Innovative approaches
Practical results
Outstanding service

Edwards Aquifer Exception Request

for

San Antonio Water System (SAWS)

Knights Cross 1.0 MG Standpipe

Prepared for:

TCEQ-Region 13 Office

San Antonio, Texas

February 2024

Prepared by:

FREESE AND NICHOLS, INC.
10431 Morado Circle, Suite 300
Austin, Texas 78759
512-617-3100

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

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

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

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

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

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

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

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

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

Technical Review

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

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

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

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

Mid-Review Modifications

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

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

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

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

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

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

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

1. Regulated Entity Name: Knights Cross 1.0 MG Standpipe						**2. Regulated Entity No.:**			
3. Customer Name: San Antonio Water Systems						**4. Customer No.: CN600529069**			
5. Project Type: **(Please circle/check one)**	New		Modification			Extension		Exception	
6. Plan Type: **(Please circle/check one)**	WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		Non-residential			**8. Site (acres):**			1.95
9. Application Fee:	$500		**10. Permanent BMP(s):**			Hydromulching, native seed planting			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Bexar		**14. Watershed:**			San Antonio River			

Application Distribution

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

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

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

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

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

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.
Tam Tran
Print Name of Customer/Authorized Agent
[signature] 02/14/24
Signature of Customer/Authorized Agent Date

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

General Information Form

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: Tam Tran

Date: 02/14/2024

Signature of Customer/Agent:

Project Information

1. Regulated Entity Name: Knights Cross 1.0 MG Standpipe
2. County: Bexar County
3. Stream Basin: San Antonio River Basin
4. Groundwater Conservation District (If applicable): Trinity Glen Rose GCD
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

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

7. Customer (Applicant):

   Contact Person: Vicente Garza, P.E., PMP
   Entity: San Antonio Water Systems
   Mailing Address: 6007 Wurzbach Rd.
   City, State: San Antonio, TX Zip: 78298
   Telephone: 210-233-3596 FAX: _____
   Email Address: vgarza@saws.org

8. Agent/Representative (If any):

   Contact Person: Tam Tran
   Entity: Freese and Nichols, Inc
   Mailing Address: 10431 Morado Cir, Ste. 300
   City, State: Austin, TX Zip: 78759
   Telephone: 512-381-1830 FAX: _____
   Email Address: tam.tran@freese.com

9. Project Location:

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

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

    The project area is located at 451 Knights Cross Drive in San Antonio, TX. The project area is located near the intersection of Knights Cross Dr and Crescent Oaks.

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

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

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

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

☒ Survey staking will be completed by this date: 01/10/2024

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

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

15. Existing project site conditions are noted below:

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

Prohibited Activities

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

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

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

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

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

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

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

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

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

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

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

Administrative Information

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

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

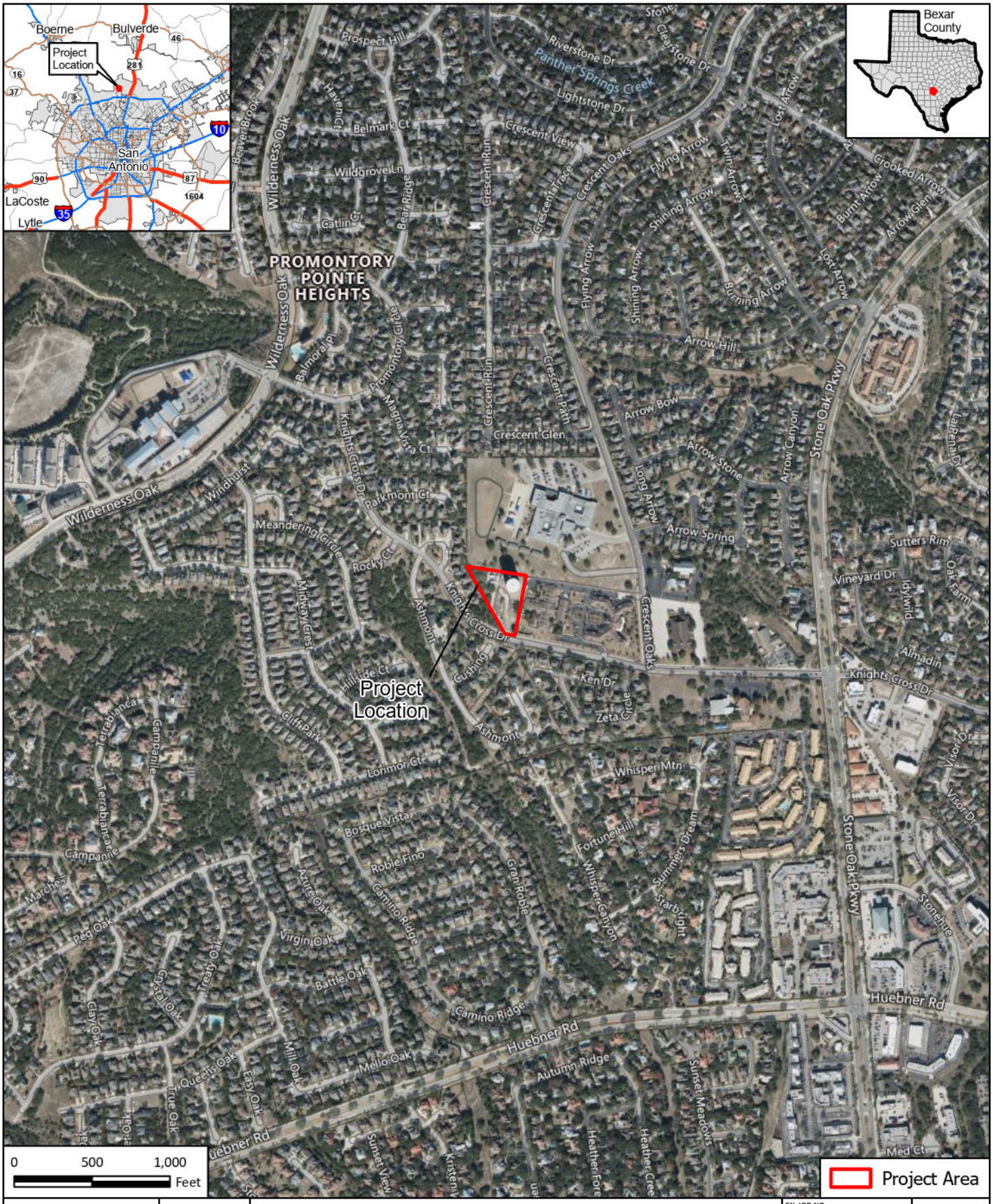
19. ☒ Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

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

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

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

Attachment A. Road Map



FREESE AND NICHOLS, INC
10431 Morado Circle, Suite 300
Austin, TX 78759
512-617-3188

San Antonio Water System
Knights Cross 1.0 MG Standpipe

Road Map

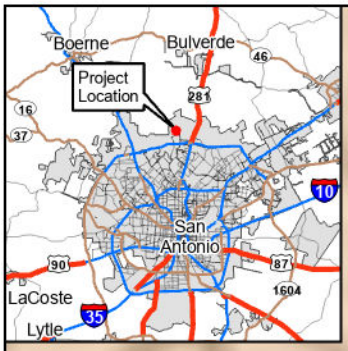
FN JOB NO	SWB23726
FILE NAME	SWB23726.mxd
DATE	2/13/2024
SCALE	1:10,000
DRAFTED	CS

1
FIGURE

Path: H:\ENVIRONMENTAL\Working\CS_Working\SWB23726\SWB23726.aprx

NAD 1983 StatePlane Texas South Central FIPS 4204 Feet

Attachment B. USGS/ Edwards Aquifer Zone Map



Project Location

Project Area
USGS Quadrange Boundary
Edwards Aquifer Recharge Zone

0 150 300 Feet

FREESE AND NICHOLS, INC
10431 Morado Circle, Suite 300
Austin, TX 78759
512-617-3188

San Antonio Water System
Knights Cross 1.0 MG Standpipe

USGS Topo/Edwards Aquifer Zone
USGS Quad: Camp Bullis

FN JOB NO	SWB23726
FILE NAME	SWB23726.mxd
DATE	2/13/2024
SCALE	1:2,000
DRAFTED	CS

2
FIGURE

Path: H:\ENVIRONMENTAL\Working\CS_Working\SWB23726\SWB23726.aprx

NAD 1983 StatePlane Texas South Central FIPS 4204 Feet

Knights Cross 1.0 MG Standpipe

Attachment C

Project Description

The Knights Cross 1.0 MG Standpipe project is located at 451 Knights Cross Drive in San Antonio, Bexar County, Texas. The site consists of an existing 6 MG steel tank that provides elevated storage and ground storage capacity for the booster pump station located onsite. The tank is critical to providing potable water service to SAWS customers and needs rehabilitation. Rehabilitation activities to the existing standpipe would require full isolation of the existing standpipe from the system for approximately one year. The project will consist of installing a new tank so the existing standpipe can be rehabilitated, new yard piping and yard piping modifications, concrete drainage channel to convey overflow discharge from the proposed and existing tanks, and asphalt driveway replacement with concrete. The project area is surrounded by residential housing and an elementary school. The project area is currently used for public utility (water storage). Temporary BMP will include silt fencing. Permanent BMPs will include hydromulching and revegetation of disturbed areas with native grasses.

The project area is approximately 1.95 acres (85,024 sqft) of developed lands. The new site improvements will increase the impervious cover from 18,693 sqft to 21,341 sqft, an increase of 2,648 sqft. The total impervious cover of the project area will be approximately 25%. No offsite areas are included in the project plans. The project would be constructed within the existing public right-of-way and would not require additional right-of-way.

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

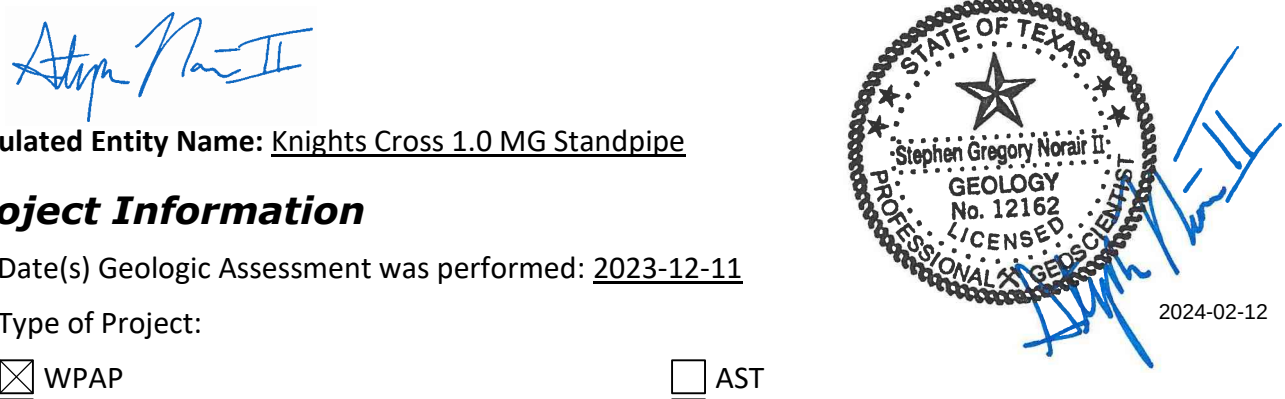
To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Stephen Norair II Telephone: (817)-735-7278

Date: 2024-02-12 Fax: _____

Representing: Freese and Nichols, Inc. (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: Knights Cross 1.0 MG Standpipe

Project Information

1. Date(s) Geologic Assessment was performed: 2023-12-11
2. Type of Project:

   ☒ WPAP ☐ AST
   ☐ SCS ☐ UST
3. Location of Project:

   ☒ Recharge Zone
   ☐ Transition Zone
   ☐ Contributing Zone within the Transition Zone

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

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

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
Eckrant-Rock outcrop Association (TaD)	D	0.3 - 1.0 feet

** Soil Group Definitions (Abbreviated)*

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

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

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

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

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

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

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

   Applicant's Site Plan Scale: 1" = 40'
   Site Geologic Map Scale: 1" = 40'
   Site Soils Map Scale (if more than 1 soil type): 1" = 40'

9. Method of collecting positional data:

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

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

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

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

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

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

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

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

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

Administrative Information

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

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: Knights Cross 1.0 MG Standpipe

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
F-1	29° 38' 2.5008" N	98° 30' 7.6608" W	MB	30	Kkd	150	225	3	-	-	-	-	X	5 - Low	35	✔			✔	Hillside

* DATUM:_____

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

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

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

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

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

Stephen Norair II_____ Date

Sheet 1 of 1

STATE OF TEXAS
Stephen Gregory Norair II
GEOLOGY
No. 12162
LICENSED
PROFESSIONAL GEOSCIENTIST

2024-02-12

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

Attachment B

Stratigraphic Collumn[1,2,3,4]

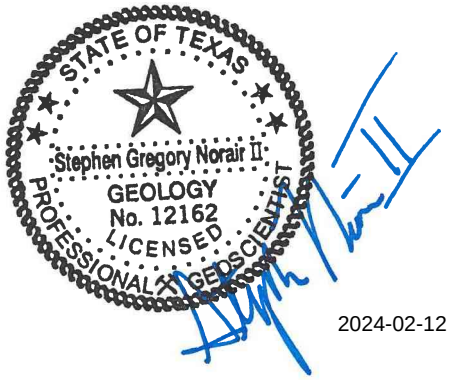
Epoch	Group	Formation	Member	Thickness (ft)
Lower Cretaceous	Edwards Group/Edwards Limestone Undivided (Ke)	Kainer Formation (Kk)	Dolomitic Member (Kkd)	90 – 120
			Basal nodular member (Kkbn)	20 – 70
	Trinity	Glen Rose Formation (Kgr)	Upper (Kgru)	400 - 900
			Lower (Kgrl)	

[1] Clark, A.K., Golab, J.A., and Morris, R.R., 2016, Geologic framework and hydrostratigraphy of the Edwards and Trinity aquifers within northern Bexar and Comal Counties, Texas: U.S. Geological Survey Scientific Investigations Map 3366, 1 sheet, scale 1:24,000, pamphlet, https://doi.org/10.3133/sim3366

[2]Blome, C.D., Faith, J.R., Pedraza, D.E., Ozuna, G.B., Cole, J.C., Clark, A.K., Small, T.A., and Morris, R.R. 2005. Geologic Map of the Edwards Aquifer Recharge Zone, South-Central Texas. U.S. Geological Survey, U.S. Department of the Interior. Scientific Investigations Map 2873. Version 1.1. Scale 1:200,0

[3]University of Texas at Austin. Bureau of Economic Geology (1974). Geologic Atlas of Texas, San Antonio Sheet. The Bureau, 1974.

[4]United States Geological Survey (2009). Map Showing Geology and Hydrostratigraphy of the Edwards Aquifer Catchment Area, Norther Bexar County, South-Central Texas



2024-02-12

Attachment C

Narrative Description of Site-specific Geology

Project Description

This project proposes the construction of a new 1.0 MG standpipe at the San Antonio Water System's (SAWS) Knights Cross facility for the San Antonio Water System (SAWS). The project site has an existing 6.0 MG standpipe and pump station present that was developed between 1983 and 1986 based on available historical aerial photos. Proposed construction will include connecting the existing and proposed standpipes with the pump station with piping while also being able to maintain isolation between the systems. The new standpipe will replace the existing standpipe while the old unit is rehabilitated. Pipes will be buried beneath the surface to allow work on the site to be conducted. Lastly, improvements to the site's drainage system will be implemented to collect overland flow and route it to the Knights Cross right-of-way (ROW) via a drainage easement on the southwest edge of the project site.

Geologic Stratigraphy and Structural Characteristics

The project site is entirely within the Edwards Aquifer Recharge Zone and the underlying geology consists exclusively of Cretaceous-aged Edwards Limestone (Ked). Specifically, the dolomitic member of the Kainer Formation (Kkd) within the Edwards group is present at the surface, consisting of massively bedded light grey dolomitic mudstones, wackestones, packstones, and grainstones with a thickness between 90 and 120 feet. This is underlain by the Basal nodular member (Kkbn) of the Kainer formation, and Glen Rose Limestone (Kgr). A rock core and geotechnical borings were also taken at the site by Rock Engineering & Testing Laboratory, LLC (2023) which found light brown and tan limestone which was fractured and vuggy in some areas of the rock core.

No caves, sinks, or karstic features have been documented at the site, but nearby features such as Cub Cave is located approximately 2-miles northeast of the Knights Cross facility. Lastly, a normal fault trending northeast to southwest (the typical trend of the Balcones fault zone) is mapped approximately 0.3 miles southwest of the project site.

Soil Profiles

There is only one soil found on the project site, the Eckrant-Rock outcrop association (TaD; with 8 to 30 percent slopes). This soil is a very dark grey very cobbly clay and has a shallow depth between 4 and 12 inches before hitting bedrock. It is the residuum of the limestone bedrock that it overlies and is found in the landscape on summits, shoulders, and ridges. This soil is well drained, has a moderately slow permeability class, and is in hydrologic soil group D.

Site Assessment

FNI conducted a geologic site assessment on December 12th, 2023. This site assessment was focused on identifying geologic and karstic features within the project area. The project site is roughly the shape of a right-triangle with its hypotenuse making up the southwest edge of the site. Topographically the site is on the side of a hill that slopes from the northeast corner down to the southwest edge of the sites. The parcels adjacent to the project site are also developed with single family homes to the west and south, a retirement village to the east, and an elementary school to the north.

Drainage follows the topography from the north, southward toward the Knights Cross ROW. A concrete gutter can be found along the western edge behind the single-family homes, which collects and directs water south along the edge of the project site (Photo 1).

Bedrock is only found at the surface in the northwest corner of the site (Photo 2), but evidence of shallow bedrock is also present via talus and loose rocks following the ridgeline along the southwestern edge of the site (Photo 3). Vuggy rocks were present among this talus; but no evidence of solution cavities or local fractures was apparent at the surface.

On this site, existing infrastructure is present that is buried beneath the surface into the bedrock. This includes communication utilities (e.g. fiber optic cables), electrical lines, and waterlines (see site plan for exact location of utilities). These features are not observable at the surface, but are shown on preliminary site plans. Photos 4, 5 and 6 show the estimated location of these buried utilities. Proposed activities also will also include the burial of additional pipe infrastructure that connects the existing standpipe and proposed standpipe. These buried utilities have all been classified as a single feature for the purposes of this geologic assessment to their close proximity within the project site.

Photo 1. View facing southeast showing the concrete gutter that runs parallel to the southwestern edge of the site boundary.

Photo 2. View from the northeast corner of the site looking south. The photo shows bedrock exposed at the surface and the northeast side of the existing 6 MG standpipe.

Photo 3. View facing north showing loose rocky talus found along the southwestern edge of the ridgeline/site boundary.

