Texas Commission on Environmental Quality

Waste Permits Division Correspondence Cover Sheet

Date: 17 September 2024
Facility Name: Texas Star Property West
Permit or Registration No.: 62054

Nature of Correspondence:
☐ Initial/New
☒ Response/Revision to TCEQ Tracking No.: 29838265 (from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

Table 1 - Municipal Solid Waste Correspondence

Applications	Reports and Notifications
☐ New Notice of Intent	☐ Alternative Daily Cover Report
☐ Notice of Intent Revision	☐ Closure Report
☒ New Permit (including Subchapter T)	☐ Compost Report
☐ New Registration (including Subchapter T)	☐ Groundwater Alternate Source Demonstration
☐ Major Amendment	☐ Groundwater Corrective Action
☐ Minor Amendment	☐ Groundwater Monitoring Report
☐ Limited Scope Major Amendment	☐ Groundwater Background Evaluation
☐ Notice Modification	☐ Landfill Gas Corrective Action
☐ Non-Notice Modification	☐ Landfill Gas Monitoring
☐ Transfer/Name Change Modification	☐ Liner Evaluation Report
☐ Temporary Authorization	☐ Soil Boring Plan
☐ Voluntary Revocation	☐ Special Waste Request
☐ Subchapter T Disturbance Non-Enclosed Structure	☐ Other:
☐ Other:	

Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Responses
☐ New	☐ Annual/Biennial Site Activity Report
☐ Renewal	☐ CPT Plan/Result
☐ Post-Closure Order	☐ Closure Certification/Report
☐ Major Amendment	☐ Construction Certification/Report
☐ Minor Amendment	☐ CPT Plan/Result
☐ CCR Registration	☐ Extension Request
☐ CCR Registration Major Amendment	☐ Groundwater Monitoring Report
☐ CCR Registration Minor Amendment	☐ Interim Status Change
☐ Class 3 Modification	☐ Interim Status Closure Plan
☐ Class 2 Modification	☐ Soil Core Monitoring Report
☐ Class 1 ED Modification	☐ Treatability Study
☐ Class 1 Modification	☐ Trial Burn Plan/Result
☐ Endorsement	☐ Unsaturated Zone Monitoring Report
☐ Temporary Authorization	☐ Waste Minimization Report
☐ Voluntary Revocation	☐ Other:
☐ 335.6 Notification	
☐ Other:	

SQ Environmental, LLC
P.O. Box 1991
Austin, TX 78767-1991
(512) 900-7731
www.SQEnv.com

17 September 2024

Arin Anderson, Project Manager
Municipal Solid Waste Permits – MC 124
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Via E-Mail: [redacted]

RE: Response to TCEQ NOD4 E-Mail Dated 9 September 2024; MSW Tracking No. 29838265
Application for Development Permit for Proposed Enclosed Structure
Texas Star Property West, 11450 Trinity Blvd, Euless, Tarrant County, Texas 76040
MSW Authorization No. 62054; VCP No. 3237; RN100729763; CN604539007
SQE PN: 1098.015.003

Dear Ms. Anderson:

SQ Environmental, LLC (SQE) prepared this letter in response to the Texas Commission on Environmental Quality (TCEQ) fourth notice of deficiency (NOD4) e-mail dated 9 September 2024 regarding the *Application for Development Permit for Proposed Enclosed Structure* (Application) for the Texas Star Property West, located at 11450 Trinity Boulevard (Blvd) in Euless, Texas. The initial Application was submitted to TCEQ on 1 March 2024. TCEQ comments regarding the Application were received on 4 April, 28 May, 2 July, and most recently 9 September 2024. Responses to the first three NODs were previously submitted to TCEQ. Responses to TCEQ's NOD4 comments are provided below. Attached to this letter are Revision 4 versions of Application Form TCEQ-20785 and marked (redline) and unmarked ("clean") replacement pages of the Application.

For convenience, TCEQ NOD comments have been numbered and are shown below (*in italics*) followed by the responses.

TCEQ Comment 1: Attachment 1-2 states: "… exposed waste area will be temporarily covered with clean soil or other materials as soon as practical, but no later than the end of the day unless covering is impractical. If an area of exposed waste remains exposed for more than 24 hours…" In accordance with 330.955(h), waste must always be covered overnight. Review and revise this narrative to meet this requirement.

Response to Comment 1: Language in Section 1 regarding exposed waste has been revised to state that no waste will be left exposed overnight. Revision 4 replacement pages for Section 1 of the Application are provided with this letter.

TCEQ Comment 2: Conduits carrying fluid which use the lined trench method need to have two feet of compacted clay on the bottom and sides of the trench underneath the geomembrane. Please revise Attachment 2 Figure 2 and narratives describing conduits carrying fluids so that a trench is excavated, two feet of compacted clay are placed along the bottom and up the sides of the trench and then covered with a geomembrane.

a) Clarify in the figure notes that storm sewer lines will also have double containment.

Response to Comment 2: As discussed in the meeting between SQE and TCEQ MSW Permits on 11 September 2024, based on discussions with the project construction contractors, it is not feasible to install

2 ft of compacted clay on the sides of the trenches, as there is no way to compact the clay horizontally. The bottom of the trench will be covered with 2 ft of compacted clay, followed by an HDPE 30-mil liner installed on the bottom and sides of the trench. The conduit for carrying fluids will then be placed above the HDPE liner in the trench and clean backfill added to the sides. The HDPE liner will extend approximately 1 ft on top of the trench, be overlapped, and sealed. The note on Figure 2 of Attachment 9 has been clarified to state that the storm sewer lines will also have this same double-containment. Revision 4 replacement pages for Sections 1, 9, and 12 of the Application are provided with this letter.

TCEQ Comment 3: Revise elevator pit figures and narratives so that two feet clay is on the bottom and up the sides, and that foundation requirements of 330.957(m) extend under the elevator pit.

a) Provide plans that label where the elevator(s) will be located.

Response to Comment 3: The elevator pit figure and narrative have been revised to show a 2 ft layer of compacted clay-rich soil with a permeability not greater than 1x10E-7 cm/sec on the sides and bottom of the elevator pit. The VMS will be installed above the clay. Revision 4 replacement pages for Sections 1 and 9 of the Application, including a revised Figure 3 of Attachment 9, and an additional Site Plan in Attachment 14 showing the locations of the elevators are provided with this letter.

TCEQ Comment 4: Provide a Closure plan to ensure two feet of cover is provided. Please demonstrate that there is no waste within two feet of the soil disturbance in areas where there will not be buildings or pavement, e.g. courtyards, grass, and landscaping, or provide a final cover meeting the requirements of 30 TAC 330.453(a) and (b) in accordance with 30 TAC 330.957(q). Review and revise Attachment 11 as necessary.

Response to Comment 4: The Closure Plan in Section 11 has been revised. Eighteen inches of compacted clayey soil that is free of waste and 6 inches of topsoil will be present in areas of soil disturbance that are not covered by buildings, asphalt, or pavement. Revision 4 replacement pages for Section 11 of the Application and an added Figure 1 of Attachment 11 showing the grass/landscaped areas are provided with this letter.

TCEQ Comment 5: Clarify throughout the application that when stating "plastic barrier" the intention is to use an HDPE geomembrane liner.

Response to Comment 5: The term "plastic barrier" has been clarified to read "HDPE geomembrane liner" where applicable. Revision 4 replacement pages for Section 12 of the Application are provided with this letter.

TCEQ Comment 6: Provide pool cross section(s) that include depiction of the sides of the pool details.

a) Explain in Attachment 9 how the topsoil protective cover will remain in place on the sidewalls during pool construction.

b) Explain in Attachment 9 how the topsoil protective cover will support the water-filled pool.

Response to Comment 6: Topsoil will no longer be used in the construction of the pool. The swimming pool will be lined with a HDPE 60-mil sealed geomembrane liner over at least 2 ft of compacted, clay-rich soil with a permeability not greater than 1x10E-7 cm/sec. Clean fill will be installed under and on the sides of the pool. Revision 4 replacement pages for Sections 1 and 9 of the Application, including a revised Figure 1 of Attachment 9, are provided with this letter.

TCEQ Comment 7: Clarify in the Attachment 12 Page 5 narrative that all documents listed in 330.961(a)(1) will be considered part of the operating record and maintained on site.

Response to Comment 7: Page 5 in Section 12 has been clarified to state that all documents listed in §330.961(a)(1) will be considered part of the operating record and maintained onsite. Revision 4 replacement pages for Section 12 of the Application are provided with this letter.

TCEQ Comment 8: Pursuant to 330.957(i), provide site drawing(s) that indicate the location of all waste disposal areas. For example, either a pair of lines as east and west limits or a drawing note that the entire site is a closed MSWLF.

Response to Comment 8: A Site Plan has been added to Attachment 14 that shows the limits of subsurface waste, which is the subject property boundary. The additional Site Plan is provided with this letter.

CLOSING

Please let us know if you have any questions or would like to discuss this further. Sam may be reached by phone at 512-574-1199 or e-mail at [redacted] and Susan may be reached by phone at 512-656-9445 or e-mail at [redacted]

Sincerely,
SQ Environmental, LLC

Sam Enis, P.G.
Principal Project Manager

Susan T. Litherland, P.E.
Principal

FORM TCEQ-20785 REPLACEMENT PAGES – REVISION 4

Texas Commission on Environmental Quality

Application for Development Permit for Proposed Enclosed Structure Over Closed Municipal Solid Waste Landfill

Application Tracking Information

Applicant Name: Stonehawk Capital Partners, LLC

Facility Name: Texas Star Property West

Development Permit Number: 62054

Initial Submission Date: 28 February 2024

Revision Date: 17 September 2024

Use this form to apply for a development permit for proposed enclosed structure over a closed municipal solid waste (MSW) landfill. Rules about use of land over a closed MSW landfill are in Title 30, Texas Administrative Code[1], Chapter 330, Subchapter T. Instructions for completing this form are provided in form TCEQ 20785-instr[2]. Include a Core Data Form, available at www.tceq.texas.gov/goto/coredata with the application. If you have questions, contact the Municipal Solid Waste Permits Section by email to [redacted] or by phone at 512-239-2335.

If you have an existing enclosed structure, use form TCEQ-20786[3], Registration for Existing Enclosed Structure Over Closed Municipal Solid Waste Landfill. If you are proposing a non-enclosed structure, use form TCEQ-20787[4], Authorization to Disturb Final Cover Over Closed Municipal Solid Waste Landfill for Non-Enclosed Structure.

Application Data

1. Application Type

☒ New Development Permit ☐ Revisions of Existing Permit

☐ Transfer of an Existing Permit

If existing Permit, indicate the Permit Number: _____

2. Submission Type

☐ Initial Submission ☒ Notice of Deficiency (NOD) Response

[1] www.tceq.texas.gov/goto/view-30tac
[2] www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/20785-instr.pdf
[3] www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/20786.pdf
[4] www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/20787.pdf

3. Application Fee

The application fee for a development permit is $2,500.

☒ Paid by Check

☐ Paid Online

If paid online, ePay Confirmation Number: _____

4. Enrollment in Other TCEQ Programs

Indicate if the site is enrolled in the Voluntary Cleanup Program or other Remediation Program.

☒ Yes ☐ No

If Yes, indicate the program: VCP No. 3237; PST No. 67148; MSW Permit No. 67123 (Pending for East Side)

5. Development Type

Is the development a single-family or double-family home that is not part of a housing subdivision?

☐ Yes ☒ No

If "Yes", the construction is exempt from the development permit requirement.

6. Enclosed Structure Description

Provide a brief description of the proposed enclosed structure for which the development permit is requested.

The planned future use of the subject property is a multi-family residential development that includes four buildings, which are planned to have at or near grade foundations. The total square footage of buildings is 203,526 sqft and the total square footage for pavement is 216,640 sqft. No subsurface parking or other subsurface structures are planned. The only excavations that will be performed are for utilities (which will likely be limited to the upper 3 to 4 ft), an elevator pit (which will likely extend no more than about 6 to 8 ft bgs), and a swimming pool (no deeper than 10 ft bgs). A VMS with methane monitors will be installed for the four buildings to address the elevated methane concentrations in the subsurface, which are confined to 10 ft bgs. Groundwater in the saturated zone (24 to 30 ft bgs) is not impacted.

7. Soil Tests

Size of the property (acres): Approx 7.30

Was the existence of the landfill determined through:

☐ Test I

☐ Test II

☒ Test III

☐ Other. Please describe: _____

If soil tests were performed prior to development in accordance with 30 TAC §330.953, the test results shall be included in this application.

8. Notification of MSW Landfill Determination

If soil tests were used to determine the presence of a closed MSW landfill, provide evidence that the engineer who performed the soil tests has notified the following persons of that determination in accordance with 30 TAC §330.953(d).

- ■ Each owner and lessee
- ■ Executive Director
- ■ Local Government Officials
- ■ Regional Council of Governments

9. Landfill Permit Status

What is the permit status of the landfill?

- ☐ Active MSW Permit
- ☐ Landfill in Post-Closure Care
- ☐ Revoked MSW Permit
- ■ Non-Permitted Landfill

If the landfill is still in the post-closure care period subject to an active MSW Permit, this development permit application for proposed enclosed structures shall be accompanied by a Permit Modification application prepared in accordance with 30 TAC §305.70, and by a certification signed by an independent engineer in accordance with 30 TAC §330.957(b)(2).

If the landfill has completed the post-closure care period, but the MSW permit has not been revoked (site affected by an active MSW Permit), a Voluntary Revocation request of the MSW Permit shall be submitted in accordance with 30 TAC §330.465 prior to the submittal of this development permit application for proposed enclosed structures over a closed MSW landfill.

10. Application URL

Enter the URL address of a publicly accessible internet web site where the application and all revisions to that application will be posted in the box below:

www.tceq.texas.gov/goto/wasteapps

11. Public Place for Copy of Application

Name of the Public Place: Euless Public Library

Physical Address: 201 N Ector Dr

City: Euless County: Tarrant State: TX Zip Code: 76039

Phone Number: 817-685-1480

Normal Operating Hours: 9am to 5pm or 6pm or 8pm

12. Party Responsible for Publishing Notice

Indicate who will be responsible for publishing notice:

☐ Applicant ☒ Consultant

Contact Name: Sam Enis

Title: Principal Project Manager

Email Address: [redacted]

13. Alternative Language Notice

Use the Alternative Language Checklist on Public Notice Verification Form TCEQ-20244-Waste-NAORPM available at www.tceq.texas.gov/permitting/waste_permits/msw_permits/msw_notice.html to determine if an alternative language notice is required.

Is an alternative language notice required for this application?

☒ Yes ☐ No

Indicate the alternative language: Spanish

14. Confidential Documents

Does the application contain confidential documents?

☐ Yes ☒ No

If "Yes", cross-reference the confidential documents throughout the application and submit as a separate attachment in a binder clearly marked "CONFIDENTIAL."

15. Permits and Construction Approvals

Mark the following tables to indicate status of other permits or approvals.

Permits and Construction Approvals

Permit or Approval	Received	Pending	Not Applicable
Zoning Approval	X		
Preliminary Subdivision Plan		X	
Final Plat		X	
Fire Inspector's Approval		X	
Building Inspector's Approval on Plans		X	
Water Service Tap		X	
Wastewater Service Tap		X	
On-site Wastewater Disposal System Approval			X

Other Environmental Permits

Other Environmental Permits (list)	Received	Pending

16. General Project Information

Facility Name: Texas Star Property West

SubT Development Permit Number (if available): 62054

Regulated Entity Reference Number (if issued): **RN** 100729763

Street or Physical Address: 11450 Trinity Blvd

City: Euless County: Tarrant State: TX Zip Code: 76040

Phone Number: Vacant/Undeveloped

If Regulated Entity Reference Number has not been issued for the facility, complete a Core Data Form (TCEQ-10400) and submit it with this application.

