

**Helotes Police and Fire Stations
Modification to Water Pollution Abatement Plan
For Storage Building
Helotes, Texas**

Prepared for:



City of Helotes, Texas

Prepared by:



TBPE FIRM NO. F-10053

October 2024

**HELOTES POLICE AND FIRE STATIONS
WATER POLLUTION ABATEMENT PLAN
FOR STORAGE BUILDING
HELOTES, TEXAS**

TABLE OF CONTENTS

- **Edwards Aquifer Application Cover Page (TCEQ-20705)**
- **General Information Form (TCEQ-0587)**
 - Attachment A - Road Map
 - Attachment B - USGS / Edwards Recharge Zone Map
 - Attachment C - Project Description
- **Geologic Assessment Form (TCEQ-0585)**
 - Attachment A - Geologic Assessment Table (TCEQ-0585-Table)
 - Attachment B - Stratigraphic Column
 - Attachment C - Site Geology
 - Attachment D - Site Geologic Map(s)
- **Modification of a Previously Approved Plan (TCEQ-0590)**
 - Attachment A - Original Approval Letter
 - Attachment B - Narrative of Proposed Modification
 - Attachment C - Current Site Plan of the Approved Project
- **Application Form:**
 - Water Pollution Abatement Plan Application (TCEQ-0584)
- **Temporary Stormwater Section (TCEQ-0602)**
 - Attachment A - Spill Response Actions
 - Attachment B - Potential Sources of Contamination
 - Attachment C - Sequence of Major Activities
 - Attachment D - Temporary Best Management Practices and Measures
 - Attachment E - Request to Temporarily Seal a Feature (if requested)
 - Attachment F - Structural Practices
 - Attachment G - Drainage Area Map
 - Attachment I - Inspection and Maintenance for BMPs
 - Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices
- **Permanent Stormwater Section (TCEQ-0600), if necessary**
 - Attachment B - BMPs for Upgradient Stormwater
 - Attachment C - BMPs for On-site Stormwater
 - Attachment D - BMPs for Surface Streams
 - Attachment F - Construction Plans
 - Attachment G - Inspection, Maintenance, Repair and Retrofit Plan
 - Attachment I - Measures for Minimizing Surface Stream Contamination
- **Agent Authorization Form (TCEQ-0599), if application submitted by agent**
- **Application Fee Form (TCEQ-0574)**
- **Core Data Form (TCEQ-10400)**

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: Helotes Police and Fire Station					2. Regulated Entity No.: RN105693592					
3. Customer Name: City of Helotes					4. Customer No.: CN600528608					
5. Project Type: (Please circle/check one)		New	Modification	X	Extension	Exception				
6. Plan Type: (Please circle/check one)		WPAP X	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: (Please circle/check one)		Residential	Non-residential			X	8. Site (acres):		8.25 acre site, 0.14 acre proposed disturbed area	
9. Application Fee:		\$3,000		10. Permanent BMP(s):			Grassy Swale, Vegetated Filter Strip			
11. SCS (Linear Ft.):		N/A		12. AST/UST (No. Tanks):			0			
13. County:		Bexar		14. Watershed:			Leon Creek Watershed			

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)	<input type="checkbox"/> Edwards Aquifer Authority <input type="checkbox"/> Barton Springs/ Edwards Aquifer <input type="checkbox"/> Hays Trinity <input type="checkbox"/> Plum Creek	<input type="checkbox"/> Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	<input type="checkbox"/> Austin <input type="checkbox"/> Buda <input type="checkbox"/> Dripping Springs <input type="checkbox"/> Kyle <input type="checkbox"/> Mountain City <input type="checkbox"/> San Marcos <input type="checkbox"/> Wimberley <input type="checkbox"/> Woodcreek	<input type="checkbox"/> Austin <input type="checkbox"/> Bee Cave <input type="checkbox"/> Pflugerville <input type="checkbox"/> Rollingwood <input type="checkbox"/> Round Rock <input type="checkbox"/> Sunset Valley <input type="checkbox"/> West Lake Hills	<input type="checkbox"/> Austin <input type="checkbox"/> Cedar Park <input type="checkbox"/> Florence <input type="checkbox"/> Georgetown <input type="checkbox"/> Jerrell <input type="checkbox"/> Leander <input type="checkbox"/> Liberty Hill <input type="checkbox"/> Pflugerville <input type="checkbox"/> Round Rock

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

Amy Hesselting, P.E. Ardurra Group, INC.
 Print Name of Customer/Authorized Agent

Amy Hesselting
 Signature of Customer/Authorized Agent

10/28/24
 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: Amy Hesselton, PE, Ardura Group, Inc.

Date: 10/28/24

Signature of Customer/Agent:

Amy Hesselton

Project Information

1. Regulated Entity Name: Helotes Police and Fire Station
2. County: Bexar
3. Stream Basin: Helotes Creek
4. Groundwater Conservation District (If applicable): Edwards Aquifer Authority and Trinity-Glen Rose
5. Edwards Aquifer Zone:
 Recharge Zone
 Transition Zone
6. Plan Type:
 WPAP
 SCS
 Modification
 AST
 UST
 Exception Request

7. Customer (Applicant):

Contact Person: Rich Whitehead (Mayor)

Entity: City of Helotes

Mailing Address: P.O. Box 507

City, State: Helotes, Texas

Telephone: 210-695-8877

Email Address: rwhitehead@helotes-tx.gov

Zip: 78023

FAX: 210-695-2123

8. Agent/Representative (If any):

Contact Person: Amy Hesseltine

Entity: Ardurra Group, Inc.

Mailing Address: 801 Navigation Blvd, Suite 300

City, State: Corpus Christi, Texas

Telephone: 361-884-1984

Email Address: ahesseltine@ardurra.com

Zip: 78408

FAX: NA

9. Project Location:

- The project site is located inside the city limits of Helotes.
- 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 site is located at the intersection of State Highway 16 (Bandera Road) and FM 1560 on the south side of State Highway 16.

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: _____

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 -NA
- Impervious cover
- Permanent BMP(s)
- Proposed site use
- Site history
- Previous development
- Area(s) to be demolished -NA

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.

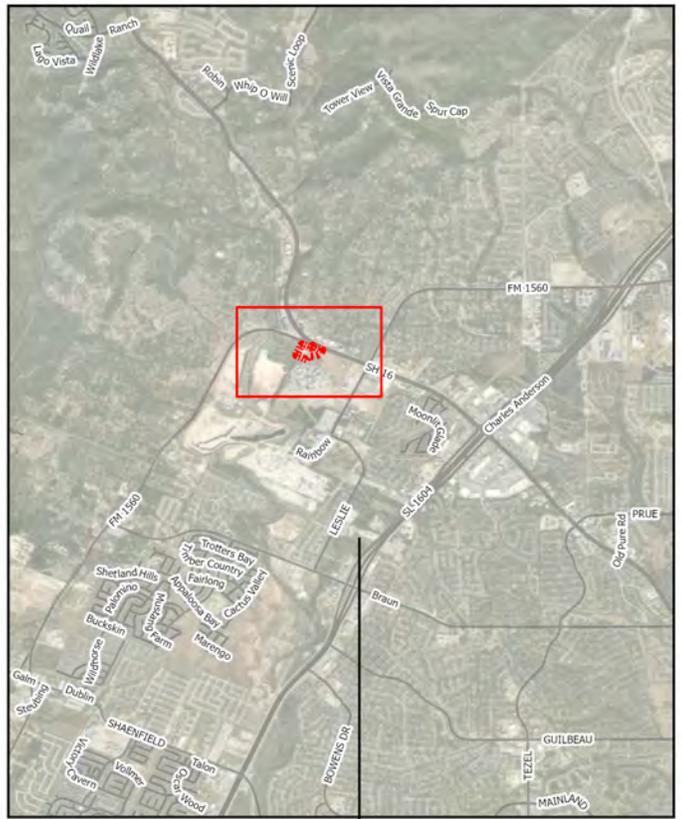
19. Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

- 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



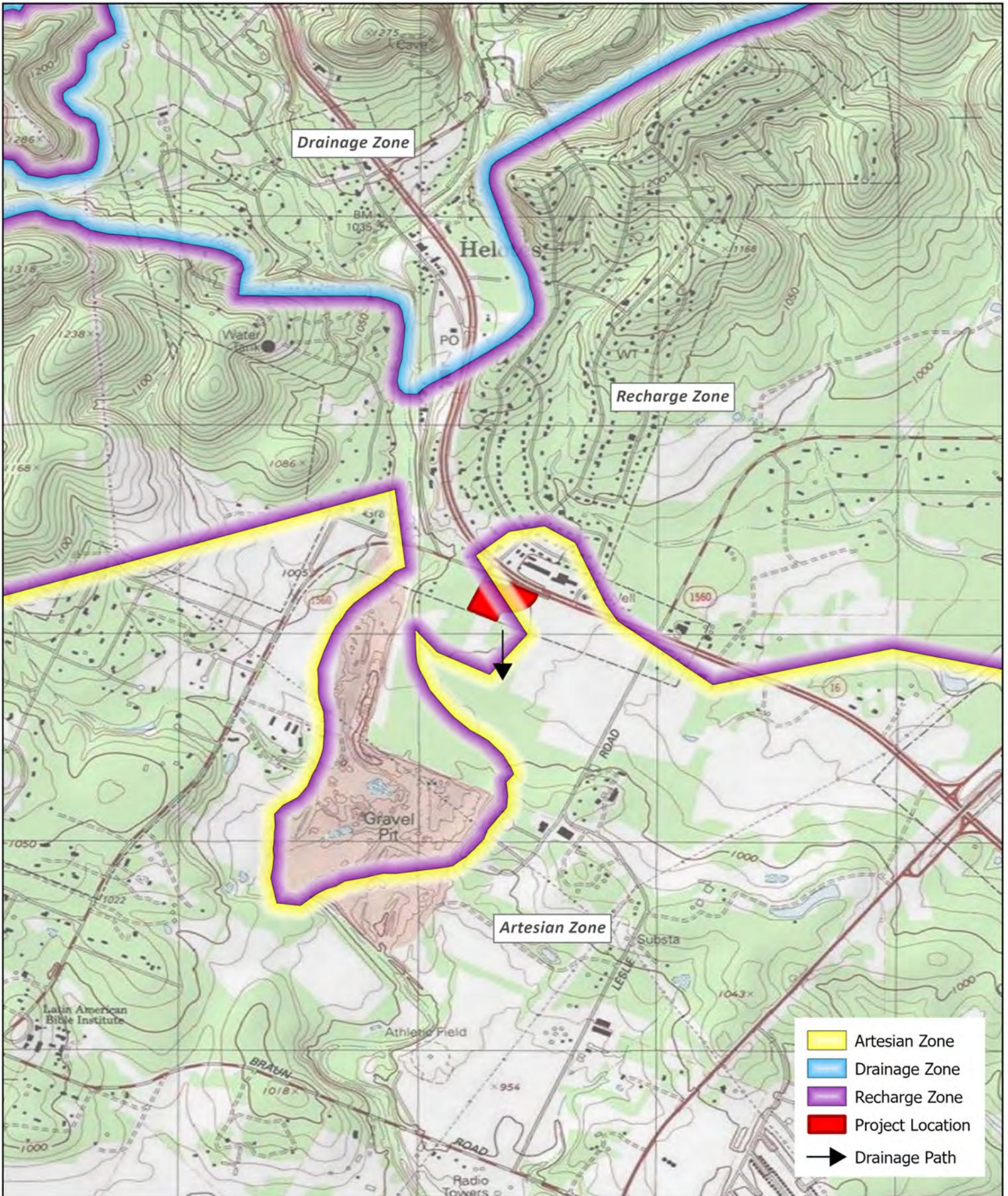
**Attachment A
Road Map
Helotes, TX**



8918 Tesoro Dr., Suite 401
San Antonio, Texas 78217
Phone: (210) 822-2232
www.Ardurra.com
Engineering License #E-10053
Ardurra Group, Inc.
Surveying Firm 10194688

Disclaimer: This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

Attachment B - USGS / Edwards Recharge Zone Map



- Artesian Zone
- Drainage Zone
- Recharge Zone
- Project Location
- Drainage Path

Attachment B
 USGS / Edwards Aquifer Recharge Zone Map
 Helotes, TX

Scale 1"=2,000'



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 www.Ardurra.com
 Engineering License #E-10053
 Ardurra Group, Inc.
 Surveying Firm 10194688

Disclaimer: This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

Attachment C - Project Description

ATTACHMENT C

Project Description

The existing site is an 8.25-acre site that is located at the intersection of State Highway 16 (Bandera Road) and FM 1560, within the corporate limits of the City of Helotes, Bexar County, Texas. The project site is located over both the Edwards Aquifer Recharge Zone (4.31 acres) and the Transition Zone (3.94 acres).

The site is the location of the existing city hall, police station, and fire department. Existing development at the site includes six (6) buildings, driveways, parking facilities, associated utility infrastructure, and a playground. Please see the existing site plan for further clarification of existing conditions. The existing impervious cover on the Recharge and Transition Zones are 1.50 acres and 1.83 acres, respectively. Approximately 0.01 acres of impervious cover within the Transition Zone drains into the Recharge Zone.

The proposed project is the construction of one 6,000 square foot storage building over the Recharge Zone. No demolition is proposed. Upon completion of the proposed storage building, the impervious cover over the Recharge Zone will increase to 1.64 acres. Approximately 0.01 acres of impervious cover within the Transition Zone will still drain into the Recharge Zone.

Permanent BMP's for existing impervious cover consisting of engineered vegetated filter strips and grassy swale to remove 80% of TSS for existing development. The 0.14 acres of increased impervious cover from proposed storage building will be treated with new vegetated filter strip to remove 80% of the increased TSS from the proposed storage building.

Geologic Assessment

ZARA

ENVIRONMENTAL LLC

Integrity | Science | Expertise

2104 Hunter Road

San Marcos, Texas 78666

512-291-4555

www.zaraenvironmental.com

GEOLOGIC ASSESSMENT FOR HELOTES POLICE AND FIRE STATION STORAGE FACILITY, HELOTES, BEXAR COUNTY, TEXAS



View of Helotes City Hall facilities within the Survey Area in Helotes, Bexar County, Texas.

Prepared for
Ardurra Group, Inc.
801 Navigation Blvd, Suite 300
Corpus Christi, TX 78408

25 September 2024

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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: Aubri Jenson, P.G.

Date: 9/25/2024

Michael Jones, P.G.

Telephone: 512-291-4555

Fax: 866-908-9137

Representing: Zara Environmental LLC/ TBPB No. 50365

Signature of Geologist:



Regulated Entity Name: Helotes Police and Fire Stations

Project Information

1. Date(s) Geologic Assessment was performed: 28 August 2024

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)
Anhalt clay, 0 to 2 percent slopes (Map Unit Ca)	D	3.3
Lewisville silty clay, 1 to 3 percent (Map Unit LvB)	C	5.7

* *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" = 125'

9. Method of collecting positional data:

- Global Positioning System (GPS)
 - Other method(s). Please describe:
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 and Transition Zone boundaries are 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 is 1 well 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 or in useable condition and comply with 16 TAC Chapter 76.
- There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

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

ATTACHMENT A

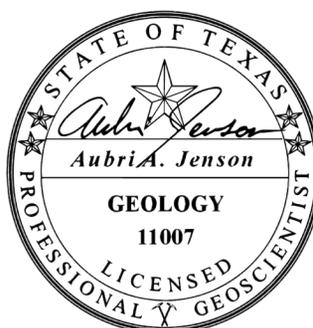
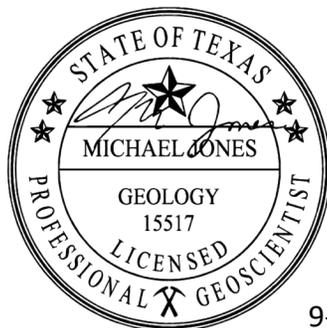
GEOLOGIC ASSESSMENT TABLE															PROJECT NAME: HELOTES POLICE AND FIRE STATION STORAGE FACILITY				
LOCATION			FEATURE CHARACTERISTICS											EVALUATION		PHYSICAL SETTING			
1A	1B*	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10	11	12	
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEG)	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY	CATCHMENT AREA (ACRES)	TOPOGRAPHY		
						X	Y	Z							<40	≥40	<1.6	≥1.6	
MB-01 ⁺	29.56287	-98.68559	MB	30	Kdr	variable	variable	unknown	-	-	-	-	X	5	35	X		X	Hillside
MB-02 ⁺	29.56346	-98.68777	MB	30	Kdr	variable	variable	unknown	-	-	-	-	X	5	35	X		X	Hillside
MB-03 ⁺	29.56285	-98.68549	MB	30	Kdr	variable	variable	unknown	-	-	-	-	X	5	35	X		X	Hillside
W-01 ⁺⁺	29.56356	-98.68785	MB	30	Kdr	unknown	unknown	unknown	-	-	-	-	X	5	35	X		X	Hillside

* DATUM: NAD 83. ⁺ Features MB-01 (wastewater), MB-02 (natural gas), and MB-03 (water main) are linear utility alignments; the GPS coordinates above represent a single location where associated infrastructure for that feature was observed within the Survey Area. ⁺⁺ Feature W-01 is a water well discovered during the pedestrian survey which is not in in the TWDB Groundwater Database or TCEQ Well Drillers Submitted Reports. The location and position of all features is shown in Figure 3 and Attachment D.

2A	TYPE	2B POINTS	8A INFILLING
C	Cave	30	N None, exposed bedrock
SC	Solution cavity	20	C Coarse - cobbles, breakdown, sand, gravel
SF	Solution-enlarged fracture(s)	20	O Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fault	20	F Fines, compacted clay-rich sediment, soil profile, gray or red colors
O	Other natural bedrock features	5	V Vegetation. Give details in narrative description
MB	Manmade feature in bedrock	30	FS Flowstone, cements, cave deposits
SW	Swallow hole	30	X Other materials
SH	Sinkhole	20	
CD	Non-karst closed depression	5	
Z	Zone, clustered or aligned features	30	

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

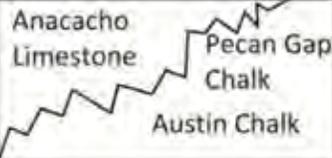
I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field. My signature certifies that I am qualified as a geologist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



Date 28 August 2024
 Sheet 1 of 1
 TCEQ-0585-Table (Rev. 10-01-04)

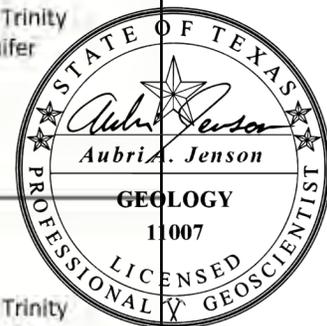
9-25-2024

ATTACHMENT B

Stratigraphic Units		Hydrogeologic Units	
Upper Cretaceous		Upper Confining Units	
	Eagle Ford Group		
	Buda Limestone		
	Del Rio Clay		
Georgetown Formation		Edwards Aquifer	
Lower Cretaceous	<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">Edwards Group</div> <div style="margin-left: 5px;"> <div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: x-small;">Person Formation</div> <div style="margin-left: 5px;"> <p style="font-size: x-small;">Cyclic and marine members, und.</p> <p style="font-size: x-small;">Leached and collapsed member</p> <p style="font-size: x-small;">Regional dense member</p> </div> </div> </div> </div>		
	<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">Kainer Formation</div> <div style="margin-left: 5px;"> <p style="font-size: x-small;">Grainstone member</p> <p style="font-size: x-small;">Kirschberg evaporite member</p> <p style="font-size: x-small;">Dolomitic member</p> <p style="font-size: x-small;">Basal nodular member</p> </div> </div>		
	<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">Trinity Group</div> <div style="margin-left: 5px;"> <div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: x-small;">Glen Rose</div> <div style="margin-left: 5px;"> <p style="font-size: x-small;">Cavernous member</p> <p style="font-size: x-small;">Camp Bullis member</p> <p style="font-size: x-small;">Upper evaporite member</p> <p style="font-size: x-small;">Fossiliferous member</p> <p style="font-size: x-small;">Lower evaporite member</p> <p style="font-size: x-small;">Lower member</p> </div> </div> </div> </div>		
	<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">Trinity Group</div> <div style="margin-left: 5px;"> <p style="font-size: x-small;">Hensell Formation</p> <p style="font-size: x-small;">Cow Creek Formation</p> <p style="font-size: x-small;">Hamett Formation</p> </div> </div>		
	Upper Trinity Aquifer		
	Middle Trinity Aquifer		



9-25-2024



This stratigraphic column shows the regional geologic units and indicates the zones of rocks that outcrop in the project area. Stratigraphic Column adapted from Clark et al. (2023) and Lindgren et al. (2004).

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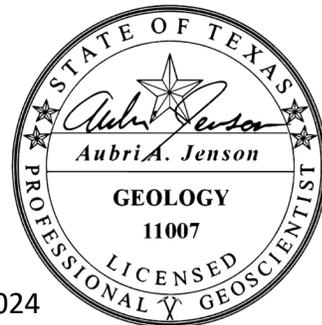
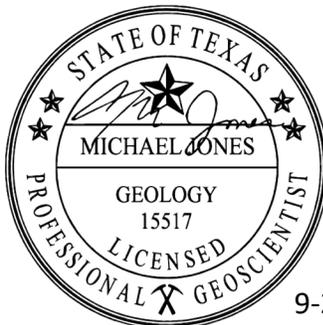
**GEOLOGIC ASSESSMENT FOR HELOTES POLICE AND FIRE STATION STORAGE FACILITY,
HELOTES, BEXAR COUNTY, TEXAS**

Prepared for
Environmental Research Group, LLC (erg)
11842 Rim Rock Trail
Austin, TX 78737

25 September 2024

In accordance with the Texas Board of Professional Geologists rules at 22 Texas Administrative Code, Part 39, Chapter 851, Subchapter C, §851.156, This report is signed and sealed on the title page to assure the user that the work has been performed by or directly supervised by the following professional geologists who take full responsibility for this work.

The computer-generated seal appearing on this document was authorized by Aubri A. Jenson, P.G. #11007, and Michael Jones, P.G. #15517 on 25 September 2024.



9-25-2024

Aubri A. Jenson, Texas Professional Geoscientist No. 11007
Michael Jones, Texas Professional Geoscientist No. 15517
Zara Environmental LLC Geoscience Firm Registration No. 50365

ATTACHMENT C

Table of Contents

Introduction	1
Methods.....	1
Background Data Collection Methods	1
Field Survey Methods	3
Results.....	3
Background Data and Site Information.....	3
Soils	3
Site Geology and General Site Description	5
Regional Geology.....	5
Regional Stratigraphy	7
Regional Groundwater	7
Water Wells.....	8
Waterways and Floodplains	8
Previously Identified Features	8
Description of Features.....	8
Feature MB-01; Wastewater sewer line and associated infrastructure	9
Feature MB-02; Gas line and associated infrastructure.....	10
Feature MB-03; Water line and associated infrastructure	12
Feature W-01; Water well and associated infrastructure.....	14
Discussion and Recommendations.....	15
Literature Cited	16

List of Figures

Figure 1. The Survey Area is located in Helotes, Bexar County, Texas and is mapped within the Edwards Aquifer Recharge Zone/Transition Zone.	2
Figure 2. Soil types occurring in the Survey Area.	4
Figure 3. Geology of Survey Area including locations of all features discovered during pedestrian surveys.....	6
Figure 4. A septic tank restroom, an example of wastewater sewer infrastructure, is visible in the central part of the Survey Area between the Helotes Fire and Police Stations (MB-01).	9

ATTACHMENT C

Figure 5. A manhole providing access to a City of Helotes sewer main, an example of wastewater sewer infrastructure, is visible in the northeastern part of the Survey Area near Bandera Road (MB-01).	10
Figure 6. An iron manhole cover providing access to an underground natural gas line, an example of natural gas infrastructure, is visible in the northwestern part of the Survey Area near the access road to Helotes Fire Station (MB-02).	11
Figure 7. A generator located behind a fenced enclosure is powered by a split-meter, an example of natural gas infrastructure, in the northern part of the Survey Area near the Helotes Fire Station (MB-02).	11
Figure 8. A natural gas line marker indicating the presence of a buried gas main, an example of natural gas infrastructure, is visible in the northwestern part of the Survey Area near Bandera Road (MB-02).	12
Figure 9. A fire hydrant and two valves, an example of water line infrastructure, is visible in the central part of the Survey Area near the Helotes Police Station (MB-03).....	13
Figure 10. A water meter box and shut-off valve, an example of water line infrastructure, is visible in the northeastern part of the Survey Area near Bandera Road (MB-03).	13
Figure 11. A well and pump inside a pump house well cover, an example of water well infrastructure, is visible in the northwestern part of the Survey Area behind a building (MB-04).	14
Figure 12. A pump house covering a well, an example of water well infrastructure, is visible in the northwestern part of the Survey Area behind a building (MB-04).....	15

ATTACHMENT C

Introduction

In support of a new 6,000 square-foot storage facility, the City of Helotes is proposing modifications to the Helotes Police and Fire Station WPAP in Bexar County, Texas (Figure 1). The Project includes the construction of a new storage facility for the Helotes Police and Fire Stations near Texas State Highway 16 (Bandera Road). Approximately half of the Project limits fall within the Edwards Aquifer Recharge Zone (EARZ), defined by the Texas Commission on Environmental Quality (TCEQ) under the Edwards Aquifer Protection Program (EAPP) as places where the Edwards Limestone is exposed at the ground surface and has the potential to allow water to enter the Aquifer. Additionally, approximately half of the Project limits fall within the Edwards Aquifer Transition Zone (EATZ), defined as the land surface area where geologic formations crop out in proximity to and south and southeast of the EARZ. The proposed Project meets the TCEQ's requirements for regulation under the Edwards Rules at Title 30 Texas Administrative Code (TAC) Chapter 213.5. This report details the findings of a GA conducted within the Survey Area (Figure 1) in support of compliance with regulations over the EARZ. A detailed walking survey of the entire area was completed in one day, documenting four manmade features in bedrock, including public utilities and a water well.