Photo 4. View facing north showing the existing 6 MG standpipe and associated pump/pipe infrastructure.

Photo 5. View facing west showing the likely surface connection from the existing underground 30-inch waterline that runs north to south within the project site. This photo also shows the location of the proposed 1 MG standpipe and additional underground pipe infrastructure.

Photo 6. View facing north along fence line of SAWS facility. Preliminary site plans show a buried fiber optic line beneath an access road.

STATE OF TEXAS
Stephen Gregory Norair II
GEOLOGY
No. 12162
LICENSED
PROFESSIONAL GEOSCIENTIST

2024-02-12

Knights Cross Dr

0 10 20 40 Feet

- NHD Stream
- Drainage Flow Direction
- 10-foot Contours
- Existing Buried Utilities - Approximate Location
- Photo Number Location - Representative Conditions
- Photo Number Location - Feature F-1
- Site Boundary

Site Soils

- TaD - Eckrant-Rock outcrop Association

Geologic Units

- Ked - Edwards Limestone Formation

Path: H:\ENVIRONMENTAL\Working\SGN_GA_WOrking\SGN_GA_WOrking.aprx

Attachment D

FN JOB NO	SWB23726
FILE	
DATE	2/12/2024
SCALE	1:480
DRAFTED	02530

SAN ANTONIO WATER SYSTEM

KNIGHTS CROSS 1.0 MG STANDPIPE

Site Geologic and Soils Map

FREESE NICHOLS
801 Cherry Street, Suite 2800
Fort Worth, TX 76102
817-735-7300 | www.freese.com

Recharge and Transition Zone Exception Request Form

Texas Commission on Environmental Quality
30 TAC §213.9 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 **Recharge and Transition Zone Exception Request Form** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Print Name of Customer/Agent: Tam Tran
Date: 02/14/2024
Signature of Customer/Agent:

Regulated Entity Name: Knights Cross 1.0 MG Standpipe

Exception Request

1. ☒ **Attachment A - Nature of Exception**. A narrative description of the nature of each exception requested is attached. All provisions of 30 TAC §213 Subchapter A for which an exception is being requested have been identified in the description.
2. ☒ **Attachment B - Documentation of Equivalent Water Quality Protection**. Documentation demonstrating equivalent water quality protection for the Edwards Aquifer is attached.

Administrative Information

3. ☒ 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.
4. ☒ The applicant understands that no exception will be granted for a prohibited activity in Chapter 213.
5. ☒ The applicant understands that prior approval under this section must be obtained from the executive director for the exception to be authorized.

Knights Cross 1.0 MG Standpipe

Edwards Aquifer Exception Request

ATTACHMENT A

Nature of Exception

The Knights Cross 1.0 MG Standpipe project will be operated by the San Antonio Water Systems (SAWS). SAWS is proposing to install a new tank adjacent to the existing 6 MG tank onsite so the existing standpipe (tank) can be rehabilitated or demolished.

On January 4, 2023, Tam Tran (FNI) spoke to Mr. Hunter Patterson from the TCEQ Edwards Aquifer Protection Program, Region 13 San Antonio. He indicated that the project for construction of the new standpipe can be covered by an Exception Request. Impervious cover will increase by approximately 2,648 ft^2 (0.06 acres) for the proposed tank and accompanying piping infrastructure within the project area. The drainage pattern of the project area will not be changed. As part of the proposed project, there are grading improvements and driveway replacement, and the overflow from the existing and proposed tanks will be routed to a concrete drainage channel that is connected to the site driveway, which drains by sheet flow down the driveway to a storm inlet located on Knights Cross Drive. Stormwater from the project will flow through BMPs before entering the City of San Antonio stormwater system.

During the construction process, temporary BMPs such as silt fences will be utilized downgradient of the project site to control sediment and erosion within the project area. Temporary BMPs will be installed prior to construction and meet all inspection and maintenance requirements. After construction is completed, disturbed areas will be hydro-mulched with native grasses. The project will be constructed on existing right-of-way and no additional easements are necessary.

Knights Cross 1.0 MG Standpipe

Edwards Aquifer Exception Request

ATTACHMENT B

Documentation of Equivalent Water Quality Protection:

During the construction process, temporary BMPs such as silt fences will be utilized downgradient of the project site to control sediment and erosion within the project area. Temporary BMPs will be installed prior to construction and meet all inspection and maintenance requirements. After construction, permanent BMP will include hydromulching and revegetating disturbed areas with native grasses.

Temporary BMPs are shown on the following construction plan sheets.

Existing Impervious Cover (sf)	18693.2
Proposed Impervious Cover (sf)	21341.47
Increase in Impervious Cover (sf)	2648.27

Step 1: Required TSS Removal

LM (lbs)	49.61
An (acres)	0.06
P (in)	30

Step 2: Select an Appropriate BMP

Use Vegetative Filter Strips

Step 3: Calculate TSS Load Removed by BMPs

TSS Reduction %	85%
LR (lbs)	51.31
AI (acres)	0.058
AP (acres)	0
P (in)	30

Step 4: Calculate Fraction of Annual Runoff to

F	0.97
LR (lbs)	51.31
LM (lbs)	49.61

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: Tam Tran

Date: 02/14/2024

Signature of Customer/Agent:

Regulated Entity Name: Knights Cross 1.0 MG Standpipe

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: gasoline, diesel

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

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

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

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

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

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

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

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

Sequence of Construction

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

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

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

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

Temporary Best Management Practices (TBMPs)

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

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

☒ A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.

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

☒ A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

☒ A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.

8. ☒ The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.

☐ **Attachment E - Request to Temporarily Seal a Feature**. A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.

☒ There will be no temporary sealing of naturally-occurring sensitive features on the site.

9. ☒ **Attachment F - Structural Practices**. A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.

10. ☒ **Attachment G - Drainage Area Map**. A drainage area map supporting the following requirements is attached:

☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.

☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.

☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.

☐ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

☒ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.

11. ☐ **Attachment H - Temporary Sediment Pond(s) Plans and Calculations**. Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.

☒ N/A

12. ☒ **Attachment I - Inspection and Maintenance for BMPs.** A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.

13. ☒ All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.

14. ☒ If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).

15. ☒ Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.

16. ☒ Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

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

17. ☒ **Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices**. A schedule of the interim and permanent soil stabilization practices for the site is attached.

18. ☒ Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

19. ☒ Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

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

21. ☒ If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.

22. ☒ Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

Knights Cross 1.0 MG Standpipe
Edwards Aquifer Exception Request

Attachment A

Spill Response Actions

The TCEQ's spill response rules (30 TAC § 327.1-5) define what is considered a reportable spill and outline reporting requirements to the state, local government, and affected persons or property owners. Response and follow-up written report requirements are also identified.

The reportable quantities (RQ) for hazardous substances shall be:

(1) for spills or discharges onto land--the quantity designated as the Final Reportable Quantity (RQ) in Table 302.4 in 40 CFR §302.4; or

(2) for spills or discharges into waters in the state--the quantity designated as the Final RQ in Table 302.4 in 40 CFR §302.4, except where the Final RQ is greater than 100 pounds in which case the RQ shall be 100 pounds.

The RQ for crude oil and oil other than that defined as petroleum product or used oil shall be:

(A) for spills or discharges onto land--210 gallons (five barrels); or

(B) for spills or discharges directly into water in the state--quantity sufficient to create a sheen.

The RQ for petroleum product and used oil shall be:

(A) except as noted in subparagraph (B) of this paragraph, for spills or discharges onto land--25 gallons;

(B) for spills or discharges to land from PST exempted facilities--210 gallons (five barrels); or

(C) for spills or discharges directly into water in the state--quantity sufficient to create a sheen.

Industrial solid waste or other substances. The RQ for spills or discharges into water in the state shall be 100 pounds.

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. 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 following information:

(1) the name, address and telephone number of the person making the telephone report;

(2) the date, time, and location of the spill or discharge;

(3) a specific description or identification of the oil, petroleum product, hazardous substances or other substances discharged or spilled;

(4) an estimate of the quantity discharged or spilled;

(5) the duration of the incident;

(6) the name of the surface water or a description of the waters in the state affected or threatened by the discharge or spill;

(7) the source of the discharge or spill;

(8) a description of the extent of actual or potential water pollution or harmful impacts to the environment and an identification of any environmentally sensitive areas or natural resources at risk;

(9) if different from paragraph (1) of this subsection, the names, addresses, and telephone numbers of the responsible person and the contact person at the location of the discharge or spill;

(10) a description of any actions that have been taken, are being taken, and will be taken to contain and respond to the discharge or spill;

(11) any known or anticipated health risks;

(12) the identity of any governmental representatives, including local authorities or third parties, responding to the discharge or spill; and

(13) any other information that may be significant to the response action.

In order to satisfy the federal requirement to notify the State Emergency Response Commission in the State of Texas, the responsible person shall notify one of the following:

(1) the State of Texas Spill-Reporting Hotline at 1-800-832-8224;

(2) during normal business hours only, the regional office for the agency region in which the discharge or spill occurred; or

(3) the National Response Center at 1-800-424-8802.

The responsible person shall notify the agency as soon as possible whenever necessary to provide information that would trigger a change in the response to the spill or discharge. If the discharge or spill creates an imminent health threat, the responsible person shall immediately notify and cooperate with local emergency authorities (fire department, fire marshal, law enforcement authority, health authority, or Local Emergency Planning Committee (LEPC), as appropriate). 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.

The responsible person shall immediately abate and contain the spill or discharge and cooperate fully with the executive director and the local incident command system. The responsible person shall also begin reasonable response actions which may include, but are not limited to, the following actions:

(1) arrival of the responsible person or response personnel hired by the responsible person at the site of the discharge or spill;

(2) initiating efforts to stop the discharge or spill;

(3) minimizing the impact to the public health and the environment;

(4) neutralizing the effects of the incident;

(5) removing the discharged or spilled substances; and

(6) managing the wastes.

Reference:

Texas Commission on Environmental Quality (TCEQ). 2016. 30 TAC § 327.1-5. Chapter 327: Spill Prevention and Control. https://www.tceq.texas.gov/assets/public/legal/rules/rules/pdflib/327.pdf

Knights Cross 1.0 MG Standpipe

Attachment B

Potential Sources of Contamination

During the proposed project, the sources of potential contamination includes fuel and hydraulic fluid in the construction equipment and vehicles that will be used for the mechanized clearing, grubbing, and trenching. Equipment and vehicles will be regularly inspected and maintained. No contamination is expected to occur.

Knights Cross 1.0 MG Standpipe

Attachment C

Sequence of Major Activities

Activity	**Description**	**Approximate Area of Disturbance**
Install temporary BMPs	Install silt fencing	<0.1 acres
Site preparation	Clear vegetation. Construct laydown area and stabilized construction entrance.	0.53 acres
Yard Piping	Complete yard piping installation and modifications of existing piping	0.25 acres
Construct new steel tank	Pour concrete foundation and construct new tank	0.2 acres
Concrete paving	Construct concrete paving improvements, including overflow drainage channel and driveway	.25 acres
Install permanent BMPs	Hydro-mulching with native grasses and vegetative filter strips	0.2 acres
Remove erosion control devices	Return site to pre-construction conditions.	<0.1 acres

Note: All temporary Stormwater control measures described in Attachment D will be implemented prior to and during all phases of construction.

Knights Cross 1.0 MG Standpipe
Attachment D

Temporary Best Management Practices and Measures

BMP	Sequence of Construction	Control Measures
Debris and trash management	Pre-construction	Trash and liter control
Sanitary facilities	Pre-construction	Sanitary waste control
Silt fence	Pre-construction	Sediment control
Vegetative filter strips, Revegetation	Post construction	Slope protection; stabilization
Hydromulching	Post construction	Slope protection; stabilization

The BMPs that will be in place during and after construction have been selected to help prevent pollution of surface water, groundwater, stormwater, the aquifer, or any other sensitive features that may be on or near the proposed project site. The measures to help prevent pollution and maintain flow to naturally-occurring sensitive features are described below. There is no surface water on the project site.

Sanitary facilities and debris and trash management will help reduce sanitary waste and trash liter from polluting the project site and surrounding areas.

Silt fencing will be constructed around the perimeter of the disturbed area to filter sediment from water flowing over the disturbed area. The silt fence will help retain soil and sediment on the construction site. By filtering water runoff, the possibility of pollution to any surface waters that may be near the site is reduced.

Vegetation will be used for temporary stabilization throughout the disturbed project area. Revegetating the disturbed area provides protection from erosion and filtering from overland runoff. Hydromulching will be used to temporarily help stabilize and protect the disturbed soil from erosion. It will also help reduce the volume of sediment-laden water flow from leaving the mulched area. The vegetation and mulch will prevent pollutants from entering surface water, groundwater, or sensitive features that may be on or near the project site.

Resources:

North Central Texas Council of Governments (NCTCOG). 2003. Integrated Storm Water Management Design Manual for Construction. http://www.iswm.nctcog.org/Documents/Construction/Final/pdf/Ch4_E_BMPs.pdf

Barrett, Michael. 2005. TCEQ Complying with the Edwards Aquifer Rules: Technical Guidance of Best Management Practices (RG-348).

Knights Cross 1.0 MG Standpipe

Attachment F

Structural Practices

Use of silt fences will filter sediment from on-site runoff, contain sediment in the disturbed area, and preventing potential pollution to off-site areas.

Attachment G. Drainage Area Maps

LOCATION MAP
N.T.S.

Legend

- Parcel Boundaries
- 5 ft Contours
- Calculation Points

Tc Flowpaths

- CF
- SCF
- SF
- DrainageAreas

Land Use

- C2
- Impervious
- Pervious
- R6
- ROW

EXHIBIT 3
KNIGHTS CROSS
1 MG STANDPIPE

EXISTING OVERALL DRAINAGE AREA MAP

MAESTAS

LOCATION MAP
N.T.S.

Legend

- Parcel Boundaries
- 5 ft Contours
- Calculation Points

Tc Flowpaths

- CF
- SCF
- SF
- DrainageAreas

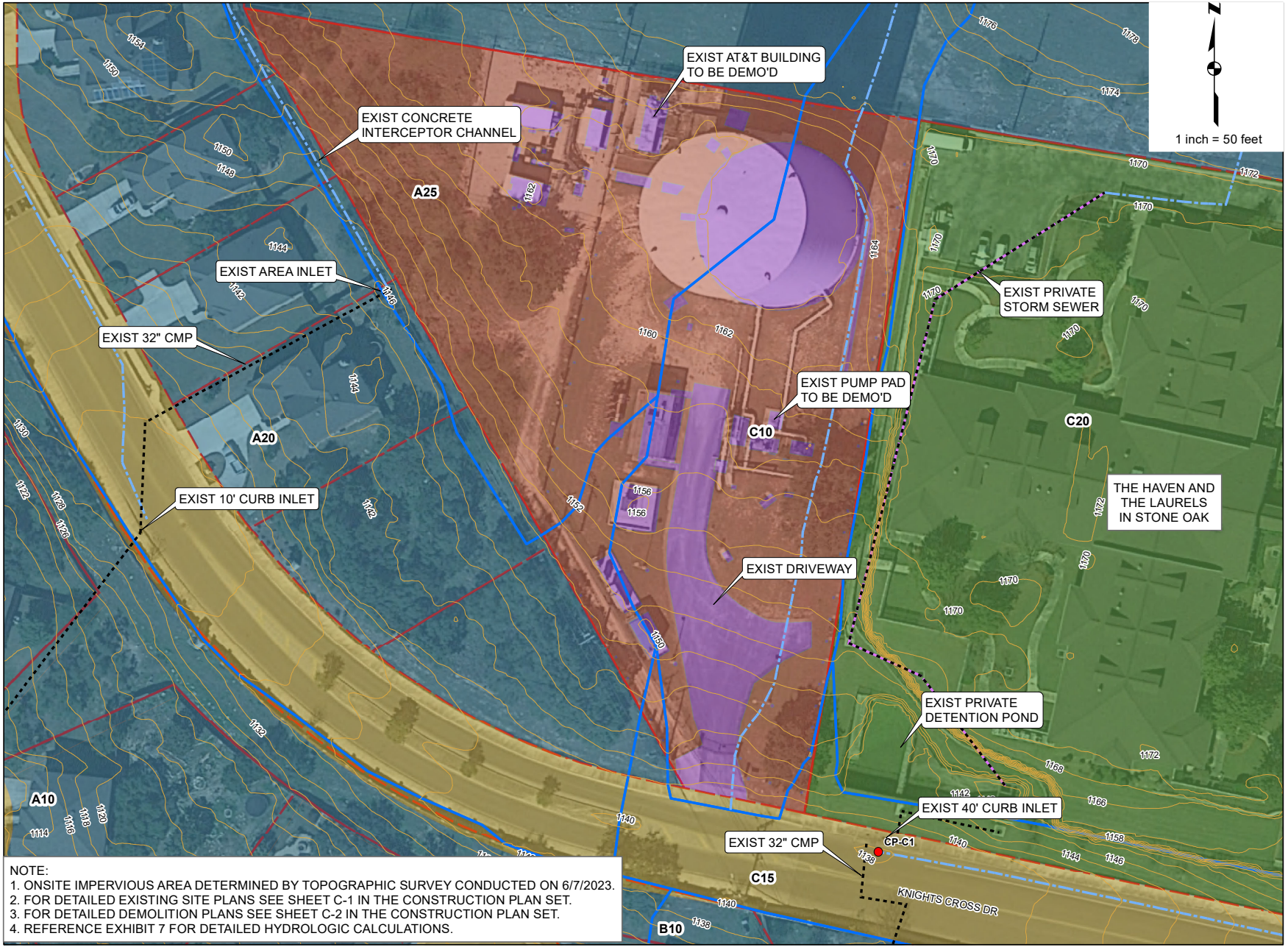
Land Use

- C2
- Impervious
- Pervious
- R6
- ROW

EXHIBIT 3
KNIGHTS CROSS
1 MG STANDPIPE

PROPOSED OVERALL DRAINAGE AREA MAP

MAESTAS



NOTE:
1. ONSITE IMPERVIOUS AREA DETERMINED BY TOPOGRAPHIC SURVEY CONDUCTED ON 6/7/2023.
2. FOR DETAILED EXISTING SITE PLANS SEE SHEET C-1 IN THE CONSTRUCTION PLAN SET.
3. FOR DETAILED DEMOLITION PLANS SEE SHEET C-2 IN THE CONSTRUCTION PLAN SET.
4. REFERENCE EXHIBIT 7 FOR DETAILED HYDROLOGIC CALCULATIONS.

LOCATION MAP
N.T.S.

