

# WATER POLLUTION ABATEMENT PLAN (WPAP)

FOR

# Oak Knoll Drive Phase I Improvements/ Flex Building Expansion

OAK KNOLL DRIVE, AUSTIN, WILLIAMSON COUNTY, TEXAS

October 2022

Prepared for: Karlin Research Park Development, LLC 11755 Wilshire Blvd STE 1400 Los Angeles, CA 90025

Prepared by:

**HR Green Development TX, LLC** 4201West Parmer Lane, Suite C100

Austin, Texas 78727 TBPE Registration No. 16384



# 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 <u>30 TAC 213</u>.

#### **Administrative Review**

1. <u>Edwards Aquifer applications</u> 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: <u>http://www.tceq.texas.gov/field/eapp</u>.

- 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 N Oak Knoll Drive P	ame: hase l	Impro	oveme	ents		2. Re	egulat	ed Entity No.:	
3. Customer Name:	Karlin F Develoj	Resea pmer	arch P nt LLC	ark		4. Cı	istom	er No.:	
5. Project Type: (Please circle/check one)	New X	K	Modif	icatior	1	Exter	nsion	Exception	
6. Plan Type: (Please circle/check one)	WPAP X	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: (Please circle/check one)	Resider	ntial	Non-r	esiden	itial y	K	8. Sit	e (acres):	38.07
9. Application Fee:	\$6,5	00	10. Permanent BMP(s):			s):	Wet Pond		
11. SCS (Linear Ft.):			12. A	ST/US	ST (N	o. Tar	nks):		
13. County:	Williar	nson	14. W	aters	hed:			Rattan Cree	ek

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

	S	an 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.

MICHAEL A GIANNETTA

Print Name of Customer/Authorized Agent

Signature of Customer/Authorized Agent

10/17/2023 Date

**FOR TCEQ INTERNAL USE ONI	_Y**				
Date(s)Reviewed:	Ι	Date Adn	ninistratively Complete:		
Received From:	(	Correct N	Number of Copies:		
Received By:	Ι	Distribut	ion Date:		
EAPP File Number:	(	Complex	:		
Admin. Review(s) (No.):	Ν	lo. AR R	counds:		
Delinquent Fees (Y/N):	ŀ	Review T	ïme Spent:		
Lat./Long. Verified:	S	SOS Cust	comer Verification:		
Agent Authorization Complete/Notarized (Y/N):	F	Fee		Payable to TCEQ (Y/N):	
Core Data Form Complete (Y/N):	Ó	Check:	Signed (Y/N):		
Core Data Form Incomplete Nos.:			Less than 90 days old (	Y/N):	

# **General Information Form**

**Texas Commission on Environmental Quality** 

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

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

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

## Signature

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

Print Name of Customer/Agent: Michael Giannetta

Date: 10/17/2023

Signature of Customer/Agent:

Project Information Oak Knoll Drive Phase I

- 1. Regulated Entity Name: <u>Improvements</u>
- 2. County: Williamson
- 3. Stream Basin: Rattan Creek
- 4. Groundwater Conservation District (If applicable): <u>N/A</u>
- 5. Edwards Aquifer Zone:



6. Plan Type:

X WPAP	🗌 AST
scs	UST UST
Modification	Exception Request

7. Customer (Applicant):

Contact Person:Matthew SchwabEntity:Karlin Research Park Development LLCMailing Address:11755 Wilshire Blvd STE 1400City, State:Los Angeles, CATelephone:(310)806-9728FAX:Email Address:joep@karlinre.com

8. Agent/Representative (If any):

Contact Person: Michael GiannettaEntity: HR Green Development TX, LLCMailing Address: 4201 W. Parmer Lane, Suite C-100City, State: Austin, TexasZip: 78727Telephone: 512.872.6696FAX: \_\_\_\_\_Email Address: michael.giannetta@hrgreen.com

9. Project Location:

X The project site is located inside the city limits of <u>Austin</u> Parcel Number: R652025 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. X The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

The project is located on Oak Knoll Drive off of U.S. 183

- 11. X 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. X 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:
  - X Project site boundaries.
  - X USGS Quadrangle Name(s).
  - X Boundaries of the Recharge Zone (and Transition Zone, if applicable).
  - X Drainage path from the project site to the boundary of the Recharge Zone.
- 13. X 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.
  - X Survey staking will be completed by this date: <u>Completed</u>

- 14. X Attachment C Project Description. Attached at the end of this form is a detailed narrative description of the proposed project. The project description is consistent throughout the application and contains, at a minimum, the following details:
  - X Area of the site
  - X Offsite areas
  - X Impervious cover
  - X Permanent BMP(s)
  - X Proposed site use
  - X Site history
  - X Previous development
  - X Area(s) to be demolished
- 15. Existing project site conditions are noted below:
  - X Existing commercial site
     Existing industrial site
     Existing residential site
     Existing paved and/or unpaved roads
     Undeveloped (Cleared)
     Undeveloped (Undisturbed/Uncleared)
     Other: \_\_\_\_\_

## **Prohibited Activities**

- 16. X I am aware that the following activities are prohibited on the Recharge Zone and are not proposed for this project:
  - (1) Waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);
  - (2) New feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;
  - (3) Land disposal of Class I wastes, as defined in 30 TAC §335.1;
  - (4) The use of sewage holding tanks as parts of organized collection systems; and
  - (5) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).
  - (6) New municipal and industrial wastewater discharges into or adjacent to water in the state that would create additional pollutant loading.
- 17. X I am aware that the following activities are prohibited on the Transition Zone and are not proposed for this project:
  - (1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);
  - (2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and

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

#### Administrative Information

- 18. The fee for the plan(s) is based on:
  - X For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
  - X 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. X 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:

#### 

 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. X 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. X 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.







OAK KNOLL DRIVE - PHASE I IMPROVEMENTS/FLEX EXPANSION VICINITY MAP



## Attachment C – Project Description

Oak Knoll Drive Phase I Improvements is a 38.07-acre development located off of U.S. 183, within the Research Park Development at 12455 Research Blvd in the Full-Purpose limits of the City of Austin, Travis/Williamson County, Texas. The development will consist of the realignment of the existing Oak Knoll Drive, as well as the associated storm sewer system, and wet pond as required per City of Austin Regulations. Currently, Oak Knoll Drive is a private road within the Research Park Campus of which this segment of roadway will be dedicated public right-of-way (ROW) to the City of Austin.

Research Park Flex Expansion is a 13.25-acre development located at 12455 Research Blvd in the Full-Purpose Limits of the City of Austin, Travis County, Texas. The project will consist of an approximately 183,150 Sf warehouse expansion with parking and associated utility infrastructure.

The two sites lie within the Rattan Creek Watershed classified by the city as a Suburban Watershed. Based on the delineation provided by the Texas Commission on Environmental Quality (TCEQ), the subject site is located within the Edwards Aquifer Recharge Zone. This project is not within any Williamson County 100-year fully developed floodplain or FEMA 500-year floodplain as shown on the county GIS website.

The water quality and detention will be provided for the project and future development by means of a proposed wet pond located on the east side of the realigned Oak Knoll Drive. The pond was designed to handle the 2-year peak flows as well as the proposed impervious cover associated with this project and potential future developments. The pond and all storm sewer infrastructure were designed with Atlas-14 rainfall data.

Additional infrastructure proposed within the ROW include a 12-inch water line to parallel the existing Austin Water Utility (AWU) 16-inch waterline located along the west property line within a public easement that will be used to support the water service for the roadway and the future developments.

Additional infrastructure proposed within the Flex Expansion includes a public 8-inch gravity main which will connect up to the existing sanitary sewer in the southwest of the site.

The total limits of construction for the proposed sites are 38.07 acres with 13.04 acres of impervious cover.

# **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: Russell C Ford

Telephone: 512 442-1122

Date: 11/27/19

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

AST UST

Representing: <u>Terracon Consultants, Inc.</u> (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:

Regulated Entity Name: Research Park Flex Building Expansion

# **Project Information**

- 1. Date(s) Geologic Assessment was performed: 10/10/19 and 10/31/19
- 2. Type of Project:

$\mathbf{X}$	WPAF
	SCS

3. Location of Project:

TCEQ-0585 (Rev.02-11-15)

- Recharge Zone
  - Contributing Zone within the Transition Zone



- 4. X Attachment A Geologic Assessment Table. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.
- 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, InfiltrationCharacteristics and Thickness

Soil Name	Group*	Thickness(feet)
GsB	D	0-5
SsC	D	0-1.66
SaB	D	0-6.66
ТсА	D	0-3.33
EeB	D	0-1.33

#### \* 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. X 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. X 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. X 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:  $1" = \underline{600}$ ' Site Geologic Map Scale:  $1" = \underline{600}$ ' Site Soils Map Scale (if more than 1 soil type):  $1" = \underline{600}$ '

9. Method of collecting positional data:

X Global Positioning System (GPS) technology.

Other method(s). Please describe method of data collection:

- 10. X The project site and boundaries are clearly shown and labeled on the Site Geologic Map.
- 11. X Surface geologic units are shown and labeled on the Site Geologic Map.

12. 🗙 (	Seologic or manmade features were discovered on the project site during the field
i	nvestigation. They are shown and labeled on the Site Geologic Map and are described
i	n 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.
  - X 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.

X 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. X 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

GEOL	OGIC AS	SESSM	ENT T	ABLE			R	OJECT	NAME:	8-Acr	e Parce	I, Resea	rch Par	rk, Oak Kn	oll Dri	ve, A	ustin,	Texas			
LOCAT	NOI		FEATU	JRE CH	ARACT	ERIS!	<b>LICS</b>								EVAL	S	NOI.	PHYS	ICAL 3	SETTING	Γ
1A	18*	1C*	2A	28	6		4		5	5A	9	2	8A	88	0	9		=	-	12	
FEATURED	ГАТПИДЕ	LONGITUDE	FEATURE TYPE	PONTS	FORMATK	z	OMENSION	S(FEET)	TREND (DEGREES)	MOD	DENSITY (NOJET)	APER TURE (FEET)	NFLL	RELATIVE NFL,TRATION RATE	TOTAL	UISNOS	λЩ.	CATCHM INTAREA (ACRES)		TOPOGRAPHY	
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2A TYPE	Түре				2B POIN	TS	8A	INFILL	-ING												
υ	Cave					30	z	Non	e, exposi	ed be	drock										
sc	Solution cav	/ity				20	υ	Coal	rse - cob	bles,	breakdo	own, sanc	d, grave	6							
SF	Solution-enl.	arged fractu	re(s)			20	0	Loos	se or sofi	t mud	l or soil,	organics	, leave	s, sticks, d	ark col	ors					
ш	Fault					20	L	Fine	s, compe	acted	clay -ric	h sedime	ent, soil	l profile, gra	ly or re	d col	SIC				
0	Other nature	al bedrock ft	eatures			2	>	Vegt	station. G	sive o	letails in	n narrativ	e descr	ription							
MB	Manmade fi	eature in bec	trock			30	ŝ	Flow	<b>istone</b> , ce	emen	ts, cave	e deposit:	ŝ								
SW	Swallow hole	đ				30	×	Othe	er materia	sle											
SH	Sinkhole					1															
CD	Non-karst c	losed depret	ssion		-	ŧ	193	110POC	<b>SRAPHY</b>												
z	Zone, clusti	ered or align	ed featur	Les,	1	1	Δ		top, Hills	ide, L	Trainage	, Floodp	lain, Str	reambed							
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			7/23	2702/2																	

# Attachme nt B Stratigraphic Column 8-Acre Parcel, Research Park Oak Knoll Drive Austin, Texas

ROGEOLOGIC	FORMATION	THICKNESS	LITHOLOGY
DIVISION		(feet)	
ards Aquifer	Edwards Limestone	310	Mudstone to packstone, crystalline limestone, wackestone, chert

Source: Senger, Collins and Kreitler, 1990





#### ATTACHMENT C SITE-SPECIFIC GEOLOGY

The Geologic Assessment (GA) of the 8-Acre Parcel at Research Park was performed by Mr. Russell C. Ford, P.G., of Terracon on June 24, 2022. The site is located on Oak Knoll Drive in Austin, Texas. The site is an approximate 8-acre tract of partially developed land including paved parking and landscaped areas associated with an existing office building development immediately adjacent to the site. The areas immediately surrounding the site are predominantly commercial residential properties. The site is characterized as gently sloping to the east.

The surficial geologic unit present at the site has been identified as the Edwards Limestone. The Geologic Site map is attached as Exhibit 2. The Edwards consists of massive to thin bedded limestones and dolostones. The formation is characterized by honeycomb textures, collapse breccias and cavern systems, which account for most of the significant porosity within the strata that compose most of the aquifer. The site is located entirely within the recharge zone of the Edwards Aquifer. Attachment B is a stratigraphic column prepared for the site. Exposure of this unit onsite is obscured by the existing site vegetation and paved parking areas. No faulting was observed on the site and the nearest mapped fault is located approximately 1.5 miles northwest of the site. The fault, which trends toward the northeast, is associated with the Balcones Fault zone which represents the dominant structural trend in the vicinity of the site. The completed Geologic Assessment form is included as Attachment A.

No geologic features were observed on the site. Two existing monitoring are located on the site and are depicted on the attached Exhibit 2. Based on the lack of any sensitive recharge features on site, the potential for fluid movement to the Edwards aquifer beneath the site is considered low.



7/22/2022





# 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: Michael Giannetta

Date: 10/17/2023

Signature of Customer/Agent:

Regulated Entity Name Oak Knoll Drive Phase I Improvements Regulated Entity Information

- 1. The type of project is:
  - Residential: Number of Lots:
     Residential: Number of Living Unit Equivalents:
     X Commercial
     Industrial
     Other:
- 2. Total site acreage (size of property): 13.77
- 3. Estimated projected population: 0
- 4. The amount and type of impervious cover expected after construction are shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	196,020	÷ 43,560 =	4.5
Parking	209,088	÷ 43,560 =	4.8
Other paved surfaces	163,033.8	÷ 43,560 =	3.74
Total Impervious Cover	568,022.4	÷ 43,560 =	13.04

Table 1 - Impervious Cover Table

Total Impervious Cover <u>13.04</u> ÷ Total Acreage <u>38.07</u> X **100** = <u>33.25</u>% Impervious Cover

- 5. X 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.

X Street or road providing access to private driveways.

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

```
Concrete
XAsphaltic concrete pavement
Other:
```

9. Length of Right of Way (R.O.W.): 2,188 feet.

Width of R.O.W.:  $\frac{103.5}{103.5}$  feet. L x W =  $\frac{226,458}{1000}$  Ft<sup>2</sup> ÷ 43,560 Ft<sup>2</sup>/Acre =  $\frac{5.2}{1000}$  acres.

10. Length of pavement area: 2,188 feet.

Width of pavement area: <u>37</u> feet.  $L \times W = \frac{80,956}{Ft^2} \div 43,560 Ft^2/Acre = 1.86 acres.$ Pavement area <u>1.86</u> acres ÷ R.O.W. area <u>5.2</u> acres x 100 = <u>35.8</u>% impervious cover.

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

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

12. X 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. X 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:

% Domestic	Gallons/day
% Industrial	Gallons/day
% Commingled	Gallons/day
TOTAL gallons/day	

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.

X Sewage Collection System (Sewer Lines):

- Private service laterals from the wastewater generating facilities will be connected to an existing SCS.
- Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.
- The SCS was previously submitted on\_\_\_\_\_.
- The SCS was submitted with this application.
- X 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 \_\_\_\_\_ (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. X The Site Plan must have a minimum scale of 1'' = 400'.

Site Plan Scale: 1" = \_\_\_\_\_'.

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.

X 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): FIRM 48491C0620F eff. 12/20/2019, FIRM 48491C0610F eff.
/ <u>12/20</u> /2010 EIPM 48453C0235 Loff 1/6/2016

19. X 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.

X 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. (C	heck 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.

X 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:
  - X 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. X The drainage patterns and approximate slopes anticipated after major grading activities.
- 23. X Areas of soil disturbance and areas which will not be disturbed.
- 24. X Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
- 25. X Locations where soil stabilization practices are expected to occur.
- 26. X Surface waters (including wetlands).
  - N/A
- 27. X 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. X Legal boundaries of the site are shown.

#### Administrative Information

- 29. X 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. X 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 Water Quality

Potential sources of pollution that may be expected to affect the quality of the storm water discharges from the construction site include the following:

- Soil erosion due to the clearing of the site for roads and buildings and drainage structures.
- Oil, grease, fuel and hydraulic fluid contamination from construction equipment and vehicle drippings.
- Hydrocarbons from asphalt paving operations.
- Miscellaneous trash and litter from construction.

Potential sources of pollution that may be expected to affect the quality of the storm water discharges from the site after construction is completed include the following:

- Oil, grease, fuel and hydraulic fluid contamination from vehicle drippings.
- Dirt and dust from vehicles.
- Trash and litter.

## Attachment B – Volume and Character of Stormwater

The proposed site drainage will be picked up by storm inlets and conveyed to the proposed water quality ponds. Detailed existing and proposed flow data for the point of interest are provided on the drainage plans as part of the construction documents submitted with this application. Required water quality volume can be found in the COA R-Table on the water quality and detention pond plan sheet and on the provided TSS Removal Calculations.

# **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: Michael Giannetta

Date: 10/17/2023

Signature of Customer/Agent:

Regulated Entity Name: Oak Knoll Drive Phase I Improvements

Flex Expansion Building

#### **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.
- X Fuels and hazardous substances will not be stored on the site.
- 2. X 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. X 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. X 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.
  - X For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.
  - X 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. X 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: <u>Rattan Creek</u>

## 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. X 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:

	<ul> <li>A description of groundwater of across the site</li> <li>A description of groundwater to contaminated</li> <li>A description of surface stream</li> <li>A description of maintain flow geologic asses construction.</li> </ul>	f how BMPs and measures will prevent pollution of surface water, r stormwater that originates upgradient from the site and flows f how BMPs and measures will prevent pollution of surface water or nat originates on-site or flows off site, including pollution caused by stormwater runoff from the site. f how BMPs and measures will prevent pollutants from entering s, sensitive features, or the aquifer. f how, to the maximum extent practicable, BMPs and measures will co naturally-occurring sensitive features identified in either the sment, TCEQ inspections, or during excavation, blasting, or
8. [	The temporary sea to the Edwards Ac construction shou	ling of a naturally-occurring sensitive feature which accepts recharge uifer as a temporary pollution abatement measure during active d be avoided.
	Attachment E seal a feature and practicabl X There will be r site.	<b>Request to Temporarily Seal a Feature</b> . A request to temporarily s attached. The request includes justification as to why no reasonable e alternative exists for each feature. to temporary sealing of naturally-occurring sensitive features on the
9. [	X Attachment F - St used to divert flow discharge of pollu structural practice	uctural Practices. A description of the structural practices that will be s away from exposed soils, to store flows, or to otherwise limit runoff ants from exposed areas of the site is attached. Placement of s in floodplains has been avoided.
10. [	X Attachment G - D requirements is at	ainage Area Map. A drainage area map supporting the following ached:
	<ul> <li>For areas that disturbed at o</li> <li>For areas that disturbed at o used.</li> <li>For areas that disturbed at o used.</li> <li>For areas that disturbed at o attainable, bur down slope ar</li> <li>There are no a disturbed at o used in combi drainage area.</li> </ul>	vill have more than 10 acres within a common drainage area e time, a sediment basin will be provided. will have more than 10 acres within a common drainage area he time, a smaller sediment basin and/or sediment trap(s) will be will have more than 10 acres within a common drainage area he time, a sediment basin or other equivalent controls are not other TBMPs and measures will be used in combination to protect d side slope boundaries of the construction area. reas greater than 10 acres within a common drainage area that will be he time. A smaller sediment basin and/or sediment trap(s) will be hation with other erosion and sediment controls within each disturbed

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.
  - X N/A
- 12. X 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. X 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. X 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. X 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. X 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. X 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. X 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. X Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

## Administrative Information

- 20. X All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
- 21. X 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. X 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

The objective of this section is to describe measures to prevent or reduce the discharge of pollutants to drainage systems or watercourses. Measures include reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees. Onsite personnel will be trained to follow the spill response actions for the site.

The following practices will be followed for spill prevention and cleanup:

• Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.

The following practices will be followed for spill prevention and cleanup:

- Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include but not be limited to brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated, and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the Owner and to the appropriate State or local government agency, regardless of the size.
- The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.
- The site superintendent responsible for the day-to-day site operations will be the spill prevention and cleanup coordinator. He will designate at least three other site personnel who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel will be posted in the material storage area and in the office trailer onsite.
- Any hydrocarbon or hazardous material spill should be reported to the TCEQ at the following 24-hour toll free number 1-800-832-8224

For a spill of Reportable Quantity:

- Initial notification. Upon the determination that a reportable discharge or spill has occurred, the responsible person shall notify the agency as soon as possible but not later than 24 hours after the discovery of the spill or discharge.
- Method of notification. The responsible person shall notify the agency in any
  reasonable manner including by telephone, in person, or by any other method approved
  by the agency. In all cases, the initial notification shall provide, to the extent known, the
  information listed in subsection (d) of Title 30, Part I, Chapter 327, Rule §327.3. Notice
  provided under this section satisfies the federal requirement to notify the State
  Emergency Response Commission in the State of Texas.
- Notification of local government authorities. If the discharge or spill creates an imminent health threat, the responsible person shall immediately notify and cooperate with local emergency authorities. The responsible party will cooperate with the local emergency authority in providing support to implement appropriate notification and response actions. The local emergency authority, as necessary, will implement its emergency management plan, which may include notifying and evacuating affected persons. In the absence of a local emergency authority, the responsible person shall take reasonable measures to notify potentially affected persons of the imminent health threat.
- As soon as possible, but no later than two (2) weeks after discovery of the spill or discharge, the Contractor shall reasonably attempt to notify the Owner (if identifiable) or Occupant of the property upon which the discharge or spill occurred as well as the occupants of any property that the Contractor believes is adversely affected.

More information on spill rules and appropriate responses is available on the TCEQ website at: http://www.tceq.texas.gov /response/

#### Vehicle and Equipment Maintenance:

- If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the runoff of stormwater and the runoff of spills.
- Regularly inspect onsite vehicles an equipment for leaks and repair immediately.
- Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leading oil and fluids. Do not allow leaking vehicles or equipment onsite.
- Always use secondary containment, such as drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.
  - Place drip pans or absorbent materials under paving equipment when not in use.

- Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.
- Promptly transfer used fluids to the proper waste or recycling drums. Do not leave full drip pans or other containers lying around.
- Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over the waste oil-recycling drum to drain excess oil before disposal. Oi81 filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.
- Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

## Attachment B – Potential Sources of Contamination

Once grading activities begin, erosion of bare soil during rainfall events is the most common source of contamination. Silt fences will be installed at the beginning of the grading operation to minimize the potential for transport of the soil offsite.

Asphalt products will be used on this project. After placement of asphalt, emulsion, or coatings, the applicant will be responsible for immediate cleanup should an unexpected rain occur. For the duration of the asphalt curing time, the applicant should maintain standby personnel and equipment to contain any asphalt wash-off should an unexpected rain occur.

During construction activities, potential sources of contamination would include petroleum products leaking from construction equipment. The contractor will be advised to keep the equipment in working order and report any spills per the spill response plan.

Other potential sources of contamination include hydraulic fluid and diesel fuel from mechanical equipment and vehicles, as well as paints and chemicals used on site. Any spills shall be handled according to the Spill Response Actions in **Attachment A**.

# Attachment C – Sequence of Major Activities

The first activity of construction will be to install the erosion control measures, consisting of silt fences, tree protection, sediment basin, storm drains, and stabilized construction entrances. Temporary erosion control measures will remain in place throughout the duration of construction and will be required to be maintained by the contractor to ensure proper functionality, especially after storm events. All disturbed areas to remain pervious will be vegetated using the procedures detailed in the construction plans and all temporary erosion control measures will be removed upon revegetation. Construction activities associated with this application is expected to disturb approximately 12.87 acres of the site.

#### Attachment D – Temporary Best Management Practices and Measures

As shown on the Construction Erosion Control Plans, temporary BMP practices and measures will include installing silt fences, a rock berm, stabilized construction entrances, and a temporary spoils area prior to beginning grading operations on the site. Temporary measures are intended to provide a method of slowing the flow or runoff from the construction site in order to allow sediment and suspended solids to settle out of the water. By containing the sediment and solids within the site, they will not enter surface streams and/or sensitive features.

BMP measures utilized in this plan are intended to allow storm water to continue downstream after passing through for treatment. This will allow stormwater runoff to continue downstream to any existing sensitive features.

#### Site Preparation:

The methodology for pollution prevention of all on-site stormwater will include a) the installation of silt fences along the downgradient boundary of the construction activities, b) installation of rock berms with silt fence covering downgradient from areas of concentrated stormwater flow, c) installation of a stabilized construction entrance to reduce the dispersion of sediment from the site, and d) installation of a construction staging area.

#### Construction:

All installed erosion control measure will be inspected, and if necessary, repaired before any additional construction begins, as well as periodically throughout the construction process. The contractor will be responsible for all maintenance of erosion control measures, as well as the installation of all remaining on-site control measures, including the concrete truck washout, inlet protection, as necessary.

#### Attachment F – Structural Practices

The proposed structural practices to control erosion and sedimentation includes stabilizes construction entrances, silt fence, concrete washout, inlet protection, and staging/storage area.

#### Attachment G – Drainage Area Maps

Refer to drainage sheets within the Construction Plans attached.

#### Attachment I – Inspection and Maintenance for BMPs

See construction plans included with this application submittal.

Inspections of the temporary BMPs will be documented in an inspection report. Inspection reports will document maintenance actives, sediment removal and modifications to the sediment and erosion controls.

Temporary Best Management Practices (BMPs) and measures will be used during construction to prevent pollution of groundwater, surface water and naturally occurring environmental features. Silt fence, inlet protection, stabilized construction entrance, and construction stockpiling areas will be installed prior to beginning construction and prior to commencement of any of the activities defined in the sequence of construction as **Attachment C**. Inspection and maintenance of the on-site controls shall be performed during the site clearing and rough grading process. The perimeter fence shall be regularly monitored to ensure that the buffers remain no-construction zones until the site work has been completed and authorization has been granted by the engineer. Refer to the construction plans attached for specific controls and details.

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 run-off from the site, using silt fences placed immediately downstream of disturbed areas. To minimize destruction to any portion of the Recharge Zone, on-site perimeter silt fence will also be implemented for pertinent areas throughout the entirety of construction. The Contractor is expected to inspect the controls weekly and after significant rainfalls to ensure proper function. When silt accumulates six (6) inches in depth the Contractor shall promptly remove the silt from the controls.

BMPs and measures will prevent pollutants from entering surface streams or the aquifer by interception stormwater potentially carrying sediment and other pollutants. BMPs and measures will implement one (1) stabilized construction entrance and a construction stockpiling/staging area to help minimize pollutant run-off and erosion generated during construction. Paved streets and driveways adjacent to these sites will be cleaned regularly to remove excess mud, dirt or rock tracked from the site. Sedimentation will be concentrated only in these areas for efficient maintenance. Water trucks will be on-site as necessary to aid be cleaned regularly to remove excess mud, dirt or rock tracked from the site. Sedimentation will be concentrated only in these areas for efficient maintenance. Water trucks will be on-site as necessary to aid in controlling dust. BMPs will be implemented to limit/prevent contaminated inflow from entering surface streams or the aquifer. These practices are to include the following measures: the use of silt fence and vegetative buffer zones. The fabricated silt fence barricade will provide help to reduce the likelihood of contaminated runoff from entering the aquifer. If any sensitive features are identified by TCEQ inspections, or during excavation or construction, measures appropriate to the sensitivity of the discovered feature will be enacted. No blasting is proposed.
#### Temporary Erosion and Sedimentation Notes:

- 1. The Contractor shall maintain, install erosion/sedimentation controls and tree/natural protective fencing prior to any site preparation work (clearing, grubbing or excavation).
- 2. The placement of erosion/sedimentation controls and tree/natural area protective fencing shall be in accordance with the TCEQ Technical Guidance Manual and the approved Erosion and Sedimentation Control Plan. No erosion controls shall be placed beyond the property lines of the site unless written permission has been obtained from adjacent property owners.
- 3. 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 and tree/natural area protection measures and prior to beginning any site preparation work. The Contractor shall notify the Environmental Inspector at least three (3) days prior to the meeting date.
- 4. 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. Minor changes to be made as field revisions to the Erosion and Sedimentation Control Plan may be required by the Environmental Inspector during construction to correct control inadequacies.
- 5. The Contractor is required to inspect the controls at weekly intervals and after significant rainfall events to ensure that they are functioning properly. The person(s) responsible for maintenance of controls shall immediately make any necessary repairs to damaged areas. Silt accumulation at controls must be removed when the depth reaches six (6) inches.
- 6. The contractor is required to include inspections of the concrete washout area.
- 7. Prior to final acceptance by the city, haul roads and waterway crossing 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 soil disposal sites.
- 8. All work must stop if a void in the rock substrate is discovered, which is one (1) square foot in total area, blows air from within the substrate, and/or consistently received water during any rain event. At this time, it is the responsibility of the project manager to immediately contact an Environmental Inspector for further investigation.
- 9. All slopes shall be sodded or seeded with approved grass, grass mixtures or ground cover suitable to the area and season in which they are applied.
- 10. Silt fences, sedimentation basins and similarly recognized techniques and materials shall be employed during construction to prevent point source sedimentation loading of downstream facilities. Such installation shall be regularly inspected for effectiveness.

Additional measures may be required if, in the opinion of the City Engineer, they are warranted.

- 11. All temporary erosion control measures shall not be removed until final inspection and approval of the project by the engineer. It shall be the responsibility of the Contractor to maintain all temporary erosion control structures and to remove each structure as approved by the engineer.
- 12. Any dirt, mud, rocks, debris, etc., that is spilled, tracked, or otherwise deposited on any existing paved street shall be cleaned up immediately.

#### **Dewatering Operations**

- 1. Inspect and verify that activity based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP area under way, inspect weekly to verify continued BMP implementation.
- 2. Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- 3. Unit-specific maintenance requirements are included with the description of each technology.
- 4. Sediment removed during the maintenance of a dewatering device may be either spread onsite and stabilized or disposed of at a disposal site.
- 5. Sediment that is commingled with other pollutants must be disposed of in accordance with all applicable laws and regulations.

# Attachment J – Schedule of Interim and Permanent Soil Stabilization Practices

Contractors will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to temporary seeding, permanent seeding, mulching, geotextiles, sodding, tree protection, preservation of natural vegetation and other appropriate measures. All slopes shall be sodded or seeded with approved grass, grass mixtures or ground cover suitable to the area and season in which they are applied. Except at noted below, stabilization shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the activity has temporarily or permanently ceased. Refer to the construction plans attached for the TCEQ-WPAP Notes and the Erosion, Sedimentation Control and Tree Protection Plan, respectively.

# **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: Michael Giannetta

Date: 10/17/2023

Signature of Customer/Agent

Regulated Entity Name: Dak Knoll Drive Phase I Improvements

### Permanent Best Managěment Practices (BMPs)

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

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



- 2. X 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.
  - X 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. X 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.
  - X 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 multifamily 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.
  - X The site will not be used for multi-family residential developments, schools, or small business sites.
- 6. X Attachment B BMPs for Upgradient Stormwater.

	X 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.
	and flows across the site, and an explanation is attached.
_	water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.
7. []	K Attachment C - BMPs for On-site Stormwater.
	<ul> <li>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.</li> <li>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.</li> </ul>
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:
	<ul> <li>X Design calculations (TSS removal calculations)</li> <li>X TCEQ construction notes</li> <li>X All geologic features</li> <li>X All proposed structural BMP(s) plans and specifications</li> </ul>
	_ N/A

11. X	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
	<ul> <li>Signed by the owner or responsible party</li> <li>Procedures for documenting inspections, maintenance, repairs, and, if necessary</li> <li>retrofit</li> </ul>
	A discussion of record keeping procedures
	N/A
12.	<b>Attachment H - Pilot-Scale Field Testing Plan</b> . 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.
X	N/A
13. X	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

| | N/A

degradation.

#### Responsibility for Maintenance of Permanent BMP(s)

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

14. |X| 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.

X N/A

### Attachment B – BMP's for Upgradient Stormwater

The existing overland drainage patterns are south to north draining toward the proposed wet pond and through swales and ditches. Some of the stormwater entering the swales are from the upstream undeveloped land. The remainder of the stormwater is accumulated on site.

#### Attachment C – BMP's for On-Site Stormwater

#### Temporary BMPs:

Silt fence will be placed around the perimeter of the construction area to prevent stormwater from carrying silt off-site. Temporary construction entrances and a spoils site with silt fence will also be located on-site to help control the runoff of silt and other pollutants. Inlet protection is to be installed to filter out any sediment from entering the storm sewer system. A concrete washout area is to be installed to prevent concrete wash from entering the storm sewer system. All areas disturbed during construction will be restored using hydromulch and seeding or sod.

#### Permanent BMPs:

All storm run-off from onsite improvements will be conveyed through private storm infrastructure and directed into the proposed wet pond. The outflow of the pond will cross under Oak Knoll Drive into the Rattan Creek Watershed.

#### Attachment D – BMP's for Surface Streams

#### Temporary BMPs:

Silt fence will be placed around the perimeter of the construction area to prevent stormwater from carrying silt off-site. Temporary construction entrances and a spoils site with silt fence will also be located on-site to help control the runoff of silt and other pollutants. Inlet protection is to be installed to filter out any sediment from entering the storm sewer system. A concrete washout area is to be installed to prevent concrete wash from entering the storm sewer system. All areas disturbed during construction will be restored using hydromulch and seeding or sod.

#### Permanent BMPs:

All storm run-off from onsite improvements will be conveyed through private storm infrastructure and directed into the proposed wet pond. The outflow of the pond will cross under Oak Knoll Drive into the Rattan Creek Watershed.

#### Attachment F – Construction Plans

Construction Plans have been included with this WPAP package.

#### Attachment G – Inspection, Maintenance, Repair and Retrofit Plan

Stormwater flows from this development drain to two proposed water quality/detention ponds.

Inspections of the Permanent BMPs will be documented in inspection reports.

A clear requirement for wet basins is that a firm commitment be made to carry out both routine and non-routine maintenance tasks. The nature of the maintenance requirements are outlined below, along with design tips that can help to reduce the maintenance burden (modified from Young et al., 1996).

Routine Maintenance.

Mowing. The side-slopes, embankment, and emergency spillway of the basin should be mowed at least twice a year to prevent woody growth and control weeds.

Inspections. Wet basins should be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. When possible, inspections should be conducted during wet weather to determine if the basin is functioning properly. There are many functions and characteristics of these BMPs that should be inspected. The embankment should be checked for subsidence, erosion, leakage, cracking, and tree growth. The condition of the emergency spillway should be checked. The inlet, barrel, and outlet should be inspected for clogging. The adequacy of upstream and downstream channel erosion protection measures should be checked. Stability of the side slopes should be checked. Modifications to the basin structure and contributing watershed should be evaluated. During semi-annual inspections, replace any dead or displaced vegetation. Replanting of various species of wetland vegetation may be required at first, until a viable mix of species is established. Cracks, voids and undermining should be patched/filled to prevent additional structural damage. Trees and root systems should be removed to prevent growth in cracks and joints that can cause structural damage. The inspections should be carried out with as-built pond plans in hand.

Debris and Litter Removal. As part of periodic mowing operations and inspections, debris and litter should be removed from the surface of the basin. Particular attention should be paid to floatable debris around the riser, and the outlet should be checked for possible clogging.

Erosion Control. The basin side slopes, emergency spillway, and embankment all may periodically suffer from slumping and erosion. Corrective measures such as regrading and revegetation may be necessary. Similarly, the riprap protecting the channel near the outlet may need to be repaired or replaced.

Nuisance Control. Most public agencies surveyed indicate that control of insects, weeds, odors, and algae may be needed in some ponds. Nuisance control is probably the most frequent maintenance item demanded by local residents. If the ponds are properly sized and vegetated, these problems should be rare in wet ponds except under extremely dry weather conditions. Twice a year, the facility should be evaluated in terms of nuisance control (insects, weeds, odors, algae, etc.). Biological control of algae and mosquitoes using fish such as fathead minnows is preferable to chemical applications.

Non-routine maintenance.

Structural Repairs and Replacement. Eventually, the various inlet/outlet and riser works in the wet basin will deteriorate and must be replaced. Some public works experts have estimated that corrugated metal pipe (CMP) has a useful life of about 25 yr, while concrete barrels and risers may last from 50 to 75 yr. The actual life depends on the type of soil, pH of runoff, and other factors. Polyvinyl chloride (PVC) pipe is a corrosion resistant alternative to metal and concrete pipes. Local experience typically determines which materials are best suited to the site conditions. Leakage or seepage of water through the embankment can be avoided if the embankment has been constructed of impermeable material, has been compacted, and if anti-seep collars are used around the barrel. Correction of any of these design flaws is difficult.

Sediment Removal. Wet ponds will eventually accumulate enough sediment to significantly reduce storage capacity of the permanent pool. As might be expected, the accumulated sediment can reduce both the appearance and pollutant removal performance of the pond. Sediment accumulated in the sediment forebay area should be removed from the facility every two years to prevent accumulation in the permanent pool. Dredging of the permanent pool should occur at least every 20 years, or when accumulation of sediment impairs functioning of the outlet structure.

Harvesting. If vegetation is present on the fringes or in the pond, it can be periodically harvested, and the clippings removed to provide export of nutrients and to prevent the basin from filling with decaying organic matter.

Owner

Watthen Schwal

Licensed Engineer

#### Attachment I – Measures for Minimizing Surface Stream Contamination

This proposed Wet pond will be used to minimize the pollutants associated with the proposed development and reduce the flows discharged into Rattan Creek from pre-developed condition for the 2, 10, 25, and 100-year storm events.

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

I	Matthew	Schwab ,
		Print Name
	Managin	g Director / Authorized Agent
		Title - Owner/President/Other
of	Karlin R	eal Estate
		Corporation/Partnership/Entity Name
have authorized		Michael Giannetta
	_	Print Name of Agent/Engineer
of		HR Green Development TX, LLC
		Print Name of Firm

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

I also understand that:

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

Applicant's Signature

08/12/2022

Date

THE STATE OF <u>Texas</u> §

County of <u>Travis</u> §

BEFORE ME, the undersigned authority, on this day personally appeared <u>personally</u> 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 13th day of September , 2022.

CHRISTOPHER ARCH WHYTE Notary Public, State of Texas Comm. Expires 11-05-2023 Notary ID 132239460

NOTARY PUBLIC

Christopher Arch Whyte Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 11/05/2023

# **Application Fee Form**

Texas Commission on Environmental Quality							
Name of Proposed Regulated Ent	ity: Oak Knoll Drive P	hase I Improvement	S				
Regulated Entity Location: Oak k	Knoll Drive within 1245	55 Research Blvd					
Name of Customer: Karlin Rese	arch Park MF 1, LLC						
Contact Person: Matthew Schwa	ab Phon	e: (310) 806-9728					
Customer Reference Number (if is	ssued):CN						
Regulated Entity Reference Numb	per (if issued):RN						
Austin Regional Office (3373)							
Havs	Travis	XW	illiamson				
San Antonio Regional Office (336	52)						
Bexar	Medina		valde				
Application fees must be paid by	check certified check o	r money order navah	le to the <b>Texas</b>				
Commission on Environmental O	uality Your canceled cl	heck will serve as you	r receipt <b>This</b>				
form must be submitted with vo	ur fee payment. This pa	avment is being submi	itted to:				
X Austin Regional Office		an Antonio Pogional O	office				
Austin Regional Office		an Antonio Regional O	TCEO Cashiar				
		vernight Delivery to: 1	rceQ - Cashier				
Revenues Section	1.	2100 Park 35 Circle					
Mail Code 214	В	uilding A, 3rd Floor					
P.O. Box 13088	A	ustin, 1X /8/53					
Austin, 1X /8/11-3088	(5	512)239-0357					
Site Location (Check All That Apply):							
X Recharge Zone	Contributing Zone	Transi	tion Zone				
Type of Pla	n	Size	Fee Due				
Water Pollution Abatement Plan,	Contributing Zone						
Plan: One Single Family Residenti	al Dwelling	Acres	\$				
Water Pollution Abatement Plan,	Contributing Zone						
Plan: Multiple Single Family Resid	Acres	\$					
Water Pollution Abatement Plan, Contributing Zone							
Plan: Non-residential	38.07 Acres	\$ 6,500					
Sewage Collection System	L.F.	\$					
Lift Stations without sewer lines	Acres	\$					
Underground or Aboveground Sto	Tanks	\$					
Piping System(s)(only)	Each	\$					
Exception	Each	\$					
Extension of Time		Each	\$				
Signature:	Date:	: <u>10/17</u> /2023					

### **Application Fee Schedule**

**Texas Commission on Environmental Quality** 

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

#### Water Pollution Abatement Plans and Modifications

#### Contributing Zone Plans and Modifications

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

	Cost per Tank or	Minimum Fee-
Project	Piping System	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

Signature: Matthew church Date: 06/07/2021			
	Signature: Watthew Classal	Date:	06/07/2021



# **TCEQ Core Data Form**

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

#### **SECTION I: General Information**

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 w	vith the renewal form)	Other					
2. Customer Reference Number (if issued)	3. Regulated Entity Reference Number (if issued)						
CN <u> central Registry**</u> RN							
SECTION II: Customer Information							

4. General Customer Information         5. Effective Date for Customer Information Updates (mm/dd/yyyy)									
New Customer	New Customer Update to Customer Information Change in Regulated Entity Ownership							Entity Ownership	
	te with the Texas Sec	retary of St					Public Accounts)	wont and	active with the
The Customer Name Subm.	(led here may be OS) or Toxas Co	e upualeu motrollor	autor of Du		у ра осни	iseu ( nto //	ON WHALIS CU CDAN	rrent and	active with the
Texas Secretary of State (S		Inpuoliei	01 Fu		cour		5FA).		
6. Customer Legal Name (If an inc	ividual, print last name fi	first: eg: Doe,	John)		<u>lf ne</u>	ew Cus	stomer, enter previ	ous Custom	<u>er below:</u>
Karlin Research Park	evelopment LL	LC							
7. TX SOS/CPA Filing Number	8. TX State Ta	ax ID (11 digi	ts)		9. F	edera	I Tax ID (9 digits)	10. DUN	S Number (if applicable)
0803300936	32070	505485			83	3-45	15446		
11. Type of Customer: Co	poration		Individu	ual		Par	tnership: 🔲 Gener	al 🛛 Limited	
Government: 🗌 City 🗌 County 🗌 Fe	leral 🗌 State 🗌 Other		Sole Pr	roprietorsl	hip		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 Voluntary Cleanup Applicant Other:									
11755 Wilshire Blvd STE 1400									
15. Mailing									
City Los Ar	geles	State	CA	ZIP		900	25	ZIP + 4	
16. Country Mailing Information (if outside USA) 17. E-Mail Address (if applicable)									
joep@karlinre.com									
18. Telephone Number	1	19. Extensi	1sion or Code 20. Fax Number (if applicable)			ble)			
( 310 ) 806-9728 ( ) -									

#### **SECTION III: Regulated Entity Information**

21. General Regulated Ent	ity Information (If 'New Regulated Entity	" is selected below this form should be accompanied by a permit application)
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 Agency 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.)