Methods

Background Data Collection Methods

Several sources were reviewed to obtain available data pertaining to the Survey Area. The United States Geological Survey (USGS) 7.5-Minute Topographic Map of the Helotes Quadrangle was reviewed for general site information and elevation contours (USGS 2022). Surface geology and faults were obtained from the Geologic Framework and Hydrostratigraphy of the Edwards and Trinity Aquifers within Northern Bexar and Bexar Counties, Texas (Clark et al. 2023) sheet. Available well information was reviewed from the Texas Water Development Board (TWDB) and Texas Commission on Environmental Quality (TCEQ). Soil descriptions were obtained from the Web Soil Survey of the U.S. Department of Agriculture ([USDA] 2024). Floodplain maps from the Federal Emergency Management Agency ([FEMA] 2024) were also reviewed. Data from the Texas Speleological Survey (TSS) was reviewed for any documented caves or karst features in or within one mile of the Survey Area (TSS 2024), and an on-line search of the TCEQ Central Registry (TCEQ 2024) was performed for related geologic information from previous projects that may have occurred on or adjacent to the Survey Area. The location and orientation of utilities qualifying as manmade features in bedrock, such as water lines, wastewater sewers, stormwater sewers, and natural gas lines, were obtained from GIS files provided by Ardurra from Helotes Public Works. It is important to note that there was limited GIS data available within the Survey Area. ZARA personnel field-verified example locations of sewer, gas, and water infrastructure; however, the orientation, depth, and diameter of the utility lines were mostly unknown.

ATTACHMENT C

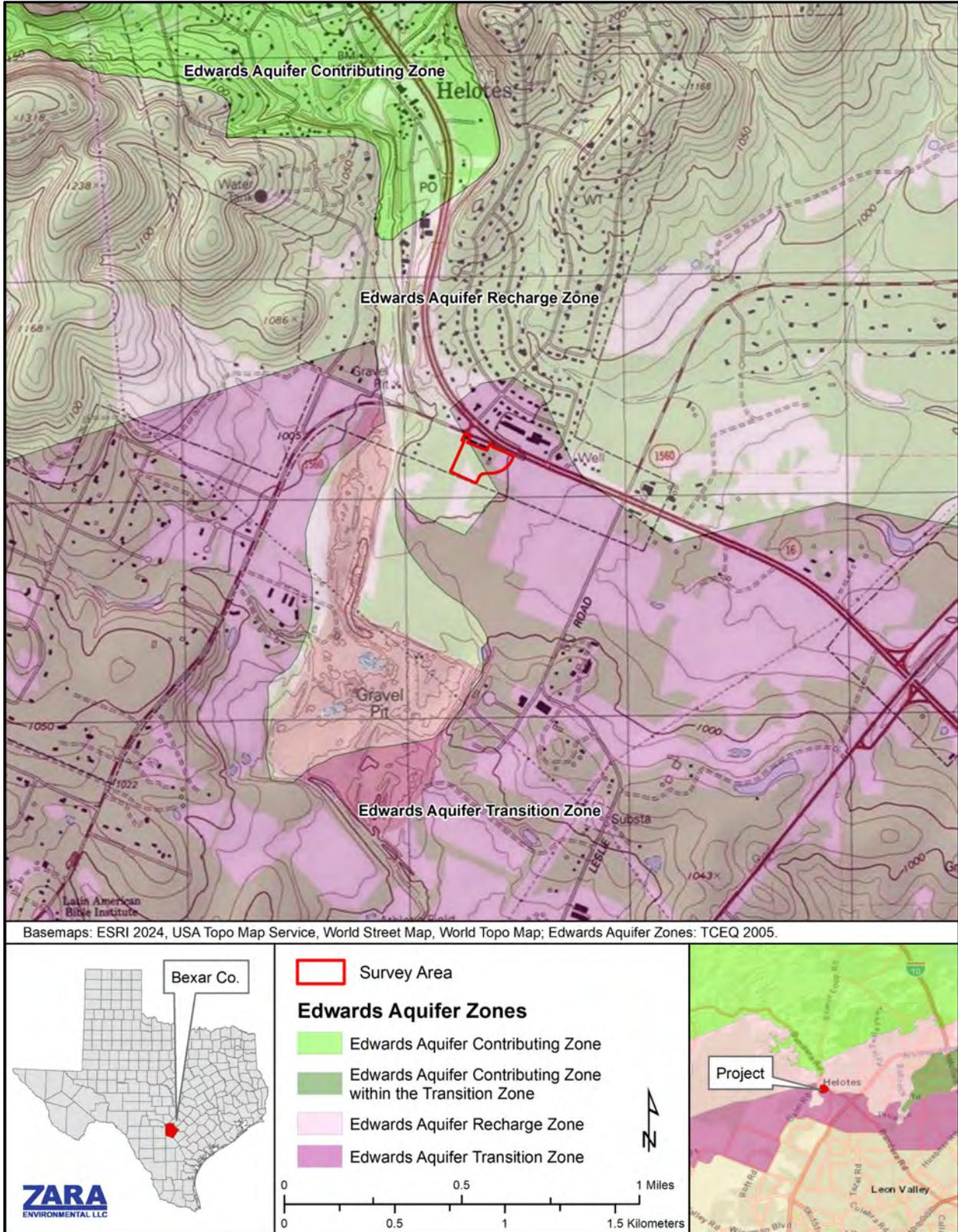


Figure 1. The Survey Area is located in Helotes, Bexar County, Texas and is mapped within the Edwards Aquifer Recharge Zone and Transition Zone.

ATTACHMENT C

Field Survey Methods

Karst survey methods followed protocols outlined in TCEQ Instructions to Geologists for Geologic Assessments (TCEQ 2004). Walking ground surveys, as defined by Veni and Reddell (2002), TCEQ (2004), and Barrett (2005), were conducted throughout the Survey Area. Positions of all features, including manmade features in bedrock, were documented using a Garmin 64s handheld GPS receiver and checked with field maps based on digital orthoimagery. All features identified were evaluated by a licensed professional geologist for potential impact to Edwards Aquifer recharge. This was completed by ranking the recharge sensitivity of each feature using the point scheme defined by TCEQ (2004). Fieldwork was conducted on 28 August 2024 by Micheal Jones (P.G. #15517) and Kara Posso (P.G. #15382).

Results

Background Data and Site Information

Soils

Two soil types were identified in the Survey Area by the USDA (Figure 2). A brief description of each soil type is below:

Anhalt Clay, 0 to 2 percent slopes (Ca)

This soil is characterized as a clay with depths between 0 and 28 inches to bedrock (USDA 2024). The soil forms hillslopes and is derived from clayey residuum weathered from limestone. The soil's capacity to transmit water is very low to moderately low (0.00 to 0.06 inch/hour) through its most limiting layer, placing it in Hydrologic Soil Group D. This soil composes 91.8% of the Survey Area.

Nuvalde silty clay, 1 to 3 percent slopes, moist (RUD)

This soil is characterized as a silty clay with depths between 0 and 69 inches to bedrock (USDA 2024). The soil forms stream terraces and is derived from calcareous clayey alluvium derived from mudstone. The soil's capacity to transmit water is low to moderately high (0.06 to 0.20 inch/hour) through its most limiting layer, placing it in Hydrologic Soil Group C. This soil composes 8.2% of the Survey Area.

ATTACHMENT C



Figure 2. Soil types occurring in the Survey Area.

ATTACHMENT C

Site Geology and General Site Description

In the USGS data release from Surface geology from the Geologic Framework and Hydrostratigraphy of the Edwards and Trinity Aquifers within Northern Bexar and Bexar Counties, Texas (Clark et al. 2023), Figure 3 and Attachment D show the surface geology. In the Survey Area, the Del Rio Clay is mapped, which overlies the Georgetown Formation unconformably.

The Del Rio Clay, part of the Washita Group, is made up of fossiliferous blue-green to yellow-brown clay with thin beds of packstone. It also contains iron nodules and the index fossil *Illymatogyra arietina*, which is sometimes referred to as the “Devil’s Toenail” because of its curled shell (Clark et al. 2023). The underlying Georgetown Formation of the Washita Group is a reddish-brown, gray to light tan, shaly mudstone and wackestone containing black dendrites, iron nodules, and iron staining. Fossils of the Georgetown Formation include *Plesioturrilites brazoensis* and its index fossil *Waconella wacoensis* (Clark et al. 2023). No faults or geologic contacts are mapped within the Survey Area. Field observations confirm the presence of the Del Rio Clay. Additionally, limited Georgetown Formation bedrock is visible at the surface in the southern portion of the Survey Area for this project, where the Del Rio Clay has eroded away.

The land use around the Survey Area consists of a combination of residential, commercial, and non-commercial uses, including the Helotes Fire Department, Police Department, and City Hall. In the Survey Area, most of the land has been developed and covered with asphalt and concrete, leaving few natural surfaces exposed. During the field survey, several concrete structures were found in bedrock, including sewer, gas, and water lines, as well as one water well.

Regional Geology

The Survey Area is located in the southeastern portion of the Edwards Plateau Physiographic Province of central Texas, along the Balcones Fault Zone (BFZ). The BFZ also forms the Balcones Escarpment, which is a highly eroded region bordering the Edwards Plateau on its southern and western boundaries. The region is typified by higher elevations to the north and west, generally sloping in a southeastern direction. Canyons and drainage basins were formed by surface flow of the Medina River basin and its tributaries, including Helotes Creek in the Lower Culebra Creek subwatershed and French Creek in the Upper Leon Creek subwatershed that drain the Survey Area.

The geologic formations occurring within the region are comprised mostly of Cretaceous age-rocks with some overlying Quaternary alluvium along surface drainages. The soils that have formed on top of these limestones are a result of rocks eroded off the Balcones Escarpment and Edwards Plateau and re-deposited downstream. Soils in the area are relatively thin and offer minimal filtering capability. Where it has not been eroded and removed, the carbonaceous clay-rich unit in the study area, the Del Rio Clay, caps and forms a confining layer above the Edwards Aquifer. The Del Rio clay primarily consists of windblown ash originating from volcanism on the Pacific coast of Mexico during the Late Cretaceous. Much of the Georgetown Formation was removed during a marine regressive cycle. The Edwards limestone bedrock developed from the

ATTACHMENT C



Figure 3. Geology of Survey Area including locations of all features discovered during pedestrian surveys.

ATTACHMENT C

accumulation of thick sequences of marine sediments deposited in a lagoon environment on the San Marcos Platform protected by a barrier reef during the Cretaceous about 100 million years ago (Rose 1972). In central Texas, the Cretaceous strata slightly dip to the southeast at about 10 to 15 feet per mile toward the Gulf of Mexico.

Regional Stratigraphy

The Buda Limestone, Del Rio Clay, and Georgetown Formation comprise the Washita Group (Rose 1972). The Buda Limestone contains iron nodules, iron staining, and shell fragments, and is about 50 feet thick in northern Bexar County. The Del Rio Clay is made up of fossiliferous blue-green to yellow-brown clay with thin beds of packstone. It is approximately 40-50 feet thick but may vary in thickness due to the erosional unconformity between the Del Rio Clay and overlying Buda Limestone (Clark et al. 2023; Martin, 1967). The unconformity is easily recognizable, with Buda Limestone blocks often slumping down hillsides over the Del Rio Clay outcrops (Clark et al. 2023; Clark et al. 2013). The Georgetown Formation is composed of reddish-brown, gray to light tan shaly mudstone and wackestone. In northern Bexar County. It is typically approximately 20-30 feet thick and is often identified by black dendrites, iron nodules, and iron staining. Below the Georgetown formation is the Person Formation, which is the uppermost layer of the Edwards Group. The composition of the Person Formation ranges from buff to light gray, dense nodular mudstone and wackestone and contains calcite-filled veins and bluish dendrites. Although the Edwards Aquifer is situated within the Georgetown Formation, it is not known to yield water.

Regional Groundwater

The Edwards Aquifer is one of the most permeable and productive limestone aquifers in the United States. In the San Antonio region, the aquifer supplies drinking water to over 2 million people and provides habitat for several endangered aquatic species (Patoski 2020). Karst aquifers are, by their nature, extremely vulnerable to contamination. Soils in karst areas tend to be thin and patchy. Thus, the filtration of diffuse recharge afforded by soils is at best low and is only decreased by human activity. Recharge in karst systems commonly occurs as point recharge into specific karst features, bypassing what little filtration a limited soil zone might afford.

The Survey Area is within the Recharge Zone and Transition Zone of the Edwards Aquifer, as delineated by the TCEQ Edwards Rules (30 TAC §213). The Recharge Zone of the Edwards Aquifer is defined as the land surface area where caves, sinkholes, faults, fractures, or other permeable features provide pathways for recharge of surface waters into the Edwards Aquifer. This zone is regulated due to the vulnerability of this karst aquifer to pollution. Recharge into the Edwards Aquifer occurs primarily in losing streams, where surface water from the contributing zone flows over faults, fractures, and karst features that have been solutionally enlarged in the Recharge Zone (Sharp and Banner 1997). The Transition Zone of the Edwards Aquifer is defined as the land surface area where geologic formation crop out in proximity to and south and southeast of the Recharge Zone and where faults, fractures, and other geologic features present possible avenue for recharge of surface water to the Edwards Aquifer, including portions of the Del Rio Clay, Buda Limestone, Eagle Ford Group, Austin Chalk, Pecan Gap Chalk, and Anacacho Limestone. (30 TAC § 213.3(34)).

ATTACHMENT C

Water Wells

The TWDB groundwater database did not indicate any wells were located within the Survey Area (TWDB 2024). However, a well was found during the pedestrian survey (Figure 3). Although currently not in use, this functional well is part of the Project's construction plan (C. Vullo, Helotes Public Works Director, personnel communication, 28 August 2024). According to the data from neighboring wells, it is highly probable that this well was completed in the Edwards Aquifer.

Waterways and Floodplains

According to the Topographic Quadrangle of Helotes, Texas (USGS 2022), Helotes Creek flows approximately 1400 feet west of the Survey Area. Additionally, French Creek flows approximately 1450 feet northeast of the Survey Area. The FEMA Flood Zone Map (2024) indicated that the Regulatory Floodway and the 1% Annual Chance Flood Hazard Zone (100-year floodplain) is not mapped in the Survey Area (Figure 3 and Attachment D).

Previously Identified Features

No caves or karst features were found within the Survey Area in the background data searches. A recharge feature named Por Boy Ranch Cave, located about 0.2 miles southwest of the Survey Area, was destroyed by quarrying (TSS 2024). According to Clark et al. (2023), Por Boy Ranch Cave was situated in an area mapped as the Georgetown Formation. According to TSS records (TSS 2024), a filled-in cave with an entrance approximately 2 feet in diameter and identified as Cold Cave is situated approximately 0.4 miles east of the Survey Area in the Person Formation. Excavation would be required to determine if this feature is in fact a cave, or a sinkhole formed by collapse.

Description of Features

Results of the surface karst feature survey are presented in the Geologic Assessment Table (Attachment A) and are discussed below. Four features were identified within the Survey Area, all of which qualified as manmade features in bedrock, rather than naturally occurring geologic features. All features were ranked for recharge sensitivity according to TCEQ standards, and none met criteria as hydrologically sensitive. Feature locations are mapped in Figure 3 and Attachment D.

ATTACHMENT C

Feature MB-01; Wastewater sewer line and associated infrastructure

Wastewater infrastructure was observed in various locations within the Survey Area, including four septic systems that are connected and tied into a City of Helotes force sewer main at a lift station in the northeast portion of the Survey Area (Figure 3, Figure 4, Figure 5, Attachment D). The depth and diameter of the wastewater lines are unknown. The potential for this infrastructure to rapidly transmit water to the subsurface is low, assuming proper construction and maintenance. This feature was not rated as sensitive.



Figure 4. A septic tank restroom, an example of wastewater sewer infrastructure, is visible in the central part of the Survey Area between the Helotes Fire and Police Stations (MB-01).

ATTACHMENT C



Figure 5. A manhole providing access to a City of Helotes sewer main, an example of wastewater sewer infrastructure, is visible in the northeastern part of the Survey Area near Bandera Road (MB-01).

Feature MB-02; Gas line and associated infrastructure

Natural gas line markers were observed in various locations in the Survey Area (Figure 3, Figure 6, Figure 7, Figure 8, Attachment D). However, the depth and diameter of the gas lines are unknown. The potential for this infrastructure to rapidly transmit water to the subsurface is low, assuming proper construction and maintenance. This feature was not rated as sensitive.

ATTACHMENT C



Figure 6. A cover providing access to an underground natural gas line, an example of natural gas infrastructure, is visible in the northwestern part of the Survey Area near the access road to Helotes Fire Station (MB-02).



Figure 7. A generator located behind a fenced enclosure is powered by a split-meter, an example of natural gas infrastructure, in the northern part of the Survey Area near the Helotes Fire Station (MB-02).

ATTACHMENT C



Figure 9. A fire hydrant and two valves, an example of water line infrastructure, is visible in the central part of the Survey Area near the Helotes Police Station (MB-03).



Figure 10. A water meter box and shut-off valve, an example of water line infrastructure, is visible in the northeastern part of the Survey Area near Bandera Road (MB-03).

ATTACHMENT C

Feature W-01; Water well and associated infrastructure

The Survey Area includes well water infrastructure discovered during the pedestrian survey that was not found in the TWDB Groundwater Database or TCEQ Well Drillers Submitted Reports during the background search (Figure 3, Figure 11, Figure 12, and Attachment D). The building's water supply well was accompanied by a well house and a pump. The size and depth of the casing of the well is unknown. Based on other well records in the area, it was probably completed in the Edwards Aquifer. Although the well appeared operational and is included in the WPAP site plan labeled as 'building water well,' it is not currently in use and has not been plugged (C. Vullo, Helotes Public Works Director, personnel communication, 28 August 2024). Due to the presence of a pump and well house, the potential for this infrastructure to rapidly transmit water to the subsurface is low, assuming proper construction and maintenance. This feature was not rated as sensitive.



Figure 11. A well and pump inside a pump house, an example of water well infrastructure, is visible in the northwestern part of the Survey Area behind a building (MB-04).

ATTACHMENT C



Figure 12. A pump house covering a well, an example of water well infrastructure, is visible in the northwestern part of the Survey Area behind a building (MB-04).

Discussion and Recommendations

This Project involves the proposed modification of the Helotes Public Works WPAP to support the construction of a 6,000 square-foot storage facility near Bandera Road. Much of the proposed work would result in disturbance to areas that have previously been impacted by development. Due to previous land disturbances and lack of hydrologically sensitive features within the Survey Area, the overall potential for the site to rapidly transmit surface runoff into the subsurface is relatively low.

Disturbance to natural bedrock surfaces should be minimized and infrastructure should be placed in areas where existing land modifications have occurred, whenever possible. Care should be taken when working around public utilities such as water, wastewater, stormwater, gas, communication, and electrical lines, to avoid damage to existing infrastructure. Additionally, care should be taken when working near the building's water supply well located in the northernmost portion of the Survey Area (Figure 3) to ensure construction activities do not damage the well casing, potentially allowing point recharge into the subsurface. Proper use of stormwater Best Management Practices (BMPs) are recommended throughout the duration of the Project, particularly in areas draining directly into Helotes Creek or French Creek. All BMPs should be installed, inspected, and maintained through construction in accordance with local requirements or those set by the TCEQ under the Edwards Aquifer Protection Program. If any sensitive karst features are discovered during excavation activities, all work within 50 feet of the feature should stop and a Professional Geoscientist should evaluate the feature in accordance with the local requirements and/or TCEQ regulations.

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United States Geological Survey (USGS). 2022. 7.5-minute Topographic Map of the Helotes Quadrangle, Texas. United States Department of Interior Geological Survey.

ATTACHMENT D

Attachment D. Site Geologic Maps



Basemaps: ESRI 2024; Geology: Clarke et al, 2023; Elevation: TNRIS Stratmap 1998, Comal County 10-ft contours. Note: No portion of the survey area is mapped within FEMA 100-yr or 500-yr flood zones, FEMA FIRM ID's 48029C0210G, 48029C0205G, 48029C0220G, 48029C0215G, effective 9/29/2010;

Survey Area

Elevation

Streams

100-Year Flood Zone

Geology (Clarke et al. 2023)

Kdr - Del Rio Clay

Helotes Utilites

Hydrant

Water Valves

Water Main

Sewer Manhole

Sewer Main

GA Features

Natural Gas

Wastewater

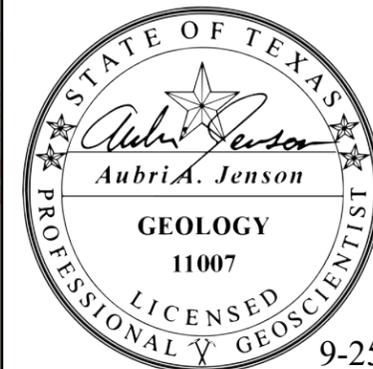
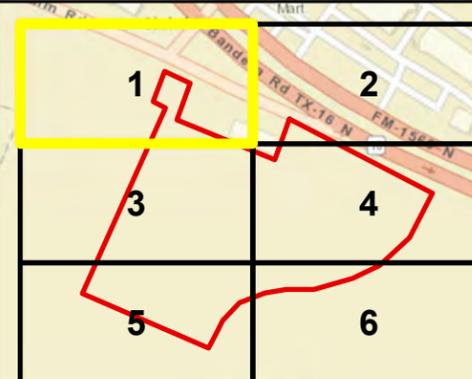
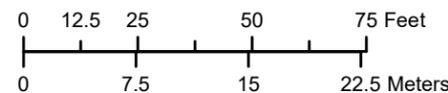
Water

Well

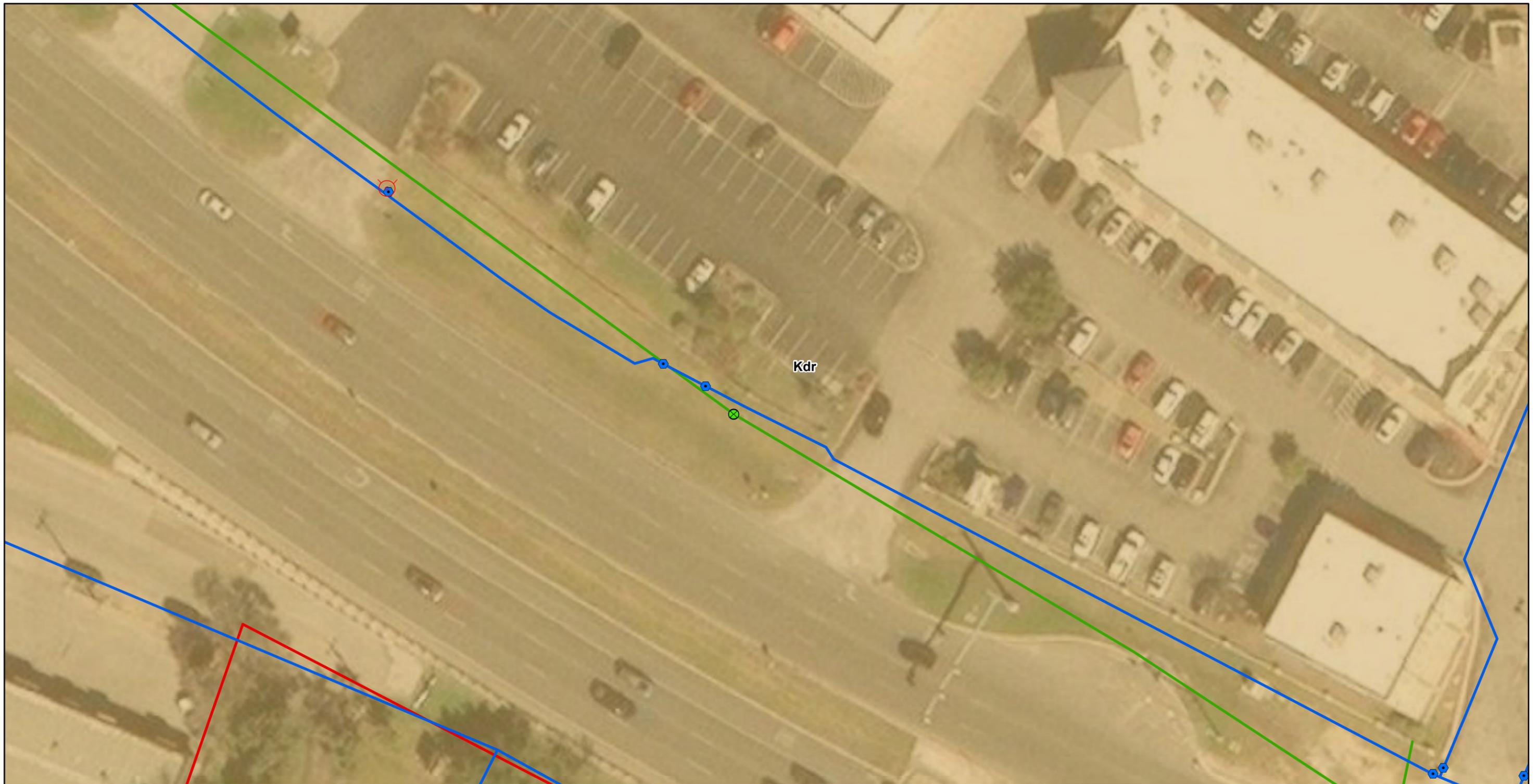
Page 1 of 6



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1 inch = 40 feet



9-25-2024



Basemaps: ESRI 2024; Geology: Clarke et al, 2023; Elevation: TNRIS Stratmap 1998, Comal County 10-ft contours. Note: No portion of the survey area is mapped within FEMA 100-yr or 500-yr flood zones, FEMA FIRM ID's 48029C0210G, 48029C0205G, 48029C0220G, 48029C0215G, effective 9/29/2010;