Legend

- Parcel Boundaries
- DrainageAreas
- Exist Storm Sewer
- Calculation Points

Tc Flowpaths

- CF
- SCF
- SF

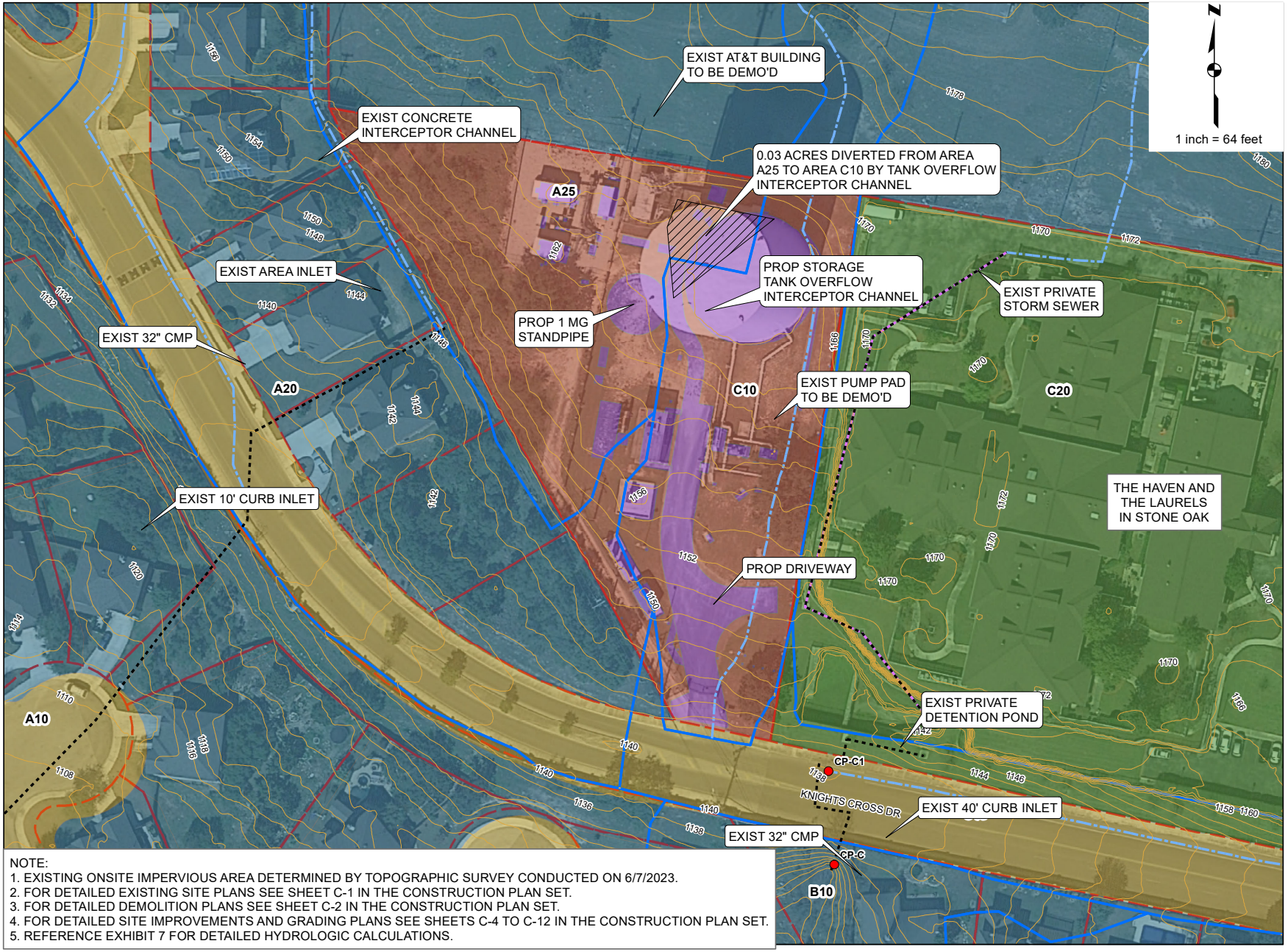
Land Use

- C2
- Impervious
- Pervious
- R6
- ROW

EXHIBIT 4
KNIGHTS CROSS
1 MG STANDPIPE

EXISTING INTERIOR DRAINAGE AREA MAP

MAESTAS



NOTE:
1. EXISTING ONSITE IMPERVIOUS AREA DETERMINED BY TOPOGRAPHIC SURVEY CONDUCTED ON 6/7/2023.
2. FOR DETAILED EXISTING SITE PLANS SEE SHEET C-1 IN THE CONSTRUCTION PLAN SET.
3. FOR DETAILED DEMOLITION PLANS SEE SHEET C-2 IN THE CONSTRUCTION PLAN SET.
4. FOR DETAILED SITE IMPROVEMENTS AND GRADING PLANS SEE SHEETS C-4 TO C-12 IN THE CONSTRUCTION PLAN SET.
5. REFERENCE EXHIBIT 7 FOR DETAILED HYDROLOGIC CALCULATIONS.

LOCATION MAP
N.T.S.

Legend

- Parcel Boundaries
- Exist Storm Sewer
- Calculation Points

Tc Flowpaths

- CF
- SCF
- SF
- DrainageAreas

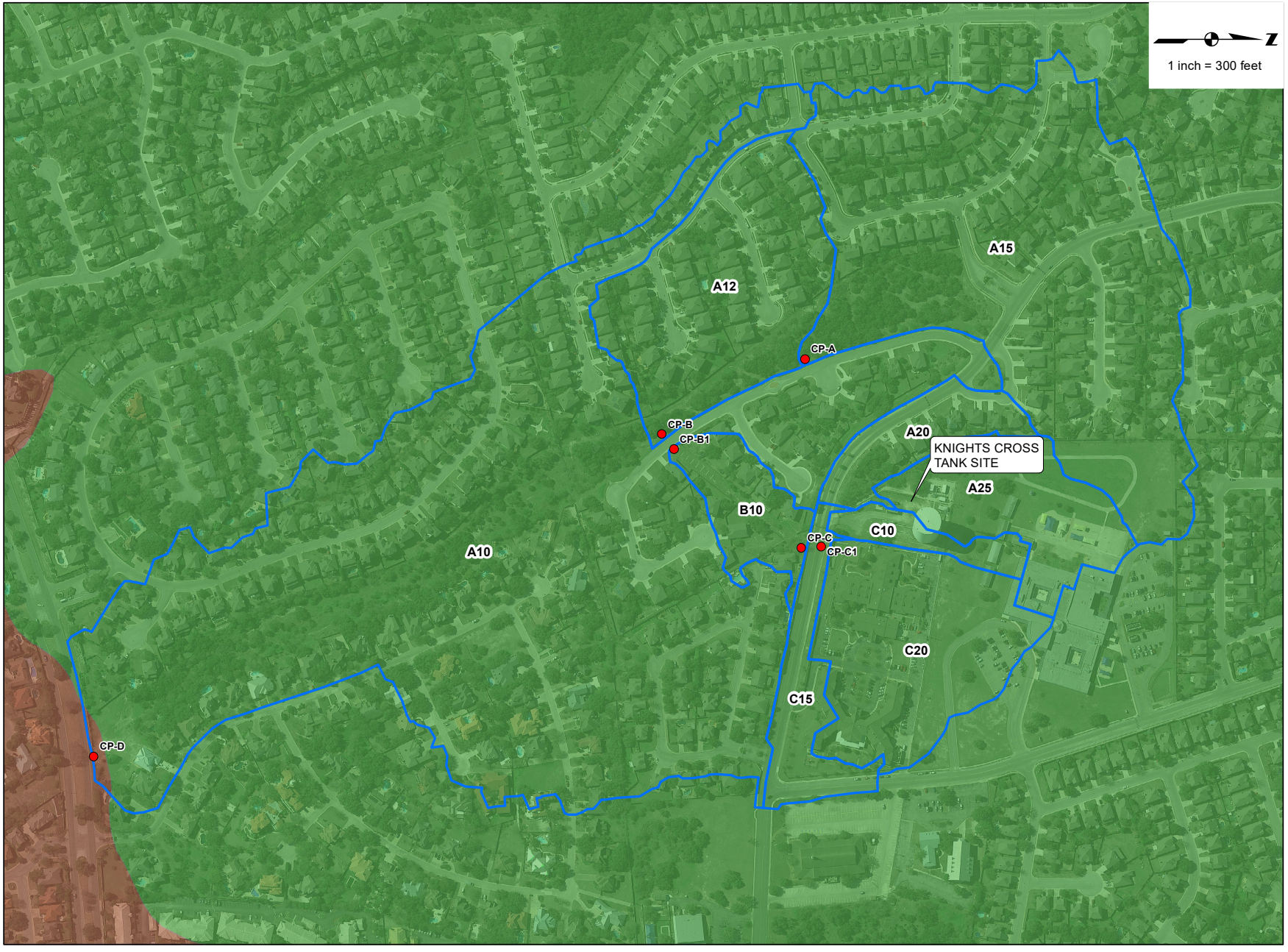
Land Use

- C2
- Impervious
- Pervious
- R6
- ROW

EXHIBIT 4
KNIGHTS CROSS
1 MG STANDPIPE

PROPOSED INTERIOR DRAINAGE AREA MAP

San Antonio Water System



LOCATION MAP
N.T.S.

Legend

- Calculation Points
- DrainageAreas

Soil Type

- Eckrant very cobbly clay-Hydrologic Soil Type D
- Eckrant-Rock outcrop assoc-Hydrologic Soil Type D
- Tarpley clay-Hydrologic Soil Type D

EXHIBIT 5
KNIGHTS CROSS
1 MG STANDPIPE

NRCS SOILS MAP

MAESTAS

HEC-HMS Discharge Summary

Hydrologic Element	5-Year Discharges (cfs)			25-Year Discharges (cfs)			100-Year Discharges (cfs)		
	Existing (EX)	Proposed (P)	Diff. (P-EX)	Existing (EX)	Proposed (P)	Diff. (P-EX)	Existing (EX)	Proposed (P)	Diff. (P-EX)
A10	276.4	276.4	0	407.3	407.3	0	524.5	524.5	0
A12	55.3	55.3	0	81.8	81.8	0	105.4	105.4	0
A15	120.2	120.2	0	177.1	177.1	0	228.1	228.1	0
A20	17.5	17.5	0	25.6	25.6	0	32.8	32.8	0
A25	29.7	29.4	-0.3	44.8	44.4	-0.4	58.4	57.7	-0.7
B10	18.3	18.3	0	27.3	27.3	0	35.4	35.4	0
CP-A	155.5	155.2	-0.3	229.7	229.3	-0.4	296.3	295.7	-0.6
CP-B	284.6	284.4	-0.2	419.5	419.1	-0.4	540.8	540.2	-0.6
CP-B1	96.1	96.2	0.1	140.2	140.2	0	179.8	179.8	0
CP-C	78.4	78.4	0	114	114	0	145.7	145.7	0
CP-C1	23	23.1	0.1	33.2	33.2	0	42.4	42.4	0
CP-D	555.3	555.1	-0.2	821.8	821.4	-0.4	1059.4	1059	-0.4
C10	7.4	7.5	0.1	11.3	11.3	0	14.7	14.7	0
C15	16	16	0	22.5	22.5	0	28.5	28.5	0
C20	60.9	60.9	0	88.6	88.6	0	113.4	113.4	0

Existing/Proposed Time of Concentration

Basin	Precipitaion Area	Sheet Flow					Shallow Concentrated				Channel			Total Tc	Tc Lag
		L (ft)	n	S (ft/ft)	P (in)	Tc (sheet)	L (ft)	S (ft/ft)	Surface	Tc (shallow)	L (ft)	V	Tc (channel)		
A10	2	73	0.24	0.041	4.04	7.4	69	0.093	Type 5	0.5	2691	6.00	7.47	16.32	9.79
							285	0.062	Type 1	0.9					
A12	2	56	0.24	0.070	4.04	4.8	747	0.092	Type 5	5.9	548	6.00	1.52	12.23	7.34
A15	2	78	0.24	0.028	4.04	9.2	486	0.042	Type 5	5.7	1054	6.00	2.93	18.69	11.22
							239	0.045	Type 1	0.9					
A20	2	68	0.24	0.071	4.04	5.6	571	0.065	Type 1	1.8				7.48	4.49
A25	2	99	0.011	0.004	4.04	2.0	238	0.013	Type 1	1.7				10.41	6.25
							703	0.063	Type 5	6.7					
B10	2	84	0.24	0.126	4.04	5.3	198	0.099	Type 1	0.5	225	6.00	0.62	6.45	3.87
C10	2	95	0.24	0.069	4.04	7.4	285	0.078	Type 5	2.4				12.22	7.33
							94	0.025	Type 1	0.5					
							240	0.093	Type 5	1.9					
C15	2	100	0.24	0.025	4.04	11.6	121	0.048	Type 5	1.3				17.16	10.30
							865	0.028	Type 1	4.3					
C20	2	67	0.011	0.005	4.04	1.3	169	0.031	Type 1	0.8	422	6.00	1.17	5.51	3.31
							258	0.078	Type 5	2.2					

LOCATION MAP
N.T.S.

EXHIBIT 7
KNIGHTS CROSS
1 MG STANDPIPE

HYDROLOGIC CALCULATIONS I

MAESTAS

Impervious Cover Calculations

			Undeveloped	Zoning District R-6, RM-6	Business or Commercial, or Zoning Districts NC, O, C	Streets, Roads, and Parking Areas
Development Condition	Drainage Area	Area (ac)	5%	55%	85%	100%
EX	A10	60.56		50.61		9.96
EX	A12	10.86		9.31		1.55
EX	A15	27.93		22.93		5.00
EX	A20	2.91	0.08	1.82		1.01
EX	A25	5.76	0.87	4.79		0.10
EX	B10	2.99		2.90		0.09
EX	C10	1.51	0.54	0.63	0.01	0.33
EX	C15	3.25	0.02	0.09	1.48	1.65
EX	C20	9.25	0.00	3.58	5.67	0.00
PR	A10	60.56		50.61		9.96
PR	A12	10.86		9.31		1.55
PR	A15	27.93		22.93		5.00
PR	A20	2.91	0.08	1.82		1.01
PR	A25	5.72	0.83	4.79		0.10
PR	B10	2.99		2.90		0.09
PR	C10	1.55	0.54	0.63	0.01	0.37
PR	C15	3.25	0.02	0.09	1.48	1.65
PR	C20	9.25	0.00	3.58	5.67	0.00

Curve Number Calculations

			Hydrologic Soil Group D					
			Open Space	Meadow	Brush	Woods		
Development Condition	Drainage Area	Area (ac)	80	78	73	77	Composite Curve Number	Initial Abstraction
EX	A10	60.56	60.56				80.00	0.50
EX	A12	10.86	10.86				80.00	0.50
EX	A15	27.93	27.93				80.00	0.50
EX	A20	2.91	2.91				80.00	0.50
EX	A25	5.76	5.76				80.00	0.50
EX	B10	2.99	2.99				80.00	0.50
EX	C10	1.51	1.51				80.00	0.50
EX	C15	3.25	3.25				80.00	0.50
EX	C20	9.25	9.25				80.00	0.50
PR	A10	60.56	60.56				80.00	0.50
PR	A12	10.86	10.86				80.00	0.50
PR	A15	27.93	27.93				80.00	0.50
PR	A20	2.91	2.91				80.00	0.50
PR	A25	5.72	5.72				80.00	0.50
PR	B10	2.99	2.99				80.00	0.50
PR	C10	1.55	1.55				80.00	0.50
PR	C15	3.25	3.25				80.00	0.50
PR	C20	9.25	9.25				80.00	0.50

LOCATION MAP
N.T.S.

EXHIBIT 7
KNIGHTS CROSS
1 MG STANDPIPE

HYDROLOGIC CALCULATIONS II

MAESTAS

Knights Cross 1.0 MG Standpipe

Attachment I

Inspection and Maintenance for BMPs

The proposed project of clearing, grubbing, and well drilling is anticipated to disturb less than five acres. Being less than five acres of disturbance, a Stormwater Pollution Prevention Plan (SW3P) without Notice of Intent (NOI) to TCEQ will be in place prior to and during construction. An Inspector's Qualifications and Inspection Form is part of the SW3P. The roles and responsibilities for implementation and maintenance of the elements of the SW3P and BMPs are also specified in the SW3P and will be agreed to by all parties involved with the construction activity who meet the definition of a primary operator. The following are inspection and maintenance guidelines for the selected temporary BMPs as stated in TCEQ RG-348:

Silt fence:

1) Inspect all fencing weekly, and after any rainfall.
2) Remove sediment when buildup reaches 6 inches.
3) Replace any torn fabric or install a second line of fencing parallel to the torn section.
4) Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.
5) When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be re-vegetated. The fence itself should be disposed of in an approved landfill.

Hydro-mulching vegetation:

1) Hydro-mulched vegetation should be inspected weekly and after each rain event to locate and repair any erosion.
2) Erosion from storms or other damage should be repaired as soon as practical by re-grading the area and applying new seed.

3) If the vegetated cover is less than 80%, the area should be reseeded.

Mulching:

1) Mulched areas should be inspected weekly and after each rain event to locate and repair any damage.

2) Areas damaged by storms or normal construction activities should be re-graded and hydraulic mulch reapplied as soon as practical.

Completed inspection reports will include the following information:

- scope of the inspection,
- name(s) of personnel making the inspection,
- reference to qualifications of inspection personnel,
- date of the inspection,
- observed major construction activities, and
- actions taken as a result of the inspection.

The inspection report should state whether the site was in compliance or identify any incidents of non-compliance. The report will be signed by the inspector in accordance with Part III.F.7 of the TPDES general permit and filed in the SWP3. Inspection reports will be kept in the Contractor's file, along with the SWP3, for at least three years from the date that the project is completed.

Final stabilization of the construction site has been achieved when all soil disturbing activities at the site have been completed, and a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures. If a vegetative cover cannot be established, equivalent permanent stabilization measures (such as riprap, gabions, or geotextiles) can be employed. When these conditions have been met, BMPs can be removed from the construction area.

Knights Cross 1.0 MG Standpipe

Edwards Aquifer Exception Request

ATTACHMENT J

Schedule of Interim and Permanent Soil Stabilization Practices:

Soil Stabilization for all disturbed areas shall be accomplished by hydro-mulching. The following is an outline to accomplish the required stabilization.

1. Preparing seed bed. After the designated areas have been rough graded to the lines, grades, and typical section indicated in the construction drawings, a suitable seed bed shall be prepared. The seedbed shall consist of a minimum of either 4 inches of approved top soil or approved salvaged topsoil, cultivated, and rolled sufficiently to reduce the soil to a state of good tilth. The optimum depth for the seeding shall be ¼ inch. Water shall be gently applied as required to prepare the seedbed prior to the planting operation either by broadcast seeding or hydraulic planting. Bare soils should be seeded or otherwise stabilized within 14 calendar days after final grading or where construction operations have ceased for more than 21 days. Seeding shall be performed in accordance with the requirements described.

