Modification of a Previously Approved Contributing Zone Plan Checklist

- **Edwards Aquifer Application Cover Page (TCEQ-20705)**
- **Modification of a Previously Approved Contributing Zone Plan Form (TCEQ-10259)**

  Attachment A - Original Approval Letter and Approved Modification Letters
  Attachment B - Narrative of Proposed Modification
  Attachment C - Current site plan of the approved project

- **Contributing Zone Plan Application (TCEQ-10257)**
- **Storm Water Pollution Prevention Plan (SWPPP)**

  -OR-

- **Temporary Stormwater Section (TCEQ-0602)**
- **Copy of Notice of Intent (NOI)**
- **Agent Authorization Form (TCEQ-0599), if application submitted by agent**
- **Application Fee Form (TCEQ-0574)**
- **Check Payable to the "Texas Commission on Environmental Quality"**
- **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: HEIGHTS OF CROWNRIDGE UNIT 2 RESIDENTIAL						**2. Regulated Entity No.: 104953229**			
3. Customer Name: WARNER LAND ADVISORS, LP						**4. Customer No.:**			
5. Project Type: (Please circle/check one)	New		Modification			Extension		Exception	
6. Plan Type: (Please circle/check one)	WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: (Please circle/check one)	Residential		Non-residential			**8. Site (acres):**		43.54	
9. Application Fee:	8,000		**10. Permanent BMP(s):**			20% Deed Restriction			
11. SCS (Linear Ft.):	NA		**12. AST/UST (No. Tanks):**			NA			
13. County:	BEXAR		**14. Watershed:**			MAVERICK			

Application Distribution

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

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

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

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

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	_1_	___	___	___	___
Region (1 req.)	_1_	___	___	___	___
County(ies)	_1_	___	___	___	___
Groundwater Conservation District(s)	_1_ Edwards Aquifer Authority ___Trinity-Glen Rose	___Edwards Aquifer Authority	___Kinney	___EAA ___Medina	___EAA ___Uvalde
City(ies) Jurisdiction	___Castle Hills ___Fair Oaks Ranch ___Helotes ___Hill Country Village ___Hollywood Park _1_San Antonio (SAWS) ___Shavano Park	___Bulverde ___Fair Oaks Ranch ___Garden Ridge ___New Braunfels ___Schertz	NA	___San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.
WARNER LAND ADVISORS, LP
STEPHEN SALLMAN
Print Name of Customer/Authorized Agent
Stephen Sallman 7/28/24
Signature of Customer/Authorized Agent Date

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

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

Print Name of Customer/Agent: Kavanaugh Consulting, LLC, By David Parkerson, PE

Date: 07/08/24

Signature of Customer/Agent:

Project Information

1. Current Regulated Entity Name: Warner Land Advisors, LP
   Original Regulated Entity Name: BP 100 San Antonio, Ltd.
   Assigned Regulated Entity Number(s) (RN): 104953229
   Edwards Aquifer Protection Program ID Number(s): 2521.00
   ☐ The applicant has not changed and the Customer Number (CN) is: _____
   ☒ 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):

☐ Any physical or operational modification of any best management practices or structure(s), including but not limited to temporary or permanent ponds, dams, berms, silt fences, and diversionary structures;
☒ Any change in the nature or character of the regulated activity from that which was originally approved;
☐ A change that would significantly impact the ability to prevent pollution of the Edwards Aquifer and hydrologically connected surface water; or
☐ Any development of land previously identified in a contributing zone plan as undeveloped.

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.

CZP Modification Summary	***Approved Project***	***Proposed Modification***
Acres	43.54	43.54
Type of Development	Residential	Residential
Number of Residential Lots	84 Homes	6 Homes + 300 MF Units
Impervious Cover (acres)	8.4	8.1
Impervious Cover (%)	19.3	18.6
Permanent BMPs	20% IC Deed Restriction	20% IC Deed Restriction
Other	NA	NA

AST Modification Summary	***Approved Project***	***Proposed Modification***
Number of ASTs	0	0
Other	NA	NA

UST Modification Summary	***Approved Project***	***Proposed Modification***
Number of USTs	0	0
Other	NA	NA

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 previous modifications, and how this proposed modification will change the approved plan.

6. ☒ **Attachment C: Current Site Plan of the Approved Projec**t. 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. ☒ Acreage has not been added to or removed from the approved plan.
   ☐ Acreage has been added to or removed from the approved plan and is discussed in *Attachment B: Narrative of Proposed Modification*.

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.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 19, 2006

Mr. Shaul Baruch
BP 100 San Antonio, Ltd.
8235 Douglas Avenue, Suite 770
Dallas, TX 75225

Re: Edwards Aquifer, Bexar County
NAME OF PROJECT: Heights of Crownridge, Unit 2; Located east of the intersection of Babcock and Huermann Road; San Antonio, Texas
TYPE OF PLAN: Request for Approval of a Contributing Zone Plan (CZP); 30 Texas Administrative Code (TAC) Chapter 213 Subchapter B Edwards Aquifer
Edwards Aquifer Protection Program File No. 2521.00
Regulated Entity Number: RN104953229 Investigation Number: 466587

Dear Mr. Baruch:

The Contributing Zone Plan application for the referenced project was submitted to the San Antonio Regional Office by Carter & Burgess, Inc. on behalf of BP 100 San Antonio, Ltd. on April 28, 2006. 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 Contributing Zone 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% of the construction has commenced on the project or an extension of time has been requested.*

PROJECT DESCRIPTION

The proposed residential project will be located on 43.54 acres and will consist of an 84 lot single family residential subdivision with roads, curbs, sidewalks, houses, driveways, and utilities. The proposed impervious cover for the development is approximately 8.40 acres (19.3 % of the total area of the site). Project wastewater will be disposed of by conveyance to the existing Leon Creek Wastewater Treatment Plant owned by the San Antonio Water System.

PERMANENT POLLUTION ABATEMENT MEASURES

This single-family residential subdivision will have less than 20 % impervious cover upon completion of construction.

SPECIAL CONDITIONS

I. Since this single-family residential subdivision will have less than 20% impervious cover, an exemption from permanent BMPs is approved. If the percentage of impervious cover ever increases above 20 % or the land use changes, the exemption for the whole site as described in the Contributing Zone Plan may no longer apply and the property owner must notify the San Antonio Regional Office of these changes.

II. Intentional discharges of sediment laden stormwater are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetative filter strips, sediment traps, rock berms, silt fence rings, etc.

III. 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.

IV. The applicant shall provide all contractors with a copy of pages 1-35 through 1-60 of TCEQ TGM RG-348 (2005) as a guide for soil stabilization practices and assure that any soil stabilization is performed is in accordance with these practices and the approved plan.

V. Temporary best management practices are required during the home construction phase of development on the individual lots.

VI. 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 record the approval is enclosed.

VII. The Contributing Zone Plan General Construction Notes (TCEQ-0592A) were not included in the construction drawings, notes, or details. The referenced notes are to be included on the construction drawings that are to be maintained on-site as described in Standard Condition 2.

STANDARD CONDITIONS

1. Pursuant to §26.136 of the Texas Water Code and the Texas Health and Safety Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

Prior to Commencement of Construction:

2. 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 Contributing Zone Plan and this notice of approval shall be maintained at the project until all regulated activities are completed.

3. Any modification to the activities described in the referenced CZP 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.

4. The applicant must provide written notification of intent to commence construction 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 name of the approved plan and file number for the regulated activity, the date on which the regulated activity will commence, and the name of the prime contractor with the name and telephone number of the contact person.

5. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved Storm Water Pollution Prevention Plan (SWPPP) 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.

<u>During Construction:</u>

6. During the course of regulated activities related to this project, the applicant or his 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.

7. 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 significantly reduced. 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).

8. 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.

9. 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.

<u>After Completion of Construction:</u>

10. Owners of permanent BMPs and measures must insure that the 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 San Antonio Regional Office within 30 days of site completion.

11. 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. Such 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 the San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.

12. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Contributing Zone Plan. If the new owner intends to commence any new regulated activity on the site, a new Contributing Zone 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.

13. A Contributing Zone Plan approval or extension will expire and no extension will be granted if more than 50% of the total construction has not been completed within ten years from the initial approval of a plan. A new Contributing Zone 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.

14. 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.

If you have any questions or require additional information, please contact Lynn M. Bumguardner of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210) 403-4023.

Sincerely,

for Glenn Shankle
Executive Director
Texas Commission on Environmental Quality

GS/LMB/eg

Enclosure(s): Change in Responsibility for Maintenance on Permanent BMPs-Form TCEQ-10263
Deed Recordation Affidavit, TCEQ-0625

fc/cc: Mr. Ishtiak Saleh, P.E., Carter & Burgess, Inc.
Mr. Scott Halty, San Antonio Water System
Ms. Renee Green, P.E., Bexar County Public Works
Mr. Robert J. Potts, Edwards Aquifer Authority
TCEQ Central Records, Building F, MC 212

Kavanaugh Consulting, LLC

108 River Oaks Drive
Wimberley, Texas 78676
(512) 587 – 7397

Attachment B

Project Narrative

Heights of Crownridge Unit 2 Residential

July 07, 2024

I. Site Location Description

Crownridge is a master-planned community in northwest San Antonio on the west side of IH-10 and north side of Camp Bullis Road. This project known as Heights of Crownridge Unit 2 is phase 2 of a subordinate residential planned community in Crownridge. Unit 2 is comprised of 43.54-acres of residential property ("the Project") and began the construction of improvements in 2006 along with the improvements to Unit 1. Unit 1 is now completed and constructed as residential uses with single-family and multi-family units. This Project OF Unit 2 is a hilltop and construction started in 2006 and has continued to this day.

The Project is located in the Upper Leon Creek Watershed. The effective FEMA Firm Map (No. 48029C0210 G) dated September 29, 2010 indicates that this property is outside the boundaries of the FEMA 100-Year floodplain delineation. A FEMA and USGS Map are included herein.

Considerations for onsite drainage, sewer and water service, and erosion controls have been based on the City of San Antonio Unified Development Code requirements. The overall drainage analysis was performed as part of the master planning of the Heights of Crownridge. Detention facilities will be constructed onsite to meet the needs of this intended development.

II. Existing Project Conditions

This Project is located within the City Limits of San Antonio and further within Bexar County. The site is also located in the Contributing Zone to the Edwards Aquifer Recharge Zone. The site is hilly with various rock outcroppings throughout as is typical for the Texas hill country. Downstream of the property are various natural drainage ways that convey drainage from this hilltop site to the existing regional offsite creek (Maverick) that then flows into Leon Creek much further downstream. There are no upstream properties conveying drainage to this Project site as it is a hilltop. The site itself is in a state of construction and has been cleared and graded as per the previously approved and permitted residential development started in 2006. Various utilities have been constructed across the site and are in service. And, the driveways into the Project are completed. The site drainage splits in various directions with the majority of the site flowing into a small tributary to Maverick Creek on the northwest side of the Property. This Project has existing drainage easements to accommodate the conveyance of the drainage offsite.

III. Proposed Project Conditions

This Project is a modification to a previously approved residential development that is already under construction. This modification will reduce the developed area of the site and will dedicate more downstream land to greenspace and tree preservation area, which is downhill of the developed area and so will also provide natural water quality controls to stormwater. The design elements included in this modification are the same as those for the initial development plan for Unit 2. The Project development will include clearing, grading, retaining walls, roadway, an entry drive from Babcock Road, driveways, drive aisles, parking stalls, utilities, houses, residential buildings, and landscaping with a 25+ Acre tree preservation area. There are no proposed public streets with this Project. The proposed slopes for the parking areas and finished areas of the lots will be approximately 4-5% with closer to 1% around the future buildings. Based on proposed ultimate impervious cover, weighted C-Values were calculated for the drainage areas as shown on the Proposed Overall Master Drainage Area Map and included herein. Times of Concentration are included on the map. The ultimate flows were calculated for the 2, 5, 10, 25, and 100-year storms for use in design using the Rational Method and

the 2012 Bexar County Intensities. They are shown on the Proposed Overall Master Drainage Area Map and included herein. Detention for the site will be provided by a proposed detention pond.

IV. Onsite Drainage Analysis

The onsite storm sewer system is comprised of rooftops and paved parking areas and roads as collection locations. They will drain to inlets which collect and pipe the drainage into natural drainage ways that will provide natural water quality treatment and eventually flow to the adjacent creek as shown. The Project area included in the plan is approximately 16-Acres with an impervious cover acreage of 8.1-Acres.

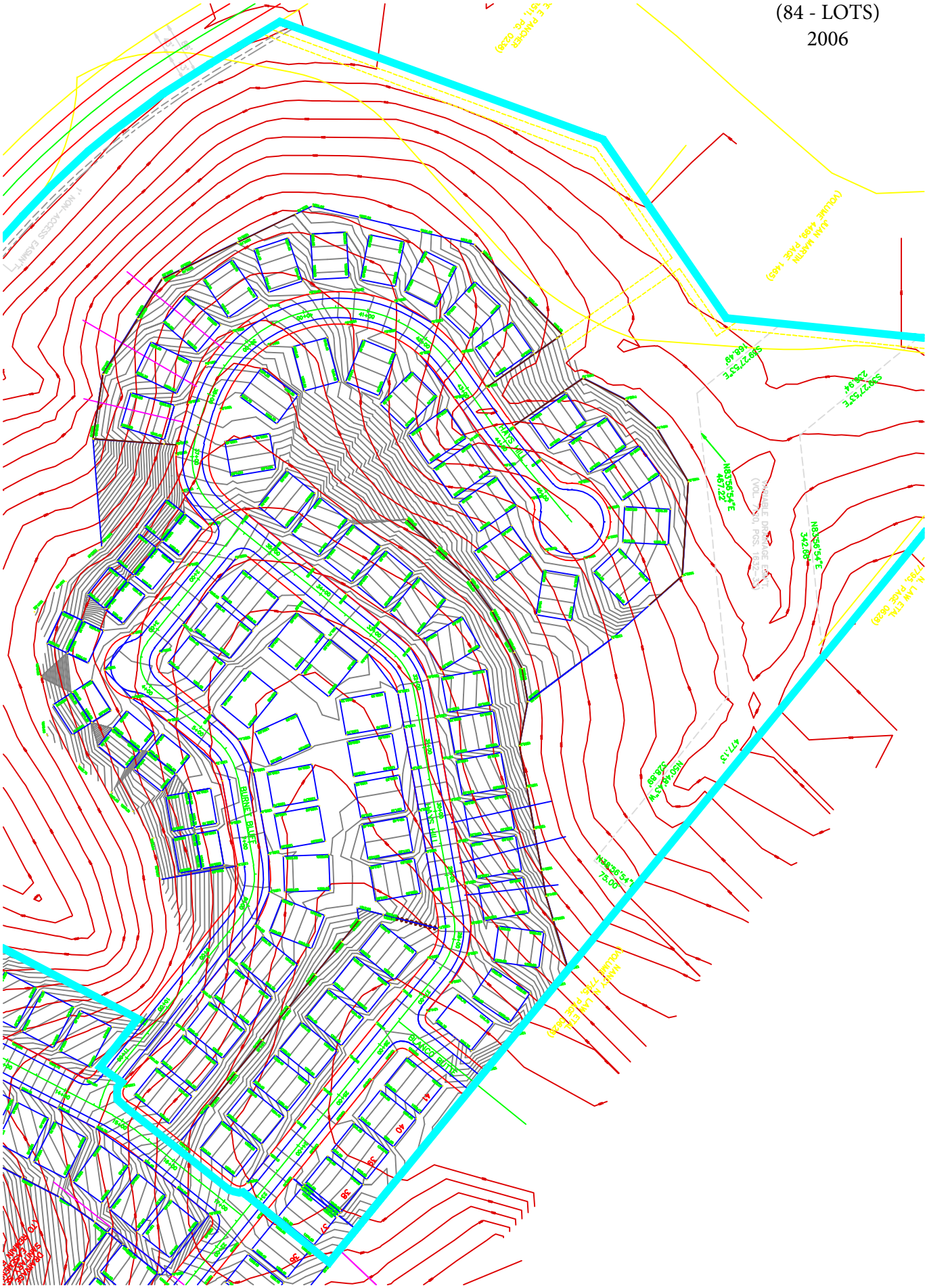
The proposed and existing storm sewer facilities serving this Project have been designed and constructed with proper engineering consideration and per the City of San Antonio UDC requirements. Storm sewers will minimize discharge velocities and other impacts to the existing terrain and flowlines within the development. This project will not have any adverse impacts on downstream habitable structures.

V. Heights of Crownridge Unit 2 Residential - CZP - Approval History

a. Original Approval (2006)

The Heights of Crownridge Unit 2 Residential Project is operating under an Original Approved CZP dated July 19, 2006 for the 43.54-Acre residential-use site. The original approval is attached along with the overall site layout with an impervious cover proposed at 8.4-Acres (19.3%). Since the original approval, construction and development has been continuous and the CZP has not been modified. The Original approval was for an exemption to the requirement for permanent BMP's due to the nature of the development as residential and with the maximum impervious cover proposed being below 20% across the tract.

ATTACHMENT C
HEIGHTS OF CROWNRIDGE UNIT 2
RESIDENTIAL
(84 - LOTS)
2006



Contributing Zone Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Contributing Zone to the Edwards Aquifer and Relating to 30 TAC §213.24(1), 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 **Contributing Zone Plan Application** is hereby submitted for TCEQ review and Executive Director approval. The application was prepared by:

Print Name of Customer/Agent: Warner Land Advisors, LP (Customer) / Kavanaugh Consulting, LLC - David Parkerson, PE (Agent)

Date: 07/14/24

Signature of Customer/Agent:

Regulated Entity Name: Heights of Crownridge Unit 2 Residential

Project Information

1. County: Bexar
2. Stream Basin: Leon Creek
3. Groundwater Conservation District (if applicable): _____
4. Customer (Applicant):

   Contact Person: Stephen Sallman
   Entity: Warner Land Advisors, LP
   Mailing Address: 4040 North Central Expressway, Suite 850
   City, State: Dallas, Texas Zip: 75204
   Telephone: 214-368-0238 Fax: _____

Email Address: ssallman@warnergroup.com

5. Agent/Representative (If any):

Contact Person: David Parkerson, PE
Entity: Kavanaugh Consulting, LLC
Mailing Address: 108 River Oaks Drive
City, State: WImberley, Texas Zip: 78676
Telephone: 512-587-7397 Fax: _____
Email Address: kavanaughconsulting@gmail.com

6. Project Location:

☒ The project site is located inside the city limits of San Antonio, Texas.
☐ 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.

7. ☒ The location of the project site is described below. Sufficient detail and clarity has been provided so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

Intersection of Burnett Bluff Rd at Real Ridge Rd
OR
19238 Babcock Road, San Antonio, Texas 78255

8. ☒ **Attachment A - Road Map**. A road map showing directions to and the location of the project site is attached. The map clearly shows the boundary of the project site.

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

☒ Project site boundaries.
☒ USGS Quadrangle Name(s).

10. ☒ **Attachment C - Project Narrative**. A detailed narrative description of the proposed project is attached. The project description is consistent throughout the application and contains, at a minimum, the following details:

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

11. 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/Not cleared)
☐ Other: _____

12. The type of project is:

☒ Residential: # of Lots: 6
☒ Residential: # of Living Unit Equivalents: 300
☐ Commercial
☐ Industrial
☒ Other: 2 Large Greenspace/Park/Permeable Areas

13. Total project area (size of site): 43.54 Acres

    Total disturbed area: 12 Acres

14. Estimated projected population: 356

15. The amount and type of impervious cover expected after construction is complete is shown below:

Table 1 - Impervious Cover

Impervious Cover of Proposed Project	*Sq. Ft.*	*Sq. Ft./Acre*	*Acres*
Structures/Rooftops	114,431	÷ 43,560 =	2.6
Parking	238,405	÷ 43,560 =	5.5
Other paved surfaces		÷ 43,560 =	
Total Impervious Cover	352,836	÷ 43,560 =	8.1

Total Impervious Cover 8.1 **÷ Total Acreage** 43.5 **X 100 =** 18.6**% Impervious Cover**

16. ☒ **Attachment D - Factors Affecting Surface Water Quality**. A detailed description of all factors that could affect surface water quality is attached. If applicable, this includes the location and description of any discharge associated with industrial activity other than construction.

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

For Road Projects Only

Complete questions 18 - 23 if this application is exclusively for a road project.

☒ N/A

18. 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.

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

☐ Concrete
☐ Asphaltic concrete pavement
☐ Other: _____

20. Right of Way (R.O.W.):

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

21. Pavement Area:

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

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

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

23. ☐ 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

24. ☒ **Attachment E - 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 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

25. ☒ Wastewater is to be discharged in the contributing zone. Requirements under 30 TAC §213.6(c) relating to Wastewater Treatment and Disposal Systems have been satisfied.

☐ N/A

26. Wastewater will be disposed of by:

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

☐ **Attachment F - 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):

The sewage collection system will convey the wastewater to the Dos Rios (name) Treatment Plant. The treatment facility is:

☒ Existing.
☐ Proposed.

☐ N/A

Permanent Aboveground Storage Tanks(ASTs) ≥ 500 Gallons

Complete questions 27 - 33 if this project includes the installation of AST(s) with volume(s) greater than or equal to 500 gallons.

☒N/A

27. Tanks and substance stored:

Table 2 - Tanks and Substance Storage

AST Number	*Size (Gallons)*	*Substance to be Stored*	*Tank Material*
1			
2			
3			

AST Number	*Size (Gallons)*	*Substance to be Stored*	*Tank Material*
4			
5			

Total x 1.5 = _____ Gallons

28. ☐ The AST will be placed within a containment structure that is sized to capture one and one-half (1 1/2) times the storage capacity of the system. For facilities with more than one tank system, the containment structure is sized to capture one and one-half (1 1/2) times the cumulative storage capacity of all systems.

☐ **Attachment G - Alternative Secondary Containment Methods**. Alternative methods for providing secondary containment are proposed. Specifications showing equivalent protection for the Edwards Aquifer are attached.

29. Inside dimensions and capacity of containment structure(s):

Table 3 - Secondary Containment

Length (L)(Ft.)	*Width(W)(Ft.)*	*Height (H)(Ft.)*	*L x W x H = (Ft3)*	*Gallons*

Total: _____ Gallons

30. Piping:

☐ All piping, hoses, and dispensers will be located inside the containment structure.
☐ Some of the piping to dispensers or equipment will extend outside the containment structure.
☐ The piping will be aboveground
☐ The piping will be underground

31. ☐ The containment area must be constructed of and in a material impervious to the substance(s) being stored. The proposed containment structure will be constructed of: _____.

32. ☐ **Attachment H - AST Containment Structure Drawings**. A scaled drawing of the containment structure is attached that shows the following:

☐ Interior dimensions (length, width, depth and wall and floor thickness).
☐ Internal drainage to a point convenient for the collection of any spillage.
☐ Tanks clearly labeled
☐ Piping clearly labeled

☐ Dispenser clearly labeled

33. ☐ Any spills must be directed to a point convenient for collection and recovery. Spills from storage tank facilities must be removed from the controlled drainage area for disposal within 24 hours of the spill.

    ☐ In the event of a spill, any spillage will be removed from the containment structure within 24 hours of the spill and disposed of properly.

    ☐ In the event of a spill, any spillage will be drained from the containment structure through a drain and valve within 24 hours of the spill and disposed of properly. The drain and valve system are shown in detail on the scaled drawing.

Site Plan Requirements

Items 34 - 46 must be included on the Site Plan.

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

    Site Plan Scale: 1" = 100'.

35. 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): FEMA MAP 48029 C 0210 G.

36. ☒ 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, etc. are shown on the site plan.

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

37. ☒ A drainage plan showing all paths of drainage from the site to surface streams.

38. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.

39. ☒ Areas of soil disturbance and areas which will not be disturbed.

40. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

41. ☒ Locations where soil stabilization practices are expected to occur.

42. ☐ Surface waters (including wetlands).

    ☒ N/A

43. ☐ Locations where stormwater discharges to surface water.

    ☒ There will be no discharges to surface water.

44. ☐ Temporary aboveground storage tank facilities.

    ☒ Temporary aboveground storage tank facilities will not be located on this site.

45. ☐ Permanent aboveground storage tank facilities.

    ☒ Permanent aboveground storage tank facilities will not be located on this site.

46. ☒ Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

Practices and measures that will be used during and after construction is completed.

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

    ☒ N/A

48. ☐ 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

49. ☐ 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

50. 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.

51. 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 I - 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.

52. ☐ **Attachment J - 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.

53. ☐ **Attachment K - 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.

54. ☐ **Attachment L - BMPs for Surface Streams**. A description of the BMPs and measures that prevent pollutants from entering surface streams is attached.

☒ N/A

55. ☐ **Attachment M - Construction Plans**. Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. Construction plans for the proposed permanent BMPs and measures are attached and include: Design calculations, TCEQ Construction Notes, all proposed structural plans and specifications, and appropriate details.

☒ N/A

56. ☐ **Attachment N - Inspection, Maintenance, Repair and Retrofit Plan**. A site and BMP specific plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan fulfills all of the following:

☐ Prepared and certified by the engineer designing the permanent BMPs and measures
☐ Signed by the owner or responsible party
☐ Outlines specific procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofit.
☐ Contains a discussion of record keeping procedures

☒ N/A

57. ☐ **Attachment O - 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

58. ☐ **Attachment P - 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 result in water quality degradation.

☒ N/A

Responsibility for Maintenance of Permanent BMPs and Measures after Construction is Complete.

59. ☐ 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.

60. ☐ 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.

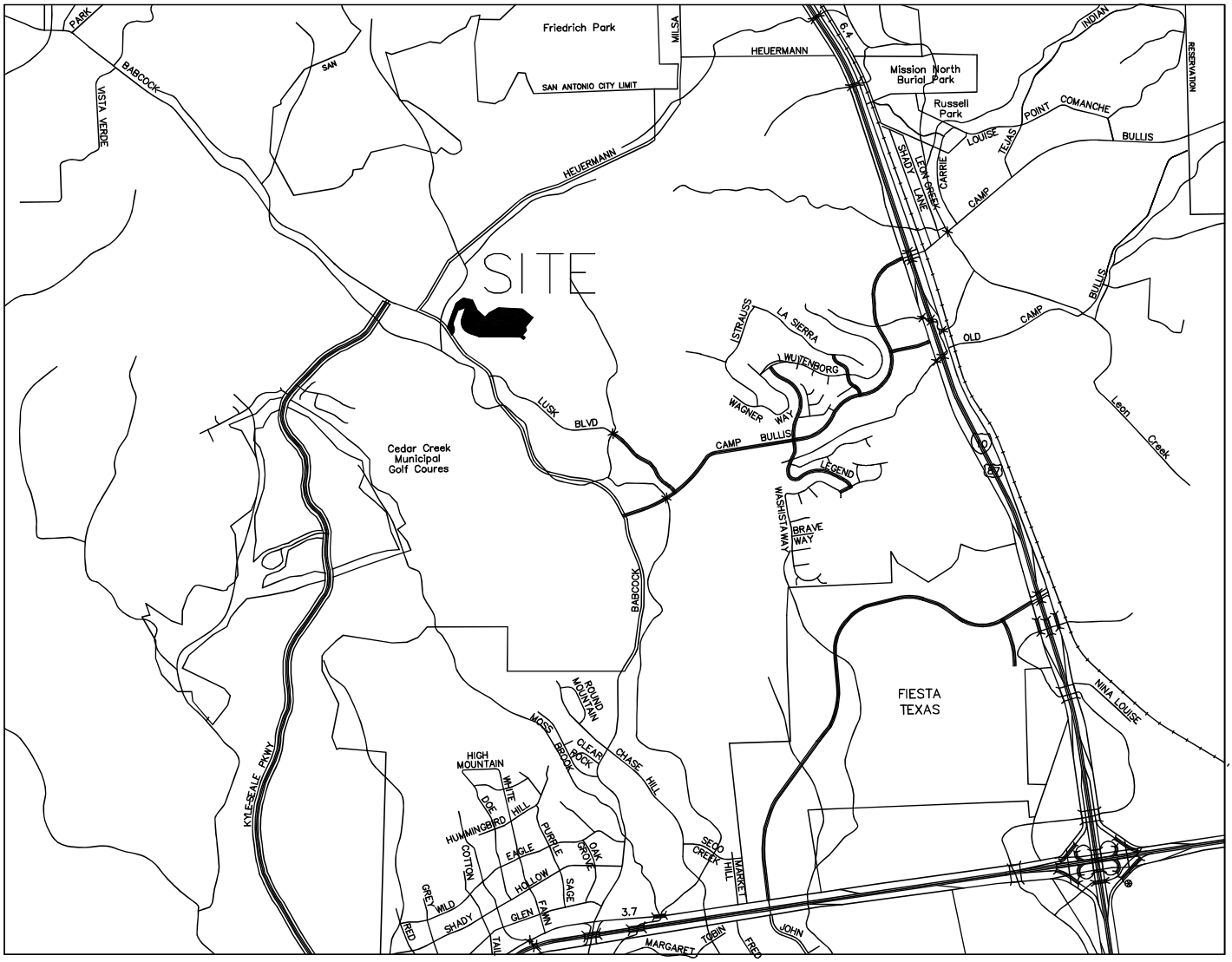
Administrative Information

61. ☒ 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.

