Texas Commission on Environmental Quality

Correspondence Cover Sheet
Waste Permits Division

Date: 11/20/2025
Facility Name: Gateway Drive Transfer Station
Permit, Registration, or Authorization No.: 2429

Nature of Submittal:
☐ Initial
☒ Deficiency Response to TCEQ Tracking No.: 32237122
(from subject line of TCEQ Notice of Deficiency)

Affix a completed Correspondence Cover Sheet to the front of each submission to the Waste Permits Division. Check ***one box*** to indicate type of correspondence. Call (512) 239-2335 if you have questions.

Table 1 - Municipal Solid Waste Correspondence

Applications	Reports and Communications
Permit (New): ☐ Landfill ☒ Processor ☐ Compost	☐ Alternative Daily Cover Status Report
☐ Registration Application (New)	☐ Closure Report
☐ Major Amendment	☐ Compost Report
☐ Limited Scope Major Amendment	☐ Groundwater Alternate Source Demonstration
☐ Modification with Public Notice	☐ Groundwater Corrective Action Report
☐ Modification without Public Notice	☐ Groundwater Monitoring Report
☐ Ownership Transfer/Name Change Modification	☐ Groundwater Background Evaluation Report
☐ Temporary Authorization	☐ Landfill Gas Corrective Action Report
☐ Voluntary Revocation	☐ Landfill Gas Monitoring Report
Subchapter T: ☐ Permit ☐ Registration	☐ Liner Evaluation Report
☐ Subchapter T Disturbance Non-Enclosed Structure	☐ Soil Boring Plan
Notice of Intent: ☐ New ☐ Revision ☐ Closure	☐ Special Waste Request
☐ Other Application:	☐ Other Report or Communication:

Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Notifications	
☐ CCR Registration (New)	☐ Extension Request	☐ Interim Status Change
☐ Permit Application (New)	☐ CfPT Plan/Result	☐ Interim Status Closure Plan
☐ Permit Renewal	☐ CPT Plan/Result	☐ Closure Certification/Report
☐ Post-Closure Order (New)	☐ Construction Certification/Report	**CCR Notifications:**
☐ Major Amendment	☐ Corrective Action Effectiveness Report	☐ CCR Closure Care Plan
☐ Minor Amendment	☐ Groundwater Alternative Source Demonstration Report	☐ CCR Design Criteria
Class of Permit Modification: ☐ 1 ☐ 1ED ☐ 2 ☐ 3	☐ Groundwater Background Evaluation Report	☐ CCR Groundwater Monitoring and Corrective Action Report
☐ Endorsement	☐ Groundwater Monitoring Report	☐ CCR Location Restriction
☐ Temporary Authorization	☐ Soil Core Monitoring Report	☐ CCR Operating Criteria
☐ Voluntary Revocation	☐ Treatability Study	☐ CCR Post-closure Care Plan
☐ 335.6 Notification	☐ Trial Burn Plan/Result	☐ Other Report or Notification (specify):
☐ Other:	☐ Unsaturated Zone Monitoring Report	

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2429

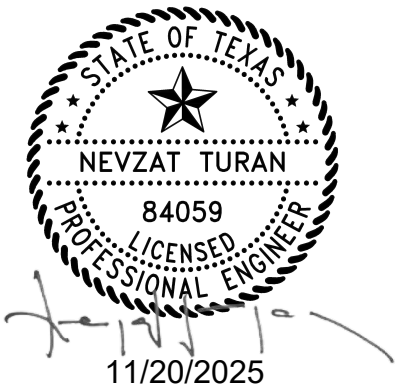
TYPE V PERMIT APPLICATION

Prepared for

North Texas Municipal Water District

November 2025

Revised November 20, 2025



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. 1678-013-11-08

This document is issued for permitting purposes only.

Weaver Consultants Group

November 20, 2025
Project No. 1678-013-11-08

Guanhua Gai
Business and Program Services Section
Texas Commission on Environmental Quality
12100 Park 35 Circle, MC-126
Austin, Texas 78753

Re: Type V Permit Application – Admin NOD Response
Gateway Drive Transfer Station - TCEQ Permit No. MSW-2429
Frisco, Collin County, Texas
Tracking No. 32237122; CN601365448/RN112320254

Dear Ms. Gai:

On behalf of the North Texas Municipal Water District (NTMWD), the purpose of this letter is to respond to the Texas Commission on Environmental Quality (TCEQ) comments included in your email dated November 19, 2025, regarding the Type V Permit Application for the proposed Gateway Drive Transfer Station.

This response letter contains each item identified by the TCEQ (in bold) and a response to each item.

C1 In accordance with Texas Water Code §5.1734, relating to Electronic Posting of Permit Applications (Senate Bill 1397, 88th Legislative Session, Regular Session, 2023), you must submit a complete electronic version of the permit application with all revisions included for posting on the TCEQ Website. The required NORI documents will not be released until the complete electronic version of the application is received.

Response: *An electronic version of the updated permit application has been sent to mswper@tceq.texas.gov.*

A1 Part I Application Form: Please revise and resubmit new title pages, table of contents, and the Part I Form section to include the newly proposed MSW Permit No. 2429 with revision date. The revision must be made throughout the application.

Response: *The MSW Permit No. 2429 has been added with a revision date on the following pages: Title Pages to the application (Cover Page; Table of Contents on page ii; Cover Sheets to Parts I/II; Part III; Appendices IIIA, IIIB, IIIC, and IIID; and Part I Form). In addition, the Core Data Form was updated with the MSW Permit No. and RN Number. The Part I Form signature pages (page 12 and 13) are included, as well.*

A2 Please revise the Plain Language Summary Forms (English and Spanish) to include the newly proposed MSW Permit No. 2429 and Regulated Entity Number RN112320254.

Response: *The MSW Permit No. and RN Number have been added to the Plain Language Summary Forms (English and Spanish).*

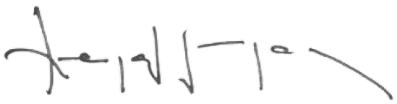
A3 Please revise and resubmit Page 5 of the Part I application regarding General Information About the Facility. Please include the newly assigned Regulated Entity Number RN112320254 along with the proposed MSW Authorization No. 2429.

Response: *Page 5 of the Part I Application Form has been updated with the MSW Permit No. and the Regulated Entity Number.*

Please find attached two unmarked copies of the updated pages per your request. A copy of this submittal was sent to the appropriate regional office. In accordance with 30 TAC §330.57(e), an electronic copy of this submittal and the updated permit application, which includes the replacement pages, was sent to mswper@tceq.texas.gov.

We appreciate your technical review of this Type V 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: Type V Permit Application Replacement Pages (2 copies)

cc: Waste Section Manager, TCEQ Region 4
Mike Friesen, North Texas Municipal Water District (e-copy)
NTMWD Central File – Gateway Drive TS 8.1
Jeffrey Reed – Lloyd Gosselink, Rochelle & Townsend P.C. (e-copy)

Weaver Consultants Group

November 12, 2025
Project No. 1678-013-11-08

Kelly Keel
Executive Director
Texas Commission on Environmental Quality
12100 Park 35 Circle, MC-109
Austin, Texas 78753

Re: Type V Permit Application
Gateway Drive Transfer Station
Frisco, Collin County, Texas
CN601365448/RN_____

Dear Ms. Kelly Keel:

On behalf of the North Texas Municipal Water District (NTMWD), please find enclosed a Type V Permit Application for the proposed Gateway Drive Transfer Station. Included are two copies of the application for your technical review.

The Gateway Drive Transfer Station (TS) is a proposed Type V municipal solid waste (MSW) processing facility to be located in Collin County, Texas. The proposed facility does not have an assigned address , but is located approximately 1,000 feet south of the intersection of PGA Parkway and Gateway Drive off of the future extension of Gateway Drive in Collin County within the City of Frisco.

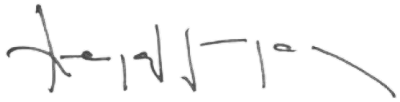
The Gateway Drive TS will provide an efficient means to transfer MSW that is generated by NTMWD's Solid Waste System Member Cities (currently Allen, Frisco, McKinney, Plano, and Richardson) and the surrounding areas to a Texas Commission on Environmental Quality (TCEQ) permitted MSW Type I landfill. The transfer station will have a permitted MSW processing rate of 3,000 tons per day.

This permit application has been prepared per the provisions of Title 30 Texas Administrative Code (TAC) §330.5(a)(3). This section sets forth for the application requirements for Type V transfer station permits. The North Texas Municipal Water District is fully committed to operating the Gateway Drive Transfer Station consistent with TCEQ rules and regulations in order protect human health and the environment.

Two copies are provided for your use and distribution. An electronic copy of this application, the MSW Permit Application Checklist, and the mailing labels for the adjacent property owners are also included in the attached USB flash drive. A copy of this submittal was sent to the appropriate regional office, and a copy was placed in NTMWD's central files. In accordance with 30 TAC §330.57(e), an electronic version of this application was sent to mswper@tceq.texas.gov via the TCEQ secure FTP site.

We appreciate your technical review of this Type V Permit Application. If you have any questions, please do not hesitate to contact me.

Sincerely,
Weaver Consultants Group, LLC



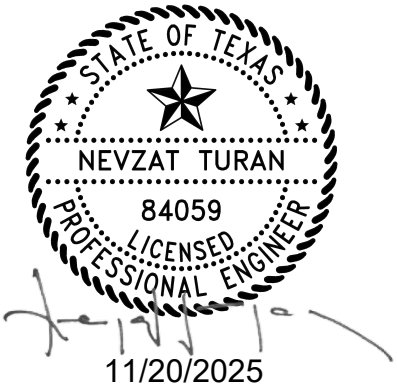
Nevzat Turan, P.E.
Principal

Enclosures: Type V Permit Application (2 copies)
USB Flash Drive (e-copy, MSW Permit Application Checklist, and mailing labels)

cc: Waste Section Manager, TCEQ Region 4
Mike Friesen, North Texas Municipal Water District
NTMWD Central File – Gateway Drive TS 8.1
Jeffrey Reed – Lloyd Gosselink, Rochelle & Townsend P.C. (e-copy)

GATEWAY DRIVE TRANSFER STATION
TYPE V PERMIT APPLICATION
TCEQ PERMIT NO. MSW-2429
TABLE OF CONTENTS

Item	Regulatory Citation
Application Table of Contents	§330.59, §330.61
TCEQ Part I Application Form, Core Data Form, Plain Language Summary Forms (TCEQ-20947 and TCEQ-20947-esp), and Public Involvement Plan Form (TCEQ-20960)	
Parts I/II – General Application Requirements	§330.61(o)
I/IIA – Demonstration of Coordination	§330.61(p)
THC	§330.61(i)(4)
NCTCOG	§330.61(l)
TxDOT	§330.61(k)(3)(A)
I/IIB – Area Water Well Information	§330.61(m),(n)
I/IIC – Environmental Evaluation Report	§330.63
Part III – Site Development Plan	§330.63(b)
Site Development Plan Narrative	§330.63(c)
Appendix IIIA – General Facility Design Drawings	§330.63(h)
Appendix IIIB – Surface Water Drainage Report	§330.63(j)
Appendix IIIC – Closure Plan	§330.63(b)
Appendix IIID – Closure Cost Estimate	§330.65
Appendix IIIE – Wastewater Discharge Authorization	§330.65
Part IV – Site Operating Plan	§330.203(a)
Appendix IVA – Example Load Inspection Report	



Texas Commission on Environmental Quality

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

Instructions for completing this Part I Application Form are provided in TCEQ 00650-instr[1]. Include a Core Data Form (TCEQ 10400)[2] with the application for the facility owner, and Core Data Forms for the operator and property owner if different from the facility owner. If you have questions, contact the Municipal Solid Waste (MSW) Permits Section by email to mswper@tceq.texas.gov, or by phone at 512-239-2335. Rules cited on this form are in Title 30 Texas Administrative Code (30 TAC) and may be viewed online at www.tceq.texas.gov/goto/view-30tac.

Application Tracking Information

Facility Regulated Entity Name[3]:
Gateway Drive Transfer Station

Site Operator (Permittee or Registrant Name)[4]:
North Texas Municipal Water District

MSW Authorization Number: 2429

Initial Submission Date: November 12, 2025

Revision Date: November 20, 2025

Application Data

1. Submission Type

- ☐ Initial Submission
- ☒ Notice of Deficiency (NOD) Response

2. Authorization Type

- ☒ Permit
- ☐ Registration

3. Application Type

- ☒ New Permit
- ☐ Permit Major Amendment
- ☐ Permit Limited Scope Major Amendment
- ☐ New Registration

[1] www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/00650-instr.pdf
[2] www.tceq.texas.gov/goto/coredata
[3] Facility Regulated Entity Name must match the Regulated Entity Name indicated on the TCEQ Core Data Form.
[4] Site Operator is defined in 30 TAC 330.3(148) as the holder of, or the applicant for, an authorization (or license) for a municipal solid waste facility.

4. Application Fee

Amount

☐ $2,050—New Landfill Permits, and Landfill Permit Major Amendments Described in 30 TAC 305.62(j)(1)

☒ $150—Other Permits, Permit Amendments, Limited Scope Major Amendments, and all Registrations

Payment Method

☒ Online through ePay portal www3.tceq.texas.gov/epay/

Enter ePay Trace Number: [redacted]

☐ Check (send to TCEQ Financial Administration Division)

Payor Name: _____ Check Number: _____

5. Electronic Versions of Application

TCEQ will publish electronic versions of applications online. Applicants are required to submit complete clean (unmarked) copies of their applications in electronic format once they are administratively complete and technically complete. Additionally, applicants must provide electronic copies of responses to notices of deficiencies for publishing online. (Refer to instructions for this form for how to submit electronically.)

6. Party Responsible for Publishing Notice

Indicate who will be responsible for publishing notice:

☒ Applicant ☐ Agent in Service ☐ Consultant

Contact Name: Mike Friesen

Title: Director of Solid Waste

Email Address: [redacted]

7. Alternative Language Notice

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

Is an alternative language notice required for this application?

☒ Yes ☐ No

Indicate the alternative language: Spanish

8. Public Place for Copy of Application

Name of the Public Place: Prosper Community Library

Physical Address: 200 S Main Street

City: Prosper County: Collin State: TX Zip Code: 75078

Phone Number: 972-569-1185

9. Consolidated Permit Processing

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

☐ Yes ■ No

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

10. Confidential Documents

Does the application contain confidential documents?

☐ Yes ■ No

If "Yes", reference the confidential documents in the application, but submit the confidential documents as an attachment in a separate binder marked "CONFIDENTIAL."

11. Permits and Construction Approvals

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

Table 1. Permits and Construction Approvals.

Permit or Approval	Received	Pending	Not Applicable
Hazardous Waste Management Program under Texas Solid Waste Disposal Act			x
Underground Injection Control Program under Texas Injection Well Act			x
National Pollutant Discharge Elimination System Program under Clean Water Act; Waste Discharge Program under Texas Water Code, Chapter 26		x	
Prevention of Significant Deterioration Program under Federal Clean Air Act (FCAA); Nonattainment Program under the FCAA			x
National Emission Standards for Hazardous Air Pollutants Preconstruction Approval under the FCAA			x
Ocean Dumping Permits under Marine Protection Research and Sanctuaries Act			x
Dredge or Fill Permits under Clean Water Act			x
Licenses under the Texas Radiation Control Act			x
Other (describe): Permit by Rule (30 TAC §106.534) documentation to be maintained in the site operating record.		x	
Other (describe):			x

12. General Information About the Facility

Facility Regulated Entity Name:
Gateway Drive Transfer Station

Contact Name: Mike Friesen Title: Director of Solid Waste

MSW Authorization Number (if existing): 2429

Regulated Entity Reference Number: **RN** 112320254

Physical or Street Address (if available): _____

City: Frisco County: Collin State: TX Zip Code: 75035

Phone Number: _____

Latitude (decimal degrees, six decimal places): 33.203611

Longitude (decimal degrees, six decimal places): -96.810833

Elevation (above mean sea level): 662 feet (benchmark elevation for landfills)

Description of facility location with respect to known or easily identifiable landmarks:

The facility is located 0.65 miles east of Dallas North Tollway and 0.2 miles south of the intersection of PGA Parkway and Gateway Drive off of the future extension of Gateway Drive.

Access routes from the nearest United States or state highway to the facility:

Gateway Drive, PGA Parkway, Dallas North Tollway, Dallas Parkway (north and southbound service road adjacent to Dallas North Tollway), Preston Road (State Highway 289) , and U.S. Highway 380 (University Drive).

Coastal Management Program

Is the facility within the Coastal Management Program boundary?

☐ Yes ■ No

13. Facility Types

Facility types are described in 30 TAC 330.5(a).

Indicate facility type (select all that apply):

☐ Type I ☐ Type IV ■ Type V

☐ Type IAE ☐ Type IVAE ☐ Type VI

14. Activities Conducted at the Facility

■ Storage ■ Processing ☐ Disposal

15. Facility Waste Management Units

Check the box for each type of waste management unit proposed.

- ☐ Landfill Unit(s)
- ☐ Incinerator(s)
- ☐ Class 1 Landfill Unit(s)
- ☐ Process Tank(s)
- ☐ Storage Tank(s)
- ■ Tipping Floor
- ■ Storage Area
- ☐ Other (specify):
- ■ Container(s)
- ■ Roll-off Boxes
- ☐ Surface Impoundment
- ☐ Autoclave(s)
- ☐ Refrigeration Unit(s)
- ☐ Mobile Processing Unit(s)
- ☐ Compost Pile(s) or Vessel(s)

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 proposed MSW transfer station will provide the ability to consolidate smaller loads of waste from collection vehicles before transferring that waste into larger transfer trailers to be sent to permitted area landfills. The facility will have an estimated maximum daily waste acceptance rate of 3,000 tons per day.

17. Facility Contact Information

Site Operator (Permittee or Registrant)

Name: North Texas Municipal Water District

Customer Reference Number: **CN** 601365448

Contact Name: Mike Friesen Title: Director of Solid Waste

Mailing Address: 501 E Brown Street

City: Wylie County: Collin State: TX Zip Code: 75098

Phone Number: 972-442-5405

Email Address: [redacted]

Operator (if different from *Site Operator*)

Name: _____

Customer Reference Number: **CN** _____

Contact Name: _____ Title: _____

Mailing Address: _____

City: _____ County: _____ State: ____ Zip Code: _____

Phone Number: _____

Email Address: _____

Consultant (if applicable)

Firm Name: Weaver Consultants Group, LLC

Consultant Name: Nevzat Turan

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

Contact Name: Nevzat Turan Title: Principal

Mailing Address: 6420 Southwest Boulevard, Suite 206

City: Fort Worth County: Tarrant State: TX Zip Code: 76109

Phone Number: 817-735-9770

Email Address: [redacted]

Agent in Service (required for out-of-state applicants)

Name: _____

Mailing Address: _____

City: _____ County: _____ State: TX Zip Code: _____

Phone Number: _____

Email Address: _____

18. Facility Supervisor License

Indicate the level of Municipal Solid Waste Facility Supervisor license, as defined in 30 TAC Chapter 30, Occupational Licenses and Registrations, Subchapter F that the individual who supervises or manages the operations will obtain prior to commencing operations.

☐ Class A Supervisor License ■ Class B Supervisor License

19. Facility Ownership

Facility Owner

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

■ Yes ☐ No

If "No", provide the following information for the other owner, and include a Core Data Form for the other owner. Attach supplemental sheet if more than one other owner.

Other Owner Name: _____

What is Owned: ☐ Facility Units ☐ Property

☐ Other (describe): _____

Mailing Address: _____

City: _____ County: _____ State: ____ Zip Code: _____

Phone Number: _____

Email Address: _____

20. Other Government Entities Information

Texas Department of Transportation

District: Dallas

District Engineer's Name: Ceason Clemens

Mailing Address: 4777 E Highway 80

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

Phone Number: 214-320-6100

Email Address: [redacted]

Local Government Authority Responsible for Road Maintenance (if applicable)

Government or Agency Name: City of Frisco

Contact Person's Name: Gabe Johnson

Mailing Address: 11300 Research Road

City: Frisco County: Collin State: TX Zip Code: 75034

Phone Number: 972-292-5810

Email Address: [redacted]

City Mayor Information

City Mayor's Name: Jeff Cheney
Mailing Address: 6101 Frisco Square Boulevard, 5th Floor
City: Frisco County: Collin State: TX Zip Code: 75034
Phone Number: 972-292-5050
Email Address: [redacted]

City Health Authority

Authority Name: Frisco Environmental Health Department
Contact Person's Name: Jazalyn Harp
Contact Person's Title: Environmental Health Manager
Mailing Address: 6101 Frisco Square Boulevard, 3rd Floor W
City: Frisco County: Collin State: TX Zip Code: 75034
Phone Number: 972-292-5304
Email Address: [redacted]

County Judge Information

County Judge's Name: Chris Hill
Mailing Address: 2300 Bloomdale Road
City: McKinney County: Collin State: TX Zip Code: 75071
Phone Number: 972-424-1460 ext.4631
Email Address: [redacted]

County Health Authority

Agency Name: Collin County Health Care Services
Contact Person's Name: Candy Blair
Contact Person's Title: Public Health Director
Mailing Address: 825 N McDonald Street, Suite 130
City: McKinney County: Collin State: TX Zip Code: 75069
Phone Number: 972-548-5500
Email Address: [redacted]

State Representative Information

House District Number: 66
State Representative's Name: Matt Shaheen
District Office Mailing Address: P.O. Box 12910 (No District address available)
City: Austin County: Travis State: TX Zip Code: 78711
Phone Number: 469-642-8708
Email Address: [redacted]

State Senator Information

District Number: 30

State Senator's Name: Brent Hagenbuch

District Office Mailing Address: 2800 Shoreline Drive

City: Denton County: Denton State: TX Zip Code: 76210

Phone Number: 940-323-9338

Email Address: [redacted]

Council of Governments (COG)

COG Name: North Central Texas Council of Governments

COG Representative's Name: Todd Little

COG Representative's Title: Executive Director

Mailing Address: 616 Six Flags Drive

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

Phone Number: 817-695-9101

Email Address: [redacted]

River Basin Authority

Authority Name: Trinity River Authority

Contact Person's Name: J. Kevin Ward

Watershed Sub-Basin Name: Trinity River Basin

Mailing Address: 5300 S Collin Street

City: Arlington County: Tarrant State: TX Zip Code: 76018

Phone Number: 817-467-4343

Email Address: [redacted]

Local Drainage or Flood Management Authority

Authority Name: City of Frisco Public Works Department

Contact Person's Name: Gabe Johnson

Mailing Address: 11300 Research Road

City: Frisco County: Collin State: TX Zip Code: 75033

Phone Number: 972-292-5810

Email Address: [redacted]

U.S. Army Corps of Engineers District

Indicate the U.S. Army Corps of Engineers district in which the facility is located:

☐ Albuquerque, NM ☐ Galveston, TX

☒ Fort Worth, TX ☐ Tulsa, OK

Local Government Jurisdiction

Within City Limits of: Frisco

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 as an attachment.

PAGE REVISION DATE: _____

Applicant Signature Page

Site Operator (Permittee or Registrant Name) or Authorized Signatory

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

Name: Jennafer P. Covington Title: Executive Director

Email Address: [redacted]

Signature: Jennafer Covington Date: 11/20/2025

Authorization by Facility Owner for Operator to Submit Application

To be completed by the facility owner if the application is submitted by an operator who is not the facility owner.

I am the owner of the facility that is the subject of this application, and authorize the operator, _____ to submit this application pursuant to 30 TAC 305.43(c).

Name: _____ Title: _____

Email Address: _____

Signature: _____ Date: _____

Notary

SUBSCRIBED AND SWORN to before me by the said Jennafer P. Covington

On this 20th day of November 2025

My commission expires on the 18th day of May, 2028

LeAnn Bumpus

Notary Public in and for

Collin County, Texas (notary's jurisdiction, including county and state)

Note: Application Must Bear Signature & Seal of Notary Public

LEANN BUMPUS
My Notary ID # 10188600
Expires May 18, 2028

PAGE REVISION DATE: _____

Property Owner Affidavit

Property Owner Affidavit for Landfill Facility

I acknowledge in accordance with 30 TAC 330.59(d)(2) that the State of Texas may hold me either jointly or severally responsible for the operation, maintenance, and closure and post-closure care of the facility. For a facility where waste will remain after closure, I acknowledge that I have a responsibility to file with the county deed records an affidavit to the public advising that the land will be used for a solid waste facility prior to the time that the facility actually begins operating as a municipal solid waste landfill facility, and to file a final recording upon completion of disposal operations and closure of the landfill units according to 30 TAC 330.19 (relating to Deed Recordation). I further acknowledge that the facility owner or operator and the State of Texas shall have access to the property during the active life and post-closure care period for the purpose of inspection and maintenance.

Name: _____

Email Address: _____

Signature: _____ Date: _____

Property Owner Affidavit for Processing Facility

I acknowledge in accordance with 30 TAC 330.59(d)(2) that the State of Texas may hold me either jointly or severally responsible for the operation, maintenance, and closure of the facility. I further acknowledge that the facility owner or operator and the State of Texas shall have access to the property during the active life and post-closure care period for the purpose of inspection and maintenance.

Name: Jennafer P. Covington

Email Address [redacted]

Signature: Jennafer Covington Date: 11/20/2025

Notary

SUBSCRIBED AND SWORN to before me by the said Jennafer P. Covington

On this 20th day of November, 2025

My commission expires on the 18th day of May, 2028

Leann Bumpus

Notary Public in and for

Collin County, Texas (notary's jurisdiction, including county and state)

Note: Application Must Bear Signature & Seal of Notary Public

LEANN BUMPUS
My Notary ID # 10188600
Expires May 18, 2028

Part I Attachments

Refer to instruction document TCEQ 00650-instr[5] for professional engineer seal requirements.

Attachments Table 1. Required attachments.

Required Attachments	Attachment Number
Supplementary Technical Report [30 TAC 305.45(a)(8)]	Parts I/II, Section 2
Property Legal Description [30 TAC 330.59(d)(1)]	Parts I/II, Section 13
Property Metes and Bounds Description [30 TAC 330.59(d)(1)]	Parts I/II, Section 13
Facility Legal Description [30 TAC 330.59(d)(1)]	Parts I/II, Section 13
Facility Metes and Bounds Description [30 TAC 330.59(d)(1)]	Parts I/II, Section 13
Metes and Bounds Drawings [30 TAC 330.59(d)(1)]	Parts I/II, Section 13
On-Site Easements Drawing [30 TAC 330.61(c)(10)]	Parts I/II, Section 13
Land Ownership Map [30 TAC 330.59(c)(3)]	Parts I/II, Section 5
Landowners List [30 TAC 330.59(c)(3)]	Parts I/II, Section 5
Mailing Labels (in electronic file, in Avery 5160 format; see instructions) [30 TAC 281.5(7)]	Provided on flash drive
General Location Maps [30 TAC 330.59(c)(2)]	Parts I/II, Section 4
Texas Department of Transportation (TxDOT) County Map [30 TAC 330.59(c)(2)]	Parts I/II, Section 4
General Topographic Maps [30 TAC 330.61(e)]	Parts I/II, Section 4
Verification of Legal Status / Legal Authority (certificate of incorporation) [30 TAC 281.5 and 330.59(e)]	Parts I/II, Section 15
Evidence of Competency [30 TAC 330.59(f)]	Parts I/II, Section 16
Signatory Authority Documentation [30 TAC 305.44 and 330.59(g)]	Parts I/II, Section 15
TCEQ Core Data Form(s) TCEQ-10400[6] [30 TAC 281.5(7)]	

[5] www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/00650-instr.pdf
[6] www.tceq.texas.gov/permitting/central_registry/guidance.html

Attachments Table 2. Additional attachments as applicable.

Additional Attachments (select all that apply and add others as needed)	**Attachment Number**
☒ Plain Language Summary Form TCEQ-20947[7] [30 TAC 39.405(k)]	
☒ Public Involvement Plan Form TCEQ-20960[8]	
☐ Fee Payment Receipt	
☐ Confidential Documents	
☐ Waste Storage, Processing and Disposal Ordinances [Texas Health and Safety Code, Section 363.112[9]]	
☐ Final Plat Record of Property Description [30 TAC 330.59(d)(1)(B)]	
Other (describe):	
Other (describe):	
Other (describe):	

[7] www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/20947-instr.pdf
[8] www.tceq.texas.gov/downloads/agency/decisions/hearings/environmental-equity/pip-form-tceq-20960.pdf www.tceq.texas.gov/downloads/agency/decisions/hearings/environmental-equity/instructions-for-pip-form-tceq-20960.pdf
[9] statutes.capitol.texas.gov/Docs/HS/htm/HS.363.htm#363.112

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

☐ Other

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 601365448		**RN 112320254**

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:*

North Texas Municipal Water District

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
	17560042586	756004258	

11. Type of Customer:

☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☒ Other ☐ Sole Proprietorship ☒ Other: Special Legislative District

12. Number of Employees

☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☒ 501 and higher

13. Independently Owned and Operated?

☒ **Yes** ☐ **No**

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

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

15. Mailing Address:	P.O. Box 2408							
	City	Wylie	**State**	TX	**ZIP**	75098	**ZIP + 4**	2408

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

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(972) 442-5405		(972) 295-6440

SECTION III: Regulated Entity Information

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

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

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

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

Gateway Drive Transfer Station

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

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

25. Description to Physical Location:	0.65 miles east of Dallas North Tollway and 0.2 miles south of the intersection of PGA Parkway and Gateway Drive off of the future extension of Gateway Drive

26. Nearest City	State	Nearest ZIP Code
Frisco	TX	75035

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

27. Latitude (N) In Decimal:			28. Longitude (W) In Decimal:		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
33	12	13	96	48	39

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)
4212		562111	

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

MSW transfer station

34. Mailing Address:	**PO Box 2408**						
	City	**Wylie**	**State**	**TX**	**ZIP**	**75098**	**ZIP + 4**	**2408**
35. E-Mail Address:	[redacted]						

36. Telephone Number	37. Extension or Code	38. Fax Number *(if applicable)*
(469) 626-4339		**( ) -**

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
2429				
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Nevzat Turan, P.E.		**41. Title:**	Principal
42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**	
(817) 735-9770	5161	(817) 735-9775	[redacted]	

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:	North Texas Municipal Water District	**Job Title:**	Executive Director
Name *(In Print):*	Jennafer P. Covington	**Phone:**	(972) 442- **5405**
Signature:	Jennafer Covington	**Date:**	11/20/2025

Texas Commission on Environmental Quality

Plain Language Summary of Municipal Solid Waste Permit or Permit Amendment Application

Applicants are required by public notice rules in Title 30 Texas Administrative Code, Chapter 39, Section 39.405(k)[1] to provide this summary of an application.

A. Purpose of the Proposed Facility

Transferring solid waste from collection vehicles to larger capacity transfer trailer vehicles for transport to a landfill.

B. Information About the Applicant

Name: North Texas Municipal Water District

Applicant Type: Type V

Facility Name: Gateway Drive Transfer Station

Permit Application Number: 2429

Customer Number (CN): 601365448

Regulated Entity Reference Number (RN): 112320254

C. Location of the Proposed Facility

Facility Address (or description of site location if no address):

The facility is located 0.65 miles east of Dallas North Tollway and 0.2 miles south of the intersection of PGA Parkway and Gateway Drive off of the future extension of Gateway Drive.

Link to Map of Facility Location (TCEQ Location Mapper[2]): https://arcg.is/1Pvb13

D. Information about Facility Operation

What types of waste would be received?

Household waste, brush, yard waste, commercial solid waste, Class 2 and Class 3 nonhazardous industrial waste, construction-demolition waste, and specific special wastes including Very Small Quantity Generator (VSQG) waste, used oil (separately collected and recycled), used oil filters, whole used or scrap tires or tire pieces, white goods and metals.

What geographical area would the wastes come from?

Service area consists of the NTMWD's Solid Waste Member Cities (currently Allen, Frisco, McKinney, Plano, and Richardson) and the surrounding areas.

[1] www.tceq.texas.gov/goto/view-30tac
[2] www.tceq.texas.gov/gis/hb-610-viewer

What days and hours would the facility operate?

Waste acceptance hours are 7:00am to 7:00pm Monday through Saturday

At what rate would wastes be accepted?

3,000 tons per day.

How would wastes be managed?

The TS facility will be a pre-cast, concrete tilt wall structure approximately 69,000 square feet with a metal roof and walls covering an open concrete floor and loading tunnel. Waste material is unloaded onto the tipping floor within the building, top loaded into the transfer trailers stationed in the tunnel, then hauled to a permitted landfill.

E. Pollution Control Methods

What methods would the facility use for containing wastes and odors, and monitoring for releases?

All waste processing and storage will occur within the building. Storage of waste will not exceed 72 hours and will average 24 hours. To control odors, routine tipping, sorting and transfer operations will be confined within the building. The following measures will be employed to assist in air pollution/odor control:
-Buffer zones onsite; -Odor control system as necessary;
-Covering transfer trailers; -No liquid waste or sludges accepted;
-Procedures for odor control described in Part III Section 2.2.3;
-Cleaning all working surfaces that come into contact with waste at least weekly as described in Part IV Section 7.11; -Odor Control measures as described in Part IV Section 7.12

What methods would the facility use or require for preventing litter or spills, and for cleanup of litter and spills?

Policing of litter and fugitive debris will be performed as part of a scheduled routine as detailed in Part IV, Sections 7.6 and 7.7. Litter scattered throughout the site, including along fences and access roads, and at the gate will be collected at least daily on the days the facility receives waste. Solid waste spills within the building will be promptly moved to the tipping floor. Solid waste spills outside of the building will be collected and transported to the tipping floor.

Comisión de Calidad Ambiental de Texas

Resumen en lenguaje sencillo de la solicitud de permiso municipal de residuos sólidos o de modificación del permiso

Los solicitantes están obligados por las normas de notificación pública del Título 30 del Código Administrativo de Texas, Capítulo 39, Sección 39.405(k)[1] a proporcionar este resumen de una solicitud.

A. Objetivo de la instalación propuesta

Transladar residuo sólido de los vehículos de colleccion a vehículos mas grandes, con mayor capacidad para transladar el residuo sólido a el vertedero.

B. Información sobre el solicitante

Nombre: North Texas Municipal Water District

Tipo de solicitante: Type V

Nombre de la instalación: Gateway Drive Transfer Station

Número de solicitud de permiso: 2429

Número de cliente (CN): 601365448

Número de referencia de la entidad regulada (RN): 112320254

C. Ubicación de la instalación propuesta

Dirección del establecimiento (o descripción de la ubicación del sitio si no hay dirección):

La instalación está ubicada a 0.65 millas al este de Dallas North Tollway y a 0.2 millas al sur de la intersección de PGA Parkway y Gateway Drive, junto a la futura extensión de Gateway Drive.

Enlace al mapa de ubicación de las instalaciones en TCEQ Location Mapper[2]:

https://arcg.is/1Pvb13

D. Información sobre el funcionamiento de las instalaciones

¿Qué tipos de residuos se recibirían?

Residuos domésticos, Residuos de jardín, Residuos Sólidos Comerciales, Residuos Industriales (No Peligrosos) (Clase 2 Residuos Sólidos Industriales, Clase 3 Residuos Sólidos Industriales), Residuos de Construcción-Demolición, Residuos Especiales específicos incluidos cantidades muy pequeñas de residuos provenientes de generadores (VSQG), aceite usado (reciclado y colectado por separado), filtros de aceite usados, llantas enteras usadas o de desecho, o piezas de llantas, electrodomésticos de línea blanca y metales.

¿De qué zona geográfica procederían los residuos?

El area de servicio consiste en los residentes de las ciudades miembras del NTMWD en materia de residuos sólidos actualmente Allen, Frisco, McKinney, Plano, Richardson y el area a sus alrededores.

[1] www.tceq.texas.gov/goto/view-30tac

[2] www.tceq.texas.gov/gis/hb-610-viewer

¿Qué días y horas funcionará la instalación?

Las horas y dias que se aceptaran residuos son de Lunes a Sabado de las 7:00 am a las 7:00 pm.

¿A qué ritmo se aceptarían los residuos?

3,000 toneladas por dia.

¿Cómo se gestionarían los residuos?

La instalación de transferencia de residuos sera una estructura de concreto prefabricado con muros inclinados de aproximadamente 69,000 pies cuadrados con techo y paredes de acero,que cubrirán un piso de concreto abierto y un túnel de carga. Los desechos se descargan en el piso de descarga dentro del edificio, se cargan en los remolques de transferencia estacionados en el túnel y luego se transportan a un vertedero.

E. Métodos de control de la contaminación

¿Qué métodos utilizará la instalación para contener los residuos y los olores, y para controlar las emisiones?

Todo el procesamiento y almacenamiento de los residuos ocurriran en el edificio. El almacenamiento de los residuos no superara las 72 horas y promediará las 24 horas. Para controlar los olores, el vertido de residuos y la operacion de clasificacion y transferencia seran confinadas dentro de el edificio. Las siguientes medidas seran tomadas para asistir en el control de olores y contaminacion de aire.

- Zona de amortiguamiento en el sitio; Sistema de olores cuando sea necesario.
- Cubrir los camiones de translado de residuos; No se aceptaran residuos liquidos o viscosos.
- Se seguira un procedimiento para cargas olorosas como es descrito en parte III sección 2.2.3.
- Limpiar todas las superficies en contacto con residuos por lo menos una vez por semana como es descrito en parte IV sección 7.11.
- Medidas para el control de olores segun lo descrito en parte IV sección 7.12.

¿Qué métodos utilizaría o exigiría la instalación para evitar la basura o los derrames, y para la limpieza de la basura y los derrames?

Se realizara la vigilancia de basura y escombros fugitivos como parte de un proceso rutinario segun descrito en parte IV sección 7.6 y 7.7. Cualquier basura encontrada a lo largo de la instalación, incluyendo la cerca, carreteras de acceso y el portón sera collectada diariamente en los dias que la instalación este abierta para operar. Derrames de residuos sólidos dentro del edificio, seran transladados de inmediato al piso de descarga. Derrames de residuos sólidos fuera del edificio seran collectados y transportado al piso de descarga.

Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

Section 1. Preliminary Screening

☒ New Permit or Registration Application

☐ New Activity – modification, registration, amendment, facility, etc. (see instructions)

If neither of the above boxes are checked, completion of the form is not required and does not need to be submitted.

Section 2. Secondary Screening

☒ Requires public notice,

☐ Considered to have significant public interest, **and**

☒ Located within any of the following geographical locations:

- Austin
- Dallas
- Fort Worth
- Houston
- San Antonio
- West Texas
- Texas Panhandle
- Along the Texas/Mexico Border
- Other geographical locations should be decided on a case-by-case basis

If all the above boxes are not checked, a Public Involvement Plan is not necessary. Stop after Section 2 and submit the form.

☐ Public Involvement Plan not applicable to this application. Provide **brief** explanation.

Section 3. Application Information

Type of Application (check all that apply):

Air ☐ Initial ☐ Federal ☐ Amendment ☐ Standard Permit ☐ Title V

Waste ☒ Municipal Solid Waste ☐ Industrial and Hazardous Waste ☐ Scrap Tire
☐ Radioactive Material Licensing ☐ Underground Injection Control

Water Quality

☐ Texas Pollutant Discharge Elimination System (TPDES)

- ☐ Texas Land Application Permit (TLAP)
- ☐ State Only Concentrated Animal Feeding Operation (CAFO)
- ☐ Water Treatment Plant Residuals Disposal Permit

☐ Class B Biosolids Land Application Permit

☐ Domestic Septage Land Application Registration

Water Rights New Permit

☐ New Appropriation of Water

☐ New or existing reservoir

Amendment to an Existing Water Right

☐ Add a New Appropriation of Water

☐ Add a New or Existing Reservoir

☐ Major Amendment that could affect other water rights or the environment

Section 4. Plain Language Summary

Provide a brief description of planned activities.

The proposed project is a Type V Municipal Solid Waste Transfer Station (TS) that will be located within the City of Frisco, Collin County, Texas. The TS will consolidate waste from collection vehicles and transfer that waste into larger transfer trailers to be sent to a permitted landfill. The TS facility will include an approximately 69,000 square foot transfer station building, scalehouse, scales, paved roads and parking, fencing, open space area, and utilities.

Section 5. Community and Demographic Information

Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.

Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.

Frisco

(City)

Collin - 1-Mile Ring Centered on Transfer Station

(County)

Census Tract 305.19

(Census Tract)

Please indicate which of these three is the level used for gathering the following information.

☒ City ☐ County ☐ Census Tract

(a) Percent of people over 25 years of age who at least graduated from high school

97.6%

(b) Per capita income for population near the specified location

$61,551

(c) Percent of minority population and percent of population by race within the specified location

People of color: 49% - Black: 9%, Asian: 26%, Other: 4%, Two or more races: 10%

(d) Percent of Linguistically Isolated Households by language within the specified location

0%

(e) Languages commonly spoken in area by percentage

English: 63.7%, Spanish: 5.7%, Indo-European: 9.6%, Asian and Pacific Island: 18.2%, Other: 2.9%

(f) Community and/or Stakeholder Groups

N/A

(g) Historic public interest or involvement

N/A

Section 6. Planned Public Outreach Activities

(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39?

☒ Yes ☐ No

(b) If yes, do you intend at this time to provide public outreach other than what is required by rule?

☐ Yes ☒ No

If Yes, please describe.

If you answered "yes" that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required.

(c) Will you provide notice of this application in alternative languages?

☒ Yes ☐ No

Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language.

If yes, how will you provide notice in alternative languages?

☑ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

(d) Is there an opportunity for some type of public meeting, including after notice?

☒ Yes ☐ No

(e) If a public meeting is held, will a translator be provided if requested?

☒ Yes ☐ No

(f) Hard copies of the application will be available at the following (check all that apply):

☑ TCEQ Regional Office ☑ TCEQ Central Office

☑ Public Place (specify) Prosper Community Library

Section 7. Voluntary Submittal

For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.

Will you provide notice of this application, including notice in alternative languages?

☒ Yes ☐ No

What types of notice will be provided?

☒ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2429

TYPE V PERMIT APPLICATION

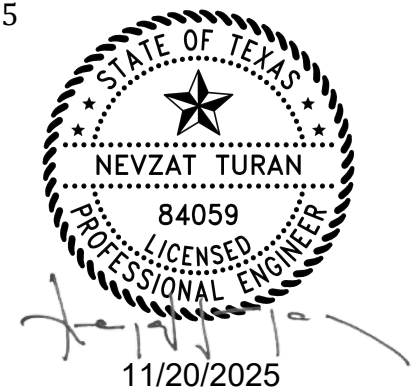
PARTS I/II
GENERAL APPLICATION REQUIREMENTS

Prepared for

North Texas Municipal Water District

November 2025

Revised November 20, 2025



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. 1678-013-11-08

This document is issued for permitting purposes only.

CONTENTS

TABLES AND FIGURES **I/II-iv**

LIST OF ACRONYMS **I/II-V**

1 INTRODUCTION **I/II-1-1**

2 SUPPLEMENTARY TECHNICAL REPORT **I/II-2-1**
2.1 Facility Description and Project Overview I/II-2-1
2.1.1 Permit Boundary I/II-2-1
2.1.2 Waste Acceptance Plan I/II-2-1
2.1.3 Service Area and Population Equivalent I/II-2-5
2.1.4 Site Development Plan I/II-2-6
2.1.5 Site Operating Plan I/II-2-6
2.2 Texas Historical Commission Review I/II-2-7
2.3 North Central Texas Council of Governments I/II-2-7
2.4 Abandoned Oil and Water Wells I/II-2-7
2.4.1 Water Wells I/II-2-7
2.4.2 Oil and Gas Wells I/II-2-7
2.5 Internet Posting I/II-2-8
2.6 Other Permits/Authorizations I/II-2-8

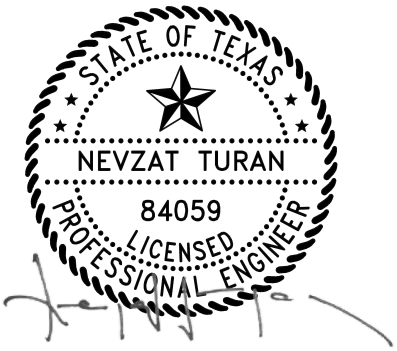
3 EXISTING CONDITIONS SUMMARY **I/II-3-1**

4 MAPS **I/II-4-1**

5 PROPERTY OWNERS LIST AND MAP **I/II-5-1**

6 AERIAL PHOTOGRAPH **I/II-6-1**

7 LAND USE **I/II-7-1**
7.1 Character of Surrounding Land and Land Use I/II-7-1
7.2 Location and Zoning I/II-7-1
7.3 Surrounding Land Use I/II-7-1
7.4 Growth Trends of the Nearest Community I/II-7-2
7.5 Proximity to Residences and Other Uses I/II-7-2
7.6 Land Use Conclusions I/II-7-2
7.7 Oil and Water Wells Within 500 Feet I/II-7-3



11/12/2025

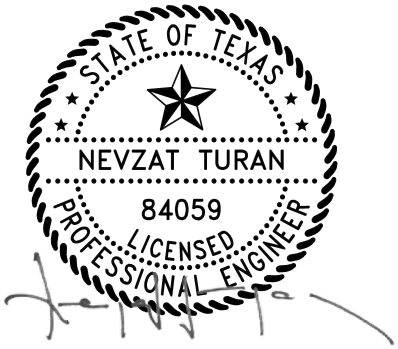
CONTENTS (Continued)

8	**TRANSPORTATION**		**I/II-8-1**
	8.1	Traffic Information	I/II-8-1
	8.2	Airport Impact	I/II-8-1
9	**GENERAL GEOLOGY AND SOILS STATEMENT**		**I/II-9-1**
10	**GROUNDWATER AND SURFACE WATER STATEMENT**		**I/II-10-1**
	10.1	Groundwater Statement	I/II-10-1
	10.2	Surface Water Statement	I/II-10-1
11	**FLOODPLAIN AND WETLANDS STATEMENT**		**I/II-11-1**
	11.1	Floodplain Statement	I/II-11-1
	11.2	Wetlands Statement	I/II-11-1
12	**PROTECTION OF ENDANGERED SPECIES**		**I/II-12-1**
13	**LEGAL DESCRIPTION**		**I/II-13-1**
	13.1	Legal Description	I/II-13-1
	13.2	Easements	I/II-13-1
14	**PROPERTY OWNER AFFIDAVIT**		**I/II-14-1**
15	**LEGAL AUTHORITY**		**I/II-15-1**
16	**EVIDENCE OF COMPETENCY**		**I/II-16-1**
	16.1	Solid Waste Sites	I/II-16-1
	16.2	Gateway Drive TS Key Personnel	I/II-16-1
	16.3	Equipment	I/II-16-2
17	**APPOINTMENTS**		**I/II-17-1**

APPENDIX I/IIA
Demonstration of Coordination

APPENDIX I/IIB
Area Water Well Information

APPENDIX I/IIC
Environmental Evaluation Report



TABLES AND FIGURES

Tables **Page**

2-1	Gateway Drive Transfer Station Design Capacity	I/II-2-2
5-1	Property Owners List	I/II-5-2
7-1	Growth Trends – Average Annual Growth Rate	I/II-7-2

Figures

I/II-3.1	Facility Plan – Aerial
I/II-4.1	Site Location Map
I/II-4.2	General Topographic Map
I/II-4.3	Structures and Inhabitable Buildings within 500 Feet
I/II-5.1	Adjacent Property Owners Map
I/II-6.1	Aerial Photograph
I/II-7.1	Land Use Map – Aerial
I/II-7.2	1-Mile Zoning Map
I/II-7.3	2-Mile Zoning Map
I/II-7.4	Cities within 5 Mile Radius
I/II-8.1	Area Airports
I/II-11.1	FEMA Flood Insurance Rate Map (FIRM)

LIST OF ACRONYMS

CFR – Code of Federal Regulations

CWA – Clean Water Act

ETJ – Extra Territorial Jurisdiction

FEMA – Federal Emergency Management Agency

FIRM – Flood Insurance Rate Map

MSW – Municipal Solid Waste

NCTCOG – North Central Texas Council of Governments

NTMWD – North Texas Municipal Water District

POTW – Publicly Owned Treatment Work

SDP – Site Development Plan

SOP – Site Operating Plan

SWP3 – Stormwater Pollution Prevention Plan

TAC – Texas Administrative Code

TCEQ – Texas Commission on Environmental Quality

THC – Texas Historical Commission

TS – Transfer Station

TWDB – Texas Water Development Board

TxDOT – Texas Department of Transportation

VSQG – Very Small Quantity Generator

WCG – Weaver Consultants Group

1 INTRODUCTION

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

The Gateway Drive Transfer Station (TS) Facility is a proposed Type V municipal solid waste (MSW) processing facility to be located in Collin County, Texas. The proposed TS will be located east of Gateway Drive and BNSF Railroad south of PGA Parkway, west of Preston Road (State Highway 289) and Frisco Fire Station #9. Gateway Drive TS will be owned and operated by North Texas Municipal Water District (NTMWD).

The Gateway Drive TS will provide an efficient means to transfer MSW that is generated by NTMWD's Solid Waste Member Cities (currently Allen, Frisco, McKinney, Plano, and Richardson) and other customers in proximity to the TS facility in Collin County and the surrounding areas to a Texas Commission on Environmental Quality (TCEQ) permitted landfill. The General Application Requirements section (Parts I and II) of this application for the Gateway Drive TS has been prepared consistent with the applicable TCEQ requirements set forth in Title 30 TAC §330.59 and §330.61. As it is allowed by Title 30 TAC §330.57(c)(2), Parts I and II of the application are combined under "General Application Requirements." Section 2, Supplementary Technical Report, presents an overview of the project and a detailed facility description, as well as the types of waste that will be accepted at the facility. The remaining portions of the General Application Requirements section of this permit application present information on specific existing conditions (i.e., land use, transportation, and various compliance requirements) related to the TS facility location and legal matters of the entities involved in the application process.

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 Gateway Drive TS is a proposed Type V MSW processing facility located approximately 0.2 miles south of the intersection of PGA Parkway and Gateway Drive, and 0.65 miles east of the Dallas North Tollway. The longitudinal and latitudinal geographic coordinates for the Gateway Drive TS are shown in Figure I/II-4.2.

The proposed Gateway Drive TS is located on the north side of the City of Frisco in Collin County, Texas. The proposed TS will provide NTMWD the ability to collect, process, load, and transport solid waste and recyclables more efficiently by allowing small solid waste collection vehicles to transfer the solid waste into larger transfer trailers before transport to a permitted MSW landfill.

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

2.1.1 Permit Boundary

The Gateway Drive TS Property Boundary encompasses approximately 14.845 acres, as described in the Property Boundary Legal Description prepared by Westwood Professional Services, Inc., dated March 2024. The Permit Boundary, which covers approximately 14.016 acres, is defined in the Permit Boundary Legal Description prepared by Weaver Consultants Group, dated October 2025. Fencing will be installed along the Permit Boundary to comply with the requirements of Title 30 TAC §330.223(c).

2.1.2 Waste Acceptance Plan

Table 2-1 illustrates the Gateway Drive TS will be capable of processing at the proposed rate of 3,000 tons per day (tpd). The major classifications of solid waste to be accepted at the Gateway Drive TS include household waste, brush, yard waste, commercial solid waste, Class 2 and Class 3 nonhazardous industrial waste, construction-demolition waste, and specific special wastes. Each classification of waste is defined in Title 30 TAC §330.3 and summarized below:

Table 2-1
Gateway Drive Transfer Station Design Capacity
(Operating Hours of 7 AM to 7 PM)

Item	Transfer Station Capacity
Unloading Capacity	
Number of Unloading Positions	6 positions
Average Time to Unload a Collection Vehicle (scale -> TS building (unload) -> TS Exit)	6 minutes
Collection Vehicles Unloading per Hour for Each Unloading Position	10 vehicles/ hour/position
Hourly Unloading Capacity (tons/hr)	420 tons/hour
Maximum Unloading Capacity (tons/day)	5,040 tons/day
Loadout Capacity	
Number of Transfer Loading Positions	2 tunnels
Typical Loading Time for Each Loadout Position (min)	6 minutes
Transfer Trailers Loading per Hour per Position	20 trailers/ hour/position
Hourly Average Loading Capacity (tons/hr)	400 tons/hour
Total Daily Load-out Capacity (tons/day)	4,800 tons/day
Summary	
Design capacity is determined by the lower value of the unloading and loadout capacity. Therefore, the design capacity is 4,800 tons/12 hr - day, which is greater than the requested maximum daily waste acceptance limit of 3,000 tons/day. The TS can process (accept and transfer) 3,000 tons in 7 hours 30 minutes (3,000/400).	

This value represents the number of unloading positions for the TS. This TS has 6 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/ 6 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 2 tunnels]).

The hourly unloading capacity is determined by multiplying the number of unloading positions by the amount of vehicles unloading per hour. i.e., multiplying 6 unloading positions with 10 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 420 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 20x20).

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

- **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, which is defined in Title 30 TAC §330.3 (19) as cuttings or trimmings from trees, shrubs, or lawns and similar materials.
- **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:** Certain special wastes including used oil (separately collected and recycled), used oil filters, whole used or scrap tires or tire pieces, and white goods and metals. Municipal hazardous waste from a Very Small Quantity Generator (VSQG) may be accepted provided the generator provides a certification that it generates no more than 220 pounds of hazardous waste per calendar month.
- **Materials to be accepted for recycling:** Used oil, used oil filters, white goods (see clarification below for CFC's), metals, and tires.

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

- Polychlorinated Biphenyl (PCB) waste, as defined under Title 40 Code of Federal Regulations (CFR), Part 761.
- Items containing chlorinated fluorocarbons (CFCs), such as refrigerators, freezers, and air conditioners, unless the generator or transporter provides written certification that the CFCs have been evacuated from the unit and that it was not knowingly allowed to escape into the atmosphere. These appliances may be accepted without certification at the discretion of NTMWD staff and stored until removed from the facility by a third-party recycler who will engage a certified operator to properly remove the CFCs.
- Liquid waste that does not pass EPA Method 9095 Paint Filter Test unless it is bulk or non-containerized liquid waste that is:
  - household waste other than septic waste;
  - contained liquid waste and the container is a small container similar in size to that normally found in the household waste; or
  - in a container designated to hold liquids for use other than storage.
- Regulated Asbestos Containing Materials (RACM) and Non-Regulated Asbestos-Containing Materials (Non-RACM)
- Lead-acid storage batteries.
- Radioactive materials.
- Class 1 industrial nonhazardous waste.
- Untreated medical waste.
- Septic tank pumpings.
- Commercial and publicly owned domestic wastewater treatment plant sludges, other types of domestic sewage treatment plant sludges, and water-supply treatment plant sludges;
- Grease and grit trap wastes.
- Incinerator ash.
- Dead animals.
- 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.
- Waste from oil, gas, and geothermal activities.
- Certain special wastes, including:
  - Regulated hazardous waste other than from VSQG. Associated hazardous waste from VSQG that may be exempt from full controls is

regulated under 30 TAC Chapter 335, Subchapter N (relating to Household Materials Which Could Be Classified as Hazardous Wastes);

- Wastes from commercial or industrial wastewater treatment plants, air pollution control facilities, and tanks, drums, or containers used for shipping or storing any material that has been listed as a hazardous constituent in Title 40 CFR, Part 261, Appendix VIII but has not been listed as a commercial chemical product in Title 40 CFR §261.33(e) or (f); and
- 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).

2.1.3 Service Area and Population Equivalent

The proposed Gateway Drive TS will provide waste processing services for NTMWD's Solid Waste Member Cities (currently Allen, Frisco, McKinney, Plano, and Richardson) and other customers in proximity to the TS facility in Collin County and the surrounding areas. The facility will have a permitted MSW processing rate of 3,000 tons per day.

Waste will be transferred on a daily basis to a TCEQ Permitted MSW landfill, except in the event of emergency circumstances, such as inclement weather or mechanical breakdown. As economic conditions change, population or member cities grow, 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)
2025	3,000	936,000
2026	3,000	936,000
2027	3,000	936,000
2028	3,000	936,000
2029	3,000	936,000

The estimated maximum daily waste acceptance rate of 3,000 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 3,000 tpd.

As shown below, the average population equivalent using the above projected maximum waste acceptance rate is 1,200,000 persons. As the transfer station

service area conditions change, rate adjustments to the service area population may occur. The population equivalent of the areas served was calculated as follows (for 2025):

$$\frac{(3{,}000\ tons/day)(2{,}000\ lbs/ton)}{(5\ lbs/person/day)} = 1{,}200{,}000\ persons$$

For demonstration purposes, 5 lbs/person/day is used to calculate the population equivalent numbers. Higher than 5 lbs/person/day have been reported in recent years.

2.1.4 Site Development Plan

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

- The TS facility will be a pre-cast, concrete tilt-wall structure approximately 69,000 square feet with a metal roof and walls covering an open concrete floor and loading tunnel. Ventilation openings will be located on the north and south walls. The north and south sides will have openings for hauling vehicle access. Transfer trailers enter the facility from the south.
- Collection vehicles delivering waste will use the tipping floor for both maneuvering and unloading waste. Waste will be pushed west to the loading tunnel where it will be loaded into the transfer trailers.
- Contaminated runoff and tunnel washdown water will drain into trench drains located at the exits of the tunnels as shown on Appendix IIIA drawings. Collected water will be conveyed to a sump located within the TS tunnel and conveyed to a sand/oil separator to be located west of the TS building prior to being discharged to the City of Frisco Publicly Owned Treatment Works (POTW) sanitary sewer system.

2.1.5 Site Operating Plan

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

NTMWD, the general public, and other commercial waste transportation companies may utilize this facility for the receipt and processing of waste between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday. Waste receipt hours for the public will be posted on the entrance sign and will be within the hours listed above.

In addition to the waste acceptance hours above, heavy equipment operation, transfer trailer loading, and transportation of materials off the site may be performed outside of waste acceptance hours. Other non-waste management activities, including administrative and maintenance activities, do not require specific approval and may occur 24 hours per day, 7 days per week.

2.2 Texas Historical Commission Review

A coordination letter was submitted to the Texas Historical Commission (THC) via the eTRAC electronic portal on October 30, 2025, and confirmation of submittal is included in Appendix I/IIA.

2.3 North Central Texas Council of Governments

The proposed Gateway Drive TS is consistent with the North Central Texas Council of Governments (NCTCOG) Regional Solid Waste Management Plan.

Parts I/II of this application was submitted to the NCTCOG on November 12, 2025. A letter documenting that Parts I/II was 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 ERIS, Inc. for an area that included the 14.845-acre Gateway Drive TS property boundary area and the area within a radius of approximately one mile from the TS facility. 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, eight water wells are located within one-mile of the TS facility. A copy of the search is included in Appendix I/IIB.

If in the future any water well is discovered within the permit boundary, NTMWD 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 Gateway Drive TS, for the area within 500 feet of the property 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 no permitted future well locations within the 500-foot radius of the property boundary. No oil or gas wells were observed to exist within the property.

There is an existing industrial waste disposal well that may be located, per the Texas Water Development Board (TWDB) water well logs, within the permit boundary. Following a diligent search of the area, the well was not located. If a well is located within the permit boundary, then the TCEQ Executive Director shall be notified within 30 days. If located, the well will be properly plugged and abandoned, and a well plugging report will be filed with the TWDB and provided to the TCEQ.

2.5 Internet Posting

In accordance with Title 30 TAC §330.57(i), a complete copy of this permit application will be posted to the internet at the following publicly accessible website:
https://www.tceq.texas.gov/permitting/waste_permits/wpd_pending_permit_apps.
All future revisions or supplements to this application will also be posted at the same location. This internet posting is for informational purposes only.

2.6 Other Permits/Authorizations

In accordance with Title 30 TAC §305.45(a)(7), the related permits and authorizations for the facility are summarized in the Part I Form (TCEQ-0650 Form).

3 EXISTING CONDITIONS SUMMARY

This section addresses §330.61(a).

The existing TS facility condition is shown on Figure I/II-3.1. The Gateway Drive TS property boundary encompasses 14.845 acres of undeveloped land of which 14.016 acres will be within the proposed permit boundary. While the immediate surrounding area predominantly consists of similarly undeveloped land, an electrical substation is located approximately 400 feet south of the property boundary with PGA Parkway to the north, the BNSF Railroad to the west, and Frisco Fire Station #9 to the east, each situated beyond 500 feet from the property boundary.

There are no site-specific conditions or additional land use, environmental, or special issues that require special design consideration or mitigation of conditions other than those otherwise described in this application.

N

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SCALE IN FEET

LEGEND

- PROPERTY BOUNDARY (SEE NOTE 2)
- PERMIT BOUNDARY
- 630 — EXISTING CONTOUR
- N 6915000 — STATE PLANE COORDINATE
- EASEMENT (SEE NOTE 3)
- TREE LINE

NOTES:

1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY WEAVER CONSULTANTS GROUP ON 11-25-2024.
2. THE PROPERTY BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION DATED 03-05-2024 PREPARED BY WESTWOOD PROFESSIONAL SERVICES, INC. ONLY PERMIT BOUNDARY IS SHOWN WHEN PROPERTY AND PERMIT BOUNDARIES OVERLAP.
3. DRAINAGE EASEMENTS WERE ESTABLISHED TO PROVIDE THE POST DEVELOPMENT DRAINAGE DESIGN FOR THE PLANNED INDUSTRIAL PARK DEVELOPMENT FOR SEVERAL FACILITIES INCLUDING THE TRANSFER STATION.

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NEVZAT TURAN
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11/12/2025

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DATE: 11/2025
FILE: 1678-013-11
CAD: 3.1-EXISTING CONDITIONS.DWG

DRAWN BY: RAA
DESIGN BY: PME
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
NORTH TEXAS MUNICIPAL WATER DISTRICT

REVISION NO.	DATE	DESCRIPTION

TYPE V PERMIT APPLICATION EXISTING CONDITIONS

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE I/II-3.1

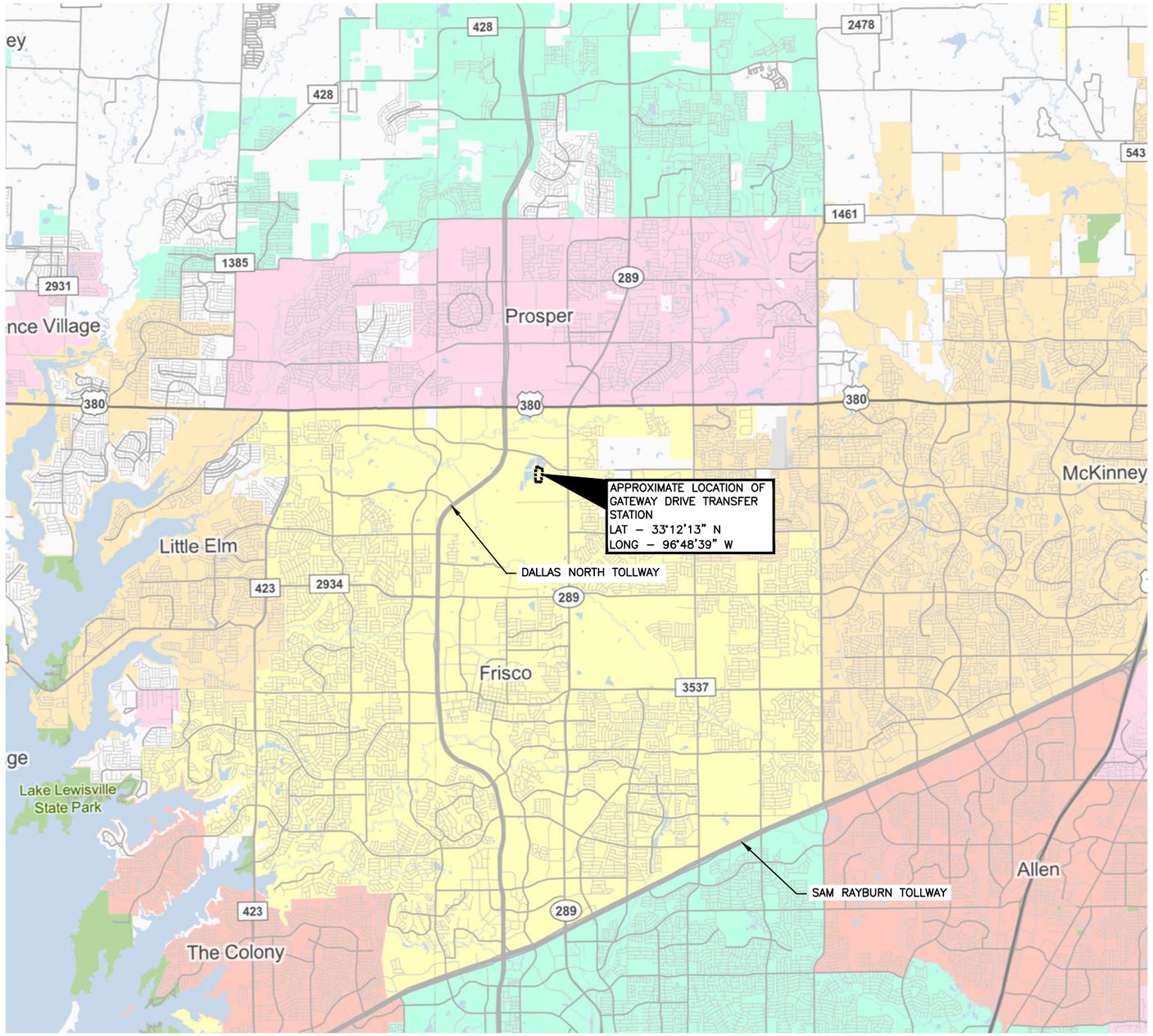
O:\1678\13\TYPE V APPLICATION\PARTS I-II\3.1-EXISTING CONDITIONS.dwg, farrington, 1:2

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).

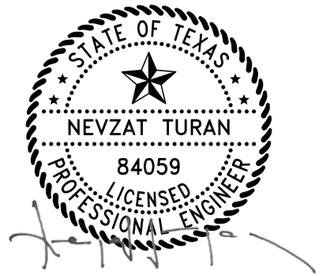
A site location map and general topographic map are presented on Figures I/II-4.1 and I/II-4.2. Structures and inhabitable buildings located within 500 feet are shown on Figure I/II-4.3.

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 TS facility.



LEGEND

- PERMIT BOUNDARY
- 380 — US HIGHWAY
- 3537 — FARM–TO–MARKET ROAD
- 289 — STATE HIGHWAY



11/12/2025

NOTE:

1. REPRODUCED FROM TEXAS DEPARTMENT OF TRANSPORTATION – STATEWIDE PLANNING MAP, OCTOBER 2025.

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DRAWN BY: RAA
DESIGN BY: VG
REVIEWED BY: CRM

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TYPE V PERMIT APPLICATION SITE LOCATION MAP

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

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FIGURE I/II–4.1

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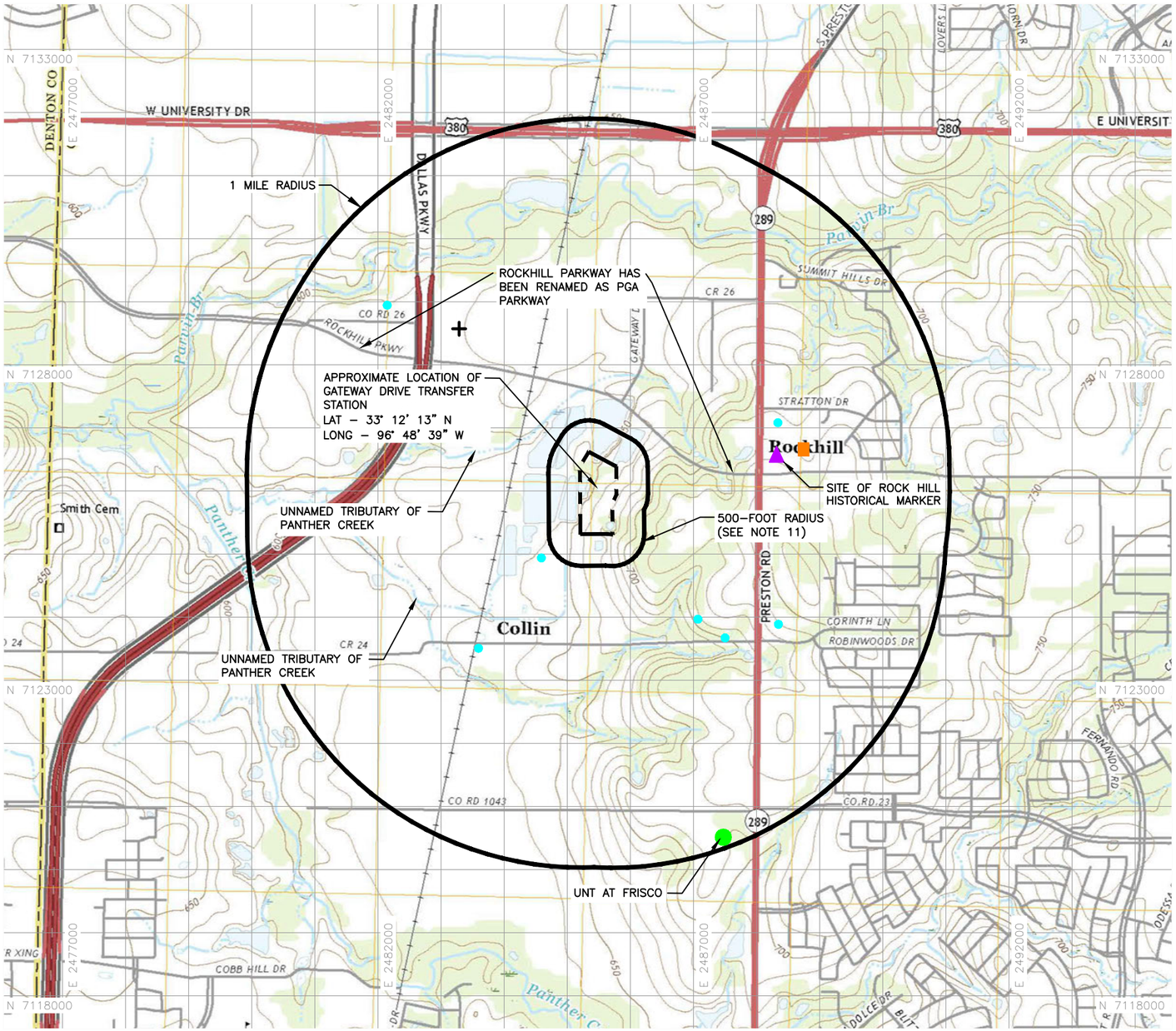

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SCALE IN FEET

LEGEND

PERMIT BOUNDARY

ROAD CLASSIFICATION

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

CHURCH

R RECREATIONAL AREA

LICENSED DAY–CARE FACILITY

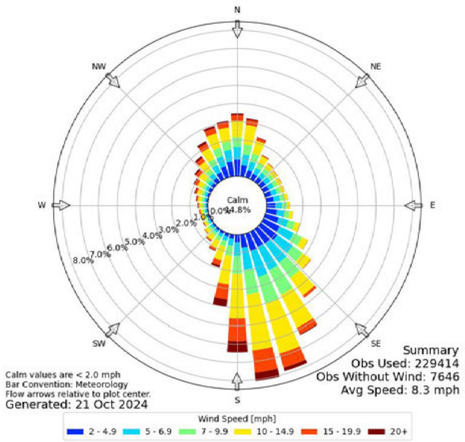
SCHOOL

HISTORICAL MARKER

REGISTERED WATER WELL

HOSPITAL (SEE NOTE 5)

Windrose Plot for [TKI] MC KINNEY
Obs Between: 10 Feb 1997 10:53 AM - 21 Oct 2024 03:53 AM America/Chicago



NOTES:

1. ADAPTED FROM THE USGS 7.5 MINUTE QUADRANGLE TOPOGRAPHIC MAPS (FRISCO, TX 2022).
2. THE WIND ROSE IS REPRODUCED FROM THE TEXAS AUTOMATED SURFACE OBSERVING SYSTEM (ASOS) AT THE (TK) MCKINNEY.
3. THE PROPERTY BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION DATED 03–05–2024 PREPARED BY WESTWOOD PROFESSIONAL SERVICES, INC.
4. THE SITE ACCESS ROADS WITHIN 1–MILE OF THE SITE ARE: GATEWAY DRIVE (CONCRETE), PGA PARKWAY (CONCRETE), DALLAS NORTH TOLLWAY (CONCRETE), DALLAS PARKWAY (CONCRETE), PRESTON ROAD (STATE HWY 289)(CONCRETE), AND U.S. HWY 380 (UNIVERSITY DRIVE)(CONCRETE).
5. THERE ARE NO KNOWN HEALTH CLINICS WITHIN 1–MILE, BUT THERE IS ONE HOSPITAL.
6. NO SPRINGS ARE LOCATED WITHIN THE 1–MILE RADIUS.
7. THERE ARE NO PONDS OR LAKES WITHIN 1–MILE, BUT PARVIN BRANCH AND PANTHER CREEK ARE WITHIN 1–MILE.
8. THERE ARE NO RECREATIONAL AREAS, ARCHAEOLOGICAL SITES/CEMETERIES, NATURE PRESERVES OR LICENSED DAY–CARE FACILITIES WITHIN 1–MILE, BUT THERE IS 1 CHURCH, 1 SCHOOL, AND 1 HISTORICAL MARKER.
9. REGISTERED WATER WELL LOCATIONS IDENTIFIED BY ERIS (2025).
10. FOR ACCESS CONTROL, REFER TO PART III, FIGURE IIIA–1 GENERAL SITE PLAN.
11. REFER TO FIGURE I/II–4.3 FOR STRUCTURES AND INHABITABLE BUILDINGS WITHIN 500 FEET OF THE PERMIT BOUNDARY.

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REVISION NO.	DATE	DESCRIPTION

TYPE V PERMIT APPLICATION
GENERAL TOPOGRAPHIC MAP

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

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FIGURE I/II–4.2

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O:\1678\13\TYPE V APPLICATION\PARTS I–IV\4.2–GENERAL TOPO MAP.dwg, rarrington, 1:2

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0 200 400

SCALE IN FEET

LEGEND

PERMIT BOUNDARY (SEE NOTE 5)

PAVED AREA

NOTE:

1. GEOREFERENCED IMAGERY SHOWN HEREON PROVIDED BY NEARMAP MAPBROWSER ONLINE DATABASE, DATED JUNE 28, 2025.
2. ALL STRUCTURES WITHIN 500 FEET ARE SHOWN ON THIS FIGURE. LAND USE WITHIN A 500 FOOT RADIUS OF THE SITE CONSISTS OF INDUSTRIAL AND AGRICULTURAL AREAS.
3. REFER TO APPENDIX I/IIB FOR ADDITIONAL WATER WELL INFORMATION.
4. A SEARCH TO IDENTIFY WATER WELLS WITHIN A 1–MILE RADIUS OF THE PERMIT BOUNDARY WAS COMPLETED BY ENVIRONMENTAL RISK INFORMATION SERVICES (ERIS) AND WCG IN APRIL 2025. NO WATER WELLS WERE LOCATED WITHIN 500 FEET OF THE SITE, BUT 7 WERE LOCATED WITHIN 1–MILE OF THE SITE.
5. FENCING (6–FOOT WROUGHT IRON OR SIMILAR) MEETING THE REQUIREMENTS OF TITLE 30 TAC §330.223(c) WILL BE INSTALLED ALONG THE PERMIT BOUNDARY.

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DESIGN BY: VG
REVIEWED BY: CRM

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PREPARED FOR
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REVISION NO.	DATE	DESCRIPTION

TYPE V PERMIT APPLICATION STRUCTURES AND INHABITABLE BUILDINGS WITHIN 500 FEET

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

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FIGURE I/II–4.3

O:\1678\13\TYPE V APPLICATION\PARTS I–II\4.3–STRUCTURES.dwg, carrington, 1:2

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 TS facility property 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 the Collin County Appraisal District records as of October 2025.

All easements within or adjacent to the facility 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. Mineral estate and interests are as described in Section 13.

Table 5-1
Property Owners List

1 NORTH TEXAS MUNICIPAL WATER DISTRICT
501 E BROWN STREET
WYLIE TX 75098-4406

2 BALCONES RECYCLING DALLAS LLC
9301 JOHNNY MORRIS RD
AUSTIN TX 78724-1523

3 STAR BUSINESS PARK LLC
1 COWBOYS WAY
FRISCO TX 75034-1962

4 CITY OF FRISCO
6101 FRISCO SQUARE BLVD
SUITE 1000
FRISCO TX 75034-3239

5 ONCOR ELECTRIC DELIVERY COMPANY
PO BOX 139100
DALLAS TX 75313-9100

6 FRISCO COMMUNITY DEVELOPMENT CORPORATION
6101 FRISCO SQUARE BLVD FLOOR 5
FRISCO TX 75034-3253

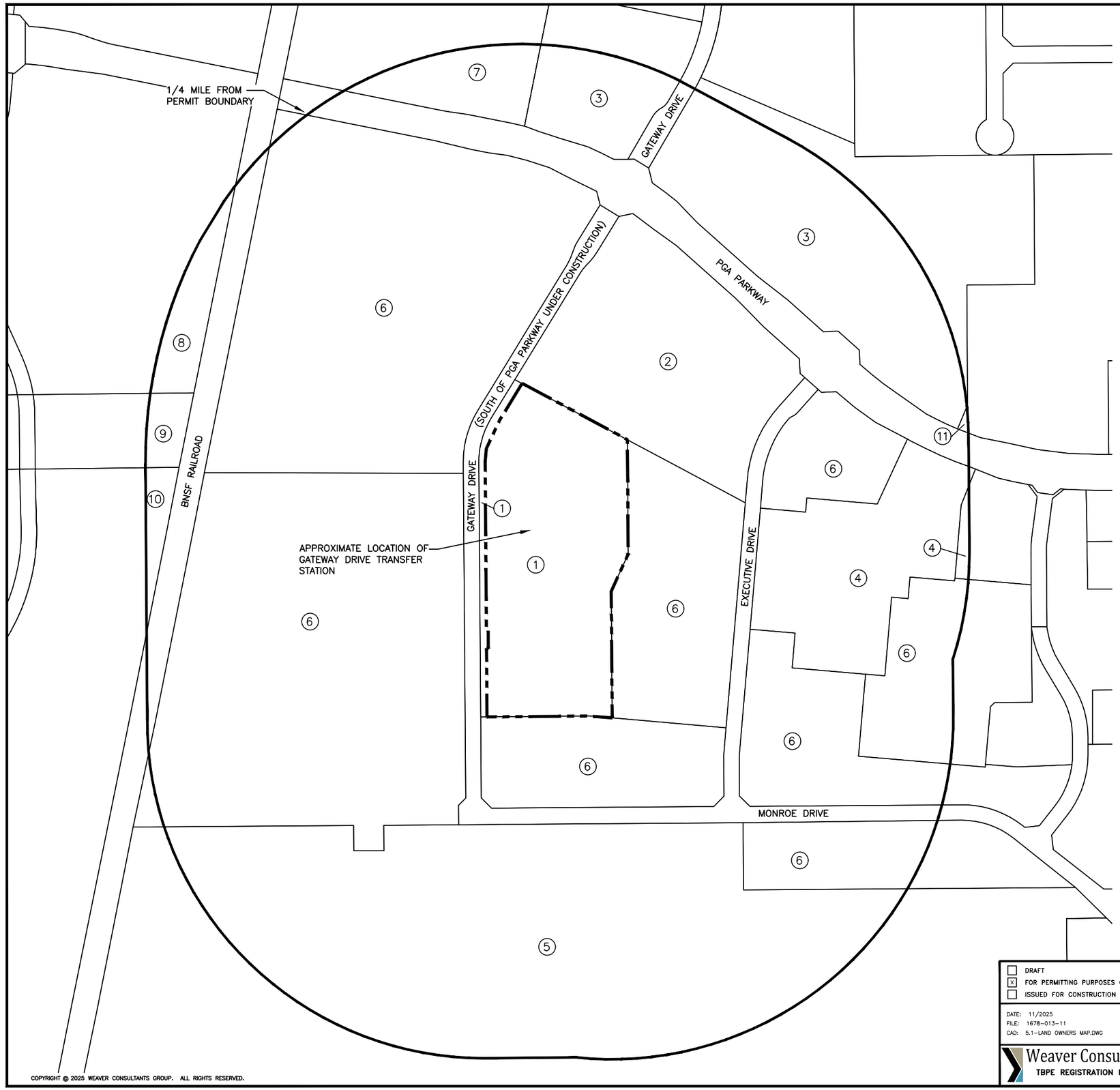
7 STAR BUSINESS PARK DCM LLC
1 COWBOYS WAY
FRISCO TX 75034-1962

8 BLUE STAR LAND LP
1 COWBOYS WAY STE 100
FRISCO TX 75034-1977

9 BLUE STAR LAND LP
8000 WARREN PKWY STE 100
FRISCO TX 75034-2231

10 PROSPER INDEPENDENT SCHOOL DISTRICT
605 E 7TH ST
PROSPER TX 75078-2545

11 TAYLOR SMARTT, LLC
21018 HWY 71 WEST
SUITE 300
SPICEWOOD TX 78669



N

0 200 400

SCALE IN FEET

LEGEND

PERMIT BOUNDARY

1/4 MILE RADIUS

(2) PROPERTY OWNER DESIGNATION (SEE NOTE 2)

NOTE:

1. PROPERTY LINES REPRODUCED FROM CITY OF FRISCO LAND RECORDS, PUBLISHED NOVEMBER 2021.
2. PROPERTY OWNER INFORMATION OBTAINED FROM COLLIN COUNTY APPRAISAL DISTRICT IN OCTOBER 2025.

