITH AN INSIDE DIAMETER 27 INCHES AND GREATER, OTHER TEST METHODS MAY BE USED TO DETERMINE VERTICAL DEFLECTION.
(3) A DEFLECTION TEST METHOD MUST BE ACCURATE TO WITHIN PLUS OR MINUS 0.2% DEFLECTION.
(4) AN OWNER SHALL NOT CONDUCT A DEFLECTION TEST UNTIL AT LEAST 30 DAYS AFTER THE FINAL BACKFILL.
(5) GRAVITY COLLECTION SYSTEM PIPE DEFLECTION MUST NOT EXCEED FIVE PERCENT (5%).
(6) IF A PIPE SECTION FAILS A DEFLECTION TEST, AN OWNER SHALL CORRECT THE PROBLEM AND CONDUCT A SECOND TEST AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.

16. ALL MANHOLES MUST BE TESTED TO MEET OR EXCEED THE REQUIREMENTS OF 30 TAC §217.58.
    (a) ALL MANHOLES MUST PASS A LEAKAGE TEST.
    (b) AN OWNER SHALL TEST EACH MANHOLE (AFTER ASSEMBLY AND BACKFILLING) FOR LEAKAGE, SEPARATE AND INDEPENDENT OF THE COLLECTION SYSTEM PIPES, BY HYDROSTATIC EXFILTRATION TESTING, VACUUM TESTING, OR OTHER METHOD APPROVED BY THE EXECUTIVE DIRECTOR.
    (1) HYDROSTATIC TESTING.
    (A) THE MAXIMUM LEAKAGE FOR HYDROSTATIC TESTING OR ANY ALTERNATIVE TEST METHODS IS 0.025 GALLONS PER FOOT DIAMETER PER FOOT OF MANHOLE DEPTH PER HOUR.
    (B) TO PERFORM A HYDROSTATIC EXFILTRATION TEST, AN OWNER SHALL SEAL ALL WASTEWATER PIPES COMING INTO A MANHOLE WITH AN INTERNAL PIPE PLUG, FILL THE MANHOLE WITH WATER, AND MAINTAIN THE TEST FOR AT LEAST ONE HOUR.
    (C) A TEST FOR CONCRETE MANHOLES MAY USE A 24–HOUR WETTING PERIOD BEFORE TESTING TO ALLOW SATURATION OF THE CONCRETE.
    (2) VACUUM TESTING.
    (A) TO PERFORM A VACUUM TEST, AN OWNER SHALL PLUG ALL LIFT HOLES AND EXTERIOR JOINTS WITH A NON–SHRINK GROUT AND PLUG ALL PIPES ENTERING A MANHOLE.
    (B) NO GROUT MUST BE PLACED IN HORIZONTAL JOINTS BEFORE TESTING.
    (C) STUB–OUTS, MANHOLE BOOTS, AND PIPE PLUGS MUST BE SECURED TO PREVENT MOVEMENT WHILE A VACUUM IS DRAWN.
    (D) AN OWNER SHALL USE A MINIMUM 60 INCH/LB TORQUE WRENCH TO TIGHTEN THE EXTERNAL CLAMPS THAT SECURE A TEST COVER TO THE TOP OF A MANHOLE.
    (E) A TEST HEAD MUST BE PLACED AT THE INSIDE OF THE TOP OF A CONE SECTION, AND THE SEAL INFLATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
    (F) THERE MUST BE A VACUUM OF 10 INCHES OF MERCURY INSIDE A MANHOLE TO PERFORM A VALID TEST.
    (G) A TEST DOES NOT BEGIN UNTIL AFTER THE VACUUM PUMP IS OFF.
    (H) A MANHOLE PASSES THE TEST IF AFTER 2.0 MINUTES AND WITH ALL VALVES CLOSED, THE VACUUM IS AT LEAST 9.0 INCHES OF MERCURY.
17. ALL PRIVATE SERVICE LATERALS MUST BE INSPECTED AND CERTIFIED IN ACCORDANCE WITH 30 TAC §213.5(C)(3)(I). AFTER INSTALLATION OF AND, PRIOR TO COVERING AND CONNECTING A PRIVATE SERVICE LATERAL TO AN EXISTING ORGANIZED SEWAGE COLLECTION SYSTEM, A TEXAS LICENSED PROFESSIONAL ENGINEER, TEXAS REGISTERED SANITARIAN, OR APPROPRIATE CITY INSPECTOR MUST VISUALLY INSPECT THE PRIVATE SERVICE LATERAL AND THE CONNECTION TO THE SEWAGE COLLECTION SYSTEM, AND CERTIFY THAT IT IS CONSTRUCTED IN CONFORMITY WITH THE APPLICABLE PROVISIONS OF THIS SECTION. THE OWNER OF THE COLLECTION SYSTEM MUST MAINTAIN SUCH CERTIFICATIONS FOR FIVE YEARS AND FORWARD COPIES TO THE APPROPRIATE REGIONAL OFFICE UPON REQUEST. CONNECTIONS MAY ONLY BE MADE TO AN APPROVED SEWAGE COLLECTION SYSTEM.

REV. NO.	BY	DATE	REVISION DESCRIPTION

S. IRRINKI 84348 — 14 OCTOBER 2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE

GENERAL NOTES

CITY OF AUSTIN FOUNDED 1839 — PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

SHEET NUMBER G-005

GENERAL NOTES

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

REVIEWED BY AUSTIN WATER APPLIES ONLY TO FACILITIES WITHIN PUBLIC STREETS OR PUBLIC UTILITY EASEMENTS. ALL OTHER WATER AND WASTEWATER FACILITIES INSIDE PRIVATE PROPERTY ARE UNDER THE JURISDICATION OF BUILDING INSPECTIONS.

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

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

WATER SER NO. - N/A

WASTEWATER SERVICE NO. - N/A

PER INSTRUCTION FROM AUSTIN WATER, SERVICE EXTENSION REQUESTS WILL NOT BE REQUIRED FOR THIS PROJECT.

FIRE FLOW TEST DATA

AUSTIN FIRE DEPARTMENT - FIRE PREVENTION DIVISION
Engineering Services Section
One Texas Center, Ste 200 - 505 Barton Springs Road
Austin, Texas 78704
Telephone (512) 974-0160 - Facsimile (512) 974-0162

Austin Fire Department Hydrant Flow Test Report

TEST DATE:	5/20/18			COMPANY:	PREV
TIME:	645	HRS		OFFICER:	MILL/GIL

RESIDUAL HYDRANT

MAP GRID #	HYDRANT #	PIPE INTERSECTION #	MAIN SIZE	AFD BOX #
G22	156712	15359	12	1104

BLK #	DIRECTION	STREET NAME	TYPE
2300		COLUMBUS	DR

STATIC PRESSURE (PSI): 92 **RESIDUAL PRESSURE** (PSI): 78

COMMENTS:

FLOW HYDRANT

MAP GRID #	HYDRANT #	PIPE INTERSECTION #	MAIN SIZE	AFD BOX #
G22	156761	15359	12	1104

BLK #	DIRECTION	STREET NAME	TYPE
2200		COLUMBUS	DR

STATIC PRESSURE (PSI): 92 **VELOCITY PRESSURE** (PSI): 84

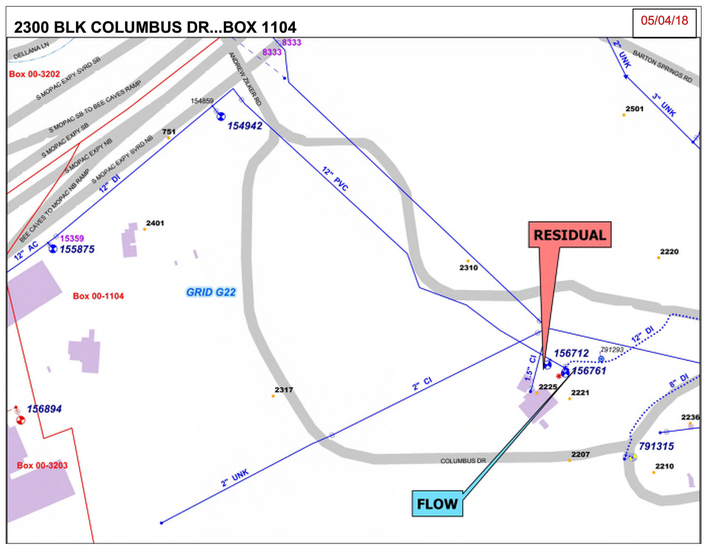
dc = discharge coefficient straight 2½" butt = .9 w/45° elbow = .75 — .75

diffuser = N/A

FLOW RATE (GPM) = 1282

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.

FIRE FLOW MAP



AW INFRASTRUCTURE INFORMATION			
PROPOSED PRODUCT TYPE (TO BE INSTALLED)	LENGTH OF PIPE (L.F.)	SIZE OF PIPE (INCH)	NO. OF SERVICES
WATER MAIN	503	8	NA
WASTEWATER MAIN	1165	8	NA
RECLAIMED WATER MAIN	NA	NA	NA
WATER SERVICE	NA	NA	2
WASTEWATER SERVICE	NA	NA	1
RECLAIMED WATER SERVICE	NA	NA	NA

EXPAND OR REDUCE AS NEEDED*
THE INFORMATION INCLUDED IN THIS TABLE ARE APPROXIMATE VALUES ESTIMATED BASED ON GENERAL ENGINEERING GUIDELINES

DECLARATION OF USE NOTE:

WHEN APPROPRIATE, SEND ALL PROPOSED DECLARATION DRAFTS AND METES AND BOUNDS TO AWPE REVIEWER ELECTRONICALLY FOR REVIEW. AWPE WILL REVIEW FOR THE COMPLIANCE OF THE DECLARATION AND METES AND BOUNDS PRIOR TO RECORDATION. ONCE ACCEPTABLE AND SIGNED BY THE LAW DEPARTMENT AND THE PARTICIPATING COA DEPARTMENT DIRECTORS, THE DECLARATION MUST BE RECORDED BY THE COUNTY AND THE RECORDATION NUMBER(S) INCLUDED ON THE CAD FILE, NOT HAND WRITTEN ON THE PLANS.

IF THIS SITE PLAN HAS BEEN APPROVED PRIOR TO THE RECORDATION OF THE DECLARATION, A FORMAL CORRECTION MUST BE PROCESSED TO INCLUDE THE RECORDATION NUMBER(S) ON THIS PLAN SET AS DESCRIBED ABOVE.

DOES THIS PROJECT NEED AULCC REVIEW?

☐ YES
☒ NO

IF YES, PLEASE PROVIDE UCC# N/A

NOTE: IF THE PROJECT IS LOCATED WITHIN FULL PURPOSE JURISDICTION, A RIGHT-OF-WAY REVIEW, THROUGH THE AULCC PERMIT PROCESS, WILL BE REQUIRED.

DOES THIS PROJECT INVOLVE A DEVELOPMENT AGREEMENT THAT IMPACTS AUSTIN WATER INFRASTRUCTURE?

☐ YES
☒ NO

PROJECT INFORMATION

FIRE, DOMESTIC AND IRRIGATION DEMAND DATA	
GRID NUMBER:	G22
MAPSCO NUMBER:	584X
AW INTERSECTION NUMBER:	15359
BUILDING SIZE IN SQUARE FEET:	4,328
BUILDING TYPE PER IFC:	II-A
BUILDING HEIGHT:	22.5
AVAILABLE FIRE FLOW CALCS AT 20 PSI:	3,104 GPM
REQUIRED BUILDING FIRE FLOW PER IFC:	1,500 GPM
REDUCED FIRE FLOW PER ¾ FIRE SPRINKLER REDUCTION:	0%
MINIMUM FIRE FLOW[2]:	1,500 GPM
DOMESTIC WATER DEMAND IN GPM:	24 GPM
WATER SUPPLY FIXTURE UNITS (WSFU) FLUSH TANKS OR FLUSHOMETERS (CIRCLE APPLICABLE ITEM):	39
AUSTIN WATER PRESSURE ZONE:	Central South
STATIC WATER PRESSURE IN PSI:	92 PSI
STATIC PRESSURE AT THE HIGHEST LOT SERVED IN PSI:	92 PSI (SINGLE SERVICE)
STATIC PRESSURE AT THE LOWEST LOT SERVED IN PSI:	92 PSI (SINGLE SERVICE)
MAXIMUM IRRIGATION DEMAND:	32 GPM
FIRE LINE VELOCITY: 8"	9.63 FT/SEC
DOMESTIC LINE VELOCITY: 6"	N/A

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

1. WITH THE EXCEPTION OF PROVIDING THE REQUIRED INFORMATION, DO NOT REVISE THESE TABLES IN ANY WAY.

2. ON MINIMUM FIRE FLOW, FOR COMMERCIAL DEVELOPMENT, DESIGN ENGINEER MUST INCLUDE 1500 GALLONS PER MINUTE OR REDUCED FIRE FLOW AMOUNT, WHICHEVER IS GREATER AND 1000 GALLONS PER MINUTE ON RESIDENTIAL DEVELOPMENT/SUBDIVISION

Meter Notice:

Meter 1.5 inches and larger must be purchased and ordered 90 days in advance of installation.

Meter(s) Requirement for Project:
Address: 2338 Columbus Drive
Proposed Use: Domestic
Type: Positive Displacement, AWWA C700-15
Size: 3/4" GPM: 2-30
Service Units: 1.5

Meter(s) Requirement for Project:
Address: 2328 Columbus Drive
Proposed Use: Irrigation
Type: Positive Displacement, AWWA C700-15
Size: 1" GPM: 3-50
Service Units: 2.5

Reclaimed Meter(s) Requirement for Project:
Address: N/A
Proposed Use: N/A
Type: N/A
Size: N/A GPM: N/A

STANDARD CONSTRUCTION NOTES NOVEMBER 23, 2017

1. **THE CITY STANDARD CONSTRUCTION SPECIFICATIONS CURRENT AT THE TIME OF BIDDING SHALL COVER MATERIALS AND METHODS USED TO DO THIS WORK.**
2. **CONTRACTOR MUST OBTAIN A STREET CUT PERMIT FROM AUSTIN TRANSPORTATION DEPARTMENT, RIGHT OF WAY MANAGEMENT DIVISION BEFORE BEGINNING CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR ALLEY.**
3. **AT LEAST 48 HOURS BEFORE BEGINNING ANY WATER AND WASTEWATER CONSTRUCTION IN PUBLIC R.O.W. OR PUBLIC EASEMENT, THE CONTRACTOR SHALL NOTIFY AUSTIN TRANSPORTATION INSPECTION OR DEVELOPMENT SERVICES DEPARTMENT (DSD) INSPECTIONS AT THE NUMBER INDICATED ON THE PLANS BY THE AW PLAN REVIEWER.**
4. **THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM AT 1-800-344-8377 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.**
5. **NO OTHER UTILITY SERVICE/APPURTENANCES 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.**
6. **THE CITY SPECIFICATION ITEM 509S WILL BE REQUIRED AS A MINIMUM TRENCH SAFETY MEASURE.**
7. **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.**
8. **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.**
9. **THRUST RESTRAINT SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM S10.3(22) AND SPL WW 27-A and WW 27-F.**
10. **FIRE HYDRANTS SHALL BE SET IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM S11S.4 AND SHALL BE PAINTED FLYNT ALUMINUM OR EQUAL. FIRE HYDRANTS AND ASSOCIATED VALVES, TEN (10) YEARS AND OLDER WILL BE REQUIRED TO BE REPLACED WITH A NEW FIRE HYDRANT AND APPERTENUNANCES.**
11. **WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEMS S10.3 (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.**
12. **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.**
13. **WHEN WATER SERVICES ARE DAMAGED AND THE SERVICE MATERIAL IS PE, THE LINE SHALL BE REPAIRED ONLY BY HEAT FUSION WELD OR REPLACED THE FULL LENGTH WITH TYPE K COPPER MATERIAL. ANY TIME PB IS DAMAGED OR TAMPERED WITH IN ANY WAY, THE SERVICE LINE SHALL BE REPLACED FULL LENGTH WITH TYPE K COPPER MATERIAL. NOTE: FULL LENGTH IS FROM CORPORATION STOP TO METER.**
14. **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 SEVENTY-TWO (72) HOURS IN ADVANCE.**
15. **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.**
16. **WATER AND WASTE WATER SERVICES WILL NEED TO BE REPLACED UP TO THE MAIN. REPAIR COUPLINGS ARE NOT ALLOWED ON NEW INSTALLTIONS.**
17. **ALL MANHOLES IN UNPAVED AREAS PROVIDING DIRECT ACCESS TO A WASTEWATER LINE SHALL BE WATERTIGHT AND BEAR THE WORDING AND INSIGNIA FOR THE CITY OF AUSTIN.**
18. **THE CONTRACTOR SHALL VERIFY ALL VERTICAL AND HORIZONTAL LOCATIONS OF EXISTING UTILITIES, BELOW GROUND AND OVERHEAD, PRIOR TO STARTING ONSITE UTILITY WORK.**
19. **ALL WATER AND WASTEWATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE SEPARATION DISTANCES INDICATED IN CHAPTER 290 - DRINKING WATER STANDARDS, CHAPTER 217 - DESIGN CRITERIA FOR SEWERAGE SYSTEMS AMD CHAPTER 210 - DESIGN CRIERIA FOR RECLAIMED SYSTEMS OF TCEQ RULES.**
20. **CONTRACTOR'S PERSONNEL THAT PERFORM BUTT FUSION AND ELECTROFUSION ON OR TO HDPE PIPE AND FITTINGS MUST HAVE CURRENT QUALIFICATION TRAINING CERTIFICATE ISSUED BY MCELROY OR COMPARABLE TRAINING PROGRAM.**
21. **SHOP DRAWINGS SIGNED AND SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER, REGISTERED IN THE STATE OF TEXAS, SHALL BE SUBMITTED FOR AUSTIN WATER APPROVAL FOR LARGE DIAMETER PRE-CAST MANHOLES, JUNCTION BOXES, WET WELLS, AND SIMILAR STRUCTURES. THE SHOP DRAWINGS SHALL INCLUDE FLOWLINE ELEVATIONS OF ALL INCOMING AND OUTGOING PIPES, ELEVATION OF TRANSITION FROM LARGE DIAMETER SECTIONS TO 48" ID SECTION, TOP OF MANHOLE ELEVATION, SURROUNDING GROUND ELEVATION, AS WELL AS SPECIAL CONSTRUCTION CONSIDERATIONS THAT ARE SPECIFIED IN THE CONTRACT DRAWINGS. THE SUBMITTAL WILL NEED TO BE INCLUDED IN THE PLAN SET AS THRU A CORRECTION PROCESS.**
22. **VALVE STEM EXTENSIONS SHALL CONSIST OF A SINGLE PIECE OF IRON ROD OF THE REQUIRED LENGTH WITH A SOCKET ON ONE END AND NUT ON THE OTHER.**
23. **ALL POTABLE WATER SYSTEM COMPONENTS INSTALLED AFTER JANUARY 4, 2014, SHALL BE ESSENTIALLY "LEAD FREE" ACCORDING TO THE US SAFE DRINKING WATER ACT. EXAMPLES ARE VALVES (CORPORATION STOP, CURB STOP, AND PRESSURE REDUCING), NIPPLES, BUSHINGS, PIPE, FITTINGS, BACKFLOW PREVENTERS AND FIRE HYDRANTS. TAPPING SADDLES AND 2 INCH AND LARGER GATE VALVES ARE THE ONLY COMPONENTS EXEMPT FROM THIS REQUIREMENT. COMPONENTS THAT ARE NOT CLEARLY IDENTIFIED BY THE MANUFACTURER AS MEETING THIS REQUIREMENT EITHER BY MARKINGS ON THE COMPONENT OR ON THE PACKAGING SHALL NOT BE INSTALLED.**
24. **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 RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINTENANCE, VALVES AND HYDRANT SERVICES, SUPERVISING AW PIPELINE TECHNICIAN AT 512-972-1133**
25. **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 CSD INSPECTOR.**
26. **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 INFORMATION 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.**
27. **NO CONNECTION MAY BE MADE BETWEEN THE PRIVATE PLUMBING AND AUSTIN WATER INFRASTRUCTURE UNTIL A CITY APPROVED WATER METER HAS BEEN INSTALLED.**
28. **ALL GRAVITY LINES SHALL BE INSTALLED DOWNSTREAM TO UPSTREAM.**
29. **METER BOXES AND CLEAN OUTS SHALL NOT BE LOCATED WITHIN PAVED AREAS SUCH AS DRIVEWAYS AND SIDEWALKS.**
30. **PROTECTED STREET STATUS IS SUBJECT TO CHANGE OVER TIME. IT IS THE OWNER'S RESPONSIBILITY TO CONFIRM THE STREET STATUS PRIOR TO CONSTRUCTION AS PROTECTED STREET STATUS WILL DIRECTLY IMPACT THE CONSTRUCTION COSTS. IF PROTECTED STREETS ARE PROPOSED TO BE DISTURBED, APPROVAL FROM THE STREET AND BRIDGE DIVISION OF THE TRANSPORTATION DEPARTMENT IS REQUIRED.**

CITY OF AUSTIN
AUSTIN WATER
MARCH 2019
VERSION 1.2
STANDARD NO.
1 OF 1

AUSTIN WATER GENERAL INFORMATION AND CONSTRUCTION NOTES FOR COMMERCIAL SITES AND SUBDIVISION PLANS

REV. NO.	BY	DATE	REVISION DESCRIPTION

14 OCTOBER 2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK -
MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE
AUSTIN WATER GENERAL INFORMATION AND CONSTRUCTION NOTES

CITY OF AUSTIN FOUNDED 1839
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	
SHEET NUMBER	G-006	

SURVEY CONTROL

I.D.	DESCRIPTION	X-COORD	Y-COORD	ELEVATION
POINT NO. 3	IRON ROD FOUND	3,104,222.94	10,069,845.63	506.31
POINT NO. 4	IRON ROD FOUND	3,103,906.06	10,070,271.71	502.34
POINT NO. 7	60D NAIL SET	3,103,981.74	10,069,765.89	513.23
POINT NO. 9	60D NAIL SET	3,103,721.64	10,069,731.83	518.01
POINT NO. 10	60D NAIL SET	3,103,614.43	10,069,736.04	520.74
POINT NO. 11	60D NAIL SET	3,103,514.39	10,069,711.66	524.64
POINT NO. 12	60D NAIL SET	3,103,749.63	10,069,859.08	513.93
POINT NO. 13	60D NAIL SET	3,103,491.96	10,069,838.70	523.78
POINT NO. 14	60D NAIL SET	3,103,613.84	10,069,927.92	515.85
POINT NO. 25	1/2" IRON ROD WITH PLASTIC CAP STAMPED "LANDMARK SURVEYING"	3,103,951.64	10,069,668.99	517.96
POINT NO. 26	1/2" IRON ROD WITH PLASTIC CAP STAMPED "LANDMARK SURVEYING"	3,103,818.25	10,069,791.21	515.30
CP #50	1/2" IRON ROD WITH PLASTIC CAP STAMPED "LANDMARK SURVEYING"	3,104,026.08	10,070,161.47	504.09
CP #51	1/2" IRON ROD WITH PLASTIC CAP STAMPED "LANDMARK SURVEYING"	3,103,897.50	10,070,007.48	506.26
CP #52	1/2" IRON ROD WITH PLASTIC CAP STAMPED "LANDMARK SURVEYING"	3,103,713.31	10,070,073.43	508.79
CP #53	60D NAIL SET	3,103,666.78	10,069,959.10	513.43
CP #54	60D NAIL SET	3,103,602.61	10,070,005.12	512.93
CP #100	CPS MAG SPIKE IN ASPHALT ROADWAY	3,103,531.47	10,069,554.28	519.75
CP #101	CPS 1/2 IRS W/RED CAP STAMPED "BIG SKY CONTROL" IN GROUND	3,103,498.72	10,069,660.87	525.70
CP #344	60D NAIL SET	3,103,784.13	10,070,048.07	508.05

SURVEY LEGEND

▲ – DENOTES FOUND IRON ROD
◬ – DENOTES SET 60D NAIL
◭ – DENOTES SET IRON ROD W/CAP
◪ – DENOTES TEMPORARY BENCHMARK

BENCHMARK:

TEMPORARY BENCHMARK (TBM) "AA" SQUARE CUT ON TOP OF CURB ON THE NORTH SIDE OF ANDREW ZILKER ROAD, ACROSS FROM PROPOSED ZILKER MAINTENANCE FACILITY, APPROXIMATELY 60 FEET EAST OF A TREE TAG NO. 1612 AND 50 FEET NORTH OF A TREE TAG NO. 1601.