62. ☒ Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.

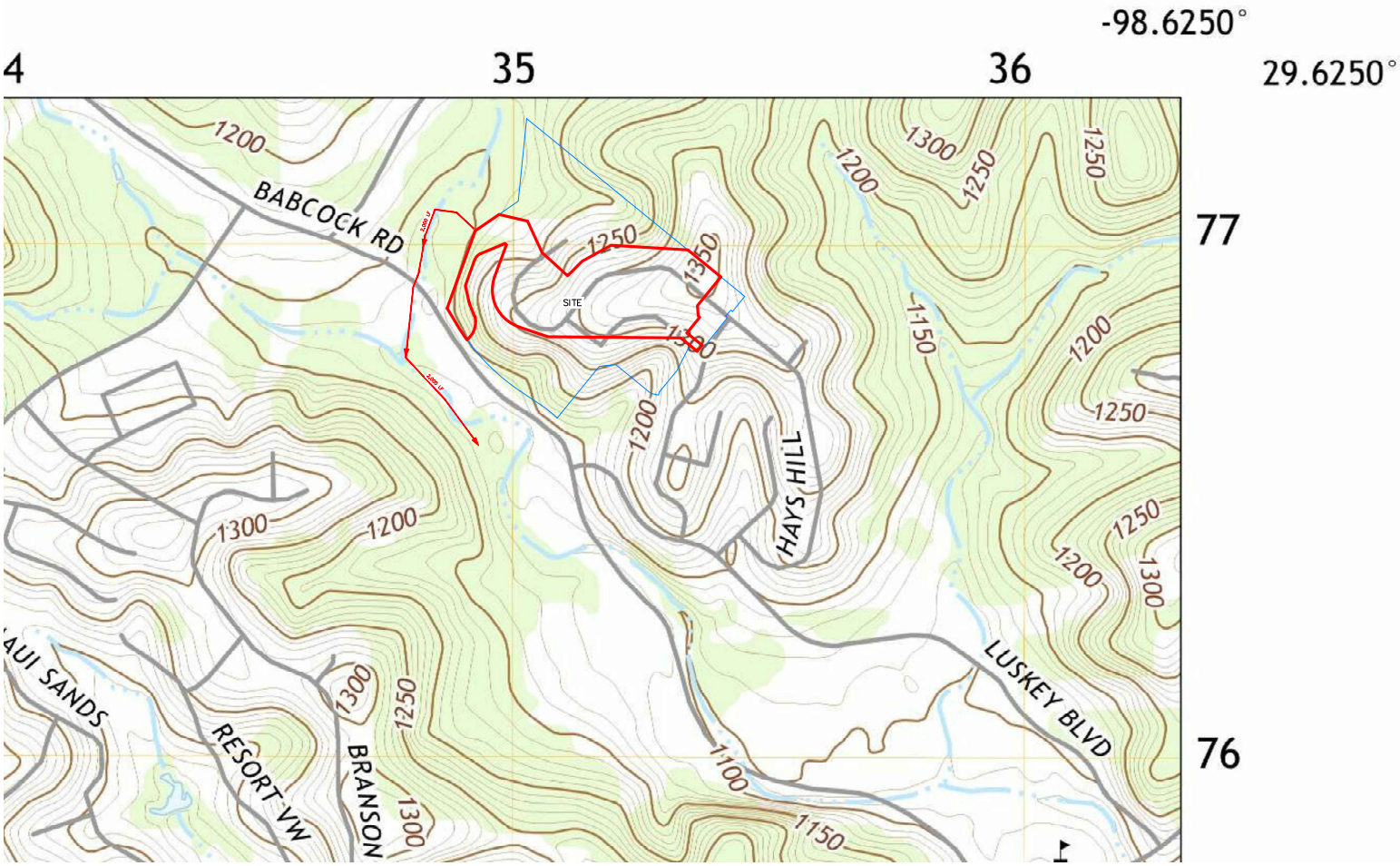
63. ☐ The site description, controls, maintenance, and inspection requirements for the storm water pollution prevention plan (SWPPP) developed under the EPA NPDES general permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC §213.24(1-5) of the technical report. All requirements of 30 TAC §213.24(1-5) have been met by the SWPPP document.

☒ The Temporary Stormwater Section (TCEQ-0602) is included with the application.



VICINITY MAP

N.T.S.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HAYS HILL
LUSKEY BLVD
RESORT VW
BRANSON
1200
1250
1300
1350
1150
1100

Kavanaugh Consulting, LLC

108 River Oaks Drive
Wimberley, Texas 78676
(512) 587 – 7397

Attachment B

Project Narrative

Heights of Crownridge Unit 2 Residential

July 07, 2024

I. Site Location Description

Crownridge is a master-planned community in northwest San Antonio on the west side of IH-10 and north side of Camp Bullis Road. This project known as Heights of Crownridge Unit 2 is phase 2 of a subordinate residential planned community in Crownridge. Unit 2 is comprised of 43.54-acres of residential property ("the Project") and began the construction of improvements in 2006 along with the improvements to Unit 1. Unit 1 is now completed and constructed as residential uses with single-family and multi-family units. This Project OF Unit 2 is a hilltop and construction started in 2006 and has continued to this day.

The Project is located in the Upper Leon Creek Watershed. The effective FEMA Firm Map (No. 48029C0210 G) dated September 29, 2010 indicates that this property is outside the boundaries of the FEMA 100-Year floodplain delineation. A FEMA and USGS Map are included herein.

Considerations for onsite drainage, sewer and water service, and erosion controls have been based on the City of San Antonio Unified Development Code requirements. The overall drainage analysis was performed as part of the master planning of the Heights of Crownridge. Detention facilities will be constructed onsite to meet the needs of this intended development.

II. Existing Project Conditions

This Project is located within the City Limits of San Antonio and further within Bexar County. The site is also located in the Contributing Zone to the Edwards Aquifer Recharge Zone. The site is hilly with various rock outcroppings throughout as is typical for the Texas hill country. Downstream of the property are various natural drainage ways that convey drainage from this hilltop site to the existing regional offsite creek (Maverick) that then flows into Leon Creek much further downstream. There are no upstream properties conveying drainage to this Project site as it is a hilltop. The site itself is in a state of construction and has been cleared and graded as per the previously approved and permitted residential development started in 2006. Various utilities have been constructed across the site and are in service. And, the driveways into the Project are completed. The site drainage splits in various directions with the majority of the site flowing into a small tributary to Maverick Creek on the northwest side of the Property. This Project has existing drainage easements to accommodate the conveyance of the drainage offsite.

III. Proposed Project Conditions

This Project is a modification to a previously approved residential development that is already under construction. This modification will reduce the developed area of the site and will dedicate more downstream land to greenspace and tree preservation area, which is downhill of the developed area and so will also provide natural water quality controls to stormwater. The design elements included in this modification are the same as those for the initial development plan for Unit 2. The Project development will include clearing, grading, retaining walls, roadway, an entry drive from Babcock Road, driveways, drive aisles, parking stalls, utilities, houses, residential buildings, and landscaping with a 25+ Acre tree preservation area. There are no proposed public streets with this Project. The proposed slopes for the parking areas and finished areas of the lots will be approximately 4-5% with closer to 1% around the future buildings. Based on proposed ultimate impervious cover, weighted C-Values were calculated for the drainage areas as shown on the Proposed Overall Master Drainage Area Map and included herein. Times of Concentration are included on the map. The ultimate flows were calculated for the 2, 5, 10, 25, and 100-year storms for use in design using the Rational Method and

the 2012 Bexar County Intensities. They are shown on the Proposed Overall Master Drainage Area Map and included herein. Detention for the site will be provided by a proposed detention pond.

IV. Onsite Drainage Analysis

The onsite storm sewer system is comprised of rooftops and paved parking areas and roads as collection locations. They will drain to inlets which collect and pipe the drainage into natural drainage ways that will provide natural water quality treatment and eventually flow to the adjacent creek as shown. The Project area included in the plan is approximately 16-Acres with an impervious cover acreage of 8.1-Acres.

The proposed and existing storm sewer facilities serving this Project have been designed and constructed with proper engineering consideration and per the City of San Antonio UDC requirements. Storm sewers will minimize discharge velocities and other impacts to the existing terrain and flowlines within the development. This project will not have any adverse impacts on downstream habitable structures.

V. Heights of Crownridge Unit 2 Residential - CZP - Approval History

a. Original Approval (2006)

The Heights of Crownridge Unit 2 Residential Project is operating under an Original Approved CZP dated July 19, 2006 for the 43.54-Acre residential-use site. The original approval is attached along with the overall site layout with an impervious cover proposed at 8.4-Acres (19.3%). Since the original approval, construction and development has been continuous and the CZP has not been modified. The Original approval was for an exemption to the requirement for permanent BMP's due to the nature of the development as residential and with the maximum impervious cover proposed being below 20% across the tract.

ATTACHMENT D
FACTORS AFFECTING SURFACE WATER QUALITY

PROJECT NAME: **Heights of Crownridge Unit 2 Residential**

ADDRESS: **19238 Babcock Road**

CITY, STATE: **San Antonio, TX 78255**

FACTORS:

The factors affecting water quality for this project are the following:
1.) Soil Disturbance from clearing and grading and general construction activity.
2.) Potential fuel leaks from construction machinery and equipment
3.) Concrete washout pit activity

There are no industrial discharges associated with this construction.

ATTACHMENT E
VOLUME AND CHARACTER OF STORM WATER

PROJECT NAME: **Heights of Crownridge 2 Residential**

ADDRESS: **19238 Babcock Road**

CITY, STATE: **San Antonio, TX 78255**

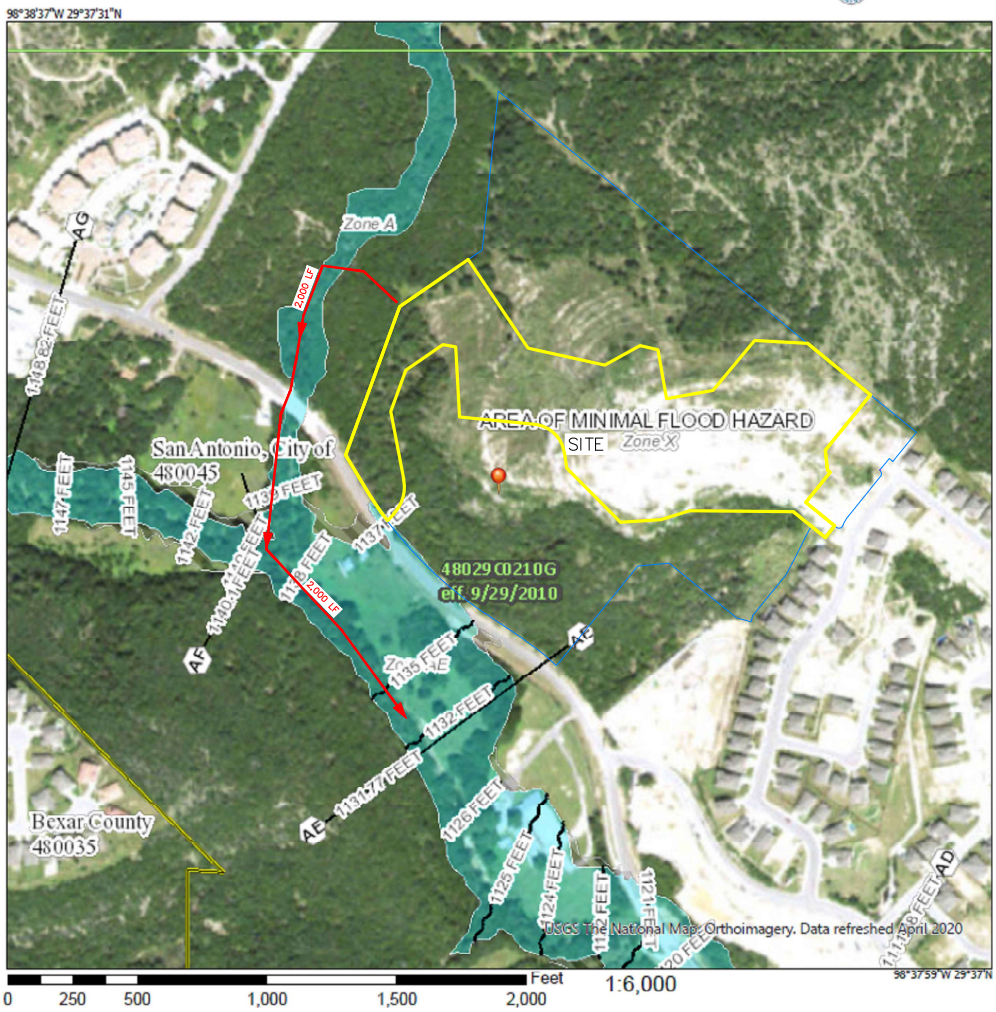
VOLUME:

The flow rate of storm water runoff for each drainage area affecting the Project (Q2,5,10,25,100) was calculated using the rational method due to smaller drainage areas. Calculations are shown on the Drainage Area Map enclosed.

CHARACTER:

The Character of the runoff is standard Residential (Residential Homes, Buildings, driveways and Parking).

National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/23/2020 at 2:04 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Kavanaugh Consulting, LLC

108 River Oaks Drive
Wimberley, Texas 78676
(512) 587 – 7397
kavanaughconsulting@gmail.com

July 24, 2024

TCEQ
San Antonio Region
14250 Judson Road
San Antonio, Texas 78233
(210) 490-3096

Re: EAPP CZP Modification – Waiver of Permanent BMP
Heights of Crownridge Unit 2 Residential (Single-Family / Multi-Family)

Please consider this request for a waiver to the EAPP permanent BMPs for water quality controls for a project with a maximum impervious cover of 20%. This request is in reference to a modification of a previously approved Contributing Zone Plan. The Original CZP (#2521.0) was approved for Single-Family use with an impervious cover of 19.3% (less than 20%) and the project is ongoing. This proposed Modification will be to complete the project for residential uses combining both Single-Family and Multi-Family. This plan continuation will be comprised of the same design elements of utilities, walls, pavement and rooftops, but will have a lower proposed impervious cover of 18.6%. If approved, this exemption from permanent BMPs will be recorded in the county deed records with proper notice.

This project known as Heights of Crownridge Unit 2 Residential is the second phase of a subordinate residential planned community in Crownridge, which is a master-planned community in northwest San Antonio on the west side of IH-10 and north side of Camp Bullis Road. Unit 2 is comprised of 43.54-acres of residential property and began the construction of improvements in 2006 along with the improvements to Unit 1. Unit 1 is now completed and constructed as residential uses with single-family and multi-family units. Unit 2 is ongoing.

This modification will reduce the developed area of the site and will dedicate more downstream land to greenspace and tree preservation area, which is downhill of the developed area and so will also provide natural water quality controls to stormwater. Drainage from this site will travel onsite across natural drainage ways within the 43.54-Acre tract for approximately 1,000-LF before exiting the site, which will provide additional water quality treatment.

We hope that this request meets with your approval and we look forward to hearing from your office.

Thanks,

David Parkerson, PE

Kavanaugh Consulting, LLC (Agent)

ATTACHMENT J
BMP'S FOR UPGRADIENT STORMWATER

PROJECT NAME: **Heights of Crownridge 2 Residential**

ADDRESS: **19238 Babcock Road**

CITY, STATE: **San Antonio, TX 78255**

Permanent BMP's are not required for upgradient stormwater as there is none to this site due to the Project at the top of the hill and surrounding properties.

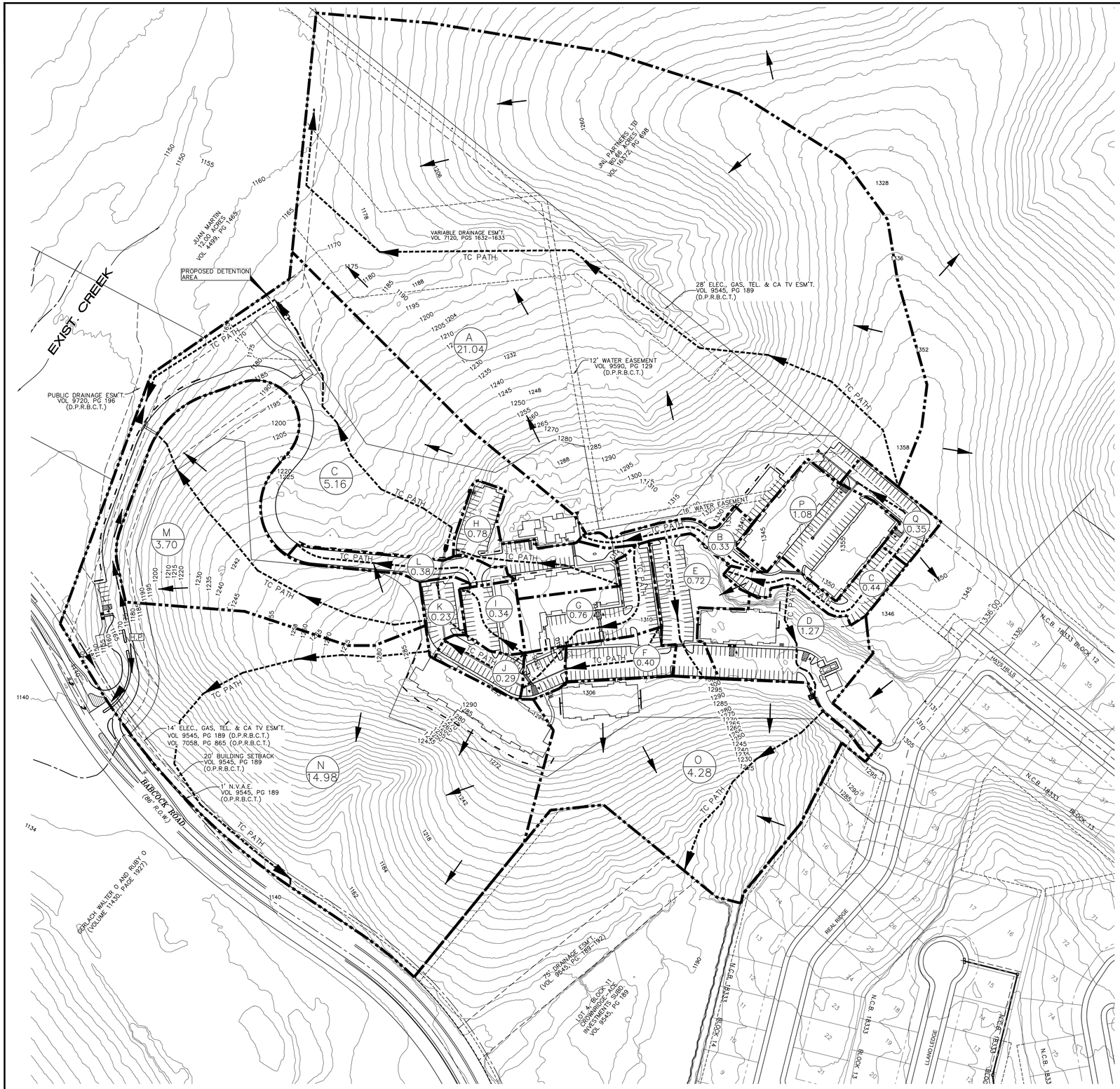
ATTACHMENT K
BMP'S FOR ONSITE STORMWATER

PROJECT NAME: **Heights of Crownridge 2 Residential**

ADDRESS: **19238 Babcock Road**

CITY, STATE: **San Antonio, TX 78255**

Permanent BMP's will not be required for this site due to the maximum impervious cover at less than 20%. Site stabilization, re-vegetation, and natural drainage ways will aid with water quality for drainage onsite.



PROPOSED OVERALL DRAINAGE MAP (ULTIMATE)

SCALE: 1"=100'

SUB-AREA — A / 2.24 — ACREAGE

LEGEND

- PROPOSED DRAINAGE AREA
- CONCENTRATION POINT
- PROPOSED FLOW ARROWS
- EXISTING CONTOUR
- PROPOSED CONTOUR (MINOR)
- EXISTING CONTOUR (MAJOR)
- LOT DRAINAGE FLOW DIRECTION
- PROPOSED RETAINING WALL
- PROPOSED GUARDRAIL
- PROPOSED EASEMENT
- DRAINAGE SWALE

ADDRESS: 19302 BABCOCK ROAD

GRAPHIC SCALE

200 100 50 0 100 300

(IN FEET)
1 inch = 100 ft.

NORTH

No.	Date	Revisions

KAVANAUGH CONSULTING, LLC
132 BLAZING MEADOW ROAD, No. 1
SPRING BRANCH, TEXAS 78070
PHONE: (830) 438-3703
KAVANAUGHCONSULTING@GMAIL.COM
TBPE FIRM #6711

MK KELLER CONSULTING, LLC
PO. BOX 1805
FREDERICKSBURG, TEXAS 78624
PH. (830) 889-7753

ENGINEER'S SEAL:

STATE OF TEXAS — DAVID PARKERSON — 87016 — REGISTERED PROFESSIONAL ENGINEER

HEIGHTS OF CROWNRIDGE MULTI-FAMILY

PROPOSED OVERALL MASTER DRAINAGE PLAN (ULTIMATE)

Scale:	As Shown
Designed by:	MRK
Drawn by:	MRK
Checked by:	DP
Date:	AUGUST 2024
Project No.	24-022

SHEET
PD
OF 1

PLAT NO. 24-11800275
ADDRESS: 19302 BABCOCK ROAD

FLOW CALCULATION TABLE - ULTIMATE (PROPOSED)
HEIGHTS OF CROWNRIDGE UNIT 2 - RESIDENTIAL
6/1/2024

DRAINAGE AREA	AREA (acres)	% IMPERVIOUS	Imperv. Cover (acres)	Weight C	Tc (min)	I 5yr	I 25yr	I 100yr	Q 5yr (cfs)	Q 25yr (cfs)	Q 100yr (cfs)
A	12.78	6%	0.80	0.52	10.4	6.30	8.30	11.00	41.8	55.1	73.0
B	0.33	91%	0.30	0.92	6.0	7.80	10.30	11.60	2.4	3.1	3.5
C	5.16	20%	1.05	0.59	7.5	7.20	9.50	12.10	21.8	28.7	36.6
D	1.27	39%	0.50	0.68	5.3	8.30	11.00	13.40	7.1	9.4	11.5
E	0.72	49%	0.35	0.72	5.6	8.30	11.00	13.40	4.3	5.7	6.9
F	0.40	90%	0.36	0.91	5.3	8.30	11.00	13.40	3.0	4.0	4.9
G	0.76	95%	0.72	0.94	5.3	8.30	11.00	13.40	5.9	7.8	9.5
H	0.78	97%	0.76	0.95	5.6	8.30	11.00	13.40	6.1	8.1	9.9
I	0.34	97%	0.33	0.95	5.3	8.30	11.00	13.40	2.7	3.5	4.3
J	0.29	93%	0.27	0.93	5.3	8.30	11.00	13.40	2.2	3.0	3.6
K	0.23	87%	0.20	0.90	5.1	8.30	11.00	13.40	1.7	2.3	2.8
L	0.38	95%	0.36	0.94	6.0	7.80	10.30	11.60	2.8	3.7	4.1
M	3.70	5%	0.20	0.52	6.3	7.70	10.20	11.50	14.7	19.5	21.9
N	14.98	8%	1.20	0.53	6.2	7.70	10.20	11.50	60.9	80.6	90.9
O	4.28	16%	0.70	0.57	7.8	7.10	9.40	11.50	17.2	22.8	27.9

NOTE: TCI Storm Water Design Criteria Manual (2016)
was utilized for Intensities in the Rational Method for these calculations
as required by the City of San Antonio.

TIME OF CONCENTRATION - ULTIMATE (PROPOSED)
HEIGHTS OF CROWNRIDGE UNIT 2 - RESIDENTIAL
6/1/2024

	OVERLAND FLOW			SHALLOW CONCENTRATED FLOW		STREET FLOW / SWALE FLOW		
DRAINAGE AREA	SLOPE (FT/FT)	L (FT)	Mannings n	SLOPE (FT/FT)	L (FT)	SLOPE (FT/FT)	L (FT)	Total Tc (MIN.)
A	0.030	100	0.01	0.030	450	0.140	1100	10.4
B	0.100	100	0.01	0.100	50	0.100	250	6.0
C	0.060	100	0.01	0.060	400	0.100	320	7.5
D	0.500	100	0.04	0.500	100	0.100	40	5.3
E	0.400	100	0.04	0.400	80	0.100	150	5.6
F	0.050	100	0.01	0.050	30	0.100	60	5.3
G	0.070	100	0.01	0.070	40	0.100	50	5.3
H	0.100	100	0.01	0.100	20	0.100	160	5.6
I	0.020	100	0.01	0.020	30	0.100	40	5.3
J	0.040	100	0.01	0.040	20	0.100	60	5.3
K	0.050	100	0.01	0.050	20	0.100	10	5.1
L	0.120	100	0.01	0.120	20	0.100	280	6.0
M	0.080	100	0.04	0.300	350	0.100	230	6.3
N	0.080	100	0.04	0.400	400	0.100	180	6.2
O	0.080	100	0.04	0.400	350	0.100	650	7.8

Tt, Overland Flow

$$T = \frac{0.007(nL)^{0.8}}{(P2)^{0.5}*S^{0.4}}$$

P2 = 3.96

Tsc, Shallow Concentrated

$$T = \frac{Lsc}{3600*K*(Ssc)^{0.5}}$$

K (Unpaved) = 16.13
K (Paved) = 20.32

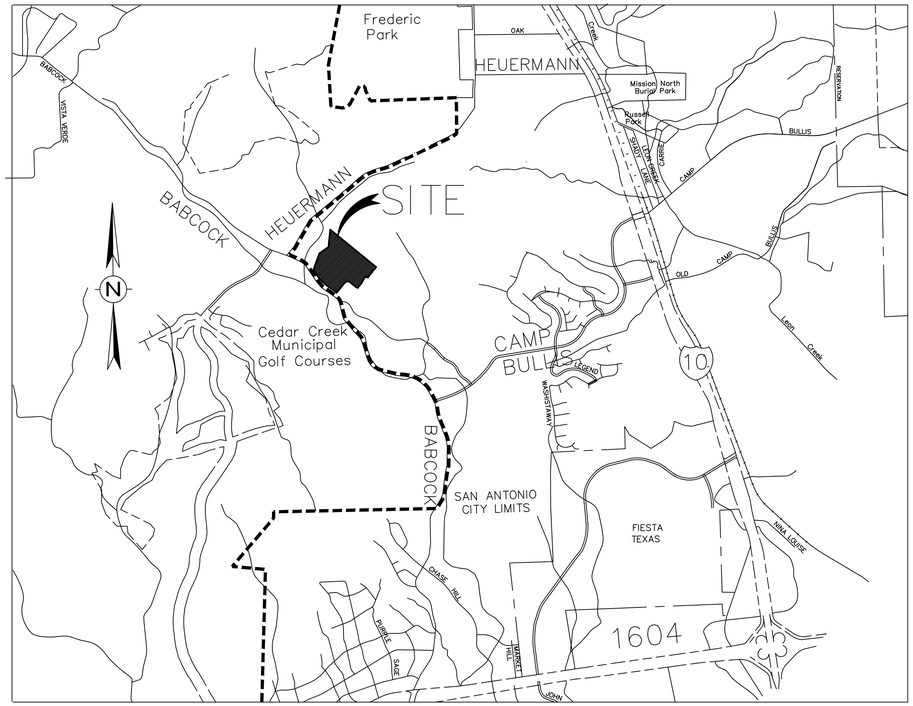
Tch, Channel Flow

$$T = \frac{Lch}{3600*1.49/n*R^{(2/3)}*Sch^{(1/2)}}$$

Condition	Manning's "n"
Smooth Surface	0.011
Fallow No Residue	0.05
Cultivated ResidueLT20%	0.06
Cultivated ResidueGT20%	0.17
Grass-Short	0.15
Grass-Dense	0.24
Grass-Bermuda	0.41
Range (Natural)	0.13
Woods-Light	0.4
Woods-Dense	0.8

CONSTRUCTION PLANS FOR
HEIGHTS OF CROWNRIDGE
MULTI-FAMILY

ADDRESS: 19302 BABCOCK ROAD
SAN ANTONIO, TX 78256



VICINITY MAP
N.T.S.