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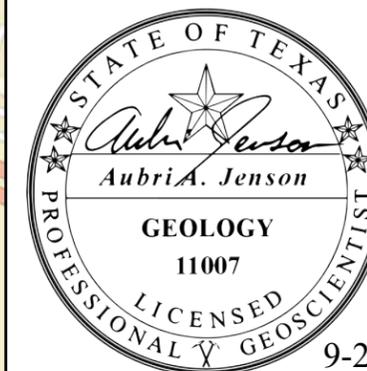
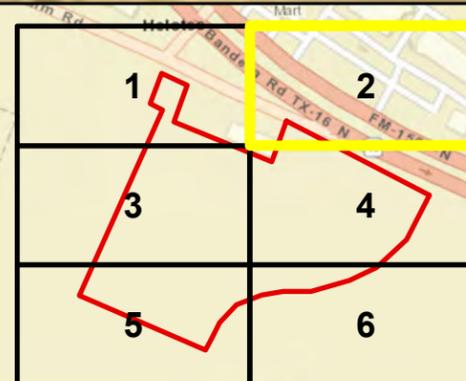
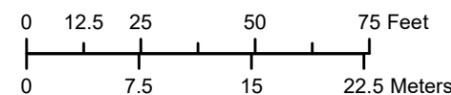
Water

Well

Page 2 of 6



1:480
1 inch = 40 feet



9-25-2024



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Helotes Utilites

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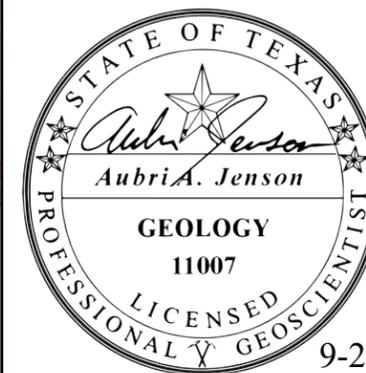
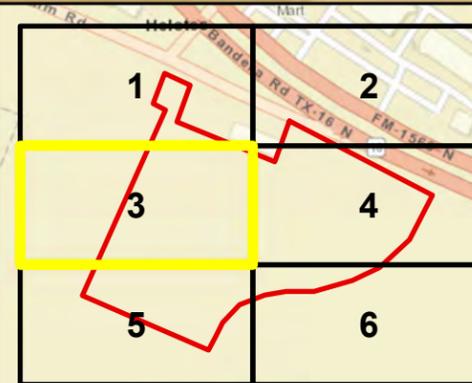
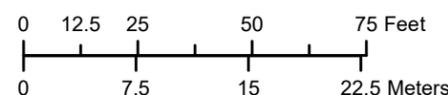
GA Features

-  Natural Gas
-  Wastewater
-  Water
-  Well

Page 3 of 6



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1 inch = 40 feet



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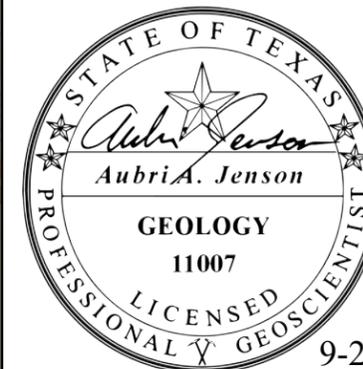
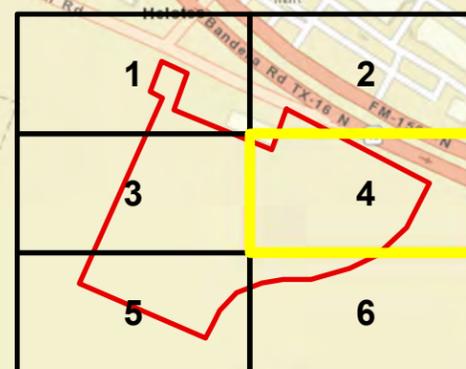
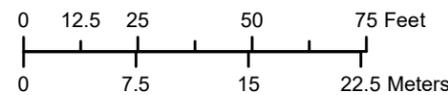
Water

Well

Page 4 of 6



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9-25-2024



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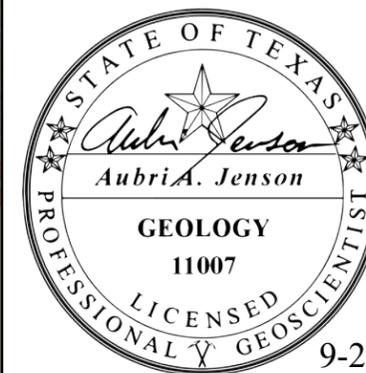
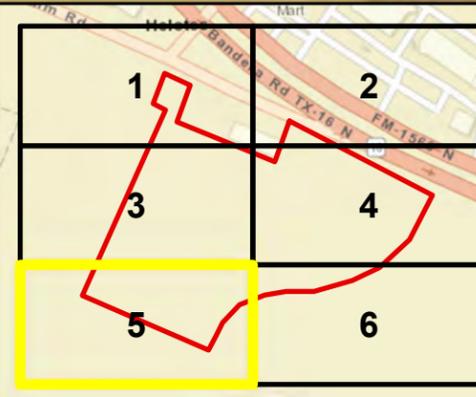
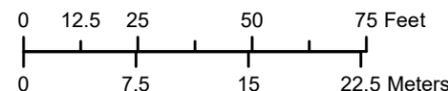
GA Features

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-  Wastewater
-  Water
-  Well

Page 5 of 6



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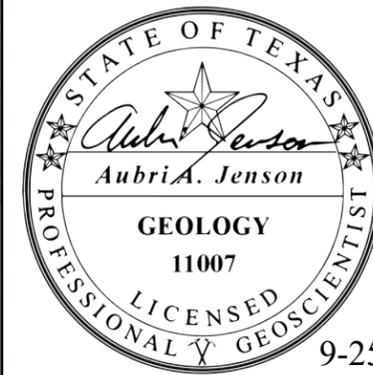
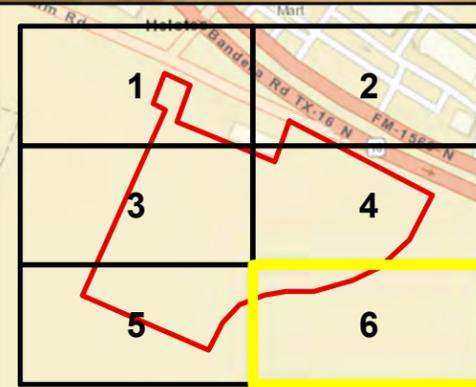
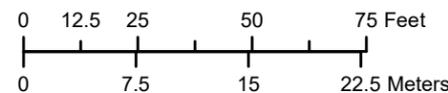
GA Features

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-  Well

Page 6 of 6



1:480
1 inch = 40 feet



9-25-2024

Modification of a Previously Approved Plan

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Transition Zone and Relating to 30 TAC 213.4(j), 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.

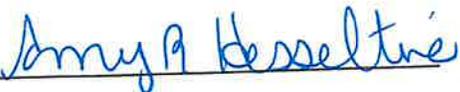
Signature

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 request for a **Modification of a Previously Approved Plan** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Print Name of Customer/Agent: Amy Hesseltnie, PE, Ardurra Group, Inc.

Date: 10/28/24

Signature of Customer/Agent:



Project Information

1. Current Regulated Entity Name: Helotes Police and Fire Station

Original Regulated Entity Name: City of Helotes

Regulated Entity Number(s) (RN): 105693592

Edwards Aquifer Protection Program ID Number(s): 13-09021001

The applicant has not changed and the Customer Number (CN) is: CN600528608

The applicant or Regulated Entity has changed. A new Core Data Form has been provided.

2. **Attachment A: Original Approval Letter and Approved Modification Letters.** A copy of the original approval letter and copies of any modification approval letters are attached.

3. A modification of a previously approved plan is requested for (check all that apply):
- Physical or operational modification of any water pollution abatement structure(s) including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
 - Change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;
 - Development of land previously identified as undeveloped in the original water pollution abatement plan;
 - Physical modification of the approved organized sewage collection system;
 - Physical modification of the approved underground storage tank system;
 - Physical modification of the approved aboveground storage tank system.
4. Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

WPAP Modification	Approved Project	Proposed Modification
Summary		
Acres	<u>8.25 (4.31 EARZ)</u>	<u>0.14 (0.14 EARZ)</u>
Type of Development	<u>Municipal</u>	<u>Municipal</u>
Number of Residential Lots	<u>N/A</u>	<u>N/A</u>
Impervious Cover (acres)	<u>3.33 (1.5 EARZ)</u>	<u>3.47 (1.64 EARZ)</u>
Impervious Cover (%)	<u>40 (35 EARZ)</u>	<u>42 (38 EARZ)</u>
Permanent BMPs	<u>Grassy Swale, VFS</u>	<u>VFS</u>
Other	<u>N/A</u>	<u>N/A</u>

SCS Modification	Approved Project	Proposed Modification
Summary		
Linear Feet	<u>N/A</u>	<u>N/A</u>
Pipe Diameter	<u>N/A</u>	<u>N/A</u>
Other	<u>N/A</u>	<u>N/A</u>

AST Modification	Approved Project	Proposed Modification
Summary		
Number of ASTs	<u>N/A</u>	<u>N/A</u>
Volume of ASTs	<u>N/A</u>	<u>N/A</u>
Other	<u>N/A</u>	<u>N/A</u>

UST Modification	Approved Project	Proposed Modification
Summary		
Number of USTs	<u>N/A</u>	<u>N/A</u>
Volume of USTs	<u>N/A</u>	<u>N/A</u>
Other	<u>N/A</u>	<u>N/A</u>

5. **Attachment B: Narrative of Proposed Modification.** A detailed narrative description of the nature of the proposed modification is attached. It discusses what was approved, including any previous modifications, and how this proposed modification will change the approved plan.

6. **Attachment C: Current Site Plan of the Approved Project.** A current site plan showing the existing site development (i.e., current site layout) at the time this application for modification is attached. A site plan detailing the changes proposed in the submitted modification is required elsewhere.
 - The approved construction has not commenced. The original approval letter and any subsequent modification approval letters are included as Attachment A to document that the approval has not expired.
 - The approved construction has commenced and has been completed. Attachment C illustrates that the site was constructed as approved.
 - The approved construction has commenced and has been completed. Attachment C illustrates that the site was **not** constructed as approved.
 - The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was constructed as approved.
 - The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was **not** constructed as approved.

7. The acreage of the approved plan has increased. A Geologic Assessment has been provided for the new acreage.
 - Acreage has not been added to or removed from the approved plan.

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

Attachment A - Original Approval Letter

2857.00

Buddy Garcia, *Chairman*
Larry R. Soward, *Commissioner*
Bryan W. Shaw, Ph.D., *Commissioner*
Mark R. Vickery, P.C., *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

April 17, 2009

Mr. Tom Schoolcraft
City of Helotes
P. O. Box 507
Helotes, Texas 78023

Re: Edwards Aquifer, Bexar County
NAME OF PROJECT: Helotes Police and Fire Stations; Located at 12951 Bandera Road; Helotes, Texas
TYPE OF PLAN: Request for Approval of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer
Edwards Aquifer Protection Program ID No.: 2857.00; Investigation No. 736426; Regulated Entity No. RN105693592

Dear Mr. Schoolcraft:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP application for the above-referenced project submitted to the San Antonio Regional Office by Moy Civil Engineers on behalf of City of Helotes on February 10, 2009. Final review of the WPAP was completed after additional material was received on March 31, 2009 and April 8, 2009. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

BACKGROUND

The proposed project site is 8.25 acres located at the intersection of State Highway 16 and FM 1560, within the corporate limits of the City of Helotes, Bexar County. The project site is located over both the Edwards Aquifer Recharge Zone (4.31 acres) and the Transition Zone (3.94 acres).

PROJECT DESCRIPTION

The proposed commercial project will have an area of approximately 4.31 acres. It will include two buildings, parking lot, drive way and associated utility infrastructure. The impervious cover will be 1.51

acres (35 percent). Project wastewater will be disposed of by conveyance to the existing Leon Creek Water Recycling Center owned by the San Antonio Water System.

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, engineered filter strips and grassy swale designed using the TCEQ technical guidance document, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices (2005), will be constructed to treat stormwater runoff. The total proposed impervious cover is 1.51 acres and pre-existing impervious cover is 0.45 acres. The total impervious cover requiring treatment is 1.06 acres and the required total suspended solids (TSS) treatment for this project is 865 pounds. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project.

The grassy swale will treat 0.369 acres and the individual treatment measures will consist of:

- the grassy swale will have a 0.5 percent slope;
- the width of the grassy swale will be 3.85 feet;
- the minimum length of the grassy swale will be 86 feet (86 feet provided);

The engineered filter strips will treat 0.848 acres and the individual treatment measures will consist of:

- the minimum vegetated cover will be 80%
- the engineered vegetated filter strips will extend along the entire length of the contributing area;
- the slope will not exceed 20%;
- the minimum dimension of the filter strips (in the direction of flow) will not be less than 15 feet;
- the maximum width (in the direction of flow) of the contributing impervious area will not exceed 72 feet;
- the minimum vegetated cover will be 80%;
- the contributing area to the filter strip will be relatively flat so that runoff will be distributed evenly to the vegetated area without the use of a level spreader;
- the vegetated filter strip will be free of gullies or rills that can concentrate overland flow.

GEOLOGY

The site is located on the outcrop of both the Del Rio Clay and the Person Formation of the Edwards Group. The property is also, located in the Balcones fault zone, which separates the Edwards Plateau from the Gulf Coastal Plain physiographic province. According to the geologic assessment included with the application, no sensitive features were found at the site. The San Antonio Regional Office site assessment conducted on April, 3, 2009 revealed general agreement with geologic assessment.

SPECIAL CONDITIONS

- I. All permanent pollution abatement measures shall be operational prior to occupancy of the facility.
- II. Intentional discharges of sediment laden storm water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management

practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.

- III. Activities observed during the site assessment investigation, conducted on April 3, 2009, are alleged to constitute construction without prior approval of the proposed water pollution abatement plan as required by Commission rules (30 TAC Chapter 213, Sub-Chapter A). Therefore, the applicant is hereby advised that the after-the-fact approval of the development, as provided by this letter, shall not absolve the applicant of any prior violations of Commission rules related to this project, and shall not necessarily preclude the Commission from pursuing appropriate enforcement actions and administrative penalties associated with such violations, as provided in 30 TAC §213.10 of Commission rules.

STANDARD CONDITIONS

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.
2. The holder of the approved Edwards Aquifer protection plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the approved plan. Additional and separate approvals, permits, registrations and/or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, UIC) can be required depending on the specifics of the plan.
3. In addition to the rules of the Commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.

Prior to Commencement of Construction:

4. Within 60 days of receiving written approval of an Edwards Aquifer Protection Plan, the applicant must submit to the San Antonio Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TCEQ-0625) that you may use to deed record the approved WPAP is enclosed.
5. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved WPAP and this notice of approval shall be maintained at the project location until all regulated activities are completed.
6. Modification to the activities described in the referenced WPAP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
7. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the

approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.

8. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.
9. All borings with depths greater than or equal to 20 feet must be plugged with non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation. Voids may be filled with gravel.

During Construction:

10. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
11. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 6, above.
12. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the San Antonio Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.
13. One well exist on the recharge zone and one on the transition zone at the site. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.
14. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent.

Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.

15. Intentional discharges of sediment laden storm water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.
16. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
17. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

18. 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 San Antonio Regional Office within 30 days of site completion.
19. The applicant shall be 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. The regulated entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.
20. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.
21. An Edwards Aquifer protection plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
22. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

Mr. Tom Schoolcraft
April 17, 2009
Page 6

If you have any questions or require additional information, please contact Stacy Tanner of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210/403-4078.

Sincerely,



Mark R. Vickery, P.G.
Executive Director
Texas Commission on Environmental Quality

MRV/SMT/eg

Enclosure: Deed Recordation Affidavit, Form TCEQ-0625
Change in Responsibility for Maintenance of Permanent BMPs, Form TCEQ-10263

cc: Mr. Duane Moy, P.E., Moy Civil Engineers
Mr. Scott Halty, San Antonio Water System
Ms. Renee Green, P.E., Bexar County Public Works
Ms. Velma Danielson, Edwards Aquifer Authority
TCEQ Central Records, Building F, MC212

ATTACHMENT B

Narrative of Proposed Modification

The existing site is an 8.25-acre site that is located at the intersection of State Highway 16 (Bandera Road) and FM 1560, within the corporate limits of the City of Helotes, Bexar County, Texas. The project site is located over both the Edwards Aquifer Recharge Zone (4.31 acres) and the Transition Zone (3.94 acres).

In 2009, the TCEQ approved a WPAP for a commercial development on the 4.31 acres located over the Edwards Aquifer Recharge Zone. The approved project resulted in 1.5 acres of impervious cover. Permanent BMP's for the commercial development included engineered vegetated filter strips and a grassy swale. Construction of the previously approved project and BMPs was completed in 2009.

The proposed project is a new 6,000 square foot building constructed within the 4.31 acres over the Edwards Aquifer Recharge Zone is proposed. Upon completion of the proposed storage building will provide approximately 0.14 acres of new impervious cover, for a total of 1.65 acres of impervious cover over the Recharge Zones. This attachment includes figures illustrating existing impervious cover and proposed impervious cover.

The increase in impervious cover will be treated with vegetated filter strip. This Attachment B includes a WPAP Site Map for the Storage Building. No changes to the existing BMPs are proposed. Refer to Attachment C for the Current Site Plan of the Approved Project.

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 Friday, October 18, 2024, 2:07pm



10/18/24
 Amy R Hesselting

801 Navigation Suite 300
 Corpus Christi, Texas 78408
 Phone: (361) 883-1984
 www.Ardurra.com
 Engineering License #F-10053
 Ardurra Group, Inc.
 Surveying License #1188
 Architectural Firm #R4160



**STORAGE BUILDING
 HELOTES POLICE AND FIRE STATION
 HELOTES, TEXAS**

EXISTING IMPERVIOUS COVER PLAN

DATE:	10/18/2024
DRAWN BY:	CC CIVIL
CHECKED BY:	AH
APPROVED BY:	AH
JOB NO:	2024-1158-00

REVISIONS	
DATE	DESCRIPTION

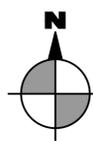


RECHARGE ZONE LEGEND

SUB TOTAL = 917 SF		MISCELLANEOUS: CONCRETE SIDEWALK, CONCRETE PADS, A/C PADS, ECT.
SUB TOTAL = 46,920 SF		PARKING / DRIVES
SUB TOTAL = 17,743 SF		BUILDINGS
TOTAL = 65,580 SF		
TOTAL = 1.51 ACRES EXISTING IMPERVIOUS COVER		

TRANSITION ZONE LEGEND

SUB TOTAL = 14,024 SF		MISCELLANEOUS: CONCRETE SIDEWALK, CONCRETE PADS, A/C PADS, ECT.
SUB TOTAL = 40,513 SF		PARKING / DRIVES
SUB TOTAL = 25,230 SF		BUILDINGS
TOTAL = 79,767 SF		
TOTAL = 1.83 ACRES EXISTING IMPERVIOUS COVER		
TOTAL OVERALL = 3.34 ACRES EXISTING IMPERVIOUS COVER		



EXISTING IMPERVIOUS COVER PLAN
 SCALE: 1"=50'

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 Friday, October 18, 2024, 2:09pm



10/18/24
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 Architectural Firm BR4160



**STORAGE BUILDING
 HELOTES POLICE AND FIRE STATION
 HELOTES, TEXAS**

PROPOSED IMPERVIOUS COVER PLAN

DATE:	10/18/2024
DRAWN BY:	CC CIVIL
CHECKED BY:	AH
APPROVED BY:	AH
JOB NO:	2024-1158-00

REVISIONS	
DATE	DESCRIPTION

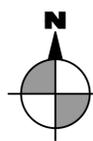


RECHARGE ZONE LEGEND

SUB TOTAL = 917 SF		MISCELLANEOUS: CONCRETE SIDEWALK, CONCRETE PADS, A/C PADS, ECT.
SUB TOTAL = 46,920 SF		PARKING / DRIVES
SUB TOTAL = 23,743 SF		BUILDINGS
TOTAL = 71,580 SF		
TOTAL = 1.64 ACRES PROPOSED IMPERVIOUS COVER		

TRANSITION ZONE LEGEND

SUB TOTAL = 14,024 SF		MISCELLANEOUS: CONCRETE SIDEWALK, CONCRETE PADS, A/C PADS, ECT.
SUB TOTAL = 40,513 SF		PARKING / DRIVES
SUB TOTAL = 25,230 SF		BUILDINGS
TOTAL = 79,767 SF		
TOTAL = 1.83 ACRES PROPOSED IMPERVIOUS COVER		
TOTAL OVERALL = 3.47 ACRES PROPOSED IMPERVIOUS COVER		



PROPOSED IMPERVIOUS COVER PLAN
 SCALE: 1"=50'

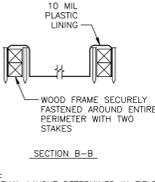
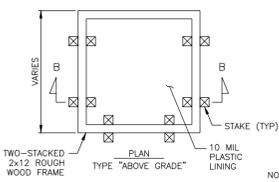
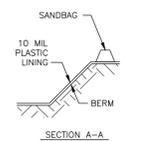
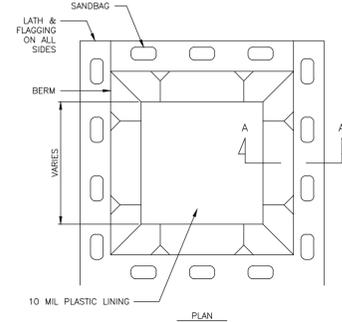
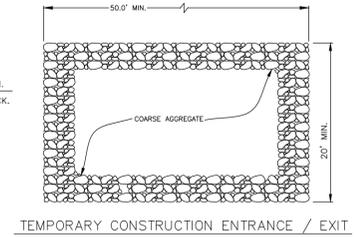
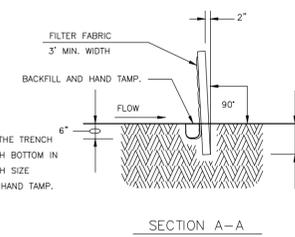
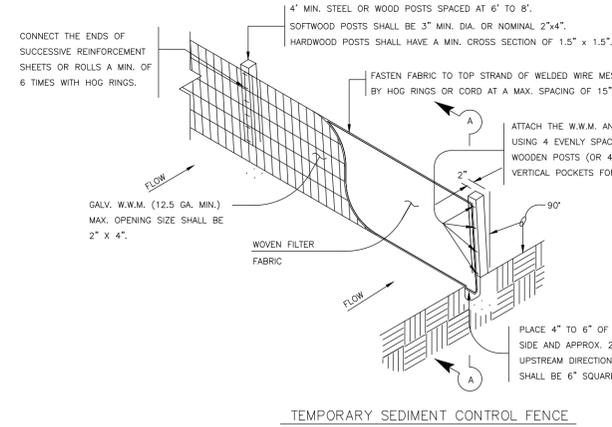
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER POLLUTION
ABATEMENT PLAN GENERAL CONSTRUCTION NOTES

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

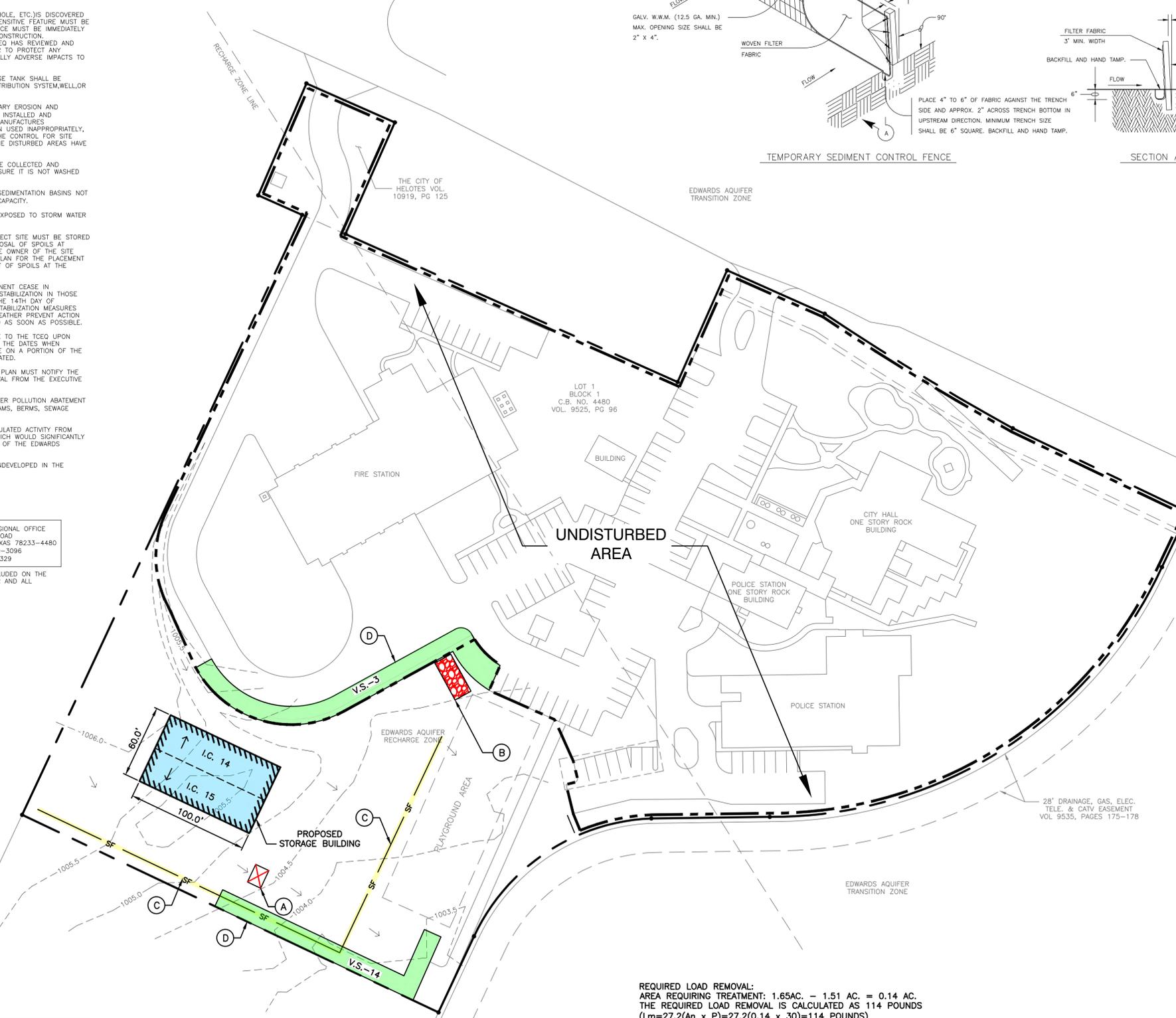
AUSTIN REGIONAL OFFICE
12100 PARK 35 CIRCLE BUILDING A
AUSTIN, TEXAS 78753-1808
PHONE: (512) 339-3929
FAX: (512) 339-3795

SAN ANTONIO REGIONAL OFFICE
14250 JUDSON ROAD
SAN ANTONIO, TEXAS 78233-4480
PHONE: (210) 490-3096
FAX: (210) 545-4329

• THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.