ELEVATION = 506.94 (LSI–FB 1160/58)

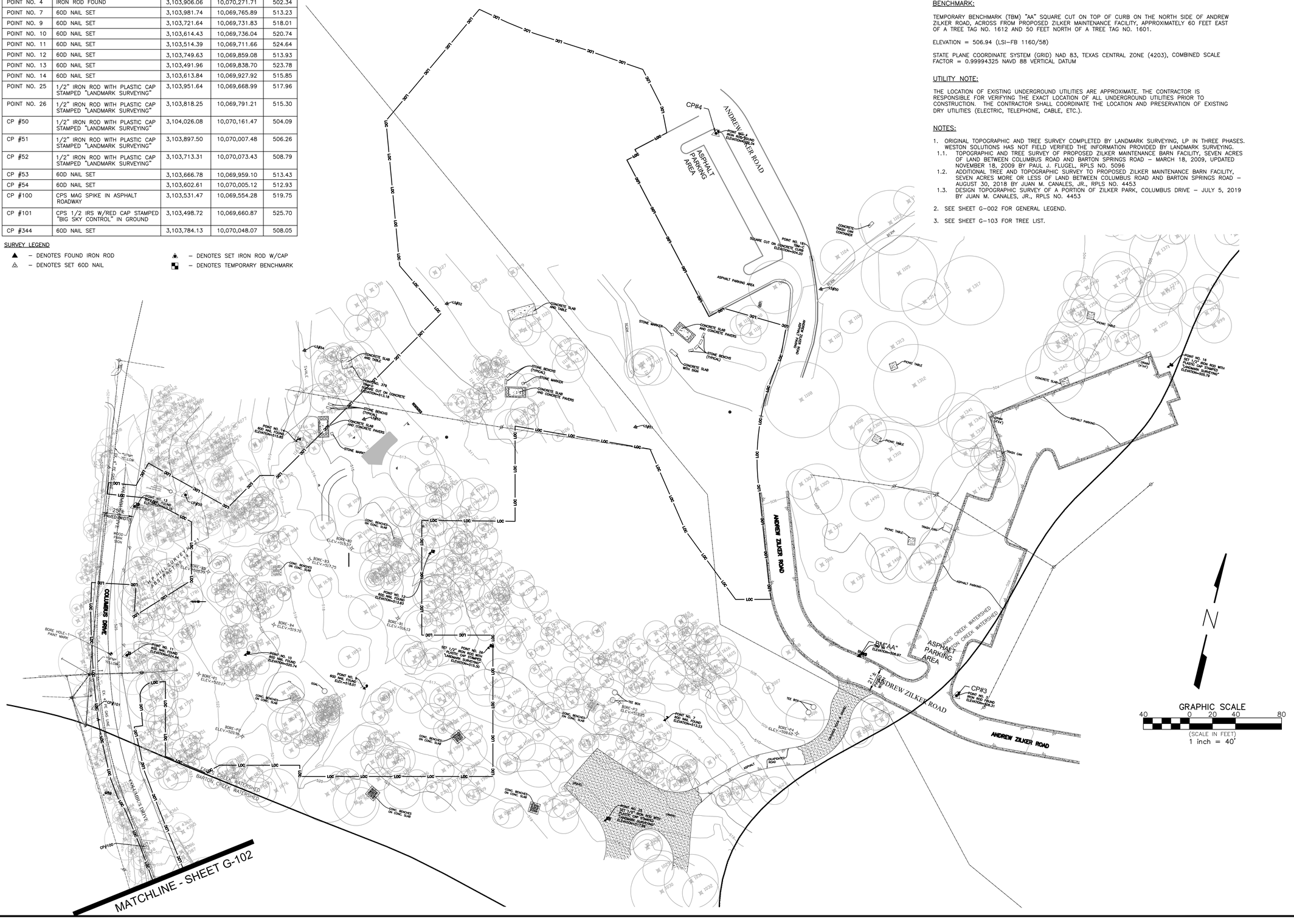
STATE PLANE COORDINATE SYSTEM (GRID) NAD 83, TEXAS CENTRAL ZONE (4203), COMBINED SCALE FACTOR = 0.99994325 NAVD 88 VERTICAL DATUM

UTILITY NOTE:

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND PRESERVATION OF EXISTING DRY UTILITIES (ELECTRIC, TELEPHONE, CABLE, ETC.).

NOTES:

1. ORIGINAL TOPOGRAPHIC AND TREE SURVEY COMPLETED BY LANDMARK SURVEYING, LP IN THREE PHASES. WESTON SOLUTIONS HAS NOT FIELD VERIFIED THE INFORMATION PROVIDED BY LANDMARK SURVEYING.
   1.1. TOPOGRAPHIC AND TREE SURVEY OF PROPOSED ZILKER MAINTENANCE BARN FACILITY, SEVEN ACRES OF LAND BETWEEN COLUMBUS ROAD AND BARTON SPRINGS ROAD – MARCH 18, 2009, UPDATED NOVEMBER 18, 2009 BY PAUL J. FLUGEL, RPLS NO. 5096
   1.2. ADDITIONAL TREE AND TOPOGRAPHIC SURVEY TO PROPOSED ZILKER MAINTENANCE BARN FACILITY, SEVEN ACRES MORE OR LESS OF LAND BETWEEN COLUMBUS ROAD AND BARTON SPRINGS ROAD – AUGUST 30, 2018 BY JUAN M. CANALES, JR., RPLS NO. 4453
   1.3. DESIGN TOPOGRAPHIC SURVEY OF A PORTION OF ZILKER PARK, COLUMBUS DRIVE – JULY 5, 2019 BY JUAN M. CANALES, JR., RPLS NO. 4453
2. SEE SHEET G-002 FOR GENERAL LEGEND.
3. SEE SHEET G-103 FOR TREE LIST.



WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE

EXISTING TOPOGRAPHIC SURVEY I

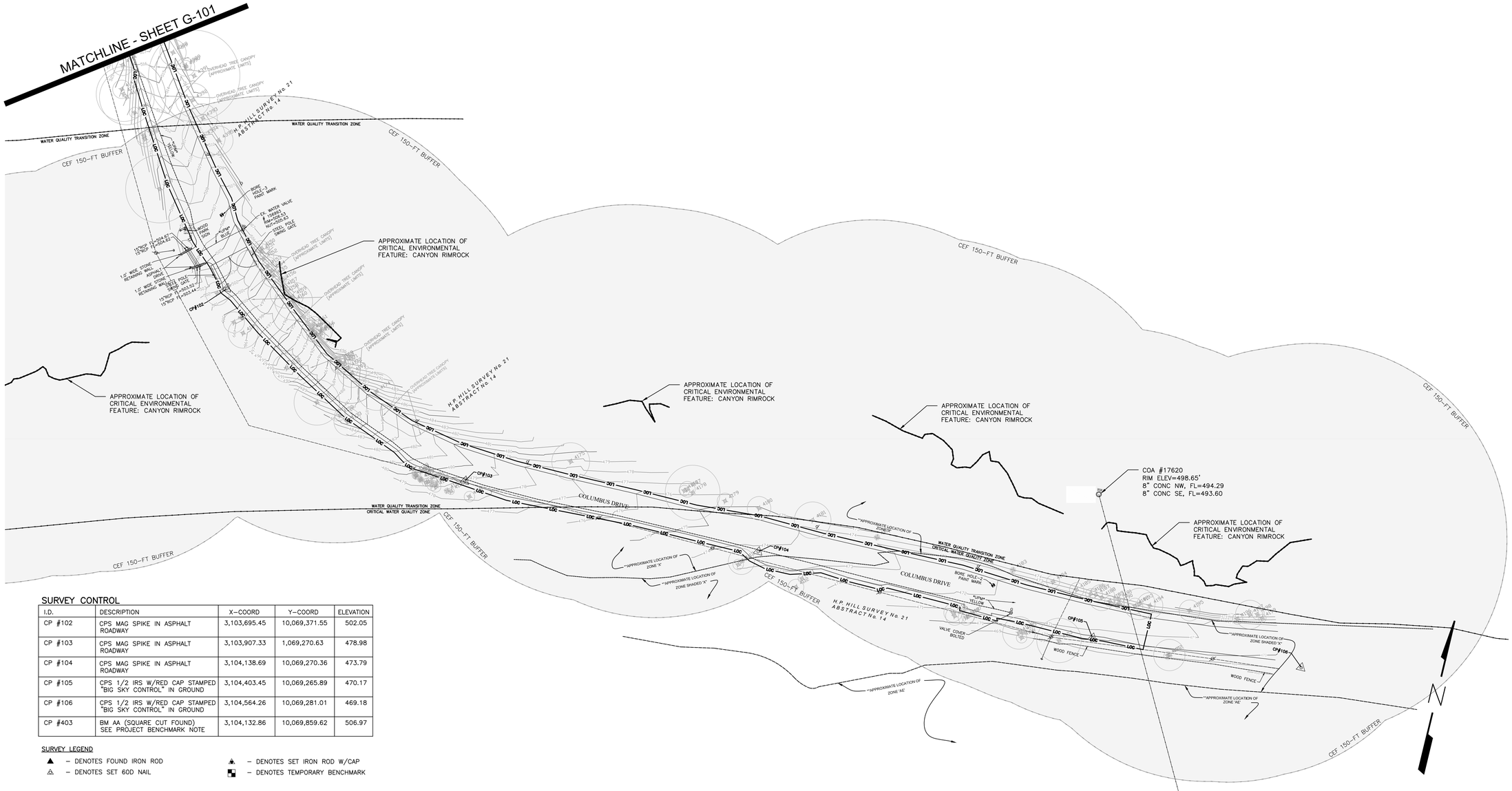
REV. NO.	BY	DATE	REVISION DESCRIPTION

STATE OF TEXAS
S. IRRINKI
84348
LICENSED PROFESSIONAL ENGINEER
14 OCTOBER 2020

CITY OF AUSTIN FOUNDED 1839
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	
SHEET NUMBER	G-101	

X:\City of Austin (06141)\General Civil 2006-2008\06141.036.004 Zilker MBarn Replace\09.0 Design Engineering\CAD\03 TOPO PLAN.dwg STAUDTS Plotted: December 08, 2020 - 3:45pm Layout: G-06 TOPO
XREFS: 22x34 ZILKER TB 2013, E-BASE 2017, p-base 2017_rev site6



SURVEY CONTROL

I.D.	DESCRIPTION	X-COORD	Y-COORD	ELEVATION
CP #102	CPS MAG SPIKE IN ASPHALT ROADWAY	3,103,695.45	10,069,371.55	502.05
CP #103	CPS MAG SPIKE IN ASPHALT ROADWAY	3,103,907.33	1,069,270.63	478.98
CP #104	CPS MAG SPIKE IN ASPHALT ROADWAY	3,104,138.69	10,069,270.36	473.79
CP #105	CPS 1/2 IRS W/RED CAP STAMPED "BIG SKY CONTROL" IN GROUND	3,104,403.45	10,069,265.89	470.17
CP #106	CPS 1/2 IRS W/RED CAP STAMPED "BIG SKY CONTROL" IN GROUND	3,104,564.26	10,069,281.01	469.18
CP #403	BM AA (SQUARE CUT FOUND) SEE PROJECT BENCHMARK NOTE	3,104,132.86	10,069,859.62	506.97

SURVEY LEGEND

▲ – DENOTES FOUND IRON ROD
◬ – DENOTES SET 60D NAIL
◭ – DENOTES SET IRON ROD W/CAP
◪ – DENOTES TEMPORARY BENCHMARK

BENCHMARK:

TEMPORARY BENCHMARK (TBM) "AA" SQUARE CUT ON TOP OF CURB ON THE NORTH SIDE OF ANDREW ZILKER ROAD, ACROSS FROM PROPOSED ZILKER MAINTENANCE FACILITY, APPROXIMATELY 60 FEET EAST OF A TREE TAG NO. 1612 AND 50 FEET NORTH OF A TREE TAG NO. 1601.

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2. SEE SHEET G-002 FOR GENERAL LEGEND.
3. SEE SHEET G-103 FOR TREE LIST.

REV. NO.	BY	DATE	REVISION DESCRIPTION

S. IRRINKI 84348 PROFESSIONAL ENGINEER
14 OCTOBER 2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK -
MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE

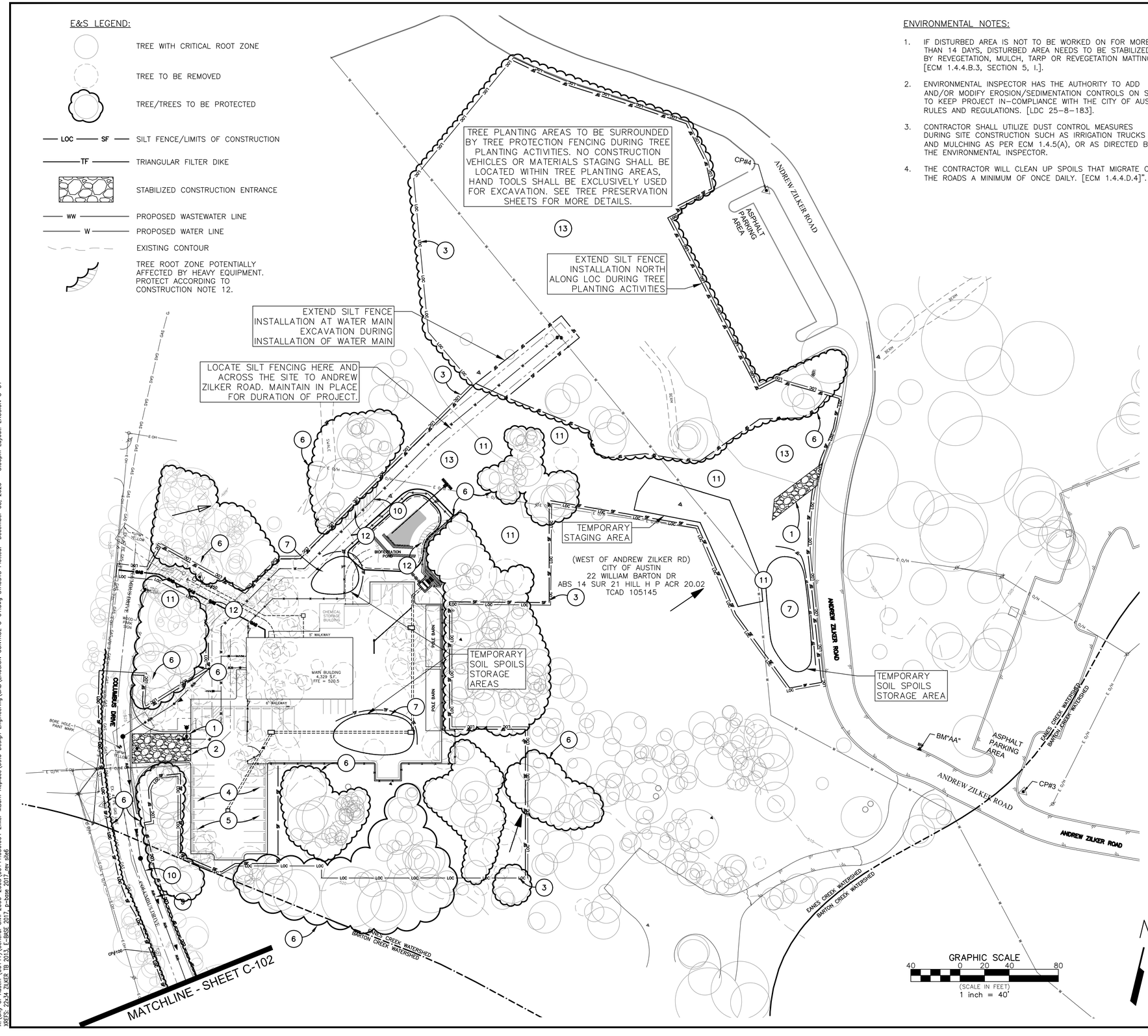
EXISTING TOPOGRAPHIC SURVEY II

CITY OF AUSTIN FOUNDED 1839
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

SHEET NUMBER G-102

X:\City of Austin (06141)\General Civil 2006-2008\06141.036.004 Zilker MBarn Replace\09.0 Design Engineering\CAD\03 TOPO PLAN.dwg STAUDTS Plotted: December 08, 2020 - 3:45pm Layout: G-07 TOPO
XREFS: 22x34 ZILKER TB 2013, E-BASE 2017, p-base 2017_rev sl#6



ENVIRONMENTAL NOTES:

1. 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.].
2. 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. [LDC 25-8-183].
3. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(A), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
4. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY. [ECM 1.4.4.D.4]".

UTILITY NOTE:

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND PRESERVATION OF EXISTING DRY UTILITIES (ELECTRIC, TELEPHONE, CABLE, ETC.).

NOTES:

1. THE TOTAL AREA WITHIN THE LIMITS OF CONSTRUCTION IS 4.86 ACRES.
2. THERE ARE NO AREAS WITHIN THE LIMITS OF CONSTRUCTION WITH SLOPES GREATER THAN 15%.
3. THERE ARE NO AREAS OF CUT OR FILL GREATER THAN FOUR FEET.

CONSTRUCTION NOTES:

1. STABILIZED CONSTRUCTION ENTRANCE PER COA STANDARD NO. 641S-1, SHEET C-508.
2. STABILIZED CONSTRUCTION ENTRANCE ON COLUMBUS DRIVE TO BE RELOCATED AS NECESSARY THROUGHOUT PROJECT PHASING.
3. SILT FENCE PER COA STANDARD NO. 642S-1, SHEET C-508.
4. CONSTRUCTION STAGING AREA TO BE LOCATED IN THE OPEN AREA OF THE PROPOSED PARKING LOT. PARKING MAY BE CONSTRUCTED DURING LATER CONSTRUCTION PHASES.
5. CONCRETE WASHOUT TO BE CONTAINED IN TEMPORARY DIKE ON SITE AND TO BE DISPOSED OF OFFSITE. CONCRETE WASH WATER IS NOT TO BE DISCHARGED TO THE GROUND.
6. TREE PROTECTION TO BE PROVIDED TO TREES AS SHOWN ON LANDSCAPING SHEETS L-100, L-101, L-102, AND L-111. REFER TO SHEETS L-100, L-101, AND L-102 FOR TREE NUMBERS AND FOR TREES TO BE REMOVED.
7. TEMPORARY SOILS SPOILAGE STORAGE AREAS. INSTALL TRIANGULAR SEDIMENT FILTER DIKE AROUND ANY STORAGE AREAS PER CITY OF AUSTIN STANDARD DETAIL 628S-1, SHEET C-508. SOILS SPOILAGE STORAGE AREAS SHALL NOT BE PLACED OVER AUSTIN WATER INFRASTRUCTURE.
8. CRITICAL ENVIRONMENTAL FEATURE – CANYON RIMROCK. WHERE PRESENT, THESE FEATURES ARE NOT TO BE DISTURBED OR DAMAGED.
9. DURING CONSTRUCTION OF PROPOSED WASTEWATER LINE ON COLUMBUS DRIVE, TRIANGULAR FILTER DIKE SHALL BE USED IN ACCORDANCE WITH MODIFIED CITY OF AUSTIN DETAIL "EROSION/SEDIMENTATION CONTROL FOR WORK IN PAVED AREAS", ON SHEET C-508.
10. WHERE WATER AND WASTEWATER UTILITY TRENCHING WILL CROSS THE OUTER HALF CRITICAL ROOT ZONE OF AN EXISTING TREE, EXCAVATION SHALL PERFORMED WITH CARE TO AVOID TEARING ROOTS.
11. A MINIMUM OF 8 INCHES OF MULCH SHALL BE PLACED TO MITIGATE SOIL COMPACTION IN THE FOLLOWING AREAS:
    - ENTIRE TREE CRITICAL ROOT ZONES WHERE TREE PROTECTION FENCING CANNOT INCORPORATE THE ENTIRE 1/2 CRITICAL ROOT ZONE AND DISTURBANCE WILL TAKE PLACE IN ANY PORTION OF THE CRITICAL ROOT ZONE
    - PRIMARY PATHS OF EQUIPMENT TRAVEL
    - PROPOSED TREE PLANTING AREAS THAT ARE NOT BLOCKED OFF BY TREE PROTECTION FENCING

    IF HEAVY EQUIPMENT WILL BE ROLLING OVER ANY UNPAVED AREA OF THE FULL CRZ OF PROTECTED TREES, PROVIDE STANDARD INDUSTRY CONSTRUCTION MATS ON A 12-INCH LAYER OF MULCH, OR PROVIDE 3/4" PLYWOOD OVER 2X4 LUMBER OVER A 12-INCH LAYER OF MULCH TO BRIDGE OVER ROOTS AND PREVENT SOIL/ROOT COMPACTION. ROOT PROTECTION MAY BE REQUIRED FOR ADDITIONAL TREES NOT INDICATED ON THIS SHEET. AFTER CONSTRUCTION IS COMPLETED, SPREAD MULCH AROUND SITE TO LEAVE A MAX LAYER OF 3 INCHES WITHIN ROOT ZONES.
12. THIS AREA REQUIRES NATIVE GRASSLAND SEEDING AND PLANTING PER CITY OF AUSTIN STANDARD SPECIFICATION 609S.6, INCLUDING TOPSOIL AND SEED BED PREPARATION, TEMPORARY IRRIGATION, AND WEED MAINTENANCE.

