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March 7, 2025

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program - San Antonio Region
14250 Judson Road
San Antonio, TX 78233

Subject: **Edwards Aquifer Protection Plan - Modification**
7-Eleven, Inc. Store No. 40569
2700 Hunter Road, Unit B
San Marcos, Hays County, Texas 78666
PST Facility ID No. 18194; LPST ID No. 120455 (Closed 2021)
Edwards Aquifer ID No. 11-98081401
Regulated Entity No. RN 102921442

Dear Coordinator:

On behalf of 7-Eleven, Inc. (7-Eleven), Aptim Environmental & Infrastructure, Inc. (APTIM), is submitting the attached Edwards Aquifer Protection Plan (EAPP) Modification. The proposed project is scheduled to be conducted at 7-Eleven, Inc. Store No. 40569 (Site), located at 2700 Hunter Road, Unit B in San Marcos, Hays County, Texas.

The Site is an approximate 1.01-acre property that has operated as a retail petroleum facility from at least 1984 through present day. It is situated within the Edwards Aquifer Transition Zone. A Texas Commission on Environmental Quality (TCEQ) Central Registry records search documents four (4) 8,000-gallon single-walled fiberglass-reinforced plastic (FRP) Underground Storage Tanks (USTs) containing gasoline and diesel fuels. A UST Registration and Self-Certification Form dated November 9, 2023, documents tank numbers two and three as temporarily out of service. USTs one and four are currently registered as in use at the site. TCEQ records search also provides an Edwards Aquifer ID No. 11-98081401. Using the Edwards Aquifer ID Number documents were recovered using the TCEQ Records Online search. A document dated September 11, 1998, by the Texas Natural Resource Conservation Commission (TNRCC) documents the request of exception from the requirement of submittal of UST facility construction plans.

Currently 7-Eleven proposes the following new UST System modifications at the Site:

- Remove existing tank slab, dispenser islands, and existing UST system with product and vent piping;
- Install one (1) new 15,000-gallon capacity double-walled fiberglass-reinforced plastic (FRP) Regular Unleaded (RUL) Underground Storage Tank (UST);
- Install one (1) new 15,000-gallon capacity split double-walled FRP Diesel (DSL) and Premium Unleaded (PUL) UST;
- Install three (3) new RUL, PUL, and DSL Submersible Turbine Pumps (STP);
- Install three (3) new RUL, PUL, and DSL product fill buckets;
- Install new 3” double-walled piping over 2” double-walled FRP product piping from new USTs to existing dispensers;
- Install two (2) new vapor vent risers;
- Install new 2-inch coaxial single-walled piping for vapor/vent at USTs to new remote vent;
- Reuse one (1) existing 3+0 dispensers;
- Reuse one (1) existing 3+1 dispensers for DSL;
- Install two (2) new stainless steel dispenser islands;

- Install a new automatic tank gauge site monitor console;
- Install two (2) new observation wells in the tank slab; and
- Install new concrete at disturbed areas.

A Geologic Assessment (Appendix B) was conducted January 24, 2025. One permanent monitoring well was identified on the project site, but it will be plugged and abandoned prior to construction activities and is therefore not considered a sensitive feature in relation to the proposed scope of work. No offsite areas are anticipated to be affected by the proposed construction activities. The site is currently covered with concrete.

The following is documented in the Temporary Stormwater Section (Appendix E):

- Total area of impervious cover: approximately 21,452 square feet;
- Areas to be demolished (total disturbed area): approximately 4,570 square feet;
- Permanent Best Management Practices (BMPs): permanent seeding, sodding, or mulching.

Prior to concrete removal, a silt fence will be installed to intercept and detain waterborne sediment from unprotected areas. The fence shall remain in place until the disturbed area is permanently stabilized. After construction activities are complete, the area will be re-surfaced with an impervious concrete cover.

Attached are the following documents to describe the proposed modification to the current UST system:

Appendix A:	General Information Form
Appendix B:	Geologic Assessment
Appendix C:	Modification of a Previously Approved Plan
Appendix D:	Underground Storage Tank Facility Plan Application • UST Facility Site Plan
Appendix E:	Temporary Stormwater Section • Demo Plan with Erosion and Sediment Control Notes
Appendix F:	Agent Authorization Form
Appendix G:	Application Fee Form
Appendix H:	Core Data Form

Sincerely,

Derek Thompson
Environmental Scientist
APTIM

Jessica Jones
Project Manager
APTIM

Distribution:
TCEQ Edwards Aquifer Protection Program (electronic copy)
Barton Springs/ Edwards Aquifer (1 copy)
TCEQ Region 11 (1 copy)
Field Copy (1 copy)
Store Copy (1 copy)
APTIM File (1 copy)

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: 7-Eleven, Inc. Store No. 40569						**2. Regulated Entity No.:** 102921442			
3. Customer Name: 7-Eleven, Inc.						**4. Customer No.:** 600684112			
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):**			Approximately 1.01
9. Application Fee:	$1,300		**10. Permanent BMP(s):**			N/A			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			2			
13. County:	Hays		**14. Watershed:**			Guadalupe River Basin			

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.)	_1_	___	___
Region (1 req.)	_1_	___	___
County(ies)	_1_	___	___
Groundwater Conservation District(s)	___Edwards Aquifer Authority _1_Barton Springs/ Edwards Aquifer ___Hays Trinity ___Plum Creek	___Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda ___Dripping Springs ___Kyle ___Mountain City _1_San Marcos ___Wimberley ___Woodcreek	___Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	___Austin ___Cedar Park ___Florence ___Georgetown ___Jerrell ___Leander ___Liberty Hill ___Pflugerville ___Round Rock

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

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.
Jessica Jones, Aptim Environmental and Infrastructure LLC
Print Name of Customer/Authorized Agent 03/07/2025
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):	

APPENDIX A

GENERAL INFORMATION FORM

(TCEQ-0587)

General Information Form

Texas Commission on Environmental Quality

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

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

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

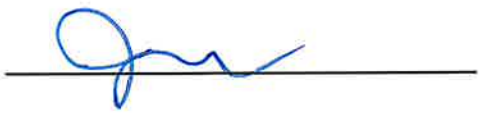
Signature

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

Print Name of Customer/Agent: Jessica Jones of Aptim Environmental and Infrastructure, LLC

Date: 03/07/2025

Signature of Customer/Agent:



Project Information

1. Regulated Entity Name: 7-Eleven, Inc. Store No. 40569
2. County: Hays
3. Stream Basin: Guadalupe Basin
4. Groundwater Conservation District (If applicable): Barton Springs/Edwards Aquifer Authority
5. Edwards Aquifer Zone:

   ☐ Recharge Zone
   ☒ Transition Zone

6. Plan Type:

   ☐ WPAP
   ☐ SCS
   ☒ Modification
   ☐ AST

☒ UST ☐ Exception Request

7. Customer (Applicant):

Contact Person: Bill Holcomb
Entity: 7-Eleven, Inc.
Mailing Address: P.O. Box 711
City, State: Dallas, Texas Zip: 75221
Telephone: 925-785-6808 FAX: N/A
Email Address: Bill.Holcomb@7-11.com

8. Agent/Representative (If any):

Contact Person: Jessica Jones, Project Manager
Entity: Aptim Environmental & Infrastructure, LLC
Mailing Address: 12005 Ford Road, Suite 600
City, State: Dallas, Texas Zip: 75234
Telephone: (940) 395-1937 FAX: N/A
Email Address: jessica.jones@aptim.com

9. Project Location:

☒ The project site is located inside the city limits of San Marcos, 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.

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

The project site is located at 2700 Hunter Road, Unit B in San Marcos, Hays County, Texas

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

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

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

13. ☒ **The TCEQ must be able to inspect the project site or the application will be returned**. Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate

the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment.

☐ Survey staking will be completed by this date: _____

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

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

15. Existing project site conditions are noted below:

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

Prohibited Activities

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

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

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

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

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

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

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

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

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

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

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

Administrative Information

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

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

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

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

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

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

ATTACHMENT A

ROAD MAP

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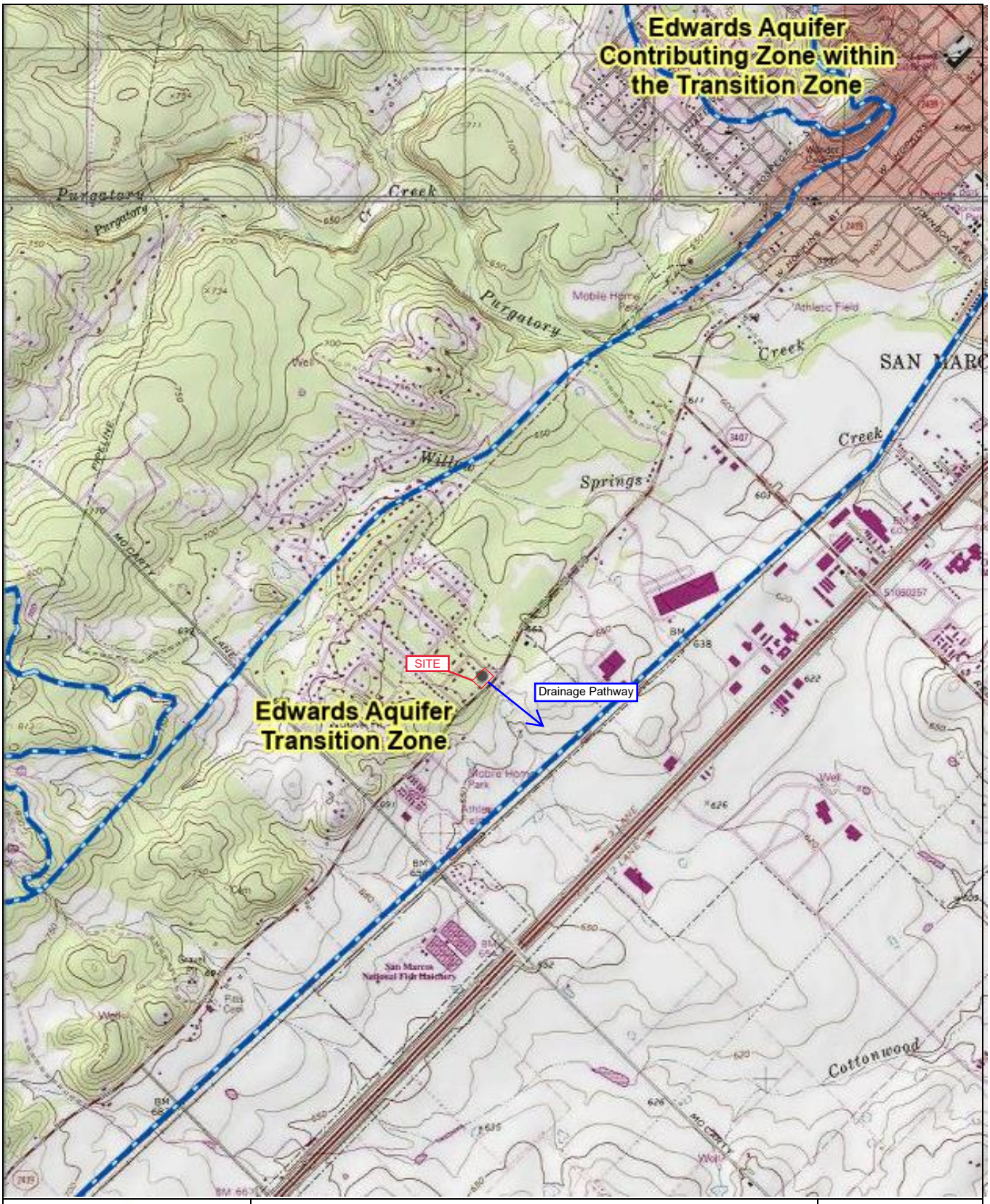
Road Map
7-Eleven, Inc. Store No. 40569
2700 Hunter Road, Unit B
San Marcos, Hays County, Texas 78666
Source: Google Maps
Prepared: January 24, 2025

ATTACHMENT A

NORTH

ATTACHMENT B

USGS/EDWARDS RECHARGE ZONE MAP



APTIM

USGS/Edwards Recharge Zone Map
7-Eleven, Inc. Store No. 40569
2700 Hunter Road, Unit B
San Marcos, Hays County, Texas 78666
Source: Edwards Aquifer Authority
7.5' USGS Grid: San Marcos South (29097GB)
Prepared: January 24, 2025

Attachment B

NORTH

Edwards Aquifer Transition Zone Boundary

ATTACHMENT C

PROJECT DESCRIPTION

ATTACHMENT C

Project Description

7-Eleven, Inc. Store No. 40569
2700 Hunter Road, Unit B
San Marcos, Hays County, Texas 78666

This proposed UST System Replacement project is scheduled to be conducted at 7-Eleven, Inc. Store No. 40569 (Site), which is currently operating as a retail gasoline facility, located at 2700 Hunter Road, Unit B in San Marcos, Hays County, Texas.

The Site is an approximate 1.01-acre property that has operated as a retail petroleum facility from at least 1984 through present day. It is situated within the Edwards Aquifer Transition Zone. A Texas Commission on Environmental Quality (TCEQ) Central Registry records search documents four (4) 8,000-gallon single-walled fiberglass-reinforced plastic (FRP) Underground Storage Tanks (USTs) containing gasoline and diesel fuels. A UST Registration and Self-Certification Form dated November 9, 2023, documents tank numbers two and three as temporarily out of service. USTs one and four are currently registered as in use at the site. TCEQ records search also provides an Edwards Aquifer ID No. 11-98081401. Using the Edwards Aquifer ID Number documents were recovered using the TCEQ Records Online search. A document dated September 11, 1998, by the Texas Natural Resource Conservation Commission (TNRCC) documents the request of exception from the requirement of submittal of UST facility construction plans.

Currently 7-Eleven anticipates the following modifications at the Site:

- Remove existing tank slab, dispenser islands, and existing UST system with product and vent piping;
- Install one (1) new 15,000-gallon capacity double-walled fiberglass-reinforced plastic (FRP) Regular Unleaded (RUL) Underground Storage Tank (UST);
- Install one (1) new 15,000-gallon capacity split double-walled FRP Diesel (DSL) and Premium Unleaded (PUL) UST;
- Install three (3) new RUL, PUL, and DSL Submersible Turbine Pumps (STP);
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- Install new 3” double-walled piping over 2” double-walled FRP product piping from new USTs to existing dispensers;
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work. No offsite areas are anticipated to be affected by the proposed construction activities. The site is currently covered with concrete.

The following is documented in the Temporary Stormwater Section (Appendix E):

- Total area of impervious cover: approximately 21,452 square feet;
- Areas to be demolished (total disturbed area): approximately 4,570 square feet;
- Permanent Best Management Practices (BMPs): permanent seeding, sodding, or mulching.

Prior to concrete removal, a silt fence will be installed to intercept and detain waterborne sediment from unprotected areas. The fence shall remain in place until the disturbed area is permanently stabilized. After construction activities are complete, the area will be re-surfaced with an impervious concrete cover.

APPENDIX B

GEOLOGIC ASSESSMENT

(TCEQ-0585)

Geologic Assessment

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Geologist: Clarence Winzer, P.G.

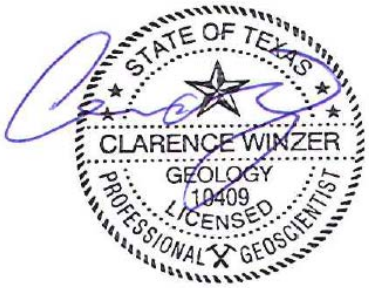
Telephone: 512-694-8250

Fax: NA

Date: 2/12/2025

Representing: APTIM- TBPG 50431 (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: 7-Eleven No. 40569

Project Information

1. Date(s) Geologic Assessment was performed: January 24, 2025
2. Type of Project:
   - ☐ WPAP
   - ☐ SCS
   - ☐ AST
   - ☒ UST
3. Location of Project:
   - ☐ Recharge Zone
   - ☒ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

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

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

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
Comfort -Rock Outcrop Complex	D	2.25

** Soil Group Definitions (Abbreviated)*

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

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

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

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

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

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

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

   Applicant's Site Plan Scale: 1" = 16'
   Site Geologic Map Scale: 1" = 40'
   Site Soils Map Scale (if more than 1 soil type): 1" = 40'

9. Method of collecting positional data:

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

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

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

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

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

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

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

    ☒ There are 1 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    - ☒ The wells are not in use and have been properly abandoned.
    - ☐ The wells are not in use and will be properly abandoned.
    - ☒ The wells are in use and comply with 16 TAC Chapter 76.

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

Administrative Information

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

APPENDIX B

ATTACHMENT A

GEOLOGIC ASSESSMENT TABLE

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: 7-Eleven # 40569 Date of Collection: 24-Jan-25

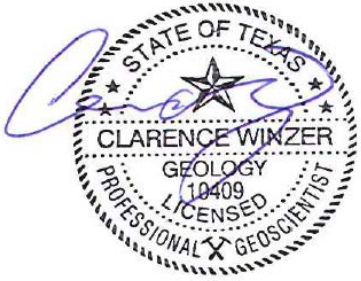
LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOG	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
MW-1	29°51'9.36"N	97°58'26.19"W	MB	30	Kau	0.5	20	0.5	NA	0	NA	NA	N	5	35	X		X		Hillside

* DATUM: GPS- World Geodetic System of 1984 (WGS84) Horizontal Accuracy Assessment: between 8- 20 meters

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

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

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



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

Clarence Winzer

Assessor: Clarence Winzer, P.G.

Date 2/11/2025

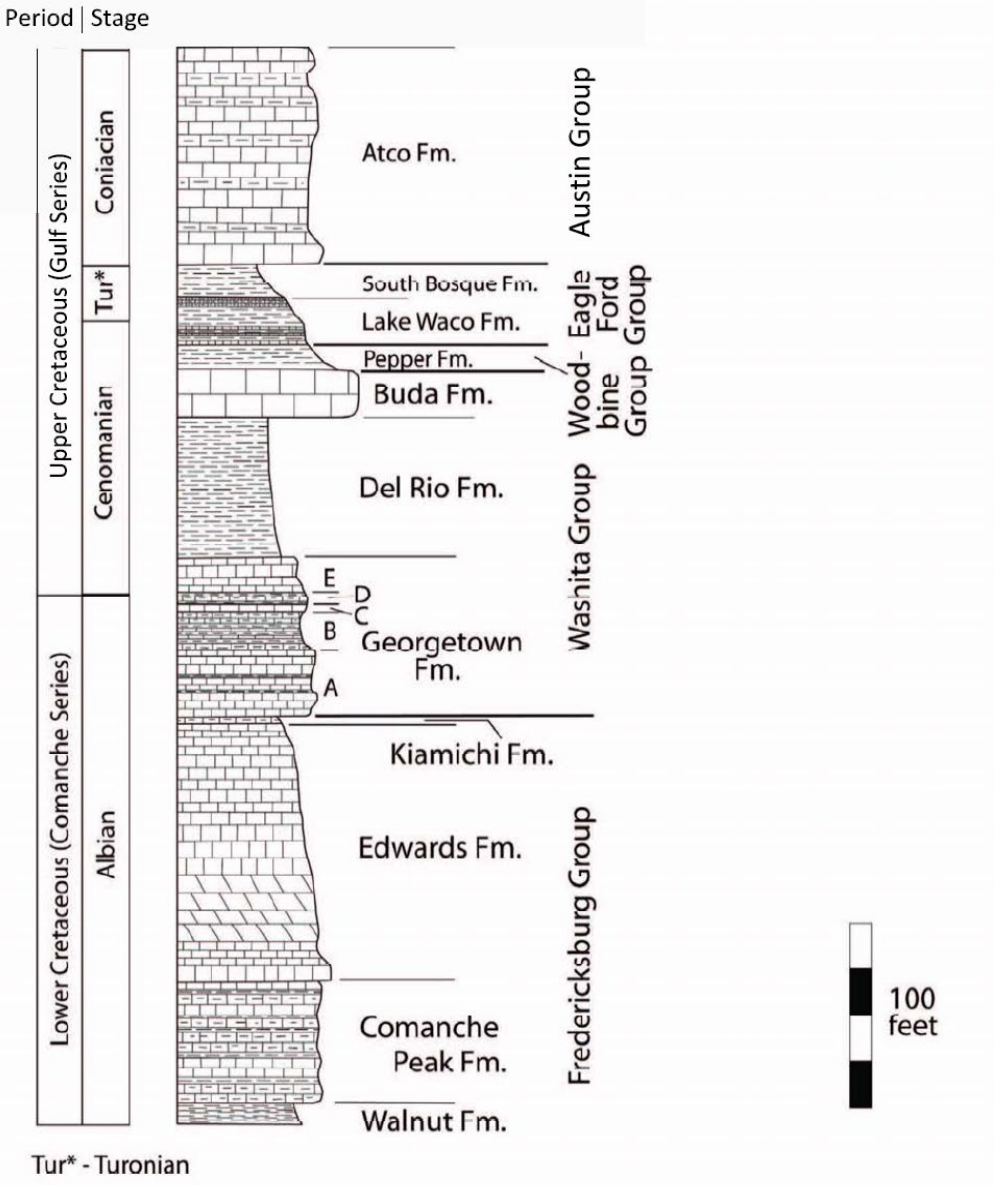
Sheet ___1___ of ___1___

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

APPENDIX B

ATTACHMENT B

STRATIGRAPHIC COLUMN



GENERALIZED STRATIGRAPHIC COLUMN OF THE ROUND ROCK AREA

Source: Housh, Todd B. (2007). *Bedrock Geology of Round Rock and Surrounding Areas, Williamson and Travis Counties, Texas.*

APTIM	**Stratigraphic Column** 7-Eleven # 40569 2700 Hunter Road, San Marcos, Hays County, TX 78666 Prepared February 4, 2025	**ATTACHMENT B** ↑ **NORTH**

APPENDIX B

ATTACHMENT C

SITE GEOLOGY

APPENDIX B

ATTACHMENT C

Site Geology

Client: 7-Eleven #40569
2700 Hunter Road, Unit B
San Marcos, Hays County, TX 78666

According to the United States Department of Agriculture (USDA) soil survey of Hays County, the primary soil at the site is the Comfort-Rock outcrop complex.

The Comfort-Rock outcrop complex series consists of extremely stony clay, well drained, slowly permeable soils that are very shallow to shallow over indurated limestone bedrock. These soils are nearly level to moderately sloping soils formed in clayey residuum derived dolomitic limestone and occur on ridges of dissected plateaus. The A horizon consists of a dark grayish brown, very stony clay from 0- 5 inches with a moderate medium angular blocky structure parting to moderate fine subangular blocky. In general, it is found to be very hard to very firm, many fine roots to a few very fine tubular pores. The Bt horizon is a dark reddish gray, very cobbly clay from 5- 17 inches with moderate medium subangular and angular blocky structure parting to moderate fine angular blocky. In general, it is found to be very hard to very firm, with fine to medium roots and patchy clay films. The R horizon is indurated crystalline dolomitic limestone bedrock with irregular seams filled with soil from 17- 27 inches.

According to the Geologic Atlas of Texas, Seguin Sheet, the site is located on the Austin Chalk (Kau). The Austin Chalk consists of chalk and marl with mostly microgranular calcite with minor foraminifera tests, averages 85% calcium carbonate, ledge forming, grayish white to white, alternates with marl, and bentonitic seams locally. The Austin Chalk thickness ranges from 300-400 feet.

One sensitive feature (active monitoring well) was observed at the site during the geologic assessment survey performed on January 24, 2025, by Clarence Winzer (PG License No. 10409). Generally, the site was covered by 80% concrete or asphalt and approximately 20% vegetation underlain by a very dark grayish, brown stony clay. This is consistent with the geology and soil as previously discussed.

Based on the geologic features observed on the surface during the geologic assessment site survey, it is concluded that there is a low probability of rapid infiltration to the subsurface. However, if excavation occurs and exposes sensitive features below, surface water may be able to penetrate the subsurface at a rapid infiltration rate. It is also recommended that the onsite active monitor well (MW-1) be properly plugged and abandoned if it is determined that it may be damaged or destroyed during construction activities.

After excavation activities for the USTs are complete and prior to installation, APTIM will return to the site to conduct a geologic inspection of the tank pit excavation. If any sensitive features are found during the geologic inspection, the TCEQ will be notified immediately. A Geological Certification of Tank Pit Excavation Inspection will be submitted to the TCEQ, documenting the findings of the geologic inspection of the tank pit.

Additional information on the Comfort-Rock outcrop complex series can be found on the following web page.

Source information: soilseries.sc.egov.usda.gov

Clarence Winzer, P.G.

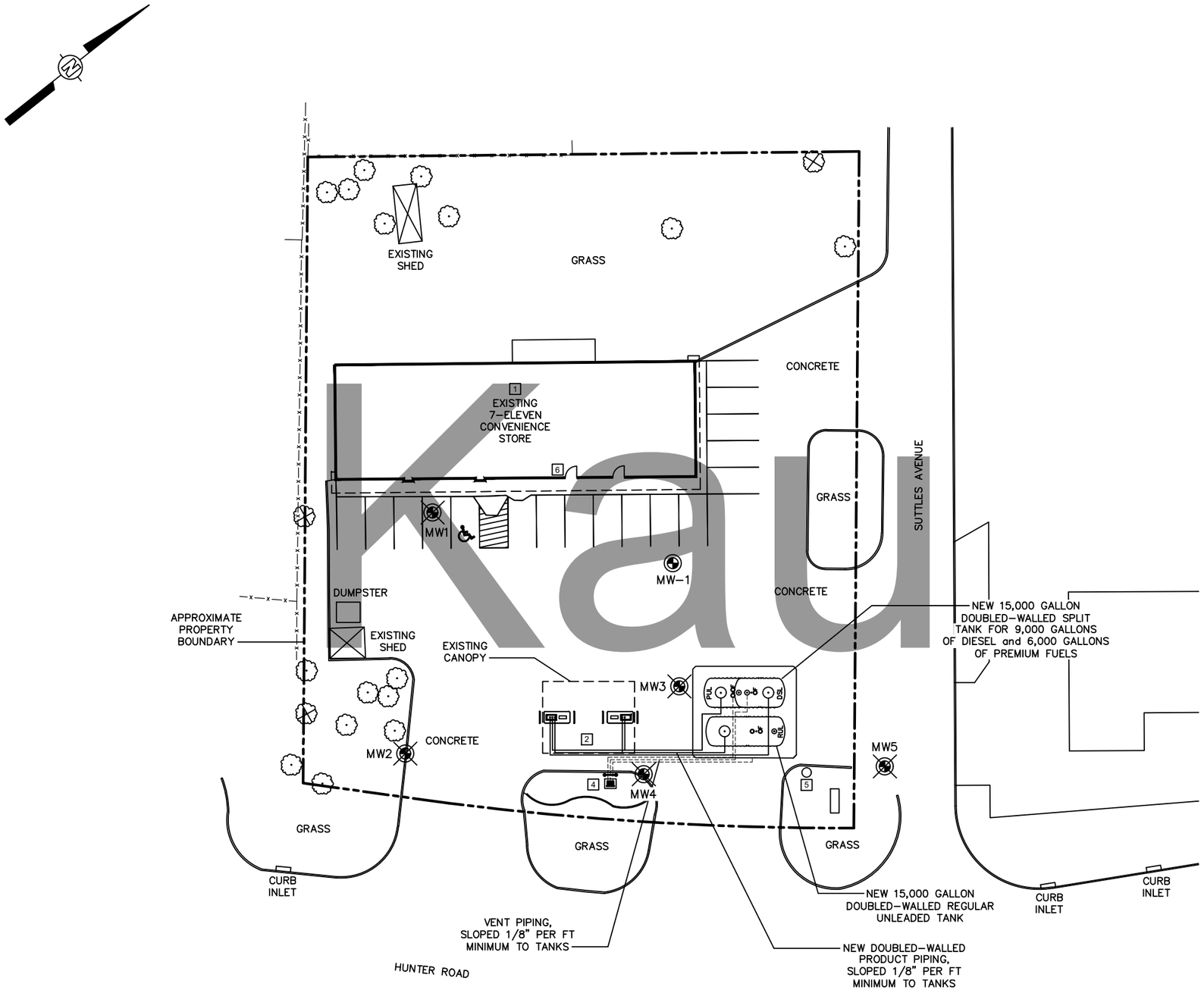
Signature of Professional Geoscientist

2/12/2025
Date

APPENDIX B

ATTACHMENT D

SITE GEOLOGIC MAP
AND
SOIL MAP

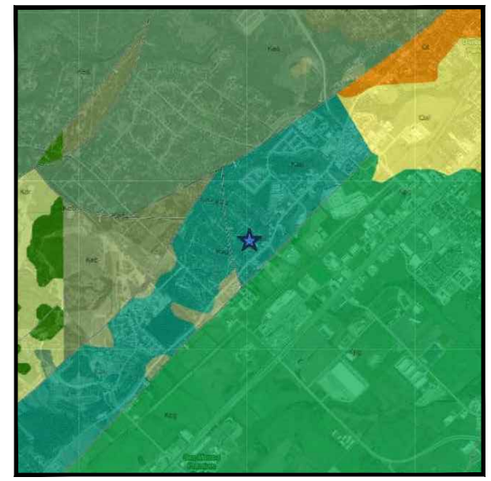


LEGEND:

Kau — AUSTIN CHALK (300–400 THICKNESS)

MONITORING WELL LOCATION

PLUGGED and ABANDONED MONITORING WELL LOCATION



SCALE (FEET)

0 40 80

APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC
12005 FORD ROAD, SUITE 600
DALLAS, TEXAS 75234
(972) 773-8400 OFFICE
(972) 773-8401 FAX

OFFICE:	DATE:	ACAD FILE:
DALLAS	2–12–25	0004B3.dwg

SITE GEOLOGIC MAP

CLIENT:	PM:
7–ELEVEN, INC.	CW
LOCATION: 7–ELEVEN STORE No. 40569, 2700 HUNTER ROAD, SAN MARCOS, HAYS COUNTY, TEXAS	CHECKED: CW

DESIGNED:	DRAWN:	PROJECT NO.:	ATTACH:
CW	SDJF	631030004	D-1

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CrD	Comfort-Rock outcrop complex, 1 to 8 percent slopes	1.3	100.0%
Totals for Area of Interest		**1.3**	**100.0%**

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Comal and Hays Counties, Texas
Survey Area Data: Version 21, Aug 30, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 13, 2022—Apr 6, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

SCALE (FEET)
0 40 80

APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC
12005 FORD ROAD, SUITE 600
DALLAS, TEXAS 75234
(972) 773-8400 OFFICE
(972) 773-8401 FAX

OFFICE:	DATE:	ACAD FILE:
DALLAS	2-11-25	0004B4.dwg

SOIL MAP

CLIENT:	PM:
7-ELEVEN, INC.	CW
LOCATION: 7-ELEVEN STORE No. 40569, 2700 HUNTER ROAD, SAN MARCOS, HAYS COUNTY, TEXAS	CHECKED: CW

DESIGNED:	DRAWN:	PROJECT NO.:	ATTACH:
CW	SDJF	631030004	D-2

APPENDIX B

ATTACHMENT E

PHOTOGRAPHIC DOCUMENTATION

Photographic Documentation
Geologic Assessment

Client: 7-11# 40569
Location: 2700 Hunter Road, San Marcos, TX
Photograph Date: January 24, 2025

Prepared by: APTIM
Photographer: Clarence Winzer, PG
Project Number: 63103004

Photograph No. 1

Date: 01/24/2025

Direction: South

Description:
View from north corner of Subject Property.

Photograph No. 2

Date: 01/24/2025

Direction: Southwest

Description:
View from north corner of Subject Property.

Client: 7-11# 40569
Location: 2700 Hunter Road, San Marcos, TX
Photograph Date: January 24, 2025

Prepared by: APTIM
Photographer: Clarence Winzer, PG
Project Number: 63103004

Photograph No. 3

Date: 01/24/2025

Direction: Northeast

Description:
View from west corner of Subject Property.

Photograph No. 4

Date: 01/24/2025

Direction: Southeast

Description:
View from west corner of Subject Property.

Client: 7-11# 40569
Location: 2700 Hunter Road, San Marcos, TX
Photograph Date: January 24, 2025

Prepared by: APTIM
Photographer: Clarence Winzer, PG
Project Number: 63103004

Photograph No. 5

Date: 01/24/2025

Direction: North

Description:
View from south corner of Subject Property.

Photograph No. 6

Date: 01/24/2025

Direction: Northwest

Description:
View from southeast boundary of Subject Property.

Client: 7-11# 40569
Location: 2700 Hunter Road, San Marcos, TX
Photograph Date: January 24, 2025

Prepared by: APTIM
Photographer: Clarence Winzer, PG
Project Number: 63103004

Photograph No. 7

Date: 01/24/2025

Direction: West

Description:
View from east corner of Subject Property.

Photograph No. 8

Date: 01/24/2025

Direction: Northwest

Description:
View from east corner of Subject Property.

Photographic Documentation
Geologic Assessment

Client: 7-11# 40569
Location: 2700 Hunter Road, San Marcos, TX
Photograph Date: January 24, 2025

Prepared by: APTIM
Photographer: Clarence Winzer, PG
Project Number: 63103004

Photograph No. 9

Date: 01/24/2025

Direction: Northwest

Description:
View of monitor well located on Subject Property.

APPENDIX C

MODIFICATION OF A PREVIOUSLY APPROVED PLAN

(TCEQ-0590)

Modification of a Previously Approved Plan

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Transition Zone and Relating to 30 TAC 213.4(j), Effective June 1, 1999

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

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

Signature

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

Print Name of Customer/Agent: Jessica Jones (on behalf of 7-Eleven, Inc.)

Date: 03/07/2025

Signature of Customer/Agent:

Project Information

1. Current Regulated Entity Name: 7-Eleven, Inc. Store No. 40569
   Original Regulated Entity Name: Sack-N-Pac Store #111
   Regulated Entity Number(s) (RN): RN102921442
   Edwards Aquifer Protection Program ID Number(s): 11-98081401
   ☐ 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):
   - ☐ Physical or operational modification of any water pollution abatement structure(s) including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
   - ☐ Change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;
   - ☐ Development of land previously identified as undeveloped in the original water pollution abatement plan;
   - ☐ Physical modification of the approved organized sewage collection system;
   - ☒ Physical modification of the approved underground storage tank system;
   - ☐ Physical modification of the approved aboveground storage tank system.

4. ☒ Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

WPAP Modification Summary	***Approved Project***	***Proposed Modification***
Acres	N/A	N/A
Type of Development	N/A	N/A
Number of Residential Lots	N/A	N/A
Impervious Cover (acres)	N/A	N/A
Impervious Cover (%	N/A	N/A
Permanent BMPs	N/A	N/A
Other	N/A	N/A

SCS Modification Summary	***Approved Project***	***Proposed Modification***
Linear Feet	N/A	N/A
Pipe Diameter	N/A	N/A
Other	N/A	N/A

AST Modification Summary	***Approved Project***	***Proposed Modification***
Number of ASTs	N/A	N/A
Volume of ASTs	N/A	N/A
Other	N/A	N/A

UST Modification Summary	***Approved Project***	***Proposed Modification***
Number of USTs	Four (4)	Two (2)
Volume of USTs	8,000-gallon	15,000-gallon
Other	_____	_____

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

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

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

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

Attachment A

EAPP Approval Letters

SAC-N-PAC #111-EXCEPTION
HAYS
98081401
1041
980
1401

TNRCC - CODE SHEET FOR EDWARDS AQUIFER INSPECTIONS

GENERAL INFORMATION

PROJECT NAME: Sac-N-Pac # 111 I.D. NO. 96081401

REGION: 1 1

COUNTY CODE:
- ☒ 105 - Hays
- ☐ 227 - Travis
- ☐ 246 - Williamson
- ☐ 015 - Bexar
- ☐ 046 - Comal
- ☐ 136 - Kinney
- ☐ 163 - Medina
- ☐ 232 - Uvalde

TYPE OF INSPECTION:
- ☒ EAP - Plan Review
- ☐ EAF - Follow-up
- ☐ N/A - No Inspection

INSPECTOR'S INITIALS: M K L

☒ REG REGION APPROVAL/DENIAL OF PLAN

TYPE APPLICATION:
- ☐ NEW
- ☐ MOD - Modification
- ☒ EXC - Exception

TYPE PLAN:
- ☐ WPA - Water Pollution Abatement
- ☐ SCS - Sewage Collection System
- ☐ AST - Aboveground Storage Tank
- ☐ UST - Underground Storage Tank

08/14/98 DATE PLAN RECEIVED (MMDDYY)

09/04/98 DATE DETERMINED ADMINISTRATIVELY COMPLETE
- ☐ NA/01- Plan Incomplete
- ☐ NA/02 - Fee Not Paid

DATE PLAN RETURNED __/__/__
DATE RESPONSE DUE __/__/__
DATE RESPONSE REC'D __/__/__
RESPONSE ADEQUATE ☐ YES ☐ NO

N/A DATE OF INSPECTION
- ☐ NA/01 - Plan Incomplete
- ☐ NA/02 - Fee Not Paid

09/10/98 DATE OF LETTER ☐ N/A

DECISION:
- ☒ APP - Approved
- ☐ DEN - Denied

ENTERED 9/14/98

☐ INI ☐ FOL SITE INSPECTIONS

INSPECTOR'S INITIALS: __ __ __

__/__/__ DATE OF INSPECTION
__/__/__ DATE OF REPORT

☐ TXD TXDOT WATER POLLUTION ABATEMENT PLAN

TYPE APPLICATION:
- ☐ NEW
- ☐ MOD - Modification
- ☐ EXC - Exception

TYPE PLAN:
- ☐ TXD - TXDOT Water Pollution Abatement Plan

__/__/__ DATE PLAN RECEIVED
__/__/__ DATE OF INSPECTION
__/__/__ DATE FINDINGS SENT TO TXDOT LIAISON

TECHNICAL ASSISTANCE/ OTHER LETTERS

☐ TEC ☐ NOV ☐ RFI ☐ CAR ☐ CLR

DATE OF REQUEST __/__/__ DATE RESPONSE DUE __/__/__

DATE LETTER SENT __/__/__ DATE RESPONSE REC'D __/__/__

RESPONSE ADEQUATE ☐ YES ☐ NO

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

September 11, 1998

Mr. Tom Schott
Sac-N-Pac Stores, Inc.
1405 United Drive, Suite 115
San Marcos, Texas 78666

Re: Edwards Aquifer, Hays County.
PROJECT NAME: Sac-N-Pac Store #111, Hunter and Suttles Road; San Marcos, Texas.
PLAN TYPE: Request for Exception from Requirement for Submittal of Underground Storage Tank (UST) Facility Construction Plans and Specifications; 30 Texas Administrative Code (TAC) §213.5; Edwards Aquifer Protection Program.

Edwards Aquifer Protection Program File Number: 98081401

Dear Mr. Schott:

On August 14, 1998, the Texas Natural Resource Conservation Commission (TNRCC) received your request for an exception (under 30 TAC §213.9) from the Edwards Aquifer Protection Rules requirement for submitting an Edwards Aquifer Protection Plan (EAPP) application for modifications to the existing underground storage tank (UST) system at the referenced site. Final review of the exception request was completed after additional material was received on September 4, 1998. The justification provided in the exception request is in general compliance with 30 TAC Chapter 213; therefore, approval of the plan is hereby granted subject to applicable state rules and the conditions in this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, construction has commenced on the project or an extension of time has been requested.*

Sac-N-Pac desires to undertake the following modifications at the existing gasoline station to come into compliance with the December 1998 UST requirements:

1) The replacement of four existing dispenser with two multi-product dispensers;

2) Removal of the existing swing joints and replacement with new stainless steel dispenser-end flexible connector hoses, shear valves, and associated secondary containment boots;

3) Replacement of suction pumps with submersible pressurized pumps;

4) Installation of an automatic tank gauge and sump in each tank;

5) Installation of two monitor wells; and

6) Removal of limited segments of the dispenser-end and pump-end product piping. Approximately four feet of new 2-inch diameter fiberglass reinforced plastic piping will be installed at the dispenser-end connections and approximately two feet at the pump-end connections. Additionally, an estimated ten foot coupling will be installed to manifold tanks number 3 and 4.

The request indicated that the existing concrete over the tanks and in front of each dispenser island will be removed. Pea gravel around the fittings will be temporarily staged in a designated area until it is either determined to be free of contamination and returned to the excavations or disposed of in an off-site area. The replacement backfill material must be clean and free of contamination. Temporary erosion and sedimentation controls will be provided on-site.

Justification for the request is based upon the minimal amount of repiping that will be required for the proposed upgrade. The proposed enhancements to the UST system will provide greater environmental protection of the on-site soil and the groundwater of the Edwards Aquifer.

SPECIAL CONDITION

Only clean, washed, and non-corrosive backfill can be returned to the excavated areas. If the excavated backfill material is contaminated, it must be replaced with clean backfill.

STANDARD CONDITIONS

1. For projects on the recharge zone all temporary erosion and sedimentation (E&S) controls shall be installed prior to all other construction at the site. (1) **Silt fences** should be used when the drainage area is less than 2 acres and the slope is less than 10%. (2) **Rock berms with filtration** should be used when the drainage areas are greater than two acres or when the slopes are in excess of 10%. The bottom edge of the filter fabric must be buried a minimum of 6 inches below grade.

2. The TNRCC may monitor stormwater discharges from the site to evaluate the adequacy of the temporary erosion and sedimentation control measures. Additional protection may be necessary if excessive solids are being discharged from the site.

3. **A copy of any local construction permit should be submitted to the Austin Regional Office within 30 days of the issuance of this approval.**

4. Please note, following this approval of the regulated activities described in the referenced submittal, any modification to these activities that is required by some other regulating authority or is desired by the applicant will require the submittal of a new UST application to modify this approval. And, as indicated in 30 TAC §213.14, an application to modify any approved regulated activity shall include payment of appropriate fees and all information necessary for its review and executive director approval.

5. All contractors conducting regulated activities associated with this proposed regulated development shall be provided with copies of this approval letter and the entire contents of the submitted UST Plans & Specifications so as to convey to the contractors the specific conditions of approval. During the course of regulated activities, the contractors shall be required to keep on-site copies of the UST Plans and this approval letter.

6. Pursuant to 30 TAC §213.5(f)(1), prior to commencing construction, the applicant must notify the Austin Regional Office in writing at least 48 hours prior to initiation of construction.

7. If any solution openings or sinkholes are discovered during the upgrade activities, all excavation and installation activities shall be immediately suspended, and the owner or his designated representative shall notify the TNRCC's Austin Regional Office. Upon completion of the excavation, a qualified geologist shall inspect the pit. Further excavation and installation activities shall not proceed until the TNRCC has reviewed and approved the methods proposed to protect such features from any potential adverse impacts of the hydrocarbon storage facility.

8. All UST installations, repairs, and removals must be conducted by a registered UST contractor who has a licensed installer or on-site supervisor during all critical junctures, as required by 30 TAC §334 Subchapter I.

9. Installation, testing, and operation of the tanks, piping, and all other components of the proposed storage and monitoring systems shall be in conformance with the manufacturer's specifications and the procedures described in this letter.

10. An "as-built" project-specific site design plan shall be drawn to scale and of sufficient accuracy, clarity, and detail to depict the specific locations and dimensions of all components of the underground storage tank system, including the tanks, piping and fittings, pumps, observation wells, containment equipment, release detection devices, and other auxiliary equipment. Also, detailed construction drawings of plan and profile views and detail drawings of specific components shall be prepared. A copy of such "as-built" site plan and construction drawings, as well as operating instructions for all major system components and

written records of all tank tests, piping tests, release detection monitoring results, and other inspections, shall be maintained in a secure location at the site of the proposed facility and shall be available for examination by TNRCC personnel.

11. The owner of the proposed facility shall assure that the storage tank system is installed, operated, and maintained in full compliance with the applicable provisions of 30 TAC Chapter 334 of Commission rules, which establishes the requirements for the design, installation, operation, corrosion protection, construction notification, registration, fee assessment, financial responsibility, release reporting, and corrective action related to such system.

12. The applicant or his agent shall record this Edwards Aquifer Protection Program (EAPP) approval in the county deed records within 30 days of receiving this notice of exception and prior to commencing any regulated activity at the project location. Proof of deed recordation shall be submitted to the Austin Regional Office. A suggested format that you may use to deed record the approved EAPP is enclosed.

If you have any questions or require additional information, please contact Ms. Melissa Lopez of the Edwards Aquifer Protection Program at the Austin Regional Office at (512) 339-2929.

Sincerely,

Jeffrey A. Saitas, P.E.
Executive Director
Texas Natural Resource Conservation Commission

JAS/mml
Enclosure

cc: Mr. Stephen Forbes, P.E., Forbes Environmental Engineering, Inc.
Mr. Ron Patterson, Director, Planning & Development Services, City of San Marcos
The Honorable Eddy Etheridge, County Judge, Hays County
Ms. Rosalinda Escalón, Field Operations, TNRCC, Austin

FORBES
ENVIRONMENTAL
ENGINEERING, INC.

435 Isom Road, Suite 228
San Antonio, Texas 78216
(210)342-8382; FAX: 344-5407

Ms. Melissa Lopez
Petroleum Underground Storage Tank Division
Texas Natural Resource Conservation Commission
Region 11 Austin
1921 Cedar Bend, Suite 150
Austin, Texas 78758

August 10, 1998

RE: Request for exception to requirement for submittal of HHS Application in order to conduct UST System improvements at Sac-N-Pac #111; Facility No. 0018194

Dear Ms. Lopez:

The following is a summary description of the improvements to completed for the UST system at Sac-N-Pac Store #111 located at Hunter and Suttles Road in San Marcos, Texas. The facility lies inside the boundaries of the Edwards Aquifer Transition Zone(see attached Figure 1.0). The purpose of the modifications are to improve the efficiency and at the same time to meet December 1998 UST requirements. There is little to no potential for the planned improvements to impact groundwater, nor will the activities change any topographic or geologic features. There are no known sensitive features at the site. This request for exception is submitted in accordance with the provisions of 30 TAC §213.9 (pertaining to Exceptions to the TNRCC Edwards Aquifer Rules).

The current system consists of four 8,000 gallon single wall FRP USTs. There are two islands(see Figure 3.0) with two units. Each unit has one dispenser, except for one of the unleaded units which has two dispensers. See attached Figure 2.0 showing the general UST system layout and proposed upgrades.

The planned improvements are to replace the four existing dispensers with two multi-product dispensers; install stainless steel flex connector hoses with secondary containment boots below each dispenser with new shear valves; install stainless steel flex connector hoses with secondary containment boots at each submersible pump; replace suction pumps with pressure pumps; install automatic tank gauge with sump in each tank; install two monitor wells; and couple Tank 3 and 4 together with a 2" single wall FRP manifold(not a pressure line). The following tasks will be performed to install these improvements:

- The concrete in front of each island will be removed in order to replace the existing swing joints with the new flex connector hoses and shear valves, and install the secondary containment boots.

- In order to install the connectors and containment at the submersible pumps and install the automatic tank gauge probes, the existing concrete over half of the tankhold will be removed. The pea gravel around the fittings will be temporarily staged on the surface. Tank 3 and Tank 4 will be connected together with the 2" FRP manifold. The staged pea gravel will be replaced in the tankhold once the new equipment is in place and the surface recovered with concrete.

There will be only minimum disturbance to the shallow subsurface above the tanks. Only enough surface concrete and backfill will be removed to be able to perform the respective tasks. No tanks are to be removed and minimum repiping will be necessary.

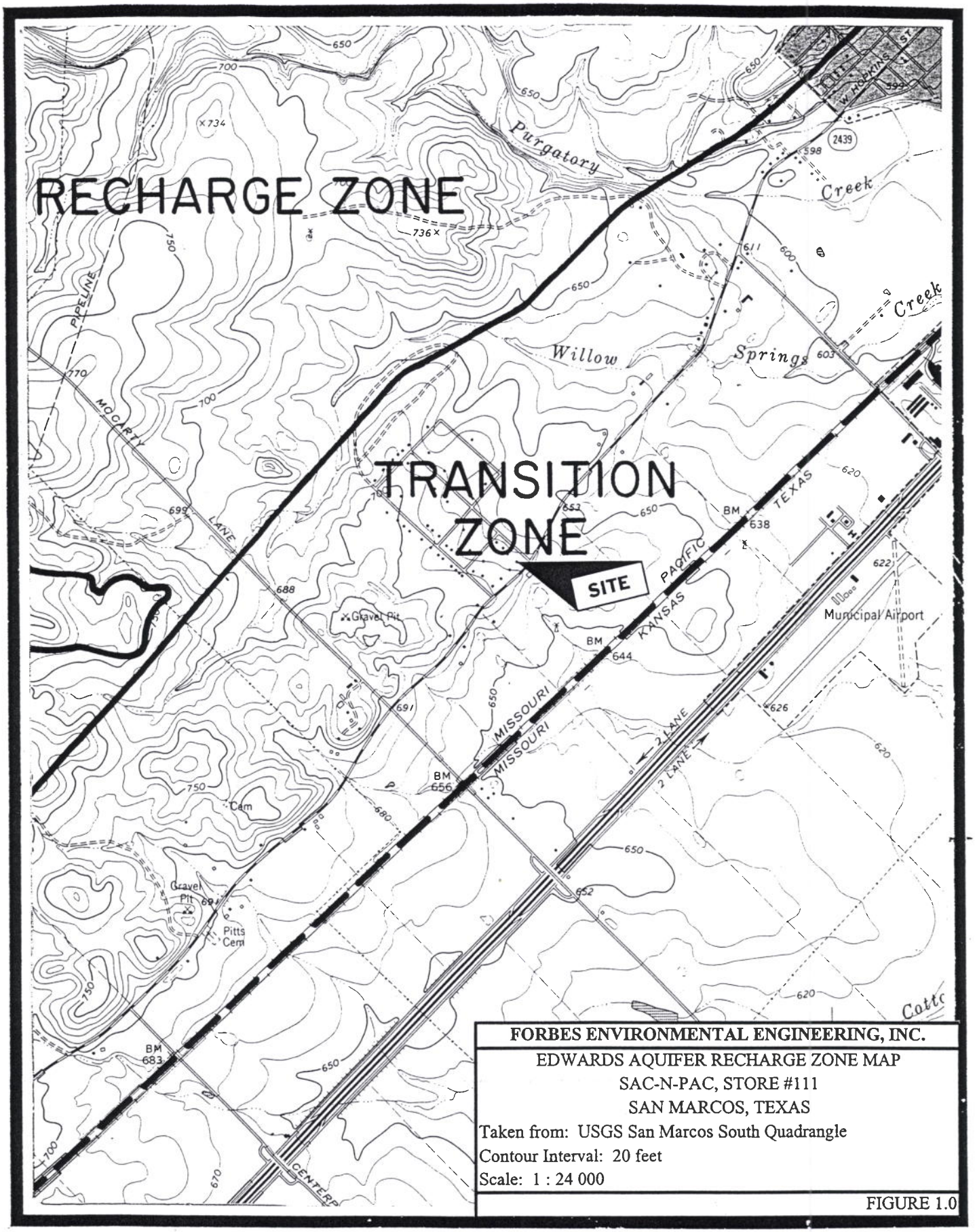
Therefore, an exception to the requirements for submittal of an Application for Underground Hydrocarbon Storage on the Edwards Aquifer Transition Zone is requested. The contractor will be appropriately registered and submit applicable notifications.

Please let me know if you need additional information or have any questions. Thank you for your assistance and consideration.

Sincerely yours,

Stephen Forbes, P.E.

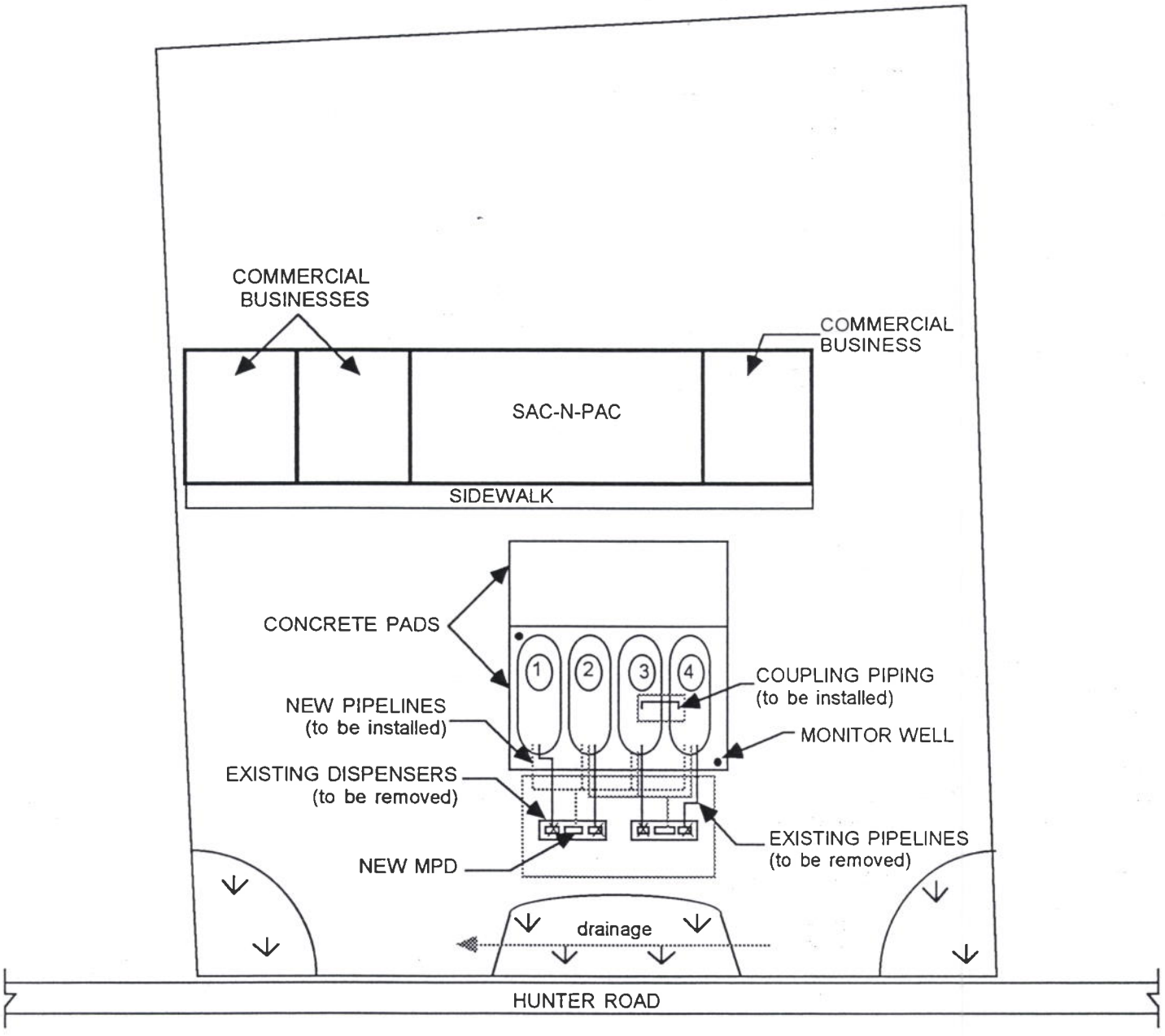
cc: Tom Schott, Sac-N-Pac Stores, Inc.



FORBES ENVIRONMENTAL ENGINEERING, INC.

EDWARDS AQUIFER RECHARGE ZONE MAP
SAC-N-PAC, STORE #111
SAN MARCOS, TEXAS
Taken from: USGS San Marcos South Quadrangle
Contour Interval: 20 feet
Scale: 1 : 24 000

FIGURE 1.0



NOTE: All replaced piping will be double walled.

UPGRADES:

Areas to be excavated.

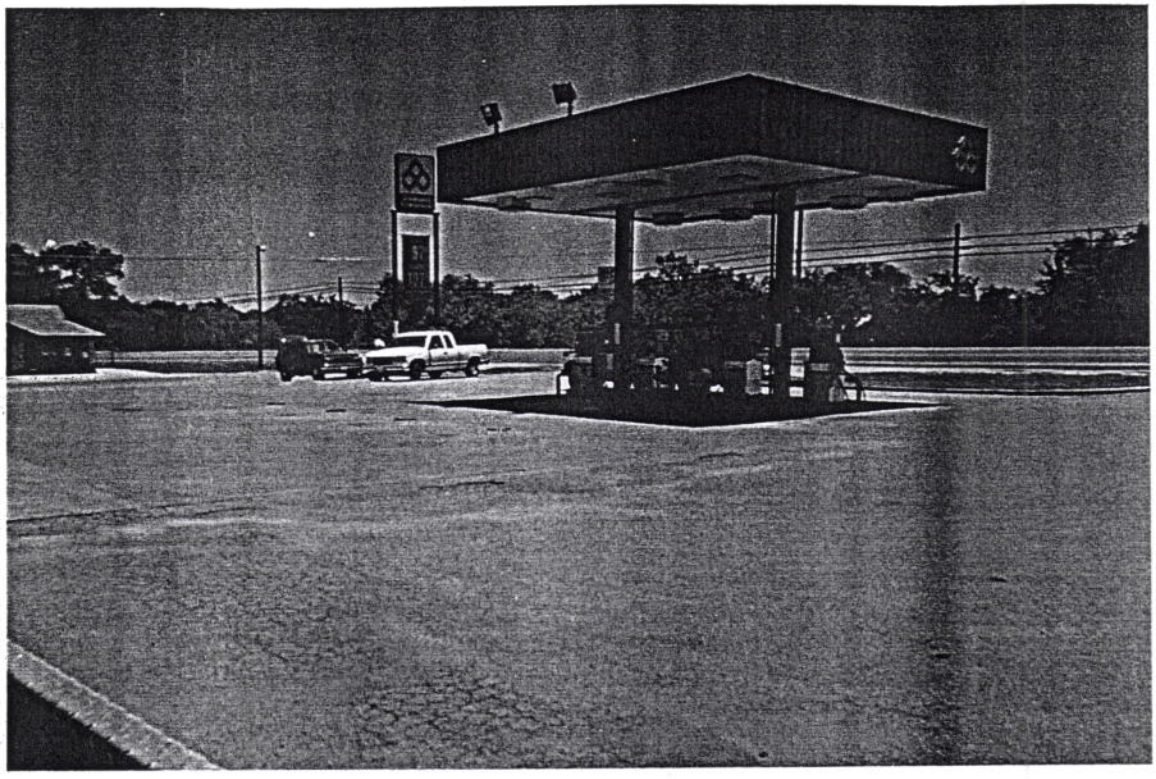
1. Replace suction pumps with pressure pumps.
2. Install ATGs with sumps.
3. Install two monitor wells.
4. Couple tanks 3 and 4 together.
5. Replace four existing dispensers with two MPDs.

NOT TO SCALE

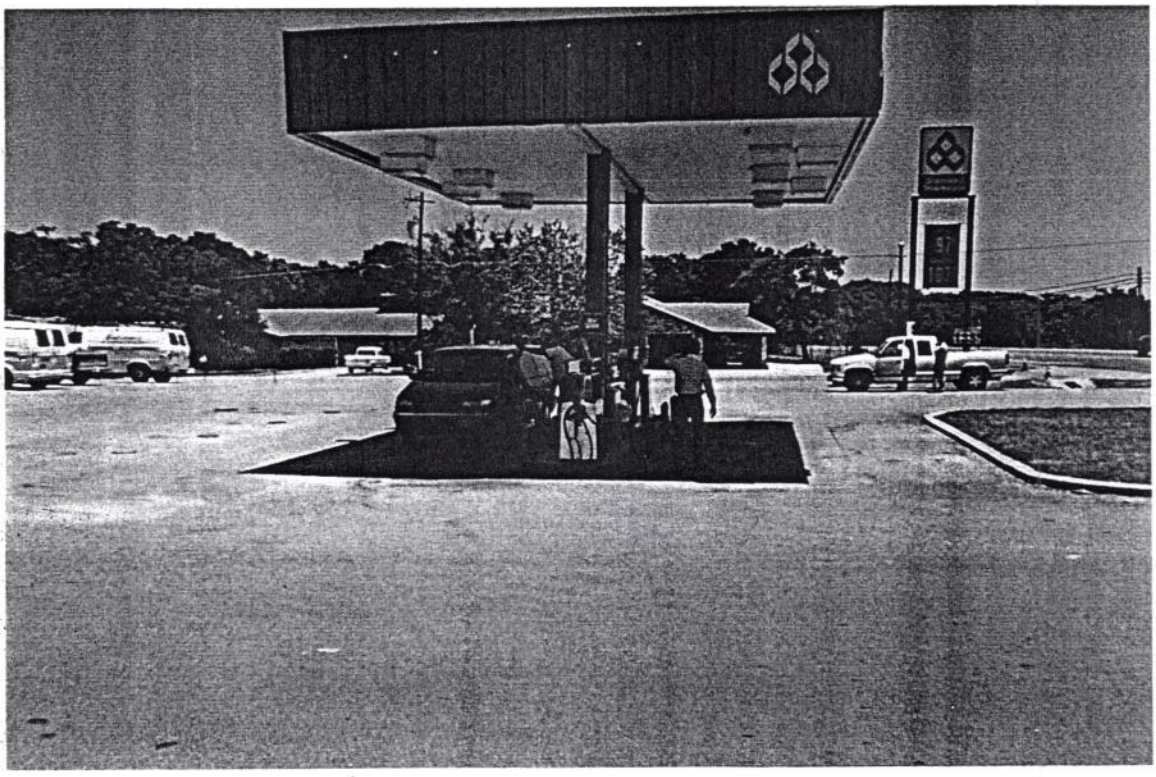
FORBES ENVIRONMENTAL ENGINEERING, INC.

PROPOSED FACILITY UPGRADES
SAC-N-PAC, STORE #111
SAN MARCOS, TEXAS

FIGURE 2.0



UST SYSTEM LAYOUT



UST SYSTEM LAYOUT

FORBES ENVIRONMENTAL ENGINEERING, INC.

SITE PHOTOGRAPHS
SAC-N-PAC, STORE #111
SAN MARCOS, TEXAS

FIGURE 3.0

FORBES
ENVIRONMENTAL
ENGINEERING, INC.

435 Isom Rd., Suite 228
San Antonio, Texas 78216
(210)342-8382

MEMORANDUM

TO: **Ms. Melissa Lopez**
TNRCC, Region 11
1921 Cedar Bend, Suite 150
Austin Texas, 78758

DATE: September 2, 1998

CC: Mr. Tom Schott
Sac-N-Pac, Inc.

Via Facsimile
Original by USPS

FROM: Stephen Forbes, P.E.

SUBJECT: Addendum to request for exception for Sac-N-Pac #111 dated 8/10/98.

As you requested, this addendum is submitted to clarify the extent of pipe work to be completed for the above referenced request. The pipe work will be limited to approximately four feet at the dispenser islands in order to hook-up new flex connectors to accommodate new dispensers, and two feet at each new pressure pump installation, as well as an estimated ten foot coupling to connect tanks 3 and 4. The remaining original piping will not be disturbed.

It is understood that if there is any significant deviation from these plans all work will be discontinued and the TNRCC will be notified. Work will not be continued without concurrence from the TNRCC.

Please let me know if this does not adequately resolve and clarify any concerns. Thank you your assistance and consideration.

Stephen Forbes, P.E.

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

TELEPHONE MEMO TO THE FILE

Please complete with typewriter or black pen.

Call to: Melissa Lozen

Call from: Steve Forbes

Date of call: 11-3-98

File no.: 98081401

Phone no.: (210) 242.2382

Subject: San-N-Pac #111

Information for file: Notice of commencement of construction

Signed Steve M. Ly

TNRCC-0225 (Rev. 09-01-93)

FORBES
ENVIRONMENTAL
ENGINEERING, INC.

435 Isom Road, Suite 228
San Antonio, Texas 78216
(210)342-8382; FAX: 344-5407

August 10, 1998

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Petroleum Underground Storage Tank Division
Texas Natural Resource Conservation Commission
Region 11 Austin
1921 Cedar Bend, Suite 150
Austin, Texas 78758

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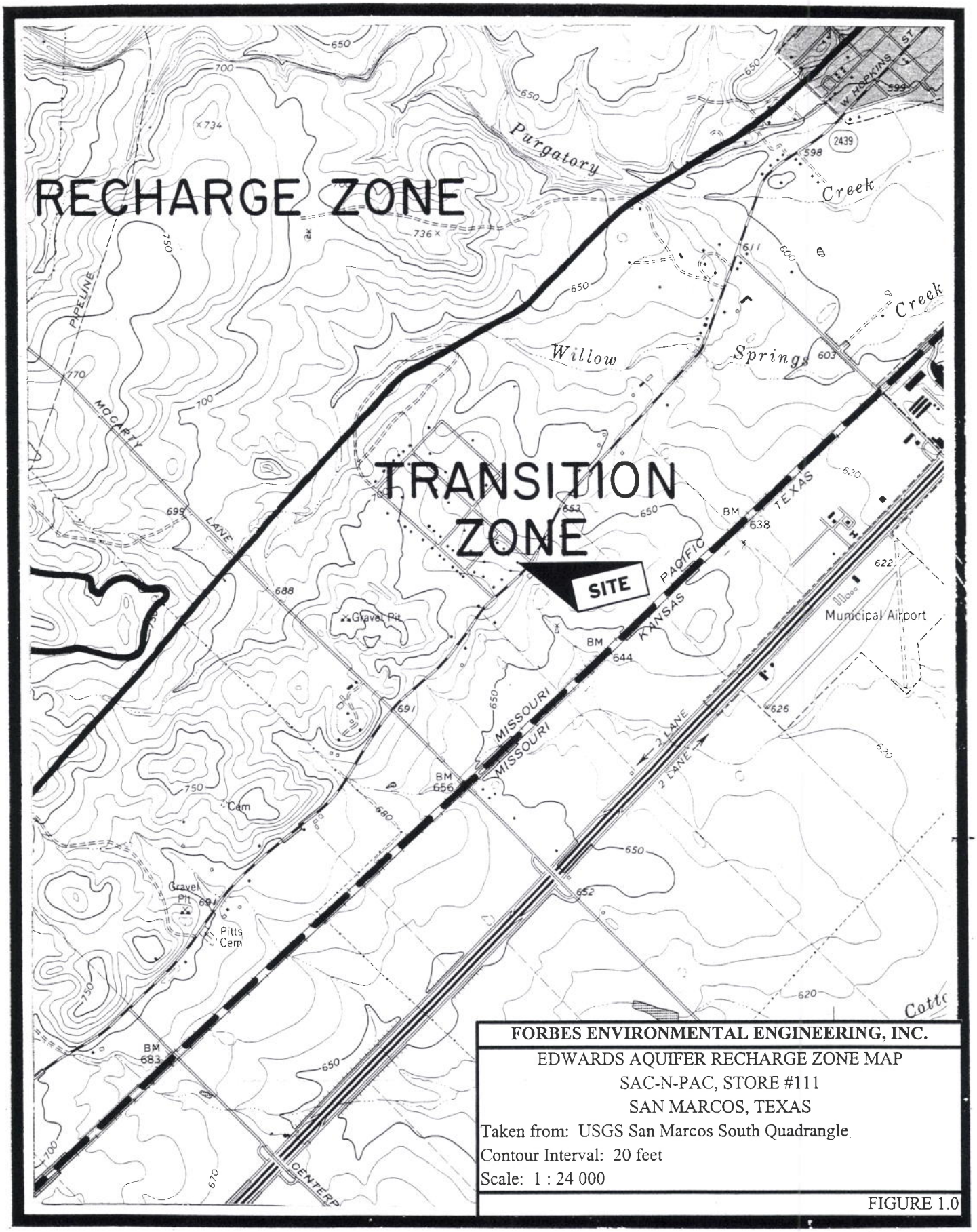

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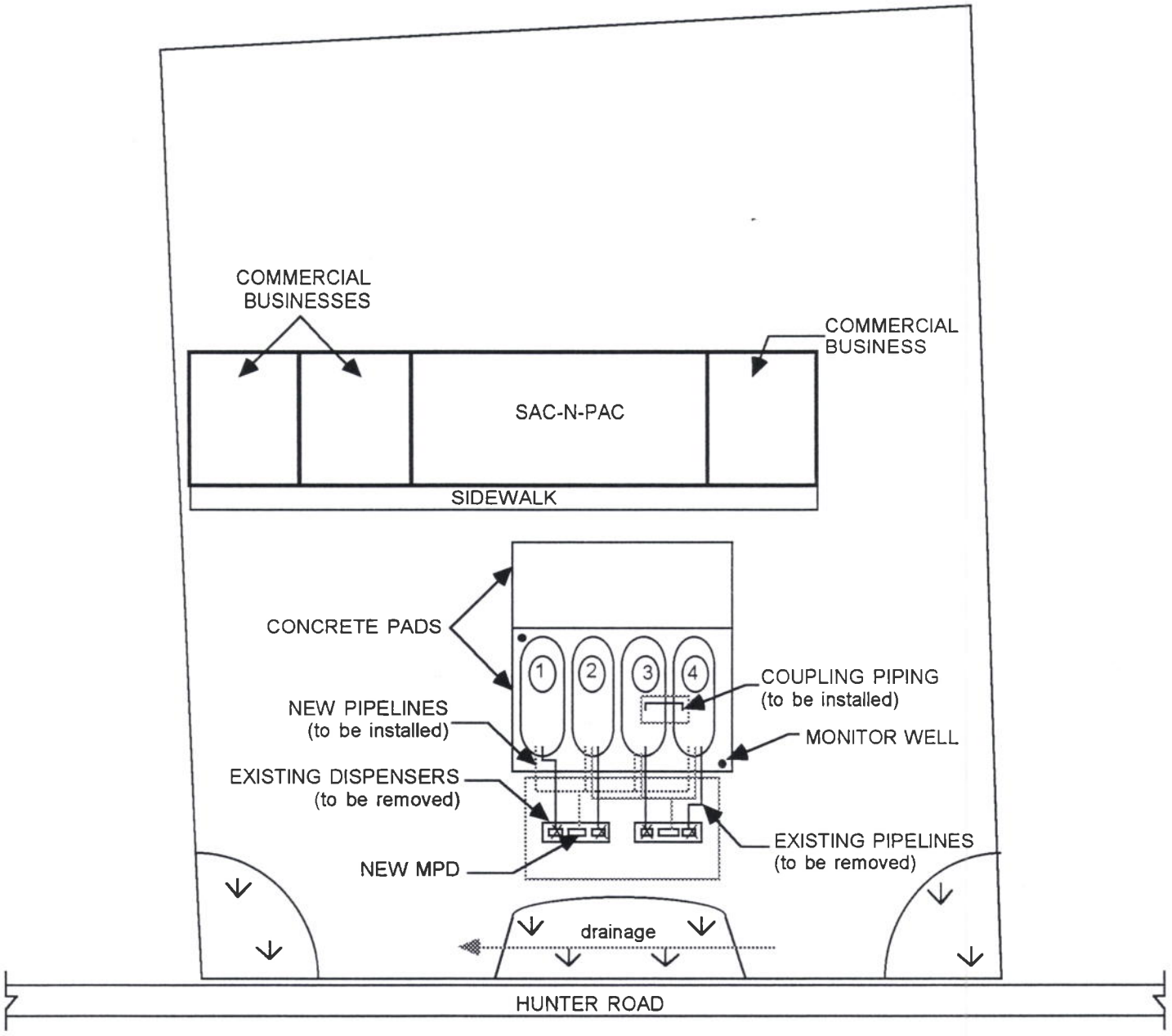

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NOT TO SCALE

FORBES ENVIRONMENTAL ENGINEERING, INC.

PROPOSED FACILITY UPGRADES
SAC-N-PAC, STORE #111
SAN MARCOS, TEXAS

FIGURE 2.0

UST SYSTEM LAYOUT

UST SYSTEM LAYOUT

FORBES ENVIRONMENTAL ENGINEERING, INC.

SITE PHOTOGRAPHS
SAC-N-PAC, STORE #111
SAN MARCOS, TEXAS

FIGURE 3.0

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Stephen Forbes, P.E.

SAC-N-PAC STORES, INC

FACSIMILE TRANSMITTAL SHEET

TO: Melissa Lopez

FROM: Lori Klaver

COMPANY:

DATE:

FAX NUMBER:

TOTAL NO. OF PAGES INCLUDING COVER: ~~2~~ 3

PHONE NUMBER:

RE: #111

☐ FOR REVIEW ☐ URGENT ☐ PLEASECOMMENT

1405 UNITED DRIVE, SUITE 115
SAN MARCOS, TX 78666
OFFICE# (512)392.6484 FAX# (512)392.6333

MC 7020306 6 P95

1458 471

DEED RECORDATION AFFIDAVIT

Edwards Aquifer Protection Plan

THE STATE OF TEXAS §

County of Hays §

BEFORE ME, the undersigned authority, on this day personally appeared J. Garland Warren who, being duly sworn by me, deposes and says:

(1) That my name is J. Garland Warren and that I own the real property described below.

(2) That said real property is subject to an EDWARDS AQUIFER PROTECTION PLAN which was required under the 30 Texas Administrative Code (TAC) §213, the EDWARDS AQUIFER RULES of the TEXAS NATURAL RESOURCE CONSERVATION COMMISSION.

(3) That the EDWARDS AQUIFER PROTECTION PLAN for said real property was approved by the TEXAS NATURAL RESOURCE CONSERVATION COMMISSION on 09/11/98.

A copy of the letter of approval from the commission is attached to this affidavit as Exhibit A and is incorporated herein by reference.

(4) The said real property is located in Hays County, Texas, and the legal description of the property is as follows:

1.01 Acres – Jm Veramendi League No 1

file

J. Garland Warren
LANDOWNER-AFFIANT

SWORN AND SUBSCRIBED TO before me, on this 24th day of September 1998.

Lori E. Klaver
NOTARY PUBLIC

THE STATE OF TEXAS §

County of Hays §

BEFORE ME, the undersigned authority, on this day personally appeared J Garland Warren 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 24th day of September 1998.

Lori E. Klaver
NOTARY PUBLIC

LORI E KLAVER
NOTARY PUBLIC
STATE OF TEXAS
01-25-2002

Lori E. Klaver
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: July 28, 2002

1458 476

FILED AND RECORDED
OFFICIAL PUBLIC RECORDS

9-24-98 08:50 AM 9820306
LYNN $17.00
MARGIE T VILLALPANDO, County Clerk
HAYS COUNTY

SAC-N-PAC STORES, INC.
ATT: TOM SCHOTT
1405 UNITED DRIVE, SUITE 115
SAN MARCOS, TX. 78666

Attachment B

Narrative of Proposed Modification

ATTACHMENT B

Narrative of Proposed Modification

7-Eleven, Inc. Store No. 40569
2700 Hunter Road, Unit B
San Marcos, Hays County, Texas 78666

This proposed UST System Replacement project is scheduled to be conducted at 7-Eleven, Inc. Store No. 40569 (Site), which is currently operating as a retail gasoline facility, located at 2700 Hunter Road, Unit B in San Marcos, Hays County, Texas.

The Site is an approximate 1.01-acre property that has operated as a retail petroleum facility from at least 1984 through present day. It is situated within the Edwards Aquifer Transition Zone. A Texas Commission on Environmental Quality (TCEQ) Central Registry records search documents four (4) 8,000-gallon single-walled fiberglass-reinforced plastic (FRP) Underground Storage Tanks (USTs) containing gasoline and diesel fuels. A UST Registration and Self-Certification Form dated November 9, 2023, documents tank numbers two and three as temporarily out of service. USTs one and four are currently registered as in use at the site. TCEQ records search also provides an Edwards Aquifer ID No. 11-98081401. Using the Edwards Aquifer ID Number documents were recovered using the TCEQ Records Online search. A document dated September 11, 1998, by the Texas Natural Resource Conservation Commission (TNRCC) documents the request of exception from the requirement of submittal of UST facility construction plans.

Currently 7-Eleven proposes the following UST System modifications at the Site:

- Remove existing tank slab, dispenser islands, and existing UST system with product and vent piping;
- Install one (1) new 15,000-gallon capacity double-walled fiberglass-reinforced plastic (FRP) Regular Unleaded (RUL) Underground Storage Tank (UST);
- Install one (1) new 15,000-gallon capacity split double-walled FRP Diesel (DSL) and Premium Unleaded (PUL) UST;
- Install three (3) new RUL, PUL, and DSL Submersible Turbine Pumps (STP);
- Install three (3) new RUL, PUL, and DSL product fill buckets;
- Install new 3” double-walled piping over 2” double-walled FRP product piping from new USTs to existing dispensers;
- Install two (2) new vapor vent risers;
- Install new 2-inch coaxial single-walled piping for vapor/vent at USTs to new remote vent;
- Reuse one (1) existing 3+0 dispensers;
- Reuse one (1) existing 3+1 dispensers for DSL;
- Install two (2) new stainless steel dispenser islands;
- Install a new automatic tank gauge site monitor console;
- Install two (2) new observation wells in the tank slab; and
- Install new concrete at disturbed areas.

A Geologic Assessment (Appendix B) was conducted January 24, 2025. Sensitive features were not identified on the project site. No offsite areas are anticipated to be affected by the proposed construction activities. The site is currently covered with concrete.

The following is documented in the Temporary Stormwater Section (Appendix E):

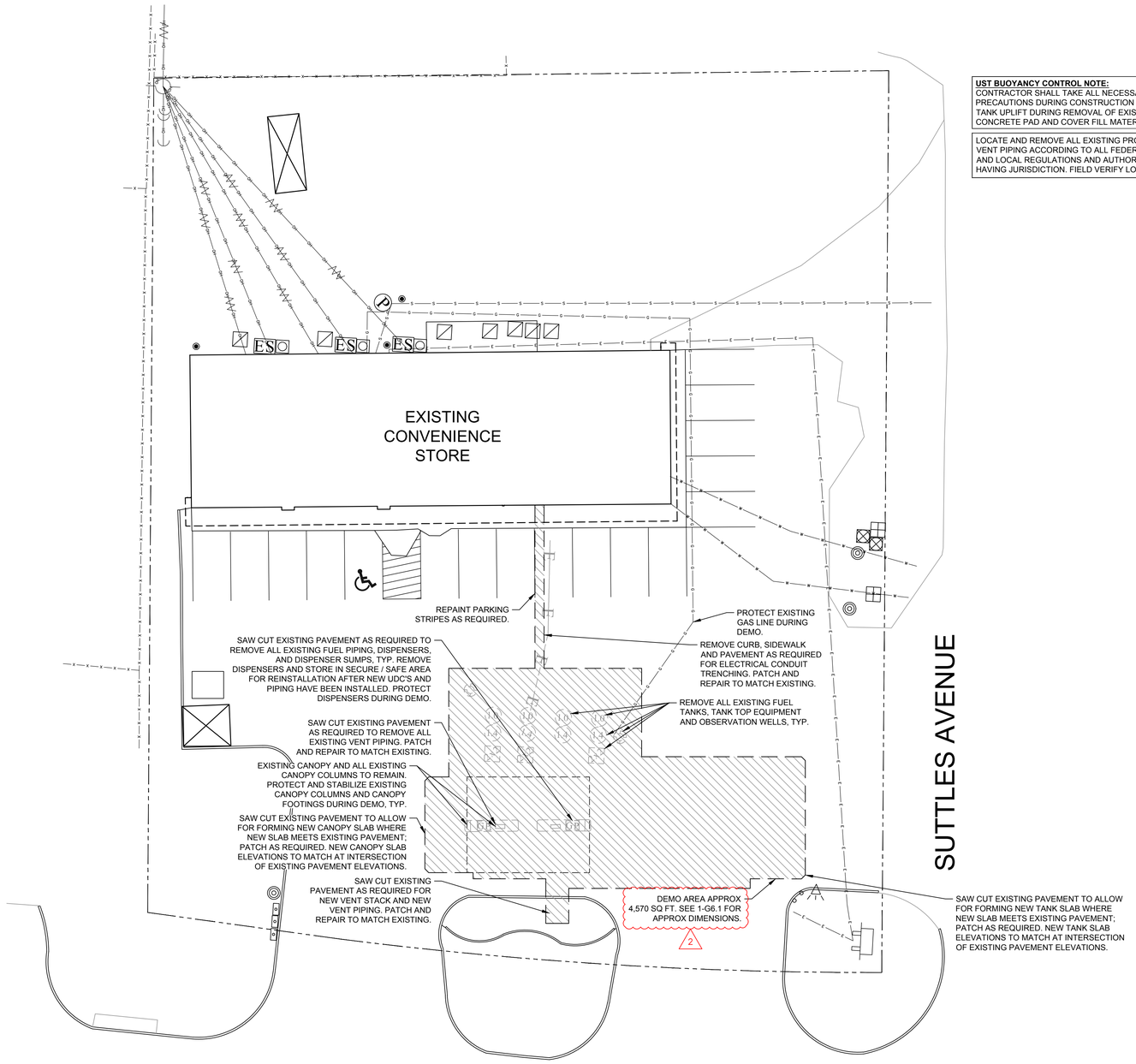
- Total area of impervious cover: approximately 4,570 square feet;
- Areas to be demolished (total disturbed area): approximately 4,570 square feet;

- Permanent Best Management Practices (BMPs): permanent seeding, sodding, or mulching.

