CITY OF GARLAND TRANSFER STATION FACILITY
GARLAND, DALLAS COUNTY, TEXAS
TCEQ PERMIT NO. MSW-12A

MAJOR PERMIT AMENDMENT APPLICATION

Prepared for

City of Garland

June 2022

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

Prepared by

Weaver Consultants Group, LLC
TBPE Registration No. F-3727
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109
817-735-9770

WCG Project No. 0647-003-11-11

This document is issued for permitting purposes only.

Weaver
Consultants
Group

June 30, 2022
Project No. 0647-003-11-11

Mr. Toby Baker
Executive Director
Texas Commission on Environmental Quality
12100 Park 35 Circle, MC-109
Austin, Texas 78753

Re: Major Permit Amendment Application
City of Garland – City of Garland Transfer Station Facility
Current TCEQ Permit No. MSW-12
Dallas County, Texas

Dear Mr. Baker:

On behalf of the City of Garland, please find enclosed a Major Permit Amendment Application for the City of Garland Transfer Station Facility (Garland TS). Included are one original and two copies of the application for your technical review. Additionally, an email containing a web link to download this request was sent to mswper@tceq.texas.gov.

The purpose of this Major Permit Amendment Application is to secure authorization to (1) increase the currently permitted allowable daily waste transfer rate from a maximum of 500 tons per day (tpd) to 1,500 tpd, (2) update the permit boundary from 8.644 acres to 12.839 acres to establish a future convenience area, and (3) allow for the receipt of specific special waste. The Garland TS is an existing TCEQ authorized Type V processing facility (currently TCEQ Permit No. MSW-12) that has been in operation since 1975.

The Waste Acceptance Plan in this application sets forth the requirements for specific special waste acceptance. Please process this permit amendment per Title 30 TAC §305.62(j)(1)(C), which is for an increase in daily maximum limit of waste acceptance for a Type V processing facility.

No changes to the existing site layout of the transfer station building are proposed. As demonstrated in the application, the existing facility has the capacity to effectively process the proposed maximum allowable solid waste of 1,500 tpd. In addition, area access roads have adequate capacity to continue to service the site at the increased rate of solid waste transfer.

The City of Garland is fully committed to operating the Garland TS consistent with TCEQ rules and regulations in order protect human health and the environment.

We appreciate your technical review of this permit application. If you have any questions, please do not hesitate to contact me.

Sincerely,
Weaver Consultants Group, LLC

Nevzat Turan, P.E.
Principal

Enclosures: Major Permit Amendment Application (original and 3 copies)

cc: Garland Central Public Library
Jason Chessher, City of Garland

TCEQ Core Data Form

TCEQ Use Only

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

SECTION I: General Information

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

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

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

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number *(if issued)***
CN 600328694		RN 102214145

SECTION II: Customer Information

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

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

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

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

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

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

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

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

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

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

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

15. Mailing Address:							
	City		**State**		**ZIP**		**ZIP + 4**

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

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

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)*

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

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

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

23. Street Address of the Regulated Entity: *(No PO Boxes)*							
	City		State		ZIP		ZIP + 4
24. County							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	

26. Nearest City	State	Nearest ZIP Code

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

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

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

34. Mailing Address:							
	City		State		ZIP		ZIP + 4
35. E-Mail Address:							

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

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

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☒ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
MSW-12				
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Nevzat Turan, P.E.	**41. Title:**	Senior Engineer

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(817) 735-9770		(817) 735-9775	nturan@wcgrp.com

SECTION V: Authorized Signature

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

Company:	Jason Chessher	**Job Title:**	Managing Director
Name *(In Print)*:	Jason Chessher	**Phone:**	(214) 205- **3424**
Signature:	Jason Chessher	**Date:**	6/29/2022

Facility Name: City of Garland Transfer Station Facility
Permittee/Registrant Name: City of Garland
MSW Authorization #:12A
Initial Submittal Date: 6/30/2022
Revision Date:

Texas Commission on Environmental Quality

Part I Application Form for New Permit, Permit Amendment, or Registration for a Municipal Solid Waste Facility

1. Reason for Submittal

☒ Initial Submittal ☐ Notice of Deficiency (NOD) Response

2. Authorization Type

☒ Permit ☐ Registration

3. Application Type

☐ New Permit ☒ Permit Major Amendment ☐ Permit Major Amendment (Limited Scope)

☐ New Registration

4. Application Fees

Amount

☒ $2,050 for Permits and Permit Amendments ☐ $150 for Registrations

Payment Method

☐ Check ☒ Online through ePay portal <https://www3.tceq.texas.gov/epay/>

If paid online, enter ePay Trace Number: **582EA000497001**

5. Application URL

Is the application submitted for a Type I Arid Exempt (AE) or Type IV AE facility?

☐ Yes ☒ No

If the answer is "No", provide the URL address of a publicly accessible internet web site where the application and all revisions to that application will be posted.
http://**www.ftwweaverboos.com**

6. Application Publishing

Party Responsible for Publishing Notice:

☐ Applicant ☐ Agent in Service ☒ Consultant

Contact Name: **Nevzat Turan, P.E.** Title: **Principal**

7. Alternative Language Notice

Is an alternative language notice required for this application? (For determination refer to Alternative Language Checklist on the Public Notice Verification Form TCEQ-20244-Waste)

☒ Yes ☐ No

8. Public Place Location of Application

Name of the Public Place: **Garland Central Public Library**

Physical Address: **625 Austin St.**

City: **Garland** County: **Dallas** State: **TX** Zip Code: **75040**

(Area code) Telephone Number: **(972) 205-2500**

9. Consolidated Permit Processing

Is this submittal part of a consolidated permit processing request, in accordance with 30 TAC Chapter 33?

☐ Yes ☒ No ☐ Not Applicable

If "Yes", state the other TCEQ program authorizations requested:

10. 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."

11. Permits and Construction Approvals			
Permit or Approval	**Received**	**Pending**	**Not Applicable**
Hazardous Waste Management Program under the Texas Solid Waste Disposal Act	☐	☐	☒
Underground Injection Control Program under the Texas Injection Well Act	☐	☐	☒
National Pollutant Discharge Elimination System Program under the Clean Water Act and Waste Discharge Program under Texas Water Code, Chapter 26	☒	☐	☐
Prevention of Significant Deterioration Program under the Federal Clean Air Act (FCAA). Nonattainment Program under the FCAA	☐	☐	☒
National Emission Standards for Hazardous Air Pollutants Preconstruction Approval under the FCAA	☐	☐	☒
Ocean Dumping Permits under the Marine Protection Research and Sanctuaries Act	☐	☐	☒
Dredge or Fill Permits under the CWA	☐	☐	☒
Licenses under the Texas Radiation Control Act	☐	☐	☒
Other (describe) Permit by Rule for MSW Transfer Stations (30 TAC 106.534). Documentation that the facility meets the requirements of Title 30 TAC 106.534 is maintained in the facility's site operating record.	☒	☐	☐
Other (describe)	☐	☐	☐
Other (describe)	☐	☐	☐
Other (describe)	☐	☐	☐

12. General Facility Information

Facility Name: City of Garland Transfer Station Facility

Contact Name: **Jason Chessher** Title: **Managing Director**

MSW Authorization No. (if available): **12A**

Regulated Entity Reference No. (if issued)*: RN**102214145**

Physical or Street Address (if available): **1434 Commerce St.**

City: **Garland** County: **Dallas** State: **TX** Zip Code: **75040**

(Area Code) Telephone Number: **214-205-3424**

Latitude (Degrees, Minutes Seconds): **N 32° 54' 30.0**

Longitude (Degrees, Minutes Seconds): **W 96° 36' 33.5"**

Benchmark Elevation (above mean sea level): ft.

Provide a description of the location of the facility with respect to known or easily identifiable landmarks: **The site entrance is located approximately 1/4 mile SE of the intersection of State Hwy 66 and Commerce St. in Garland, Texas.**

Detail access routes from the nearest United States or state highway to the facility: **The site is accessed from State Hwy 66 and turning south on Commerce St. The site entrance is located approximately 1/4 mile SE of the intersection of State Hwy 66 and Commerce St. and is located on the south side of the street.**

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

13. Facility Type(s)

☐ Type I ☐ Type IV ☒ Type V

☐ Type I AE ☐ Type IV AE ☐ Type VI

14. Activities Conducted at the Facility

☒ Storage ☒ Processing ☐ Disposal

15. Facility Waste Management Unit(s)

☐ Landfill Unit(s)
☐ Class 1 Landfill Unit(s)
☐ Process Tank(s)
☐ Storage Tank(s)
☒ Tipping Floor
☒ Storage Area
☒ Container(s)
☒ Roll-off Boxes
☐ Surface Impoundment

☐ Incinerator(s)
☐ Autoclave(s)
☐ Refrigeration Unit(s)
☐ Mobile Processing Unit(s)
- ☐ Type VI Demonstration Unit
- ☐ Compost Pile(s) and/or Vessel(s)
- ☐ Other (specify):
- ☐ Other (specify):

☒ Other (specify) **Recycling & Convenience Center**

16. Description of Proposed Facility or Changes to Existing Facility

Provide a brief description of the proposed activities if application is for a new facility, or the proposed changes to an existing facility or permit conditions if the application is for an amendment.

The purpose of this major permit amendment is to update the currently approved daily allowable waste transfer rate of 500 tons per day (tpd) to 1,500 tpd and to update the permit boundary from 8.64 acres to 12.839 acres.

17. Facility Contact Information

Site Operator (Permittee/Registrant) Name: City of Garland

Customer Reference No. (if issued)*: CN**600328694**

Contact Name: **Jason Chessher** Title: **Managing Director**

Mailing Address: **PO Box 469002**

City: **Garland** County: **Dallas** State: **TX** Zip Code: **75040**

(Area Code) Telephone Number: **214-205-3424**

Email Address: **JChesshe@garlandtx.gov**

TX Secretary of State (SOS) Filing Number: **N/A**

*If the Site Operator (Permittee/Registrant) does not have this number, complete a TCEQ Core Data Form (TCEQ-10400) and submit it with this application. List the Site Operator (Permittee/Registrant) as the Customer.

Operator Name[1]: Same as Permittee

Customer Reference No. (if issued)*:

Contact Name: Title:

Mailing Address:

City: County: State: Zip Code:

(Area Code) Telephone Number:

Email Address:

TX SOS Filing Number:

[1]If the Operator is the same as Site Operator/Permittee type "Same as "Site Operator (Permittee/Registrant)".
*If the Operator does not have this number, complete a TCEQ Core Data Form (TCEQ-10400) and submit it with this application. List the Operator as the customer.

Consultant Name (if applicable): Weaver Consultants Group, LLC

Texas Board of Professional Engineers Firm Registration Number: **F-3727**

Contact Name: **Nevzat Turan, P.E.** Title: **Principal**

Mailing Address: **6420 Southwest Blvd., Suite 206**

City: **Fort Worth** County: **Dallas** State: **TX** Zip Code: **76109**

(Area Code) Telephone Number: **817-735-9770**

Email Address: **nturan@wcgrp.com**

Agent in Service Name (required only for out-of-state): N/A

Mailing Address:

City: County: State: Zip Code:

(Area Code) Telephone Number:

Email Address:

18. Facility Supervisor's License

Select the Type of License that the Solid Waste Facility Supervisor, as defined in 30 TAC Chapter 30, Occupational Licenses and Registrations, will obtain prior to commencing facility operations.

☐ Class A ☒ Class B

19. Ownership Status of the Facility

☐ Corporation	☐ Limited Partnership	☐ Federal Government
☐ Individual	☒ City Government	☐ Other Government
☐ Sole Proprietorship	☐ County Government	☐ Military
☐ General Partnership	☐ State Government	☐ Other (specify):

Does the Site Operator (Permittee/Registrant) own all the facility units and all the facility property?

☒ Yes ☐ No

If "No", provide the information requested below for any additional ownership.

Owner Name:

Street or P.O. Box:

City: County: State: Zip Code:

(Area Code) Telephone Number:

Email Address:

20. Other Governmental Entities Information

Texas Department of Transportation District: Dallas

District Engineer's Name: **Mohamed "Mo" Bur, P.E.**

Street Address or P.O. Box: **4777 E. U.S. Highway 80**

City: **Mesquite** County: **Dallas** State: **TX** Zip Code: **75150**

(Area Code) Telephone Number: **(214) 320-6100**

Email Address:

The Local Governmental Authority Responsible for Road Maintenance (if applicable): City of Garland Street Department

Contact Person's Name: **Steve Oliver**

Street Address or P.O. Box: **P.O. Box 469002**

City: **Garland** County: **Dallas** State: **TX** Zip Code: **75046**

(Area Code) Telephone Number: **(972) 205-3558**

Email Address:

City Mayor Information

City Mayor's Name: **Mayor Scott LeMay**

Office Address: **P.O. Box 469002**

City: **Garland** County: **Dallas** State: **TX** Zip Code: **75046**

(Area Code) Telephone Number: **(972) 205-2400**

Email Address:

City Health Authority: City of Garland Public Health Department

Contact Person's Name: **Jason Chessher**

Street Address or P.O. Box: **1720 Commerce St.**

City: **Garland** County: **Dallas** State: **TX** Zip Code: **75040**

(Area Code) Telephone Number: **(972) 205-3460**

Email Address: **JChesshe@garlandtx.gov**

County Judge Information

County Judge's Name: **Judge Margaret O'Brien**

Street Address or P.O. Box: **140 N. Garland Avenue**

City: **Garland** County: **Dallas** State: **TX** Zip Code: **75040**

(Area Code) Telephone Number: **(214) 643-4773**

Email Address: **JP21Court@dallascounty.org**

County Health Authority: Dallas County Health and Human Services

Contact Person's Name: **Philip Huang, MD, MPH, Director/Health Authority**

Street Address or P.O. Box: **2377 N. Stemmons Freeway**

City: **Dallas** County: **Dallas** State: **TX** Zip Code: **75207**

(Area Code) Telephone Number: **(214) 819-2000**

Email Address:

State Representative Information

District Number: **112**

State Representative's Name: **Rep. Angie Chen Button**

District Office Address: **1201 International Parkway #130**

City: **Richardson** County: **Dallas** State: **TX** Zip Code: **75081**

(Area Code) Telephone Number: **(972) 234-8980**

Email Address:

State Senator Information

District Number: **2**

State Senator's Name: **Senator Bob Hall**

District Office Address: **Alliance Building #2, 6537 Horizon Road, Suite B-1**

City: **Rockwall** County: **Rockwall** State: **TX** Zip Code: **75032**

(Area Code) Telephone Number: **(972) 722-3131**

Email Address:

Council of Government (COG) Name: NCTCOG

COG Representative's Name: **Mike Eastland**

COG Representative's Title: **Executive Director**

Street Address or P.O. Box: **616 Six Flags Drive, PO Box 5888**

City: **Arlington** County: **Tarrant** State: **TX** Zip Code: **76005-5888**

(Area Code) Telephone Number: **(817) 640-3300**

Email Address:

River Basin Authority Name: Trinity River Authority

Contact Person's Name: **Kevin Ward, General Manager**

Watershed Sub-Basin Name: **Mills Branch of Rowlett Creek (Segment 0820B_01)**

Street Address or P.O. Box: **PO Box 60**

City: **Arlington** County: **Tarrant** State: **TX** Zip Code: **76004**

(Area Code) Telephone Number: **(817) 467-4343**

Email Address:

Coastal Management Program

Is the facility within the Coastal Management Program boundary?

☐ Yes ☒ No

U.S. Army Corps of Engineers

The facility is located in the following District of the U.S. Army Corps of Engineers:

☐ Albuquerque, NM ☐ Galveston, TX

☒ Ft. Worth, TX ☐ Tulsa, OK

Local Government Jurisdiction

Within City Limits of: **Garland**

Within Extraterritorial Jurisdiction of: **N/A**

Is the facility located in an area in which the governing body of the municipality or county has prohibited the storage, processing or disposal of municipal or industrial solid waste?

☐ Yes ☒ No

If "Yes", provide a copy of the ordinance or order as an attachment.

Signature Page

I, Jason Chessher, Managing Director, Department of Health,
(Site Operator (Permittee/Registrant)'s Authorized Signatory) (Title)

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.

Signature: Jason Chessher Date: 6/29/2022

TO BE COMPLETED BY THE OPERATOR IF THE APPLICATION IS SIGNED BY AN AUTHORIZED REPRESENTATIVE FOR THE OPERATOR

I, ____________________, hereby designate ________________________
(Print or Type Operator Name) (Print or Type Representative Name)

as my representative and hereby authorize said representative to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a Texas Water Code or Texas Solid Waste Disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my authorized representative in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

____
Printed or Typed Name of Operator or Principal Executive Officer

____
Signature

SUBSCRIBED AND SWORN to before me by the said Jason Chessher
On this 29th day of June, 2022
My commission expires on the 17th day of May, 2025
Helen M. Hanson
Notary Public in and for
Tarrant County, Texas
(Note: Application Must Bear Signature & Seal of Notary Public)

HELEN M. HANSON
Notary Public, State of Texas
Comm. Expires 05-17-2025
Notary ID 10180332

Part I Attachments

(See Instructions for P.E. seal requirements.)

Required Attachments	Attachment No.
Supplementary Technical Report	Parts I/II Section 2
Property Legal Description	Parts I/II Section 13
Property Metes and Bounds Description	Parts I/II Section 13
Facility Legal Description	Parts I/II Section 13
Facility Metes and Bounds Description	Parts I/II Section 13
Metes and Bounds Drawings	Parts I/II Section 13
On-Site Easements Drawing	Parts I/II Section 13
Land Ownership Map	Parts I/II Section 5
Land Ownership List	Provided on CD
Electronic List or Mailing Labels	Provided on CD
Texas Department of Transportation (TxDOT) County Map	Parts I/II Section 4
General Location Map	Parts I/II Section 4
General Topographic Map	Parts I/II Section 4
Verification of Legal Status	Parts I/II Section 15
Property Owner Affidavit	Parts I/II Section 14
Evidence of Competency	Parts I/II Section 16

Additional Attachments as Applicable- Select all those apply and add as necessary

☒ TCEQ Core Data Form(s)	
☒ Signatory Authority Delegation	Parts I/II Section 17
☒ Fee Payment Receipt	
☐ Confidential Documents	
☐ Waste Storage, Processing and Disposal Ordinances	
☒ Final Plat Record of Property	Parts I/II Section 13
☐ Certificate of Fact (Certificate of Incorporation)	
☐ Assumed Name Certificate	

CITY OF GARLAND TRANSFER STATION FACILITY
GARLAND, DALLAS COUNTY, TEXAS
TCEQ PERMIT NO. MSW-12A

MAJOR PERMIT AMENDMENT APPLICATION

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PARTS I/II
GENERAL APPLICATION REQUIREMENTS

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STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

LIST OF ACRONYMS

CFR – Code of Federal Regulations

CWA – Clean Water Act

ETJ – Extra Territorial Jurisdiction

FCAA – Federal Clean Air Act

FEMA – Federal Emergency Management Agency

FIRM – Flood Insurance Rate Map

MSW – Municipal Solid Waste

NCTCOG – North Central Texas Council of Governments

NESHAPS – National Emission Standards for Hazardous Pollutants

PCBs – Polychlorinated Biphenyls

PSD – Prevention of Significant Deterioration

SDP – Site Development Plan

SIC – Standard Industrial Code

SOP – Site Operating Plan

SWP3 – Stormwater Pollution Prevention Plan

TAC – Texas Administrative Code

TCEQ – Texas Commission on Environmental Quality

THC – Texas Historical Commission

TPDES – Texas Pollutant Discharge Elimination System

TS – Transfer Station

TWDB – Texas Water Development Board

TxDOT – Texas Department of Transportation

UIC – Underground Injection Control

USDA – United States Department of Agriculture

WCG – Weaver Consultants Group

1 INTRODUCTION

Parts I/II addresses §330.59, §330.61, and §305.45.

The City of Garland Transfer Station Facility (Garland TS or TS) is an existing Type V municipal solid waste (MSW) management facility owned and operated by the City of Garland. The facility has been in operation since 1975. The Garland TS is located south of Commerce Street, approximately 1/4-mile southeast of the intersection of Highway 66 and Commerce Street in Garland, Texas. The Garland TS is located on land owned by the City of Garland.

The primary purpose of this Major Permit Amendment Application is to secure authorization to (1) increase the currently permitted allowable daily waste transfer rate from a maximum of 500 tons per day (tpd) to 1,500 tpd, (2) update the permit boundary from 8.644 acres to 12.839 acres, in order to establish a future convenience area, and (3) allow for the receipt of specific special waste.

No changes to the existing site layout of the Garland TS building or layout are proposed. However, changes are being made to the permit boundary to incorporate adjacent property owned by the City. As demonstrated in the application, the existing facility has the capacity to effectively transfer 1,500 tpd of solid waste. In addition, the existing access roads have adequate capacity to continue to provide access to the site at the increased rate of solid waste transfer.

The increase in the maximum daily waste transfer rate to 1,500 tpd will allow the facility to more effectively meet anticipated market growth and better serve the long-term solid waste processing and disposal needs of the City of Garland and surrounding communities and to effectively manage waste in unison with customer needs and permitted disposal facilities.

The General Application Requirements section (Parts I/II) of this Permit Application for the Garland TS has been prepared consistent with the applicable State of Texas requirements set forth in Title 30 Texas Administrative Code (TAC) §330.59 and §330.61. Section 2 of this application, Supplementary Technical Report, presents an overview of the project and a detailed facility description as well as the types of waste that are accepted at the facility. The remaining portions of the General Application Requirements section of this Major Permit Amendment Application present information on specific existing conditions on and around the Garland TS and legal matters of the entities involved in the application process. The General Application Requirements have been combined in accordance with Title 30 TAC §330.57(c)(2).

2 SUPPLEMENTARY TECHNICAL REPORT

2.1 Facility Description and Project Overview

This appendix addresses §305.45(a)(7), §305.45(a)(8), §330.57(i), §330.59(b), §330.61(b), §330.61(l), §330.61(o), and §330.61(p).

The existing Garland TS is a permitted Type V MSW processing facility located south of Commerce Street, approximately 1/4-mile southeast of the intersection of State Highway 66 and Commerce Street in Garland, Texas. The longitudinal and latitudinal geographic coordinates for the Garland TS are shown in Section 4.

The facility provides an efficient means to transfer municipal solid waste that is generated in the City of Garland, other cities authorized to use the transfer station, and the public to the Charles M. Hinton, Jr. Regional Landfill (Hinton Landfill) in Dallas County or another properly permitted MSW landfill. This service area is based on current economic and logistical conditions. As economic and logistical conditions change, the facility may accept waste from areas other than those identified above.

The quantity and types of waste to be transferred at the Garland TS, as well as the site development and site operations, are discussed in the following subsections.

2.1.1 Transfer Rate

The primary purpose of this Major Permit Amendment Application is to secure authorization to increase the daily maximum limit of waste acceptance from 500 tpd to 1,500 tpd.

No changes to the existing site layout of the Garland TS building and the existing facilities within the permit boundary are proposed. As demonstrated in Table 2-1, the physical design capacity (2,400 tpd) of the Garland TS exceeds the proposed daily maximum allowable waste transfer rate of 1,500 tpd proposed for this amendment. Therefore, the existing facility has the capacity to manage the increased daily throughput in a safe and effective manner.

There is no proposed change to the permitted maximum volume acceptance for storage, which is 1,000 tons of solid waste. Per the City of Garland, the maximum

Table 2-1
City of Garland Transfer Station Facility Design Capacity

Item	Transfer Station Capacity
Unloading Capacity	
Number of Unloading Positions	5 positions
Average Time to Unload a Collection Vehicle (scale -> TS building (unload) -> TS Exit)	10 minutes
Collection Vehicles Unloading per Hour for Each Unloading Position	6 vehicles/ hour/position
Hourly Unloading Capacity (tons/hr)	210 tons/hour
Maximum Unloading Capacity (tons/day)	2,520 tons/day
Loadout Capacity	
Number of Transfer Loading Positions	1 tunnel
Typical Loading Time for Each Loadout Position (min)	6 minutes
Transfer Trailers Loading per Hour per Position	10 trailers/ hour/position
Hourly Average Loading Capacity (tons/hr)	200 tons/hour
Total Daily Load-out Capacity (tons/day)	2,400 tons/day
Summary	
Design capacity is determined by the lower value of the unloading and loadout capacity. Therefore, the design capacity is 2,400 tons/12 hr - day, which is greater than the requested maximum daily waste acceptance limit of 1,500 tons/day. The TS can process (accept and transfer) 1,500 tons in 7 hours 30 minutes (1,500/200).	

This value represents the number of unloading positions for the TS. This TS has 5 unloading positions on the TS building tipping floor.

This value is the number of vehicles that can unload per hour at each unloading position (i.e., [60 min/hr/ 10 min per vehicle]).

This value represents the number of transfer trailer loading positions for the TS building.

This value represents the hourly transfer trailer loading capacity (i.e., [(60 min/hr/6 min per trailer) x # of tunnel]).

The hourly unloading capacity is determined by multiplying the number of unloading positions by the amount of vehicles unloading per hour. i.e., multiplying 5 unloading positions with 6 vehicles per hour per position by average of 7 tons per vehicle.

The processing capacity of the TS is determined by multiplying the tons per hour by the typical daily operating hours (i.e., 12 hrs x 210 tph).

This value represents the amount of waste that can be loaded to the transfer trailers per hour. The total number of trailers loaded multiplied by an average of 20 tons per load (or 10x20).

This value represents the Total Daily Load-out Capacity by taking the Hourly Average Loading Capacity multiplied by typical (12 hrs) daily operating hours.

amount of time waste material will be stored in the transfer station will not exceed 72 hours. Waste will only be stored in the transfer station building.

The increase in the maximum daily waste acceptance rate will allow the Garland TS to more effectively serve the long-term solid waste processing and disposal needs of the City of Garland and surrounding communities.

2.1.2 Permit Boundary

The current permit boundary encompasses 8.64 acres. A permit boundary change is being made in order to incorporate an additional 4.195 acres owned by the City of Garland into the permit boundary. The updated permit boundary legal description is provided in Parts I/II, Section 13 – Legal Description.

2.1.3 Waste Acceptance Plan

The Garland TS building is a metal and reinforced concrete building consisting of three horizontal levels. The unloading pit and transfer trailer tunnel portions of the building are reinforced concrete. Waste is unloaded from the unloading area (tipping floor) into the concrete unloading pit that slopes to the transfer trailer loading tunnel. The tipping floor is used for delivery vehicle maneuvering only in order to unload delivered waste directly into the unloading pit. A dozer is used to push the waste from the unloading pit into the transfer trailer loading tunnel located on the south end of the TS building. The facility layout is included in Section 3 – Existing Conditions Summary and in Part III, Appendix IIIA.

The major classifications of solid waste accepted at the Garland TS include household waste, yard waste, commercial waste, certain types of industrial waste (nonhazardous), construction-demolition waste, and specific special wastes. Each classification of waste is defined in Title 30 TAC §330.3 and summarized below:

- **Household Waste:** Any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including single and multiple residences, hotels, motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas); does not include brush as defined in Title 30 TAC §330.3 (64).
- **Yard Waste:** Leaves, grass clippings, yard and garden debris, and brush, including clean woody vegetative material not greater than 6 inches in diameter, that results from landscaping maintenance and land-clearing operations. The term does not include stumps, roots, or shrubs with intact root balls.
- **Commercial Solid Waste:** All types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.

- **Industrial Waste (Nonhazardous):** Solid waste resulting from or incidental to any process of industry or manufacturing, or mining or agricultural operations, classified as follows:
  - Class 2 Industrial Solid Waste – Any individual solid waste or combination of industrial solid wastes that are not described as Hazardous, Class 1, or Class 3, as defined in Title 30 TAC §335.506 (relating to Class 2 Waste Determination).
  - Class 3 Industrial Solid Waste – Inert and essentially insoluble industrial solid waste, usually including, but not limited to, materials such as rock, brick, glass, dirt, and certain plastics and rubber, etc., that are not readily decomposable as further defined in Title 30 TAC §335.507 (relating to Class 3 Waste Determination).
- **Construction-Demolition Waste:** Waste resulting from construction or demolition projects; includes all materials that are directly or indirectly the by-products of construction work or that result from demolition of buildings and other structures, including, but not limited to, paper, cartons, gypsum board, wood, excelsior, rubber, and plastics.
- **Special wastes:** dead animals that are incidental to routine collection of municipal solid waste and that can be systematically processed along with other solid waste. A special waste acceptance plan is included in Part IV – SOP, Appendix IVA.

Consistent with Title 30 TAC §330.15(e), the facility will not accept the following:

- Regulated hazardous waste
- Radioactive waste
- PCBs
- Liquid Wastes
- Certain special wastes, including:
  - hazardous waste from conditionally exempt small-quantity generators that may be exempt from full controls under Chapter 335, Subchapter N of this title (relating to Household Materials Which Could Be Classified as Hazardous Wastes);
  - Class 1 industrial nonhazardous waste;
  - untreated medical waste;
  - municipal wastewater treatment plant sludges, other types of domestic sewage treatment plant sludges, and water-supply treatment plant sludges;
  - septic tank pumpings;

- grease and grit trap wastes;
- wastes from commercial or industrial wastewater treatment plants, air pollution control facilities, and tanks, drums, or containers used for sipping or storing any material that has been listed as a hazardous constituent in 40 CFR, Part 261, Appendix VIII but has not been listed as a commercial chemical product in 40 CFR, Section 261.33(e) or (f);
- Soil contaminated by petroleum products, crude oils, or chemicals in concentrations of greater than 1,500 milligrams per kilogram total petroleum hydrocarbons; or contaminated by constituents of concern that exceed the concentrations listed in Table 1 of Title 30 TAC §335.521(a)(1); and
- incinerator ash.

2.1.4 Service Area and Population Equivalent

The Garland TS serves residences and businesses in the City of Garland and surrounding cities, Dallas County, and surrounding counties. As discussed in Section 2.1.1, the facility will transfer no more than 1,500 tpd.

Waste will be transferred to the Hinton Landfill, a permitted Type I municipal solid waste facility (TCEQ Permit No. MSW-1895A) or another properly permitted MSW landfill on a daily basis. As economic conditions, population growth, and waste generation rates change, the volume of incoming waste may vary. The estimated maximum annual waste acceptance rate for the facility for five years is shown in the following table.

Year	Waste Acceptance Rate	
	Daily (tpd)	Annually (tons per year)
2022	1,500	547,500
2023	1,500	547,500
2024	1,500	547,500
2025	1,500	547,500
2026	1,500	547,500

The maximum daily waste acceptance rate of 1,500 tpd was used for each year of the 5-year waste acceptance rate projections, shown above. The actual daily acceptance rate will vary, and is expected to increase over time, but it will not be more than 1,500 tpd.

As shown below, the average population equivalent using the above projected maximum waste acceptance rates is 600,000 persons. As the transfer station service area conditions change, adjustments to the service area population may occur. The population equivalent of the areas served was calculated as follows:

$$\frac{(1{,}500\ tons/day)(2{,}000\ lbs/ton)}{(5\ lbs/person/day)} = 600{,}000\ persons$$

2.1.5 Site Development Plan

The site plans included within this application present the overall design and operating characteristics of the Garland TS. Drawings showing the Garland TS layout are presented in Appendix IIIA of the Part III – Site Development Plan. A summary of the development is provided below.

The Garland TS building is a metal and reinforced concrete building consisting of three horizontal levels (tipping floor, unloading pit, and transfer trailer loading tunnel). The TS building is approximately 12,000 square feet. The building is metal above the waste delivery vehicle tipping floor and reinforced concrete below the tipping floor. The waste push pit (or unloading pit) and waste loading tunnel (transfer trailer loading tunnel), located at elevations below the tipping floor, are made out of reinforced concrete and enforced with metal surfacing.

Collection vehicles delivering waste use the tipping floor for maneuvering only and directly unload delivered waste into the unloading pit; therefore, no waste handling/processing takes place on the tipping floor. The tipping floor is swept as needed into the unloading pit. Waste received in the unloading pit is pushed into the transfer trailers that are parked in the transfer trailer loading tunnel. As demonstrated on Table 2-1, the design capacity of the Garland TS exceeds the maximum daily waste transfer rate of 1,500 tpd.

Contaminated runoff and tunnel washdown water drains into the trench drain located at the exit of the tunnel as shown on Appendix IIIA drawings. Collected water is conveyed to a lift station sump located in the southwest corner of the TS building prior to being pumped to the City of Garland POTW sanitary sewer.

2.1.6 Site Operating Plan

The Site Operating Plan (SOP) for the Garland TS is presented in Part IV of this application. The site will be operated by appropriately trained city personnel. The SOP details the required equipment, personnel, and safety procedures required to operate the site in accordance with TCEQ regulations.

2.2 Texas Historical Commission Review

A letter was sent to the Texas Historical Commission (THC) in January 2022 requesting that the THC perform a review of cultural resources for the site. Since the site was initially permitted in 1975, the site was not required to notify the THC at that time. The objective of the recent request was to ensure that no historical artifacts or cultural resources of importance to the State of Texas will be disturbed or disrupted due to updating the permit boundary. No physical/structural modifications to the site or facility are proposed for this application. The THC concluded no historical properties are present or affected, and identified archaeological sites or other cultural resources would not be affected. The response from the THC is provided in Appendix I/IIA.

2.3 North Central Texas Council of Governments

The changes to the existing permit are consistent with the North Central Texas Council of Governments (NCTCOG) Regional Solid Waste Management Plan. In Section 4.10.3 of the NCTCOG Regional Solid Waste Management Plan, it is noted that transfer stations are a key component of the solid waste management infrastructure. NCTCOG reported in 2013 that transfer stations processed approximately 14 percent of MSW disposed in the North Central Texas Region.

The Garland TS is specifically listed in the NCTCOG Regional Plan and is consistent with NCTCOG's goal of providing integrated waste management practices to provide ample, convenient collection and disposal options.

Parts I/II of this application were submitted to the NCTCOG on June 22, 2022. A letter documenting that Parts I/II were submitted to the NCTCOG is included in Appendix I/IIA.

2.4 Abandoned Oil and Water Wells

2.4.1 Water Wells

A water well search was conducted by GeoSearch, Inc. for an area that included the 12.839-acre Garland TS permit boundary area and the area within a radius of approximately one mile from the site. There are no records of any water wells previously or presently located within 500 feet of the permit boundary as identified by the search. However, three water wells are located within one-mile of the site. A copy of the search is included in Appendix I/IIB.

If in the future any water well is discovered within the permit boundary, the City will, within 30 days of discovery, provide written certification to the TCEQ that all such wells have been capped, plugged, and closed in accordance with all applicable rules and regulations of the Commission or other state agency.

2.4.2 Oil and Gas Wells

An oil and gas well search was conducted for the Garland TS, for the area within 500 feet of the permit boundary. A search of the records of the Texas Railroad Commission oil and gas well GIS database revealed that there are no gas wells and

3 EXISTING CONDITIONS SUMMARY

This section addresses §330.61(a).

The existing site condition is shown on Figures I/II-3.1 and I/II-3.2. The Garland TS permit boundary encompasses 12.839 acres. The east permit boundary is bounded by city-owned property currently utilized as the Garland City Auto Pound and Garland Health Department; the DART railway tracks to the south and southwest; a metal recycling facility to the west; and the Garland Fire Department, an Atmos Energy facility, and a water tower to the north.

The current facility is a permitted MSW transfer station (TCEQ Permit No. MSW-12). The existing Garland TS facility includes the transfer station building that has three levels: (1) unloading area, (2) unloading pit, and (3) transfer trailer loading tunnel. The facility also includes a recycling center and citizens convenience station.

Access to the facility is controlled with various types of fencing with a minimum 4-foot-high barbed-wire fence along the perimeter of the permit property on Hebron Road, as included in Section 13. All areas with vehicular traffic are all-weather accessible, paved with concrete, asphalt, or crushed stone.

No changes to the existing site layout of the Garland TS building are proposed. As demonstrated in the application, the existing facility has the capacity to effectively transfer 1,500 tpd of solid waste. In addition, the existing access roads have adequate capacity to continue to provide access to the site at the increased rate of solid waste transfer.

Existing conditions figures include the following.

- Figure I/II-3.1 (Facility Plan – Aerial) – This figure presents an aerial view of the permit property facilities as well as the adjacent properties.
- Figure I/II-3.2 (Transfer Station Site Plan) – This figure shows the topography of the permit property, the layout of the transfer station and associated facilities, as well as traffic patterns within the permit boundary.

N

0 100 200
SCALE IN FEET

LEGEND

PERMIT BOUNDARY

FENCLINE

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE EARTH FROM PHOTOGRAPHY TAKEN OCTOBER, 2021.
2. THE PERMIT BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION DATED JANUARY 18, 2022 PREPARED BY WEAVER CONSULTANTS GROUP.
3. VARIOUS FENCING INSTALLED ALONG THE PERMIT BOUNDARY.

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

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DATE: 02/2022
FILE: 0647-03-11
CAD: 3.1-AERIAL.DWG

DRAWN BY: JDW
DESIGN BY: JBP
REVIEWED BY: NT

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
CITY OF GARLAND

REVISIONS

NO.	DATE	DESCRIPTION

MAJOR PERMIT AMENDMENT
FACILITY PLAN–AERIAL

CITY OF GARLAND TRANSFER STATION FACILITY
DALLAS COUNTY, TEXAS

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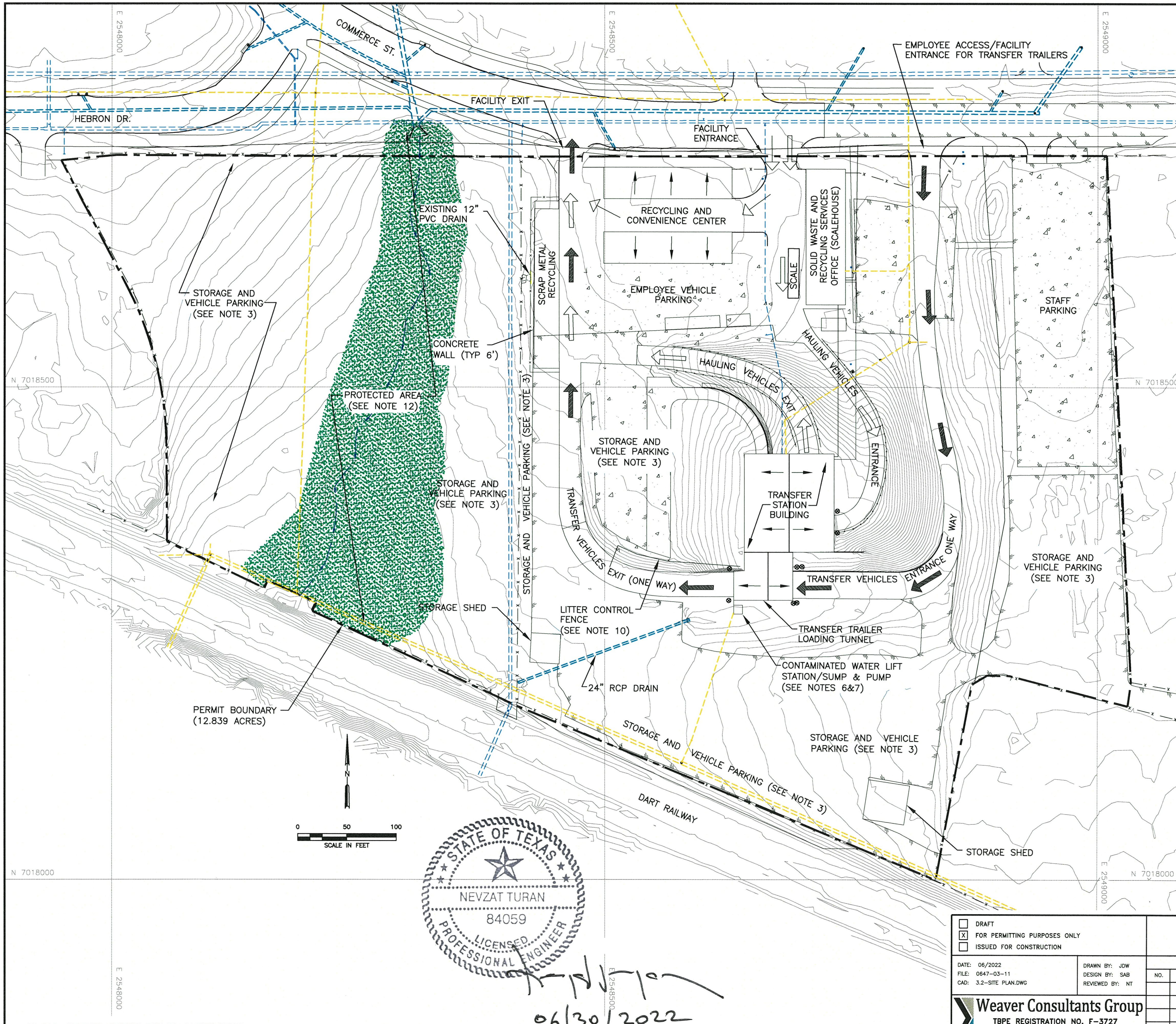
FIGURE I/II–3.1

O:\0647\03\TYPE V APPLICATION\PARTS I-II\3.1-AERIAL.dwg, jwilson, 1:2



O:\0647\03\TYPE V APPLICATION\PARTS I-II\3.2-GENERAL SITE PLAN.dwg, jwilson, 1:2

LEGEND

- PERMIT BOUNDARY (SEE NOTES 2 AND 4)
- EXISTING GROUND CONTOUR (SEE NOTE 1) — 490
- STATE PLANE COORDINATE SYSTEM — N 7018000
- PARKING AREA
- FENCELINE
- SANITARY SEWER (SEE NOTE 7)
- STORM WATER DISCHARGE
- WATERLINE
- FLOWLINE
- GRASS EDGE — GRASS COVER
- RECYCLABLES DELIVERY TRAFFIC FLOW
- TRANSFER VEHICLE TRAFFIC FLOW
- HAULING VEHICLE TRAFFIC FLOW (SEE NOTE 8)
- ROOF SLOPE
- PROTECTION BOLLARDS (SEE NOTE 9)

NOTES:

1. EXISTING TOPOGRAPHIC MAP HAS BEEN PREPARED BY R-DELTA ENGINEERS, INC. (2019). GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 1983 AND VERTICAL DATUM NAVD88.
2. THE PERMIT BOUNDARY LEGAL DESCRIPTION DATED JANUARY 18, 2022 WAS PREPARED BY WEAVER CONSULTANTS GROUP.
3. THESE AREAS ARE GRAVEL/ROADBASE SURFACED AS NEEDED AND MAY BE UTILIZED FOR VEHICLE PARKING, COLLECTION CONTAINER STORAGE OR ROLL-OFF CONTAINERS. ALL OPEN AREAS WITHIN THE PERMIT BOUNDARY ARE EITHER GRASS COVERED OR SURFACED FOR ALL WEATHER ACCESS USING CONCRETE, ASPHALT, OR GRAVEL.
4. FENCING (6-FT CHAINLINK, 4-FT BARBWIRE, ETC.) MEETING THE REQUIREMENTS OF TITLE 30 TAC §330.223(C) IS INSTALLED ALONG THE PERMIT BOUNDARY.
5. RECYCLING CENTER SERVES THE CITY OF GARLAND CITIZENS AND NON-COMMERCIAL DELIVERIES ONLY.
6. CONTAMINATED WATER FROM THE TRANSFER TRAILER LOADING TUNNEL DRAIN IS COLLECTED IN THE LIFT STATION/SUMP AND PUMPED INTO THE CITY SANITARY SEWER LINE.
7. SANITARY SEWER DISCHARGE LINE IS APPROXIMATED FROM AS-BUILT CONDITION DRAWINGS DATED 2022.
8. TRANSFER STATION SERVES THE CITY OF GARLAND SOLID WASTE COLLECTION VEHICLES AS WELL AS OTHER CITIES AUTHORIZED TO USE THE FACILITY AND THE PUBLIC.
9. PROTECTION BOLLARDS ARE INSTALLED AS NEEDED AT THE ENTRANCE, EXIT, ETC. LOCATIONS TO PROTECT STRUCTURES.
10. LITTER CONTROL FENCING IS INSTALLED AT VARIOUS LOCATIONS TO COLLECT LITTER AND WINDBLOWN WASTE.
11. FACILITY ENTRANCE IS USED BY THE PUBLIC AND WASTE HAULING VEHICLES FOR DELIVERY. THESE VEHICLES LEAVE THE FACILITY FROM THE FACILITY EXIT. THE EMPLOYEE ACCESS/FACILITY ENTRANCE FOR TRANSFER TRAILERS IS USED BY THE EMPLOYEES TO ENTER/EXIT THE FACILITY AND BY THE TRANSFER TRAILERS TO ENTER THE FACILITY AND LEAVE THE FACILITY FROM THE FACILITY EXIT.
12. SHADED AREA INDICATES APPROXIMATE LIMITS OF AREA WITH HIGH CANOPY VEGETATION. THIS AREA WILL BE PROTECTED FROM TS OPERATIONS USING FENCE OR SIMILAR MEANS. NO DEVELOPMENT WILL OCCUR WITHIN THIS AREA WITHOUT PRIOR PROPER AUTHORIZATION (REFER TO PARTS I/II SECTION 11).

- [ ] DRAFT
- [x] FOR PERMITTING PURPOSES ONLY
- [ ] ISSUED FOR CONSTRUCTION

DATE: 06/2022
FILE: 0647-03-11
CAD: 3.2-SITE PLAN.DWG

DRAWN BY: JDW
DESIGN BY: SAB
REVIEWED BY: NT

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

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REVISIONS

NO.	DATE	DESCRIPTION

MAJOR PERMIT AMENDMENT
TRANSFER STATION SITE PLAN

CITY OF GARLAND TRANSFER STATION FACILITY
DALLAS COUNTY, TEXAS

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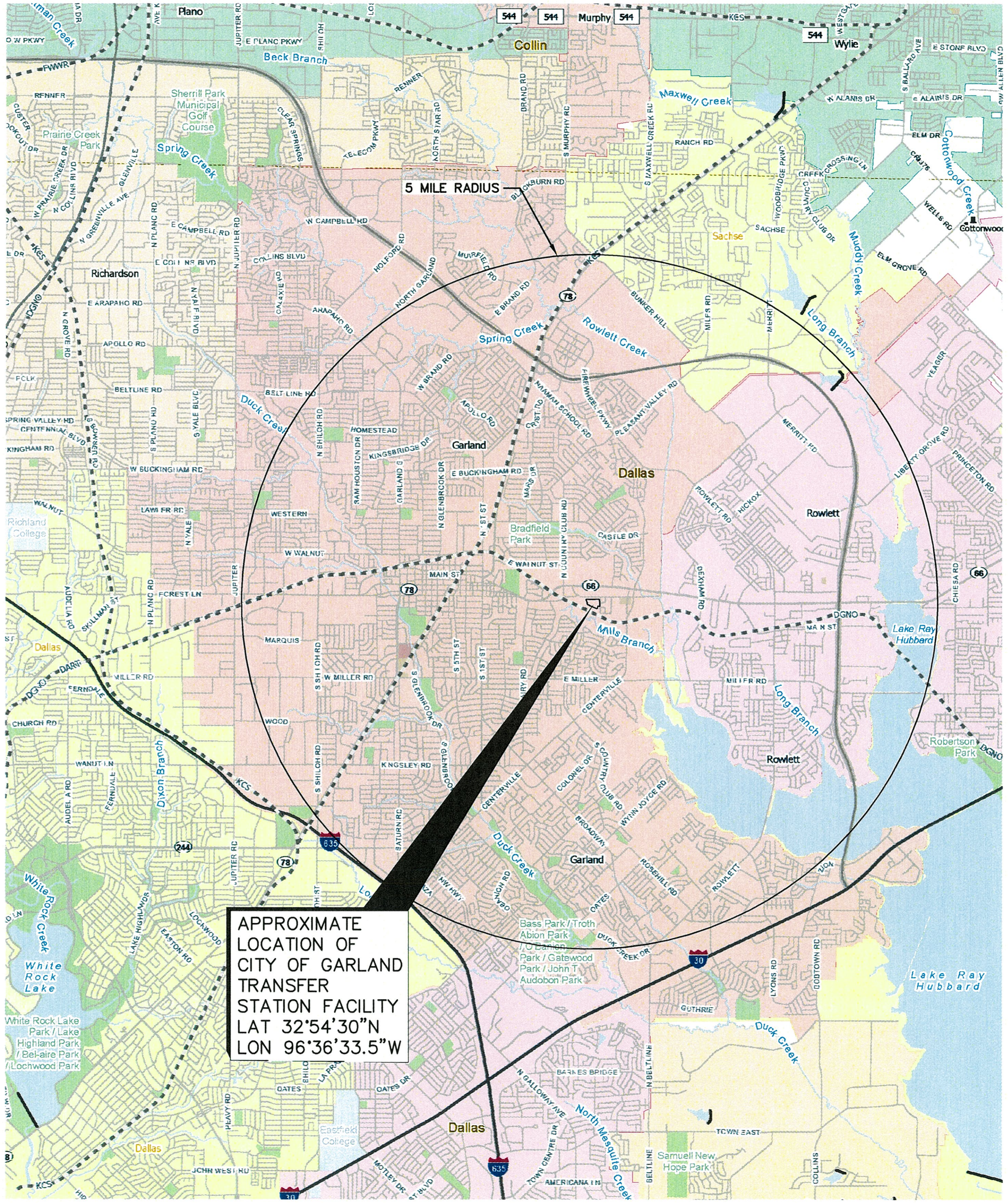
FIGURE I/II-3.2

4 MAPS

This section addresses §330.59(c), §330.61(c), §330.61(e), §305.45(a)(6)(A), and §305.45(a)(6)(C).

A site location map and general topographic map are presented on Figures I/II-4.1 and I/II-4.2. Structures and inhabitable buildings located within 500 feet, are shown on Figure I/II-4.3.

Figure I/II-4.1 and Figure I/II-4.2 show surface water bodies in accordance with Title 30 TAC §330.59(c)(1) and §305.45(a)(6)(A). Figure I/II-4.2 shows wells and springs in accordance with Title 30 TAC §330.59(c)(1) and §305.45(a)(6)(A). As noted in Figure I/II-4.2, no springs were identified within a 1-mile radius of the site.