REV. NO.	BY	DATE	REVISION DESCRIPTION

S. IRRINKI 84348 LICENSED PROFESSIONAL ENGINEER
14 OCTOBER 2020

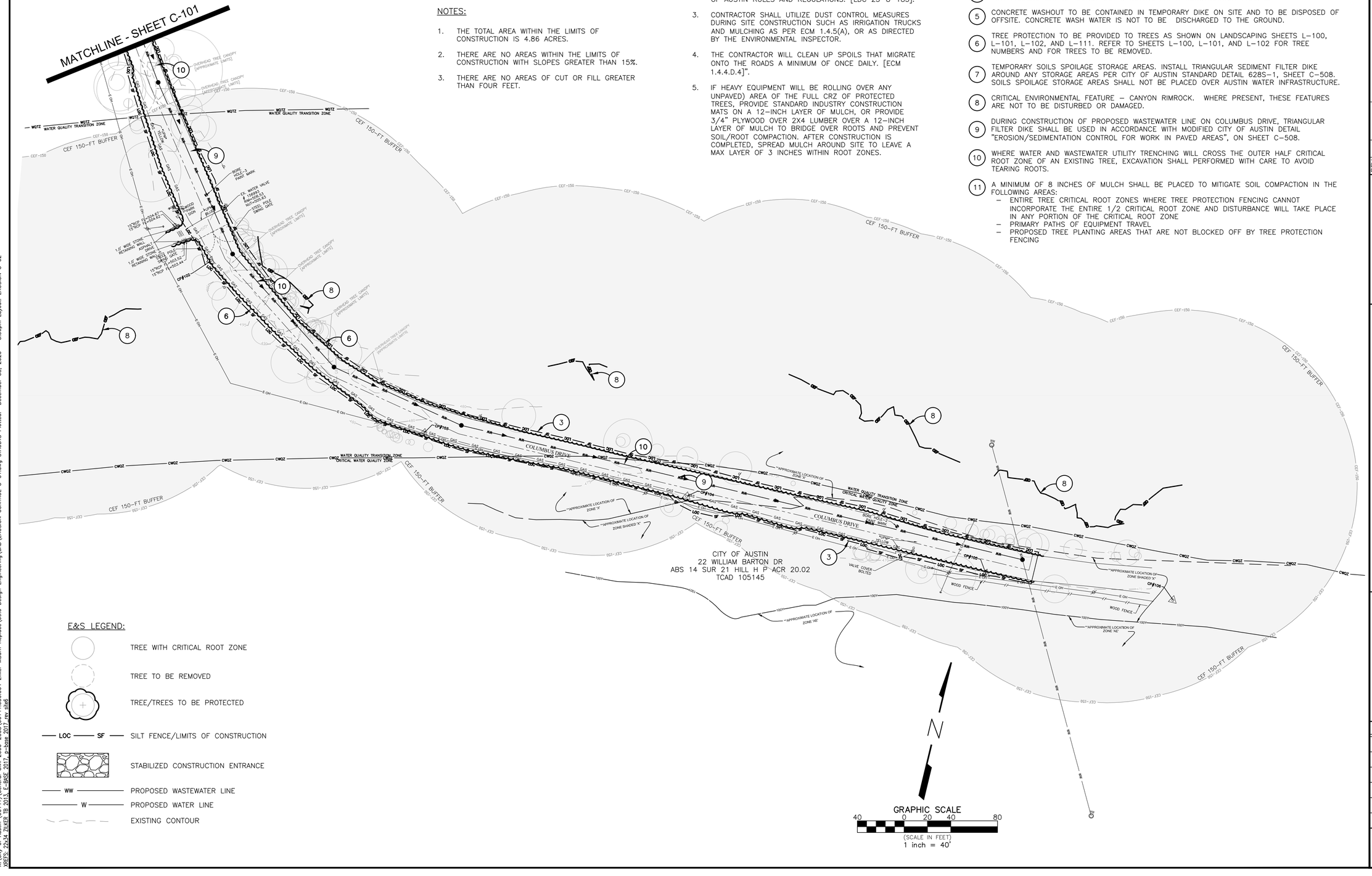
WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE
EROSION AND SEDIMENTATION CONTROL AND TREE PROTECTION PLAN

CITY OF AUSTIN FOUNDED 1839
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	
SHEET NUMBER	C-101	

X:\City of Austin (06141)\General Civil 2006-2008\06141.036.004 Zilker MBarn Replace\09.0 Design Engineering\CAD\EROSION CONTROL C-01.dwg STAUDTS Plotted: December 08, 2020 - 3:56pm Layout: EROSION C-01
XREFS: 22x34 ZILKER TB 2013, E-BASE 2017, p-base 2017_rev site6



UTILITY NOTE:

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND PRESERVATION OF EXISTING DRY UTILITIES (ELECTRIC, TELEPHONE, CABLE, ETC.).

NOTES:

1. THE TOTAL AREA WITHIN THE LIMITS OF CONSTRUCTION IS 4.86 ACRES.
2. THERE ARE NO AREAS WITHIN THE LIMITS OF CONSTRUCTION WITH SLOPES GREATER THAN 15%.
3. THERE ARE NO AREAS OF CUT OR FILL GREATER THAN FOUR FEET.

ENVIRONMENTAL NOTES:

1. "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.].
2. 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. [LDC 25-8-183].
3. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(A), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
4. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY. [ECM 1.4.4.D.4]".
5. IF HEAVY EQUIPMENT WILL BE ROLLING OVER ANY UNPAVED) AREA OF THE FULL CRZ OF PROTECTED TREES, PROVIDE STANDARD INDUSTRY CONSTRUCTION MATS ON A 12-INCH LAYER OF MULCH, OR PROVIDE 3/4" PLYWOOD OVER 2X4 LUMBER OVER A 12-INCH LAYER OF MULCH TO BRIDGE OVER ROOTS AND PREVENT SOIL/ROOT COMPACTION. AFTER CONSTRUCTION IS COMPLETED, SPREAD MULCH AROUND SITE TO LEAVE A MAX LAYER OF 3 INCHES WITHIN ROOT ZONES.

CONSTRUCTION NOTES:

1. STABILIZED CONSTRUCTION ENTRANCE PER COA STANDARD NO. 641S-1, SHEET C-508.
2. STABILIZED CONSTRUCTION ENTRANCE ON COLUMBUS DRIVE TO BE RELOCATED AS NECESSARY THROUGHOUT PROJECT PHASING.
3. SILT FENCE PER COA STANDARD NO. 642S-1, SHEET C-508.
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5. CONCRETE WASHOUT TO BE CONTAINED IN TEMPORARY DIKE ON SITE AND TO BE DISPOSED OF OFFSITE. CONCRETE WASH WATER IS NOT TO BE DISCHARGED TO THE GROUND.
6. TREE PROTECTION TO BE PROVIDED TO TREES AS SHOWN ON LANDSCAPING SHEETS L-100, L-101, L-102, AND L-111. REFER TO SHEETS L-100, L-101, AND L-102 FOR TREE NUMBERS AND FOR TREES TO BE REMOVED.
7. TEMPORARY SOILS SPOILAGE STORAGE AREAS. INSTALL TRIANGULAR SEDIMENT FILTER DIKE AROUND ANY STORAGE AREAS PER CITY OF AUSTIN STANDARD DETAIL 628S-1, SHEET C-508. SOILS SPOILAGE STORAGE AREAS SHALL NOT BE PLACED OVER AUSTIN WATER INFRASTRUCTURE.
8. CRITICAL ENVIRONMENTAL FEATURE - CANYON RIMROCK. WHERE PRESENT, THESE FEATURES ARE NOT TO BE DISTURBED OR DAMAGED.
9. DURING CONSTRUCTION OF PROPOSED WASTEWATER LINE ON COLUMBUS DRIVE, TRIANGULAR FILTER DIKE SHALL BE USED IN ACCORDANCE WITH MODIFIED CITY OF AUSTIN DETAIL "EROSION/SEDIMENTATION CONTROL FOR WORK IN PAVED AREAS", ON SHEET C-508.
10. WHERE WATER AND WASTEWATER UTILITY TRENCHING WILL CROSS THE OUTER HALF CRITICAL ROOT ZONE OF AN EXISTING TREE, EXCAVATION SHALL BE PERFORMED WITH CARE TO AVOID TEARING ROOTS.
11. A MINIMUM OF 8 INCHES OF MULCH SHALL BE PLACED TO MITIGATE SOIL COMPACTION IN THE FOLLOWING AREAS:
    - ENTIRE TREE CRITICAL ROOT ZONES WHERE TREE PROTECTION FENCING CANNOT INCORPORATE THE ENTIRE 1/2 CRITICAL ROOT ZONE AND DISTURBANCE WILL TAKE PLACE IN ANY PORTION OF THE CRITICAL ROOT ZONE
    - PRIMARY PATHS OF EQUIPMENT TRAVEL
    - PROPOSED TREE PLANTING AREAS THAT ARE NOT BLOCKED OFF BY TREE PROTECTION FENCING

E&S LEGEND:

- TREE WITH CRITICAL ROOT ZONE
- TREE TO BE REMOVED
- TREE/TREES TO BE PROTECTED
- LOC — SF — SILT FENCE/LIMITS OF CONSTRUCTION
- STABILIZED CONSTRUCTION ENTRANCE
- WW — PROPOSED WASTEWATER LINE
- W — PROPOSED WATER LINE
- EXISTING CONTOUR

REV. NO.	DATE	REVISION DESCRIPTION

S. IRRINKI 84348 — 14 OCTOBER 2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

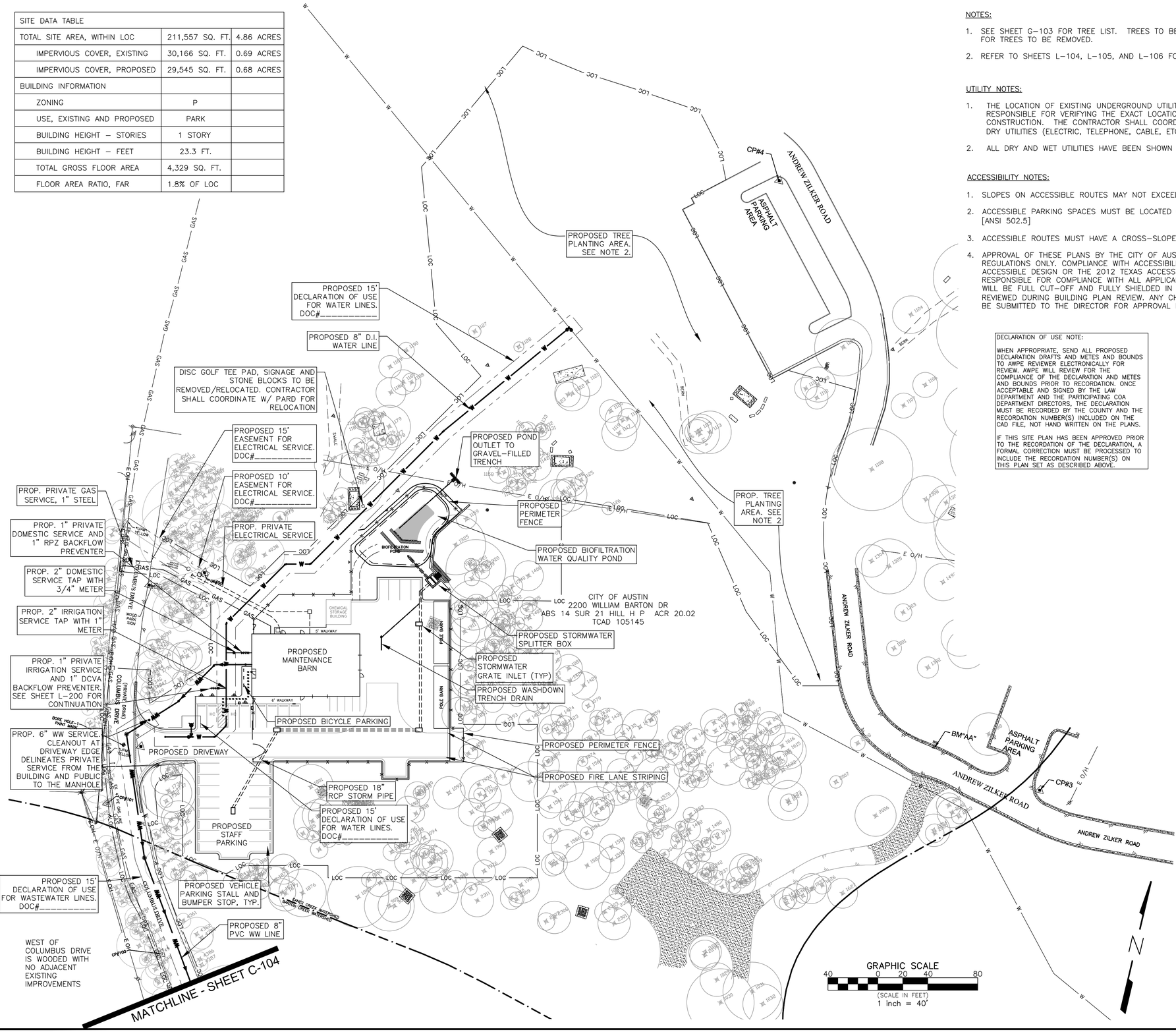
ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE
EROSION AND SEDIMENTATION CONTROL AND TREE PROTECTION PLAN

CITY OF AUSTIN FOUNDED 1839 — PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

SHEET NUMBER C-102

SITE DATA TABLE		
TOTAL SITE AREA, WITHIN LOC	211,557 SQ. FT.	4.86 ACRES
IMPERVIOUS COVER, EXISTING	30,166 SQ. FT.	0.69 ACRES
IMPERVIOUS COVER, PROPOSED	29,545 SQ. FT.	0.68 ACRES
BUILDING INFORMATION		
ZONING	P	
USE, EXISTING AND PROPOSED	PARK	
BUILDING HEIGHT – STORIES	1 STORY	
BUILDING HEIGHT – FEET	23.3 FT.	
TOTAL GROSS FLOOR AREA	4,329 SQ. FT.	
FLOOR AREA RATIO, FAR	1.8% OF LOC	



NOTES:

1. SEE SHEET G–103 FOR TREE LIST. TREES TO BE REMOVED NOT SHOWN FOR CLARITY. SEE SHEET L–100 FOR TREES TO BE REMOVED.
2. REFER TO SHEETS L–104, L–105, AND L–106 FOR TREE PLANTING PLANS.

UTILITY NOTES:

1. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND PRESERVATION OF EXISTING DRY UTILITIES (ELECTRIC, TELEPHONE, CABLE, ETC.).
2. ALL DRY AND WET UTILITIES HAVE BEEN SHOWN ON THE PLANS.

ACCESSIBILITY NOTES:

1. SLOPES ON ACCESSIBLE ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP. [ANSI 403.3]
2. ACCESSIBLE PARKING SPACES MUST BE LOCATED ON A SURFACE WITH A SLOPE NOT EXCEEDING 1:50. [ANSI 502.5]
3. ACCESSIBLE ROUTES MUST HAVE A CROSS–SLOPE NO GREATER THAN 1:50. [ANSI 403].
4. APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN INDICATES COMPLIANCE WITH APPLICABLE CITY REGULATIONS ONLY. COMPLIANCE WITH ACCESSIBILITY STANDARDS SUCH AS THE 2010 STANDARDS FOR ACCESSIBLE DESIGN OR THE 2012 TEXAS ACCESSIBILITY STANDARDS WAS NOT VERIFIED. THE APPLICANT IS RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE ACCESSIBILITY STANDARDS. ALL EXTERIOR LIGHTING WILL BE FULL CUT–OFF AND FULLY SHIELDED IN COMPLIANCE WITH SUBCHAPTER E 2.5 AND WILL BE REVIEWED DURING BUILDING PLAN REVIEW. ANY CHANGE OR SUBSTITUTION OF LAMP/LIGHT FIXTURES SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL IN ACCORDANCE WITH SECTION 2.5.2.E.

DECLARATION OF USE NOTE:

WHEN APPROPRIATE, SEND ALL PROPOSED DECLARATION DRAFTS AND METES AND BOUNDS TO AWPE REVIEWER ELECTRONICALLY FOR REVIEW. AWPE WILL REVIEW FOR THE COMPLIANCE OF THE DECLARATION AND METES AND BOUNDS PRIOR TO RECORDATION. ONCE ACCEPTABLE AND SIGNED BY THE LAW DEPARTMENT AND THE PARTICIPATING COA DEPARTMENT DIRECTORS, THE DECLARATION MUST BE RECORDED BY THE COUNTY AND THE RECORDATION NUMBER(S) INCLUDED ON THE CAD FILE, NOT HAND WRITTEN ON THE PLANS.

IF THIS SITE PLAN HAS BEEN APPROVED PRIOR TO THE RECORDATION OF THE DECLARATION, A FORMAL CORRECTION MUST BE PROCESSED TO INCLUDE THE RECORDATION NUMBER(S) ON THIS PLAN SET AS DESCRIBED ABOVE.

REV. NO.	BY	DATE	REVISION DESCRIPTION

14 OCTOBER 2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK -
MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE

SITE PLAN I

CITY OF AUSTIN ° FOUNDED 1839 °
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

SHEET NUMBER C-103

X:\City of Austin (06141)\General Civil 2006-2008\06141.036.004 Zilker MBarn Replace\09.0 Design Engineering\CAD\07-10 SITE PLAN_2020-0303.dwg STAUDTS Plotted: December 08, 2020 - 3:45pm Layout: CONST SITE PLAN
XREFS: E-BASE 2017, 22x24 ZILKER TB 2013, p-base 2017_rev site6

MATCHLINE - SHEET C-103

APPROXIMATE LOCATION OF 150-FOOT BUFFER FOR CRITICAL ENVIRONMENTAL FEATURE: CANYON RIMROCK

DECLARATION OF USE NOTE:

WHEN APPROPRIATE, SEND ALL PROPOSED DECLARATION DRAFTS AND METES AND BOUNDS TO AWPE REVIEWER ELECTRONICALLY FOR REVIEW. AWPE WILL REVIEW FOR THE COMPLIANCE OF THE DECLARATION AND METES AND BOUNDS PRIOR TO RECORDATION. ONCE ACCEPTABLE AND SIGNED BY THE LAW DEPARTMENT AND THE PARTICIPATING COA DEPARTMENT DIRECTORS, THE DECLARATION MUST BE RECORDED BY THE COUNTY AND THE RECORDATION NUMBER(S) INCLUDED ON THE CAD FILE, NOT HAND WRITTEN ON THE PLANS.

IF THIS SITE PLAN HAS BEEN APPROVED PRIOR TO THE RECORDATION OF THE DECLARATION, A FORMAL CORRECTION MUST BE PROCESSED TO INCLUDE THE RECORDATION NUMBER(S) ON THIS PLAN SET AS DESCRIBED ABOVE.

NOTE:

1. SEE SHEET G-103 FOR TREE LIST. TREES TO BE REMOVED NOT SHOWN FOR CLARITY. SEE SHEET L-100 FOR TREES TO BE REMOVED.

UTILITY NOTES:

1. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND PRESERVATION OF EXISTING DRY UTILITIES (ELECTRIC, TELEPHONE, CABLE, ETC.).
2. ALL DRY AND WET UTILITIES HAVE BEEN SHOWN ON THE PLANS.

ACCESSIBILITY NOTES:

1. SLOPES ON ACCESSIBLE ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP. [ANSI 403.3]
2. ACCESSIBLE PARKING SPACES MUST BE LOCATED ON A SURFACE WITH A SLOPE NOT EXCEEDING 1:50. [ANSI 502.5]
3. ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:50. [ANSI 403].
4. APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN INDICATES COMPLIANCE WITH APPLICABLE CITY REGULATIONS ONLY. COMPLIANCE WITH ACCESSIBILITY STANDARDS SUCH AS THE 2010 STANDARDS FOR ACCESSIBLE DESIGN OR THE 2012 TEXAS ACCESSIBILITY STANDARDS WAS NOT VERIFIED. THE APPLICANT IS RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE ACCESSIBILITY STANDARDS. ALL EXTERIOR LIGHTING WILL BE FULL CUT-OFF AND FULLY SHIELDED IN COMPLIANCE WITH SUBCHAPTER E 2.5 AND WILL BE REVIEWED DURING BUILDING PLAN REVIEW. ANY CHANGE OR SUBSTITUTION OF LAMP/LIGHT FIXTURES SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL IN ACCORDANCE WITH SECTION 2.5.2.E.