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DRAWN BY: RAA
DESIGN BY: VG
REVIEWED BY: CRM

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TYPE V PERMIT APPLICATION ADJACENT PROPERTY OWNERS MAP

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

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FIGURE I/II-5.1

O:\1678\13\TYPE V APPLICATION\PARTS I-II\5.1-ADJACENT PROPERTY MAP.dwg, rarrington, 1:2

N

0 200 400

SCALE IN FEET

LEGEND

PERMIT BOUNDARY

1/4 MILE RADIUS

(2) PROPERTY OWNER DESIGNATION (SEE NOTE 2)

NOTE:

1. PROPERTY LINES REPRODUCED FROM CITY OF FRISCO LAND RECORDS, PUBLISHED NOVEMBER 2021.
2. PROPERTY OWNER INFORMATION OBTAINED FROM COLLIN COUNTY APPRAISAL DISTRICT IN OCTOBER 2025.
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TYPE V PERMIT APPLICATION ADJACENT PROPERTY OWNERS MAP-AERIAL

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

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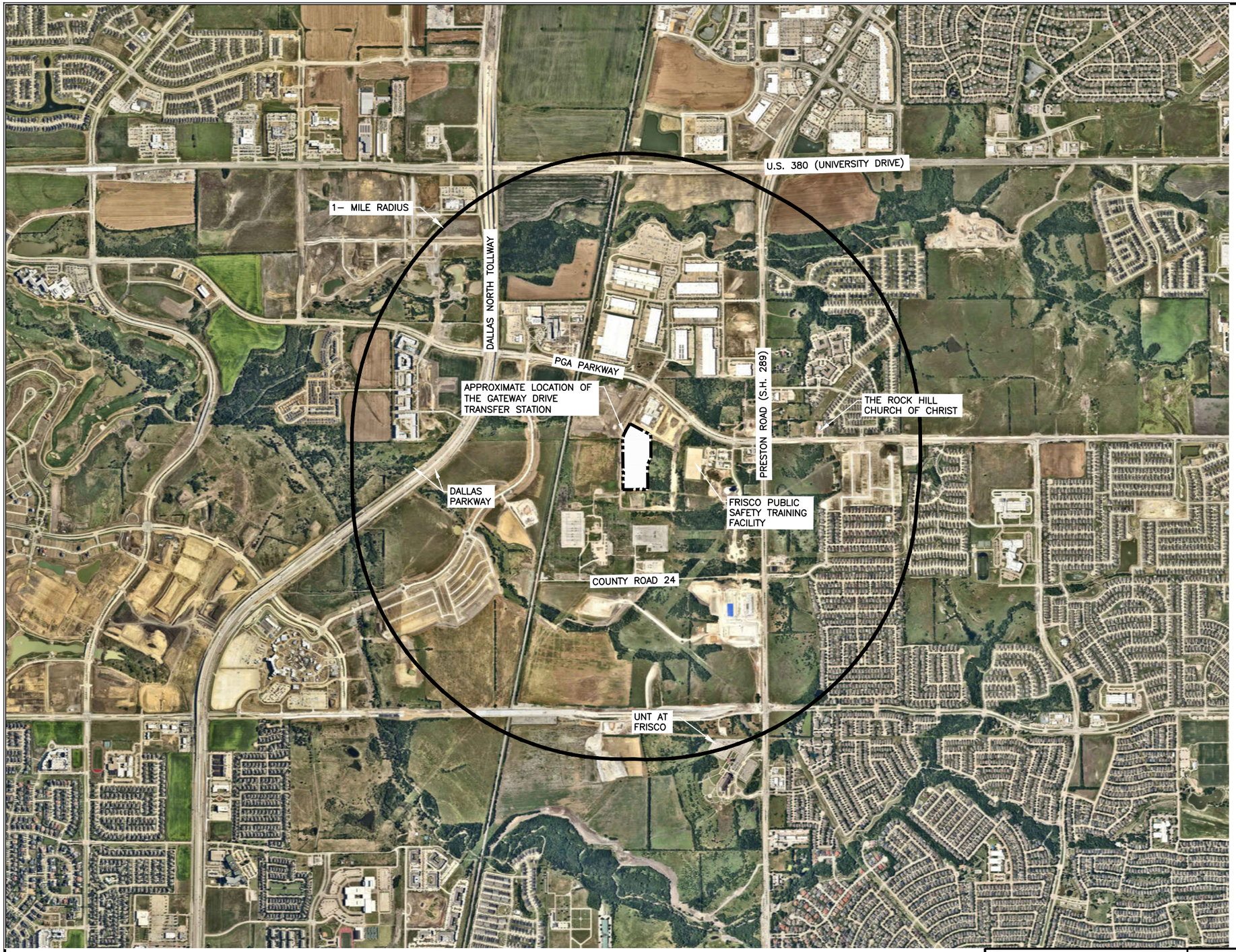
FIGURE I/II-5.2

O:\1678\13\TYPE V APPLICATION\PARTS I-II\5.2-ADJACENT PROPERTY MAP-AERIAL.dwg, rarrington, 1:2

6 AERIAL PHOTOGRAPH

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

This section addresses §330.61(f).



N

0 1000 2000

SCALE IN FEET

LEGEND

PERMIT BOUNDARY

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TYPE V PERMIT APPLICATION AERIAL PHOTOGRAPH

GATEWAY DRIVE TRANSFER STATION
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FIGURE I/II-6.1

O:\1678\13\TYPE V APPLICATION\PARTS I-II\6.1-AERIAL PHOTOGRAPH.dwg, farrington, 12

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 Gateway Drive TS property 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 (1-Mile Zoning Map). This map shows the zoning designation for each area within a 1-mile radius of the permit boundary.
- Figure I/II-7.3 (2-Mile Zoning Map). This map shows the City of Frisco's and the Town of Prosper's zoning designations within a two-mile radius of the permit boundary.
- Figure I/II-7.4 (Cities within 5 Miles Radius). This map is used to show area cities and towns within 5 miles.

7.2 Location and Zoning

The Gateway Drive TS will be located approximately 0.2 miles south of the PGA Parkway and Gateway Drive intersection and 0.65 miles east of the Dallas North Tollway. The Gateway Drive TS will be located within the city limits of Frisco, Texas. The property is zoned as "Industrial" based on the City of Frisco's Geographic Information Systems (GIS) mapping. Zoning maps are provided as Figures I/II-7.2 and I/II-7.3.

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, educational, residential, agricultural, and undeveloped.

7.4 Growth Trends of the Nearest Community

The facility property is located inside the city limits of Frisco. Additional cities and towns within a 5-mile radius of the TS facility include Prosper, Celina, McKinney and Little Elm (as shown on Figure I/II-7.4). The growth trends for the NTMWD's Solid Waste System Member Cities (currently consisting of Allen, Frisco, McKinney, Plano, and Richardson) were assessed and are presented in Table 7-1. The population projections were taken from the Texas Water Development Board (TWDB) 2021 Regional Water Plan.

Table 7-1 Growth Trends
Average Annual Growth Rate

City	2021-2030	2031-2040	2041-2050
NTMWD's Solid Waste Member Cities	0.65%	0.80%	1.11%

7.5 Proximity to Residences and Other Uses

The nearest residence is found approximately 3,185 feet northeast of the transfer station. The nearest business is the Dallas Cowboys Pro Shop Outlet located approximately 1,265 feet to the north of the property boundary. Most of the approximately 690 residences are located northeast and southeast of the TS. The commercial/industrial operations are located north, east, and south of the facility. Approximately 4 commercial establishments are located with a 1-mile radius.

As shown on Figure I/II-4.2, there is one hospital, one church, and one school located within a 1-mile radius of the property boundary.

7.6 Land Use Conclusions

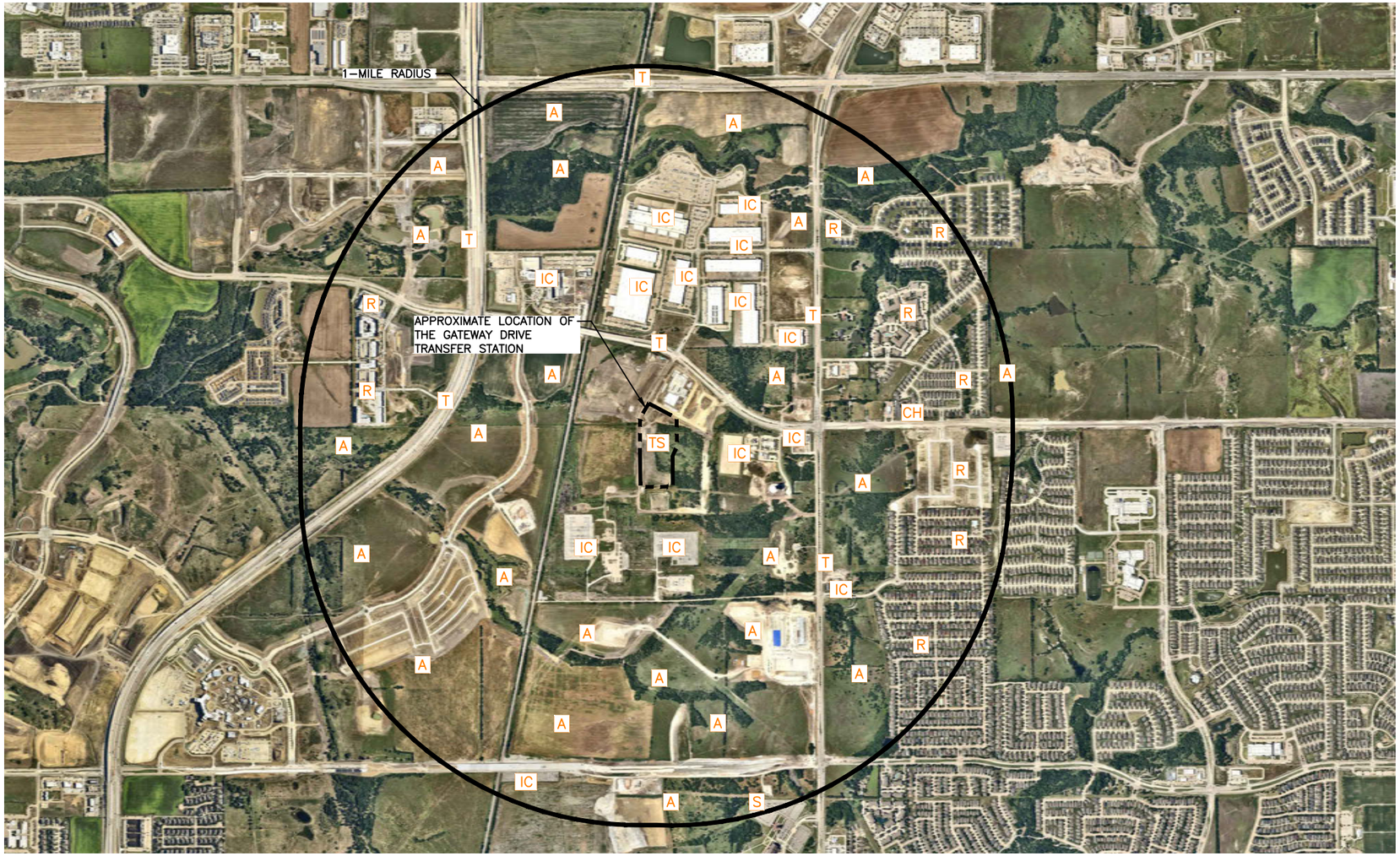
The continued use of this land for the existing transfer station represents a compatible land use for the following reasons.

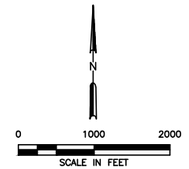
- The TS facility is designed to have minimal impact on the surrounding area.
- The roadways provide adequate access.
- The existing commercial/industrial use of the land is similar to that of the proposed transfer station.

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 oil or gas 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 TWDB, Environmental Risk Information Services (ERIS), and Texas Commission on Environmental Quality (TCEQ) Water Wells was conducted for the TS facility. The results of this search are contained in Appendix I/IIB. Seven water wells and no plugged or abandoned water wells are located within or near the 1-mile radius of the TS facility. According to the searched records, none of the water wells were identified to be within 500 feet of the TS facility. The nearest water well is approximately 0.14 miles southwest of the property boundary. A map including the locations of the identified wells can be found on Figure I/II-4.2 in Section 4.





LEGEND

- PERMIT BOUNDARY
- [TS] TRANSFER STATION
- [T] TRANSPORTATION ROUTE
- [A] AGRICULTURE/OPEN SPACE/PARK
- [R] RESIDENTIAL
- [IC] INDUSTRIAL/COMMERCIAL/CITY
- [S] SCHOOL/EDUCATIONAL
- [CH] CHURCH
- [C] CEMETERY

LAND USE WITHIN 1 MILE OF PERMIT BOUNDARY	
GATEWAY DRIVE TS PERMIT BOUNDARY	0.59%
RESIDENTIAL (APPROXIMATELY 690 RESIDENCES)	11.29%
AGRICULTURE/OPEN SPACE/PARK	53.52%
INDUSTRIAL/CITY/COMMERCIAL (APPROXIMATELY 4 COMMERCIAL ESTABLISHMENTS)	21.21%
TRANSPORTATION ROUTE	11.81%
CHURCH	0.08%
EDUCATIONAL (UNT AT FRISCO)	1.50%
RECREATION	0.00%
TOTAL	100.00%

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LAND USE MAP-AERIAL

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

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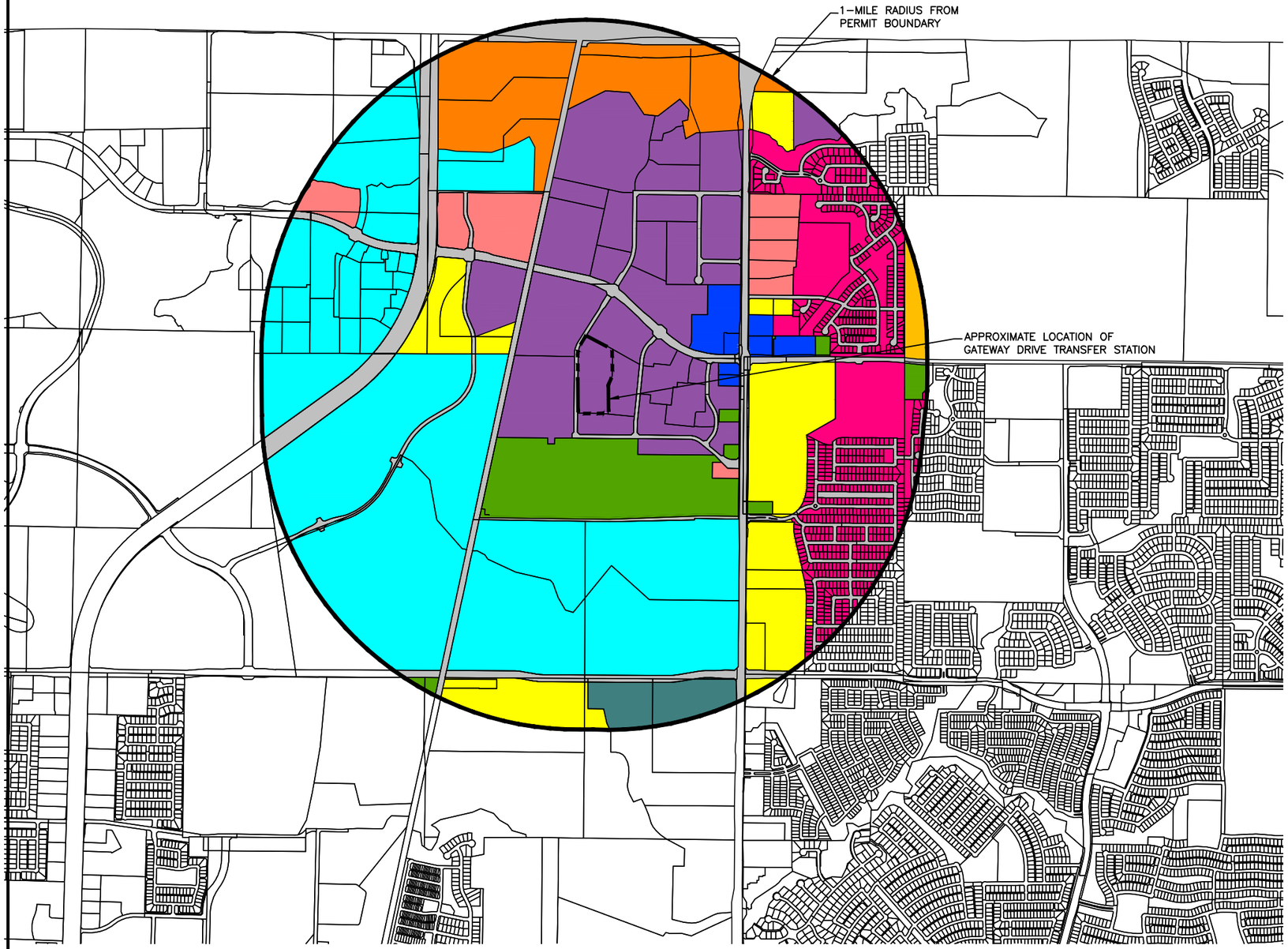
FIGURE I/II-7.1

O:\1678\13\TYPE V APPLICATION\PARTS I-II\7.1-LAND USE-AERIAL.dwg, carrington, 1:2



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N

0 1000 2000
SCALE IN FEET

LEGEND

- PERMIT BOUNDARY
- HIGHWAY DISTRICT
- INDUSTRIAL
- RETAIL
- COMMERCIAL
- AGRICULTURAL
- OFFICE
- MIXED USE
- RESIDENTIAL
- UNDEVELOPED
- ROADWAYS
- EDUCATIONAL

NOTE:

1. PROPERTY LINES REPRODUCED FROM CITY OF FRISCO LAND RECORDS, PUBLISHED NOVEMBER 2021.
2. ZONING MAP REPRODUCED FROM CITY OF FRISCO GENERAL MAP-PLANNING AND ZONING.

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TYPE V PERMIT APPLICATION
1-MILE ZONING MAP

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

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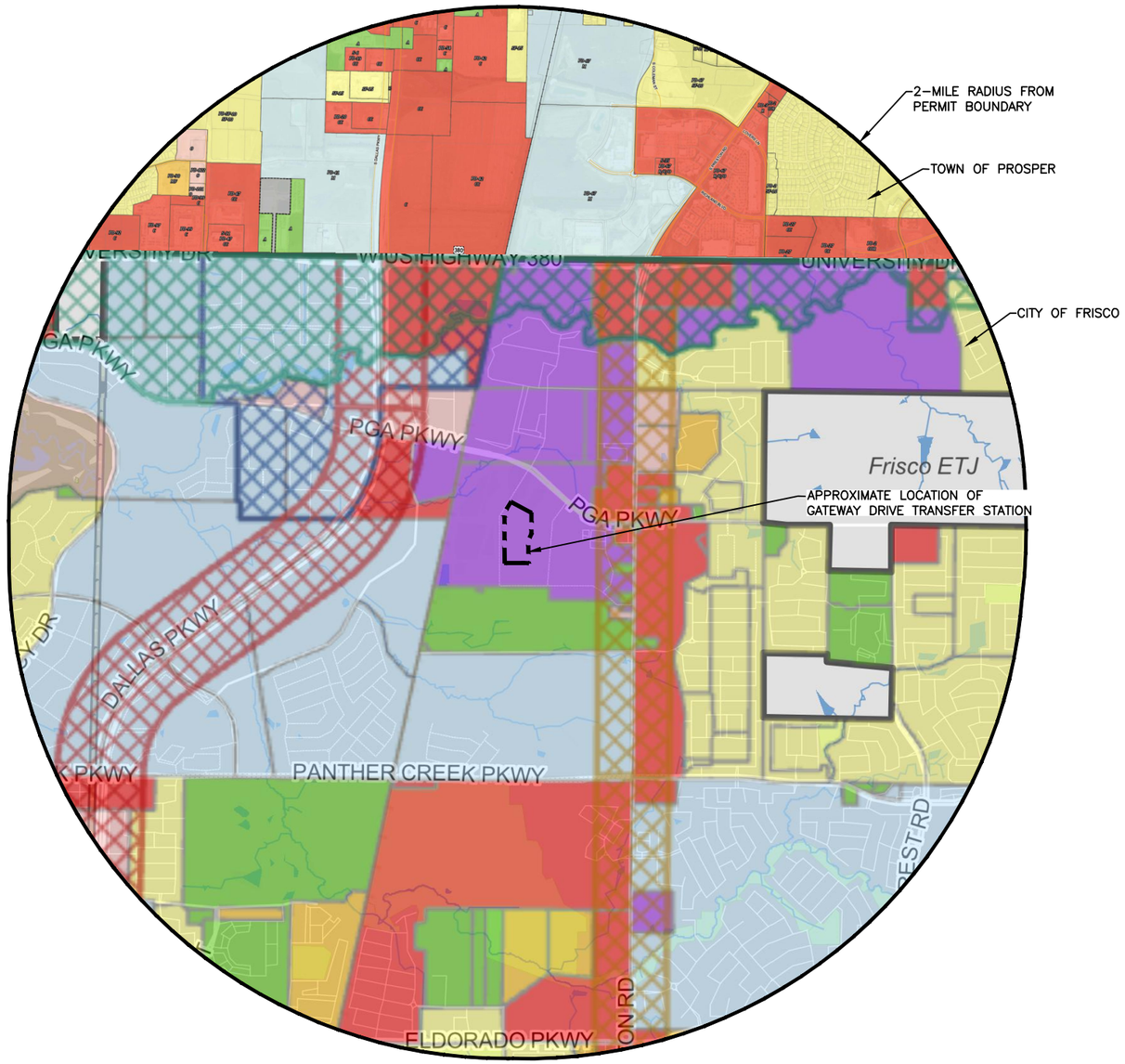
FIGURE 1/II-7.2

O:\1678\13\TYPE V APPLICATION\PARTS 1-II\7.2-ZONING MAP.dwg, carrington, 1:2



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N

0 1500 3000
SCALE IN FEET

LEGEND

PERMIT BOUNDARY

CITY OF FRISCO

- Agricultural
- Single Family
- Multi Family
- Office
- Retail
- Information Technology
- Industrial
- College
- Original Town Residential
- Original Town Commercial
- OTC*
- Mixed Use

TOWN OF PROPSER

NOTE:

1. PROPERTY LINES REPRODUCED FROM CITY OF FRISCO LAND RECORDS, PUBLISHED NOVEMBER 2021.
2. ZONING MAP FOR CITY OF FRISCO OBTAINED FROM https://frisco.maps.arcgis.com/apps/webappviewer/index.html?id=ed02a5ef13e14fccb0708c88e673fc56
3. ZONING MAP FOR TOWN OF PROSPER OBTAINED FROM https://www.prospertx.gov/DocumentCenter/View/657/Zoning-Map-PDF?bidId=

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TYPE V PERMIT APPLICATION
2-MILE ZONING MAP

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

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FIGURE I/II-7.3

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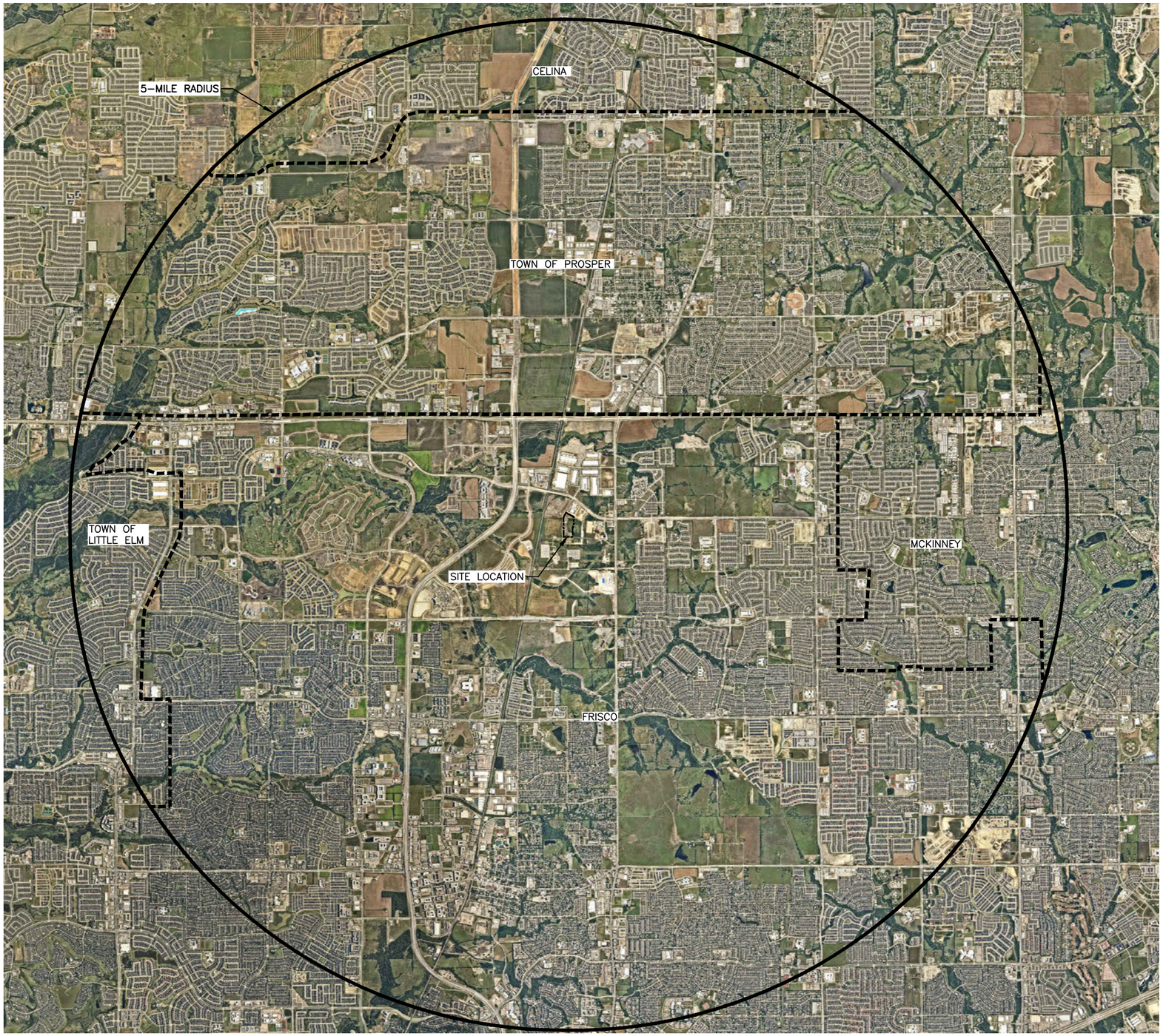

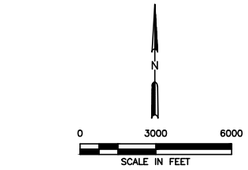

LEGEND

PERMIT BOUNDARY

5–MILE RADIUS

CITY LIMITS

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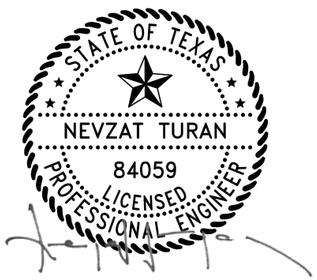

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TYPE V PERMIT APPLICATION
CITIES WITHIN 5–MILE RADIUS

GATEWAY DRIVE TRANSFER STATION
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FIGURE I/II–7.4

O:\1678\13\TYPE V APPLICATION\PARTS I–II\7.4–SURROUNDING CITIES.dwg, carrington, 1:2

8 TRANSPORTATION

8.1 Traffic Information

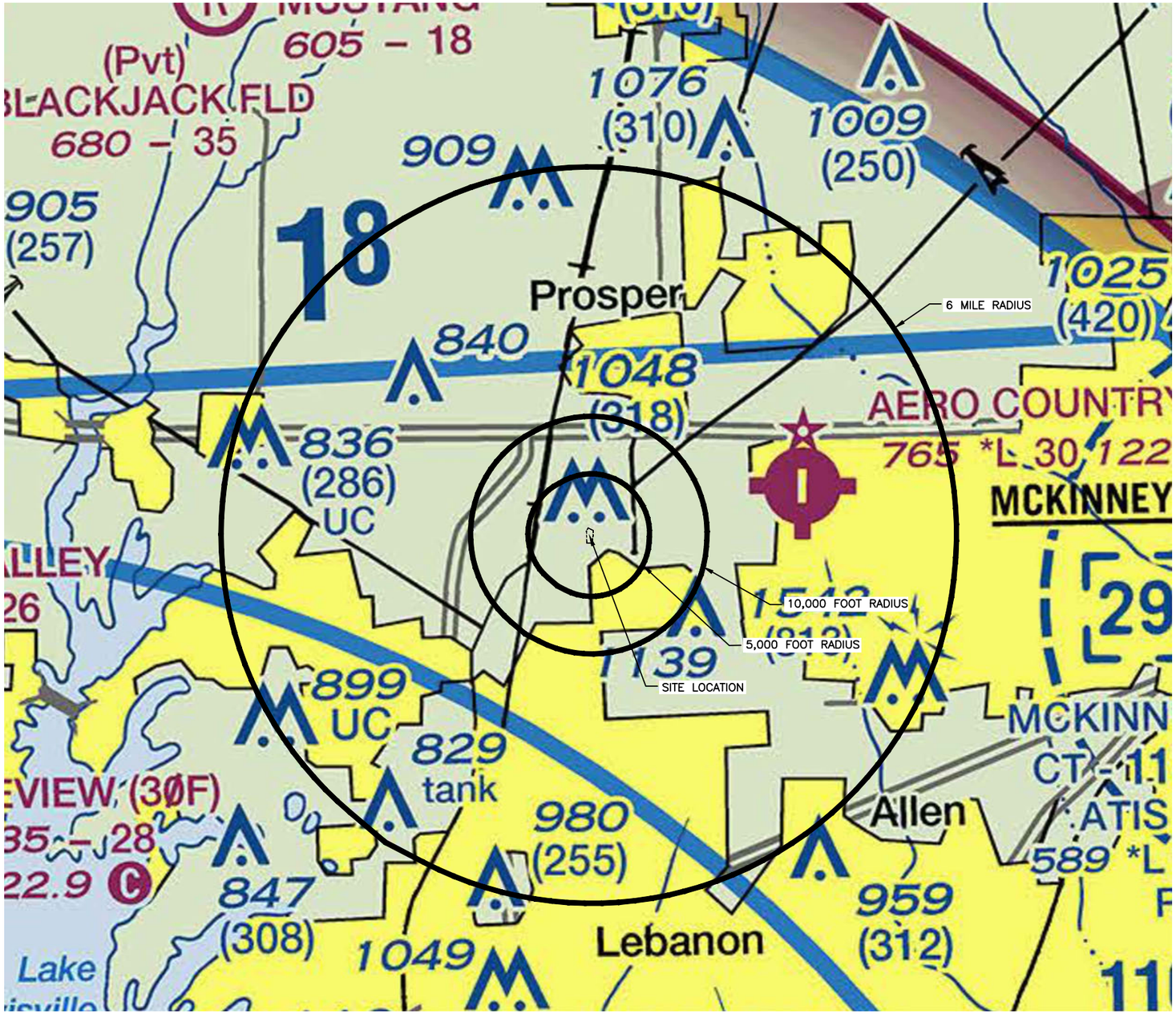
This section addresses §330.61(i).

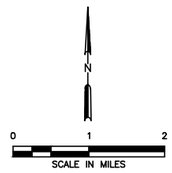
The proposed Gateway Drive TS will be located approximately 0.2 miles south of the intersection of PGA Parkway and Gateway Drive, and 0.65 miles east of the Dallas North Tollway in Frisco, Collin County, Texas. Vehicles bound for the Gateway Drive TS will access the TS facility using Gateway Drive. Eastbound vehicles will access the TS using PGA Parkway, which connects to Gateway Drive, through the Dallas Parkway Frontage Roads. Westbound vehicles will access PGA Parkway via Preston Road (State Highway 289). The entrance is located approximately 0.65 miles east of Dallas North Tollway and Dallas Parkway (north and south bound service roads of Dallas North Tollway) and 0.5 miles west of Preston Road.

Consistent with Title 30 TAC §330.61(i)(3), an engineering study for the Gateway Drive TS was completed and submitted to TxDOT on October 9, 2025. The study, which is included in Appendix I/IIA (refer to the TxDOT tab), concluded that the existing roads will provide adequate access to the TS facility.

8.2 Airport Impact

As shown on Drawing I/II 8.1 there are no airports/airport runways within 3.5 miles of the facility. The closest public-use airport is the Aero County Airport-T31, a privately owned public-use airport which is approximately 3.8 miles east of the property. There are no other airports within 6 miles of the facility.





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

- (R) Private "(Pvt)" - Non-public use having landmark value
- Military - Other than hard-surfaced; all military airports are identified by abbreviations AFB, NAS, AAF, etc.
- (H) Heliport Selected
- (U) Unverified
- Abandoned - paved having landmark value, 3000 ft. or greater
- (F) 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 04/17/2025 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 AERO COUNTY AIRPORT–T31.

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AREA AIRPORTS

GATEWAY DRIVE TRANSFER STATION
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FIGURE I/II–8.1

G:\1678\13\TYPE V APPLICATION\PARTS I-II\8.1-AIRPORT MAP.dwg, Farrington, 12

9 GENERAL GEOLOGY AND SOILS STATEMENT

This section addresses §330.61(j).

The U.S. Department of Agriculture's Web Soil Survey dated July 2025 for Collin County, Texas indicates the soils beneath the proposed TS are classified as predominately Ferris-Heiden clay and Heiden clay with a minor occurrence of Houston Black clay.

The Ferris-Heiden clay makes up approximately 52% of TS facility soils. The Ferris-Heiden clay is well drained with 5 to 12 percent slopes. The unit exhibits a very low to moderately low capacity to transmit water with very high runoff potential. The typical soil profile is clay from 0 to 80 inches. Ferris-Heiden clay soils are residuum weathered from calcareous shales.

Heiden clay makes up approximately 44% of TS facility soils. The Heiden clay is well drained with 3 to 8 percent slopes. The unit exhibits a very low to moderately low capacity to transmit water with very high runoff potential. The typical soil profile is clay from 0 to 80 inches. Heiden clay soils are residuum weathered from mudstone shales.

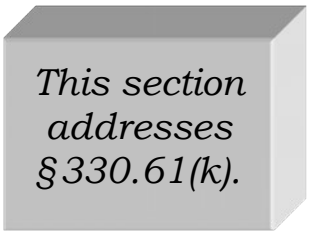
Houston Black clay makes up approximately 4% of TS facility soils. The Houston Black clay is moderately well drained with 1 to 3 percent slopes. The unit exhibits a very low to moderately low capacity to transmit water with very high runoff potential. The typical soil profile is clay from 0 to 80 inches. Houston Black clay soils are residuum weathered from calcareous mudstone shales.

According to the Bureau of Economic Geology (BEG) Geologic Atlas of Texas Sherman Sheet (1991), the TS facility will be located on the outcrop of the Cretaceous-Age Eagle Ford Formation. The Eagle Ford Formation is characterized as predominately shale with some thin beds of sandstone and sandy limestone (BEG, 1991). The Eagle Ford Formation is underlain by the Woodbine Formation. According to the BEG, the Woodbine Formation is characterized regionally as predominantly sandstone with some shale and clay. The Woodbine Formation hosts the regional Woodbine Aquifer which is classified as a minor Aquifer of Texas by the TWDB. Based on the available regional water well and monitoring well lithologic logs on file with the TWDB, the approximate formational thicknesses in the vicinity of the TS facility are 500 feet (Eagle Ford Formation) and 600 feet (Woodbine Formation).

According to the BEG and TWDB's Updated Evaluation of Water Resources in Part of North-Central Texas (1999), the Woodbine Formation is underlain by sediments of the Washita Group which is characterized as a thick sequence of low permeability limestone and shale with an approximate thickness of 1,000 feet regionally (TWDB, 2004).

10 GROUNDWATER AND SURFACE WATER STATEMENT

10.1 Groundwater Statement



According to the Texas Water Development Board (TWDB), aquifers in the vicinity of the TS facility include the Woodbine and the Trinity. The TWDB classifies the Woodbine Aquifer as a minor aquifer of Texas. The regional Woodbine Aquifer is contained within saturated intervals of the regional Woodbine Formation which outcrops approximately five miles west of the TS facility at closest extent (BEG, 1991)(TWDB, 1999).

The TWDB classifies the Trinity Aquifer as a major aquifer of Texas extending across much of the central and northern portions 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 aquifers are separated by sediments of the Washita and Fredericksburg groups. Washita and Fredericksburg sediments represent a massive confining unit between the Woodbine and Trinity aquifers regionally (TWDB, 2014). Recharge to the Woodbine and Trinity aquifers occurs primarily by way of precipitation infiltration on formational outcrop and/or through overlying transmissive Quaternary sediments that overly outcrop areas.

10.2 Surface Water Statement

The proposed Gateway Drive TS is located between Gateway Drive (West), Monroe Drive (South), and Executive Drive (East). The TS building, including the transfer trailer tunnel, is designed to be on a topographic highpoint. The building floor is designed with trench drains near the entry and exit doors to prevent potentially contaminated water from leaving the facility. Surface water will mainly drain east to west where it will be conveyed to a stormwater detention pond approximately 545 feet northwest of the TS facility. The detention pond was designed for the post development conditions at several industrial facilities, including the transfer station, as part of the planned industrial park development. As shown on I/II-4.2 – General Topographic Map, surface water ultimately drains into an unnamed tributary of

Panther Creek located west of the TS facility. The unnamed tributary flows approximately one mile to the west and discharges into Panther Creek.

The Gateway Drive TS has been designed 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 TS facility will consist of a building with reinforced concrete slab with a tipping floor and transfer trailer loading tunnel. Drainage from the facility will maintain the City of Frisco approved drainage patterns at the permit boundary as part of the drainage design for the planned industrial park development and prevents the offsite discharge of waste materials. Surface water drainage in and around the facility will be controlled to prevent surface water running onto, into, and off the transfer station area.

Uncontaminated stormwater run-on and run-off will be directed away from the TS building by site grading. The transfer trailer loading tunnel will be sloped to drain to a contaminated waste water sump that will discharge collected water to a sand/oil separator prior to discharging to the City sanitary sewer system.

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

After TCEQ approves this application and prior to commencing stormwater discharge, the site will obtain a TPDES authorization (initially per TXR015000 during construction then TXR050000 for operations), will maintain compliance with the TPDES requirements, and will operate in accordance with a site-specific Stormwater Pollution Prevention Plan (SWPPP) for the facility.

11 FLOODPLAIN AND WETLANDS STATEMENT

11.1 Floodplain Statement

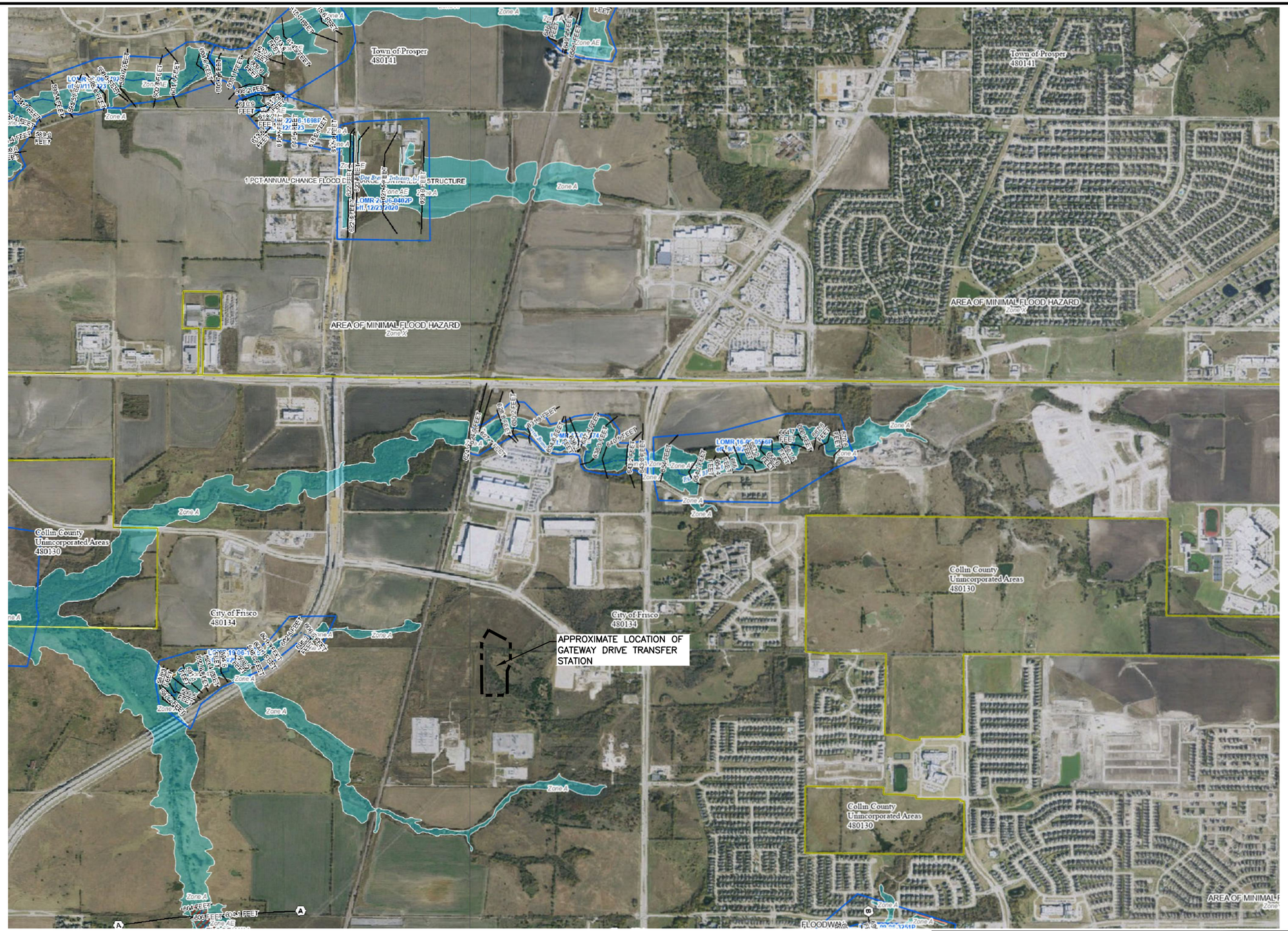
This section addresses §330.61(m).

The current Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) shows the permit property as not located within a 100-year floodplain. A copy of the current FIRM (Panel Nos. 48085C0235J and 48085C0230J, dated June 2, 2009) depicting the permit property is provided as Figure I/II-11.1.

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

11.2 Wetlands Statement

A biological and botanical study with wetlands evaluation was conducted on the TS property on October 27, 2025 by Baird, Hampton & Brown, which is provided in Appendix I/IIC – Environmental Evaluation Report. The objective of the survey was to determine if the Gateway Drive TS will impact existing wetlands. Based on the information presented in the survey, no wetlands were identified as existing on the 14.016-acre permit boundary.



0 1000 2000
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
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
	Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

11/12/2025

NOTE:

1. FLOODPLAIN INFORMATION PROVIDED BY FEMA FIRM PANELS 48085C0235J AND 48085C0230J DATED JUNE 2, 2009.

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

DATE: 11/2025
FILE: 1678-13-11
CAD: 11.1-FEMA.DWG

DRAWN BY: RAA
DESIGN BY: VG
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
NORTH TEXAS MUNICIPAL WATER DISTRICT

REVISIONS

NO.	DATE	DESCRIPTION

TYPE V PERMIT APPLICATION
FEMA FLOOD INSURANCE RATE MAP (FIRM)
GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE I/II-11.1

O:\1678\13\TYPE V APPLICATION\PARTS I-II\11.1-FEMA.dwg, carrington, 1:2

12 PROTECTION OF ENDANGERED SPECIES

A biological and botanical survey with habitat evaluation was conducted on the TS property on October 27, 2025 by Baird, Hampton & Brown, which is provided in Appendix I/IIC – Environmental Evaluation Report. 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.

Based on the information contained in the October 27, 2025 survey, the Gateway Drive TS development will have no adverse effect on federal or state listed threatened or endangered species or their critical habitat. Therefore, this facility will be in compliance with all applicable federal, state, and local laws regarding threatened and endangered species.

13 LEGAL DESCRIPTION

13.1 Legal Description

This section addresses §330.59(d)(1).

Legal descriptions of the 14.016-acre permit boundary (Type V Permit Boundary Legal Description), located within the 14.845-acre property boundary (Luminant Block A, Lots 1-12), are included on the following pages. The property is owned by the North Texas Municipal Water District.

13.2 Easements

All drainage, pipeline, and utility easements within or adjacent to the permit boundary are shown on page I/II-13-6. No solid waste related unloading, storage, disposal, or processing operation will occur within any easement, buffer zone, or right-of-way.

TYPE V PERMIT BOUNDARY

LEGAL DESCRIPTION

EXHIBIT "A"
TYPE V PERMIT BOUNDARY
14.016 ACRES OUT OF LOT 4, BLOCK A, LUMINANT ADDITION
COLLIN COUNTY SCHOOL LAND SURVEY, ABSTRACT NO. 148,
BENJAMIN J NAUGLE SURVEY, ABSTRACT NO. 669,
CITY OF FRISCO, COLLIN COUNTY, TEXAS

Being a 610,537 square foot (14.016 acre) tract of land situated in the Collin County School Land Survey, Abstract No. 148 and the Benjamin J Naugle Survey, Abstract No. 669, and being a portion of Lot 4, Block A of Luminant Addition to the City of Frisco, according to the Conveyance Plat recorded in Volume 2024, Page 225, Plat Records, Collin County, Texas (P.R.C.C.T.), and being a portion of that certain tract of land described in a Special Warranty Deed to North Texas Municipal Water District recorded in Instrument Number 2025000044845, Official Public Records, Collin County, Texas (O.P.R.C.C.T.), (hereinafter referred to as "N.T.M.W.D. Tract"), and being more particularly described as follows:

COMMENCING at a 5/8-inch iron rod with yellow cap stamped "Westwood PS" found (controlling monument (CM)) in the Easterly right-of-way (R.O.W.) line of Gateway Drive (a 60-foot R.O.W. as described on of the Plat of said Luminant Addition), and for the Northwest corner of Lot 6, Block A of said Luminant Addition, and for an interior corner of the Remainder of a called 181.549 acre tract of land described in a Special Warranty Deed to Frisco Community Development Corporation, recorded in Instrument Number 20150508000537110, O.P.R.C.C.T., and for the Southwest corner of said Lot 4, Block A and said "N.T.M.W.D. Tract;"

THENCE North 89° 28' 45" East, along the North line of said Lot 6, Block A and interior line of the Remainder of said 181.549 acre tract and South line of said Lot 4, Block A and said "N.T.M.W.D. Tract", a distance of 25.00 feet to a 1/2-inch iron rod with yellow cap stamped "WCG" set for the **POINT OF BEGINNING**, and having project coordinates relative to the Texas Coordinate System of 1983, North Central Zone (4202), NAD83 (2011) Epoch 2010.00 of Northing: 7,125,315.31, and Easting: 2,485,232.75, having been scaled to surface using a project combined scale factor of 1.000152710 from an origin of 0,0 in U.S. Survey Feet;

THENCE over and across said Lot 4, Block A and said "N.T.M.W.D. Tract" the following bearings and distances:

North 00° 24' 35" West, a distance of 264.35 feet to a 1/2-inch iron rod with yellow cap stamped "WCG" set;

North 89° 35' 25" East, a distance of 6.85 feet to a 1/2-inch iron rod with yellow cap stamped "WCG" set;

North 00° 09' 32" West, a distance of 84.00 feet to a 1/2-inch iron rod with yellow cap stamped "WCG" set;

South 89° 28' 44" West, a distance of 7.22 feet to a 1/2-inch iron rod with yellow cap stamped "WCG" set;

North 00° 24' 35" West, a distance of 637.08 feet to a 1/2-inch iron rod with yellow cap stamped "WCG" set;

North 04° 45' 37" East, a distance of 52.98 feet to a 1/2-inch iron rod with yellow cap stamped "WCG" set;

North 25° 04' 17" East, a distance of 122.55 feet to a 1/2-inch iron rod with yellow cap stamped "WCG" set;

North 31° 30' 26" East, a distance of 166.11 feet to a 1/2-inch iron rod with yellow cap stamped "WCG" set in the Southerly line of Lot 3, Block A of said Luminant Addition and a tract of land described in a Special Warranty Deed to Balcones Recycling Dallas, LLC, recorded in Instrument Number 2024000128776, O.P.R.C.C.T., (herein after referred to as "Balcones Tract") and Northerly line of said Lot 4, Block A and said "N.T.M.W.D. Tract", and from which, a 5/8-inch iron rod with yellow cap stamped "Westwood PS" (CM) found in said Easterly R.O.W. line of Gateway Drive, and for the Southwest corner of said Lot 3, Block A and said "Balcones Tract", and for the Northwest corner of said Lot 4, Block A and said "N.T.M.W.D. Tract" bears North 61° 51' 35" West, a distance of 32.06 feet;

THENCE South 61° 51' 35" East, along the Southerly line of said Lot 3, Block A and said Balcones Tract and Northerly line of said Lot 4, Block A and said "N.T.M.W.D. Tract", a distance of 461.68 feet to a 5/8-inch iron rod with yellow cap stamped "Westwood PS" (CM) found for the Northwest corner of Lot 5, Block A of said Luminant Addition and for an interior corner of the Remainder of said 181.549 acre tract, and for the Northeast corner of said Lot 4, Block A and said "N.T.M.W.D. Tract";

THENCE Southerly, along the Westerly line of said Lot 5, Block A and interior line of the Remainder of said 181.549 acre tract, and the Easterly line of said Lot 4, Block A and said "N.T.M.W.D. Tract" the following bearings and distances:

South 00° 24' 35" East, a distance of 443.14 feet to a 5/8-inch iron rod with yellow cap stamped "Westwood PS" (CM) found for corner;

South 24° 35' 25" West, a distance of 157.43 feet to a 5/8-inch iron rod with yellow cap stamped "Westwood PS" (CM) found for corner;

South 00° 24' 35" East, a distance of 490.81 feet to a 5/8-inch iron rod with yellow cap stamped "Westwood PS" (CM) found in the North line of said Lot 6, Block A, and for the Southwest corner of said Lot 5, Block A and interior corner of the Remainder of said 181.549 acre tract, and for the Southeast corner of said Lot 4, Block A and said "N.T.M.W.D. Tract";

THENCE along the North line of said Lot 6, Block A and the interior line of the Remainder of said 181.549 acre tract, and the South line of said Lot 4, Block A and said "N.T.M.W.D. Tract" the following bearings and distances:

North 85° 01' 16" West, a distance of 87.74 feet to a 5/8-inch iron rod with yellow cap stamped "Westwood PS" (CM) found for corner;

South 89° 28' 44" West, a distance of 396.97 feet to the **POINT OF BEGINNING**, containing 610,537 square feet (14.016 acres), more or less.

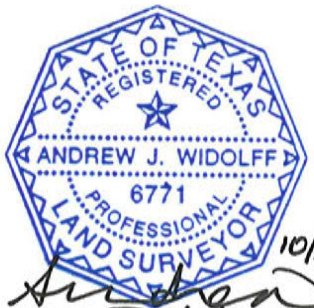
SURVEY NOTES

1. A survey exhibit of even date accompanies this description on sheet 4 of this document. Found monuments described herein are based on field surveys performed by Weaver Consultants Group, LLC completed on November 6, 2024. Monuments described as "set" will be placed in the field upon completion of construction.

2. BASIS OF BEARINGS: The West line of Lot 4, Block A, Luminant Addition (South 00° 24' 35" East), being relative to the Texas Coordinate System of 1983, North Central Zone (4202), NAD83 (2011) Epoch 2010.00, according to the Conveyance Plat recorded in Volume 2024, Page 225, P.R.C.C.T. based on real time kinematic observations utilizing Allterra's RTKNET VRS network. Coordinates and distances described herein are surface, relative to said Texas Coordinate System of 1983, and may be converted to grid by dividing by the project combined scale factor of 1.000152710 from an origin of 0,0.

3. This exhibit and description were prepared for permitting purposes only and no improvements are shown and was prepared with the benefit of a title commitment provided by First American Title Guaranty Company, GF No. 2018-401809-RU, with an effective date of November 6, 2024, and issued on November 14, 2024.

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



10/28/25

Andrew J. Widolff RPLS No. 6771

REMAINDER OF:
FRISCO COMMUNITY DEVELOPMENT CORPORATION
CALLED 181.549 ACRES
INST. NO. 20150508000537110
O.P.R.C.C.T.

LOT 5, BLOCK A, LUMINANT ADDITION
CALLED 10.286 ACRES
VOL. 2024, PG. 225
P.R.C.C.T.

BALCONES RECYCLING DALLAS, LLC
INST. NO. 20240012877 6
O.P.R.C.C.T.

LOT 3, BLOCK A, LUMINANT ADDITION
CALLED 14.939 ACRES
VOL. 2024, PG. 225
P.R.C.C.T.

15' SEWER EASEMENT
VOL. 2024, PG. 225 P.R.C.C.T.

S00°24'35"E
443.14'

5/8" IRF WW (CM)

S24°35'25"W
157.43'

5/8" IRF WW (CM)

S00°24'35"E
490.81'

5/8" IRF WW (CM)

EXHIBIT 250ACLD12, BETHEL-VALLEY GAS LINE
"C-90" EASEMENT, VOL. 5071, PG. 5531 D.R.C.C.T.

L10

S61°51'35"E
461.68'

20' DRAINAGE EASEMENT
VOL. 2024, PG. 225 P.R.C.C.T.

COLLIN COUNTY SCHOOL LAND SURVEY ABSTRACT NO. 148

BENJAMIN J. NAUGLE SURVEY ABSTRACT NO. 669

NORTH TEXAS MUNICIPAL WATER DISTRICT
INST. NO. 20250000044845
O.P.R.C.C.T.

TYPE V PERMIT BOUNDARY
610,537 SQUARE FEET / 14.016 ACRES
(BY THIS SURVEY)

LOT 4, BLOCK A,
LUMINANT ADDITION
CALLED 14.845 ACRES
VOL. 2024, PG. 225
P.R.C.C.T.

REMAINDER OF:
FRISCO COMMUNITY DEVELOPMENT CORPORATION
CALLED 181.549 ACRES
INST. NO. 20150508000537110
O.P.R.C.C.T.

LOT 6, BLOCK A, LUMINANT ADDITION
CALLED 7.328 ACRES
VOL. 2024, PG. 225
P.R.C.C.T.

5/8" IRF WW (CM)

S89°28'44"W
396.97'

50'X80' SURFACE SITE EASEMENT
DOC.NO. 2006-0001079
VOL.6077, PG.1648

L9 L8 L7 L6 L5 L4 L3 L2 L1

**IRS

32.0'

25.0'

N00°24'35"W
637.08'

COLLIN COUNTY SCHOOL LAND SURVEY ABSTRACT NO. 148

BENJAMIN J. NAUGLE SURVEY ABSTRACT NO. 669

P.O.B.
N=7125315.31
E=2485232.75

P.O.C.
5/8" IRF WW (CM)

5/8" IRF WW (CM)

5/8" IRF WW (CM)

5/8" IRF WW (CM)

GATEWAY DRIVE (60-FOOT R.O.W.)
VOL. 2024, PG. 225 P.R.C.C.T.

50' WIDE PERMANENT
RIGHT-OF-WAY & EASEMENT
(PIPELINE EASEMENT)
DOC. NO. 2006-0001079
VOL. 6077, PG. 1648

GAS FACILITY EASEMENT
VOL. 5071, PG. 5531
D.R.C.C.T.

50' WIDE PERMANENT
RIGHT-OF-WAY & EASEMENT
DOC.NO.2006-0001079
VOL. 6077, PG. 1648
D.R.C.C.T.

EXHIBIT 250ACLD12
BETHEL-VALLEY GAS LINE
"C-90" EASEMENT
VOL. 5071, PG. 5531
D.R.C.C.T.

EXHIBIT 250ACLD10
VARIABLE WIDTH ACCESS EASEMENT
INST. NO. 20011221001650910
O.P.R.C.C.T.

REMAINDER OF:
FRISCO COMMUNITY
DEVELOPMENT CORPORATION
CALLED 181.549 ACRES
INST. NO. 20150508000537110
O.P.R.C.C.T.

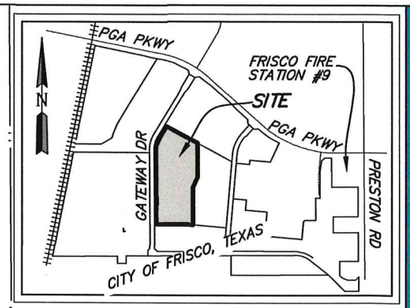
LOT 1, BLOCK A,
LUMINANT ADDITION
CALLED 34.011 ACRES
VOL. 2024, PG. 225
P.R.C.C.T.

20' DRAINAGE EASEMENT
VOL. 2024, PG. 225 P.R.C.C.T.

20' SEWER EASEMENT
VOL. 2024, PG. 225 P.R.C.C.T.

REMAINDER OF:
FRISCO COMMUNITY
DEVELOPMENT CORPORATION
CALLED 181.549 ACRES
INST. NO. 20150508000537110
O.P.R.C.C.T.

LOT 2, BLOCK A,
LUMINANT ADDITION
CALLED 36.014 ACRES
VOL. 2024, PG. 225
P.R.C.C.T.



VICINITY MAP NOT TO SCALE

N

0 75 150 300

(FEET)
1 inch = 150 ft.

LINE TABLE		
LINE	BEARING	LENGTH
L1	N89°28'45"E	25.00'
L2	N0°24'35"W	264.35'
L3	N89°35'25"E	6.85'
L4	N0°09'32"W	84.00'
L5	S89°28'44"W	7.22'
L6	N4°45'37"E	52.98'
L7	N25°04'17"E	122.55'
L8	N31°30'26"E	166.11'
L9	N61°51'35"W	32.06'
L10	N85°01'16"W	87.74'

SURVEY NOTES

1. A DESCRIPTION EXHIBIT OF EVEN DATE ACCOMPANIES THIS SURVEY EXHIBIT ON SHEETS 1-3 OF THIS DOCUMENT. FOUND MONUMENTS DESCRIBED HEREIN ARE BASED ON FIELD SURVEYS PERFORMED BY WEAVER CONSULTANTS GROUP, LLC COMPLETED ON NOVEMBER 6, 2024. MONUMENTS DESCRIBED AS "SET" WILL BE PLACED IN THE FIELD UPON COMPLETION OF CONSTRUCTION.
2. BASIS OF BEARINGS: THE WEST LINE OF LOT 4, BLOCK A, LUMINANT ADDITION (SOUTH 00° 24' 35" EAST), BEING RELATIVE TO THE TEXAS COORDINATE SYSTEM OF 1983, NORTH CENTRAL ZONE (4202), NAD83 (2011) EPOCH 2010.00, ACCORDING TO THE CONVEYANCE PLAT RECORDED IN VOLUME 2024, PAGE 225, P.R.C.C.T. COORDINATES AND DISTANCES DESCRIBED HEREON ARE SURFACE, RELATIVE TO SAID TEXAS COORDINATE SYSTEM OF 1983, AND MAY BE CONVERTED TO GRID BY DIVIDING BY THE PROJECT COMBINED SCALE FACTOR OF 1.000152710 FROM AN ORIGIN OF 0,0.
3. THIS EXHIBIT AND DESCRIPTION WERE PREPARED FOR PERMITTING PURPOSES ONLY AND NO IMPROVEMENTS ARE SHOWN, AND WAS PREPARED WITH THE BENEFIT OF A TITLE COMMITMENT PROVIDED BY FIRST AMERICAN TITLE GUARANTY COMPANY, GF NO. 2018-401809-RU, WITH AN EFFECTIVE DATE OF NOVEMBER 6, 2024, AND ISSUED ON NOVEMBER 14, 2024. THIS EXHIBIT DOES NOT DEPICT ALL TITLE ELEMENTS.

LEGEND

	..... PERMIT BOUNDARY LINE (BY THIS SURVEY)
	..... LOT LINE
	..... SURVEY ABSTRACT LINE
	..... EASEMENT LINE
● 5/8" IRF WW	..... 5/8" IRON ROD FOUND WITH YELLOW CAP STAMPED "WESTWOOD PS"
O **IRS	..... 1/2" IRON ROD W/ YELLOW CAP STAMPED "WCG" SET (TO BE SET UPON COMPLETION OF CONSTRUCTION)
POC / POB	..... POINT OF COMMENCING / POINT OF BEGINNING
(CM)	..... CONTROLLING MONUMENT
P.R.C.C.T.	..... PLAT RECORDS, COLLIN COUNTY, TX
D.R.C.C.T.	..... DEED RECORDS, COLLIN COUNTY, TX
O.P.R.C.C.T.	..... OFFICIAL PUBLIC RECORDS, COLLIN COUNTY, TX
INST. NO.	..... INSTRUMENT NUMBER
VOL. / PG.	..... VOLUME / PAGE
R.O.W.	..... RIGHT-OF-WAY

I/II-13-6

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

10/28/25

Andrew J. Widolff RPLS No. 6771
Firm: Weaver Consultants Group, LLC
Firm No. 10095400

Error of Closure 1: 647,797.16

PREPARED FOR:
NORTH TEXAS MUNICIPAL WATER DISTRICT

EXHIBIT "A"
TYPE V PERMIT BOUNDARY
610,537 SQUARE FEET / 14.016 ACRES OUT OF
LOT 4, BLOCK A, LUMINANT ADDITION
CITY OF FRISCO, TEXAS, COLLIN COUNTY, TEXAS

No.	DATE	REVISION DESCRIPTION

Weaver Consultants Group

WEAVER CONSULTANTS GROUP
6420 SOUTHWEST BLVD SUITE #206
FORT WORTH, TEXAS 76109
(817)-735-9770
www.wcgrp.com

REUSE OF DOCUMENTS
This document, and the designs incorporated herein, as an instrument of professional service, is the property of Weaver Consultants Group, and is not to be used in whole or in part, without the written authorization of Weaver Consultants Group.

DRAWN BY:	----
REVIEWED BY:	AJW
DATE:	10/28/2025
FILE:	1678-013-11-08
CAD:	SEE PLOT STAMP
SHEET	4 OF 4

P:\SBI Survey\Projects\1678-013-11-08 Gateway TS Type V\2.0 Drawings\2.1 CAD\1678-013-11-08 Gateway Type V Exhibit.dwg;

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LUMINANT BLOCK A, LOTS 1-12 CONVEYANCE PLAT

13265

LEGEND

O	POINT FOR CORNER (UNLESS OTHERWISE NOTED)
PFC	POINT FOR CORNER
INST.	INSTRUMENT
NO.	NUMBER
VOL.	VOLUME
PG.	PAGE
IRS	5/8-INCH IRON ROD W/"PACHECO KOCH" CAP SET
IRF "KHA"	5/8-INCH IRON ROD W/"KHA" CAP FOUND
IRF "HALFF ASSOC"	1/2-INCH IRON ROD W/"HALFF ASSOC" CAP FOUND
IRF "HALFF ASSOC INC"	1/2-INCH IRON ROD W/"HALFF ASSOC INC" CAP FOUND
IRF "HALFF"	1/2-INCH IRON ROD W/"HALFF" CAP FOUND
XF	X CUT IN CONCRETE FOUND
(C.M.)	CONTROLLING MONUMENT
	PROPERTY LINE
	EASEMENT LINE
	SETBACK LINE
	SURVEY ABSTRACT LINE
	ABANDONED EASEMENT

POINT OF BEGINNING

GRID COORDINATES
NORTHING: 7,126,580.35
EASTING: 2,484,041.19
ELEVATION: 635.6'

IRF "KHA" (C.M.)

460.98'

213.31'

FRISCO COMMUNITY DEVELOPMENT CORPORATION
(INST. NO. 20190117000055980)

PGA PARKWAY
(A VARIABLE WIDTH RIGHT-OF-WAY)

S 78°37'54" E 625.74'

UTILITY (WATER) EASEMENT (INST. NO. 20130117000077020)

PIPELINE EASEMENT (INST. NO. 20150819001042270)

50' LONE STAR GAS COMPANY EASEMENT (VOL. 1197, PG. 444)

UTILITY (WATER) EASEMENT (INST. NO. 20130117000077220)

UTILITY (WASTEWATER) EASEMENT (INST. NO. 20130621000863140)

1,006.71'

DRAINAGE AND WATER EASEMENT (INST. NO. 20130117000077040)

DRAINAGE AND UTILITY EASEMENT (INST. NO. 20130117000076960)

UTILITY (WATER) EASEMENT (INST. NO. 20130117000077050)

"PART 2" UTILITY EASEMENT (INST. NO. 20130117000076960)

UTILITY EASEMENT (INST. NO. 20130117000076980)

TEMPORARY CONSTRUCTION EASEMENT (INST. NO. 20130621000863130)

N 11°19'24" E 2,831.94'

1,110.51'

DETENTION AND DRAINAGE EASEMENT

"PART 1" UTILITY EASEMENT (INST. NO. 20130117000076960)

EXHIBIT 250ACLD05 GAS LINE "D-9" EASEMENT (VOL. 5071, PG. 5531)

EASEMENT AND RIGHT-OF-WAY (INST. NO. 20121219001615630)

N 31°30'26" E 941.77'

BLOCK A, LOT 1
34.011 ACRES
(1,481,537 SF)
FRISCO COMMUNITY DEVELOPMENT CORPORATION (INST. NO. 20150508000537110)
FOR CONVEYANCE PURPOSES ONLY

RIGHT-OF-WAY DEDICATION 11.879 ACRES (517,438 SF)

WATER EASEMENT (INST. NO. 20130117000077110)

SEE DETAIL 1

Δ=04°08'22"
R=1,380.00'
L=99.70'
T=49.87'
CB=S 63°59'18" E
CD=99.68'

S 62°47'49" E 105.52'

Δ=10°39'24"
R=192.00'
L=35.71'
T=17.91'
CB=S 26°10'44" W
CD=35.66'

S 20°51'02" W 34.02'

Δ=10°39'24"
R=168.00'
L=31.25'
T=15.67'
CB=S 26°10'44" W
CD=31.20'

S 31°30'26" W 165.31'

N 31°30'26" E 165.29'

Δ=04°13'23"
R=1,380.00'
L=101.71'
T=50.88'
CB=S 52°57'20" E
CD=101.69'

Δ=12°40'38"
R=192.00'
L=42.48'
T=21.33'
CB=N 37°50'45" E
CD=42.40'

N 44°11'04" E 21.53'

S 48°13'26" E 311.73'

TEMPORARY CONSTRUCTION EASEMENT (INST. NO. 20130117000077150)

Δ=12°40'38"
R=168.00'
L=37.17'
T=18.66'
CB=N 37°50'45" E
CD=37.10'

S 31°30'26" W 643.68'

N 31°30'26" E 661.59'

469.20'

661.59'

BLOCK A, LOT 3
14.939 ACRES
(650,740 SF)
FOR CONVEYANCE PURPOSES ONLY

GATEWAY DRIVE
(A 60-FOOT WIDE RIGHT-OF-WAY)

Δ=15°16'05"
R=910.00'
L=242.48'
T=121.98'
CB=N 23°38'24" E
CD=241.77'

N 11°20'07" E 20.18'

20' SEWER EASEMENT

N 86°17'35" W 800.95'

IL=20.91'

S 86°17'35" E 528.84'

20' DRAINAGE EASEMENT

L=4.69'

L=22.15'

117.90'

"PART 1" UTILITY EASEMENT (INST. NO. 20130117000076960)

N 86°17'35" W 794.21'

20' SEWER EASEMENT

VARIABLE WIDTH GAS EASEMENT (INST. NO. 20121219001615630)

GAS FACILITY EASEMENT (VOL. 5071, PG. 5531)

N 60°09'55" E 135.69'

Δ=44°27'34"
R=40.00'
L=31.04'
T=16.35'
CB=N 37°56'08" E
CD=30.27'

GAS FACILITY EASEMENT (VOL. 5071, PG. 5531) HATCH PORTION ABANDONED BY (INST. NO. 20230001280B0)

S 89°50'05" E 333.16'

Δ=30°00'00"
R=40.00'
L=20.94'
T=10.72'
CB=N 75°09'55" E
CD=20.71'

Δ=31°35'01"
R=380.00'
L=217.68'
T=108.87'
CB=S 15°32'56" W
CD=208.95'

Δ=31°35'01"
R=320.00'
L=176.28'
T=91.51'
CB=N 15°32'56" E
CD=175.98'

157.33'

193.66'

1004.23'

1,021.31'

S 61°51'31" E 1,011.46'

20' DRAINAGE EASEMENT

517.80'

111.47'

N 89°50'05" W 1,002.32'

41.67'

1,257.34'

1,386.68'

EASEMENT AND RIGHT-OF-WAY (INST. NO. 20121219001615630)

VARIABLE WIDTH GAS EASEMENT (INST. NO. 20121219001615630)

GAS FACILITY EASEMENT (VOL. 5071, PG. 5531) HATCH PORTION ABANDONED BY (INST. NO. 20230001280B0)

BLOCK A, LOT 2
38.014 ACRES
(1,568,751 SF)
FOR CONVEYANCE PURPOSES ONLY

BLOCK A, LOT 4
14.845 ACRES
(646,657 SF)
FRISCO COMMUNITY DEVELOPMENT CORPORATION (INST. NO. 20150508000537110)
FOR CONVEYANCE PURPOSES ONLY

BLOCK A, LOT 5
10.286 ACRES
(448,053 SF)
FOR CONVEYANCE PURPOSES ONLY

443.14'

N 00°24'35" W

N 24°35'25" E 157.43'

COLLIN COUNTY SCHOOL LAND SURVEY - ABSTRACT NO. 148
BENJAMIN J NAUGLE SURVEY - ABSTRACT NO. 669

MATCH LINE (SEE SHEET 4)

MATCH LINE (SEE SHEET 2)

BNSF RAILROAD
(A 100-FOOT WIDE RIGHT-OF-WAY)

1,386.68'

CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD BEARING	CHORD
C1	04°02'00"	5,04.00'	35.48'	17.75'	S 76°36'54" E	35.47'
C2	04°01'59"	1,515.00'	106.84'	53.34'	S 76°36'54" E	106.62'
C3	06°58'02"	1,393.62'	169.47'	84.84'	S 73°53'35" E	169.36'
C4	07°50'58"	320.00'	43.84'	21.95'	N 3°27'45" E	43.81'
C5	03°12'56"	1,520.00'	85.31'	42.67'	S 86°51'31" E	85.30'
C6	45°08'54"	216.50'	170.60'	90.01'	S 67°58'40" E	166.22'
C7	05°18'55"	380.00'	35.25'	17.64'	S 2°14'52" W	35.24'
C8	35°16'30"	420.00'	258.58'	133.53'	N 22°32'35" E	254.52'
C9	26°01'56"	43.00'	19.54'	9.94'	N 53°11'48" E	19.37'
C10	24°26'12"	67.00'	28.58'	14.51'	N 53°59'40" E	28.36'
C11	21°50'22"	380.00'	144.84'	73.31'	S 19°59'54" E	143.97'
C12	30°48'35"	320.77'	172.49'	88.38'	S 15°29'42" E	170.42'
C13	38°03'22"	320.00'	212.54'	110.36'	S 18°59'26" W	208.66'
C14	20°13'42"	320.00'	112.98'	57.08'	N 20°48'14" W	112.39'
C15	30°55'01"	380.77'	205.46'	105.30'	N 15°26'35" W	202.98'
C16	38°03'22"	380.00'	252.40'	131.05'	N 18°59'26" E	247.78'

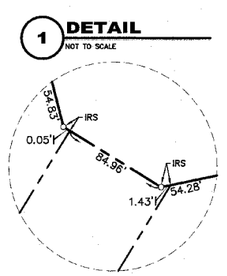
LINE TABLE

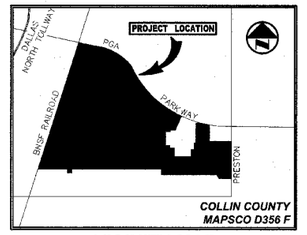
LINE	BEARING	LENGTH
L1	S 78°37'54" E	69.26'
L2	S 82°25'00" E	70.69'
L3	S 14°21'28" E	54.83'
L4	S 58°29'34" E	85.01'
L5	N 78°14'16" E	55.71'
L6	S 54°20'28" E	107.39'
L7	N 89°32'18" E	60.00'
L8	N 00°27'42" W	290.45'
L9	N 07°23'14" E	163.55'
L10	S 01°14'34" E	175.63'
L11	S 00°35'50" E	206.74'
L12	S 09°04'43" E	28.57'
L13	S 83°01'07" W	56.57'
L14	N 51°58'53" W	11.50'
L15	N 89°42'41" E	63.60'
L16	N 89°52'43" W	40.87'

AREA TABLE

LOT NUMBER	SQUARE FEET	ACRES
LOT 1	34.011	1,481,537
LOT 2	38.014	1,568,751
LOT 3	14.939	650,740
LOT 4	14.845	646,657
LOT 5	10.286	448,053
LOT 6	7.328	319,186
LOT 7	4.046	176,245
LOT 8	9.463	412,226
LOT 9	6.660	290,131
LOT 10	2.162	94,191
LOT 11	5.754	250,666
LOT 12	4.144	180,502
ROW DEDICATION	11.879	517,438
TOTAL	*161.532*	*7,036,323*

1 DETAIL
NOT TO SCALE





VICINITY MAP
(NOT TO SCALE)

0 50 100 200 300
GRAPHIC SCALE IN FEET
1" = 100'

NOTES

1. Bearing system for this survey is based on the State Plane Coordinate System, North American Datum of 1983 (2011), Texas North Central Zone 4202. Distances reported have been scaled by applying the Collin County TxDOT surface adjustment factor of 1.000152710.
2. Subject property is shown on the National Flood Insurance Program Flood Insurance Rate Map for Collin County, Texas and Incorporated Areas, Map No. 48085C0235J, Community-Panel No. 480133 0235 J, Effective Date: June 2, 2009, and Map No. 48085C0230J, Community-Panel No. 480133 0235 J, Effective Date: June 2, 2009. All of the subject property is shown to be located in Zone "X" on said map. Relevant zones are defined on said map as follows:

   Zone "X" – Other Areas: Areas determined to be outside the 0.2% annual chance floodplain.
3. Any declaration made hereon or herein is made to the original purchaser of the survey. It is not transferable to additional institutions or subsequent owners.
4. Square footage totals shown hereon or referenced herein are based on mathematical closures and do not necessarily represent the positional accuracy of the boundary monuments.
5. The word "certify" or "certificate" as shown and used hereon means an expression of professional opinion regarding the facts of the survey and does not constitute a warranty or guarantee, expressed or implied.
6. The surveyor did not observe any evidence of recent earth moving work, building construction or building additions at the time of this survey.
7. The survey abstract lines shown hereon are approximate and are not located on the ground.
8. Notice: A conveyance plat is a record of property approved by the City of Frisco, Texas, for the purpose of sale or conveyance in its entirety or interests thereon defined. No building permit shall be issued nor permanent public utility service provided unti a final plat is approved, filed of record and public improvegents accepted in accordance with the provisions of the Subdivision Ordinance of the City of Frisco, Selling a portion of this addition by metes and bounds is a violation of city ordinance and state law and is subject to fines and withholding of utilities and building permits.