SCALE IN MILES

0 1 2

LEGEND

- Unincorporated Community
- County Seat
- Border Crossing
- Cemetery
- Cemetery (Inside City)
- Deep Draft Port
- Shallow Draft Port
- Railroad
- Dam
- River or Stream
- TXDOT District
- Lakes
- Education
- Military
- Airport Runway
- Airport
- Prison
- Parks and Other Public Land

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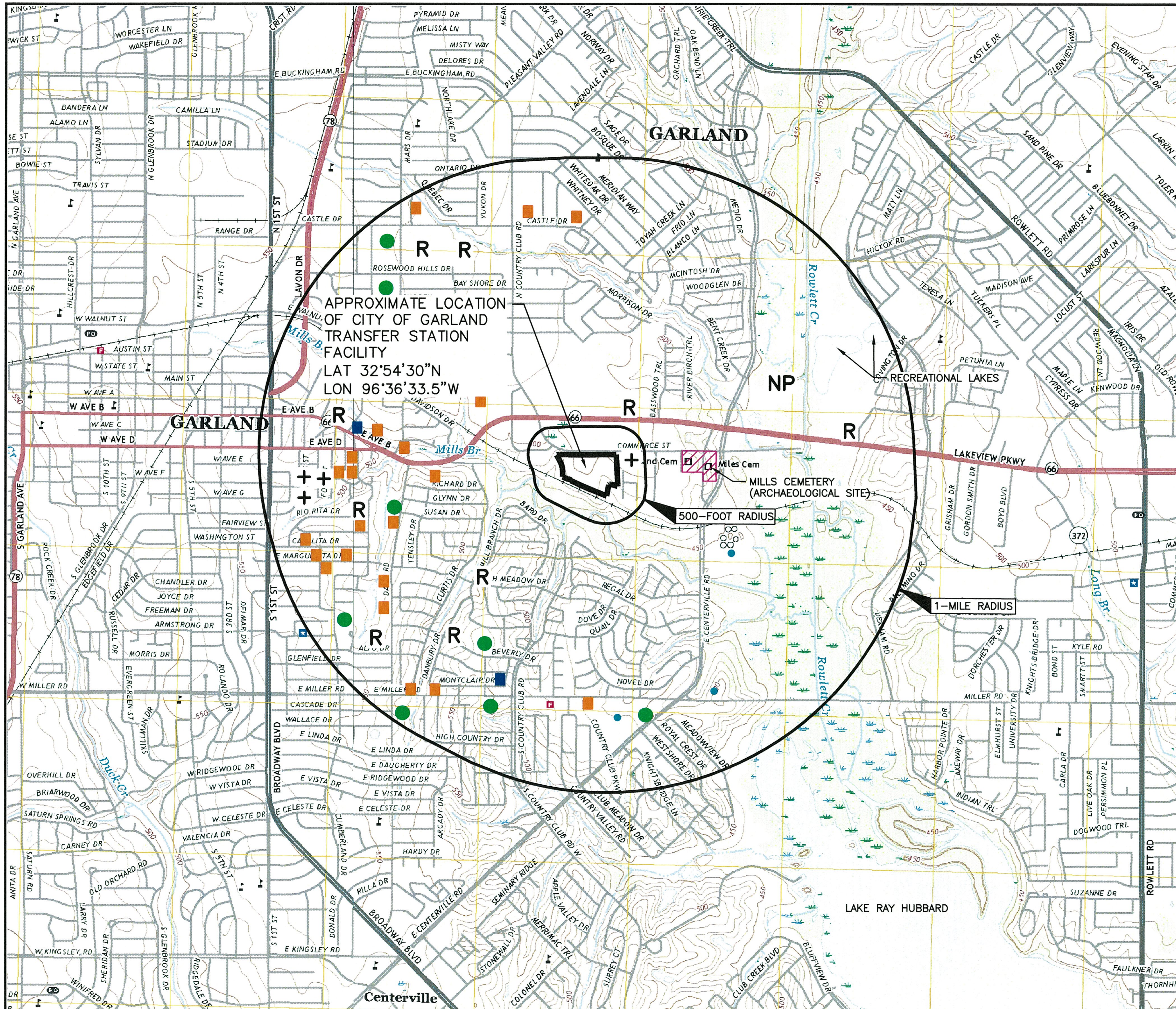
06/30/2022

NOTE:

1. REPRODUCED FROM PAGES 624 AND 666 DALLAS COUNTY OF THE TxDOT COUNTY MAPBOOK 2018 (TEXAS DEPARTMENT OF TRANSPORTATION PLANNING AND PROGRAMMING DIVISION).
2. THE PERMIT BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION DATED JANUARY 18, 2022 PREPARED BY WEAVER CONSULTANTS GROUP.

☐ DRAFT ☒ FOR PERMITTING PURPOSES ONLY ☐ ISSUED FOR CONSTRUCTION	PREPARED FOR CITY OF GARLAND		MAJOR PERMIT AMENDMENT SITE LOCATION MAP
DATE: 02/2022 FILE: 0647-03-11 CAD: 4.1-SITE LOCATION.DWG	DRAWN BY: VRS DESIGN BY: JBP REVIEWED BY: NT	REVISIONS NO. / DATE / DESCRIPTION	CITY OF GARLAND TRANSFER STATION FACILITY DALLAS COUNTY, TEXAS
Weaver Consultants Group TBPE REGISTRATION NO. F-3727			WWW.WCGRP.COM — FIGURE I/II-4.1

O:\0647\03\TYPE V APPLICATION\PARTS I-II\4.1-SITE LOCATION MAP.dwg, jwilson, 1:2



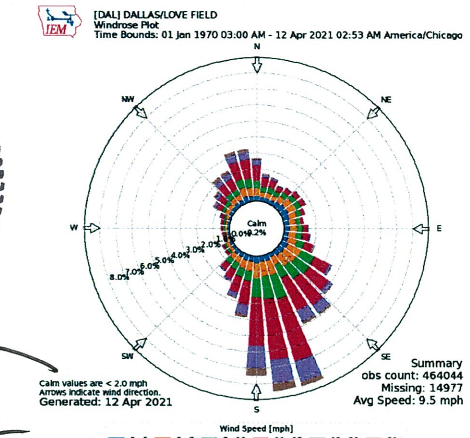
LEGEND

ROAD CLASSIFICATION

Expressway — Local Connector
Secondary Hwy — Local Road
Ramp — 4WD
Interstate Route — US Route — State Route

0 1000 2000
SCALE IN FEET

- CHURCH
- R RECREATIONAL AREA
- DAY-CARE FACILITY
- SCHOOL
- NP NATURE PRESERVE
- REGISTERED WATER WELL
- + HEALTH CLINIC



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06/30/2022

NOTES:

1. ADAPTED FROM THE USGS 7.5 MINUTE QUADRANGLE TOPOGRAPHIC MAPS (GARLAND, TX 2019 AND ROWLETT, TX 2019).
2. WIND ROSE REPRODUCED FROM PUBLISHED WIND ROSE FOR DALLAS/LOVE FIELD REPORT.
3. THE PERMIT BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION DATED JANUARY 18, 2022 PREPARED BY WEAVER CONSULTANTS GROUP.
4. THE SITE ACCESS ROADS WITHIN ONE MILE OF THE SITE ARE N. COUNTRY CLUB ROAD, COMMERCE STREET, STATE HIGHWAY 66, AND E. CENTERVILLE ROAD.
5. THERE ARE NO KNOWN HOSPITALS AND 4 HEALTH CLINICS LOCATED WITHIN THE ONE-MILE RADIUS.
6. NUMEROUS CREEKS, PONDS, 2 RECREATIONAL LAKES, AND LAKE RAY HUBBARD ARE WITHIN THE ONE-MILE RADIUS.
7. NO SPRINGS ARE LOCATED WITHIN THE ONE-MILE RADIUS.
8. THERE ARE 21 CHURCHES, 9 RECREATIONAL AREAS, 8 SCHOOLS, 1 ARCHAEOLOGICAL SITE/CEMETERY, 1 NATURE PRESERVE, AND 2 LICENSED DAY-CARE FACILITIES LOCATED WITHIN THE ONE-MILE RADIUS.
9. REGISTERED WATER WELL LOCATIONS IDENTIFIED BY GEOSEARCH (2022).

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FILE: 0647-03-11 DESIGN BY: JBP
CAD: 4.2-TOPO MAP.DWG REVIEWED BY: NT

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CITY OF GARLAND

REVISIONS

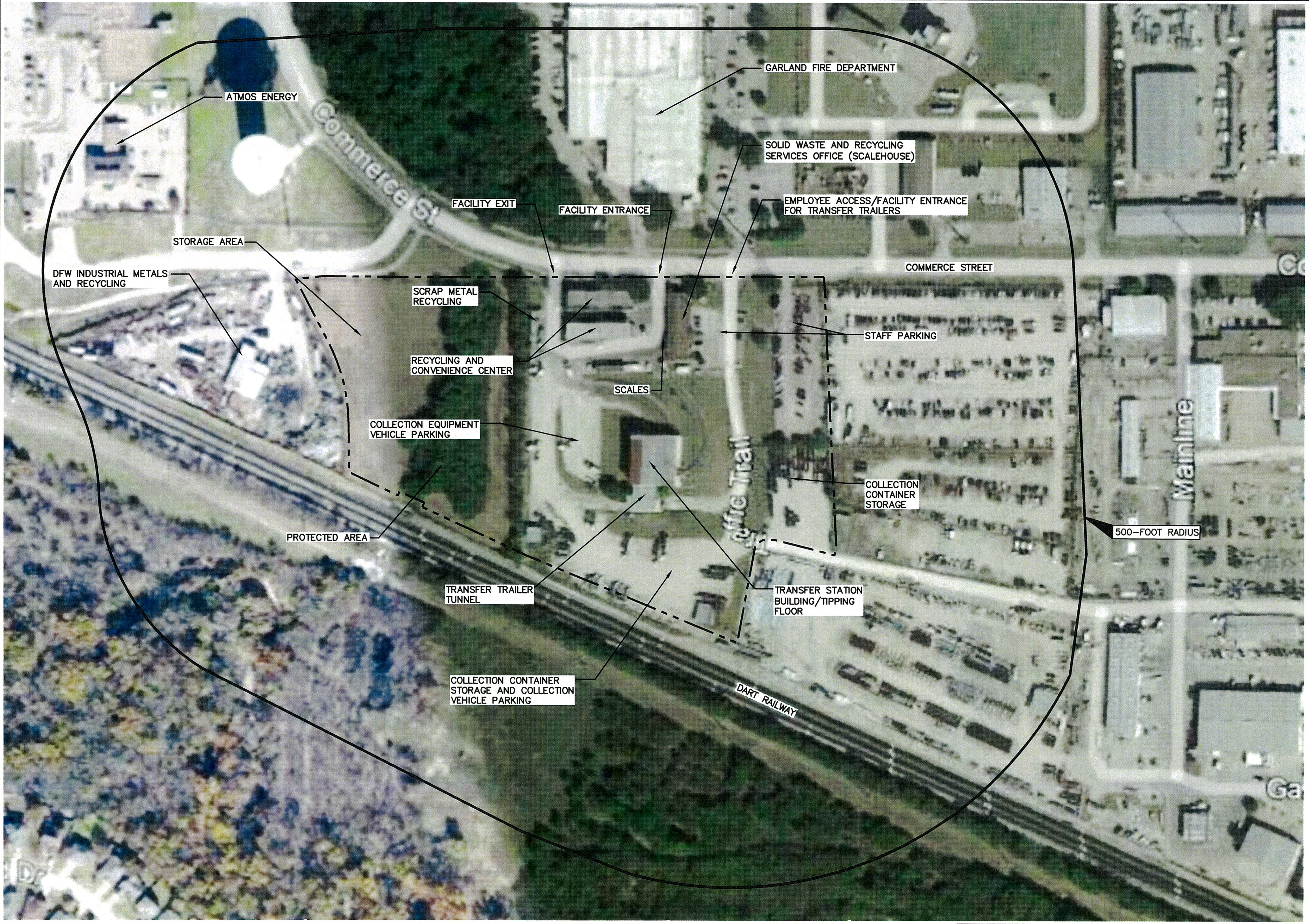
NO.	DATE	DESCRIPTION

MAJOR PERMIT AMENDMENT
GENERAL TOPOGRAPHIC MAP

CITY OF GARLAND TRANSFER STATION FACILITY
DALLAS COUNTY, TEXAS

WWW.WCGRP.COM FIGURE I/II-4.2

O:\0647\03\TYPE V APPLICATION\PARTS I-II\4.2-TOPO MAP.dwg, jwilson, 1:2



N

0 100 200
SCALE IN FEET

LEGEND

— - — PERMIT BOUNDARY

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE EARTH FROM PHOTOGRAPHY TAKEN OCTOBER, 2021.
2. THE PERMIT BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION DATED JANUARY 18, 2022 PREPARED BY WEAVER CONSULTANTS GROUP.

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PROFESSIONAL ENGINEER

06/30/2022

☐ DRAFT ☒ FOR PERMITTING PURPOSES ONLY ☐ ISSUED FOR CONSTRUCTION	PREPARED FOR CITY OF GARLAND	MAJOR PERMIT AMENDMENT STRUCTURES AND INHABITABLE BUILDINGS WITHIN 500 FEET CITY OF GARLAND TRANSFER STATION FACILITY DALLAS COUNTY, TEXAS
DATE: 06/2022 FILE: 0647-03-11 CAD: 4.3-STRUCTURES.DWG DRAWN BY: JDW DESIGN BY: JBP REVIEWED BY: NT	REVISIONS NO. / DATE / DESCRIPTION	
Weaver Consultants Group TBPE REGISTRATION NO. F-3727		WWW.WCGRP.COM — FIGURE I/II-4.3

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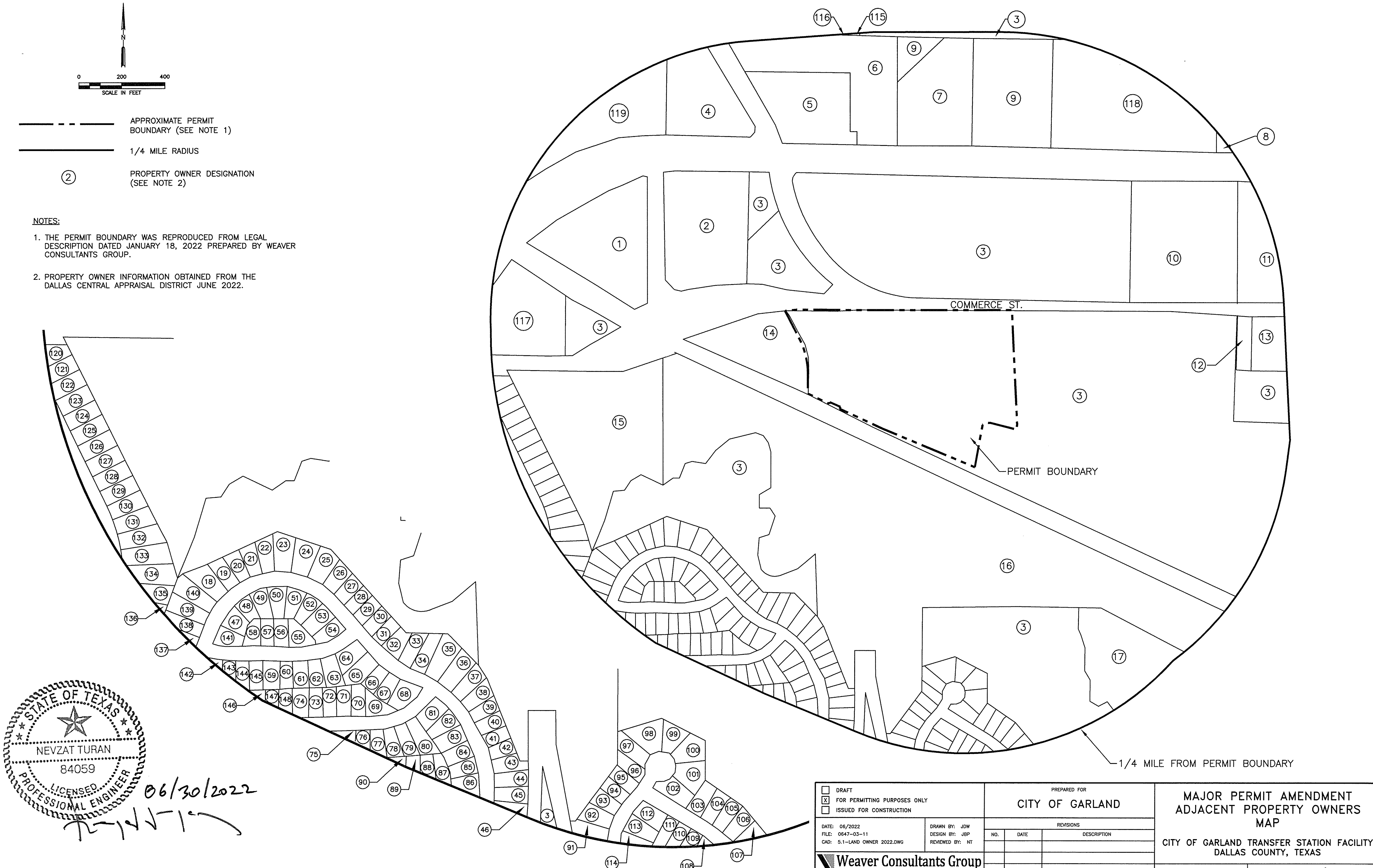
5 PROPERTY OWNERS LIST AND MAP

This section addresses §330.59(c) and §305.45(a)(6)(D).

The following list (Table 5-1) and figure (Figure I/II-5.1) provide the names, mailing addresses, and locations of the "Adjacent and Potentially Affected Landowners" within ¼ mile of the site permit boundary. Refer to Figure I/II-5.1, Adjacent Property Owners Map, for location of the properties. The numbering on Table 5-1, Property Owners List corresponds to the numbers listed on Figure I/II-5.1. The list is based on records from the Dallas County Appraisal District's (DCAD's) Property Map at https://maps.dcad.org/prd/dpm/. The list was compiled by Weaver Consultants Group in June 2022.

Easements are shown on the survey drawing presented in Section 13.

In accordance with 30 TAC §330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. Based on a conversation with the DCAD, they do not maintain mineral ownership records, and this no mineral interest ownership under the facility is available from the Real Property Appraisal Records for the property.



NOTES:

1. THE PERMIT BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION DATED JANUARY 18, 2022 PREPARED BY WEAVER CONSULTANTS GROUP.
2. PROPERTY OWNER INFORMATION OBTAINED FROM THE DALLAS CENTRAL APPRAISAL DISTRICT JUNE 2022.

- [ ] DRAFT
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DATE: 06/2022
FILE: 0647-03-11
CAD: 5.1-LAND OWNER 2022.DWG

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DESIGN BY: JBP
REVIEWED BY: NT

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CITY OF GARLAND

REVISIONS

NO.	DATE	DESCRIPTION

MAJOR PERMIT AMENDMENT ADJACENT PROPERTY OWNERS MAP

CITY OF GARLAND TRANSFER STATION FACILITY
DALLAS COUNTY, TEXAS

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FIGURE I/II-5.1

Table 5-1
Property Owners List

1	AGAP GARLAND HEBRON LLC 150 E 52ND ST 32ND FL NEW YORK NY 10022-6017	11	K TOO LP PO BOX 456 SULPHUR SPRINGS TX 75483-0456
2	ENSERCH CORP C/O ATMOS ENERGY/PPTY TAX PO BOX 650205 DALLAS TX 75265-0205	12	UNIVERSAL LABORATORY 1726 COMMERCE ST GARLAND TX 75040-6710
3	CITY OF GARLAND PO BOX 469002 GARLAND TX 75046-9002	13	ETEX FLEET & AUTOMOTIVE 503 TOWER ST GARLAND TX 75040-6715
4	MESQUITE CREEK DEVELOPMENT INC P O BOX 2437 SMYRNA GEORGIA 30081-2437	14	RANDALL T WILSON 1340 COMMERCE ST GARLAND TX 75040-6702
5	ZKD INVESTMENT LLC 5217 LAKECREEK CT PLANO TX 75093-7589	15	NEW SAFE HAVEN CHURCH OF GOD IN CHRIST OUTREACH MINISTRY PO BOX 422 ROWLETT TX 75030-0422
6	EXTRA SPACE PROPERTIES 107 LLC PO BOX 71870 6890 S 2300 E SALT LAKE CITY UT 84171-6001	16	CAMBRIDGE CONSOLIDATED 2901 E CENTERVILLE RD GARLAND TX 75040-6820
7	CALM MORNING LLC 1565 HIGHWAY 66 GARLAND TX 75040-6726	17	MALONE SCOTT 222 RANGE DR GARLAND TX 75040-5012
8	CITY OF GARLAND 200 N FIFTH ST GARLAND TX 75040-6314	18	KAUR JASVIR & DARBARA SINGH 725 MILL BRANCH DR GARLAND TX 75040-7575
9	CALM MORNING LLC ATTN JOHN MURRAY JR CPA 1565 HIGHWAY 66 GARLAND TX 75040-6726	19	MENGESHA BRHANE P & PETROS WELDEGIORGIS B 721 MILL BRANCH DR GARLAND TX 75040-7575
10	ENTECH SALES & SERVICE LLC 3404 GARDEN BROOK DR DALLAS TX 75234-2444	20	PEREZ ANTHONY G & SLAYDEN JACLYN P 717 MILL BRANCH DR GARLAND TX 75040-7575

Table 5-1
Property Owners List (Continued)

21	ARAJO EDU S & DONNA A 8303 SHOREGROVE DR HUMBLE TX 77346-1630	31	AMIN IFTEKHAR & 310 PRAIRIE CREEK TRAIL MURPHY TX 75094-4130
22	HUTCHINSON ROBERT J & HELEN S 709 MILL BRANCH DR GARLAND TX 75040-7575	32	ADAMS BOBBY JOE & GWEN C 810 BARD DR GARLAND TX 75040-7566
23	BUENTELLO FRANK J & GINGER L 705 MILL BRANCH DR GARLAND TX 75040-7575	33	MEMBRENO WILFREDO H & CORTES ROSA MILAGROS 814 BARD DR GARLAND TX 75040-7566
24	AGUIRRE RENE VERGARA & LORENA DE JESUS 701 MILL BRANCH DR GARLAND TX 75040-7575	34	NGUYEN NHAN THANH & HONG THI THU 818 BARD DR GARLAND TX 75040-7566
25	GOMEZ INMER 702 BARD DR GARLAND TX 75040-7564	35	CALDERON SYLVIA 822 BARD DR GARLAND TX 75040-7566
26	KIRKLIN DAVID D II & BRANDI D 706 BARD DR GARLAND TX 75040-7564	36	PI CIN & TUAL THIAN HUAI 902 BARD DR GARLAND TX 75040-7568
27	DICKENS MELINDA BROWN 710 BARD DR GARLAND TX 75040-7564	37	KINNAIRD JOEL MARK 906 BARD DR GARLAND TX 75040-7568
28	OTUNUGA BAMIDELE 714 BARD DR GARLAND TX 75040-7564	38	RUBIO HORACIO 910 BARD DR GARLAND TX 75040-7568
29	COX STEPHEN MICHAEL & LAURA K P 718 BARD DR GARLAND TX 75040-7564	39	BRENNAN ANDREA 914 BARD DR GARLAND TX 75040-7568
30	BONILLA HORACIO RUBIO & SANTOS I FUENTES 802 BARD DR GARLAND, TX 75040-7566	40	VELASCO FERNANDO S & ALICIA R VELASCO 5192 NE 6TH AVE APT 811 FORT LAUDERDALE FL 33334-3320

Table 5-1
Property Owners List (Continued)

41	BETTS OUSMAN & GONZALEZ JAQUELINE 922 BARD DR GARLAND TX 75040-7568	51	PAJAZETOVIC MIRSAD & HADZIRE 702 MILL BRANCH DR GARLAND TX 75040-7574
42	SAIZ DANIEL 926 BARD DR GARLAND TX 75040-7568	52	BOSWELL JEFFREY EUGENE & JOANN 705 BARD DR GARLAND TX 75040-7565
43	TRAN SANG T & NGUYEN ANH L 930 BARD DR GARLAND TX 75040-7568	53	KIDANE YESHITLA & BIRRU ZEBENAY 709 BARD DR GARLAND TX 75040-7565
44	NGO DUNG 934 BARD DR GARLAND TX 75040-7568	54	CAPDEVILLE DAVID J & ALINZA Y 713 BARD DR GARLAND TX 75040-7565
45	THIEBAUD DIANE 938 BARD DR GARLAND TX 75040-7568	55	DRACOPOULOS CONSTANTINOS N & SUAREZDRACOPOULOS EVETTE V 1325 FORBES DR GARLAND TX 75040-7573
46	AMH 2014 3 BORROWER LLC ATTN: PROPERTY TAX DEPARTMENT 23975 PARK SORRENTO STE 300 CALABASAS CA 91302-4012	56	2010 IM FAMILY TRUST %LAWRENCE IM 839 POLARIS DR TUSTIN CA 92782-1721
47	BENJAMIN MARY D 730 MILL BRANCH DR GARLAND TX 75040-7574	57	AMERICAN HOMES 4 RENT PROPERTIES EIGHT LLC ATTN: PROPERTY TAX DEPARTMENT 23975 PARK SORRENTO STE 300 CALABASAS CA 91302-4012
48	COLEMAN KEVIN D 722 MILL BRANCH DR GARLAND TX 75040-7574	58	HERNANDEZ SUSIELYN & MANINGO EMMANUEL 1313 FORBES DR GARLAND TX 75040-7573
49	PHAM QUYEN 714 MILL BRANCH DR GARLAND TX 75040-7574	59	AIYEDUN ADEWALE & RISKAT AIYEDUN 1318 FORBES DR GARLAND TX 75040-7572
50	GARCIA GERARDO & JIMENEZ MARLENE 706 MILL BRANCH DR GARLAND TX 75040-7574	60	BURKE TRICIA R & MARK E 1322 FORBES DR GARLAND TX 75040-7572

Table 5-1
Property Owners List (Continued)

61	FRENCH RICHARD E 1326 FORBES DR GARLAND TX 75040-7572	71	UCHE BASIL & ETHEL N 1341 MILL WOOD LN GARLAND TX 75040-7581
62	LEDBETTER TROY A & LAURA E HOODLEDBETTER 1330 FORBES DR GARLAND TX 75040-7572	72	GUERRERO ARACELI 1337 MILL WOOD LN GARLAND TX 75040-7581
63	GEBRESILASSIE NEBIYU & BELAY YEMSRACH KEBEDE 1334 FORBES DR GARLAND TX 75040-7572	73	SEVEN POINTS BORROWER LLC PO BOX 4090 SCOTTSDALE AZ 85261-4090
64	GRIMMETT LAVERNE 801 BARD DR GARLAND TX 75040-7567	74	ADEBIMPE VICTORIA I 1329 MILL WOOD LN GARLAND TX 75040-7581
65	IBARRA BLANCA 805 BARD DR GARLAND TX 75040-7567	75	LUONG THU THUY 2933 FLAGSTONE DR GARLAND, TX 75044-5903
66	IBUKUN FLORENCE 809 BARD DR GARLAND TX 75040-7567	76	NGUYEN NGOC 1350 MILL WOOD LN GARLAND TX 75040-7580
67	MCNEILL JULIA C 813 BARD DR GARLAND TX 7504-7567	77	NGUYEN TUNG 1354 MILL WOOD LN GARLAND TX 75040-7580
68	PARIKH REVOCABLE TRUST 1215 WHITESTONE DR MURPHY TX 75094-4116	78	NNANNA ASIEGBU A & NKECHI A NNANNA 1358 MILL WOOD LN GARLAND TX 75040-7580
69	THOMAS RAJA 616 TALL TREE DR MURPHY TX 75094-3352	79	NEGUSSIE KINDIE MITKU & KONJIT W & AGAN MITIJU & EMEBET WELDETSADIK 1362 MILL WOOD LN GARLAND TX 75040-7580
70	AFRICA CARMEN 1345 MILL WOOD LN GARLAND TX 75040-7581	80	RODRIGUEZ GERARDO & SANDRA V RODRIGUEZ 1366 MILL WOOD LN GARLAND TX 75040-7580

Table 5-1
Property Owners List (Continued)

81	TASBY OLANDERS 905 BARD DR GARLAND TX 75040-7569	91	BARNES ANDREA 1013 MILL SPRING DR GARLAND TX 75040-7559
82	C&L REAL ESTATE SERVICES LLC 211 S MAIN ST SEMINOL, TX 79360-4343	92	HERNANDEZ PEDRO CRUZ 1009 MILL SPRING DR GARLAND TX 75040-7559
83	BAYLOSIS IMELDA EST OF 917 BARD DR GARLAND TX 75040-7569	93	HANDELMANNIS FAMILY TRUST THE PO BOX 675723 RANCHO SANTE FE CA 92067-5723
84	LARK REATHA M 921 BARD DR GARLAND TX 75040-7569	94	PRUITT ANNETTE M 1001 MILL SPRING DR GARLAND TX 75040-7559
85	MCCRACKEN P BRUCE & RACHEL MCCRACKEN 929 BARD DR GARLAND TX 75040-7569	95	MITCHELL JANELLE 913 MILL SPRING DR GARLAND TX 75040-7557
86	CASTILLO BRAULIO & MARIA SONIA PALENCIA 933 BARD DRIVE GARLAND TX 75040-7569	96	DANNY MANU 909 MILL SPRING DR GARLAND TX 75040
87	MA CHIENHUA 1373 WESTVIEW DR GARLAND TX 75040-7583	97	SMITH BOBBY R & ALICE NAN 905 MILL SPRING DR GARLAND TX 75040-7557
88	FERRETIZ JUDITH & MARTIN FERRETIZ 1369 WESTVIEW DR GARLAND TX 75040-7583	98	MIAH MOHAMMED & FARHANA B HAFIZ 901 MILL SPRING DR GARLAND TX 75040-7557
89	SYED TAIF & WALIA WAHID 33323 JAMIE CIR FREMONT CA 94555-1577	99	ZYL JOHAN VAN 902 MILL SPRING DR GARLAND TX 75040-7556
90	COLBY CASEY L & ROMERO ROXY 1361 WESTVIEW DR GARLAND TX 75040-7583	100	LUA QUIRINO MARIA 906 MILL SPRING DR GARLAND TX 75040-7556

Table 5-1
Property Owners List (Continued)

101 CARWILE EZELL ESTATE OF
910 MILL SPRING DR
GARLAND TX 75040-7556

102 LUU NGHIEP
914 MILL SPRING DR
GARLAND TX 75040-7556

103 SCRUGGS LAQUITA
1409 CROSS COURTS DR
GARLAND TX 75040-7535

104 THOMAS CHARLES L
1413 CROSS COURTS DR
GARLAND TX 75040-7535

105 NGUYEN OANH & TRONG BINH L &
1417 CROSS COURTS DR
GARLAND TX 75040-7535

106 NGUYEN ANH T & THUY T
2010 MARTIN DAVID WAY
GARLAND TX 75042-3955

107 MCILVENNY JAMES F & ROCHELLE
1425 CROSS COURTS DR
GARLAND TX 75040-7535

108 RIZVIC RIFET & ELVIRA RIZVIC
1418 CROSS COURTS DR
GARLAND TX 75040-7534

109 ALMAZAN SURISAIDA M & DAVID ANAYA
& MARTINEZ SANTIAGO JR
1414 CROSS COURTS DR
GARLAND TX 75040-7534

110 REYNA RUBEN & DELFINA MARTINEZ
1410 CROSS COURTS DR
GARLAND TX 75040-7534

111 ROY BERKITA
1406 CROSS COURTS DR
GARLAND TX 75040-7534

112 KHOE NANCY
2413 SOLOMONS PL
ST PAUL TX 75098-1510

113 ANTHONY RUSSELL QUVONDO &
GALVAN CINTHIA ORTIZ
1008 MILL SPRING RD
GARLAND TX 75040-7558

114 DELL DOUGLAS D & CYNTHIA JO
1014 MILL SPRING DR
GARLAND TX 75040-7558

115 EMENIKEH KATHERINE A & JUDE N
302 GLENEAGLES DR
GARLAND TX 75040-6802

116 EULER JASON & AMANDA
301 MYRTLE BEACH DR
GARLAND TX 75040-6800

117 CHERIAN SAM
4200 NIGHTFALL DR
PLANO TX 75093-3875

118 MICROPAC INDUSTRIES INC
905 E WALNUT ST
GARLAND TX 75040-6611

119 MT HEBRON BAPTIST CHURCH
1233 HWY 66
GARLAND TX 75040-7278

120 DUARTE DOLORES & DUARTE JUAN MANUEL
602 CURTIS DR
GARLAND TX 75040

Table 5-1
Property Owners List (Continued)

121 HERNANDEZ RAUL
606 CURTIS DR
GARLAND TX 75040-7411

122 LARIN MILAGRO D AYALA DE
610 CURTIS DR
GARLAND TX 75040-7411

123 OCHOA IGNACIO
614 CURTIS DR
GARLAND TX 75040-7411

124 EDWARDS DOROTHY
618 CURTIS DR
GARLAND TX 75040-7411

125 RODRIGUEZ GLORIA
622 CURTIS DR
GARLAND TX 75040-7411

126 DUGGER RICHARD O
626 CURTIS DR
GARLAND TX 75040-7411

127 ROJAS MARIA LIFE ESTATE
702 CURTIS DR
GARLAND TX 75040-7453

128 HERRERA GERARDO JR & ALMA E
706 CURTIS DR
GARLAND TX 75040-7453

129 GAMEZ GUADALUPE & JUAN CARLOS GARCIA
710 CURTIS DR
GARLAND TX 75040-7453

130 PIERCE SHIRLEY
714 CURTIS DR
GARLAND TX 75040-7453

131 DEVEREAUX WILL HOMER JR
718 CURTIS DR
GARLAND TX 75040-7453

132 GONZALEZ ORLE JOEL & CENTENO MARIA GUADALUPE C
722 CURTIS DR
GARLAND TX 75040-7453

133 ROMEROLOPEZ MIGUEL ANGEL &
726 CURTIS DR
GARLAND TX 75040-7453

134 PAJARO RUBEN & ELVIA
802 CURTIS DR
GARLAND TX 75040-7414

135 LI QINGHONG & LU HONGQING
8109 SPRING PEAKS DR
PLANO TX 75025-3984

136 ANG PROPERTIES LLC
1309 BALLANTRAE DR
ALLEN TX 75013-7047

137 GARCIA JORGE M & ROSA O
801 MILL BRANCH DR
GARLAND TX 75040-7577

138 GUTIERREZ JUAN JOSE G & RAMIREZ ANGELICA RUBIO
737 MILL BRANCH DR
GARLAND TX 75040-7575

139 FRAZIER RODNEY & GENA
733 MILL BRANCH DR
GARLAND TX 75040-7575

140 CHIRCA KAI
7038 SPRING VALLEY RD
DALLAS TX 75254-2719

Table 5-1
Property Owners List (Continued)

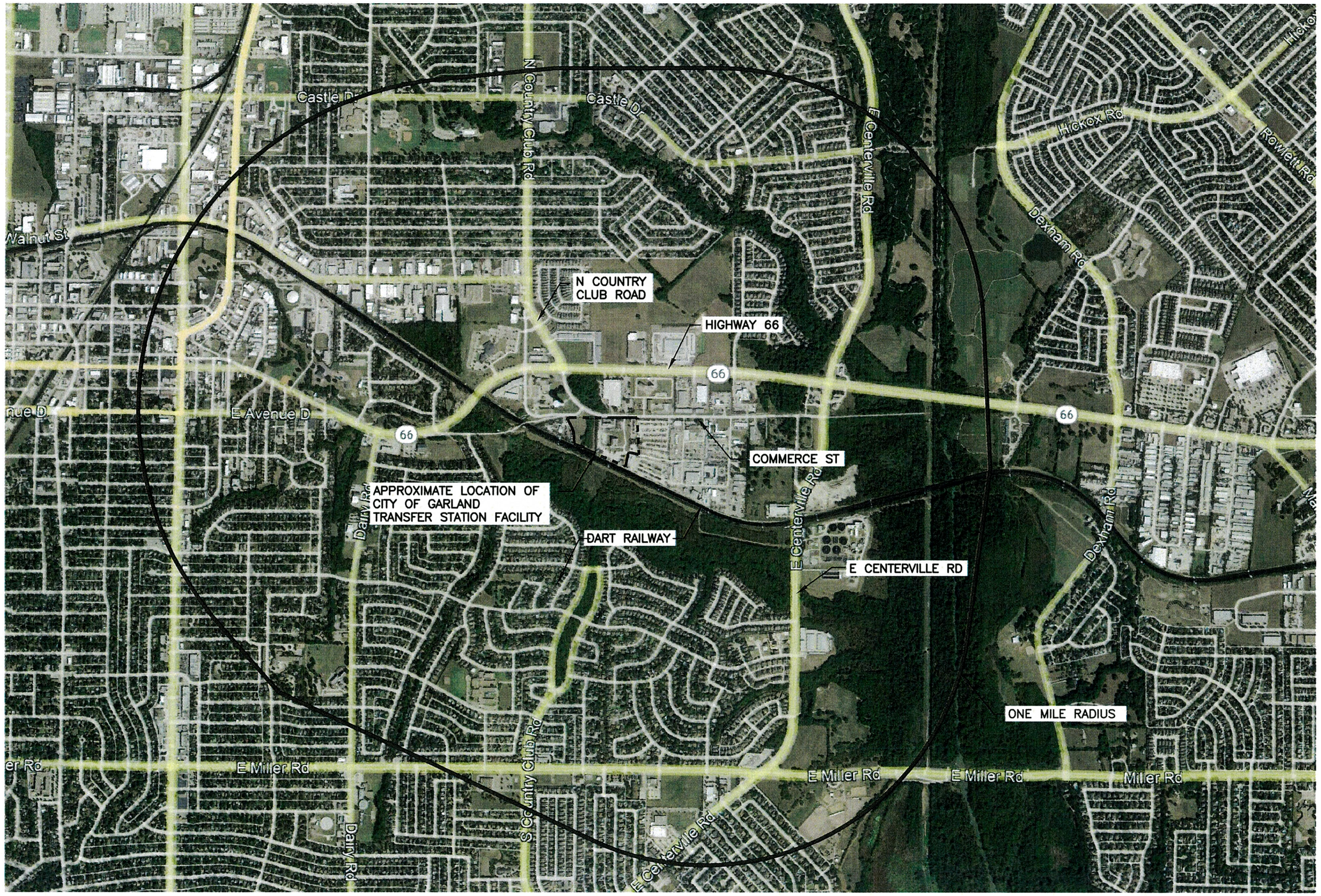
141	LEWIS ROSE MARIE HALL 157 MARIA AVE GRAMBLING LA 71245-3105
142	NGUYEN QUANG XUAN 306 E BANCROFT DR GARLAND TX 75040-3727
143	POTKALESKY DANIEL 1306 FORBES DR GARLAND TX 75040-7572
144	OLASEHINDE AMOS AYODEJI & TEMITOPE ADEOLA 1310 FORBES DR GARLAND TX 75040-7572
145	CASTANON MARIA & CRESENCIO CASTANON 1314 FORBES DR GARLAND TX 75040-7572
146	BERUMEN TATIANA 1317 MILL WOOD LN GARLAND TX 75040-7581
147	FOSTER STEPHEN 1321 MILL WOOD LN GARLAND TX 75040-7581
148	SEGOVIA JOSE 1325 MILL WOOD LN GARLAND TX 75040-7581

Note: Refer to Figure I/II-5.1 for the location of adjacent property owners.

6 AERIAL PHOTOGRAPH

An aerial photograph of the existing Garland TS site and surrounding area (minimum of 1-mile radius from the site) is presented on Figure I/II-6.1.

This section addresses §330.61(f).



N

0 1000 2000

SCALE IN FEET

LEGEND

PERMIT BOUNDARY

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE EARTH FROM PHOTOGRAPHY TAKEN OCTOBER, 2021.
2. THE PERMIT BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION DATED JANUARY 18, 2022 PREPARED BY WEAVER CONSULTANTS GROUP.

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

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DATE: 04/2022 FILE: 0647-03-11 CAD: 6.1-AERIAL.DWG	DRAWN BY: JDW DESIGN BY: JBP REVIEWED BY: NT	CITY OF GARLAND TRANSFER STATION FACILITY DALLAS COUNTY, TEXAS
Weaver Consultants Group TBPE REGISTRATION NO. F-3727		WWW.WCGRP.COM — FIGURE I/II-6.1

REVISIONS

NO.	DATE	DESCRIPTION

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7 LAND USE

7.1 Character of Surrounding Land and Land Use

This section addresses §330.61(g), §330.61(h), and §305.45(a)(6)(B).

A land use evaluation was performed for the area within one mile of the revised Garland TS permit boundary. Land use information is summarized in the following maps.

- Figure I/II-7.1 (Land Use Map – Aerial). This map highlights land use within a 1-mile radius of the permit boundary on an aerial photograph.
- Figure I/II-7.2 (Zoning Map). This map shows the zoning description for each area within a 2-mile radius of the permit boundary.
- Figure I/II-7.3 (Cities within 5 Miles Radius). This map is used to show area cities within 5 miles.

7.2 Location and Zoning

The existing Garland TS is a permitted Type V MSW transfer station located south of Commerce Street, approximately ¼-mile southeast of the intersection of Commerce Street and State Highway 66 in Garland, Dallas County, Texas. The Garland TS is located within the city limits of Garland, Texas. The property is zoned as "Industrial" based on the City of Garland's Geographic Information Systems (GIS) mapping. The existing Garland TS and surrounding City-owned property are located in an area that supports a wide range of commercial and industrial uses, including transfer station operations.

7.3 Surrounding Land Use

Land use within a 1-mile radius is shown on Figure I/II-7.1. As shown, land use within the 1-mile radius is primarily industrial, commercial, residential and undeveloped.

7.4 Growth Trends of the Nearest Community

The permit boundary is located inside the city limits of Garland. Additional cities within a 5-mile radius of the site include Rowlett, Sachse, and Dallas (as shown on Figure I/II-7.3). The growth trends for the City of Garland were assessed and are presented in Table 7-1. The population projections were taken from the Texas Water Development Board (TWDB) 2016 Regional Water Plan.

Table 7-1 Growth Trends
Average Annual Growth Rate

City	2020-2029	2030-2039	2040-2049
Garland	0.30%	0.07%	0.004%

7.5 Proximity to Residences and Other Uses

The nearest residence is found approximately 910 feet southwest of the permit boundary. The nearest business (not owned and operated by the City of Garland) is DFW Industrial Metals and Recycling, Inc. located adjacent to the west permit boundary. There are approximately 5,000 residences and 150 commercial/ industrial operations within a 1-mile radius of the Garland TS site. Most of the residences are located north, south, and west of the TS. The commercial/industrial operations are located northwest, north, northeast, east and southeast of the facility.

As shown on Figure I/II-4.2, there are no known hospitals or sites with exceptional aesthetic qualities located within a 1-mile radius of the permit boundary. The closest recorded archaeological site is Mills Cemetery located 0.4 mile east of the permit boundary. Four health clinics, twenty-one churches, nine recreational areas, eight schools, and two licensed daycare facilities are located within a 1-mile radius of the permit boundary. The Rowlett Creek – Dallas County Nature Preserve is located along Rowlett Creek, primarily east of E. Centerville Road. Mills Branch and Rowlett Creek are both within a 1-mile radius of the permit boundary, as well as two recreational lakes and Lake Ray Hubbard. The locations for each of these are shown on Figure I/II-4.2.

7.6 Land Use Conclusions

The continued use of this land for the existing transfer station represents a compatible land use for the following reasons.

- The Garland TS continues to operate in accordance with the conditions set forth in the site's current MSW permit.

- The site has operated as a permitted transfer station since 1975. Land use within the vicinity of the Garland TS is well established and compatible with the continued operation of the Garland TS.
- The site is situated next to a major transportation corridor, State Highway 66, which provides adequate access to the Garland TS. The increase in waste throughput at the Garland TS will have no impact on local traffic patterns.
- The operating Garland TS has not adversely affected area growth trends.

7.7 Oil and Water Wells Within 500 Feet

A search of the records of the Texas Railroad Commission oil and gas well GIS database revealed that there are no gas wells, and no permitted wells located within the 500-foot radius of the permit boundary. In addition, no oil or gas wells were observed to exist on the permit property.

A 1-mile water well search which included a review of records from the Texas Water Development Board (TWDB), Water Utility Database (WUD), Select Submitted Drillers Report Database Wells (SSDRD), United States Geological Survey National Water Information Systems (NWIS), and Texas Commission on Environmental Quality Water Wells (TCEQ) was conducted for the site. The results of this search are contained in Appendix I/IIB. Three water wells and no plugged or abandoned water wells are located within or near the 1-mile radius of the site. According to the searched records, none of the water wells were identified to be within 500 feet of the site. The nearest water well is approximately 0.7 miles southeast of the permit boundary. A map including the locations of the identified wells can be found on Figure I/II-4.2 in Section 4.

N

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SCALE IN FEET

LEGEND

PERMIT BOUNDARY
TS TRANSFER STATION
T TRANSPORTATION ROUTE
A AGRICULTURE/OPEN SPACE/PARK
R RESIDENTIAL
IC INDUSTRIAL/COMMERCIAL/CITY
S SCHOOL
CH CHURCH
D DAY CARE
C CEMETERY

LAND USE WITHIN 1 MILE OF PERMIT BOUNDARY	
GARLAND TS PERMIT BOUNDARY	0.45%
RESIDENTIAL	48.69%
SCHOOL	0.65%
AGRICULTURE/OPEN SPACE/PARK	26.36%
INDUSTRIAL/COMMERCIAL/CITY	14.20%
TRANSPORTATION ROUTE	9.19%
CHURCH	0.37%
DAY CARE	0.09%
TOTAL	100.00%

STATE OF TEXAS
NEVZAT TURAN
84059
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06/30/2022

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE EARTH FROM PHOTOGRAPHY TAKEN OCTOBER, 2021.
2. THE PERMIT BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION DATED JANUARY 18, 2022 PREPARED BY WEAVER CONSULTANTS GROUP.