SUBMITTAL DATE:
AUGUST 16, 2024

LEGAL DESCRIPTION

BEING A 16.991 ACRE TRACT OF LAND, ESTABLISHING LOT 1, BLOCK 11, NCB 18333, SITUATED IN THE CITY OF SAN ANTONIO, BEXAR COUNTY, TEXAS, BEING A PORTION OF THE REMAINDER OF LOT 2, BLOCK 11, NCB 18333 AS CONVEYED IN THE QUITCLAIM DEED OF RECORD IN DOCUMENT #20220014259 OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS.

SHEET INDEX

THESE PLANS GOVERN THE CONSTRUCTION OF ALL IMPROVEMENTS ON THIS SITE RATHER THAN ANY DIGITAL FORMAT FILES. THE DETAILS AND SPECIFICATIONS HEREIN ARE TO BE FOLLOWED FOR THE CONSTRUCTION OF ALL IMPROVEMENTS TO THIS SITE.

PROJECT DIRECTORY

Landscape

M.E.P. Engineer

Structural

Civil Engineer
KAVANAUGH CONSULTING, LLC
DAVID PARKERSON, P.E.
132 BLAZING MEADOW ROAD, No. 1
SPRING BRANCH, TEXAS 78070
PHONE: (512) 587-7397
KAVANAUGHCONSULTING@GMAIL.COM

Architect & Land Planner
CROSS ARCHITECTS, PLLC
879 JUNCTION DRIVE
ALLEN, TEXAS 75013
PHONE: (972) 398-6644
WWW.CROSSARCHITECTS.COM

Developer
STEPHEN L. SALLMAN
WARNER LAND ADVISORS, LP
4040 N. CENTRAL EXPRESSWAY
DALLAS, TEXAS 75204

GEOTECHNICAL

No.	Date	Revisions	App.

MK KELLER CONSULTING, LLC
PO. BOX 1805
FREDERICKSBURG, TEXAS 78624
PH: (830) 889-7753

KAVANAUGH CONSULTING, LLC
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SPRING BRANCH, TEXAS 78070
PHONE: (512) 587-7397
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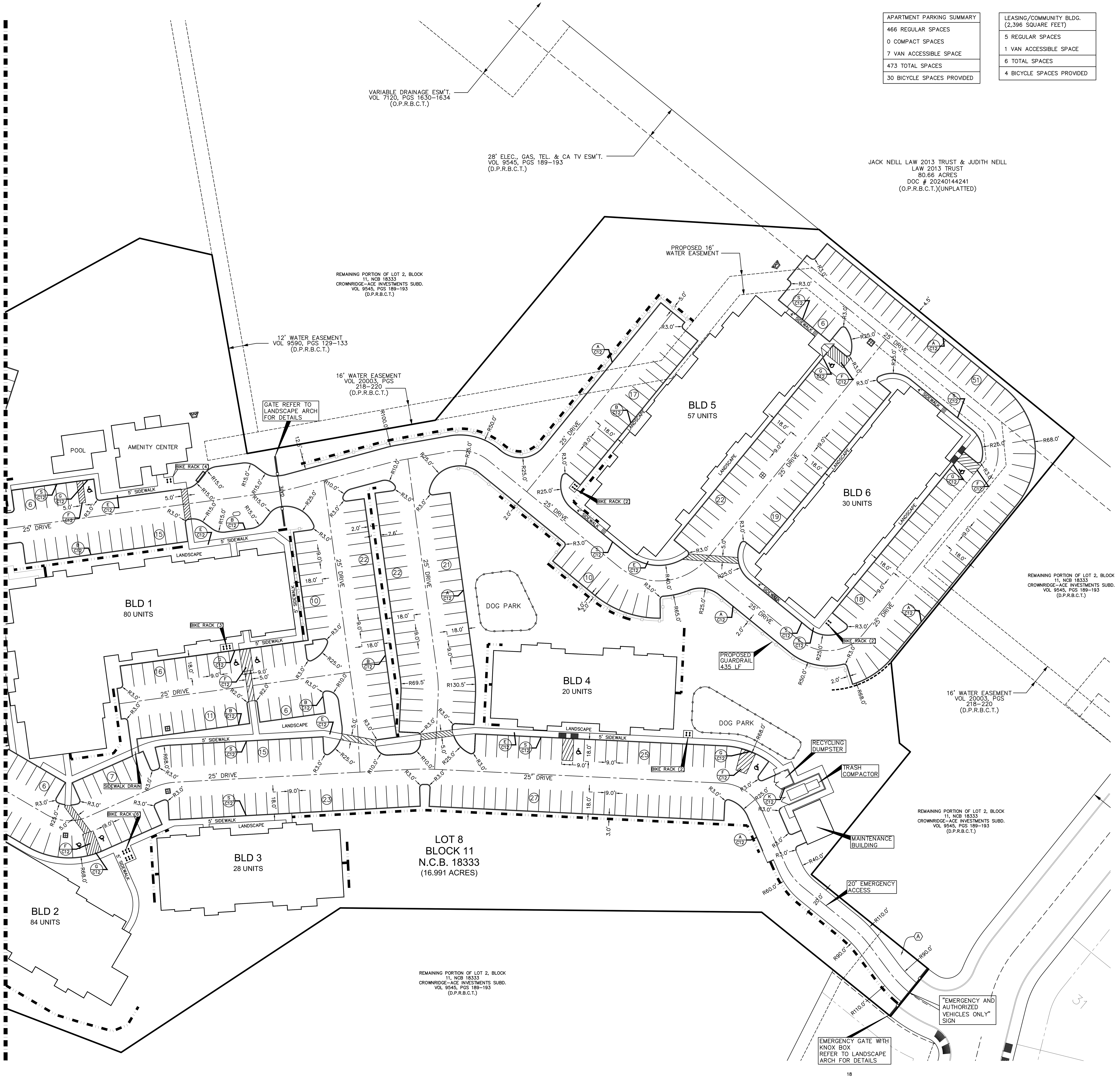
TBPE FIRM #9711

ENGINEER'S SEAL:

Scale:	As Shown
Designed by:	MRK
Drawn by:	MRK
Checked by:	DP
Date:	AUGUST 16, 2024
Project No.	24-022

SHEET
1
OF 14

PLAT NO. 24-11800275
ADDRESS: 19302 BABCOCK ROAD



APARTMENT PARKING SUMMARY
466 REGULAR SPACES
0 COMPACT SPACES
7 VAN ACCESSIBLE SPACE
473 TOTAL SPACES
30 BICYCLE SPACES PROVIDED

LEASING/COMMUNITY BLDG. (2,396 SQUARE FEET)
5 REGULAR SPACES
1 VAN ACCESSIBLE SPACE
6 TOTAL SPACES
4 BICYCLE SPACES PROVIDED

LEGEND

- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROP. REMOTE FIRE DEPARTMENT CONN.
- LIGHT POLE
- POWER POLE
- EXISTING MANHOLE
- PROPOSED MANHOLE
- MISC TRAFFIC SIGN
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C = COMPACT PARKING
OU = OVERHEAD UTILITIES
GCOD = HILL COUNTRY GATEWAY CORRIDOR
FOC = FACE OF CURB
BOC = BACK OF CURB
BE = BUILDING EXTERIOR
B-B = BACK TO BACK (CURB)
F-F = FACE TO FACE (CURB)

GRAPHIC SCALE

80 40 20 0 40 120

(IN FEET)
1 inch = 40 ft.

(A) WATER, SAN., SWR., DRAIN, ELEC., GAS, TELE., & CA.T.V. ESM'T. (ESM'T TO EXPIRE UPON INCORPORATION INTO FUTURE STREET RIGHT-OF-WAY)
VOL 9590, PGS 129-133 (D.P.R.B.C.T.)

SIGN NOTES:

1. ALL CONSTRUCTION SHALL MEET CITY OF SAN ANTONIO STANDARDS FOR PUBLIC WORKS CONSTRUCTION AND THE CURRENT TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. CONTRACTOR WILL BE RESPONSIBLE FOR ALL INSPECTIONS FOR SIGN INSTALLATION.

GENERAL SITE NOTES:

3. CONTRACTOR SHALL COMPLY WITH THE CITY OF SAN ANTONIO BUILDING CODE AND REGULATIONS AND APPLICABLE TECHNICAL SPECIFICATIONS IN THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR THE CITY OF SAN ANTONIO", AS WELL AS OTHER SAFETY CODES AND INSPECTION PROVISIONS APPLICABLE TO THIS PROJECT.
4. CONTRACTOR SHALL SECURE ALL PERMITS REQUIRED FOR CONSTRUCTION AND SHALL NOTIFY ALL RESPECTIVE GOVERNMENTAL OR UTILITY AGENCIES AFFECTED BY CONSTRUCTION PRIOR TO STARTING CONSTRUCTION.
5. LOCATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, IS BASED ON A COMBINATION OF FIELD SURVEYING AND AVAILABLE UTILITY MAPS, CONTRACTOR TO DETERMINE VERTICAL AND HORIZONTAL LOCATIONS OF ALL UTILITIES (WHETHER SHOWN ON PLANS OR NOT) BY COORDINATING WITH THE REPRESENTATIVE UTILITY AGENCIES PRIOR TO CONSTRUCTION. THE FOLLOWING ARE NUMBERS OF THE RESPECTIVE AGENCIES:

5.1.	SAN ANTONIO WATER SYSTEM (WATER)	233-2009
5.2.	SAN ANTONIO WATER SYSTEM (SEWER)	233-2009
5.3.	CPS ENERGY (GAS AND ELECTRIC)	978-3500
5.4.	AT&T (TELEPHONE)	820-6229
5.5.	TIME WARNER CABLE (CABLE TELEVISION)	675-4560
5.6.	VALERO ENERGY CORP.	246-2394
5.7.	BEXAR METROPOLITAN WATER DISTRICT	922-1221
5.8.	TESS-STATEWIDE ONE CALL DAMAGE	
5.9.	PREVENTION SYSTEM FOR BURIED UTILITIES	1-800-DIG-TESS

6. IF ANY NUMBERS HAVE CHANGED OR ARE INCORRECT, THE CONTRACTOR IS STILL RESPONSIBLE FOR CONTACTING THE AGENCIES.
7. REMOVE ALL ASPHALT AND CONCRETE WITH A SMOOTH SAW-CUT.
8. COMPACT ALL PAVEMENT SUBGRADE TO 95% MAXIMUM DRY DENSITY. COMPACT AREAS TO RECEIVE LANDSCAPING AND/OR GRASS TO 85%.
9. PRIOR TO BIDDING, THE CONTRACTOR SHALL THOROUGHLY INVESTIGATE THE SITE AND FAMILIARIZE HIMSELF WITH ALL ASPECTS OF THE SITE WHICH MAY AFFECT HIS WORK. THIS INCLUDES ACCOUNTING FOR ALL VISIBLE FEATURES WHICH MAY IMPACT THE BID OR THE WORK.
10. CONTRACTOR SHALL CAREFULLY DEMOLISH AND REMOVE ALL ITEMS (ABOVE AND BELOW GROUND) AS REQUIRED TO CONSTRUCT THE PROJECTS AS SHOWN. ALL REMOVAL AND DISPOSAL ACTIVITIES MUST COMPLY WITH APPLICABLE CODES, LAWS AND ORDINANCES.
11. REMOVE AND DISPOSE OF ALL EXCESS EXCAVATION.
12. CONTRACTOR IS RESPONSIBLE FOR ALL VERTICAL AND HORIZONTAL CONTROL.
13. BASE MATERIAL AND INSTALLATION TO BE IN CONFORMANCE WITH ITEM 247 (TxDOT. STD. SPECS. '93 ED.), TYPE A GRADE 2. COMPACT TO 95% MAXIMUM DRY DENSITY @ +2% OPTIMUM MOISTURE CONTENT.
14. PRIME COAT MATERIAL AND INSTALLATION TO BE CUT-BACK ASPHALT TYPE IN ACCORDANCE WITH ITEM 310 (TxDOT. STD. SPECS. 93ED.) (0.2 GAL/S.Y.).
15. ALL ASPHALT MATERIAL AND INSTALLATION TO COMPLY WITH ITEM 340 TYPE "D"(TxDOT. STD. SPECS. '93 ED.).
16. DOWELL PRECAST CONCRETE WHEEL STOPS A MINIMUM OF 6" INTO BASE AND CONCRETE.
17. CONTRACTOR TO FULLY COOPERATE WITH PARKING LOT LIGHT CONTRACTOR.
18. ALL SITE CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS UNLESS OTHERWISE NOTED.
19. FOR ALL STRIPING AND TRAFFIC CONTROL MARKINGS, CONTRACTOR TO USE GLIDDEN TRAFFIC PAINT #63228 OR SHERWIN-WILLIAMS PRO-MAR TRAFFIC MARKING PAINT (SERIES B29W1). COLOR IS WHITE. APPLY TWO COATS.
20. INSTALL "NO PARKING – FIRE LANE" SIGNS IN ACCORDANCE WITH THE FIRE MARSHALL'S REQUIREMENTS. PAINT CURBS AS REQUIRED BY FIRE MARSHALL.
21. DIMENSIONS ARE TO THE PAVEMENT EDGE OF THE CURB, FACE OF BUILDING OR PROPERTY LINE, OR STRIPING CENTERLINE.
22. THE CONCRETE DRIVE APPROACHES WITHIN CITY RIGHT-OF-WAY ARE SUBJECT TO CITY INSPECTION.
23. MAXIMUM SIDEWALK CONTROL JOINT SPACING IS 5 FEET.
24. MAXIMUM SIDEWALK EXPANSION JOINT SPACING IS 40 FEET.
25. CONTRACTOR MUST KEEP ALL PERMITS ON JOB SITE.
26. ALL EXISTING SIGNS AND BENCHES (WHETHER SHOWN ON PLANS OR NOT) WHICH CONFLICT WITH CONSTRUCTION SHALL BE RELOCATED.
27. PROPOSED CURBING TO BE TRANSITIONED SMOOTHLY TO MATCH EXISTING.
28. THE CONSTRUCTION SITE IS TO BE THOROUGHLY CLEANED BY THE CONTRACTOR PRIOR TO ISSUANCE OF PAYMENT BY THE OWNER.
29. CONTRACTOR SHALL INCLUDE ALL COSTS FOR ROUTING PEDESTRIAN AND VEHICULAR TRAFFIC IN THE BID AMOUNT.
30. P.C. = POINT OF CURVATURE, P.R.C. = POINT OF REVERSE CURVATURE, P.T. = POINT OF TANGENCY, P.C.C. = POINT OF COMPOUND CURVATURE.
31. WHEEL STOPS SHALL BE OF PRECAST CONCRETE AND 6' IN LENGTH.
32. CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATION. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.
33. REFERENCE DETAILS FOR HANDICAP SIGNAGE.
34. BARRICADES AND WARNING SIGNS SHALL CONFORM TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND GENERALLY BE LOCATED TO AFFORD MAXIMUM PROTECTION TO THE PUBLIC AS WELL AS CONSTRUCTION PERSONNEL AND EQUIPMENT TO ASSURE AN EXPEDITIOUS TRAFFIC FLOW AT ALL TIMES DURING CONSTRUCTION. DURING THE PROGRESS OF THE WORK THE CONTRACTOR SHALL PROVIDE ACCESS FOR LOCAL TRAFFIC.
35. ITEMS OF WORK NOTED "BY OTHERS" SHALL BE CONSIDERED AS NOT PART OF THIS CONTRACT.
36. THE CONTRACTOR SHALL COORDINATE (WITH OWNER/ARCHITECT) WHICH TREES ARE TO BE PROTECTED DURING CONSTRUCTION. CONTRACTOR SHALL PROTECT ACCORDINGLY AND PROVIDE WATER AS REQUIRED. SEE DETAILS.
37. ON ALL GRAVITY LINES, CONTRACTOR MUST START AT DOWNSTREAM END AND PROCEED UPSTREAM TAKING CARE TO EXPOSE ALL EXISTING UTILITIES AND STRUCTURES WHICH MAY CONFLICT WITH THE PROPOSED LINE. ANY OTHER SEQUENCE OF CONSTRUCTION WILL BE AT THE CONTRACTOR'S RISK.
38. THIS PROJECT LIES WITHIN THE EDWARDS AQUIFER CONTRIBUTING ZONE. CONTRACTOR MUST FAMILIARIZE HIMSELF WITH THE VARIOUS REQUIREMENTS INVOLVING CONSTRUCTION WITHIN THE CONTRIBUTING ZONE TO THE RECHARGE ZONE. A CONTRIBUTING ZONE PLAN IS IN EXISTENCE FOR THE PROJECT AND MUST BE CONSIDERED DURING ALL PHASES OF THE SITE WORK. THE PROJECT WILL BE UNDER THE REVIEW OF THE TEXAS NATURAL RESOURCES CONSERVATION COMMISSION (TCEQ) AND THE CONTRACTOR SHALL TAKE MINUTES OF MEETINGS BETWEEN HIMSELF AND THE TCEQ. THESE MINUTES SHOULD BE TRANSMITTED TO THE ENGINEER AND THE OWNER AS SOON AS POSSIBLE.
39. IN CASES WHERE HYDROMULCH HAS BEEN PROPERLY APPLIED, CONTRACTOR TO PROVIDE WATER AS REQUIRED, TO ACHIEVE A MINIMUM OF 185% GERMINATION TOWARDS SUBSTANTIAL GROWTH.

PLAT NO. 24-11800275
ADDRESS: 19302 BABCOCK ROAD

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PO BOX 1805
FREDERICKSBURG, TEXAS 78624
PH. (830) 609-7753

ENGINEER'S SEAL: DAVID PARKERSON 87016

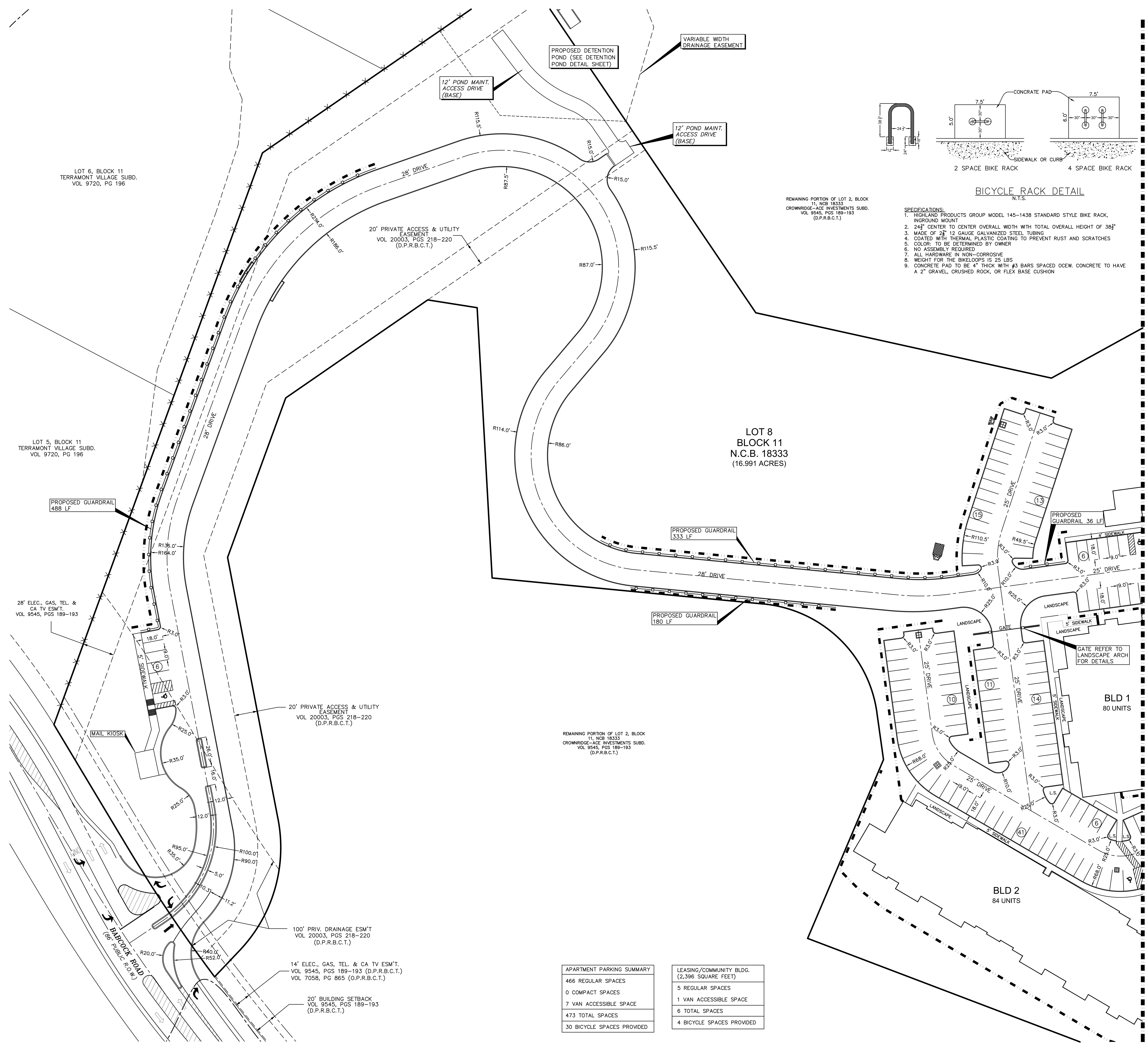
No. | Date | Revisions

HEIGHTS OF CROWNRIDGE MULTI-FAMILY

SITE PLAN SHEET 1 OF 2

Scale: As Shown
Designed by: MRK
Drawn by: MRK
Checked by: DP
Date: AUGUST 16, 2024
Project No. 24-022

SHEET 2 OF 14



APARTMENT PARKING SUMMARY
466 REGULAR SPACES
0 COMPACT SPACES
7 VAN ACCESSIBLE SPACE
473 TOTAL SPACES
30 BICYCLE SPACES PROVIDED

LEASING/COMMUNITY BLDG. (2,396 SQUARE FEET)
5 REGULAR SPACES
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6 TOTAL SPACES
4 BICYCLE SPACES PROVIDED

2 SPACE BIKE RACK

4 SPACE BIKE RACK

BICYCLE RACK DETAIL

N.T.S.

SPECIFICATIONS:

1. HIGHLAND PRODUCTS GROUP MODEL 145-1438 STANDARD STYLE BIKE RACK, INGROUND MOUNT
2. 24½" CENTER TO CENTER OVERALL WIDTH WITH TOTAL OVERALL HEIGHT OF 38½"
3. MADE OF 2⅞" 12 GAUGE GALVANIZED STEEL TUBING
4. COATED WITH THERMAL PLASTIC COATING TO PREVENT RUST AND SCRATCHES
5. COLOR: TO BE DETERMINED BY OWNER
6. NO ASSEMBLY REQUIRED
7. ALL HARDWARE IN NON-CORROSIVE
8. WEIGHT FOR THE BIKELOOPS IS 25 LBS
9. CONCRETE PAD TO BE 4" THICK WITH #3 BARS SPACED OCEW. CONCRETE TO HAVE A 2" GRAVEL, CRUSHED ROCK, OR FLEX BASE CUSHION

NORTH

LEGEND

- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROP. REMOTE FIRE DEPARTMENT CONN.
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13. BASE MATERIAL AND INSTALLATION TO BE IN CONFORMANCE WITH ITEM 247 (TxDOT. STD. SPECS. '93 ED.), TYPE A GRADE 2. COMPACT TO 95% MAXIMUM DRY DENSITY @ +2% OPTIMUM MOISTURE CONTENT.
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PLAT NO. 24-11800275
ADDRESS: 19302 BABCOCK ROAD

No.	Date	Revisions

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SPRING BRANCH, TEXAS 78070
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KAVANAUGHCONSULTING@GMAIL.COM
TBPE FIRM #6711

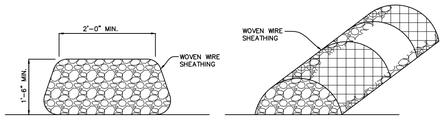
MK KELLER CONSULTING, LLC
PO. BOX 1805
FREDERICKSBURG, TEXAS 78624
PH. (830) 609-7753

ENGINEER'S SEAL:
STATE OF TEXAS
DAVID PARKERSON
87016
REGISTERED PROFESSIONAL ENGINEER
08/01/24

HEIGHTS OF CROWNRIDGE MULTI-FAMILY

SITE PLAN SHEET 2 OF 2

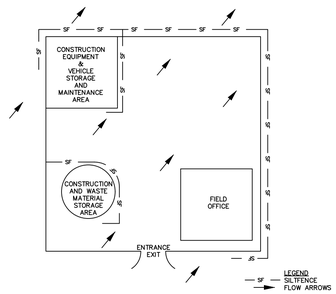
Scale:	As Shown
Designed by:	MRK
Drawn by:	MRK
Checked by:	DP
Date:	AUGUST 16, 2024
Project No.	24-022



ROCK BERM

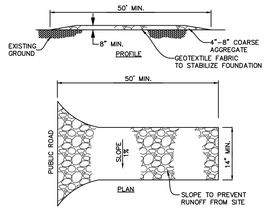
SCALE: N.T.S.

NOTES:
1. USE ONLY OPEN GRADED ROCK 3-5 INCHES DIMATER.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 1 INCH OPENINGS AND MINIMUM WIRE DIAMETER OR 20 GAUGE.
3. THE ROCK BERM SHALL BE INSPECTED WEEKLY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE - WOVEN WIRE SHEATHING, SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CREATE A SILTATION PROBLEM.
5. DAILY INSPECTION SHALL BE MADE ON SEVERE SERVICE ROCK BERMS; SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES 6 INCHES.
6. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATION SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.



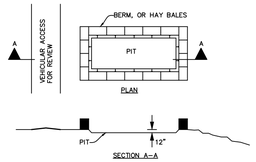
TYP. CONSTRUCTION STAGING AREA

SCALE: N.T.S.



STABILIZED CONSTR. ENTRANCE

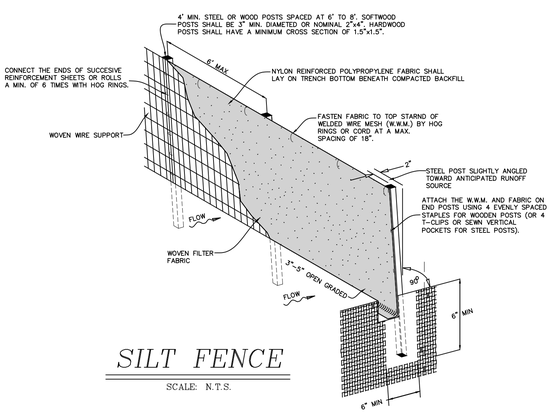
SCALE: N.T.S.



NOTES:
- DETAIL ABOVE ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE.
- IF HAY BALES ARE USED, THEY SHALL BE PLACED IN ACCORDANCE WITH DETAILS SHOWN ON EXHIBIT FOR HAY BALES.
- WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC.
- WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION FROM STORM WATER RUNOFF.