S13265

SHEET 1 OF 6
CONVEYANCE PLAT
LUMINANT
BLOCK A, LOTS 1-12
OF A 161.532 ACRE TRACT
AND BEING OUT OF THE
COLLIN COUNTY SCHOOL LAND SURVEY,
ABSTRACT NO. 148 AND
THE BENJAMIN J NAUGLE SURVEY,
ABSTRACT NO. 669
COLLIN COUNTY, TEXAS
LOCATED IN THE CITY OF FRISCO, TEXAS
CITY PROJECT NUMBER: CP24-0001
PREPARATION DATE: 02/20/2024

TBPELS. ENGINEERING FIRM NO. 11756
TBPELS SURVEYING FIRM NO. 10074301

STATE OF TEXAS, COUNTY OF COLLIN
I, STACEY KEMP, COUNTY CLERK OF COLLIN COUNTY,
DO HEREBY CERTIFY THAT THIS PLAT WAS FILED FOR RECORD IN
MY OFFICE AND DULY RECORDED IN THE PLAT RECORDS
OF COLLIN COUNTY ON: 03/05/2024 12:37 PM
PLAT BOOK: 2024 PAGE: 225 – 230
NUMBER OF PAGES: 6 AMOUNT: $300.00
IN TESTIMONY WHEREOF, WITNESS MY HAND
AND OFFICIAL SEAL OF OFFICE.
COUNTY CLERK, COLLIN COUNTY, TEXAS
BY: Lynn Wheeler DEPUTY

SURVEYOR:
PACHECO KOCH, A WESTWOOD COMPANY
7557 RAMBLER ROAD, SUITE 1400
DALLAS, TEXAS, 75231
PH: (972) 235-3031
CONTACT: KYLE C. HARRIS

OWNER:
FRISCO COMMUNITY DEVELOPMENT CORPORATION
6101 FRISCO SQUARE BOULEVARD
FRISCO, TEXAS 75034
PH: (972) 292-5105
CONTACT: WESLEY S. PIERSON

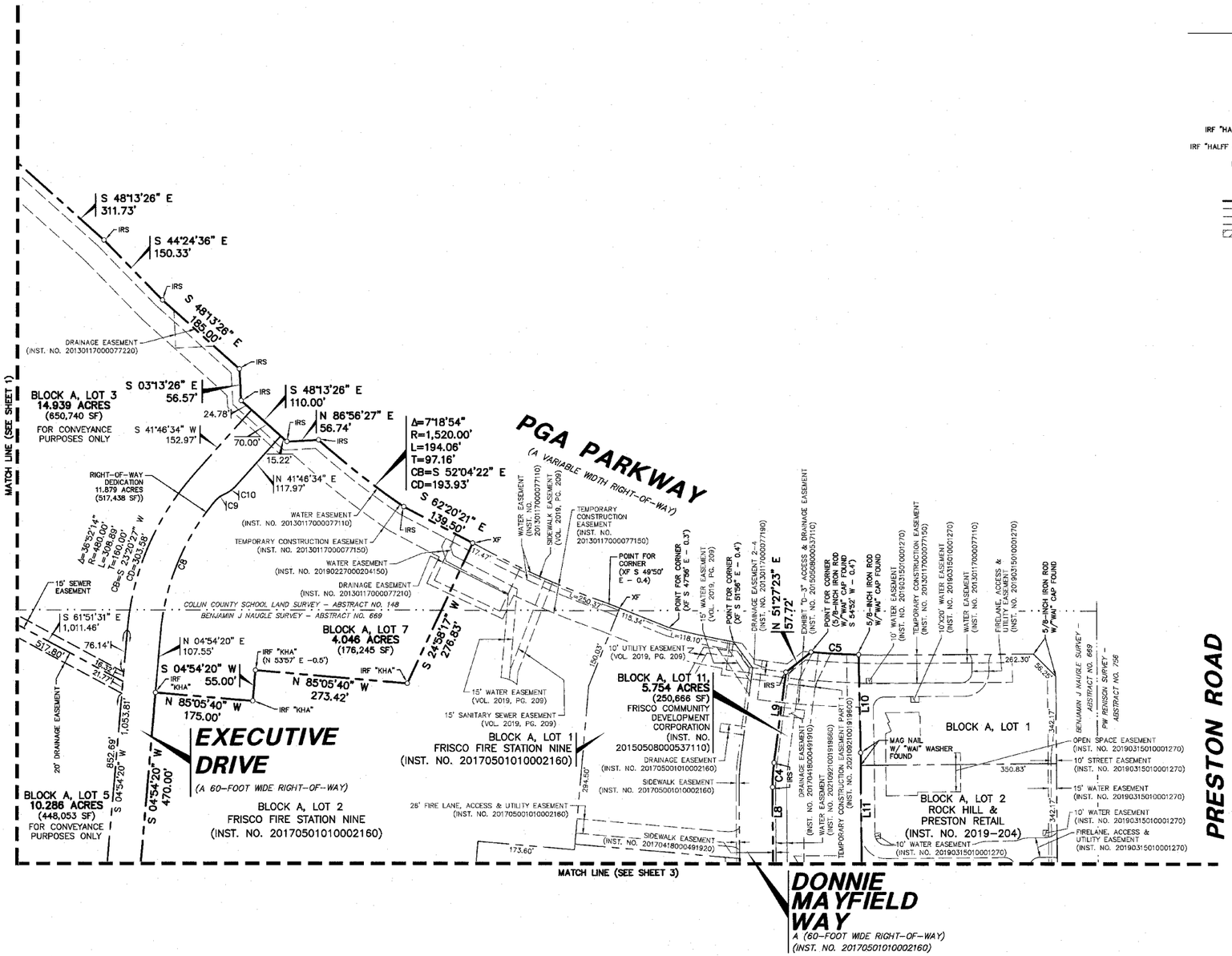
Westwood
Westwood Professional Services, Inc.
7557 RAMBLER ROAD SUITE 1400
DALLAS, TX 75231
972.235.3031
westwoodps.com

DRAWN BY	CHECKED BY	SCALE	DATE	JOB NUMBER
JMC	KCH	1"=100'	MARCH 2024	R0042908.01

I/II-13-8

CONVEYANCE PLAT - LUMINANT, BLOCK A, LOTS 1-12

MWHITER
3/4/2024 9:20 AM
N:\00429\08.01\08 CAD\DWG\SURVEY C3D\R0042908.01-CP.DWG


MATCH LINE (SEE SHEET 1)
S 48°13'26" E 311.73'
S 44°24'36" E 150.33'
S 48°13'26" E 195.00'
DRAINAGE EASEMENT (INST. NO. 20130117000077220)
S 03°13'26" E 56.57'
S 48°13'26" E 110.00'
N 86°56'27" E 56.74'
24.78'
70.00'
S 41°46'34" W 152.97'
15.22'
N 41°46'34" E 117.97'
BLOCK A, LOT 3
14.939 ACRES
(650,740 SF)
FOR CONVEYANCE PURPOSES ONLY
RIGHT-OF-WAY DEDICATION
11.879 ACRES
(517,438 SF))
Δ=7°18'54"
R=1,520.00'
L=194.06'
T=97.16'
CB=S 52°04'22" E
CD=193.93'
S 62°20'21" E 139.50'
PGA PARKWAY
(A VARIABLE WIDTH RIGHT-OF-WAY)
WATER EASEMENT (INST. NO. 20130117000077110)
TEMPORARY CONSTRUCTION EASEMENT (INST. NO. 20130117000077150)
WATER EASEMENT (INST. NO. 20190227000204150)
DRAINAGE EASEMENT (INST. NO. 20130117000077210)
COLLIN COUNTY SCHOOL LAND SURVEY – ABSTRACT NO. 148
BENJAMIN J NAUGLE SURVEY – ABSTRACT NO. 669
15' SEWER EASEMENT
S 61°51'31" E 1,011.46'
517.80'
76.14'
N 04°54'20" E 107.55'
S 04°54'20" W 55.00'
IRF "KHA" (N 53°57' E -0.5')
IRF "KHA"
N 85°05'40" W 273.42'
N 85°05'40" W 175.00'
BLOCK A, LOT 7
4.046 ACRES
(176,245 SF)
S 24°58'17" W 276.83'
20' DRAINAGE EASEMENT
1,053.81'
852.69'
S 04°54'20" W 470.00'
BLOCK A, LOT 5
10.286 ACRES
(448,053 SF)
FOR CONVEYANCE PURPOSES ONLY
EXECUTIVE DRIVE
(A 60-FOOT WIDE RIGHT-OF-WAY)
BLOCK A, LOT 2
FRISCO FIRE STATION NINE
(INST. NO. 20170501010002160)
15' WATER EASEMENT (VOL. 2019, PG. 209)
15' SANITARY SEWER EASEMENT (VOL. 2019, PG. 209)
BLOCK A, LOT 1
FRISCO FIRE STATION NINE
(INST. NO. 20170501010002160)
28' FIRE LANE, ACCESS & UTILITY EASEMENT (INST. NO. 20170501010002160)
SIDEWALK EASEMENT (INST. NO. 20170418000491920)
173.60'
MATCH LINE (SEE SHEET 3)
WATER EASEMENT (INST. NO. 20130117000077110)
SIDEWALK EASEMENT (VOL. 2019, PG. 209)
TEMPORARY CONSTRUCTION EASEMENT (INST. NO. 20130117000077150)
POINT FOR CORNER (N 5°56' E - 0.4')
POINT FOR CORNER (N 5°56' E - 0.4')
POINT FOR CORNER (N 5°56' E - 0.3')
POINT FOR CORNER (N 5°56' E - 0.4')
POINT FOR CORNER (N 5°56' E - 0.4')
POINT FOR CORNER (N 5°56' E - 0.4

LEGEND

○	POINT FOR CORNER (UNLESS OTHERWISE NOTED)
PFC	POINT FOR CORNER
INST.	INSTRUMENT
NO.	NUMBER
VOL.	VOLUME
PG.	PAGE
IRS	5/8-INCH IRON ROD W/"PACHECO KOCH" CAP SET
IRF "KHA"	5/8-INCH IRON ROD W/"KHA" CAP FOUND
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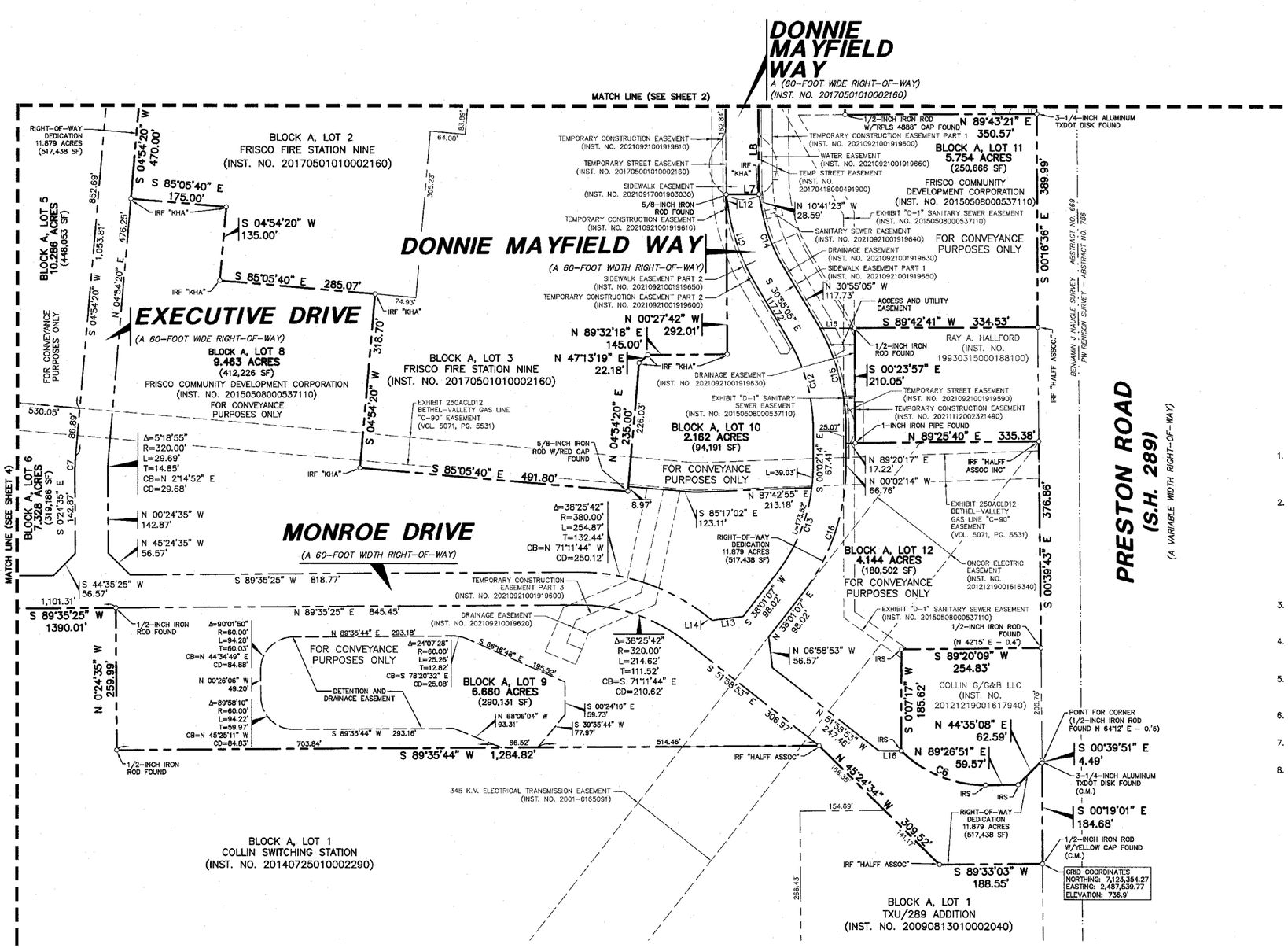
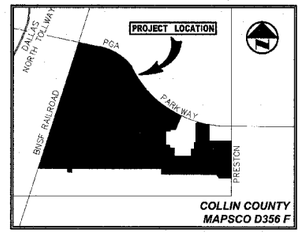
XF	X CUT IN CONCRETE FOUND
(C.M.)	CONTROLLING MONUMENT
	PROPERTY LINE
	EASEMENT LINE
	SETBACK LINE
	SURVEY ABSTRACT LINE
	ABANDONED EASEMENT





VICINITY MAP
(NOT TO SCALE)

0 50 100 200 300
GRAPHIC SCALE IN FEET
1" = 100'

NOTES

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AREA TABLE

LOT NUMBER	SQUARE FEET	ACRES
LOT 1	34.011	1,481,537
LOT 2	36.014	1,568,751
LOT 3	14.939	650,740
LOT 4	14.845	646,657
LOT 5	10.286	448,053
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ROW DEDICATION	11.879	517,438
TOTAL	*161.532*	*7,036,323*

CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD BEARING	CHORD
C1	04°02'00"	5,04.00'	35.48'	17.75'	S 76°36'54" E	35.47'
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C4	07°50'58"	320.00'	43.84'	21.98'	N 3°27'45" E	43.81'
C5	03°12'56"	1,520.00'	85.31'	42.67'	S 86°51'31" E	85.30'
C6	45°08'54"	216.50'	170.60'	90.01'	S 67°58'40" E	166.22'
C7	05°16'55"	380.00'	35.25'	17.64'	S 2°14'52" W	35.24'
C8	35°16'30"	420.00'	258.58'	133.53'	N 22°32'35" E	254.52'
C9	26°01'56"	43.00'	19.54'	9.94'	N 53°11'48" E	19.37'
C10	24°26'12"	67.00'	28.58'	14.51'	N 53°59'40" E	28.36'
C11	21°30'22"	380.00'	144.84'	73.31'	S 19°59'54" E	143.97'
C12	30°48'35"	320.77'	172.49'	88.38'	S 15°29'42" E	170.42'
C13	38°03'22"	320.00'	212.54'	110.36'	S 18°59'26" W	208.66'
C14	20°13'42"	320.00'	112.98'	57.08'	N 20°48'14" W	112.39'
C15	30°55'01"	380.77'	205.46'	105.30'	N 15°26'35" W	202.98'
C16	38°03'22"	380.00'	252.40'	131.05'	N 18°59'26" E	247.78'

LINE TABLE

LINE	BEARING	LENGTH
L1	S 78°37'54" E	69.26'
L2	S 82°25'00" E	70.69'
L3	S 14°21'28" E	54.83'
L4	S 58°29'34" E	85.01'
L5	N 78°14'16" E	55.71'
L6	S 54°20'26" E	107.39'
L7	N 89°32'18" E	60.00'
L8	N 00°27'42" W	290.45'
L9	N 07°23'14" E	163.55'
L10	S 01°14'34" E	175.63'
L11	S 00°35'50" E	206.74'
L12	S 09°04'43" E	28.57'
L13	S 83°01'07" W	56.57'
L14	N 51°58'53" W	11.50'
L15	N 89°42'41" E	63.60'
L16	N 89°52'43" W	40.87'

SHEET 3 OF 6
CONVEYANCE PLAT

LUMINANT
BLOCK A, LOTS 1-12

OF A 161.532 ACRE TRACT
AND BEING OUT OF THE
COLLIN COUNTY SCHOOL LAND SURVEY,
ABSTRACT NO. 148 AND
THE BENJAMIN J NAUGLE SURVEY,
ABSTRACT NO. 669
COLLIN COUNTY, TEXAS
LOCATED IN THE CITY OF FRISCO, TEXAS
CITY PROJECT NUMBER: CP24-0001
PREPARATION DATE: 02/20/2024

COUNTY COURT OF COLLIN COUNTY, TEXAS

STATE OF TEXAS, COUNTY OF COLLIN
I, STACEY KEMP, COUNTY CLERK OF COLLIN COUNTY, DO HEREBY CERTIFY THAT THIS PLAT WAS FILED FOR RECORD IN MY OFFICE AND DULY RECORDED IN THE PLAT RECORDS OF COLLIN COUNTY ON: 03/05/2024 12:37 PM
PLAT BOOK: 2024 PAGE: 225 – 230
NUMBER OF PAGES: 6 AMOUNT: $303.00
IN TESTIMONY WHEREOF, WITNESS MY HAND AND OFFICIAL SEAL OF OFFICE.
COUNTY CLERK, COLLIN COUNTY, TEXAS
BY: Jennifer Wheeler DEPUTY

TBPELS. ENGINEERING FIRM NO. 11756
TBPELS SURVEYING FIRM NO. 10074301

Westwood
Westwood Professional Services, Inc.
7557 RAMBLER ROAD SUITE 1400
DALLAS, TX 75231
972.235.3031
westwoodps.com

SURVEYOR:
PACHECO KOCH, A WESTWOOD COMPANY
7557 RAMBLER ROAD, SUITE 1400
DALLAS, TEXAS, 75231
PH: (972) 235-3031
CONTACT: KYLE C. HARRIS

OWNER:
FRISCO COMMUNITY DEVELOPMENT CORPORATION
6101 FRISCO SQUARE BOULEVARD
FRISCO, TEXAS 75034
PH: (972) 292-5105
CONTACT: WESLEY S. PIERSON

DRAWN BY	CHECKED BY	SCALE	DATE	JOB NUMBER
JMC	KCH	1"=100'	MARCH 2024	R0042908.01

I/II-13-10

CONVEYANCE PLAT - LUMINANT, BLOCK A, LOTS 1-12

NMWEIR
3/4/2024 9:22 AM
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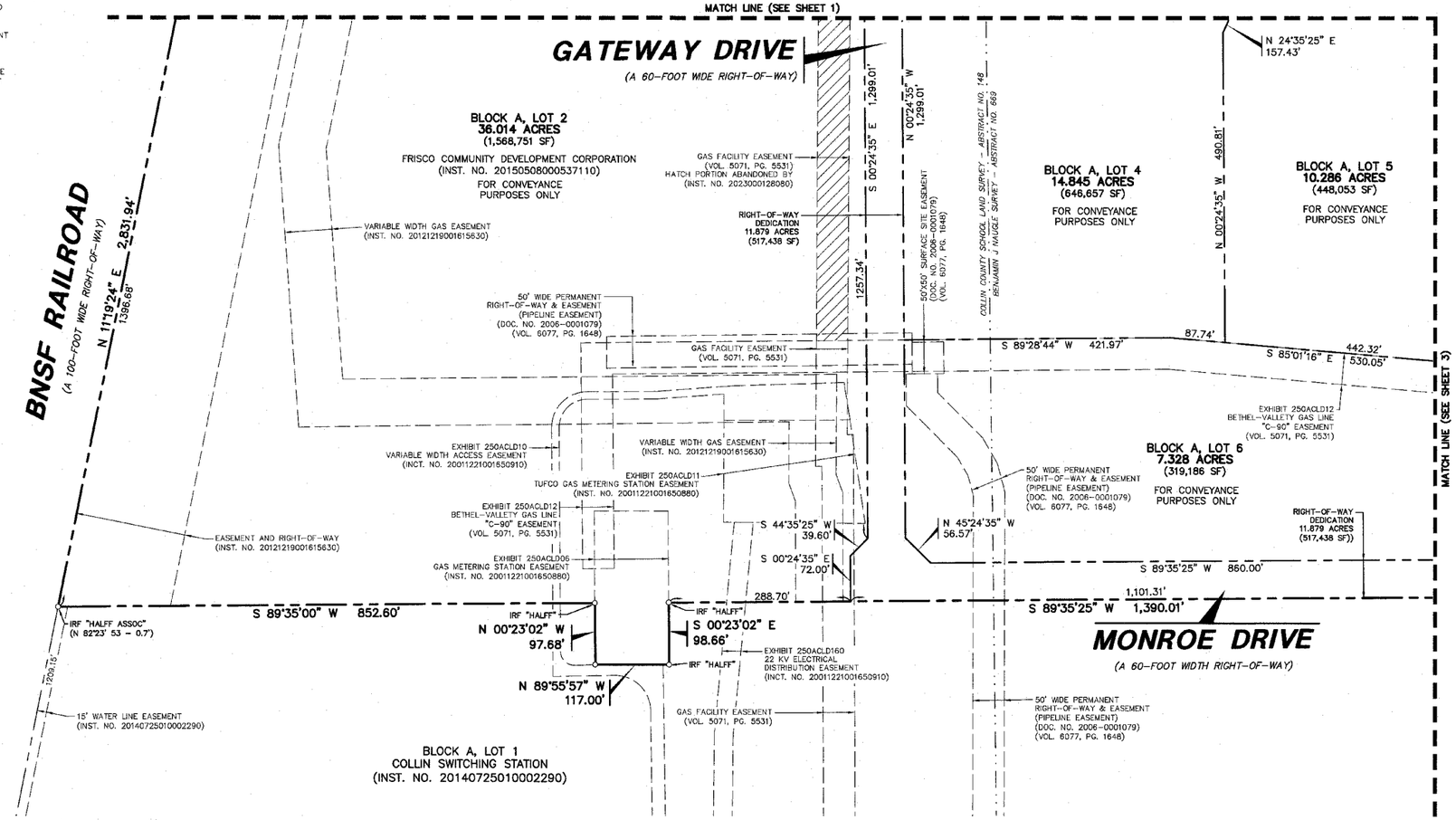
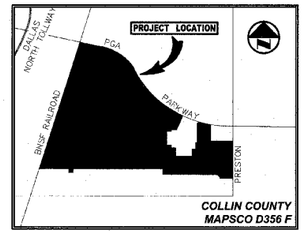
LEGEND

○	POINT FOR CORNER (UNLESS OTHERWISE NOTED)
PFC	POINT FOR CORNER
INST.	INSTRUMENT
NO.	NUMBER
VOL.	VOLUME
PG.	PAGE
IRS	5/8-INCH IRON ROD W/"PACHECO KOCH" CAP SET
IRF "KHA"	5/8-INCH IRON ROD W/"KHA" CAP FOUND
IRF "HALFF ASSOC"	1/2-INCH IRON ROD W/"HALFF ASSOC" CAP FOUND
IRF "HALFF ASSOC INC"	1/2-INCH IRON ROD W/"HALFF ASSOC INC" CAP FOUND
IRF "HALFF"	1/2-INCH IRON ROD W/"HALFF" CAP FOUND
XF	X CUT IN CONCRETE FOUND
(C.M.)	CONTROLLING MONUMENT
	PROPERTY LINE
	EASEMENT LINE
	SETBACK LINE
	SURVEY ABSTRACT LINE
	ABANDONED EASEMENT





VICINITY MAP
(NOT TO SCALE)

0 50 100 200 300
GRAPHIC SCALE IN FEET
1" = 100'

NOTES

1. Bearing system for this survey is based on the State Plane Coordinate System, North American Datum of 1983 (2011), Texas North Central Zone 4202. Distances reported have been scaled by applying the Collin County TxDOT surface adjustment factor of 1.000152710.
2. Subject property is shown on the National Flood Insurance Program Flood Insurance Rate Map for Collin County, Texas and incorporated Areas, Map No. 48085C0235J, Community-Panel No. 480133 0235 J, Effective Date: June 2, 2009, and Map No. 48085C0230J, Community-Panel No. 480133 0235 J, Effective Date: June 2, 2009. All of the subject property is shown to be located in Zone "X" on said map. Relevant zones are defined on said map as follows:

   Zone "X" – Other Areas: Areas determined to be outside the 0.2% annual chance floodplain.
3. Any declaration made hereon or herein is made to the original purchaser of the survey. It is not transferable to additional institutions or subsequent owners.
4. Square footage totals shown hereon or referenced herein are based on mathematical closures and do not necessarily represent the positional accuracy of the boundary monuments.
5. The word "certify" or "certificate" as shown and used hereon means an expression of professional opinion regarding the facts of the survey and does not constitute a warranty or guarantee, expressed or implied.
6. The surveyor did not observe any evidence of recent earth moving work, building construction or building additions at the time of this survey.
7. The survey abstract lines shown hereon are approximate and are not located on the ground.
8. Notice: A conveyance plat is a record of property approved by the City of Frisco, Texas, for the purpose of sale or conveyance in its entirety or interests thereon defined. No building permit shall be issued nor permanent public utility service provided unti a tinal plat is approved, tiled of record and public improvegents accepted in accordance with the provisions of the Subdivision Ordinance of the City of Frisco, Selling a portion of this addition by metes and bounds is a violation of city ordinance and state law and is subject to fines and withholding of utilities and building permits.

AREA TABLE

LOT NUMBER	SQUARE FEET	ACRES
LOT 1	34.011	1,481,537
LOT 2	36.014	1,568,751
LOT 3	14.939	650,740
LOT 4	14.845	646,657
LOT 5	10.286	448,053
LOT 6	7.328	319,186
LOT 7	4.046	176,245
LOT 8	9.463	412,226
LOT 9	6.660	290,131
LOT 10	2.182	94,191
LOT 11	5.754	250,666
LOT 12	4.144	180,502
ROW DEDICATION	11.879	517,438
TOTAL	*161.532*	*7,036,323*

CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD BEARING	CHORD
C1	04°02'00"	5,04.00'	35.48'	17.75'	S 76°36'54" E	35.47'
C2	04°01'59"	1,515.00'	106.64'	53.34'	S 76°36'54" E	106.62'
C3	06°58'02"	1,393.62'	169.47'	84.84'	S 73°53'35" E	169.36'
C4	07°50'58"	320.00'	43.84'	21.95'	N 3°27'45" E	43.81'
C5	03°12'56"	1,520.00'	85.31'	42.67'	S 86°51'31" E	85.30'
C6	45°08'54"	216.50'	170.60'	90.01'	S 67°58'40" E	166.22'
C7	05°18'55"	380.00'	35.25'	17.64'	S 2°14'52" W	35.24'
C8	35°16'30"	420.00'	258.58'	133.53'	N 22°32'35" E	254.52'
C9	26°01'56"	43.00'	19.54'	9.94'	N 53°11'48" E	19.37'
C10	24°26'12"	67.00'	28.58'	14.51'	N 53°59'40" E	28.36'
C11	21°50'22"	380.00'	144.84'	73.31'	S 19°59'54" E	143.97'
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L15	N 89°42'41" E	63.60'
L16	N 89°52'43" W	40.87'

I/II-13-11

SURVEYOR:
PACHECO KOCH, A WESTWOOD COMPANY
7557 RAMBLER ROAD, SUITE 1400
DALLAS, TEXAS, 75231
PH: (972) 235-3031
CONTACT: KYLE C. HARRIS

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FRISCO COMMUNITY DEVELOPMENT CORPORATION
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FRISCO, TEXAS 75034
PH: (972) 292-5105
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SHEET 4 OF 6
CONVEYANCE PLAT
LUMINANT
BLOCK A, LOTS 1-12
OF A 161.532 ACRE TRACT
AND BEING OUT OF THE
COLLIN COUNTY SCHOOL LAND SURVEY,
ABSTRACT NO. 148 AND
THE BENJAMIN J NAUGLE SURVEY,
ABSTRACT NO. 669
COLLIN COUNTY, TEXAS
LOCATED IN THE CITY OF FRISCO, TEXAS
CITY PROJECT NUMBER: CP24-0001
PREPARATION DATE: 02/20/2024

TBPELS. ENGINEERING FIRM NO. 11756
TBPELS SURVEYING FIRM NO. 10074301

Westwood
Westwood Professional Services, Inc.
7557 RAMBLER ROAD SUITE 1400
DALLAS, TX 75231
972.235.3031
westwoodps.com

DRAWN BY	CHECKED BY	SCALE	DATE	JOB NUMBER
JMC	KCH	1"=100'	MARCH 2024	R0042908.01

STATE OF TEXAS, COUNTY OF COLLIN
I, STACEY KEMP, COUNTY CLERK OF COLLIN COUNTY, DO HEREBY CERTIFY THAT THIS PLAT WAS FILED FOR RECORD IN MY OFFICE AND DULY RECORDED IN THE PLAT RECORDS OF COLLIN COUNTY ON: 03/05/2024 12:37 PM
PLAT BOOK: 2024 PAGE: 225 – 230
NUMBER OF PAGES: 6 AMOUNT: $303.00
IN TESTIMONY WHEREOF, WITNESS MY HAND AND OFFICIAL SEAL OF OFFICE,
COUNTY CLERK, COLLIN COUNTY, TEXAS
BY _____ DEPUTY
Jennifer Wheeler

CONVEYANCE PLAT - LUMINANT, BLOCK A, LOTS 1-12

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3/4/2024 9:23 AM
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OWNER'S CERTIFICATE

STATE OF TEXAS §

COUNTY OF COLLIN §

CITY OF FRISCO §

WHEREAS, Frisco Community Development Corporation, is the owner of a 161.532 acre (7,036,323 square foot) tract of land situated in the Collin County School Land Survey, Abstract No. 148 and the Benjamin J Naugle Survey, Abstract No. 669, City of Denton, Denton County, Texas; said tract being part of that certain tract of land described in Special Warranty Deed to Frisco Community Development Corporation, recorded in Instrument No. 20150508000537110 of the Official Public Records of Collin County, Texas; said 161.532 acre (7,036,323 square foot) tract being more particularly described as follows:

BEGINNING, at a 5/8–inch iron rod with "KHA" cap found for corner (controlling monument) in the south right–of–way line of the PGA Parkway (a variable width right–of–way) and east right–of–way line of BSNF Railroad (a 100–foot right–of–way); said point being the northwesternmost corner of said Frisco Community Development Corporation tract;

THENCE, departing said east line of BSNF Railroad, along said south line of PGA Parkway and the north line of said Frisco Community Development Corporation tract, the following twenty one (21) calls:

South 78 degrees, 37 minutes, 54 seconds East, a distance of 625.74 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner; said point being the beginning of a tangent curve to the right;

In a southeastly direction, along said curve to the right, having a central angle of 04 degrees, 02 minutes, 00 seconds, a radius of 504.00 feet, a chord bearing and distance of South 76 degrees, 36 minutes, 54 seconds East, 35.47 feet, an arc distance of 35.48 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set at the end of said curve; said point being the beginning of a reverse curve to the left;

In a southeastly direction, along said curve to the left, having a central angle of 04 degrees, 01 minutes, 59 seconds, a radius of 1515.00 feet, a chord bearing and distance of South 76 degrees, 36 minutes, 54 seconds East, 106.62 feet, an arc distance of 106.64 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set at the end of said curve;

South 78 degrees, 37 minutes, 54 seconds East, a distance of 69.26 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner;

South 82 degrees, 25 minutes, 00 seconds East, a distance of 70.69 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner; said point being the beginning of a non–tangent curve to the right;

In a southeasterly direction, along said curve to the right, having a central angle of 06 degrees, 58 minutes, 02 seconds, a radius of 1393.62 feet, a chord bearing and distance of South 73 degrees, 53 minutes, 35 seconds East, 169.36 feet, an arc distance of 169.47 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner at the end of said curve;

South 62 degrees, 47 minutes, 49 seconds East, a distance of 105.52 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner; said point being the beginning of a non–tangent curve to the right;

In a southeasterly direction, along said curve to the right, having a central angle of 04 degrees, 08 minutes, 22 seconds, a radius of 1,380.00 feet, a chord bearing and distance of South 63 degrees, 59 minutes, 18 seconds East, 99.68 feet, an arc distance of 99.70 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set at the end of said curve;

South 14 degrees, 21 minutes, 28 seconds East, a distance of 54.83 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner;

South 58 degrees, 29 minutes, 34 seconds East, a distance of 85.01 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner;

North 78 degrees, 14 minutes, 16 seconds East, a distance of 55.71 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner; said point being the beginning of a non–tangent curve to the right;

In a southeasterly direction, along said curve to the right, having a central angle of 04 degrees, 13 minutes, 23 seconds, a radius of 1,380.00 feet, a chord bearing and distance of South 52 degrees, 57 minutes, 20 seconds East, 101.69 feet, an arc distance of 101.71 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner at the end of said curve;

South 54 degrees, 20 minutes, 26 seconds East, a distance of 107.39 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner;

South 48 degrees, 13 minutes, 26 seconds East, a distance of 311.73 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner;

South 44 degrees, 24 minutes, 36 seconds East, a distance of 150.33 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner;

South 48 degrees, 13 minutes, 26 seconds East, a distance of 185.00 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner;

South 03 degrees, 13 minutes, 26 seconds East, a distance of 56.57 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner;

South 48 degrees, 13 minutes, 26 seconds East, a distance of 110.00 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner;

North 86 degrees, 56 minutes, 27 seconds East, a distance of 56.74 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner; said point being the beginning of a non–tangent curve to the left;

In a southeasterly direction, along said curve to the left, having a central angle of 07 degrees, 18 minutes, 54 seconds, a radius of 1,520.00 feet, a chord bearing and distance of South 52 degrees, 04 minutes, 22 seconds East, 193.93 feet, an arc distance of 194.06 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner at the end of said curve;

South 62 degrees, 20 minutes, 21 seconds East, a distance of 139.50 feet to a "+" cut in concrete found for corner; said point being the northwestern corner of that certain tract of land described in Special Warranty Deed to City of Frisco, Texas recorded in Instrument No. 20171002001317150 of said Official Public Records;

THENCE, departing said south line of PGA Parkway, along the westerly line, the northerly line and the southerly line of Lot 2, Block A, Frisco Fire Station Nine, an addition to the City of Frisco according to the plat recorded in Instrument No. 20170501010002160 of said Official Public Records, the following eight (8) calls;

South 24 degrees, 58 minutes, 17 seconds West, a distance of 276.83 feet to a 5/8–inch iron rod with "KHA" cap found for corner;

North 85 degrees, 05 minutes, 40 seconds West, a distance of 273.42 feet to a 5/8–inch iron rod with "KHA" cap found for corner;

South 04 degrees, 54 minutes, 20 seconds West, a distance of 55.00 feet to a point for corner; from said point a 5/8–inch iron rod with "KHA" cap found bears North 53 degrees, 22 minutes East, a distance of 0.5 feet;

OWNER'S CERTIFICATE CONTINUED

North 85 degrees, 05 minutes, 40 seconds West, a distance of 175.00 feet to a 5/8–inch iron rod with "KHA" cap found for corner;

South 04 degrees, 54 minutes, 20 seconds West, a distance of 470.00 feet to a 5/8–inch iron rod with "KHA" cap found for corner;

South 85 degrees, 05 minutes, 40 seconds East, a distance of 175.00 feet to a 5/8–inch iron rod with "KHA" cap found for corner;

South 04 degrees, 54 minutes, 20 seconds West, a distance of 135.00 feet to a 5/8–inch iron rod with "KHA" cap found for corner;

South 85 degrees, 05 minutes, 40 seconds East, a distance of 285.07 feet to a 5/8–inch iron rod with "KHA" cap found for corner; said point being in the south line of said Frisco Fire Station Nine and being a westerly corner of Lot 3, Block A of said Frisco Fire Station Nine;

THENCE, departing said south line of Lot 2, Block A, along the westerly, the southerly and the easterly lines of said Lot 3, Block a the following six (6) calls;

South 04 degrees, 54 minutes, 20 seconds West, a distance of 318.70 feet to a 5/8–inch iron rod with "KHA" cap found for corner;

South 85 degrees, 05 minutes, 40 seconds East, a distance of 491.80 feet to a 5/8–inch iron rod with red cap found for corner;

North 04 degrees, 54 minutes, 20 seconds East, a distance of 235.00 feet to a 5/8–inch iron rod with "KHA" cap found for corner;

North 47 degrees, 13 minutes, 19 seconds East, a distance of 22.18 feet to a 5/8–inch iron rod with "KHA" cap found for corner;

North 89 degrees, 32 minutes, 18 seconds East, a distance of 145.00 feet to a 5/8–inch iron rod with "KHA" cap found for corner;

North 00 degrees, 27 minutes, 42 seconds West, a distance of 292.01 feet to a 5/8–inch iron rod found for corner; said point being the southwest corner at the south terminus of Donnie Mayfield Way (a 60–foot right–of–way);

THENCE, North 89 degrees, 32 minutes, 18 seconds East, along said south terminus line of Donnie Mayfield Way, a distance of 60.00 feet to a 5/8–inch iron rod with "KHA" cap found for corner at the southeast terminus corner of said Donnie Mayfield Way;

THENCE, departing said south terminus line of Donnie Mayfield Way, along the east line of said Donnie Mayfield Way, the following four (4) calls;

North 00 degrees, 27 minutes, 42 seconds West, a distance of 290.45 feet to a point for corner; said point being the beginning of a non–tangent curve to the right;

In a northeasterly direction, along said curve to the right, having a central angle of 07 degrees, 50 minutes, 58 seconds, a radius of 320.00 feet, a chord bearing and distance of North 03 degrees, 27 minutes, 45 seconds East, 43.81 feet, an arc distance of 43.84 feet to a point for corner at the end of said curve;

North 07 degrees, 23 minutes, 14 seconds East, a distance of 163.55 feet to a point for corner; said point being the southwest corner of a corner clip at the intersection of the east right–of–way line of said Donnie Mayfield Way and said south line of PGA Parkway;

THENCE, North 51 degrees, 27 minutes, 23 seconds East, along said corner clip, a distance of 57.72 feet to a point for corner; said point being in said south line of PGA Parkway; said point also being the beginning of a non–tangent curve to the left; from said point a 5/8–inch iron rod with red cap found bears South 54 degrees, 52 minutes West, a distance of 0.4 feet;

THENCE, in a southeasterly direction, along said curve to the left, having a central angle of 03 degrees, 12 minutes, 56 seconds, a radius of 1,520.00 feet, a chord bearing and distance of South 86 degrees, 51 minutes, 31 seconds East, 85.30 feet, an arc distance of 85.31 feet to a 5/8–inch iron rod with "WAI" cap found for corner at the end of said curve; said point being the northwest corner of Lot 1, Block A, Rock Hill & Preston Retail, an addition to the City of Frisco, Texas according to the plat recorded in Instrument No. 2019–204 of said Official Public Records;

THENCE, in a southeasterly direction along the west line of Lot 1 and Lot 2 of said Block A, Rock Hill & Preston Retail, the following two (2) calls;

South 01 degrees, 14 minutes, 34 seconds East, along the west line of said Lot 1, Block A, Rock Hill & Preston Retail, a distance of 175.63 feet to a 5/8–inch iron rod with "WAI" cap found for corner;

South 00 degrees, 35 minutes, 50 seconds East, at a distance of 22.60 feet passing a 5/8–inch iron rod with "WAI" cap found for the southeast corner of said Lot 1, Block A, Rock Hill & Preston Retail and being the northwest corner of said Lot 2, Block A, Rock Hill & Preston Retail, continuing in all a total distance of 206.74 feet to a 1/2–inch iron rod with "RPLS 4888" cap found for corner;

THENCE, North 89 degrees, 43 minutes, 21 seconds East, along the south line of said Lot 2, Block A, Rock Hill & Preston Retail, a distance of 350.57 feet to a 3 1/4–inch aluminum TxDOT disk found for corner; said point being the southeast corner of said Lot 2, Block A, Rock Hill & Preston Retail and being in the west right–of–way line of State Highway 289 (a variable width right–of–way);

THENCE, South 00 degrees, 16 minutes, 36 seconds East, along said west line of State Highway 289, a distance of 389.99 feet to a 1/2–inch iron rod with "HALFF ASSOC." cap found for corner; said point being the northeast corner of that certain tract of land described in Warranty Deed to Ray A. Hallford recorded in Instrument No. 19930315000188100 of said Official Public Records;

THENCE, South 89 degrees, 42 minutes, 41 seconds West, departing said west line of State Highway 289 along the north line of said Ray A. Hallford tract, a distance of 334.53 feet to a 1/2–inch iron rod found for corner; said point being the northwest corner of said Ray A. Hallford tract;

THENCE, South 00 degrees, 23 minutes, 57 seconds East, along the west line of said Ray A. Hallford tract, a distance of 210.05 feet to a 1–inch iron pipe found for corner at the southwest corner of said Ray A. Hallford tract;

THENCE, North 89 degrees, 25 minutes, 40 seconds East, along the south line of said Ray A. Hallford tract, a distance of 335.38 feet to a 1/2–inch iron rod with "HALFF ASSOC INC" cap found for corner at the southeast corner of said Ray A. Halford tract; said point being in said west line of State Highway 289;

THENCE, South 00 degrees, 39 minutes, 43 seconds East, along said west line of State Highway 289, a distance of 376.86 feet to a 1/2–inch iron rod found for corner;

THENCE, departing said line of State Highway 289, along the north line, the west line and the south line of that certain tract of land described in Special Warranty Deed to Collin G/G&B LLC, recorded in Instrument No. 20121219001617940 of said Official Public Records, the following five (5) calls:

South 89 degrees, 20 minutes, 09 seconds West, departing said west line of State Highway 289, along the north line of that certain tract of land described in Special Warranty Deed to Collin G/G&B LLC, recorded in Instrument No. 20121219001617940 of said Official Public Records a distance of 254.83 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner;

OWNER'S CERTIFICATE CONTINUED

South 00 degrees, 07 minutes, 17 seconds West, a distance of 185.62 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner; said point being the beginning of a non–tangent curve to the left;

In a southeasterly direction, along said curve to the left, having a central angle of 45 degrees, 08 minutes, 54 seconds, a radius of 216.50 feet, a chord bearing and distance of South 67 degrees, 58 minutes, 40 seconds East, 166.22 feet, an arc distance of 170.60 feet to a point for corner at the end of said curve;

North 89 degrees, 26 minutes, 51 seconds East, a distance of 59.57 feet to a 5/8–inch iron rod with "PACHECO KOCH" cap set for corner;

North 44 degrees, 35 minutes, 08 seconds East, a distance of 62.59 feet to a point for corner in said west line of State Highway 289; from said point a 1/2–inch iron rod found bears North 64 degrees, 12 minutes East, a distance of 0.5 feet;

THENCE, departing said south line of Collin G/G&B LLC tract, along said west line of State Highway 289, the following two (2) calls:

South 00 degrees, 39 minutes, 51 seconds East, a distance of 4.49 feet to a 3 1/4–inch aluminum TxDOT disk found for corner (controlling monument);

South 00 degrees, 19 minutes, 01 seconds East, a distance of 184.68 feet to a 1/2–inch iron rod with yellow cap found for corner (controlling monument); said point being the easternmost northeast corner of Lot 1, Block A, TXU/289 Addition, an addition to the City of Frisco, Texas according to the plat recorded in Instrument No. 20090813010002040 of said Official Public Records;

THENCE, South 89 degrees, 33 minutes, 03 seconds West, departing said west line of State Highway 289, along a north line of said Lot 1, Block A, TXU/289 Addition, a distance of 188.55 feet to a 1/2–inch iron rod with "HALFF ASSOC" cap found for corner;

THENCE, North 45 degrees, 24 minutes, 34 seconds West, along the easternmost northeast line of said Lot 1, Block A, TXU/289 Addition, at a distance of 141.17 feet passing the northernmost northeast corner of said Lot 1, Block A, TXU/289 Addition and along a northeast line of Lot 1, Block A, Collin Switching Station, an addition to the City of Frisco, Texas according to a plat recorded in Instrument No. 20140725010002290 of said Official Public Records, a total distance of 309.52 feet to a 1/2–inch iron rod with "HALFF ASSOC" cap found for corner at a northeast corner of said Lot 1, Block A, Collin Switching Station;

THENCE, along the northerly line of said Lot 1, Block A, Collin Switching Station, the following seven (7) calls:

South 89 degrees, 35 minutes, 44 seconds West, a distance of 1,284.82 feet to a 1/2–inch iron rod with "HALFF" cap found for corner;

North 00 degrees, 24 minutes, 35 seconds West, a distance of 259.99 feet to a 1/2–inch iron rod with "HALFF ESMT" cap found for corner;

South 89 degrees, 35 minutes, 25 seconds West, a distance of 1,390.01 feet to a 1/2–inch iron rod with "HALFF" cap found for corner;

South 00 degrees, 23 minutes, 02 seconds East, a distance of 98.66 feet to a 1/2–inch iron rod with "HALFF" cap found for corner;

North 89 degrees, 55 minutes, 57 seconds West, a distance of 117.00 feet to a point for corner;

North 00 degrees, 23 minutes, 02 seconds West, a distance of 97.68 feet to a 1/2–inch iron rod with "HALFF" cap found for corner;

South 89 degrees, 35 minutes, 00 seconds West, a distance of 852.60 feet to a point for corner; said point being the northwest corner of said Lot 1, Block A, Collin Switching Station and being in said east line of BNSF Railroad; from said point a 1/2–inch iron rod with "HALF ASSOC" cap found bears North 82 degrees, 23 minutes West, 0.7 feet;

THENCE, North 11 degrees, 19 minutes, 24 seconds East, along said east line of BSNF Railroad, a distance of 2,831.94 feet to the POINT OF BEGINNING;

CONTAINING: 161.532 acres or 7,036,323 square feet of land, more or less.

SHEET 5 OF 6
CONVEYANCE PLAT
LUMINANT
BLOCK A, LOTS 1-12
OF A 161.532 ACRE TRACT
AND BEING OUT OF THE
COLLIN COUNTY SCHOOL LAND SURVEY,
ABSTRACT NO. 148 AND
THE BENJAMIN J NAUGLE SURVEY,
ABSTRACT NO. 669
COLLIN COUNTY, TEXAS
LOCATED IN THE CITY OF FRISCO, TEXAS
CITY PROJECT NUMBER: CP24–0001
PREPARATION DATE: 02/20/2024

I/II-13-12

SURVEYOR:
PACHECO KOCH, A WESTWOOD COMPANY
7557 RAMBLER ROAD, SUITE 1400
DALLAS, TEXAS, 75231
PH: (972) 235–3031
CONTACT: KYLE C. HARRIS

OWNER:
FRISCO COMMUNITY DEVELOPMENT CORPORATION
6101 FRISCO SQUARE BOULEVARD
FRISCO, TEXAS 75034
PH: (972) 292–5105
CONTACT: WESLEY S. PIERSON

TBPELS. ENGINEERING FIRM NO. 11756
TBPELS SURVEYING FIRM NO. 10074301

Westwood
Westwood Professional Services, Inc.
7557 RAMBLER ROAD SUITE 1400
DALLAS, TX 75231
972.235.3031
westwoodps.com

DRAWN BY	CHECKED BY	SCALE	DATE	JOB NUMBER
JMC	KCH	1"=100'	MARCH 2024	R0042908.01

STATE OF TEXAS, COUNTY OF COLLIN
I, STACEY KEMP, COUNTY CLERK OF COLLIN COUNTY, DO HEREBY CERTIFY THAT THIS PLAT WAS FILED FOR RECORD IN MY OFFICE AND DULY RECORDED IN THE PLAT RECORDS OF COLLIN COUNTY ON: 03/05/2024 12:37 PM
PLAT BOOK: 2024 PAGE: 225 – 230
NUMBER OF PAGES: 6 AMOUNT: $300.00
IN TESTIMONY WHEREOF, WITNESS MY HAND AND OFFICIAL SEAL OF OFFICE,
COUNTY CLERK, COLLIN COUNTY, TEXAS
BY: Jennifer Wheeler, DEPUTY

CONVEYANCE PLAT - LUMINANT, BLOCK A, LOTS 1-12

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3/4/2024 9:25 AM
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KNOW ALL MEN BY THESE PRESENTS:

THAT, Frisco Community Development Corporation, acting herein by and through its duly authorized officers, do hereby certify and adopt this plat designating the herein above described property as Luminant, Block A, Lots 1–12, an addition to the City of Frisco, Collin County, Texas, and do hereby dedicate to the public use forever, the streets and alleys shown thereon. Frisco Community Development Corporation do herein certify the following:

1. The streets and alleys are dedicated in fee simple for street and alley purposes.
2. All public improvements and dedications shall be free and clear of all debt, liens, and/or encumbrances.
3. The easements and public use areas, as shown, and created by this plat, are dedicated for the public use forever for the purposes indicated on this plat.
4. No buildings, fences, trees, shrubs or other improvements or growths shall be constructed or placed upon, over or across the easements as shown, except that landscape improvements may be place in landscape easements if approved by the City of Frisco.
5. The City of Frisco is not responsible for replacing any improvements in, under, or over any easements caused by maintenance or repair.
6. Utility easements may also be used for the mutual use and accommodation of all public utilities desiring to use or using the same unless the easement limits the use to particular utilities, said use by public utilities being subordinate to the public's and City of Frisco's use thereof.
7. The City of Frisco and public utilities shagave the right to remove and keep removed all or parts of any buildings, fences, trees, shrubs or other improvements or growths which may in any way endanger or interfere with the construction, maintenance, or efficiency of their respective systems in the easements.
8. The City of Frisco and public utilities shall at all times have the full right of ingress and egress to or from their respective easements for the purpose of constructing, reconstructing, inspecting, patrolling, maintaining, reading meters, and adding to or removing all or parts of their respective systems without the necessity at any time procuring permission from anyone.
9. All modifications to this document shall be by means of plat and approved by the City of Frisco.

This Plat approved subject to all platting ordinances, rules, regulations and resolutions of the City of Frisco, Texas.

WITNESS, my hand, this 4th day of March, 2024

BY: Frisco Community Development Corporation, a Texas non–profit corporation

BY: _____
Wesley S. Pierson, City Manager

STATE OF TEXAS §

COUNTY OF COLLIN §

CITY OF FRISCO §

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared Wesley S. Pierson known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this 4th day of March, 2024.

_____
Notary Public in and for the State of Texas

HOLLY MCCALL
Notary Public, State of Texas
Comm. Expires 12-21-2024
Notary ID 130940259

DRAINAGE AND DETENTION EASEMENT (ABOVE GROUND DETENTION)

THE STATE OF TEXAS §

COUNTY OF COLLIN §

CITY OF FRISCO §

This plat is hereby adopted by the Owner(s) and approved by the City of Frisco ("City") subject to the following conditions which shall be binding upon the Owner(s), their heirs, grantees, successors and assigns:

The area or areas shown on the plat as "Drainage and Detention Easement" shall remain accessible at all times and shall be maintained by Owner(s) of the lot or lots that are traversed by, or adjacent to the Drainage and Detention Easement. The City will not be responsible for the maintenance and operation of the drainage facilities within the Drainage and Detention Easement or for any damage to private property or person that results from conditions within the Drainage and Detention Easement. No obstruction to the natural flow of storm water run–off shall be permitted by construction of any type within the Drainage and Detention Easement, unless approved by the Director of Engineering Services. Each property owner shall keep the portion Drainage and Detention Easement traversing or adjacent to their property clean and free of debris, silt, and any materials which would result in unsanitary conditions or obstruct the flow of water. The City shall have the right of ingress and egress for the purpose of inspection and supervision of maintenance work by the property owner. The City shall not be held liable for any damages of any nature resulting from failure of facilities within the Drainage and Detention Easement.The City shall have the right to enter upon the Drainage and Detention Easement at any point, or points, to investigate, survey, construct and maintain any drainage facility deemed necessary for drainage purposes. The minimum finished floor elevation for each lot shall be as shown on the plat.

DRAINAGE AND DETENTION EASEMENT (UNDERGROUND DETENTION)

THE STATE OF TEXAS §

COUNTY OF COLLIN §

CITY OF FRISCO §

This plat is hereby adopted by the Owner(s) and approved by the City of Frisco ("City") subject to the following conditions which shall be binding upon the Owner(s), their heirs, grantees, successors and assigns: The area or areas shown on the plat is called "Drainage and Detention Easement" shall remain accessible at all times and shall be maintained by the Owner(s) of the lot or lots that are traversed by, or adjacent to the Drainage and Detention Easement. The City will not be responsible for the maintenance and operation of the drainage facilities within the Drainage and Detention Easement or for any damage to private property or person that results from conditions within the Drainage and Detention Easement. No obstruction to the natural flow of storm water run–off shall be permitted by construction of any type within the Drainage and Detention Easement, unless approved by the Director of Engineering Services. Each property owner shall keep the Drainage and Detention Easement traversing or adjacent to their property clean and free of debris, silt, and any materials that would result in unsanitary conditions or obstruct the flow of water. The City shall have the right of ingress and egress for the purpose of inspection and supervision of maintenance work by the property owner. The City shall not be held liable for any damages of any nature resulting from the failure of facilities within the Drainage and Detention Easement. The City shall have the right to enter upon the Drainage and Detention Easement at any point, or points, to investigate, survey or construct and maintain any drainage facility deemed necessary for drainage purposes.

ACCESS EASEMENT

The undersigned covenants and agrees that the access easement(s) may be utilized by any person or the general public for ingress and egress to other real property, and for the purpose of general public vehicular and pedestrian use and access, and for the Fire Department, Police and emergency use in, along, upon and across said premises, with the right and privilege at all times of the City of Frisco, its agents, employees, workmen and representatives having ingress, egress, and regress in, along, upon and across said premises.

FIRE LANE EASEMENT

The undersigned covenants and agrees that he (they) shall construct upon the fire lane easements, as dedicated and shown hereon, a fire apparatus access road in accordance with the Fire Code and City standards and that he (they) shall maintain the same in a state of good repair at all times in accordance with City Ordinance. The fire lane easement for the fire apparatus access road shall be kept free of obstructions in accordance with City Ordinance. The maintenance of pavement in accordance to City Ordinance of the fire lane easements is the responsibility of the owner. The owner shall identify the fire apparatus access road in accordance with City Ordinance. The Chief of Police or his/her duly authorized representative is hereby authorized to cause such fire lane and utility easements to be maintained free and unobstructed at all times for fire department and emergency use.

SURVEYOR'S CERTIFICATE

KNOW ALL MEN BY THESE PRESENTS:

That I, (Kyle Coleman Harris), do hereby certify that I prepared this plat and the field notes made a part thereof from an actual and accurate survey of the land and that the corner monuments shown thereon were properly placed under my personal supervision, in accordance with the Subdivision regulations of the City of Frisco, Texas.

Dated this the 4th day of March, 2024.

_____
Kyle Coleman Harris
Registered Professional Land Surveyor,
No. 6266
kyle.harris@westwoodps.com

STATE OF TEXAS — REGISTERED — KYLE COLEMAN HARRIS — 6266 — PROFESSIONAL LAND SURVEYOR

STATE OF TEXAS §

COUNTY OF DALLAS §

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared Kyle Coleman Harris known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this 4th day of March, 2024.

_____
Notary Public in and for the State of Texas

JOSH TAYLOR
Notary Public, State of Texas
Comm. Expires 03-16-2025
Notary ID 131046287

CERTIFICATE OF APPROVAL

APPROVAL this the 27th day of February 2024 by the Planning & Zoning Commission of the City of Frisco, Texas.

_____ PLANNING & ZONING COMMISSION CHAIR

_____ PLANNING & ZONING COMMISSION SECRETARY

_____ CITY SECRETARY

SEAL OF THE CITY OF FRISCO, TEXAS

COLLIN COUNTY COURT OF COLLIN COUNTY, TEXAS

SHEET 6 OF 6
CONVEYANCE PLAT
LUMINANT
BLOCK A, LOTS 1-12
OF A 161.532 ACRE TRACT
AND BEING OUT OF THE
COLLIN COUNTY SCHOOL LAND SURVEY,
ABSTRACT NO. 148 AND
THE BENJAMIN J NAUGLE SURVEY,
ABSTRACT NO. 669
COLLIN COUNTY, TEXAS
LOCATED IN THE CITY OF FRISCO, TEXAS
CITY PROJECT NUMBER: CP24–0001
PREPARATION DATE: 02/20/2024

I/II-13-13

SURVEYOR:
PACHECO KOCH, A WESTWOOD COMPANY
7557 RAMBLER ROAD, SUITE 1400
DALLAS, TEXAS, 75231
PH: (972) 235–3031
CONTACT: KYLE C. HARRIS

OWNER:
FRISCO COMMUNITY DEVELOPMENT CORPORATION
6101 FRISCO SQUARE BOULEVARD
FRISCO, TEXAS 75034
PH: (972) 292–5105
CONTACT: WESLEY S. PIERSON

TBPELS. ENGINEERING FIRM NO. 11756
TBPELS SURVEYING FIRM NO. 10074301

Westwood
Westwood Professional Services, Inc.
7557 RAMBLER ROAD SUITE 1400
DALLAS, TX 75231
972.235.3031
westwoodps.com

DRAWN BY	CHECKED BY	SCALE	DATE	JOB NUMBER
JMC	KCH	1"=100'	MARCH 2024	R0042908.01

STATE OF TEXAS, COUNTY OF COLLIN
I, STACEY KEMP, COUNTY CLERK OF COLLIN COUNTY, DO HEREBY CERTIFY THAT THIS PLAT WAS FILED FOR RECORD IN MY OFFICE AND DULY RECORDED IN THE PLAT RECORDS OF COLLIN COUNTY ON: 03/05/2024 12:37 PM
PLAT BOOK: 2024 PAGE: 225 – 230
NUMBER OF PAGES: 6 AMOUNT: $300.00
IN TESTIMONY WHEREOF, WITNESS MY HAND AND OFFICIAL SEAL OF OFFICE,
COUNTY CLERK, COLLIN COUNTY, TEXAS
BY: _____ DEPUTY
Jennifer Wheeler

CONVEYANCE PLAT - LUMINANT, BLOCK A, LOTS 1-12

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14 PROPERTY OWNER AFFIDAVIT

The property owner from North Texas Municipal Water District affidavit is included on the following pages.

This section addresses §330.59(d)(2).

PROPERTY OWNER AFFIDAVIT

STATE OF TEXAS §
§
COUNTY OF COLLIN §

On this day, November 12, 2025, on behalf of the North Texas Municipal Water District, appeared before me, the undersigned notary public, and after I administered an oath to her upon her oath she said:

"My name is Jennafer P. Covington. I am more than 21 years of age and capable of making this affidavit."

The North Texas Municipal Water District, hereafter referred to as the site owner, acknowledges that:

- The North Texas Municipal Water District is filing an application with the Texas Commission on Environmental Quality to operate a Type V Municipal Solid Waste Transfer Station on real property owned by North Texas Municipal Water District and located in Collin County, Texas, being more particularly described in Parts I/II-Section 13 of the application.
- The North Texas Municipal Water District acknowledges that the State of Texas may hold the property owner of record, either jointly or severally responsible for the operation, maintenance, and closure and postclosure care of the facility.
- The North Texas Municipal Water District 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 postclosure care period, if required, after closure for the purpose of inspection and maintenance.

Jennafer P. Covington (name)
Executive Director (title)

Jennafer Covington
Signature

11/12/2025
Date

SWORN TO AND SUBSCRIBED BEFORE ME by Jennafer Covington on the 12 day of November, 2025, which witness my hand and seal of office.

LEANN BUMPUS
My Notary ID # 10188600
Expires May 18, 2028

Leann Bumpus
Notary Public in and for the State of Texas

Leann Bumpus
Printed Name

My Commission Expires 5/18/28

15 LEGAL AUTHORITY

The sole owner and operator of the Gateway Drive TS is the North Texas Municipal Water District (NTMWD). A copy of NTMWD's enabling legislation is provided on the following pages to document the legal status of the applicant.

This section addresses §330.59(e).

Art. 8280—141. North Texas Municipal Water District

Section 1. By virtue of Article XVI, Section 59 of the Texas Constitution, there is hereby created a conservation and reclamation district to be known as "North Texas Municipal Water District", (hereinafter called "District") which shall be a governmental agency and a body politic and corporate.

Sec. 2. The District shall comprise all of the territory which was contained within the cities of Garland, Princeton, Plano, Mesquite, Wylie, Rockwall, Farmersville, McKinney, Forney, and Royce City on March 1, 1951; provided, however, that no defect in the definition of the boundaries of any of said cities or in any past or future proceedings for the annexation of territory to any of said cities shall affect the validity of the District hereby created or any of its powers or duties. It is hereby found that all of the land thus included in said District will be benefitted by the improvements to be acquired and constructed by said District.

Sec. 3(a). All powers of the District shall be exercised by a board of directors. Such directors shall be appointed by majority vote for the governing body of each of the cities contained in the District. In appointing the first directors for a city containing 5,000 population or more according to the most recent Federal Census, the governing body of such city shall appoint one director who shall serve to and including May 31, 1952, and one who shall serve to and including May 31, 1953. In May, 1952, and in May of each year thereafter, the governing body of such city shall appoint one director for the two year term beginning on June 1 of that year. In appointing the first director for a city of less than 5,000 population, according to the most recent Federal Census, the governing body of such city shall appoint one director who shall serve to and including May 31, 1952. In May, 1952, and in May of each even year thereafter, the governing body shall appoint one director for the two year term beginning on June 1 of that year. Each director shall serve for his term of office as herein provided, and thereafter until his successor shall be appointed and qualified. No person shall be appointed a director unless he resides in and owns taxable property in the city from which he is appointed. No member of a governing body of a city, and no employee of a city, shall be appointed as director. Such directors shall subscribe to the Constitutional oath of office, and each shall give bond for the faithful performance of his duties in the amount of $5,000.00, the cost of which shall be paid by the District. A majority shall constitute a quorum.

(b) Each director shall receive a fee of $20.00, for attending each meeting of the board, provided that not more than $40.00 shall be paid to any director for meetings held in any one calendar month. Each director shall also be entitled to receive $20.00 per day devoted to the business of the District and to reimbursement for actual ex-

penses incurred in attending to District business provided that such service and expense are expressly approved by the Board.

Sec. 4. The board of directors shall elect from its number a president and a vice-president of the District, and such other officers as in the judgment of the board are necessary. The president shall be the chief executive officer of the District and the presiding officer of the board, and shall have the same right to vote as any other director. The vice-president shall perform all duties and exercise all powers conferred by this Act upon the president when the president is absent or fails or declines to act. The board shall also appoint a secretary and a treasurer who may or may not be members of the board, and it may combine those offices. The treasurer shall give bond in such amount as may be required by the board of directors, but in no event less than $100,000.00. The condition of such bond shall be that he will faithfully account for all money which shall come into his custody as treasurer of the District. The board shall appoint all necessary engineers, attorneys and other employees. The board shall adopt a seal for the District.

Sec. 5. Other territory may be annexed to the District in the following manner:

(a) A petition praying for such annexation signed by fifty, or a majority of the qualified voters of the territory who own taxable property therein, and who have duly rendered the same to the city (if situated within a city or town) or county for taxation shall be filed with the board of directors of the District. The petition shall describe the territory by metes and bounds or otherwise unless such territory is the same as that contained in a city or town, in which event it shall be sufficient to state that the territory to be annexed is that which is contained within such city or town.

(b) If the board of directors finds that the petition complies with, and is signed by the number of qualified persons required by the foregoing sub-section, that the annexation would be to the interest of the territory and the District, and that the District will be able to supply water to the territory, it shall adopt a resolution stating the condition, if any, under which such territory may be annexed to the District, and requesting the Board of Water Engineers of the State of Texas (or any board or body succeeding substantially to the powers and duties of said Board of Water Engineers) hereinafter called "State Board", to annex said territory to the District. A certified copy of such resolution and of the petition shall be filed with the State Board.

(c) The State Board shall adopt a resolution declaring its intention to call an election in the territory for the purpose of submitting the proposition of whether or not such territory shall be annexed to the District, and fix a time and place when and where a hearing shall be held by the State Board on the question of whether

the territory will be benefitted by the improvements, works, and facilities then owned or operated or contemplated to be owned or operated by the District. Railroad right-of-way, transmission lines and other property of electric and gas utilities which are not situated within the defined limits of an incorporated city or town will not be benefitted by improvements, works and facilities which the District is authorized to construct; therefore it is provided that no railroad right-of-way or transmission lines and other property of electric and gas utilities shall hereafter be annexed to the District except such right-of-way and transmission lines and other property of electric and gas utilities as are contained within the limits of an incorporated city or town then or theretofore annexed to the District.

(d) Notice of the adoption of such resolution stating the time and place of such hearing, addressed to the citizens and owners of property in such territory shall be published one time in a newspaper designated by the State Board at least ten days prior to the date of such hearing. The notice shall describe the territory in the same manner as required or permitted by the petition.

(e) All persons interested may appear at such hearing and offer evidence for or against the intended annexation. Such hearing may proceed in such order and under such rules as may be prescribed by the State Board, and the hearing may be recessed from time to time. If, at the conclusion of the hearing, the State Board finds that all of the lands in such territory will be benefitted by the present or contemplated improvements, works or facilities of the District, the State Board shall adopt a resolution calling election in the territory to be annexed, stating therein the date of the election, the place or places of holding the same, and appointing a presiding judge for each voting place who shall appoint the necessary assistant judges and clerks to assist in holding the election.

(f) Notice of such election, stating the date thereof, the proposition to be voted upon and the conditions under which the territory may be annexed, or making reference to the resolution of the board of directors for that purpose, and the place or places of holding the same, shall be published one time in a newspaper designated by the State Board at least ten days before the day set for the election.

(g) Only qualified electors who reside in, and who own taxable property in such territory and who have duly rendered the same to the city (if situated within a city or town) or county in which it is situated for taxation shall be qualified to vote in said election. Returns of said election shall be made to the State Board.

(h) The State Board shall canvass the returns of the election and adopt a resolution declaring the results thereof. If such resolution shows that a majority of the votes cast are in favor of annexation the State Board shall enter an order annexing said territory to the District, and such annexation shall thereafter be incontestable

except in the manner and within the time for contesting elections under the general election law. A certified copy of said order shall be recorded in the deed records of the county in which the territory is situated.

(i) The State Board, in calling the election on the proposition for annexation of territory, may include as a part of the same proposition a proposition for the assumption of its part of the tax supported bonds of the District then outstanding, and those theretofore voted but not yet sold, and for the levy of an ad valorem tax on taxable property in said territory along with the tax in the rest of the District for the payment thereof.

(j) After territory is added to the District, the board of directors of the District may call an election over the entire District for the purpose of determining whether the entire District as enlarged shall assume the tax supported bonds then outstanding and those theretofore voted but not yet sold and whether an ad valorem tax shall be levied upon all taxable property within the District as enlarged for the payment thereof, unless such proposition is voted along with the annexation election and becomes lawfully binding upon the territory annexed. Such election shall be called and held in the same manner as elections for the issuance of bonds as provided in this Act.

(k) If no newspaper is published in territory to be annexed, the notices shall be posted in three public places therein.

Sec. 6. When any city, the territory of which is hereafter annexed to the District, contains 5,000 inhabitants or more according to the most recent Federal Census, the governing body of the city shall appoint one director for the term ending the following May 31, and one director for the term ending one year after the following May 31, and in May of each year shall appoint one director for a two year term the same as provided in this Act for cities originally included in the District. If such city contains less than 5,000 inhabitants according to the most recent Federal Census, the governing body of the city shall appoint one director whose term shall expire the following May 31, and in May of each second year thereafter shall appoint one director for a two year term. Whenever such city may later attain a population of 5,000 or more according to the Federal Census, it shall thereafter be entitled to two directors to be appointed as herein provided.

Sec. 7. The District is hereby empowered to acquire any and all rights in and to storage and storage capacity in Lavon Reservoir and the right to take water from such reservoir to be created by Lavon Dam now being constructed by the United States Government across the East Fork of the Trinity River in Collin County, Texas, which will impound certain storm and flood waters and the unappropriated flow of the East Fork of the Trinity River and its trib-

utaries, by complying with Chapter 1, Title 128, Revised Civil Statutes, as amended, and pursuant to any contract or contracts which the District may make with the United States Government in reference to such rights, and to develop or otherwise acquire underground sources of water, after obtaining a permit from the Board of Water Engineers of the State of Texas. The District is also empowered to construct or otherwise acquire all works, plants and other facilities necessary or useful for the purpose of diverting, further impounding or storing such water, processing such water and transporting it to cities and others for municipal, domestic and industrial purposes. To the extent permissible under the contract with the United States Government and its agencies, the District may dispose of surplus waters under its control for irrigation purposes. No works for the diverting of water from said impounding dam shall be constructed until the plans therefor are approved by the Board of Water Engineers of the State of Texas; provided that the District shall apply to and obtain authority from the Board of Water Engineers of the State of Texas for authority to appropriate water from the Trinity River.

Sec. 8. For the purpose of carrying out any power or authority conferred by this Act the District shall have the right to acquire land and easements within and without the District (including land above the probable high water line around any such reservoirs) by condemnation in the manner provided by Title 52, Revised Civil Statutes, as amended, relating to eminent domain. This District is hereby declared to be a municipal corporation within the meaning of Article 3268 of said Title 52. The amount of and character of interest in land and easements thus to be acquired shall be determined by the board of directors.

Sec. 9. Any construction contract requiring an expenditure of more than $25,000.00 shall be made after publication of a notice to bidders once each week for two weeks, before awarding the contract. Such notice shall be sufficient if it states the time and place when and where the bids will be opened, the general nature of the work to be done, or the material, equipment or supplies to be purchased, and states where and the terms upon which copies of the plans and specifications may be obtained. The publication shall be in a newspaper published in the District and designated by the board of directors.

Sec. 10. (a) For the purpose of providing a source of water supply for cities and other users for municipal, domestic and industrial purposes, as authorized by this Act, and for the purpose of carrying out any other power or authority conferred by this Act, the District is empowered to issue its negotiable bonds to be payable from such revenues or taxes, or both revenues and taxes, of the District as are pledged by resolution of the board of directors.

Pending the issuance of definitive bonds the board may authorize the delivery of negotiable interim bonds or notes, eligible for exchange or substitution by use of the definitive bonds.

(b) Such bonds shall be authorized by resolution of the board of directors and shall be issued in the name of the District, signed by the president or vice-president, attested by the secretary and have the seal of the District impressed thereon. They shall mature serially or otherwise in not to exceed forty years and may be sold at a price and under terms determined by the board of directors to be the most advantageous reasonably obtainable, provided that the interest cost to the District, calculated by use of standard bond interest tables currently in use by insurance companies and investment houses does not exceed 6% per annum, and within the discretion of the Board, may be made callable prior to maturity at such times and prices as may be prescribed in the resolution authorizing the bonds, and may be made registerable as to principal or as to both principal and interest.

(c) Bonds may be issued in more than one series and from time to time as required for carrying out the purposes of this Act.

(d) The bonds may be secured by a pledge of all or part of the net revenues of the District, or by the net revenues of any one or more contracts theretofore or thereafter made or other revenues specified by resolution of the board of directors. Any such pledge may reserve the right, under conditions therein specified, to issue additional bonds which will be on a parity with or subordinate to the bonds then being issued. The term "net revenues" as used in this section shall mean the gross revenues of the District after deduction of the amount necessary to pay the cost of maintaining and operating the District and its properties.

(e) For the purposes stated in Section 10 (a) hereof, and subject to the conditions prescribed in Section 13 (a) hereof, the District is also empowered to issue bonds payable from ad valorem taxes to be levied on all taxable property therein, or to issue bonds secured both by and payable from such taxes and the revenues of the District. Where bonds are issued payable wholly or partially from ad valorem taxes, it shall be the duty of the board of directors to levy a tax sufficient to pay the bonds and the interest thereon as such bonds and interest become due, but the rate of the tax for any year may be fixed after giving consideration to the money received from the pledged revenues which may be available for payment of principal and interest to the extent and in the manner permitted by the resolution authorizing the issuance of the bonds.

(f) Where bonds payable wholly from revenues are issued, it shall be the duty of the board of directors to fix, and from time to time to revise, the rates of compensation for water sold and services rendered by the District which will be sufficient to pay the ex-

pense of operating and maintaining the facilities of the District and to pay the bonds as they mature and the interest as it accrues, and to maintain the reserve and other funds as provided in the resolution authorizing the bonds. Where bonds payable partially from revenues are issued, it shall be the duty of the Board to fix, and from time to time to revise, the rate of compensation for water sold and services rendered by the District which will be sufficient to assure compliance with the resolution authorizing the bonds.

(g) From the proceeds from the sale of the bonds, the District may set aside an amount for the payment of interest expected to accrue during construction and a reserve interest and sinking fund, and such provision may be made in the resolution authorizing the bonds. Proceeds from the sale of the bonds may also be used for the payment of all expenses necessarily incurred in accomplishing the purposes for which this District is created, including expenses of issuing and selling the bonds.

(h) In the event of a default or a threatened default in the payment of principal of or interest on bonds payable wholly or partially from revenues, any court of competent jurisdiction may, upon petition of the holders of 25% of the outstanding bonds of the issue thus in default or threatened with default, appoint a receiver with authority to collect and receive all income of the District except taxes, employ and discharge agents and employees of the District, take charge of funds on hand (except funds received from taxes unless commingled) and manage the proprietary affairs of the District without consent or hinderance by the directors. Such receiver may also be authorized to sell or make contracts for the sale of water or renew such contracts with the approval of the court appointing him. The court may vest the receiver with such other powers and duties as the court may find necessary for the protection of the holders of the bonds.

Sec. 11. The District is authorized to issue refunding bonds for the purpose of refunding any outstanding bonds authorized by this Act and interest thereon. Such refunding bonds may be issued to refund more than one series of outstanding bonds and combine the pledges for the outstanding bonds for the security of then refunding bonds, and may be secured by other or additional revenues. The provisions of this law with reference to the issuance by the District of other bonds and their approval by the Attorney General and the remedies of the holders shall be applicable to refunding bonds. Refunding bonds shall be registered by the Comptroller upon surrender and cancellation of the bonds to be refunded, but in lieu thereof, the resolution authorizing their issuance may provide that they shall be sold and the proceeds thereof deposited in the bank where the original bonds are payable, in which case the refunding bonds may be issued in an amount sufficient to pay the in-

terest on the original bonds to their option date or maturity date, and the Comptroller shall register them without concurrent surrender and cancellation of the original bonds.

Sec. 12. Any bonds (including refunding bonds) authorized by this law, not payable wholly from ad valorem taxes, may be additionally secured by a trust indenture under which the trustee may be a bank having trust powers situated either within or outside of the State of Texas. Such bonds within the discretion of the board of directors may be additionally secured by a deed or trust lien upon physical properties of the District and all franchises, easements, water rights and appropriation permits, leases, and contracts and all rights appurtenant to such properties, vesting in the trustee power to sell the properties for payment of the indebtedness, power to operate the properties and all other powers and authority for the further security of the bonds. Such trust indenture regardless of the existence of the deed of trust lien may contain any provisions prescribed by the board of directors for the security of the bonds and the preservation of the trust estate, and may make provision for amendment or modification thereof and the issuance of bonds to replace lost or mutilated bonds. Any purchaser under a sale under the deed of trust lien, where one is given, shall be the owner of the properties, facilities and rights so purchased and shall have the right to maintain and operate the same.

Sec. 13 (a). No bonds payable wholly or partially from ad valorem taxes (except refunding bonds) shall be issued unless authorized by an election at which only the qualified voters who reside in the District and who own taxable property therein and who have duly rendered the same for taxation, shall be qualified to vote at said election, and unless a majority of the votes cast at said election is in favor of the issuance of the bonds. No election for the issuance of bonds secured either wholly or partially by a pledge of ad valorem taxes shall be ordered until the board of directors is able to and does publish, in the manner in this section prescribed, a summary of the improvements to be financed with the proceeds of bonds to be issued. If at such time the District has not provided facilities for delivering water to any city within the District, and if such summary of improvements does not include provision for delivering water to such city, the District shall cause to be published in such city notice of its intention on a date therein specified to call an election involving the issuance of bonds, wholly or partly secured by a pledge of ad valorem taxes and containing the summary of the proposed improvements. Such notice shall be published at least once in a newspaper published in or having general circulation in such city, the date of publication being at least 14 days prior to the date on which the District intends to adopt a resolution ordering such election. The District shall also mail a copy of such notice to the Mayor of such city at least 14 days prior to the date on which the election is to be ordered. If, prior to

the date so designated for the calling of the election, the governing body of such city, so notified, shall adopt a resolution to the effect that the District has not provided facilities for delivering water to such city and does not propose to provide the facilities necessary for such purpose with the proceeds from the proposed tax-supported bonds and on a reasonable cost basis; and it is to the best interests of the people of the city that such city be eliminated from the District for all purposes; and seeking withdrawal from the District; and if prior to the date designated for such election a certified copy of such resolution is delivered to the District and to the State Board of Water Engineers at Austin, Texas, the District shall not proceed with the calling of such election until the State Board of Water Engineers shall have acted finally upon such request for withdrawal from the District. Upon receipt of the certified copy of the resolution requesting such withdrawal the Board of Water Engineers shall fix a date for a hearing on the request, giving written notice thereof both to the city and to the District. If at the hearing the Board of Water Engineers finds that no facilities have been made available to the city and that none will become available to the city because of the proposed tax-supported bond issue for the delivery of water to the city, and upon a reasonable cost basis, the board shall enter an order eliminating the city from the District. The necessity for such hearing will be avoided if the District files with the board a consent to the elimination of such territory.

But if the board shall find either that such facilities are available or will be provided from the proceeds of the proposed bonds for the providing of such facilities upon a reasonable cost basis, it shall enter an order denying the request for withdrawal. After such order by the Board of Water Engineers shall have been entered, the District may proceed with the ordering of such election with such city either eliminated or retained in its boundaries as may have been prescribed in such order. Bonds not payable wholly or partially from ad valorem taxes may be issued without an election.

(b) Such election may be called by the board of directors without a petition. The resolution calling the election shall specify the time and places of holding the same, the purpose for which the bonds are to be issued, the maximum amount thereof, the maximum maturity thereof, the form of the ballot, and the presiding judge for each voting place. The presiding judge serving at each voting place shall appoint one assistant judge and at least two clerks to assist in holding such election. Notice of the election shall be given by publishing a substantial copy thereof in one newspaper published in each city contained in the District for two consecutive weeks. The first publication shall be at least twenty-one days prior to the election. In any city in which no newspaper is published, notice shall be given by posting a copy of the resolution in three public places.

(c) The returns of the election shall be made to and canvassed by the board of directors of the District.

(d) The General Laws relating to elections shall be applicable to elections held under this section of this law, except as otherwise provided in this law.

Sec. 14. After any bonds (including refunding bonds) are authorized by the District, such bonds and the record relating to their issuance shall be submitted to the Attorney General for his examination as to the validity thereof. Where such bonds recite that they are secured by a pledge of the proceeds of a contract theretofore made between the District and any city or other governmental agency or district, a copy of such contract and the proceedings of the city or other governmental agency or District authorizing such contract shall also be submitted to the Attorney General. If such bonds have been authorized and if such contracts have been made in accordance with the Constitution and Laws of the State of Texas he shall approve the bonds and such contracts and the bonds then shall be registered by the Comptroller of Public Accounts. Thereafter the bonds, and the contracts, if any, shall be valid and binding and shall be incontestable for any cause.

Sec. 15. The District is authorized to enter into contracts with cities and others for supplying water to them. The District is also authorized to contract with any city for the rental or leasing of, or for the operation of the water production, water supply, water filtration or purification and water supply facilities of such city upon such consideration as the District and the city may agree. Any such contract may be upon such terms and for such time as the parties may agree, and it may provide that it shall continue in effect until bonds specified therein and refunding bonds issued in lieu of such bonds are paid.

Sec. 16 (a). The board of directors shall designate one or more banks within the District to serve as depository for the funds of the District. All funds of the District shall be deposited in such depository bank or banks, except that funds pledged to pay bonds may be deposited with the trustee bank named in the trust agreement, and except that funds shall be remitted to the bank of payment for the payment of principal of and interest on bonds. To the extent that funds in the depository banks and the trustee bank are not insured by the F.D.I.C. they shall be secured in the manner provided by law for the security of county funds.

(b) Before designating a depository bank or banks, the board of directors shall issue a notice stating the time and place when and where the Board will meet for such purpose and inviting the banks in the District to submit applications to be designated depositories. The term of service for depositories shall be prescribed by the Board. Such notice shall be published one time in a newspaper or newspapers published in the District and specified by the board.

(c) At the time mentioned in the notice, the board shall consider the applications and the management and condition of the banks fil-

ing them, and shall designate as depositories the bank or banks which offer the most favorable terms and conditions for the handling of the funds of the District and which the board finds have proper management and are in condition to warrant handling of District funds. Membership on the board of directors of an officer or director of a bank shall not disqualify such bank from being designated as depository.

(d) If no applications are received by the time stated in the notice, the Board shall designate some bank or banks within or without the district upon such terms and conditions as it may find advantageous to the District.

Sec. 17. The District is authorized to acquire water appropriation permits directly from the Board of Water Engineers of the State of Texas; or from owners of permits. The District is also authorized to purchase water or a water supply from any person, firm, corporation or public agency, or from the United States Government or any of its agencies.

Sec. 18. All bonds of the District shall be and are hereby declared to be legal and authorized investments for banks, savings banks, trust companies, building and loan associations, savings and loan associations, and insurance companies. Such bonds shall be eligible to secure the deposit of any and all public funds of the State of Texas, and any and all public funds of cities, towns, villages, counties, school districts, or other political corporations or subdivisions of the State of Texas; and such bonds shall be lawful and sufficient security for said deposits to the extent of their value, when accompanied by all unmatured coupons appurtenant thereto.

Sec. 19. The accomplishment of the purposes stated in this Act being for the benefit of the people of this State and for the improvement of their properties and industries, the District in carrying out the purposes of this Act will be performing an essential public function under the Constitution and shall not be required to pay any tax or assessment on the project or any part thereof, and the bonds issued hereunder and their transfer and the income therefrom, including the profits made on the sale thereof, shall at all times be free from taxation within this State.

Sec. 20 (a). The tax rolls of the cities situated within the District, and within territory hereafter annexed, are hereby adopted and shall constitute the tax rolls of the District until assessments and tax rolls shall be made by the District.

(b) Prior to the sale and delivery of District bonds which are payable wholly or partially from ad valorem taxes the board of directors shall appoint a tax assessor and collector and a board of equalization and cause taxes to be assessed, valuations to be equalized, and tax rolls to be prepared. General laws applicable to water control and improvement districts with reference to tax assessors and collectors,

boards of equalization, tax rolls and the levy and collection of taxes and delinquent taxes shall be applicable to this District, except that the board of equalization to be appointed each year by the board of directors shall consist of one member residing in each city then contained in the District.

Sec. 21 (a). The board of directors of the District shall have the power to adopt and promulgate all reasonable regulations to secure, maintain and preserve the sanitary condition of all water in and to flow into any reservoir owned by the District, or which by contract or otherwise it may control, to prevent waste of water or the unauthorized use thereof, to regulate residence, hunting, fishing, boating, and camping, and all recreational and business privileges, along or around any such reservoir or any body of land, or easement owned or controlled by the District.

(b) Such District may prescribe reasonable penalties for the breach of any regulation of the District, which penalties shall not exceed fines of more than $200.00, or imprisonment for not more than thirty days, or may provide both such fine and such imprisonment. The penalties hereby authorized shall be in addition to any other penalties provided by the laws of Texas and may be enforced by complaints filed in the appropriate court of jurisdiction; provided, however, that no rule or regulation which provides a penalty for the violation thereof shall be in effect, as to enforcement of the penalty, until five days next after the District may have caused a substantive statement of the particular rule or regulation and the penalty for the violation thereof to be published, once a week for two consecutive weeks, in the county in which such reservoir is situated, or in any county in which it is partly situated. The substantive statement so to be published shall be as condensed as is possible to afford an intelligent direction of the mind to the act forbidden by the rule or regulation; one notice may embrace any number of regulations; there must be embraced in the notice advice that breach of the particular regulation, or regulations, will subject the violator to the infliction of a penalty; and there also shall be included in the notice advice that the full text of the regulations sought to be enforced is on file in the principal office of the District, where the same may be read by any interested person. Five days after the second publication of the notice hereby required, the advertised regulation shall be in effect, and ignorance of any such regulation shall not constitute a defense to a prosecution for the enforcement of a penalty; and the rules and regulations authorized hereby, after the required publication, shall judicially be known to the courts and shall be considered of a nature like unto that of valid penal ordinance of a city of the State.

(c) It further is expressly provided the District shall have the power to employ and constitute its own peace officers, and any such officer or any county peace officer shall have the power to make ar-

rests when necessary to prevent or abate the commission of any offense against the regulations of the District, and against the laws of the State of Texas, when any such offense or threatened offense occurs upon any land, water, or easement owned or controlled by the District; or to make such arrest at any place, in case of an offense involving injury or detriment to any property owned or controlled by such District.

Sec. 22. The District is authorized to establish or otherwise provide for public parks and recreation facilities, and to acquire land adjacent to any reservoir in which said District owns water storage rights for such purposes; provided, however, that no money received from taxation or from bonds payable wholly or partially from taxation shall be used for such purpose.

Sec. 23. It is provided, however, that the District shall not exercise any of the power or authority conferred by this Act unless and until the establishment of this District is confirmed at an election held throughout the District. After the passage of this Act the Board of Water Engineers of the State of Texas shall order separate elections to be held in each of the cities contained in the District, at which elections there shall be submitted the question of whether or not the establishment of this District shall be confirmed. Notice of said election shall be published in a newspaper published in each of the cities once each week for two weeks; the first notice shall be at least fourteen days prior to the date set for the election. The Board of Water Engineers shall appoint a presiding judge for each of the voting places and each of the presiding judges shall appoint at least two judges and two clerks to assist him in holding the election. Only qualified voters who reside in the District and who own taxable property therein and who have duly rendered the same for taxation shall be qualified to vote at said election. If a majority of the votes cast at the election held separately in each city is in favor of confirmation, the Board of Water Engineers shall so declare, and thereafter the District shall have all of the powers and authority conferred by this Act. It is provided, however, that the proposition to be submitted at such election shall specify that the District shall be confirmed to include each city in which the majority vote favors confirmation and the District shall contain only those cities in which the majority vote favored confirmation the same as though the other cities had not been included in this Act.

Sec. 24. If any provision of this Act or the application thereof to any person or circumstance shall be held to be invalid or unconstitutional, the remainder of the Act, and the application of such provision to other persons or circumstances, shall not be affected thereby.

Sec. 25. It is hereby found that notice of intention to apply for the passage of this Act has been published in the locality where the matter and things to be affected hereby are situated, which notice stat-

ed the substance of this law, and was published at least thirty days prior to the introduction into the Legislature of this bill, and in the manner provided by law, and the time, form and manner of giving said notice is hereby approved and ratified. The evidence of the foregoing was exhibited in the Legislature before the passage of this Act. Acts 1951, 52nd Leg., p. 96, ch. 62.

Art. 8280—142. Fisher County Water Authority

Section 1. By virtue of Article XVI, Section 59 of the Texas Constitution, there is hereby created an Authority to be known as "Fisher County Water Authority," (hereinafter called "Authority") which shall be a governmental agency and a body politic and corporate.

Sec. 2. The Authority shall comprise all of the territory now contained within the City of Roby in Fisher County, Texas:

Beginning at the Southeast corner of out Block No. 58 to the town of Roby, map of which Town is of record in Vol. 8, page 638 Deed Records of Fisher County, Texas;

Thence N 15 W with the East line of said Out Block or Out Lot No. 58 to the NE corner of same;

Thence N 75 E to SE Corner of Out Block or Out Lot No. 56;

Thence N 15 West to the NE Corner of said Out Lot or Block No. 56;

Thence S 75 W to the NW Corner of Out Lot or Block No. 57;

Thence N 15 W to the NW Corner of Out Lot or Block No. 51;

Thence S 75 W to the SW Corner of Out Block No. 4;

Thence N 15 W to the NE Corner of Out Block No. 20;

Thence S 75 W to the NW Corner of Out Block No. 19;

Thence S 15 E to SW Corner of Out Block No. 6;

Thence S 75 W pass the SW Corner of Out Block No. 12, to a point 150 feet S 75 W from SW Corner of said Out Block No. 12;

Thence S 15 E parallel to the West line of Lawrence Street and 150 feet West thereof to a point in the South line of US Highway No. 180 as now located on the ground;

Thence in a Westerly Direction with the South line of U. S. Highway No. 180, to a point being the Northwest Corner of Block No. 3–A of the Memorial Addition Annex to the City of Roby;

Thence South 15 East with the West line of Block 3–A of the Memorial Addition Annex, and with the West line of Block No. 3, of the Memorial Addition to the town of Roby, to the Southwest Corner of said Block No. 3, in the North line of Block No. 9, R. C. Royston Subdivision of El Paso County School Lands;

WORKMEN'S COMPENSATION ADMINISTRATIVE BILL OF 969—EFFECTIVE DATE

CHAPTER 121

S. B. No. 800

An Act providing for a new effective date for Senate Bill No. 64, Regular Session, 1969, by amending Chapter 18, Section 16, Acts of the 61st Legislature, Regular Session, 1969; and declaring an emergency.

Be it enacted by the Legislature of the State of Texas:

Section 1. Section 16, Chapter 18, Acts of the 61st Legislature, Regular Session, 1969, is amended [94] to read as follows:

"Section 16. The importance of this legislation and the crowded condition of the calendars in both Houses create an emergency and an imperative public necessity that the Constitutional Rule requiring bills to be read on three several days in each House be suspended and this Rule is hereby suspended; and this Act shall take effect and be in force at 12:01 A.M., May 18, 1969, subject to the provisions of Section 13, above, and it is so enacted."

Sec. 2. Emergency Clause. The importance of this legislation and the crowded condition of the calendars in both Houses create an emergency and an imperative public necessity that the Constitutional Rule requiring bills to be read on three several days in each House be suspended, and the Rule is hereby suspended; and that this Act take effect and be in force from and after its passage, and it is so enacted.

Passed the Senate on May 5, 1969: Yeas 28, Nays 0; Passed the House on May 5, 1969: Yeas 135, Nays 0.

Approved May 5, 1969.

Effective May 5, 1969.

NORTH TEXAS MUNICIPAL WATER DISTRICT

CHAPTER 122

H. B. No. 654

An Act relating to the North Texas Municipal Water District; adding a new Section 1a and Subsection (b) to Section 8 and amending Sections 3(b) and 7, Chapter 62, Acts of the 52nd Legislature, 1951 (Article 8280—141, Vernon's Texas Civil Statutes); and declaring an emergency.

Be it enacted by the Legislature of the State of Texas:

Section 1. Subsection (b), Section 3, Chapter 62, Acts of the 52nd Legislature, 1951 (Article 8280—141, Vernon's Texas Civil Statutes), is amended [95] to read as follows:

"(b) Each director shall receive a fee of $50 for attending each meeting of the board and $20 per day devoted to the business of the District

94. Vernon's Ann.Civ.St. art. 8306, § 8 note.

95. Vernon's Ann.Civ.St. art. 8280—141, § 3(b).

other than attending board meetings, but not more than $1,200 shall be paid to any director in one calendar year therefor. Each director shall be entitled to reimbursement for actual expenses incurred in attending to District business provided the service and expense are expressly approved by the Board."

Sec. 2. Chapter 62, Acts of the 52nd Legislature, 1951 (Article 8280—141, Vernon's Texas Civil Statutes), is amended [96] by adding a new Section 1a to read as follows:

"Section 1a. In this Act, unless the context requires a different definition:

"(1) 'District' means the North Texas Municipal Water District, and any other public body at any time succeeding to the property and principal rights, powers, and obligations of said North Texas Municipal Water District.

"(2) 'Member cities' means the cities of Garland, Princeton, Plano, Mesquite, Wylie, Rockwall, Farmersville, McKinney, Forney, and Royse City and any other city which may hereafter legally become a part of said District.

"(3) 'Customer' means users of District water other than member cities.

"(4) 'Prospective customer' means any person, firm, corporation, company, partnership, association, body corporate, or politic who evidences in any manner an interest in securing water from District.

"(5) 'Basic service area' means that geographic area contained within the corporate limits of the member cities, and such areas as are now or may hereafter be served by said member cities' primary water system.

"(6) 'Service area' means that geographic area contained within the watershed of the East Fork of the Trinity River, Texas, and in addition thereto, any area contained within the corporate limits of the member cities and such areas as are served by said member cities' water system.