Prior to concrete removal, a silt fence will be installed to intercept and detain waterborne sediment from unprotected areas. The fence shall remain in place until the disturbed area is permanently stabilized. After construction activities are complete, the area will be re-surfaced with an impervious concrete cover.

Attachment C

Current Site Plan of the Approved Project



1 DEMO PLAN
SCALE: 1/16" = 1'-0"

UST BUOYANCY CONTROL NOTE:
CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS DURING CONSTRUCTION TO PREVENT TANK UPLIFT DURING REMOVAL OF EXISTING TANK CONCRETE PAD AND COVER FILL MATERIALS.

LOCATE AND REMOVE ALL EXISTING PRODUCT AND VENT PIPING ACCORDING TO ALL FEDERAL, STATE AND LOCAL REGULATIONS AND AUTHORITIES HAVING JURISDICTION. FIELD VERIFY LOCATION.

811 Know what's below. Call before you dig.

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON DESIGN DRAWINGS, RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. CORESTATES, INC. DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES.

GENERAL NOTES

1 CONTRACTOR TO CUT AND REMOVE CONCRETE AS NECESSARY TO REMOVE ALL EXISTING PIPING. LOCATION OF REMOVAL AT DISPENSER ISLANDS IS APPROXIMATE AND IS BASED ON AVAILABLE INFORMATION.

Rev. #	Date	Description
1	02/06/25	PEER REVIEW COMMENTS
2	02/12/25	FRP PIPING UPDATE

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

FUELING DEMOLITION PLAN

CORE STATES GROUP
212 SE 34th Street
Suite 2
Bentonville, AR 72712
479.268.4400
core-states.com
TEXAS REGISTERED ENGINEERING FIRM F-19944
TEXAS REGISTERED SURVEYING FIRM LS-10194
EXPIRATION: 07/31/2025

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	KLC
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G0.3

FUELING - USA

PRINTED BY: GDELAROSA
DRAWING NAME: 40569 - G0.3 DEMO PLAN.dwg PRINT DATE: Feb 12, 2025 - 4:19pm

APPENDIX D

UNDERGROUND STORAGE TANK

FACILITY PLAN APPLICATION

(TCEQ-0583)

Underground Storage Tank Facility Plan Application

Texas Commission on Environmental Quality

for Storage on the Edwards Aquifer Recharge and Transition Zones and Relating to 30 TAC §213.5(d), 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. All components used for this facility are U.L. listed or certified by a 3rd party and are compatible and will function pursuant to 30 TAC §213.5(d) and 30 TAC Chapter 334 Subchapter C. This **Underground Storage Tank Facility Plan Application** is hereby submitted for TCEQ review and Executive Director approval. The application was prepared by:

Print Name of Customer/Agent: Jessica Jones of Aptim Environmental and Infrastructure, LLC

Date: 03/07/2025

Signature of Customer/Agent:

Regulated Entity Name: 7-Eleven, Inc. Store No. 40569

Underground Storage Tank (UST) System Information

1. ☒ **Attachment A – Detailed Narrative of UST Facility**. A detailed narrative description of the proposed UST Facility is attached. Note: Example descriptions are provided in the instructions (TCEQ-0583-Instructions)

2. Tanks and substance to be stored:

Table 1 - Tanks and Substances Stored

UST Number	*Size(Gallons)*	*Substance to be Stored*	*Double-wall Tank Material*
1	15K gallon	Gasoline - RUL	Double-wall FRP

UST Number	*Size(Gallons)*	*Substance to be Stored*	*Double-wall Tank Material*
2	15K gallon (split tank)	6K gal: Gasoline - PUL 9K gal: Diesel	Double-wall FRP
3			
4			
5			

3. Tanks:

☒ **Attachment B – Manufacturer Information for Tanks**. New or replacement systems for the underground storage of static hydrocarbons or hazardous substances must be double-walled or provide an equivalent method of protection approved by the executive director. Tanks must comply with technical standards as required by 30 TAC 334.45(b) relating to technical standards for new tanks. Manufacturer information is attached.

☐ **Attachment C – Alternative Design and Protection Method for Tanks**. Information required by 30 TAC 334.43, relating to variances and alternative procedures is attached.

4. Piping:

☒ **Attachment D – Manufacturer Information for Piping**. Piping must comply with technical standards as required by 30 TAC 334.45(c) relating to technical standards for new piping. Manufacturer information is attached.

☐ **Attachment E – Alternative Design and Protection Method for Piping**. Information required by 30 TAC 334.43, relating to variances and alternative procedures is attached.

5. ☒ Any new underground storage tank system that does not incorporate a method for tertiary containment shall be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature as required by 30 TAC §213.5(d)(1)(B).

☒ The UST system(s) will not be installed within 150 feet of a domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

☐ **Attachment F - Tertiary Containment Method**. The UST system(s) will be required to have tertiary containment provided. A description of the method proposed to provide tertiary containment is attached.

6. ☒ Corrosion protection equipment to be installed or type of non-corrodible materials:

Table 2 - Corrosion Protection

Equipment	*Corrosion Protection (Method)*
Tanks	FRP (noncorrodible)

Equipment	*Corrosion Protection (Method)*
Product Delivery Piping	FRP (noncorrodible)
Vapor Recovery Piping	Not Applicable
Submersible Pumps	Tank top appurtenances contained in double-walled FRP STP Sump
Flex Connector (dispenser end)	Stainless Steel contained in UDC sump
Flex Connector (pump end)	Stainless Steel contained in UDC sump
Riser	Black Iron wrapped with dielectric wrap

7. ☒ Overfill protection equipment to be installed:

   ☒ Overfill prevention restrictor positioned at 90% capacity.
   ☒ Overfill prevention valve positioned at 95% capacity.
   ☒ Overfill audible and visual alarm positioned at 90% capacity.

8. ☒ Methods for detecting leaks in the inside wall of a double-walled system must be included in the facility's design and construction. The leak detection system must provide continuous monitoring of the system and must be capable of immediately alerting the system's owner of possible leakages. Release detection equipment to be installed: (Check all that apply)

   ☒ Central on-site monitor
   ☒ Interstitial tank probes
   ☒ Automatic tank gauge
   ☒ Pump/manway sump probes
   ☐ Observation well probes
   ☒ Mechanical line leak detectors (for pressurized lines only)
   ☐ Automatic (electronic) line leak detectors

Excavation and Backfill

9. ☒ The depth of the tank excavation will be sufficient to accommodate piping fall requirements, tank diameter, bedding, and a minimum cover of three (3) feet [30 TAC §334.46].

   The depth of the tank excavation will be 16 feet.

10. ☒ The minimum thickness of the tank bedding will conform to 30 TAC §334.46(a)(5)(C and D).

    The tank bedding thickness will be 12 inches.

11. ☒ The material to be used as backfill will conform to 30 TAC §334.46(a)(5)(A and B) and will consist of:

    ☐ Clean washed non-corrosive sand
    ☒ Pea gravel

☐ Crushed rock
☐ Other: _____

12. ☒ The slope of the product delivery line(s) will conform to 30 TAC §334.46(c)(2) and will be 1/8" per foot (1/8" per foot minimum).

Site Plan Requirements

Items 13 - 24 must be included on the Site Plan.

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

    Site Plan Scale: 1" = 40'.

14. 100-year floodplain boundaries:

    ☒ The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): FEMA Flood Insurance Map: Hays County Unincorporated Areas. Map No. 48209CO476G. Effective Date: 01/17/2025.

    ☐ 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.

15. ☐ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Show lots, recreation centers, buildings, roads, etc.

    ☒ The layout of the development is shown with existing contours. Finished topographic contours will not differ from the existing topographic configuration and are not shown.

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

    ☒ There are 6 (1 active + 5 plugged) (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)

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

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

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

    ☒ All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.
    ☐ No sensitive geologic or manmade features were identified in the Geologic Assessment.
    ☐ **Attachment G - Exception to the Geologic Assessment**. A request and justification for an exception to a portion of the Geologic Assessment is attached.

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

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

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

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

22. ☐ Surface waters (including wetlands).

    ☒ N/A

23. ☐ Locations where stormwater discharges to surface water or sensitive features.

    ☒ There will be no discharges to surface water or sensitive features.

24. ☒ Legal boundaries of the site are shown.

UST System Profiles

25. ☒ **Attachment H - Profile Drawing(s)**. A profile drawing(s) of the proposed UST system with all components shown and labeled is attached.

Best Management Practices

26. ☒ **Attachment I - Initial and Continuing Training**. A description of the initial and continuing training of on-site personnel for operation of release detection equipment is attached. The description should include how personnel will respond to warning and alarm conditions of the leak detection monitoring system.

27. ☒ **Attachment J - Release Detection Maintenance**. A description of the program and schedule for maintaining release detection and cathodic protection equipment is attached. Any such equipment should be operated and maintained in accordance with the manufacturer's specifications and instructions.

Administrative Information

28. A Water Pollution Abatement Plan (WPAP) is required for construction of any associated commercial, industrial or residential project located on the Recharge Zone.

    ☐ The WPAP application for this project was approved by letter dated _____. A copy of the approval letter is attached at the end of this application.

    ☐ The WPAP application for this project was submitted to the TCEQ on _____, but has not been approved.

    ☐ A WPAP application is required for an associated project, but it has not been submitted.

    ☐ There will be no building or structure associated with this project. In the event a building or structure is needed in the future, the required WPAP will be submitted to the TCEQ.

    ☒ The proposed UST is located on the **Transition Zone** and a WPAP is not required. Information requested in 30 TAC 213.5 subsection (b)(4)(B) and (C) and (5) is provided with this application. (Forms TCEQ-0600 Permanent Stormwater Section and TCEQ-0602 Temporary Stormwater Section or Stormwater Pollution Prevention Plan/SW3P).

29. ☒ UST systems must be installed by a person possessing a valid certificate of registration in accordance with the requirements of 30 TAC Chapter 334 Subchapter I.

30. ☒ This facility is subject to and must meet the requirements of 30 TAC Chapter 334, including but not limited to the 30 day construction notification and reporting and cleanup of surface spills and overfills.

31. ☒ Upon completion of the tankhold excavation, a geologist must certify that the excavation was inspected for the presence of sensitive features. The certification must be submitted to the appropriate regional office. If sensitive features are found, then excavation near the feature may not proceed until the methods to protect the Edwards Aquifer are reviewed and approved by the executive director.

32. ☒ 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.

33. ☒ Any modification of this UST application will require TCEQ approval, prior to construction, and may require submission of a revised application, with appropriate fees.

ATTACHMENT A

Detailed Narrative of UST Facility

ATTACHMENT A

Detailed Narrative of the UST Facility

7-Eleven, Inc. Store No. 40569
2700 Hunter Road, Unit B
San Marcos, Hays County, Texas 78666

This proposed UST System Replacement project is scheduled to be conducted at 7-Eleven, Inc. Store No. 40569 (Site), which is currently operating as a retail gasoline facility, located at 2700 Hunter Road, Unit B in San Marcos, Hays County, Texas.

The Site is an approximate 1.01-acre property that has operated as a retail petroleum facility from at least 1984 through present day. It is situated within the Edwards Aquifer Transition Zone. A Texas Commission on Environmental Quality (TCEQ) Central Registry records search documents four (4) 8,000-gallon single-walled fiberglass-reinforced plastic (FRP) Underground Storage Tanks (USTs) containing gasoline and diesel fuels. A UST Registration and Self-Certification Form dated November 9, 2023, documents tank numbers two and three as temporarily out of service. USTs one and four are currently registered as in use at the site. TCEQ records search also provides an Edwards Aquifer ID No. 11-98081401. Using the Edwards Aquifer ID Number documents were recovered using the TCEQ Records Online search. A document dated September 11, 1998, by the Texas Natural Resource Conservation Commission (TNRCC) documents the request of exception from the requirement of submittal of UST facility construction plans.

Currently 7-Eleven proposes the following UST System modifications at the Site:

- Remove existing tank slab, dispenser islands, and existing UST system with product and vent piping;
- Install one (1) new 15,000-gallon capacity double-walled fiberglass-reinforced plastic (FRP) Regular Unleaded (RUL) Underground Storage Tank (UST);
- Install one (1) new 15,000-gallon capacity split double-walled FRP Diesel (DSL) and Premium Unleaded (PUL) UST;
- Install three (3) new RUL, PUL, and DSL Submersible Turbine Pumps (STP);
- Install three (3) new RUL, PUL, and DSL product fill buckets;
- Install new 3” double-walled piping over 2” double-walled FRP product piping from new USTs to existing dispensers;
- Install two (2) new vapor vent risers;
- Install new 2-inch coaxial single-walled piping for vapor/vent at USTs to new remote vent;
- Reuse one (1) existing 3+0 dispensers;
- Reuse one (1) existing 3+1 dispensers for DSL;
- Install two (2) new stainless steel dispenser islands;
- Install a new automatic tank gauge site monitor console;

- Install two (2) new observation wells in the tank slab; and
- Install new concrete at disturbed areas.

Prior to concrete removal, a silt fence will be installed to intercept and detain waterborne sediment from unprotected areas. The fence shall remain in place until the disturbed area is permanently stabilized. After construction activities are complete, the area will be re-surfaced with an impervious concrete cover.

ATTACHMENT B

Manufacturer Information For Tanks

Fuel and DEF

Underground Fiberglass Tanks

XERXES®

“ As far as protecting my owners and their future, I'm looking at 30 to 40 years down the road. Fiberglass is the way to go. It allows us to go with the new biofuels and not worry. ”

Fuel marketer

Think decades not years

#1

Corrosion is the #1 cause of tank failure

10-100x

MIC can occur 10-100 times faster than chemical corrosion

A fiberglass underground storage tank made of 100% premium resin is superior to a steel tank in many ways — starting with corrosion resistance and structural strength. That's why major fuel marketers, C-store chains and hypermarkets overwhelmingly choose fiberglass underground storage tanks today. And that's why customers continue to equate secure storage of fuel products with the Xerxes name.

External corrosion from surrounding soil began the trend of replacing rusting steel fuel tanks with corrosion-resistant fiberglass tanks decades ago.

When new biofuels and ultra-low sulfur diesel (ULSD) entered the market, a rise of internal corrosion in steel fuel tanks created a new problem. Water bottoms in steel tanks storing biofuels lead to aggressive microbial influenced corrosion (MIC). Untreated, the ultimate result can be tank failure. Once again, fiberglass' resistance to corrosion — inside and out — gives it clear environmental advantages.

Xerxes corrosion-resistant fiberglass tanks need no added coating or cathodic protection to make them corrosion-resistant with new biofuels and traditional fuels. Our 30-year limited warranty points to the strength of fiberglass' corrosion resistance.

- No expensive maintenance required to remove water bottoms
- No water-bottom warranty exclusion
- Warranty transferable to new tank owner

Compatible with

E10, E15, E85, biodiesel, ultra-low sulfur diesel

30-year limited warranty

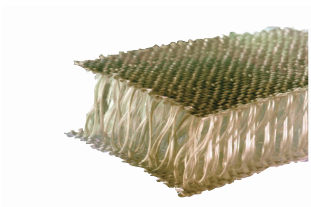
Compared to 10 years for many steel tanks

Structural strength is about more than weight

Engineers look at tank material and geometry when evaluating design options for an underground fuel tank. The strength of our tank comes from a combination of the material stiffness of fiberglass composite and the geometry of our integrally ribbed, cylindrical tank with dished or domed end caps.

Integrally Constructed Ribs

Functioning like I-beams, high-profile fiberglass ribs are fabricated directly into the tank cylinder. This process is superior to ribs created in a separate manufacturing step.



Glass-Fabric Bonding

Our proprietary Parabeam® consists of two layers of glass fabric woven together by vertical pillars. Infused with a thermoset resin, it produces a unique laminate that adds strength and creates a defined interstitial space.

" We are always looking for ways to improve our environmental performance. Installing fiberglass double-wall tanks not only helps us achieve this, it reduces our environmental risk. "

– Retail fuel marketer
when replacing steel tanks with fiberglass tanks

Designed for H-25 / HS-25 axle loads

Designed for easy shipping and installation

ANSI/CAN/UL/ULC 1316:2018 listed

Oil-water separators UL 2215-listed CAN/ULC S656-listed

DEF tanks third-party compatibility tested

Underground Tanks — Diameters up to 12 feet

Fuel Storage Tanks

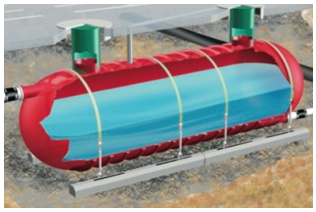
Double-wall tanks are the industry standard in fuel storage. Triple-wall tanks provide enhanced containment when site conditions or regulations warrant that. Multicompartment tanks save space when storing more than one grade or type of fuel.

- Capacities up to 50,000 gallons or 155,000 liters
- Double-wall, triple-wall and multicompartment models
- Dry and hydrostatic monitoring options

DEF Storage Tanks

Diesel exhaust fluid (DEF) has specific storage requirements. Fiberglass underground DEF tanks need no added coatings or linings to maintain product integrity. Underground tanks can also store larger capacities than above ground tanks.

- Capacities up to 50,000 gallons or 155,000 liters
- Single-wall and double-wall models
- Extensive third-party compatibility testing



Oil-Water Separators

Our oil-water separators incorporate unique refinements inside our tank to remove free-floating oils and settleable sands from oil-water mixtures. A properly sized coalescer is designed to produce effluent quality to meet most water runoff regulations.

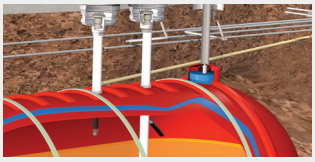
- Capacities up to 30,000 gallons or 113,000 liters
- Single-wall and double-wall models
- 4’-10’ diameters

Accessories

Retail and commercial fueling facilities are sophisticated systems in highly regulated environments. A full range of easy-to-install accessories provide a total solution.

Containment Sumps

Single-wall and double-wall containment sumps are custom-matched to our factory-installed collars. Double-wall sumps are frequently chosen to meet changing regulations. A variety of models are available.



Truchek®
Hydrostatic Monitoring

Our patented Truchek system continuously monitors both walls of a double-wall tank for leaks in all installation conditions. It also provides options for easy and reliable tank-tightness testing.

Engineering
Anchoring System

An anchoring system can add extra security to a tank installation. Engineered and sized for specific tank sizes, our anchoring system includes prefabricated concrete deadmen, anchoring straps, galvanized jaw-to-jaw turnbuckles and adjustable anchor points.

Typical Accessories

- Engineered anchoring systems
- Dry and hydrostatic monitoring options
- Manways, covers and extensions
- Containment collars, sumps and covers
- Standard and custom fittings and nozzles
- Fill tubes
- Ladders

Unparalleled **manufacturing capability**

Leading the way in composite technology

No other tank manufacturer has the kind of manufacturing capability in North America that we have. No matter where our customers need fuel tanks, our facilities are not far from your next installation.

Xerxes fuel tanks and accessories offer long-term security for all your underground fuel and DEF storage needs. Throughout North America, our expert engineering and sales teams are ready to design and deliver the tanks you need.

We provide the best technologies, products and services for every project. Our goal is to exceed expectations with unparalleled expertise, delivery, performance and value. We do this every step of the way — from project planning through the life of each fuel project.

Contact us at fuelsales@mattr.com to discuss your next project.

40+ years of industry experience

Expert engineering and sales consulting

225,000+ tanks Installed

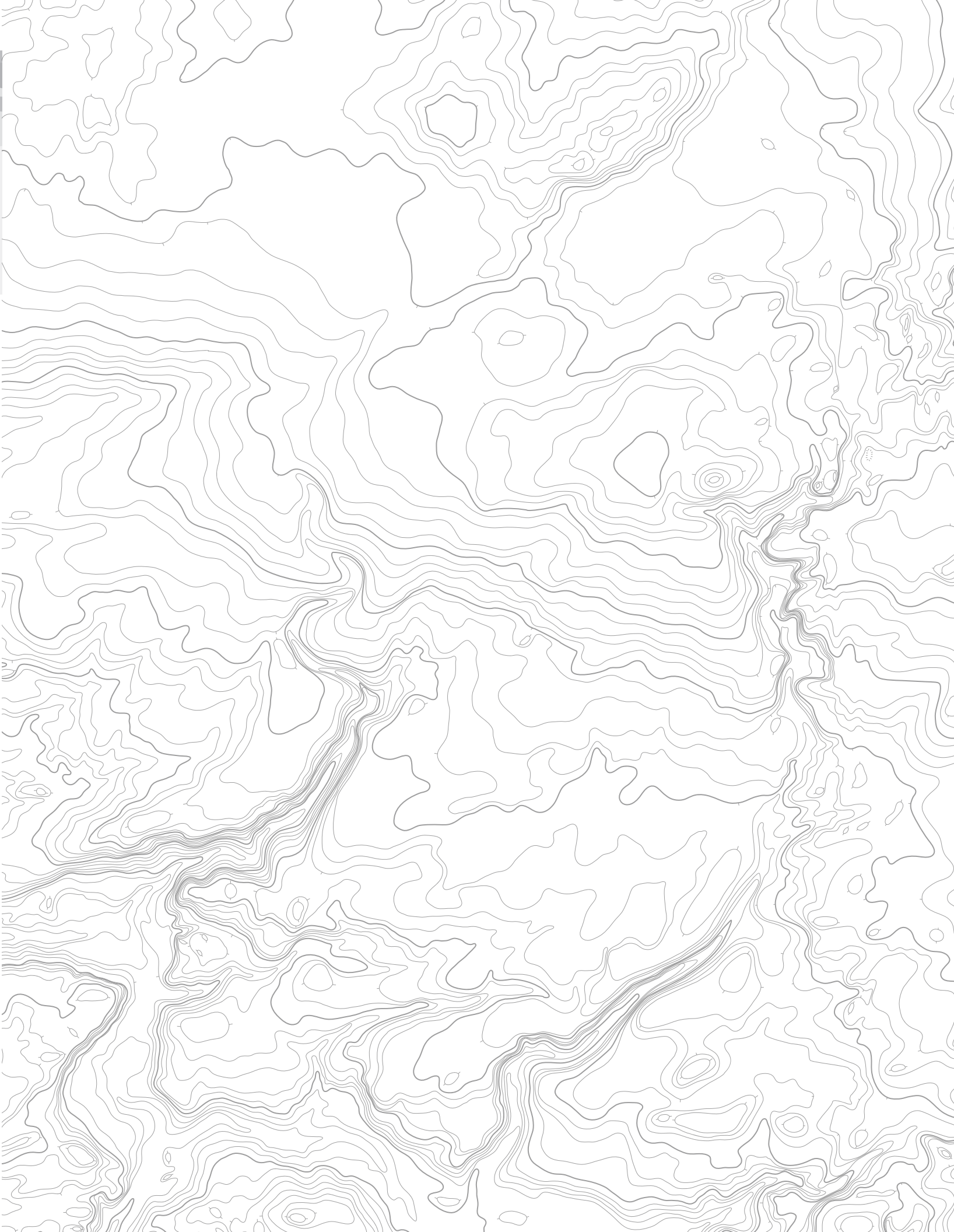
Fuel compatibility validation

6 manufacturing facilities in North America

Regulatory compliance assistance

Contractor training

Application design drawings



Xerxes – A Mattr brand

Xerxes is a key brand of Mattr, a global growth-oriented company that delivers advanced materials technology and complex manufacturing expertise through a diverse portfolio of brands. The company's market-leading brands provide engineered products and solutions that support critical infrastructure for markets such as water, transportation, communication, energy and electrification.

The name Mattr reflects our expertise in high-value materials technology. The company's core competencies revolve around converting physical materials into solutions that serve the greater good of our world. The name is also an affirmation that what we do matters – to our employees, our families, our customers, our communities, our world.

xerxes.com | fuelsales@mattr.com

XERXES®

Double-Wall and Triple-Wall Tanks

Underground tanks are backed by proven longevity

Fuel marketers, equipment distributors and commercial accounts rely on proven technology when planning their underground installations. It makes sense that they look to Xerxes, the manufacturer that developed the first UL-listed double-wall fiberglass tank.

All our tanks were in early compliance with the updated certification requirements of the new bi-national standard ANSI/CAN/UL/ULC 1316:1218.

Tank geometry and materials create structural strength

- Xerxes fuel tanks are designed and manufactured to provide decades of secure storage for any application.
- Cylindrical tank with dished or domed end caps is designed to withstand the stresses of underground storage.
- Integrally manufactured fiberglass ribs function like I-beams and enhance tank strength.
- Premium resin and glass-fiber reinforcement create a structurally strong tank.

Double-wall and triple-wall tanks

- No added corrosion protection needed to store ethanol-blended fuel (E10, E15, E85), biodiesel fuels and ultra-low sulfur diesel (ULSD).
- Incorporates our proprietary 3D glass fiber (Parabeam®) to bond tank walls
- One-compartment or multicompartment models.
- Tertiary containment available for added protection in sensitive environments, such as nearby aquifers, lakes or streams.

Multicompartment tanks

- Store more than one grade or type of fuel in the same tank.
- Provide space-saving installation with a single tank.
- Can provide savings in installation and insurance costs.
- Are available in two- and three-compartment models.

Corrosion-resistant
inside and out

Compatible with
traditional fuels and new biofuels

30-year
limited warranty

Lightweight tanks for
easy shipping and installation

Designed to withstand
H-25 / HS-25 axle loads

Double-Wall and Triple-Wall Tanks

Product and project reliability

- Stringent quality control of manufacturing ensures that every tank is a long-term investment.
- Comprehensive installation training is available.
- 40+ years of composite manufacturing and 225,000+ installed tanks assure customers that we stand behind our products and warranties.

Easy shipping and installation

- Lightweight tank and engineered deadmen can generally fit on the same truck flatbed.
- No special, heavy equipment needed for installation.
- Ideal for tight site footprints and remote locations.
- Tanks can be moved from original installation and recertified for new installation.

ONE-COMPARTMENT TANKS
SINGLE-WALL & DOUBLE-WALL

NOMINAL DIAMETER	DESIGNED FOR U.S. INSTALLATIONS (GALLONS)	DESIGNED FOR CANADIAN INSTALLATIONS (LITERS)
4'	600 – 2,000	2,500 – 5,000
6'	2,000 – 8,000	10,000 – 25,000
8'	2,000 – 17,000	15,000 – 65,000
10'	7,000 – 40,000	50,000 – 110,000
12'	20,000 – 50,000	–

MULTICOMPARTMENT TANKS
DOUBLE-WALL

NOMINAL DIAMETER	DESIGNED FOR U.S. INSTALLATIONS (GALLONS)	DESIGNED FOR CANADIAN INSTALLATIONS (LITERS)
6'	4,000 – 12,000	15,000 – 25,000
8'	6,000 – 25,000	35,000 – 65,000
10'	12,000 – 40,000	70,000 – 110,000

Typical fuel tank accessories

- Engineered anchoring system
- Truchek® hydrostatic monitoring system
- Containment collars, sumps and covers
- Manways, extensions and covers
- Fittings and nozzles
- Fill tubes

For over 40 years, Xerxes has designed and manufactured fiberglass underground storage tanks for fuel, water and wastewater. Xerxes' most recent expansion is its HydroChain™ product line. These highly engineered products with site-specific designs provide a complete stormwater management solution. Xerxes is a key brand of Mattr, a global materials technology company serving critical infrastructure markets.

FDWT0923 | fuelsales@mattr.com | **xerxes.com**

XERXES®

XERXES®

www.xerxes.com

Calibration Chart

15,000 Gallon - 10' Diameter Double-Wall Tank

DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS
0-1/8"	3	8-1/2"	429	16-7/8"	1206	25-1/4"	2211	33-5/8"	3381	42"	4668	50-3/8"	6031
0-1/4"	5	8-5/8"	439	17"	1220	25-3/8"	2228	33-3/4"	3399	42-1/8"	4688	50-1/2"	6052
0-3/8"	8	8-3/4"	448	17-1/8"	1233	25-1/2"	2244	33-7/8"	3418	42-1/4"	4708	50-5/8"	6073
0-1/2"	10	8-7/8"	458	17-1/4"	1247	25-5/8"	2260	34"	3436	42-3/8"	4728	50-3/4"	6094
0-5/8"	13	9"	468	17-3/8"	1261	25-3/4"	2277	34-1/8"	3455	42-1/2"	4748	50-7/8"	6114
0-3/4"	15	9-1/8"	477	17-1/2"	1274	25-7/8"	2293	34-1/4"	3473	42-5/8"	4767	51"	6135
0-7/8"	18	9-1/4"	487	17-5/8"	1288	26"	2310	34-3/8"	3492	42-3/4"	4787	51-1/8"	6156
1"	22	9-3/8"	497	17-3/4"	1302	26-1/8"	2327	34-1/2"	3511	42-7/8"	4807	51-1/4"	6177
1-1/8"	25	9-1/2"	507	17-7/8"	1316	26-1/4"	2343	34-5/8"	3529	43"	4827	51-3/8"	6198
1-1/4"	29	9-5/8"	517	18"	1330	26-3/8"	2360	34-3/4"	3548	43-1/8"	4847	51-1/2"	6218
1-3/8"	32	9-3/4"	527	18-1/8"	1344	26-1/2"	2377	34-7/8"	3567	43-1/4"	4868	51-5/8"	6239
1-1/2"	36	9-7/8"	538	18-1/4"	1358	26-5/8"	2393	35"	3585	43-3/8"	4888	51-3/4"	6260
1-5/8"	40	10"	548	18-3/8"	1372	26-3/4"	2410	35-1/8"	3604	43-1/2"	4908	51-7/8"	6281
1-3/4"	44	10-1/8"	558	18-1/2"	1386	26-7/8"	2427	35-1/4"	3623	43-5/8"	4928	52"	6302
1-7/8"	49	10-1/4"	569	18-5/8"	1400	27"	2444	35-3/8"	3642	43-3/4"	4948	52-1/8"	6323
2"	53	10-3/8"	579	18-3/4"	1414	27-1/8"	2461	35-1/2"	3660	43-7/8"	4968	52-1/4"	6343
2-1/8"	58	10-1/2"	590	18-7/8"	1428	27-1/4"	2477	35-5/8"	3679	44"	4988	52-3/8"	6364
2-1/4"	62	10-5/8"	600	19"	1443	27-3/8"	2494	35-3/4"	3698	44-1/8"	5008	52-1/2"	6385
2-3/8"	67	10-3/4"	611	19-1/8"	1457	27-1/2"	2511	35-7/8"	3717	44-1/4"	5028	52-5/8"	6406
2-1/2"	72	10-7/8"	622	19-1/4"	1471	27-5/8"	2528	36"	3736	44-3/8"	5048	52-3/4"	6427
2-5/8"	77	11"	632	19-3/8"	1486	27-3/4"	2545	36-1/8"	3755	44-1/2"	5069	52-7/8"	6448
2-3/4"	83	11-1/8"	643	19-1/2"	1500	27-7/8"	2562	36-1/4"	3774	44-5/8"	5089	53"	6469
2-7/8"	88	11-1/4"	654	19-5/8"	1515	28"	2580	36-3/8"	3793	44-3/4"	5109	53-1/8"	6489
3"	93	11-3/8"	665	19-3/4"	1529	28-1/8"	2597	36-1/2"	3812	44-7/8"	5129	53-1/4"	6510
3-1/8"	99	11-1/2"	676	19-7/8"	1544	28-1/4"	2614	36-5/8"	3831	45"	5150	53-3/8"	6531
3-1/4"	105	11-5/8"	687	20"	1559	28-3/8"	2631	36-3/4"	3850	45-1/8"	5170	53-1/2"	6552
3-3/8"	110	11-3/4"	699	20-1/8"	1573	28-1/2"	2648	36-7/8"	3869	45-1/4"	5190	53-5/8"	6573
3-1/2"	116	11-7/8"	710	20-1/4"	1588	28-5/8"	2666	37"	3888	45-3/8"	5210	53-3/4"	6594
3-5/8"	122	12"	721	20-3/8"	1603	28-3/4"	2683	37-1/8"	3907	45-1/2"	5231	53-7/8"	6615
3-3/4"	129	12-1/8"	732	20-1/2"	1618	28-7/8"	2700	37-1/4"	3926	45-5/8"	5251	54"	6636
3-7/8"	135	12-1/4"	744	20-5/8"	1632	29"	2718	37-3/8"	3945	45-3/4"	5271	54-1/8"	6657
4"	141	12-3/8"	755	20-3/4"	1647	29-1/8"	2735	37-1/2"	3964	45-7/8"	5292	54-1/4"	6678
4-1/8"	148	12-1/2"	767	20-7/8"	1662	29-1/4"	2752	37-5/8"	3984	46"	5312	54-3/8"	6699
4-1/4"	154	12-5/8"	778	21"	1677	29-3/8"	2770	37-3/4"	4003	46-1/8"	5332	54-1/2"	6720
4-3/8"	161	12-3/4"	790	21-1/8"	1692	29-1/2"	2787	37-7/8"	4022	46-1/4"	5353	54-5/8"	6741
4-1/2"	167	12-7/8"	802	21-1/4"	1707	29-5/8"	2805	38"	4041	46-3/8"	5373	54-3/4"	6762
4-5/8"	174	13"	814	21-3/8"	1722	29-3/4"	2822	38-1/8"	4061	46-1/2"	5393	54-7/8"	6782
4-3/4"	181	13-1/8"	825	21-1/2"	1738	29-7/8"	2840	38-1/4"	4080	46-5/8"	5414	55"	6803
4-7/8"	188	13-1/4"	837	21-5/8"	1753	30"	2858	38-3/8"	4099	46-3/4"	5434	55-1/8"	6824
5"	195	13-3/8"	849	21-3/4"	1768	30-1/8"	2875	38-1/2"	4118	46-7/8"	5455	55-1/4"	6845
5-1/8"	203	13-1/2"	861	21-7/8"	1783	30-1/4"	2893	38-5/8"	4138	47"	5475	55-3/8"	6866
5-1/4"	210	13-5/8"	873	22"	1799	30-3/8"	2911	38-3/4"	4157	47-1/8"	5496	55-1/2"	6887
5-3/8"	217	13-3/4"	886	22-1/8"	1814	30-1/2"	2928	38-7/8"	4177	47-1/4"	5516	55-5/8"	6908
5-1/2"	225	13-7/8"	898	22-1/4"	1829	30-5/8"	2946	39"	4196	47-3/8"	5537	55-3/4"	6929
5-5/8"	232	14"	910	22-3/8"	1845	30-3/4"	2964	39-1/8"	4215	47-1/2"	5557	55-7/8"	6950
5-3/4"	240	14-1/8"	922	22-1/2"	1860	30-7/8"	2982	39-1/4"	4235	47-5/8"	5578	56"	6971
5-7/8"	248	14-1/4"	935	22-5/8"	1876	31"	3000	39-3/8"	4254	47-3/4"	5598	56-1/8"	6992
6"	256	14-3/8"	947	22-3/4"	1892	31-1/8"	3017	39-1/2"	4274	47-7/8"	5619	56-1/4"	7013
6-1/8"	263	14-1/2"	959	22-7/8"	1907	31-1/4"	3035	39-5/8"	4293	48"	5639	56-3/8"	7034
6-1/4"	271	14-5/8"	972	23"	1923	31-3/8"	3053	39-3/4"	4313	48-1/8"	5660	56-1/2"	7055
6-3/8"	280	14-3/4"	985	23-1/8"	1938	31-1/2"	3071	39-7/8"	4333	48-1/4"	5680	56-5/8"	7076
6-1/2"	288	14-7/8"	997	23-1/4"	1954	31-5/8"	3089	40"	4352	48-3/8"	5701	56-3/4"	7097
6-5/8"	296	15"	1010	23-3/8"	1970	31-3/4"	3107	40-1/8"	4372	48-1/2"	5722	56-7/8"	7118
6-3/4"	304	15-1/8"	1023	23-1/2"	1986	31-7/8"	3125	40-1/4"	4391	48-5/8"	5742	57"	7139
6-7/8"	313	15-1/4"	1035	23-5/8"	2002	32"	3143	40-3/8"	4411	48-3/4"	5763	57-1/8"	7160
7"	321	15-3/8"	1048	23-3/4"	2018	32-1/8"	3161	40-1/2"	4431	48-7/8"	5783	57-1/4"	7181
7-1/8"	330	15-1/2"	1061	23-7/8"	2033	32-1/4"	3180	40-5/8"	4450	49"	5804	57-3/8"	7202
7-1/4"	338	15-5/8"	1074	24"	2049	32-3/8"	3198	40-3/4"	4470	49-1/8"	5825	57-1/2"	7224
7-3/8"	347	15-3/4"	1087	24-1/8"	2065	32-1/2"	3216	40-7/8"	4490	49-1/4"	5845	57-5/8"	7245
7-1/2"	356	15-7/8"	1100	24-1/4"	2081	32-5/8"	3234	41"	4509	49-3/8"	5866	57-3/4"	7266
7-5/8"	365	16"	1113	24-3/8"	2098	32-3/4"	3252	41-1/8"	4529	49-1/2"	5887	57-7/8"	7287
7-3/4"	374	16-1/8"	1126	24-1/2"	2114	32-7/8"	3271	41-1/4"	4549	49-5/8"	5907	58"	7308
7-7/8"	383	16-1/4"	1140	24-5/8"	2130	33"	3289	41-3/8"	4569	49-3/4"	5928	58-1/8"	7329
8"	392	16-3/8"	1153	24-3/4"	2146	33-1/8"	3307	41-1/2"	4589	49-7/8"	5949	58-1/4"	7350
8-1/8"	401	16-1/2"	1166	24-7/8"	2162	33-1/4"	3326	41-5/8"	4608	50"	5969	58-3/8"	7371
8-1/4"	411	16-5/8"	1179	25"	2179	33-3/8"	3344	41-3/4"	4628	50-1/8"	5990	58-1/2"	7392
8-3/8"	420	16-3/4"	1193	25-1/8"	2195	33-1/2"	3362	41-7/8"	4648	50-1/4"	6011	58-5/8"	7413

XERXES CORPORATION 15,000 Gallon - 10' Diameter Double-Wall Tank

DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS
58-3/4"	7434	67-1/2"	8901	76-1/4"	10330	85"	11678	93-3/4"	12898	102-1/2"	13934	111-1/4"	14711
58-7/8"	7455	67-5/8"	8922	76-3/8"	10350	85-1/8"	11697	93-7/8"	12914	102-5/8"	13947	111-3/8"	14720
59"	7476	67-3/4"	8943	76-1/2"	10370	85-1/4"	11715	94"	12930	102-3/4"	13960	111-1/2"	14729
59-1/8"	7497	67-7/8"	8964	76-5/8"	10390	85-3/8"	11733	94-1/8"	12946	102-7/8"	13973	111-5/8"	14737
59-1/4"	7518	68"	8984	76-3/4"	10410	85-1/2"	11752	94-1/4"	12963	103"	13986	111-3/4"	14746
59-3/8"	7539	68-1/8"	9005	76-7/8"	10430	85-5/8"	11770	94-3/8"	12979	103-1/8"	13999	111-7/8"	14754
59-1/2"	7560	68-1/4"	9026	77"	10450	85-3/4"	11788	94-1/2"	12995	103-1/4"	14012	112"	14762
59-5/8"	7581	68-3/8"	9047	77-1/8"	10470	85-7/8"	11807	94-5/8"	13011	103-3/8"	14025	112-1/8"	14770
59-3/4"	7602	68-1/2"	9067	77-1/4"	10489	86"	11825	94-3/4"	13027	103-1/2"	14038	112-1/4"	14779
59-7/8"	7623	68-5/8"	9088	77-3/8"	10509	86-1/8"	11843	94-7/8"	13043	103-5/8"	14051	112-3/8"	14787
60"	7644	68-3/4"	9109	77-1/2"	10529	86-1/4"	11861	95"	13059	103-3/4"	14063	112-1/2"	14794
60-1/8"	7665	68-7/8"	9130	77-5/8"	10549	86-3/8"	11880	95-1/8"	13074	103-7/8"	14076	112-5/8"	14802
60-1/4"	7686	69"	9150	77-3/4"	10568	86-1/2"	11898	95-1/4"	13090	104"	14088	112-3/4"	14810
60-3/8"	7707	69-1/8"	9171	77-7/8"	10588	86-5/8"	11916	95-3/8"	13106	104-1/8"	14101	112-7/8"	14818
60-1/2"	7728	69-1/4"	9192	78"	10608	86-3/4"	11934	95-1/2"	13122	104-1/4"	14113	113"	14825
60-5/8"	7749	69-3/8"	9212	78-1/8"	10628	86-7/8"	11952	95-5/8"	13137	104-3/8"	14126	113-1/8"	14833
60-3/4"	7771	69-1/2"	9233	78-1/4"	10647	87"	11970	95-3/4"	13153	104-1/2"	14138	113-1/4"	14840
60-7/8"	7792	69-5/8	9254	78-3/8"	10667	87-1/8"	11988	95-7/8"	13169	104-5/8"	14150	113-3/8"	14847
61"	7813	69-3/4"	9274	78-1/2"	10687	87-1/4"	12006	96"	13184	104-3/4"	14163	113-1/2"	14855
61-1/8"	7834	69-7/8"	9295	78-5/8"	10706	87-3/8"	12024	96-1/8"	13200	104-7/8"	14175	113-5/8"	14862
61-1/4"	7855	70"	9315	78-3/4"	10726	87-1/2"	12042	96-1/4"	13215	105"	14187	113-3/4"	14869
61-3/8"	7876	70-1/8"	9336	78-7/8"	10745	87-5/8"	12060	96-3/8"	13231	105-1/8"	14199	113-7/8"	14876
61-1/2"	7897	70-1/4"	9357	79"	10765	87-3/4"	12078	96-1/2"	13246	105-1/4"	14211	114"	14882
61-5/8"	7918	70-3/8"	9377	79-1/8"	10784	87-7/8"	12095	96-5/8"	13262	105-3/8"	14223	114-1/8"	14889
61-3/4"	7939	70-1/2"	9398	79-1/4"	10804	88"	12113	96-3/4"	13277	105-1/2"	14235	114-1/4"	14896
61-7/8"	7960	70-5/8"	9418	79-3/8"	10823	88-1/8"	12131	96-7/8"	13292	105-5/8"	14247	114-3/8"	14902
62"	7981	70-3/4"	9439	79-1/2"	10843	88-1/4"	12149	97"	13307	105-3/4"	14258	114-1/2"	14909
62-1/8"	8002	70-7/8"	9459	79-5/8"	10862	88-3/8"	12167	97-1/8"	13323	105-7/8"	14270	114-5/8"	14915
62-1/4"	8023	71"	9480	79-3/4"	10882	88-1/2"	12184	97-1/4"	13338	106"	14282	114-3/4"	14921
62-3/8"	8044	71-1/8"	9500	79-7/8"	10901	88-5/8"	12202	97-3/8"	13353	106-1/8"	14293	114-7/8"	14927
62-1/2"	8065	71-1/4"	9521	80"	10921	88-3/4"	12219	97-1/2"	13368	106-1/4"	14305	115"	14933
62-5/8"	8086	71-3/8"	9541	80-1/8"	10940	88-7/8"	12237	97-5/8"	13383	106-3/8"	14316	115-1/8"	14939
62-3/4"	8107	71-1/2"	9562	80-1/4"	10959	89"	12255	97-3/4"	13398	106-1/2"	14328	115-1/4"	14945
62-7/8"	8128	71-5/8"	9582	80-3/8"	10979	89-1/8"	12272	97-7/8"	13413	106-5/8"	14339	115-3/8"	14950
63"	8149	71-3/4"	9603	80-1/2"	10998	89-1/4"	12290	98"	13428	106-3/4"	14350	115-1/2"	14956
63-1/8"	8170	71-7/8"	9623	80-5/8"	11017	89-3/8"	12307	98-1/8"	13443	106-7/8"	14362	115-5/8"	14961
63-1/4"	8191	72"	9644	80-3/4"	11037	89-1/2"	12325	98-1/4"	13458	107"	14373	115-3/4"	14967
63-3/8"	8212	72-1/8"	9664	80-7/8"	11056	89-5/8"	12342	98-3/8"	13472	107-1/8"	14384	115-7/8"	14972
63-1/2"	8233	72-1/4"	9685	81"	11075	89-3/4"	12359	98-1/2"	13487	107-1/4"	14395	116"	14977
63-5/8"	8254	72-3/8"	9705	81-1/8"	11094	89-7/8"	12377	98-5/8"	13502	107-3/8"	14406	116-1/8"	14982
63-3/4"	8275	72-1/2"	9725	81-1/4"	11113	90"	12394	98-3/4"	13517	107-1/2"	14417	116-1/4"	14986
63-7/8"	8296	72-5/8"	9746	81-3/8"	11133	90-1/8"	12411	98-7/8"	13531	107-5/8"	14427	116-3/8"	14991
64"	8317	72-3/4"	9766	81-1/2"	11152	90-1/4"	12429	99"	13546	107-3/4"	14438	116-1/2"	14995
64-1/8"	8338	72-7/8"	9786	81-5/8"	11171	90-3/8"	12446	99-1/8"	13560	107-7/8"	14449	116-5/8"	15000
64-1/4"	8359	73"	9807	81-3/4"	11190	90-1/2"	12463	99-1/4"	13575	108"	14460	116-3/4"	15004
64-3/8"	8380	73-1/8"	9827	81-7/8"	11209	90-5/8"	12480	99-3/8"	13589	108-1/8"	14470	116-7/8"	15008
64-1/2"	8400	73-1/4"	9847	82"	11228	90-3/4"	12497	99-1/2"	13603	108-1/4"	14481	117"	15012
64-5/8"	8421	73-3/8"	9868	82-1/8"	11247	90-7/8"	12514	99-5/8"	13618	108-3/8"	14491	117-1/8"	15016
64-3/4"	8442	73-1/2"	9888	82-1/4"	11266	91"	12531	99-3/4"	13632	108-1/2"	14501	117-1/4"	15019
64-7/8"	8463	73-5/8"	9908	82-3/8"	11285	91-1/8"	12548	99-7/8"	13646	108-5/8"	14512	117-3/8"	15022
65"	8484	73-3/4"	9928	82-1/2"	11304	91-1/4"	12565	100"	13661	108-3/4"	14522	117-1/2"	15026
65-1/8"	8505	73-7/8"	9949	82-5/8"	11323	91-3/8"	12582	100-1/8"	13675	108-7/8"	14532	117-5/8"	15029
65-1/4"	8526	74"	9969	82-3/4"	11342	91-1/2"	12599	100-1/4"	13689	109"	14542	117-3/4"	15031
65-3/8"	8547	74-1/8"	9989	82-7/8"	11361	91-5/8"	12616	100-3/8"	13703	109-1/8"	14552	117-7/8"	15034
65-1/2"	8568	74-1/4"	10009	83"	11380	91-3/4"	12633	100-1/2"	13717	109-1/4"	14562	118"	15036
65-5/8"	8589	74-3/8"	10030	83-1/8"	11398	91-7/8"	12650	100-5/8"	13731	109-3/8"	14572	118-1/8"	15038
65-3/4"	8610	74-1/2"	10050	83-1/4"	11417	92"	12667	100-3/4"	13745	109-1/2"	14582	118-1/4"	15040
65-7/8"	8630	74-5/8"	10070	83-3/8"	11436	92-1/8"	12683	100-7/8"	13759	109-5/8"	14592	118-3/8"	15041
66"	8651	74-3/4"	10090	83-1/2"	11455	92-1/4"	12700	101"	13772	109-3/4"	14601		
66-1/8"	8672	74-7/8"	10110	83-5/8"	11474	92-3/8"	12717	101-1/8"	13786	109-7/8"	14611		
66-1/4"	8693	75"	10130	83-3/4"	11492	92-1/2"	12733	101-1/4"	13800	110"	14620		
66-3/8"	8714	75-1/8"	10150	83-7/8"	11511	92-5/8"	12750	101-3/8"	13813	110-1/8"	14630		
66-1/2"	8735	75-1/4"	10170	84"	11530	92-3/4"	12767	101-1/2"	13827	110-1/4"	14639		
66-5/8"	8756	75-3/8"	10190	84-1/8"	11548	92-7/8"	12783	101-5/8"	13841	110-3/8"	14649		
66-3/4"	8776	75-1/2"	10210	84-1/4"	11567	93"	12800	101-3/4"	13854	110-1/2"	14658		
66-7/8"	8797	75-5/8"	10231	84-3/8"	11586	93-1/8"	12816	101-7/8"	13868	110-5/8"	14667		
67"	8818	75-3/4"	10251	84-1/2"	11604	93-1/4"	12832	102"	13881	110-3/4"	14676		
67-1/8"	8839	75-7/8"	10271	84-5/8"	11623	93-3/8"	12849	102-1/8"	13894	110-7/8"	14685		
67-1/4"	8860	76"	10291	84-3/4"	11641	93-1/2"	12865	102-1/4"	13908	111"	14694		
67-3/8"	8881	76-1/8"	10310	84-7/8"	11660	93-5/8"	12882	102-3/8"	13921	111-1/8"	14703	10DW15kusg.Jan16	

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Calibration Chart

6,000 Gallon - 10' Diameter Double-Wall END Tank
For Use with Multicompartment Tanks

DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS
0-1/8"	2	8-1/2"	210	16-7/8"	562	25-1/4"	997	33-5/8"	1488	42"	2018	50-3/8"	2572
0-1/4"	3	8-5/8"	214	17"	568	25-3/8"	1004	33-3/4"	1496	42-1/8"	2026	50-1/2"	2580
0-3/8"	4	8-3/4"	219	17-1/8"	574	25-1/2"	1011	33-7/8"	1504	42-1/4"	2034	50-5/8"	2588
0-1/2"	5	8-7/8"	223	17-1/4"	580	25-5/8"	1018	34"	1511	42-3/8"	2042	50-3/4"	2597
0-5/8"	7	9"	228	17-3/8"	586	25-3/4"	1025	34-1/8"	1519	42-1/2"	2050	50-7/8"	2605
0-3/4"	8	9-1/8"	233	17-1/2"	592	25-7/8"	1032	34-1/4"	1527	42-5/8"	2058	51"	2614
0-7/8"	10	9-1/4"	237	17-5/8"	598	26"	1039	34-3/8"	1534	42-3/4"	2067	51-1/8"	2622
1"	12	9-3/8"	242	17-3/4"	604	26-1/8"	1046	34-1/2"	1542	42-7/8"	2075	51-1/4"	2630
1-1/8"	13	9-1/2"	246	17-7/8"	610	26-1/4"	1053	34-5/8"	1550	43"	2083	51-3/8"	2639
1-1/4"	15	9-5/8"	251	18"	616	26-3/8"	1060	34-3/4"	1557	43-1/8"	2091	51-1/2"	2647
1-3/8"	17	9-3/4"	256	18-1/8"	622	26-1/2"	1067	34-7/8"	1565	43-1/4"	2099	51-5/8"	2656
1-1/2"	19	9-7/8"	260	18-1/4"	629	26-5/8"	1074	35"	1573	43-3/8"	2107	51-3/4"	2664
1-5/8"	21	10"	265	18-3/8"	635	26-3/4"	1081	35-1/8"	1581	43-1/2"	2116	51-7/8"	2672
1-3/4"	23	10-1/8"	270	18-1/2"	641	26-7/8"	1089	35-1/4"	1588	43-5/8"	2124	52"	2681
1-7/8"	26	10-1/4"	275	18-5/8"	647	27"	1096	35-3/8"	1596	43-3/4"	2132	52-1/8"	2689
2"	28	10-3/8"	280	18-3/4"	653	27-1/8"	1103	35-1/2"	1604	43-7/8"	2140	52-1/4"	2698
2-1/8"	30	10-1/2"	284	18-7/8"	660	27-1/4"	1110	35-5/8"	1612	44"	2148	52-3/8"	2706
2-1/4"	33	10-5/8"	289	19"	666	27-3/8"	1117	35-3/4"	1620	44-1/8"	2157	52-1/2"	2715
2-3/8"	35	10-3/4"	294	19-1/8"	672	27-1/2"	1124	35-7/8"	1627	44-1/4"	2165	52-5/8"	2723
2-1/2"	38	10-7/8"	299	19-1/4"	678	27-5/8"	1131	36"	1635	44-3/8"	2173	52-3/4"	2731
2-5/8"	40	11"	304	19-3/8"	685	27-3/4"	1139	36-1/8"	1643	44-1/2"	2181	52-7/8"	2740
2-3/4"	43	11-1/8"	309	19-1/2"	691	27-7/8"	1146	36-1/4"	1651	44-5/8"	2189	53"	2748
2-7/8"	45	11-1/4"	314	19-5/8"	697	28"	1153	36-3/8"	1659	44-3/4"	2198	53-1/8"	2757
3"	48	11-3/8"	319	19-3/4"	704	28-1/8"	1160	36-1/2"	1666	44-7/8"	2206	53-1/4"	2765
3-1/8"	51	11-1/2"	324	19-7/8"	710	28-1/4"	1168	36-5/8"	1674	45"	2214	53-3/8"	2774
3-1/4"	54	11-5/8"	329	20"	716	28-3/8"	1175	36-3/4"	1682	45-1/8"	2222	53-1/2"	2782
3-3/8"	57	11-3/4"	334	20-1/8"	723	28-1/2"	1182	36-7/8"	1690	45-1/4"	2231	53-5/8"	2790
3-1/2"	60	11-7/8"	339	20-1/4"	729	28-5/8"	1189	37"	1698	45-3/8"	2239	53-3/4"	2799
3-5/8"	63	12"	345	20-3/8"	736	28-3/4"	1197	37-1/8"	1706	45-1/2"	2247	53-7/8"	2807
3-3/4"	66	12-1/8"	350	20-1/2"	742	28-7/8"	1204	37-1/4"	1714	45-5/8"	2255	54"	2816
3-7/8"	69	12-1/4"	355	20-5/8"	748	29"	1211	37-3/8"	1722	45-3/4"	2264	54-1/8"	2824
4"	72	12-3/8"	360	20-3/4"	755	29-1/8"	1218	37-1/2"	1729	45-7/8"	2272	54-1/4"	2833
4-1/8"	75	12-1/2"	365	20-7/8"	761	29-1/4"	1226	37-5/8"	1737	46"	2280	54-3/8"	2841
4-1/4"	78	12-5/8"	371	21"	768	29-3/8"	1233	37-3/4"	1745	46-1/8"	2288	54-1/2"	2850
4-3/8"	82	12-3/4"	376	21-1/8"	774	29-1/2"	1240	37-7/8"	1753	46-1/4"	2297	54-5/8"	2858
4-1/2"	85	12-7/8"	381	21-1/4"	781	29-5/8"	1248	38"	1761	46-3/8"	2305	54-3/4"	2866
4-5/8"	88	13"	387	21-3/8"	787	29-3/4"	1255	38-1/8"	1769	46-1/2"	2313	54-7/8"	2875
4-3/4"	92	13-1/8"	392	21-1/2"	794	29-7/8"	1263	38-1/4"	1777	46-5/8"	2321	55"	2883
4-7/8"	95	13-1/4"	397	21-5/8"	801	30"	1270	38-3/8"	1785	46-3/4"	2330	55-1/8"	2892
5"	99	13-3/8"	403	21-3/4"	807	30-1/8"	1277	38-1/2"	1793	46-7/8"	2338	55-1/4"	2900
5-1/8"	102	13-1/2"	408	21-7/8"	814	30-1/4"	1285	38-5/8"	1801	47"	2346	55-3/8"	2909
5-1/4"	106	13-5/8"	414	22"	820	30-3/8"	1292	38-3/4"	1809	47-1/8"	2355	55-1/2"	2917
5-3/8"	109	13-3/4"	419	22-1/8"	827	30-1/2"	1300	38-7/8"	1817	47-1/4"	2363	55-5/8"	2926
5-1/2"	113	13-7/8"	425	22-1/4"	834	30-5/8"	1307	39"	1825	47-3/8"	2371	55-3/4"	2934
5-5/8"	116	14"	430	22-3/8"	840	30-3/4"	1314	39-1/8"	1833	47-1/2"	2380	55-7/8"	2943
5-3/4"	120	14-1/8"	436	22-1/2"	847	30-7/8"	1322	39-1/4"	1841	47-5/8"	2388	56"	2951
5-7/8"	124	14-1/4"	441	22-5/8"	854	31"	1329	39-3/8"	1849	47-3/4"	2396	56-1/8"	2960
6"	128	14-3/8"	447	22-3/4"	860	31-1/8"	1337	39-1/2"	1857	47-7/8"	2405	56-1/4"	2968
6-1/8"	131	14-1/2"	452	22-7/8"	867	31-1/4"	1344	39-5/8"	1865	48"	2413	56-3/8"	2976
6-1/4"	135	14-5/8"	458	23"	874	31-3/8"	1352	39-3/4"	1873	48-1/8"	2421	56-1/2"	2985
6-3/8"	139	14-3/4"	463	23-1/8"	880	31-1/2"	1359	39-7/8"	1881	48-1/4"	2430	56-5/8"	2993
6-1/2"	143	14-7/8"	469	23-1/4"	887	31-5/8"	1367	40"	1889	48-3/8"	2438	56-3/4"	3002
6-5/8"	147	15"	475	23-3/8"	894	31-3/4"	1374	40-1/8"	1897	48-1/2"	2446	56-7/8"	3010
6-3/4"	151	15-1/8"	480	23-1/2"	901	31-7/8"	1382	40-1/4"	1905	48-5/8"	2455	57"	3019
6-7/8"	155	15-1/4"	486	23-5/8"	908	32"	1389	40-3/8"	1913	48-3/4"	2463	57-1/8"	3027
7"	159	15-3/8"	492	23-3/4"	914	32-1/8"	1397	40-1/2"	1921	48-7/8"	2471	57-1/4"	3036
7-1/8"	163	15-1/2"	498	23-7/8"	921	32-1/4"	1405	40-5/8"	1929	49"	2480	57-3/8"	3044
7-1/4"	167	15-5/8"	503	24"	928	32-3/8"	1412	40-3/4"	1937	49-1/8"	2488	57-1/2"	3053
7-3/8"	171	15-3/4"	509	24-1/8"	935	32-1/2"	1420	40-7/8"	1945	49-1/4"	2496	57-5/8"	3061
7-1/2"	176	15-7/8"	515	24-1/4"	942	32-5/8"	1427	41"	1953	49-3/8"	2505	57-3/4"	3070
7-5/8"	180	16"	521	24-3/8"	949	32-3/4"	1435	41-1/8"	1961	49-1/2"	2513	57-7/8"	3078
7-3/4"	184	16-1/8"	527	24-1/2"	955	32-7/8"	1442	41-1/4"	1969	49-5/8"	2521	58"	3087
7-7/8"	188	16-1/4"	532	24-5/8"	962	33"	1450	41-3/8"	1977	49-3/4"	2530	58-1/8"	3095
8"	193	16-3/8"	538	24-3/4"	969	33-1/8"	1458	41-1/2"	1985	49-7/8"	2538	58-1/4"	3104
8-1/8"	197	16-1/2"	544	24-7/8"	976	33-1/4"	1465	41-5/8"	1993	50"	2547	58-3/8"	3112
8-1/4"	201	16-5/8"	550	25"	983	33-3/8"	1473	41-3/4"	2002	50-1/8"	2555	58-1/2"	3121
8-3/8"	206	16-3/4"	556	25-1/8"	990	33-1/2"	1481	41-7/8"	2010	50-1/4"	2563	58-5/8"	3129

XERXES CORPORATION 6,000 Gallon - 10' Diameter Double-Wall END Tank

DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS
58-3/4"	3137	67-1/2"	3729	76-1/4"	4308	85"	4860	93-3/4"	5369	102-1/2"	5815	111-1/4"	6164
58-7/8"	3146	67-5/8"	3737	76-3/8"	4316	85-1/8"	4868	93-7/8"	5376	102-5/8"	5821	111-3/8"	6168
59"	3154	67-3/4"	3746	76-1/2"	4324	85-1/4"	4875	94"	5383	102-3/4"	5827	111-1/2"	6172
59-1/8"	3163	67-7/8"	3754	76-5/8"	4332	85-3/8"	4883	94-1/8"	5390	102-7/8"	5832	111-5/8"	6176
59-1/4"	3171	68"	3762	76-3/4"	4340	85-1/2"	4890	94-1/4"	5397	103"	5838	111-3/4"	6180
59-3/8"	3180	68-1/8"	3771	76-7/8"	4348	85-5/8"	4898	94-3/8"	5404	103-1/8"	5844	111-7/8"	6184
59-1/2"	3188	68-1/4"	3779	77"	4356	85-3/4"	4906	94-1/2"	5410	103-1/4"	5849	112"	6188
59-5/8"	3197	68-3/8"	3788	77-1/8"	4364	85-7/8"	4913	94-5/8"	5417	103-3/8"	5855	112-1/8"	6192
59-3/4"	3205	68-1/2"	3796	77-1/4"	4373	86"	4921	94-3/4"	5424	103-1/2"	5861	112-1/4"	6195
59-7/8"	3214	68-5/8"	3804	77-3/8"	4381	86-1/8"	4928	94-7/8"	5431	103-5/8"	5866	112-3/8"	6199
60"	3222	68-3/4"	3813	77-1/2"	4389	86-1/4"	4936	95"	5438	103-3/4"	5872	112-1/2"	6203
60-1/8"	3231	68-7/8"	3821	77-5/8"	4397	86-3/8"	4943	95-1/8"	5444	103-7/8"	5877	112-5/8"	6206
60-1/4"	3239	69"	3829	77-3/4"	4405	86-1/2"	4951	95-1/4"	5451	104"	5883	112-3/4"	6210
60-3/8"	3248	69-1/8"	3838	77-7/8"	4413	86-5/8"	4958	95-3/8"	5458	104-1/8"	5888	112-7/8"	6214
60-1/2"	3256	69-1/4"	3846	78"	4421	86-3/4"	4966	95-1/2"	5464	104-1/4"	5894	113"	6217
60-5/8"	3265	69-3/8"	3854	78-1/8"	4429	86-7/8"	4973	95-5/8"	5471	104-3/8"	5899	113-1/8"	6221
60-3/4"	3273	69-1/2"	3863	78-1/4"	4437	87"	4981	95-3/4"	5478	104-1/2"	5905	113-1/4"	6224
60-7/8"	3282	69-5/8	3871	78-3/8"	4445	87-1/8"	4988	95-7/8"	5484	104-5/8"	5910	113-3/8"	6228
61"	3290	69-3/4"	3880	78-1/2"	4453	87-1/4"	4996	96"	5491	104-3/4"	5916	113-1/2"	6231
61-1/8"	3299	69-7/8"	3888	78-5/8"	4461	87-3/8"	5003	96-1/8"	5498	104-7/8"	5921	113-5/8"	6234
61-1/4"	3307	70"	3896	78-3/4"	4469	87-1/2"	5011	96-1/4"	5504	105"	5927	113-3/4"	6238
61-3/8"	3315	70-1/8"	3905	78-7/8"	4477	87-5/8"	5018	96-3/8"	5511	105-1/8"	5932	113-7/8"	6241
61-1/2"	3324	70-1/4"	3913	79"	4485	87-3/4"	5026	96-1/2"	5518	105-1/4"	5937	114"	6244
61-5/8"	3332	70-3/8"	3921	79-1/8"	4493	87-7/8"	5033	96-5/8"	5524	105-3/8"	5943	114-1/8"	6247
61-3/4"	3341	70-1/2"	3929	79-1/4"	4501	88"	5040	96-3/4"	5531	105-1/2"	5948	114-1/4"	6251
61-7/8"	3349	70-5/8"	3938	79-3/8"	4509	88-1/8"	5048	96-7/8"	5537	105-5/8"	5953	114-3/8"	6254
62"	3358	70-3/4"	3946	79-1/2"	4517	88-1/4"	5055	97"	5544	105-3/4"	5958	114-1/2"	6257
62-1/8"	3366	70-7/8"	3954	79-5/8"	4525	88-3/8"	5063	97-1/8"	5550	105-7/8"	5964	114-5/8"	6260
62-1/4"	3375	71"	3963	79-3/4"	4533	88-1/2"	5070	97-1/4"	5557	106"	5969	114-3/4"	6263
62-3/8"	3383	71-1/8"	3971	79-7/8"	4541	88-5/8"	5077	97-3/8"	5563	106-1/8"	5974	114-7/8"	6266
62-1/2"	3392	71-1/4"	3979	80"	4549	88-3/4"	5085	97-1/2"	5570	106-1/4"	5979	115"	6269
62-5/8"	3400	71-3/8"	3988	80-1/8"	4557	88-7/8"	5092	97-5/8"	5576	106-3/8"	5984	115-1/8"	6271
62-3/4"	3409	71-1/2"	3996	80-1/4"	4564	89"	5099	97-3/4"	5583	106-1/2"	5989	115-1/4"	6274
62-7/8"	3417	71-5/8"	4004	80-3/8"	4572	89-1/8"	5107	97-7/8"	5589	106-5/8"	5994	115-3/8"	6277
63"	3425	71-3/4"	4012	80-1/2"	4580	89-1/4"	5114	98"	5595	106-3/4"	6000	115-1/2"	6279
63-1/8"	3434	71-7/8"	4021	80-5/8"	4588	89-3/8"	5121	98-1/8"	5602	106-7/8"	6005	115-5/8"	6282
63-1/4"	3442	72"	4029	80-3/4"	4596	89-1/2"	5129	98-1/4"	5608	107"	6010	115-3/4"	6285
63-3/8"	3451	72-1/8"	4037	80-7/8"	4604	89-5/8"	5136	98-3/8"	5615	107-1/8"	6015	115-7/8"	6287
63-1/2"	3459	72-1/4"	4046	81"	4612	89-3/4"	5143	98-1/2"	5621	107-1/4"	6020	116"	6290
63-5/8"	3468	72-3/8"	4054	81-1/8"	4620	89-7/8"	5150	98-5/8"	5627	107-3/8"	6024	116-1/8"	6292
63-3/4"	3476	72-1/2"	4062	81-1/4"	4628	90"	5158	98-3/4"	5634	107-1/2"	6029	116-1/4"	6294
63-7/8"	3485	72-5/8"	4070	81-3/8"	4635	90-1/8"	5165	98-7/8"	5640	107-5/8"	6034	116-3/8"	6296
64"	3493	72-3/4"	4079	81-1/2"	4643	90-1/4"	5172	99"	5646	107-3/4"	6039	116-1/2"	6299
64-1/8"	3502	72-7/8"	4087	81-5/8"	4651	90-3/8"	5179	99-1/8"	5652	107-7/8"	6044	116-5/8"	6301
64-1/4"	3510	73"	4095	81-3/4"	4659	90-1/2"	5186	99-1/4"	5659	108"	6049	116-3/4"	6303
64-3/8"	3518	73-1/8"	4103	81-7/8"	4667	90-5/8"	5194	99-3/8"	5665	108-1/8"	6054	116-7/8"	6305
64-1/2"	3527	73-1/4"	4112	82"	4675	90-3/4"	5201	99-1/2"	5671	108-1/4"	6058	117"	6307
64-5/8"	3535	73-3/8"	4120	82-1/8"	4682	90-7/8"	5208	99-5/8"	5677	108-3/8"	6063	117-1/8"	6308
64-3/4"	3544	73-1/2"	4128	82-1/4"	4690	91"	5215	99-3/4"	5683	108-1/2"	6068	117-1/4"	6310
64-7/8"	3552	73-5/8"	4136	82-3/8"	4698	91-1/8"	5222	99-7/8"	5690	108-5/8"	6072	117-3/8"	6312
65"	3561	73-3/4"	4144	82-1/2"	4706	91-1/4"	5229	100"	5696	108-3/4"	6077	117-1/2"	6313
65-1/8"	3569	73-7/8"	4153	82-5/8"	4714	91-3/8"	5236	100-1/8"	5702	108-7/8"	6082	117-5/8"	6315
65-1/4"	3578	74"	4161	82-3/4"	4721	91-1/2"	5244	100-1/4"	5708	109"	6086	117-3/4"	6316
65-3/8"	3586	74-1/8"	4169	82-7/8"	4729	91-5/8"	5251	100-3/8"	5714	109-1/8"	6091	117-7/8"	6317
65-1/2"	3594	74-1/4"	4177	83"	4737	91-3/4"	5258	100-1/2"	5720	109-1/4"	6095	118"	6318
65-5/8"	3603	74-3/8"	4185	83-1/8"	4745	91-7/8"	5265	100-5/8"	5726	109-3/8"	6100	118-1/8"	6319
65-3/4"	3611	74-1/2"	4194	83-1/4"	4752	92"	5272	100-3/4"	5732	109-1/2"	6104	118-1/4"	6320
65-7/8"	3620	74-5/8"	4202	83-3/8"	4760	92-1/8"	5279	100-7/8"	5738	109-5/8"	6109	118-3/8"	6321
66"	3628	74-3/4"	4210	83-1/2"	4768	92-1/4"	5286	101"	5744	109-3/4"	6113		
66-1/8"	3636	74-7/8"	4218	83-5/8"	4776	92-3/8"	5293	101-1/8"	5750	109-7/8"	6118		
66-1/4"	3645	75"	4226	83-3/4"	4783	92-1/2"	5300	101-1/4"	5756	110"	6122		
66-3/8"	3653	75-1/8"	4235	83-7/8"	4791	92-5/8"	5307	101-3/8"	5762	110-1/8"	6126		
66-1/2"	3662	75-1/4"	4243	84"	4799	92-3/4"	5314	101-1/2"	5768	110-1/4"	6131		
66-5/8"	3670	75-3/8"	4251	84-1/8"	4806	92-7/8"	5321	101-5/8"	5774	110-3/8"	6135		
66-3/4"	3679	75-1/2"	4259	84-1/4"	4814	93"	5328	101-3/4"	5780	110-1/2"	6139		
66-7/8"	3687	75-5/8"	4267	84-3/8"	4822	93-1/8"	5335	101-7/8"	5786	110-5/8"	6144		
67"	3695	75-3/4"	4275	84-1/2"	4829	93-1/4"	5342	102"	5792	110-3/4"	6148		
67-1/8"	3704	75-7/8"	4283	84-5/8"	4837	93-3/8"	5349	102-1/8"	5798	110-7/8"	6152		
67-1/4"	3712	76"	4292	84-3/4"	4845	93-1/2"	5356	102-1/4"	5803	111"	6156		
67-3/8"	3721	76-1/8"	4300	84-7/8"	4852	93-5/8"	5363	102-3/8"	5809	111-1/8"	6160	10DW End6kusg.Jan16	

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Calibration Chart

9,000 Gallon - 10' Diameter Double-Wall Tank

DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS
0-1/8"	2	8-1/2"	223	16-7/8"	655	25-1/4"	1233	33-5/8"	1921	42"	2689	50-3/8"	3509
0-1/4"	2	8-5/8"	228	17"	663	25-3/8"	1243	33-3/4"	1932	42-1/8"	2701	50-1/2"	3522
0-3/8"	4	8-3/4"	234	17-1/8"	670	25-1/2"	1252	33-7/8"	1943	42-1/4"	2713	50-5/8"	3534
0-1/2"	5	8-7/8"	239	17-1/4"	678	25-5/8"	1262	34"	1954	42-3/8"	2725	50-3/4"	3547
0-5/8"	6	9"	244	17-3/8"	686	25-3/4"	1272	34-1/8"	1965	42-1/2"	2737	50-7/8"	3559
0-3/4"	7	9-1/8"	249	17-1/2"	694	25-7/8"	1281	34-1/4"	1976	42-5/8"	2748	51"	3572
0-7/8"	9	9-1/4"	255	17-5/8"	702	26"	1291	34-3/8"	1987	42-3/4"	2760	51-1/8"	3584
1"	10	9-3/8"	260	17-3/4"	709	26-1/8"	1301	34-1/2"	1998	42-7/8"	2772	51-1/4"	3597
1-1/8"	12	9-1/2"	266	17-7/8"	717	26-1/4"	1310	34-5/8"	2009	43"	2784	51-3/8"	3609
1-1/4"	14	9-5/8"	271	18"	725	26-3/8"	1320	34-3/4"	2020	43-1/8"	2796	51-1/2"	3622
1-3/8"	15	9-3/4"	277	18-1/8"	733	26-1/2"	1330	34-7/8"	2031	43-1/4"	2808	51-5/8"	3634
1-1/2"	17	9-7/8"	282	18-1/4"	741	26-5/8"	1340	35"	2042	43-3/8"	2821	51-3/4"	3647
1-5/8"	19	10"	288	18-3/8"	749	26-3/4"	1349	35-1/8"	2054	43-1/2"	2833	51-7/8"	3660
1-3/4"	21	10-1/8"	293	18-1/2"	757	26-7/8"	1359	35-1/4"	2065	43-5/8"	2845	52"	3672
1-7/8"	24	10-1/4"	299	18-5/8"	765	27"	1369	35-3/8"	2076	43-3/4"	2857	52-1/8"	3685
2"	26	10-3/8"	305	18-3/4"	773	27-1/8"	1379	35-1/2"	2087	43-7/8"	2869	52-1/4"	3697
2-1/8"	28	10-1/2"	311	18-7/8"	781	27-1/4"	1389	35-5/8"	2098	44"	2881	52-3/8"	3710
2-1/4"	30	10-5/8"	316	19"	790	27-3/8"	1399	35-3/4"	2109	44-1/8"	2893	52-1/2"	3723
2-3/8"	33	10-3/4"	322	19-1/8"	798	27-1/2"	1409	35-7/8"	2121	44-1/4"	2905	52-5/8"	3735
2-1/2"	35	10-7/8"	328	19-1/4"	806	27-5/8"	1419	36"	2132	44-3/8"	2917	52-3/4"	3748
2-5/8"	38	11"	334	19-3/8"	814	27-3/4"	1429	36-1/8"	2143	44-1/2"	2929	52-7/8"	3760
2-3/4"	41	11-1/8"	340	19-1/2"	822	27-7/8"	1439	36-1/4"	2154	44-5/8"	2941	53"	3773
2-7/8"	43	11-1/4"	346	19-5/8"	831	28"	1449	36-3/8"	2166	44-3/4"	2954	53-1/8"	3786
3"	46	11-3/8"	352	19-3/4"	839	28-1/8"	1459	36-1/2"	2177	44-7/8"	2966	53-1/4"	3798
3-1/8"	49	11-1/2"	358	19-7/8"	847	28-1/4"	1469	36-5/8"	2188	45"	2978	53-3/8"	3811
3-1/4"	52	11-5/8"	364	20"	856	28-3/8"	1479	36-3/4"	2200	45-1/8"	2990	53-1/2"	3823
3-3/8"	55	11-3/4"	371	20-1/8"	864	28-1/2"	1489	36-7/8"	2211	45-1/4"	3002	53-5/8"	3836
3-1/2"	58	11-7/8"	377	20-1/4"	873	28-5/8"	1499	37"	2222	45-3/8"	3014	53-3/4"	3849
3-5/8"	61	12"	383	20-3/8"	881	28-3/4"	1509	37-1/8"	2234	45-1/2"	3027	53-7/8"	3861
3-3/4"	64	12-1/8"	389	20-1/2"	890	28-7/8"	1519	37-1/4"	2245	45-5/8"	3039	54"	3874
3-7/8"	67	12-1/4"	396	20-5/8"	898	29"	1530	37-3/8"	2257	45-3/4"	3051	54-1/8"	3887
4"	71	12-3/8"	402	20-3/4"	907	29-1/8"	1540	37-1/2"	2268	45-7/8"	3063	54-1/4"	3899
4-1/8"	74	12-1/2"	408	20-7/8"	915	29-1/4"	1550	37-5/8"	2280	46"	3076	54-3/8"	3912
4-1/4"	77	12-5/8"	415	21"	924	29-3/8"	1560	37-3/4"	2291	46-1/8"	3088	54-1/2"	3925
4-3/8"	81	12-3/4"	421	21-1/8"	933	29-1/2"	1571	37-7/8"	2302	46-1/4"	3100	54-5/8"	3937
4-1/2"	84	12-7/8"	428	21-1/4"	941	29-5/8"	1581	38"	2314	46-3/8"	3112	54-3/4"	3950
4-5/8"	88	13"	434	21-3/8"	950	29-3/4"	1591	38-1/8"	2325	46-1/2"	3125	54-7/8"	3963
4-3/4"	91	13-1/8"	441	21-1/2"	959	29-7/8"	1602	38-1/4"	2337	46-5/8"	3137	55"	3975
4-7/8"	95	13-1/4"	448	21-5/8"	968	30"	1612	38-3/8"	2349	46-3/4"	3149	55-1/8"	3988
5"	99	13-3/8"	454	21-3/4"	976	30-1/8"	1622	38-1/2"	2360	46-7/8"	3162	55-1/4"	4001
5-1/8"	102	13-1/2"	461	21-7/8"	985	30-1/4"	1633	38-5/8"	2372	47"	3174	55-3/8"	4013
5-1/4"	106	13-5/8"	468	22"	994	30-3/8"	1643	38-3/4"	2383	47-1/8"	3186	55-1/2"	4026
5-3/8"	110	13-3/4"	474	22-1/8"	1003	30-1/2"	1654	38-7/8"	2395	47-1/4"	3198	55-5/8"	4039
5-1/2"	114	13-7/8"	481	22-1/4"	1012	30-5/8"	1664	39"	2406	47-3/8"	3211	55-3/4"	4051
5-5/8"	118	14"	488	22-3/8"	1021	30-3/4"	1675	39-1/8"	2418	47-1/2"	3223	55-7/8"	4064
5-3/4"	122	14-1/8"	495	22-1/2"	1030	30-7/8"	1685	39-1/4"	2430	47-5/8"	3235	56"	4077
5-7/8"	126	14-1/4"	502	22-5/8"	1039	31"	1696	39-3/8"	2441	47-3/4"	3248	56-1/8"	4090
6"	130	14-3/8"	509	22-3/4"	1048	31-1/8"	1706	39-1/2"	2453	47-7/8"	3260	56-1/4"	4102
6-1/8"	135	14-1/2"	516	22-7/8"	1057	31-1/4"	1717	39-5/8"	2465	48"	3273	56-3/8"	4115
6-1/4"	139	14-5/8"	523	23"	1066	31-3/8"	1727	39-3/4"	2476	48-1/8"	3285	56-1/2"	4128
6-3/8"	143	14-3/4"	530	23-1/8"	1075	31-1/2"	1738	39-7/8"	2488	48-1/4"	3297	56-5/8"	4140
6-1/2"	147	14-7/8"	537	23-1/4"	1084	31-5/8"	1749	40"	2500	48-3/8"	3310	56-3/4"	4153
6-5/8"	152	15"	544	23-3/8"	1093	31-3/4"	1759	40-1/8"	2511	48-1/2"	3322	56-7/8"	4166
6-3/4"	156	15-1/8"	551	23-1/2"	1102	31-7/8"	1770	40-1/4"	2523	48-5/8"	3335	57"	4178
6-7/8"	161	15-1/4"	559	23-5/8"	1112	32"	1781	40-3/8"	2535	48-3/4"	3347	57-1/8"	4191
7"	165	15-3/8"	566	23-3/4"	1121	32-1/8"	1791	40-1/2"	2547	48-7/8"	3359	57-1/4"	4204
7-1/8"	170	15-1/2"	573	23-7/8"	1130	32-1/4"	1802	40-5/8"	2558	49"	3372	57-3/8"	4217
7-1/4"	174	15-5/8"	580	24"	1139	32-3/8"	1813	40-3/4"	2570	49-1/8"	3384	57-1/2"	4229
7-3/8"	179	15-3/4"	588	24-1/8"	1149	32-1/2"	1824	40-7/8"	2582	49-1/4"	3397	57-5/8"	4242
7-1/2"	184	15-7/8"	595	24-1/4"	1158	32-5/8"	1834	41"	2594	49-3/8"	3409	57-3/4"	4255
7-5/8"	189	16"	602	24-3/8"	1167	32-3/4"	1845	41-1/8"	2606	49-1/2"	3422	57-7/8"	4267
7-3/4"	193	16-1/8"	610	24-1/2"	1177	32-7/8"	1856	41-1/4"	2617	49-5/8"	3434	58"	4280
7-7/8"	198	16-1/4"	617	24-5/8"	1186	33"	1867	41-3/8"	2629	49-3/4"	3447	58-1/8"	4293
8"	203	16-3/8"	625	24-3/4"	1195	33-1/8"	1878	41-1/2"	2641	49-7/8"	3459	58-1/4"	4306
8-1/8"	208	16-1/2"	632	24-7/8"	1205	33-1/4"	1888	41-5/8"	2653	50"	3472	58-3/8"	4318
8-1/4"	213	16-5/8"	640	25"	1214	33-3/8"	1899	41-3/4"	2665	50-1/8"	3484	58-1/2"	4331
8-3/8"	218	16-3/4"	647	25-1/8"	1224	33-1/2"	1910	41-7/8"	2677	50-1/4"	3497	58-5/8"	4344

XERXES CORPORATION 9,000 Gallon - 10' Diameter Double-Wall Tank

DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS	DIPSTICK READING	GALLONS
58-3/4"	4357	67-1/2"	5244	76-1/4"	6105	85"	6911	93-3/4"	7631	102-1/2"	8231	111-1/4"	8665
58-7/8"	4369	67-5/8"	5256	76-3/8"	6117	85-1/8"	6922	93-7/8"	7641	102-5/8"	8238	111-3/8"	8670
59"	4382	67-3/4"	5269	76-1/2"	6129	85-1/4"	6933	94"	7650	102-3/4"	8246	111-1/2"	8675
59-1/8"	4395	67-7/8"	5282	76-5/8"	6141	85-3/8"	6944	94-1/8"	7660	102-7/8"	8253	111-5/8"	8680
59-1/4"	4407	68"	5294	76-3/4"	6153	85-1/2"	6955	94-1/4"	7669	103"	8260	111-3/4"	8684
59-3/8"	4420	68-1/8"	5307	76-7/8"	6165	85-5/8"	6966	94-3/8"	7679	103-1/8"	8268	111-7/8"	8689
59-1/2"	4433	68-1/4"	5319	77"	6177	85-3/4"	6977	94-1/2"	7688	103-1/4"	8275	112"	8693
59-5/8"	4446	68-3/8"	5332	77-1/8"	6189	85-7/8"	6988	94-5/8"	7697	103-3/8"	8282	112-1/8"	8698
59-3/4"	4458	68-1/2"	5344	77-1/4"	6201	86"	6999	94-3/4"	7707	103-1/2"	8290	112-1/4"	8702
59-7/8"	4471	68-5/8"	5357	77-3/8"	6213	86-1/8"	7009	94-7/8"	7716	103-5/8"	8297	112-3/8"	8706
60"	4484	68-3/4"	5369	77-1/2"	6224	86-1/4"	7020	95"	7725	103-3/4"	8304	112-1/2"	8711
60-1/8"	4497	68-7/8"	5382	77-5/8"	6236	86-3/8"	7031	95-1/8"	7734	103-7/8"	8311	112-5/8"	8715
60-1/4"	4509	69"	5394	77-3/4"	6248	86-1/2"	7042	95-1/4"	7744	104"	8318	112-3/4"	8719
60-3/8"	4522	69-1/8"	5407	77-7/8"	6260	86-5/8"	7052	95-3/8"	7753	104-1/8"	8325	112-7/8"	8723
60-1/2"	4535	69-1/4"	5419	78"	6272	86-3/4"	7063	95-1/2"	7762	104-1/4"	8332	113"	8727
60-5/8"	4547	69-3/8"	5432	78-1/8"	6284	86-7/8"	7074	95-5/8"	7771	104-3/8"	8339	113-1/8"	8731
60-3/4"	4560	69-1/2"	5444	78-1/4"	6295	87"	7085	95-3/4"	7780	104-1/2"	8346	113-1/4"	8735
60-7/8"	4573	69-5/8	5457	78-3/8"	6307	87-1/8"	7095	95-7/8"	7789	104-5/8"	8353	113-3/8"	8739
61"	4586	69-3/4"	5469	78-1/2"	6319	87-1/4"	7106	96"	7798	104-3/4"	8360	113-1/2"	8743
61-1/8"	4598	69-7/8"	5481	78-5/8"	6331	87-3/8"	7117	96-1/8"	7807	104-7/8"	8367	113-5/8"	8747
61-1/4"	4611	70"	5494	78-3/4"	6342	87-1/2"	7127	96-1/4"	7816	105"	8374	113-3/4"	8750
61-3/8"	4624	70-1/8"	5506	78-7/8"	6354	87-5/8"	7138	96-3/8"	7825	105-1/8"	8381	113-7/8"	8754
61-1/2"	4637	70-1/4"	5519	79"	6366	87-3/4"	7148	96-1/2"	7834	105-1/4"	8388	114"	8758
61-5/8"	4649	70-3/8"	5531	79-1/8"	6378	87-7/8"	7159	96-5/8"	7843	105-3/8"	8394	114-1/8"	8761
61-3/4"	4662	70-1/2"	5544	79-1/4"	6389	88"	7169	96-3/4"	7852	105-1/2"	8401	114-1/4"	8765
61-7/8"	4675	70-5/8"	5556	79-3/8"	6401	88-1/8"	7180	96-7/8"	7861	105-5/8"	8408	114-3/8"	8768
62"	4687	70-3/4"	5568	79-1/2"	6413	88-1/4"	7190	97"	7870	105-3/4"	8414	114-1/2"	8772
62-1/8"	4700	70-7/8"	5581	79-5/8"	6424	88-3/8"	7201	97-1/8"	7879	105-7/8"	8421	114-5/8"	8775
62-1/4"	4713	71"	5593	79-3/4"	6436	88-1/2"	7211	97-1/4"	7888	106"	8427	114-3/4"	8778
62-3/8"	4725	71-1/8"	5606	79-7/8"	6448	88-5/8"	7222	97-3/8"	7896	106-1/8"	8434	114-7/8"	8782
62-1/2"	4738	71-1/4"	5618	80"	6459	88-3/4"	7232	97-1/2"	7905	106-1/4"	8440	115"	8785
62-5/8"	4751	71-3/8"	5630	80-1/8"	6471	88-7/8"	7243	97-5/8"	7914	106-3/8"	8447	115-1/8"	8788
62-3/4"	4764	71-1/2"	5643	80-1/4"	6482	89"	7253	97-3/4"	7923	106-1/2"	8453	115-1/4"	8791
62-7/8"	4776	71-5/8"	5655	80-3/8"	6494	89-1/8"	7263	97-7/8"	7931	106-5/8"	8459	115-3/8"	8794
63"	4789	71-3/4"	5667	80-1/2"	6505	89-1/4"	7274	98"	7940	106-3/4"	8466	115-1/2"	8797
63-1/8"	4802	71-7/8"	5680	80-5/8"	6517	89-3/8"	7284	98-1/8"	7948	106-7/8"	8472	115-5/8"	8800
63-1/4"	4814	72"	5692	80-3/4"	6529	89-1/2"	7294	98-1/4"	7957	107"	8478	115-3/4"	8802
63-3/8"	4827	72-1/8"	5704	80-7/8"	6540	89-5/8"	7305	98-3/8"	7966	107-1/8"	8484	115-7/8"	8805
63-1/2"	4840	72-1/4"	5717	81"	6552	89-3/4"	7315	98-1/2"	7974	107-1/4"	8491	116"	8808
63-5/8"	4852	72-3/8"	5729	81-1/8"	6563	89-7/8"	7325	98-5/8"	7983	107-3/8"	8497	116-1/8"	8810
63-3/4"	4865	72-1/2"	5741	81-1/4"	6575	90"	7335	98-3/4"	7991	107-1/2"	8503	116-1/4"	8813
63-7/8"	4878	72-5/8"	5753	81-3/8"	6586	90-1/8"	7346	98-7/8"	7999	107-5/8"	8509	116-3/8"	8815
64"	4890	72-3/4"	5766	81-1/2"	6597	90-1/4"	7356	99"	8008	107-3/4"	8515	116-1/2"	8818
64-1/8"	4903	72-7/8"	5778	81-5/8"	6609	90-3/8"	7366	99-1/8"	8016	107-7/8"	8521	116-5/8"	8820
64-1/4"	4916	73"	5790	81-3/4"	6620	90-1/2"	7376	99-1/4"	8025	108"	8527	116-3/4"	8822
64-3/8"	4928	73-1/8"	5802	81-7/8"	6632	90-5/8"	7386	99-3/8"	8033	108-1/8"	8533	116-7/8"	8824
64-1/2"	4941	73-1/4"	5815	82"	6643	90-3/4"	7396	99-1/2"	8041	108-1/4"	8538	117"	8826
64-5/8"	4954	73-3/8"	5827	82-1/8"	6654	90-7/8"	7406	99-5/8"	8049	108-3/8"	8544	117-1/8"	8828
64-3/4"	4966	73-1/2"	5839	82-1/4"	6666	91"	7416	99-3/4"	8058	108-1/2"	8550	117-1/4"	8830
64-7/8"	4979	73-5/8"	5851	82-3/8"	6677	91-1/8"	7426	99-7/8"	8066	108-5/8"	8556	117-3/8"	8832
65"	4992	73-3/4"	5863	82-1/2"	6688	91-1/4"	7436	100"	8074	108-3/4"	8561	117-1/2"	8833
65-1/8"	5004	73-7/8"	5876	82-5/8"	6700	91-3/8"	7446	100-1/8"	8082	108-7/8"	8567	117-5/8"	8835
65-1/4"	5017	74"	5888	82-3/4"	6711	91-1/2"	7456	100-1/4"	8090	109"	8573	117-3/4"	8836
65-3/8"	5030	74-1/8"	5900	82-7/8"	6722	91-5/8"	7466	100-3/8"	8098	109-1/8"	8578	117-7/8"	8838
65-1/2"	5042	74-1/4"	5912	83"	6733	91-3/4"	7476	100-1/2"	8106	109-1/4"	8584	118"	8839
65-5/8"	5055	74-3/8"	5924	83-1/8"	6745	91-7/8"	7486	100-5/8"	8114	109-3/8"	8589	118-1/8"	8840
65-3/4"	5068	74-1/2"	5936	83-1/4"	6756	92"	7496	100-3/4"	8122	109-1/2"	8594	118-1/4"	8841
65-7/8"	5080	74-5/8"	5949	83-3/8"	6767	92-1/8"	7506	100-7/8"	8130	109-5/8"	8600	118-3/8"	8841
66"	5093	74-3/4"	5961	83-1/2"	6778	92-1/4"	7515	101"	8138	109-3/4"	8605		
66-1/8"	5105	74-7/8"	5973	83-5/8"	6789	92-3/8"	7525	101-1/8"	8146	109-7/8"	8610		
66-1/4"	5118	75"	5985	83-3/4"	6801	92-1/2"	7535	101-1/4"	8154	110"	8616		
66-3/8"	5131	75-1/8"	5997	83-7/8"	6812	92-5/8"	7545	101-3/8"	8162	110-1/8"	8621		
66-1/2"	5143	75-1/4"	6009	84"	6823	92-3/4"	7554	101-1/2"	8169	110-1/4"	8626		
66-5/8"	5156	75-3/8"	6021	84-1/8"	6834	92-7/8"	7564	101-5/8"	8177	110-3/8"	8631		
66-3/4"	5168	75-1/2"	6033	84-1/4"	6845	93"	7574	101-3/4"	8185	110-1/2"	8636		
66-7/8"	5181	75-5/8"	6045	84-3/8"	6856	93-1/8"	7583	101-7/8"	8193	110-5/8"	8641		
67"	5194	75-3/4"	6057	84-1/2"	6867	93-1/4"	7593	102"	8200	110-3/4"	8646		
67-1/8"	5206	75-7/8"	6069	84-5/8"	6878	93-3/8"	7603	102-1/8"	8208	110-7/8"	8651		
67-1/4"	5219	76"	6081	84-3/4"	6889	93-1/2"	7612	102-1/4"	8216	111"	8656		
67-3/8"	5231	76-1/8"	6093	84-7/8"	6900	93-5/8"	7622	102-3/8"	8223	111-1/8"	8661	10DW9kusg.Jan16	

ZCL | XERXES®
making a lasting difference®

Fiberglass Underground Storage Tanks

ZCL | XERXES
RELIABLE, CORROSION-RESISTANT TANKS

OVER **200,000** FIBERGLASS STORAGE TANKS MANUFACTURED AND SHIPPED IN NORTH AMERICA

A history of **innovation** in the **fuel industry**

When ZCL Composites Inc. and Xerxes Corporation joined in 2007, it brought together North America's two leading fiberglass tank brands: ZCL (founded in 1987) and Xerxes (founded in 1979). Today, ZCL | Xerxes is one of the world's leading innovators in composite tank engineering. Nearly 40 years of manufacturing experience and more than 200,000 tanks manufactured and shipped stand as proof of the reliability and quality of our products.