NOTES:
• ACTUAL LAYOUT DETERMINED IN FIELD



REQUIRED LOAD REMOVAL:
AREA REQUIRING TREATMENT: 1.65AC. - 1.51 AC. = 0.14 AC.
THE REQUIRED LOAD REMOVAL IS CALCULATED AS 114 POUNDS
($L_m = 27.2(A_n \times P) = 27.2(0.14 \times 30) = 114$ POUNDS)

	IMPERVIOUS COVER (ACRES)	REQUIRED LOAD REMOVAL TSS, Lm, lbs	DESIGN LOAD REMOVED, TSS Lm, lbs
TOTAL SITE AREA REQUIRING TREATMENT	0.14	114	114
VEGETATIVE FILTER STRIPS AS BMPs	0.14		114

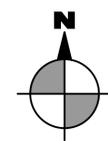
LOAD REMOVAL SUMMARY		
I.C. #	I.C. AREA (ACRES)	LOAD REMOVED
14,15	0.14	114
I.C. - IMPERVIOUS COVER		

LEGEND

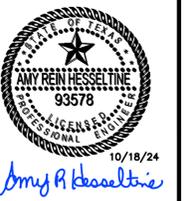
- PROPOSED BUILDING
- (A) CONCRETE WASHOUT PIT
- (B) TEMPORARY CONSTRUCTION ENTRANCE / EXIT
- (C) SILT FENCE
- (D) VEGETATIVE FILTER STRIP

GENERAL NOTES

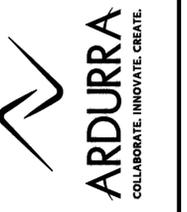
1. LOCATIONS OF MAJOR STRUCTURAL AND NONSTRUCTURAL CONTROLS ARE LABELED. THESE ARE THE TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES.
2. SOIL STABILIZATION PRACTICES SHALL OCCUR OVER THE AREAS DISTURBED THROUGH THE USE PAVEMENT, BUILDINGS, SIDEWALKS, GRASS SOD, GRASS SEEDING AND MULCH.
3. THERE ARE NO LOCATIONS WHERE STORMWATER DISCHARGES TO SURFACE WATER.
4. VEGETATIVE FILTER STRIPS ARE 15 FOOT LONG IN THE DIRECTION OF FLOW UNLESS OTHERWISE NOTED ON THE PLAN.



WPAP SITE PLAN
SCALE: 1"=50'



10/18/24
Amy R. Hesselte
801 Navigation Suite 300
Corpus Christi, Texas 78408
Phone: (361) 883-1984
www.ardurra.com
Engineering License #IF-100653
Arduzza Group, Inc.
Surveying License #S-8888
Architectural Firm BR-4160



STORAGE BUILDING
HELOTES POLICE AND FIRE STATION
HELOTES, TEXAS
WPAP SITE PLAN

DATE	NO.	DESCRIPTION
10/18/2024		

Attachment C - Current Site Plan of the Approved Project

Texas Commission on Environmental Quality
Water Pollution Abatement Plan
General Construction Notes

- Written construction notification must be given to the appropriate TCEQ regional office no later than 48 hours prior to commencement of the regulated activity. Information must include the date on which the regulated activity will commence, the name of the approved plan, the TCEQ letter indicating the specific conditions of its approval, the name and telephone number of the contact person.
- All contractors conducting regulated activities associated with this project must be provided with complete copies of the approved Water Pollution Abatement Plan and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors are required to keep on-site copies of the approved plan and approval letter.
- If any sensitive feature is discovered during construction, all regulated activities near the sensitive feature must be suspended immediately. The appropriate TCEQ regional office must be immediately notified of any sensitive features encountered during construction. The regulated activities near the sensitive feature may not proceed until the TCEQ has reviewed and approved the methods proposed to protect the sensitive feature and the Edwards Aquifer from any potentially adverse impacts to water quality.
- No temporary aboveground hydrocarbon and hazardous substance storage tank system is installed within 150 feet of a domestic, industrial, irrigation, or public water supply well, or other sensitive feature.
- Prior to commencement of construction, all temporary erosion and sedimentation (E&S) control measures must be properly selected, installed, and maintained in accordance with the manufacturers specifications and good engineering practices. Controls specified in the temporary storm water section of the approved Edwards Aquifer Protection Plan are required during construction. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. The controls must remain in place until disturbed areas are revegetated and the areas have become permanently stabilized.
- If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
- Sediment must be removed from sediment traps or sedimentation ponds no later than when design capacity has been reduced by 50%. A permanent stake must be provided that can indicate when the sediment occupies 50% of the basin volume.
- 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).
- All spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.
- Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceases is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.
- The following records shall be maintained and made available to the TCEQ upon request: the dates when major grading or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval from the executive director prior to initiating any of the following:
 - any physical or operational modification of any water pollution abatement structure(s), including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
 - any change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;
 - any development of land previously identified as undeveloped in the original water pollution abatement plan.

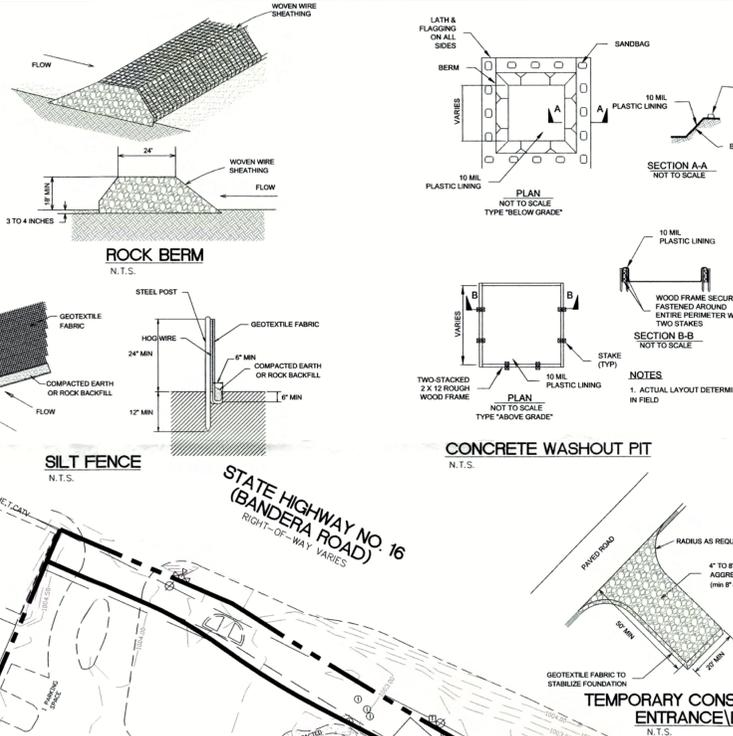
Austin Regional Office 2800 S. IH 35, Suite 100 Austin, Texas 78704-5712 Phone (512) 339-2929 Fax (512) 339-3795	San Antonio Regional Office 14250 Judson Road San Antonio, Texas 78233-4480 Phone (210) 490-3096 Fax (210) 545-4329
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THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.

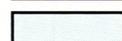
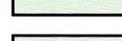
GENERAL NOTES
SOIL DISTURBANCES WILL OCCUR OVER THE ENTIRE SITE WITHIN THE EARZ.
LOCATIONS OF MAJOR STRUCTURAL AND NONSTRUCTURAL CONTROLS ARE LABELED. THESE ARE THE TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES.
SOIL STABILIZATION PRACTICES SHALL OCCUR OVER THE AREAS DISTURBED THROUGH THE USE OF PAVEMENT, BUILDINGS, SIDEWALKS, GRASS SOD, GRASS SEEDING AND MULCH.
THERE ARE NO LOCATIONS WHERE STORMWATER DISCHARGES TO SURFACE WATER.
VEGETATIVE FILTER STRIPS ARE 15 FOOT LONG IN THE DIRECTION OF FLOW UNLESS OTHERWISE NOTED ON THE PLAN.

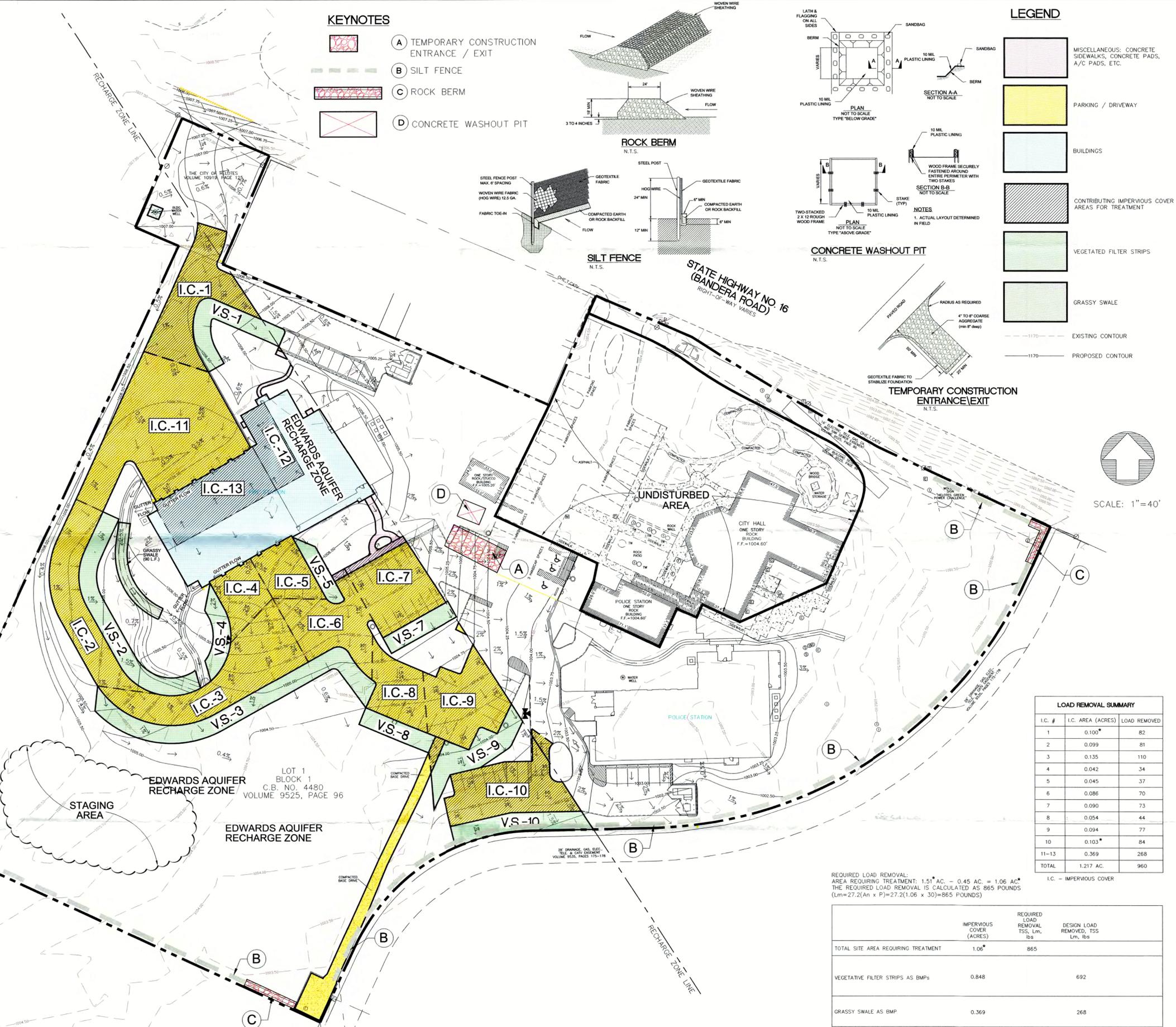
KEYNOTES

-  A TEMPORARY CONSTRUCTION ENTRANCE / EXIT
-  B SILT FENCE
-  C ROCK BERM
-  D CONCRETE WASHOUT PIT



LEGEND

-  MISCELLANEOUS: CONCRETE SIDEWALKS, CONCRETE PADS, A/C PADS, ETC.
-  PARKING / DRIVEWAY
-  BUILDINGS
-  CONTRIBUTING IMPERVIOUS COVER AREAS FOR TREATMENT
-  VEGETATED FILTER STRIPS
-  GRASSY SWALE
-  EXISTING CONTOUR
-  PROPOSED CONTOUR



I.C. #	I.C. AREA (ACRES)	LOAD REMOVED
1	0.100*	82
2	0.099	81
3	0.135	110
4	0.042	34
5	0.045	37
6	0.086	70
7	0.090	73
8	0.054	44
9	0.094	77
10	0.103*	84
11-13	0.369	268
TOTAL	1.217 AC.	960

I.C. - IMPERVIOUS COVER

REQUIRED LOAD REMOVAL:
AREA REQUIRING TREATMENT: 1.51 AC. - 0.45 AC. = 1.06 AC.
THE REQUIRED LOAD REMOVAL IS CALCULATED AS 865 POUNDS
(Lm=27.2(Am x P)=27.2(1.06 x 30)=865 POUNDS)

	IMPERVIOUS COVER (ACRES)	REQUIRED LOAD REMOVAL TSS, Lm, lbs	DESIGN LOAD REMOVED, TSS Lm, lbs
TOTAL SITE AREA REQUIRING TREATMENT	1.06*	865	
VEGETATIVE FILTER STRIPS AS BMPs	0.848		692
GRASSY SWALE AS BMP	0.369		268

* INCLUDES IMPERVIOUS AREAS OUTSIDE EARZ THAT FLOW INTO EARZ

NO.	DATE	DESCRIPTION	BY
1	3/30/09	TCEQ COMMENTS	SS

MOY CIVIL ENGINEERS
12770 CHARROCK FAYETTE SUITE 100
SAN ANTONIO, TEXAS 78238
TEL: (210) 698-6848
FAX: (210) 698-5085



HELOTES POLICE AND FIRE STATIONS
WPAP SITE PLAN
TCEQ-13
MAR 31 2009
SAN ANTONIO

Water Pollution Abatement Plan Application

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Amy Hesselstine, PE, Ardura Group, Inc.

Date: 10/28/24

Signature of Customer/Agent:

Amy A Hesselstine

Regulated Entity Name: Helotes Police and Fire Station

Regulated Entity Information

1. The type of project is:

- Residential: Number of Lots: _____
- Residential: Number of Living Unit Equivalents: _____
- Commercial
- Industrial
- Other: _____

2. Total site acreage (size of property): 8.25 acres total (4.31 acres EARZ area)

3. Estimated projected population: 50

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

Table 1 - Impervious Cover Table

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	23743	÷ 43,560 =	0.49
Parking	46920	÷ 43,560 =	1.13
Other paved surfaces	917	÷ 43,560 =	0.02
Total Impervious Cover	71580	÷ 43,560 =	1.64

Total Impervious Cover $1.64 \div$ Total Acreage $4.31 \times 100 = 38\%$ Impervious Cover

5. **Attachment A - Factors Affecting Surface Water Quality.** A detailed description of all factors that could affect surface water and groundwater quality that addresses ultimate land use is attached.
6. Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

For Road Projects Only

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

7. Type of project:

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

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

- Concrete
- Asphaltic concrete pavement
- Other: _____

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

Width of R.O.W.: _____ feet.

$L \times W =$ _____ $\text{Ft}^2 \div 43,560 \text{ Ft}^2/\text{Acre} =$ _____ acres.

10. Length of pavement area: _____ feet.

Width of pavement area: _____ feet.

$L \times W =$ _____ $\text{Ft}^2 \div 43,560 \text{ Ft}^2/\text{Acre} =$ _____ acres.

Pavement area _____ acres \div R.O.W. area _____ acres $\times 100 =$ _____ % impervious cover.

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

A rest stop will not be included in this project.

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

Stormwater to be generated by the Proposed Project

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

Wastewater to be generated by the Proposed Project

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

<u>100</u> % Domestic	<u>1000</u> Gallons/day
<u> </u> % Industrial	<u> </u> Gallons/day
<u> </u> % Commingled	<u> </u> Gallons/day
TOTAL gallons/day <u> </u>	

15. Wastewater will be disposed of by:

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

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

Sewage Collection System (Sewer Lines):

- Private service laterals from the wastewater generating facilities will be connected to an existing SCS.
- Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.
- The SCS was previously submitted on .
- The SCS was submitted with this application.
- The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

- The sewage collection system will convey the wastewater to the Leon Creek Water Recycling Center (name) Treatment Plant. The treatment facility is:
- Existing.
 Proposed.

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

Site Plan Requirements

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

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

Site Plan Scale: 1" = 50'.

18. 100-year floodplain boundaries:

Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.

No part of the project site is located within the 100-year floodplain. The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): _____

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

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

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

There are 1 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)

The wells are not in use and have been properly abandoned.

The wells are not in use and will be properly abandoned.

The wells are in use and comply with 16 TAC §76.

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

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

All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.

No sensitive geologic or manmade features were identified in the Geologic Assessment.

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

- 22. The drainage patterns and approximate slopes anticipated after major grading activities.
- 23. Areas of soil disturbance and areas which will not be disturbed.
- 24. Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
- 25. Locations where soil stabilization practices are expected to occur.
- 26. Surface waters (including wetlands).
 - N/A
- 27. Locations where stormwater discharges to surface water or sensitive features are to occur.
 - There will be no discharges to surface water or sensitive features.
- 28. Legal boundaries of the site are shown.

Administrative Information

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

ATTACHMENT A

Factors Affecting Water Quality

The existing land use is City of Helotes municipal buildings with associated driveways and parking areas. Landscaping, vehicular traffic, and soil disturbances may affect the quality of stormwater originating on the site. These factors may cause small amounts of oil, grease, suspended solids, fertilizers, and pesticides to enter the stormwater runoff. However, BMPs, both temporary and permanent, have been designed on the basis of Technical Guidance Manual to treat the required amount of stormwater runoff as to not adversely affect water quality entering into any surface or groundwater.

ATTACHMENT B

Volume and Character of Stormwater

Character of Stormwater

Stormwater runoff will be generated from rooftops, parking lots, sidewalks, landscape areas, and pervious areas from the site. The runoff may contain small amounts of oil, grease, suspended solids, fertilizers and pesticides. Both temporary and permanent BMP's have been designed on the basis of the Technical Guidance Manual to treat the required volume and character of stormwater runoff to remove at least 80% of the increased TSS due to the proposed development.

Volume of Stormwater

The City of Helotes Police and Fire Station site (8.25 acres total) discharges both into the EARZ (4.31 acres) and the Transition Zone (3.94 acres).

Area #1 (Edwards Aquifer Recharge Zone)

APPROVED EXISTING CONDITIONS

Area: 4.31 Acres

Impervious Area: 1.51 Acres; Runoff Coefficient 0.95

Pervious Area 2.80 Acres; Runoff Coefficient 0.44

Weighted Runoff Coefficient: $C = [(0.44 \times 2.80) + (0.95 \times 1.51)] / 4.31 = 0.62$

Post-Development $Q_{25} = CIA$, $C = 0.62$; $T_c = 23$ minutes, $I = 5.59$ in/Hr; $A = 4.31$ acres

Post-Development $Q_{25} = 15$ cfs

PROPOSED CONDITIONS

Area: 4.31 Acres

Impervious Area: 1.65 Acres; Runoff Coefficient 0.95

Pervious Area 2.66 Acres; Runoff Coefficient 0.44

Weighted Runoff Coefficient: $C = [(0.44 \times 2.66 + 0.95 \times 1.65)] / 4.31 = 0.64$

Post-Development $Q_{25} = CIA$, $C = 0.64$; $T_c = 23$ minutes, $I = 5.59$ in/Hr; $A = 4.31$ acres

Post-Development $Q_{25} = 15.4$ cfs

Storm water runoff from the development will result in an approximate 0.4 cfs increase during the 25-year storm event. Storm water will be discharged from the site in a manner corresponding to existing conditions.

Area #2 (Transition Zone)

APPROVED EXISTING CONDITIONS

Area: 3.94 Acres

Impervious Area: 1.83 Acres; Runoff Coefficient 0.95

Pervious Area 2.11 Acres; Runoff Coefficient 0.44

Weighted Runoff Coefficient: $C = [(0.44 \times 2.11) + (0.95 \times 1.83)] / 3.94 = 0.68$

Post-Development $Q_{25} = CIA$, $C = 0.68$; $T_c = 23$ minutes, $I = 5.59$ in/Hr; $A = 3.94$ acres

Post-Development $Q_{25} = 15$ cfs

PROPOSED CONDITIONS (no change proposed)

Area: 3.94 Acres

Impervious Area: 1.83 Acres; Runoff Coefficient 0.95

Pervious Area 2.11 Acres; Runoff Coefficient 0.44

Weighted Runoff Coefficient: $C = [(0.44 \times 2.11) + (0.95 \times 1.83)] / 3.94 = 0.68$

Post-Development $Q_{25} = CIA$, $C = 0.68$; $T_c = 23$ minutes, $I = 5.59$ in/Hr; $A = 3.94$ acres

Post-Development $Q_{25} = 15$ cfs

Storm water runoff from the development will not result in an increase during the 25-year storm event. Storm water will be discharged from the site in a manner corresponding to existing conditions.

Time of Concentration

Time of concentration derived from Seelye Chart for overland flows and TR-55 for shallow concentrated flows

Rainfall Intensity

Intensity derived from City of San Antonio IDF charts.

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: Amy Hesselink, PE, Ardurra Group, Inc.

Date: 10/28/24

Signature of Customer/Agent:



Regulated Entity Name: Helotes Police and Fire Station

Project Information

Potential Sources of Contamination

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

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

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

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

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

- Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.
- Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.
- Fuels and hazardous substances will not be stored on the site.
- 2. **Attachment A - Spill Response Actions.** A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.
- 3. Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.
- 4. **Attachment B - Potential Sources of Contamination.** A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Sequence of Construction

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

Temporary Best Management Practices (TBMPs)

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

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

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

- There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.
11. **Attachment H - Temporary Sediment Pond(s) Plans and Calculations.** Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.
- N/A
12. **Attachment I - Inspection and Maintenance for BMPs.** A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.
13. All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.
14. If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
15. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.
16. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

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

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

18. Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
19. Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

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

ATTACHMENT A
Spill Response Actions

1. Housekeeping

- A. Minimize materials: An effort will be made to store only enough materials required to do the job.
- B. Storage: All materials stored on site will be stored in a neat, orderly manner in their appropriate containers in a covered area. If storage in a covered area is not feasible, then the materials will be covered with polyethylene or polypropylene sheeting to protect them from the elements.
- C. Labeling: Products will be kept in their original containers with the original manufacturer's label affixed to each container.
- D. Mixing: Substances will not be mixed with one another unless this is recommended by the manufacturer.
- E. Disposal: Whenever possible, all of a product will be used prior to disposal of the container. Manufacturer's recommendations will be followed for proper use and disposal of materials on site.
- F. Inspections: The site superintendent will inspect the site daily to ensure proper use and disposal of materials on site.
- G. Spoil Materials: Any excavated earth that will not be used for fill material and all demolished pavement will be hauled off site immediately and will be disposed of properly, in accordance with all applicable state/local regulations.