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REVIEWED BY: NT

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CITY OF GARLAND

REVISIONS

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Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

MAJOR PERMIT AMENDMENT
LAND USE MAP-AERIAL

CITY OF GARLAND TRANSFER STATION FACILITY
DALLAS COUNTY, TEXAS

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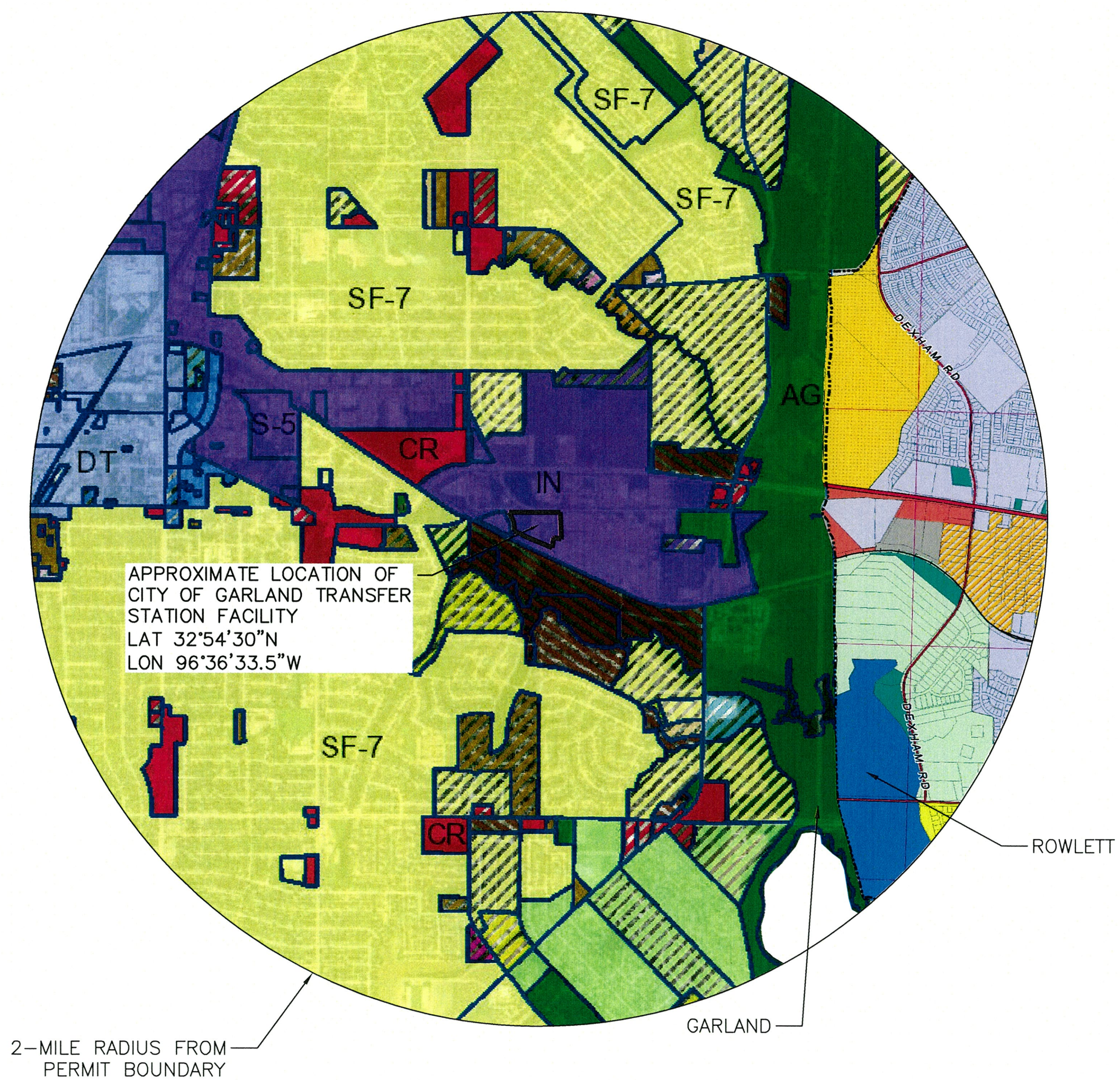
FIGURE I/II-7.1

O:\0647\03\TYPE V APPLICATION\PARTS I-II\7.1-LAND USE-AERIAL.dwg, jwilson, 1:2



ROWLETT ZONING MAP LEGEND

	C-1	Limited Commercial /Retail
	C-2	General Commercial/Retail
	C-3	Commercial/Retail Highway
	IU	Institutional-Urban
	M-1	Light Manufacturing
	M-2	General Manufacturing
	MF-2F	Multi Family Attached Res. Duplex
	MF-S	Multi Family Attached Res. Suburban
	MF-U	Multi Family Attached Res. Urban
	FB-CC	Form Based Commercial Center District
	MU-WF	Mixed-Used Waterfront
	FB-NN	Form Based New Neighborhood District
	O-1	Limited Office
	O-2	General Office
	PARK	Park
	PD	Planned Development
	SF-10	Single-Family Residential - 10/21
	SF-15	Single-Family Residential - 15/21
	SF-20	Single-Family Residential - 20/24
	SF-40	Single-Family Residential - 40/24
	SF-5	Single-Family Residential - 5/15
	SF-8	Single-Family Residential - 8/18
	SF-9	Single-Family Residential - 9/18
	SUP	Special Use Permit
	TL	Take Line
	IO	Industrial Overlay Zoning District
	FB-UV	Form Based Urban Village District
	FB-RN	Form Based Rural Neighborhood District
	FB-UN	Form Based Urban Neighborhood District
	FB-BS	Form Based Bayside Special District

GARLAND ZONING MAP LEGEND

- Agriculture district (AG)
- Single-Family Estate district (SF-E)
- Single-Family 10 district (SF-10)
- Single-Family 7 district (SF-7)
- Single-Family 5 district (SF-5)
- Two-Family district (2F)
- Single-Family Attached district (SF-A)
- Multi-Family district (MF)
- Neighborhood Office district (NO)
- Community Office district (CO)
- Neighborhood Service district (NS)
- Community Retail district (CR)
- Light Commercial district (LC)
- Heavy Commerical district (HC)
- Industrial district (IN)
- Urban Residential district (UR)
- Urban Business district (UB)
- Downtown district (DT)
- Planned Development (AG)
- Planned Development (SF-E)
- Planned Development (SF-10)
- Planned Development (SF-7)
- Planned Development (SF-5)
- Planned Development (2F)
- Planned Development (SFA)
- Planned Development (MF)
- Planned Development (NO)
- Planned Development (CO)
- Planned Development (NS)

STATE OF TEXAS
NEVZAT TURAN
84059
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06/30/2022

N

0 1500 3000
SCALE IN FEET

REFERENCES:
1. GARLAND ZONING OBTAINED FROM: HTTPS://MAPS.GARLANDTX.GOV/COGMAP/APPS/WEBAPPVIEWER/INDEX.HTML?ID=3654219B16BC49B799EED665A10EEB86
2. ROWLETT ZONING OBTAINED FROM: HTTP://EMAP.ROWLETT.COM/EMAP/

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DATE: 04/2022
FILE: 0647-03-11
CAD: 7.2-ZONING MAP.DWG

DRAWN BY: JDW
DESIGN BY: JBP
REVIEWED BY: NT

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

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NO.	DATE	DESCRIPTION

MAJOR PERMIT AMENDMENT
ZONING MAP

CITY OF GARLAND TRANSFER STATION FACILITY
DALLAS COUNTY, TEXAS

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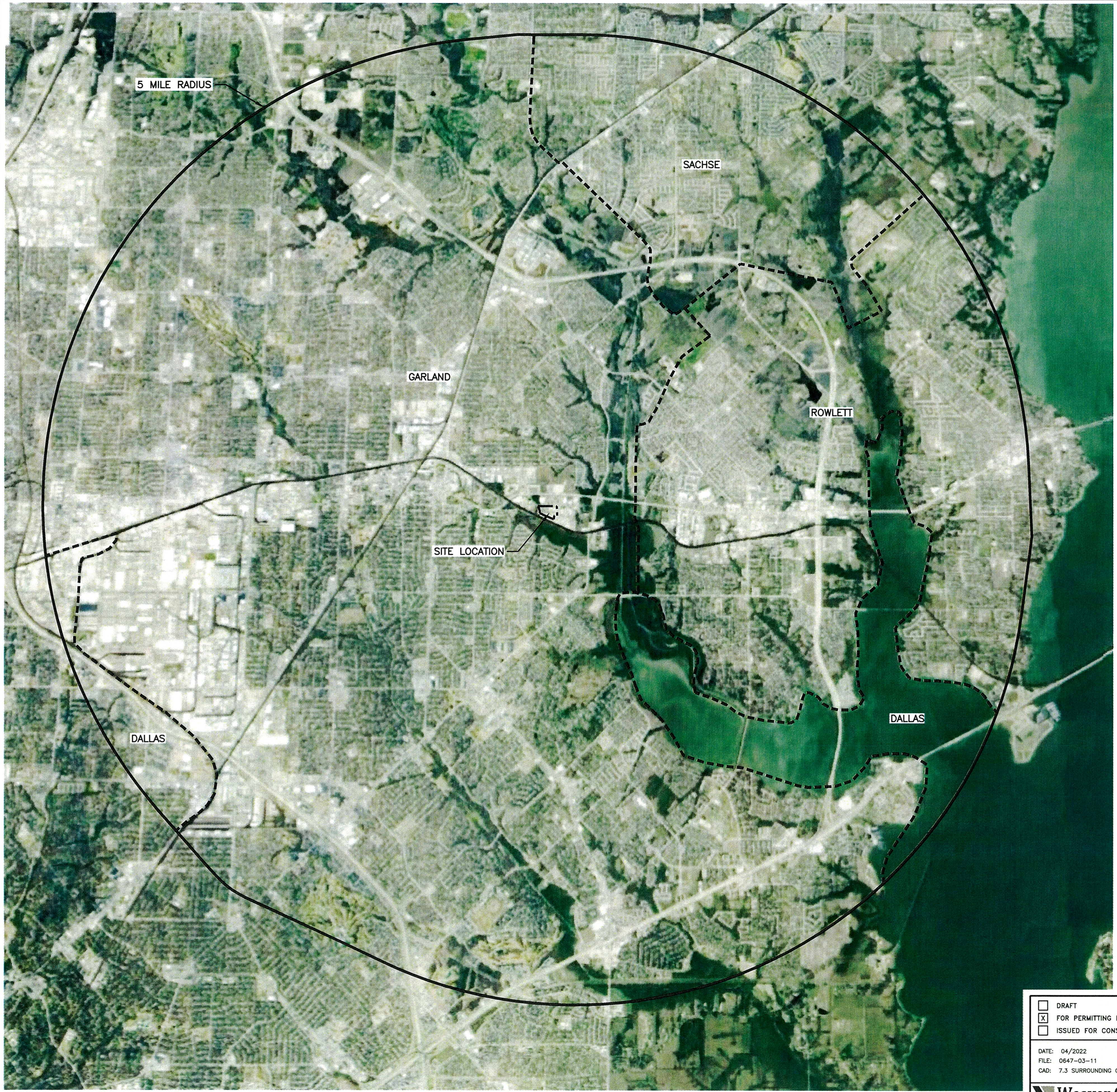
FIGURE I/II-7.2

O:\0647\03\TYPE V APPLICATION\PARTS I-II\7.2-ZONING MAP.dwg, jwilson, 1:2



N

0 3000 6000
SCALE IN FEET

LEGEND

— - - —	PERMIT BOUNDARY
——	5-MILE RADIUS
- - - - -	CITY LIMITS

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE EARTH FROM PHOTOGRAPHY TAKEN OCTOBER, 2021.
2. THE PERMIT BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION DATED JANUARY 18, 2022 PREPARED BY WEAVER CONSULTANTS GROUP.

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DATE: 04/2022
FILE: 0647-03-11
CAD: 7.3 SURROUNDING CITIES.DWG

DRAWN BY: JDW
DESIGN BY: JBP
REVIEWED BY: NT

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

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NO.	DATE	DESCRIPTION

MAJOR PERMIT AMENDMENT
CITIES WITHIN 5-MILE RADIUS

CITY OF GARLAND TRANSFER STATION FACILITY
DALLAS COUNTY, TEXAS

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FIGURE I/II-7.3

O:\0647\03\TYPE V APPLICATION\PARTS I-II\7.3-SURROUNDING CITIES.dwg, jwilson, 1:2

8 TRANSPORTATION

8.1 Traffic Information

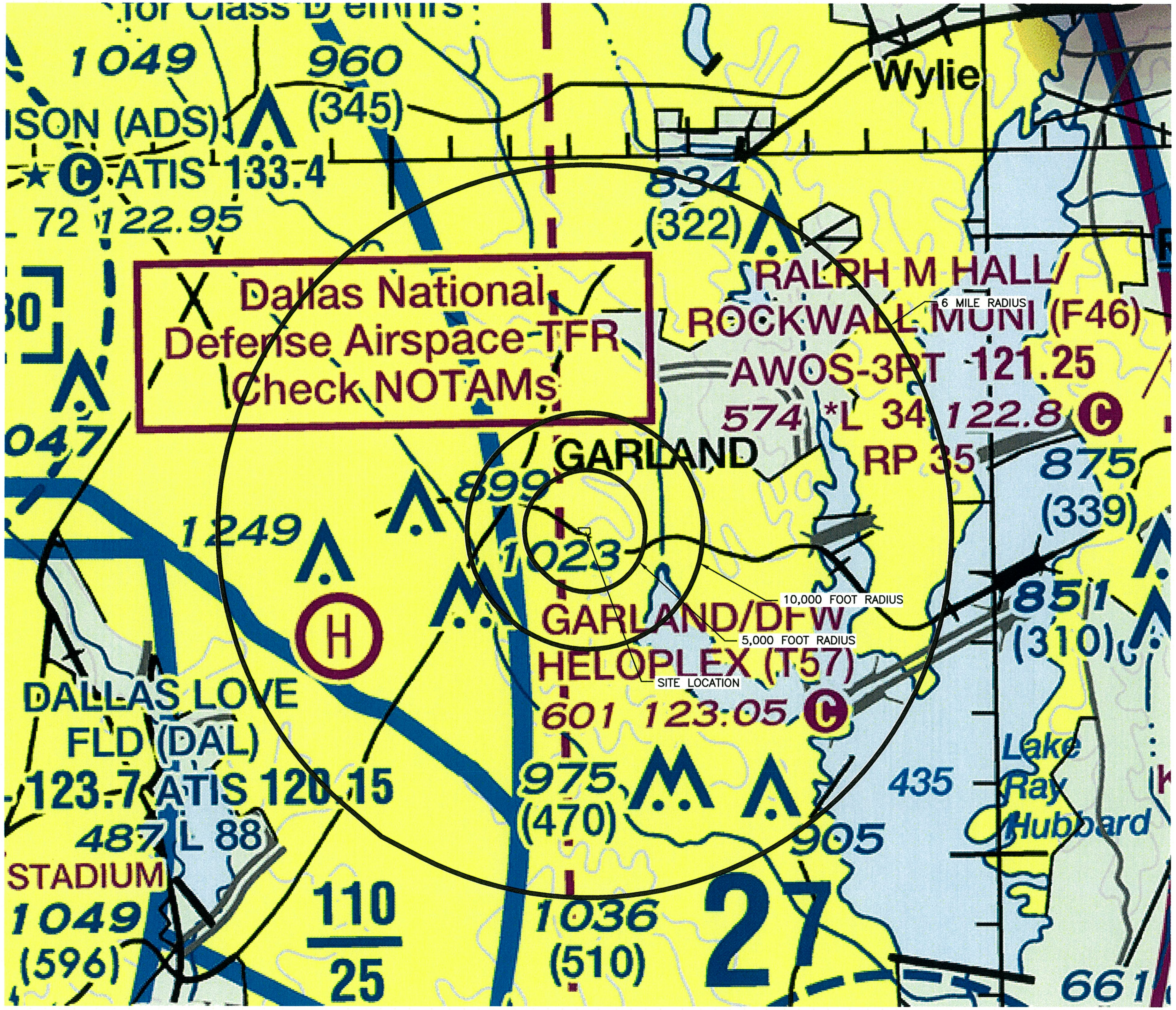
This section addresses §330.61(i).

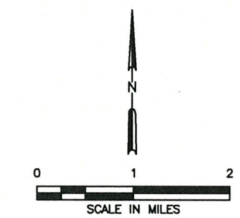
The Garland TS is located south of Commerce Street, approximately ¼-mile southeast of the intersection of Highway 66 and Commerce Street in Garland, Dallas County, Texas. Vehicles from the northwest bound for the Garland TS access the site from either North Country Club Road or State Highway 66 to Commerce Street. Vehicles from the northeast access the site from East Centerville Road to Commerce Street. North Country Club Road is divided with two lanes in each direction. State Highway 66 is a major transportation corridor in the area. East Centerville Road is divided with three lanes in each direction. These roads combined with Commerce Street, a two-lane, concrete-paved/asphalt roadway will continue to provide adequate access to the site.

Consistent with Title 30 TAC §330.61(i)(3), a traffic study for the Garland TS was completed and submitted to TxDOT on April 5, 2022. The traffic study, which is included in Appendix I/IIA (refer to the TxDOT tab), concluded that the existing roads will provide adequate access to the site.

8.2 Airport Impact

No public-use airports are located within six miles of the Garland TS, as shown on Figure I/II-8.1. A heliport is shown as being located approximately 4 miles southwest of the TS. In accordance with Title 30 TAC §330.61(i)(5), an airport impact evaluation of the facility is required only for landfill units and landfill mining operations, and thus is not required for a transfer station.





LEGEND

AIRPORTS

- Other than hard-surfaced runways
- Seaplane Base
- Hard-surfaced runways 1500 ft. to 8069 ft. in length
- Hard-surfaced runways greater than 8069 ft. or some multiple runways less than 8069 ft.
- Open dot within hard-surfaced runway configuration indicates approximate VOR, VOR-DME, DME or VORTAC location.

All recognizable hard-surfaced runways, including those closed, are shown for visual identification. Airports may be public or private.

ADDITIONAL AIRPORT INFORMATION

- Private "(Pvt)" - Non-public use having emergency or landmark value
- Military - Other than hard-surfaced; all military airports are identified by abbreviations AFB, NAS, AAF, etc.
- Heliport Selected
- Unverified
- Abandoned - paved having landmark value, 3000 ft. or greater
- Ultralight Flight Park Selected

Fuel availability indicated by use of tick marks around basic airport symbol. Consult Supplement for details and availability at airports with hard-surfaced runways greater than 8069 ft.

★ Rotating airport beacon in operation Sunset to Sunrise

OBJECTIONABLE - Airport may adversely affect airspace use.

TOPOGRAPHIC INFORMATION

- Power Transmission Line
- Aerial Cable
- Lookout Tower
  618 (Elevation Base of Tower)
- Mountain Pass
  11823 (Elevation of Pass)

Pass symbol does not indicate a recommended route or direction of flight and pass elevation does not indicate a recommended clearance altitude. Hazardous flight conditions may exist within and near mountain passes.

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NOTES:

1. THIS MAP REPRODUCED FROM THE FAA DALLAS–FORT WORTH SECTIONAL RASTER AERONAUTICAL CHART PUBLISHED ON 03/24/2022 AND OBTAINED FROM HTTPS://WWW.FAA.GOV/AIR_TRAFFIC/FLIGHT_INFO/AERONAV/DIGITAL_PRODUCTS/VFR/
2. NO AIRPORTS ARE PRESENT WITHIN 10,000 FEET OF THE PERMIT BOUNDARY. THE NEAREST AIRPORT IS GARLAND–DALLAS–FORT WORTH HELOPLEX AIRPORT.
3. THE PERMIT BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION DATED JANUARY 18, 2022 PREPARED BY WEAVER CONSULTANTS GROUP.

☐ DRAFT ☒ FOR PERMITTING PURPOSES ONLY ☐ ISSUED FOR CONSTRUCTION		PREPARED FOR CITY OF GARLAND	MAJOR PERMIT AMENDMENT AREA AIRPORTS
DATE: 04/2022 FILE: 0647–03–11 CAD: 8.1AIRPORT MAP.DWG	DRAWN BY: VRS DESIGN BY: JBP REVIEWED BY: NT	REVISIONS	CITY OF GARLAND TRANSFER STATION FACILITY DALLAS COUNTY, TEXAS
Weaver Consultants Group TBPE REGISTRATION NO. F–3727			WWW.WCGRP.COM — FIGURE I/II–8.1

NO.	DATE	DESCRIPTION

O:\0647\03\TYPE V APPLICATION\PARTS I–II\8.1–AIRPORT MAP.dwg, jwilson, 1:2

9 GENERAL GEOLOGY AND SOILS STATEMENT

This section addresses §330.61(j).

According to the Bureau of Economic Geology (BEG) Geologic Atlas of Texas, Dallas Sheet (1987) the site is located upon an outcrop of the Austin Chalk Formation. The Austin Chalk Formation is characterized as calcareous marine limestone with lesser occurrences of shale, clay lenses, and bentonite seams.

The Austin Chalk Formation is underlain by the Eagle Ford Formation. The contact between the Austin Chalk Formation and the older, underlying Eagle Ford Formation occurs approximately 14 miles west of the site at its closest extent.

Regional Cretaceous aquifers beneath the landfill include the Woodbine and Trinity aquifers. The Woodbine Formation is classified by the Texas Water Development Board (TWDB) (Ashworth and Hopkins, 1995) as a minor Texas aquifer, which is located above the underlying Trinity Aquifer. The Paluxy, Glen Rose, and underlying Twin Mountain formations comprise the Trinity Aquifer. These aquifers are separated by approximately 500 feet of low permeability sediments and are not hydraulically connected (Harden, 2004).

According to the US Department of Agriculture's Natural Resources Conservation Service website regarding the Soil Survey of Dallas County, the soils beneath the site consist largely of Houston Black Clay with smaller areas of Lewisville silty clay and Lewisville-Urban land complex soils. The Houston Black soil series consist of deep (up to 100 inches depth) clayey soils that form on level to gently sloping uplands due to weathering of underlying shale or marl sediments. The Natural Resources Conservation Service (NRCS) describes the Houston Black Clay as firm to hard, a black color grading to shades of brown and olive at depth, plastic with a high shrink-swell potential, slow permeability, calcareous, and alkaline with few to common gypsum and calcite crystals and seams. The Houston Black Clay is described as moderately well drained with 1 to 3 percent slopes. The Lewisville silty clay is described as well drained with 5 to 8 percent slopes. The Lewisville-Urban land complex is described as well drained with 0 to 4 percent slopes. All three soil types are reported to be clayey with low permeability, high water capacity, and high shrink-swell potential.

10 GROUNDWATER AND SURFACE WATER STATEMENT

10.1 Groundwater Statement

This section addresses §330.61(k).

According to the Texas Water Development Board (TWDB) Water Data Interactive Map, aquifers in the vicinity of the site include the Woodbine and the Trinity. The Woodbine is classified as a minor aquifer and although not present beneath the facility, outcrops approximately 26 miles west of the site. The Trinity is classified as a major Texas aquifer and extends across much of the central and northeastern part of Texas. According to the TWDB's Updated Groundwater Availability Model of the Northern Trinity and Woodbine Aquifers Final Model Report (August, 2014), the Woodbine and Trinity Group/Aquifers are separated by the Washita/Fredericksburg Group formations. The Washita/Fredericksburg group sediments can produce potable water but are generally considered to function as a confining unit between the Woodbine and Trinity (TWDB, 2014). Recharge occurs via seepage of precipitation and surface water on/through outcrop.

10.2 Surface Water Statement

Surface water drainage across the site sheet flows generally from the east to the west. The Garland TS site is isolated from upland flow from the east and north side of the building by an internal road located on the east side of the permit boundary. Local high points include the facilities (office building, recycling and convenience center, and employee vehicle parking) along Commerce Street and the transfer station building. The facility does not receive runoff from Commerce Street which drains west via a road bar ditch without impacting the Garland TS. The Garland TS building is positioned over an elevated area, which allows drainage from the east side to drain towards the west without impacting the Garland TS operations. The discharge mainly occurs from the vegetated area on the west side of the City of Garland property and flows south. Surface water ultimately discharges into Mills Branch located south of the Dallas Area Rapid Transit (DART) Railway. Mills Branch flows approximately one mile to the east and discharges into Rowlett Creek. Rowlett Creek discharges into Lake Ray Hubbard approximately 0.5 miles downstream of the Mills Branch confluence. See Figure I/II-4.2 for locations of the creeks and water bodies.

The Garland TS has been designed to achieve the following goals:

1. Prevent a discharge of solid wastes or pollutants adjacent to or into waters in the state of Texas.
2. Prevent a discharge of pollutants into waters of the United States.
3. Prevent a discharge of dredged or fill material to waters of the United States.
4. Prevent a discharge of nonpoint source pollution to waters of the United States.
5. Prevent erosion over areas associated with the permit boundary and discharge of waste in runoff.

The Garland TS building is comprised of three horizontal levels that include an unloading area, unloading pit, and transfer trailer loading tunnel, all of which are contained within the same roof. Drainage from the Garland TS is designed to prevent erosion over areas associated with the permit boundary and avoid the offsite discharge of waste materials. Surface water drainage around the TS building will be controlled to minimize surface water running onto the TS building area and prevent runoff from the building (i.e., runoff that is accumulated in the TS building tunnel).

The Garland TS will operate in such a manner as to prevent discharge of pollutants into waters of the state or United States as defined by the Texas Water Code and the Federal Clean Water Act. The site is subject to the TCEQ's stormwater permit requirements and will operate under the TPDES General Permit for Stormwater Discharges, under Standard Industrial Code (SIC) 4212 (Transportation and Warehousing).

The current operation under the TCEQ Permit No. MSW-12 is conducted in compliance with the TPDES requirements. The site has an existing TPDES stormwater multi-sector general permit certificate of authorization (TPDES No. TXR05DB88), which is provided in Appendix I/IIC.

11 FLOODPLAIN AND WETLANDS STATEMENT

11.1 Floodplain Statement

This section addresses §330.61(m).

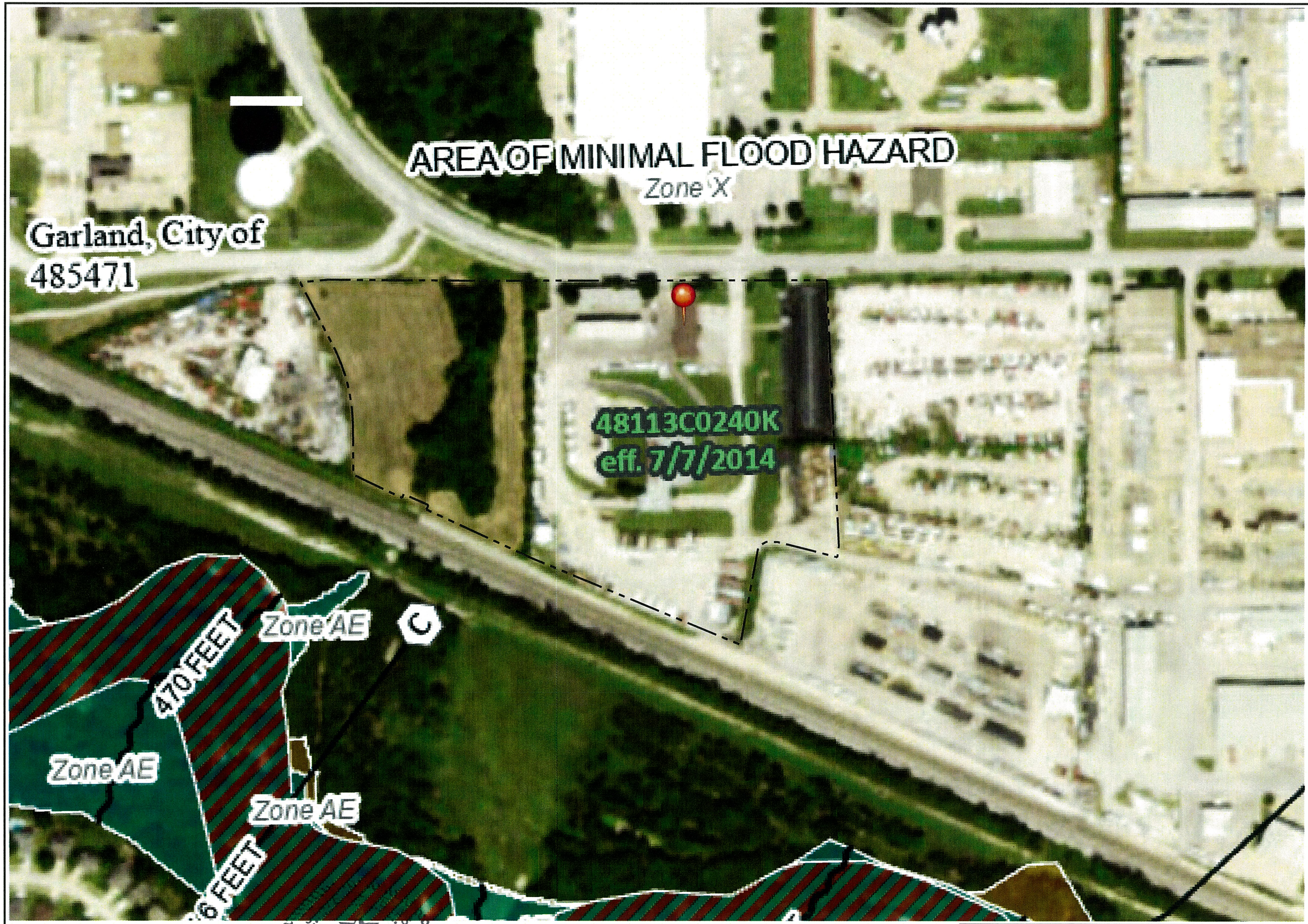
The current Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) shows the permit property as not being located within a 100-year floodplain. A copy of the current FIRM (Map No. 48113C0240K, dated July 7, 2014) depicting the permit property is provided as Figure I/II-11.1. As shown on the FIRM, the floodplain elevation nearest the permit boundary is approximately 467.6 feet mean sea level (ft-msl). The Garland TS permit boundary is located within Zone X (areas determined to be outside the 500-year floodplain).

The waste tipping floor was constructed at an elevation of approximately 520 ft-msl, which is approximately 52 feet above the current 100-year floodplain elevation. No additional site development is proposed with this application.

The Texas Water Code, §16.236, as implemented by Title 30 TAC §301, is not applicable because the site is located outside the 100-year floodway. This site is also not located within the 100-year floodplain.

11.2 Wetlands Statement

A biological and botanical study with wetlands evaluation was conducted of the permit property on August 31, 2021 by Weaver Consultants Group. The objective of the survey was to determine if the Garland TS impacts existing wetlands. Based on the information presented in the survey, no wetlands were identified as existing on the 12.839-acre permit property. However, one jurisdictional stream flowed north-to-south through the west third of the permit property. This stream has an ordinary high-water mark and appears to be an intermittent stream. The width averages approximately two feet, and the length is approximately 505 feet. The current permit property has been graded, paved, and operational since 1975. No additional site development is proposed in this application.



0 100 200
SCALE IN FEET

LEGEND

PERMIT BOUNDARY

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

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

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

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

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

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

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/18/2022 at 6:01 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

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NOTE:

1. FLOODPLAIN RELATED INFORMATION INCLUDING LEGEND AND NOTES WERE OBTAINED FROM HTTPS://MSC.FEMA.GOV/PORTAL/HOME ON 1/18/2022. BASE MAP IS FROM USGS NATIONAL MAP:ORTHO IMAGERY DATA REFRESHED OCTOBER, 2020.
2. THE PERMIT BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION DATED JANUARY 18, 2022 PREPARED BY WEAVER CONSULTANTS GROUP.

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DATE: 02/2022
FILE: 0647-03-11
CAD: 11.1-FEMA.DWG

DRAWN BY: JDW
DESIGN BY: JBP
REVIEWED BY: NT

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

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NO.	DATE	DESCRIPTION

MAJOR PERMIT AMENDMENT
FEMA FLOOD INSURANCE RATE MAP (FIRM)

CITY OF GARLAND TRANSFER STATION FACILITY
DALLAS COUNTY, TEXAS

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FIGURE I/II-11.1

O:\0647\03\TYPE V APPLICATION\PARTS I-II\11.1-FEMA.dwg, jwilson, 1:2

12 PROTECTION OF ENDANGERED SPECIES

A biological and botanical survey with habitat evaluation was conducted of the permit property on August 31, 2021 by Weaver Consultants Group. The objective of the survey was to determine whether the project would have an adverse effect on listed threatened or endangered species and/or their critical habitat.

This section addresses §330.61(n).

Based on the information contained in the 2021 survey, the Garland TS development has no adverse effect on federal or state listed threatened or endangered species or their critical habitat. Based on the survey, the facility was in compliance with all applicable federal, state, and local laws regarding threatened and endangered species at the time of facility construction. The permit property has now been partially graded, paved and operational since 1975.

The site is updating the property boundary to include 4.195 acres west of the site. However, no additional site development is proposed with this application. The City of Garland is not aware of the occurrence of any listed threatened or endangered species or their critical habitat that would be adversely effected by continued operation of the Garland TS as proposed herein.

13 LEGAL DESCRIPTION

A legal description of the 12.839-acre permit boundary is included on the following pages. The property within the permit boundary is owned by the City of Garland. The current ownership record for the property may be found in volume 75048, page 1970 for the existing permit boundary and in instrument No. 201800304142 of the Official Public Records of Dallas County, Texas for the additional 4.195 acres.

This section addresses §330.59(d)(1).

PERMIT BOUNDARY LEGAL DESCRIPTION
CITY OF GARLAND TRANSFER STATION
EDWARD MILLS SURVEY, ABSTRACT NO. 952
CITY OF GARLAND,
DALLAS COUNTY, TEXAS

Being an 559,265 square foot (12.839 acre) tract of land situated in the Edward Mills Survey, Abstract No. 952, City of Garland, Dallas County, Texas and being a portion of a tract of land owned by the City of Garland as evidenced by the plat of Lot 1, Block A, Cliff Tucker Addition, an addition to the City of Garland, Texas, recorded in Volume 75048, Page 1970, Deed Records, Dallas County, Texas (D.R.D.C.T.) and being a portion of a called 3.580 acre tract of land described in a Special Warranty Deed to the City of Garland, recorded in Instrument No. 201800304142, Official Public Records, Dallas County, Texas (O.P.R.D.C.T.) and being all of a 8.644 acre Permit Boundary Tract (Permit Boundary Tract) prepared and signed by Jake B. Arrott, R.P.L.S. 4904 on a survey dated 1/10/2014 for the City of Garland Transfer Station and being more particularly described as follows:

COMMENCING at a 5/8-inch iron rod with orange cap stamped "R-DELTA FIRM#10155000" found in the south right-of-way line of Commerce Street (a 60' R.O.W.) for the North corner of Lot 1, Block 1, Riffe Petroleum, an addition to the City of Garland, according to the plat recorded in Volume 86089, Page 2323, D.R.D.C.T. and a tract of land to Randall T. Wilson, recorded in Instrument No. 200600292740, O.P.R.D.C.T. and for the Northwest corner of said 3.580 acre tract, said 5/8-inch rod having grid coordinates of X: 2,547,942.87, Y: 7,018,742.09, relative to the Texas Coordinate System of 1983, NAD83(2011)[epoch 2010.00], North Central Zone;

THENCE South 27° 26' 23" East (called North 27°26'45" West), along the common line of said Lot 1, Block 1 and said Randall T. Wilson Tract and said 3.580 acre tract, a distance of 12.93 feet to a point for the **POINT OF BEGINNING**;

THENCE over and across said 3.580 acre tract the following courses and distances:

North 84° 23' 51" East, a distance of 55.60 feet to a point;

South 89° 37' 56" East, a distance of 296.19 feet to a point in the common line of said Lot 1, Block A and said 3.580 acre tract, from which a 5/8-inch iron rod with orange cap stamped "R-DELTA FIRM#10155000" found in the south right-of-way line of said Commerce Street for common corner of said Lot 1, Block A and said 3.580 acre tract bears northwesterly, along a non-tangent curve to the left, having a radius of 676.19 feet, a chord bearing North 26° 48' 16" West a distance of 15.00 feet, and a delta angle of 01° 16' 15", for an arc length of 15.00 feet;

THENCE North 89° 52' 41" East, over and across said Lot 1, Block A, a distance of 115.78 feet to the northwest corner of said Permit Boundary Tract;

THENCE over and across said Lot 1, Block A, along the north and easterly lines of said Permit Boundary Tract, and generally with a chain-link fence the following courses and distances:

North 89° 52' 41" East, a distance of 592.83 feet to a point for the Northeast corner of said Permit Boundary Tract, from which a metal fence post bears South 28° 18' 58" West a distance of 0.37 feet;

South 02° 32' 10" East, a distance of 322.09 feet to a point;

South 02° 48' 24" East, a distance of 214.53 feet to a metal fence post;

South 07° 33' 52" West, a distance of 23.77 feet to a point for the northerly southeast corner of said Permit Boundary Tract, from which a metal fence post bears South 42° 12' 07" West a distance of 0.59 feet;

North 75° 16' 36" West, a distance of 50.29 feet to a point;

North 75° 50' 05" West, a distance of 73.42 feet to a point;

North 88° 50' 40" West, a distance of 22.96 feet to a point;

South 59° 24' 03" West, a distance of 18.01 feet to a point;

South 10° 34' 29" West, a distance of 87.16 feet to a point;

South 10° 19' 50" West, a distance of 114.57 feet to a point in the north line of a called 0.9620 acre Public Drainage Easement to Dallas Area Rapid Transit, recorded in Instrument No. 201200301537, O.P.R.D.C.T. and for the South corner of said Permit Boundary, from which a metal fence post bears South 24° 55' 51" East, a distance of 0.56 feet;

THENCE along the north line of said 0.9620 acre Public Drainage Easement, southerly line of said Permit Boundary Tract, and generally along a chain-link fence the following courses and distances:

North 67° 28' 18" West (called South 67° 28' 24" East), a distance of 461.53 feet to a point for the Southwest corner of said Permit Boundary Tract;

North 64° 55' 22" West, a distance of 41.86 feet (called South 65° 00' 59" East, 41.96 feet), to a 5/8-inch iron rod with orange cap stamped "R-DELTA FIRM#10155000" found for the easterly northeast corner of a called 0.1224 acre tract of land to Dallas Area Rapid Transit, recorded in Instrument No. 200900061283, O.P.R.D.C.T. in the common line of said 3.580 acre tract and said Lot 1, Block A and for the North corner of said 0.9620 acre Public Drainage Easement, said 5/8-inch rod having grid coordinates of X: 2,548,371.52, Y: 7,018,194.26, relative to the Texas Coordinate System of 1983, NAD83(2011)[epoch 2010.00], North Central Zone, and from which a 5/8-inch iron rod with orange cap stamped "R-DELTA FIRM#10155000" found for common corner of said 3.580 acre tract and said Lot 1, Block A bears North 00° 26' 23" West (called South 00° 26' 45" East) a distance of 246.86 feet;

THENCE along the common line of said 0.1224 acre tract and said 3.580 acre tract, and generally along a chain-link fence the following courses and distances:

North 65° 08' 23" West, a distance of 185.27 feet (called South 65° 00' 59" East, 185.32 feet) to a "X" cut found in concrete for common corner of said 0.1224 acre tract and said 3.580 acre tract;

North 23° 58' 54" East (called South 24° 06' 19" West), a distance of 9.70 feet to a 5/8-inch iron rod with orange cap stamped "R-DELTA FIRM#10155000" found for common corner of said 0.1224 acre tract and said 3.580 acre tract;

North 66° 01' 06" West (called South 65° 53' 41" East), passing at 15.71 feet, a point in the east line of a Sanitary Sewer Easement to Nu-Way Emulsions, Inc recorded in Volume 74216, Page 808 D.R.D.C.T., for a total distance of 54.00 feet to a 5/8-inch iron rod with orange cap stamped "R-DELTA FIRM#10155000" found for common corner of said 0.1224 acre tract and said 3.580 acre tract;

South 24° 04' 15" West, a distance of 8.29 feet (called North 24° 06' 19" West, 8.46 feet) over and across said Sanitary Sewer Easement to a 5/8-inch iron rod with orange cap stamped "R-DELTA FIRM#10155000" found for common corner of said 0.1224 acre tract and said 3.580 acre tract;

North 64° 22' 39" West, a distance of 109.37 feet (called South 64° 16' 17" East, 109.36 feet) over and across said Sanitary Sewer Easement to a metal fence post in the common line of said Lot 1, Block 1 and said Randall T. Wilson Tract and said 3.580 acre tract and said Sanitary Sewer Easement and for the northwest corner of said 0.1224 acre tract;

THENCE along the common line of said Lot 1, Block 1 and said Randall T. Wilson Tract and said 3.580 acre tract and said Sanitary Sewer Easement and generally along a sheet metal fence the following courses and distances:

North 00° 26' 22" West (called North 00° 26' 45" West), passing at a distance of 7.09 feet, a point for the northwest corner of said Sanitary Sewer Easement, for a total distance of 97.31 feet to a point for the beginning of a tangent curve to the left, from which a 5/8-inch iron rod with orange cap stamped "R-DELTA FIRM#10155000" found for reference bears South 24° 29' 37" East (called South 24° 30' East), a distance of 1.34 feet;

Northwesterly, along said tangent curve to the left having a radius of 361.86 feet, a chord bearing North 13° 56' 22" West a distance of 168.95 feet, a delta angle of 26° 59' 59", for an arc length of 170.52 feet to a point, from which a 5/8-inch iron rod with orange cap stamped "R-DELTA FIRM#10155000" found for reference bears North 43° 15' 22" East (called North 43° 15' East), a distance of 1.29 feet;

North 27° 26' 23" West (called North 27° 26' 45" West), a distance of 142.70 feet to the **POINT OF BEGINNING** and containing 559,265 Square Feet (12.839 Acres), more or less.

NOTES

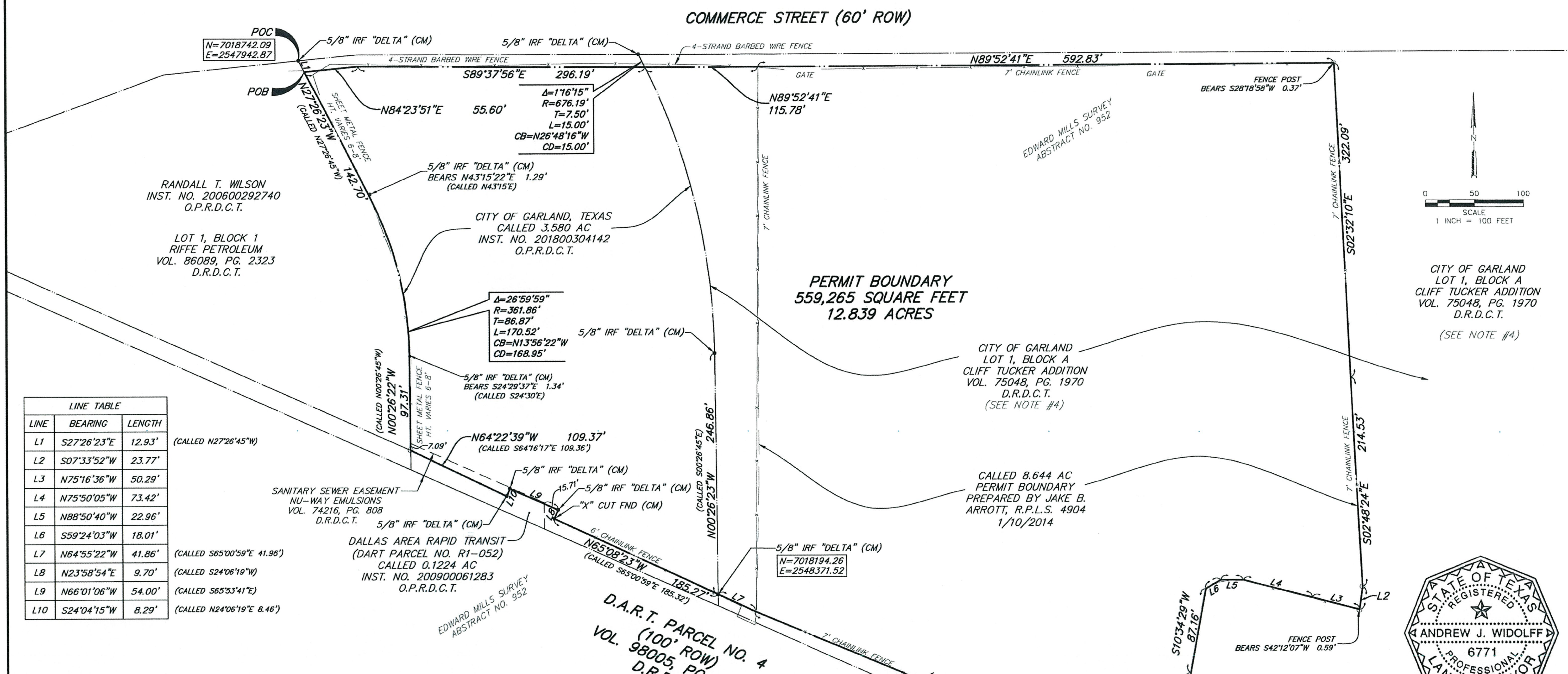
1. **BASIS OF BEARINGS**: The north line of the existing permit boundary (North 89° 52' 41" East) according to an exhibit created by Weaver Boos Consultants (Weaver Consultants Group, LLC) for the City of Garland on January 10, 2014, and signed by Jake B. Arrott, RPLS No. 4904. Distances are in grid and may be converted to surface by the project combined scale factor of <u>1.000136506</u>. All units are in U.S. Survey Feet.
2. This survey is based on a field survey performed on January 5, 2022.
3. This survey has been prepared based upon information provided by the client, if any, and was prepared without the benefit of a title commitment and is subject to any easements or encumbrances not visible on the ground which might be identified in a current title search.
4. Per request of the client, no corners of the 12.839 acre permit boundary tract (described herein) have been set.
5. A survey map bearing same date accompanies this description (Figure 1), page 5 of this document.

Weaver Consultants Group
6420 Southwest Blvd | Suite 206
Fort Worth, TX 76109
817-735-9770
TBPLS REG# No. 10095400
TBPE REG# F- 3727

STATE OF TEXAS
REGISTERED
ANDREW J. WIDOLFF
6771
PROFESSIONAL
LAND SURVEYOR

Andrew J. Widolff RPLS No. 6771

1-18-2022



LINE TABLE

LINE	BEARING	LENGTH	
L1	S27°26'23"E	12.93'	(CALLED N27°26'45"W)
L2	S07°33'52"W	23.77'	
L3	N75°16'36"W	50.29'	
L4	N75°50'05"W	73.42'	
L5	N88°50'40"W	22.96'	
L6	S59°24'03"W	18.01'	
L7	N64°55'22"W	41.86'	(CALLED S65°00'59"E 41.96')
L8	N23°58'54"E	9.70'	(CALLED S24°06'19"W)
L9	N66°01'06"W	54.00'	(CALLED S65°53'41"E)
L10	S24°04'15"W	8.29'	(CALLED N24°06'19"E 8.46')

STATE OF TEXAS
REGISTERED
ANDREW J. WIDOLFF
6771
PROFESSIONAL
LAND SURVEYOR

Andrew Widolff
ANDREW J. WIDOLFF RPLS NO. 6771
1-18-2022

WEAVER CONSULTANTS GROUP, LLC
6420 SOUTHWEST BLVD SUITE 206
FORT WORTH, TEXAS 76109
817-735-9770
TBPLS REG NO. 10095400
TBPE REG NO. F-3727

NOTES:

1. BASIS OF BEARINGS: THE NORTH LINE OF THE EXISTING 8.644 ACRE PERMIT BOUNDARY (NORTH 89° 52' 41" EAST) ACCORDING TO AN EXHIBIT CREATED BY WEAVER BOOS CONSULTANTS (WEAVER CONSULTANTS GROUP, LLC) FOR THE CITY OF GARLAND ON JANUARY 10, 2014 AND SIGNED BY JAKE B. ARROTT, RPLS NO. 4904. DISTANCES ARE IN GRID AND MAY BE CONVERTED TO SURFACE BY THE PROJECT COMBINED SCALE FACTOR OF 1.000136506. ALL UNITS ARE IN U.S. SURVEY FEET.

2. THIS SURVEY BASED ON A FIELD SURVEY PERFORMED ON JANUARY 5, 2022.

3. THIS SURVEY HAS BEEN PREPARED BASED UPON INFORMATION PROVIDED BY THE CLIENT, IF ANY, AND WAS PREPARED WITHOUT THE BENEFIT OF A TITLE COMMITMENT AND IS SUBJECT TO ANY EASEMENTS OR ENCUMBRANCES NOT VISIBLE ON THE GROUND WHICH MIGHT BE IDENTIFIED IN A CURRENT TITLE SEARCH.

4. NO DEED OF RECORD WAS FOUND FOR LAND DESCRIBED AS LOT 1, BLOCK A, CLIFF TUCKER ADDITION. CITY OF GARLAND, TEXAS IS THE OWNER OF THIS TRACT OF LAND AS EVIDENCED BY THE PLAT RECORDED IN VOLUME 75048, PAGE 1970, D.R.D.C.T.

5. DART PARCEL NO. R1-054 IS DESCRIBED IN INSTRUMENT NO. 201200301537, O.P.R.D.C.T. AS "A PERMANENT NON-EXCLUSIVE EASEMENT FOR DRAINAGE PURPOSES". NO FEE SIMPLE CONVEYANCE WAS FOUND IN DOCUMENTS PROVIDED TO THE SURVEYOR BETWEEN CITY OF GARLAND, TEXAS AND DALLAS AREA RAPID TRANSIT.

6. PER REQUEST OF THE CLIENT, NO IMPROVEMENTS OF THE PROPERTY ARE SHOWN HEREON, EXCEPT IMPROVEMENTS RELATED TO THE PERMIT BOUNDARY. NO CORNERS OF THE 12.839 ACRE PERMIT BOUNDARY (DESCRIBED HEREON) HAVE BEEN SET.

7. A DESCRIPTION BEARING SAME DATE ACCOMPANIES THIS SURVEY.

LEGEND

	PERMIT BOUNDARY
	LOT LINE
	RIGHT-OF-WAY (ROW)
	EASEMENT LINE
	8.644 PERMIT BOUNDARY TRACT (SEE NOTE 1)
	FENCE LINE
○	FENCE POST
● IRF	IRON ROD FOUND
5/8" IRF "DELTA" CAP	5/8" IRON ROD WITH ORANGE CAP STAMPED "R-DELTA FIRM#10155000"
POB / POC	POINT OF BEGINNING / POINT OF COMMENCING
(CM)	CONTROLLING MONUMENT
INST. NO.	INSTRUMENT NUMBER
VOL. / PG.	VOLUME / PAGE
D.R.D.C.T.	DEED RECORDS, DALLAS COUNTY, TEXAS
O.P.R.D.C.T.	OFFICIAL PUBLIC RECORDS, DALLAS COUNTY, TEXAS
DART	DALLAS AREA RAPID TRANSIT

☐ DRAFT
☒ FOR PERMITTING PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 01/18/2022
FILE: 0647-003-11-11
CAD: 0647-003-11-11 PERMIT BOUNDARY.DWG
DRAWN BY: CSS
DESIGN BY: AJW
REVIEWED BY: AJW

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
CITY OF GARLAND

REVISIONS

NO.	DATE	DESCRIPTION

PERMIT BOUNDARY
LEGAL DESCRIPTION

CITY OF GARLAND TRANSFER STATION
DALLAS COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 1

P:\SBI Survey\Projects\0647-003-11-11 Garland Transfer Permit\2.0 Drawings\2.1 CAD\0647-003-11-11 Permit Boundary.dwg. 1/18/2022 5:40:40 PM. awidolff

14 PROPERTY OWNER AFFIDAVIT

The property owner affidavit is included on the following pages.

This section addresses §330.59(d)(2).

PROPERTY OWNER AFFIDAVIT

STATE OF TEXAS §
§
COUNTY OF DALLAS §

On this day, Bryan Bradford, on behalf of the City of Garland, appeared before me, the undersigned notary public, and after I administered an oath to Mr. Bradford upon his oath he said:

"My name is Bryan Bradford. I am more than 21 years of age and capable of making this affidavit."

City of Garland, hereafter referred to as the site owner, acknowledges that:

- I acknowledge and am aware that the City of Garland is filing with the Texas Commission on Environmental Quality a Major Permit Amendment request to increase the currently permitted allowable daily waste transfer rate from a maximum of 500 tpd to 1,500 tpd, to increase the permit boundary from 8.644 acres to 12.839 acres, and to accept certain special wastes for the City of Garland Type V municipal solid waste transfer station on real property located in Dallas County, Texas, being more particularly described in Parts I/II – Section 13 of the Major Permit Amendment Application.
- City of Garland acknowledges that the State of Texas may hold the property owner of record, either jointly or severally responsible for the operation, maintenance, and closure of the facility.
- City of Garland acknowledges that the owner or operator of the site and the State of Texas shall have access to the Site during the active life and, if required, after closure for the purpose of inspection and maintenance.

Bryan Bradford
City Manager

[signature]
Signature

6-29-22
Date

SWORN TO AND SUBSCRIBED BEFORE ME by Bryan Bradford on the 29th day of June, 2022, which witness my hand and seal of office.

HELEN M. HANSON
Notary Public, State of Texas
Comm. Expires 05-17-2025
Notary ID 10180332

Helen M. Hanson
Notary Public in and for the State of Texas

Helen M. Hanson
Printed Name

My Commission Expires 5/17/2025

Q:\CITY OF GARLAND\TRANSFER STATION\MPA 2022\PARTS I-II\PARTS I&II TEXT - GARLAND TS.DOCX

15 LEGAL AUTHORITY

The sole owner and operator of the Garland TS is the City of Garland. Under Texas law, the City has the responsibility to provide for the management of solid waste generated by residences and businesses within the City limits. A copy of the City's charter and incorporation documents are provided on the following pages to document the legal status of the applicant.

This section addresses §330.59(e).

HOME RULE CHARTER

ARTICLE I. INCORPORATION, FORM OF GOVERNMENT, BOUNDARIES

ARTICLE I. INCORPORATION, FORM OF GOVERNMENT, BOUNDARIES

Sec. 1. Incorporation.

The inhabitants of the City of Garland, Texas, within the corporate limits as now established or as hereafter established in the manner provided herein, shall be and continue to be a municipal corporation and a body politic incorporated under the name of "City of Garland," Texas, possessed of all the property and interest of which it was possessed immediately prior to the time this Charter takes effect or may hereafter acquire with the powers, duties, obligations and liabilities now pertaining to said City, as a municipal corporation.