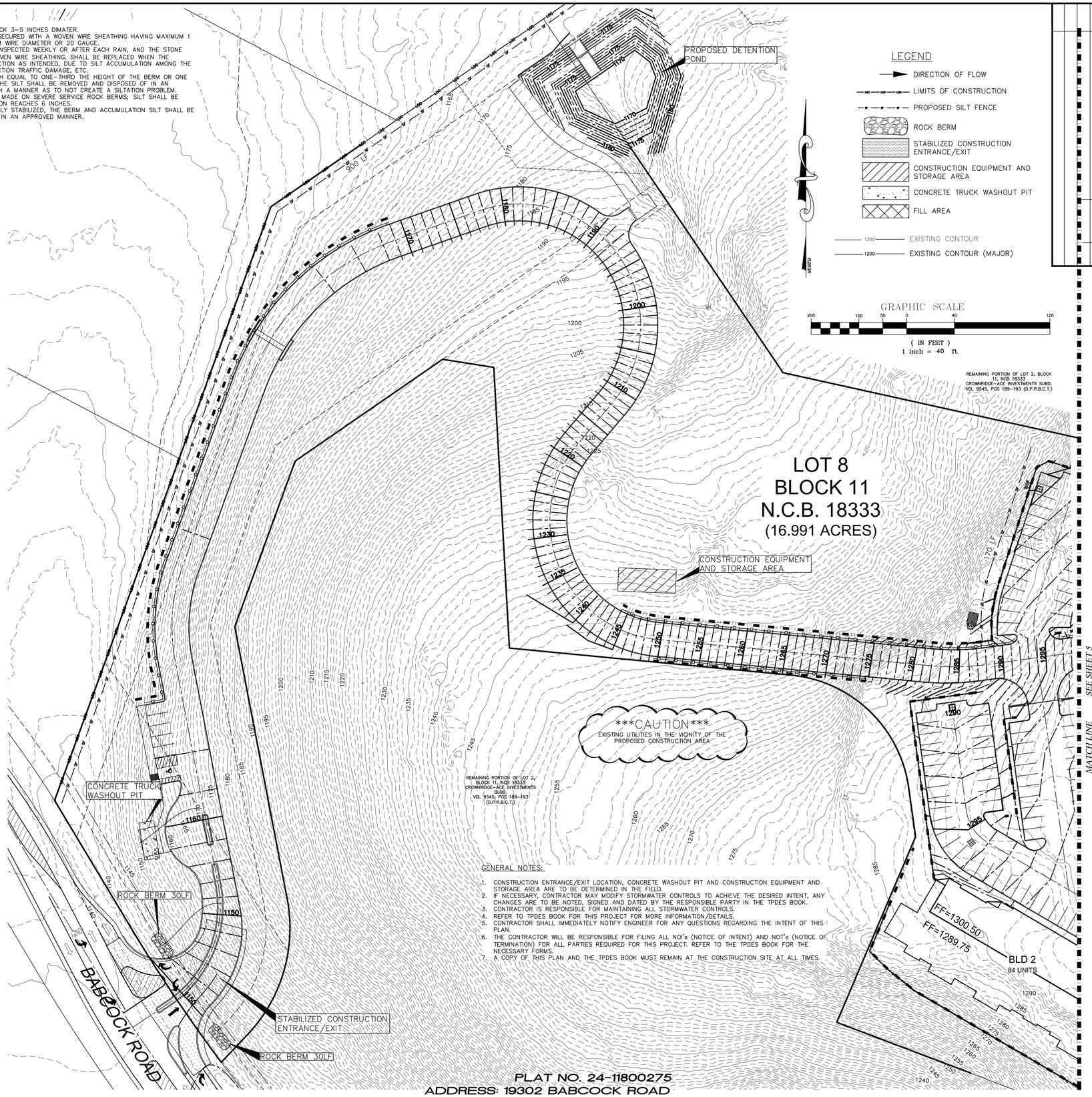
CONCRETE TRUCK WASHOUT PIT

SCALE: N.T.S.



SILT FENCE

SCALE: N.T.S.



GENERAL NOTES:
1. CONSTRUCTION ENTRANCE/EXIT LOCATION, CONCRETE WASHOUT PIT AND CONSTRUCTION EQUIPMENT AND STORAGE AREA ARE TO BE DETERMINED IN THE FIELD.
2. IF NECESSARY, CONTRACTOR MAY MODIFY STORMWATER CONTROLS TO ACHIEVE THE DESIRED INTENT, ANY CHANGES ARE TO BE NOTED, SIGNED AND DATED BY THE RESPONSIBLE PARTY IN THE TPDES BOOK.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL STORMWATER CONTROLS.
4. REFER TO TPDES BOOK FOR THIS PROJECT FOR MORE INFORMATION/DETAILS.
5. CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER FOR ANY QUESTIONS REGARDING THE INTENT OF THIS PLAN.
6. THE CONTRACTOR WILL BE RESPONSIBLE FOR FILING ALL NOI's (NOTICE OF INTENT) AND NOT's (NOTICE OF TERMINATION) FOR ALL PARTIES REQUIRED FOR THIS PROJECT. REFER TO THE TPDES BOOK FOR THE NECESSARY FORMS.
7. A COPY OF THIS PLAN AND THE TPDES BOOK MUST REMAIN AT THE CONSTRUCTION SITE AT ALL TIMES.

PLAT NO. 24-11800275
ADDRESS: 19302 BABCOCK ROAD

FOR REVIEW

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SPRING BRANCH, TEXAS 78070
PHONE: (512) 387-7397
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TBPE FIRM #F711

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PO. BOX 1805
FREDERICKSBURG, TEXAS 78624
PH. (830) 609-7753

ENGINEER'S SEAL:
STATE OF TEXAS
DAVID PARKERSON
87016
LICENSED PROFESSIONAL ENGINEER

HEIGHTS OF CROWNRIDGE MULTI-FAMILY

STORMWATER POLLUTION PREVENTION PLAN SHEET 1 OF 2

Scale:	As Shown
Designed by:	MRK
Drawn by:	MRK
Checked by:	DP
Date:	AUGUST 16, 2024
Project No.	24-022

SHEET 4 OF 14

GRAPHIC SCALE

200 100 50 0 40 120

(IN FEET)
1 inch = 40 ft.

LEGEND

- DIRECTION OF FLOW
- LIMITS OF CONSTRUCTION
- PROPOSED SILT FENCE
- ROCK BERM
- STABILIZED CONSTRUCTION ENTRANCE/EXIT
- CONSTRUCTION EQUIPMENT AND STORAGE AREA
- CONCRETE TRUCK WASHOUT PIT
- FILL AREA
- 1200 EXISTING CONTOUR
- 1200 EXISTING CONTOUR (MAJOR)

JACK NEILL LAW 2013 TRUST & JUDITH NEILL LAW 2013 TRUST
80.66 ACRES
DOC # 20240144241
(O.P.R.B.C.T.) (UNPLATTED)

REMAINING PORTION OF LOT 2, BLOCK 11, NCB 18333 CROWNRIDGE-ACE INVESTMENTS SUBD. VOL. 9545, PGS. 189-193 (O.P.R.B.C.T.)

CAUTION
EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED CONSTRUCTION AREA

LOT 8
BLOCK 11
N.C.B. 18333
(16.991 ACRES)

BLD 1
80 UNITS
FF=1311.00
FF=1301.00

BLD 2
84 UNITS
FF=1300.50
FF=1289.75

BLD 3
28 UNITS
FF=1307.50
FF=1296.75

BLD 4
20 UNITS
FF=1324.25
FF=1313.50

BLD 5
57 UNITS
FF=1346

BLD 6
30 UNITS
FF=1350

CONSTRUCTION EQUIPMENT AND STORAGE AREA
FF=1306

REMAINING PORTION OF LOT 2, BLOCK 11, NCB 18333 CROWNRIDGE-ACE INVESTMENTS SUBD. VOL. 9545, PGS. 189-193 (O.P.R.B.C.T.)

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REMAINING PORTION OF LOT 2, BLOCK 11, NCB 18333 CROWNRIDGE-ACE INVESTMENTS SUBD. VOL. 9545, PGS 188-189 (O.P.R.B.C.T.)

SEE SHEET 4

MATCH LINE

PLAT NO. 24-11800275
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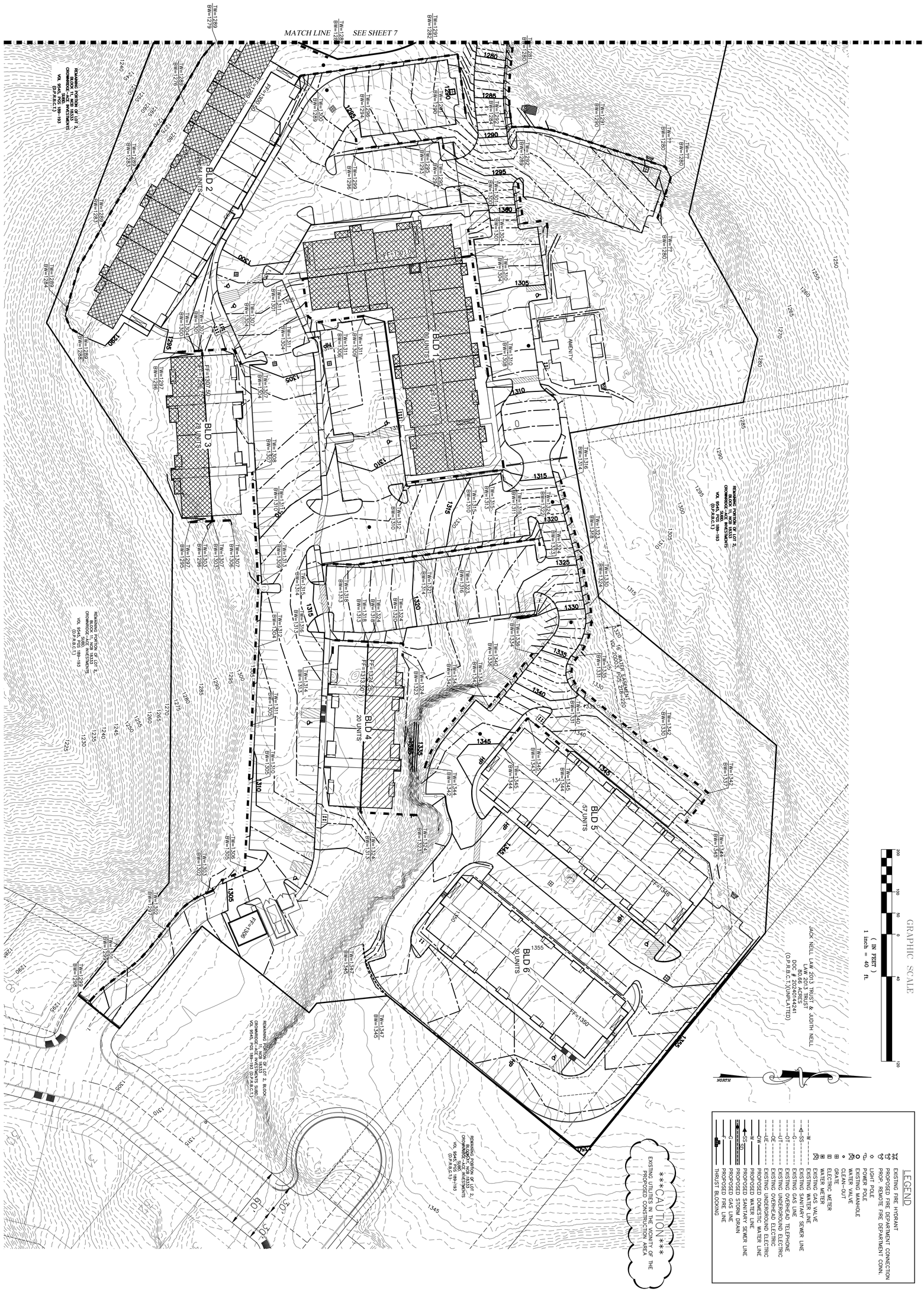
REGISTERED PROFESSIONAL ENGINEER

HEIGHTS OF CROWNRIDGE MULTI-FAMILY

STORMWATER POLLUTION PREVENTION PLAN SHEET 2 OF 2

Scale:	As Shown
Designed by:	MRK
Drawn by:	MRK
Checked by:	DP
Date:	AUGUST 16, 2024
Project No.	24-022

SHEET 5 OF 14



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ENGINEER'S SEAL:

STATE OF TEXAS
DAVID PARKERSON
87016
REGISTERED
PROFESSIONAL ENGINEER
08/01/24

SHEET 6 OF 14

Scale:	As Shown
Designed by:	MRK
Drawn by:	MRK
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Date:	AUGUST 16, 2024
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GRADING PLAN

HEIGHTS OF CROWNRIDGE MULTI-FAMILY

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SIGN NOTES:

1. ALL CONSTRUCTION SHALL MEET CITY OF SAN ANTONIO STANDARDS FOR PUBLIC WORKS CONSTRUCTION AND THE CURRENT TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

2. CONTRACTOR WILL BE RESPONSIBLE FOR ALL INSPECTIONS FOR SIGN INSTALLATION.

GENERAL SITE NOTES:

3. CONTRACTOR SHALL COMPLY WITH THE CITY OF SAN ANTONIO BUILDING CODE AND REGULATIONS AND APPLICABLE TECHNICAL SPECIFICATIONS IN THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR THE CITY OF SAN ANTONIO", AS WELL AS OTHER SAFETY CODES AND INSPECTION PROVISIONS APPLICABLE TO THIS PROJECT.
4. CONTRACTOR SHALL SECURE ALL PERMITS REQUIRED FOR CONSTRUCTION AND SHALL NOTIFY ALL RESPECTIVE GOVERNMENTAL OR UTILITY AGENCIES AFFECTED BY CONSTRUCTION PRIOR TO STARTING CONSTRUCTION.
5. LOCATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, IS BASED ON A COMBINATION OF FIELD SURVEYING AND AVAILABLE UTILITY MAPS, CONTRACTOR TO DETERMINE VERTICAL AND HORIZONTAL LOCATIONS OF ALL UTILITIES (WHETHER SHOWN ON PLANS OR NOT) BY COORDINATING WITH THE REPRESENTATIVE UTILITY AGENCIES PRIOR TO CONSTRUCTION. THE FOLLOWING ARE NUMBERS OF THE RESPECTIVE AGENCIES:

5.1.	SAN ANTONIO WATER SYSTEM (WATER)	233–2009
5.2.	SAN ANTONIO WATER SYSTEM (SEWER)	233–2009
5.3.	CPS ENERGY (GAS AND ELECTRIC)	978–3500
5.4.	AT&T (TELEPHONE)	820–6229
5.5.	TIME WARNER CABLE (CABLE TELEVISION)	675–4560
5.6.	VALERO ENERGY CORP.	246–2394
5.7.	BEXAR METROPOLITAN WATER DISTRICT	922–1221
5.8.	TESS–STATEWIDE ONE CALL DAMAGE	
5.9.	PREVENTION SYSTEM FOR BURIED UTILITIES	1–800–DIG–TESS

6. IF ANY NUMBERS HAVE CHANGED OR ARE INCORRECT, THE CONTRACTOR IS STILL RESPONSIBLE FOR CONTACTING THE AGENCIES.

7. REMOVE ALL ASPHALT AND CONCRETE WITH A SMOOTH SAW–CUT.
8. COMPACT ALL PAVEMENT SUBGRADE TO 95% MAXIMUM DRY DENSITY. COMPACT AREAS TO RECEIVE LANDSCAPING AND/OR GRASS TO 85%.
9. PRIOR TO BIDDING, THE CONTRACTOR SHALL THOROUGHLY INVESTIGATE THE SITE AND FAMILIARIZE HIMSELF WITH ALL ASPECTS OF THE SITE WHICH MAY AFFECT HIS WORK. THIS INCLUDES ACCOUNTING FOR ALL VISIBLE FEATURES WHICH MAY IMPACT THE BID OR THE WORK.
10. CONTRACTOR SHALL CAREFULLY DEMOLISH AND REMOVE ALL ITEMS (ABOVE AND BELOW GROUND) AS REQUIRED TO CONSTRUCT THE PROJECTS AS SHOWN. ALL REMOVAL AND DISPOSAL ACTIVITIES MUST COMPLY WITH APPLICABLE CODES, LAWS AND ORDINANCES.
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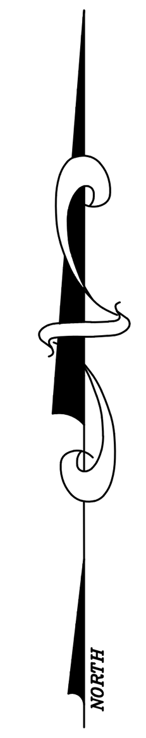

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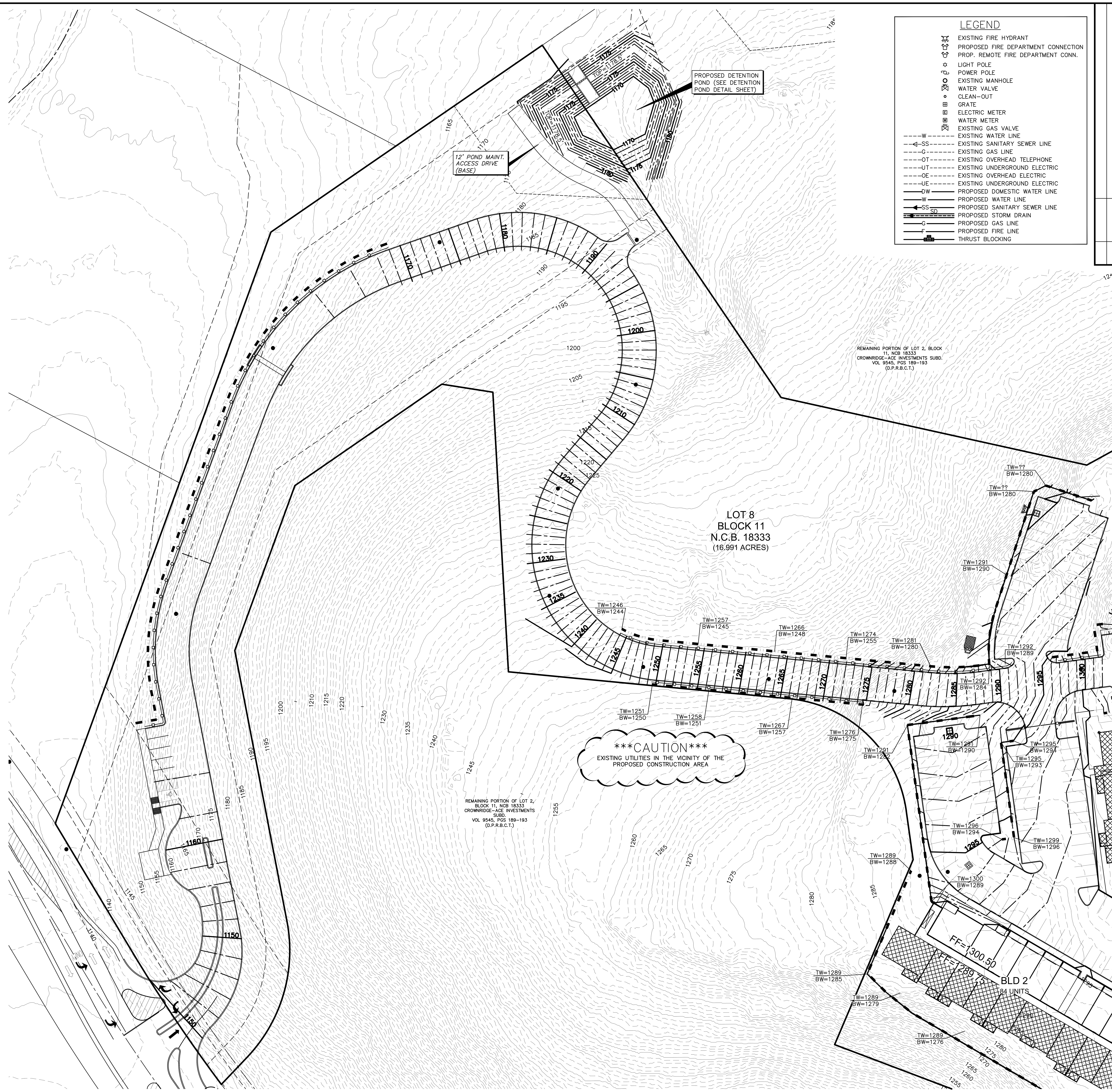

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FREDERICKSBURG, TEXAS 78624
PH. (830) 609–7753

KAVANAUGH CONSULTING, LLC
132 BLAZING MEADOW ROAD, No. 1
SPRING BRANCH, TEXAS 78070
PHONE: (512) 587–7397
KAVANAUGHCONSULTING@GMAIL.COM
TBPE FIRM #6711

HEIGHTS OF CROWNRIDGE MULTI-FAMILY

GRADING PLAN

Scale: As Shown
Designed by: MRK
Drawn by: MRK
Checked by: DP
Date: AUGUST 16, 2024
Project No. 24–022

SHEET
7
OF 14

RETAINING WALL NOTE:

THESE WALLS ARE TO BE DESIGNED, SIGNED, AND SEALED BY A QUALIFIED ENGINEER. KAVANAUGH CONSULTING, LLC RECOMMENDS USING A MODULAR BLOCK RETAINING WALL W/ GEOGRID (IE "ANCHOR WALL" "KEYSTONE, OR MESA") OR EQUAL. COORDINATE WITH RICHARD JENKINS WITH ROSCH COMPANY. (210) 341-7770

GRAPHIC SCALE

200 100 50 0 40 120

(IN FEET)

1 inch = 40 ft.

LEGEND

- 80.00TC / 80.00GU — EXISTING TOP OF CURB AND GUTTER ELEVATIONS
- 80.00 — EXISTING SPOT ELEVATION
- PROPOSED RETAINING WALL
- 100 — PROPOSED CONTOUR (REPRESENT FINISHED TOP OF PAVEMENT OR TOPSOIL)
- 100 — EXISTING CONTOUR
- 100.00 — PROPOSED SPOT ELEVATION (REPRESENT FINISHED TOP OF PAVEMENT OR TOPSOIL)
- PROPOSED RIDGE
- DEFINED SWALE
- FF= — PROPOSED FIN. FLOOR ELEVATION
- PROPOSED FOUNDATION BREAKS
- OVERLAND FLOW DIRECTION
- BENCHMARK
- GRATE
- SD — PROPOSED STORM DRAIN
- SD — EXISTING STORM DRAIN
- TW=1300 / BW=1280 — PROPOSED TOP AND BOTTOM OF RETAINING WALL
- TC=100.1 / GU=199.6 — PROPOSED TOP OF CURB AND GUTTER ELEVATIONS

CAUTION
EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED CONSTRUCTION AREA

JACK NEILL LAW 2013 TRUST & JUDITH NEILL LAW 2013 TRUST
80.66 ACRES
DOC # 20240144241
(O.P.R.B.C.T.) (UNPLATTED)

REMAINING PORTION OF LOT 2, BLOCK 11, NCB 18333 CROWNRIDGE-ACE INVESTMENTS SUBD. VOL. 9545, PGS. 189-193 (O.P.R.B.C.T.)

16' WATER EASEMENT VOL. 20005, PGS. 215-220

BLD 1 — 80 UNITS — FF=1311.00

BLD 2 — 84 UNITS — FF=1300.50, FF=1289.75

BLD 3 — 28 UNITS — FF=1307.50, FF=1296.75

BLD 4 — 20 UNITS — FF=1324.25, FF=1313.50

BLD 5 — 57 UNITS — FF=1345

BLD 6 — 30 UNITS — FF=1360

PLAT NO. 24-11800275
ADDRESS: 19302 BABCOCK ROAD

No.	Date	Revisions	App.

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SPRING BRANCH, TEXAS 78070
PHONE: (512) 587-7397
KAVANAUGHCONSULTING@GMAIL.COM
TBPE FIRM #F711

KELLER CONSULTING, LLC
PO. BOX 1805
FREDERICKSBURG, TEXAS 78624
PH. (830) 609-7753

ENGINEER'S SEAL:

STATE OF TEXAS — DAVID PARKERSON — 87016 — LICENSED PROFESSIONAL ENGINEER

HEIGHTS OF CROWNRIDGE MULTI-FAMILY

RETAINING WALL PLAN

Scale:	As Shown
Designed by:	MRK
Drawn by:	MRK
Checked by:	DP
Date:	AUGUST 16, 2024
Project No.	24-022

SHEET 8 OF 14

SIGN NOTES:
1. ALL CONSTRUCTION SHALL MEET CITY OF SAN ANTONIO STANDARDS FOR PUBLIC WORKS CONSTRUCTION AND THE CURRENT TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

2. CONTRACTOR WILL BE RESPONSIBLE FOR ALL INSPECTIONS FOR SIGN INSTALLATION.

GENERAL SITE NOTES:

3. CONTRACTOR SHALL COMPLY WITH THE CITY OF SAN ANTONIO BUILDING CODE AND REGULATIONS AND APPLICABLE TECHNICAL SPECIFICATIONS IN THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR THE CITY OF SAN ANTONIO", AS WELL AS OTHER SAFETY CODES AND INSPECTION PROVISIONS APPLICABLE TO THIS PROJECT.
4. CONTRACTOR SHALL SECURE ALL PERMITS REQUIRED FOR CONSTRUCTION AND SHALL NOTIFY ALL RESPECTIVE GOVERNMENTAL OR UTILITY AGENCIES AFFECTED BY CONSTRUCTION PRIOR TO STARTING CONSTRUCTION.
5. LOCATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, IS BASED ON A COMBINATION OF FIELD SURVEYING AND AVAILABLE UTILITY MAPS. CONTRACTOR TO DETERMINE VERTICAL AND HORIZONTAL LOCATIONS OF ALL UTILITIES (WHETHER SHOWN ON PLANS OR NOT) BY COORDINATING WITH THE REPRESENTATIVE UTILITY AGENCIES PRIOR TO CONSTRUCTION. THE FOLLOWING ARE NUMBERS OF THE RESPECTIVE AGENCIES:

5.1.	SAN ANTONIO WATER SYSTEM (WATER)	233-2009
5.2.	SAN ANTONIO WATER SYSTEM (SEWER)	233-2009
5.3.	CPS ENERGY (GAS AND ELECTRIC)	978-3500
5.4.	AT&T (TELEPHONE)	820-6229
5.5.	TIME WARNER CABLE (CABLE TELEVISION)	675-4560
5.6.	VALERO ENERGY CORP	246-2394
5.7.	BEXAR METROPOLITAN WATER DISTRICT	922-1221
5.8.	TESS-STATEWIDE ONE CALL DAMAGE	
5.9.	PREVENTION SYSTEM FOR BURIED UTILITIES	1-800-DIG-TESS

6. IF ANY NUMBERS HAVE CHANGED OR ARE INCORRECT, THE CONTRACTOR IS STILL RESPONSIBLE FOR CONTACTING THE AGENCIES.

7. REMOVE ALL ASPHALT AND CONCRETE WITH A SMOOTH SAW-CUT.
8. COMPACT ALL PAVEMENT SUBGRADE TO 95% MAXIMUM DRY DENSITY. COMPACT AREAS TO RECEIVE LANDSCAPING AND/OR GRASS TO 85%.
9. PRIOR TO BIDDING, THE CONTRACTOR SHALL THOROUGHLY INVESTIGATE THE SITE AND FAMILIARIZE HIMSELF WITH ALL ASPECTS OF THE SITE WHICH MAY AFFECT HIS WORK. THIS INCLUDES ACCOUNTING FOR ALL VISIBLE FEATURES WHICH MAY IMPACT THE BID OR THE WORK.
10. CONTRACTOR SHALL CAREFULLY DEMOLISH AND REMOVE ALL ITEMS (ABOVE AND BELOW GROUND) AS REQUIRED TO CONSTRUCT THE PROJECTS AS SHOWN. ALL REMOVAL AND DISPOSAL ACTIVITIES MUST COMPLY WITH APPLICABLE CODES, LAWS AND ORDINANCES.
11. REMOVE AND DISPOSE OF ALL EXCESS EXCAVATION.
12. CONTRACTOR IS RESPONSIBLE FOR ALL VERTICAL AND HORIZONTAL CONTROL.
13. BASE MATERIAL AND INSTALLATION TO BE IN CONFORMANCE WITH ITEM 247 (TxDOT. STD. SPECS. '93 ED.), TYPE A GRADE 2. COMPACT TO 95% MAXIMUM DRY DENSITY @ +-2% OPTIMUM MOISTURE CONTENT.
14. PRIME COAT MATERIAL AND INSTALLATION TO BE CUT-BACK ASPHALT TYPE IN ACCORDANCE WITH ITEM 310 (TxDOT. STD. SPECS. 93ED.) (0.2 GAL/S.Y.).
15. ALL ASPHALT MATERIAL AND INSTALLATION TO COMPLY WITH ITEM 340 TYPE 'D'(TxDOT. STD. SPECS. '93 ED.).
16. DOWELL PRECAST CONCRETE WHEEL STOPS A MINIMUM OF 6" INTO BASE AND CONCRETE.
17. CONTRACTOR TO FULLY COOPERATE WITH PARKING LOT LIGHT CONTRACTOR.
18. ALL SITE CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS UNLESS OTHERWISE NOTED.
19. FOR ALL STRIPING AND TRAFFIC CONTROL MARKINGS, CONTRACTOR TO USE GLIDDEN TRAFFIC PAINT #63228 OR SHERWIN-WILLIAMS PRO-MAR TRAFFIC MARKING PAINT (SERIES B29W1). COLOR IS WHITE. APPLY TWO COATS.
20. INSTALL 'NO PARKING - FIRE LANE' SIGNS IN ACCORDANCE WITH THE FIRE MARSHALL'S REQUIREMENTS. PAINT CURBS AS REQUIRED BY FIRE MARSHALL.
21. DIMENSIONS ARE TO THE PAVEMENT EDGE OF THE CURB, FACE OF BUILDING OR PROPERTY LINE, OR STRIPING CENTERLINE.
22. THE CONCRETE DRIVE APPROACHES WITHIN CITY RIGHT-OF-WAY ARE SUBJECT TO CITY INSPECTION.
23. MAXIMUM SIDEWALK CONTROL JOINT SPACING IS 5 FEET.
24. MAXIMUM SIDEWALK EXPANSION JOINT SPACING IS 40 FEET.
25. CONTRACTOR MUST KEEP ALL PERMITS ON JOB SITE.
26. ALL EXISTING SIGNS AND BENCHES (WHETHER SHOWN ON PLANS OR NOT) WHICH CONFLICT WITH CONSTRUCTION SHALL BE RELOCATED.
27. PROPOSED CURBING TO BE TRANSITIONED SMOOTHLY TO MATCH EXISTING.
28. THE CONSTRUCTION SITE IS TO BE THOROUGHLY CLEANED BY THE CONTRACTOR PRIOR TO ISSUANCE OF PAYMENT BY THE OWNER.
29. CONTRACTOR SHALL INCLUDE ALL COSTS FOR ROUTING PEDESTRIAN AND VEHICULAR TRAFFIC IN THE BID AMOUNT.
30. P.C. = POINT OF CURVATURE, P.R.C. = POINT OF REVERSE CURVATURE, P.T. = POINT OF TANGENCY, P.C.C. = POINT OF COMPOUND CURVATURE.
31. WHEEL STOPS SHALL BE OF PRECAST CONCRETE AND 6' IN LENGTH.
32. CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATION. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.
33. REFERENCE DETAILS FOR HANDICAP SIGNAGE.
34. BARRICADES AND WARNING SIGNS SHALL CONFORM TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND GENERALLY BE LOCATED TO AFFORD MAXIMUM PROTECTION TO THE PUBLIC AS WELL AS CONSTRUCTION PERSONNEL AND EQUIPMENT TO ASSURE AN EXPEDITIOUS TRAFFIC FLOW AT ALL TIMES DURING CONSTRUCTION. DURING THE PROGRESS OF THE WORK THE CONTRACTOR SHALL PROVIDE ACCESS FOR LOCAL TRAFFIC.
35. ITEMS OF WORK NOTED 'BY OTHERS' SHALL BE CONSIDERED AS NOT PART OF THIS CONTRACT.
36. THE CONTRACTOR SHALL COORDINATE (WITH OWNER/ARCHITECT) WHICH TREES ARE TO BE PROTECTED DURING CONSTRUCTION. CONTRACTOR SHALL PROTECT ACCORDINGLY AND PROVIDE WATER AS REQUIRED. SEE DETAILS.
37. ON ALL GRAVITY LINES, CONTRACTOR MUST START AT DOWNSTREAM END AND PROCEED UPSTREAM TAKING CARE TO EXPOSE ALL EXISTING UTILITIES AND STRUCTURES WHICH MAY CONFLICT WITH THE PROPOSED LINE. ANY OTHER SEQUENCE OF CONSTRUCTION WILL BE AT THE CONTRACTOR'S RISK.
38. THIS PROJECT LIES WITHIN THE EDWARDS AQUIFER CONTRIBUTING ZONE. CONTRACTOR MUST FAMILIARIZE HIMSELF WITH THE VARIOUS REQUIREMENTS INVOLVING CONSTRUCTION WITHIN THE CONTRIBUTING ZONE TO THE RECHARGE ZONE. A CONTRIBUTING ZONE PLAN IS IN EXISTENCE FOR THE PROJECT AND MUST BE CONSIDERED DURING ALL PHASES OF THE SITE WORK. THE PROJECT WILL BE UNDER THE REVIEW OF THE TEXAS NATURAL RESOURCES CONSERVATION COMMISSION (TCEQ) AND THE CONTRACTOR SHALL TAKE MINUTES OF MEETINGS BETWEEN HIMSELF AND THE TCEQ. THESE MINUTES SHOULD BE TRANSMITTED TO THE ENGINEER AND THE OWNER AS SOON AS POSSIBLE.
39. IN CASES WHERE HYDROMULCH HAS BEEN PROPERLY APPLIED, CONTRACTOR TO PROVIDE WATER AS REQUIRED, TO ACHIEVE A MINIMUM OF 185% GERMINATION TOWARDS SUBSTANTIAL GROWTH.