This solid track record provides our customers with peace of mind, which is why petroleum equipment distributors, fuel marketers and commercial accounts rely on our double-wall tanks for safe underground storage of fuel products. We have provided customers with durable and sustainable products that protect the environment for decades. Our proven track record along with our financial strength assures customers that we will be around to support our industry-leading products and warranties. Currently, 29 of the 30 top c-store marketers[1] choose E15-, E85- and ULSD-compatible, corrosion-resistant fiberglass storage tanks from industry leaders like ZCL | Xerxes.

1 CSP's Convenience Top 101, http://www.cspdailynews.com/industry-news-analysis/top-convenience-stores/archive/2015

Our history of **storage solutions** includes:

- developing the first UL-listed double-wall fiberglass tank
- incorporating our factory-installed hydrostatic monitoring system (TRUCHEK®)
- incorporating our unique 3D glass fabric (Parabeam®) into our tank design

WHY CHOOSE A FIBERGLASS TANK?

Best Product Investment

Fiberglass tanks have rapidly grown in popularity since they were first introduced more than 50 years ago as the corrosion-resistant alternative to underground steel tanks that were rusting, leaking and creating serious environmental damage. Major oil companies and large fuel marketers were the first to realize the benefits of fiberglass over steel for underground tanks. Today, a large majority of North American fuel marketers choose fiberglass, and the preference for fiberglass reaches all segments of the market, including industrial, commercial and government accounts who specify, install and own underground storage tanks. The growing understanding of fiberglass' benefits goes well beyond external corrosion protection with the recognition that fiberglass is corrosion-resistant, both inside and out.

FIBERGLASS OUTPERFORMS STEEL

CORROSION RESISTANCE

It's now common knowledge that fiberglass tanks are protected from external rusting due to corrosive soil environments. Today, the widespread use of ethanol-blended gasoline (E10, E15, E85), biodiesel fuels and ultra-low sulfur diesel (ULSD) has shifted the concern about corrosion to include internal protection. Most significantly, new ethanol-blended fuels raise questions about the compatibility of storage tank materials with stored fuel. When today's buyers compare fiberglass and steel tanks they see the clear advantage of our fiberglass tanks, which are not vulnerable to aggressive internal corrosion caused by storage of today's biofuels. The fact that fiberglass tanks are corrosion-resistant both inside and out give them a distinct advantage over steel tanks.

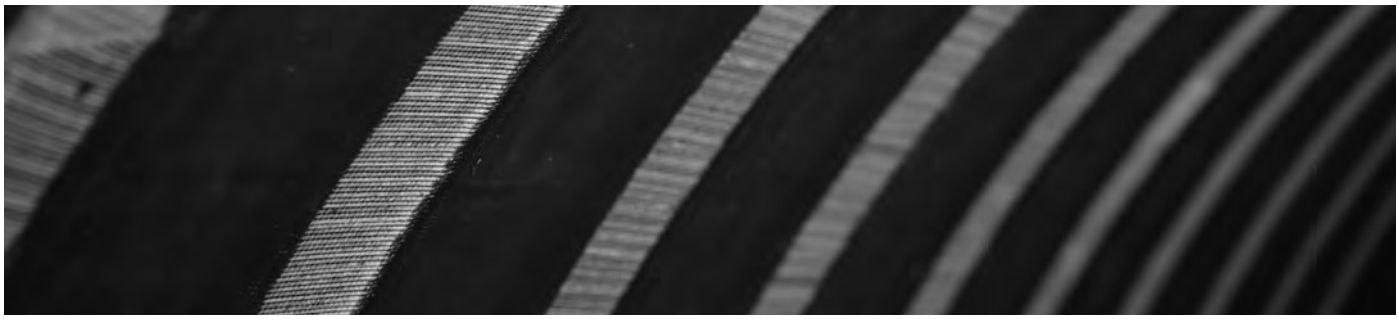
FUEL COMPATIBILITY

Customers today want to be confident that they are choosing a tank material that is compatible with the new fuels as well as traditional fuels. Our UL-listed (1316) and ULC-listed (S615) double-wall fiberglass tanks are UL-compatible with 0-100 percent ethanol storage. They are also warranted for the full range of ethanol-blended gasoline. The correlating UL listing (58) for steel fuel tanks does not require testing for ethanol compatibility. This third-party compatibility verification for fiberglass tanks – that steel tanks do not have – makes fiberglass the clear and superior choice for fuel tanks.

OUR FIBERGLASS TANKS PROVIDE **UNMATCHED BENEFITS**

The ZCL | Xerxes Advantage

ZCL | Xerxes double-wall underground storage tanks offer customers several significant design and performance differences that make them a superior choice to both steel tanks and other fiberglass tanks.



RIB DESIGN FOR STRUCTURAL INTEGRITY

As engineers, system designers and customers compare products, the rib geometry of our tanks is an important consideration in their analysis. Our uniform, high-profile ribs are fabricated directly into the tank cylinder. In some other tanks, ribs are incorporated as a separate step in the manufacturing process. Integrally constructed ribs increase the overall strength of the tank and create a structurally superior product.

30-YEAR WARRANTY

ZCL | Xerxes offers a 30-year limited warranty with no restrictions regarding water-bottom monitoring and removal. In contrast, many steel tank manufacturers now have a 10-year rather than 30-year warranty, and make ongoing maintenance and water-bottom removal a condition of warranty coverage.

PARABEAM®

Our proprietary 3D glass fabric, Parabeam®, also enhances the overall structural integrity of our tank by creating a bond between the tank walls, while providing a free-flowing interstitial space for monitoring capabilities. This technology also eliminates the potential for false alarms (created by fluctuating reservoir levels) that can occur in other hydrostatically monitored tanks.

MAINTENANCE-FREE

The presence of water in the bottom of fuel tanks is a common condition. Maintenance to remove it can be frequent and expensive. The requirement to do so, which is found in most steel-tank warranties, can leave a steel-tank owner vulnerable to a denied warranty claim should the tank corrode internally.

TRUCHEK® CONTINUOUS LEAK DETECTION

Our patented TRUCHEK® hydrostatic tank monitoring system for double-wall tanks is an easy, reliable method for true continuous leak detection and tank-tightness testing. Hydrostatic monitoring – now the industry standard for continuous monitoring – gives tank owners greater peace of mind than with a simple liquid sensor, which can fail to detect an outer-wall breach. (See p. 10 for more information.)

ZCL | XERXES
STORAGE TANK SOLUTIONS

Today, double-wall tanks are the industry standard in fuel applications. To meet the needs of our customers we also offer several other fiberglass tank options for a variety of applications and requirements. Our tank options include: double-wall tanks, multicompartment tanks, triple-wall tanks, diesel exhaust fluid tanks and oil-water separators. We also have a tank upgrade system when tank replacement is not viable.

DOUBLE-WALL TANKS

Tank owners and system designers of underground fuel systems need tanks that provide secure storage of fuel over time. ZCL | Xerxes fiberglass double-wall tanks are an excellent solution because they are corrosion-resistant, both inside and out. Our tanks have a proven record of compatibility with traditional petroleum fuel as well as with new biofuels, which are increasing in use. Our double-wall fiberglass tanks are not vulnerable to the corrosion problems inherent in storing ethanol-blended fuels (E10, E15, E85), biodiesel fuels and ultra-low sulfur diesel (ULSD). Nor are they vulnerable to rust caused by corrosive soil environments. Options such as protective coatings and cathodic protection don't guard entirely against external corrosion and rust. This makes ZCL | Xerxes fiberglass double-wall tanks a superior choice for a wider range of fuel applications.

FEATURES

- UL-listed (1316) & ULC-listed (S615) for alcohol fuels
- Secondary containment around full tank circumference
- Dry & hydrostatic monitoring options
- Capacities up to 50,000 gal. (USA)
- Capacities up to 155,000 L (Canada)

MULTICOMPARTMENT TANKS

These tanks are a popular choice among retail gasoline marketers and fleet fueling owners. The ability to store two or three grades or types of fuel in a single tank is particularly appealing when the amount of onsite space makes multiple tanks impossible or difficult. Customers may also find installation and insurance cost savings with a multicompartment tank.

The ZCL | Xerxes double-wall multicompartment tank comes standard with a double-wall bulkhead, while some other tank manufacturers require an upgrade to a double-wall bulkhead. Tanks are available in a wide range of capacities and in diameters of 6 to 10 feet.

FEATURES

- UL-Listed (1316) & ULC-listed (S615) for alcohol fuels
- Secondary containment around full tank circumference
- Dry & hydrostatic monitoring options
- Two- & three-compartment models
- Capacities up to 40,000 gal. (USA)
- Capacities up to 155,000 L (Canada)

TRIPLE-WALL TANKS

Some customers and regulatory agencies now require protection beyond secondary containment. Site conditions that could lead to a requirement for tertiary containment are the following: the presence of sensitive groundwater aquifers, lakes or streams. Our UL-listed triple-wall tank, with an additional Parabeam® interstice, is the innovative and cost-effective answer for this level of containment.

FEATURES

- UL-listed (1316) for alcohol fuels
- Tertiary containment around full tank circumference
- Dry & hydrostatic monitoring options
- Capacities up to 50,000 gal. (USA)
- Capacities up to 155,000 L (Canada)

DIESEL EXHAUST FLUID TANKS

ZCL | Xerxes has become a leading provider of diesel exhaust fluid (DEF) tanks in truck stops and vehicle fleet fuel facilities in the relatively short time DEF has been in demand in North America. Many fueling facilities now need to add bulk storage of DEF to meet the growing number of vehicles with diesel engines that require diesel exhaust fluid. A fiberglass underground storage tank has a number of benefits over the alternatives.

Since DEF cannot be exposed to carbon steel, a tank constructed of fiberglass is the clear choice. Using our fiberglass underground tank avoids the need for protective coatings or linings to protect the integrity of the product.

Underground storage of DEF has clear advantages over aboveground storage, in part because of the product's specific temperature requirements. An underground DEF tank also allows for storage of larger capacities than an aboveground tank and avoids an unsightly, space-consuming aboveground installation.

FEATURES

- Single-wall & double-wall models
- UL label available for future product storage flexibility
- Extensive third-party compatibility testing
- Capacities up to 50,000 gal. (USA)
- Capacities up to 155,000 L (Canada)

OIL-WATER SEPARATORS

With a fiberglass underground tank at the heart of the design, a ZCL | Xerxes oil-water separator incorporates unique refinements within the vessel to create a separator that removes free-floating oils and settleable solids from oil-water mixtures.

A properly sized coalescer is designed to produce effluent quality acceptable to most regulatory requirements for water runoff. Our oil-water separator is an excellent choice for managing water runoff from parking lots or equipment washdown stations.

This product is also available as a UL-listed (2215) and ULC-listed (S656) model.

FEATURES

- UL-listed (2215) & ULC-listed (S656) models available
- Single-wall & double-wall models
- Flexible design options
- Coalescer & gravity-flow models available
- Capacities up to 30,000 gal. (USA)
- Capacities up to 113,000 L (Canada)

ZCL | XERXES
STORAGE TANK SOLUTIONS

TANK UPGRADE SYSTEM

In a growing number of situations, secondary containment needs to be added to single-wall tanks, and site challenges make removal of existing tanks either cost-prohibitive or difficult. In instances where tanks are covered or surrounded by buildings, roads or rail lines, adding secondary containment to a single-wall fiberglass or steel tank can be accomplished with our Phoenix System®.

This upgrade system consists of two corrosion-resistant laminates with the proprietary Parabeam® glass fabric between the laminates creating an interstitial space. The interstice can be either dry or hydrostatically monitored. The Phoenix System®, applied onsite by trained installers, is compatible with biofuels, including ethanol-blended fuels and biodiesels.

FEATURES

- ULC/ORD-listed (C58)
- Corrosion-resistant fiberglass system
- Viable alternative in difficult tank replacement situations
- Suitable for both fiberglass & steel tanks

ZCL | XERXES
FUEL TANK ACCESSORIES

Your Complete Solution

Today's retail and commercial fueling facilities are sophisticated systems that are installed in a highly regulated environment. While the storage tank is the critical component in an underground fuel system, other important accessories are necessary to provide spill containment, tank anchoring, secondary pipe-drain collection, leak detection and other important functions. ZCL | Xerxes engineers have designed innovative, complementary products that provide system designers and installers with cost-effective, easy-to-install accessories. Very few tank manufacturers provide the wide range of accessories that we can supply. This is yet another example of how our innovative spirit benefits customers.

Installation & Technical Support

ZCL | Xerxes provides a comprehensive Installation Manual and Operating Guidelines (IMOG) document that outlines the proper – yet easy – steps necessary for a successful installation.

LEARN MORE ONLINE

Search our online database (zcl.com) for hundreds of resources for our fuel tanks and accessories, including:

- a pdf version of the Installation Manual
- a video of our Installation Manual
- technical drawings (available in CAD, DWG & BIM)
- guide specifications
- typical installation drawings

CONTAINMENT SUMPS AND COLLARS

Sumps and collars are common accessories found on virtually all double-wall tanks installed today. ZCL | Xerxes offers factory-installed containment collars that provide secondary containment around tank fittings and manways.

Designed to be a custom-match to the collar, our containment sump comes in a variety of models and sizes, all engineered to accommodate different customer preferences and needs. Our sumps and collars are also available in double-wall models, which are growing in popularity given changes to tank regulations.

FEATURES

- Flat-sided & round models for various piping layouts
- Watertight or friction-fit cover & open top options
- Diameters of 42 & 48 inches
- Heights of 36-72 inches
- Field-adjustable heights
- Custom options

ANCHORING SYSTEM

Site-specific installation conditions generally dictate whether a tank-anchoring system is necessary. Some customers choose to anchor all their tanks.

ZCL | Xerxes offers a complete tank-anchoring system, including reinforced precast concrete deadmen (designed to American Concrete Institute standards), fiberglass anchoring straps and galvanized turnbuckles.

Each component is engineered to specific tank sizes and for ease of installation. In most cases, concrete deadmen can be delivered on the same trailer as the tank, which minimizes the shipping cost and assures that deadmen are ready when the tank is set.

FEATURES

- Deadmen sizes for tank diameters 6-12 feet
- Corrosion-resistant anchor straps
- Optional man-out-of-hole straps available
- Galvanized turnbuckles

TRUCHEK® CONTINUOUS MONITORING

TRUCHEK® is the ideal solution to the growing regulatory interest in leak-detection methods that provide true continuous leak detection. Unlike dry interstitial monitoring methods, TRUCHEK® is able to monitor both walls of a tank 24/7 in all installation conditions.

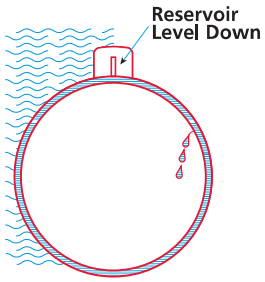
When you order our double-wall tank with the TRUCHEK® option, the interstice is filled at the factory with a calcium-chloride fluid that also partially fills a reservoir, creating an interstitial hydrostatic pressure. An electronic probe placed in the tank's reservoir alarms when the fluid level falls below or rises above the acceptable level.

FEATURES

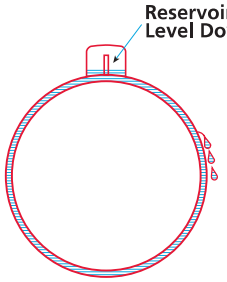
- 24/7 continuous tank monitoring regardless of installation conditions
- UL-verified as meeting the EPA criteria for tank-tightness testing
- Designed for dry-hole & wet-hole installations

How TRUCHEK® Works

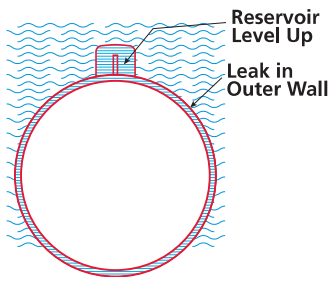
Primary-Tank Leak in Wet Hole or Dry Hole



Secondary-Tank Leak in Dry Hole



Secondary-Tank Leak in Wet Hole



TANK-TIGHTNESS TESTING

Besides providing true continuous monitoring of both tank walls – regardless of site conditions – TRUCHEK® also provides a simple and precise method to perform tank-tightness tests. A 10-hour tightness-test procedure meets the strict NFPA329 criteria. A 4-hour test (while product is dispensing) exceeds EPA's criteria for a tank-tightness test.

ZCL | Xerxes

Underground Double-Wall Tank Data

	Nominal Capacity (gallons)	Tank Length (feet/inches)	Nominal Shipping Weights (lbs) (dry interstitial)	Nominal Shipping Weights (lbs) (wet interstitial)	Number of Anchor Straps Required	Nominal Capacity (liters)	Tank Length (mm)	Nominal Shipping Weights(Kg) (dry interstitial)	Nominal Shipping Weights (Kg) (wet interstitial)	Number of Anchor Straps Required
4′	600	7′-3 1/2″	900	1,100	2	2,500	2,303	400	500	2
	1,000	11′-7 1/2″	1,100	1,300	2	3,900	3,395	500	600	2
	2,000	22′ -3 5/8″	2,800	3,400	2	5,000	4,380	600	700	2
6′	2,500	13′-5 3/4″	2,200	2,800	2	10,000	4,520	900	1,100	2
	3,000	16′-4 1/4″	2,600	3,300	2	15,000	6,604	1,300	1,600	4
	4,000	20′-8″	3,600	4,400	2	20,000	8,465	1,700	2,000	4
	5,000	26′-5″	4,300	5,200	4	25,000	10,420	2,200	2,500	4
	6,000	30′-8 3/4″	5,000	6,100	4					
8′	4,000	15′- 1/2″	2,700	3,600	2	15,000	3,994	900	1,100	2
	5,000	17′-8 1/2″	3,200	4,200	2	20,000	5,137	1,200	1,500	2
	6,000	20′-6 1/2″	3,700	4,900	2	25,000	6,090	1,400	1,700	2
	8,000	26′- 1/2″	4,800	6,200	4	30,000	7,264	1,700	2,100	4
	10,000	31′-6 1/2″	5,900	7,500	4	35,000	8,185	2,000	2,300	4
	12,000	37′- 1/2″	7,000	8,800	4	40,000	9,392	2,300	2,700	4
	15,000	46′- 9″	9,100	11,200	6	45,000	10,363	2,500	3,000	4
						50,000	11,328	2,700	3,200	4
						60,000	13,500	3,400	3,900	6
						65,000	14,522	3,700	4,300	6
10′	10,000	21′-5 1/4″	4,900	6,400	4	50,000	7,449	2,900	3,300	4
	12,000	24′- 1/4″	5,600	7,200	4	55,000	8,280	3,200	3,600	4
	15,000	29′-5 3/4″	7,000	8,900	4	60,000	8,827	3,300	3,800	5
	20,000	37′-8 3/4″	9,000	11,300	6	65,000	9,576	3,600	4,200	5
	25,000	47′-6 3/4″	11,800	14,600	8	70,000	10,395	3,900	4,500	6
	30,000	55′-9 3/4″	14,000	17,200	10	75,000	10,903	4,100	4,700	6
	35,000	64′- 3/4″	16,500	20,100	12	80,000	11,582	4,400	4,900	6
	40,000	73′-8 1/4″	19,000	23,100	14	85,000	12,268	4,700	5,300	7
						90,000	13,068	5,000	5,600	7
						100,000	14,345	5,400	6,100	8
						110,000	15,723	5,900	6,700	9
12′	20,000	29′ -4″	14,000	16,700	6					
	25,000	35′ -7″	16,600	19,700	8					
	30,000	43′ -1″	19,900	23,500	10					
	35,000	49′ -4″	22,500	26,500	12					
	40,000	54′ -4″	24,600	28,900	12					
	45,000	60′ -7″	27,400	32,100	16					
	48,000	65′ -7″	29,500	34,500	18					
	50,000	68′ -1″	30,500	35,700	18					

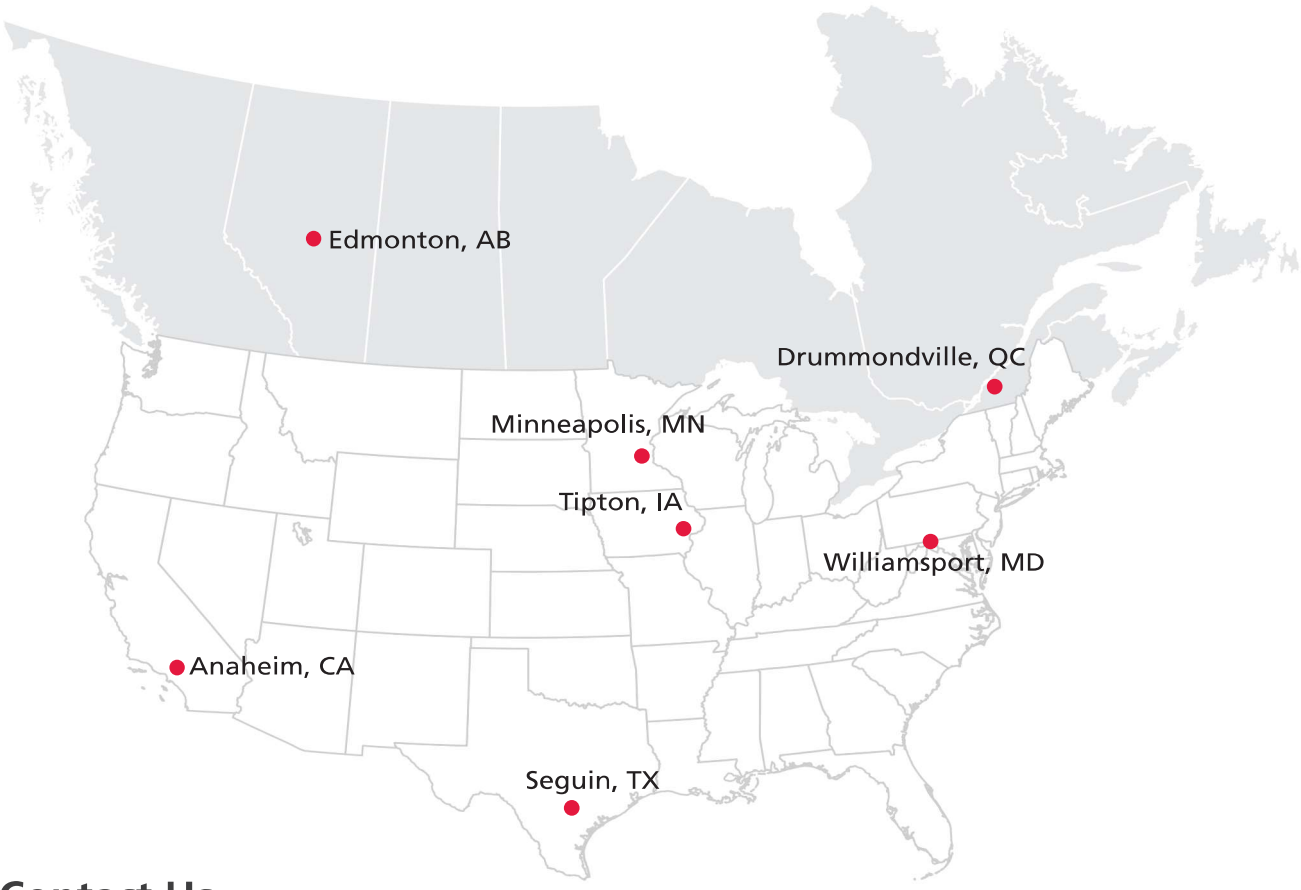
Notes:

1. Tank data for multicompartment tank models is available at www.zcl.com.
2. Actual height of the tank may be greater than the actual diameter due to fittings and accessories. Load height during shipping may vary due to tank placement on the shipping trailer.
3. If an overfill-protection device is installed in the tank, the actual capacity will be reduced.

Multiple Facilities

Customers Can Rely on Timely Manufacturing and Delivery of Tanks and Accessories.

With six manufacturing facilities – four in the United States and two in Canada – no matter where customers need fiberglass tanks and accessories shipped, a ZCL | Xerxes manufacturing facility is not far away. No other tank producer offers this kind of manufacturing capability in North America. All our facilities are either UL-listed or ULC-listed.



Contact Us

We're ready to design a double-wall tank, multi-compartment tank, triple-wall tank, diesel exhaust fluid tank or oil-water separator for your next project.

On the Web:
www.zcl.com

Technical Support:
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Manufacturing Facilities:

Canada
Edmonton, AB
Drummondville, QC

USA
Anaheim, CA
Seguin, TX
Tipton, IA
Williamsport, MD

UST12/17PP

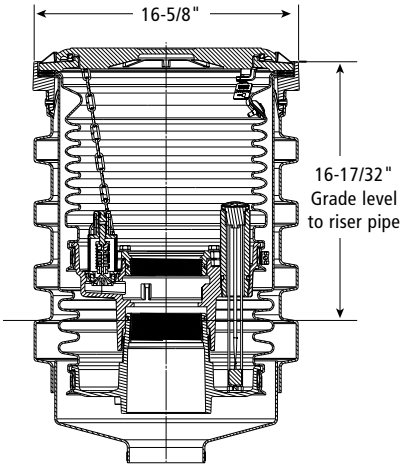
ZCL | XERXES®
making a lasting difference®

OPW EDGE™ Double-Wall Spill Containers

Designed in collaboration with contractors and end-users, the OPW EDGE™ Double-Wall Spill Container installs in the same space as single-wall buckets. The EDGE™ delivers best-in-class features that significantly improve reliability, installation, testing and ease of serviceability. The EDGE™ exceeds the performance levels of all other double-wall spill containers.

- Fully Testable
- Unbeatable installation ease
- Uses existing riser pipe
- Unparalleled serviceability
- Superior quality
- Significantly reduces installation time and labor costs

Sealable Cover Option Available



Weight: 120 lbs. (54.5 kg.)

Materials

Cover: Cast iron

Mounting Ring: Duragard® coated ductile iron

Bellows: Polyethylene

Base: Cast iron E-coating

Clamps: Stainless steel

Seals: Buna-N

Features

- **Top Mounted Vacuum Test Port**
  - For quick and easy access
- **Superior Visual Gauge**
  - No messy dipsticks to contend with
  - Significantly simplifies and reduces testing time
- **Ease of Access to the Electronic Sensor for Testing**
  - Easy access for testing
  - Located to eliminate damage potential during product drops
- **Roto-Molded Primary & Secondary Buckets**
  - Thicker walls for greater durability and reliability
- **Ribbed Polyethylene Skirt Design**
  - Roto-molded for long-life durability
  - Provides rigidity for added durability
  - Provides handles on all sides for ease of installation
- **Patent-Pending Socket Design**
  - Enables the EDGE™ to install into the space of a single-wall spill container
  - Helps to align bucket on riser
- **Patent-Pending Ledge Design**
  - Provides machined sealing face for drop tube
  - Improves overall drop tube sealing integrity
  - Eliminates face seal adaptors or de-burring of the riser pipe to obtain a flat surface for the drop tube
- **Patent-Pending Removable Adaptor**
  - Allows for quick and easy access to drop tube
  - Eliminates the need for cumbersome chain wrenches
- **Bellow Seals**
  - Improves overall sealing integrity
  - Eliminates mess and curing time found in sealants
  - Reduces service time and costs
- **SC Test**
  - Vacuum Testing Lid for Edge, 2200, 21000 and Multiports

Listings and Certifications

APPROVED UNDER FLORIDA EQ#708

MEETS ALL NORTH CAROLINA COMPLIANCE REQUIREMENTS

Missouri DENR Approved

CARB
California Air Resources Board

9393 Princeton-Glendale Road ◆ Hamilton, Ohio USA 45011 ◆ Phone: (800) 422-2525 ◆ Fax: (800) 421-3297

Franklin Fueling Systems

4" SUBMERSIBLE TURBINE PUMPS

Since hitting the market in 1988, FE PETRO® brand submersible pumps have developed a reputation as the standard in performance, quality and dependability with innovative features only available from Franklin Fueling Systems. It is, and always will be about filling cars faster. With best-in-class flow rates and backed by a long history of dependability, FE PETRO® pumps are responsible for delivering fuel to thousands of customers around the globe, day in and day out.

TECHNICAL ADVANTAGES

Variable Speed

With faster fill times during peak hours and power savings during non-peak hours, variable speed submersible pumping systems allow you to maximize profits with consistent flow rates while mitigating operating expenses.

MagShell®

The patented stainless steel MagShell® ,available on 2 Hp and 4 Hp pumps, is designed to maximize flow rate capabilities, potential throughput, and profits. By expanding the pump motor shell, the MagShell® increases the area for product flow by 45%.

Biofuel Compatibility

FE PETRO® Alcohol-Gas (AG) and Advanced Protection (AP) pumps are UL listed with both UL79A (up to 85% Ethanol) and UL79B (up to 20% or 100% Biodiesel).

Variable Length

The patented telescoping pump shaft lets installers adjust the length of the pump onsite for the perfect fit.

Advanced Protection

Stop corrosion in its tracks. Special powder-coated, e-coated, and stainless steel components defend your pump in the tank and in the sump from accelerated corrosion.

Turbine Pump Interface

Remote enhanced pump monitoring and control including pump-in-water automation, clogged intake escalation, tank leveling, and tank priority.

Intake Filter Screen

Avoid system damage, pumping slowdowns, and reduce filter changes by keeping harmful tank debris, sediment, and corrosion from entering the pumping system with this factory-installed option.

FEATURE SELECTION

	4 HP	2 HP	1½ HP	¾ HP
Variable Speed	✓	✓		
Fixed Speed		✓	✓	✓
MagShell®	✓	✓		
Biofuel Compatibility*	✓	✓	✓	✓
Variable Length	✓	✓	✓	✓
Advanced Protection	✓	✓	✓	✓
Turbine Pump Interface**	✓	✓	✓	✓
Intake Filter Screen	✓	✓	✓	✓

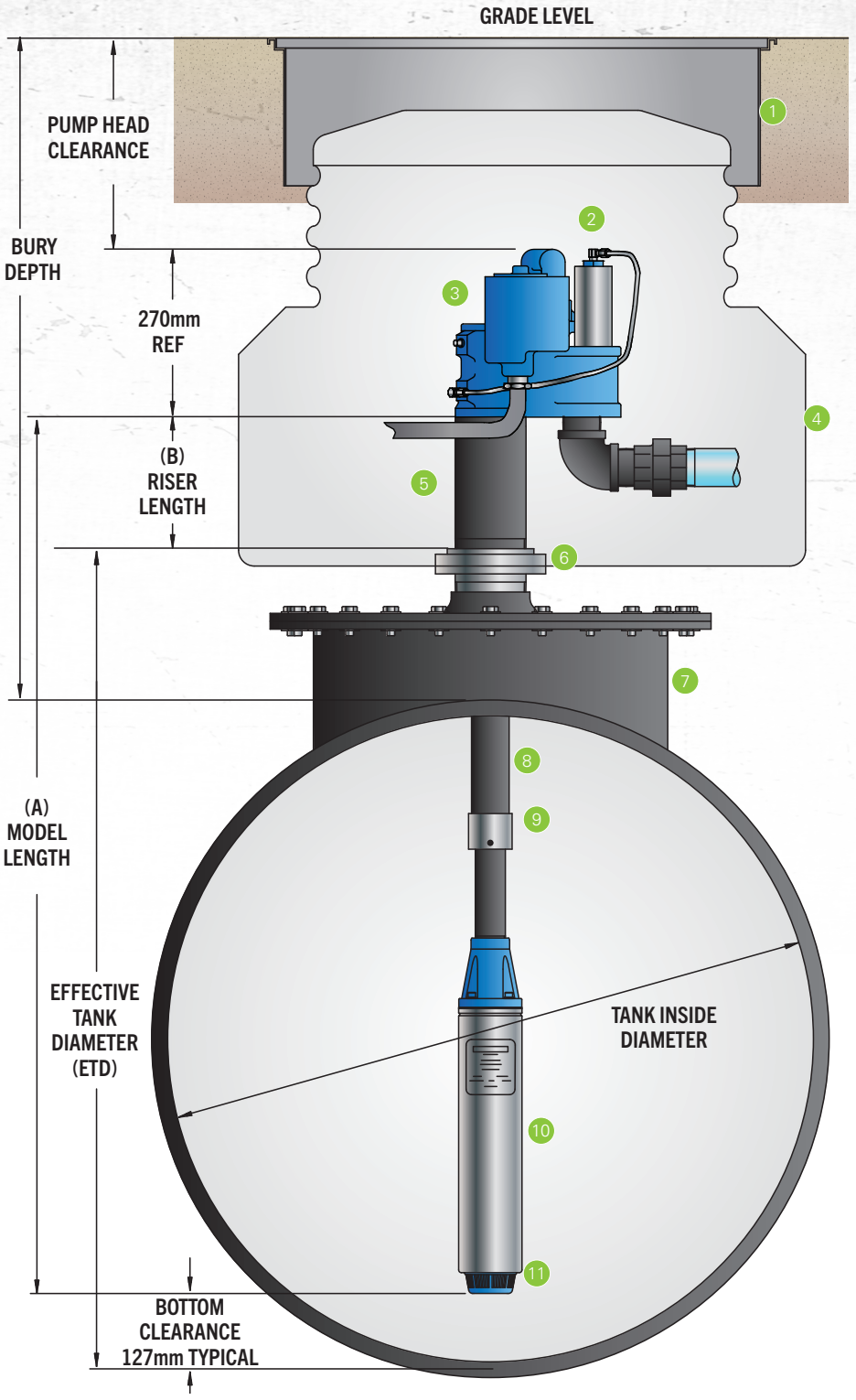
*Up to 85% Ethanol and up to 20% or 100% Biodiesel.

*Fixed speed models require a Guardian Series™ Single Phase Smart Controller (SPGC-220) to network with EVO™ Series Automatic Tank Gauges.

SPECIFICATIONS

4" Submersible Pump Components & Key Dimensions

1. Manhole
2. Leak Detector
3. Manifold
4. Containment Sump
5. 4" Riser
6. Tank Adapter
7. Tank Manway
8. Column Pipe
9. Variable Length Coupler
10. Pump Motor Assembly (PMA)
11. End bell



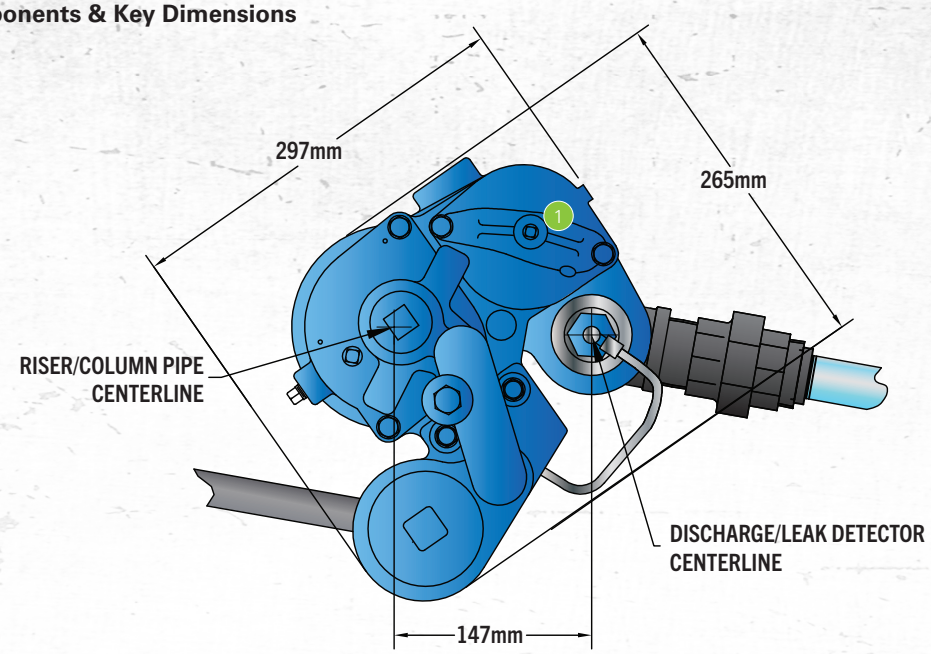
Notes:

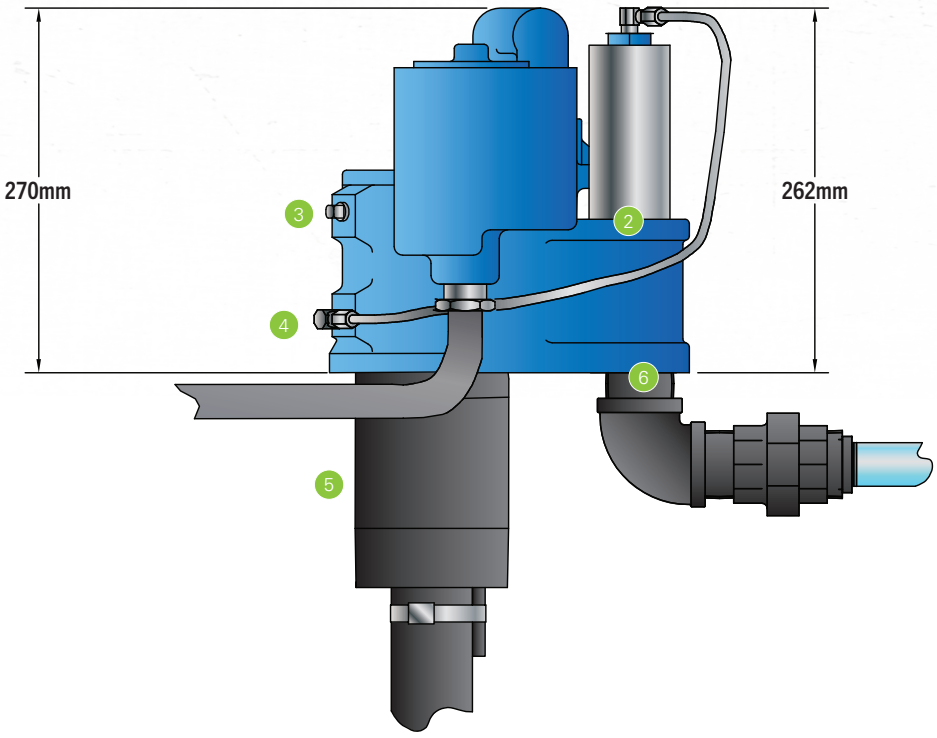
1. Effective tank diameter (ETD) = Inside tank diameter (to top of 4" bung), including tank manway and/or sump adapter.
2. Model length (A) = ETD plus riser length minus bottom clearance minus 25mm thread engagement.
3. Riser length (B) = Bury depth (to top of tank) minus pump head clearance minus tank manway and/or minus sump adapter.

SPECIFICATIONS

4" Submersible Pump Manifold Components & Key Dimensions

1. Line Test Port, ¼" NPT
2. Leak Detector Port, 2" NPT
3. Syphon Port, ¼" NPT
4. Tank Port, ¼" NPT
5. Riser Pipe, 4" NPT
6. Discharge Outlet, 2" NPT





Franklin Fueling Systems

1½ HP SUBMERSIBLE TURBINE PUMPS

FE PETRO® 1½ Hp fixed speed submersible pumps deliver consistent flow rates for medium throughput fuels.

TECHNICAL ADVANTAGES

OPTIONAL FEATURES

Biofuel Compatibility

FE PETRO® pumps are UL listed with both UL79A (up to 85% Ethanol) and UL79B (up to 20% or 100% Biodiesel).

Variable Length

The patented telescoping pump shaft lets installers adjust the length of the pump onsite for the perfect fit.

Advanced Protection

Stop corrosion in its tracks. Special powder-coated, e-coated, and stainless steel components defend your pump in the tank and in the sump from accelerated corrosion.

Turbine Pump Interface

Remote enhanced pump monitoring and control including pump-in-water automation, clogged intake escalation, tank leveling, and tank priority.

Intake Filter Screen

Avoid system damage, pumping slowdowns, and reduce filter changes by keeping harmful tank debris, sediment, and corrosion from entering the pumping system with this factory-installed option.

STANDARD FEATURES

Active Air Eliminator

FE PETRO® STPs come standard with active air elimination, which eliminates air through the highest point in the pump head at all times when the pump is running, assuring air does not pass into discharge piping.

Safety and Ease of Maintenance

FE PETRO® STPs include a contractor electrical disconnect, which requires loosening only one bolt, allowing motor wiring to be disconnected without venting the dangerous tank vapors into the sump when servicing FE PETRO® submersible products.

Simple Servicing

If ever required, the pump can be easily removed from the tank by unthreading three bolts. There is no need to disconnect the syphon system or to remove the leak detector from the system to service the STP.

Manual Pressure Relief

As a standard FE PETRO® feature, a vent screw is provided to bleed line pressure to zero when necessary. By turning this screw, product is diverted back to the tank, dropping line pressure to zero. This reduces fuel discharged into the sump manhole or dispenser pan during servicing, further protecting service technicians and the environment.

Outlast, Outperform with Franklin Electric Inside

FE PETRO® STPs are powered by the legendary Franklin Electric motor and built for long term performance. Franklin Electric-powered submersible pumps provide maximum uptime and a proven track record in the fueling industry that spans more than four decades. They feature best-in-class flow rates and a long history of dependability.

Quality Certification

Franklin Fueling Systems is an ISO 9001 Certified Manufacturer.

SPECIFICATIONS

General

- 1½ Hp fixed speed models are available in variable length and fixed length options.
- Check valve: 70mm diameter fluorocarbon seal constructed with cast aluminum body and steel backing washer.
- Pressure relief valve: available in four pressure relief settings, integral to check valve. Standard model relieves at 2.8 bar and resets above 2.4 bar.
- Syphon: venturi-type syphon primer supplied with every submersible. Syphon check valve and secondary syphon sold separately.
- Air eliminator: every submersible includes a tank return path with one-way check valve to provide active air elimination.
- Electrical disconnect: electrical yoke for positive contractor disconnect during service.

Pump Motor

- 1½ Hp fixed speed, 2875 rpm, multi-stage centrifugal type pump motor with integral, automatic, thermal overload protection.
- Standard pressure (three-stage) model, max. pressure = 2.62 bar.
- High pressure (four-stage) model, max. pressure = 3.31 bar.

Approvals

- cULus listed.
- Consult factory for applicable approvals.

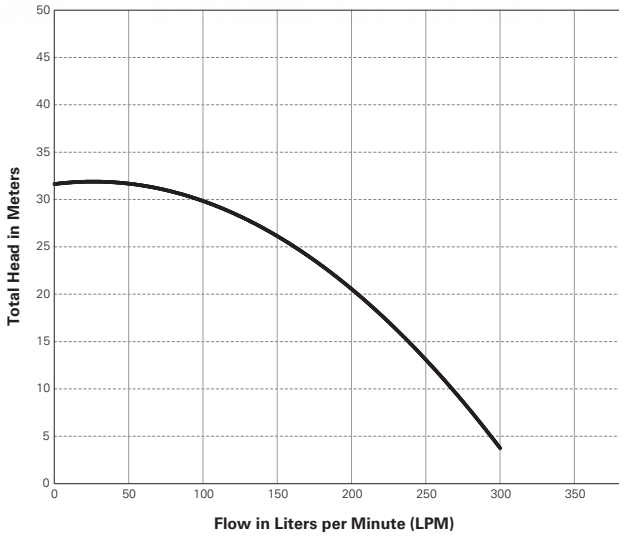
Power Requirements

- 150B fixed speed models require single-phase, 200-250 VAC, 50 Hz incoming power. 150C fixed speed models require three-phase 380-415 VAV, 50 Hz incoming power.
- 150B fixed speed models incorporate a starting and running capacitor, with internal bleed resistor, rated 440 Volt, 15 microfarad.
- SPGC single-phase Guardian™ Series Controllers and STP-CBBS single-phase control boxes are available for 150B pump control.
- STP-SCIIC three phase controllers and STP-CBB3C three-phase magnetic starters are available for 150C control.
- Max. motor draw: 150B 9 Amps, 150C 3 Amps.

Liquid Compatibility

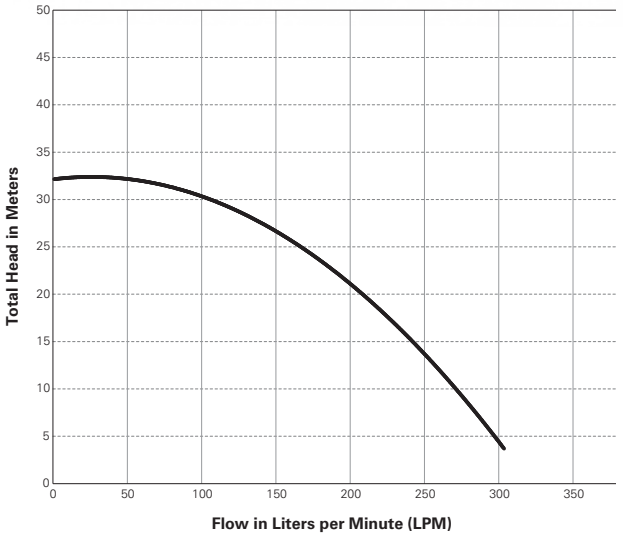
- Max. liquid viscosity: 70 SSU at 60 °F (15 °C).
- Standard STP models are UL and cUL listed for fuel mixtures containing up to 10% ethanol with gasoline, and 20% MTBE, 20% ETBE or 17% TAME with gasoline.
- STPAP/STPAG (AG compatible) models are UL listed for fuel mixtures containing diesel fuel with up to 20% Biodiesel, 100% Biodiesel, up to 85% ethanol with gasoline, and 20% MTBE, 20% ETBE or 17% TAME with gasoline.
- 1½ Hp fixed speed models can also be used with diesel fuels, fuel oils, kerosene, Avgas, and jet fuels in a non-gelled pourable state.
- All wetted elastomers are made of a high grade, fluorocarbon compound.

1½ Hp Single-Phase Fixed Speed Pump Performance Chart (STP150B)



Note: Performance based on pumping gasoline (0.78 specific gravity). Pressure is taken at the manifold discharge outlet. 150B models are powered by a 250 Volt power supply.

1½ Hp Three-Phase Fixed Speed Pump Performance Chart (STP150C)



Note: Performance based on pumping gasoline (0.78 specific gravity). Pressure is taken at the manifold discharge outlet. 150C models are powered by a 415 Volt power supply.

ORDERING INFORMATION

1½ Hp Fixed Speed Submersible Pump Ordering Guide

A typical turbine model designation has up to five components to define the pump being supplied as follows:

STP XXXXX Y - A - B

STP = Basic Model Designation

XXXXX = Factory Installed Options (Model designations may include one or more of the following characters in alphabetical order.)

AP = Advanced Protection with powder-coated, e-coated, and stainless steel components, alcohol-gasoline compatible (up to E85, up to B20, and B100) (Note standard models up to 10% ethanol capable)

AG = Alcohol-gasoline compatible (up to E85, up to B20, and B100) (Note standard models up to 10% ethanol capable)

F = Floating suction adapter (1½" NPT female adapter)

K = Intake filter screen (IFS, factory installed to PMA)

*R = Model R check valve (1.7 bar relief / 1.5 bar reset for PLLD)

*W = Model W check valve (1.1 bar relief / 0.9 bar reset for PPM4000)

Y = Pump Motor Horsepower Rating

150B = 1½ hp fixed speed, 50 Hz, single-phase

150C = 1½ hp fixed speed, 50 Hz, three-phase

A = Model Length (see table)

VL1 = Variable length range #1.

VL2 = Variable length range #2.

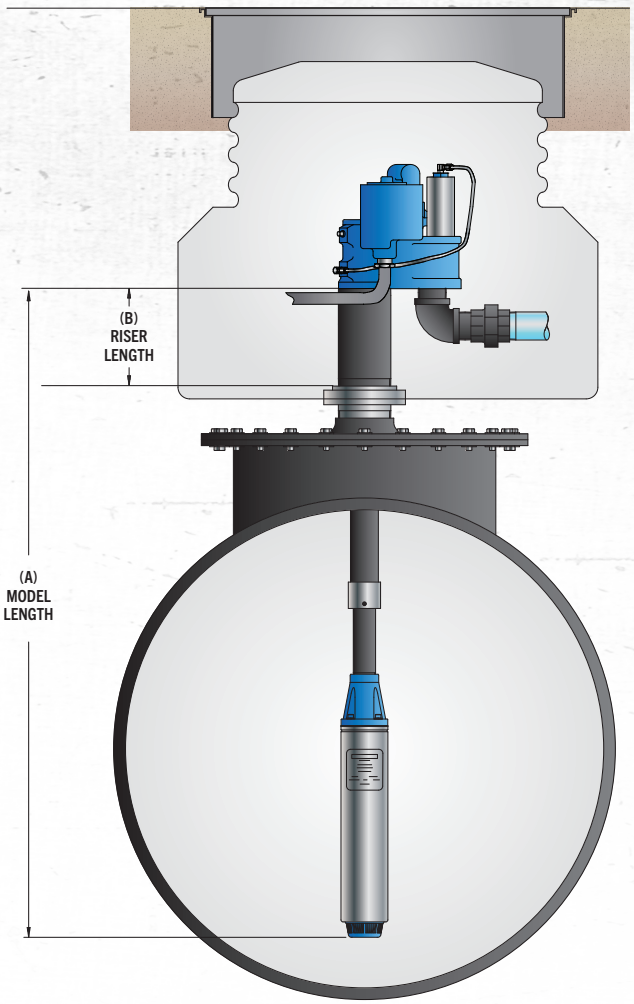
VL3 = Variable length range #3.

(Note VL2 models fit 94% of all known installations)

B = Riser Pipe Length (see diagram)

Riser pipe length is expressed as two numeric characters that indicate the total length of the riser in inches. Riser pipes are available from 178mm to 1524mm in 25mm increments (additional charge for risers 787mm or longer).

Notes: *If not otherwise specified, all STP models are supplied with standard model check valve (2.8 bar relief / 2.4 bar reset for MLD, TS-LS300, and TS-LS500).



Model Length (A)

STP Horsepower	Model Length Range	Model Length Designation
150B 1½ Hp Fixed Speed	1556mm – 2298mm	VL1
	2344mm – 3905mm	VL2
	3156mm – 5499mm	VL3
150C 1½ Hp Fixed Speed	1531mm – 2273mm	VL1
	2318mm – 3879mm	VL2
	3131mm – 5473mm	VL3

Note: High pressure option adds about 13mm to PMA and model length.

ORDERING INFORMATION

Single-Phase 1½ Hp Fixed Speed Submersible Turbine Pumps

Model	Description	Model Length Range Number	Model Length Range*
STP150B-VL1	1½ Hp fixed speed	VL1	1556mm – 2298mm
STP150B-VL2	1½ Hp fixed speed	VL2	2344mm – 3905mm
STP150B-VL3	1½ Hp fixed speed	VL3	3156mm – 5499mm
STPH150B-VL1	1½ Hp high pressure fixed speed	VL1	1569mm – 2311mm
STPH150B-VL2	1½ Hp high pressure fixed speed	VL2	2357mm – 3918mm
STPH150B-VL3	1½ Hp high pressure fixed speed	VL3	3169mm – 5512mm

Three-Phase 1½ Hp Fixed Speed Submersible Turbine Pumps

Model	Description	Model Length Range Number	Model Length Range*
STP150C-VL1	1½ Hp fixed speed	VL1	1531mm – 2273mm
STP150C-VL2	1½ Hp fixed speed	VL2	2318mm – 3879mm
STP150C-VL3	1½ Hp fixed speed	VL3	3131mm – 5473mm
STPH150C-VL1	1½ Hp high pressure fixed speed	VL1	1544mm – 2286mm
STPH150C-VL2	1½ Hp high pressure fixed speed	VL2	2331mm – 3892mm
STPH150C-VL3	1½ Hp high pressure fixed speed	VL3	3144mm – 5486mm

Single-Phase Alcohol-Gas (AG) 1½ Hp Fixed Speed Submersible Turbine Pumps

Model	Description	Model Length Range Number	Model Length Range*
STPAG150B-VL1	1½ Hp AG fixed speed	VL1	1556mm – 2298mm
STPAG150B-VL2	1½ Hp AG fixed speed	VL2	2344mm – 3905mm
STPAG150B-VL3	1½ Hp AG fixed speed	VL3	3156mm – 5499mm
STPAGH150B-VL1	1½ Hp AG high pressure fixed speed	VL1	1569mm – 2311mm
STPAGH150B-VL2	1½ Hp AG high pressure fixed speed	VL2	2357mm – 3918mm
STPAGH150B-VL3	1½ Hp AG high pressure fixed speed	VL3	3169mm – 5512mm
STPAP150B-VL1	1½ Hp fixed speed with Advanced Protection	VL1	1556mm – 2298mm
STPAP150B-VL2	1½ Hp fixed speed with Advanced Protection	VL2	2344mm – 3905mm
STPAP150B-VL3	1½ Hp fixed speed with Advanced Protection	VL3	3156mm – 5499mm
STPAPH150B-VL1	1½ Hp high pressure fixed speed with Advanced Protection	VL1	1569mm – 2311mm
STPAPH150B-VL2	1½ Hp high pressure fixed speed with Advanced Protection	VL2	2357mm – 3918mm
STPAPH150B-VL3	1½ Hp high pressure fixed speed with Advanced Protection	VL3	3169mm – 5512mm

Three-Phase Alcohol-Gas (AG) 1½ Hp Fixed Speed Submersible Turbine Pumps

Model	Description	Model Length Range Number	Model Length Range*
STPAG150C-VL1	1½ Hp AG fixed speed	VL1	1531mm – 2273mm
STPAG150C-VL2	1½ Hp AG fixed speed	VL2	2318mm – 3879mm
STPAG150C-VL3	1½ Hp AG fixed speed	VL3	3131mm – 5473mm
STPAGH150C-VL1	1½ Hp AG high pressure fixed speed	VL1	1544mm – 2286mm
STPAGH150C-VL2	1½ Hp AG high pressure fixed speed	VL2	2331mm – 3892mm
STPAGH150C-VL3	1½ Hp AG high pressure fixed speed	VL3	3144mm – 5486mm
STPAP150C-VL1	1½ Hp fixed speed with Advanced Protection	VL1	1531mm – 2273mm
STPAP150C-VL2	1½ Hp fixed speed with Advanced Protection	VL2	2318mm – 3879mm
STPAP150C-VL3	1½ Hp fixed speed with Advanced Protection	VL3	3131mm – 5473mm
STPAPH150C-VL1	1½ Hp high pressure fixed speed with Advanced Protection	VL1	1544mm – 2286mm
STPAPH150C-VL2	1½ Hp high pressure fixed speed with Advanced Protection	VL2	2331mm – 3892mm
STPAPH150C-VL3	1½ Hp high pressure fixed speed with Advanced Protection	VL3	3144mm – 5486mm

Notes:
1. STP models are compatible with fuel mixtures containing up to 10% ethanol with gasoline, up to 5% Biodiesel with diesel fuels, and 20% MTBE, 20% ETBE or 17% TAME with gasoline. STPAG/STPAP models are compatible with fuel mixtures containing diesel fuel with up to 20% Biodiesel, 100% Biodiesel, up to 85% ethanol with gasoline, and 20% MTBE, 20% ETBE or 17% TAME with gasoline.

2. All models are supplied with a standard check valve unless factory option "R" or "W" is specified.

3. All above 150B models require single-phase, 200-250 VAC, 50 Hz incoming power. All above 150C models require single-phase, 380-450 VAC, 50 Hz incoming power.

4. 4" riser pipe, if supplied locally, must be 4½" OD by 3/16" WT tubing.

5. For riser pipe lengths 787mm to 1524mm, additional charges apply (call Customer Service for lead times).

*Model length (A) defined as the dimension from turbine manifold bottom to pump motor inlet.

Factory Installed Approvals

Specified in model number at time of STP order.

Model	Description
(ATXF)	Submersible Turbine Pumps with ATEX Flameproof approval for EN markets
(RT)	Submersible Turbine Pumps with ROSTEST approval for Eastern European markets

Note: If not otherwise specified, all models are supplied to UL approval as standard. Consult factory for local approvals.

Factory Installed Options

Specified in model number at time of STP order.

Model	Description
F	Floating suction adapter, 1½" NPT female, must be factory installed
K	IFS (intake filter screen) factory assembled to pump motor assembly
R	Model R check valve, factory installed, for Veeder-Root® PLLD Line Leak
W	Model W check valve, factory installed, for Red Jacket PPM4000 Line Leak

Field Installed Options

1½ Hp fixed speed specific accessories.

Model	Description
400137937	Syphon check valve, alcohol-gasoline compatible
400818922	STP-CBBS, single-phase control box with lockout switch, 240 Volt coil
402312932	STP-DHIB + SPGC-220 Guardian Series™ Single Phase Smart Controller bundle
402313922	STP-DHIB-CBBS, combo DHIB with factory-wired STP-CBBS single-phase control box
402459931	Model 65 psi (4.5 bar) check valve AG compatible, (for slave of manifolded STPs with Veeder-Root® PLLD)
402507930	Secondary syphon kit (when two syphon primes are required for one STP)
5800100220	SPGC-220 Guardian Series™ Single Phase Smart Controller
401220965	STP-CBB3C three-phase, 380-415 VAC magnetic starter
5800103300	STP-SCIIIC three-phase, 380-415 VAC smart controller
5800300200	STP-DHIB, dispenser hook isolation for 240 Volt dispenser handle switches, up to eight each

VEEDER-ROOT

TLS-450PLUS, TLS4, & TLS4B Automatic Tank Gauges

Specification Sheet

Standard Features	TLS-450PLUS	TLS4	TLS4B
Color touch screen with user-friendly graphic display	✓	✓	✓
Universal AC power supply, 100-249VAC, 50/60HZ	✓	✓	✓
Optional DC power input, +24VDC, +5VDC	N/A	✓	✓
Rechargeable backup battery	✓	✓	✓
Internal 2-Amp relays, 120/240VAC or 30VDC	1	2	2
One internal universal low voltage input, 12VDC – senses contact closure	N/A	✓	✓
Maximum number of universal probe and/or sensor inputs	64/128/192/256 [1]	12/76 [1]	6
Maximum number of in-tank probes	64 [1]	12/32 [1]	6
Maximum number of any one type of sensor	99 [1]	12/76 [1]	6
Optional inputs and outputs	✓ [2]	✓ [3]	N/A
Web-enabled – monitor and manage via a web browser on a computer or mobile device	✓	✓	✓

[1] = TLS-450PLUS can have up to three TLS-XB Expansion Boxes; TLS4 can have one TLS-XB
[2] = 32 High Voltage Outputs, 32 High Voltage Inputs, 16 Low Voltage Inputs
[3] = 20 High Voltage Outputs, 20 High Voltage Inputs, 16 Low Voltage Inputs

Communications	TLS-450PLUS	TLS4	TLS4B
Configurable optically isolated RS-232/RS-485 serial ports – provides electrical isolation	N/A	2	2
Configurable RS-232/RS-485 serial ports	Up to 5	2	2
Ethernet port(s)	3	3	1
Ethernet network(s)	2	2	1
USB ports (external/internal)	2/2	2/0	2/0
External GSM/GPRS modem via Ethernet port	✓	✓	✓

System Specifications	TLS-450PLUS	TLS4	TLS4B
Multipoint tank chart, supports up to 5,000 unique points	✓	✓	✓
Network printer support via Ethernet	✓	✓	✓
Operating temperature: 32°F to 104°F (0°C to 40°C)	✓	✓	✓
Storage temperature: -40°F to 158°F (-40°C to 70°C)	✓	✓	✓
Relative humidity 0-90% (non-condensing)	✓	✓	✓
Approximate external dimensions	18.11" x 11.02" x 8.66" 46cm x 28cm x 22cm	12.99" x 7.87" x 3.54" 33cm x 20cm x 9cm	12.99" x 7.87" x 3.54" 33cm x 20cm x 9cm
Construction 16GA (0.060"/0.1524cm) powder-coated steel	✓	✓	✓

Safety Approval Groups	TLS-450PLUS	TLS4	TLS4B
UL/cUL listed	✓	✓	✓
ATEX	✓	✓	✓
IECEx	✓	✓	✓
NEPSI	✓	✓	✓
FCC	✓	✓	✓
EMC	✓	✓	✓
PESO	✓	✓	✓

Operational Features	TLS-450PLUS	TLS4	TLS4B
Multi-language GUI capability	✓ [1]	✓ [1]	✓ [1]
Units of measure: Metric, US/Imperial	✓	✓	✓
Custom alarms for unique labeling or on-site instruction	✓	✓	✓
Customizable automatic events for email, print reports, relay and pump control	✓	✓	✓
Workflow wizard for streamlined setup	✓	✓	✓
Context sensitive help	✓	✓	✓
Comprehensive reports	✓	✓	✓
Up to three years of history available	✓	✓	✓
Inventory and delivery monitoring – including inventory history up to 720 records	✓	✓	✓
Power outage	✓	✓	✓
Alarm history	✓	✓	✓
Storage capability setup, configuration and data history	✓	✓	✓
Additional feature enhancement software upgrade capability – through USB	✓	✓	✓
Prominent visual status indicators – including power, warning, and alarm	✓	✓	✓
Software upgrade via USB	✓	✓	✓
Remote software download capability via Centralized Device Management (CDM)	Optional	Optional	Optional

[1] = Arabic, Brazil Portuguese, Chinese, Simplified Chinese, English, Finnish, French, German, Hebrew, Hindi, Italian, Korean, Polish, Portuguese, Russian, Spanish

Additional Functionality (When combined with appropriate equipment and/or software)	TLS-450PLUS	TLS4	TLS4B
AccuChart™ In-Tank Calibration – including selectable calibration range and data sufficiency tracking	Optional	Optional	Optional
Business Inventory Reconciliation (BIR)	Optional	Optional	Optional
Hourly Reconciliation Monitoring (HRM)	Optional	Optional	Optional
Timed Sudden Loss Detection	Optional	Optional	Optional
10-Amp Controller Module	Optional	Optional	N/A
Digital Pressurized Line Leak Detection (DPLLD)	Optional	N/A	N/A
In-Tank Static Leak Detection (SLD) – 0.1 Gallons Per Hour (GPH)/0.38 Liters Per Hour (LPH) annual and 0.2 GPH/0.76 LPH monthly testing	✓	✓	Optional
Continuous Statistical Leak Detection (CSLD) – 0.76 LPH for single and manifolded tanks	Optional	Optional	N/A
Phase Separation Detection Up to E20 – 4"/10.16cm float kit	✓	✓	✓
Mag-FLEX Tall Tank AST Monitoring – up to 264,172,000 gal/999,999,999 liter tank capacity	✓	✓	✓
Fuel Density Monitoring	✓	✓	✓
Range: 700-800kg/m³ (petroleum)	✓	✓	✓
Range: 800-900kg/m³ (diesel)	✓	✓	✓
THE PLUS VIEW App (iOS, Android) for Remote Access on Smart Phones and Tablets	✓	✓	✓
HydrX™ Fuel Conditioning System	✓	✓ [1]	N/A
In-Station Diagnostics (ISD)	✓ [2]	N/A	N/A

[1] = One TLS-XB Expansion Box is required
[2] = California Air Resources Board (CARB) certified

ATTACHMENT C

Alternative Design and Protection Method for Tanks

(Not Applicable)

ATTACHMENT D

Manufacturer Information for Piping

Red Thread™ IIA Piping System

(Specification Guide)

FUEL HANDLING

Section 1 - Scope

This section covers the use of fiberglass reinforced plastic (FRP) pipe for single wall fuel handling and fuel handling vent and vapor applications including gasoline, unleaded gasoline, gasoline/alcohol mixtures, bio-diesel, DEF and diesel up to 150ºF and 250 psig cyclic pressure.

Section 2 - General Conditions

2.01 Coordination - Material furnished and work performed under this section shall be coordinated with the related work and equipment specified under other sections, i.e. Valves, Flexible Connectors, Equipment.

2.02 Governing Standards - Except as modified or supplemented herein, all materials and construction methods shall comply with and be tested in accordance with the following standards and test methods:

Standard and Test Methods

UL971 2004	Standard for Nonmetallic Underground Piping for Flammable Liquids
ASTM D2310	Standard Classification for Machine-Made "Fiberglass" (Glass Fiber Reinforced Thermosetting Resin) Pipe
ASTM D2992	Standard Test Method for Obtaining Hydrostatic or Pressure Design Basis for “Fiberglass” (Glass-Fiber-Reinforced-Thermosetting Resin) Pipe and Fittings

2.03 Operating Conditions - In addition to the above minimum design requirements, the system shall meet the following minimum operating conditions:

a. Operating Pressure _____

b. Operating Temperature _____

c. Fluid Conveyed _____

d. Test Pressure _____

2.04 Quality Assurance - Pipe manufacturer’s quality program shall be in compliance with ISO 9001 and/or API Q1.

2.05 Delivery, Storage and Handling - Pipe and fittings shall be protected from damage due to impact and point loading. Pipe shall be properly supported to avoid damage due to flexural strain. The contractor shall not allow dirt, debris or other extraneous materials to get into pipe and fittings. All factory machined areas shall be protected from sunlight until installed.

2.06 Acceptable Manufacturers - Fiber Glass Systems, (501) 568-4010, or approved equal.

Section 3 - Materials and Construction

3.01 2"-4" Pipe - The pipe shall be manufactured by the filament winding process using an amine cured epoxy thermosetting resin to impregnate strands of continuous glass filaments, which are wound around a mandrel at a 54 ¾° winding angle under controlled tension. Pipe shall be heat cured and the cure shall be confirmed using a Differential Scanning Calorimeter.

Pipe shall be supplied with a T.A.B.™ (Threaded and Bonded) ends.

Pipe shall have a minimum continuous cyclic pressure rating of 125 psig at 150ºF in accordance with ASTM D2992, Procedure A or UL 971 pressure rating.

All pipe shall be 100% hydrotested at the factory before shipment at a minimum pressure of 265 psig and shall be UL971-2004 Listed and labeled.

3.02 ASTM D2310 Classifications (at 73.4°F)

2" - 3"	RTRP-11AF
4"	RTRP-11AH

(Mechanical properties cell classifications shown are minimums.)

3.03 Fittings - All fittings shall be manufactured using the same type of material as the pipe. Fittings may be manufactured either by compression molding, filament winding, resin transfer molding or contact molding methods. All fittings, adapter, and sump penetrations shall be UL971-2004 Listed.

Fittings shall be adhesive bonded matched tapered bell and spigot.

3.04 Connections - Connections to flex connectors or other piping materials shall be made by the use of NPT (National Pipe Thread) threaded adapters or flanges bonded to the FRP piping system.

3.05 Sump Penetrations - Sump penetrations shall be made by means of a permanently bonded FRP coupling. The coupling shall be capable of adjusting for the slope of the piping system entering or exiting the sump wall.

3.06 Adhesives - Adhesives shall be manufacturer's standard for the piping system specified.

Section 3 - Materials and Construction

3.01 2"-4" Primary and 3" - 6" Secondary Pipe - The pipe shall be manufactured by the filament winding process using an amine cured epoxy thermosetting resin to impregnate strands of continuous glass filaments, which are wound around a mandrel at a 543/4" winding angle under controlled tension. The pipe shall be heat cured and the cure shall be confirmed using a Differential Scanning Calorimeter.

Pipe shall be supplied with a T.A.B.™ (Threaded and Bonded) or plain ends.

Pipe shall have a minimum continuous cyclic pressure rating of 125 psig at 150ºF in accordance with ASTM D2992, Procedure A or UL 971 pressure rating.

All pipe, both primary and secondary, shall be 100% hydrotested at the factory before shipment at a minimum pressure of 265 psig and shall be UL 971-2004 Listed and Labeled.

3.02 ASTM D2310 Classifications (at 73.4°F)

Primary Pipe	Secondary Pipe
2"-3" RTRP-11AF	3" RTRP-11AF
4" RTRP-11AH	4"-6" RTRP-11AH

(Mechanical properties cell classifications shown are minimums.)

3.03 Fittings - All fittings shall be manufactured using the same type of material as the pipe. Fittings may be manufactured either by compression molding, filament winding, resin transfer molding or contact molding methods. All fittings, adapter, and sump penetrations shall be UL971-2004 Listed.

Primary fittings shall be adhesive bonded, matched tapered bell and spigot and rated the same as the pipe.

Secondary containment fittings shall be two-piece style to allow for 100% inspection of the primary joint pressure test and be rated to a minimum of 50 psig per UL 971-2004.

Should hydrostatic testing be impractical, testing with low pressure air or inert gas may be acceptable. Extreme caution should be used when testing with air. Follow all safety precautions and testing recommendations of the pipe manufacturer.

3.04 Connections - Connections to flex connectors or other piping materials shall be made by the use of NPT (National Pipe Thread) threaded adapters or flanges bonded to the FRP piping system.

3.05 Sump Penetrations - Sump penetrations shall be made by means of a permanently bonded FRP coupling. The coupling shall be capable of adjusting for the slope of the piping system entering or exiting the sump wall.

3.06 Adhesives - Adhesives shall be manufacturer's standard for the piping system specified.

3.07 Acceptable Products - Red Thread IIA piping system as manufactured by Fiber Glass Systems or engineered approved equal.

Section 4 - Installation and Testing

4.01 Training and Certification - All joints installed or constructed in the field shall be assembled by employees of the contractor who have been trained by the pipe manufacturer. The pipe manufacturer or their authorized representative, shall train the contractor's employees in the proper joining and assembling procedures required for the project, including hands-on participation by the contractor's employees. Each bonder shall fabricate one pipe-to-pipe and one pipe-to-fitting joint that shall pass the minimum pressure test for the application as stated in Section 2.03 without leaking.

Only bonders that have successfully completed the pressure test shall bond pipe and fittings. Each bonder shall carry a current, manufacturer proof of training card.