ARTICLE I. INCORPORATION, FORM OF GOVERNMENT, BOUNDARIES

Sec. 2. Form of government.

The municipal government provided by this Charter shall be known as the "Council-Manager Government." Pursuant to its provisions and subject only to the limitations imposed by the State Constitution and by this Charter, all powers of the City shall be vested in an elective Council hereinafter referred to as the "Council" which shall enact local legislation, adopt budgets, determine policies, and appoint the other officials listed herein, as well as the City Manager who shall execute the laws and administer the government of the City. All powers of the City shall be exercised in the manner prescribed in this Charter, or if the manner be not prescribed, then in such manner as may be prescribed by ordinance.

ARTICLE I. INCORPORATION, FORM OF GOVERNMENT, BOUNDARIES

Sec. 3. Boundaries.

The bounds and limits of the City of Garland shall be those as established and described in ordinances duly passed by the City Council of the City of Garland in accordance with state law. The City Secretary shall, at all times, keep a correct and complete description with recent annexations and disannexations and a map on which those boundaries are delineated. This shall be the official boundary map for the limits of the City of Garland.

ARTICLE I. INCORPORATION, FORM OF GOVERNMENT, BOUNDARIES

Sec. 4. Extension of city limits by petition.

Whenever a majority of the qualified resident voters in a territory and the owners of fifty (50) percent or more of the land in the territory, a majority of the voters residing in such territory, or the owner or owners of the land in such territory desire the annexation of such territory to the City of Garland, they may present a written petition to that effect to the Council and shall attach to the petition an affidavit signed by a majority of such qualified voters or owners of the land; thereupon, the Council, at a regular session or a special session called in the manner required by this Charter, may by ordinance annex such territory to the City of Garland and, henceforth, the territory shall be a part of the City of Garland and the inhabitants thereof shall be bound by the acts, ordinances, resolutions, and regulations of the City.

ARTICLE I. INCORPORATION, FORM OF GOVERNMENT, BOUNDARIES

Sec. 5. Extension of city limits by Council.

As an alternative method of enlarging or extending the corporate limits, the City Council shall have power by ordinance to provide for the alteration and extension of said boundary limits and the annexation of additional territory lying adjacent to the City, with or without the consent of the territory and the inhabitants annexed. Upon the introduction of such ordinance in Council, it shall be published one time in a newspaper circulated in the City of Garland, however, amendments may be incorporated into the proposed ordinance without the necessity of publishing said amendments and without the necessity of republication of said ordinance as amended. The proposed ordinance shall not be thereafter finally acted upon until at least thirty (30) days have elapsed after the publication thereof; and upon the final passage of any such ordinance, the boundary limits of the City shall thereafter be as fixed in such ordinance, and when any additional territory has been so annexed same shall be a part of the City of Garland and the property situated therein shall bear its pro rata part of the taxes levied by the City and the inhabitants thereof shall be entitled to all of the rights and liberties of the citizens and shall be bound by the acts, ordinances and resolutions of the City.

ARTICLE I. INCORPORATION, FORM OF GOVERNMENT, BOUNDARIES

Sec. 6. Exclusion and discontinuance of territory.

The Council may, in its exclusive discretion by ordinance, exclude from the City any territory within the corporate limits of the City when and if at least sixty (60) percent of the inhabitants thereof qualified to vote for members of the Council shall present a verified petition requesting that such territory be discontinued as a part of the City and tender to the City Secretary with such petition a sum of money equivalent to that percentage of the then outstanding indebtedness of the City for bonds and warrants and a fair proportion of the then existing budget which the assessed value of all property within such territory on the tax rolls of the City next preceding the presentation of such petition bears to the total assessed value of all property on the said rolls. The Council shall never, regardless of the facts and circumstances, be required to discontinue any territory as a part of the City except at its exclusive discretion expressed by ordinance.

16 EVIDENCE OF COMPETENCY

16.1 Solid Waste Sites

The Garland TS is owned and operated by the City of Garland. The City of Garland does not own any additional MSW transfer stations. Over the past ten years, the City of Garland has owned and operated the following Type I MSW landfills located in Garland, Dallas County, Texas:

This section addresses §330.59(e) and (f).

- Hinton Landfill - Permit No. MSW-1895A, operated 2002 - present
- Castle Drive Landfill - Permit No. MSW-1062A, operated 1977 – present

The City of Garland has a direct financial interest in the above-listed solid waste sites which they own. The City of Garland does not own any solid waste sites in other states, territories, or countries.

16.2 Garland TS Key Personnel

The Garland TS executive management consists of the Sanitation Director, Managing Director, Deputy City Manager, and the City Manager, who reports to the Mayor and the City Council. The Sanitation Director, with assistance from the Sanitation Administrator and Field Services Manager, oversees the waste collection and transfer operations. The key personnel involved in the Garland TS operations are listed below.

Hector Arreguin, Field Services Manager

Mr. Arreguin is responsible for collection and transfer operations and manages day-to-day hauling, transfer station and recycling operations. Mr. Arreguin has 14 years of experience related to solid waste management operations.

Billy Wagar, TS Supervisor

Mr. Wagar is the TS Supervisor at the Garland TS and has responsibility for the day-to-day operation of the transfer station, including operations, environmental oversight, and waste processing operations. Mr. Wagar has 26 years of experience related to solid waste management operations.

Steve Bardin, Equipment Operator

Mr. Bardin is the Lead Heavy Equipment Operator at the Garland TS and has responsibility for the transfer of waste from the unloading pit to the transfer trailer loading tunnel. Mr. Bardin has 19 years of experience related to solid waste management operations.

Kelly Sullivan, Regulatory Compliance

Mr. Sullivan oversees environmental compliance for the City of Garland's landfills and transfer operations. Mr. Sullivan has served as the Safety Specialist since 2020, and he has 25 years of experience with environmental compliance related to solid waste facilities.

16.3 Equipment

The equipment listed in Part IV – Site Operating Plan is used to operate this site. Additional or different units of equipment may be provided as necessary to enhance operational efficiency. Other equivalent types of equipment may be substituted for this equipment on an as-needed basis.

17 APPOINTMENTS

The appointment prepared for this permit application meets the requirements of Title 30 TAC §330.59(g) and §305.44. The Notice of Appointment is provided on the following page.

This section addresses §330.59(g).

NOTICE OF APPOINTMENT
Agent for the Applicant

Mr. Toby Baker
Executive Director
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Dear Mr. Baker:

This letter is to advise that the City of Garland has duly appointed Jason Chessher, Managing Director, as the Agent for the Application. Jason Chessher is hereby authorized to execute and deliver permit applications, permit amendments and modifications, compliance related documentation, and any and all other documents as required in connection with this permit application for the City of Garland Transfer Station Facility.

Very truly yours,

CITY OF GARLAND

Bryan Bradford
City Manager

SWORN TO AND SUBSCRIBED BEFORE ME by Bryan Bradford on the 29th day of June, 2022, which witness my hand and seal of office.

HELEN M. HANSON
Notary Public, State of Texas
Comm. Expires 05-17-2025
Notary ID 10180332

Helen M. Hanson
Notary Public in and for the State of Texas

Helen M. Hanson
Printed Name

My Commission Expires 5/17/2025

APPENDIX I/IIA

DEMONSTRATION OF COORDINATION

- Coordination with Texas Historical Commission (§330.61(o))
- Coordination with North Central Texas Council of Governments (§330.61(p))
- Coordination with Texas Department of Transportation (§330.61(i)(4))

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

COORDINATION WITH TEXAS HISTORICAL COMMISSION

CONTENTS

- 03/31/2022 THC Conclusion that No Historical Artifacts or Cultural Resources Would Be Impacted by Transfer Station Development.

Turan, Nevzat

From: noreply@thc.state.tx.us
Sent: Thursday, March 31, 2022 8:33 AM
To: Turan, Nevzat; reviews@thc.state.tx.us; matthew.udenenwu@tceq.texas.gov
Subject: Section 106 Submission

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

TEXAS HISTORICAL COMMISSION
real places telling real stories

Re: Project Review under the Antiquities Code of Texas
THC Tracking #202207622
Date: 03/31/2022
City of Garland Transfer Station

Description: increase daily amount of waste transferred to existing transfer station

Dear Client:
Thank you for your submittal regarding the above-referenced project. This response represents the comments of the Executive Director of the Texas Historical Commission (THC), pursuant to review under the Antiquities Code of Texas.

The review staff, led by Rebecca Shelton and Caitlin Brashear, has completed its review and has made the following determinations based on the information submitted for review:

Above-Ground Resources

- No historic properties are present or affected by the project as proposed. However, if historic properties are discovered or unanticipated effects on historic properties are found, work should cease in the immediate area; work can continue where no historic properties are present. Please contact the THC's History Programs Division at 512-463-5853 to consult on further actions that may be necessary to protect historic properties.

Archeology Comments

- No effect on identified archeological sites or other cultural resources. However, if cultural materials are encountered during project activities, work should cease in the immediate area; work can continue where no cultural materials are present. Please contact the THC's Archeology Division at 512-463-6096 to consult on further actions that may be necessary to protect the cultural remains.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If the project changes, or if new historic properties are found, please contact the review

COORDINATION WITH
NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

CONTENTS

- June 30, 2022 Letter to NCTCOG Requesting Conformance Review and Providing Parts I/II of this Application.

Weaver Consultants Group

Project No. 0647-003-11-11
June 30, 2022

Mr. Mike Eastland
Environment and Development Planner
North Central Texas Council of Governments
616 Six Flags Drive
Arlington, TX 76011

Re: NCTCOG Conformance Review Request
Major Permit Amendment Application – MSW-12A
City of Garland Transfer Station Facility

Dear Mr. Eastland:

Consistent with the requirements of Title 30 Texas Administrative Code (TAC) §330.61(p), please find attached a copy of Parts I/II of the referenced major permit amendment application, which was prepared for the City of Garland. The purpose of the major permit amendment is to increase the daily waste receipt from 500 tons per day to 1,500 tons per day and to update the property boundary. The continued operation of the City of Garland Transfer Station Facility (Garland TS) will provide for the long-term disposal needs for the City of Garland and surrounding communities.

The major permit amendment application was submitted to TCEQ on June 30, 2022. The submittal of Parts I/II of the application to the North Central Texas Council of Governments (NCTCOG) is made pursuant to Title 30 TAC §330.61(p), which reads:

> *"Council of governments and local government review request. The owner or operator shall submit documentation that Parts I and II of the application were submitted for review to the applicable council of governments for compliance with regional solid waste plans. The owner or operator shall also submit documentation that a review letter was requested from any local governments as appropriate for compliance with local solid waste plans. A review letter is not a prerequisite to a final determination on a permit or registration application."*

The proposed changes to the operation of the City of Garland Transfer Station are consistent with the draft June 2022 NCTCOG Regional Solid Waste Management Plan (NCTCOG Plan). The NCTCOG Plan indicates that as population and economic activity continue to grow, there will be an increased need going forward for different types of MSW facilities including transfer stations. The NCTCOG Plan reported that transfer stations managed approximately 1.8 million tons per year of MSW generated in the North Central Texas Region in 2020.

6420 Southwest Boulevard • Suite 206 • Fort Worth, Texas • 76109 • 817-735-9770 • wcgrp.com • Offices Nationwide

The Garland TS is specifically listed in the NCTCOG Plan and is consistent with NCTCOG's goal of providing integrated waste management practices to provide ample, convenient collection and disposal options.

Also enclosed is the completed NCTCOG "Regional Review of MSW Facility Application Evaluation Form" for the referenced project.

Your assistance with this matter is appreciated. We also are prepared to make a presentation to the NCTCOG, if requested. Please call if you have any questions or need additional information.

Sincerely,
Weaver Consultants Group, LLC

Nevzat Turan, P.E.
Principal

cc: Jason Chessher, City of Garland

Enclosures: Parts I/II, City of Garland Transfer Station Facility Major Permit Amendment Application
Regional Review of MSW Facility Application Evaluation Form

COORDINATION WITH
TEXAS DEPARTMENT OF TRANSPORTATION

CONTENTS

- 04/05/2022 WCG Letter, including Project Summary and Traffic Study.
- _______________ TxDOT Approval Letter.

04/05/2022 TXDOT TRAFFIC STUDY SUBMITTED TO TXDOT

Weaver
Consultants
Group

April 5, 2022
Project No. 0647-003-11-11

Mr. Mohamed Bur, P.E.
Acting District Engineer
Texas Department of Transportation, Dallas District
4777 E US Highway 80
Mesquite, Texas 75150

Re: Traffic Study
City of Garland Transfer Station
Dallas County, Texas

Dear Mr. Bur:

The purpose of this letter, submitted on behalf of the City of Garland, is to demonstrate coordination with the Texas Department of Transportation (TxDOT), consistent with Title 30 TAC §330.61(i)(4). This regulation requires that an applicant for a municipal solid waste (MSW) facility coordinate with TxDOT regarding any potential traffic or location restrictions.

Weaver Consultants Group, LLC is preparing an amendment to the existing Type V MSW transfer station permit, under contract with the City of Garland, to obtain the necessary permitting to increase the currently permitted allowable daily waste transfer rate at the City of Garland Transfer Station (TS) from a maximum 500 tons per day (tpd) to 1,500 tpd. The City of Garland TS is a currently permitted municipal solid waste (MSW) transfer station located at 1434 Commerce Street, Garland, Dallas County, Texas.

The proposed amendment to the facility does not include any improvements to the existing structures and pavements. The TS building and associated facilities, such as paved roads, are sufficient to transfer more than 1,500 tpd. The TS will continue to operate at its current waste acceptance rate, which is less than 500 tpd, and will increase acceptance as the population grows in the service area in the City of Garland, up to 1,500 tpd.

To assist you in your review, a traffic study has been prepared utilizing the proposed maximum daily MSW transfer amount, and a project summary and site location maps have been provided as an overview of the transfer station.

The attached traffic study shows the site access roads – Commerce Street, N. Country Club Road, U.S. Highway 66, and E. Centerville Road – which will continue to provide adequate access to the site after issuance of the amended permit by TCEQ.

To verify compliance with §330.61(i)(4), we will need to include a letter from TxDOT in the TCEQ application regarding the adequacy of the site access roads and any traffic or location restrictions at or near the site.

Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,
Weaver Consultants Group, LLC

Nevzat Turan, P.E.
Principal

Attachment: City of Garland Transfer Station Traffic Study

cc: Jason Chessher, City of Garland
Uriel Villalpando, City of Garland

ATTACHMENT

CITY OF GARLAND TRANSFER STATION
TRAFFIC STUDY

CITY OF GARLAND TRANSFER STATION
DALLAS COUNTY, TEXAS
TCEQ PERMIT NO. MSW-12A

TRAFFIC STUDY

Prepared for

City of Garland

April 2022

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

04/05/2022

Prepared by

Weaver Consultants Group, LLC
TBPE Registration No. F-3727
6420 Southwest Blvd., Suite 206
Fort Worth, Texas 76109
817-735-9770

WCG Project No. 0647-003-11-11-01

CONTENTS

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

04/05/2022

LIST OF TABLES AND FIGURES

TABLES

FIGURES

1 INTRODUCTION

1.1 Purpose

Weaver Consultants Group, LLC (WCG) is in the process of developing an amendment to an existing Type V municipal solid waste (MSW) transfer station (TS) permit on behalf of the City of Garland to authorize an increase in the permitted waste acceptance rate to 1,500 tons per day at the City of Garland TS. The TS will continue to operate at its current waste acceptance rate as the population grows in the service area in the City of Garland, up to a potential maximum of 1,500 tons per day.

The purpose of this study is to demonstrate that the access roads to the City of Garland TS (Commerce Street, North Country Club Road, U.S. Highway 66, and East Centerville Road) will continue to provide adequate access to the site now and in the future. The Traffic Study is completed consistent with the requirements listed in Title 30 TAC §330.61(i), which requires the following information.

- Provide data on the availability and adequacy of roads that the owner or operator will use to access the site;
- Provide data on the volume of vehicular traffic on access roads within one mile of the proposed facility, both existing and expected, during the expected life of the proposed facility;
- Project the volume of traffic expected to be generated by the facility on the access roads within one mile of the proposed facility; and
- Submit documentation of coordination of all designs of proposed public roadway improvements such as turning lanes, storage lanes, etc., associated with site entrances with the agency exercising maintenance responsibility of the public roadway involved. In addition, the owner or operator shall submit documentation of coordination with the Texas Department of Transportation for traffic and location restrictions.

The following information is also included to facilitate your review.

- Appendix A – Project Summary and Site Location Maps. This appendix provides additional information on the amendments to the transfer station facility.

1.2 Summary of Transfer Station

City of Garland Transfer Station is an existing municipal solid waste (MSW) transfer station located at 1434 Commerce Street, Garland, Dallas County, Texas, which is approximately one-quarter mile southeast of the intersection of Commerce Street and U.S. Highway 66. The TS has provided the City of Garland with an efficient means of transferring MSW that is generated in the service area to a permitted landfill since 1975.

According to Title 30 Texas Administrative Code (TAC) §305.62(j)(1)(C), a major amendment to a MSW permit will need to be submitted to TCEQ for any increase in the "daily maximum limit of waste acceptance for a Type V processing facility." The major permit amendment application increases the waste acceptance rate to 1,500 tons per day to meet the future disposal needs for the City of Garland and surrounding areas. The waste acceptance rate of 1,500 tons per day is conservative and will provide the City of Garland with the ability to collect MSW more efficiently by allowing solid waste collection vehicles to transfer MSW into large transfer trailers before transferring to a properly permitted Type I MSW landfill. For this traffic study, WCG utilized the amended waste acceptance rate (1,500 tons per day) to analyze the projected current (2022) traffic conditions and the projected future (2032) traffic conditions.

A project summary and site location maps are provided in Appendix A.

2 TRAFFIC INFORMATION

2.1 Availability and Adequacy of Roads

As shown on Figure 2-1, the access roads within one mile of the site include Commerce Street (two-lane, 40 mph concrete-paved/asphalt), North Country Club Road (four-lane, median-divided, 40 mph concrete-paved), U.S. Highway 66 (six-lane, median-divided, 50 mph highway), and East Centerville Road (six-lane, median-divided, 40 mph concrete-paved). Waste collection vehicles and other transfer station vehicles are directed to enter the site from Commerce Street, which mainly serves the transfer station, various City of Garland operations, and a few businesses. Other roads may be periodically used by collection vehicles to serve residences and businesses located along or near these roadways.

The City of Garland Transfer Station's two entrances and one exit are located on the northern edge of the permit boundary via Commerce Street. Commerce Street and Hebron Drive bounds the facility on the north and the DART railway bounds the facility on the south. U.S. Highway 66 intersects with Commerce Street approximately one-quarter of a mile northwest of the permit boundary. U.S. Highway 66 is a six-lane, median-divided highway.

Figure 2-2 provides a site plan of the facility and shows the two entrances and one exit. The site entrances include an approximately 55-foot-wide concrete road to the scalehouse (Facility Entrance) and an approximately 62-foot-wide concrete road to the transfer trailer tunnel (Employee Access/Transfer Trailer Entrance). The length of the Facility Entrance road is approximately 100 feet to the scale and approximately 428 feet to the TS building's unloading area for hauling vehicles. The length of the Employee Access/Transfer Trailer Entrance (aka Traffic Trail) is approximately 600 feet to the transfer trailer tunnel. Both entrances provide a more than ample queuing area for MSW collection vehicles and transfer station vehicles, as noted in Section 2.3.

2.2 Volume of Vehicular Traffic

The volume of vehicle traffic on the site access roads (Commerce Street, N Country Club Road, U.S. Highway 66, and E Centerville Road) are summarized on Table 2.1. As noted on Table 2.1, TxDOT traffic counts from 2019 were available for Commerce Street, N Country Club Road, U.S. Highway 66, and E Centerville Road. The TxDOT traffic count from 2020 was available for U.S. Highway 66; however, this data was not utilized due to the decrease in normal traffic because of the 2020 Pandemic. As such, the 2020 traffic count does not reflect normal traffic conditions. The traffic counts are based on the information provided on the TxDOT Traffic Count Database System (TCDS) STARS II (2019). The TxDOT traffic counts were projected to 2022 and 2032 traffic conditions to account for the additional traffic created by area growth between the time volume data was collected and 2022 by using the area population growth rates obtained from the Texas Water Development Board 2016 Regional Water Plan. As shown on Table 2.2, traffic associated with the TS is conservatively estimated based on known uses and the estimated daily traffic volume generated by the TS.

The Traffic Volume Impact Assessment is summarized in Table 2.3. A list of the various assumptions that were used to derive the estimates is also presented in Table 2.3. The LOS for Commerce Street was determined based on Percent Time Spent Following (PTSF) for a two-lane highway. The LOS for U.S. Highway 66, N. Country Club Road, and E. Centerville Road were determined based on the density of the multi-lane highway segment. As shown on Table 2.3, the traffic associated with the TS only utilizes a small percentage of the capacity of the access roads. In addition, the level of service (LOS) is not expected to change for each access road due to the additional projected traffic.

2.3 Queuing

As shown on Figure 2-2, the site entrance roads are approximately 55-foot-wide and 62-foot-wide, concrete-paved roads accessed from Commerce Street. The entrance road to the scalehouse (Facility Entrance) is approximately 100 feet to the scale and 428 feet to the TS building's unloading area for hauling vehicles, which allows for an ample queuing area within the transfer station's inbound lane to avoid disturbing vehicular traffic on Commerce Street. In addition, the entrance to Traffic Trail to the transfer station building's transfer trailer tunnel for transfer trailers (Employee Access/Transfer Trailer Entrance) is 600 feet long and will provide for ample queuing to the transfer station tunnel.

CITY OF GARLAND TRANSFER STATION
TRAFFIC STUDY

Table 2.1
2-Way Traffic Volumes

Access Road	2022						2032					
	Daily (vpd)			Peak Hour[3] (vph)			Daily (vpd)			Peak Hour[3] (vph)		
	TS Traffic[1]	Non-TS Traffic[2,4]	Total	TS Traffic	Non-TS Traffic	Total	TS Traffic[1]	Non-TS Traffic[2,4]	Total	TS Traffic	Non-TS Traffic	Total
Commerce Street	896	1,646	2,542	125	230	356	896	1,691	2,587	125	237	362
N Country Club Road	896	12,744	13,640	90	1,274	1,364	896	13,049	13,945	90	1,305	1,394
US Hwy 66	896	23,960	24,856	90	2,396	2,486	896	24,527	25,423	90	2,453	2,542
E Centerville Road	896	15,425	16,321	108	1,851	1,959	896	15,792	16,688	108	1,895	2,003

Notes:

[1] TS Traffic was estimated using the maximum expected traffic the site could receive over the life of the site. See Table 2.2 for more information.

[2] 2022 and 2032 Non-TS Traffic conditions are based on volumes provided on the TxDOT TCDS STARS II (2019) for Commerce Street, N Country Club Road, US Hwy 66, and E Centerville Road. Note, the TxDOT volumes includes the existing TS volumes, providing a conservative anaysis.

These volumes are projected using population growth rates obtained from the Texas Water Development Board (TWDB) 2016 Regional Water Plan. The annual population growth rates used were 0.3% from 2020-2030 and 0.07% from 2030-2040. Non-TS Traffic is estimated using the vehicle count projections for the roadway and subtracting current daily two-way TS Traffic.

[3] Peak Hour volumes are estimated based on measured values obtained from TXDOT TCDS STARS II (2019) traffic counts.

[4] Population projections from the Texas Water Development Board (shown below) do not indicate a significant increase in population after the year 2040. It should be noted that improvements to the existing roadways around the transfer station will most likely be needed for non-transfer station traffic, as transfer station traffic shown in the table above represents the maximum vehicles per day expected over the life of the site.

2016 Regional Water Plan - Population Projections for 2020-2070 City Summary

Entity Id	City Name	2020	2030	2040	2050	2060	2070
180	GARLAND	234,650	241,767	243,522	243,631	243,761	243,907

Table 2.2
24-Hour One-Way Transfer Station Estimates [1]

Vehicle Description	Truck Capacity (yd^3)	Waste Density (lb/yd^3)	Truck Capacity (tons)	Distribution of Waste Stream (tons/day)		Estimated Vehicle Counts (vpd)	
				Inbound	Outbound	Inbound	Outbound
Rear/Side Loader	20	500	5	1,028	--	206	--
Front Loader	40	500	10	456	--	46	--
Rolloffs	30	267	4	1	142	1	36
Transfer Trailers	125	400	25	--	1,358	--	55
Private Individuals/City Depts/Commercial	-	-	0.25	14	--	57	--
Subtotal				1,500	1,500	310	91
Facility Personnel/Misc. [2]						47	--
Total						**448**	

Notes:

[1] 24-Hour One-Way Transfer Station Estimates were estimated utilizing the annual waste processing rate of 1,500 tons/day and the annual transfer rate of 1,500 tons/day at the site. Distribution of Waste Stream were calculated based on the current percent distribution (inbound/outbound) for each vehicle type and the 1,500 tons/day waste inflow and outflow rates. The Estimated Vehicle Counts per day were calculated based on Truck Capacity, Waste Density, and Distribution of Waste Stream, which was then doubled in Table 2.1 to account for all trucks entering and leaving the facility.

[2] Facility Personnel/Miscellaneous vehicle counts were estimated to be approximately 15% of the Estimated Vehicle Counts Inbound Subtotal.

PREPARED BY: KCR
DATE: 4/5/2022

CHECKED BY: CRM
DATE: 4/5/2022

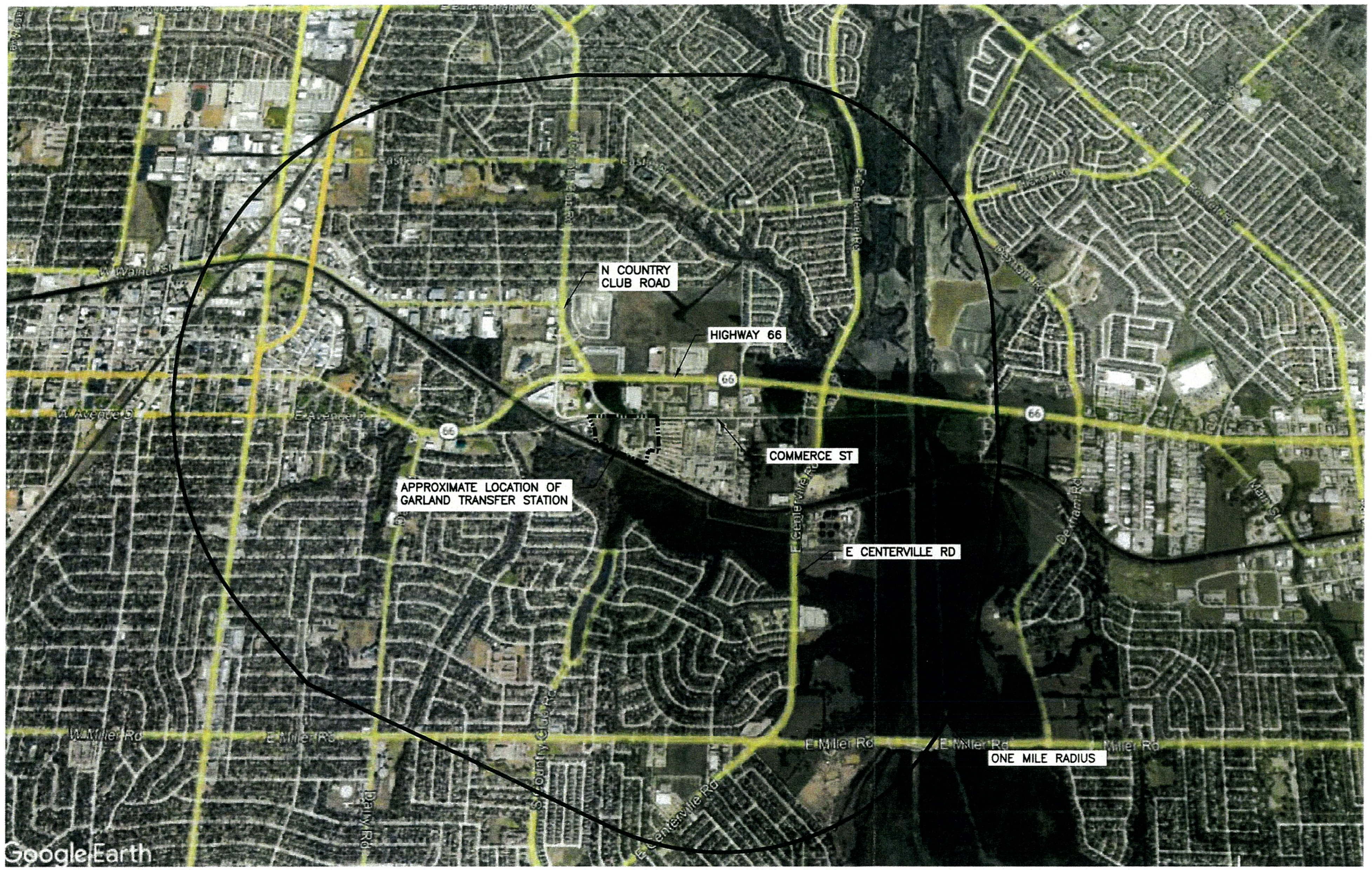
CITY OF GARLAND TRANSFER STATION
TRAFFIC STUDY

Table 2.3
Traffic Impact Assessment [1]

Location	Roadway Capacity (vph)	2022						2032					
		Total Volume (vpd)	TS Vehicles (vpd)	Peak Hour Volume [2] (vph)	% of Roadway Capacity Used	Level of Service (LOS)	% Roadway Capacity Used by TS Vehicles [3]	Total Volume (vpd)	TS Vehicles (vpd)	Peak Hour Volume [2] (vph)	% of Roadway Capacity Used	Level of Service (LOS)	% Roadway Capacity Used by TS Vehicles [3]
Commerce Street	3,200	2,542	896	356	11.1%	B	2.8%	2,587	896	362	11.3%	B	2.8%
N Country Club Road	7,200	13,640	896	1,364	18.9%	B	1.2%	13,945	896	1,394	19.4%	B	1.2%
US Hwy 66	12,000	24,856	896	2,486	20.7%	A	0.7%	25,423	896	2,542	21.2%	A	0.7%
E Centerville Road	10,800	16,321	896	1,959	18.1%	A	0.8%	16,688	896	2,003	18.5%	A	0.8%

Notes:
[1] Traffic volumes listed in this table include two-way traffic volumes shown in Table 2.1.
[2] Peak Hour Volumes are estimated based on measured values obtained from TXDOT TCDS STARS II (2019) traffic counts.
[3] % Roadway Capacity Used by TS Vehicles assumes an equal number of TS vehicle traffic occurs throughout 10 operating hours per day.

I/IIA-20



N

0 1000 2000
SCALE IN FEET

LEGEND

PERMIT BOUNDARY

ONE MILE RADIUS (SEE NOTE 2)

NOTES:

1. AERIAL PHOTOGRAPH HAS BEEN REPRODUCED FROM GOOGLE EARTH IMAGE DATED 11-28-2017.
2. ONE MILE RADIUS INDICATES 1 MILE DISTANCE FROM THE TRANSFER STATION PERMIT BOUNDARY.

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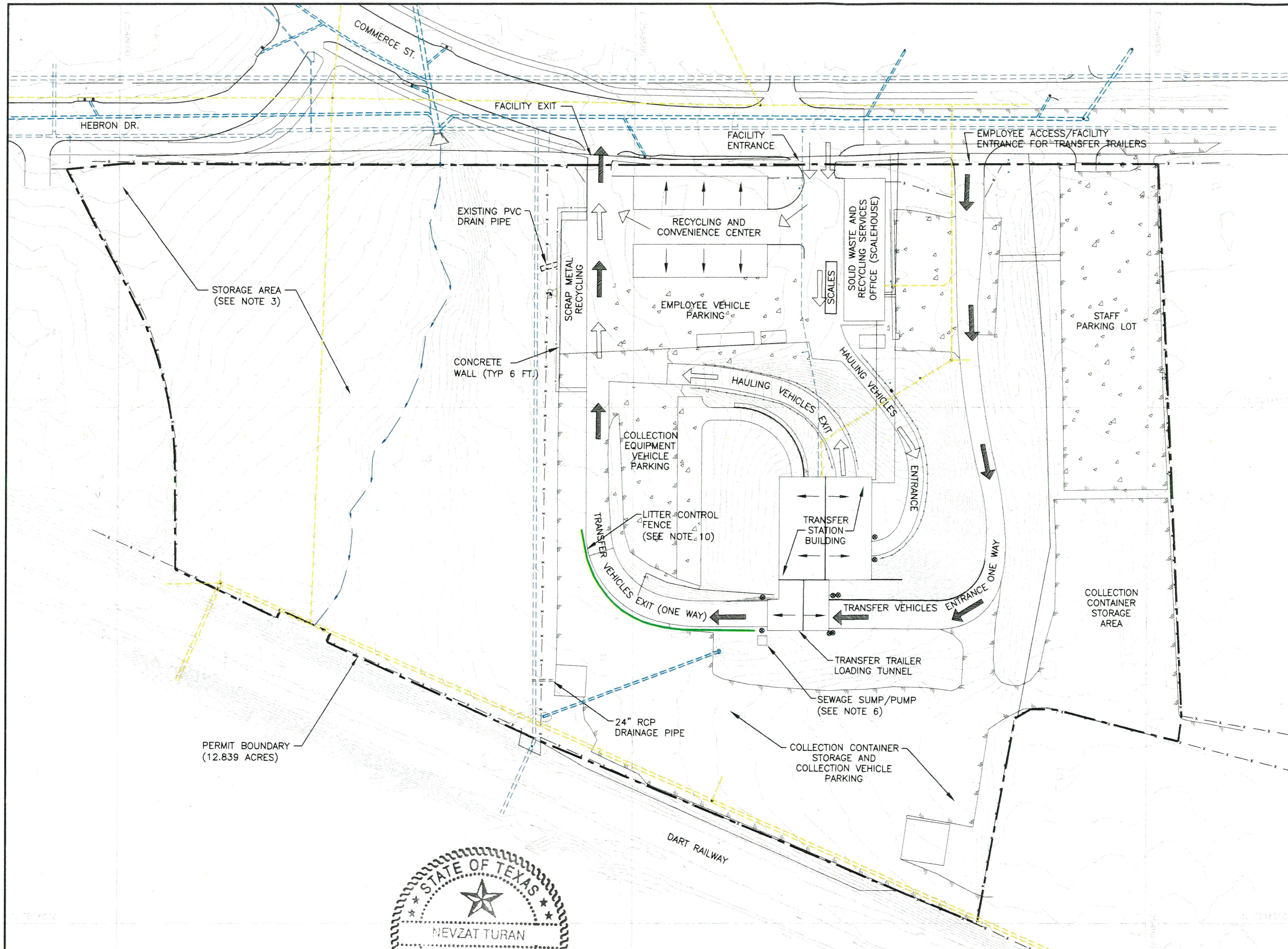
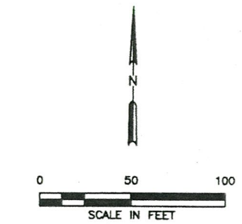
☐ DRAFT ☒ FOR PERMITTING PURPOSES ONLY ☐ ISSUED FOR CONSTRUCTION	PREPARED FOR CITY OF GARLAND	ACCESS ROADS WITHIN ONE MILE CITY OF GARLAND TRANSFER STATION DALLAS COUNTY, TEXAS	
DATE: 03/2022 FILE: 0647-03-11 CAD: FIG 2-1-ACCESS ROADS 1 MILE.DWG	DRAWN BY: RAA DESIGN BY: BPY REVIEWED BY: NT	REVISIONS NO. / DATE / DESCRIPTION	
Weaver Consultants Group TBPE REGISTRATION NO. F-3727		WWW.WCGRP.COM	FIGURE 2-1





LEGEND

- PERMIT BOUNDARY (SEE NOTES 2 AND 4)
- EXISTING GROUND CONTOUR (SEE NOTE 1)
- STATE PLANE COORDINATE SYSTEM
- PARKING AREA
- FENCELINE
- SANITARY SEWER (SEE NOTE 7)
- STORM WATER DISCHARGE
- WATERLINE
- FLOWLINE
- RECYCLABLES DELIVERY TRAFFIC FLOW
- TRANSFER VEHICLE TRAFFIC FLOW
- HAULING VEHICLE TRAFFIC FLOW (SEE NOTE 8)
- ROOF SLOPE
- PROTECTION BOLLARDS (SEE NOTE 9)

NOTES:

1. EXISTING TOPOGRAPHIC MAP AT FACILITIES HAVE BEEN PREPARED BY R-DELTA ENGINEERS, INC. (2019). GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 1983.
2. THE PERMIT BOUNDARY LEGAL DESCRIPTION DATED JANUARY 18, 2022 WAS PREPARED BY WEAVER CONSULTANTS GROUP.
3. THIS AREA MAY BE UTILIZED FOR VEHICLE PARKING, COLLECTION CONTAINER STORAGE OR ROLL-OFF CONTAINERS.
4. VARIOUS FENCING IS INSTALLED ALONG THE PERMIT BOUNDARY.
5. RECYCLING CENTER SERVES THE CITY OF GARLAND CITIZENS AND NON-COMMERCIAL DELIVERIES ONLY.
6. WASH WATER DRAINS FROM TRANSFER STATION BUILDING TIPPING FLOOR AND THE STORMWATER FROM THE TRANSFER TRAILER LOADING TUNNEL ARE COLLECTED IN THE SUMP AND PUMPED INTO THE CITY SANITARY SEWER LINE.
7. SANITARY SEWER LINE IS APPROXIMATED FROM AS-BUILT CONDITION DRAWINGS DATED 2022.
8. TRANSFER STATION SERVES THE CITY OF GARLAND SOLID WASTE COLLECTION VEHICLES AS WELL AS OTHER CITIES AUTHORIZED TO USE THE FACILITY AND THE PUBLIC.
9. PROTECTION BOLLARDS ARE INSTALLED AS NEEDED AT THE ENTRANCE, EXIT, ETC. LOCATIONS TO PROTECT STRUCTURES.
10. LITTER CONTROL FENCE IS INSTALLED TO COLLECT LITTER AND WINDBLOWN WASTE FROM TRANSFER STATION OPERATIONS.
11. FACILITY ENTRANCE IS USED BY THE PUBLIC AND WASTE HAULING VEHICLES FOR DELIVERY. THESE VEHICLES LEAVE THE FACILITY FROM THE FACILITY EXIT. THE EMPLOYEE ACCESS/FACILITY ENTRANCE FOR TRANSFER TRAILERS IS USED BY THE EMPLOYEES TO ENTER/EXIT THE FACILITY AND BY THE TRANSFER TRAILERS TO ENTER THE FACILITY AND LEAVE THE FACILITY FROM THE FACILITY EXIT.

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☐ DRAFT ☒ FOR PERMITTING PURPOSES ONLY ☐ ISSUED FOR CONSTRUCTION		PREPARED FOR CITY OF GARLAND	GENERAL SITE PLAN CITY OF GARLAND TRANSFER STATION DALLAS COUNTY, TEXAS
DATE: 02/2022 FILE: 0647-03-11 CAD: FIG 2-2-SITE PLAN.DWG	DRAWN BY: JDW DESIGN BY: SAB REVIEWED BY: NT	REVISIONS NO. / DATE / DESCRIPTION	
Weaver Consultants Group TBPE REGISTRATION NO. F-3727			WWW.WCGRP.COM / FIGURE 2-2

3 SUMMARY

In summary, based on the traffic impact assessment, all access roads currently provide adequate access to the transfer station, and the waste processing/transfer rate increase will have a minimal impact on the facility access roads. Therefore, it is expected that all access roads will continue to provide adequate access to the transfer station through the life of the facility.

4 REFERENCES

1. Texas Department of Transportation. *Traffic Count Database System (TCDS).* Accessed February 1, 2022. https://txdot.public.ms2soft.com/tcds/tsearch.asp.

2. Transportation Research Board, National Research Council. *Highway Capacity Manual.* Washington D.C.: National Academy of Sciences, 2000.

APPENDIX A

PROJECT SUMMARY AND

SITE LOCATION MAPS

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Project Summary

City of Garland Transfer Station
City of Garland
Garland, Dallas County, Texas

Introduction

Weaver Consultants Group, LLC is preparing an amendment to the existing Type V MSW Transfer Station Application, on behalf of the City of Garland, to obtain the necessary permitting from Texas Commission on Environmental Quality (TCEQ) to increase currently permitted daily waste transfer rate at City of Garland Transfer Station (TS) and to revise the permit boundary. City of Garland TS is a currently permitted municipal solid waste (MSW) transfer station with a daily transfer of 500 tons per day (tpd). The facility is located at 1434 Commerce Street, Garland, Dallas County, Texas.

The City of Garland currently owns and operates the existing TS, since the issuance of the permit by the Texas Department of Health Resources on December 19, 1975. The 1975 permit was issued for a maximum daily waste acceptance (i.e., transfer) rate of 500 tons/day. The proposed amendment to the facility's permit will enable the City of Garland to provide MSW transfer services for the increased need of the area and to accept special waste as approved by TCEQ.

The purpose of this amendment to the existing permit is to allow City of Garland TS to process and transfer up to 1,500 tons/day of MSW from Garland's residents and businesses, and surrounding areas to Charles M. Hinton, Jr. Regional Landfill (Hinton Landfill) or other TCEQ permitted Type I MSW landfill. The proposed amendment application to revise the current TCEQ issued permit will undergo a thorough technical review by the TCEQ before obtaining authorization for the proposed amendment.

This amendment does not propose any size increase to the existing transfer station building. The proposed facility operations have an estimated MSW transfer capacity of 1,500 tons per day. This summary provides an overview of the transfer station. The following subsections detail information regarding the owner and operator of the site, general site information, and a summary of the proposed site design.

Owner/Operator Information

City of Garland TS is owned and operated by the City of Garland. The City of Garland owns, operates, and provides non-hazardous waste collection, transfer, recycling, and disposal services to residential, municipal, and commercial customers across the city of Garland and surrounding communities.

Site Information

The following drawings are attached to this summary.

- Site Location Map (Figure 1). This figure shows the site location on a standard Texas Department of Transportation Dallas County highway map.
- General Topographic Map (Figure 2). This figure shows the site location on a United States Geological Survey (USGS) map.
- Aerial Photograph (Figure 3). This figure shows the existing conditions of the site location on an aerial photograph.
- Site Plan (Figure 4). This figure shows the existing site plan.

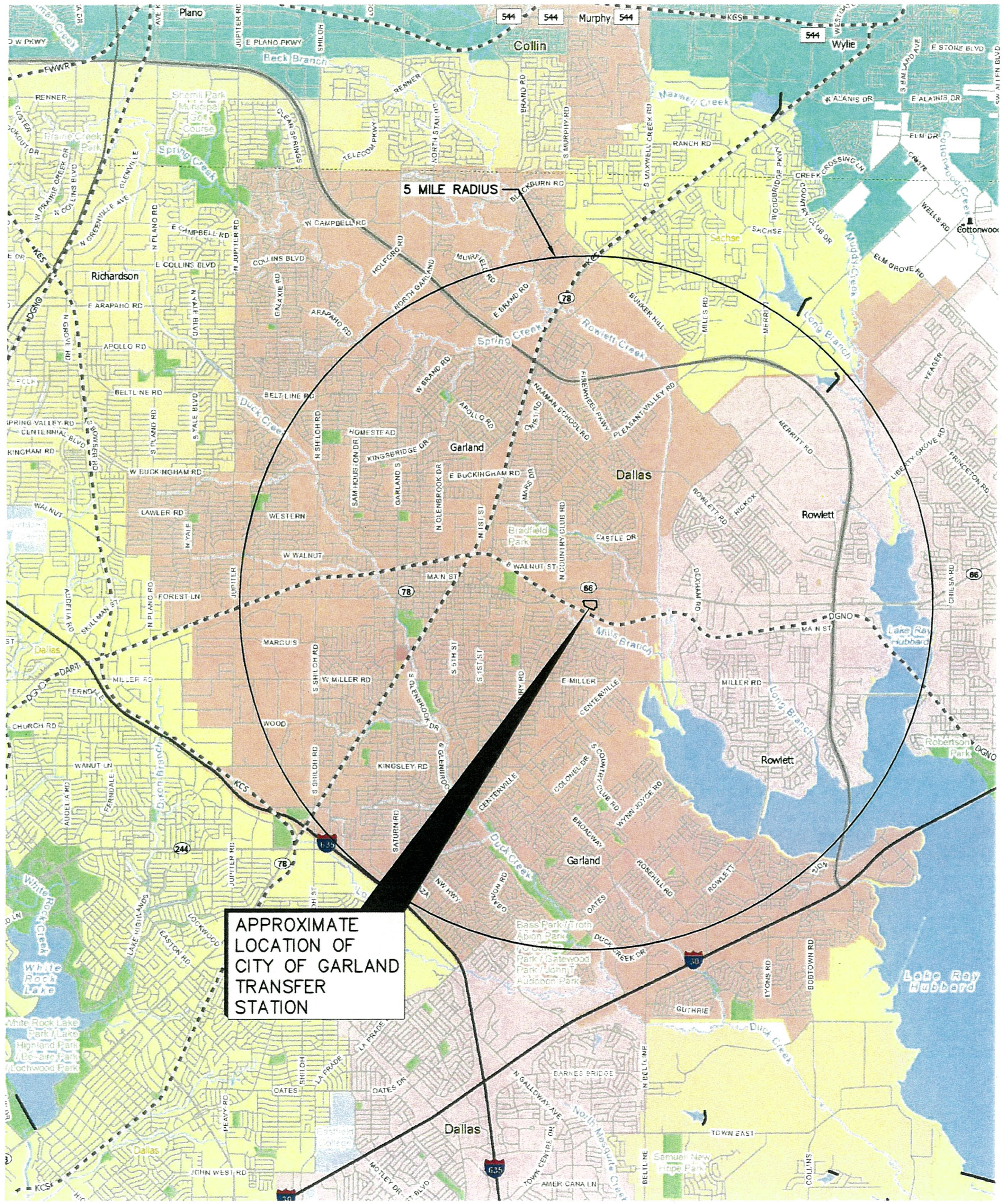
The City of Garland TS is located at 1434 Commerce Street, Garland, Dallas County, Texas. The facility is accessed from Commerce Street, which is approximately ¼ mile southeast of State Highway 66. The service area includes residential, commercial, institutional, municipal, manufacturing, industrial, recreational, and construction sources within the City of Garland and surrounding areas.

Summary

The following information presents a summary of the proposed amendment to City of Garland Transfer Station.

- The transfer station building is an existing, enclosed, pre-engineered metal structure with a reinforced concrete slab and steel push walls with 3 horizontal levels: (1) unloading area (tipping floor), (2) unloading pit, and (3) transfer trailer loading pit. MSW transfer operations will occur completely within the building Incoming loads are directed to the well-lit tipping floor area for MSW transfer operations. Typically, waste is unloaded from the tipping floor into the 15-foot deep concrete unloading pit located below the unloading area. A dozer is used to push the waste from the unloading pit into the transfer trailer loading tunnel located on the south end of the building. A grapple is utilized for distributing the load in the vehicle. The transfer trailer hauls the MSW to a properly permitted Type I MSW landfill. Although waste is normally transferred to Hinton Landfill, other landfills may be utilized
- The facility also includes a recycling and convenience area and a citizens' collection station for citizens visiting the TS.
- Access to the TS is provided via the site access road located south of Commerce Street. The existing roads are capable of handling the projected traffic load associated with the transfer station.
- Properly trained personnel will continue to operate the transfer station, and the City of Garland will efficiently staff the facility in the future based on the personnel needs to effectively serve the community. A TCEQ approved site

operating plan will continue to be used as the governing document for the facility operations. The plan provides details on the required equipment, personnel, and safety procedures necessary to operate the site in accordance with TCEQ regulations. Similar to the current site operations, the City of Garland Transfer Station will be inspected by the TCEQ on a regular basis to ensure the site is in compliance with state regulations.



SCALE IN MILES

0 1 2

LEGEND

- Unincorporated Community
- County Seat
- Border Crossing
- Cemetery
- Cemetery (Inside City)
- Deep Draft Port
- Shallow Draft Port
- Railroad
- Dam
- River or Stream
- TXDOT District
- Lakes
- Education
- Military
- Airport Runway
- Airport
- Prison
- Parks and Other Public Land

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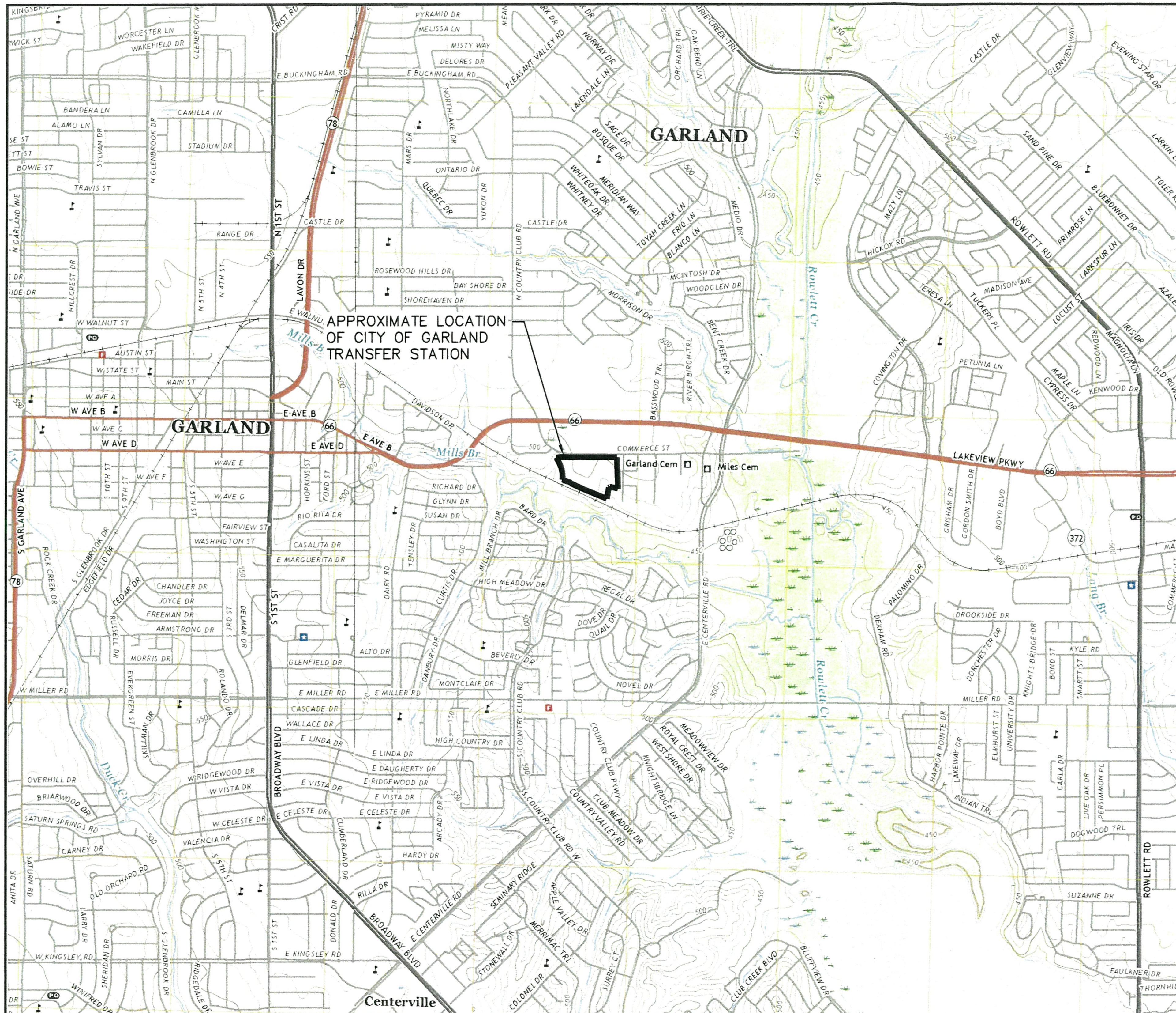
NOTE:

1. REPRODUCED FROM PAGES 624 AND 666 DALLAS COUNTY OF THE TxDOT COUNTY MAPBOOK 2018 (TEXAS DEPARTMENT OF TRANSPORTATION PLANNING AND PROGRAMMING DIVISION).