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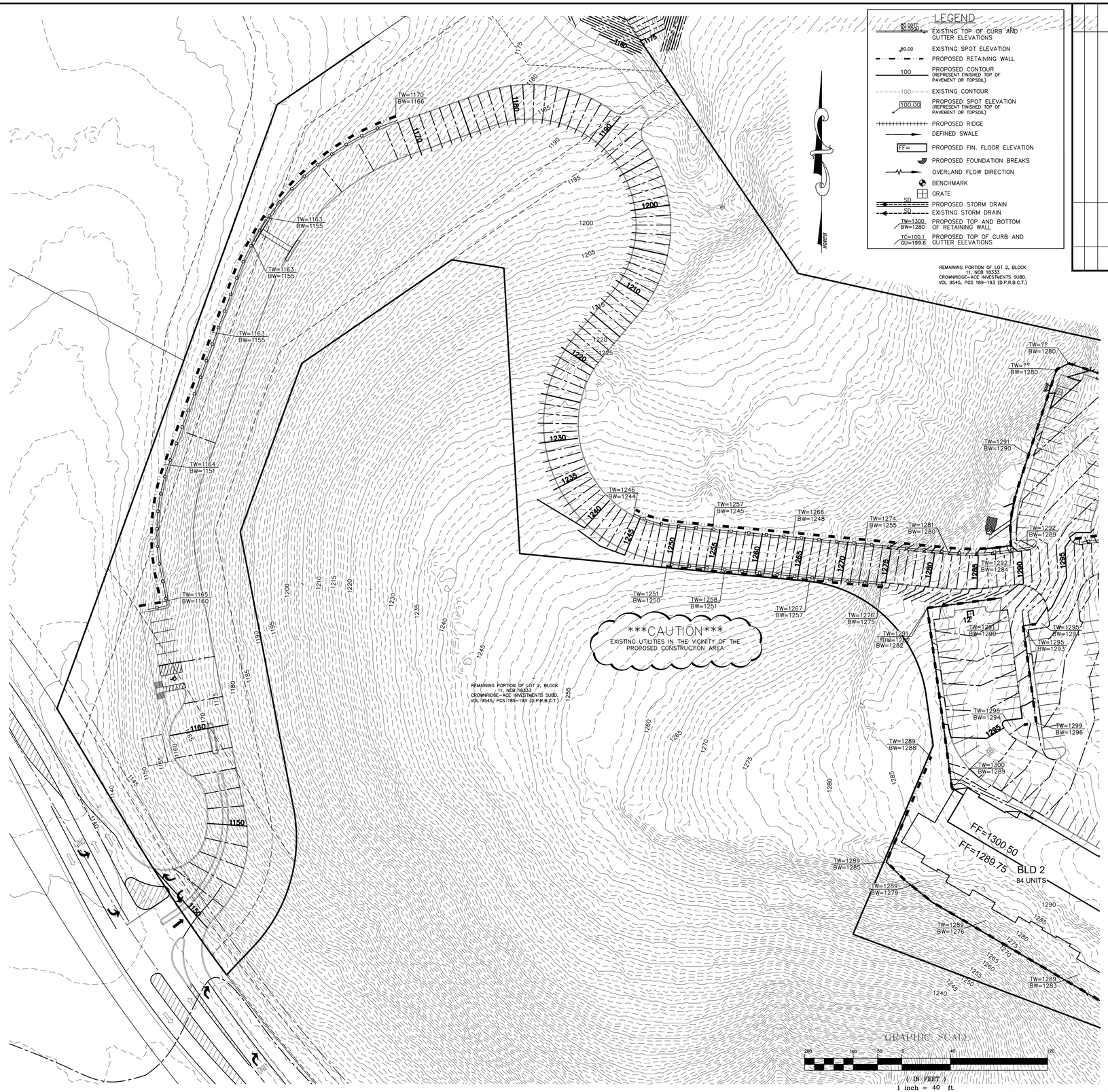

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ENGINEER'S SEAL:
STATE OF TEXAS
DAVID PARKERSON
87016
LICENSED
PROFESSIONAL ENGINEER

HEIGHTS OF CROWNRIDGE MULTI-FAMILY

RETAINING WALL PLAN

Scale:	As Shown
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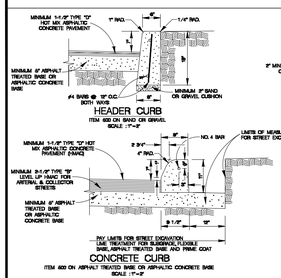
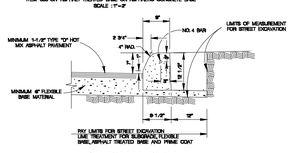
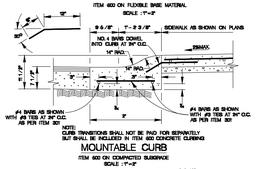
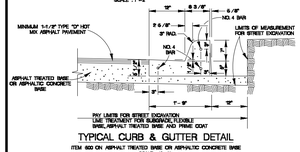
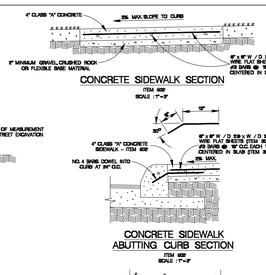
SHEET 9 OF 19

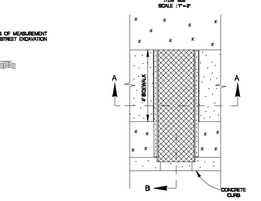


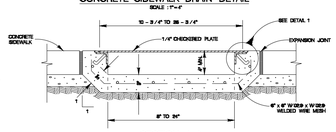


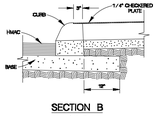


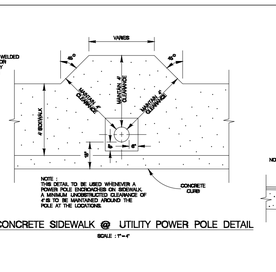


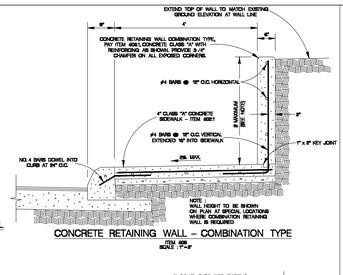


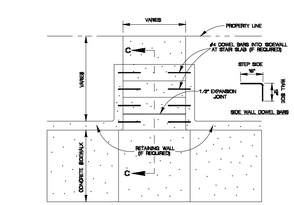


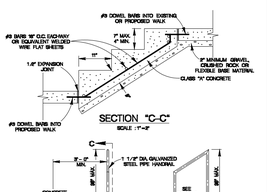


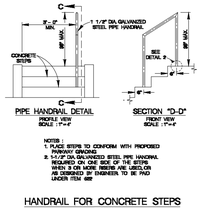


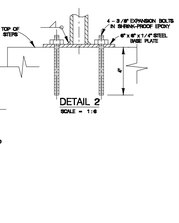


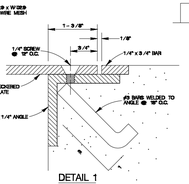


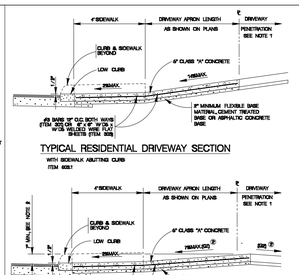


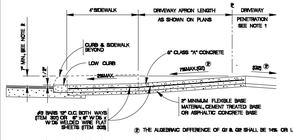


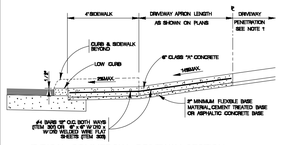


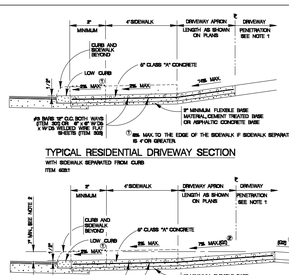


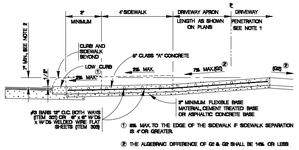


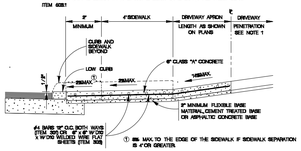


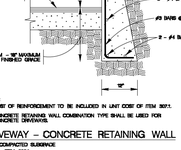


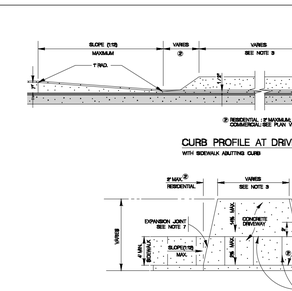


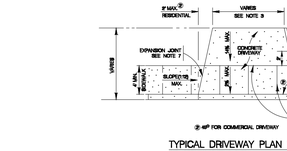


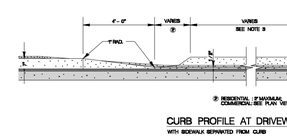


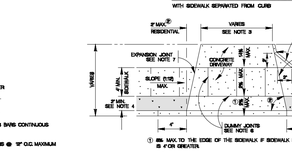


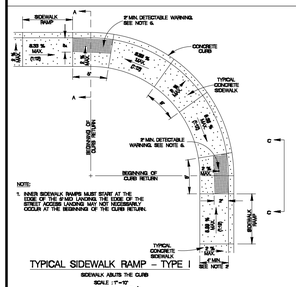


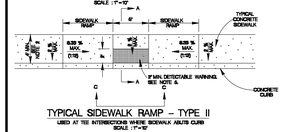


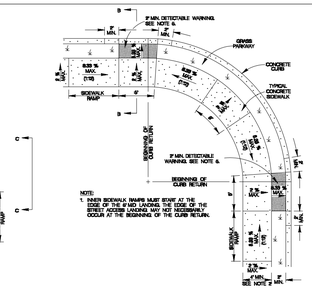


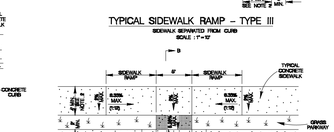


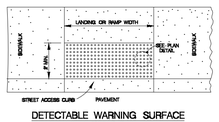


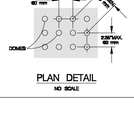


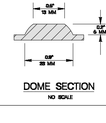


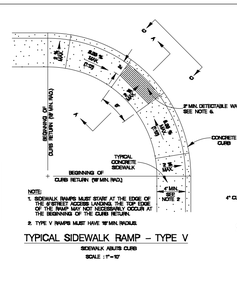


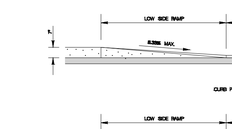


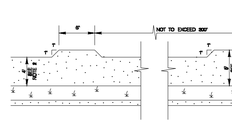


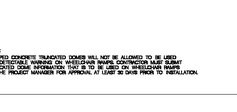












MAY 2009

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

MISCELLANEOUS CONSTRUCTION STANDARDS I

% SUBMITTAL PROJECT NO.:___ DATE:___
DRAWN BY: V. VASQUEZ DSGN. BY:___ CHKD. BY: R.S. HOSSEINI, P.E. SHEET NO.:___OF___

CONCRETE DRIVEWAY NOTES

1. DRIVEWAY PENETRATION REFERS TO A PORTION OF THE DRIVEWAY THAT MAY BE NECESSARY TO RECONSTRUCT WITHIN PRIVATE PROPERTY TO COMPLY WITH A MAXIMUM DRIVEWAY SLOPE. THIS PORTION OF THE DRIVEWAY SHALL BE PAID FOR UNDER THE FOLLOWING ITEMS AS MAY APPLY:
   A.) CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO. 503.1 OR 503.2.
   B.) ASPHALTIC CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO. 503.4 AND SHALL INCLUDE A MINIMUM OF 1" ASPHALT TYPE 'D' & 6" FLEXIBLE BASE
   C.) GRAVEL DRIVEWAY PAID FOR UNDER ITEM NO. 503.5 AND SHALL INCLUDE A MINIMUM OF 6" FLEXIBLE BASE

2. 7" MINIMUM HEIGHT WILL NOT NECESSARILY OCCUR AT THE PROPERTY LINE. IT MAY OCCUR WITHIN THE RIGHT OF WAY OR WITHIN THE DRIVEWAY PENETRATION ON PRIVATE PROPERTY.

3. THE PROPOSED DRIVEWAY SHOULD MATCH THE EXISTING WIDTH AT THE PROPERTY LINE BUT UNLESS AUTHORIZED BY THE CITY TRAFFIC ENGINEER, THE WIDTH SHALL BE WITHIN THE FOLLOWING VALUES:

TYPE	MINIMUM	MAXIMUM
RESIDENTIAL	10'	20'
COMMERCIAL – ONE WAY	12'	20'
COMMERCIAL – TWO WAY	24'	30'

4. FOR LOCAL TYPE "A" STREETS, SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND IF SEPARATED FROM THE CURB, THE SIDEWALK SHALL BE LOCATED A MINIMUM OF 2' FROM THE BACK OF CURB.

5. FOR OTHER THAN LOCAL TYPE "A" STREETS, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND SEPARATED A MINIMUM OF 2' FROM THE BACK OF CURB OR, AS AN OPTION, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 6' WHEN LOCATED AT THE BACK OF CURB.

6. DUMMY JOINTS PARALLEL TO THE CURB SHALL BE PLACED WHERE THE SIDEWALK MEETS THE DRIVEWAY. DUMMY JOINTS PERPENDICULAR TO THE CURB, AND WITHIN THE BOUNDARIES OF THE PARALLEL DUMMY JOINTS, SHALL BE PLACED AT INTERVALS EQUAL TO THE WIDTH OF THE SIDEWALK.

7. A MINIMUM OF TWO ROUND AND SMOOTH DOWEL BARS 3/8" IN DIAMETER AND 18" IN LENGTH SHALL BE SPACED 18" APART AT EACH EXPANSION JOINT.

8. SIDEWALK RAMP LENGTHS SHALL BE OF SUFFICIENT LENGTH TO MAINTAIN 8.33% (1:12) MAXIMUM SLOPE. WHERE SIDEWALKS CROSS DRIVEWAYS, SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

9. SIDEWALK RAMP SURFACE SHALL BE BRUSH FINISHED.

MAY 2009

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

CONCRETE DRIVEWAY STANDARDS

% SUBMITTAL PROJECT NO.:___ DATE:___
DRAWN BY: V. VASQUEZ DSGN. BY:___ CHKD. BY: R.S. HOSSEINI, P.E. SHEET NO.:___OF___

GENERAL NOTES

1. WHEN POSSIBLE SIDEWALKS SHOULD BE PLACED NEXT TO THE PROPERTY LINE, ALLOWING A MININMUM OF 1 FOOT BUFFER. DEVIATION OF THE PATHWAY FROM A STRAIGHT LINE IS ENCOURAGED TO AVOID TREES OR OTHER OBSTRUCTIONS.
2. FOR LOCAL TYPE "A" STREETS, SIDEWALKS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 4' AND IF SEPARATED FROM THE CURB, THE SIDEWALK SHALL BE LOCATED A MINIMUM OF 2' FROM THE BACK OF CURB.
3. FOR OTHER THAN LOCAL TYPE "A" STREETS, SIDEWALKS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 4' AND SEPARATED A MINIMUM OF 2' FROM THE BACK OF CURB OR AS AN OPTION, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 6' WHEN LOCATED AT THE BACK OF CURB.
4. SIDEWALK RAMP LENGTHS PRESENTED IN TABLE 1 ARE GUIDELINES ONLY. SIDEWALK RAMP LENGTHS SHALL BE OF SUFFICIENT LENGTH TO MAINTAIN 8.33% (1:12) MAXIMUM SLOPE.
5. ALL CURB-RAMPS OR LANDINGS ABUTTING THE CROSSWALK SHALL HAVE A DETECTABLE WARNING 24 INCHES DEEP (IN THE DIRECTION OF PEDESTRIAN TRAVEL) AND EXTENDING THE FULL WIDTH OF THE CURB RAMP OR LANDING. THE DETECTABLE WARNING SHALL CONSIST OF RAISED TRUNCATED DOMES, ALIGNED IN A GRID PATTERN WITH A DIAMETER OF A NOMINAL 0.9 INCHES (23 MM), A HEIGHT OF NOMINAL 0.2 INCHES (5 MM) AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 INCHES (60 MM). THE DETECTABLE WARNING SURFACE SHALL BE A CAST-IN-PLACE TILE CONFORMING TO THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS OR PAVERS CONFORMING TO TXDOT STANDARD PED-05, PEDESTRIAN FACILITIES.
6. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE.
7. SIDEWALK RAMP TYPE V SHALL BE USED ONLY WHERE THERE IS SIGNIFICANT RESTRICTION WITHIN THE PARKWAY TO CONSTRUCT TYPE I OR TYPE III RAMPS.
8. CONSTRUCTION OF ALL WHEELCHAIR RAMPS TO BE INCLUDED UNDER ITEMS "500 – CONCRETE CURB, GUTTER, AND CONCRETE CURB AND GUTTER" AND / OR "502 – CONCRETE SIDEWALKS". RAMP SURFACE SHALL BE BRUSH FINISHED.
9. THESE DETAILS ARE FOR REFERENCE ONLY. ACTUAL LOCATIONS OF WHEELCHAIR RAMPS TO BE SHOWN ON CONSTRUCTION PLANS. CITY CONSTRUCTION INSPECTOR CAN ADJUST LOCATIONS FOR SAFETY OR UTILITY CLEARANCE.
10. SIDEWALKS LESS THAN 5 FEET IN WIDTH SHALL BE PROVIDED WITH A PASSING SPACE AT A MAXIMUM SPACING OF 200 FEET.
11. WHEELCHAIR RAMP SHALL BE CONSTRUCTED WITH 4" CLASS "A" CONCRETE AND 2" MINIMUM GRAVEL, CRUSHED ROCK OR FLEXIBLE BASE MATERIAL.
12. REINFORCING STEEL SHALL BE #3 BARS AT 18" O.C.E.W. OR 6" x 6" – W2.9 x W2.9 WIRE MESH.
13. SIDEWALK GRADES SHALL NOT EXCEED THE GRADE ESTABLISHED FOR THE ADJACENT ROADWAY. ANY SIDEWALK CONSTRUCTION THAT DEVIATES FROM THE NATURAL GRADE OF THE ROADWAY TO CREATE A GRADE STEEPER THAN THE EXISTING ROADWAY WILL REQUIRE RAMPS, HANDRAILS AND RESTING PLATFORMS TO BE CONSTRUCTED IN ACCORDANCE WITH ADA AND TAS STANDARDS.
14. SIDEWALK CROSS GRADE SHALL HAVE A MAXIMUM SLOPE OF 2%. LANDINGS SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
15. THE CHANGE OF GRADE BETWEEN ADJACENT SURFACES SHALL BE LESS THAN 11%. THE CHANGE OF GRADE SHALL BE DEFINED AS THE ALGEBRAIC DIFFERENCE OF THE ADJACENT SURFACE SLOPES. IN THE CASE OF A STREET ACCESS RAMP DESIGNED AT THE 8.33% MAXIMUM SLOPE, THE ADJACENT PAVEMENT CROSS SLOPE SHALL BE LESS THAN 2.67% (I.E. 8.33-(-2.67)=11). IN ADDITION, THE ADJACENT PAVEMENT CROSS SLOPE SHALL BE LESS THAN OR EQUAL TO 5%.
16. IF THE CHANGE OF GRADE BETWEEN ADJACENT SURFACES IS GREATER THAN OR EQUAL TO 11%, A LEVELING STRIP, 2 FEET IN LENGTH, SHALL BE PROVIDED TO TRANSITION THE ADJACENT SURFACES.
17. ADA COMPLIANCE IN ALTERATIONS INCLUDE ONLY THAT WORK WITHIN THE LIMITS, BOUNDARIES OR SCOPE OF A PLANNED PROJECT.

MAY 2009

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

WHEELCHAIR RAMP STANDARDS

% SUBMITTAL PROJECT NO.:___ DATE:___
DRAWN BY: V. VASQUEZ DSGN. BY:___ CHKD. BY: R.S. HOSSEINI, P.E. SHEET NO.:___OF___

FEBRUARY 2010

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

MISCELLANEOUS CONSTRUCTION STANDARDS II

% SUBMITTAL PROJECT NO.:___ DATE:___
DRAWN BY: V. VASQUEZ DSGN. BY:___ CHKD. BY: R.S. HOSSEINI, P.E. SHEET NO.:___OF___

PLAT NO. 24-11800275
ADDRESS: 19302 BABCOCK ROAD

KAVANAUGH CONSULTING, LLC
132 BLAZING MEADOW ROAD, No. 1
SPRING BRANCH, TEXAS 78070
PHONE: (512) 587-7397
KAVANAUGHCONSULTING@GMAIL.COM
TBPE FIRM #6711

MK ELLER CONSULTING, LLC
P.O. BOX 1805
401 S. COLUMBUS ST.
FREDERICKSBURG, TEXAS 78624
PH. (830) 609-7753

ENGINEER'S SEAL:
DAVID PARKERSON
87016
08/01/24

HEIGHTS OF CROWNRIDGE MULTI-FAMILY

DRAINAGE & PAVING DETAILS

Scale: As Shown
Designed by: MRK
Drawn by: MRK
Checked by: DP
Date: AUGUST 16, 2024
Project No. 24-022

SHEET
10
OF 10

GRAPHIC SCALE

200 100 50 0 40 120

(IN FEET)
1 inch = 40 ft.

NORTH

LEGEND

- EXISTING FIRE HYDRANT
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROP. REMOTE FIRE DEPARTMENT CONN.
- LIGHT POLE
- POWER POLE
- EXISTING MANHOLE
- WATER VALVE
- CLEAN-OUT
- GRATE
- ELECTRIC METER
- WATER METER
- EXISTING GAS VALVE
- -----W------ EXISTING WATER LINE
- -----SS------ EXISTING SANITARY SEWER LINE
- -----G------ EXISTING GAS LINE
- -----OT------ EXISTING OVERHEAD TELEPHONE
- -----UT------ EXISTING UNDERGROUND ELECTRIC
- -----OE------ EXISTING OVERHEAD ELECTRIC
- -----UE------ EXISTING UNDERGROUND ELECTRIC
- ——DW—— PROPOSED DOMESTIC WATER LINE
- ——W—— PROPOSED WATER LINE
- ——SS—— PROPOSED SANITARY SEWER LINE
- ——SD—— PROPOSED STORM DRAIN
- ——G—— PROPOSED GAS LINE
- ——F—— PROPOSED FIRE LINE
- THRUST BLOCKING

CAUTION
EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED CONSTRUCTION AREA

JACK NEILL LAW 2013 TRUST & JUDITH NEILL LAW 2013 TRUST
80.66 ACRES
DOC # 20240144241
(O.P.R.B.C.T.)(UNPLATTED)

28' ELEC., GAS, TEL. & CA TV ESM'T.
VOL 9545, PGS 189-193
(D.P.R.B.C.T.)

12" PVC
SAWS JOB #06-1020

REMAINING PORTION OF LOT 2, BLOCK 11, NCB 18333
CROWNRIDGE-ACE INVESTMENTS SUBD.
VOL 9545, PGS 189-193
(D.P.R.B.C.T.)

12' WATER EASEMENT
VOL 9590, PGS 129-133
(D.P.R.B.C.T.)

16' WATER EASEMENT
VOL 20003, PGS 218-220
(D.P.R.B.C.T.)

HEADWALL WITH DISSIPATERS
18" FL= 1310.00 (OUT)
CONTRACTOR TO GRADE
TO DRAIN

8" PVC
SAWS JOB #06-1020

HEADWALL WITH DISSIPATERS
24" FL= 1337.0 (OUT)
CONTRACTOR TO GRADE
TO DRAIN

PROPOSED
16' WATER EASEMENT

WATER/STORM CROSSING

3'X3'
GRATE INLET
TOP = 1344.8
INV. = 1338.0

BLD 5
57 UNITS

BLD 6
30 UNITS

3'X3'
GRATE INLET
TOP = 1344.5
INV. = 1339.5

28' ELEC., GAS, TEL. & CA TV ESM'T.
VOL 9545, PGS 189-193
(D.P.R.B.C.T.)

PROPOSED
16' WATER EASEMENT

REMAINING PORTION OF LOT 2, BLOCK 11, NCB 18333
CROWNRIDGE-ACE INVESTMENTS SUBD.
VOL 9545, PGS 189-193
(D.P.R.B.C.T.)