4.02 Pipe Installation - Pipe shall be installed as specified and indicated on the drawings.

The piping system shall be installed in accordance with the manufacturer's current published installation procedures.

4.03 Testing - A hydrostatic pressure test shall be conducted on the completed piping system. The piping system shall be subjected to 10 pressurization cycles from 0 psig to 1.5 times the design operating pressure as stated in Section 2.03.c. After the 10 cycles, the pressure shall be held on the system for a minimum of 1 hour and the line inspected for leaks.

Test pressures shall not exceed 1.5 times the maximum rated pressure of the lowest rated element in the system.

All pipe joints shall be water tight. All joints that are found to leak, by observation or during testing shall be replaced by the contractor and retested.

Should hydrostatic testing be impractical, testing with low pressure air or inert gas may be acceptable. Extreme caution should be used when testing with air. Follow all safety precautions and testing recommendations of the pipe manufacturer.

Fiber Glass Systems
17115 San Pedro Avenue, Ste 200
San Antonio, Texas 78232 USA
Phone: 210 477 7500
Fax: 210 477 7560

CI1201ENG October 2018

Red Thread™ IIA

(Product Data)

FUEL HANDLING

Applications

- Service Station
- Vent/Vapor Recovery
- Bulk Plant Terminals
- Fueling Terminals
- Central Fuel Oil Systems
- Marinas Terminals
- Ethanol Fuel Blends
- Biodiesel Fuel
- Diesel Exhaust Fluid
- UL/ULC Systems that require MV, HB, CT, A&M Fuels

Materials and Construction

All pipe is manufactured by filament winding process using amine-cured epoxy thermosetting resin to impregnate strands of continuous glass filaments with a resin-rich interior surface. The operating pressure of the pipe is up to 250 psig (17.2 bar) with continuous operating temperature to 150°F (66°C).

Red Thread IIA is Listed with Underwriters Laboratories Standard 971-2004 for non-metallic underground piping for motor vehicle (MV), high blend (HB), concentrated (CT) and aviation and marine (A&M) fuels. The pipe and fittings are also Listed with Underwriters Laboratories of Canada with both Listings under File MH9162.

Fittings

Fittings are manufactured with the same chemical and temperature capabilities as the pipe. Depending on the configurations and size, the fittings construction method will be compression molded, contact molded, fabricated or filament wound and are described in FH1250.

Testing

Installed pipe systems should be tested prior to use to assure soundness of all joints and connections. Locate pressure gauge in close proximity to the pressurizing equipment, not directly on the piping system. A pressure gauge with the test pressure at mid-scale is recommended.

Joining System

- **T.A.B.™** - The primary joining method for pipe joints promoting fast, positive make-up and prevents "backout" during curing.
- **Bell & Spigot** - The primary joining method for fitting joints.

These joints assist the installer and assures a fast trouble-free installation. Adhesive for this system is Series 8000. T.A.B. spigots can be bonded into tapered bells and tapered spigots can be Bonded into T.A.B. bells using standard bonding procedures for tapered joints.

ASTM D2996 Designation Code - RTRP-11AW13110

Nominal Dimensional Data

Pipe Size		Inside Diameter		Outside Diameter		Wall Thickness		Weight		Pressure/ Temperature Max. Rating at 150°F (66°C)		Mill Test Pressure		Minimum Bending Radius	
in	mm	in	mm	in	mm	in	mm	lbs/ft	kg/m	psig	MPa	psig	MPa	ft	m
2	50	2.238	57	2.372	60	0.067	1.70	0.42	0.63	250	1.72	375	2.59	102	31.0
3	80	3.363	85	3.559	90	0.098	2.49	0.92	1.37	175	1.21	300	2.07	153	46.5
4	100	4.364	111	4.554	116	0.095	2.41	1.15	1.71	125	0.86	265	1.83	195	59.5
6	150	6.408	163	6.686	170	0.139	3.53	2.47	3.68	20	0.14	265	1.83	287	87.4

View of Joint Illustrations

T.A.B.

Bell & Spigot

Typical Mechanical Properties

Pipe Property	75°F	24°C	200°F	93°C	Method
	psi	MPa	psi	MPa	
Axial Tensile					
Ultimate Stress	9,530	65.7	6,585	45.4	ASTM D2105
Modulus of Elasticity	1.68×10^6	11,584	1.42×10^6	9,791	ASTM D2105
Poisson's Ratio, ν_{ah} (ν_{ha})[1]	0.35 (0.61)				
Axial Compression					
Ultimate Stress	12,510	86.3	8,560	59.0	ASTM D695
Modulus of Elasticity	0.677×10^6	4,668	0.379×10^6	2,613	ASTM D695
Beam Bending					
Modulus of Elasticity (Long Term)	2.6×10^6	17,927	0.718×10^6	4,951	ASTM D2925
Hydrostatic Burst					
Ultimate Hoop Tensile Stress	40,150	277	36,480	252	ASTM D1599
Hydrostatic Hoop Design Stress					
Static 20 Year Life LTHS - 95% LCL	-	-	18,203 - 14,689	125.5 - 101.3	ASTM D2992 - Procedure B
Static 50 Year Life LTHS - 95% LCL	-	-	16,788 - 13,142	115.7 - 90.6	ASTM D2992 - Procedure B
Parallel Plate					
Hoop Modulus of Elasticity	3.02×10^6	20,822	-	-	ASTM D2412
Shear Modulus	1.76×10^6	12,135	1.63×10^6	11,250	-

Typical Physical Properties

Pipe Property	Value	Value	Method
Thermal Conductivity	0.23 BTU/hr•ft•°F	0.4 W/m°C	ASTM D177
Thermal Expansion	10.7×10^{-6} in/in °F	19.3×10^{-6} mm/mm °C	ASTM D696
Absolute Roughness	0.00021 in	0.00053 mm	
Specific Gravity	1.8		ASTM D792

[1] ν_{ha} = The ratio of axial strain to hoop strain resulting from stress in the hoop direction.
ν_{ah} = The ratio of hoop strain to axial strain resulting from stress in the axial direction.

[2] The differential pressure between internal and external pressure which causes collapse.

[3] A 0.67 design factor is recommended for short duration vacuum service. A full vacuum is equal to 14.7 psig (0.101 MPa) differential pressure at sea level.

[4] A 0.33 design factor is recommended for sustained (long-term) differential collapse pressure design and operation.

Ultimate Collapse Pressure

Size		Collapse Pressure[2][3][4]			
		psig		MPa	
in	mm	75°F	150°F	24°C	66°C
2	50	177	133	1.22	0.92
3	80	171	129	1.18	0.89
4	100	69	51	0.48	0.35
6	150	69	51	0.48	0.35

Pipe Length

Size		Standard		Random	
in	mm	ft	m	ft	m
2-6	50-150	15	4.57	22-25	6.7-7.62

Fiber Glass Systems
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Phone: 210 477 7500
Fax: 210 477 7560

FH1200ENG February 2017

ATTACHMENT E

Alternative Design for Piping

(Not Applicable)

ATTACHMENT F

Tertiary Containment Method

(Not Applicable)

ATTACHMENT G

Exception to the Geologic Assessment

(Not Applicable)

ATTACHMENT H

Profile Drawings

7-ELEVEN, INC.

VALUE ENGINEERING SURVEY

SCAN THE QR CODE TO SUBMIT YOUR VALUE ENGINEERING IDEA!

7-ELEVEN

EXISTING STORE W/ FUELING REMODEL
7-ELEVEN STORE NO. 40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

SHEET INDEX

	FUELING CANOPY AND UNDERGROUND STORAGE TANKS	
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G0.1	FUELING ARCHITECTURAL SITE PLAN	REV 2
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G0.3	FUELING DEMOLITION PLAN	REV 2
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G2.0	NOT USED	
G3.0	TANK SECTIONS	REV 1
G4.0	TANK SUMP DETAILS	REV 2
G4.1	TANK SUMP DETAILS	REV 2
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G9.0	UST ELECTRICAL PLAN, ONE-LINE DIAGRAM AND PANEL SCHEDULE	REV 1
G9.1	N.E.C. CLASSIFIED AREA	REV 2
G10.0	MISCELLANEOUS ELECTRICAL DETAILS	
G11.0	ISOLATION RELAY BOX DETAIL	
G12.0	SITE MONITORING EQUIPMENT DIAGRAM	
G13.0	FUELING SPECIFICATIONS	
G14.0	FUELING SPECIFICATIONS	
G15.0	FUELING SPECIFICATIONS	
G16.0	FUELING SPECIFICATIONS	
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CPC-1	FUELING REMODEL PAVEMENT AND CURBING DETAILS	

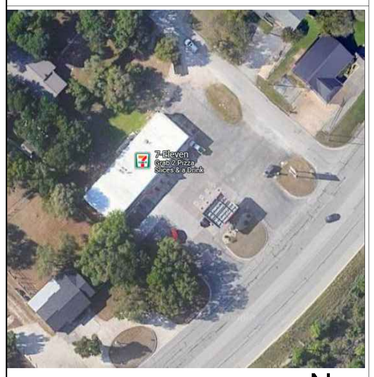
Rev. #	Date	Description
1	02/06/25	PEER REVIEW COMMENTS
2	02/12/25	FRP PIPING UPDATE

Proto 2024-05

VICINITY MAP

N

SITE LOCATION MAP



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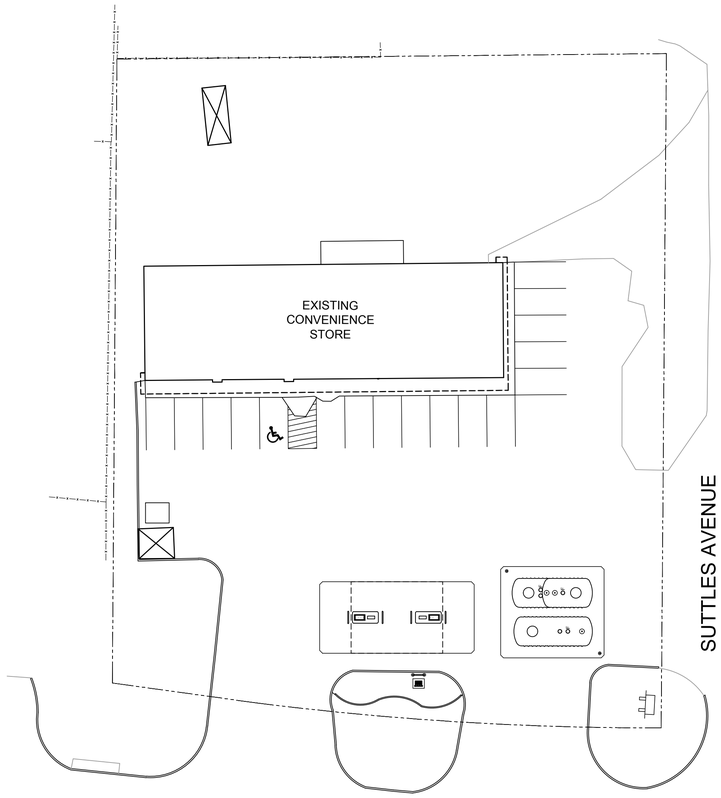


PROJECT DATA

2021 INTERNATIONAL BUILDING CODE
2021 INTERNATIONAL MECHANICAL CODE
2021 INTERNATIONAL PLUMBING CODE
2020 NATIONAL ELECTRIC CODE
2021 INTERNATIONAL FIRE CODE

NFPA 30 FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE-2015 EDITION
NFPA 30A CODE FOR MOTOR FUEL DISPENSING FACILITIES AND REPAIR GARAGES-2015 EDITION
NFPA 1 UNIFORM FIRE CODE HANDBOOK

THIS SITE IS LOCATED WITHIN THE EDWARDS AQUIFER TRANSITION ZONE.

SUMMARY OF WORK

- GRADING AND SITEWORK.
- ASSOCIATED UNDERGROUND TANKS AND PIPING.
- FUELING STATION DESCRIPTION:
  - (1) EXISTING GILBARCO 3+0 DISPENSER
  - (1) EXISTING GILBARCO 3+1 DISPENSER FOR DSL
  - (1) 10' DIA. 15K GAL. DW FIBERGLASS UST FOR REGULAR UNLEADED (RUL)
  - (1) 10' DIA. 15K GAL. SPLIT DW FIBERGLASS UST FOR 9K DIESEL (DSL) AND 6K PREMIUM UNLEADED (PUL)
  - (3) 1.5 hp FIXED SPEED STP FOR RUL, PUL, AND DSL
  - (3) ATG's (1 PER STP SUMP)
  - (3) PRODUCT FILL BUCKETS (1 FOR EACH UST)
  - 3" OVER 2" DW FRP PRODUCT PIPING FOR RUL, PUL, AND DSL
  - 2" SW FRP VENT PIPING (UST's TO REMOTE VENT SUMP)
  - (1) NEW BRAVO VENT BOX FOR RUL, PUL, AND DSL
  - EXISTING FUELING CANOPY FOR TWO (2) EXISTING DISPENSERS
  - (2) NEW 9' X 4' X 13" STAINLESS STEEL ISLANDS AT EACH DISPENSER
  - NEW VEEDER ROOT TLS-450 PLUS SITE MONITOR CONSOLE
  - (1) NEW HYDRX FUEL CONDITIONING SYSTEM AT DIESEL TANK

PROJECT DIRECTORY

OWNER: 7-ELEVEN INC
3200 HACKBERRY ROAD
IRVING, TX 75063

MEP ENGINEER: CORE STATES GROUP
212 SE 34TH STREET, SUITE 2
BENTONVILLE, AR 72712
CONTACT: DAVID LEIFFER
479.986.4400
EMAIL: DLEIFFER@CORE-STATES.COM

REFERENCE SYMBOLS

- NORTH ARROW
- HEIGHT ELEVATION INDICATOR (X.X.X / X'-XX")
- DOOR TAG (000A)
- ENLARGED DETAIL INDICATOR (XX / X-XXX)
- GRID LINE INDICATOR (X)
- WINDOW TAG (XX)
- WALL TAG (XX)
- ROOM TAG (XXXXXXX / XXX)
- REVISION DELTA (X)
- SPOT ELEVATION INDICATOR (X.X.X / X'-XX")
- KEY NOTE INDICATOR (XX)
- FINISH INDICATOR (XX)
- SECTION CUT INDICATOR (X / XX.X)
- ELEVATION INDICATOR (XX.X / X)
- EQUIPMENT TAG (FOR LIST REF G7.0) (XXX)

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

FUELING CANOPY COVER SHEET AND INDEX

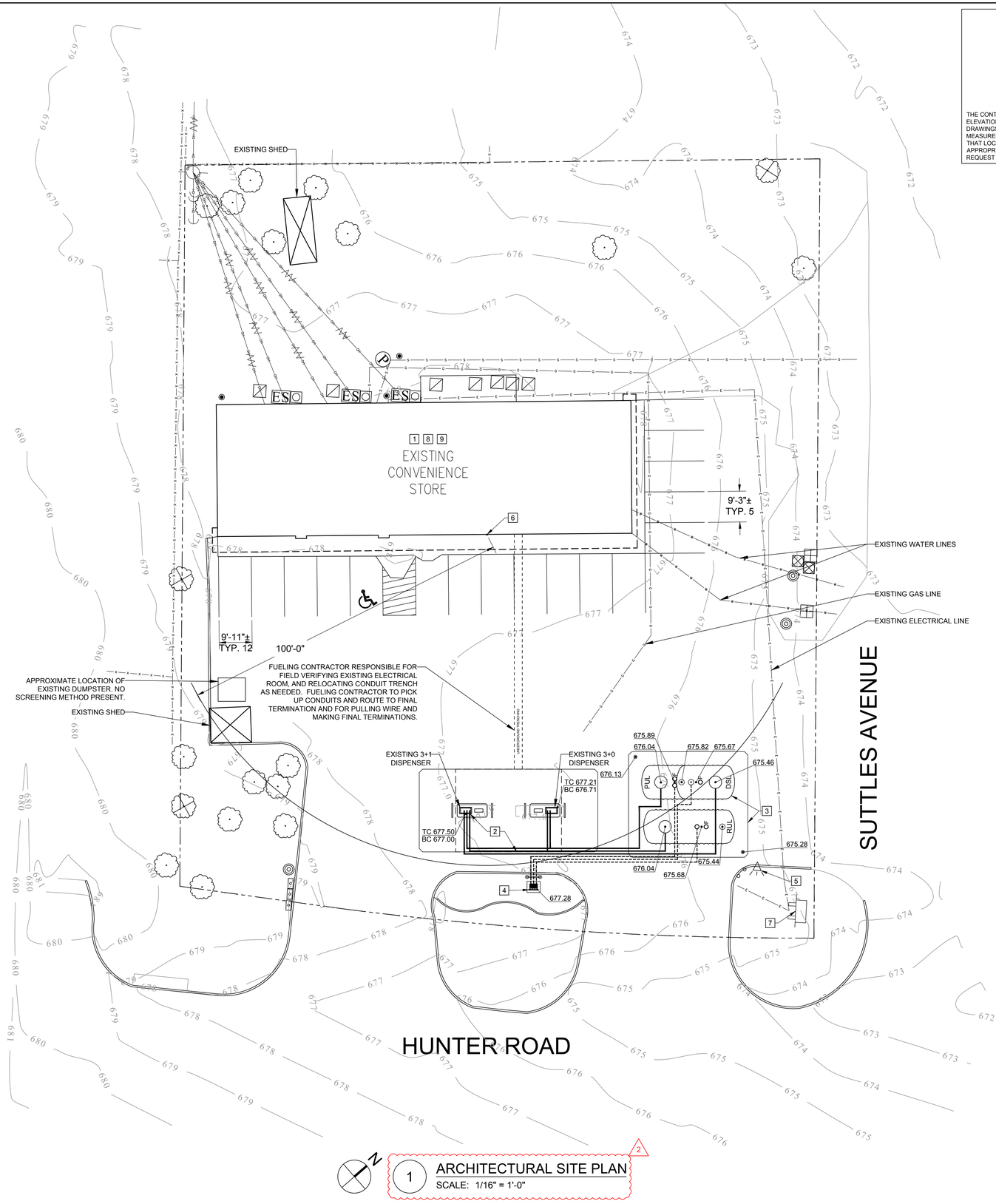
CORE STATES GROUP
212 SE 34th Street
Suite 2
Bentonville, AR 72712
479.986.4400
core-states.com
TEXAS REGISTERED ENGINEERING FIRM F-21044
EXPIRATION: 07/31/2025

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	KLC
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G0.0
FUELING - USA

PRINTED BY: GDELAROSA
DRAWING NAME: 40569 – G0.0 FUELING CANOPY COVER SHEET AND INDEX.dwg PRINT DATE: Feb 12, 2025 – 4:18pm



1 ARCHITECTURAL SITE PLAN
SCALE: 1/16" = 1'-0"

Know what's below Call before you dig.

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON DESIGN DRAWINGS, RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. CORESTATES, INC. DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES.

GENERAL NOTES

FUEL CONTRACTOR

1 FUEL GC TO WORK WITH SEI PM ON SCHEDULING. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE SEI PROJECT MANAGER.

2 FUEL GC RESPONSIBLE FOR ALL CONCRETE OVER TANKS AND PRODUCT PIPING (I.E. TANK SLAB AND DRIVE MATS). CONCRETE CHAIRS ARE BY SEI.

3 FUEL GC RESPONSIBLE FOR CANOPY FOOTINGS.

4 FUEL GC TO INSTALL CANOPY DRAINS (WHERE APPLICABLE) TO POINT OF CONNECTION WITHIN (10) FT OF DRIVE MATS.

5 FUEL EC TO INSTALL ALL FUEL RELATED ELECTRONICS (I.E. DATA BOXES, EDH UNIT, TURBINE RELAYS, ISOLATION RELAYS, ETC).

6 FUEL GC RESPONSIBLE FOR ALL ELECTRICAL CONDUITS, SEAL-OFFS, ELECTRICAL J-BOXES PER STATE, LOCAL, MANUFACTURERS AND SEI CODES AND SPECIFICATIONS.

7 FUEL EC TO PULL WIRE FOR CANOPY LIGHTING, INTERCOM, DISPENSERS, TURBINES AND MONITORING SYSTEM DEVICES.

8 FUEL EC TO MAKE ALL FINAL CONNECTIONS TO FUELING EQUIPMENT AND ELECTRONICS.

9 FUEL GC TO PULL TRADE PERMITS FOR FUELING WORK (AS REQUIRED).

10 FUEL GC TO "CALL FOR" AND "BE PRESENT FOR" ALL LOCAL REGULATOR INSPECTIONS AND RESPONSIBLE FOR SCHEDULING ON-SITE INSPECTIONS WITH APPROPRIATE SEI REPRESENTATIVE RELATED TO FUELING.

11 FUEL GC TO COORDINATE WITH TANKNOLOGY AND THE SEI CONSTRUCTION MANAGER FOR TESTING OF FUELING SYSTEM.

12 FUEL GC TO HAVE PERSONNEL ON SITE FOR TESTING.

13 FUEL GC RESPONSIBLE FOR CLOSE OUT PACKAGE PER 7-11 MATRIX.

KEY NOTES

1 EXISTING CONVENIENCE STORE
2 EXISTING FUELING CANOPY AND DISPENSERS
3 NEW UNDERGROUND FUEL STORAGE TANKS AND SLAB
4 NEW FUEL STORAGE TANK VENTS
5 EXISTING AIR MACHINE
6 EXISTING E-STOP ON BUILDING EXTERIOR
7 EXISTING MAIN ID SIGN TO REMAIN
8 NEW VEEDER ROOT TLS-450 PLUS SITE MONITOR CONSOLE. FIELD VERIFY LOCATION
9 NEW INTERIOR E-STOP BEHIND SALES COUNTER. FIELD VERIFY LOCATION

SCOPE OF WORK

1 INSTALL NEW XERXES 15,000 GALLON 10' DIA DOUBLE WALL FIBERGLASS UNDERGROUND STORAGE TANK (UST) FOR REGULAR FUEL.

2 INSTALL NEW XERXES 15,000 GALLON 10' DIA DOUBLE WALL FIBERGLASS UNDERGROUND SPLIT STORAGE TANKS (UST'S) FOR 9,000 GALLONS DIESEL AND 6,000 GALLONS PREMIUM FUELS.

3 INSTALL (3) NEW FE PETRO 1.5 HP FIXED SPEED SUBMERSIBLE PUMP WITH INTAKE FILTER FOR RUL, PUL AND DSL FUELS.

4 REUSE (1) EXISTING GILBARCO 700S 3+0 DISPENSER AND (1) EXISTING GILBARCO 700S 3+1 DISPENSER.

2 5 INSTALL NEW 3" OVER 2" DW FRP PRODUCT PIPING FROM NEW UST'S TO EXISTING DISPENSERS.

6 INSTALL (3) NEW VAPOR/VENT RISERS WITH BRAVO VENT BOX AND BRAVO VAPOR VENT RACK FOR SUPPORT.

7 INSTALL NEW 2" SINGLE WALL FIBERGLASS PIPING FROM VAPOR/VENT AT UST'S TO NEW REMOTE VENT.

8 INSTALL NEW CONCRETE AT DISTURBED AREAS AT TANK SLAB FOR NEW PIPING PER SEI STANDARDS.

9 INSTALL NEW CONCRETE AT DISTURBED AREAS AT CANOPY SLAB FOR NEW PIPING PER SEI STANDARDS.

10 INSTALL NEW "U" BOLLARDS AT DISPENSERS AND REMOTE VENT TO SEI SPECIFICATIONS (TYP 5).

11 ACTIVATE INTERCOMS INSIDE THE DISPENSERS.

12 INSTALL (1) NEW FIRE EXTINGUISHER AT ADA COMPLIANT HEIGHT AT CANOPY COLUMN.

13 INSTALL (2) NEW TRASH CAN/WASH BUCKET COMBO UNITS AT THE CANOPY COLUMNS.

14 EXISTING MAIN ID SIGN TO REMAIN. RUN DEDICATED CONDUIT TO MAIN ID SIGN AS REQUIRED.

15 PAINT LED SIGNAGE FRAME, POLES, NEW BOLLARDS, CANOPY COLUMNS PER EXXON/SYNERGY BRANDING SPECIFICATIONS.

16 INSTALL NEW VEEDER ROOT TLS-450 PLUS SITE MONITOR CONSOLE. FIELD VERIFY LOCATION.

17 ROUTE NEW CONDUIT TO NEW ELECTRICAL THROUGH EXTERIOR OF BUILDING, VERIFY LOCATION WITH SEI CONSTRUCTION MANAGER.

18 DEMOLITION-REMOVE EXISTING TANKS, TANK SLAB, EXISTING VENT LINES AT CANOPY COLUMNS, EXISTING UST SYSTEM AND PIPING COMPLETELY. REMOVE ADDITIONAL PAVEMENT/SIDEWALKS AS REQUIRED TO FACILITATE OTHER REMOVALS AND INSTALLATIONS.

19 EXISTING E-STOP ON BUILDING EXTERIOR TO BE REUSED. VERIFY ADA HEIGHT COMPLIANCY.

20 EXISTING EXXON/SYNERGY BRANDED CANOPY TO REMAIN FOR (2) EXISTING DISPENSERS. POWER WASH, CLEAN AND PAINT CANOPY AND DECK AS REQUIRED. EXISTING SYNERGY BLADES TO REMAIN.

21 INSTALL (1) NEW INTERIOR E-STOP BEHIND THE SALES COUNTER.

22 INSTALL (2) NEW 9' X 4' X 13" STAINLESS STEEL ISLANDS AT DISPENSERS.

23 EXISTING POS TO REMAIN. UPGRADE EQUIPMENT/SOFTWARE AS REQUIRED.

24 CONFIRM EMV ACTIVATION AT DISPENSERS.

25 INSTALL (1) NEW HYDRX FUEL CONDITIONING SYSTEM IN THE DIESEL STP SUMP.

26 INSTALL (2) NEW OBSERVATION WELLS AT NEW TANK SLAB PER AHJ REQUIREMENTS.

27 REUSE EXISTING LOW VOLTAGE DISCONNECT.

NOTE:
NO CHANGE IN GRADING, CURBING, LANDSCAPE, OR AMOUNT OF IMPERVIOUS SURFACE IN THE PROPOSED FUELING SCOPE.

NOTE:
FUEL CONTRACTOR TO SHUT-DOWN FUEL SYSTEM PER STATE, LOCAL, AND FEDERAL REQUIREMENTS PRIOR TO INSTALLATION OF FUEL SYSTEM.

NOTE:
TOTAL REGULAR PARKING SPACES PROVIDED: 16
TOTAL HANDICAP PARKING SPACES PROVIDED: 1
TOTAL COMBINED PARKING SPACES PROVIDED: 17

NOTE:
FUELING CONTRACTOR TO PROTECT AND MAINTAIN 6" OF CLEARANCE BETWEEN PRODUCT/VENT LINES AND UTILITIES - TYP. AT UTILITY CROSSINGS.

NOTE:
TANKS TO BE BURIED AT A MINIMUM OF 4.17' AT THE LOWEST FINISH GRADE ELEVATION AND A MAXIMUM OF 5.67' AT THE HIGHEST FINISH GRADE ELEVATION ON THE TANK PAD. VENT PIPING MUST HAVE A MINIMUM SLOPE OF 1/8" PER FOOT FROM VENT SUMP TO THE TANKS. GC TO COORDINATE ANY BURIAL DEPTH DEVIATIONS WITH SEI PROJECT MANAGER.

NOTE:
THIS DRAWING IS TO BE USED AS A SCHEMATIC DRAWING. IT IS THE RESPONSIBILITY OF THE GC AND FUELING SUB-CONTRACTORS INSTALLING PRODUCT PIPING AND FUEL SYSTEM TO VERIFY EXISTING FIELD CONDITIONS. IF FIELD CONDITIONS VARY FROM DRAWING AS SHOWN OR INHIBIT INSTALLATION AS SHOWN CEASE WORK AND CONTACT SEI PROJECT MANAGER OR REPRESENTATIVE.

GC AND SUB-CONTRACTORS TO FOLLOW REMOVAL, AND INSTALLATION REQUIREMENTS OF FUELING SYSTEM COMPONENTS PER MANUFACTURER INSTRUCTIONS, LOCAL, FEDERAL, AND FIRE MARSHALL'S MANDATES, LAWS, AND REGULATIONS.

TANK BURIAL CHART – STORE #40569

	COMPONENT	DIESEL	PREMIUM	VENT
A.	FINISH GRADE ELEV. AT BEGINNING OF RUN (FT):	677.00	676.71	677.28
B.	PIPE BURY (FT):	1.50	1.50	2.00
C.	ELEVATION OF PIPE AT BEGINNING OF RUN (A–B)	675.50	675.21	675.28
D.	PIPE LENGTH (LONGEST RUN) (FT):	109.00	64.00	78.00
E.	PIPING RUN FALL (FT) (D*1/8" PER FT):	1.14	0.67	0.81
F.	TOTAL CROSSOVERS/SWING JOINTS:	1.00	1.00	0.00
G.	CROSSOVER/SWING JOINT DEPTH (FT):	1.00	1.00	0.00
H.	ELEVATION AT END OF PIPE (FT) (C–E–G*F):	673.36	673.54	674.47
I.	ADD FOR EXTRACTOR TEE AT SUMP:	1.25	1.25	0.50
J.	TOP OF TANK ELEVATION (FT) (H–I):	672.11	672.29	673.97
K.	HIGHEST FINISH GRADE ELEVATION AT TANK SLAB (FT):	676.04	676.04	676.04
L.	MAX BURY DEPTH (K–J) (FT): MAX = 5.67'	3.93	3.75	2.07
M.	LOWEST FINISH GRADE ELEVATION AT TANKS (FT):	675.44	675.44	675.44
N.	MIN BURY DEPTH (M–J) (FT): MIN = 4.17'	3.33	3.15	1.47

TANK BURIAL DEPTH IS GOVERNED BY MIN BURY DEPTH OF 4.17'.
THE TOP OF TANKS SHALL BE SET AT 671.27 FT. 2

Rev. #	Date	Description
1	02/06/25	PEER REVIEW COMMENTS
2	02/12/25	FRP PIPING UPDATE

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

FUELING ARCHITECTURAL SITE PLAN

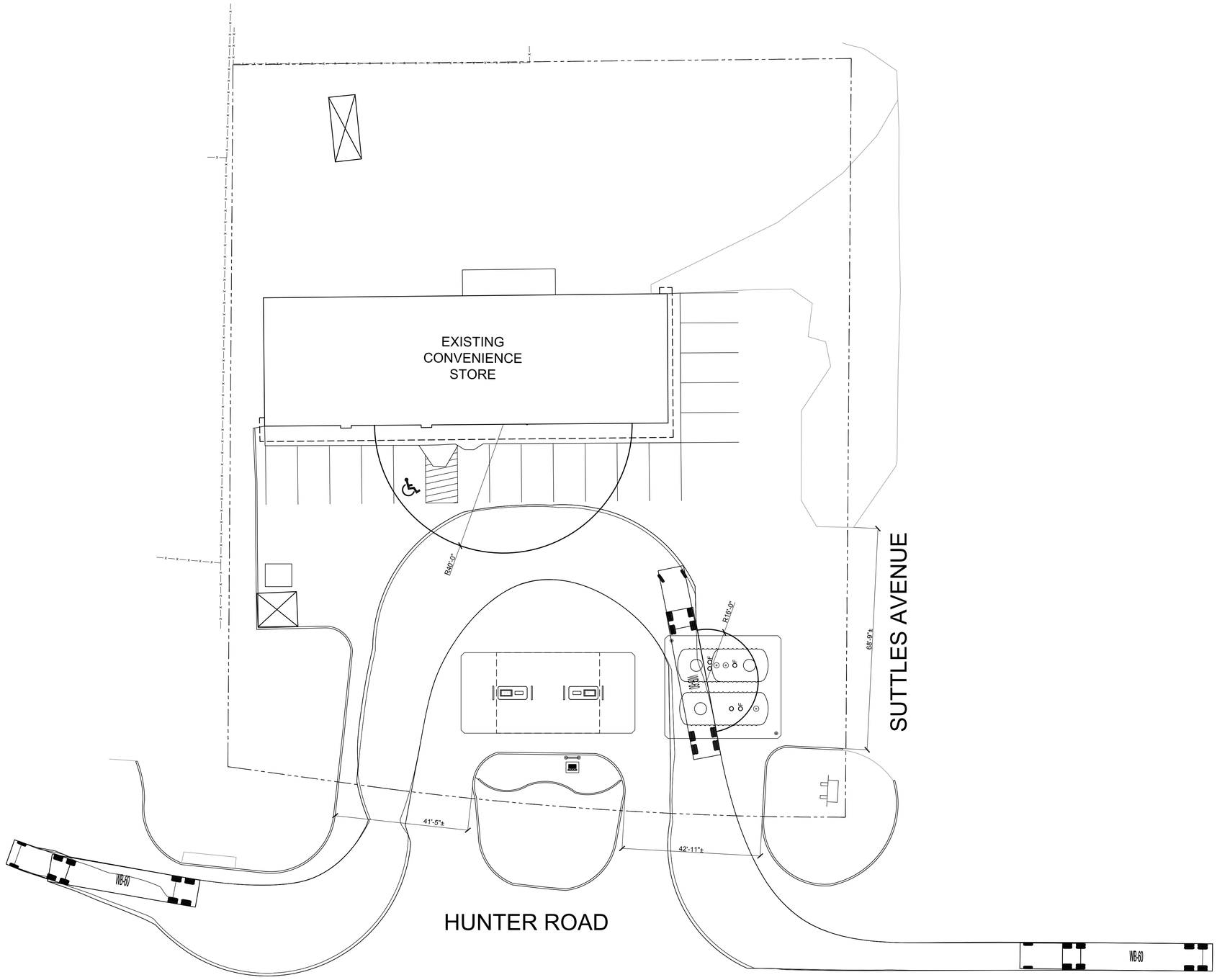
CORE STATES GROUP
212 SE 14th Street
Suite 2
Bentonville, AR 72712
479.936.4420
core-states.com
TEXAS REGISTERED ENGINEERING PRACTICE FIRM #F23944
TEXAS REGISTERED SURVEYING FIRM #10194482
EXPIRATION: 07/31/2025

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	CVK
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G0.1
FUELING - USA

PRINTED BY: GDELAROSA
DRAWING NAME: 40569 – G0.1 FUELING ARCHITECTURAL SITE PLAN.DWG PRINT DATE: Feb 12, 2025 – 4:19pm



1 FUELING TRUCK ROUTE
SCALE: 1/16" = 1'-0"

Rev. #	Date	Description

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

FUELING TRUCK ROUTE

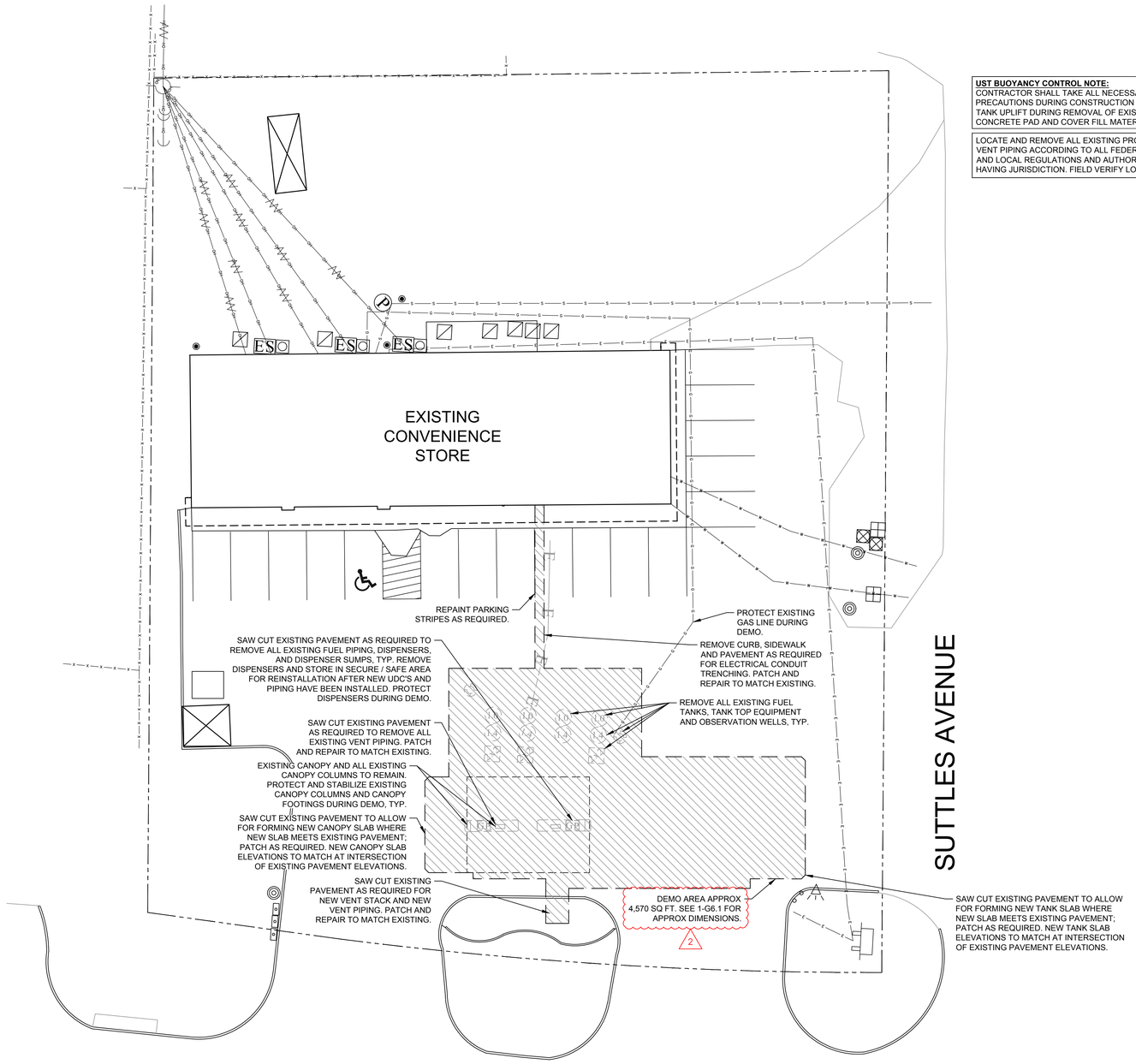
CORE STATES GROUP
212 SE 34th Street
Suite 2
Bentonville, AR 72712
479.780.4400
core-states.com
TEXAS REGISTERED ENGINEERING
FIRM F-19944
EXPIRATION: 07/31/2025

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	GJD
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G0.2
FUELING - USA

PRINTED BY: GDELAROSA
DRAWING NAME: 40569 - G0.2 FUELING TRUCK ROUTE.DWG PRINT DATE: Feb 12, 2025 - 4:19pm



1 DEMO PLAN
SCALE: 1/16" = 1'-0"

UST BUOYANCY CONTROL NOTE:
CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS DURING CONSTRUCTION TO PREVENT TANK UPLIFT DURING REMOVAL OF EXISTING TANK CONCRETE PAD AND COVER FILL MATERIALS.

LOCATE AND REMOVE ALL EXISTING PRODUCT AND VENT PIPING ACCORDING TO ALL FEDERAL, STATE AND LOCAL REGULATIONS AND AUTHORITIES HAVING JURISDICTION. FIELD VERIFY LOCATION.

811 Know what's below. Call before you dig.

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON DESIGN DRAWINGS, RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. CORESTATES, INC. DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES.

GENERAL NOTES

1 CONTRACTOR TO CUT AND REMOVE CONCRETE AS NECESSARY TO REMOVE ALL EXISTING PIPING. LOCATION OF REMOVAL AT DISPENSER ISLANDS IS APPROXIMATE AND IS BASED ON AVAILABLE INFORMATION.

Rev. #	Date	Description
1	02/06/25	PEER REVIEW COMMENTS
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Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

FUELING DEMOLITION PLAN

CORE STATES GROUP
212 SE 34th Street
Suite 2
Bentonville, AR 72712
479.268.4400
core-states.com
TEXAS REGISTERED ENGINEERING FIRM F-19944
TEXAS REGISTERED SURVEYING FIRM LS-10194
EXPIRATION: 07/31/2025

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	KLC
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G0.3

FUELING - USA

PRINTED BY: GDELAROSA
DRAWING NAME: 40569 - G0.3 DEMO PLAN.dwg PRINT DATE: Feb 12, 2025 - 4:19pm

Underground Storage Tank Buoyancy Calculations for Fiberglass Tanks

Project #: SEI.38204
Project Name: San Marcos, TX #40569
Tank Manufacturer / Model: Xerxes DW 10' 15K

Number of Tanks:	1	
Tank Dry Weight:	7000	lbs
Tank Volume:	15000	gallons
Tank Diameter *(ø)* :	10	feet
Tank Bury Depth:	4.17	feet
Tank Length *(L)*:	27.48	feet
Number of Sumps:	1	
Sump Diameter:	42	inches
Tank Slab Length:	36.08	feet
Tank Slab Width:	15.96	feet
Tank Slab Thickness:	8	inches
Deadman Length *(DL)*:	24	feet
Deadman Width *(DW)*:	18	inches
Deadman Height:	8.75	inches

Assumptions

100% saturation to finished grade

water =	62.4 lb/CF
submerged concrete =	87.6 lb/CF
submerged aggregate =	57.6 lb/CF

Tank & Sump(s) Uplift

Tank

U1 = 15000 gal / 7.49 gal/CF x 62.4 lb/CF = 124,967 lbs

Sumps

U2 = 40.1 CF x 62.4 lb/CF = 2,502 lbs

Total Uplift

U= ∑ Ui = **127,469 lbs UP**

Dead Weights for Hold Down

Concrete Slab

W1 = 383.9 CF x 87.6 lb/CF = 33,629 lbs

Backfill Above Tank

W2 = 1,153 CF x 57.6 lb/CF = 66,387 lbs

Gravel Column Above Deadman (2 deadmen per tank)

W3 = 972.24 CF x 57.6 lb/CF = 56,001 lbs

Soil Wedge Above Deadman (2 total)

W4 = 210.1208 CF x 57.6 lb/CF = 12,103 lbs

Concrete Deadman (2 deadmen per tank)

W4 = 52.5 CF x 87.6 lb/CF = 4599 lbs

Dry Weight of Tank

W5 = 7,000 lbs

Total Weight

W= ∑ Wi = **179,719 lbs DOWN**

Net Force

Fnet = ∑ Wi - ∑ Ui = **52,250 DOWN**

Factor of Safety

F.S. = 179,719 lbs / 127,469 lbs .= 1.41 PASS

Underground Storage Tank Buoyancy Calculations for Fiberglass Tanks

Project #: SEI.38204
Project Name: San Marcos, TX #40569
Tank Manufacturer / Model: Xerxes DW 10' 15K Split

Number of Tanks:	1	
Tank Dry Weight:	8500	lbs
Tank Volume:	15000	gallons
Tank Diameter *(ø)* :	10	feet
Tank Bury Depth:	4.17	feet
Tank Length *(L)*:	28.09	feet
Number of Sumps:	2	
Sump Diameter:	42	inches
Tank Slab Length:	36.08	feet
Tank Slab Width:	15.96	feet
Tank Slab Thickness:	8	inches
Deadman Length *(DL)*:	24	feet
Deadman Width *(DW)*:	18	inches
Deadman Height:	8.75	inches

Assumptions

100% saturation to finished grade

water =	62.4 lb/CF
submerged concrete =	87.6 lb/CF
submerged aggregate =	57.6 lb/CF

Tank & Sump(s) Uplift

Tank

U1 = 15000 gal / 7.49 gal/CF x 62.4 lb/CF = 124,967 lbs

Sumps

U2 = 80.2 CF x 62.4 lb/CF = 5,004 lbs

Total Uplift

U= ∑ Ui = **129,971 lbs UP**

Dead Weights for Hold Down

Concrete Slab

W1 = 383.9 CF x 87.6 lb/CF = 33,629 lbs

Backfill Above Tank

W2 = 1,204 CF x 57.6 lb/CF = 69,375 lbs

Gravel Column Above Deadman (2 deadmen per tank)

W3 = 972.24 CF x 57.6 lb/CF = 56,001 lbs

Soil Wedge Above Deadman (2 total)

W4 = 210.1208 CF x 57.6 lb/CF = 12,103 lbs

Concrete Deadman (2 deadmen per tank)

W4 = 52.5 CF x 87.6 lb/CF = 4599 lbs

Dry Weight of Tank

W5 = 8,500 lbs

Total Weight

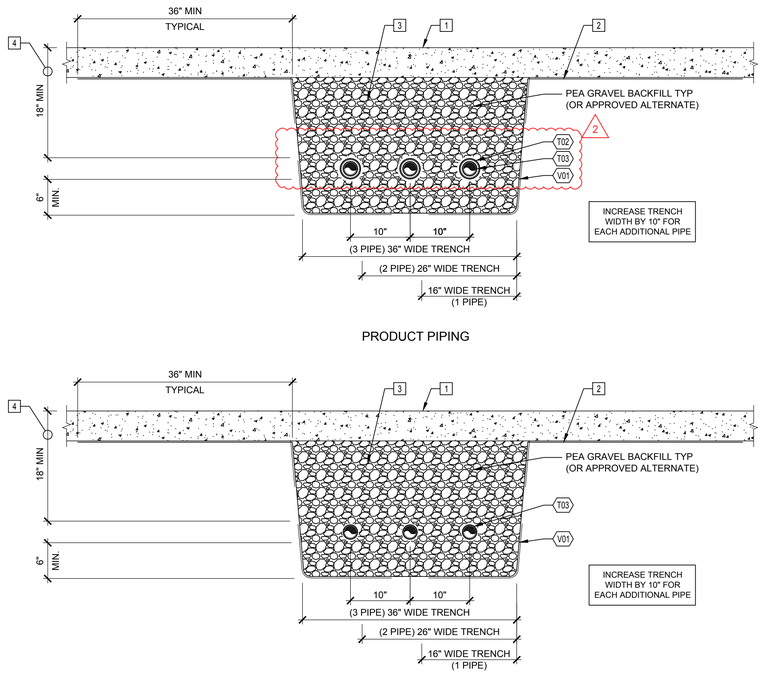
W= ∑ Wi = **184,207 lbs DOWN**

Net Force

Fnet = ∑ Wi - ∑ Ui = **54,236 DOWN**

Factor of Safety

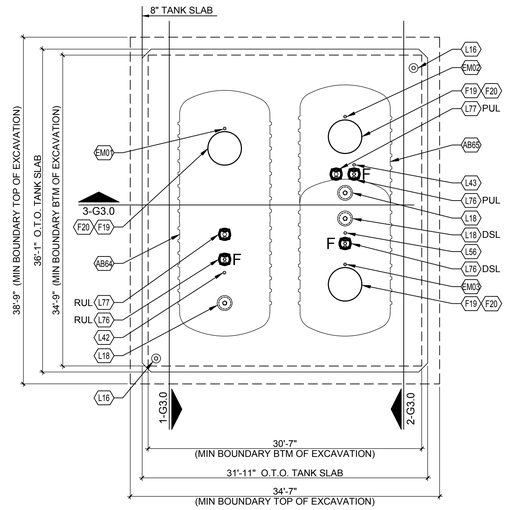
F.S. = 184,207 lbs / 129,971 lbs .= 1.42 PASS



3 PIPING TRENCH SECTION
SCALE: 1" = 1'-0"

NOTE:
FOR REINFORCING AT TANK SLAB PENETRATIONS AND CORNERS, REF CIVIL STANDARD PROTOTYPE SHEET CPC-1.

NOTE:
REF G0.1 FOR TANK SLAB ORIENTATION AND LOCATION



2 TANK SLAB PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES

1. ALL CONSTRUCTION SHALL MEET COUNTY STANDARDS. CONTRACTOR TO SECURE ENTIRE CONSTRUCTION AREA WITH CHAIN LINK FENCING DURING CONSTRUCTION PERIOD.
2. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER OF ANY DIFFERENCES BETWEEN THE ACTUAL FIELD CONDITIONS AND THE PLANS BEFORE PROCEEDING WITH CONSTRUCTION.
3. FUEL CONTRACTOR SHALL BE RESPONSIBLE FOR THE INTEGRITY OF THE PIPING SYSTEM DURING CANOPY ERECTION AND CONCRETE FLATWORK INSTALLATION.
4. AFTER COMPLETING INSTALLATION OF DISPENSERS, THE FUEL CONTRACTOR IS TO INSTALL BRIGHT ORANGE CONSTRUCTION FENCE AROUND ENTIRE DISPENSER.
5. FUEL CONTRACTOR IS TO BE AWARE THAT ON THE DAY THE GASOLINE SYSTEM IS PUT INTO SERVICE, THE FUEL CONTRACTOR AND A GILBARCO AUTHORIZED SERVICE CONTRACTOR MUST BE ON SITE ONE (1) HOUR PRIOR TO STARTUP AND MUST REMAIN ON SITE THREE (3) ADDITIONAL HOURS FOR A TOTAL OF FOUR (4) HOURS. ANY COSTS INCURRED OVER FOUR (4) HOURS DUE TO FUELING SYSTEM ISSUES, SHOULD BE BILLED AS A CHANGE ORDER.

KEY NOTES

1. 6" CONCRETE SLAB AT FUELING CANOPY. REF G0.1 FOR TOS ELEVATIONS.
2. GEOTECH FABRIC MATERIAL TO EXTEND 36" PAST EACH SIDE OF PIPING TRENCH. ALL GEOTECH FABRIC MATERIAL SHALL BE PINNED PRIOR TO BACKFILLING. METHOD OF PINNING FABRIC AT TOP OF EXCAVATION TO BE APPROVED BY THE 7-ELEVEN CONSTRUCTION MANAGER.
3. PIPING TRENCHES SHALL BE DUG IN SUCH A MANNER THAT THE TRENCH WIDTH IS EQUAL TO AT LEAST TWICE WIDTH OF ALL PIPING CONTAINED WITHIN. MAINTAIN A MINIMUM OF 4" (10cm) CLEAR DISTANCE BETWEEN PIPING POSITIONED IN THE TRENCH AND 6" WHERE PIPING CROSSES OVER EACH OTHER. THE BOTTOM OF THE TRENCH SHALL BE AS UNIFORM AS POSSIBLE TO ELIMINATE HIGH SPOTS AND ENSURING AN EVEN LAYER OF BEDDING MATERIAL UNDER THE PIPE. REMOVE ALL SHARP ROCKS AND DEBRIS FROM THE TRENCH BOTTOM BEFORE BEDDING MATERIAL IS INSTALLED.
4. SITE CONDITIONS MAY CAUSE VARIATIONS WHICH MUST BE APPROVED BY 7-ELEVEN AND MANUFACTURER. PIPING BURIAL DEPTHS LESS THAN 18" REQUIRES 7-ELEVEN APPROVAL.

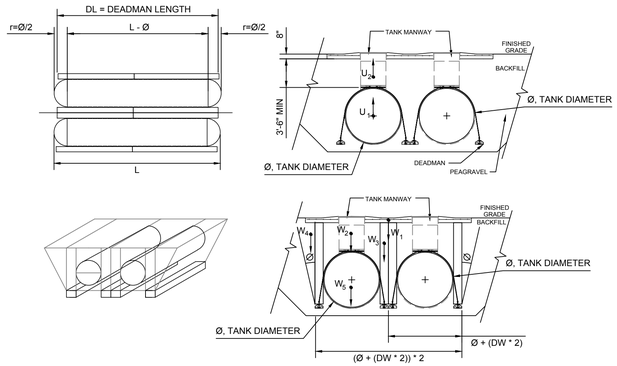
Rev. #	Date	Description
1	02/06/25	PEER REVIEW COMMENTS
2	02/12/25	FRP PIPING UPDATE

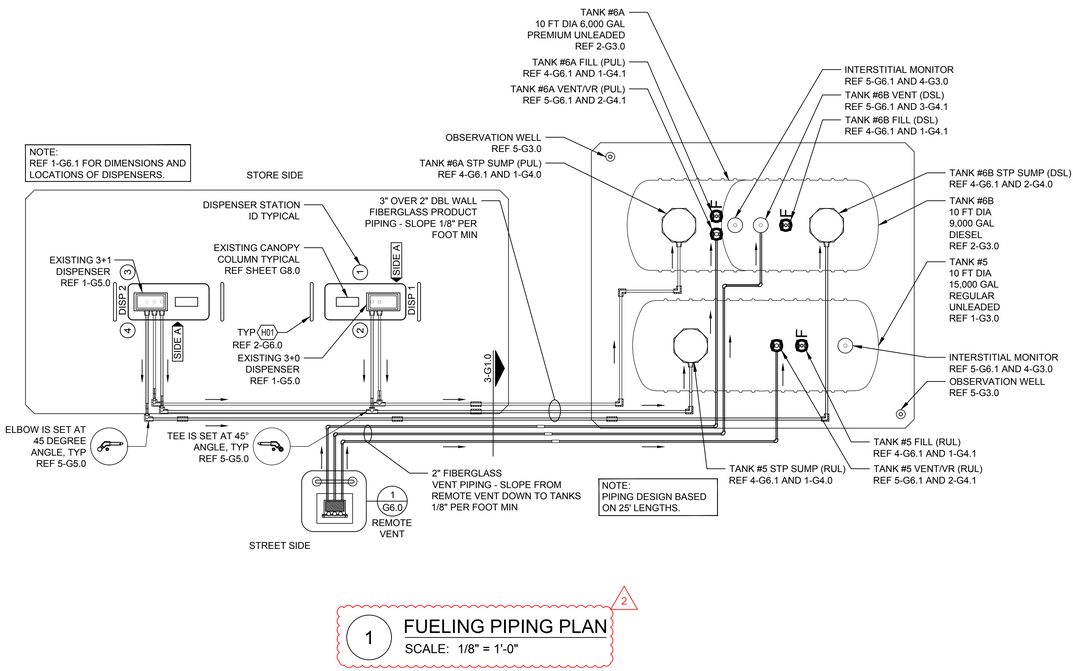
Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

FUELING PIPING AND TANK PLAN





1 FUELING PIPING PLAN
SCALE: 1/8" = 1'-0"

CORE STATES GROUP
212 E 34th Street
Suite 2
Bryan, TX 77802
479.966.4400
core-states.com
TEXAS REGISTERED ENGINEERING
FIRM F-19394
EXPIRATION: 07/31/2025

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	GJD
Checked By:	RWB

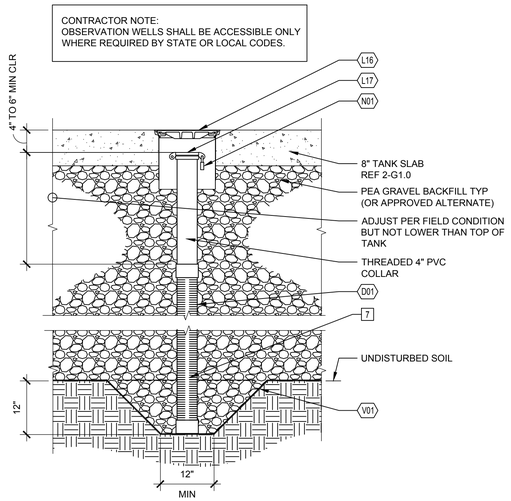
STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G1.0
FUELING - USA

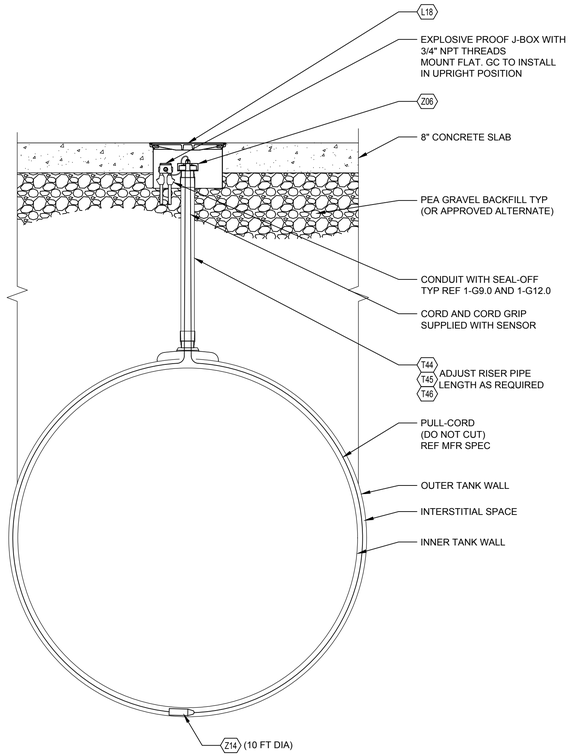
PRINTED BY: GDELAROSA
DRAWING NAME: 40569 – G1.0 FUELING PIPING AND TANK PLAN.DWG
PRINT DATE: Feb 12, 2025 - 4:19pm

KEY NOTES

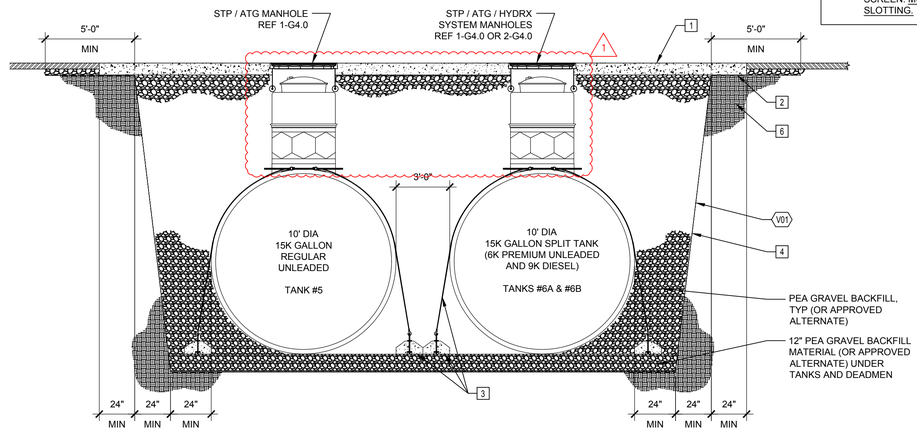
1. CONCRETE SLAB. REF G0.1 FOR TOS ELEVATIONS. ALL MANHOLES WITHIN THE TANK SLAB AREA TO BE RAISED 1" ABOVE THE NORMAL GRADE OF CONCRETE. SLOPE CONCRETE TO MANHOLES 1/4" PER FT.
   CROWN CONCRETE AS TO NOT INHIBIT WATER DRAINAGE OFF THE TANK SLAB (NO POOLING).
2. GEOTECH FABRIC MATERIAL TO EXTEND 60" MINIMUM PAST THE TANK HOLE EXCAVATION. ALL GEOTECH FABRIC MATERIAL TO BE PINNED PRIOR TO BACKFILLING. METHOD OF PINNING FABRIC AT TOP OF EXCAVATION TO BE APPROVED BY THE 7-ELEVEN CONSTRUCTION MGR.
3. MOH STRAP ANCHOR SYSTEM SUPPLIED BY TANK MANUFACTURER. PLACE DEADMEN PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
4. FOR SLOPE, FOLLOW CURRENT OSHA REGULATIONS. IF SHEET PILES ARE UTILIZED, PROVIDE 42" MINIMUM CLEARANCE BETWEEN NEW TANKS AND SHORING.
5. BURIAL DEPTH GREATER THAN 5'-8" REQUIRES 7-ELEVEN AND MANUFACTURER'S APPROVAL.
6. UNDISTURBED SOIL OR COMPACTED BACK FILL NOT LESS THAN 95% OF MODIFIED PROCTOR DENSITY (AASHTO-T-180).
7. 4" DIAMETER SCHEDULE 40 PVC WITH .020 WELL SCREEN. MUST BE FACTORY SLOTTED, NO FIELD SLOTTING.



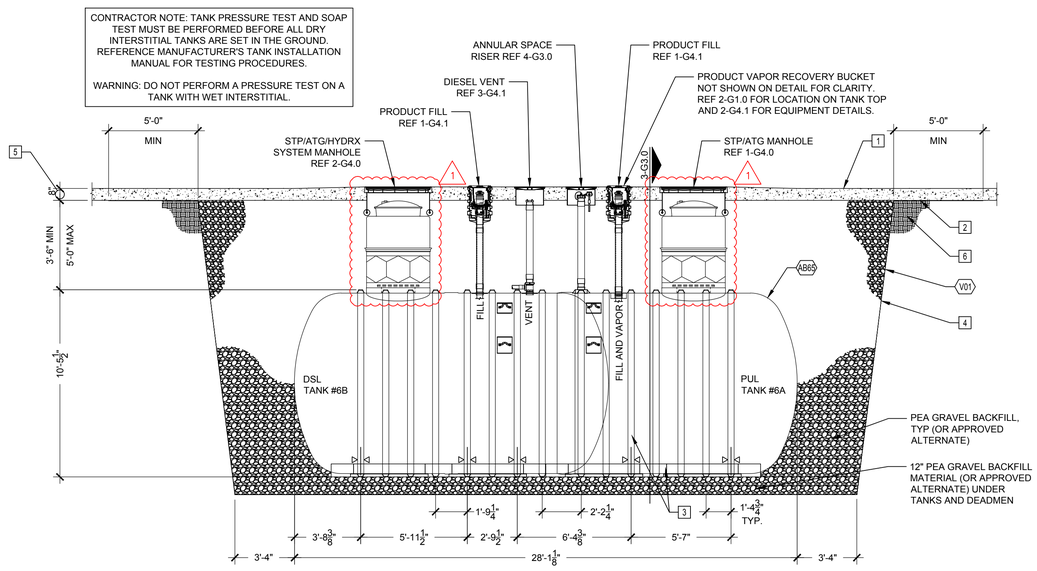
5 ACTIVE OBSERVATION WELL SECTION
SCALE: 3/4" = 1'-0"



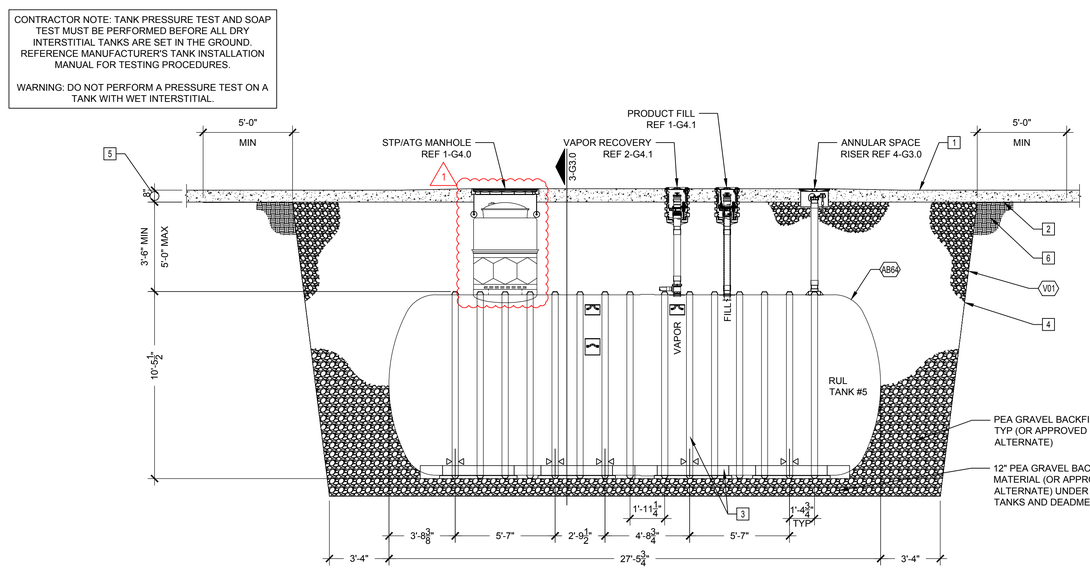
4 ANNULAR SPACE RISER AND SENSOR SECTION
SCALE: 1/2" = 1'-0"



3 10' DIA UNDERGROUND STORAGE TANK SECTION
SCALE: 1/4" = 1'-0"



2 10' DIA 15,000 GALLON SPLIT UNDERGROUND STORAGE TANK SECTION
SCALE: 1/4" = 1'-0"



1 10' DIA 15,000 GALLON UNDERGROUND STORAGE TANK SECTION
SCALE: 1/4" = 1'-0"

Rev. #	Date	Description
1	02/06/25	PEER REVIEW COMMENTS

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

TANK SECTIONS

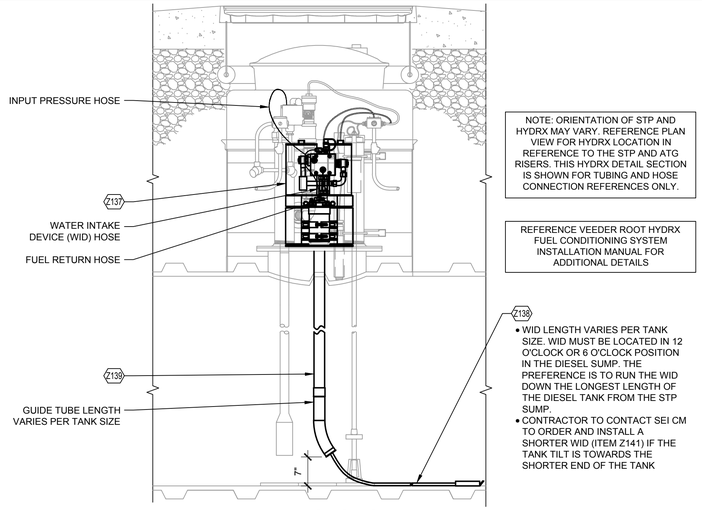
CORE STATES GROUP
212 SE 34th Street
Bentonville, AR 72712
479.936.4420
core-states.com
TEXAS REGISTERED ENGINEERING FIRM F-20043
TEXAS REGISTERED SURVEYING FIRM LS-10013800
EXPIRATION: 07/31/2025

Job#:	SEI 38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	GJD
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G3.0
FUELING - USA

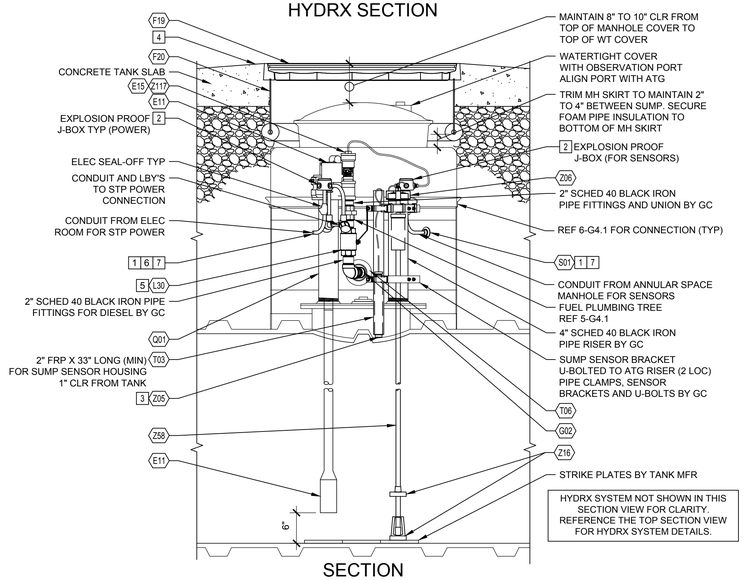
PRINTED BY: GDELAROSA
DRAWING NAME: 40569 – G3.0 TANK SECTIONS.DWG
PRINT DATE: Feb 12, 2025 – 4:19pm



NOTE: ORIENTATION OF STP AND HYDRX MAY VARY. REFERENCE PLAN VIEW FOR HYDRX LOCATION IN REFERENCE TO THE STP AND ATG RISERS. THIS HYDRX DETAIL SECTION IS SHOWN FOR TUBING AND HOSE CONNECTION REFERENCES ONLY.

REFERENCE VEEDER ROOT HYDRX FUEL CONDITIONING SYSTEM INSTALLATION MANUAL FOR ADDITIONAL DETAILS

HYDRX SECTION



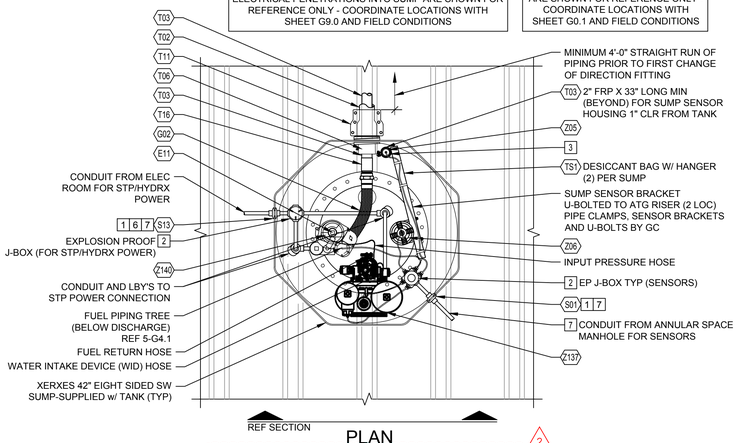
HYDRX SYSTEM NOT SHOWN IN THIS SECTION VIEW FOR CLARITY. REFERENCE THE TOP SECTION VIEW FOR HYDRX SYSTEM DETAILS.

SECTION

ROTATE VIEW AS REQUIRED FOR FIELD CONDITION

ELECTRICAL PENETRATIONS INTO SUMP ARE SHOWN FOR REFERENCE ONLY - COORDINATE LOCATIONS WITH SHEET G9.0 AND FIELD CONDITIONS

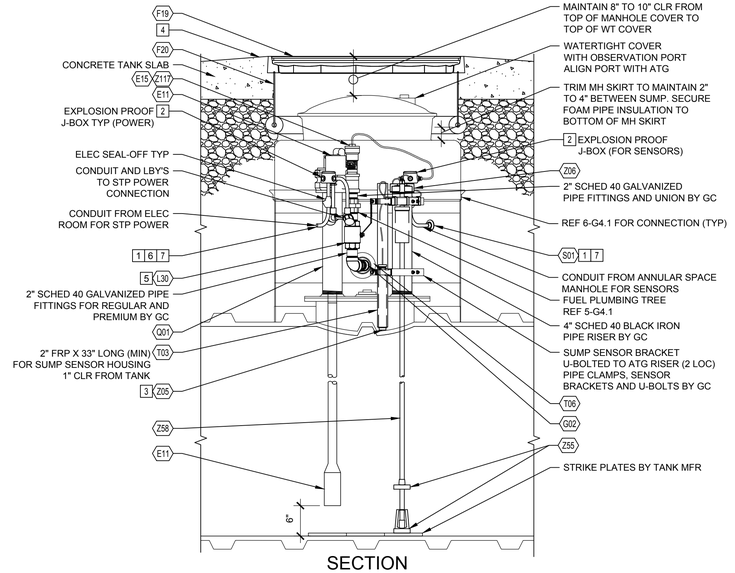
PIPING PENETRATIONS INTO SUMP ARE SHOWN FOR REFERENCE ONLY - COORDINATE LOCATIONS WITH SHEET G0.1 AND FIELD CONDITIONS



PLAN

2 DIESEL STP SUMP DETAILS

SCALE: 3/4" = 1'-0"

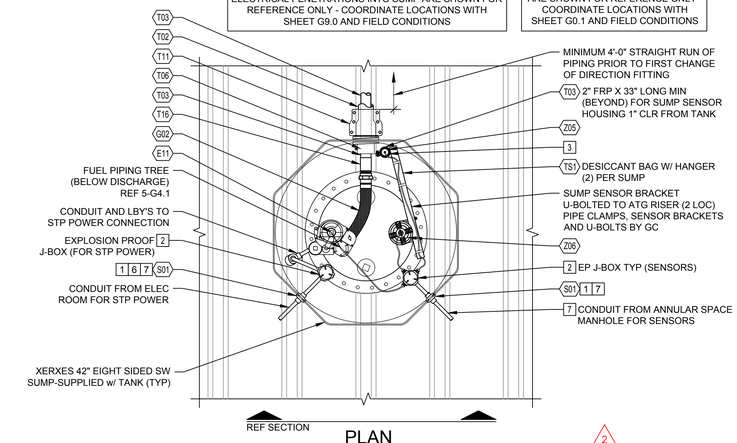


SECTION

ROTATE VIEW AS REQUIRED FOR FIELD CONDITION

ELECTRICAL PENETRATIONS INTO SUMP ARE SHOWN FOR REFERENCE ONLY - COORDINATE LOCATIONS WITH SHEET G9.0 AND FIELD CONDITIONS

PIPING PENETRATIONS INTO SUMP ARE SHOWN FOR REFERENCE ONLY - COORDINATE LOCATIONS WITH SHEET G0.1 AND FIELD CONDITIONS



PLAN

1 REGULAR AND PREMIUM STP SUMP DETAILS

SCALE: 3/4" = 1'-0"

KEY NOTES

1. ELECTRICAL CONDUIT(S) TO ENTER SUMP 2" MIN ABOVE HIGHEST PRODUCT PENETRATION.
2. LOCATE ELECTRICAL JUNCTION BOX IN UPWARD POSITION AT HIGHEST LOCATION IN SUMP RISER FOR EASY ACCESS FROM ABOVE.
3. SUMP SENSOR TO REST AT LOWEST POINT OF SUMP ENCLOSURE ON PRODUCT PIPING SIDE OF SUMP. TANK CONTRACTOR TO SUPPLY ALL BRACKETS AND CLAMPS FOR 2-POINT MOUNTING OF THE 2" FRP SLEEVE.
4. SET MANHOLE COVERS 1" ABOVE THE FINISH GRADE AND SLOPE CONCRETE AWAY FROM MANWAY COVERS AT 2% GRADE.
5. POSITION BALL VALVE FOR UNOBSTRUCTED USE OF SHUT-OFF HANDLE.
6. STP POWER CONDUITS MUST BE RUN IN SEPARATE RACEWAY. ENTIRE WIRING RUN MUST BE IN RIGID PVC COATED GALVANIZED STEEL CONDUIT. USE ONLY ROB ROY CONDUIT TYPES "PERMA-COAT", "PLASTI-BOND" OR "KORKAP", NO PVC OR RNC CONDUIT ALLOWED.
7. USE ONLY ROB ROY CONDUIT TYPES "PERMA-COAT", "PLASTI-BOND" OR "KORKAP" ELECTRICAL CONDUITS AT FIBERGLASS TANK SUMPS OR WHERE BRAVO F-17-RR OR F-10-RR ENTRY FITTINGS ARE CALLED OUT.

Rev. #	Date	Description
1	02/06/25	PEER REVIEW COMMENTS
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7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

TANK SUMP DETAILS

CORE STATES GROUP
TEXAS REGISTERED ENGINEERING FIRM F-2595 TBPELS FIRM #10013200
EXPIRATION: 07/31/2025
212 SE 34th Street
Suite 2
Bentonville, AR 72712
479.769.4400
core-states.com

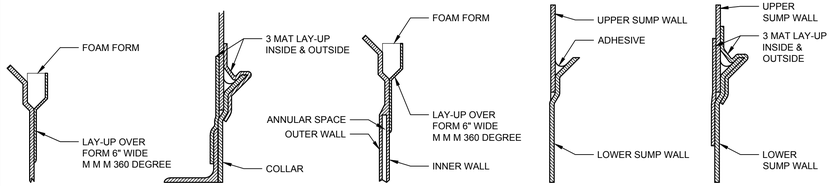
Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	GJD
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED PROFESSIONAL ENGINEER
02/12/2025

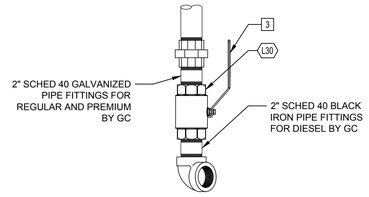
SHEET:
G4.0

FUELING - USA

PRINTED BY: GDELAROSA
DRAWING NAME: 40569 - G4.0 TANK SUMP DETAILS.DWG PRINT DATE: Feb 12, 2025 - 4:19pm

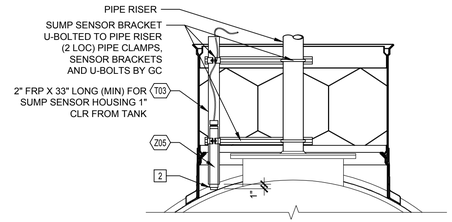


6 TANK SUMP LAYUP DETAILS
SCALE: NTS



SINGLE
PRODUCT OUTPUT

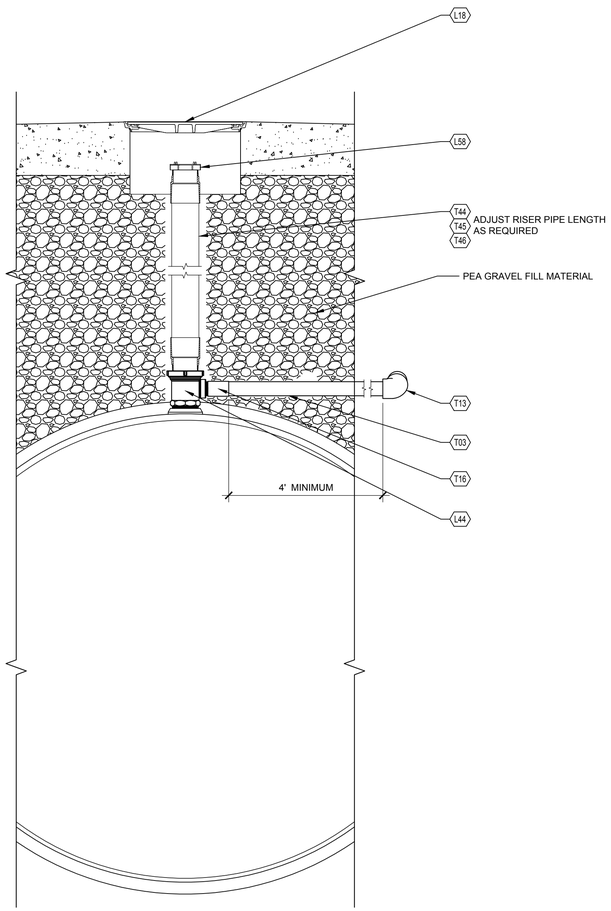
5 FUEL PIPING TREE DETAILS
SCALE: 1 1/2" = 1'-0"



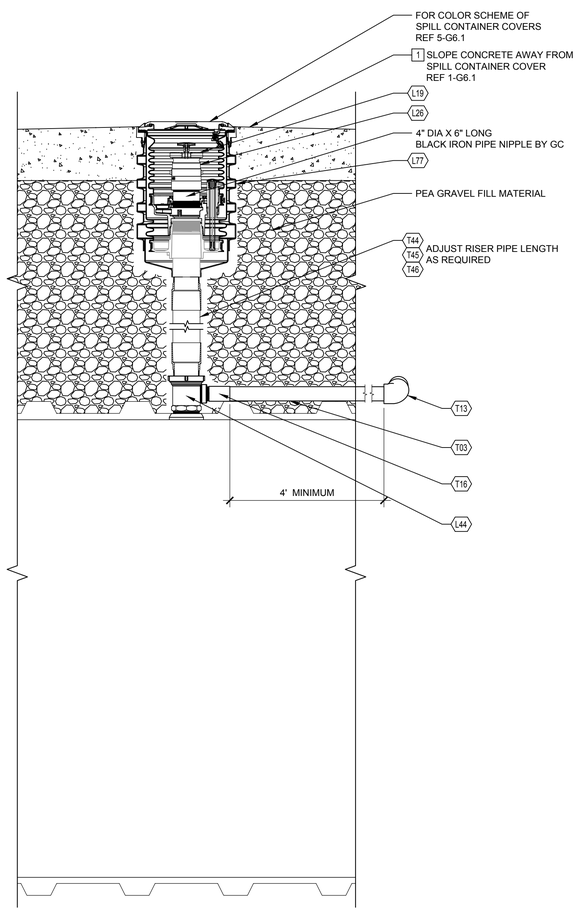
4 SUMP SENSOR AND SENSOR BRACKET DETAIL
SCALE: 3/4" = 1'-0"

KEY NOTES

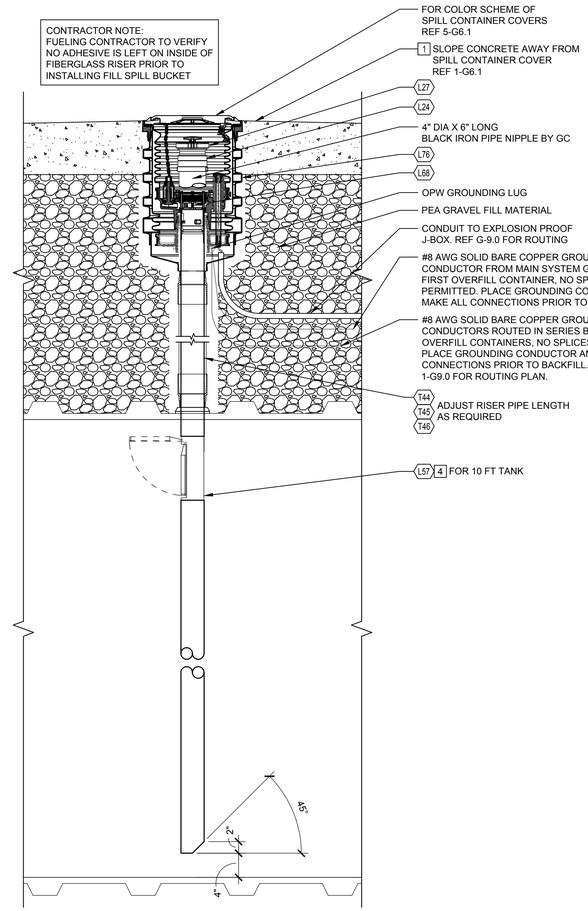
1. CONCRETE SLAB. REF G0.1 FOR TOS ELEVATIONS. ALL MANHOLES COVERS WITHIN THE TANK SLAB AREA ARE TO BE SET 1" ABOVE THE FINISH GRADE AND SLOPE CONCRETE AWAY FROM MANWAY COVERS AT 2% GRADE. CROWN CONCRETE AS TO NOT INHIBIT WATER DRAINAGE OFF THE TANK SLAB (NO POOLING).
2. SUMP SENSOR TO REST AT LOWEST POINT OF SUMP ENCLOSURE ON PRODUCT PIPING SIDE OF SUMP. TANK CONTRACTOR TO SUPPLY UNISTRUT BRACKETS, PIPE CLAMPS AND 2" FRP SLEEVE FOR 2-POINT MOUNTING OF THE SLEEVE.
3. POSITION BALL VALVE FOR UNOBSTRUCTED USE OF SHUT-OFF HANDLE.
4. OVERFILL PREVENTION VALVE INSTALLED PER MFR'S SPECIFICATIONS. SET OVERFILL DEVICE FOR RESTRICTION OF FLOW AT OR BELOW 90% TANK CAPACITY AND POSITIVE SHUT-OFF AT 95% TANK CAPACITY TO MEET NFPA 30 REQUIREMENTS.