2. Product Specific Practices

- A. Petroleum Products: All on site vehicles will be monitored for leaks and will receive regular preventive maintenance to reduce the chance of leakage. If petroleum products will be present at the site, then they will be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used on site will be applied according to the manufacturer's recommendations.
- B. Concrete Trucks: Ready/Transit Mix Trucks will not be allowed to wash out or discharge surplus concrete or drum wash water except in the designated location on site as shown on the SWPPP site plan.
- C. Paints: All containers will be tightly sealed and stored when not required for use. Excess paint will not be poured into storm sewer system or drainage channels, but will be properly disposed of according to manufacturers' instructions or state/local regulations.
- D. Fertilizers: Fertilizers will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to storm water. The fertilizer will be stored in a covered area, and any partially used bags will be transferred to a sealable plastic bin to avoid spills.

3. Spill Control and Response Measures

A spill prevention and response team will be designated by the site superintendent. In addition, the following practices will be followed for spill cleanup:

- A. Information: Manufacturers' recommended methods for spill cleanup will be clearly posted, and site personnel will be made aware of the procedures and location of the information and cleanup supplies.

- B. Equipment: Materials and equipment necessary for spill cleanup will be present on the site at all times. Equipment and materials will include, but not be limited to brooms, shovels, rags, gloves, goggles, absorbent materials (sand, sawdust, etc.) and plastic or metal trash containers specifically designed for this purpose. The materials and equipment necessary for spill cleanup will be dependent upon the nature and quantity of the material stored on site.
- C. Response: All spills will be cleaned up immediately upon discovery.

Cleanup

- 1) Clean up leaks and spills immediately
- 2) Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.
- 3) Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in TCEQ Technical Guidance Manual RG-348 for specific information.

Minor Spills

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

Semi-Significant spill

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

Spills should be cleaned up immediately:

- 1) Contain spread of the spill.
- 2) Notify the project foreman immediately.
- 3) If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
- 4) If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
- 5) If the spill occurs during rain, cover the spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

- 1) Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832- 8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
- 2) For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110, 119, and 302, the contractor should notify the National Response Center at (800) 424-8802.

- 3) Notification should first be made by telephone and followed up with a written report.
- 4) The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
- 5) Other agencies which may need to be consulted include, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

D. Vehicle and Equipment Maintenance

- 1) If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the run on of stormwater and the runoff of spills.
- 2) Regularly inspect onsite vehicles and equipment for leaks and repair immediately.
- 3) Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.
- 4) Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.
- 5) Place drip pans or absorbent materials under paving equipment when not in use.
- 6) Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.
- 7) Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.
- 8) Oil filters disposed of in trash cans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can be recycled. Ask the oil supplier or recycler about recycling oil filters.
- 9) Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

E. Vehicle and Equipment Fueling

- 1) If fueling must occur onsite, use designated areas, located away from drainage courses, to prevent the run on of stormwater and the runoff of spills.
- 2) Discourage "topping off" of fuel tanks.
- 3) Always use secondary containment, such as a drain pan, when fueling to catch spills/leaks.

F. Safety: The spill area will be kept well ventilated, and personnel will wear appropriate protective clothing to prevent injury from contact with hazardous substances.

G. Reporting: Spills of toxic or hazardous material (if present on site) will be reported to the appropriate state or local government agency, regardless of the spill's size.

H. Record Keeping: The spill prevention plan will be modified to include measures to prevent this type of spill from recurring as well as improved methods for cleaning up any future spills. A description of each spill, what caused it, and the cleanup measures used will be kept with this plan.

ATTACHMENT B

Potential Sources of Contamination

Potential Source:	Preventative Measure:
Oil, grease, fuel and hydraulic fluid contamination from construction equipment and vehicle dripping.	Vehicle maintenance when possible, will be performed within a construction staging area specified by the General Contractor
Miscellaneous trash and litter from construction workers and material wrappings.	Trash containers will be placed throughout the site to encourage proper trash disposal.
Construction debris.	Construction debris will be monitored daily by the contractor. Debris will be collected weekly and placed in disposal bins. Situations requiring immediate attention will be addressed on a case by case basis.
Stormwater contamination from excess application of fertilizers, herbicides, and pesticides.	Fertilizers, herbicides, and pesticides will be applied only when necessary and in accordance with manufacturer's instructions.
Sediment from soil, sand, gravel and excavated materials stockpiled on site.	Silt fence shall be installed on the downgradient side of all stockpiled materials. Reinforced rock berms shall be installed at all downstream discharge locations.
Soil and mud from construction vehicle tires as they leave the site.	A stabilized construction exit shall be utilized for vehicles leaving the site.

ATTACHMENT C

Sequence of Major Activities

Sequence Item	Description	Approximate Acres Disturbed
1	Installation of temporary BMPs	0.02
2	Site grading for building	0.14
3	Construction of building pad	0.14

ATTACHMENT D

Temporary Best Management Practices and Measures

Description of Temporary Best Management Practices:

1. Temporary Construction Entrance/Exit (Item A) - A stabilized pad of crushed stone located at any point where traffic will be entering or leaving the construction site from a public R.O.W., street, alley, sidewalk or parking area. It shall be a minimum of 50 feet long, 12 feet wide and 8 inches thick. The rock shall be 4" to 8" in size.
2. Silt Fence - A barrier consisting of geotextile fabric supported by metal posts to prevent soil and sediment loss from a site. Silt fences shall be installed on the downgradient side of the proposed areas to be disturbed that have a drainage area of 2 or less acres.
3. Temporary Seeding - Temporary seeding of disturbed areas shall be performed if disturbed areas are expected to have no construction activity for a period of at least 21 days.

Sequence of installation during construction process for each phase of construction:

1. The Temporary Construction Entrance/Exit (Item A) shall be installed prior to disturbing any soil except at the location of the Temporary Construction Entrance/Exit. It shall stay in place and be maintained until the onsite pavement is in place.
2. Silt Fence (Item B) shall be installed along the downgradient sides of the site as indicated on the WPAP Site Plan prior to any disturbance of the site.

Up gradient storm water flowing across the site:

Contributing storm water runoff from the up gradient right-of-way adjacent property on the west side of the site will be diverted around the proposed impervious cover areas and will be treated with onsite runoff. Up gradient storm water flows that flow across the site will be treated prior to leaving the site.

Onsite storm water flow across and off the site:

The storm water originating onsite and flowing off the site will be treated through temporary BMPs. Silt fences will be installed at all locations where non-concentrated storm water exits the site. These silt fences should filter the storm water prior to it leaving the site.

Prevention of pollutants from entering surface streams, sensitive features and the aquifer:

The storm water originating onsite and flowing off the site will be treated through temporary BMPs prior to it entering surface streams, sensitive features and the aquifer. Silt fences will be installed at all locations where non-concentrated storm water may leave the site. These rock berms and silt fences should filter the storm water prior to it leaving the site.

Maintaining flow to naturally-occurring sensitive features:

The storm water originating onsite and flowing off the site will continue to flow into the down gradient receiving waters. Any sensitive features downstream will continue to receive flow originating on the site. Prior to the flow leaving the site, it will be treated through temporary BMPs. These temporary BMPs should remove sediment, pollutants and debris if installed and maintained properly.

ATTACHMENT F

Structural Practices

Runoff discharge of pollutants from exposed areas of the site will be limited through the utilization of temporary BMPs. Prior to leaving the site, flows containing pollutant discharges will be treated by a silt fence and stabilized construction entrance/exit which will minimize the amount of pollutants leaving the site.

These structural measures will be installed prior to the initiation of site preparation and earth moving activities, and will be in accordance with TCEQ RG-348 July 2005.

Location of the BMPs is shown on the WPAP Site Plan.

ATTACHMENT I
Inspection and Maintenance for BMPs

Silt Fence

1. Inspect all fencing weekly and after any rainfall.
2. Remove sediment when buildup reaches 6 inches, or install a second line of fencing parallel to the old fence.
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.

Temporary Construction Entrance and Exits

1. The entrance should be maintained in a condition, which will prevent tracking or following of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.
2. All sediment spilled, dropped, washed or tracked on to public rights-of-ways should be removed immediately by contractor.
3. When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.
4. When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.
5. All sediment should be prevented from entering any storm drain, ditch, or water course by using approved methods.

**Storage Building
Helotes Police and Fire Stations
Inspection Report**

Note: Contractor shall retain the inspection report on site for review by regulating agencies.

Pollution Prevention Measure		Inspected	Corrective Action	
Silt Fences	Inspections		Description	Date Completed
	Fencing			
	Sediment Removal			
	Torn Fabric			
	Crushed Collapsed Fencing			
Construction Entrance/Exit	Inspections			
	Additional Top Dressing			
	Repair/Cleanout			
	Sediment Removed Immediately			

Inspector's Name

Inspector's Signature

Inspection Date

ATTACHMENT J
Schedule of Interim and Permanent Soil Stabilization Practices

Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceases is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of the site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

Temporary stabilization shall consist of temporary seeding of disturbed areas that are denuded beyond 14 days without construction restart within 21 days.

Temporary vegetation stabilization techniques shall be in accordance with the TCEQ Technical Guidance Manual RG-248 (*Complying with the Edwards Aquifer Rules – Technical Guidance on Best Management Practices*), Chapter 1 Temporary Best Management Practices, Section 1.3.8 Temporary Vegetation, as follows:

Temporary Vegetation

Vegetation is used as a temporary or permanent stabilization technique for areas disturbed by construction, but not covered by pavement, buildings, or other structures. As a temporary control, vegetation can be used to stabilize stockpiles and barren areas that are inactive for long periods of time.

Vegetative techniques can and should apply to every construction project with few exceptions. Vegetation effectively reduces erosion in swales, stockpiles, berms, mild to medium slopes, and along roadways.

Other techniques may be required to assist in the establishment of vegetation. These other techniques include erosion control matting, mulches, surface roughening, swales and dikes to direct runoff around newly seeded areas, and proper grading to limit runoff velocities during construction. (NCTCOG, 1993b)

Materials:

The type of temporary vegetation used on a site is a function of the season and the availability of water for irrigation. For areas that are not irrigated, the year can be divided into two temporary planting seasons and one season for planting of permanent warm weather groundcovers. These periods are shown in Figure 1-19 for Bexar, Comal, Kinney, Medina, and Uvalde Counties. Appropriate temporary vegetation for these areas are shown in Table 1-4.

Other vegetation may perform as well as the recommended varieties, especially where irrigation is available. County agricultural extension agents are a good source for suggestions for other types of temporary vegetation. All seed should be high quality, U.S. Dept. of Agriculture certified seed.

Installation:

(1) Interim or final grading must be completed prior to seeding, minimizing all steep slopes. In addition, all necessary erosion structures such as dikes, swales, and diversions, should also be installed.

(2) Seedbed should be well pulverized, loose, and uniform.

(3) Fertilizer should be applied at the rate of 40 pounds of nitrogen and 40 pounds of phosphorus per acre, which is equivalent to about 1.0 pounds of nitrogen and phosphorus per 1000 square feet. Compost can be used instead of fertilizer and applied at the same time as the seed.

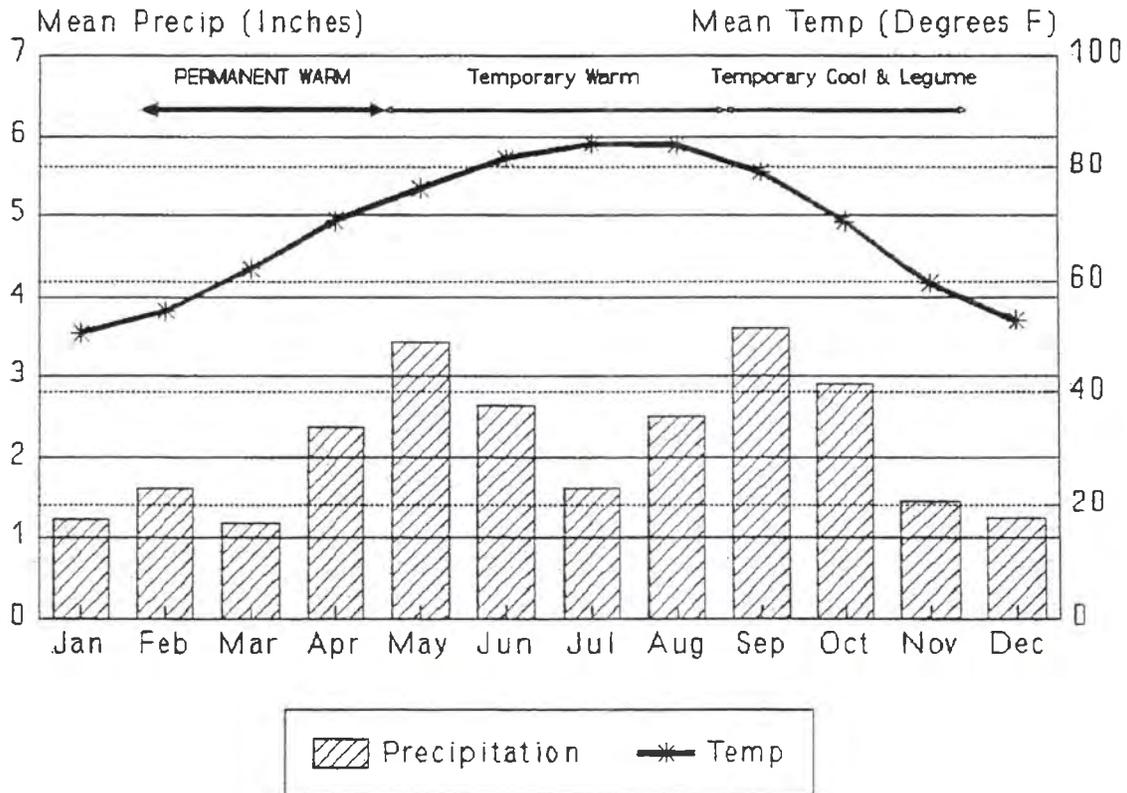


Figure 1-19 Planting Dates for Bexar, Comal, Kinney, Medina, and Uvalde Counties (Northcutt, 1993)

Table 1-4 Temporary Seeding for Bexar, Comal, Kinney, Medina, and Uvalde Counties (Northcutt, 1993)

Dates	Climate	Species (lb/ac)
Sept 1 to Nov 30	Temporary Cool Season	Tall Fescue 4.0
		Oats 21.0
		Wheat (Red, Winter) 30.0
		Total 55.0
Sept 1 to Nov 30	Cool Season Legume	Hairy Vetch 8.0
May 1 to Aug 31	Temporary Warm Season	Foxtail Millet 30.0

(4) Seeding rates should be as shown in Table 1-4 or as recommended by the county agricultural extension agent.

(5) The seed should be applied uniformly with a cyclone seeder, drill, cultipacker seeder or hydroseeder (slurry includes seed, fertilizer and binder).

(6) Slopes that are steeper than 3:1 should be covered with appropriate soil stabilization matting as described in the following section to prevent loss of soil and seed.

Irrigation

Temporary irrigation should be provided according to the schedule described below, or to replace moisture loss to evapotranspiration (ET), whichever is greater. Significant rainfall (on-site rainfall of ½" or greater) may allow watering to be postponed until the next scheduled irrigation.

Time Period	Irrigation Amount and Frequency
Within 2 hours of installation	Irrigate entire root depth, or to germinate seed
During the next 10 business days	Irrigate entire root depth every Monday, Wednesday, and Friday
During the next 30 business days or until Substantial Completion	Irrigate entire root depth a minimum of once per week, or as necessary to ensure vigorous growth
During the next 4 months or until Final Acceptance of the Project	Irrigate entire root depth once every two weeks, or as necessary to ensure vigorous growth

If cool weather induces plant dormancy, water only as necessary to maintain plant health. Irrigate in a manner that will not erode the topsoil but will sufficiently soak the entire depth of roots.

Inspection and Maintenance Guidelines:

(1) Temporary 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 regrading the area and applying new seed.

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

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: Amy Hesselting, PE, Ardura Group, Inc.

Date: 10/28/24

Signature of Customer/Agent

Amy A Hesselting

Regulated Entity Name: Helotes Police and Fire Station

Permanent Best Management Practices (BMPs)

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

- Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.
 N/A
- These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.
 The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

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

N/A

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

N/A

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

The site will be used for low density single-family residential development and has 20% or less impervious cover.

The site will be used for low density single-family residential development but has more than 20% impervious cover.

The site will not be used for low density single-family residential development.

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

Attachment A - 20% or Less Impervious Cover Waiver. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached.

The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.

The site will not be used for multi-family residential developments, schools, or small business sites.

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

- A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is attached.
 - No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.
 - Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.
7. **Attachment C - BMPs for On-site Stormwater.**
- A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is attached.
 - Permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, and an explanation is attached.
8. **Attachment D - BMPs for Surface Streams.** A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is attached. Each feature identified in the Geologic Assessment as sensitive has been addressed.
- N/A
9. The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.
- The permanent sealing of or diversion of flow from a naturally-occurring sensitive feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed.
 - Attachment E - Request to Seal Features.** A request to seal a naturally-occurring sensitive feature, that includes, for each feature, a justification as to why no reasonable and practicable alternative exists, is attached.
10. **Attachment F - Construction Plans.** All construction plans and design calculations for the proposed permanent BMP(s) and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. The plans are attached and, if applicable include:
- Design calculations (TSS removal calculations)
 - TCEQ construction notes
 - All geologic features
 - All proposed structural BMP(s) plans and specifications
- N/A

11. **Attachment G - Inspection, Maintenance, Repair and Retrofit Plan.** A plan for the inspection, maintenance, repairs, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan includes all of the following:
- Prepared and certified by the engineer designing the permanent BMPs and measures
 - Signed by the owner or responsible party
 - Procedures for documenting inspections, maintenance, repairs, and, if necessary retrofit
 - A discussion of record keeping procedures
 - N/A
12. **Attachment H - Pilot-Scale Field Testing Plan.** Pilot studies for BMPs that are not recognized by the Executive Director require prior approval from the TCEQ. A plan for pilot-scale field testing is attached.
- N/A
13. **Attachment I -Measures for Minimizing Surface Stream Contamination.** A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is attached. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity, which increase erosion that results in water quality degradation.
- N/A

Responsibility for Maintenance of Permanent BMP(s)

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

14. The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.
- N/A
15. A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.
- N/A

ATTACHMENT B

BMPs for Upgradient Stormwater

The storm water runoff from the adjacent upgradient property on the west side of the site will be intercepted prior to flowing across impervious cover and will be routed around the impervious cover; thus, no upgradient storm water runoff requires treatment by permanent BMPs.

ATTACHMENT C

BMPs for On-Site Stormwater

Existing BMP's are vegetated filter strips and grassy swales. The BMP's employed to treat storm water runoff originating from the new storage building will be vegetated filter strips. The storm water will enter the vegetated filter strips as sheet flow and will be routed across the BMP as required in the TGM. The runoff will receive treatment through the vegetated filtration strips where at least 80% of the TSS load generated by the respective impervious cover areas will be removed. After treatment and removal of at least 80% of the increased TSS load generated by the site, the storm water will be released from the site in a manner consistent with existing conditions.

Anticipated pollutants can be oil and grease from vehicles as well as suspended solids and sediments that are transported by vehicles entering the site and that are transported through the air and accumulate on impervious cover surfaces. These BMPs are designed in accordance with the design criteria set forth in the TCEQ Technical Guidance Manual (TGM).

ATTACHMENT D

BMPs for Surface Streams

No surface streams or sensitive features exist on the site; therefore, it is not necessary to implement any additional permanent BMPs or measures other than the vegetative filter strips and grassy swale.

Attachment F – Construction Plans

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.

Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.

Characters shown in red are data entry fields.

Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

1. The Required Load Reduction for the total project:

Calculations from RG-348

Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M \text{ TOTAL PROJECT}}$ = Required TSS removal resulting from the proposed development = 80% of increased load
 A_N = Net increase in impervious area for the project
 P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County = **Bexar**
 Total project area included in plan = **4.31** acres
 Predevelopment impervious area within the limits of the plan = **1.51** acres
 Total post-development impervious area within the limits of the plan = **1.65** acres
 Total post-development impervious cover fraction = **0.38**
 P = **30** inches

$L_{M \text{ TOTAL PROJECT}}$ = **114** lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = **VFS-14**

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

Drainage Basin/Outfall Area No. = **VFS -14**

Total drainage basin/outfall area = **0.14** acres
 Predevelopment impervious area within drainage basin/outfall area = **0.00** acres
 Post-development impervious area within drainage basin/outfall area = **0.14** acres
 Post-development impervious fraction within drainage basin/outfall area = **1.00**
 $L_{M \text{ THIS BASIN}}$ = **114** lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Vegetated Filter Strips**
 Removal efficiency = **85** percent

- Aqualogic Cartridge Filter
- Bioretention
- Contech StormFilter
- Constructed Wetland
- Extended Detention
- Grassy Swale
- Retention / Irrigation
- Sand Filter
- Stormceptor
- Vegetated Filter Strips
- Vortechs
- Wet Basin
- Wet Vault

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

RG-348 Page 3-33 Equation 3.7: $L_R = (\text{BMP efficiency}) \times P \times (A_C \times 34.6 + A_P \times 0.54)$

where:

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

A_C = **0.14** acres
 A_I = **0.14** acres
 A_P = **0.00** acres
 L_R = **124** lbs



Horizon Structural Systems, Inc.

3950 HWY. 46 W. SUITE 200, NEW BRAUNFELS, TX 78132
PHONE (830) 629-8000, FAX (830) 629-2611

BUILDING SPECIFICATIONS

This document is to certify that the project that is referenced and its components have been designed in general accordance with the 2016 AISC Steel Construction Manual (15th Edition) and the 2016 AISI S-100 Specification for Cold-Formed Members, as well as the designated building code stipulated in the order documentation.

Based on the requirements of the order documentation, the structural Design criteria applied to the design of this project is as follows:

<u>BUILDING LOADS / DESCRIPTION</u>			
WIDTH: 60	LENGTH: 100	HEIGHT: 16	SLOPE: 1.0:12
<small>(BUILDING DIMENSIONS ARE NOMINAL. REFER TO PLANS).</small>			
THIS STRUCTURE IS DESIGNED UTILIZING THE LOADS INDICATED AND APPLIED AS REQUIRED BY: IBC 18		ZIP CODE: 78023	
THE CONTRACTOR IS TO CONFIRM THAT THESE LOADS COMPLY WITH THE REQUIREMENTS OF THE LOCAL BUILDING DEPARTMENT.			
II - Normal	<u>USE CATEGORY</u>	<u>d</u>	<u>SITE CLASS</u>
3.00	PSF <u>ROOF DEAD LOAD</u>	0.05	Sa <u>MAPPED SPECTRAL ACCEL. SHORT PERIOD</u>
	PSF <u>FLOOR DEAD LOAD</u>	0.02	S1 <u>MAPPED SPECTRAL ACCEL. 1-SEC. PERIOD</u>
3.00	PSF <u>COLLATERAL LOAD</u>	1.600	Fa <u>ACCELERATION-BASED SITE COEFFICIENT</u>
20.00	PSF <u>ROOF LIVE LOAD</u>	2.400	Fv <u>VELOCITY-BASED SITE COEFFICIENT</u>
	PSF <u>FLOOR LIVE LOAD</u>	0.05	Sds <u>5% DAMPED SPECTRAL ACCEL. SHORT PERIOD</u>
Yes	<u>LIVE LOAD REDUCTION</u>	0.04	Sd1 <u>5% DAMPED SPECTRAL ACCEL. 1-SEC. PERIOD</u>
3.50	PSF <u>FLAT ROOF SNOW LOAD</u>	A	<u>SEISMIC DESIGN CATEGORY</u>
5.00	PSF <u>GROUND SNOW LOAD</u>	3.00	<u>RESPONSE MODIFICATION FACTOR FOR Rframe</u>
1.00	Ce <u>SNOW LOAD EXP. FACTOR</u>	3.00	<u>RESPONSE MODIFICATION FACTOR FOR Rbrace</u>
1.00	Ct <u>SNOW THERMAL FACTOR</u>	0.0171	<u>RESPONSE COEFFICIENTS FOR Ca FRAME</u>
110	MPH <u>WIND SPEED Vw1</u>	0.0171	<u>RESPONSE COEFFICIENTS FOR Ca BRACE</u>
76	MPH <u>WIND SPEED Vwsd</u>	0.94	KIPS <u>TOTAL TRANSVERSE BASE SHEAR V</u>
c	<u>WIND EXPOSURE</u>	0.91	KIPS <u>TOTAL LONGITUDINAL BASE SHEAR V</u>
0.18	<u>INT. PRESSURE COEFF.</u>	STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC <u>TRANSVERSE STRUCTURAL SYSTEM</u>	
<u>IMPORTANCE FACTORS:</u>		STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC <u>LONGITUDINAL STRUCTURAL SYSTEMS</u>	
1.00	<u>WIND LOAD (Iw)</u>	EQUVALENT LATERAL FORCE	<u>ANALYSIS PROCEDURE</u>
1.00	<u>SEISMIC LOAD (Ie)</u>		
1.00	<u>SNOW LOAD (Is)</u>		

The manufacturer is not responsible for the concrete foundation design. The structure under this contract has been designed and detailed for the loads and conditions stipulated in the contract and shown on these drawings. Any alterations to the structural system or removal of any component part, or the addition of the construction materials or loads must be done under the advice and or direction of a registered architect, civil or structural engineer. The manufacture will assume no responsibility for any loads not indicated.