2. Watering. All watering shall comply with City Ordinances. Broadcast seeded areas shall immediately be watered with a minimum of 5 gallons of water per square yard or as needed and in the manner and quantity as directed by the Engineer of designated representative. Hydraulic seeded areas and native grass seeded areas shall be watered commencing after the tackifier has dried with a minimum of 5 gallons of water per square yard or as needed to keep the seedbed in a wet condition favorable for the growth of grass. Watering should continue until the grass is 1 ½ inches in height and accepted by the engineer or designated representative. Watering can be postponed immediately after a ½ inch or greater rainfall on the site but shall be resumed before the soil dries out.

3. Hydraulic planting. The seedbed shall be prepared as specified above and the hydraulic planting equipment, which can place all materials in a single operation, shall be used.

4. Soil Retention Blanket. Retention blankets will be installed over the seeded area and will prevent erosion of the slope and keep the seeds from washing downstream.

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: Tam Tran

Date: 02/14/2024

Signature of Customer/Agent

Regulated Entity Name: Knights Cross 1.0 MG Standpipe

Permanent Best Management Practices (BMPs)

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

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

   ☐ N/A

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

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

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

☐ N/A

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

   ☐ N/A

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

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

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

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

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

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

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

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

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

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

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

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

☒ N/A

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

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

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

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

☒ Design calculations (TSS removal calculations)
☒ TCEQ construction notes
☒ All geologic features
☒ All proposed structural BMP(s) plans and specifications

☐ N/A

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

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

    ☐ N/A

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

    ☒ N/A

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

    ☒ N/A

Responsibility for Maintenance of Permanent BMP(s)

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

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

    ☐ N/A

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

    ☒ N/A

Knights Cross 1.0 MG Standpipe

Edwards Aquifer Exception Request

ATTACHMENT B

BMPs for Upgradient Stormwater

Upgradient surface and groundwater would be protected from sedimentation and contamination from temporary and permanent BMPs such as silt fencing, hydromulching, and revegetation with native grasses. Post-construction, sediment laden stormwater will be filtered through the native vegetation before it is captured by the storm sewer system adjacent to the roadway and routed to a detention pond.

Knights Cross 1.0 MG Standpipe

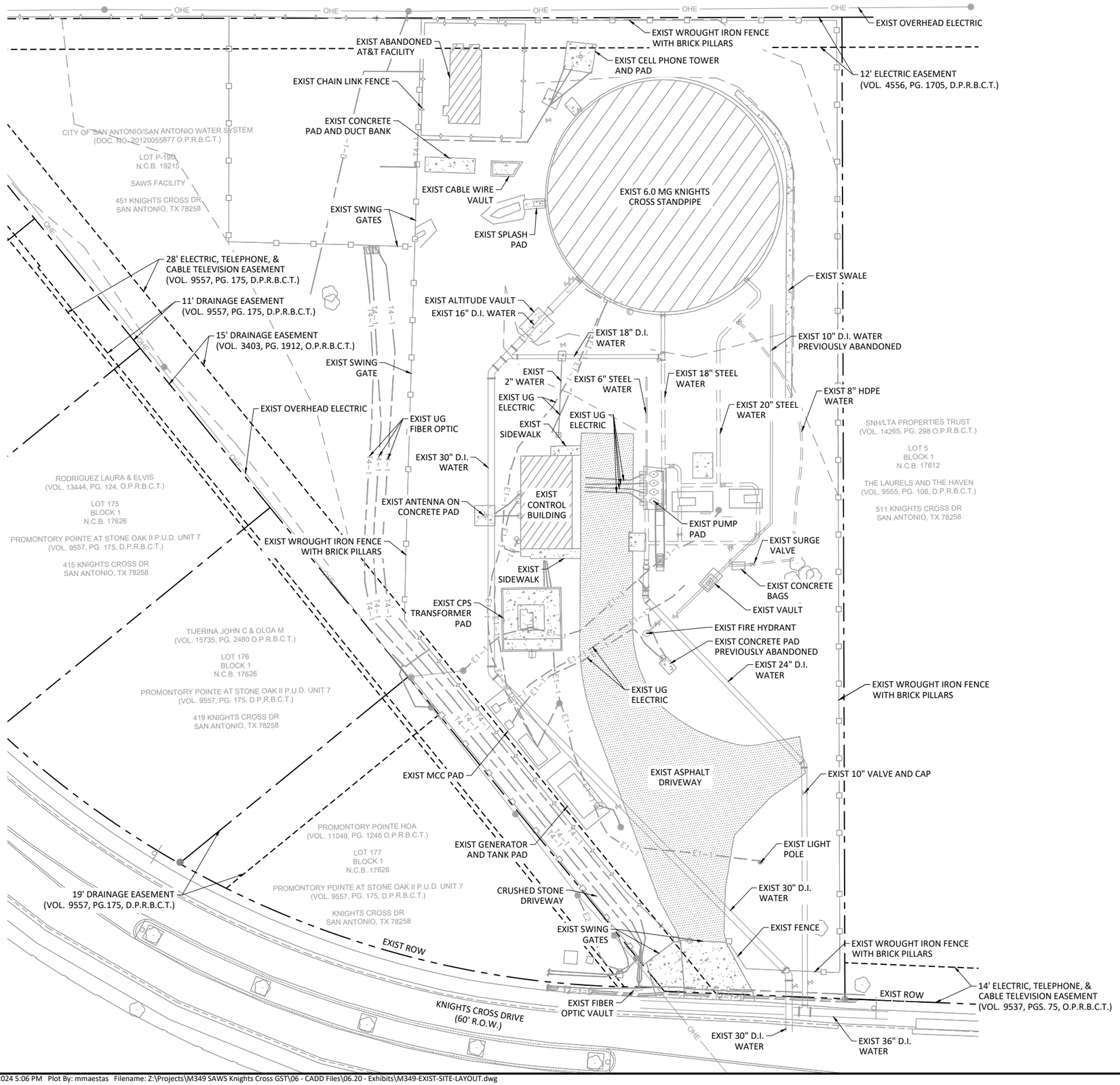
Edwards Aquifer Exception Request

Attachment C

BMPs for On-site Stormwater

Around all boundaries of the project site are natural vegetation buffers. There will be some areas of the project site left undisturbed and any disturbed area that is not imperviously covered will be re-vegetated with hydomulching post construction. The vegetation will help filter and slow overland flow and prevent pollution to any potential surface water, groundwater, or stormwater originating on-site or flowing off the site. The vegetation and existing trees will help prevent soil erosion. There is no observed surface water on the project site. With a low slope grade, overland flow is expected to have a low runoff velocity. After construction is completed, any sediment-laden stormwater will be filtered through the native vegetation before it is captured by the storm sewer system adjacent to the roadway and routed to a detention pond.

Attachment F. Construction Plans



NORTH

0 20' 40'

SCALE IN FEET

FULL SIZE SCALE 1" = 20'

LEGEND

- EXIST UNDERGROUND WATER
- EXIST ABOVE GROUND WATER
- EXIST OH ELECTRIC — OHE —
- EXIST UG ELECTRIC — E1 – 1 —
- EXIST UG FIBER OPTICS — T4 – 1 —
- EXIST CONCRETE
- EXIST ASPHALT DRIVEWAY
- GUTTER
- BACK OF CURB
- RIGHT OF WAY
- PROPERTY LINE
- EASEMENT LINE
- EXIST CONTOURS
- EXIST WROUGHT IRON FENCE WITH BRICK PILLARS
- EXIST CHAIN LINK FENCE
- EXIST TREE
- EXIST OVERHEAD ELECTRIC POLE
- EXIST VALVE

NOTES:

1. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND FACILITIES AND UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROVIDE ENGINEER LOCATION AND DEPTH OF ALL LOCATED FACILITIES.

STATE OF TEXAS — MICHAEL J. MAESTAS — 120447 — LICENSED PROFESSIONAL ENGINEER — 2/20/2024

MAESTAS
8122 DATAPOINT DR., STE. 840
SAN ANTONIO, TX 78229
(210) 366-1988 TBPE No.: F-333
TBPLS No.: 10194506

SAN ANTONIO WATER SYSTEM

KNIGHTS CROSS 1.0 MG STANDPIPE

CIVIL

EXISTING SITE LAYOUT

NO.	ISSUE	BY	DATE

R&M JOB NO. SWB22388
DATE 2/9/2024
DESIGNED MJM
DRAWN VV
REVISED
CHECKED CHECKER
FILE NAME M349-EXIST-SITE-LAYOUT.dwg

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VERIFY SCALE 0 1

SHEET C-1

SEQ.

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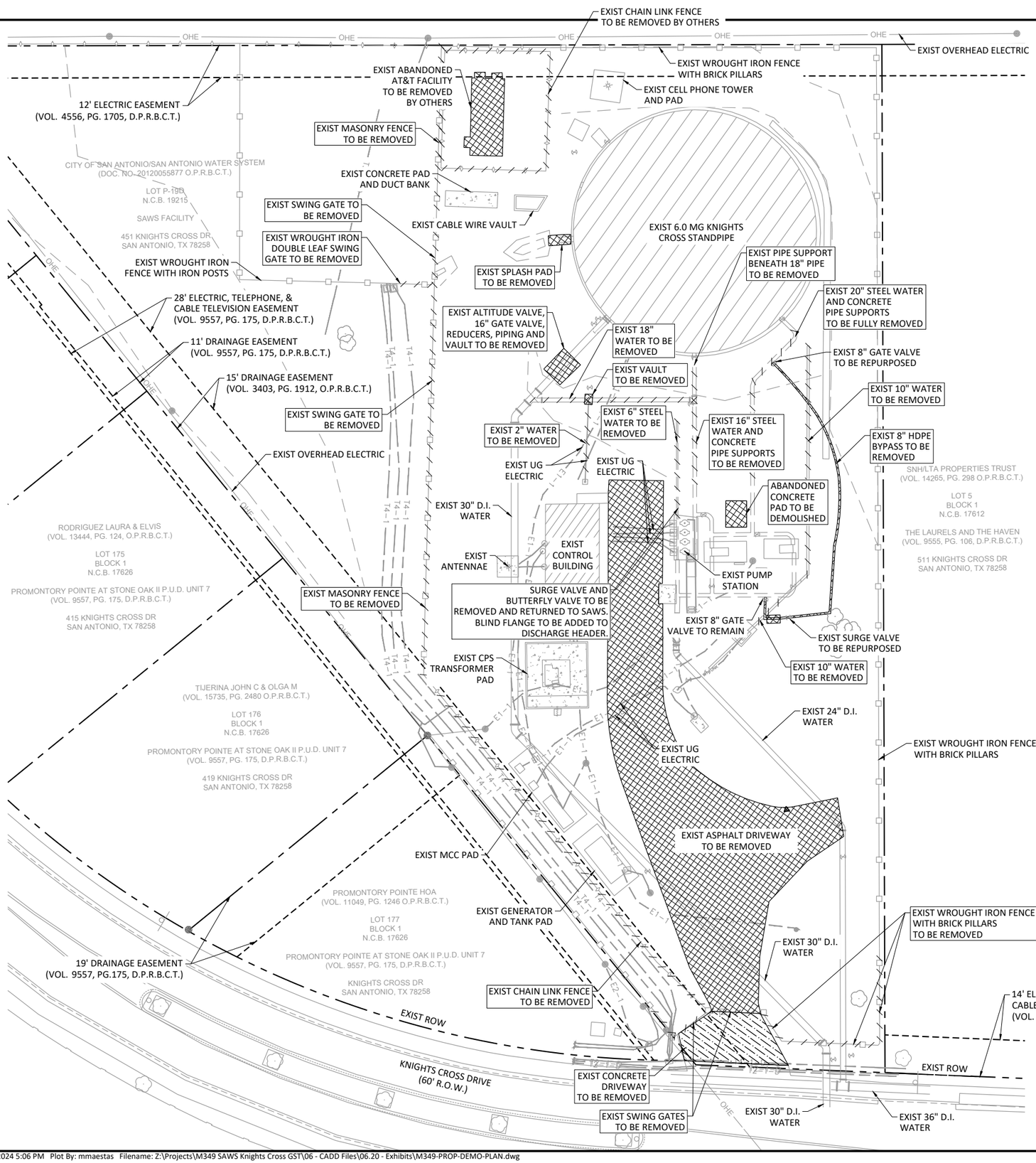
Plot Date: 2/9/2024 5:06 PM Plot By: mmaestas Filename: Z:\Projects\M349 SAWS Knights Cross GST\06 - CADD Files\06.20 - Exhibits\M349-EXIST-SITE-LAYOUT.dwg



NORTH

0 20' 40'

SCALE IN FEET

FULL SIZE SCALE 1" = 20'

LEGEND

EXIST UNDERGROUND WATER	
EXIST ABOVE GROUND WATER	
EXIST OH ELECTRIC	OHE
EXIST UG ELECTRIC	E1 – 1
EXIST UG FIBER OPTICS	T4 – 1
EXIST CONCRETE	
EXIST ASPHALT DRIVEWAY	
GUTTER	
BACK OF CURB	
RIGHT OF WAY	
PROPERTY LINE	
EASEMENT LINE	
EXIST CONTOURS	
EXIST WROUGHT IRON FENCE WITH BRICK PILLARS	
EXIST WROUGHT IRON FENCE WITH BRICK PILLARS TO BE REMOVED	
EXIST CHAIN LINK FENCE	
EXIST CHAIN LINK FENCE TO BE REMOVED	
EXIST TREE	
EXIST OVERHEAD ELECTRIC POLE	
EXIST VALVE	
EXIST FIRE HYDRANT	
EXIST TO BE REMOVED	
EXIST PIPE TO BE REMOVED	
EXIST CONCRETE PAVEMENT TO BE REMOVED	

NOTES:

1. SEE TREE PRESERVATION PLAN SHEET C-20 FOR TREE TYPES AND TAG NUMBERS.
2. REFERENCE 02222 DEMOLITION SPECIFICATION FOR MORE DETAILS.

STATE OF TEXAS MICHAEL J. MAESTAS 120447 LICENSED PROFESSIONAL ENGINEER 2/20/2024

MAESTAS
8122 DATAPOINT DR., STE. 840
SAN ANTONIO, TX 78229
(210) 366-1988 TBPE No.: F-333
TBPLS No.: 10194506

SAN ANTONIO WATER SYSTEM

KNIGHTS CROSS 1.0 MG STANDPIPE

CIVIL

DEMOLITION PLAN

NO.	ISSUE	BY	DATE

R&N JOB NO. SWB22388
DATE 2/9/2024
DESIGNED MJM
DRAWN VV
REVISED
CHECKED CHECKER
FILE NAME M349-PROP-DEMO-PLAN.dwg

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale. 0 1

SHEET C-2

SEQ.

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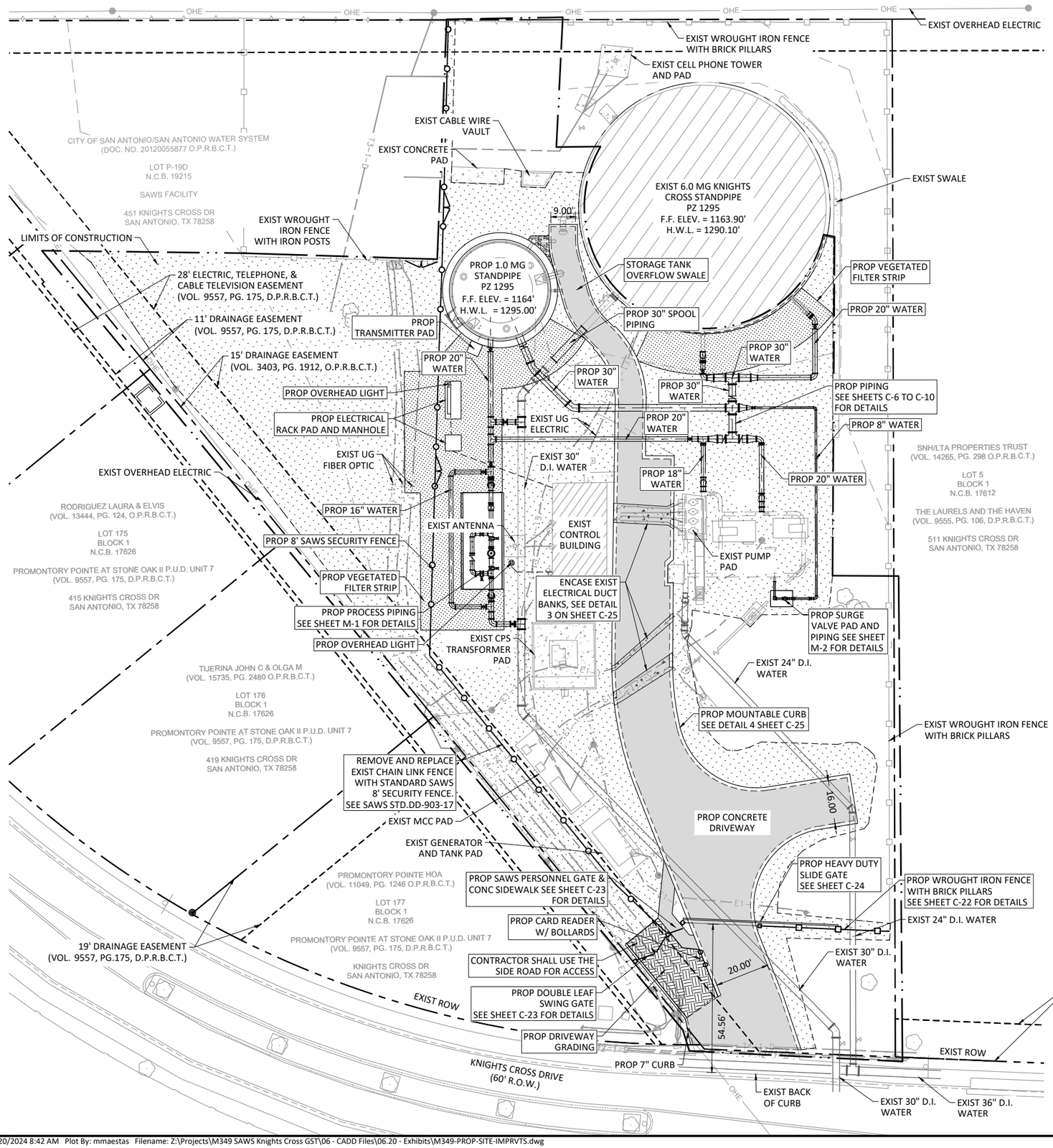
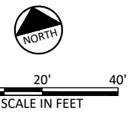
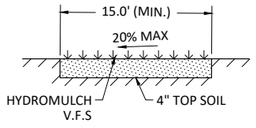