☐ DRAFT ☒ FOR PERMITTING PURPOSES ONLY ☐ ISSUED FOR CONSTRUCTION	PREPARED FOR CITY OF GARLAND	MAJOR PERMIT AMENDMENT SITE LOCATION MAP
DATE: 02/2022 DRAWN BY: VRS FILE: 0647-03-11 DESIGN BY: JBP CAD: FIGURE 1.DWG REVIEWED BY: NT	REVISIONS NO. / DATE / DESCRIPTION	CITY OF GARLAND TRANSFER STATION DALLAS COUNTY, TEXAS
Weaver Consultants Group TBPE REGISTRATION NO. F-3727		WWW.WCGRP.COM / FIGURE 1

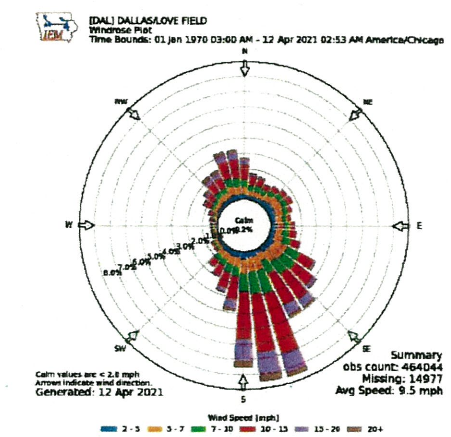


SCALE IN FEET
0 1000 2000

LEGEND

ROAD CLASSIFICATION

Expressway		Local Connector	
Secondary Hwy		Local Road	
Ramp		4WD	
Interstate Route		US Route	State Route



NOTES:

1. ADAPTED FROM THE USGS 7.5 MINUTE QUADRANGLE TOPOGRAPHIC MAPS (GARLAND, TX 2019 AND ROWLETT, TX 2019).
2. WIND ROSE REPRODUCED FROM PUBLISHED WIND ROSE FOR DALLAS/LOVE FIELD AIRPORT.

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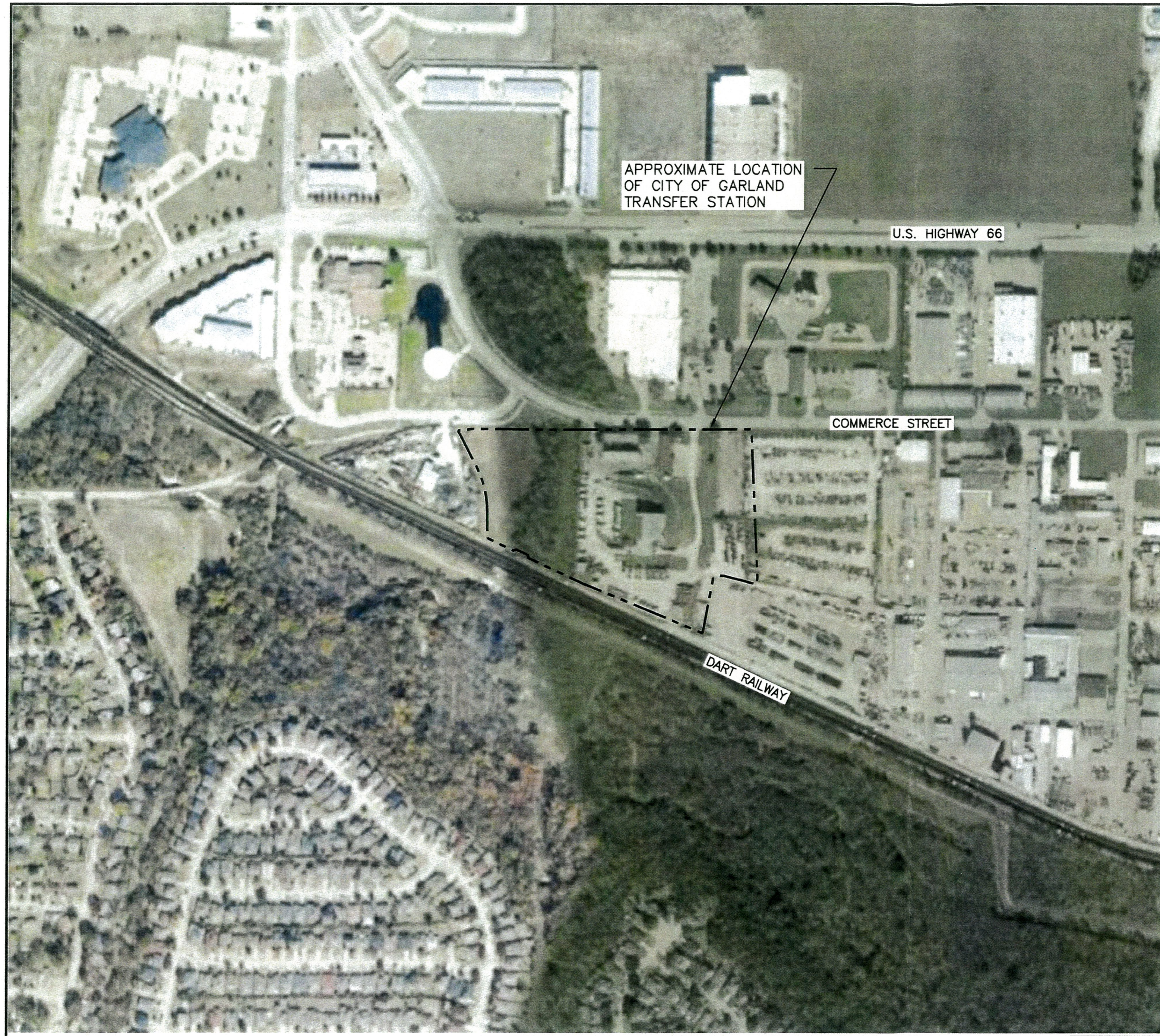
DATE: 02/2022 FILE: 0647-03-11 CAD: FIGURE 2.DWG	DRAWN BY: VRS DESIGN BY: JBP REVIEWED BY: NT	REVISIONS NO. DATE DESCRIPTION	CITY OF GARLAND TRANSFER STATION DALLAS COUNTY, TEXAS
Weaver Consultants Group TBPE REGISTRATION NO. F-3727		WWW.WCGRP.COM	FIGURE 2



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SCALE IN FEET

LEGEND

PERMIT BOUNDARY

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE EARTH FROM PHOTOGRAPHY TAKEN NOVEMBER, 2020.
2. ALL STRUCTURES WITHIN 500 FEET ARE SHOWN ON THIS FIGURE. LAND USE WITHIN THE 500 FEET RADIUS CONSISTS OF INDUSTRIAL, COMMERCIAL, AND OPEN SPACE. THE NEAREST STRUCTURE IS LOCATED APPROXIMATELY 130 FEET WEST OF THE PERMIT BOUNDARY.

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- [ ] DRAFT
- [x] FOR PERMITTING PURPOSES ONLY
- [ ] ISSUED FOR CONSTRUCTION

DATE: 02/2022
FILE: 0647-03-11
CAD: FIGURE 3.DWG

DRAWN BY: VRS
DESIGN BY: JBP
REVIEWED BY: NT

PREPARED FOR
CITY OF GARLAND

REVISIONS

NO.	DATE	DESCRIPTION

MAJOR PERMIT AMENDMENT
AERIAL PHOTOGRAPH

CITY OF GARLAND TRANSFER STATION
DALLAS COUNTY, TEXAS

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

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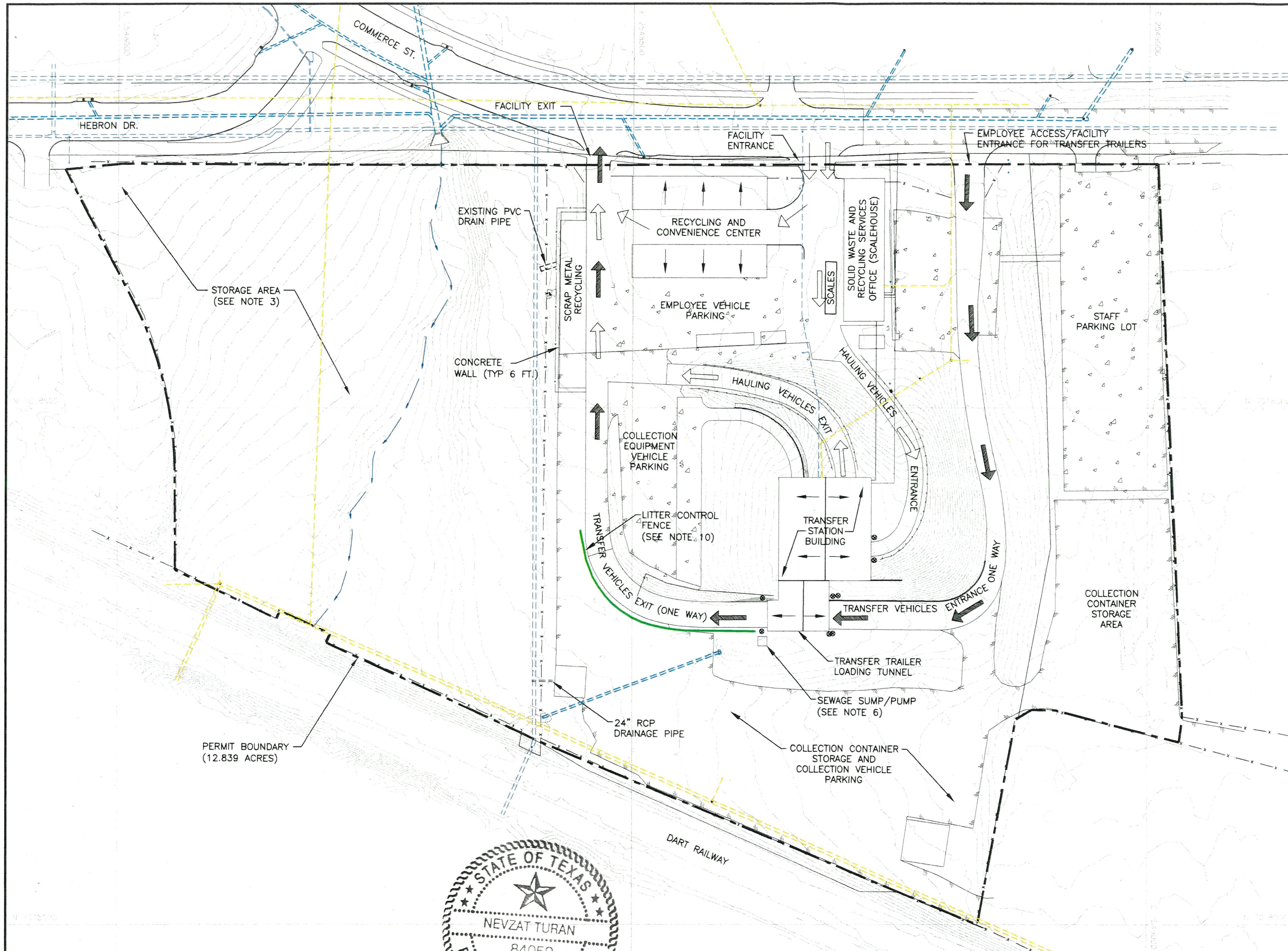
FIGURE 3



STATE OF TEXAS
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LEGEND

- PERMIT BOUNDARY (SEE NOTES 2 AND 4)
- EXISTING GROUND CONTOUR (SEE NOTE 1)
- STATE PLANE COORDINATE SYSTEM
- PARKING AREA
- FENCELINE
- SANITARY SEWER (SEE NOTE 7)
- STORM WATER DISCHARGE
- WATERLINE
- FLOWLINE
- RECYCLABLES DELIVERY TRAFFIC FLOW
- TRANSFER VEHICLE TRAFFIC FLOW
- HAULING VEHICLE TRAFFIC FLOW (SEE NOTE 8)
- ROOF SLOPE
- PROTECTION BOLLARDS (SEE NOTE 9)

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6. WASH WATER DRAINS FROM TRANSFER STATION BUILDING TIPPING FLOOR AND THE STORMWATER FROM THE TRANSFER TRAILER LOADING TUNNEL ARE COLLECTED IN THE SUMP AND PUMPED INTO THE CITY SANITARY SEWER LINE.
7. SANITARY SEWER LINE IS APPROXIMATED FROM AS-BUILT CONDITION DRAWINGS DATED 2022.
8. TRANSFER STATION SERVES THE CITY OF GARLAND SOLID WASTE COLLECTION VEHICLES AS WELL AS OTHER CITIES AUTHORIZED TO USE THE FACILITY AND THE PUBLIC.
9. PROTECTION BOLLARDS ARE INSTALLED AS NEEDED AT THE ENTRANCE, EXIT, ETC. LOCATIONS TO PROTECT STRUCTURES.
10. LITTER CONTROL FENCE IS INSTALLED TO COLLECT LITTER AND WINDBLOWN WASTE FROM TRANSFER STATION OPERATIONS.
11. FACILITY ENTRANCE IS USED BY THE PUBLIC AND WASTE HAULING VEHICLES FOR DELIVERY. THESE VEHICLES LEAVE THE FACILITY FROM THE FACILITY EXIT. THE EMPLOYEE ACCESS/FACILITY ENTRANCE FOR TRANSFER TRAILERS IS USED BY THE EMPLOYEES TO ENTER/EXIT THE FACILITY AND BY THE TRANSFER TRAILERS TO ENTER THE FACILITY AND LEAVE THE FACILITY FROM THE FACILITY EXIT.

☐ DRAFT
☒ FOR PERMITTING PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 02/2022	DRAWN BY: JDW
FILE: 0647-03-11	DESIGN BY: SAB
CAD: FIG 4-SITE PLAN.DWG	REVIEWED BY: NT

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
CITY OF GARLAND

REVISIONS

NO.	DATE	DESCRIPTION

MAJOR PERMIT AMENDMENT
GENERAL SITE PLAN

CITY OF GARLAND TRANSFER STATION
DALLAS COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 4

______________ TxDOT APPROVAL LETTER

(To Be Inserted Upon Receiving From TxDOT)

APPENDIX I/IIB

AREA WATER WELL INFORMATION PERFORMED BY GEOSEARCH, INC.

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

Includes pages I/IIB-1 through I/IIB-15

GeoSearch

On time. On target. In touch.™

Texas Water Well Report (Extended Radius)

Target Property:

City of Garland Transfer Station
1434 Commerce St
Garland, Dallas County, Texas 75040

Prepared For:

Weaver Consultants Group-Ft. Worth

Order #: 173228
Job #: 431777
Project #: 0647-003-11-11-01
PO #: ERIS Order # 22021800570
Date: 02/22/2022

phone: 888-396-0042 · fax: 512-472-9967 · www.geo-search.com

TARGET PROPERTY SUMMARY

City of Garland Transfer Station
1434 Commerce St
Garland, Dallas County, Texas 75040

USGS Quadrangle: ***Rowlett, TX***
Target Property Geometry: ***Area***

Target Property Longitude(s)/Latitude(s):
(-96.611735, 32.908706), (-96.610576, 32.908690), (-96.608280, 32.908665), (-96.608243, 32.907143), (-96.608720, 32.907197), (-96.608827, 32.906636), (-96.608862, 32.906544), (-96.610415, 32.907150), (-96.610952, 32.907395), (-96.610930, 32.907425), (-96.611088, 32.907485), (-96.611118, 32.907458), (-96.611418, 32.907578), (-96.611413, 32.908028), (-96.611539, 32.908366), (-96.611764, 32.908708), (-96.611735, 32.908706)

County/Parish Covered:
Dallas (TX)

Zipcode(s) Covered:
Garland TX: 75040, 75041, 75043
Rowlett TX: 75088, 75089

State(s) Covered:
TX

DATABASE FINDINGS SUMMARY

DATABASE	ACRONYM	LOCA-TABLE	UNLOCA-TABLE	SEARCH RADIUS (miles)
FEDERAL				
UNITED STATES GEOLOGICAL SURVEY NATIONAL WATER INFORMATION SYSTEM	NWIS	0	0	1.0000
SUB-TOTAL		**0**	**0**	
STATE (TX)				
SELECT SUBMITTED DRILLERS REPORT DATABASE WELLS	SSDRD	0	0	1.0000
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER WELLS	TCEQ	3	0	1.0000
TEXAS WATER DEVELOPMENT BOARD GROUNDWATER DATABASE	TWDB	0	0	1.0000
WATER UTILITY DATABASE	WUD	0	0	1.0000
SUB-TOTAL		**3**	**0**	

TOTAL		**3**	**0**	

LOCATABLE DATABASE FINDINGS

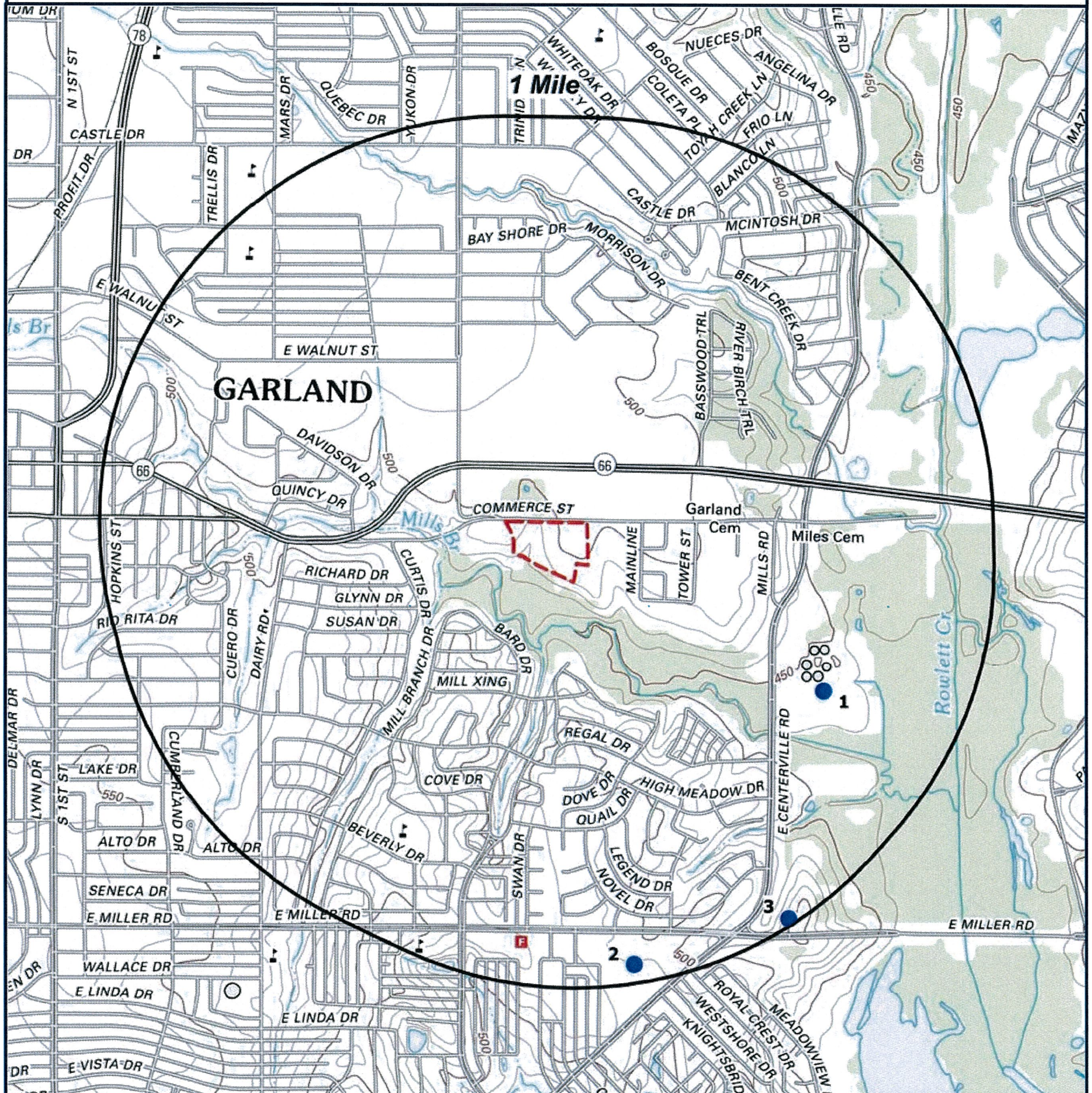
ACRONYM	SEARCH RADIUS (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
FEDERAL								
NWIS	1.000	0	0	0	0	0	NS	0
SUB-TOTAL		**0**	**0**	**0**	**0**	**0**	**0**	**0**
STATE (TX)								
SSDRD	1.000	0	0	0	0	0	NS	0
TCEQ	1.000	0	0	0	0	3	NS	3
TWDB	1.000	0	0	0	0	0	NS	0
WUD	1.000	0	0	0	0	0	NS	0
SUB-TOTAL		**0**	**0**	**0**	**0**	**3**	**0**	**3**
TOTAL		**0**	**0**	**0**	**0**	**3**	**0**	**3**

NOTES:

NS = NOT SEARCHED

TP/AP = TARGET PROPERTY/ADJACENT PROPERTY

WATER WELL MAP



Target Property (TP)
TCEQ

City of Garland Transfer Station
1434 Commerce St
Garland, Texas
75040

0' 1000' 2000' 3000'
SCALE: 1" = 2000'

REPORT SUMMARY OF LOCATABLE SITES

MAP ID#	DATABASE NAME	SITE ID#	DISTANCE FROM SITE	SITE NAME	ADDRESS	CITY, ZIP CODE	PAGE #
1	TCEQ	TX198090	0.656 ESE	MR. BILL MAYS	2500 CENTERVILLE RD	GARLAND, 75040	1
2	TCEQ	TX198085	0.951 S	SAM SHIPLEY	1800 E MILLER RD	GARLAND, 75041	3
3	TCEQ	TX197425	0.979 SE	GLEN RAINS	2000 E CENTERVILLE RD	GARLAND, 75040	5

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER WELLS (TCEQ)

MAP ID# 1 **Distance from Property: 0.66 mi. ESE**

ID NUMBER:	**TX198090**
STATE ID :	**33-04-7A**
OWNER NAME:	**MR. BILL MAYS**
DATE DRILLED:	**04/27/1963**
DEPTH DRILLED:	**50'**
STATIC LEVEL:	**NOT REPORTED**
WATER USAGE:	**STABLE USE**
LONGITUDE:	**-96.598236000**
LATITUDE:	**32.902713000**

1 PAGE(S) OF DRILLERS' LOGS

Water Well ID: 198090

7A

File original copy with
Texas Water Commission
P. O. Box 2311, Capitol Station
Austin 11, Texas

State of Texas

DRILLERS LOG AND WELL DATA REPORT

For use by TWC only
Well No. 33-041-74
Located on map Yes
By _____ Date 7-18-62
Map no. _____

1) Well Owner: Mr. Bill Mays (Name) Route (Street or RFD) Garland, Texas (City) (State)

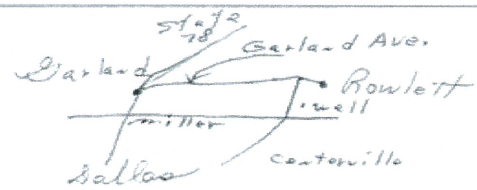
2) Land Owner: Same (Name) (Street or RFD) (City) (State)

3) Intended use: Industrial ☐ ;Municipal ☐ ;Irrigation ☐ ;Other Stable use

4) Location of well: County Dallas Labor _____ League _____ Abstract No. _____

NW¼ NE¼ SW¼ SE¼ of Section _____ Block No. _____ Survey _____
(Circle as many as are needed)

_____ miles in _____ (NE, SW, etc.) direction
from _____ (Town)



Sketch map of well location with distances from two section or survey lines, and to landmarks, roads, and creeks.

DRILLERS LOG OF WELL

Method of drilling: Rotary Diameter of hole 36 in. Date drilled 4-27-63

All measurements made from 0 ft. above ground level.

From (ft)	To (ft)	Description and color of formation material	From (ft)	To (ft)	Description and color of formation material
1	3	Black Topsoil			
3	8	Brown Clay			
8	35	Yellow clay			
35	50	Blue Shale			

(Use continuation sheets if necessary)

COMPLETION DATA

COMPLETION

Straight wall ☑
Under reamed ☐
Gravel packed ☐
Open hole ☐
Other _____

CASING

Type: Old ☐ New ☑
Cemented from _____ ft.
to _____ ft.

Diameter (inches)	Setting from (ft)	Setting to (ft)
30 ID	1	50
Concrete		

SCREEN

Type _____
Perforated ☐ Slotted ☐

Diameter (inches)	Setting from (ft)	Setting to (ft)

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief.

George Combs (Signature) COMBS DRILLING SERVICE (Company Name) Reg. No. _____
DVEE

Please attach electric log, chemical analysis, and other pertinent information if available.

If well was tested by your company or if you installed the permanent pump please complete the following:

WATER LEVEL AND PUMP DATA

Static water level _____
ft. below _____

Pumping level

feet	hours	gpm

Pump type _____
Designed pumping rate _____ gpm ☐ gph ☐
Type power unit _____
Horsepower _____
Depth to bowls, cylinder, jet, etc., _____ ft. below pump base.

Name of contractor testing well or installing permanent pump if other than your company: _____

C-34 (62-4)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER WELLS (TCEQ)

MAP ID# 2 **Distance from Property: 0.95 mi. S**

ID NUMBER:	**TX198085**
STATE ID :	**33-04-7D**
OWNER NAME:	**SAM SHIPLEY**
DATE DRILLED:	**05/23/1964**
DEPTH DRILLED:	**50'**
STATIC LEVEL:	**NOT REPORTED**
WATER USAGE:	**HOUSEHOLD**
LONGITUDE:	**-96.606287000**
LATITUDE:	**32.892956000**

1 PAGE(S) OF DRILLERS' LOGS

Water Well ID: 198085

7D

File original copy with Texas Water Commission P. O. Box 2311, Capitol Station Austin 11, Texas

State of Texas

DRILLERS LOG AND WELL DATA REPORT

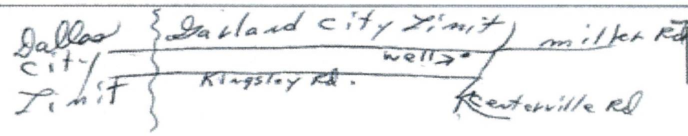
For use by TWC only
Well No. 33-64-70
Located on map yes
By dlr Date 7/76
Map no.

1) Well Owner: Sam Shipley Route 1 Garland, Tex.
2) Land Owner: Same
3) Intended use: Industrial ☐ Municipal ☐ Irrigation ☐ Other Household
4) Location of well: County Dallas Labor ___ League ___ Abstract No. ___
NW¼ NE¼ SW¼ SE¼ of Section ___ Block No. ___ Survey ___

___ miles in ___ direction
from ___

E side of Garland

1-10
18-6



Sketch map of well location with distances from two section or survey lines, and to landmarks, roads, and creeks.

DRILLERS LOG OF WELL

Method of drilling: Rotary Diameter of hole 36 in. Date drilled 5-23-6x

All measurements made from 0 ft. above ground level.

From (ft)	To (ft)	Description and color of formation material	From (ft)	To (ft)	Description and color of formation material
1	5	Black Topsoil			
5	17	Yellow Clay			
17	32	Yellow Soapstone			
32	35	White Rock			
35	50	Blue Rock			

(Use continuation sheets if necessary)

COMPLETION DATA

COMPLETION
Straight wall ☑
Under reamed ☐
Gravel packed ☐
Open hole ☐
Other ___

CASING
Type: Old ☐ New ☑
Cemented from ___ ft. to ___ ft.

Diameter (inches)	Setting from (ft)	Setting to (ft)
30 I D	1	50

SCREEN
Type ___
Perforated ☐ Slotted ☐

Diameter (inches)	Setting from (ft)	Setting to (ft)

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief.

George Combs By EE (Signature) COMBS DRILLING SERVICE (Company Name) Reg. No. ___

Please attach electric log, chemical analysis, and other pertinent information if available.

If well was tested by your company or if you installed the permanent pump please complete the following:

WATER LEVEL AND PUMP DATA

Static water level ___
ft. below ___

Pumping level

feet	hours	gpm

Pump type ___
Designed pumping rate ___ gpm ☐ gph ☐
Type power unit ___
Horsepower ___
Depth to bowls, cylinder, jet, etc., ___ ft. below pump base.

Name of contractor testing well or installing permanent pump if other than your company: ___

C-34 (62-4)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER WELLS (TCEQ)

MAP ID# 3 **Distance from Property: 0.98 mi. SE**

ID NUMBER:	**TX197425**
STATE ID :	**N/A**
OWNER NAME:	**GLEN RAINS**
DATE DRILLED:	**09/22/1961**
DEPTH DRILLED:	**50'**
STATIC LEVEL:	**25'**
WATER USAGE:	**STOCK WELL ONLY**
LONGITUDE:	**-96.599754000**
LATITUDE:	**32.894609000**

1 PAGE(S) OF DRILLERS' LOGS

Water Well ID: 197425

File original copy with
Texas Water Commission
P. O. Box 2311, Capitol Station
Austin 11, Texas

State of Texas

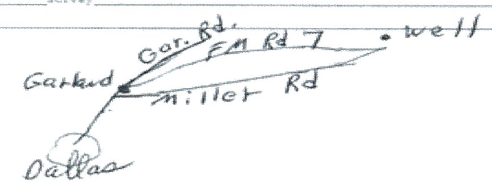
DRILLERS LOG AND WELL DATA REPORT

For use by TWC only
Well No.
Located on map
By ______ Date ______
Map no. ______

1) Well Owner: Glen Rains
2) Land Owner: "
3) Intended use: Industrial ☐ Municipal ☐ Irrigation ☐ Other ~~Household~~ Stock well only
4) Location of well: County Dallas Labor ______ League ______ Abstract No. ______
NW¼ NE¼ SW¼ SE¼ of Section ______ Block No. ______ Survey ______

______ miles in ______ direction
from ______

Miller Rd. at FM 7



Sketch map of well location with distances from two section or survey lines, and to landmarks, roads, and creeks.

DRILLERS LOG OF WELL

Method of drilling: Rotary Diameter of hole 36 in. Date drilled 9-22-61

All measurements made from 0 ft. above ground level.

From (ft)	To (ft)	Description and color of formation material	From (ft)	To (ft)	Description and color of formation material
1	10	Black Top Soil			
10	25	Brown Clay			
25	50	Blue Shale Rock			

(Use continuation sheets if necessary)

COMPLETION DATA

COMPLETION

Straight wall ☑
Under reamed ☐
Gravel packed ☐
Open hole ☐
Other ______

CASING

Type: Old ☐ New ☑
Cemented from ______ ft.
to ______ ft.

Diameter (inches)	Setting from (ft)	Setting to (ft)
30 ID	1	50

SCREEN

Type ______
Perforated ☐ Slotted ☐

Diameter (inches)	Setting from (ft)	Setting to (ft)

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief.

George Combs (Signature) Combs Drilling Serv. (Company Name) Reg. No. ______

Please attach electric log, chemical analysis, and other pertinent information if available.

If well was tested by your company or if you installed the permanent pump please complete the following:

WATER LEVEL AND PUMP DATA

Static water level 25 feet ft. below surface

Pumping level

feet	hours	gpm

Pump type ______
Designed pumping rate ______ gpm ☐ gph ☐
Type power unit ______
Horsepower ______
Depth to bowls, cylinder, jet, etc., ______ ft. below pump base.

Name of contractor testing well or installing permanent pump if other than your company: ______

C-34 (62-4)

NWIS United States Geological Survey National Water Information System

VERSION DATE: 1/2020

The U.S. Geological Survey (USGS) National Water Information System (NWIS) includes water inventory data originating from all 50 states, plus border and territorial sites, including data from as early as 1899. This database includes selected site types limited to Groundwater Sites and Spring Sites from the 1.5 million plus sites within NWIS. Surface-Water, Atmospheric, and Other Site types are excluded. Disclaimer: Water Data for the Nation is the USGS public web interface to much of the data stored and managed within NWIS. It is not, however, configured to present all NWIS data and users may need to contact local Water Science Centers to obtain some information. NWIS data is updated on a regularly scheduled basis, and current condition data is generally updated upon receipt at local Water Science Centers.

SSDRD Select Submitted Drillers Report Database Wells

VERSION DATE: 8/2021

This Texas Water Development Board database was created from the online Texas Well Report Submission and Retrieval System (a cooperative TDLR, TWDB system) that registered water-well drillers use to submit their required reports. The system was started in February 2001 and is optional for the drillers to use. This data excludes the following well types: Monitor Wells, Environmental Soil Borings, Injections Wells, De-watering and Test Wells.

TCEQ Texas Commission on Environmental Quality Water Wells

VERSION DATE: NR

The Texas Commission on Environmental Quality (TCEQ) maintains a filing system of plotted and unnumbered water wells. Plotted water wells are filed according to the County indicated by the driller and the state well number assigned by State of Texas personnel. Given the available location information provided by the driller, personnel identify where the approximate well location should be. After well placement a state well number is assigned indicating that the well lies within a specific 2.5' section of a 7.5' quadrangle. This method allows for quicker, more refined, reference when researching a specific area. Unnumbered water wells have not been assigned a state well number. This can occur for a variety of reasons; however it does not mean the well cannot be accurately spotted. Unnumbered water well records are filed according to County and are often broken up by year or by a span of years.

TWDB Texas Water Development Board Groundwater Database

VERSION DATE: 5/2021

The Texas Water Development Board Groundwater Database contains information for more than 123,500 sites in Texas including data on water wells, springs, oil/gas tests, water levels, and water quality. The purpose of the Board's data collection effort over the years has been to gain representative information about aquifers in the state in order to do water planning. It is very important, however, to realize that the wells in the database represent only a small percentage of the wells that actually exist in Texas. A registered water well driller is required by law to send in a report to the State for every well that is drilled. This requirement began in 1965, and we estimate that approximately 500,000 wells have been drilled in Texas since then. Of the 1,000,000 plus water wells drilled in Texas over the past 100 years, more than 130,000 have been inventoried and placed into the TWDB groundwater database. State well numbers have been assigned to these based on their location within numbered 7 1/2 minute quadrangles formed by lines of latitude and longitude. This database contains well information including location, depth, well type, owner, driller, construction and completion data.

WUD Water Utility Database

VERSION DATE: NR

The Water Utility Database is defined as a collection of data from Texas Water Districts, Public

Drinking Water Systems and Water and Sewer Utilities who submit information to the TCEQ. This database is an integrated database designed and developed to replace over 160 stand alone legacy systems representing over 5 million records of the former Texas Water Commission and the Texas Department of Health.

APPENDIX I/IIC

TPDES CERTIFICATE OF AUTHORIZATION

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Texas Pollutant Discharge Elimination System
Stormwater Multi-Sector General Permit

The Notice of Intent (NOI) for the facility listed below was received on October 13, 2021. The intent to discharge stormwater associated with industrial activity under the terms and conditions imposed by the Texas Pollutant Discharge Elimination System (TPDES) stormwater Multi-Sector General Permit (MSGP) TXR050000 is acknowledged. Your facility's unique TPDES MSGP stormwater authorization number is:

TXR05DB88

Coverage Effective: November 14, 2016

Sector: P   Primary SIC code: 4212

TCEQ's stormwater MSGP requires certain stormwater pollution prevention and control measures, possible monitoring and reporting, and periodic inspections. Among the conditions and requirements of this permit, you must have prepared and implemented a stormwater pollution prevention plan (SWP3) that is tailored to your industrial site. As a facility authorized to discharge under the stormwater MSGP, all terms and conditions must be complied with to maintain coverage and avoid possible penalties.

Facility/Site Information:
RN102214145
City of Garland Transfer Station Facility
1434 Commerce St
Garland, TX 75040
Dallas County

Operator:
CN600328694
City of Garland
1434 Commerce St
Garland, TX 75040

The MSGP and all authorizations expire on August 14, 2026, unless otherwise amended. If you have any questions related to your application, you may contact the Stormwater Processing Center by email at SWPERMIT@tceq.texas.gov or by telephone at (512) 239-3700. For technical issues, you may contact the stormwater technical staff by email at SWGP@tceq.texas.gov or by telephone at (512) 239-4671. Also, you may obtain information on the TCEQ web site at https://www.tceq.texas.gov/goto/wq-dpa. A copy of this document should be kept with your SWP3.

Issued Date: October 13, 2021

FOR THE COMMISSION

CITY OF GARLAND TRANSFER STATION FACILITY
GARLAND, DALLAS COUNTY, TEXAS
TCEQ PERMIT NO. MSW-12A

MAJOR PERMIT AMENDMENT APPLICATION

PART III – SITE DEVELOPMENT PLAN

Prepared for

City of Garland

June 2022

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

Prepared by
Weaver Consultants Group, LLC
TBPE Registration No. F-3727
6420 Southwest Blvd., Suite 206
Fort Worth, Texas 76109
817-735-9770

WCG Project No. 0647-003-11-11

This document is issued for permitting purposes only.

CONTENTS

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER
06/30/2022

CONTENTS (Continued)

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

LIST OF ACRONYMS

FEMA – Federal Emergency Management Agency

FIRM – Flood Insurance Rate Map

MSW – Municipal Solid Waste

PCBs – Polychlorinated Biphenyls

POTWs – Publicly Owned Treatment Works

SDP – Site Development Plan

SOP – Site Operating Plan

TAC – Texas Administrative Code

TCEQ – Texas Commission on Environmental Quality

TS – Transfer Station

TPDES – Texas Pollutant Discharge Elimination System

TxDOT – Texas Department of Transportation

WCG – Weaver Consultants Group

1 INTRODUCTION

Part III of the application addresses the general facility design, closure plan, and cost estimate for closure. Site design plans for the City of Garland Transfer Station Facility (Garland TS or TS) are presented in Appendix IIIA – General Facility Design Drawings.

This section addresses §330.63. Additional specific regulatory cites addressed by each section of Part III are listed in the heading.

1.1 Background

The Garland TS is an existing permitted Texas Commission on Environmental Quality (TCEQ) Type V MSW processing facility (Permit No. MSW-12), which is owned and operated by the City of Garland. The Garland TS accepts waste from City waste hauling vehicles, other cities authorized to use the transfer station, and the public. The Garland TS then transfers the waste into transfer trucks for hauling and disposal at the City's Charles M. Hinton, Jr. Regional Landfill (Hinton Landfill) – TCEQ Permit No. MSW-1995A. As an alternative, the Garland TS may transfer the waste to other permitted MSW landfills in the Dallas/Fort Worth metroplex for disposal.

Support facilities for the Garland TS include a site entrance road, scalehouse, scale, collection and transfer equipment parking/staging area, recycling and convenience center, and the transfer station building.

1.2 Site Location

The Garland TS is located in the City of Garland, Dallas County, Texas, at 1434 Commerce Street (formerly Garland Road), approximately ¼-mile southeast of State Highway 66. The Garland TS can be accessed via the site entrance road connected to Commerce Street. The site location is shown in Parts I/II, Figures I/II-4.1 and I/II-4.2.

1.3 Land Use and Zoning §330.63(a)

The Garland TS is located within the city limits of Garland, Texas. Based on the City's Geographic Information Systems (GIS) mapping, the existing Garland TS and surrounding City-owned property are located in an area that is presently zoned as "Industrial," which provides for a wide range of industrial uses, including transfer station operations.

2 GENERAL FACILITY DESIGN

2.1 Facility Access

2.1.1 Adequacy of Access Roads and Highways §330.63(a)

Vehicles bound for the Garland TS will access the Garland TS entrance from Commerce Street, East Centerville Road, and State Highway 66. The entrance is located approximately ¼ mile southeast of State Highway 66 on Commerce Street as shown on Figure I/II-4.1 in Section 4 of Parts I/II. Commerce Street, State Highway 66, and East Centerville Road are public roads maintained by Dallas County and the Texas Department of Transportation (TxDOT).

As noted in Parts I/II, Section 8.0 and in the Traffic Study included in Appendix I/IIA, the site access roads, Commerce Street (formerly Garland Road), North Country Club Road, East Centerville Road, and State Highway 66, will continue to provide adequate access to the site throughout the life of the facility. No improvements to roadways, driveways or shoulders are necessary or proposed for this application.

Commerce Street is asphalt-paved to support the waste hauling vehicles and trailers transferring waste to the Hinton Landfill and is mainly utilized by the City departments and a few commercial or industrial facilities and residences. The entrance road is constructed of asphalt pavement from the Commerce Street connection and has been designed for the traffic flow experienced by the Garland TS.

In accordance with Title 30 TAC §330.61(i)(4), TxDOT was contacted to determine if any traffic or location restrictions apply to the facility. TxDOT's approval of the Traffic Study is included in Parts I/II, Appendix I/IIA.

2.1.2 Fences and Access Control §330.63(b)(1)

Vehicle access to the Garland TS building is controlled by the scalehouse and TS spotter during operating hours. An attendant is on site at the scalehouse and/or in the Garland TS building during operating hours to regulate access to the Garland TS. Outside operating hours, a gate constructed of suitable fencing materials located at the facility entrance on Commerce Street is and will continue to be locked to prevent unauthorized vehicle access. Vehicle access to the site at points other than the entry gates will be prevented by a minimum 4-foot-high chain link, 4-strand barbed wire, or sheet metal fence located around the perimeter of the Garland TS property.

The entrance area between Commerce Street and the scale allows an ample queuing area for incoming waste hauling vehicles to avoid disturbing vehicular traffic along Commerce Street.

The City's policy will restrict entry to the site only to those designated site operations personnel, solid waste haulers authorized to use the facility, TCEQ personnel, residents delivering solid waste or recyclables for disposal, and properly identified persons whose entry is authorized by the Garland TS Manager. The City reserves the right to restrict access to the site to persons not demonstrating a legitimate purpose for visiting.

Waste delivery vehicles will be identified and directed by the scalehouse attendant and/or TS attendant to the Garland TS. Signs have also been placed near the gate and scalehouse area identifying the direction and route to the Garland TS and other areas of the facility. The Garland TS Manager will monitor waste vehicles as they leave the facility to ensure that they are following the directed route.

A sign is visibly displayed at the gated entrance to the facility. This sign measures at least 4 feet by 4 feet and has lettering of at least 3 inches in height. The sign states the name of the facility, type of facility, hours and days of operation, and the TCEQ permit number. The sign is readable from the facility entrance. Signs which include the facility rules have also been posted. This includes signs prohibiting receipt of prohibited wastes (including hazardous waste and PCB waste), liquid wastes, and closed drums. Signs prohibiting smoking have been posted at the transfer station building. Refer to Part IV – SOP for additional details related to the required signs.

2.2 Waste Movement §330.63(b)(2)

2.2.1 Waste Flow Diagram §330.63(b)(2)(A)

A waste flow diagram indicating the processing, storage, and off-site disposal sequences for various types of wastes received is shown on Figure III-2.1.

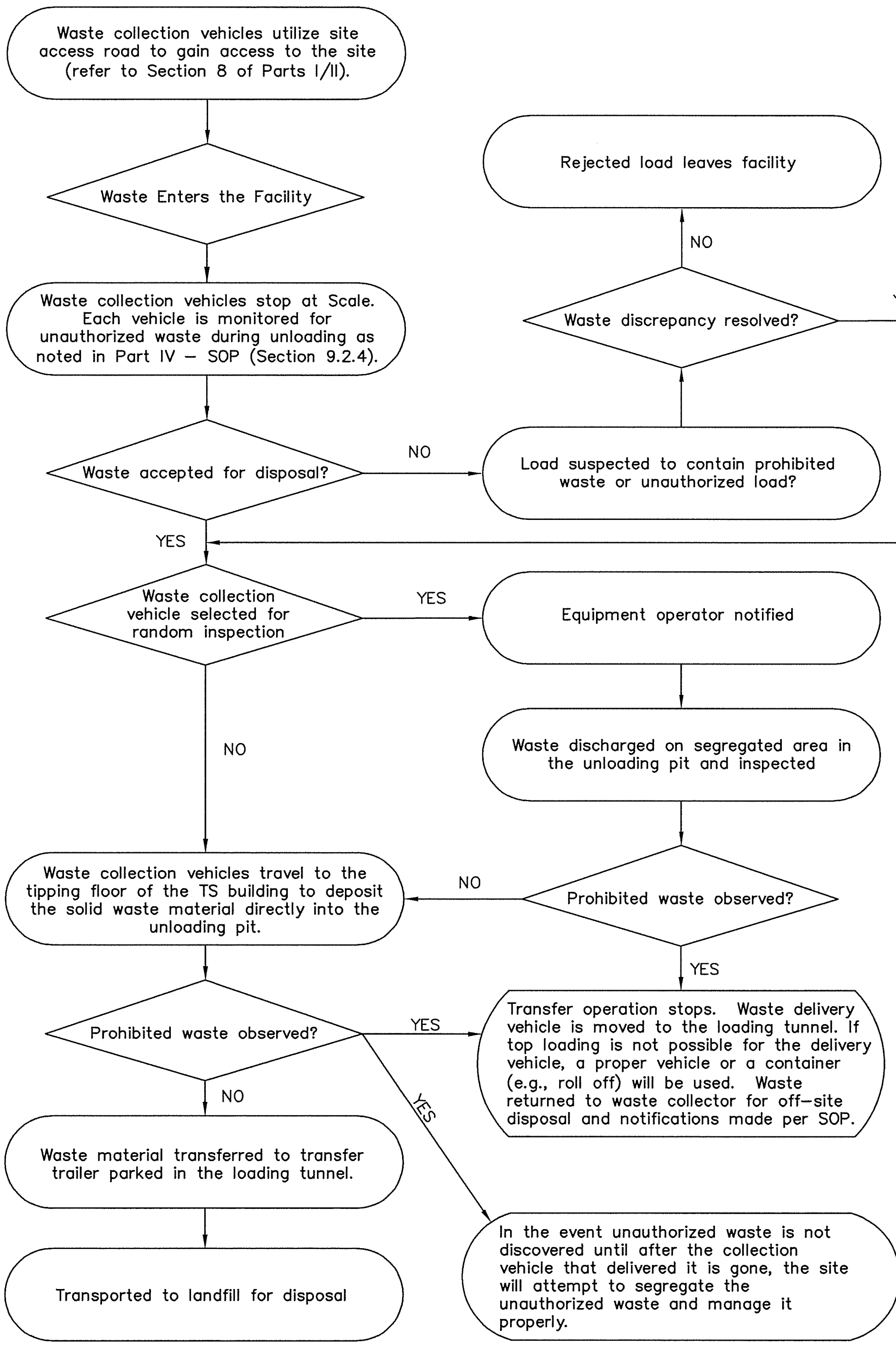
2.2.2 Waste Process Schematic View §330.63(b)(2)(B)

A schematic view indicating the MSW phases, waste processing, storage, and off-site disposal, as applicable, is shown on Figures IIIA-1 and IIIA-2 in Appendix IIIA. These drawings include the layout of the Garland TS and related structures within the permit boundary and the traffic flow patterns.

2.2.3 Ventilation and Odor Control §330.63(b)(2)(C)

Ventilation will be provided in the Garland TS building by door openings (for entrance and exit of waste hauling vehicles and transfer trailers) and by using power roof ventilators or wall-mounted fans. The door openings for waste hauling

Figure III-2.1 - Waste Flow Diagram



vehicles (20 feet high by 20 feet wide) are located on the north and east sides of the building. The door openings for transfer trailers (14 feet high by 24 feet wide) are located on the east and west sides of the building. The wall-mounted fans are located on the west side of the building. The ventilators or fans will be properly maintained and operated. In the unlikely event that generates airborne dust, water spray misters may be used for dust suppression. No significant air pollution emissions are expected to result from the operation of the facility.

The Garland TS was designed and is operating to provide adequate ventilation for odor control and employee safety. The operator will prevent nuisance odors from leaving the boundary of the Garland TS. If nuisance odors are found to be passing the Garland TS boundary, the site will immediately take action to abate the nuisance. Odors are controlled by limiting waste processing operations to within the building and limiting the time solid waste may be stored in the unloading pit and transfer trailers (refer to Section 4.3). All processing of solid waste will occur within the Garland TS building. Aqueous or nonaqueous odor control systems may be used within the Garland TS building to mitigate odors, if needed. Ponded water within the permit boundary will be prevented to avoid objectionable odors.