3 DIESEL VENT DETAIL
SCALE: 1"-0" = 1'-0"



2 RUL & PUL VENT/VAPOR DETAIL
SCALE: 1"-0" = 1'-0"



1 FUEL FILL CONTAINER DETAIL
SCALE: 1"-0" = 1'-0"

Rev. #	Date	Description
1	02/06/25	PEER REVIEW COMMENTS
2	02/12/25	FRP PIPING UPDATE

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

TANK SUMP DETAILS

CORE STATES GROUP
212 SE 34th Street
Suite 2
Bentonville, AR 72712
479.986.4400
core-states.com
TEXAS REGISTERED ENGINEERING
FIRM F-20029
EXPIRATION: 07/31/2025

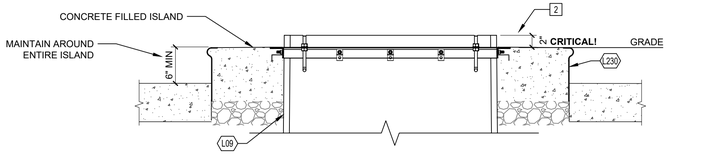
Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	GJD
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

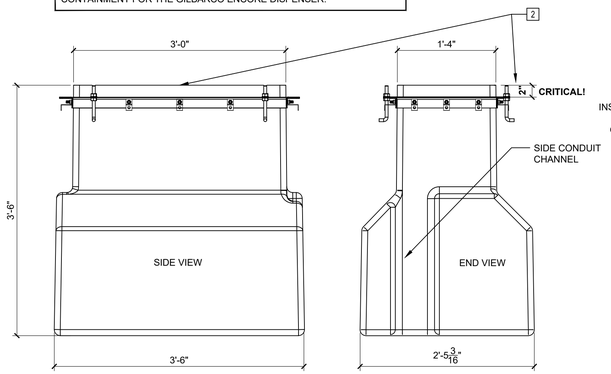
SHEET:
G4.1

FUELING - USA

PRINTED BY: GDELAROSA
DRAWING NAME: X0569 - G4.1 TANK SUMP DETAILS.DWG PRINT DATE: Feb 12, 2025 - 4:19pm

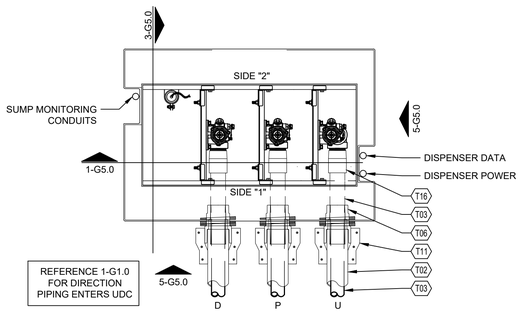


NOTE: THE DEEP DISPENSER SUMP (FDS-4021-SL) SHOWN IS TO PROVIDE CONTAINMENT FOR THE GILBARCO ENCORE DISPENSER.

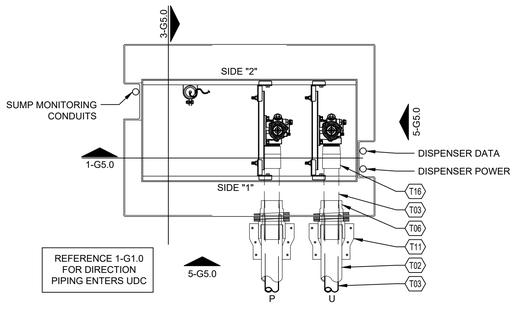


5 DISPENSER SUMP ELEVATIONS

SCALE: 1"-0" = 1'-0"



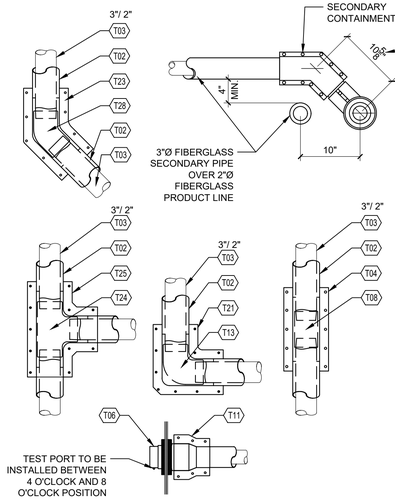
EXISTING 3+1 DISPENSER



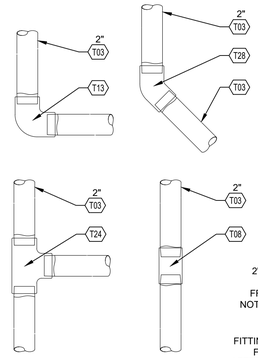
EXISTING 3+0 DISPENSER

2 DISPENSER SUMP - PLAN VIEWS

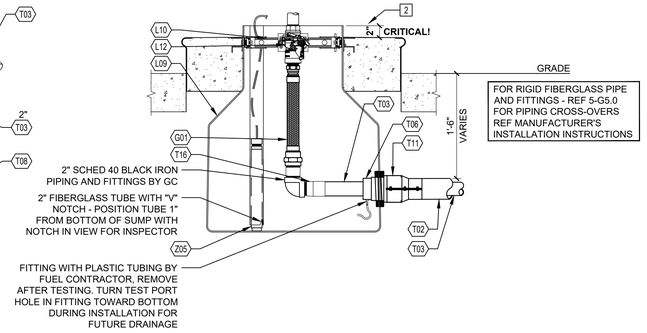
SCALE: 1"-0" = 1'-0"



DW PRODUCT PIPING



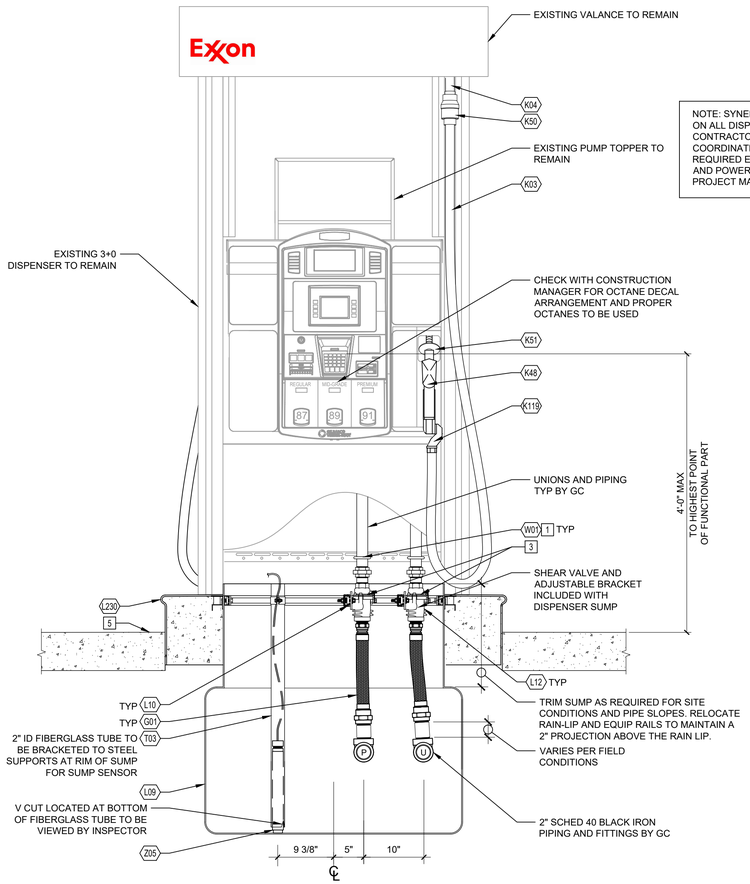
SW VENT PIPING



FOR RIGID FIBERGLASS PIPE AND FITTINGS - REF 5-G5.0 FOR PIPING CROSS-OVERS REF MANUFACTURER'S INSTALLATION INSTRUCTIONS

4 PIPING CONNECTIONS

SCALE: 1"-0" = 1'-0"

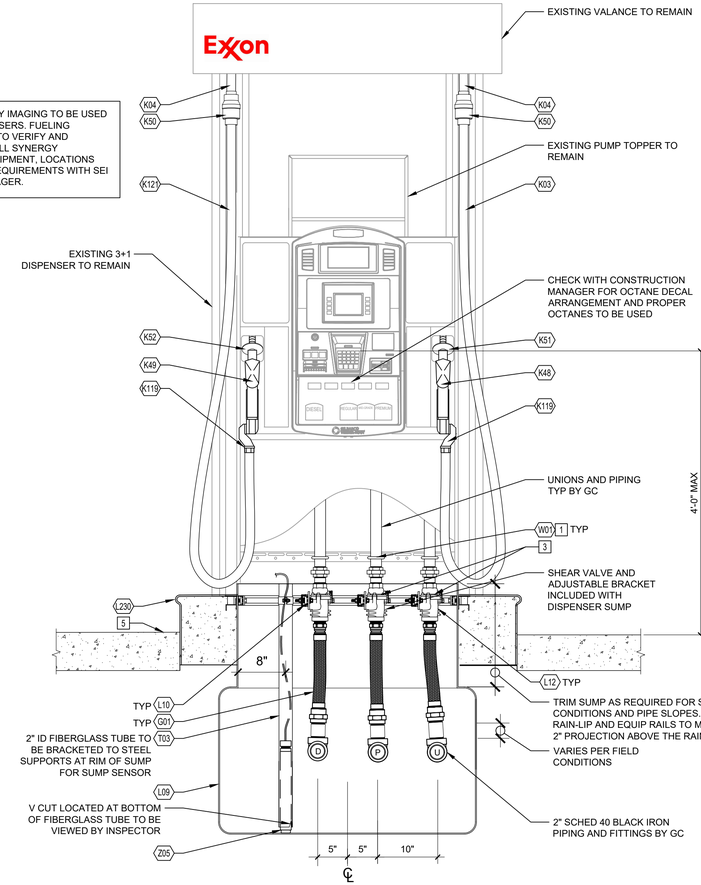


EXISTING 3+0 DISPENSER

NOTE: SYNERGY IMAGING TO BE USED ON ALL DISPENSERS. FUELING CONTRACTOR TO VERIFY AND COORDINATE ALL SYNERGY REQUIRED EQUIPMENT, LOCATIONS AND POWER REQUIREMENTS WITH SEI PROJECT MANAGER.

3 DISPENSER SUMP SECTION

SCALE: 1"-0" = 1'-0"



EXISTING 3+1 DISPENSER

1 GILBARCO ENCORE 700S DISPENSER

SCALE: 1"-0" = 1'-0"

GENERAL NOTES

1. AFTER ALL UNDERGROUND PIPING AND ELECTRIC CONDUITS ARE INSTALLED AND DURING EXCAVATION, BACKFILLING, AND CONCRETE POURING; A CONTINUOUS HYDROSTATIC TEST SHALL BE PERFORMED ON ALL SUMPS AND SPILL BUCKETS TO ENSURE TIGHTNESS AND PROPER INSTALLATION.
2. SUMP TO BE CLEANED OF DEBRIS AND DRIED AFTER TESTING.

KEY NOTES

1. SOURCE NORTH AMERICA TO SUPPLY U-BOLTS TO SECURE PIPING TO CROSS BRACKETS SUPPLIED BY GILBARCO.
2. **CRITICAL - MUST HAVE 2" RAIN LIP ABOVE INTEGRAL RAIN LIP FRAME.**
3. SHEAR SECTIONS OF SHEAR VALVES SHALL BE MOUNTED FLUSH WITH TOP OF PAVEMENT.
4. NOT USED.
5. CROWN CONCRETE AT BASE OF ISLANDS TO PROMOTE DRAINAGE AND INHIBIT POOLING AROUND DISPENSER ISLANDS.

Rev. #	Date	Description
1	02/06/25	PEER REVIEW COMMENTS
2	02/12/25	FRP PIPING UPDATE

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

DISPENSER AND SUMP DETAILS

CORE STATES GROUP
212 SE 34th Street
Bentonville, AR 72712
479.966.4400
core-states.com
TEXAS REGISTERED ENGINEERING FIRM F-14441
TEXAS REGISTERED SURVEYING FIRM LS-10194693
EXPIRATION: 07/31/2025

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	GJD
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

2

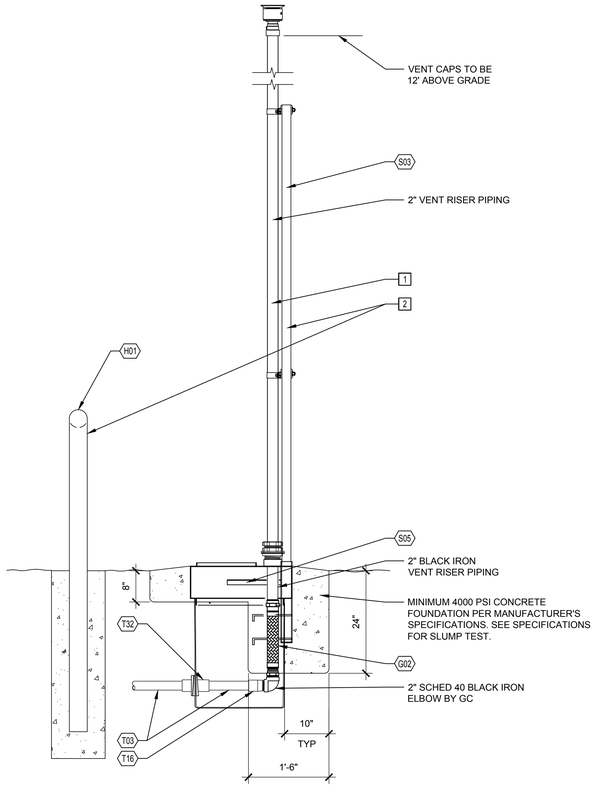
SHEET:
G5.0

FUELING - USA

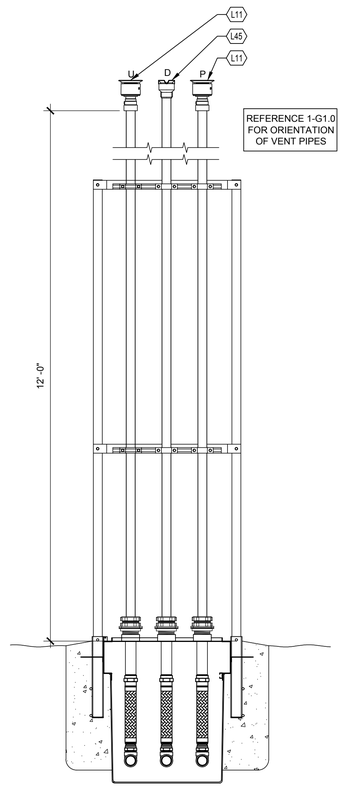
PRINTED BY: WBRAGG
DRAWING NAME: 40569 - G5.0 DISPENSER AND SUMP DETAILS.DWG PRINT DATE: Feb 13, 2025 - 9:43am

KEY NOTES

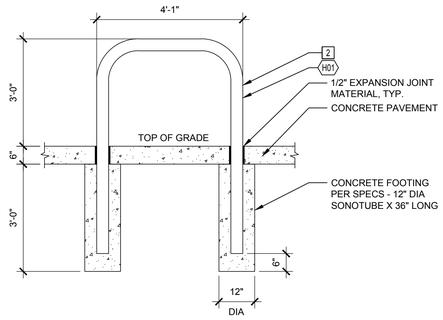
1	PAINT VENT PIPES PER EXXON BRANDING SPECIFICATIONS.
2	PAINT VENT RACK, BOLLARDS AND ALL OTHER EXPOSED METALS PER EXXON BRANDING SPECIFICATIONS.



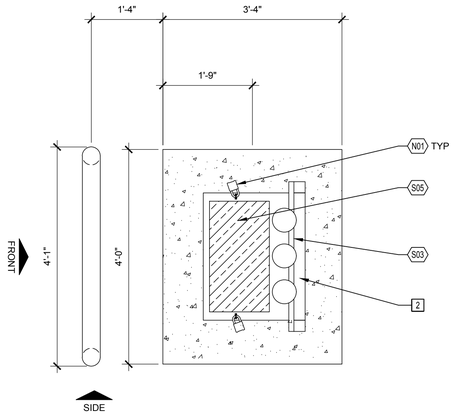
SIDE



FRONT



2 HOOP BOLLARD DETAIL
SCALE: 1/2" = 1'-0"



PLAN

1 TANK VENT RISER SECTIONS
SCALE: 3/4" = 1'-0"

Rev. #	Date	Description

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

REMOTE VENT AND DETAILS

CORE STATES GROUP
212 SE 34th Street
Bentonville, AR 72712
479.986.4400
Core-States.com
TEXAS REGISTERED ENGINEERING PRACTICE FIRM F-20143
EXPIRATION: 07/31/2025

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	KLC
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

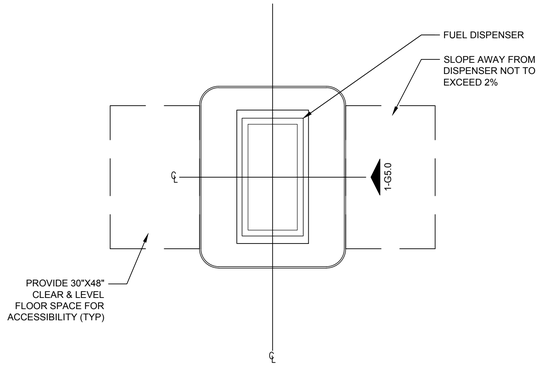
SHEET:
G6.0

FUELING - USA

PRINTED BY: GDELAROSA
DRAWING NAME: 40569 - G6.0 REMOTE VENT AND DETAILS.DWG PRINT DATE: Feb 12, 2025 - 4:20pm

KEY NOTES

1. CONCRETE SLAB. REF G0.1 FOR TOS ELEVATIONS. ALL MANHOLES WITHIN THE TANK SLAB AREA TO BE RAISED 1" ABOVE THE NORMAL GRADE OF CONCRETE. SLOPE CONCRETE TO MANHOLES 1/4" PER FT. CROWN CONCRETE AS TO NOT INHIBIT WATER DRAINAGE OFF THE TANK SLAB (NO POOLING).

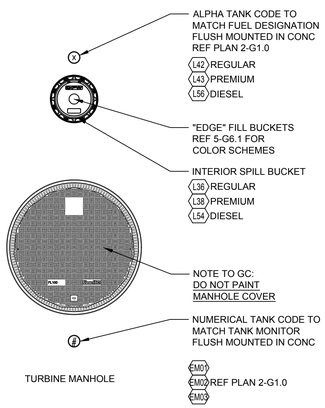


6 DISPENSER PLAN
SCALE: 1/2" = 1'-0"

RUL E10		WHITE
PUL E10		RED
DSL <B5		YELLOW
VAPOR		ORANGE
OB WELL		WHITE W/ BLACK TRIANGLE

ALL OTHER SMALL MANHOLES PAINT BLACK

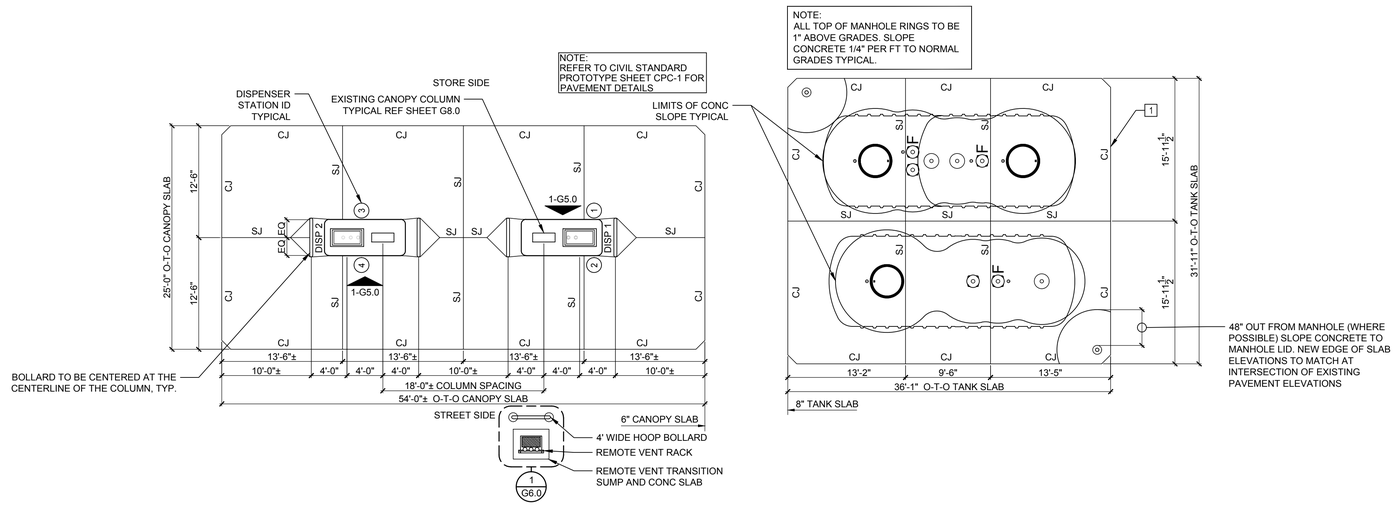
5 MANHOLE COLOR SCHEDULE
SCALE: 1/4" = 1'-0"



4 CONCRETE TAG AND MARKER DETAILS
SCALE: 1/2" = 1'-0"

3 NOT USED
SCALE: NTS

2 NOT USED
SCALE: NTS



1 FUEL AREA SLAB LAYOUT AND DIMENSIONAL PLAN
SCALE: 1/8" = 1'-0"

Rev. #	Date	Description

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

FUELING DIMENSIONAL PLAN

CORE STATES GROUP
212 SE 34th Street
Bentonville, AR 72712
479.366.4400
core-states.com
TEXAS REGISTERED ENGINEERING FIRM F-23944
TEXAS REGISTERED SURVEYING FIRM LS-10194668
EXPIRATION: 07/31/2025

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	KLC
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G6.1
FUELING - USA

PRINTED BY: GSELABOSA
DRAWING NAME: 40569 - G6.1 FUELING DIMENSIONAL PLAN.DWG PRINT DATE: Feb 12, 2025 - 4:20pm

3M SCHEDULE (CONTACT: MARK HODGES - MHODGES@SOURCENA.COM/877896-4328 FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
A02	1	6 CHANNEL INTERCOM SYSTEM	78-9236-2877-6	06005003	3M	7-ELEVEN / SOURCE NA	GC
A05	-	I/O CARD 4 STATION	78-8117-3900-8	06005143	3M	7-ELEVEN / SOURCE NA	GC

BRUTE SCHEDULE

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
B01	1	44 GALLON GRAY TRASH CAN FOR GAS ISLAND CANOPY	XXXXXXX	02835436	BRUTE	7-ELEVEN	GC
B02	1	CONTAINER DOLLY FOR GAS ISLAND CADDY	XXXXXXX	02835437	BRUTE	7-ELEVEN	GC
B03	1	RIM CADDY	XXXXXXX	02835438	BRUTE	7-ELEVEN	GC

DCI SCHEDULE

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
C03	2	GRAY SINGLE SIDED WASH-N-WIPE TRASH CONTAINER (EXXON/MOBIL ONLY)	758903	03126538	DCI	7-ELEVEN / SOURCE NA	GC

ENVIRONMENTAL PROTECTION SCHEDULE

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
D01	2	4" SLOTTED PVC X 16' , .020 SCREEN	PVCUST4-16-020	3124665	ENVIRONMENTAL PROTECTION	7-ELEVEN / SOURCE NA	GC

FE PETRO SCHEDULE (CONTACT: MIKE FRISK - FRISK@FRANKLINFUELING.COM/512-850-7954 FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
E01	-	MAG VARIABLE FREQUENCY CONTROLLER	MAG-VFC	06006133	FE PETRO INC.	7-ELEVEN / SOURCE NA	GC
E04	3	CONTROL BOX W/ SWITCH	STP-CBS	06006137	FE PETRO INC.	7-ELEVEN / SOURCE NA	GC
E10	-	2 HP VARIABLE SPEED SUBMERSIBLE PUMP W/ INTAKE FILTER	STPKVS2-VL2	03126506	FE PETRO INC.	7-ELEVEN / SOURCE NA	GC
E11	3	1.5 HP FIXED SPEED SUBMERSIBLE PUMP w/ INTAKE FILTER	STPK150-VL2	03126507	FE PETRO INC.	7-ELEVEN / SOURCE NA	GC
E15	3	CHECK VALVE TYPE "R"	400988932	03185395	FE PETRO INC.	7-ELEVEN / SOURCE NA	GC
E17	3	DISPENSER HOOK ISOLATION BOX	STP-DHI	03430256	FE PETRO INC.	7-ELEVEN / SOURCE NA	GC

FIBRELITE/OPW SCHEDULE (CONTACT: PARRISH EVANS - PARRISH.EVANS@OPWGLOBAL.COM/706-202-7812)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
F19	3	40" SUBMERGED PUMP MANHOLE W/O SNOW PLOW RING	FL100BLACK-FC-KIT	03124662	FIBRELITE/OPW	7-ELEVEN / SOURCE NA	GC
F20	3	SKIRT FOR FL100	FL100-SK18	03124663	FIBRELITE/OPW	7-ELEVEN / SOURCE NA	GC

FLEXING SCHEDULE (CONTACT: MARK HODGES - MHODGES@SOURCENA.COM/877896-4328 FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
G01	5	1.5" X 18" MX X 2 F FIREFLEX FLEX CONNECTOR	FF15X18M346X2F	03158184	FLEXING	7-ELEVEN / SOURCE NA	GC
G02	6	2" MS X 2" F X 18 FIREFLEX FLEX CONNECTOR	FF20X18M346XF	03158182	FLEXING	7-ELEVEN / SOURCE NA	GC

GILBARCO SCHEDULE

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
J99	-	PASSPORT COMBO SYSTEM	XXXXXX	03152813	GILBARCO	7-ELEVEN / GILBARCO	GC
J117	-	ENCORE 700S W/ FLEXPAY6 3+0 BLENDER NN1 - NO VR	XXXXXX	03153184	GILBARCO	7-ELEVEN / GILBARCO	GC
J118	-	ENCORE 700S W/ FLEXPAY6 3+1 BLENDER+DSL NL1 - NO VR	XXXXXX	03153190	GILBARCO	7-ELEVEN / GILBARCO	GC
J123	1	DBOX FOR EDH/PASSPORT PA03060020	XXXXXX	03152567	GILBARCO	7-ELEVEN / GILBARCO	GC
J174	-	EXXON/SYNERGY IMAGE UPCHARGE FOR ENCORE DISPENSERS	XXXXXX	03153051	GILBARCO	7-ELEVEN / SOURCE NA	GC

CYBERA SCHEDULE

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
J199	1	CYBERA BOX	MNSP SCA325	08455004	CYBERA	7-ELEVEN	GC
J200	1	REDLINE CYBERA INTEGRATION	XXXXXXX	06110004	CYBERA	7-ELEVEN / CYBERA	GC

HANGING HARDWARE SCHEDULE (CONTACT: PARRISH EVANS - PARRISH.EVANS@OPWGLOBAL.COM/706-202-7812)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
K03	4	3/4" X 8' FLEXSTEEL HARDWALL HOSE	GY3/4X8MXM	03124651	SOURCENA	7-ELEVEN / SOURCE NA	GC
K04	6	3/4" X 8" FLEXSTEEL WHIP HOSE	GY3/4X8MXMWHIP	03124652	SOURCENA	7-ELEVEN / SOURCE NA	GC
K48	4	3/4" CONVENTIONAL NOZZLE	11BP-0400	03158382	OPW	7-ELEVEN / SOURCE NA	GC
K49	2	3/4" NOZZLE FOR DIESEL	11B-0100	03158387	OPW	7-ELEVEN / SOURCE NA	GC
K50	6	3/4" CONVENTIONAL BREAKAWAY	66REC-1000	03158383	OPW	7-ELEVEN / SOURCE NA	GC
K51	4	3/4" SPLASHGUARD FOR CONVENTIONAL NOZZLE	8BL-0400	03158389	OPW	7-ELEVEN / SOURCE NA	GC
K52	2	DIESEL SPLASHGUARD	8G-0100	03158390	OPW	7-ELEVEN / SOURCE NA	GC
K119	6	CONVENTIONAL NOZZLE HOSE SWIVEL	45-5060	03126565	OPW	7-ELEVEN / SOURCE NA	GC
K121	2	3/4" X 9' BLACK HARDWALL HOSE, MALE X MALE ENDS	GY3/4X9MXM	03124635	SOURCENA	7-ELEVEN / SOURCE NA	GC

OPW SCHEDULE (CONTACT: PARRISH EVANS - PARRISH.EVANS@OPWGLOBAL.COM/706-202-7812)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
L01	-	4" ACCESS PIPE - 250 FT BOX	AXP40-250	03158339	OPW	7-ELEVEN / SOURCE NA	GC
L09	2	DISPENSER SUMP ENCORE	FDS-4021-SL	06006090	OPW FLEX-WORKS	7-ELEVEN / SOURCE NA	GC
L10	5	ADJUSTABLE STABILIZER KIT	SBO-0700	XXXXXXX	OPW	7-ELEVEN / SOURCE NA	GC
L11	2	2" PRESSURE VACUUM VENTING CAP	623V-2203	06158288	OPW	7-ELEVEN / SOURCE NA	GC
L12	5	1.5" SHEAR VALVE - DBL POPPET 10plus	10P-0152	03124684	OPW	7-ELEVEN / SOURCE NA	GC
L16	2	12" MONITORING WELL MANHOLE	104AOW-1200	03115703	OPW	7-ELEVEN / SOURCE NA	GC
L17	2	LOCKABLE MONITORING CAP	634TTM-7087	06006227	OPW	7-ELEVEN / SOURCE NA	GC
L18	3	18" MANHOLE ASSY (ANNULAR AND DIESEL VENT)	104A-1800WT	06006209	OPW	7-ELEVEN / SOURCE NA	GC
L19	2	VAPOR CAP	1711T-7085-EVR	06006180	OPW	7-ELEVEN / SOURCE NA	GC
L24	3	FILL SWIVEL ADAPTER	61SALP-1020-EVR	06006214	OPW	7-ELEVEN / SOURCE NA	GC
L26	2	VAPOR RECOVERY SWIVEL ADAPTER	61VSA-1020-EVR	06006221	OPW	7-ELEVEN / SOURCE NA	GC
L27	3	TOP SEAL CAP EVR	634TT-7085-EVR	06006226	OPW	7-ELEVEN / SOURCE NA	GC
L30	3	2" BALL VALVE	21BV-0200	03158393	OPW	7-ELEVEN / SOURCE NA	GC
L36	1	TANK TAG - INTERIOR SPILL BUCKET (REGULAR UNLEADED)	1TAG-API-RG10T	XXXXXXX	OPW	7-ELEVEN / SOURCE NA	GC
L38	1	TANK TAG - INTERIOR SPILL BUCKET (PREMIUM UNLEADED)	1TAG-API-PG10T	XXXXXXX	OPW	7-ELEVEN / SOURCE NA	GC
L40	-	CONCRETE TANK MARKER (TANK GAUGE #1)	106N-1100	06006170	OPW	7-ELEVEN / SOURCE NA	GC
L41	-	CONCRETE TANK MARKER (TANK GAUGE #2)	106N-2200	06006171	OPW	7-ELEVEN / SOURCE NA	GC
L42	1	CONCRETE TANK MARKER (REGULAR UNLEADED)	106U-0125	06006175	OPW	7-ELEVEN / SOURCE NA	GC
L43	1	CONCRETE TANK MARKER (PREMIUM UNLEADED)	106P-0150	06006174	OPW	7-ELEVEN / SOURCE NA	GC
L44	3	4x2 TEE EXTRACTOR FITTING	233-4420	03158332	OPW	7-ELEVEN / SOURCE NA	GC
L45	1	DIESEL ATMOSPHERIC VENT VALVE	23-0033	06005039	OPW	7-ELEVEN / SOURCE NA	GC
L54	1	TANK TAG - INTERIOR SPILL BUCKET (DIESEL)	1TAG-API-BD5T	XXXXXXX	OPW	7-ELEVEN / SOURCE NA	GC
L56	1	CONCRETE TANK MARKER (DIESEL)	106DL-0095	06006169	OPW	7-ELEVEN / SOURCE NA	GC
L57	3	4" DROP TUBE WITH DUAL OVERFLOW VALVE 5FT BURY - 10FT TANK	71SO-410C	03158324	OPW	7-ELEVEN / SOURCE NA	GC
L58	1	DIESEL VENT PIPE CAP	116-7085	03185354	OPW	7-ELEVEN / SOURCE NA	GC
L68	3	JACK SCREW FOR CAST BASE SPILL CONTAINER	61JSK-44CB	03158161	OPW	7-ELEVEN / SOURCE NA	GC
L72	-	CONCRETE TANK MARKER (TANK GAUGE #3)	106N-3300	06006172	OPW	7-ELEVEN / SOURCE NA	GC
L76	3	DOUBLEWALL SPILL BUCKET w/ SENSOR (FILL)	1C-3132D-50	03124688	OPW	7-ELEVEN / SOURCE NA	GC
L77	2	DOUBLEWALL SPILL BUCKET (VAPOR)	1C-3112P	03115701	OPW	7-ELEVEN / SOURCE NA	GC
L115	-	MALE ADAPTER FITTING	SMA-1520	06006113	OPW	7-ELEVEN / SOURCE NA	GC
L124	-	1.5" DW FLEX PIPE - 250 FT BOX	C15A-250	03158338	OPW	7-ELEVEN / SOURCE NA	GC
L125	-	OPW 1.5" 90 ELBOW	SEF-1515	03124572	OPW	7-ELEVEN / SOURCE NA	GC
L126	-	OPW 1.5" TEE	STF-1515	03124574	OPW	7-ELEVEN / SOURCE NA	GC
L129	-	1.5" OPW SWIVEL DW PIPE COUPLING	DPC-2150A	03124596	OPW	7-ELEVEN / SOURCE NA	GC
L130	-	TEST JUMPER TUBE	TCT-2509	03124576	OPW	7-ELEVEN / SOURCE NA	GC
L131	-	TERMINATION TEST JUMPER TUBE	TTT-2536	03124575	OPW	7-ELEVEN / SOURCE NA	GC
L163	-	RIGID ENTRY FITTING 4 x 1.5"	REF-4015	03124570	OPW	7-ELEVEN / SOURCE NA	GC
L195	-	DISPENSER SUMP - ENCORE (2 IN/2 OUT)	DSLFR-15-1836-2R-1256	XXXXXXX	OPW	7-ELEVEN / SOURCE NA	GC
L196	-	DISPENSER SUMP - ENCORE (3 IN/0 OUT)	DSLFR-15-1836-2R-123	XXXXXXX	OPW	7-ELEVEN / SOURCE NA	GC
L230	2	COMPLETE 4'x9'x13" STAINLESS STEEL ISLAND FORM	6013SS-SFR6W4L9	XXXXXXX	OPW	7-ELEVEN / SOURCE NA	GC

EMCO WHEATON SCHEDULE

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
EM01	1	CUSTOM PRODUCT ID "5"	A0998-XXX	XXXXXX	EMCO WHEATON	7-ELEVEN / SOURCE NA	GC
EM02	1	CUSTOM PRODUCT ID "6A"	A0998-XXX	XXXXXX	EMCO WHEATON	7-ELEVEN / SOURCE NA	GC
EM03	1	CUSTOM PRODUCT ID "6B"	A0998-XXX	XXXXXX	EMCO WHEATON	7-ELEVEN / SOURCE NA	GC

DISPENSER INLET FILTER OFFERINGS

Rev. #	Date	Description
1	02/06/25	PEER REVIEW COMMENTS
2	02/12/25	FRP PIPING UPDATE

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

EQUIPMENT SCHEDULES

CORE STATES GROUP
TEXAS REGISTERED ENGINEERING FIRM F-2199
TEXAS REGISTERED SURVEYING FIRM LS-10010200
EXPIRATION: 07/31/2025
212 SE 34th Street
Suite 2
Bentonville, AR 72712
479.366.4400
core-states.com

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	GJD
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G7.0

FUELING - USA

PRINTED BY: GDELAROSA
DRAWING NAME: 40569 - G7.0 EQUIPMENT SCHEDULE.DWG PRINT DATE: Feb 12, 2025 - 4:20pm

MASTER LOCK SCHEDULE (CONTACT: SOURCE NORTH AMERICA - 7-ELEVEN SUPPORT TEAM - SNA711@SOURCENA.COM FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
N01	4	SERIES 175 TUMBLER LOCK	175	03185351	MASTER LOCK	7-ELEVEN / SOURCE NA	GC

MAY ADVERTISING SCHEDULE (CONTACT: SOURCE NORTH AMERICA - 7-ELEVEN SUPPORT TEAM - SNA711@SOURCENA.COM FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
P01	-	DISPENSER PUMP TOPPER	CT-XL	03158215	MAY ADVERTISING	7-ELEVEN / SOURCE NA	GC

PIPE RISER SCHEDULE (CONTACT: SOURCE NORTH AMERICA - 7-ELEVEN SUPPORT TEAM - SNA711@SOURCENA.COM FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
Q01	2	7' THIN WALL PIPE RISER	484RISER	03185353	GENERAL PIPE MANUF.	7-ELEVEN / SOURCE NA	GC

POWER INTEGRITY SCHEDULE (CONTACT: SOURCE NORTH AMERICA - 7-ELEVEN SUPPORT TEAM - SNA711@SOURCENA.COM FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
R01	-	E-STOP SWITCH RED INCLUDES RED COVER WITH TWIST	IA-ESOCA/T/RD	03158209	POWER INTEGRITY	7-ELEVEN / SOURCE NA	GC
R02	-	DISPENSER DATA / LOW VOLTAGE DISCONNECT	DDS-A8D8E	03430287	POWER INTEGRITY	7-ELEVEN / SOURCE NA	GC
R04	1	E-STOP (CASHIER CONTROL STATION WITH PROTECTIVE SHROUD)	IA-ESORS	XXXXXXX	POWER INTEGRITY	7-ELEVEN / SOURCE NA	GC

S. BRAVO SYSTEM SCHEDULE (CONTACT: SOURCE NORTH AMERICA - 7-ELEVEN SUPPORT TEAM - SNA711@SOURCENA.COM FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
S01	5	3/4" ROB ROY FITTING	F-17-RR-7-11	03115710	S. BRAVO SYSTEM INC.	7-ELEVEN / SOURCE NA	GC
S03	1	VAPOR VENT RACK	RS500JP-3S	03158039	S. BRAVO SYSTEM INC.	7-ELEVEN / SOURCE NA	GC
S05	1	FIBERGLASS VAPOR VENT REMOTE SUMP	B500JPF-3SB	03158049	S. BRAVO SYSTEM INC.	7-ELEVEN / SOURCE NA	GC
S12	-	3/4" ROB ROY FITTING FOR DOUBLE WALL SUMP	F-17-RR-D-7-11	03124548	S. BRAVO SYSTEM INC.	7-ELEVEN / SOURCE NA	GC
S13	1	1" ROB ROY FITTING	F-10-RR-7-11	03158376	S. BRAVO SYSTEM INC.	7-ELEVEN / SOURCE NA	GC
S42	-	DW BRINE FILLED DISPENSER SUMP	B1380-D30	XXXXXXXX	S. BRAVO SYSTEM INC.	7-ELEVEN / SOURCE NA	GC
S43	-	STABILIZER BAR BRACKET ASSEMBLY	BK-1017	XXXXXXXX	S. BRAVO SYSTEM INC.	7-ELEVEN / SOURCE NA	GC

SMITH FIBERCAST VAPOR / VENT PIPING SCHEDULE (CONTACT: LISA BLASSENGAME - LISA.BLASSENGAME@NOV.COM/210-842-5777 FOR QUANTITY)

ITEM NO.	LGTH	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
T01	-	4" SECONDARY PIPING (USE 25 FT LENGTHS)	011040-069-2	06006331	NOV (REDTHREAD IIA)	7-ELEVEN / SOURCE NA	GC
T02	350'	3" PRIMARY PIPING (USE 25 FT LENGTHS)	011030-069-2	06006329	NOV (REDTHREAD IIA)	7-ELEVEN / SOURCE NA	GC
T03	575'	2" PRIMARY PIPING (USE 25 FT LENGTHS)	011020-069-2	06006328	NOV (REDTHREAD IIA)	7-ELEVEN / SOURCE NA	GC

SMITH FIBERCAST SCHEDULE (CONTACT: LISA BLASSENGAME - LISA.BLASSENGAME@NOV.COM/210-842-5777 FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
T04	5	3" SC SLEEVE COUPLING	012030-101-3	06006263	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T05	-	4" SC SLEEVE COUPLING	012040-101-3	06006277	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T06	8	3" BONDED FITTING (DOUBLE WALL)	012030-626-0	03158188	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T07	-	4" BONDED FITTING (DOUBLE WALL)	012040-626-0	03158190	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T08	8	2" PRIMARY SLEEVE COUPLING	012020-101-8	06006255	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T09	-	3" PRIMARY SLEEVE COUPLING	012030-101-8	06006264	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T10	-	3" X 2" REDUCER BUSHING	012030-231-4	06006268	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T11	8	4"x3" CONCENTRIC REDUCER	012040-238-3	06006282	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T12	-	5X4 CONCENTRIC REDUCER	012050-238-3	03158192	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T13	16	2" PRIMARY 90 ELBOW	012020-360-4	06006261	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T14	-	3" PRIMARY 90 ELBOW	012030-360-4	06006274	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T15	-	4" SECONDARY 90 ELBOW	012040-360-3	06006285	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T16	14	2" BELL X M	012020-191-4	06006256	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T18	-	3" BELL X F	012030-194-4	06006267	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T19	-	3" PRIMARY TEE	012030-410-4	06006276	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T20	-	4" SECONDARY TEE	012040-410-3	06006288	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T21	8	3" SECONDARY 90 ELBOW	012030-360-3	06006273	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T23	5	3" 45 DEGREE SECONDARY ELBOW	012030-310-3	06006271	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T24	2	2" PRIMARY TEE	012020-410-4	06006262	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T25	2	3" SECONDARY TEE	012030-410-3	06006275	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T26	-	4" 45 DEGREE SECONDARY ELBOW	012040-310-3	06006283	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T27	-	3" 45 PRIMARY ELBOW	012030-310-4	06006772	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T28	5	2" 45 PRIMARY ELBOW	012020-310-4	06006260	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T29	35	PSX-20 ADHESIVE KIT	60210101	03158239	NOV (REDTHREAD IIA)	7-ELEVEN / SOURCE NA	GC
T30	23	FILLER FOR DS-7069 AND DS-8069	002990-033-0	06006247	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T31	-	4" BELL X MALE	012040-191-4	06006278	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T32	3	2" BONDED FITTING (SINGLE WALL)	012020-622-0	03158380	NOV (REDTHREAD IIA)	7-ELEVEN / SOURCE NA	GC
T35	-	2" X 1-1/2" F NPT REDUCER BUSHING	012020-231-4	06006259	SMITH FIBERCAST	7-ELEVEN / SOURCE NA	GC
T44	8	5' RTIIA RIER PIPE 4 PXP	012040-060-0	XXXXXXX	NOV (REDTHREAD IIA)	7-ELEVEN / SOURCE NA	GC
T45	16	RTIIA RISER PIPE ADAPT 4 BXMN	012040-191-9	XXXXXXX	NOV (REDTHREAD IIA)	7-ELEVEN / SOURCE NA	GC
T46	8	6 OUNCE PX-20 ADHESIVE KIT SINGLE	60210101	03158239	NOV (REDTHREAD IIA)	7-ELEVEN / SOURCE NA	GC

FIRE EXTINGUISHER (CONTACT: SOURCE NORTH AMERICA - 7-ELEVEN SUPPORT TEAM - SNA711@SOURCENA.COM FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
U01	1	HIGH FLOW 20 ABC PORTABLE FIRE EXTINGUISHER	760-POTTER	03158046	AMEREX	7-ELEVEN / SOURCE NA	GC
U02	1	FIRE EXTINGUISHER CABINET	105-20-RRC-H	03185372	CATO	7-ELEVEN / SOURCE NA	GC

TYPAR FILTER FABRIC SCHEDULE (CONTACT: SOURCE NORTH AMERICA - 7-ELEVEN SUPPORT TEAM - SNA711@SOURCENA.COM FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
V01	4	FILTER FABRIC 12- 1/2" X 300'	TYPAR-3401	06006313	TYPAR	7-ELEVEN / SOURCE NA	GC

U BOLT SCHEDULE (CONTACT: SOURCE NORTH AMERICA - 7-ELEVEN SUPPORT TEAM - SNA711@SOURCENA.COM FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
W01	5	U-BOLT ENCORE	M00703B002	03185374	MISCELLANEOUS PARTS	7-ELEVEN / SOURCE NA	GC

UNITED SIGN SCHEDULE (CONTACT: SOURCE NORTH AMERICA - 7-ELEVEN SUPPORT TEAM - SNA711@SOURCENA.COM FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
X01	-	EMERGENCY SHUT OFF SWITCH SIGN	U-MS-76	06005037	UNITED SIGN	7-ELEVEN / SOURCE NA	GC

VEEDER ROOT SCHEDULE (CONTACT: SOURCE NORTH AMERICA - 7-ELEVEN SUPPORT TEAM - SNA711@SOURCENA.COM FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
Z05	5	LIQUID SUMP SENSOR	794380-208	06005066	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z06	5	4" ANNULAR / PROBE CAP	330020-282	06005053	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z08	1	7-11 ISP KIT	330020-409	06005054	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z09	-	DISPENSER INTERFACE MODULE (TIDEL)	330280-801	06005059	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z14	2	10 FT. INTERSTITIAL TANK SENSOR	794390-409	03158249	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z16	1	4" FLOAT KIT FOR DIESEL	846400-001	03158176	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z42	1	G-SITE INSTALL KIT	331063-100	03158202	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z55	2	PHASE II FLOAT KIT (GAS)	886100-000	03305136	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z58	3	10' 6" ATG PROBE	846397-110	03165574	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z106	1	TLS-450PLUS TOUCH SCREEN CONSOLE W/ PRINTER	860091-302	03430216	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z107	1	TLS-450PLUS APPLICATION SOFTWARE	333545-001	03430215	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z108	1	BIR/ACCUCHART LI EDIM FACTORY INSTALLED FOR TLS-450PLUS	333149-001	03430211	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z109	2	SIXTEEN INPUT UNIVERSAL SENSOR / PROBE INTERFACE MODULE TLS-450 INSTALLED	332812-001	03430210	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z116	1	RISK MANAGEMENT LEAK DETECTION SOFTWARE FOR DPLLD FOR TLS-450	332972-008	03430214	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z117	3	DIGITAL PRESSURIZED LINE LEAK DETECTOR W/O SWIFT CHECK VALVE TLS-450	859080-001	03430179	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z119	1	SINGLE RS-232 INTERFACE MODULE (COMM. SLOTS 1, 2, 3) FOR TLS-450PLUS	332866-001	03430219	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z124	2	UNIVERSAL INPUT / OUTPUT INTERFACE MODULE TLS-450 - INSTALLED	332813-001	03430212	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z132	1	CONTINUOUS STATISTICAL LEAK DETECTION TLS-450	332972-006	03430213	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z137	1	HYDRX - 250D FUEL CONDITIONER KIT	342909-325	03430289	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z138	1	HYDRX - WATER INTAKE DEVICE (WID) FOR FIBERGLASS TANKS, 3 TUBES NOTE: SURVEY REQUIRED AFTER TANKS ARE SET	860823-XXX	03430290	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z139	1	HYDRX - GUIDE TUBE, 128 INCHES, 10' DIAMETER TANK & 2.5 GAL SYSTEM	860780-128	03430292	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z140	1	HYDRX - KIT - INSTALLATION, FE PETRO	330020-874	03430284	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC
Z155	-	SINGLE-POINT MINI-HYDROSTATIC SENSOR FOR DW SUMPS	794380-304	XXXXXXX	VEEDER ROOT	7-ELEVEN / SOURCE NA	GC

XERXES SCHEDULE (CONTACT: RICK WHATLEY - RICK.WHATLEY@SHAWCOR.COM FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
AB64	1	XERXES TANK 10' DIA. (15K) w/ (1) SW STP SUMP, 4" FILL & V/V FITTINGS	XS-008763-0	XXXXXXX	XERXES	7-ELEVEN / XERXES	GC
AB65	1	XERXES TANK 10' DIA. (9K / 6K SPLIT TANK) w/ (2) SW STP SUMPS, 4" FILL & V/V FITTINGS	XS-008764-0	XXXXXXX	XERXES	7-ELEVEN / XERXES	GC

SIGNAGE SCHEDULE (CONTACT: MARTY CLARK - MCLARK@PERFORMANCE-INK.COM FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
AJ1	4	4" X 5" EMERGENCY SHUT OFF SIGN (OUTSIDE)	NG-2402	XXXXXXX	PERFORMANCE INK	GC	GC
AJ2	1	4" X 4" PUMP NUMBERS 1-6 - WHITE NUMBERS/BLACK BACKGROUND	1-6 NG-28	XXXXXXX	PERFORMANCE INK	GC	GC
AJ5	2	3.5" X 3.25" ULTRA LOW SULFUR HIGHWAY DECAL	XXXXXXX	XXXXXXX	PERFORMANCE INK	GC	GC
AJ6	4	2.76" X 4.75" CONTAINS 10% ETHANOL DECAL	NG-80R	XXXXXXX	PERFORMANCE INK	GC	GC
AJ7	4	2.75" X 2.75" GAS PUMPS ARE VIDEO MONITORED DECAL	NG41	XXXXXXX	PERFORMANCE INK	GC	GC
AJ8	2	20" X 6.5" WARNING - NO SMOKING	NG193	XXXXXXX	PERFORMANCE INK	GC	GC
AJ9	-	4" X 4" PUMP NUMBERS 7-12 - WHITE NUMBERS/BLACK BACKGROUND	NG-NG-24SEI	XXXXXXX	PERFORMANCE INK	GC	GC
AJ10	2	4"X24" ALUMINUM FIRE EXTINGUISHER SIGN	NG-97SEI	XXXXXXX	PERFORMANCE INK	GC	GC
AJ12	4	OUTDOOR LITERATURE HOLDER (2 PER DISP)	XXXXXXX	03304838	HICORP	7-ELEVEN/SOURCE	GC
AJ13	-	4"X 4" PUMP NUMBERS 13-18	NG-25SEI	XXXXXXX	PERFORMANCE INK	GC	GC

UNIVERSAL VALVE COMPANY SCHEDULE (CONTACT: SOURCE NORTH AMERICA - 7-ELEVEN SUPPORT TEAM - SNA711@SOURCENA.COM FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
H01	5	4' X 72" U-SHAPED BUMPER	1983-404972-7E	03430180	UNIVERSAL VALVE	7-ELEVEN / SOURCE NA	GC

TRANS-SORB SCHEDULE (CONTACT: SOURCE NORTH AMERICA - 7-ELEVEN SUPPORT TEAM - SNA711@SOURCENA.COM FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
TS1	6	DESICCANT BAG WITH HANGER (2 PER SUMP)	SC1500T1	03430194	TRANS-SORB	7-ELEVEN / SOURCE NA	GC

WINDY CITY WIRE SCHEDULE (CONTACT: SOURCE NORTH AMERICA - 7-ELEVEN SUPPORT TEAM - SNA711@SOURCENA.COM FOR QUANTITY)

ITEM NO.	QTY.	DESCRIPTION	PART NO.	ORACLE NO.	MANUFACTURER	FURNISHED BY	INSTALLED BY
WC1	1	GILBARCO DISPENSER COMMUNICATION CABLE (CAT6) 1000' ROLL	FEP-CAT6	03430209	WINDY CITY WIRE	7-ELEVEN / SOURCE NA	GC

Rev. #	Date	Description
1	02/06/25	PEER REVIEW COMMENTS
2	02/12/25	FRP PIPING UPDATE

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

EQUIPMENT SCHEDULE

CORE STATES GROUP
212 SE 34th Street
Suite 2
Bentonville, AR 72712
479.966.4400
core-states.com
TEXAS REGISTERED ENGINEERING FIRM F-20121 AND SURVEYING FIRM LS-10193
EXPIRATION: 07/31/2025

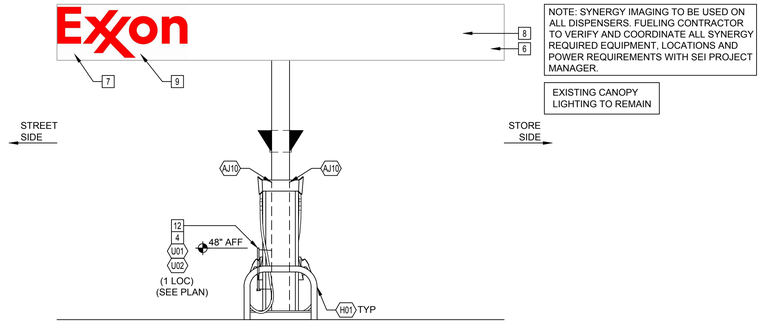
Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	GJD
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G7.1

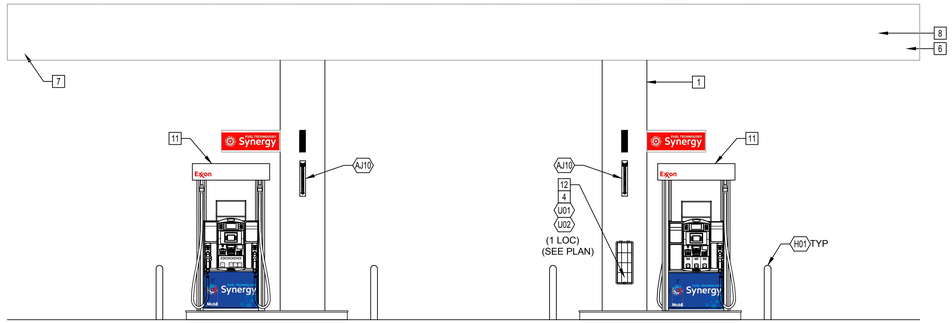
FUELING - USA

PRINTED BY: WBRAGG
DRAWING NAME: 40569 - G7.1 EQUIPMENT SCHEDULE.DWG PRINT DATE: Feb 13, 2025 - 11:45am



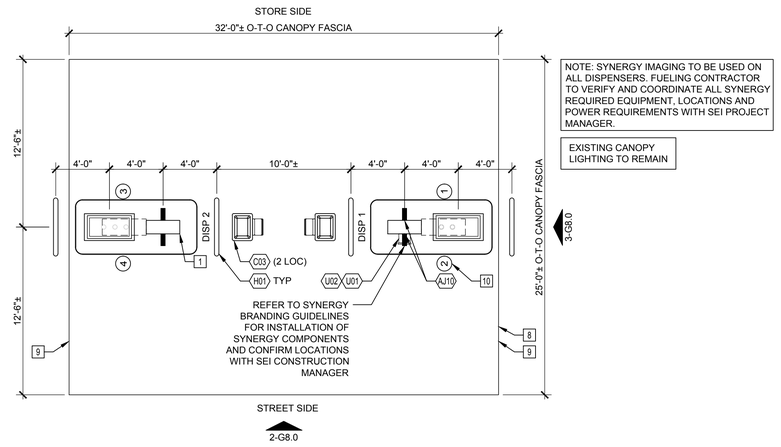
3 CANOPY END ELEVATION

SCALE: 1/4" = 1'-0"



2 CANOPY SIDE ELEVATION

SCALE: 1/4" = 1'-0"



1 FUELING CANOPY PLAN

SCALE: 3/16" = 1'-0"

GENERAL NOTES

1. GRADES AROUND DISPENSERS AND CANOPY TO BE SHOT TO PREVENT PONDING AROUND THE DISPENSERS. CONTRACTOR TO REMOVE AND REPAIR PAVEMENT IF PONDING OCCURS.
2. NO CONDUITS OR DOWNSPOUTS ON EXTERIOR OF CANOPY COLUMNS.
3. REFER TO GRADING PLAN FOR FINAL ELEVATIONS.

KEY NOTES

1. EXISTING CANOPY COLUMN - PAINT PER EXXON SPECIFICATIONS.
2. NOT USED
3. NOT USED
4. FIRE EXTINGUISHER - ADA MOUNTING HEIGHT TO BE MAX. 48" FROM GRADE TO FIRE EXTINGUISHER
5. NOT USED
6. EXISTING OVERFLOW PROTECTION.
7. EXISTING GASOLINE CANOPY.
8. EXISTING CANOPY FASCIA.
9. EXISTING LOGO SIGNS.
10. FUELING POSITION NUMBER.
11. REF 1-G5.0 FOR DISPENSER TYPE
12. FIRE EXTINGUISHER CABINET MOUNTED ON SIDE OF COLUMN REF PLAN FOR LOCATION
13. REF G7.0 FOR EQUIPMENT TAG (XXX) DESCRIPTION

Rev. #	Date	Description

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

FUELING CANOPY LAYOUT - 2 INLINE

CORE STATES GROUP
212 SE 34th Street
Bentonville, AR 72712
479.986.4400
core-states.com
TEXAS REGISTERED ENGINEERING FIRM F-19442
EXPIRATION: 07/31/2025

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	KLC
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

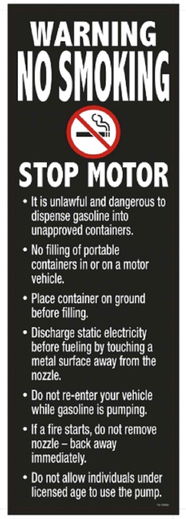
SHEET:
G8.0

FUELING - USA

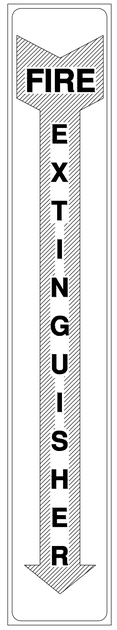
PRINTED BY: GDELAROSA
DRAWING NAME: 40569 - G8.0 FUELING CANOPY LAYOUT - 2 INLINE.dwg PRINT DATE: Feb 12, 2025 - 4:20pm

GENERAL NOTES

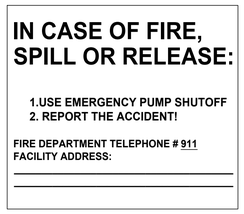
1. SIGNAGE IS PROVIDED BY 7-ELEVEN OR GC. SIGNAGE TO BE INSTALLED BY CONTRACTOR PER 7-ELEVEN GUIDELINES.



9 WARNING NO SMOKING
SCALE: NTS



8 FIRE EXTINGUISHER
SCALE: NTS

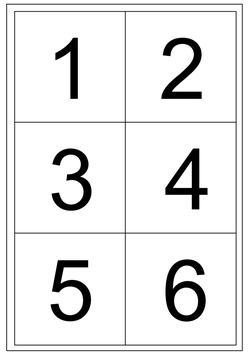


7 IN CASE OF FIRE, SPILL OR RELEASE
SCALE: NTS

6 GAS PUMPS ARE VIDEO MONITORED
SCALE: NTS

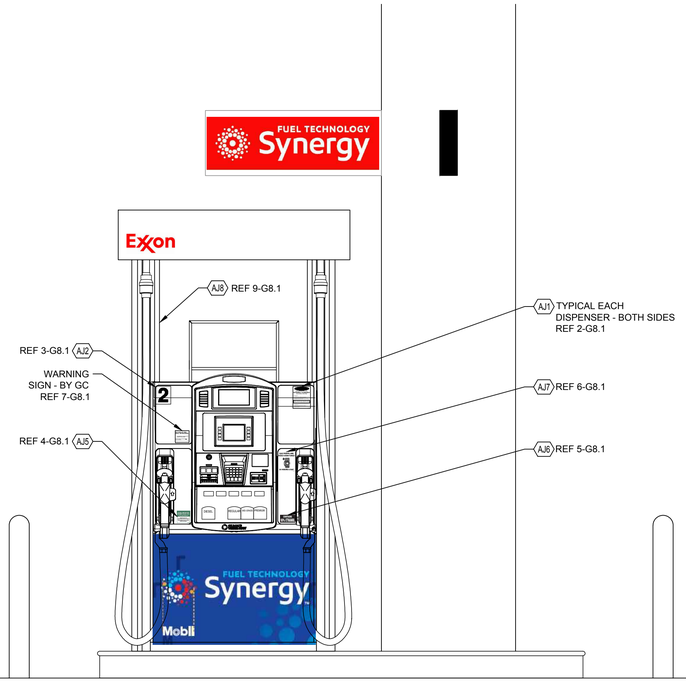
5 CONTAINS 10% ETHANOL
SCALE: NTS

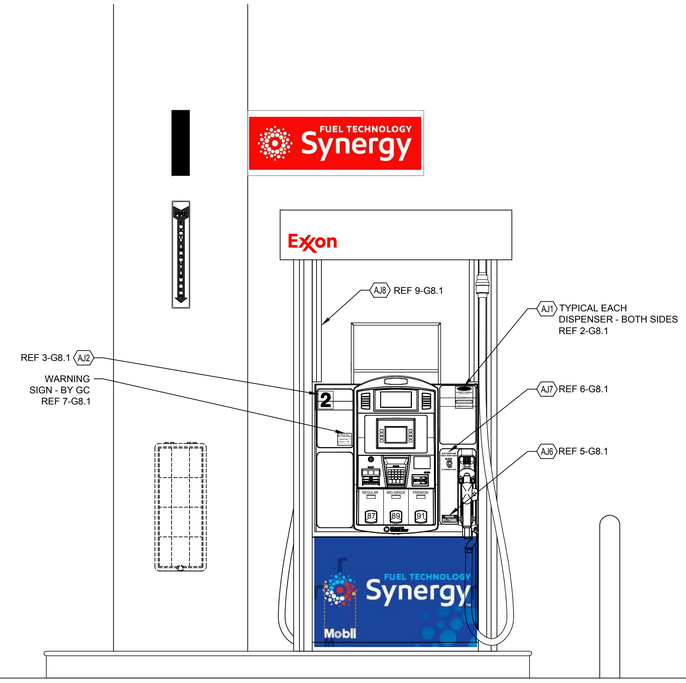
4 LOW SULFUR HIGHWAY DIESEL FUEL
SCALE: NTS



3 DISPENSER NUMBERS
SCALE: NTS

2 EMERGENCY SHUT OFF
SCALE: NTS





1 DISPENSER SIGNAGE ELEVATION
SCALE: 3/4" = 1'-0"

Rev. #	Date	Description

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD. STE B
SAN MARCOS, TX 78666

SIGNAGE DETAILS

CORE STATES GROUP
2121 E 34th Street
Bryan, TX 77802
979.703.4800
core-states.com
TEXAS REGISTERED ENGINEERING FIRM # F-14965
EXPIRATION: 07/31/2025

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	KLC
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G8.1

FUELING - USA

PRINTED BY: GDELAROSA
DRAWING NAME: 40569 – G8.1 SIGNAGE DETAILS.DWG PRINT DATE: Feb 12, 2025 – 4:20pm

NOTE:

NEW PANEL 'F' TO MATCH MANUFACTURER AND AIC RATING OF EXISTING PANELS. ALL OVERCURRENT DEVICES INSTALLED SHALL MATCH THE MAKE, MODEL, AND INTERRUPTING CAPACITY OF THE EXISTING OVERCURRENT DEVICES.

CONTRACTOR TO REMOVE EXISTING DISPENSERS, STPs AND D-BOX FROM EXISTING PANELS, AND PROVIDE A NEW 100A BREAKER TO FEED PANEL 'F.'

PANEL 'F' IS BEING ADDED TO MEET 7-ELEVEN STANDARDS FOR EMERGENCY STOP PROTOCOL. ALL EQUIPMENT IS BEING REPLACED LIKE FOR LIKE, NO NEW LOAD IS BEING ADDED TO THE SERVICE.

COORDINATE REMOVAL OF EXISTING FUELING PANEL AND FUELING AREA CIRCUIT LOAD INFORMATION WITH ALL EXISTING PANELS. DISCONNECT ALL NON-FUELING CIRCUITS IN EXISTING FUEL PANEL AND RECONNECT TO OTHER AVAILABLE PANELS IF POSSIBLE.

FUELING CONTRACTOR TO SUPPLY AND INSTALL BREAKERS AS REQUIRED AND VERIFY EXISTING ELECTRICAL PANELS CAN MEET LOAD REQUIREMENTS. ALL NEW BREAKERS SHALL BE OF THE SAME MAKE, MODEL AND AIC RATING AS EXISTING.

COORDINATE PANEL F AND FUELING AREA CIRCUIT LOAD INFORMATION WITH FUEL CONTRACTOR. FUEL CONTRACTOR TO SUPPLY AND INSTALL NEW PANELS AND VERIFY ELECTRIC PANEL CAN MEET LOAD REQUIREMENTS.

IT IS CRUCIAL THAT THE INSTALLER FOLLOWS NEC, ARTICLE 501 AND/OR OTHER APPLICABLE REQUIREMENTS. BECAUSE CAT-5E/CAT-6 JACKET CAN TRANSPORT FUEL VAPORS, NEC REQUIRES THAT THE INSTALLER REMOVES THE OUTER JACKET, THEN SPREADS THE WIRE PAIRS AT THE SEAL-OFF POINTS, SO THAT A GOOD VAPOR SEAL IS ACHIEVED.

THE VEEDER ROOT, POS, DISPENSERS, D-BOX, HYDRX VALVES AND DHI MUST ALL BE ON THE SAME ELECTRICAL PHASE PER GILBARCO REQUIREMENTS.

F — NEW PANELBOARD — 100A MAIN LUG ONLY, 1PH 3WIRE 208/120V, GROUND BAR

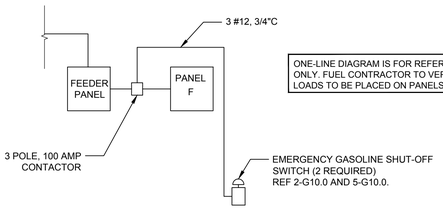
SERVES: FUELING
LOCATION: STOCKROOM
MOUNTING: SURFACE

CK	LOAD SERVED	WIRE	BRKR	PL	PHASE A	PHASE B	PL	BRKR	WIRE	LOAD SERVED	CK
1	SWITCHED NEUTRAL	--	--	--	0.00		1	20	--	SPARE	2
3	DISPENSER #1	12	20	1		1.08	1	20	12	DISPENSER #2	4
5	SPACE	--	--	--	0.00		--	--	--	SWITCHED NEUTRAL	6
7	SPACE	--	--	--		0.00	--	--	--	SPACE	8
9	SPACE	--	--	--	0.00		--	--	--	SPACE	10
11	SPACE	--	--	--		0.00	--	--	--	SPACE	12
13	SPACE	--	--	--	0.00		--	--	--	SPACE	14
15	SPACE	--	--	--		0.00	--	--	--	SPACE	16
17	SPACE	--	--	--	0.00		--	--	--	SPACE	18
19	D-BOX CONTROLLER	12	20	1		0.11	--	--	--	SPACE	20
21	RUL STP L2	12	20	2	1.09		--	--	--	SPACE	22
23	RUL STP L1 / DHI	--	--	--		1.09	2	20	12	PUL STP L1 / DHI	24
25	SWITCHED NEUTRAL	--	--	--	0.00		--	--	--	PUL STP L2	26
27	HYDRX VALVE CONTROL	12	20	1		0.36	2	20	12	DSL STP L1 / DHI	28
29	LOW VOLTAGE DISC	12	20	1	0.36		--	--	--	DSL STP L2	30
			TOTAL		3.63	5.90	KVA				
					30.25	49.17	AMPS				
			TOTAL LOAD		9.53	KVA	45.82	AMPS			
PER NEC ARTICLE 220			FEEDER LOAD		9.53	KVA	45.82	AMPS			

CONDUIT SCHEDULE

NAME	DESCRIPTION	CONDUIT SIZE	QTY	WIRE SIZE / MFR #	WIRE QTY	
101	DISPENSER POWER - NON DIESEL**	3/4"	1	#12 THWN-2	1#12 HOT, 1#12 NEUT, 1#12 GR***	1
102	DISPENSER SUMP SENSOR	3/4"	2	BELDEN #88760	1 #88760	
103	DISPENSER DATA *	3/4"	2	2-WIRE TWISTED PAIR CAT6 FEP/FEP (FEP-CAT6)	2 PAIR 1	
104	1.5HP STP POWER	3/4"	2	#12 THWN-2	2#12 HOTS, 1#12 GR	1
105	RUL TANK ATG/SUMP/DPLLD, INTERSTITIAL, FILL SENSOR	3/4"	1	BELDEN #88760	5 #88760	
106	PUL/DSL TANK ATG/SUMP/DPLLD/HYDRX MAG PROBE/HYDRX PRESSURE SENSOR, INTERSTITIAL, FILL SENSORS	3/4"	1	BELDEN #88760	11 #88760	
107	FILL BUCKET SENSORS	3/4"	3	BELDEN #88760	1 #88760	1
108	STP SUMP SENSOR/DPLLD/ATG PROBE	3/4"	2	BELDEN #88760	3 #88760	
109	INTERCOM	3/4"	2	BELDEN #88723	2 #88723 PER DISPENSER	
110	DISPENSER POWER - DIESEL**	3/4"	1	#12 THWN-2	1#12 HOT, 1#12 NEUT, 1#12 GR***	
111	DIESEL-1.5HP STP POWER DIESEL-HYDRX SYSTEM	1"	1	#12 THWN-2 #12 THWN-2	2#12 HOTS, 1#12 GR 2#12 HOTS, 2#12 NEUT, 1 #12 GR	1
112	DSL STP SUMP SENSOR/DPLLD/ATG PROBE/HYDRX MAG PROBE/HYDRX PRESSURE SENSOR	3/4"	1	BELDEN #88760	5 #88760	
113	MAIN ID SIGN POWER	3/4"	1	PULL STRING	PULL STRING	
114	MAIN ID SIGN DATA	3/4"	1	PULL STRING	PULL STRING	

* REFERENCE GILBARCO FIELD WIRING DIAGRAM FOR COMPLETE SPECIFICATIONS
** CONTRACTOR TO UPSIZE CONDUCTORS FOR VOLTAGE DROPS AS REQUIRED
*** REFERENCE SHEET G11.0 FOR DISPENSER HOOK ISOLATION WIRING DIAGRAM. RUN ISOLATION WIRING AS REQUIRED WITHIN DISPENSER POWER CONDUITS.

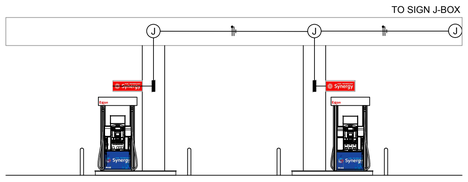


ONE-LINE DIAGRAM IS FOR REFERENCE ONLY. FUEL CONTRACTOR TO VERIFY LOADS TO BE PLACED ON PANELS.

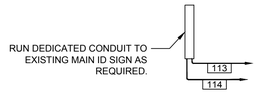
NOTE:

(1) GENERAL CONTRACTOR TO INSTALL PANELS CIRCUIT BREAKERS AND CONDUIT.
(2) FUEL CONTRACTOR SHALL INSTALL WIRING (FROM CIRCUIT BREAKERS TO EQUIPMENT), RELAYS, ETC. MAKE ALL CONNECTIONS AND COMPLETE SEAL OFF.

3 PARTIAL ELECTRICAL ONE-LINE DIAGRAM
SCALE: 1/8" = 1'-0"



2 CANOPY CONDUIT SCHEMATIC
SCALE: 1/8" = 1'-0"



FUELING CONTRACTOR:
EXTEND CONDUITS AS REQUIRED TO EXISTING DISPENSERS AND NEW FUEL TANKS. TIE TO EXISTING WHERE IT IS POSSIBLE. NEW CONDUITS AS REQUIRED. SEE SPECIFICATION SHEET G16.0, SECTION VII, 2.3.1 FOR CONDUIT TYPES.

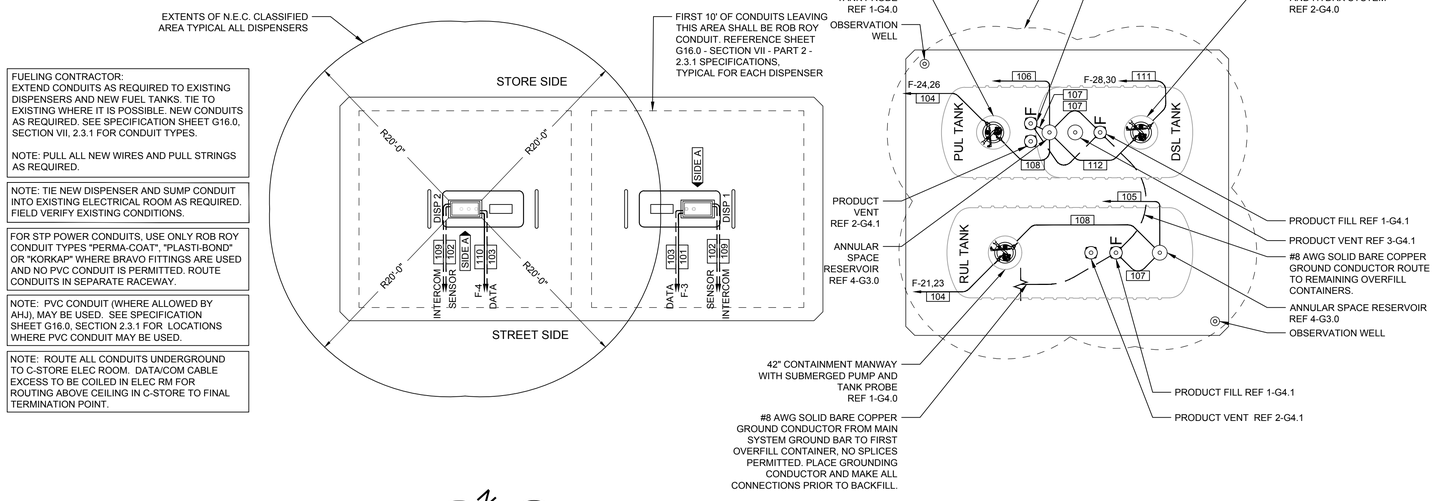
NOTE: PULL ALL NEW WIRES AND PULL STRINGS AS REQUIRED.

NOTE: TIE NEW DISPENSER AND SUMP CONDUIT INTO EXISTING ELECTRICAL ROOM AS REQUIRED. FIELD VERIFY EXISTING CONDITIONS.

FOR STP POWER CONDUITS, USE ONLY ROB ROY CONDUIT TYPES "PERMA-COAT", "PLASTI-BOND" OR "KORKAP" WHERE BRAVO FITTINGS ARE USED AND NO PVC CONDUIT IS PERMITTED. ROUTE CONDUITS IN SEPARATE RACEWAY.

NOTE: PVC CONDUIT (WHERE ALLOWED BY AHJ), MAY BE USED. SEE SPECIFICATION SHEET G16.0, SECTION 2.3.1 FOR LOCATIONS WHERE PVC CONDUIT MAY BE USED.

NOTE: ROUTE ALL CONDUITS UNDERGROUND TO C-STORE ELEC ROOM. DATA/COM CABLE EXCESS TO BE COILED IN ELEC RM FOR ROUTING ABOVE CEILING IN C-STORE TO FINAL TERMINATION POINT.



N

1 UNDERGROUND CONDUIT SCHEMATIC
SCALE: 1/8" = 1'-0"

Rev. #	Date	Description
1	02/06/25	PEER REVIEW COMMENTS

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

UST ELECTRICAL PLAN, ONE-LINE DIAGRAM AND PANEL SCHEDULE

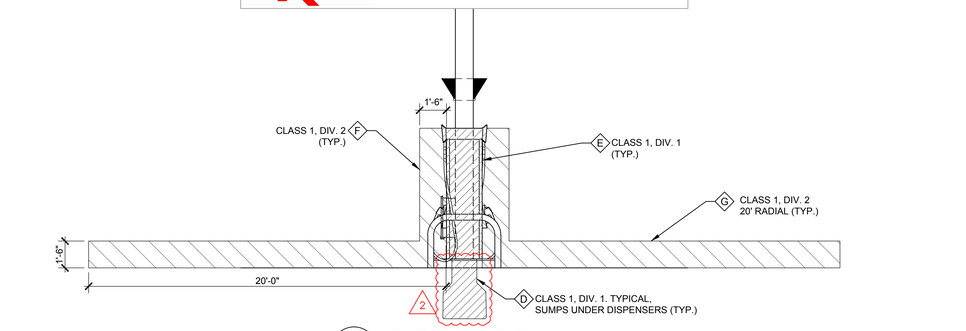
CORE STATES GROUP
TEXAS REGISTERED ENGINEERING FIRM F-3932 EXPIRATION: 07/31/2025
212 SE 34th Street Suite 2 Bentonville, AR 72712 479.986.4400 core-states.com

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	GJD
Checked By:	RWB

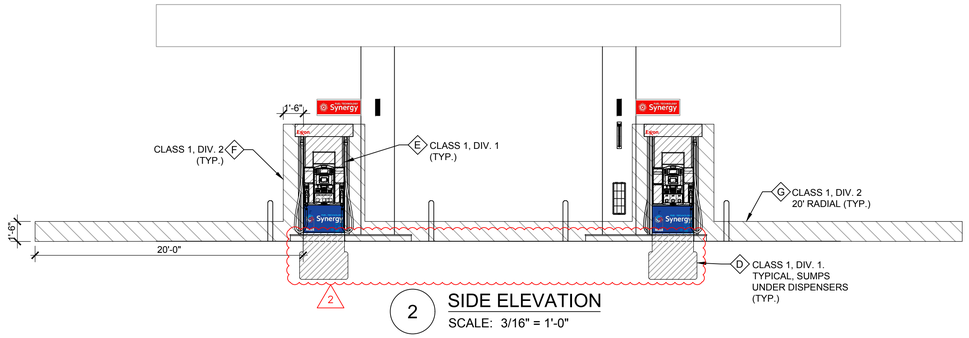
STATE OF TEXAS
JOHN D. FERGUSON
103854
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G9.0
FUELING - USA

PRINTED BY: GDELAROSA
DRAWING NAME: 40569 - G9.0 UST ELECTRICAL PLAN, ONE-LINE DIAGRAM AND PANEL SCHEDULE.DWG PRINT DATE: Feb 12, 2025 - 4:20pm



3 END ELEVATION
SCALE: 1/4" = 1'-0"



2 SIDE ELEVATION
SCALE: 3/16" = 1'-0"

N.E.C. HAZARDOUS AREA NOTES

A TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION
(UNDERGROUND TANK - FILL OPENING)

EXTENT OF CLASS 1, GROUP D, DIVISION 1 LOCATION:
ANY PIT, BOX, OR SPACE BELOW GRADE LEVEL, ANY PART OF WHICH IS WITHIN THE DIVISION 1 OR 2 CLASSIFIED LOCATION.

EXTENT OF CLASS 1, GROUP D, DIVISION 2 LOCATION:
UP TO 18 INCHES ABOVE GRADE LEVEL WITHIN A HORIZONTAL RADIUS OF 10 FEET FROM A LOOSE FILL CONNECTION AND WITHIN A HORIZONTAL RADIUS OF 5 FEET FROM A TIGHT FILL CONNECTION.

B TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION
(UNDERGROUND TANK - VENT DISCHARGING UPWARD)

EXTENT OF CLASS 1, GROUP D, DIVISION 1 LOCATION:
WITHIN 5 FEET OF OPEN END OF VENT, EXTENDING IN ALL DIRECTIONS.

EXTENT OF CLASS 1, GROUP D, DIVISION 2 LOCATION:
SPACE BETWEEN 5 FEET AND 10 FEET OF OPEN END OF VENT, EXTENDING IN ALL DIRECTIONS.

C TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION
(REMOTE PUMP - OUTDOOR)

EXTENT OF CLASS 1, GROUP D, DIVISION 1 LOCATION:
ANY PIT, BOX, OR SPACE BELOW GRADE LEVEL IF ANY PART IS WITHIN A HORIZONTAL DISTANCE OF 10 FEET FROM ANY EDGE OF PUMP.

EXTENT OF CLASS 1, GROUP D, DIVISION 2 LOCATION:
WITHIN 3 FEET OF ANY EDGE OF PUMP, EXTENDING IN ALL DIRECTION. ALSO UP TO 18 INCHES ABOVE GRADE LEVEL WITHIN 10 FEET HORIZONTALLY FROM ANY EDGE OF PUMP.

D TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION
(DISPENSING DEVICE AND REMOTE VENT - PITS)

EXTENT OF CLASS 1, GROUP D, DIVISION 1 LOCATION:
ANY PIT, BOX, OR SPACE BELOW GRADE LEVEL, ANY PART OF WHICH IS WITHIN THE DIVISION 1 OR 2 CLASSIFICATION LOCATION.

E TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION
(DISPENSING DEVICE - DISPENSER)

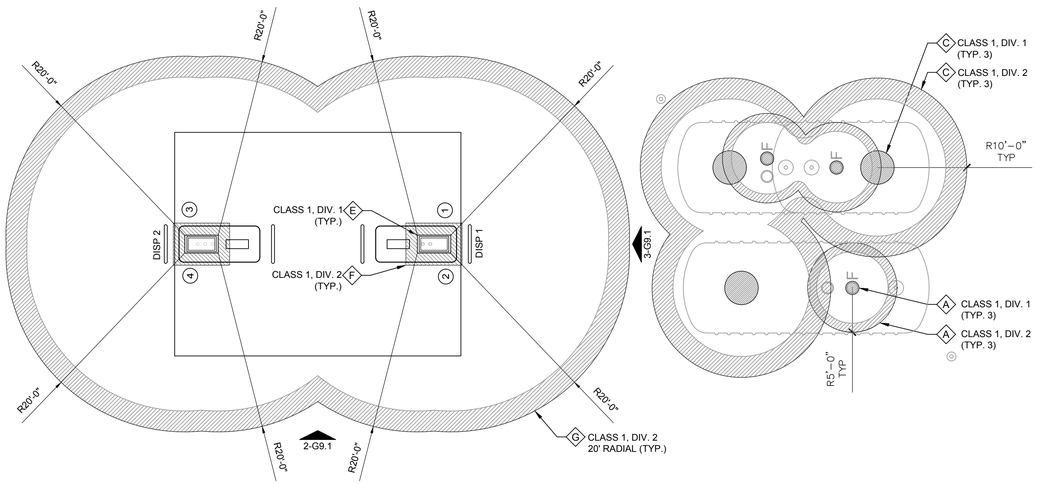
EXTENT OF CLASS 1, GROUP D, DIVISION 1 LOCATION:
SPACE CLASSIFICATION INSIDE THE DISPENSER ENCLOSURE IS COVERED IN ANSI/UL 87, "POWER OPERATED DISPENSING DEVICES FOR PETROLEUM PRODUCTS."

F TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION
(DISPENSING DEVICE - DISPENSER)

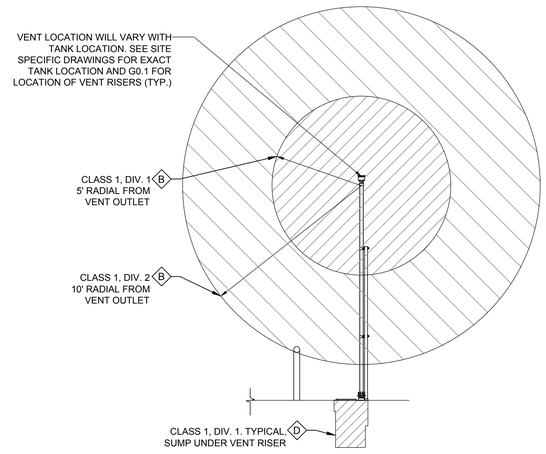
EXTENT OF CLASS 1, GROUP D, DIVISION 2 LOCATION:
WITHIN 18 INCHES HORIZONTALLY IN ALL DIRECTIONS EXTENDING TO GRADE FROM (1) THE DISPENSER ENCLOSURE OR (2) THAT PORTION OF THE DISPENSER ENCLOSURE CONTAINING LIQUID HANDLING COMPONENTS. SPACE CLASSIFICATION INSIDE THE DISPENSER ENCLOSURE IS COVERED IN ANSI/UL 87, "POWER OPERATED DISPENSING DEVICES FOR PETROLEUM PRODUCTS."

G TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION
(DISPENSING DEVICE - OUTDOOR)

EXTENT OF CLASS 1, GROUP D, DIVISION 2 LOCATION:
UP TO 18 INCHES ABOVE GRADE LEVEL WITHIN 20 FEET HORIZONTALLY OF ANY EDGE OF ENCLOSURE.



1 N.E.C CLASSIFIED AREA @ GROUND LEVEL
SCALE: 1/8" = 1'-0"



4 N.E.C. CLASSIFIED AREA AT REMOTE VENT
SCALE: 1/4" = 1'-0"

Rev. #	Date	Description
1	02/06/25	PEER REVIEW COMMENTS
2	02/12/25	FRP PIPING UPDATE

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

N.E.C. CLASSIFIED AREA

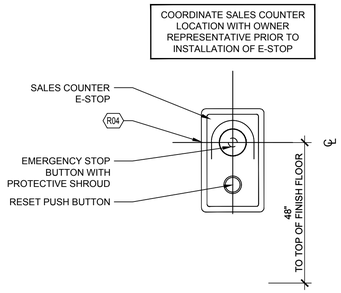
CORE STATES GROUP
TEXAS REGISTERED ENGINEERING FIRM F-13948
TEXAS REGISTERED SURVEYING FIRM LS-10194202
EXPIRATION: 07/31/2025
212 SE 34th Street
Suite 2
Bentonville, AR 72712
479.986.4400
core-states.com

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	KLC
Checked By:	RWB

STATE OF TEXAS
JOHN D. FERGUSON
103854
LICENSED PROFESSIONAL ENGINEER
02/12/2025

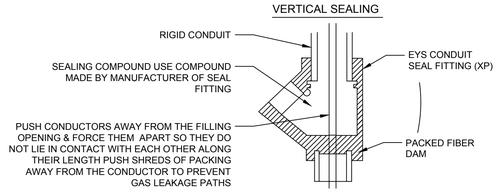
SHEET:
G9.1
FUELING - USA

PRINTED BY: GDELAROSA
DRAWING NAME: 40569 - G9.1 N.E.C. CLASSIFIED AREA.DWG PRINT DATE: Feb 12, 2025 - 4:20pm



5 INTERIOR E-STOP DETAIL
SCALE: NTS

4 NOT USED
SCALE: NTS

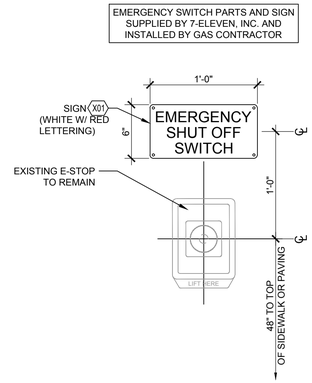


NOTE:

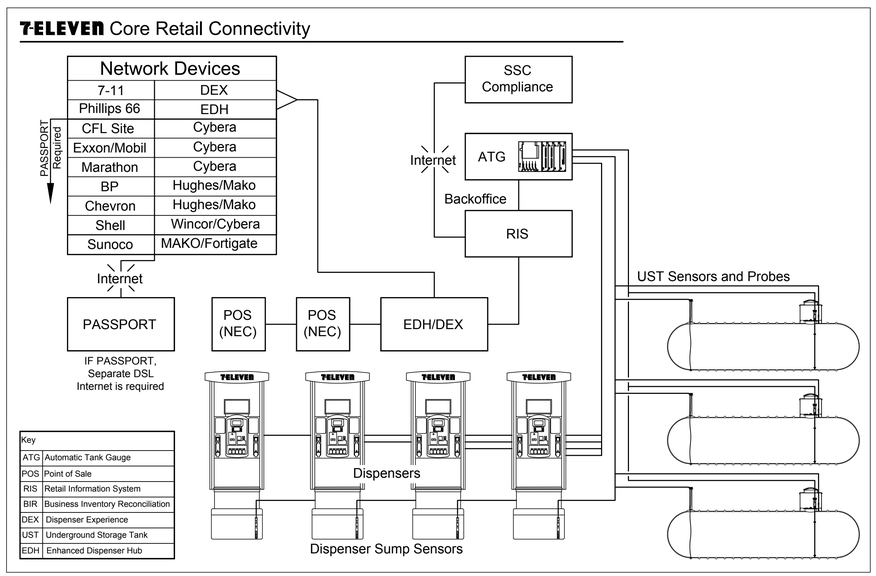
PROVIDE EXPLOSION PROOF SEALS. IN ACCORDANCE WITH ARTICLE 501, CLASS 1, DIVISION 2 OF THE LATEST NATIONAL ELECTRICAL CODE TYPICAL FOR ALL UNDERGROUND CONDUIT STUB-UPS INTO EQUIPMENT

SEAL OFF ALL CONDUIT ENTERING OR LEAVING CAVITIES OR ENCLOSURES OF DISPENSERS AND ASSOCIATED EQUIPMENT. IN ADDITION, ALL CONDUITS COMING FROM THE BUILDING THROUGH A HAZARDOUS LOCATION ALSO REQUIRE SEAL-OFFS AT BOTH ENDS.

3 SEAL FITTING INSTALLATION
SCALE: NTS



2 EMERGENCY SHUT OFF W/ COVER
SCALE: NTS



6 CORE RETAIL CONNECTIVITY DIAGRAM
SCALE: NTS

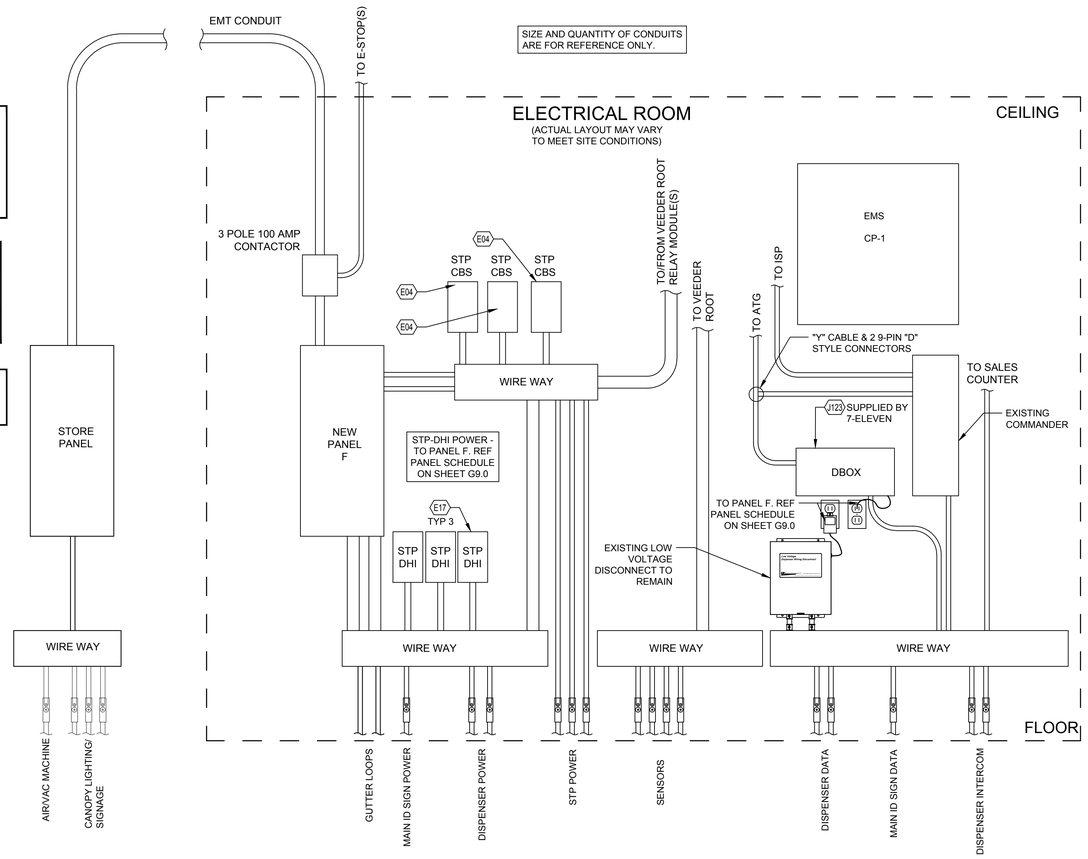
FUELING CONTRACTOR:
EXTEND CONDUITS AS REQUIRED TO EXISTING DISPENSERS AND NEW FUEL TANKS. TIE TO EXISTING WHERE IT IS POSSIBLE. SEE SPECIFICATION SHEET G16.0, SECTION VII, 2.3.1 FOR CONDUIT TYPES.

NOTE: PULL ALL NEW WIRES AND PULL STRINGS AS REQUIRED.

NOTE: REARRANGE LAYOUT OF EQUIPMENT AS REQUIRED TO FIT NEW PANEL, ISOLATION RELAY BOXES, CONTROL BOXES, NEW CONDUITS, DBOX AND LOW-VOLTAGE DISCONNECT IN EXISTING ELECTRICAL ROOM. REMOVE OLD UNUSED PANELS AND BOXES AS REQUIRED TO MAKE ROOM FOR NEW EQUIPMENT.

NOTE: TIE NEW DISPENSER AND SUMP CONDUIT INTO EXISTING ELECTRICAL ROOM AS REQUIRED. FIELD VERIFY EXISTING CONDITIONS.

NOTES:
1. REFERENCE SHEET G11.0 FOR DISPENSER HOOK ISOLATION WIRING DIAGRAMS, STP CONTROLLER, AND VEEDER ROOT RELAY MODULE WIRING DIAGRAMS.
2. REFER TO THE COMPLIANCE DOCUMENT FOR GUIDANCE ON 7-ELEVEN'S ATGs REGARDING TLS-450 AND LOW LEVEL SHUT DOWN OF THE STP.



1 POWER/DATA EQUIPMENT DETAILS
SCALE: NTS

Rev. #	Date	Description

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

MISCELLANEOUS ELECTRICAL DETAILS

CORE STATES GROUP
TEXAS REGISTERED ENGINEERING FIRM F-13592
TEXAS REGISTERED SURVEYING FIRM LS-10012500
EXPIRATION: 07/31/2025
212 SE 34th Street
Suite 2
Bentonville, AR 72712
479.986.4400
core-states.com

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	KLC
Checked By:	RWB

STATE OF TEXAS
JOHN D. FERGUSON
103854
LICENSED PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G10.0
FUELING - USA

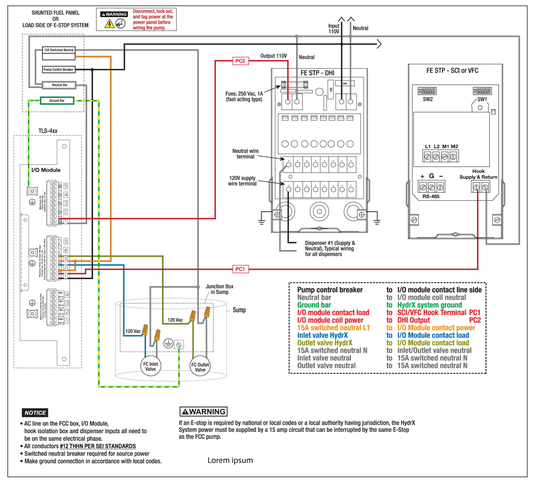


Figure 25. TLS-4xx Control Wiring - FE DHI/SCI/VFC

NOTE: REFERENCE THE LATEST VERSION OF VEEDER ROOT HYDRX SYSTEM INSTALLATION MANUAL DURING INSTALLATION.

3 HYDRX SYSTEM WIRING DIAGRAM

SCALE: NTS

GENERAL NOTES

1 INSTALL POWER BREAKERS TO EACH CIRCUIT LEADING TO THE DISPENSING UNIT AND STP. THEY MUST BE CAPABLE OF SIMULTANEOUSLY DISCONNECTING HOT AND NEUTRAL CONDUCTORS.

2 INSTALL CONDUIT PER NEC FOR HAZARDOUS LOCATIONS.

3 WIRES -ALL WIRES ARE 14AWG (STANDARD) UNLESS OTHERWISE NOTED. PUMP / DISP. GROUND - WIRE IS 12 AWG (STANDARD).

POWER LOADING AND DISTANCE RUN MAY REQUIRE LARGER WIRE SIZE.

4 INSTALL A SINGLE EMERGENCY POWER CUTOFF CONTROL TO REMOVE AC POWER FROM SITE DISPENSING EQUIPMENT.
(THE CONTROL IS AN ADDITION SAFETY FEATURE AND NOT A SUBSTITUTE FOR NEC/NFPA30 CIRCUIT BREAKER REQUIREMENTS).

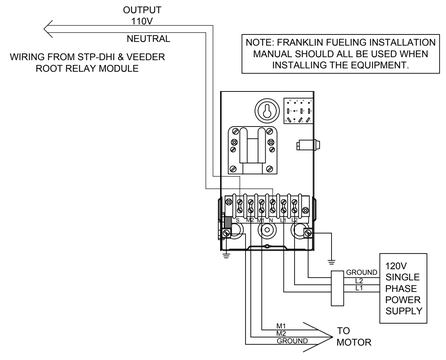
* LABEL THE EMERGENCY POWER CUTOFF SWITCH AND INSTRUCT OWNER TO KEEP AREA CLEAR OF OBSTACLES.

5 CONNECT INSULATED GROUNDING CONDUCTOR FROM THE DISPENSER POWER PANEL TO THE SITE GROUNDING ELECTRODE. SIZE PER NEC.

6 REFER TO INSTALLATION ADDENDA FOR SPECIFIC PRODUCT FIELD WIRING CONNECTIONS. CAP ALL UNUSED WIRES. LOCAL AND NEC MAY APPLY.

7 STP ISOLATION RELAY BOXES ARE MANDATED BY THE NEC (ARTICLE 514.13 - PROVISIONS FOR MAINTENANCE AND SERVICE OF DISPENSING EQUIPMENT) AND ARE REQUIRED TO:
A. ALLOW SERVICE OF ONE UNIT SAFELY WITHOUT REMOVING POWER FROM ALL DISPENSING EQUIPMENT.
B. PREVENT DAMAGE TO EQUIPMENT FROM CROSS-PHASING.

DAMAGE CAUSED BY CROSS-PHASING IS NOT COVERED BY WARRANTY.



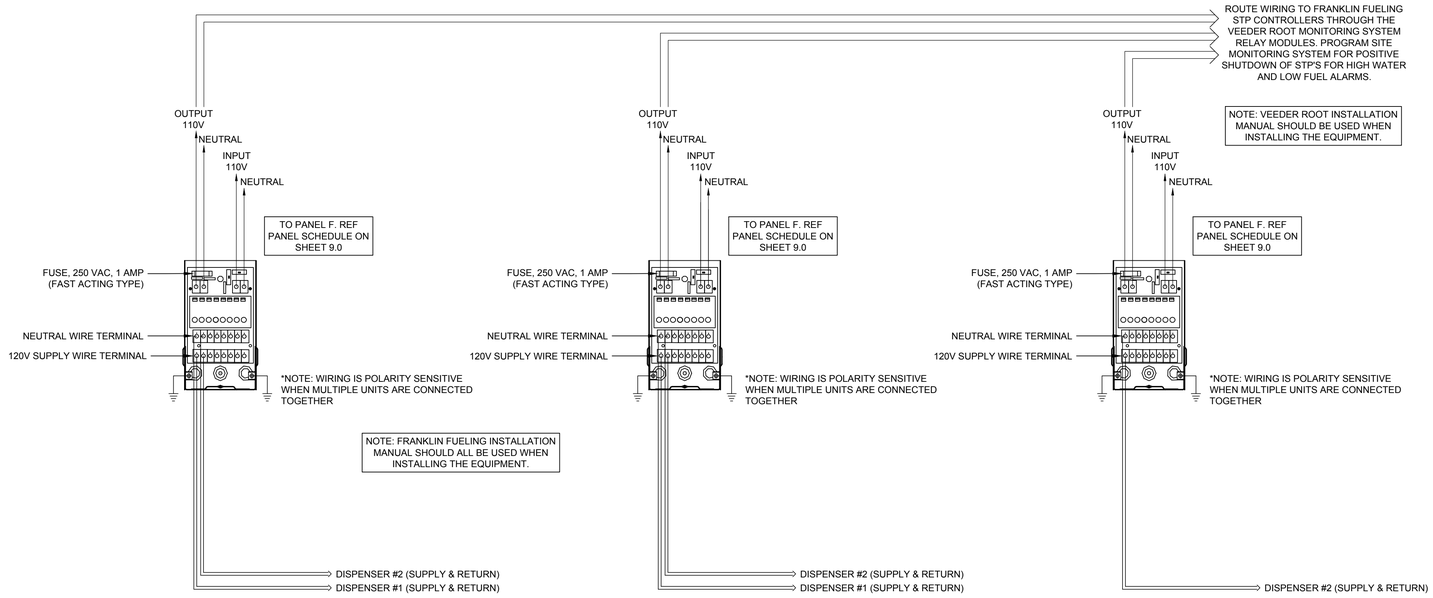
2 STP-CBS WIRING DIAGRAM

SCALE: NTS

REGULAR UNLEADED DISPENSER HOOK ISOLATION

PREMIUM UNLEADED DISPENSER HOOK ISOLATION

DIESEL DISPENSER HOOK ISOLATION



1 DISPENSER HOOK ISOLATION WIRING DIAGRAM

SCALE: NTS

Rev. #	Date	Description
		Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

ISOLATION RELAY BOX DETAIL

CORE STATES GROUP
212 SE 34th Street, Suite 2, Bentonville, AR 72712, 479.366.4400, core-states.com
TEXAS REGISTERED ENGINEERING PRACTICE FIRM #F23944, EXPIRATION: 07/31/2025

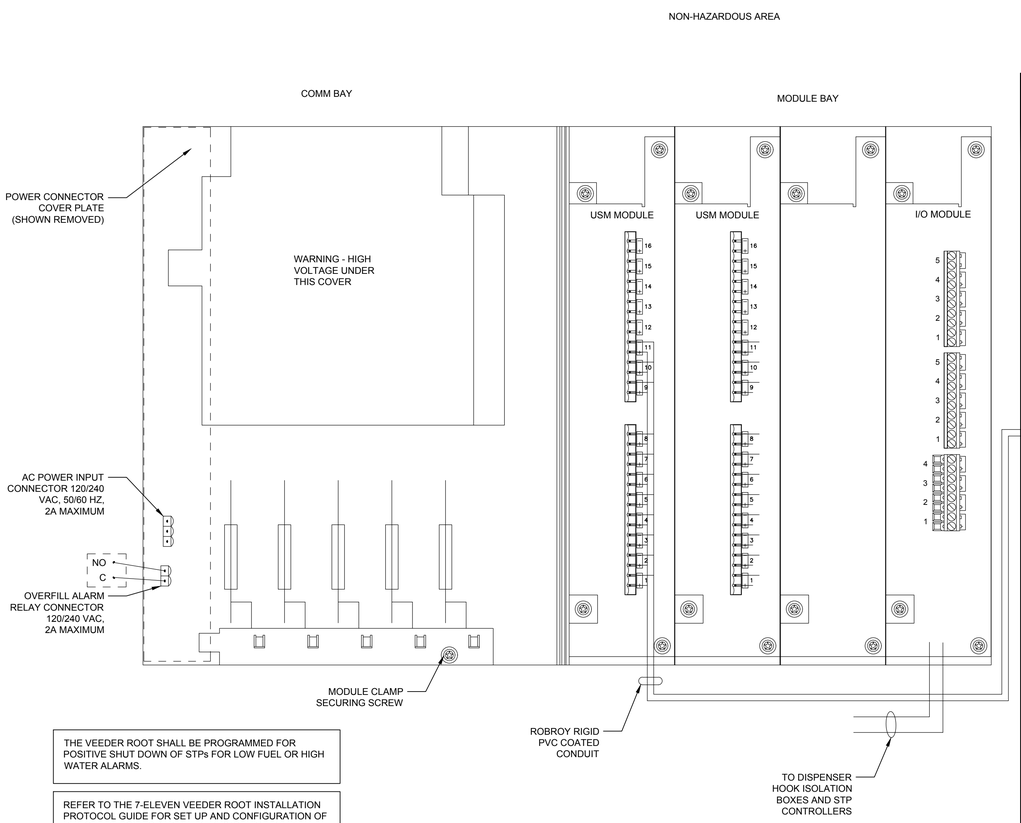
Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	KLC
Checked By:	RWB

STATE OF TEXAS
JOHN D. FERGUSON
103854
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G11.0

FUELING - USA

PRINTED BY: GEELABOSA
DRAWING NAME: 40569 - G11.0 ISOLATION RELAY BOX DETAILING PRINT DATE: Feb 12, 2025 - 4:20pm



THE VEEDER ROOT SHALL BE PROGRAMMED FOR POSITIVE SHUT DOWN OF STPs FOR LOW FUEL OR HIGH WATER ALARMS.

REFER TO THE 7-ELEVEN VEEDER ROOT INSTALLATION PROTOCOL GUIDE FOR SET UP AND CONFIGURATION OF REMOTELY MONITORED VEEDER ROOT EQUIPMENT.

CONTRACTOR SHALL PLACE A TYPEWRITTEN SENSOR SCHEDULE THAT INDICATES WHICH CHANNEL IS ASSOCIATED WITH WHICH SENSOR.

TABLE 1 - WIRE TYPES AND SIZES	
CABLE TYPE	PROBE OR SENSOR
BELDEN 88760	PROBE, SUMP, LIQUID, AND VACUUM SENSOR
12 AWG THWN	AC POWER TO CONSOLE

1 SITE MONITORING WIRING SCHEMATIC

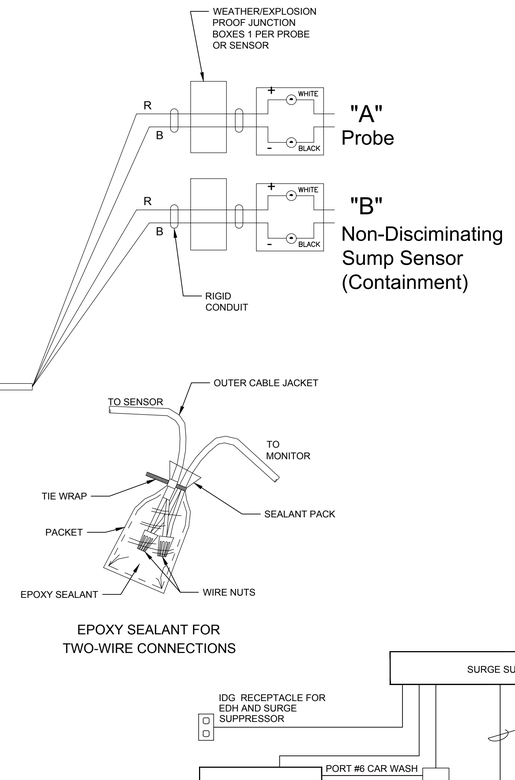
SCALE: 1 1/2" = 1'-0"

CONTRACTOR NOTE:

PLEASE COMPLETE THE FOLLOWING ITEMS WHEN REPLACING AN EXISTING ATG WITH A NEW TLS-450 PLUS CONSOLE:

1. WRACO MUST BE COMPLETED ONLINE FOR THE TLS-450 PLUS (WARRANTY REGISTRATION AND CHECKOUT). COPY TO BE PROVIDED TO SOURCE.
2. SERIAL NUMBER OF EXISTING TLS UNIT, OR COMPETITIVE UNIT, THAT IS BEING REPLACED.
3. PHOTO OF UNIT BEING DESTROYED IN THE FIELD.

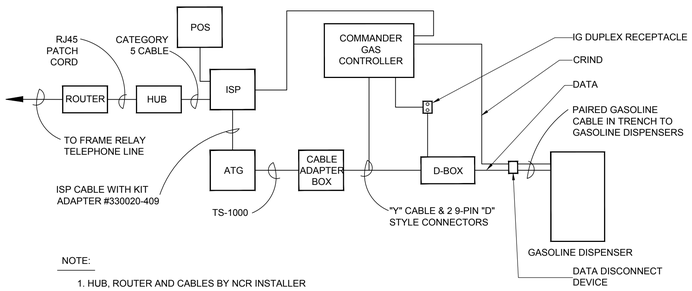
SUBMIT ALL 3 COMPONENTS TO SOURCE



EPOXY SEALANT FOR TWO-WIRE CONNECTIONS

3 ENHANCED DISPENSER HUB

SCALE: NTS

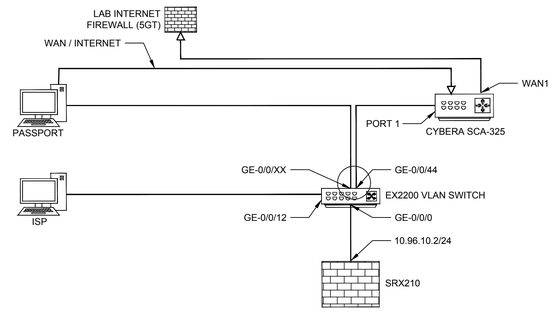


NOTE:

1. HUB, ROUTER AND CABLES BY NCR INSTALLER
2. COMMANDER GAS CONTROLLER, D-BOX, CRIND CONTROL CABLE, GAS CONTROLLER CABLE AND D-BOX CABLE INSTALLED BY THE GILBARCO AUTHORIZED SERVICE CONTRACTOR

2 POS GAS CONTROLLER - COMMANDER DIAGRAM

SCALE: NTS



4 EXXON CASH REPORT INTEGRATION DIAGRAM

SCALE: NTS

GENERAL NOTES

IMPORTANT: THIS IS A CONTROL DRAWING ONLY AND DOES NOT REFLECT THE ACTUAL LOCATIONS OF CONDUIT ENTRY (SEE NOTE 7 BELOW).

VEEDER-ROOT REQUIRES THAT ANYONE INSTALLING OUR EQUIPMENT MUST BE LEVEL I CERTIFIED. FOR MORE INFORMATION REGARDING THE HOME STUDY INSTALLERS COURSE CONTACT JOHN HOWELL 951-532-8599.

WARNING: IN INSTALLATION AND USE OF THIS PRODUCT, COMPLY WITH THE NATIONAL ELECTRICAL CODE; FEDERAL, STATE AND LOCAL CODES. IN ADDITION, TURN OFF POWER AND TAKE OTHER NECESSARY PRECAUTIONS DURING INSTALLATION, SERVICE AND REPAIR TO PREVENT PERSONAL INJURY, PROPERTY LOSS AND EQUIPMENT DAMAGE.

WARNING: DISCONNECT ALL POWER BEFORE MAKING ANY CONNECTIONS TO PREVENT DEATH, SERIOUS INJURY, EXPLOSION, OR ELECTRICAL SHOCK. MONITOR MUST NEVER BE OPERATED UNLESS THE FRONT COVER IS CLOSED OVER THE BARRIER TERMINALS IN THE INTRINSICALLY SAFE AREA.

1. INTRINSICALLY SAFE WIRING

   BONDED CONDUIT MEANS THAT THE METALLIC SECTIONS OF CONDUIT ARE PERMANENTLY JOINED TO FORM AN ELECTRICALLY CONDUCTIVE PATH THAT WILL ASSURE ELECTRICAL CONTINUITY, AND THAT THE CONDUIT HAS THE CAPACITY TO CONDUCT SAFELY, ANY CURRENT LIKELY TO BE IMPOSED.

   a) BONDED & NON-BONDED CONDUIT - THE WIRES BETWEEN THE MONITOR AND EACH PROBE/SENSOR LOCATION MUST BE #14, #16 OR #18 AWG STRANDED COPPER WIRES WITHIN A SHIELDED CABLE. SHIELDED CABLE MUST BE RATED AT LESS THAN 100 PICOFARAD PER FOOT AND MUST BE MANUFACTURED WITH A MATERIAL SUITABLE FOR THE ENVIRONMENT, SUCH AS BELDEN ™ 88760.

2. CONNECT THE BARRIER GROUND TO THE EARTH GROUND BUS AT THE POWER DISTRIBUTION PANEL WITH #12 AWG (OR LARGER) CONDUCTOR.
3. DENOTES FIELD WIRING CONNECTION USING WATERPROOF CONNECTORS SUPPLIED WITH THE PROBE(S) AND SENSOR(S).
4. INTRINSICALLY SAFE WIRING SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLE 504-20 OF THE NEC, ANSI/NFPA 70.
5. TO MAINTAIN INTRINSIC SAFETY, PROBE/SENSOR WIRING MUST BE INSTALLED WITH EITHER SEALED CONDUIT OR DIRECT BURIAL METHODS. REFER TO "DIRECT BURIAL CABLE INSTALLATION", MANUAL NO. 576013-858.
6. ELECTRICAL RATING POWER INPUT 120 VAC, 50/60 HZ, 100 VA MAXIMUM.
7. THIS DOCUMENT IS NOT TO BE USED AS A SUBSTITUTE FOR SPECIFIC EQUIPMENT INSTALLATION MANUALS. FOR INSTALLATION DETAILS USE THE RESPECTIVE MANUAL:

   TLS-450 PLUS 577014-073

8. ALL CABINET PENETRATIONS MUST ENTER THROUGH A PRE-DRILLED CONDUIT KNOCKOUT.

Rev. #	Date	Description

PERFORMANCE SPECIFICATION

SECTION I GENERAL CONDITIONS

PART 1 - GENERAL

1.1 SCOPE OF WORK: THE WORK INCLUDED IN THE CONTRACT FOR THIS PROJECT CONSISTS OF THE FURNISHING OF ALL LABOR, MATERIALS, SERVICES, EQUIPMENT AND APPLIANCES REQUIRED IN CONJUNCTION WITH OR PROPERLY INCIDENTAL TO THE COMPLETE CONSTRUCTION OF A GASOLINE INSTALLATION FOR 7-ELEVEN, INC.

PART 2 - AGREEMENT

2.1 CONTRACTOR SHALL NOT START WORK WITHOUT CONTRACT AND APPROVED SEALED PLANS.

PART 3 - INTENT OF DRAWING AND SPECIFICATIONS

3.1 THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PRESCRIBE A COMPLETE WORK OR IMPROVEMENT WHICH THE CONTRACTOR SHALL PERFORM IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO COMPLETE THE WORK IN A SATISFACTORY AND ACCEPTABLE MANNER.

3.2 THE CONTRACTOR SHALL, UPON DISCOVERY, REPORT ANY DISCREPANCIES IN THE DRAWINGS AND SPECIFICATIONS TO THE OWNER'S CONSTRUCTION MANAGER.

3.3 THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE COMPLIMENTARY. ANYTHING MENTIONED IN THE SPECIFICATIONS AND NOT SHOWN ON THE DRAWINGS, OR SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE SPECIFICATIONS, SHALL BE OF LIKE EFFECT AS IF SHOWN OR MENTIONED IN BOTH. GENERALLY, THE SPECIFICATIONS DESCRIBE WORK WHICH CANNOT BE READILY IDENTIFIED ON THE DRAWINGS AND INDICATED TYPES, QUALITIES AND METHODS OF INSTALLATION OF THE VARIOUS MATERIALS AND EQUIPMENT REQUIRED FOR THE WORK. IT IS NOT INTENDED TO MENTION EVERY ITEM OF WORK IN THE SPECIFICATIONS WHICH CAN BE ADEQUATELY SHOWN ON THE DRAWINGS NOR TO SHOW ON THE DRAWINGS ALL ITEMS OF WORK DESCRIBED OR REQUIRED BY THE SPECIFICATIONS EVEN IF THEY ARE OF SUCH NATURE THAT THEY COULD HAVE BEEN SHOWN THEREON. ALL MATERIALS OR LABOR FOR WORK WHICH IS SHOWN ON THE DRAWINGS OR IS REASONABLY INFERABLE AS BEING NECESSARY TO PRODUCE A FINISHED JOB SHALL BE PROVIDED BY THE CONTRACTOR WHETHER OR NOT THE WORK IS EXPRESSLY COVERED IN THE SPECIFICATIONS.

3.4 THE CONTRACTOR, SUBCONTRACTORS AND ALL TRADES SHALL EXAMINE THE SITE AND ASCERTAIN EXISTING CONDITIONS PRIOR TO THE START OF THEIR PORTIONS OF THE WORK. BEFORE ORDERING MATERIALS OR DOING ANY WORK, THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR THE CORRECTNESS OF ALL MEASUREMENTS AT THE SITE. ANY DIFFERENCES WHICH MAY BE FOUND BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE DRAWINGS OR SHOP DRAWINGS SHALL BE SUBMITTED TO THE OWNER'S CONSTRUCTION MANAGER FOR CONSIDERATION BEFORE PROCEEDING WITH THE ACTUAL DIMENSIONS AND MEASUREMENTS INDICATED ON THE DRAWINGS UNLESS A SUBSTANTIAL ERROR HAS BEEN MADE. IF SUCH AN ERROR SHOULD OCCUR, IT SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S CONSTRUCTION MANAGER AND RESOLVED BEFORE PROCEEDING WITH WORK.

3.5 THE ORGANIZATION OF SPECIFICATIONS INTO DIVISIONS, SECTIONS AND PARAGRAPHS, AND THE ARRANGEMENT OF THE DRAWINGS ARE NOT INTENDED TO CONTROL THE CONTRACTOR IN DIVIDING THE WORK AMONG SUBCONTRACTORS OR IN THE ESTABLISHING THE EXTENT OF WORK TO BE PERFORMED BY ANY TRADE.

3.6 DRAWINGS AND SPECIFICATIONS: DRAWINGS INDICATE GENERAL DESIGN AND ARRANGEMENTS DRAWINGS ARE DIAGRAMMATIC AND ARE NOT SCALED FOR DIMENSIONS. TAKE ALL DIMENSIONS FROM ARCHITECTURAL PLANS AND EQUIPMENT TO BE FURNISHED. VERIFY DIMENSIONS IN THE FIELD.

PART 4 - RESPONSIBILITY OF THE CONTRACTOR

4.1 CONTRACTOR HEREBY DECLARES HE HAS READ ALL SPECIFICATIONS AND EXAMINED THE DRAWINGS AND THAT HE UNDERSTANDS ALL CONDITIONS.

4.2 CONTRACTOR HEREBY DECLARES HE HAS VISITED THE SITE AND IS FAMILIAR WITH THE CONDITIONS AFFECTING THE WORK. NO ALLOWANCES SHALL BE MADE SUBSEQUENTLY ON BEHALF OF THE CONTRACTOR FOR ANY ERROR NEGLIGENCE ON HIS PART. IF IN THE PERFORMANCE OF THE CONTRACT, LATENT CONDITIONS AT THE SITE ARE FOUND TO BE MATERIALLY DIFFERENT FROM THOSE INDICATED BY THE DRAWINGS AND SPECIFICATIONS, OR UNKNOWN CONDITIONS UNUSUALLY INHERENT IN WORK OF THIS CHARACTER SHOWN AND SPECIFIED, THE ATTENTION OF THE OWNER'S CONSTRUCTION MANAGER SHALL BE CALLED IMMEDIATELY TO SUCH CONDITIONS BEFORE THEY ARE DISTURBED.

4.3 CONTRACTOR HEREBY DECLARES THAT HE HAS READ AND IS FAMILIAR WITH THE APPLICABLE SOILS REPORT.

CONTRACTOR SHALL BE RESPONSIBLE FOR STRICTLY ADHERING TO THE RECOMMENDATIONS OF SAID SOILS REPORT FOLLOWING ALL APPLICABLE PROCEDURES NOTED THEREIN. EXISTING WATER TABLE SHALL POSSIBLY DETERMINE A DIFFERENT UTILIZATION OF THE TANK STRAPS AND TYPE OF BACK FILL MATERIAL. SHOULD GROUND WATER OR CONTAMINATION BE DISCOVERED DURING TANK EXCAVATION, WORK SHALL BE SUSPENDED PENDING REVIEW BY 7-ELEVEN CONSTRUCTION MANAGER.

4.4 CONTRACTOR SHALL REPORT ANY OBJECTION TO MATERIALS, APPLIANCES, OR METHODS OF CONSTRUCTION SHOWN OR SPECIFIED TO THE OWNER'S CONSTRUCTION MANAGER AND OBTAIN A DECISION BEFORE PROCEEDING.

4.5 PROPOSALS: CONTRACTOR SHALL SUBMIT BID ONLY ON 7-ELEVEN'S FORM THAT WILL BE PROVIDED BY 7-ELEVEN'S LOCAL CONSTRUCTION MANAGER, "COST OF CONSTRUCTION" PROPOSALS SUBMITTED ON ANY OTHER FORM SHALL BE REJECTED AND RETURNED. PROPOSALS NOT COMPLETELY AND PROPERLY FILLED OUT SHALL BE REJECTED. PROPOSALS SHALL INCLUDE MONEYS FOR REMOVAL OF ALL EXISTING IMPROVEMENTS AS REQUIRED FOR GASOLINE INSTALLATION.

4.6 PERMITS: CONTRACTOR SHALL, AS DIRECTED BY 7-ELEVEN, PAY FOR ALL APPLICABLE PERMITS AND AND FEES. COPIES OF PERMITS AND CERTIFICATES SHALL BE FORWARDED TO LOCAL 7-ELEVEN CONSTRUCTION MANAGER'S OFFICE OR SITE MANAGER PRIOR TO COMMENCEMENT OF WORK. FINAL CERTIFICATION OF ACCEPTANCE BY GOVERNING AUTHORITIES SHALL ALSO BE ON FILE WITH LOCAL CONSTRUCTION OFFICE OR SITE MANAGER PRIOR TO THE PROCESSING OF FINAL PAYMENT REQUEST.

4.7 INSPECTIONS: CONTRACTOR SHALL BE REQUIRED TO ADHERE TO ALL REQUIREMENTS OF OWNER'S INSPECTION PROGRAM. CONTRACTOR SHALL COMPLY WITH REQUIREMENTS FOR NOTIFICATION, SITE PREPARATION REQUIREMENTS, COMPLIANCE, ON-SITE PRESENCE DURING INSPECTION AND CORRECTION OF ANY DEFECTS OR RELATED PROBLEMS AS DIRECTED BY INSPECTING REPRESENTATIVE CONTRACTOR SHALL PROVIDE NO LESS THAN 48 HOURS NOTICE PRIOR TO INSPECTION.

4.8 COORDINATION: FUEL CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING ALL PHASES OF THE GASOLINE INSTALLATION WITH THE GENERAL CONTRACTOR IN CHARGE OF THE BUILDING OR MAJOR PORTION OF THE PROJECT. THE BUILDING GENERAL CONTRACTOR AND THE FUEL CONTRACTOR SHALL JOINTLY DEVELOP A MUTUALLY AGREEABLE SCHEDULE AND TIMETABLE FOR COMPLETION ON THE GASOLINE INSTALLATION. TIMETABLE FOR BUILDING AND GASOLINE SHALL COINCIDE AND COMPLIMENT EACH OTHER SO THAT ONE DOES NOT DELAY THE OTHER.

SHOULD FUEL CONTRACTOR FAIL TO MEET DEADLINES AS ESTABLISHED BY THE SCHEDULE AND/OR HOLD UP THE COMPLETION OF THE OVERALL BUILDING PROJECT, 7-ELEVEN, INC. RESERVES THE RIGHT TO RECTIFY THE SITUATION ACCORDINGLY.

4.9 CONTRACTOR SHALL PROVIDE OWNER WRITTEN CERTIFICATION AS TO THE FOLLOWING:

4.9.1 CERTIFICATION FROM LOCAL/STATE GOVERNING AUTHORITIES AS APPLICABLE FOR CONTRACTOR CERTIFICATION/LICENSING FOR INSTALLATION OF GASOLINE STORAGE TANK SYSTEM.

4.9.2 CERTIFICATION FROM EQUIPMENT MANUFACTURES AND SUPPLIERS (TANKS, PRODUCT LINES, ATG'S, ETC.) AS TO ATTENDING AND ACHIEVING CERTIFICATION FROM APPROPRIATE COMPANY FOR INSTALLATION OF EQUIPMENT.

4.9.3 CERTIFICATION ON APPROPRIATE FORMAT AS TO INSTALLATION OF COMPLETE SYSTEM BEING PERFORMED IN COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS.

4.9.4 CERTIFICATION THAT ALL EQUIPMENT EITHER SUPPLIED BY OWNER OR CONTRACTOR HAS BEEN INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS BY PERSONNEL TRAINED AND QUALIFIED FOR THAT SPECIFIC ITEM.

SECTION I GENERAL CONDITIONS - CONTINUED

PART 4 - CONTINUED

4.11 LIENS: CONTRACTOR SHALL PERMIT NO LIENS OF ANY KIND TO BE FIXED UPON OR AGAINST THE PROPERTY BY ITS SUBCONTRACTORS, LABORERS, MECHANICS OR MATERIAL MEN, AND SHALL INDEMNIFY, PROTECT AND SAVE OWNER HARMLESS FROM AND AGAINST ALL SUCH CLAIMS AND LIENS.

4.12 EQUIPMENT RESPONSIBILITY: CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING, RECEIVING, UNLOADING, HANDLING AND PROVIDING PROTECTED INSIDE STORAGE FOR ALL OWNER SUPPLIED EQUIPMENT AND MATERIAL. CONTRACTOR SHALL INSPECT EQUIPMENT UPON RECEIPT AND IMMEDIATELY REPORT ANY DAMAGE DUE TO SHIPPING TO THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DUE TO FAILURE TO COMPLY WITH THESE REQUIREMENTS. DISPENSERS SHALL BE PROTECTED WITH SHIPPING BOXES UNTIL STORE IS TURNED OVER FOR OPENING. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ADEQUATE AND LOCKED STORAGE OF OWNER'S MISCELLANEOUS EQUIPMENT, TO INCLUDE GASOLINE CONSOLE, PRIOR TO OPENING OF THE STORE.

4.13 FUEL CONTRACTOR SHALL BE RESPONSIBLE FOR FILING OF RECEIVING FORMS AND MISCELLANEOUS CONFIRMATION OF EQUIPMENT RECEIVING INFORMATION AS REQUIRED BY LOCAL CONSTRUCTION OFFICE.

4.14 FUEL CONTRACTOR SHALL PROVIDE ALL PIPING, WIRING, MATERIAL AND LABOR AS REQUIRED TO INSTALL OWNER SUPPLIED EQUIPMENT. INCLUDE MONEY IN BID PROPOSAL FOR INSTALLATION OF OWNER SUPPLIED EQUIPMENT UNLESS NOTED OTHERWISE.

PART 5 - PROTECTION

5.1 CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY LOSS OR DAMAGE CAUSED BY HIM OR HIS WORKMEN TO THE PROPERTY OR EQUIPMENT OF THE OWNER, OR TO THE WORK OR MATERIALS OF OTHER CONTRACTORS. CONTRACTOR SHALL MAKE GOOD ANY LOSS, DAMAGE OR INJURY WITHOUT COST TO OWNER FOR SUCH LOSS OR DAMAGE.

5.2 CONTRACTOR SHALL PROVIDE AND MAINTAIN SUITABLE TEMPORARY SIDEWALKS, FENCES, LIGHTS, SIGNS OR OTHER STRUCTURES AND DEVICES AS REQUIRED BY LAW, DO NOT OBSTRUCT OR INTERFERE WITH TRAFFIC IN PUBLIC STREETS, ALLEYWAYS OR PRIVATE RIGHT-OF-WAYS. IF WORK IS SUSPENDED, KEEP ALL ROADWAYS AND SIDEWALKS IN PROPER CONDITION AND PUT AND LEAVE THEM IN PROPER CONDITION AT TERMINATION OF WORK.

5.3 CONTRACTOR SHALL SEND PROPER NOTICES, MAKE NECESSARY ARRANGEMENTS AND PERFORM ALL WORK REQUIRED FOR THE CARE, PROTECTION AND MAINTENANCE OF PUBLIC UTILITIES ON AND AROUND THE BUILDING SITE, ASSUMING ALL RESPONSIBILITY AND PAYING ALL COSTS FOR WHICH THE OWNER MAY BE LIABLE. CONTRACTOR HEREBY DECLARES HE HAS VERIFIED THE LOCATIONS OF THE EXISTING UNDERGROUND UTILITIES ON SITE PRIOR TO THE START OF WORK. CONTRACTOR HEREBY AGREES TO MAKE ARRANGEMENTS FOR AND TO PAY ALL CHARGES IN CON- JUNCTION WITH THE RELOCATION'S OF EXISTING UTILITIES AS REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL UTILITY EASEMENTS, HOOKUP CHARGES, TAP FEES & SYSTEM DEVELOPMENT FEES OR BONDS AS NECESSARY FOR COMPLETION OF THIS PROJECT.

5.4 IF ALL OR PART OF THE WORK IS SUSPENDED FOR ANY REASON, CONTRACTOR SHALL PROPERLY COVER OVER, SECURE AND PROTECT ANY PORTION LIABLE TO SUSTAIN INJURY FROM ANY CAUSE.

5.5 PRODUCT PROTECTION: CONTRACTOR SHALL PROVIDE ADEQUATE AND SECURE PROTECTION OF PRODUCT IN TANKS UPON DELIVERY UNTIL TURNED OVER FOR OPERATION. ALL FILL, VENT AND GAUGING CAPS AND/OR OPENINGS SHALL BE SECURED AND PADLOCKED TO PREVENT VANDALISM OR THEFT.

PART 6 - SUBSTITUTION OF MATERIALS

6.1 MATERIALS AS SPECIFIED REPRESENT REQUIRED STANDARDS. SUBSTITUTION MAY BE PROPOSED IN WRITING WITH ADEQUATE SUPPORTING DATA FURNISHED. USE OF SUBSTITUTE MATERIALS IS DEPENDENT ON RECEIPT OF WRITTEN APPROVAL FROM OWNER'S APPROVED REPRESENTATIVE.

PART 7 - COMPLETION OF CONTRACT

7.1 THE CONTRACT SHALL BE CONSIDERED FULFILLED, SAVE AS PROVIDED IN ANY MAINTENANCE STIPULATIONS, BOND OR BY LAW, WHEN ALL THE WORK HAS BEEN COMPLETED WITH FINAL INSPECTION AND ACCEPTANCE MADE BY ALL APPLICABLE GOVERNING BUILDING DEPARTMENTS, FIRE MARSHAL'S OR OTHER JURISDICTIONS.

7.2 NOT USED

7.3 CLEANING:

7.3.1 ALL WORK SHALL BE CLEAN AND READY FOR USE UPON COMPLETION. REMOVE TEMPORARY TAPES, WRAPPING, COATING, PAPER LABELS AND OTHER ITEMS.

7.3.2 CLEANING METHODS FOR PROPRIETARY MATERIALS SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. CLEANING SOLUTIONS, AGENTS, SOLVENTS, WAXES OR OTHER MATERIALS SHALL BE ONLY AS APPROVED BY THE MANUFACTURER OF THE MATERIAL INSTALLED IN THE WORK.

7.3.3 CLEANUP: CONTRACTOR SHALL CLEAN UP ALL DEBRIS CAUSED BY THE WORK OF THIS SECTION, KEEPING THE PREMISES NEAT AT ALL TIMES.

PART 8 - CODES

8.1 THE FOLLOWING CODES ARE MADE A PART OF THIS SPECIFICATION. SAID CODES SHALL DICTATE MINIMAL ACCEPTABLE STANDARDS. CODE SHALL BE ADHERED TO UNLESS LOCAL GOVERNING AUTHORITIES DICTATE HIGHER OR MORE STRINGENT REQUIREMENTS WHICH SHALL TAKE PRECEDENCE:

8.1.1 NFPA 30 FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE

8.1.2 PEI MANUAL "RECOMMENDED PRACTICES FOR INSTALLATION OF UNDERGROUND LIQUID STORAGE SYSTEMS." #RP-100-96 (OR LATEST EDITION)

8.1.3 OSHA AND LOCAL MUNICIPALITIES

PART 9 - WARRANTY / GUARANTEE

9.1 EXCEPT WHERE SPECIAL GUARANTEES ARE REQUIRED IN EXCESS OF ONE (1) YEAR, THE CONTRACTOR AGREES TO REPAIR AND RE-CERTIFY OR REPLACE THE DEFECTIVE COMPONENT OR ANY DEFECT IN MATERIAL OR WORKMANSHIP (BEYOND ORDINARY WEAR AND TEAR) TO THE SATISFACTION OF THE OWNER'S CONSTRUCTION MANAGER FOR A PERIOD OF ONE (1) YEAR AFTER DATE OF ACCEPTANCE, WHETHER IN HIS WORK OR IN THAT OF SUBCONTRACTOR'S, WITHOUT COST TO THE OWNER.

9.2 ALL PAVING WILL HAVE A TWO YEAR WARRANTY.

PART 10 - AS BUILT PLAN AND DOCUMENTATION

10.1 UPON COMPLETION OF PROJECT, CONTRACTOR SHALL PROVIDE "AS-BUILT SITE PLAN" VERIFYING FINAL LOCATION OF IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO, PIPING, PLUMBING AND ELECTRICAL.

10.2 CONTRACTOR SHALL KEEP PHOTOGRAPHIC JOURNAL OF ALL PHASES OF THE COMPLETE INSTALLATION. PHOTOGRAPHS ARE TO BE PROPERLY DATED, IDENTIFIED AND FORWARDED TO LOCAL 7-ELEVEN, INC. CONSTRUCTION OFFICE, WITH FINAL INVOICE PACKAGE.

SECTION II INSPECTIONS / TESTING

TEST BEFORE PLACING THE SYSTEM IN SERVICE

COMPONENT	MANUFACTURER		Table below lists current Manufacturer's Installation and Testing Guidelines that may be applied to the fuel system components after assembly but before backfilling. Before the beginning of fuel system installation, fuel contractor is to be responsible for reading through the entire Installation Manual and Operating Guidelines as well as any applicable supplemental materials. It is the responsibility of the fuel contractor and fuel operator to understand and follow all requirements contained in the installation and testing manuals. Work must be performed according to standard industry practices applicable to tank installations and operations. Work must also comply will all applicable codes, regulations and standards of appropriate governmental agencies.
DOUBLE-WALLED STORAGE TANK	XERXES "A ZCL COMPANY"	INSTALLATION MANUAL	http://www.zcl.com/assets/documents/library/installation%20manual%20and%20operating%20guidelines%20(imog)%20for%20xerxes%20tanks.pdf
		TESTING PROCEDURE	http://www.zcl.com/assets/documents/library/installation%20manual%20and%20operating%20guidelines%20(imog)%20for%20xerxes%20tanks.pdf
DOUBLE-WALLED PIPING	NOV	INSTALLATION MANUAL	http://www.nov.com/Segments/Completion_and_Production_Solutions/Fiber_Glass_Systems/Fuel_Handling/Red_Thread_IIA.aspx
		TESTING PROCEDURE	http://www.nov.com/docHandler.aspx?puid=l2bNZwjC3oL35C
LEAK DETECTION SENSOR	VEEDER ROOT	INSTALLATION MANUAL	http://www.gilbarco.com/gold/gold_public_access.cfm?section_id=361
		TESTING PROCEDURE	http://www.gilbarco.com/gold/gold_public_access.cfm?section_id=361
AUTOMATIC TANK GUAGES	VEEDER ROOT	INSTALLATION MANUAL	https://www.veeder.com/us/sites/veeder.com.us/files/2020-09/577014-073%20TLS-450PLUS%20Console%20Site%20Prep%20and%20Installation%20Manual.pdf
		TESTING PROCEDURE	https://www.veeder.com/us/automatic-tank-gauging-products/tls-450plus-automatic-tank-gauge
OVERFILL PREVENTION DEVICES	OPW	INSTALLATION MANUAL	http://www.opwglobal.com/docs/libraries/manuals/retail-fueling/below-ground/opw-fcs-manuals/71so-testable-(h15524pa)-1-30-14.pdf?sfvrsn=4
		TESTING PROCEDURE	http://www.opwglobal.com/docs/libraries/manuals/retail-fueling/below-ground/opw-fcs-manuals/71so-testable-(h15524pa)-1-30-14.pdf?sfvrsn=4
SPILL-CONTAINMENT MANHOLES	OPW	INSTALLATION MANUAL	http://www.opwglobal.com/docs/libraries/manuals/retail-fueling/below-ground/opw-fcs-manuals/1-3100_EDGE_Thread-On_Spill_Installation_Inst_202181_2-13-13_G.pdf?Status=Master&sfvrsn=0
		TESTING PROCEDURE	http://www.opwglobal.com/docs/libraries/manuals/retail-fueling/below-ground/opw-fcs-manuals/Double_Wall_Spill_Container_Vac_Test_Installation_Instructions_-_English_202383.pdf?Status=Master&sfvrsn=0
IMPACT VALVES	OPW	INSTALLATION MANUAL	http://www.opwglobal.com/docs/libraries/manuals/retail-fueling/below-ground/opw-fcs-manuals/10_Series_Emergency_Shear_Valve_Installation_Instructions_-_English_H11374PA.pdf?Status=Master&sfvrsn=0
		TESTING PROCEDURE	http://www.opwglobal.com/docs/libraries/manuals/retail-fueling/below-ground/opw-fcs-manuals/10_Series_Emergency_Shear_Valve_Installation_Instructions_-_English_H11374PA.pdf?Status=Master&sfvrsn=0
MECHANICAL LINE LEAK DETECTORS	VAPORLESS MANUFACTURING	INSTALLATION MANUAL	http://www.vaporless.com/installation/installpdf/install_ld2000.pdf
		TESTING PROCEDURE	http://www.vaporless.com/installation/installpdf/install_ld2000.pdf
ELECTRONIC LINE LEAK DETECTORS	VEEDER ROOT	INSTALLATION MANUAL	http://www.veeder.com/gold/download.cfm?doc_id=6414
		TESTING PROCEDURE	http://www.veeder.com/gold/download.cfm?doc_id=6414
FLEXIBLE CONNECTORS	FRANKLIN FUELING	INSTALLATION MANUAL	http://www.franklinfueling.com/media/468560/407293001-r1-flex-connector-install.pdf

PART 1 - GENERAL

1.1 SCOPE: THIS SECTION COVERS THE FURNISHING OF ALL LABOR, SERVICES AND EQUIPMENT AS REQUIRED TO PROVIDE INSPECTION SERVICES OF THE FUELING INSTALLATION.

PART 2 - INSPECTIONS

2.1 INSPECTOR: 7-ELEVEN, INC. LOCAL CONSTRUCTION DEPARTMENT AND/OR APPOINTED REPRESENTATIVE SHOULD BE NOTIFIED TO OBSERVE TIGHTNESS TESTING OF PRODUCT PIPING, STAGE I & STAGE II PIPING PRIOR TO BACKFILL.

2.2 NOTIFICATION: CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING 7-ELEVEN'S CONSTRUCTION DEPARTMENT 48 HOURS PRIOR TO REQUESTED INSPECTION

2.3 SPILLAGE: SHOULD SPILLAGE OF PRODUCT OCCUR AT ANY PHASE OF INSTALLATION OR TESTING, LOCAL 7-ELEVEN CONSTRUCTION DEPARTMENT AND ENVIRONMENTAL DEPARTMENT ARE TO BE NOTIFIED IMMEDIATELY, ESTIMATED LOSS OF PRODUCT AS WELL AS ACTION TO BE TAKEN BY CONTRACTOR TO SAFEGUARD THE EVENT FROM FURTHER MISHAP AND TO PROTECT THE GENERAL PUBLIC IS TO BE NOTED AND RECORDED.

2.4 REPRESENTATIVE OF CONTRACTOR AND FUEL CONTRACTOR SHALL BE AVAILABLE ON SITE DURING TESTING PROGRAMS. FAILURE TO COMPLY WITH THIS REQUIREMENT WILL RESULT IN ANY CORRECTIONS AND/OR REPAIRS REQUIRED BEING PERFORMED BY OWNER AS REQUIRED. COST OF SAID REPAIRS AND/OR CONNECTIONS SHALL BE DEDUCTED FROM CONTRACT AMOUNT AS REQUIRED TO SATISFY THE SITUATION.

2.5 PROHIBITED WORK: CONTRACTOR SHALL SCHEDULE WORK SUCH THAT NO HEAVY EQUIPMENT IS OPERATING ON SITE DURING INSPECTION PROGRAMS. NO WELDING OR OPEN FLAMES SHALL BE ALLOWED ON SITE AT ANY TIME DURING TEST PROCEDURES.

2.6 INSTALLATION REPORTS: SHOULD 7-ELEVEN OR THEIR APPOINTED REPRESENTATIVES BE UNABLE TO BE PRESENT AT SITE FOR PURPOSES OF FILING ANY INSPECTION REPORTS, CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE INSPECTION AND FILING OF REPORT WITH LOCAL 7-ELEVEN, INC. CONSTRUCTION OFFICE. WRITTEN REPORT SHALL INCLUDE PHOTOGRAPHIC DOCUMENTATION OF ALL PROCEDURES.

2.7 TEST FAILURE: SHOULD SYSTEM FAIL ANY PORTION OF TEST PROGRAM, CONTRACTOR SHALL IMMEDIATELY INSTIGATE PROCEDURES AS REQUIRED TO BRING SYSTEM INTO COMPLIANCE SHOULD FAILURE OF TEST DUE TO FACILITY WORK REQUIRE EXPENDITURE OF ADDITIONAL MONIES FOR RESCHEDULING AND/OR RETESTING OF SYSTEM, CONTRACTOR SHALL BE HELD RESPONSIBLE FOR COMPENSATION ACCORDINGLY.

2.8 CLEANUP: IN THE EVENT PRODUCT SPILLAGE SHOULD OCCUR DURING CONSTRUCTION OR DURING WARRANTY PERIOD DUE TO WORK PERFORMED BY CONTRACTOR, CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP AS MAY BE REQUIRED.

2.9 TEST REPORT: UPON COMPLETION OF TESTING PROGRAMS, REPRESENTATIVE OF TESTING/ INSPECTION COMPANY SHALL BE RESPONSIBLE FOR FILING COPIES OF TANK AND PIPING TEST/INSPECTION REPORTS WITH LOCAL 7-ELEVEN, INC. CONSTRUCTION OFFICE OR THE OWNER'S ASSIGNED SITE MANAGER WITH COPY TO JOB SITE.

Rev. #	Date	Description
		Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD. IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD. STE B
SAN MARCOS, TX 78666

FUELING SPECIFICATIONS

CORE STATES GROUP
212 SE 34th Street
Suite 2
Bentonville, AR 72712
479.986.4400
core-states.com
TEXAS REGISTERED ENGINEERING FIRM F-20044 TBPE/TBPLS
EXPIRATION: 07/31/2025

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	KLC
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G13.0
FUELING - USA

PRINTED BY: GDELAROSA
DRAWING NAME: 40569 - G13.0 FUELING SPECIFICATIONS.DWG PRINT DATE: Feb 12, 2025 - 4:21pm

PERFORMANCE SPECIFICATION - CONT.

SECTION II INSPECTIONS / TESTING - CONTINUED

PART 3 - TANK INSTALLATION INSPECTION

3.1 SCHEDULE: CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING SCHEDULE SO TANKS ARE TESTED AND SET IN TANK HOLE SAME DAY OF DELIVERY.

3.2 EXCAVATION: ALL EXCAVATIONS SHALL BE COMPLETED WITH BEDDING MATERIAL IN PLACE AND READY FOR INSTALLATION PRIOR TO TANK DELIVERY.

3.3 ANCHORING: CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE INSTALLATION OF CONCRETE ANCHORS (DEAD MAN).

3.4 STRAPS: HOLD DOWN STRAPS TO BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS - MINIMUM OF 4 - MORE IF REQUIRED BY MANUFACTURER (STRAPS SHALL BE SHIPPED WITH APPROPRIATE PADDING MATERIAL.

3.5 AIR TEST: TANKS SHALL BE AIR TESTED AS PER MANUFACTURER'S SPECIFICATIONS PRIOR TO PLACEMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MATERIALS TO PROVIDE COMPLETE AIR TEST INCLUDING, BUT NOT LIMITED TO, AIR COMPRESSOR OF SUFFICIENT SIZE AND CAPACITY, SPECIFIED SOAP MATERIAL AND ACCEPTABLE SOAP APPLICATION EQUIPMENT.

3.6 MINIMUM TESTING: DOUBLE WALL FIBERGLASS TANKS SHOULD ARRIVE AT THE JOB SITE WITH A MINIMUM OF 4" HG ON THE INTERSTICE. OBSERVE THE VACUUM HOLD TEST FOR AT LEAST ONE (1) HOUR PRIOR TO SETTING THE TANKS. SHOULD THE INTERSTICE NOT HOLD A MINIMUM 4" HG VACUUM, THEN CONTACT THE TANK MANUFACTURER IMMEDIATELY.

3.7 OBSERVATION: 7-ELEVEN'S CONSTRUCTION DEPARTMENT AND/OR REPRESENTATIVE SHALL BE RESPONSIBLE FOR INSPECTION OF AIR OR VACUUM TEST, OBSERVATION OF LIFTING, SETTING AND BURIAL OF TANKS.

3.8 TANK INSPECTION REPORT: WRITTEN REPORT SHALL INCLUDE PHOTOGRAPHIC DOCUMENTATION OF ALL PROCEDURES.

PART 4 - TANK AND LINE TESTING

4.1 CONTRACTOR SHALL COMPLETE AND BE RESPONSIBLE FOR THE FOLLOWING PRIOR TO FINAL PLACEMENT OF CONCRETE AND FINAL SYSTEM TEST:

4.1.1 PIPING: ALL PIPING SHALL BE COMPLETED EXCEPT INSTALLATION OF OVERFILL PROTECTION. OVERFILL PROTECTION SHALL BE INSTALLED UPON COMPLETION OF TEST.

4.1.2 VENTS: VENT LINES SHALL BE COMPLETED UNDERGROUND AND STUBBED UP MINIMUM OF 12' ABOVE FINISHED GRADE.

4.1.3 PRODUCT LINES: ALL PRODUCT LINES SHALL BE COMPLETE WITH EMERGENCY SHUTOFF IMPACT VALVE INSTALLED AT DISPENSER BOX WITH MECHANICAL LEAK DETECTOR IN PLACE.

4.1.4 PUMPS: SUBMERSIBLE PUMPS AND LINES SHALL BE COMPLETELY INSTALLED.

4.1.6 SITE PREPARATION: CONTRACTOR SHALL PREPARE TANK AREA FOR WATER OR PRODUCT DELIVERY AND TANK TESTING PROCEDURES.

4.1.7 FILL: CONTRACTOR SHALL PROVIDE 42" MINIMUM BACK FILL OVER TANKS.

4.1.8 WATER: SHOULD WATER BE PRESENT IN TANK HOLE, CONTRACTOR SHALL VERIFY AND NOTIFY 7-ELEVEN CONSTRUCTION MANAGER OF STATUS.

4.2 AFTER PLACEMENT OF CONCRETE, A COMPLETE SYSTEM TIGHTNESS TEST INCLUDING TANKS, PRODUCT LINES, STAGE II VAPOR RECOVERY LINES, SECONDARY CONTAINMENT PIPING AND VENT LINES SHALL BE PERFORMED. TESTING SYSTEM SHALL BE AS APPROVED BY 7-ELEVEN. 7-ELEVEN WILL BE BILLED DIRECTLY FOR TESTS. CONTRACTOR TO COORDINATE & SCHEDULE. RETEST OR STAND AROUND TIME BY THE TESTING COMPANY TO BE BILLED TO CONTRACTOR. DETAILS FOR THIRD PARTY TESTING REQUIREMENTS LISTED ON G17.0 SHEETS.

4.2.1 AFTER ALL UNDERGROUND PIPING AND ELECTRIC CONDUITS ARE INSTALLED AND DURING EXCAVATION BACKFILLING AND CONCRETE POURING, A CONTINUOUS HYDROSTATIC TEST SHALL BE PERFORMED ON ALL SUMPS & SPILL BUCKETS TO ENSURE TIGHTNESS AND PROPER INSTALLATION.

4.3 PRODUCT DELIVERY: CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION TO 7-ELEVEN REPRESENTATIVE OF TEST DATE AND VERIFICATION OF NEED FOR TANKS TO BE FILLED WITH PRODUCT AND TANK MONITORING SYSTEM TO BE OPERATIONAL FOR TESTING PROCEDURES. A MINIMUM OF 72 HOURS ADVANCE NOTIFICATION WILL BE REQUIRED FOR PRODUCT DELIVERY. CHECK WITH LOCAL REGULATORY AGENCIES FOR ANY FURTHER REQUIREMENTS.

4.4 CONTRACTOR SHALL HAVE REPRESENTATIVES ON SITE TO ACCEPT AND RECORD ALL PRODUCT DELIVERIES. CONTRACTOR'S REPRESENTATIVE SHALL REMIND DELIVERY COMPANY THAT NO OVERFILL PROTECTION IS INSTALLED AND TO FOLLOW PROCEDURES FOR DELIVERY AS SITUATION DICTATES.

4.5 PRODUCT REMOVAL: ANY REMAINING PRODUCT IN VENT LINES UPON COMPLETION OF TEST SHALL BE REMOVED BY TESTING COMPANY.

PART 5 - STARTUP INSPECTION

5.1 SCHEDULING: CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL SCHEDULING STARTUP AND CHECK-OUT. CONTRACTOR SHALL NOTIFY LOCAL CONSTRUCTION DEPARTMENT AND APPLICABLE MAINTENANCE DEPARTMENT OFFICE A MINIMUM OF 48 HOURS PRIOR TO INTENDED FINAL STARTUP AND CHECK-OUT DATE AND TIME.

5.2 PERSONNEL: CONTRACTOR, FUEL SUBCONTRACTOR AND ELECTRICAL SUBCONTRACTOR SHALL BE AVAILABLE ON-SITE DURING STARTUP, AS APPROVED BY 7-ELEVEN, INC. ALL STARTUPS ARE TO BE DONE BY AN AUTHORIZED MANUFACTURER'S CONTRACTOR FOR THAT PIECE OF EQUIPMENT.

5.3 STARTUP: PHYSICAL STARTUP AND CHECK-OUT OF SYSTEMS AND EQUIPMENT SHALL BE DONE BY AND AT THE DIRECTION OF 7-ELEVEN REPRESENTATIVE ONLY. CONTRACTOR SHALL NOT START OR ACTIVATE ANY EQUIPMENT WITHOUT THE SPECIFIC DIRECTIVE OF 7-ELEVEN REPRESENTATIVE. DAMAGE TO ANY 7-ELEVEN EQUIPMENT DUE TO IMPROPER INSTALLATION AND/OR UNAUTHORIZED STARTUP WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

5.4 SITE COMPLETION: ALL SITE WORK, INCLUDING CONCRETE/ASPHALT PAVEMENTS, SHALL BE COMPLETE. ALL UTILITIES SHALL BE CONNECTED AND OPERATIONAL. ALL LANDSCAPING, INCLUDING SPRINKLER SYSTEMS, SHALL BE COMPLETE.

5.5 VERIFICATION: PRIOR TO SCHEDULING OF STARTUP, CONTRACTOR SHALL OBSERVE AND VERIFY CORRECTNESS AND COMPLIANCE TO 7-ELEVEN'S DRAWINGS AND SPECIFICATIONS FOR THE FOLLOWING, BUT THESE SHALL NOT COMPRISE THE TOTAL LIMIT OF THE CONTRACTOR'S VERIFICATION:

5.5.1 MANHOLES SHALL BE PROPERLY CENTER/INSTALLED AT OVERFILLS, SUBMERSIBLES, VAPOR RECOVERY, AUTO GAUGING, OBSERVATION WELLS AND SUMP/RISER.

5.5.2 PROPER HEIGHT OF GRAVEL BACK FILL AROUND SUMP/RISERS.

5.5.3 TANK I.D. MARKERS INSTALLED IN CONCRETE AT PROPER LOCATIONS.

SECTION II INSPECTIONS / TESTING - CONTINUED

PART 5 - STARTUP INSPECTION - CONTINUED

5.5.4 ALL BRASS GOODS AND FITTINGS PROPERLY INSTALLED, TIGHT AND SECURE.

5.5.5 LEAK DETECTORS INSTALLED.

5.5.6 PROTECTED FLEX CONNECTORS ARE PROPERLY INSTALLED WITHOUT TWIST IN INSTALLATION.

5.5.7 MANHOLE EXTENDERS PROPERLY INSTALLED AND SCREWED IN FRAME OF MANHOLE SUMP/RISERS, PROPERLY SET AND SEALED TO TANK MAN WAY OR FITTINGS AND CLEANED OUT FREE OF DEBRIS AND CONCRETE.

5.5.8 TANKS CLEAN AND FREE OF WATER. PRIOR TO PRODUCT FILL, TANKS ARE TO BE CHECKED FOR ANY DEBRIS AND WATER. ANY EVIDENCE OF BOTH, TANKS ARE TO BE CLEANED AND WATER REMOVED.

5.5.9 ISLAND FORM INNER BOXES PROPERLY CLEANED OUT FREE OF DEBRIS AND CONCRETE.

5.5.10 DISPENSERS PROPERLY SET AND SECURED TO ISLAND BOX FRAME AND DISPENSER SUMPS PROPERLY CLEANED OUT FREE OF DEBRIS AND CONCRETE.

5.5.11 SHEAR VALVES SECURED TO FRAME WITH PROPER HARDWARE.

5.5.12 PHASE II VAPOR RECOVERY LINES STUBBED UP AND SECURED IN PROPER LOCATION.

5.513 ELECTRICAL CONDUITS SECURED WITH ALL CONNECTIONS COMPLETED. VERIFY COMPLIANCE WITH REQUIREMENTS FOR ISOLATED GROUND WIRING TO JUNCTION BOX CASING.

5.5.14 DISPENSER CANOPIES INSTALLED AND LIFTING LUGS REMOVED WITH PROPER PLUGS INSERTED.

5.5.15 ALL NOZZLES AND SWIVELS AVAILABLE ON-SITE, INSTALLED PRIOR ONLY IF REQUIRED BY GOVERNING AUTHORITIES FOR INSPECTION PURPOSES.

5.5.16 ALL INSPECTIONS BY GOVERNING AUTHORITIES COMPLETED AND SIGNED. SIGNED AND COMPLETED PERMIT CARD ON SITE.

5.5.17 ELECTRICAL DEVICES INCLUDING LIGHTS, SIGNS AND INTERCOMS PROPERLY INSTALLED, SECURED AND PLUMB.

5.5.18 ANY WIRING INSPECTION PORTS IN CANOPY COLUMNS COVERED WITH ACCEPTABLE PLATES.

5.5.19 VENT LINES PROPERLY SECURED, PROTECTED AND INSTALLED AT PROPER HEIGHT.

5.5.20 VERIFICATION OF COMPLIANCE FOR TANK AND LINE TEST AVAILABLE ON SITE.

5.5.21 ALL MANHOLES FREE OF CONCRETE AND DEBRIS.

5.5.22 MANHOLE COVERS PROPERLY PAINTED.

5.5.23 ALL PAINTING COMPLETE INCLUDING CANOPY, DOWN SPOUTS, METALS AND MISCELLANEOUS METALS.

5.5.24 CONCRETE AT ISLANDS AND TANK PAD TRUE, PROPERLY SLOPED AND FINISHED WITH ACCEPTABLE RISE TO MANHOLES.

5.5.25 ELECTRICAL PANELS PROPERLY COMPLETED TO INCLUDE:

(A) ONE BREAKER FOR EACH SUBMERSIBLE PUMP, DISPENSER, CONSOLE AUTO GAUGING, DISPENSER LIGHTS (ALL) AND CANOPY LIGHTS (ALL).

(B) GAS PANEL CONTROLLED BY A MAIN BREAKER.

(C) CONTROL BOXES AND DISTRIBUTION BOXES INSTALLED AND WIRED.

(D) INTERCOM INSTALLATION COMPLETE AND PROPERLY WORKING.

(E) ALL APPLICABLE CONSOLE INSTALLATION COMPLETE AND FUNCTIONAL.

(F) ALL WIRING PROPERLY IDENTIFIED WITH COLOR CODED WIRING.

(G) CONDUITS PROPERLY IDENTIFIED. (H) ALL BREAKERS IN "OFF" POSITION.

5.6 NOTIFICATION: CONTRACTOR SHALL VERIFY ITEMS AS INDICATED ABOVE PRIOR TO SCHEDULING OF STARTUP MONIES AND/OR TIME LOST AT STARTUP DUE TO NON- COMPLIANCE SHALL BE CHARGED TO CONTRACTOR ACCORDINGLY.

5.7 EQUIPMENT SHALL BE TESTED PER SPECIFICATIONS ON SHEET G17.0.

5.8 CLEANUP: CLEAN UP ALL DEBRIS CAUSED BY WORK OF THIS SECTION, KEEPING PREMISES CLEAN AND NEAT AT ALL TIMES.

SECTION III EARTHWORK

PART 1 - GENERAL

1.1 SCOPE: THIS SECTION COVERS THE FURNISHING OF ALL LABOR, MATERIALS, SERVICES, EQUIPMENT AND APPLIANCES REQUIRED IN CONJUNCTION WITH OR PROPERLY INCIDENTAL TO EARTHWORK.

PART 2 - PRODUCTS

2.1 FILL MATERIAL: SHALL BE MATERIAL IN COMPLIANCE WITH TANK AND PIPING MANUFACTURER'S SPECIFICATIONS.

2.1.1 PEA GRAVEL: SHALL BE CLEAN, NATURALLY ROUNDED AGGREGATE WITH A MIX OF PARTICLE SIZE NOT LESS THAN 1/8" OR MORE THAN 3/4".

2.1.2 STONE OR GRAVEL CRUSHING: SHALL BE WASHED MATERIAL WITH ANGULAR PARTICLE SIZE NOT LESS THAN 1/8" OR MORE THAN 1/2".

2.1.3 BACKFILL OR OTHER MATERIAL MUST BE APPROVED BY TANK MANUFACTURER.

NOTE: MATERIALS MUST MEET ASTM C-33 PARAGRAPH 7.1 FOR QUALITY AND SOUNDNESS. FILL MATERIAL SHALL NOT HAVE MORE THAN 3% PASSING A #8 SIEVE. DRY GRAVEL DENSITY MUST BE A MINIMUM OF 95 POUNDS PER CUBIC FOOT.

SECTION III EARTH WORK - CONTINUED

PART 3 - EXECUTION

3.1 PROTECTIONS: PROVIDE ADEQUATE SHORING, BRACING, PILING AND CRIBBING. COMPLY WITH ALL OSHA AND LOCAL REGULATIONS AS IT PERTAINS TO SAFETY.

3.2 LAYOUT: CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT AS PRESENTED IN PERMITTED PLANS AND SPECIFICATIONS.

3.3 EXCAVATION: EXCAVATE TO LINES, ELEVATIONS AND LIMITS REQUIRED BY THE DRAWINGS, PLUS SUFFICIENT DISTANCE AND SPACE TO PERMIT INSTALLATION OF TANKS. EXCAVATE AS REQUIRED, REGARDLESS OF TYPE, CONDITION OR MOISTURE CONTENT OF THE MATERIAL ENCOUNTERED. HAUL EXCESS MATERIAL OFF THE SITE AND DISPOSE OF SAME. DIMENSIONS OF TANK EXCAVATION SHALL BE MINIMAL AS ESTABLISHED BY 7-ELEVEN DRAWINGS UNLESS TANK MANUFACTURER REQUIREMENTS ARE GREATER. IF EXCAVATION MATERIAL IS FROM AN EXISTING GASOLINE FACILITY ALL MATERIALS MUST BE TESTED PRIOR TO REMOVAL.

3.4 SAW CUTTING: IF PAVING MUST BE REMOVED, THE PERIMETER OF THE TANK EXCAVATION AND ALL TRENCHES SHALL BE CUT WITH A CONCRETE SAW. NOTE: PAVING TO BE CUT 2' BEYOND EDGES OF EXCAVATIONS IN ALL DIRECTIONS IN ORDER TO GIVE PROPER SUPPORT TO NEW SLAB TO AVOID SETTLING.