Oak Knoll Drive Phase I Improvements

	12455 F	Research Park	Blvd							
23. Street Address of the Regulated Entity:										
(No PO Boxes)	City	Austin	State	TX	ZIP	78759	ZIP + 4			
24. County	William	nson								
Enter Physical Location Description if no street address is provided.										
25. Description to Physical Location:										
26. Nearest City						State	N	earest ZIP Code		
		Γ					_			
27. Latitude (N) In Decin	nal:			28. L	.ongitude (	W) In Decimal:				
Degrees	Minutes	S	econds	Degre	es	Minutes		Seconds		
30	4	26	09		97		45	22		
29. Primary SIC Code (4	digits) <b>30.</b>	Secondary SIC (	Code (4 digits)	<b>31. Prima</b> (5 or 6 digits	<b>ry NAICS (</b> s)	Code 32. S (5 or (	Secondary N	AICS Code		
33. What is the Primary	Business o	f this entity? (I	Do not repeat the SIC	C or NAICS des	cription.)					
Pond										
34. Mailing										
Address:	City		State		ZIP		ZIP + 4	L		
35. E-Mail Address	:									
36. Telepho	one Number	r	37. Extensi	on or Code		38. Fax Ni	umber <i>(if ap</i>	olicable)		
( )	-					(	) -			
39. TCEQ Programs and ID form. See the Core Data Form i	) Numbers ( nstructions fo	Check all Programs r additional guidanc	and write in the pe ce.	ermits/registra	tion number	s that will be affected	d by the updat	es submitted on this		
Dam Safety	District	is c	Edwards Aqu	uifer	Emiss	ions Inventory Air	🗌 Industi	ial Hazardous Waste		
Municipal Solid Waste	New S	ource Review Air	OSSF		Petrol	eum Storage Tank	PWS			
			_		1					

#### **SECTION IV: Preparer Information**

U Waste Water

40. Name:	Name: Joe Prochot					41. Title:	VP
42. Tele	phone Number	43. Ext./Code	44. F	ax Nu	ımber	45. E-Mail /	Address
(847)	373-5342		(	)	-	joep@ka	rlinre.com

Wastewater Agriculture

U Water Rights

Other:

#### **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:	Karlin Research Park Development LLC	Job Title:	VP		
Name (In Print):	Joe Prochot			Phone:	( 310 ) 806- <b>9728</b>
Signature:	Matthew Schwal			Date:	

Voluntary Cleanup

	WNER/DEVELOPER:	KARLIN RESEARCH PARK DEVELOPMENT, LLC 11755 WILSHIRE BLVD, SUITE 1400 LOS ANGELES, CA 90025 (310) 806-9728 CONTACT: JOE PROCHOT	
SL	JRVEYOR:	HR GREEN DEVELOPMENT TEXAS, LLC 5508 HWY. 290 W., SUITE 150 AUSTIN, TEXAS 78735 (512) 872-6696 CONTACT: ERNESTO NAVARRETE	
EN	NGINEER:	HR GREEN DEVELOPMENT TX, LLC 4201 W. PARMER LN., SUITE C-100 AUSTIN, TEXAS 78727 (512) 872-6696 CONTACT: MICHAEL A. GIANNETTA	$\dashv$
	NDSCAPE NGINEER:	RIALTO STUDIO 7719 WOOD HOLLOW DRIVE, SUITE 240 AUSTIN, TEXAS 78731 (512) 291-3813 CONTACT: ROBERT DEEGAN	651
ZC	DNING:		
l-PD	A (ZONING CASE #C14-2021-0012)		
	JRE ROW DEDICATION 4.1 PORTION OF LOT 14C PORTION OF LOT 14D PORTION OF LOT 16 TS OF CONSTRUCTION 13.	9 ACRES 3.40 ACRES 0.69 ACRES 0.10 ACRES 766 ACRES	
FL	ODDPLAIN INFORMATIC	JN:	
THE \$ EFFE	SUBJECT TRACT IS SHOWN TO BE IN ZONE X, AREA OF M CTIVE 01/06/2016.	/INIMAL FLOOD HAZARD, AS IDENTIFIED BY FEMA FLOOD INSURANCE RATE MAP NO. 48453C0265K,	
WA	ATERSHED:		
THIS		WHICH IS CLASSIFIED AS A SUBURBAN WATERSHED.	
<b>ن E</b> ۱.	RELEASE OF THIS APPLICATION DOES NOT CONSTITUT	E A VERIFICATION OF ALL DATA. INFORMATION AND CAI CUI ATIONS SUPPLIED BY THE APPLICANT	
2.	THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE F THE APPLICATION IS REVIEWED FOR CODE COMPLIANC BY THE ACT OF SUBMITTING A BID FOR THE PROPOSED SUPPLIERS HE INTENDS TO USE HAVE CAREFULLY AND DOCUMENTS AND HAVE FOUND THEM COMPLETE AND WARRANTS THAT TO THE PEST OF HIS OF	CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND SPECIFICATIONS AND OTHER CONTRACT FREE FROM ANY AMBIGUITIES AND SUFFICIENT FOR THE PURPOSE INTENDED. THE BIDDER FURTHER FREE FROM AND MATERIAL SUPPLIES KNOWLEDGE ALL MATERIAL SUBCONTRACTORS AND PROPUSING AND SPECIFICATIONS AND PROPUSING A	
3.	THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON LOCATIONS AS CONSTRUCTED. THE CONTRACTOR SHA INDIVIDUAL UTILITY, FOR ASSISTANCE IN DETERMINING VERIEY LOCATIONS OF UTILITY CROSSING PRIOR TO P	ABLE CODES AND AUTHORITIES. THESE PLANS HAS BEEN BASED UPON RECORD INFORMATION ONLY AND MAY NOT MATCH ALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM @ 472-2822, OR THE OWNER OF EACH & EXISTING UTILITY LOCATIONS PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL FIELD EGINNING CONSTRUCTION	
ŀ.	ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPL HEALTH ADMINISTRATION. (OSHA STANDARDS MAY BE MATERIALS MAY BE PURCHASED FROM OSHA, 611 EAS	ISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE T 6TH STREET, AUSTIN, TEXAS).	
5.	APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN IN GOVERNMENTAL ENTITIES MAY BE REQUIRED PRIOR T ADDITIONAL APPROVALS MAY BE NECESSARY.	NDICATES COMPLIANCE WITH APPLICABLE CITY REGULATIONS ONLY. APPROVAL BY OTHER O THE START OF CONSTRUCTION. THE APPLICANT IS RESPONSIBLE FOR DETERMINING WHAT	
ð.	ALL DETENTION BASINS AND APPURTENANCES WHICH MAINTAINED BY THE RECORD OWNER IN ACCORDANCE	RECEIVE STORM WATER RUNOFF FROM COMMERCIAL OR MULTIFAMILY DEVELOPMENT SHALL BE WITH THE MAINTENANCE STANDARDS IN THE DRAINAGE AND ENVIRONMENTAL CRITERIA MANUALS.	
7.	WATER SERVICE WILL BE PROVIDED BY THE CITY OF A	USTIN.	
3. Ə.	CONTRACTOR TO VERIFY LOCATION AND DEPTH OF AI THE PLAN IS COMPLETE, ACCURATE AND IN COMPLIAN	LL UTILITIES PRIOR TO CONSTRUCTION. ICE WITH THE CHAPTER 25-8 SUBCHAPTER A OF THE LAND DEVELOPMENT CODE.	
0.	THIS NOTE IS BEING PLACED ON THE PLAN SET IN PLAC MINIMUM OF 6 WEEKS PRIOR TO THE START OF CONST RIGHT OF WAY MANAGEMENT DIVISION. THE OWNER/ F CURRENT VERSION OF THE CITY'S FEE ORDINANCE, SH DIVISION FOR REVIEW.	CE OF A TEMPORARY TRAFFIC CONTROL STRATEGY WITH THE FULL UNDERSTANDING THAT, AT A RUCTION, A TEMPORARY TRAFFIC CONTROL PLAN MUST BE REVIEWED AND APPROVED BY THE REPRESENTATIVE FURTHER RECOGNIZES THAT A REVIEW FEE, AS PRESCRIBED BY THE MOST HALL BE PAID EACH TIME A PLAN OR PLAN REVISION IS SUBMITTED TO RIGHT OF WAY MANAGEMENT	
	<ul> <li>THE FOLLOWING MUST BE TAKEN INTO CONSIDERATION</li> <li>PEDESTRIAN AND BICYCLE TRAFFIC ACCESS MUST BE</li> <li>NO LONG-TERM LANE CLOSURES WILL BE AUTHORIZE BEEN MADE TO MINIMIZE TRAFFIC IMPACT.</li> </ul>	ON WHEN DEVELOPING FUTURE TRAFFIC CONTROL STRATEGIES: E MAINTAINED AT ALL TIMES, UNLESS OTHERWISE AUTHORIZED BY RIGHT OF WAY MANAGEMENT. ED, UNLESS RIGHT OF WAY MANAGEMENT DETERMINES THAT ADEQUATE ACCOMMODATIONS HAVE	
10	PROJECT SHOULD BE PHASED SO THAT UTILITY INSTA	ALLATION MINIMALLY IMPACTS EXISTING OR TEMPORARY PEDESTRIAN FACILITIES.	
12. 13.	THIS STE IS LOCATED WITHIN THE EDWARDS AQUIFER	LOW MITIGATION RULE (COA ECM 1.12.0 AND COA ITEM NO. 685S OF THE SSM) PROVISION THAT ALL	
14.	TRENCHING GREATER THAN 5 FEET DEEP MUST BE INS IF AT ANY TIME DURING CONSTRUCTION OF THIS PROJ UNTIL A CITY OF AUSTIN UST CONSTRUCTION PERMIT I CONTRACTOR THAT IS REGISTERED WITH THE TEXAS ( FUZABETH SIMMONS@AUSTINTEXAS GOV IF YOU HAVE	SPECTED BY A GEOLOGIST (TEXAS P.G.) OR A GEOLOGIST'S REPRESENTATIVE. ECT AN UNDERGROUND STORAGE TANK (UST) IS FOUND, CONSTRUCTION IN THAT AREA MUST STOP S APPLIED FOR AND APPROVED. ANY UST REMOVAL WORK MUST BE CONDUCTED BY A UST COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ). CONTACT ELIZABETH SIMMONS AT 5 ANY QUESTIONS, ICOA TITLE 61	
15.	THE CRITICAL ENVIRONMENTAL FEATURE (CEF) SETBA NATIVE VEGETATION SHALL REMAIN UNDISTURBED TO SETBACK SHALL OCCUR SEMIANNUALLY IN ACCORDAN	CKS MUST BE MAINTAINED PER CITY OF AUSTIN CODE AND CRITERIA. EXISTING DRAINAGE AND ALLOW THE WATER QUALITY FUNCTION OF THE SETBACK. INSPECTION AND MAINTENANCE OF ICE TO CITY OF AUSTIN CODE AND CRITERIA.	
6.	ADJUSTMENTS MAY BE NEEDED IF UNITS CHANGE, IF D (TYPICALLY THE MORE EXPENSIVE OPTION): PARKLAND A CREDIT FOR AMENITIES TO BE CONSTRUCTED. FISCA AND APPROVED BY THE PARKS AND RECREATION DEP.	DEDICATION IS HANDLED BY DEED, OR IF APPLICANT PREFERS TO NOT CONSTRUCT THE PARK D DEDICATION HAS BEEN PROVIDED FOR 350 UNITS BY THE RECORDATION OF A PARK EASEMENT AND AL SURETY WAS POSTED WITH THE CITY UNTIL SUCH TIME AS THE AMENITIES ARE CONSTRUCTED ARTMENT.	
18.	THE PROPOSED POND IS PRIVATELY MAINTAINED. FOR	MAINTENANCE OF THE WATER QUALITY AND/OR DETENTION FACILITY, SEE AGREEMENT FILED IN	
9.	RELEASE OF THIS APPLICATION DOES NOT CONSTITUT THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE F THE APPLICATION IS REVIEWED FOR CODE COMPLIANC	UKUS, TRAVIS COUNTY, TEXAS. E A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL, WHETHER OR NOT CE BY CITY ENGINEERS.	
20.	THE SITE IS COMPOSED OF 3 LOTS/TRACTS. IT HAS BEE LOTS/TRACTS ARE SOLD, APPLICATION FOR SUBDIVISIO	EN APPROVED AS ONE COHESIVE DEVELOPMENT DOCUMENT NO IF PORTIONS OF THE ON AND SITE PLAN APPROVAL MAY BE REQUIRED.	
21.	A BLANKET EASEMENT WILL BE GRANTED FOR AUSTIN AUSTIN ENERGY INFRASTRUCTURE BASED ON APPROV	ENERGY INFRASTRUCTURE THAT WILL LATER BE DEFINED TO A 7.5' OFFSET FROM THE CENTER OF /ED AUSTIN ENERGY DESIGN FOR THIS DEVELOPMENT.	
22.	FOR INTEGRATED PEST MANAGEMENT PLAN, SEE AGRI	EEMENT FILED IN DOCUMENT NO, OFFICIAL PUBLIC RECORDS, TRAVIS COUNTY, TEXAS.	
LE	EGAL DESCRIPTION:		
.OT 1 .OT 1 MILLI	1 & 16 OF RESEARCH PARK VOL. 101, PG. 214, P.R.T.C.TX 14C & 14D OF RESEARCH PARK SECTION 2 A RESUBDIV IAMSON COUNTY, TEXAS DOCUMENT NO. 200000371	K. DOCUMENT NO. 9834100, O.R.W.C.TX. CAB. P, SLIDES 383-386, P.R.W.C.TX. ISION OF LOT 14 OF RESEARCH PARK SUBDIVISION, BEING 42.772 ACRES IN TRAVIS COUNTY &	
1. L (	OTS WITH 65 PSI OR GREATER REQUIRE A PRV, SET AT 65 PS ON THE PROPERTY OWNERS SIDE OF THE DOMESTIC WATER	BI, TO BE INSTALLED R METER.	
	CITY OF AUSTIN WATER AND WASTEWATER UT SPECIAL SERVICES DIVISI (512) 972-1060	TLITY DN	
HIS P ROPE OMPL	ROJECT HAS PRIVATE HYDRANTS LOCATED WITHIN THE PRO ERTY OWNER IS REQUIRED TO COMPLY WITH AUSTIN FIRE CC LY MAY RESULT IN CIVIL AND/OR CRIMINAL REMEDIES AVAILA ERFORMANCE OF THIS OBLIGATION SHALL ALWAYS REST WIT	PERTY. THE DDE. FAILURE TO BLE TO THE CITY. TH THE OWNER OF	

# SITE PLAN FOR JAK KNDLL DRIVE SE I IMPROVEMENTS $\frac{1}{2}$ MCNEIL DR., AUSTIN, TRAVIS CO, TEXAS



N.T.S. C.O.A. GRID NO. H36, H37 MAPSCO PAGE 464D, 464H, 434Z

SUBMITTAL DATE: -FEBRUARY 14, 2022

SUBMITTED BY :

MICHAEL A. GIANNETTA, P.E. LICENSED PROFESSIONAL ENGINEER NO. 116248 HR GREEN DEVELOPMENT TX, LLC FIRM NO. 16384 4201 W. PARMER LN., SUITE C-100 AUSTIN, TEXAS 78727 (512) 872-6696

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

#### REVISIONS / CORRECTIONS

Number	DESCRIPTION	Revise (R) Add (A) Void (V) Sheet No.'s	SHEETS IN PLAN SET	NET Change Imp. Cover (sq.ft.)	Total Site Imp. Cover (sq. ft.)/%	City of Austin Approval Date	Date Imaged

APPROVED B

AUSTIN WATER

AUSTIN FIRE DEP.

DEVELOPMENT SE

INDUSTRIAL WAST

WAIVER NOTES:

ON 9/13/23 THIS PROJECT RECEIVED APPROVAL FROM T PROTECTION DEPARTMENT OF A WAIVER TO SECTION 5. DRAINAGE CRITERIA MANUAL TO REDUCE THE DEPTH O CULVERTS IN AREAS OF VEHICULAR TRAFFIC DUE TO C PROVIDING ADEQUATE COVER PER MANUFACTURER SF LOADS.

GRATE INLET WAIVER:

DEPTH OF COVER WAIVER:

ON 08/04/2023 THIS PROJECT RECEIVED APPROVAL FRO PROTECTION DEPARTMENT OF A WAIVER TO SECTION 4 DRAINAGE CRITERIA MANUAL FOR USE OF A GRATE INLET WITHIN A PUBLIC EASEMENT DUE TO MANHOLE DEPTH.

Sheet Number	SHEET LIST TABLE			DATI
01 02 03	COVER SHEET PLAT PLAT			B
04 05 06 07	GENERAL NOTES GENERAL NOTES AW GENERAL INFORMATION & CONSTRUCTION NOTES EXISTING CONDITIONS PLAN PHASE I			
08 09 10	TREE LIST PHASE I DEMOLITION PLAN PHASE I EROSION & SEDIMENTATION CONTROL PHASE I			
11 12 13	SITE PLAN A PHASE I SITE PLAN B PHASE I EXISTING DRAINAGE AREA MAP PHASE I			
14 15 16 17	POND PLAN PHASE I POND PLAN PHASE I CALCULATIONS GEOMEMBRANE POND LINER QAQC PLAN PHASE I			
17 18 19 20	STORM PLAN & PROFILE PHASE I WATER DISTRIBUTION A PLAN & PROFILE PHASE I EXISTING CONDITIONS PLAN PHASE II TREE LIST PHASE II			
21 22 23	DEMOLITION PLAN PHASE II MASTER EROSION & SEDIMENTATION CONTROL PLAN PHASE II EROSION & SEDIMENTATION CONTROL PLAN A PHASE II			EVIS
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34 35 36	OAK KNOLL PLAN & PROFILE A PHASE II OAK KNOLL PLAN & PROFILE B PHASE II OAK KNOLL PLAN & PROFILE C PHASE II			
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	CHAPTER <u>25-5</u> OF THE CITY OF AUSTIN CODE EXPIRATION DATE (LDC 25-5-81) XX CASE MANAGER ZACK LOFTON	DESIG		y∙ JS/IF
	PROJECT EXPIRATION DATE (ORD,#970905-A)DWPZDDZ	DRAWN	BY:	JS/IF
5.7.0. OF THE COA DF COVER OF THE BOX	DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT	снеск	ED BY	: <u>JS/MG</u>
PECIFICS FOR VEHICULAR	RELEASED FOR GENERAL COMPLIANCE       ZONING       XX         REVISION 1       CORRECTION 1       REVISION 2	APPRO	VED B	Y: <u>MG</u>
OM THE WATERSHED	REVISION 2       CORRECTION 2         REVISION 3       CORRECTION 3         Final plat must be recorded by the Project Expiration Date, if applicable.		<b>-</b> -	
4.1.0.G OF THE COA LET WITHIN A PUBLIC	Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved	SHEET		JF <b>I I 6</b>
	prior to the Project Expiration Date.	שר-20	122-C	1U48D







202300183 THE STATE OF TEXAS KNOWN TO ALL MEN BY THESE PRESENTS § Annual and a second THE COUNTY OF TRAVIS THAT KARLIN RESEARCH PARK DEVELOPMENT, LLC. A DELAWARE LIMITED LIABILITY COMPANY, BEING THE OWNERS OF LOT 14C, LOT 14D, LOT 14E, AND LOT 14F, RESEARCH PARK, SECTION 2, A SUBDIVISION ACCORDING TO THE PLAT OR MAP OF RECORD IN DOCUMENT NO. 200000371, OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS AND CABINET T, SLIDES 244-247, PLAT RECORDS OF WILLIAMSON COUNTY, TEXAS, AND LOT 2, BLOCK A, RESEARCH PARK SECTION 3, A RESUBDIVISION OF LOTS 7 AND 13 OF RESEARCH PARK SUBDIVISION, A SUBDIVISION ACCORDING TO THE PLAT OR MAP OF RECORD IN DOCUMENT NO. 200100074, OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS, AND ALL CONVEYED BY DEED OF RECORD IN DOCUMENT NO. 2019098082 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS AND DOCUMENT NO. 2019059646, OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS; AND SAID SUBDIVISION HAVING BEEN APPROVED FOR AMENDMENT PURSUANT TO CHAPTER 212.016 OF THE LOCAL GOVERNMENT CODE, DO HEREBY AMEND SAID LOTS IN ACCORDANCE WITH THE ATTACHED PLAT SHOWN HEREON TO BE KNOWN AS RESEARCH PARK SECTION 4, AN AMENDING PLAT OF LOTS 1, 10, 11, 12, 15, & 16, RESEARCH PARK SUBDIVISION, A RESUBDIVISION OF RESEARCH TECHNOLOGY SUBDIVISION; AND LOTS 14C, 14D, 14E, & 14F, RESEARCH PARK, SECTION 2, A RESUBDIVISION OF LOT 14 OF RESEARCH PARK SUBDIVISION; AND LOT 2, BLOCK A, RESEARCH PARK SECTION 3, A RESUBDIVISION OF LOTS 7 AND 13 OF RESEARCH PARK SUBDIVISION AND DO HEREBY DEDICATE TO THE PUBLIC THE USE OF ALL STREETS AND EASEMENTS SHOWN HEREON, SUBJECT TO ANY AND ALL EASEMENTS OR RESTRICTIONS HERETOFORE GRANTED AND NOT RELEASED. THE STATE OF TEXAS KNOWN TO ALL MEN BY THESE PRESENTS § THE COUNTY OF TRAVIS BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS, ON THIS DAY DID PERSONALLY APPEAR MATTHEW SCHWAB, KNOWN TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND HAS ACKNOWLEDGED TO ME THAT THEY HAVE EXECUTED THE SAME FOR THE THE CAPACITY THEREIN STATED. PURPOSES AND CONSIDERATION THEREIN EXPRESSED AND IN Betting Rogers 6/7/2023 NOTARY PUBLIC - STATE OF TEXAS -BETHANY ROGERS Hotary ID #13383477 My Commission Expire June 28, 2026 THE STATE OF TEXAS § KNOWN TO ALL MEN BY THESE PRESENTS THE COUNTY OF TRAVIS § THAT KARLIN RESEARCH PARK, LLC, A DELAWARE LIMITED LIABILITY COMPANY, BEING THE OWNERS OF LOT 1, LOT 10, LOT 15 AND LOT 16, RESEARCH PARK SUBDIVISION, A RESUBDIVISION OF RESEARCH TECHNOLOGY SUBDIVISION, A SUBDIVISION ACCORDING TO THE PLAT OR MAP OF RECORD IN VOLUME 101, PAGES 214-217, PLAT RECORDS OF TRAVIS COUNTY, TEXAS AND CABINET P, SLIDES 383-386, PLAT RECORDS OF WILLIAMSON COUNTY, TEXAS CONVEYED IN THE DEED OF RECORD IN DOCUMENT NO. 2019098078, OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS AND DOCUMENT NO. 2019059643, OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS; AND SAID SUBDIVISION HAVING BEEN APPROVED FOR AMENDMENT PURSUANT TO CHAPTER 212.016 OF THE LOCAL GOVERNMENT CODE, DO HEREBY AMEND SAID LOTS IN ACCORDANCE WITH THE ATTACHED PLAT SHOWN HEREON TO BE KNOWN AS RESEARCH PARK SECTION 4. AN AMENDING PLAT OF LOTS 1, 10. 11, 12, 15, & 16, RESEARCH PARK SUBDIVISION, A RESUBDIVISION OF LOT 14 OF RESEARCH PARK SUBDIVISION; AND LOTS 14C, 14D, 14E, & 14F, RESEARCH PARK, SECTION 2, A RESUBDIVISION OF LOT 14 OF RESEARCH PARK SUBDIVISION; AND LOT 2, BLOCK A, RESEARCH PARK SECTION 3, A RESUBDIVISION OF LOTS 7 AND 13 OF RESEARCH PARK SUBDIVISION AND DO HEREBY DEDICATE TO THE PUBLIC THE USE OF ALL STREETS AND EASEMENTS SHOWN HEREON, SUBJECT TO ANY AND ALL EASEMENTS OR RESTRICTIONS HERETOFORE GRANTED AND NOT RELEASED. եր Բրուն Բրուն Բրուն 4 0 THE STATE OF TEXAS KNOWN TO ALL MEN BY THESE PRESENTS § THE COUNTY OF Trawis BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR THE STATE OF CXAS, ON THIS DAY DID PERSONALLY APPEAR MATTHEW SCHWAB, KNOWN TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND HAS ACKNOWLEDGED TO ME THAT THEY HAVE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED. Better Rogen 6/7/2023 DATE BETHANY ROGERS June 28, 2026 THE STATE OF TEXAS § KNOWN TO ALL MEN BY THESE PRESENTS \$ THE COUNTY OF TRAVIS \$ THAT <u>KARLIN RESEARCH PARK MF 1, LLC</u>, A DELAWARE LIMITED LIABILITY COMPANY, BEING THE OWNERS OF LOT 11 AND LOT 12, RESEARCH PARK SUBDIVISION, A RESUBDIVISION OF RESEARCH TECHNOLOGY SUBDIVISION, A SUBDIVISION ACCORDING TO THE PLAT OR MAP OF RECORD IN VOLUME 101, PAGES 214-217, PLAT RECORDS OF TRAVIS COUNTY, TEXAS AND CABINET P, SUDES 383-386, PLAT RECORDS OF WILLIAMSON COUNTY, TEXAS AND CONVEYED BY THE DEED OF RECORD IN DOCUMENT NO. 2022114794 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS, SAVE AND EXCEPT THAT 0.0074 ACRE PORTION OF SAID LOT 11 CONVEYED BY THE STREET DEED TO THE CITY OF AUSTIN IN DOCUMENT NO. 2022131125, OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS; AND SAID SUBDIVISION HAVING BEEN APPROVED FOR AMENDMENT PURSUANT TO CHAPTER 212.016 OF THE LOCAL GOVERNMENT CODE, DO HEREBY AMEND SAID LOTS IN ACCORDANCE WITH THE ATTACHED PLAT SHOWN HEREON TO BE KNOWN AS **RESEARCH PARK SECTION 4**, AN AMENDING PLAT OF LOTS 1, 10, 11, 12, 15, & 16, RESEARCH PARK SUBDIVISION A RESUBDIVISION OF RESEARCH TECHNOLOGY SUBDIVISION; AND LOTS 14C, 14D, 14E, & 14E WASTEWATER EASEMENT VOL. 13082, PG. 352,-RESEARCH PARK SUBDIVISION, A RESUBDIVISION OF RESEARCH TECHNOLOGY SUBDIVISION; AND LOTS 14C, 14D, 14E, & 14F, RESEARCH PARK, SECTION 2, A RESUBDIVISION OF LOT 14 OF RESEARCH PARK SUBDIVISION; AND LOT 2, BLOCK A, RESEARCH PARK SECTION 3, A RESUBDIVISION OF LOTS 7 AND 13 OF RESEARCH PARK SUBDIVISION AND DO HEREBY DEDICATE TO THE PUBLIC THE USE OF ALL STREETS AND EASEMENTS SHOWN HEREON, SUBJECT TO ANY AND ALL EASEMENTS OR RESTRICTIONS HERETOFORE GRANTED AND NOT RELIASED. R.P.R.T.C.TX. THE STATE OF TEXAS KNOWN TO ALL MEN BY THESE PRESENTS § THE COUNTY OF Trawis BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR THE STATE OF TOXAS THIS DAY DID PERSONALLY APPEAR MATTHEW SCHWAB, KNOWN TO BE THE PERSON WHOSE NAME IS SUBSCRIBED THE FOREGOING INSTRUMENT AND HAS ACKNOWLEDGED TO ME THAT THEY HAVE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED. ---+ Bettung Karg (S 61'25'23" E) (253.94') N 61°27'30" W 254.06' 6/7/2023 BETHANY ROGERS Notary ID #133834779 My Commission Expires June 28, 2026 C8-2023-0004.0A PLAT PREPARATION DATE: JANUARY, 2021 APPLICATION SUBMITTAL DATE: FEBRUARY 27, 2023 LOT REVISION MB 05/18/ **RESEARCH PARK SECTION 4,** \_\_\_\_\_ AN AMENDING PLAT OF 178.21 ACRES IN THE HRGreen JAMES D. GOODE SURVEY NO. 30, A-307 -AND OTHERS, TRAVIS COUNTY TEXAS AND WILLIAMSON COUNTY, TEXAS DEVELOPMENT TX BY: DATE SHEET 4 OF 9



### 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
- 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.
- 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.)
- 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. 11 RELEASE OF THE CERTIFICATE OF OCCUPANCY BY THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT (INSIDE THE CITY LIMITS); OR [] INSTALLATION OF AN ELECTRIC OR WATER METER (IN THE FIVE-MILE ETJ),

#### DEVELOPER INFORMATION: OWNER:

KARLIN RESEARCH PARK MF 1, LLC \_PHONE <u>310-806-9728</u> ADDRESS 6300 BRIDGE POINT PKWY., SUITE 2-102

- AUSTIN, TEXAS 78730 OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:
- \_\_\_\_PHONE 512-872-6696 LANDDEV CONSULTING, LLC.
- PERSON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE: KARLIN RESEARCH PARK MF 1, LLC \_PHONE <u>310-806-9728</u> PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE: KARLIN RESEARCH PARK ,F 1, LLC \_\_\_\_PHONE <u>310-806-9728</u>

#### ACCESSIBILITY NOTES:

- 1. SLOPES ON ACCESSIBLE ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP. [TAS 4.3.7]
- 2. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12. THE MAXIMUM RISE FOR ANY RAMP RUN IS 30 IN. [TAS 4.8.2]
- 3. ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:50. [TAS 4.3.7]
- 4. GROUND SURFACES ALONG ACCESSIBLE ROUTES MUST BE STABLE, FIRM, AND SLIP RESISTANT. [TAS 4.5.1]

#### PAVING NOTE:

CONTRACTOR TO REFER TO GEOTECHNICAL RECOMMENDATIONS FOR PAVEMENT DESIGN CONTRACTOR IS ALSO RESPONSIBLE TO VERIFY THAT THE REPORT HAS NOT BEEN MODIFIED PRIOR TO CONSTRUCTION.

#### APPENDIX P-2:

CITY OF AUSTIN STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION

- ALL TREES AND NATURAL AREAS SHOWN ON PLAN TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING.
- PROTECTIVE FENCES SHALL BE ERECTED ACCORDING TO CITY OF AUSTIN STANDARDS FOR TREE PROTECTION.
- PROTECTIVE FENCES 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 CONSTRUCTION PROJECT.
- EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP WITHIN TREE DRIP LINES.
- PROTECTIVE FENCES SHALL SURROUND THE TREES OR GROUP OF TREES, AND WILL BE LOCATED AT THE OUTERMOST LIMIT OF BRANCHES (DRIP LINE), FOR NATURAL AREAS, PROTECTIVE FENCES 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 CITY ABORIST; WOUNDS TO EXPOSED BOOTS TRUNK OR LIMBS BY MECHANICAL FOUIPMENT
- D. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING, AND FIRES.
- 6. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIP LINES 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 TO 4 FEET BEYOND THE AREA DISTURBED; B. WHERE PERMEABLE PAVING IS TO BE INSTALLED WITHIN A TREE'S DRIP LINE. ERECT
- THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA (PRIOR TO SITE GRADING SO THAT THIS AREA IS GRADED SEPARATELY PRIOR TO PAVING INSTALLATION TO MINIMIZED ROOT DAMAGE); C. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE TO ALLOW 6
- TO 10 FEET OF WORK SPACE BETWEEN THE FENCE AND THE BUILDING: D. WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER SPECIAL REQUIREMENTS, CONTACT THE CITY ARBORIST AT 974-1876 TO DISCUSS ALTERNATIVES.

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 BEING CLOSER THAN 4 FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF 8 FT (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.
- 8. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.
- 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. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
- 11. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITHIN
- THE DRIP LINE OF TREES. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE. 12. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT
- SHALL TAKE PLACE BEFORE DAMAGE OCCURS (RIPPING OF BRANCHES, ETC.). 13. ALL FINISHED PRUNING SHALL BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES AVAILABLE ON REQUEST FROM THE CITY ARBORIST).
- 14. DEVIATIONS FROM THE ABOVE NOTES MAY BE CONSIDERED ORDINANCE VIOLATIONS IF THERE IS SUBSTANTIAL NON-COMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT.

### FIRE DEPARTMENT:

- 1. THE AUSTIN FIRE DEPARTMENT REQUIRES ASPHALT OR CONCRETE PAVEMENT PRIOR TO CONSTRUCTION AS AN "ALL-WEATHER DRIVING SURFACE." 2. HYDRANTS MUST BE INSTALLED WITH THE CENTER OF THE FOUR-INCH OPENING AT LEAST 18 INCHES ABOVE FINISHED GRADE THE FOUR-INCH OPENING MUST FACE THE DRIVEWAY OR STREET WITH THREE- TO SIX-FOOT SETBACKS FROM THE CURBLINE(S). NO OBSTRUCTION IS ALLOWED WITHIN THREE FEET OF ANY HYDRANT AND THE FOUR-INCH OPENING MUST BE
- TOTALLY UNOBSTRUCTED FROM THE STREET. TIMING OF INSTALLATION: WHEN FIRE PROTECTION FACILITIES ARE INSTALLED BY THE DEVELOPER. SUCH FACILITIES SHALL INCLUDE ALL SURFACE ACCESS ROADS WHICH SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO AND DURING THE TIME OF CONSTRUCTION. WHERE ALTERNATIVE METHODS OF PROTECTION, AS APPROVED BY THE FIRE CHIEF, ARE
- PROVIDED THE ABOVE MAY BE MODIFIED OR WAIVED 4. ALL PERVIOUS/DECORATIVE PAVING SHALL BE ENGINEERED AND INSTALLED FOR 80,000 LB. LIVE-VEHICLE LOADS. ANY PERVIOUS/DECORATIVE PAVING WITHIN 100 FEET OF ANY BUILDING MUST BE APPROVED BY THE FIRE DEPARTMENT.
- 5 COMMERCIAL DUMPSTERS AND CONTAINERS WITH AN INDIVIDUAL CAPACITY OF 1.5 CUBIC YARDS OR GREATER SHALL NOT BE STORED OR PLACED WITHIN TEN FEET OF OPENINGS. COMBUSTIBLE WALLS. OR COMBUSTIBLE EAVE LINES.
- 6. FIRE LANES DESIGNATED ON SITE PLAN SHALL BE REGISTERED WITH CITY OF AUSTIN FIRE MARSHAL'S OFFICE AND INSPECTED FOR FINAL APPROVAL. 7. VERTICAL CLEARANCE REQUIRED FOR FIRE APPARATUS IS 14 FEET, 0 INCHES FOR FULL WITH

### **EROSION & SEDIMENTATION NOTES:**

- 1. THE ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS.
- ALL DISTURBED AREAS OF THIS PROJECT SHALL BE REVEGETATED AND ALL PERMANENT EROSION AND SEDIMENTATION CONTROLS SHALL BE COMPLETED PRIOR TO THE ISSUANCE OF OCCUPANCY PERMITS FOR THE SITE. TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE ADJUSTED AS NEEDED TO INSURE THAT DISTURBED AREAS ARE ADEQUATELY PROTECTED, ADDITIONALLY, ANY AREA WITHIN THE LIMIT OF CONSTRUCTION OF THE PROJECT THAT IS NOT ADEQUATELY REVECETATED SHALL BE BROUGHT INTO COMPLIANCE PRIOR TO THE RELEASE OF THE CONTRACTOR FROM THE PROJECT.
- 3. IN AREAS WHERE HYDROMULCH IS UTILIZED, SEVERAL APPLICATIONS MAY BE REQUIRED TO ESTABLISH ADEQUATE STABILIZATION IF FREQUENT RAINFALL OCCURS DURING SEEDING ATTEMPTS

#### APPENDIX P-4:

OF ACCESS DRIVE.

STANDARD SEQUENCE OF CONSTRUCTION THE FOLLOWING SEQUENCE OF CONSTRUCTION SHALL BE USED FOR ALL DEVELOPMENT. THE APPLICANT IS ENCOURAGED TO PROVIDE ANY ADDITIONAL DETAILS APPROPRIATE FOR THE PARTICULAR DEVELOPMENT.

- 1. 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 EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORMWATER POLITION PREVENTION PLAN (SWPPP) THAT IS REQUIRED TO BE POSTED ON THE SITE. INSTALL TREE PROTECTION, INITIATE TREE MITIGATION MEASURES AND CONDUCT "PRE - CONSTRUCTION" TREE FERTILIZATION (IF APPLICABLE).
- 2. THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR MUST CONTACT THE DEVELOPMENT SERVICES DEPARTMENT, ENVIRONMENTAL INSPECTION, AT 512-974-2278, 72 HOURS PRIOR TO THE SCHEDULED DATE OF THE REQUIRED ON-SITE PRECONSTRUCTION MEETING
- 3. THE ENVIRONMENTAL PROJECT MANAGER, AND/OR SITE SUPERVISOR, AND/OR DESIGNATED RESPONSIBLE PARTY, AND THE GENERAL CONTRACTOR WILL FOLLOW THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND 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.
- 4. 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).
- 5. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE. 6. BEGIN SITE CLEARING/CONSTRUCTION (OR DEMOLITION) ACTIVITIES.
- 7. 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 THE 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.
- 8. PERMANENT WATER QUALITY PONDS OR CONTROLS WILL BE CLEANED OUT AND FILTER MEDIA WILL BE INSTALLED PRIOR TO/CONCURRENTLY WITH REVEGETATION OF SITE.
- 9. COMPLETE CONSTRUCTION AND START REVEGETATION OF THE SITE AND INSTALLATION OF LANDSCAPING.
- 10. UPON COMPLETION OF THE SITE CONSTRUCTION AND REVEGETATION OF A PROJECT SITE. THE DESIGN ENGINEER SHALL SUBMIT AN ENGINEER'S LETTER OF CONCURRENCE BEARING THE ENGINEER'S SEAL. SIGNATURE, AND DATE TO THE DEVELOPMENT SERVICES. DEPARTMENT INDICATING THAT CONSTRUCTION. INCLUDING REVEGETATION. IS COMPLETE AND IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLANS. AFTER RECEIVING THIS
- LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR. 11. UPON COMPLETION OF LANDSCAPE INSTALLATION OF A PROJECT SITE, THE LANDSCAPE ARCHITECT SHALL SUBMIT A LETTER OF CONCURRENCE TO THE DEVELOPMENT SERVICES 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.
- 12. 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.

#### 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.

#### **GRADING NOTES:**

- 1. TOPOGRAPHIC AND TREE SURVEY PERFORMED BY LANDDEV CONSULTING DATED BETWEEN JULY 31, 2021 AND SEPTEMBER 25, 2021
- 2. IF CONTRACTOR FINDS A DISCREPANCY WITH THE TOPOGRAPHIC INFORMATION ON THESE PLANS, HE/SHE SHOULD CONTACT THE CONSTRUCTION MANAGER/SUPERVISOR IMMEDIATELY.
- 3. EARTHWORK FOR ALL BUILDING FOUNDATIONS AND SLABS SHALL BE IN ACCORDANCE WITH ARCHITECTURAL BUILDING PLANS AND SPECIFICATIONS.
- 4. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED AND GRADED TO DRAIN.
- 5. ANY TEMPORARY SPOILS STOCKPILE MUST BE LOCATED OUTSIDE OF ANY TREE DRIPLINES AND IN THE TEMPORARY SPOILS AREA DESIGNATED ON THE APPROVED PLANS. ALL SURPLUS MATERIAL WILL BE DISPOSED OF OFF SITE
- 6. THE CONTRACTOR SHALL NOT DISPOSE OF SURPLUS EXCAVATED MATERIAL FROM THE SITE WITHOUT NOTIFYING THE CITY OF AUSTIN ENVIRONMENTAL INSPECTION AT (512) 974-2278 AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO THE REMOVAL. THIS NOTIFICATION SHALL INCLUDE THE DISPOSAL LOCATION AND A COPY OF THE PERMIT ISSUED TO RECEIVE THE MATERIAI
- 7. ALL DEBRIS AND EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE IN A MANNER NOT TO DAMAGE THE OWNER PRIOR ACCEPTANCE OF THE PROJECT.
- 8. THE GEOTECHNICAL ENGINEER SHALL APPROVE ALL FILL MATERIAL PROVIDED PRIOR TO PLACING AND COMPACTING. THE PLASTICITY INDEX MUST BE LESS THAN 15.
- 9. UNLESS NOTED OTHERWISE, SPREAD FILL MATERIAL IN 8-INCH LIFTS AND COMPACT EACH LIFT TO 95% TO 105% OF THE MAXIMUM DENSITY. AS DETERMINED BY THE SDHPT TEST METHOD TEX 113-E, WITHIN +/- 3% OF THE OPTIMUM MOISTURE CONTENT FOR ALL PLACEMENT OF FILL MATERIAL.
- 10. A GEOTECHNICAL ENGINEER MUST PREPARE GEOTECHNICAL RECOMMENDATIONS AND PROVIDED A COPY TO THE CIVIL ENGINEER FOR PLACEMENT OF FILL FOR BERMS, DRAINAGE SWALES, CHANNELS, FILTER PONDS, DETENTION PONDS, AND OTHER SIMILAR AREAS.
- 11. ALL SLOPES GREATER THAN 3 TO 1 SHALL BE STABILIZED BY RIP RAP OR OTHER APPROVED METHODS. A STRUCTURAL ENGINEER MUST PROVIDE DETAILS FOR CONCRETE OR ROCK RIP RAP. EARTH SLOPES GREATER THAN 3 TO 1 WILL REQUIRE RECOMMENDATIONS FROM A GEOTECHNICAL ENGINEER.

ELSEWHERE.

#### GENERAL UTILITY NOTES:

- 1. THE OWNER IS RESPONSIBLE FOR ALL COST OF RELOCATION OR DAMAGE TO UTILITIES. 2. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH OCCUR DUE TO HIS/HER FAILURE TO LOCATE AND PRESERVE ANY AND ALL UTILITIES.
- 3. THE ENGINEER, IN PREPARING THESE PLANS HAS ATTEMPTED TO LOCATE ALL EXISTING UTILITIES IN THE AREAS OF EXPANSION OR NEW CONSTRUCTION. HOWEVER, THERE MAY BE UTILITIES THAT COULD NOT BE OR WERE NOT LOCATED.
- 4. UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK.
- 5. CONTRACTOR SHALL CALL APPROPRIATE UTILITY COMPANIES FOR LOCATIONS OF THEIR UTILITIES AT LEAST 48 HOURS BEFORE COMMENCING EXCAVATION. IN THE EVENT THAT A UTILITY IS SITUATED SUCH THAT CONSTRUCTION CANNOT PROCEED AS SHOWN ON THE PLANS, THE OWNER AND ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- 6. CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION, ADJUSTMENT, OR RELOCATION OF EXISTING UTILITIES AS DESIGNATED ON
- 7. CONTRACTOR SHALL PROVIDE BOLLARDS FOR PROTECTION OF ALL ABOVE GROUND UTILITIES AND APPURTENANCES IN DRIVE AREAS.
- 8. CONTRACTOR SHALL REFER TO ARCHITECT'S PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION OF ALL UTILITY SERVICES TO BUILDING INCLUDING SANITARY SEWER LATERALS. DOMESTIC AND FIRE WATER SERVICE, AND ELECTRICAL, TELEPHONE, AND GAS SERVICE.
- D. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH LOCAL UTILITY REQUIREMENTS AS TO LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
- 10. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATER AND SEWER LINES IS TEN (10) FEET. THE MINIMUM VERTICAL SEPARATION BETWEEN WATER AND SEWER LINES IS EIGHTEEN (18) INCHES.
- 11. THE TOP ELEVATION OF MANHOLES IN PAVED AREAS SHALL MATCH FINISH GRADE. THE TOP ELEVATION OF MANHOLES IN UNPAVED AREAS SHALL BE 3" (MIN.) ABOVE FINISH GRADE.
- 12. CONTRACTOR SHALL COORDINATE INSPECTION OF UTILITY LINES WITH APPROPRIATE AUTHORITIES PRIOR TO BACKFILLING TRENCHES.
- 13. SANITARY SEWER PIPE (6-INCH TO 15-INCH DIAMETER) SHALL BE PVC, ASTM D-3034 SDR 26 OR LESS WITH A MINIMUM PIPE STIFFNESS OF 115 PSI AND ELASTOMERIC GASKET JOINTS MEETING ASTM D 3212 AND GASKETS MEETING F 477, UNLESS OTHERWISE NOTED.
- 14. ALL WATER LINE PIPE WITHIN AN EASEMENT OR PUBLIC R.O.W SHALL BE D.I. PIPE (CLASS 350 UP TO 12-INCH DIAMETER AND CLASS 250 FOR 16-INCH DIAMETER AND LARGER) AND SHALL MEET ALL APPLICABLE CITY OF AUSTIN DETAILS AND SPECIFICATIONS UNLESS OTHERWISE APPROVED BY THE CITY OF AUSTIN AND THE ENGINEER.
- 15. ALL PRIVATE WATER LINE OR FIRE LINE PIPE SHALL BE AWWA C900 DR-14 CLASS 200 PVC (4-INCH THROUGH 12-INCH DIAMETER) OR CLASS 350 DUCTILE IRON PIPE. ALL DOMESTIC WATER PIPE SHALL BE SCH. 40 PVC
- 16. ALL PRIVATE WATER AND WASTEWATER LINES WILL COMPLY WITH THE UNIFORM PLUMBING CODE.
- 17. ALL PRIVATE FIRE SPRINKLER LINES WILL COMPLY WITH NFPA-24 REQUIREMENTS.
- 18. ALL WATER AND WASTEWATER LINES IN PUBLIC R.O.W. AND EASEMENTS WILL MEET THE CITY OF AUSTIN WATER UTILITY DETAILS AND SPECIFICATIONS, AT A MINIMUM. 19. SEE MECHANICAL / PLUMBING PLANS FOR EXACT LOCATION AND ELEVATION OF WATER AND
- WASTEWATER LINES AT THE BUILDING. 20. ALL BACKFLOW DEVICES WILL CARRY A MANUFACTURER RATING NOT TO EXCEED A 7 P.S.I.
- PRESSURE DROP THROUGH BACKFLOW DEVICE. 21. ALL BACKFLOW DEVICES WILL BE LOCATED WITHIN THE BUILDING SHELL, UNLESS SHOWN
- 22. ALL ON-SITE WATER AND WASTEWATER LINES WILL BE EXTENDED TO A MINIMUM OF 5 FEET FROM THE BUILDING.
- 23. CITY MAINTENANCE OF UTILITIES ENDS AT THE PROPERTY LINE UNLESS THE UTILITY IS IN AN EASEMENT.
- 24. PROVIDE CLEAN-OUTS ON WASTEWATER LINE PER CITY OF AUSTIN STANDARDS (MIN. 100' O.C.).
- 25. EXTEND ALL EXISTING UTILTY MANHOLES, BOXES, COVERS, ETC. TO PROPOSED FINISH
- 26. ALL UNDERGROUND UTILITY CONSTRUCTION WITHIN CITY R.O.W. OR PUBLIC EASEMENTS MUST BE ACCOMPLISHED IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS SERIES 500
- 27. THE CITY STANDARD CONSTRUCTION SPECIFICATIONS CURRENT AT THE TIME OF BIDDING SHALL GOVERN MATERIAL AND METHODS USED TO DO THIS WORK.
- 28. CONTRACTOR MUST OBTAIN A STREET CUT PERMIT FROM TRANSPORTATION AND PUBLIC SERVICES DEPARTMENT BEFORE BEGINNING CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR ALLEY.
- 29. AT LEAST FORTY-EIGHT (48) HOURS BEFORE BEGINNING ANY WATER AND WASTEWATER CONSTRUCTION IN PUBLIC R.O.W. OR PUBLIC EASEMENT, THE CONTRACTOR SHALL NOTIFY TRANSPORTATION AND PUBLIC SERVICES INSPECTION DIVISION FOR MAIN LINE CONSTRUCTION, OR WATER AND WASTEWATER UTILITY TAPS INSPECTION FOR TAPS ONLY CONSTRUCTION.
- 30. THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM AT 1-800-344-8377 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION.
- 31. 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.
- 32. THE CITY OF AUSTIN WATER AND WASTEWATER MAINTENANCE RESPONSIBILITY ENDS AT R.O.W./EASEMENT LINES.
- 33. 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.
- 34. THE CITY SPECIFICATION ITEM 509 WILL BE REQUIRED AS A MINIMUM TRENCH SAFETY MEASURE. CONTRACT DOCUMENTS WHICH INCLUDE A TRENCH SAFETY PLAN AND A PAY ITEM FOR TRENCH SAFETY MEASURES IN COMPLIANCE WITH TEXAS HOUSE BILL 1569 MUST BE RECEIVED BY TRANSPORTATION AND PUBLIC SERVICES CONTRACT ADMINISTRATION OFFICE BEFORE BEGINNING WORK ON THE PROJECT.
- 35. ALL MATERIALS TESTS, INCLUDING SOIL DENSITY TESTS AND RELATED SOIL ANALYSIS, SHALL BE ACCOMPLISHED BY AN INDEPENDENT LABORATORY FUNDED BY THE DEVELOPER IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 1804.04.
- 36. PRESSURE TAPS SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 510.3(24). THE CONTRACTOR SHALL DO ALL EXCAVATION ETC., AND SHALL FURNISH, INSTALL AND AIR TEST THE SLEEVE AND VALVE. IF A PRIVATE CONTRACTOR MAKES THE TAP, A CITY INSPECTOR MUST BE PRESENT. WITH TWO (2) WORKING DAYS (MIN.) NOTICE, CITY CREWS CAN MAKE TAPS UP TO TWELVE (12) INCHES, AT THE CONTRACTOR'S EXPENSE; FISCAL ARRANGEMENTS MUST BE MADE IN ADVANCE AT THE TAPS OFFICE. 625 EAST 10TH STREET. "SIZE ON SIZE" TAPS WILL NOT BE PERMITTED, UNLESS MADE BY USE OF AN APPROVED FULL CIRCLE-GASKETED TAPPING SLEEVE. CONCRETE BLOCKING SHALL BE PLACED BEHIND AND UNDER ALL TAP SLEEVES TWENTY-FOUR (24) HOURS PRIOR TO MAKING THE WET TAP.
- 37. THRUST RESTRAINT SHALL BE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATION ITEM 510.3(22).
- 38. FIRE HYDRANTS SHALL BE SET IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATION ITEM 511.4(2).
- 39. WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATION ITEMS 510.3 (27)-(29). FORCE MAIN TESTING SHALL BE CONDUCTED AT THE PRESSURES SHOWN ON THE PLANS.
- 40. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES FOR EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
- 41. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS OR DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL DESIGN AND MAINTAIN ALL SUPPORT SYSTEMS, SLOPING, BENCHING, AND OTHER MEANS OF PROTECTION.

#### SPECIAL CONSTRUCTION TECHNIQUES:

- 1. PRIOR TO EXCAVATION WITHIN TREE DRIPLINES, OR THE REMOVAL OF TREES ADJACENT TO OTHER TREES THAT ARE TO REMAIN, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE ROOT DAMAGE
- 2. IN CRITICAL ROOT ZONE AREAS THAT CANNOT BE PROTECTED DURING CONSTRUCTION WITH FENCING, AND WHERE HEAVY VEHICULAR TRAFFIC IS ANTICIPATED, COVER THOSE AREAS WITH A MINIMUM OF 12 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION. IN AREAS WITH HIGH SOIL PLASTICITY GEOTEXTILE FABRIC PER STANDARD SPECIFICATION 620S SHOULD BE PLACED UNDER THE MULCH TO PREVENT EXCESSIVE MIXING OF THE SOIL AND MULCH, ADDITIONALLY, MATERIAL SUCH AS PLYWOOD AND METAL SHEETS, COULD BE REQUIRED BY THE CITY ARBORIST TO MINIMIZE ROOT IMPACTS FROM HEAVY EQUIPMENT ONCE THE PROJECT IS COMPLETED, ALL MATERIALS SHOULD BE REMOVED, AND THE MULCH SHOULD BE REDUCED TO A DEPTH OF 3 INCHES.
- 3. PERFORM ALL GRADING WITHIN CRITICAL ROOT ZONE AREAS WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE
- 4. WATER ALL TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES DEEPLY AS NECESSARY DURING PERIODS OF HOT, DRY WEATHER. SPRAY TREE CROWNS WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.
- 5. WHEN INSTALLING CONCRETE ADJACENT TO THE ROOT ZONE OF A TREE, USE A PLASTIC VAPOR BARRIER BEHIND THE CONCRETE TO PROHIBIT LEACHING OF LIME INTO THE SOIL.