2.2.4 Generalized Construction Details §330.63(b)(2)(D) through (F)

The interior floor area of the Garland TS consists of three horizontal levels: (1) unloading area, (2) unloading pit, and (3) transfer trailer loading tunnel. The entire interior floor area of the Garland TS has been constructed with a minimum 12-inch-thick reinforced concrete slab. Waste haul vehicles enter and exit the unloading area from the east and north sides, respectively, of the Garland TS building.

There are five unloading bays located in the unloading area that vehicles back into until the vehicles encounter an 8-inch elevated curb. The vehicles unload waste into the 15-foot-deep unloading pit located below the unloading area. The unloading pit is 100 feet long and 28 feet wide. A dozer is used to push the waste from the unloading pit into the transfer trailer loading tunnel located on the south end of the building.

The waste is loaded into the transfer trailers by the dozer with assistance from a grapple to distribute the load in the vehicle. When trailers are full, they leave the facility for transportation to the landfill for disposal.

The Garland TS features a building exterior that consists of both reinforced concrete material and a pre-engineered metal panel. The limits of reinforced concrete exterior generally extend from ground surface (along the exterior of the transfer station) to the unloading area elevation. The limits of the metal panel generally extend from the unloading area to the roof of the Garland TS building.

An equipment entrance is provided for the dozer on the northwest side of the building. A guardrail is provided along portions of the perimeter of the unloading area that extends over the unloading pit. A trench drain is located at the exit of the transfer trailer loading tunnel. The trench drain collects contaminated water, which is then conveyed to a lift station/sump located southwest of the TS building.

No storage of waste grease, oil, or sludge received from transfer station customers is proposed or authorized at the TS.

2.2.5 Noise Pollution Control §330.63(b)(2)(I)

Since Garland TS activities take place within the building, generated noise is mostly confined to the building. Waste received at the site will be unloaded and quickly deposited into transfer trailers within the enclosed transfer station building. Waste will typically only remain in the transfer trailer at the site for a few minutes (or hours depending on the incoming volume) before it is covered properly and hauled off-site (e.g., Hinton Landfill). The site design provides at least a 50-foot buffer zone from the Garland TS to the nearest edge of the permit boundary.

2.3 Sanitation and Water Pollution Control §330.63(b)(3) & (4)

The Garland TS structure includes a metal roof that covers the entire building. Waste will be unloaded from the unloading area into the concrete unloading pit that slopes to the transfer trailer loading tunnel. As shown on Figures IIIA-2 and IIIA-4 (Appendix IIIA), the trench drain collects contaminated water from the transfer trailer loading tunnel to a lift station/sump prior to being pumped to the City POTW sanitary sewer service line shown on Figure IIIA-2 (Appendix IIIA). Wastewater discharge authorization is provided in Appendix IIIE. As discussed in Appendix IIIB, the Garland TS site is graded to prevent run-on drainage and flow of stormwater into the building.

2.3.1 Surface Water and Groundwater Protection §330.63(b)(3)(A)&(4)

As discussed in Parts I/II, Section 10, the Garland TS site has been designed to prevent discharge of pollutants into waters of the United States, as defined by the Texas Water Code and the Federal Clean Water Act, respectively. The facility has been constructed, maintained, and operated to manage run-on and runoff during the peak discharge of a 25-year rainfall event and will prevent the off-site discharge of waste materials. Surface water in and around the facility will be controlled to prevent surface water running onto, into, and off the unloading area (i.e., tipping floor). Since all contaminated water will be managed in a controlled manner, as discussed above, groundwater will be protected.

2.3.2 Floor Wash Down §330.63(b)(3)(A) through (D)

Waste transfer operations within the Garland TS building are conducted on a covered area. All walls and floors in waste handling areas are constructed of concrete that can be hosed down and scrubbed. The unloading area (i.e., tipping floor) of the Garland TS building is used only for vehicle maneuvering, and no waste processing occurs at the tipping floor. Therefore, washdown is not necessary for the tipping floor, and the tipping floor is swept into the unloading pit as needed. Washdown water from the unloading pit drains into the transfer trailer loading tunnel. Washdown water may be used in the transfer trailer loading tunnel that drains into a trench drain located at the exit of the tunnel. The trench drain drains into the lift station/sump that is located southwest of the TS building. Water collected in the lift station is pumped to a forcemain that discharges to the City POTW sanitary sewer.

2.4 Protection of Endangered Species §330.63(b)(5)

The Garland TS is located in an industrial zone. Lack of suitable habitat makes the occurrence of threatened or endangered species unlikely. The continued operation will not have an adverse effect on threatened or endangered species.

3 SURFACE WATER DRAINAGE REPORT §330.63(C)

3.1 Drainage Design §330.63(c)(1)

The Garland TS has been constructed, maintained, and operated to manage run-on and runoff during the peak discharge of a 25-year storm event and to prevent the off-site discharge of waste, including, but not limited to, in-process and/or processed materials. Surface water drainage in and around the facility is controlled to minimize surface water running onto, into, and off the processing area. The drainage demonstration for the permit boundary is included in Appendix IIIB – Surface Water Drainage Report. The facility controls stormwater quality in accordance with Texas Pollution Discharge Elimination System (TPDES) Multi-Sector Industrial General Permit (TXR050000). The facility maintains a TPDES permit (TCEQ Certificate of Authorization No. TXR05DB88) and a Storm Water Pollution Prevention Plan.

3.2 Floodplain Considerations §330.63(c)(2)

The current Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) shows the permit property is not located within a 100-year or 500-year floodplain as defined by FEMA. A copy of the current FIRM (Map No. 48113C0240K, dated July 7, 2014) depicting the permit property is provided as Figure I/II-11.1 in Parts I/II.

4 WASTE MANAGEMENT UNIT DESIGN §330.63(D)(1)

4.1 Waste Operations §330.63(d)(1)(A)

The Garland TS has been designed for efficient waste processing. All solid waste capable of creating public health hazards or nuisances will be stored within the building, processed, or transferred promptly and shall not be allowed to result in a nuisance or public health hazard.

Incoming waste haul traffic will be directed to the unloading area of the Garland TS by the Scale Operator once the incoming vehicle's weight or volume has been recorded. The Scale Operator will inform the customer that the waste is only to be unloaded in the area where the customer is directed to unload by site operating personnel. Signs directing traffic from the scalehouse to the Garland TS building will be located, as needed, along the route to the unloading areas. The unloading of waste will be directed by personnel working inside the Garland TS. Equipment operators and other personnel will be on duty during operating hours to direct traffic to the unloading areas.

Unloading of waste in unauthorized areas will be prohibited. Any waste which is identified as having been deposited in an unauthorized area will be immediately moved to the unloading areas.

Prohibited waste will not be allowed to enter the site. The Scale Operator will be the first point of contact with the hauler. The hauler will be asked to inform the Scale Operator of the content of the load. The Scale Operator will visually inspect open containers to verify contents. In the event prohibited wastes are identified in the load, the entire load will be turned away from the gate and not allowed entrance to the site.

In the event the unauthorized waste is not discovered until after the vehicle that delivered it is gone, the waste shall be segregated and controlled as necessary. An effort shall first be made to identify the entity that deposited the prohibited waste and have them return to the facility and properly dispose of the waste. In the event that identification is not possible, the City of Garland will notify the TCEQ, if necessary, and seek guidance on how to dispose of the waste. Documentation will be included in the site operating record each time unauthorized or prohibited waste is discovered and removed from the site. Site personnel will have a basic understanding of both industrial and hazardous waste and their transportation and disposal requirements.

4.2 Spill Prevention and Control §330.63(d)(1)(B)

Waste transfer operations occur within the Garland TS building. The unloading area (i.e., tipping floor) of the Garland TS building is used only for vehicle maneuvering, and no waste processing occurs at the tipping floor. Therefore, washdown is not necessary for the tipping floor, and the tipping floor is swept into the unloading pit as needed. Contaminated water generated at the Garland TS will consist of washdown water applied to the unloading pit and transfer trailer loading tunnel. Washdown water from the unloading pit drains into the loading tunnel, which drains into a trench drain located at the exit of the tunnel. The trench drain drains into the lift station/sump that is located southwest of the TS building. Water collected in the lift station is pumped to a forcemain that discharges to the City POTW sanitary sewer.

4.3 Waste Storage Period §330.63(d)(1)(C)

Solid waste entering the facility is stored within the Garland TS building. All solid waste will be stored in a manner (i.e., within the Garland TS building) to prevent fires, ensure safety, prevent a health hazard, or provide food or harborage for animals and vectors, and contained to prevent windblown solid waste and litter. The facility will not accumulate solid waste in quantities that cannot be processed within such time as will preclude the creation of odors, insect breeding, or harborage of other vectors. The waste material received will be processed and transferred on the day it is received. The maximum time waste material will be stored in the TS building will not exceed 72 hours.

5 CLOSURE PLAN §330.63(H)

A closure plan is included in Appendix IIIC.

6 COST ESTIMATE FOR CLOSURE §330.63(J)

A cost estimate for the final closure of the facility is included as Appendix IIID. The cost estimate is estimated in 2022 dollars. The City will provide financial assurance for the amount of dollars estimated in Appendix D. The City will also adjust the financial assurance on an annual basis using the implicit price deflector published by TCEQ annually. A third-party engineer licensed in Texas will adjust the cost estimate if necessary for any future changes to the site layout which will require TCEQ's written authorization. The City will provide financial assurance coverage for closure until all requirements of the final closure plan are completed and the site is determined in writing to be closed by TCEQ.

CITY OF GARLAND TRANSFER STATION FACILITY
GARLAND, DALLAS COUNTY, TEXAS
TCEQ PERMIT NO. MSW-12A

MAJOR PERMIT AMENDMENT APPLICATION

PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIA
GENERAL FACILITY DESIGN DRAWINGS

Prepared for

City of Garland

June 2022

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

Prepared by

Weaver Consultants Group, LLC
TBPE Registration No. F-3727
6420 Southwest Blvd., Suite 206
Fort Worth, Texas 76109
817-735-9770

WCG Project No. 0647-003-11-11

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CONTENTS

STATE OF TEXAS
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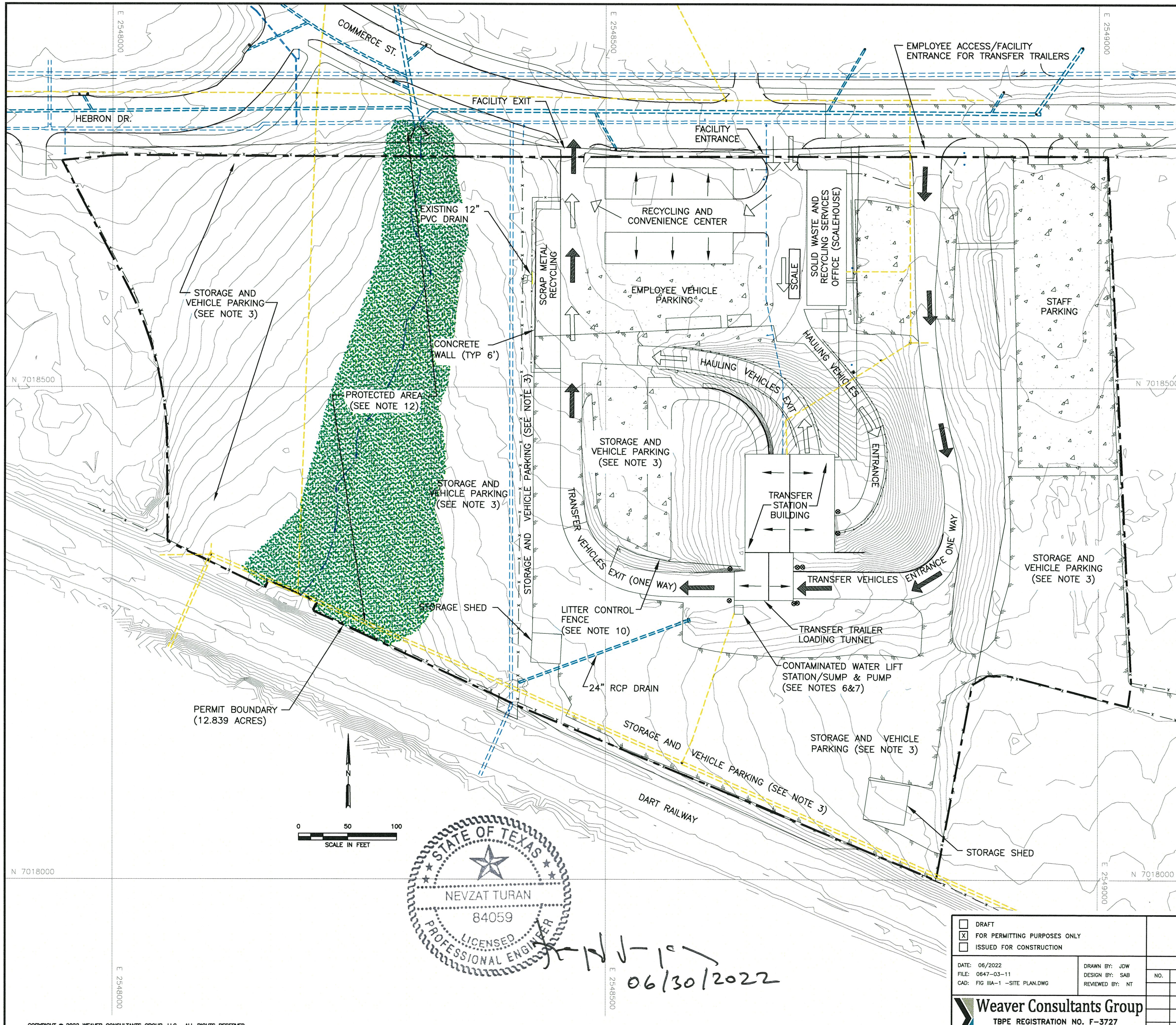
06/30/2022



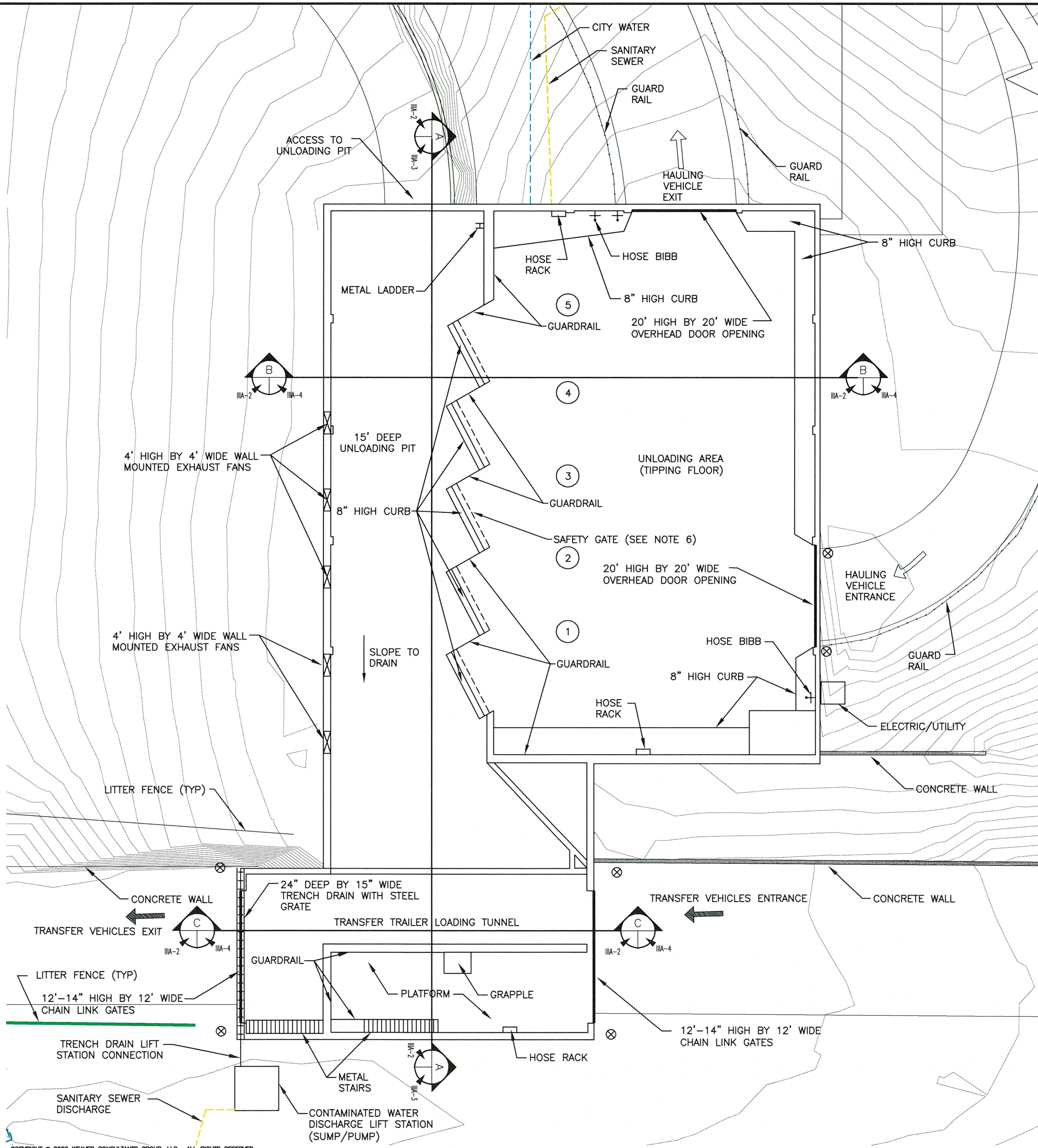
LEGEND

- PERMIT BOUNDARY (SEE NOTES 2 AND 4)
- 490 — EXISTING GROUND CONTOUR (SEE NOTE 1)
- N 7018000 — STATE PLANE COORDINATE SYSTEM
- PARKING AREA
- FENCELINE
- SANITARY SEWER (SEE NOTE 7)
- STORM WATER DISCHARGE
- WATERLINE
- FLOWLINE
- GRASS COVER — GRASS EDGE
- RECYCLABLES DELIVERY TRAFFIC FLOW
- TRANSFER VEHICLE TRAFFIC FLOW
- HAULING VEHICLE TRAFFIC FLOW (SEE NOTE 8)
- ROOF SLOPE
- PROTECTION BOLLARDS (SEE NOTE 9)

NOTES:

1. EXISTING TOPOGRAPHIC MAP HAS BEEN PREPARED BY R-DELTA ENGINEERS, INC. (2019). GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 1983 AND VERTICAL DATUM NAVD88.
2. THE PERMIT BOUNDARY LEGAL DESCRIPTION DATED JANUARY 18, 2022 WAS PREPARED BY WEAVER CONSULTANTS GROUP.
3. THESE AREAS ARE GRAVEL/ROADBASE SURFACED AS NEEDED AND MAY BE UTILIZED FOR VEHICLE PARKING, COLLECTION CONTAINER STORAGE OR ROLL-OFF CONTAINERS. ALL OPEN AREAS WITHIN THE PERMIT BOUNDARY ARE EITHER GRASS COVERED OR SURFACED FOR ALL WEATHER ACCESS USING CONCRETE, ASPHALT, OR GRAVEL.
4. FENCING (6-FT CHAINLINK, 4-FT BARBWIRE, ETC.) MEETING THE REQUIREMENTS OF TITLE 30 TAC §330.223(C) IS INSTALLED ALONG THE PERMIT BOUNDARY.
5. RECYCLING CENTER SERVES THE CITY OF GARLAND CITIZENS AND NON-COMMERCIAL DELIVERIES ONLY.
6. CONTAMINATED WATER FROM THE TRANSFER TRAILER LOADING TUNNEL DRAIN IS COLLECTED IN THE LIFT STATION/SUMP AND PUMPED INTO THE CITY SANITARY SEWER LINE.
7. SANITARY SEWER DISCHARGE LINE IS APPROXIMATED FROM AS-BUILT CONDITION DRAWINGS DATED 2022.
8. TRANSFER STATION SERVES THE CITY OF GARLAND SOLID WASTE COLLECTION VEHICLES AS WELL AS OTHER CITIES AUTHORIZED TO USE THE FACILITY AND THE PUBLIC.
9. PROTECTION BOLLARDS ARE INSTALLED AS NEEDED AT THE ENTRANCE, EXIT, ETC. LOCATIONS TO PROTECT STRUCTURES.
10. LITTER CONTROL FENCING IS INSTALLED AT VARIOUS LOCATIONS TO COLLECT LITTER AND WINDBLOWN WASTE.
11. FACILITY ENTRANCE IS USED BY THE PUBLIC AND WASTE HAULING VEHICLES FOR DELIVERY. THESE VEHICLES LEAVE THE FACILITY FROM THE FACILITY EXIT. THE EMPLOYEE ACCESS/FACILITY ENTRANCE FOR TRANSFER TRAILERS IS USED BY THE EMPLOYEES TO ENTER/EXIT THE FACILITY AND BY THE TRANSFER TRAILERS TO ENTER THE FACILITY AND LEAVE THE FACILITY FROM THE FACILITY EXIT.
12. SHADED AREA INDICATES APPROXIMATE LIMITS OF AREA WITH HIGH CANOPY VEGETATION. THIS AREA WILL BE PROTECTED FROM TS OPERATIONS USING FENCE OR SIMILAR MEANS. NO DEVELOPMENT WILL OCCUR WITHIN THIS AREA WITHOUT PRIOR PROPER AUTHORIZATION (REFER TO PARTS I/II SECTION 11).

☐ DRAFT ☒ FOR PERMITTING PURPOSES ONLY ☐ ISSUED FOR CONSTRUCTION	PREPARED FOR CITY OF GARLAND		GENERAL SITE PLAN
DATE: 06/2022 FILE: 0647-03-11 CAD: FIG IIIA-1 -SITE PLAN.DWG	DRAWN BY: JDW DESIGN BY: SAB REVIEWED BY: NT	REVISIONS NO. / DATE / DESCRIPTION	CITY OF GARLAND TRANSFER STATION FACILITY DALLAS COUNTY, TEXAS
Weaver Consultants Group TBPE REGISTRATION NO. F-3727			WWW.WCGRP.COM — FIGURE IIIA-1



O:\0647\03\TYPE V APPLICATION\FIG IIIA-2-TRANSFER AREA SITE PLAN.dwg, jwilson, 1:2

N

0 10 20

SCALE IN FEET

LEGEND

LEGEND

500	EXISTING GROUND CONTOUR (SEE NOTE 1)
	TRANSFER VEHICLES TRAFFIC FLOW
	HAULING VEHICLES TRAFFIC FLOW
1	UNLOADING BAY DESIGNATION
⊗	PROTECTION BOLLARDS (SEE NOTE 5)
	SAFTEY GATE (SEE NOTE 6)

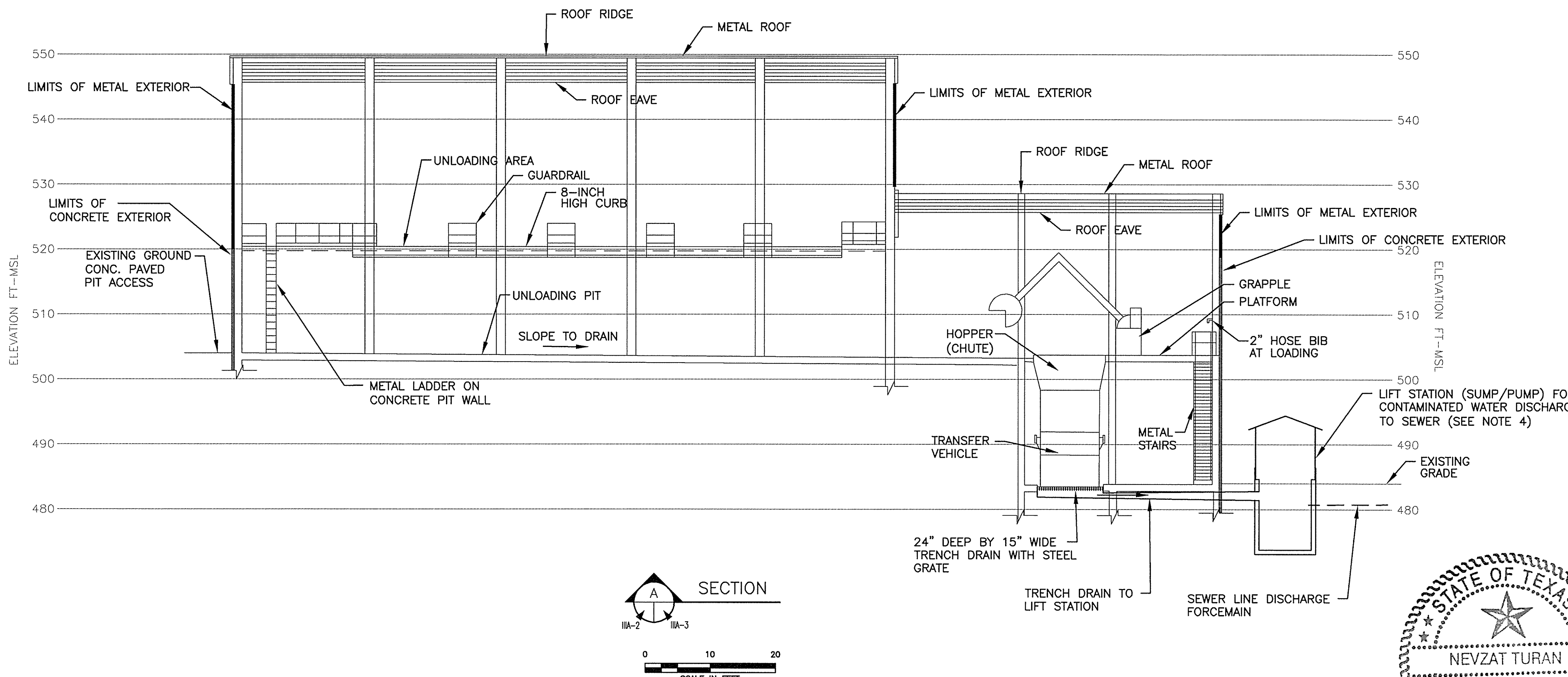
NOTES:

1. EXISTING TOPOGRAPHIC MAP HAS BEEN PREPARED BY R-DELTA ENGINEERS, INC. (2019). GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 1983 AND VERTICAL DATUM NAVD88.
2. TRANSFER STATION DESIGN SHOWN ON THIS DRAWING REPRESENT AS-BUILT CONDITIONS AND HAS BEEN REPRODUCED FROM AS-BUILT CONSTRUCTION DRAWINGS DATED JUNE 9, 1975.
3. REFER TO PART III-SDP, SECTION 2.2 FOR WASTE MOVEMENT PROCESS DESCRIPTION INCLUDING DAILY OPERATIONS INSIDE THE TRANSFER STATION BUILDING.
4. REFER TO PART III-SDP, SECTION 2.3 FOR SANITATION AND WATER POLLUTION CONTROL DISCUSSION THAT ADDRESSES SURFACE WATER AND GROUNDWATER PROTECTION AND CONTAMINATED WATER MANAGEMENT REQUIREMENTS.
5. PROTECTION BOLLARDS ARE INSTALLED AS NEEDED AT THE ENTRANCE AND EXIT LOCATIONS TO PROTECT STRUCTURES.
6. HINGED SAFETY GATE IS INSTALLED AT UNLOADING BAY LOCATIONS FOR WHEN UNLOADING BAY IS NOT IN USE BY HAULING VEHICLES.

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED PROFESSIONAL ENGINEER

06/30/2022

☐ DRAFT ☒ FOR PERMITTING PURPOSES ONLY ☐ ISSUED FOR CONSTRUCTION	PREPARED FOR CITY OF GARLAND	TRANSFER STATION BUILDING FLOOR PLAN CITY OF GARLAND TRANSFER STATION FACILITY DALLAS COUNTY, TEXAS
DATE: 06/2022 FILE: 0647-03-11 CAD: FIG IIIA-1 -SITE PLAN.DWG DRAWN BY: JDW DESIGN BY: SAB REVIEWED BY: NT	REVISIONS NO. / DATE / DESCRIPTION	
Weaver Consultants Group TBPE REGISTRATION NO. F-3727		WWW.WCGRP.COM FIGURE IIIA-2



STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

NOTES:

1. TRANSFER STATION DESIGN SHOWN ON THIS DRAWING REPRESENT AS-BUILT CONDITIONS AND HAS BEEN REPRODUCED FROM AS-BUILT CONSTRUCTION DRAWINGS DATED JUNE 9, 1975.
2. REFER TO PART III-SDP, SECTION 2.2 FOR WASTE MOVEMENT PROCESS DESCRIPTION INCLUDING DAILY OPERATIONS INSIDE THE TRANSFER STATION BUILDING.
3. REFER TO PART III-SDP, SECTION 2.3 FOR SANITATION AND WATER POLLUTION CONTROL DISCUSSION THAT ADDRESSES SURFACE WATER AND GROUNDWATER PROTECTION AND FLOOR WASH DOWN REQUIREMENTS.
4. WASTEWATER LIFT STATION IS SHOWN FOR ILLUSTRATION PURPOSES (I.E., LOCATION AND ELEVATIONS ARE APPROXIMATE, MATERIAL INFO., ETC. MAY VARY). CURRENTLY COLLECTED CONTAMINATED WATER IS PUMPED VIA A DISCHARGE FORCEMAIN LINE INTO THE CITY SEWER USING A GRINDER PUMP.

☐ DRAFT
☒ FOR PERMITTING PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 06/2022
FILE: 0647-03-11
CAD: FIG IIIA-3-SECTION.DWG

DRAWN BY: JDW
DESIGN BY: SAB
REVIEWED BY: NT

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
CITY OF GARLAND

REVISIONS

NO.	DATE	DESCRIPTION

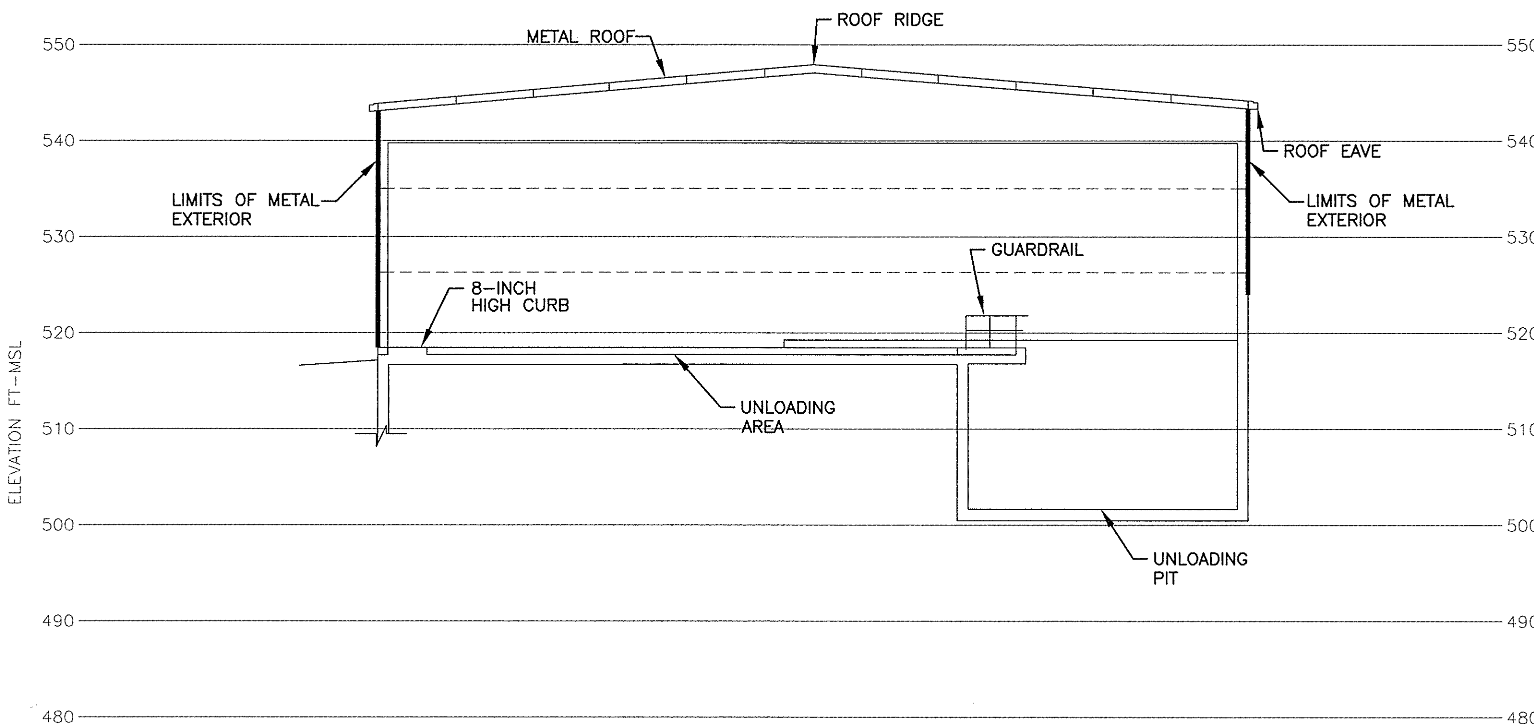
TRANSFER STATION BUILDING
SECTION A

CITY OF GARLAND TRANSFER STATION FACILITY
DALLAS COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE IIIA-3

O:\0647\03\TYPE V APPLICATION\FIG IIIA-3-SECTION A.dwg, jwilson, 1:2



SECTION B

IIIA-2 IIIA-4

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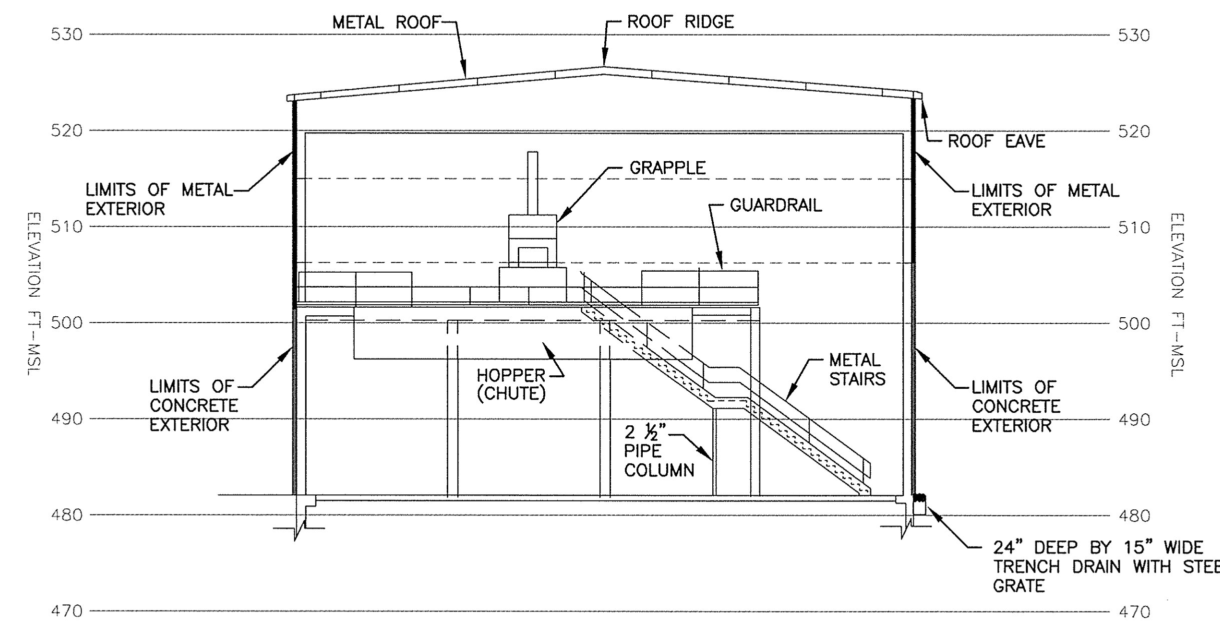
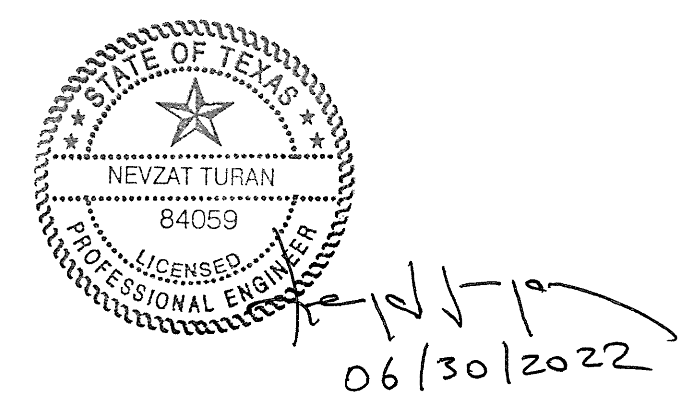


SECTION C

IIIA-2 IIIA-4

0 10 20 SCALE IN FEET



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1. TRANSFER STATION DESIGN SHOWN ON THIS DRAWING REPRESENT AS-BUILT CONDITIONS AND HAS BEEN REPRODUCED FROM AS-BUILT CONSTRUCTION DRAWINGS DATED JUNE 9, 1975.
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3. REFER TO PART III-SDP, SECTION 2.3 FOR SANITATION AND WATER POLLUTION CONTROL DISCUSSION THAT ADDRESSES SURFACE WATER AND GROUNDWATER PROTECTION AND CONTAMINATED WATER MANAGEMENT.

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☒ FOR PERMITTING PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 06/2022
FILE: 0647-03-11
CAD: FIG IIIA-3-SECTION.DWG

DRAWN BY: JDW
DESIGN BY: SAB
REVIEWED BY: NT

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
CITY OF GARLAND

REVISIONS

NO.	DATE	DESCRIPTION

TRANSFER STATION BUILDING
SECTION B AND SECTION C

CITY OF GARLAND TRANSFER STATION FACILITY
DALLAS COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE IIIA-4

O:\0647\03\TYPE V APPLICATION\FIG IIIA-4-SECTION B-C.dwg, jwilson, 1:2

CITY OF GARLAND TRANSFER STATION FACILITY
GARLAND, DALLAS COUNTY, TEXAS
TCEQ PERMIT NO. MSW-12A

MAJOR PERMIT AMENDMENT APPLICATION

PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIB
SURFACE WATER DRAINAGE REPORT

Prepared for

City of Garland

June 2022

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

Prepared by

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Project No. 0647-003-11-11

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CONTENTS

STATE OF TEXAS
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06/30/2022

1 INTRODUCTION

This Surface Water Drainage Report is prepared as part of a Major Permit Modification Application for the Garland TS consistent with Title 30 TAC §330.63(c) and §330.303. This plan addresses surface water drainage design and erosion control. Permit level plans and details are presented for the TS in Appendix IIIA.

This Drainage Report was developed to address drainage requirements for the Garland TS. Consistent with Title 30 TAC §330.63(c) and §330.303, the facility is constructed, maintained, and operated to manage run-on and runoff during the peak discharge of a 25-year rainfall event and will prevent the off-site discharge of waste materials. Surface water drainage within the permit boundary of the TS is controlled to prevent surface water running onto, into, and off the transfer station building. A site plan showing the drainage areas incorporated into the drainage analysis is presented as Figure IIIB-1. This drainage design report is also developed to address applicable requirements of the City of Garland Technical Standards Manual dated February 2020.

As discussed in Part III – SDP, Section 3.2 – Floodplain Considerations, the permit boundary is not located within the 100-year floodplain.

Section 2 of this report includes a discussion of the surface water drainage, stormwater management system, and TPDES compliance. Section 3 discusses the detailed drainage design methodology of the drainage analysis and the downstream assessment.

Section 3 of this report discusses the design demonstrations per the provisions of the City of Garland Technical Standard Manual (Section 4 – Drainage Design Requirements). Consistent with the manual, a downstream assessment was performed to ensure the existing channel (C1 on Figure IIIB-1) that drains north to south within the permit boundary and the two 55-inch culverts located on the south permit boundary are sufficiently designed and constructed for the 2, 25, and 100-year frequency storms.

This facility design complies with all applicable requirements of 30 TAC 330.303 for Type V MSW facility. As required by §330.303, all drainage facilities are designed, constructed, and operated to manage run-on and run-off during the peak discharge of the 25-year frequency storm.

2 STORMWATER MANAGEMENT

2.1 Site Drainage Information

As shown on Figure IIIB-1, the permit boundary for the Garland TS is located between the Dallas Area Rapid Transit (DART) railway (south) and Commerce Street (north). As shown on Figure IIIB-1, the 12.839-acre site mainly drains toward an existing channel (C1) that drains north to south and discharges to two 55-inch reinforced concrete pipe culverts underneath the DART railway. A small area (0.56 acres) of the permit boundary (D3) sheet flows toward south east onto city owned property. An existing 24-inch reinforced concrete pipe (RCP) does not receive any appreciable runoff from the permit boundary area; therefore, it is not analyzed and may be removed in the future. As shown on Figure I/II-4.1 – Site Location Map, the runoff from the site ultimately discharges into Mills Branch located on the south side of the DART railway. Mills Branch flows approximately one mile to the east and discharges into Rowlett Creek. Rowlett Creek discharges into Lake Ray Hubbard approximately 0.5 miles downstream of the Mills Branch confluence.

2.2 Surface Water Protection

The Garland TS has been designed and operated to achieve the following goals.

1. Prevent a discharge of solid wastes or pollutants adjacent to or into the water in Texas.
2. Prevent a discharge of pollutants into waters of the United States.
3. Prevent a discharge of dredged or fill material to waters of the United States.
4. Prevent a discharge of nonpoint source pollution to waters of the United States.
5. Avoid significant alteration of existing drainage patterns.

The Garland TS facility consists of a building with reinforced concrete slab with an unloading area, unloading pit, and transfer trailer loading tunnel. Drainage from the facility maintains the pre-developed drainage patterns at the permit boundary and prevents the offsite discharge of waste materials. Surface water drainage in and around the facility is controlled to prevent surface water running onto, into, and off the transfer station area.

Uncontaminated stormwater run-on and run-off is directed away from the TS building by site grading. The transfer trailer loading tunnel is sloped to drain to a contaminated water sump that is equipped with a pump that discharges collected water to the City sanitary sewer.

2.3 Drainage System Layout

The general drainage pattern of the site is from the north to the south. The majority of the eastern portion of the site sheet flows to the existing channel located in the future storage area. The site receives upland flow north of Commerce Street (O1) through a 6-foot by 4-foot box culvert. The site also receives offsite flow from small contributing areas to the west (O2), south (O3), and east (O4) of the site. Local high points include the facilities (office building, recycling and convenience center, and employee vehicle parking) along Commerce Street and the TS building. The TS building is positioned over an elevated area, which allows drainage from the east side to drain towards the west without impacting the TS operations. The discharge mainly occurs through a pair of 55-inch RCP culverts located below the DART railway. One small area (D3) sheet flows toward the southeast onto City owned property.

2.4 TPDES Compliance

The TS operates in such a manner as to prevent discharge of pollutants into waters of the state or United States as defined by the Texas Water Code and the Federal Clean Water Act. The site is subject to the TCEQ's stormwater permit requirements and operates under the TPDES General Permit for Stormwater Discharges (TPDES Certificate of Authorization No. TXR05DB88). The facility maintains a Stormwater Pollution Prevention Plan (SWPPP) and performs required inspections, maintenance, and monitoring in accordance with this plan. No vehicle maintenance other than emergency repairs is conducted at the TS, and there are no "on-site" fueling facilities within the TS permit boundary.

2.5 Erosion and Sedimentation Control Plan

The erosion control measures, as required, are documented in the SWPPP developed by the facility and are consistent with TPDES requirements. These features include the establishment of vegetation or other landscaping on the non-paved portion of the site. In addition, site grading is designed to convey runoff from TS site to an existing channel (C1) without causing erosion.

2.6 Stormwater System Maintenance Plan

The City restores and repairs constructed stormwater systems in the event of wash-out or failure from extreme storm events. In addition, the erosion control measures are also be replaced or repaired in the event of failure. Excessive sediment is removed, as needed, so that the surface water drainage at the site functions as installed. The non-paved areas are vegetated with grass. Site inspections by site personnel are performed weekly or within 24 hours of each significant rainfall event (i.e., 0.5 inches or more). Maintenance activities are performed to correct damaged or deficient items noted during the site inspections. These activities are performed as soon as possible after the inspection. The time frame for correction of damaged or deficient items will vary based on weather, ground conditions, and other site-specific conditions.

3 DRAINAGE ANALYSIS

The rational method is appropriate for estimating peak discharges for small drainage areas of up to about 200 acres with no significant flood storage has been used for the 25-year frequency peak flow estimates. The City of Garland Technical Standards Manual (February 2020) has been used to develop parameters for the rational method calculations. The drainage areas are shown on Figure IIIB-1. The calculations are provided on pages IIIB-1-2 through IIIB-1-4 in Appendix IIIB-1.

3.1 Downstream Assessment

A downstream assessment was performed for the Garland TS permit boundary in accordance with Section 4 – Drainage Design Requirements of the City of Garland's Technical Standards Manual (February 2020). In accordance with the manual, it is demonstrated that runoff from the future development of the drainage area does not exceed the existing or planned capacity of the existing channel (C1 on Figure IIIB-1) and two 55-inch culverts that drain the existing drainage area associated with the transfer station permit boundary. All on-site and off-site areas draining to existing Channel C1 and the two 55-inch culverts are considered fully developed. As required by the manual, the analysis utilizes the rational method to determine the 2, 25, and 100-year peak flow rates for the contributing drainage area (Drainage areas D1, D3, O1, O2, O3, and O4). The peak flow rates are used to analyze the capacity of the existing channel and the two 55-inch culverts located underneath the DART railway south of the property. Calculations are provided on pages IIIB-1-6 through IIIB-1-11 in Appendix IIIB-1.

APPENDIX IIIB-1

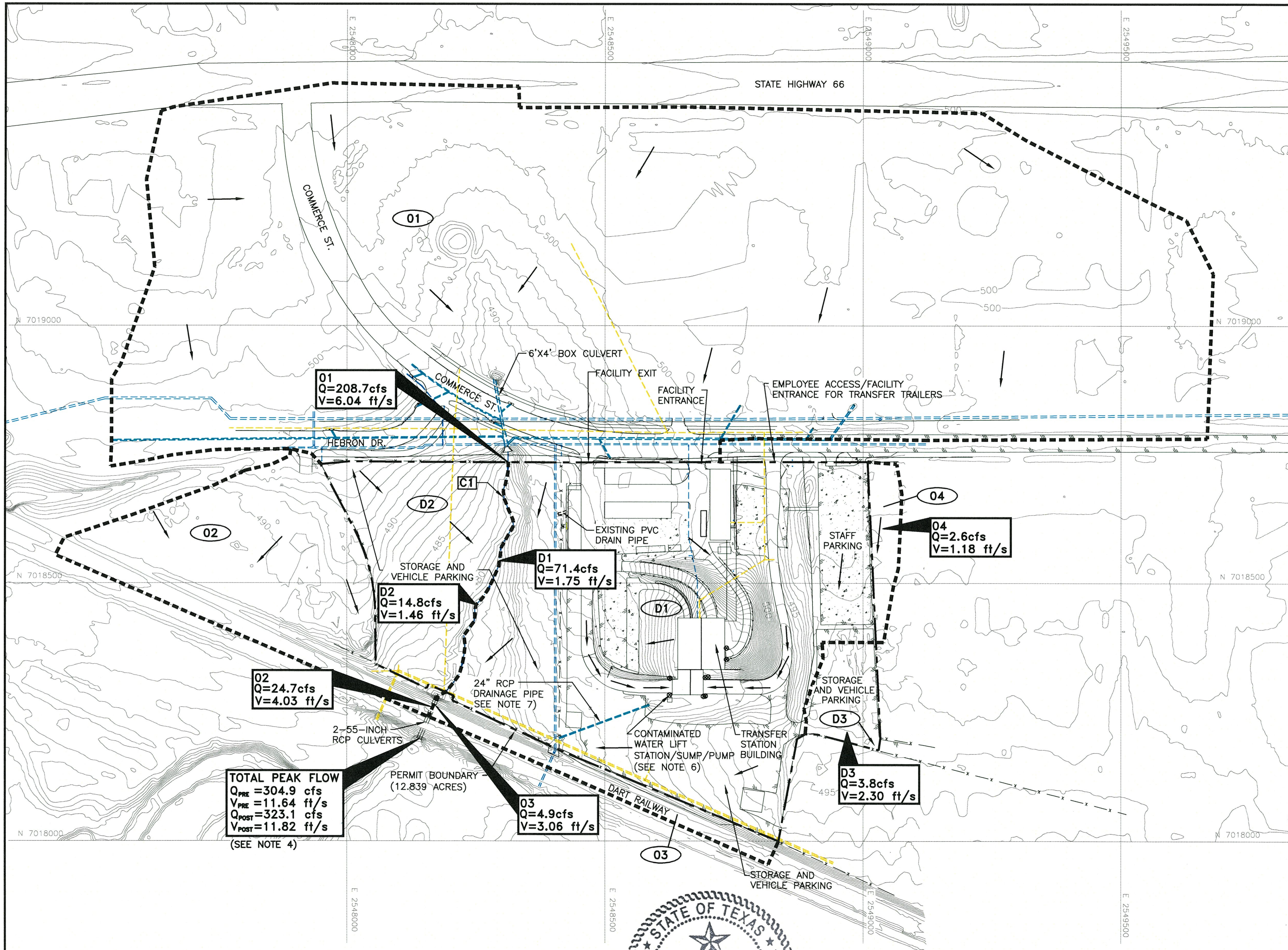
DRAINAGE PLAN AND CALCULATIONS

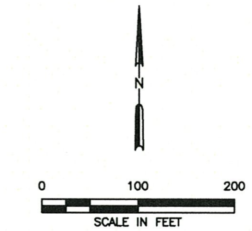
Includes pages IIIB-1-1 through IIIB-1-11

INTRODUCTION

The following drainage analyses are developed in accordance with 30 TAC §330.63(c) and §330.303 and the City of Garland Technical Standards Manual. The drainage site plan meets the requirements set forth in 30 TAC §330.63(c) and §330.303 for a drainage analysis map for a Type V MSW transfer station permit boundary.

Drainage calculations included on pages IIIB-1-3 through IIIB-1-5 set forth for a Type V MSW facility in §330.303. Drainage analysis included on pages IIIB-1-6 through IIIB-1-11 has been prepared in accordance with the requirements of Section 4 – Drainage Design Requirements of the City of Garland Technical Standards Manual (Section 4 – Drainage Design Requirements).