3.5 HAZARDOUS MATERIAL: SHOULD ROCK, WATER OR OTHER HAZARDOUS MATERIALS NOT SHOWN ON SOILS TEST BE ENCOUNTERED, LOCAL CONSTRUCTION OFFICE SITE MANAGER SHALL BE IMMEDIATELY CONTACTED FOR APPROVAL TO PROCEED.

3.6 PROTECTION: CONTRACTOR SHALL PROVIDE SUFFICIENT PROTECTION WITH EARTHEN BERMS AT ALL TIMES TO PROTECT TANK EXCAVATION AND TRENCHES FROM DRAINAGE OF SURFACE WATERS. EXCAVATIONS SHALL BE PROPERLY MARKED, PROTECTED AND BARRICADED FOR SAFETY UNTIL BACK FILL IS COMPLETE AND SURFACING FINISHED.

3.7 SHORING: CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING REQUIREMENTS FOR SHORING AND PROVIDING SHORING, SHOULD SITE AND/OR SOIL CONDITIONS WARRANT SHORING. REFERENCE SOIL REPORT FOR CONDITIONS WARRANTING SPECIAL REQUIREMENTS.

3.8 FILLING AND BACK FILLING: PLACE APPROVED FILL MATERIAL IN STRICT ACCORDANCE WITH TANK AND PIPING MANUFACTURER'S SPECIFICATIONS. PROVIDE A 12" BED OF APPROVED BACK FILL OVER BOTTOM OF EXCAVATION PRIOR TO TANK PLACEMENT. BACK FILL SHALL BE PLACED AND COMPACTED IN MAXIMUM 12" LIFTS.

3.9 CLEANUP: CLEAN UP ALL DEBRIS CAUSED BY WORK OF THIS SECTION, KEEPING PREMISES CLEAN AND NEAT AT ALL TIMES.

SECTION IV TANK INSTALLATION

PART 1 - GENERAL

1.1 SCOPE: THIS SECTION COVERS THE FURNISHING OF ALL LABOR, MATERIALS, SERVICES, EQUIPMENT AND RELATED APPLIANCES REQUIRED IN CONJUNCTION WITH OR PROPERLY INCIDENTAL TO THE INSTALLATION OF FUEL STORAGE TANKS.

PART 2 - PRODUCTS

2.1 TANKS: SHALL BE DESIGNED AND MANUFACTURED SO AS TO BE CORROSION PROTECTED PER EPA REQUIREMENTS. APPROVED TANKS SHALL BE:

2.1.1 DOUBLE WALL FIBERGLASS TANKS

2.2 HOLD DOWN STRAPS: SHALL BE SUPPLIED BY TANK MANUFACTURER ONLY. FIELD FABRICATED UNITS ARE NOT ACCEPTABLE.

PART 3 - INSTALLATION

3.1 MANUFACTURING: REFER TO TANK MANUFACTURER'S CRITERIA AND SPECIFICATIONS FOR TANK INSTALLATION AND ADHERE TO AS REQUIRED.

3.2 CLEARANCES: MINIMUM CLEARANCE FOR TANKS SHALL BE AS FOLLOWS: SHOULD REQUIREMENTS OF TANK MANUFACTURER OR SOIL CONDITIONS DICTATE GREATER CLEARANCE, ADHERE TO ACCORDINGLY.

3.2.1 BOTTOM: PROVIDE MINIMUM OF 12" BEDDING MATERIAL BETWEEN BOTTOM OF EXCAVATION OR PAD AND BOTTOM OF TANK.

3.2.2 SIDES: PROVIDE MINIMUM OF 2'0" BETWEEN TANKS AND 3' FROM SIDE/END OF TANK TO WALL OF EXCAVATION.

3.2.3 TOP: PROVIDE 42" FILL MATERIAL OVER TANK PLUS 8" OF CONCRETE

3.3 TESTING: PRIOR TO INSTALLATION OF TANKS, TESTING PER MANUFACTURER'S INSTRUCTIONS SHALL BE PERFORMED ON TANK(S). ON DUAL WALL TANKS, CONSULT TANK MANUFACTURER FOR TESTING CRITERIA.

3.4 PLACEMENT:

3.4.1 REFER TO SITE PLAN FOR TANK PLACEMENT AND PRODUCT ROTATION.

3.4.2 PRIOR TO SETTING OF TANKS, REMOVE ALL FOREIGN DEBRIS, ROCKS, CLODS, GARBAGE, ETC. FROM EXCAVATION.

3.4.3 PLACE TANKS ONLY ON APPROVED FILL. DO NOT SET ON CONCRETE OR WOOD.

3.4.4 NOT USED.

3.4.5 TANKS SHALL BE BURIED TO MINIMUM DEPTH AS PER ABOVE AND AS SHOWN ON FUELING DRAWINGS. TANKS MAY REQUIRE GREATER BURIAL DEPTH IF INSTALLED IN REMOTE POSITION TO ALLOW FOR PROPER SLOPE ON VENT LINES,VAPOR LINES, SECONDARY CONTAINMENT PRODUCT LINES. VERIFY DEPTH AS REQUIRED. (IF BURIAL DEPTH EXCEEDS 5'-0" (60"), NOTIFY 7-ELEVEN MANAGER)

Rev. #	Date	Description
		Proto 2024-05

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TEXAS REGISTERED ENGINEERING FIRM F-2595
TEXAS REGISTERED SURVEYING FIRM LS-10193905
EXPIRATION: 07/31/2025

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	KLC
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G14.0
FUELING - USA

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PERFORMANCE SPECIFICATION - CONT.

SECTION IV TANK INSTALLATION - CONTINUED

PART 3 - INSTALLATION - CONTINUED

3.5 PLUGS: ALL UNUSED PLUGS SHALL BE REMOVED. APPLY COMPATIBLE NON-HARDENING PIPE SEALANT TO INTERNAL BUSHING THREADS. PERMANENT METAL PLUGS SHALL BE INSTALLED AT ALL UNUSED OPENINGS.

3.6 THE PLUGS IN TANK OPENINGS WHICH ARE TO BE USED SHALL NOT BE OVER TIGHTENED AS THIS MAY CAUSE THE BUSHING TO UNSCREW WITH THE PLUG. CARE SHALL BE TAKEN NOT TO CROSS THREAD OR DAMAGE THE NON- METALLIC BUSHINGS WHEN REPLACING PLUGS OR INSTALLING REQUIRED TANK PIPING.

3.7 WET HOLE INSTALLATION: SHOULD GROUND WATER BE PRESENT IN TANK EXCAVATIONS, 7-ELEVEN'S LOCAL CONSTRUCTION ENGINEER MUST BE NOTIFIED.

3.7.1 WELL POINT: WATER SHALL BE KEPT AT LOWEST POSSIBLE POINT BY WELL POINT SYSTEM(S) AND PROPERLY SIZED PUMP(S).

3.7.2 ANCHOR STRAPS: DEAD MAN AS PER TANK MANUFACTURER'S INSTALLATION INSTRUCTIONS. PLACE 6" FROM OUTSIDE VERTICAL LINE OF TANK(S) AS DENOTED ON DRAWINGS.

3.7.3 TIE DOWNS: SUPPLIED BY TANK MANUFACTURER.

3.7.4 TAKE-UP FIXTURE & TURNBUCKLE: TO REMOVE CABLE SLACK, UTILIZE THE TAKE-UP FIXTURE FOR 8' DIA. TANK: MIN SIZE 26" MAX SIZE 43". WEIGHT 16 LB.

3.7.5 STRAP PLACEMENT: AS PER TANK MANUFACTURER'S SPECIFICATIONS.

3.7.6 COATING: COVER ALL NON-GALVANIZED HARDWARE WITH TWO (2) COATS OF ASPHALT IMPREGNATED WITH WATERPROOFING PRIOR TO PLACEMENT OF BACKFILL.

3.8 LIFTING: TANKS SHALL BE LIFTED ONLY AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS, UTILIZING LIFTING LUGS PROVIDED ON TANKS. TANKS SHALL NOT BE ROLLED, DROPPED OR WRAPPED WITH CHAINS. EQUIPMENT OF SUFFICIENT SIZE, DESIGN AND LIFT CAPACITY SHALL BE UTILIZED FOR SETTING OF TANKS. SHOULD TANKS BE BUMPED, DENTED,DROPPED OR MISHANDLED IN ANY WAY, INSTALLATION SHALL BE HALTED AND TANK MANUFACTURER'S REPRESENTATIVE IMMEDIATELY CONTACTED FOR RE-CERTIFICATION OF TANKS. CONTACT LOCAL CONSTRUCTION OFFICE OR SITE MANAGER IMMEDIATELY UPON NOTICE OF QUESTIONABLE HANDLING OF TANKS OR NOTABLE DAMAGE THERETO.

3.9 BACK FILL PLACEMENT: ONCE TANKS ARE PROPERLY SET IN PLACE, CAREFULLY BACK FILL ENTIRE EXCAVATION, HAND SHOVELING AND TAMPING ALONG BOTTOM OF TANK(S) SO THEY ARE EVENLY SUPPORTED AROUND BOTTOM. SPECIAL ATTENTION SHALL BE PAID TO BOTTOM QUARTER POINTS ELIMINATING ANY VOIDS IN FILL AT THESE POINTS. DO NOT DROP BACK FILL FROM HIGH DISTANCE ONTO TANKS. TAMP AS REQUIRED TO ACHIEVE ACCEPTABLE DENSITY. BACKFILL PLACEMENT PER MANUFACTURER INSTALLATION SPECIFICATIONS.

3.10 BALLASTING: TANKS SHALL BE FILLED WITH BALLAST (WATER) TO AVOID SHIFTING MOVEMENT. COST OF WATER AND REMOVAL SHALL BE CONTRACTOR COST. DO NOT INSTALL SUBMERGIBLE PUMPS IN TANKS FILLED WITH WATER. DO NOT BALLAST TANKS ABOVE LEVEL OF BACKFILL.

3.11 PROTECTION: CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE PROTECTION FOR TANK EXCAVATION FROM SURFACE WATERS WITH DAMS, BERMS, OR OTHER MEANS PENDING COMPLETION OF INSTALLATION. EXCAVATION SHALL BE MARKED AT ALL TIMES WITH LIGHTED BARRICADES UNTIL INSTALLATION IS COMPLETE. WATER SHALL NOT BE ALLOWED TO ACCUMULATE IN EXCAVATION. DE-WATER AS REQUIRED TO MAINTAIN EXCAVATION AS DRY AS POSSIBLE.

SECTION V CONCRETE

PART 1 - GENERAL

1.1 SCOPE: THIS SECTION COVERS THE FURNISHING OF ALL LABOR, MATERIALS, SERVICES, EQUIPMENT AND APPLIANCES REQUIRED IN CONJUNCTION WITH OR PROPERLY INCIDENTAL TO CONCRETE.

PART 2 - PRODUCTS

2.1 MATERIALS:

2.1.1 AIR ENTRAINING AGENT: ASTM C 260-60-T. "PROTEX" MANUFACTURED BY PROTEX INDUSTRIES OR APPROVED EQUAL.

2.1.2 PORTLAND CEMENT: CONFORM TO ASTM C-150 TYPE I; TYPE II WHERE WATER SOLUBLE SULFATES ARE PRESENT.

2.1.3 AGGREGATES: CONFORM TO ASTM C-33.

2.1.4 WATER: SHALL BE CLEAN AND POTABLE.

2.1.5 SAND: CONFORM TO ASTM C-144.

2.1.6 STEEL REINFORCING: CONFORM TO ASTM A-615, GRADE 60 (EXCEPT WHERE NOTED OTHER WISE) YIELD STRENGTH 60,000 PSI.

2.1.6A SYNTHETIC FIBER: ASTM C 1116/C 116M, TYPE III, POLYPROPYLENE FIBERS, 1/2 TO 3/4 INCHES LONG.

2.1.7 NOT USED.

2.1.8 FORMS: CLEAN, STRAIGHT LUMBER OF MOISTURE RESISTANT PLYWOOD. KNOT HOLES, DEFORMATIONS, ETC., SHALL NOT BE ALLOWED.

2.1.9 EXPANSION JOINT FILLERS: ASPHALT IMPREGNATED FIBERBOARD CONFORMING TO ASTM D-60-T. USE 1/2" THICK OR AS INDICATED ON DRAWINGS. TOP OF JOINT MATERIAL SHALL BE SET 1/2" BELOW TOP SURFACE OF SLAB. FILL VOID WITH GASOLINE RESISTANT SEALER.

2.1.10 CALCIUM CHLORIDE: NOT PERMITTED.

2.2 CONCRETE PROPORTIONS: CONCRETE SUPPLIER SHALL DESIGN CONCRETE MIX AND SHALL GUARANTEE CONCRETE STRENGTH. ALL CONCRETE, UNLESS NOTED OTHERWISE ON DRAWINGS, OR REQUIRED OTHERWISE BY CODES, SHALL BE DESIGNED FOR 4,000 PSI STRENGTH AT 28 DAYS WITH NOT LESS THAN 5 1/2 BAGS OF CEMENT PER CUBIC YARD OF CONCRETE. NOT MORE THAN 6 1/2 GALLONS OF WATER PER BAG OF CEMENT AND NOT MORE THAN A 4" SLUMP. AIR CONTENTS SHALL RANGE BETWEEN 4% AND 7%.

SECTION V CONCRETE - CONTINUED

PART 3 - EXECUTION

3.1 GRADE CONTROL: ESTABLISH AND MAINTAIN LINES AND GRADES FOR CONCRETE ITEMS BY MEANS OF LINE AND GRADE STAKES AND SCREEDS.

3.2 FORM WORK: BUILD FORMS TO CONFORM TO SHAPE, LINES AND DIMENSIONS OF CONCRETE MEMBERS. BRACE AND SECURE TO WITHSTAND PLACING OF CONCRETE AND MAINTAIN THEIR SHAPES AND POSITIONS. MAKE FORMS SUFFICIENTLY TIGHT AND SUBSTANTIALLY ASSEMBLED TO PREVENT BULGING OR LEAKAGE. ASSEMBLE FORMS IN SUCH A MANNER TO FACILITATE THEIR REMOVAL WITHOUT DAMAGE TO CONCRETE. FORMS SHALL BE IN OR NEAR NEW CONDITION; CLEAN, SMOOTH AND WITHOUT INDENTATIONS OR BENDS. INSTALL SLEEVES, MANHOLES, CAPS, BOXES AND POSTS IN PROPER LOCATIONS AND HEIGHTS. EXPANSION JOINTS SHALL CONSIST OF FILLER STRIPS INSTALLED WITH TOP AT ELEVATIONS OF FINISHED CONCRETE. NEATLY FINISH EDGES OF EXPOSED CONCRETE ALONG JOINTS WITH A SLIGHTLY ROUNDED EDGING TOOL.

3.3 REINFORCEMENT: FURNISH AND INSTALL ALL REINFORCING STEEL INDICATED ON DRAWING METAL REINFORCEMENT AT THE TIME CONCRETE IS PLACED, SHALL BE FREE FROM COATINGS WHICH WILL DESTROY OR REDUCE THE BOND. METAL REINFORCEMENT SHALL BE STORED SO AS TO PREVENT FREEZING FOR A MINIMUM OF 48 HOURS PRIOR TO PLACEMENT ALL REINFORCEMENT SHALL BE FABRICATED AND PLACED IN ACCORDANCE WITH STANDARDS OF ACI. METAL REINFORCEMENT SHALL BE ACCURATELY PLACED AND ADEQUATELY SECURED IN POSITION. SPLICES IN ADJACENT BARS SHALL BE LAPPED 36 DIAMETERS AT CORNERS AND SPLICES, AS REQUIRED.

3.3.1 SYNTHETIC FIBER: UNIFORMLY DISPERSE IN CONCRETE MIXTURE AT MANUFACTURER'S RECOMMENDED RATE, BUT NOT LESS THAN 1.5 LBS.

3.4 MIXING AND TRANSPORTING CONCRETE: CONCRETE SHALL BE READY MIXED AND SHALL MEET REQUIREMENTS OF ASTM C-94 FOR MIXING AND DELIVERY. FURNISH DUPLICATE DELIVERY TICKETS OF EACH TRUCK LOAD TO OWNER'S LOCAL CONSTRUCTION OFFICE WHEN REQUIRED. TICKETS SHALL SPECIFY STRENGTH, SLUMP, AGGREGATE SIZES, AIR ENTRAINMENT (IF ANY) AND BRAND OF CEMENT. NOTE: DO NOT ADD WATER ON SITE TO ADJUST SLUMP.

3.5 PLACING CONCRETE:

3.5.1 NOTIFICATION: THE CONTRACTOR SHALL NOTIFY THE OWNER'S LOCAL CONSTRUCTION OFFICE AT LEAST 48 HOURS BEFORE PLACING ANY CONCRETE. THE CONTRACTOR SHALL NOTIFY ALL TRADES AFFECTED BY CONCRETE PLACEMENT AT LEAST 24 HOURS BEFORE PLACING ANY CONCRETE IN ORDER THAT TRADES AFFECTED MAY INSTALL REQUIRED BLOCKING, SLEEVED, POCKETS, ETC.

3.5.2 PROTECTION: PROTECT ALL WORK OF OTHER TRADES AS REQUIRED.

3.5.3 WETTING: THOROUGHLY WET FORMS AND DAMPEN SAND CUSHIONS BEFORE PLACING CONCRETE.

3.5.4 PLACING: PLACE ALL CONCRETE IN ACCORDANCE WITH ACI 614. MINIMUM CONCRETE COVER OVER REINFORCEMENT SHALL CONFORM TO ACI 318. USE HANDLING EQUIPMENT AND METHODS TO INSURE A CONTINUOUS FLOW FROM MIXER TO PLACE OF DEPOSIT SPACE, TAMP AND MECHANICALLY VIBRATE FRESHLY PLACED CONCRETE TO COMPACT THOROUGHLY AND ELIMINATE VOIDS. DO NOT ALLOW FREE FALL OF CONCRETE TO EXCEED 5'.

3.6 FINISHING CONCRETE:

3.6.1 SLABS SHALL BE A TRUE PLANE SURFACE WITH NO DEVIATION IN EXCESS OF 1/4" WHEN TESTED WITH A 10' STRAIGHTEDGE AT 3' INTERVALS IN BOTH DIRECTIONS. SCREED AND FLOAT CONCRETE FOR SLAB WITH STRAIGHT EDGES TO BRING SURFACE TO REQUIRED FINISHED LEVEL. WOOD FLOAT CONCRETE WHILE STILL GREEN TO A TRUE, EVEN SURFACE WITH NO COARSE AGGREGATE VISIBLE. AFTER SURFACE MOISTURE HAS DISAPPEARED, STEEL TROWEL SURFACE TO A SMOOTH, EVEN FINISH, FREE FROM BLEMISHES AND TROWEL MARKS. AFTER TROWELING, BRUSH SURFACE OF CONCRETE WITH BRISTLE BROOM TO RESULT IN A MEDIUM, UNIFORM, NON-SLIP TEXTURED SURFACE. STROKE CROSSWISE TO LENGTH.

3.7 CURING: UTMOST CARE SHALL BE TAKEN TO ACHIEVE A UNIFORM, PROTECTIVE CURE FOR ALL SLABS. DO NOT USE CALCIUM CHLORIDE. CURING METHODS SHALL CONFORM TO ACI STANDARD 605-99 AND ACI STANDARD 306-66.

3.8 REMOVAL OF FORMS: DOT NOT REMOVE FORMS UNTIL CONCRETE HAS ATTAINED SUFFICIENT STRENGTH TO SUPPORT ANY SUPERIMPOSED LOADS.

3.9 PATCHING: NO PATCHING SHALL OCCUR UNTIL APPROVED BY OWNER.

3.10 TEMPERATURE:

3.10.1 COLD WEATHER: WHEN MEAN DAILY TEMPERATURE OF THE ATMOSPHERE IS LESS THAN 40 DEGREES FAHRENHEIT, MAINTAIN TEMPERATURE OF CONCRETE BETWEEN 50 AND 70 DEGREES FAHRENHEIT FOR MINIMUM OF 72 HOURS.

3.10.2 HOT WEATHER: MAKE ARRANGEMENTS FOR INSTALLATION OF WINDBREAKS, SHADING, FOG SPRAY, SPRINKLING, PONDING OR WET COVERING IN ADVANCE OF PLACEMENT. TAKE SUCH PROTECTIVE MEASURES AS QUICKLY AS CONCRETE HARDENING AND FINISHING OPERATIONS WILL ALLOW.

3.11 TESTING: CONCRETE TESTS SHALL BE ORDERED AT THE DISCRETION OF THE OWNER'S CONSTRUCTION MANAGER. THE OWNER SHALL PAY FOR ALL CONCRETE TESTING. COMPACTION TESTS SHALL BE REQUIRED PRIOR TO PLACEMENT OF ANY CONCRETE ON GRADE. CONTRACT OWNER'S ENGINEERING SERVICES FOR COMPACTION TESTING TESTS. TESTS WILL BE PAID FOR BY OWNER.

3.12 THICKNESS:

3.12.1 SLAB OVER TANKS SHALL BE 8" CONCRETE SLAB WITH SYNTHETIC FIBERS. REFER TO STD-CPC-1 FOR DETAILS.

3.12.2 CANOPY SLABS SHALL BE 6" CONCRETE SLAB WITH SYNTHETIC FIBERS. REFER TO STD-CPC-1 FOR DETAILS.

3.13 CANOPY FOOTINGS: CANOPY FOOTINGS SHALL BE INSTALLED BY FUEL CONTRACTOR AS PER SHOP DRAWINGS SUPPLIED BY THE CANOPY COMPANY. ALL MATERIALS SHALL BE EQUAL TO OR BETTER THAN SPECIFIED ELSEWHERE IN THIS SECTION.

3.14 PROTECTION OF ALL CONCRETE SURFACES: IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROTECT ALL CONCRETE SURFACES AGAINST ANY DAMAGE WHATSOEVER, INCLUDING EXCESSIVE LOADING, SHIPPING, CRACKING, STAINING, PAINT SPLATTERS, ETC. THE OWNER EXPECTS EXPOSED CONCRETE SURFACES TO BE CLEAN AND OF UNIFORM COLOR AND TEXTURE AT COMPLETION OF THE PROJECT. REPLACE ANY CONCRETE DAMAGE DURING CONSTRUCTION.

3.15 GRADE CONTROL: ESTABLISH AND MAINTAIN LINES AND GRADES FOR CONCRETE ITEMS.

SECTION VI PIPING

PART 1 - GENERAL

1.1 SCOPE: THIS SECTION COVERS THE FURNISHING OF ALL LABOR, MATERIALS, SERVICES, EQUIPMENT AND RELATED APPLIANCES REQUIRED IN CONJUNCTION WITH OR INCIDENTAL TO A COMPLETE PIPING SYSTEM FOR A GASOLINE INSTALLATION.

PART 2 - PRODUCTS

2.1 PRODUCT PIPING: PRODUCT PIPING AND FITTINGS SHALL BE DOUBLE WALL RIGID FIBERGLASS PIPING AS SPECIFIED BY 7-ELEVEN. PIPING MUST SLOPE 1/8" PER FOOT MINIMUM FROM DISPENSER ISLAND TO STP SUMP.

2.2 VENT PIPING: PIPING SHALL BE FIBERGLASS PIPE. VENT LINE RISERS SHALL BE BLACK IRON PIPE AND EXTEND 5' ABOVE ADJACENT STRUCTURE OR 12'-0" ABOVE FINISHED GRADE. VENT LINE RISERS SHALL NOT BE INSTALLED ON BUILDING UNLESS APPROVED IN WRITING.

2.3 STAGE II VAPOR RECOVER PIPING: PIPING SHALL BE FIBERGLASS. PIPING MUST SLOPE 1/8" PER FOOT MINIMUM FROM DISPENSER ISLAND TO TANK.

2.4 BACK FILL: ALL MATERIAL SHALL COMPLY WITH SPECIFICATIONS FOR APPROVED MATERIAL AND AS PER MANUFACTURER'S SPECIFICATIONS.

PART 3 - INSTALLATION

3.1 ALL PRODUCT PIPING AND SPECIALTIES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND STATE AND LOCAL CODES.

3.2 THE DRAWINGS ARE DIAGRAMMATIC AND THE FINAL ARRANGEMENT OF THE WORK SHALL SUIT FIELD CONDITIONS, THE CHARACTERISTICS OF THE MATERIALS USED, AND THE INSTRUCTIONS OF THE CONSTRUCTION MANAGER. VERIFY ALL DIMENSIONS IN THE FIELD. ACCESS AND CLEARANCES MUST BE PROVIDED AND MAINTAINED FOR THE PROPER OPERATION, MAINTENANCE, SERVICE AND REPAIR OF THE WORK.

3.3 LOCATE, IDENTIFY AND MARK EXISTING UNDERGROUND UTILITIES IN THE AREA OF WORK BEFORE STARTING EARTHWORK OPERATIONS. IF UTILITIES ARE TO REMAIN IN PLACE PROVIDE ADEQUATE MEANS OF PROTECTION DURING EARTHWORK PROCEDURES.

3.4 SHOULD UNCHARTED OR INCORRECTLY CHARTED PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING EXCAVATION, CONSULT THE CONSTRUCTION MANAGER IMMEDIATELY FOR DIRECTIONS AS TO PROCEDURE. COOPERATE WITH THE OWNER AND PUBLIC AND PRIVATE UTILITY COMPANIES IN KEEPING THEIR RESPECTIVE SERVICES IN SATISFACTORY CONDITION.

3.5 VERTICAL RISERS FROM TANKS FOR ALL FILL PIPES, VAPOR RECOVERY ADAPTERS AND AUTO GAUGING ADAPTATIONS SHALL BE A 4" DIAMETER PIPE.

3.6 DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE CONSTRUCTION MANAGER, AND THE ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICE HAS BEEN PROVIDED.

3.7 CONVEY WATER REMOVED FROM EXCAVATIONS AND RAIN WATER TO COLLECTING OR RUN-OFF AREA. DO NOT USE TRENCH EXCAVATIONS FOR SITE UTILITIES AS TEMPORARY DRAINAGE DITCHES. REMOVE ALL TRASH, DEBRIS AND FOREIGN MATERIAL FROM TRENCHES PRIOR TO PLACING PIPING MATERIAL.

3.8 ALL PRODUCT, VAPOR RECOVERY AND VENT LINES SHALL SLOPE UP FROM TANKS. A MINIMUM OF 2" IN 8' (1/8" /FT) WITH NO SAG OR TRAPS. LINES SHALL BE IN TRENCHES WITH A MINIMUM OF 6" OF BACK FILL MATERIAL BELOW AND ON EITHER SIDE AND A MINIMUM OF 18" OF BACK FILL MATERIAL ABOVE.

3.9 SUBMERGED PUMP, FILL PIPE, AUTO GAUGING ADAPTERS AND VAPOR RECOVERY ADAPTER SHALL BE LOCATED AT TANK OPENINGS AS SHOWN ON DRAWINGS.

3.10 FILL PIPE SHALL HAVE OVER SPILL CONTAINMENT SYSTEM INSTALLED AS SHOWN ON DRAWINGS.

3.11 FILL PIPE SHALL HAVE SUBMERGED FILL TUBE. FILL PIPE AND VAPOR RECOVERY RISER SHALL BE CUT TO THE PROPER LENGTH SO THAT FINISHED HUB HEIGHT WILL BE WITHIN 5" (+ OR - 1") OF THE TOP OF THE MANHOLE.

3.12 OVERFILL PREVENTION DEVICES SHALL BE INSTALLED AS SHOWN IN DRAWINGS.

3.13 REMOTE PUMP SHEAR VALVES SHALL BE INSTALLED ON THE PRODUCT LINES UNDER EACH DISPENSER AND SECURED TO THE DISPENSER BOX. THESE VALVES MUST BE INSTALLED WITH THE SHEAR SECTION FLUSH AT THE TOP OF THE DISPENSER SUMP, AS DENOTED ON PLANS.

3.14 AFTER ALL PIPING IS COMPLETE AND PRIOR TO BACK FILLING, ALL PIPING INCLUDING VENT LINES SHALL BE ISOLATED FROM THE TANK AND TESTED PER MANUFACTURER'S TESTING INSTRUCTIONS.

3.15 IF SUBMERGED, PUMP RISER IS TO BE LENGTHENED, THE PROPER 4" THIN WALL RISER AS PRODUCED BY MANUFACTURER SHALL BE USED.

3.16 ALL VALVES AND PRODUCT HANDLING EQUIPMENT SHALL BE AS SHOWN ON EQUIPMENT LIST. REFER TO LIST OF MATERIALS SUPPLIED BY OWNER.

3.17 OBSERVATION WELLS WHEN REQUIRED SHALL BE INSTALLED. WELLS ARE TO BE POSITIONED IN EXCAVATION HOLE PRIOR TO PLACING BEDDING MATERIAL AND SUPPORTED TO REMAIN VERTICAL DURING BACK FILL OPERATIONS. BOTTOM OF OBSERVATION WELL(S) SHALL BE 12" MINIMUM BELOW THE BOTTOM OF TANK EXCAVATION PIT. TOP OF PIPE TO TERMINATE IN 12" DIAMETER OBSERVATION BOX. SLOTTED SAMPLE WELL MATERIAL SHALL BE FURNISHED BY CONTRACTOR. LOCKING CAPS AND KEYED ALIKE LOCKS PROVIDED TO 7-ELEVEN, INC. REPRESENTATIVE.

3.18 CODES: THE NFPA 30 FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE, & NFPA 30A AUTOMOBILE AND MARINE SERVICE STATION CODE. IS BY REFERENCE MADE A PART OF THIS SPECIFICATION. SAID CODE SHALL DICTATE MINIMUM ACCEPTABLE STANDARDS. CODE SHALL BE ADHERED TO UNLESS LOCAL GOVERNING AUTHORITIES DICTATE HIGHER OR MORE STRINGENT REQUIREMENTS WHICH

3.19 STARTUP: PRIOR TO STARTUP AND CHECK-OUT OF SYSTEM, PRODUCT LINES SHALL PASS HYDROSTATIC LINE TEST. ALL SITE IMPROVEMENTS. INCLUDING PAVEMENTS AND UTILITIES, SHALL BE COMPLETED PRIOR TO THIS TEST.

3.20 INSPECTIONS: PIPING INSPECTION SHALL BE PERFORMED BY 7-ELEVEN, INC.'S APPOINTED REPRESENTATIVE.

3.21 CLEANUP: CLEANUP ALL DEBRIS CAUSED BY THE WORK OF THIS SECTION, KEEPING THE PREMISES CLEAN AND NEAT AT ALL TIMES.

Rev. #	Date	Description
		Proto 2024-05

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Date:	12/30/24		

STATE OF TEXAS
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PROFESSIONAL ENGINEER
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PERFORMANCE SPECIFICATION - CONT.

SECTION VII ELECTRICAL WORK

PART 1 - GENERAL

1.1 SCOPE: THIS SECTION COVERS THE FURNISHING OF ALL LABOR, MATERIALS, SERVICES, EQUIPMENT AND APPLIANCES REQUIRED IN CONJUNCTION WITH OR PROPERLY INCIDENTAL TO THE FURNISHING AND INSTALLATION OF COMPLETE ELECTRICAL WORK INCLUDING:

1.1.1 ELECTRICAL SERVICE AND DISTRIBUTION SYSTEM, INCLUDING CONDUITS, PANEL BOARD OUTLET BOXES, WIRING, SWITCHES, OUTLETS, ETC.

1.1.2 CONDUIT AND WIRING SYSTEM FOR INTERCOM.

1.1.3 WIRING SYSTEM TO SERVE ALL ELECTRIC-USING DEVICES, LIGHTING FIXTURES, PUMPS, CONTROL EQUIPMENT, DISPENSERS, DEVICES AND OTHER CURRENT CONSUMING EQUIPMENT.

1.1.4 POWER AND CONTROL WIRING WITH FINAL CONNECTIONS TO ALL EQUIPMENT.

1.1.5 ALL CONDUITS, CONNECTIONS, WIRE AND STUB-OUTS FOR FASCIA SIGN(S) (WHEN SHOWN), CANOPY LIGHTS, PRICE SIGN(S) AND CANOPY MOUNTED FLOOD LIGHTS.

1.1.6 CONDUITS AS MAY BE SHOWN FOR "FUTURE EQUIPMENT" ON DRAWINGS.

1.1.7 ALL TRENCHING, EXCAVATIONS AND BACK FILL AS REQUIRED IN CONJUNCTION WITH ELECTRICAL WORK.

1.1.8 INCIDENTAL ITEMS NOT INDICATED ON THE DRAWINGS OR MENTIONED IN THE SPECIFICATIONS, BUT WHICH ARE REQUIRED TO PROVIDE COMPLETE ELECTRICAL SYSTEMS IN CONFORMANCE WITH REQUIREMENTS OF LOCAL CODES AND ORDINANCES AND THE NATIONAL ELECTRIC CODE.

1.2 CODES AND REGULATIONS: COMPLY WITH LATEST REQUIREMENTS OF LOCAL UTILITY COMPANY, LOCAL, STATE, OSHA, NATIONAL ELECTRIC CODES, NATIONAL FIRE PROTECTIVE ASSOCIATION AND LOCAL ELECTRICAL INSPECTION AUTHORITY. REPORT TO OWNER IMMEDIATELY ANY DISCREPANCIES BETWEEN DRAWINGS AND CODES. PROVIDE INSTALLATION SUPERIOR TO CODE WHERE SO INDICATED ON DRAWINGS AND SPECIFIED HEREIN.

1.3 PERMITS, FEES, TAXES: ARRANGE AND PAY FOR ALL NECESSARY PERMITS, FEES, AND TAXES.

1.4 PROGRESS OF WORK: SCHEDULE WORK WITH THAT OF OTHER TRADES AND IN RELATION TO ENTIRE INSTALLATION SO THAT THE ENTIRE PROJECT CAN BE COMPLETED PER CONSTRUCTION SCHEDULE.

1.5 CUTTING AND REPAIRING: PROVIDE ALL CUTTING, CHANNELING, PATCHING, ETC. AS NECESSARY FOR ELECTRICAL WORK UNDER DIRECTION OF GENERAL CONTRACTOR. WORK FOUND TO BE DEFECTIVE OR INCORRECTLY INSTALLED IS TO BE CORRECTED AT THE DIRECTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. MAKE REPAIR WORK TO BE DONE BY SKILLED CRAFTSMEN IN TRADES INVOLVED, BUT PAID FOR THE ELECTRICAL SUBCONTRACTOR.

PART 2 - PRODUCTS

2.1 IDENTIFICATION OF EQUIPMENT AND WIRING: PROVIDE IDENTIFICATION WITH DYMO TAPE OR EQUAL FOR ALL SERVICE ENTRANCE AND DISTRIBUTION EQUIPMENT INCLUDING MAIN SWITCH GEAR, PANELS, DISCONNECT SWITCHES, CONDUITS, ETC., AND FOR MOTOR FEEDERS INCLUDING SWITCHES, STARTERS AND MOTORS.

2.2 LIGHT FIXTURES: TO BE PROVIDED BY OWNER.

2.3 CONDUITS: PROVIDE THE FOLLOWING TYPES OF RACEWAYS IN ACCORDANCE WITH THE SPECIFIC APPLICATION OF LOCATION INDICATED.

2.3.1 TYPICALLY USE ONLY ROB ROY CONDUIT TYPES "PERMA-COAT", "PLASTI-BOND" OR "KORKAP" ELECTRICAL CONDUITS AT FIBERGLASS TANK SUMPS OR WHERE BRAVO F-17-RR OR F-10-RR ENTRY FITTINGS ARE CALLED OUT FOR FIRST 10' OF RUN. TRANSITION TO RIGID NONMETALLIC CONDUIT (RNC) WHERE ALLOWED BY JURISDICTION. UNLESS NOTED OTHERWISE.

STP POWER CONDUITS MUST BE RUN IN SEPARATE RACEWAY. ENTIRE WIRING RUN MUST BE IN RIGID PVC COATED GALVANIZED STEEL CONDUIT. USE ONLY ROB ROY CONDUIT TYPES "PERMA-COAT", "PLASTI-BOND" OR "KORKAP" ELECTRICAL CONDUITS. NO PVC OR RNC CONDUIT ALLOWED.

RUN PVC COATED GALVANIZED STEEL FOR WIRING RUNS EXPOSED TO THE WEATHER; FOR ENCLOSING MAIN GROUNDING CONDUCTOR: WHERE REQUIRED FOR MECHANICAL PROTECTION OR WHERE SPECIFICALLY INDICATED.

WITH THE EXCEPTION OF THE FIRST 10' AND THE LAST 10' OF THE UNDERGROUND RUN AND ONLY WHERE AHJ ALLOWS, RIGID NONMETALLIC CONDUIT (RNC) IS ALLOWED FOR UNDERGROUND RUNS IF CONDUIT IS BURIED AT A MINIMUM OF 2'.

2.3.2 SEAL-OFFS: WHERE CONDUITS EXIT FLOOR OR CONCRETE AT DISPENSERS, AUTO GAUGING, FILL BUCKET, SUBMERSIBLE PUMPS AND N.E.C. CLASSIFIED AREAS (REF G9.1). SEAL-OFFS ARE ONLY REQUIRED ON CONDUITS THAT EXIT A CLASSIFIED AREA OR CONDUITS THAT RUN FROM DISPENSER TO DISPENSER. ALL CONDUITS THAT EXIT A CLASSIFIED AREA SHALL BE SEALED AT BOTH ENDS. SEAL-OFFS SHALL NOT BE REQUIRED FOR CONDUITS FROM SUMP TO SUMP.

2.3.3 N.E.C. APPROVED EXPLOSION PROOF WIRE PULL BOX.

2.4 CONDUCTORS:

2.4.1 FURNISH AND INSTALL COLOR CODED COPPER CONDUCTORS, 600 VOLT, OF SIZES INDICATED. MINIMUM SIZE #12 EXCEPT FOR SIGNAL AND CONTROL CIRCUITS AND WHERE OTHERWISE NOTED. TYPE TW (60 DEGREES CENTIGRADE) FOR GENERAL BRANCH CIRCUIT WIRING; TYPE THN OR THWN-2 (90 DEGREES CENTIGRADE) FOR SUPPLY CONNECTIONS TO LIGHT FIXTURES. INSTALL PER COLOR CODE OF NEC.

2.4.2 SHIELDED CABLES: PROVIDE SHIELDED CABLE FOR INTERCOM AS PER MANUFACTURER'S SPECIFICATIONS AND AS REQUIRED ON DRAWINGS.

VARIABLE SPEED PUMP CABLE:
- THWN-2 "12 AWG 4 CONDUCTOR 600V SHIELDED, GAS/OIL RESISTANT".

DATA COMMUNICATION CABLE:
- SHIELDED WIRE MUST NOT BE USED:
- 2 WIRE TWISTED PAIR (UTP) W/ 10-12 TWISTS PER FOOT.
- WIRING IS STRANDED ANNEALED COPPER TINNED WITH 18 AWG MINIMUM REQUIRED FOR RUNS UP TO 1000 FEET OR 14 AWG FOR RUNS UP TO 2600 FEET. DO NOT DAISY CHAIN COMMUNICATION WIRING.
- INSULATION SPEC IS 300V, PVC INSULATION, TYPE TFFN OR MTW, UL APPROVED GASOLINE AND OIL RESISTANT.

2.5 SPLICES AND CONNECTIONS: PROVIDE SPLICES ONLY IN READILY ACCESSIBLE OUTLET BOXES. PROVIDE INSULATED PRESSURE CONNECTORS OR "CRIMP-ON" SLEEVES WITH OVERALL NYLON INSULATORS FOR CONDUCTORS. CONNECTORS SHALL BE 3M "SCOTCHLOK", BUCHANNAN SPLICE CAPS WITH INSULATED WRAP, OR IDEAL "CRIMP-SLEEVES" WITH SCAP CAP INSULATOR OR EQUAL.

2.6 PANEL BOARDS:

2.6.1 BRANCH CIRCUIT PANEL BOARDS: PROVIDE FLUSH-MOUNT CIRCUIT BREAKER TYPE PANEL BOARDS WITH THERMAL MAGNETIC, MOLDED CASE, "SQUARE D" TYPE NLAB OR APPROVED EQUAL, WITH PLUG-IN CIRCUIT BREAKERS, "SQUARE D" TYPE NLQT. PROVIDE GROUNDING TERMINAL BLOCK IN EACH PANELBOARD. SEE INDIVIDUAL PANEL SCHEDULE ON DRAWINGS.

2.6.2 SUBSTITUTES: DISTRIBUTION EQUIPMENT EQUIVALENT IN TYPE, CLASSIFICATION AND QUALITY IN ACCORDANCE WITH NEMA STANDARDS AS MANUFACTURED BY G.E., CUTLER-HAMMER, FEDERAL PACIFIC, ITE, SQUARE D AND WESTINGHOUSE ARE ACCEPTABLE AS SUBSTITUTES ONLY WHEN APPROVED IN WRITING.

SECTION VII ELECTRICAL WORK - CONTINUED

PART 3 - EXECUTION

3.1 GENERAL: COORDINATE TIME SCHEDULES, INSTALLATION, HOOKUPS AND MISCELLANEOUS PROCEDURES WITH ALL OTHER TRADES THAT WILL BE INVOLVED TO EXPEDITE THE COMPLETION OF THE CONTRACT. THE ELECTRICAL SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PROPER INSTALLATION OF THE ELECTRICAL WORK.

3.2 CONDUITS: FURNISH AND INSTALL A COMPLETE OVERALL CONDUIT RACEWAY SYSTEM FOR ALL WIRING AND CONDUCTORS. PROVIDE SIZES AND RACEWAYS AS INDICATED ON DRAWINGS OR AS REQUIRED BY NATIONAL ELECTRICAL CODE FOR CONDUCTORS TO BE CONTAINED. ALL RACEWAYS SHALL CONFORM TO THE FOLLOW REQUIREMENTS:

3.2.1 CONCEAL ALL CONDUIT RUNS EXCEPT WHERE EXPOSED RUNS ARE AUTHORIZED BY OWNER'S CONSTRUCTION MANAGER IN WRITING.

3.2.2 ACTUAL CONDUIT RUNS ARE NOT GENERALLY INDICATED; CONDUITS AT TANKS SHALL NOT CROSS OVER TANKS. PLACE CONDUIT THROUGH EACH END OF TANK EXCAVATION AND PLACE FIELDS PARALLEL WITH AXIS OF TANKS.

3.2.3 CLEAN AND DRY ALL RACEWAYS THOROUGHLY BEFORE CONDUCTORS ARE PULLED IN.

3.2.4 FLASH AND COUNTER FLASH CONDUITS WHICH PENETRATE THE CANOPY DECKING.

3.2.5 PROVIDE SEAL-OFF FITTINGS WHERE CONDUIT RUNS ENTER OR LEAVE HAZARDOUS AREAS OF DISSIMILAR CONDITIONS SUCH AS TEMPERATURE, HUMIDITY, ETC.

3.2.6 FURNISH AND INSTALL COMPLETE RACEWAY SYSTEM, INCLUDING CONDUITS AND OUTLETS, AS INDICATED AND AS REQUIRED FOR INTERCOM SYSTEM, GAS PRICE SIGNS, SECURITY LIGHTING AND CANOPY LIGHTING SYSTEM, AND LIGHTED FASCIA SYSTEM WHERE APPLICABLE. CONDUIT AMOUNTS AND SIZES SHALL BE AS SHOWN ON GASOLINE DRAWINGS. ADDITIONAL CONDUITS AND CIRCUITS WILL BE REQUIRED FOR LIGHTED FASCIA SYSTEMS. PROVIDE AS REQUIRED.

3.3 LIGHTING: INSTALL ALL LIGHTING FIXTURES AND LAMPS AS INDICATED ON DRAWINGS. SECURELY MOUNT ALL FIXTURES; PROVIDE ALL ADDITIONAL HANGERS AND SUPPORTS AS NECESSARY TO SECURELY FASTEN AND SUPPORT FIXTURES. CLEAN ALL FIXTURES AND LAMPS UPON COMPLETION OF THE PROJECT. CONTRACTOR SHALL VERIFY AMOUNT AND TYPE OF ISLAND/CANOPY LIGHTING SYSTEMS. SHOULD ADDITIONAL CONDUITS/CIRCUITS BE REQUIRED, VERIFY THROUGH LOCAL CONSTRUCTION OFFICE AND PROVIDE AS REQUIRED.

3.4 SIGNS AND LIGHTED FASCIA: VERIFY FINAL LOCATIONS AND TYPE WITH OWNER. FURNISH AND INSTALL ALL CONDUITS AND WIRES WITH STUB-OUTS AS DIRECTED. MAKE FINAL CONNECTIONS AS REQUIRED.

3.5 OUTLETS: COORDINATE LOCATION OF ALL ELECTRICAL EQUIPMENT, INCLUDING INTERCOM OUTLETS, SWITCHES, RECEPTACLES, CONTROLLERS, PANEL BOARDS, SWITCH GEAR, ETC., TO AVOID INTERFERENCE AND OBSTRUCTIONS WITH EQUIPMENT OF OTHER CRAFTS AND TRADES SO THAT ELECTRICAL EQUIPMENT WILL NOT BE BLOCKED OR MADE INACCESSIBLE OR IMPERMEABLE. PROVIDE WEATHERPROOF OUTLETS WHERE EXPOSED TO THE WEATHER OR TO MOISTURE.

3.6 ISOLATED GROUND: IT IS MANDATORY THAT GASOLINE EQUIPMENT REQUIRING ISOLATED GROUND SHALL BE PROVIDED WITH SAME. MINIMUM CIRCUITS REQUIRED, BUT NOT LIMITED TO, SHALL BE: INTERCOM, GAS CONSOLE AND GASOLINE TANK MONITORING SYSTEM.

3.7 EXCAVATION AND BACK FILLING: ALL EXCAVATION AND BACK FILLING NECESSARY FOR THE INSTALLATION OF ELECTRICAL WORK SHALL BE INCLUDED IN THIS SECTION AND COMPLY WITH SECTION III, EARTHWORK.

3.8 OPERATING AND ACCEPTANCE TESTS:

3.8.1 CONDUCT OPERATING TEST ON ENTIRE ELECTRICAL INSTALLATION; ALL SYSTEMS MUST BE COMPLETE AND IN GOOD OPERATING ORDER. REFER TO STARTUP AND FINAL CHECK-OUT OF SYSTEM COVERED ELSEWHERE. DO NOT START OR OPERATE EQUIPMENT WITHOUT SPECIFIC DIRECTIVES OF OWNER'S SPECIFIED REPRESENTATIVE. ANY DAMAGE TO OWNER'S EQUIPMENT DUE TO DEFECTIVE INSTALLATION AND/OR OPERATION WILL BE THE RESPONSIBILITY OF THAT SUBCONTRACTOR FOR CORRECTION, REPLACEMENT AND/OR MONETARY COMPENSATION AS REQUIRED.

3.8.2 MAKE INSULATION TESTS ON MAIN SERVICE EQUIPMENT AND ALL FEEDERS AND PANELBOARDS.

3.8.3 TEST GROUND: RESISTANCE TO GROUND SHALL NOT EXCEED 25 OHMS.

3.8.4 INSPECT ALL PANELBOARDS. ALL CONNECTIONS MUST BE TIGHT AND SECURE.

3.9 "AS-BUILT" DRAWINGS: FURNISH OWNER'S CONSTRUCTION MANAGER WITH ONE SET OF MARKED-UP PRINTS (HARDCOPY) AND ALSO IN AUTO CAD 2004 COMPATIBLE DRAWING FILE FORMAT (.DWG) SHOWING "AS-BUILT" INSTALLATION.

3.10 FINAL ACCEPTANCE: UPON COMPLETION OF WORK, PRESENT CERTIFICATE OF APPROVAL OF LOCATION OR GOVERNING INSPECTION AUTHORITY.

3.11 CLEANUP: CLEAN UP ALL DEBRIS CAUSED BY WORK OF THIS SECTION, KEEPING THE PREMISES CLEAN AND NEAT AT ALL TIMES.

SECTION VIII PAINTING

PART 1 GENERAL

1.1 SCOPE: THIS SECTION COVERS THE FURNISHING OF ALL LABOR, MATERIALS, SERVICES, EQUIPMENT AND APPLIANCES IN CONJUNCTION WITH OR PROPERLY INCIDENTAL TO THE COMPLETION OF ALL PAINTING OF SURFACES COMPLETE, INCLUDING PAINTING OF THE FOLLOWING SURFACES:

1.1.1 MISCELLANEOUS METAL, DOWNSPOUTS, COLUMNS, POSTS, ISLAND FORMS, VENT RISERS, MANHOLE COVERS AND ELECTRICAL CONDUITS.

1.2 PAINTING DOES NOT INCLUDE:

1.2.1 PAINTING CANOPY SOFFITS.

1.2.2 PAINTING LIGHT FIXTURES.

1.2.3 PAINTING FUEL EQUIPMENT.

1.3 COLOR SCHEDULE: COLOR OF PAINTS SHALL BE AS LISTED IN THE 7-ELEVEN STORE STANDARDS MANUAL.

SECTION VIII CONTINUED

PART 2 - PRODUCTS

2.1 PAINT MANUFACTURERS AND PRODUCTS: PAINTING SYSTEM AS SPECIFIED WITHIN THE 7-ELEVEN STORE STANDARDS MANUAL.

2.2 PAINTING COATS AND PRODUCTS: SUPPLIED BY CONTRACTOR

2.2.1 PAINT ALL MANHOLES COVERS AND 4" SURROUNDING CONCRETE, INSIDE AND OUT, IN ACCORDANCE WITH STANDARD INDUSTRY COLOR CODE AS SHOWN:

API COLOR CODES:

OBSERVATION WELL	PROVIDED BY MANUFACTURER
UNLEADED REGULAR	WHITE W/BLACK CROSS
UNLEADED PREMIUM	RED W/WHITE CROSS
UNLEADED REGULAR W/EXTENDER	WHITE W/BLACK CROSS & BLACK BAND
UNLEADED PREMIUM W/EXTENDER	RED W/WHITE CROSS & WHITE BAND
DIESEL	SOLID YELLOW
VAPOR RECOVERY	SOLID ORANGE
KEROSENE	SOLID BROWN
INTERSTITIAL	BLACK

2.2.2 PAINT FASCIA SIGN FRAMES. PAINT GLOSSY WHITE - 2 COATS.

PART 3 - EXECUTION

3.1 PROTECTION: COVER ENTIRE CONCRETE SURFACES. NO PAINT OR SOLVENT SHALL BE ALLOWED TO COME IN CONTACT WITH CONCRETE SURFACES. WHERE IT BECOMES NECESSARY, IN ORDER TO EXECUTE HIS OWN WORK, FOR PAINTER TO REMOVE COVERINGS, PLATES, ETC., PLACED BY OTHER CONTRACTORS IN ANY BRANCH OF THE WORK, HE SHALL REPLACE SAME IN PROPER MANNER. IN SITUATIONS WHERE SAID COVERINGS, PLATES, ETC., CANNOT BE READILY REMOVED, PAINTER SHALL PROTECT THE WORK IN SOME OTHER SATISFACTORY MANNER. OILY RAGS AND WASTE MUST BE REMOVED EVERY NIGHT. UNDER NO CIRCUMSTANCES SHALL THEY BE ALLOWED TO ACCUMULATE. PAINTING SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THE WORK OF OTHER SUBCONTRACTORS AND SHALL REPAIR OR REPLACE AS NECESSARY TO THE SATISFACTION OF THE OWNER.

3.2 PREPARATION OF SURFACES: INSPECT ALL SURFACES TO BE PAINTED. REPORT ANY DISCREPANCIES TO THE CONTRACTOR PRIOR TO START OF WORK. STARTING OF PAINT APPLICATION SHALL CONSTITUTE ACCEPTANCE OF SURFACES AS SUITABLE FOR THE RECEPTION OF PAINT APPLICATION. ALL SURFACES SHALL BE CLEAN AND DRY, BETWEEN 50 AND 90 DEGREES FAHRENHEIT AT TIME OF PAINT APPLICATION. CLEAN METAL OF MILL SCALE, RUST, OIL, GREASE AND FOREIGN MATTER. CLEAN GALVANIZED METAL ACCORDING TO SSPC-SP 1-63 SOLVENT CLEANING. PROTECT ADJACENT AND FINISHED WORK FROM PAINT.

3.3 APPLICATION OF PAINT: DO NOT THIN, ADULTERATE OR CHANGE MATERIALS EXCEPT AS RECOMMENDED BY MANUFACTURER. EMPLOY ONLY SKILLED MECHANICS FOR WORK. ALL PAINTING SHALL BE BRUSHED, SPRAYED OR ROLLED EVENLY FOR THOROUGH COATS WITHOUT RUNS, SAGS OR OTHER BLEMISHES. ALLOW EACH COAT TO DRY BEFORE APPLYING SUBSEQUENT COATS. ALL SURFACES TO RECEIVE A MINIMUM OF 2 COATS AS NECESSARY TO ACHIEVE AN APPROVED FINISH. APPLICATION OF PAINT, ETC., SHALL BE IN STRICT COMPLIANCE WITH MANUFACTURER'S DIRECTIONS.

3.4 CLEANUP: CLEAN UP ALL DEBRIS CAUSED BY THE WORK OF THIS SECTION, KEEPING THE PREMISES CLEAN AND NEAT AT ALL TIMES.

SECTION IX CANOPIES

PART 1 - GENERAL

1.1 SCOPE: THIS SECTION COVERS THE FURNISHING AND INSTALLATION OF ALL ITEMS FOR THE INSTALLATION OF A COMPLETE GASOLINE CANOPY INCLUDING:

1.1.1 COMPLETE FABRICATION DRAWINGS INCLUDING FOOTINGS DESIGN.

1.1.2 COMPLETE ABOVE GROUND STRUCTURAL SUPPORT SYSTEM.

1.1.3 STEEL ROOF DECK AND GUTTER, 20 GA WHITE EMBOSSED.

1.1.4 ROOF BRACING.

1.1.5 CAP FLASHING.

1.1.6 DOWN SPOUTS - INTERNAL INSIDE COLUMNS.

1.1.7 PERMITS AND INSPECTIONS DONE BY OTHERS.

1.1.8 INSTALLATION AND FRAMING FOR OWNER SUPPLIED FASCIA SIGNS (ELECTRICAL BY OTHERS).

1.1.9 INSTALLATION AND FRAMING FOR FASCIA MATERIAL AS PER OWNER SPECIFICATIONS.

PART 2 - PRODUCTS

2.1 EMBOSSED ROOF STEEL DECK: ROOF STEEL DECK SHALL BE 2 1/4" MINIMUM DEEP, 20 GAUGE HIGH REFLECTIVE WHITE STEEL WITH MINIMUM SECTION MODULES OF 0.25 IN 1/4 3 MOMENT OF INERTIA OF 0.030 IN 14/4 4. IN CERTAIN AREAS, ROOF DECK WILL BE ALUMINUM. VERIFY WITH LOCAL CONSTRUCTION MANAGER.

2.2 STRUCTURAL STEEL:

2.2.1 ALL STRUCTURAL STEEL TO BE A.S.T.M. A-36 AND SHALL COMPLY WITH THE STANDARD SPECIFICATIONS FOR STRUCTURAL STEEL FOR BUILDINGS OF A.I.S.C. AND WITH THE A.I.S.C. CODE OF STANDARD PRACTICE (LATEST EDITION).

2.2.2 STRUCTURAL BOLTS SHALL CONFORM TO THE STANDARD SPECIFICATION A.S.T.M. A-307 AND SHALL BE PROVIDED WITH WASHERS UNDER THE NUTS.

2.2.3 ALL OTHER BOLTS SHALL BE A-307 AND SHALL CONFORM TO A.S.T.M. STANDARDS, WITH WASHER REQUIRED.

2.2.4 ALL HIGH STRENGTH BOLTS SHALL BE TORQUED TO PROVIDE A MINIMUM TENSION IN BOLT OF 90% OF MINIMUM PROOF LOAD OF THE BOLT.

2.2.5 TUBE COLUMNS SHALL COMPLY WITH A-500, GRADE B.

2.2.6 ALL TUBE COLUMNS SHALL BE 46 KSI STEEL. 2.2.7 ALL WELDING SHALL BE WITH E70XX ELECTRODES AND BE ACCOMPLISHED BY CERTIFIED WELDERS.

Rev. #	Date	Description

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
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FUELING SPECIFICATIONS

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TEXAS REGISTERED ENGINEERING
FIRM NUMBER: F-9349
EXPIRATION: 07/31/2025

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	KLC
Checked By:	RWB

DAVID M. LEIFFER
101813
02/12/2025

SHEET:
G16.0
FUELING - USA

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PERFORMANCE SPECIFICATION - CONT.

SECTION IX CANOPIES - CONTINUED

PART 2 - EXECUTION

2.3 FASCIA:

2.3.1 VERTICAL SUPPORTS SHALL BE DESIGNED AND SPACED PER ENGINEERED (DESIGNED TO LOCAL CODES) STRUCTURAL DRAWINGS SUPPLIED BY CANOPY MANUFACTURER . SCREWS FOR FASCIA SHALL BE CARBON STEEL CADMIUM PLATED OR GALVANIZED - SIZE AS REQUIRED.

2.3.2 REFER TO PROJECT DRAWINGS FOR FASCIA MATERIAL AND INSTALLATION.

2.3.3 MATERIAL SHALL BE ONE OF THE FOLLOWING:

A. PRE FINISHED METAL FASCIA SYSTEM.
B. PRE FINISHED FASCIA MATERIAL AS SELECTED.

PART 3 - GENERAL

3.1 FABRICATION DRAWINGS:

3.1.1 CANOPY CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ENGINEERED AND STAMPED SHOP DRAWINGS FOR OVERHEAD STRUCTURE AND FOUNDATION SYSTEMS.

3.1.2 DRAWINGS SHALL SHOW PROJECT LOCATION AND ADDRESS.

3.1.3 ORIGINAL ENGINEER'S STAMP FOR APPROPRIATE STATE SHALL BE AFFIXED TO EACH PAGE OF DRAWINGS.

3.1.4 SHOP DRAWINGS SHALL SPECIFICALLY CALL OUT SOILS REPORT NUMBER AND DATE FOR WHICH CANOPY FOOTINGS WERE DESIGNED.

3.1.5 SHOP DRAWINGS SHALL SPECIFICALLY CALL OUT SIZE, WEIGHT, TYPE AND NUMBER OF ALL STRUCTURAL MEMBERS.

3.1.6 ALL DESIGN LOADS SHALL COMPLY WITH CURRENT BUILDING CODES AND LOCAL BUILDING DEPARTMENT REQUIRED LOADINGS, WHICHEVER IS MOST STRINGENT. MINIMUM DESIGN LOADS SHALL BE CONSIDERED TO BE: WIND 100#, LIVE 35#, UPLIFT 35# AND DEAD LOAD 35# OR AS LOCAL STRUCTURAL DESIGN DICTATES. IF APPLICATION IS SUBJECT TO HIGH ALTITUDE (SNOW) LOADING, DESIGN SHALL BE ADJUSTED TO COMPLY ACCORDINGLY.

3.1.7 DEFLECTION OF ALL STRUCTURAL MEMBERS SHALL BE LIMITED TO SPAN/180 FOR L.L. ONLY.

3.1.8 ATTACH DECK STRUCTURAL SUPPORTS PER ENGINEERED DRAWINGS.

3.1.9 ROOF DECK SHALL BE AN ICC-ES APPROVED DIAPHRAGM DECK AND ATTACHED IN A MANNER THAT COULD BE CONSIDERED A DIAPHRAGM. AN ALTERNATE TO THIS IS 1/2" DIAMETER STEEL ROD DIAGONAL X-BRACING WITH TURNBUCKLES. LAYOUT OF ROD BRACING AND CONNECTIONS TO STRUCTURAL MEMBERS SHALL BE APPROVED BY STRUCTURAL ENGINEER.

3.1.10 CONCRETE FOOTINGS SHALL BE MADE WITH STONE AGGREGATE AND SHALL HAVE A COMPRESSIVE STRENGTH TO A MINIMUM 3000 LBS. PER SQUARE INCH WITHIN 28 DAYS AFTER POURING.

3.1.11 ALL FOUNDATION METAL REINFORCEMENT SHALL BE OF FORMED TYPE BARS (EXCEPT #2 BARS) AND SHALL CONFORM TO THE REQUIREMENTS OF THE "STANDARD SPECIFICATION A.S.T.M. 615 GRADE 4 40".

3.1.12 THE SHOP DRAWINGS SHALL EXPLICITLY SHOW LOCATION OF DOWN SPOUTS, INTERIOR PVC DRAINS IN WARM WEATHER AREAS, ETC., AS RELATED TO ANY AND ALL UTILITIES AND/OR PIPING AT COLUMN LOCATIONS. ROOF DRAINS AND LEADERS SHALL BE DIRECTED DOWN THE INTERIOR CANOPY COLUMN EXITING SIDE OF ISLAND LEVEL OR ABOVE FINISH GRADE OF CONCRETE SIDE PAD ON DOWNHILL SIDE OF ISLAND.

3.1.13 INCLUDE IN DESIGN PROVISION FOR OVERFLOW DEVICE AT OPPOSITE CORNERS OF CANOPY.

3.1.14 CONSTRUCTION NOT SPECIFICALLY INDICATED SHALL BE ACCOMPLISHED PER MINIMUM REQUIREMENTS OF THE UNIFORM BUILDING CODE, LATEST EDITION.

3.1.15 IF THERE ARE ANY CONFLICTS BETWEEN LINES ON DRAWINGS AND GENERAL NOTES OR WITH SPECIFICATIONS, THE MOST STRINGENT REQUIREMENTS GOVERN.

3.1.16 ANY DEVIATION FROM THE PLANS OR SPECIFICATIONS SHALL BE APPROVED BY 7-ELEVEN, INC.'S CONSTRUCTION REPRESENTATIVE.

3.1.17 FABRICATION DRAWINGS SHALL BE DELIVERED TO APPLICABLE CONSTRUCTION OFFICE A MINIMUM OF 4 WEEKS PRIOR TO COMMENCEMENT OF CONSTRUCTION. NO WORK SHALL COMMENCE PRIOR TO APPROVAL OF DRAWINGS BY 7-ELEVEN, INC.'S CONSTRUCTION REPRESENTATIVE.

SECTION IX CANOPIES - CONTINUED

PART 3 - GENERAL - CONTINUED

3.2 EXECUTION:

3.2.1 COORDINATE DELIVERY AND INSTALLATION WITH FUEL CONTRACTOR THROUGH LOCAL CONSTRUCTION OFFICE. MATERIALS SHALL BE STORED AT POSITION AS INDICATED BY FUEL CONTRACTOR.

3.2.2 CANOPY CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING FOOTING ANCHOR BOLTS AND TEMPLATE FOR DELIVERY TO FUEL CONTRACTOR 2 WEEKS PRIOR TO INSTALLATION. SIZE IN ACCORDANCE WITH SHOP DRAWINGS AND IN ACCORDANCE WITH FUEL CONTRACTOR'S SCHEDULE OF CONSTRUCTION.

3.2.3 FOOTINGS FOR CANOPY AND PLACEMENT OF ANCHOR BOLTS SHALL BE PERFORMED BY FUEL CONTRACTOR AS PER APPROVED SHOP DRAWINGS. TYPE OF CONCRETE SHALL BE AS PER SHOP DRAWINGS. TYPE, SIZE, AND PLACEMENT OF ALL REINFORCED STEEL SHALL BE AS PER SHOP DRAWINGS.

3.2.4 THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE STARTING WORK AND NOTIFY 7-ELEVEN, INC.'S CONSTRUCTION MANAGER IMMEDIATELY OF ANY DISCREPANCIES FOUND. REFER TO SITE PLAN FOR SIZE, TYPE AND PLACEMENT OF CANOPY

3.2.5 CANOPY CONTRACTOR SHALL BE RESPONSIBLE FOR BEING PROPERLY LICENSED IN LOCAL INSTALLATION AS WELL AS PROVIDING OWN PERMITS AS MAY BE REQUIRED. A COPY OF THE PERMIT MUST BE ON FILE IN THE LOCAL CONSTRUCTION OFFICE PRIOR TO COMMENCING WORK.

3.2.6 CANOPY CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CONSTRUCTION OFFICE WITH ACCEPTABLE INSURANCE AS REQUIRED PER 7-ELEVEN, INC. INSURANCE SPECIFICATIONS AND STANDARD CONTRACT FOR CONSTRUCTION. INSURANCE SHALL BE IN EFFECT FOR DURATION OF WORK.

3.2.7 CANOPY CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL WORK OF OTHER CONTRACTORS ALREADY IN PLACE, AS MAY BE REQUIRED.

3.2.8 CANOPY CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND OBTAINING APPROVAL OF FUEL CONTRACTOR PRIOR TO PLACING OF ANY HEAVY EQUIPMENT ON TOP OF CONCRETE WORK ALREADY IN PLACE.

3.2.9 ALL FOOTINGS SHALL BE ON FIRM UNDISTURBED SOILS OR FILL COMPACTED TO 95% MAXIMUM DENSITY BASED ON A.S.T.M. D 1557-70. IF ANY POOR SOIL CONDITION IS DISCOVERED DURING EXCAVATION, THE DESIGN ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR SOIL BEARING VERIFICATION.

3.2.10 SUPPORTING COLUMNS SHALL BE PLACED AS PER 7-ELEVEN, INC. FUEL PLANS AND AS PER APPLICABLE SITE PLAN.

3.2.11 CANOPY SUPPORT COLUMNS SHALL BE CAPPED AT TOP.

3.2.12 ALL MATERIALS SHALL BE ALIGNED TRUE AND FLAT AND ALL PLANES SHALL BE FLAT, TRUE TO ESTABLISHED LINES WITH ALL SOFFITS BEING LEVEL AND VERTICAL WALLS CORRECT AND ACCEPTABLE. PARAPET FASCIA SHALL BE VERTICAL AND PLUMB. ALL INTERSECTIONS SHALL BE TRUE AND STRAIGHTEDGE LINES. MATERIALS SHALL BE LEFT IN ACCEPTABLE CONDITION TO BE PAINTED BY OTHERS. ALL METAL SHALL BE FREE OF DEBRIS AS MAY BE REQUIRED FOR FINAL PAINTING/FINISHING.

3.2.13 FUEL CONTRACTOR SHALL BE RESPONSIBLE FOR NON-SHRINK GROUT BENEATH BASE PLATE AND POURING OF CONCRETE AROUND CANOPY COLUMNS, COVERING ANCHOR BOLTS AS MAY BE REQUIRED.

3.2.14 CANOPY CONTRACTOR SHALL LEAVE ALL EXPOSED STRUCTURAL STEEL FREE OF DEBRIS, PRIMED AND READY FOR FINAL PAINTING BY FUEL CONTRACTOR.

3.3 RESPONSIBILITIES OF FUEL CONTRACTOR:

3.3.1 SHALL BE RESPONSIBLE FOR A MINIMUM OF 30 DAY NOTIFICATION OF DATE WHEN SITE WILL BE READY FOR INSTALLATION OF GASOLINE CANOPY.

3.3.2 UPON AGREED DATE BETWEEN FUEL CONTRACTOR AND CANOPY CONTRACTOR, THE SITE SHALL BE FREE OF MATERIAL, MOVABLE EQUIPMENT AND DEBRIS, LEVEL AND IN PROPER CONDITION FOR CANOPY INSTALLATION. FUEL CONTRACTOR SHALL PERFORM SITE WORK AS MAY BE REQUIRED TO COMPLY.

3.3.3 FUEL CONTRACTOR SHALL NOT INSTALL GASOLINE DISPENSERS PRIOR TO CANOPY ERECTION, UNLESS AGREED UPON IN WRITING BETWEEN THE CANOPY CONTRACTOR AND FUEL CONTRACTOR.

3.3.4 GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF CANOPY FOOTINGS AS DESIGNED IN SHOP DRAWINGS PROVIDED BY CANOPY MANUFACTURER, PROVIDING ALL STEEL, ETC., (WITH THE EXCEPTION OF ANCHOR BOLTS TO BE PROVIDED BY CANOPY CONTRACTOR). FOOTINGS SHALL BE POURED IN A SUFFICIENT AMOUNT OF TIME, SO PROPER CURING TIME IS ALLOWED.

3.3.5 FUEL CONTRACTOR SHALL BE RESPONSIBLE FOR PAINTING OF ALL METAL AND TRIM AS RELATED TO THE GASOLINE CANOPY AS PER 7-ELEVEN STORE STANDARDS MANUAL.

3.3.6 FUEL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WIRING AND INSTALLATION OF LIGHTS, SIGNS, SECURITY LIGHTS, ETC., IN CONJUNCTION WITH NORMAL GASOLINE INSTALLATION. G.C. SHALL CAULK SEAL ALL LIGHT FIXTURES TO CANOPY DECK.

3.3.7 FUEL CONTRACTOR SHALL BE RESPONSIBLE FOR LEAVING BLOCK OUTS AS MAY BY REQUIRED FOR INSTALLATION OF CANOPY IN ACCORDANCE WITH SHOP DRAWINGS. AND PLACEMENT OF ANCHOR BOLTS IN ACCORDANCE WITH SHOP DRAWINGS AS RELATED THERETO.

3.4 WARRANTIES: CANOPY CONTRACTOR SHALL WARRANTY, IN WRITING, COMPLETE CANOPY INSTALLATION FOR A MINIMUM PERIOD OF 2 YEARS. A 5 YEAR WARRANTY GUARANTEEING INSTALLATION TO BE FREE OF DESIGN AND INSTALLATION DEFECTS. EXCLUDING ACTS OF MAN, GOD AND NORMAL WEAR AND TEAR.

3.5 CLEAN-UP: CANOPY CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP AND REMOVAL FROM SITE ALL TRASH AND DEBRIS RESULTING FROM WORK RELATING TO INSTALLATION OF CANOPY.

SECTION X POST CONSTRUCTION TESTING REQUIREMENT

PROCEDURES FOR POST CONSTRUCTION TESTING

1.1 SCOPE OF WORK

THIRD PARTY TESTS ARE REQUIRED TO BE PERFORMED ON ANY POST CONSTRUCTION ACTIVITIES ASSOCIATED WITH NEW INSTALLATION, UPGRADE, REPLACEMENT OR REPAIR OF OR TO THE UNDERGROUND STORAGE TANK (UST) SYSTEMS, IF THE WORK INVOLVES PRODUCT PIPING, TANK SUMPS, DISPENSER SUMPS AND PANS OR SPILL CONTAINMENT BUCKETS.

TANKNOLOGY, INC IS CURRENTLY UNDER CONTRACT TO PERFORM ALL REQUIRED TESTS AS THE NATIONAL 3RD PARTY TESTING CONTRACTOR AND MUST BE USED TO PERFORM POST CONSTRUCTION TESTING TO ENSURE THAT 7-ELEVEN MAINTAINS CONTINUITY WITH THE COMPANY'S REGULATORY COMPLIANCE TESTING PROGRAM. THE ONLY EXCEPTION APPLIES IF LOCAL REGULATIONS REQUIRE THAT THE INSTALLATION CONTRACTOR PERFORM THE REQUIRED TESTS AND THE TESTS ARE WITNESSED ON SITE BY A REGULATORY ENTITY. IN THESE CASES THE INSTALLATION CONTRACTOR MUST SUBMIT DOCUMENTATION OF THE REGULATORY WITNESSED TESTS, AS WELL AS THE RESULT OF ANY SUCH TEST, DIRECTLY TO 7-ELEVEN, INC, COMPLIANCE DEPARTMENT.

IT WILL NOT BE NECESSARY FOR TANKNOLOGY TO RETEST A COMPONENT WHICH WAS TESTED BY THE CONTRACTOR, IF THAT TEST WAS WITNESSED BY A REGULATOR. IN THESE CASES THE CONTRACTOR MUST SUBMIT RESULTS OF THE TEST, AS WELL AS, COPIES OF REGULATOR INSPECTION REPORT WITHIN 48 HOURS OF COMPLETION OF THE TEST TO THE ADDRESS LISTED BELOW.

THE REQUIRED TESTS ARE DIVIDED INTO TWO CATEGORIES, PRE-FUEL TEST AND POST FUEL TEST.

THE TESTS PERFORMED DURING EACH PHASE ARE LISTED BELOW.

PRE-FUEL TEST - TEST PERFORMED BEFORE FUEL IS INTRODUCED OR DELIVERED INTO THE UST SYSTEM.

THE FOLLOWING TESTS ARE RECOMMENDED TO BE PERFORMED BEFORE FUEL IS INTRODUCED INTO THE UST SYSTEM:

PRE-FUEL TEST	ESTIMATED TEST DURATION
STP SUMPS	MINIMUM 4 HOURS
DISPENSER SUMPS/CONTAINMENT	MINIMUM 4 HOURS
SPILL CONTAINMENT BUCKETS	MINIMUM 1 HOUR

TANKNOLOGY MAY USE ONE OF THE FOLLOWING TEST METHODS: HYDROSTATIC, PRESSURE OR VACUUM.

WATER USED TO PERFORM THESE PRE-FUEL TESTS MAY BE DISCHARGED ON SITE AS LONG AS THE WATER WAS NOT IN CONTACT WITH ANY FUEL.

CONTRACTOR PREPARATION FOR PRE-FUEL (BEFORE DELIVERY) TESTING

- THE TANKS, PIPING AND DISPENSERS MUST BE ACCESSIBLE TO INCLUDE ASPHALT AND CONCRETE THAT CAN BE DRIVEN UPON.
- 110 VOLT AC CURRENT MUST BE AVAILABLE
- ALL PRODUCT PIPING, TANK SUMP, SPILL BUCKET AND DISPENSER SUMP/LINER WORK MUST BE COMPLETE AND COMPONENTS ACCESSIBLE.
- TEST VALVES MUST BE INSTALLED FOR THE SECONDARY PRODUCT PIPING.
- DISPENSERS DO NOT NEED TO BE IN PLACE AND PRODUCT PIPING DOES NOT NEED TO BE PURGED.
- AS AN OPTION TO SIGNIFICANTLY REDUCE TIME ON SITE, THE CONTRACTOR SHOULD FLOOD ALL TANK SUMPS AND DISPENSER SUMPS WITH CLEAN WATER THE NIGHT BEFORE THE SCHEDULED TESTING. WATER MUST BE ADDED TO A MINIMUM OF 3 INCHES ABOVE THE HIGHEST PENETRATION OR SEAM IN THE SUMP OR PAN.
- THE CONTRACTOR SHOULD ALLOW SEVERAL HOURS TO ALLOW THE WATER LEVEL TO STABILIZE AND MARK THE LEVEL OF THE WATER WITH A PERMANENT MARKER.

POST FUEL TEST - TEST PERFORMED AFTER FUEL IS INTRODUCED OR DELIVERED INTO THE UST SYSTEM.

POST-FUEL TEST	ESTIMATED TEST DURATION
TANK INTERSTICE	MINIMUM 1 HOUR PER TANK
TANK PRIMARY (TIGHTNESS)	MINIMUM 2 1/2 HOURS
LINE/PIPE INTERSTICE	MINIMUM 1 HOUR PER LINE/PIPE
LINE PRIMARY (TIGHTNESS)	COMPLETED DURING TANK TEST
LINE LEAK DETECTOR	COMPLETED DURING TANK TEST
STAGE II (WHERE APPLICABLE)	MINIMUM 3 HOURS
*AUTOMATIC TANK GAUGE (ATG) CERTIFICATION	MINIMUM 2 HOURS
OTHER (AS REQUIRED BY STATE OR LOCAL ORDINANCE	UNKNOWN

*DOES NOT INCLUDE NEW AUTOMATIC TANK GAUGE (ATG) INSTALLATION. CERTIFICATION OF NEW ATG IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR.

NOTE: WATER USED TO PERFORM TESTING OF (STP) SUMPS, DISPENSER SUMPS AND/OR SPILL BUCKETS, AFTER FUEL IS INTRODUCED/DELIVERED INTO THE UST SYSTEM CANNOT BE DISCHARGED ON SITE.

WATER THAT IS OR WAS IN CONTACT WITH FUEL MUST BE PROPERLY DISCHARGED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND/OR LOCAL REGULATIONS.

CONTRACTOR PREPARATION FOR POST-FUEL (AFTER DELIVERY) TESTING

- THE FUEL LEVEL MUST BE BETWEEN 70-80 PERCENT OF TANK CAPACITY
- COMPARTMENTALIZED TANKS MUST HAVE FUEL LEVELS WITHIN 10" OF EACH OTHER.

ALL FUELING INCLUSIVE OF STAGE I AND STAGE II VAPOR RECOVERY AREAS THE FOLLOWING CONDITIONS MUST APPLY.

- ALL PRODUCT PIPING MUST BE THOROUGHLY PURGED OF AIR AND VAPORS.
- THE DISPENSERS MUST BE SET AND OPERATIONAL TO INCLUDE ALL VAPOR VACUUM PUMPS AND OTHER STAGE II EQUIPMENT FULLY FUNCTIONAL. REPLACE FILTER AFTER PURGING.
- ALL HANGING HARDWARE MUST BE INSTALLED AND OPERATIONAL
- THE TANKS, PIPING AND DISPENSERS MUST BE ACCESSIBLE TO INCLUDE ASPHALT AND CONCRETE THAT CAN BE DRIVEN UPON.
- 110 VOLT AC CURRENT MUST BE AVAILABLE
- TEST VALVES MUST BE INSTALLED FOR THE SECONDARY PRODUCT PIPING.

CONTRACTOR NOTIFICATION TO TESTING COMPANY (TANKNOLOGY):

IT IS RECOMMENDED THAT THE CONTRACTOR PROVIDE NOTIFICATION TO TANKNOLOGY OF THE NEED TO PERFORM TESTS AT LEASE 14 DAYS PRIOR TO THE ANTICIPATION TEST DATE. HOWEVER, TO ENSURE TESTS ARE CONDUCTED IN A TIMELY MANNER A MINIMUM OF FIVE (5) DAYS IS REQUIRED. TANKNOLOGY UNDERSTANDS THAT ACTUAL DATE MAY CHANGE, BY PROVIDING THEM WITH AS MUCH TIME AS POSSIBLE ALLOWING THEM TO MAINTAIN A TIME SLOT IN THEIR SCHEDULE TO SHIFT AS NECESSARY. THE CONTRACTOR MUST KEEP TANKNOLOGY APPRISED OF THE ANTICIPATED DATE AND TIME THAT THE TESTING WILL BE NEEDED AS PROJECTED DATES CHANGE.

Rev. #	Date	Description

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

FUELING SPECIFICATIONS

CORE STATES GROUP
TEXAS REGISTERED ENGINEERING FIRM F-2980
EXPIRATION: 07/31/2025
212 SE 14th Street
Suite 2
Bentonville, AR 72712
479.986.4400
core-states.com

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	KLC
Checked By:	RWB

STATE OF TEXAS
DAVID M. LEIFFER
101813
LICENSED
PROFESSIONAL ENGINEER
02/12/2025

SHEET:
G17.0

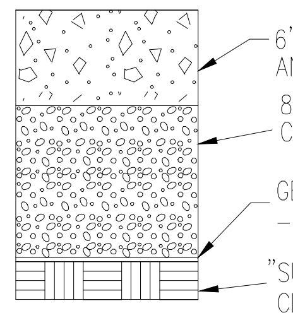
FUELING - USA

PRINTED BY: GZELAROSA
DRAWING NAME: 40569 - G17.0 FUELING SPECIFICATIONS.DWG PRINT DATE: Feb 12, 2025 - 4:21pm

CONCRETE PAVEMENT INSTALLATION

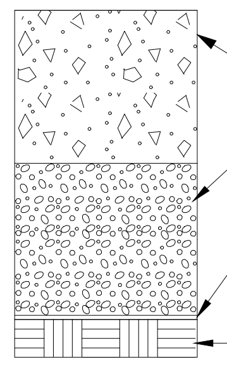
NORMAL STRENGTH PAVEMENT DETAIL

AUTO PARKING AREAS , AND
OTHER LIMITED SERVICE TRAFFIC AREAS



HIGH STRENGTH PAVEMENT DETAIL

HEAVY LOAD TRAFFIC AREAS



CONCRETE PAVING GENERAL NOTES:

1. SEE FUEL PROTOTYPE FOR ADDITIONAL REQUIREMENTS FOR TANK SLABS.
2. SEE FUEL PROTOTYPE FOR ADDITIONAL REQUIREMENTS FOR DISPENSER ISLAND SLABS.
3. A GEOTEXTILE FABRIC OR GEOGRID IS ONLY NEEDED WHEN THE GEOTECHNICAL REPORT AND/OR A GEOTECH EXPERT REQUIRES IT FOR THE SPECIFIC SITE'S SOIL CONDITIONS.
4. UNDISTURBED SOIL OR COMPACTED BACK FILL NOT LESS THAN 95% OF MODIFIED PROCTOR DENSITY (AASHTO-T-180).
5. REFER TO CIVIL DESIGN GUIDELINES (CDG) FOR PAVEMENT LOCATION GUIDANCE.