17. Contact Information

Applicant (Lessee/Project Owner)

Name: Stonehawk Capital Partners, LLC

Customer Reference Number (if issued): **CN** 604539007

Mailing Address: 4550 Travis St, Suite 565

City: Dallas County: Dallas State: TX Zip Code: 75205

Phone Number: 714-679-2919

Email Address: [redacted]

If Customer Reference Number has not been issued, complete a Core Data Form (TCEQ-10400) and submit it with this application. List the Applicant as the Customer.

Property Owner

Name: HMH Family Partnership LP

Mailing Address: 1104 Dayton Dr

City: Lantana County: Denton State: TX Zip Code: 76226

Phone Number: 972-672-2053

Email Address: --

If the Property Owner is the same as Applicant, indicate "Same as "Applicant".

Consultant (if applicable)

Firm Name: SQ Environmental, LLC

Texas Board of Professional Engineers and Land Surveyors Firm Number: F-15202

Mailing Address: PO Box 1991

City: Austin County: Travis State: TX Zip Code: 78767

Consultant Name: Susan T. Litherland, P.E.

Phone Number: 512-656-9445

Email Address: [redacted]

Engineer Who Performed Soil Tests

Firm Name: ECS Southwest, LLP

Texas Board of Professional Engineers and Land Surveyors Firm Number: F-8461

Mailing Address: 2621 White Settlement Rd

City: Fort Worth County: Tarrant State: TX Zip Code: 76107

Engineer Name: Mark Zortman, P.E. (TX No. 99872)

Phone Number: 682-350-2250

Email Address: [redacted]

18. Other Governmental Entities Information:

Fire Chief, Fire Marshal or Fire Inspector Information

Fire Department Name: Bureau of Fire Prevention

Person's Name: James Davis

Mailing Address: 200 Texas St, Lower Level

City: Fort Worth County: Tarrant State: TX Zip Code: 76102

Phone Number: 817-392-6840

Email Address: [redacted]

Local Floodplain Authority (if applicable)

Authority Name: City of Fort Worth, Floodplain Management & Regulations

Contact Person's Name: Lauren Prieur

Street or P.O. Box: 200 Texas St, 2nd Floor

City: Fort Worth County: Tarrant State: TX Zip Code: 76102

Phone Number: 817-392-1234

Email Address: [redacted]

City Mayor Information

City Mayor's Name: Mattie Parker

Office Address: 200 Texas St

City: Fort Worth County: Tarrant State: TX Zip Code: 76102

Phone Number: 817-392-6118

Email Address: mattie.parker@fortworthtexas.gov

City Health Authority Information

Contact Person's Name: Cody Whittenburg

Office Address: 818 Missouri Ave

City: Fort Worth County: Tarrant State: TX Zip Code: 76104

Phone Number: 817-392-5455

Email Address: [redacted]

Director of Public Works

Department Name: City of Fort Worth, Transportation & Public Works

Contact Person's Name: Lauren Prieur

Office Address: 200 Texas St, 2nd Floor

City: Fort Worth County: Tarrant State: TX Zip Code: 76102

Phone Number: 817-392-1234

Email Address: [redacted]

Director of Utilities

Utility Name: City of Fort Worth, Water Department

Contact Person's Name: Christopher Harder

Office Address: 908 Monroe St

City: Fort Worth County: Tarrant State: TX Zip Code: 76102

Phone Number: 817-392-4477

Email Address [redacted]

Director of Planning

Agency Name: City of Fort Worth, Planning Division

Contact Person's Name: Eric Fladager

Office Address: 200 Texas St, 3rd Floor

City: Fort Worth County: Tarrant State: TX Zip Code: 76102

Phone Number: 817-392-8011

Email Address: [redacted]

Building Inspector

Agency Name: City of Fort Worth, Development Services, Inspections

Contact Person's Name: D.J. Harrell

Office Address: 200 Texas St, Lower Level

City: Fort Worth County: Tarrant State: TX Zip Code: 76102

Phone Number: 817-392-2222

Email Address: [redacted]

County Judge Information

County Judge's Name: Judge Tim O'Hare

Office Address: 100 E Weatherford St, Ste 501

City: Fort Worth County: Tarrant State: TX Zip Code: 76196

Phone Number: 817-884-1441

Email Address: [redacted]

County Engineer Information

County Engineer's Name: Joseph Jackson

County Engineer's P.E. Registration No.: TX No. 129546

Office Address: 100 E Weatherford St, Ste 401

City: Fort Worth County: Tarrant State: TX Zip Code: 76196

Phone Number: 817-884-1153

Email Address: [redacted]

County Health Authority

Agency Name: Tarrant County Public Health

Contact Person's Name: Dr. Brian Byrd

Office Address: 1101 S Main St, Ste 2300

City: Fort Worth County: Tarrant State: TX Zip Code: 76104

Phone Number: 817-248-6299

Email Address: [redacted]

State Representative Information

District Number: 94

State Representative's Name: Rep. Tony Tinderholt

District Office Address: 1000 Ballpark Way, Ste 310

City: Arlington County: Tarrant State: TX Zip Code: 76011

Phone Number: 817-476-2660

Email Address: [redacted]

State Senator Information

District Number: 9

State Senator's Name: Sen. Kelly Hancock

District Office Address: 306 W Seventh Street, Ste 508

City: Fort Worth County: Tarrant State: TX Zip Code: 76102

Phone Number: 817-332-1131

Email Address: [redacted]

Council of Government (COG)

COG Name: North Central Texas Council of Governments

COG Representative's Name: Susan Alvarez

COG Representative's Title: Director, Environment & Development

Street Address or P.O. Box: Centerpoint II, 616 Six Flags Dr

City: Arlington County: Tarrant State: TX Zip Code: 76011

Phone Number: 817-695-9211

Email Address: [redacted]

Local Government Jurisdiction

Is the property located within the limits or in the ETJ of any City?

■ Yes ☐ No

If "Yes" city regulations may apply. Issuance of Development Permit for an Enclosed Structure does not exempt the applicant from complying with city codes and zoning.

Within City Limits of: Fort Worth

Within Extraterritorial Jurisdiction of City of: _____

19. Deed Recordation

■ Verify that the property owner filed a written notice for record in the real property records in the county where the land is located in accordance with 30 TAC §330.962 stating: (a) the former use of the land; (b) the legal description of the tract of land that contains the closed MSW landfill; (c) notice that restrictions on the development or lease of the land exist in the Texas Health and Safety Code and in MSW rules; and (d) the name of the owner.

■ A certified copy of the Notice to Real Property Records is included in this application in accordance with 30 TAC §330.957(p).

20. Notice to Buyers, Lessees, and Occupants of the Structure

Did the property owner give written notice to all prospective buyers, lessees and/or occupants of the structure in accordance with 30 TAC §330.963 stating the land's former use as a landfill, and the structural controls in place to minimize potential future danger posed by the closed MSW landfill?

☐ Yes ■ New Structure Not Yet Constructed

If "Yes" certified copies of the notices shall be submitted to TCEQ in accordance with 30 TAC §330.957(p).

If "New Structure Not Yet Constructed" a draft notice to all prospective buyers, lessees and/or occupants of the proposed structure, and procedures for its implementation upon structure's construction shall be included in this application.

21. Notice of Lease Restrictions on the Property

Is the property leased?

☐ Yes ■ No

If "Yes", verify that the property owner provided written notice to all prospective lessees of the property in accordance with 30 TAC §330.964 concerning:

☐ (a) what is required to bring the property into compliance with 30 TAC Chapter 330, Subchapter T?

☐ (b) the prohibitions or requirements for future disturbance of the final cover?

☐ A certified copy of the notice is included in the application in accordance with 30 TAC §330.957(p).

Professional Engineer's Certification of No Potential Threat to Public Health or the Environment

The applicant's engineer for this project shall complete one of the following certifications:

"I, _____, Texas PE Number _____, certify that the proposed development is necessary to reduce a potential threat to public health or the environment. Further, I certify that the proposed development will not damage the integrity or function of any component of the Closed Municipal Solid Waste Landfill Unit, including, but not limited to, the final cover, containment systems, monitoring system, or liners. This certification includes all documentation of all studies and data on which I relied in making these determinations."

Engineer's seal, with signature and date:

Engineering Firm Name: _____

Texas Board of Professional Engineers and Land Surveyors Firm Number: _____

Or:

" I, Susan T. Litherland, P.E., Texas PE Number 57428, certify that the proposed development will not increase or create a potential threat to public health or the environment. Further, I certify that the proposed development will not damage the integrity or function of any component of the Closed Municipal Solid Waste Landfill Unit, including, but not limited to, the final cover, containment systems, monitoring system, or liners. This certification includes all documentation of all studies and data on which I relied in making these determinations."

Engineer's seal, with signature and date:

9/13/24

Engineering Firm Name: SQ Environmental, LLC

Texas Board of Professional Engineers and Land Surveyors Firm Number: F-15202

Signature Page

Applicant Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Brandon Hopkins Title: Director of Construction, Stonehawk

Signature: [signature] Date: 9-16-24

Email Address: [redacted]

SUBSCRIBED AND SWORN to before me by the said Brandon Hopkins

On this 16th day of September, 2024

My commission expires on the 3rd day of February, 2026

Notary's Name: Willion Hunter Sanders

Notary Public in and for

Dallas County, Texas

WILLIAM HUNTER SANDERS
Notary Public, State of Texas
Comm. Expires 02-03-2026
Notary ID 133569645

Property Owner Authorization

To be completed by the property owner if the property owner is not the applicant.

I _____, the owner of the property identified by the address _____,hereby authorize the applicant to proceed with the project described in this application, and to apply for any necessary authorizations in order to conduct this project. I understand that, as property owner, I am responsible for maintaining the integrity of the final cover over the closed MSW landfill.

Property Owner Name: _____

Signature: _____ Date: _____

Email Address: _____

SUBSCRIBED AND SWORN to before me by the said _____

On this _____ day of _____, _____

My commission expires on the _____ day of _____, _____

Notary's Name: _____

Notary Public in and for

_____ County, Texas

Signature Page

Applicant Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: _____ Title: _____

Signature: _____ Date: _____

Email Address: _____

SUBSCRIBED AND SWORN to before me by the said _____

On this _____ day of _____, _____

My commission expires on the _____ day of _____, _____

Notary's Name: _____

Notary Public in and for

_____ County, Texas

Property Owner Authorization

To be completed by the property owner if the property owner is not the applicant.

I HMH Family Partnership LP / Julie Moore, the owner of the property identified by the address 11450 Trinity Boulevard, Euless, TX 76040, hereby authorize the applicant to proceed with the project described in this application, and to apply for any necessary authorizations in order to conduct this project. I understand that, as property owner, I am responsible for maintaining the integrity of the final cover over the closed MSW landfill.

Property Owner Name: HMH Family Partnership LP / Julie Moore

Signature: _____ Date: 9/16/24

Email Address: [redacted]

SUBSCRIBED AND SWORN to before me by the said Julie Moore

On this 16th day of September, 2024

My commission expires on the 14th day of March, 2028

Notary's Name: Camryn Rosenau

Notary Public in and for

Denton County, Texas

CAMRYN ROSENAU
Notary Public, State of Texas
Comm. Expires 03-14-2028
Notary ID 134807235

Attachments for New Development Permit

Required Attachments

A. Narrative

Attachment	Attachment Number
Proposed Project Description	1
Existing Conditions Summary	2
Legal Authority	3
Evidence of Competency	4
Notice of Engineer Appointment	5
Notices of Coordination with Governmental Agencies and Officials	6
Geology and Soil Statement	7
Groundwater and Surface Water Statement	8
Foundation Plans	9
Soil Tests	10
Closure Plan	11
Structures Gas Monitoring Plan	12
Site Operating Plan	12
Safety and Evacuation Plan	12

B. Maps and Plans

Attachment	Attachment Number
Adjacent Landowners Map	13
Adjacent Landowners List	13
Electronic List or Mailing Labels	13
General Location Map	2
General Topographic Map	2
Site Layout Plan with Limits of Waste Disposal Area	14
Foundation Plans	9
Structure Layout Plan	9
Methane Monitoring Equipment Location Plans	9
Construction Details and Engineering Drawings	9

C. Copies of Legal Documents

Attachment	Attachment Number
Property Legal Description	15
Notice of Landfill Determination	16
Notice to Real Property Records	16
Notices to Buyers, Lessees, and Occupants	17
Notices of Lease Restrictions (if applies)	Not applicable

Additional Attachments as Applicable

Attachment	Attachment Number
■ TCEQ Core Data Form(s)	18
☐ Confidential Documents	
■ Soil Tests Boring Logs	10
■ Other maps, plans and engineering drawings	20
☐ Methane Monitoring Equipment Specifications	
☐ Methane Monitoring Report	
☐ Waste Disposal Manifests	
■ Fee Payment Receipt	19
☐ Final Plat Record of Property	

Attachments for Revisions to Existing Development Permit

Required Attachments

A. Revised Pages

Attachment	Attachment Number
Marked (Redline/Strikeout) Pages	A
Unmarked Revised Pages	B

B. Narrative

Attachment	Attachment Number
Description of Proposed Revisions	Cover Letter
Foundation Plans (if revised)	9
Closure Plan (if revised)	11
Site Operating Plan (if revised)	12
Structures Gas Monitoring Plan (if revised)	12
Safety and Evacuation Plan (if revised)	

C. Maps and Plans

Attachment	Attachment Number
General Location Map	
Site Layout Plan	14
Structure Layout Plan	
Methane Monitoring Equipment Location Plans	

Additional Attachments as Applicable

Attachment	Attachment Number

ATTACHMENT A
MARKED (REDLINE) APPLICATION REPLACEMENT PAGES – REVISION 4

REVISION 4 -
APPLICATION FOR DEVELOPMENT PERMIT
FOR PROPOSED ENCLOSED STRUCTURE

TEXAS STAR PROPERTY WEST
11450 TRINITY BOULEVARD
EULESS, TARRANT COUNTY, TEXAS 76040

Prepared for:

Texas Commission on Environmental Quality
MSW Authorization No. 62054; Tracking No. 29838265
Voluntary Cleanup Program No. 3237
RN100729763 | CN604539007

Prepared on behalf of the Applicant:

Stonehawk Capital Partners, LLC
4550 Travis Street, Suite 565
Dallas, Texas 75205

Property Owner:

HMH Family Partnership LP
1104 Dayton Drive
Lantana, Texas 76226

Initial Submission: 28 February 2024
Revision 4 Submission: 17 September 2024

Susan T. Litherland, P.E.
Principal
Texas P.E. No. 57428, F-15202
Signed electronically on 9/17//2024

Sam Enis, P.G.
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TABLE OF CONTENTS

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Signed electronically on 9/17/2024

is impacted by the debris located above the saturated zone. The debris and groundwater beneath the subject property are not a source of contamination. None of the incidental debris is located at the ground surface, and precautions will be implemented during development of the subject property to prevent excavated material, if any, from coming into contact with stormwater. Any surface water that does come into contact with waste materials will be properly contained, characterized, and disposed of.