This manufactured building is designed with the manufacture's standard design practices which are based on pertinent procedures and recommendations of the following organizations and codes:

- American Institute of Steel Construction "Specification for design, fabrication and erection of structural steel for buildings" 15th edition.
- America Iron and Steel Institute "Specification for the design of cold formed steel structural members" 2016 edition.
- American Welding Society "Structural Welding Code" AWS D1.1-15 Chapter 3 relating to pre-qualified complete joint penetration groove welds and chapter 2 relation to weld design.
- Metal Building Manufacturers Association "Specification for the design fabrication and erection of the structural system" most current edition.

Material properties of steel plate, bar, strip, and sheet used in fabrication of primary rigid frames and all primary structural framing members (other than cold-formed sections) conform to ASTM A529, A572, or A1011 with minimum yield point of 55 KSI.

Material properties of cold-formed light gauge steel members conform to ASTM A1011 HSLAS 55 Class 1, A1011 SS 55, or ASTM A653 SS 55 or HSLAS 55

The proper tightening and inspection of all fasteners is the responsibility of the Erector. All high strength (A325, A490) bolts and nuts must be tightened by the "Snug Tight" method unless otherwise specified by the End Customer in the Contract Documents, or as allowed by the provisions below. Inspection of high strength bolt and nut installation by other than the Erector must also be specified in the Contract Documents and the Erector is responsible for ensuring that the installation and inspection procedures are compatible prior to the start of erection. (MBMA '96 IV 6.9)

High strength bolts and there installation shall conform to ASTM specification F3125 (previously A325) and are designed as bearing type connections with threads included in the shear plane.

All primary structural members except bolts and fasteners shall receive one coat of Iron Oxide inhibitive primer. Shop and field inspections and associated fees are the responsibility of the contractor, unless stipulated otherwise.

This letter of certification applies solely to the above referenced project and its components as furnished by Horizon Structural Systems, Inc. Items specifically not covered by this letter of certification include, but are not limited to, any foundation design, masonry design, or general contract work.

The design of the overhead door(s) is excluded from this certification. However, it is assumed in the design, with respect to building porosity, that the door(s) have been designed by the manufacturer to accommodate building wind loads and therefore the building is enclosed.

The certification covers the static and dynamic forces acting on this project and its components as stipulated in the order documentation; however, Horizon Structural Systems, Inc. does not certify that the building code or loads specified in the order documentation are adequate or appropriate for the intended use or location of the project.

Primary framing, secondary framing, screw-down sheeting, and standing seam roof panels are manufactured at the Horizon Structural Systems, Inc. facility at 3950 Hwy 46 West In New Braunfels, Texas.

These Drawings are for:

- Construction
- Not for Construction
- Permit Only
- Approval
- Other :

 <p style="font-size: small; text-align: center;">THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JOHN J. BORDANO, JR., P.E. 87636 ON 7-2-2024.</p>	Horizon Structural Systems, Inc. <small>3950 HWY. 46 W. SUITE 200, NEW BRAUNFELS, TX 78132 PHONE (830) 629-8000, FAX (830) 629-2611</small>	
	BUILDER: J.D. CONSTRUCTION PROJECT: CITY OF HELOTES STORAGE DESCRIPTION: 60'x100'x16' DS 112 CODE/LOADS: IBC 2018, 110 MPH, EXP. C 12/20 LIVE LOAD RISK CATAGORY II 3.0# COLLATERAL LOAD	 REVISION: ORDER NUMBER: 22407004 DRAWING NUMBER: DC1

CONTRACTOR RESPONSIBILITIES

The Contractor must secure all required approvals & permits from the appropriate agency as required. Approval of the manufacturer's drawings and calculations indicate that the manufacturer has correctly interpreted and applied the requirements of the contract drawings and specifications.

Where discrepancies exist between the manufacturer's structural steel plans and the plans for the other trades, the structural steel plans shall govern. (Sec 3.3 AISC Code of standard Practice, 15th Edition)

Design considerations of any materials in the structure which are not furnished by the manufacturer, are the responsibility of the contractor and engineers other than the the manufacture's engineering, unless specifically indicated. The contractor is responsible for all erection of steel and associated work in compliance with the manufacture's "For Construction" drawings.

Temporary supports such as guys, braces, flashwork and/or other elements required for the erection will be determined, furnished and installed by the erector. (Sec., 7.10.3 AISC Code of Standard Pracitce, 15th Edition)

It is the contractors exclusive responsibility to apply and/or observe all pertinent safety rules and regulations, as per OSHA standards as applicable.

The CONTRACTOR is responsible for the verification of All shipments received.

Any "external" damage or shortages must be noted on all copies of the bill of lading and one copy is to be retained for your records. failure to do so will make it impossible for the shop to honor any claim.

The Engineers Seal only applies to the materials supplied by Horizon Structural Systems, Inc. and is note intended as the seal of the Engineer of Record for the entire project.

NO EXCEPTIONS.

PANEL PROPERTIES

Material properties for roof and wall panels 24 gauge conforms to the ASTM A792 grade 50 Class 1 or 2. Material properties for roof and wall panels 26 gauge conforms to the ASTM A792 grade 80 Class 1 or 2. Coating properties for roof and wall panels 24 ga. and 26 ga. is AZ55 for Galvalume and AZ50 plus paint for the painted panels.

BUILDING COLOR CHART

ROOF PANELS:	TYPE: TS-324	COLOR:Galvalume	MATERIAL: 24
WALL PANELS:	TYPE: PR	COLOR:NEED COLOR	MATERIAL: 26
FASCIA PANELS:	TYPE:	COLOR:	MATERIAL:
SOFFIT PANELS:	TYPE:	COLOR:	MATERIAL:
LINER PANELS:	TYPE:	COLOR:	MATERIAL:
TRIM INFORMATION			
RAKE TRIM:	TYPE: STD	COLOR:NEED COLOR	MATERIAL:
GUTTER TRIM:	TYPE: STD	COLOR:NEED COLOR	MATERIAL:
EAVE TRIM:	TYPE: STD	COLOR:NEED COLOR	MATERIAL:
CORNER TRIM:	TYPE: STD	COLOR:NEED COLOR	MATERIAL:
DOOR TRIM:	TYPE: STD	COLOR:NEED COLOR	MATERIAL:
DOWNSPOTS:	TYPE: STD	COLOR:NEED COLOR	MATERIAL:
SOFFIT TRIM:	TYPE:	COLOR:	MATERIAL:
FASCIA TRIM:	TYPE:	COLOR:	MATERIAL:

SPECIAL NOTES:

(2) 3070M w/ STD HARDWARE

(2) 3030 LOUVERS -- WALL COLOR

"PBR" PANEL ATTACHMENT



PANEL TO STEEL FASTENING LAYOUT

USE 6~#12x1 1/4" SDS AT THE FOLLOWING LOCATIONS
 ROOF PANELS - AT EAVE, PEAK, AND AT INTERMEDIATE LAPS
 WALL PANELS - AT BASE, EAVE, AND AT INTERMEDIATE LAPS



PANEL TO STEEL FASTENING LAYOUT

USE 3~#12x1 1/4" SDS AT THE FOLLOWING LOCATIONS
 ROOF PANELS - AT PURLINS
 WALL PANELS - AT GIRTS

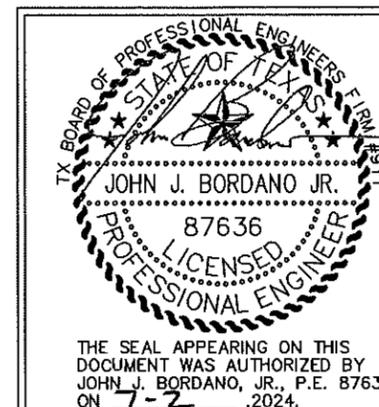


PANEL TO PANEL FASTENING LAYOUT

USE #14x7/8" LAP TEK AT 1'-6" O.C.
 FOR ROOF PANELS LAPS AND WALL
 PANEL LAPS.

BUILDING PANEL PROFILES

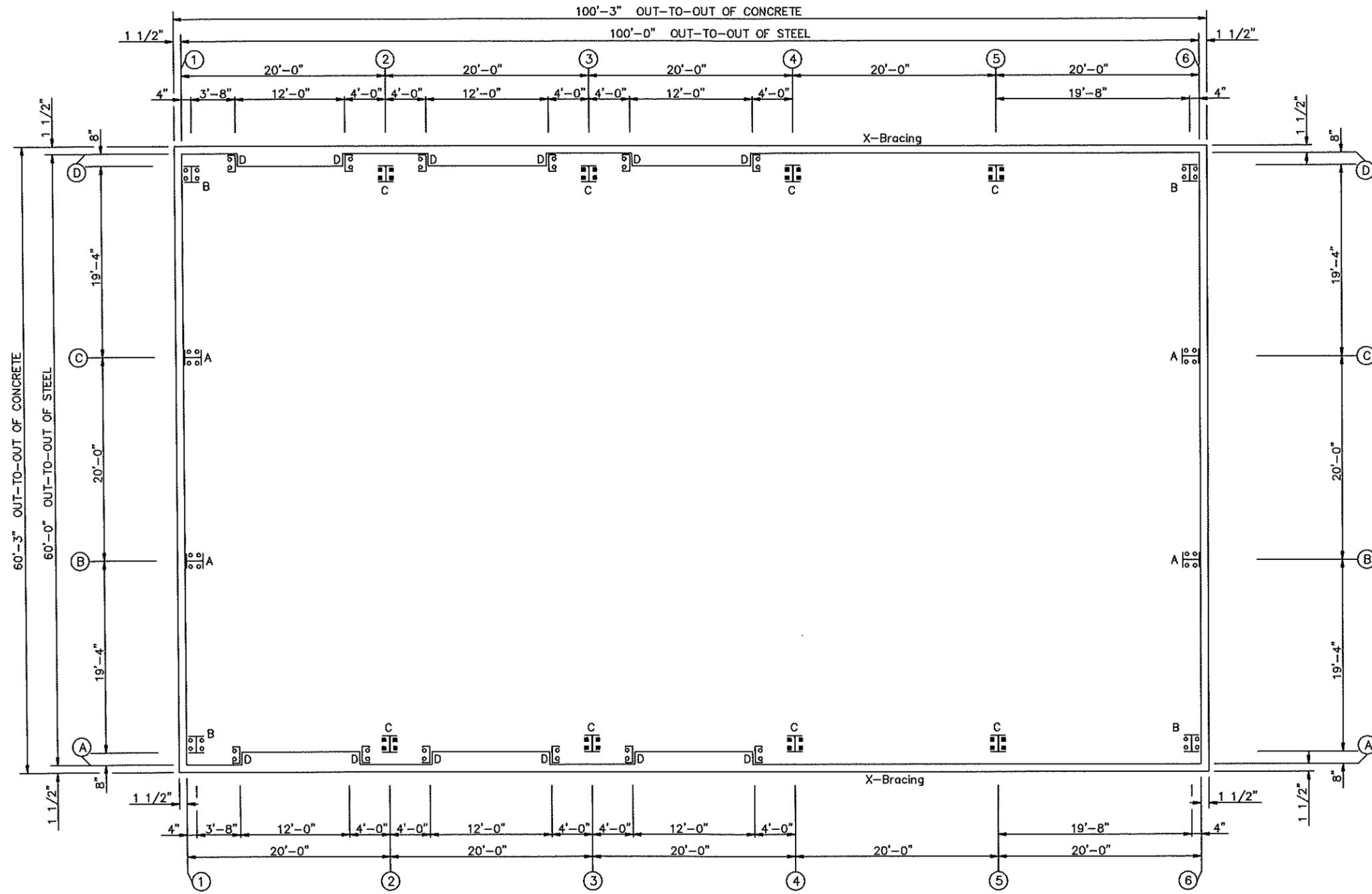
ROOF PANEL PROFILES	WALL PANEL PROFILES
 <input checked="" type="checkbox"/> "TS-324 TRIPLE-LOK"	 <input checked="" type="checkbox"/> "PBR" PANEL
 <input type="checkbox"/> "PBR" PANEL	 <input type="checkbox"/> "PBU" PANEL
 <input type="checkbox"/> PANEL CRAFT 16 (PC-16)	<input type="checkbox"/> NONE
LINER PANEL PROFILE	SOFFIT PANEL PROFILE
 <input type="checkbox"/> "PBR" PANEL	 <input type="checkbox"/> "PBR" PANEL
 <input type="checkbox"/> "PBU" PANEL	<input type="checkbox"/> "PBU" PANEL
<input checked="" type="checkbox"/> NONE	<input checked="" type="checkbox"/> NONE



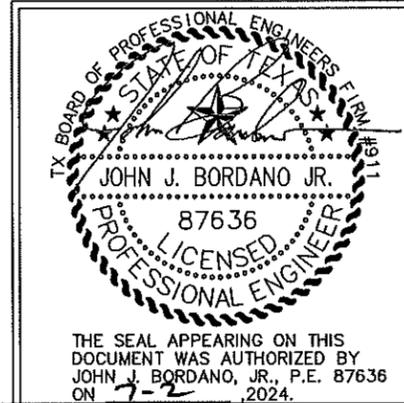
Horizon Structural Systems, Inc.
 5850 HWY. 46 W. SUITE 200, NEW BRAUNFELS, TX 78132
 PHONE (830) 629-8000, FAX (830) 629-2811

BUILDER:	J.D. CONSTRUCTION	IAS ACCREDITED Metal Building Systems AG 472
PROJECT:	CITY OF HELOTES STORAGE	
DESCRIPTION:	60'x100'x16' DS 112	REVISION:
CODE/LOADS:	IBC 2018, 110 MPH, EXP. C 12/20 LIVE LOAD RISK CATAGORY II 3.0# COLLATERAL LOAD	ORDER NUMBER: 22407004
		DRAWING NUMBER: DC2

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JOHN J. BORDANO, JR., P.E. 87636 ON 7-7-2024.



ANCHOR BOLT PLAN
 NOTE: All Base Plates @ 100'-0" (U.N.)



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BUILDER:	J.D. CONSTRUCTION	IAS ACCREDITED Metal Building Systems AC 472
PROJECT:	CITY OF HELOTES STORAGE	
DESCRIPTION:	60'x100'x16' DS 1:12	REVISION:
CODE/LOADS:	IBC 2018, 110 MPH, EXP. C 12/20 LIVE LOAD RISK CATAGORY II 3.0# COLLATERAL LOAD	ORDER NUMBER: 22407004
		DRAWING NUMBER: AB1

NOTES FOR REACTIONS

Building reactions are based on the following building data:

- Width (ft) = 60.0
- Length (ft) = 100.0
- Eave Height (ft) = 16.0 / 16.0
- Roof Slope (rise/12) = 1.0 / 1.0
- Dead Load (psf) = 3.0
- Collateral Load (psf) = 3.0
- Roof Live Load (psf) = 20.0
- Frame Live Load (psf) = 12.0
- Snow Load (psf) = 3.5
- Wind Speed (mph) = 110.0
- Wind Code = IBC 18
- Exposure = C
- Closure = Enclosed
- Importance Wind = 1.00
- Importance Seismic = 1.00
- Seismic Zone = A
- Seismic Coeff (Fa*Sa) = 0.08

ID Description

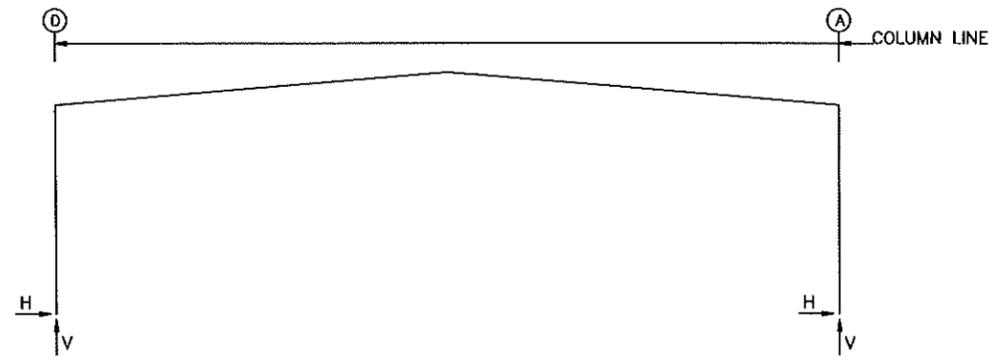
- 1 Dead+Collateral+Live
- 2 0.6Dead+0.6Wind_Left1
- 3 0.6Dead+0.6Wind_Right1
- 4 0.6Dead+0.6Wind_Long1L
- 5 0.6Dead+0.6Wind_Long2L
- 6 0.6Dead+0.6Wind_Left1+0.6Wind_Suction
- 7 0.6Dead+0.6Wind_Pressure+0.6Wind_Long1L
- 8 0.6Dead+0.6Wind_Right1+0.6Wind_Suction
- 9 0.6Dead+0.6Wind_Pressure+0.6Wind_Long2L

ENDWALL COLUMN REACTIONS(k)

Frame Line	Col Line	Load Id	Max Horiz	Max +Vert	Max -Vert	Horz	Vert
1	B		2.0	6.0	-2.8	0.0	-2.8
1	B					2.0	0.0

(1)Dead+Collateral+Live
(8)0.6Dead+0.6Wind_Right1+0.6Wind_Suction

FRAME LINES: 2 3 4 5



RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column Reactions(k)						Bolt Qty	Bolt Dia	Base Plate(in)			Grout (in)
		Load Id	Hmax	Vmax	Load Id	Hmin	Vmin			Width	Length	Thick	
2*	D	1	5.9	11.7	2	-3.9	-5.2	4	0.750	6.000	12.00	0.500	0.0
2*	A	3	3.9	-5.2	1	-5.9	11.7	4	0.750	6.000	12.00	0.500	0.0
2*		1	-5.9	11.7	5	0.8	-6.4						

2* Frame lines: 2 3 4 5

RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Column Line	Dead		Collateral		Live		Snow		Wind_Left1		Wind_Right1	
		Horiz	Vert	Horiz	Vert	Horiz	Vert	Horiz	Vert	Horiz	Vert	Horiz	Vert
2*	D	1.2	2.7	0.9	1.8	3.7	7.2	1.1	2.1	-7.8	-11.4	-0.8	-7.1
2*	A	-1.2	2.7	-0.9	1.8	-3.7	7.2	-1.1	2.1	0.8	-7.1	7.8	-11.4

Frame Line	Column Line	Wind_Left2		Wind_Right2		Wind_Long1		Wind_Long2		Seismic_Left		Seismic_Right	
		Horiz	Vert	Horiz	Vert	Horiz	Vert	Horiz	Vert	Horiz	Vert	Horiz	Vert
2*	D	-6.8	-6.7	0.2	-2.4	-2.5	-13.3	-2.9	-11.4	-0.3	-0.1	0.3	0.1
2*	A	-0.2	-2.4	6.8	-6.7	2.9	-11.4	2.5	-13.3	-0.3	0.1	0.3	-0.1

Frame Line	Column Line	Seismic_Long		MIN_SNOW		F1UNB_SL_L		F1UNB_SL_R	
		Horiz	Vert	Horiz	Vert	Horiz	Vert	Horiz	Vert
2*	D	0.0	-1.0	1.5	3.0	1.1	2.3	1.1	1.4
2*	A	0.0	-1.0	-1.5	3.0	-1.1	1.4	-1.1	2.3

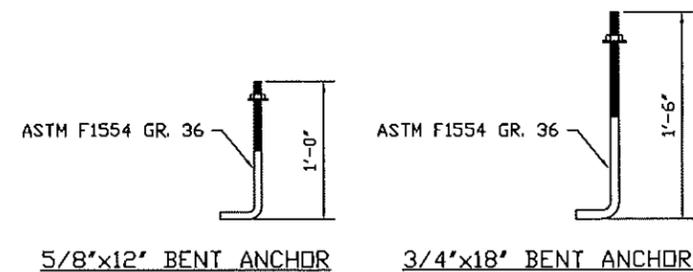
2* Frame lines: 2 3 4 5

BUILDING BRACING REACTIONS (UNFACTORED)

Loc	Woll Line	Col Line	± Reactions(k)				Panel Shear (lb/ft)		
			Wind Horiz	Wind Vert	Seismic Horiz	Seismic Vert	Wind	Seis	Note
L_EW	1								(i)
F_SW	A	4,5	4.3	3.1	1.4	1.0			(i)
R_EW	6								
B_SW	D	5,4	4.3	3.1	1.4	1.0			

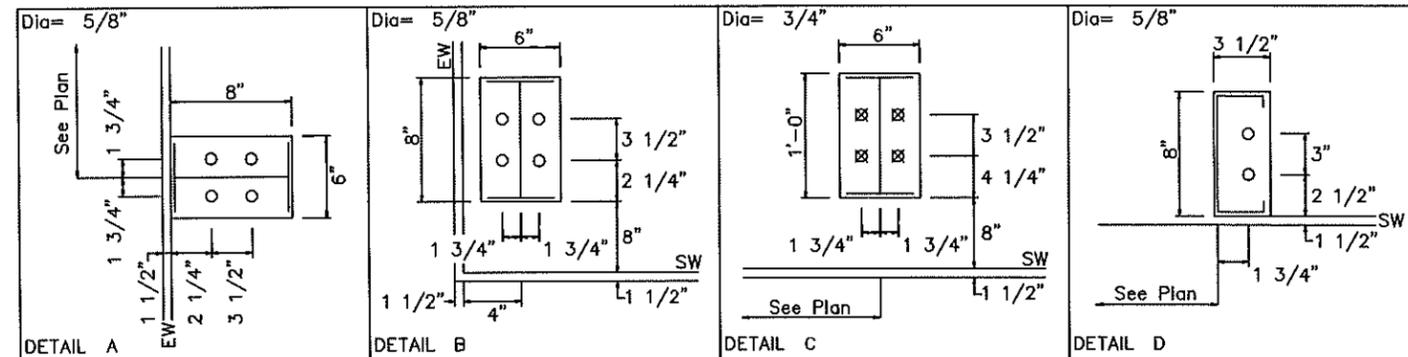
(i)Bracing in roof to rigid frame

Reactions for seismic represent shear force, Eh



ABBREVIATION LEGEND

- E.O.C. = EDGE OF CONCRETE
- E.O.F. = EDGE OF FLANGE
- E.O.M. = EDGE OF MASONRY
- SL = STEEL LINE
- CL = CENTER LINE
- F.F. = FINISHED FLOOR
- A.F.F. = ABOVE FINISHED FLOOR
- B.F.F. = BELOW FINISHED FLOOR



TX BOARD OF PROFESSIONAL ENGINEERS FIRM #1169

STATE OF TEXAS

JOHN J. BORDANO JR.

87636

LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JOHN J. BORDANO, JR., P.E. 87636 ON 7-2-2024.