"(7) 'Other service area' means that geographic area contained within the State of Texas and being outside the 'service area' as defined in Subdivision (6) of this section.

"(8) 'Original Lavon water' means that water for which the District holds a permit from Texas Water Rights Commission to store and divert from Lavon Reservoir on the East Fork of the Trinity River, Texas, as originally constructed.

"(9) 'Enlarged Lavon water' means that water which the District holds now, or secures in the future, under or through a permit from the Texas Water Rights Commission to store and divert from Lavon Reservoir on the East Fork of the Trinity River, Texas, as modified.

"(10) 'Other water' means any water which the District secures under or through a permit from the Texas Water Rights Commission to store and divert, other than Lavon water, or enlarged Lavon water.

"(11) 'Interim basis' means only until such time as the District needs such water for the use and benefit of its service area—not permanent, but only during such times as a surplus of dependable safe yield is present in each classification of water.

"(12) 'Primary right' means the superior right to permanent water, and to the quantity, quality, and price of the water."

96. Vernon's Ann.Civ.St. art. 8280—141, § 1a.

Sec. 3. Section 7, Chapter 62, Acts of the 52nd Legislature, 1951 (Article 8280—141, Vernon's Texas Civil Statutes), is amended [97] to read as follows:

"Sec. 7. (a) The District is hereby empowered to acquire any and all rights in and to storage and storage capacity in the Lavon Reservoir as now constructed, or later modified, and in any other reservoir or from any other source, and the right to take water from such reservoirs or other sources after obtaining a permit from the Water Rights Commission of the State of Texas, and by complying with Chapter 1, Title 128, Revised Civil Statutes of Texas, 1925, as amended, and pursuant to any contract or contracts which the District may make with the United States Government, any of its agencies, or any other agency, in reference to such rights, and to develop or otherwise acquire, with consent of owners of surface, underground sources of water. The District is also empowered to construct or otherwise acquire all works, plants and other facilities necessary or useful for the purpose of storing, impounding, retaining, diverting, or processing this water and transporting it to cities and other areas for municipal, domestic and industrial purposes. To the extent permissible under the contract with the United States Government, any of its agencies, and any other agency, the District may dispose of surplus water under its control by contract with the Texas Water Development Board or any other State or local agency for irrigation or beneficial purposes. No works for the diversion of such water from the impounding dams shall be constructed until the plans are approved by the Water Rights Commission of the State of Texas; provided that the District shall apply to and obtain authority from the Water Rights Commission of the State of Texas to appropriate such waters.

"(b) The District may not be compelled to supply water for use outside its service area except by order of the Texas Water Rights Commission in accordance with Article 7560, et seq., Revised Civil Statutes of Texas, 1925.

"(c) The basic service area has the primary right to water in each classification which the District secures under permit from the Texas Water Rights Commission.

"(d) This Act does not compel any customer or prospective customer to secure water from the District, except pursuant to contracts voluntarily executed.

"(e) This Act does not alter any outstanding permit, contract or other obligation."

Sec. 4. Chapter 62, Acts of the 52nd Legislature, 1951 (Article 8280—141, Vernon's Texas Civil Statutes), is amended [98] by adding Subsection (b) to Section 8, reading as follows:

"Section 8. (b) In the event that the District, in the exercise of the power of eminent domain or police power, or any other power granted thereunder, makes necessary the relocation, raising, lowering, rerouting, or changing the grade of, or altering the construction of any railroad, electric transmission, telegraph or telephone lines, properties and facilities, or pipeline, all such relocation, raising, lowering, rerouting, changing of grade or alteration of construction shall be accomplished at the sole expense of the District. The term "sole expense" shall mean the actual cost of such relocation, raising, lowering, rerouting, or change in grade or alteration of construction in providing comparable replacement

97. Vernon's Ann.Civ.St. art. 8280—141, § 7.

98. Vernon's Ann.Civ.St. art. 8280—141, § 8(b).

without enhancement of such facilities, after deducting therefrom the net salvage value derived from the old facility."

Sec. 5. The importance of this legislation and the crowded condition of the calendars in both houses create an emergency and an imperative public necessity that the Constitutional Rule requiring bills to be read on three several days in each house be suspended, and this Rule is hereby suspended, and that this Act take effect and be in force from and after its passage, and it is so enacted.

Passed by the House on April 17, 1969: Yeas 144, Nays 0; passed by the Senate on April 24, 1969: Yeas 31, Nays 0.

Approved May 5, 1969.

Effective May 5, 1969.

TEXAS MEAT AND POULTRY INSPECTION ACT

CHAPTER 123

S. B. No. 28

An Act providing for mandatory inspection and regulation of the slaughter of cattle, sheep, swine, goats, equines, poultry, domestic rabbits, and domesticated game birds, and the preparation and sale of the carcasses, parts thereof, meat, and food products of such animals and birds solely for distribution in this state; for the regulation of related industries; for cooperation with the United States Department of Agriculture; for penalties for violations, detention, seizure, and other enforcement authority; and for collection of fees for certain services; repealing Chapter 339, Acts of the 49th Legislature, 1945, as amended (Article 4476—3, Vernon's Texas Civil Statutes); declaring the effect of this Act on the Texas Food, Drug and Cosmetic Act (Article 4476—5, Vernon's Texas Civil Statutes) and other state laws; providing for severability; and declaring an emergency.

Be it enacted by the Legislature of the State of Texas:

TITLE I—INSPECTION REQUIREMENTS: ADULTERATION AND MISBRANDING [99]

Section 1. As used in this Act, except as otherwise specified, the following terms shall have the meanings stated below:

(a) The term "commissioner" means the State Commissioner of Health.

(b) The term "firm" means any partnership, association, or unincorporated business organization.

(c) The term "meat broker" means any person, firm, or corporation engaged in the business of buying or selling carcasses, parts of carcasses, meat, or meat food products of cattle, sheep, swine, goats, horses, mules, equines, poultry, domestic rabbits, and domesticated game birds on commission, or otherwise negotiating purchases or sales of such articles other than for his own account or as an employee of another person, firm, or corporation.

99. Vernon's Ann.Civ.St. art. 4476—7, §§ 1–16.

NORTH TEXAS MUNICIPAL WATER DISTRICT

CHAPTER 90

S. B. No. 640

An Act relating to the acquisition, ownership, operation, and financing of certain facilities of, and the performance of certain services and functions by, the North Texas Municipal Water District and providing for certain powers and duties of the district and political subdivisions with relation to these facilities, services, and functions; stating applicability of Article XVI, Section 59, Texas Constitution, and Chapters 5, 6, 25, and 50, Water Code, and other laws; providing procedures for the issuance of bonds; providing for their terms and security; providing the characteristics of such bonds and their eligibility for investments and security for deposit of public funds; stating compliance with notice requirements; amending Chapter 62, Acts of the 52nd Legislature, 1951, as amended (Article 8280—141, Vernon's Texas Civil Statutes); and declaring an emergency.

Be it enacted by the Legislature of the State of Texas:

Section 1. Chapter 62, Acts of the 52nd Legislature, Regular Session, 1951, as amended (Article 8280—141, Vernon's Texas Civil Statutes), is amended by adding [69] Section 27 to read as follows:

Sec. 27. (a) In addition to all other powers, the district is authorized to purchase, construct, acquire, own, operate, maintain, repair, improve, or extend inside and outside its boundaries, at any location whatsoever, in the sole discretion of the district, any and all works, improvements, facilities, plants, equipment, and appliances incident, helpful, or necessary to:

(1) provide, pursuant to the provisions of Chapters 5 and 6, Water Code, as amended, for the control, storage, preservation, transmission, treatment, and distribution and use of storm water and floodwater, the water of rivers and streams, and underground water, for irrigation, power, hydroelectric, and all other useful purposes, and to supply water for municipal, domestic, power, hydroelectric, industrial, oil flooding, mining, and commercial uses and purposes and all other beneficial uses and purposes;

(2) collect, transport, process, treat, dispose of, and control all municipal, domestic, industrial, or communal waste whether in fluid, solid, or composite state, including specifically the control, abatement, or reduction of all types of pollution; and it is hereby found and determined by the legislature that all of the aforesaid purposes are for the conservation and development of the natural resources of the state within the meaning of Article XVI, Section 59 of the Texas Constitution.

(b) The district may adopt, enforce, and collect all necessary charges, fees, or rentals for providing any district facilities or service and may require a deposit for any service or facilities furnished, and the district may or may not provide that the deposit will bear interest. The district may discontinue a facility or service to prevent an abuse or enforce payment of an unpaid charge, fee, or rental due to the district.

(c) All facilities acquired or constructed pursuant to this section shall be separate and apart from, and shall not constitute a part of, the district's water system established pursuant to that certain trust inden-

69. V.A.T.S. Water Auxiliary Laws, Table III.

ture securing North Texas Municipal Water District Water Revenue Bonds, Series 1954, dated September 1, 1954, and all additional bonds issued pursuant to said trust indenture, as supplemented. Bonds issued under this section shall not be issued as additional bonds under the aforesaid trust indenture, but shall be issued strictly under this section.

(d) The district is a "district" under the Regional Waste Disposal Act, as amended (Chapter 25, Water Code), and all provisions of said Act are applicable to this district except to the extent of any conflict with this Act, in which case the provisions of this Act shall prevail.

(e) All cities, public agencies, and other political subdivisions are authorized to contract with this district in any manner authorized by the Regional Waste Disposal Act, as amended (Chapter 25, Water Code), provided that any city is authorized to contract with this district in the manner authorized by Section 25.030(c) of the Regional Waste Disposal Act.

(f) It is further specifically provided that the district and all cities, public agencies, and other political subdivisions shall have all of such rights, powers, and authority with respect to the control, storage, preservation, transmission, treatment, and disposition of storm water and floodwater, and the water of rivers and streams, and underground water as are granted, permitted, and authorized by the Regional Waste Disposal Act, as amended (Chapter 25, Water Code), with respect to waste, waste disposal systems, and treatment facilities. Subsection (e) of this section shall be applicable to contracts made pursuant to this subsection.

(g) All cities, public agencies, and other political subdivisions are authorized to fix, charge, and collect fees, rates, charges, rentals, and other amounts for any service or facilities provided pursuant to or in connection with any contract with this district, and to pledge such amounts sufficient to make all payments required under the contract.

(h) For the purpose of providing funds to acquire, purchase, construct, improve, enlarge, and equip any property, buildings, structures, or other facilities for any purpose or power authorized by this section, the board of directors of the district may issue revenue bonds from time to time and in one or more issues or series, to be payable from and secured by liens on and pledges of all or any part of any of the revenues, income, or receipts derived by the district from its ownership, operation, lease, or sale of any such property, buildings, structures, or facilities, including the proceeds or revenues from contracts with any person, firm, corporation, city, public agency, or other political subdivision. Such bonds may be issued to mature serially or otherwise within not to exceed 50 years from their date, and provision may be made for the subsequent issuance of additional parity bonds, or subordinate lien bonds, under any terms or conditions that may be set forth in the resolution authorizing the issuance of the bonds. Such bonds, and any interest coupons appertaining thereto, are and shall constitute negotiable instruments within the meaning and for all purposes of the Texas Uniform Commercial Code, provided that the bonds may be issued registrable as to principal alone or as to both principal and interest, and shall be executed, and may be made redeemable prior to maturity, and may be issued in such form, denominations, and manner, and under such terms, conditions, and details, and may be sold in such manner, at such price, and under such terms, and said bonds shall bear interest at such rates, all as shall be determined and provided in the resolution authorizing the issuance of the bonds. If so provided in the bond resolution, the proceeds from the sale of the bonds may be used for paying interest on the bonds during the period of the acquisition or construction of any facilities to be provid-

ed through the issuance of the bonds, for paying expenses of operation and maintenance of facilities, for creating a reserve fund for the payment of the principal of and interest on the bonds, and for creating any other funds, and such proceeds may be placed on time deposit or invested, until needed, all to the extent and in the manner provided in the bond resolution. The district may pledge all or any part of its revenues, income, or receipts from fees, rentals, rates, charges, and contract proceeds or payments to the payment of the bonds, including the payment of principal, interest, and any other amounts required or permitted in connection with the bonds. The pledged fees, rentals, rates, charges, proceeds, or payments shall be fixed and collected in amounts that will be at least sufficient, together with any other pledged resources, to provide for all payments of principal, interest, and any other amounts required in connection with the bonds, and, to the extent required by the resolution authorizing the issuance of the bonds, to provide for the payment of expenses in connection with the bonds, and operation, maintenance, and other expenses in connection with the aforesaid facilities. Said bonds may be additionally secured by mortgages or deeds of trust on any real property owned or to be acquired by the district, and by chattel mortgages or liens on any personal property appurtenant to such real property; and the board of directors of the district may authorize the execution of trust indentures, mortgages, deeds of trust, or other forms of encumbrances to evidence same. Also, the district may pledge to the payment of the bonds all or any part of any grant, donation, revenues, or income received or to be received from the United States government or any other public or private source, whether pursuant to an agreement or otherwise.

(i) Any bonds issued pursuant to this section may be refunded or otherwise refinanced by the issuance of refunding bonds for such purpose, under such terms, conditions, and details as may be determined by resolution of the board of directors of the district. All pertinent and appropriate provisions of this section shall be applicable to such refunding bonds, and they shall be issued in the manner provided herein for other bonds authorized under this section; provided that such refunding bonds may be sold and delivered in amounts necessary to pay the principal, interest, and redemption premium, if any, of bonds to be refunded, at maturity or on any redemption date. Also, such refunding bonds may be issued to be exchanged for the bonds being refunded thereby. In the latter case, the Comptroller of Public Accounts of the State of Texas shall register the refunding bonds and deliver the same to the holder or holders of the bonds being refunded thereby, in accordance with the provisions of the resolution authorizing the refunding bonds; and any such exchange may be made in one delivery or in several installment deliveries. Bonds issued at any time by the district also may be refunded in the manner provided by any other applicable law.

(j) All bonds issued pursuant to this section and the appropriate proceedings authorizing their issuance shall be submitted to the Attorney General of the State of Texas for examination. When the bonds are to be issued to finance in whole or in part water-using facilities, except treatment or distribution facilities, before giving his approval the attorney general shall be furnished a resolution from the Texas Water Rights Commission certifying that the district is possessed of the necessary water right authorizing it to impound and appropriate the water to be utilized by the project. Also, if the bonds recite that they are secured by a plegde of revenues of any contract, a copy of such contract and the proceedings relating thereto shall be submitted to the

attorney general. If he finds that such bonds have been authorized and any such contract has been made in accordance with law, he shall approve the bonds and any such contract, and thereupon the bonds shall be registered by the Comptroller of Public Accounts of the State of Texas; and after such approval and registration, such bonds and any such contract shall be incontestable in any court or other forum for any reason, and shall be valid and binding obligations in accordance with their terms for all purposes.

(k) All bonds issued pursuant to this section are legal and authorized investments for all banks, trust companies, building and loan associations, savings and loan associations, insurance companies of all kinds and types, and trustees, and for all interest and sinking funds and other public funds of the State of Texas and all agencies, subdivisions, and instrumentalities thereof, including all counties, cities, towns, villages, school districts, and all other kinds and types of districts, public agencies, and bodies politic. Said bonds also shall be eligible and lawful security for all deposits of public funds of the State of Texas and all agencies, subdivisions, and instrumentalities thereof, including all counties, cities, towns, villages, school districts, and all other kinds and types of districts, public agencies, and bodies politic, to the extent of the market value of said bonds, when accompanied by any unmatured interest coupons appurtenant thereto.

(l) This section shall be wholly sufficient authority within itself for the issuance of the bonds, the execution of contracts, and the performance of the other acts and procedures authorized herein by the district, and all cities, public agencies, and other political subdivisions, without reference to any other law or any restrictions or limitations contained therein, except as herein specifically provided; and in any case to the extent of any conflict or inconsistency between any provisions of this section and any other provision of law, this section shall prevail and control; provided, however, that the district and all cities, public agencies, and other political subdivisions shall have the right to use the provisions of any other laws, not in conflict with the provisions hereof, to the extent convenient or necessary to carry out any power or authority, express or implied, granted by this section.

(m) This Act does not compel any city, customer, or prospective customer to secure water, sewer service, or any other service from the district, except pursuant to contracts voluntarily executed.

(n) Nothing in this Act shall relieve the district from compliance with the provisions of Chapters 5, 6, and 50, Water Code, as amended.

Sec. 2. In case any one or more of the sections, provisions, clauses, or words of this Act, or the application thereof to any situation or circumstance, shall for any reason be held to be invalid or unconstitutional, such invalidity or unconstitutionality shall not affect any other sections, provisions, clauses, or words of this Act, or the application thereof, to any other situation or circumstance, and it is intended that this Act shall be severable and shall be construed and applied as if any such invalid or unconstitutional section, provision, clause, or word had not been included herein.

Sec. 3. Proof of publication of the constitutional notice required in the enactment hereof under the provisions of Article XVI, Section 59(d) of the Texas Constitution, has been made in the manner provided therein and a copy of said notice and the bill as originally introduced have been delivered to the Governor of the State of Texas as required in such con-

stitutional provision, and such notice and delivery are hereby found and declared to be proper and sufficient to satisfy such requirements.

Sec. 4. The importance of this legislation and the crowded condition of the calendars in both houses create an emergency and an imperative public necessity that the constitutional rule requiring bills to be read on three several days in each house be suspended, and this rule is hereby suspended, and that this Act take effect and be in force from and after its passage, and it is so enacted.

Passed the senate on April 3, 1975: Yeas 30, Nays 0; passed the house on April 23, 1975: Yeas 132, Nays 1, 2 present not voting.

Approved April 30, 1975.

Effective April 30, 1975.

CRIMINAL PROCEDURE—VENUE BY CONSENT

CHAPTER 91

H. B. No. 154

An Act providing that criminal trials may, in certain instances, be held in any county within the judicial district for the county where venue is authorized; amending the Code of Criminal Procedure, 1965, by adding Article 13.20; and declaring an emergency.

Be it enacted by the Legislature of the State of Texas:

Section 1. The Code of Criminal Procedure, 1965, is amended by adding [70] Article 13.20 to read as follows:

"**Art. 13.20. Venue by consent**

"The trial of all felony cases, without a jury, may, with the consent of the defendant in writing, his attorney, and the attorney for the state, be held in any county within the judicial district or districts for the county where venue is otherwise authorized by law."

Sec. 2. The importance of this legislation and the crowded condition of the calendars in both houses create an emergency and an imperative public necessity that the constitutional rule requiring bills to be read on three several days in each house be suspended, and this rule is hereby suspended, and that this Act take effect and be in force from and after its passage, and it is so enacted.

Passed by the House on March 5, 1975, by a non-record vote; passed by the Senate on April 17, 1975: Yeas 30, Nays 0.

Approved April 30, 1975.

Effective Sept. 1, 1975, 90 days after date of adjournment.

70. Vernon's Ann.C.C.P. art. 13.20.

Passed the Senate on April 9, 2009: Yeas 31, Nays 0; passed the House on April 28, 2009: Yeas 144, Nays 0, two present not voting.

Approved May 12, 2009.

Effective May 12, 2009.

CHAPTER 20

S.B. No. 715

AN ACT

relating to the North Texas Municipal Water District.

Be it enacted by the Legislature of the State of Texas:

SECTION 1. Section 1a, Chapter 62, Acts of the 52nd Legislature, Regular Session, 1951, is amended by adding Subdivision (13) to read as follows:

(13) "Bonds" includes negotiable or nonnegotiable bonds, notes, certificates, contractual obligations, or other obligations of the district.

SECTION 2. Subsection (b), Section 3, Chapter 62, Acts of the 52nd Legislature, Regular Session, 1951, is amended to read as follows:

(b) Each director shall receive a fee of *$150 for each day the director spends performing the duties of a director, including participating in board and committee meetings, other activities involving substantive deliberation of District business, and pertinent educational programs* [~~$50 for attending each meeting of the board and $20 per day devoted to the business of the District other than attending board meetings~~], but not more than *$7,200* [~~$1,200~~] shall be paid to any director in one calendar year [~~therefor~~]. Each director shall be entitled to reimbursement for actual expenses incurred in attending to District business provided the service and expense are expressly approved by the Board.

SECTION 3. Section 4, Chapter 62, Acts of the 52nd Legislature, Regular Session, 1951, is amended to read as follows:

Sec. 4. The board of directors shall elect from its number a president and a vice-president of the District, and such other officers as in the judgment of the board are necessary. The president shall be the [~~chief executive officer of the District and the~~] presiding officer of the board, and shall have the same right to vote as any other director. The vice-president shall perform all duties and exercise all powers conferred by this Act upon the president when the president is absent or fails or declines to act. The board shall also appoint a secretary and a treasurer who may or may not be members of the board, and it may combine those offices. The treasurer shall give bond in such amount as may be required by the board of directors, but in no event less than $100,000.00. The condition of such bond shall be that he will faithfully account for all money which shall come into his custody as treasurer of the District. The board shall appoint *an executive director, who shall employ or contract with* all necessary engineers, attorneys and other employees. The board shall adopt a seal for the District.

SECTION 4. Section 27, Chapter 62, Acts of the 52nd Legislature, Regular Session, 1951, is amended by amending Subsections (a), (d), (e), (f), (h), (j), and (k) and adding Subsection (h–1) to read as follows:

(a) *The district has the functions, powers, authority, rights, and duties necessary to accomplish the purposes for which the district was created and the purposes authorized by Section 59, Article XVI, Texas Constitution, this Act, or any other law.* In addition to all other powers, the district is authorized to purchase, construct, acquire, own, operate, maintain, repair, improve, or extend inside and outside its boundaries, at any location whatsoever, in the sole discretion of the district, any and all *property,* works, improvements, facilities, plants, equipment, and appliances incident, helpful, or necessary to:

(1) provide[~~, pursuant to the provisions of Chapters 5 and 6, Water Code, as amended,~~] for the control, storage, preservation, transmission, treatment, and distribution and use of

storm water and floodwater, the water of rivers and streams, and underground water, for irrigation, power, hydroelectric, and all other useful purposes, and to supply water for municipal, domestic, power, hydroelectric, industrial, oil flooding, mining, and commercial uses and purposes and all other beneficial uses and purposes;

(2) collect, transport, process, treat, dispose of, and control all municipal, domestic, industrial, or communal waste whether in fluid, solid, or composite state, including specifically the control, abatement, or reduction of all types of pollution; and it is hereby found and determined by the legislature that all of the aforesaid purposes are for the conservation and development of the natural resources of the state within the meaning of Article XVI, Section 59 of the Texas Constitution.

(d) The district is a "district" under the Regional Waste Disposal Act, as amended (Chapter *30* [~~25~~], Water Code), and all provisions of said Act are applicable to this district except to the extent of any conflict with this Act, in which case the provisions of this Act shall prevail.

(e) All cities, public agencies, and other political subdivisions are authorized to contract with this district in any manner authorized by the Regional Waste Disposal Act, as amended (Chapter *30* [~~25~~], Water Code), provided that any city is authorized to contract with this district in the manner authorized by Section *30.030(c), Water Code* [~~25.030(c) of the Regional Waste Disposal Act~~].

(f) *The* [~~It is further specifically provided that the~~] district and all cities, public agencies, and other political subdivisions shall have all of such rights, powers, and authority with respect to the control, storage, preservation, transmission, treatment, and disposition of storm water and floodwater, and the water of rivers and streams, and underground water as are granted, permitted, and authorized by the Regional Waste Disposal Act, as amended (Chapter *30* [~~25~~], Water Code), with respect to waste, waste disposal systems, and treatment facilities. Subsection (e) of this section shall be applicable to contracts made pursuant to this subsection.

(h) *The district may issue bonds to borrow money for any corporate purpose, including the purposes* [~~For the purpose of providing funds to acquire, purchase, construct, improve, enlarge, and equip any property, buildings, structures, or other facilities for any purpose or power~~] authorized by this section. *The*[~~, the~~] board of directors of the district may issue [~~revenue~~] bonds from time to time and in one or more issues or series, to be payable from and secured by liens on and pledges of all or any part of any of the revenues, income, or receipts derived by the district from its ownership, operation, lease, or sale of any [~~such~~] property, buildings, structures, or facilities, including the proceeds or revenues from contracts with any person, firm, corporation, city, public agency, or other political subdivision. *The* [~~Such~~] bonds may be issued *in certificated form or uncertificated book-entry form* to mature serially or otherwise within not to exceed 50 years from their date, and provision may be made for the subsequent issuance of additional parity bonds, or subordinate lien bonds, under any terms or conditions that may be set forth in the resolution authorizing the issuance of the bonds. *The* [~~Such~~] bonds, and any interest coupons appertaining thereto, *to the extent issued in negotiable form,* are and shall constitute negotiable instruments within the meaning and for all purposes of the Texas *Business & Commerce* [~~Uniform Commercial~~] Code, provided that the bonds may be issued registrable as to principal alone or as to both principal and interest, and shall be executed, and may be made redeemable prior to maturity, and may be issued in such form, denominations, and manner, and under such terms, conditions, and details, and may be sold in such manner, *including through a public or private sale,* at such price, and under such terms, and said bonds shall bear interest at such rates, *including fixed, variable, floating, adjustable, or another method of computation,* all as shall be determined and provided in the resolution authorizing the issuance of the bonds. *In the bond resolution, the district may authorize one or more designated officers or employees of the district to act on behalf of the district, with the same force and effect as if the action had been taken by the district, in selling and delivering the bonds and setting the dates, prices, interest rates, interest payment periods, and other procedures relating to the bonds, as specified in the bond resolution.* If so provided in the bond resolution, the proceeds from the sale of the bonds may be used for paying interest on the bonds during the period of the acquisition or construction of any facilities to be provided through the issuance of the bonds, for paying expenses of operation and maintenance of facilities, for creating a reserve fund for the

payment of the principal of and interest on the bonds, and for creating any other funds, and such proceeds may be placed on time deposit or invested, until needed, all to the extent and in the manner provided in the bond resolution. The district may pledge all or any part of its revenues, income, or receipts from fees, rentals, rates, charges, and contract proceeds or payments to the payment of the bonds, including the payment of principal, interest, and any other amounts required or permitted in connection with the bonds. The pledged fees, rentals, rates, charges, proceeds, or payments shall be fixed and collected in amounts that will be at least sufficient, together with any other pledged resources, to provide for all payments of principal, interest, and any other amounts required in connection with the bonds, and, to the extent required by the resolution authorizing the issuance of the bonds, to provide for the payment of expenses in connection with the bonds, and operation, maintenance, and other expenses in connection with the aforesaid facilities. *The* [~~Said~~] bonds may be additionally secured by mortgages or deeds of trust on any real property owned or to be acquired by the district, and by chattel mortgages or liens on any personal property appurtenant to such real property; and the board of directors of the district may authorize the execution of trust indentures, mortgages, deeds of trust, or other forms of encumbrances to evidence same. Also, the district may pledge to the payment of the bonds all or any part of any grant, donation, revenues, or income received or to be received from the United States government or any other public or private source, whether pursuant to an agreement or otherwise.

(h–1) If funds are not available to meet any need of the district and the board of directors of the district declares an emergency, the board may issue bond anticipation notes or revenue anticipation notes, or both bond anticipation notes and revenue anticipation notes, to borrow the money needed by the district. Bond anticipation notes may be issued for any purpose for which bonds of the district may be issued. The district may enter into an agreement with a purchaser of bond anticipation notes to use the proceeds from the sale of any bond to pay principal, interest, or redemption price on the bond anticipation notes. Revenue anticipation notes may be issued for any purpose for which the district is authorized to expend revenue of the district. The district may enter into an agreement with a purchaser of revenue anticipation notes to adopt, enforce, and collect charges, fees, rentals, and other amounts for the district's facilities and services that are sufficient to pay the principal of, any redemption premium on, and interest on the revenue anticipation notes.

(j) *Chapter 1202, Government Code, applies to the issuance of bonds by the district* [~~All bonds issued pursuant to this section and the appropriate proceedings authorizing their issuance shall be submitted to the Attorney General of the State of Texas for examination. When the bonds are to be issued to finance in whole or in part water-using facilities, except treatment or distribution facilities, before giving his approval the attorney general shall be furnished a resolution from the Texas Water Rights Commission certifying that the district is possessed of the necessary water right authorizing it to impound and appropriate the water to be utilized by the project. Also, if the bonds recite that they are secured by a pledge of revenues of any contract, a copy of such contract and the proceedings relating thereto shall be submitted to the attorney general. If he finds that such bonds have been authorized and any such contract has been made in accordance with law, he shall approve the bonds and any such contract, and thereupon the bonds shall be registered by the Comptroller of Public Accounts of the State of Texas; and after such approval and registration, such bonds and any such contract shall be incontestable in any court or other forum for any reason, and shall be valid and binding obligations in accordance with their terms for all purposes~~].

(k) All bonds issued pursuant to this section are legal and authorized investments *in the same manner as provided by Section 49.186(a), Water Code. The* [~~for all banks, trust companies, building and loan associations, savings and loan associations, insurance companies of all kinds and types, and trustees, and for all interest and sinking funds and other public funds of the State of Texas and all agencies, subdivisions, and instrumentalities thereof, including all counties, cities, towns, villages, school districts, and all other kinds and types of districts, public agencies, and bodies politic. Said~~] bonds also shall be eligible and lawful security for [~~all~~] deposits of public funds *in* [~~of~~] the *same manner as provided by Section 49.186(b), Water Code* [~~State of Texas and all agencies, subdivisions, and instrumentalities thereof, including all counties, cities, towns, villages, school districts, and all other kinds and types of districts, public agencies, and bodies politic, to the extent of the market value of said bonds, when accompanied by any unmatured interest coupons appurtenant thereto~~].

SECTION 5. Chapter 62, Acts of the 52nd Legislature, Regular Session, 1951, is amended by adding Section 28 to read as follows:

Sec. 28. If a quorum of the board of directors of the district cannot be assembled due to multiple deaths or injuries resulting from a catastrophe or disaster, any directors who are available, or the highest ranking staff member of the district if no director is available, shall within 24 hours after the catastrophe or disaster has ended, or as soon as practicable under the circumstances, take any action necessary to ensure the basic health, safety, and welfare of the customers of the district and call for the appointment of new directors by the member cities of the district to fill the vacancies on the board resulting from the catastrophe or disaster. Until a quorum of the board of directors can be assembled, any directors who are available, or the highest ranking staff member of the district if no director is available, may only take actions as necessary to protect the basic health, safety, and welfare of the district's customers. The board of directors may subsequently ratify any action taken in accordance with this section.

SECTION 6. Subsection (c), Section 27, Chapter 62, Acts of the 52nd Legislature, Regular Session, 1951, is repealed.

SECTION 7. (a) The legal notice of the intention to introduce this Act, setting forth the general substance of this Act, has been published as provided by law, and the notice and a copy of this Act have been furnished to all persons, agencies, officials, or entities to which they are required to be furnished under Section 59, Article XVI, Texas Constitution, and Chapter 313, Government Code.

(b) The governor has submitted the notice and Act to the Texas Commission on Environmental Quality.

(c) The Texas Commission on Environmental Quality has filed its recommendations relating to this Act with the governor, lieutenant governor, and speaker of the house of representatives within the required time.

(d) All requirements of the constitution and laws of this state and the rules and procedures of the legislature with respect to the notice, introduction, and passage of this Act are fulfilled and accomplished.

SECTION 8. This Act takes effect immediately if it receives a vote of two-thirds of all the members elected to each house, as provided by Section 39, Article III, Texas Constitution. If this Act does not receive the vote necessary for immediate effect, this Act takes effect September 1, 2009.

Passed the Senate on April 2, 2009: Yeas 31, Nays 0; passed the House on April 28, 2009: Yeas 149, Nays 0, one present not voting.

Approved May 12, 2009.

Effective May 12, 2009.

CHAPTER 21

S.B. No. 741

AN ACT

relating to jurisdiction over a wage claim filed after the deadline.

Be it enacted by the Legislature of the State of Texas:

SECTION 1. Subsection (c), Section 61.051, Labor Code, is amended to read as follows:

(c) A wage claim must be filed not later than the 180th day after the date the wages claimed became due for payment. *The 180-day deadline is a matter of jurisdiction.*

SECTION 2. Section 61.052, Labor Code, is amended by adding Subsection (b-1) to read as follows:

(b-1) If a wage claim is filed later than the date described by Section 61.051(c), the examiner shall dismiss the wage claim for lack of jurisdiction.

16 EVIDENCE OF COMPETENCY

16.1 Solid Waste Sites

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

The Gateway Drive TS will be owned and operated by the North Texas Municipal Water District.

NTMWD also manages and operates three additional transfer stations: Lookout Drive Transfer Station (Permit Number 53A), Parkway Transfer Station (Permit Number 1494A), and Custer Road Transfer Station (Permit Number 2045A); one active landfill (121 RDF Permit Number 2294); and two closed landfills: McKinney Landfill (Permit Number 568A) and Maxwell Creek Landfill (Permit Number 44A). NTMWD has no financial interest in any other solid waste sites.

16.2 Gateway Drive TS Key Personnel

This section outlines the general categories of job titles. Titles of positions may change; however, they will all fall into one of the following categories.

The Gateway Drive TS administrative management structure will consist of the Board of Directors, Executive Director/General Manager, Assistant General Manager, Director of Solid Waste, and Transfer Station Manager. The key personnel involved in the Gateway Drive TS operations are listed below.

Director of Solid Waste

The Director of Solid Waste will be responsible for environmental review, permitting, compliance, reporting, and environmental oversight of TS operations; however, he may delegate certain tasks to TS Manager or TS Supervisor to ensure continued compliance with applicable rules and regulations.

Transfer Station Manager

The Transfer Station Manager will conduct overall facility management and be responsible for the administrative oversight of the facility management of this and

other NTMWD transfer stations. The Transfer Station Manager will manage the TS Supervisors who will be responsible for each of the transfer station operations.

Transfer Station Supervisor

The TS Supervisor will be responsible for the day-to-day operations of the transfer station, including facility management, emergency coordination, operations, and waste transfer operations.

Scale Operator

The Scale Operator will be responsible for maintaining complete and accurate records of vehicles and solid waste entering the facility.

Equipment Operator

The Equipment Operator will be responsible for the safe operation of the equipment and processing of waste.

16.3 Equipment

The equipment listed in Part IV – Site Operating Plan will be 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 and NTMWD's Resolution No. 24-41 are provided on the following pages.

This section addresses §330.59(g).

NOTICE OF APPOINTMENT
Agent for the Applicant

Ms. Kelly Keel
Executive Director
Texas Commission on Environmental Quality
12100 Park 35 Circle, MC-109
Austin, Texas 78753

Dear Ms. Keel:

I am an Authorized Agent of the North Texas Municipal Water District in matters concerning this Type V Permit Application.

ATTEST:

North Texas Municipal Water District

Jennah Covington
Signature

Jennafer P. Covington, Executive Director
Name, Title

11/12/25
Date

SWORN TO AND SUBSCRIBED BEFORE ME by Jennafer Covington on the 12 day of November, 2025, which witness my hand and seal of office.

Leann Bumpus
Notary Public in and for the State of Texas

LEANN BUMPUS
My Notary ID # 10188600
Expires May 18, 2028

Leann Bumpus
Printed Name

My Commission Expires 5/18/28

NORTH TEXAS MUNICIPAL WATER DISTRICT

RESOLUTION NO. 24-41

A RESOLUTION AUTHORIZING THE FILING OF A PERMIT APPLICATION FOR THE GATEWAY DRIVE TRANSFER STATION SOLID WASTE PERMIT, APPOINTING THE EXECUTIVE DIRECTOR AS AGENT FOR NORTH TEXAS MUNICIPAL WATER DISTRICT IN ALL MATTERS CONCERNING SUCH PERMIT APPLICATION, AND AUTHORIZING THE EXECUTIVE DIRECTOR TO TAKE ALL NECESSARY ACTIONS IN FURTHERANCE OF THE PERMITTING PROCESS

WHEREAS, the North Texas Municipal Water District ("NTMWD") is authorized "to purchase, construct, acquire, own, operate, maintain, repair, improve, or extend inside and outside its boundaries... any and all... works, improvements, facilities, plants, equipment, and appliances, incident, helpful, or necessary to: ... (2) collect, transport, process, treat, dispose of, and control all municipal, domestic, industrial, or communal waste whether in fluid, solid, or composite state..." by TEX. REV. CIV. STAT. ANN. Art. 8280 -141 (Vernon 1954 and Supp. 1971), as amended by 64 Leg., R.S., Ch. 90 and 81 Leg., R.S. Ch. 20; and,

WHEREAS, there is a need for improvements to the District's ability to collect, transport, process and control municipal, domestic, industrial, or communal waste; and,

WHEREAS, NTMWD has determined that the best way to provide the needed improvements is through the permitting, construction, and operation of a new facility on the Gateway Drive Transfer Station property authorized for acquisition by the NTMWD Board of Directors in a regular meeting on July 25, 2024.

NOW, THEREFORE, THE BOARD OF DIRECTORS IN A REGULAR MEETING DETERMINES AND RESOLVES THAT:

1. The recitals herein are true and correct.
2. A permit application for the Gateway Drive Transfer Station shall be filed with the Texas Commission on Environmental Quality in compliance with all applicable statutes and regulations.
3. The Executive Director of NTMWD is appointed as Agent for NTMWD in all matters concerning such permit application and is authorized to take all necessary actions on behalf of NTMWD in furtherance of the permitting process.

THIS RESOLUTION ADOPTED BY THE NTMWD BOARD OF DIRECTORS IN A REGULAR MEETING ON SEPTEMBER 26, 2024, IN THE ADMINISTRATIVE OFFICES OF THE NTMWD, WYLIE, TEXAS.

~~DONALD IMRIE, Secretary~~
David Hollifield, Vice President

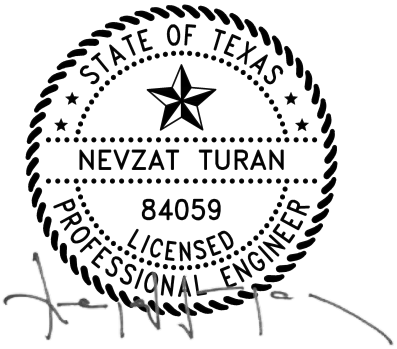
GEORGE CRUMP, President

(SEAL)

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))



11/12/2025

COORDINATION WITH TEXAS HISTORICAL COMMISSION

eTRAC
electronic THC review and compliance

TEXAS HISTORICAL COMMISSION
REAL PLACES TELLING REAL STORIES

Review Request Confirmation

Your request for consultation has been successfully submitted to the Texas Historical Commission.

Project Name: Gateway Drive Transfer Station
Track Number: 202601773
Date Received: 10/30/2025 3:54:32 PM
Due Date: 11/29/2025 3:54:32 PM

Thank you!

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_____ THC APPROVAL LETTER
(TO BE INSERTED UPON RECEIVING FROM THC)

COORDINATION WITH
NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

CONTENTS

- November 12, 2025 Letter to NCTCOG Requesting Conformance Review (Parts I/II of this Application were attached to the letter)

Weaver Consultants Group

November 12, 2025
Project No. 1678-013-11-08
ELECTRONIC SUBMITTAL

Ms. Caralyn Dawson
Environment and Development Planner
North Central Texas Council of Governments
600 Six Flags Drive, Centerpoint III
Arlington, TX 76011

Re: NCTCOG Conformance Review Request
Transfer Station Permit Application
Gateway Drive Transfer Station
Frisco, Collin County, Texas

Dear Ms. Dawson:

Consistent with the requirements of Title 30 Texas Administrative Code (TAC) §330.61(p), please find attached an electronic copy of Parts I/II of the referenced permit application, which has been prepared for North Texas Municipal Water District (NTMWD). The purpose for the proposed transfer station is to provide NTMWD with the ability to collect, process, load, and transport solid waste and recyclables more efficiently by allowing the municipal solid waste (MSW) collection vehicles to transfer MSW into larger transfer trailers before shipment to a permitted MSW landfill. The operation of the Gateway Drive Transfer Station (TS) will provide for the long-term disposal needs of the NTMWD Regional Solid Waste System Member Cities (currently Allen, Frisco, McKinney, Plano, and Richardson) and surrounding areas.

The transfer station permit application was submitted to TCEQ on November 12, 2025. This submittal of Parts I/II of the application to the North Central Texas Council of Governments (NCTCOG) is being 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."*

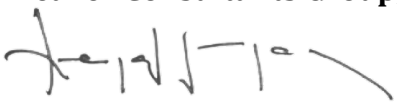
The construction and operation of the Gateway Drive TS is consistent with the NCTCOG Regional Solid Waste Management Plan (NCTCOG Plan). Appendix B, Implementation Authorities by Goal and Objective, of the NCTCOG Plan includes the goal to encourage the establishment and expansion of transfer station and citizen collection stations in

rural or underserved areas. In recent years, the NCTCOG reports that transfer stations manage approximately 1.8 million tons of materials.

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: Hannah Ordonez, NCTCOG (e-copy)
Mike Friesen, North Texas Municipal Water District (e-copy)
NTMWD Central File – Gateway Drive TS 8.1
Jeffrey Reed – Lloyd Gosselink, Rochelle & Townsend, P.C. (e-copy)

Enclosures: Attachment 1 – Parts I/II of Gateway Drive Transfer Station Type V Permit Application
Attachment 2 – Regional Review of MSW Facility Application Evaluation Form

COORDINATION WITH
TEXAS DEPARTMENT OF TRANSPORTATION

CONTENTS

- October 9, 2025 WCG Letter, including Project Summary and Engineering Study
- _____ TxDOT Approval Letter

OCTOBER 9, 2025 TXDOT ENGINEERING STUDY
SUBMITTED TO TXDOT

GATEWAY DRIVE TRANSFER STATION
FRISCO, COLLIN COUNTY, TEXAS

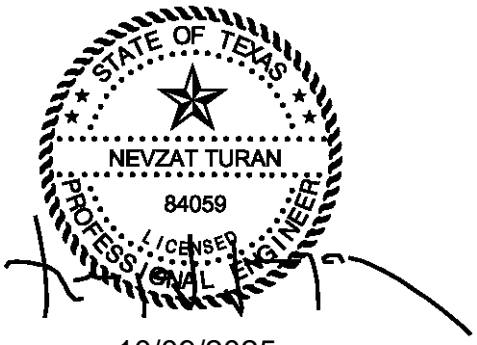
ENGINEERING STUDY

AVAILABILITY AND ADEQUACY OF ACCESS ROADS

Prepared for

North Texas Municipal Water District

October 2025



10/09/2025

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. 1678-013-11-08

I/IIA-9

Weaver Consultants Group

October 9, 2025
Project No. 1678-013-11-08

Ms. Ceason Clemens
District Traffic Engineer
Texas Department of Transportation, Dallas District
4777 E Highway 80
Mesquite, Texas 75150

Re: Engineering Study – Availability and Adequacy of Access Roads
Gateway Drive Transfer Station
Frisco, Collin County, Texas

Dear Ms. Clemens:

The purpose of this letter, submitted on behalf of North Texas Municipal Water District (NTMWD), is to demonstrate coordination with the Texas Department of Transportation (TxDOT), consistent with Title 30 Texas Administrative Code (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 a Type V MSW Permit Application, under contract with NTMWD, to obtain the necessary authorization from TCEQ to operate the proposed Gateway Drive Transfer Station (TS). The site will be located on the future southern extension of Gateway Drive in Frisco, Collin County, Texas. This site will be located on the north side of the city of Frisco and in the central west portion of Collin County, Texas.

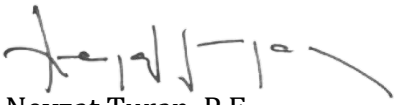
The proposed Gateway Drive TS will provide waste disposal services primarily to the NTMWD Regional Solid Waste Member Cities (currently Allen, Frisco, McKinney, Plano, and Richardson). The proposed TS will provide NTMWD the ability to collect, process, load, and transport solid waste more efficiently by allowing solid waste collection vehicles to transfer the solid waste into large transfer trailers before shipment to a permitted MSW landfill.

To assist you in your review, a project summary and site location maps have been provided as an overview of the TS. The attached engineering study demonstrates that the site access roads, Gateway Drive, PGA Parkway, Dallas North Tollway (DNT), Dallas Parkway (adjacent to DNT on east and west sides), State Highway 289 (Preston Rd) and U.S. Highway 380 (University Dr), will provide adequate access to the site now and in the foreseeable future. It is expected that the traffic patterns will remain consistent with the current traffic patterns.

To verify compliance with Title 30 TAC §330.61(i)(4), we are required by TCEQ to include a letter from TxDOT in the TS application regarding the adequacy of the site access roads and any traffic or location restrictions at or near the site.

Please call if you have any questions or need additional information.

Sincerely,
Weaver Consultants Group, LLC



Nevzat Turan, P.E.
Principal

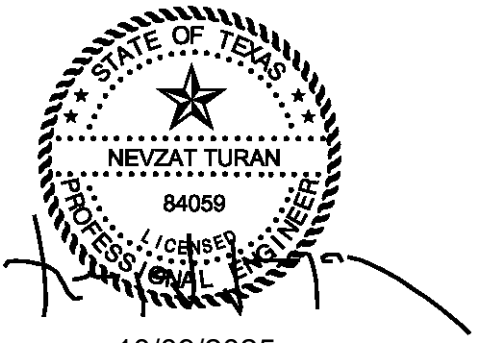
Attachment: Gateway Drive Transfer Station Engineering Study

cc: Mike Friesen, North Texas Municipal Water District (electronic copy)
NTMWD Central File – Gateway Drive TS 8.1.1
Mr. Jeffrey Reed – Lloyd Gosselink, Rochelle & Townsend P.C. (electronic copy)

CONTENTS

1	**INTRODUCTION**		**1**
	1.1	Purpose	1
	1.2	Summary of Proposed Transfer Station	2
2	**TRAFFIC INFORMATION**		**3**
	2.1	Availability and Adequacy of Roads	3
	2.2	Volume of Vehicular Traffic	4
	2.3	Queuing	5
3	**SUMMARY**		**9**
4	**REFERENCES**		**10**

APPENDIX A
Project Summary and Site Location Maps



10/09/2025

LIST OF TABLES AND FIGURES

TABLES

Table 2-1 – Two-Way Traffic Volumes 6

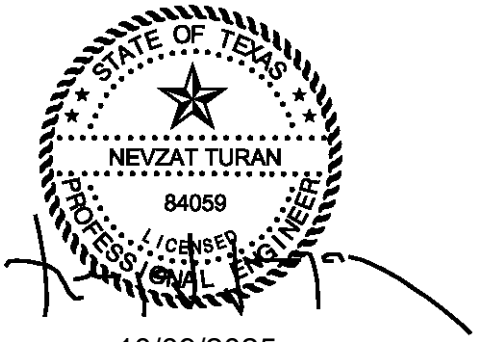
Table 2-2 – 24-Hour One-Way Transfer Station Estimates 7

Table 2-3 – Traffic Volume Impact Assessment 8

FIGURES

Figure 2-1 – Public Roads Within One Mile

Figure 2-2 – Site Plan



10/09/2025

1 INTRODUCTION

1.1 Purpose

Weaver Consultants Group, LLC is in the process of developing a Type V municipal solid waste (MSW) transfer station (TS) permit application, on behalf of North Texas Municipal Water District (NTMWD) for a new MSW TS in Collin County. The proposed Gateway Drive TS will provide waste transportation services for NTMWD's Regional Solid Waste Member Cities (currently Allen, Frisco, McKinney, Plano, and Richardson) and other customers in proximity to the site in Collin County and the surrounding areas. The proposed TS will provide NTMWD with the ability to collect, load, and transport solid waste more efficiently by allowing the MSW collection vehicles to transfer MSW into large transfer trailers before shipment to permitted MSW landfills.

The purpose of the permit application to the Texas Commission on Environmental Quality (TCEQ) is to construct and operate the Gateway Drive TS facility which will process up to a maximum daily rate of 3,000 tons per day (tpd) of MSW. The facility's permit application will undergo a thorough technical review by the TCEQ before obtaining authorization to operate.

The purpose of this study is to show that the existing roadways will provide adequate access and the proposed TS will not adversely impact the existing and future traffic patterns of the facility access roads. This 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 proposed transfer station facility.

1.2 Summary of Proposed Transfer Station

The proposed TS will be located east of Dallas North Tollway and the BNSF Railroad, south of PGA Parkway, west of Preston Road (State Highway 289) and Frisco Fire Station #9. The transfer station building will be a concrete tilt-wall structure with a metal roof and a total area of approximately 69,000 square feet. All transfer station vehicles (i.e., transfer trailers, collection vehicles, and self-haul vehicles) will enter the site via the southern extension of Gateway Drive, currently under construction.

Incoming loads will be weighed and directed to the waste unloading area for transfer operations. The facility will accept municipal solid waste, construction and demolition wastes, special wastes, and non-hazardous industrial waste as permitted by the TCEQ. Properly trained personnel will operate the transfer station. A detailed site operating plan will be included in the transfer station permit application. The plan will detail the required equipment, personnel, and safety procedures required to operate the site in accordance with TCEQ regulations. 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 main access roads within one mile of the site are Gateway Drive, PGA Parkway, Dallas North Tollway (DNT), Dallas Parkway (adjacent to DNT on east and west sides) Preston Road (State Highway 289), and U.S. Highway 380 (University Drive). Other roads within one mile of the site are also shown on Figure 2-1. These roads may be periodically used by collection vehicles to serve residences and businesses located along or near these roadways; however, these roads are not main access roads that collection vehicles will use to access the site.

The proposed Gateway Drive TS facility will have 4 proposed driveways. The southernmost entrance of the TS facility will be the main entrance for inbound traffic for waste hauling vehicles, employees, and visitors, and those vehicles will exit the facility using the driveway north of the main entrance. The other two northern driveways will be utilized exclusively by transfer trailers. The extended Gateway Drive, which is currently under construction, was designed to provide adequate access for the projected traffic load associated with the TS. Gateway Drive is a two-lane, two-way concrete road with a speed limit of 30 miles per hour. The proposed TS will have a one-way access road along the south property line, to receive solid waste from the City of Frisco Environmental Services development located on the adjacent property to the east. The City of Frisco Environmental Services is in the process of developing a recycling facility that will not accept solid waste.

Figure 2-2 shows the proposed entrances to the facility. As shown on Figure 2-2 the driveway serving inbound traffic is proposed to be a 40-foot-wide, 510-foot-long (2-parallel lanes) concrete-paved driveway. The 1,020 feet of total queuing space allows for the queuing of at least 25 waste hauling vehicles, as noted in Section 2.3. The main exit driveway serving outbound traffic is proposed to be 12-foot-wide, while the transfer trailer entrance (north of the one serving the outbound traffic) is proposed to be a 40-foot-wide, 320-foot-long (2-parallel lanes) concrete-paved driveway utilized by transfer trailers.

The design of the TS provides capacity to transfer up to 3,000 tons per day of MSW, the maximum permitted waste acceptance rate. Traffic projections presented in this analysis were performed for the scenario in which the TS accepts waste at the

maximum design capacity of 3,000 tons per day. For these analyses, published traffic counts were adjusted to 2025, and 2045 for the conditions described below.

- 2025 – Existing Condition. Analyses were developed to evaluate existing roadway conditions with and without traffic from the proposed TS. To include traffic from the proposed TS, vehicles were added to the projected average daily traffic (ADT) on each road based on the maximum waste acceptance rate of 3,000 tons per day immediately when the TS begins operations. Vehicle loading on area access roads for this condition is discussed in Section 2.2.
- 2045 – Future Condition. The purpose of this analysis is to show the traffic pattern and level of service for area access roads in the future. To provide for a conservative analysis, the TS is assumed to be operating at the permitted maximum rate of waste acceptance requested in the TCEQ application of 3,000 tons per day.

Traffic associated with the TS was estimated for the analysis, as shown in Table 2-2.

2.2 Volume of Vehicular Traffic

The volume of vehicle traffic for the access roads is summarized on Table 2-1. As noted on Table 2-1, traffic counts for all of the roads were taken from the TxDOT Traffic Count Database System (TCDS), except for the PGA Parkway, which was provided by a private traffic count conducted by the City of Frisco. The study evaluated these roadways, including the estimated traffic generated by the TS, with an additional 20 percent added, to provide a conservative evaluation. The TxDOT TCDS data were adjusted to account for the additional traffic created by area growth from the dates when the TCDS data was collected (2016 for the Dallas North Tollway north of the proposed Transfer Station, 2022 for Rockhill Parkway, now known as PGA Parkway, and 2023 for the rest of the access roads) to 2025. Existing traffic volumes were projected to the year 2045 to evaluate the future performance of the site access roads.

To provide for a conservative evaluation of the TS traffic on the area roadways, all vehicles estimated to utilize the TS (see Table 2-2) are assigned to all analyzed roadways immediately when the TS is estimated to begin operations. TS vehicles were not distributed among the roadway system.

The traffic volume impact assessment is summarized in Table 2-3, which presents four analyzed scenarios: 2025 conditions with and without TS vehicles, and projected 2045 conditions with and without TS vehicles. The analysis demonstrated that TS operations have minimal impact on all access roads through 2045. The level of service (LOS) for all of the access roads was calculated using road characteristics, road capacities, and formulas obtained from the Highway Capacity Manual, 2016.

As shown on Table 2-3, the 2025 LOS for PGA Parkway, under conditions excluding TS vehicles is A, while the LOS for US Highway 380, State Highway 289, the Dallas North Tollway north of the TS, and Gateway Drive have a LOS of B. The Dallas North Tollway south of the TS has a LOS of C. For Dallas Parkway south of the transfer station and Rockhill Pkwy (now known as PGA Parkway) the LOS is D. Meanwhile the LOS for Dallas Parkway north of the TS is E. For the 2025 LOS with TS vehicles all of the access roads remained the same except for Gateway Drive, changing from B to C and Dallas Parkway south of the TS from D to E. The 2045 LOS of all the access roads will remain unchanged except US Highway 380 which changes from B to C in the condition analyzed with TS vehicles, the Dallas Parkway south of the TS will be changing from D to E in the condition analyzed without TS vehicles and the Gateway Drive will be changing from B to C in the condition analyzed without the TS and C to D in the condition analyzed with the TS. As noted on Table 2-3, the TS only utilizes a small percentage of the capacity for all access roads (8 percent or less for the current and future projections). It should be noted that there is a planned expansion of US Highway 380 that will further improve the level of service of the roadway. This expansion was not included as a part of this engineering study.

2.3 Queuing

As shown on Figure 2-2, approximately 1,020 feet of queuing space within the facility gate provides for approximately 25 waste hauling vehicles between the scales and Gateway Drive. Approximately 900 feet of additional queuing space is available between the scales and TS building. The available queuing area is sufficient to avoid disturbance on Gateway Drive. Additionally, transfer trailers have approximately 800 feet of queuing space from the TS building to Gateway Drive. This is sufficient space for at least 8 trailers to queue before disrupting traffic on Gateway Drive.

Table 2-1
2-Way Traffic Volumes
Gateway TS (3,000 Tons/Day)

Facility Capacity (Tons/Day)	Road	Existing Traffic Volume						Projected Traffic Volume[2]					
		2025[1]						2045[2]					
		Daily			Peak Hour[4]			Daily			Peak Hour[4]		
		TS Traffic (vpd)[3]	Non-TS Traffic (vpd)	Total Traffic with TS (vpd)	TS Traffic (vph)[3]	Non-TS Traffic (vph)	Total Traffic with TS (vph)	TS Traffic (vpd)[3]	Non-TS Traffic (vpd)	Total Traffic with TS (vpd)	TS Traffic (vph)[3]	Non-TS Traffic (vph)	Total Traffic with TS (vph)
3,000	**US Highway 380 (University Dr.)**	2,796	52,621	55,417	280	5,262	5,542	2,796	62,221	65,017	280	6,222	6,502
	State Highway 289 (Preston Rd) N of TS	2,796	35,790	38,586	280	3,579	3,859	2,796	42,320	45,116	280	4,232	4,512
	State Highway 289 (Preston Rd) S of TS	2,796	33,882	36,678	280	3,388	3,668	2,796	40,063	42,859	280	4,006	4,286
	Dallas North Tollway (N of TS)	2,796	44,909	47,705	280	4,491	4,770	2,796	53,102	55,898	280	5,310	5,590
	Dallas North Tollway (S of TS)	2,796	93,862	96,658	280	9,386	9,666	2,796	110,987	113,783	280	11,099	11,378
	Dallas Pkwy Frontage Road (N of TS)	2,796	42,808	45,604	280	4,281	4,560	2,796	50,618	53,414	280	5,062	5,341
	Dallas Pkwy Frontage Road (S of TS)	2,796	19,387	22,183	280	1,939	2,218	2,796	22,924	25,720	280	2,292	2,572
	Gateway Drive[5]	2,796	2,987	5,783	280	299	578	2,796	3,532	6,328	280	353	633
	Rockhill Parkway (Now known as PGA Parkway)	2,796	9,132	11,928	280	913	1,193	2,796	10,799	13,595	280	1,080	1,359
	PGA Parkway	2,796	15,842	18,638	280	1,584	1,864	2,796	18,732	21,528	280	1,873	2,153

Notes:

1.Traffic count data for Dallas North Tollway (N of TS) and Rockhill Parkway (now known as PGA Parkway) were obtained from 2016 and 2022 TxDOT Traffic Map, while for U.S. Highway 380 (University Dr.), State Highway 289 (Preston Rd), Dallas North Tollway (DNT) (S of TS), Dallas Parkway (adjacent to DNT on east and west sides) were obtained from the 2023 TxDOT Traffic Map. Traffic count Data for PGA Parkway were obtained from the City of Frisco. Traffic count data has been adjusted to 2025 using population growth rates obtained from the US Census Bureau and the Texas Water Development Board. The annual population increase from 2001-2010 is 4.43%, from 2011-2020 is 1.85% and from 2021-2030 is 0.65% .

2. The projected traffic volumes were obtained using projected growth rates for the surrounding area (non-MSW vehicles). The growth rates were obtained from the Texas Water Development Board's 2011 and 2021 Regional Water Plan. The annual projected population increases are: 0.65% from 2021-2030, 0.80% from 2031-2040, and 1.11% from 2041-2050.

3. TS Traffic shown has been estimated using the maximum expected traffic the site could receive over the life of the site. See Table 2-2 for more information.

4. Peak Hour Volume is estimated to be 10% of the Total Traffic count.

5. Due to limited information on total traffic for Gateway Drive, Total Traffic has been estimated using the number of transfer station trips.

Table 2-2

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

Proposed Gateway TS (3,000 Tons/Day)

Vehicle Description	Distribution of Waste Stream (tons/day)	Estimated Vehicle Counts [1] (vehicles/day)
Rear Loader	1,325	148
Front Loader	803	64
Rolloffs	581	164
Private Individuals	260	868
Mc Pu/DMP/Boom TRK[2]	32	14
TOTAL	3,000	1258

Vehicle Description	Distribution of Waste Stream (tons/day)	Estimated Vehicle Counts[1] (vehicles/day)
Transfer Trailers	3,000	140

Notes:

1. 24-Hour One-Way Transfer Station Estimates were obtained from a similar transfer station currently operating. Projected TS trips were calculated based on the projected waste inflow rate. 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. Abbreviations used are defined as follows: Mc Pu - Mechanic Pickup, DMP - Dump Truck, Boom TRK - Boom Truck.

One Way

Facility Capacity (Tons/Day)							Totals
	Rear Loader	Front Loader	Roll-off	Transfer Trailers	Private Individuals	Mc Pu/ DMP/Boom TRK [1]	
3,000	148	64	164	140	868	14	1398

Notes:

1. Abbreviations used are defined as follows: Mc Pu - Mechanic Pickup, DMP - Dump Truck, Boom TRK - Boom Truck.

Table 2-3
Traffic Impact Assessment[1]

Gateway TS (3,000 Tons/Day)

Facility Capacity (Tons/Day)	Road	Roadway Capacity[4] (Vehicles/ Hour)	2025 Traffic Conditions [2,3]									Projected 2045 Traffic Conditions[2,3]								
			Non - TS Traffic (vpd)	Transfer Station Traffic (vpd)	Total Traffic with TS (vpd)	Peak Hour Volume without TS [6] (vph)	Peak Hour Volume with TS [6] (vph)	% of Roadway Capacity Used	Level of Service without TS (LOS)	Level of Service with TS (LOS)	% of Roadway Capacity Used by Transfer Station Vehicles	Non - TS Traffic (vpd)	Transfer Station Traffic (vpd)	Total Traffic (vpd)	Peak Hour Volume without TS[6] (vph)	Peak Hour Volume with TS [6] (vph)	% of Roadway Capacity Used	Level of Service without TS (LOS)	Level of Service with TS (LOS)	% of Roadway Capacity Used by Transfer Station Vehicles
3,000	**US Highway 380 (University Dr.)**	13,200	52,621	2,796	55,417	5,262	5,542	42%	B	B	2%	62,221	2,796	65,017	6,222	6,502	49%	B	C	2%
	State Highway 289 (Preston Rd) N of TS	12,600	35,790	2,796	38,586	3,579	3,859	31%	B	B	2%	42,320	2,796	45,116	4,232	4,512	36%	B	B	2%
	State Highway 289 (Preston Rd) S of TS	12,600	33,882	2,796	36,678	3,388	3,668	29%	B	B	2%	40,063	2,796	42,859	4,006	4,286	34%	B	B	2%
	Dallas North Tollway (N of TS)	18,000	44,909	2,796	47,705	4,491	4,770	27%	B	B	2%	53,102	2,796	55,898	5,310	5,590	31%	B	B	2%
	Dallas North Tollway (S of TS)	18,400	93,862	2,796	96,658	9,386	9,666	53%	C	C	2%	110,987	2,796	113,783	11,099	11,378	62%	C	C	2%
	Dallas Pkwy Frontage Road (N of TS)	13,600	42,808	2,796	45,604	4,281	4,560	34%	E	E	2%	50,618	2,796	53,414	5,062	5,341	39%	E	E	2%
	Dallas Pkwy Frontage Road (S of TS)	6,800	19,387	2,796	22,183	1,939	2,218	33%	D	E	4%	22,924	2,796	25,720	2,292	2,572	38%	E	E	4%
	Gateway Drive[5]	3,200	2,987	2,796	5,783	299	578	18%	B	C	9%	3,532	2,796	6,328	353	633	20%	C	D	9%
	Rockhill Parkway (Now known as PGA Parkway)	3,200	9,132	2,796	11,928	913	1,193	37%	D	D	9%	10,799	2,796	13,595	1,080	1,359	42%	D	D	9%
	PGA Parkway	12,000	15,842	2,796	18,638	1,584	1,864	16%	A	A	2%	18,732	2,796	21,528	1,873	2,153	18%	A	A	2%

Notes:

1. Traffic volumes listed in this table include two-way traffic volumes shown in Table 2-1.

2. Traffic count data for Dallas North Tollway (N of TS) and Rockhill Parkway (now known as PGA Parkway) were obtained from 2016 and 2022 TxDOT Traffic Map, while for U.S. Highway 380 (University Dr.), State Highway 289 (Preston Rd), Frontage Roads (East and West of Preston Rd.), Dallas North Tollway (DNT) (S of TS), Dallas Parkway (adjacent to DNT on east and west sides) were obtained from the 2023 TxDOT Traffic Map. PGA Parkway Traffic count were obtained from the City of Frisco. Traffic count data has been adjusted to 2025 using population growth rates obtained from the US Census Bureau and the Texas Water Development Board. The annual population increase from 2001-2010 is 4.43%, from 2011-2020 is 1.85% and from 2021-2030 is 0.65% .

3. The projected traffic volumes were obtained using projected growth rates for the surrounding area (non-MSW vehicles). The growth rates were obtained from the Texas Water Development Board's 2011 and 2021 Regional Water Plan. The annual projected population increases are: 0.65% from 2021-2030, 0.80% from 2031-2040, and 1.11% from 2041-2050.

4. The capacities for all of the access roads were estimated from the Highway Capacity Manual, 2016.

5. Due to no information on total traffic for Gateway Drive, Total Traffic has been estimated using the number of transfer station trips.

6. Peak Hour Volume is estimated to be 10% of the Total Traffic count.

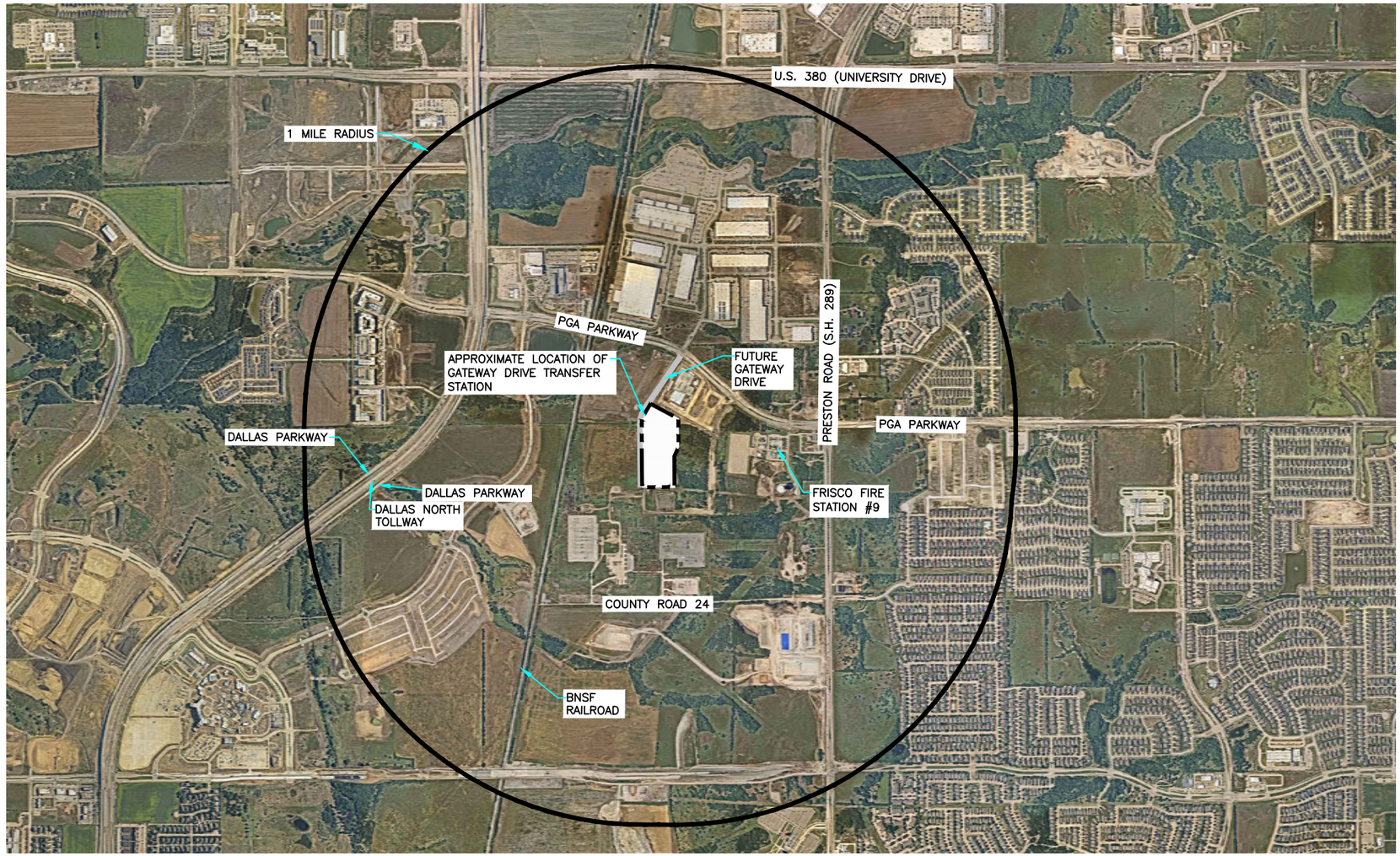
3 SUMMARY

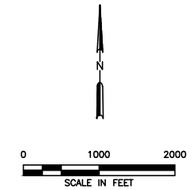
In summary, the existing and future area roadway systems around the Gateway Transfer Station will provide adequate access to the facility. Additionally, the current and projected 2045 traffic conditions would be minimally impacted by the proposed transfer station traffic. Therefore, the existing access roads and traffic patterns within one mile of the site will not be significantly impacted due to the proposed development of the transfer station.

4 REFERENCES

1. Transportation Research Board, National Research Council. *Highway Capacity Manual 6th Edition: A Guide for Multimodel Mobility Analysis*. Washington, DC: The National Academies Press.

2. https://www.txdot.gov/data-maps-traffic-count-maps.html



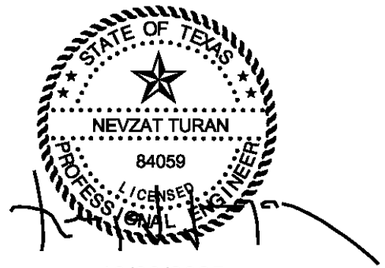


LEGEND

PERMIT BOUNDARY

NOTE:

1. GEOREFERENCED IMAGERY SHOWN HEREON PROVIDED BY NEARMAP MAPBROWSER ONLINE DATABASE, DATED JUNE 28, 2025.



10/09/2025

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DATE: 10/2025
FILE: 1678-013-11
CAD: 2-1 PUBLIC ROADS.DWG

DRAWN BY: RAA
DESIGN BY: VG
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
NORTH TEXAS MUNICIPAL WATER DISTRICT

REVISION NO.	DATE	DESCRIPTION

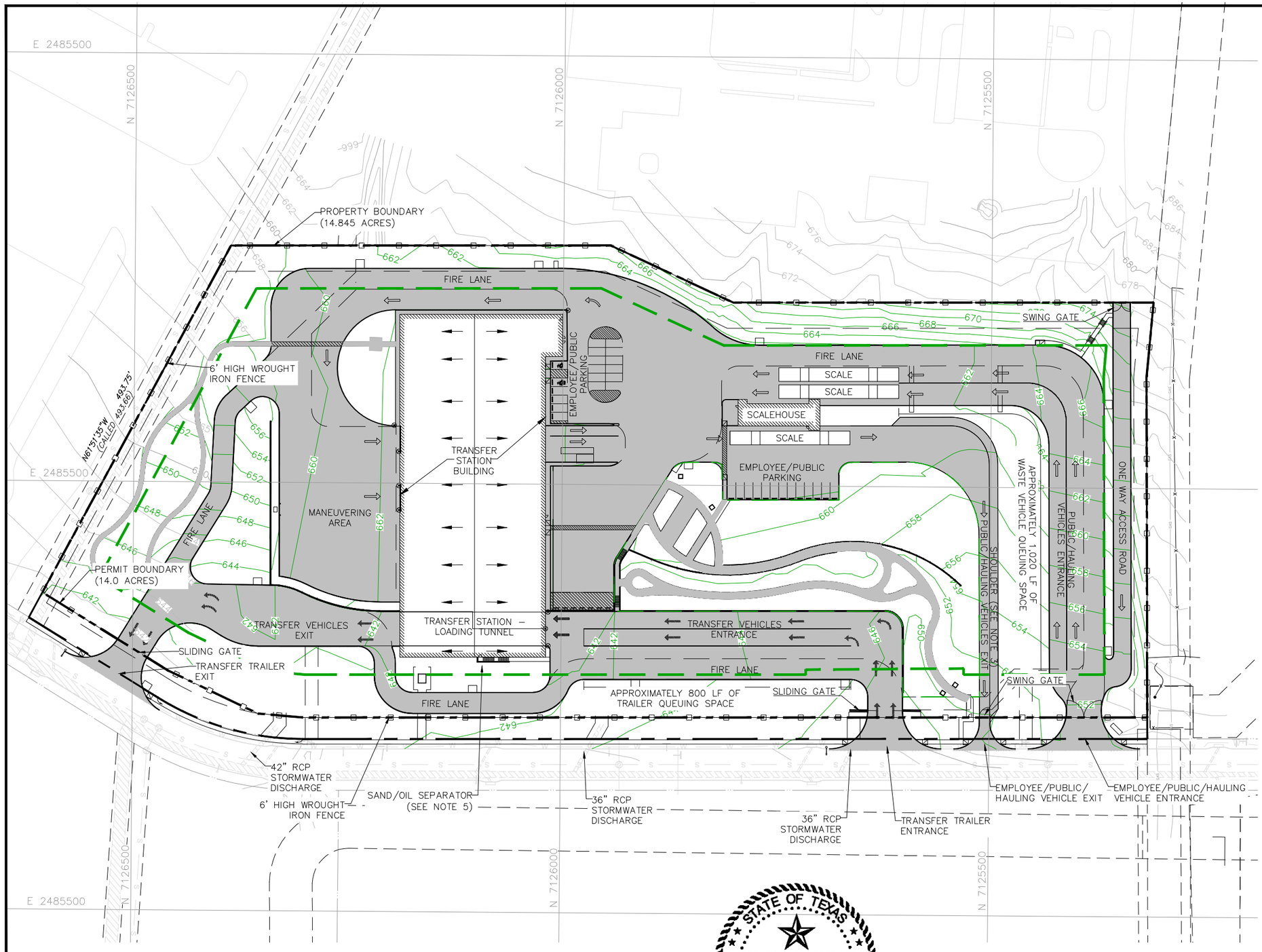
TRAFFIC STUDY
PUBLIC ROADS WITHIN ONE MILE

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 2-1

O:\1678\13\TYPE V APPLICATION\PARTS I-II\TTA\Fig. 2-1-Public Roads Within 1 Mile.dwg, vguzman, 1:2



0 60 120
SCALE IN FEET

LEGEND

- PROPERTY BOUNDARY (SEE NOTE 2)
- PERMIT BOUNDARY (SEE NOTE 2 AND 4)
- 672 EXISTING GROUND CONTOUR (SEE NOTE 1)
- 672 GRADING CONTOUR
- N 7018000 STATE PLANE COORDINATE SYSTEM
- PAVED AREA
- 6–FT WROUGHT IRON FENCE (SEE NOTE 4)
- 50–FOOT BUFFER LINE (SEE NOTE 11)
- TRANSFER VEHICLE TRAFFIC FLOW
- HAULING VEHICLE TRAFFIC FLOW
- ROOF SLOPE
- PROTECTION BOLLARDS (SEE NOTE 8)

NOTES:

1. EXISTING TOPOGRAPHIC MAP HAS BEEN PREPARED BY WEAVER CONSULTANTS GROUP (2024) AND IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 1983.
2. THE PROPERTY BOUNDARY LEGAL DESCRIPTION DATED MARCH 2024 WAS PREPARED BY WESTWOOD PROFESSIONAL SERVICES, INC. THE PERMIT BOUNDARY LEGAL DESCRIPTION DATED AUGUST 6, 2025, WAS PREPARED BY WEAVER CONSULTANTS GROUP.
3. THE SHOULDERS WILL BE ALL WEATHER SURFACED AS NEEDED AND MAY BE UTILIZED FOR VEHICLE PARKING. 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 WROUGHT IRON) MEETING THE REQUIREMENTS OF TITLE 30 TAC §330.223(C) WILL BE INSTALLED ALONG THE PERMIT BOUNDARY.
5. CONTAMINATED WATER FROM THE TRANSFER TRAILER LOADING TUNNEL DRAIN WILL BE COLLECTED AND DISCHARGED TO A SAND/OIL SEPARATOR BEFORE BEING DISCHARGED INTO THE CITY SANITARY SEWER LINE.
6. TRANSFER STATION WILL SERVE THE NORTH TEXAS MUNICIPAL WATER DISTRICT'S SOLID WASTE MEMBER CITIES (CURRENTLY CONSISTING OF ALLEN, FRISCO, MCKINNEY, PLANO, AND RICHARDSON).
7. PROTECTION BOLLARDS WILL BE INSTALLED AS NEEDED AT THE ENTRANCE, EXIT, ETC. LOCATIONS TO PROTECT STRUCTURES.
8. PORTABLE AND TEMPORARY LITTER CONTROL FENCING MAY BE PLACED AT VARIOUS LOCATIONS TO COLLECT LITTER AND WINDBLOWN WASTE.
9. SOUTHERNMOST FACILITY ENTRANCE WILL BE USED BY THE PUBLIC, EMPLOYEES, AND WASTE HAULING VEHICLES FOR DELIVERY. THESE VEHICLES LEAVE THE FACILITY FROM THE SOUTHERNMOST FACILITY EXIT. THE TRANSFER TRAILERS ENTER AND EXIT THE FACILITY BY THE NORTHERNMOST ENTRANCE AND EXIT.
10. STORAGE AND/OR TRANSFER OF SOLID WASTE WILL NOT OCCUR IN THE AREA BETWEEN THE PERMIT BOUNDARY AND THE BUFFER LINE.

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED PROFESSIONAL ENGINEER

10/09/2025 I/IIA-25

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DATE: 10/2025
FILE: 1678-013-11
CAD: 2-2-SITE PLAN.DWG

DRAWN BY: RAA
DESIGN BY: VG
REVIEWED BY: PME

Weaver Consultants Group
TBPE LICENSE NO. F-3727

PREPARED FOR
NORTH TEXAS MUNICIPAL WATER DISTRICT

REVISIONS		
NO.	DATE	DESCRIPTION

ENGINEERING STUDY SITE PLAN

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

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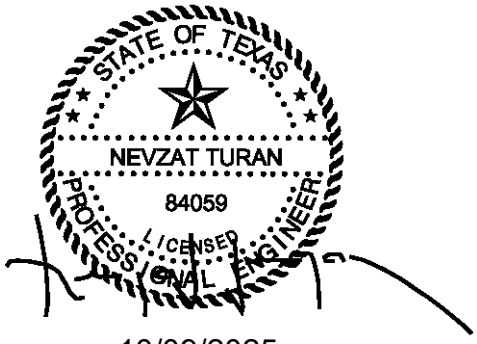
FIGURE 2-2

O:\1678\13\TYPE V APPLICATION\PARTS I-II\TTA\FIG 2-2-SITE LAYOUT.dwg, vguzman, 1:2

APPENDIX A

PROJECT SUMMARY AND SITE LOCATION MAPS



10/09/2025

Project Summary

Gateway Drive Transfer Station
North Texas Municipal Water District
Frisco, Collin County, Texas

Introduction

Weaver Consultants Group, LLC is preparing a Type V MSW Transfer Station Permit Application, on behalf of the North Texas Municipal Water District (District), to obtain the necessary permitting from Texas Commission on Environmental Quality (TCEQ) for the proposed Gateway Drive Transfer Station (TS). Gateway Drive TS will be a new municipal solid waste (MSW) transfer station in Frisco, Collin County, Texas, and it will be used to transfer MSW and recyclable materials from the District's Regional Solid Waste System Member Cities (currently consisting of Allen, Frisco, McKinney, Plano, and Richardson). The facility will be located east of Dallas North Tollway and south of PGA Parkway, accessible from the future southern extension of Gateway Drive. Note that PGA Parkway was previously known as Rockhill Parkway and is shown as such in Figures 1 and 2.

The proposed transfer station will provide the District the ability to consolidate smaller loads before shipment to permitted area landfills. The facility will have an estimated maximum MSW transfer capacity of 3,000 tons per day; however, it is expected that initial waste transfer rates will be significantly less. This summary provides an overview of the proposed 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

Gateway Drive TS will be owned and operated by the District. The District owns, operates, and provides non-hazardous waste transfer, recycling, and disposal services to the NTMWD Regional Solid Waste Member Cities, contractors, and self-haulers in proximity to the site.

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 Collin 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 site location on an aerial photograph.

The Gateway Drive TS will be accessed from Gateway Drive, approximately 800 feet south of the intersection of PGA Parkway and Gateway Drive.

Summary

The following information presents a summary of the proposed Gateway Drive TS design and operations:

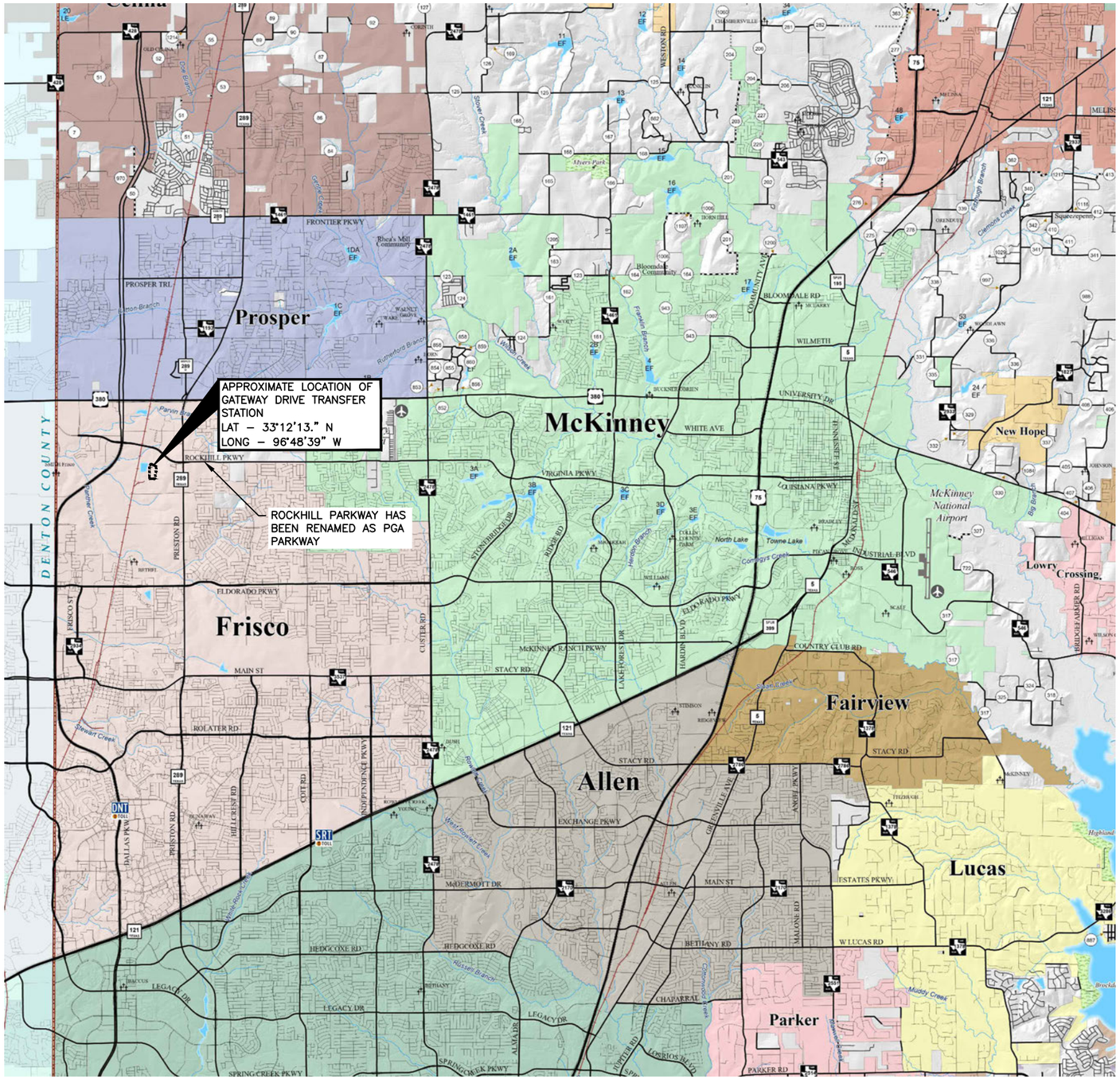
- Incoming loads will be weighed and directed to the waste unloading area for transfer operations. The waste collection vehicle unloading area will consist of a well-lit (overhead lighting) tipping floor where waste will be transferred from collection vehicles to transfer trailers. Waste transfer operations will occur completely within the building. Waste deposited on the tipping floor within the building will be pushed by front-end wheel loaders into top-loading transfer trailers and hauled to a TCEQ-permitted area landfill.