If excavation activities result in exposed waste, the exposed waste area will be temporarily covered with clean soil or other materials as soon as practical, but no later than the end of the day ~~unless covering is impractical~~. ~~If an area of exposed waste remains exposed for more than 24 hours, t~~The contractor will provide adequate temporary cover consisting of a minimum of 6 inches of soil or an impermeable membrane material to prevent rainfall from contacting the waste. Temporary diversion berms will be installed around the exposed waste area to prevent stormwater from contacting the waste and will be used upslope of all excavations where waste will be exposed to minimize the amount of surface water coming into contact with waste materials. In addition, temporary containment berms will be constructed around areas of exposed waste to collect surface water. At no time will water that comes into contact with waste materials be allowed to discharge to surface waters. Regarding the management procedures described above, especially the covering of waste and precautions implemented in advance of inclement weather, the generation of water that has made contact with waste materials is expected to be minimal. However, if generated, the water will be collected and disposed of in accordance with standards set forth herein and in accordance with City and State requirements for disposal of such water. Any water generated during construction will be stored onsite, then transported via vacuum truck to an approved wastewater treatment or disposal facility permitted to accept the wastewater.

The stormwater management will include measures to control sediment discharge during construction including, but not be limited to, the use of earthen berms, hay bales, and silt fencing downgradient of slopes which may experience erosion (including material stockpiles). Erosion damage from rainfall events will be repaired by the contractor after such events. All erosion control measures will also be inspected and maintained throughout the redevelopment process. Berms, when used for control of potentially impacted water, will also be maintained as necessary to control erosion. The contractor will pay special attention to erosion on any soil cover over waste materials. Any cover damage to the existing landfill, or in areas where cover must be maintained over solid waste materials that are part of construction, will be repaired immediately and steps taken to prevent a recurrence of that type of damage.

The requirements of §330.453(a), concerning the final cover system, will be implemented for the four elevator pits that are located in Building A ~~if waste is exposed during the excavation of the pit~~. The elevator pits will be over-excavated on all sides on a 4:1 slope. A 2 ft layer of clayey soil with a permeability not greater than 1x10E-7 cm/sec, compacted in layers no more than 6 inches in thickness, will be placed in the bottom and sides of the elevator pit excavation. The elevator pit will then be covered by the VMS in accordance with §330.957(m). Due to over-excavation, clean fill will be added between the VMS and the concrete slab foundation, where needed. This is shown in **Figure 3** in **Attachment 9**. If the elevator pit does not fit in-between the network of slotted vent pipes for the VMS, then the vent pipes will extend down the sides and bottom of the elevator pit. Methane sensors within the aggregate layer will be placed in or near the elevator pits, in accordance with §330.961(b)(1)D). The requirements of §330.961(g), concerning the double-containment of subgrade conduits intended for the transport or carrying of fluids over or within the subject property, and §330.331(b), regarding liner criteria for leachate for the swimming pool, will be implemented. Subgrade utility conduits will be installed with double-containment, which will be provided by the single wall utility, that is within a lined trench. On excavation, 2 ft of compacted, clay-rich soil with a permeability not greater than 1x10E-7 cm/sec will be placed in the base of the trench and a high-density polyethylene (HDPE) 30-mil sealed liner~~barrier~~ will be installed along the bottom, and sides~~, and~~

~~overlapping on top~~ of the trench and sealed. Based on discussions with the project construction contractors, it is not feasible to install 2 ft of compacted clay on the sides of the trenches, as there is no way to compact the clay horizontally. The conduit for carrying fluids will then be placed above the HDPE liner and clean fill added to the sides. This is shown in **Figure 2** in **Attachment 9**. The HDPE liner will extend approximately 1 ft on top of the trench, be overlapped, and sealed.~~The trench will then be filled with clean, compacted backfill on the bottom, clean backfill on all sides, and a on the sides and bottom of the trench.~~ In accordance with §330.453(a) and (b), 18 inches of compacted clayey soil that is free of waste and 6 inches of topsoil that can support native vegetation will be in place for utility trenches in areas that are not covered by buildings, asphalt, or pavement. The swimming pool excavation will be lined with a ~~high-density polyethylene (~~HDPE~~)~~ 60-mil sealed geomembrane liner over at least 2 ft of compacted, clay-rich soil with a permeability not greater than 1x10E-7 cm/sec, followed by clean fill. The area for the pool will be over-excavated on all sides so that the added clay may be compacted on a 4:1 slope. The HDPE liner will be placed over the clay, followed by clean fill that will protect the liner and support the pool shell. The compacted clay and HDPE liner will be installed on a slope up to the base of the pool deck. This is shown in **Figure 1** in **Attachment 9**. The pool location is restricted to the courtyard of Building 1 and will not be placed elsewhere. A quality control plan will be prepared detailing the design, materials, and procedures for construction and testing to meet liner system specifications based on Regulatory Guidance for Liner Construction and Testing for a Municipal Solid Waste Landfill (RG-534, September 2017). Construction details, plans, materials to be used, and cross-sections of the elevator pit, utility trench, pool, and the underlying waste down to native soil are provided in **Attachment 9**.

9 FOUNDATION PLANS

A VMS designed in accordance with 30 TAC 330.957(m) will be installed during development and construction of the four buildings on the subject property. The VMS includes an impermeable barrier installed below the concrete slab of the structures, followed by a 12-inch-thick permeable aggregate bed and a geotextile filter fabric, with vent risers located adjacent to the buildings. This system will allow any vapors (methane or other) that migrate though the soil to the area beneath the structures to be vented outside of the structure. The second component is a monitoring system within the VMS piping network beneath the buildings and within the buildings that will include controller units and remote sensors that can detect methane and other explosive gases. This system will have audible and visual alarms. Sample ports for field monitoring will be installed for the aggregate layer. The foundation plan and VMS design plan are included as **Attachment 9**. Geotechnical soil investigation reports are provided as **Attachments 10A** and **10B**. The Methane Monitoring Plan is discussed in **Section 12**. A Liner Quality Control Plan for the pool is provided below.

LINER QUALITY CONTROL PLAN

This Liner Quality Control Plan (LQCP) was developed for the Texas Star Property to describe the inspection and construction control and testing requirements in support of the application. This Plan was prepared in general accordance with *Guidance for Liner Construction and Testing for a Municipal Solid Waste Landfill*, TCEQ Regulatory Guidance RG-534 dated September 2017 and is intended to fulfil requirements of 30 Texas Administrative Code 330.

A General Requirements

This LQCP provides the basis for the type and rate of quality control performance testing. A copy will be maintained on site during construction or available for electronic download in the event an inspection is performed. For ease in this document preparation, any components that are not specifically addressed in this document will default to the requirements of *Guidance for Liner Construction and Testing for a Municipal Solid Waste Landfill*, TCEQ Regulatory Guidance RG-534.

B Overview of Project

As discussed in this Application, the swimming pool will be located in the courtyard of Building 1. The maximum disturbance depth at the subject property will be no deeper than 10 ft, and likely no deeper than 7 ft. The area of the pool will be over-excavated and sides sloped to allow placement of ~~excavation of the pool will be lined with a high-density polyethylene (HDPE) 60-mil sealed geomembrane liner over~~ 2 ft of compacted, clay-rich soil with a permeability not greater than 1 x 10^{-7} cm/s, with a 60-mill sealed liner. A protective cover of clean fill ~~topsoil 12-inches thick~~ will overlay the liner. A cross-section of the liner is provided on the figure included as **Attachment 9 Figure 1**.

C Soil Material Requirements

C.1 Protective Topsoil Requirements

Protective cover is required to be placed above the liner system as shown on the cross sections. Topsoil will be free of deleterious materials and not previously mixed with any onsite soils that were previously mixed with

garbage, rubbish, or other solid waste materials. Permeability must be greater than 1 x 10^{-4} cm/s. The thickness must be greater than or equal to 12 inches. Compaction is not necessary for installation and density controls are not needed; however, the contractor should place the protective topsoil as soon as possible after installation of the liner and compacted clay-rich soil.

Protective topsoil shall be placed over the HPDE liner during the coolest part of the 8-hour workday. Soil shall be deployed along the surface of the liner to control the amount of slack and minimize any damage to the liner. The liner shall be continuously monitored during installation and any damage to the liner immediately repaired. Only light equipment will be used during construction and a minimum of 12 inches of protective material must be placed on top of the liner before light construction equipment can access the area.

Protective topsoil will not have any rocks greater than 0.375 inches in diameter. The Contractor will keep the protective topsoil layer wet during dry periods to prevent cracking.

C.2 Clay-Rich Soil Requirements

Clay-rich soil will meet the following requirements. One sample from each source must be collected before any material is brought onsite. Test methods will generally follow Standard ASTM Test Methods as outlined in Table B-1 of RG-534 and will include field density, gradation analysis, Atterberg limits, and permeability.

Soil Property	*Value*
Plasticity Index (PI)	≥ 15
Liquid Limit (LL)	≥ 30
Percent Passing No. 200 Mesh Sieve	≥ 30%
Percent Passing One-Inch Sieve	= 100%
Permeability	≤ 1 x 10^{-7} cm/sec

In-situ soils will not be used for clay-rich soil. The clay-rich soil will be sampled every 1,000 cubic yards for total petroleum hydrocarbons (TPH) by Texas Method 1005 and metals SW-846 Methods to ensure the materials are suitable for use.

Clay-rich soils will be placed in three 8-inch lifts (a total of 3 lifts). Compaction testing will be performed at a frequency of every 1 acre and one per lift (minimum of three locations). The clay-rich soil will be compacted to at least 95% of standard proctor.

C.3 HDPE Liner Requirements

The HDPE Liner must have a minimum of 60 mil thickness. Recycled or reclaimed HDPE materials are not acceptable. HDPE material and required welding rods shall contain between 2 and 3% carbon black and may contain no more than 1% additives.

The liner will be inspected upon delivery for any damage and defects. The liner must be free from any pinholes, surface blemishes, scratches, or other defects that could affect the integrity of the liner. The liner will be stored at a clean and dry location onsite and protected from any objects that could damage the liner.

All manufacturer's recommendations for the installation of the liner will be followed. In addition, general installation requirements outlined in Table 3-1 of RG-534 must be followed.

- The liner will be placed above the compacted clay-rich soil that will be free of stones and rocks and other debris greater than 3/8-inch. The compacted clay-rich soil will be finished by rolling with flat wheel roller until smooth uniform surface is achieved. The subgrade areas will be inspected for any desiccation, cracks, erosion, or ponding prior to installation and repaired before liner is placed. If necessary, regular watering and proof rolling will be performed.
- Prohibit construction equipment from traveling directly on the liner.
- Do not place during inclement weather.
- Limit vehicular traffic on the liner to low-ground pressure supporting equipment only. Any damaged areas must be repaired and inspected.
- Only unroll liner sheets that are to be placed and seamed in the same day. Position liner with overlap recommended by manufacturer but not less than 3 inches. Typical overlaps are 3 to 6 inches. There should be no loose flap on the top side of the liner. Overlap distance must be sufficient so that all seam tests can be performed as described below.
- Folds, wrinkles, and fish mouths are not acceptable. Cut, overlap, and weld the material where wrinkles or folds occur. A fish mouth is defined as an area in the seam where one liner panel is first folded over on itself, and a second liner panel is placed and welded over this fold. Where fish mouths occur, the liner must be cut, overlapped, and covered with a patch.
- Use only heat-only tack welds, when necessary. No double-sided tape or glue may be used.
- Fusion or extrusion welding may be used for field seaming and repairs.
- Seaming is permitted only when ambient air conditions are below 104°F.
- At the end of each workday, all unseamed edges will be anchored with sandbags or other approved devices. No penetrating anchors are accepted (stables, U-rods).

C.4 HDPE Liner Testing Requirements

Verification of HDPE Liner Testing Requirements

Manufacturer information will be reviewed to ensure that QA/QC testing, conformance testing, and seam testing requirements of Table 3-2 of RF-534 are met.

Welds, Repair Welds, and Patches

Shear Strength – the seam, when stressed perpendicular to the direction of the weld should not under any condition fail before stretching and breaking of the liner panel adjacent to the weld. The numerical value of the shear strength of any sample should not be less than 90% of the sheet tensile strength according to manufacturer-provided information.

Trial Seam Testing

Each day, prior to commencing field seaming, each individual employee performing seaming will conduct a trial seam. Each trial seam will be 3 ft long by 1 ft wide. Trial seam criteria is outlined in Table 3-3 of RG 534.

Destructive Testing

Destructive test samples of field seams will be performed at a minimum of one stratified location for every 500 linear feet or major fraction thereof or at the direction of the Engineer. Destructive test requirements will conform with Table 3-4 of RG-534.

Non-Destructive Testing

Non-destructive tests should be performed by the Contractor or engineer on all field seams, patches, and repair welds. Accepted non-destructive test methods include vacuum box testing for extrusion welds and air-

pressure testing for dual-tract fusion welds. Specific procedures for these tests is included on Table 3-5 of RG-534.

D Documentation

Following installation, the following documentation will be compiled and kept onsite in the facility records. This will include the following elements:

- All field and laboratory test documentation.
- All test documentation.
- Liner certification information and results of manufacturer independent testing.
- Field documentation of field testing, repairs, etc.
- Photographs and field notes.
- A survey of the final liner area.

11 CLOSURE PLAN

The future development on the subject property is comprised of four multi-family apartment buildings with concrete slab-on-grade foundations. A VMS will be designed and installed beneath residential ground floor areas. The VMS will direct any vapors (methane or other) out from beneath the buildings, and the vapors monitored to verify that there is no vapor accumulation beneath the buildings. Asphalt-covered parking lots will surround the four buildings and cover other areas of the subject property.

There is no true “cap” on the property, although the upper 5 to 10 ft of soil generally does not contain debris and has a higher percentage of clay than the underlying materials. The proposed construction associated with this development permit application is not expected to result in significant removal of existing soil and is not expected to disturb soil deeper than 10 ft, and likely no deeper than 7 ft. The planned concrete slab foundations with a VMS and the asphalt cover (parking lot) will result in a similar or better impervious "cap" over portions of the subject property where incidental debris is present in the subsurface.

The remaining area that will not be covered, i.e., the interior open-air courtyard of Building 1 and green space between buildings, will conform to §330.957(q). In accordance with §330.453(a) and (b), 18 inches of compacted clayey soil that is free of waste and 6 inches of topsoil that can support native vegetation will be present in areas of soil disturbance that are not covered by buildings, asphalt, or pavement. The grass/landscaped areas are on shown on **Figure 1** of **Attachment 11**.~~will not require a closure plan. It has been demonstrated with soil vapor sampling that all methane concentration above 1% are confined to the deeper zone located 12 at ft bgs, and that groundwater is not impacted by the debris material located above the saturated zone on the subject property.~~

ATTACHMENT 11

GRASS/LANDSCAPED AREA MAP

STRUCTURES GAS MONITORING PLAN

This SGMP fulfills the requirements of 30 TAC §330.957(t). It will be part of the operating record for the development permit. A copy of this information will be maintained onsite throughout the life of the facility. The SGMP includes a VMS with an impermeable barrier installed below the structures with vent risers located adjacent to the buildings. This system will allow any vapors (methane or other) that migrate though the soil to the area beneath the structures to be vented outside of the structure, as shown in **Section 9**. A monitoring system will be installed within the VMS piping network beneath the buildings that will include controller units and remote sensors that can detect methane and other explosive gases at concentrations below 1% by volume (BV) or 20% of the Lower Explosive Limit (LEL). This system will have audible and visual alarms that will trigger if methane concentrations exceed 1% beneath a building. The monitoring system is intended to confirm that the concentration of vapor (methane or other) beneath the facility structures does not exceed 20% of the LEL. Methane sensors will also be installed within the buildings, and sample ports for field monitoring will be installed for the aggregate layer.