#### 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 B 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 FLECTRIC 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 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 WHEN WORKING IN CLOSE PROXIMITY TO OVERHEAD POWER LINES AND FOUIPMENT 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.
- 5. ALL ELECTRIC EASEMENTS MUST BE SHOWN ON ALL PLAN SHEETS, LEFT CLEAR FOR ELECTRIC USE AND MAINTENANCE ON A 24/7 BASIS IN PERPETUITY AND MAINTAIN NECESSARY CLEARANCES FROM ANY PROPOSED STRUCTURES VEGETATION. ETC AT ALL TIMES, NECESSARY CLEARANCE INFORMATION (AE. OSHA, NESC. & NEC) MAY BE FOUND IN AUSTIN ENERGY'S DESIGN CRITERIA MANUAL - SECTION 1.5.3.9. THE MANUAL IS AVAILABLE ON AUSTIN ENERGY'S WEBSITE UNDER CONTRACTORS / ELECTRIC SERVICE DESIGN & PLANNING.
- 6. NO TREES SHALL BE PLANTED WITH A MATURE HEIGHT OF GREATER THAN 15 FEET WITHIN THE EASEMENT. NO TREES SHALL BE PLANTED WITHIN 25 FEET OF THE BASE OF THE TRANSMISSION STRUCTURE VEHICULAR ACCESS FOR AUSTIN ENERGY TRUCKS AND FOUIPMENT IS TO BE MAINTAINED AT ALL TIMES WITHIN THE EASEMENT. AUSTIN ENERGY WILL NOT BE RESPONSIBLE FOR DAMAGE AND/OR REMOVAL OF VEGETATION WITHIN THE EASEMENT.
- 7. NO TREES SHALL BE PLANTED IN A TRANSMISSION EASEMENT. OUTSIDE OF THE EASEMENT, ANY TREES PLANTED WITHIN 50 FEET OF AN EXISTING OR PROPOSED TRANSMISSION FACILITY (STRUCTURE, GUY, CONDUCTOR, ETC.), MUST BE A UTILITY-COMPATIBLE TREE. A LIST OF UTILITY-COMPATIBLE TREES CAN BE FOUND IN APPENDIX F OF THE ENVIRONMENTAL CRITERIA MANUAL. AUSTIN ENERGY WILL NOT BE RESPONSIBLE FOR DAMAGE AND/OR REMOVAL OF VEGETATION WITHIN THE EASEMENT. VEHICULAR ACCESS FOR AUSTIN ENERGY TRUCKS AND EQUIPMENT IS ALWAYS TO BE MAINTAINED WITHIN THE EASEMENT.
- 8. DO NOT DIG OR GRADE WITHIN 25 FEET OF THE TRANSMISSION STRUCTURES, INCLUDING GUY WIRES. GRADING NEAR ELECTRIC TRANSMISSION FACILITIES MUST BE COORDINATED WITH AUSTIN ENERGY PRIOR TO COMMENCEMENT OF GRADING. CALL ANDREW PEREZ AT 512-505-7153 TO SCHEDULE A MEETING
- 9. A PRE-CONSTRUCTION SAFETY MEETING IS REQUIRED WITH AUSTIN ENERGY 48 HOURS BEFORE COMMENCEMENT OF CONSTRUCTION. CALL ANDREW PEREZ AT 512-505-7153 TO SCHEDULE A TAILGATE SAFETY MEETING. INCLUDE CHUCK HENDRY (PH 505-7151) IN THE MEETING, IF CRANES ARE BEING USED DURING CONSTRUCTION. OSHA REQUIRES A 20' CLEARANCE FROM ENERGIZED TRANSMISSION LINES DURING CONSTRUCTION
- 10. BARRICADES MUST BE ERECTED 10 FEET FROM ELECTRIC TRANSMISSION STRUCTURES DURING CONSTRUCTION. ANY RELOCATION OF ELECTRIC TRANSMISSION FACILITIES OR OUTAGES CAUSED BY THIS PROJECT WILL BE CHARGED TO THE PROPERTY OWNER AND CONTRACTOR. 11. WARNING SIGNS MUST BE PLACED UNDER THE OVERHEAD ELECTRIC TRANSMISSION FACILITIES AS
- NOTIFICATION OF THE ELECTRICAL HAZARD. 12. FOR SAFETY REASONS, AERIAL EQUIPMENT, DUMPSTERS, STAGING OR SPOILS AREAS ARE NOT PERMITTED WITHIN 20 FEET OF THE TRANSMISSION WIRE AND/OR STRUCTURES AND MUST BE
- LOCATED OUTSIDE THE EASEMENT. 13. 24-HOUR ACCESS TO ELECTRIC FACILITIES SHALL BE MAINTAINED.
- 14. ANY TEMPORARY OR PERMANENT FENCE PREVENTING ACCESS TO THE TRANSMISSION FACILITIES AND/OR EASEMENT SHALL BE COORDINATED WITH AUSTIN ENERGY STAFF. AE STAFF WILL INSTALL A LOCK ON THE GATE FOR ACCESS.
- 15. PROPERTY OWNER AND CONTRACTOR ARE RESPONSIBLE FOR DUST CONTROLS TO MINIMIZE CONTAMINATION OF WIRE AND INSULATORS CAUSED BY DUST FROM THIS PROJECT. ANY SUBSEQUENT CLEANING OR ELECTRICAL OUTAGES CAUSED BY DUST FROM THIS PROJECT WILL BE CHARGED TO THE PROPERTY OWNER AND CONTRACTOR.
- 16. PROPERTY OWNER IS RESPONSIBLE FOR ANY DAMAGES TO CURBING, LANDSCAPING, WALLS, PAVING PLACED AROUND THE ELECTRIC TRANSMISSION STRUCTURES/POLES/LINES CAUSED BY AUSTIN ENERGY DURING MAINTENANCE AND REPAIRS. ALL CURBING WITHIN THE ELECTRIC TRANSMISSION EASEMENT MUST BE LAYDOWN CURBING.
- 17. ROADS/DRIVEWAYS/PAVEMENT/PARKING WITHIN THE EASEMENT SHOULD BE BUILT TO HANDLE THE WEIGHT OF THE CONDOR (80.000 LBS) TO ENSURE SAFETY. 18. AUSTIN ENERGY WILL NOT BE RESPONSIBLE FOR DAMAGE DONE TO FACILITIES PLACED IN THE EASEMENT OR TO FACILITIES PLACED OUTSIDE THE EASEMENT (SUCH AS WALLS) THAT ARE DAMAGED
- AS A RESULT OF AE EQUIPMENT TRAVERSING THE EASEMENT. 19. FIRE HYDRANTS MUST BE LOCATED OUT OF THE TRANSMISSION EASEMENT AND A MINIMUM OF 20 FEET FROM ANY TRANSMISSION STRUCTURE.
- 20. SPRINKLERS ARE PROHIBITED WITHIN 25 FEET OF TRANSMISSION POLES. 21. OWNER MAY NOT PLACE, ERECT, CONSTRUCT OR MAINTAIN WITHIN THE ELECTRIC TRANSMISSION EASEMENT:
- A. ANY PERMANENT STRUCTURES, INCLUDING, BUT NOT LIMITED TO HABITABLE STRUCTURES SUCH AS HOMES, MOBILE HOMES, GARAGES, OR OFFICES,
- B. ANY STRUCTURE OF ANY KIND IN SUCH PROXIMITY TO THE ELECTRIC TRANSMISSION OR DISTRIBUTION LINES, POLES, STRUCTURES, TOWERS, OR APPURTENANT FACILITIES AS WOULD CONSTITUTE A VIOLATION OF THE NATIONAL ELECTRIC SAFETY CODE IN EFFECT AT THE TIME THE STRUCTURE IS ERECTED, NOR C. ANY STRUCTURES, INCLUDING BUT NOT LIMITED TO, FENCES, STORAGE SHEDS, DRAINAGE,

MINIMUM OF 20 FEET FROM ANY TRANSMISSION STRUCTURE.

FACILITIES IN THE EASEMENTS

SUBSTATION EASEMENTS.

SUBSTATION SHOULD BE LIMITED.

INSTALLED BETWEEN THE TWO FENCES.

THE SUBSTATION

SITE

SHOULD BE USED AS THE CONNECTING FENCE.

#### FILTRATION OR DETENTION PONDS WHICH WOULD IMPAIR AUSTIN ENERGY'S ACCESS TO THE TRANSMISSION EASEMENTS OR ITS LINES, POLES, STRUCTURES, TOWERS OR APPURTENANT

D. FIRE HYDRANTS CANNOT BE LOCATED INSIDE THE TRANSMISSION EASEMENT AND MUST BE A E. SEPTIC SYSTEMS AND DRAIN FIELD SYSTEMS ARE NOT ALLOWED IN ELECTRIC TRANSMISSION AND

22. AUSTIN ENERGY HAS AN ELECTRIC SUBSTATION ADJACENT TO THE PROPERTY. OWNER WILL BE RESPONSIBLE FOR ANY OUTAGES AT THIS SUBSTATION CAUSED BY THIS PROJECT. 23. METAL FENCES MUST NOT CONNECT DIRECTLY TO THE SUBSTATION FENCE, 10 FEET OF WOODEN

24. SITE DRAINAGE MUST NOT NEGATIVELY IMPACT THE SUBSTATION PROPERTY, EITHER BY DRAINING ONTO THE SUBSTATION SITE OR BY PREVENTING NATURAL DRAINAGE AWAY FROM THE SUBSTATION

25. EXCAVATION NEAR A SUBSTATION THAT COULD CAUSE A STRUCTURAL OR STABILITY ISSUE FOR THE

26. ANY PROPOSED EXCAVATION GREATER THAN 1 FOOT IN DEPTH, WITHIN 25 FEET OF THE SUBSTATION PROPERTY LINE MUST BE REVIEWED AND APPROVED BY AUSTIN ENERGY.

27. LARGE VEHICLES AND HEAVY EQUIPMENT OFTEN MOVE THROUGHOUT THE SUBSTATION, AND ANY WALL, EXCAVATION, OR SUBSURFACE INSTALLATION MUST BE DESIGNED TO SUPPORT THESE HEAVY

28. FENCES MUST BE ELECTRICALLY ISOLATED FROM SUBSTATION FENCES. IF A FENCE NEEDS TO CONNECT TO A SUBSTATION FENCE, A 10-FOOT, NON-CONDUCTIVE ISOLATION PANEL MUST BE

29. AUSTIN ENERGY MUST MAINTAIN 24-HOUR ACCESS TO THE SUBSTATION. ACCESS FOR LARGE VEHICLES AND LARGE EQUIPMENT IS REQUIRED. ANY PROPOSED DEVELOPMENT THAT WOULD LIMIT ACCESS TO THE SUBSTATION IS NOT PERMITTED. WHERE REQUIRED. AUSTIN ENERGY MAY OBTAIN AN ACCESS EASEMENT TO ENSURE ACCESS TO THE SUBSTATION IS MAINTAINED.

30. PROPERTY OWNERS WILL BE RESPONSIBLE FOR ANY OUTAGES OR DAMAGE AT AUSTIN ENERGY SUBSTATIONS CAUSED BY THE DEVELOPMENT. THIS INCLUDES BUT IS NOT LIMITED TO DAMAGE OR OUTAGES CAUSED BY EXCAVATION, OR FROM CONDUCTIVE OBJECTS THAT MAY FALL OR BLOW INTO

31. ANY RELOCATION OF ELECTRIC FACILITIES SHALL BE AT LANDOWNER'S/DEVELOPER'S EXPENSE.

### **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 OWNER IS RESPONSIBLE FOR ALL COSTS OF RELOCATION OF, OR DAMAGE 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 FRO 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. 8. FOR CONSTRUCTION WITHIN THE RIGHT-OF-WAY, A R.O.W. EXCAVATION PERMIT IS

# STANDARD SPECIFICATIONS:

REQUIRED.

- 1. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO STARTING WORK ON THE SITE. 2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES THAT ARE
- NOT SHOWN ON THE PLANS TO BE REMOVED.
- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING LANDSCAPING THAT IS NOT SHOWN ON THE PLANS TO BE REMOVED.
- 4. EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF AUSTIN STANDARDS
- CONTRACTOR SHALL SUBMIT MATERIAL SUBMITTALS FOR ALL PIPE, FITTINGS, FIXTURES, VALVES, BOXES, INLETS, COVERS, RINGS, BEDDING, AND ANY OTHER MATERIAL ASSOCIATED WITH UNDERGROUND UTILITY CONSTRUCTION. UNLESS SPECIFICALLY NOTED IN THE CONTRACT DOCUMENTS, ALL CONSTRUCTION SHALL COMPLY WITH CITY OF AUSTIN SPECIFICATIONS. IN ADDITION, ALL MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MATERIAL MANUFACTURER'S SPECIFICATIONS. APPROVAL OF A SUBMITTED MATERIAL DOES NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO PROPERLY INSTALL MATERIALS.
- 6. ALL DISTURBED AREAS MUST BE REVEGETATED BY CONTRACTOR AS REQUIRED BY CITY OF AUSTIN STANDARDS. (REGARDLESS OF WHO IS RESPONSIBLE FOR SITE LANDSCAPING)
- 7. UNLESS SPECIFICALLY NOTED IN THE CONTRACT DOCUMENTS, ALL SITE CONCRETE, PAVING, STRIPING AND SIGNAGE SHALL COMPLY WITH CITY OF AUSTIN SPECIFICATIONS.
- UNLESS SPECIFICALLY NOTED IN THE CONTRACT DOCUMENTS, NO WORK SHALL TAKE PLACE OUTSIDE THE BOUNDARIES OF THE OWNER'S PROPERTY. IN THE EVENT THAT WORK NEEDS TO TAKE PLACE OFFSITE, THE OWNER'S REPRESENTATIVE MUST BE NOTIFIED TWO WEEKS PRIOR TO THE WORK SO THAT THE PROPER COORDINATION MAY TAKE PLACE. NO OFFSITE WORK, INCLUDING STORAGE OF MATERIAL OR STAGING, MAY TAKE PLACE OFFSITE WITHOUT APPROVAL FROM OWNER'S REPRESENTATIVE.
- ADEQUATE TREE PROTECTION MUST BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION. ALL TREES SHOWN TO BE PROTECTED IN THE CONTRACT DOCUMENTS ARE TO REMAIN, UNLESS SPECIFIC, WRITTEN PERMISSION IS GRANTED FOR THE REMOVAL BY THE OWNER'S REPRESENTATIVE. CONTRACTOR WILL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY TREE LOST DUE TO CONTRACTOR'S NEGLIGENCE. IN AREAS WHERE A TREE WELL CONDITION EXISTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ANY COMPACTED SOIL FROM THE TREE'S CRITICAL ROOT ZONE TO ENSURE WATER CAN INFILTRATE PROPERLY
- 10. CONTRACTOR SHALL KEEP ALL ADJACENT ROADWAYS CLEAR OF DIRT, MUD AND DUST THROUGH THE DURATION OF CONSTRUCTION. PERIODIC CLEANING OF ROADWAYS WILL BE REQUIRED AS DEEMED NECESSARY BY OWNER'S REPRESENTATIVE.
- 11. ALL TRENCHES MADE UNDER AREAS TO BE PAVED SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL REPORT.
- 12. CONTRACTOR IS RESPONSIBLE FOR PREPARING A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE PROJECT. CONTRACTOR SHALL FORWARD A COPY OF THE SWPPP APPLICATION TO OWNER'S REPRESENTATIVE PRIOR TO THE START OF CONSTRUCTION.
- 13. CONTRACTOR SHALL FORWARD A COPY OF A "FORM SURVEY" TO OWNER'S REPRESENTATIVE PRIOR TO POURING BUILDING SLABS. CONTRACTOR SHALL ALSO FORWARD A COPY TO OWNER'S REPRESENTATIVE OF ALL MATERIALS REQUIRED UNDER THE CITY OF AUSTIN SPECIAL INSPECTIONS CHECKLIST.
- 14. PRIOR TO ACCEPTANCE BY OWNER, ALL STORMWATER DRAINAGE PIPING, BOXES AND STRUCTURES WILL BE CLEAN AND FREE OF SEDIMENT. IN ADDITION, THE FILTER MEDIA ASSOCIATED WITH ANY WATER QUALITY STRUCTURES ON THE PROJECT WILL BE CLEAN AND FREE OF DEBRIS
- 15. CONTRACTOR SHALL STOCKPILE TOPSOIL AND MACHINE GRADE WITHIN 2 INCHES OF TOP OF CURB WITH ONSITE MATERIAL, WHICH SHALL BE FREE OF ROCKS AND OTHER DEBRIS. VERIFY GRADE WITH LANDSCAPE SPECIFICATIONS.
- 16. PRIOR TO PLACEMENT, CONTRACTOR MUST SUBMIT PROPOSED ROAD/PARKING LOT BASE MATERIAL TO OWNER FOR TESTING BY OWNER'S TESTING LABORATORY. ONLY BASE MATERIAL APPROVED BY OWNER MAY BE USED. REFER TO PROJECT GEOTECHNICAL REPORT FOR EXACT SPECIFICATIONS.

### **APPENDIX P-6:**

REMEDIAL TREE CARE NOTES AERATION AND SUPPLEMENTAL NUTRIENT REQUIREMENTS FOR TREES WITHIN CONSTRUCTION AREAS

AS A COMPONENT OF AN EFFECTIVE REMEDIAL TREE CARE PROGRAM PER ENVIRONMENTAL CRITERIA MANUAL SECTION 3.5.4, PRESERVED TREES WITHIN THE LIMITS OF CONSTRUCTION MAY REQUIRE SOIL AERATION AND SUPPLEMENTAL NUTRIENTS. SOIL AND/OR FOLIAR ANALYSIS SHOULD BE USED TO DETERMINE THE NEED FOR SUPPLEMENTAL NUTRIENTS. THE CITY ARBORIST MAY REQUIRE THESE ANALYSES AS PART OF A COMPREHENSIVE TREE CARE PLAN. SOIL PH SHALL BE CONSIDERED WHEN DETERMINING THE FERTILIZATION COMPOSITION AS SOIL PH INFLUENCES THE TREE'S ABILITY TO UPTAKE NUTRIENTS FROM THE SOIL. IF ANALYSES INDICATE THE NEED FOR SUPPLEMENTAL NUTRIENTS, THEN HUMATE/NUTRIENT SOLUTIONS WITH MYCORRHIZAE COMPONENTS ARE HIGHLY RECOMMENDED. IN ADDITION. SOIL ANALYSIS MAY BE NEEDED TO DETERMINE IF ORGANIC MATERIAL OR BENEFICIAL MICROORGANISMS ARE NEEDED TO IMPROVE SOIL HEALTH. MATERIALS AND METHODS ARE TO BE APPROVED BY THE CITY ARBORIST (512-974-1876) PRIOR TO APPLICATION. THE OWNER OR GENERAL CONTRACTOR SHALL SELECT A FERTILIZATION CONTRACTOR AND IENSURE COORDINATION WITH THE CITY ARBORIST.

PRE-CONSTRUCTION TREATMENT SHOULD BE APPLIED IN THE APPROPRIATE SEASON, IDEALLY THE SEASON PRECEDING THE PROPOSED CONSTRUCTION, MINIMALLY, AREAS TO BE TREATED INCLUDE THE ENTIRE CRITICAL ROOT ZONE OF TREES AS DEPICTED ON THE CITY APPROVED PLANS. TREATMENT SHOULD INCLUDE, BUT NOT LIMITED TO, FERTILIZATION, SOIL TREATMENT, MULCHING, AND PROPER PRUNING.

POST-CONSTRUCTION TREATMENT SHOULD OCCUR DURING FINAL REVEGETATION OR AS DETERMINED BY A QUALIFIED ARBORIST AFTER CONSTRUCTION. CONSTRUCTION ACTIVITIES OFTEN RESULT IN A REDUCTION IN SOIL MACRO AND MICRO PORES AND AN INCREASE IN SOIL BULK DENSITY. TO AMELIORATE THE DEGRADED SOIL CONDITIONS, AERATION VIA WATER AND/OR AIR INJECTED INTO THE SOIL IS NEEDED OR BY OTHER METHODS AS APPROVED BY THE CITY ARBORIST. THE PROPOSED NUTRIENT MIX SPECIFICATIONS AND SOIL AND/OR FOLIAR ANALYSIS RESULTS NEED TO BE PROVIDED TO AND APPROVED BY THE CITY ARBORIST PRIOR TO APPLICATION (FAX # 512-974-3010). CONSTRUCTION WHICH WILL BE COMPLETED IN LESS THAN 90 DAYS MAY USE MATERIALS AT ½ RECOMMENDED RATES. ALTERNATIVE ORGANIC FERTILIZER MATERIALS ARE ACCEPTABLE WHEN APPROVED BY THE CITY ARBORIST. WITHIN 7 DAYS AFTER FERTILIZATION IS PERFORMED. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE WORK PERFORMED TO THE CITY ARBORIST, PLANNING AND DEVELOPMENT REVIEW DEPARTMENT. P.O. BOX 1088, AUSTIN, TX 78767. THIS NOTE SHOULD BE REFERENCED AS ITEM #1 IN THE SEQUENCE OF CONSTRUCTION.

SITE PLAN APPROVAL	SHEET_04_OF_116_
FILE NUMBER SP-2022-0048D	APPLICATION DATE <u>02/14/2022</u>
APPROVED ON XX UNDER SECTION	<b>112</b> OF
CHAPTER 25-5 OF THE CITY OF AUSTIN CO	DDE
EXPIRATION DATE (LDC 25-5-81) XX	_ CASE MANAGER ZACK LOFTON
PROJECT EXPIRATION DATE (ORD, #970905-A)	
DIRECTOR, DEVELOPMENT SERVICES DEFARTING	
RELEASED FOR GENERAL COMPLIANCE	ZONING XX
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REVISION 3 CORRECT	ION 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 Peri	mits ana/or a notice of
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prior to the Project Expiration Date.

SP-2022-0048C

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
WATER POLLUTION ABATEMENT PLAN GENERAL
CONSTRUCTION NOTES:

- WRITTEN CONSTRUCTION NOTIFICATION MUST BE GIVEN TO THE APPROPRIATE TCEQ REGIONAL OFFICE NO LATER THAN 48 HOURS PRIOR TO COMMENCEMENT OF THE REGULATED ACTIVITY. INFORMATION MUST INCLUDE THE DATE ON WHICH THE REGULATED ACTIVITY WILL COMMENCE, THE NAME OF THE APPROVED PLAN FOR THE REGULATED ACTIVITY, AND THE NAME OF THE PRIME CONTRACTOR AND THE NAME AND TELEPHONE NUMBER OF THE CONTACT PERSON.
- 2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN 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 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. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.
- 4. NO TEMPORARY ABOVEGROUND HYDROCARBON AND HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM IS INSTALLED WITHIN 150 FEET OF A DOMESTIC, INDUSTRIAL, IRRIGATION, OR PUBLIC WATER SUPPLY WELL, OR OTHER SENSITIVE FEATURE.
- PRIOR TO COMMENCEMENT OF CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND GOOD ENGINEERING PRACTICES. CONTROLS SPECIFIED IN THE TEMPORARY STORM WATER SECTION OF THE APPROVED EDWARDS AQUIFER PROTECTION PLAN ARE REQUIRED DURING CONSTRUCTION. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THE CONTROLS MUST REMAIN IN PLACE UNTIL DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED.
- 6. 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).
- SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS NOT LATER THAN WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%. A PERMANENT STAKE MUST BE PROVIDED THAT CAN INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN VOLUME.
- 8. 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).
- 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. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARY OR PERMANENTLY CEASE IS PRECLUDED BY WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 21 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF SITE. IN AREAS EXPERIENCING DROUGHTS WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED IS PRECLUDED BY SEASONAL ARID CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
- 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.

## STREET & BRIDGE STANDARD NOTES:

- 1. STREET REPAIR NOTES (UCM 5.9) A. TRENCH REPAIR:
- USE THE APPROPRIATE 1100S SERIES DETAILS FOR TRENCH REPAIRS: 1100S-2 (FLEXIBLE BASE WITH AN ASPHALT SURFACE), 1100S-3 (CONCRETE OR ASPHALT OVERLAID CONCRETE), AND 1100S-5 (FULL DEPTH ASPHALT STREETS). CLSM MAY BE SUBSTITUTED FOR BACKFILL AND FLEXIBLE BASE REPLACEMENT PER THE DETAIL NOTES. B. SURFACE RESTORATION:
- SURFACE PAVEMENT RESTORATION IS REQUIRED WHEN CUTS 1) OCCUR WITHIN THE DAPCZ, 2) OCCUR WITHIN PROTECTED STREET SEGMENTS, OR 3) ARE OVER 300 LINEAR FEET IN LENGTH. USE DETAIL 1100S-7 FOR DETERMINING AREAS REQUIRING SURFACE REMOVAL AND REPLACEMENT. THE REPLACEMENT ASPHALTIC CONCRETE SURFACE SURFACE LAYER THICKNESS SHALL BE A MINIMUM 2 INCHES HMAC TYPE D FOR LOCAL OR RESIDENTIAL STREETS AND A MINIMUM 3 INCHES HMAC TYPE C FOR COLLECTOR OR ARTERIAL STREETS (SEE ITEM 340S, SECTION 340S.4).
- C. CONCRETE AND COMPOSITE PAVEMENTS: IN CONCRETE STREETS, ACTUAL RESTORATION LIMITS ARE DETERMINED BY JOINT LOCATIONS. IN COMPOSITE PAVEMENTS CONSTRUCTED OF CONCRETE WITH A HMAC OVERLAY, USE 1100S-3 FOR TRENCH REPAIR (USING CLASS 360S CONCRETE) AND 1100S-7 FOR AREA OF ASPHALT SURFACE RESTORATION.
- 2. SIDEWALK REPAIR NOTES (UCM 5.10):
- A. DAMAGED CONCRETE SIDEWALK SHALL BE REMOVED AND REPLACED IN FULL SECTIONS (JOINT TO JOINT).
- B. IN AREAS WITH SIDEWALK PAVERS, CONTRACTOR TO CAREFULLY REMOVE, STORE AND REPLACE PAVERS TO MATCH EXISTING CONDITIONS OR BETTER.
- 3. HAND HOLES AND PULL BOXES, ETC.
- A. AVOID PLACING VAULTS, HAND HOLES, ETC. WITHIN SIDEWALKS. IF UNAVOIDABLE, PLACE THEM OUT OF THE PRIMARY ADA ROUTE. ADD APPLICABLE AE APPROVED DETAILS AND SPECIFY APPROPRIATE LOAD RATINGS AND ADA REQUIREMENTS INCLUDING A SLIP RESISTANT LID AND THE ABILITY TO BE PLACED FLUSH WITH THE SURROUNDING WALKING SURFACE CROSS SLOPE.
- 4. STREET AND BRIDGE SPECIAL NOTE
- A. 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 FOR TRENCH REPAIR. FOR LANE RESTORATION THE CUTS SHALL BE PERPENDICULAR TO LANE OR LANES AFFECTED AND FULL LANE WIDTH RESTORED FOR THE DAMAGED AREA. FOR CONCRETE PAVING REPAIR JOINT TO JOINT. FOLLOWING EXISTING OR MODIFIED JOINT PATTERN. REMOVE 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.

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SITE PLAN APPROVAL SHEET_05_OF_116_	
FILE NUMBER SP-2022-0048D APPLICATION DATE 02/14/2022	
APPROVED ON XX UNDER SECTION 112 OF	
CHAPTER 25-5 OF THE CITY OF AUSTIN CODE	
EXPIRATION DATE (LDC 25-5-81) XX CASE MANAGER ZACK LOFTON	
PROJECT EXPIRATION DATE (ORD, #970905-A) DWPZ DDZ	DESIGN
	DRAWN
DIRECTOR. DEVELOPMENT SERVICES DEPARTMENT	
	CHECKE
RELEASED FOR GENERAL COMPLIANCEZONING XX	
REVISION 1 CORRECTION 1	APPROV
REVISION 2 CORRECTION 2	
REVISION 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	SHEET
time of filing, and all required Building Permits and/or a notice of	
construction (if a building permit is not required), must also be approved	SP-20
phot to the troject explicition bate:	





# **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.

### **PROJECT INFORMATION**<sup>1</sup>

FIRE, DOMESTIC AND IRRIGATION DEMAND DATA					
GRID NUMBER:	T23				
MAPSCO NUMBER:	464H, 464D &434Z				
AW INTERSECTION NUMBER:	7595, 7396 & 24329				
BUILDING SIZE IN SQUARE FEET:	N/A				
BUILDING TYPE PER IFC:	N/A				
BUILDING HEIGHT:	N/A				
AVAILABLE FIRE FLOW CALCS AT 20 PSI:	6,185 GPM				
REQUIRED BUILDING FIRE FLOW PER IFC:	N/A				
REDUCED FIRE FLOW PER 75% FIRE SPRINKLER REDUCTION:	N/A				
MINIMUM FIRE FLOW:	N/A				
DOMESTIC WATER DEMAND IN GPM:	N/A				
WATER SUPPLY FIXTURE UNITS (WSFU) FLUSH TANKS OR FLUSHOMETERS (CIRCLE APPLICABLE ITEM):	N/A				
AUSTIN WATER PRESSURE ZONE:	H36				
STATIC WATER PRESSURE IN PSI:	80 PSI				
STATIC PRESSURE AT THE HIGHEST LOT SERVED IN PSI:	80 PSI				
STATIC PRESSURE AT THE LOWEST LOT SERVED IN PSI:	80 PSI				
MAXIMUM IRRIGATION DEMAND:	120 GPM				
FIRE LINE VELOCITY: _8"_SIZE OF FIRE LINE	N/A				
DOMESTIC LINE VELOCITY:	N/A				

### **STANDARD CONSTRUCTION NOTES October 1, 2021**

- THE CITY STANDARD CONSTRUCTION SPECIFICATIONS CURRENT AT THE TIME OF BIDDING SHALL COVER MATERIALS AND METHODS USED TO DO THIS WORK.
- CONTRACTOR MUST OBTAIN A ROW PERMIT FROM AUSTIN TRANSPORTATION DEPT, RIGHT OF WAY MANAGEMENT DIVISION BEFORE BEGINNING CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR ALLEY, ACTIVITY WITHIN RIGHT-OF-WAY SHALL COMPLY WITH APPROVED TCP.
- AT LEAST 48 HOURS PRIOR TO BEGINNING ANY UTILITY CONSTRUCTION ACTIVITY IN PUBLIC ROW OR PUBLIC EASEMENT, THE CONTRACTOR SHALL NOTIFY THE APPLICABLE CITY OF AUSTIN INSPECTION GROUP (AUSTIN TRANSPORTATION. DEVELOPMENT SERVICES. OR PUBLIC WORKS). SEE CURRENT NOTIFICATION REQUIREMENTS AT WWW.AUSTINTEXAS.GOV
- THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM AT 1-800-344-8377 FOR EXISTING LITILITY LOCATIONS PRIOR TO ANY EXCAVATION IN ADVANCE OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES TO BE EXTENDED, TIED TO, OR ALTERED, OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS. THE CITY OF AUSTIN WATER AND WASTEWATER MAINTENANCE RESPONSIBILITY ENDS AT R.O.W./EASEMENT LINES.
- NO OTHER UTILITY SERVICE/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.
- MINIMUM TRENCH SAFETY MEASURES SHALL BE PROVIDED, AS REQUIRED BY OSHA, CITY SPECIFICATION 509S, AND CITY/COUNTY CONSTRUCTION INSPECTORS ALL MATERIALS TESTS ORDERED BY THE OWNER FOR QUALITY ASSURANCE PURPOSES, SHALL BE CONDUCTED BY AN INDEPENDENT LABORATORY AND FUNDED BY THE OWNER IN ACCORDANCE WITH CITY
- STANDARD SPECIFICATION ITEM 1804S 04 PRESSURE TAPS SHALL BE ALLOWED ON A CASE BY CASE BASIS. AS DETERMINED BY THE DIRECTOR'S DESIGNEE. NORMALLY PRESSURE TAPS 4 INCHES AND LARGER SHALL BE ALLOWED IN THE FOLLOWING CASES: A) A TEST SHUT OUT INDICATES AN ADEQUATE SHUT OUT TO PERFORM THE WORK IS NOT FEASIBLE B) MORE THAN 30 CUSTOMERS OR A SINGLE CRITICAL CUSTOMER (AS DEFINED BY AUSTIN WATER) WOULD BE
- WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEMS 510.3 (27)-(29), FORCE MAIN PRESSURE TESTING SHALL BE CONDUCTED AND FALL UNDER THE SPECIFICATIONS AS WATER LINES (PRESSURE PIPE) OR AT THE PRESSURES SHOWN ON THE **PPROVED PLANS**

IMPACTED BY THE SHUT OUT OR C) THE EXISTING WATER LINE WARRANTS IT.

- 10. 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.
- I. WHEN WATER SERVICES ARE DAMAGED AND THE SERVICE MATERIAL IS POLYETHYLENE (PE), THE LINE SHALL BE REPAIRED ONLY BY HEAT FUSION WELD, AT BRASS FITTINGS, OR THE FULL LENGTH SHALL BE REPLACED PER CURRENT STANDARD DETAIL (S) WHEN POLYBUTYLENE (PB) TUBING IS DAMAGED OR TAMPERED WITH IN ANY WAY, THE FULL LENGTH OF SERVICE LINE SHALL BE REPLACED. (NOTE: FULL LENGTH IS FROM THE CORPORATION STOP TO THE METER.) REPAIR COUPLINGS ARE NOT ALLOWED FOR ANY WATER OR WASTEWATER SERVICE LINE REPAIR, RECONNECT, OR REPLACEMENT.
- 12. WHEN AN EXISTING WATERLINE SHUT OUT IS NECESSARY AND POSSIBLE, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR WHO WILL THEN NOTIFY AUSTIN WATER DISPATCH AND THE AFFECTED CUSTOMERS A MINIMUM OF FORTY-EIGHT (48) HOURS IN ADVANCE.
- 3. 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. 4. THE CONTRACTOR SHALL VERIFY ALL VERTICAL AND HORIZONTAL LOCATIONS OF EXISTING UTILITIES, BELOW
- GROUND AND OVERHEAD, PRIOR TO STARTING ONSITE UTILITY WORK. 15. ALL WATER, WASTEWATER, AND RECLAIMED MAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE SEPARATION DISTANCES INDICATED ON THE PLANS, PER UTILITY CRITERIA MANUAL AND TCEQ CHAPTERS 210,
- 217. AND 290. . PROJECT-SPECIFIC SHOP DRAWINGS SHALL BE SUBMITTED FOR AW APPROVAL FOR PRE-CAST CIRCULAR VERTICAL MANHOLE SECTIONS LARGER THAN 48" DIAMETER. THE SHOP DRAWINGS SHALL INCLUDE THE FLOWLINE ELEVATION OF ALL CONNECTING PIPES: ELEVATIONS OF TRANSITIONS FROM LARGE DIAMETER SECTIONS TO 48" DIAMETER SECTIONS; TOP OF MANHOLE AND SURROUNDING GROUND ELEVATIONS; AND DETAILS OF SPECIAL CONSTRUCTION CONSIDERATIONS SPECIFIED IN THE CONTRACT DOCUMENTS.
- . WHEN CONCRETE MANHOLES LARGER THAN 48 INCH DIAMETER ARE USED. DRAWINGS THAT ARE SEALED BY A PROFESSIONAL ENGINEER SHALL BE SUBMITTED FOR BASE SLABS, FLAT TOP LIDS (IF USED), AND FLAT TYPE CONCRETE PIECES USED TO TRANSITION FROM LARGER TO SMALLER DIAMETER MANHOLE SECTIONS
- 8. ALL FIRE HYDRANTS AND VALVES THAT ARE TO BE ABANDONED SHALL BE REMOVED, SALVAGED AND RETURNED TO AUSTIN WATER. NOTICE SHOULD BE GIVEN 48 HOURS PRIOR, TO PIPELINE OPERATIONS DISTRIBUTION SYSTEM -VALVES AND HYDRANT SERVICES SUPERVISOR AT 512-972-1280.
- 19. ALL EXISTING WATER METERS IDENTIFIED TO BE RELOCATED OR ABANDONED AT THE DEVELOPMENT SHALL BE REMOVED FROM THE METER BOX PRIOR TO CONSTRUCTION AND GIVEN IMMEDIATELY TO THE CITY OF AUSTIN INSPECTOR.
- 20. THE ENGINEER SHALL CALL OUT THE SIZE, TYPE AND USE (DOMESTIC OR IRRIGATION) OF ALL EXISTING WATER METERS TO BE RELOCATED OR REPURPOSED. WATER METER NUMBERS WILL NOT BE REQUIRED TO BE PLACED ON THE PLAN SHEET. A SEPARATE AUSTIN WATER TAPS OFFICE FORM WILL BE USED TO PROVIDE RELEVANT DATA FOR THE EXISTING INFORMATION ON EXISTING METERS TO RECEIVE APPROPRIATE CREDITS. THIS FORM SHALL BE DIRECTLY SUBMITTED TO AUSTIN WATER TAPS OFFICE FOR REVIEW AND PROCESSING.
- 21. NO CONNECTION MAY BE MADE BETWEEN THE PRIVATE PLUMBING AND AUSTIN WATER INFRASTRUCTURE UNTIL A CITY APPROVED WATER METER HAS BEEN INSTALLED. 22. METER BOXES AND CLEAN OUTS SHALL NOT BE LOCATED WITHIN PAVED AREAS SUCH AS DRIVEWAYS AND

SIDEWALKS

AW EXPIRATION STAMP

				DATE
Additional Review Acknowledgement				
Does this development have a total gross floor building area of 250,000 square feet or more?				
☐ YES ☑ NO Distance to nearest existing AW reclaimed main?	Z Ľ –	0.0		
250' or less	TII TE 202		<del>-</del>	
Greater than 500'	NA WA	0 AR	Щ	Z
Automated Metering Information	IN A	SS VD		
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Does this project require a dedicated easement for DCU infrastructure?	AL	_ LS		
☐ YES ⊠ NO	U.			
ALLICC Requirement				
Does this project within the current service area of AW's data Collection Units (DCUs)				
				<u> </u>
IF YES, PLEASE PROVIDE UCC# - UCC-220804-05-01				
Meter Notice:				Know what's below.
Meter 1.5 inches and larger must be purchased and ordered 90 days in advance of installation.				
Meter(s) Requirement for Project:				
Address: 6511 <sup>1</sup> / <sub>2</sub> McNeil Dr.				
Proposed Use: Domestic Type: Domestic				
Size: 3" GPM: 2-350				
Service Units: 17.5				
Size: -" GPM: -				
Service Units: -	Zй			
THE PROPERTY OWNERS SIDE OF THE DOMESTIC WATER METER.				
DO NOT REVISE THESE TABLES IN ANYWAY.				
FIRE FLOW AMOUNT, WHICHEVER IS GREATER AND 1000 GALLONS PER MINUTE ON RESIDENTIAL DEVELOPMENT/SUBDIVISION.	IAL			
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SITE PLAN APPROVAL SHEET 06 OF 116 FILE NUMBER SP-2022-0048D APPLICATION DATE XX	DE			
CHAPTER 25-5 OF THE CITY OF AUSTIN CODE EXPIRATION DATE (LDC 25-5-81) XX CASE MANAGER XX				
PROJECT EXPIRATION DATE (ORD, #970905-A) DWPZ DDZ	Ō			
DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT	U U			
RELEASED FOR GENERAL COMPLIANCE ZONING ZONING REVISION 1				
REVISION 2       CORRECTION 2         REVISION 3       CORRECTION 3         Final plat must be recorded by the Project Expiration Date if applicable				DESIGNED BY: JS/IF
Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required) must also be constructed.				CHECKED BY: JS/MG
prior to the Project Expiration Date.				APPROVED BY: MG
			J	
				SHEET 06 OF 116

SP-2022-0048D



0	100'	200'
	SCALE: 1" = 100'	

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	BOUNDARY	
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OU	OVERHEAD UTILITIES	
<b>└●</b> ¬	POWER POLE	
$\leftarrow$	GUY ANCHOR	
<del></del>	SIGN	Know what's below.
X	WATER METER	Call before you dig.
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	STORM WATER MANHOLE	
জ	FIBER OPTICS MARKER	
G	GAS MARKER	
Ê	ELECTRIC METER	
MB	MAILBOX	
~	FLAGPOLE	
	TRAFFIC SIGNAL	
RCP	REINFORCED CONCRETE PIPE	
CONC	CONCRETE	
C&G	CONCRETE CURB AND GUTTER	
ЦĊ	HANDICAP	
	FEDESTRIAN CROSSWALK	
C/0	CLEANOUT	ATE OF IST
CMP	CORRUGATED METAL PIPE	
RES	RESIDENTIAL	MICHAEL A. GIANNETTA
	TREE TO REMAIN	BONCK/CENSED
00		Munin
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<ol> <li>REFER TO SHEET 08 FOR</li> <li>A PRE-CONSTRUCTION N ENVIRONMENTAL INSPEC SITE DISTURBANCES.</li> <li>BENCHMARKS</li> <li>DATUM: NAVD88 (GEOID 12B) - BM99: 1/2-INCH IRON ROD WITH "LANDDEV CONTROL" SET ELEVATION = 903.95'</li> </ol>	PHASE 1 TREE LIST. IEETING WITH THE CTOR IS REQUIRED PRIOR TO ANY OPUS I A PLASTIC CAP STAMPED	STING CONDITIC PHASE I DAK KNOLL D ASE I IMPROV 6511 1/2 MCNEI STIN, TRAVIS COUN
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<ol> <li>2. REFER TO SHEET 08 FOR</li> <li>3. A PRE-CONSTRUCTION M ENVIRONMENTAL INSPEC SITE DISTURBANCES.</li> <li>BENCHMARKS:</li> <li>DATUM: NAVD88 (GEOID 12B) - BM99: 1/2-INCH IRON ROD WITH "LANDDEV CONTROL" SET ELEVATION = 903.95'</li> <li>SITE PLAN APPROVAL</li> <li>SITE PLAN APPROVAL</li> </ol>	PHASE 1 TREE LIST. IEETING WITH THE TOR IS REQUIRED PRIOR TO ANY OPUS 1 A PLASTIC CAP STAMPED SHEET <u>07</u> OF <u>116</u> APPLICATION DATE <u>02/14/2022</u>	EXISTING CONDITIC PHASE I DAK KNOLL C PHASE I IMPROV 6511 1/2 MCNEI AUSTIN, TRAVIS COUN
<ol> <li>2. REFER TO SHEET 08 FOR</li> <li>3. A PRE-CONSTRUCTION M ENVIRONMENTAL INSPEC SITE DISTURBANCES.</li> <li>BENCHMARKS:</li> <li>DATUM: NAVD88 (GEOID 12B) - BM99: 1/2-INCH IRON ROD WITH "LANDDEV CONTROL" SET ELEVATION = 903.95'</li> <li>SITE PLAN APPROVAL</li> <li>SITE PLAN APPROVAL</li> <li>SITE NUMBER <u>SP-2022-004</u> APPROVED ON <u>XX</u> UNE</li> <li>CHAPTER 25-5 OF THE CITY (0)</li> </ol>	SHEET_07_OF_116 BD APPLICATION DATE_02/14/2022 F SECTIONOF_0F_0F_0F_0F_0F_0F_0F_0F_0F_0F_0F_0F_0F	EXISTING CONDITIC PHASE I DAK KNOLL C PHASE I IMPROV 6511 1/2 MCNEI AUSTIN, TRAVIS COUN
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0	100'	200'
	SCALE: 1" = 100'	

BOUNDARY	
LOT LINE	
ADJOINER LOT LINE	
— — — — — EASEMENT	
BENCHMARK	
POWER POLE	
← GUY ANCHOR	
SIGN	Know what's below.
WATER METER	Call before you dig.
⊗ WATER VALVE	
STORM WATER MANHOLE	
FIBER OPTICS MARKER	
G GAS MARKER	
ELECTRIC METER	
MB MAILBOX	
✓ FLAGPOLE	
	<u>מ ה</u> הייי אומי אומי אומי אומי אומי אומי אומי א
C&G CONCRETE CURB AND GUTTER	
HC HANDICAP	
XWALK pedestrian crosswalk	
	A A A A A A A A A A A A A A A A A A A
	S.A.T.E. OF ACT
RESIDENTIAL	MICHAEL A. GIANNETTAC
	CONSED NO
	Manne
HERITAGE TREE TO REMAIN	9/27/202
EXISTING TREE TO BE REMOVED	
EXISTING HERITAGE TREE TO BE REMOVED	
EXISTING PAVEMENT AND CURB AND GUT	
TO BE REMOVED (189 PARKING SPACES LO TO PHASE I IMPROVEMENTS)	
NOTES:	
1. FOR TREE REMOVAL AND MITIGATION SEE LANDSCAPE PLANS.	
<ol> <li>A PRE-CONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR IS REQUIRED PRIOR TO ANY SITE DISTURBANCE.</li> </ol>	
3. ALL FIRE HYDRANTS AND VALVES THAT ARE TO BE ABANDONED SHALL BE REMOVED, SALVAGED AND RETURNED TO THE AUSTIN	
	<u> </u> □ □ ² տ
<ul> <li>4. NOTICE MUST BE GIVEN 48 HOURS PRIOR TO RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINT VALVE</li> </ul>	
<ul> <li>4. NOTICE MUST BE GIVEN 48 HOURS PRIOR TO RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINT VALVE AND HYDRANT SERVICES, SUPERVISING AWU PIPELINE TECHNICIAN AT 512-972-1133.</li> <li>5. EROSION CONTROL &amp; MEASURES TO BE IN ELASE DEFENSE</li> </ul>	
<ol> <li>NOTICE MUST BE GIVEN 48 HOURS PRIOR TO RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINT VALVE AND HYDRANT SERVICES, SUPERVISING AWU PIPELINE TECHNICIAN AT 512-972-1133.</li> <li>EROSION CONTROLS MEASURES TO BE IN PLACE BEFORE DEMOLITION BEGINS.</li> </ol>	
<ol> <li>WATER UTILITY.</li> <li>NOTICE MUST BE GIVEN 48 HOURS PRIOR TO RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINT VALVE AND HYDRANT SERVICES, SUPERVISING AWU PIPELINE TECHNICIAN AT 512-972-1133.</li> <li>EROSION CONTROLS MEASURES TO BE IN PLACE BEFORE DEMOLITION BEGINS.</li> <li>DEMOLITION WITHIN THE 1/2 CRZ OF PRESERVED TREES WILL NEED TO USE HAND TOOLS PER SPECIAL CONSTRUCTION TECHNIQUES ECM 3.5.4(D).</li> </ol>	MOLITION JAK KN SE I IM 6511 1/2 rin, travi
<ul> <li>4. NOTICE MUST BE GIVEN 48 HOURS PRIOR TO RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINT VALVE AND HYDRANT SERVICES, SUPERVISING AWU PIPELINE TECHNICIAN AT 512-972-1133.</li> <li>5. EROSION CONTROLS MEASURES TO BE IN PLACE BEFORE DEMOLITION BEGINS.</li> <li>6. DEMOLITION WITHIN THE 1/2 CRZ OF PRESERVED TREES WILL NEED TO USE HAND TOOLS PER SPECIAL CONSTRUCTION TECHNIQUES ECM 3.5.4(D).</li> <li>7. ALL EXISTING WATER AND WASTEWATER SERVICE LINES TO BE ABANDONED AT MAIN AND METERS RETURNED.</li> </ul>	DEMOLITION DAK KN HASE I IM 6511 1/2 USTIN, TRAVI
<ul> <li>WATER UTILITY.</li> <li>4. NOTICE MUST BE GIVEN 48 HOURS PRIOR TO RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINT VALVE AND HYDRANT SERVICES, SUPERVISING AWU PIPELINE TECHNICIAN AT 512-972-1133.</li> <li>5. EROSION CONTROLS MEASURES TO BE IN PLACE BEFORE DEMOLITION BEGINS.</li> <li>6. DEMOLITION WITHIN THE 1/2 CRZ OF PRESERVED TREES WILL NEED TO USE HAND TOOLS PER SPECIAL CONSTRUCTION TECHNIQUES ECM 3.5.4(D).</li> <li>7. ALL EXISTING WATER AND WASTEWATER SERVICE LINES TO BE ABANDONED AT MAIN AND METERS RETURNED.</li> </ul> SITE PLAN APPROVAL SHEET 09 OF 116 FILE NUMBER SP-2022-0048D APPLICATION DATE 02/14/2 APPROVED ON XX UNDER SECTION 112 OF CHAPTER 25-5 OF THE CITY OF AUSTIN CODE	DEMOLITION DAK KN BHASE I IM 6511 1/2 6511 1/2
<ul> <li>WATER UTILIT.</li> <li>NOTICE MUST BE GIVEN 48 HOURS PRIOR TO RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINT VALVE AND HYDRANT SERVICES, SUPERVISING AWU PIPELINE TECHNICIAN AT 512-972-1133.</li> <li>EROSION CONTROLS MEASURES TO BE IN PLACE BEFORE DEMOLITION BEGINS.</li> <li>DEMOLITION WITHIN THE 1/2 CRZ OF PRESERVED TREES WILL NEED TO USE HAND TOOLS PER SPECIAL CONSTRUCTION TECHNIQUES ECM 3.5.4(D).</li> <li>ALL EXISTING WATER AND WASTEWATER SERVICE LINES TO BE ABANDONED AT MAIN AND METERS RETURNED.</li> </ul> SITE PLAN APPROVAL SHEET <u>09</u> OF <u>116</u> FILE NUMBER <u>SP-2022-0048D</u> APPLICATION DATE <u>02/14/2</u> APPROVED ON <u>XX</u> UNDER SECTION <u>112</u> OF CHAPTER <u>25-5</u> OF THE CITY OF AUSTIN CODE EXPIRATION DATE (LDC 25-5-81) <u>XX</u> CASE MANAGER <u>ZACK LOF</u> PROJECT EXPIRATION DATE (ORD #370905-4) DWP7 DD7	VILLION V2022 FTON DESIGNED BY: JS/II
<ul> <li>WATER UTLETT.</li> <li>NOTICE MUST BE GIVEN 48 HOURS PRIOR TO RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINT VALVE AND HYDRANT SERVICES, SUPERVISING AWU PIPELINE TECHNICIAN AT 512-972-1133.</li> <li>EROSION CONTROLS MEASURES TO BE IN PLACE BEFORE DEMOLITION BEGINS.</li> <li>DEMOLITION WITHIN THE 1/2 CRZ OF PRESERVED TREES WILL NEED TO USE HAND TOOLS PER SPECIAL CONSTRUCTION TECHNIQUES ECM 3.5.4(D).</li> <li>ALL EXISTING WATER AND WASTEWATER SERVICE LINES TO BE ABANDONED AT MAIN AND METERS RETURNED.</li> </ul> SITE PLAN APPROVAL SHEET <u>09</u> OF <u>116</u> FILE NUMBER <u>SP-2022-0048D</u> APPLICATION DATE <u>02/14/2</u> APPROVED ON <u>XX</u> UNDER SECTION <u>112</u> OF CHAPTER <u>25-5</u> OF THE CITY OF AUSTIN CODE EXPIRATION DATE (LDC 25-5-81) <u>XX</u> CASE MANAGER <u>ZACK LOF</u> PROJECT EXPIRATION DATE (ORD, #970905-A) DWPZ DDZ	ZOULT NILSONED BY: JS/IF DRAWN BY: JS/IF
<ul> <li>AVATER UTILITY.</li> <li>NOTICE MUST BE GIVEN 48 HOURS PRIOR TO RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINT VALVE AND HYDRANT SERVICES, SUPERVISING AWU PIPELINE TECHNICIAN AT 512-972-1133.</li> <li>EROSION CONTROLS MEASURES TO BE IN PLACE BEFORE DEMOLITION BEGINS.</li> <li>DEMOLITION WITHIN THE 1/2 CRZ OF PRESERVED TREES WILL NEED TO USE HAND TOOLS PER SPECIAL CONSTRUCTION TECHNIQUES ECM 3.5.4(D).</li> <li>ALL EXISTING WATER AND WASTEWATER SERVICE LINES TO BE ABANDONED AT MAIN AND METERS RETURNED.</li> </ul> SITE PLAN APPROVAL SHEET <u>09</u> OF <u>116</u> FILE NUMBER <u>SP-2022-0048D</u> APPLICATION DATE <u>02/14/2</u> APPROVED ON <u>XX</u> UNDER SECTION <u>112</u> OF CHAPTER <u>25-5</u> OF THE CITY OF AUSTIN CODE EXPIRATION DATE (LDC 25-5-81) <u>XX</u> CASE MANAGER <u>ZACK LOF</u> PROJECT EXPIRATION DATE (ORD, #970905-A) <u>DWPZ</u> DDZ	ZOULING NET SIGNED BY: JS/II DRAWN BY: JS/II
<ul> <li>WATER UTILIT.</li> <li>A. NOTICE MUST BE GIVEN 48 HOURS PRIOR TO RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINT VALVE AND HYDRANT SERVICES, SUPERVISING AWU PIPELINE TECHNICIAN AT 512-972-1133.</li> <li>EROSION CONTROLS MEASURES TO BE IN PLACE BEFORE DEMOLITION BEGINS.</li> <li>DEMOLITION WITHIN THE 1/2 CRZ OF PRESERVED TREES WILL NEED TO USE HAND TOOLS PER SPECIAL CONSTRUCTION TECHNIQUES ECM 3.5.4(D).</li> <li>ALL EXISTING WATER AND WASTEWATER SERVICE LINES TO BE ABANDONED AT MAIN AND METERS RETURNED.</li> </ul> SITE PLAN APPROVAL SHEET <u>09</u> OF <u>116</u> FILE NUMBER <u>SP-2022-0048D</u> APPLICATION DATE <u>02/14/2</u> APPROVED ON <u>XX</u> UNDER SECTION <u>112</u> OF CHAPTER <u>25-5</u> OF THE CITY OF AUSTIN CODE EXPIRATION DATE (LDC 25-5-81) <u>XX</u> CASE MANAGER <u>ZACK LOF</u> PROJECT EXPIRATION DATE (ORD, #970905-A) DWPZ DDZ DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT RELEASED FOR GENERAL COMPLIANCE ZONING <u>XX</u>	ZO22 FTON DESIGNED BY: J5/IF DRAWN BY: J5/IF CHECKED BY: J5/IF
<ul> <li>WATER UTILIT.</li> <li>4. NOTICE MUST BE GIVEN 48 HOURS PRIOR TO RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINT VALVE AND HYDRANT SERVICES, SUPERVISING AWU PIPELINE TECHNICIAN AT 512-972-1133.</li> <li>5. EROSION CONTROLS MEASURES TO BE IN PLACE BEFORE DEMOLITION BEGINS.</li> <li>6. DEMOLITION WITHIN THE 1/2 CRZ OF PRESERVED TREES WILL NEED TO USE HAND TOOLS PER SPECIAL CONSTRUCTION TECHNIQUES ECM 3.5.4(D).</li> <li>7. ALL EXISTING WATER AND WASTEWATER SERVICE LINES TO BE ABANDONED AT MAIN AND METERS RETURNED.</li> </ul> SITE PLAN APPROVAL SHEET <u>09</u> OF <u>116</u> FILE NUMBER <u>SP-2022-0048D</u> APPLICATION DATE <u>02/14/2</u> APPROVED ON <u>XX</u> UNDER SECTION <u>112</u> OF CHAPTER <u>25-5</u> OF THE CITY OF AUSTIN CODE EXPIRATION DATE (LDC 25-5-81) <u>XX</u> CASE MANAGER <u>ZACK LOF</u> PROJECT EXPIRATION DATE (ORD, #970905-A) DWPZ DDZ DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT RELEASED FOR GENERAL COMPLIANCE ZONING <u>XX</u> REVISION 1 CORRECTION 1 REVISION 2 CORRECTION 2	ZO222 FTON CHECKED BY: JS/II APPROVED BY: MG
	Z0222 FTON CHECKED BY: JS/IF CHECKED BY: JS/IF CHECKED BY: JS/IF CHECKED BY: MG
<ul> <li>WATER UTILIT.</li> <li>NOTICE MUST BE GIVEN 48 HOURS PRIOR TO RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINT VALVE AND HYDRANT SERVICES, SUPERVISING AWU PIPELINE TECHNICIAN AT 512-972-1133.</li> <li>EROSION CONTROLS MEASURES TO BE IN PLACE BEFORE DEMOLITION BEGINS.</li> <li>DEMOLITION WITHIN THE 1/2 CR2 OF PRESERVED TREES WILL NEED TO USE HAND TOOLS PER SPECIAL CONSTRUCTION TECHNIQUES ECM 3.5.4(D).</li> <li>ALL EXISTING WATER AND WASTEWATER SERVICE LINES TO BE ABANDONED AT MAIN AND METERS RETURNED.</li> </ul> SITE PLAN APPROVAL SHEET <u>09</u> OF <u>116</u> FILE NUMBER <u>SP-2022-0048D</u> APPLICATION DATE <u>02/14/2</u> APPROVED ON <u>XX</u> UNDER SECTION <u>112</u> OF CHAPTER <u>25-5</u> OF THE CITY OF AUSTIN CODE EXPIRATION DATE (LDC 25-5-81) <u>XX</u> CASE MANAGER <u>ZACK LOF</u> PROJECT EXPIRATION DATE (ORD, #970905-A) DWPZ DDZ DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT RELEASED FOR GENERAL COMPLIANCE ZONING <u>XX</u> REVISION 1 CORRECTION 1 REVISION 1 CORRECTION 2	$ \begin{array}{c}                                     $