16' WATER EASEMENT
VOL 20003, PGS 218-220
(D.P.R.B.C.T.)

8" PVC
SAWS JOB #06-1020

CONCRETE FLOW SPREADER

CURB BREAK
7'-LF

HEADWALL WITH DISSIPATERS
30" FL= 1282.0 (OUT)
CONTRACTOR TO GRADE
TO DRAIN

POOL

AMENITY

10' L.P. CURB INLET
TC=???? (INLET CENTER)
GRADE TO DRAIN

WATER/SEWER CROSSING

STORM DRAIN
INV. = ???

SAN. SEWER
INV. = ???

3'X3'
GRATE INLET
TOP = 1290.0
INV. = 1285.0 24" IN
INV = 1284.5 30" OUT

3'X3'
GRATE INLET
TOP = 1295.5
INV. = 1290.0

BLD 1
80 UNITS

3'X3'
GRATE INLET
TOP = 1306.5
INV. = 1302.5

3'X3'
GRATE INLET
TOP = 1304.5
INV. = 1300.5

WATER/STORM CROSSING

WATER/STORM CROSSING

BLD 2
84 UNITS

3'X3'
GRATE INLET
TOP = 1300.5
INV. = 1296.5 18" IN
INV = 1296.0 24" OUT

BLD 3
28 UNITS

BLD 4
20 UNITS

CURB BREAK
7'-LF

CONCRETE FLOW SPREADER

REMAINING PORTION OF LOT 2, BLOCK 11, NCB 18333
CROWNRIDGE-ACE INVESTMENTS SUBD.
VOL 9545, PGS 189-193
(D.P.R.B.C.T.)

REMAINING PORTION OF LOT 2, BLOCK 11, NCB 18333
CROWNRIDGE-ACE INVESTMENTS SUBD.
VOL 9545, PGS 189-193
(D.P.R.B.C.T.)

REMAINING PORTION OF LOT 2, BLOCK 11, NCB 18333
CROWNRIDGE-ACE INVESTMENTS SUBD.
VOL 9545, PGS 189-193
(D.P.R.B.C.T.)

PLAT NO. 24-11800275
ADDRESS: 19302 BABCOCK ROAD

No.	Date	Revisions	App.

KAVANAUGH CONSULTING, LLC
132 BLAZING MEADOW ROAD, No. 1
SPRING BRANCH, TEXAS 78070
PHONE: (512) 587-7397
KAVANAUGHCONSULTING@GMAIL.COM
TBPE FIRM #F711

MK KELLER CONSULTING, LLC
PO. BOX 1805
FREDERICKSBURG, TEXAS 78624
PH. (830) 609-7753

ENGINEER'S SEAL:

STATE OF TEXAS
DAVID PARKERSON
87016
REGISTERED PROFESSIONAL ENGINEER

HEIGHTS OF CROWNRIDGE MULTI-FAMILY

PRIVATE STORM DRAIN PLAN

Scale:	As Shown
Designed by:	MRK
Drawn by:	MRK
Checked by:	DP
Date:	AUGUST 16, 2024
Project No.	24-022

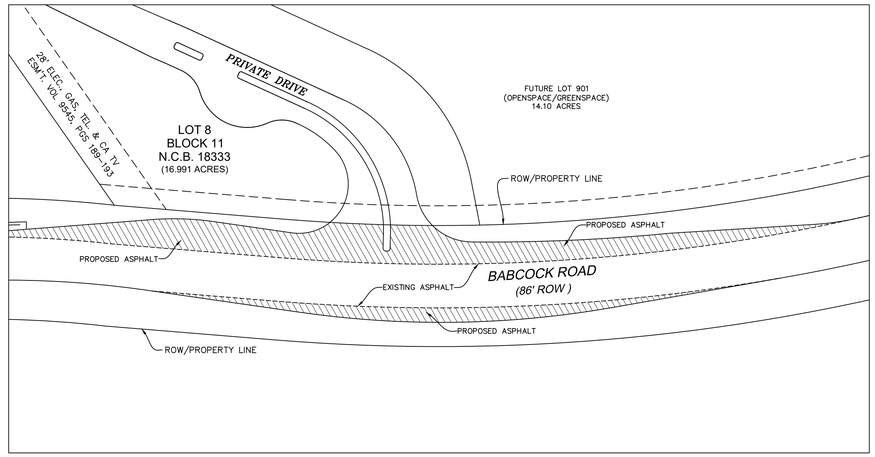
SHEET
11
OF 11

TRAFFIC CONTROL NOTE:
TRAFFIC CONTROLS REQUIRED PRIOR TO CONSTRUCTION AND IS THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR TO COORDINATE WITH TxDOT 48 HOURS PRIOR TO START OF CONSTRUCTION.

EXISTING SANITARY SEWER MANHOLE NOTE:
CONTRACTOR TO COORDINATE CURB AND PAVEMENT CONSTRUCTION WITH EXISTING OUTER SEWER MANHOLE CASING. MANHOLE TO BE RAISED AS SHOWN.

CONDUIT BANK NOTE:
CONDUIT BANK TO BE PLACED A MINIMUM OF 24" BELOW BOTTOM OF BOX CULVERTS WITH TRENCH RECOMPACTED.

FIBER OPTIC/CAT-5 NOTE:
UNDERGROUND FIBER OPTIC AND CAT-5 COMMUNICATION LINES LOCATED IN TxDOT RIGHT OF WAY ARE SHOWN AS APPROXIMATE. CONTRACTOR TO FIELD VERIFY AND COORDINATE RELOCATION AS NECESSARY FOR CONSTRUCTION PRIOR TO EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS WITHIN TxDOT RIGHT OF WAY. (SEE NOTE)

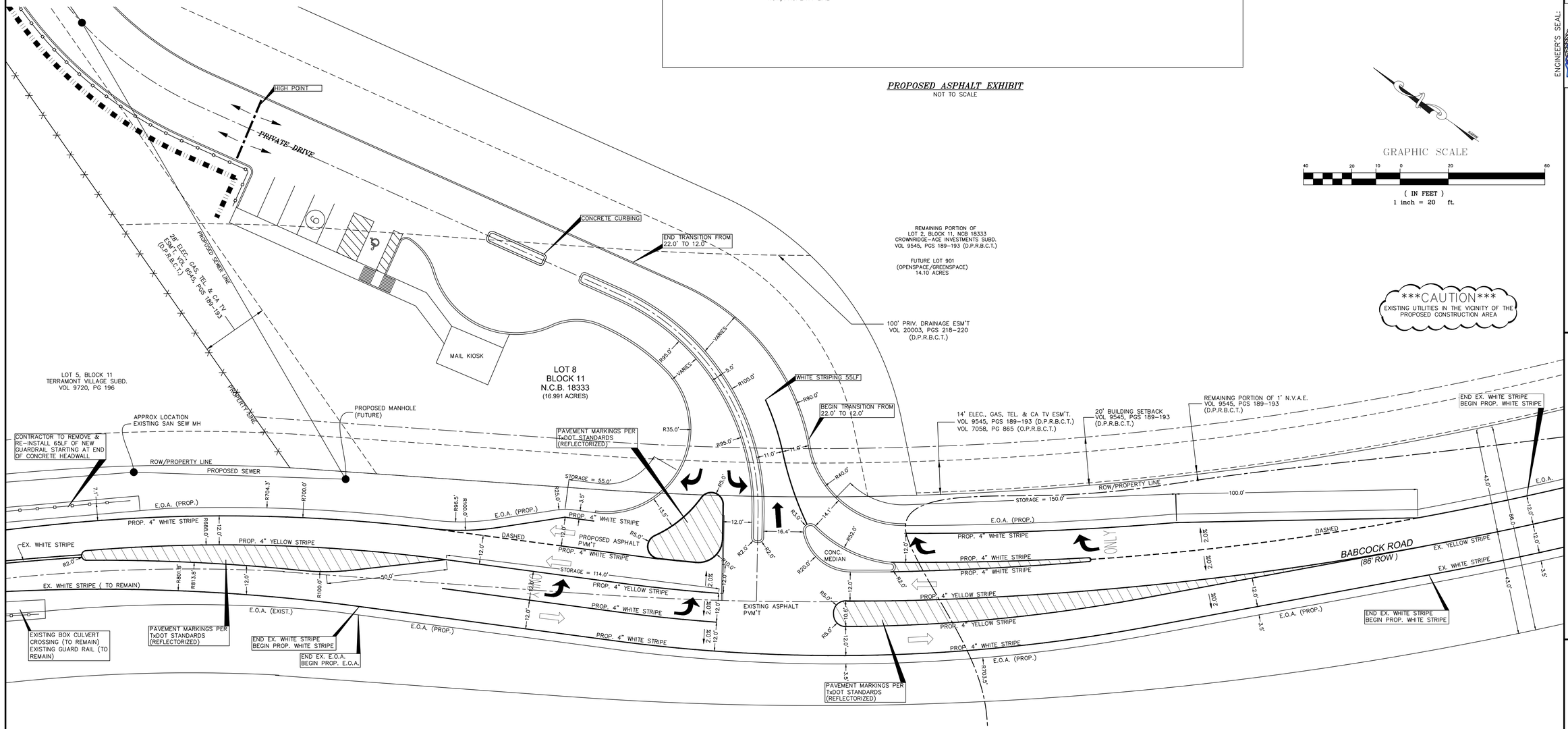


PROPOSED ASPHALT EXHIBIT
NOT TO SCALE

LEGEND

- EXISTING AT&T CABLE LINE
- EXISTING AT&T FIBER OPTIC LINE
- EXISTING CPS GAS LINE
- LOT DRAINAGE FLOW DIRECTION
- PROPOSED RETAINING WALL
- PROPOSED GUARDRAIL
- PROPOSED EASEMENT
- DRAINAGE SWALE

LP	LOW POINT
HP	HIGH POINT
%	SLOPE
FF	FINISHED FLOOR
TC	TOP OF CURB
"X"	"X" SPOT ELEVATION
FL	FLOW LINE
TG	TOP OF GRADE
	TRAFFIC ARROWS



GRAPHIC SCALE
40 20 10 0 20 60
(IN FEET)
1 inch = 20 ft.

CAUTION
EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED CONSTRUCTION AREA

PRIVATE DRIVEWAY ENTRY IMPROVEMENTS
BABCOCK ROAD – DESIGN SPEED: 45 MPH

CAUTION
EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED CONSTRUCTION AREA

PLAT NO. 24-11800275
ADDRESS: 19302 BABCOCK ROAD

No.	Date	Revisions	App.

KAVANAUGH CONSULTING, LLC
132 BLAZING MEADOW ROAD, No. 1
SAN ANTONIO, TEXAS 78260
PHONE (512) 787-7297
KAVANAUGHCONSULTING@GMAIL.COM
TBPE FIRM #6711

MILLER CONSULTING, LLC
P.O. BOX 1805
BOERNE, TEXAS 78624
PH. (830) 609-7753

ENGINEER'S SEAL:
STATE OF TEXAS
DAVID PARKERSON
87016
REGISTERED
PROFESSIONAL ENGINEER

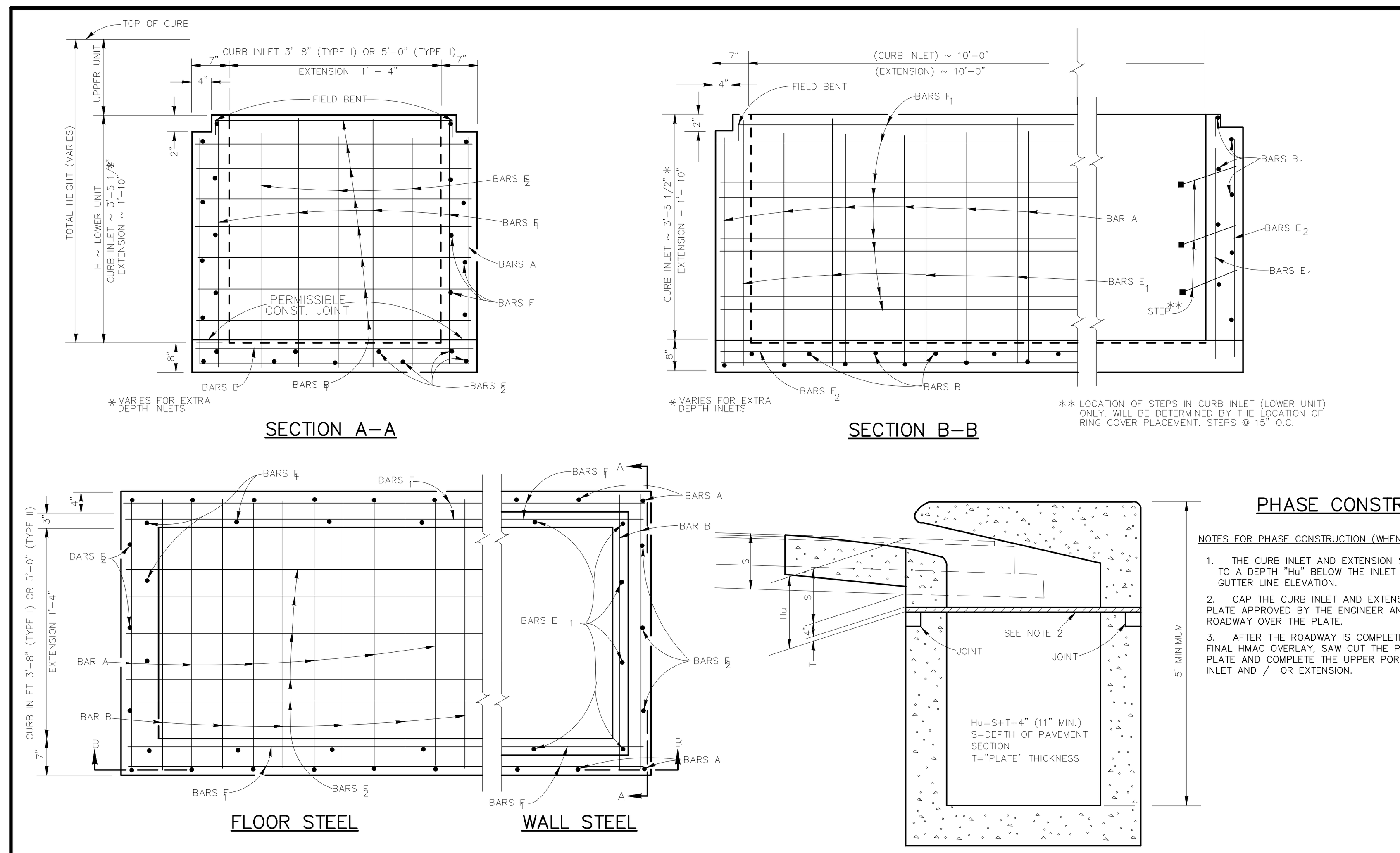
HEIGHTS OF CROWNRIDGE MULTI-FAMILY

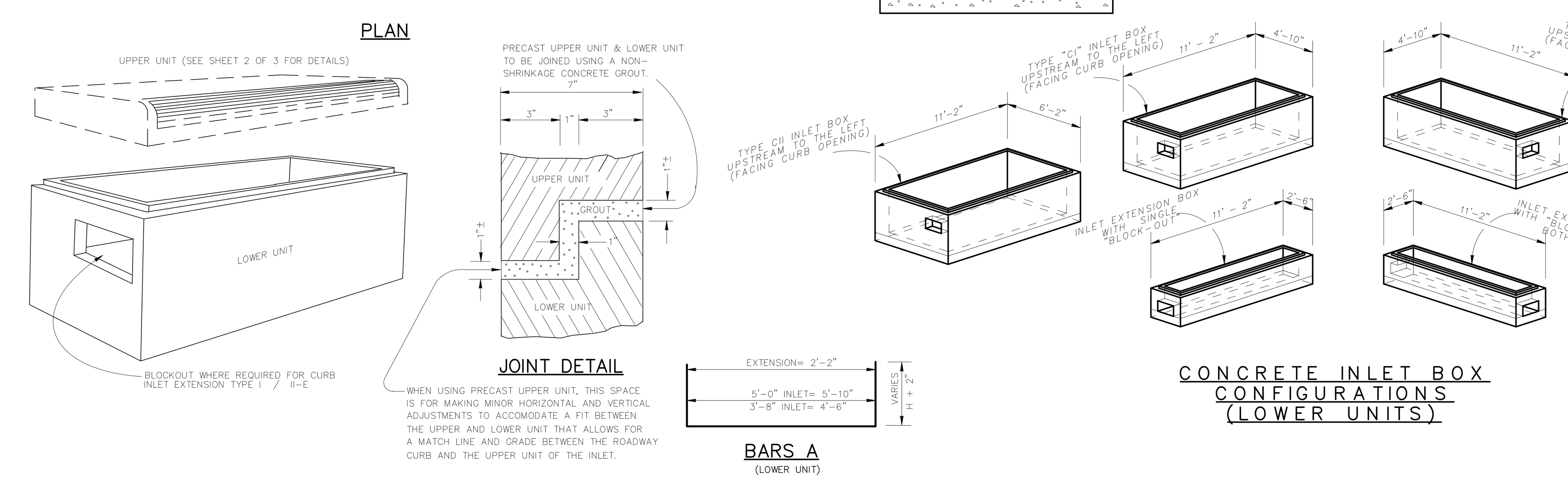
MF-ENTRY INTERSECTION IMPROVEMENTS
BABCOCK ROAD

Scale:	As Shown
Designed by:	MRK
Drawn by:	MRK
Checked by:	DP
Date:	AUGUST 16, 2024
Project No.	24-022

SHEET
12
OF 12

TYPE "C" INLET CAN EITHER BE PRE-CAST OR CAST IN PLACE TYPE INLETS.
CAST IN PLACE INLET LIDS WILL BE DOWELED INTO PRE-CAST VAULTS.





REINFORCING STEEL

LOWER UNIT 10' X 3' – 8" (TYPE I)				
BAR	NO.	SIZE	SPAC.	LENGTH
A	12	#4	12"	VARIES
B	11	#4	12"	4'–6"
B_1	VARIES	#4	12"	4'–6"
E_1	20	#4	18"±	VARIES
E_2	6	#4	18"±	VARIES
F_1	VARIES	#4	12"±	10'–10"
F_2	9	#4	—	10'–10"

LOWER UNIT 10' X 5' – 0" (TYPE II)				
BAR	NO.	SIZE	SPAC.	LENGTH
A	12	#4	12"	VARIES
B	11	#4	12"	5'–10"
B_1	VARIES	#4	12"	5'–10"
E_1	22	#4	18"±	VARIES
E_2	8	#4	18"±	VARIES
F_1	VARIES	#4	12"±	10'–10"
F_2	11	#4	—	10'–10"

GENERAL NOTES

1. 5' INLETS AND 5' EXTENSIONS MUST BE IN ACCORDANCE WITH THE LATEST TXDOT CURB INLET TYPE "C" AND EXTENSION TYPE E (IL–C).
2. TYPE C–II INLET TO BE USED ONLY WHEN STORM DRAIN PIPE IS IN–LINE WITH CURB INLET AND APPROVED BY THE ENGINEER.
3. QUANTITIES SHOWN ARE FOR CONTRACTORS INFORMATION ONLY.
4. CONCRETE FOR STRUCTURES SHALL BE CLASS "A", 3000 PSI IN 28 DAYS.
5. ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
6. ALL REINFORCING STEEL SHALL HAVE A MINIMUM COVER OF 1 1/2".
7. ALL REINFORCING STEEL SHALL CONFORM TO A.S.T.M. A–615, GRADE 60 REQUIREMENTS.
8. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4".
9. DEPRESSION SLAB SHALL RECEIVE A WOOD FLOAT FINISH.
10. FACE OF INLET TO CONFORM TO FACE OF CURB LINE.
11. ALL BARS INTERCEPTING MANHOLE RING & COVER SHALL BE CUT OR BENT.
12. PAYMENT FOR ALL EXCAVATION, BACK–FILLING, CONCRETE, REINFORCING STEEL, RING AND COVER, CURB ARMOR AND STEPS SHALL BE INCLUDED IN THE UNIT COST OF ITEM 403 "STORM SEWER JUNCTION BOXES AND INLETS".
13. CAST IRON MANHOLE RING AND COVER TO BE PLACED NEXT TO OUTLET PIPE, EXCEPT FOR VERTICAL OUTLET PIPE IN WHICH CASE MANHOLE RING AND COVER WILL BE OFFSET.
14. GALVANIZED BOLTS, NUTS, WASHERS, PLATES AND GASKETS ARE SUBSIDIARY TO INLETS.
15. THE CONTRACTOR SHALL PROVIDE AN ADEQUATE MEANS TO LIFT AND PLACE THE INLETS, WHEN USING PRECAST UNITS.
16. ALL BARS AT PIPE BLOCKOUT LOCATIONS SHALL BE CUT OR BEND.
17. ALL LOWER UNITS SHALL RECEIVE INVERT MORTAR SHAPING.
18. PIPE BLOCKOUTS IN INLET WALLS SHOULD NOT EXCEED 3" BEYOND THE OUTER SHELL OF THE PIPE, TAKING INTO ACCOUNT THE SKEW OF THE PIPE AS NECESSARY. CONSTRUCTION JOINT MAY BE RAISED A MAXIMUM OF 6".

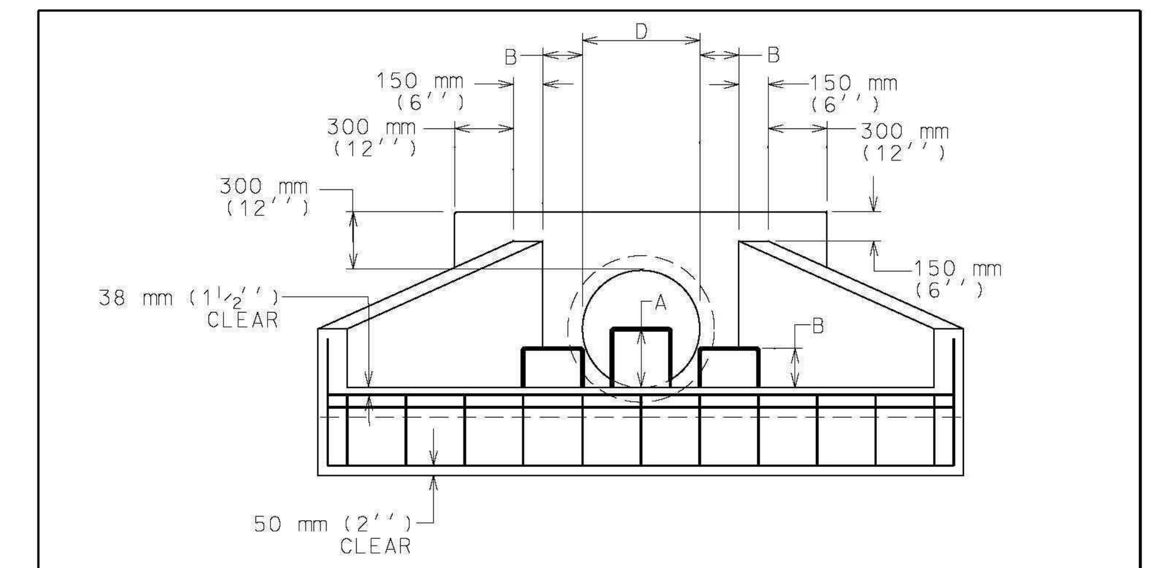
PHASE CONSTRUCTION

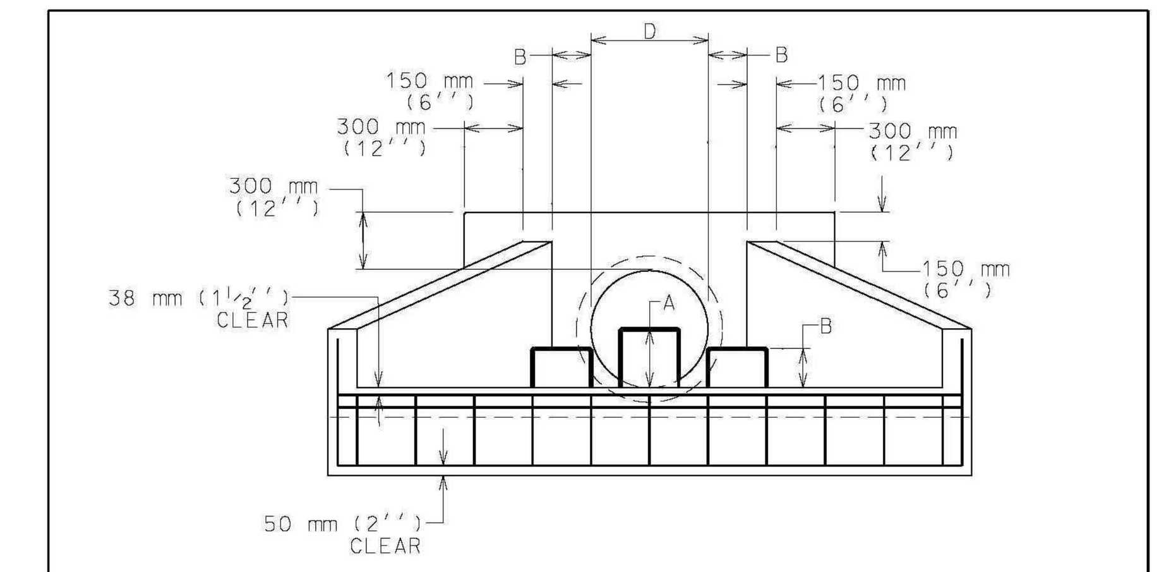
NOTES FOR PHASE CONSTRUCTION (WHEN DIRECTED BY THE ENGINEER):

1. THE CURB INLET AND EXTENSION SHALL BE CONSTRUCTED TO A DEPTH "Hu" BELOW THE INLET AND EXTENSION GUTTER LINE ELEVATION.
2. CAP THE CURB INLET AND EXTENSION WITH A STEEL PLATE APPROVED BY THE ENGINEER AND CONSTRUCT THE ROADWAY OVER THE PLATE.
3. AFTER THE ROADWAY IS COMPLETED, BUT PRIOR TO THE FINAL HMAC OVERLAY, SAW CUT THE PAVEMENT, REMOVE THE PLATE AND COMPLETE THE UPPER PORTION OF THE CURB INLET AND / OR EXTENSION.

MAY 2009
CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
TYPE "C" INLET (TYPE I & II) & INLET EXTENSION STANDARDS
SHEET 1 OF 3

___% SUBMITTAL	PROJECT NO.: ________		DATE: ________
DRWN. BY: V. VASQUEZ	DSGN. BY: L.E. MALTOS, P.E.	CHKD. BY: R.S. HOSSEINI, P.E.	SHEET NO.: __OF__





SECTION B–B

NOTES:

1. ALL CONCRETE SHALL BE TYPE "C" AS PER SPEC. 403S, CONCRETE FOR STURCTURES.
2. CHAMFER ALL EXTERNAL VISIBLE CORNERS.
3. DISSIPATOR BLOCKS REQUIRED ON DISCHARGE HEADWALLS ONLY.