Facility Characteristics and Potential Migration Pathways (§330.957(t)(2)(A))

The nature and age of the incidental debris that has been found in the area of the planned structures is discussed in detail in **Section 2**. Based on soil vapor sample results described in **Section 10**, elevated methane concentrations appear to be confined to the deeper gravel zone below 10 ft from the surface, and methane does not appear to be migrating vertically to shallow soils or the surface due to the higher clay content in the upper 10 ft of soil across the properrty. Although there is no true “cap” on the property, the upper 10 ft of clayey soil appears to minimize the vertical migration of methane gas. As part of the property development, any excavations will not exceed a depth of 10 ft bgs (and likely no deeper than 7 ft bgs), leaving at least 2 ft of the overlying clayey soil at the subject property undisturbed.

The planned multi-family residential development will consist of a four-story building, a three-story building, and two two-story buildings. The planned facility layout is included in **Section 14**. The buildings will be constructed on a reinforced concrete slab foundation. The VMS, which will consist of a geotextile filter fabric, a 12-inch-thick permeable layer of aggregate with a network of vent pipes, and covered with a sealed ~~plastic barrier~~HDPE geomembrane liner, will be installed beneath each of the buildings and beneath any areas with an ignition source. The planned residential units will be leased and occupied by residents and the duration of occupation could be up to 24 hours. The foundation design and VMS will minimize the potential for any vapors in the underlaying soil to enter the buildings. Potential ignition sources include water heaters, heating, ventilation, and air conditioning (HVAC) units, and static or sparking associated with equipment. As has been discussed, monitoring of the vapors within the VMS piping network will be performed so that vapors beneath the buildings will be maintained at 20% or less of the LEL, to eliminate the potential for explosive conditions within or near the building. Methane sensors will also be installed within the buildings.

Building Design Characteristics Related to Gas Accumulation Prevention (§330.957(t)(2)(B))

As described in **Section 9**, the design of the residential structures includes several features that will minimize the potential for the accumulation of methane gas within the building. The addition of an engineered fill layer above the soil will provide additional separation and protection from potential methane gas migration. The vapor barrier and ventilation system design will be installed beneath the foundation of the ground floor residential areas and any areas where there could be an ignition source. The system will consist of a granular layer up to 12-inches in thickness, which will act as bedding for a network of slotted vent pipes. The vent pipes will be extended through any internal beams to allow venting of the area where vapors could accumulate. The pipes will be extended outside of the structure to allow venting. The granular layer and vent pipe system will be covered with a plastic layer, which will be sealed at overlaps, and all

penetrations. A geotextile filter fabric will be installed beneath the granular layer and above the structural fill. As part of the installation oversight, smoke tests will be performed on the system to verify that it is property sealed, prior to pouring of the concrete foundations. Some or all of the vent pipes will be fitted with fans so that active venting can be performed if passive venting is not sufficient to prevent the buildup of vapors under the building. The additional engineered fill, vapor barrier, and ventilation system provide the primary systems to prevent vapor migration into the structure and minimize the potential for methane gas accumulation beneath the buildings. The sub-slab gas collection system will be under negative pressure from an electric exhaust fan if and when needed. Methane is lighter than air and will dissipate upward and away from vents on each building.

The vapor monitoring system within the VMS piping network will provide continuous monitoring for methane to provide early detection and warning in the event of methane gas accumulation beneath the buildings. In addition to the monitoring equipment in the VMS piping, methane monitoring will be conducted continuously using methane sensors within the buildings to verify that methane is not entering the buildings in concentrations above residential risk-based levels. In addition, the landfill gas collection system will have ports for sampling the aggregate layer beneath the slab. . Proposed locations of the methane gas sensors are provided in the VMS design plan included in **Section 9**.

Gas Collection and Ventilation System Description (§330.957(t)(2)(C))

The VMS will consist of an impermeable methane barrier layer, aggregate layer, and geotextile filter fabric, as described in **Section 9**. The barrier and ventilation layer will be installed beneath the slabs of the ground floor of the residential areas and portions of the buildings where there could potentially be a source of ignition.

Gas Monitoring Equipment (§330.957(t)(2)(D))

The vapor monitoring system will include a total of five controllers and five sensors (a controller and sensor for each building with two in Building A) in the VMS piping system. Landfill gas will be monitored by three different sensors. Within the occupied spaces, a permanently mounted Family Safety Products, Inc. Safety Siren Pro Series methane detector (Model No. HS80504), or similar, will be used. On the sub-slab landfill gas collection system, a permanently mounted RKI Instruments M2A gas sensor, or similar, will monitor the exhaust gas stream. The exhaust fan will be a FanTech HP 190 or similar. Locations of sensors are provided in **Attachment 9**. For port landfill gas measurements, a Landtec GEM 5000 portable landfill gas detector, or similar, will be used. The VMS design plan included in **Section 9** provides a plan for the location of the vapor monitoring equipment. Specification sheets for the monitoring equipment will be provided following finalization of the VMS design. Calibration will be performed at least twice annually or every six months.

Implementation Schedule for Monitoring Equipment (§330.957(t)(2)(E))

Monitoring equipment will be installed and tested prior to completion of construction of the proposed residential structures. The monitoring equipment will be in continuous operation at least one week prior to buildings being occupied.

Sampling and Analysis Plan (§330.957(t)(2)(F))

Indoor air samples will be initially collected prior to residential occupancy. This will be a one-time sampling event to characterize the indoor air. Five samples will be collected, one from each building with two from Building A. These samples will be collected using evacuated “Summa” canisters fitted with regulators that will collect the sample over a 24-hour period. The selected analytical laboratory will provide canisters and chain of custody forms for the sampling activities.

The sampling method to collect the indoor air samples includes using an evacuated 1.4-liter Summa canister equipped with a flow controller calibrated to draw in 1.4-liters of ambient indoor air over an approximate 24-hour time period. The main valve on the Summa canister will be opened to initiate the sampling and then closed after approximately 24 hours has elapsed, while observing the gauge on the flow controller to ensure the Summa canister does not equilibrate to ambient conditions.

The ambient indoor air samples collected from the residential buildings will be analyzed for methane by EPA method TO-3. The samples will be shipped to an accredited laboratory offsite that will perform the approved testing.

Laboratory QA/QC procedures will be provided by the laboratory chosen to perform the analysis and will be included with the test results.

Analysis Of Landfill Gas Samples (§330.957(t)(2)(G))

Two landfill gas samples (SV-10R and SV-11R) were collected at 12 ft bgs from previous vapor sample locations SV-10 and SV-11 on 12 July 2024. The samples were analyzed for methane, carbon monoxide, hydrogen sulfide, mercaptans, and ammonia by ALS Environmental in Simi Valley, California. Volatile organic compounds (VOCs) were analyzed during previous sampling events. Water vapor was measured in the field. Laboratory results are provided at the end of this attachment. The analytical results of constituents reported above the laboratory method detection limit (MDL) are summarized below.

Analyte	SV-10R	SV-11R	Air RBEL / VISL (Res)
Hydrogen sulfide	0.0088 mg/m^3	ND (<0.0036 mg/m^3)	0.0695 mg/m^3
Carbonyl sulfide	0.011 mg/m^3	0.011 mg/m^3	3.48 mg/m^3
Carbon disulfide	0.0062 mg/m^3	0.010 mg/m^3	0.73 mg/m^3
Ammonia	0.22 mg/m^3	0.11 mg/m^3	0.33 mg/m^3
Water vapor	21 ppm	21 ppm	--
Carbon dioxide	7.65%	0.796%	--
Oxygen	15.2%	21.5%	--
Nitrogen	77.1%	77.7%	--
Methane (4/26/2023)	11%	12%	10%
VOCs	ND	ND	--

Based on these landfill gas samples, the landfill gases do not contain significant concentrations of mercaptans, hydrogen sulfide, carbon monoxide, ammonia, or VOCs. Carbon dioxide was detected in the landfill gas sample from SV-10R, and methane has been detected in other gas monitoring probes in the past. Carbon dioxide and methane will be monitored quarterly from the sample ports.

Sampling Plan and Procedures

During each landfill gas monitoring event, the integrity of each monitoring port or probe will be inspected and recorded on the Landfill Gas Monitoring System Data Sheets included in this attachment. If any monitoring port or probe is observed to be damaged, the port or probe will be repaired. If irreparable, the damaged port or probe will be decommissioned and replaced with a new monitoring port or probe.

The landfill gas collection system under each building will be continuously monitored for methane concentration by permanently installed sensors. In addition, field monitoring will be periodically performed for the ports on the landfill gas collection system under each building. This period field monitoring will include measurements of for methane, carbon dioxide, and oxygen as a check on the permanently installed sensors. The frequency of the field monitoring of the ports beneath the buildings will occur quarterly for the first year, and then annually for the following three years.

For the field monitoring, a CES-Landtec GEM 5000 Landfill Gas Monitor (GEM 5000), or similar, will be used to measure the methane and carbon dioxide concentrations at each port. This meter provides the readings of methane and carbon dioxide (and oxygen) as a percentage by volume in air.

The field monitoring of the landfill gas collection system will be conducted on a quarterly basis for the first year and then annually for the following three years. The field monitoring events will be conducted in accordance with the following procedure:

1. Perform equipment checks and calibration tests.
2. Inspect the sampling location. The inspection is to include the following:
    a. Verify that the location is accessible as necessary for monitoring.
    b. Verify that any surface protective devices are in place and are in good condition, and
    c. Verify that the label is in place and clearly readable.
3. Open any protective cover.
4. Turn on the CES-Landtec GEM 5000, or similar, meter and allow for the meter to adjust to the ambient air.
5. Connect the GEM 5000, or similar, meter to the quick-connector or port.
6. Open the valve on the port.
7. Turn on the GEM 5000 pump, or similar, and allow for the meter to purge the port.
8. Allow the meter to purge the trapped air for at least 30 seconds to get an accurate reading.
9. Record the observed methane, carbon dioxide, and oxygen readings.
10. Record the ambient barometric pressure from the GEM 5000, or similar, meter.
11. Disconnect the GEM 5000, or similar, methane meter from the quick-connector or port.
12. Close the port and reinstall any protective cover.

The above procedure will be repeated to obtain readings at each port location. All readings and inspection results will be recorded on the Landfill Gas Monitoring System Data Sheets with any needed maintenance and/or repairs noted. All results will be placed in the operating record of the facility.

SITE OPERATING PLAN

The proposed residential structures will consist of a four-story building, a three-story building, and two two-story buildings. The buildings will be a wood or metal framed structure and be constructed over reinforced concrete structural slabs. The VMS beneath each building will be equipped with methane sensors that will produce both an audible and visual alarm if concentrations of methane exceed 1% BV or 20% of the LEL. Methane sensors will also be installed within the buildings. Other than residential units, other spaces in the four buildings include offices, storage closets, maintenance rooms, and equipment rooms.

In accordance with §330.958, construction plans and specifications of the proposed residential structures will be prepared and maintained onsite during construction. After completion of construction, one set of as-

built construction plans and specifications will be maintained at the permitted development. Plans maintained at the development be made available for inspection by executive director representatives.

This SGMP, Site Operating Plan, and Safety and Evacuation Plan will be implemented and maintained in accordance with the requirements of §330.961(a) through (h) by an environmental professional or person(s) trained by an environmental professional. These documents will be considered a part of the operating record of the development and a copy will be maintained onsite in an office at the development for the life of the structure to aid in the implementation and maintenance of the SGMP, Site Operating Plan, and Safety and Evacuation Plan. Additionally, the remaining documents listed in §330.961(a)(1) will be considered part of the operating record and maintained onsite, including but not limited to the Development Permit and Closure Plan. Any deviation from the development permit and incorporated plans or other related documents associated with the development permit will seek approval of the executive director. The development permit holder will notify the executive director, and any local pollution agency with jurisdiction that has requested to be notified, of any incident involving the facility relative to the development permit and provisions for the remediation of the incident.

The owner or lessee of the development will provide equipment for monitoring on-site structures. Monitoring of onsite structures will include permanently installed monitoring probes and continuous monitoring systems. Structures located on top of the waste area shall be monitored on a continuous basis, and monitoring equipment shall be designed to trigger an audible alarm if the volumetric concentration of methane in the sampled air is greater than 1% within the venting pipe or permeable layer, and/or inside the structure. Areas of the structure where gas may accumulate will be monitored. Gas monitoring and control systems will be modified as needed to reflect modifications to the structure.

All sampling results will be placed in the operating record of the facility and be made available for inspection by the executive director, and any local pollution agency with jurisdiction that has requested to be notified. If methane gas levels exceeding the limits are detected, the owner, operator, or lessee shall notify the executive director and take action.

The ponding of water over waste in the closed MSW landfill will be prevented. Ponded water that occurs on a closed MSW landfill unit will be eliminated as quickly as possible.

Surface drainage in and around the structure will be controlled to minimize surface water running onto, into, and off the closed MSW landfill.

All conduits intended for the transport or carrying of fluids over or within the closed MSW landfill will be double-containment. Or, 2 ft of compacted, clay-rich soil with a permeability not greater than 1x10E-7 cm/sec will be placed in the base of the trench and a ~~high-density polyethylene (~~HDPE~~)~~ 30-mil sealed liner~~barrier~~ will be installed on the bottom and sides of the trench. The conduit for carrying fluids will then be placed above the HDPE liner in the trench and clean backfill added to the sides. The HDPE liner will extend approximately 1 ft on top of the trench, be overlapped, and sealed. In accordance with §330.453(a) and (b), 18 inches of compacted clayey soil that is free of waste and 6 inches of topsoil that can support native vegetation will be in place for utility trenches in areas that are not covered by buildings, asphalt, or pavement.~~along the bottom, sides, and extending approximately 1 ft on top of the trench and sealed. The trench will then be filled with clean, compacted backfill on the bottom, clean backfill on all sides, and a on the sides and bottom of the trench~~

The owner or lessee shall promptly record and retain in the operating record the following information:

- all results from gas monitoring and any remediation plans pertaining to explosive and other gases;
- all unit design documentation for the placement of gas monitoring systems and leachate or gas condensate removal or disposal related to the closed MSW landfill unit;
- copies of all correspondence and responses relating to the development permit;

- all documents relating to the operation and maintenance of the building, facility, or monitoring systems as they relate to the development permit; and
- any other document(s) as specified by the approved development permit or by the executive director.

The owner, operator, or lessee shall provide written notification to the executive director, and any local pollution agency with jurisdiction that has requested to be notified, for each occurrence that documents listed in subsection (h) of this section are placed into or added to the operating record. All information contained in the operating record shall be furnished upon request to the executive director and shall be made available at all reasonable times for inspection by the executive director or his representative.

The following equipment is expected to be used at the structures and a maintenance schedule for this equipment is provided below.

Description	Procedures and Function	Maintenance Schedule
Offices	Daily office use	As-needed office updates
Cleaning/maintenance equipment	General housekeeping/maintenance	As-needed maintenance/cleaning
HVAC	Interior climate control	Semi-annually
Electric water heaters	Hot water control	Annually
Lighting	Interior lighting control	As-needed replacement
IT/Network equipment	Telephone, internet, cameras, etc.	As-needed repair/replacement

The equipment list will be reviewed and updated as needed. In addition, two of the structures will have enclosed garages for vehicles.