LEGEND

- PROP WATER PIPE
- PROP CONCRETE DRIVEWAY
- PROP CONCRETE ENCASEMENT
- PROP VEGETATED FILTER STRIP
- PROP 8" FLEXIBLE BASE
- PROP TOPSOIL W/ HYDROMULCH
- EXIST CONCRETE
- EXIST UNDER GROUND WATER
- EXIST ABOVE GROUND WATER
- EXIST OH ELECTRIC
- EXIST UG ELECTRIC
- EXIST UG FIBER OPTICS
- GUTTER
- BACK OF CURB
- RIGHT OF WAY
- PROPERTY LINE
- EASEMENT LINE
- EXIST CONTOURS
- PROP 8' SECURITY FENCE
- PROP WROUGHT IRON FENCE WITH BRICK PILLARS
- EXIST WROUGHT IRON WITH BRICK PILLARS
- EXIST CHAIN LINK FENCE
- LIMITS OF CONSTRUCTION
- EXIST TREE
- EXIST OVERHEAD ELECTRIC POLE
- EXIST VALVE
- EXIST FIRE HYDRANT



1 / C-4 VEGETATIVE FILTER STRIP

N.T.S

NOTES:

1. ALL PROPOSED YARD PIPING SHALL BE DUCTILE IRON UNLESS OTHERWISE NOTED.

STATE OF TEXAS · MICHAEL J. MAESTAS · 120447 · LICENSED PROFESSIONAL ENGINEER · 2/20/2024

MAESTAS
8122 DATAPOINT DR., STE. 840
SAN ANTONIO, TX 78229
(210) 366-1988 TBPE No.: F-333
TBPLS No.: 10194506

SAN ANTONIO WATER SYSTEM

KNIGHTS CROSS 1.0 MG STANDPIPE

CIVIL

PROPOSED SITE IMPROVEMENTS

NO.	ISSUE	BY	DATE

R&N JOB NO. SWB22388
DATE 2/20/2024
DESIGNED MJM
DRAWN VV
REVISED
CHECKED CHECKER
FILE NAME M349-PROP-SITE-IMPRVTS.dwg

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EPA & TCEQ Construction General Permit - Checklist of Record Keeping Responsibilities
City of San Antonio (COSA) - January-2015

ENGINEER

Pre Construction

- Design of structural controls
- Development of SWP3
- Development of SWP3 site diagram(s) including grading plans/contours anticipated at initial, interim and final grade
- Development of project phasing schedule
- Water Pollution Abatement Plan (WPAP) (Edwards Aquifer)
- AST Plan (Edwards Aquifer)
- Environmental Preconstruction Meeting

During Construction

- Evaluation of BMP effectiveness
- Review of SWP3 Modifications

Post Construction

- Close Out Inspection
  - o Ensure removal of temporary BMPs,
  - o Verify correct installation of permanent BMPs,
  - o Assess final stabilization achieved to allow Notice of Termination

COSA CONSTRUCTION PROJECT MANAGER

Pre Construction

- Review SWP3 Plans
- Environmental Preconstruction Meeting
- Conduct SWP3 Training (EPA only)

Construction

- Ensure inspection are performed and document every 7 days
- Ensure maintenance of up to date copies of SWP3 and associated records
  - o Corrective Action Documentation- within 7 days of time of discovery (EPA)
  - o Maintenance- document if unable to fix/install item within 7 days. (EPA)
- Ensure records of rainfall events are being maintained
  - o Rainfall during normal business hours that measures 0.25 inches or greater (EPA)
  - o Rainfall- record of total rainfall measured and the approximate beginning and ending dates of winter or drought conditions resulting in monthly frequency of inspections (TCEQ)
- Follow Up on incidents and spill reports to ensure proper corrective actions
  - o Construction Manager would be responsible for notifying COSA Environmental of a Reportable Quantity Release (e.g., sheen on water, 25 gallons of "oil" to land, etc.)
  - o Provide a description of spills and incidents & information obtained regarding quality and quantity of stormwater discharges to COSA Environmental.
- Ensure completing of the Grading Log (dates when activities start and end) and Construction Activities Log (daily)
  - o Ensure Construction Activities Log includes dates when construction activities temporarily or permanently cease on site (TCEQ) and dates when stabilization measures are initiated
- Ensure upkeep of the on-site Material Inventory
- Coordinate between Contractor, COSA, and Engineer when the SWP3 requires modification and/or when BMPs are not effective, are missing, or need maintenance/repair
- Ensure contractor is noting SWP3 accordingly (Dates of installment of BMPs, removal of BMPs, maintenance of BMPS, concrete washout pits date of install and removal, etc.)

Post Construction

- Close Out Inspection
  - o Ensure removal of temporary BMPs,
  - o Verify correct installation of permanent BMPs,
  - o Assess final stabilization achieved to allow Notice of Termination

COSA ENVIRONMENTAL GROUP

Pre Construction

Review SWP3 Plans
- File Notice of Intent
- Environmental Preconstruction Meeting
- Conduct SWP3 Training (EPA only)
- Post Construction Site Notice

Construction

- Ensure inspection are performed and document every 7 days
- Ensure maintenance of up to date copies of SWP3 and associated records
  - o Corrective Action Documentation- within 7 days of time of discovery (EPA)
  - o Maintenance- document if unable to fix/install item within 7 days. (EPA)
- Ensure records of rainfall events are being maintained
  - o Rainfall during normal business hours that measures 0.25 inches or greater (EPA)
  - o Rainfall- record of total rainfall measured and the approximate beginning and ending dates of winter or drought conditions resulting in monthly frequency of inspections (TCEQ)
- Follow Up on incidents and spill reports to ensure proper corrective actions
  - o Conduct TCEQ notification as required for spills above a reportable quantity (e.g., sheen on water, 25 gallons of "oil" to land, etc.)
- Ensure completion of the Grading Log (dates when activities start and end) and Construction Activities Log (daily)
  - o Ensure Construction Activities Log includes dates when construction activities temporarily or permanently cease on site (TCEQ) and dates when stabilization measures are initiated
- Ensure upkeep of the on-site Material Inventory
- Coordinate between Construction Project Manager, Contractor, and Engineer when the SWP3 requires modification and/or when BMPs are not effective, are missing, or need maintenance/repair
- Ensure contractor is noting SWP3 accordingly (Dates of installment of BMPs, removal of BMPs, maintenance of BMPS, concrete washout pits date of install and removal, etc.)

Post Construction

- Close Out Inspection
  - o Ensure removal of temporary BMPs,
  - o Verify correct installation of permanent BMPs,
  - o Assess final stabilization achieved to allow Notice of Termination
- Obtain and file all records associated with the TPDES/NPDES Permit activities at the project for 3 years
- File Notice of Termination, when appropriate

CONTRACTOR

Pre Construction

- **Review SWP3 Plans**
- **File Notice of Intent**
- **Environmental Preconstruction Meeting**
- **Conduct SWP3 Training (EPA only)**
- **Post Construction Site Notice**

Construction

- **Conduct inspections every 7 days and maintain records of inspections and corrective actions**
- **Maintain up to date copies of SWP3 and associated records**
  - **o Corrective Action Documentation- within 7 days of time of discovery (EPA)**
  - **o Maintenance- document if unable to fix/install item within 7 days. (EPA)**
- **Record rainfall events and maintain documentation with the SWP3**
  - **o Rainfall during normal business hours that measures 0.25 inches or greater (EPA)**
  - **o Rainfall- record of total rainfall measured and the approximate beginning and ending dates of winter or drought conditions resulting in monthly frequency of inspections (TCEQ)**
- **Conduct and record environmental monitoring-**
  - **o Retain all related records including: TSS (Once per week), Turbidity (Twice per day upstream and downstream) (EPA)**
  - **o Sampling-(onsite batch plant) document if sampling is not completed within the first 30 minutes of discharge (TCEQ).**
- **Follow Up on incidents and spill reports to ensure proper corrective actions**
  - **o Notify Construction Site Project Manager immediately of spills above a reportable quantity (e.g., sheen on water, 25 gallons of "oil" to land, etc.)**
  - **o Provide a description of spills and incidents & information obtained regarding quality and quantity of stormwater discharges to the Project Manager, as necessary.**
- **Complete the Grading Log (dates when activities start and end) and Construction Activities Log (daily)**
  - **o Ensure Construction Activities Log includes dates when construction activities temporarily or permanently cease on site (TCEQ) and dates when stabilization measures are initiated**
- **Maintain an on-site Material Inventory**
- **Update SWP3 to depict actual locations and types of BMPs, potential pollutant sources, etc., as the project proceeds.**
- **Coordinate between Construction Project Manager, COSA Environmental, and Engineer when the SWP3 requires modification and/or when BMPs are not effective, are missing, or need maintenance/repair**
- **Ensure SWP3 is being noted accordingly (Dates of installment of BMPs, removal of BMPs, maintenance of BMPS, concrete washout pits date of install and removal, etc.)**

CONTRACTOR (Cont'd)

Post Construction

- **Close Out Inspection**
  - **o Ensure removal of temporary BMPs,**
  - **o Verify correct installation of permanent BMPs,**
  - **o Assess final stabilization achieved to allow Notice of Termination**
- **Provide COSA Environmental with copies of all records associated with the TPDES/NPDES Permit**
- **Maintain a copy of these records for Contractor Permit compliance for 3 years following submittal of the Notice of Termination**
- **File Notice of Termination, when appropriate**

Close Out Inspection

- **o Ensure removal of temporary BMPs,**
- **o Verify correct installation of permanent BMPs,**
- **o Assess final stabilization achieved to allow Notice of Termination**
- **Obtain and file all records associated with the TPDES/NPDES Permit activities at the project for 3 years**
- **File Notice of Termination, when appropriate**

JANUARY 2015

CITY OF SAN ANTONIO
TRANSPORTATION AND CAPITOL IMPROVEMENTS

STORM WATER POLLUTION GENERAL NOTES

____% SUBMITTAL	PROJECT NO.: _____	DATE: _____
DRWN. BY: _____	DSGN. BY: _____	CHKD. BY: _____	SHEET NO.:

STATE OF TEXAS · MICHAEL J. MAESTAS · 120447 · LICENSED PROFESSIONAL ENGINEER · 2/20/2024

MAESTAS
8122 DATAPOINT DR., STE. 840
SAN ANTONIO, TX 78229
(210) 366-1988 TBPE No.: F-333
TBPLS No.: 10194506

SAN ANTONIO WATER SYSTEM
KNIGHTS CROSS 1.0 MG STANDPIPE
CIVIL
EROSION CONTROL GENERAL NOTES

R&N JOB NO. SWB22388
DATE 2/9/2024
DESIGNED MJM
DRAWN VV
REVISED
CHECKED CHECKER
FILE NAME M349-SW3P-LAY.dwg

NO. | ISSUE | BY | DATE

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SITE DESCRIPTION

1. PROJECT NAME AND LOCATION: KNIGHTS CROSS PUMP STATION SITE
451 KNIGHTS CROSS, SAN ANTONIO, TEXAS

2. CONTACT AND PHONE NO.: VICENTE GARZA, PE (SAWS) - (210) 233-3596

3. PROJECT DESCRIPTION: RECONSTRUCT ACCESS DRIVE, CONSTRUCT NEW 1 MG WATER STORAGE TANK, INSTALL NEW YARD PIPING, RECONSTRUCT PORTIONS OF THE EXISTING SECURITY FENCE.

4. ___LINEAR ROW OR __X__NON LINEAR ROW

5. POTENTIAL POLLUTANT SOURCES AT THE CONSTRUCTION PROJECT MAY INCLUDE (CHECK ALL THAT APPLY):

X DUST	X LITTER/TRASH	___CONTAMINATED SOILS
X VEHICLE FLUIDS	X AGGREGATE, BASE, SAND,	___FERTILIZERS/HERBICIDES
X OIL AND GREASE	X SAND SPOILS	(DESCRIBE)
X CONCRETE WASHOUT	X VEHICLE WASH WATER	___OTHER CHEMICALS (DESCRIBE)

6. MAJOR SOIL DISTURBING ACTIVITIES:
CONSTRUCTION OF DRIVEWAY ACCESS ROAD TO THE TANK.
CONSTRUCTION OF WATER STORAGE TANK.
CONSTRUCTION OF WATER LINES.
CONSTRUCTION OF SECURTY FENCING, GATES AND GATES ACCESS PANEL.

TOTAL PROJECT AREA (ACRES):	1.29	MATERIAL STORAGE AREAS (ACRES):		SUPPORTING ASPHALT PLANT:	
TOTAL AREA TO BE DISTURBED:	0.31	SUPPORTING CONCRETE BATCH PLANT:		SUPPORTING BARROW PIT:	
		LAYDOWN YARDS:		OTHER:	

7. WEIGHTED RUNOFF COEFFICIENT (AFTER CONSTRUCTION):
SITE IS CONSIDERED COMMERCIAL/INDUSTRIAL. RUNOFF COEFFICIENT AFTER CONSTRUCTION IS 0.50.

8. EXISTING CONDITION OF SOIL, VEGETATIVE COVER AND % OF VEGETATIVE COVER:
THE SITE CONTAINS AN EXISTING WATER STORAGE TANK, ASSOCIATED PUMPS, PIPING AND ELECTRICAL EQUIPMENT.

9. DESCRIPTION OF WATER DISCHARGED NOT ASSOCIATED WITH CONSTRUCTION:
RUNOFF FROM THE SCHOOL NORTHEAST OF THE SITE AND RUNOFF FROM THE SITE.

10. NAMES AND SEGMENT NUMBERS OF RECEIVING WATERS THAT WILL RECEIVE DISCHARGES FROM DISTURBED AREAS OF THE PROJECT:
SALADO CREEK WATERSHED - UPPER PANTHER SPRINGS CREEK

11. IDENTIFY STORMWATER DISCHARGE POINTS:
STORM FLOWS ON THE SITE DRAIN TO WEST PROPERTY LINE AND INTO AN EXISTING SWALE AND SOUTH TO KNIGHTS CROSS.

12. DESCRIPTION AND TIME FRAME FOR INSTALLATION OF STABILIZATION PRACTICES IN CONJUNCTION WITH CONSTRUCTION:
SW3P WILL BE PLACED THROUGHT THE ENTIRE PROJECT SITE IN ACCORDANCE WITH CONSTRUCTION PHASING.
STABILIZATION WILL BE PUT IN WITHIN ONE WEEK OF FINAL GRADING.

EROSION AND SEDIMENTATION CONTROLS

1. SOIL STABILIZATION PRACTICES:

X	HYDROMULCHING	X	PRESERVATION OF NATURAL RESOURCES
X	TEMPORARY SEEDING		FLEXIBLE CHANNEL LINER
X	PERMANENT PLANTING, SODDING OR SEEDING		RIGID CHANNEL LINER
	MULCHING		COMPOST MANUFACTURED TOPSOIL
	SOIL RETENTION BLANKET		OTHER (BIO LOGS)
X	BUFFER ZONES		

OTHER:
DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITY HAS CEASED TEMPORARILY OR PERMANENTLY, SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITIES ARE SCHEDULED TO RESUME AND DONE WITHIN 21 DAYS.

2. STRUCTURAL PRACTICES:

X	SILT FENCES
	HAY BALES
	GRAVEL FILTRATION BAGS
	ROCK BERMS
	DIVERSION, INTERCEPTOR OR PERIMETER DIKES
	DIVERSION, INTERCEPTOR OR PERIMETER SWALES
	DIVERSION, DIKE AND SWALE COMBINATIONS
	PAVED FLUMES
X	ROCK BEDDING AT CONSTRUCTION EXIT (STABILIZED ENTRANCE)
	TIMBER MATTING AT CONSTRUCTION EXIT (STABILIZED ENTRANCE)
	CHANNEL LINERS
	SEDIMENT TRAPS
	SEDIMENT BASINS
	STORM INLET SEDIMENT TRAP
	STONE OUTLET SEDIMENT STRUCTURES
	CURBS AND GUTTERS
	STORM SEWERS
	VELOCITY CONTROL STRUCTURES
	GEOTEXTILES

OTHER:

3. NARRATIVE - SEQUENCE OF CONSTRUCTION (STORMWATER MANAGEMENT) ACTIVITIES:
1. INSTALL SILT FENCE
2. CONSTRUCT STABILIZED CONSTRUCTION EXITS
3. CONSTRUCT IMPROVEMENTS ON SITE
4. MAINTAIN SILT FENCE UNTIL 70% VEGITATION IS ESTABLISHED.

4. A DESCRIPTION OF MAINTENANCE PROCEDURES FOR CONTROL MEASURES USED:
THE BMP'S WILL BE INSPECTED WEEKLY AND AFTER EVERY STORM EVENT FOR EROSION DAMAGE AND STRUCTURAL FAILURES. ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE CONTROL MEASURES AND FROM THE CONSTRUCTION AREA. DAMAGED OR DISABLED CONTROLS WILL BE REPAIRED OR REPLACED WITHIN 7 DAYS.

5. STORMWATER MANAGEMENT:
THE PROJECT ADDS IMPERVIOUS AREAS TO THE SITE, WHICH CAUSES A SLIGHT INCREASE IN DISCHARGES. A STORM WATER MANAGEMENT PLAN WAS SUBMITTED INDICATING NO ADVERSE IMPACTS DOWNSTREAM 2,000 FEET TO PROPERTIES OR STRUCTURES. STORM WATER DRAINING FROM THE SITE ARE THROUGH VEGITATED SWALES.

6. A DESCRIPTION OF PERMANENT STORM WATER MANAGEMENT CONTROLS:
PERMANENT VEGETATED SWALES DRAINING THE SITE. SITE TO BE HYDROMULCHED SEEDED TO ESTABLISHED GRASS COVER FOR ENTIRE SITE.

7. THE FOLLOWING ITEMS SHOULD BE UPDATED AS NECESSARY AND BE INCLUDED AS PART OF THE WEEKLY INSPECTION REPORTS

SCHEDULE OF CONSTRUCTION ACTIVITIES IS MAINTAINED BY _____ AND CAN BE ACCESSED BY CONTACTING _____(NAME) AT _____(PHONE)

INSTALLATION OF STORMWATER CONTROL MEASURES (INSTALL DATE, OPERATIONAL DATE, DEVIATION FROM MANUFACTURE SPEC):

COMMENCEMENT AND DURATION OF EARTH WORK, FINAL GRADING, CREATION OF SOIL AND VEGETATION STOCKPILES REQUIRING STABILIZATION:

CESSATION OF CONSTRUCTION ACTIVITIES WITHIN A PORTION OF THE SITE (TEMPORARY AND PERMANENT:

FINAL AND TEMPORARY STABILIZATION AREAS OF EXPOSED SOILS:

REMOVAL OF TEMPORARY STORMWATER CHANNELS, CONTROL MEASURES, CONSTRUCTION EQUIPMENT AND VEHICLES, AND CESSATION OF ANY POLLUTANT-GENERATING ACTIVITIES:

NOTE:
SW3P NARRATIVE TO ACCOMPANY SITE MAP AND PROJECT DESIGN SHEETS THAT INCLUDE IDENTIFYING EARTH DISTURBING ACTIVITIES, EXISTING AND PROPOSED SLOPES OF GRADING ACTIVITIES, CONSTRUCTION AND SOIL STOCKPILE LOCATIONS,SURFACE WATER CROSSINGS, DESIGNATED EXIST POINTS, STRUCTURES AND IMPERVIOUS SURFACES TO BE CONSTRUCTED, CONSTRUCTION SUPPORT ACTIVITY AREAS, LOCATION OF ALL SURFACE WATERS IN VICINITY, BOUNDARIES OF NATURAL BUFFERS, AREAS OF FEDERALLY LISTED CRITICAL HABITAT, TOPOGRAPHY, VEGETATIVE COVER AND DRAINAGE PATTERNS OF FLOWS ONTO, OVER AND FROM THE PROJECT SITE, STORMWATER AND ALLOWABLE NON STORMWATER DISCHARGE LOCATIONS, ALL STORM INLETS ON AND IN VICINITY OF THE SITE, LOCATION OF ALL POTENTIAL POLLUTANT GENERATING ACTIVITIES, LOCATION OF STORMWATER CONTROL MEASURES, AND LOCATIONS WHERE POLYMERS,FLOCCULANTS, AND OTHER CHEMICALS WILL BE USED AND STORED.