APPROXIMATE LOCATION OF CRITICAL ENVIRONMENTAL FEATURE: CANYON RIMROCK

PROPOSED 8" PVC WW LINE

APPROXIMATE LOCATION OF CRITICAL ENVIRONMENTAL FEATURE: CANYON RIMROCK

APPROXIMATE LOCATION OF CRITICAL ENVIRONMENTAL FEATURE: CANYON RIMROCK

APPROXIMATE LOCATION OF CRITICAL ENVIRONMENTAL FEATURE: CANYON RIMROCK

PROPOSED 15' DECLARATION OF USE FOR WASTEWATER LINES. DOC#_____

APPROXIMATE LOCATION OF 150-FOOT BUFFER FOR CRITICAL ENVIRONMENTAL FEATURE: CANYON RIMROCK

EXISTING 8" CONC. WW LINE

GRAPHIC SCALE
40 0 20 40 80
(SCALE IN FEET)
1 inch = 40'

REV. NO.	REVISION DESCRIPTION	DATE	BY

14 OCTOBER 2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK -
MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE

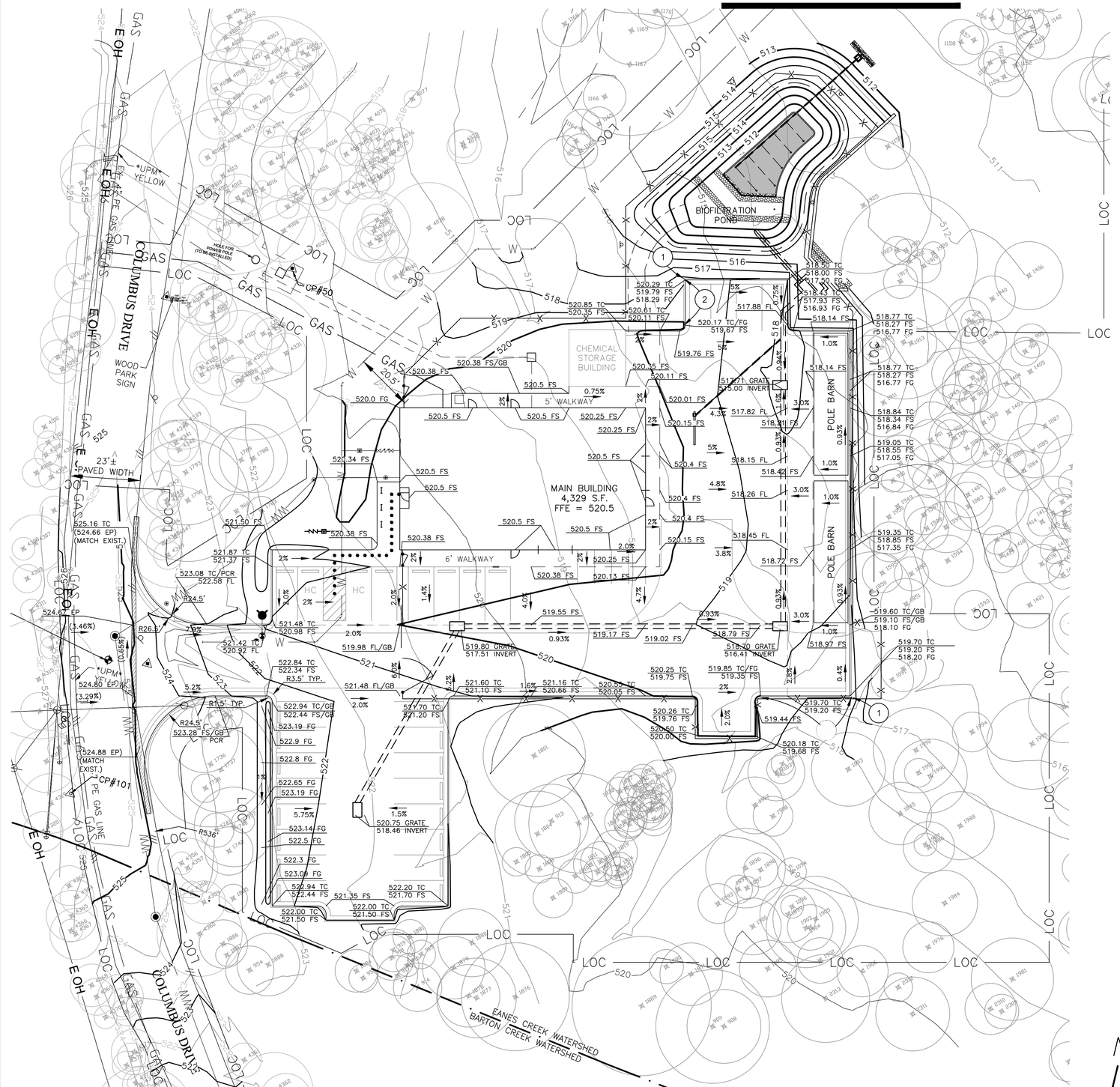
SITE PLAN II

CITY OF AUSTIN FOUNDED 1839
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

SHEET NUMBER C-104

X:\City of Austin (06141)\General Civil 2006-2008\06141.036.004 Zilker MBarn Replace\09.0 Design Engineering\CAD\07-10 SITE PLAN_2020-0303.dwg STAUDTS Plotted: December 08, 2020 - 3:46pm Layout: CONST SITE PLAN 2
XREFS: E-BASE 2017_22x34 ZILKER TB 2013_p-base 2017_rev sle6



FACILITY GRADING PLAN

NOTES:

1. SEE SHEET G-103 FOR TREE LIST. TREES TO BE REMOVED NOT SHOWN FOR CLARITY. SEE SHEET L-100 FOR TREES TO BE REMOVED.
2. HANDICAP ACCESSIBLE ROUTE SHALL HAVE A RUNNING SLOPE NO GREATER THAN 1:20 AND A MAXIMUM CROSS SLOPE OF 2%.
3. HANDICAP ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON A SURFACE WITH A SLOPE NOT TO EXCEED 1:50.
4. WITHIN LOC, WHERE PROPOSED GRADES ARE NOT SPECIFIED, FINAL GRADING SHALL BE RESTORED TO CONDITIONS EXISTING PRIOR TO CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL CONFIRM PRECONSTRUCTION GRADES AS SHOWN PRIOR TO ANY EARTH DISTURBANCE. IN AREAS WHERE EXISTING GRADES ARE NOT DEPICTED, CONTRACTOR SHALL COLLECT PRECONSTRUCTION GRADES PRIOR TO EARTH DISTURBANCE.
5. PRIOR TO CONSTRUCTION OF WASTEWATER GRAVITY MAIN, CONTRACTOR SHALL DETERMINE EXISTING DEPTH OF FLEX BASE AT EACH MANHOLE LOCATION SO THAT MANHOLE RIM ELEVATIONS MY BE ACCURATELY CONFIRMED.

UTILITY NOTE:

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND PRESERVATION OF EXISTING DRY UTILITIES (ELECTRIC, TELEPHONE, CABLE, ETC.).

CONSTRUCTION NOTES:

(1) WHERE FINISHED GRADE (FG) ELEVATION (UNPAVED) DIFFERS FROM FINISHED SURFACE (FS) ELEVATION (PAVED), CONSTRUCT A RETAINING WALL AS SHOWN IN DETAIL 5 – SHEET S-502.

(2) AT THE END OF THE EXTENTS OF THE RETAINING WALL, THE FINISHED GRADE (FG) ELEVATION WILL TRANSITION FROM BELOW FINISHED SURFACE (FS) ELEVATION TO MATCH THE TOP OF CURB (TC) ELEVATION. A RETAINING WALL STRUCTURE SHALL ALSO BE CONSTRUCTED IN THESE LOCATIONS AS SHOWN IN DETAIL 5 – SHEET S-502.

REV. NO.	BY	DATE	REVISION DESCRIPTION

S. IRRINKI 84348 — 14 OCTOBER 2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

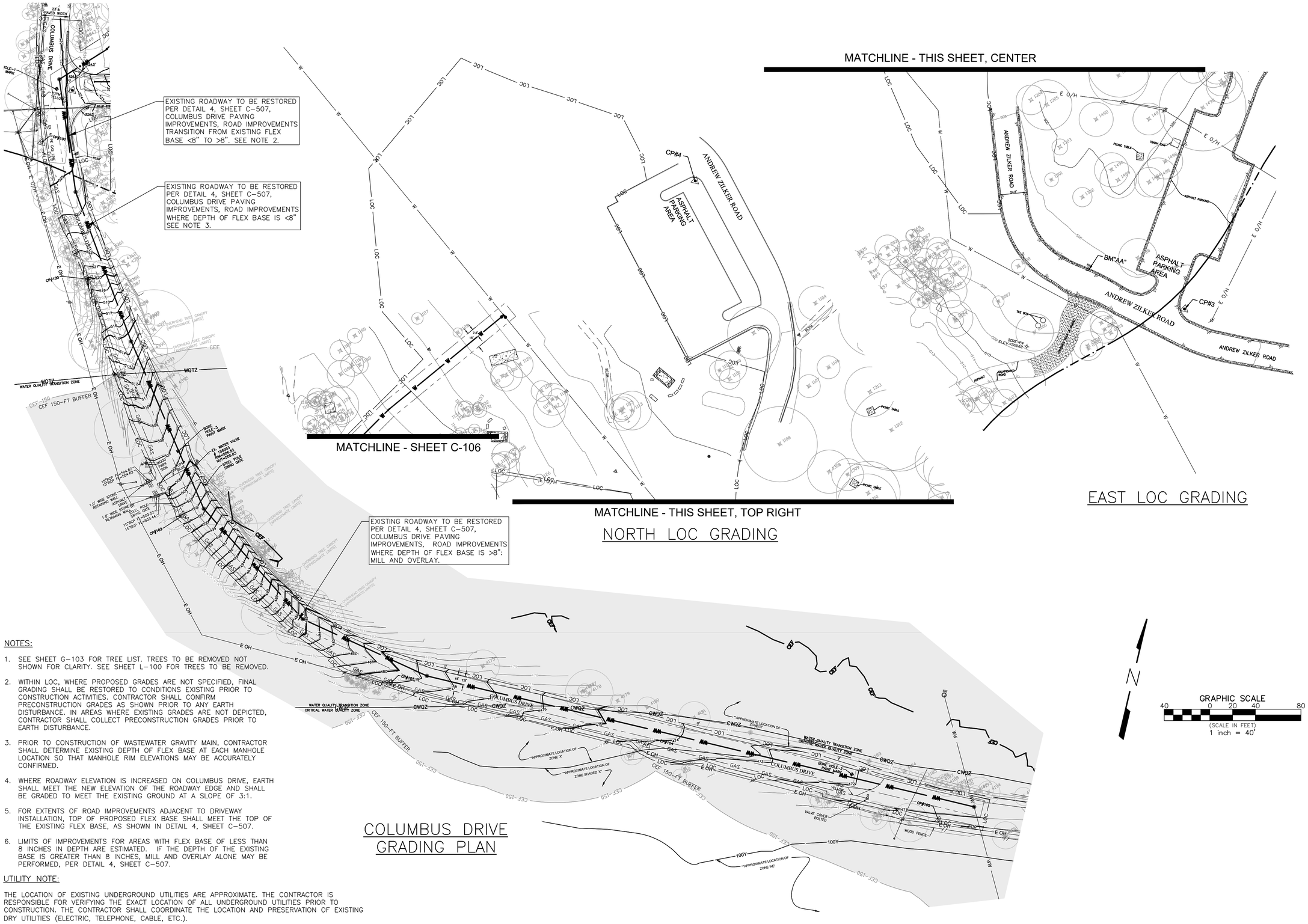
ZILKER METRO PARK -
MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE

SITE GRADING PLAN I

CITY OF AUSTIN FOUNDED 1839
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

SHEET NUMBER C-106



EAST LOC GRADING

NORTH LOC GRADING

COLUMBUS DRIVE GRADING PLAN

NOTES:

1. SEE SHEET G-103 FOR TREE LIST. TREES TO BE REMOVED NOT SHOWN FOR CLARITY. SEE SHEET L-100 FOR TREES TO BE REMOVED.
2. WITHIN LOC, WHERE PROPOSED GRADES ARE NOT SPECIFIED, FINAL GRADING SHALL BE RESTORED TO CONDITIONS EXISTING PRIOR TO CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL CONFIRM PRECONSTRUCTION GRADES AS SHOWN PRIOR TO ANY EARTH DISTURBANCE. IN AREAS WHERE EXISTING GRADES ARE NOT DEPICTED, CONTRACTOR SHALL COLLECT PRECONSTRUCTION GRADES PRIOR TO EARTH DISTURBANCE.
3. PRIOR TO CONSTRUCTION OF WASTEWATER GRAVITY MAIN, CONTRACTOR SHALL DETERMINE EXISTING DEPTH OF FLEX BASE AT EACH MANHOLE LOCATION SO THAT MANHOLE RIM ELEVATIONS MAY BE ACCURATELY CONFIRMED.
4. WHERE ROADWAY ELEVATION IS INCREASED ON COLUMBUS DRIVE, EARTH SHALL MEET THE NEW ELEVATION OF THE ROADWAY EDGE AND SHALL BE GRADED TO MEET THE EXISTING GROUND AT A SLOPE OF 3:1.
5. FOR EXTENTS OF ROAD IMPROVEMENTS ADJACENT TO DRIVEWAY INSTALLATION, TOP OF PROPOSED FLEX BASE SHALL MEET THE TOP OF THE EXISTING FLEX BASE, AS SHOWN IN DETAIL 4, SHEET C-507.
6. LIMITS OF IMPROVEMENTS FOR AREAS WITH FLEX BASE OF LESS THAN 8 INCHES IN DEPTH ARE ESTIMATED. IF THE DEPTH OF THE EXISTING BASE IS GREATER THAN 8 INCHES, MILL AND OVERLAY ALONE MAY BE PERFORMED, PER DETAIL 4, SHEET C-507.

UTILITY NOTE:

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND PRESERVATION OF EXISTING DRY UTILITIES (ELECTRIC, TELEPHONE, CABLE, ETC.).

REV. NO.	BY	DATE	REVISION DESCRIPTION

S. IRRINKI 84348 LICENSED PROFESSIONAL ENGINEER
14 OCTOBER 2020

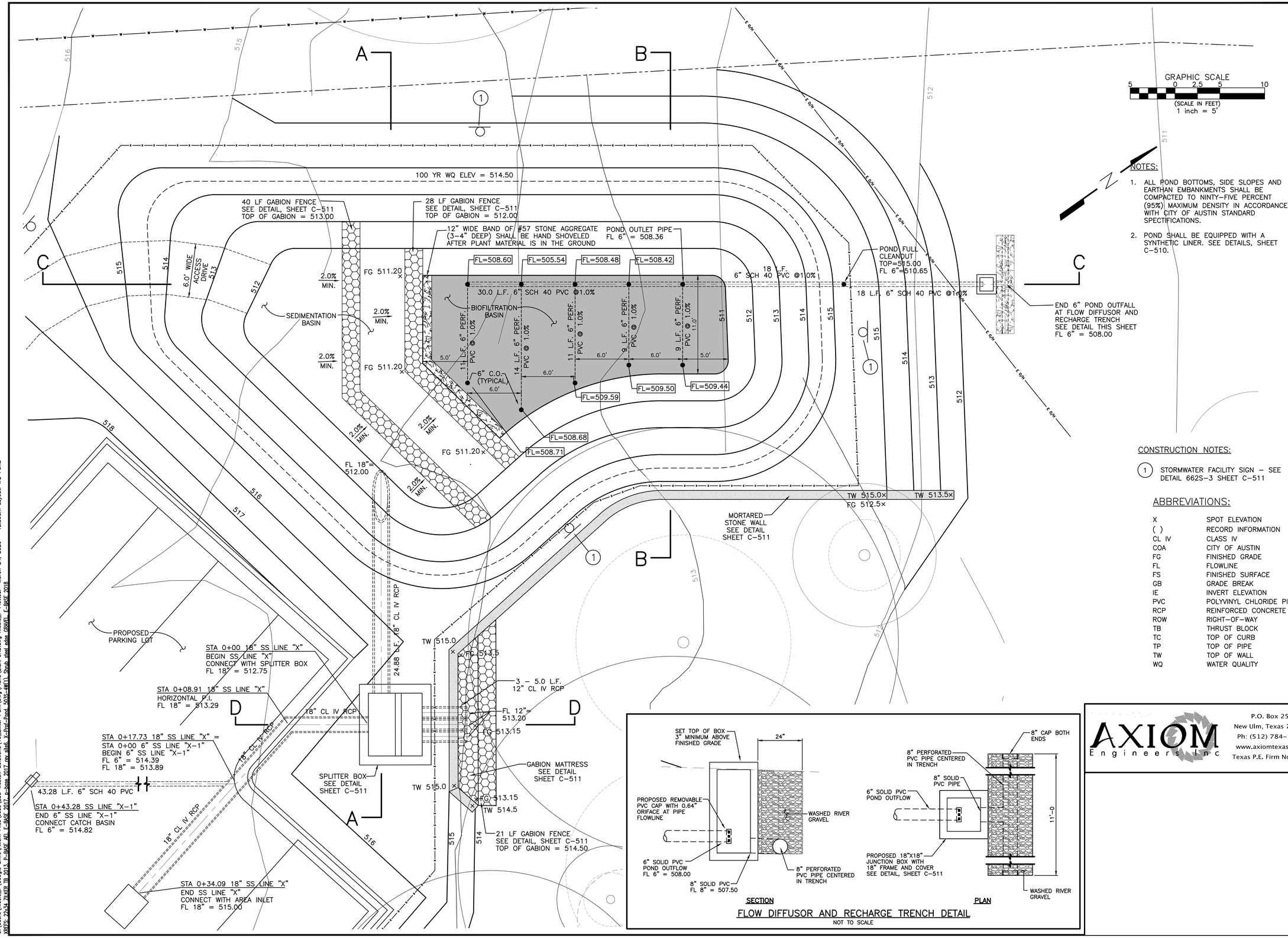
WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE
SITE GRADING PLAN II

CITY OF AUSTIN FOUNDED 1839
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

SHEET NUMBER C-107



REV. NO.	BY	DATE	REVISION DESCRIPTION
.	.	.	.

Nicole Folia Andersen
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
NICOLE FOLIA ANDERSEN
91778
03/19/2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

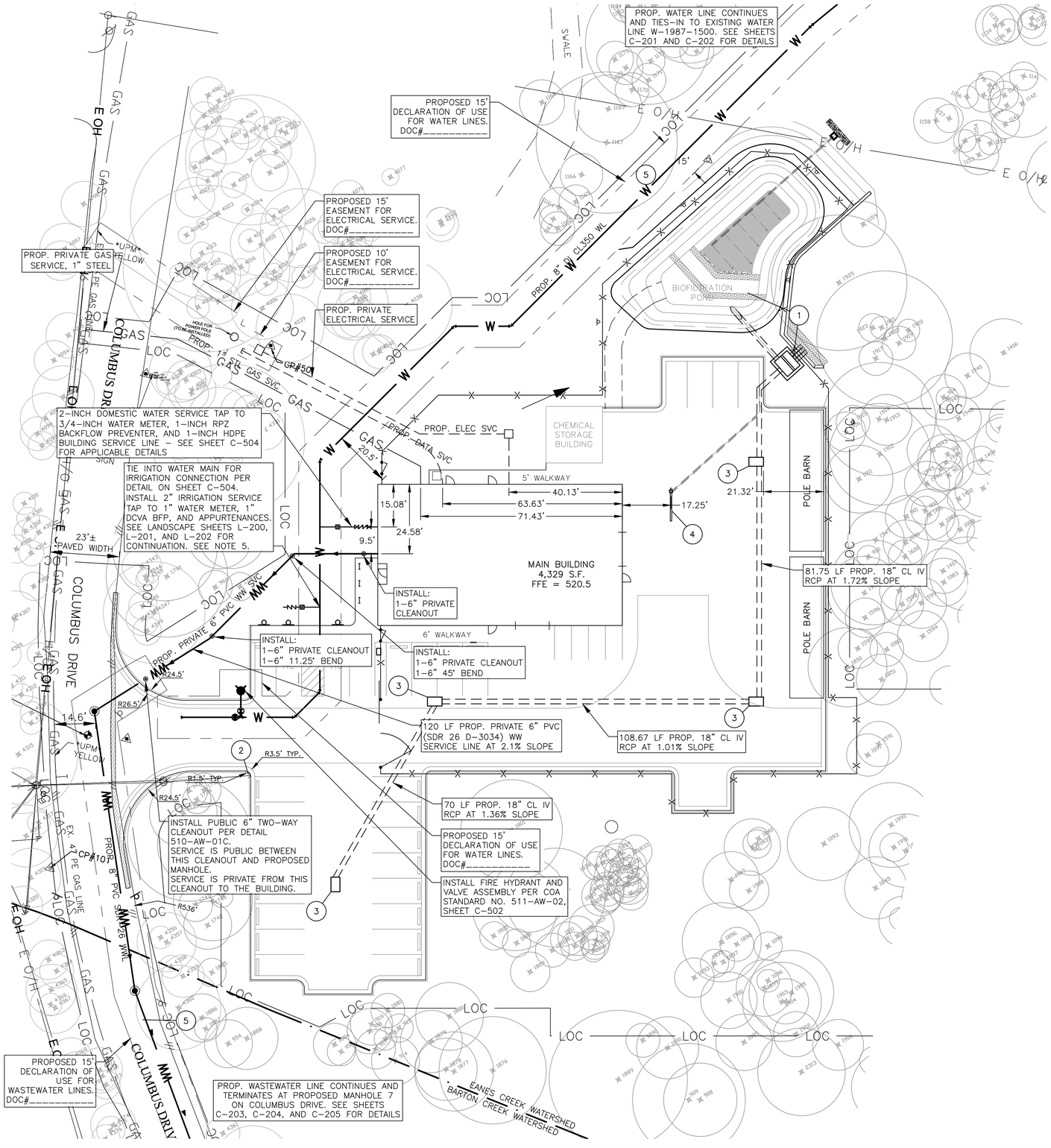
ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE
WATER QUALITY POND PLAN

AXIOM Engineers Inc
P.O. Box 25
New Ulm, Texas 78950
Ph: (512) 784-5892
www.axiomtexas.com
Texas P.E. Firm No. F-43

CITY OF AUSTIN FOUNDED 1839
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	–	–
CHECKED BY	–	–
DESIGNED BY	–	–
REVIEWED BY	–	–
SCALE:	AS SHOWN	

SHEET NUMBER C-108



NOTES:

1. SEE SHEET G-103 FOR TREE LIST. TREES TO BE REMOVED NOT SHOWN FOR CLARITY. SEE SHEET L-100 FOR TREES TO BE REMOVED.
2. SEE SHEETS C-201 THRU C-205 FOR FULL WATER AND WASTEWATER ALIGNMENTS.
3. DURING EXCAVATION WITHIN THE CRITICAL ROOT ZONE OF A TREE, WORK SHALL BE COMPLETED WITH AN AIR SPADE BY A CERTIFIED ARBORIST FOR THE TOP 30 INCHES TO AVOID CUTTING ROOTS 1.5+ INCHES IN DIAMETER AND THE PAID RECEIPT FOR THE WORK SHALL BE PROVIDED TO THE FINAL TREE INSPECTOR. SEE THE EROSION & SEDIMENTATION AND TREE PROTECTION SHEET, THE WATER AND WASTEWATER PLAN AND PROFILE SHEETS, AND THE TREE PRESERVATION PLAN SHEETS FOR MORE DETAILS.
4. PARD WILL SUBMIT A COMPLETED DECLARATION OF USE FOR WATER LINES TO AUSTIN WATER FOR THE PROPOSED 8-INCH WATER LINE.
5. IRRIGATION SERVICE SHALL BE INSTALLED SUCH THAT THE SERVICE TAP, METER, AND BACKFLOW PREVENTER ARE ALL GREATER THAN 9 FEET FROM THE WASTEWATER SERVICE LINE.