SAFETY AND EVACUATION PLAN

The residential structures will consist of two to four story buildings with offices, residential spaces, community spaces, restrooms, and garages on two of the buildings. As previously discussed, the VMS beneath each building will be equipped with methane sensors that will produce both an audible and visual alarm if concentrations of methane beneath the building exceeds 1% BV or 20% of the LEL.

By maintaining the potential concentration of methane beneath the building at 1% or 20% of the LEL, methane cannot accumulate to these levels in the building. Typically, “attenuation” levels through a building slab are 0.03 meaning that even as a worst case, the methane concentrations in the building cannot exceed 33% of 20% of the LEL since the “trigger” will be the methane concentration beneath the building, and not in the building. Methane will also be installed within the buildings and will be equipped with methane monitors with audible alarms. In the event that the methane monitors within the VMS detect elevated levels of methane, the VMS vent fans will immediately be turned on (if they were not already running) and monitoring at the sample ports will be performed to verify that the concentrations within the buildings are below the threshold levels.

Building occupants will be notified that the building is located over methane gas, and that controls are in place to minimize the potential danger posed by the methane gas. In the event that the methane monitors inside the building detect elevated levels of methane, alarms will be triggered, and residents will evacuate the building and only re-enter when conditions are safe. Each living space will be equipped with a graphic

evacuation plan map directing occupants where to go in the event of an alarm including a rally point and contact phone numbers.

ATTACHMENT B
UNMARKED ("CLEAN") APPLICATION REPLACEMENT PAGES – REVISION 4

REVISION 4 -
APPLICATION FOR DEVELOPMENT PERMIT
FOR PROPOSED ENCLOSED STRUCTURE

TEXAS STAR PROPERTY WEST
11450 TRINITY BOULEVARD
EULESS, TARRANT COUNTY, TEXAS 76040

Prepared for:

Texas Commission on Environmental Quality
MSW Authorization No. 62054; Tracking No. 29838265
Voluntary Cleanup Program No. 3237
RN100729763 | CN604539007

Prepared on behalf of the Applicant:

Stonehawk Capital Partners, LLC
4550 Travis Street, Suite 565
Dallas, Texas 75205

Property Owner:

HMH Family Partnership LP
1104 Dayton Drive
Lantana, Texas 76226

Initial Submission: 28 February 2024
Revision 4 Submission: 17 September 2024

Susan T. Litherland, P.E.
Principal
Texas P.E. No. 57428, F-15202
Signed electronically on 9/17//2024

Sam Enis, P.G.
Principal Project Manager

PN: 1098.015.003

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PO Box 1991
Austin, Texas 78767-1991
(512) 900-7731
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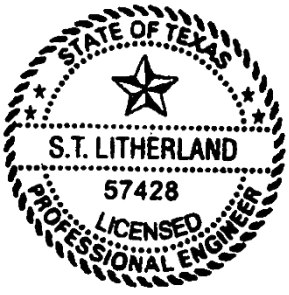
TABLE OF CONTENTS

Susan T. Litherland, P.E.
Principal
Texas P.E. No. 57428, F-15202
Signed electronically on 9/17/2024



is impacted by the debris located above the saturated zone. The debris and groundwater beneath the subject property are not a source of contamination. None of the incidental debris is located at the ground surface, and precautions will be implemented during development of the subject property to prevent excavated material, if any, from coming into contact with stormwater. Any surface water that does come into contact with waste materials will be properly contained, characterized, and disposed of.

If excavation activities result in exposed waste, the exposed waste area will be temporarily covered with clean soil or other materials as soon as practical, but no later than the end of the day. The contractor will provide adequate temporary cover consisting of a minimum of 6 inches of soil or an impermeable membrane material to prevent rainfall from contacting the waste. Temporary diversion berms will be installed around the exposed waste area to prevent stormwater from contacting the waste and will be used upslope of all excavations where waste will be exposed to minimize the amount of surface water coming into contact with waste materials. In addition, temporary containment berms will be constructed around areas of exposed waste to collect surface water. At no time will water that comes into contact with waste materials be allowed to discharge to surface waters. Regarding the management procedures described above, especially the covering of waste and precautions implemented in advance of inclement weather, the generation of water that has made contact with waste materials is expected to be minimal. However, if generated, the water will be collected and disposed of in accordance with standards set forth herein and in accordance with City and State requirements for disposal of such water. Any water generated during construction will be stored onsite, then transported via vacuum truck to an approved wastewater treatment or disposal facility permitted to accept the wastewater.

The stormwater management will include measures to control sediment discharge during construction including, but not be limited to, the use of earthen berms, hay bales, and silt fencing downgradient of slopes which may experience erosion (including material stockpiles). Erosion damage from rainfall events will be repaired by the contractor after such events. All erosion control measures will also be inspected and maintained throughout the redevelopment process. Berms, when used for control of potentially impacted water, will also be maintained as necessary to control erosion. The contractor will pay special attention to erosion on any soil cover over waste materials. Any cover damage to the existing landfill, or in areas where cover must be maintained over solid waste materials that are part of construction, will be repaired immediately and steps taken to prevent a recurrence of that type of damage.

The requirements of §330.453(a), concerning the final cover system, will be implemented for the four elevator pits that are located in Building A. The elevator pits will be over-excavated on all sides on a 4:1 slope. A 2 ft layer of clayey soil with a permeability not greater than 1x10E-7 cm/sec, compacted in layers no more than 6 inches in thickness, will be placed in the bottom and sides of the elevator pit excavation. The elevator pit will then be covered by the VMS in accordance with §330.957(m). Due to over-excavation, clean fill will be added between the VMS and the concrete slab foundation, where needed. This is shown in **Figure 3** in **Attachment 9**. If the elevator pit does not fit in-between the network of slotted vent pipes for the VMS, then the vent pipes will extend down the sides and bottom of the elevator pit. Methane sensors within the aggregate layer will be placed in or near the elevator pits, in accordance with §330.961(b)(1)D). The requirements of §330.961(g), concerning the double-containment of subgrade conduits intended for the transport or carrying of fluids over or within the subject property, and §330.331(b), regarding liner criteria for leachate for the swimming pool, will be implemented. Subgrade utility conduits will be installed with double-containment, which will be provided by the single wall utility, that is within a lined trench. On excavation, 2 ft of compacted, clay-rich soil with a permeability not greater than 1x10E-7 cm/sec will be placed in the base of the trench and a high-density polyethylene (HDPE) 30-mil sealed liner will be installed along the bottom and sides of the trench and sealed. Based on discussions with the project construction contractors, it is not feasible to install 2 ft of compacted clay on the sides of the trenches, as there is no

way to compact the clay horizontally. The conduit for carrying fluids will then be placed above the HDPE liner and clean fill added to the sides. This is shown in **Figure 2** in **Attachment 9**. The HDPE liner will extend approximately 1 ft on top of the trench, be overlapped, and sealed. In accordance with §330.453(a) and (b), 18 inches of compacted clayey soil that is free of waste and 6 inches of topsoil that can support native vegetation will be in place for utility trenches in areas that are not covered by buildings, asphalt, or pavement. The swimming pool excavation will be lined with a HDPE 60-mil sealed geomembrane liner over at least 2 ft of compacted, clay-rich soil with a permeability not greater than 1x10E-7 cm/sec, followed by clean fill. The area for the pool will be over-excavated on all sides so that the added clay may be compacted on a 4:1 slope. The HDPE liner will be placed over the clay, followed by clean fill that will protect the liner and support the pool shell. The compacted clay and HDPE liner will be installed on a slope up to the base of the pool deck. This is shown in **Figure 1** in **Attachment 9**. The pool location is restricted to the courtyard of Building 1 and will not be placed elsewhere. A quality control plan will be prepared detailing the design, materials, and procedures for construction and testing to meet liner system specifications based on Regulatory Guidance for Liner Construction and Testing for a Municipal Solid Waste Landfill (RG-534, September 2017). Construction details, plans, materials to be used, and cross-sections of the elevator pit, utility trench, pool, and the underlying waste down to native soil are provided in **Attachment 9**.

9 FOUNDATION PLANS

A VMS designed in accordance with 30 TAC 330.957(m) will be installed during development and construction of the four buildings on the subject property. The VMS includes an impermeable barrier installed below the concrete slab of the structures, followed by a 12-inch-thick permeable aggregate bed and a geotextile filter fabric, with vent risers located adjacent to the buildings. This system will allow any vapors (methane or other) that migrate though the soil to the area beneath the structures to be vented outside of the structure. The second component is a monitoring system within the VMS piping network beneath the buildings and within the buildings that will include controller units and remote sensors that can detect methane and other explosive gases. This system will have audible and visual alarms. Sample ports for field monitoring will be installed for the aggregate layer. The foundation plan and VMS design plan are included as **Attachment 9**. Geotechnical soil investigation reports are provided as **Attachments 10A** and **10B**. The Methane Monitoring Plan is discussed in **Section 12**. A Liner Quality Control Plan for the pool is provided below.

LINER QUALITY CONTROL PLAN

This Liner Quality Control Plan (LQCP) was developed for the Texas Star Property to describe the inspection and construction control and testing requirements in support of the application. This Plan was prepared in general accordance with *Guidance for Liner Construction and Testing for a Municipal Solid Waste Landfill*, TCEQ Regulatory Guidance RG-534 dated September 2017 and is intended to fulfil requirements of 30 Texas Administrative Code 330.

A General Requirements

This LQCP provides the basis for the type and rate of quality control performance testing. A copy will be maintained on site during construction or available for electronic download in the event an inspection is performed. For ease in this document preparation, any components that are not specifically addressed in this document will default to the requirements of *Guidance for Liner Construction and Testing for a Municipal Solid Waste Landfill*, TCEQ Regulatory Guidance RG-534.

B Overview of Project

As discussed in this Application, the swimming pool will be located in the courtyard of Building 1. The maximum disturbance depth at the subject property will be no deeper than 10 ft, and likely no deeper than 7 ft. The area of the pool will be over-excavated and sides sloped to allow placement of 2 ft of compacted, clay-rich soil with a permeability not greater than 1 x 10^{-7} cm/s, with a 60-mill sealed liner. A protective cover of clean fill will overlay the liner. A cross-section of the liner is provided on the figure included as **Attachment 9 Figure 1**.

C Soil Material Requirements

C.1 Protective Topsoil Requirements

Protective cover is required to be placed above the liner system as shown on the cross sections. Topsoil will be free of deleterious materials and not previously mixed with any onsite soils that were previously mixed with garbage, rubbish, or other solid waste materials. Permeability must be greater than 1 x 10^{-4} cm/s. The thickness must be greater than or equal to 12 inches. Compaction is not necessary for installation and density

controls are not needed; however, the contractor should place the protective topsoil as soon as possible after installation of the liner and compacted clay-rich soil.

Protective topsoil shall be placed over the HPDE liner during the coolest part of the 8-hour workday. Soil shall be deployed along the surface of the liner to control the amount of slack and minimize any damage to the liner. The liner shall be continuously monitored during installation and any damage to the liner immediately repaired. Only light equipment will be used during construction and a minimum of 12 inches of protective material must be placed on top of the liner before light construction equipment can access the area.

Protective topsoil will not have any rocks greater than 0.375 inches in diameter. The Contractor will keep the protective topsoil layer wet during dry periods to prevent cracking.

C.2 Clay-Rich Soil Requirements

Clay-rich soil will meet the following requirements. One sample from each source must be collected before any material is brought onsite. Test methods will generally follow Standard ASTM Test Methods as outlined in Table B-1 of RG-534 and will include field density, gradation analysis, Atterberg limits, and permeability.

Soil Property	*Value*
Plasticity Index (PI)	≥ 15
Liquid Limit (LL)	≥ 30
Percent Passing No. 200 Mesh Sieve	≥ 30%
Percent Passing One-Inch Sieve	= 100%
Permeability	≤ 1×10^{-7} cm/sec

In-situ soils will not be used for clay-rich soil. The clay-rich soil will be sampled every 1,000 cubic yards for total petroleum hydrocarbons (TPH) by Texas Method 1005 and metals SW-846 Methods to ensure the materials are suitable for use.

Clay-rich soils will be placed in three 8-inch lifts (a total of 3 lifts). Compaction testing will be performed at a frequency of every 1 acre and one per lift (minimum of three locations). The clay-rich soil will be compacted to at least 95% of standard proctor.

C.3 HDPE Liner Requirements

The HDPE Liner must have a minimum of 60 mil thickness. Recycled or reclaimed HDPE materials are not acceptable. HDPE material and required welding rods shall contain between 2 and 3% carbon black and may contain no more than 1% additives.

The liner will be inspected upon delivery for any damage and defects. The liner must be free from any pinholes, surface blemishes, scratches, or other defects that could affect the integrity of the liner. The liner will be stored at a clean and dry location onsite and protected from any objects that could damage the liner.

All manufacturer's recommendations for the installation of the liner will be followed. In addition, general installation requirements outlined in Table 3-1 of RG-534 must be followed.

- The liner will be placed above the compacted clay-rich soil that will be free of stones and rocks and other debris greater than 3/8-inch. The compacted clay-rich soil will be finished by rolling with flat wheel roller until smooth uniform surface is achieved. The subgrade areas will be inspected for any

desiccation, cracks, erosion, or ponding prior to installation and repaired before liner is placed. If necessary, regular watering and proof rolling will be performed.

- Prohibit construction equipment from traveling directly on the liner.
- Do not place during inclement weather.
- Limit vehicular traffic on the liner to low-ground pressure supporting equipment only. Any damaged areas must be repaired and inspected.
- Only unroll liner sheets that are to be placed and seamed in the same day. Position liner with overlap recommended by manufacturer but not less than 3 inches. Typical overlaps are 3 to 6 inches. There should be no loose flap on the top side of the liner. Overlap distance must be sufficient so that all seam tests can be performed as described below.
- Folds, wrinkles, and fish mouths are not acceptable. Cut, overlap, and weld the material where wrinkles or folds occur. A fish mouth is defined as an area in the seam where one liner panel is first folded over on itself, and a second liner panel is placed and welded over this fold. Where fish mouths occur, the liner must be cut, overlapped, and covered with a patch.
- Use only heat-only tack welds, when necessary. No double-sided tape or glue may be used.
- Fusion or extrusion welding may be used for field seaming and repairs.
- Seaming is permitted only when ambient air conditions are below 104°F.
- At the end of each workday, all unseamed edges will be anchored with sandbags or other approved devices. No penetrating anchors are accepted (stables, U-rods).

C.4 HDPE Liner Testing Requirements

Verification of HDPE Liner Testing Requirements

Manufacturer information will be reviewed to ensure that QA/QC testing, conformance testing, and seam testing requirements of Table 3-2 of RF-534 are met.

Welds, Repair Welds, and Patches

Shear Strength – the seam, when stressed perpendicular to the direction of the weld should not under any condition fail before stretching and breaking of the liner panel adjacent to the weld. The numerical value of the shear strength of any sample should not be less than 90% of the sheet tensile strength according to manufacturer-provided information.

Trial Seam Testing

Each day, prior to commencing field seaming, each individual employee performing seaming will conduct a trial seam. Each trial seam will be 3 ft long by 1 ft wide. Trial seam criteria is outlined in Table 3-3 of RG 534.

Destructive Testing

Destructive test samples of field seams will be performed at a minimum of one stratified location for every 500 linear feet or major fraction thereof or at the direction of the Engineer. Destructive test requirements will conform with Table 3-4 of RG-534.