OCTOBER 2014

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

STORM WATER POLLUTION PREVENTION PLAN (SWP3) NARRATIVE
SHEET 1 OF 2

100% SUBMITTAL	PROJECT NO.:		DATE:
DRWN. BY:	DSGN. BY:	CHKD. BY:	SHEET NO.: OF

STATE OF TEXAS · MICHAEL J. MAESTAS · 120447 · LICENSED PROFESSIONAL ENGINEER · 2/20/2024

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SAN ANTONIO WATER SYSTEM
KNIGHTS CROSS 1.0 MG STANDPIPE
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BEST MANAGEMENT PRACTICES

1. NATURAL BUFFER SECTION:

_____ 50-FOOT (OR MORE) BUFFER ZONE
__X__ LESS THAN 50-FOOT BUFFER ZONE
_____ LINEAR CONSTRUCTION PROJECT; DOES NOT REQUIRE 50-FOOT BUFFER ZONE

2. GENERAL REQUIREMENTS:

1. INSTALL PERIMETER CONTROLS TO RETAIN SEDIMENT ON-SITE TO THE EXTENT PRACTICABLE WITH CONSIDERATION FOR LOCAL TOPOGRAPHY, SOIL TYPE, AND RAINFALL.
2. MINIMIZE SEDIMENT TRACK OUT ONTO OFF-SITE STREETS, OR OTHER PAVED AREAS AND SIDEWALKS. RESTRICT VEHICLE USE TO PROPERTY THROUGH DESIGNATED ACCESS POINTS. USE APPROPRIATE STABILIZATION MEASURES. REMOVE SEDIMENT FROM TIRES, WHEN PRACTICABLE.
3. CONTROL DISCHARGES FROM STOCKPILED SEDIMENT BY:
   1) LOCATING PILES OUTSIDE OF NATURAL BUFFERS AND PHYSICALLY SEPARATING PILES FROM OTHER STORMWATER CONTROLS
   2) USE A TEMPORARY PERIMETER SEDIMENT BARRIER
   3) PROVIDE COVER OR TEMPORARY STABILIZATION, WHERE PRACTICABLE
   4) USE DRY CLEAN UP METHODS TO REMOVE ACCUMULATED SEDIMENT FROM PAVED AREAS
   5) PROTECT FROM WIND WHERE FEASIBLE
4. MINIMIZE DUST THROUGH THE APPROPRIATE APPLICATION OF WATER.
5. MINIMIZE SLOPE STEEPNESS OF EXPOSED SOILS THROUGH PHASED DISTURBANCE AND IMPLEMENTATION OF BMP'S.
6. MINIMIZE SOIL COMPACTION IN AREAS WHERE RE-VEGETATION IS PLANNED BY RESTRICTING VEHICLE USE AND CONDITION SOIL PRIOR TO RE-VEGETATION.
7. PROTECT STORM DRAIN INLETS PRIOR TO LAND DISTURBANCE.

3. SEDIMENTATION BASINS:

SEDIMENTATION BASINS (CHECK ALL THAT APPLY)
____ DRAINAGE AREA > 10 ACRES (SEDIMENTATION BASIN DESIGN ON SHEET _____)
____ DRAINAGE AREA > 10 ACRES (SEDIMENTATION BASIN INFEASIBLE-ALTERNATE EQUIVALENT CONTROL DESIGN ON SHEET _____)
__X__ DRAINAGE AREA < 10 ACRES (SEDIMENT TRAPS AND BASINS)
X DRAINAGE AREA < 10 ACRES (PERIMETER CONTROLS)

4. DEWATERING PRACTICES:

1. DO NOT DISCHARGE VISIBLE FLOATING SOLIDS OR FOAM; USE AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE THAT IS DESIGNED TO REMOVE OIL, GREASE, OR OTHER PRODUCTS IF DEWATERING WATER IS FOUND TO CONTAIN THESE MATERIALS.
2. UTILIZE VEGETATED UPLAND AREAS OF THE SITE TO INFILTRATE DEWATERING WATER BEFORE DISCHARGE, WHERE FEASIBLE.
3. DISCHARGE DEWATERING WATER ONTO A VELOCITY DISSIPATION DEVICE.
4. MANAGE BLACKWASH WATER AS A WASTE OR RETURN IT TO THE BEGINNING OF THE TREATMENT PROCESS.
5. REPLACE AND CLEAN FILTER MEDIA USED IN DEWATERING DEVICE ACCORDING TO MANUFACTURE'S SPECIFICATIONS.
6. DO NOT USE TREATMENT CHEMICALS WITHOUT PRIOR WRITTEN CONSENT FROM COSA. A WRITTEN MANAGEMENT PLAN IS REQUIRED FOR USE OF TREATMENT CHEMICALS.

5. NON STORM WATER DISCHARGES:

THE FOLLOWING NON-STORMWATER DISCHARGES ARE AUTHORIZED FOR DISCHARGE BY THE GENERAL PERMIT. PROJECT SITE MAPS MUST REFLECT THE LOCATIONS OF ANY NON-STORMWATER DISCHARGES. NON-STORMWATER DISCHARGES MUST BE MANAGED BY STORMWATER BMP'S TO PROTECT RECEIVING WATER QUALITY.

1. DISCHARGES FROM FIRE FIGHTING ACTIVITIES AND/OR FIRE HYDRANT FLUSHING.
2. VEHICLE, EXTERNAL BUILDING, AND PAVEMENT WASH WATER WHERE DETERGENTS AND SOAPS ARE NOT USED AND WHERE SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED (UNLESS ALL SPILLED MATERIAL HAS BEEN REMOVED).
3. PLAIN WATER USED TO CONTROL DUST.
4. PLAIN WATER ORIGINATING FROM POTABLE WATER SOURCES.
5. UNCONTAMINATED GROUNDWATER, SPRING WATER, OR ACCUMULATED STORMWATER.
6. FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS SUCH AS SOLVENTS.
7. UNCONTAMINATED AIR CONDITIONING CONDENSATE.
8. LAWN WATERING AND SIMILAR DRAINAGE.
9. OTHER _____

6. PROHIBITED STORM WATER DISCHARGES:

1. WASTEWATER FROM WASH OUT OF CONCRETE TRUCKS.
2. WASTEWATER FROM WASH OUT AND CLEAN OUT OF STUCCO, PAINT, FORM RELEASE OILS, CUTTING COMPOUNDS, AND OTHER CONSTRUCTION MATERIALS.
3. FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATIONS AND MAINTENANCE.
4. SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.

NOTE - DO NOT USE TREATMENT CHEMICALS WITHOUT PRIOR WRITTEN CONSENT FROM COSA. A WRITTEN MANAGEMENT PLAN IS REQUIRED FOR USE OF TREATMENT CHEMICALS.

7. CONCRETE TRUCK WASH WATER DISCHARGES ON THE SITE SHOULD BE PROHIBITED OR MINIMIZED. IF ALLOWED BY THE ENGINEER, THEY MUST BE MANAGED IN A MANNER SO AS NOT TO CONTAMINATE SURFACE WATER. THEY MUST NOT BE LOCATED IN AREAS OF CONCENTRATED FLOW. CONCRETE TRUCK WASH-OUT LOCATIONS MUST BE SHOWN ON THE SW3P LAYOUT AND INCLUDED IN THE INSPECTIONS. HAZARDOUS MATERIAL SPILL/LEAK SHALL BE PREVENTED OR MINIMIZED. AT A MINIMUM, THIS INCLUDES ASPHALT PRODUCTS, FUELS, OILS, LUBRICANTS, SOLVENTS, PAINTS, ACIDS, CONCRETE CURING COMPOUNDS, AND CHEMICAL ADDITIVES FOR SOIL STABILIZATION. BMP'S SHALL BE IMPLEMENTED TO THE STORAGE OF THESE PRODUCTS. ALL SPILLS MUST BE CLEANED AND DISPOSED PROPERLY AND REPORTED TO THE ENGINEER. REPORT ANY RELEASE AT OR ABOVE THE REPORTABLE QUANTITY DURING A 24 HOUR PERIOD TO THE NATIONAL RESPONSE CENTER AT 1-800-424-8802.

8. MATERIAL MANAGEMENT PRACTICES:

CONTRACTOR MUST MAINTAIN AN INVENTORY OF CONSTRUCTION AND WASTE MATERIALS EXPECTED TO BE STORED ON-SITE AND A DESCRIPTION OF CONTROLS IMPLEMENTED TO MINIMIZE POLLUTANTS FROM THESE SOURCES.

9. COMPLIANCE WITH APPROVED STATE AND LOCAL PLANS:

THIS SW3P SHALL CONFORM TO APPLICABLE LOCAL RULES AND REGULATIONS FOR WATER QUALITY, INCLUDING BUT NOT LIMITED TO THOSE ESTABLISHED BY COSA, SAWS, BEXAR COUNTY, EAA, OR OTHERS, AS APPLICABLE.

OTHER REQUIREMENTS AND PRACTICES

OTHER REQUIREMENTS AND PRACTICES

1. MAINTENANCE:

ALL EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT SHALL BE PERFORMED BY CLOSE OF THE NEXT DAY FOLLOWING DISCOVERY. RECOMMENDATIONS FOR NEW BMP'S OR SIGNIFICANT REPAIRS TO EXISTING BMP'S MADE BY INSPECTORS OF THIS SWPPP OR BY THE EPA WILL BE INSTALLED WITHIN SEVEN (7) CALENDAR DAYS FROM THE DATE OF INSPECTION OR PRIOR TO THE NEXT RAIN EVENT, WHICHEVER IS SOONER. CORRECTIVE ACTIONS, SUCH AS TEMPORARY BMP'S, SHALL BE IMMEDIATELY TAKEN IN THE EVENT THAT A DISCHARGE OF POLLUTANTS IS DISCOVERED TO MINIMIZED OR PREVENT FURTHER DISCHARGE UNTIL A PERMANENT SOLUTION IS INSTALLED. WHEN CORRECTIVE ACTIONS RESULT IN CHANGES TO STORMWATER CONTROLS OR PROCEDURES, AMEND THE SWPPP WITHIN SEVEN (7)CALENDAR DAYS OF COMPLETING THE CORRECTIVE ACTION WORK. EACH CORRECTIVE ACTION REPORT MUST BE SIGNED AND CERTIFIED BY THE AUTHORIZED SIGNATORY AUTHORITY. KEEP A CURRENT COPY OF ALL CORRECTIVE ACTION REPORTS AT THE SITE OR AT AN EASILY ACCESSIBLE LOCATION. MAINTAIN ALL CORRECTIVE ACTION REPORTS FOR AT LEAST THREE (3) YEARS FROM THE DATE THAT YOUR PERMIT COVERAGE EXPIRES OR IS TERMINATED. DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE CEASED, TEMPORARILY OR PERMANENTLY, SHALL BE STABILIZED WITHIN 14 CALENDAR DAYS UNLESS THEY ARE SCHEDULED TO AND DO RESUME WITHIN 21 CALENDAR DAYS. THE AREAS ADJACENT TO CREEKS AND DRAINAGE WAYS SHALL HAVE PRIORITY FOLLOWED BY PROTECTING STORM WATER INLETS.

2. INSPECTIONS:

FOR AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED, AREAS USED FOR STORAGE OF MATERIALS, STRUCTURAL CONTROL MEASURES, AND LOCATION WHERE VEHICLES ENTER OR EXIT THE SITE. PERSONNEL PROVIDED BY THE PERMITTEE AND FAMILIAR WITH THE SW3P MUST INSPECT DISTURBED AREAS AT LEAST ONCE EVERY 14 CALENDAR DAY AND WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR GREATER. THE SW3P MAY BE DEVELOPED TO REQUIRE THAT THESE INSPECTIONS WILL OCCUR AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS. IF THIS ALTERNATIVE SCHEDULE IS DEVELOPED, THE INSPECTION MUST OCCUR ON A SPECIALLY DEFINED DAY, REGARDLESS OF WHETHER OR NOT THERE HAS BEEN RAINFALL SINCE THE PREVIOUS INSPECTION. AN INSPECTION AND MAINTENANCE REPORT SHALL BE PREPARED FOR EACH INSPECTION AND THE CONTROLS SHALL BE REVISED ON THE SW3P WITHIN SEVEN (7) CALENDAR DAYS FOLLOWING THE INSPECTION. IF DISCHARGES OCCUR TO SEDIMENT OR NUTRIENT-IMPAIRED WATERS, OR TO OTHER SITES WITH IMPAIRMENT STATUS, INSPECTIONS MUST TAKE PLACE ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.25 INCHES OR GREATER. INSPECTION REPORTS MUST BE COMPLETED WITHIN 24 HOURS OF COMPLETING ANY SITE INSPECTION. EACH INSPECTION MUST BE SIGNED BY AUTHORIZED SIGNATORY AUTHORITY.

3. WASTE MATERIALS:

ALL NON-HAZARDOUS MUNICIPAL WASTE MATERIALS SUCH AS LITTER, RUBBISH, AND GARBAGE LOCATED ON OR ORIGINATING FROM THE PROJECT SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER PROVIDED BY THE CONTRACTOR. THE DUMPSTER SHALL BE EMPTIED AS NECESSARY OR AS REQUIRED BY LOCAL REGULATION AND THE TRASH SHALL BE HAULED TO A PERMITTED DISPOSAL FACILITY. THE BURYING OF NON-HAZARDOUS MUNICIPAL WASTE ON THE PROJECT SHALL NOT BE PERMITTED. CONSTRUCTION MATERIAL WASTE SITES, STOCKPILES, AND HAUL ROADS SHALL BE CONSTRUCTED TO MINIMIZE AND CONTROL THE AMOUNT OF SEDIMENT THAT MAY ENTER RECEIVING WATERS. CONSTRUCTION MATERIALS WASTE SITES SHALL NOT BE LOCATED IN ANY WETLAND, WATER BODY, OR STREAM BED. CONSTRUCTION STAGING AREAS AND VEHICLE MAINTENANCE AREAS SHALL BE CONSTRUCTED IN A MANNER TO MINIMIZE THE RUNOFF OF POLLUTANTS.

4. OFFSITE VEHICLE TRACKING:

OFFSITE VEHICLE TRACKING OF SEDIMENT AND THE GENERATION OF DUST MUST BE MINIMIZED. EXCESS SEDIMENTS ON ROAD SHALL BE REMOVED ON A REGULAR BASIS AS DIRECTED/APPROVED BY THE ENGINEER.

5. STAFF TRAINING REQUIREMENTS:

OPERATOR STAFF MUST RECEIVE TRAINING PRIOR TO COMMENCEMENT OF EARTH DISTURBING OR POLLUTANT GENERATING ACTIVITIES, WHICHEVER COMES FIRST. OPERATORS ARE NOT REQUIRED TO PROVIDE OR DOCUMENT FORMAL TRAINING FOR SUBCONTRACTORS OR OTHER OUTSIDE SERVICE PROVIDERS, BUT THEY MUST ENSURE THAT SUCH PERSONNEL UNDERSTAND THE PERMIT REQUIREMENTS THAT MAY BE AFFECTED BY THEIR WORK.

6. SUPPORTING CONCRETE BATCH PLANTS:

THE CONTRACTOR SHOULD DEVELOP A SEPARATE SW3P FOR OPERATIONS ASSOCIATED WITH A SUPPORTING CONCRETE BATCH PLANT IN CONFORMANCE WITH THE TCEQ TPDES CONSTRUCTION GENERAL PERMIT, PART IV RELATING TO STORM WATER RUNOFF FROM CONCRETE BATCH PLANTS. THIS SW3P DOES NOT PROVIDE ADEQUATE CONTROLS FOR THIS ACTIVITY.

7. SANITARY WASTE:

PORT-A-POT (PLACED OUTSIDE OF FLOODPLAIN)

8. OFFSITE EXCAVATION SOURCE LOCATION:

CONTRACTOR TO REMOVE AND PLACE SPOILS DAILY.

9. OFFSITE FILL SOURCE LOCATION:

CONTRACTOR TO REMOVE AND PLACE SPOILS DAILY.

10. OTHER:

SPILL PREVENTION AND RESPONSE PROCEDURES (CONTRACTOR TO COMPLETE)

1. IDENTIFY PROCEDURES FOR STOPPING, CONTAINING, AND CLEANING UP SPILLS, LEAKS AND OTHER RELEASE. _____
2. IDENTIFY THE NAME OR POSITION OF THE PERSON RESPONSIBLE FOR DETECTION AND RESPONSE OF SPILLS AND LEAKS. _____
3. IDENTIFY PROCEDURES FOR NOTIFICATION OF APPROPRIATE FACILITY PERSONNEL, REGULATORY AGENCIES, ETC. _____

REMARKS:

DISPOSAL AREAS, STOCKPILES AND HAUL ROADS SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE AND CONTROL THE AMOUNT OF SEDIMENT THAT ENTERS RECEIVING WATERS. DISPOSAL AREAS SHALL NOT BE LOCATED IN ANY WETLAND, BODY OF WATER, STREAMBED, OR FLOODPLAIN. CONSTRUCTION STAGING AREAS AND VEHICLE MAINTENANCE AREAS SHALL BE CONSTRUCTED BY THE CONTRACTOR IN A MANNER TO MINIMIZE THE RUNOFF OF POLLUTANTS. ALL WATERWAYS SHALL BE CLEARED AS SOON AS POSSIBLE OF TEMPORARY EMBANKMENT, TEMPORARY BRIDGES, MATTING, FALSEWORK, PILING DEBRIS, OR OTHER OBSTRUCTION PLACED DURING CONSTRUCTION OPERATIONS THAT ARE NOT PART OF THE FINISHED WORK.