0	100'	200'
F	SCALE: 1" = 100'	

LE	GEND		
— - 834 — —	EXISTING MINOR CONTOUR		
— - 835 - — —	EXISTING MAJOR CONTOUR		
	PROPOSED MINOR CONTOUR		
	PROPOSED MAJOR CONTOUR		
	BOUNDARY		
	RIGHT OF WAY		
	EASEMENT		
LOC	LIMITS OF CONSTRUCTION		
LOC/SF	LIMITS OF CONSTRUCTION/		
SF	SILT FENCE		
TP	TREE PROTECTION		
· ·	FLOODPLAIN		
·	CREEK CENTERLINE		
BERM	BERM	Know	what's below.
> >	FLOW DIRECTION	Call b	efore you dig.
$\checkmark \checkmark \checkmark \checkmark \checkmark$	SEDIMENT CONTAINMENT DIKE		
	MULCH SOCK		
· )00	TREE TO REMAIN		
	HERITAGE TREE TO REMAIN		, L 111E 111E 1212 1216 1212 1212
	INLET PROTECTION		
	STABILIZED CONSTRUCTION ENTRANCE		
	ROCK BERM		
	TEMPORARY SPOILS AREA		
	CONCRETE WASHOUT AREA		
ED AREA IS NOT TO AREA NEEDS TO B EVEGETATION MAT	BE WORKED FOR MORE THAN 14 DAYS, E STABILIZED BY REVEGETATION, MULCH, TING.		
DR SHALL UTILIZE I TION SUCH AS IRRI ), OR AS DIRECTED	DUST CONTROL MEASURES DURING SITE GATION TRUCKS AND MULCHING AS PER BY THE ENVIRONMENTAL INSPECTOR.	A A A A A A A A A A A A A A A A A A A	TE OF TETAS
ACTOR WILL CLEA NIMUM OF ONCE D	N UP SPOILS THAT MIGRATE ONTO THE AILY.	MICHAE	EL A. GIANNETTA 116248
NENT FENCING MU NVIRONMENTAL FE DF ANY CONSTRUC HALL BE IN ACCOF SS OTHER MATERIA E ACCESS GATE SH ENTAL FEATURE (C	ST BE INSTALLED AT THE PERIMETER OF THE ATURE (CEF) SETBACK PRIOR TO THE TION OR CLEARING ACTIVITY. THE FENCE IDANCE WITH COA ITEM NO. 701S OF THE ALS ARE APPROVED BY THE CITY OF AUSTIN. HALL BE INSTALLED FOR EACH CRITICAL EF) SETBACK.	A A A A A A A A A A A A A A A A A A A	9/27/2023
FENCE WILL ENCI , USE MULCH SOCI	ROACH INTO THE TREES CRITICAL ROOT (S IN LIEU OF SILT FENCE.		
OPPED WITH CONS BEFORE ANY EQU	TRUCTION MATTS SHALL BE APPLIED TO ALL PMENT ENTERS AREA.	Z	<u>ט</u> ש  שו
NTAL INSPECTOR DSION/SEDIMENTA NCE WITH THE CIT	HAS THE AUTHORITY TO ADD AND/OR TION CONTROLS ON SITE TO KEEP PROJECT Y OF AUSTIN RULES AND REGULATIONS.	U F	
ARE TO BE PLACE ES ARE TO REMAIN SIDE OF TRENCH	D BACK IN TRENCH EVERY NIGHT; OR IF OVERNIGHT, SPOILS MUST BE PLACED ON WITHIN THE LOC.		
DR IS RESPONSIBL TED FROM THE LOO DNDS(S).	E FOR REMOVING ANY SEDIMENT C TO THE OFFSITE DETENTION / WATER	Σ Π Δ Π Δ Γ	
SEDIMEN	TATION CONTROL PLAN:		
N FENCE:	±344 LF ±3,855 LF		
	±51 LF ±844 LF		<b>7 5</b> № 🤅
RUCTION: STRUCTION ENTRA	±251,864 SF / 5.782 AC. NCE: 2	l & F	
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SITE PLAN APPROVAL		SHEET 10 OF 11	6	ш	•	▲
FILE NUMBER SP-	2022-0048D	APPLICATION DATE	02/14/2022			
APPROVED ON XX	UNDER SECTION _	112 OF				
CHAPTER <u>25-5</u> OF TH	HE CITY OF AUSTIN CO	DE				
EXPIRATION DATE (LDC	25-5-81) XX	_CASE MANAGER ZA	CK LOFTON			
PROJECT EXPIRATION E	ATE (ORD,#970905-A)	DWPZ	_ DDZ	DESIGN	ED BA:	
						JS/IF
				DRAWN	ы.	
DIRECTOR, DEVELOPME	NT SERVICES DEPARTME	INT		CHECKE	D BY:	JS/MG
RELEASED FOR GENERA	AL COMPLIANCE	ZONING	XX			
REVISION 1	CORRECTI			APPRON	/ED BY:	MG
REVISION 2	CORRECTI	ON 2				
REVISION 3	CORRECTI	ON 3				
Final plat must be rea	orded by the Project	Expiration Date, if	applicable.			
Subsequent Site Plans	which do not comply required Building Pern	with the Code cur hits and/or a notic	rent at the Se of	SHEET		
construction (if a buil	ding permit is not reg	uired), must also t	be approved			
prior to the Project E	xpiration Date.			SP-20	22-00	148D









Existing Conditions - Routing Analysis Inputs								
	Drainage Areas		Land	Use	<b>TOC Calculation Table</b>		HEC-HIMS Input	ts
Contributing Area	Area (sf)	Area (ac)	Base Curve Number	Impervious Cover (sf)	TOC (min)	Area (sq. mi.)	Impervious Cover (%)	Lag Time
EX-1	276,170	6.34	80	54558.00	6.45	0.0099063	20%	3.87
EX-2	516,622	11.86	80	280000.00	5.00	0.0185313	54%	3.00
EX-3	853,776	19.60	30	145000.00	13.67	0.0806250	1 <b>7%</b>	8.20
EX-4	87,556	2.01	80	0.00	5.99	0.0031406	0%	3.60
OFF-1	27,007	0.62	80	0.00	5.88	0.0009688	0%	3.53
OFF-2	30,056	0.69	80	0.00	5.00	0.0010781	0%	3.00

	Sheet Flow Shallow Concentrated Flow (Unpaved)							C Calculation Table
Contributing Area	Length	Slope (ft/ft)	Roughness Coefficient	<b>T</b> sheet	Length (ft)	TOC (min)		
EX-1	100	0.004	0.03	4.96	227	0.025	1.48	6.45
EX-2				0.00			0.00	5.00
EX-3	100	0.005	0.03	4.54	1083	0.015	9.13	13.67
EX-4	100	0.019	0.03	2.65	366	0.013	3.34	5.99
OFF-1	100	0.024	0.03	2.44	400	0.015	3.43	5.88
OFF-2				0.00			0.00	5.00

Existing Hydrology Summary							
	Peak Flow (cfs)						
Analysis Point	đ	Q <sub>25</sub>	Q100				
POI 1	<b>9</b> 0	162	210	286			
POI 2	26	48	62	86			

Peak Flows per Drainage Area (cfs) Existing Conditions						
Drainage Area	ď	$\mathbf{Q}_{10}$	Q	<b>Q</b> 100		
EX-1	24	43	56	77		
EX-2	56	93	117	158		
ÐX-3	57	104	135	188		
EX-4	7	13	17	24		
OFF-1	2	4	5	8		
OFF-2	2	5	6	9		

REVISION 2\_\_\_\_\_\_CORRECTION 2\_\_\_\_\_ REVISION 3\_\_\_\_\_CORRECTION 3\_\_\_\_\_ Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date. SHEET 13 OF 116 SP-2022-0048D

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SCALE: 1" = 60'

WATERPROOF CONCRETE NOTES:

- POND RETAINING WALLS, POND OUTLET STRUCTURE, AND ALL HEADWALLS AT THE POND SHALL BE CONSTRUCTED OF WATERPROOF CONCRETE.
- WATERPROOF CONCRETE SHALL CONTAIN A WATERPROOFING ADMIXTURE MANUFACTURED BY ONE OF THE FOLLOWING COMPANIES
- A. HYCRETE, INC.
- B. XYPEX CHEMICAL CORPORATION
- COMPLY WITH MANUFACTURER'S INSTRUCTIONS REGARDING DOSAGE RATE, MIX DESIGN, AND INSTALLATION.

WET POND MAINTENANCE NOTES:

DURING SITE CONSTRUCTION - THE SEDIMENT LOAD TO THE SEDIMENT FOREBAY SHALL BE CLOSELY MONITORED AFTER EVERY STORM EVENT. IF HEAVY SEDIMENT LOADS ARE DETECTED DURING AN INSPECTION, THE SOURCE SHOULD BE CORRECTED. SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT FOREBAY WHEN ONE-THIRD OF THE FOREBAY VOLUME IS LOST.

UPON COMPLETION OF SITE REVEGETATION - ANY SEDIMENT BUILD-UP (GREATER THAN 5% VOLUME LOSS) SHALL BE REMOVED FROM THE FOREBAY UPON COMPLETION OF SITE REVEGETATION. THE SEDIMENT BUILD-UP IN THE MAIN POOL SHALL BE CHECKED AND IF MORE THE TEN-PERCENT OF THE VOLUME IS LOST, IT SHOULD BE CLEANED AT THAT TIME.

EVERY THREE MONTHS FOR THE FIRST TWO YEARS - DURING THE THREE MONTH INITIAL INSPECTION CYCLE, IF MORE THAN FIFTEEN PERCENT OF THE VOLUME OF THE FOREBAY IS LOST, IT SHALL BE CLEANED AT THAT TIME.

EVERY THREE MONTHS - TURF AREAS AROUND THE POND SHOULD BE MOWED. ACCUMULATED PAPER, TRASH, AND DEBRIS SHALL BE REMOVED EVERY THREE MONTHS OR AS NECESSARY. CATTAILS, COTTONWOODS, AND WILLOWS CAN QUICKLY COLONIZE SHALLOW WATER AND THE EDGE OF THE POND. THESE SPECIES OR ANY AREAS OF PLANT OVERGROWTH MAY BE THINNED AT THIS TIME OR AS NEEDED.

ANNUALLY - THE BASIN SHOULD BE INSPECTED ANNUALLY FOR SIDE SLOPE EROSION AND DETERIORATION OR DAMAGE TO THE STRUCTURAL ELEMENTS. ANY DAMAGE SHALL BE REPAIRED. LARGE AREAS, WHICH HAVE DEAD OR MISSING VEGETATION, SHALL BE REPLANTED.

EVERY THREE YEARS - THE SEDIMENT BUILD-UP IN THE SEDIMENT FOREBAY SHALL BE CHECKED. THE SEDIMENT FOREBAY SHA MORE THAN ONE-THIRD OF TH VOLUME IS LOST.

THE SEDIMENT FOREBAY SHALL BE CLEANED IF MORE THAN ONE-THIRD OF THE FOREBAY		STONAL ENGE
EVERY SIX YEARS - THE SEDIMENT BUILD-UP IN		9/27/202
SHALL BE REMOVED FROM THE MAIN POOL WHEN TWENTY PERCENT OF THE MAIN POOL VOLUME IS LOST.         SITE PLAN APPROVAL         SITE PLAN APPROVAL         SHEET 14_OF 116 APPLICATION DATE 02/14/2022         APPROVED ON XX_UNDER SECTION 112_OF         CHAPTER 25-5_OF THE CITY OF AUSTIN CODE EXPIRATION DATE (LDC 25-5-81)	POND PLAN PHASE I	DAK KNOLL DRIVE PHASE I IMPROVEMENTS 6511 1/2 MCNEIL DR. AUSTIN, TRAVIS COUNTY, TEXAS
EXPIRATION DATE (LDC 25-5-81) XX CASE MANAGER ZACK LOFTON PROJECT EXPIRATION DATE (ORD,#970905-A) DWPZ DDZ DDZ	DESIG	NED BY: JS/I
	DRAWN	I BY: <u>JS/I</u>
DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT	СНЕСК	ED BY: <u>JS/M</u>
RELEASED FOR GENERAL COMPLIANCE       ZONING       XX         REVISION 1       CORRECTION 1	APPRO	VED BY: <u>MG</u>
Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of	SHEET	<u>14</u> <sub>o</sub> 116
construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.	SP-20	022-00480

Know what's below.

Call before you dig.

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MICHAEL A. GIANNET

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				Forebay			
	⊟eviation *	Depth	Area	Avg. Area	inc. Viol.	Total Viol.	Total V ol.
	Ft. msl	Ft.	S. F.	S. F.	C. F.	C. F.	Ac. Ft.
	902.00	0.00			-	-	0.00
	903.00	1.00	6,976.0	3,488.0	3,488.0	3,488.0	0.08
	904.00	2.00	8,023.0	7,499.5	7,499.5	10,987.5	0.25
TOP OF BERM	905.00	3.00	9,141.0	8,582.0	8,582.0	19,569.5	0.45
= 908.00	906.00	4.00	10,328.0	9,734.5	9,734.5	29,304.0	0.67
PERM POOL	907.00	5.00	11,584.0	10,956.0	10,956.0	40, 260.0	0.92
ELV. = 910.00	908.00	6.00	34,748.0	23,166.0   Main Dool	23,166.0	63,426.0	1.46
	□ ov ation *	Dorth	Aroo		inc ) ( ol	Total ) ( al	Total) ( al
	⊟evalion Et mel	E+			nt. vol. O E		Ac Et
	00.2.00	0.00	0.1.	0.1.	0.1.	0.1.	0.00
	902.00	1.00	6.076.0	2488.0	2.499.0	2.499.0	0.00
	903.00 904.00	2.00	8,870.0	3,400.0 7 / 99 5	3,400.0 7 /00 5	10.997.5	0.06
	904.00	2.00	9.171.0	7,400.0	7,488.0 8,582.0	19,507.5	0.23
	90.000 906.00	4.00	10 378 0	0,302.0 0,734.6	0,302.0 9,734.6	19,000.0 29,307.0	0.45
	907.00	4.00 5.00	11 584 0	3,734.3 10,956.0	10.956.0	40.260.0	0.07
	908.00	6.00 6.00	34 748 0	23,166.0	23,166.0	63,426.0	1 46
TOF OF BERIVI - 900.00	90.9.00	7.00	38.678.0	36,713.0	36,713.0	100.139.0	2.30
	91 0. 00	8.00	50.693.0	44,685.5	44,685.5	144.824.5	3.32
FERIVI FOOL ELV. = 910.00	911.00	9.00	62,735.0	56,714.0	56,714.0	201,538.5	4.63
	91 2.00	10.00	73,778.0	68,256.5	68,256.5	269,795.0	6.19
	1		 W	et Pond Tot	al		
	⊟ev ation *	Depth	Area	Avg. Area	inc. Viol.	Total Viol.	Total V ol.
	Ft. msl	Ft.	8. F.	S. F.	C. F.	C. F.	Ac. Ft
	902.00	0.00	0.0	0.0	0.0	0.0	0.00
	903.00	1.00	6,976.0	3,488.0	3,488.0	3,488.0	0.08
	904.00	2.00	8,023.0	7,499.5	7,499.5	10,987.5	0.25
TOP OF BERM = 908.00	905.00	3.00	9,141.0	8,582.0	8,582.0	19,569.5	0.45
	906.00	4.00	10,328.0	9,734.5	9,734.5	29,304.0	0.67
PERM POOL ELV. = 910.00	907.00	5.00	11,584.0	10,956.0	10,956.0	40, 260.0	0.92
	908.00	6.00	34,748.0	23,166.0	23,166.0	63,426.0	1.46
	909.00	7.00	38,678.0	36,713.0	36,713.0	100,139.0	2.30
	910.00	8.00	50,693.0	44,685.5	44,685.5	144,824.5	3.32
	911.00	9.00	62,735.0	56,714.0	56,714.0	201,538.5	4.63
	91.2.00	10.00	73,778.0	68,256.5 Detention	68,256.5	269,795.0	0.19
	Hey stion *	Denth	Arop	Ave Area	Inc. Vol.	TotalV(al	Total Viol
	Et mel	Ft	S F	S F	C F		Ar Ft
	908.00	0.00	34 831 0	17 415 5	0.1.	0.1.	0.00
	909.00	1.00	37.996.0	36.413.5	36.413.5	36.413.5	0.84
	910.00	2.00	50,875,0	44,435,5	44,435,5	80,849,0	1.86
EXTENDED	911.00	3.00	63,247.0	57,061.0	57,061.0	137,910.0	3.17
DETENTION	912.00	4.00	73,778.0	68,512.5	68,512.5	206,422.5	4.74
Ī	913.00	5.00	78,221.0	75,999.5	75,999.5	282,422.0	6.48
	914.00	6.00	82,729.0	80,475.0	80,475.0	362,897.0	8.33
DETENTION	915.00	7.00	87,349.0	85,039.0	85,039.0	447,936.0	10.28
	916.00	8.00	92,059.0	89,704.0	89,704.0	537,640.0	12.34
	917.00	9.00	96,861.0	94,460.0	94,460.0	632,100.0	14.51
		APPENDI	X R-4				
	WETP	OND CAL	CULATIO	NS			
				 /ITC			
	FURDE	VELOPIMI		/11.1.5			
R	ESEARCH	PARK FLE	X EXPAN	sion,			
						-	
						Le	egend
						Not In	Compliance
						In Co	mpliance

				Lege	enu
				Not In Complian	
				In Comp	oliance
				Do Not Mod	dify Values
RAINAGE AREA DATA:					
rainage Area to Control (DA)		38	acres	24 ac. ≤ DA ≤	320 ac.
rainage Area Impervious Cover		70.00%	%		
ver Recharge Zone (Yes or No)		No			
nnual Runoff Coefficient (Rf) Table 1-9		0.528			
iner Type (Clay or Geomembrane)		Geomembrane	liner		
epth of Clay Liner (minimum 12 in)	≥	12.00	in	12.00	in
ATER QUALITY CONTROL CALCULATIONS		Required		Provided	
he Water Quality Control is to be a <b>WETPOND</b>					
ermanent Pool Volume (PPV=0.162 * Rf * DA)	≥	141,586	cf	144,824	cí
em anent Pool Area (PPA - min 1/2 acre)	≥	21,780	sf	50,693	sf
em anent Pool Elevation (PPE)				910.00	ft.msl
orebay Volume (15 to 25% of PPV)	2	21,724	cf	63,426	CÍ
levation of Forebay Separation Wall (PPE - 2.0 ft)	=	908	ft. msl	908	ft.msl
1ain Pool Volume	≥	123,100	cf	144,824	cí
IOLOGICAL ELEMENTS CALCULATIONS:					
rea of Vegetative Bench (minimum 5% of PPA)	≥	2,534.65	sf	2,535.00	sf
/ etland Planting Quantity (PPA * 0.03)	≥	1521	plants	1521	plants
ambusia Affinis (200 * (PPA / 43560))	≥	233	individual	s 233	individuals
XTENDED DETENTION CALCULATIONS					
xtended Detention Peak Flow 1-year, 3-hour storm				81.10	ofs
xtended Detention Volume				206422	cf
levation of soffit of PVC pipe (1/2 PPE depth from bottom of main potential $(1/2)$	ol)			911	ft msl
iameter of PVC Pipe (minimum 6 in)	≥	6.00	in	6.00	in
xtended Detention Drawdown Time (minimum 72 hours)	2	72	hrs	72	hrs

Extended Detention Drawdown Time (minimum 72 hours)

		DATE
Texas Commission on Environmental Quality		
T\$\$ Removal Calculations 04-20-2009 Project Name: OAK KNOLL PHASE I IMPROVMENT Date Prepared;	IS No.	
Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell. Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348. Characters shown in red are data entry fields. Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.	0 60' 120'	
1. The Required Load Reduction for the total project;     Calculations from RG-348     Pages 3-27 to 3-30       Page 3-29 Equation 3.3: L <sub>41</sub> = 27.2(A <sub>R1</sub> x P)       where:     L <sub>41</sub> = 27.2(A <sub>R1</sub> x P)       L <sub>41</sub> = 0.00 ×	SCALE: 1" = 60'	
P = Average annual precipitation, inches Site Data: Determine Required Load Removal Based on the Entire Project County = <u>Williamson</u>		
Total project area included in plan <sup>a</sup> = 38.00 acres Predevelopment impervious area within the limits of the plan <sup>a</sup> = 0.00 acres Total post-development impervious cover fraction <sup>a</sup> = 0.70 P = 32 inches		
a torx_recuecr * 23153 lbs. The values entered in these fields should be for the total project area. Number of drainage basins / outfalls areas leaving the plan area = 1		REV
2. Drainage Basin Parameters (This information should be provided for each basin):		
Drainage Basin/Outfall Area No. = 1 Total drainage basin/outfall area = 38.00 acres Predevelopment impervious area within drainage basin/outfall area = 0.00 acres		
Post-development impervious area within drainage basin/outfall area = 26.60 acres Post-development impervious fraction within drainage basin/outfall area = 0.70 L <sub>MITHE BARBN</sub> = 23153 lbs.		
3. Indicate the proposed BMP Code for this basin. Proposed BMP = Wet Basin Removal efficiency = 93 percent		
Aqualogic Cartridge Filter Bioretention Contect StormFilter Constructed Welfand Extended Detention Grassy Swale Retention / Irrigation Sand Filtor Vogetated Filter Strips Vortechs Wet Basin Wet Basin Wet Vauit		
RG-348 Page 3-33 Equation 3.7: L <sub>R</sub> = (BMP efficiency) x P x (A <sub>1</sub> x 34.6 + A <sub>P</sub> x 0.54)		
Apc = 1 rotation-State drainage area in the BMP catchment area       Ap = Impenvious area proposed in the BMP catchment area       Ap = Pervious area remaining in the BMP catchment area       Lap = TSS Load removed from this catchment area by the proposed BMP		
A <sub>G</sub> = 38.00 acres A <sub>1</sub> = 26.60 acres		
Αρ = 11.40 acres L <sub>iii</sub> = 27573 lbs		Know what's below. Call before vou dig.
5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area Desired L <sub>MTHE DASIN</sub> = 23153 lbs.		
F =     0.84       6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area.     Calculations from RG-348     Pages 3-34 to 3-38		
Rainfall Depth =     1.26     inches       Post Development Runoff Coefficient =     0.51       On-site Water Quality Volume =     87886     cubic feet		
Calculations from RG-348 Pages 3-36 to 3-37 Off-site area draining to BMP = 0.00 acres Off-site Impervious cover draining to BMP = 0.00 acres		0 0 2 I
Impervious fraction of off-site area = 0 Off-site Runoff Coefficient = 0.00 Off-site Water Quality Volume = 0 cubic feet		
Storage for Sediment = 17577 Total Capture Volume (required water quality volume(s) x 1.20) = 105463 cubic feet The following sections are used to calculate the required water quality volume(s) for the selected BMP. The values for BMP Types not selected in cell C45 will show NA.		
7. Retention/Irrigation System         Designed as Required in RG-348         Pages 3-42 to 3-46           Required Water Quality Volume for retention basin =         NA         cubic feet		
Infigation Area Calculations: Soil infiltration/permeability rate = 0 in/hr <u>Enter determined permeability rate or assumed value of 0.1</u> Irrigation area = NA square feet		
NA acres 8. Extended Detention Basin System Designed as Required in RG-348 Pages 3-46 to 3-51 Required Water Quality Volume for extended detention basin = NA cubic feet		
9. Filter area for Sand Filters         Designed as Required in RG-348         Pages 3-58 to 3-63           9A. Full Sedimentation and Filtration System         Pages 3-58 to 3-63         Pages 3-58 to 3-63		
Water Quality Volume for sedimentation basin = NA cubic feet Minimum filter basin area = NA square feet		
Maximum sedimentation basin area =       NA       square feet       For minimum water depth of 3 feet         Minimum sedimentation basin area =       NA       square feet       For maximum water depth of 3 feet		
9B. Partial Sedimentation and Filtration System Water Quality Volume for combined basins = NA cubic feet		
Minimum filter basin area = NA square feet Maximum sedimentation basin area = NA square feet For minimum water depth of 2 feet Minimum sedimentation basin area = NA square feet For maximum water depth of 5 feet.		TE OF TAR
10. Bioretention System         Designed as Required in RG-348         Pages 3-63 to 3-65		S. A.L.
Required Water Quality Volume for Bioretention Basin = NA cubic feet  11. Wet Basins Designed as Required in RG-348 Pages 3-66 to 3-71		MICHAEL A. GIANNETTA
Required capacity of Permanent Pool = 105463 cubic feet Permanent Pool Capacity is 1.20 times the WQV Required capacity at WQV Elevation = 193349 cubic feet Total Capacity should be the Permanent Pool Capacity plus a second WQV.		??? ??? ?? ?? ???????????????????????
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		9/27/2023
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SITE PLAN APPROVAL FILE NUMBER <b>SP-2022-0048D</b>	SHEET <u>15</u> OF <u>116</u> APPLICATION DATE <b>02</b> /	14/2022		<b>A</b>
APPROVED ON XX UNDER SECTION 1	12 OF			
CHAPTER 25-5 OF THE CITY OF AUSTIN COD	=: F			
EXPIRATION DATE (LDC 25-5-81) XX PROJECT EXPIRATION DATE (ORD,#970905-A)	CASE MANAGER ZACK L		I IED BY:	JS/IF
		DRAWN	BY:	JS/IF
DIRECTOR, DEVELOPMENT SERVICES DEPARTMEN	IT	CHECK	ED BY:	JS/MG
RELEASED FOR GENERAL COMPLIANCE	ZONING X	X		
REVISION 1 CORRECTIO	N 1	APPRO	VED BY:	MG
REVISION 2 CORRECTIO	N 2			
REVISION 3 CORRECTIO	N 3			
Final plat must be recorded by the Project E Subsequent Site Plans which do not comply time of filing, and all required Building Permi	xpiration Date, if appli with the Code current ts and/or a notice of	at the SHEET	<u>15</u>	16
construction (if a building permit is not requiprior to the Project Expiration Date.	ired), must also be ap	sproved SP-20	122-00	148D

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### GEOMEMBRANE LINER FOR WATER QUALITY/DETENTION PONDS OAK KNOLL DRIVE – PHASE 1 IMPROVEMENTS 6511 MCNEIL DRIVE AUSTIN, TEXAS

Terracon Project No. 96205296 October 7, 2022

#### PART 1: GENERAL

B

#### 1.1 SECTION OVERVIEW

- Construction of a Geomembrane Liner for a water quality pond. A.
  - Installer shall provide a project specific submittal package that includes the following information:
  - -Product information for the geomembrane liner and other materials that will be used during the installation of the liner.
  - Product information for the geotextile fabric.
  - Manufacturer's installation guidelines and details outlining the requirements for the pond liner construction including (but not limited to) details for the seams, anchor trenches, pipe penetrations, terminations, etc.
  - A summary of the manufacturer required non-destructive and destructive testing to be performed on the liner and/or liner seams. This information should include the test method, testing frequency as well as the minimum required values for each test (if applicable).
  - Calibration information for any equipment that will be used for destructive and/or non-destructive testing of the liner or liner seams.
  - Any other information required by the Manufacturer or that may be required to observe and document liner installation for conformance with the Manufacturer's requirements
- The liner shall be installed following all applicable Manufacturer's details and installation C. guidelines.

#### PART 2: MATERIAL AND INSTALLER

2.1 GEOMEMBRANE LINER AND GEOTEXTILE FABRIC

The liner shall have a minimum thickness of 30 mils and be ultraviolet resistant. A. В. The geomembrane liner shall be underlain and overlain by a layer of geotextile fabric, to protect the liner from puncture due to rocks or other substances within the soils.

Responsive Resourceful Reliable

Construction QA/QC Plan – Geomembrane Liner Oak Knoll Drive – Phase 1 Improvements Austin, Texas October 7, 2022 
Terracon Project No. 96205296

- The Construction Testing Firm shall be present during protective soil cover placement and retaining wall construction activities which take place above the geomembrane liner. The purpose of these observations is to help visually identify obvious damage that may occur to the geomembrane liner as a result of either of these activities. Due to the presence of protective soil cover over the geomembrane liner, determination of the location and extent of damage to the geomembrane liner may be difficult to identify. The protection of the geomembrane liner from damage is ultimately the responsibility of the General Contractor, liner installation Subcontractor, and any other subcontractors who may perform work above the liner.
- C. It is the responsibility of the Manufacturer, General Contractor, the liner installation Subcontractor, and any other Subcontractors who may perform work above the liner, to identify and use appropriate low ground pressure construction equipment and construction methodology necessary to not exert pressures on the liner greater than those allowed by the Manufacturer.

#### 3.4 FIELD QUALITY CONTROL

- A. The Installer and Construction Testing Firm shall document all geomembrane and fabric materials and installation, including any repairs/patches.
- All Manufacturer-required testing shall be performed by the Installer. The testing shall be B observed and documented by the Construction Testing Firm.
- C. The as-built thickness of the protective soil cover shall be determined by survey methods performed by the surveying department of the Project Civil Engineering Firm or a Professional Surveying Firm. Prior to the placement of any soil cover, the geomembrane/fabric surface shall be surveyed in a sufficient manner to establish an adequate number of data points on the pond bottom and sideslopes. Upon completion of the soil cover installation, and prior to the installation of subsequent elements such as plants, walls, ramps, etc., the top of the protective soil cover shall be surveyed at the same data point locations to ensure the specified thickness of soil cover has been achieved and the top of the soil cover is at the Civil Engineer's specified grades and slopes, within a tolerance of 0 to +0.2 feet. Areas that do not meet the specified thickness grades and slopes shall be corrected and resurveyed. The Surveyor shall use extreme caution to not damage the geomembrane liner when surveying for the protective soil cover.
- The selection of the data point locations and the subsequent surveys shall be performed D. by a Professional Surveyor registered in the State of Texas. At the end of pond construction, the Professional Surveyor shall prepare and seal a letter documenting the surveying services and the thickness of the protective soil cover, as also indicated in Item 6.1.C. This letter shall include a drawing indicating survey point locations and the elevations at each point prior to and after soil cover placement

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#### PART 3: EXECUTION

#### 3.1 PLACEMENT

A. Prior to fabric and liner placement, the subgrade shall be excavated and removed to the elevations established on the plans. Loose soils/rocks shall be removed from the excavation. If soil, the subgrade shall be scarified to a depth of 6 inches, moisture conditioned (as in Item 3.2.B) and recompacted. If the pond is overexcavated, the overexcavated areas may be filled with on-site soils compacted similarly to the subgrade soils up to the bottom elevation of the liner. No sharp rocks or other similar substances shall be present within the top one inch of the subgrade to be covered by the liner.

Groundwater control during excavation and construction of the liner is the responsibility of the Contractor. Groundwater control must be provided such that it results in a stable and dry subgrade that is conducive to proper liner compaction. Liners constructed below groundwater will require dewatering as necessary to allow construction of the liner. To prevent damage to the liner due to uplift pressures after termination of dewatering or during future maintenance, the liner must include placement of sufficient soil ballast or additional thickness of liner to resist any uplift pressures. Alternative designs to relieve liner uplift pressure (French drain, etc.) will be considered and must be approved by the Civil and Geotechnical Engineers. Appropriate measures such as perimeter and/or lateral interceptor trenches, sumps, and pumps shall be installed and maintained throughout construction, as needed.

The geotextile fabric shall be placed on top of the subgrade (below the liner) in accordance with the COA ECM and all Manufacturer's specifications and requirements.

D. The geomembrane liner shall be placed in accordance with all Manufacturer's specifications and requirements. All seams shall be overlapped, prepared and sealed in accordance with the Manufacturer's installation guidelines. All areas to be seamed shall be clean and free of moisture, dust, dirt, and other foreign materials. Seams should be placed parallel to the line of maximum slope. The location and orientation of seams is the responsibility of the General Contractor, installation Subcontractor, and the Manufacturer. The seams should be reviewed and evaluated by the Manufacturer to confirm that the

location/orientation will not adversely impact the performance of the liner. The geomembrane liner shall extend to a minimum elevation at least 6 inches above the design water quality elevation (or higher if the Civil design requires holding water at higher elevations for other purposes, such as re-irrigation).

The geomembrane liner shall abut all concrete ramps, inflow/outflow headwall structures, aprons, walls, and other miscellaneous structures within the pond interior. The geomembrane liner should be attached to concrete protrusions/structures as outlined in the Manufacturer's installation guidelines and details.

G. A second layer of geotextile fabric shall be placed on top of the liner in accordance with the COA ECM and all Manufacturer's specifications and requirements.

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Construction QA/QC Plan – Geomembrane Liner Oak Knoll Drive – Phase 1 Improvements Austin, Texas October 7, 2022 Terracon Project No. 96205296



#### PART 4: LINER PERFORATIONS

#### 4.1 REPAIR/REMEDIATION

A. For areas of the geomembrane liner that become punctured, perforated, or torn during construction (including those areas subjected to destructive testing, if any required by Manufacturer), the areas shall be repaired as specified in the Manufacturer's repair specifications. These repair procedures may include patching, buffing/re-welding, spot welding/seaming, capping, and/or topping.

Prior to and during repairs, all surfaces shall be clean and dry.

Patches or caps shall extend beyond the edges of the repair.

All corners of repairs shall be rounded.

All repairs shall be monitored and/or verified by the Manufacturer's Representative.

#### PART 5: SAMPLING AND TESTING

#### 5.1 TEST TYPES AND FREQUENCY

A. For subgrade materials, at least one (1) sample shall be obtained per soil type within the exposed subgrade areas for testing of Atterberg Limits (ASTM D 4318), gradation (ASTM D 422), and Moisture-Density Relationship (ASTM D 698). These samples shall be excavated from exposed areas in the field in sufficient quantities to perform the 3 laboratory tests itemized above, placed in sample containers, and transported to the laboratory for testing. The excavated sample areas in the field shall be backfilled with similar subgrade materials or clay liner material, moisture conditioned, and compacted. Additional samples shall be obtained as variations in material are observed.

In-place density and moisture content by Nuclear Methods (ASTM D 6938) shall be performed on all subgrade material at a minimum rate of one test per 5,000 square feet per lift (or a minimum of 3 tests per lift).

Areas that do not meet the moisture or density specifications during initial testing shall be reworked and retested until the material meets the specifications.

Material sampling and testing is not required where exposed limestone is encountered at subgrade elevations.

All Manufacturer's required non-destructive and destructive testing.

#### PART 6: DOCUMENTATION

#### 6.1 TEST REPORTS AND/OR SUMMARY LETTERS

A. The Construction Testing Firm shall be notified by the General Contractor to be on-site during any significant liner construction activities. The Construction Testing Firm shall issue

Construction QA/QC Plan – Geomembrane Liner Oak Knoll Drive - Phase 1 Improvements - Austin, Texas October 7, 2022 - Terracon Project No. 96205296

- H. For areas where the geomembrane liner shall be placed along a vertical concrete wall, the geotextile fabrics are not required. For these areas, the geomembrane liner shall be attached to the concrete wall as directed in the Manufacturer's installation guidelines.
- Utilities with inlets/outlets below the design water quality elevation shall be completely backfilled with flowable backfill (City of Austin Standard Specifications Item 402) up to a minimum elevation equal to at least 6 inches above the design water quality elevation (or higher if the Civil design requires holding water at higher elevations for other purposes, such as re-irrigation).
- The Contractor should obtain and submit the Manufacturer's installation guidelines prior to the start of construction.

#### 3.2 COMPACTION

- A. Compact the subgrade with properly ballasted penetrating pad-foot compactors. A minimum of 2 passes shall be required regardless of whether the subgrade meets density specifications. A pass is defined as one trip of the compacting equipment over the subgrade and back to the starting point by a single roller or one trip across the surface from one side to the other if the compacting equipment has front and back compacting rollers. This requirement is to allow thorough remolding of the soils by kneading action. The surface shall be compacted with a smooth-wheeled vibratory roller to provide a smooth finish to the subgrade.
- The subgrade, if soil, shall be compacted to at least 95 percent of the maximum dry density determined by the Standard Proctor Test, ASTM D 698. If the material classifies as a CH or CL in accordance with USCS with PI>20, the moisture content at the time of compaction shall be between optimum and +4 percentage points above the optimum moisture content. For all other soil materials, the moisture content at the time of compaction shall be between -3 and +3 percentage points above the optimum moisture content.

#### 3.3 PROTECTION

A. After completion of geomembrane/geotextile placement, a protective soil cover with a minimum thickness of 12 inches shall be placed over all portions of the liner system to reduce possible damage to the liner from construction activities and future maintenance operations. No maintenance vehicles shall enter or be allowed above the geomembrane lined areas. If vehicular access is allowed, the protective soil cover must be increased to at least 24 inches thick. This protective soil cover (or topsoil) does not require field and laboratory testing; however, it does require a thickness survey as in Item 3.3.C. The protective soil cover shall not include any rocks larger than 3/8 inch in size. Compaction equipment shall not be used for the protective soil cover. A protective soil cover is not required in areas where a geomembrane liner is placed directly against a vertical concrete element.

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Construction QA/QC Plan – Geomembrane Liner Oak Knoll Drive – Phase 1 Improvements Austin, Texas October 7, 2022 
Terracon Project No. 96205296

> Daily Construction Reports indicating the work performed by the Contractor, the type of equipment used to perform stated work, the duties performed by the Construction Testing Firm Representative (field technician), a summary of test results (may reference a separate report), any non-conforming test results or areas in need of corrective action (may reference a separate report), the technician's name, date of report, and a reviewer's signature.

- At the completion of the geomembrane liner installation, the geomembrane liner installation Subcontractor and Manufacturer shall submit a certification letter documenting whether the liner installation complies with the Manufacturer's installation details and guidelines.
- After receipt of the Manufacturer's certification letter, a Geomembrane Liner Evaluation Report (GLER) shall be prepared and sealed by the Construction Testing Firm's Professional Engineer licensed in the State of Texas. This GLER letter shall summarize the types of tests performed and whether the results were in general conformance with the project plans and specifications. At a minimum, this letter report shall describe the subgrade preparation, liner placement, moisture/density control, test frequencies and results, and approximate test locations. This letter report shall refer to or include attachments of previous testing reports issued for the liner, including tests and letters submitted by the Installer or Manufacturer.
- As in Item 3.3.D, after pond construction is complete, the Professional Surveyor registered in the State of Texas shall prepare and seal a letter documenting the surveying services and the thickness of the protective soil cover. This letter shall include a drawing indicating survey point locations and the elevations at each point prior to and after liner/cover placement.
- Any requests for information or changes to design and/or construction items shall be prepared by the Pond Installation Contractor in the form of a Request for Information (RFI) and issued to the General Contractor, with copies to the Developer, the Geomembrane Manufacturer's Authorized Representative, the Civil Engineer, the Geotechnical Engineer, and the Construction Testing Firm.

#### END OF SECTION



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SITE PLAN APPROVAL SHEET <u>16</u> OF <u>116</u> FILE NUMBER <u>SP-2022-0048D</u> APPLICATION DATE <u>02/14/2022</u> APPROVED ON XX UNDER SECTION <u>112</u> OF CHAPTER <b>25-5</b> OF THE CITY OF AUSTIN CODE	GEOMEMBRANE POND LINER QAQC PLAN PHASE I OAK KNOLL DRIVE PHASE I IMPROVEMENTS 6511 1/2 MCNELL DR. 6511 1/2 MCNELL DR. AUSTIN, TRAVIS COUNTY, TEXAS
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5.	WHERE SILT FENCE WILL ENCE ZONE (CRZ), USE MULCH SOCK	ROACH INTO THE TREES CRITICAL ROOT (S IN LIEU OF SILT FENCE.	z _		<b>10</b>		
6.	8" MULCH TOPPED WITH CONS CRZ AREAS BEFORE ANY EQUI	TRUCTION MATTS SHALL BE APPLIED TO ALL PMENT ENTERS AREA.			10  -	() <	ת נ
7.	ENVIRONMENTAL INSPECTOR MODIFY EROSION/SEDIMENTATIN COMPLIANCE WITH THE CITY	HAS THE AUTHORITY TO ADD AND/OR FION CONTROLS ON SITE TO KEEP PROJECT Y OF AUSTIN RULES AND REGULATIONS.	TA ₽Ω	Ш	Z Ш	۲ ا ا :-	<    
8.	ALL SPOILS ARE TO BE PLACED SPOILS PILES ARE TO REMAIN THE UPHILL SIDE OF TRENCH V	D BACK IN TRENCH EVERY NIGHT; OR IF OVERNIGHT, SPOILS MUST BE PLACED ON WITHIN THE LOC.	IZ I		Σ		•
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oubs time const	equent Site Plans which do of filing, and all required E truction (if a building permi	not comply with the Code current at the Building Permits and/or a notice of t is not required), must also be approved	SHEET	<u>25</u>		1 <b> </b> ]49	
prior	to the Project Expiration D	ute.				, - <del>,</del> C	

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<ul> <li>A PERTIFICATION DE SPARLE FOLLOW THE RECOMMENDATION OF A SOLT EST. SEE TEEM 6085. FERTILIZER, APPLICATIONS OF FERTILIZER APPLICATIONS OF FERTILIZER APPLICATION RECORD THE YEARLY SUBMITTAL OF A PERTIFICIDE AND FERCINDE TO MUNE DATA MANAGE PROPERTY REQUIRES THE YEARLY SUBMITTAL OF A PERTIFICIDE AND FERCIONT DEPUNDET CONTRACT THE CITY OF AUSTING IPP COORDINATOR.</li> <li>B. HYDROMULCH SHALL COMPLY WITH TABLE 2, BELOW.</li> <li>C. WATER THE SEEDED AREAS IMMEDIATELY AFTER INSTALLATION TO ACHIEVE GERMINATION AND A HEALTHY STAND OF PLANTE THAT CAN ULTIMATELY SURVIVE WITHOUT SUPPLEMENTAL WATER. APPLY THE WATER NUMERORMLY TO THE PLANTE DATA CASES OF A SOLT. MAINTAIN THE SEEDED AREAS WITHOUT CAUSING BURGLACEMENT OF ALL COMPLY WITH ATTER APPLY THE WATER NUMERORMLY TO THE CONSERVATION, AT MAYS AND REQUENCES DETERMINED BETTERMINED FOR THE MATTERNALS OF ROSAL END STATUS OF A SOLT AND WATER AS CONSERVATION, AT MAYS AND DEPLEMENTAL WATER ASTRONG OF CHAPTER 44 MANUST CONDITION FAVORABLE FOR PLANT GROWTH, ALL WATER WATER NUMERANT OR COTHER CAULIFIED PROFESSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST T1% INCHES HIGH WITH A MINIMUM OF SPERCARGET THAT IS AND SPERCEMENT. CONSERVATION INITIATIVES.</li> <li>D. PERMANENT EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST T1% INCHES HIGH WITH A MINIMUM OF SPERCARGET THAT IS AND SPERCEMENT. CONSERVATION INITIATIVES.</li> <li>D. PERMANENT FOR THE NON-NATIVE MIX, AND SPERCEMENT COVERAGE FOR THE NATIVE MIXES ON MATER AREAS OF A SITE THAT RELY ON VEGETATION FOR STABILITY AND CORRENT WATER RESTING SHALL COMPLY WITH CLICKINGS SOLVED THERE AREAS DROWN AT LEAST T1% INCHES HIGH WITH A MINIMUM OF SPERCARGET THAT IS AND SPERCEMENT. COVERAGE FOR THE NATIVES.</li> <li>D. PERMANENT FOR THE NON-NATIVE MIX, AND SPERCEMENT DATA TIS EDING SHALL COMPLY WITH RESULTED WEDDE THERE AREAS OF A SITE THAT RELY ON VEGETATION FOR STABILITY AND CORRENT FOR THE NON-NATIVE MIX. AND SPERCEMENT DATA CORRECT FIERD STATE AND SPERCEMENT DATA CORRECT</li></ul>	
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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 UNIPORMLY 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.         BLE 2: HYDROMULCHING FOR PERMANENT VEGETATIVE STABILIZATION         MATERIAL       DESCRIPTION         LONGEVITY       TYPICAL APPLICATIONS         APPLICATION RATES         30NDED FIBER MATRIX (BFM)       80% ORGANIC DEFIBRATED FIBERS         6 MONTHS       ON SLOPES UP TO 2:1 AND EROSIVE SOIL CONDITIONS         2500 TO 4,000 LBS PER ACRE (SEE MANUFACTURERS RECOMMENDATIONS)         10% TACKIFIER       6 MONTHS       ON SLOPES UP TO 1:1 AND EROSIVE SOIL CONDITIONS       2,500 TO 4,000 LBS PER ACRE (SEE MANUFACTURERS RECOMMENDATIONS)         10BER REINFORCED MATRIX       65% ORGANIC DEFIBRATED FIBERS UP TO 1:2 MONTHS       ON SLOPES UP TO 1:1 AND EROSIVE SOIL CONDITIONS       3,000 TO 4,500 LBS PER ACRE (SEE MANUFACTURERS RECOMMENDATIONS)	
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FIBERS       MULCH CONSISTS PRIMAR         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)       MINIMUM 12' (300 mm) DVERLAP DO NOT STACKMULCH SOCKS       MULCH CONSISTS PRIMAR SEPARATED AT THE POIN SHREDDED BARK, STUMP         *IBER REINFORCED MATRIX FRM)       65% ORGANIC DEFIBRATED FIBERS 25% REINFORCED FIBERS OR LESS 10% TACKIFIER       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)       MOTES:	
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)       MINIMUM 12' (300 mm) DVERLAP DO NOT STACK MULCH SOCKS       SEPARATED AT THE POIN SHREDDED BARK, STUMP         *IBER REINFORCED MATRIX FRM)       65% ORGANIC DEFIBRATED FIBERS 25% REINFORCED FIBERS OR LESS 10% TACKIFIER       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)       NOTES:       NOTES:	
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Iber Reinforced Matrix     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 ACCEPTABLE IN THE MULT MOTES:       10% TACK/FIER	
FIBER REINFORCED MATRIX       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         I/W TACK/FIER       10% TACK/FIER       I/W TO 12 MONTHS       ON SLOPES UP TO 1:1 AND EROSIVE SOIL CONDITIONS       3,000 TO 4,500 LBS PER ACRE (SEE MANUFACTURERS       I/W TO 12 MONTHS	
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2000 INCLINE OF VICE OF LESS REVENUE SUIL CONDITIONS ACRE (SEE MANUFACTURERS DECOMMENDATIONS)	
T. STEEL OR WOOD POSTS WHICH SUPPORT THE MULCH SOCK SHAL	
ANGLE 10WARD THE ANTICIPATED RUNOFF SOURCE. POST MUS 600mm (24 inches). IF WOOD POSTS CANNOT ACHIEVE ROOmm (24 inches).	
0 DEVELOPER INFORMATION	
U. DEVELOPER INFORMATION:	
2. THE THE OF THE MULCH SOCK SHALL BE PLACED SO THAT THE M	

PERSON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE: KARLIN RESEARCH PARK MF, LLC \_ PHONE #\_ (310) 806-9728 PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE:

KARLIN RESEARCH PARK MF, LLC \_ PHONE # (310) 806-9728

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

MATERIAL.