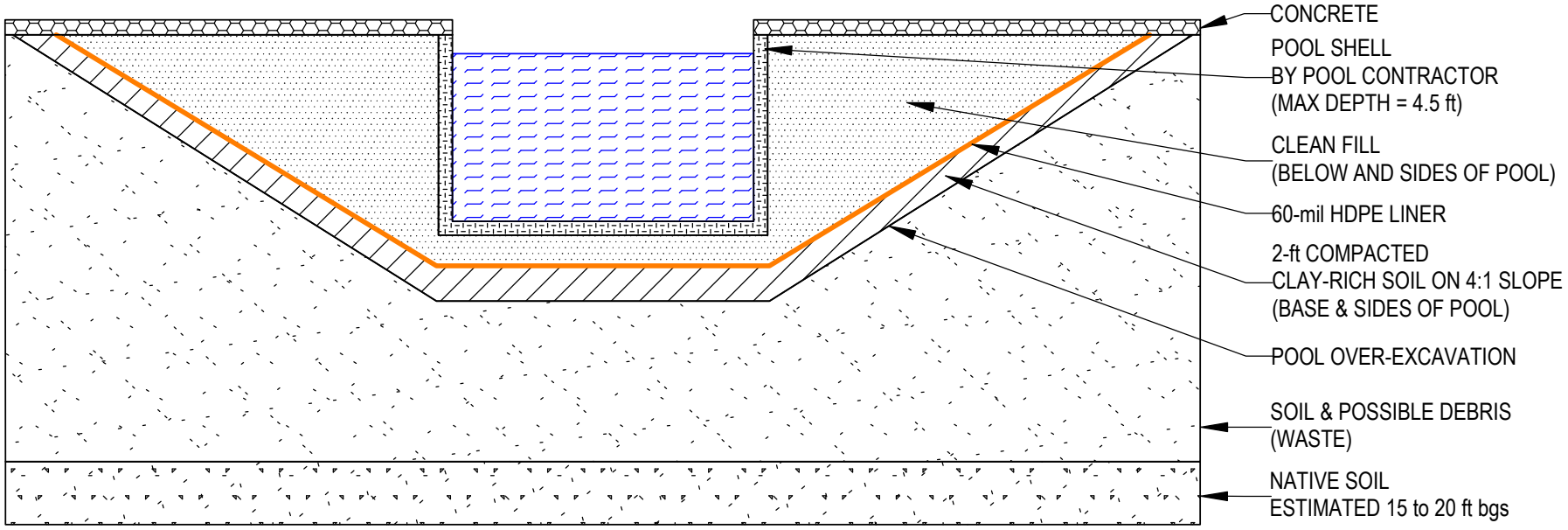
Non-Destructive Testing

Non-destructive tests should be performed by the Contractor or engineer on all field seams, patches, and repair welds. Accepted non-destructive test methods include vacuum box testing for extrusion welds and air-pressure testing for dual-tract fusion welds. Specific procedures for these tests is included on Table 3-5 of RG-534.

D Documentation

Following installation, the following documentation will be compiled and kept onsite in the facility records. This will include the following elements:

- All field and laboratory test documentation.
- All test documentation.
- Liner certification information and results of manufacturer independent testing.
- Field documentation of field testing, repairs, etc.
- Photographs and field notes.
- A survey of the final liner area.



NOTES

1. 2-ft COMPACTED CLAY-RICH SOIL MUST HAVE PERMEABILITY NO GREATER THAN 1x10-7 cm/sec.

9/13/24

STATE OF TEXAS
S.T. LITHERLAND
57428
LICENSED
PROFESSIONAL ENGINEER

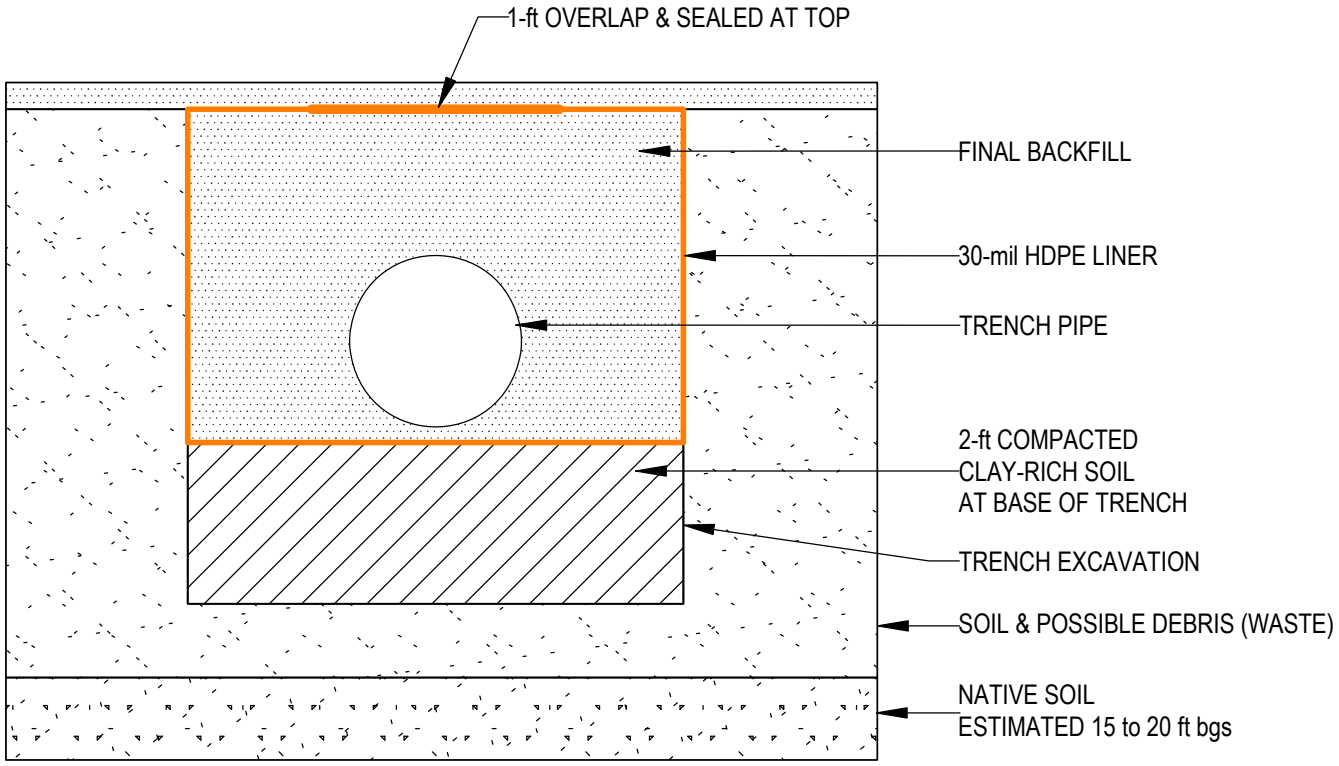
SQ Environmental, LLC

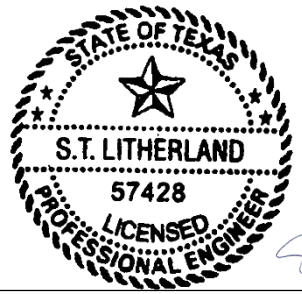
FIGURE 1

POOL LINER SECTION DETAIL

TEXAS STAR PROPERTY
11450 TRINITY BLVD
EULESS, TEXAS 76040

SCALE:	DATE:	PN:
NOT TO SCALE	REV 13 SEPT 2024	1098.015.003





9/13/24

NOTES

1. UTILITY TRENCH LINER DETAIL WILL APPLY TO ALL UTILITY LINES INCLUDING WATER LINES, SANITARY SEWER LINES, AND STORM SEWER LINES.
2. 2-ft COMPACTED CLAY-RICH SOIL MUST HAVE PERMEABILITY NO GREATER THAN 1x10-7 cm/sec.
3. IN AREAS NOT COVERED BY BUILDINGS, ASPHALT, OR PAVEMENT, A FINAL COVER IN ACCORDANCE WITH 330.453(a) & (b) WILL BE IN PLACE FOR THE UTILITY TRENCHES.

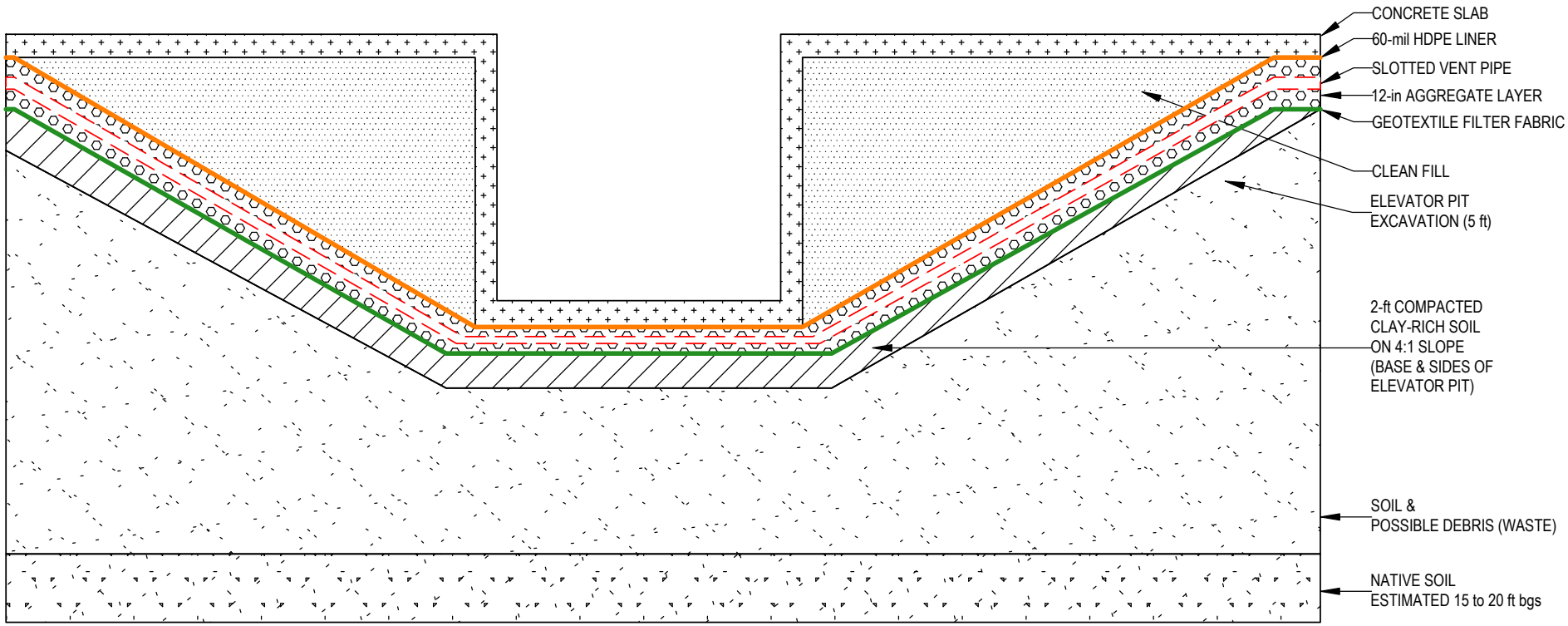
SQ Environmental, LLC

FIGURE 2

UTILITY TRENCH SECTION DETAIL

TEXAS STAR PROPERTY
11450 TRINITY BLVD
EULESS, TEXAS 76040

SCALE:	DATE:	PN:
NOT TO SCALE	REV 13 SEPT 2024	1098.015.003



NOTES

1. 2-ft COMPACTED CLAY-RICH SOIL MUST HAVE PERMEABILITY NO GREATER THAN 1x10-7 cm/sec.
2. METHANE SENSORS IN THE AGGREGATE LAYER WILL BE LOCATED IN OR NEAR THE ELEVATOR PITS, IN ACCORDANCE WITH 330.961(b)(1)(D).

9/13/24

STATE OF TEXAS
S.T. LITHERLAND
57428
LICENSED
PROFESSIONAL ENGINEER

SQ Environmental, LLC

FIGURE 3

ELEVATOR PIT SECTION DETAIL

TEXAS STAR PROPERTY
11450 TRINITY BLVD
EULESS, TEXAS 76040

SCALE:	DATE:	PN:
NOT TO SCALE	REV 13 SEPT 2024	1098.015.003

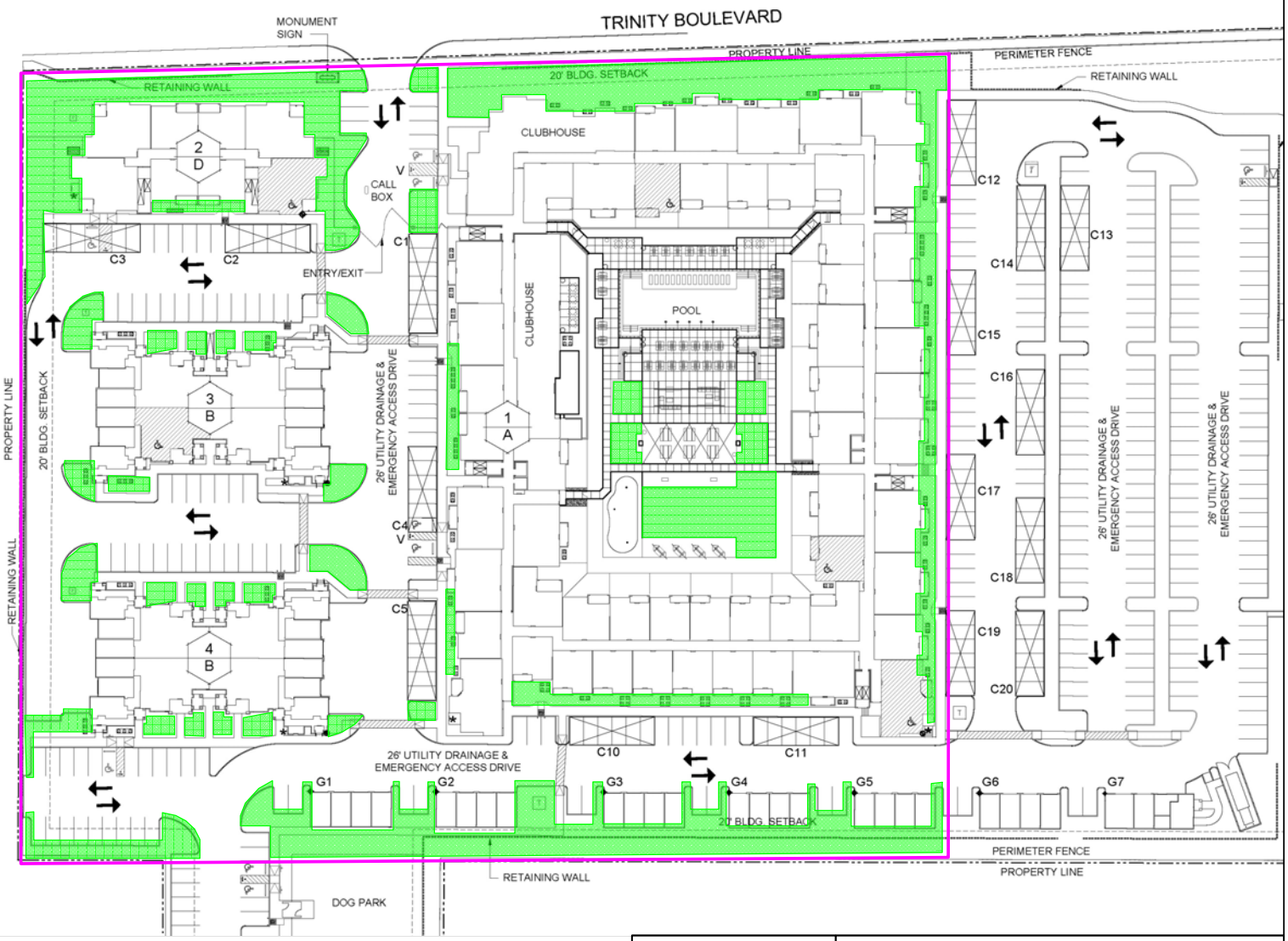
11 CLOSURE PLAN

The future development on the subject property is comprised of four multi-family apartment buildings with concrete slab-on-grade foundations. A VMS will be designed and installed beneath residential ground floor areas. The VMS will direct any vapors (methane or other) out from beneath the buildings, and the vapors monitored to verify that there is no vapor accumulation beneath the buildings. Asphalt-covered parking lots will surround the four buildings and cover other areas of the subject property.