UTILITY NOTES:

1. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND PRESERVATION OF EXISTING DRY UTILITIES (ELECTRIC, TELEPHONE, CABLE, ETC.).
2. ALL DRY AND WET UTILITIES HAVE BEEN SHOWN ON THE PLANS.

CONSTRUCTION NOTES:

1. SEE BIOFILTRATION POND AND STORM DRAIN DETAILS ON SHEETS C-108, C-509, AND C-510.
2. SEE ELECTRICAL PLANS FOR DETAILS OF SERVICE INSTALLATION, RELOCATION OF EXISTING GUY ANCHOR, AND LOCATION OF ADDITIONAL CONDUIT FOR SITE LIGHTING.
3. INSTALL STORM DRAIN DROP INLET PER COA STANDARD DETAIL NO. 508-11, SHEET C-502.
4. INSTALL TRENCH DRAIN AND CATCH BASIN - SEE DETAILS 7 THRU 9, SHEET C-506.
5. UTILITY TRENCHING EXCAVATIONS THAT CROSS WITHIN THE CRITICAL ROOT ZONE OF A TREE SHALL BE EXCAVATED WITH CAUTION TO AVOID TEARING TREE ROOTS DURING TRENCHING ACTIVITIES. DURING CONSTRUCTION ACTIVITIES NEAR TREES, WHETHER TRENCHING OR OTHER EQUIPMENT OPERATION, TREE PROTECTION SHALL BE IMPLEMENTED ACCORDING TO THE EROSION AND SEDIMENTATION CONTROL SHEETS, WATER AND WASTEWATER PLAN AND PROFILE SHEETS, AND THE TREE PRESERVATION PLAN SHEETS.

DECLARATION OF USE NOTE:

WHEN APPROPRIATE, SEND ALL PROPOSED DECLARATION DRAFTS AND METES AND BOUNDS TO AWPE REVIEWER ELECTRONICALLY FOR REVIEW. AWPE WILL REVIEW FOR THE COMPLIANCE OF THE DECLARATION AND METES AND BOUNDS PRIOR TO RECORDATION. ONCE ACCEPTABLE AND SIGNED BY THE LAW DEPARTMENT AND THE PARTICIPATING COA DEPARTMENT DIRECTORS, THE DECLARATION MUST BE RECORDED BY THE COUNTY AND THE RECORDATION NUMBER(S) INCLUDED ON THE CAD FILE, NOT HAND WRITTEN ON THE PLANS.

IF THIS SITE PLAN HAS BEEN APPROVED PRIOR TO THE RECORDATION OF THE DECLARATION, A FORMAL CORRECTION MUST BE PROCESSED TO INCLUDE THE RECORDATION NUMBER(S) ON THIS PLAN SET AS DESCRIBED ABOVE.

REV. NO.	BY	DATE	REVISION DESCRIPTION

STATE OF TEXAS
S. IRRINKI
84348
14 OCTOBER 2020

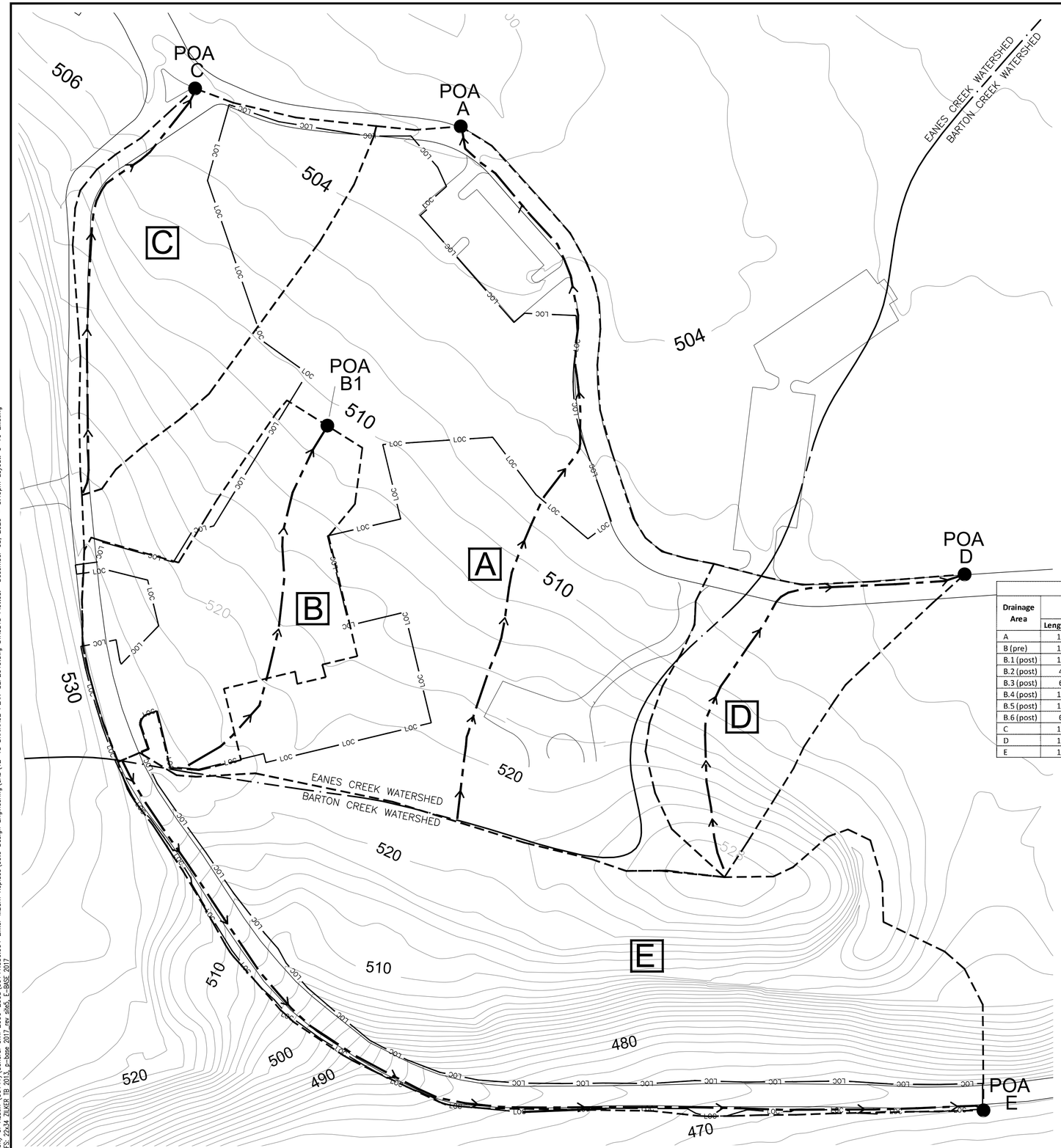
WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE
SITE UTILITY PLAN

CITY OF AUSTIN FOUNDED 1839
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

SHEET NUMBER C-109



NOTES:

1. WATERSHED:
   A. THIS PROJECT IS LOCATED WITHIN THE EANES CREEK WATER SUPPLY SUBURBAN WATERSHED AND IS SUBJECT TO THE RULES AND REGULATIONS OF THE EANES CREEK WATERSHED ORDINANCE.
   B. THIS PROJECT IS ALSO LOCATED IN THE BARTON CREEK WATERSHED, CLASSIFIED AS THE BARTON CREEK ZONE AND SHALL BE DEVELOPED, CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH CHAPTER 25 OF THE CODE OF THE CITY OF AUSTIN.
2. 100-YEAR FLOOD PLAIN – NO PORTION OF THIS SITE IS LOCATED WITHIN THE 100-YEAR FLOOD AS PER FLOOD INSURANCE RATE MAP NUMBER 48453C0445J (PANEL 445 OF 730) FOR TRAVIS COUNTY, TEXAS AND INCORPORATED AREAS, MAP REVISED JANUARY 1, 2016.
3. EDWARDS AQUIFER RECHARGE ZONE – THIS PROJECT IS LOCATED WITHIN THE EDWARDS AQUIFER RECHARGE ZONE AND IS SUBJECT TO TCEQ RULES AND REGULATIONS, THE TCEQ's EDWARDS AQUIFER PROTECTION PROGRAM, AND 30 TAC 213. AN EDWARDS AQUIFER PROTECTION PLAN HAS BEEN PREPARED FOR THIS SITE.

LEGEND:

- WATERSHED BOUNDARY
- 510 — EXISTING CONTOUR
- DRAINAGE AREA BOUNDARY
- D — DRAINAGE AREA DESIGNATION
- TIME OF CONCENTRATION PATHWAY
- POA — POINT OF ANALYSIS
- LOC — LIMIT OF CONSTRUCTION

Ground Cover Calculations

Drainage Area	Area (Square Feet)	Area (Acres)	Total Flow Length (ft)	Impervious Acres (CN=98)	Pervious Acres	Pervious CN
A	277,398	6.37	825	0.60	5.77	82
B (pre)	70,566	1.62	412	0.07	1.55	82
B.1 (post)	35,381	0.81	380	0.03	0.78	-
B.2 (post)	4,976	0.11	43	0.11	0.00	-
B.3 (post)	8,489	0.19	137	0.19	0.00	-
B.4 (post)	8,394	0.19	150	0.19	0.00	-
B.5 (post)	10,592	0.24	150	0.24	0.00	-
B.6 (post)	2,734	0.06	63	0.00	0.06	-
C	79,419	1.82	482	0.21	1.62	82
D	53,324	1.22	526	0.19	1.03	82
E	224,544	5.15	1,100	0.59	4.57	82

Time of Concentration Calculations

Drainage Area	Sheet Flow				Shallow Concentrated Flow 1 or Channel Flow 1				Shallow Concentrated Flow 2 or Channel Flow 2				Tc (hr)
	Length (ft)	Slope (ft/ft)	n	Sub Tc (hr)	Length (ft)	Slope (ft/ft)	Paved?	Sub Tc (hr)	Length (ft)	Slope (ft/ft)	Paved?	Sub Tc (hr)	
A	100	0.015	0.400	0.353	334	0.020	No	0.041	391	0.010	Yes	0.053	0.447
B (pre)	100	0.020	0.400	0.315	312	0.014	No	0.045	-	-	-	-	0.360
B.1 (post)	100	0.010	0.150	0.190	280	0.010	No	0.048	-	-	-	-	0.238
B.2 (post)	43	0.040	0.011	0.007	-	-	-	-	-	-	-	-	0.100
B.3 (post)	60	0.070	0.011	0.007	77	0.010	Yes	0.011	-	-	-	-	0.100
B.4 (post)	100	0.010	0.011	0.023	50	0.010	Yes	0.007	-	-	-	-	0.100
B.5 (post)	100	0.010	0.011	0.023	50	0.010	Yes	0.025	-	-	-	-	0.100
B.6 (post)	65	0.010	0.150	0.131	-	-	-	-	-	-	-	-	0.131
C	100	0.020	0.400	0.315	302	0.023	Channel	0.000	80	0.012	Channel	0.000	0.315
D	100	0.040	0.400	0.239	217	0.016	No	0.030	209	0.005	Yes	0.040	0.309
E	100	0.025	0.400	0.288	420	0.048	Channel	0.000	580	0.010	Channel	0.000	0.288

Existing

Drainage Area	Description	PEAK FLOWS (cfs)			
		2-yr	10-yr	25-yr	100-yr
A	POA A	11.17	21.95	30.18	45.42
B	POA B	2.99	5.96	8.23	12.47
C	POA C	3.67	7.21	9.90	14.89
D	POA D	2.47	4.84	6.65	10.01
E	POA E	10.65	20.92	28.68	43.27
Total	**A, B, C Eanes Creek**	**17.83**	**35.12**	**48.31**	**72.78**
Total	**D, E Barton Creek**	**13.12**	**25.76**	**35.33**	**53.28**

N

GRAPHIC SCALE
60 0 30 60 120
(SCALE IN FEET)
1 inch = 60'

REV. NO.	BY	DATE	REVISION DESCRIPTION

S. IRRINKI 84348 — 14 OCTOBER 2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

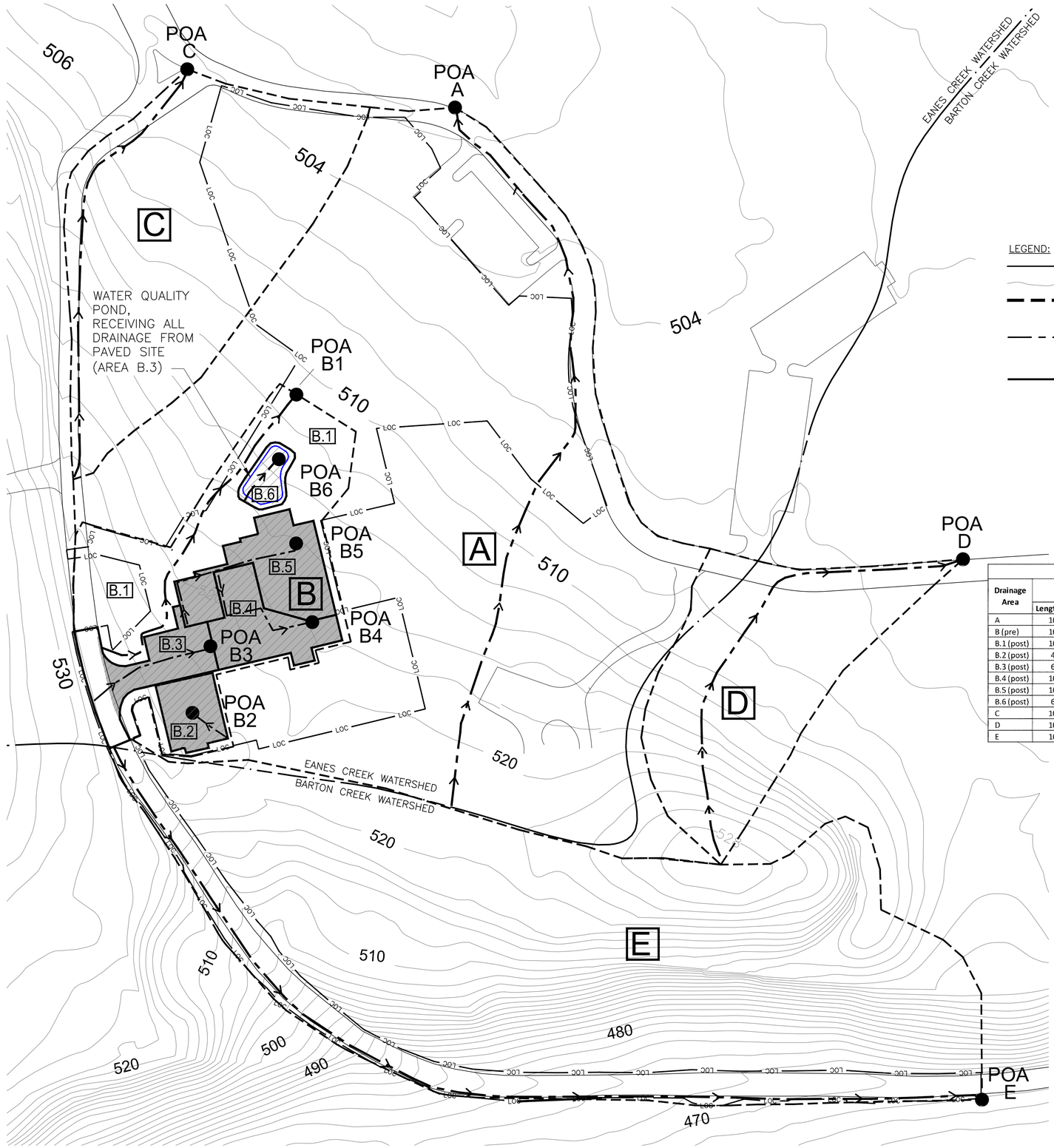
ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE
DRAINAGE PLAN (EXISTING CONDITIONS)

CITY OF AUSTIN FOUNDED 1839
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18

SCALE: AS SHOWN

SHEET NUMBER C-111



NOTES:

1. WATERSHED:
   A. THIS PROJECT IS LOCATED WITHIN THE EANES CREEK WATER SUPPLY SUBURBAN WATERSHED AND IS SUBJECT TO THE RULES AND REGULATIONS OF THE EANES CREEK WATERSHED ORDINANCE.
   B. THIS PROJECT IS ALSO LOCATED IN THE BARTON CREEK WATERSHED, CLASSIFIED AS THE BARTON CREEK ZONE AND SHALL BE DEVELOPED, CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH CHAPTER 25 OF THE CODE OF THE CITY OF AUSTIN.
2. 100-YEAR FLOOD PLAIN – NO PORTION OF THIS SITE IS LOCATED WITHIN THE 100-YEAR FLOOD AS PER FLOOD INSURANCE RATE MAP NUMBER 48453C0445J (PANEL 445 OF 730) FOR TRAVIS COUNTY, TEXAS AND INCORPORATED AREAS, MAP REVISED JANUARY 1, 2016.
3. EDWARDS AQUIFER RECHARGE ZONE – THIS PROJECT IS LOCATED WITHIN THE EDWARDS AQUIFER RECHARGE ZONE AND IS SUBJECT TO TCEQ RULES AND REGULATIONS, THE TCEQ'S EDWARDS AQUIFER PROTECTION PROGRAM, AND 30 TAC 213. AN EDWARDS AQUIFER PROTECTION PLAN HAS BEEN PREPARED FOR THIS SITE.
4. WATER QUALITY POND RECEIVES STORMWATER FROM ONLY THE BUILDING ROOFTOP AND THE PAVED SITE (EXCLUDING THE STAFF PARKING LOT), REPRESENTED BY POA B3.
5. POA B2 REPRESENTS THE STORMWATER AT THE STAFF PARKING LOT AND THE VEGETATIVE FILTER STRIP.