TO ADDITIONAL SILTATION.

CITY OF AUSTIN

# PROTECTION:

ATION CONTRACTOR AND INSURE COORDINATION WITH THE CITY N IS PERFORMED, THE CONTRACTOR SHALL PROVIDE ITY ARBORIST, WATERSHED PROTECTION, P.O. BOX 1088, AUSTIN,

OF CONSTRUCTION WHICH ARE INDICATED TO BE PRESERVED (ON NG OF CONSTRUCTION ACTIVITIES AND AGAIN AFTER THE RTILIZED INCLUDE THE ENTIRE CRITICAL ROOT ZONE OF A TREE AS RE TO BE FERTILIZED VIA SOIL INJECTION METHOD (MINIMUM 100 ENT AT RECOMMENDED RATES, CONSTRUCTION THAT WILL BE RIAL AT 1/2 RECOMMENDED RATES. ALTERNATIVE ORGANIC OVED BY THE CITY ARBORIST.

RUCTION ACTIVITIES DEEPLY AS NECESSARY DURING PERIODS OF R PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE

NDED TO BE ADVISORY IN NATURE ONLY AND DO NOT CONSTITUTE IVE DIRECTOR (ED), NOR DO THEY CONSTITUTE A COMPREHENSIVE G CONSTRUCTION. FURTHER ACTIONS MAY BE REQUIRED TO ITLE 30, TEXAS ADMINISTRATIVE CODE (TAC), CHAPTERS 213 AND OVIDING FOR THE PROTECTION OF WATER QUALITY. STED "CONSTRUCTION NOTES" RESTRICTS THE POWERS OF THE ED, O PREVENT CORRECT OR CURTAIL ACTIVITIES THAT RESULT OR HYDROLOGICALLY CONNECTED SURFACE WATERS. THE HOLDER OF ONSTRUCTION NOTES" IS STILL RESPONSIBLE FOR COMPLIANCE BLE TCEQ REGULATION, AS WELL AS ALL CONDITIONS OF AN S OF PLAN IMPLEMENTATION. FAILURE TO COMPLY WITH ANY ONTRADICTION OF ANY "CONSTRUCTION NOTES." IS A VIOLATION OF MINISTRATIVE RULES ORDERS AND PENALTIES AS PROVIDED SUCH VIOLATIONS MAY ALSO BE SUBJECT TO CIVIL PENALTIES AND

ITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR DTICE MUST INCLUDE:

#### ES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH ON ABATEMENT PLAN (WPAP) AND THE TCEQ LETTER INDICATING THE COURSE OF THESE REGULATED ACTIVITIES. THE S OF THE APPROVED PLAN AND APPROVAL LETTER.

MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION THE TOPO HAS REVIEWED AND APPROVED THE APPROPRIATE ENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM

NCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A , OR SENSITIVE FEATURE. TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL AINED IN ACCORDANCE WITH THE APPROVED PLANS AND

BEEN PERMANENTLY STABILIZED. SURFACE STREAMS, SENSITIVE FEATURES, ETC.

RAPS OR SEDIMENTATION BASINS NOT LATER THAN WHEN IT

HE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE. THE

HALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY 21ST DAY STABILIZATION MEASURES ARE NOT REQUIRED IF

MADE AVAILABLE TO THE TCEQ UPON REQUEST:

DRARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND

VE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING: ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING E TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;





![](_page_76_Figure_28.jpeg)

![](_page_76_Figure_29.jpeg)

![](_page_77_Figure_0.jpeg)

![](_page_77_Figure_1.jpeg)

![](_page_77_Figure_2.jpeg)

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							4201 WEST PARMER LN., SUITE C-10 △ I STIN TX · 78727	DFFICE: 512.872.6696	FIRM NO. 16384
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	6		/0	$\widetilde{\langle}$	$\leq$		(9/2	27/20	<b>-</b> )23
122				DAK KNOLL DRIVE			6511 1/2 MCNEIL DR.	AUSTIN. TRAVIS COUNTY. TEXAS	

SITE PLAN APPROVAL     SHEET 27 OF 116       FILE NUMBER     SP-2022-0048D     APPLICATION DATE 02/14/2022       APPROVED ON     XX     UNDER SECTION     112 OF       CHAPTER     25-5 OF THE CITY OF AUSTIN CODE     ODE     ADDE	ER	Ĺ	٩I
PROJECT EXPIRATION DATE (ORD,#970905-A) DWPZ DDZ	DESIGN	ED BY:	JS/IF
	DRAWN	BY:	JS/IF
DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT	CHECKE	D BY:	JS/MG
RELEASED FOR GENERAL COMPLIANCEZONING XX			
REVISION 1 CORRECTION 1	APPRON	/ED BY:	MG
REVISION 2 CORRECTION 2			
REVISION 3 CORRECTION 3			
Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of	SHEET	27 <sub>0F</sub> 1	16
construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.	SP-20	22-00	48D

![](_page_78_Figure_0.jpeg)

0	40'	80'
	SCALE: 1" = 40'	

# LEGEND

![](_page_78_Picture_4.jpeg)

NOTES:

- 1. THE DIMENSIONS SHOWN HEREON ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- 2. SCREENING FOR SOLID WASTE COLLECTION AND LOADING AREAS SHALL BE THE SAME AS, OR OF EQUAL QUALITY TO, PRINCIPAL BUILDING MATERIALS.
- 3. YARDS, FENCERS, VEGETATIVE SCREENING OR BERMS SHALL BE PROVIDED TO SCREEN ADJACENT SF-5 OR MORE RESTRICTIVE RESIDENTIAL DISTRICTS FROM VIEWS OF OFF-STREET PARKING AREAS, AND FOR REUSE COLLECTION (SECTION 25-2-1066)
- 4. THE OWNER IS RESPONSIBLE FOR ALL COSTS FOR RELOCATION OF, OR DAMAGE TO UTILITIES
- 5. THERE ARE NO EXISTING BUILDINGS ON ADJOINING LOTS WITHIN 50 FEET OF THE SITE.
- 6. STREET LIGHTS SHOWN FOR REFERENCE ONLY. FINAL LOCATIONS AND DESIGN TO BE PROVIDED BY AUSTIN ENERGY.

SITE PLAN APPROVAL SHEET\_**28**\_OF\_<u>116</u> APPLICATION\_DATE\_<u>02/14/2022</u> 
 FILE NUMBER
 SP-2022-0048D
 APPLICAT

 APPROVED ON
 XX
 UNDER SECTION
 112
 CHAPTER 25-5 OF THE CITY OF AUSTIN CODE EXPIRATION DATE (LDC 25-5-81) XX CASE MANAGER ZACK LOFTON PROJECT EXPIRATION DATE (ORD,#970905-A)\_\_\_\_\_DWPZ\_\_\_\_DDZ\_\_\_\_ DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT CHECKED BY: <u>JS/MG</u> RELEASED FOR GENERAL COMPLIANCE ZONING XX REVISION 1 \_CORRECTION 1 **REVISION 2** \_CORRECTION 2

\_\_CORRECTION 3\_ REVISION 3 Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

	* Micorac	CHAP			ANI A8 EP EN	9/2	27/20	- 023
			TE	OF	TE	PSXX	5	
						4201 WEST PARMER LN., SUITE C-100 Alistin tx · 78777	DFFICE: 512.872.6696	FIRM NO. 16384
(	Kn Cal	ow II b		hatore	t's yo	bel	ow dig	/. J.
								л <b>о</b> .
								REVISION
								В

APPROVED BY: <u>MG</u>

SHEET 28 OF 116

![](_page_79_Figure_0.jpeg)

![](_page_80_Figure_0.jpeg)

0	40' 80'			
	SCALE: 1" = 40'			
	- EASEMENT			
	LIMITS OF CONSTRUCTION			
	LAYDOWN CURB      PROPOSED SIDEWALK			
	PROPOSED BIKE PATH			
· · · · · · · · · · · · · · · · · · ·	∾			
0	SIGN			<u> </u>
(sd)	STORM JUNCTION BOX			
	GRATE INLET			
<b>+</b>	FIRE HYDRANT			
ŴŴ	WASTEWATER MANHOLE	Kn	ow what's bel	lov vih
c.o.	WASTEWATER CLEANOUT			ulí
	TRANSFORMER			9
, s^	UTILITY POLE			א ת ס א
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OTHERWISE NOTED.				, r , r
2. SCREENING FOR SOLID W/ THE SAME AS, OR OF EQU	ASTE COLLECTION AND LOADING AREAS SHALL BE AL QUALITY TO, PRINCIPAL BUILDING MATERIALS.	⁼   [ ⊿		• .
3. YARDS, FENCERS, VEGETA TO SCREEN ADJACENT SF	ATIVE SCREENING OR BERMS SHALL BE PROVIDED -5 OR MORE RESTRICTIVE RESIDENTIAL DISTRICT	S		× - ιΩ
FROM VIEWS OF OFF-STRE COLLECTION (SECTION 25-	EET PARKING AREAS, AND FOR REUSE -2-1066)			
4. THE OWNER IS RESPONSI DAMAGE TO UTILITIES	3LE FOR ALL COSTS FOR RELOCATION OF, OR			2 ·· — Ш — «
5. THERE ARE NO EXISTING I OF THE SITE.	3UILDINGS ON ADJOINING LOTS WITHIN 50 FEET			ט ת ר
6. STREET LIGHTS SHOWN FO	OR REFERENCE ONLY. FINAL LOCATIONS AND BY AUSTIN ENERGY			∢ L □
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 SITE PLAN APPROVAL	SHEET <b>30</b> OF <b>116</b>	/2022	I LL	
SITE PLAN APPROVAL FILE NUMBER <u>SP-2022</u> APPROVED ON XX	SHEET <u>30</u> OF <u>116</u> -0048D APPLICATION DATE <u>02/14</u> UNDER SECTION <u>112</u> OF			
SITE PLAN APPROVAL FILE NUMBER <u>SP-2022</u> APPROVED ON <u>XX</u> CHAPTER <u>25-5</u> OF THE CI EXPIRATION DATE (LDC 25-	SHEET <u>30</u> OF <u>116</u> <u>-0048D</u> APPLICATION DATE <u>02/14</u> , UNDER SECTION <u>112</u> OF TY OF AUSTIN CODE 5–81) <u>XX</u> CASE MANAGER <b>ZACK LO</b>	FTON		
SITE PLAN APPROVAL FILE NUMBER <u>SP-2022</u> APPROVED ON <u>XX</u> CHAPTER <u>25-5</u> OF THE CI EXPIRATION DATE (LDC 25- PROJECT EXPIRATION DATE O	SHEET <u>30</u> OF <u>116</u> <u>-0048D</u> APPLICATION DATE <u>02/14</u> UNDER SECTION <u>112</u> OF TY OF AUSTIN CODE 5–81) <u>XX</u> CASE MANAGER <u>ZACK LO</u> (ORD,#970905-A) DWPZ DDZ	FTON DESI	GNED BY:	12/
SITE PLAN APPROVAL FILE NUMBER <u>SP-2022</u> APPROVED ON <u>XX</u> CHAPTER <u>25-5</u> OF THE CI EXPIRATION DATE (LDC 25- PROJECT EXPIRATION DATE OF DIRECTOR. DEVELOPMENT SE	SHEET <u>30</u> OF <u>116</u> <u>-0048D</u> APPLICATION DATE <u>02/14</u> , UNDER SECTION <u>112</u> OF TY OF AUSTIN CODE 5–81) <u>XX</u> CASE MANAGER <u>ZACK LOI</u> (ORD, #970905–A) DWPZ DDZ	FTON DESI	GNED BY:	- 12/ 12/
SITE PLAN APPROVAL FILE NUMBER <u>SP-2022</u> APPROVED ON <u>XX</u> CHAPTER <u>25-5</u> OF THE CI EXPIRATION DATE (LDC 25- PROJECT EXPIRATION DATE O DIRECTOR, DEVELOPMENT SE RELEASED FOR GENERAL CO	SHEET <u>30</u> OF <u>116</u> <u>-0048D</u> APPLICATION DATE <u>02/14</u> UNDER SECTION <u>112</u> OF TY OF AUSTIN CODE 5–81) <u>XX</u> CASE MANAGER <u>ZACK LO</u> (ORD, #970905–A) DWPZ DDZ RVICES DEPARTMENT MPLIANCEZONING XX	FTON DESI	GNED BY: بے WN BY: بے	15/ 15/
SITE PLAN APPROVAL FILE NUMBER <u>SP-2022</u> APPROVED ON <u>XX</u> CHAPTER <u>25-5</u> OF THE CI EXPIRATION DATE (LDC 25- PROJECT EXPIRATION DATE DIRECTOR, DEVELOPMENT SE RELEASED FOR GENERAL CO REVISION 1 REVISION 2	SHEET 30 OF 116         OO48D       APPLICATION DATE 02/14,         UNDER SECTION 112       OF         TY OF AUSTIN CODE         5-81) XX CASE MANAGER ZACK LO         CORD, #970905-A) CASE MANAGER ZACK LO         CORD, #970905-A) CASE MANAGER ZACK LO         RVICES DEPARTMENT         MPLIANCE ZONING XX         CORRECTION 1         CORRECTION 2	FTON DESI 	GNED BY: _	<u>12'</u> 12'
SITE PLAN APPROVAL FILE NUMBER <u>SP-2022</u> APPROVED ON <u>XX</u> CHAPTER <u>25-5</u> OF THE CI EXPIRATION DATE (LDC 25- PROJECT EXPIRATION DATE ' DIRECTOR, DEVELOPMENT SE RELEASED FOR GENERAL CO REVISION 1 REVISION 2 REVISION 3 Final plat must be recorded	SHEET <u>30</u> OF <u>116</u> <u>-0048D</u> APPLICATION DATE <u>02/14</u> , UNDER SECTION <u>112</u> OF TY OF AUSTIN CODE 5-81) <u>XX</u> CASE MANAGER <u>ZACK LO</u> (ORD, #970905-A) DWPZ DDZ _ (ORD, #970905-A) DWPZ DDZ _ RVICES DEPARTMENT MPLIANCE ZONING <u>XX</u> CORRECTION 1 CORRECTION 2 CORRECTION 3 1 by the Project Expiration Date, if applical	FTON DESI 	IGNED BY: _	<u> 35/</u> <u>15/</u> <u>1\2</u>
SITE PLAN APPROVAL FILE NUMBER <u>SP-2022</u> APPROVED ON <u>XX</u> CHAPTER <u>25-5</u> OF THE CI EXPIRATION DATE (LDC 25- PROJECT EXPIRATION DATE DIRECTOR, DEVELOPMENT SE RELEASED FOR GENERAL CO REVISION 1 REVISION 2 REVISION 3 Final plat must be recorded Subsequent Site Plans whice time of filing, and all requi	SHEET <u>30</u> OF <u>116</u> <u>APPLICATION DATE 02/14</u> UNDER SECTION <u>112</u> OF TY OF AUSTIN CODE 5–81) <u>XX</u> CASE MANAGER <u>ZACK LO</u> (ORD, #970905–A) DWPZ DDZ (ORD, #970905–A) DWPZ DDZ RVICES DEPARTMENT MPLIANCE ZONING <u>XX</u> CORRECTION 1 CORRECTION 2 CORRECTION 3 J by the Project Expiration Date, if applical h do not comply with the Code current at red Building Permits and/or a notice of paramitic and/or a notice of	FTON DESI DRAV CHEC APPR ble. the SHEE	IGNED BY: WN BY: SKED BY: ROVED BY: ET <b>30</b> of 1	<u></u> <u></u> <u></u> <u></u>

![](_page_81_Figure_0.jpeg)

)	40'	80'
	SCALE: 1" = 40'	
	LEGEND	

- 1. CONTRACTOR TO REFERENCE GEOTECHNICAL ENGINEERING REPORT, (PERFORMED BY TERRACON CONSULTANTS, INC. ON DECEMBER 11, 2020) FOR PAVEMENT MATERIAL, THICKNESS, SUBBASE, JOINTING AND
- 2. PAVEMENT DETAILS PROVIDED ABOVE ARE SHOWN FOR REFERENCE ONLY. THE CONTRACTOR MUST VERIFY THE DETAILS WITH THE MOST CURRENT GEOTECHNICAL RECOMMENDATIONS PRIOR TO CONSTRUCTION.
- 3. THE CONTRACTOR IS ALSO RESPONSIBLE FOR VERIFYING THAT THE GEOTECHNICAL REPORT HAS NOT BEEN MODIFIED OR UPDATED PRIOR TO
- 4. PEDESTRIAN AND BICYCLIST SIGNAGE AND STRIPING MUST BE FOLLOW TRANSPORTATION CRITERIA MANUAL (TCM).
- 5. ALL SIGNAGE AND STRIPING TO MEET MOST CURRENT VERSION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- 6. ALL EMERGENCY ACCESS ROADWAYS & FIRE LANES, INCLUDING PERVIOUS/DECORATIVE PAVING, SHALL BE ENGINEERED & 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) & A TOTAL VEHICLE LIVE LOAD OF 80,000 POUNDS IS CONSIDERED COMPLIANT WITH THIS REQUIREMENT.
- 7. BIKE LANE SHALL BE CONSTRUCTED WITH TERRA COTTA INTEGRAL
- 8. PAVING OVER AUSTIN WATER UTILITY APPURTENANCES IS PROHIBITED .

SITE PLAN APPROVAL FILE NUMBER <u>SP-2022-0048D</u> APPROVED ON <u>XX</u> UNDER S CHAPTER <u>25-5</u> OF THE CITY OF A	SHEET <u>31</u> OF <u>116</u> APPLICATION DATE <u>02/14/2022</u> SECTION <u>112</u> OF USTIN CODE	Чd
EXPIRATION DATE (LDC 25-5-81) PROJECT EXPIRATION DATE (ORD,#97	XX         CASE         MANAGER         ZACK         LOFTON           '0905-A)          DWPZ         DDZ	DESIG
		DRAWN
DIRECTOR, DEVELOPMENT SERVICES	DEPARTMENT	CHECK
RELEASED FOR GENERAL COMPLIANC	EZONING XX	
REVISION 1	CORRECTION 1	APPRO
REVISION 2	CORRECTION 2	
REVISION 3	CORRECTION 3	
Final plat must be recorded by the	Project Expiration Date, if applicable.	

Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved **SP-2022-0048D** 

![](_page_82_Figure_0.jpeg)

![](_page_83_Figure_0.jpeg)

![](_page_83_Picture_2.jpeg)

DRIVE AREA - HEAVY DUTY PAVEMENT CONCRETE DRIVEWAY

TERRA COTA

PAVING NOTES:

- CONTRACTOR TO REFERENCE GEOTECHNICAL ENGINEERING REPORT, (PERFORMED BY TERRACON CONSULTANTS, INC. ON DECEMBER 11, 2020) FOR PAVEMENT MATERIAL, THICKNESS, SUBBASE, JOINTING AND SPECIFICATIONS.
- 2. PAVEMENT DETAILS PROVIDED ABOVE ARE SHOWN FOR REFERENCE ONLY. THE CONTRACTOR MUST VERIFY THE DETAILS WITH THE MOST CURRENT GEOTECHNICAL RECOMMENDATIONS PRIOR TO CONSTRUCTION.
- 3. THE CONTRACTOR IS ALSO RESPONSIBLE FOR VERIFYING THAT THE GEOTECHNICAL REPORT HAS NOT BEEN MODIFIED OR UPDATED PRIOR TO BEGINNING CONSTRUCTION.
- 4. PEDESTRIAN AND BICYCLIST SIGNAGE AND STRIPING MUST BE FOLLOW TRANSPORTATION CRITERIA MANUAL (TCM).
- 5. ALL SIGNAGE AND STRIPING TO MEET MOST CURRENT VERSION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). 6. ALL EMERGENCY ACCESS ROADWAYS & FIRE LANES, INCLUDING

Know what's below.

Call before you dig.

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MICHAEL A. GIANNE

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- PERVIOUS/DECORATIVE PAVING, SHALL BE ENGINEERED & 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) & A TOTAL VEHICLE LIVE LOAD OF 80,000 POUNDS IS CONSIDERED COMPLIANT WITH THIS REQUIREMENT.
- 7. BIKE LANE SHALL BE CONSTRUCTED WITH TERRA COTTA INTEGRAL COLORING.
- 8. PAVING OVER AUSTIN WATER UTILITY APPURTENANCES IS PROHIBITED .

OLE DIAN ADDONA	AVING & STRIPING PLAN ( PHASE II DAK KNOLL DRIVE HASE I IMPROVEMENTS 6511 1/2 MCNEIL DR. 6511 1/2 MCNEIL DR.
FILE NUMBERSP-2022-0048DAPPLICATION DATE02/14/2022APPROVED ONXXUNDER SECTION112OFCHAPTER25-5OFTHE CITY OF AUSTIN CODEEXPIRATION DATE(LDC 25-5-81)XXCASE MANAGERCACK LOFTON	
PROJECT EXPIRATION DATE (ORD, #970905-A) DWPZ DDZ	DESIGNED BY: <u>JS/IF</u> DRAWN BY: <u>JS/IF</u>
DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT	CHECKED BY: <u>JS/MG</u>
RELEASED FOR GENERAL COMPLIANCE       ZONING       XX         REVISION 1       CORRECTION 1	APPROVED BY: MG
Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of	SHEET 33 OF 116
construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.	SP-2022-0048D

![](_page_84_Figure_0.jpeg)

![](_page_85_Figure_0.jpeg)

![](_page_86_Figure_0.jpeg)

![](_page_87_Figure_0.jpeg)

![](_page_88_Figure_0.jpeg)

![](_page_88_Figure_2.jpeg)

DRIVE E

![](_page_88_Figure_4.jpeg)

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	SCALE: 1" = 40'					
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SITE PLAN APP FILE NUMBER _	ROVAL         SHEET 38 OF 116           SP-2022-0048D         APPLICATION DATE 02/14/20		Ż		Ē	٩ſ
APPROVED ON CHAPTER 25-5 EXPIRATION DAT	XXUNDER SECTION <u>112_</u> OF OF THE CITY OF AUSTIN CODE TE (LDC 25–5–81)XXCASE MANAGER ZACK LOFT(					
PROJECT EXPIR	ATION DATE (ORD,#970905-A)DWPZDDZ	-   DI -     DI	LSIGI RAWN	NED	вү: _ : _	JS/IF
DIRECTOR, DEVE	ELOPMENT SERVICES DEPARTMENT	CH	НЕСК	ED	BY: <u>4</u>	JS/MC
REVISION 1	CORRECTION 2	AF	PPRO	VED	ВҮ: _	MG
REVISION 3 Final plat must Subsequent Site	CORRECTION 3		ΗΕΓΤ	38	3 <sub>0F</sub> 1	16
time of filing, construction (if prior to the Pr	ana all required Building Permits and/or a notice of a building permit is not required), must also be approve roject Expiration Date.		P-20	22		48D

1 40' SCALE: 1" = 40'

PROFILE

1"=40' HORZ. 1"=4' VERT.

# SITE SUMMARY:

PROJECT NAME:

LEGAL DESCRIPTION:

SITE ADDRESS:

ZONING:

OWNER:

AUSTIN, TEXAS 78759 LI-PDA (C14-2021-0012)

OAK KNOLL DRIVE

LOT 14C, 14D & 16 OF RESEARCH PARK VOL.

101, PG. 214, P.R.T.C.TX. DOCUMENT NO. 9834100, O.R.W.C.TX. CAB. P, SLIDES 383-386, P.R.W.C.TX.

OAK KNOLL DRIVE - PHASE 1 IMPROVMENTS

KARLIN RESEARCH PARK DEVELOPMENT, LLC 11755 WILSHIRE BLVD, SUITE 1400 LOS ANGELES, CA 90025 (310) 806-9728

HR GREEN DEVELOPMENT TX, LLC 4201 W. PARMER LN., SUITE C-100 AUSTIN, TEXAS 78727 (512) 872-6696

LANDSCAPE ARCHITECT:

ENGINEER:

RIALTO STUDIO 7719 WOOD HOLLOW DRIVE, SUITE 240 AUSTIN, TEXAS 78731 (512) 291-3813

#### PROJECT SUI PROJECT AREA\* ZONING PROPOSED ( ACRES SF 13.97 608,403 136,560 LI-PDA \*SITE AREA BASED ON LOC

\*\*TOTAL IMPERVIOUS COVER INCLUDING SIDEWALKS, ROADWAYS AND WALLS

NOTES:

- 1. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE RELEASED SITE PLAN. ANY ADDITIONAL IMPROVEMENTS WILL REQUIRE SITE PLAN AMENDMENT AND APPROVAL OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT.
- 2. APPROVAL OF THIS SITE PLAN DOES NOT INCLUDE BUILDING CODE AND FIRE CODE APPROVAL NOR BUILDING PERMIT APPROVAL.
- 3. ALL SIGNS MUST COMPLY WITH REQUIREMENTS OF THE SIGN AND LAND
- DEVELOPMENT CODE. 4. THE OWNER IS RESPONSIBLE FOR ALL COSTS OF RELOCATION OR DAMAGE
- TO UTILITIES. 5. ADDITIONAL ELECTRIC EASEMENTS MAY BE REQUIRED AT A LATER DATE.
- 6. A DEVELOPMENT PERMIT MUST BE ISSUED PRIOR TO AN APPLICATION FOR BUILDING PERMIT FOR NON-CONSOLIDATED OR PLANNING COMMISSION APPROVED SITE PLANS.

![](_page_89_Figure_19.jpeg)

![](_page_89_Figure_20.jpeg)

![](_page_89_Figure_21.jpeg)

MMA	RY TABLE			
IN	/IPERVIOUS COVER		OPEN	SPACE
(SF)	PROPOSED (%)**	ALLOWED (%)	(AC)	(%)
I	22.4%	65%	3.50	25%
	22.470	05%	5.50	2270

![](_page_89_Figure_23.jpeg)

![](_page_89_Figure_24.jpeg)

![](_page_89_Figure_25.jpeg)

DWPZ

CORRECTION 1

CORRECTION 2

CORRECTION 3

![](_page_90_Figure_0.jpeg)

SITE PLAN APPROVAL     SHEET 40 OF 116       FILE NUMBER     SP-2022-0048D     APPLICATION DATE 02/14/2022       APPROVED ON     XX     UNDER SECTION 112       CHAPTER     25-5     OF THE CITY OF AUSTIN CODE	
EXPIRATION DATE (LDC 25-5-81) XX CASE MANAGER ZACK LOFTON PROJECT EXPIRATION DATE (ORD,#970905-A) DWPZ DVZ DDZ	DESIGN
	DRAWN
DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT	CHECKE
RELEASED FOR GENERAL COMPLIANCE ZONING XX	
REVISION 1 CORRECTION 1	APPRON
REVISION 2 CORRECTION 2	
REVISION 3 CORRECTION 3	
Final plat must be recorded by the Project Expiration Date, if applicable.	
Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of	SHEET
construction (if a building permit is not required), must also be approved	<u> </u>

prior to the Project Expiration Date.

![](_page_91_Figure_0.jpeg)

![](_page_91_Figure_1.jpeg)

time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

![](_page_92_Figure_0.jpeg)

	Proposed Conditions - Routing Analysis Inputs														
	Drainage Areas		Land	TOC Calculation Table		HEC-HMS Inpu	ts								
Contributing Area	Area (sf)	Area (ac)	Base Curve Number	Impervious Cover (sf)	TOC (min)	Area (sq. mi.)	Impervious Cover (%)	Lag Time							
P-1	1,655,280	38.00	80	1158696	9.23	0.0593750	70%	5.54							
P-2	198,634	4.56	80	49658	6.92	0.0071250	25%	4.15							
Off-1	27,007	0.62	80	0	5.88	0.0009688	0%	3.53							
Off-2	30,056	0.69	80	0	5.00	0.0010781	0%	3.00							

Time of Concentration Calculations -Proposed Conditions														
		SI	heet Flow		Shallow Co	ncentrated Flov	v (Unpaved)	Pipe	OC Calculat					
Contributing Area	Length	Slope (ft/ft)	Roughness Coefficient	T <sub>sheet</sub>	Length (ft)	Slope (ft/ft)	T <sub>unpaved</sub>	Length (ft)	Velocity (ft/s)	T <sub>channel</sub> (min)	TOC (r			
P-1				0.00			0.00	1800	3.25	9.23	9.2			
P-2	100	0.004	0,08	4.96	300	0.025	1.96			0,00	6.9			
Off-1	100	0.0235	0.08	2.44	400	0.015	3.43			0,00	5.8			

Proposed Hydrology Summary														
Peak Flow (cfs)           Analysis         Q2         Q20         Q25         Q300														
Analysis Point	Analysis Point Q <sub>2</sub> Q <sub>10</sub> Q <sub>25</sub>													
POI 1	20	105	180	280										
POI 2	20	36	46	64										
	Peak Flows p Propo	er Drainage sed Conditio	Area (cfs) ons											
Drainage Area	Drainage Q2 Q10 Q25													
P-1	166	265	329	440										
D.0	17	21	40	55										

4

5

5

6

8

9

OFF-1

OFF-2

2

2

	Existing Hydrology Summary														
0 maluraia		Peak Fl	ow (cfs)	-											
Point	Q,	Q <sub>10</sub>	Q <sub>25</sub>	$Q_{100}$											
POI 1	90	162	210	286											
POI 2	26	48	62	86											

![](_page_92_Figure_6.jpeg)

Know what's below. Call before you dig. X hael a. Gianne 1624 ហ Π X Ш Ш СС ັ ເ<u>ບ</u> шы 4 ທູ ພິ <del>ໄ</del> ┢─ ٩ ហ Ι ٩ נ DESIGNED BY: JS/IF DRAWN BY: <u>JS/IF</u> CHECKED BY: JS/MG APPROVED BY: <u>MG</u> SHEET 42 OF 116 time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

![](_page_93_Figure_0.jpeg)

						RATION	OAK KNO AL METHOD I	DLL - PHAS FLOW CAL	SE LIMPRO CULATION	OVEMENTS NS FOR STO	RM INLETS															Curb In	lets in Sump C	alculation Sum	mary: 100 y	/ear						
BASI	N IN LET	INLET	AREA	AREA	IMPERVOUS	IMPERVOU	S PERVIOUS	тс		2-YR		10-YR			25-YR		100-YR		Drainage	e InletNo.	Q <sub>100</sub>	Qpass	Qtotal	w	Inlet Depression, a	Curb opening height h	StreetWidth	Crown Height	Clogging Factor	Inlet Length	d <sub>weir</sub> Aboye Sa	d <sub>orifice</sub> above S <sub>e</sub>	а	b	Depth of Pondir	8 Ponded
LABE	L LABEL	ТҮРЕ*	(SQ.FT)	(AC)	(SF)	%	%	(MIN)	с	I	<u>a</u> c	<u> </u>	Q	С	1	Q	сı	Q	Area No.	I.	(cfs)	(đrs)	(đs)	(ft)	(ft)	(ft)	(ft)	(%)	(%)	(ft)	(ft)	(ft)			over S <sub>#</sub> , d (ft)	Width (ft)
Pr-1 Pr-7	Pr-1 Pr-2		10,019	0.23	9517.86 12153.24	95.0%	5%	5	0.70	6.27	<u>1.02</u> 0.78	9.43 9.43	2.20	0.83	11.62	2.22	0.92 15.32	3.24	Pr-3	Pr-3	2.87	0.00	2.87	3.00	0.42	0.52	25.00	0.50	75%	10.00	a21	0.00	0.08	0.00	0.21	2.99
Pr-3	Pr-3	CSAG	9,148	0.21	8232.84	90.0%	10%	5	0.68	6.27	0.89 0.75	9.43	1.49	0.80	11.62	1.96	0.89 15.32	2.87	PR - 3B	PR - 3B	2.32	0.00	2.32	3.00	0.42	0.52	25.00	0.50	75%	10.00	0.18	0.00	0.08	0.00	0.18	2.54
PR - 3	B PR-3B	CSAG	7,405	0.17	6664.68	90.0%	10%	5	0.68	6.27	0.72 0.75	9.43	1.21	0.80	11.62	1.59	0.89 15.32	2.32	Pr-7	Pr-7	2.96	0.00	2.96	3.00	0.42	0.52	25.00	0.50	75%	10.00	0.22	0.00	0,08	0.00	0.22	3.07
Pr-4 Pr-4	Pr-4 B Pr-4B	CGRD	8 2 7 6	0.27	10585.08	90.0%	10%	5	0.68	6.27	1.15 U.75 0.81 0.75	9.43 9.43	1.92	0.80	11.62	2.52	0.89 15.32	3.69	Pr-8	Pr-8	2.40	0.00	2,40	3.00	0.42	0.52	25.00	0.50	75%	10.00	0.19	0.00	0.08	0.00	0.19	2.61
Pr-5	Pr-5	CGRD	11,761	0.13	10585.08	90.0%	10%	5	0.68	6.27	1.15 0.75	9.43	1.92	0.80	11.62	2.52	0.89 15.32	3.69	Pr-10	Pr-10	10.45	0.00	10.45	3.00	0.42	0.52	25.00	0.50	7.5%	10.00	0.50	0.09	0.08		0.31	4.78
Pr-6	Pr-6	CGRD	8,276	0.19	7448.76	90.0%	10%	5	0.68	6.27	0.81 0.75	9.43	1.35	0.80	11.62	1.77	0.89 15.32	2.59	Pr-11	Dr-11	7 39	0.00	7 39	3.00	0.42	0.52	25.00	0.50	7586	10.00	0.40		0.08		0.31	4.78
Pr-7	Pr-7	CSAG CSAG	9,148	0.21	8690.22	95.0%	<u> </u>	5	0.70	6.27	0.93 0.78	9.43	1.55	0.83	11.62	2.03	0.92 15.32	2.96	Dr-12	Dr-12	4 09	0.00	4.09	3.00	0.42	0.52	25.00	0.50	75%	10.00			0.00		0.01	397
Pr-9	Pr-9	CSAG	31,799	0.17	28618.92	90.0%	10%	5	0.68	6.27	3.10 0.75	i 9.43	5.19	0.80	11.62	6.81	0.89 15.32	9.96	FI-12	F1-12		0.00		3.00	0.42	0.02	2.00	0.30	1,000		<u> </u>		0.00	<u> </u>	0.27	
Pr-1	) Pr-10	CSAG	35,719	0.82	28575.36	80.0%	20%	5	0.63	6.27	3.22 0.70	9.43	5.40	0.75	11.62	7.11	0.83 15.32	10.45			_															
Pr-1	L Pr-11	CSAG	25,265	0.58	20211.84	80.0%	20%	5	0.63	6.27	2.28 0.70	9.43	3.82	0.75	11.62	5.03	0.83 15.32	7.39								Curb In	lets in Sump C	alculation Sum	nmary: 25 yı	ear						
Pr-1	2 Pr-12	CSAG	13,068	0.30	11761.20	90.0%	10%	5	0.68	6.27	1.28 0.75	9.43	2.13	0.80	11.62	2.80	0.89 15.32	4.09							Inlat	Curbiopening			Clogging	Inlet	d .	d a				
Pr-1	<u>3 Pr-13</u>	GSAG	261,360	6.00	0.00	0.0%	100%	5	0.21	6.27	7.90 0.25	9.43	14.15	0.29	11.62	20.22	0.36 15.32	33.09	Drainage	•	Q <sub>25</sub>	Qpass	Qtotal	W	ninec		Street Width	Crown Height			Sweir -				Depth of Pondin	8 Ponded
Pr-1	+ Pr-14	GSAG	327,136	7.51	0.00	0.0%	100%	5	0.21	6.27	<u>9.89 0.25</u>	9,43	17.71	0.29	11.62	25.31	0.36 15.32	41.41	Area No.	Inlet No.	(cfs)	(cfs)	(cfs)		Depression, a	height, h			Factor	Length	Above S <sub>x</sub>	above S <sub>x</sub>	a		over S <sub>*</sub> v0 (ft)	Width (ft)
PR-13 8	<u>14 PK-13 &amp; 14</u> 5 PR-15	GSAG	588,496	13.51	0.00	0.0%	100%		0.21	6.27	$\frac{17.79}{0.50}$ 0.25	9.43	<u> </u>	0.29	11.62	45.54	0.36 15.32	74.50			10137	(	(5) 07	(ft)	(ft)	(ft)	(ft)	(%)	(%)	(ft)	(ft)	(ft)				
114-1				0.56	0.00						0.00 0.20	<u> </u>			1 11,02	1.2.5	0.00   10.02	2,10	Dr-3	Dr-3	196	0.00	1.96	3.00	0.42	0.52	25.00	0.54	7596	10.00	0.16	1 0 00	0.09		0.16	2.05

	Grate inlets in sump calculation Summary: 100 year														
Drainage Area No.	iniet No.	Q <sub>100</sub> Qpass Qtotal (cfs) (cfs) (cfs)		Qtotal (cfs)	W (ft)	L (ft)	Open Area (%)	Percent Clogged (%)	Effective Area (ft <sup>2</sup> )	Effective Perimeter (ft)	Q Max (cfs)	d <sub>weir</sub> (ft)	d <sub>orifice</sub> (ft)	Depth of Ponding, d (ft)	
Pr-13	Pr-13	33.09	0.00	33.09	5.00	5.00	0.75	50%	9.38	10.00	45.98	1.02	0.43	1.02	
Pr-14	Pr-14	41.41	0.00	41.41	5.00	5.00	0.75	50%	9.38	10.00	49.55	1.19	0.68	1.19	
PR-13 & 14	PR-13 & 14	74.50	0.00	74.50	5.00	5.00	0.75	50%	9.38	10.00	67.20	1.76	2.18	2.18	

	PR-1	13&14 PF	₹-13 & 14	74.50	0.00	74.50	5.00	5.00	0.75	-	00%	9.38	10.00	67.20	1.76	2.18	Z.	.⊥ð								0.00	0.00	0112
							Gra	ate Inlet	s in Sump	Calculatio	on Summa	ry: 25 year																
	Drainage Area No.     Inlet No.     Q25 (cfs)     Qpass (cfs)     Qtotal (cfs)     W								Open Ar (%)	ea Pe Clo	rcent E <sup>-</sup> ogged (%)	ffective E Area P (ft <sup>2</sup> )	ffective erimeter (ft)	Q Max (cfs)	d <sub>weir</sub> (ft)	d <sub>orifice</sub> (ft)	Depth of d	Ponding, (ft)										
	Р	r-13	Pr-13	20.22	0.00	20.22	5.00	5.00	0.75		50%	9.38	10.00	39.02	0.74	0.16	0.	.74										
	Р	r-1 <b>4</b>	Pr-14	25.31	0.00	25.31	5.00	5.00	0.75		50%	9.38	10.00	42.05	0.86	0.25	0.	.86										
	PR-1	13 & 14 PF	२-13 & 14	45.54	0.00	45.54	5.00	5.00	0.75		50%	9.38	10.00	51.14	1.27	0.82	1.	.27		_	_							
	Curb Inlets On Grade Calculation Summary: 100 year																											
Drainage Area No.	InletNo.	Q <sub>100</sub> (cfs)	Q <sub>pass</sub> (ɗs)	Q <sub>tatai</sub> (cfs)	Slope (%)	n		Ku	Street Width (ft)	Sx (%)	Crown Height (ft)	Inlet Depression a (ft)	у ко	K1	к	2	y0 (ft)	а	b	Flow Spread, T (ft)	H1 (ft)	H2 (ft)	Qa/La (dfs/ft)	Length (ft)	Qa	Q <sub>pess</sub> (cfs)	% Captured	Bypass to Inlet
Pr-1	Pr-1	3.24	0.00	3.24	1.35%	0.016	5 0	.560	25,00	4.50%	0.573	Q 42	2.85	0.50	) 3.0	03	0.34	0.0917	0.0037	4.60	0.76	0.42	0.80	10.00	7.99		100%	
Pr-2	Pr-2	4.23	0.00	4,23	1.35%	0.016	5 0	.560	25,00	4.50%	0.573	Q 42	2.85	0.50	) 3.0	03	0.38	0.0917	0.0037	5.16	0,79	0.42	0.83	10.00	8.32		100%	
Pr-4	Pr-4	3.69	0.00	3.69	1.35%	0.016	5 0	. 560	25.00	1.20%	0.573	Q 42	2.85	0.50	) 3.0	03	0.36	0.0917	0.0037	4.86	0.78	0.42	0.81	10.00	8.15		100%	
Pr - 4B	Pr - 48	2.59	0.00	2.59	1.35%	0.016	5 0	.560	25,00	1.20%	0.573	Q 42	2.85	0,50	) 3.0	03	0.32	0.0917	0.0037	4.19	0,74	0.42	0.77	10.00	7.73		100%	
Pr-5	Pr-5	3.69	0.00	3,69	1.35%	0.016	5 0	.560	25,00	4.50%	0.573	Q 42	2.85	0.50	) 3.0	03	0.36	0.0917	0.0037	4.86	0,78	0.42	0.81	10.00	8.15		100%	
Pr-6	Pr-6	2.59	0.00	2.59	1.35%	0.016	5 0	.560	25,00	4.50%	0.573	Q 42	2.85	0.50	) 3.0	03	0.32	0.0917	0.0037	4.19	0.74	0.42	0.77	10.00	7.73		100%	
												Cur	b Inlets On	Grade C	alculatio	on Sumr	nary: 25 ye	ear										
Drainage Area No.	InletNo.	Q <sub>25</sub> (cfs)	Q <sub>pass</sub> (đs)	Q <sub>total</sub> (cfs)	Slope (%)	n	ł	Ku	Street Width (ft)	Sx (%)	Crow Heigh (ft)	n Inle ht Depres au (ft	et <sup>:sion,</sup> K0 )	D	K1	K2	y0 (ft)	а	b	Flow Spread, T (ft)	H1 (ft)	H2 (ft)	Qa/La (cfs/ft)	Length (ft)	Qa	Q <sub>pass</sub> (cfs)	% Captured	Bypass to Inle
Pr-1	Pr-1	2.22	0	2.22	1.35%	0.016	. Ο.	560	25.00	4.50%	0.573	3 0.4	2 2.8	35	0.50	3.03	0.30	0.0917	0.0037	3.93	0.72	0.42	0.76	10.00	7.57		100%	
Pr-2	Pr-2	2.89	0	2.89	1.35%	0.016	α	560	25.00	4.50%	0.573	3 0.4	2.8	35	0.50	3.03	0.33	0.0917	0.0037	4.38	0.75	0.42	0.79	10.00	7.86		100%	
Pr-4	Pr-4	2.52	0	2.52	1.35%	0.016	α	560	25.00	1.20%	0.573	3 0.4	2 2.8	35	0.50	3.03	0.32	0.0917	0.0037	4.14	0.73	0.42	0.77	10.00	7.70		100%	
Pr - 4B	Pr - 48	1.77	0	177	1.35%	0.016	. α	560	25,00	1.20%	0.573	3 0.4	2 2.8	35	0, 50	3.03	0.28	0.0917	0.0037	3,59	0.70	0,42	0.73	10.00	7.34		100%	
Pr-5	Pr-5	2.52	0	2.52	1.35%	0.016	. α	560	25.00	4,50%	0.573	3 0.4	2.8	35	0, 50	3.03	0.32	0.0917	0.0037	4.14	0.73	0.42	0.77	10.00	7.70		100%	
Pr-6	Pr-6	1.77	0	1.77	1.35%	0.016	a a	560	25.00	4,50%	0.573	3 0.4	2 2.8	35	0.50	3.03	0.28	0.0917	0.0037	3,59	0.70	0.42	0.73	10.00	7.34		100%	

	curb infets in sump calculation summary: 25 year																
Drainage Area No.	Inlet No.	Q <sub>25</sub> (cfs)	Qpass (cfs)	Qtotal (cfs)	W	Inlet Depression, a	Curb opening height, h	Street Width	Crown Height	Clogging Factor	Inlet Length	d <sub>weir</sub> Above S <sub>8</sub>	d <sub>arifice</sub> above S <sub>x</sub>	а	b	Depth of Ponding over S <sub>x</sub> y0 (ft)	Ponded Width (ft)
					(ft)	(10)	(ft)	(ft)	(%)	(%)	(14)	(ft)	(ft)				
Pr-3	Pr-3	196	0.00	1.96	3,00	0.42	0.52	25.00	0, 54	75%	10.00	0.16	0.00	0.09	0.00	0.16	2.05
PR - 3B	PR - 3B	1.59	0.00	1.59	3,00	0.42	0.52	25.00	0, 54	75%	10.00	0.14	0.00	0.09	0.00	0.14	1.76
Pr-7	Pr-7	2.03	0.00	2.03	3,00	0.42	0.52	25.00	0,50	75%	10.00	0.17	0.00	0.08	0.00	0.17	2.30
Pr-8	Pr-8	164	0.00	1.64	3.00	0.42	0.52	25.00	0,50	75%	10.00	0.15	0.00	0.08	0.00	0.15	1.97
Pr-9	Pr-9	6.81	0.00	6.81	3.00	0.42	0.52	25.00	0, 50	75%	10.00	0.38	0.00	0.08	0.00	0.31	4,78
Pr-10	Pr-10	7.11	0,00	7.11	3,00	0.42	0.52	25.00	0, 50	75%	10.00	0.39	0.00	0.08	0.00	0.31	4,78
Pr-11	<b>P</b> r-11	5,03	0.00	5.03	3.00	0.42	0.52	25.00	0, 50	75%	10.00	0.31	0.00	0.08	0.00	0.31	4,72

![](_page_93_Figure_6.jpeg)

DIRECTION OF FLOW DRAINAGE AREA

- - - - 834 - - EXISTING MINOR CONTOUR - - - 835 - - EXISTING MAJOR CONTOUR

).15							
1.20	0.00	0.08	0.00	0.15	1.97		
720	0.00	0.08	0.00	0.31	4,78	1.1	
).39	0.00	0.08	0.00	0.31	4,78		
).31	0.00	0.08	0.00	0.31	4.72	U	
SITE FILE APPR CHAF EXPIF PROJ	PLAN APPRO NUMBER OVED ON PTER RATION DATE	/AL SP-2022-00 XX UN DF THE CITY (LDC 25-5- DN DATE (OF)	048D NDER SECTION OF AUSTIN ( -81) XX RD,#970905-	SHEET_43_OF_ APPLICATION_D, OF CODE CASE_MANAGER A) DWPZ	<u>116</u> ATE <u>02/14/20</u> ZACK LOFT( DDZ	LA LAREA WAP PL 22 DN DEBIG	DAK KNOLL DR PHASE I IMPROVE 6511 1/2 MCNEIL C AUSTIN, TRAVIS COUNTY
		Ň	- 11	/		DRAWI	N BY: <u>JS/IF</u>
	CTOR, DEVELO	PMENT SERV	/ICES DEPARTI	MENT	~~~	CHECK	KED BY: <u>JS/MG</u>
REVIS REVIS	510N 1 510N 2 510N 3			ZOINING           CTION 1           CTION 2           CTION 3			JVED BY: <u>MG</u>
Final   Subs	plat must b equent Site F of filing, and	e recoraed Plans which d all require	by the Projec do not comp d Building Pe	et Expiration Date, Iy with the Code over ermits and/or a no	ir applicable. current at the ptice of	<sup>©</sup> SHEET	<u>43</u> <sub>of</sub> 116
time							

Know what's below. Call before you dig.

MICHAEL A. GIANNET 16248

![](_page_94_Figure_0.jpeg)

![](_page_94_Figure_1.jpeg)

1+00

2+00

3+75

3+00

TWENTY PERCENT OF LOST.