There is no true “cap” on the property, although the upper 5 to 10 ft of soil generally does not contain debris and has a higher percentage of clay than the underlying materials. The proposed construction associated with this development permit application is not expected to result in significant removal of existing soil and is not expected to disturb soil deeper than 10 ft, and likely no deeper than 7 ft. The planned concrete slab foundations with a VMS and the asphalt cover (parking lot) will result in a similar or better impervious "cap" over portions of the subject property where incidental debris is present in the subsurface.

The remaining area that will not be covered, i.e., the interior open-air courtyard of Building 1 and green space between buildings, will conform to §330.957(q). In accordance with §330.453(a) and (b), 18 inches of compacted clayey soil that is free of waste and 6 inches of topsoil that can support native vegetation will be present in areas of soil disturbance that are not covered by buildings, asphalt, or pavement. The grass/landscaped areas are on shown on **Figure 1** of **Attachment 11**.

ATTACHMENT 11
GRASS/LANDSCAPED AREA MAP



LEGEND

SUBJECT PROPERTY BOUNDARY, APPROXIMATE

GRASS / LANDSCAPED AREA (APPROXIMATELY 1.1 ACRES)

SOURCE: CROSS ARCHITECTS SITE PLAN, DATED 4/30/24

9/13/24

STATE OF TEXAS
S.T. LITHERLAND
57428
LICENSED
PROFESSIONAL ENGINEER

0 50 100
SCALE IN FEET

N

SQ Environmental, LLC

FIGURE 1

LANDSCAPED AREA MAP

TEXAS STAR PROPERTY WEST
11450 TRINITY BLVD
EULESS, TEXAS 76040

SCALE:	DATE:	PN:
1 IN = 100 FT	SEP 2024	1098.015.003

STRUCTURES GAS MONITORING PLAN

This SGMP fulfills the requirements of 30 TAC §330.957(t). It will be part of the operating record for the development permit. A copy of this information will be maintained onsite throughout the life of the facility. The SGMP includes a VMS with an impermeable barrier installed below the structures with vent risers located adjacent to the buildings. This system will allow any vapors (methane or other) that migrate though the soil to the area beneath the structures to be vented outside of the structure, as shown in **Section 9**. A monitoring system will be installed within the VMS piping network beneath the buildings that will include controller units and remote sensors that can detect methane and other explosive gases at concentrations below 1% by volume (BV) or 20% of the Lower Explosive Limit (LEL). This system will have audible and visual alarms that will trigger if methane concentrations exceed 1% beneath a building. The monitoring system is intended to confirm that the concentration of vapor (methane or other) beneath the facility structures does not exceed 20% of the LEL. Methane sensors will also be installed within the buildings, and sample ports for field monitoring will be installed for the aggregate layer.

Facility Characteristics and Potential Migration Pathways (§330.957(t)(2)(A))

The nature and age of the incidental debris that has been found in the area of the planned structures is discussed in detail in **Section 2**. Based on soil vapor sample results described in **Section 10**, elevated methane concentrations appear to be confined to the deeper gravel zone below 10 ft from the surface, and methane does not appear to be migrating vertically to shallow soils or the surface due to the higher clay content in the upper 10 ft of soil across the properrty. Although there is no true “cap” on the property, the upper 10 ft of clayey soil appears to minimize the vertical migration of methane gas. As part of the property development, any excavations will not exceed a depth of 10 ft bgs (and likely no deeper than 7 ft bgs), leaving at least 2 ft of the overlying clayey soil at the subject property undisturbed.

The planned multi-family residential development will consist of a four-story building, a three-story building, and two two-story buildings. The planned facility layout is included in **Section 14**. The buildings will be constructed on a reinforced concrete slab foundation. The VMS, which will consist of a geotextile filter fabric, a 12-inch-thick permeable layer of aggregate with a network of vent pipes, and covered with a sealed HDPE geomembrane liner, will be installed beneath each of the buildings and beneath any areas with an ignition source. The planned residential units will be leased and occupied by residents and the duration of occupation could be up to 24 hours. The foundation design and VMS will minimize the potential for any vapors in the underlaying soil to enter the buildings. Potential ignition sources include water heaters, heating, ventilation, and air conditioning (HVAC) units, and static or sparking associated with equipment. As has been discussed, monitoring of the vapors within the VMS piping network will be performed so that vapors beneath the buildings will be maintained at 20% or less of the LEL, to eliminate the potential for explosive conditions within or near the building. Methane sensors will also be installed within the buildings.

Building Design Characteristics Related to Gas Accumulation Prevention (§330.957(t)(2)(B))

As described in **Section 9**, the design of the residential structures includes several features that will minimize the potential for the accumulation of methane gas within the building. The addition of an engineered fill layer above the soil will provide additional separation and protection from potential methane gas migration. The vapor barrier and ventilation system design will be installed beneath the foundation of the ground floor residential areas and any areas where there could be an ignition source. The system will consist of a granular layer up to 12-inches in thickness, which will act as bedding for a network of slotted vent pipes. The vent pipes will be extended through any internal beams to allow venting of the area where vapors could accumulate. The pipes will be extended outside of the structure to allow venting. The granular layer and vent pipe system will be covered with a plastic layer, which will be sealed at overlaps, and all penetrations. A geotextile filter fabric will be installed beneath the granular layer and above the structural

fill. As part of the installation oversight, smoke tests will be performed on the system to verify that it is property sealed, prior to pouring of the concrete foundations. Some or all of the vent pipes will be fitted with fans so that active venting can be performed if passive venting is not sufficient to prevent the buildup of vapors under the building. The additional engineered fill, vapor barrier, and ventilation system provide the primary systems to prevent vapor migration into the structure and minimize the potential for methane gas accumulation beneath the buildings. The sub-slab gas collection system will be under negative pressure from an electric exhaust fan if and when needed. Methane is lighter than air and will dissipate upward and away from vents on each building.

The vapor monitoring system within the VMS piping network will provide continuous monitoring for methane to provide early detection and warning in the event of methane gas accumulation beneath the buildings. In addition to the monitoring equipment in the VMS piping, methane monitoring will be conducted continuously using methane sensors within the buildings to verify that methane is not entering the buildings in concentrations above residential risk-based levels. In addition, the landfill gas collection system will have ports for sampling the aggregate layer beneath the slab. . Proposed locations of the methane gas sensors are provided in the VMS design plan included in **Section 9**.

Gas Collection and Ventilation System Description (§330.957(t)(2)(C))

The VMS will consist of an impermeable methane barrier layer, aggregate layer, and geotextile filter fabric, as described in **Section 9**. The barrier and ventilation layer will be installed beneath the slabs of the ground floor of the residential areas and portions of the buildings where there could potentially be a source of ignition.

Gas Monitoring Equipment (§330.957(t)(2)(D))

The vapor monitoring system will include a total of five controllers and five sensors (a controller and sensor for each building with two in Building A) in the VMS piping system. Landfill gas will be monitored by three different sensors. Within the occupied spaces, a permanently mounted Family Safety Products, Inc. Safety Siren Pro Series methane detector (Model No. HS80504), or similar, will be used. On the sub-slab landfill gas collection system, a permanently mounted RKI Instruments M2A gas sensor, or similar, will monitor the exhaust gas stream. The exhaust fan will be a FanTech HP 190 or similar. Locations of sensors are provided in **Attachment 9**. For port landfill gas measurements, a Landtec GEM 5000 portable landfill gas detector, or similar, will be used. The VMS design plan included in **Section 9** provides a plan for the location of the vapor monitoring equipment. Specification sheets for the monitoring equipment will be provided following finalization of the VMS design. Calibration will be performed at least twice annually or every six months.

Implementation Schedule for Monitoring Equipment (§330.957(t)(2)(E))

Monitoring equipment will be installed and tested prior to completion of construction of the proposed residential structures. The monitoring equipment will be in continuous operation at least one week prior to buildings being occupied.

Sampling and Analysis Plan (§330.957(t)(2)(F))

Indoor air samples will be initially collected prior to residential occupancy. This will be a one-time sampling event to characterize the indoor air. Five samples will be collected, one from each building with two from Building A. These samples will be collected using evacuated “Summa” canisters fitted with regulators that will collect the sample over a 24-hour period. The selected analytical laboratory will provide canisters and chain of custody forms for the sampling activities.

The sampling method to collect the indoor air samples includes using an evacuated 1.4-liter Summa canister equipped with a flow controller calibrated to draw in 1.4-liters of ambient indoor air over an

approximate 24-hour time period. The main valve on the Summa canister will be opened to initiate the sampling and then closed after approximately 24 hours has elapsed, while observing the gauge on the flow controller to ensure the Summa canister does not equilibrate to ambient conditions.

The ambient indoor air samples collected from the residential buildings will be analyzed for methane by EPA method TO-3. The samples will be shipped to an accredited laboratory offsite that will perform the approved testing.

Laboratory QA/QC procedures will be provided by the laboratory chosen to perform the analysis and will be included with the test results.

Analysis Of Landfill Gas Samples (§330.957(t)(2)(G))

Two landfill gas samples (SV-10R and SV-11R) were collected at 12 ft bgs from previous vapor sample locations SV-10 and SV-11 on 12 July 2024. The samples were analyzed for methane, carbon monoxide, hydrogen sulfide, mercaptans, and ammonia by ALS Environmental in Simi Valley, California. Volatile organic compounds (VOCs) were analyzed during previous sampling events. Water vapor was measured in the field. Laboratory results are provided at the end of this attachment. The analytical results of constituents reported above the laboratory method detection limit (MDL) are summarized below.

Analyte	SV-10R	SV-11R	Air RBEL / VISL (Res)
Hydrogen sulfide	0.0088 mg/m^3	ND (<0.0036 mg/m^3)	0.0695 mg/m^3
Carbonyl sulfide	0.011 mg/m^3	0.011 mg/m^3	3.48 mg/m^3
Carbon disulfide	0.0062 mg/m^3	0.010 mg/m^3	0.73 mg/m^3
Ammonia	0.22 mg/m^3	0.11 mg/m^3	0.33 mg/m^3
Water vapor	21 ppm	21 ppm	--
Carbon dioxide	7.65%	0.796%	--
Oxygen	15.2%	21.5%	--
Nitrogen	77.1%	77.7%	--
Methane (4/26/2023)	11%	12%	10%
VOCs	ND	ND	--

Based on these landfill gas samples, the landfill gases do not contain significant concentrations of mercaptans, hydrogen sulfide, carbon monoxide, ammonia, or VOCs. Carbon dioxide was detected in the landfill gas sample from SV-10R, and methane has been detected in other gas monitoring probes in the past. Carbon dioxide and methane will be monitored quarterly from the sample ports.

Sampling Plan and Procedures

During each landfill gas monitoring event, the integrity of each monitoring port or probe will be inspected and recorded on the Landfill Gas Monitoring System Data Sheets included in this attachment. If any

monitoring port or probe is observed to be damaged, the port or probe will be repaired. If irreparable, the damaged port or probe will be decommissioned and replaced with a new monitoring port or probe.

The landfill gas collection system under each building will be continuously monitored for methane concentration by permanently installed sensors. In addition, field monitoring will be periodically performed for the ports on the landfill gas collection system under each building. This period field monitoring will include measurements of for methane, carbon dioxide, and oxygen as a check on the permanently installed sensors. The frequency of the field monitoring of the ports beneath the buildings will occur quarterly for the first year, and then annually for the following three years.

For the field monitoring, a CES-Landtec GEM 5000 Landfill Gas Monitor (GEM 5000), or similar, will be used to measure the methane and carbon dioxide concentrations at each port. This meter provides the readings of methane and carbon dioxide (and oxygen) as a percentage by volume in air.

The field monitoring of the landfill gas collection system will be conducted on a quarterly basis for the first year and then annually for the following three years. The field monitoring events will be conducted in accordance with the following procedure:

1. Perform equipment checks and calibration tests.
2. Inspect the sampling location. The inspection is to include the following:
    a. Verify that the location is accessible as necessary for monitoring.
    b. Verify that any surface protective devices are in place and are in good condition, and
    c. Verify that the label is in place and clearly readable.
3. Open any protective cover.
4. Turn on the CES-Landtec GEM 5000, or similar, meter and allow for the meter to adjust to the ambient air.
5. Connect the GEM 5000, or similar, meter to the quick-connector or port.
6. Open the valve on the port.
7. Turn on the GEM 5000 pump, or similar, and allow for the meter to purge the port.
8. Allow the meter to purge the trapped air for at least 30 seconds to get an accurate reading.
9. Record the observed methane, carbon dioxide, and oxygen readings.
10. Record the ambient barometric pressure from the GEM 5000, or similar, meter.
11. Disconnect the GEM 5000, or similar, methane meter from the quick-connector or port.
12. Close the port and reinstall any protective cover.

The above procedure will be repeated to obtain readings at each port location. All readings and inspection results will be recorded on the Landfill Gas Monitoring System Data Sheets with any needed maintenance and/or repairs noted. All results will be placed in the operating record of the facility.

SITE OPERATING PLAN

The proposed residential structures will consist of a four-story building, a three-story building, and two two-story buildings. The buildings will be a wood or metal framed structure and be constructed over reinforced concrete structural slabs. The VMS beneath each building will be equipped with methane sensors that will produce both an audible and visual alarm if concentrations of methane exceed 1% BV or 20% of the LEL. Methane sensors will also be installed within the buildings. Other than residential units, other spaces in the four buildings include offices, storage closets, maintenance rooms, and equipment rooms.

In accordance with §330.958, construction plans and specifications of the proposed residential structures will be prepared and maintained onsite during construction. After completion of construction, one set of as-built construction plans and specifications will be maintained at the permitted development. Plans maintained at the development be made available for inspection by executive director representatives.

This SGMP, Site Operating Plan, and Safety and Evacuation Plan will be implemented and maintained in accordance with the requirements of §330.961(a) through (h) by an environmental professional or person(s) trained by an environmental professional. These documents will be considered a part of the operating record of the development and a copy will be maintained onsite in an office at the development for the life of the structure to aid in the implementation and maintenance of the SGMP, Site Operating Plan, and Safety and Evacuation Plan. Additionally, the remaining documents listed in §330.961(a)(1) will be considered part of the operating record and maintained onsite, including but not limited to the Development Permit and Closure Plan. Any deviation from the development permit and incorporated plans or other related documents associated with the development permit will seek approval of the executive director. The development permit holder will notify the executive director, and any local pollution agency with jurisdiction that has requested to be notified, of any incident involving the facility relative to the development permit and provisions for the remediation of the incident.