Horizon Structural Systems, Inc.
3850 HWY. 46 W. SUITE 200, NEW BRAUNFELS, TX 78132
PHONE (830) 629-8000, FAX (830) 629-2811

BUILDER: J.D. CONSTRUCTION

PROJECT: CITY OF HELOTES STORAGE

DESCRIPTION: 60'x100'x16' DS 1:12

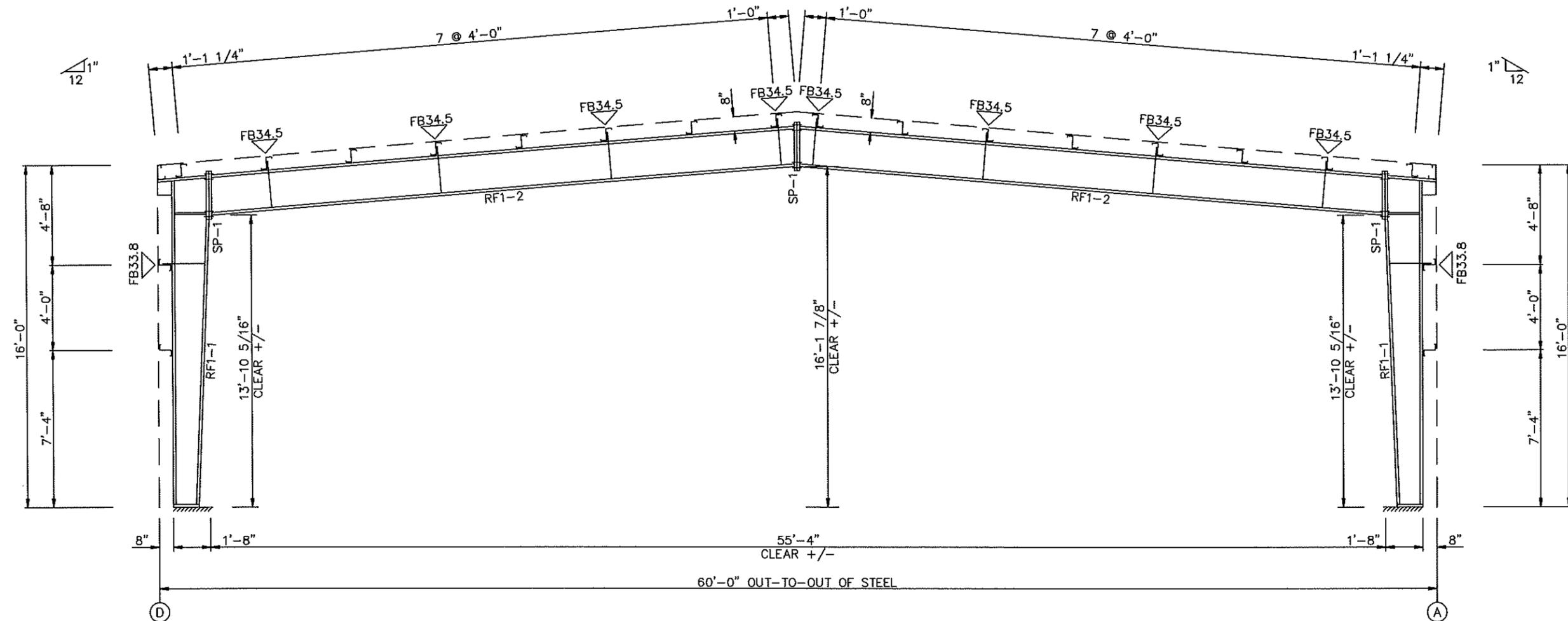
CODE/LOADS: IBC 2018, 110 MPH, EXP. C
12/20 LIVE LOAD
RISK CATAGORY II
3.0# COLLATERAL LOAD

REVISION:

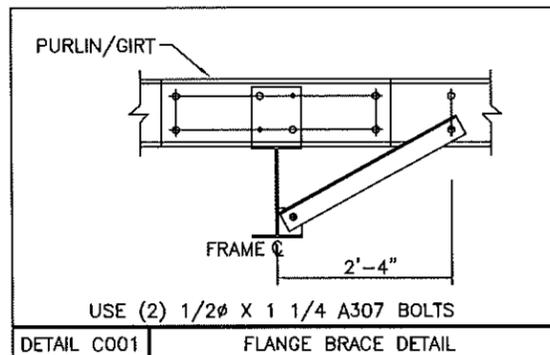
ORDER NUMBER: 22407004

DRAWING NUMBER: AB2

IAS ACCREDITED
Metal Building Systems
AG 472



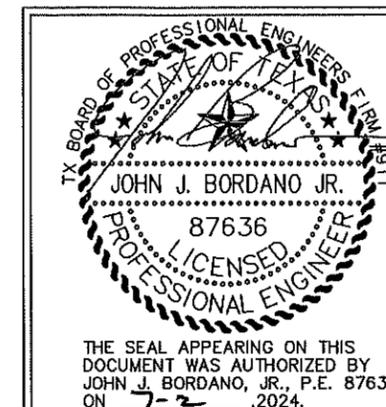
RIGID FRAME ELEVATION: FRAME LINE 2 3 4 5



MEMBER TABLE									
Mark	Weight	Web Depth		Web Plate		Outside Flange		Inside Flange	
		Start	End	Thick	Length	W x Thk x Length	W x Thk x Length	W x Thk x Length	
RF1-1	347	11.5	19.5	0.164	185.5	6 x 1/4" x 183.9	6 x 1/4" x 163.0		
RF1-2	647	19.5	19.5	0.164	333.5	6 x 1/4" x 27.8 6 x 1/4" x 331.9	6 x 1/4" x 331.9		

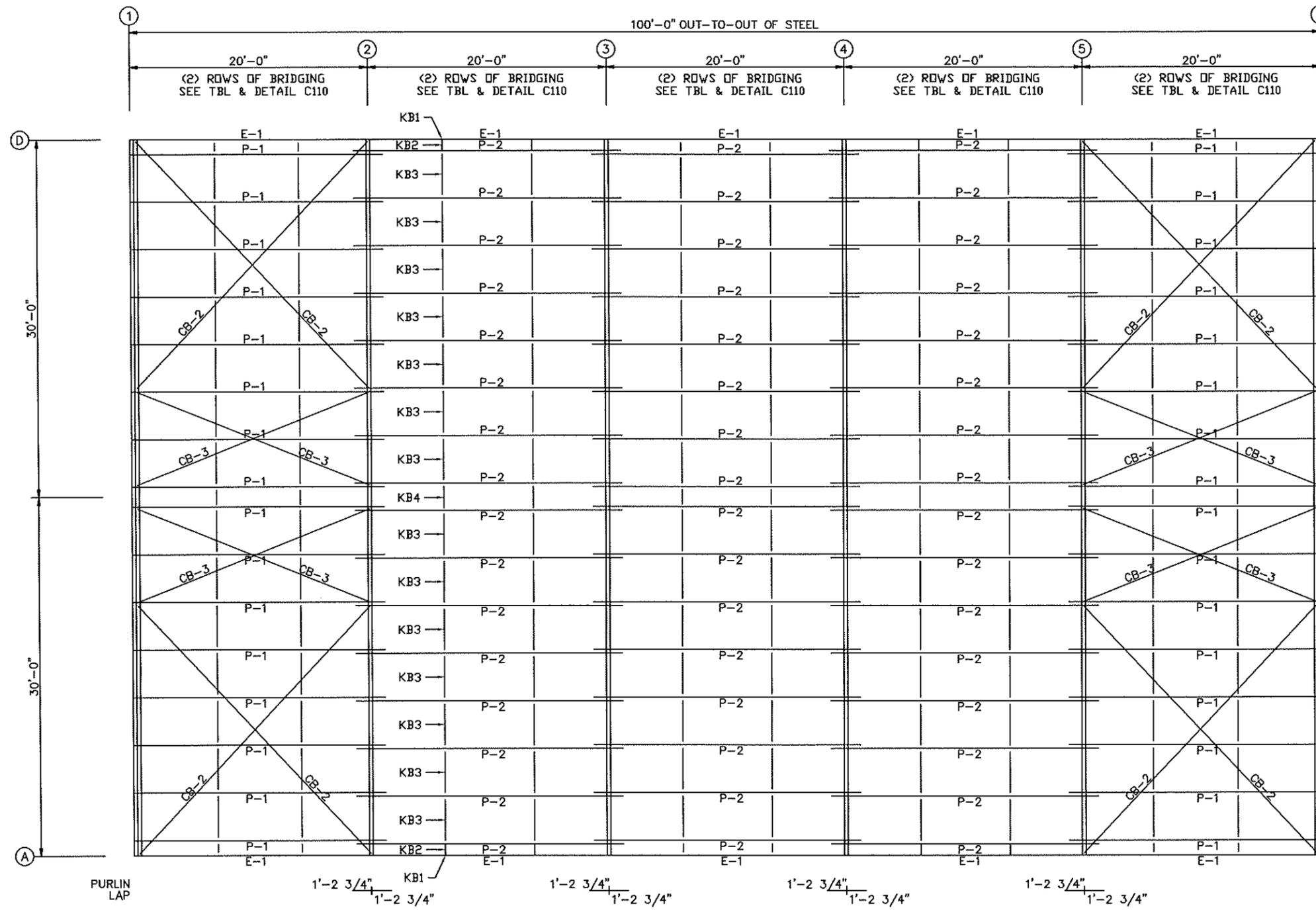
SPLICE BOLT TABLE						
Mark	Qty		Int	Type	Dia	Length
	Top	Bot				
SP-1	4	4	0	A325	3/4"	2"

▽ FLANGE BRACES: Both Sides(U.N.)
 FBxxA(1): xx=length(in)
 A - L2X2X14G

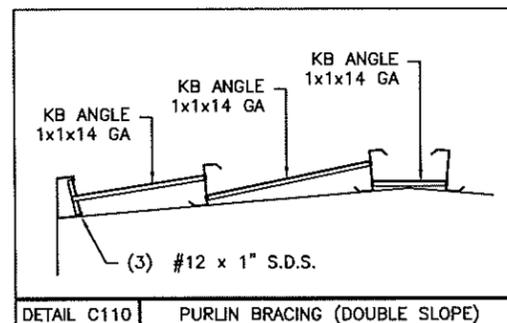


Horizon Structural Systems, Inc.
 3960 HWY. 46 W. SUITE 200, NEW BRAUNFELS, TX 78132
 PHONE (830) 629-8000, FAX (830) 629-2811

BUILDER: J.D. CONSTRUCTION	IAS ACCREDITED Metal Building Systems AC 412
PROJECT: CITY OF HELDOTES STORAGE	
DESCRIPTION: 60'x100'x16' DS 1:12	REVISION:
CODE/LOADS: IBC 2018, 110 MPH, EXP. C 12/20 LIVE LOAD RISK CATAGORY II 3.0# COLLATERAL LOAD	ORDER NUMBER: 22407004 DRAWING NUMBER: IF 1



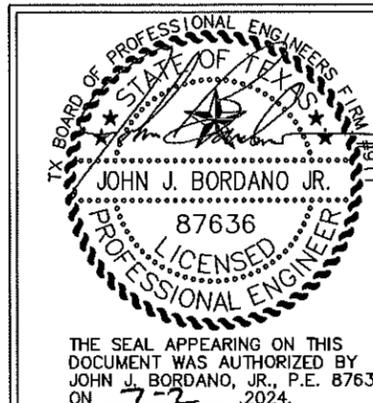
ROOF FRAMING PLAN



DETAIL C110 PURLIN BRACING (DOUBLE SLOPE)

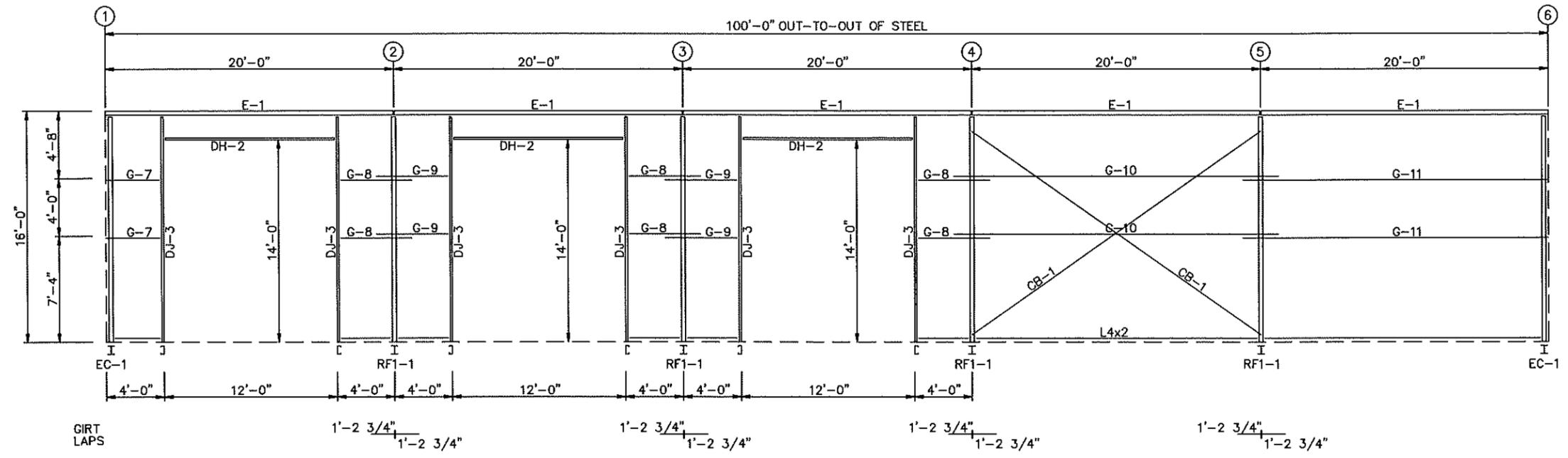
MEMBER TABLE ROOF PLAN			
QUAN	MARK	PART	LENGTH
32	P-1	8X25Z16	21'-2 1/2"
48	P-2	8X25Z16	22'-5 1/2"
10	E-1	8ES14L1	19'-11 1/2"
8	CB-2	1/4cab	25'-10"
8	CB-3	1/4cab	19'-2"

BRIDGING SCHEDULE			
QTY.	PARTMARK	LOCATION	LENGTH
20	KB1	@ 8' LS EAVE	7 3/4'
20	KB2	@ 1'-1 1/4' EAVE SP.	1'-0 1/8"
140	KB3	@ 4'-0" PURLIN SP.	4'-2"
10	KB4	@ PEAK PURLIN	2'-0 7/8"

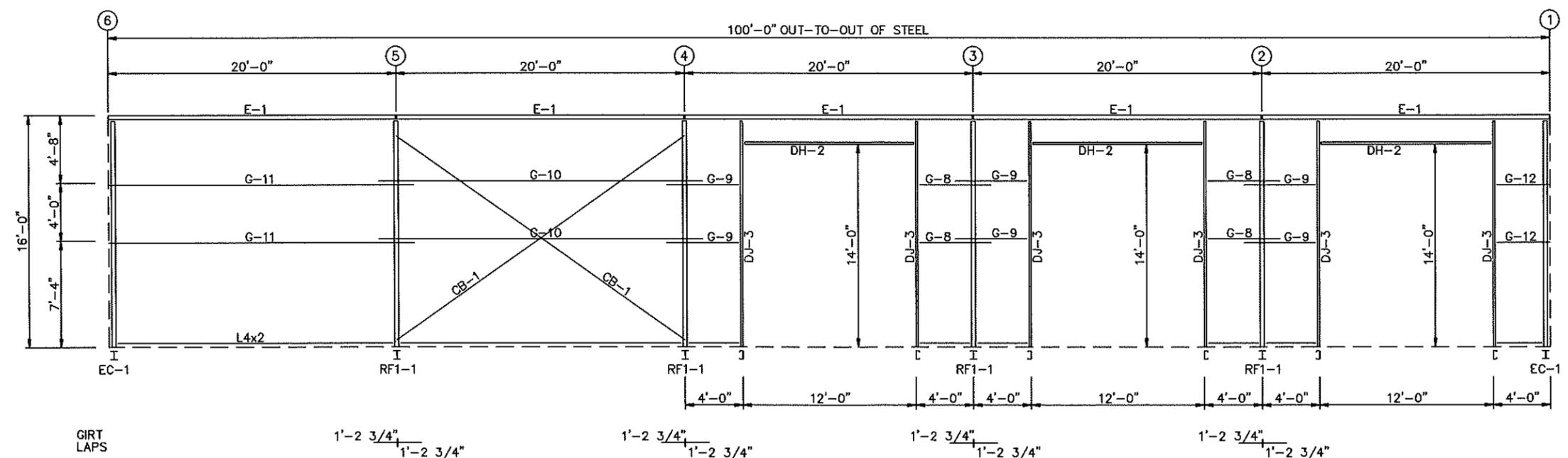


Horizon Structural Systems, Inc.
 3950 HWY. 46 W. SUITE 200, NEW BRAUNFELS, TX 78132
 PHONE (830) 629-8000, FAX (830) 629-2811

BUILDER: J.D. CONSTRUCTION	IAS ACCREDITED Metal Building Systems AG 472
PROJECT: CITY OF HELDTES STORAGE	
DESCRIPTION: 60'x100'x16' DS 112	REVISION:
CODE/LOADS: IBC 2018, 110 MPH, EXP. C 12/20 LIVE LOAD RISK CATAGORY II 3.0# COLLATERAL LOAD	ORDER NUMBER: 22407004 DRAWING NUMBER: RS1

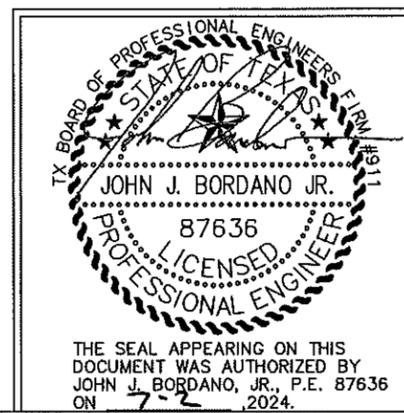


SIDEWALL FRAMING: FRAME LINE A



SIDEWALL FRAMING: FRAME LINE D

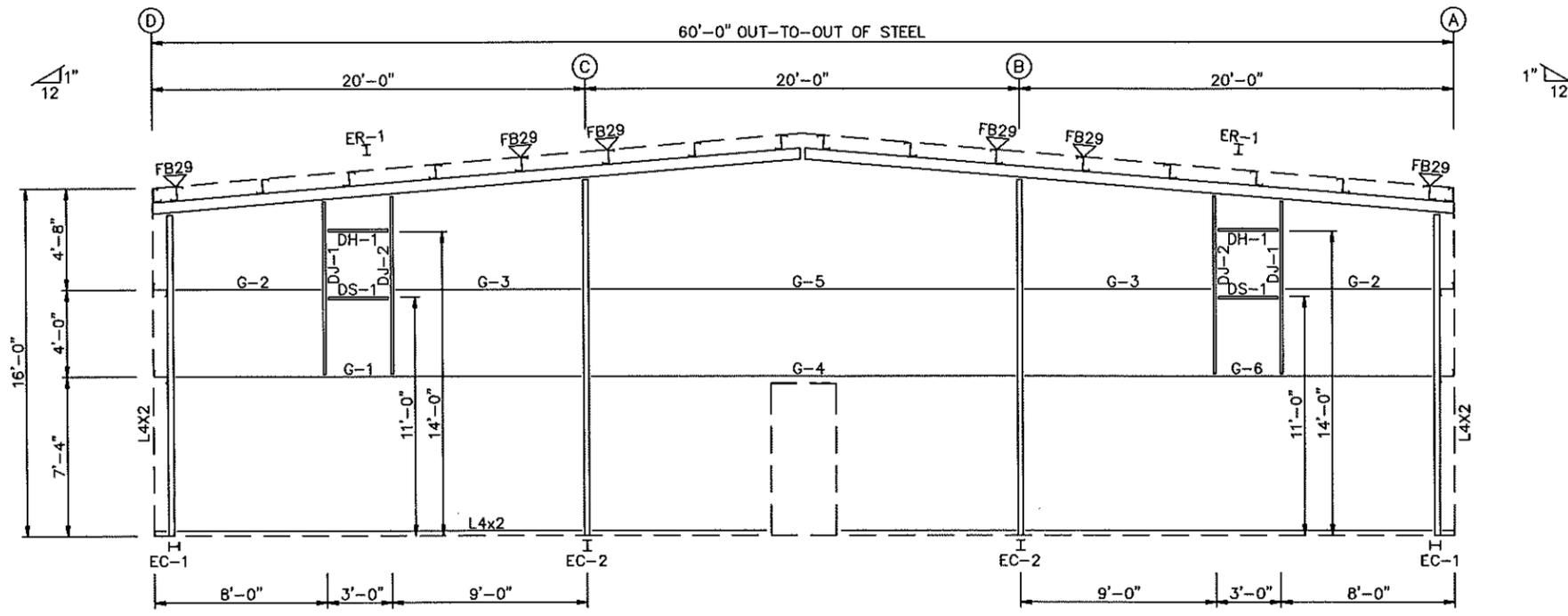
MEMBER TABLE FRAME LINE A & D			
QUAN	MARK	PART	LENGTH
12	DJ-3	8X35C14	15'-3 3/4"
6	DH-2	8X35C14	11'-11 1/2"
10	E-1	8ES14L1	19'-11 1/2"
2	G-7	8X25Z16	3'-7 3/4"
10	G-8	8X25Z16	4'-10 3/4"
10	G-9	8X25Z16	4'-10 3/4"
4	G-10	8X25Z16	22'-5 1/2"
4	G-11	8X25Z16	21'-2 1/2"
2	G-12	8X25Z16	3'-7 3/4"
4	CB-1	1/4cob	22'-11"



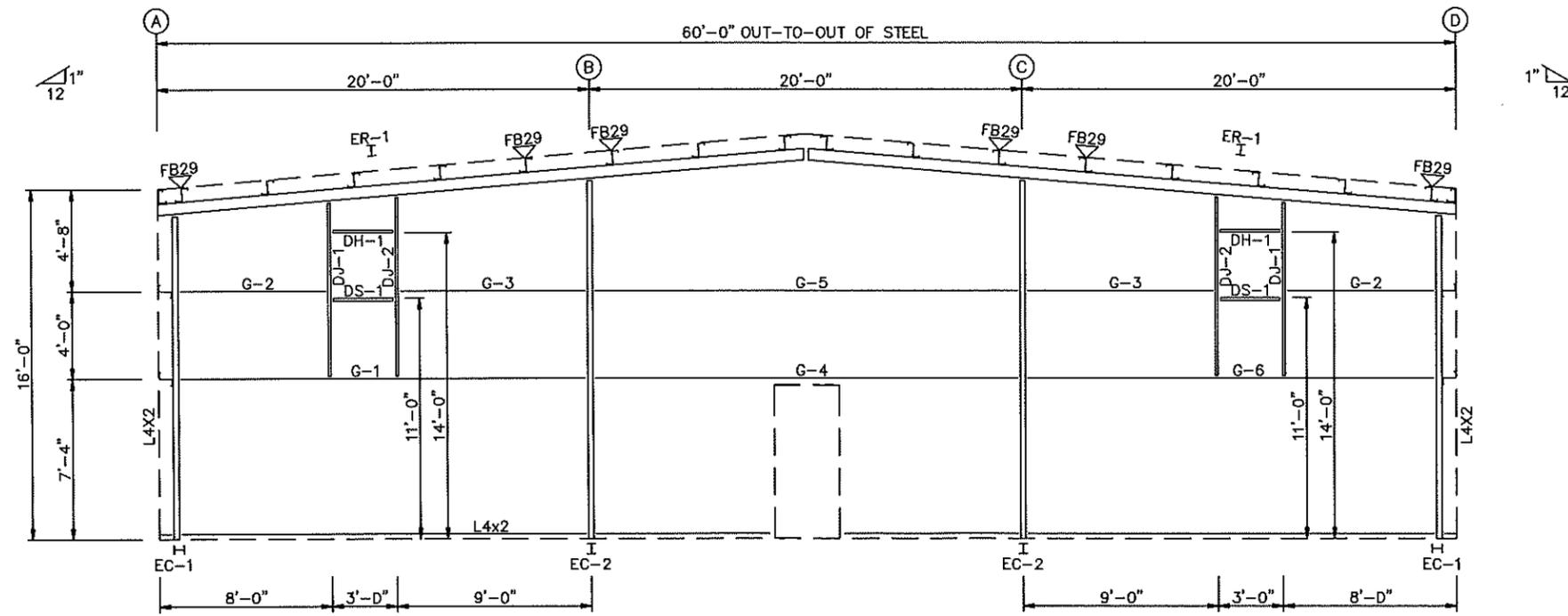
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Horizon Structural Systems, Inc.
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 PHONE (830) 629-8000, FAX (830) 629-2611

BUILDER:	J.D. CONSTRUCTION	IAS ACCREDITED Metal Building Systems #C 472
PROJECT:	CITY OF HELDTES STORAGE	
DESCRIPTION:	60'x100'x16' DS 112	REVISION:
CODE/LOADS:	IBC 2018, 110 MPH, EXP. C 12/20 LIVE LOAD RISK CATEGORY II 3.0# COLLATERAL LOAD	ORDER NUMBER: 22407004
		DRAWING NUMBER: WS1



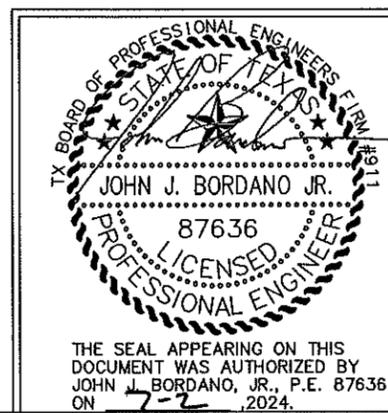
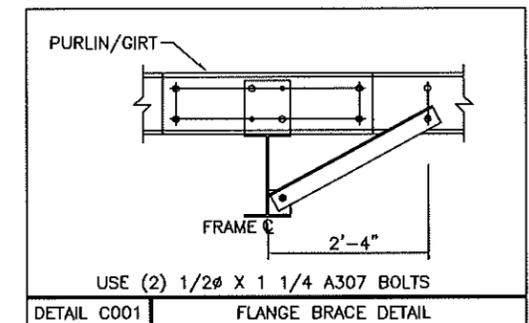
ENDWALL FRAMING: FRAME LINE 1



ENDWALL FRAMING: FRAME LINE 6

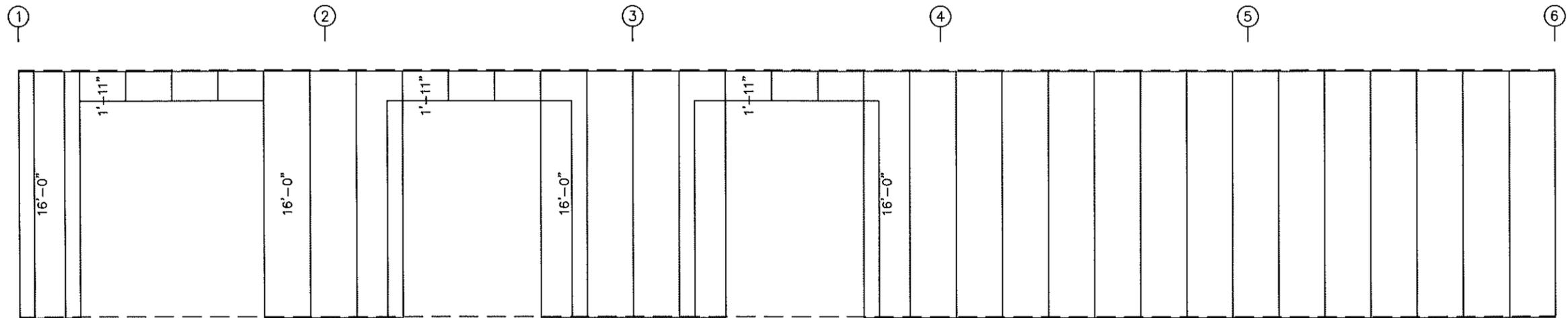
BOLT TABLE				
FRAME LINE 1 & 6				
LOCATION	QUAN	TYPE	DIA	LENGTH
ER-1/ER-1	8	A325	5/8"	1 3/4"
Cor_Column/Raf	4	A325	5/8"	1 1/2"
Int_Column/Raf	2	A325	5/8"	1 1/2"
Jamb	2	A325	5/8"	1 1/2"