LEGEND:

- WATERSHED BOUNDARY
- 510 EXISTING CONTOUR
- DRAINAGE AREA BOUNDARY
- B DRAINAGE AREA DESIGNATION
- TIME OF CONCENTRATION PATHWAY
- POA POINT OF ANALYSIS
- LOC LIMIT OF CONSTRUCTION
- PROPOSED BIOFILTRATION POND AREA
- PROPOSED IMPERVIOUS AREA TO DRAIN TO BIOFILTRATION POND

Ground Cover Calculations

Drainage Area	Area (Square Feet)	Area (Acres)	Total Flow Length (ft)	Impervious Acres (CN=98)	Pervious Acres	Pervious CN
A	277,398	6.37	825	0.60	5.77	82
B (pre)	70,566	1.62	412	0.07	1.55	82
B.1 (post)	35,381	0.81	380	0.03	0.78	-
B.2 (post)	4,976	0.11	43	0.11	0.00	-
B.3 (post)	8,489	0.19	137	0.19	0.00	-
B.4 (post)	8,394	0.19	150	0.19	0.00	-
B.5 (post)	10,592	0.24	150	0.24	0.00	-
B.6 (post)	2,734	0.06	63	0.00	0.06	-
C	79,419	1.82	482	0.21	1.62	82
D	53,324	1.22	526	0.19	1.03	82
E	224,544	5.15	1,100	0.59	4.57	82

Time of Concentration Calculations

Drainage Area	Sheet Flow				Shallow Concentrated Flow 1 or Channel Flow 1				Shallow Concentrated Flow 2 or Channel Flow 2				Tc (hr)
	Length (ft)	Slope (ft/ft)	n	Sub Tc (hr)	Length (ft)	Slope (ft/ft)	Paved?	Sub Tc (hr)	Length (ft)	Slope (ft/ft)	Paved?	Sub Tc (hr)	
A	100	0.015	0.400	0.353	334	0.020	No	0.041	391	0.010	Yes	0.053	0.447
B (pre)	100	0.020	0.400	0.315	312	0.014	No	0.045	-	-	-	-	0.360
B.1 (post)	100	0.010	0.150	0.190	280	0.010	No	0.048	-	-	-	-	0.238
B.2 (post)	43	0.040	0.011	0.007	-	-	-	-	-	-	-	-	0.100
B.3 (post)	60	0.070	0.011	0.007	77	0.010	Yes	0.011	-	-	-	-	0.100
B.4 (post)	100	0.010	0.011	0.023	50	0.010	Yes	0.007	-	-	-	-	0.100
B.5 (post)	100	0.010	0.011	0.023	50	0.010	Yes	0.025	-	-	-	-	0.100
B.6 (post)	65	0.010	0.150	0.131	-	-	-	-	-	-	-	-	0.131
C	100	0.020	0.400	0.315	302	0.023	Channel	0.000	80	0.012	Channel	0.000	0.315
D	100	0.040	0.400	0.239	217	0.016	No	0.030	209	0.005	Yes	0.040	0.309
E	100	0.025	0.400	0.288	420	0.048	Channel	0.000	580	0.010	Channel	0.000	0.288

Drainage Area	Description	Proposed PEAK FLOWS (cfs) 2-yr	10-yr	25-yr	100-yr
A	POA A	11.17	21.95	30.18	45.42
B.1	POA B1	1.72	3.42	4.72	7.14
B.2	POA B2	0.37	0.62	0.81	1.16
B.3	POA B3	0.68	1.13	1.47	2.11
B.4	POA B4	0.68	1.13	1.47	2.11
B.5	POA B5	0.84	1.39	1.81	2.59
B.6	POA B6	0.13	0.27	0.37	0.56
B Sum	Sum B1 - B6	4.42	7.96	10.65	15.67
C	POA C	3.67	7.21	9.90	14.89
D	POA D	2.47	4.84	6.65	10.01
E	POA E	10.65	20.92	28.68	43.27
Total	**A, B, C Eanes Creek**	**19.26**	**37.12**	**50.73**	**75.98**
Total	**D, E Barton Creek**	**13.12**	**25.76**	**35.33**	**53.28**

N

GRAPHIC SCALE
60 0 30 60 120
(SCALE IN FEET)
1 inch = 60'

REV. NO.	BY	DATE	REVISION DESCRIPTION

S. IRRINKI 84348 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS

14 OCTOBER 2020

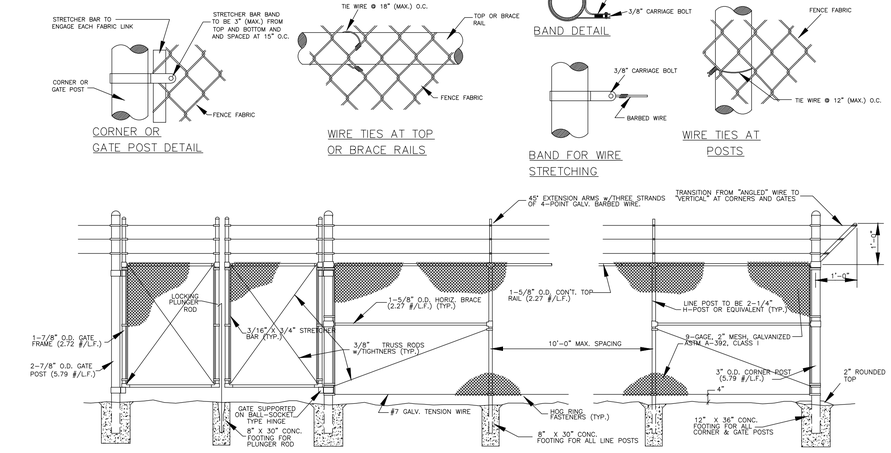
WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE
DRAINAGE PLAN (DEVELOPED CONDITIONS)

CITY OF AUSTIN 1839 FOUNDED
PARKS AND RECREATION DEPARTMENT

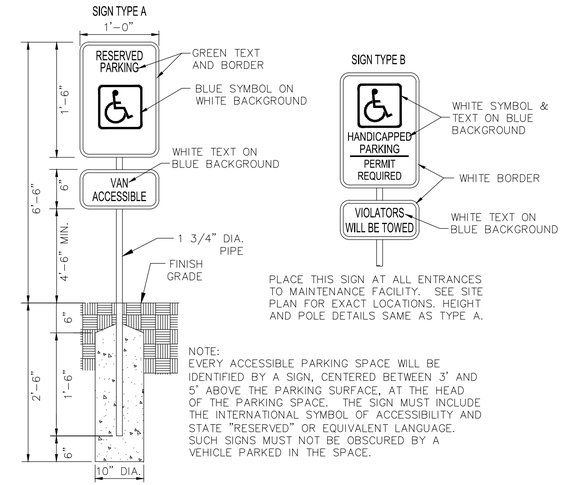
NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

SHEET NUMBER C-112



NOTES:
1. PERIMETER FENCE POSTS INSTALLED WITHIN A TREES CRITICAL ROOT ZONE SHALL BE EXCAVATED USING AN AIR SPADE. FENCE POSTS ARE NOT PERMITTED TO BE INSTALLED WITHIN THE 1/4 CRITICAL ROOT ZONE OF REGULATED TREES.
2. PER PROJECT MANUAL, FENCE SHALL BE 8 FEET HIGH WITH BRACKETS AND 3 STRANDS BARBED WIRE.

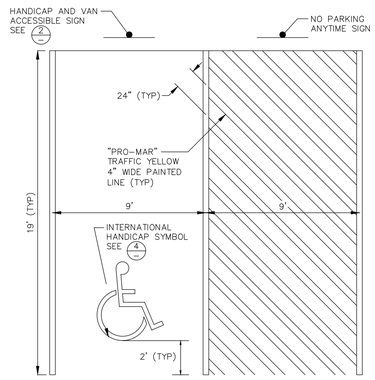
1 CHAIN LINK FENCE AND GATE
SCALE: NTS



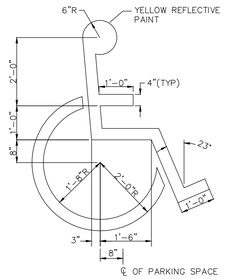
PLACE THIS SIGN AT ALL ENTRANCES TO MAINTENANCE FACILITY. SEE SITE PLAN FOR EXACT LOCATIONS. HEIGHT AND POLE DETAILS SAME AS TYPE A.

NOTE:
EVERY ACCESSIBLE PARKING SPACE WILL BE IDENTIFIED BY A SIGN, CENTERED BETWEEN 3' AND 5' ABOVE THE PARKING SURFACE, AT THE HEAD OF THE PARKING SPACE. THE SIGN MUST INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND STATE "RESERVED" OR EQUIVALENT LANGUAGE. SUCH SIGNS MUST NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE.

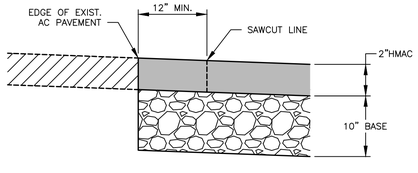
2 HANDICAPPED PARKING SIGNAGE
SCALE: NTS



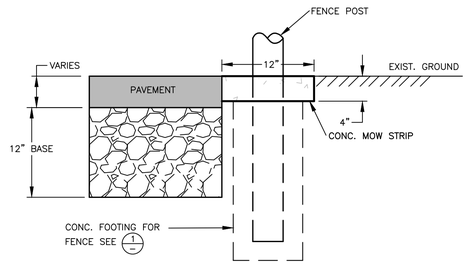
3 HANDICAPPED PAVEMENT MARKING
SCALE: NTS



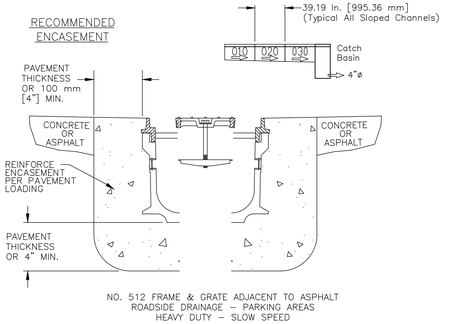
4 INTERNATIONAL HANDICAP SYMBOL
SCALE: NTS



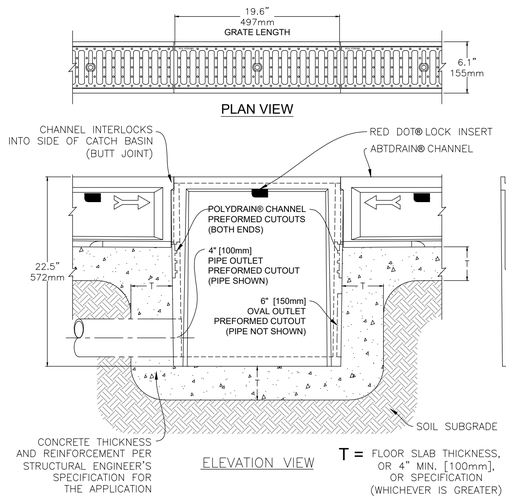
5 SAWCUT PAVEMENT CONFORM
SCALE: NTS



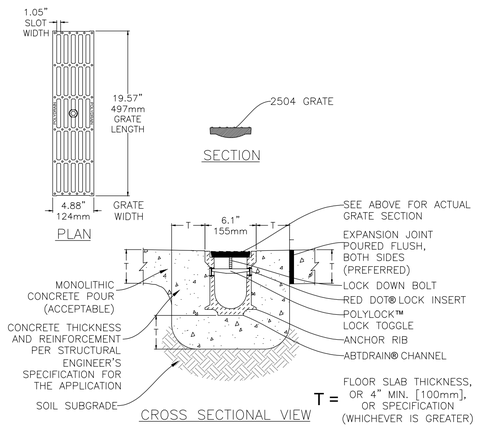
6 12" CONCRETE MOW STRIP
SCALE: NTS



7 TRENCH DRAIN DETAIL
SCALE: NTS



8 CATCH BASIN DETAIL
SCALE: NTS



9 GRATE DETAIL
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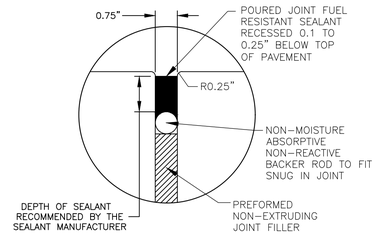

10 EXPANSION JOINT DETAIL
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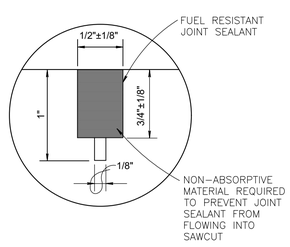
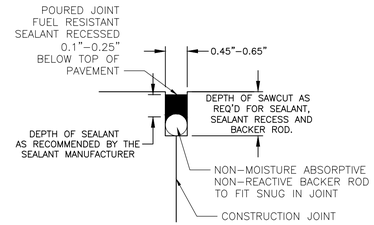


11 CONTRACTION JOINT DETAIL
SCALE: NTS



12 CONSTRUCTION JOINT DETAIL
SCALE: NTS

REV. NO.	BY	DATE	REVISION DESCRIPTION

03 DECEMBER 2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

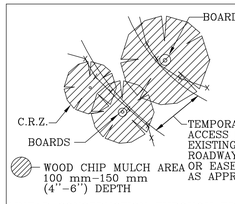
ZILKER METRO PARK -
MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE

PROJECT DETAILS I

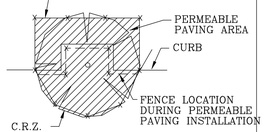
CITY OF AUSTIN
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

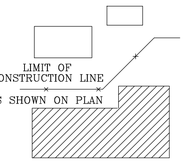
SHEET NUMBER C-507



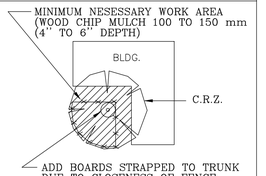
LINEAR CONSTRUCTION THROUGH TREES



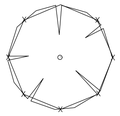
TREES IN PAVING AREA



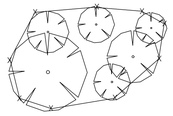
NATURAL AREAS



TREES NEAR CONSTRUCTION ACTIVITY

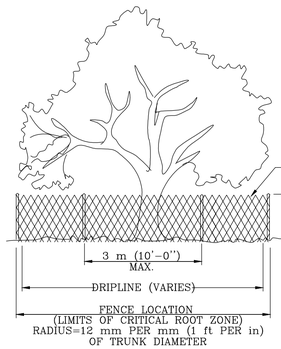


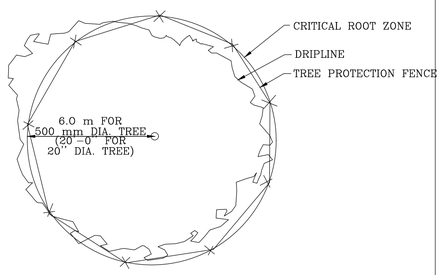
INDIVIDUAL TREE



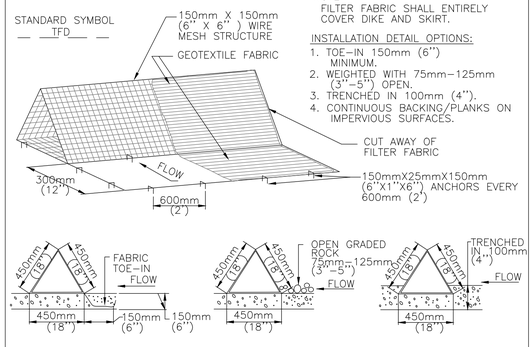
GROUP OF TREES

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TREE PROTECTION FENCE LOCATIONS	
RECORD COPY SIGNED BY J. PATRICK MURPHY	11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S–1





CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TREE PROPTECTION FENCE TYPE A – CHAIN LINK	
RECORD COPY SIGNED BY J. PATRICK MURPHY	11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S–2



NOTE:
FILTER FABRIC SHALL ENTIRELY COVER DIKE AND SKIRT.

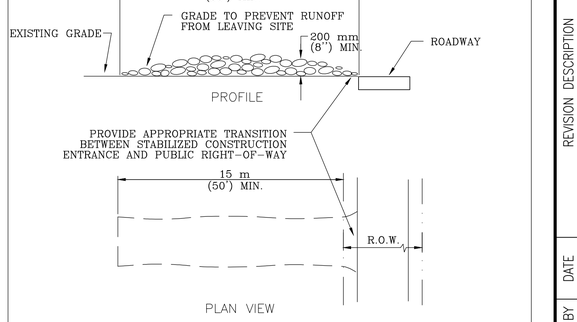
INSTALLATION DETAIL OPTIONS:

1. TOE–IN 150mm (6") MINIMUM.
2. WEIGHTED WITH 75mm–125mm (3"–5") OPEN.
3. TRENCHED IN 100mm (4").
4. CONTINUOUS BACKING/PLANKS ON IMPERVIOUS SURFACES.

GENERAL NOTES

1. DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.
2. THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE.
3. THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF 75–125mm (3–5") OPEN GRADED ROCK OR TOED–IN 150mm (6") WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED IN 100mm (4").
4. DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 150mm (6") WIRE STAPLES ON 600mm (2') CENTERS ON BOTH EDGES AND SKIRT, OR STAKE USING 10M (3/8 ") DIAMETER RE–BAR WITH TEE ENDS.
5. FILTER MATERIAL SHALL BE LAPPED OVER ENDS 150mm (6") TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOAT RINGS.
6. THE DIKE STRUCTURE SHALL BE MW40–150mmX150mm (6 GA. 6"X6") WIRE MESH, 450mm (18") ON A SIDE.
7. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
8. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150mm (6") AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.
9. AFTER THE DEVELOPMENT SITE IS COMPLETLY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED. SILT SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTE 8 ABOVE.

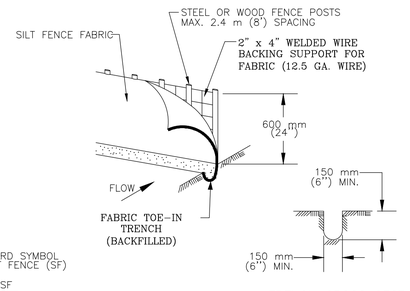
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TRIANGULAR SEDIMENT FILTER DIKE	
RECORD COPY SIGNED BY J. PATRICK MURPHY	3/27/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 628S



NOTES:

1. STONE SIZE: 75–125 mm (3–5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE: 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 DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		STABILIZED CONSTRUCTION ENTRANCE	
RECORD COPY SIGNED BY J. PATRICK MURPHY	5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S–1



1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 inches) DEPTH, USE STEEL POSTS.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.

3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

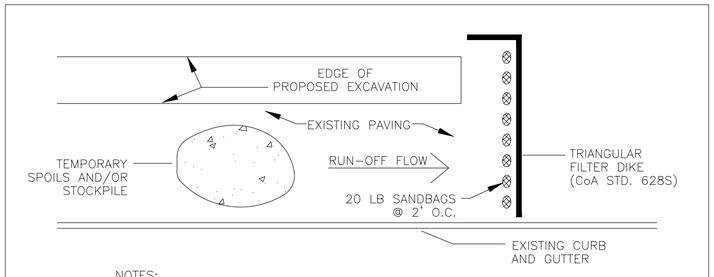
4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		SILT FENCE	
RECORD COPY SIGNED BY MORGAN BYARS	09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S–1



NOTES:

1. THE TEMPORARY SPOILS/STOCKPILE STORAGE AREA AND STAGING AREA MAY BE LOCATED DIRECTLY ADJACENT TO THE EXCAVATION AND ON THE PAVEMENT.
2. ANY SPOIL NOT INTENDED TO BE REUSED WILL BE HAULED TO AN APPROVED OR PERMITTED DISPOSAL SITE DAILY.
3. INSTALL TRIANGULAR SEDIMENT FILTER DIKE (DETAIL 628S) ACROSS FULL WIDTH OF TRAFFIC CLOSURE AND DOWNSTREAM OF CONSTRUCTION AREA, PERPENDICULAR TO CURB AND PLACED TO EFFECTIVELY CATCH AND CONTAIN SEDIMENT LADEN RUNOFF FROM THE EXCAVATED AREA. FILTER DIKE TO FOLLOW ACTIVE CONSTRUCTION. REMOVING AND RE–SETTING FILTER DIKE IS CONSIDERED SUBSIDIARY TO BARRICADES AND TRAFFIC HANDLING.

EROSION/SEDIMENTATION CONTROL FOR WORK IN PAVED AREAS

MODIFIED

REV. NO.	BY	DATE	REVISION DESCRIPTION

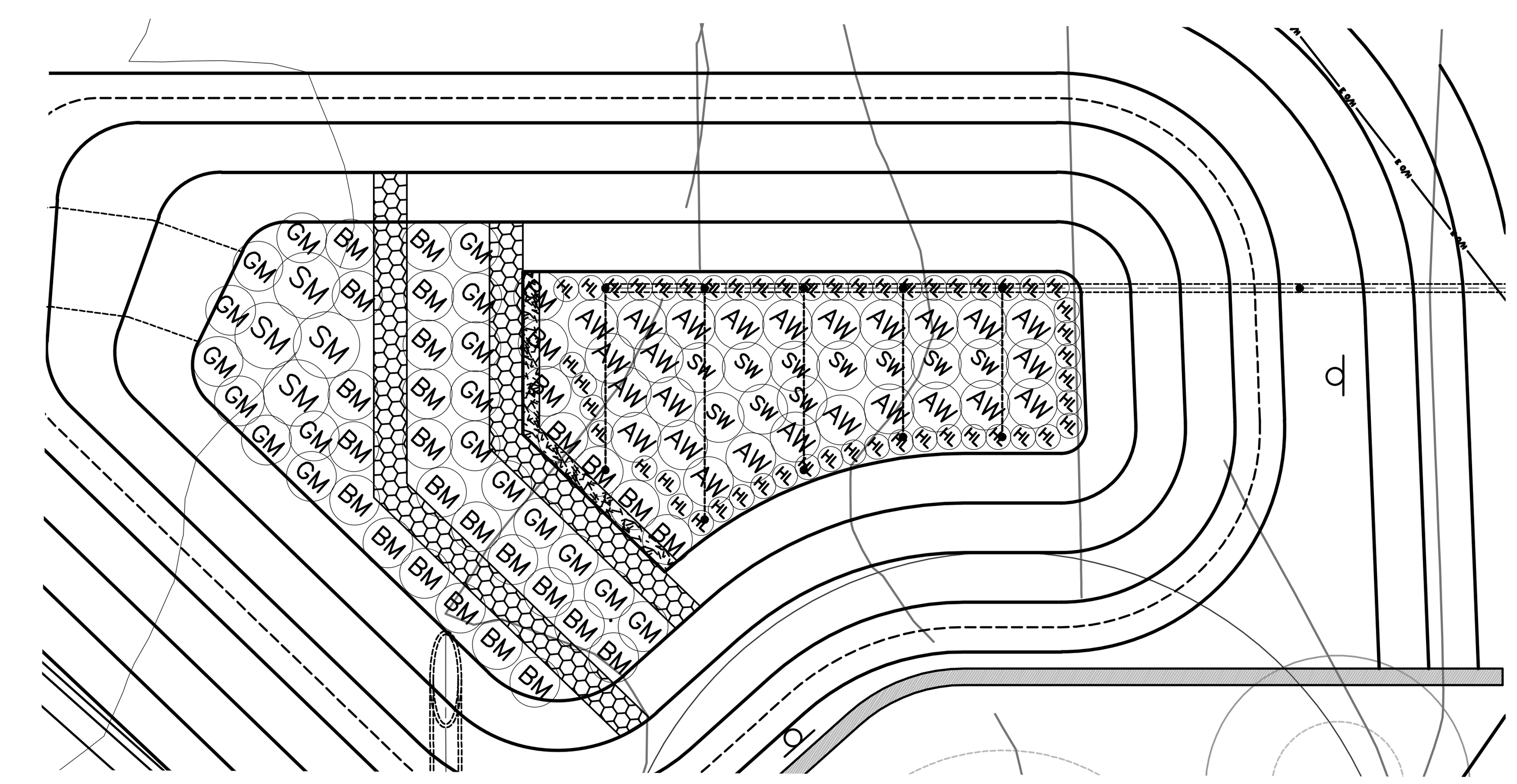
WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK - MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE
CITY OF AUSTIN
STANDARD EROSION CONTROL DETAILS

CITY OF AUSTIN
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	SS	11/18
CHECKED BY	DC	11/18
DESIGNED BY	DC	11/18
REVIEWED BY	SI	11/18
SCALE:	AS SHOWN	

SHEET NUMBER C-509



Sedimentation Basin			*475 SF X 0.10 = 48 Plants Required*		
Abbreviation	Common Name	Size	Spacing	Quantity	1 Gallon Equivalent
GM	Gulf Muhly	3 Gal.	36" o.c.	18	36
BM	Big Muhly	5 Gal.	36" o.c.	21	84
SM	Dwarf Palmeto	30 Gal.	48" o.c.	4	16
				Total Plants Provided	**136**

Biofiltration Basin			*439 SF X 0.20 = 88 Plants Required*		
Abbreviation	Common Name	Size	Spacing	Quantity	1 Gallon Equivalent
HL	Spider Lily	3 Gal.	18" o.c.	50	100
AW	Flameleaf Acanthus	5 Gal.	36" o.c.	25	100
SW	Switch Grass	3 Gal.	36" o.c.	10	20
BM	Big Muhly	5 Gal.	36" o.c.	7	28
				Total Plants Provided	**248**