	ри					·								<b>.</b>			
WETPOND CALC	R-4 ULATIO AT PERM	NS				-											DATE
OR DEVELOPMEN	II PERI	4113									A				++		
				Lege	end					1							B
				Notin Cor In Comp	mpliance pliance	-				IN G							
		20			any values	-			Q	60'	1	20'					
		8.75 29.25	acres	2440, SUM 5					S	SCALE: 1" = 6	60'	-					
		70.00% Yes	%					TERRA				]					
		0.509 Geomembran	e liner			-					<u>-3</u> . 2011 011	IFT					z
	2	12.00	in	12.00	in	-		STRUC	TURE, AND	) ALL HEA	DWALLS A	AT THE					
DNS		Required		Provided				WATER	RPROOF CO	ONCRETE							EVI
ND							2.			ONCRETE	SHALL CO	ONTAIN					R
DA) 2 * Rf * DA)	2	136,491 31,429	cf cf	230,737	cf	-		MANUF FOLLO	ACTURED	BY ONE O	OF THE						
2 * Rf * DA)	2	105,062 21,780	cf sf	49,077	হা		A.	HYCRE	TE, INC.								
	-			909.00	ft.misl	-	В.	XYPEX	CHEMICAI		RATION						
l	2	57,684 7,857	Cf	110,524 44,269			3.	COMPL	Y WITH MA		URER'S						
· 2.0 ft)	=	26,266 907.0	tt.msl	907.0	ft.m.sl			INSTRU MIX DE	JCTIONS R SIGN, AND	EGARDIN	G DOSAGI ATION.	E RATE,					
	2	78,807	cf	120,213	cí												
						-		-						(			
PA)	2	2,453.85 1472	sf plants	6,472.00 1550	sf plants		Elevation *	Depth	-orebay Cor Area	Avg. Area	iad + Buildin i Inc. Vol.	ng) Total Vol.	Total Vol.		¥-		
	2	225	individual	ls 225	individuals		Ft. msl 902.00	Ft. 0.00	8. F. 0.0	8.F.	C. F.	C. F.	A c. Ft. 0.00		V		
							903.00 904.00	1.00 2.00	10,787.0 12,799.0	5,393.5 11,793.0	5,393.5 11,793.0	5,393.5 17,186.5	0.12 0.39	Knov	w what he for a	it's belo	w. lia
ur storm				51.00 166,532	cfs cf	TOP OF BERM	905.00   906.00	3.00 4.00	14,916.0 17,156.0	13,857.5 16,036.0	13,857.5 16,036.0	31,044.0 47,080.0	0.71 1.08			s you c	ng.
h from bottom of mair	n pool) ≥	6.00	in	911.5 6.00	ftmisl in	= 907.00 PERM POOL	907.00 908.00	5.00 6.00	19,518.0 22,410.0	18,337.0 20,964.0	18,337.0 20,964.0	65,417.0 86,381.0	1.50 1.98			ם פ	
um 72 hours) 'X6' BOX	_ ≥	72	hrs	72	hrs	ELV. = 909.00	909.00	7.00	25,877.0	24,143.5	24,143.5	110,524.5	2.54				9
ULVERT	Г						Elevation *	Depth	Area	Forebay 1 Avg. Area	l Inc. Viol.	Total V ol.	Total Vol.		77		0 U
20'		7		IFALL STRU	JCTURE		Ft. msl 902.00	Ft.	S. F.	S.F.	C. F.	C. F.	A.c. Ft. 0.00			,	5 4 . 6
	$\bigcirc$		ACCESS	В НАТСН			903.00 904.00	1.00 2.00	4,010.0 4,903.0	2,005.0 4,456.5	2,005.0 4,456.5	2,005.0 6,461.5	0.05 0.15				с в В в
WEIR							905.00 906.00	3.00 4.00	5,840.0 6,839.0	5,371.5 6,339.5	5,371.5 6,339.5	11,833.0	0.27 0.42				2. 1.6
	$\overline{\parallel}$				ТС	OP OF BERM = 907.00	907.00	5.00 6.00	7,902.0	7,370.5	7,370.5	25,543.0	0.59 0.78				ים. מכ
3'X6' BOX 3'X6' BC CULVERT CULVE	RT 1	5°'			PERM	I POOL ELV. = 909.00	909.00	7.00	11,081.0	10,158.0 Forebay 2	10,158.0	44,269.5	1.02			<b>」</b>	צ ר
	TUR	E					Beviation *	Depth Ft	Area	Avg. Area	Inc.Vol.	Total Vol.	Total Vol. Ac Et			ם ה ב ה ה ב	с 1 1
_AN VIEW							902.00	0.00	6.777.0	0. F.			0.00			Z ≥ ⊐	— 止
-100-YEA	R WELV	= 916.80		-			904.00	2.00	7,896.0	7,336.5	7,336.5	10,725.0	0.06				
		) 3'X6' BOX (	JULVERIS	5	тс		905.00	4.00	9,076.0 10,317.0	8,480.0 9,696.5	9,696.5	28,907.5	0.44				
		4.0'					907.00	6.00 7.00	13,175.0	12,395.5	12,395.5	52,269.5	1.20				
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C.

# GEOMEMBRANE LINER FOR WATER QUALITY/DETENTION PONDS OAK KNOLL DRIVE – PHASE 1 IMPROVEMENTS 6511 MCNEIL DRIVE AUSTIN, TEXAS

Terracon Project No. 96205296 October 7, 2022

# PART 1: GENERAL

B

### 1.1 SECTION OVERVIEW

- Construction of a Geomembrane Liner for a water quality pond. A.
  - Installer shall provide a project specific submittal package that includes the following information:
  - -Product information for the geomembrane liner and other materials that will be used during the installation of the liner.
  - Product information for the geotextile fabric.
  - Manufacturer's installation guidelines and details outlining the requirements for the pond liner construction including (but not limited to) details for the seams, anchor trenches, pipe penetrations, terminations, etc.
  - A summary of the manufacturer required non-destructive and destructive testing to be performed on the liner and/or liner seams. This information should include the test method, testing frequency as well as the minimum required values for each test (if applicable).
  - Calibration information for any equipment that will be used for destructive and/or non-destructive testing of the liner or liner seams.
  - Any other information required by the Manufacturer or that may be required to observe and document liner installation for conformance with the Manufacturer's requirements
- The liner shall be installed following all applicable Manufacturer's details and installation C. guidelines.

### PART 2: MATERIAL AND INSTALLER

2.1 GEOMEMBRANE LINER AND GEOTEXTILE FABRIC

The liner shall have a minimum thickness of 30 mils and be ultraviolet resistant. A. В. The geomembrane liner shall be underlain and overlain by a layer of geotextile fabric, to protect the liner from puncture due to rocks or other substances within the soils.

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Construction QA/QC Plan – Geomembrane Liner Oak Knoll Drive – Phase 1 Improvements Austin, Texas October 7, 2022 
Terracon Project No. 96205296

- The Construction Testing Firm shall be present during protective soil cover placement and retaining wall construction activities which take place above the geomembrane liner. The purpose of these observations is to help visually identify obvious damage that may occur to the geomembrane liner as a result of either of these activities. Due to the presence of protective soil cover over the geomembrane liner, determination of the location and extent of damage to the geomembrane liner may be difficult to identify. The protection of the geomembrane liner from damage is ultimately the responsibility of the General Contractor, liner installation Subcontractor, and any other subcontractors who may perform work above the liner.
- C. It is the responsibility of the Manufacturer, General Contractor, the liner installation Subcontractor, and any other Subcontractors who may perform work above the liner, to identify and use appropriate low ground pressure construction equipment and construction methodology necessary to not exert pressures on the liner greater than those allowed by the Manufacturer.

### 3.4 FIELD QUALITY CONTROL

- A. The Installer and Construction Testing Firm shall document all geomembrane and fabric materials and installation, including any repairs/patches.
- All Manufacturer-required testing shall be performed by the Installer. The testing shall be B observed and documented by the Construction Testing Firm.
- C. The as-built thickness of the protective soil cover shall be determined by survey methods performed by the surveying department of the Project Civil Engineering Firm or a Professional Surveying Firm. Prior to the placement of any soil cover, the geomembrane/fabric surface shall be surveyed in a sufficient manner to establish an adequate number of data points on the pond bottom and sideslopes. Upon completion of the soil cover installation, and prior to the installation of subsequent elements such as plants, walls, ramps, etc., the top of the protective soil cover shall be surveyed at the same data point locations to ensure the specified thickness of soil cover has been achieved and the top of the soil cover is at the Civil Engineer's specified grades and slopes, within a tolerance of 0 to +0.2 feet. Areas that do not meet the specified thickness grades and slopes shall be corrected and resurveyed. The Surveyor shall use extreme caution to not damage the geomembrane liner when surveying for the protective soil cover.
- The selection of the data point locations and the subsequent surveys shall be performed D. by a Professional Surveyor registered in the State of Texas. At the end of pond construction, the Professional Surveyor shall prepare and seal a letter documenting the surveying services and the thickness of the protective soil cover, as also indicated in Item 6.1.C. This letter shall include a drawing indicating survey point locations and the elevations at each point prior to and after soil cover placement

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### PART 3: EXECUTION

### 3.1 PLACEMENT

A. Prior to fabric and liner placement, the subgrade shall be excavated and removed to the elevations established on the plans. Loose soils/rocks shall be removed from the excavation. If soil, the subgrade shall be scarified to a depth of 6 inches, moisture conditioned (as in Item 3.2.B) and recompacted. If the pond is overexcavated, the overexcavated areas may be filled with on-site soils compacted similarly to the subgrade soils up to the bottom elevation of the liner. No sharp rocks or other similar substances shall be present within the top one inch of the subgrade to be covered by the liner.

Groundwater control during excavation and construction of the liner is the responsibility of the Contractor. Groundwater control must be provided such that it results in a stable and dry subgrade that is conducive to proper liner compaction. Liners constructed below groundwater will require dewatering as necessary to allow construction of the liner. To prevent damage to the liner due to uplift pressures after termination of dewatering or during future maintenance, the liner must include placement of sufficient soil ballast or additional thickness of liner to resist any uplift pressures. Alternative designs to relieve liner uplift pressure (French drain, etc.) will be considered and must be approved by the Civil and Geotechnical Engineers. Appropriate measures such as perimeter and/or lateral interceptor trenches, sumps, and pumps shall be installed and maintained throughout construction, as needed.

The geotextile fabric shall be placed on top of the subgrade (below the liner) in accordance with the COA ECM and all Manufacturer's specifications and requirements.

D. The geomembrane liner shall be placed in accordance with all Manufacturer's specifications and requirements. All seams shall be overlapped, prepared and sealed in accordance with the Manufacturer's installation guidelines. All areas to be seamed shall be clean and free of moisture, dust, dirt, and other foreign materials. Seams should be placed parallel to the line of maximum slope. The location and orientation of seams is the responsibility of the General Contractor, installation Subcontractor, and the Manufacturer. The seams should be reviewed and evaluated by the Manufacturer to confirm that the

location/orientation will not adversely impact the performance of the liner. The geomembrane liner shall extend to a minimum elevation at least 6 inches above the design water quality elevation (or higher if the Civil design requires holding water at higher elevations for other purposes, such as re-irrigation).

The geomembrane liner shall abut all concrete ramps, inflow/outflow headwall structures, aprons, walls, and other miscellaneous structures within the pond interior. The geomembrane liner should be attached to concrete protrusions/structures as outlined in the Manufacturer's installation guidelines and details.

G. A second layer of geotextile fabric shall be placed on top of the liner in accordance with the COA ECM and all Manufacturer's specifications and requirements.

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Construction QA/QC Plan – Geomembrane Liner Oak Knoll Drive – Phase 1 Improvements Austin, Texas October 7, 2022 Terracon Project No. 96205296

![](_page_95_Picture_50.jpeg)

### PART 4: LINER PERFORATIONS

### 4.1 REPAIR/REMEDIATION

areas of the geomembrane liner that become punctured, perforated, or torn during struction (including those areas subjected to destructive testing, if any required by ufacturer), the areas shall be repaired as specified in the Manufacturer's repair ifications. These repair procedures may include patching, buffing/re-welding, spot ing/seaming, capping, and/or topping.

r to and during repairs, all surfaces shall be clean and dry.

hes or caps shall extend beyond the edges of the repair.

orners of repairs shall be rounded.

epairs shall be monitored and/or verified by the Manufacturer's Representative.

### PART 5: SAMPLING AND TESTING

### 5.1 TEST TYPES AND FREQUENCY

ubgrade materials, at least one (1) sample shall be obtained per soil type within the sed subgrade areas for testing of Atterberg Limits (ASTM D 4318), gradation (ASTM 2), and Moisture-Density Relationship (ASTM D 698). These samples shall be vated from exposed areas in the field in sufficient quantities to perform the 3 atory tests itemized above, placed in sample containers, and transported to the atory for testing. The excavated sample areas in the field shall be backfilled with ar subgrade materials or clay liner material, moisture conditioned, and compacted. ional samples shall be obtained as variations in material are observed.

ace density and moisture content by Nuclear Methods (ASTM D 6938) shall be rmed on all subgrade material at a minimum rate of one test per 5,000 square feet ft (or a minimum of 3 tests per lift).

s that do not meet the moisture or density specifications during initial testing shall be rked and retested until the material meets the specifications.

rial sampling and testing is not required where exposed limestone is encountered at rade elevations.

anufacturer's required non-destructive and destructive testing.

# PART 6: DOCUMENTATION

### 6.1 TEST REPORTS AND/OR SUMMARY LETTERS

A. The Construction Testing Firm shall be notified by the General Contractor to be on-site during any significant liner construction activities. The Construction Testing Firm shall issue

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Construction QA/QC Plan – Geomembrane Liner Oak Knoll Drive - Phase 1 Improvements - Austin, Texas October 7, 2022 - Terracon Project No. 96205296

- H. For areas where the geomembrane liner shall be placed along a vertical concrete wall, the geotextile fabrics are not required. For these areas, the geomembrane liner shall be attached to the concrete wall as directed in the Manufacturer's installation guidelines.
- Utilities with inlets/outlets below the design water quality elevation shall be completely backfilled with flowable backfill (City of Austin Standard Specifications Item 402) up to a minimum elevation equal to at least 6 inches above the design water quality elevation (or higher if the Civil design requires holding water at higher elevations for other purposes, such as re-irrigation).
- The Contractor should obtain and submit the Manufacturer's installation guidelines prior to the start of construction.

### 3.2 COMPACTION

- A. Compact the subgrade with properly ballasted penetrating pad-foot compactors. A minimum of 2 passes shall be required regardless of whether the subgrade meets density specifications. A pass is defined as one trip of the compacting equipment over the subgrade and back to the starting point by a single roller or one trip across the surface from one side to the other if the compacting equipment has front and back compacting rollers. This requirement is to allow thorough remolding of the soils by kneading action. The surface shall be compacted with a smooth-wheeled vibratory roller to provide a smooth finish to the subgrade.
- The subgrade, if soil, shall be compacted to at least 95 percent of the maximum dry density determined by the Standard Proctor Test, ASTM D 698. If the material classifies as a CH or CL in accordance with USCS with PI>20, the moisture content at the time of compaction shall be between optimum and +4 percentage points above the optimum moisture content. For all other soil materials, the moisture content at the time of compaction shall be between -3 and +3 percentage points above the optimum moisture content.

### 3.3 PROTECTION

A. After completion of geomembrane/geotextile placement, a protective soil cover with a minimum thickness of 12 inches shall be placed over all portions of the liner system to reduce possible damage to the liner from construction activities and future maintenance operations. No maintenance vehicles shall enter or be allowed above the geomembrane lined areas. If vehicular access is allowed, the protective soil cover must be increased to at least 24 inches thick. This protective soil cover (or topsoil) does not require field and laboratory testing; however, it does require a thickness survey as in Item 3.3.C. The protective soil cover shall not include any rocks larger than 3/8 inch in size. Compaction equipment shall not be used for the protective soil cover. A protective soil cover is not required in areas where a geomembrane liner is placed directly against a vertical concrete element.

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Construction QA/QC Plan – Geomembrane Liner Oak Knoll Drive – Phase 1 Improvements Austin, Texas October 7, 2022 
Terracon Project No. 96205296

> Daily Construction Reports indicating the work performed by the Contractor, the type of equipment used to perform stated work, the duties performed by the Construction Testing Firm Representative (field technician), a summary of test results (may reference a separate report), any non-conforming test results or areas in need of corrective action (may reference a separate report), the technician's name, date of report, and a reviewer's signature.

- At the completion of the geomembrane liner installation, the geomembrane liner installation Subcontractor and Manufacturer shall submit a certification letter documenting whether the liner installation complies with the Manufacturer's installation details and guidelines.
- After receipt of the Manufacturer's certification letter, a Geomembrane Liner Evaluation Report (GLER) shall be prepared and sealed by the Construction Testing Firm's Professional Engineer licensed in the State of Texas. This GLER letter shall summarize the types of tests performed and whether the results were in general conformance with the project plans and specifications. At a minimum, this letter report shall describe the subgrade preparation, liner placement, moisture/density control, test frequencies and results, and approximate test locations. This letter report shall refer to or include attachments of previous testing reports issued for the liner, including tests and letters submitted by the Installer or Manufacturer.
- As in Item 3.3.D, after pond construction is complete, the Professional Surveyor registered in the State of Texas shall prepare and seal a letter documenting the surveying services and the thickness of the protective soil cover. This letter shall include a drawing indicating survey point locations and the elevations at each point prior to and after liner/cover placement.
- Any requests for information or changes to design and/or construction items shall be prepared by the Pond Installation Contractor in the form of a Request for Information (RFI) and issued to the General Contractor, with copies to the Developer, the Geomembrane Manufacturer's Authorized Representative, the Civil Engineer, the Geotechnical Engineer, and the Construction Testing Firm.

### END OF SECTION

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	MICHAE	L A. GIANNETTA 116248
	EOMEMBRANE POND LINER QAQC PLAN PHASE II	OAK KNOLL DRIVE HASE I IMPROVEMENTS 6511 1/2 MCNEIL DR. 1STIN, TRAVIS COUNTY, TEXAS
SITE PLAN APPROVAL       SHEET 45 OF 116         FILE NUMBER       SP-2022-0048D       APPLICATION DATE 02/14/2022         APPROVED ON       XX       UNDER SECTION       112 OF         CHAPTER       25-5       OF THE CITY OF AUSTIN CODE       CASE MANAGER ZACK LOFTON         EXPIRATION DATE (LDC 25-5-81)       XX       CASE MANAGER ZACK LOFTON         PROJECT EXPIRATION DATE (ORD, #970905-A)       DWPZ       DDZ	DESIGN	
DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT RELEASED FOR GENERAL COMPLIANCEZONING REVISION 1CORRECTION 1 REVISION 2CORRECTION 2	DRAWN CHECKE APPROV	BY: <u>JS/IF</u> Ed By: <u>JS/MG</u> /ed by: <u>MG</u>
REVISION 2CORRECTION 2 REVISION 3CORRECTION 3 Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.	SHEET	<b>45<sub>0F</sub>116</b> 122-0048D

Know what's below.

Call before you dig.

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# LEGEND

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SITE PLAN APPROVAL

REVISION 1

REVISION 2

REVISION 3

 FILE NUMBER
 SP-2022-0048D
 APPLICAT

 APPROVED ON
 XX
 UNDER SECTION
 112
 OF

CHAPTER 25-5 OF THE CITY OF AUSTIN CODE

DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT

\_CORRECTION 1\_

\_CORRECTION 2\_ \_\_\_\_CORRECTION 3\_\_\_

RELEASED FOR GENERAL COMPLIANCE

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time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

![](_page_99_Figure_0.jpeg)

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time of filing, and all required Building Permits and/or a notice of

construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

> SHEET <u>49 of 116</u> SP-2022-0048D

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![](_page_100_Picture_2.jpeg)

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SITE PLAN APPROVAL       SHEET 50 OF 116         FILE NUMBER       SP-2022-0048D       APPLICATION DATE 02/14/2022         APPROVED ON       XX       UNDER SECTION       112 OF         CHAPTER       25-5 OF THE CITY OF AUSTIN CODE       CODE       CODE	LS	ā	A
EXPIRATION DATE (LDC 25-5-81)       XX       CASE MANAGER       CACK LOFION         PROJECT EXPIRATION DATE (ORD, #970905-A)       DWPZ       DDZ	DESIGN	ED BY:_	JS/IF
DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT	DRAWN	BY: _	<u>JS/IF</u>
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REVISION 1 CORRECTION 1	APPROV	ED BY:_	

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

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SHEET <u>50</u> of <u>116</u>

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![](_page_102_Figure_12.jpeg)

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time of filing, and all required Building Permits and/or a notice of

SHEET 52 of 116 construction (if a building permit is not required), must also be approved prior to the Project Expiration Date. SP-2022-0048D

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![](_page_103_Figure_4.jpeg)

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	WL	WATER LINE
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		METER/FIRE METER
		BACKFLOW PREVENTER

![](_page_103_Figure_6.jpeg)

SITE PLAN APPROVAL       SHEET 53_OF 116         FILE NUMBER       SP-2022-0048D       APPLICATION DATE 02/14/2022         APPROVED ON       XX       UNDER SECTION 112_OF         CHAPTER       25-5_OF THE CITY OF AUSTIN CODE       OF	STORM &	DHAD	AUSTI
EXPIRATION DATE (LDC 25-5-81)       XX       CASE MANAGER       ZACK LOFION         PROJECT EXPIRATION DATE (ORD, #970905-A)       DWPZ       DDZ	DESIGN	ED BY:	JS/IF
	DRAWN	BY:	JS/IF
DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT	СНЕСКЕ	D BY:	JS/MG
RELEASED FOR GENERAL COMPLIANCE       ZONING       XX         REVISION 1       CORRECTION 1       REVISION 2         REVISION 2       CORRECTION 2       REVISION 2	APPROV	ED BY:	MG
REVISION 3CORRECTION 3 Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of	SHEET	<u>53</u> _1	16
construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.	SP-20	22-00	148D

![](_page_104_Figure_0.jpeg)

SP-2022-0048D

prior to the Project Expiration Date.

![](_page_105_Figure_0.jpeg)

0s/204302.030 Research Park Subdivision Improvements/03\_ACAD/Plans/sh200230 DTSTRM.dwg, 54 DRAINAGE DETAILS, September 27, 2023, 8:27 PM, IFulgencio

REVISION 3 \_\_\_\_\_\_ CORRECTION 3 \_\_\_\_\_\_ Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

<sub>SHEET</sub> <u>55</u> ог<u>116</u> SP-2022-0048D

![](_page_106_Figure_0.jpeg)

![](_page_106_Figure_1.jpeg)

SCALE: 1" = 100'

# ABBREVIATION

- BW BOTTOM OF WALL EG - EXISTING GRADE
- FFE FINISHED FLOOR ELEVATION G - PROPOSED GRADE (GROUND)
- HP HIGH POINT
- SW SIDEWALK TC - TOP OF CURB
- TW TOP OF WALL
- GR GRATE ELEVATION

Know what's below.

Call before you dig.

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MICHAEL A, GIANNE<sup>-</sup>

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BC - BOTTOM OF CURB BTDC - BOTTOM OF TURN DOWN CURB

GRADING NOTES:

- 1. TOPOGRAPHIC INFORMATION IS TAKEN FROM AN ON THE GROUND TOPOGRAPHIC SURVEY PREPARED BY LANDDEV CONSULTING DATED BETWEEN JULY 31, 2021 AND SEPTEMBER 25, 2021.
- IF CONTRACTOR FINDS A DISCREPANCY WITH THE TOPOGRAPHIC INFORMATION ON THESE PLANS, HE/SHE SHOULD CONTACT THE CONSTRUCTION MANAGER/SUPERVISOR IMMEDIATELY.
- 3. EARTHWORK FOR ALL BUILDING FOUNDATIONS AND SLABS SHALL BE IN ACCORDANCE WITH ARCHITECTURAL BUILDING PLANS AND
- 4. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED AND GRADED TO DRAIN.
- 5. ANY TEMPORARY SPOILS STOCKPILE MUST BE LOCATED OUTSIDE OF ANY TREE DRIPLINES AND IN THE TEMPORARY SPOILS AREA DESIGNATED ON THE APPROVED PLANS. ALL SURPLUS MATERIAL WILL BE DISPOSED OF OFF
- 6. THE CONTRACTOR SHALL NOT DISPOSE OF SURPLUS EXCAVATED MATERIAL FROM THE SITE WITHOUT NOTIFYING THE CITY OF AUSTIN ENVIRONMENTAL INSPECTION AT (512) 974-2278 AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO THE REMOVAL. THIS NOTIFICATION SHALL INCLUDE THE DISPOSAL LOCATION AND A COPY OF THE PERMIT ISSUED TO RECEIVE THE MATERIAL.
- 7. ALL DEBRIS AND EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE IN A MANNER NOT TO DAMAGE THE OWNER PRIOR ACCEPTANCE OF THE
- ALL FILL MATERIAL WILL FOLLOW GEOTECHNICAL ENGINEERING REPORT (PERFORMED BY TERRACON CONSULTANTS, INC. ON DECEMBER 11, 2020) FOR PLACEMENT AND COMPACTION.
- 9. ALL SLOPES GREATER THAN 3 TO 1 SHALL BE STABILIZED BY RIP RAP OR OTHER APPROVED METHODS. EARTH SLOPES GREATER THAN 3 TO 1 WILL REQUIRE RECOMMENDATIONS FROM A GEOTECHNICAL ENGINEER.
- 10. ALL DESIGNATED ACCESSIBLE ROUTES AND ACCESSIBLE PARKING SPACES AS SHOWN ON THE SITE PLAN SHALL HAVE A MAXIMUM 2% CROSS SLOPE IN ALL DIRECTIONS.
- 11. GRADING WITHIN THE 1/2 CRITICAL ROOT ZONE OF ALL HERITAGE AND PROTECTED TREES, SHALL BE LIMITED TO LESS THAN 6 INCHES OF DISTURBANCE. NO GRADING ACTIVITY WITH DISTURBANCE OF MORE THAN 4 INCHES IS ALLOWED IN THE 1/4 CRITICAL ROOT ZONE.
- 12. GRADING WORK WITHIN THE  $\frac{1}{2}$  CRITICAL ROOT ZONE OF ALL HERITAGE TREES SHALL BE DONE BY HAND OR WITH RUBBER TIRED EQUIPMENT.
- 13. FINE GRADING DETAILS FOR THE AMENITIES/POOL AREA/COURTYARDS ARE PROVIDED IN LANDSCAPE/HARDSCAPE SHEETS.
- 14. ALL SPOT GRADE SHOWN ALONG CURB LINE ARE SHOWN AT PAVEMENT ELEVATION UNLESS OTHERWISE NOTED.
- 15. RETAINING WALLS OVER 4 FT OF HEIGHT WILL REQUIRE STRUCTURAL DESIGN AND BUILDING PERMIT SEPARATE FROM THESE PLANS.

16. REFER TO THE LANDSCAPE/HARDSCAPE SHEETS FOR THE DETAILED ELEVATIONS OF THE RETAINING WALLS, SIDEWALKS, RAMPS AND STEPS.

APPROVED ONXXUNDER SECTION12_OF         CHAPTER25-5_OF THE CITY OF AUSTIN CODE         EXPIRATION DATE (LDC 25-5-81)XXCASE MANAGER ZACK LOFTON         PROJECT EXPIRATION DATE (ORD, #970905-A)DWPZDDZ         DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT         RELEASED FOR GENERAL COMPLIANCEZONINGXX         REVISION 1CORRECTION 1         REVISION 2CORRECTION 2         REVISION 3CORRECTION 3         Final plat must be recorded by the Project Expiration Date, if applicable.         Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of	SITE PLAN APPROVAL       SHEET 56_OF 116 APPLICATION DATE 02/14/2022         FILE NUMBER       SP-2022-0048D	MASTER GRADIN PHASE II DAK KNOLL D PHASE I IMPROV 6511 1/2 MCNEII AUSTIN, TRAVIS COUN
PROJECT EXPIRATION DATE (ORD, #970905-A)DWPZDDZ       DURECTOR, DEVELOPMENT SERVICES DEPARTMENT         DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT       CHECKED BY: JS/M         RELEASED FOR GENERAL COMPLIANCEZONINGXX       CHECKED BY: JS/M         REVISION 1CORRECTION 1       CORRECTION 2         REVISION 2CORRECTION 2       CORRECTION 3         Final plat must be recorded by the Project Expiration Date, if applicable.       Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of	APPROVED ON XX UNDER SECTION 112 OF CHAPTER 25-5 OF THE CITY OF AUSTIN CODE EXPIRATION DATE (LDC 25-5-81) XX CASE MANAGER ZACK LOFTON	DESIGNED BY JS/IF
DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT RELEASED FOR GENERAL COMPLIANCEZONING XX REVISION 1CORRECTION 1 REVISION 2CORRECTION 2 REVISION 3CORRECTION 3 Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of BUILDANN DT CORRECTION 1 BUILDANN DT CHECKED BY: JS/M APPROVED BY: BHEET 56F116	PROJECT EXPIRATION DATE (ORD,#970905-A)DWPZDDZ	DRAWN BY: JS/IF
RELEASED FOR GENERAL COMPLIANCEZONING XX REVISION 1CORRECTION 1 REVISION 2CORRECTION 2 REVISION 3CORRECTION 3 Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of SHEET 56F116	DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT	
Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of	RELEASED FOR GENERAL COMPLIANCE       ZONING       XX         REVISION 1       CORRECTION 1         REVISION 2       CORRECTION 2	APPROVED BY: MG
construction (if a building permit is not required), must also be approved SP-2022-0048	Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date	<sub>SHEET</sub> <u>56</u> <sub>ог</sub> 116 SP-2022-0048D

![](_page_107_Figure_0.jpeg)






### ABBREVIATION

- BW BOTTOM OF WALL EG - EXISTING GRADE
- FFE FINISHED FLOOR ELEVATION G - PROPOSED GRADE (GROUND)
- HP HIGH POINT
- SW SIDEWALK TC - TOP OF CURB
- TW TOP OF WALL
- GR GRATE ELEVATION BC - BOTTOM OF CURB
- BTDC BOTTOM OF TURN DOWN CURB
- GRADING NOTES:
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- 7. ALL DEBRIS AND EXCESS MATERIAL SHALL BE REMOVED FROM THE SI A MANNER NOT TO DAMAGE THE OWNER PRIOR ACCEPTANCE OF THE PROJECT.
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- 16. REFER TO THE LANDSCAPE/HARDSCAPE SHEETS FOR THE DETAILED ELEVATIONS OF THE RETAINING WALLS, SIDEWALKS, RAMPS AND ST

D OF OFF MATERIAL MENTAL RIOR TO ATERIAL. SITE IN HE PORT , 2020) P OR 1 WILL SPACES SLOPE IN		CONSULTING, L 4201 WEST PARMER LN., SUITE C Austin, TX, 78727 Difice: 512.872.669 Firm No. 16384
E THAN 4 GE NT. RDS ARE IENT AL D FEPS	MICH	AEL A. GIANNETTA 116248 CENSED VOLLENG 9/27/2023
<u>6</u>	GRADING PLAN C PHASE II	DAK KNOLL DRIVE PHASE I IMPROVEMENTS 6511 1/2 MCNEIL DR. AUSTIN, TRAVIS COUNTY, TEXAS
<u>CK LOFTON</u> DDZ  	DESIG DRAWN CHECK APPRC	NED BY: <u>JS/IF</u> N BY: <u>JS/IF</u> CED BY: <u>JS/MG</u> JVED BY: <u>MG</u>
applicable. ent at the e of e approved	SHEET	59 <sub>0F</sub> 116

Know what's below.

Call before you dig.

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SITE PLAN APPROVAL SHEET 59 OF 116 FILE NUMBER SP-2022-0048D APPLICATION DATE 02/14/2022	0	
APPROVED ON XX UNDER SECTION 112 OF		
CHAPTER $25.5$ of the city of Austin Code		
EXPIRATION DATE (LDC 25-5-81) XX CASE MANAGER ZACK LOFTON	<u>I</u>	
PROJECT EXPIRATION DATE (ORD. $\#970905-A$ ) DWP7 DD7	DESIGN	ΕĽ
	DRAWN	Е
DIRECTOR DEVELOPMENT SERVICES DEPARTMENT		
BIREDION, BEVEEN MERT BERRIDED BEFRICHMENT	CHECKE	D
RELEASED FOR GENERAL COMPLIANCE ZONING XX		
	APPROV	Е
REVISION 2 CORRECTION 2		
REVISION 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	SHEET	2
time of filing, and all required Building Permits and/or a notice of		
prior to the Project Expiration Date.	SP-20	2











## LEGEND

EXISTING	PROPOSED		
835	835	MAJOR CONTOUR	
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		BOUNDARY EASEMENT	
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	0	LOW BANK SLOPED HEADWALL	
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	-	SERVICE	
	•	DOUBLE WASTEWATER SERVICE	SATE OF TEL
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(WVW)	F F	WASTEWATER	MICHAEL A. GIANNETTA スコート 116248 ・た
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SITE PLAN APPROVAL FILE NUMBER <b>SP-2022</b>	SF 2-0048D ΔF	HEET_62_OF_116_ PPLICATION_DATF_02/14/20	
APPROVED ON XX	UNDER SECTION 112	OF	≝≱ພັ∣ _
EXPIRATION DATE (LDC 25-	·5-81) XX CA	SE MANAGER ZACK LOFT	TON DESIGNED BY: JS/IF
FRUJEVI EXPIRATION DATE	עסטי,#איטאט-A)	UWP2 UU2	- DRAWN BY: JS/IF
DIRECTOR, DEVELOPMENT SE	ERVICES DEPARTMENT		
RELEASED FOR GENERAL CO	OMPLIANCE	ZONING XX	UHEUKED BY: JS/MI
REVISION 1 REVISION 2	CORRECTION	12	_ APPROVED BY: <u>MG</u>
REVISION 3 Final plat must be recorde	CORRECTION	3 iration Date, if applicable	- e.
Subsequent Site Plans which time of filing, and all requ	ch do not comply with ired Building Permits	n the Code current at th and/or a notice of	he SHEET <u>62 of 116</u>
construction (if a building	permit is not required tion Date	dna/or a notice of d), must also be approve	ed SP-2022-0048



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## LEGEND

EXISTING	PROPOSED			
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$\square$		BACKFLOW PREVENTER		
	<b>—</b>	FLUSH VALVE	Know	what's below.
	<b>_</b>	SINGLE WATER	Call b	efore you dig.
	C	SERVICE DOUBLE WATER		
		SERVICE		
$\equiv$ $\equiv$ $\equiv$ $(sd)$ $\equiv$ $\equiv$	SD	STORM LINE		
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	<b>●</b>	SERVICE		aralle the second second
		WASTEWATER SERVICE	S.A.	TE OF TETYS
$\rightarrow$		WASTEWATER LINE	MICHAE	EL A. GIANNETTA
	www	WASTEWATER MANHOLE	PR ROT	116248
c.o.	с.о. О	WASTEWATER CLEANOUT		VONAL ENG
				9/27/2023
		GRADE - CENTERLINE	4	(0)
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SITE PLAN APPROVAL	SF	EET 63 OF 116		
FILE NUMBER SP-2022- APPROVED ON XX	0048D AP	PLICATION DATE 02/14/2022 OF		LL `
CHAPTER <u>25-5</u> OF THE CI EXPIRATION DATE (LDC 25-3	TY OF AUSTIN CODE 5-81)XX CAS	- Se manager <b>ZACK LOFTON</b>	5	
PROJECT EXPIRATION DATE (	ORD,#970905-A)	DWPZ DDZ	DESIGN	IED BY: <u>JS/IF</u>
DIRECTOR. DEVELOPMENT SE	RVICES DEPARTMENT		DRAWN	BY: <u>JS/IF</u>
RELEASED FOR GENERAL CO	MPLIANCE	ZONING XX	CHECKE	ED BY: <u>JS/MG</u>
REVISION 1 REVISION 2	CORRECTION CORRECTION 2	2	APPRO	VED BY: <u>MG</u>
REVISION 3 Final plat must be recorded	CORRECTION CORRECTION CORRECTION CORRECTION CORRECTION CONTRACT	ration Date, if applicable.		
Subsequent Site Plans which time of filing, and all requi	n ao not comply with red Building Permits permit is not required	the Code current at the and/or a notice of ), must also be approved	SHEET	<u>م ا</u> ا <u>م</u> د م
prior to the Project Expirat	ion Date.	,,	SP-2C	122-0048D



SP-2022-0048D

prior to the Project Expiration Date.

DETAILS FOR POND PUMP



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



1

Scale: 1" = 80'-0"





— Tree Tag Number Approximate Critical Root Zone

Existing Tree to be Removed

/ Tree Tag Number — Approximate Critical Root Zone - Approximate  $\frac{1}{2}$  Critical Root Zone Existing Tree to Remain



/ Tree Tag Number Approximate Critical Root Zone - Approximate  $\frac{1}{2}$  Critical Root Zone Existing Heritage Tree to Remain

0' 40' 80'

160



Existing Tree Proposed to be Relocated eritage Tree Proposed to be Removed

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF HITCHCOCK DESIGN GROUP AND SHALL NOT BE REPRODUCED, PUBLISHED OR USED IN ANY WAY WITHOUT THE PERMISSION OF HITCHCOCK DESIGN GROUP

NOTE: BEWARE: UNDERGROUND UTILITIES IN PLACE, INCLUDING ELECTRICAL, GAS, WATER, SEWER, TELEPHONE, AND OTHERS. CONSULT PROJECT ENGINEER PRIOR TO CONSTRUCTION. ALL UTILITIES TO BE FLAGGED AND IDENTIFIED. LANDSCAPE CONTRACTOR RESPONSIBILITY.



1601 Rio Grande Street Suite 450 Austin, Texas 78701 T 512.770.4503 hitchcock**design**group.com



828 West 6th Street, Suite 300 Austin, TX 78703 512.899.3500 CONSULTANTS

	PROJECT
Research	Park
Oak	Knoll

6511 1/2 McNeil Dr. Austin, TX 78759



SITE DEVELOPMENT PERMIT September 27, 2023 REVISIONS



SKG

Tree Plan



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21	341	NUL TAC	*	89e10	Rei 13	DBH	NOTES
		829	x	<u>í</u>	Live Oak	42.9	Fair Condition
		830	х		Live Oak	36.3	Fair Condition
		834	х		Pecan	24.3	Fair, to be Relocated
		835	х		Live Oak	39.6	Good Condition
		836	х		Live Oak	43	Good Condition
	Μ	837	х	x	Pecan	34.5	Fair Condition, to be Removed
		838	х		Live Oak	23.5	Fair Condition, (Tag #9431 on Survey)
		1168	х		Live Oak	20	Good Condition
		1409	х	x	Live Oak	20	Poor Condition, recommend Removal
		4188	х		Live Oak	21	Fair Condition
		4192	х		Pecan	34.2	Fair Condition
	М	4200	х		Cedar Elm	22	Fair Condition
		4201	х		Pecan	29	Fair Condition
		4202	х		Pecan	22	Fair Condition
		4203	х		Pecan	23.5	Fair Condition
		4204	х		Live Oak	24	Fair Condition
	М	4206	х		Live Oak	23.5	Fair Condition
		4207	х		Live Oak	29	Good Condition
		4210	х		Live Oak	34	Fair Condition
	М	9423	х		Pecan	30.5	Good Condition
		9424	х		Pecan	15	
		9425	х		Live Oak	36	Fair Condition
	М	9426	х		Pecan	36	Fair Condition
		9427	х	x	Pecan	22	Poor Condition, recommend Removal
		9430	х	x	Pecan	26.5	Dead, Remove
		9432	х	x	Hackberry	12	Poor Condition, recommend Removal
		9433	х	x	Live Oak	20	
		9501	х		Live Oak	9	Good Condition
	М	9502			Chinese Elm	16	Fair Condition
		9504	х		Cedar Elm	14	Fair Condition
		9515	х		Live Oak	20.5	Fair Condition
		9516	х		Live Oak	11.5	Fair Condition
		9517	х		Live Oak	10	Fair Condition
	М	9521	х		Pecan	26	Fair Condition
		9522	х		Pecan	16	Fair Condition
		9523	х		Pecan	18	Fair Condition
		9528	х	х	Pecan	15	Good Condition
		9529	х		Pecan	18	Good Condition

SITE PLAN APPROV	AL		SHEET	100	OF	115
FILE NUMBER SF	-2022-00	48D APP	LICATION	DATE	02/14	/2022
APPROVED BY COM	MISSION ON	XX	UNDER	SECTION	11	2
CHAPTER <b>25-5</b>	OF THE CITY	OF AUSTI	N CODE.			
EXPIRATION DATE	(25-5-81,LDC)	XX	_CASE M	ANAGER	ZACK	LOF
PROJECT EXPIRAT	ON DATE (OR	D.#970905-A	A)	DWPZ	DI	DZ
Rev	NEKAL COMP	Correctio	n 1	ZONING	: <b>^</b>	^
Rev.		Correctio	m 2			
Rev		Correctio	n 3			
Final plat must be rec	orded by the Pro	ject Expirati	on Date, if a	applicable. S	ubseque	nt Site
Plans which do not co	mply with the Co	ode current a	t the time of	filing, and a	ıll requii	red
Puilding Domit and/o	n a notice of con	struction (if	a huildina n	armit is not i	roquirod	must

NOTES LEGEND

PHASE 1 REPLACEMENT TREES	REQUIRED			PROVIDED	
(ALL NUMBERS REPRESENT QTY OF INCHES)	179.00			0.00	
TOTAL TO BE MITIGATED	0				
HERITAGE TREES, 30" +	34.50	(at 300%)	=	103.50	
HERITAGE TREES, 24" - 30"	0.00	(at 300%)	=	0.00	
19" AND GREATER, APDX-F TREES	62.00	(at 100%)	=	62.00	
8" - 18.9", APDX-F TREES	27.00	(at 50%)	=	13.50	
19"+, NON-APDX-F TREES	0.00	(at 50%)	=	0.00	
8" - 18.9", NON-APDX-F TREES	0.00	(at 25%)	=	0.00	
<8" APDX-F TREES	0.00	(at 0%)	=	0.00	
<8" NON-APDX-F TREES	0.00	(at 0%)	=	0.00	
INVASIVES	0.00	(at 0%)	=	0.00	
TOTAL TO BE REPLACED:					_
NUMBER & SIZE OF REPLACEMENT TREE		TREES AT 6	"CALIPER	0	
NUMBER & SIZE OF REPLACEMENT TREE		TREES AT 4	"CALIPER	0	
NUMBER & SIZE OF REPLACEMENT TREE		TREES AT 3	"CALIPER	0	
NUMBER & SIZE OF REPLACEMENT TREE		TREES AT 2	"CALIPER	0	
SIGNIFICANT SHADE TREES (75% OF TOTA	L)			0	
ISLANDS, MEDIANS, AND PENNINSULAS	REQUIRED			PROVIDED	1
STREET YARD AREA	9	S.F.			S.F
NON-STREET YARD AREA	5	S.F.			S.F

	TREE LIST/MITIGATION CALCUATIONS - PHASE 1																
																	-
										r	TR	EES REMO	/ED				-
								Herita	ge Trees		EC	CM 3.5.1 (A)	(2) - Tree Ty	pe Categor	ies		<b>_</b>
	STACE OF WAT RUNK OF ANT F. OF	sive		CAL	CAL	CAL	CAL	HERITAGE	HERITAGE	APDX-F	APDX-F	NON- APDX-F	NON- APDX-F	APDX-F	NON- APDX-F		
X	\$ 410 A10 100 100 100 100	SPECIES D	DBH	2	3	4	5	30"+	24"+	19" & UP	8" - 18.9"	19" & UP	8" - 18.9"	<8"	<8"	INVASIVE	NOTES
Н	829 x Li	ve Oak 4	42.9														Fair Condition
Н	830 x Li	ve Oak 3	36.3														Fair Condition
Н	834 x P	ecan 2	24.3														Fair, to be Relocated
Н	835 x Li	ve Oak 3	39.6														Good Condition
Н	836 x Li	ve Oak	43														Good Condition
Н	M 837 x x P	ecan 3	34.5					34.5									Fair Condition, to be Removed
	838 x Li	ve Oak 2	23.5														Fair Condition, (Tag #9431 on Survey)
	1168 x Li	ve Oak	20														Good Condition
	1409 x x Li	ve Oak	20							20							Poor Condition, recommend Removal
	4188 x Li	ve Oak	21														Fair Condition
Н	4192 x P	ecan 3	34.2														Fair Condition
	M 4200 x C	edar Elm	22														Fair Condition
Н	4201 x P	ecan	29					ř.									Fair Condition
	4202 x P	ecan	22					й. 1)			1) 1.						Fair Condition
	4203 x P	ecan 2	23.5														Fair Condition
Н	4204 x Li	ve Oak	24														Fair Condition
	M 4206 x Li	ve Oak 2	23.5														Fair Condition
Н	4207 x Li	ve Oak	29														Good Condition
Н	4210 x Li	ve Oak	34														Fair Condition
Н	M 9423 x P	ecan 3	30.5														Good Condition
	9424 x P	ecan	15														
Н	9425 x Li	ve Oak	36					-									Fair Condition
Н	M 9426 x P	ecan	36														Fair Condition
	9427 x x P	ecan	22							22							Poor Condition, recommend Removal
Н	9430 x x P	ecan 2	26.5						0								Dead, Remove
	9432 x x H	ackberry	12								12						Poor Condition, recommend Removal
	9433 x x Li	ve Oak	20							20							
	9501 x Li	ve Oak	9														Good Condition
	M 9502 C	hinese Elm	16														Fair Condition
	9504 x C	edar Elm	14						-								Fair Condition
	9515 x Li	ve Oak 2	20.5														Fair Condition
	9516 x Li	ve Oak 1	11.5														Fair Condition
	9517 x Li	ve Oak	10														Fair Condition
Н	M 9521 x P	ecan	26											-			Fair Condition
	9522 x P	ecan	16														Fair Condition
	9523 x P	ecan	18														Fair Condition
	9528 x x P	ecan	15								15						Good Condition
	9529 x P	ecan	18														Good Condition
				Total	caliper inch	n removed per c	ategory	34.5	0	62	27	0	0	0	0	0	
					Grand Tota	l Caliper Inch Re	emoved					123.5	1			<u>.</u>	1
		Ci+	ty of Au	stin Mini	imum Ronl	acement rents		300%	300%	100%	50%	50%	25%	0%	0%	0%	4
		ch	.y si Au		Subto	tal Benlacemon	t Inches	103.5	0	62	13.5	0	0	070	070	0,0	1
				To	tal Replace	ement (caliner	inches)	103.5		02	10.0	179	v		1	1	1
						ennene (eanper						175					1
	NOTES LEGEND																

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NOTES LEGEND
Existing Tree Proposed to be Relocated
Heritage Tree Proposed to be Removed

Inches to be mitigated into Urban Forest	179
Mitigation Fee Amount	\$200.00
Mitigation Fee Total	\$35,800.00
Silva Cell Cost Estimate	
Total Mitigation Fee to be Paid	\$35,800.00

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<b>GROUP</b> creating <b>better</b> places

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# PREPARED FOR



828 West 6th Street, Suite 300 Austin, TX 78703 512.899.3500 CONSULTANTS

PROJECT

# **Research Park** Oak Knoll

6511 1/2 McNeil Dr. Austin, TX 78759



SITE DEVELOPMENT PERMIT September 27, 2023 REVISIONS



SHEET TITLE

SKG

Phase 1 Tree Mitigation Calcs



Urban Forestry Accounting Summary	
Surveyed	
Total Appendix F tree inches surveyed	902.3
Heritage tree inches surveyed	525.8
Non-Appendix F tree inches surveyed	16
Invasive tree inches surveyed	0
Removed	
Total Appendix F tree inches removed	150
Heritage tree inches removed	61
Non-Appendix F tree inches removed	0
Invasive tree inches removed	0
Total DDI tree inches removed	27
DDI Appendix F tree inches removed	0
DDI Heritage tree inches removed	27
DDI Non-Appendix Finches removed	0
DDI Invasive inches removed	0
Mitigation	
Total mitigation replacement inches planted	0
Total replacement inches planted on site (Private Trees)	0
Total replacement ROW inches planted	0
rivate inches owed to Urban Forest Replenishment Fund	179
Public inches owed to Urban Forest Replenishment Fund	0
Total non-mitigation inches planted on site	0

FOR CITY USE ONLY:	
SITE PLAN APPROVAL FILE NUMBER <b>SP-2022</b> APPROVED BY COMMISSION	SHEET         101         OF         115           -0048D         APPLICATION DATE         02/14/2022           ION         XX         INDER SECTION         112         OF
CHAPTER <b>25-5</b> OF THE	CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,L	DC) XX CASE MANAGER ZACK LOFTON
PROJECT EXPIRATION DATE	(ORD.#970905-A)DWPZDDZ
Director, Development Services I RELEASED FOR GENERAL CO Rev	Department DMPLIANCE: ZONING: XX Correction 1 Correction 2
Rev.	Correction 3
Final plat must be recorded by the Plans which do not comply with the Building Permit and/or a notice of be approved prior to the Project I	e Project Expiration Date, if applicable. Subsequent Site he Code current at the time of filing, and all required of construction (if a building permit is not required), must also Expiration Date.