OCTOBER 2014

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

STORM WATER POLLUTION
PREVENTION PLAN (SWP3) NARRATIVE
SHEET 2 OF 2

100% SUBMITTAL	PROJECT NO.:		DATE:
DRWN. BY:	DSGN. BY:	CHKD. BY:	SHEET NO.: OF

STATE OF TEXAS — MICHAEL J. MAESTAS — 120447 — LICENSED PROFESSIONAL ENGINEER — 2/20/2024

MAESTAS
8122 DATAPOINT DR., STE. 840
SAN ANTONIO, TX. 78229
(210) 366-1988 TBPE No.: F-333
TBPLS No.: 10194506

SAN ANTONIO WATER SYSTEM
KNIGHTS CROSS 1.0 MG STANDPIPE

CIVIL

EROSION CONTROL NARRATIVE II

R&N JOB NO. SWB22388
DATE 2/9/2024
DESIGNED MJM
DRAWN VV
REVISED
CHECKED CHECKER
FILE NAME M349-SW3P-LAY.dwg

NO. ISSUE | BY | DATE

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale. 0 1

SHEET C-17
SEQ.

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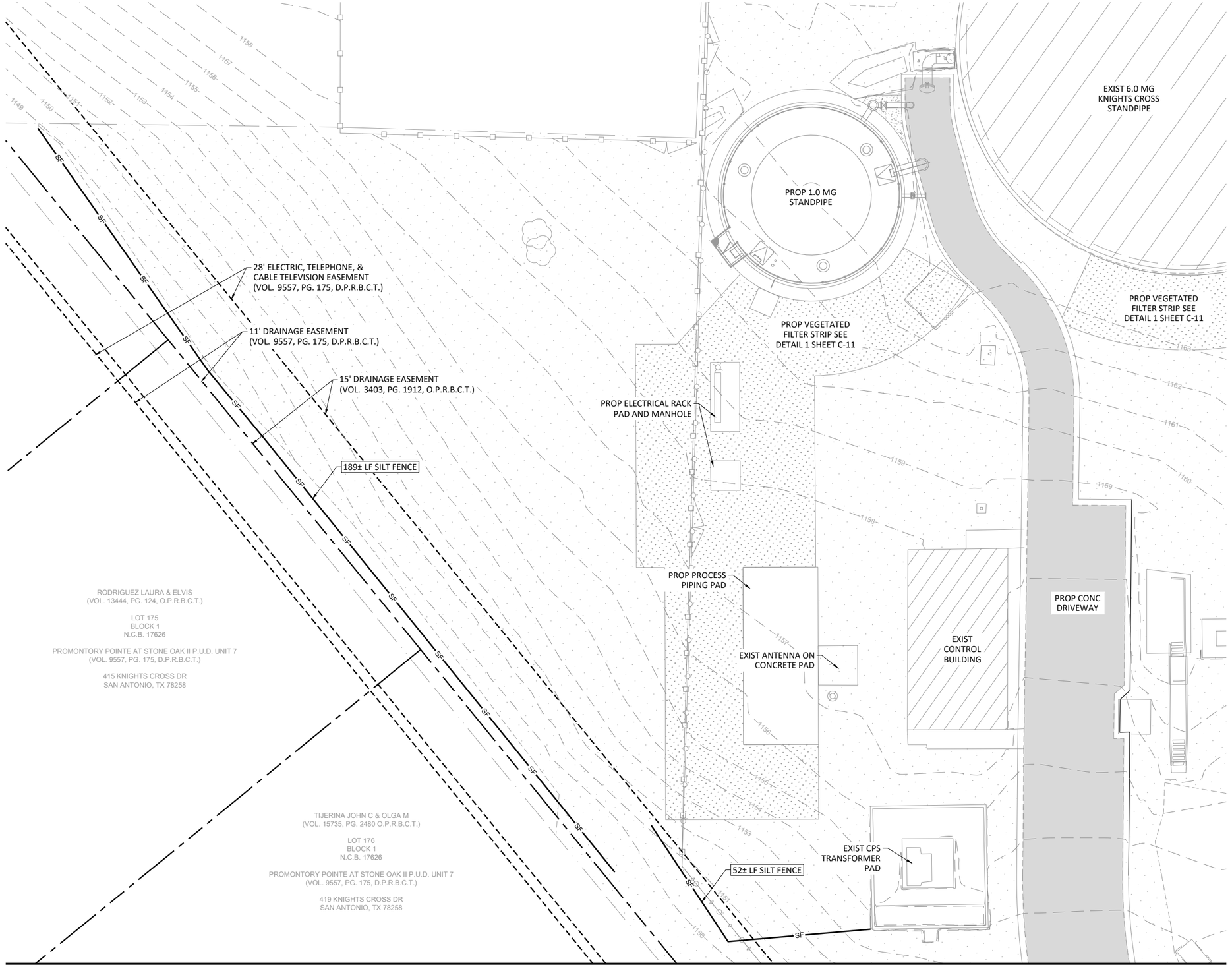

LEGEND

- EXIST UNDERGROUND WATER
- EXIST ABOVE GROUND WATER
- EXIST OH ELECTRIC — OHE —
- EXIST UG ELECTRIC — E1 — 1 —
- EXIST UG FIBER OPTICS — T4 — 1 —
- EXIST CONCRETE
- EXIST ASPHALT DRIVEWAY
- GUTTER
- BACK OF CURB
- RIGHT OF WAY
- PROPERTY LINE
- EASEMENT LINE
- EXIST CONTOURS
- EXIST MASONRY FENCE
- EXIST CHAIN LINK FENCE
- EXIST TREE
- EXIST OVERHEAD ELECTRIC POLE
- EXIST VALVE
- EXIST FIRE HYDRANT
- PROP CONCRETE DRIVEWAY
- PROP CONCRETE RIPRAP
- PROP VEGETATED FILTER STRIP
- PROP CONSTRUCTION ENTRANCE/EXIT
- PROP TOPSOIL W/ HYDROMULCH
- EXIST CONTOURS — XXX —
- PROP CONTOURS — XXX —
- PROP GRADING LIMITS
- SILT FENCE — SF —
- GRAVEL FILTERS — GF —

STATE OF TEXAS · MICHAEL J. MAESTAS · 120447 · LICENSED PROFESSIONAL ENGINEER · 2/20/2024

MAESTAS
8122 DATAPOINT DR. STE. 840
SAN ANTONIO, TX 78229
(210) 366-1988 TBPE No.: F-333
TBPLS No.: 10194506

SAN ANTONIO WATER SYSTEM
KNIGHTS CROSS 1.0 MG STANDPIPE

CIVIL

EROSION CONTROL LAYOUT I

F&N JOB NO. SW822388
DATE 2/9/2024
DESIGNED MJM
DRAWN VV
REVISED
CHECKED CHECKER
FILE NAME M349-SW3P-LAY.dwg

NO. | ISSUE | BY | DATE

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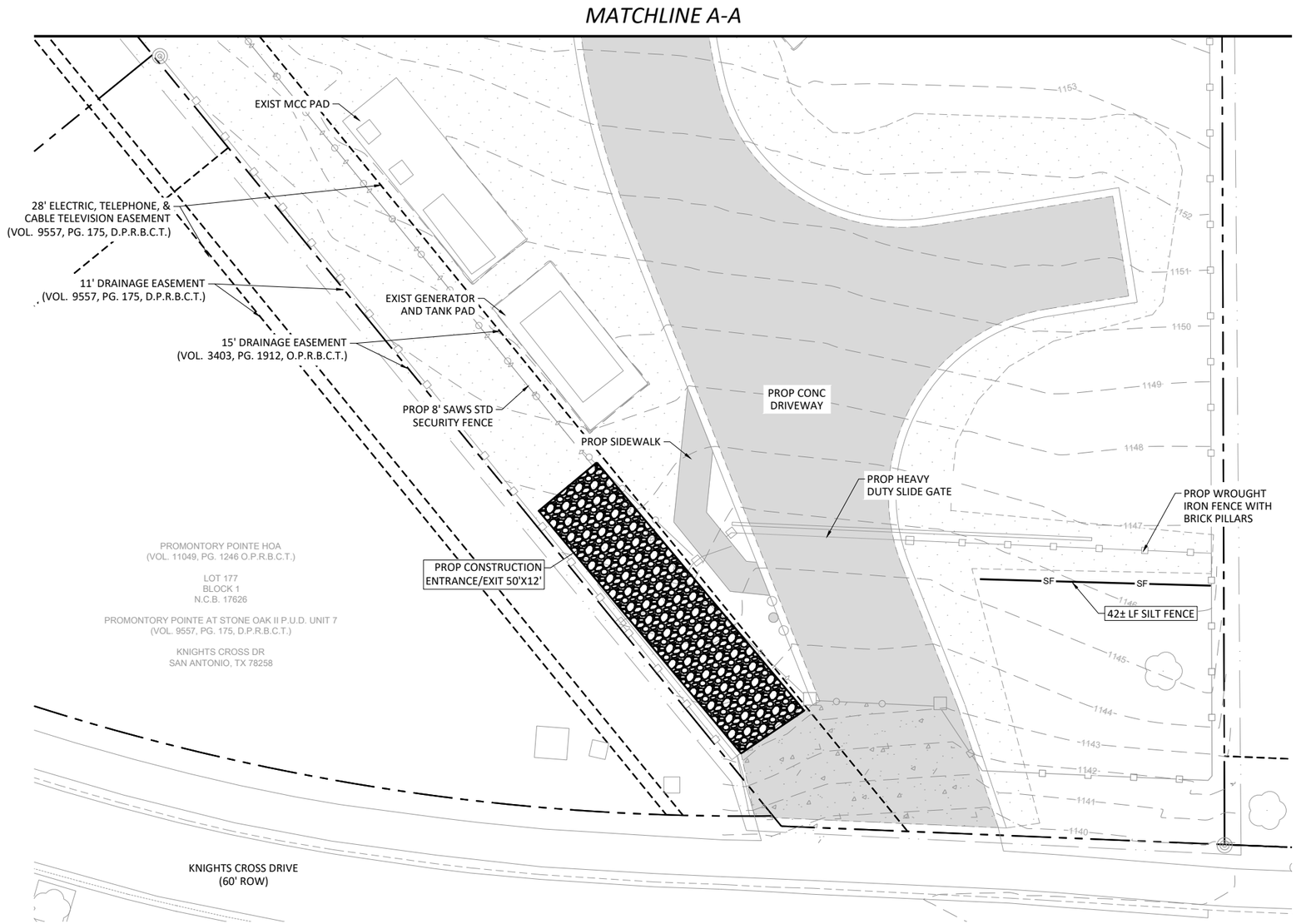

NORTH

0 5' 10'
SCALE IN FEET

LEGEND

- EXIST UNDERGROUND WATER
- EXIST ABOVE GROUND WATER
- EXIST OH ELECTRIC — OHE —
- EXIST UG ELECTRIC — E1 — 1 —
- EXIST UG FIBER OPTICS — T4 — 1 —
- EXIST CONCRETE
- EXIST ASPHALT DRIVEWAY
- GUTTER
- BACK OF CURB
- RIGHT OF WAY
- PROPERTY LINE
- EASEMENT LINE
- EXIST CONTOURS
- EXIST MASONRY FENCE
- EXIST CHAIN LINK FENCE
- EXIST TREE
- EXIST OVERHEAD ELECTRIC POLE
- EXIST VALVE
- EXIST FIRE HYDRANT
- PROP CONCRETE DRIVEWAY
- PROP CONCRETE RIPRAP
- PROP VEGETATED FILTER STRIP
- PROP CONSTRUCTION ENTRANCE/EXIT
- PROP TOPSOIL W/ HYDROMULCH
- EXIST CONTOURS — xxx —
- PROP CONTOURS — xxx —
- PROP GRADING LIMITS
- SILT FENCE — SF —
- GRAVEL FILTERS — GF —

STATE OF TEXAS · MICHAEL J. MAESTAS · 120447 · LICENSED PROFESSIONAL ENGINEER
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SAN ANTONIO WATER SYSTEM

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EROSION CONTROL LAYOUT II

NO.	ISSUE	BY	DATE

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VERIFY SCALE 0 1
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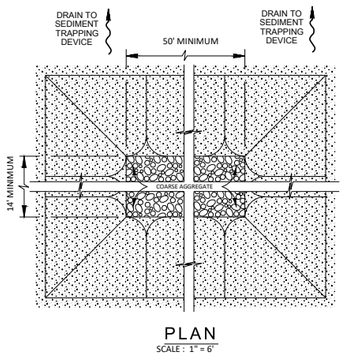
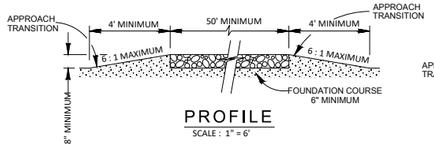


PLAN
SCALE : 1" = 6'

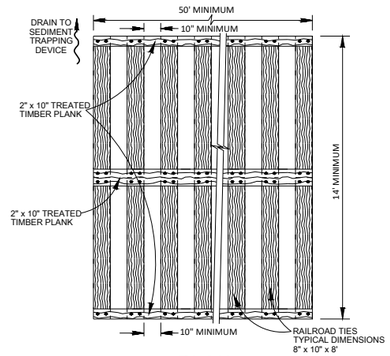


PROFILE
SCALE : 1" = 6'

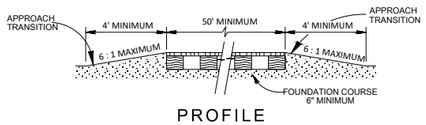
GENERAL NOTES

1. THE LENGTH OF THE TYPE 1 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A SIZE OF 4" TO 8".
3. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6 : 1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
4. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT - TYPE 1



PLAN
SCALE : 1" = 6'

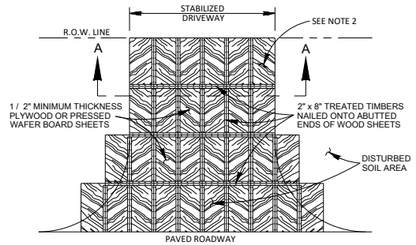


PROFILE
SCALE : 1" = 6'

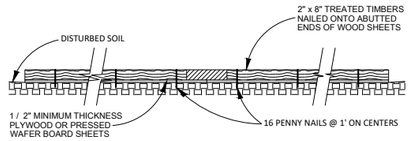
GENERAL NOTES

1. THE LENGTH OF THE TYPE 2 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE TREATED TIMBER PLANKS SHALL BE ATTACHED TO THE RAILROAD TIES WITH 1 / 2" x 6" MIN. LAG BOLTS. OTHER FASTENERS MAY BE USED AS APPROVED BY THE ENGINEER.
3. THE TREATED TIMBER PLANKS SHALL BE #2 GRADE MIN., AND SHOULD BE FREE FROM LARGE AND LOOSE KNOTS.
4. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6 : 1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
6. THE CONSTRUCTION EXIT SHOULD BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
7. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT - TYPE 2



PLAN
SCALE : 1" = 20'

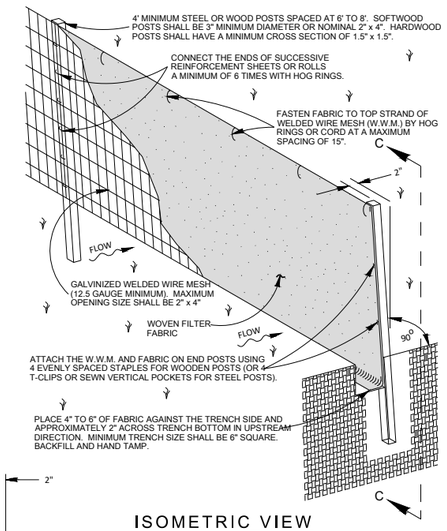


SECTION A-A
SCALE : 1" = 2'

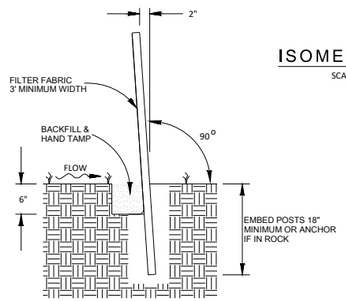
GENERAL NOTES

1. THE LENGTH OF THE TYPE 3 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
2. THE TYPE 3 CONSTRUCTION EXIT MAY BE CONSTRUCTED FROM OPEN GRADED CRUSHED STONE WITH A SIZE OF 2 TO 4 INCHES SPREAD A MINIMUM OF 4 INCHES THICK TO THE LIMITS SHOWN ON THE PLANS.
3. THE TREATED TIMBER PLANKS SHALL BE #2 GRADE MIN., AND SHOULD BE FREE FROM LARGE AND LOOSE KNOTS.
4. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT - TYPE 3



ISOMETRIC VIEW
SCALE : 1" = 2'



SECTION C-C
SCALE : 1" = 2'

SEDIMENT CONTROL FENCE USAGE GUIDELINES

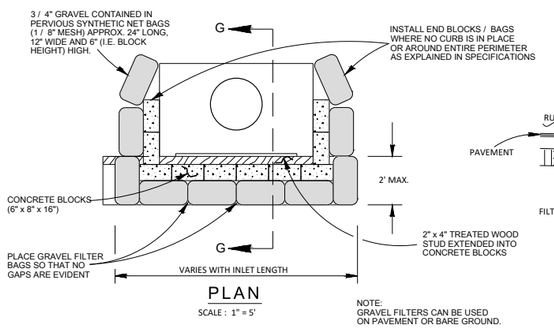
A SEDIMENT CONTROL FENCE MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUN-OFF. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED.

SEDIMENT CONTROL FENCE SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 100 GPM / FT SQUARED. SEDIMENT CONTROL FENCE IS NOT RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA LARGER THAN 2 ACRES.

GENERAL NOTES

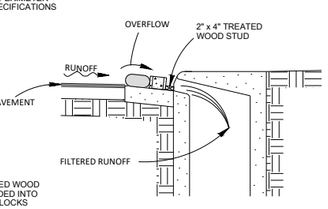
1. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

TEMPORARY SEDIMENT CONTROL FENCE



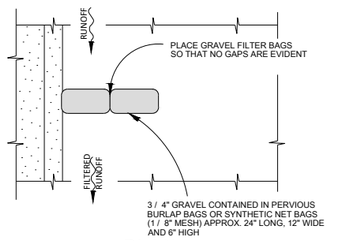
PLAN
SCALE : 1" = 5'

NOTE:
GRAVEL FILTERS CAN BE USED ON PAVEMENT OR BARE GROUND.



SECTION G-G
SCALE : 1" = 5'

CURB INLET GRAVEL FILTER



PLAN
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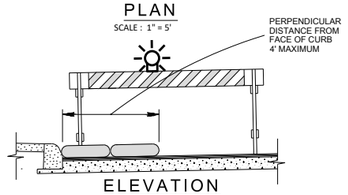

ELEVATION
SCALE : 1" = 5'

NOTE:
STRADDLE GRAVEL FILTER BAGS WITH TYPE 1 BARRICADES MOUNTED WITH TYPE "A" FLASHING WARNING LIGHT. SEE BARRICADE CONSTRUCTION SIGN DETAILS. PLACE FLASHING LIGHTS AWAY FROM GUTTER, FLUSH WITH OUTSIDE EDGE OF BAG CONFIGURATION.