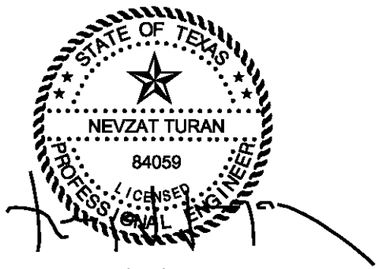
- The facility will accept municipal solid waste, construction and demolition wastes, special wastes, and non-hazardous industrial waste as permitted by the TCEQ.

- The facility will include a recycling and citizens' collection area within the transfer station building for citizens visiting the TS.

- Access to the TS will be provided via Gateway Drive, currently under construction. The existing roads will be capable of handling the projected traffic load associated with the proposed transfer station.

- Properly trained personnel will operate the transfer station, and the District will efficiently staff the facility based on the personnel needs to effectively serve the community. A TCEQ-approved site operating plan will be used as the governing document for the facility operations. The plan will provide details on the required equipment, personnel, and safety procedures necessary to operate the site in accordance with TCEQ regulations. The TCEQ will inspect the Gateway Drive TS on a regular basis to ensure the site is in compliance with state regulations.





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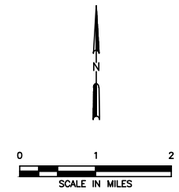

LEGEND

- PERMIT BOUNDARY
- Paved
- Rock
- Dirt
- Urban
- Private
- Cemetery
- Railroad
- Interstate
- US Highway
- State Highway
- Business
- Spur
- Farm to Market
- County Road
- Dallas North Tollway
- President George Bush Turnpike
- Sam Rayburn Tollway
- HOV Lane Access
- DART Rail Station
- Airport
- Floodwater Retarding Lake

NOTE:

1. ADAPTED FROM COLLIN COUNTY DATABASE (COLLINCOUNTYTX.GOV/MUNICIPALITIESROADS), MARCH 18, 2022.

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FILE: 1678-013-11
CAD: 1-SITE LOCATION MAP.DWG

DRAWN BY: RAA
DESIGN BY: VG
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
NORTH TEXAS MUNICIPAL WATER DISTRICT

REVISION NO.	DATE	DESCRIPTION

TYPE V PERMIT APPLICATION SITE LOCATION MAP

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

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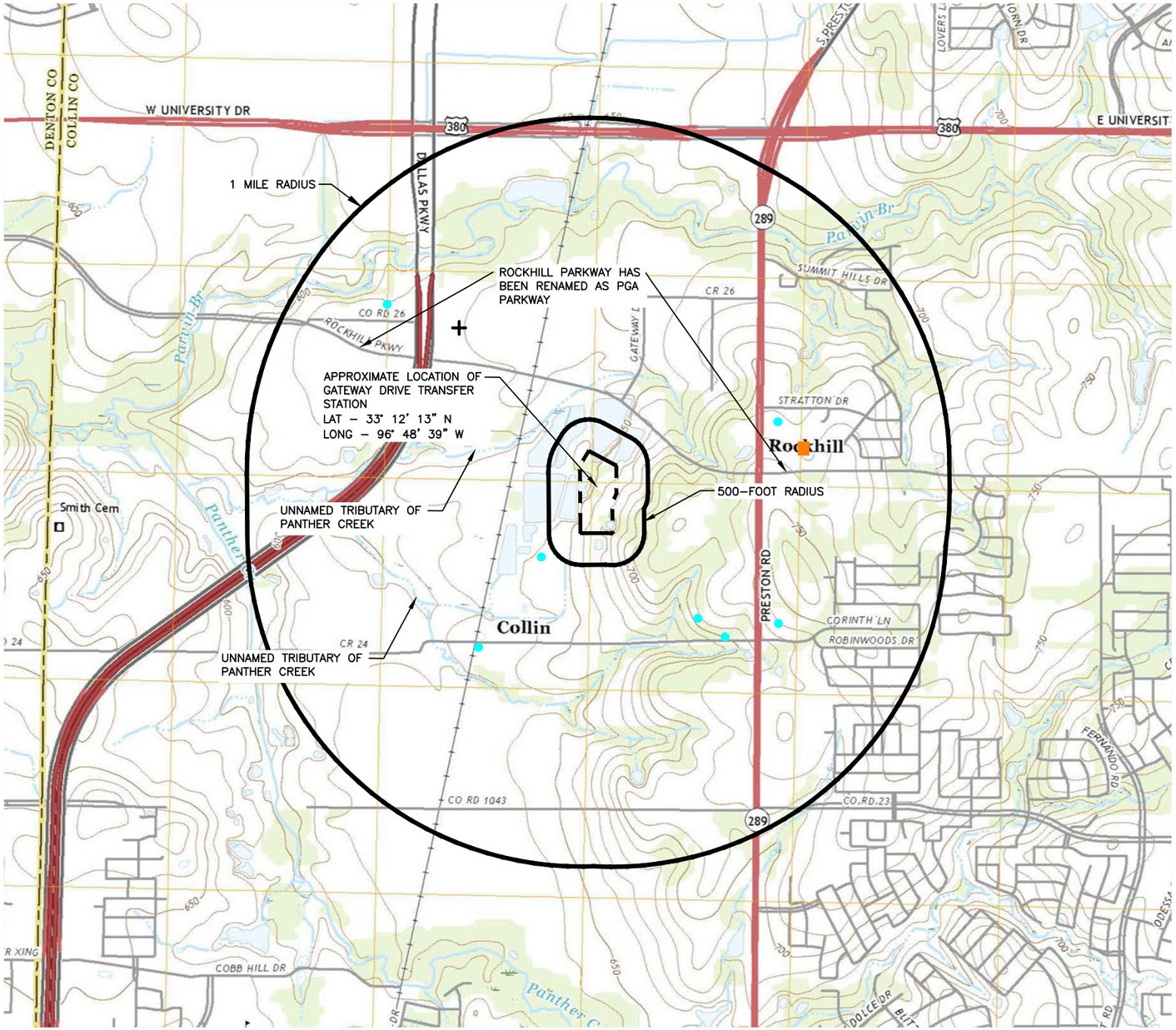
FIGURE 1

O:\1678\13\TYPE V APPLICATION\PARTS I-II\PROJECT SUMMARY\1-SITE LOCATION MAP.dwg, vgunman, 1:2



0 1000 2000
SCALE IN FEET

LEGEND

PERMIT BOUNDARY

ROAD CLASSIFICATION

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

CHURCH

R RECREATIONAL AREA

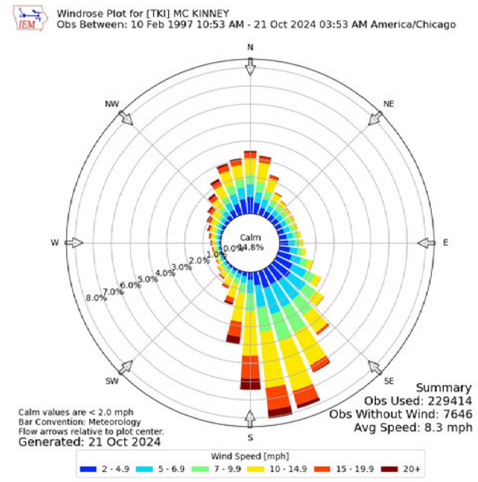
DAY–CARE FACILITY

SCHOOL

NP NATURE PRESERVE

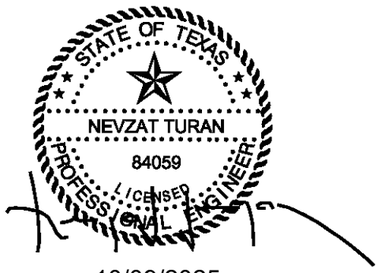
REGISTERED WATER WELL

HEALTH CLINIC



NOTES:

1. ADAPTED FROM THE USGS 7.5 MINUTE QUADRANGLE TOPOGRAPHIC MAPS (FRISCO, TX 2022).
2. THE WIND ROSE IS REPRODUCED FROM THE TEXAS AUTOMATED SURFACE OBSERVING SYSTEM (ASOS) AT THE (TK) MCKINNEY.
3. THE PROPERTY BOUNDARY WAS REPRODUCED FROM LEGAL DESCRIPTION DATED 03–05–2024 PREPARED BY WESTWOOD PROFESSIONAL SERVICES, INC.
4. THE SITE ACCESS ROADS WITHIN 1–MILE OF THE SITE ARE: GATEWAY DRIVE, PGA PARKWAY, ROCKHILL PARKWAY, DALLAS NORTH TOLLWAY, DALLAS PARKWAY, PRESTON ROAD (STATE HWY 289), AND U.S. HWY 380 (UNIVERSITY DRIVE).
5. THERE ARE NO KNOWN HEALTH CLINICS WITHIN 1–MILE, BUT THERE IS ONE HOSPITAL.
6. NO SPRINGS ARE LOCATED WITHIN THE 1–MILE RADIUS.
7. THERE ARE NO RECREATIONAL AREAS, SCHOOLS, ARCHAEOLOGICAL SITES/CEMETERIES, NATURE PRESERVES OR DAY–CARE FACILITIES WITHIN 1–MILE, BUT THERE IS 1 CHURCH.
8. REGISTERED WATER WELL LOCATIONS IDENTIFIED BY ERIS (2025).



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DATE: 10/2025
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CAD: FIG 2–TOPO MAP.DWG

DRAWN BY: RAA
DESIGN BY: VC
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F–3727

PREPARED FOR
NORTH TEXAS MUNICIPAL WATER DISTRICT

REVISION NO.	DATE	DESCRIPTION

TYPE V PERMIT APPLICATION GENERAL TOPOGRAPHIC MAP

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

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FIGURE 2

O:\1678\13\TYPE V APPLICATION\PARTS I–II\PROJECT SUMMARY\2–GENERAL TOPO MAP.dwg, vguzman, 1:2

N

0 200 400

SCALE IN FEET

LEGEND

PERMIT BOUNDARY

NOTE:

1. GEOREFERENCED IMAGERY SHOWN HEREON PROVIDED BY NEARMAP MAPBROWSER ONLINE DATABASE, DATED JUNE 28, 2025.
2. ALL STRUCTURES WITHIN 500 FEET ARE SHOWN ON THIS FIGURE. LAND USE WITHIN A 500 FOOT RADIUS OF THE SITE CONSISTS OF INDUSTRIAL AND AGRICULTURAL AREAS.
3. REFER TO APPENDIX I/IIB FOR ADDITIONAL WATER WELL INFORMATION.
4. A SEARCH TO IDENTIFY WATER WELLS WITHIN A 1–MILE RADIUS OF THE PERMIT BOUNDARY WAS COMPLETED BY ENVIRONMENTAL RISK INFORMATION SERVICES (ERIS) AND WCG IN APRIL 2025.

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED PROFESSIONAL ENGINEER

10/09/2025

0:\1678\13\TYPE V APPLICATION\PARTS I–II\PROJECT SUMMARY\3–AERIAL PHOTOGRAPH.dwg, vguzman, 1:2

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FILE: 1678–013–11
CAD: 3–AERIAL PHOTOGRAPH.DWG

DRAWN BY: RAA
DESIGN BY: VG
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F–3727

PREPARED FOR
NORTH TEXAS MUNICIPAL WATER DISTRICT

REVISION NO.	DATE	DESCRIPTION

TYPE V PERMIT APPLICATION AERIAL PHOTOGRAPH

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

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FIGURE 3

_____ TXDOT APPROVAL LETTER
(TO BE INSERTED UPON RECEIVING FROM TXDOT)

APPENDIX I/IIB

AREA WATER WELL INFORMATION
PERFORMED BY ERIS

Includes pages I/IIB-1 through I/IIB-75

TEXAS WATER WELL REPORT

Project Property:	*Gateway Drive* *No address on file - Gateway Drive* *Frisco TX*
Project No:	*1678-013-11-08*
Order No:	*25031700144*
Requested by:	*Weaver Consultants Group*
Date Completed:	*March 24, 2025*

Environmental Risk Information Services
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Table of Contents

Table of Contents.....2
Executive Summary.....3
Executive Summary: Report Summary.....4
Executive Summary: Site Report Summary - Project Property.....5
Executive Summary: Site Report Summary - Surrounding Properties.....6
Map.....7
Aerial.....10
Detail Report.....12
Appendix: Database Descriptions.....73
Definitions.....75

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Executive Summary

Property Information:

Project Property:	*Gateway Drive* *No address on file - Gateway Drive Frisco TX*
Project No:	*1678-013-11-08*
Coordinates:	
Latitude:	*33.20324309*
Longitude:	*-96.81095338*
UTM Northing:	*3,675,953.97*
UTM Easting:	*704,041.50*
UTM Zone:	*14S*
Target Property Geometry:	*POLYGON*
County/Parish Covered:	*Collin (TX)*
Zipcode(s) Covered:	*Frisco TX: 75033, 75035* *Prosper TX: 75078*
State(s) Covered:	*TX*

Executive Summary: Report Summary

Database	Searched	Project Property	Within 1.00mi	Total
Federal				
FED USGS	Y	0	0	0
State				
TCEQ WELL LOGS	Y	0	0	0
SDRW WELLS	Y	0	**3**	**3**
GWDB	Y	0	**5**	**5**
WW FORT BEND	Y	0	0	0
WW HIGH PLAINS	Y	0	0	0
WW HARRIS GAL	Y	0	0	0
WUD	Y	0	0	0
	Total:	0	**8**	**8**

**** PO – Property Only***

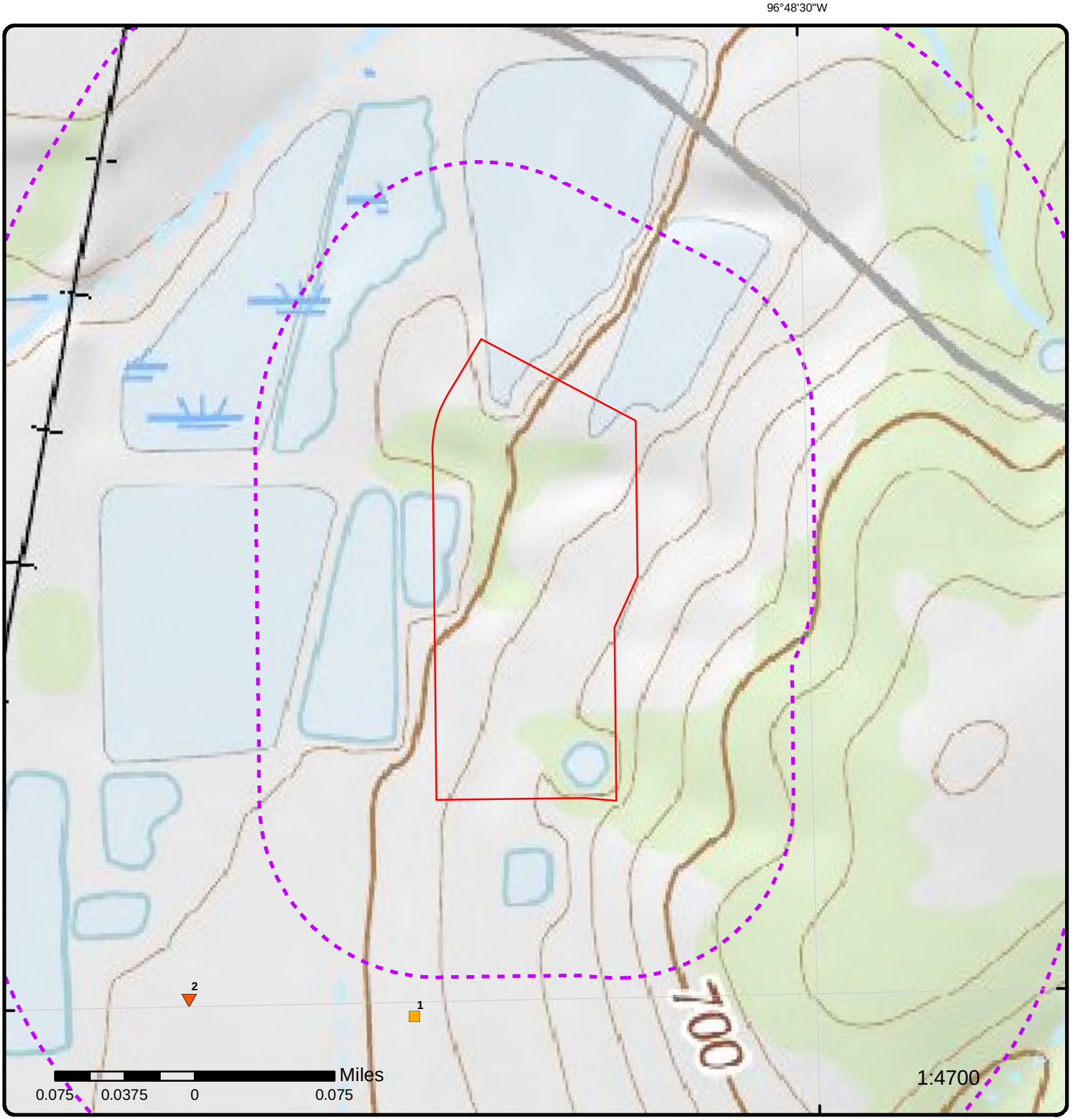
Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Page Number

No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Page Number
1	GWDB	Texas Power and Light	TX	SSW	0.12 / 616.35	12
			***State Well No** | **Owner Name:** 1850503 | Texas Power and Light*			
2	GWDB	Texas Power and Light Well No.3.	TX	SW	0.17 / 901.46	17
			***State Well No** | **Owner Name:** 1850504 | Texas Power and Light Well No.3.*			
3	GWDB	Texas Power and Light Well No.2.	TX	SE	0.34 / 1,820.75	27
			***State Well No** | **Owner Name:** 1850502 | Texas Power and Light Well No.2.*			
4	GWDB	Texas Power and Light Well No.4.	TX	SE	0.36 / 1,907.61	41
			***State Well No** | **Owner Name:** 1850505 | Texas Power and Light Well No.4.*			
5	GWDB	Texas Power and Light Well No.1.	TX	SW	0.43 / 2,274.55	53
			***State Well No** | **Owner Name:** 1850501 | Texas Power and Light Well No.1.*			
6	SDRW WELLS	Eugene Lochman	15550 Preston Road Frisco TX 75035	ENE	0.50 / 2,662.73	70
			***Track NO:** 405756*			
7	SDRW WELLS	Thomas Wilson	14400 N. Preston Rd. Frisco TX 75034	ESE	0.56 / 2,957.45	71
			***Track NO:** 58974*			
8	SDRW WELLS	MARIO SINACOLA CONST.	HWY 380 & CR 76 FRISCO TX 75034	NW	0.75 / 3,949.77	72
			***Track NO:** 90489*			



Map: 1.0 Mile Radius | Zoom Level: 3
Order Number: 25031700144
Address: No address on file - Gateway Drive, Frisco, TX

Plotted Water Wells

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Eris Areas with Higher Elevation
- Eris Areas with Same Elevation
- Eris Areas with Lower Elevation
- Eris Areas with Unknown Elevation

Source: © US Geological Survey
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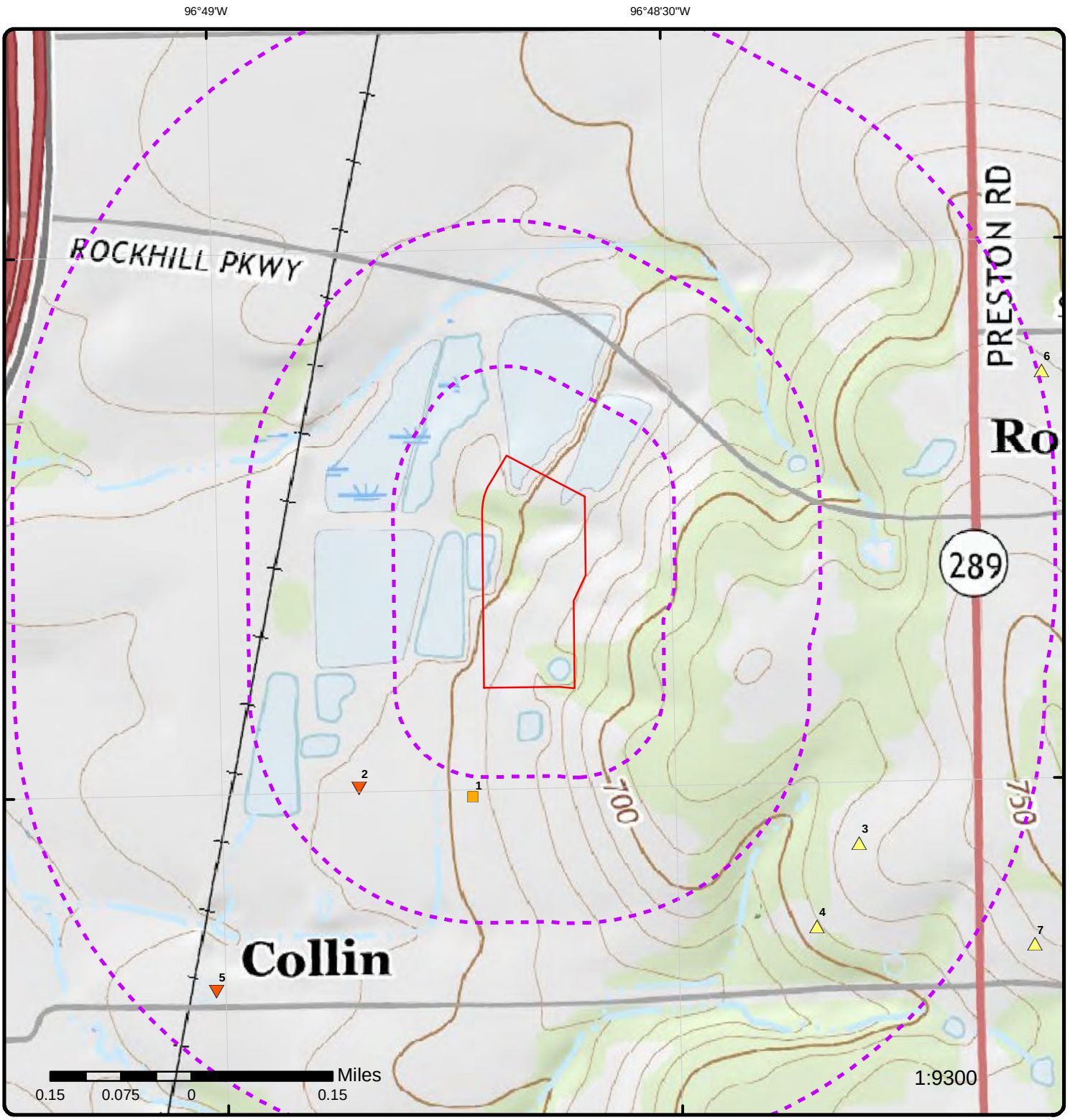
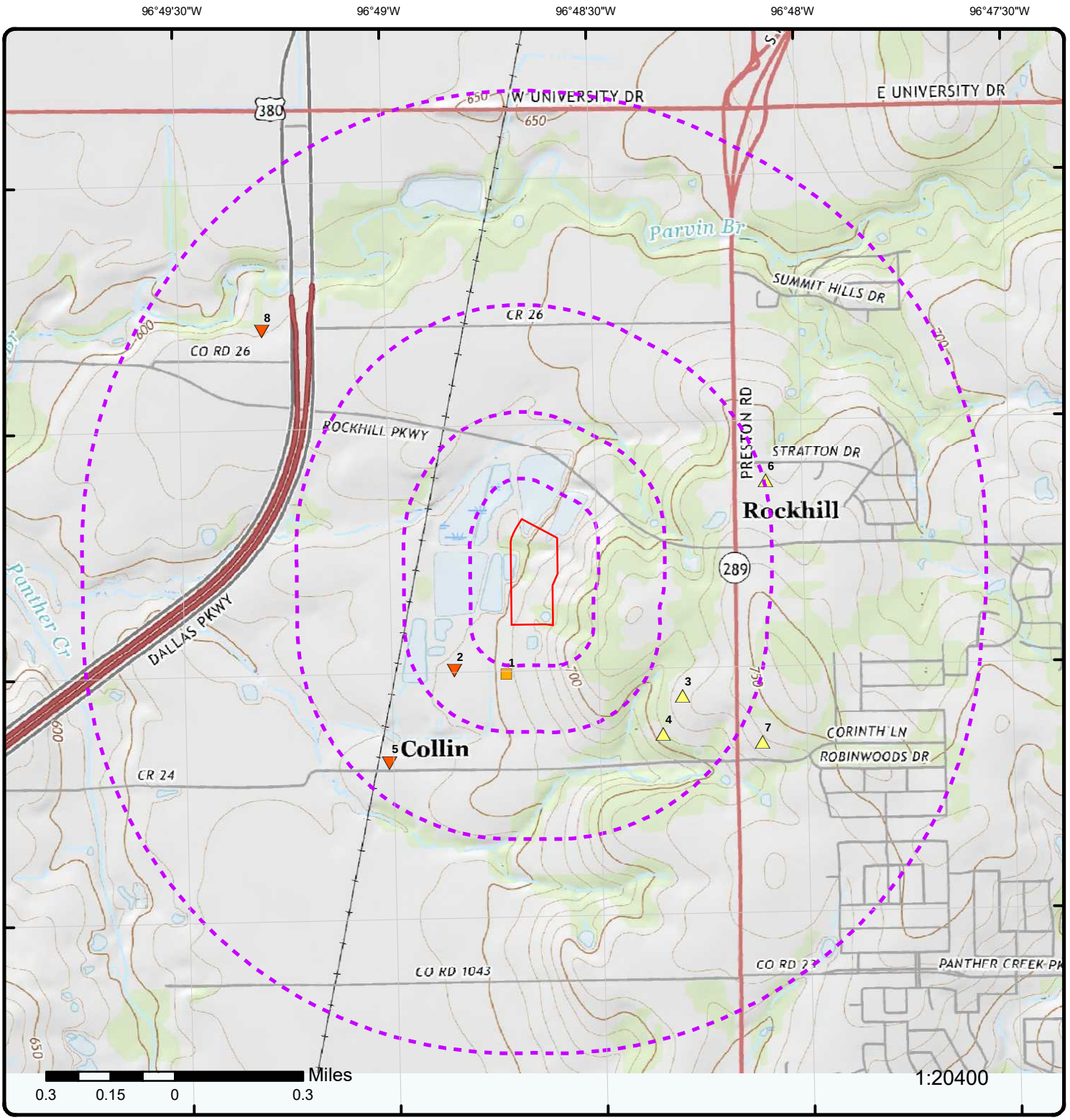


Map: 1.0 Mile Radius | Zoom Level: 2
Order Number: 25031700144
Address: No address on file - Gateway Drive, Frisco, TX

Plotted Water Wells

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Eris Areas with Higher Elevation
- Eris Areas with Same Elevation
- Eris Areas with Lower Elevation
- Eris Areas with Unknown Elevation

Source: © US Geological Survey
© ERIS Information Inc.



Map: 1.0 Mile Radius | Zoom Level: 1
Order Number: 25031700144
Address: No address on file - Gateway Drive, Frisco, TX

ERIS

Plotted Water Wells

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Eris Areas with Higher Elevation
- Eris Areas with Same Elevation
- Eris Areas with Lower Elevation
- Eris Areas with Unknown Elevation

Source: © US Geological Survey
© ERIS Information Inc.

Aerial **Year: 2022**

Order Number: 25031700144

Address: No address on file - Gateway Drive, Frisco, TX

I/IIB-11

Source: ESRI World Imagery

© ERIS Information Inc.

Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
1	1 of 1	SSW	0.12 / 616.35	Texas Power and Light TX	GWDB

Well Rep Track No:	
State Well No:	1850503
Owner Name:	Texas Power and Light
Drilling Start Dt:	
Drilling Month:	10
Drilling Day:	10
Drilling Year:	1954
Well Depth:	2230
Well Usage:	Industrial
Water Level Status:	
Latitude:	33.2038890
Longitude:	-96.8111120
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=1850503&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=1850503&Cnty=Collin

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer Glen Rose Field No. Disposal #1 State Well No. 18-50-503

Owner's Well No. County COLLIN

1. Location: 1/4, 1/4 Sec., Block, Survey

2. Owner: T. P. & L. Co. Address:

Tenant: Address:

Driller: Layne-Texas Co. Address:

3. Elevation of GS is 650 ft. above msl, determined by TOPO

4. Drilled: 10-10 19 54; Dug, Cable Tool, (Rotary)

5. Depth: Rept. 2230 ft. Meas. 2211 ft. Sounded 5-23-72

6. Completion: Open Hole, Straight Wall, (Underreamed) (Gravel Packed)

7. Pump: Mfgr. Type

No. Stages, Bowls Diam. in., Setting ft.

Column Diam. in., Length Tailpipe ft.

8. Motor: Fuel Make & Model HP.

9. Yield: Flow gpm, Pump 300 gpm, Meas., Rept., Est. 11-23-54

* 10. Performance Test: Date 11-23-54 Length of Test Made by USGS

Static Level 142 ft. Pumping Level 477 ft. Drawdown 335 ft.

Production 300 gpm Specific Capacity gpm/ft.

CASING & BLANK PIPE

Cemented From ft. to ft.

Diam. (in.)	Type	Setting, ft. from	to
13 3/8	steel	+2	1870
8 5/8	Liner	1745	2225
20	steel	0	43

11. Water Level: 142 ft. (rept) meas. 11-23 19 54 above below which is ft. above below surface.

137 ft. (rept) meas. 1-3 19 55 above below which is ft. above below surface.

ft. rept. meas. 19 above below which is ft. above below surface.

ft. rept. meas. 19 above below which is ft. above below surface.

12. Use: Dom., Stock, Public Supply, (Ind), Irr., Waterflooding, Observation, Not Used, disposal well

13. Quality: (Remarks on taste, odor, color, etc.)

Temp. 96 °F, Date sampled for analysis 11-24-54 Laboratory USGS

Temp. °F, Date sampled for analysis Laboratory

Temp. °F, Date sampled for analysis Laboratory

14. Other data available as circled: (Driller's Log) Radioactivity Log, (Electric Log)

Formation Samples, (Pumping Test) T-457 (7-31-63)

15. Record by: P. L. NORDSTROM Date 3-18 19 76

Source of Data USGS; Layne Texas

16. Remarks: casing reworked by L-T on 8-9-63

WELL SCREEN

Screen Openings #7 ga

Diam. (in.)	Type	Setting, ft. from	to
8 5/8	S.S. Shutter screen	1875	1885
8 5/8	"	1891 2018	1921 2028
8 5/8	"	2035 2088	2055 2100
8 5/8	"	2113 2199	2185 2219

* 1-3-55 137' swl 476' pl 305 gpm

7-31-63 pl 496' 200 gpm 3 hr. Sp. Cap. = 0.67

TWDBE-WD-2 (Sketch) 18-50-503

Formation	Thickness	Depth
Clay	13	13
Shale	497	510
Sandy shale & Shale	196	706
Shale	121	827
Shale and lime	303	1130
Lime and shale	256	1386
Hard sandy shale	12	1398
Shale and sand	32	1430
Sandy shale	134	1564
Shale and sand layers	37	1601
Shale	39	1640
Sandy shale	100	1740
Lime and shale	158	1898
Sand, lime & shale	30	1918
Lime, sand & shale breaks	17	1935
Hard shale and lime	53	1988
Lime,shale & anhydrite	76	2064
Sandy shale	14	2078
Red shale	14	2092
Sandy shale	13	2105
Sand & shale breaks	114	2219
Shale	16	2235

m GW-1

TEXAS BOARD OF WATER ENGINEERS

GROUND-WATER DIVISION

WELL SCHEDULE

Date 6-2, 1960 Field No.

Record by RWN Office No. DT1850503

Source of data Plant Supt. Mr. Eaton + Obs.

1. Location: County Collin

Map 3¼ NNE Frisco (WC)

Survey

2. Owner: Texas Power & Light Co. Address Disposal Well #1

Tenant Address

Driller Address

3. Topography: 650? + above MSL

4. Elevation above below

5. Type: Dug, drilled, driven, bored, jetted 1954

6. Depth: Rept. 2230 ft. Meas. ft.

7. Casing: Diam. in., to in., Type

Depth ft., Finish Screen: 1870 to 2230

8. ~~Chief Aquifer~~: Disposal in Glen Rose From ft. to ft.

Others

-142 feet 7-27 1934

9. Water level: ft. rept. meas. 19 above below

which is ft. above below surface

10. Pump: Type Capacity gpm

Power: Kind Horsepower

11. Yield: Flow gpm, Pump gpm, Meas., Rept. Est.

Drawdown ft. after hours pumping gpm

12. ~~Use~~ Irr. Ind. Disposal Well

Adequacy, permanence

13. Quality:

Temp. °F Sample Yes No 1954

14. Log: Yes No E-Log in plant files

15. Remarks: Disposal Well #1

DT1850503

Collin g

(January 1950) UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

Disposal Well No. 1

ANALYTICAL STATEMENT

[Parts per million]

COLLIN COUNTY

Location 2 mi. NE of Frisco. Tex. Power & Light, Dallas
Source
Depth: 2230'. Drilled well. WBP: Glen Rose. Collected at end of discharge. Screened from 1870 to 2230. WL: 142' below lsd. Yield: 300. GM Pump 11-23-54. App: turbid. Pumping level: 477'. This is not the same well as sampled in March 1954.
"Trinity"

Chemist H. B. Mendieta
Lab. No. 47079
Collector Chris Card

Date of collection November 24, 1954
Use industrial

Temperature (°F)	95.5
Color 0 pH	7.6
Suspended matter	
Hardness as $CaCO_3$	
N. C. 0 Total	93
Ignition loss	66
Dissolved solids	1,840
Specific conductance at 25°C (micromhos)	2,670
Boron (B)	1.1
Mn	0.02
Fe (total)	0.78
PO_4	0.89

KEY PUNCHED

SiO_2	16
Fe	0.03
Ca	23
Mg	8.6
Na	607
K	3.7
CO_3	0
HCO_3	485
SO_4	894
Cl	46
F	3.6
NO_3	0.0
Sum	1,840

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
2	1 of 1	SW	0.17 / 901.46	Texas Power and Light Well No.3. TX	GWDB

Well Rep Track No:	
State Well No:	1850504
Owner Name:	Texas Power and Light Well No.3.
Drilling Start Dt:	
Drilling Month:	6
Drilling Day:	8
Drilling Year:	1973
Well Depth:	1710
Well Usage:	Industrial
Water Level Status:	
Latitude:	33.2005560
Longitude:	-96.8138890
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=1850504&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=1850504&Cnty=Collin

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer Paluxy | Field No. | State Well No. 18-50-504

Owner's Well No. 3 | County Collin

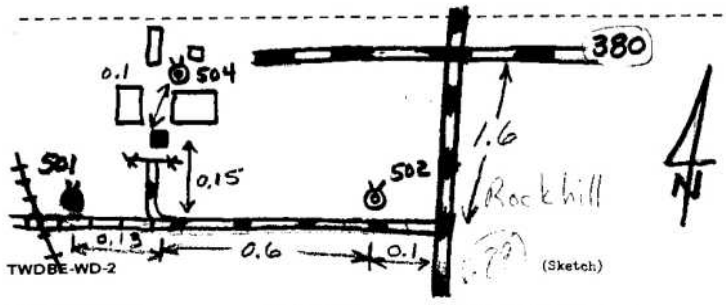
1. Location: 1/4, 1/4 Sec. , Block , Survey
@ FRISCO Field 1 mile W HWY 289 — 1.5 mi S. Hwy 380
2. Owner: T.P. & L. Co. Address: Box 6331, Dallas
Tenant: Address: P.O. Box A, FRISCO
Driller: LAYNE-TEXAS Co. Address: 75034
3. Elevation of LS is 640 ft. above msl, determined by TOPO
4. Drilled: 6-8 1973; Dug, Cable Tool (Rotary)
5. Depth: Rept. 1710 ft. Meas. ft.
6. Completion: Open Hole, Straight Wall, (Underreamed), (Gravel Packed)
7. Pump: Mfgr. Layne Type TURBINE
No. Stages 25, Bowls Diam. 8 in., Setting 664 ft.
Column Diam. 6 in., Length Tailpipe 10 ft.
8. Motor: Fuel ELECT Make & Model GE HP. 75
9. Yield: Flow gpm, Pump 2000 gpm (Meas.), (Rept.), Est. TP&L use - Flo meter 3-18-76
10. Performance Test: Date 7-26-73 Length of Test 24 hr. Made by L-T
Static Level 325 ft. Pumping Level 563 ft. Drawdown 238 ft.
Production 2338 gpm Specific Capacity 1.0 gpm/ft.
11. Water Level: 325 ft. (rept.) meas. 7-25 1973 above below ground level which is ft. above below surface.
PL 480 ft. (rept.) meas. 3-18 1976 above below airline which is ft. above below surface.
ft. rept. meas. 19 above below which is ft. above below surface.
ft. rept. meas. 19 above below which is ft. above below surface.
12. Use: Dom., Stock, Public Supply, (Ind.), Irr., Waterflooding, Observation, Not Used,
13. Quality: (Remarks on taste, odor, color, etc.)
Temp. — °F, Date sampled for analysis 8-1-73 Laboratory Edna Wood
Temp. °F, Date sampled for analysis Laboratory
Temp. °F, Date sampled for analysis Laboratory
14. Other data available as circled: (Driller's Log) Radioactivity Log (Electric Log) Q14
Formation Samples, (Pumping Test)
15. Record by: P.NORDSTROM Date 3-18 1976
Source of Data TP&L, obs, driller
16. Remarks: airline @ 650'

CASING & BLANK PIPE
Cemented From 0 ft. to 1323 ft.

Diam. (in.)	Type	Setting, ft. From	to
10 3/4	steel	+2	1323
6 5/8	"	1223	1710

WELL SCREEN
Screen Openings 0 40

Diam. (in.)	Type	Setting, ft. from	to
6 7/8	S.S. WW Ribbed Screen	1333	1378
		1393	1418
		1460	1504
		1509	1524
		1542	1557
		1590	1600
		1612	1631
		1695	1652



4

Q-14

18-50-504

Send original copy by certified mail to the Texas Water Development Board P. O. Box 12386 Austin, Texas 78711

State of Texas

WATER WELL REPORT

For TWDB use only
Well No. 18-50-5F
Located on map Yes
Received 2-7

1) OWNER:
Person having well drilled Texas Pump & Light (Name) Address C.O. Box 6331 (Street or RFD) Dallas (City) Texas (State)

Landowner (Name) Address (Street or RFD) (City) (State)

2) LOCATION OF WELL:
County Collin, miles in (N.E., S.W., etc.) direction from (Town)

Locate by sketch map showing landmarks, roads, creeks, hiway number, etc.*

See attached map

North

(Use reverse side if necessary)

or

Give legal location with distances and directions from adjacent sections or survey lines.

Labor League

Block Survey

Abstract No.

(NW¼ NE¼ SW¼ SE¼) of Section

3) TYPE OF WORK (Check): New Well, Deepening, Reconditioning, Plugging

4) PROPOSED USE (Check): Domestic, Industrial, Municipal, Irrigation, Test Well, Other

5) TYPE OF WELL (Check): Rotary, Driven, Dug, Cable, Jetted, Bored

6) WELL LOG:
Diameter of hole in. Depth drilled ft. Depth of completed well ft. Date drilled

All measurements made from ft. above ground level.

From (ft.)	To (ft.)	Description and color of formation material
		See attached Completion report

(Use reverse side if necessary)

9) Casing:
Type: Old, New, Steel, Plastic, Other

Cemented from ft. to ft.

Diameter (inches)	Setting From (ft.)	Setting To (ft.)	Gage

10) SCREEN:
Type

Perforated, Slotted

Diameter (inches)	Setting From (ft.)	Setting To (ft.)	Slot Size

7) COMPLETION (Check): Straight wall, Gravel packed, Other, Under reamed, Open Hole

8) WATER LEVEL:
Static level ft. below land surface Date

Artesian pressure lbs. per square inch Date

Depth to pump bowls, cylinder, jet, etc., ft. below land surface.

11) WELL TESTS:
Was a pump test made? Yes No If yes, by whom?

Yield: gpm with ft. drawdown after hrs.

Bailer test gpm with ft. drawdown after hrs.

Artesian flow gpm

Temperature of water

12) WATER QUALITY:
Was a chemical analysis made? Yes No

Did any strata contain undesirable water? Yes No

Type of water? depth of strata

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.

NAME GASTON L. ALCIATORE (Type or Print) Water Well Drillers Registration No. 1201

ADDRESS P.O. Box 9465 (Street or RFD) Houston (City) 77001 (State)

(Signed) GASTON (GAS) ALCIATORE (Water Well Driller) Layne Texas Co. (Company Name)

DB
Please attach electric log, chemical analysis, and other pertinent information, if available. 18-50-504

DT

*Additional instructions on reverse side.

E-14

TWDBE-GW-53

FORM NO. 28. Stubb

18-50-5F

LAYNE TEXAS COMPANY,
HOUSTON -:- DALLAS

WELL LOG

REPORT NO. 9087
S. O. 1204-2892
PAGE 1 of 1
FILE NO. 3673
DATE 6/11/73

CUSTOMER LOCATION

FOR Texas Power & Light Company

LOCATION WELL 1 Mi. W. of Hwy. 289 & 1½ Mi. S. of Hwy. 380

SURVEY FIELD Frisco

COUNTY Collins STATE Texas

OTHER LAND MARKS

WELL DATA

NAME WELL WELL NO. 3
ELEVATION 640' DATUM
RT C GR
TEST HOLE SIZE 9-7/8" TD 1710'
DATE STARTED DRILLING 5-31-73
DATE FINISHED DRILLING 6- 8-73
DRILLER Williams RIG NO. 3
TYPE MUD Gel NO. SACKS 25
ELECTRIC LOG Yes TYPE Schlumberger
SURVEY Eastman TYPE Single shot
OTHER drillers: Rogers & Reynolds

DEPTH STRATA	EACH STRATUM	DESCRIPTION FORMATION	SAMPLES DEPTH	SAMPLES TYPE	SAMPLES NUMBER
0		Surface			
32'	32'	Clay			
473'	441'	Shale			
495'	22'	Sandy shale			
518'	23'	Shale			
548'	30'	Sand			
746'	198'	Shale			
763'	17'	Shale & sand			
1004'	241'	Shale			
1121'	117'	Lime & shale			
1201'	80'	Shale			
1273'	72'	Lime			
1334'	61'	Shale			
1360'	26'	Sand			
1455'	95'	Shale			
1527'	72'	Sand			
1600'	73'	Sand & shale streaks			
1669'	69'	Sand & shale			
1710'	41'	Shale			

Total depth 1710 ft.

DT
~~FD~~ 18-50-504

FORM NO. 1303 - 1M - 8-51 - BSL

THE LAYNE TEXAS COMPANY, LTD.

HOUSTON -:- DALLAS

REPORT NO. 9089
S. O. 1204-2892
PAGE 1 OF 1
FILE NO. 3673
DATE 9/4/73

MATERIAL SETTING

CUSTOMER LOCATION

FOR Texas Power & Light Company

LOCATION WELL 1 Mi. W. of Hwy. 289 & 1½ Mi. S. of Hwy. 380

SURVEY FIELD

COUNTY Collin STATE Texas

OTHER LAND MARKS

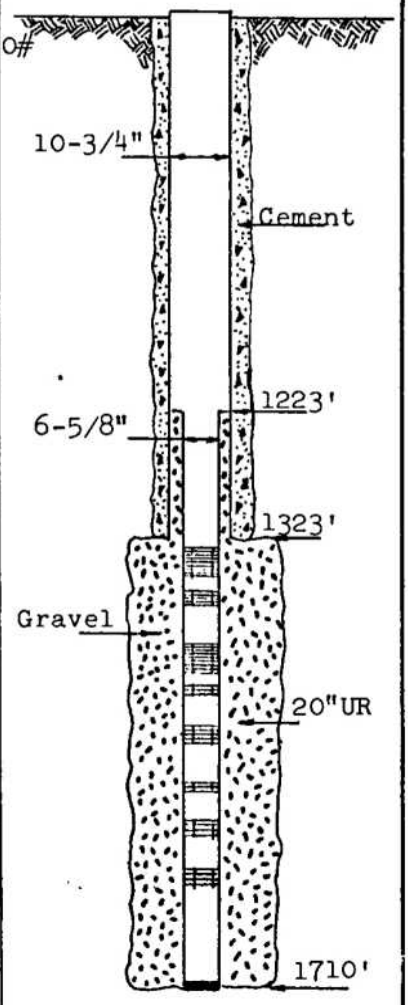
WELL DATA

NAME WELL WELL NO. 3
ELEVATION DATUM
TYPE WELL Gravel-wall
SURFACE CASING CEMENTED Yes NO. SACKS 365+8% Gel
SIZE HOLE UNDERREAMED 20" DEPTH 1323-1710'
GRAVEL TYPE 112-113-165-131 NO. CU. YDS. 60
TYPE SCREEN SS WW Ribbed GAGE .040"
DRILLER J.Williams RIG NO. 3
OTHER Reynolds & Rogers

DEPTH	LENGTH	SIZE, KIND, WEIGHT MATERIAL
+2'		10-3/4" O.D. surface casing 31.20#
0		Surface
1223'		Top of 6-5/8" O.D. liner
1323'	1325'	10-3/4" O.D. surface casing 31.20#
1333'	110'	6-5/8" O.D. blank liner 18.97#
1378'	45'	6-5/8" O.D. S.S. W.W. Ribbed screen .040" ga.
1393'	15'	6-5/8" O.D. blank liner 18.97#
1418'	25'	6-5/8" O.D. S.S. W.W. Ribbed screen .040" ga.
1460'	42'	6-5/8" O.D. blank liner 18.97#
1504'	44'	6-5/8" O.D. S.S. W.W. Ribbed screen .040" ga.
1509'	5'	6-5/8" O.D. blank liner 18.97#
1524'	15'	6-5/8" O.D. S.S. W.W. Ribbed screen .040" ga.
1542'	18'	6-5/8" O.D. blank liner 18.97#
1567'	25'	6-5/8" O.D. S.S. W.W. Ribbed screen .040" ga.
1590'	23'	6-5/8" O.D. blank liner 18.97#
1600'	10'	6-5/8" O.D. S.S. W.W. Ribbed screen .040" ga.
1612'	12'	6-5/8" O.D. blank liner 18.97#
1631'	19'	6-5/8" O.D. S.S. W.W. Ribbed screen .040" ga.
1635'	4'	6-5/8" O.D. blank liner 18.97#
1652'	17'	6-5/8" O.D. S.S. W.W. Ribbed screen .040" ga.
1708'	56'	6-5/8" O.D. blank liner 18.97#
1710'	2'	6-5/8" O.D. set nipple & back pressure valve

DT
Ed 18-50-504

SKETCH



LAYNE TEXAS COMPANY
HOUSTON -:- DALLAS

WATER WELL TEST

REPORT NO. 9088
S. O. 1204-2892
PAGE 1 of 3
FILE NO. 3673
DATE 8-10-73

CUSTOMER LOCATION
TEST FOR Texas Power & Light Co.
LOCATION OF WELL 1 mi. W. of Hwy. 289 & 1½ mi. S. of Hwy. 380
SURVEY FIELD
COUNTY Collins STATE Texas
DESCRIPTION OF LAND MARKS

WELL DATA
NAME WELL WELL NO. 3
ELEVATION 640' DATUM
WELL SIZE 10 3/4" 6 5/8" x 24" U.R.
TOTAL DEPTH 1710' TOP SCREEN 1333'-1378'
GRAVEL WELL yes STRAIGHT WELL
TYPE SCREEN S.S.W.W. Ribbed GAGE .040
TEMPERATURE OF WATER
WATER CONDITION Clear

WATER MEASURING DEVICE
ORIFICE SIZE 6" x 4" LENGTH 4'
OTHER

TEST PUMP DATA
DEPTH SETTING TOP OF BOWL 585'
LENGTH AIR LINE 585' SIZE ¼"
TYPE BOWL THC 10" NO. STAGES 11
LENGTH BOWL SUCTION LT.

SAND CONTENT 0 OZ. PER 100 GAL.
WATER SAMPLE TAKEN yes NO. SAMPLES 1
BACTERIOLOGICAL SAMPLE TAKEN
DRAWDOWN SPECIFIC CAPACITY

ACTIVE STATIC HEAD AFTER PUMP STOPPED
5 MIN. 447' FT. 20 MIN. 427 FT.
10 MIN. 439 FT. 25 MIN. 422 FT.
15 MIN. 433 FT. 30 MIN. 418 FT.

S.L. Before Start 325'

DATE HOUR	AIR LINE GAGE	PUMPING LEVEL	DISCH. PRESS.	HEAD ON ORIFICE INCHES	GPM	RPM	OPERATOR	REMARKS
7-25-73								
7:30 AM				23"		S.L. Before Start 325'		
8:30		555'		23"	305			
9:30		565'		22½"	302			
10:30		570'		22½"	302			
11:30		573'		19½"	282			
12:30 PM		575'		18½"	275			
1:30		575'		18"	271			
2:30		578'		17"	264			

2-HOUR RECOVERY

Time	Depth	Time	Depth
2:35 PM	424'	3:30 PM	375'
2:40	413'	3:40	369'
2:45	406'	3:50	366'
2:50	401'	4:00	362'
2:55	395'	4:10	360'
3:00	390'	4:20	357'
3:10	383'	4:30	354'
3:20	378'		

323
238
561

OBSERVERS

FOR OWNER

FD 18-50-504
DT
FOR LAYNE TEXAS CO..

FORM NO. 25 -

LAYNE TEXAS COMPANY

Water Well Test

For: Texas Power & Light Co.
Collins County, Texas
Well No. 3
Report No. 9088

S.O. 1204-2892
Page 2 of 3
File No. 3673
Date: 8-10-73

Date	Airline Gage	Pumping Level	Head On Orf. In.	G.P.M.	Remarks
		STARTED 7-HOUR TEST			
	8:00 PM	553'		302	
	9:00	563'		302	
	10:00	567'		292	
	11:00	575'		292	
	12:00 MN	583'		299	
	1:00 AM	576'		285	
	2:00	580'		285	
	3:00 Shut Down	582'		285	
7-26-73		STARTED 24-HOUR TEST			
	7:30 AM	529'	21"	292	
	8:00	539'	20"	285	
	8:30	543'	18"	271	
	9:00	548'	17"	264	
	9:30	549'	17"	264	
	10:00	553'	17"	264	
	10:30	555'	16½"	261	
	11:00	556'	16½"	261	
	11:30	555'	15½"	254	
	12:00 Noon	555'	15½"	254	
	12:30 PM	557'	15"	250	
	1:00	559'	15"	250	
	1:30	559'	15"	250	
	2:00	557'	14"	243	
	2:30	557'	14"	243	
	3:00	560'	14"	243	
	3:30	559'	14"	243	
	4:00	559'	13½"	239	
	4:30	559'	13½"	239	
	5:00	559'	13½"	239	
	5:30	559'	13½"	239	
	6:00	559'	13½"	239	
	6:30	559'	13½"	239	
	7:00	562'	13½"	239	
	7:30	562'	13½"	239	
	8:00	562'	13½"	239	
	8:30	563'	13½"	239	
	9:00	563'	13½"	239	
	9:30	563'	13½"	239	
	10:00	564'	13½"	239	

DT
TD 18-50-504

Layne Texas Company

Water Well Test

For: Texas Power & Light Co.
Collins County, Texas
Well No. 3
Report No. 9088

S.O. 1204-2892
Page 3 of 3
File No. 3673
Date: 8-10-73

Date	Airline Gage	Pumping Level	Head On Orf. In.	GPM	Remarks
7-26-73					
10:30 PM		564'	13½"	239	
11:00		564'	13½"	239	
11:30		565'	13"	234	
12:00 MN		566'	13"	234	
12:30 AM		566'	13"	234	
1:00		566'	13"	234	
1:30		566'	13"	234	
2:00		567'	13"	234	
2:30		568'	13"	234	
3:00		571'	13"	234	
3:30		570'	13½"	239	
4:00		569'	13½"	239	
4:30		569'	13½"	235	
5:00		569'	13"	234	
5:30		569'	12½"	230	
6:00		569'	13"	234	
6:30		569'	13"	234	
7:00		569'	13"	234	

569
325
244

4-HOUR RECOVERY

Time	Airline Gage	Static Level
7:05 AM	138	447'
7:10	146	439'
7:15	152	433'
7:20	158	427'
7:25	163	422'
7:30	167	418'
7:40	174	411'
7:50	180	405'
8:00	183	402'
8:10	187	398'
8:20	192	393'
8:30	195	390'
8:40	198	387'
8:50	201	384'
9:00	204	381'
9:10	206	379'
9:20	208	377'
9:30 AM	210	375'
9:40	212	373'
9:50	214	371'
10:00	216	369'
10:10	218	367'
10:20	219	366'
10:30	220	365'
10:40	222	363'
10:50	224	361'
11:00	225	360'

DT
~~FD~~ 18-50-504

EDNA WOOD LABORATORY INC.

WATER TECHNOLOGISTS . . CHEMISTS . . MICROBIOLOGISTS

3 August 1973

To: Layne Texas Company
Houston, Texas

SO #1204-2892

Sample marked: Well No. 3, sample #1, Texas Power & Light Plantsite, Collin County, Texas. Taken after 24 hours pumping at 234 gpm with Layne pump. Static Head: 439' Pumping Level: 569' Screened: 1333 - 1652'. Clear - J. B. Williams

Received: 8-1-73 Completed well

WATER ANALYSIS

results in parts per million (mg/l) except as noted

Dissolved Residue at 350°C		789	Conductance, micromhos/cm, 25°C	1270
Total Dissolved Solids, actual†		1113	Color, units	3
Total Dissolved Solids, calc.		1131	Turbidity, units	1
Silica	SiO_2	13	As Calcium Carbonate, $CaCO_3$:	
Calcium	Ca	2	Phenolphthalein Alkalinity	18
Magnesium	Mg	< 0.5	Total Alkalinity	558
Sodium (diff.) Na + K as	Na	323	Total Hardness	6
Carbonate	CO_3	22	Free Carbon Dioxide CO_2	0
Bicarbonate	HCO_3	637	pH . . . 8.53	
Sulfate	SO_4	109	HYPOTHETICAL COMBINATIONS	
Chloride	Cl	22	Calcium Bicarbonate	8
Total Fluoride	F	2.0	Magnesium Bicarbonate	2
Total Nitrate	NO_3	0.8	Sodium Carbonate	39
Total Manganese	Mn	< 0.02	Sodium Bicarbonate	867
Total Iron	Fe	0.13	Sodium Sulfate	161
Iron, filtered sample	Fe	-	Sodium Chloride	36
			Sodium Fluoride	4
			Sodium Nitrate	1
			Silica	13
			Total Dissolved Solids, Calc.	1131

†Total Dissolved Solids, actual = Dissolved Residue + 50.8% of bicarbonate (HCO_3) ion

3586
adp

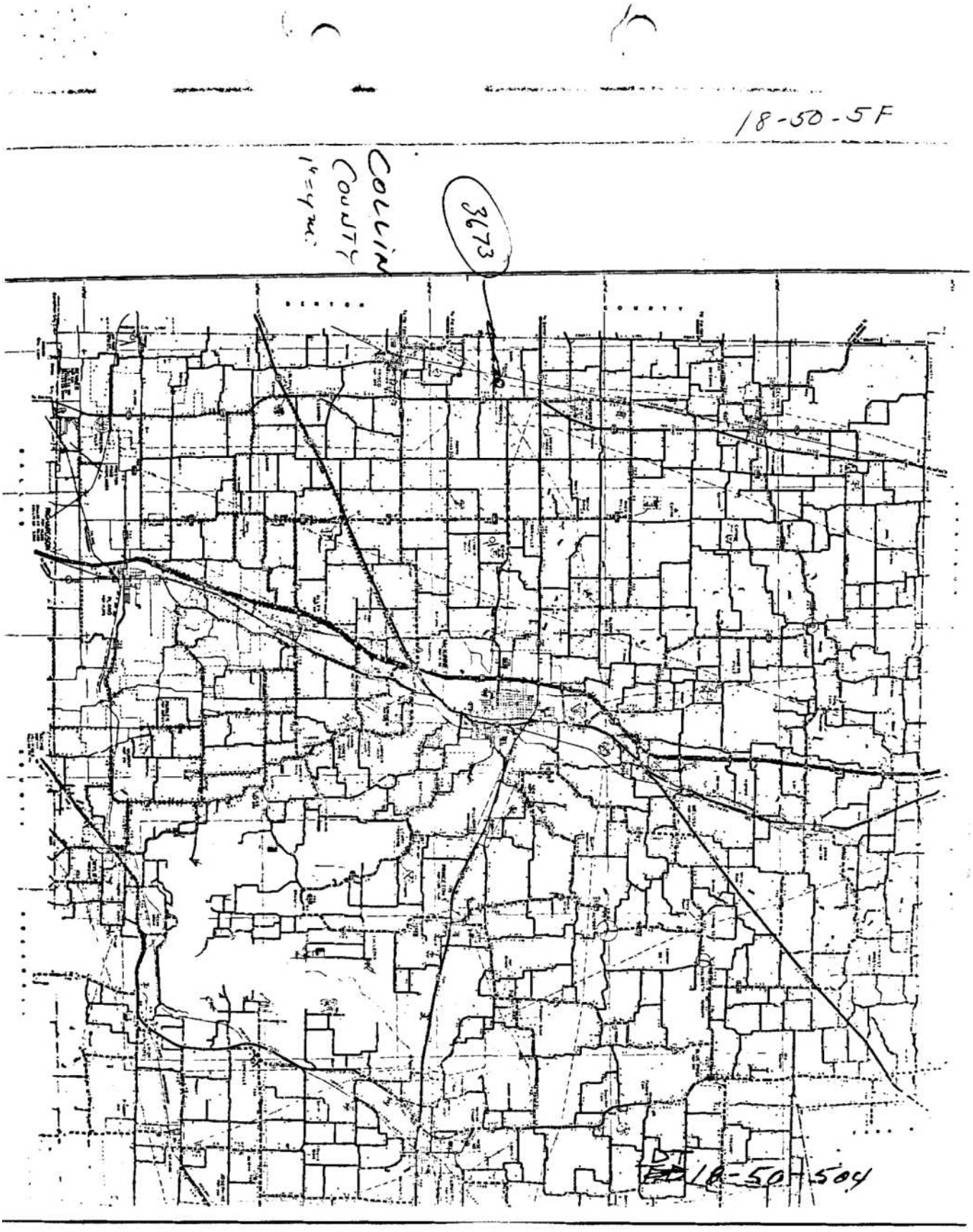
cc: Mr. Joe Dillard
P. O. Box 18065
Dallas, Texas 75218

DT
ED 18-50-504

EDNA WOOD LABORATORIES, INC.

By: Edna Wood

Tel: (713) 747-7271 • P. O. BOX 14171 • 4820 OLD SPANISH TRAIL • HOUSTON, TEXAS 77021


18-50-5F
COLLIN COUNTY
1"=4 mi.
3673
18-50-504

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
3	1 of 1	SE	0.34 / 1,820.75	Texas Power and Light Well No.2. TX	GWDB

Well Rep Track No:	
State Well No:	1850502
Owner Name:	Texas Power and Light Well No.2.
Drilling Start Dt:	
Drilling Month:	1
Drilling Day:	29
Drilling Year:	1954
Well Depth:	2662
Well Usage:	Unused
Water Level Status:	
Latitude:	33.1969450
Longitude:	-96.8044450
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=1850502&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=1850502&Cnty=Collin

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer Twin Mountains Field No. _____ State Well No. 18-50-502

Owner's Well No. # 2 County COLLIN

1. Location: _ 1/4, _ 1/4 Sec. _____, Block _____ Survey B. J. NAUGLE
@ PROSPER
2. Owner: Texas Power & Light Co Address: _____
Tenant: _____ Address: _____
Driller: LAYNE-TEXAS CO Address: _____
3. Elevation of LSD is 706 ft. above msl, determined by TOPO
4. Drilled: 1-29 1954; Dug, Cable Tool, Rotary
5. Depth: Rept. 2662 ft. Meas. _____ ft.
6. Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed
7. Pump: Mfgr. Layne Type TURB.
No. Stages _____, Bowls Diam. _____ in., Setting 646 ft.
Column Diam. _____ in., Length Tailpipe _____ ft.
8. Motor: Fuel ELECT Make & Model GE HP. 500
9. Yield: Flow _____ gpm, Pump _____ gpm, Meas., Rept., Est. _____
10. Performance Test: Date 3-20-54 Length of Test 24 hrs Made by L-T
Static Level 269 ft. Pumping Level 420 ft. Drawdown 151 ft.
Production 1845 gpm Specific Capacity _____ gpm/ft.

CASING & BLANK PIPE
Cemented From _____ ft. to _____ ft.

Diam. (in.)	Type	Setting, ft. from	to
20	steel	0	
13 3/8	"		
9 5/8	LINER		2662

11. Water Level: 269 ft. rept/meas 3-19 1954 above/below ground level which is _____ ft. above/below surface.
Pk. 400 ft. rept/meas 10-23 1956 above/below _____ which is _____ ft. above/below surface.
479 ft. rept/meas 3-14 1973 above/below airline which is _____ ft. above/below surface.
_____ ft. rept/meas _____ 19__ above/below _____ which is _____ ft. above/below surface.
12. Use: Dom., Stock, Public Supply, Ind., Irr., Waterflooding, Observation, Not Used, _____
13. Quality: (Remarks on taste, odor, color, etc.) _____
Temp. 99 °F, Date sampled for analysis 3-21-54 Laboratory Curtis
Temp. ___ °F, Date sampled for analysis _____ Laboratory _____
Temp. ___ °F, Date sampled for analysis _____ Laboratory _____
14. Other data available as circled: Driller's Log, Radioactivity Log, Electric Log, Formation Samples, Pumping Test
15. Record by: B. NORDSTROM Date 3-18 1976
Source of Data _____
16. Remarks: AIRLINE TO 640' ("14")

WELL SCREEN
Screen Openings .065

Diam. (in.)	Type	Setting, ft. from	to
9 5/8	Barlug screen	2378	2640

TWDBE-WD-2

(Sketch) See # 504

18-50-502

TEXAS DEPARTMENT OF WATER RESOURCES

WELL SCHEDULE

Aquifer(s) TWIN MOUNTAINS Project No. _____ State Well No 18-50-502

Field No./Owner's Well No. 2 County COLLIN

1. Location: ___ ¼, ___ ¼, Section ___, Block ___, Survey B.J. NAUGLE Longitude ___, Latitude ___

2. Owner: Texas Power & Light Co. Address: _____

Tenant (other): David Davenport (Mgr.) Address: _____

Driller: LAYNE-TEXAS Address: _____

3. Land Surface Elevation: 706 ft. above msl determined by Topo

4. Drilled: 1-29-1954; Dug, Cable Tool, (Rotary), Air, ___

5. Depth: Rept. ___ ft. Meas. ___ ft.

6. Borehole Completion: Open Hole, Straight Wall, (Underreamed), Gravel Packed

7. Pump: Mfr. Layne Type Turb. ✓

No. Stages ___, Bowls Diam. ___ in., Setting 760 / 850 ft. 1983 / 1998

Column Diam. ___ in., Length Tailpipe ___ ft.

8. Motor: Mfr. Elec. G.E. Fuel ___ HP 500

9. Yield: Flow ___ gpm, Pump ___ gpm, Meas., Rept., Est. ___ Date ___

10. Performance Test: Date 3-20-54 Length of Test 24 hrs Made by L-T

Static Level 269 ft. Pumping Level 420 ft. Drawdown 151 ft.

Production 1845 gpm Specific Capacity ___ gpm/ft.

11. Quality: (Remarks on taste, odor, color, etc.) 1954 Analysis Avail.

Analyses

Date ___ Laboratory ___ TDS ___ Sp Cond ___

Date ___ Laboratory ___ TDS ___ Sp Cond ___

12. Other data available as circled: (Pumping test), Power & Yield Test, Drillers Logs, Formation Samples, Geophysical Log(s) ___

13. Water Level(s) 540 ft. rept. meas. 10-3 1978 (type) above below LSD which is ___ ft. above below Land Surface

___ ft. rept. meas. ___ 19___ above below which is ___ ft. above below Land Surface

14. Use: Dom., Stock, Public Supply, (Ind.), Irr., Observation, Other (Test Hole, Oil Test, etc.) ___

15. Recorded by: J. DERTON Source of data: TP&L & TDWR files, Obs Date: 10-17-78

16. Remarks: Go by office - They will send someone with you to unlock gate.

17. Location or Sketch: 1/15/93

Key at front of ~~back~~ ~~M. Lack 2206~~

~~Go by office first.~~

AirLINE Set @ ~~760~~ 850' - 1998

W/L Obs. Well ↘ W/Q Obs. Well

State Well No. 18-50-502

TDWR-0308

2007- Don't go by office there is noone there. Plant has been mothballed.

CASING, BLANK PIPE & WELL SCREEN Cemented From 0 ft. to 2185 ft.

Diam. (in.)	Type	Setting (feet) from	to
26	Steel	0	45
20	"	0	1200
13 3/8	"	1160	2378
9 5/8	"	2171	2378
9 5/8	Screen	2378	2638
9 5/8	Liner	2638	2658
9 5/8	Drive Nipple	2658	2662

Form GW-1

TEXAS BOARD OF WATER ENGINEERS

GROUND-WATER DIVISION

WELL SCHEDULE

Date 6-2, 1960 Field No. _____

Record by RWH Office No. DT1850502

Source of data Plant Supt Mr Eaton + Obs

1. Location: County Collin

Map 3¼ NNE Frisco (WC)

Survey owners

2. Owner: Texas Power & Light Co. #2 Address _____

Tenant _____ Address _____

Driller Layne-Texas Address _____

3. Topography: _____

4. Elevation: 706' ft. above below SL

5. Type: Dug, drilled, driven, bored, jetted / 1954

6. Depth: Rept. 2662 ft. Meas. _____ ft.

7. Casing: Diam. 20 in., to 13 3/8 in., Type _____

Depth _____ ft., Finish 260' Screen

8. Chief Aquifer: Trinity 2638' (K+P) From _____ ft. to _____ ft.

Others _____

-750 Dept 1954

9. Water level: _____ ft. rept. meas. _____ 19____ above below _____

P.L. 400' - 10-23-56 which is _____ ft. above below surface

10. Pump: Type ? Capacity _____ gpm _____

Power: Kind E Horsepower _____

11. Yield: Flow _____ gpm, Pump _____ gpm, Meas., Rept. Est. _____

Drawdown _____ ft. after _____ hours pumping _____ gpm

12. Use: Dom., Stock, PS., RR., Ind., Obs. Irr. _____

Adequacy, permanence Excellent

13. Quality: _____

Temp. _____ °F _____ Sample Yes No certain levels

14. Log: Yes No E-log in Plant Files (Micro Log)

15. Remarks: 2380-2662 = 20" Underreams

P.S. = 560' (Top)

well #64 in Garde 1957 Travis Pk.

Report

COLLIN CO — WATER

[redacted]

WELL LOG

RECEIPT NO. [redacted]
S. O. [redacted]-53
PAGE 1 of 1
FILE NO. 1798
DATE 4/7/54

CUSTOMER LOCATION

FOR TEXAS POWER & LIGHT COMPANY

LOCATION WELL PROSPER

SURVEY B. J. Mangle FIELD J. R. Mahon Tract

COUNTY COLLIN STATE TEXAS

OTHER LAND MARKS
100 ft. North of South Line
400 ft. West of East Line

WELL DATA 18-50-5E

NAME WELL Sane WELL NO. 2
ELEVATION 706' DATUM S. L.
RT C
TEST HOLE SIZE 9-7/8" TD 2662'
DATE STARTED DRILLING 1-8-54
DATE FINISHED DRILLING 1-29-54
DRILLER C. W. BULLER RIG NO. 5A
TYPE MUD BAROCO & #14 NO. SACKS 19 & 168
ELECTRIC LOG YES TYPE SCHLUMBERGER
SURVEY EASTMAN TYPE
OTHER

18-50-5E

DEPTH STRATA	EACH STRATUM	DESCRIPTION FORMATION	SAMPLES DEPTH	TYPE	NUMBER
7	7	SOIL	CUTTING SAMPLE EVERY 30'		
780	773	SHALE			
792	44	SAND			
819	27	SAND & SHALE BRKS			
840	21	SHALE			
886	166	SANDY SHALE & LIME			
980	94	LIME & SHALE			
992	12	SHALE			
1061	69	SHALE & LIME			
1102	41	COLORED SHALE			
1171	69	SHALE & LIME			
1221	50	SAND, SHALE & LIME			
1401	180	LIME & SHALE			
1477	76	SAND & SHALE			
1600	123	SHALE & LIME			
1650	50	SAND & SHALE			
1665	15	LIME			
1737	72	SANDY LIME & SAND			
1947	210	LIME & SHALE			
1975	28	SAND & SHALE BRKS			
1985	10	LIME & SHALE			
2029	44	BROKEN SHALE, LIME & SAND			
2101	72	SHALE, LIME & ANHYDRITE			
2121	20	SAND & SANDY LIME			
2136	15	RED SHALE			
2156	20	SHALE			
2266	110	BROKEN SAND, SHALE & LIME			
2292	26	SHALE			
2327	35	SHALE & SAND			
2349	22	SHALE			
2628	279	SAND & SHALE BRKS			
2662	34	SHALE LIME & CHERT			

DT
18-50-502

[redacted]

REPORT NO. 3583
W O 2849-53
PAGE 1 of 2
FILE NO 1798
DATE 4/7/54

WATER WELL TEST

CUSTOMER LOCATION

TEST FOR TEXAS POWER & LIGHT COMPANY
LOCATION OF WELL PROSPER
SURVEY B. J. Naugle FIELD J. R. Mahon Tract
COUNTY COLLIN STATE TEXAS
DESCRIPTION OF LAND MARKS
100 ft. North of South Line
400 ft. West of East Line

WELL DATA

NAME WELL SAME WELL NO 2
ELEVATION 706' DATUM S.L.
WELL SIZE 20"x13-3/8"x9-5/8"x20"U.R.
TOTAL DEPTH 2662' TOP SCREEN 2378'
GRAVEL WELL YES STRAIGHT WELL
TYPE SCREEN BARLOW W.W. GAGE .065
TEMPERATURE OF WATER 99° F OR C
WATER CONDITION CLEAR

WATER MEASURING DEVICE

ORIFICE SIZE 10"x12" LENGTH
OTHER

TEST PUMP DATA

DEPTH SETTING TOP OF BOWL 500'
LENGTH AIR LINE 500' SIZE 1/4"
TYPE BOWL SIZE NO STAGES
LENGTH BOWL SUCTION LT

SAND CONTENT OZ PER 100 GAL
ACTIVE STATIC HEAD AFTER PUMP STOPPED
5 MIN 305 FT 20 MIN 294 FT
10 MIN 299 FT 25 MIN 292 FT
15 MIN 296 FT 30 MIN 290 FT

WATER SAMPLE TAKEN YES NO SAMPLES 4
BACTERIOLOGICAL SAMPLE TAKEN
DRAWDOWN SPECIFIC CAPACITY

DATE HOUR	AIR LINE GAGE	PUMPING LEVEL	DISCH PRESS	HEAD ON ORIFICE INCHES	GPM	RPM	OPERATOR	REMARKS
3/19/54	PUMP STOPPED 3 HOURS BEFORE TEST						S.L.	BEFORE START 269'
2:00 AM								
3:00	130	370	50	8.5	1440			
4:00	128	372	50	8.5	1440			
6:30	132	368	50	8.5	1440			
7:30	130	370	50	8	1400			
8:30	129	371	50	8	1400			
9:30	114	386	30	10.5	1600			
10:30	113	387	30	10.5	1600			
11:30	112	388	30	10.5	1600			
3/20/54								
12:30 AM	111	389	30	10.5	1600		B.L Y.	
1:30	110	390	30	10.5	1600			
2:30	110	390	30	10.5	1600			
3:30	94	406	8	13.5	1810			
4:30	93	407	8	13.5	1810			
5:30	92	408	8	13.5	1810			
6:30	92	408	8	13.5	1810			
7:30	92	408	8	13.5	1810			
8:30	91	409	8	13.5	1810			
9:10	91	409	8	13.5	1810		C.W.B.	
10:10	84	416	5	14.5	1875			
11:10	83	417	5	14.5	1875			
12:10	83	417	5	14.5	1875			
1:10	83	417	5	14.5	1875			
2:10	83	417	5	14.5	1875			
3:10	82	418	5	14.5	1875			END OF 24 HOUR TEST

DT
FD 18-50-502

[redacted]

HOUSTON -:- DALLAS

REPORT NO 3583
S. O 2649-53
PAGE 2 OF 2
FILE NO 1798
DATE 4/7/54

WATER WELL TEST

CUSTOMER LOCATION

TEST FOR TEXAS POWER & LIGHT COMPANY
LOCATION OF WELL PROSPER
SURVEY B. J. Naugle FIELD J. R. Mahon Tract
COUNTY COLLIN STATE TEXAS
DESCRIPTION OF LAND MARKS
100 ft. North of South Line
400 ft. West of East Line

WELL DATA

NAME WELL SAME WELL NO 2
ELEVATION 706' DATUM S.L.
WELL SIZE 20"x13-3/8"x9-5/8"x20" U.R.
TOTAL DEPTH 2662' TOP SCREEN 2378'
GRAVEL WELL YES STRAIGHT WELL
TYPE SCREEN Barlug W.W. GAGE .065
TEMPERATURE OF WATER 99° F OR C
WATER CONDITION CLEAR

WATER MEASURING DEVICE

ORIFICE SIZE 10" x 12" LENGTH
OTHER

TEST PUMP DATA

DEPTH SETTING TOP OF BOWL 500'
LENGTH AIR LINE 500' SIZE 1/4"
TYPE BOWL SIZE NO STAGES
LENGTH BOWL SUCTION LT

SAND CONTENT OZ PER 100 GAL.
ACTIVE STATIC HEAD AFTER PUMP STOPPED
5 MIN 305 FT 20 MIN 294 FT
10 MIN 299 FT 25 MIN 292 FT
15 MIN. 296 FT 30 MIN 290 FT

WATER SAMPLE TAKEN YES NO. SAMPLES 4
BACTERIOLOGICAL SAMPLE TAKEN
DRAWDOWN SPECIFIC CAPACITY

DATE HOUR	AIR LINE GAGE	PUMPING LEVEL	DISCH PRESS	HEAD ON ORIFICE INCHES	GPM	RPM	OPERATOR	REMARKS
3/20/54							S.L. BEFORE START 201'	
6:15 PM	88	412	0	15.5	1940			
7:15	86	414	0	15	1905			
8:15	85	415	0	15	1905			
9:15	84	416	0	14.5	1875			
10:15	83	417	0	14.5	1875			
11:15	83	417	0	14.5	1875			
12:15	82	418	0	14	1845		B.L.Y.	
1:15	82	418	0	14	1845			
2:15	82	418	0	14	1845			
3:15	80	420	0	14	1845			
4:15	79	421	0	14	1845			
5:15	79	421	0	14	1845			
6:15	79	421	0	14	1845			
7:15	79	421	0	14	1845			
8:15	80	420	4	14	1845		C.W.B.	
9:15	80	420	4	14	1845			
10:15	80	420	4	14	1845			
11:15	80	420	4	14	1845			
3/21/54								
12:15 AM	80	420	4	14	1845		DT	
1:15	80	420	4	14	1845		~~7-B~~ 18-50-502	
2:15	80	420	4	14	1845			
3:15	80	420	4	14	1845			
4:15	81	419	4	14	1845		L.S.L.	
5:15	81	419	4	14	1845			

C. W. BULLER

March 24, 1954
2649-53

SAMPLES OF: Two Waters RECEIVED: March 24, 1954.
MARKED: Texas Power & Light Co., Frisco, Collin County, Texas. Well No. 2, Screen 2380-2640, static head 278, pumping level 420, Pump Rate 1875 G.P.M. with Layne Turbine Pump. C. W. Buller.

CERTIFICATE OF ANALYSIS
Parts per Million:

Sample No.	1	2
Pumped	1 hr.	23 hrs.
Taken	3-20-54	3-21-54
Calcium Bicarbonate	24	24
Magnesium Bicarbonate	6	6
Sodium Bicarbonate	389	389
Sodium Carbonate	32	32
Sodium Sulfate	139	135
Sodium Chloride	1055	1055
Silica	20	14
Iron Oxide	0.4	0.2
Aluminum Oxide	2.6	1.8
Volatile & Organic Matter	45.	39.
Total Solids	1713	1696.
Total Hardness as Calcium Carbonate	19	19
Phenolphthalein Alkalinity	15	15
Methyl Orange Alkalinity	280	280
Free Carbon Dioxide	0	0
pH	8.25	8.25
IONS:		
Calcium	6	6
Magnesium	1	1
Sodium (Diff.)	581	580
Bicarbonate	305	305
Carbonate	18	18
Sulfate	94	91
Chloride	640	640
Phosphate	None	None
Iron (Fe)	0.3	0.15
Appearance:	Faintly turbid	Clear & Colorless

Report No. 9-0829

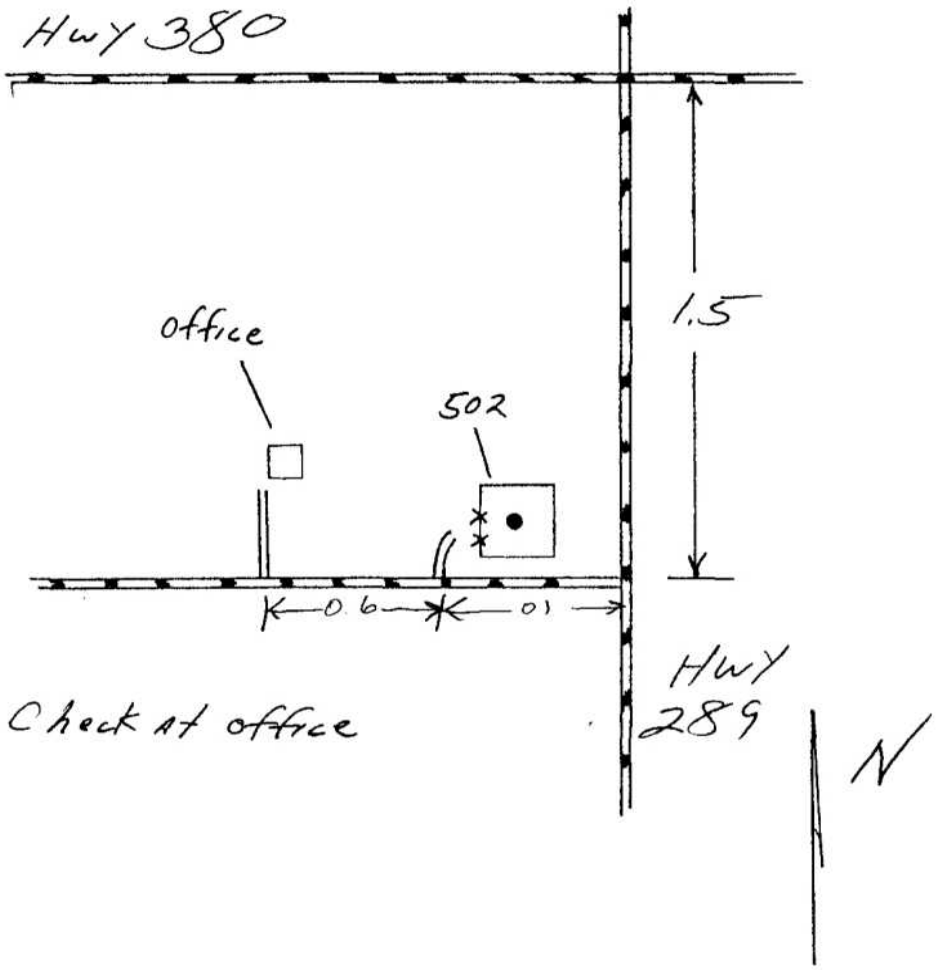
DT
FD18-50-502

TEXAS WATER DEVELOPMENT BOA

BY____ DATE____ DIVISION ____ SHEET NO.____ OF____

CHKD____ DATE____ JOB NAME ____

18-50-502 JOB NO.____ PROG. CODE ____



Check at office

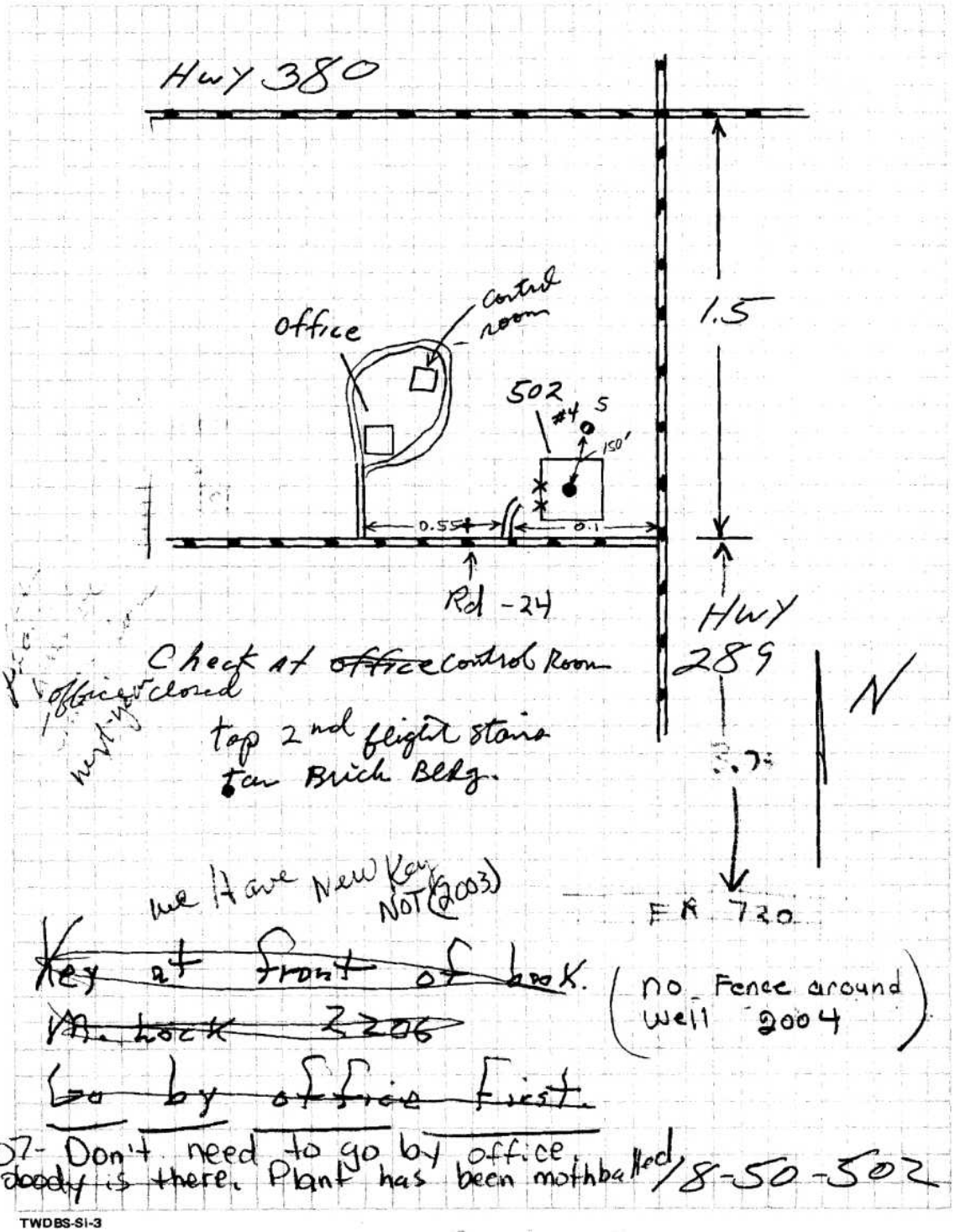
18-50-502

TEXAS WATER DEVELOPMENT BOA

BY_____ DATE_____ DIVISION_____ SHEET NO._____ OF____

CHKD_____ DATE_____ JOB NAME_____

18-50-502 JOB NO._____ PROG. CODE_____



TWDBS-SI-3

DT 1850502

(January 1950) UNITED STA DEPARTMENT OF THE INTERIOR. GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

DT 1850502

ANALYTICAL STATEMENT

[Parts per million]

Well #2 — COLLIN COUNTY

Location Texas Power & Light. 2 mi. NE of Frisco. Drilled
Source well. Drill Stem Test.
WBF: Glen Rose 2157' to 2177'.
WL: 150' below LSD. Yield:
500 GPM pump rept'd. App:
Muddy. Curtis Lab Reports:
TDS - 1645 ppm; Cl - 54 ppm;
SO_4 - 500 ppm. Glen Rose may
be used as disposal unit for
ind. waste.