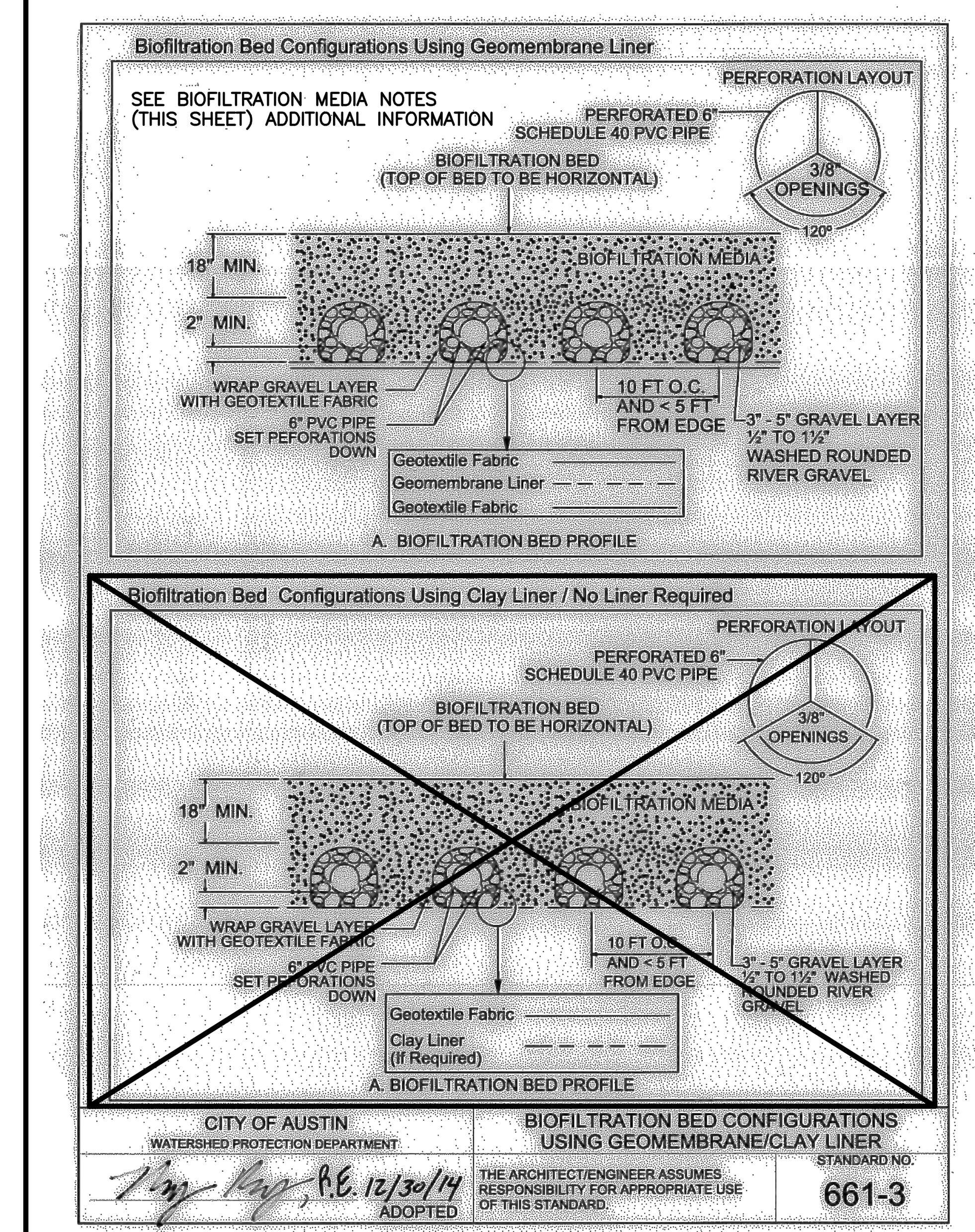
GRAPHIC SCALE
10 0 5 10 20
(SCALE IN FEET)
1 inch = 10'

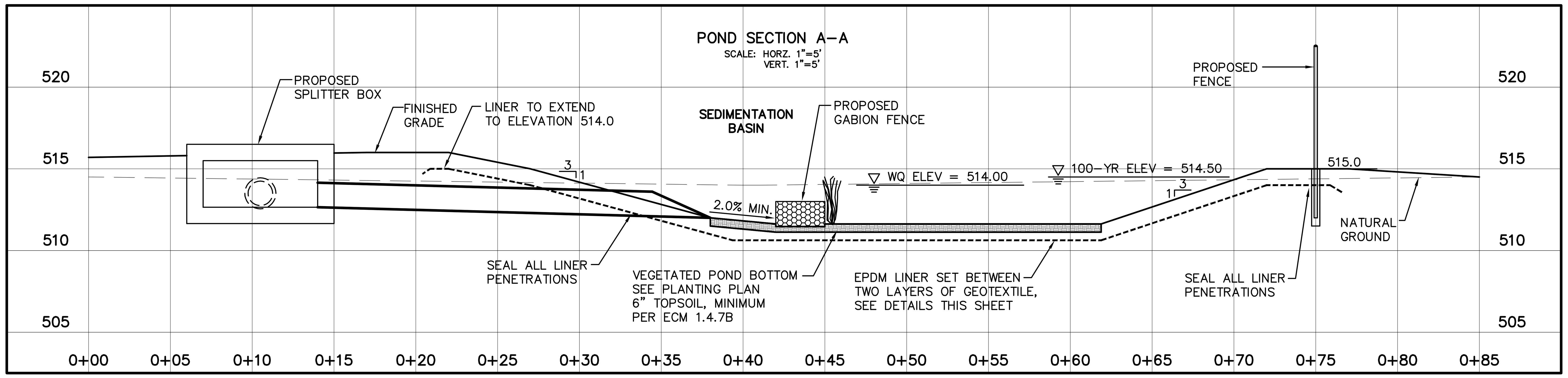
SEE LANDSCAPE PLANS FOR PLANTING NOTES AND DETAILS

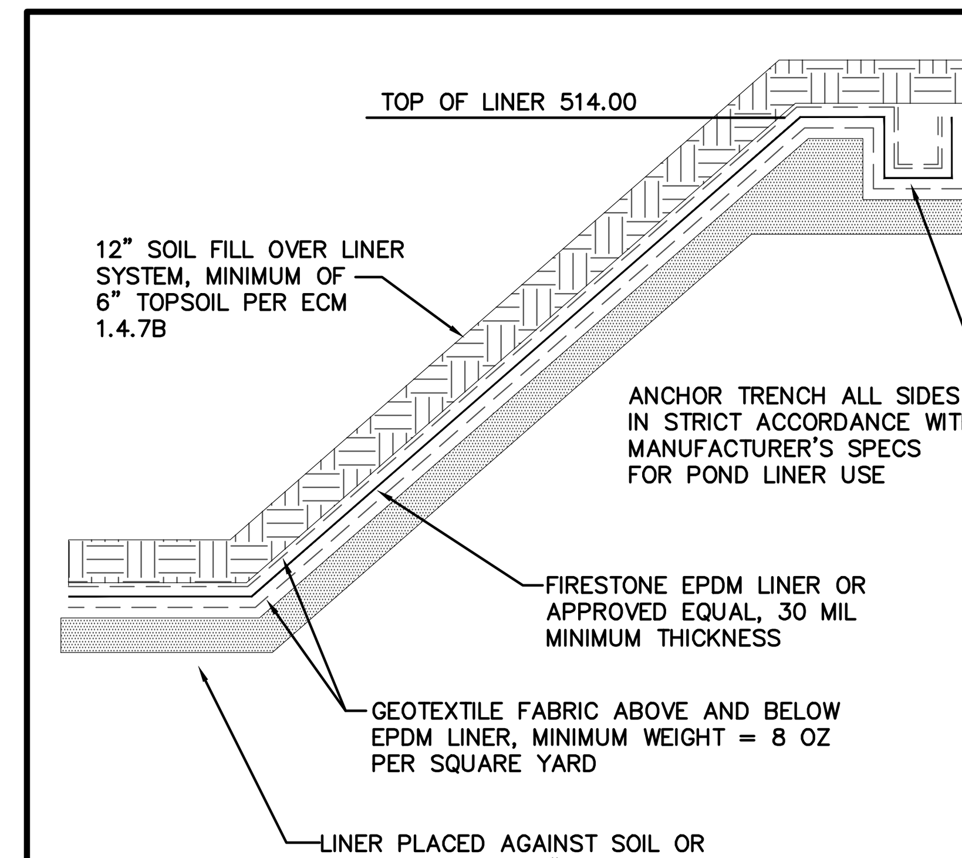
POND PLANTING PLAN

BIOFILTRATION MEDIA NOTES:

1. BIOFILTRATION MEDIA SHALL MEET THE PERFORMANCE CRITERIA OULINED IN ECM1.6.7.5.C.4.A.
2. FOR CREATING BIOFILTRATION MIXTURE, SEE COA STANDARD SPECIFICATION 660S, BIOFILTRATION MEDIA.
3. LABORATORY TESTING IS REQUIRED TO VERIFY PERCENT ORGANIC MATTER AND TEXTURE ANALYSIS.
4. THE HYDRAULIC CONDUCTIVITY OF THE BIOFILTRATION MEDIA SHALL BE HIGH ENOUGH TO PROVIDE ADEQUATE DRAINAGE, SUPPORT HEALTHY PLANT GROWTH AND PREVENT NUISANCE CONDITIONS. THE MEDIA MUST DEMONSTRATE SUFFICIENT WATER HOLDING CAPACITY TO SUPPORT VIGOROUS PLANT GROWTH. THE CONTRACTOR OR HIS/HER DESIGNEE (E.G. SOIL SUPPLIER) MUST BE CERTIFIED AS MEETING THESE PERFORMANCE CRITERIA BASED ON SUBMITTAL TICKETS, TEST RESULTS, ETC. BEFORE ACCEPTANCE BY THE CITY.



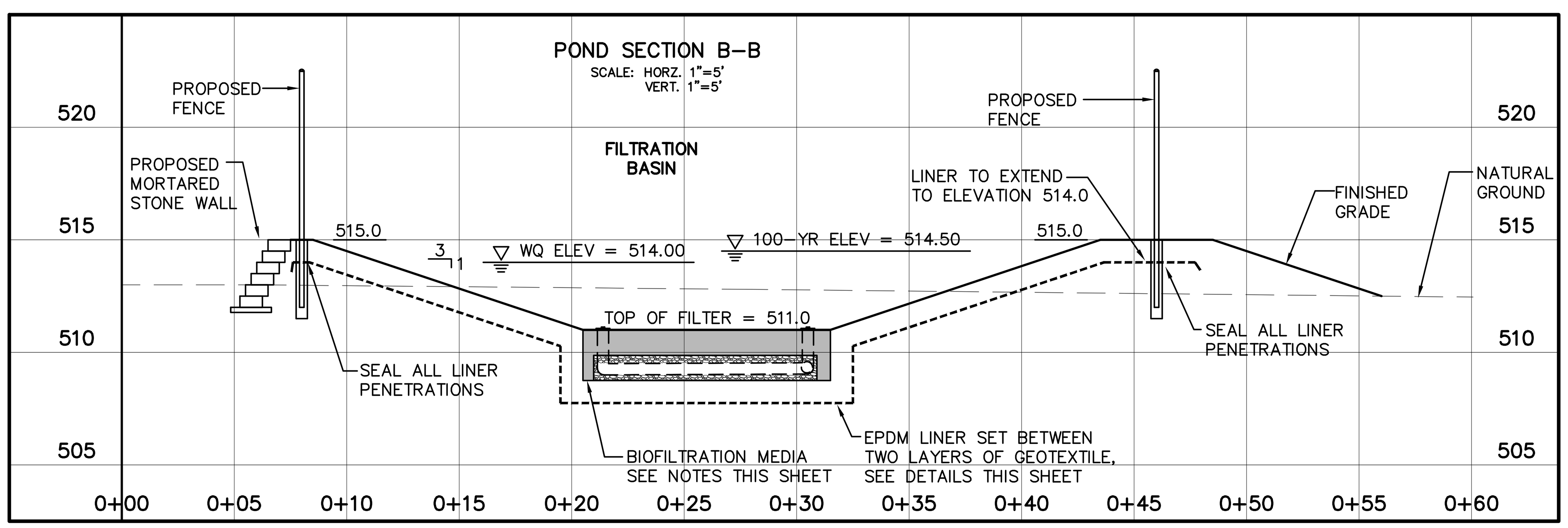


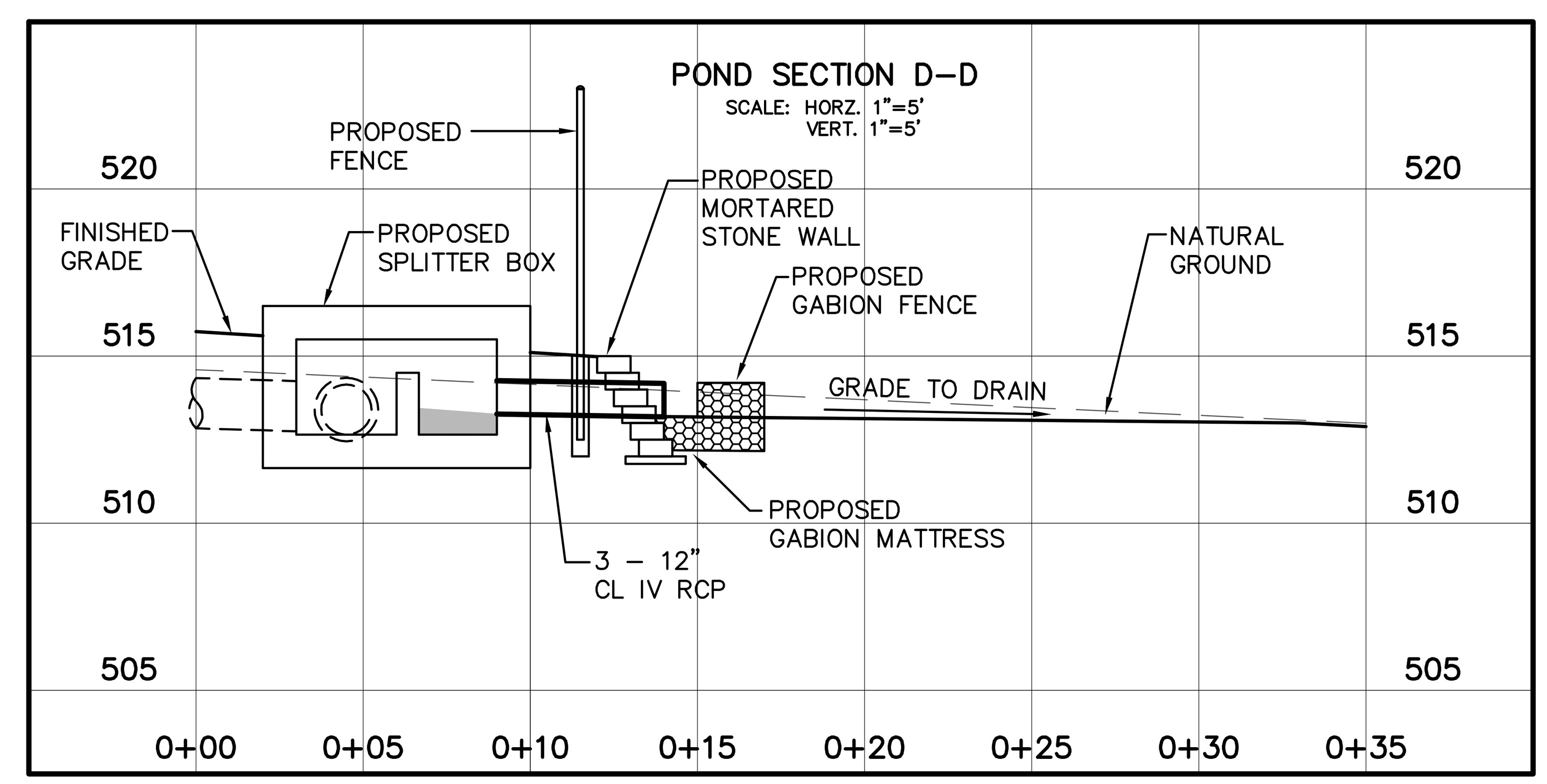


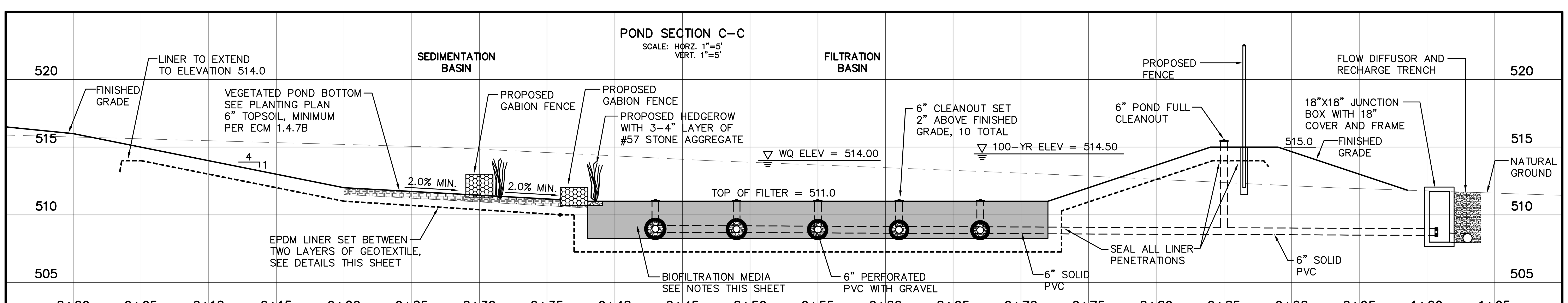
NOTES:

1. LINER SHALL BE FIRESTONE POND GUARD EPDM OR APPROVED EQUAL.
2. MINIMIM LINER THICKNESS SHALL BE 30 MILS.
3. GEOTEXTILE FABRIC SHALL A MINIMUM PUNCTURE STRENGTH OF 125 LBS, A MINIMUM TENSILE STRENGTH OF 200 LBS AND A MINIMUM MULLEN BURST STRENGTH OF 400 LBS.
4. LINER INSTALLATION IS SUBJECT TO CITY OF AUSTIN REQUIREMENTS FOR INSPECTION AND QUALITY CONTROL, REFER TO QA/QC PLAN FOR LINER INSTALLATION FOR DETAILS.
5. ALL LINER PENETRATIONS SHALL BE SEALED.

SYNTHETIC LINER DETAIL
NOT TO SCALE







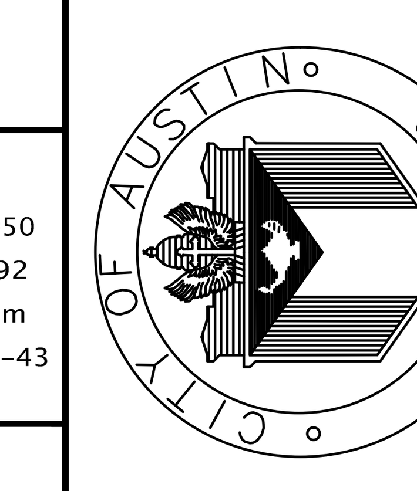
AXIOM Engineers Inc
P.O. Box 25
New Ulm, Texas 78950
Ph: (512) 784-5892
www.axiomtexas.com
Texas P.E. Firm No. F-43

REV. NO.	BY	DATE	REVISION DESCRIPTION

STATE OF TEXAS
NICOLE FOLTA FINDEISEN
91778
LICENSED PROFESSIONAL ENGINEER
03/19/2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK -
MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE
WATER QUALITY POND DETAILS I