LEGEND

	PERMIT BOUNDARY (SEE NOTE 2)
490	EXISTING GROUND CONTOUR (SEE NOTE 1)
N 7018000	STATE PLANE COORDINATE SYSTEM
	PARKING AREA
	FENCELINE
	SANITARY SEWER
	STORM WATER DISCHARGE
	WATERLINE
	FLOWLINE
⊗	PROTECTION BOLLARDS
	DIRECTION OF DRAINAGE
	DRAINAGE AREA BOUNDARY (SEE NOTE 5)
D1	DRAINAGE AREA DESIGNATION
Q	25–YEAR FREQUENCY PEAK FLOW
V	FLOW VELOCITY FOR 25–YEAR STORM
C1	EXISTING CHANNEL

NOTES:

1. EXISTING TOPOGRAPHIC MAP AT FACILITIES HAVE BEEN PREPARED BY R-DELTA ENGINEERS, INC. (2019) AND FROM NCTCOG TOPO DATED 11–18–2020. GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 1983.
2. THE PERMIT BOUNDARY LEGAL DESCRIPTION DATED JANUARY 18, 2022 WAS PREPARED BY WEAVER CONSULTANTS GROUP.
3. THE DRAINAGE AREA DELINEATION WAS BASED ON TOPOGRAPHIC CONTOURS AND INLET LOCATIONS PROVIDED BY THE CITY OF GARLAND IN AN EMAIL DATED 3–22–2022.
4. THE TOTAL PEAK FLOW WAS DETERMINED BY THE RATIONAL METHOD FOR THE CONTRIBUTING AREA (D1,D2,O1,O2,O3, AND O4). SEE THE DOWNSTREAM ASSESSMENT ON PAGE IIIB–1–6 FOR MORE INFORMATION.
5. PERMIT BOUNDARY ALSO DETERMINES DRAINAGE BOUNDARY.
6. WASH WATER AND THE STORMWATER FROM THE TRANSFER TRAILER LOADING TUNNEL IS COLLECTED IN THE WASTE WATER DISCHARGE LIFT STATION AND PUMPED INTO THE CITY SANITARY SEWER LINE.
7. THIS OVERSIZED CULVERT DRAINS A VERY SMALL DEPRESSION AREA CONTAINS (i.e., 40 FT BY 300 FT) SOUTH OF THE TRANSFER STATION BUILDING

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

☐ DRAFT
☒ FOR PERMITTING PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 06/2022
FILE: 0647–03–11
CAD: IIIB–1 DRAINAGE PLAN.DWG

DRAWN BY: JDW
DESIGN BY: SAB
REVIEWED BY: NT

PREPARED FOR
CITY OF GARLAND

REVISIONS

NO.	DATE	DESCRIPTION

Weaver Consultants Group
TBPE REGISTRATION NO. F–3727

MAJOR PERMIT AMENDMENT
GENERAL SITE PLAN

CITY OF GARLAND TRANSFER STATION FACILITY
DALLAS COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE IIIB–1

O:\0647\03\TYPE V APPLICATION\IIIB\IIIB–1 DRAINAGE PLAN.dwg, jwilson, 1:2

DRAINAGE ANALYSIS

Required: Determine the peak flow runon and runoff values associated with the permit boundary.

Method:
1. Determine the runoff coefficients for the delineated drainage areas (Figure IIIB-1).
2. Determine the rainfall intensity for the 25-year storm event.
3. Calculate the 25-year flow rates using the rational method.

Reference:
1. The City of Garland, Technical Standards Manual, May 2015
2. The Integrated Stormwater Management Hydrology Technical Manual, North Texas Council of Governments. September 2014.

Solution:

Determine the 25-year frequency peak flow rates.

$$Q = CIA \quad \text{(Ref 1, Sec 4.05)}$$

Where:
Q= peak flow rate, cfs
C= runoff coefficient
I = intensity in/hr
A= drainage area, ac

1. **Determine the runoff coefficients for the delineated drainage areas (Figure IIIB-1).**

A weighted average composite C value was determined for each drainage area (Ref 1, Table 4.1):

Material	C - value
Undeveloped	0.30
Non-Residential Uses	0.90

Drainage Designation	Areas (acre)			Percent Areas		Composite Runoff Coefficient
	Total	Undeveloped	Non-Residential Uses	Undeveloped	Non-Residential Uses	
D1[2]	11.68	1.815	9.865	16%	84%	0.81
D2[2]	2.17	0.000	2.173	0%	100%	0.90
D3	0.56	0.000	0.562	0%	100%	0.90
O1[1]	30.60	0.000	30.600	0%	100%	0.90
O2[1]	3.62	0.000	3.623	0%	100%	0.90
O3[1]	0.72	0.000	0.724	0%	100%	0.90
O4[1]	0.37	0.000	0.374	0%	100%	0.90

[1] All offsite drainage areas were considered to be fully developed.

[2] It is assumed that drainage areas D1 and D2 are developed with future TS uses.

2. Determine the rainfall intensity for the 25 year storm event.

$$I = \frac{b}{(Tc + d)^e}$$ (Ref 1, Sec 4.05)

I = rainfall intensity, in/hr
T_c = time of concentration for the basin, minute
b, d, e = 25-Year Return Period Coefficients for Dallas County (Ref 2)

From iSWM Technical Manual

b =	87.97
d =	13
e =	0.78187

Calculate the Time of Concentration for the delineated Drainage Areas using the SCS methodology.

1. Sheet Flow

$$T_t = \frac{0.007\,(nL)^{0.8}}{P_2^{0.5}\,S^{0.4}}$$

T_t = Travel Time (hr)
n = Manning's roughness coefficient
L = Flow Length
P_2 = 2-year, 24-hour rainfall, 3.6"
S = Slope of Hydraulic grade line (land slope, ft/ft)

2. Shallow Concentrated Flow

$$T_t = \frac{L}{3600V}$$

T_t = Travel Time (hr)
L = Flow Length
V = Velocity (fps)
Unpaved = $16.1345*(S)^{0.5}$
Paved = $20.3282*(S)^{0.5}$

3. Open Channel Flow

$$T_t = \frac{L}{3600V}$$

$$V = \frac{1.486\left(R^{2/3}\right)\left(S^{1/2}\right)}{n}$$

T_t = Travel Time (hr)
V = Average Velocity (ft/s)
R = Hydraulic Radius (ft) (R = A/WP)
A = Cross sectional Flow (ft^2)
WP = Wetted Perimeter (ft)
S = Slope of Hydraulic grade line (land slope, ft/ft)
n = Manning's roughness coefficient

Drainage	Time of Concentration (T_c)					Intensity
Designation	Sheet Flow (min)	Shallow Conc. Flow (min)	Open Channel Flow (min)	Tc Calc (min)	Tc Used[1] (min)	I (in/hr)
D1	0.97	1.60	2.35	4.92	10.00	7.58
D2	1.04	1.08	2.42	4.54	10.00	7.58
D3	1.14	0.99	--	2.13	10.00	7.58
O1	2.62	2.63	0.44	5.70	10.00	7.58
O2	0.79	1.20	2.20	4.19	10.00	7.58
O3	0.27	0.72	1.60	2.59	10.00	7.58
O4	1.01	--	--	1.01	10.00	7.58

[1] A minimum Intensity of 10 minutes is used.

3. Rational Method 25-Year Frequency Peak Flow Rates:

$Q = CIA$

C = runoff coefficient (varies)
I = intensity (in/hr)
A = Area (ac)

Drainage[1] Area	25-yr Frequency Peak Flow Rates				
	C^2	^3t_c	I (in/hr)	A (ac)	$Q_{25}{}^3$
D12	0.81	10.00	7.58	11.68	71.4
D22	0.90	10.00	7.58	2.17	14.8
D3	0.90	10.00	7.58	0.56	3.8
O1	0.90	10.00	7.58	30.60	208.7
O2	0.90	10.00	7.58	3.62	24.7
O3	0.90	10.00	7.58	0.72	4.9
O4	0.90	10.00	7.58	0.37	2.6

[1]See Figure IIIB-1 for drainage area boundaries.

[2]C is the composite runoff coefficient determined above.

[3]Q_{25} is the 25-year frequency peak runoff flow rate.

DOWNSTREAM ASSESSMENT

Required: Perform a Downstream Assessment to ensure the existing drainage facilities do not exceed their capacity due to the existing development.

Method: This section has been prepared for the requirements of The City of Garland Drainage Design Requirements (Technical Standards Manual, February 2020). The following drainage analysis meets the requirements set forth in Section 4 of the manual.

1. Determine the 2, 25, and 100-year frequency flow rates for the delineated drainage area by the rational method.
2. Analyze the existing channels capacity using flow rates for the 2, 25, and 100-year storm frequencies to ensure post-project conditions do not exceed the channels capacity.
3. Analyze the two existing 55-inch RCP DART Culverts using flow rates for the 2, 25, and 100-year storm frequency's to ensure post-development conditions do not exceed the culverts capacity.

Reference:

1. The City of Garland, Technical Standards Manual, May 2015.
2. The Integrated Stormwater Management Hydrology Technical Manual, North Texas Council of Governments. September 2014.

Solution:

1. Determine the 2, 25, and 100-year frequency peak flow rates for the drainage area contributing to the existing channel and the pair of 55-inch culverts.

$Q = CIA$ (Ref 1, Sec 4.05)

Where:
Q= peak flow rate, cfs
C= runoff coefficient
I = intensity in/hr
A= drainage area, ac

A weighted average composite C value was determined for the contributing drainage area (The contributing area includes D1, D2, O1, O2, O3, and O4 which are shown on Figure IIIB-1).

Material	C - value
Undeveloped	0.30
Non-Residential Uses	0.90

	Areas (acre)[1]			Percent Areas		Composite Runoff
	Total	Undeveloped	Non-Residential Uses	Undeveloped	Non-Residential Uses	Coefficient
Pre-Project Conditions	47.36	3.989	43.370	8%	92%	0.85
Post-Project Conditions	47.36	0.000	47.359	0%	100%	0.90

[1] All offsite drainage areas were considered fully developed.

Determine the 2, 25, and 100-year rainfall intensity. (Ref 2)

	Coefficients		
	2-Year	25-Year	100-Year
e	0.82	0.78	0.76
b	55.18	87.97	100.08
d	10.00	13.00	13.00

	Time of Concentration (T_c)		Intensity		
	Tc Calc (min)	Tc Used[1] (min)	I_2 (in/hr)	I_{25} (in/hr)	I_{100} (in/hr)
Pre-Project Conditions	0.75	10.00	4.80	7.58	9.27
Post-Project Conditions	0.00	10.00	4.80	7.58	9.27

[1] All offsite drainage areas were considered fully developed.

Rational Method Peak Flow Rates:

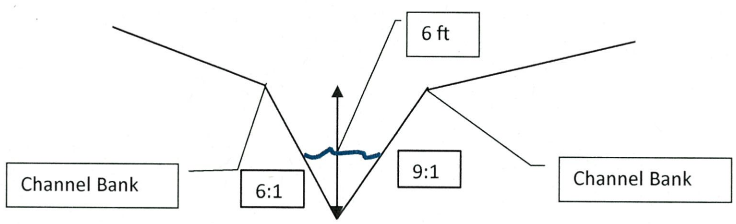
Q = CIA

C = runoff coefficient (varies)
I = intensity (in/hr)
A = Area (ac)

Peak Flow Rates					
	C	A (ac)	Q_2 (cfs)	Q_{25} (cfs)	Q_{100} (cfs)
Pre-Project Conditions	0.85	47.36	192.9	304.9	373.0
Post-Project Conditions	0.90	47.36	204.4	323.1	395.2

2. Determine the capacity of the existing channel (C1) using the post-project 2, 25, and 100-year flow rates.

A typical section was developed for the existing channel (C1) which is shown below. The channel has an typical depth of 6 feet. The location of the existing channel is shown on Figure IIIB-1.



Calculate the normal depth for the channel under peak flow conditions.

List of Symbols

Qd =	design flow rate for channel, cfs
R =	hydraulic radius, ft
n =	Manning's roughness coefficient
S =	channel slope, ft/ft
b =	bottom width of channel, ft
zr =	z-ratio (ratio of run to rise for channel sideslope) for right side slope of swale
zl =	z-ratio (ratio of run to rise for channel sideslope) for left side slope of swale
Af =	flow area, sf
d =	normal depth of channel, ft

The program uses an iterative process to calculate the normal depth of the channel to satisfy Manning's Equation

$$Q = \frac{1.486}{n} A R^{0.67} S^{0.5}$$

Design Inputs:

Q_d =	395.2	cfs	(From Step 1)
S =	0.0217	ft/ft	
b =	0	ft	
z_r =	6	(H) : 1 (V)	
z_l =	9	(H) : 1 (V)	
n =	0.05		

Based on the geometry of the channel cross-section, solve for R and Af

$$R = \frac{bd + 1/2d^2(z_r + z_l)}{b + d((z_l^2 + 1)^{0.5} + (z_r^2 + 1)^{0.5})}$$

$$A_f = bd + 1/2d^2(z_r + z_l)$$

assume: d = 3.06 ft

R = 1.52 ft

A_f = 70.19 sf

solve for Q: Q = 395.2

if Q is not equal to Q_d, select a new d and repeat calculations

Solve for velocity, T, Froude number, velocity head, and energy head

Q = VA => V = Q/A

V = 5.63 ft/s

$T = b + d(z_l + z_r)$

T = 45.89 ft

$$F_r = \frac{V}{(gA/T`)^{0.5}}$$

F_r = 0.823

$$\text{Velocity Head} = \frac{V^2}{2g}$$

Velocity Head = 0.49 ft

Energy Head = water elevation + velocity head

Energy Head = 3.58 ft

Conclusion: The calculated normal flow depth of 3.06 feet remains within the proposed 6-foot-deep channel while still maintaining 1-foot of freeboard. Therefore, the increase in flow rate is contained within the channel and does not create any adverse impacts.

The existing channel was analyzed for the 2, 25, and 100-year pre and post-project conditions flow rates on page IIIB-1-9 to ensure the increase in flow rates are contained within the channel and the change in velocity is below a 5% difference.

CITY OF GARLAND TRANSFER STATION FACILITY
0647-003-11-11
DOWNSTREAM ASSESSMENT

2-Year Storm

Channel	Flow Rate (cfs)	Bottom Slope (ft/ft)	Bottom Width (ft)	Side Slope (ft/ft) Right	Side Slope (ft/ft) Left	Normal Depth (ft)	Flow Vel. (fps)	Froude No.	Vel. Head (ft)	Energy Head (ft)	Flow Area (sq.ft.)	Top width of Flow (ft)
Pre-Project Conditions	192.9	0.022	0	9	6	2.32	4.80	0.786	0.36	2.67	40.23	34.74
Post-Project Conditions	204.4	0.022	0	9	6	2.37	4.87	0.788	0.37	2.73	42.01	35.50

Note:
1. Calculations were performed using the HYDROCALC Computer Program developed by Dodson and Associates (Version 2.0, 1996-2010).
2. n = 0.05 (Manning Coefficient) is used for the calculations.

25-Year Storm

Channel	Flow Rate (cfs)	Bottom Slope (ft/ft)	Bottom Width (ft)	Side Slope (ft/ft) Right	Side Slope (ft/ft) Left	Normal Depth (ft)	Flow Vel. (fps)	Froude No.	Vel. Head (ft)	Energy Head (ft)	Flow Area (sq.ft.)	Top width of Flow (ft)
Pre-Project Conditions	304.9	0.022	0	9	6	1.87	11.64	2.124	2.11	3.97	26.18	28.03
Post-Project Conditions	323.1	0.022	0	9	6	1.91	11.82	2.132	2.17	4.08	27.35	28.64

Note:
1. Calculations were performed using the HYDROCALC Computer Program developed by Dodson and Associates (Version 2.0, 1996-2010).
2. n = 0.05 (Manning Coefficient) is used for the calculations.

100-Year Storm

Channel	Flow Rate (cfs)	Bottom Slope (ft/ft)	Bottom Width (ft)	Side Slope (ft/ft) Right	Side Slope (ft/ft) Left	Normal Depth (ft)	Flow Vel. (fps)	Froude No.	Vel. Head (ft)	Energy Head (ft)	Flow Area (sq.ft.)	Top width of Flow (ft)
Pre-Project Conditions	373.0	0.022	0	9	6	2.01	12.25	2.151	2.33	4.35	30.45	30.23
Post-Project Conditions	395.2	0.022	0	9	6	2.06	12.43	2.159	2.40	4.46	31.80	30.89

Note:
1. Calculations were performed using the HYDROCALC Computer Program developed by Dodson and Associates (Version 2.0, 1996-2010).
2. n = 0.05 (Manning Coefficient) is used for the calculations.

	2-Year	25-Year	100-Year
Pre-Project Velocity	4.80	11.64	12.25
Post-Project Velocity	4.87	11.82	12.43
Percent Change	1.46%	1.55%	1.47%

Conculsion: The calculated normal depth for each condition remains within the proposed 6-foot-deep channel while still maintaining 1-foot of freeboard. In addition, the percent change in velocity is below 5% between pre and post project conditions. Therefore, the increase in flow rate is contained within the channel and does not create any adverse impacts.

3. Analyze the two existing 55-inch RCP Culverts using flow rates for the 100-year storm frequencies, to ensure post-development conditions do not exceed the culvert's capacity.

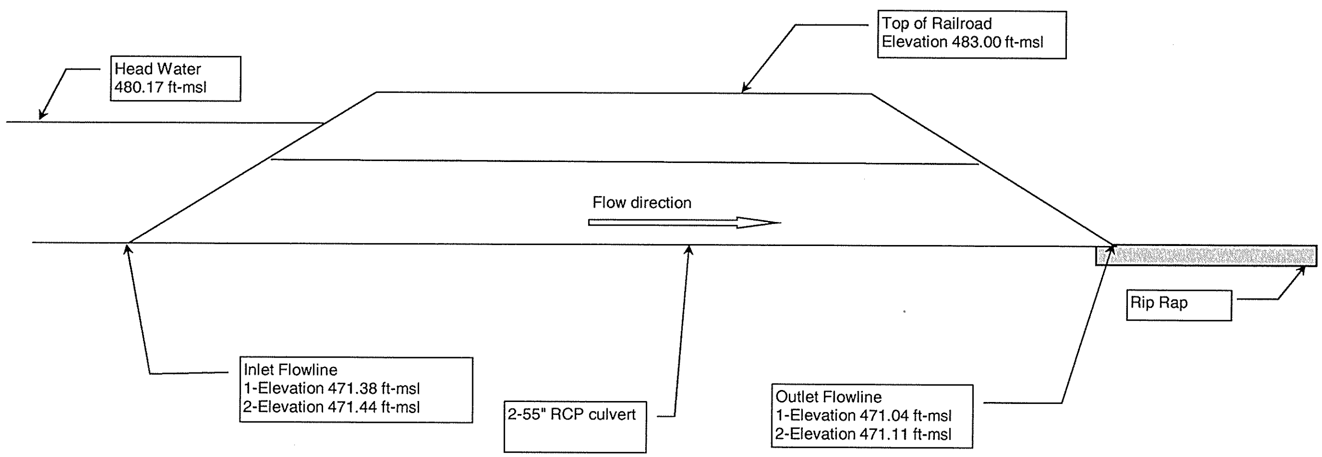
Required: Design culverts to convey the flow.

Method: Use HYDROCALC Hydraulics for Windows computer program to analyze culverts.
Use total 100-year frequency storm event flow estimated in step 1.

Total Flow= 395.23 cfs
No. of Culverts= 2
Culvert Span= -- inches
Culvert Rise= -- inches
Culvert Diameter= 55 inches

Culvert ID	Culvert Span (ft)	Culvert Span (ft)	FHWA Chart Number	FHWA Scale Number	Culvert Diameter (in)	Manning's Coefficient	Entrance Loss Coefficient	Culvert Length (ft)	Downstream Invert Elevation (ft msl)	Upstream Invert Elevation (ft msl)	Flow Rate (cfs)	Tailwater Depth[2] (ft)	Headwater Inlet Control (ft)	Headwater Outlet Control (ft)	Normal Depth (ft)	Critical Depth (ft)	Depth at Outlet (ft)	Outlet Velocity (fps)
1	--	--	1	1	55	0.011	0.5	86.94	471.04	471.38	197.61	2.60	8.79	7.89	4.58	4.03	4.58	11.99
2	--	--	1	1	55	0.011	0.5	86.94	471.11	471.44	197.61	2.60	8.79	7.89	4.58	4.03	4.58	11.99

1. Calculations were performed using the HYDROCALC Hydraulics for Windows program developed by Dodson and Associates (Version 2.0, 1996-2010).
2. Tailwater depth is assumed to be the normal depth in the downstream channel.



Conclusion: As shown in the diagram above, the headwater does not exceed the top of the railroad; therefore, the two 55-inch culverts have adequate capacity for the increased flow rates.

CITY OF GARLAND TRANSFER STATION FACILITY
GARLAND, DALLAS COUNTY, TEXAS
TCEQ PERMIT NO. MSW-12

MAJOR PERMIT AMENDMENT APPLICATION

PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIC
CLOSURE PLAN

Prepared for

City of Garland

June 2022

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

Prepared by

Weaver Consultants Group, LLC
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6420 Southwest Blvd., Suite 206
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817-735-9770

Project No. 0647-003-11-11

This document is issued for permitting purposes only.

CONTENTS

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

1 INTRODUCTION

This Closure Plan has been prepared for the Garland TS and is consistent with Title 30 Texas Administrative Code (TAC) §330.63(h) and §330.459. TAC §330.459(d)(2) states that closure of the facility must be completed within 180 days following the most recent acceptance of processed or unprocessed materials unless otherwise directed or approved in writing by the executive director. Section 2 of this Closure Plan describes the steps necessary to close the facility at any point during its active life and Section 3 of this Closure Plan discusses after-closure land use of the site.

The City will, unless specifically authorized by the TCEQ, close the facility in accordance with the closure provisions of the permit. The City is also subject to the applicable provisions in Subchapter K of 30 TAC Chapter 330 (relating to Closure and Postclosure).

2 CLOSURE REQUIREMENTS

At the time of closure, the site will remove all waste, waste residues, and any recovered materials. The TS structure, pad, walls and associated units will be decontaminated. All material on-site, whether in process or processed will be evacuated to an authorized facility and the tipping floors, processing areas, and post- processing areas will be disinfected.

No later than 90 days prior to the initiation of final closure, the site will, through a public notice in the newspaper(s) of largest circulation in the vicinity of the facility, provide public notice for final facility closure. This notice will include the name, address, and physical location of the facility, the permit number, and the last day of intended receipt of materials for processing at the facility. The site will also make available an adequate number of copies of the approved Closure Plan for public review. The owner/operator will also provide written notification to the TCEQ of the intent to close the facility and will place this notice of intent in the site operating record.

Initiation of closure activities for the facility will begin after the date on which the facility receives the known final receipt of waste to be processed.

The following steps will be taken:

- Notify the TCEQ of when closure is initiated.
- Post a minimum of one sign at the main entrance and all other frequently used points of access for the facility notifying all persons who may utilize the facility of the date of closing for the facility and the prohibition against further receipt of waste materials after the stated date. The sign will also indicate the location of an alternative disposal facility.
- Install suitable barriers to all gates or access points or alternatively, fence around the entire waste processing area, to adequately prevent the unauthorized dumping of solid waste at the closed facility.
- Remove waste, waste residues, contaminated water, and any recovered materials.
- Dismantle and remove or decontaminate facility units.
- Disinfect tipping floors, processing area, and post-processing areas.

- Wash transfer station tipping floors and any surfaces that have been in contact with waste.
- Perform facility inspection and prepare certification of closure. The certification shall be signed by an independent licensed professional engineer, verifying that final facility closure has been completed in accordance with the approved closure plan. The submittal to the executive director shall include all applicable documentation necessary for certification of final facility closure.
- If there is evidence of a release from the TS, the executive director may require an investigation into the nature and extent of the release and an assessment of measures necessary to correct an impact to groundwater.

3 CERTIFICATION OF FINAL FACILITY CLOSURE

Following completion of all final closure activities for the transfer station, the City will submit within 10 days to the executive director for review and approval a documented certification signed by an independent licensed professional engineer, verifying that final closure has been completed in accordance with the approved Closure Plan and the applicable rule provisions of 30 TAC Chapter 330 Subchapter K. The submittal to the executive director will include all applicable documentation necessary for certification of final closure.

Following receipt of the required final closure documents, as applicable, the TCEQ regional office will conduct an inspection and provide a report verifying proper closure of the TS according to the approved Closure Plan before termination of operation and closure of the TS will be acknowledged and the facility deemed properly closed.

Since the facility does not require postclosure care, a request for voluntary revocation of the TS permit will be submitted to the executive director.

4 AFTER-CLOSURE LAND USE

All wastes and waste residues will be removed from the TS as part of the closure activities. At the time of closure, the executive director will be provided with documentation of waste removal and a request will be made that there be no restrictions to the postclosure use of the facility related to its previous use as a municipal solid waste transfer station facility.

CITY OF GARLAND TRANSFER STATION FACILITY
GARLAND, DALLAS COUNTY, TEXAS
TCEQ PERMIT NO. MSW-12A

MAJOR PERMIT AMENDMENT APPLICATION

PART III - SITE DEVELOPMENT PLAN
APPENDIX IIID
CLOSURE COST ESTIMATE

Prepared for

City of Garland

June 2022

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

Prepared by

Weaver Consultants Group, LLC
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817-735-9770

Project No. 0647-003-11-11

This document is issued for permitting purposes only.

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NEVZAT TURAN
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1 INTRODUCTION

This Cost Estimate for closure of the Garland TS has been prepared consistent with Title 30 TAC §330.63(j). The cost estimate for closure is required for any municipal solid waste facility permitted or registered by the TCEQ. In the event of forced closure, which occurs when a solid waste facility can no longer operate because of an inability to manage the incurred debts and liabilities of closure, operations will be assumed by the TCEQ. This cost estimate for closure has been prepared for the Garland TS and is consistent with Title 30 TAC §330.505.

2 CLOSURE COST ESTIMATE

At any point in its active life, the maximum amount of waste that may be temporarily stored onsite at the facility and any processed and unprocessed waste and materials onsite is 1,000 tons. A detailed estimate, in current dollars, of the cost of hiring a third party that is not affiliated with the City of Garland to close the facility at any time during the active life. The cleanup and disposition costs for onsite waste material are based on a weight measurement as shown in Table 1. No dismantling of the concrete pad or other structures will be conducted at closure. No changes to the site elevations at closure will occur that will affect the final contour map.

The estimated closure cost based on the above considerations is provided in Table 1 on page IIID-3. A copy of the required documentation to demonstrate financial assurance will be submitted within 60 days of TCEQ approval of this permit modification.

Table 1
City of Garland Transfer Station Facility Closure Cost Estimate

Item	Description	Quantity	Unit [1]	2022 Values	
				Unit Cost	Extended Cost
A	**Third Party Administration of Transfer Station Closure**				
	1 Determine Closure Activities	1	LS	$800	**$800**
	2 Engineering Review of Planned Closure Activities	4	HRS	$230	**$920**
	3 Prepare and procure Bids and Award Contract	48	HRS	$230	**$11,040**
	4 Administer Closure Activity	24	HRS	$120	**$2,880**
	5 Public Notification	4	HRS	$120	**$480**
	6 Reports and Correspondence with TCEQ	8	HRS	$230	**$1,840**
	SUBTOTAL				**$17,960**
B	**General Cleanup of Site**				
	1 General Labor	48	HRS	$55	**$2,640**
	2 Equipment (Truck Rental)	2	DAY	$300	**$600**
	3 Landfill Disposal	20	TON	$42	**$840**
	SUBTOTAL				**$4,080**
C	**Cleaning of Facility, Equipment and Transfer Trailers**				
	1 Labor	16	HRS	$55	**$880**
	2 Equipment (Steam Cleaning Unit)	16	HRS	$225	**$3,600**
	3 Removal of all recyclables materials	100	TONS	$55	**$5,500**
	3 Disposal of Maximum Capacity of Solid Waste	1,000	TON	$42	**$42,000**
	SUBTOTAL				**$51,980**
D	**Installation of "Transfer Facility Closed" Sign**				
	1 Labor	6	HRS	$55	**$330**
	2 Material	1	LS	$500	**$500**
	SUBTOTAL				**$830**
E	**Certification from TCEQ of Completion and Closure**				
	1 Cost	1	LS	$4,000	**$4,000**
	SUBTOTAL				**$4,000**
	SUBTOTAL ITEMS A, B, C, D, & E				**$78,850**
	CONTINGENCY		15%		**$11,828**
	CONTRACT PERFORMANCE BOND		1.5%		**$1,183**
	LEGAL FEES		20%		**$15,770**
	TCEQ ADMINISTRATION OF CONTRACTS		10%		**$7,885**
			TOTAL CLOSURE COST:		**$115,515**

[1] LS = Lump Sum, HRS = hours

STATE OF TEXAS
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3 COST ESTIMATE ADJUSTMENTS

During the active life of the facility, the City will establish and maintain financial assurance for closure in accordance with Title 30 TAC Chapter 37, Subchapter R. The amount of financial assurance will be adjusted on an annual basis based on the implicit price deflator published by TCEQ.

An increase in the closure cost estimate and the amount of financial assurance provided will be made if changes to the final closure conditions increase the maximum cost of closure. A request for an increase in the closure cost estimate and financial assurance will be submitted as a permit modification. The closure cost estimate will be evaluated annually to determine if an increase in the closure cost estimate is required as a result of continued facility operation.

A reduction in the closure cost estimate and the amount of financial assurance may be approved if the cost estimate exceeds the maximum cost of closure and the owner/operator has provided written notice to the Executive Director of the detailed justification for the reduction. A request for reduction in the closure cost estimate and financial assurance will also be submitted as a permit modification.

Continuous financial assurance coverage for closure will be provided until all requirements of the Closure Plan are completed and the facility is determined to be closed in writing by the Executive Director.

APPENDIX IIIE

WASTEWATER DISCHARGE AUTHORIZATION

STATE OF TEXAS
NEVZAT TURAN
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GARLAND
TEXAS MADE HERE

May 25, 2022
Uriel D. Villalpando, MBA
Director
City of Garland Transfer Station Facility
1434 Commerce Street
Garland, Texas 75040

Dear Mr. Villalpando,

This letter is to serve as formal notice that the City of Garland Rowlett Creek Wastewater Treatment Plant receives wastewater discharge from the City of Garland Transfer Station Facility (Garland TS) via a force main directly connected to the City sewer line. The Industrial Pretreatment Program (IPP) conducted an Industrial Waste Survey on May 25, 2022, and determined a discharge permit is not required at this time.

The wastewater generated by Garland TS consists of leachate and stormwater from a small area associated with the entrance and exit of the TS building transfer trailer loading tunnel. The Rowlett Creek Wastewater Treatment Plant may terminate the disposal of the wastewater should it adversely affect the wastewater treatment plant and such disposal will remain terminated until plant personnel has determined the operations at the plant are back to normal.

Please contact IPP at Pretreatment@Garlandtx.gov or call Michelle Taylor at 972-205-2712 should you have any questions.

Sincerely,

Joey Martinez
Interim-Pretreatment Manager
City of Garland, Industrial Pretreatment
972-205-3819
josmarti@garlandtx.gov

GARLAND

INDUSTRIAL PRETREATMENT PROGRAM

FACILITY SITE INSPECTION
Technical Services Division
2500 E. Centerville Rd., Garland, Texas 75040
Ph. 972-205-2712
Fax. 972-278-6772

FACILITY SITE INSPECTION REPORT

☐ Certificate of Occupancy ☑ Industrial Waste Survey

Facility Name: City of Garland Transfer Station

Inspection Date: 05/24/2022

Facility Address: 1434 Commerce St. Garland, TX 75040

Date discharge began at the facility: n/a

Date of most recent process modification: n/a

Business Contact: Uriel Villalpando

Telephone No. (972) 205-3424

Days of operation: ☑ Mon ☑ Tue ☑ Wed ☑ Thur ☑ Fri ☐ Sat ☐ Sun

Hours of operation: 0800-1700

Employees per shift: 1st N/A 2nd 3rd

SIC Code: 4212

NAICS Code: 562111

Products Produced or Services Provided:

Auto Repair: ☐ Major ☐ Minor ☐ Food Establishment ☐ Auto Sales ☐ Body Shop ☐ Machine Shop ☐ Medical ☐ Dental ☐ Light Industrial ☐ Warehouse / Storage ☐ Personal Use Storage ☑ Other Trash transfer station

Process Description:

City transfer station for commercial vehicle trash, city trash trucks, and some residential trash disposal. The transfer station is a three-story building. The trash is received on the top floor and then transferred down to the second story where it is held before being placed into a bigger truck located on the ground level. Leachate is generated during rain events when it is captured in the various trash trucks. Leachate water is not drained prior to the trash being placed on the second level. When the trash is moved to the ground level into the transfer truck, leachate beings draining and runs into th%trench system on the ground level. From the trench system, leachate flows to a pit where it is pumped to a force main and out to the sanitary sewer. The pit holds an estimated 2300gals and is pumped out via an automated sump pump when it gets to a certain level. The pit will fill up and pumps will run the most during rain events, but on an average day, it will not run continuously. The bottom area of the transfer station is not washed down and all water captured in the trench system is leachate water collected by trash trucks during their daily pick-ups. The pit is 8ft x 8ft x 8ft in size. Some stormwater during rain events is diverted via slanted concrete berms located on the ground level instead of being captured in the trench.

Types of Wastewater Discharge

☑ No Wet Process

gpd = gallons per day | sanitary = estimate 25 gpd / employee

Sanitary (gpd) Non-Contact Cooling Water (gpd)

Boiler Blowdown (gpd) Cooling Water (gpd)

Process Wastewater 2300gal (gpd) Description Leachate water from rainfall collected in trash trucks

Other (gpd) Description

Types of Wastewater Treatment

Will there be wastewater treatment at the facility? ☐ Yes, see below ☑ No

☐ None ☐ Air flotation ☐ Centrifuge ☐ Chemical Precipitation ☐ Chlorination ☐ Cyclone ☐ Evaporation ☐ Filtration ☐ Flow Equalization ☐ Grease Separation ☐ Oil Separation ☐ Grease Trap ☐ Grinding Filter ☐ Grit Removal ☐ Iron Exchange ☐ pH Adjustment ☐ Ozonation ☐ Reverse Osmosis ☐ Screening ☐ Sedimentation ☐ Solvent Seperation ☐ Solvent Recovery ☐ Biological Treatment ☐ Chemical Treatment ☐ Physical Treatment ☐ Other

Waste Management

Liquid waste, hazardous waste, or sludge generated at the facility? ☐ Yes, see below ☑ No

☐ Grease/Oil ☐ Paints/Thinners ☐ Acids/Alkalis ☐ Plating Wastes ☐ Rinse water ☐ Inks/Dyes ☐ Solvents ☐ Bio-Hazardous ☐ Other

How will wastes be removed from the facility?

☑ Discharged ☑ Solid Waste / City Disposal ☐ Waste Hauler to a Waste Management Facility

☐ Other

If removed off-site:	Hauler:		Frequency:

Chemical Storage

Will there be chemical storage at the facility? ☐ Yes, see below ☑ No

Types: ____ SDS: ☐ Submitted ☐ Not Required

Storage Tanks:	Content:		Volume:		Content:		Volume:
Storage Tanks:	Content:		Volume:		Content:		Volume:

Is there a potential for a slug discharge? ☐ Yes ☐ No Other permits held:

Floor Drains: Trench Capped? ☐ Yes ☑ No Location(s): Ground-level transfer area

Pollution Prevention: Recycle various materials (i.e. cardboard, motor oil, batteries, etc.)

Requirements

Certificate of Occupancy:

☐ Approved as currently exists ☐ Not Approved ☐ Pending Approval upon completion of the following:

Install: ☐ Clean:

☑ Dispose of wastes in a proper manner & retain copies of the manifests for three (3) years

☑ Notify the Control Authority within five (5) days of any process change resulting in process wastes being discharged

☐ Process Discharge Prohibited

☐ Must comply with 40 CFR Part 441.40 (requirements for New Source)

☑ Other - See notes

Notes:

*A discharge permit is not required at this time. AM

X [signature]	X [signature]
Pretreatment Inspector Signature	Industrial Representative Signature
Ashleigh Miller	Hector Arreguin
Print Name	Print Name
Environmental Technician	Field Services Manager
Title	Title
AMiller@garlandtx.gov	Harreguin@garlandtx.gov
Email	Email

CITY OF GARLAND TRANSFER STATION FACILITY
GARLAND, DALLAS COUNTY, TEXAS
TCEQ PERMIT NO. MSW-12A

MAJOR PERMIT AMENDMENT APPLICATION
PART IV – SITE OPERATING PLAN

Prepared for

City of Garland

June 2022

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
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06/30/2022

Prepared by

Weaver Consultants Group, LLC
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Project No. 0647-003-11-11

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LIST OF ACRONYMS

CFR - Code of Federal Regulations

DOT - Department of Transportation

EPA - U.S. Environmental Protection Agency

MSW - Municipal Solid Waste

NRACM - non-regulated asbestos-containing material

OSHA - Occupational Health and Safety Administration

PCBs - polychlorinated biphenyls

POTW – publicly-owned treatment works

RACM - regulated asbestos-containing material

RCRA - Resource Conservation Recovery Act

SDP - site development plan

SOP - site operating plan

TAC - Texas Administrative Code

TCEQ - Texas Commission on Environmental Quality

TxDOT - Texas Department of Transportation

WWTP - wastewater treatment plant

1 INTRODUCTION (30 TAC §§330.65 AND 330.201)

This Site Operating Plan (SOP) has been prepared for the existing City of Garland Transfer Station Facility (Garland TS or TS) consistent with 30 TAC §330.65, contains the information required by §330.201 and updates the currently approved operating plan included in the existing Type V Permit MSW-No. 12 documents. This SOP includes provisions for facility management and facility operating personnel to meet the general and facility-specific requirements included in Subchapter E: Operational Standards for Municipal Solid Waste Storage and Processing Units for the day-to-day operation of the facility. This SOP will be retained onsite throughout the active life of the facility until after certification of closure.

The Garland TS is an existing Type V municipal solid waste management facility owned and operated by the City of Garland. The Garland TS is located at 1434 Commerce Street within the City of Garland in Dallas County, Texas. The Garland TS accepts waste from city waste hauling vehicles, other cities authorized to use the TS, and the public, then transfers this waste into transfer trucks for hauling and disposal at the City of Garland's Type I municipal solid waste landfill – Charles M. Hinton, Jr. Regional Landfill (Hinton Landfill) or other properly permitted MSW disposal facilities. Support facilities are provided including a site entrance road, scalehouse, scales, recycling and convenience center, and the TS building.

This SOP provides guidance for facility management and facility operating personnel for daily operation of the Garland TS. This SOP also includes provisions for facility management and facility operating personnel to meet the general and facility-specific requirements for the waste acceptance rate established in the permit.

2 WASTE ACCEPTANCE AND ANALYSIS (30 TAC §§330.203 AND 330.205)

2.1 Properties and Characteristics of Waste (§330.203(a))

The major classifications of solid waste accepted at the Garland TS include household waste, yard waste, commercial waste, Class 2 and Class 3 non-hazardous industrial waste, and construction–demolition waste. The waste classifications are defined in Title 30 TAC §330.3.

The Garland TS accepts waste generated from residential, commercial, institutional, municipal, manufacturing, industrial, recreational, and construction sources within the Garland TS service area. Wastes accepted include paper, food wastes, glass, aluminum and other metals, plastics, grass clippings, other organic wastes, wood wastes, textiles, bricks, and other inert materials. The TS will accept special wastes in accordance with Appendix IVA.

Consistent with Title 30 TAC §330.15 the facility will not accept Class I non-hazardous industrial wastes, regulated hazardous wastes, regulated asbestos - containing material (RACM), liquid wastes, radioactive wastes, PCB wastes, infectious medical wastes, and other wastes prohibited by TCEQ regulations.

Class II industrial solid waste is any individual solid waste or combination of industrial solid wastes that cannot be described as Class I or Class III, as defined in Title 30 TAC §335.506 (relating to Class II waste determination). Class III industrial solid waste is any inert and essentially insoluble industrial solid waste, including materials such as rock, brick, glass, dirt, and certain plastics and rubber, etc., that are not readily decomposable as defined in Title 30 TAC §335.507 (relating to Class III waste determination). Class II and Class III industrial solid wastes may be accepted at the TS, provided processing of these wastes does not interfere with proper operation of the TS.

2.2 Volume and Rate of Transfer (§330.203(b) and §330.205(a) and (b))

The Garland TS serves the individuals and City collection system for the City of Garland. The TS will receive a maximum of 1,500 tons per day (tpd) of municipal solid waste for transfer to the Hinton Landfill or other properly permitted MSW disposal facilities. As economic conditions, population growth, and waste generation rates change, the volume of incoming waste processed at the TS could increase or decrease.

Physical capacity of the existing solid waste TS building is higher than 1,500 tpd. In the future, the City may seek authorization to increase the maximum amount of waste received daily under the provisions of Title 30 TAC §305.62(j)(1)(C), unless future rule changes allow a different submittal.

The TS operation is designed to transfer all solid waste to the landfill on the same day it is received. The average length of time that waste remains at the facility is four hours. The maximum time waste material will be stored in the TS will not exceed 72 hours as discussed in Section 7.10. Waste will only be stored in the TS building. The city's brush collection trucks containing brush may park overnight at the site if they arrive at the end of workdays (i.e., not enough time to deliver to the landfill). The maximum amount of waste to be stored is 1,000 tons. If such accumulations occur, additional waste materials will not be received until the adverse conditions are abated.

If for any reason Hinton Landfill is not able to take solid waste, other properly permitted MSW landfills may be utilized. The intended destination of the liquids generated by the facility is the City of Garland POTW. Any recyclable materials collected at the site will be removed by authorized third party contractors or in the future by the City if the City seeks authorization to operate a recyclables facility.

The Garland TS will maintain documentation in the operating record that all wastes leaving the facility are being adequately managed by other licensed or permitted facilities. All wastes received at the Garland TS will be processed or disposed of at an authorized solid waste management facility.

3 CONTAMINATED WATER MANAGEMENT (30 TAC §330.207)

The Garland TS takes the steps necessary to control and prevent the discharge of contaminated water from the facility. All liquids resulting from the operation of the Garland TS is disposed of in a manner that will not cause surface water or groundwater pollution. Contaminated water generated by the TS will consist of wash water resulting from wash water applied to the unloading pit and transfer trailer loading tunnel and the stormwater that may be collected inside the loading tunnel. The stormwater entering the trailer loading tunnel is assumed to be contaminated. The collected contaminated water is directed to a collection sump equipped with a pump. The contaminated water collected in the sump is pumped into the existing City of Garland sanitary sewer system. This contaminated water does not interfere with the operation of the wastewater treatment plant. The Garland TS discharges their wash water to the City's sanitary sewer system in accordance with the City of Garland's Rowlett Creek Wastewater Treatment Works POTW requirements for discharging to sewer lines. There will be no off-site discharge of contaminated waters at the facility.

4 STORAGE REQUIREMENTS (30 TAC §330.209 AND 330.213)

4.1 Solid Waste Storage (§330.209(a))

All solid waste entering the TS is stored indoors. All solid waste will be stored in a manner to prevent fires, ensure safety, control vectors, and contained to prevent windblown solid waste and litter. The maximum amount of time waste is stored cannot exceed 72 hours, and waste storage can only occur in the TS building. The city's brush collection trucks containing brush may park overnight at the site if they arrive at the end of workdays (i.e., not enough time to deliver to the landfill).

4.2 Recycling and Convenience Center (§§330.209(b) and 330.213)

A recycling center is provided, which is separate from the TS building and operation. Citizen drop-off boxes may be provided for source-separated recyclable materials, large items/white goods, and tires within the recycling center. Odors, vectors, and windblown waste from the recycling center will be controlled as necessary. The Garland TS will provide a sufficient number of drop-off/compactor boxes and containers for the recycling center to effectively manage source separated commercial and residential recyclables. The recycling center is allowed to be used by residential and commercial customers delivering source-separated recyclables; however, waste haulers and any waste delivering vehicle are not allowed at the area. A sign will be displayed at the recycling center which states who may use it, what may or may not be accepted, and fees for disposal (if applicable). The City (or contract third party authorized recyclers) will remove the accumulated recyclables at the recycling and convenience center on a scheduled basis and provide supervision of the recycling center to prevent nuisance conditions from developing.

A citizens' collection station will be established within the permit boundary, separate from the TS building, for Garland residences use. Depending on the Garland residences use of the citizens' collection station, a sufficient number of drop-off and/or roll-off containers in varying sizes will be provided. Properly placed signs will be installed to direct the residences toward the citizens' collection station. The City will move waste collected at the citizens' collection station to the TS building on a daily basis to ensured continued operations. Odors, vectors, and windblown waste from the recycling center will be controlled and development of nuisance conditions will be prevented at the citizens' collection station.

The Garland TS may accept medical waste in accordance with Appendix IVA.

4.3 Approved Containers (§330.211)

All solid waste entering the TS is transferred from the tipping floor to the transfer trailers. Since the waste that is received by the Garland TS may contain food waste, the transfer trailers used by the TS are leakproof, durable, and designed for safe handling and easy cleaning. The transfer trailers are equipped with tarps to cover and close the trailer during transport. In addition, the trailers are designed to prevent spillage or leakage during storage, handling, or transport.

The transfer trailers are maintained in a clean condition. The transfer trailers are washed as necessary so that they do not constitute a nuisance and to prevent harborage, feeding, and propagation of vectors.

5 RECORDKEEPING AND REPORTING REQUIREMENTS (30 TAC §330.219)

5.1 Documents (§330.219(a))

The Garland TS will maintain the operating record for the facility on site. Consistent with Title 30 TAC §330.219(a), copies of documents that are part of the approved permitting process and are considered part of the operating record for the facility are listed in Table 5-1.

These documents will be made available for inspection by TCEQ representatives.

5.2 Analytical Data (§330.219(b))

The Garland TS, in accordance with Title 30 TAC §330.219(b), will promptly record and retain in the operating record any and all records for those items listed in Table 5-1.

5.3 Report Signatories (§330.219(c))

The owner/operator or an authorized representative of the City of Garland will sign all reports and other information requested by the executive director as described in Title 30 TAC §305.44(a). For a person to be an authorized representative of the Garland TS the authorization must: (1) be made in writing as described in Title 30 TAC §305.44(a), (2) specify either an individual or a position having responsibility for the overall operation of the Garland TS, and (3) submitted in writing to the executive director.

If an authorization is no longer accurate because of a change in individuals or position, a new authorization must be submitted to the executive director prior to or with any submittal to be signed by an authorized representative. Any person signing a report will make the certification included in Title 30 TAC §305.44(b).

5.4 Notification (§330.219(e))

The Garland TS, in accordance with Title 30 TAC §330.219(e), will furnish the operating record to the executive director upon request, and will be made available at all reasonable times at the facility for inspection by the executive director.

5.5 Record Retention (§330.219(f))

The Garland TS, in accordance with Title 30 TAC §330.219(f), will retain all information contained within the operating record of the facility and all plans required for the facility for the life of the facility.

5.6 Alternative Schedules (§330.219(g))

The executive director, in accordance with Title 30 TAC §330.219(g), may set alternative schedules for recordkeeping and notification requirements as specified in Title 30 TAC §330.219(a)-(e).

5.7 Personnel Training Records and Licenses

The Garland TS will maintain personnel training records. Personnel training requirements will be consistent with Section 8 - Personnel and Training of this Site Operating Plan. Personnel training records for current facility personnel will be maintained until closure of the facility. Records of former employees will be maintained for three years from the date the employee last worked at the facility. Records of the job title for each position at the Garland TS related to transfer operations, and the name of the employee filling each job will be maintained at the facility. Records for each employee will include name, job title, job description, introductory training, continuing training, and documentation of training. The facility will maintain operator licenses for municipal solid waste supervisors as required by 30 TAC Chapter 30, Subchapter F. Personnel training records and personnel operator licenses will be maintained in the operating record as listed in Table 5-1.

5.8 Annual Waste Acceptance Rate

As listed in Table 5-1, the facility will maintain records to document the annual waste acceptance rate for the facility. Documentation will include maintaining the quarterly solid waste summary reports and the annual solid waste summary reports required by Title 30 TAC §330.675 in the operating record.

Table 5-1
Records to be Maintained in the Site Operating Record

Records to be Maintained in the Site Operating Record	Frequency	Rule Citation
Municipal Solid Waste Disposal Permit No. 12A	Submittal of Permit Application	§330.219(a)
Approved permit application for MSW Permit No. 12A	Submittal of Permit Application	§330.219(a)
Site Operating Plan	Submittal of Permit Application	§330.219(a)
As-built set of construction plans and specifications	After completion of construction	§330.219(a)
Other required plans or related documents	As required	§330.219(a)
Location restriction demonstrations	Submittal of Permit Application	§330.219(b)(1)
Inspection records and training procedures	Per occurrence	§330.219(b)(2)
Closure plans and any monitoring, testing, or analytical data relating to closure requirements	As required	§330.219(b)(3)
Cost estimates and financial assurance documentation relating to closure	Annually	§330.219(b)(4)
Correspondence and responses relating to facility operation, permit modifications, approvals, and technical assistance	Per occurrence	§330.219(b)(5)
Special waste manifests, shipping documents, trip tickets, and all other documents relating to special waste	Per occurrence	§330.219(b)(6)
Other documents specified in the permit or by the executive director	As required	§330.219(b)(7)
Trip tickets as required by §312.145(b)(2)	Per occurrence (retained for 5 years)	§330.219(b)(8)
Dates, times, and durations of alternative operating hours (e.g., if not as stated in Section 7.4)	As required	§330.219(g) and §330.229(d)
Inspection records and training procedures relating to fire prevention and facility safety	As needed	§330.221(c)
Personnel training records and detailed job descriptions	As needed	§330.219(b)(2)
Records to document the annual waste acceptance rate include quarterly solid waste summary reports and annual solid waste summary reports	Quarterly and annually	§330.675
Load inspection records	Per occurrence	§330.225
Personnel operator licenses	As needed	§30.213
All facility inspection and maintenance documentation noted in Section 7.16 – Facility Inspection and Maintenance Schedule	As required	§§330.223-330.243
A record of each unauthorized material removal event	Per occurrence	§330.225
Documentation that all wastes leaving the facility are being adequately managed by other licensed or permitted facilities	As needed	§330.205(a)

6 FIRE PROTECTION PLAN (30 TAC §330.221)

6.1 Fire Prevention Procedures

The following steps will be taken regularly by designated TS personnel to prevent fires:

- Open burning of waste is prohibited.
- Burning waste from incoming waste loads will be prevented from being dumped in the active area of the TS. The TS attendant and equipment operators will be alert for signs of burning waste such as smoke, steam, or heat being released from incoming waste loads. The vehicle will be directed to an area outside the building and not adjacent to the building, where waste can be safely discharged and the fire extinguished. Upon extinguishing the fire, the waste will be immediately moved inside the TS building.
- Fuel spills will be contained and cleaned up immediately.
- Smoking is not allowed in the working areas of the TS. Smoking is confined to designated areas only, away from the active tipping areas, fuel stations, and other fire-sensitive areas. The "No Smoking" rule applies equally to facility patrons, Garland TS personnel, and visitors, and is rigidly enforced by all personnel.
- The facility will be equipped with fire extinguishers of a type, size, location, and number as recommended by the local fire department. Each fire extinguisher will be fully charged and ready for use at all times. Each extinguisher will be inspected on an annual basis and recharged as necessary. These inspections will be performed by a qualified service company, and all extinguishers will display a current inspection tag. Inspection and recharging will be performed following each use. At a minimum, all TS equipment is equipped with fire extinguishers, and two fire extinguishers are mounted on the interior walls of the TS building.
- An adequate supply of water under pressure is available for firefighting purposes. Two hose bibbs are located along the wall of the tipping floor which is where the wash-down hoses are connected. In addition, a fire hydrant is located on the TS property.