D	457 mm (18")	533 mm (21")	610 mm (24")	685 mm (27")	765 mm (30")	838 mm (33")	914 mm (36")	1.067 m (42")	1.219 m (48")	1.372 m (54")	1.524 m (60")
A	225 mm (9")	250 mm (10")	300 mm (12")	350 mm (14")	375 mm (15")	400 mm (16")	450 mm (18")	525 mm (21")	600 mm (24")	675 mm (27")	750 mm (30")
B	150 mm (6")	175 mm (7")	200 mm (8")	225 mm (9")	250 mm (10")	275 mm (11")	300 mm (12")	350 mm (14")	400 mm (16")	450 mm (18")	500 mm (20")
C	2.29 m (90")	2.67 m (105")	3.05 m (120")	343 m (135")	3.81 m (150")	4.19 m (165")	4.57 m (180")	5.33 m (210")	6.10 m (240")	6.86 m (270")	7.62 m (300")
L	1.37 m (54")	1.60 m (63")	1.83 m (72")	2.06 m (81")	2.29 m (90")	2.51 m (99")	2.74 m (108")	3.20 m (126")	3.66 m (144")	4.11 m (162")	4.57 m (180")
E	300 mm (12")	350 mm (14")	400 mm (16")	450 mm (18")	500 mm (20")	550 mm (22")	600 mm (24")	700 mm (28")	800m (32")	900 mm (36")	1000 mm (40")

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

SECTION B–B

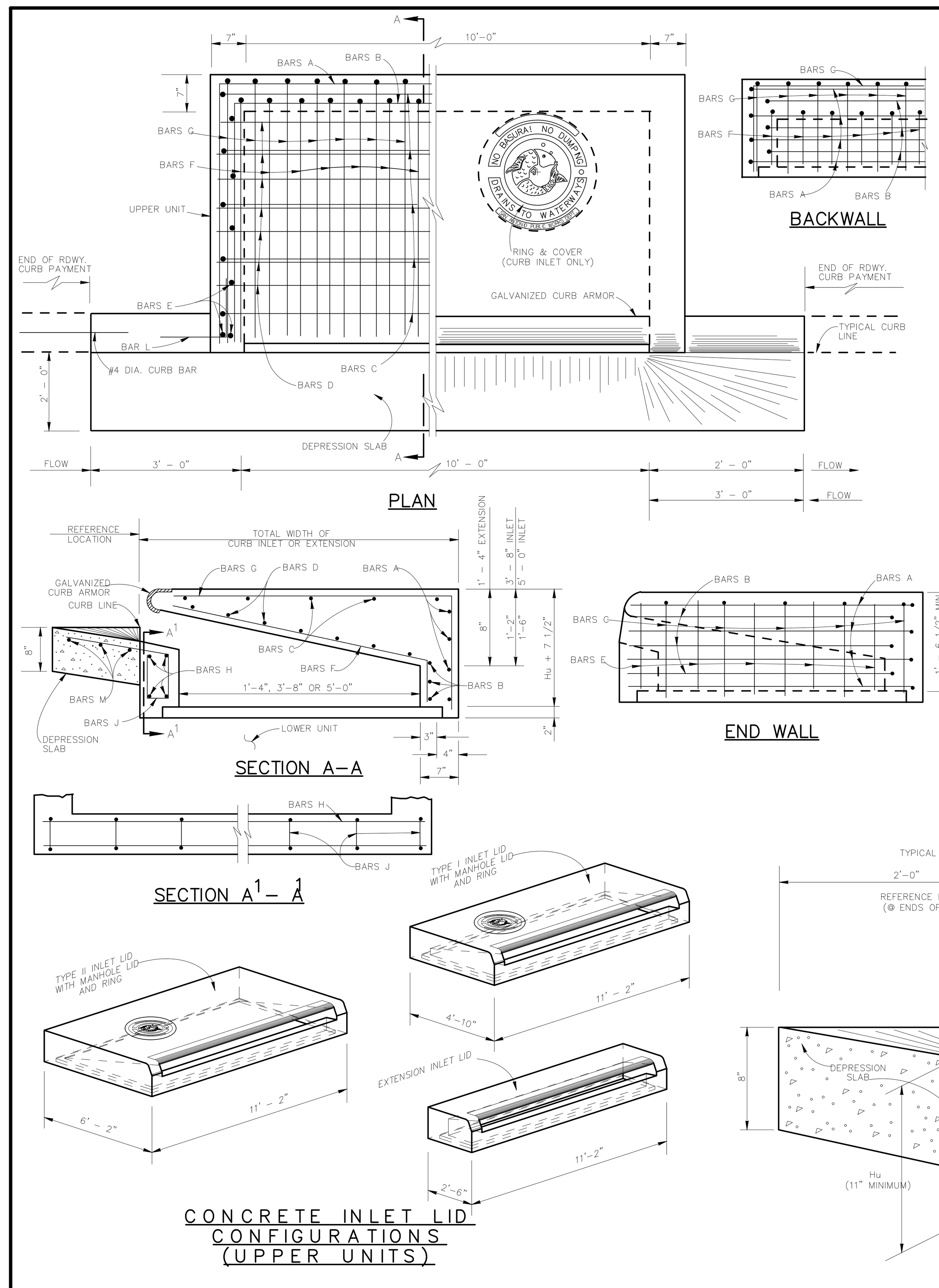
NOTES:

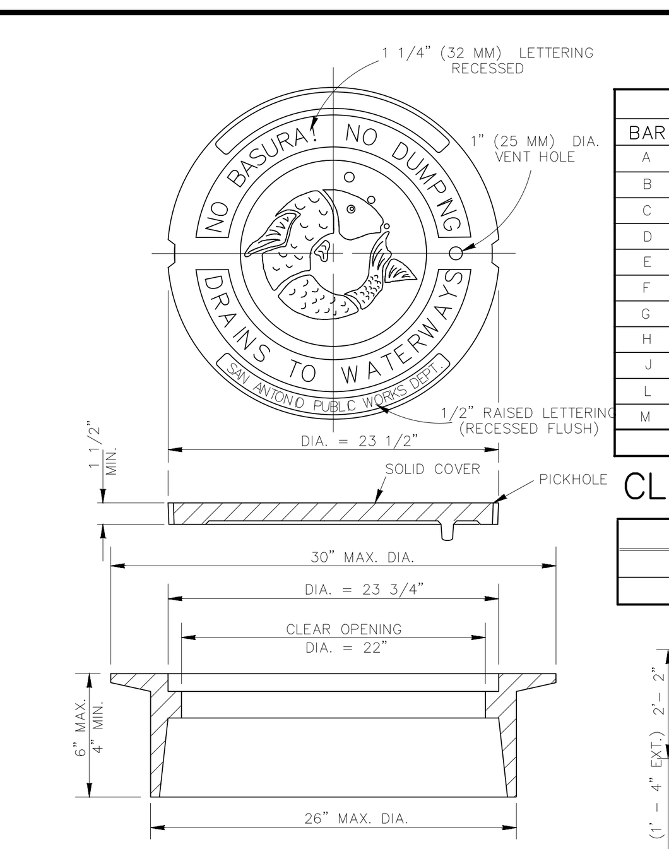
1. ALL CONCRETE SHALL BE TYPE "C" AS PER SPEC. 403S, CONCRETE FOR STURCTURES.
2. CHAMFER ALL EXTERNAL VISIBLE CORNERS.
3. DISSIPATOR BLOCKS REQUIRED ON DISCHARGE HEADWALLS ONLY.

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

BAFFLE BLOCK DETAIL

SCALE: N.T.S.'





MANHOLE LID & RING DETAIL (ITEM 409)

NOTES FOR MANHOLE LID AND RING

1. FOR LID DESIGN OUTSIDE OF CITY OF SAN ANTONIO, DELETE "SAN ANTONIO PUBLIC WORKS DEPT.".
2. CASTING NUMBER AND MANUFACTURER'S I.D. ON LID AND RING.
3. LOAD BEARING CAPABILITY OF HS–20 MINIMUM.
4. THE LOAD BEARING SURFACES SHALL BE MACHINE GROUND.
5. THE COMBINED WEIGHT OF THE MANHOLE RING AND COVER MUST BE AT LEAST 260 LBS.

SEE SHEET 1 OF 3 FOR GENERAL NOTES.

REINFORCING STEEL (FOR Hu=11")

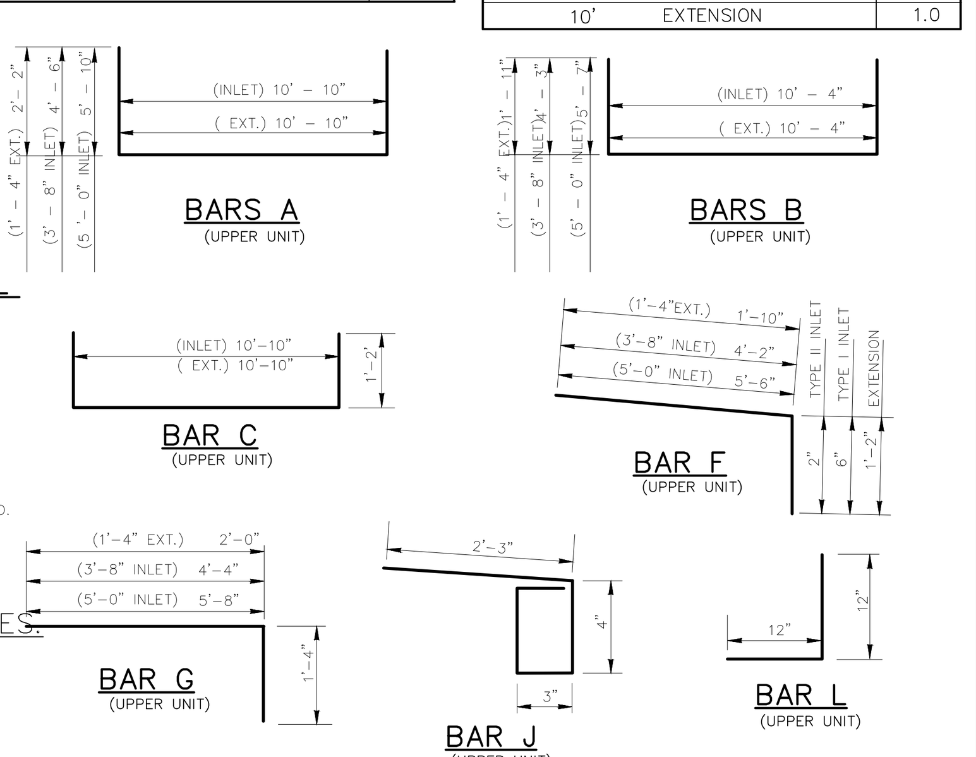
UPPER UNIT 10' X 3'–8" (TYPE I)					
BAR	NO.	SIZE	SPAC.	LENGTH	WEIGHT
A	4	#4	—	19'–10"	53
B	3	#4	—	18'–10"	38
C	5	#4	11"	13'–2"	44
D	7	#4	6"	10'–10"	51
E	12	#4	11"	1'–2"	9
F	21	#6	6"	4'–8"	147
G	22	#6	6"	5'–8"	187
H	4	#4	—	10'–10"	29
J	12	#4	12"	3'–6"	28
L	4	#4	—	2'–0"	5
M	3	#4	—	14'–8"	29
TOTAL WEIGHT					620 LBS.

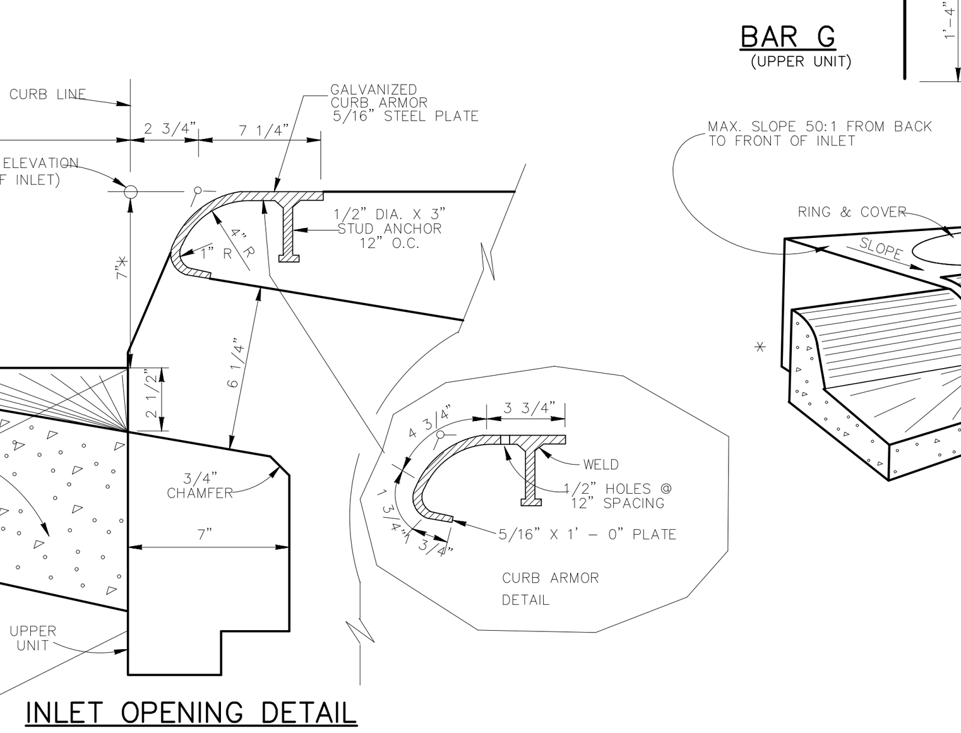
UPPER UNIT 10' X 5' (TYPE II)					
BAR	NO.	SIZE	SPAC.	LENGTH	WEIGHT
A	4	#4	—	22'–6"	60
B	3	#4	—	21'–6"	43
C	7	#4	11"	13'–2"	62
D	11	#4	6"	10'–10"	80
E	16	#4	11"	1'–2"	13
F	21	#6	6"	5'–8"	179
G	22	#6	6"	7'–0"	231
H	4	#4	—	10'–10"	29
J	12	#4	12"	3'–6"	28
L	4	#4	—	2'–0"	5
M	3	#4	—	14'–8"	29
TOTAL WEIGHT					759 LBS.

CLASS "A" CONCRETE QUANTITIES (FOR Hu=11")

DEPRESSION SLAB	C.Y.
10' INLET	0.7
10' EXTENSION	0.7

UPPER UNIT (ONLY)	C.Y.
10'X3'–8" CURB INLET	1.9
10'X5'–0" CURB INLET	2.7
10' EXTENSION	1.0





MAY 2009
CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
TYPE "C" INLET (TYPE I & II) & INLET EXTENSION STANDARDS
SHEET 2 OF 3

___% SUBMITTAL	PROJECT NO.: ________		DATE: ________
DRWN. BY: V. VASQUEZ	DSGN. BY: L.E. MALTOS, P.E.	CHKD. BY: R.S. HOSSEINI, P.E.	SHEET NO.: __OF__

TABLE OF DIMENSIONS & REINFORCING STEEL (Wings for One Structure End)

Maximum Wingwall Height Hw	W	X	Y	Z	Bars J1 Size	Bars J1 Spa	Bars J2 Size	Bars J2 Spa	Reinf (Lb/Ft)	Conc (CY/Ft)
2'-6"	2'- 5"	1'- 0"	9"	7"	#4	1'-0"	#4	1'-0"	33.73	0.248
3'-0"	2'- 5"	1'- 0"	9"	7"	#4	1'-0"	#4	1'-0"	37.07	0.261
3'-6"	2'- 5"	1'- 0"	9"	7"	#4	1'-0"	#4	1'-0"	37.74	0.273
4'-0"	2'- 5"	1'- 0"	9"	7"	#4	1'-0"	#4	1'-0"	38.41	0.285
4'-6"	3'- 2"	1'- 6"	1'- 0"	7"	#4	1'-0"	#4	1'-0"	41.75	0.330
5'-0"	3'- 2"	1'- 6"	1'- 0"	7"	#4	1'-0"	#4	1'-0"	45.09	0.343
5'-6"	3'- 2"	1'- 6"	1'- 0"	7"	#4	1'-0"	#4	1'-0"	45.75	0.355
6'-0"	3'- 2"	1'- 6"	1'- 0"	7"	#4	1'-0"	#4	1'-0"	46.42	0.367
7'-0"	3'- 8"	1'- 9"	1'- 3"	7"	#4	1'-0"	#4	1'-0"	52.77	0.414
8'-0"	4'- 2"	2'- 0"	1'- 6"	8"	#5	1'-0"	#4	1'-0"	60.19	0.486
9'-0"	4'- 8"	2'- 3"	1'- 9"	8"	#4	6"	#4	6"	81.49	0.535
10'-0"	5'- 2"	2'- 6"	2'- 0"	8"	#5	6"	#4	6"	97.25	0.584
11'-0"	5'- 8"	2'- 9"	2'- 3"	8"	#6	6"	#5	6"	133.65	0.634
12'-0"	6'- 2"	3'- 0"	2'- 6"	9"	#7	6"	#5	6"	162.29	0.721
13'-0"	6'- 8"	3'- 3"	2'- 9"	11"	#7	6"	#5	6"	178.80	0.856
14'-0"	7'- 2"	3'- 6"	3'- 0"	1'- 0"	#8	6"	#5	6"	216.78	0.959
15'-0"	7'- 8"	4'- 0"	3'- 0"	1'- 1"	#9	6"	#6	6"	283.06	1.068
16'-0"	8'- 2"	4'- 6"	3'- 0"	1'- 3"	#9	6"	#6	6"	297.02	1.234

(Dimensions: Hw, W, X, Y, Z; Variable Reinforcing: Bars J1, Bars J2; Estimated Quantities per ft of wing length (2~Wings) (3))

TABLE OF WINGWALL REINFORCING (2~Wings)

Bar	Size	No.	Spa
D	#5	~	1'-0"
E	#4	~	1'-0"
F	#4	~	1'-0"
G	#6	4	~
M	#4	4	~
P	#4	~	1'-0"
R	#5	6	~
V	#4	~	1'-0"

TABLE OF ESTIMATED CULVERT TOEWALL QUANTITIES

Bar	Size	No.	Spa
L	#4	~	1'-6"
Q	#4	1	~
Reinf (Lb/Ft)			2.45
Conc (CY/Ft)			0.037

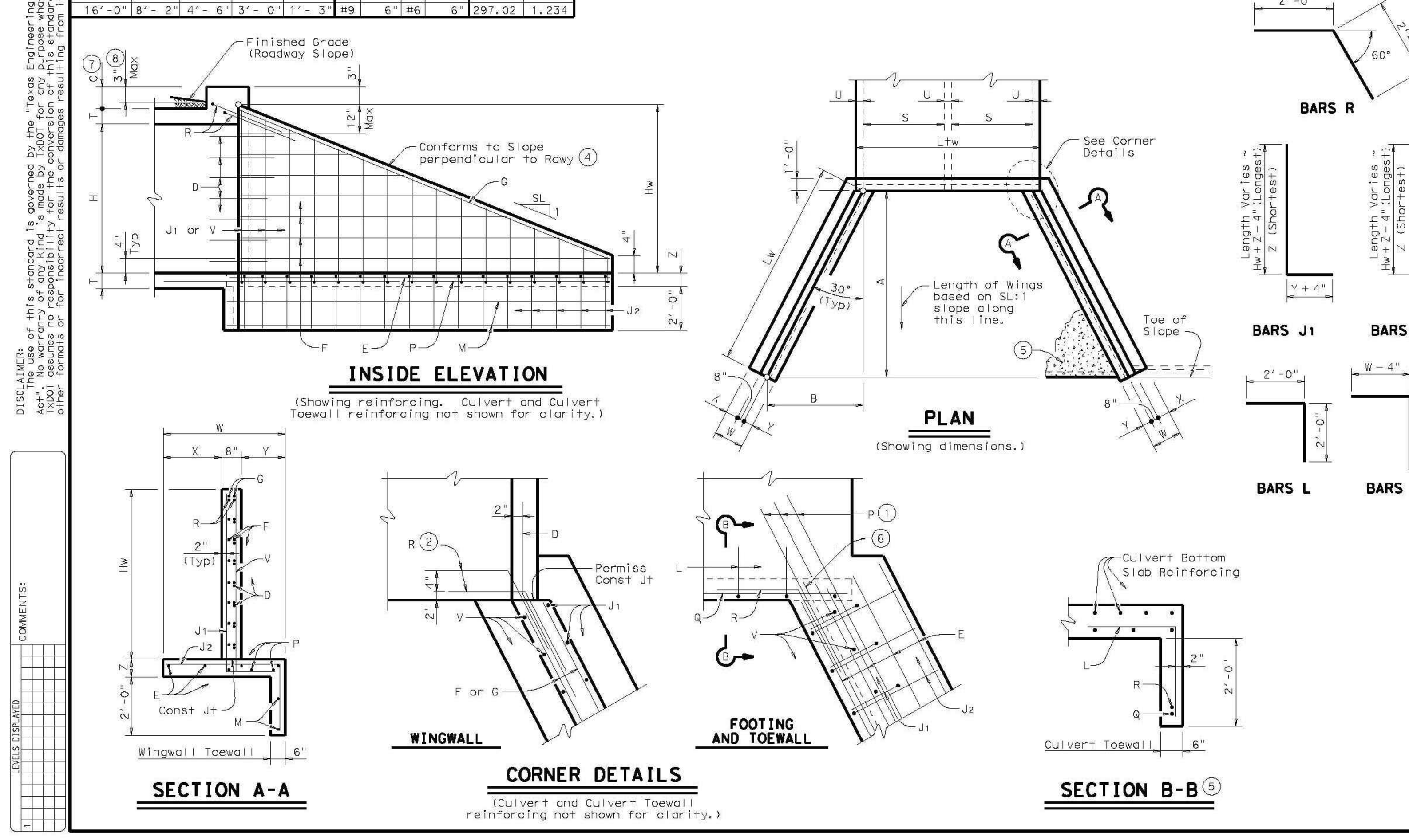
WING DIMENSION CALCULATIONS:

Formulas: (All values are in Feet)
Hw = H + T + C – 0.250'
A = (Hw – 0.333') (SL)
B = (A) Tangent (30°)
Lw = (A) ÷ Cosine (30°)
For Cast-in-place culverts:
Ltw = (N) (S) + (N + 1) (U)
For Precast culverts:
Ltw = (N) (2U + S) + (N – 1) (0.500')
Total Wingwall Area (Two Wings ~ S.F.) = (Hw + 0.333') (Lw)

Hw = Height of Wingwall
SL:1 = Side Slope Ratio (Horizontal:1 Vertical)
Lw = Length of Wingwall
Ltw = Culvert Toewall Length
N = Number of Culvert Spans

See applicable box culvert standard for H, S, T, and U values.

1. Extend Bars P 3'-0" minimum into bottom slab of Box Culvert.
2. Adjust to fit as necessary to maintain 1 1/4" clear cover and 4" minimum between bars.
3. Quantities shown are based on an average wing height for two wings (one structure end). To determine total quantities for two wings multiply the tabulated values by Lw.
4. Recommended values of Slope are: 2:1, 3:1, 4:1, & 6:1.
5. When shown elsewhere on the plans, a 5" deep concrete riprap shall be constructed. Payment for riprap shall be as required by Item 432, "Riprap". Unless otherwise shown on the plans or directed by the Engineer, the riprap shall have a 6" wide by 1'-6" deep reinforced concrete toewall along all edges adjacent to natural ground; the toewall shall be reinforced by extending typical riprap reinforcing into the toewall; construction joints or grooved joints, oriented in the direction of flow, shall extend across the full distance of the riprap, at intervals of approximately 20'. When such riprap is provided, the culvert toewall shown in SECTION B-B will not be required.
6. At Contractor's option, Culvert Toewall may be ended flush with Wingwall Toewall. Adjust reinforcing from that shown as necessary.
7. 0" min to 5'-0" max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail, bicycle rail or curbs taller than 1'-0", refer to ECD standard. For structures with T6 bridge rail, refer to T6-CM standard. For structures with traffic rail, other than T6, refer to RAC standard.
8. For vehicle safety, curb heights and wall heights shall be reduced, if necessary, to provide a maximum 3" projection above finished grade. No changes will be made in quantities and no additional compensation will be allowed for this work.



GENERAL NOTES:
Designed according to AASHTO LRFD Specifications.
All reinforcing steel shall be Grade 60.
All concrete shall be Class "C" and shall have a minimum compressive strength of 3600 psi.
All reinforcing bars shall be adjusted to provide a minimum of 1 1/4" clear cover.
When structure is founded on solid rock, depth of toewalls for culverts and wingwalls may be reduced or eliminated as directed by the Engineer.
See BCS sheet for additional dimensions and information.
The quantities for concrete and reinforcing steel resulting from the formulas given on this sheet are for Contractor's information only.

Texas Department of Transportation
Bridge Division
CONCRETE WINGWALLS WITH FLARED WINGS FOR 0° SKEW BOX CULVERTS
FW-0

No.	Date	Revisions	App.

KAVANAUGH CONSULTING, LLC
132 BLAZING MEADOW ROAD, No. 1
SPRING BRANCH, TEXAS 78070
PHONE: (512) 587-7397
KAVANAUGHCONSULTING@GMAIL.COM
TBPE FIRM #6711

MK KELLER CONSULTING, LLC
PO. BOX 1805
FREDERICKSBURG, TEXAS 78624
PH. (830) 609-7753

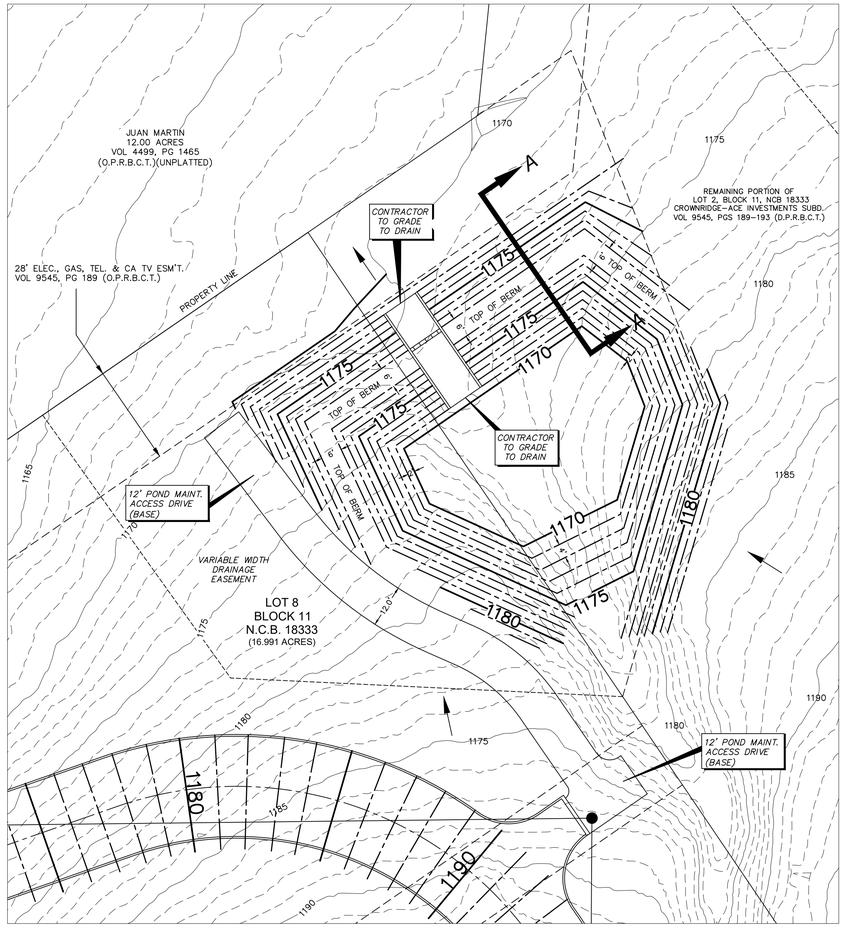
ENGINEER'S SEAL:
STATE OF TEXAS
DAVID PARKERSON
87016
REGISTERED PROFESSIONAL ENGINEER
08/01/24

HEIGHTS OF CROWNRIDGE MULTI-FAMILY

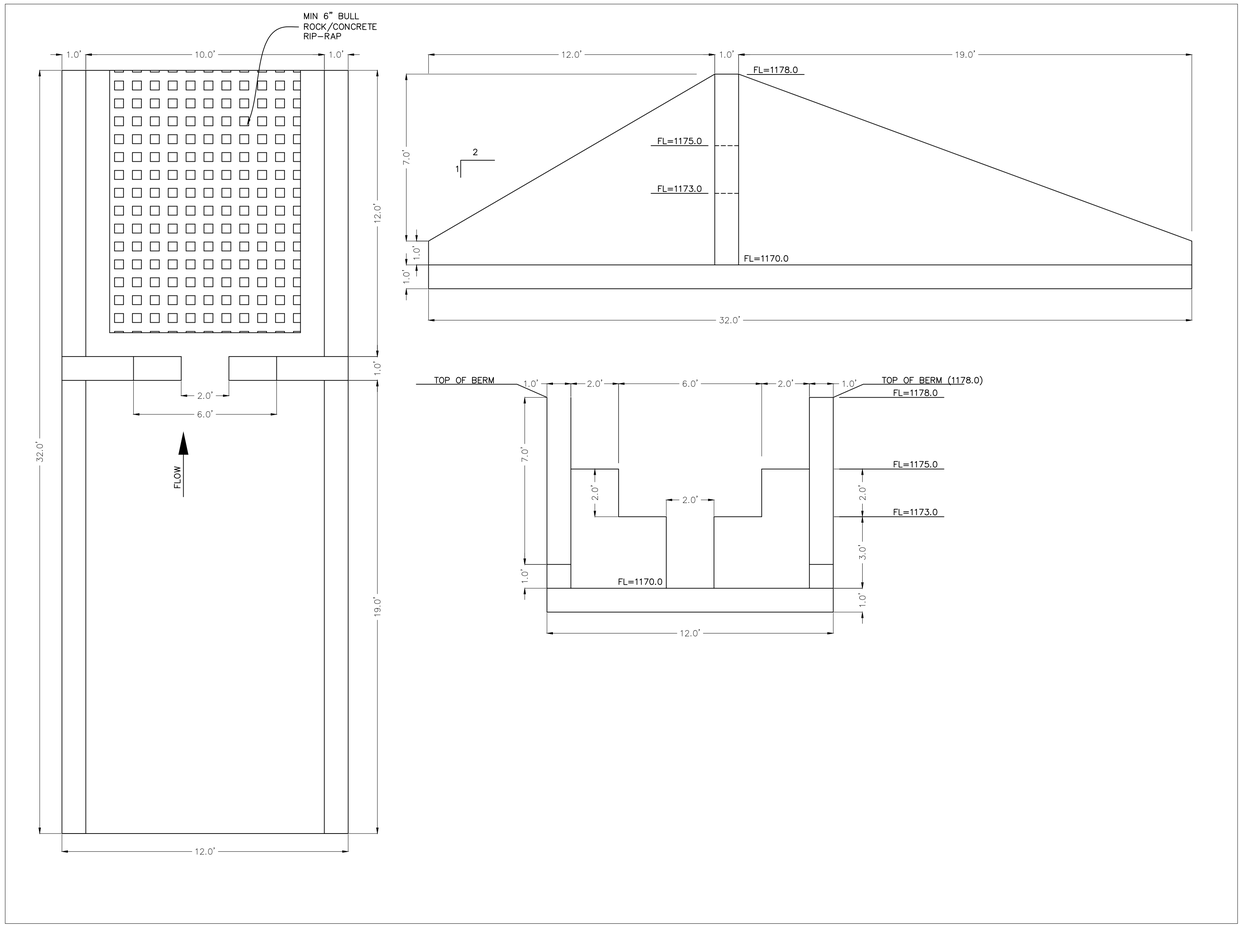
STORM DRAIN DETAILS

Scale: As Shown
Designed by: MRK
Drawn by: MRK
Checked by: DP
Date: AUGUST 16, 2024
Project No. 24-022

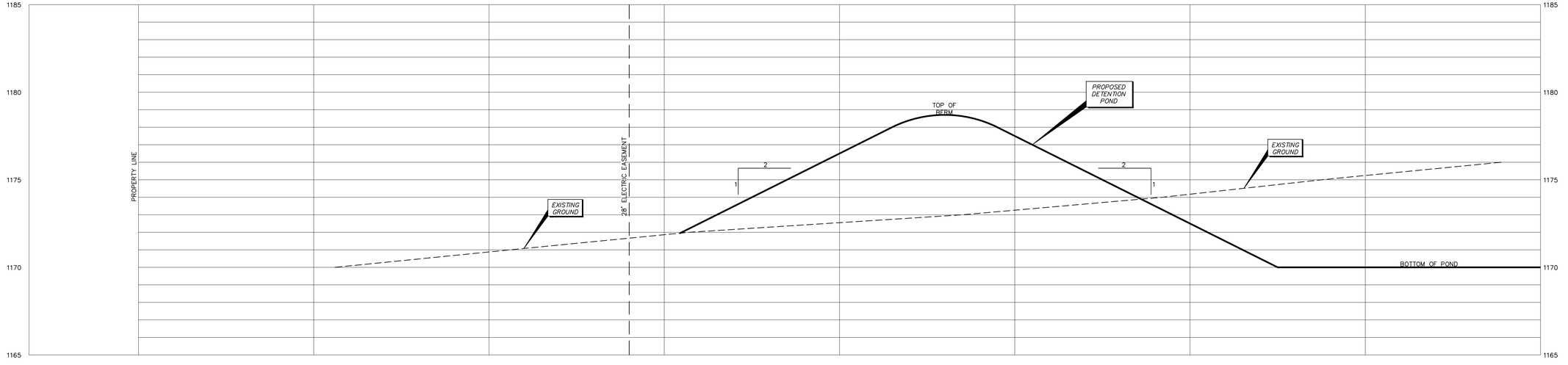
PLAT NO. 24-11800275
ADDRESS: 19302 BABCOCK ROAD



DETENTION POND DETAIL
SCALE: 1"=20'



CONCRETE WEIR "E" DETAIL
SCALE: N.T.S.