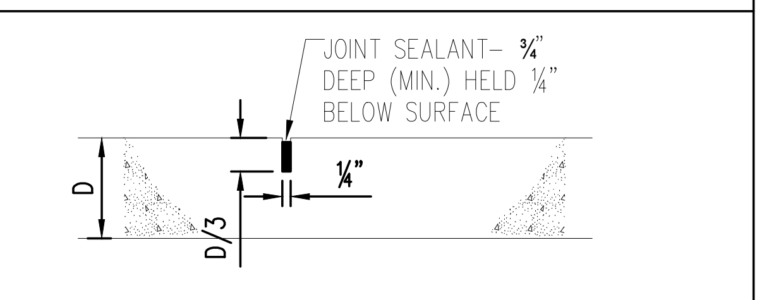
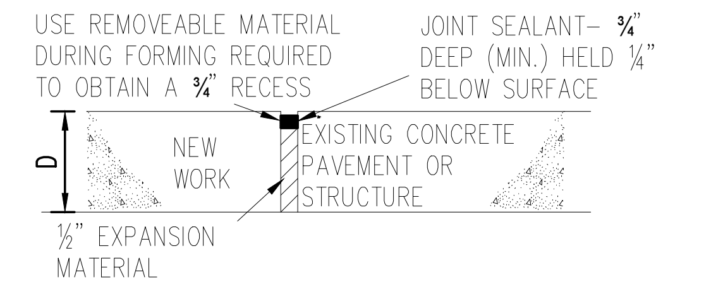
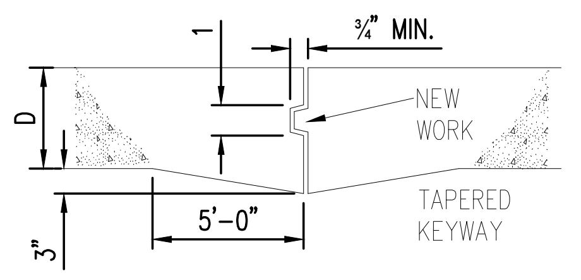
PAVING EXECUTION NOTES:

1. LOCATE AND INSTALL CONSTRUCTION, ISOLATION, AND EXPANSION JOINTS AS INDICATED OR REQUIRED.
2. PLACE CONCRETE IN A CONTINUOUS OPERATION WITHIN PLANNED JOINTS OR SECTIONS. DO NOT ADD WATER TO ADJUST SLUMP.
3. FLOAT SURFACES TO TRUE PLANES WITHIN A TOLERANCE OF 1/4INCH IN 10 FEET.
4. TOOL EDGES AND JOINTS TO A RADIUS OF 1/4INCH FOR SIDEWALKS.
5. ALLOW CONCRETE PAVING TO CURE FOR A MINIMUM OF 28 DAYS AND DRY BEFORE STARTING PAVEMENT MARKING.
6. APPLY TRAFFIC PAINT WITH MECHANICAL EQUIPMENT TO A MINIMUM WET FILM THICKNESSOF 15 MILS.
7. PROTECT CONCRETE PAVING FROM DAMAGE. EXCLUDE TRAFFIC FROM PAVING FOR AT LEAST 14 DAYS.

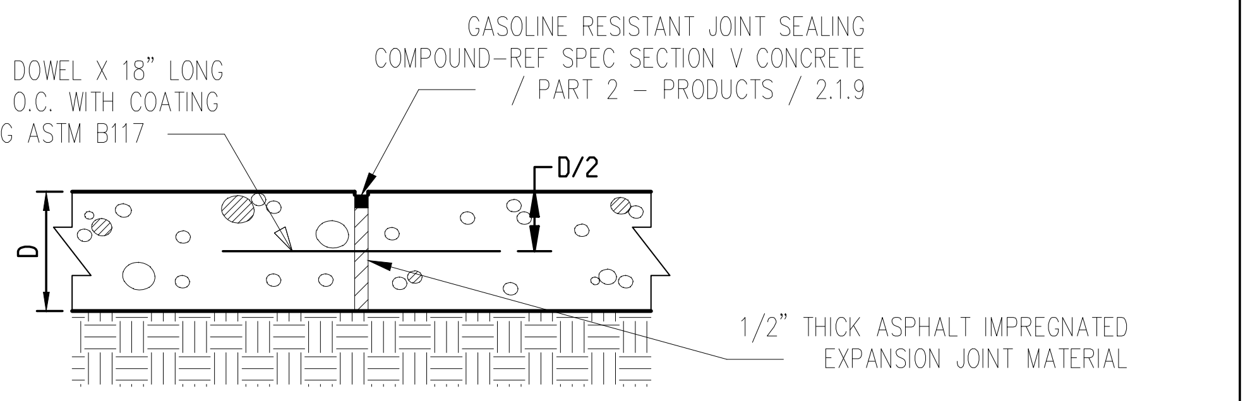
* CONTRACTOR MUST REFER TO THE GEOTECH REPORT FOR PAVEMENT AND FOUNDATION DESIGN AND CONSTRUCTION RECOMMENDATIONS

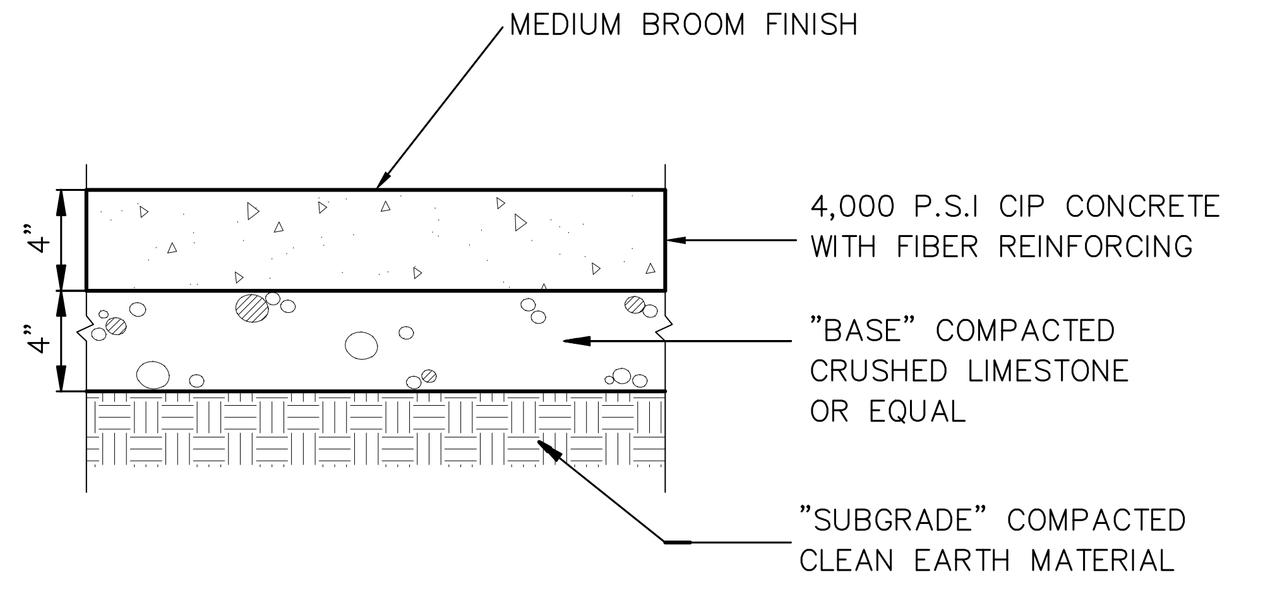
** COMPACTION IS NOT REQUIRED OVER THE TANK PIT(S)

CONCRETE PAVEMENT JOINT DETAILS

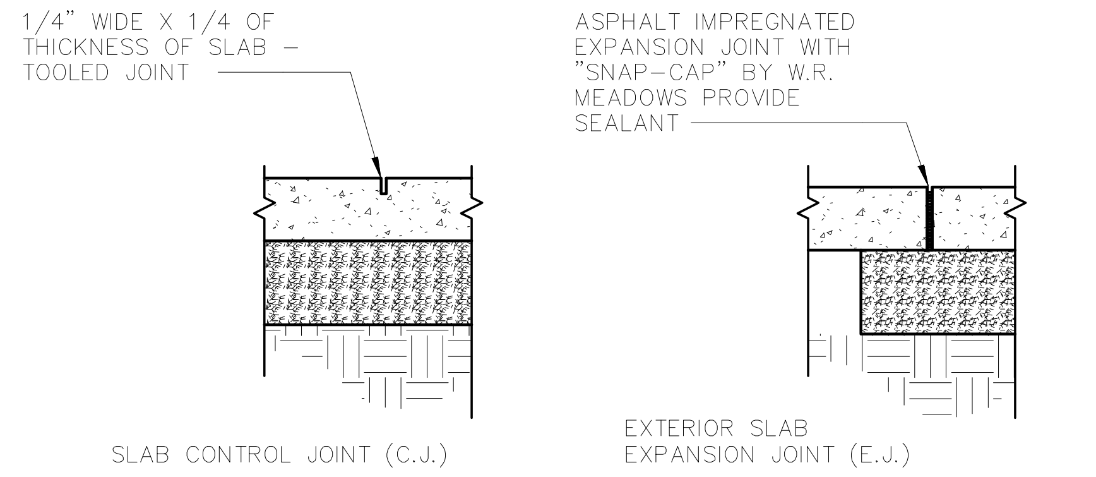
TYPE OF JOINT	USE DESCRIPTION	DETAIL
A. CONTROL JOINT 1. SAWN 2. PREMOLD STRIP 3. HAND FORMED AND SAWN AT CRITICAL JOINTS	USE SPECIFICATION ACI 360R-06 TO PLACE CONTROL JOINTS SO AS TO UNIFORMLY DIVIDE SLABS INTO NOMINAL 12' x 12' (NORMAL STRENGTH) OR 16' x 16' (HIGH STRENGTH) SECTIONS. (SEAL CONTROL JOINTS ONLY IF SPECIFIED ON DRAWINGS OR BY OWNER'S REPRESENTATIVE.)	
B. EXPANSION JOINT (ISOLATION JOINT)	PLACE AGAINST CONCRETE TANK SLAB, ABUTTING ROADWAY PAVEMENTS AND STRUCTURES (BUILDINGS, CANOPY COLUMNS, CATCH BASINS, ETC.)	
C. CONSTRUCTION JOINT	CONSTRUCTION JOINTS MUST BE APPROVED BY OWNER'S REPRESENTATIVE. PLACE WHEN CONTINUOUS POUR OPERATIONS ARE SUSPENDED FOR MORE THAN 30 MINUTES.	

OR





CONCRETE SIDEWALK PAVEMENT

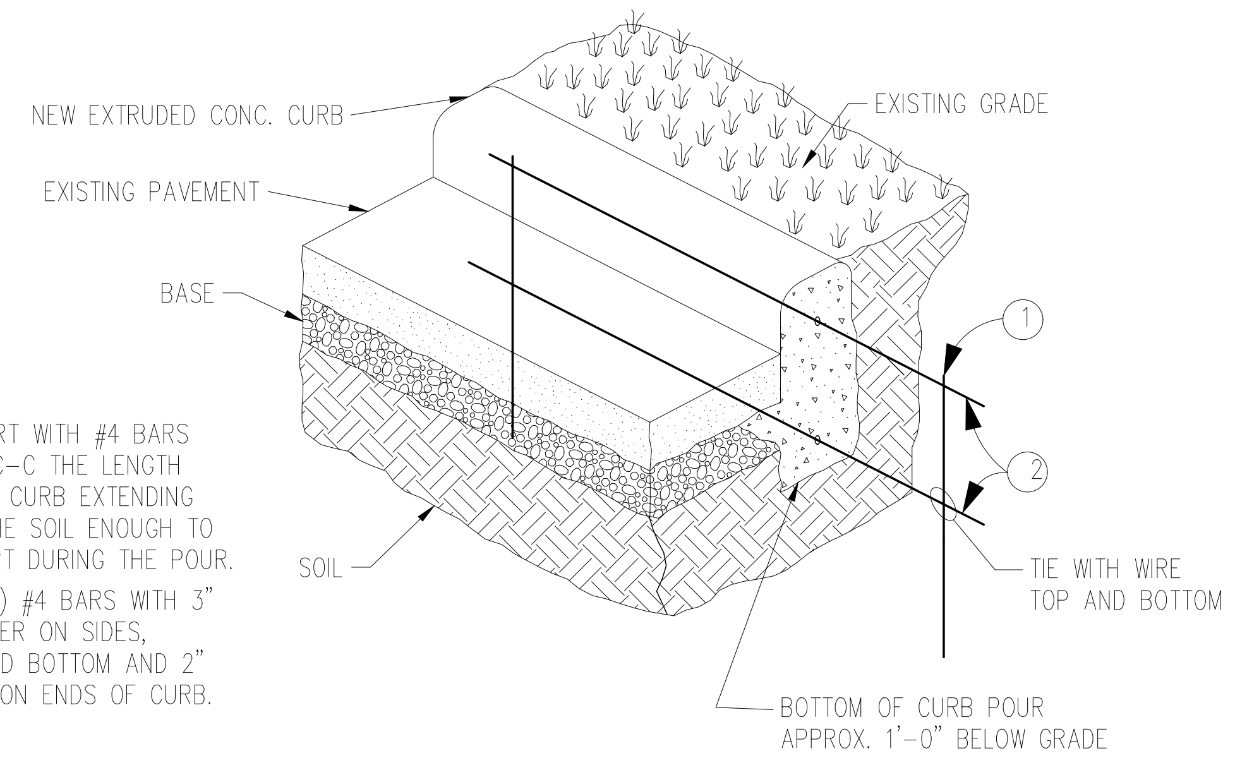


FOR 5' OR 8' WALKS, INSTALL A CONTROL JOINT EVERY 5'. IN 10' WALKS, INSTALL A CONTROL JOINT EVERY 5' AND ONE IN THE CENTER (5' FROM THE BACK OF THE BUILDING FOR EXAMPLE)

DETAILS ONLY APPLY TO BUILDING SIDEWALK. THEY DO NOT APPLY TO INTERIOR SLAB OR SITE CONCRETE.

SIDEWALK JOINTS

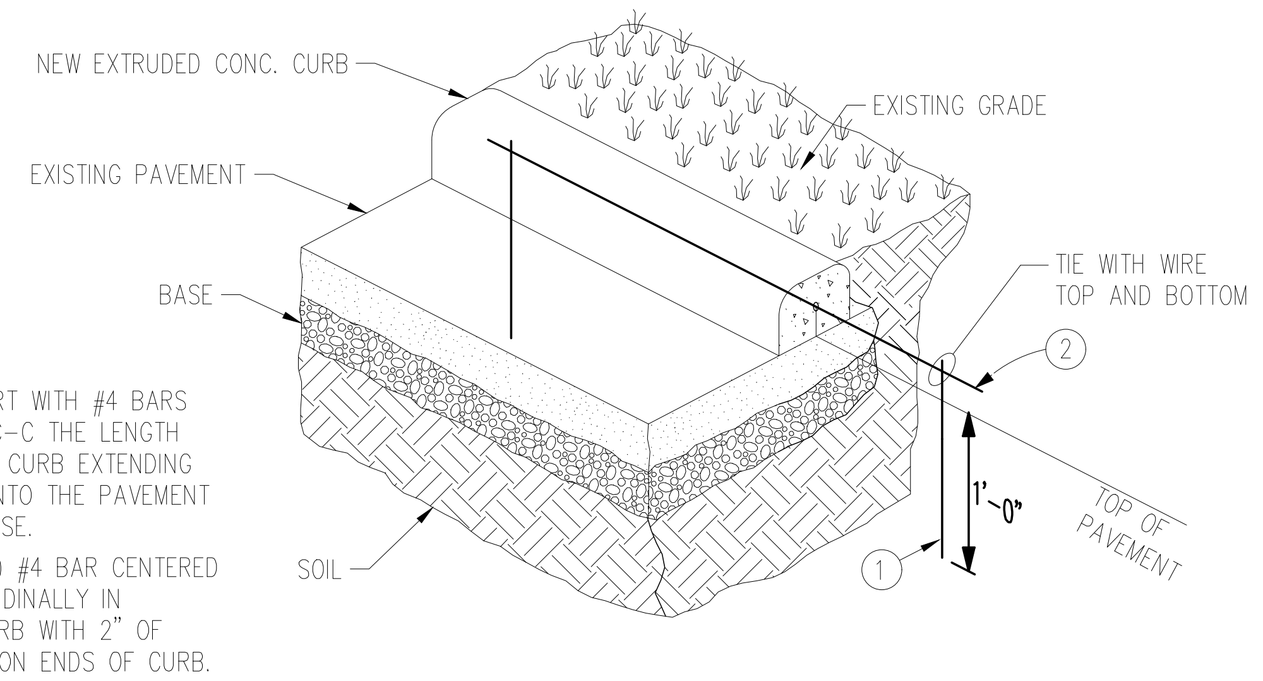
PREFERRED METHOD



① SUPPORT WITH #4 BARS 4'-0" C-C THE LENGTH OF THE CURB EXTENDING INTO THE SOIL ENOUGH TO SUPPORT DURING THE POUR.

② USE (2) #4 BARS WITH 3" OF COVER ON SIDES, TOP AND BOTTOM AND 2" COVER ON ENDS OF CURB.

ALTERNATE METHOD



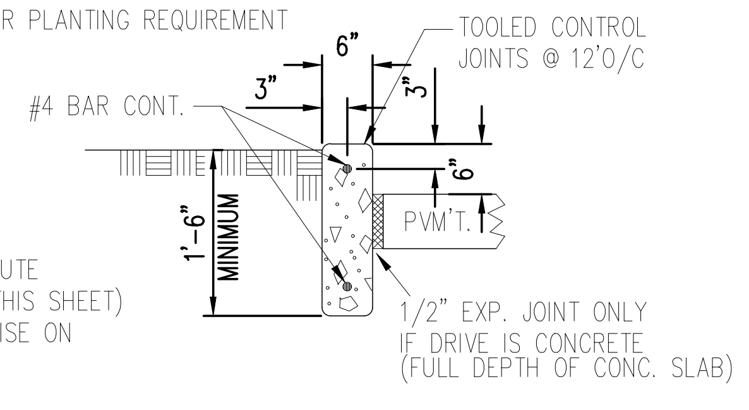
① SUPPORT WITH #4 BARS 4'-0" C-C THE LENGTH OF THE CURB EXTENDING 1'-0" INTO THE PAVEMENT AND BASE.

② USE (1) #4 BAR CENTERED LONGITUDINALLY IN THE CURB WITH 2" OF COVER ON ENDS OF CURB.

COLD WEATHER CURB INSTALLATION

FOR USE WHEN COLD WEATHER CONDITIONS CAUSE ASPHALT PAVEMENT TO BE PLACED BEFORE THE CONCRETE CURB.

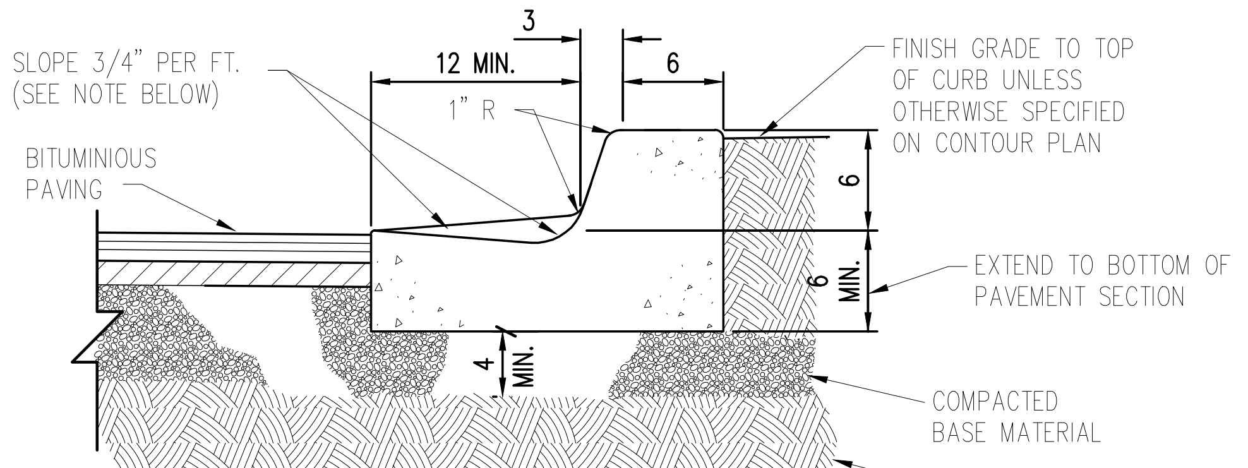
CONCRETE CURBS



NOTE: CONTRACTOR MAY SUBSTITUTE CURB & GUTTER (DETAIL THIS SHEET) UNLESS SPECIFIED OTHERWISE ON PLOT PLAN.

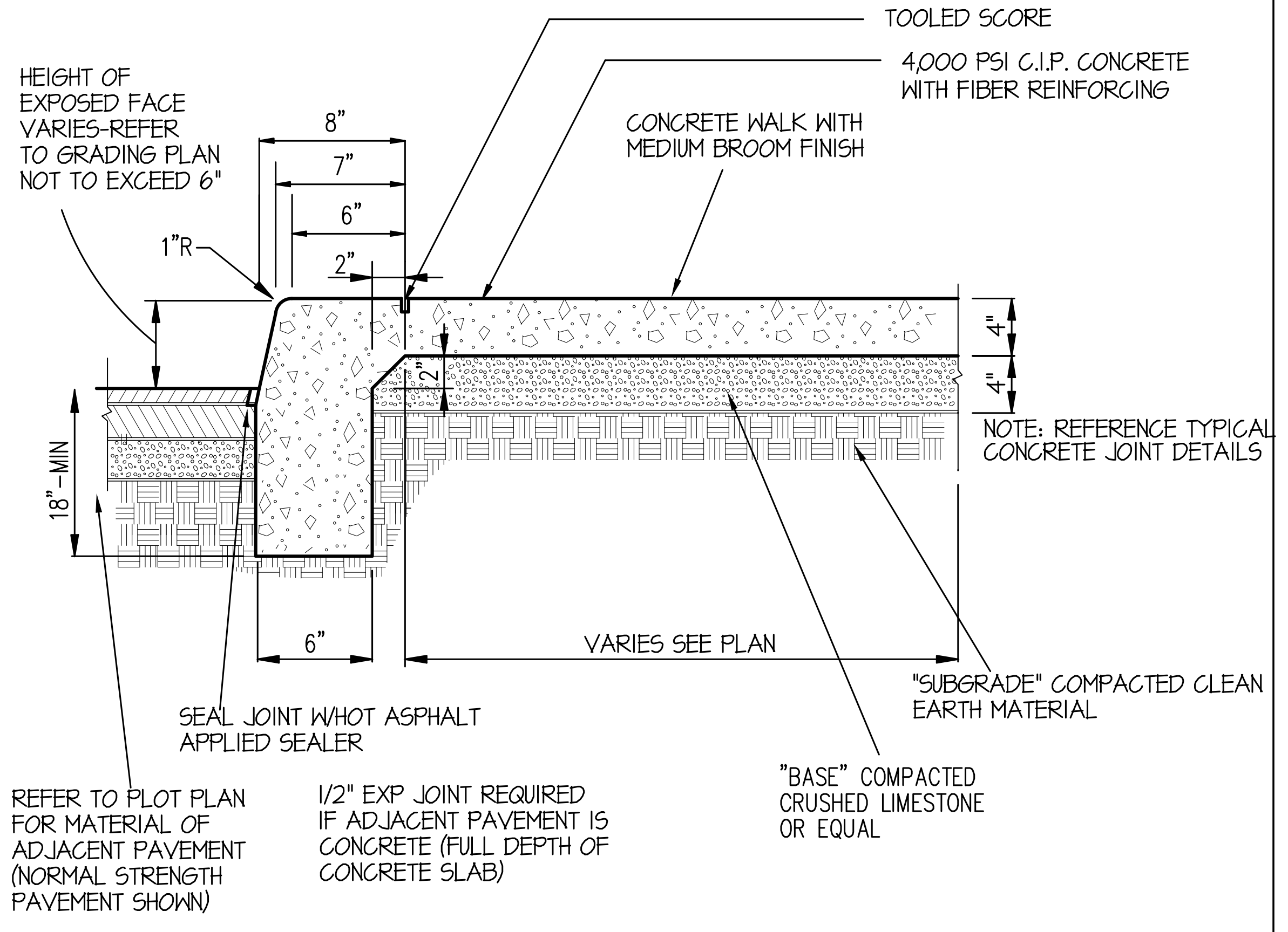
CAST-IN-PLACE CONCRETE CURB

PREFERRED



NOTE: GUTTER TO BE SLOPED DOWNGRADIENT TOWARDS CURB WHEN SITE GRADE IS TOWARDS CURB. GUTTER TO BE SLOPED DOWN GRADIENT AWAY FROM CURB WHEN SITE GRADE IS AWAY FROM CURB. MAY BE MACHINE FORMED.

STRAIGHT CONCRETE CURB & GUTTER



NOTE:
1. TYPICALLY THERE IS 0" CURBING AROUND THE BUILDING
2. EXCEPTION: CA REQUIRES SIDEWALK CURBING AROUND THE BUILDING

ASPHALT PAVEMENT INSTALLATION

ASPHALT SEALING

1. SURFACE CLEANING:
   THE SURFACE TO BE SEALED SHALL BE FREE FROM DIRT AND OTHER FOREIGN MATTER. ANY ACCUMULATIONS OF OIL OR GREASE SHALL BE CLEANED OFF THE PAVEMENT WITH DETERGENT SOLUTION, THE RESIDUE OF WHICH SHALL BE THOUROUGHLY WASHED AWAY WITH CLEAN WATER BEFORE SEALANT IS APPLIED.
2. SEALING:
   THE SEAL COATING MATERIAL SHALL BE COMPRISED OF A RUBBERIZED COAL-TAR PITCH EMULSION AND SHALL MEET OR EXCEED FEDERAL SPECIFICATION R-P-355e. SUPPLIED IN CONCENTRATED FORM, IT SHALL BE DILUTED A MINIMUM OF 15% AND A MAXIMUM OF 25% WITH FRESH, CLEAN WATER. THE SEALANT MATERIAL SHALL CONTAIN 5-6 LBS. PER GALLON OF FINE, CLEAN, DRY SILICA SAND MEETING THE FOLLOWING GRADATION:

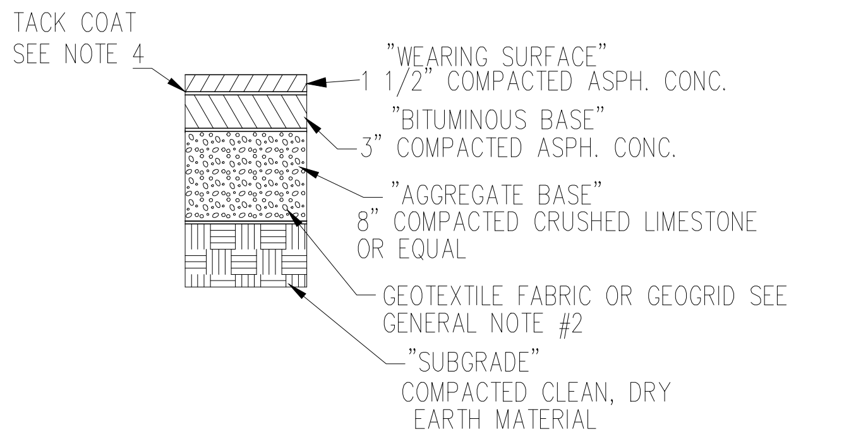
SIEVE SIZE	% PASSING
#16	100
#30	80-100
#50	10-60
#100	0-5

THE SEALANT SHALL BE APPLIED TO THE PAVEMENT IN TWO COATS AT THE RATE OF 0.08 TO 0.12 GALLONS PER SQUARE YARD. A LATEX ADDITIVE MAY ALSO BE ADDED TO THE SEALANT TO ALLOW FOR QUICKER DRYING TIME IN THOSE AREAS SPECIFIED BY OWNER'S REPRESENTATIVE.

NORMAL STRENGTH PAVEMENT

PARKING AREAS , AND OTHER LIMITED SERVICE TRAFFIC AREAS

GRANULAR BASE (PREFERRED)



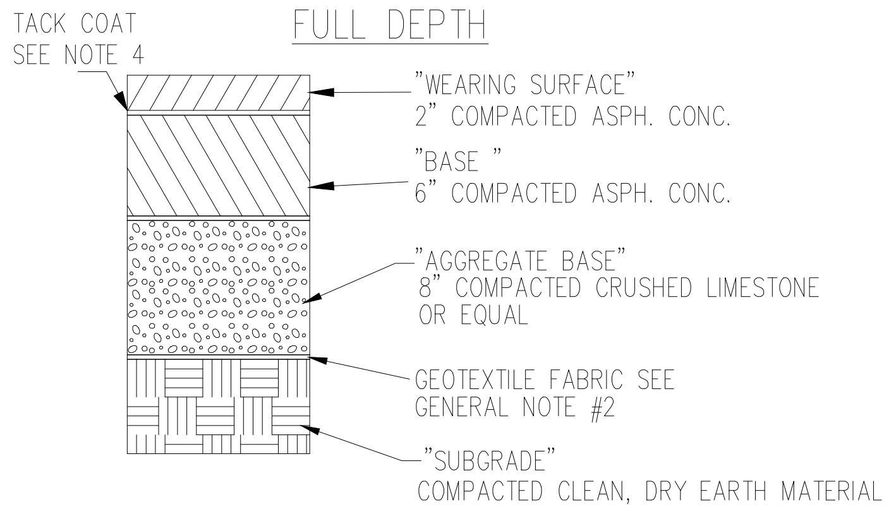
ASPHALT PAVEMENT GENERAL NOTES:

1. ALL WORK SHALL BE IN CONFORMANCE WITH OWNER'S SPECIFICATIONS FOR ASPHALTIC CONCRETE PAVING.
2. A GEOTEXTILE FABRIC OR GEOGRID IS ONLY NEEDED WHEN THE GEOTECHNICAL REPORT AND/OR A GEOTECH EXPERT REQUIRES IT FOR THE SPECIFIC SITE'S SOIL CONDITIONS.
3. FOR SUBSURFACE DRAINAGE OR STABLITY ISSUES DURING CONSTRUCTION (UNDER DIRECTION BY GEOTECH EXPERT)":
   A. SUBSURFACE DRAINAGE ISSUE – REFER TO GUIDELINES FOR DEWATERING ISSUES TO DERIVE ACCEPTATBLE OPTIONS.
   B. SUBSURFACE STABLITY ISSUE – INSTALL GEOGRID PER GEOTECH EXPERT RECOMMENDATION.
4. REFER TO CIVIL DESIGN GUIDELINES (CDG) FOR PAVEMENT LOCATION GUIDANCE.

HIGH STRENGTH PAVEMENT

HEAVY LOAD TRAFFIC AREAS

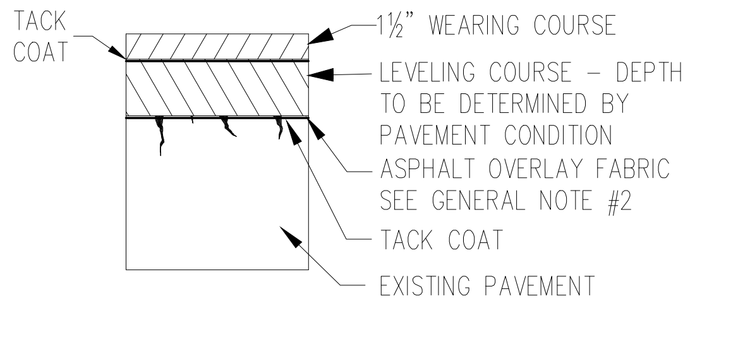
FULL DEPTH



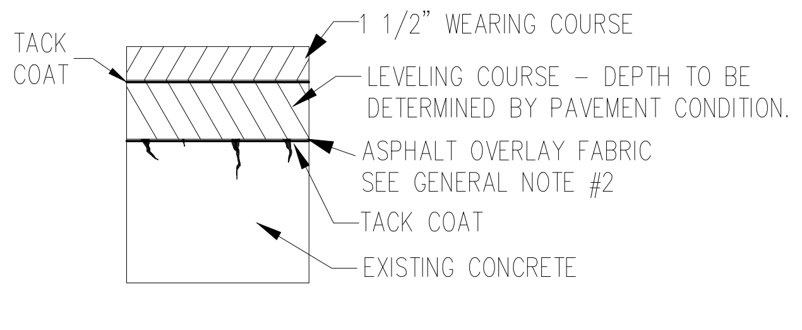
* CONTRACTOR MUST REFER TO THE GEOTECH REPORT FOR PAVEMENT AND FOUNDATION DESIGN AND CONSTRUCTION RECOMMENDATIONS

ASPHALT OVERLAY DETAIL

ASPHALT SUBBASE



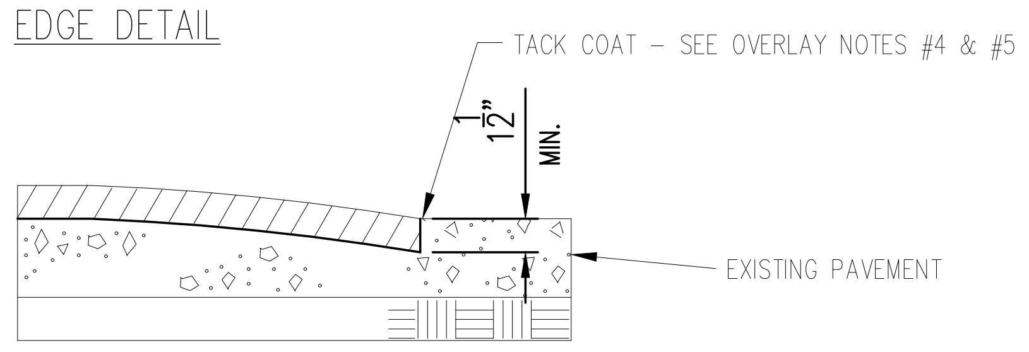
CONCRETE SUBBASE



OVERLAY DETAIL NOTES:

1. THE OVERLAY SHALL BE PLACED IN ACCORDANCE WITH OWNER'S SPECIFICATIONS.
2. ALL FAILED AREAS SHALL BE REPAIRED WITH PROPER PATCHES BEFORE OVERLAY IS PLACED.
3. IF THE SURFACE IS DISTORTED, THE CONTRACTOR SHALL CONSTRUCT LEVELING COURSES TO RESTORE PROPER LINE AND CROSS SECTION.
4. THE PAVEMENT SHALL BE THOUROUGHLY CLEANED AND A TACK COAT OF ASPHALT SHALL BE APPLIED BEFORE THE OVERLAY IS PLACED.
5. ALL VERTICAL SURFACES COMING IN CONTACT WITH THE OVERLAY SHALL BE SPRAYED OR PAINTED WITH A UNIFORM COATING OF EMULSIFIED ASPHALT IMMEDIATELY PRIOR TO PAVEMENT CONSTRUCTION.
6. CONTRACTOR IS RESPONSIBLE FOR ENSURING PROPER SURFACE DRAINAGE. PONDING OR PUDDLING OF WATER ON THE FINAL SURFACE WILL BE UNACCEPTABLE.
7. REPLACE IN KIND ANY EXISTING TRAFFIC LOOPS AND/OR RELATED SENSOR EQUIPMENT THAT IS REMOVED OR DAMAGED DUE TO PAVEMENT MILLING ACTIVITY

EDGE DETAIL



WHERE OVERLAY IS NOT SPECIFIED FOR ENTIRE EXISTING SURFACE, THE INTERFACE BETWEEN THE NEW OVERLAY AND THE OLD PAVEMENT SURFACE SHALL BE PER THE ABOVE DETAIL. FEATHERING OF THE ASPHALT TO MEET THE EXISTING PAVEMENT WILL NOT BE ACCEPTABLE.

Rev. #	Date	Description

Proto 2024-05

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING TEXAS 75063

7-ELEVEN #40569
2700 HUNTER RD, STE B
SAN MARCOS, TX 78666

FUELING REMODEL
PAVEMENT AND CURBING DETAILS

CORE STATES GROUP
212 SE 34th Street
Suite 2
Bentonville, AR 72712
479.986.4400
core-states.com

TEXAS REGISTERED ENGINEERING FIRM NUMBER: F-9349 EXPIRATION: 07/31/2025

Job#:	SEI.38204
Scale:	AS NOTED
Date:	12/30/24
Drawn By:	KLC
Checked By:	RWB

DAVID M. LEIFFER
101813
02/12/2025

SHEET:
CPC-1

FUELING - USA

PRINTED BY: GDELAROSA
DRAWING NAME: 40569 – G-CPC-1 FUELING REMODEL PAVEMENT AND CURBING DETAILS.DWG
PRINT DATE: Feb 12, 2025 – 4:21pm

ATTACHMENT I

Initial and Continuing Training

ATTACHMENT I

Initial and Continuing Training

7-Eleven, Inc. Store No. 40569
2700 Hunter Road, Unit B
San Marcos, Hays County, Texas 78666

- Each 7-Eleven, Inc. (7-Eleven) employee, when hired is initially required to complete a computer based training program for gasoline operations. This training includes gasoline equipment, emergency shut off procedures, the operation of the gasoline tank monitoring system, and gasoline tank release detection system.

- Each location also has access to the On Line Systems Support Guide which contains a section with detailed information on gasoline release detection equipment and operation. Attached is a copy of the gasoline section that deals specifically with the Veeder Root ATG operation. This section can be used for follow up and continuing training at the store.

- Each Veeder Root ATG is directly tied into the 7-Eleven Service Now (SNOW) system for 24 hour monitoring and automatic dispatch of any alarm condition. Any alarm notification goes directly to a certified gasoline contractor as a P1 – Priority One. The certified gasoline contractor is then required to respond at the location and address the alarm condition within four hours.

- In the case of an ATG alarm, the store personnel are also instructed to create a case in SNOW. This notification serves as a back up to the automatic dispatch system described above.

- Additionally, each location is visited by a Certified Business Field Consultant, who will serve as the Class B Operator, on a weekly basis to review business practices and opportunities. This includes any additional training opportunities that may exist with the gasoline leak detection equipment. The stores are also periodically visited by a Gasoline Compliance Specialist who also serves as the Class B Operator for the State. This compliance specialist will take the opportunity to inspect gasoline documents and equipment to ensure all is in order and provides training to store personnel as needed.

ATTACHMENT I

INSPECTION AND MAINTENANCE OF BMPS

7-Eleven, Inc. Store No. 40569
2700 Hunter Road, Unit B
San Marcos, Hays County, Texas 78666

Straw Wattles:

Inspect all straw wattles daily and after rainfall to make sure that sediment build up is contained. Clean straw wattles regularly to make sure that sediment is contained. Replace any straw wattles that are torn or damaged in any way. Dispose of straw wattles appropriately.

Silt Dike:

Inspect all silt dike daily and after rainfall to make sure that sediment build up is contained. Clean silt dike regularly and replace and silt dike that is damaged in any way. Dispose of silt dike appropriately.

Roadways:

Inspect all roadways around the construction site daily to make sure that no sediment is being tracked off the construction site. If it is found that some sediment was tracked off of the construction site, it will be cleaned and disposed of immediately.

ATTACHMENT J

Release Detection Maintenance

ATTACHMENT J

Release Detection Maintenance

7-Eleven, Inc. Store No. 40569
2700 Hunter Road, Unit B
San Marcos, Hays County, Texas 78666

Tank release detection will be maintained by a Continuous Statistical Leak Detection system. The Continuous Statistical Leak Detection system is programmed to conduct continuous statistical leak detection capable of detecting a 2 gph leak in the wetted portion of the tank with a 95% confidence interval and is also equipped to perform the daily inventory reconciliation which meets the inventory control requirements.

Corrosion Protection: listed FRP tank and piping installed (non corrodible)

Tanks:

- Automatic tank gauge test by Continuous Statistical Leak Detection
- Interstitial Monitoring within secondary wall/jacket (dry)
- Inventory control

Piping:

- Interstitial monitoring within secondary wall/jacket (dry)
- Pressurized line leak detectors (3.0 gph)

All equipment will be operated and maintained in accordance with the manufacturer's specifications and instructions.

7-Eleven maintains a regular program of annual 3rd party operability testing of the line leak detectors and automatic tank gauge by Tanknology.

7-Eleven locations are also inspected each 60 days by a third party inspector. This inspection includes entry into all sumps and systems. Issues found are reported for further investigation and follow up by a certified gasoline contractor.

7-Eleven maintains a separate annual preventative maintenance program conducted by a certified gasoline contractor and managed by their facilities department.

The Daily Inventory reconciliation data is captured at 7-Eleven's headquarters by remote polling and inventory variances which exceed previously determined thresholds are further investigated by an environmental compliance specialist.

If 7-Eleven does not achieve passing CSLD results from the Veeder Root ATG at least every 15 days, a contractor is dispatched to troubleshoot and conduct a static test. This is an additional means that used by 7-Eleven to address passing monthly tests.

7-Eleven maintains records of the release detection maintenance in accordance with 30 TAC Chapter §334.10(b).

Attachment K

UST Facility Site Plan

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- TEMPORARY BMP
- DEMOLITION AREA
- MONITORING WELL LOCATION
- PLUGGED and ABANDONED MONITORING WELL LOCATION
- TREE
- FLOW DIRECTION
- CONCRETE COVER
- [1] EXISTING CONVENIENCE STORE
- [2] EXISTING FUELING CANOPY AND DISPENSERS
- [3] NEW UNDERGROUND FUEL STORAGE TANKS AND SLAB
- [4] NEW FUEL STORAGE TANK VENTS
- [5] EXISTING AIR MACHINES
- [6] NEW E–STOP ON BUILDING EXTERIOR

Site Plan Requirements

Items 13 - 24 must be included on the Site Plan.

13. ☒ The Site Plan must have a minimum scale of 1" = 400'.
    Site Plan Scale: 1" = 40'.

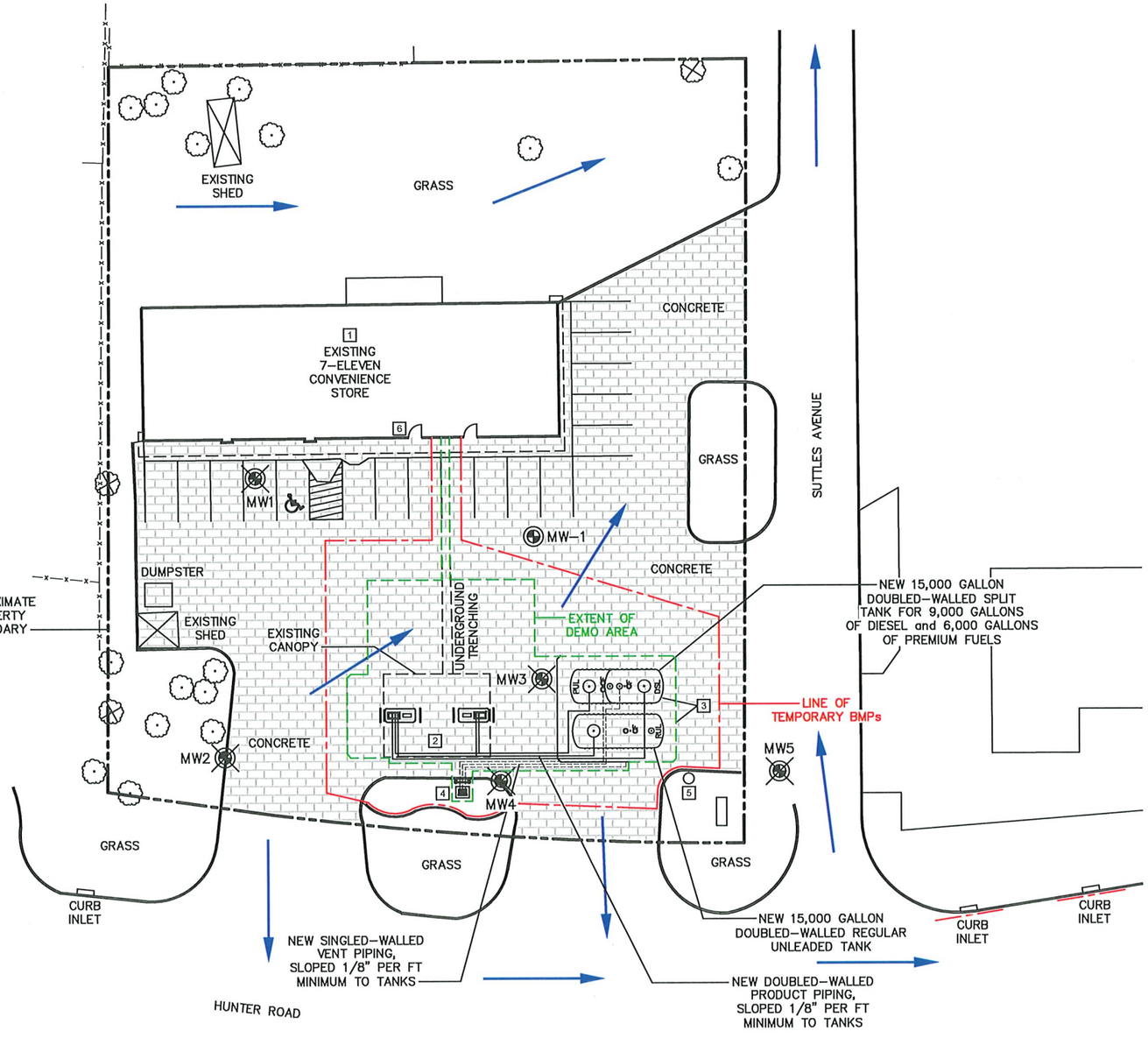
14. 100-year floodplain boundaries:
    ☒ The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): FEMA Flood Insurance Map: Hays County Unincorporated Areas. Map No. 48209C0476G. Effective Date: 01/17/2025.
    ☐ Some part(s) of the project site 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.

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

16. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):
    ☒ There are 1 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)
    ☒ The wells are not in use and have been properly abandoned.
    ☐ The wells are not in use and will be properly abandoned.
    ☒ The wells are in use and comply with 16 TAC §76.
    ☐ There are no wells or test holes of any kind known to exist on the project site.

17. Geologic or manmade features which are on the site:
    ☒ All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.
    ☐ No sensitive geologic or manmade features were identified in the Geologic Assessment.
    ☐ **Attachment G - Exception to the Geologic Assessment.** A request and justification for an exception to a portion of the Geologic Assessment is attached.

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



1 UST FACILITY SITE PLAN
SCALE: 1" = 40'

NOTES:

1. NO PART OF THIS SITE LIES WITHIN A 100–YEAR FLOOD PLAIN ACCORDING TO THE FEMA FLOOD INSURANCE MAP: HAYS COUNTY UNINCORPORATED AREAS. MAP No. 48209C0476G. EFFECTIVE DATE: 01/17/2025.
2. TOTAL IMPERVIOUS COVER = 21,452 sq ft.
3. AREA TO BE DEMOLISHED = 4,570 sq ft.
4. PROPERTY AREA = 1.01 ACRES.
5. ALL OF THE SITE EXISTS WITHIN AN OUTCROPPING OF COMFORT ROCK, SOIL GROUP D, APPROXIMATELY 2.25 FEET IN THICKNESS. SEE GEOLOGIC ASSESSMENT SECTION.

	SIGNATURE	DATE
REVIEW ENGR:		
PROJECT ENGR:		
PROJECT MGR:		
CLIENT:		

APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC.
12005 FORD ROAD, SUITE 600
DALLAS, TEXAS 75234 (972) 773-8400

STATE OF TEXAS
JASON C. RAMSAY
120751
LICENSED PROFESSIONAL ENGINEER
03/04/25

JASON RAMSAY, P.E.
TEXAS LICENSE No. 120751
12005 FORD ROAD, SUITE 600
DALLAS, TEXAS 75234
FIRM No. F–5650
APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC.

7-ELEVEN STORE No. 40569
2700 HUNTER ROAD, UNIT B
SAN MARCOS,
HAYS COUNTY, TEXAS
PST FACILITY ID No. 18194

UST FACILITY SITE PLAN

DESIGNED BY:	DETAILED BY:	CHECKED BY:
BH	SDJF	JRAM

DATE:	FILE:
3-5-25	0004B1
PROJECT NO.: 631030004	CONTRACT:
DRAWING: 1	REVISION:

ATTACHMENT L

Previous WPAP Approval Letter

(Not Applicable)

APPENDIX E

TEMPORARY STORMWATER SECTION

(TCEQ-0602)

Temporary Stormwater Section

Texas Commission on Environmental Quality

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

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

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

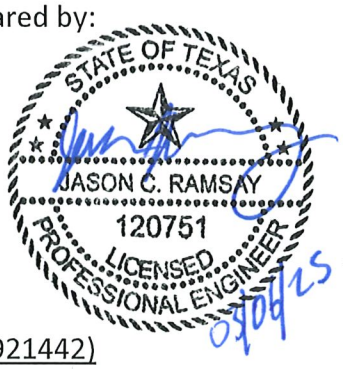
Signature

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

Print Name of Customer/Agent: Jason Ramsay, P.E.

Date: March 6, 2025

Signature of Customer/Agent:



Regulated Entity Name: 7-Eleven Store 40569 (RN102921442)

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: N/A

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.

APPENDIX E

ATTACHMENT A

Spill Response Actions

APPENDIX E

ATTACHMENT A

Spill Response Action

7-Eleven, Inc. Store No. 40569
2700 Hunter Road, Unit B
San Marcos, Hays County, Texas 78666

In the event of an accidental spill, immediate action shall be undertaken by the General Contractor to contain and remove the spilled material. All hazardous materials, including contaminated soil, liquid, and concrete waste, shall be disposed of by the Contractor in the manner specified by Federal, State and Local regulations and by the manufacturer of such products. As soon as possible, the spill shall be reported to the appropriate agencies. As required under the provisions of the Clean Water Act, any spill or discharge entering waters of the United States shall be properly reported. The General Contractor shall prepare a written record of any spill and associated clean-up activities of petroleum products or hazardous materials in excess of 1 gallon or reportable quantities, whichever is less. The General Contractor shall provide notice to the Owner immediately upon identification of a reportable spill.

All spills of petroleum products or hazardous materials in excess of Reportable Quantities as defined by EPA or the State or Local agency regulations, shall be immediately reported to the EPA National Response Center (1-800-424-8802) and TCEQ (1-800-832-8224).

The reportable quantity for hazardous materials can be found in 40 CFR 302:

Reportable Quantities		
Material	**Media Released to**	**Reportable Quantities**
Engine Oil, Fuel, Hydraulic & Brake Fluid	Land	25 gallons
Engine Oil, Fuel, Hydraulic & Brake Fluid	Water	Visible sheen
Antifreeze	Land	100 lb (13 gal.)
Battery Acid	Land, Water	100 lb
Refrigerant	Air	1 lb
Gasoline	Air, Land, Water	100 lb
Engine Degreasers	Air, Land, Water	100 lb

In order to minimize the potential for a spill of petroleum product or hazardous materials to come in contact with storm water, the following steps shall be implemented.

a) All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) shall be stored in a secure location, under cover and in appropriate, tightly sealed containers when not in use.

b) The minimum practical quantity of all such materials shall be kept on the job site and scheduled for delivery as close to time of use as practical.

c) A spill control and containment kit (containing for example: absorbent material such as kitty litter or sawdust, acid neutralizing agent, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) shall be provided on the construction site.

d) All of the product in a container shall be used before the container is disposed. All such containers shall be triple rinsed with water prior to disposal. The rinse water used in these containers shall be disposed of in a manner in compliance with State and Federal regulations and shall not be allowed to mix with storm water discharges.

e) All products shall be stored in and used from the original container with the original product label.

f) All products shall be used in strict compliance with instructions on the product label.

g) The disposal of the excess or used products shall be in strict compliance with instructions on the products label.

SPILL REPORT FORM

Notes to General Contractor:

- Contact the appropriate regulatory agency if the spill exceeds the applicable reportable quantity.
- Complete the Spill Report Form in full for each spill that exceeds the applicable reportable quantity and submit to the Owner.
- Call the Owner
- Resolve as appropriate.

SPILL REPORT FORM

DATE:
PROJECT: 7-Eleven, Inc. Store No. 40569
PROJECT ADDRESS: 2700 Hunter Road, Unit B, San Marcos, Texas 78666

Spill Reported By: _____

Date / Time of Spill: _____

Describe spill location and events leading to spill:
_____
_____

Material Spilled: _____

Source of Spill: _____

Amount Spilled: _____

Amount Spilled to Waterway (Name Waterway): _____

Containment or Clean up Action:
_____
_____

Approximate depth (yards) of soil excavation: _____

List Injuries or Personal Contamination: _____

Action to be taken to prevent future spills:
_____
_____

Agencies notified of spill:
_____

_____ _____
Contractor Signature and Printed Name **Date**

AFTER NOTIFYING GOVERNING AUTHORITIES, IMMEDIATELY COMPLETE THIS FORM AND CONTACT THE OWNER IF THE SPILL EXCEEDS THE REPORTABLE QUANTITY FOR THE GOVERNING AGENCY.

APPENDIX E

ATTACHMENT B

Potential Sources of Contamination

APPENDIX E

ATTACHMENT B

Potential Sources of Contamination

7-Eleven, Inc. Store No. 40569
2700 Hunter Road, Unit B
San Marcos, Hays County, Texas 78666

Potential sources of contamination from this site include hydrocarbon residue, emissions from vehicles, asphaltic products used for paved surfaces, and tracking or dropping silt onto paved surfaces by construction equipment.

APPENDIX E

ATTACHMENT C

Sequence of Major Events

APPENDIX E

Attachment C

Sequence of Major Construction Activities

7-Eleven, Inc. Store No. 40569
2700 Hunter Road, Unit B
San Marcos, Hays County, Texas 78666

1. Install perimeter controls on the site. (Clear only those areas necessary to install perimeter and erosion control devices). Total Disturbed area – 2,000 square feet

2. Begin saw cutting and demolition activities. Total Disturbed area – 4,570 square feet (SF).

3. Remove existing tank slab, dispenser islands, and existing UST system including tanks, product piping, and vent piping. Total Disturbed area – 4,570 SF.

4. Install new 15,000-gallon capacity double-walled fiberglass-reinforced plastic (FRP) Underground Split Storage Tank (UST) for 9,000 gallons diesel (DSL) and 6,000 gallons Premium Unleaded (PUL).

5. Install new 15,000-gallon capacity double-walled FRP Regular Unleaded (RUL) UST;

6. Install three (3) new DSL, RUL, and PUL Submersible Turbine Pump (STP) sumps and STP assemblies;

7. Reuse (1) existing 3+0 dispenser and (1) existing 3+1 dispenser;

8. Install two (2) new stainless steel dispenser islands;

9. Install new 3” over 2” double-walled FRP product piping from new USTs to existing dispensers;

10. Install three (3) new vapor vent risers;

11. Install new 2” single-walled FRP piping for vapor/vent at USTs to new remote vent;

12. Install a new Veeder Root TLS-450 Plus site monitor console;

13. Install two (2) new observation wells in the tank slab.

14. Permanently stabilize areas to be vegetated as they are brought to final grade.

15. Prepare site for paving. Total disturbed area – 4,570 SF

16. Install new concrete at disturbed areas. Total Disturbed area – 4,570 SF

17. Remove all temporary erosion and sediment control devices and stabilize any areas disturbed by the removal of the BMPs.

APPENDIX E

ATTACHMENT D

Temporary Best Management Practices and Measures

APPENDIX E

ATTACHMENT D

Temporary Best Management Practices and Measures

7-Eleven, Inc. Store No. 40569
2700 Hunter Road, Unit B
San Marcos, Hays County, Texas 78666

The temporary BMPs will be installed at the perimeter of the construction area as shown and described in the Erosion and Sediment Control Plan and this Temporary Stormwater Section. Temporary erosion control logs will be installed in the landscaping area located near the proposed location of the vent line, while temporary silt dike will be installed on the concrete surrounding the construction area as described in the Erosion and Sediment Control Plan. Where disturbed areas will abut existing concrete curbs, either the existing concrete curb will be maintained as a silt dike or erosion control logs will be placed in the soil areas if the curb is removed or damaged. The pair of curb inlets downgradient to the northeast of the site along Hunter Road will be protected with erosion control logs as shown on the Erosion and Sediment Control Plan. All wash water and construction debris will be detained and properly disposed of as described in the Erosion and Sediment Control Plan and this Temporary Stormwater Section. All excavated soils will be properly contained on site within the construction area if it is to be reused or will be properly disposed of if it is to be removed from the site. Any construction materials that are tracked onto roadways by construction vehicles will be immediately removed as described in the Erosion and Sediment Control Plan and this Temporary Stormwater Section.

APPENDIX E

ATTACHMENT E

Request to Temporarily Seal a Feature

(Not Applicable)

APPENDIX E

ATTACHMENT F

Structural Practices

APPENDIX E

ATTACHMENT F

Structural Practices

7-Eleven, Inc. Store No. 40569
2700 Hunter Road, Unit B
San Marcos, Hays County, Texas 78666

The temporary BMPs, triangular silt dike and erosion control logs (also known as straw wattles or fiber rolls), will be installed at the perimeter of the construction area as shown to prevent silted run-off from leaving the disturbed area. Erosion control logs will be installed in the landscaping area located near the new vent stack in the unpaved areas. Temporary triangular silt dike will be installed on the concrete surrounding the construction area. Construction areas abutting existing concrete curbs will maintain those concrete curbs as silt dike, and in the event that they are damaged or removed, erosion control logs will be installed in the soil behind them. The two curb inlets northeast of the site along Hunter Road will be protected utilizing straw erosion control logs.

APPENDIX E

ATTACHMENT G

Drainage Area Map

(Not Applicable)

APPENDIX E

ATTACHMENT H

Temporary Sediment Pond(s) Plans and Calculations

(Not Applicable)

APPENDIX E

ATTACHMENT I

Inspection and Maintenance for BMPs

APPENDIX E

ATTACHMENT I

Inspection and Maintenance of BMPs

7-Eleven, Inc. Store No. 40569
2700 Hunter Road, Unit B
San Marcos, Hays County, Texas 78666

Minimization of Disturbed Areas:

Contractor shall keep the areas of disturbance to a minimum during construction.

Soil Stabilization:

Soil stabilization is proposed to be employed to prevent soil from eroding and leaving the site. The primary techniques to be used at this project for stabilizing site soils will be to provide a protective cover of grass, pavement, and building structures.

Temporary Seeding or Stabilization:

All disturbed areas that will be inactive for 7 days or more shall be stabilized temporarily with the use of fast-germinating annual grass/grain varieties appropriate for site soil and climate conditions, straw or hay mulch, wood cellulose fibers, tackifiers, netting, and/or blankets. Soil stockpiles and diversion ditches or berms shall be stabilized to prevent erosion and dust.

Permanent Seeding or Sodding:

All areas at final grade shall be seeded or sodded within 7 days after completion of work in that area. Seed immediately after final grade is achieved and soils are prepared to take advantage of soil moisture and seed germination. At the completion of ground disturbing activities, the entire site must have permanent vegetative cover where it is not covered by impervious material such as building or pavement. To minimize the potential for erosion and maximize seed germination and growth, the General Contractor shall evaluate the short- and long-term local forecast prior to applying permanent seed or sod.

Final stabilization is achieved when perennial vegetative cover provides permanent stabilization with a density greater than 70 percent over the entire area to be stabilized by vegetative cover. This area is exclusive of areas that are covered with rock, landscape mulch, pavement, buildings, or other permanent structures.

Erosion Control Logs:

Inspect all erosion control logs daily and after rainfall to make sure that sediment build up is contained. Clean erosion control logs regularly to make sure that sediment is contained. Replace any erosion control logs that are torn or damaged in any way. Dispose of erosion control logs appropriately.

Silt Dike:

Inspect all silt dikes daily and after rainfall to make sure that sediment build up is contained. Clean silt dike regularly and replace any silt dike that is damaged in any way. Dispose of silt dike appropriately.

Storm Drain Inlet Protection:

Curb, grated, drop, and other inlets are protected from the intrusion of sediment though a variety of measures as shown on the details included in the Erosion & Sediment Control Plan. The primary mechanism is to place controls in the path of flow sufficient to slow the sediment laden water to allow settlement of suspended solids prior to discharging into the storm water system. It is possible that as construction progresses from storm water system installation through to paving that the inlet protection devices may change. Care shall be taken in placement of inlet protection as many devices create ponding of storm water at inlets.

Roadways:

Inspect all roadways around the construction site daily to make sure that no sediment is being tracked off the construction site. If it is found that some sediment was tracked off of the construction site, it will be cleaned and disposed of immediately.

Record Keeping:

Records pertaining to inspections and maintenance of BMPs will be documented and made available upon TCEQ request.

APPENDIX E

ATTACHMENT J

Schedule of Interim and Permanent Soil Stabilization Practices

APPENDIX E

ATTACHMENT J

Permanent Stabilization Practices

7-Eleven, Inc. Store No. 40569
2700 Hunter Road, Unit B
San Marcos, Hays County, Texas 78666

PERMANENT VEGATATIVE STABILIZATION

- Planting areas to be graded to match existing grades.

- Planting material temporarily moved during construction to be replaced and watered to sufficiently soak the soil to depth of six inches.

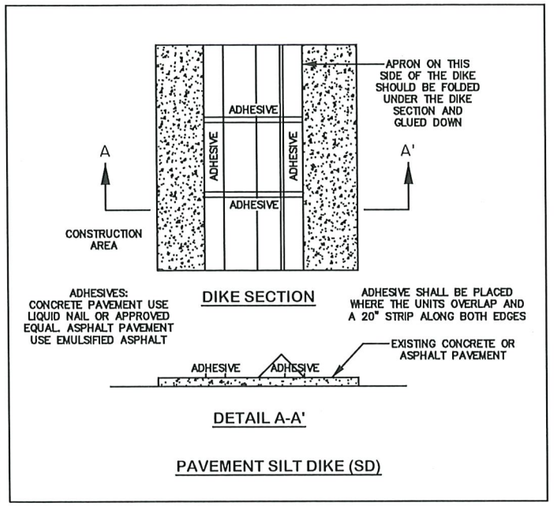
- Replace weed barrier as necessary to match existing materials.

- Mulch area with materials that match existing.

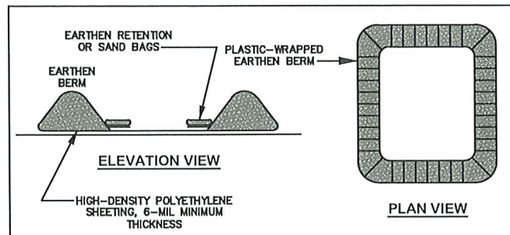
APPENDIX E

ATTACHMENT K

Erosion and Sediment Control Plan



PAVEMENT SILT DIKE (SD)



CONCRETE WASHOUT AREA (CWA)

NOTES:

1) The Contractor shall be responsible for submitting Notice(s) of Intent and Notice(s) of Termination, as well as any additional information and fees, and for complying with spill prevention, storm water pollution prevention, and other applicable laws of the Texas Commission on Environmental Quality and the United States Environmental Protection Agency. The Contractor assumes responsibility for control of the site during project operations for the purposes of permitting and regulatory compliance.

2) The temporary BMPs will be installed at the perimeter of the construction area prior to commencing project groundbreaking activities as shown and described in the Temporary Stormwater Section and this Erosion and Sediment Control Plan. Temporary erosion control logs will be installed in the landscaping area located near the proposed location of the vent line, and temporary silt dike will be installed on the concrete surrounding the construction area as described herein.

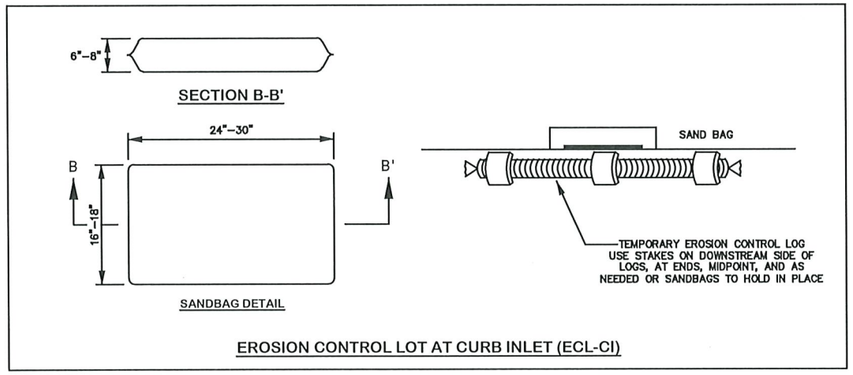
3) All wash water and construction debris will be detained and properly disposed of as described in the Temporary Stormwater Section and in this Plan. Vehicle, equipment, and other washing and cleaning operations shall be conducted within bermed or diked containment area(s), and the Contractor shall containerize the waste fluids, sediments, and debris. The Contractor shall be responsible for the proper profiling and disposal of these waste materials utilizing licensed transporter(s) and disposal facility(ies).

4) Concrete washout area shall be constructed of plastic-wrapped earthen berm, as shown. Concrete washout area shall be maintained during washout operations to prevent overflow from bermed area. Once settled, washout free liquids, soils, concrete, and plastic shall be removed from the site and disposed at a licensed disposal facility. The Contractor shall be responsible for the proper profiling and disposal of these waste materials utilizing licensed transporter(s) and disposal facility(ies).

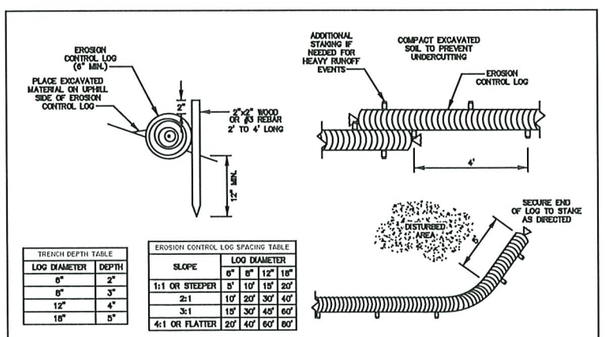
5) All excavated soils will be properly contained on site within the construction area if it is to be reused or properly disposed of if it is to be removed from the site. Soils must be bermed around the perimeter at least six inches high and must be covered prior to any major rain event to prevent run-off.

6) Any construction materials that are tracked onto roadways by construction vehicles will be immediately removed as described in the Temporary Stormwater Section and as stated herein. Soils, sediments, and debris removed from the roadway must be removed from public and private properties and rights of way prior to their runoff and at the completion of the project.

7) All erosion control devices shall be inspected by the Contractor weekly and after all major rain events. Any clogging or backing up of flow, or mud or sediments tracked onto roadways or flowing off-site, shall constitute failure of the devices or of their use, and such failure shall be rectified by the Contractor. Any changes to this Erosion and Sediment Control Plan shall be made with approval by the Engineer. The Contractor assumes all liability for the procurement, installation, operation, maintenance, removal, and disposal of erosion and sediment control devices.



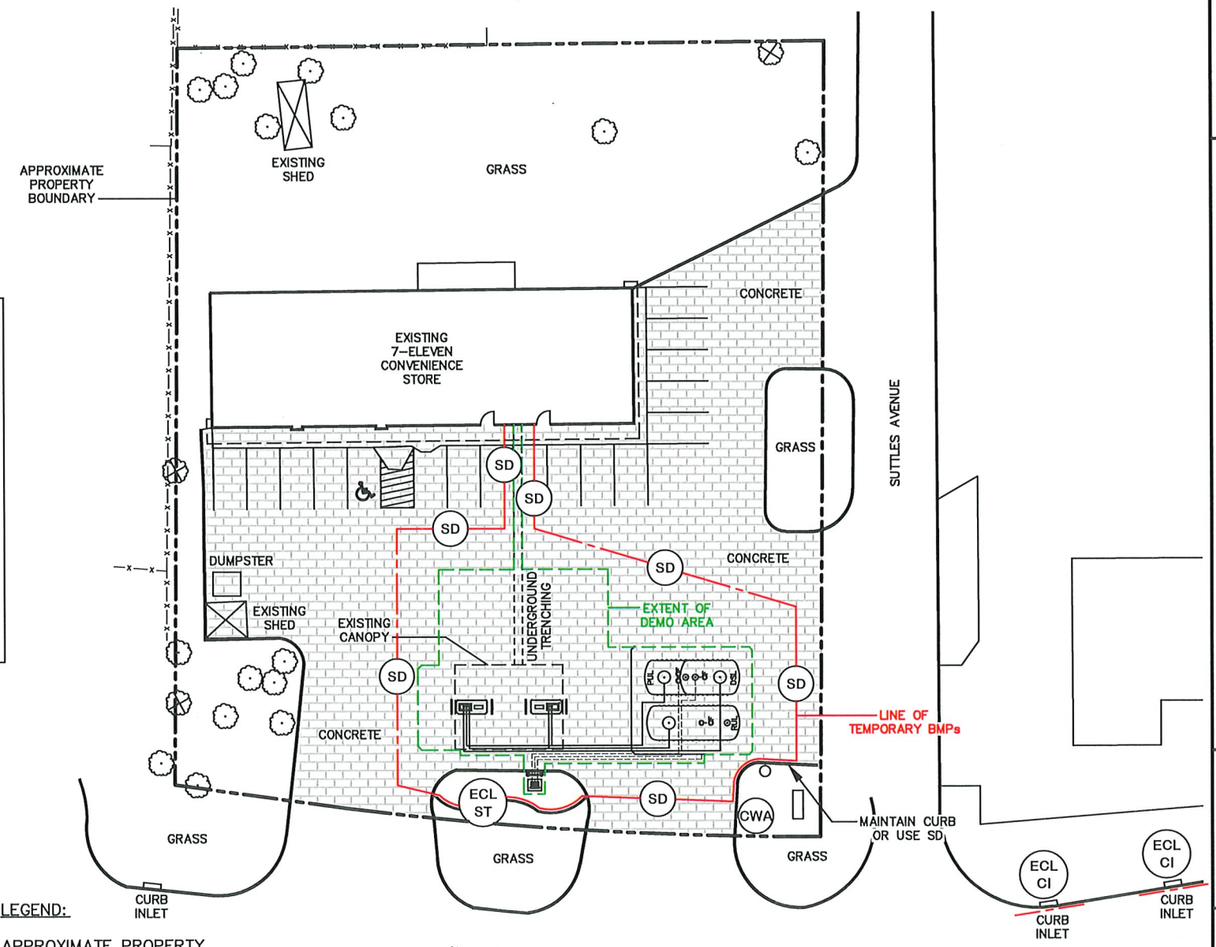
EROSION CONTROL LOT AT CURB INLET (ECL-CI)



TRENCH DEPTH TABLE	
LOG DIAMETER	DEPTH
6"	2"
8"	3"
12"	4"
18"	5"

EROSION CONTROL LOG SPACING TABLE				
	LOG DIAMETER			
SLOPE	6"	8"	12"	18"
1:1 OR STEEPER	5'	10'	15'	20'
2:1	10'	20'	30'	40'
3:1	15'	30'	45'	60'
4:1 OR FLATTER	20'	40'	60'	80'

EROSION CONTROL LOG STAKE and TRENCHING (ECL-ST)



LEGEND:

- APPROXIMATE PROPERTY BOUNDARY (APPROXIMATELY 1.01 ACRES)
- PROPOSED NEW VENT PIPING
- PROPOSED NEW PRODUCT PIPING
- LINE OF TEMPORARY BMPs
- DEMOLITION AREA
- CONCRETE COVER

1 UST FACILITY SITE PLAN
SCALE: 1" = 45'

NOTE:

NO LARGE DAY TANK(S) FOR CONSTRUCTION ACTIVITIES TO BE PLACED ON SITE; MAXIMUM CUMULATIVE PERMITTED GASOLINE & DIESEL STORAGE OF 249 GALLONS AT ANY TIME.

SIGNATURE	DATE
REVIEW ENGR:	
PROJECT ENGR:	
PROJECT MGR:	
CLIENT:	

APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC.
12005 FORD ROAD, SUITE 600
DALLAS, TEXAS 75234 (972) 773-8600

STATE OF TEXAS
JASON C. RAMSAY
120751
LICENSED
PROFESSIONAL ENGINEER
03/07/25

JASON RAMSAY, P.E.
TEXAS LICENSE No. 120751
12005 FORD ROAD, SUITE 600
DALLAS, TEXAS 75234
FIRM No. F-5650
APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC.

7-ELEVEN STORE No. 40569
2700 HUNTER ROAD, UNIT B
SAN MARCOS,
HAYS COUNTY, TEXAS
PST FACILITY ID No. 18194

EROSION and SEDIMENT CONTROL PLAN

DESIGNED BY:	DETAILED BY:	CHECKED BY:
BH	SDJF	JRAM
DATE: 3-5-25	FILE: 0004B2	
PROJECT NO.: 631030004	CONTRACT:	
DRAWING: 2	REVISION:	

APPENDIX F

AGENT AUTHORIZATION FORMS (TCEQ-0599) &

OWNER AUTHORIZATION FORM

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

I Raymond McNiece,
Print Name

Regional Gasoline Environmental Compliance Manager (RGECM),
Title-Owner/President/Other

of 7-Eleven, Inc.,
Corporation/Partnership/Entity Name

have authorized _____
Print Name of Agent/Engineer

of CoreStates, Inc.
Print Name of Firm

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

I also understand that:

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

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

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

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

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

SIGNATURE PAGE:

Applicant's Signature

2/4/2025
Date

THE STATE OF Texas §

County of Dallas §

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

GIVEN under my hand and seal of office on this 4th day of February 2025

NOTARY PUBLIC

Tiffany L. Collins
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: September 22, 2027

TIFFANY L COLLINS
Notary ID #134571328
My Commission Expires
September 22, 2027

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

I Raymond McNiece,
Print Name

Regional Gasoline Environmental Compliance Manager (RGECM),
Title - Owner/President/Other

of 7-Eleven, Inc.,
Corporation/Partnership/Entity Name

have authorized _____
Print Name of Agent/Engineer

of Aptim Environmental and Infrastructure 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.

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SIGNATURE PAGE:

Applicant's Signature

2/4/2025
Date

THE STATE OF Texas §

County of Dallas §

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

GIVEN under my hand and seal of office on this 4th day of February, 2025.

NOTARY PUBLIC

Tiffany L. Collins
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: September 22, 2027

TIFFANY L COLLINS
Notary ID #134571328
My Commission Expires
September 22, 2027

APPENDIX G

APPLICATION FEE FORM

(TCEQ-0574)

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program
Application Fee Form

NAME OF PROPOSED REGULATED ENTITY: 7-Eleven, Inc. Store No. 40569
REGULATED ENTITY LOCATION: 2700 Hunter Road Unit B, San Marcos, TX 78666
NAME OF CUSTOMER: 7-Eleven, Inc.
CONTACT PERSON: Jessica Jones PHONE: 940-395-1937
(Please Print)

Customer Reference Number (if issued): CN 600240329 (nine digits)

Regulated Entity Reference Number (if issued): RN 102921442 (nine digits)

Austin Regional Office (3373) ☒ Hays ☐ Travis ☐ Williamson

San Antonio Regional Office (3362) ☐ Bexar ☐ Comal ☐ Medina ☐ Kinney ☐ Uvalde

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 (Check One):

☒ **Austin Regional Office**

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

☐ **San Antonio Regional Office**

☐ **Overnight Delivery to TCEQ**:
TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
512/239-1278

Site Location (Check All That Apply): ☐ Recharge Zone ☐ Contributing Zone ☒ Transition Zone

Type of Plan	Size	Fee Due
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	Acres	$
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	2 USTs at $650 Each	$ 1,300.00
Piping System(s)(only)	Each	&
Exception	Each	$
Extension of Time	Each	$

Signature

03/07/2025
Date

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.

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

Water Pollution Abatement Plans and Modifications
Contributing Zone Plans and Modifications

PROJECT	PROJECT AREA IN ACRES	FEE
One Single Family Residential Dwelling	< 5	$650
Multiple Single Family Residential and Parks	< 5 5 < 10 10 < 40 40 < 100 100 < 500 ≥ 500	$1,500 $3,000 $4,000 $6,500 $8,000 $10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1 1 < 5 5 < 10 10 < 40 40 < 100 ≥ 100	$3,000 $4,000 $5,000 $6,500 $8,000 $10,000

Organized Sewage Collection Systems and Modifications

PROJECT	COST PER LINEAR FOOT	MINIMUM FEE MAXIMUM FEE
Sewage Collection Systems	$0.50	$650 - $6,500

Underground and Aboveground Storage Tank System Facility Plans and Modifications

PROJECT	COST PER TANK OR PIPING SYSTEM	MINIMUM FEE MAXIMUM FEE
Underground and Aboveground Storage Tank Facility	$650	$650 - $6,500

Exception Requests

PROJECT	FEE
Exception Request	$500

Extension of Time Requests

PROJECT	FEE
Extension of Time Request	$150

TCEQ ePay Receipt

APPENDIX H

CORE DATA FORM

(TCEQ-10400)

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

☒ Other **EAPP Modification**

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number *(if issued)*
CN 600240329		**RN 102921442**

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy) 02/XX/2024

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

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

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

7-Eleven, Inc.

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*
		17510851318	

11. Type of Customer:

☒ Corporation ☐ Individual Partnership: ☐ General ☐ Limited
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees

☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☒ 501 and higher

13. Independently Owned and Operated?

☐ **Yes** ☒ **No**

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

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

15. Mailing Address:

PO Box 711

City	Dallas	State	TX	ZIP	75221	ZIP + 4	0711

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*
	Bill.Holcomb@7-11.com

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

(925) 785-6808		( ) -

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.)*

7-Eleven, Inc. Store No. 40569

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	2700 Hunter Road, Unit B							
	City	San Marcos	**State**	TX	**ZIP**	78666	**ZIP + 4**	
24. County	Hays							

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

25. Description to Physical Location:	Property is located at the W corner of Hunter Rd. and S. Suttle Ave.				
26. Nearest City			**State**	**Nearest ZIP Code**	
San Marcos			TX	78666	

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:	29.852639		**28. Longitude (W) In Decimal:**	-97.974104	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
29	51	9.50	97	58	26.77

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)
5411	5541	447110	447190

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

Retail Petroleum Facility

34. Mailing Address:								
	City		**State**		**ZIP**		**ZIP + 4**	
35. E-Mail Address:								

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

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
		11-98081401		
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☒ Petroleum Storage Tank	☐ PWS
			18194	
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

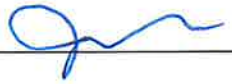
SECTION IV: Preparer Information

40. Name:	Jessica Jones	**41. Title:**	Project Manager

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(940) 395-1937		( ) -	Jessica.Jones@aptim.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:	Aptim Environmental & Infrastructure LLC (on behalf of 7-Eleven, Inc.)	**Job Title:**	Project Manager
Name *(In Print):*	Jessica Jones	**Phone:**	(940) 395- **1937**
Signature:		**Date:**	03/07/2025

North American Industry Classification System

2012 NAICS Definition

T = Canadian, Mexican, and United States industries are comparable.

447110 Gasoline Stations with Convenience Stores

This industry comprises establishments engaged in retailing automotive fuels (e.g., diesel fuel, gasohol, gasoline) in combination with convenience store or food mart items. These establishments can either be in a convenience store (i.e., food mart) setting or a gasoline station setting. These establishments may also provide automotive repair services.

Cross-References. Establishments primarily engaged in--

- Retailing automotive fuels without a convenience store--are classified in Industry 447190, Other Gasoline Stations; and
- Retailing a limited line of goods, known as convenience stores or food marts (except those with fuel pumps)--are classified in Industry 445120, Convenience Stores.

2002 NAICS	2007 NAICS	2012 NAICS	Corresponding Index Entries
447110	447110	447110	Convenience food with gasoline stations
447110	447110	447110	Gasoline stations with convenience stores
447110	447110	447110	Gasoline with convenience stores

NAICS Code 447190 Other Gasoline Stations

- Classification /
- Retail Trade /
- Gasoline Stations /
- Gasoline Stations /
- Other Gasoline St... /
- Other Gasoline Stations

Industry

Retail Trade

Description

this industry comprises establishments known as gasoline stations (except those with convenience stores) primarily engaged in one of the following: (1) retailing automotive fuels (e.g., diesel fuel, gasohol, gasoline, alternative fuels) or (2) retailing these fuels in combination with activities, such as providing repair services; selling automotive oils, replacement parts, and accessories; and/or providing food services.

Cross References

establishments primarily engaged in-- repairing motor vehicles without retailing automotive fuels--are classified in industry group 8111, automotive repair and maintenance; and retailing automotive fuels in combination with a convenience store or food mart--are classified in industry 447110, gasoline stations with convenience stores.

Illustrative Examples

gasoline stations without convenience stores truck stops marine service stations

Industries Included

- Gasoline stations without convenience stores
- Marine service stations
- Service stations, gasoline
- Truck stops

Industry Leaders

- Travel Centers Of America
- Kayo Oil Co
- Certified Oil Co
- Erickson Oil Prods Inc
- Triple S Petroleum
- Love's Travel Stops & Country
- Tri Star Energy LLC
- Conoco Phillips Petroleum-Los Angeles Refinery
- Pilot Flying J
- E & C Enterprises Inc

Source: https://siccode.com/en/naicscodes/447190/other-gasoline-station