NOTE: BEWARE: UNDERGROUND UTILITIES IN PLACE, INCLUDING ELECTRICAL, GAS, WATER, SEWER, TELEPHONE, AND OTHEI ENGINEER PRIOR TO CONSTRUCTION. ALL UTILITIES TO BE FLAGGED AND IDENTIFIED. LANDSCAPE CONTRACTOR RE



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**Research Park** Oak Knoll

6511 1/2 McNeil Dr. Austin, TX 78759



SITE DEVELOPMENT PERMIT September 27, 2023



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SP-2022-0048D

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È/	NUL AC	* A	88°/	Per 10 SPECIES	DBH	NOTES				
	829	x .		Live Oak	42.9	Fair Condition	1			
	830	x		Live Oak	36.3	Fair Condition	1			
	834	x		Pecan	24.3	Fair, to be Relocated				
_	835	x		Live Oak	39.6	Good Condition	1			
	836	x		Live Oak	43	Good Condition	-			
-	838	x		Live Oak	23.5	Eair Condition	-			
	1168	x		Live Oak	20	Good Condition	r.			
_	4188	x		Live Oak	21	Eair Condition	-			
_	4192	x		Pecan	34.2	Fair Condition	-			
М	4200	x		Cedar Elm	22	Fair Condition	-			
	4201	x		Pecan	29	Fair Condition	-			
	4202	x	x	Pecan	22	Fair Condition, to be Belocated	-			
	4203	x	x	Pecan	23.5	Fair Condition, to be Relocated	d			
	4204	x	~	Live Oak	24	Fair Condition, to be Relocated	1			
М	4206	x		Live Oak	23.5	Fair Condition, to be Relocated	1			
1000	4207	x		Live Oak	29	Good Condition				
M	4210	x		Live Oak	34	Fair Condition, to be Relocated				
M	M 9423 x Pecar				30.5	Good Condition	1			
	9424	x		Pecan	15		-			
	9425 x Live O				36	Fair Condition	-			
Μ	M 9426 x Pecan				36	Fair Condition				
	9501 x Live Oak				9	Good Condition	1			
	9501 x Live Oak 9502 x Chinese Eli				16	Fair Condition	1			
	9504	х	х	Cedar Elm	14	Fair Condition	1			
	9515	х	х	Live Oak	20.5	Fair Condition	1			
	9516	х	x	Live Oak	11.5	Fair Condition				
	9517	х	x	Live Oak	10	Fair Condition				
М	9521	х		Pecan	26	Fair Condition, to be Relocated				
	9522	х	x	Pecan	16	Fair Condition				
	9523	х	x	Pecan	18	Fair Condition	]			
	9529	х		Pecan	18	Good Condition				
N	OTESIE	GEN	D	F	OR CITY	USE ONLY:	-			
e Pr	roposed	to b	e Relo	ocated	SITE PLAN FILE NUMI APPROVEI CHAPTER EXPIRATIO PROJECT E	APPROVAL SHEET 103 BER SP-2022-0048D APPLICATION DATE D BY COMMISSION ON XX UNDER SECTION 25-5 OF THE CITY OF AUSTIN CODE. DN DATE (25-5-81,LDC) XX CASE MANAGEI EXPIRATION DATE (ORD.#970905-A) DWPZ	OF 115 02/14/2022 N 112 OF R ZACK LOFTON			
iali Duc Oci	- REMAI ED, PU K DESIG	N TH BLIS N GI	ie pr Hed ( Roup	OPERTY OR USED	Director, De RELEASED Rev Rev Rev	velopment Services Department D FOR GENERAL COMPLIANCE:ZONIN Correction 1 Correction 2 Correction 3 Correction 3 Correction 3 Correction 2	NG: <b>XX</b>			
ERS. RESF	CONS PONSIBI	ULT I LITY	//// PROJ	ECT	F inai plat m Plans which Building Per be approved	usi be recoraed by the Project Expiration Date, if applicable do not comply with the Code current at the time of filing, an rmit and/or a notice of construction (if a building permit is no prior to the Project Expiration Date.	<ul> <li>subsequent Site</li> <li>all required</li> <li>ot required), must also</li> </ul>			

\_\_\_\_\_

PHASE 2 REPLACEMENT TREES	REQUIRED		
(ALL NUMBERS REPRESENT QTY OF INCHES)	104.75		
TOTAL TO BE MITIGATED	0		
HERITAGE TREES, 30" +	0.00	(at 300%)	=
HERITAGE TREES, 24" - 30"	0.00	(at 300%)	=
19" AND GREATER, APDX-F TREES	66.00	(at 100%)	=
8" - 18.9", APDX-F TREES	69.50	(at 50%)	=
19"+, NON-APDX-F TREES	0.00	(at 50%)	=
8" - 18.9", NON-APDX-F TREES	16.00	(at 25%)	=
<8" APDX-F TREES	0.00	(at 0%)	=
<8" NON-APDX-F TREES	0.00	(at 0%)	=
INVASIVES	0.00	(at 0%)	=
TOTAL TO BE REPLACED:			
NUMBER & SIZE OF REPLACEMENT TREE	0	TREES AT 6	" CALIPER
NUMBER & SIZE OF REPLACEMENT TREE	35	TREES AT 4	" CALIPER
NUMBER & SIZE OF REPLACEMENT TREE	0	TREES AT 3	" CALIPER
NUMBER & SIZE OF REPLACEMENT TREE	0	TREES AT 2	" CALIPER
SIGNIFICANT SHADE TREES (75% OF TOTAL)	)		
ISLANDS, MEDIANS, AND PENNINSULAS	REQUIRED		
STREET YARD AREA		S.F.	
NON-STREET YARD AREA		S.F.	

Interview										TRE	E LIST/MITIG		CALCUAT	IONS - PH	ASE 2							]
THEES REMOVED           List of the second secon																						
Heritage Trees         ECM 3.5.1 (A)(2)         Tree Type Categories           H         Rest         CAL																TR	FES REMO	/FD				1
Image field													Heritad	ne Trees		FC	M 3.5.1 (A)	(2) - Tree Tv	ne Catego	ries		1
Image: Problem	3			1 1	/	/	111		2				Tierita					( <u>_</u> ) nee i j	pe categoi			
$V_{1}$ $V_{2}$ <		/ SCH	15	WATRUNK	1	itt?	nove ve										NON-	NON-		NON-		
H          829         x         Lucok         420         x         Lucok         420         x         Fair Condition           H          834         x          Perm         243         x         Perm         243         x         Perm         243         x         Perm         243         x         Perm         243         x         Perm         243         x         Perm         243         x         Perm         243         x         Perm         243         x         Perm         243         x         Perm         243         x         Perm         243         x         Perm         243         x         Perm         243         x         Perm         243         x         Perm         243         X         Perm         243         X         Perm         243         X         Perm         243         X         Perm         243         Z         Perm         243         Perm	HE	1) RIC		NUL TACK	APPer	oper	WAS SPECIES	DBH	CAL 2	CAL 3	CAL 4	CAL 5	HERITAGE 30"+	HERITAGE	APDX-F 19" & UP	APDX-F 8" - 18.9"	APDX-F 19" & UP	APDX-F 8" - 18.9"	APDX-F <8"	APDX-F <8"	INVASIVE	NOTES
H         I         N30         X         I         Live Okh         36.3         V         A         V         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C        <	н			829 x			Live Oak	42.9														Fair Condition
H         I         834 x         I         Pecan         243         Pecan </td <td>Н</td> <td></td> <td></td> <td>830 x</td> <td></td> <td></td> <td>Live Oak</td> <td>36.3</td> <td></td> <td>Fair Condition</td>	Н			830 x			Live Oak	36.3														Fair Condition
H         S         835         X         Ue Oak         39.6         C         C         C         C         C         C         Good Condition           H         S         835         X         Ue Oak         435         X         Ue Oak         235         X         Image: Condition         Condition           R         R         K         Ue Oak         235         Z         Image: Condition         Image: Condition         Image	Н			834 x			Pecan	24.3														Fair, to be Relocated
H         S36         X         Live Oak         43         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         Live Oak         21         M         M         M         M         M         M         M         Live Oak         21         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M         M	Н			835 x			Live Oak	39.6														Good Condition
Image: Mark Mark Mark Mark Mark Mark Mark Mark	Н			836 x			Live Oak	43														Good Condition
Row         1168         x         L         Ue Oak         20         Image of the second of				838 x			Live Oak	23.5										2				Fair Condition
Image: Mark Mark Mark Mark Mark Mark Mark Mark	F	ROM		1168 x			Live Oak	20														Good Condition
H         ROW         4192         x         4         Pecan         34.2         Image: Condition         Fair Condition           ROW         4200         x         2         Condition         22         Image: Condition         Condition         Fair Condition           ROW         4202         x         2         Condition         29         Image: Condition         Condition         Condition         Condition         Condition           ROW         4202         x         2         Pecan         23.5         Image: Condition         <				4188 x			Live Oak	21														Fair Condition
ROW         M         4201         x         C         Cedar Elm         22         C         C         C         C         C         C         Fair Condition           H         ROW         4201         x         x         Pecan         22         C         C         C         C         C         C         Fair Condition           ROW         4201         x         x         Pecan         22         C         C         C         Fair Condition         Fair C	ΗF	NON		4192 x			Pecan	34.2								- -						Fair Condition
H       ROW       4201       x       v       Pecan       29       Image: Condition       Cond	F	NON	М	4200 x			Cedar Elm	22										5				Fair Condition
	ΗF	NON		4201 x			Pecan	29										~				Fair Condition
ROW       4203       x       x       Pecan       23.5       C       C       C       Fair Condition, to be Relocated         H       ROW       4204       x       Live Oak       23.5       C       C       C       C       C       Fair Condition, to be Relocated         ROW       M       4206       x       Live Oak       23.5       C       C       C       C       C       C       Fair Condition, to be Relocated         H       ROW       4206       x       Live Oak       23.5       C       C       C       C       C       C       Fair Condition, to be Relocated         H       ROW       4206       x       Live Oak       23.5       C       C       C       C       C       C       C       Fair Condition, to be Relocated         H       M       9423       x       Live Oak       34       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C       C <td>F</td> <td>NON</td> <td></td> <td>4202 x</td> <td>x</td> <td></td> <td>Pecan</td> <td>22</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>22</td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td>Fair Condition, to be Relocated</td>	F	NON		4202 x	x		Pecan	22							22		-					Fair Condition, to be Relocated
H       ROW       4206       x       v       Live Oak       24.0       x       v       Live Oak       23.5       v       v       v       v       v       v       v       Fair Condition, to be Relocated         H       NOW       4207       x       v       Live Oak       23.5       v       v       v       v       Good Condition, to be Relocated         H       NOW       4207       x       v       Live Oak       23.4       v       v       Live Oak       34       v       v       v       v       Good Condition, to be Relocated         H       NM       4217       x       v       Live Oak       34       v       v       v       v       N       Good Condition, to be Relocated         H       M       9423       x       v       Pecan       35.5       v       v       v       V       V       V       Good Condition, to be Relocated         H       M       9425       x       V       Pecan       36       v       v       v       v       Good Condition         H       M       9426       x       V       Live Oak       36       V       V       V       V<	F	NON		4203 x	x		Pecan	23.5							23.5							Fair Condition, to be Relocated
NOW       M       A206       x       Live Oak       23.5       Image: Condition of the Relocated         H       ROW       4207       x       Live Oak       23.5       Image: Condition of the Relocated         H       ROW       4201       x       Live Oak       34       Image: Condition of the Relocated       Image: Condition of the Relocated         H       ROW       M       9423       x       Pecan       30.5       Image: Condition of the Relocated       Image: Condition of the Relocated         H       M       9424       x       Pecan       30.5       Image: Condition of the Relocated       Image: Condition of the Relocated         H       0       9425       x       Pecan       30.5       Image: Condition of the Relocated       Image: Condition of the Relocated         H       0       9425       x       Pecan       36       Image: Condition of the Relocated       Image: Condition of the Relocated         H       0       9426       x       Pecan       36       Image: Condition of the Relocated       Image: Condition of the Relocated         Image: Condition       Pecan       36       Image: Condition       Image: Condition       Image: Condition       Image: Condition       Image: Condition         Ima	HF	ROW		4204 x			Live Oak	24														Fair Condition, to be Relocated
H       ROW       4 207       x       Live Oak       29       Image: Constraint of the co	F	NON	Μ	4206 x			Live Oak	23.5														Fair Condition, to be Relocated
H       ROW       M       94210       x       Live Oak       34       Image: Condition on the Relocated         H       M       9423       x       Pecan       30.5       Image: Condition on the Relocated         H       M       9423       x       Pecan       30.5       Image: Condition on the Relocated         Image: Condition       Pecan       15       Image: Condition       Pecan       15       Image: Condition       Image: Condition       Image: Condition         H       Image: Condition       Pecan       15       Image: Condition       Image: Condition       Image: Condition       Image: Condition         H       M       9425       x       Image: Condition       Image: Condition       Image: Condition       Image: Condition         H       M       9426       x       Image: Condition       Image: Condition       Image: Condition       Image: Condition         Image: Condition       Image: Condition       Image: Condition       Image: Condition       Image: Condition       Image: Condition       Image: Condition         Image: Condition       Image: Condition       Image: Condition       Image: Condition       Image: Condition       Image: Condition       Image: Condition         Image: Condition       Image: C	ΗF	ROM		4207 x			Live Oak	29														Good Condition
H       M       9423       x       V       Pecan       30.5       V       I       C       I       C       I       God Condition         I       M       9424       x       V       Pecan       15       V       I       I       I       God Condition         H       M       9424       x       V       Pecan       15       V       I       I       I       Pecan       36       I       I       I       I       Pecan       36       I       I       I       I       Pecan       36       I       I       I       I       I       I       I       Pecan       36       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I <td>HF</td> <td>NON</td> <td>Μ</td> <td>4210 x</td> <td></td> <td></td> <td>Live Oak</td> <td>34</td> <td></td> <td>Fair Condition, to be Relocated</td>	HF	NON	Μ	4210 x			Live Oak	34														Fair Condition, to be Relocated
Image:	Н		М	9423 x			Pecan	30.5				_					-					Good Condition
H       9425       x       Live Oak       36       G       G       G       G       G       Fair Condition         H       M       9426       x       V       Pecan       36       C       C       C       C       C       G       Fair Condition         V       9501       x       V       Live Oak       9       C       C       C       C       C       C       C       Good Condition         V       9501       x       V       Live Oak       9       C       C       C       C       C       C       C       Good Condition         V       9501       x       x       Chinese Elm       16       C       C       C       16       C       Fair Condition         V       9504       x       x       Chinese Elm       14       C       C       20.5       C       C       14       C       C       20.5       C       Fair Condition         V       9515       x       x       Live Oak       10.5       C       C       C       Fair Condition         V       9517       x       x       Live Oak       10       C       C				9424 x			Pecan	15	-								-					
H       9426       x       v       Pecan       36       o       o       o       o       o       o       fair Condition         I       V       9501       x       V       Iwe Oak       9       Image       Image <td>Н</td> <td></td> <td></td> <td>9425 x</td> <td></td> <td>_</td> <td>Live Oak</td> <td>36</td> <td>57.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>c</td> <td></td> <td></td> <td></td> <td>Fair Condition</td>	Н			9425 x		_	Live Oak	36	57.							-		c				Fair Condition
Image: Section of the section of th	н		М	9426 x		_	Pecan	36				9										Fair Condition
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9515xxxxLive Oak20.5xxFair Condition9516xxxLive Oak11.511.5Fair Condition19517xxxLive Oak1010Fair ConditionHM9521xxPecan2616Fair Condition09522xxxPecan1616Fair Condition09523xxxPecan1818 </td <td></td> <td></td> <td></td> <td>9504 x</td> <td>X</td> <td>_</td> <td>Cedar Elm</td> <td>14</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Stationary Maar</td> <td>14</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Fair Condition</td>				9504 x	X	_	Cedar Elm	14							Stationary Maar	14						Fair Condition
Image: series of the series				9515 x	X	_	Live Oak	20.5			-				20.5							Fair Condition
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H       M       9521       x       Pecan       26       A       A       Pecan       26       A       A       A       Pecan       A       A       A       Pecan       16       A       A       A       Pecan       18       A       A       A       Pecan       18       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A       A	3			9517 x	X	-	Live Oak	10								10						Fair Condition
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9529 X Pecan 18 Good Condition				9523 x	X	-	Pecan	18								18						Fair Condition
				9529 x			Pecan	18												-		Good Condition
Iotal caliper inch removed per category     0     0     66     69.5     0     16     0     0									Tot	al caliper i	Inch removed pe	r category	/  0	0	66	69.5	1515	16	0	0	0	1
Grand Total Caliper Inch Removed 151.5								City of A	Austin Mi	Grand I		Removed	300%	300%	100%	50%	151.5 50%	25%	0%	0%	0%	
Subtotal Replacement Inches 0 0 66 34.75 0 4								city of P		Sul	btotal Replacem	ent Inches	s 0	0	66	34.75	0	4	0,0	070	070	1
Total Replacement (caliper inches) 104.75										Total Rep	lacement (calipe	er inches	)			5 11 5	104.75	1	I	1	1	1

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	S.F.

PROVIDED

Inches to be mitigated into Urban Forest	0
Mitigation Fee Amount	\$200.00
Mitigation Fee Total	\$0.00
Silva Cell Cost Estimate	a
Total Mitigation Fee to be Paid	\$0.00

NOTES LEGEND Existing Tree Proposed to be Relocated

Urban Forestry Accounting Summary	
Surveyed	
Total Appendix F tree inches surveyed	752.3
Heritage tree inches surveyed	464.8
Non-Appendix F tree inches surveyed	16
Invasive tree inches surveyed	0
Removed	-
Total Appendix F tree inches removed	136
Heritage tree inches removed	0
Non-Appendix F tree inches removed	16
Invasive tree inches removed	0
Total DDI tree inches removed	0
DDI Appendix F tree inches removed	0
DDI Heritage tree inches removed	0
DDI Non-Appendix Finches removed	0
DDI Invasive inches removed	0
Mitigation	
Total mitigation replacement inches planted	140
Total replacement inches planted on site (Private Trees)	40
Total replacement ROW inches planted	100
rivate inches owed to Urban Forest Replenishment Fund	0
Public inches owed to Urban Forest Replenishment Fund	0
Total non-mitigation inches planted on site	0

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# PREPARED FOR



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PROJECT

# **Research Park** Oak Knoll

6511 1/2 McNeil Dr. Austin, TX 78759



SITE DEVELOPMENT PERMIT September 27, 2023 REVISIONS

No Date Issue

CHECKED BY BW

DRAWN BY SKG

SHEET TITLE

Phase 2 Tree Mitigation Calcs

SHEET NUMBER 105 of 116 .4 ©2023 Hitchcock Design Group SP-2022-0048D

OR CITY USE ONLY:									
SITE PLAN APPROVAL	SHEET	104	_OF	115					
FILE NUMBER SP-2022-0048D API	PLICATION	DATE	02/14/	2022					
APPROVED BY COMMISSION ON XX	UNDER S	SECTION	11	<b>2</b> OF					
CHAPTER 25-5 OF THE CITY OF AUSTI	N CODE.								
EXPIRATION DATE (25-5-81,LDC) XX	CASE MA	ANAGER	ZACK	<u>LOFTO</u> N					
PROJECT EXPIRATION DATE (ORD.#970905-A	A)	_DWPZ	DI	DZ					
Director, Development Services Department									
RELEASED FOR GENERAL COMPLIANCE:		_ZONING	i:X	X					
RevCorrection	on 1								
RevCorrection	on 2								
RevCorrection	on 3								
Final plat must be recorded by the Project Expirati	ion Date, if a <sub>l</sub>	pplicable. S	Subseque	nt Site					
Plans which do not comply with the Code current a	t the time of j	filing, and a	all requir	ed					
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.	01		. /						



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**Research Park** Oak Knoll

> 6511 1/2 McNeil Dr. Austin, TX 78759



SITE DEVELOPMENT PERMIT September 27, 2023 REVISIONS

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## Phase 2 Hardscape







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SHEET NUMBER 107 of 116 ©2023 Hitchcock Design Group SP-2022-0048D



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.







- Unless otherwise indicated, the Owner's Representative for this project shall be a specifically designated landscape architect from Pi Architects. The Landscape Contractor will be required to coordinate and correspond with the landscape architect from Pi Architects and key consultants for the Owner.
- 2 These drawings supplement other contractual information which may include Bid Instructions and Project Specifications. Anything mentioned in the Project Specifications and not in the drawings, or vice-versa, shall be of like effect as if shown on or mentioned in both. In case of a discrepancy between Drawings or Project Specifications, the matter shall be immediately submitted to the Owners Representative; without his decision said discrepancy shall not be adjusted by the Landscape Contractor, save only at his own risk and expense. The Landscape Contractor shall not take advantage of any apparent error or omission on the Drawings or in the Specifications. In the event the Landscape Contractor discovers such error or omission, he shall immediately notify the Owner's Representative. The Owner's Representative will then make such clarification and interpretations as may be deemed necessary for the Landscape Contractor to fulfill the intent of the Contract.
- The intent of these drawings, details and associated specifications is for the Landscape Contractor to provide the Owner with a complete, accurate, functionally and technically sound project as generally described in these documents. In most cases, unless explicitly noted otherwise, drawing symbols are used to represent complete-in-place systems to be provided as part of the base bid. All elements shown or implied by the drawings, if not specifically detailed or specified, shall be installed per building codes, manufacturer's recommendations, state highway department standards, city standards and specifications and standard industry practices.
- 4. All work within this project shall conform to current local codes, ordinances, as well as all other applicable governing regulations in effect.
- 5. The Landscape Contractor shall obtain, at his expense, all specialty permits needed for specific items included with the work, unless otherwise indicated in the Contract Documents. Landscape Contractor shall comply with all notifications and inspection requirements.
- Unless specifically noted otherwise in the Contract Documents, the 6. Landscape Contractor shall obtain and coordinate all technical tests and reports by a certified independent laboratory or agency as outlined in the Specifications or these Drawings. The Owner may, at the Owner's sole discretion, provide separate testing and/or inspection service and the Landscape Contractor is required to fully coordinate with those consultants/Landscape Contractors. Owner is to pay for all soils and materials testing.
- 7. The Landscape Contractor is required to visit the site to verify information. Without exception, any deviations or omissions found between these plans and existing site conditions shall immediately be brought to the attention of the Owner's Representative.
- 8. Existing utility information and utility information for proposed work by others that is shown in these documents is approximate and for general information only. It is not intended to depict exact locations of all utilities. The Landscape Contractor shall notify all utility companies to stake and field verify the locations including depths of all utilities (existing, proposed by others, or currently under construction), prior to commencing any related operations. Landscape Contractor shall maintain utility locations/structures during all remaining phases of work. The Landscape Contractor shall report to the Owner's Representative any utilities that may conflict with proposed work. The Landscape Contractor shall explore, understand, and coordinate all utilities and be responsible for any modifications or damages to utility lines, structures or injuries therefrom.
- 9. These drawings do not specify safety materials, staffing, equipment, methods or sequencing to protect persons and property. It shall be the Landscape Contractor's sole responsibility to direct and implement safety operations, staffing, procedures to protect the Owner and his representatives, new improvements, property, other Landscape Contractors, the public and others.
- 10. The Landscape Contractor shall meet periodically with the Owner's Representative to determine marshalling areas, on-site storage, and Landscape Contractor staff parking and to coordinate security issues, construction sequencing/phasing, scheduling, and maintaining public, emergency, handicapped or operations access before starting the related work. The Landscape Contractor shall meet any "Construction Criteria" or requirements shown on any Contract Documents, phasing plans or any imposed plan by the Owner.
- 11. Some work in this Contract may occur concurrent with work by others. Phasing, sequencing and coordination, with work by others, and on-going facility operations in and around the site area, is a part of the scope of work for this project. Notice to proceed with work in any general area shall be obtained from the Owner.
- 12. The Landscape Contractor will be required to complete all the work of this project according to these proposed drawings or subsequent clarification. A strict period of performance, including dates of substantial completion (for all and/or portions) and liquidation damages may be an integral element of the Contract.
- 13. Any site improvements requiring removal under this contract shall be properly and legally disposed off-site or, at the Owner's option, surrendered/stockpiled in an approved on-site location per the direction of the Owner's Representative.
- 14. The Landscape Contractor is required to maintain a complete and "up-to-date" set of all Contract Documents, including clarifications, change orders, etc., in good condition, at the construction site at all times. This set of documents will be made immediately available for review by the Owner's Representative and/or authorized Consultants upon request. Complete "As-Built" drawings and document submittals are also a requirement of this contract.
- 15. Maintenance, warranties and performance guarantees may be a requirement of this contract - see specifications.
- 16. Notes and details on specific drawings shall take precedence over general notes and typical details. The Landscape Contractor shall refer to all other Division Notes, Sheets Notes, Drawings and Project Contract Documents for additional information.
- 17. Landscape Contractor shall refer to other related drawings for all other related improvements that will impact this project and require coordination.

### LAYOUT NOTES

- All work shown shall be field staked or otherwise denoted and subject to field verification, review and approval by the Owner's Representative prior to any constructions or demolition. Field staking of all proposed work and adjacent construction (even if future work by others) may be required by the Owner's Representative prior to approval of all improvements and adequate stakes shall be provided by Landscape Contractor's surveyor.
- 2. To expedite the layout of the site layout coordinates and/or grids may have been established in the Drawings. These points shall be field staked by the Landscape Contractor's surveyor as a part of this contract. The establishment of these points shall be approved by the Owner's Representative prior to any construction in those areas and will assist the Landscape Contractor in the layout of all site improvements as shown on drawing or otherwise.
- 3. The construction tolerances for this project are minimal and the dimensions shown are to be strictly adhered to.
- 4. Computed dimensions shall take precedence over scaled dimensions. Large scale drawings shall take precedence over small scale drawings. Dimensions shown with (+/-) shall be the only layout information allowed to vary, and may only vary to the tolerances given.
- 5. The Landscape Contractor is responsible to provide complete-in-place systems and a complete project, and any intermittent or periodic approvals received for portions of work, stakes, grades, or forms (by the Owner's Representative, architects, engineers, or others) shall not waive the Landscape Contractor's requirements to comply with the intent of any and all portions of this contract.
- Field staked locations for walks, roads, swales, walls, curbs, structures etc. may be requested by the Owner's Representative. Specific layout information will be provided to the Landscape Contractor by the Owner's Representative in AutoCAD (.dwg) format when requested.
- 7. It is the intent and requirement of this contract to provide curvilinear walks, walls and curbs with smooth transitions and arcs (both horizontal and vertical). Straight segments and abrupt transitions will not be accepted unless shown as such on the plans. Wood curving forms may be required to obtain the proper effects.
- When indicated on the Drawings, improvements that are to be coordinated on site with the Owner's Representative will be field staked or painted for approval of layout by the Owner's Representative prior to installation. Notify the Owner's Representative a minimum of 24 hours in advance for review. Improvements installed without field approval by Owner's Representative

### GRADING NOTES

- These grading plans are intended to show vertical control of the site and are based upon the benchmarks, existing elevations and topography as provided by the Owner's surveyor. However, the Landscape Contractor, upon submittal of bid, agrees to accept the site grades and make all adjustments required to accomplish the work as proposed. Additionally proposed design elevations for adjacent construction projects may have to be incorporated if necessary. (Construction drawings for work by others, if applicable, are available upon request). Staking of future adjacent improvements, by this contract phase or by others, may be required if directed by the Owner's Representative to ensure proper coordination and requested staking is to be provided as part of this Base Bid.
- This Landscape Contractor shall verify all existing grades to remain and all adjacent new construction grades for compliance with those shown, prior to bid and construction. All deviations or conflicts with proposed work shall be eported immediately (with follow-up written) notice within 24 hours to the Owner's Representative for direction to proceed.
- 3. It is this Landscape Contractor's responsibility to provide proper positive drainage throughout this contract area. Field conditions shall be verified in conjunction with the proposed elevations to ensure that adequate drainage is provided. Report deviations or conflicts to Owner's Representative.
- 4. All design elevations shown are "finished grades" unless otherwise indicated. Landscape Contractors shall refer to drawings, details and specifications regarding depth of sub-grade materials required to construct project improvements.
- 5. All topsoil and/or drainage way muck excavation shall be saved and stockpiled in approved locations for future use.

### CONCRETE NOTES

- 1. All concrete shall be in accordance with the A.C.I. standard "Building Code Requirements for Reinforced Concrete" (A.C.I. 318) latest revision.
- 2. All reinforcing steel shall be new domestic deformed billet steel conforming to ASTM A615, Grade 60 (60,000 PSI yield point).
- 3. Reinforcing bar supports and spacers shall be provided in accordance with the Manual of Standard Practice by the Concrete Reinforcing Steel Institute.
- 4. Concrete shall have a minimum compressive strength at 28 days of 3000
- 5. Grade beam concrete protection of reinforcement shall be 2" minimum top and sides, 3" minimum bottom.
- 6. Concrete slumps shall be 4" maximum, 2" minimum.
- 7. Mortar for walls shall be Type M ASTM C-270, consisting of: one (1) part Portland Cement, 1/4 part hydrated type S Lime, and not more than 3 3/4 parts well graded masonry sand with all proportions by volume.

Materials	nateriais Table - Research Park Oak Kholl Streetscape							
Code	Material	Description/Model No.	Color/Finish	Manufacturer	Detail Reference	Notes		
Pavement	Pavements							
P-01	Brushed Concrete		N/A					
Site Eleme	ents							
S-01	6' Pedestrian Bench	Exposition 6' Bench	Textured Silver	Anova Furnishings		Install per manufacturer's specifications		
Lighting S	Lighting Schedule							
LS-01	Pedestrian Pole	Polso L LB6053.509-8S	Light Grey (Textured)	Heper Lighting		Install per manufacturer's specifications Contact Greg Sweeney w/ Lightspek @ 972.743.0922		
LS-02	Street Light	Domino Module 3 - Single Arm; 19.8' ht. PAFD.R01.T003-H6	Light Grey (Textured)	Heper Lighting		Install per manufacturer's specifications Contact Greg Sweeney w/ Lightspek @ 972.743.0922		



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PROJECT

**Research Park** Oak Knoll

> 6511 1/2 McNeil Dr. Austin, TX 78759



SITE DEVELOPMENT PERMIT September 27, 2023 REVISIONS

No Date Issue

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SHEET TITLE

Phase 2 Hardscape Notes



FOR CITY USE ONLY. SITE PLAN APPROVAL SHEET 108 OF 115 FILE NUMBER **SP-2022-0048D** APPLICATION DATE **02/14/2022** APPROVED BY COMMISSION ON XX UNDER SECTION 112 OF CHAPTER **25-5** OF THE CITY OF AUSTIN CODE. EXPIRATION DATE (25-5-81,LDC) XX CASE MANAGER ZACK LOFTON PROJECT EXPIRATION DATE (ORD.#970905-A) DWPZ DDZ Director, Development Services Department ZONING: XX RELEASED FOR GENERAL COMPLIANCE: Correction 1 Correction 2 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.



0' 40' 80'

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**Research Park** Oak Knoll

6511 1/2 McNeil Dr. Austin, TX 78759



SITE DEVELOPMENT PERMIT September 27, 2023 REVISIONS

Issue



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SHEET TITLE

## Phase 2 Landscape



FOR CITY USE ONLY: 
 SITE PLAN APPROVAL
 SHEET 109
 of 115

 FILE NUMBER
 SP-2022-0048D
 APPLICATION DATE
 02/14/2022
 APPROVED BY COMMISSION ON XX UNDER SECTION 112 OF CHAPTER **25-5** OF THE CITY OF AUSTIN CODE. EXPIRATION DATE (25-5-81,LDC) XX CASE MANAGER ZACK LOFTON PROJECT EXPIRATION DATE (ORD.#970905-A)\_\_\_\_\_ DWPZ DDZ Director, Development Services Department RELEASED FOR GENERAL COMPLIANCE: ZONING: XX Correction 1 Rev. \_Correction 2\_ \_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.





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SITE PLAN APPROVAL			SHEET	110	OF	115	
FILE NUMBER SP-2	022-004	48D APP	LICATIO	N DATE	02/14	/2022	_
APPROVED BY COMM	SSION ON	XX	_UNDER	SECTION	11	2	OF
CHAPTER <b>25-5</b> O	F THE CITY	OF AUSTIN	V CODE.				
<b>EXPIRATION DATE (25</b>	-5-81,LDC)_	XX	_CASE M	IANAGER	ZACK	LOFT	0
PROJECT EXPIRATION	DATE (ORD	).#970905-A	)	DWPZ	DI	DZ	
RELEASED FOR GENER	RAL COMPL	IANCE:		ZONING	d:X	X	
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Final plat must be recorde	ed by the Proj	ect Expiratio	on Date, if	applicable. S	Subseque	nt Site	
Plans which do not comply	w with the Cod	de current at	the time o	f filing, and	all requi	red	
B :11: B :/ 1/		turnation (if a	huilding	annit is not	roquirod	must	1/07
Building Permit and/or a i	iotice of cons	iruciion (ij a	ounaing p	ermu is noi	requireu	), musi t	use



- Prune only to encourage central leader. (Do not cut leader on pyramidal trees).

- Remove any broken branches, tree tags, and ribbons (upon approval of plant). - Black rubber hose, attach to (2) minimum inner/larger canes

— 12 Gauge multi-strand wire — Avoid placing soil on top of the root ball, maintain exposure of root flare. If root flare is not exposed, carefully remove excess soil. Set root ball so that base of root flare is 3"-6" higher than adjacent finish grade (root flare is typically 6" below bud graft union on grafted trees).

— 6'-0" Green metal t-post to be installed 1'-0" minimum into disturbed subgrade. Do not disturb rootball. T-posts to be parallel, vertical and even. 3 per tree, typ.

— Mulch, 3" min organic hardwood mulch, typ. Taper mulch to 1" depth at trunk. - Prepare a 3" minimum ht. saucer around pit for

watering. - Flare planting hole edge. Hole size to be twice as wide as root ball. Backfill pit with 1/3 amended topsoil and 2/3 excavated material. Remove excess excavated material from site and dispose of legally.

- Cut and remove all cords around top root ball and trunk. Remove all containers from rootball Set root ball on undisturbed or compacted subgrade. If hole is too deep, add and compact additional fill before setting tree.





1/2" = 1'-0"

Set plants at same level as grown in container

- Prepare entire planting bed to a 12" min. depth with amended topsoil

3" min organic hardwood mulch. Work mulch under branches. Undisturbed subgrade

. Remove containers and any wraping, twine, wires, ect.

Note: Root mass of pot bound plants should be loosened before planting

3" = 1'-0"



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NOT TO SCALE



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## SHRUB PLANTING

PLANT SCHEDULE							
TREES	BOTANICAL / COMMON NAME	CONTAINER	SIZE	QTY			
BOA	Quercus macrocarpa Burr Oak	100 gal	4" Cal.	2			
SHO	Quercus shumardii Shumard Oak	4" Cal		7			
TRO	Quercus texana Texas Red Oak	4" Cal		8			
SLO	Quercus virginiana Southern Live Oak	4" Cal		14			
CEL	Ulmus crassifolia Cedar Elm	4" Cal		4			

- Limit pruning to dead and broken

- Set top of rootball at the 1" above

- Mulch, 3" min organic hardwood

at trunk. Where noted, use 3" of

if shrub is a solitary planting. For

prepare shrub bed so that finish

grade between shrubs provides

Backfill pit with 1/3 amended

- Set rootball on undisturbed

topsoil and 2/3 excavated material.

positive drainage. Discard excess

multiple plantings in the same bed,

gravel in place of mulch

excavated material.

Remove containers

Finish Grade

subgrade.

mulch, typ. Taper mulch to 1" depth

Prepare a 3" min. saucer around pit

branches.

finished grade

PROJECT

# **Research Park** Oak Knoll

6511 1/2 McNeil Dr. Austin, TX 78759



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SP-2022-0048D

SITE PLAN APPROVA	L		SHEET_	111	OF	115	
FILE NUMBER SP.	2022-0048	<b>D</b> APPL	ICATION	DATE	02/14	/2022	2
APPROVED BY COM	MISSION ON	XX	UNDER S	ECTION	11	2	_0
CHAPTER <b>25-5</b>	OF THE CITY OF	F AUSTIN	CODE.				
EXPIRATION DATE (	25-5-81,LDC)	XX	CASE M	ANAGER	ZACK	LOF	TC
PROJECT EXPIRATIO	N DATE (ORD.#9	970905-A)_		_DWPZ_	D	DZ	
RELEASED FOR GEN Rev	ERAL COMPLIA	NCE: Correction	1	_ZONINC	ð: <b>X</b>	X	
Rev	(	Correction	2				
Rev	(	Correction	3				
Final plat must be recon	ded by the Project	Expiration	n Date, if a	pplicable. S	Subseque	ent Site	
Plans which do not com	ply with the Code c	current at t	he time of	filing, and	all requi	red	
Duilding Doursit and/ou	a notice of constru	ction (if a )	huildina na	rmit is not	romiro	l) must	al

### GENERAL LANDSCAPE NOTES

- 1. All work shall be laid out by Landscape Contractor for approval by Owners Representative prior to start. All material shall be subject to Owner approval.
- 2. Written approval is required by the Owner for any changes.
- 3. Landscape Contractor to provide daily cleanup and maintenance through completion.
- 4. The Landscape Contractor shall take all necessary precautions to protect any existing buildings or structures on the site and shall be held responsible for any damage caused by his work.
- 5. It shall be the Landscape Contractor's responsibility to prevent plants from falling or being blown over and to straighten or replant all plants which are damaged due to lack of guying or staking if unstaked. Plants blown over by wind shall not cause additional expense to the Owner but be the financial responsibility of the Landscape Contractor.
- 6. Landscape Contractor shall not be responsible at any time to replace or honor any warranty for the loss of any tree, plants, groundcover, or sod due to fires, floods, freezing temperatures, lightning, winds in excess of 50 mph, or any natural disaster.
- 7. Unless otherwise specified on these plans, the Landscape Contractor shall be responsible for the fine grading of the planting and sodded areas.
- Topsoil material, when called for on the plans, shall be free of hard clods, stiff clay, 8. hard pan. stones larger than 1" diameter, noxious weeds and plants, sod, partially disintegrated debris, insects or any other undesirable material, plants or seeds that would be toxic or harmful to proper growth.
- 9. The Landscape Contractor is advised of the existence of underground utilities on the site. The Landscape Contractor shall be responsible for any and all damages to utilities and such damage shall not cause any additional expense to the Owner.
- 10. Plant list quantities are provided as an aid to bidders only. The Landscape Contractor is responsible for verifications of plant material quantities on plan. Improper plant counts made by the Landscape Contractor shall be no cause for additional expense to the Owner.
- 11. Plants shall conform to the American Association of Nurseryman Standards.
- 12. The Landscape Contractor is responsible for the protection (with physical barriers) and maintenance of existing and transplanted trees during construction (where applicable).
- 13. The Landscape Contractor to coordinate placement of plant material with the site and building lighting locations as per architectural plans.
- 14. No plant material shall be allowed to encroach on the right-of-way, sidewalks or easements to the extent that vision or route of travel for vehicular, pedestrian, or bicycle traffic is impeded.
- 15. No tree or shrub shall be pruned in a manner, which significantly disfigures the tree, or which would reasonably lead to the death of a tree.
- 16. All walkways shall meet A.D.A. and T.A.A. requirements.

#### PLANTING NOTES

- 1. All requirements of the City of Austin landscaping regulations shall be met. All signage and fencing contingent upon building inspection department approval.
- 2. Tree locations are diagrammatic. Contractor shall stake out all tree locations in the field using colored flags for each different tree species that are for review and approval by the landscape architect prior to excavation. Landscape architect reserves the right to adjust plants to the exact locations in the field.
- 3. All shrub, groundcover, and seasonal color bed layouts shall be staked by contractor for approval by landscape architect prior to excavation. Landscape architect reserves the right to adjust beds to the exact locations in the field.
- 4. Contractor is responsible for verifying locations of underground utilities prior to construction. Trees shall be planted outside all utility easements.
- 5. All trees shall be planted at least five feet (5'-0") from any utility line, overhead line or obstruction, or other trees within the project. Four feet (4'-0") from any curb, wall, building, edging, or sidewalk and there shall be three feet (3'-0") diameter clear around hydrants. Other plant spacing shall be as shown on the plans.
- 6. All plant material shall be placed in respect to intersection visibility requirements (refer to drawings). No planting over 30" in height shall be placed within the visibility triangle. Trees overhanging visibility easements or right of ways shall have a minimum clear branching height of nine feet (9'-0").
- 7. Trees overhanging sidewalks, parking, or pedestrian areas shall have a minimum clear branching height of seven feet (7'-0").
- 8. All plant material, exclusive of trees, shall not exceed 30" in height within road medians.
- 9. All trees shall be measured 6" above ground.
- 10. It is the responsibility of the contractor to advise the landscape architect of any condition found on the site which prohibits installation as shown on these drawings.
- 11. All required landscaping will be maintained in a neat and orderly manner at all times. This will include mowing, edging, pruning, fertilizing, watering, weeding, and other activities common to the maintenance of landscaping. All plant material will be maintained in a healthy and growing condition. Plant material which are destroyed, damaged, or removed will be replaced with plant material similar in variety and size.
- 12. Landscape contractor shall be responsible for fine grading, removal of miscellaneous debris and any additional fill required to create a smooth condition prior to planting in all areas. Final grading shall be approved by the landscape architect in the field prior to planting.
- 13. An automatic underground sprinkler system shall be installed and provide complete coverage in all landscape areas. Overspray upon streets and sidewalks is prohibited. A permit from building inspection is required for each irrigation system.
- 14. All shrub, groundcover, and seasonal beds shall have a minimum two inches (2") of mulch layer. Provide steel edging as shown on plans. Where no edging is indicated provide a shovel cut edge within the groundcover or shrub areas.
- 15. Warranty statement: landscape / irrigation contractor to provide a written warranty statement to owner at substantial completion. Statement shall provide a one year materials and workmanship warranty for all landscape planting, irrigation system and related work. Owner shall provide maintenance of landscape planting and irrigation system sufficient to meet or exceed normal horticultural practices during the one year warranty period.

#### GRADING NOTES

- All grades shall be field verified by the contractor. Including top of curb elev 1. Any existing and / or on-site conditions which vary from those shown on the drawings shall be immediately brought to the attention of the landscape archi before proceeding with work.
- 2. Contractor shall verify locations of all existing utilities prior to excavation.
- All grading shall provide for natural runoff of water without low spots or pocket Flow lines shall be accurately set and shall not be less than 1% gradient unle otherwise noted. Contractor shall be responsible for positive drainage in all pl areas.
- Contractor to coordinate with civil engineer to verify location and elevations existing storm water lines, drain inlets, flow lines, and other subsurface utilitie

#### MATERIALS AND BED PREPARATION

- Edging to be Lofland Company 3/16" x 4" steel, painted black. Contractor to r and file all corners to a smooth finish.
- Shrub bed preparation to be 12" depth and shall consist of 6" of existing soil i with 6" minimum organic soil mix (organic humus and sandy loam 50-50 mix top dressed with 2" minimum of 'triple hammered' shredded hardwood mulch
- Groundcover bed preparation to be 8" depth and shall consist of 2" of existing mixed with 6" minimum organic soil mix (organic humus and sandy loam 50mix) and top dressed with 2" minimum of 'triple hammered' shredded hardwo mulch.
- 4. Weed stop fabric to be Marifi or equal.

### CITY OF AUSTIN - PLANTING NOTES

- 1. Contractor shall receive site at approximately final grade. Any exceptions wil documented in the construction documents. The landscape contractor shall t around walls per typical wall section, plan, and landscape grading notes with provided by contractor. All slopes shall be smooth and uniform with a maxim slope of 3:1 unless otherwise noted. Tie into existing adjacent grades smoot fine grade for positive drainage and prevent water from standing. Cut swales direct water away from all structures and property lines and towards storm se inlets. Do not drain any water towards lots or easements. Final location and of berms to be approved by Hitchcock Design Group (HDG) in the field. Prov minimum of 8" of granular fill wrapped in filter fabric behind walls and to a dep below weeps holes to allow for proper drainage (reference typical wall section planting detail sheet).
- 2. Shrub Beds: Reference specification and details for planting requirements, materials, and execution, including plant pit dimensions and backfill requirem Shrubs and groundcovers to be triangularly spaced (spacing per plans and pl list). Ryerson 3/16" x 4" steel edging (dark green) shall be installed to separa beds from turf areas. Reference planting bed detail for drainage requirement beds occurring directly at the back of curb. Backfill all shrub pits with specifie planting mix. Incorporate 5 lbs of 13-13-13 fertilizer per cubic yard of mix into planting beds. All beds shall receive a minimum of 3" deep organic hardwood mulch
- Tree Planting: Reference specifications and details for planting requirements 3 materials, and execution, including staking methods, plant pit dimensions, and backfill requirements. Guy all trees 4" in caliper and greater and stake all tree smaller than 4" in caliper unless machine moved. Stake all machine moved t with three (3) metal "T" stakes per detail. Backfill all shrub pits with specified planting mix. Incorporate 5 lbs of 13-13-13 fertilizer per cubic yard of mix into planting beds. All beds shall receive a minimum of 3" deep organic hardwoo mulch.
- Machine Moved Trees: All trees to be machine moved directly from grower approved by HDG prior to relocation. Coordinate tree pruning to balance roo with HDG. Trees to be mechanically transplanted using tree spade allowing rootball per caliper inch of tree. Set tree straight and plumb and fill any air s around tree with specified sand or sandy loam topsoil, water in to displace ai pockets. Install 3" high water retention basin per specifications with 3" deep of mulch and water spaded trees the day of transplanting.
- Trees shall be located a minimum of 5'-0" from walls, overheads, walks, edgi curbs, and other trees within the project. If conflicts arise between size of an plans, contractor to contact HDG for resolution. Failure to make such conflict known to HDG may result in contractor's liability to relocate materials.
- All plant materials shall be approved by HDG prior to installation. Final locati 6. all plant material shall be subject to the approval of HDG. Contractor shall n HDG 48 hours prior to commencement of work to coordinate project inspection schedules.
- Lawn Installation: Prior to application of hydromulch, contractor shall apply of herbicide (recommended mixture of Image and Roundup) to remove all existi weeds as necessary, scarify existing soil to specified depths. Remove all lun clods, trash, and stick greater than 1". Fine grade to provide positive drainag smooth lawn areas and cut swales as necessary to ensure no ponding of wat Lay specified sod strip along the back of curb and hydromulch per specification within approximate limits shown on plans. Finished grade of lawn and plantin areas to be minimum  $\frac{1}{2}$ " below finished grade of adjacent pavement.

### CITY OF AUSTIN - APPENDIX O - IRRIGATION NOTES

Automatic irrigation systems shall comply with TCEQ Chapter 344, as well as the following requirements:

- 1. These requirements shall be noted on the Site Development Permit and shal implemented as part of the landscape inspection: A. the system must provide a moisture level adequate to sustain growth
- plant materials; B. the system does not include spray irrigation on areas less than ten (1 wide (such as medians, buffer strips, and parking lot islands);
- C. circuit remote control valves have adjustable flow controls;
- D. serviceable in-head check valves area adjacent to paved areas where ele differences may cause low head drainage;
- E. a master valve installed on the discharge side of the backflow preventer; F. above-ground irrigation emission devices are set back at least six (6) from impervious surfaces;
- G. an automatic rain shut-off device shuts off the irrigation system autom after more than a one-half inch  $(\frac{1}{2})$  rainfall; and
- H. newly planted trees shall have permanent irrigation consisting of bubblers
- The irrigation installer shall develop and provide an as-built design plan to the at the time the final irrigation inspection is performed; A. unless fiscal security is provided to the City for the installation of the sys must be operational at the time of the final landscape inspection.
- 3. The irrigation installer shall also provide exhibits to be permanently installed i or attached to the irrigation controller, including: A. a laminated copy of the water budget containing zone numbers, preci rate, gallons per minute and the location of the isolation valve; and an a
- plan The irrigation installer shall provide a report to the City on a form provided by Austin Water certifying compliance with Subsection 1. When the final plumbing inspection is performed by the City.
- Source: Rule No. R161-17.09 , 5-16-2017; Rule No. R161-18.01 , 3-2-2018.