GRAVEL FILTER BAGS

JANUARY 2005

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

TEMPORARY EROSION, SEDIMENT & WATER POLLUTION CONTROL MEASURES STANDARDS 1

__% SUBMITTAL	PROJECT NO.:_____	DATE:_____
DRWN. BY:V. VASQUEZ	DSGN. BY:_____	CHKD. BY:_____	SHEET NO.:___OF___

MAESTAS
8122 DATAPOINT DR. STE. 840
SAN ANTONIO, TX. 78229
(210) 366-1988 TBPE No.: F-333
TBPLS No.: 10194506

SAN ANTONIO WATER SYSTEM
KNIGHTS CROSS 1.0 MG STANDPIPE

CIVIL

EROSION CONTROL DETAILS I

NO.	ISSUE	BY	DATE

R&N JOB NO. SW822388
DATE 2/9/2024
DESIGNED MJM
DRAWN VV
REVISED
CHECKED CHECKER
FILE NAME M349-SW3P-STDS-01.dwg

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET C-26
SEQ.

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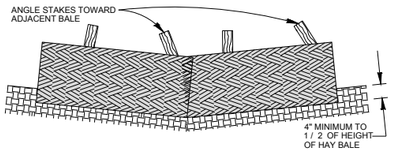
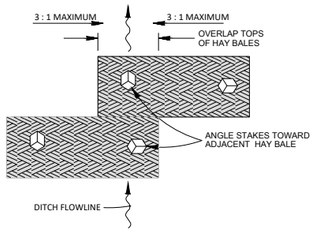
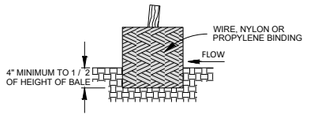


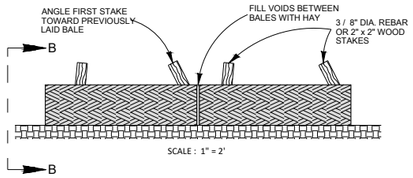
PROFILE VIEW
SCALE : 1" = 2'



PLAN VIEW
SCALE : 1" = 2'



SECTION B-B
SCALE : 1" = 2'



SCALE : 1" = 2'

BALED HAY USAGE GUIDELINES

A BAILED HAY INSTALLATION MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A TWO YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED. THE INSTALLATION SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 5 GPM / FT SQUARED OF CROSS SECTIONAL AREA. BALED HAY MAY BE USED AT THE FOLLOWING LOCATIONS:

1. WHERE THE RUNOFF APPROACHING THE BALED HAY FLOWS OVER DISTURBED SOIL FOR LESS THAN 100'. IF THE SLOPE OF THE DISTURBED SOIL EXCEEDS 10 %, THE LENGTH OF SLOPE UPSTREAM OF THE BAILED HAY SHOULD BE LESS THAN 50'.
2. WHERE THE INSTALLATION WILL BE REQUIRED FOR LESS THAN 3 MONTHS.
3. WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1 / 2 ACRE.

FOR BALED HAY INSTALLATIONS IN SMALL DITCHES, THE FOLLOWING ADDITIONAL CONDITIONAL CONSIDERATIONS APPLY:

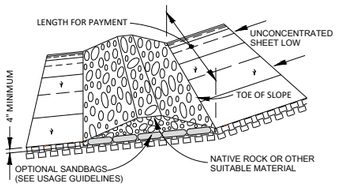
1. THE DITCH SIDESLOPES SHOULD BE GRADED AS FLAT AS POSSIBLE TO MAXIMIZE THE DRAINAGE FLOW RATE THRU THE HAY.
2. THE DITCH SHOULD BE GRADED LARGE ENOUGH TO CONTAIN THE OVERLAPPING DRAINAGE WHEN SEDIMENT HAS FILLED TO THE TOP OF THE BAILED HAY.

BALES SHOULD BE REPLACED USUALLY EVERY 2 MONTHS OR MORE OFTEN DURING WET WEATHER WHEN LOSS OF STRUCTURAL INTERGRITY IS ACCELERATED.

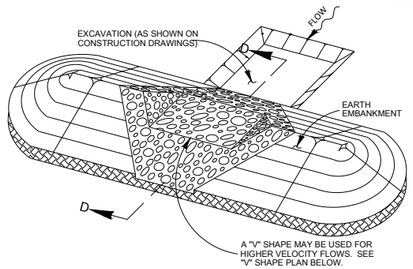
GENERAL NOTES

1. HAY BALES SHALL BE A MINIMUM OF 30" IN LENGTH AND WEIGH A MINIMUM OF 50 LBS.
2. HAY BALES SHALL BE BOUND BY EITHER WIRE OR NYLON OR POLYPROPYLENE STRING. THE BALES SHALL BE COMPOSED ENTIRELY OF VEGETABLE MATTER.
3. HAY BALES SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4" AND, WHERE POSSIBLE, ONE-HALF THE HEIGHT OF THE BALE.
4. HAY BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. THE BALES SHALL BE PLACED WITH BINDINGS PARALLEL TO THE GROUND.
5. HAY BALES SHALL BE SECURELY ANCHORED IN PLACE WITH 3 / 8" DIA. REBAR OR 2" x 2" WOOD STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE SHALL BE ANGLED TOWARDS THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

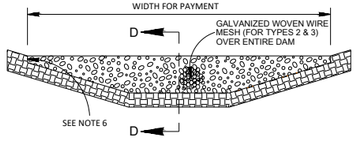
BALED HAY FOR EROSION CONTROL



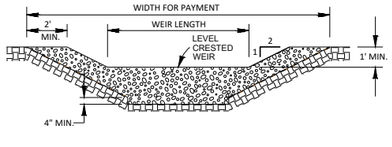
TYPE 1 FILTER DAM AT TOE OF SLOPE
SCALE : 1" = 10'



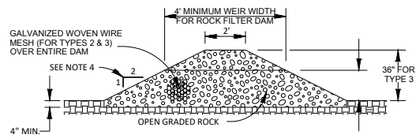
TYPE 1 & 2 FILTER DAM AT SEDIMENT TRAP
SCALE : 1" = 10'



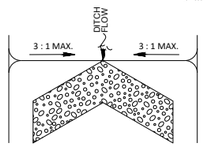
TYPE 1, 2 & 3 FILTER DAM AT CHANNEL SECTIONS
SCALE : 1" = 6'



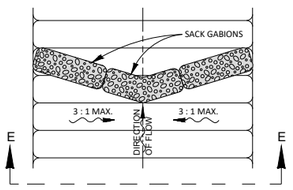
PROFILE OF TYPE 1 & 2 FILTER DAM AT SEDIMENT TRAP
SCALE : 1" = 6'



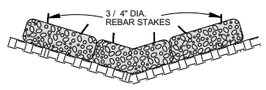
SECTION D-D
SCALE : 1" = 6'



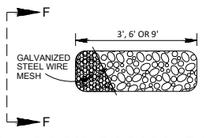
"V" SHAPE PLAN VIEW
NOT TO SCALE



PLAN VIEW
SCALE : 1" = 10'



SECTION E-E
SCALE : 1" = 10'



TYPE 4 SACK GABION DETAIL
SCALE : 1" = 6'

SECTION F-F
SCALE : 1" = 6'

TYPE 4 FILTER DAM AT DITCHES & SMALLER CHANNELS PLAN VIEW

ROCK FILTER DAMS

ROCK FILTER DAM USAGE GUIDELINES

ROCK FILTER DAMS SHOULD BE CONSTRUCTED DOWNSTREAM FROM DISTURBED AREAS TO INTERCEPT SEDIMENT FROM OVERLOAD RUNOFF AND / OR CONCENTRATED FLOW. THE DAMS SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 60 GPM / FT SQUARED OF CROSS SECTIONAL AREA.. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE.

TYPE 1 (18" HIGH WITH NO WIRE MESH) :

TYPE 1 MAY BE USED AT THE TOE OF SLOPES, AROUND INLETS, IN SMALL DITCHES AND AT DIKE OR SWALE OUTLETS. THIS TYPE OF DAM IS RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA OF 5 ACRES OR LESS. TYPE 1 MAY NOT BE USED IN CONCENTRATED HIGH VELOCITY FLOWS (APPROXIMATELY 8 FT. / SEC. OR MORE) IN WHICH AGGREGATE WASH OUT MAY OCCUR. SANDBAGS MAY BE USED AT THE EMBEDDED FOUNDATION (4" DEEP MIN.) FOR BETTER FILTERING EFFICIENCY OF LOW FLOWS IF CALLED FOR ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

TYPE 2 (18" HIGH WITH WIRE MESH) :

TYPE 2 MAY BE USED IN DITCHES AND AT DIKE OR SWALE OUTLETS.

TYPE 3 (36" HIGH WITH WIRE MESH) :

TYPE 3 MAY BE USED IN STREAM FLOW AND SHOULD BE SECURED TO THE STREAM BED.

TYPE 4 (SACK GABIONS) :

TYPE 4 MAY BE USED IN DITCHES AND SMALLER CHANNELS TO FORM AN EROSION CONTROL DAM.

GENERAL NOTES

1. IF SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, FILTER DAMS SHOULD BE PLACED NEAR THE TOE OF SLOPES WHERE EROSION IS ANTICIPATED, UPSTREAM AND / OR DOWNSTREAM AT DRAINAGE STRUCTURES, AND IN ROADWAY DITCHES AND CHANNELS TO COLLECT SEDIMENT.
2. MATERIALS (AGGREGATE, WIRE MESH, SANDBAGS, ETC.) SHALL BE AS INDICATED BY THE SPECIFICATION FOR ROCK FILTER DAMS FOR EROSION AND SEDIMENTATION CONTROL.
3. THE ROCK FILTER DAM DIMENSIONS SHALL BE AS INDICATED ON THE STORM WATER POLLUTION PREVENTION PLANS.
4. SIDE SLOPES SHOULD BE 2 : 1 OR FLATTER. DAMS WITHIN THE SAFETY ZONE SHALL HAVE SIDE SLOPES OF 6 : 1 OR FLATTER.
5. MAINTAIN A MINIMUM OF 1' BETWEEN TOP OF ROCK FILTER DAM WEIR AND TOP OF EMBANKMENT FOR FILTER DAMS AT SEDIMENT TRAPS.
6. FILTER DAMS SHOULD BE EMBEDDED A MINIMUM OF 4" INTO THE EXISTING GROUND.
7. THE SEDIMENT TRAP FOR PONDING OF SEDIMENT LADEN RUNOFF SHALL BE OF THE DIMENSIONS SHOWN ON THE PLANS.
8. ROCK FILTER DAM TYPES 2 & 3 SHALL BE SECURED WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1" DIAMETER HEXAGONAL OPENINGS. THE AGGREGATE SHALL BE PLACED ON THE MESH TO THE HEIGHT AND SLOPES SPECIFIED. THE MESH SHALL BE FOLDED AT THE UPSTREAM SIDE OVER THE AGGREGATE AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS. IN STREAM USE, THE MESH SHOULD BE SECURED OR STAKED TO THE STREAM BED PRIOR TO AGGREGATE PLACEMENT.
9. SACK GABIONS SHOULD BE STAKED DOWN WITH 3 / 4" DIA. REBAR STAKES.
10. FLOW OUTLET SHOULD BE ONTO A STABILIZED AREA (VEGETATION, ROCK, ETC.).
11. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

JANUARY 2005

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

TEMPORARY EROSION, SEDIMENT & WATER POLLUTION CONTROL MEASURES STANDARDS 2

_____% SUBMITTAL	PROJECT NO.:_____	DATE:_____
DRWN. BY:V. VASQUEZ	DSGN. BY:_____	CHKD. BY:_____	SHEET NO.:___OF___

MAESTAS
8122 DATAPOINT DR. STE. 840
SAN ANTONIO, TX. 78229
(210) 366-1988 TBPE No.: F-333
TBPLS No.: 10194506

SAN ANTONIO WATER SYSTEM
KNIGHTS CROSS 1.0 MG STANDPIPE

CIVIL

EROSION CONTROL DETAILS II

NO.	ISSUE	BY	DATE

R&V JOB NO. SWB22388
DATE 2/9/2024
DESIGNED MJM
DRAWN VV
REVISED
CHECKED CHECKER
FILE NAME M349-SW3P-STDS-01.dwg

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1

SHEET C-27
SEQ.

ACAD Rel: 23.1s (LMS Tech)
Filename: Z:\Projects\M349 SAWS Knights Cross GST\06 - CADD Files\06.60 - Environmental\M349-SW3P-STDS-01.dwg
Last Saved: 12/21/2023 3:47 PM Saved By: Vinisha

Plot Date: 2/9/2024 5:10 PM Plot By: mmaestas Filename: Z:\Projects\M349 SAWS Knights Cross GST\06 - CADD Files\06.60 - Environmental\M349-SW3P-STDS-01.dwg

Attachment G

Inspection, Maintenance, Repair and Retrofit Plan

The following are inspection, maintenance, repair and retrofit guidelines for the selected permanent BMPs as stated in TCEQ RG-348:

Hydromulching and Revegetation:

(1) Inspections should be made at least twice annually for erosion or damage to vegetation, checking the strips for uniformity of grass cover, debris and litter, and areas of sediment accumulation.

(2) Trash and excess sediment accumulated on the grass seeds should be removed during inspections.

(3) Bare spots and areas of erosion found during inspections should be replanted and restored.

(4) An Integrated Pest Management (IPM) plan should be developed for vegetated areas to identify and specify controls for problem insects and weeds.

(5) The disturbed area should be mowed a minimum of twice annually if planted with native grasses.

Inspection Reports:

Completed inspection reports will include the following information:

- scope of the inspection,
- name(s) of personnel making the inspection,
- reference to qualifications of inspection personnel,
- date of the inspection,
- observed major construction activities, and
- actions taken as a result of the inspection.

The inspection report should state whether the site was in compliance or identify any incidents of non-compliance. The report will be signed by the inspector in accordance with Part III.F.7 of the TPDES general permit and filed in the SWP3. Inspection reports will be kept in the Contractor's file, along with the SWP3, for at least three years from the date that the project is completed.

Final stabilization of the construction site has been achieved when all soil disturbing activities at the site have been completed, and a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures. If a vegetative cover cannot be established, equivalent permanent stabilization measures (such as riprap, gabions, or geotextiles) can be employed. When these conditions have been met, temporary BMPs can be removed from the construction area.

Owner & Responsible Party for Maintenance:	Vicente Garza, PE, PMP. SAWS
Address:	2800 US Highway 281 N
City, State, Zip:	San Antonio, TX 78212
Telephone Number:	210.233.3596

Signature of Responsible Party: Vicente Garza Digitally signed by Vicente Garza Date: 2024.02.21 15:34:26 -06'00' Date: 2-21-24

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

I Vicente Garza, PE,
Print Name

Engineering- Operations Support,
Title - Owner/President/Other

of San Antonio Water Systems,
Corporation/Partnership/Entity Name

have authorized Tam Tran
Print Name of Agent/Engineer

of Freese and Nichols, Inc.
Print Name of Firm

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

I also understand that:

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

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

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

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

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

SIGNATURE PAGE:

Applicant's Signature

2-21-24
Date

THE STATE OF Texas §

County of Bexar §

BEFORE ME, the undersigned authority, on this day personally appeared Vicente J. Garza 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 21st day of February, 2024.

NOTARY PUBLIC

Alycia C. Tretta
Typed or Printed Name of Notary

ALYCIA CELESTE TRETTA
Notary Public, State of Texas
Comm. Expires 03-12-2025
Notary ID 12270936

MY COMMISSION EXPIRES: 3-12-2025

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Knights Cross 1.0 MG Standpipe
Regulated Entity Location: 451 Knights Cross Drive, San Antonio, Texas
Name of Customer: Vicente Garza, PE- San Antonio Water Systems
Contact Person: Tam Tran- FNI Phone: 512-381-1830
Customer Reference Number (if issued):CN 600529069
Regulated Entity Reference Number (if issued):RN _____

Austin Regional Office (3373)

☐ Hays ☐ Travis ☐ Williamson

San Antonio Regional Office (3362)

☒ Bexar ☐ Medina ☐ Uvalde
☐ Comal ☐ Kinney

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

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

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

Site Location (Check All That Apply):

☒ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	Acres	$
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	1 Each	$ 500
Extension of Time	Each	$

Signature: _____ Date: 02/14/24

Application Fee Schedule

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

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions 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 with the renewal form*) ☐ Other

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number *(if issued)*
CN 600529069		RN

SECTION II: Customer Information

4. General Customer Information	5. Effective Date for Customer Information Updates (mm/dd/yyyy)	10/31/2023

☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership

☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

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

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

San Antonio Water Systems	

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

11. Type of Customer: ☒ Corporation ☐ Individual Partnership: ☐ General ☐ Limited

Government: ☐ City ☐ County ☐ Federal ☐ State ☒ Other ☐ Sole Proprietorship ☒ Other: Utility

12. Number of Employees
☐ 0-20 ☐ 21-100 ☒ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?
☒ **Yes** ☐ **No**

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

☐ Owner ☐ Operator ☒ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

15. Mailing Address:	6007 Wurzbach Rd						
	City	San Antonio	State	TX	ZIP	78298	ZIP + 4

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*

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

SECTION III: Regulated Entity Information

21. General Regulated Entity 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.*)

Knights Cross 1.0 MG Standpipe

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	451 Knights Cross Drive							
	City	San Antonio	**State**	TX	**ZIP**	78258	**ZIP + 4**	
24. County	Bexar							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	The site is located near the corner of Knights Cross Dr and Crescent Oaks.

26. Nearest City	**State**	**Nearest ZIP Code**
San Antonio	TX	

27. Latitude (N) In Decimal:	29.63399	**28. Longitude (W) In Decimal:**	-98.50215

Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
29	38	2.364	-98	30	7.74

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
4941			

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

Water supply

34. Mailing Address:	**7006 Wurzbach Rd**							
	City	**San Antonio**	**State**	**TX**	**ZIP**	**78298**	**ZIP + 4**	
35. E-Mail Address:								

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** ***(if applicable)***
(210) 233-3596		**( ) -**

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

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

SECTION IV: Preparer Information

40. Name:	Tam H. Tran	**41. Title:**	Environmental Consultant

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512) 381-1830		( ) -	Tam.Tran@freese.com

SECTION V: Authorized Signature

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

Company:	Freese and Nichols, Inc.	**Job Title:**	Consultant
Name *(In Print):*	Tam Tran	**Phone:**	**(512) 381- 1830**

Signature:		Date:	02/14/24