MEMBER TABLE				
FRAME LINE 1 & 6				
QUAN	MARK	PART	LENGTH	
4	EC-1	WBX10	14'-9 3/8"	
4	EC-2	WBX10	16'-3 13/16"	
4	ER-1	WBX10	30'-1 7/8"	
4	DJ-1	8X35C14	7'-7 13/16"	
4	DJ-2	8X35C14	7'-10 13/16"	
4	DH-1	8X35C14	2'-11 1/2"	
4	DS-1	8X35C14	2'-11 1/2"	
2	G-1	8X25Z14	18'-3 7/8"	
4	G-2	8X25Z16	6'-3 7/8"	
4	G-3	8X25Z16	8'-4"	
2	G-4	8X25Z14	19'-4"	
2	G-5	8X25Z14	19'-4"	
2	G-6	8X25Z14	18'-3 7/8"	

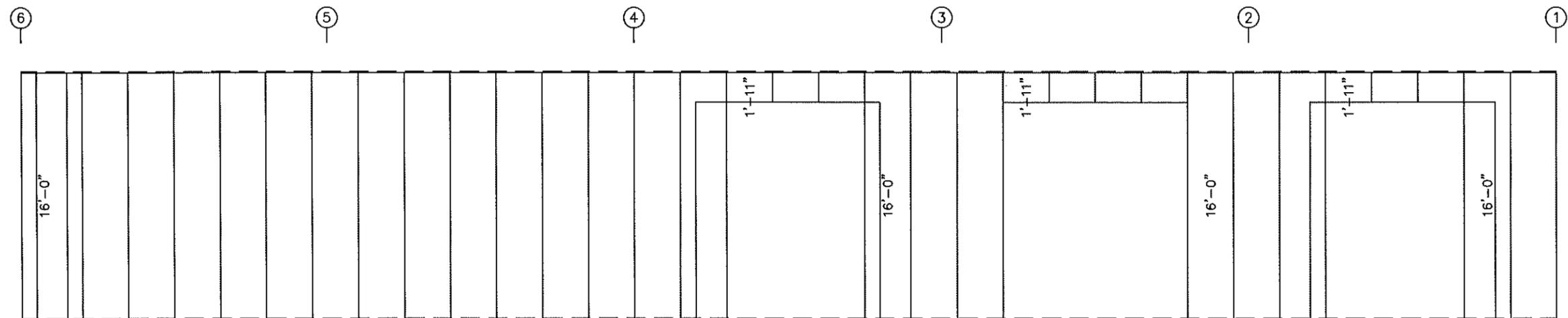


Horizon Structural Systems, Inc.
 3050 HWY. 46 W. SUITE 200, NEW DRAUNFELS, TX 78132
 PHONE (830) 629-6000, FAX (830) 629-2811

BUILDER:	J.D. CONSTRUCTION	IAS ACCREDITED Metal Building Systems AG #12
PROJECT:	CITY OF HELOTES STORAGE	
DESCRIPTION:	60'x100'x16' DS 1:12	REVISION:
CODE/LOADS:	IBC 2018, 110 MPH, EXP. C 12/20 LIVE LOAD RISK CATAGORY II 3.0# COLLATERAL LOAD	ORDER NUMBER: 22407004
		DRAWING NUMBER: WS2

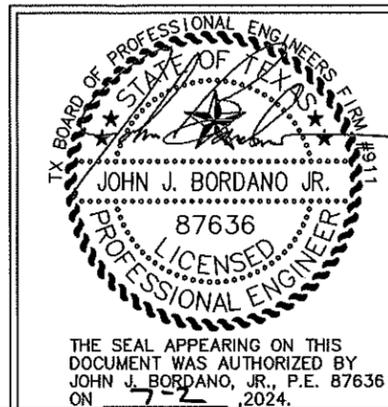


SIDEWALL SHEETING & TRIM: FRAME LINE A
 PANELS: 26 Ga. PR - NEED COLOR



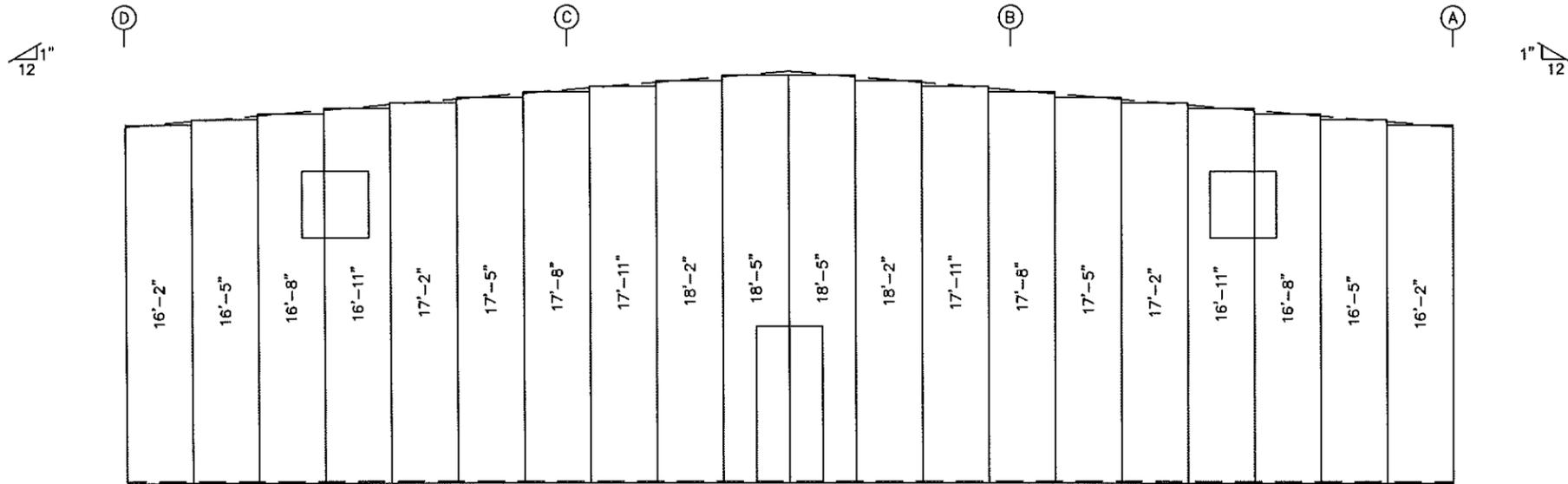
SIDEWALL SHEETING & TRIM: FRAME LINE D
 PANELS: 26 Ga. PR - NEED COLOR

FASTENER NOTES:
 P-S FASTENERS USE #12 X 1 1/4' S.D.S.
 6" O.C. AT BASE AND EAVE
 12" O.C. AT GIRTS
 P-P FASTENERS USE #14 X 7/8' LAP TEK
 18" O.C. AT SIDE LAPS



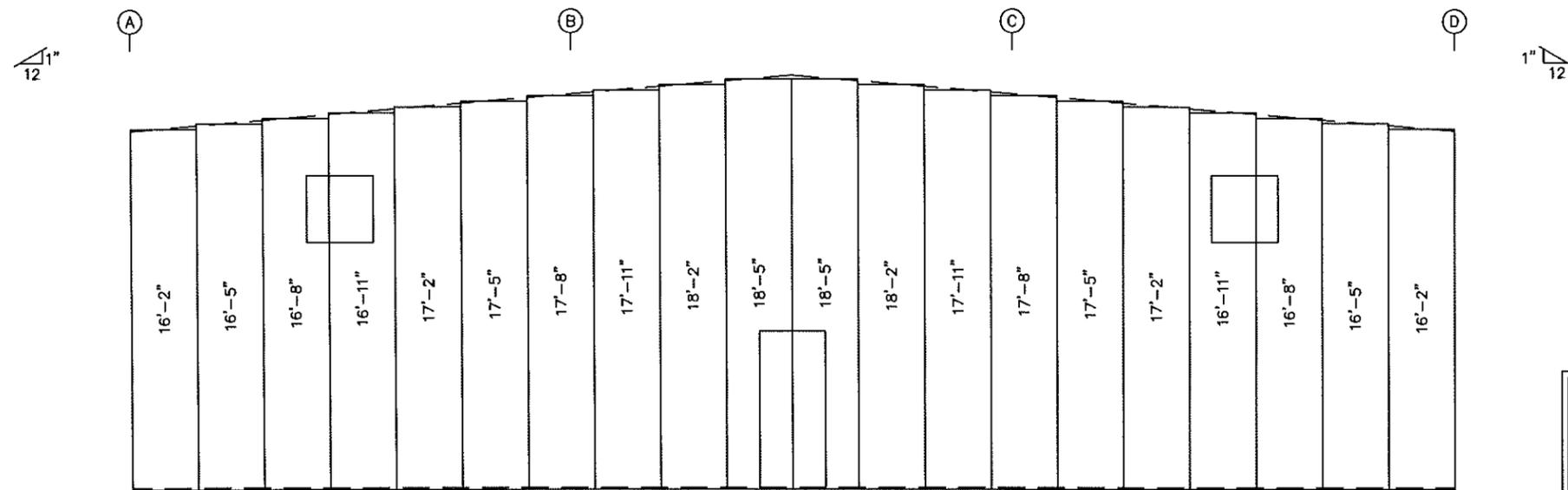
Horizon Structural Systems, Inc.
 3950 HWY. 46 W. SUITE 200, NEW BRAUNFELS, TX 78132
 PHONE (830) 629-8000, FAX (830) 629-2811

BUILDER: J.D. CONSTRUCTION	IAS ACCREDITED Metal Building Systems AC 472
PROJECT: CITY OF HELDOTES STORAGE	
DESCRIPTION: 60'x100'x16' DS 112	REVISION:
CODE/LOADS: IBC 2018, 110 MPH, EXP. C 12/20 LIVE LOAD RISK CATAGORY II 3.0# COLLATERAL LOAD	ORDER NUMBER: 22407004 DRAWING NUMBER: WP1

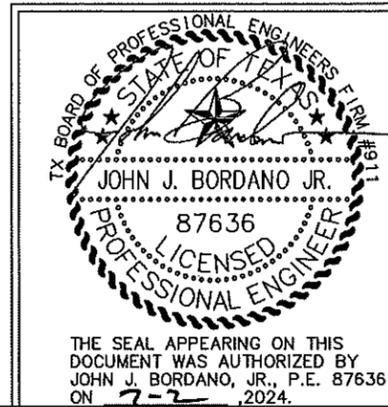


ENDWALL SHEETING & TRIM: FRAME LINE 1
 PANELS: 26 Ga. PR - NEED COLOR

FASTENER NOTES:
 P-S FASTENERS USE #12 X 1 1/4' S.D.S.
 6' O.C. AT BASE AND EAVE
 12' O.C. AT GIRTS
 P-P FASTENERS USE #14 X 7/8' LAP TEK
 18' O.C. AT SIDE LAPS

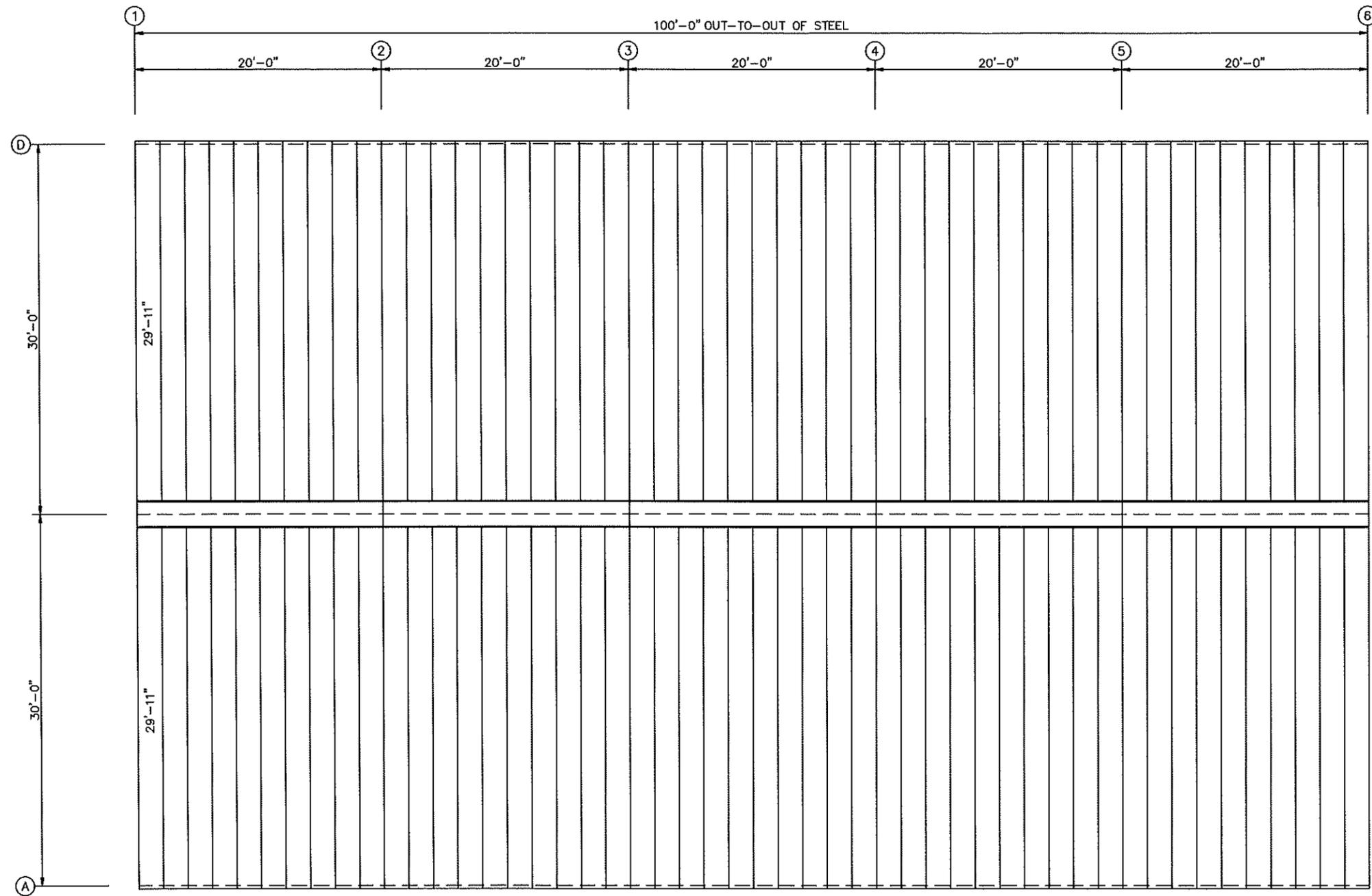


ENDWALL SHEETING & TRIM: FRAME LINE 6
 PANELS: 26 Ga. PR - NEED COLOR



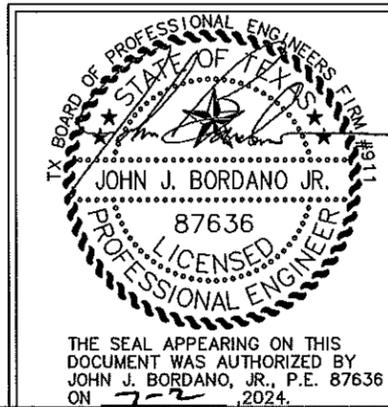
Horizon Structural Systems, Inc. 3950 HWY. 46 W. SUITE 200, NEW BRAUNFELS, TX 78132 PHONE (830) 629-8000, FAX (830) 629-2811	
BUILDER:	J.D. CONSTRUCTION
PROJECT:	CITY OF HELOTES STORAGE
DESCRIPTION:	60'x100'x16' DS 1/12
CODE/LOADS:	IBC 2018, 110 MPH, EXP. C 12/20 LIVE LOAD RISK CATEGORY II 3.0# COLLATERAL LOAD
REVISION:	22407004
ORDER NUMBER:	22407004
DRAWING NUMBER:	WP2





ROOF SHEETING PLAN

PANELS: 24 Ga. TS-324 - Galvalume
 LDW-FLOAT CLIP
 ALL CLIPS ARE ATTACHED w/
 (2) 1/4"-14x1 1/2" SDS PER CLIP AT PURLINS
 THERMAL BLOCKS BY OTHERS



Horizon Structural Systems, Inc. 3950 HWY. 46 W. SUITE 200, NEW BRAUNFELS, TX 78132 PHONE (830) 629-8000, FAX (830) 629-2611	
BUILDER:	J.D. CONSTRUCTION
PROJECT:	CITY OF HELOTES STORAGE
DESCRIPTION:	60'x100'x16' DS 1:12
CODE/LOADS:	IBC 2018, 110 MPH, EXP. C 12/20 LIVE LOAD RISK CATAGORY II 3.0# COLLATERAL LOAD
REVISION:	ORDER NUMBER: 22407004
	DRAWING NUMBER: RP1



ATTACHMENT G

Inspection, Maintenance, Repair and Retrofit Plan

Vegetative Filter Strips

Once a vegetated area is well established, little additional maintenance is generally necessary. The key to establishing a viable vegetated feature is the care and maintenance it receives the first few months after it is planted. Once established, all vegetated BMPs require some basic maintenance to ensure the health of the plants including:

Pest Management -- An Integrated Pest Management (IPM) Plan should be developed for vegetated areas. This plan should specify how problem insects and weeds will be controlled with minimal or no use of insecticides and herbicides.

Seasonal Mowing and Lawn Care -- If the filter strip is made of turf grass, it should be mowed as needed to limit vegetation height to 6 inches, using a mulching mower (or removal of clippings). If native grasses are used, the filter may require less frequent mowing, but a minimum of twice annually. Grass clippings and brush debris should not be deposited on vegetated filter strip areas. Regular mowing should also include weed control practices, however herbicide use should be kept to a minimum (Urbonas et al., 1992). Healthy grass can be maintained without using fertilizers because runoff usually contains sufficient nutrients. Irrigation of the site can help assure a dense and healthy vegetative cover.

Inspection -- Inspect filter strips at least twice annually for erosion or damage to vegetation; however, additional inspection after periods of heavy runoff is most desirable. The strip should be checked for uniformity of grass cover, debris and litter, and areas of sediment accumulation. More frequent inspections of the grass cover during the first few years of establishment will help to determine if any problems are developing, and to plan for long-term restorative maintenance needs. Bare spots and areas of erosion identified during semi-annual inspections must be replanted and restored to meet specifications. Construction of a level spreader device may be necessary to reestablish shallow overland flow.

Debris and Litter Removal -- Trash tends to accumulate in vegetated areas, particularly along highways. Any filter strip structures (i.e. level spreaders) should be kept free of obstructions to reduce floatables being flushed downstream, and for aesthetic reasons. The need for this practice is determined through periodic inspection, but should be performed no less than 4 times per year.

Sediment Removal -- Sediment removal is not normally required in filter strips, since the vegetation normally grows through it and binds it to the soil. However, sediment may accumulate along the upstream boundary of the strip preventing uniform overland flow. Excess sediment should be removed by hand or with flat-bottomed shovels.

Grass Reseeding and Mulching -- A healthy dense grass should be maintained on the filter strip. If areas are eroded, they should be filled, compacted, and reseeded so that the final grade is level. Grass damaged during the sediment removal process should be promptly replaced using the same seed mix used during filter strip establishment. If possible, flow should be diverted from the damaged areas until the grass is firmly established. Bare spots and areas of erosion identified during semi-annual inspections must be replanted and

restored to meet specifications. Corrective maintenance, such as weeding or replanting, should be done more frequently in the first two or three years after installation to ensure stabilization. Dense vegetation may require irrigation immediately after planting, and during particularly dry periods, particularly as the vegetation is initially established.

ATTACHMENT I

Measures for Minimizing Surface Stream Contamination

The minimal increase in peak discharge rates will be discharged as currently exists and any increase in velocity will be naturally dissipated immediately prior to leaving the site through vegetation. Both permanent and temporary BMP's, as shown on the WPAP Site Plan, shall be used to minimize contamination to offsite surface streams, both during and after construction. There will be no adverse impacts to downstream surface streams.

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

I Henry Hayes
Print Name

Interim City Administrator
Title - Owner/President/Other

of City of Helotes
Corporation/Partnership/Entity Name

have authorized Amy Hesseltine, P.E.
Print Name of Agent/Engineer

of Ardurra Group, 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

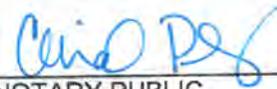
22 Oct 2024
Date

THE STATE OF Texas §

County of Bexar §

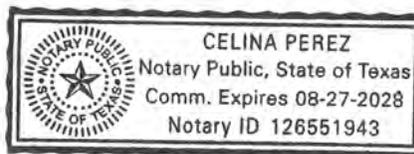
BEFORE ME, the undersigned authority, on this day personally appeared Henry L. Hayes Jr. known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 22 day of October, 2024.


NOTARY PUBLIC

Celina Perez
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 9/27/28



Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Helotes Police and Fire Station

Regulated Entity Location: 12591 Bandera Road, Helotes, Texas 78023

Name of Customer: City of Helotes

Contact Person: _____ Phone: _____

Customer Reference Number (if issued): CN 600528608

Regulated Entity Reference Number (if issued): RN 105693592

Austin Regional Office (3373)

Hays

Travis

Williamson

San Antonio Regional Office (3362)

Bexar

Medina

Uvalde

Comal

Kinney

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

Austin Regional Office

San Antonio Regional Office

Mailed to: TCEQ - Cashier

Overnight Delivery to: TCEQ - Cashier

Revenues Section

12100 Park 35 Circle

Mail Code 214

Building A, 3rd Floor

P.O. Box 13088

Austin, TX 78753

Austin, TX 78711-3088

(512)239-0357

Site Location (Check All That Apply):

Recharge Zone

Contributing Zone

Transition Zone

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	\$ \$3,000
Sewage Collection System	L.F.	\$
Lift Stations without sewer lines	Acres	\$
Underground or Aboveground Storage Tank Facility	Tanks	\$
Piping System(s)(only)	Each	\$
Exception	Each	\$
Extension of Time	Each	\$

Signature: _____

Date: 22 Oct 2024

Application Fee Schedule

Texas Commission on Environmental Quality

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

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

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

Extension of Time Requests

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



TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input checked="" type="checkbox"/> Other WPAP Modification
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 600528608		RN 105693592

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)		10/3/2024	
<input type="checkbox"/> New Customer <input checked="" type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership <input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
<i>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).</i>					
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>	
City of Helotes					
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:		<input type="checkbox"/> Corporation		<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited
Government: <input checked="" type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		<input type="checkbox"/> Other:	
12. Number of Employees				13. Independently Owned and Operated?	
<input type="checkbox"/> 0-20 <input checked="" type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher				<input type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Owner & Operator <input type="checkbox"/> Other: <input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant					
15. Mailing Address:	P.O. Box 507				
City	Helotes	State	TX	ZIP	78023
ZIP + 4	0507				
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, a new permit application is also required.)								
<input type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input checked="" type="checkbox"/> Update to Regulated Entity Information								
<i>The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).</i>								
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)								
Helotes Police and Fire Station								
23. Street Address of the Regulated Entity: <i>(No PO Boxes)</i>		12591 Bandera Rd						
City	Helotes	State	TX	ZIP	78023	ZIP + 4		
24. County	Bexar							

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

25. Description to Physical Location:		S Side of HWY 16 at FM 1560						
26. Nearest City				State		Nearest ZIP Code		
Helotes				TX		78023		
<i>Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).</i>								
27. Latitude (N) In Decimal:			28. Longitude (W) In Decimal:					
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds			
29	33	47	98	41	12			
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)		
9221				922120				
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)								
Police Station and Fire Station								
34. Mailing Address:		P.O. Box 507						
City	Helotes	State	TX	ZIP	78023	ZIP + 4	507	
35. E-Mail Address:		hhayes@helotes-tx.gov						
36. Telephone Number			37. Extension or Code			38. Fax Number (if applicable)		
(210) 695-8877						(210) 695-2123		

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

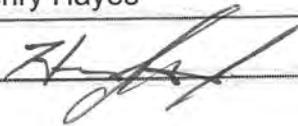
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input checked="" type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
		13-09021001		
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name:	Amy Hesseltine	41. Title:	Consultant
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(361) 883-1984		(361) 883-1986	ahesseltine@ardurra.com

SECTION V: Authorized Signature

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

Company:	City of Helotes	Job Title:	Interim City Administrator
Name (In Print):	Henry Hayes	Phone:	(210) 695- 8877
Signature:		Date:	22 Oct 2024