	CITY OF AUSTIN - SOIL CONDITIONING AND MULCHING	CITY OF AUSTIN - TREE AND NATURAL AREA PROTECTION (ECM 3.6.2)	TREES WITHIN CONSTRUCTION AREAS
ations.	1. A minimum of 3 inches of organic mulch shall be added in non-turf areas to the soil surface after planting	Before Construction:	1. As a component of an effective remedial tree care program per Environmental Criteria Manual section 3.5.4, preserved trees within the limits of construction may
itect	<ol> <li>Non-porous material such as sheet plastic shall not be placed under the mulch.</li> </ol>	<ol> <li>All trees and natural areas shown on plan to be preserved shall be protected per ECM 3.6.1.</li> </ol>	require soil aeration and supplemental nutrients. Soil and/or foliar analysis should
	3. A minimum of 6" permeable soil, native or imported and meeting the requirements of Standard Specification 601S, shall be required for turf and landscaped areas.	<ol> <li>Tree protection shall be installed prior to the start of any site work, including</li> </ol>	require these analyses as part of a comprehensive tree care plan. Soil pH shall be
	<ol> <li>Tree planting areas are to be provided with a minimum of 12 inches of friable</li> </ol>	demolition or site preparation. Refer to ECM 3.6.1.A.	considered when determining the fertilization composition as soil pH influences th tree's ability to uptake nutrients from the soil. If analyses indicate the need for
ets.	native loam soil meeting the requirements of Standard Specification 601S. Planting in relatively undisturbed existing native soils is encouraged. Soil to a	feet and shall be installed around or beyond the Critical Root Zone except as	supplemental nutrients, then humate/nutrient solutions with mycorrhizae
ess planting	minimum depth of 12 inches is required within the entire landscape median or neninsula. All other planting areas must have a minimum soil depth of 12 inches	allowed in ECM 3.6.1.B.4.	determine if organic material or beneficial microorganisms are needed to improve
	within a radius of six feet from the tree trunk. Trees are not to be planted in	minimum depth of 8 inches and a maximum depth of 12 inches per ECM 3.6.1.C.	soil health. Materials and methods are to be approved by the City Arborist (512-974-1876) prior to application. The owner or general contractor shall select a
of all	caliche, solid rock, or, in soils whose texture has been compacted by construction equipment. Areas of compaction which have been subsequently amended with 12	5. Where fencing is located 5 feet or less from the trunk of a preserved tree, trunk	fertilization contractor and iensure coordination with the City Arborist.
es.	inches of friable native soil are suitable for planting.	<ol> <li>Erosion and sedimentation controls shall be installed and maintained so as not</li> </ol>	<ol> <li>Pre-construction treatment should be applied in the appropriate season, ideally the season preceding the proposed construction. Minimally, areas to be treated</li> </ol>
	Source: <u>Rule No. 14-13, 4-4-2014</u> .	to cause impacts that exceed preservation criteria listed in ECM 3.5.3.D.	include the entire critical root zone of trees as depicted on the City approved plans
		During Construction:	and proper pruning.
round	CITY OF AUSTIN - TREE PROTECTION REQUIREMENTS (ECM 3.6.1)	1. Trees approved for removal shall be removed in a manner that does not exceed	3. Post-construction treatment should occur during final revegetation or as
mixed	A. Duration of Tree Protection	preservation criteria for the trees to remain. Refer to ECM 3.5.2 A.	determined by a qualified arborist after construction. Construction activities often result in a reduction in soil macro and micro pores and an increase in soil bulk
x) and	A.1. Installation - Tree protection shall be installed prior to the start of any site	<ol><li>Fencing may not be temporarily moved or removed during development without prior authorization. The fenced Critical Root Zone shall not be used for tool or</li></ol>	density. To ameliorate the degraded soil conditions, aeration via water and/or air injected into the soil is needed or by other methods as approved by the City
1.	work, including demolition or site preparation, and maintained continuously throughout the project.	material storage of any kind and shall be kept free of litter. Refer to ECM	Arborist. The proposed nutrient mix specifications and spin and/or foliar analysis
ıg soil -50	A.2. Removal - Tree protection shall be removed at the end of the project after all	<ol> <li>Pruning shall be in compliance with the current ANSI A300 standard for tree</li> </ol>	application (Fax # 512-974-3010). Construction which will be completed in less
bod	premature removal or failure of tree protection can lead to Critical Root Zone	care.	than 90 days may use materials at ½ recommended rates. Alternative organic fertilizer materials are acceptable when approved by the City Arborist. Within 7
	impacts as described in ECM 3.5.2 and may require remedial tree care. It is the permit holder's responsibility to avoid damage to preserved trees where	After Construction:	days after fertilization is performed, the contractor shall provide documentation of the work performed to the City Arborist, Planning and Development Review
	tree protection has been removed or not installed.	1. Tree protection shall be removed at the end of the project after all construction	Department. P.O. Box 1088, Austin, TX 78767. This note should be referenced as
	P Engine Specifications	and final grading is complete, but before final inspection. Refer to ECM 3.6.1.A.	Item #1 In the Sequence of Construction.
ill bo	B.1. Material Requirements - Fencing is the primary method of tree protection.	and plantings, shall not exceed preservation criteria listed in ECM 3.5.2.	
fill area	Fencing is intended to prevent access to the Critical Root Zone. Tree fencing shall be chain-link mesh with a minimum beight of 5 feet. Fencing shall be	<ol> <li>Documentation of tree work performed must be provided to inspector per ECM Appendix P-6</li> </ol>	CITY OF AUSTIN - SPECIAL CONSTRUCTION TECHNIQUES - ECM3.5.4(D)
n backfill num	installed on steel t-posts with a maximum spacing of 10 feet between the		1. Prior to excavation within tree driplines or remoal of trees adjacent to other trees that are to remain, make a clean cut between the disturbed and undisturbed root
thly and	posts. More robust or existing permanent fencing may be approved as an alternative to chain-link fencing. Plastic fencing material shall not be used as	Special Note: This list is not exhaustive. Refer to appropriate ECM Sections for full	zones with a rock saw or similar equipment to minimize root damage.
ewer	tree protection.	requirements.	2. In critical root zone areas that cannot be protected during construction with fencing
d height wide a	B.2. Location of Fencing - Fencing shall be installed around or beyond the Critical Root Zone of all preserved trees or any natural areas designated for		of 12 inches of organic mulch to minimize soil compaction. In areas with high soil
epth	preservation. Fencing must be continuous and create a closed, inaccessible area of root zone protection	CITY OF AUSTIN - APPENDIX P-4 - SEQUENCE OF CONSTRUCTION	plasticity Geotextile fabric, per standard specification 620S, should be placed under the mulch to prevent excessive mixing of soil and mulch. Additionally
л,	B.3. Maintenance of Fenced Areas - Fencing shall not be temporarily moved or	The following sequence of construction shall be used for all development. The applicant is encouraged to provide any additional details appropriate for the particular	material such as plycont objected on many of odd and material y the City Arborist
	removed during development without prior authorization. There shall be minimal slack or sagging in the fence. The fenced Critical Root Zone shall not	development.	materials should be removed, and the mulch should be reduced to a depth of 3
nents.	be used for tool or material storage of any kind and shall be kept free of litter.	1. Temporary erosion and sedimentation controls are to be installed as indicated	inches.
ate all	B.4. Exceptions to Fencing Requirements - Any section of the Critical Root Zone not protected by fencing or covered by existing hardscape requires mulch	with the Erosion Sedimentation Control Plan (ESC) and Stormwater Pollution	3. Perform all grading within critical root zone areas by hand or with small equipment
nt of all ed	(see ECM 3.6.1.C). Exceptions to the CRZ fencing requirement shall be	Prevention Plan (SWPPP) that is required to be posted on the site. Install tree protection, initiate tree mitigation measures and conduct "Pre - Construction"	to minimize root damage.
o all	B.4.A. that have been approved for impacts, such as the footprint of a building;	tree fertilization (if applicable).	<ol> <li>Water all tress most heavily impacted by construction activities deeply once a wee during periods of hot, dry weather. Spray tree crowns with water periodically to</li> </ol>
	B.4.B. covered by existing hardscape, such as a patio or driveway (note: if	<ol> <li>The Environmental Project Manager or Site Supervisor must contact the Development Services Department, Environmental Inspection, at 512-974-2278,</li> </ol>	reduce dust accumulation on the leaves.
ts,	hardscape is removed the exposed soil beneath becomes subject to tree protection requirements);	72 hours prior to the scheduled date of the required on-site preconstruction meeting	5. When installing concrete adjacent to the root zone of a tree, use a plastic vapor
nd es	B.4.C. required for access to the work area; and	<ol> <li>The Environmental Project Manager, and/or Site Supervisor, and/or Designated</li> </ol>	barrier behind the concrete to prohibit leaching of lime into the soil.
trees	B.4.D. approved for use as a staging area.	Responsible Party, and the General Contractor will follow the Erosion Sedimentation Control Plan (ESC) and Storm Water Pollution Prevention Plan	<ol> <li>If establishing vegetation during an y stage of a drought, Section 6-4-30 may require a variance. Contact Austin Water Conservation staff at</li> </ol>
o all	B.5. Within the Half CRZ, fencing requirements will only be modified for existing	(SWPPP) posted on the site. Temporary erosion and sedimentation controls will	waterusecompvar@austintexas.gov or call 512.974.2199.
bd	hardscape or to allow an access path adjacent to approved structures (see	construction schedule relative to the water quality plan requirements and the	7. The owner will continuously maintain the required landscaping in accordance with
ehall ho	development plans or approved by the inspector.	erosion plan.	LDC 25-2-984.
ot loss		outlet structure or a temporary outlet must be constructed prior to development	8. All landscaped areas are to be protected by 6" wheel curbs, wheelstops or other approved barriers as per ECM 2.4.7
paces	C. Mulch Specifications C.1 Material Requirements - Mulch is required in any section of the Critical Root	of embankment or excavation that leads to ponding conditions. The outlet system must consist of a sump pit outlet and an emergency spillway meeting	
ir organic	Zone that is not protected by fencing or under existing hardscape and has not	the requirements of the Drainage Criteria Manual and/or the Environmental Criteria Manual, as required. The outlet system shall be protected from erosion	[LDC 25-2-1004 (A), ECM 2.4.7 (A)]
e game	used for tree protection shall be any natural wood type. Rough single grind	and shall be maintained throughout the course of construction until installation	
ing,	mulch, which resists compaction better than double grind and is usually less expensive is preferred but any natural wood type is acceptable. Dyed mulch	5. Temporary erosion and sedimentation controls will be inspected and maintained	VERTICAL CLEARANCE NOTES
eas and cts	or mulch made from non-biological material such as rubber or stone shall not	in accordance with the Erosion Sedimentation Control Plan (ESC) and Storm	<ol> <li>All trees to be limbed up to provide a minimum vertical clearance of 80" (in) along accessible route.</li> </ol>
	C.2. Depth of Mulch - Mulch shall be installed to a minimum depth of 8 inches.	6. Begin site clearing/construction (or demolition) activities.	2. For all drive ways and internal circulations areas on site where fire department access is required, a minimum clearance of 14' (ft) is required.
tion of	Mulch may need to be periodically replenished depending on the duration of the project. Since excessive mulch is harmful to trees, mulch shall not be	7. In the Barton Springs Zone, the Environmental Project Manager or Site	
iotify ion	installed to a depth greater than 12 inches. Mulch used for tree protection	in the construction schedule and evaluate effectiveness of the erosion control	
	tree trunks.	plan after possible construction alterations to the site. Participants shall include the City Inspector, Project Engineer, General Contractor and Environmental	
contact	C.3. Mulch within the Half CRZ - When mulch is used as alternative protection within the Half Critical Root Zone it shall be tenned by decking to provide	Project Manager or Site Supervisor. The anticipated completion date and final construction sequence and inspection schedule will be coordinated with the	
mps,	additional protection against compaction.	appropriate City Inspector.	
ge and ater.	C.4. Exceptions to Mulch Requirements - Mulch is not required within fenced sections of the Critical Root Zone where existing turf or ground cover is	<ol> <li>Permanent water quality ponds or controls will be cleaned out and filter media will be installed prior to/concurrently with revegetation of site</li> </ol>	
ions ing	present and undisturbed. Sections of bare or disturbed dirt within the fenced	9. Complete construction and start revegetation of the site and installation of	
	URL Shall be covered by a three-inch layer of mulch.	landscaping.	
	D. Trunk and Branch Wrapping	the design engineer shall submit an engineer's letter of concurrence bearing the	
	D.1. Trunk Wrap - Wrapping is not required or recommended for most preserved	engineer's seal, signature, and date to the Development Services Department indicating that construction, including revegetation, is complete and in	
	uses. when necessary, trunk wrap shall be installed to protect the first 8 feet of tree height whenever protective fencing is located 5 feet or less from the	substantial compliance with the approved plans. After receiving this letter, a final inspection will be scheduled by the appropriate City inspector.	
ll be	trunk or when fencing cannot be placed around the tree. This will usually only be the case when existing hardscape provides Half Critical Root Zone	11.Upon completion of landscape installation of a project site, the Landscape	
	protection or a structure has been approved for construction within the Half	Architect shall submit a letter of concurrence to the Development Services Department indicating that the required landscaping is complete and in	
n of the	fencing closer to the trunk than would otherwise be allowed. Because trees	substantial conformity with the approved plans. After receiving this letter, a final	
10) feet	vary in form, 8 feet is a general guideline rather than an absolute standard. More or less height of protection may be appropriate.	Inspection will be scheduled by the appropriate City inspector. 12.After a final inspection has been conducted by the City inspector and with	
	D.2. Branch Wrap - Branch wrap may be required when a major limb is over an	approval from the City inspector, remove the temporary erosion and	
levation	access route or close to a proposed structure. Proximity of scaffolding or other necessary construction equipment needs to be considered.	from removal of the controls. Conduct any maintenance and rehabilitation of the	
	D.3. Material Requirements - Dimensional lumber, such as 2x4s, shall be oriented	water quality ponds or controls.	
inches	parallel to and continuously around the trunk or branch and secured in place by tightening wires run around the outside of the lumber. Wrapping shall	JULICE. MULTIU. <u>MUTITI.UJ</u> , J-2-2017.	
	never be secured directly to the tree by screws or other means. Wrapping shall be loosened and retightened every six months to prevent the tree from		FOR CITY USE ONLY:
natically	being damaged as it grows outwards.		SITE PLAN APPROVAL SHEET 112
drip or			FILE NUMBER <b>3P-2U22-UU46D</b> APPLICATION DATE APPROVED BY COMMISSION ON <b>XX</b> UNDER SECTION
	<ul> <li>E. Protection for Natural Areas</li> <li>E.1. Natural areas indicated for preservation on plans shall be protected by</li> </ul>		CHAPTER <b>25-5</b> OF THE CITY OF AUSTIN CODE.
ie Oity	fencing that meets the standards for tree fencing in this section. Alternative		PROJECT EXPIRATION DATE (ORD.#970905-A)DWPZ
vstem, it	protection allowed for trees is not acceptable for natural area preservation. Fencing shall be installed at the Limit of Construction line shown on plans.		Director Development Service D. (
inside		THIS DRAWING, AS AN INSTRUMENT OF SERVICE. IS AND SHALL R	Emain THE PROPERTY       RELEASED FOR GENERAL COMPLIANCE:ZONING
ipitation		OF HITCHCOCK DESIGN GROUP AND SHALL NOT BE REPRODUCED	D, PUBLISHED OR USED     Rev.     Correction 1       DESIGN GROUP     Rev.     Correction 2
as built			Rev. Correction 3
,			Final plat must be recorded by the Project Expiration Date, if applicable.

NOTE: BEWARE: UNDERGROUND UTILITIES IN PLACE, INCLUDING ELECTRICAL, GAS, WATER, SEWER, TELEPHONE, AND OTHERS. CONSULT PROJECT ENGINEER PRIOR TO CONSTRUCTION. ALL UTILITIES TO BE FLAGGED AND IDENTIFIED. LANDSCAPE CONTRACTOR RESPONSIBILITY.

### CITY OF AUSTIN - APPENDIX P-6 - REMEDIAL TREE CARE NOTES AFRATION AND SUPPLEMENTAL NUTRIENT REQUIREMENTS FOR





1601 Rio Grande Street Suite 450 Austin, Texas 78701 T 512.770.4503 hitchcock**design**group.com

## PREPARED FOR



828 West 6th Street, Suite 300 Austin, TX 78703 512.899.3500 CONSULTANTS

PROJECT

# **Research Park** Oak Knoll

6511 1/2 McNeil Dr. Austin, TX 78759



SITE DEVELOPMENT PERMIT September 27, 2023 REVISIONS

Issue

No Date

CHECKED BY

DRAWN BY SKG

SHEET TITLE

Phase 2 Landscape Notes



### ABBREVIATION LIST

ACP	AUGER CAST PILE	MIN.	MINIMUM
ADD.	ADDITIONAL	MISC.	MISCELLANEOUS
<b>ΔΙ Τ</b>	AI TERNATI//E	MPH	MILES/HOUR
		$NI/\Lambda$	
	ARCHITECT, ARCHITECTORAL	N/A	
ASI	ARCHITECTS SUPPLEMENTAL INSTRUCTIONS	NS	NON-SHRINK
BOS	BOTTOM OF STEEL	NTE	NOT TO EXCEED
BP	BASE PLATE	NTS	NOT TO SCALE
CJ	CONTROL JOINT	NWC	NORMAL WEIGHT CONCRETE
CIP	COMPLETE IOINT PENETRATION	00	ON CENTER
CI G			
CMU		UPP.	
COL.	COLUMN	PAR.	PARALLEL
COMP.	COMPOSITE	PEMB	PRE-ENGINEERED METAL BUILDING
CONT.	CONTINUOUS	PERP.	PERPENDICULAR
CU.	CUBIC	PJP	PARTIAL JOINT PENETRATION
d <sub>b</sub>	BARDIAMETER	PI	
			LDS/ LINEAR FOOT
DIA., Ψ	DIAMETER	PSF	LBS/ SQUARE FOOT
EA.	EACH	PSI	LBS/ SQUARE INCH
EJ	EXPANSION JOINT	PSL	PARALLEL STRAND LUMBER
EMBED	. EMBEDMENT	PW	PUDDLE WELD
FN	EDGE NAILING	ΟA	OUALITY ASSURANCE
EP			
EQ.	EQUAL	REC.	RECOMMENDED
EQUIP.	EQUIPMENT	REF.	REFERENCE
EXT.	EXTERIOR	REINF.	REINFORCEMENT
FFE	FINISH FLOOR ELEVATION	REQ.	REQUIRED
GA	GAUGE	RFI	REQUEST FOR INFORMATION
GALV	GALVANIZED	SEC	SECOND
CC		SEC.	
GFCMU	GROUT FILLED CONCRETE MASONRY UNIT	SIM.	SIMILAR
GR.	GRADE	SPEC.	SPECIFICATION
HCA	HEADED CONCRETE ANCHOR	SPF	SPRUCE PINE FIR
$\mathbb{N}^2$	SQUARE INCHES	STD.	STANDARD
INFO.	INFORMATION	SYP	SOUTHERN YELLOW PINE
INT	INTERMEDIATE	T&B	TOP AND BOTTOM
К.		TRS	
LBS	POUNDS		
LG	LIGHT GAUGE	тос	TOP OF CONCRETE
LW	LIGHT WEIGHT	TOS	TOP OF STEEL
LSL	LAMINATED STRAND LUMBER	TSW	TOP SEAM WELD
LVL	LAMINATED VENEER LUMBER	TYP.	TYPICAL
I W	LIGHT WEIGHT	UNO	UNI ESS NOTED OTHERWISE
		00 W//	
		VV/	
MEP	MECHANICAL ELECTRICAL PLUMBING	VV/C	WATER-CEMENT RATIO
MFR	MANUFACTURER	W/O	WITHOUT
MIL	0.001"	WWF	WELDED WIRE FABRIC

DESIGN CRITERIA					SPECIAL INSPECTIONS AND REPORTS			
1.	ΤН	E STRUCTURE IS DESIGNED IN ACCORDANCE W	ITH THE INTERNATIO	NAL BUILDING CODE	1. SPECIAL INSPECTIONS AND TESTING SHALL BE DONE IN ACCORDANCE WITH THE STATEMENT			
	(IB	C), 2021 EDITION.			OF SPECIAL INSPECTIONS PER IBC CHAPTER 17, AS APPLICABLE PER THE FOLLOWING CRITER			
2.	DE	AD LOADS:			2. THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (RDPIRC) FOR THIS			
	Α.	DESIGN DEAD LOADS INCLUDE THE WEIGHT O	F THE STRUCTURE, N	IATERIALS,	PROJECT SHALL BE DESIGNATED BY THE OWNER. SUBMIT ALL SPECIAL INSPECTION REPORTS			
		COMPONENTS, PERMANENT FIXTURES, 4 PSF	MECHANICAL DUCT A	LLOWANCE, AND 15 PSF	DIRECTLY TO THE RDPIRC AND BUILDING OFFICIAL FOR REVIEW. THE RDPIRC SHALL FORWAR			
		PARTITION LOAD.		····· , · · · · · · · · · · · · · · · ·	ALL THE STRUCTURALLY RELATED SPECIAL INSPECTION REPORTS TO THE STRUCTURAL			
	В.	LOADING FOR MECHANICAL AND ELECTRICAL	EOUIPMENT IS BASE	D ON THE WEIGHTS OF	ENGINEER FOR REVIEW.			
	2.	ASSUMED FOUIPMENT AS INDICATED ON THE	STRUCTURAL DRAWI	NGS (INCLUDING THE	3 SPECIAL INSPECTORS SHALL BE CONTRACTED BY THE OWNER OR THE OWNER'S AUTHORIZE			
		WEIGHT OF CONCRETE PADS WHERE INDICAT	FD ON MEP DRAWING	S) ANY DISCREPANCIES	AGENT SPECIAL INSPECTORS SHALL BE QUALIFIED PER THE REQUIREMENTS LISTED IN			
		OR CHANGES IN THE TYPE SIZE LOCATION O			SECTION 1704 2			
		SHOLILD BE REPORTED TO THE STRUCTURAL	ENGINEER FOR VERIE		THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL TESTING INSPECTION			
	C		TOT LACEMENT OF L		DED SECTION 110.3 OF WORK DEADY FOR INSPECTION. THE GENERAL CONTRACTOR MUST			
	С.	<ul> <li>STONE/BDICK VENEED -</li> </ul>			DDOVIDE ACCESS TO AND MEANS FOR DDODED INSDECTION OF SUCH WORK			
		METAL DANIEL	2 DCE		THE ADDOM/ED MOST OF IDDENIT DESIGN DOCTIMENTS AND SDECIEICATIONS AND SHALL			
r	L N/		0 4 3 5		PROVIDE REPORTS TO THE DUILDING OFFICIAL, THE ARCHITECT/ENGINEER, AND OTHER			
3.								
	A.	FOUTNOTES ACCORDING TO THE IBC AND AS		AS APPLICABLE.	6. THE SPECIAL INSPECTOR SHALL REPORT ALL DISCREPANCIES TO THE IMMEDIATE ATTENTION			
	В.	IN AREAS WHERE PARTITIONS ARE ERECTED C	JR WILL BE REARRANG	JED, AN ALLOWANCE OF	OF THE CONTRACTOR FOR CORRECTION, THEN IF UNCORRECTED, TO THE PROPER DESIGN			
		15 PSF HAS BEEN MADE FOR PARTITIONS AS A		JIED LIVE LOAD WHERE	AUTHORITY AND TO THE BUILDING OFFICIAL.			
	~	THE LIVE LOAD AS STATED BELOW IS 80 PSF O	R LESS.		7. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE			
	C.	DESIGN LIVE LOADS ARE BASED ON THE MORE	E RESTRICTIVE OF THE	UNIFORM LOAD LISTED	WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDC			
		BELOW OR THE CONCENTRATED LOAD LISTED	) ACTING OVER AN AF	REA 2' - 6" SQUARE OR, IN	IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND APPLICABLE			
		THE CASE OF PARKING GARAGES 20 IN <sup>2</sup> , OR ST	AIR TREADS, 4 IN <sup>2</sup> .		STANDARDS OF QUALITY AND WORKMANSHIP OF THE IBC.			
	D.	LIVE LOADS HAVE BEEN REDUCED USING THE	STANDARD PROCEDI	JRE FROM THE ABOVE	8. ADDITIONAL INSPECTIONS MAY BE REQUIRED BY THE GOVERNING JURISDICTION. THE BELOV			
		REFERENCE CODES.			REQUIREMENTS ARE MINIMUM PROJECT STANDARDS.			
	Ε.	FOR LIVE LOADS EXCEEDING 100 PSF, NO RED	UCTION HAS BEEN M	ADE, EXCEPT THAT THE	9. STRUCTURAL OBSERVATIONS SHALL BE PERFORMED BY A LICENSED DESIGN PROFESSIONAL			
		DESIGN LIVE LOAD ON MEMBERS SUPPORTING	G (2) OR MORE FLOOF	RS HAS BEEN REDUCED A	OR THEIR REPRESENTATIVE DURING PERIODIC SITE VISITS. THESE OBSERVATIONS DO NOT			
		MAXIMUM OF 20% BUT THE LIVE LOAD IS NOT	TO BE LESS THAN AP	PLICABLE REDUCTION	CONSTITUTE A SPECIAL INSPECTION. STRUCTURAL OBSERVATIONS SHALL BE PERFORMED F			
		LIMITS.			THE WORK LISTED BELOW:			
		<u>CATEGORY</u>	<u>UNIFORM</u>	<u>CONCENTRATED</u>	A. <u>CONCRETE CONSTRUCTION</u>			
	•	ASSEMBLY AREAS, LOBBIES, SUITES,			OBSERVE PLACEMENT OF REINFORCING STEEL, ANCHOR RODS, AND OTHER EMBEDDED			
		PLAZAS, & TERRACES	100 PSF	2,000 LBS	COMPONENTS PRIOR TO PLACEMENT OF CONCRETE.			
	•	UNINHABITABLE ATTIC (NOTE 3)						
		WITH STORAGE	20 PSF	-	10. SPECIAL INSPECTIONS REQUIRED FOR THIS PROJECT INCLUDE, BUT ARE NOT LIMITED TO:			
		WITHOUT STORAGE	10 PSF	-	A. CONCRETE CONSTRUCTION (PER IBC SECTION 1705.3)			
	•	BALCONIES & DECKS	NOTE 1	-	1. PERIODIC INSPECTIONS:			
	•	CLASSROOMS	40 PSF	1,000 LBS	a. PLACEMENT OF STEEL REINFORCEMENT.			
	•	DINING ROOMS	100 PSF	_	b. WELDING OF STEEL REINFORCEMENT.			
	•	CORRIDORS & EXITS			C. PLACEMENT OF HEADED BOLTS AND EMBEDDED FABRICATIONS.			
		FIRST FLOOR	100 PSF	2.000 LBS	d VERIEY USE OF REQUIRED DESIGN MIXTURE			
		OTHER FLOORS	80 PSF	2,000 L BS	VERIEV CURING PROCEDURES AND MAINTENANCE OF CURING TEMPERATURE			
		KITCHENS	150 PSF	NOTE 2	f VERIEV CONCRETE STRENGTH BEFORE REMOVAL OF SHORES AND FORMS FROM			
			40 PSF	NOTE 2	REAMS AND SLABS			
				2000 LBS				
		PESTROOMS	60 DSE	2000 200				
			001 51		a. FLACLIVILINT OF CONCRETE.			
	-							
				1,000 LBS	C. DETERMINATION OF SLUMP, AIR CONTENT, AND TEMPERATURE.			
			79 FSF	1,000 LB3	B. SOILS CONSTRUCTION (PER IBC SECTION 1705.6)			
	•	RUUF		300 LBS	1. PERIODIC INSPECTIONS:			
	•		100 PSF	300 LBS	a. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED			
	•	STORAGE ABOVE CEILING (NON-ATTIC)	ZU PSF	-	PROPER MATERIAL			
	•	WAREHOUSE STORAGE/ MANUFACTURING			b VERIEV MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEOUATE TO ACHIEV			
		LIGHI	125 PSF	2,000 LBS	THE DESIGN BEARING CAPACITY			
		HEAVY	250 PSF	3,000 LBS	ΓΙΝ ΕΡΕΟΙΟΙ ΟΕΛΙΜΙΚΟ ΟΛΙ ΑΘΙΤΤ. Δ ΙΝ ΕΡΕΛΤ SUBGRADE ΔΝΟ VERIEV THAT SITE HAS REEN DREDADED DOODED V DDI			
		FOOTNOTES:						
		1. 1.5 TIMES THE UNIFORM LOAD OF THE OC	CUPANCY SERVED, N	OT REQUIRED TO	A PERFORM OF ASSIFICATION AND TESTING OF MATERIALS TO RELISED FOR FILL			
		EXCEED 100 PSF.						
		2. DESIGN CONCENTRATED LOAD IS THAT RI	EQUIRED BY ASSUME	D EQUIPMENT WEIGHT.				
		3. REFERENCE CODE FOR APPLICABILITY CR	ITERIA.		a. VENTERS DEDITEDENT MATERIALS, MOISTORE CONTENT, DENSITIES, AND LIFT THICKNESS DEDITEDENT AND COMPACTION OF COMPACTED FUL			
4.	GE	OTECHNICAL DESIGN CRITERIA:						
	Α.	SOIL DESIGN PARAMETERS BELOW ARE BASEI	D ON THE GEOTECHN	ICAL REPORT PROVIDED	D. REVIEW AFFROVED GEOTECHNICAL REPORT FOR COMPLIANCE AND ADDITIONA			
		BY TERRACON DATED FEBRUARY 3, 2021, TERF	ACON PROJECT NO.	96205296.	IESTING REQUIREMENTS.			

4.

- B. THE FOLLOWING DESIGN INFORMATION IS PROVIDED SOLELY FOR REFERENCE AND IS NOT STRUCTURAL SUBMITTALS INTENDED TO SUPERCEDE ANY INFORMATION PROVIDED IN THE GEOTECHNICAL REPORT. SHOULD DISCREPANCIES EXIST THROUGHOUT THE DRAWINGS RELATIVE TO THE GEOTECHNICAL REPORT, THE CONTRACTOR SHALL CONTACT GESSNER ENGINEERING FOR ADDITIONAL INFORMATION.
- C. ALLOWABLE BEARING CAPACITIES:

			CAPACITY (PSF)
	SHALLOW BEARING	STRIP FOOTING	1,500
		ISOLATED FOOTING (FS = 2, 3)	N/A
	DRILLED	END BEARING (FS = 2, 3)	N/A
PIERS	SKIN FRICTION (FS = 2, 3)	N/A	

- FACTOR OF SAFETY (FS) = (TOTAL LOAD), (DEAD + SUSTAINED LIVE) 2. CAPACITIES LISTED REFLECT THOSE SHOWN IN THE GEOTECHNICAL REPORT. 3. REF. DETAILS FOR MINIMUM BEARING DEPTHS.
- D. RETAINING WALL DESIGN CRITERIA:
- BEARING CAPACITY STRATUM 1 EX. FILL BEARING CAPACITY - TYPE A BORROW
- K∆
- HYDROSTATIC PRESSURE • SLIDING FRICTION COEFFICIENT (µ)
- BACKFILL SLOPE (B)
- SURCHARGE LOADS
- 1,500 PSF 2,500 PSF 0.35 INCLUDED 0.35 100 PSF

### <u>GENERAL</u>

- STRUCTURAL DESIGN BASED ON PLANS PROVIDED BY RIALTO STUDIO. FOR REFERENCED STANDARDS OF DESIGN AND CONSTRUCTION REFER TO CHAPTER 35 OF THE INTERNATIONAL BUILDING CODE (IBC). WHERE OTHER STANDARDS ARE NOTED IN THE DRAWINGS, USE THE LATEST EDITION OF THE STANDARD UNLESS A SPECIFIC DATE IS INDICATED. REFERENCE TO A SPECIFIC SECTION IN A CODE DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE ENTIRE STANDARD. ALL SPECIFICATIONS AND CODES NOTED SHALL BE THE LATEST APPROVED EDITIONS AND REVISIONS BY THE AUTHORITY HAVING JURISDICTION OVER THIS PROJECT.
- 3. WHERE CONFLICTS EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL CONTRACT DOCUMENTS, STRUCTURAL DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS, THE STRICTEST REQUIREMENTS SHALL GOVERN, UNLESS APPROVED OTHERWISE.
- 4. STRUCTURAL DRAWINGS SHALL BE COORDINATED WITH MECHANICAL, ELECTRICAL, PLUMBING, CIVIL, AND ARCHITECTURAL DRAWINGS. WHERE DISCREPANCIES OCCUR BETWEEN STRUCTURAL DOCUMENTS AND OTHER DISCIPLINES, THE STRUCTURAL ENGINEER SHALL BE CONTACTED
- 5. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST RFI. ASI, AND/OR ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, OR CONSTRUCTION.
- 6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL FIELD VERIFY STRUCTURES NOTED IN THE DRAWINGS AS EXISTING. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT AND STRUCTURAL ENGINEER. DO NOT SCALE DRAWINGS FOR QUANTITY, LENGTH, OR FIT OF MATERIALS.
- 8. THE STRUCTURAL DRAWINGS ARE INTENDED TO SHOW THE GENERAL CHARACTER AND EXTENT OF THE PROJECT AND ARE NOT INTENDED TO SHOW ALL DETAILS OF THE WORK. DETAILS, SECTIONS, AND NOTES SHOWN ON THESE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR CONDITIONS ELSEWHERE UNLESS NOTED OR SHOWN OTHERWISE. IF LOCATIONS ARE FOUND WHERE NO TYPICAL OR SPECIFIC DETAIL OR TYPICAL SCHEDULE APPLIES. NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER.
- 9. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND ALL JOB RELATED SAFETY STANDARDS SUCH AS OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING, BUT NOT LIMITED TO: ADEQUATE EXCAVATION PROCEDURES, SHORING, BRACING, AND ERECTION PROCEDURES COMPLYING WITH NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES. 10. THE STRUCTURE HAS BEEN DESIGNED FOR THE LOADS IDENTIFIED WITHIN THESE STRUCTURAL
- DRAWINGS THAT ARE ANTICIPATED TO BE APPLIED TO THE FINAL STRUCTURE ONCE COMPLETED AND OCCUPIED.
- A. THESE DRAWINGS DO NOT DEPICT ANY SECONDARY STRUCTURAL ELEMENTS WHICH MAY BE REQUIRED UNLESS SPECIFICALLY NOTED OTHERWISE. SECONDARY STRUCTURAL ELEMENTS INCLUDE, BUT ARE NOT LIMITED TO: SUPPORT BEAMS ABOVE THE PRIMARY ROOF STRUCTURE TO SUPPORT MECHANICAL EQUIPMENT, ROOFTOP MECHANICAL CURBS, ELEVATOR SUPPORT RAILS AND BEAMS, RETAINING WALLS INDEPENDENT OF THE PRIMARY BUILDING, LIGHT POLE OR FLAG POLE FOUNDATIONS, ANCHORAGE AND SUPPORT OF MECHANICAL AND ELECTRICAL EQUIPMENT/PIPING/DUCTWORK, NON-BEARING PARTITIONS, GUARD RAILS AND POSTS, STAIR FRAMING, STAIR RAILINGS, AND EXTERIOR CURTAIN WALLS AND CLADDING.
- B. THE CONTRACTOR IS RESPONSIBLE FOR CHECKING THE ADEQUACY OF THE STRUCTURE TO SUPPORT ANY APPLIED CONSTRUCTION LOADS, INCLUDING, BUT NOT LIMITED TO: THOSE DUE TO CONSTRUCTION VEHICLES OR EQUIPMENT, MATERIAL HANDLING OR STORAGE, SHORING OR RESHORING, AND ANY OTHER CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL CONTACT GESSNER ENGINEERING FOR ANY CONSTRUCTION LOADS THAT ARE IN EXCESS OF THE STATED DESIGN LOADS.
- C. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOFS AND SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. DO NOT IMPACT POURED OR ERECTED FLOORS OR ROOFS WHEN PLACING MATERIALS.
- 11. THE BUILDING OWNER SHALL ESTABLISH A PLANNED PROGRAM OF MAINTENANCE TO ENSURE STRUCTURAL INTEGRITY FROM EXPOSURE TO THE ENVIRONMENT. THIS PROGRAM SHALL INCLUDE, BUT IS NOT LIMITED TO: PAINTING OF STRUCTURAL STEEL, PROTECTIVE COATING FOR CONCRETE, SEALANTS, CAULKED JOINTS, EXPANSION JOINTS, CONTROL JOINTS, SPALLS AND CRACKS IN CONCRETE, AND PRESSURE WASHING OF EXPOSED STRUCTURAL ELEMENTS EXPOSED TO A CORROSIVE ENVIRONMENT.

SPECIAL INSPECTIONS AND REPORTS

- 1. SUBMIT TO THE ENGINEER FOR REVIEW APPROPRIATE SCHEDULES, SHOP DRAWINGS, SAMPLES, TEST REPORTS, AND PRODUCT DATA THAT IS RELATED TO THE STRUCTURAL PORTION OF THE WORK ACCORDING TO AIA DOCUMENT A201 GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION. NO WORK SHALL BE FABRICATED UNTIL THE ENGINEER'S REVIEW HAS BEEN OBTAINED. PROVIDED IS A LIST OF STRUCTURAL SUBMITTALS REQUIRED FOR THIS PROJECT, AND REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS:
  - A. FABRICATION / ERECTION DRAWINGS: CONCRETE REINFORCING STEEL
  - B. PRODUCT DATA SUBMITTALS
  - CONCRETE MIX DESIGN
  - WATERPROOF CONCRETE
  - C. REPORTS: CONCRETE TEST RESULTS
  - CONCRETE MONITORING DURING PLACEMENT
- 2. THE CONTRACTOR SHALL REVIEW AND STAMP SHOP DRAWINGS PRIOR TO SUBMISSION TO THE ARCHITECT/ENGINEER. THE CONTRACTOR SHALL REVIEW FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS.
- 3. CONTRACTOR SHALL SUBMIT EQUIPMENT PRODUCT DATA WHERE LOADING IS TO BE
- IMPARTED ON THE STRUCTURE DURING CONSTRUCTION FOR REVIEW, PRIOR TO USE.
- 4. SUBMIT SHOP DRAWINGS TO THE ARCHITECT/ENGINEER AS INDICATED OR SPECIFIED FOR REVIEW PRIOR TO FABRICATION. REVIEW WILL BE FOR GENERAL CONFORMANCE WITH DESIGN INTENT CONVEYED IN THE CONTRACT DOCUMENTS.
- 5. WHEN AN ENGINEER IS REQUIRED TO SIGN AND STAMP SHOP DRAWINGS AND CALCULATIONS, ENSURE SEAL INDICATES ENGINEER AS BEING REGISTERED IN THE STATE OF THE PROJECT. 6. SHOP DRAWINGS ARE NOT A PART OF CONTRACT DOCUMENTS. THEREFORE,
- ARCHITECT'S/ENGINEER'S REVIEW DOES NOT CONSTITUTE AN AUTHORIZATION TO DEVIATE FROM TERMS AND CONDITIONS OF THE CONTRACT. 7. THE ENGINEER REQUIRES (10) WORKING DAYS AFTER RECEIPT OF SHOP DRAWINGS AND
- CALCULATIONS FOR PROCESSING.

#### **GENERAL FOUNDATION**

- 1. DIMENSIONS OF FOUNDATION ELEMENTS INDICATE MINIMUM ACCEPTABLE SIZES. LARGER SIZES FORMED BY LESS ACCURATE CONSTRUCTION MAY REQUIRE ADDITIONAL REINFORCING NOT SHOWN, WHICH SHALL BE DETERMINED BY THE STRUCTURAL ENGINEER DURING THE CONSTRUCTION OBSERVATION PROCESS. CUT HAUNCHES ON EACH SIDE OF TRENCHES OF ADEQUATE SIZE TO MAINTAIN THE VERTICAL SIDES OF THE TRENCH.
- GRADE BEAMS AND FOOTINGS SHALL BEAR A MINIMUM OF 12" INTO COMPACTED STRUCTURAL FILL OR COMPETENT NATIVE SOILS. REDUCED PENETRATION DEPTHS INTO BEDROCK SHALL BE PER THE GEOTECHNICAL REPORT OR A MINIMUM OF 3". WHERE NOTED, FOUNDATIONS SHALL BE CONSTRUCTED ON APPROVED VOID FORMS
- PLACE MEP LINES BELOW SLABS AND OUTSIDE OF GRADE BEAMS AND FOOTINGS. DO NOT PLACE LINES PARALLEL WITHIN OR PARALLEL BELOW GRADE BEAMS AND FOOTINGS. REFERENCE TYPICAL DETAILS FOR ALLOWABLE PENETRATIONS PERPENDICULAR TO GRADE BEAMS, FOOTINGS AND SLABS. PROVIDE PROTECTION OF MEP LINES CROSSING GRADE BEAMS
- OR PROJECTING THROUGH THE SLAB TO ALLOW FOR FOUNDATION MOVEMENT. 4. A 2"- 4" PERVIOUS SAND OR GRANULAR LAYER MAY BE PLACED UNDER THE SLAB AT THE CONTRACTOR'S DISCRETION.
- EXTEND FORMWORK AT LEAST 6" BELOW THE FINISHED GRADE ELEVATION AT PERIMETER. EXPANSION JOINTS SHALL BE FORMED BY A BITUMINOUS FILLER MATERIAL, COMPLYING WITH ASTM D1751, ASPHALT-SATURATED CELLULOSIC FIGURE. SET 1/2" - 1" BELOW THE SURFACE IN ORDER TO FILL THE JOINT WITH A FLEXIBLE JOINT FILLER. EXTERIOR JOINTS SHALL BE SEALED WITH A TRAFFIC GRADE SEALANT.

#### **REINFORCEMENT**

- ALL REINFORCEMENT WORK SHALL CONFORM TO THE FOLLOWING STANDARDS AND ANY STANDARDS REFERENCED THEREIN:
- ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE ACI 315 - DETAILS AND DETAILING OF CONCRETE REINFORCEMENT
- 2. MATERIALS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS: ASTM A615, GRADE 60 REINFORCEMENT -
- WELDED WIRE FABRIC ASTM A185, SMOOTH, FLAT SHEET
- LAPS AND SPLICES IN REINFORCING BARS SHALL BE A MINIMUM OF (30) BAR DIAMETERS. 4. BARS #3, #4, AND #5 MAY BE COLD BENT IN THE FIELD. FIELD BENDING BEYOND #5 IS NOT PERMISSIBLE
- REINFORCEMENT SHALL BE ADEQUATELY SECURED BY WIRE TIES AND SUPPORTED BY PLASTIC, METAL, OR MASONRY SUPPORTS. SPACING OF SUPPORTS SHALL BE AS NECESSARY TO PREVENT SAGGING OF THE REINFORCEMENT UNDER THE WEIGHT OF CONSTRUCTION WORKERS AND WET CONCRETE.
- WHERE REINFORCEMENT MUST TRANSITION BETWEEN STEPPED ELEMENTS, SLOPE SHALL
- NOT BE GREATER THAN 1:6 UNLESS NOTED OTHERWISE. CLEAN REINFORCEMENT OF LOOSE RUST AND MILL SCALE, EARTH, ICE, OR OTHER FOREIGN
- MATERIALS THAT MAY REDUCE BOND TO CONCRETE. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT FOR CAST-IN-PLACE CONCRETE CONSTRUCTION:

	INTERIOR			EXTERIOR		
CONCRETESTRUCTURE	TOP	SIDE	BOTTOM	TOP	SIDE	BOTTOM
BEAMS	1 1/2"	1 1/2"	11/2"	2"	2"	2"
COLUMNS	1 1/2"	1 1/2"	11/2"	2"	2"	2"
GRADE BEAMS/FOOTING W/O VAPOR RETARDER	1 1/2"	N/A	N/A	3"	3"	3"
GRADE BEAMS/FOOTING W/ VAPOR RETARDER	1 1/2"	2"	2"	2"	2"	2"
SLAB ON GRADE	3/4"	2"	2"	2"	2"	2"
WALLS	1 1/2"	1 1/2"	11/2"	2"	2"	2"
WIDE PAN JOIST (BEAMS)	1 1/2"	1 1/2"	11/2"	2"	2"	2"
DRILLED PIERS	N/A	N/A	N/A	3"	3"	3"
NOTES: "EXTERIOR" IS EXPOSURE TO EARTH OR WEATHER.						

#### SLAB-ON-GRADE SITE PREPARATION

- 1. ALL FILL PLACED BELOW FOUNDATIONS SHALL MEET THE REQUIREMENTS OF TYPE A BORROW MATERIAL AS OUTLINED IN TXDOT ITEM 132 OR CLASS A SELECT BORROW PER COA ITEM 130S. CONSTRUCTION AREAS SHALL BE STRIPPED OF ALL VEGETATION, LOOSE TOPSOIL, SURFICIAL
- CONCRETE, ETC. SUBGRADE SOILS SHALL BE REMOVED BELOW EXISTING GRADE IN ACCORDANCE WITH THE "MINIMUM EXCAVATION DEPTH" NOTED BELOW. ROOTS OF TREES WITHIN THE CONSTRUCTION AREAS SHALL BE EXCAVATED AND REMOVED UNLESS APPROVED OTHERWISE.
- 3. SLOPING SITES SHALL BE BROUGHT TO A LEVEL CONDITION TO MEET THE LOWEST EXCAVATED ELEVATION TO ALLOW FOR A UNIFORM DEPTH BUILDING PAD.
- 4. WHERE REQUIRED, SOIL STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS TO THE "STABILIZATION DEPTH" NOTED BELOW.
- ONCE FINAL SUBGRADE ELEVATION HAS BEEN ACHIEVED, EXPOSED SOIL SUBGRADE AREAS SHALL BE PROOFROLLED WITH AS OUTLINED IN THE GEOTECHNICAL REPORT. WEAK AREAS DETECTED DURING THE PROOF ROLLING PROCESS SHALL BE REMOVED AND REPLACED WITH SOILS EXHIBITING SIMILAR CLASSIFICATION, MOISTURE CONTENT, AND DENSITY AS THE ADJACENT IN SITU SOILS.
- 6. SELECT FILL SHALL BE COMPACTED IN PLACE TO FORM A LEVEL BUILDING PAD IN
- ACCORDANCE WITH THE "MINIMUM REPLACEMENT DEPTH" NOTED BELOW. ALL SELECT FILL SHALL BE PLACED ON PREPARED SURFACES IN LIFTS NOT TO EXCEED 8" IN LOOSE MEASURE, WITH COMPACTED THICKNESS NOT TO EXCEED 6".
- SELECT FILL SHALL BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR (ASTM D 698) DENSITY AT A MOISTURE CONTENT RANGING WITHIN 2% OF OPTIMUM MOISTURE CONTENT FOR DEPTHS OF 3' - 0" OR LESS. IF FILL IN EXCESS OF 3' - 0" IS REQUIRED, ALL STRUCTURAL AND SELECT FILL DEEPER THAN 3' - 0" SHALL BE COMPACTED TO 99% OF STANDARD PROCTOR (ASTM D 698).

INSTALLATION.

MINIMUM EXCAVATION DEPTH 0 - 6" STABILIZATION DEPTH N/A MINIMUM REPLACEMENT DEPTH 0'-0"



Sheet Number 114 of 116



(1)	TALL RETAINING WALL
$( \mathbf{L} )$	

 $\sim$  N.T.S.

BEAM AND WALL TENSION DEVELOPMENT AND LAP SPLICE LENGTHS GRADE 60 REINFORCEMENT, NORMALWEIGHT CONCRETE									
DAD		f'c = 30	00 PSI	f'c = 40	00 PSI	f'c = 50	f'c = 5000 PSI		
BAR SIZE	LAP CLASS	BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS		
<i>#</i> 2	А	12	13	12	12	12	12		
#3	В	16	17	16	16	16	16		
#1	А	16	20	14	18	12	16		
#4	В	21	26	19	24	16	21		
#5	А	23	29	20	25	18	23		
#5	В	30	38	26	33	24	30		
#6	А	31	40	27	35	24	31		
#0	В	41	52	36	46	32	41		
#7	А	46	60	40	52	36	46		
#7	В	60	78	52	68	47	60		
#Q	А	60	78	52	67	46	60		
#0	В	78	102	68	88	60	78		
#Q	А	64	84	56	72	50	65		
#9	В	84	110	73	94	65	85		
#10	А	72	93	62	81	56	72		
#10	В	94	121	81	106	73	94		
#11	А	85	110	74	96	66	86		
#11	В	111	143	97	125	86	112		

NOTES: 1. ALL SPLICE LENGTHS ARE IN INCHES.

2. SPLICE TYPE CLASS "A" MAY BE USED WHERE 50% OR LESS OF THE BARS IN ANY

- GIVEN SECTION ARE SPLICE; OTHERWISE, SPLICE TYPE CLASS "B" SHALL BE USED. 3. FOR NONCONTACT SPLICES IN FLEXURAL MEMBERS, THE TRANSVERSE ON CENTER SPACING OF SPLICED BARS SHALL NOT EXCEED THE LESSER OF 1/5 THE REQUIRED
- LAP SPLICE LENGTH OR 6". 4. THIS TABLE SHALL BE USED FOR BEAMS AND GIRDERS ONLY. REFER TO OTHER DEVELOPMENT LENGTH TABLES FOR OTHER MEMBERS.
- THE TENSION DEVELOPMENT LENGTH (Ld) IS EQUAL TO THE SCHEDULED "CLASS A" LAP SPLICE LENGTH.
- 6. A BOTTOM BAR IS DEFINED AS ANY BAR THAT DOES NOT HAVE MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR.
- 7. OTHER BARS INCLUDE TOP BARS, FACE BARS, AND ALL OTHER BARS THAT HAVE MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR.
- 8. FOR EPOXY-COATED BARS, MULTIPLY THE TABULATED SPLICE LENGTHS OF
- BOTTOM BARS BY 1.5 AND THE TABULATED SPLICE LENGTHS OF OTHER BARS BY 1.3. . WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR BUT MAY NOT BE LESS THAN THE "CLASS A" SPLICE LENGTH OF THE LARGER BAR.

#### SLAB TENSION DEVELOPMENT AND LAP SPLICE LENGTHS GRADE 60 REINFORCEMENT, NORMALWEIGHT CONCRETE f'c = 3000 PSI f'c = 4000 PSI f'c = 5000 PSI BAR LAP BOTTOM OTHER BOTTOM OTHER BOTTOM OTHER SIZE CLASS BARS BARS BARS BARS BARS BARS A 12 13 12 12 12 #3 B 16 17 16 16 16 16 A 17 22 15 19 13 17 #4 B 23 29 20 25 17 23 A 25 32 21 28 19 25 #5 B 33 42 28 37 25 A 33 43 29 37 26 34 #6 B 43 56 38 49 34 45 A 53 69 46 60 42 #7 B 69 90 60 78 55 A 66 86 57 74 51 67 #8 B 86 112 75 97 67 88 A 80 104 69 90 62 81 #9 B 104 136 90 117 81 106 A 96 125 83 108 75 97 #10 B 125 163 108 141 98 127 A 113 146 98 127 87 114 #11 B 147 190 128 166 114 149

NOTES:

1. ALL SPLICE LENGTHS ARE IN INCHES.

- 2. SPLICE TYPE CLASS "A" MAY BE USED WHERE 50% OR LESS OF THE BARS IN ANY GIVEN SECTION ARE SPLICED; OTHERWISE, SPLICE TYPE CLASS "B" SHALL BE USED. . FOR NONCONTACT SPLICES IN FLEXURAL MEMBERS, THE TRANSVERSE ON CENTER
- SPACING OF SPLICED BARS SHALL NOT EXCEED THE LESSER OF 1/5 THE REQUIRED LAP SPLICE LENGTH OR 6". 4. THIS TABLE SHALL BE USED FOR SLABS ONLY. REFER TO OTHER DEVELOPMENT
- LENGTH TABLES FOR OTHER MEMBERS. 5. THE TENSION DEVELOPMENT LENGTH (Ld) IS EQUAL TO THE SCHEDULED "CLASS A"
- LAP SPLICE LENGTH. 6. A BOTTOM BAR IS DEFINED AS ANY BAR THAT DOES NOT HAVE MORE THAN 12" OF
- FRESH CONCRETE BELOW THE BAR. . OTHER BARS INCLUDE TOP BARS AND ALL OTHER BARS THAT HAVE MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR. FOR TOP REINFORCEMENT IN SLABS THAT ARE 12" THICK OR LESS, TABULATED SPLICE LENGTHS FOR BOTTOM BARS SHALL BE USED.
- 3. FOR EPOXY-COATED BARS, MULTIPLY THE TABULATED SPLICE LENGTHS OF BOTTOM
- BARS BY 1.5 AND THE TABULATED SPLICE LENGTHS OF OTHER BARS BY 1.3. 9. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR BUT MAY NOT BE LESS THAN THE "CLASS A" SPLICE LENGTH OF THE LARGER BAR.

## 7 STANDARD DOWEL HOOKS N.T.S.





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Sheet Number 115 of 116





4 POND OUTFALL STRUCTURE - SECTION 2 N.T.S.

<u>N(</u>	<u>DTES</u> :
1.	REFERENCE GENERAL NOTES AND DETAILS FOR ADDITIONAL INFORMATION.
2.	VERIFY ALL ELEVATIONS WITH CIVIL PLANS
IF	GEND