"Trinity"

Chemist Herman Feltz
Lab. No. 41399
Collector Layne-Tex.

Date of collection	January 28, 1954		
Use	industrial	SiO_2	14
Temperature (°F)		Fe	0.00
Color 5 pH	8.0	Ca	11
Suspended matter		Mg	4.0
Hardness as $CaCO_3$		Na	468
N. C. 0 Total	44	K	3.4
Ignition loss	10	CO_3	0
Dissolved solids	1,320	HCO_3	538
Specific conductance at 25°C		SO_4	504
(micromhos)	2,010	Cl	51
Fe (pptd)	14	F	3.6
Fe (total)	14	NO_3	0.0
KEY PUNCHED		Sum	1,320

16—54648-4

LAYNE-TEXAS PUMP RECORD

PUMP REPAIR

Job No.: 28-1506
Well No.: 2

Customer: T.U. Electric Collin Plant City: Frisco County: Collin State: Texas

Date work started: 10/17/96 Date work completed: 9/8/97

PRODUCTION DATA

Quantity before repair work started: 1000 gpm Quantity after repair work completed: 1383 gpm
Pumping level when pump reinstalled: 722 Static level when pump reinstalled: 607
Well size: 20" 0 - 1160', 13-3/8" 1160' - 2171', 9-5/8 2171' - 2658'
Connections needed for flow test: hook up to 12" flange
Pump service rig: Challenger
Other equipment:

PUMP DATA BEFORE REPAIRS

Pump no.: 28945 RPM: 1180
Type head: EXHTA Size outlet: 12"
Lubrication: oil
Size column: 12" x 5" x 3-3/16"
Depth setting: 740'
Column connections: flanged & screwed
Bowls size & type: Layne 17DROHC
No. stages: 15
Suction length & size: none
Airline length: 740'
Section length:

PUMP DATA AFTER REPAIRS

Pump no.: 9704577 RPM: 1775
Type head: Vertiline 25AC12 Size outlet: 12
Lubrication: oil
Size column: 8" x 3" x 1-15/16"
Depth setting: 850'
Column connections: T&C
Bowls size & type: Layne 13 DWEH
No. stages: 15
Suction length & size: none
Airline length: 850'
Section length: ¼" s.s. continuous

OLD MOTOR

Make: G.E. Type: VHS HP: 500
RPM: 1150 Voltage: 4160
Phase: 3
Frame: 6346
Serial No.:
Power cable size:

NEW MOTOR

Make: U.S. Type: VHS HP: 450
RPM: 1775 Voltage: 4160
Phase: 3
Frame: 5009P
Serial No.:
Power cable size:

NEW REPAIR PARTS USED IN FIELD

1	U.S. Motors 450 h.p., 4160V, 1775 rpm, VHS motor
1	Reconditioned Layne Vertiline 25AC12 discharge head w/ full lifting plate
1	8" x 3" x 1-15/16" top special column assembly
42	8" x 3 x 1-15/16" x 20' column pipe assemblies
1	8" x 3" x 1-15/16" x 5' stretch joint set at 400'
1	Layne & Bowler 13DWEH-15 stage bowl assembly
850'	¼" PVC coated s.s. airline
1	s.s. bands & buckles, airline bracket & gauge, etc.
1	Discharge piping & fittings from head to gate valve
1	2" air vacuum/release valve

Pete Villarreal
Installer

18-50-502

TEXAS WATER DEVELOPMENT BOARD – WATER LEVEL MEASUREMENTS

(IN FT.)

AS OF 01-13-87

☒ Normal ☐ Publ. ☐ USGS

OLD WELL NUMBER N02

WELL LOCATION: LAT. 33-11-52N LONG. 096-48-20W

YR. REC. BEGINS 78

LAST CHEMICAL ANALYSIS 03-54

STATE WELL NUMBER DT-18-50-502

DEPTH OF WELL 2662

LAND SURFACE DATUM ELEVATION 706.00

COMPLETION INTERVAL 2378-2638

DATE OF CURRENT MEASUREMENT MO.	DAY	YR.	CURRENT DEPTH TO WATER FROM LAND SURFACE	CHANGE IN LEVEL SINCE LAST STATIC MEASUREMENT	Measurement Number	DEPTH TO WATER FROM MP	ELEVATION OF DEPTH TO WATER FROM MEAN SEA LEVEL	Measuring Agency	Measurement Method	REMARKS	WELL USE	FIELD OBSERVATIONS
10	03	78	540.00			540.00	+166.00	01	3		1	
05	02	80						01		42	1	
10	15	80	568.00	-28.00		568.00	+138.00	01	3		5	
03	16	82						01	3	35	5	
03	17	83	565.00	+3.00		565.00	+141.00	01	3		5	
01	24	84	585.00	-20.00		585.00	+121.00	12	3		5	
03	27	84	590.00	-5.00		590.00	+116.00	01	3		5	
03	14	85	585.00			585.00	+121.00	01	3	04	5	
03	07	86	585.00	+5.00		585.00	+121.00	01	3		5	
1	15	87	585.00			585.00		1	3		5	
1	14	88	600.00			600.00		1	3		5	
11	9	88	600.00			600.00		1	3		5	
1	22	90	618.00			618.00		01	3		5	
1	10	91	600.00		01	600.00		01	3		N	SLOW TO AIR UP
1	15	92						01		48		
1	25	93	636.00		01	636.00		01	3		N	Does leak at stem, but hold finger a[illegible] it.
1	13	94	605.0		01			01	3			
2	8	95	639.0		01			01	3			
11	10	95	621.0					01	3	21		stem leaks meas. - questional

AQUIFER 312 - TWIN MOUNTAINS FORMATION

WATERSHED 08 - TRINITY RIVER BASIN

COUNTY 043 - COLLIN

WELL CLASS AND NUMBER CURRENT 18-50-502

MEASURING POINT (MP) +0.00 AS OF 03/07/86

TDWR-[illegible] '8

TEXAS WATER DEVELOPMENT BOARD — WATER LEVEL MEASUREMENTS

AS OF

☐ Normal ☐ Publ. ☐ USGS

OLD WELL NUMBER

WELL LOCATION: LAT. LONG.

YR. REC. BEGINS

LAST CHEMICAL ANALYSIS

STATE WELL NUMBER 18-50-502

DEPTH OF WELL

LAND SURFACE DATUM ELEVATION

COMPLETION INTERVAL

DATE OF CURRENT MEASUREMENT MO.	DAY	YR.	CURRENT DEPTH TO WATER FROM LAND SURFACE	CHANGE IN LEVEL SINCE LAST STATIC MEASUREMENT	Measurement Number	DEPTH TO WATER FROM MP	ELEVATION OF DEPTH TO WATER FROM MEAN SEA LEVEL	Measuring Agency	Measurement Method	REMARKS	WELL USE	FIELD OBSERVATIONS
11	07	96	Airline gone/unable to reach water					01	1	43	U	
11	20	98	625.93	6F3		+0.0		01	3		P	Reworked Pump setting 850 97psi
11	9	99	632.86		BS			01	3		P	94 psi
11	17	00	628.24		JA						U	96 ll Head Pulled & Repaired
11	17	00	628.0		JA			01	3		N	Head Motor Twin
12	4	01	619.0		CM			01	3		4	
11	08	02	614.		CH			01	3		U	
11	13	03	618		MB			01	3		U	
12	8	04	-665		DG			01	3		4	90PSI 185 ft
9	21	06	-642		DG			01	3		4	90
2	27	07	-630.55		NP			01	3		U	95 PSI 33 11 50.0 96 48 15.8
11	15	07	—		BA	FULL TANK, COULD NOT LIFT OVER GATE		01	3	61	U	33 11 50.0 96 48 15.3
11	14	08	—		AF			01	3	43	U	pump ripped
11	19	09	—		BS			01	3	43	V	11 11
11	30	11	—		WS	—		01				Well destroyed

AQUIFER TWIN MOUNTAINS

pump setting 850' 11/98

WATERSHED TRINITY RIVER BASIN

COUNTY Collin

WELL CLASS AND NUMBER 18-50-502

MEASURING POINT (MP) +0.0

TWDB-0518

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
4	1 of 1	SE	0.36 / 1,907.61	Texas Power and Light Well No.4. TX	GWDB

Well Rep Track No:	
State Well No:	1850505
Owner Name:	Texas Power and Light Well No.4.
Drilling Start Dt:	
Drilling Month:	10
Drilling Day:	1
Drilling Year:	1981
Well Depth:	1695
Well Usage:	Public Supply
Water Level Status:	
Latitude:	33.1977780
Longitude:	-96.8058340
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=1850505&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=1850505&Cnty=Collin

TEXAS WATER DEVELOPMENT BO

WELL SCHEDULE

State Well No. 18 50 505 (10–17) Previous Well No. BD (19–26) County Collin (28–30)

River Basin Trinity (32–33) Zone 1 (35) Lat. 33 17 52 (37–42) Long. 096 49 20 (44–50) Source of Coord. 2 (52)

Owner's Well No. 4 Location ____ 1/4, ____ 1/4, Section ____, Block ____, Survey ____

Owner [illegible] (10–31) Driller [illegible] (33–52)

Address P.O. Box 870 Frisco, Tx. 75034 Address 8325 Forney Rd. Dallas, Tx. 75227

Tenant ____ Address ____

Date Drilled 10 00 1981 (10–17) Depth 1695 (19–23) Source of Depth Datum D (25) Altitude 710 (27–30) Source of Alt. Datum ____ (32)

Aquifer Paluxy (34–41) Well Type W (43) User ____ (45–53)

Well Construction Const. Method Hydro-Rotary H (55) Casing Material Steel S (57)

Screen Material Stainless Steel R (59) Completion Screen S (61)

Lift Data Pump Mfr. Peerless Type Subm. S (63) No. Stages 24

Bowls Diam. ____ in. Setting 850 ft. Column Diam. ____ in. Length Tailpipe ____ ft.

Motor Mfr. U.S. Fuel or Power Elec E (65) Horsepower 100.00 (67–73)

Yield Flow ____ GPM Pump ____ GPM Meas., Rept., Est. ____ Date ____

Performance Test Date 1-11-82 Length of Test 24 hr. Production 275 GPM

Static Level 546 ft. Pumping Level 693 ft. Drawdown 147 ft. Sp. Cap. 1.9 GPM/ft.

Quality (Remarks on Taste, Odor, Color, Etc.) ____

Water Use Primary Use P.S. D (10) Secondary Use ____ (12) Tertiary Use ____ (14)

Other Data Available Water Level M (16) Water Quality Y (18) Logs C D E I M N (20–25) Other Data ____ (27–31)

Water Levels Date ____ Meas. ____ ft. (+) Above (–) Below Landsurface

Date ____ Meas. ____ ft. (+) Above (–) Below Landsurface

Recorded By F. Bikerry Date Record Collected or Updated 04 06 1988 (33–40) Reporting Agency 01 (42–43)

Remarks [illegible] (10–46) Well Schedule In TWDB File Y (45)

Aquifer Paluxy

TWDB-0409 (02-26-88) Well No. 18 .50 .505

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer(s) Paluxy Project No. State Well No. 18-50-505

Field No./Owner's Well No. 4 County Collin

1. Location: ¼, ¼, Section, Block, Survey, Lat. 33-11-50, Long. 096-48-20

2. Owner: Texas Power + Light Co. Address: P.O. Box 870 Frisco, Tx. 75034

Tenant (other): Address:

Driller: J.L. Myers Co. Address: 8325 Forney Rd. Dallas, Tx. 75227

3. Land Surface Elevation: 710 ft. above msl determined by Topo

4. Drilled: Oct. 19 81 ; Dug, Cable Tool, (Rotary), Air,

5. Depth: Rept. 1695 ft. Meas. ft. 1494-1694

6. Borehole Completion: Open Hole, Straight Wall, (Underreamed), Gravel Packed

7. Pump: Mfr. Peerless Type Sub.

No. Stages 24, Bowls Diam. in., Setting 850 ft.

Column Diam. in., Length Tailpipe ft.

8. Motor: Mfr. U.S. Fuel elec. HP. 100

9. Yield: Flow gpm, Pump gpm, Meas., Rept., Est. Date

10. Performance Test: Date 1-11-82 Length of Test 24 hr. Made by Myers

Static Level 546 ft. Pumping Level 693 ft. Drawdown 147 ft.

Production 275 gpm Specific Capacity 1.9 gpm/ft.

11. Quality: (Remarks on taste, odor, color, etc.)

Analyses

Date 1-12-82 Laboratory Pope TDS 978 Sp Cond 1150

Date Laboratory TDS Sp Cond

12. Other data available (as circled): (Pumping Test), Power & Yield Test, (Drillers Log)

Formation Samples, (Geophysical Log(s)) E-log (type)

13. Water Level(s): 546 ft. (rept.) meas. 1-11 19 82 (above) below LSD which is ft. (above) below Land Surface

ft. rept. meas. 19 above below which is ft. above below Land Surface

14. Use: Dom., Stock, (Public Supply), Ind., Irr., Observation, Other (Test Hole, Oil Test, etc.)

15. Recorded by: E. Bilberry Source of data: obs. drillers log Date: 2-2-87

16. Remarks:

17. Location or Sketch:

CASING, BLANK PIPE & WELL SCREEN
Cemented From 0 ft. to 1492 ft.

Diam. (in.)	Type	Setting (feet) From	to
10 3/4	Steel	0	1492
6 5/8		1392	1694
6 5/8	Screen	1502	1534
"	"	1550	1566
"	"	1598	1638
"	"	1646	1680

TWDB-0308 (Rev. 12-11-85)

W/L Obs. Well ___ W/Q Obs. Well ___
State Well No. 18-50-505

Send original by certified mail to the Texas Department of Water Resources P. O. Box 13087 Austin, Texas 78711

State of T.

WATER WELL REPORT

ATTENTION OWNER: *Confidentiality Privilege Notice on Reverse Side*

For TDWR use only
Well No. 18-50-80
Located on map
Received:

1) OWNER TEXAS POWER&LIGHT COMPANY (Name) Address P.O. BOX 870, FRISCO, TX 75034 (Street or RFD) (City) (State) (Zip)

2) LOCATION OF WELL: County COLLIN Well No. 4 miles in S.E. corner of plant property near 289 direction from (N.E., S.W., etc.) (Town)

Driller must complete the legal description to the right with distance and direction from two intersecting section or survey lines, or he must locate and identify the well on an official Quarter- or Half-Scale Texas County General Highway Map and attach the map to this form.

☐ Legal description:
Section No. ____ Block No. ____ Township ____
Abstract No. ____ Survey Name ____
Distance and direction from two intersecting section or survey lines ____

☒ See attached map. Not on map

3) TYPE OF WORK (Check): ☐ New Well ☐ Deepening ☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check): ☐ Domestic ☐ Industrial ☐ Public Supply ☐ Irrigation ☐ Test Well ☐ Other ____

5) DRILLING METHOD (Check): ☐ Mud Rotary ☐ Air Hammer ☐ Driven ☐ Bored ☐ Air Rotary ☐ Cable Tool ☐ Jetted ☐ Other ____

6) WELL LOG: see attached
Date drilled 10-81

DIAMETER OF HOLE

Dia. (in.)	From (ft.)	To (ft.)
	Surface	

7) BOREHOLE COMPLETION: ☐ Open Hole ☐ Straight Wall ☐ Underreamed ☐ Gravel Packed ☐ Other ____
If Gravel Packed give interval . . . from ____ ft. to ____ ft.

From (ft.) To (ft.) Description and color of formation material

see attached

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:

Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mgf., if commercial	Setting (ft.) From	Setting (ft.) To	Gage Casing Screen
		see attached			

RECEIVED
JUL 28 1982
DEPT. OF WATER RESOURCES

CEMENTING DATA
Cemented from ____ ft. to ____ ft.
Method used ____
Cemented by ____ (Company or Individual)

9) WATER LEVEL:
Static level ____ ft. below land surface Date ____
Artesian flow ____ gpm. Date ____

10) PACKERS: Type Depth

11) TYPE PUMP: ☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder ☐ Other ____
Depth to pump bowls, cylinder, jet, etc., ____ ft.

(Use reverse side if necessary)

13) WATER QUALITY:
Did you knowingly penetrate any strata which contained undesirable water? ☐ Yes ☐ No
If yes, submit "REPORT OF UNDESIRABLE WATER"
Type of water? ____ Depth of strata ____
Was a chemical analysis made? ☐ Yes ☐ No

12) WELL TESTS:
☐ Type Test: ☐ Pump ☐ Bailer ☐ Jetted ☐ Estimated
Yield: ____ gpm with ____ ft. drawdown after ____ hrs.

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.

NAME Joe W. Dillard (Type or Print) Water Well Drillers Registration No. 265

ADDRESS 8325 Forney Rd., (Street or RFD) Dallas, Texas (City) 75227 (State) (Zip)

(Signed) (Water Well Driller) J. L. Myers Company (Company Name)

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

TDWR-0392 (Rev. 1-12-79) DEPARTMENT OF WATER RESOURCES COPY 18-50 5/65

HOUSTON WELL SCREEN CO.
11939 Aldine-Westfield Road
Houston, Texas 77093
Call Collect 713/449-7261
Telex: HOU WS CO HOU 775-280

NOV 15 1981

11/9/81

J.L. MYERS COMPANY
DALLAS, TEXAS

RE: LEASE NO.T.P.&L-
Collin S.E.S. Well #4

1465-1497'

GAGE	% RETAINED
.045	.7
.040	1.7
.030	4.6
.020	5.3
.016	6.2
.014	7.0
.012	8.1
.010	9.5
.008	11.0
.006	57.5
PAN	100.0

1497-1528'

GAGE	% RETAINED
.045	14.4
.040	36.0
.030	62.0
.020	77.0
.016	81.0
.014	84.4
.012	88.0
.010	90.0
.008	92.0
.006	96.0
PAN	100.0

1528-1558'

GAGE	% RETAINED
.045	9.3
.040	18.0
.030	36.0
.020	52.0
.016	60.0
.014	69.0
.012	76.0
.010	82.0
.008	88.0
.006	95.0
PAN	100.0

1558-1589'

GAGE	% RETAINED
.045	4.8
.040	8.9
.030	17.0
.020	26.0
.016	32.0
.014	47.0
.012	55.0
.010	68.0
.008	78.4
.006	91.0
PAN	100.0

1589-1621-

GAGE	% RETAINED
.045	1.5
.040	25.0
.030	42.0
.020	52.0
.016	56.6
.014	61.0
.012	65.5
.010	69.0
.008	75.0
.006	86.0
PAN	100.0

1621-1652'

GAGE	% RETAINED
.045	0.3
.040	0.6
.030	9.3
.020	12.4
.016	14.0
.014	16.0
.012	17.0
.010	21.0
.008	27.0
.006	56.0
PAN	100.0

18-50-505

HOUSTON WELL SCREEN CO.
11939 Aldine-Westfield Road
Houston, Texas 77093
Call Collect 713/449-7261
Telex: HOU WS CO HOU 775-280

11/9/81

J.L. MYERS COMPANY
DALLAS, TEXAS

RE: LEASE NO. T.P.&L
COLLIN S.E.S. WELL #4

1653-1684'

GAGE	% RETAINED	GAGE	% RETAINED	GAGE	% RETAINED
.045	.3	.045		.045	
.040	.6	.040		.040	
.030	1.0	.030		.030	
.020	1.3	.020		.020	
.016	1.4	.016		.016	
.014	1.5	.014		.014	
.012	18.0	.012		.012	
.010	20.0	.010		.010	
.008	24.0	.008		.008	
.006	65.0	.006		.006	
PAN	100.0	PAN		PAN	

GAGE	% RETAINED	GAGE	% RETAINED	GAGE	% RETAINED
.045		.045		.045	
.040		.040		.040	
.030		.030		.030	
.020		.020		.020	
.016		.016		.016	
.014		.014		.014	
.012		.012		.012	
.010		.010		.010	
.008		.008		.008	
.006		.006		.006	
PAN		PAN		PAN	

18-50-505

PUMPING TEST

OWNER: TEXAS POWER & LIGHT COMPANY, COLLIN S.E.S. WELL NO.4

LOCATION: SOUTHEAST CORNER OF PLANT PROPERTY, NEAR HIGHWAY 289

DATE: JANUARY, 1982

DATE & TIME	ORIFICE READING	GPM	AIRLINE READING	WATER LEVEL	COMMENTS
1-11-82					
0945	43	275	320	546 -	Static level
1045	43	275	224	642	Clear - no sand
1145	43	275	214	652	
1245	43	275	208	658	
1345	43	275	188	678	
1445	43	275	184	682	
1545	43	275	181	685	
1645	43	275	178	688	
1745	43	275	177	684	
1845	43	275	182	684	
1945	43	275	181	685	
2045	43	275	181	685	
2145	43	275	178	688	
2245	43	275	179	687	
2345	43	275	175	691	
2445	43	275	174	692	
1-12-82					
0145	43	275	172	694	
0245	43	275	171	695	
0345	43	275	170	696	
0445	43	275	171	695	
0545	43	275	173	693	
0645	43	275	173	693	
0745	43	275	173	693	
0845	43	275	172	694	
0945	43	275	173	693	
PUMP OFF - RECOVERY					
0950			278	588	
0955			301	565	
1000			312	554	
1010			318	548	
1020			321	545	
1030			321	545	
1045			333	533	

TESTED BY: J. L. MYERS COMPANY
8325 FORNEY ROAD
DALLAS, TEXAS 75227
214-388-7407

18-50-505

POPE Testing LABORATORIES, Inc.

CONSULTING ANALYTICAL CHEMISTS
AND TESTING ENGINEERS

FOODS, FEEDS, DAIRY PROD.
WATER, MISCL. ANALYSES
COTTON SEED PRODUCTS
PACKING HOUSE PRODUCTS

P. O. BOX 903
DALLAS, TEXAS 75221

OFFICIAL CHEMISTS
WEIGHERS AND INSPECTORS
NATL. COTTONSEED PRODUCTS ASS'N.
NATL. SOYBEAN PROCESSOR'S ASS'N.
REFEREE CHEMISTS
AMERICAN OIL CHEMISTS SOCIETY

Date Rec'd 1-15-82

To: J. L. Myers Company
Dallas, Texas

JAN 25 1982

Report of Tests on Water

Received From: You

Identification Marks: Texas Power & Light Collin SES Frisco Well #4 Sampled 1-12-82 After 24 hours at 275 GPM Total Depth 1695 Screen 1500-1680 Pumping Level 693' Sc 546'

Values reported are for minerals in solution

	Parts Per Million
Calcium	1.6
Magnesium	0.5
Iron	0.07
Manganese	0.0
Sodium	287.3
Carbonate	38.4
Bicarbonate	527.0
Sulphate	97.0
Chloride	24.0
Fluoride	1.7
Nitrate	0.0
Phenolphthalein Alkalinity as $CaCO_3$	32.0
Total Alkalinity as $CaCO_3$	496.0
Total Hardness as $CaCO_3$	6.0
Dissolved Residue (TS) Calculated	977.6
Specific Conductance Micromhos/cm	1150
pH	8.9

RECOMMENDED LIMITS FOR DRINKING WATER (P. P. M.)

Iron	0.3	Fluoride	0.6 — 1.0
Manganese	0.05	Nitrate	45
Sulphate	250	Total Solids	500
Chloride	250		

POPE TESTING LABORATORIES, Inc.
By Leon Hunter

Lab. No. 25797

F-158—1M

18-50-505

J. L. MYERS COMPANY

NEW PUMP INSTALLATION

Owner TEXAS POWER & LIGHT COMPANY COLLIN S.E.S.

Well No. 4 Job No. 1063-81

Date Installed ~~MARCH, 1982~~ Date Started

Pump: Make PEERLESS Size 6" x 1-11/16" x 2-1/2"

Stages 24 8 LB S/N PL 8285186

Date/Code

Motor: Make U.S. Size

HP 100 Volts 460 Amps

S/N Code Other

Column: Size 6"x 2-1/2 x 1-11/16 Length 850'

Check Valves

Pick up Nipple

Head: Size 8 x 8 x 16-1/2 Discharge

Cable: Size Length

Airline: Size & type 1/8" brass Length 850'

Starter: Make Size

Model No.

Fuse/CB

Heater

Time Delay

Water Level: Static 546 Pumping level 693

GPM 250 Time

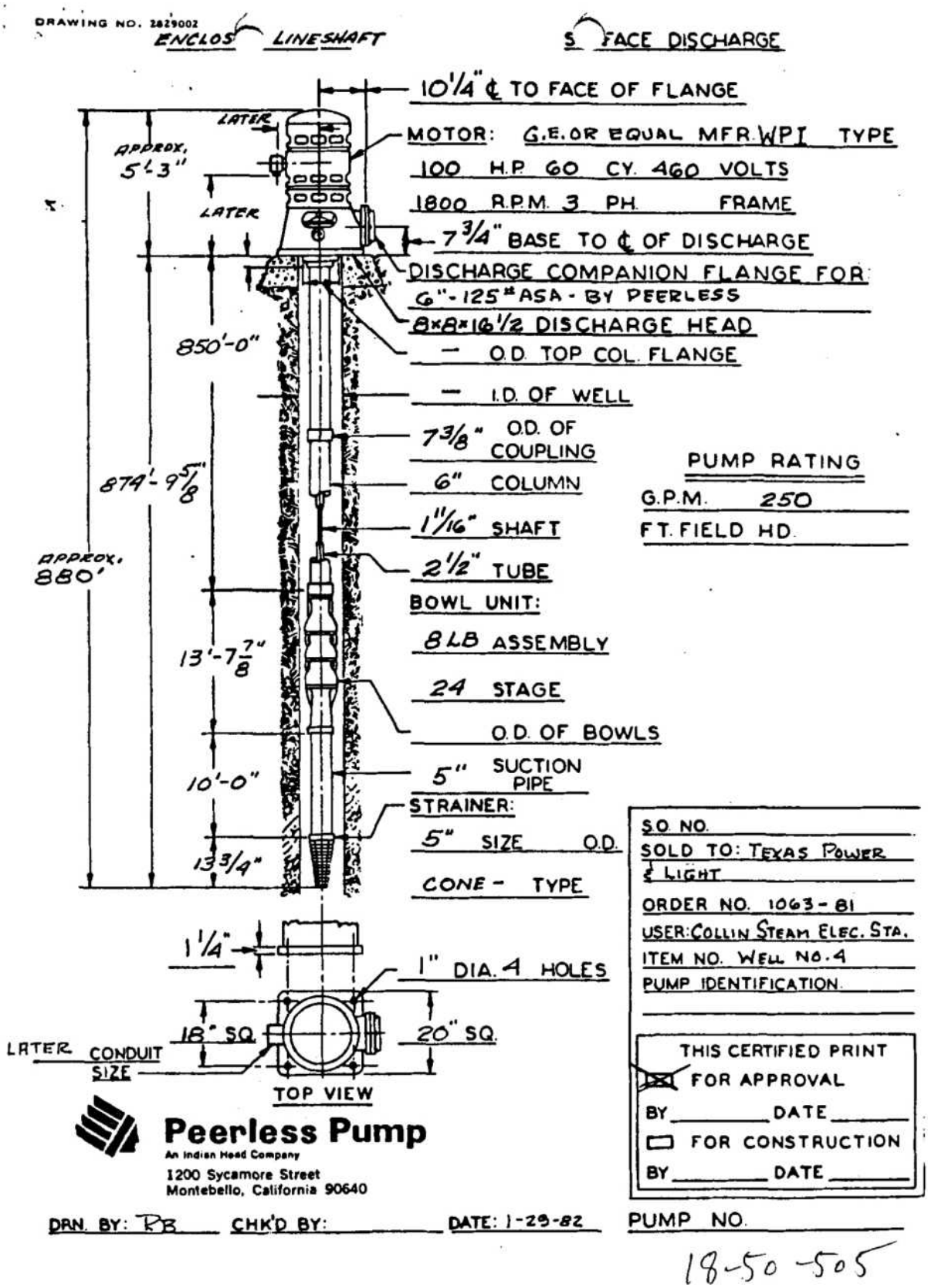
Electrical: Voltage , ,

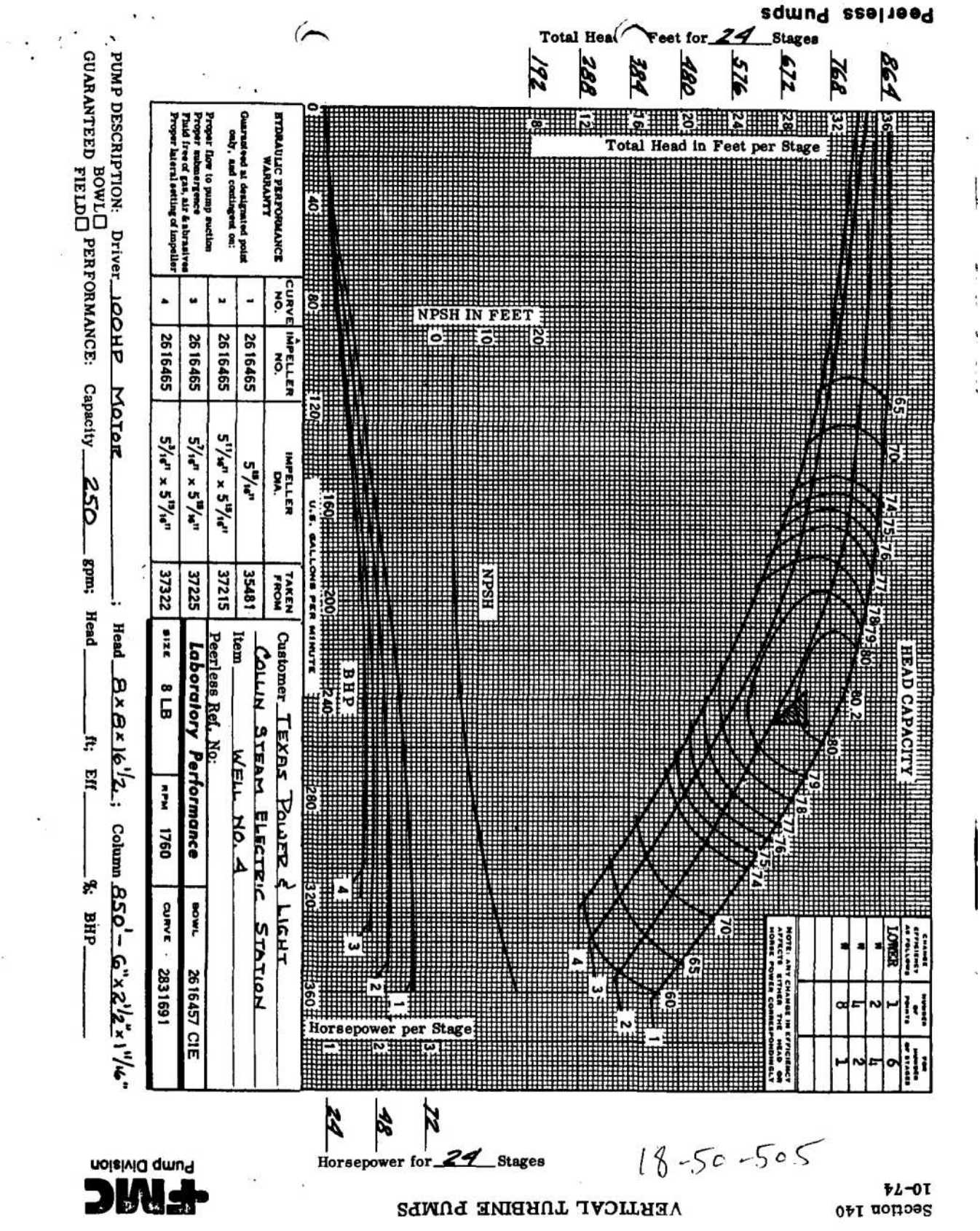
Amps , ,

Installer:

Remarks:

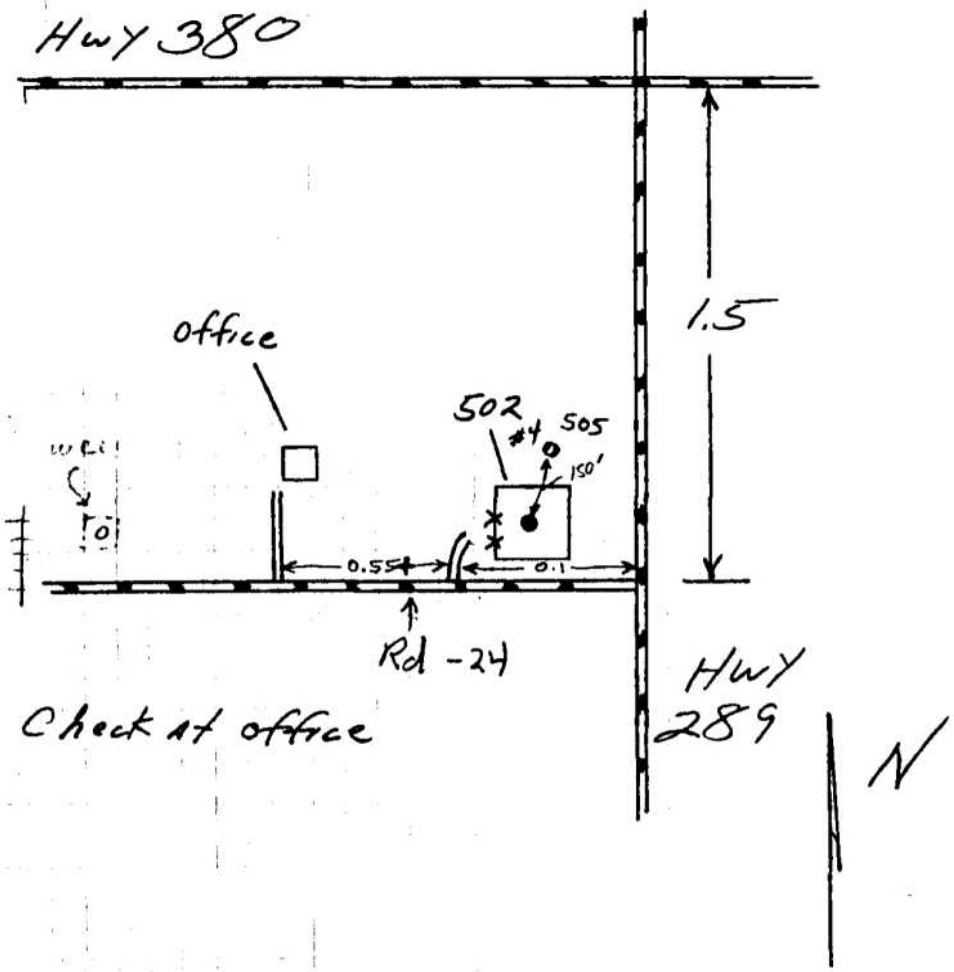
18-50-505


DRAWING NO. 2829002
ENCLOS LINESHAFT
S FACE DISCHARGE
10 1/4" ℄ TO FACE OF FLANGE
LATER
APPROX. 5'-3"
LATER
MOTOR: G.E. OR EQUAL MFR. WPI TYPE
100 H.P. 60 CY. 460 VOLTS
1800 R.P.M. 3 PH. FRAME
7 3/4" BASE TO ℄ OF DISCHARGE
DISCHARGE COMPANION FLANGE FOR
6"-125# ASA - BY PEERLESS
8x8x16 1/2 DISCHARGE HEAD
850'-0"
— O.D. TOP COL. FLANGE
— I.D. OF WELL
7 3/8" O.D. OF COUPLING
874'-9 5/8"
6" COLUMN
1 11/16" SHAFT
APPROX. 880'
2 1/2" TUBE
BOWL UNIT:
8 LB ASSEMBLY
13'-7 7/8"
24 STAGE
O.D. OF BOWLS
10'-0"
5" SUCTION PIPE
STRAINER:
13 3/4"
5" SIZE O.D.
CONE - TYPE
1 1/4"
1" DIA. 4 HOLES
18" SQ.
20" SQ.
LATER CONDUIT SIZE
TOP VIEW
PUMP RATING
G.P.M. 250
FT. FIELD HD.
S.O. NO.
SOLD TO: TEXAS POWER & LIGHT
ORDER NO. 1063-81
USER: COLLIN STEAM ELEC. STA.
ITEM NO. WELL NO. 4
PUMP IDENTIFICATION
THIS CERTIFIED PRINT
FOR APPROVAL
BY DATE
FOR CONSTRUCTION
BY DATE
Peerless Pump
An Indian Head Company
1200 Sycamore Street
Montebello, California 90640
DRN. BY: RB
CHK'D BY:
DATE: 1-29-82
PUMP NO.
18-50-505


Peerless Pumps
Total Head Feet for 24 Stages
Total Head in Feet per Stage
NPSH IN FEET
NPSH
BHP
U.S. GALLONS PER MINUTE
Horsepower per Stage
Horsepower for 24 Stages
HEAD CAPACITY
HYDRAULIC PERFORMANCE WARRANTY
Guaranteed at designated point only, and contingent on:
Proper flow to pump suction
Proper submergence
Fluid free of gas, air & abrasives
Proper lateral setting of impeller
CURVE NO.
IMPELLER NO.
IMPELLER DIA.
TAKEN FROM
4 2616465 5 3/16" x 5 15/16" 37322
3 2616465 5 7/16" x 5 15/16" 37225
2 2616465 5 11/16" x 5 15/16" 37215
1 2616465 5 15/16" 35481
Customer TEXAS POWER & LIGHT
Item COLLIN STEAM ELECTRIC STATION
WELL NO. 4
Peerless Ref. No:
Laboratory Performance
SIZE 8 LB
RPM 1760
BOWL 2616457 CIE
CURVE 2831691
PUMP DESCRIPTION: Driver 100HP Motor
GUARANTEED PERFORMANCE: Capacity 250 gpm; Head
Head 8x8x16 1/2; Column 850'-6"x2 1/2"x1 1/4"
BOWL
FIELD
ft; Eff %; BHP
Pump Division
VERTICAL TURBINE PUMPS
Section 140
10-74
18-50-505

CHKD _____ DATE _____ JOB NAME _____

18-50-[redacted] JOB NO. _____ PROG. CODE _____



18-50-5[redacted]
05

TWDBS-SI-3

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
5	1 of 1	SW	0.43 / 2,274.55	Texas Power and Light Well No.1. TX	GWDB

Well Rep Track No:	
State Well No:	1850501
Owner Name:	Texas Power and Light Well No.1.
Drilling Start Dt:	
Drilling Month:	6
Drilling Day:	3
Drilling Year:	1953
Well Depth:	2694
Well Usage:	Industrial
Water Level Status:	
Latitude:	33.1966670
Longitude:	-96.8172220
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=1850501&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=1850501&Cnty=Collin

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer Twin Mountains Field No. ____ State Well No. 18-50-501

Owner's Well No. #1 County COLLIN

1. Location: ___ 1/4, ___ 1/4 Sec. ____, Block ____ Survey ABSTRACT 148 Ben Taylor Tract School Land
3 mi. S. of Prosper
2. Owner: T P & L Co. Address: ____
Tenant: ____ Address: ____
Driller: LAYNE-TEXAS CO Address: ____
3. Elevation of ____ GS ____ ie 630 ft. above msl, determined by TOPO
4. Drilled: ____ 3 1953; Dug, Cable Tool, Rotary
5. Depth: Kept. 2694 ft. Meas. 2525 ft.
6. Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed
7. Pump: Mfgr. Layne Type TURB
No. Stages 14, Bowls Diam. ____ in., Setting ~~650~~ ft. Top of Pump
Column Diam. ____ in., Length Tailpipe ____ ft.
8. Motor: Fuel ELEC Make & Model GE HP. 500
9. Yield: Flow ____ gpm, Pump 1955 gpm (Meas.) Rept., Est. 1953
10. Performance Test: Date 2-12-53 Length of Test 1½ days Made by L-T
Static Level 176 ft. Pumping Level 347 ft. Drawdown 171 ft.
Production 1440 gpm Specific Capacity ____ gpm/ft.

CASING & BLANK PIPE
Cemented From ____ ft. to ____ ft.

Diam. (in.)	Type	Setting, ft. from	to
20		0	1119
13 3/8		1078	2260
9 5/8		2042	2525
26		0	37

11. Water Level: 176 ft. rept. meas. 9-18 1953 above below which is ____ ft. above below surface.
488 ft. rept. meas. 7-24 1970 above below airline which is ____ ft. above below surface.
395 ft. rept. meas. 11-6 1973 above below airline which is ____ ft. above below surface.
____ ft. rept. meas. ____ 19__ above below which is ____ ft. above below surface.
12. Use: Dom., Stock, Public Supply, Ind., Irr., Waterflooding, Observation Not Used, ____
13. Quality: (Remarks on taste, odor, color, etc.) ____
Temp. 93 °F, Date sampled for analysis 5-19-53 Laboratory 245
Temp. — °F, Date sampled for analysis 11-10-71 Laboratory TSDH
Temp. ___ °F, Date sampled for analysis ____ Laboratory ____
14. Other data available as circled: Driller's Log, Radioactivity Log, Electric Log,
Formation Samples, Pumping Test,
15. Record by: R. NORDSTROM Date 3-18 1976
Source of Data TP&L, obs, driller
16. Remarks: airline set at 630

WELL SCREEN
Screen Openings .055

Diam. (in.)	Type	Setting, ft. from	to
7 5/8	Darling Screen	2266	2315

E-log Picks

Top of	Depth
Wb	435'
W	750'
F	1230'
Pa	1305'
GR	1605'
Tm	1960'
P	2565'

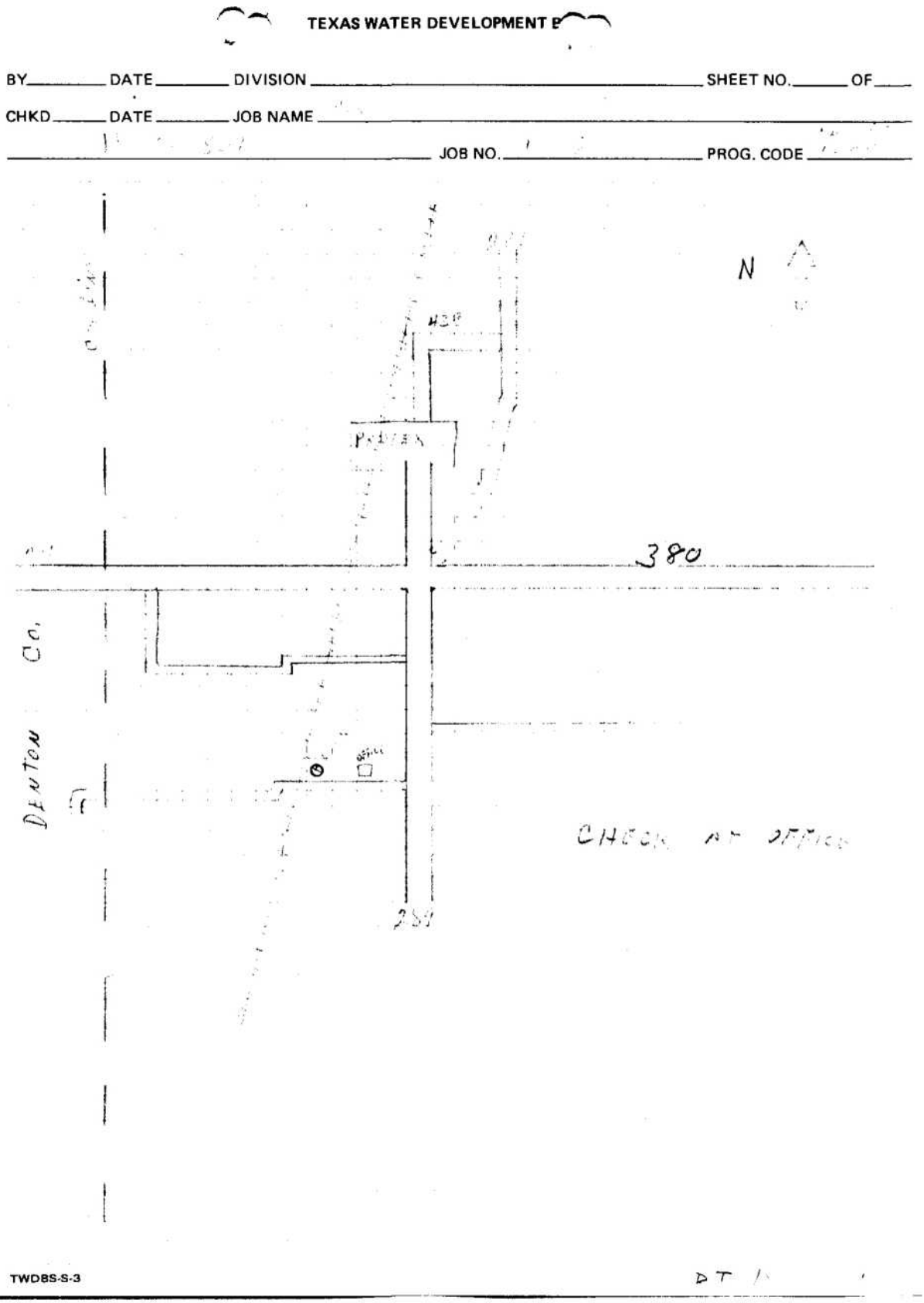
Q-14

obs

TWDBE-WD-2

Obs Well (Sketch) See # 504 18-50-501

0-2	surface soil
2-16	yellow clay
-480	blue shale
-495	red & blue shale
-514	shale & sand gray Med.
-554	gray shale
676	shale & sand-gray and red blue medium
691	sand
751	sandy shale-gray
821	blue gray & red shale
884	gray shale & lime
943	blue & gray shale & lime
988	medium gray shale & lime
994	hard lime
1041	gray shale & hard lime
1227	blue shale & lime
-1287	hard lime & shale
1302	blue shale
1326	Med. Sand & shale streaks-blue
1362	shale & hard streaks, blue-Med.
1388	blue & gray shale
1407	Sand & " "
1426	blue & " "
1460	Sandy blue shale & lime
1474	Sand & blue shale strks
1516	Sandy blue shale w/sand strks.
1552	gray shale & lime
1602	Sandy blue shale & sand brks.
1666	gray shale & lime sand strks
1686-1690	hard blue shale & lime
1690-1706	sandy blue shale
1776	hard blue shale & Lime
1782	blue shale & Med. Lime
-1819	" " & sand. "
1826	hard blue shale & Lime
1848	Sandy blue Shale
1950	hard shale & blue lime
1958	Sandy shale
2040	hard sandy shale
2068	" blue "
2120	hard shale w/ hard sand strks.
2163	blue red shale & hard " "
2260	blue & red shale lime
2274	Sandy shale
2285	shale
2300	sandy shale, red & blue
2360	soft sandy gray shale
2380	Sand & shale
2438	Sand w/ little shale
2490	& blue sandy shale
2510	Sand & shale
2520	red & blue sandy shale
-2530	hard rock & sand breaks
2540	hard red shale
2566	red-blue shale -sand strks
2634	hard red & blue shale
2639	hard lime
2653	shale & red & blue lime
2654-2694	hard red & blue shale


TEXAS WATER DEVELOPMENT B
BY DATE DIVISION SHEET NO. OF
CHKD DATE JOB NAME
JOB NO. PROG. CODE
N
380
Co.
Denton
TWDBS-S-3

Form A-1

TEXAS BOARD OF WATER ENGINEERS

~~GROUND-WATER DIVISION~~

WELL SCHEDULE

Date 3-3, 1960 ~~Field~~ No.

Record by RWH Office No. DT 1850501

Source of data Electric log & Texas Power & Light Co & obs. r

1. Location: County Collin

Map 1.5 mi South of Hwy Intersection 289 & 289, thence

Survey 0.9 mi West, just East of RR track (Ben Taylor tract)

2. Owner: Texas Power & Light Co #/ Address

Tenant — — — Address

Driller Layne-Texas Address

3. Topography:

4. Elevation: 630' ft. (above) below Sea level

5. Type: Dug (drilled) driven, bored, jetted 6-3-1953

6. Depth: Rept. [redacted] ft. Meas. 2694 ft. E-log

plugged to 2525

7. Casing: Diam. 26 in., to 13 3/8 in., Type

Depth ft., Finish 248" Screen .055"

Topped at 2266 - 2514

8. Chief Aquifer: Trinity (Ktp) From ft. to ft.

Others

9. Water level: ft. rept. meas. 19 above below

which is ft. above below surface

10. Pump: Type Turbine Capacity gpm

Power: Kind Electric Horsepower

11. Yield: Flow gpm, Pump gpm, Meas., Rept. Est. Max 2000' GPM

Drawdown ft. after hours pumping P Setting [redacted] 480' gpm

12. Use: Dom., Stock, PS., RR, (Ind), Obs. Irr.

Adequacy, permanence Excellent

13. Quality:

Temp. °F Sample Yes (No)

14. Log: ~~Yes~~ (No)

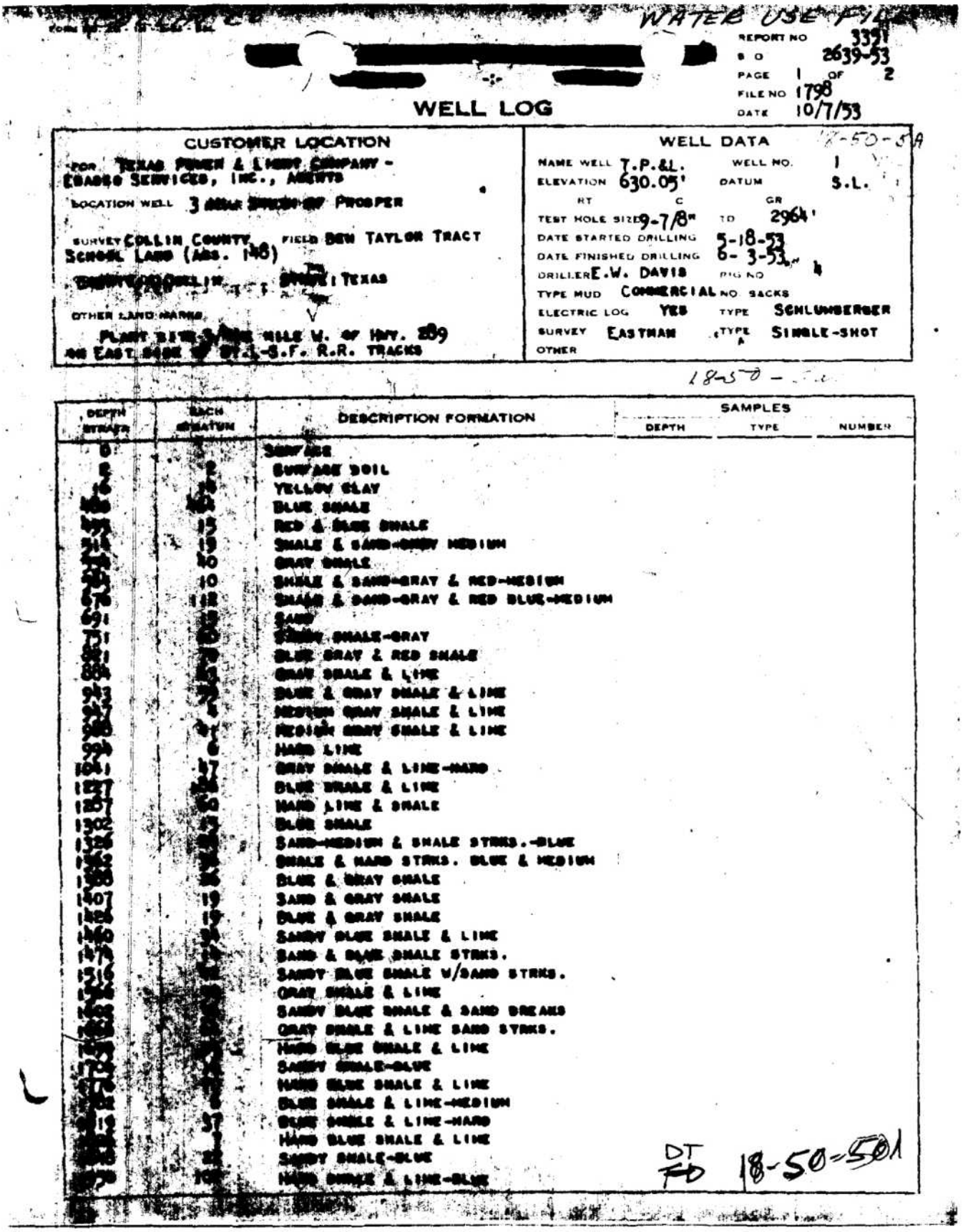
15. Remarks: Well #1 (3± NNE of Frisco)

Well 63 of 1957 Rept "Travis Peak in Dallas Area" by C. Gard

E-log

Has Flow indicator

Obs Well Q-14



WATER USE FILE

[redacted]

REPORT NO 3391
S O 2639-53
PAGE 1 OF 2
FILE NO 1798
DATE 10/7/53

WELL LOG

CUSTOMER LOCATION

FOR TEXAS POWER & LIGHT COMPANY - ERADCO SERVICES, INC., AGENTS

LOCATION WELL 3 MILES SOUTH OF PROSPER

SURVEY COLLIN COUNTY SCHOOL LAND (ABS. 148) FIELD BEN TAYLOR TRACT

COUNTY COLLIN STATE TEXAS

OTHER LAND MARKS

PLANT SITE 3/4 MILE W. OF HWY. 289 AND EAST SIDE OF T. & S.F. R.R. TRACKS

WELL DATA

K-50-5A

NAME WELL T.P.&L. WELL NO. 1
ELEVATION 630.05' DATUM S.L.
RT C GR
TEST HOLE SIZE 9-7/8" TD 2964'
DATE STARTED DRILLING 5-18-53
DATE FINISHED DRILLING 6-3-53
DRILLER E.W. DAVIS RIG NO 4
TYPE MUD COMMERCIAL NO SACKS
ELECTRIC LOG YES TYPE SCHLUMBERGER
SURVEY EASTMAN TYPE SINGLE-SHOT
OTHER

1850 - [illegible]

DEPTH STRATA	EACH STRATUM	DESCRIPTION FORMATION	SAMPLES DEPTH	TYPE	NUMBER
0		SURFACE			
2	2	SURFACE SOIL			
25	23	YELLOW CLAY			
40	15	BLUE SHALE			
59	19	RED & BLUE SHALE			
99	40	SHALE & SAND-GREY MEDIUM			
109	10	GRAY SHALE			
112	3	SHALE & SAND-GRAY & RED-MEDIUM			
118	6	SHALE & SAND-GRAY & RED BLUE-MEDIUM			
128	10	SAND			
135	7	SANDY SHALE-GRAY			
145	10	BLUE GRAY & RED SHALE			
150	5	GRAY SHALE & LIME			
175	25	BLUE & GRAY SHALE & LIME			
191	16	MEDIUM GRAY SHALE & LIME			
197	6	MEDIUM GRAY SHALE & LIME			
203	6	HARD LIME			
250	47	GRAY SHALE & LIME-HARD			
285	35	BLUE SHALE & LIME			
345	60	HARD LIME & SHALE			
360	15	BLUE SHALE			
402	42	SAND-MEDIUM & SHALE STRKS.-BLUE			
440	38	SHALE & HARD STRKS. BLUE & MEDIUM			
466	26	BLUE & GRAY SHALE			
485	19	SAND & GRAY SHALE			
502	17	BLUE & GRAY SHALE			
532	30	SANDY BLUE SHALE & LIME			
545	13	SAND & BLUE SHALE STRKS.			
570	25	SANDY BLUE SHALE W/SAND STRKS.			
590	20	GRAY SHALE & LIME			
615	25	SANDY BLUE SHALE & SAND BREAKS			
640	25	GRAY SHALE & LIME SAND STRKS.			
670	30	HARD BLUE SHALE & LIME			
690	20	SANDY SHALE-BLUE			
730	40	HARD BLUE SHALE & LIME			
760	30	BLUE SHALE & LIME-MEDIUM			
797	37	BLUE SHALE & LIME-HARD			
818	21	HARD BLUE SHALE & LIME			
838	20	SANDY SHALE-BLUE			
878	40	HARD SHALE & LIME-BLUE			

DT FD 18-50-501

[redacted]

REPORT NO 3351
S.D. 2639-53
PAGE 2 2
FILE NO 1798
DATE 10/7/53

WELL LOG

CUSTOMER LOCATION	WELL DATA
FOR TEXAS POWER & LIGHT COMPANY- EBASCO SERVICES INC., AGENTS	NAME WELL T.P. & L. WELL NO 1
LOCATION WELL 3 Mi. SOUTH OF PROSPER	ELEVATION 630.05' DATUM S.L.
SURVEY COLLIN COUNTY SCHOOL LAND (ABSTRACT 148) BEN TAYLOR TRACT	RT GR 2964'
COUNTY COLLIN STATE TEXAS	TEST HOLE SIZE 9-7/8"
NEAREST LAND MARK	DATE STARTED DRILLING 5-18-53
PLANT SITE-3/4 MILE W. OF HWY. 289	DATE FINISHED DRILLING 6-3-53
ON EAST SIDE OF ST.L.-S.F. R.R. TRACKS	DRILLER E.W. DAVIS RIG 4
	TYPE MUD COMMERCIAL NO SACKS
	ELECTRIC LOG YES TYPE SCHLUMBERGER
	SURVEY EASTMAN TYPE SINGLE-SHOT
	OTHER

DEPTH STRATA	EACH STRATUM	DESCRIPTION FORMATION	SAMPLES DEPTH	TYPE	NUMBER
1950					
1958	8	SANDY SHALE			
2040	82	HARD SANDY SHALE			
2068	28	HARD BLUE SHALE			
2120	52	BLUE SHALE-HARD SAND STRKS.			
2163	43	BLUE RED SHALE & HARD SAND STRKS.			
2260	97	BLUE & RED SHALE LIME			
2274	14	SANDY SHALE			
2285	11	SHALE			
2300	15	SANDY SHALE, RED & BLUE			
2360	60	SANDY GRAY SHALE-SOFT			
2380	20	SAND & SHALE - CORED			
2438	58	SAND W/LITTLE SHALE			
2444	6	SANDY SHALE-RED & BLUE			
2490	46	SANDY SHALE & RED & BLUE SHALE			
2510	20	SAND & SHALE-CORED			
2520	10	SANDY SHALE-RED & BLUE			
2530	10	HARD ROCK & SAND BREAKS			
2540	10	HARD RED SHALE			
2566	26	RED & BLUE SHALE-SAND STRKS.			
2634	68	HARD RED & BLUE SHALE			
2639	5	HARD LIME			
2653	14	SHALE & LIME-RED & BLUE			
2694	41	HARD RED & BLUE SHALE			

DT
~~ED~~ 18-50-501

18-50-502

[redacted]

REPORT NO 3353
S. O 2639-53
PAGE 1 OF 6
FILE NO 1798
DATE 10/7/53

WATER WELL TEST

CUSTOMER LOCATION

TEST FOR TEXAS POWER & LIGHT COMPANY

LOCATION OF WELL NEAR PROSPER (3 MILES SOUTH)

SURVEY COLLIN COUNTY FIELD BEN TAYLOR TRACT SCHOOL LAND (ABSTRACT 148)

COUNTY COLLIN STATE TEXAS

DESCRIPTION OF LAND MARKS

PLANT SITE ONE MILE W. OF HWY. 289

WELL DATA

NAME WELL T.P. & L. WELL NO 1

ELEVATION 630.05' DATUM S.L.

WELL SIZE 20"x13-3/8"x9-5/8" x 20" U.R.

TOTAL DEPTH 2525.00' TOP SCREEN 2266.40'

GRAVEL WELL YES STRAIGHT WELL NO

TYPE SCREEN BARLOW S.S.Welker .055 GA.

TEMPERATURE OF WATER F OR C

WATER CONDITION

WATER MEASURING DEVICE

ORIFICE SIZE LENGTH

OTHER

TEST PUMP DATA

DEPTH SETTING TOP OF BOWL

LENGTH AIR LINE SIZE

TYPE BOWL SIZE NO. STAGES

LENGTH BOWL SUCTION LT

SAND CONTENT OZ. PER 100 GAL.

ACTIVE STATIC HEAD AFTER PUMP STOPPED

5 MIN	FT	20 MIN.	FT.
10 MIN	FT.	25 MIN.	FT.
15 MIN.	FT	30 MIN.	FT.

WATER SAMPLE TAKEN NO SAMPLES

BACTERIOLOGICAL SAMPLE TAKEN

DRAWDOWN SPECIFIC CAPACITY

DATE HOUR	AIR LINE GAGE	PUMPING LEVEL	DISCH. PRESS	HEAD ON ORIFICE INCHES	GPM	RPM	OPERATOR	REMARKS
9-[redacted]53								
7:30 PM	159	341			2030			92°F - Mud
8:00	158	342			2060			"
8:35	159	341			2060			92°F - "
9:00	159	341			2060			"
9:30	161	339			2060			
9:50	160	340			2060			
10:20	161	339			2060			
11:00	164	336			2060			
11:25	163	337			2030			
11:50	163	337			2060			
9-19-53								
12:07 AM	163	337			2060			
12:40	165	335			2000			
1:45	167	333			2030			
2:08	165	335			2060			
2:36	165	335			2060			
3:00	164	336			2060			
3:25	165	335			2060			
3:49	165	335			2060			
4:15	164	336			2060			
4:38	165	335			2060			
5:00	166	334			2030			
5:24	165	335			2060			
5:45	166	334			2060			
6:08	165	335			2060			
6:30	164	336		17½	2060		DT	18-50-501

OBSERVERS

FOR OWNER

FOR LAYNE TEXAS CO. LTD

FORM NO. 25 1M [illegible]

[redacted]

REPORT NO 3353
S O 2639-53
PAGE 2 OF 6
FILE NO 1798
DATE 10/7/53

WATER WELL TEST

CUSTOMER LOCATION

TEST FOR TEXAS POWER & LIGHT COMPANY

LOCATION OF WELL NEAR PROSPER (3 MILES SOUTH)

SURVEY COLLIN COUNTY SCHOOL LAND (ABSTRACT 148) FIELD BEN TAYLOR TRACT

COUNTY COLLIN STATE TEXAS

DESCRIPTION OF LAND MARKS

PLANT SITE ONE MILE W. OF HWY. 289

WELL DATA

NAME WELL T.P. & L. WELL NO 1

ELEVATION 630.05' DATUM S.L.

WELL SIZE 20"x13-3/8"x9-5/8"x 20" U.R.

TOTAL DEPTH 2525.00' TOP SCREEN 2266.40'

GRAVEL WELL YES STRAIGHT WELL NO

TYPE SCREEN BARLOW S.S. W.W. GAGE .055 SA.

TEMPERATURE OF WATER F OR C

WATER CONDITION

WATER MEASURING DEVICE

ORIFICE SIZE LENGTH

OTHER

TEST PUMP DATA

DEPTH SETTING TOP OF BOWL

LENGTH AIR LINE SIZE

TYPE BOWL SIZE NO. STAGES

LENGTH BOWL SUCTION LT.

SAND CONTENT OZ PER 100 GAL

ACTIVE STATIC HEAD AFTER PUMP STOPPED

5 MIN	FT	20 MIN	FT
10 MIN	FT	25 MIN	FT
15 MIN	FT	30 MIN.	FT

WATER SAMPLE TAKEN NO SAMPLES

BACTERIOLOGICAL SAMPLE TAKEN

DRAWDOWN SPECIFIC CAPACITY

DATE HOUR	AIR LINE GAGE	PUMPING LEVEL	DISCH. PRESS	HEAD ON ORIFICE INCHES	GPM	RPM	OPERATOR	REMARKS
6:45	164	336		17	2030			
7:00	164	336		16½	2000			
7:15	163	337		16½	2000			
7:30	162	338		16½	2000			
7:45	162	338		16½	2000			
8:00	162	338		16½	2000			
8:15	162	338		16½	1985			
8:30	162	338		16½	1985			
8:45	162	338		16½	1985			
9:00	162	338		16½	1970			
9:15	162	338		16	1970			
9:30	161	339		16	1970			
9:45	161	339		16	1970			
10:00	161	339		16	1970			
10:15	161	339		16	1970			
10:30	160	340		16	1970			
10:45	160	340		16	1970			
11:00	159	341		15-3/4	1955			
11:15	159	341		15-3/4	1955			
11:30	159	341		15-3/4	1955			
11:45	159	341		15-3/4	1955			
12:00	159	341		15-3/4	1955			
12:15 PM	159	341		15-3/4	1955			
12:30	159	341		15-3/4	1955			
12:45	159	341		15-3/4	1955			
1:00	159	341		15-3/4	1955			CL-680 PPM
1:15	169	341		15-3/4	1955			

OBSERVERS DT FD 10-50-501 10-50-5[illegible]

FOR OWNER FOR LAYNE TEXAS CO., LTD.

FORM NO. 55 - 1M - 8-51 - SAL

[redacted]

REPORT NO. 3353
B. D. 2639-53
PAGE 3 OF 6
FILE NO. 1798
DATE 10/7/53

WATER WELL TEST

CUSTOMER LOCATION

TEST FOR TEXAS POWER & LIGHT COMPANY

LOCATION OF WELL NEAR PROSPER (3 MILES SOUTH)

SURVEY COLLIN COUNTY SCHOOL LAND (ABSTRACT 148) FIELD BEN TAYLOR TRACT

COUNTY Collin STATE TEXAS

DESCRIPTION OF LAND MARKS

PLANT SITE ONE MILE W. OF HWY. 289

WELL DATA

NAME WELL T.P. & L. WELL NO. 1

ELEVATION 630.05' DATUM S.L.

WELL SIZE 20"x13-3/8"x9-5/8"x20"U.R.

TOTAL DEPTH 2525.00' TOP SCREEN 2266.40'

GRAVEL WELL YES STRAIGHT WELL NO

TYPE SCREEN BARLUG S.S. Wire .055 SA.

TEMPERATURE OF WATER F OR C

WATER CONDITION

WATER MEASURING DEVICE

ORIFICE SIZE LENGTH

OTHER

TEST PUMP DATA

DEPTH SETTING TOP OF BOWL

LENGTH AIR LINE SIZE

TYPE BOWL SIZE NO STAGES

LENGTH BOWL SUCTION LT

SAND CONTENT OZ. PER 100 GAL.

ACTIVE STATIC HEAD AFTER PUMP STOPPED

5 MIN.	FT.	20 MIN.	FT.
10 MIN.	FT.	25 MIN.	FT.
15 MIN	FT.	30 MIN.	FT.

WATER SAMPLE TAKEN NO. SAMPLES

BACTERIOLOGICAL SAMPLE TAKEN

DRAWDOWN SPECIFIC CAPACITY

18-50-5C
Not yield Hd

DATE HOUR	AIR LINE GAGE	PUMPING LEVEL	DISCH. PRESS.	HEAD ON ORIFICE INCHES	GPM	RPM	OPERATOR	REMARKS
1:30	159	341		15-3/4	1955			
1:45	159	341		15-3/4	1955			
2:00	159	341		15-3/4	1955			
2:15	158	342		15-3/4	1955			
2:34	158	342		15-3/4	1955			
3:05	158	342		15-3/4	1955			
3:40	158	342		15-3/4	1955			92°F
4:10	157	343		15-3/4	1955			
4:40	157	343		15-3/4	1955			
5:10	157	343		15-3/4	1955			
5:40	156	344		15-3/4	1955			
6:10	156	344		15-3/4	1955			
6:40	155	345		15-3/4	1955			
7:10	155	345		15-3/4	1955			
7:40	155	345		15-3/4	1955			
8:05	154	346		15-3/4	1955			
8:40	154	346		15-3/4	1955			
9:10	154	346		15-3/4	1955			
9:40	153	347		15-3/4	1955			
10:10	153	347		15½	1940			
10:40	154	346		15½	1940			
11:10	154	346		15½	1940			
11:40	154	346		15½	1940			
9-30-53								
12:10 AM	154	346		15½	1940			
12:40	153	347		15½	1940			
1:39	153	347		15½	1940			

OBSERVERS

DT
FD 18-50-501

18-50-4

FOR OWNER

FOR LAYNE TEXAS CO., LTD.

[redacted]

REPORT NO. 2353
S O 2639-53
PAGE 4 OF 6
FILE NO 1798
DATE 10/7/53

WATER WELL TEST

CUSTOMER LOCATION

TEST FOR TEXAS POWER & LIGHT COMPANY

LOCATION OF WELL NEAR PROSPER (3 MILES SOUTH)

SURVEY COLLIN COUNTY SCHOOL LAND (ABSTRACT 148 FIELD BEN TAYLOR TRACT

COUNTY Collins STATE TEXAS

DESCRIPTION OF LAND MARKS

PLANT SITE ONE MILE W. OF HWY. 289

WELL DATA

NAME WELL T.P. & L. WELL NO 1

ELEVATION 630.05' DATUM S.L.

WELL SIZE 20" x 13-3/8" x 9-5/8" x 20" U.R.

TOTAL DEPTH 2525.00' TOP SCREEN 2266.40'

GRAVEL WELL YES STRAIGHT WELL NO

TYPE SCREEN BARLOW S.S. [redacted] .055 GA.

TEMPERATURE OF WATER F OR C

WATER CONDITION

WATER MEASURING DEVICE

ORIFICE SIZE LENGTH

OTHER

TEST PUMP DATA

DEPTH SETTING TOP OF BOWL

LENGTH AIR LINE SIZE

TYPE BOWL SIZE NO STAGES

LENGTH BOWL SUCTION LT.

SAND CONTENT OZ PER 100 GAL.

WATER SAMPLE TAKEN NO. SAMPLES

BACTERIOLOGICAL SAMPLE TAKEN

ACTIVE STATIC HEAD AFTER PUMP STOPPED

5 MIN	FT	20 MIN	FT.
10 MIN	FT	25 MIN	FT.
15 MIN	FT	30 MIN	FT.

DRAWDOWN SPECIFIC CAPACITY.

DATE HOUR	AIR LINE GAGE	PUMPING LEVEL	DISCH PRESS	HEAD ON ORIFICE INCHES	GPM	RPM	OPERATOR	REMARKS
1:40	153	347		15½	1940			
2:10	153	347		15½	1940			
2:40	153	347		15½	1940			
3:10	153	347		15½	1940			
3:40	153	347		15½	1940			
4:10	153	347		15½	1940			
4:40	153	347		15½	1940			
5:10	153	347		15½	1940			
5:40	153	347		15½	1940			
6:10	153	347		15½	1940			1940
SHUT PUMP DOWN								
		RECOVERY READINGS						
		12 MIN.		215 FT.				347
		20		211				
		47		196				
		51		195				
		58		194				
		2 HRS.		188.5				
		3 HRS.		185.62				
		4 HRS.		183.43				
10:45 AM	211	289		8.5	1440			
11:00	210	290		8½	1420			
11:15	207	293		8½	1420			
11:30	207	293		8½	1420			
11:45	207	293		8½	1420			
12:00	206	294		8½	1420			

OBSERVERS

PT 18-50-501

FOR LAYNE TEXAS CO., LTD

[redacted]

REPORT NO. 3353
S. O. 2659-53
PAGE 5 OF 6
FILE NO 1798
DATE 10/7/53

WATER WELL TEST

CUSTOMER LOCATION

TEST FOR TEXAS POWER & LIGHT COMPANY

LOCATION OF WELL NEAR PROSPER (3 MILES SOUTH)

SURVEY COLLIN COUNTY SCHOOL LAND (ABSTRACT 148) FIELD BEN TAYLOR TRACT

COUNTY COLLIN STATE TEXAS

DESCRIPTION OF LAND MARKS

PLANT SITE ONE MILE W. OF HWY. 289

WELL DATA

NAME WELL T.P. & L. WELL NO. 1

ELEVATION 630.05' DATUM S.L.

WELL SIZE 20"x13-3/8"x9-5/8"x20"U.R.

TOTAL DEPTH 2525.00' TOP SCREEN 2266.40'

GRAVEL WELL YES STRAIGHT WELL NO

TYPE SCREEN BARLOW S.S.W. GAGE .055 GA.

TEMPERATURE OF WATER F OR C

WATER CONDITION

WATER MEASURING DEVICE

ORIFICE SIZE LENGTH

OTHER

TEST PUMP DATA

DEPTH SETTING TOP OF BOWL

LENGTH AIR LINE SIZE

TYPE BOWL SIZE NO. STAGES

LENGTH BOWL SUCTION LT

SAND CONTENT OZ. PER 100 GAL.

ACTIVE STATIC HEAD AFTER PUMP STOPPED

5 MIN	FT.	20 MIN.	FT.
10 MIN	FT.	25 MIN.	FT.
15 MIN	FT	30 MIN	FT.

WATER SAMPLE TAKEN NO. SAMPLES

BACTERIOLOGICAL SAMPLE TAKEN

DRAWDOWN SPECIFIC CAPACITY

DATE HOUR	AIR LINE GAGE	PUMPING LEVEL	DISCH. PRESS.	HEAD ON ORIFICE INCHES	GPM	RPM	OPERATOR	REMARKS
12:15 PM	206	294		8¼	1420			
12:30	206	294		8¼	1420			
12:45	206	294		8	1400			
1:00	206	294		8	1400			
1:15	205	295		8	1400			
1:30	205	295		8	1400			
1:45	186	314		11¼	1650			
2:00	186	314		11	1635			
2:15	184	316		11	1635			
2:30	185	315		11	1635			
2:45	185	315		11	1635			
3:00	185	315		11	1635			
3:15	185	315		11	1635			
3:30	185	315		11	1635			
3:45	185	315		11	1635			
4:00	185	315		11	1635			
4:15	185	315		11	1635			
4:30	185	315		11	1635			
4:45	171	329		13½	1810			
5:00	171	329		13½	1810			
5:15	170	330		13½	1810			
5:30	170	330		13½	1810			
5:45	169	331		13-3/4	1825			
6:00	169	331		13-3/4	1825			
6:15	169	331		13½	1810			
6:30	169	331		13½	1810			
6:45	169	331		13½	1810			

OBSERVERS

DJ
18-50-501

FOR OWNER

FOR LAYNE TEXAS CO. LTD

FORM NO. [illegible]

[redacted]

REPORT NO. 3353
S. O. 2639-53
PAGE 6 OF 6
FILE NO. 1798
DATE 10/7/53

WATER WELL TEST

CUSTOMER LOCATION

TEST FOR TEXAS POWER & LIGHT COMPANY

LOCATION OF WELL NEAR PROSPER (3 MILES SOUTH)

SURVEY COLLIN COUNTY FIELD BEN TAYLOR TRACT SCHOOL LAND (ABSTRACT 148)

COUNTY COLLIN STATE TEXAS

DESCRIPTION OF LAND MARKS

PLANT SITE ONE MILE W. OF HWY. 289

WELL DATA

NAME WELL T.P. & L. WELL NO. 1

ELEVATION 630.05' DATUM S.L.

WELL SIZE 20"x13-3/8"x9-5/8"x20" U.R.

TOTAL DEPTH 2525.00' TOP SCREEN 2266.40'

GRAVEL WELL YES STRAIGHT WELL NO

TYPE SCREEN BARLOW GAGE .055 GA.

TEMPERATURE OF WATER F OR C

WATER CONDITION

WATER MEASURING DEVICE

ORIFICE SIZE LENGTH

OTHER

TEST PUMP DATA

DEPTH SETTING TOP OF BOWL

LENGTH AIR LINE SIZE

TYPE BOWL SIZE NO STAGES

LENGTH BOWL SUCTION LT.

SAND CONTENT OZ PER 100 GAL

ACTIVE STATIC HEAD AFTER PUMP STOPPED

5 MIN	FT	20 MIN	FT
10 MIN	FT	25 MIN.	FT
15 MIN	FT	30 MIN.	FT

WATER SAMPLE TAKEN NO SAMPLES

BACTERIOLOGICAL SAMPLE TAKEN

DRAWDOWN SPECIFIC CAPACITY

DATE HOUR	AIR LINE GAGE	PUMPING LEVEL	DISCH PRESS	HEAD ON ORIFICE INCHES	GPM	RPM	OPERATOR	REMARKS
7:00	169	331		13½	1810			
7:15	169	331		13½	1810			
7:30	169	331		13½	1810			
7:45	150	350		16-3/4	2015			93.5° F
8:00	150	350		16-3/4	2015			
8:15	150	350		16½	2000			
8:30	149	351		16½	2000			
9:00	149	351		16½	2000			
9:15	149	351		16½	2000			
9:30	149	351		16½	2000			
9:45	149	351		16½	2000			
10:00	149	351		16½	2000			
10:15	149	351		16½	2000			
10:30	148	352		16½	2000			

OBSERVERS

DT 18-50-501

18-50-501

FOR OWNER

FOR LAYNE TEXAS CO., LTD.

FORM NO 23 - IM - 8-51 - 845

September 24, 1953
2639-53

SAMPLE OF: Water RECEIVED: September 23, 1953
MARKED: Texas Power & Light Co., Plant Site near Prosper, Collins County, Texas. Well No. 1 (Completed), Sample No. 4, screen 2267 to 2515, static head 176, pumping level 341, Temp. 93°F. Taken 9-19-53 after 24 hours pumping at 1955 G.P.M. with 15" RKHC 5 stage, 500 ft. setting.

CERTIFICATE OF ANALYSIS
Parts per Million:

Calcium Bicarbonate	27.9
Magnesium Bicarbonate	9.6
Sodium Bicarbonate	364.0
Sodium Carbonate	31.8
Sodium Sulfate	121.4
Sodium Chloride	1122.0
Silica	13.4
Iron Oxide	0.1
Aluminium Oxide	1.0
Volatile & Organic Matter	41.0
Total Solids	1732.2

Total Hardness as Calcium Carbonate	24
Phenolphthalein Alkalinity	15
Methyl Orange Alkalinity	270
Free Carbon Dioxide	0
pH	8.40

IONS:

Calcium	6.9	Bicarbonate	293.
Magnesium	1.6	Carbonate	18.
Sodium (Calc.)	595.2	Sulfate	82.
Iron (Fe)	0.1	Chloride	680.

Appearance: Clear and colorless with trace of sediment.

Report No. 9-0528.

DT
RD 18-50-501

Typewrite (Black ribbon) or Print Plainly
(soft pencil or black ink)
Do not use ball point pen

Texas Department of Health Laboratories
1100 West 49th Street
Austin, Texas 78756

TWDB ONLY
Organization No. 422 Lab No. [redacted]
Work No. 6042 (IDC (8-87)-1585)

CHEMICAL WATER ANALYSIS REPORT

Send Reply To:
Water Availability Data and Studies Section
Texas Water Development Board
Stephen F. Austin Building
1700 Congress Ave.
Austin, Texas 78711
Attn: Robert A. Flores Rm. 304-G

County 043 Collin
State Well No. 10-50-501
Well No.
Date Collected 07-28-87

Owner Texas Power and Light Co. ✓ Send copy to owner Sample No. 1 By RAF
Address P.O. 16, Frisco, Tx 75034 Well Location SH 289
Date Drilled 060353 Depth 2525 ft. WBF Twin Mountains Source (type of well) —
Producing intervals 2266-2515 Water level — ft. Sample depth 2525 ft.
Sampled after pumping 20 min. ~~hrs.~~ Yield — GPM meas. est. Temperature 101 °F °C
Point of collection faucet at well head Appearance ☒ clear ☐ turbid ☐ colored ☐ other
Use Ind. Remarks —

(FOR LABORATORY USE ONLY)

CHEMICAL ANALYSIS

Laboratory No. [redacted] Date Received AUG 03 '87 Date Reported AUG 24 '87

KEY PUNCHED

WATER ANALYSIS
Date: 081987

State Well No: 1R-50-501 Sample No: TDZ-1955

	MG/L	ME/L		MG/L	ME/L
Silica: 00955:	16		Carbonate: 00445:	0	0
Calcium: 00915:	7	.37	Bicarbonate: 00440:	284	4.66
Magnesium: 00925:	1	.11	Sulfate: 00946:	78	1.63
Sodium: 00930:	680	29.57	Chloride: 00940:	839	23.65
Potassium: 00935:	2	.05	Fluoride: 00950:	.2	.01
T. Cations		30.10	Nitrate as NO3: 71851:	.22	0
Manganese: 01055:		%Na	T. Anions		29.95
			pH: 00403:	8.3	
Boron: 01020:		SAR			
			TDS (Calc): 70301:	1764	
Total Iron: 01045:		RSC	P. Alk.: 00415:	0	
Other			T. Alk.: 00410:	233	
(Specific Cond.: 00095:		2270	T. Hardness: 00900:	24	

Diluted Conductance (micromhos/cm3)
26 x138 =3588

__ items will be analyzed if checked.

Ammonia-N: 00610:
Nitrite-N: 00615:
Nitrate-N: 00620:
OrganicNitrogen: 00605:

TWDB-0811 (Rev.02-27-86)

Typewrite (Black ribbon) or Print Plainly
(soft pencil or black ink)
Do not use ball point pen

Texas State Department of Health Laboratories
1100 West 49th Street
Austin, Texas 78756

TWDBE-GW ONLY
Program No. _____
Proj. No. 6025

CHEMICAL WATER ANALYSIS REPORT

Send report to:
Ground Water Data and Protection Division
Texas Water Development Board
P.O. Box 13087
Austin, Texas 78711

County 043 Collin
State Well No. 118-50-901
Well No. TP&L #1
Date Collected 08-10-76
By Gene Davis

Location _____
Source (type of well) drilled Owner Texas Power & Light Co.
Date Drilled _____ Depth 525 ft. WBF Twin Mountains
Producing intervals _____ Water level _____ ft.
Sampled after pumping _____ hrs. Yield 1600 GPM (est.) Temperature 101 °F ___ °C
Point of collection well Appearance, ☑ clear ☐ turbid ☐ colored ☐ other
Use _____ Remarks Copy To: T.P.+L. Co., P.O. Box 16, FRISCO, Texas 75034

(FOR LABORATORY USE ONLY)
Laboratory No. 318566 B
CHEMICAL ANALYSIS
Date Received AUG 17 1976
KEY PUNCHED
Date Reported OCT. 18. 1976

	MG/L	ME/L
Silica	14	
Calcium	3	0.13
Magnesium	4	0.31
Sodium	620	27.09
Total		27.53
☐ Potassium		
☐ Manganese		
☐ Boron		
3/ ☐ Total Iron		
☐ (other) _____	MG/L	
Specific Conductance (micromhos/cm³)	2790	
Diluted Conductance (micromhos/cm³)	26 x 123 = 3198	

%Na _____
SAR _____
RSC _____

" ☐ " items will be analyzed if checked.