The owner or lessee of the development will provide equipment for monitoring on-site structures. Monitoring of onsite structures will include permanently installed monitoring probes and continuous monitoring systems. Structures located on top of the waste area shall be monitored on a continuous basis, and monitoring equipment shall be designed to trigger an audible alarm if the volumetric concentration of methane in the sampled air is greater than 1% within the venting pipe or permeable layer, and/or inside the structure. Areas of the structure where gas may accumulate will be monitored. Gas monitoring and control systems will be modified as needed to reflect modifications to the structure.

All sampling results will be placed in the operating record of the facility and be made available for inspection by the executive director, and any local pollution agency with jurisdiction that has requested to be notified. If methane gas levels exceeding the limits are detected, the owner, operator, or lessee shall notify the executive director and take action.

The ponding of water over waste in the closed MSW landfill will be prevented. Ponded water that occurs on a closed MSW landfill unit will be eliminated as quickly as possible.

Surface drainage in and around the structure will be controlled to minimize surface water running onto, into, and off the closed MSW landfill.

All conduits intended for the transport or carrying of fluids over or within the closed MSW landfill will be double-containment. Or, 2 ft of compacted, clay-rich soil with a permeability not greater than 1x10E-7 cm/sec will be placed in the base of the trench and a HDPE 30-mil sealed liner will be installed on the bottom and sides of the trench. The conduit for carrying fluids will then be placed above the HDPE liner in the trench and clean backfill added to the sides. The HDPE liner will extend approximately 1 ft on top of the trench, be overlapped, and sealed. In accordance with §330.453(a) and (b), 18 inches of compacted clayey soil that is free of waste and 6 inches of topsoil that can support native vegetation will be in place for utility trenches in areas that are not covered by buildings, asphalt, or pavement.

The owner or lessee shall promptly record and retain in the operating record the following information:

- all results from gas monitoring and any remediation plans pertaining to explosive and other gases;
- all unit design documentation for the placement of gas monitoring systems and leachate or gas condensate removal or disposal related to the closed MSW landfill unit;
- copies of all correspondence and responses relating to the development permit;
- all documents relating to the operation and maintenance of the building, facility, or monitoring systems as they relate to the development permit; and
- any other document(s) as specified by the approved development permit or by the executive director.

The owner, operator, or lessee shall provide written notification to the executive director, and any local pollution agency with jurisdiction that has requested to be notified, for each occurrence that documents listed in subsection (h) of this section are placed into or added to the operating record. All information contained in the operating record shall be furnished upon request to the executive director and shall be made available at all reasonable times for inspection by the executive director or his representative.

The following equipment is expected to be used at the structures and a maintenance schedule for this equipment is provided below.

Description	Procedures and Function	Maintenance Schedule
Offices	Daily office use	As-needed office updates
Cleaning/maintenance equipment	General housekeeping/maintenance	As-needed maintenance/cleaning
HVAC	Interior climate control	Semi-annually
Electric water heaters	Hot water control	Annually
Lighting	Interior lighting control	As-needed replacement
IT/Network equipment	Telephone, internet, cameras, etc.	As-needed repair/replacement

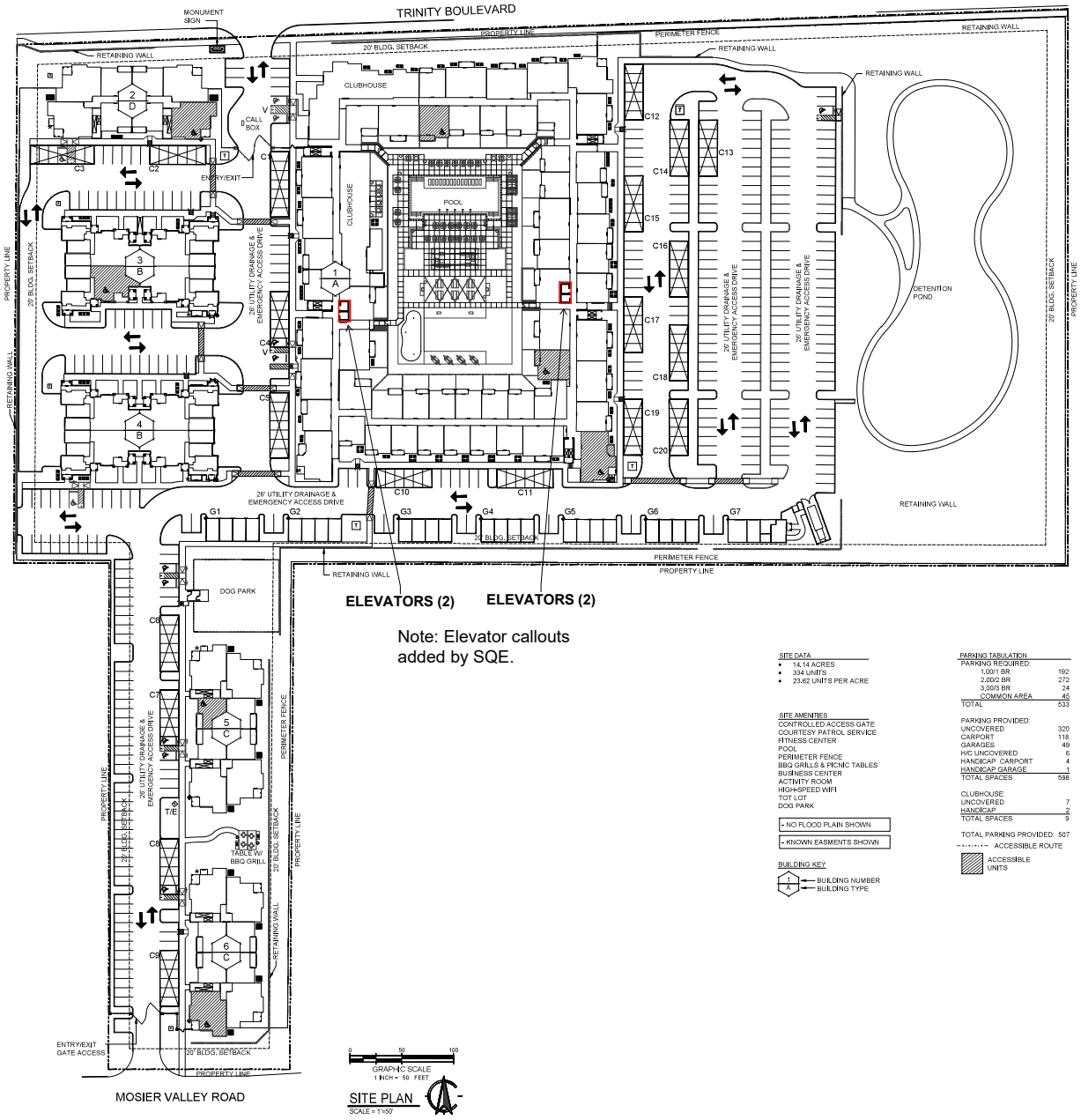
The equipment list will be reviewed and updated as needed. In addition, two of the structures will have enclosed garages for vehicles.

SAFETY AND EVACUATION PLAN

The residential structures will consist of two to four story buildings with offices, residential spaces, community spaces, restrooms, and garages on two of the buildings. As previously discussed, the VMS beneath each building will be equipped with methane sensors that will produce both an audible and visual alarm if concentrations of methane beneath the building exceeds 1% BV or 20% of the LEL.

By maintaining the potential concentration of methane beneath the building at 1% or 20% of the LEL, methane cannot accumulate to these levels in the building. Typically, “attenuation” levels through a building slab are 0.03 meaning that even as a worst case, the methane concentrations in the building cannot exceed 33% of 20% of the LEL since the “trigger” will be the methane concentration beneath the building, and not in the building. Methane will also be installed within the buildings and will be equipped with methane monitors with audible alarms. In the event that the methane monitors within the VMS detect elevated levels of methane, the VMS vent fans will immediately be turned on (if they were not already running) and monitoring at the sample ports will be performed to verify that the concentrations within the buildings are below the threshold levels.

Building occupants will be notified that the building is located over methane gas, and that controls are in place to minimize the potential danger posed by the methane gas. In the event that the methane monitors inside the building detect elevated levels of methane, alarms will be triggered, and residents will evacuate the building and only re-enter when conditions are safe. Each living space will be equipped with a graphic evacuation plan map directing occupants where to go in the event of an alarm including a rally point and contact phone numbers.



Note: Elevator callouts added by SQE.

SITE DATA
- 14.14 ACRES
- 334 UNITS
- 23.62 UNITS PER ACRE

SITE AMENITIES
CONTROLLED ACCESS GATE
COURTESY PATROL SERVICE
FITNESS CENTER
POOL
PERIMETER FENCE
BBQ GRILLS & PICNIC TABLES
BUSINESS CENTER
ACTIVITY ROOM
HIGH-SPEED WIFI
TOT LOT
DOG PARK

- NO FLOOD PLAIN SHOWN
- KNOWN EASMENTS SHOWN

BUILDING KEY
1 — BUILDING NUMBER
A — BUILDING TYPE

PARKING TABULATION

PARKING REQUIRED:	
1.00/1 BR	192
2.00/2 BR	272
3.00/3 BR	24
COMMON AREA	45
TOTAL	533

PARKING PROVIDED:	
UNCOVERED	320
CARPORT	118
GARAGES	49
H/C UNCOVERED	6
HANDICAP CARPORT	4
HANDICAP GARAGE	1
TOTAL SPACES	598

CLUBHOUSE:	
UNCOVERED	7
HANDICAP	2
TOTAL SPACES	9

TOTAL PARKING PROVIDED: 507

ACCESSIBLE ROUTE

ACCESSIBLE UNITS

04.30.2024
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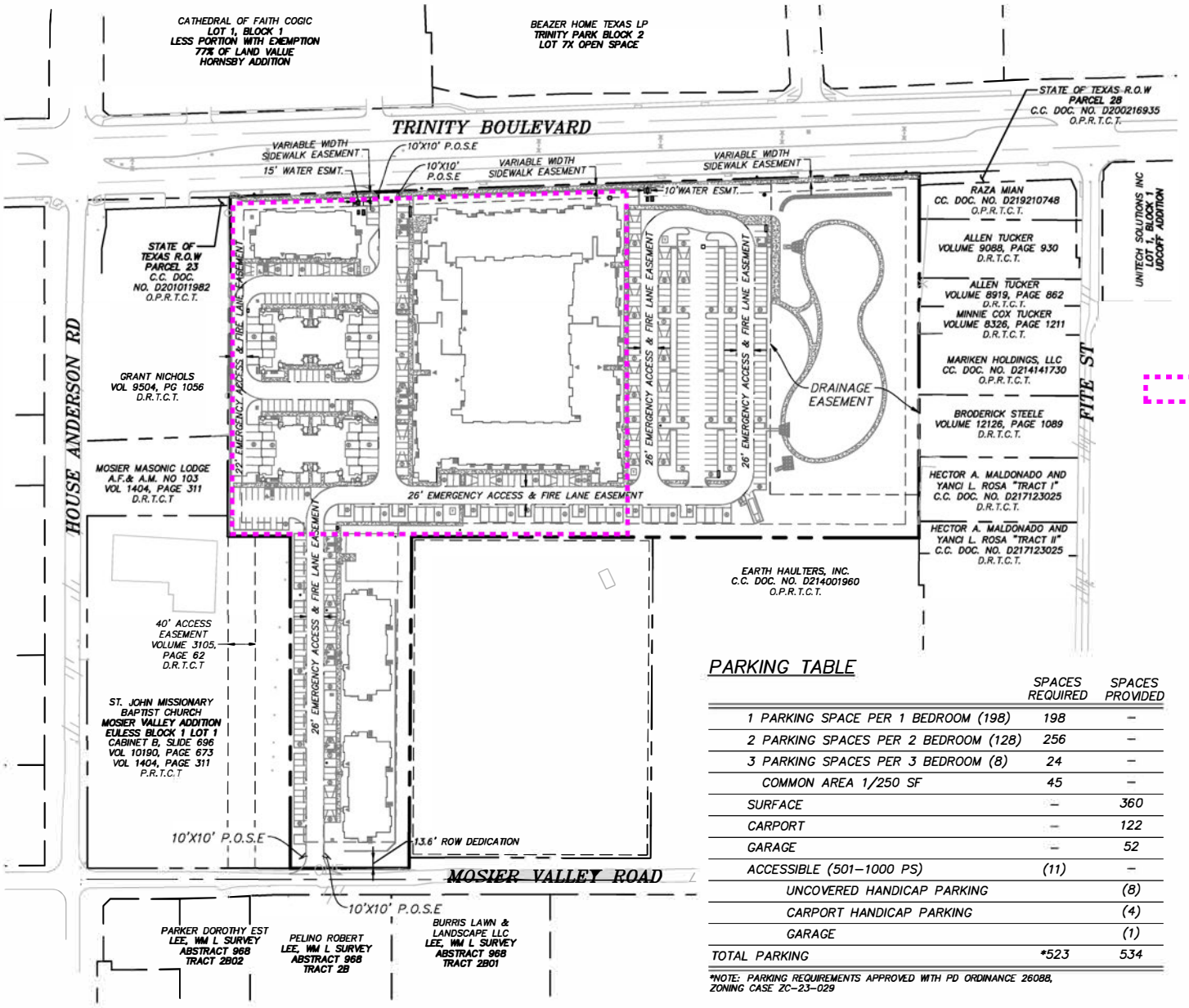
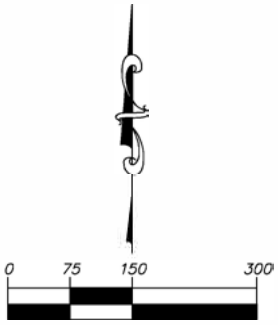
TEXAS STAR
FORT WORTH, TEXAS

DATE:
04.30.2024
PROJECT NUMBER:
23067
REVISIONS

NO.	DATE

ISSUED FOR:
95% SET
SHEET NUMBER
A1.0
SITE PLAN





SUBJECT PROPERTY & LIMITS OF WASTE BOUNDARY

Note: Subject property and limits of waste boundary added by SQE.

PARKING TABLE

	SPACES REQUIRED	SPACES PROVIDED
1 PARKING SPACE PER 1 BEDROOM (198)	198	–
2 PARKING SPACES PER 2 BEDROOM (128)	256	–
3 PARKING SPACES PER 3 BEDROOM (8)	24	–
COMMON AREA 1/250 SF	45	–
SURFACE	–	360
CARPORT	–	122
GARAGE	–	52
ACCESSIBLE (501–1000 PS)	(11)	–
UNCOVERED HANDICAP PARKING		(8)
CARPORT HANDICAP PARKING		(4)
GARAGE		(1)
TOTAL PARKING	*523	534

*NOTE: PARKING REQUIREMENTS APPROVED WITH PD ORDINANCE 26088, ZONING CASE ZC-23-029

4/30/2024
STATE OF TEXAS
VALERIE ARRUDA
151600
LICENSED
PROFESSIONAL ENGINEER

TEXAS STAR MULTIFAMILY
FORT WORTH, TEXAS

SITE PLAN

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PROJECT MANAGER:	V. ARRUDA
DRAWN BY:	G. SANCHEZ
CHECKED BY:	V. ARRUDA
ISSUE DATE:	4/30/2024

REV.	DATE	DESCRIP.	BY

SHEET CONTENT:

SITE PLAN

SHEET NO: C3.0