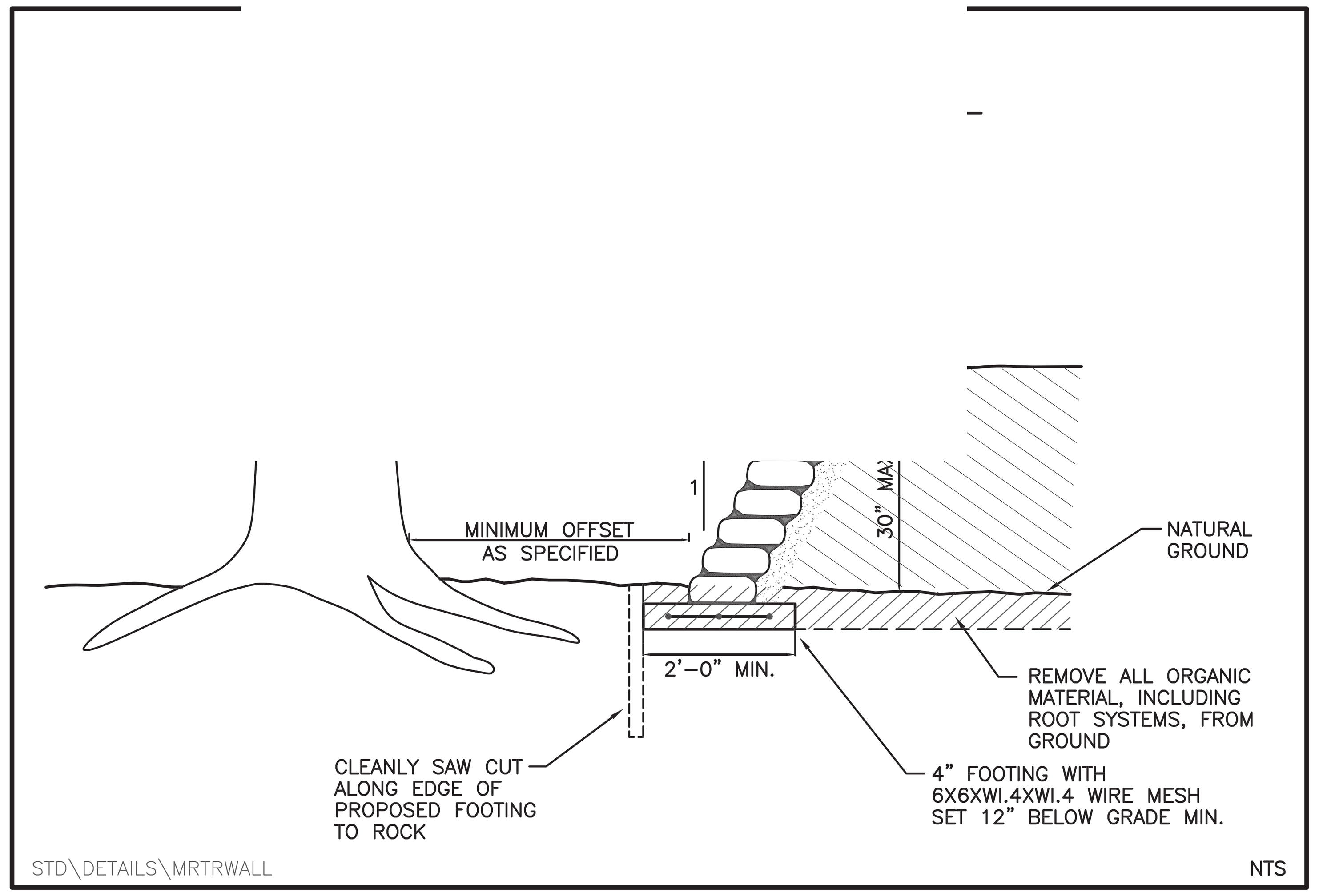


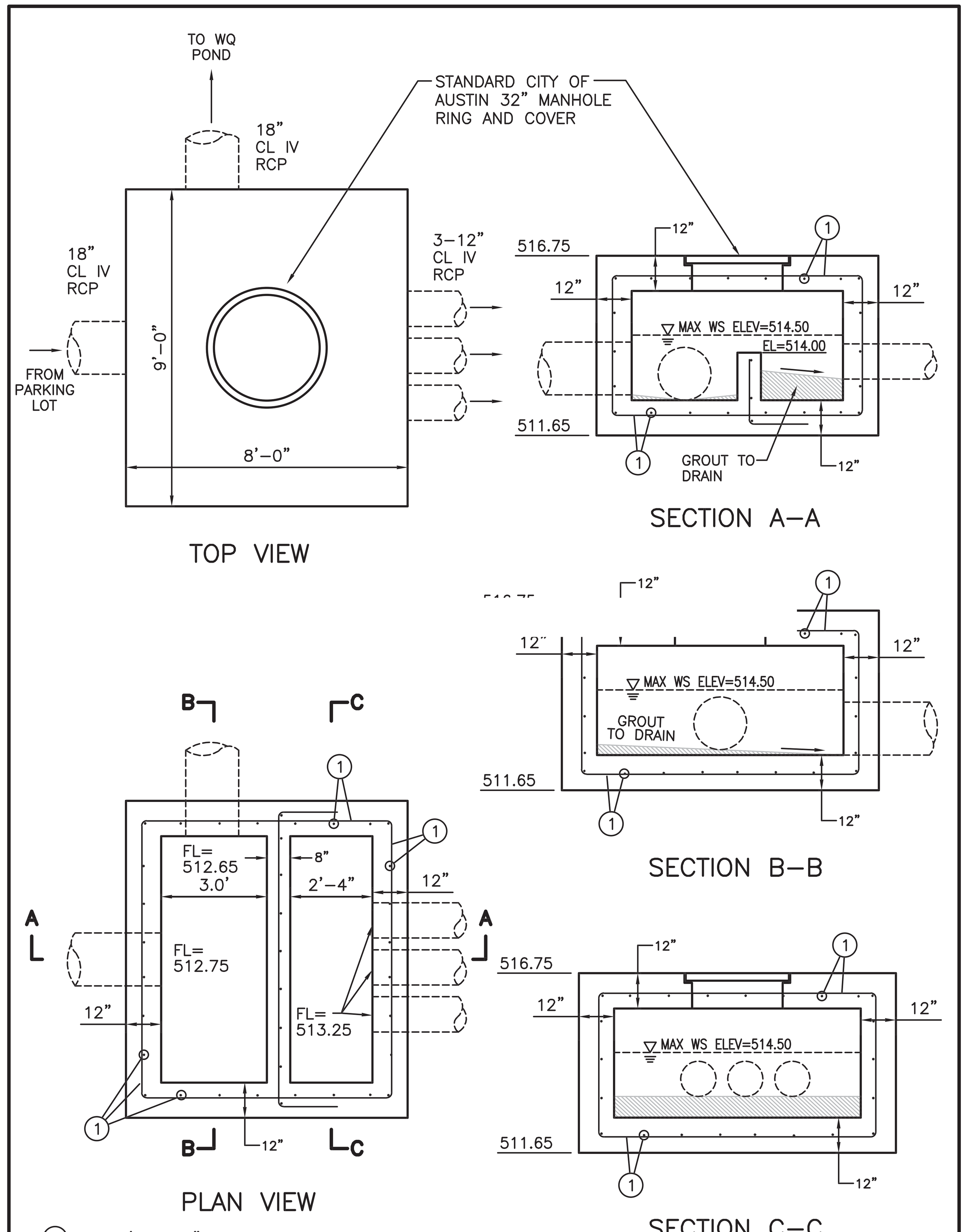
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	–	–
CHECKED BY	–	–
DESIGNED BY	–	–
REVIEWED BY	–	–
SCALE:	AS SHOWN	

SHEET NUMBER C-510

C:\Users\Nicole_F\Google Drive\Axiom Files\Jobs\253 Weston Solutions\10_Zilker Park\Dwg\Plans\ZILKPOND.dwg Nicole_F Plotted: March 23, 2020 – 11:12pm Layout: POND DETAIL 1
XREFS: 2234_ZILKER_TB_2013, P-BASE_All, E-BASE_2017, p-base_2017_rev site6, X-Prpl-Pond, 5035-#W(1), Strub steel edge, GRAVEL, E-BASE 2018





① NO. 5'S AT 8" O.C.E.W. CENTERED IN WALLS, LID AND BASE. INSTALL MIN. 30" x 30" CORNER BARS HORZ. AND VERT. TO PROVIDE CONTINUOUS STEEL

SPLITTER

HEIGHT	24"
LENGTH	18"
THICKNESS	0.08"
SUBSTRATE	ALUMINUM ALLOY, 6061-T-6, OR TYPE IV 5052-H38 (ASTM B-209)
COLOR	LETTERING AND BORDER BLACK

CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

STORM WATER FACILITY SIGN

P.E. 1/4/2016 ADOPTED

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

STANDARD NO. 662S-3

TCEQ WATER QUALITY POND SIZING CALCULATIONS

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

Drainage Basin/Outfall Area No. =	1	
Total drainage basin/outfall area =	0.79	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.73	acres
Post-development impervious fraction within drainage basin/outfall area =	0.92	
$L_{M\ THIS\ BASIN}$ =	635	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP =	Sand Filter	
Removal efficiency =	89	percent

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

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

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

A_C =	0.79	acres
A_I =	0.73	acres
A_P =	0.06	acres
L_R =	720	lbs

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

Desired $L_{M\ THIS\ BASIN}$ =	635	lbs.
F =	0.88	

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area.

Rainfall Depth =	1.50	inches
Post Development Runoff Coefficient =	0.75	
On-site Water Quality Volume =	3245	cubic feet
	Calculations from RG-348	
Off-site area draining to BMP =	0.00	acres
Off-site impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	649	
Total Capture Volume (required water quality volume(s) x 1.20) =	3894	cubic feet

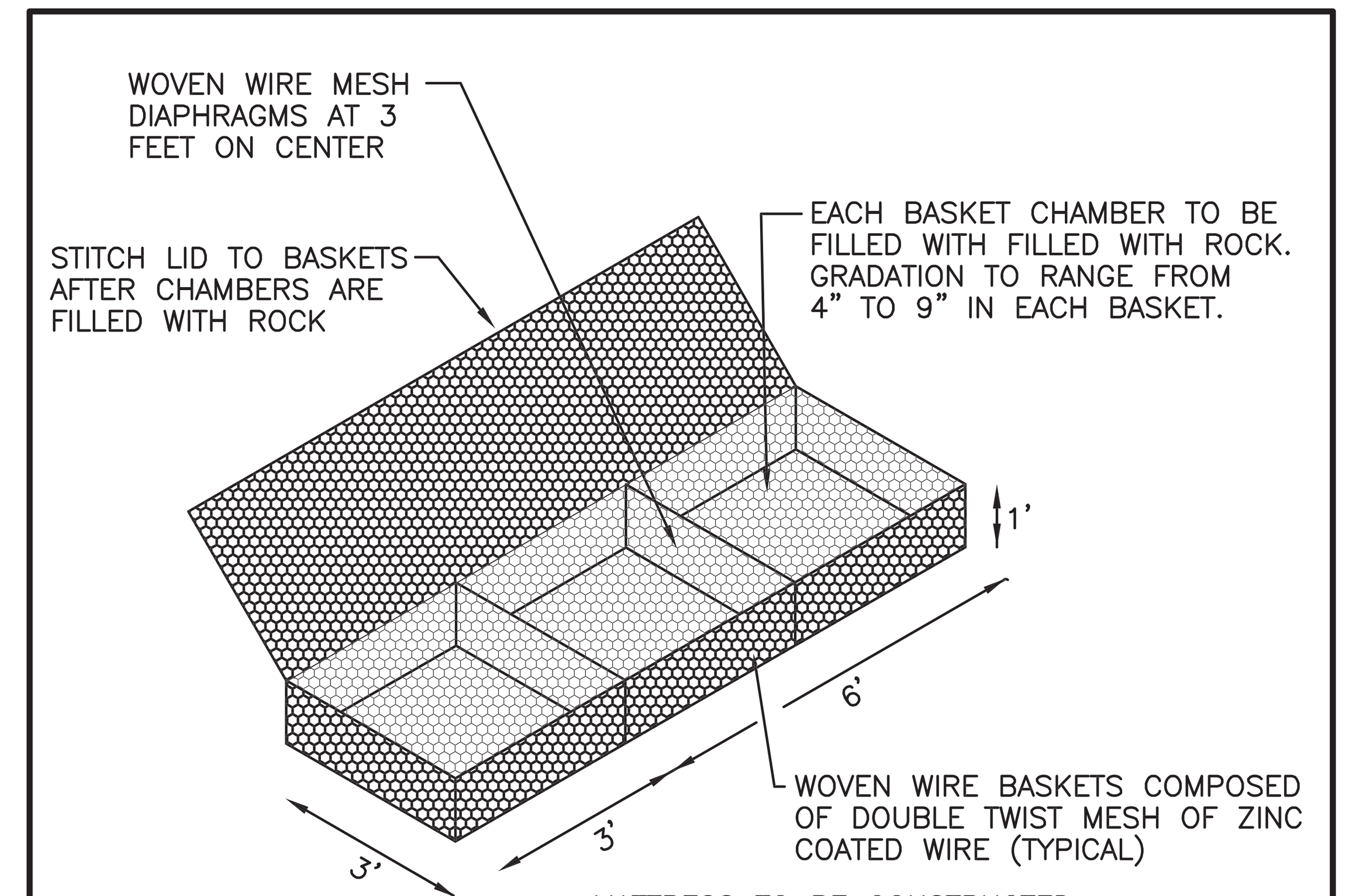
9. Filter area for Sand Filters — Designed as Required in RG-348

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin =	3894	cubic feet
Minimum filter basin area =	180	square feet
Maximum sedimentation basin area =	1623	square feet
Minimum sedimentation basin area =	406	square feet

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins =	3894	cubic feet
Minimum filter basin area =	325	square feet
Maximum sedimentation basin area =	1298	square feet
Minimum sedimentation basin area =	81	square feet

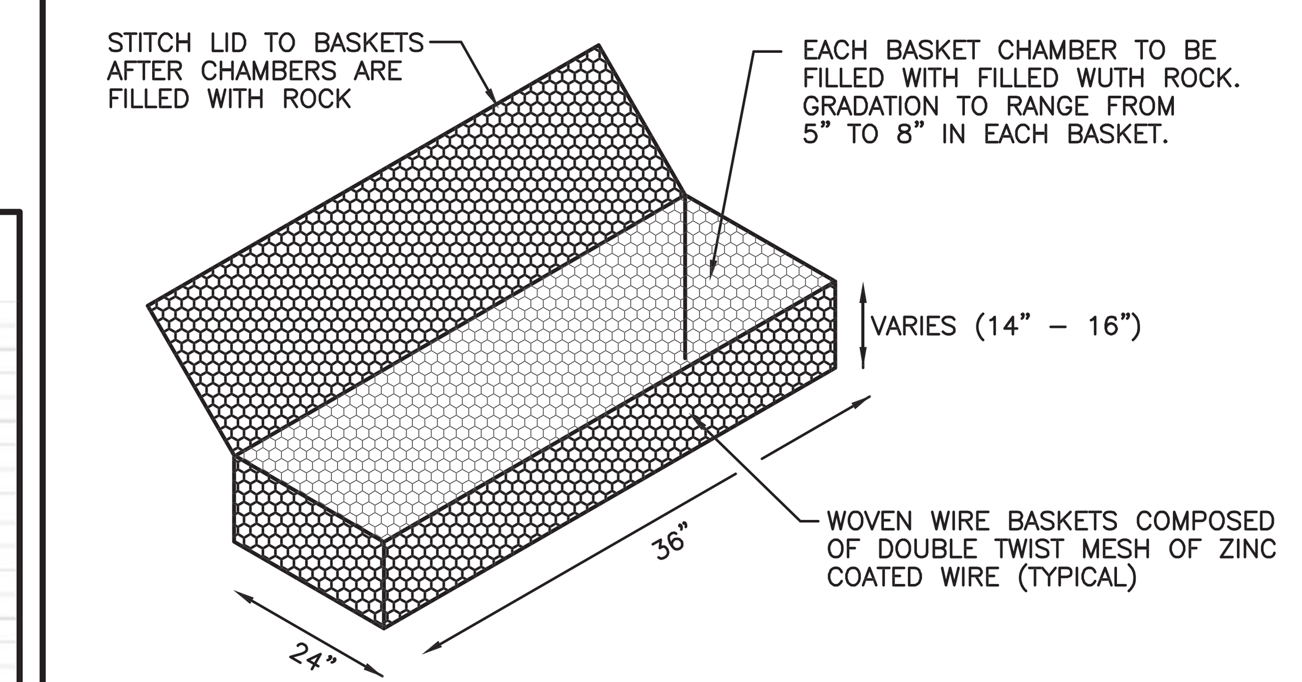


MATTRESS TO BE CONSTRUCTED OF SUCCESSIVE 3x3x9 FOOT BASKETS

NOTES:

1. TOP OF GABION MATTRESS SHALL SET FLUSH WITH FINISHED GRADE.
2. BOTTOM OF GABION MATTRESS SHALL BE CONSTRUCTED TO MAINTAIN POSITIVE DRAINAGE FROM OUTLET STRUCTURE.

GABION MATTRESS DETAIL
NOT TO SCALE

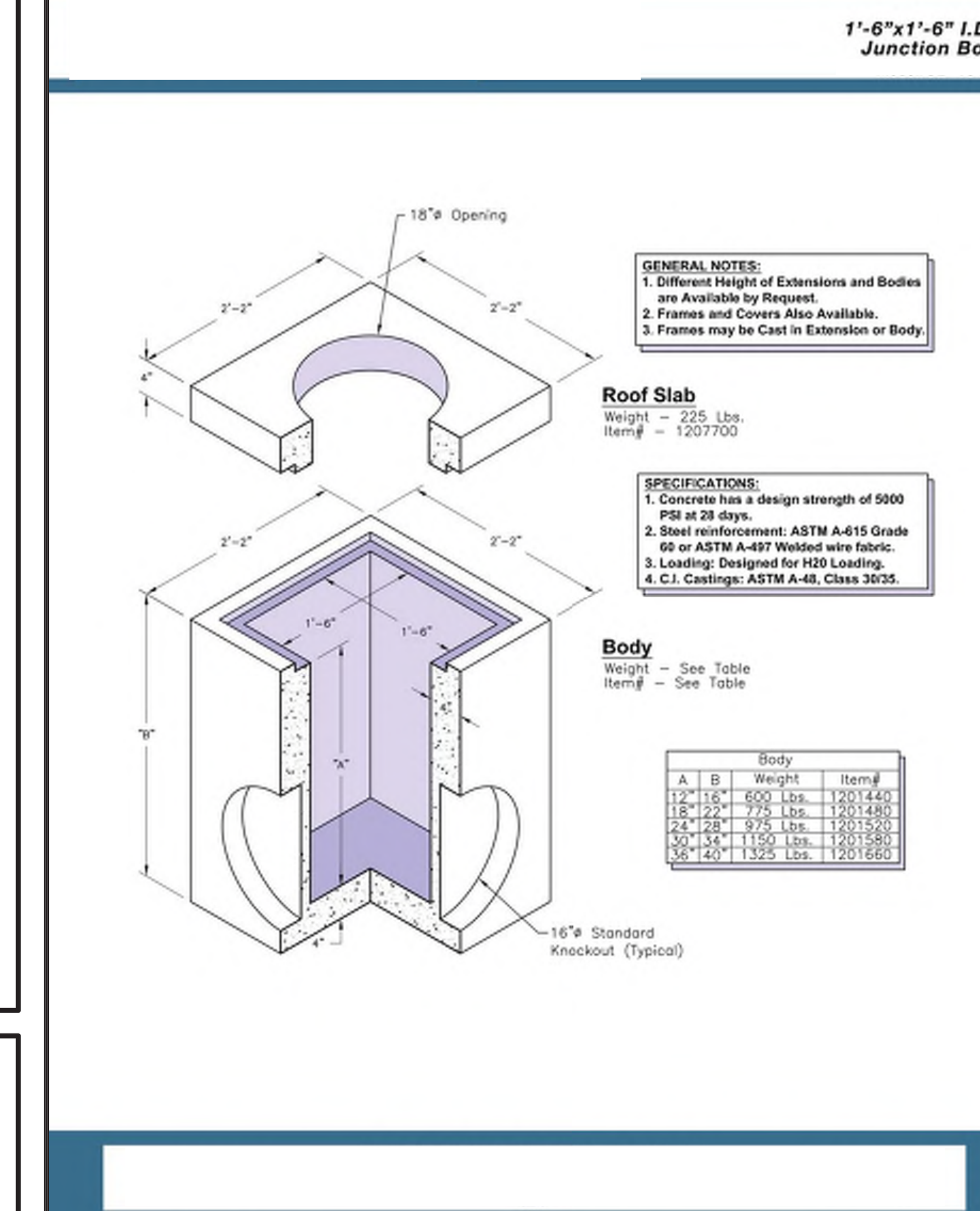


FENCE TO BE CONSTRUCTED OF SUCCESSIVE 14"X24"X36" BASKETS

NOTES:

1. TOP OF GABION FENCE SHALL SET AT ELEVATIONS SHOWN ON PLANS.
2. GABION FENCE SHALL BE SET 2–INCHES BELOW THE LOWEST ADJACENT FINISHED GROUND ELEVATION.

GABION FENCE DETAIL
NOT TO SCALE



Body			
A	B	Weight	Item#
12"	16"	600 Lbs.	1201440
18"	22"	775 Lbs.	1201480
24"	28"	975 Lbs.	1201520
30"	34"	1150 Lbs.	1201580
36"	40"	1325 Lbs.	1201660

Stage	Area	Storage
FT MSL	SF	CF
511.00	439	0
512.00	1135	787
513.00	1627	2168
514.00	2196	4080
515.00	2842	6599

Appendix R-6
Partial Biofiltration Pond Calculations
for Development Permits

DRAINAGE DATA:

Drainage Area to Control (DA)	0.79	Ac
Drainage Area Impvervious Cover	92	%
Capture Depth (CD)	1.2	Inches
25 Year Peak Flow Rate to Control (Q25)	5.9	cfs
100 Year Peak Flow Rate to Control (Q100)	8.5	cfs

WATER QUALITY CONTROL CALCULATIONS:	Required		Provided	
Water Quality Volume (WQV=CD*DA*3630)	3441	cf	4080	cf
For Partial Sedimentation Biofiltration Pond Volume (Min. 20% WQV)	688	cf	4080	cf
Filtration Pond Area	246	sf	439	sf
Water Quality Elevation	514.0	ft. msl		
Elevation of Splitter Box/Overflow Weir	514.0	ft. msl		
Length of Splitter Weir	7	ft		
Required Head to Pass Q100 (Max. 1.0 ft)	1.0 Max.	ft	0.5	ft
Pond Freeboard Provided to Pass Q100 (Min. 0.25 ft)	0.25 Min.	ft	1.0	ft

AXIOM Engineers Inc
P.O. Box 25
New Ulm, Texas 78950
Ph: (512) 784-5892
www.axiomtexas.com
Texas P.E. Firm No. F-43

REV NO.	BY	DATE	REVISION DESCRIPTION

STATE OF TEXAS
NICOLE FOLTA FINDEISEN
91778
LICENSED PROFESSIONAL ENGINEER
03/19/2020

WESTON SOLUTIONS, INC.
5301 SOUTHWEST PKWY, SUITE 450
AUSTIN, TEXAS 78735
TBPE REGISTRATION NO. F-3123

ZILKER METRO PARK -
MAINTENANCE BARN REPLACEMENT REBID
2338 COLUMBUS DRIVE
WATER QUALITY POND DETAILS II

CITY OF AUSTIN FOUNDED 1839
PARKS AND RECREATION DEPARTMENT

NOTES	NAME	DATE
SURVEY BY	JMC	11/16
DRAWN BY	–	–
CHECKED BY	–	–
DESIGNED BY	–	–
REVIEWED BY	–	–
SCALE:	AS SHOWN	
SHEET NUMBER	C-511	

C:\Users\Nicole_F\Google Drive\Axiom Files\Jobs\253 Weston Solutions\10_Zilker Park\Dwg\Plans\ZILKPOND.dwg Nicole_F Plotted: March 23, 2020 – 11:34pm Layout: POND DETAIL 2
XREFS: 22x34_ZILKER_TB_2013, P-BASE_A0, E-BASE 2017, p-base 2017_rev site6, X-Prl-Pond_5035-4W(1), Strub steel edge_GRAVEL, F-BASE 2018