	MG/L	ME/L
Carbonate	149	0
Bicarbonate	304	4.98
Sulfate	81	1.69
Chloride	740	20.94
Fluoride	0.2	
Nitrate	<0.4	
pH	8.3	
Total		27.61
1/ Dissolved Solids (sum in MG/L)		1610
Phenolphthalein Alkalinity as $CaCO_3$		0
Total Alkalinity as $CaCO_3$	(4.98)	249
Total Hardness as $CaCO_3$	(0.44)	22
2/ Nitrogen Cycle		
Ammonia - N		
Nitrite - N		
Nitrate - N		
Organic Nitrogen		

1/ The bicarbonate reported in this analysis is converted by computation (multiplying by 0.4917) to an equivalent amount of carbonate, and the carbonate figure is used in the computation of this sum.
2/ Nitrogen cycle requires separate sample.
3/ Total Iron requires separate sample.

TWDBE-WD-1 (Rev. 2-17-76)

Analyst _____ Checked By _____

Typewrite (Black ribbon) or Print Plain.
(soft pencil or black ink)
Do not use ball point pen

Texas State Department of Health Laboratories
1100 West 49th Street
Austin, Texas 78756

TWDBE-GW ONLY
Program No. 429
Proj. No.

CHEMICAL WATER ANALYSIS REPORT

Send report to:

Ground Water Division
Texas Water Development Board
P.O. Box 13087
Austin, Texas 78711

County DT COLLIN
State Well No. 18-50-501
OWNER'S Well No. 1
Date Collected 11-10-71
By CORNELIS (FOR WYATT)

Location
Source (type of well) TURBINE Owner TEXAS POWER & LIGHT Co, P.O. BOX 16 FRISCO, TEX. 75034
Date Drilled Depth 1525 ft. WBF TRAVIS PEAK
Producing intervals Water level ft.
Sampled after pumping hrs. Yield GPM meas. est. Temperature 098 °F °C
Point of collection TAP AT WELL Appearance ☑ clear ☐ turbid ☐ colored ☐ other
Use INDUSTRIAL Remarks ATTN: MR. JOE BRICKER

(FOR LABORATORY USE ONLY)

CHEMICAL ANALYSIS

Laboratory No. 211154 Date Received NOV 18 1971 KEY PUNCHED Date Reported NOV. 30 1971

	MG/L	ME/L
Silica	17	
Calcium	7	0.34
Magnesium	2	0.16
Sodium	590	25.66
Total		26.16
☐ Potassium	.	
☐ Manganese	.	
☐ Boron	.	
3/ ☐ Total Iron	.	
☐ (other)	MG/L	

%Na
SAR
RSC

	MG/L	ME/L
Carbonate	149	0
Bicarbonate	304	4.98
Sulfate	85	1.77
Chloride	700	19.65
Fluoride	0.2	
Nitrate	0.4	
pH	8.1	
Total		26.40

Specific Conductance (micromhos/cm3) 2690
Diluted Conductance (micromhos/cm3) 26 x 121 = 3146

" ☐ " items will be analyzed if checked.

1/ Dissolved Solids (sum in MG/L) 1550
Phenolphthalein Alkalinity as C aCO3 0
Total Alkalinity as C aCO3 (4.98) 249
Total Hardness as C aCO3 (0.50) 25

2/ Nitrogen Cycle

	ME/L
Ammonia - N	
Nitrite - N	
Nitrate - N	
Organic Nitrogen	

1/ The bicarbonate reported in this analysis is converted by computation (multiplying by 0.4917) to an equivalent amount of carbonate, and the carbonate figure is used in the computation of this sum.
2/ Nitrogen cycle requires separate sample.
3/ Total Iron requires separate sample.

TWDBE-GW-50 (Rev. 7-1-71)

Analyst Checked By

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
6	1 of 1	ENE	0.50 / 2,662.73	Eugene Lochman 15550 Preston Road Frisco TX 75035	SDRW WELLS

Track NO: 405756
Date Submitted: 2015-09-30
Owner Name: Eugene Lochman
Owner Address: 100100 Taylor Craft Drive
Owner Address2:
Owner City: McKinney
Owner State: TX
Owner Zip: 75071
County: Collin
Type of Work: New Well
Typ of Wrk Oth Descr:
Proposed Use: Irrigation
Prop Use Oth Descr:
Latitude: 33.206278
Longitude: -96.801528
Drilling Date Started: 2015-06-01
Drilling Date Completed: 2015-09-17
Chemical Analysis: No
Company Name: Earth Tech
Company Address: 145 Rose Lane
CompanyAddress2:
Company City: Frisco
Company State: TX
Company Zip: 75034
Company Country:
Data Source: Full SDR Database; SDRDB Well Location (Map)
Report Link: https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=405756&Type=SDR-Well

Well Borehole Information

Top Depth:
Bottom Depth: 900.0

Top Depth: 0
Bottom Depth: 900

Well Strata

Water Type:

Woodbine

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
7	1 of 1	ESE	0.56 / 2,957.45	Thomas Wilson 14400 N. Preston Rd. Frisco TX 75034	SDRW WELLS

Track NO: 58974
Date Submitted: 2005-05-17
Owner Name: Thomas Wilson
Owner Address: 306 Geis
Owner Address2:
Owner City: Pottsboro
Owner State: TX
Owner Zip: 75076
County: Collin
Type of Work: New Well
Typ of Wrk Oth Descr:
Proposed Use: Irrigation
Prop Use Oth Descr:
Latitude: 33.1975
Longitude: -96.801667
Drilling Date Started: 2005-03-22
Drilling Date Completed: 2005-04-01
Chemical Analysis:
Company Name: A.L. Moser Drilling Inc.
Company Address: P.O. Box 96
CompanyAddress2:
Company City: Pottsboro
Company State: TX
Company Zip: 75076
Company Country:
Data Source: Full SDR Database; SDRDB Well Location (Map)
Report Link: https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=58974&Type=SDR-Well

Well Borehole Information

Top Depth:
Bottom Depth: 1065.0

Top Depth: 0
Bottom Depth: 1065

Well Levels

Measurement: 460
Measurement Date: 2005-03-31

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
8	1 of 1	NW	0.75 / 3,949.77	MARIO SINACOLA CONST. HWY 380 & CR 76 FRISCO TX 75034	SDRW WELLS

Track NO: 90489
Date Submitted: 2006-08-16
Owner Name: MARIO SINACOLA CONST.
Owner Address: HWY 380 & CR 76
Owner Address2:
Owner City: FRISCO
Owner State: TX
Owner Zip: 75034
County: Collin
Type of Work: New Well
Typ of Wrk Oth Descr:
Proposed Use: Irrigation
Prop Use Oth Descr:
Latitude: 33.211667
Longitude: -96.821667
Drilling Date Started: 2005-09-09
Drilling Date Completed: 2005-09-16
Chemical Analysis: No
Company Name: EARTH TECH
Company Address: 1647 WITT RD STE. 105
CompanyAddress2:
Company City: FRISCO
Company State: TX
Company Zip: 75034
Company Country:
Data Source: Full SDR Database; SDRDB Well Location (Map)
Report Link: https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=90489&Type=SDR-Well

Well Borehole Information

Top Depth: 0
Bottom Depth: 700

Top Depth:
Bottom Depth: 700.0

Well Levels

Measurement: 183
Measurement Date: 2005-09-16

Well Strata

Water Type:

fresh

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update.

Federal

Wells from NWIS: FED USGS

The U.S. Geological Survey's (USGS) National Water Information System (NWIS) is the nation's principal repository of water resources data. The NWIS includes comprehensive information of well-construction details, time-series data for gage height, streamflow, groundwater level, and precipitation and water use data. This select NWIS Wells dataset contains specific Site Types from the overall NWIS Sites data, limited to the following Group Site Types only: Groundwater Group Site Types: Well, Collector or Ranney type well, Hyporheic-zone well, Interconnected Wells, Multiple wells; Spring Group Site Type: Spring; and Other Group Site Types: Aggregate groundwater use, Cistern. Applicable NWIS database information is obtained through the Water Quality Data Portal (WQP). The WQP is a cooperative service sponsored by the USGS, the Environmental Protection Agency (EPA), and the National Water Quality Monitoring Council (NWQMC).

Government Publication Date: Mar 11, 2024

State

Well Log Reports from Plotted Water Wells: TCEQ WELL LOGS

Locations of TCEQ Water Wells as derived from well logs in the Texas Commission on Environmental Quality (TCEQ) Water Well Report Viewer, which includes unnumbered water wells and those plotted to 2.5 minute grid locations (2-3 miles). In this collection of Well Log Reports, locations have been manually verified.

Government Publication Date: Jul 26, 2022

Select Wells from SDR: SDRW WELLS

Locations of wells from the Submitted Drillers Report (SDR) Database with select proposed usage: Domestic, Fracking Supply, Industrial, Irrigation, Other, Public Supply, Rig Supply, Stock, Unknown. SDR is populated from the online Texas Well Report Submission and Retrieval System (TWRSRS), a cooperative Texas Department of Licensing and Regulation (TDLR) and Texas Water Development Board (TWDB) application requiring registered water-well drillers to submit reports. Excludes SDR records with the following proposed usage: Closed-Loop Geothermal, De-watering, Environmental Soil Boring, Extraction, Injection, Monitor, Test Well.

Government Publication Date: Sep 24, 2024

Groundwater Database: GWDB

The Texas Water Development Board (TWDB) Groundwater Database (GWDB) contains information on selected water wells, springs, oil/gas tests (that were originally intended to be or were converted to water wells), water levels and water quality.

Government Publication Date: Jan 13, 2025

Fort Bend Subsidence District Water Wells: WW FORT BEND

List of water wells in the Fort Bend Subsidence District, boundaries of which are defined as all the territory within Fort Bend County. The Fort Bend Subsidence District was created by the Texas Legislature in 1989 as a conservation and reclamation district to control land subsidence and manage groundwater resources through regulation, conservation, and coordination with suppliers of alternative water sources to assure an adequate quantity and quality of water for the future. The District's purpose is to provide for the regulation of the withdrawal of groundwater within the District to prevent subsidence that contributes to flooding, inundation or overflow of areas within the District, including rising waters resulting from storms or hurricanes.

Government Publication Date: Sep 23, 2024

High Plains Water Wells: WW HIGH PLAINS

Inventory of water wells in the High Plains Underground Water Conservation District No. 1 (HPUWCD), which was created in 1951. As a political subdivision of Texas, HPUWCD is charged with protecting, preserving and conserving aquifers within the District's 16-county service area.

Government Publication Date: Apr 14, 2024

Harris Galveston Subsidence District Water Wells: WW HARRIS GAL

List of water wells in the Harris-Galveston Subsidence District (HGSD). The HGSD was created by the 64th Texas Legislature as an underground water conservation district in 1975 to provide regulation of groundwater withdrawal to control subsidence.

Government Publication Date: Sep 23, 2024

Water Utility Database: WUD

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.

Government Publication Date: Oct 1, 2020

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

APPENDIX I/IIC

ENVIRONMENTAL EVALUATION REPORT

Includes pages I/IIC-1 through I/IIC-25

BAIRD, HAMPTON & BROWN

Mr. Nevzat Turan, P.E.
Weaver Consultants Group
Via Email

RE: Gateway Transfer Station
Environmental Permitting
BHB PROJECT 2025

Dear Mr. Turan:

We appreciate the opportunity to assist in the environmental evaluation of the proposed Gateway Transfer Station in Frisco, Texas. The purpose of the evaluation included investigation for presence/absence of waters of the U.S. and threatened and endangered species habitat. The site visit was conducted on October 27, 2025.

WATERS OF THE U.S. DELINEATION AND ASSESSMENT

Per the requirements set forth in Title 30 ENVIRONMENTAL QUALITY; Part 1 TEXAS COMMISSION ON ENVIRONMENTAL QUALITY; Chapter 330 MUNICIPAL SOLID WASTE; Subchapter M LOCATION RESTRICTIONS; Rule §330.553 Wetlands, BHB conducted a field investigation of the site to determine if there were any waters of the U.S. present on the site.

Streams are delineated according to the USACE Regulatory Guidance Letter (RGL) 05-05 Ordinary High Water Mark (OHWM) Identification for non-tidal waters and the Mean High Tide (MHT) line for tidal waters. Per Section 404 of the Clean Water Act (CWA), wetlands are delineated using the routine method described in the USACE 1987 Wetlands Delineation Manual (!987 Manual) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plain Region dated 2010. Wetland types and boundaries are determined through initial map review, followed by field work involving the examination of three parameters: hydrology, vegetation, and soils. Delineation criteria and indicators for each of these parameters are outlined in the 1987 Manual and the 2010 Regional Supplement, which present wetland indicators, delineation guidance, and other specific to the Great Plains. Wetlands, when present, are also classified according to the Cowardin Classification System used for the U.S. Fish and Wildlife Service National Wetlands Inventory. Furthermore, the delineation was conducted using the latest guidance (March 12, 2025) on the U.S. Supreme Court Sackett Ruling in May 2023.

In accordance with the procedure set forth in the 1987 Manual and the 2010 Regional Supplement, the hydrophytic status of vegetation communities is determined by identifying dominant species and, if necessary, calculating a "Prevalence Index," as defined in the 1987 Manual. Individual plant species are checked against the (current date) National Wetland Plant List (USACE 2023), and their regional wetland indicator statuses were determined. Species are classified as follows:

- Obligate Wetland (OBL) if they almost always occur in wetlands (>99 percent of the time)
- Facultative Wetland (FACW) if they usually occur in wetlands (67-99 percent of the time)

- Facultative (FAC) if they are equally likely to occur in wetlands and non-wetlands (34-66 percent of the time)
- Facultative Upland (FACU) if they usually occur in non-wetlands (67-99 percent of the time)
- Obligate Upland (UPL) if they almost always occur in non-wetlands (>99 percent of the time)
- No indicator (NI) status for those species for which insufficient information is available to determine an indicator status

Hydrophytic vegetation is considered prevalent where more than 50% of the dominant species in a plant community have an indicator status of OBL, FACW, or FAC. However, in cases where the vegetation community does not meet this hydrophytic threshold, but indicators of hydric soils and wetland hydrology are present, the prevalence index can be applied. Calculation of this index is based on consideration of both dominant and non-dominant plants in each stratum of the vegetation community, whereby each indicator status category is given a numeric code and weighted by absolute percent cover. The prevalence index ranges from 1 to 5 and an index of 3.0 or less signifies that hydrophytic vegetation is present.

Additional methods have been added to the delineation requirements by the Fort Worth District of the U.S. Army Corps of Engineers (USACE). One method, Surface Duration Assessment Method (SDAM), was developed for potential inclusion in delineations in North Texas. Another method, the National Ordinary High Water Mark (OHWM) Field Delineation Manual for Rivers and Streams was issued in January 2025. This method assists in the identification of the OHWM which is the extent of federal jurisdiction for streams and rivers.

As mentioned before, BHB conducted the field investigation on October 27, 2025 for purposes of identifying any stream or wetlands that could be considered waters of the U.S. Based on observations in the field, there were no water features that met the criteria as a waters of the U.S.

THREATENED AND ENDANGERED SPECIES ASSESSMENT

Per the requirements set forth in Title 30 ENVIRONMENTAL QUALITY; Part 1 TEXAS COMMISSION ON ENVIRONMENTAL QUALITY; Chapter 330 MUNICIPAL SOLID WASTE; Subchapter M LOCATION RESTRICTIONS; Rule §330.551 Endangered or Threatened Species, BHB conducted a field investigation of the site to determine if there were any threatened or endangered species, or their critical habitat, within the project site.

The purpose of the Endangered Species Act (ESA) is to protect and recover imperiled species and the ecosystems on which they depend. It is administered by the U.S. Fish and Wildlife Service (USFWS) and the Commerce Department's National Marine Fisheries Service (NMFS). The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon.

Under the ESA, species may be listed as either endangered or threatened. "Endangered" means a species is in danger of extinction throughout all or a significant portion of its range. "Threatened" means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments.

The USFWS lists the following (Table 1) as threatened or endangered species occurring in Collin County (USFWS, 2024). No critical habitat for any federally threatened or endangered species occurs in the

project area.

In addition to federally listed species, the Texas Parks and Wildlife Department (TPWD) lists the following (Table 2) state-protected species thought to occur in Collin County.

Table 1
Federally Protected Species Occurring in Collin County, Texas

Common Name	Scientific Name	Type	Federal Status
Tricolored Bat	*Perimyotis subflavus*	Mammal	Proposed Endangered
Alligator Snapping Turtle	*Macrochlemys temminckii*	Reptile	Proposed Threatened
Monarch Butterfly	*Danaus Plexippus*	Insect	Proposed Threatened
Piping Plover	*Charadrius melodus*	Bird	Threatened
Rufa Red Knot	*Calidris canutus rufa*	Bird	Threatened
Whooping Crane	*Grus americana*	Bird	Endangered

Table 2
State Protected Species Occurring in Collin County, Texas

Common Name	Scientific Name	Type	State Status
Black Rail	*Laterallus jamaicensis*	Bird	Threatened
Piping Plover	*Charadrius melodus*	Bird	Threatened
Rufa Red Knot	*Calidris canutus rufa*	Bird	Threatened
Interior Least Tern	*Sterna antillarum athalassos*	Bird	Endangered
White-faced Ibis	*Plegadis chihi*	Bird	Threatened
Whooping Crane	*Grus americana*	Bird	Endangered
Wood Stork	*Mycteria americana*	Bird	Threatened
Louisiana Pigtoe	*Pleurobema riddellii*	Mollusk	Threatened
Texas Heelsplitter	*Potamilus amphichaenus*	Mollusk	Threatened
Texas Horned Lizard	*Phrynosoma cornutum*	Reptile	Threatened
Alligator Snapping Turtle	*Macrochelys temminckii*	Reptile	Threatened

Based on the filed observations, there were no threatened and endangered species, or their critical habitat, observed on the property. In addition, suitable habitat was not observed for any listed species.

CONCLUSIONS

Based on the research and the field investigation, it is BHB's professional opinion that the project site does not contain any waters of the U.S. nor threatened and endangered species, or their critical habitat. As a result of our findings, the project can proceed without any further investigation on these particular criteria.

Please feel free to contact me if you have any questions or need additional information.

Sincerely,

Baird, Hampton & Brown

Peter D. McKone, CWB
Associate, Director of Environmental Services

CC: Patrick Eakins, P.E.

Attachment: Threatened and Endangered Species

ATTACHMENT

IPaC U.S. Fish & Wildlife Service

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Collin County, Texas

Local office

Arlington Ecological Services Field Office

(817) 277-1100
(817) 277-1129
[redacted]

17629 El Camino Real, Suite 211
Houston, TX 77058-3051

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Tricolored Bat Perimyotis subflavus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

Birds

NAME	STATUS
Piping Plover Charadrius melodus This species only needs to be considered if the following condition applies: • Wind Energy Projects There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6039	Threatened
Rufa Red Knot Calidris canutus rufa Wherever found This species only needs to be considered if the following condition applies: • Wind Energy Projects There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1864	Threatened

NOT FOR CONSULTATION

Whooping Crane Grus americana	Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/758

Reptiles

NAME	STATUS
Alligator Snapping Turtle Macrochelys temminckii Wherever found	Proposed Threatened

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4658

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found	Proposed Threatened

There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/9743

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete

NOT FOR CONSULTATION

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

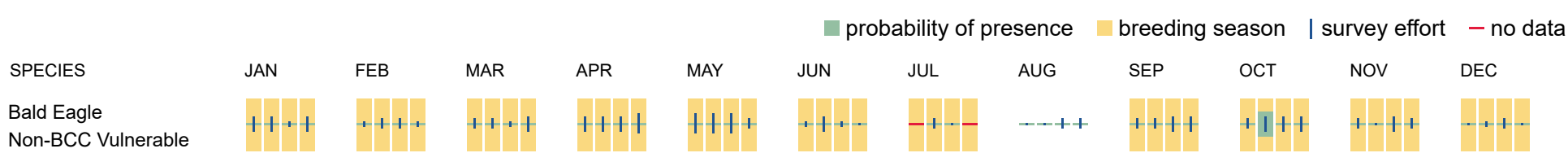
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Bald & Golden Eagles FAQs

NOT FOR CONSULTATION

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle (Bald and Golden Eagle Protection Act requirements may apply).

Proper interpretation and use of your eagle report
On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Migratory birds

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

Measures for Proactively Minimizing Migratory Bird Impacts

NOT FOR CONSULTATION

Your IPaC Migratory Bird list showcases birds of concern, including Birds of Conservation Concern (BCC), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the Nationwide avoidance and minimization measures for birds document, and any other project-specific avoidance and minimization measures suggested at the link Measures for avoiding and minimizing impacts to birds for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles document, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Chimney Swift Chaetura pelagica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Little Blue Heron Egretta caerulea This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 10 to Oct 15
Prairie Loggerhead Shrike Lanius ludovicianus excubitorides This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8833	Breeds Feb 1 to Jul 31
Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

NOT FOR CONSULTATION

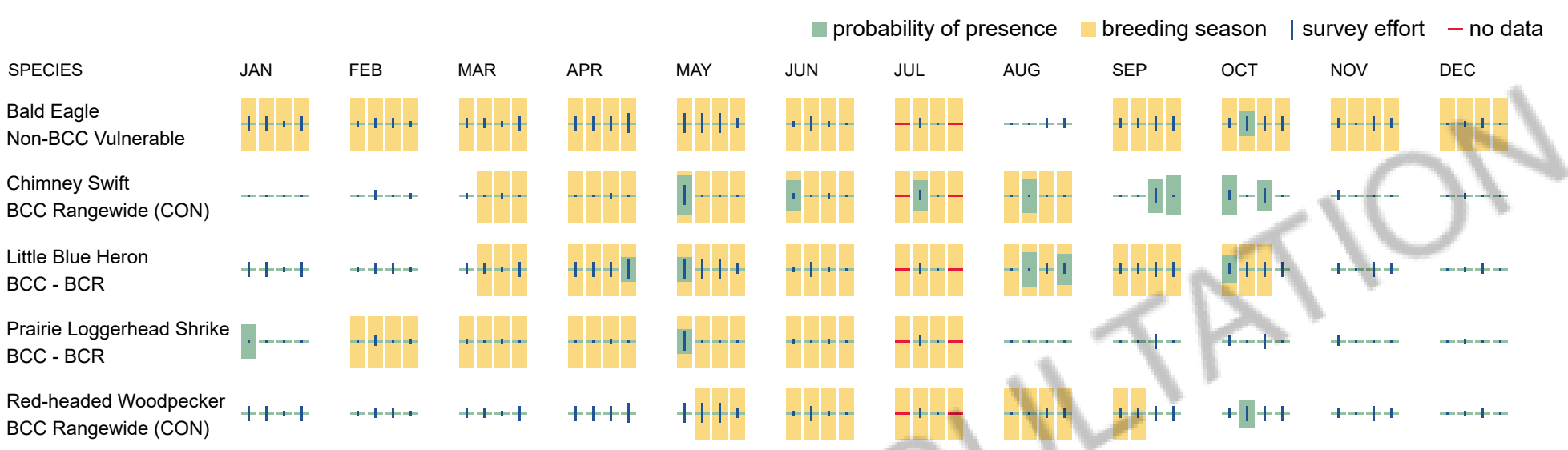
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Avoidance & Minimization Measures for Birds describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the Bald and Golden Eagle Protection Act and those species marked as “Vulnerable”. See the FAQ “What are the levels of concern for migratory birds?” for more information on the levels of concern covered in the IPaC migratory bird species list.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle (Bald and Golden Eagle Protection Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the Rapid Avian Information Locator (RAIL) Tool.

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, or migrating in my area?

NOT FOR CONSULTATION

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Bald and Golden Eagle Protection Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Proper interpretation and use of your migratory bird report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not represent all birds present in your project area. It is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs
Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

NOT FOR CONSULTATION

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER POND
PUBHx

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Last Update: 1/15/2025

COLLIN COUNTY

AMPHIBIANS

southern crawfish frog *Lithobates areolatus areolatus*

Terrestrial and aquatic: The terrestial habitat is primarily grassland and can vary from pasture to intact prairie; it can also include small prairies in the middle of large forested areas. Aquatic habitat is any body of water but preferred habitat is ephemeral wetlands.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4T4	State Rank: S3

Strecker's chorus frog *Pseudacris streckeri*

Terrestrial and aquatic: Wooded floodplains and flats, prairies, cultivated fields and marshes. Likes sandy substrates.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S3

Woodhouse's toad *Anaxyrus woodhousii*

Terrestrial and aquatic: A wide variety of terrestrial habitats are used by this species, including forests, grasslands, and barrier island sand dunes. Aquatic habitats are equally varied.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S5

BIRDS

bald eagle *Haliaeetus leucocephalus*

Found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds

Federal Status:	State Status:	SGCN: N
Endemic: N	Global Rank: G5	State Rank: S3B,S3N

Bank Swallow *Riparia riparia*

Bank Swallows live in low areas along rivers, streams, ocean coasts, and reservoirs. Their territories usually include vertical cliffs or banks where they nest in colonies of 10 to 2,000 nests. Though in the past Bank Swallows were most commonly found around natural bluffs or eroding streamside banks, they now often nest in human-made sites, such as sand and gravel quarries or road cuts. They forage in open areas and avoid places with tree cover.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S2B,S4N

black rail *Laterallus jamaicensis*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Salt, brackish, and freshwater marshes, pond borders, wet meadows, and grassy swamps; nests in or along edge of marsh, sometimes on damp ground, but usually on mat of previous years dead grasses; nest usually hidden in marsh grass or at base of Salicornia

Federal Status: T	State Status: T	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2

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COLLIN COUNTY

BIRDS

Brewer's Blackbird *Euphagus cyanocephalus*

Shrubby and bushy areas (especially near water), riparian woodland, aspen parklands, cultivated lands, marshes, and around human habitation; in migration and winter also in pastures and fields (AOU 1983).

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S5

chestnut-collared longspur *Calcarius ornatus*

Occurs in open shortgrass settings especially in patches with some bare ground. Also occurs in grain sorghum fields and Conservation Reserve Program lands

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S3

Common Grackle *Quiscalus quiscula*

Common Grackles do well in human landscapes, using scattered trees for nesting and open ground for foraging. Typical natural habitats include open woodland, forest edge, grassland, meadows, swamps, marshes, and palmetto hammocks. They are also very common near agricultural fields and feedlots, suburbs, city parks, cemeteries, pine plantations, and hedgerows. Unbroken tracts of forest are the only places where you are unlikely to find Common Grackles.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S5B

Common Nighthawk *Chordeiles minor*

Common Nighthawks nest in both rural and urban habitats including coastal sand dunes and beaches, logged forest, recently burned forest, woodland clearings, prairies, plains, sagebrush, grasslands, open forests, and rock outcrops. They also nest on flat gravel rooftops, though less often as gravel roofs are being replaced by smooth, rubberized roofs that provide an unsuitable surface.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S4B

Franklin's gull *Leucophaeus pipixcan*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. This species is only a spring and fall migrant throughout Texas. It does not breed in or near Texas. Winter records are unusual consisting of one or a few individuals at a given site (especially along the Gulf coastline). During migration, these gulls fly during daylight hours but often come down to wetlands, lake shore, or islands to roost for the night.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S2N

interior least tern *Sternula antillarum athalassos*

Sand beaches, flats, bays, inlets, lagoons, islands. Subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony

Federal Status: State Status: E SGCN: N
Endemic: N Global Rank: G4T3Q State Rank: S1B

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COLLIN COUNTY

BIRDS

Least Tern *Sternula antillarum*

Sand beaches, flats, bays, inlets, lagoons, islands, river sandbars and flat gravel rooftops in urban areas.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S2B

Loggerhead Shrike *Lanius ludovicianus*

Loggerhead Shrikes inhabit open country with short vegetation and well-spaced shrubs or low trees, particularly those with spines or thorns. They frequent agricultural fields, pastures, old orchards, riparian areas, desert scrublands, savannas, prairies, golf courses, and cemeteries. Loggerhead Shrikes are often seen along mowed roadsides with access to fence lines and utility poles.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S4B

Mottled Duck *Anas fulvigula*

Estuaries, ponds, lakes, secondary bays.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S4B

Northern Bobwhite *Colinus virginianus*

Inhabits a wide variety of vegetation types, particularly early successional stages. Occurs in croplands, grasslands, pastures, fallow fields, grass-brush rangelands, open pinelands, open mixed pine-hardwood forests, and habitat mosaics (Brennan 1999).

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4G5	State Rank: S4B

piping plover *Charadrius melodus*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Beaches, sandflats, and dunes along Gulf Coast beaches and adjacent offshore islands. Also spoil islands in the Intracoastal Waterway. Based on the November 30, 1992 Section 6 Job No. 9.1, Piping Plover and Snowy Plover Winter Habitat Status Survey, algal flats appear to be the highest quality habitat. Some of the most important aspects of algal flats are their relative inaccessibility and their continuous availability throughout all tidal conditions. Sand flats often appear to be preferred over algal flats when both are available, but large portions of sand flats along the Texas coast are available only during low-very low tides and are often completely unavailable during extreme high tides or strong north winds. Beaches appear to serve as a secondary habitat to the flats associated with the primary bays, lagoons, and inter-island passes. Beaches are rarely used on the southern Texas coast, where bayside habitat is always available, and are abandoned as bayside habitats become available on the central and northern coast. However, beaches are probably a vital habitat along the central and northern coast (i.e. north of Padre Island) during periods of extreme high tides that cover the flats. Optimal site characteristics appear to be large in area, sparsely vegetated, continuously available or in close proximity to secondary habitat, and with limited human disturbance.

Federal Status: T	State Status: T	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2N

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COLLIN COUNTY

BIRDS

rufa red knot *Calidris canutus rufa*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Habitat: Primarily seacoasts on tidal flats and beaches, herbaceous wetland, and Tidal flat/shore. Bolivar Flats in Galveston County, sandy beaches Mustang Island, few on outer coastal and barrier beaches, tidal mudflats and salt marshes.

Federal Status: T	State Status: T	SGCN: Y
Endemic: N	Global Rank: G4T2	State Rank: S2N

Sanderling *Calidris alba*

Nonbreeding: primarily sandy beaches, less frequently on mud flats and shores of lakes or rivers (AOU 1983) also on exposed reefs (Pratt et al. 1987). Sleeps/loafs on upper beach or on salt pond dike.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S5

Snowy Plover *Charadrius nivosus*

Algal flats appear to be the highest quality habitat. Some of the most important aspects of algal flats are their relative inaccessibility and their continuous availability throughout all tidal conditions. An optimal site characteristic would be large in size. The size of populations appear to be roughly proportional to the total area of suitable habitat used. Formerly an uncommon breeder in the Panhandle; potential migrant; winter along coast.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S3B

Sprague's pipit *Anthus spragueii*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Habitat during migration and in winter consists of pastures and weedy fields (AOU 1983), including grasslands with dense herbaceous vegetation or grassy agricultural fields.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S3N

western burrowing owl *Athene cunicularia hypugaea*

Open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows

Federal Status:	State Status:	SGCN: N
Endemic: N	Global Rank: G4T4	State Rank: S2

white-faced ibis *Plegadis chihi*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; currently confined to near-coastal rookeries in so-called hog-wallow prairies. Nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats.

Federal Status:	State Status: T	SGCN: N
Endemic: N	Global Rank: G5	State Rank: S4B

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COLLIN COUNTY

BIRDS

whooping crane *Grus americana*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Small ponds, marshes, and flooded grain fields for both roosting and foraging. Potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties.

Federal Status: E	State Status: E	SGCN: Y
Endemic: N	Global Rank: G1	State Rank: S1S2N

Willet *Tringa semipalmata*

Marshes, tidal mudflats, beaches, lake margins, mangroves, tidal channels, river mouths, coastal lagoons, sandy or rocky shores, and, less frequently, open grassland (AOU 1983, Stiles and Skutch 1989).

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S5B

Wilson's Warbler *Cardellina pusilla*

Wilson’s warblers key in on forests and scrubby areas along streams to fatten up during migration. During the nonbreeding season they use many types of habitats from lowland thickets near streams to high-elevation cloud forests in Mexico and Central America.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S4

wood stork *Mycteria americana*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Prefers to nest in large tracts of baldcypress (Taxodium distichum) or red mangrove (Rhizophora mangle); forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960.

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: SHB,S3N

Yellow Rail *Coturnicops noveboracensis*

BREEDING: Emergent wetlands, grass or sedge marshes and wet meadows in freshwater situations. Some breeding territories in these wet meadows contain firm footing and only a few remnant pools of water (Berkey 1991). These areas can range from damp to 38 cm (15 inches) of water but the average depth used for nesting is 8 to 15 cm (3 to 6 inches) (Savaloja 1981). NON-BREEDING: Grain fields in winter and when migrating. Winters in both freshwater and brackish marshes, as well as in dense, deep grass. During fall migration, will use many open habitats, from rice paddies to dry hayfields.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S3N

yellow-billed cuckoo *Coccyzus americanus*

DISCLAIMER

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COLLIN COUNTY

BIRDS

In Texas, the populations of concern are found breeding in riparian areas in the Trans Pecos (know as part of the Western Distinct Population Segment). It is the Western DPS that is on the U.S. ESA threatened list and includes the Texas counties Brewster, Culberson, El Paso, Hudspeth, Jeff Davis, and Presidio. Riparian woodlands below 6,000' in elevation consisting of cottonwoods and willows are prime habitat. This species is a long-distant migrant that summers in Texas, but winters mainly in South America. Breeding birds of the Trans Pecos populations typically arrive on their breeding grounds possibly in late April but the peak arrival time is in May. Threats to preferred habitat include hydrologic changes that don't promote the regeneration of cottonwoods and willows, plus livestock browsing and trampling of sapling trees in sensitive riparian areas.

Federal Status: T	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S4S5B

CRUSTACEANS

No accepted common name *Caecidotea bilineata*

Spring obligate. Caecidotea bilineata is known only from non-cave groundwater habitats in deposits of Cretaceous age. It is presumably a phreatobite. Fine scale habitat requirements unknown.

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G2G3	State Rank: S1

Parkhill Prairie crayfish *Procambarus steigmani*

Burrower in long-grass prairie; all animals were collected with traps, thus there is no knowledge of depths of burrows; herbivore; crepuscular, nocturnal

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G1G2	State Rank: S1S2

FISH

spotted sucker *Minytrema melanops*

Found primarily in east Texas streams from the Red to the Brazos river basins. An isolated, disjunct population occurs in the Llano River near Junction downstream to about Mason; this may be an introduced population. Typically in clear creeks with firm substrates.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S3

INSECTS

American bumblebee *Bombus pensylvanicus*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic:	Global Rank: G3G4	State Rank: SNR

migratory monarch butterfly *Danaus plexippus plexippus*

Habitat description is not available at this time.

Federal Status: C	State Status:	SGCN: Y
Endemic:	Global Rank: G4T3	State Rank: SNR

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COLLIN COUNTY

MAMMALS

eastern spotted skunk *Spilogale putorius*

Generalist; open fields prairies, croplands, fence rows, farmyards, forest edges & woodlands. Prefer wooded, brushy areas & tallgrass prairies. S.p. ssp. interrupta found in wooded areas and tallgrass prairies, preferring rocky canyons and outcrops when such sites are available.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G4 State Rank: S1S3

hoary bat *Lasiurus cinereus*

Hoary bats are highly migratory, high-flying bats that have been noted throughout the state. Females are known to migrate to Mexico in the winter, males tend to remain further north and may stay in Texas year-round. Commonly associated with forests (foliage roosting species) but are found in unforested parts of the state and lowland deserts. Tend to be captured over water and large, open flyways.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G3G4 State Rank: S3

mountain lion *Puma concolor*

Generalist; found in a wide range of habitats statewide. Found most frequently in rugged mountains & riparian zones.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S2S3

plains spotted skunk *Spilogale interrupta*

Generalist; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G3 State Rank: S1S3

Seminole bat *Lasiurus seminolus*

Pine-oak and long-leaf pine in east Texas. Habitats include pine, mixed pine-hardwood, and hardwood forests of uplands and bottomlands, particularly pine-dominated forests, including mature pine and pine-hardwood corridors in managed pine forest landscapes (Menzel et al. 1998, 1999, 2000; Carter et al. 2004; Marks and Marks 2006; Perry and Thill 2007; Perry et al. 2007; Hein et al. 2008; Ammerman et al. 2012).

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S3

tricolored bat *Perimyotis subflavus*

Forest, woodland and riparian areas are important. Caves are very important to this species.

Federal Status: PE State Status: SGCN: Y
Endemic: N Global Rank: G3G4 State Rank: S2

MOLLUSKS

Deertoe *Truncilla truncata*

Reported from streams, rivers, lakes, and reservoirs. In riverine habitats primarily occurs in mainchannel habitats such as riffles or runs with moderate to swift current but may occasionally occur in areas with no current. Typically found in sand, gravel, cobble substrates, but sometimes may occur in firm mud or in crevices among large rocks and boulders (Parmalee and Bogan 1998; Williams et al. 2008).

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COLLIN COUNTY

MOLLUSKS

Federal Status: | State Status: | SGCN: Y
Endemic: N | Global Rank: G5 | State Rank: S3

Lilliput *Toxolasma parvum*

Reported from small streams, where it may penetrate into the headwaters, to large rivers, oxbows, sloughs, lakes, ponds, canals, borrow pits, and reservoirs. Primarily occurs in still to slow currents in mud and sand substrates (Coker et al. 1921; Read 1954; Neck and Metcalf 1988; Williams et al. 2008; Watters et al. 2009).

Federal Status: | State Status: | SGCN: Y
Endemic: N | Global Rank: G5 | State Rank: S3

Louisiana Fatmucket *Lampsilis hydiana*

Reported from streams to rivers, may penetrate into headwaters, oxbows, lakes, canals, and reservoirs. Reported to occur in still to moderate currents in sand, mud, and gravel substrates. In riverine systems it is found primarily in nearshore habitats such as banks, backwaters and oxbows (Howells et al. 1996; Randklev et al. 2013a; Randklev et al. 2014a; Tsakiris and Randklev 2016). It adapts readily to reservoirs and can cope with flow modification stemming from river impoundment (Randklev et al. 2016).

Federal Status: | State Status: | SGCN: Y
Endemic: N | Global Rank: G4 | State Rank: S4

Louisiana pigtoe *Pleurobema riddellii*

Occurs in small streams to large rivers in slow to moderate currents in substrates of clay, mud, sand, and gravel. Not known from impoundments (Howells 2010f; Randklev et al. 2013b; Troia et al. 2015). [Mussels of Texas 2019]

Federal Status: PT | State Status: T | SGCN: Y
Endemic: N | Global Rank: G1G2 | State Rank: S1

Mapleleaf *Quadrula quadrula*

Reported from streams to rivers, lakes, and reservoirs. In riverine habitats, it may be found in main-channel habitats such as riffles or runs in sand, gravel, and cobble substrates with moderate to swift currents. May also be found in nearshore habitats such as banks and backwaters to include pools in sand or mud substrates with little to no flow. (Williams et al. 2008; Howells 2016; Haag and Cicerello 2016).

Federal Status: | State Status: | SGCN: Y
Endemic: N | Global Rank: G5 | State Rank: S3

Pimpleback *Cyclonaias pustulosa*

Occurs in small streams to large rivers in habitats including riffles and runs with flowing water, also found in nearshore habitats such as banks and backwaters or pools. Can occur in reservoirs but varies based by population. Is often found in substrates comprising of sand, gravel, and cobble but also mud and silt (Howells et al. 1996; Williams et al. 2008; Watters et al. 2009).

Federal Status: | State Status: | SGCN: Y
Endemic: N | Global Rank: G5 | State Rank: SNR

Pistolgrip *Tritogonia verrucosa*

Reported from streams to rivers, lakes, and reservoirs, but considered less tolerant of impoundment (Haag and Cicerello 2016). Can occur in a variety of habitat types but most often found in main channel habitats such as riffles and runs with moderate current and sand, gravel, or cobble substrates (Howells et al. 1996; Williams et al. 2008).

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COLLIN COUNTY

MOLLUSKS

Federal Status: | State Status: | SGCN: Y
Endemic: N | Global Rank: G4G5 | State Rank: S3S4

Tapered Pondhorn *Uniomerus declivis*

It likely occurs in streams, rivers, oxbows, marshes, swamps, lakes, canals, ponds, and reservoirs in still to moderate currents in mud, sand, or gravel substrates. Also probably occurs in woody debris such as logjams and exposed roots of riparian trees (Williams et al. 2008).

Federal Status: | State Status: | SGCN: Y
Endemic: N | Global Rank: G5 | State Rank: SNR

Texas heelsplitter *Potamilus amphichaenus*

Occurs in small streams to large rivers in standing to slow-flowing water; most common in banks, backwaters and quiet pools; adapts to some reservoirs. Often found in soft substrates such as mud, silt or sand (Howells et al. 1996; Randklev et al. 2017a). [Mussels of Texas 2019]

Federal Status: PE | State Status: T | SGCN: Y
Endemic: N | Global Rank: G1G3 | State Rank: S1

REPTILES

alligator snapping turtle *Macrochelys temminckii*

Aquatic: Perennial water bodies; rivers, canals, lakes, and oxbows; also swamps, bayous, and ponds near running water; sometimes enters brackish coastal waters. Females emerge to lay eggs close to the waters edge.

Federal Status: PT | State Status: T | SGCN: Y
Endemic: N | Global Rank: G3 | State Rank: S2

American alligator *Alligator mississippiensis*

Aquatic: Coastal marshes; inland natural rivers, swamps and marshes; manmade impoundments.

Federal Status: SAT | State Status: | SGCN: N
Endemic: N | Global Rank: G5 | State Rank: S4

common garter snake *Thamnophis sirtalis*

Terrestrial and aquatic: Habitats used include the grasslands and modified open areas in the vicinity of aquatic features, such as ponds, streams or marshes. Damp soils and debris for cover are thought to be critical.

Federal Status: | State Status: | SGCN: Y
Endemic: N | Global Rank: G5 | State Rank: S2

eastern box turtle *Terrapene carolina*

Terrestrial: Eastern box turtles inhabit forests, fields, forest-brush, and forest-field ecotones. In some areas they move seasonally from fields in spring to forest in summer. They commonly enters pools of shallow water in summer. For shelter, they burrow into loose soil, debris, mud, old stump holes, or under leaf litter. They can successfully hibernate in sites that may experience subfreezing temperatures.

Federal Status: | State Status: | SGCN: Y
Endemic: N | Global Rank: G5 | State Rank: S3

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COLLIN COUNTY

REPTILES

slender glass lizard *Ophisaurus attenuatus*

Terrestrial: Habitats include open grassland, prairie, woodland edge, open woodland, oak savannas, longleaf pine flatwoods, scrubby areas, fallow fields, and areas near streams and ponds, often in habitats with sandy soil.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S3

Texas horned lizard *Phrynosoma cornutum*

Terrestrial: Open habitats with sparse vegetation, including grass, prairie, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive. Occurs to 6000 feet, but largely limited below the pinyon-juniper zone on mountains in the Big Bend area.

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G4G5	State Rank: S3

western box turtle *Terrapene ornata*

Terrestrial: Ornate or western box trutles inhabit prairie grassland, pasture, fields, sandhills, and open woodland. They are essentially terrestrial but sometimes enter slow, shallow streams and creek pools. For shelter, they burrow into soil (e.g., under plants such as yucca) (Converse et al. 2002) or enter burrows made by other species.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4G5	State Rank: S3

PLANTS

glandular gay-feather *Liatris glandulosa*

Occurs in herbaceous vegetation on limestone outcrops (Carr 2015). Flowering: July-Oct.

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G2	State Rank: S2

green hawthorn *Crataegus viridis var. glabriuscula*

In mesic soils of woods or on edge of woods, treeline/fenceline, or thicket. Above\near creeks and draws, in river bottoms. Flowering Mar-Apr; fruiting May-Oct.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5T3T4	State Rank: S3

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GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2429

TYPE V PERMIT APPLICATION

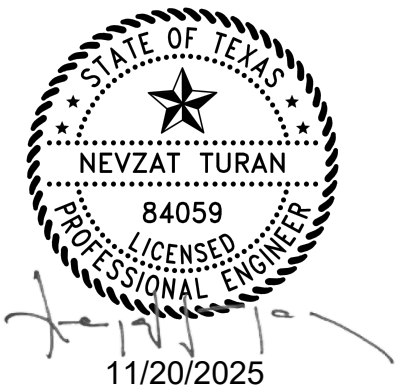
PART III – SITE DEVELOPMENT PLAN

Prepared for

North Texas Municipal Water District

November 2025

Revised November 20, 2025



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WCG Project No. 1678-013-11-08

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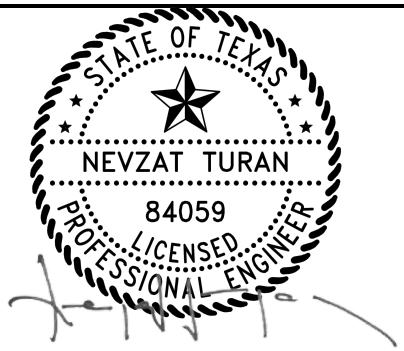
CONTENTS



LIST OF ACRONYMS **III-iv**

1 INTRODUCTION **III-1**
1.1 Background III-1
1.2 Site Location III-1
1.3 Land Use and Zoning §330.63(a) III-1

2 GENERAL FACILITY DESIGN **III-2**
2.1 Facility Access III-2
2.1.1 Adequacy of Access Roads and Highways §330.63(a) III-2
2.1.2 Fences and Access Control §330.63(b)(1) III-2
2.2 Waste Movement §330.63(b)(2) III-3
2.2.1 Waste Flow Diagram §330.63(b)(2)(A) III-3
2.2.2 Waste Process Schematic View §330.63(b)(2)(B) III-3
2.2.3 Ventilation and Odor Control §330.63(b)(2)(C) III-5
2.2.4 Generalized Construction Details §330.63(b)(2)(D) through (F) III-5
2.2.5 Noise Pollution Control §330.63(b)(2)(l) III-6
2.3 Sanitation and Water Pollution Control §330.63(b)(3) & (4) III-6
2.3.1 Surface Water and Groundwater Protection §330.63(b)(3)(A) and (4) III-6
2.3.2 Floor Wash Down §330.63(b)(3)(A) through (D) III-6
2.4 Protection of Endangered Species §330.63(b)(5) III-7

3 SURFACE WATER DRAINAGE REPORT §330.63(c) **III-8**
3.1 Drainage Design §330.63(c)(1) III-8
3.2 Floodplain Considerations §330.63(c)(2) III-8

4 WASTE MANAGEMENT UNIT DESIGN §330.63(d)(1) **III-9**
4.1 Waste Operations §330.63(d)(1)(A) III-9
4.2 Spill Prevention and Control §330.63(d)(1)(B) III-10
4.3 Waste Storage Period §330.63(d)(1)(C) III-10

5 CLOSURE PLAN §330.63(h) **III-11**

6 COST ESTIMATE FOR CLOSURE §330.63(j) **III-12**

CONTENTS (Continued)

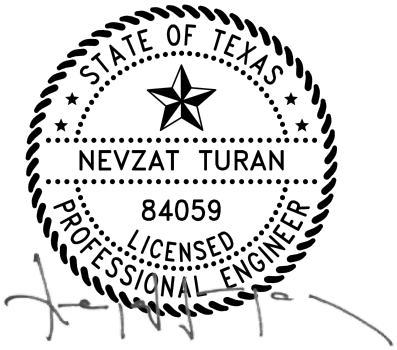
APPENDIX IIIA
General Facility Design Drawings

APPENDIX IIIB
Surface Water Drainage Report

APPENDIX IIIC
Closure Plan

APPENDIX IIID
Closure Cost Estimate

APPENDIX IIIE
Wastewater Discharge Authorization



11/12/2025

LIST OF ACRONYMS

FEMA – Federal Emergency Management Agency

FIRM – Flood Insurance Rate Map

MSW – Municipal Solid Waste

NTMWD – North Texas Municipal Water District

PCBs – Polychlorinated Biphenyls

SDP – Site Development Plan

SOP – Site Operating Plan

TAC – Texas Administrative Code

TCEQ – Texas Commission on Environmental Quality

TPDES – Texas Pollutant Discharge Elimination System

TS – Transfer Station

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 Gateway Drive Transfer Station (Gateway Drive TS or TS) are presented in Appendix IIIA – General Facility Design Drawings.

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

1.1 Background

The Gateway Drive TS will provide an efficient means to process and transfer the waste that is generated in the NTMWD's Solid Waste System Member Cities (currently consisting of Allen, Frisco, McKinney, Plano, and Richardson) and other customers in proximity to the TS facility in Collin County and surrounding areas. The Gateway Drive TS will transfer the waste into transfer trucks for hauling and disposal to a TCEQ permitted MSW landfill.

Support facilities for the Gateway Drive TS will include a site entrance road, scalehouse, scales, collection and transfer equipment parking/staging area, and the transfer station building which will include an internal citizens' collection station.

1.2 Site Location

The Gateway Drive TS is a proposed Type V MSW processing facility located 0.65 miles east of the Dallas North Tollway and 0.2 miles south of the intersection of PGA Parkway and Gateway Drive. The longitudinal and latitudinal geographic coordinates for the Gateway Drive TS are shown in Figure I/II-4.2.

1.3 Land Use and Zoning §330.63(a)

The Gateway Drive TS is located within the city limits of Frisco, Texas. Based on the City's Geographic Information Systems (GIS) mapping, the TS and surrounding properties 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 Gateway Drive TS will access the TS entrance from PGA Parkway, Dallas North Tollway, and Preston Road (State Highway 289). The entrance will be located approximately 0.65 miles east of Dallas North Tollway on Gateway Drive and 0.2 miles south of the intersection of PGA Parkway and Gateway Drive, as shown on Figure I/II-4.1 in Section 4 of Parts I/II. PGA Parkway, Dallas North Tollway and Preston Road (State Highway 289) are public roads maintained by the City of Frisco and the Texas Department of Transportation (TxDOT).

As noted in Parts I/II, Section 8.0 and in the Engineering Study included in Appendix I/IIA, the site access roads, PGA Parkway, Dallas North Tollway, and Preston Road will 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.

Gateway Drive is under construction and will be concrete pavement to support the waste hauling vehicles and trailers transferring waste. It will be mainly utilized by the City departments and a few commercial or industrial facilities and residences. The entrance road will be constructed of concrete from the Gateway Drive connection and has been designed for the traffic flow experienced by the TS and surrounding facilities.

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. The TxDOT's coordination documentation is included in Parts I/II, Appendix I/IIA.

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

Vehicle access to the TS building will be controlled by the scalehouse and TS operators during operating hours. An attendant will be on site at the scalehouse and/or in the TS building during operating hours to regulate access to the Gateway Drive TS. Outside operating hours, a gate constructed of suitable fencing materials will be located at each of the facility entrances on Gateway Drive, and the City of Frisco access road will 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 6-foot-high fence (e.g. wrought-iron or similar) located around the perimeter of the Gateway Drive TS facility.

The entrance area between Gateway Drive and the scalehouse will allow for an ample queuing area for incoming waste hauling vehicles to avoid disturbing vehicular traffic along Gateway Drive.

The NTMWD'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, persons delivering solid waste or recyclables for disposal, and properly identified persons whose entry is authorized by the Gateway Drive TS facility supervisor. The NTMWD 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 TS attendants to the TS. Signs will also be placed near the gates and scalehouse area identifying the direction and route to the Gateway Drive TS and other areas of the facility. The Gateway Drive TS attendants will monitor waste vehicles as they leave the facility to ensure that they are following the directed route within the facility.

A sign will be visibly displayed at the gated entrances to the facility. This sign will measure at least 4 feet by 4 feet and will have lettering of at least 3 inches in height. The sign will state the name of the facility, type of facility, hours and days of operation, and the TCEQ permit number. The sign will be readable from the facility entrances. Signs which include the facility rules will also be posted. This includes signs prohibiting receipt of prohibited wastes (including hazardous waste and PCB waste), liquid wastes, and closed drums. Signs prohibiting smoking will be 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)

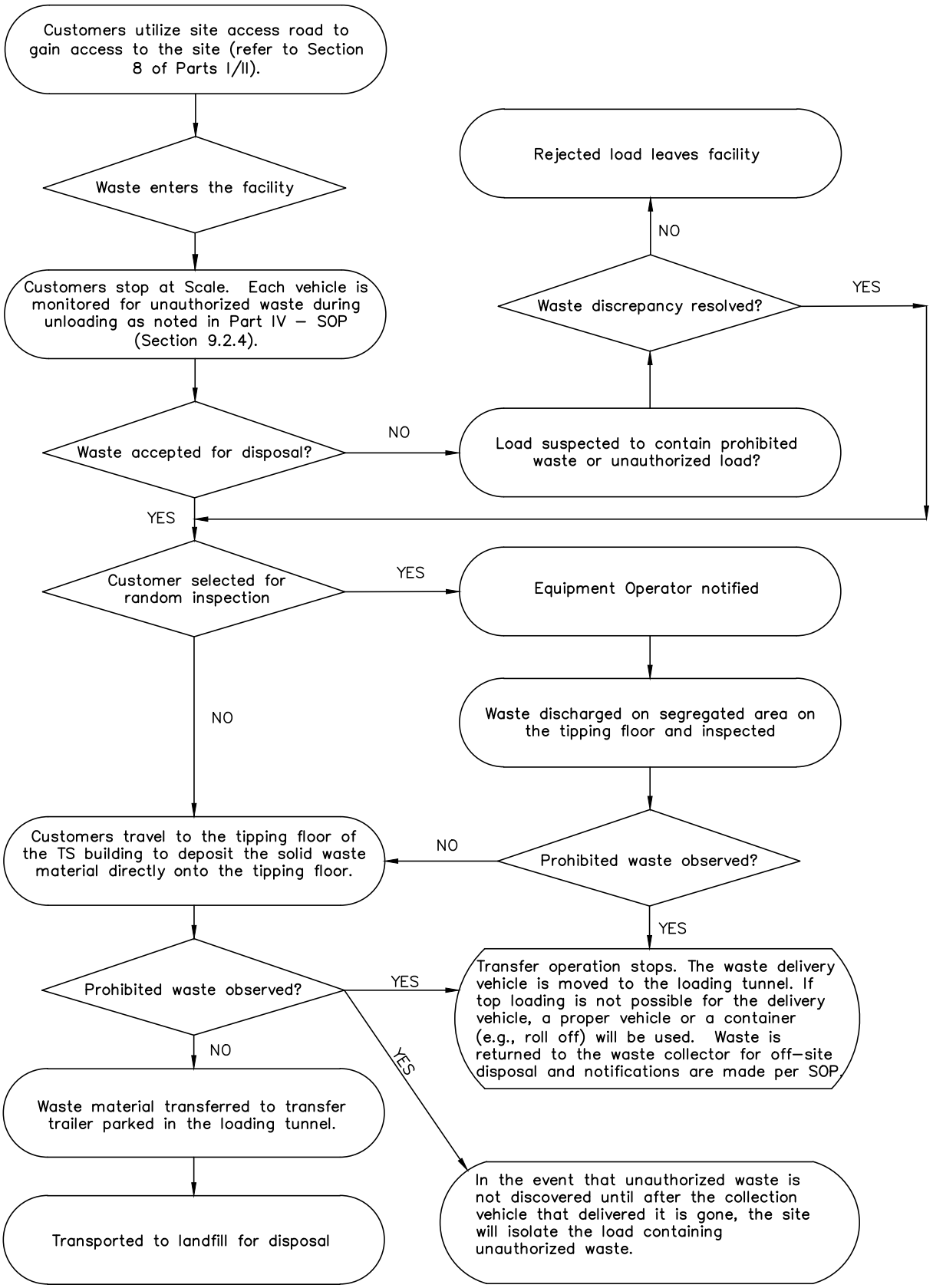
2.2.1 Waste Flow Diagram §330.63(b)(2)(A)

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 Gateway Drive TS and related structures within the permit boundary and the traffic flow patterns.

Figure III-2.1 - Waste Flow Diagram



P:\Solid waste\NTMWD\Gateway Drive TS\TS Application\Type V App\Part III\FIG 2.1-WASTE FLOW DIAGRAM.dwg, peakins, 1:1

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

Ventilation will be provided in the 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 vehicles (25 feet high by 20 feet wide) will be located on the north and south sides of the building. The door openings for transfer trailers (14 feet high by 18 feet wide) will be located on the north and south sides of the building. The wall-mounted fans will be 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 TS was designed to provide adequate ventilation for odor control and employee safety. The operator will take measures to prevent nuisance odors from leaving the boundary of the TS. Odors will be 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 TS building. Odorous loads may be covered with additional waste immediately upon loading in transfer trailers. Ponded water within the permit boundary will be prevented to avoid objectionable odors. If nuisance odors are found to be passing the TS boundary, the site will immediately take action to abate the nuisance. Aqueous or nonaqueous odor control systems may be used within and around the TS building to mitigate odors, if needed.

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

The interior floor area of the TS consists of two horizontal levels: (1) unloading area, and (2) transfer trailer loading tunnel. The entire interior floor area of the TS will be constructed with a reinforced concrete slab. Waste haul vehicles enter and exit the unloading area from the north and south sides, respectively, of the TS building.

The waste will be loaded into the transfer trailers by the front end loader with assistance from a grappler to distribute the load in the vehicle. When trailers are full, they will leave the facility for transportation to a TCEQ permitted MSW landfill for disposal.

The TS features a building facade that will consist of concrete tilt walls. The building exterior will extend from the surface level (along the exterior of the transfer station) to the roof of the TS building.

Doors will be provided and sized on the north and south sides of the building for hauling vehicles, public vehicles, and equipment (e.g., front-end loaders). Trench drains will be located at the sides of the transfer trailer loading tunnel. The trench drains will collect contaminated water, which will then be conveyed to a sump located within the TS building before being conveyed to a sand/oil separator west of

the TS building. Water will then be discharged to the City of Frisco sanitary sewer system.

No sludge or liquid waste will be received from transfer station customers at the TS.

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

Since TS activities will take place within the building, generated noise will mostly be 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 and hauled off-site. The site design provides at least a 50-foot buffer zone from the TS to the nearest edge of the permit boundary.

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

The TS structure will include a metal roof that covers the entire building. Waste will be unloaded from the unloading area to the concrete tipping floor to the transfer trailer loading tunnel. As shown on Figures IIIA-2 and IIIA-3 (Appendix IIIA), the trench drain will collect contaminated water from the transfer trailer loading tunnel to a sump before discharging to a sand/oil separator prior to being discharged to the City of Frisco sanitary sewer system. No industrial pretreatment control mechanism (permit) is required for this wastewater discharge as documented in Appendix IIIE. As discussed in Appendix IIIB, the site will be 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 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 will be constructed, maintained, and operated to manage run-on and runoff during the peak discharge of a 25-year frequency 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 TS building will be conducted on a covered area. All walls and floors in waste handling areas will be constructed of concrete that can be hosed down and scrubbed. All floors in operating areas will be washed at least weekly with washdown hoses and spray nozzles. Water connections are

provided to a City of Frisco water main west of the facility for the purpose of providing, at adequate pressure, potable water to the transfer station, as well as a source for fire suppression and cleaning. Wastewater will drain to a sand/oil separator before being discharged to the City of Frisco sanitary sewer system.

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

The Gateway Drive TS will be located in an industrial zone, and based on the findings from the recent habitat evaluation, it was determined that no threatened or endangered species exist within the property boundary. Additional discussion regarding threatened or endangered species is provided in Parts I/II, Section 12 and an Environmental Evaluation Report prepared by Baird, Hampton & Brown is provided in Appendix I/IIC.

3 SURFACE WATER DRAINAGE REPORT §330.63(c)

3.1 Drainage Design §330.63(c)(1)

The Gateway Drive TS facility will be constructed, maintained, and operated to manage run-on and runoff during the peak discharge of a 25-year frequency rainfall 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 will be 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 will control stormwater quality in accordance with Texas Pollution Discharge Elimination System (TPDES) Multi-Sector General Permit (TXR050000) for industrial stormwater discharges.

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

3.2 Floodplain Considerations §330.63(c)(2)

As shown on Figure I/II-11.1, the TS area is not located within a 100-year floodplain as defined by FEMA.

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

4.1 Waste Operations §330.63(d)(1)(A)

The Gateway Drive TS facility 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 TS by the Scale Operator once the incoming vehicle's weight or volume has been recorded. Customers will be directed so 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 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 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 that unauthorized waste is discovered 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 unauthorized waste and have them return to the facility and properly dispose of the waste. In the event that identification is not possible, the NTMWD 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, responsible for waste screening, 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 will only occur within the TS building. The tipping floor of the TS building will be used for both vehicle maneuvering and waste processing. Therefore, washdown is necessary for the tipping floor and loading tunnel. Contaminated water generated at the Gateway Drive TS will consist of washdown water applied to the tipping floor and transfer trailer loading tunnel. Washdown water from the tipping floor will drain to the loading tunnel, which will drain into trench drains that will be located along the entrances of the tunnel. The trench drains will drain into a sump that will be located within the TS building prior to discharging to a sand/oil separator west of the TS building. Water will then be discharged to the City of Frisco sanitary sewer system. Any oil spill will be managed in accordance with Title 40 CFR §112 regulations.

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

Solid waste entering the facility will be stored within the TS building. All solid waste will be stored in a manner (i.e., within the 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, except in the event of extenuating circumstances, such as inclement weather or mechanical breakdown. 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 2025 dollars. NTMWD will provide financial assurance for the amount of dollars estimated in Appendix D. NTMWD 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. NTMWD 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.

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2429

TYPE V PERMIT APPLICATION

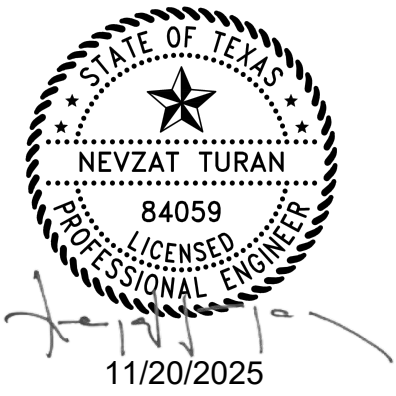
PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIA
GENERAL FACILITY DESIGN DRAWINGS

Prepared for

North Texas Municipal Water District

November 2025

Revised November 20, 2025



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. 1678-013-11-08

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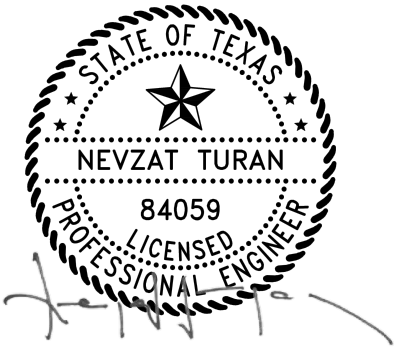
CONTENTS

FIGURE IIIA-1	General Site Plan
FIGURE IIIA-2	Transfer Station Floor Plan
FIGURE IIIA-3	Transfer Station Building Sections



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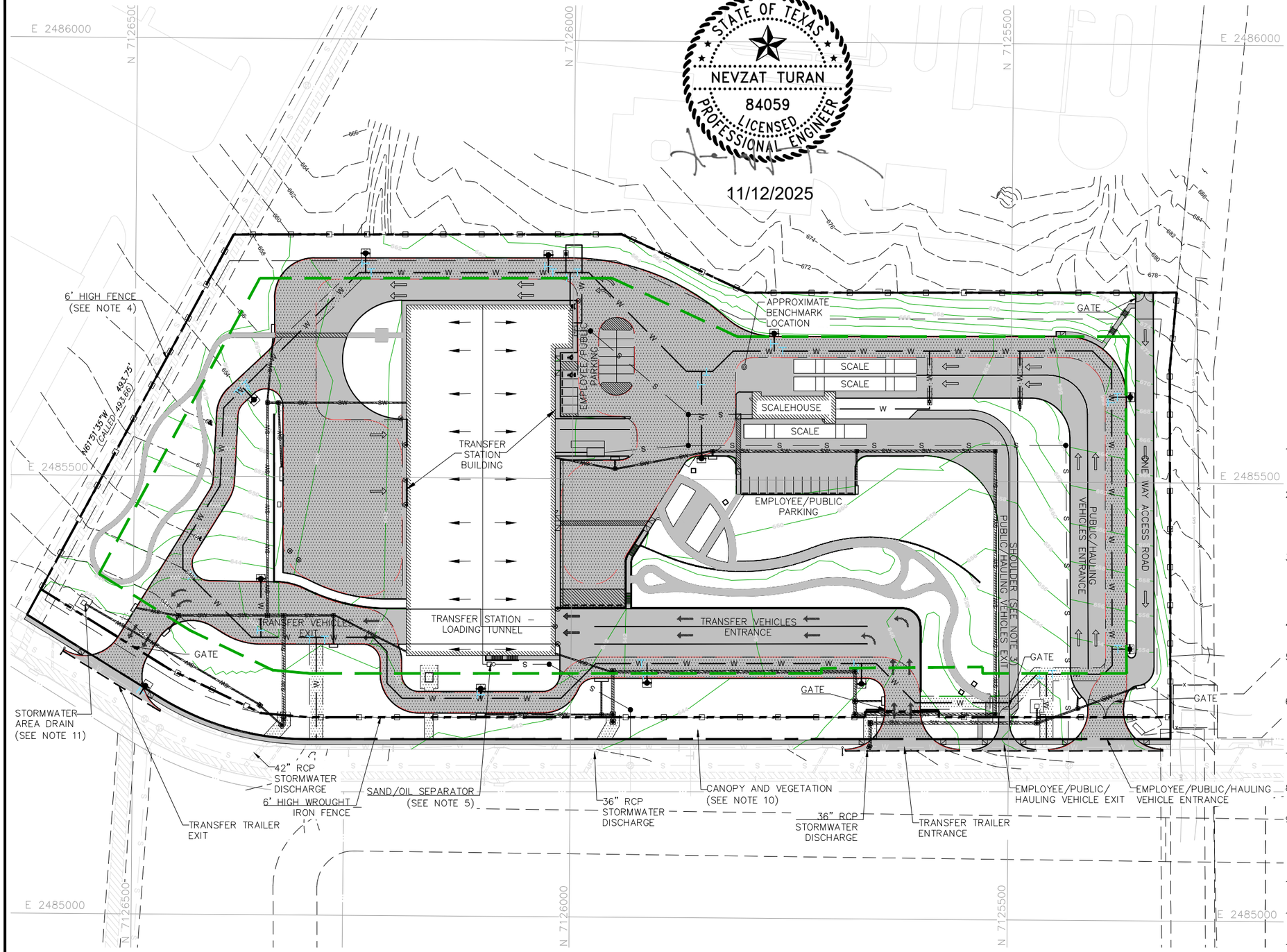

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED PROFESSIONAL ENGINEER

11/12/2025

0 60 120
SCALE IN FEET

LEGEND

- PROPERTY BOUNDARY (SEE NOTE 2)
- PERMIT BOUNDARY (SEE NOTE 2 AND 4)
- 490 — EXISTING GROUND CONTOUR (SEE NOTE 1)
- N 7018000 — STATE PLANE COORDINATE SYSTEM
- PAVED AREA
- 6–FT WROUGHT IRON FENCE (SEE NOTE 4)
- 50–FOOT BUFFER LINE (SEE NOTE 10)
- S S — SANITARY SEWER LINE
- STORMWATER PIPE
- W W — WATER LINE
- TRANSFER VEHICLE TRAFFIC FLOW
- HAULING VEHICLE TRAFFIC FLOW
- ROOF SLOPE
- PROTECTION BOLLARDS (SEE NOTE 7)
- EASEMENT

NOTES:

1. EXISTING TOPOGRAPHIC MAP HAS BEEN PREPARED BY WEAVER CONSULTANTS GROUP (2024) AND IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 1983.
2. THE PROPERTY BOUNDARY LEGAL DESCRIPTION DATED MARCH 2024 WAS PREPARED BY WESTWOOD PROFESSIONAL SERVICES, INC. THE PERMIT BOUNDARY LEGAL DESCRIPTION DATED OCTOBER 28, 2025 WAS PREPARED BY WEAVER CONSULTANTS GROUP. ONLY THE PERMIT BOUNDARY IS SHOWN WHERE PROPERTY AND PERMIT BOUNDARIES OVERLAP.
3. THE SHOULDERS WILL BE ALL WEATHER SURFACED AS NEEDED AND MAY BE UTILIZED FOR VEHICLE PARKING. ALL OPEN AREAS WITHIN THE PERMIT BOUNDARY ARE EITHER VEGETATED (E.G., GRASS, LANDSCAPING VEGETATION, PER THE CITY OF FRISCO REQUIREMENTS) OR SURFACED FOR ALL WEATHER ACCESS USING CONCRETE OR GRAVEL.
4. FENCING (6–FT WROUGHT IRON OR SIMILAR) MEETING THE REQUIREMENTS OF TITLE 30 TAC §330.223(C) WILL BE INSTALLED ALONG THE PERMIT BOUNDARY.
5. CONTAMINATED WATER FROM THE TRANSFER TRAILER LOADING TUNNEL DRAIN WILL BE COLLECTED AND DISCHARGED TO A SAND/OIL SEPARATOR BEFORE BEING DISCHARGED INTO THE CITY SANITARY SEWER LINE.
6. TRANSFER STATION WILL SERVE THE NORTH TEXAS MUNICIPAL WATER DISTRICT'S SOLID WASTE SYSTEM MEMBER CITIES (CURRENTLY CONSISTING OF ALLEN, FRISCO, MCKINNEY, PLANO, AND RICHARDSON) AND CUSTOMERS FROM THE SURROUNDING AREAS.
7. PROTECTION BOLLARDS WILL BE INSTALLED AS NEEDED AT THE ENTRANCE, EXIT, ETC. LOCATIONS TO PROTECT STRUCTURES.
8. PORTABLE AND TEMPORARY LITTER CONTROL FENCING MAY BE PLACED AT VARIOUS LOCATIONS TO COLLECT LITTER AND WINDBLOWN WASTE.
9. SOUTHERNMOST FACILITY ENTRANCE FROM GATEWAY DRIVE WILL BE USED BY THE PUBLIC, EMPLOYEES, AND WASTE HAULING VEHICLES FOR DELIVERY. THESE VEHICLES WILL LEAVE THE FACILITY FROM THE SOUTHERNMOST FACILITY EXIT. THE TRANSFER TRAILERS WILL ENTER AND EXIT THE FACILITY BY THE NORTHERNMOST ENTRANCE AND EXIT.
10. STORAGE AND/OR TRANSFER OF SOLID WASTE WILL NOT OCCUR IN THE AREA BETWEEN THE PERMIT BOUNDARY AND THE BUFFER LINE.
11. STORMWATER STRUCTURES ARE DESIGNED PER THE CITY OF FRISCO REQUIREMENTS.
12. BENCHMARK LOCATION AND ELEVATION WILL BE PROVIDED AFTER CONSTRUCTION.

SITE BENCHMARK INFORMATION			
	NORTHING	EASTING	ELEVATION (FT–MSL)
BENCHMARK	7125804.58	2485628.86	(SEE NOTE 12)

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DATE: 11/2025
FILE: 1678-93-11-08
CAD: FIG IIIA-1 -SITE PLAN.DWG
DRAWN BY: PME
DESIGN BY: PME
REVIEWED BY: NT

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
NORTH TEXAS MUNICIPAL WATER DISTRICT

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V PERMIT APPLICATION GENERAL SITE PLAN

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE IIIA–1

G:\1678\13\TYPE V APPLICATION\PART III\IIIA\IIIA-1.dwg, rarrington, 12

25-FT BUILDING AND FRONT YARD SETBACK

E 2485500

N 7126000

CONCRETE RETAINING WALL AND GUARDRAIL

STORMWATER PIPE

PUSHWALL

HOSE BIB & RACK

UNLOADING AREA (TIPPING FLOOR)

CITIZEN'S COLLECTION STATION

GRAPPLER (SEE NOTE 6)

SUMP

SAND/OIL SEPARATOR (SEE NOTE 5)

METAL STAIRS

WATER PIPE

SANITARY SEWER PIPE

POTENTIAL WHEELWASH

VAN

LEGEND

- TRANSFER TRAILER TRAFFIC DIRECTION
- PUBLIC/HAULING VEHICLES TRAFFIC DIRECTION
- PROTECTION BOLLARDS (SEE NOTE 5)
- FLOW DIRECTION
- TRENCH DRAIN WITH HEAVY-DUTY TRAFFIC RATED GRATE
- S — S — SANITARY SEWER PIPE
- SW — SW — STORMWATER PIPE
- W — W — WATER PIPE
- 662 — PROPOSED GRADING

0 20 40
SCALE IN FEET

NOTES:

1. EXISTING TOPOGRAPHIC MAP HAS BEEN PREPARED BY WEAVER CONSULTANTS GROUP ON 11-13-2024. GRID SYSTEM IS TIED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NORTH CENTRAL ZONE NAD 1983 AND VERTICAL DATUM NAVD88.
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 CONTAMINATED WATER MANAGEMENT REQUIREMENTS.
4. PROTECTION BOLLARDS WILL BE INSTALLED AS NEEDED AT THE ENTRANCE AND EXIT LOCATIONS TO PROTECT STRUCTURES.
5. SAND/OIL SEPARATOR IS DESIGNED PER THE CITY OF FRISCO REQUIREMENTS.
6. IF USED, LOCATIONS AND NUMBER OF GRAPPLER(S) ARE SHOWN FOR ILLUSTRATIVE PURPOSES.

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED PROFESSIONAL ENGINEER

11/12/2025

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DATE: 11/2025
FILE: 1678-13-11-08
CAD: FIG IIIA-2.DWG

DRAWN BY: PME
DESIGN BY: PME
REVIEWED BY: NT

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TBPE REGISTRATION NO. F-3727

PREPARED FOR
NORTH TEXAS MUNICIPAL WATER DISTRICT

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V PERMIT APPLICATION
TRANSFER STATION FLOOR PLAN

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

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FIGURE IIIA-2

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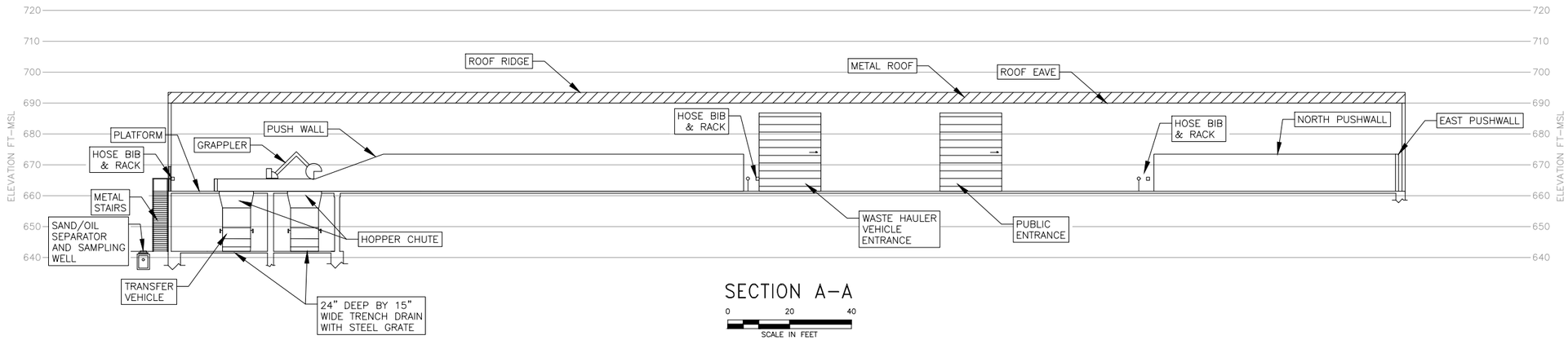
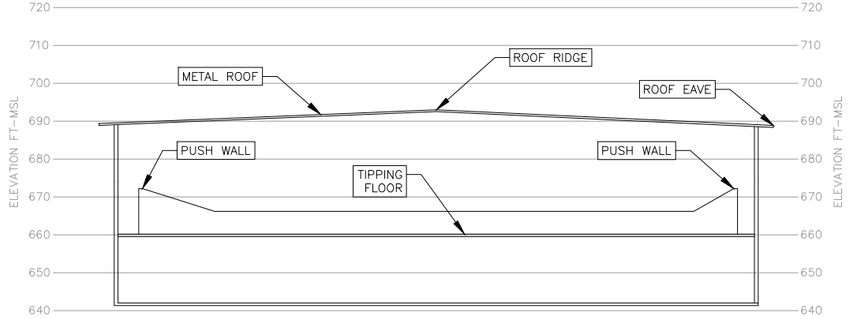


SECTION A-A

0 20 40

SCALE IN FEET



SECTION B-B

0 20 40

SCALE IN FEET

NOTES:

1. REFER TO PART III-SDP, SECTION 2.2 FOR WASTE MOVEMENT PROCESS DESCRIPTION INCLUDING DAILY OPERATIONS INSIDE THE TRANSFER STATION BUILDING.
2. 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.

STATE OF TEXAS
NEVZAT TURAN
84059
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11/12/2025

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DATE: 11/2025
FILE: 1678-93-11-08
CAD: FIG IIIA-1 -SITE PLAN.DWG

DRAWN BY: PME
DESIGN BY: PME
REVIEWED BY: NT

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
NORTH TEXAS MUNICIPAL WATER DISTRICT

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V PERMIT APPLICATION TRANSFER STATION BUILDING SECTIONS

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

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FIGURE IIIA-3

O:\1678\13\TYPE V APPLICATION\PART III\IIIA\IIIA-3.dwg, carrington, 1:2

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2429

TYPE V PERMIT APPLICATION

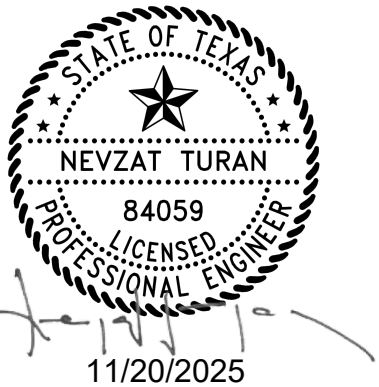
PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIB
SURFACE WATER DRAINAGE REPORT

Prepared for

North Texas Municipal Water District

November 2025

Revised November 20, 2025



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Project No. 1678-013-11-08

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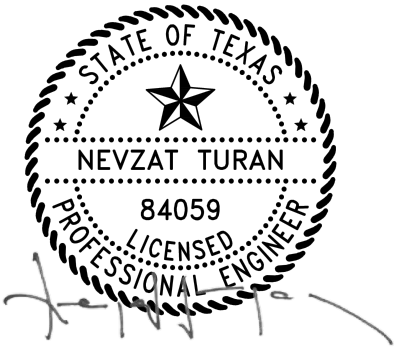
CONTENTS

1	**INTRODUCTION**		**IIIB-1**
2	**STORMWATER MANAGEMENT**		**IIIB-2**
	2.1	Site Drainage Information	IIIB-2
	2.2	Surface Water Protection	IIIB-2
	2.3	Drainage System Layout	IIIB-3
	2.4	TPDES Compliance	IIIB-3
	2.5	Erosion and Sedimentation Control Plan	IIIB-3
3	**DRAINAGE ANALYSIS**		**IIIB-5**
	3.1	Downstream Assessment	IIIB-5

APPENDIX IIIB-1
Drainage Plan

APPENDIX IIIB-2
Downstream Assessment (Excerpts from the Luminant Property Site Development)

APPENDIX IIIB-3
Alternative Conveyance Design



11/12/2025

1 INTRODUCTION

This Surface Water Drainage Report is prepared as part of a Type V Permit Application for the Gateway Drive 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 Gateway Drive TS. Consistent with Title 30 TAC §330.63(c) and §330.303, the facility will be constructed, maintained, and operated to manage run-on and runoff during the peak discharge of a 25-year frequency rainfall event and will prevent the off-site discharge of waste materials. Surface water drainage within the permit boundary of the TS will be 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 in Appendix IIIB-1. This drainage design report was also developed to meet the applicable requirements of the City of Frisco Engineering Standards dated August 2020. In the event that the eastern property is not developed, the option presented in Appendix IIIB-3, Alternative Conveyance Design, or one of similar design, will be elected for use.

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 downstream assessment performed by Westwood Professional Services, Inc. and approved by the City of Frisco; downstream excerpts are provided in Appendix IIIB-2.

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 in Appendix IIIB-1, the permit boundary for the Gateway Drive TS will be located between Gateway Drive (West), Monroe Drive (South), and Executive Drive (East). As shown in Appendix IIIB-1, the 14.845-acre site mainly drains east to west where it will be conveyed to the regional detention pond approximately 545 feet northwest of the site. As shown on Figure I/II-4.1 – Site Location Map, the runoff from the site will ultimately discharge into an unnamed tributary of Panther Creek located west of the site. The unnamed tributary flows approximately one mile to the west and discharges into Panther Creek.

2.2 Surface Water Protection

The Gateway Drive TS has been designed and will be 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 TS facility will consist of a building with reinforced concrete slab with a tipping floor and transfer trailer loading tunnel. The facility is designed to manage runon and runoff during the peak discharge of a 25-year rainfall event and to prevent the off-site discharge of waste and feedstock material, including, but not limited to, in-process and/or processed materials. Drainage from the facility is consistent with the drainage design for the planned industrial park by the City of Frisco and will prevent the offsite discharge of waste materials. Surface water drainage in and around the facility will be controlled to prevent surface water running onto, into, and off the transfer station area.

Uncontaminated stormwater run-on and run-off will be directed away from the TS building by site grading and stormwater infrastructure. The transfer trailer loading

tunnel will be sloped to drain to trench drains that drain to a sump before discharging to a sand/oil separator prior to discharging water to the City of Frisco sanitary sewer system.

2.3 Drainage System Layout

The general drainage pattern of the site will be from the east to the west. The majority of the site will sheet flow to an underground storm system to be constructed within the property. The site will receive overland flow from south of the property. Local high points will include the facilities (scalehouse, scales, and transfer station) and parking areas. After construction, the TS building will be positioned over an elevated area, allowing drainage from the east to drain towards the west without impacting the TS operations. The site discharge will primarily occur through two 36-inch diameter and one 42-inch diameter reinforced concrete culverts to be located along the west property boundary.

2.4 TPDES Compliance

The 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 will be subject to the TCEQ's stormwater permit requirements and will operate under the TPDES TXR050000 Multi-Sector General Permit for industrial stormwater discharges, under SIC 4212 (transportation and warehousing). After TCEQ approves this application and prior to commencing stormwater discharge, the site will obtain a TPDES authorization per TXR015000 during construction. Prior to the start of TS operations, NTMWD will obtain coverage per the TPDES Multi-Sector General Permit (TXR050000) for industrial stormwater discharges. The TS facility will maintain compliance with the TPDES requirements and will operate in accordance with a site-specific Stormwater Pollution Prevention Plan (SWPPP) for the facility.

2.5 Erosion and Sedimentation Control Plan

Erosion and sediment control will be provided during construction activities through the use of temporary diversion berms, silt fences, and hay bales, etc. per the above referenced coverage under TXR015000. These measures will be developed to provide for control of erosion and sediment prior to stormwater flows leaving the site. The temporary erosion control measures will be documented in the SWPPP that will be developed prior to construction of the facilities, consistent with TPDES requirements.