DETENTION POND SECTION "A"
SCALE: N.T.S.

PLAT NO. 24-11800275
ADDRESS: 19302 BABCOCK ROAD

No.	Date	Revisions	App.

KAVANAUGH CONSULTING, LLC
MKE CONSULTING, LLC
132 BLAZING MEADOW ROAD, No. 1
SPRING BRANCH, TEXAS 78070
PHONE: (512) 587-7397
KAVANAUGHCONSULTING@GMAIL.COM
TBPE FIRM #9711
P.O. BOX 1805
FREDERICKSBURG, TEXAS 78624
PH: (830) 609-7753

ENGINEER'S SEAL:
STATE OF TEXAS
DAVID PARKERSON
87016
REGISTERED
PROFESSIONAL ENGINEER
8/16/24

NORTH

HEIGHTS OF CROWNRIDGE MULTI-FAMILY

PROPOSED DETENTION POND DETAIL SHEET

Scale:	As Shown
Designed by:	MRK
Drawn by:	DRAWN
Checked by:	DP
Date:	AUGUST 16, 2024
Project No.	24-022

SHEET
14
OF 14

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: Kavanaugh Consulting, LLC

Date: 07/14/24

Signature of Customer/Agent:

Regulated Entity Name: Warner Land Advisors, LP

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: Leon 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

PROJECT NAME: **Heights of Crownridge 2 Residential**

ADDRESS: **19238 Babcock Road**

CITY, STATE: **San Antonio, TX 78255**

Spill prevention and control measures taken to minimize exposure of materials to stormwater are the following:

1. **Paints, solvents, fuel (small containers), and any other stored chemical substance (small containers) will be kept covered or within an enclosure to protect the containers and the floor of the enclosure from wind, precipitation, and runoff. Runoff containing such materials will be collected, removed from the site and disposed of in accordance with the federal, state, and local regulations.**
2. **All chemicals will be used as described by manufacturers' instructions. Excess chemicals will be removed from the site and disposed of properly, recycled, or used elsewhere.**
3. **In the event of a spill of hazardous, toxic, or radiological waste (HTRW), the operator will cease work, contain the spill, and notify the designated personnel.**
4. **Spill response materials will be located in the spill response kit in an appropriate location on site to be determined by the Operator.**
5. **Spill response materials will be located on the earth-moving equipment on site.**

Spills of toxic or hazardous material will be reported to the State of Texas Spill-Reporting Hotline and the State Emergency Response Commission (SERC) at 1-800-832-8224. In the event of a release of a chemical in an amount that exceeds the Reportable Quantity (RQ), the National Response Center will also be contacted immediately at (800) 424-8802.

A.) Fueling and Maintenance of Equipment or Vehicles

A contractor will be used to fuel vehicles onsite as needed. Secondary containment (drip pans) will be utilized to contain spills or leaks. Absorbent pads will also be used onsite and kept in the spill kit. The vehicle operator will be responsible for any cleanup. Spills and leaks will be properly cleaned.

B.) Storage, Handling, and Disposal of Construction Products, Materials, and Wastes

Exposure of construction products and materials will be minimized during construction. Materials will be stored in a specified material storage area away from any stormwater flow. All materials shall be collected in proper receptacles and disposed of properly. Disposal of materials will be taken away by a contractor or the operator offsite. At the end of the work day all waste containers will be covered. This cover will either be a lid, tarp, plastic sheeting or a temporary cover.

C.) Washing of Applicators and Containers used for Paint, Concrete, or Other Materials

Exposure of construction products and materials will be minimized during construction. Materials will be stored in a specified material storage area away from any stormwater flow. All materials shall be collected in proper receptacles and disposed of properly. Disposal of materials will be taken away by a contractor or the operator offsite.

During commercial development, construction material will be stored behind a BMP and trash/extra will be hauled off weekly.

ATTACHMENT B
FACTORS AFFECTING SURFACE WATER QUALITY

PROJECT NAME: **Heights of Crownridge 2 Residential**

ADDRESS: **19238 Babcock Road**

CITY, STATE: **San Antonio, TX 78255**

FACTORS:

The factors affecting water quality for this project are the following:
1.) Soil Disturbance from clearing and grading and general construction activity.
2.) Potential fuel leaks from construction machinery and equipment
3.) Concrete washout pit activity

There are no industrial discharges associated with this construction.

ATTACHMENT C
SEQUENCE OF MAJOR ACTIVITIES

PROJECT NAME: **Heights of Crownridge Unit 2 Residential**

ADDRESS: **19238 Babcock Road**

CITY, STATE: **San Antonio, TX 78255**

1.) Installation of temporary entrance / exit - stabilized
2.) Installation of erosion and sedimentation controls
3.) Limited clearing of vegetation
4.) Grading of parking and building pads
5.) Construction of retaining walls
6.) Construction of underground water and sewer lines
7.) Construction of overhead and underground electric lines
8.) Construction of Detention Pond
9.) Preparation of base for drive aisles and parking
10.) Building Construction
11.) Paving of base for drive aisles and parking
12.) Stabilization of site.
13.) Removal of temporary erosion and sedimentation controls

Attachment D
Temporary BMPs

Non-structural BMPs include practices such as education, spill prevention planning, street sweeping, material planning/scheduling, hazardous material management, solid and liquid waste management, and dust control to name a few. Non-structural BMPs have typically been considered "Good Housekeeping" practices as they refer to the regular ongoing maintenance of the site. Prohibit discharges from wastewater from washout of concrete trucks unless managed appropriately; wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials; fuels, oils or other pollutants used in vehicle and equipment operation and maintenance; soaps or solvents used in vehicle and equipment washing; as well as toxic or hazardous substances from a spill or other release. Construction specifications and details for debris and trash management and sanitary facilities are provided in Appendix E.

	Best Management Practice	Expected Use?	
		Yes/No	If Yes, describe where it will be utilized.
1.	Street Sweeping, Vacuuming, or Scraping	Yes	Street sweeping as needed.
2.	Stockpile Management	Yes	Onsite management program on lots as needed.
3.	Material Staging Area	Yes	Construction equipment, non-hazardous building materials such as packing material (wood, plastic, and glass), construction scrap material (brick, wood, steel, metal scraps, and pipe cuttings), and maintenance materials will be stored on site. Large items, such as framing materials and stockpiled lumber, will be stored in the open in the storage area. Such material will be elevated on wood blocks to minimize contact with runoff.
4.	Solid Waste Management	Yes	Onsite management in bins and collected regularly. At the end of the work day all waste containers will be covered. This cover will either be a lid, tarp, plastic sheeting or a temporary cover.
5.	Hazardous Waste Management	Yes	All hazardous waste materials such as oil filters, petroleum products, paint, and equipment maintenance fluids will be stored in structurally sound and sealed containers under cover within a separate hazardous material storage area.
6.	Sanitary Waste Management	Yes	Onsite management of portable toilets.

	Best Management Practice	Expected Use?	
		Yes/No	If Yes, describe where it will be utilized.
7.	Concrete Residuals & Washout Management	Yes	Onsite management of concrete washouts in designated areas. Ensure wastewater is properly contained and there is no discharge to surface waters.
8.	Vehicle and Equipment Management	Yes	Onsite management.
9.	Dust Control	Yes	Water trucks will spray unvegetated soil as necessary to control dust until land is seeded and vegetated.

1. Street Sweeping/Vacuuming/Scraping – activities will occur as necessary to ensure street surfaces are clear of soil and debris. Ingress and Egress access points will be inspected often and swept as needed. Street sweeping will occur on all paved streets within the project and adjacent to the project throughout the duration of the project as needed.
2. Stockpile Management – prevents pollution of stormwater during the import, export, and stockpiling of earth material by: planning operations that will minimize the need for import/export, diverting stormwater around stockpiles, placing piles at least 10 feet away from drainage areas and discharge points placing proper erosion and sediment controls around the pile. Stockpile Management will occur throughout the duration of the project.
3. Material Delivery, Storage, and Use – Material Safety Data Sheets (MSDS) and associated spill response/clean up materials will be stored onsite. All chemicals need to be in sealed and labeled containers away from exposure to stormwater and ground water throughout the duration of the project.
4. Solid Waste Management – All solid waste (trash and debris) associated with construction activities shall be collected onsite in proper receptacles and disposed of properly by the waste management provider to an appropriate regulated landfill or recycling facility. No excess waste shall be buried onsite. Contractors shall be responsible for insuring that these solid waste management practices are followed throughout the duration of the project.
5. Hazardous Waste Management – All hazardous waste shall be disposed of in the manner specified by the manufacturer or federal, state, and local regulations. A separate permit may be required to transport and dispose of hazardous waste. General Practices used to reduce the risk associated with hazardous materials include: keeping products in original containers when applicable, ensuring all chemical containers are labeled and MSDS sheets are retained onsite, and surplus product/waste must be disposed of by the manufacturers' or local and state recommended methods throughout the duration of the project.
6. Sanitary Waste Management – Portable sanitary facilities shall be provided in convenient areas. A company shall be hired to clean the units, inspect for deficiencies, and maintain the units in good working order regularly or as required by local regulations. Contractors will be responsible for notifying their staff to utilize the sanitary facilities and insure that these practices are followed the duration of the project.
7. Concrete Residuals and Washout Management – Washout areas will be designated onsite. All excess concrete and concrete washout slurries will be discharged to the washout area for drying. All washout areas shall be located away from any storm drain opening, drainage structure, and water ways associated with the site. Once dried the material will be hauled away by a contractor. No washout material will be buried onsite.

8. Vehicle and Equipment Management – Vehicles entering the construction site shall be maintained in a manner that prevents leaks and spills of fluids and to prevent offsite tracking of sediment. Vehicles will be inspected often for leaks. Drip pans or absorbent pads will be used for vehicle and equipment maintenance activities that involve grease, oil, solvents, or other fluids. The vehicle operator will be responsible for any cleanup. These management practices will continue throughout the duration of the project. Vehicle wash-down will be performed only in a controlled location and runoff from that location will be controlled so as to not reach any surface water.

9. Dust Control – Measures that help reduce the surface movement of soil and particles from disturbed surfaces into the air. If water is used to prevent dust, it shall be applied in a manner that does not create runoff and minimizes vehicle tracking.

ATTACHMENT F
STRUCTURAL PRACTICES

PROJECT NAME: **Heights of Crownridge Unit 2 Residential**

ADDRESS: **19238 Babcock Road**

CITY, STATE: **San Antonio, TX 78255**

In addition to general stormwater inlets, piping, and headwalls, the Following structural containment practices will be employed as shown on the attached construction plans to control stormwater runoff on site and to minimize erosion:

1.) Concrete Curb along all pavement sections – Vertical 6" concrete curbs will be placed along all paved areas and drive aisles to capture stormwater runoff and direct it properly to minimize downstream erosion.

2.) Retaining Walls – Placed below embankment and pavement sections, these areas will be graded to drain away and upstream from retaining walls as a backup to capture by concrete curbs.

3.) Roof Drainage containment systems with gutters – All building roofs will be directed to gutter containment systems to direct stormwater runoff into structural drainage systems.

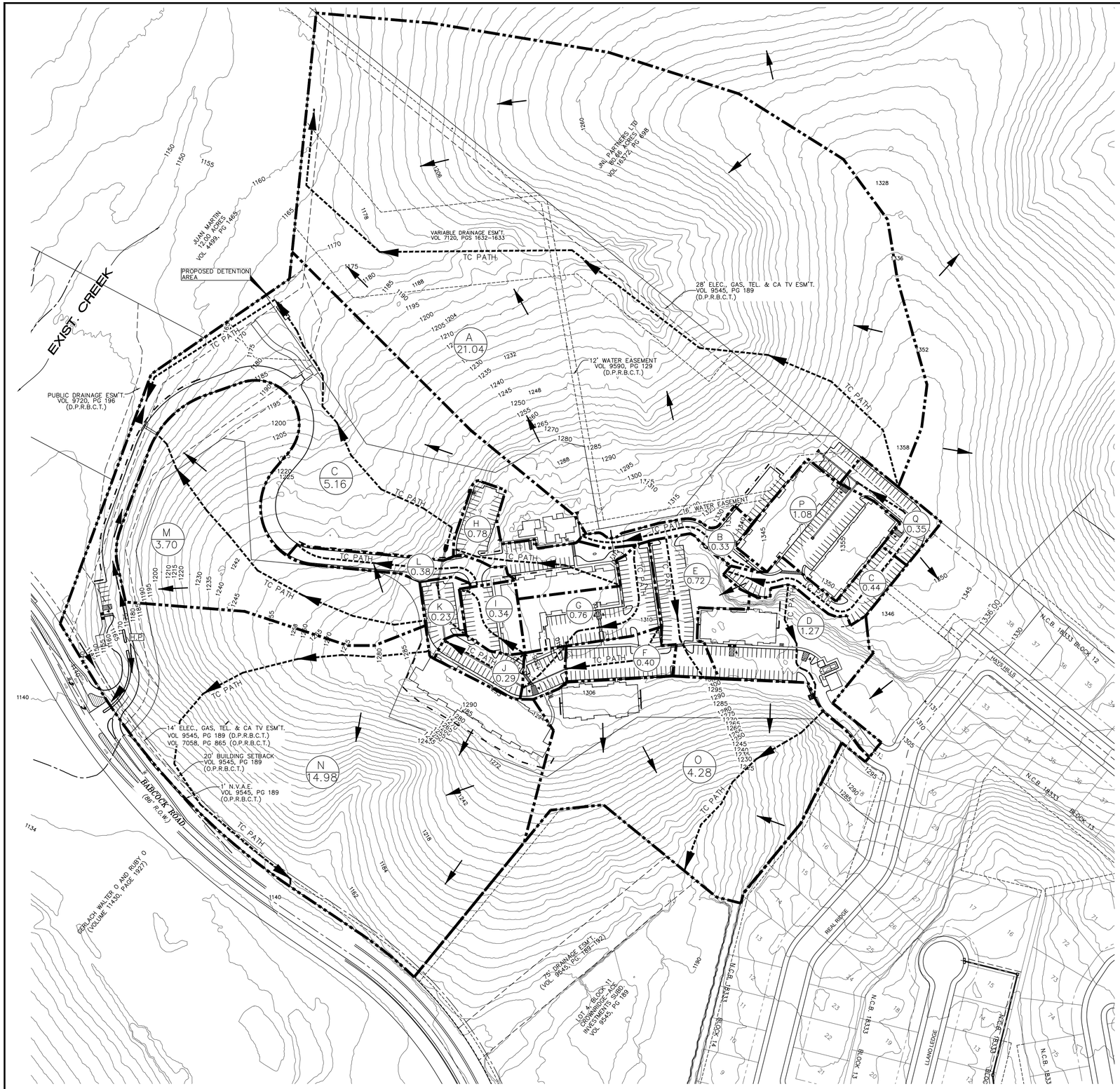
ATTACHMENT G
DRAINAGE AREA MAP

PROJECT NAME: **Heights of Crownridge Unit 2 Residential**

ADDRESS: **19238 Babcock Road**

CITY, STATE: **San Antonio, TX 78255**

A Drainage Area Map and Calculations are included herein.



PROPOSED OVERALL DRAINAGE MAP (ULTIMATE)

SCALE: 1"=100'

SUB-AREA — A / 2.24 — ACREAGE

LEGEND

- PROPOSED DRAINAGE AREA
- CONCENTRATION POINT
- PROPOSED FLOW ARROWS
- EXISTING CONTOUR
- PROPOSED CONTOUR (MINOR)
- EXISTING CONTOUR (MAJOR)
- LOT DRAINAGE FLOW DIRECTION
- PROPOSED RETAINING WALL
- PROPOSED GUARDRAIL
- PROPOSED EASEMENT
- DRAINAGE SWALE

ADDRESS: 19302 BABCOCK ROAD

GRAPHIC SCALE

200 100 50 0 100 300

(IN FEET)
1 inch = 100 ft.

NORTH

No.	Date	Revisions

KAVANAUGH CONSULTING, LLC
132 BLAZING MEADOW ROAD, No. 1
SPRING BRANCH, TEXAS 78070
PHONE: (830) 438-3703
KAVANAUGHCONSULTING@GMAIL.COM
TBPE FIRM #6711

MK KELLER CONSULTING, LLC
PO. BOX 1805
FREDERICKSBURG, TEXAS 78624
PH. (830) 889-7753

ENGINEER'S SEAL:

STATE OF TEXAS — DAVID PARKERSON — 87016 — REGISTERED PROFESSIONAL ENGINEER

HEIGHTS OF CROWNRIDGE MULTI-FAMILY

PROPOSED OVERALL MASTER DRAINAGE PLAN (ULTIMATE)

Scale:	As Shown
Designed by:	MRK
Drawn by:	MRK
Checked by:	DP
Date:	AUGUST 2024
Project No.	24-022

SHEET
PD
OF 1

PLAT NO. 24-11800275
ADDRESS: 19302 BABCOCK ROAD

FLOW CALCULATION TABLE - ULTIMATE (PROPOSED)
HEIGHTS OF CROWNRIDGE UNIT 2 - RESIDENTIAL
6/1/2024

DRAINAGE AREA	AREA (acres)	% IMPERVIOUS	Imperv. Cover (acres)	Weight C	Tc (min)	I 5yr	I 25yr	I 100yr	Q 5yr (cfs)	Q 25yr (cfs)	Q 100yr (cfs)
A	12.78	6%	0.80	0.52	10.4	6.30	8.30	11.00	41.8	55.1	73.0
B	0.33	91%	0.30	0.92	6.0	7.80	10.30	11.60	2.4	3.1	3.5
C	5.16	20%	1.05	0.59	7.5	7.20	9.50	12.10	21.8	28.7	36.6
D	1.27	39%	0.50	0.68	5.3	8.30	11.00	13.40	7.1	9.4	11.5
E	0.72	49%	0.35	0.72	5.6	8.30	11.00	13.40	4.3	5.7	6.9
F	0.40	90%	0.36	0.91	5.3	8.30	11.00	13.40	3.0	4.0	4.9
G	0.76	95%	0.72	0.94	5.3	8.30	11.00	13.40	5.9	7.8	9.5
H	0.78	97%	0.76	0.95	5.6	8.30	11.00	13.40	6.1	8.1	9.9
I	0.34	97%	0.33	0.95	5.3	8.30	11.00	13.40	2.7	3.5	4.3
J	0.29	93%	0.27	0.93	5.3	8.30	11.00	13.40	2.2	3.0	3.6
K	0.23	87%	0.20	0.90	5.1	8.30	11.00	13.40	1.7	2.3	2.8
L	0.38	95%	0.36	0.94	6.0	7.80	10.30	11.60	2.8	3.7	4.1
M	3.70	5%	0.20	0.52	6.3	7.70	10.20	11.50	14.7	19.5	21.9
N	14.98	8%	1.20	0.53	6.2	7.70	10.20	11.50	60.9	80.6	90.9
O	4.28	16%	0.70	0.57	7.8	7.10	9.40	11.50	17.2	22.8	27.9

NOTE: TCI Storm Water Design Criteria Manual (2016)
was utilized for Intensities in the Rational Method for these calculations
as required by the City of San Antonio.

ATTACHMENT I
Inspection, Maintenance, Repair, and Retrofit Plan

PROJECT NAME: **Heights of Crownridge Unit 2 Residential**

ADDRESS: **19238 Babcock Road**

CITY, STATE: **San Antonio, TX 78255**

Warner Land Advisors, LP and their General Contractor will manage daily erosion control maintenance:

1.) Silt fence
2.) Stabilized construction entrance
3.) Concrete Washout Pits
4.) Rock Berms

The Temporary BMPs offsite will be monitored and maintained on a scheduled basis by the Crownridge of Texas Property Owners Association. Responsible Party contact is:

Crownridge of Texas POA, Inc.
c/o: Real Manage
613 Northwest Loop 410
Suite 510
San Antonio, Texas 78216
Attn: Melissa Rogers, Community Manager

ATTACHMENT J
Schedule of Interim and Permanent Soil Stabilization Practices

PROJECT NAME: **Heights of Crownridge Unit 2 Residential**

ADDRESS: **19238 Babcock Road**

CITY, STATE: **San Antonio, TX 78255**

The following actions will be performed on a daily basis during all activities onsite:

1.) **Mulching – Onsite cleared trees will be mulched during initial operations and prepared for placement on all disturbed areas after grading.**

2.) **Water Trucks – Onsite water trucks will be active during construction spraying all exposed disturbed dirt areas daily.**

3.) **Silt Fence – Silt Fence will be placed prior to start of construction activities and will be maintained weekly or after every rain event.**

4.) **Frock Berms – Rock Berms will be placed at high velocity and flow drainage locations during initial operations and maintained weekly and after every rain event.**

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

I STEPHEN SALLMAN,
Print Name

MANAGER,
Title - Owner/President/Other

of WARNER LAND ADVISORS, LP,
Corporation/Partnership/Entity Name

have authorized DAVID PARKERSON, PE
Print Name of Agent/Engineer

of KAVANAUGH CONSULTING, LLC
Print Name of Firm

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

I also understand that:

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

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

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

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

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

SIGNATURE PAGE:

Stephen Sallman
Applicant's Signature

7/27/24
Date

THE STATE OF Texas §

County of Dalla §

BEFORE ME, the undersigned authority, on this day personally appeared Stephen Sallman 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 27th day of July, 2024.

Tamara Miguez
NOTARY PUBLIC

TAMARA MIGUEZ
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 7-29-2026

TAMARA MIGUEZ
Notary ID #1593476
My Commission Expires
July 29, 2026

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: HEIGHTS OF CROWNRIDGE UNIT 2 RESIDENTIAL
Regulated Entity Location: 19238 BABCOCK ROAD, SAN ANTONIO, TEXAS 78255
Name of Customer: WARNER LAND ADVISORS, LP
Contact Person: DAVID PARKERSON, PE Phone: 512-587-7397
Customer Reference Number (if issued):CN _____
Regulated Entity Reference Number (if issued):RN 104953229

Austin Regional Office (3373)

☐ Hays ☐ Travis ☐ Williamson

San Antonio Regional Office (3362)

☒ Bexar ☐ Medina ☐ Uvalde
☐ Comal ☐ Kinney

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

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

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

Site Location (Check All That Apply):

☐ Recharge Zone ☒ Contributing Zone ☐ Transition Zone

Type of Plan	*Size*	*Fee Due*
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	43.54 Acres	$ 8,000
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	Acres	$
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: _____

Date: 07/13/24

Application Fee Schedule

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

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	*Fee*
Exception Request	$500

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

☒ Other **Modification CZP - New Owner**

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		**RN 104953229**

SECTION II: Customer Information

4. General Customer Information	**5. Effective Date for Customer Information Updates** (mm/dd/yyyy)	1/10/2020

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

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

6. Customer Legal Name (*If an individual, print last name first: eg: Doe, John*)	*If new Customer, enter previous Customer below:*
Warner Land Advisors, LP	BP 100 San Antonio, Ltd.

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** (*if applicable*)
0011867510	32036228735	75-2809479	

11. Type of Customer:

☐ Corporation ☐ Individual Partnership: ☐ General ☒ Limited

Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

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

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

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

15. Mailing Address:	4040 N. CENTRAL EXPRESSWAY							
	SUITE 850							
	City	DALLAS	**State**	TX	**ZIP**	75204	**ZIP + 4**	

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

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

(214) 368-0238		( ) -

SECTION III: Regulated Entity Information

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

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

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

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

HEIGHTS OF CROWNRIDGE UNIT 2 RESIDENTIAL

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	19238 BABCOCK ROAD							
	City	SAN ANTONIO	**State**	TX	**ZIP**	78255	**ZIP + 4**	
24. County								

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

25. Description to Physical Location:	0.5 MILES NORTHWEST OF LUSKEY DRIVE ALONG BABCOCK ROAD				
26. Nearest City			**State**	**Nearest ZIP Code**	

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

27. Latitude (N) In Decimal:			**28. Longitude (W) In Decimal:**		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

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)
6552	6531	237210	531210

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

SINGLE FAMILY / MULTIFAMILY DEVELOPMENT

34. Mailing Address:	**4040 N. CENTRAL EXPRESSWAY**							
	SUITE 850							
	City	**DALLAS**	**State**	**TX**	**ZIP**	**75204**	**ZIP + 4**	
35. E-Mail Address:	**SSALLMAN@WARNERGROUP.COM**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(214) 368-0238		( ) -

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

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

SECTION IV: Preparer Information

40. Name:	TAMARA MIGUEZ	41. Title:	OFFICE MANAGER

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(214) 368-0238		( ) -	TMIGUEZ@WARNERGROUP.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:	WARNER LAND ADVISORS, LP	Job Title:	MANAGER	
Name *(In Print)*:	STEPHEN SALLMAN		Phone:	(214) 3688238
Signature:	Stephen Sallman		Date:	7/28/24