- A minimum separating distance of 50 feet is maintained between solid waste processing activities and the boundary of the facility to allow for firefighting and other emergency vehicles.

6.1 General Rules for Fires

The following rules will be implemented in the event of a fire at the Garland TS:

- Contact the City of Garland Fire Department by calling 911 or (972) 781-7100.
- Immediately contact the TS supervisor.
- Equipment operators will be equipped with two-way radios or cell phones.
- Alert other facility personnel.
- Assess extent of fire, possibilities for the fire to spread, and alternatives for extinguishing the fire.
- If it appears that the fire can be safely fought with available firefighting devices until arrival of the Fire Department, attempt to contain or extinguish the fire.
- Upon arrival of Fire Department personnel, direct them to the fire and provide assistance as appropriate.
- Do not attempt to fight the fire alone.
- Do not attempt to fight the fire without adequate personal protective equipment.
- Be familiar with the use and limitations of firefighting equipment available onsite.
- Firefighting methods include separating burning material from other waste and spraying with water from the large wash-down hoses. If detected soon enough, a small fire may be fought with a hand-held fire extinguisher. A fire extinguisher will be located in the TS building and on each piece of equipment. Under this circumstance, the fire area should be watered or otherwise controlled to ensure that the fire is out.

6.2 Specific Fire-Fighting Procedures

The following procedures will be followed in the event of a fire:

- If a fire occurs on a vehicle or piece of equipment, the equipment operator should bring the vehicle or equipment to a safe stop. If safety of personnel will allow, the vehicle must be parked outside of the facility away from fuel supplies, solid wastes, and other vehicles. The engine should be shut off and the brake engaged or other methods to prevent movement of the vehicle or piece of equipment. Fire extinguishers should be used to extinguish fire, if possible, without risk to equipment operator.

- If a fire is on the tipping floor, the burning area should be isolated and pushed away from the other waste quickly. The burning area should be sprayed with water from the large wash-down hoses or if small enough extinguished with a hand-held fire extinguisher.
- If burning waste materials are discovered after having been unloaded at the TS, the load will be extinguished with water or by fire extinguisher, as appropriate. The extinguished materials will then be transported into the TS and loaded into transfer trailers.
- If a fire occurs at or near the recycling and convenience center (i.e., roll-off bins for tires, roll-offs for source separated recyclable materials, white goods/metal recyclable area) fire extinguishers or water from the large wash-down hoses should be used to extinguish the fire.
- Use the fire extinguishers located in the TS or the large wash-down hoses to extinguish a fire, as appropriate.
- The TS water supply for fighting fires is connected to the City of Garland public water supply system. The City of Garland provides an adequate supply of water under pressure for firefighting purposes.

6.3 Fire Protection Training

All TS personnel will be trained in the contents of Section 6 – Fire Protection Plan. Training will be conducted annually. The following topics will be addressed:

- Fire Prevention
- Fire Safety
- Fire Fighting Procedures

6.4 TCEQ Notification

The Garland TS will make every reasonable effort to contact the TCEQ regional office immediately upon detection of a fire if the fire is not extinguished within ten minutes of detection. At a minimum, the TCEQ regional office will be contacted within no more than four hours by phone and in writing within 14 days. The notification will include a description of the fire and resulting response.

7 OPERATIONAL PROCEDURES (30 TAC §330.223 THROUGH §330.249)

7.1 Access Control (§330.223)

The TS building is located in a large City-owned complex with other City operations and facilities. The entrance to the TS is accessed through a gated facility entrance located on Commerce Street. The entire City complex is fenced to prevent unauthorized public access.

7.1.1 Facility Security

Facility security measures are designed to prevent unauthorized persons from entering the facility, to protect the facility and its equipment from possible damage caused by trespassers, and to prevent disruption of facility operations caused by unauthorized facility entry.

Unauthorized entry into the site is minimized by controlling access to the TS with the perimeter fence and gate at the entrance.

The operating area of the TS is located within an enclosed facility. At the end of each working day the TS building is secured. In addition, the facility is lighted for safety and security reasons. Entrance to the facility is monitored by the TS attendant(s) during facility operating hours.

Entry to the TS will be restricted to designated personnel, approved waste haulers, citizens of Garland, others authorized by the City to use the TS, TCEQ personnel, and properly identified persons whose entry is authorized by facility management. During facility operating hours, facility personnel in the vicinity of the operations area and the entrance look for unauthorized persons. Visitors may be allowed in the TS only when accompanied by a facility representative.

The facility will comply with the following schedule and notification requirements for any access breach:

Requirements	Access Breach (Repaired Within 8 Hours)	Access Breach (Not Permanently Repaired Within 8 Hours)
Notify region office of breach and repair schedule.	Not Required	Within 24 hours
Make temporary repairs.	Not Required	Within 24 hours
Make permanent repairs.	Within 8 Hours	Within schedule submitted to regional office in initial notice
Notify regional office when permanent repair completed.	Not Required	Within schedule submitted to regional office in initial notice

7.1.2 Traffic Control

Access to the TS will be provided via the two-lane paved entrance road from Commerce Street. A Traffic Study is included in Parts I/II, Appendix I/IIA, which provides a detailed analysis that demonstrates the adequacy of the area access roads. Commerce Street is a two-lane concrete/asphalt-paved, City-managed road capable of supporting TS truck traffic. The facility access road has been designed for the traffic flow experienced by the Garland TS. Signs will be located along the entrance road directing traffic to the TS. The TS attendant (or other personnel as assigned by the TS supervisor) will restrict facility access to authorized vehicles and direct these vehicles appropriately. Vehicle parking for employees and visitors is provided within or adjacent to the permit boundary on a property controlled by the City.

Solid waste collection vehicles will be directed to the processing area by signs located along the entrance road. These vehicles will deposit their loads at the TS and depart the site. Transfer trucks will be directed to the waste hopper. The waste hoppers are equipped with safety bumpers to prevent damage to vehicles and equipment. Citizen's vehicles will be directed as appropriate by signs located along the entrance road. Site personnel will provide traffic directions as necessary to facilitate safe movement of vehicles.

Within the facility, signs will be placed along the entrance road at a frequency adequate to guide users to the proper TS areas and which roads are to be used. Roads not being used for access will be blocked or otherwise marked for no entry. Adequate turning radii for the vehicles utilizing the facility has been provided to maintain normal traffic flow.

7.2 Unloading of Waste (§330.225)

The Garland TS is authorized to receive municipal solid waste and the wastes specified in Section 2.1. The categories of wastes that are prohibited at this site by state and federal regulations are discussed in Section 2.1 of this SOP.

Trained personnel will monitor the incoming waste on the trucks at the unloading area. These personnel will be familiar with the rules and regulations governing the various types of waste that can or cannot be accepted into this facility, including knowledge of Title 30 TAC §330.171 and Title 30 TAC §330.173. The personnel will also have a basic understanding of both industrial and hazardous waste and their transportation and disposal requirements. Trained personnel at the tipping floor will be on-duty during waste acceptance hours to observe waste unloading.

Trained personnel at the tipping floor will have the authority and responsibility to reject loads which contain prohibited wastes. The personnel will also have the authority to have prohibited waste removed by the waste haul vehicle or transporter, immediately upon discovery. Trained personnel at the tipping floor will immediately notify the TS supervisor or designee of suspected prohibited waste. The facility manager will direct TS personnel to remove or manage prohibited waste appropriately. The TS supervisor may assess appropriate surcharges to the waste hauler, transporter, or generator.

Any prohibited waste that is not discovered by the operators until after it is unloaded will be returned to the vehicle that delivered the waste. That party will be responsible for the proper disposal of this rejected waste. In the event the unauthorized waste is not discovered until after the vehicle that delivered it is gone, the waste will be segregated and controlled as necessary. An effort will first be made to identify the entity that deposited the prohibited waste and have them return to the facility and properly dispose of the waste. In the event that identification is not possible, the Garland TS will notify the TCEQ and seek guidance on how to dispose of the waste.

The unloading of solid waste in unauthorized areas is prohibited. Solid waste unloading will be controlled to prevent disposal in locations other than those specified by facility management. Random load inspections will be conducted as outlined in Section 7.2.1 of this SOP. Any waste deposited in an unauthorized area will be promptly removed and placed on the tipping floor. Control will also be used to confine the working area to a minimum width consistent with the rate of incoming waste, while allowing for safe and efficient operation.

Signs with directional arrows and portable traffic barricades will help to restrict traffic to the designated unloading location. Signs will be placed along the entrance road to the unloading area. In addition, rules for waste unloading and prohibited waste will be prominently displayed on signs at the site entrance.

7.2.1 Load Inspection Procedure

A properly trained qualified facility staff person will visually inspect incoming waste loads. Should any indication of prohibited waste be detected, appropriate TS personnel will stop unloading of the vehicle to allow facility personnel to conduct a thorough evaluation of the load. The driver will be directed to a load inspection area of the tipping floor separated from other incoming waste, where the load will be discharged from the vehicle. The load inspector will break up the waste pile and inspect the material for any prohibited waste. Known prohibited waste will be placed back into the vehicle and the driver will be instructed to depart the facility. Should any regulated hazardous waste be detected, the entire load will be refused.

In addition to the above procedure, incoming loads will be inspected on a random basis. The TS supervisor will be responsible for determining the random load inspection schedule. The driver of the randomly selected load will be notified and instructed to proceed as above to a load inspection area.

The TS supervisor will maintain and include in the operating record the load inspection reports for randomly inspected loads. Load inspection reports, recorded on standardized forms, will be completed for each inspected load. The reports will include at a minimum, the date and time of inspection, the name and address of the hauling company and driver, the type of vehicle, the size and source of the load, contents of the load, indicators of prohibited waste, and results of the inspection. A copy of the load inspection report form is included in Appendix IVA of this SOP.

7.3 Spill Prevention and Control (§330.227)

The transfer station building has been designed to control and contain spills and contaminated water. Any spill that would occur on the tipping floor will flow into the unloading pit. Contaminated water generated by the Garland TS will consist of wash water resulting from wash water applied to the unloading pit and the transfer trailer loading tunnel. This wash water is collected in the lift station and pumped to the City of Garland sanitary sewer system. The facility has been designed sufficient to control and contain a worst-case spill within the TS.

7.4 Operating Hours (§330.229)

The Garland TS is authorized for waste acceptance from 7:00 am to 7:00 pm Monday through Saturday. The TS is closed on Sunday. There is no hourly limitation on conducting waste acceptance or other activities within the waste acceptance hours. The Garland TS is authorized for facility operations from 5:00 am to 9:00 pm Monday through Saturday. Facility operations include non-waste acceptance operations. Actual public waste acceptance hours between 7:00 am to 7:00 pm are posted on the site sign.

7.5 Facility Sign (§330.231)

A sign will be conspicuously displayed at the gated entrance to the Garland TS. This sign will measure at least 4 feet by 4 feet and have lettering of at least 3 inches in height. The sign will state the name of the facility, type of facility, actual hours and days of operation (within the hours and days listed in Section 7.4), the TCEQ permit number, and the local emergency fire department number (e.g., 911). The sign will be readable from the facility entrance.

Signs which include the Garland TS rules will also be posted. This includes signs prohibiting receipt of prohibited wastes including hazardous waste and PCB waste, closed drums, and smoking loads will be posted at the TS building. These signs will also be conspicuously displayed at the gated entrance, will measure at least 4 feet by 4 feet, and have lettering of at least 3 inches in height.

7.6 Control of Windblown Material and Litter (§330.233)

Windblown material and litter will be collected and properly managed to control unhealthy, unsafe, or unsightly conditions by the following methods:

- Waste transportation vehicles using this facility will be encouraged to be enclosed or to use adequate covers such as a tarp, net or other means to effectively secure the load consistent with Title 30 TAC §330.235 and Section 7.7. The adequacy of covers or other means to secure incoming wastes will be checked at the facility entrance. A sign will be prominently displayed at the facility entrance stating that all loads will be properly covered.
- Windblown material and litter along the entrance road and public roads used for accessing the TS (refer to Section 7.7), that has accumulated along fences and the property boundary, and throughout the TS will be collected once a day during facility operations and returned to the tipping floor for transfer.
- This is an enclosed TS and unloading of wastes is performed within the building to control windblown material and litter. The TS will provide litter control devices, as necessary, at appropriate locations near the tipping floor and elsewhere. The litter control devices will be constructed of appropriate materials for the control of windblown material and litter.

7.7 Materials Along the Route to the Facility (§330.235)

The Garland TS will take steps to encourage that vehicles hauling waste to the facility are enclosed or are provided with a tarpaulin, net, or other means to properly secure the load. These steps are necessary to prevent the escape of any part of the load by blowing or spilling. The TS will take actions such as posting signs at the entrance gate notifying haulers of this requirement and enforcement measures, including reporting offenders to proper law enforcement and adding surcharges. The Garland TS will provide for the cleanup of waste materials spilled along and within the right-of-way of Commerce Street, Centerville Road, and State Highway 66 for a distance of 2 miles in either direction from the entrance. Cleanup for the spilled materials will be performed once per day on days when the facility is in operation. The Garland TS will consult with TxDOT, county, and/or local government officials concerning cleanup of roads and right-of-ways consistent with Title 30 TAC §330.235.

7.8 Facility Access Roads (§§330.223(b) and 330.237)

The entrance road provides access from Commerce Street to the Garland TS for waste hauling vehicles, operating personnel, and visitors. The entrance road is surfaced with an all-weather surface. The entrance road is completely constructed of asphalt pavement from the Commerce Street connection. Other internal roads may be constructed with a crushed-stone surface or other suitable material. The all-weather surface entrance, access and internal roads will provide mud control for the waste hauling vehicles prior to exiting the facility and returning to public access roads. It is not anticipated that mud or other debris will be tracked onto Commerce Street given its all-weather surface. Should mud or other associated debris be tracked onto a public roadway, the material will be removed on days when these materials can be reasonably associated with TS operations. The onsite access roads will be maintained in a reasonably dust-free condition by periodic water spraying from the large wash-down hoses. Water spraying will be initiated when conditions warrant water spraying. The entrance, access, and internal roads will be maintained in a clean and safe condition. Grading equipment will be used as needed to regrade the facility access roads to minimize depressions, ruts, and potholes.

7.9 Noise Pollution and Visual Screening (§330.239)

Since transfer activities will be completely enclosed, generated noise is generally confined to the TS site. The TS is an enclosed facility. Waste transfer operations are screened from the public. In addition, the Garland TS is located within a mainly commercial area of Dallas County.

7.10 Overloading and Breakdown (§330.241)

The Garland TS will not accumulate solid waste in quantities that cannot be processed within such time as will preclude the creation of odors, insect breeding, or harborage of vectors. The waste volume received will be processed and transferred on the day it is received. The maximum time waste material will be stored in the TS will not exceed 72 hours. If such accumulations occur, additional waste materials will not be received until the adverse conditions are abated.

If a significant work stoppage should occur at the Garland TS due to a mechanical breakdown or other causes, the facility will restrict the receiving of solid waste and direct incoming solid waste to the Hinton Landfill. If waste material is located in the facility when the TS becomes inoperable, the waste material will be removed within 72 hours and hauled to Hinton Landfill or other permitted MSW disposal facility.

If the TS operation becomes inoperable for a period greater than 24 hours, all collection vehicles and private individual's vehicles will be directed to proceed directly to the Hinton Landfill to deposit solid waste at that location.

7.11 Sanitation (§330.243)

The tipping floor is swept into the unloading pit as needed. There will be no surface runoff onto or off of the operations areas of the TS as all waste transfer operations occur within the enclosed building. The tipping floor is completely enclosed, swept as needed, and collection drains are provided to remove wash water used in the unloading pit and the transfer trailer loading tunnel. Connection to the City of Garland's water delivery system provides for cleaning of the facility. Wash water is directed to the City of Garland's sanitary sewer system and conveyed to the City of Garland POTW for disposal.

7.12 Ventilation and Air Pollution Control (§330.245)

Ventilation in the TS building is provided by the open doors through which collection vehicles will enter and exit and exhaust fans, which are installed on the building walls. These provisions provide for operator safety and odor control inside the building.

The TS will be operated in such a manner that will not cause or contribute to a condition of air pollution as defined in the Texas Clean Air Act.

The TS meets the requirements for coverage under the Permit by Rule for air pollution control as set forth in Title 30 TAC §106.534. Documentation that the TS meets the requirements of Title 30 TAC §106.534 is maintained in the TS's site operating record.

The TS is designed and operated to provide adequate ventilation for odor control and employee safety. The City will prevent nuisance odors from leaving the boundary of the TS. If nuisance odors are found to be passing the TS boundary, the City will immediately take action to abate the nuisance by employing one or all of the following measures:

- additional on-site buffer zones for odor control;
- alternative ventilation and odor control measures such as aqueous or nonaqueous air neutralizer systems; and/or
- additional waste handling procedures, storage procedures, and cleanup procedures for odor control.

Process areas that contain putrescibles will be maintained completely within the TS.

The site is graded to prevent ponded water at the facility; however, in the event ponded water occurs at the facility, it will be eliminated and the area in which the ponding occurred will be filled in and regraded within 7 days, weather permitting, of the occurrence.

7.12.1 Odor Management Plan

The Garland TS is located in Dallas County within the city limits of the City of Garland. The land use within one mile of the TS is mainly commercial, residential, and agricultural.

The Garland TS will manage odors associated with waste acceptance and processing operations consistent with this section. This section addresses sources of odors and includes general instructions to control odors or sources of odors.

Measures to control odors and sources of odors may include, but are not limited to, the following items:

- Open burning of waste will not be permitted at this facility.
- Unloading of wastes directly to the unloading pit will be consistent with procedures established in Section 7.2 Unloading of Wastes.
- Spills of these wastes will be managed by collecting and transporting these wastes to the tipping floor for prompt processing.
- Incoming waste will be promptly loaded into transfer trucks and hauled to a landfill for disposal.
- Transfer trailers will meet the requirements of Section 4.3.

- Waste received at the TS will be transported to the Hinton Landfill or other properly permitted MSW landfill for disposal as soon as practical, with storage at the TS not to exceed 72 hours.

7.13 Health and Safety (§330.247)

Facility personnel will be trained in accordance with Section 8.3 – Training.

7.14 Employee Sanitation Facilities (§330.249)

Potable water and sanitary facilities are provided for all employees and visitors on the TS property at the TS building.

7.15 Vector Control

The need for extensive vector control (control of rodents, birds, flies, and mosquitoes) is minimized through proper site operation and maintenance. If vector problems develop, requiring control beyond the measures that can be implemented by the TS personnel, pesticides and/or rodenticides will be used. Pesticides and/or rodenticides will be applied by a licensed professional.

7.16 Facility Inspection and Maintenance Schedule

Item	Task	Frequency	Inspector	Type of Inspection
Fence/Gate	Inspect perimeter fence and gate for damage, gaps, intrusions and the like. Make repairs if necessary.	Monthly	TS Supervisor or Designee	Document in the Operating Record
Windblown Waste	Police working area, entrance road, and perimeter fence for loose trash. Clean up as necessary.	Daily	TS Supervisor or Designee	Document in the Operating Record
Materials Along the Route to the Facility	Police the entrance area and all roads for a distance of 2 miles in either direction from the entrance for loose trash. Clean up as necessary.	Daily	TS Supervisor or Designee	Document in the Operating Record
Facility Access Roads	Inspect facility access road for damage from vehicle traffic, erosion, or excessive mud accumulation. Maintain as needed with crushed rock or stone.	Weekly, more often during wet weather or extended dry weather periods	TS Supervisor or Designee	Document in the Operating Record
Wash Water	Monitor sand/grip trap and sanitary sewer connection to ensure functioning as designed.	Monthly	TS Supervisor or Designee	Document in the Operating Record

8 PERSONNEL AND TRAINING

8.1 Personnel

The Garland TS will be staffed with qualified individuals experienced with municipal solid waste processing operations. The City of Garland is responsible for the day-to-day operations of the Garland TS. See Figure 8.1 – Organizational Chart for the personnel organization. Refer to Table 8-1 for a summary of job descriptions, minimum qualifications, and required training for TS personnel. A minimum of one employee in each position will be provided to ensure proper operation of the facility.

The City Manager, Deputy City Manager, Managing Director, and Sanitation Director are responsible for the administrative oversight of the facility.

The TS Supervisor is responsible for facility management and assuring that adequate personnel and equipment are available to provide facility operation in accordance with TCEQ regulations. The TS Supervisor is responsible for daily operations and serves as the emergency coordinator. The TS Supervisor, at a minimum, will have a high school diploma or equivalent, experience in municipal solid waste processing operations, and obtain and maintain a license as a municipal solid waste facility supervisor consistent with the requirements of Chapter 30, Subchapter F.

The TS Supervisor is responsible for environmental review, permitting, compliance and reporting; and is responsible for environmental oversight of TS operations. The TS Supervisor is also responsible for maintaining the operating record and required logs. The TS Supervisor oversees the accounts and administrative associates (TS attendants) and is in charge of the compliance records management.

The customer service representatives (TS attendant(s)), stationed at the scales and entrance to the TS, are primarily responsible for maintaining complete and accurate records of vehicles and solid waste entering the facility. The TS attendant(s) will be trained in site safety procedures, to visually check for unauthorized wastes, to weigh vehicles, measure waste volumes if necessary, and to collect waste disposal fees. The TS attendant(s) will be present all hours the Garland TS is open to the public. The TS attendant(s), at a minimum, will have a basic understanding of accounting principles, and basic communication skills.

Equipment operators (and lead operator if employed) are responsible for the safe operation of the equipment. As the personnel most closely involved with the actual

TS operation, these employees are responsible for being alert for potentially dangerous conditions, or careless and improper actions on the part of non-employees and other persons while on the premises. Equipment operators monitor and direct unloading vehicles and are also responsible for maintenance, construction, litter abatement, and general site cleanup. The equipment operators will intervene as necessary to prevent accidents and report unsafe conditions immediately to the TS supervisor. Equipment operators, as a minimum, must be experienced in the operation of heavy equipment, and demonstrate the ability to be trained in municipal solid waste processing operations. Equipment operators will have a minimum of six months experience in heavy equipment operation or on the job training by the lead operator.

Other site personnel or laborer(s) may be employed from time to time in categories such as maintenance, construction, litter abatement, and general site cleanup. Site personnel may be permanent or part-time.

8.2 General Instructions

The Garland TS personnel should have a basic understanding of the contents of this SOP. The TS supervisor should have a basic knowledge of the approved permit. Garland TS personnel will follow the general instructions provided in the Site Operating Plan and approved permit. Refer to Section 7.16 – Facility Inspection and Maintenance Schedule for a listing of general tasks and procedures required.

The City may employ day laborers as needed to ensure continued transfer operations as well as to conduct necessary functions to ensure the facility's compliance with applicable rules and regulations. Other city personnel may be officed in the City of Garland Sanitation Department Office (Scalehouse Building). However, they may be subject to separate training, record keeping, safety, etc. requirements as required by the City, and their records are not part of the TS related record keeping requirements. The TS supervisor will ensure that City employees officed at the building will not interfere with TS operations or compromise the facility's compliance with permit conditions. Record keeping requirements in this Site Operating Plan are applicable to the TS supervisor and the TS personnel under the supervision of the TS supervisor. The laborers are subject to the training requirements listed in Table 8-1 for laborers.

8.3 Training

The Garland TS personnel will receive training through a combination of classroom instruction and on-the-job training. Training requirements are also included in Table 8-1, Site Personnel Summary. The training program will provide instruction to personnel to allow performance of their duties to ensure facility compliance.

Training will be conducted by the City of Garland or consultants that are experienced and trained in municipal solid waste processing procedures. The facility personnel will be trained in procedures relevant to the position for which they are employed. Training will address the following topics:

- Site Operating Plan
- Facility emergency monitoring equipment and plans
- Emergency response including communication and alarm systems
- Health and safety
- Fire Protection Plan
- Litter control and windblown waste pick-up
- Customer notification and load inspection procedures
- Identification of prohibited wastes including hazardous wastes and PCB wastes
- Waste handling procedures (acceptable and prohibited wastes)
- Equipment operation and maintenance
- Recordkeeping

The Garland TS personnel must successfully complete the in-house training programs required by both this Site Operating Plan and the City of Garland training requirements. The in-house training program consists of training and safety meetings conducted at least once per month. The topics addressed are the topics identified as part of the training program above. Personnel will be trained on topics relevant to their position. On-going regular training and safety meetings are scheduled monthly. Should a monthly meeting be cancelled, it will be rescheduled or combined with the next regular meeting. Documentation of training will be placed in the operating record as required by Section 5 - Recordkeeping and Reporting Requirements.

The TS supervisor, lead operator, equipment operators, TS attendant(s) and other personnel will receive training at TCEQ-sponsored or approved training courses, as deemed appropriate by facility management. Other qualified TCEQ or other consultants may also provide training as appropriate. The Garland TS will maintain personnel operator licenses issued consistent with 30 TAC Chapter 30, Subchapter F: Municipal Solid Waste Facility Supervisors.

New employees will receive a comprehensive overview of all aspects of TS operations with the focus on information that is necessary to protect the health and welfare of new employees and enable them to perform their duties in accordance with the Site Operating Plan and operational standards required by both the permit and TCEQ regulations. New employees will be subject to training requirements (initial and periodic) included in this Site Operating Plan.

Figure 8.1
Organizational Chart

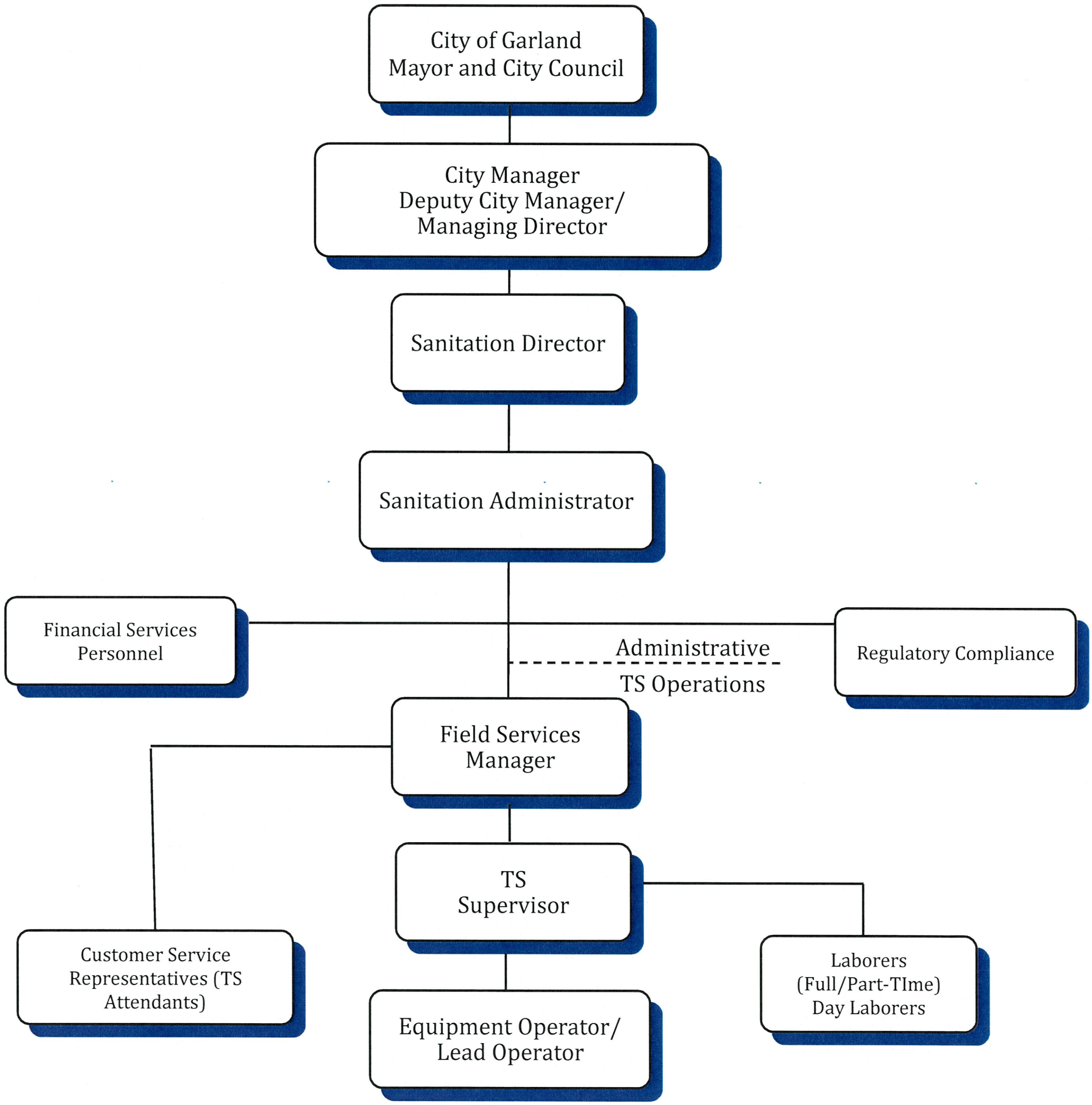

Table 8-1
Facility Personnel Summary(1)

Position	Summary of Job Description	Minimum Qualifications	Required Training
TS Supervisor	The TS supervisor is responsible for: • Daily operations and serving as the emergency coordinator • Overall facility management • Assuring adequate personnel and equipment are available to provide facility operation in accordance with TCEQ regulations • Directing the lead operator and equipment operators on a daily basis regarding waste processing operations • Delegating work and responsibilities to staff members as he/she deems necessary to conduct day-to-day operations at the facility • Personnel safety during waste processing operations • Environmental oversight • Maintaining the site operating record • Other tasks as required by the City	• Experience in municipal solid waste processing operations • High school diploma or equivalent • Obtain and maintain a license consistent with §§30.201, 30.207, 30.210, and 30.212	• Facility Orientation • Facility Operations • Hazardous Waste Identification • Safety • Fire Prevention • Load and Random Inspections • Prohibited Wastes • Emergency Response • Litter Control
Customer Service Representatives (TS Attendants)	The TS attendants are responsible for: • Stationed at the scale or facility entrance • Maintaining complete and accurate records of vehicles and solid waste entering the facility • Visually checking for unauthorized wastes • Weighing vehicles or measuring waste volumes (if necessary) • Collecting waste disposal fees (if necessary) • Directing vehicles to the proper unloading location • Providing general customer direction and information • Reviewing manifests and other shipping documents • Reviewing and confirming waste acceptance related documents • Other tasks as required by the TS supervisor	• Basic understanding of accounting principles • Basic communication skills	• Facility Orientation • Hazardous Waste Identification • Safety • Fire Prevention • Load and Random Inspections • Prohibited Wastes • Emergency Response

Table 8-1 (Continued)
Facility Personnel Summary[1]

Position	Summary of Job Description	Minimum Qualifications	Required Training
Lead Operator and Equipment Operators	The lead operator and equipment operators are responsible for: • The safe operation of equipment • Being alert for potentially dangerous conditions, or careless and improper actions on the part of non-employees and other persons while on the premises • Monitoring and directing unloading vehicles • Performing random load inspections and visually checking for unauthorized waste • Maintenance, litter abatement, and general facility cleanup • Intervening as necessary to prevent accidents and report unsafe conditions immediately to the TS supervisor • Other tasks as required by the TS supervisor or lead operator	• Experience in heavy equipment operation either a minimum of six months experience or on the job training by the lead operator • Ability to be trained in municipal solid waste processing operations	• Facility Orientation • Hazardous Waste Identification • Safety • Fire Prevention • Load and Random Inspections • Prohibited Wastes • Emergency Response
Laborers	The laborers are responsible for: • Collecting litter • Directing vehicles at the tipping floor • Other tasks as needed including but not limited to maintenance, construction, litter abatement, and general site cleanup	• Ability to be trained in completing the assigned tasks	• Facility Orientation • Safety • Fire Prevention • Emergency Response • Litter Control

[1] More detailed job descriptions along with written descriptions of the type and amount of introductory and continued training provided to each employee will be maintained in the operating record.

9 GENERAL INSTRUCTIONS

9.1 General Facility Safety

Facility safety will be promoted by properly trained personnel using well-maintained equipment to perform standard work procedures. Facility safety will be enhanced by limiting access to the working areas to only authorized personnel. In the event of an emergency, planned emergency response procedures will be followed.

All facility personnel will receive facility-specific training consisting of the following:

- Safe work practices
- Nature of anticipated hazards
- Equipment and vehicle safety
- Facility access controls
- Hazardous material identification and communication
- Fire safety
- Emergency response
- Employee rights and responsibilities

Well-maintained equipment is vital to the safe conduct of daily transfer operations. Therefore, all facility equipment will be maintained in proper working order and all safety guards, backup alarms, and engine kill switches will be operational. Equipment operators will perform an equipment check at the beginning of each workday. Problems will be reported to the TS supervisor. Fire extinguishers and first aid kits will be inspected monthly.

Access to the facility will be limited to authorized personnel as described in Section 7 of this SOP. Access is controlled by a combination of signs and physical barriers. Facility personnel are responsible to be alert for the entrance of unauthorized personnel or the entrance of authorized personnel into prohibited areas.

In the event of an emergency, facility personnel will assess the situation, notify the TS supervisor or designated supervisor, and take appropriate actions such as rendering aid, calling for assistance, or closing access to the emergency scene.

Emergency numbers will be posted beside the telephone in the facility office and scalehouse.

These include:

Office	Phone
Ambulance	911
Garland Fire Dept.	911 or (972) 781-7100
Garland Police Dept.	911 or (972) 485-4840
Dallas Co. Sheriff's Office	911 or (214) 749-8641

9.2 Preparedness and Prevention Measures

Preparedness and prevention measures have been developed to minimize both frequency and severity of accidents and emergency situations threatening human health. Preparedness and prevention measures depend largely on the attentiveness and state of readiness of facility personnel. Preparedness and prevention measures have been developed for one general category and three specific areas of the facility: the TS building, the facility entrance road, and the scalehouse (co-located with the City of Garland Sanitation Department Office). These preparedness and prevention measures are detailed in the following sections.

9.2.1 General

General preparedness and prevention measures that will be followed are:

- Employee breaks or rest periods will be provided to minimize fatigue, improve alertness, and thereby reduce accident potential.
- Access controls will provide for the safety of non-transfer operations personnel.
- Routine preventive maintenance of equipment will be provided.
- Facility inspections of the working areas will be performed by a management representative.
- Appropriate personnel safety equipment will be kept onsite and maintained in good repair.
- Adequate turning area for hauling vehicles will be provided.
- Scavenging will not be allowed, and individuals are required to stay close to their vehicles for their own protection.
- Waste unloading will be restricted to designated areas only.
- Site personnel will be alert for possible prohibited wastes.

- Nonapproved wastes will be controlled or contained and removed as necessary.

9.2.2 TS Building

Preventative measures that will be followed in the TS building include the following:

- Visually screen incoming waste loads for unauthorized wastes.
- Individuals are required to stay close to their vehicles for their own protection.
- Visually observe incoming vehicles for evidence of improper operation, faulty equipment, or other conditions that could be hazardous to personnel or others.
- Maintain access to appropriate emergency equipment and first-aid materials.
- Provide emergency telephone numbers that are conspicuously posted in the TS building.
- A "No Smoking" rule is enforced.
- Emergency fire-fighting equipment is provided in or on equipment.

9.2.3 Facility Entrance Road

Preventative measures for the facility entrance road include the following:

- Display speed limit, directional, and other precautionary signs.
- Roadways are one-way to expedite traffic flow.
- Maintain roadway free from obstructions.
- Enforce requirements for safe operation of vehicles onsite.

9.2.4 Scalehouse

Preventative measures that will be followed in the scalehouse include the following:

- Visually screen incoming waste loads for unauthorized wastes. Customers at the scalehouse are served via a service window; therefore, camera(s) may be installed to monitor incoming vehicles.
- Monitor to see that waste loads are adequately covered, or otherwise protected or contained.
- Visually observe incoming vehicles for evidence of improper operation, faulty equipment, or other conditions that could be hazardous to personnel or others.

- Maintain access to appropriate emergency equipment and first-aid materials.
- Provide emergency telephone numbers that are conspicuously posted in the scalehouse.
- Display signs warning transporters that wastes including regulated hazardous wastes and nonallowable special wastes are prohibited.
- Ask self-haulers what type of waste they have brought for disposal.

10 EQUIPMENT

Sufficient equipment will be provided to conduct site operations in accordance with the design, SOP, and waste acceptance rates.

The following list of equipment is expected to be routinely available for use at the facility. Equipment requirements may vary in accordance with the waste acceptance rate at any given time. Additional equipment will be provided as required for increasing volumes of incoming solid waste and for the processing of recyclable materials. In case of breakdowns, backup equipment is available from the City of Garland Street Department. Other equivalent types of equipment by other manufacturers may be substituted on an as-needed basis.

Table 10-1
Facility Equipment List

Equipment	Typical Size(1)	Number(2)	Function
Dozer/ Truck Loader	Various makes and types	1	Moving materials
Skid Steer Loader(3)	Various makes and types	1	Moving materials
Open-top, Tarpable, Transfer Trailers	Minimum 80 yd^3	2	Hauling waste off-site for landfilling
Stationary Grapple	2 yd^3	1	Load waste to transfer trailers
Drop-off Boxes and Containers	Up to 40 yd^3	4	Store materials collected at the recycling and convenience center prior to hauling off-site

1 Types and equipment manufacturers will vary based on operational needs.
2 The number stated for each piece of equipment is the minimum number for each piece of equipment to be provided.
3 The skid steer loader is provided at the Garland TS for convenience and is not necessary for operation. The skid steer loader may not be available at the facility at all times.

APPENDIX IVA

SPECIAL WASTE ACCEPTANCE PLAN

CITY OF GARLAND TRANSFER STATION FACILITY
GARLAND, DALLAS COUNTY, TEXAS

MAJOR PERMIT AMENDMENT APPLICATION

SITE OPERATING PLAN

APPENDIX IVA
SPECIAL WASTE ACCEPTANCE PLAN

Prepared for

City of Garland

June 2022

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

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WCG Project No. 0647-03-11-11

This document is issued for permitting purposes only.

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STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

06/30/2022

1 INTRODUCTION

This Special Waste Acceptance Plan (SWAP) outlines the acceptance requirements and review and approval process that will be used to accept special waste, as defined by the Texas Commission on Environmental Quality (TCEQ) for transfer at the City of Garland Transfer Station Facility (Garland TS). The operator of the transfer station is the City of Garland.

The TCEQ solid waste regulations define a special waste as "any solid waste or combination of solid wastes that because of its quantity, concentration, physical, or chemical characteristics, or biological properties requires special handling and disposal to protect the human health or the environment."

This plan has been developed per Title 30 TAC §330.203(a) which requires special waste to be identified as part of the MSW application. Only those special wastes specifically listed below will be accepted at this facility without prior written approval from the Executive Director. Any requests for approval of special waste will be in accordance with Title 30 Texas Administrative Code (TAC) §330.171(b). The following special wastes may be accepted at this facility.

- Dead animals and slaughterhouse waste that are incidental to routine collection of municipal solid waste and that can be systematically processed along with other solid waste.
- Dead animal carcasses and dead animal contaminated waste from the City of Garland Animal Services Department.
- Drugs, contaminated foods, or contaminated beverages, other than those contained in normal household waste.
- Empty containers which have been used for pesticides, herbicides, fungicides or rodenticides will be accepted for disposal provided the containers have been triple rinsed, crushed or rendered unusable upon receipt at the gate.
- Incidental amounts of non-regulated asbestos-containing materials (NRACM). The incidental amount is defined as the maximum of 10 percent of the waste received on an annual basis by scale weight (annual basis is defined as the latest 4 consecutive quarters).
- Waste from oil, gas, and geothermal activities subject to regulation by the Railroad Commission of Texas when those wastes are to be processed, treated, or disposed of at a solid waste management facility. Only those

wastes authorized for disposal at a solid waste management facility will be accepted.

- used motor oil and cooking oil (separately collected and recycled);
- lithium ion batteries (separately collected and recycled);
- used-oil filters from internal combustion engines (separately collected and recycled) and;
- Waste other than as described above and approved for acceptance by the Executive Director case-by-case basis.
- lead acid storage batteries (may be separately collected and recycled in the future if needed or mandated by elected officials);

No special waste will be received at the facility unless it is compatible with the compaction and loading equipment operated at the facility or unless modifications are made to the facility to accommodate the special waste. Any changes in operations will be approved in writing by the Executive Director of the TCEQ prior to implementation.

The following wastes will not be accepted at the Garland TS:

- Regulated hazardous waste
- Radioactive waste
- PCBs
- Liquid Wastes
- Certain special wastes, including:
    - hazardous waste from conditionally exempt small-quantity generators that may be exempt from full controls under Chapter 335, Subchapter N of this title (relating to Household Materials Which Could Be Classified as Hazardous Wastes);
    - Class 1 industrial nonhazardous waste;
    - untreated medical waste;
    - municipal wastewater treatment plant sludges, other types of domestic sewage treatment plant sludges, and water-supply treatment plant sludges;
    - septic tank pumpings;
    - grease and grit trap wastes;
    - wastes from commercial or industrial wastewater treatment plants, air pollution control facilities, and tanks, drums, or containers used for sipping or storing any material that has been listed as a hazardous

constituent in 40 CFR, Part 261, Appendix VIII but has not been listed as a commercial chemical product in 40 CFR, Section 261.33(e) or (f);

- Soil contaminated by petroleum products, crude oils, or chemicals in concentrations of greater than 1,500 milligrams per kilogram total petroleum hydrocarbons; or contaminated by constituents of concern that exceed the concentrations listed in Table 1 of Title 30 TAC §335.521(a)(1); and
- incinerator ash.

2 WASTE ACCEPTANCE

Special wastes that are received at the Garland TS must be preapproved by the landfill that will be receiving the waste in accordance with the receiving landfill's (e.g., Charles M. Hinton Jr. Regional Landfill) special waste screening and acceptance procedures. Special waste evaluation and approval will take place prior to delivery of the waste to the transfer station. Typically, the special waste analyst for the landfill will utilize information provided by the generator (e.g., waste-specific chemical and characteristic information or process knowledge information) to determine the acceptability of a waste for disposal at the landfill. The special waste analyst will be responsible for maintaining and utilizing current regulatory guidelines and constituent limits for evaluation of wastes. The special waste analyst also will be responsible for knowing and applying applicable future changes to state and federal disposal regulations, review and acceptance procedures. This information will be provided to transfer station personnel prior to waste acceptance at the transfer station.

The preceding special waste review procedures will include the following.

- The Special Waste Profile (SWP) sheet or waste profile document will be reviewed for completeness. The review will include:
  - The SWP must be completely and legibly filled out by the generator of the waste with all appropriate addresses, contact names, phone and fax numbers, and signatures.
  - The "Waste Stream Information" must include sufficient information to provide the special waste analyst a clear understanding of the waste's type, origin, shipping method, and anticipated frequency of disposal. This information will be used by the special waste analyst to compare the waste with the appropriate state and federal regulations. If the description is not explicit, additional information will be requested of the generator. The "Physical Characteristics of Waste" must include information on the chemical and physical properties of the waste sufficient to allow the special waste analyst to identify the waste and correlate the waste properties to the appropriate state and federal regulations.
  - The generator will provide analytical data to the transfer station showing the results of the analytical testing used to comply with Title

30 TAC §330.203(c)(2) and RG-003 for wastes regulated by the Railroad Commission and related wastes.

- Site Specific Evaluation – It will be confirmed that all special waste acceptance is acceptable in accordance with the following: (1) TCEQ and local regulations and (2) landfill permits. The special waste analyst may request additional information from the generator before rendering a decision. This may include additional analytical, process description, MSDS, or other applicable information.

Site personnel at the transfer station will visually compare the material presented for disposal to the SWP to confirm that the physical characteristics (i.e., color, odor, and appearance) of the material match those detailed on the SWP. If the physical characteristics of the waste differ from the approved waste stream, the waste load will be rejected. The generator will be notified of the reasons for rejecting the load. Additional process and chemical analyses may be required to further characterize the waste.

In accordance with Title 30 TAC §330.219(B)(b), the facility will maintain all documents, manifests, shipping documents, trip tickets, etc., involving special waste.

3 OPERATING PROCEDURES

The Garland TS personnel will exercise appropriate care and safeguards when processing special wastes. Only onsite personnel who have received special waste training will be utilized for the processing of special wastes. Specific handling/disposal procedures are detailed in Table 3-1 for the special wastes that will be processed at the Garland TS.

Drivers of transfer trucks containing special waste will provide the required documentation to the receiving landfill (e.g., Charles M. Hinton Jr. Regional Landfill) concerning the special waste contained within the transfer trailer. The landfill will be responsible to ensure the transferred special waste is disposed of in accordance with the landfill's permit.

Table 3-1
Special Waste Processing Procedures

Special Waste	Special Handling Procedures
Dead animals (no livestock) mainly from the City's animal shelter	Dead animal carcasses that are incidental to routine collection of municipal solid waste and that can be systematically processed along with other solid waste will be accepted at this facility. This waste may contain some animal remains; however, this facility will not accept bulk quantities of dead animals or animal remains in a specific shipment or load. However, dead animal carcasses and dead animal contaminated waste from the City of Garland Animal Services Department will be accepted. All contaminated packaging materials and dead animals will be processed upon receipt or covered with a minimum of three feet of solid waste until it is processed into transfer trailers. The compaction equipment will be cleaned with antibacterial cleaners at the end of each day when special waste containing animal waste is processed.
Drugs and contaminated foods that are not considered controlled substances	These wastes will be processed into transfer trailers promptly upon receipt. Operators will observe unloading and loading of these waste materials to ensure no scavenging or salvaging of waste. The compaction equipment will be cleaned with antibacterial cleaners at the end of each day when special waste containing contaminated food waste is processed.
Empty containers, including paper, cardboard and metal, that have been used for pesticides, herbicides, fungicides or rodenticides	These containers will be processed in the transfer station upon receipt. These containers will not be allowed to accumulate and will be transferred to transfer trailers as they are received. All containers received will be handled in accordance with Title 30 TAC §330.171. All containers will be required to be triple rinsed prior to arrival. If containers cannot be processed upon receipt they will be crushed with the loader and rendered unusable.
Incidental amounts of non-regulated asbestos-containing materials (NRACM)	Loads of primarily NRACM will be pushed directly from the loading bay which is closest to the transfer tailer tunnel and will be transferred immediately to the transfer trailers. The dozer/wheel loaders will not attempt to compact or travel over the NRACM. These procedures will minimize the handling of NRACM so that the integrity of the material is maintained.
Selected waste from oil, gas, and geothermal activities subject to regulation by the Railroad Commission of Texas	This waste will be accepted at this facility provided the incoming loads are delivered in quantities that will allow the waste to be processed safely and efficiently along with other solid waste. In addition, prior to acceptance at the transfer station, waste acceptance approval information from the landfill that will dispose of this waste will be obtained. The approval information will include all applicable information used to characterize this material. No liquids or sludges will be accepted. This waste material will only be accepted if the requirements set forth in TCEQ RG-003 are met.
Waste generated outside the boundaries of Texas that contains any industrial waste; any waste associated with oil, gas, and geothermal exploration, production, or development activities: or any other special waste that is accepted at the TS	This waste shall be handled in accordance with the provisions outlined above for the specific type of waste.

APPENDIX IVB

EXAMPLE LOAD INSPECTION REPORT

STATE OF TEXAS

NEVZAT TURAN

84059

LICENSED

PROFESSIONAL ENGINEER

06/30/2022

LOAD INSPECTION REPORT

Date and Time of Inspection: ____________________

Inspector's Name: ____________________

Name of Hauling Company: ____________________ Phone Number: ____________________

Address: ____________________ City: ____________ State: ________ Zip: ________

Driver's Name: ____________________ Vehicle License Number: ____________________

Type of Vehicle: ____________________ (e.g., roll-off, front loader, dump truck)

Size of Load, yards: ____________ Sources of Wastes: ____________________

LOAD CONTENTS

Waste	Est. % by Vol.	Waste	Est. % by Vol.
Household wastes		Yard waste, brush, stumps	
Wood		Containers	
Metal		Bulk liquids	
Paper, cardboard		Powders, dusts	
Plastic, rubber, glass		Soil	

PROHIBITED WASTE INDICATORS

	YES	NO
Labeled hazardous waste		
Batteries		
Oil		
Medical		
Radioactive		
Ashes		
Soils		
Odors, unusual		
Colors, unusual		
Heat, excessive		
Smoke		

INSPECTION RESULTS

Prohibited wastes identified? ____________________

Further action required? (e.g., none, lab tests, notification) ____________________

Samples sent to lab? ____________ Lab Name: ____________________ Phone: ____________

Tests requested: ____________________

____________________ Driver Signature

____________________ Load Inspector Signature