After the construction is completed, permanent erosion control features will be included in the final site design. These features include the establishment of vegetation or other landscaping on the non-paved portion of the site and water quality control devices. In addition, site grading is designed to convey runoff

without causing erosion (i.e., runoff velocities are less than 5 ft/sec during a 25-year frequency rainfall event). A SWPPP that will be used for stormwater management will be developed per TXR050000 for the industrial facility.

3 DRAINAGE ANALYSIS

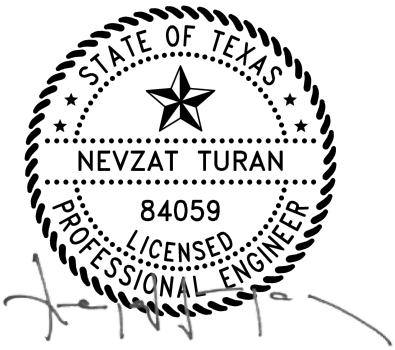
The rational method, appropriate for estimating peak discharges for small drainage areas of up to about 200 acres with no significant flood storage, has been used for the 25-year frequency peak flow estimates. The City of Frisco Engineering Standards (August 2020) have been used to develop parameters for the rational method calculations. The drainage areas and calculations are provided in Appendix IIIB-1.

3.1 Downstream Assessment

Westwood Professional Services, Inc. (Westwood) performed a downstream assessment for the entire Luminant industrial site development, which encompasses the Gateway Drive TS permit boundary in accordance with Section 4 – Drainage Design Requirements of the City of Frisco's Engineering Standards (August 2020). In accordance with this manual, it demonstrated that runoff from the future development of the drainage area will not exceed the planned capacity of the regional detention pond and the two 36-inch diameter and one 42-inch diameter culverts that will convey the proposed drainage areas associated with the transfer station permit boundary. The Gateway Drive TS development was designed under fully-developed conditions with conveyance to the regional detention pond. As required by the City of Frisco manual, the analysis utilized the rational method to determine the 2, 5, 25, and 100-year peak flow rates for the contributing drainage areas. The peak flow rates were used to analyze the capacity of the proposed on-site stormwater systems and the two 36-inch diameter and one 42-inch diameter culverts located along Gateway Drive on the west side of the property boundary. The City of Frisco approved Westwood's downstream assessment, and an excerpt from the assessment is provided in Appendix IIIB-2.

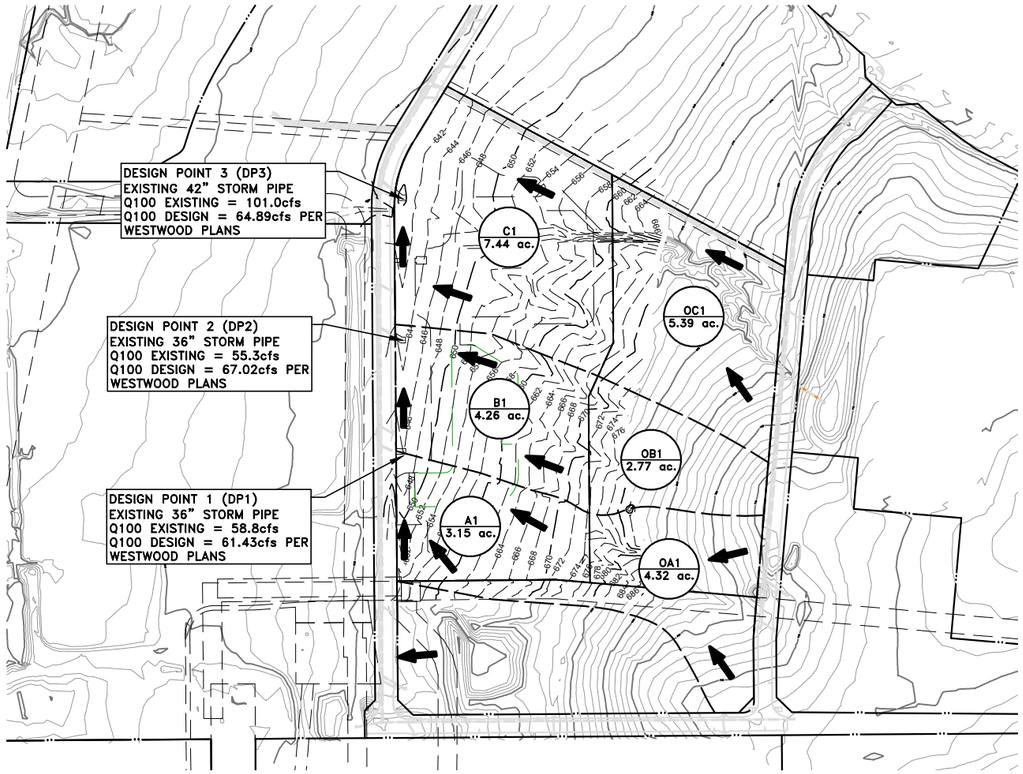
APPENDIX IIIB-1

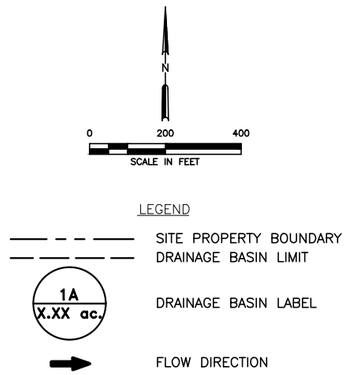
DRAINAGE PLAN



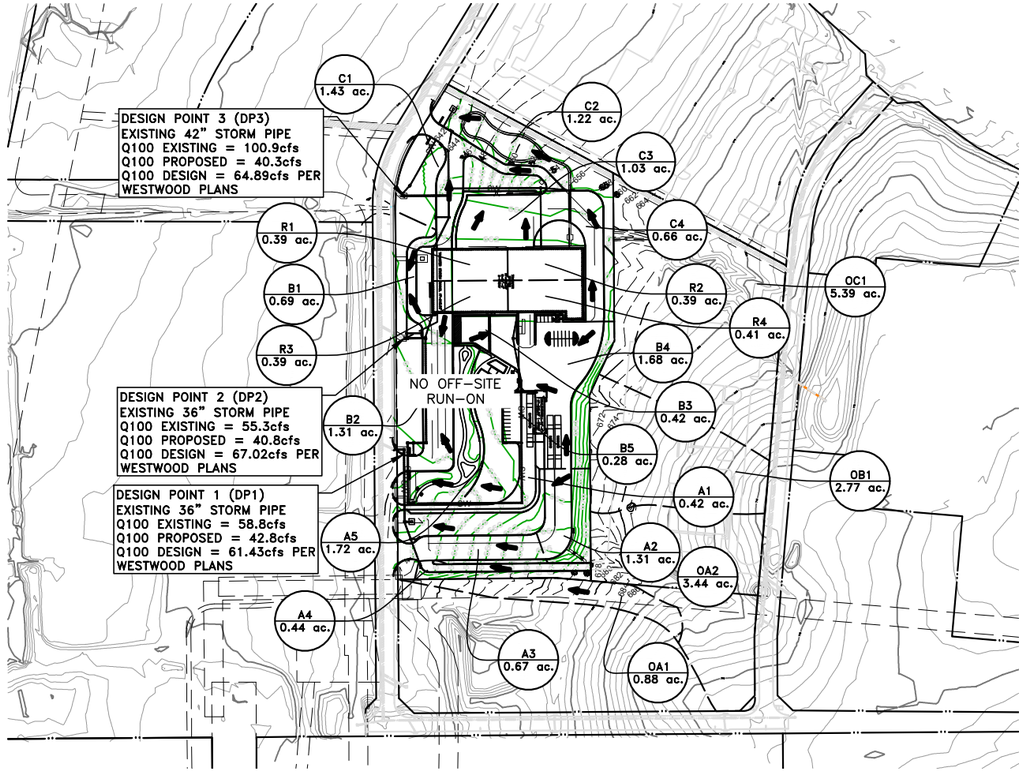
11/12/2025

EXISTING DRAINAGE AREA MAP





ULTIMATE DRAINAGE AREA MAP



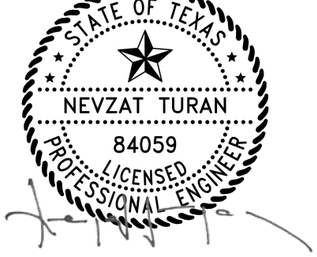
EXISTING DRAINAGE AREA CALCULATIONS

Rational Method Q=CIA

AREA	ACRES	C	Tc (min)	I_2 (In/Hr)	I_5 (In/Hr)	I_{25} (In/Hr)	I_{100} (In/Hr)	Q_2 (cfs)	Q_5 (cfs)	Q_{25} (cfs)	Q_{100} (cfs)	Comments
A1	3.15	0.90	10	4.91	5.81	7.26	8.74	13.9	16.5	20.6	24.8	Sheet and shallow concentrated flow to existing wye inlet (DP1).
OA1	4.32	0.90	10	4.91	5.81	7.26	8.74	19.1	22.6	28.2	34.0	Sheet and shallow concentrated flow to Bas in 1.
							TOTAL =	33.0	39.1	48.8	58.8	
B1	4.26	0.90	10	4.91	5.81	7.26	8.74	18.8	22.3	27.8	33.5	Sheet and shallow concentrated flow to existing wye inlet (DP2).
OB1	2.77	0.90	10	4.91	5.81	7.26	8.74	12.2	14.5	18.1	21.8	Sheet and shallow concentrated flow to Bas in 2.
							TOTAL =	31.0	36.8	45.9	55.3	
C1	7.44	0.90	10	4.91	5.81	7.26	8.74	32.9	38.9	48.6	58.5	Sheet and shallow concentrated flow to existing wye inlet (DP3).
OC1	5.39	0.90	10	4.91	5.81	7.26	8.74	23.8	28.2	35.2	42.4	Sheet and shallow concentrated flow to Bas in 3.
							TOTAL =	56.6	67.1	83.8	101.0	

NOTES:
1) Dis charge from drainage areas was obtained us ing the Rational Method based on the most current City of Frisco Engineering Standards.
2) Drainage areas were delineated using surveyed property information and contours from the approved Preliminary Site Plan PSP23-0069.
3) A 'C' factor of 0.90 was us ed per Table 4.1 in the City of Fris co Engineering Standards for non-res idential use.
4) The minimum allowable time of concentration of 10 minutes was used for the overall drainage bas in per Table 4.1 in the City of Fris co Engineering Standards for non-residential use.

	Intensity Table (10 Min. Time of Concentration)			
	2-year	5-year	25-year	100-year
B	81.319	82.686	106.665	112.783
D	15.788	15.497	18.069	17.572
E	0.864	0.82	0.806	0.771
Intensities	4.91	5.81	7.26	8.74



11/12/2025

ULTIMATE DRAINAGE AREA CALCULATIONS

Rational Method Q=CIA

AREA	ACRES	C	Tc (min)	I_2 (In/Hr)	I_5 (In/Hr)	I_{25} (In/Hr)	I_{100} (In/Hr)	Q_2 (cfs)	Q_5 (cfs)	Q_{25} (cfs)	Q_{100} (cfs)	Comments
A1	0.42	0.90	10	4.91	5.81	7.26	8.74	1.9	2.2	2.7	3.3	Drains to proposed wye inlet in Basin A2.
A2	1.31	0.90	10	4.91	5.81	7.26	8.74	5.8	6.8	8.6	10.3	Drains to wye inlet.
A3	0.67	0.90	10	4.91	5.81	7.26	8.74	3.0	3.5	4.4	5.3	Drains to proposed curb inlet.
A4	0.44	0.90	10	4.91	5.81	7.26	8.74	1.9	2.3	2.9	3.5	Drains to proposed curb inlet.
A5	1.72	0.90	10	4.91	5.81	7.26	8.74	7.6	9.0	11.2	13.5	Drains to inlets in open space area.
OA1	0.88	0.90	10	4.91	5.81	7.26	8.74	3.9	4.6	5.7	6.9	Drains to Basin A4.
							TOTAL (DP1) =	24.0	28.4	35.5	42.8	
B1	0.69	0.90	10	4.91	5.81	7.26	8.74	3.0	3.6	4.5	5.4	Drains to proposed curb inlet.
B2	1.31	0.90	10	4.91	5.81	7.26	8.74	5.8	6.8	8.6	10.3	Drains to proposed curb inlet.
B3	0.42	0.90	10	4.91	5.81	7.26	8.74	1.9	2.2	2.7	3.3	Drains to proposed curb inlet.
B4	1.68	0.90	10	4.91	5.81	7.26	8.74	7.4	8.8	11.0	13.2	Drains to proposed curb inlet.
B5	0.28	0.90	10	4.91	5.81	7.26	8.74	1.2	1.5	1.8	2.2	Drains to proposed curb inlet.
R3	0.39	0.90	10	4.91	5.81	7.26	8.74	1.7	2.0	2.5	3.1	Roof drains Basin B3.
R4	0.41	0.90	10	4.91	5.81	7.26	8.74	1.8	2.1	2.7	3.2	Roof drains to Basin B4.
							TOTAL (DP2) =	22.9	27.1	33.8	40.8	
C1	1.43	0.90	10	4.91	5.81	7.26	8.74	6.3	7.5	9.3	11.3	Drains to proposed curb inlet.
C2	1.22	0.90	10	4.91	5.81	7.26	8.74	5.4	6.4	8.0	9.6	Drains to wye inlet.
C3	1.03	0.90	10	4.91	5.81	7.26	8.74	4.5	5.4	6.7	8.1	Drains to proposed curb inlet.
C4	0.66	0.90	10	4.91	5.81	7.26	8.74	2.9	3.5	4.3	5.2	Drains to proposed curb inlet.
R1	0.39	0.90	10	4.91	5.81	7.26	8.74	1.7	2.0	2.5	3.1	Roof drains to Basin C1.
R2	0.39	0.90	10	4.91	5.81	7.26	8.74	1.7	2.0	2.5	3.1	Roof drains to Basin C3.
							TOTAL (DP3) =	22.6	26.8	33.4	40.3	
OA2	3.44	0.90	10	4.91	5.81	7.26	8.74	15.2	18.0	22.5	27.1	Bypasses proposed on-site stormwater system.
OB1	2.77	0.90	10	4.91	5.81	7.26	8.74	12.2	14.5	18.1	21.8	Bypasses proposed on-site stormwater system.
OC1	5.39	0.90	10	4.91	5.81	7.26	8.74	23.8	28.2	35.2	42.4	Bypasses proposed on-site stormwater system.
							TOTAL OFFSITE AREA =	51.2	60.6	75.8	91.3	

NOTES:
1) Discharge from drainage areas was obtained using the Rational Method based on the most current City of Frisco Engineering Standards.
2) Drainage areas were delineated using surveyed property information and contours from the approved Preliminary Site Plan PSP23-0069.
3) A 'C' factor of 0.90 was used per Table 4.1 in the City of Frisco Engineering Standards for non-residential use.
4) The minimum allowable time of concentration of 10 minutes was used for the overall drainage basin per Table 4.1 in the City of Frisco Engineering Standards for non-residential use.

NOTES:

1. EXISTING TOPOGRAPHIC MAP HAS BEEN PREPARED BY WEAVER CONSULTANTS GROUP ON 11-13-2024. 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 OCTOBER 28, 2025 WAS PREPARED BY WEAVER CONSULTANTS GROUP.
3. THE DRAINAGE AREA DELINEATION WAS BASED ON TOPOGRAPHIC CONTOURS, DESIGN INFORMATION, AND INLET LOCATIONS AS SHOWN.
4. THE TOTAL PEAK FLOW WAS DETERMINED BY THE RATIONAL METHOD FOR THE 2, 5, 25, AND 100-YEAR STORM EVENTS UTILIZING ATLAS 14 INTENSITIES. REFER TO THE DOWNSTREAM ASSESSMENT (APPENDIX IIIB-2) FOR ADDITIONAL INFORMATION.
5. WASH WATER AND THE STORMWATER FROM THE TRANSFER TRAILER UNLOADING TUNNEL WILL BE COLLECTED AND DISCHARGED INTO A SUMP BEFORE DISCHARGING TO A SAND/OIL SEPARATOR. IT WILL THEN BE DISCHARGED TO THE CITY OF FRISCO SANITARY SEWER SYSTEM. THE UNCONTAMINATED STORMWATER WILL BE COLLECTED IN A BELOW GROUND STORMWATER SYSTEM BEFORE PASSING THROUGH MECHANICAL SEPARATORS AND DISCHARGING TO THE CITY OF FRISCO STORMWATER SYSTEM LOCATED IN GATEWAY DRIVE.
6. IN THE EVENT THAT THE EASTERN PROPERTY IS NOT DEVELOPED, THE OPTION PRESENTED IN APPENDIX IIIB-3, ALTERNATIVE CONVEYANCE DESIGN, OR ONE OF SIMILAR DESIGN, WILL BE ELECTED FOR USE.

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☐ DRAFT
☒ FOR PERMITTING PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 11/2025
FILE: 1678-13-11-08
CAD: FIG IIIB-1-1 DRAINAGE PLAN.DWG

DRAWN BY: PME
DESIGN BY: PME
REVIEWED BY: NT

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
NORTH TEXAS MUNICIPAL WATER DISTRICT

REVISIONS

NO.	DATE	DESCRIPTION

TYPE V PERMIT APPLICATION DRAINAGE PLAN

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE IIIB-1-1

O:\1678\13\TYPE V APPLICATION\PART III\IIIB\IIIB-1-1 Drainage Area Map.dwg, carrington, 1:2

APPENDIX IIIB-2

DOWNSTREAM ASSESSMENT (EXCERPTS FROM THE LUMINANT PROPERTY SITE DEVELOPMENT)

LUMINANT PROPERTY
SITE DEVELOPMENT

PANTHER CREEK UNNAMED TRIBUTARY 1

CITY OF FRISCO, COLLIN COUNTY, TEXAS

PREPARED BY:

Westwood

September 24,2024

TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-100080-00
PK No. 0044908.01

7557 Rambler Road, Suite 1400
Dallas, Texas 75231-2388

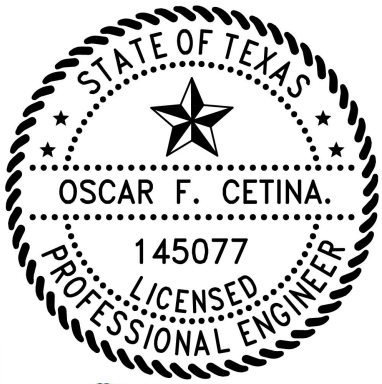
LUMINANT PROPERTY
SITE DEVELOPMENT

PANTHER CREEK UNNAMED TRIBUTARY 1

CITY OF FRISCO, COLLIN COUNTY, TEXAS

PREPARED FOR:

CITY OF FRISCO COMMUNITY DEVELOPMENT CORPORATION



09/24/2024

PREPARED BY:

TX REG. ENGINEERING F-469
TX REG. SURVEYING FIRM LS-100080-001
JOB NO: 0042908.01

7557 Ramber Road #1400
Dallas, TX 75231

EXECUTIVE SUMMARY

The City of Frisco Community Development Corporation has retained the services of Westwood Professional Services, Inc (WPS) to provide a drainage analysis of Panther Creek Unnamed Tributary 1 associated with the proposed Luminant Industrial Site Development. The project site is located southwest of the intersection of PGA Parkway and Preston Road in the northern portion of the City of Frisco. The purpose of this study is to:

- Determine pre-project vs post-project hydrology for existing and fully-developed Conditions (2-, 5-, 25- and 100-year);
- Define pre-project vs post-project fully-developed floodplain inundation limits across the site;
- Compare pre-project vs post-project conditions (peak discharges, water-surface elevations, velocities and valley storage);
- Identify proposed detention requirements (storage volume);

The effective Flood Insurance Rate Map (FIRM) Number 48085C0230J and 48085C0235J shows the Panther Creek Unnamed Tributary 1 (PNU1) is in Unshaded Zone X area determined to be outside the FEMA 0.2% annual flood. The proposed improvements include mass grading for future industrial development, two (2) regional detention areas including proposed channel grading along Panther Creek Unnamed Tributary (PNU1) and a southeastern regional detention pond to mitigate increases in discharges downstream of the regional improvements.

Two (2) regional detention locations are proposed for the industrial park development. The railroad detention includes 22 ac-ft of channel excavation along Unnamed Tributary 1 (PNU1) to Panther Creek. The regional detention will mitigate the post-project 2-, 5-, 25-, and 100-year storm peak discharges to pre-project conditions downstream of the proposed detention improvements for both existing and fully-developed conditions. Due to improvements at PNU1_A5, there are slight increases in peak discharge upstream of the proposed detention improvements in the more frequent storm events. In fully-developed conditions there are minor increases in the 2-year storm peak discharges but they do not impact WSELs. In existing conditions there are minor increases in the 2- and 5-year storm peak discharges and negligible increases in the 25-year storm. The increases in peak discharge are contained in the existing channel with at least one-foot of free board and are mitigated downstream of the detention improvements. The second pond requires 3.4 ac-ft of detention volume. The detention pond reduces the 2-,5-,25, and 100-year post-project storm events to pre-project conditions for both existing and fully-developed conditions. It should be noted there is an increase in peak discharge for the 2-year storm in both existing and fully-developed conditions at the confluence of PNU1 and Panther Creek, 43.3 cfs, and 55.5 cfs, respectively. These increases are contained within the existing channel. All other storm events are mitigated to pre-project conditions.

The hydraulic model shows the proposed improvements will decrease the 100-year water-surface elevations throughout the project. The maximum decreases in water-surface elevation is 1.48 feet. The fully-developed hydraulic model shows no increases in WSEL for the 2-year storm upstream of PGA Parkway due to the minor increases in discharge. Channel velocities increase and decrease throughout the stream with the maximum increase of 2.67 ft/sec at the cross-section 8588 downstream of PGA Parkway to a max velocity of 4.81 ft/s. All other velocity increases are under 5.5 ft/s or within 5% of pre-project conditions. Valley storage comparisons were made for the 100-year fully-developed and existing conditions. The 100-year valley storage of the Panther Creek Unnamed Tributary 1 (PNU1) will increase by approximately 28% due to the proposed channel improvements.

The proposed improvements and floodplain alterations included in this report meet the minimum criteria for the City of Frisco.

CONTACT INFORMATION

Description	Name	Company	Email
Client Contact	Jim Wehmeier	City of Frisco CDC	[redacted]
Civil Design	Kevin Minkler, PE	Westwood	[redacted]
Drainage Manager	Oscar Cetina, PE, CFM	Westwood	[redacted]
Drainage Supervisor	Ryan P. Mortensen, PE, CFM	Westwood	[redacted]

TABLE OF CONTENTS

EXECUTIVE SUMMARY i
CONTACT INFORMATION ii
TABLE OF CONTENTS iii
LIST OF FIGURES & TABLES iv
LIST OF APPENDICES v
1.0 INTRODUCTION
1.1 Authorization 1
1.2 Purpose 1
1.3 Background 1
1.4 Project Location 2
1.5 Site Assessment 2
1.6 Proposed Improvements 3
2.0 SURVEY AND MAPPING
2.1 Field Survey Data 4
2.2 Project Datum 4
2.3 Supplemental Mapping Data 4
3.0 HYDROLOGY
3.1 Methodology 5
3.2 Frequency Storm 5
3.3 Loss Rate 6
3.4 Lag Time 6
3.5 Pre-Project Drainage Area 7
3.6 Post-Project Drainage Area 8
3.7 Unit Hydrographs and Routing 9
3.8 Detention 9
4.0 HYDRAULICS
4.1 Methodology 10
4.2 Pre-Project Condition Model 11
4.3 Post-Project Conditions Model 12
4.4 Hydraulic Work Maps & Schematics 12
4.5 Flow Change Locations 12
4.6 Hydraulic Coefficients 14
4.7 Limits of Analysis 15
4.8 Downstream Boundary Conditions 15
5.0 RESULTS
5.1 Detention 16
5.2 Hydraulic Results 19
5.3 Existing Conditions Hydraulic Impacts 23
6.0 CONCLUSION 24
7.0 DEFINITIONS & ACRONYMS 25
8.0 REFERENCES 27

LIST OF FIGURES & TABLES

Figure 1: Location Map 2
Figure 2: Proposed Improvements 3
Figure 3: Pre-Project Drainage Area Divides 7
Figure 4: Post-Project Drainage Area Divides 8
Figure 5: Hydraulic Model Schematic 11
Figure 6 : Flow Change Location 13
Figure 7: Hydrologic Comparison Points 16

Table 1: Survey Benchmarks 4
Table 2: Point Rainfall Depths 5
Table 3: Alterations from Frisco Street and Fields Parkway model to Pre-Project Model 11
Table 4: Alterations from Pre-Project to Post-Project Conditions Model 12
Table 5: Flow Change Location Summary (KH Vs Pre-Project FD) 13
Table 6: Flow Change Location Summary (Pre-Project FD Vs Post-Project FD) 14
Table 7: Overbank Roughness Coefficients 14
Table 8: Downstream Boundary Conditions 15
Table 9: Peak Discharge Pre-Project and Post-Project Fully Developed Comparison 17
Table 10: Peak Discharge Pre-Project and Post-Project Existing Comparison 18
Table 11: Pre-Project vs Post-Project 100-Year WSEL Comparison 19
Table 12: Pre-Project vs Post-Project 2-Year WSEL Comparison 20
Table 13: Pre-project vs Post-Project 100-year Channel Velocity Comparison 21
Table 14: Pre-Project vs Post-Project 100-year Valley Storage Comparison 22

LIST OF APPENDICES

APPENDIX A – SUPPORTING DOCUMENTS

FIRM Map No. 48085C0230J and 48085C0235J
ESA JWOUS Delineation Report
Kimely-Horn- Drainage Study for Frisco Street and Fields Parkway
Mass Grading and Conceptual Road Layout

APPENDIX B – HYDROLOGY

Overall Drainage Area Map
Pre-Project Existing Drainage Area Map
Post-Project Existing Drainage Area Map
Pre-Project Fully Developed Drainage Area Map
Post-Project Fully Developed Drainage Area Map
Hydrologic Soils Map
Pre-Project Existing Land Use Map
Post-Project Existing Land Use Map
Pre-Project Fully Developed Land Use Map
Post-Project Fully Developed Land Use Map
Hydrologic Comparison Map
Pre-Project Existing Time of Concentration Calculations
Post-Project Existing Time of Concentration Calculations
Pre-Project Fully Developed Time of Concentration Calculations
Post-Project Fully Developed Time of Concentration Calculations
Pre-Project Existing Curve Number Calculations
Post-Project Existing Curve Number Calculations
Pre-Project Fully Developed Curve Number Calculations
Post-Project Fully Developed Curve Number Calculations
Proposed Railroad Detention Pond and Southern Pond Elevation-Area
Hydrologic Model Output

APPENDIX C – HYDRAULICS

Floodplain Work Map
Fully-Developed Pre-Project vs Post-Project Section Plots
Fully-Developed Pre-Project vs Post-Project Flood Profiles
Fully-Developed Pre-Project vs Post-Project Standard Table 1

APPENDIX D – DIGITAL DATA

HEC-HMS Model
HEC-RAS Model

1.0 INTRODUCTION

1.1 Authorization

The City of Frisco Community Development Corporation has retained the services of Westwood Professional Services, Inc (WPS). to provide a drainage analysis of Panther Creek Unnamed Tributary 1 (PNU1) associated with the proposed Luminant Industrial Site Development. The proposed improvements include mass grading for future industrial development, a proposed regional detention pond, and channel grading is proposed along Panther Creek Unnamed Tributary (PNU1) to mitigate increases in discharges and decreases in valley-storage. The proposed site is located southwest of the intersection of PGA Parkway and Preston Road in the northern portion of the City of Frisco. This report documents the procedures and findings of the drainage analysis. Technical supporting documentation is provided in accompanying appendices.

1.2 Purpose

This study is intended to evaluate proposed site improvements based on local permitting requirements related to drainage and floodplain alteration. The study objectives are outlined below:

- Determine pre-project vs post-project hydrology for Existing and Fully Developed conditions (2-, 5-, 25- and 100-year);
- Define pre-project vs post-project fully-developed floodplain inundation limits across the site;
- Compare pre-project vs post-project conditions (peak discharges, water-surface elevations, velocities and valley storage);
- Identify proposed detention requirements (storage volume);

The proposed drainage improvements in this report are for review purposes only and are based on conceptual plans. Proposed site layouts may change after the submission of this drainage analysis.

1.3 Background

The effective Flood Insurance Rate Map (FIRM) Number 48085C0230J and 48085C0235J shows the on-site reach of Panther Creek Unnamed Tributary 1 (PNU1) is located in an in an Unshaded Zone X area determined to be outside the FEMA 0.2% annual flood. This study is based on the Frisco Street and Fields Parkway drainage analysis performed in June 2023 by Kimley Horn. A copy of the effective FIRM is provided in Appendix A.

1.4 Project Location

The project site is located southwest of intersection of PGA Parkway and Preston Road in the northern portion of the City of Frisco. Panther Creek Unnamed Tributary 1 (PNU1) flows from northeast to southwest. Figure 1 shows the location of the site in relation to the Panther Creek Unnamed Tributary 1 (PNU1).

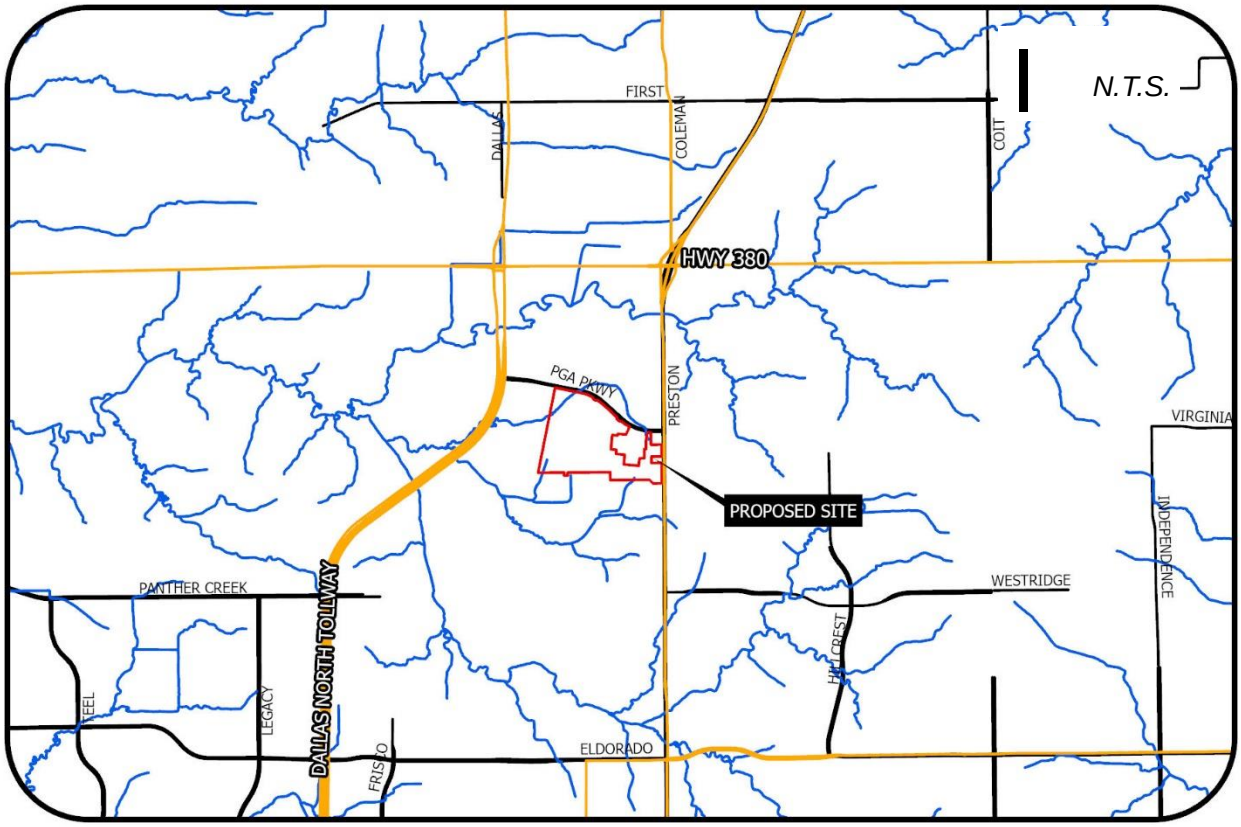


Figure 1: Location Map

1.5 Site Assessment

The Panther Creek Unnamed Tributary 1 (PNU1) watershed is located entirely within the City of Frisco. The existing land use within the watershed consists of Open Space, Single Family, Industrial and Commercial lots based on aerial imagery dated, July 2023. Similarly, The fully-developed conditions consist of mostly additional industrial and commercial landuse.

The upper reach of Panther Creek Unnamed Tributary 1 (PNU1) flows from approximately 1450 ft upstream of PGA Parkway to the BNSF railroad crossing, conveying runoff from northeast to southwest. The on-site reach is bounded by two crossings: 7 – 7' x 4' boxes at PGA and a 72" Corrugated Metal Pipe (CMP) at the BNSF railroad. The BNSF railroad crossing is undersized causing significant backwater along the western corner of the site extending further southwest to Panther Creek Unnamed Tributary 1A (PNU1A). Panther Creek Unnamed Tributary 1 (PNU1) has a fairly steep slope at the upstream segment of the channel north of PGA Parkway and at intermediate segments throughout the

channel with channel depths ranging between one (1) to six (6) feet. The existing side slopes of the channel range from approximately 2:1 to 4:1(horizontal to vertical). The predominant channel vegetation is unmaintained grasses with woody vegetation (willows) throughout the channel.

1.6 Proposed Improvements

The proposed improvements include mass grading for regional industrial development, two (2) regional detention areas including proposed channel grading along Panther Creek Unnamed Tributary (PNU1) and a southeastern regional detention pond to mitigate increases in discharges downstream of the regional improvements. The proposed railroad detention has a maximum storage volume of 68.6 ac-ft at an elevation of 627.1 ft of for 100-year storm. The existing 72" RCP across the railroad serves as the outlet structure for the detention improvements. The southeast pond has a storage volume of 3.4 ac-ft at an elevation of 705.1 ft. The southeastern pond has an outlet structure that consists of a 24" orifice at elevation 700' with a 12' trapezoidal spillway with 2:1 side slopes at elevation 703.4'. The outfall structure and outfall pipe design are conceptual and will be finalized upon final design of the second phase of construction.

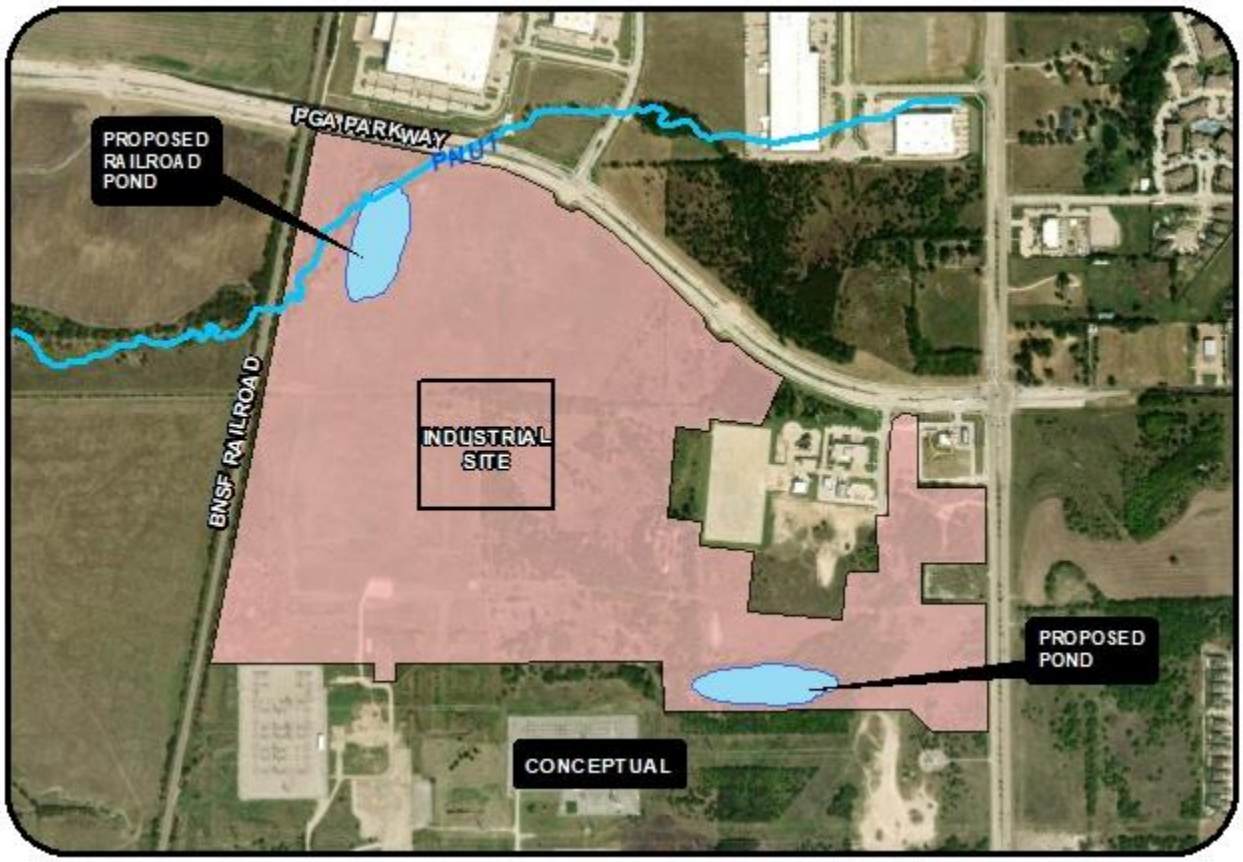


Figure 2: Proposed Improvements

2.0 SURVEY AND MAPPING

2.1 Field Survey Data

An on-the-ground survey was conducted by Pacheco Koch in June 2020. The survey data was used to generate 1-foot contours in the vicinity of the proposed development. The survey was vertically tied to the following city benchmarks described in Table 1.

BM ID	Elevation	Description
BM #3	552.23'	"X" cut on the southeast corner of a curb inlet on the south side of PGA Parkway, ±50' south of the center of the median. ±75' southeast of a light standard, and ±55' west of a storm drain manhole.
BM #4	567.99'	"X" cut on the south side of a curb inlet on the south side of PGA Parkway, ±55' southwest of a light standard, ±60' south, southeast of a storm drain manhole, and ±10' southwest of the south edge of a concrete sidewalk.
BM #5	592.08'	"X" cut on back of a curb inlet on the west side of the median on PGA Parkway, ±40' southeast of the median nose, ±4' south of a light standard, and ±58' west of a speed limit sign.

Table 1: Survey Benchmarks

2.2 Project Datum

Horizontal control for the site survey data and mapping is based on the 1983 North American Datum (NAD83), Texas State Plane, North Central Zone, FIPS 4202. Vertical control is based on the 1988 North American Vertical Datum (NAVD88).

2.3 Supplemental Mapping Data

Background aerial photographs were provided by ArcGIS Online. The aerial images are dated July 2023. The aerial photographs were used to verify the location of drainage flow paths and the extents of current land use as well as stream vegetal coverage. Aerial 2019 Pecos LIDAR data was obtained from the North Central Texas Council of Governments (NCTCOG) and used to produce one-foot contours for the watershed and to supplement elevation data located outside the limits of the site survey and surveyed cross-section points. The LIDAR data was also used as an aid in the floodplain inundation mapping.

3.0 HYDROLOGY

3.1 Methodology

Floodplain hydrology was analyzed in this study using the computer program HEC-HMS[1], Hydrologic Modeling System, developed by the Hydrologic Engineering Center of the US Army Corps of Engineers (USACE) (Version 3.5, August 2010). An approved study for the Frisco Street and Fields Parkway was obtained from Kimley-Horn (2023). Hydrologic parameters were updated for on-site and adjacent basins based on updated available data and improved methodology. All other sub-basins remain unchanged. The modified model was used to determine peak discharges for the 2-, 5-, 25- and 100-year both pre-project and post-project Existing and fully developed watershed conditions. The Zone of Influence (ZOI) was set at the confluence of Panther Creek (PN) and Panther Creek Unnamed Tributary 1 (PNU1) at which point (J-PN_13b) the proposed site (162 ac) makes up approximately 2.60% of the total watershed area (6223 ac). An assessment was performed to determine hydrologic impacts of the proposed development downstream of the site. The techniques employed and resulting predictions of the computed peak discharges are explained in subsequent sections.

3.2 Frequency Storm

Frequency rainfall distribution based on nested design intensities centered along storm duration. Rainfall depths used to define the design storm hyetograph were obtained from the Integrated Storm Water Management (iSWM) manual (NCTCOG 2010) and not revised from the Frisco Street and Fields Parkway Kimley-Horn study. Table 2 shows depth used in the rainfall distribution.

Depth (inches)				
Duration	**2-Year**	**5-Year**	**25-Year**	**100-Year**
5 minutes	0.512	0.601	0.773	0.936
15 minutes	0.999	1.229	1.605	1.964
1 hour	1.721	2.225	2.996	3.747
2 hours	2.088	2.744	3.765	4.771
3 hours	2.309	3.057	4.242	5.420
6 hours	2.708	3.621	5.127	6.646
12 hours	3.145	4.241	6.129	8.063
24 hours	3.635	4.938	7.286	9.729

Table 2: Point Rainfall Depths

[1] USACE: http://www.hec.usace.army.mil/software/hec-hms/

3.3 Loss Rate

Loss rates and initial abstractions were determined from the Curve Number method outlined in the US Department of Agriculture, Technical Release No. 55 (TR-55[2]), Urban Hydrology for Small Watersheds. Hydrologic soil types were determined from the USDA-NRCS Soil Survey Division's Soil Map for Collin County, Texas. The entire study area consists of hydrologic soil Type D.

Composite Curve Numbers for the studied sub-basin were computed using hydrologic soil types and the existing and projected fully developed land use identified on 2023 aerial photos and City of Frisco zoning maps. Soil types consist of hydrologic soils group C and D. Curve numbers were updated for basins PNU1_A1, PNU1_A2, PNU1A_A3, PNU1A_A4, PNU1A5, and PNU1_07. Sub-basins PNU1_A2 and PNU1A_A3 do not drain to proposed regional detention areas and are considered fully-developed in both pre-and post-project conditions. All other basins remained unchanged from the Kimley-Horn Fully-Developed model. Curve Number schematics, showing landuse and soil types along with Curve Number computations are provided in Appendix B.

3.4 Lag Time

Time of concentration was determined for sub-basins PNU1_A1, PNU1_A2, PNU1A_A3, PNU1A_A4, PNU1A5, and PNU1_07 from the method outlined in Chapter 3 of TR-55. The lag time for subbasins PNU1_A2 and PNU1A_A3 are considered to be fully developed in both pre- and post project conditions and all other sub-basins are unrevised from the Kimley-Horn 2023 study for this analysis. Flow paths for each sub-basin were developed for components of Overland, Shallow Concentrated, and Channel flows. Overland flow distances were limited to 100 feet for undeveloped drainage areas and 50 feet for fully-developed areas. The shallow concentrated flow components use a standard K-factor for paved and unpaved conditions. Shallow concentrated flow was assumed to be paved in fully-developed conditions. Similarly, K-factors were developed for typical hydraulic conditions such as gutter flow, full pipe flow, uniform channel flow. Basin lag times were developed by multiplying the time of concentration by 0.6. Flow paths used in the Lag Time calculations for each sub-basin are shown on Drainage Area maps provided in Appendix B.

[2] TR-55: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044171.pdf

3.5 Pre-Project Drainage Area

The drainage area divides used in this analysis were obtained from the Frisco Street and Fields Parkway study and updated based on lidar topographic data. Six (6) basins were modified for the study. PNU1A1_02 was subdivided into PNU1A_A4 and PNU1A_A3 where additional reach is added represented by hydrology model. An additional reach R-PNU1A1_02_A4, was added between junctions J-PNU1A1_02, at the divide. This reach serves to route PUN1A1_A4 through PNU1A1_A3. The new reach uses the Muskingum-Cunge and consists of 1350 ft length trapezoidal channel with a 5 bottom with and 4:1 side slopes and a manning's value of 0.05 to represent the grass cover. The reach slope is approximated as 0.028 ft/ft based on topographic information. PNU1_A1, PNU1_A2, PNU1_A5, and PNU1_07 all had minor revisions based on updated lidar data. All other sub-basins remain unrevised from the Kimley-Horn model. Figure 3 shows the approximate delineation of the watersheds. Detailed drainage area maps are provided in Appendix B.

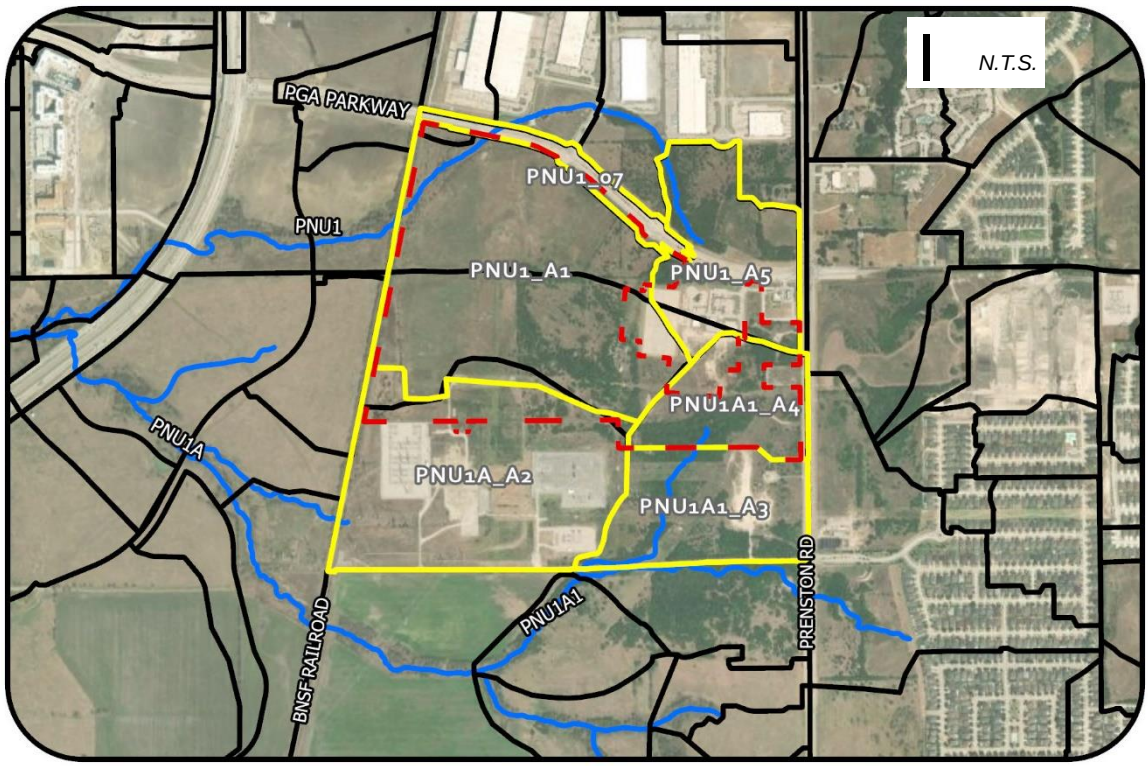


Figure 3: Pre-Project Drainage Area Divides

3.6 Post-Project Drainage Area

Sub-basins PNU1_A and PNU1_A2 were updated based on proposed improvement grading. PNU1_A1, PNU1_A5, and PNU1_07 drain to the proposed regional detention area upstream of the BNSF railroad along Stream PNU1. PNU1_A3 drains to the southeastern regional detention pond and outfalls to Unnamed Tributary PNU1A. All other sub-basins remain unrevised from pre-project conditions. Figure 4 shows the approximate delineation of the watersheds. Detailed drainage area maps are provided in Appendix B.

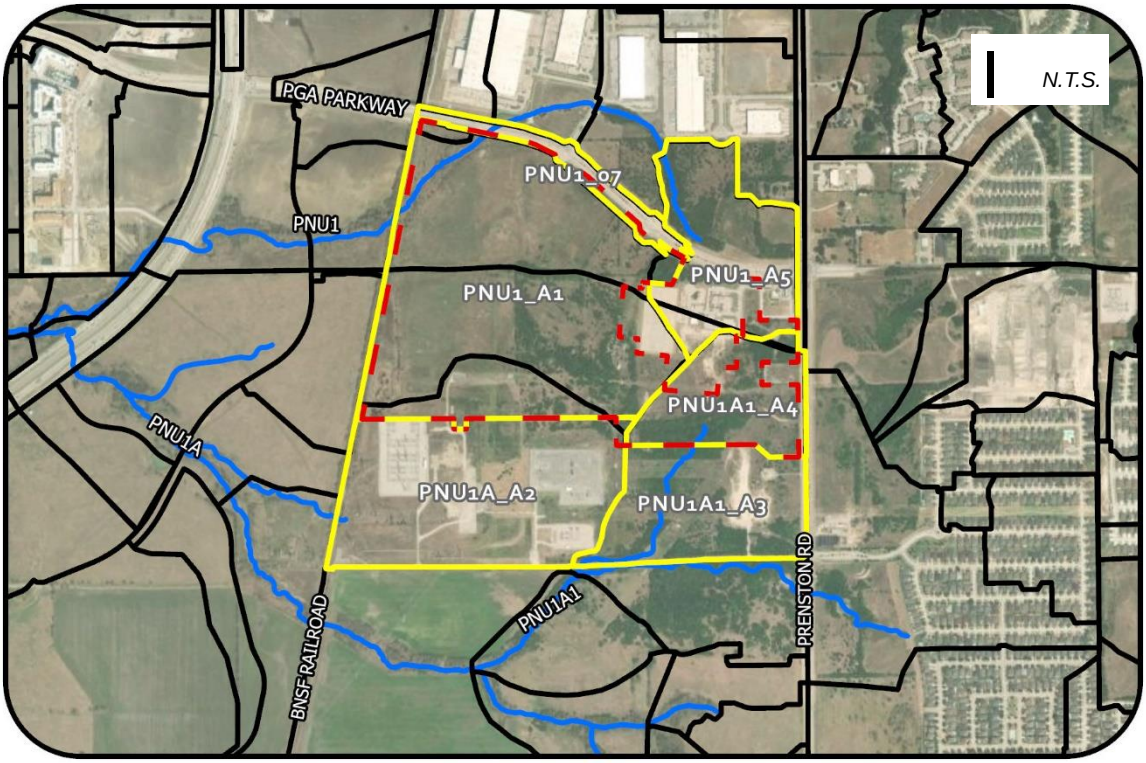


Figure 4: Post-Project Drainage Area Divides

3.7 Unit Hydrographs and Routing

The Soil Conservation Service (SCS) Dimensionless Unit Hydrograph Method was used to produce a synthetic hydrograph for the given 24-hour storms. The hydrograph parameters used for each sub-basin were based on the sub-basin Lag Time and the composite Curve Numbers (discussed above). Hydrographs from each sub-basin were routed to combination points using the Muskingum-Cunge Routing Method.

3.8 Detention

Two (2) regional detention locations are proposed for the development of the regional industrial park. The first proposes 22 ac-ft of channel grading along Unnamed Tributary 1 (PNU1) to Panther Creek. This regional detention will decrease the 2-,5-, 25- and 100-year peak discharges from post-project to pre-project conditions downstream of the detention improvements. Slight increases in peak discharges do occur upstream of the proposed detention improvements due to the development of sub-basin PNU1_A5 for the 2-, 5-, and 25-year storms in existing conditions and the 2-year storm for fully-developed conditions and are mitigated downstream of the improvements. The second detention area consists of a pond located at the southeastern portion of the site and requires a 3.4 ac-ft detention volume to decrease the 2-,5-, 25- and 100-year peak discharges from the proposed industrial park to pre-project conditions downstream of the proposed improvements at sub-basin PNU1_A4. The proposed railroad detention volume improvements has a peak storage of 68.6 ac-ft at elevation 627.1 for the 100-year storm. The existing 72" RCP across the railroad serves as the outlet structure for the detention improvements. Similarly, the proposed southeastern pond accounts for 3.4 ac-ft of peak storage at elevation 705.1 ft. The southeastern pond has an outlet structure that consists of a 24" orifice at elevation 700' and a 12' trapezoidal spillway with 2:1 side slopes at an elevation of 703.4'. This drainage study analyses the ponds as regional detention for the proposed development. The southeastern pond serves as detention for the second phase of construction and assumes area PNU1A1_A4 will drain completely to the pond based on the mass grading and conceptual road layout provided in Appendix A. The outfall structure and outfall pipe design are conceptual and will be finalized upon final design of the second phase. The southeastern pond outfall serves as the headwaters for the tributary draining to PNU1A1 and assumes inlet control with free discharge downstream. The proposed detention ponds were modeled using the Level Pool Routing Method to determine attenuation effects related to storage within the pond. Detailed Stage-Storage curves are provided in Appendix B.

4.0 HYDRAULICS

4.1 Methodology

Panther Creek Unnamed Tributary 1 (PNU1) was analyzed using the computer program HEC-RAS[3], River analysis System, developed by the Hydrologic Engineering Center of the USACE (Version 6.2, March 2022). The previously approved Frisco Street and Fields Parkway hydraulic model, prepared by Kimley-Horn was used as a base for this analysis (Kimley-Horn 2023). The hydraulic model uses the pre-project and post-project fully-developed peak discharges as computed in the hydrologic model to determine the floodplain inundation limits, channel velocities and valley storage throughout Panther Creek Unnamed Tributary 1 (PNU1). Hydraulic plans were prepared for multi-profile pre-project and post-project conditions. The hydraulic plans were compared throughout Panther Creek Unnamed Tributary 1 (PNU1) to identify potential hydraulic impacts resulting from the site improvements. The procedures used in developing the hydraulic models are further explained below.

[3] HEC-RAS: http://www.hec.usace.army.mil/software/hec-ras/

4.2 Pre-Project Condition Model

The Pre-Project Conditions Model was created using the approved Frisco Street and Fields Parkway model as a base. Cross-sectional geometry for Sections 7278 through 8430 were verified to be updated with 2019 lidar data. Ineffective flow areas at Sections 8588, 7136 and 6895 were revised based on existing culvert layouts. The pre-project geometry consists of six (6) cross-sections between PGA Parkway and BNSF railroad. Figure 4 shows the hydraulic model schematic while Table 3 shows the changes made from the Fields Parkway model to the pre-project conditions model. Output for the pre-project model is provided in Appendix B.

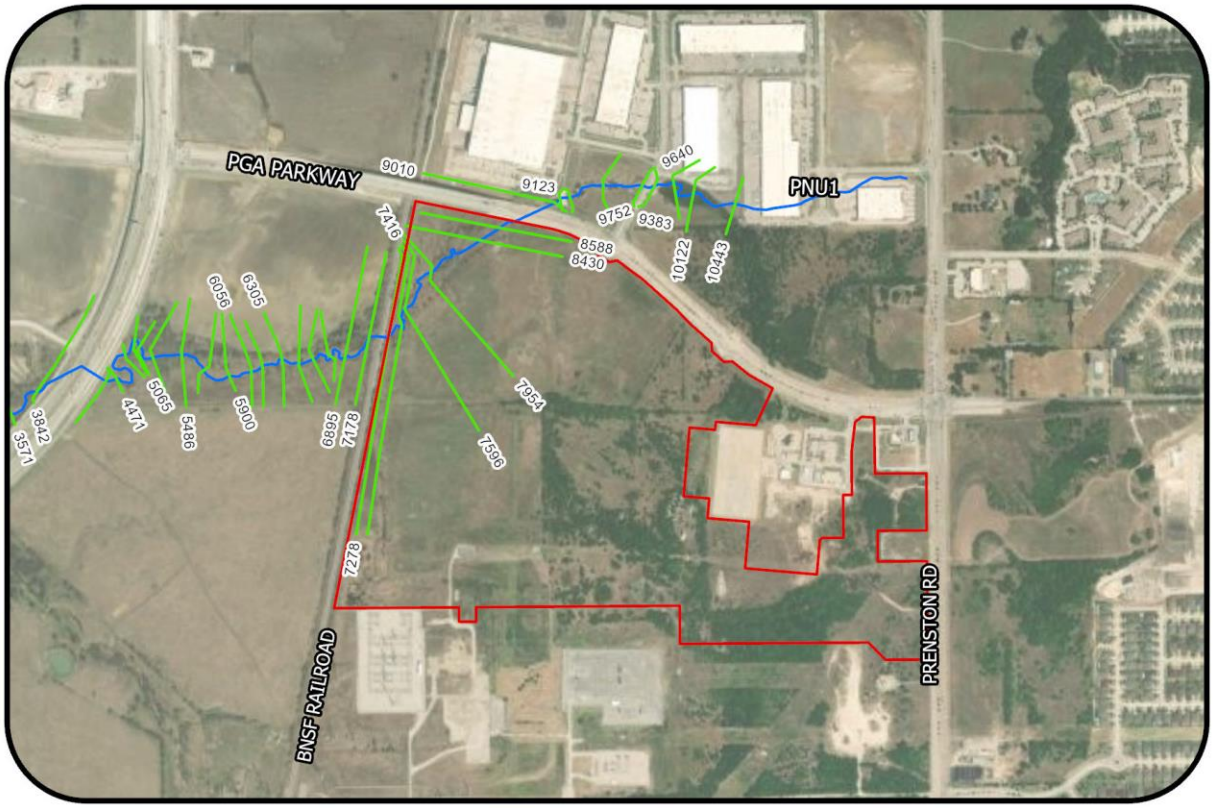


Figure 5: Hydraulic Model Schematic

Section ID		Comments	
KH-Study	Pre-Project		
8588	8588	Verify 2019 Lidar/ Adjust Ineffectives	PROJECT SITE
8430	8430	Verify 2019 Lidar	
7954	7954	Verify 2019 Lidar	
7596	7596	Verify 2019 Lidar	
7416	7416	Verify 2019 Lidar/ Adjust Ineffectives	
7278	7278	Verify 2019 Lidar/ Adjust Ineffectives	

Table 3: Alterations from Frisco Street and Fields Parkway model to Pre-Project Model

4.3 Post-Project Conditions Model

The Pre-Project conditions model serves as a base for the Post-Project Conditions Model. The post-project model includes proposed overbank volume cuts to provide additional regional detention for the proposed industrial park. These cuts include 4:1 side slopes and 1% sloped bench cuts above the assumed ordinary high water mark. Manning's n-values were revised only at the location of these cuts. Sections 8430 through 7416 were revised to simulate the proposed overbank cuts for regional detention. Table 4 below describes the changes made to the pre-project model to create the post-project model. Output for the post-project model is provided in Appendix C.

Section ID		Comments	
Pre-Project	Post-Project		
8588	8588	Unrevised	PROJECT SITE
8430	8430	Channel Grading and Volume Cuts	
7954	7954	Channel Grading and Volume Cuts	
7596	7596	Channel Grading and Volume Cuts	
7416	7416	Channel Grading and Volume Cuts	
7278	7278	Unrevised	
7178	7178	Unrevised	

Table 4: Alterations from Pre-Project to Post-Project Conditions Model

4.4 Hydraulic Work Maps & Schematics

Alignment and location of the cross-sections and delineation of the floodplains are shown on the floodplain work maps provided in Appendix C. Graphical cross-section plots showing overlays of the pre-project and post-project channel geometry are provided in Appendix C. Profile plots showing the 2-, 5-, 25- and 100-year floods are also provided in Appendix C.

4.5 Flow Change Locations

Flow change locations from the approved Frisco Street and Fields Parkway model contained nine (9) flow change locations and remain the same with this study. However, flows were updated to reflect fully-developed pre- and post-project conditions for this study. Figure 6 shows the flow change locations relative to the hydraulic cross-sections while Table 5 depicts the changes in flow from to KH study to pre-project conditions, and Table 6 depicts the changes from pre- to post-project fully-developed conditions. Flows in the HEC-RAS flow files were rounded up to the nearest ten from the HEC-HMS output to be consistent with the effective KH model.

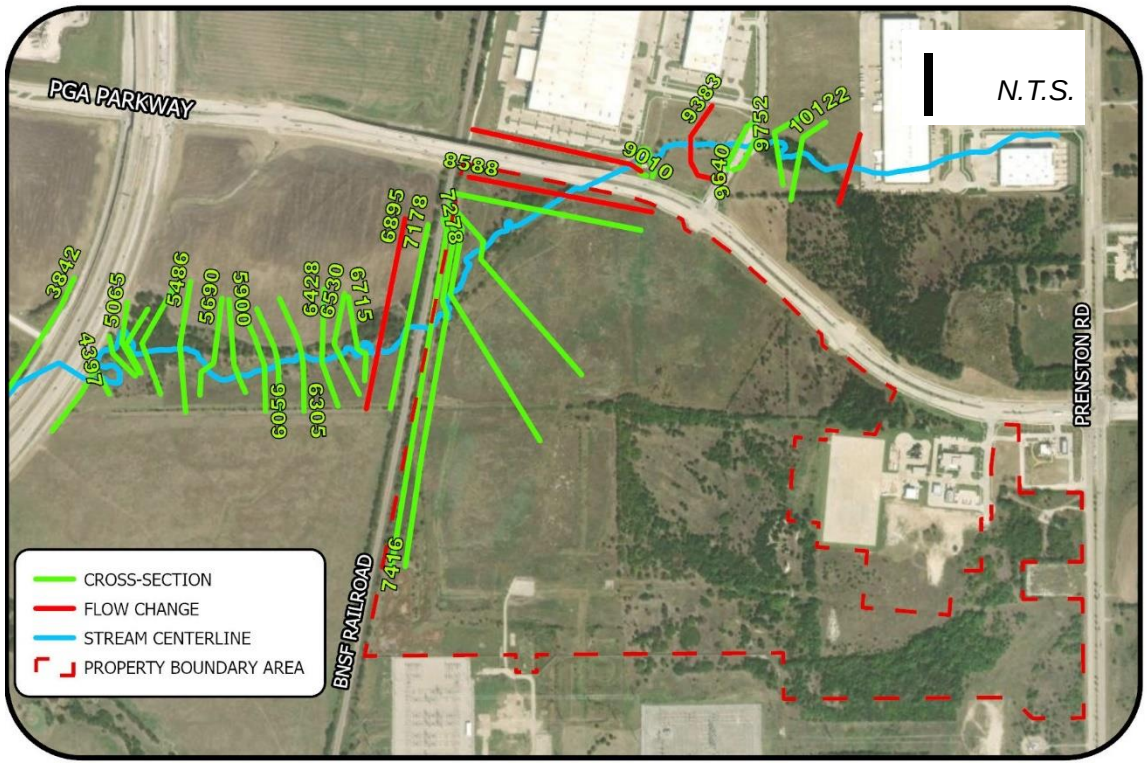


Figure 6 : Flow Change Location

Cross-Section ID	HEC-HMS Junction	2-YR Peak Discharge (cfs)		5-YR Peak Discharge (cfs)		25-YR Peak Discharge (cfs)		100-YR Peak Discharge (cfs)	
		KH Study	Pre-Project	KH Study	Pre-Project	KH Study	Pre-Project	KH Study	Pre-Project
10443	**J-PNU1_09a**	280	290	400	400	560	560	690	700
9383	**J-PNU1_08**	90	90	260	260	530	530	780	750
9010	**J-PNU1_06a**	150	150	310	300	630	620	860	870
8588	**J-PNU1_05**	250	210	300	290	340	340	340	370
6895	**J-PNU1_03a**	270	220	310	300	390	360	380	430
6056	**J-PNU1_03**	510	470	690	660	940	900	1060	1110
3571	**J-PNU1_02a**	500	460	690	660	940	910	1070	1120
1917	**J-PNU1_01b**	840	810	1210	1170	1680	1660	2000	2060
1268	**J-PNU1_01**	890	860	1310	1280	1850	1820	2230	2290

Table 5: Flow Change Location Summary (KH Vs Pre-Project FD)

Cross-Section ID	HEC-HMS Junction	2-YR Peak Discharge (cfs)		5-YR Peak Discharge (cfs)		25-YR Peak Discharge (cfs)		100-YR Peak Discharge (cfs)	
		Pre-Project	Post-Project	Pre-Project	Post-Project	Pre-Project	Post-Project	Pre-Project	Post-Project
10443	J-PNU1_09a	290	290	400	400	560	560	700	690
9383	J-PNU1_08	90	90	260	260	530	520	750	730
9010	J-PNU1_06a	150	150	300	300	620	610	870	860
8588	J-PNU1_05	210	190	290	250	340	300	370	340
6895	J-PNU1_03a	220	200	300	260	360	330	430	400
6056	J-PNU1_03	470	460	660	640	900	880	1110	1090
3571	J-PNU1_02a	460	450	660	640	910	890	1120	1090
1917	J-PNU1_01b	810	810	1170	1160	1660	1640	2060	2020
1268	J-PNU1_01	860	860	1280	1260	1820	1810	2290	2260

Table 6: Flow Change Location Summary (Pre-Project FD Vs Post-Project FD)

4.6 Hydraulic Coefficients

Contraction and expansion coefficients were set to 0.3 and 0.5, respectively, for cross-sections located upstream and downstream of sudden geometry changes. These changes occur at the PGA Parkway and BNSF Railroad. Normal contraction and expansion coefficients of 0.1 and 0.3 were used for all remaining cross-sections. Roughness coefficients were not revised from the Frisco Street and Fields Parkway model. The roughness coefficients used within the on-site reach of Panther Creek Unnamed Tributary 1 (PNU1) range from 0.05 – 0.08 between the left and right overbank. The channel's roughness coefficient and volume cuts are based on an excavated channel not maintained with weeds and brush. The normal value using a "clean bottom with brush on the sides" was selected from Table 5-6 of Ven te Chow's Open Channel Hydraulics. Table 7 describes the different roughness values used in the hydraulic model throughout the overbank areas.

Description	Roughness Coefficient
Heavy brush	0.080
Open field (high grass)	0.05-0.07
Excavated Channel	0.045

Table 7: Overbank Roughness Coefficients

4.7 Limits of Analysis

This hydraulic analysis for Panther Creek Unnamed Tributary 1 (PNU1) extends from the Section 7278 to Section 10443, which is located approximately 1450 ft upstream of the PGA Parkway culvert.

4.8 Downstream Boundary Conditions

Downstream boundary conditions were not revised from the effective Frisco Street and Fields Parkway model. The effective model utilizes a normal depth boundary condition for all profiles with a slope of 0.0108. Table 8 displays the slope used for each hydraulic profile. The downstream boundary used in the model is located approximately 7,300 feet downstream of the proposed site improvements.

Storm Event	Slope (ft/ft)
2-year	0.0108
5-year	0.0108
25-year	0.0108
100-year	0.0108

Table 8: Downstream Boundary Conditions

5.0 RESULTS

5.1 Detention

HEC-HMS was used to compute the 2-, 5-, 25- and 100-year peak discharges for pre-project and post-project existing and fully-developed conditions at key comparison points along Panther Creek Unnamed Tributary 1 (PNU1). The comparison points are shown in Figure 6.

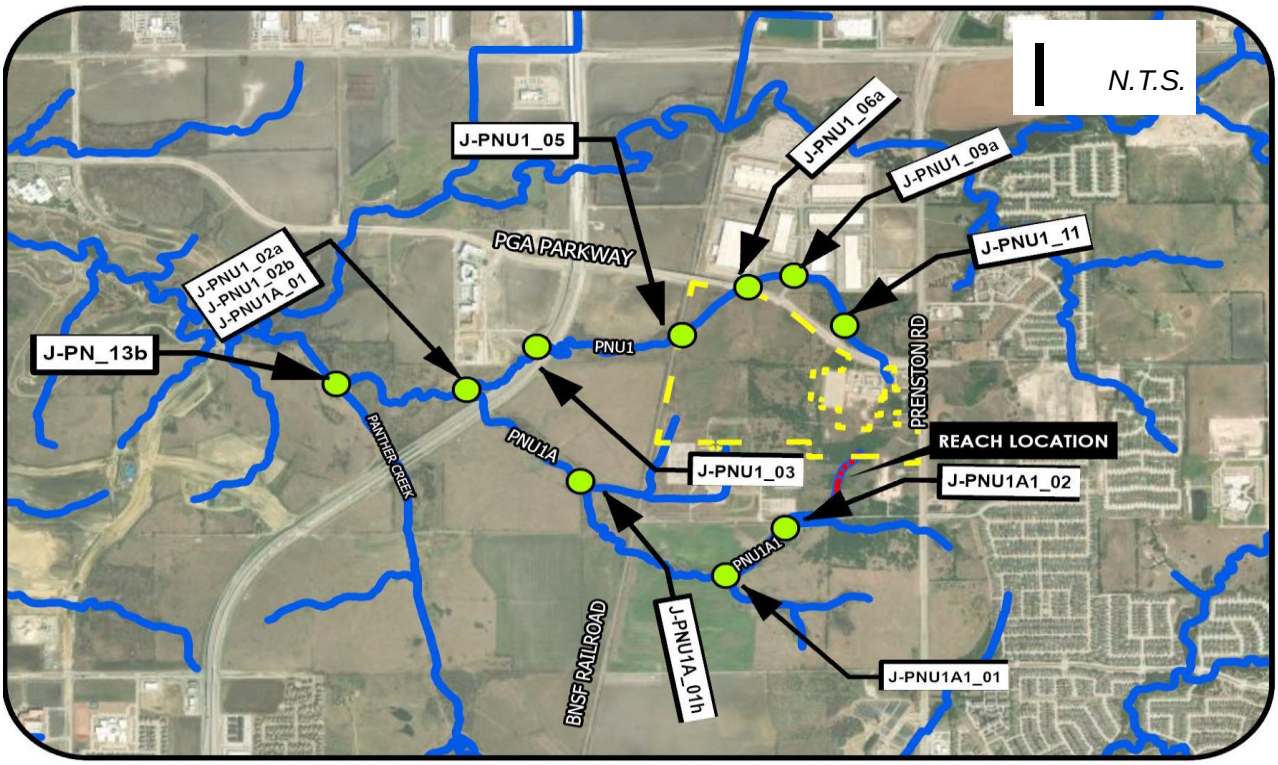


Figure 7: Hydrologic Comparison Points

Table 9 compares the 2-5-,25-, and 100- year pre-project and post-project fully-developed discharges at the comparison points through the watershed. These tables can also be found in the Hydrologic Comparison Map in Appendix B.

Junction ID	2-YR Peak Discharge (cfs)			5-YR Peak Discharge (cfs)			25-YR Peak Discharge (cfs)			100-YR Peak Discharge (cfs)		
	Pre-Project	Post-Project	Diff.	Pre-Project	Post-Project	Diff.	Pre-Project	Post-Project	Diff.	Pre-Project	Post-Project	Diff.
J-PNU1_11	126.8	129.2	2.4	181.5	179.9	-1.6	257.7	250.9	-6.8	320.5	309.7	-10.8
J-PNU1_09a	281.5	283.7	2.2	397.6	395.9	-1.7	559.1	552.7	-6.4	694.1	683.5	-10.6
J-PNU1_07	97.0	98.8	1.8	268.6	266.2	-2.4	556.6	548.7	-7.9	782.6	771.2	-11.4
J-PNU1_06a	145.6	147.4	1.8	297.0	294.9	-2.1	615.7	608.3	-7.4	867.1	856.0	-11.1
J-PNU1_05	204.3	184.8	-19.5	284.9	245.7	-39.2	335.9	298.8	-37.1	364.6	332.7	-31.9
J-PNU1_03	462.2	456.1	-6.1	651.5	637.7	-13.8	900.0	880.0	-20.0	1106.9	1080.2	-26.7
J-PNU1_02a	453.4	447.0	-6.4	651.8	637.7	-14.1	902.9	882.9	-20.0	1115.9	1089.5	-26.4
J-PNU1_02b	847.9	847.1	-0.8	1231.9	1221.1	-10.8	1710.3	1692.3	-18.0	2116.7	2087.3	-29.4
J-PNU1A1_02	295.6	265.8	-29.8	508.3	443.4	-64.9	801.4	716.8	-84.6	1036.6	951.6	-85.0
J-PNU1A1_01	295.9	273.5	-22.4	519.9	469.6	-50.3	855.5	777.6	-77.9	1156.6	1066.1	-90.5
J-PNU1A_03b	189.3	187.4	-1.9	345.6	329.2	-16.4	644.8	619.0	-25.8	925.3	890.2	-35.1
J-PNU1A_01h	149.1	148.4	-0.7	173.2	171.6	-1.6	436.5	407.7	-28.8	803.1	741.7	-61.4
J-PNU1A_01	470.2	470.1	-0.1	649.2	648.5	-0.7	887.4	886.0	-1.4	1086.8	1085.0	-1.8
J-PNU1_01	859.6	858.1	-1.5	1270.2	1258.8	-11.4	1819.3	1800.8	-18.5	2281.4	2252.5	-28.9
J-PN_13b	3874.1	3917.4	43.3	6270.1	6234.6	-35.5	9783.1	9709.6	-73.5	13119.0	13031.1	-87.9

Table 9: Peak Discharge Pre-Project and Post-Project Fully Developed Comparison

Results from the hydrologic model shows the proposed site improvements with detention will mitigate the 2-,5-, 25- , and 100-year peak fully developed discharges from post-project to pre-project conditions. There are minor increases in the 2-year storm discharges along PNU1 upstream of the proposed regional detention improvements due to the development of sub-basin PNU1_A5. These increases are minimal and within the city criteria, subsequent section 5.2 show no rises in WSEL due the increased flow. All storm events are mitigated to pre-project conditions downstream of the regional detention improvements. It is to be noted that there is a slight increase in discharge downstream of the proposed improvements of 43.3 cfs at the confluence with Panther Creek. These increases are minimal and are in an undeveloped area where future development is limited to be outside the 100-year storm event. All other storms are mitigated to pre-project conditions.

Table 10 compares the 2-5-,25-, and 100- year pre-project and post-project existing discharges at the comparison points through the watershed. These tables can also be found in in Hydrologic Comparison Map in Appendix B.

Junction ID	2-YR Peak Discharge (cfs)			5-YR Peak Discharge (cfs)			25-YR Peak Discharge (cfs)			100-YR Peak Discharge (cfs)		
	Pre-Project Existing	Post-Project Existing	Diff.	Pre-Project Existing	Post-Project Existing	Diff.	Pre-Project Existing	Post-Project Existing	Diff.	Pre-Project Existing	Post-Project Existing	Diff.
J-PNU1_11	85.0	91.6	6.6	141.4	146.1	4.7	223.9	224.1	0.2	292.3	288.0	-4.3
J-PNU1_09a	239.4	246.4	7.0	358.2	362.4	4.2	526.1	526.0	-0.1	665.8	662.0	-3.8
J-PNU1_08	72.9	73.2	0.3	204.8	209.3	4.5	484.2	484.3	0.1	707.7	702.7	-5.0
J-PNU1_06a	143.4	145.6	2.2	241.8	247.5	5.7	570.3	571.7	1.4	833.6	829.9	-3.7
J-PNU1_05	201.9	183.2	-18.7	278.4	240.0	-38.4	332.5	296.0	-36.5	362.2	330.8	-31.4
J-PNU1_03	340.8	322.2	-18.6	497.2	473.5	-23.7	713.9	685.6	-28.3	894.5	865.0	-29.5
J-PNU1_02a	340.2	321.8	-18.4	497.6	473.7	-23.9	719.5	691.4	-28.1	902.2	872.8	-29.4
J-PNU1_02b	667.3	669.7	2.4	975.5	971.2	-4.3	1422.8	1401.6	-21.2	1787.6	1765.7	-21.9
J-PNU1A1_02	193.1	171.6	-21.5	337.0	284.1	-52.9	555.1	465.4	-89.7	769.8	670.9	-98.9
J-PNU1A1_01	187.3	173.4	-13.9	355.5	316.1	-39.4	603.9	533.1	-70.8	858.6	773.4	-85.2
J-PNU1A_03b	164.2	163.7	-0.5	255.2	250.0	-5.2	522.2	508.3	-13.9	758.6	739.8	-18.8
J-PNU1A_01h	142.6	142.1	-0.5	166.7	165.6	-1.1	370.2	352.5	-17.7	693.0	659.5	-33.5
J-PNU1A_01	461.4	461.2	-0.2	642.4	641.6	-0.8	882.1	881.1	-1.0	1081.9	1080.4	-1.5
J-PNU1_01	699.7	700.7	1.0	1033.6	1028.1	-5.5	1559.5	1541.2	-18.3	1979.4	1956.6	-22.8
J-PN_13b	2760.0	2815.5	55.5	4823.0	4804.3	-18.7	8207.4	8141.9	-65.5	11433.3	11372.3	-61.0

Table 10: Peak Discharge Pre-Project and Post-Project Existing Comparison

Results from the hydrologic model shows the proposed site improvements with detention with mitigate the 2-,5-, 25- , and 100-year peak existing discharges from post-project to pre-project conditions. There are minor increases in the 2-, 5- , and 25- year storm discharges along PNU1 upstream of the proposed regional detention improvements due to the development of sub-basin PNU1_A5. These increases are minimal with minimal hydraulic impact, the subsequent Section 5.3 shows rises in WSEL are within the channel with corresponding freeboard. All storm events are mitigated to pre-project conditions downstream of the regional detention improvements. It is to be noted that there is a slight increase of 2.40 cfs at Junction J-PNU1_02b, 1.0 cfs at J-PNU1_01 just upstream of the confluence with Panther Creek 55.5 cfs at the confluence of PNU1 and Panther Creek in the 2-year storm event. These increases are minimal and are in an undeveloped area where future development is limited to be outside the 100-year storm event. All other storms are mitigated to pre-project conditions.

5.2 Hydraulic Results

A tabular comparison was made for pre-project and post-project fully-developed conditions of the Panther Creek Unnamed Tributary 1 (PNU1). The comparisons include a review of the 100-year WSELs, channel velocities and valley storage in an effort to document compliance with the City's requirements.

Water-Surface Elevation

A comparison of 100-year water-surface elevation(s) was made between the pre-project and post-project conditions models for Panther Creek Unnamed Tributary 1 (PNU1). Table 11 below compares the 100-year WSELs between pre-project and post-project conditions. A maximum decrease of 1.50 foot is projected for the 100-year water-surface elevations. There is no increase in WSELs onsite between pre- and post-project conditions on-site. A negative difference indicates a decrease and a positive indicates an increase from the pre-project to post-project conditions. A multiprofile hydraulic output table is shown in Appendix C.

SECTION ID	100-YR WSEL (FT)			
	Pre-Project	Post-Project	DIFF	
10443	653.84	653.83	-0.01	
10122	648.61	648.60	-0.01	
9880	645.32	645.31	-0.01	
9752	641.75	641.71	-0.04	
Gateway Drive				
9640	641.18	641.14	-0.04	
9383	641.07	641.04	-0.03	
9123	641.06	641.03	-0.03	
Culvert				
9057	636.68	636.66	-0.02	
9010	631.8	631.77	-0.03	
PGA Parkway				
8588	629.02	627.91	-1.11	PROJECT SITE
8430	628.88	627.38	-1.50	
7954	628.88	627.40	-1.48	
7596	628.88	627.40	-1.48	
7416	628.88	627.40	-1.48	
7278	628.88	627.40	-1.48	
BNSF Railroad				

Table 11: Pre-Project vs Post-Project 100-Year WSEL Comparison

There are no increases in WSEL for the 100-year storm event meeting the minimum criteria for the City of Frisco.

A comparison of 2-year water-surface elevation(s) was made between the pre-project and post-project conditions models for Panther Creek Unnamed Tributary 1 (PNU1) to determine no adverse impact due to the minor increase in discharges. Table 12 below compares the 2-year WSELs between pre-project and post-project conditions. A maximum decrease of 1.94 feet is projected for the 2-year water-surface elevations at cross-section 8430. There are no in WSEL between pre- and post-project conditions. A negative difference indicates a decrease and a positive indicates an increase from the pre-project to post-project conditions. A multiprofile hydraulic output table is shown in Appendix C.

SECTION ID	2-YR WSEL (FT)			
	Pre-Project	Post-Project	DIFF	
10443	653.47	653.47	0.00	
10122	647.92	647.92	0.00	
9880	644.45	644.45	0.00	
9752	640.01	640.01	0.00	
Gateway Drive				
9640	639.43	639.41	-0.02	
9383	639.36	639.34	-0.02	
9123	639.36	639.34	-0.02	
Culvert				
9057	632.38	632.38	0.00	
9010	629.18	629.18	0.00	
PGA Parkway				
8588	628.53	628.03	-0.50	PROJECT SITE
8430	627.53	625.59	-1.94	
7954	624.73	623.93	-0.80	
7596	623.01	622.48	-0.53	
7416	622.95	622.47	-0.48	
7278	622.95	622.46	-0.49	
BNSF Railroad				

Table 12: Pre-Project vs Post-Project 2-Year WSEL Comparison

There are no increases in WSEL for the 2-year storm event, meeting the minimum criteria for the City of Frisco.

Velocities

A comparison of pre-project vs post-project channel velocities was made at each cross-section of Panther Creek Unnamed Tributary 1 (PNU1) within the study area. The hydraulic model shows channel velocities will increase and decrease throughout the study area. Table 13 below compares the 2-, 5-, 25-, and 100-year pre-project vs post-project channel velocities at each cross-section.

SECTION ID	100-YR VELOCITY (FT/S)			25-YR VELOCITY (FT/S)			5-YR VELOCITY (FT/S)			2-YR VELOCITY (FT/S)		
	Pre-Project	Post-Project	DIFF	Pre-Project	Post-Project	DIFF	Pre-Project	Post-Project	DIFF	Pre-Project	Post-Project	DIFF
10443	7.80	7.83	0.03	8.63	8.63	0.00	7.85	7.85	0.00	7.12	7.12	0.00
10122	5.79	5.75	-0.04	5.11	5.09	-0.02	4.67	4.65	-0.02	4.25	4.25	0.00
9880	6.13	6.12	-0.01	6.41	6.45	0.04	5.85	5.90	0.05	5.48	5.47	-0.01
9752	4.91	4.89	-0.02	4.60	4.60	0.00	4.17	4.17	0.00	3.79	3.79	0.00
Gateway Drive												
9640	3.95	3.92	-0.03	3.52	3.50	-0.02	3.07	3.07	0.00	2.83	2.85	0.02
9383	1.64	1.62	-0.02	1.36	1.32	-0.04	0.92	0.92	0.00	0.48	0.49	0.01
9123	0.81	0.79	-0.02	0.62	0.60	-0.02	0.35	0.35	0.00	0.14	0.14	0.00
Culvert												
9057	8.70	8.57	-0.13	7.79	7.75	-0.04	10.22	10.22	0.00	7.60	7.60	0.00
9010	2.42	2.43	0.01	2.33	2.32	-0.01	2.07	1.91	-0.16	1.68	1.68	0.00
PGA Parkway												
8588	2.14	4.81	2.67	1.99	2.78	0.79	1.86	2.60	0.74	1.66	2.34	0.68
8430	1.07	1.92	0.85	5.07	5.39	0.32	5.04	5.15	0.11	3.87	4.84	0.97
7954	0.26	0.06	-0.20	0.39	0.07	-0.32	1.59	0.07	-1.52	1.72	0.05	-1.67
7596	0.16	0.07	-0.09	0.20	0.08	-0.12	0.35	0.10	-0.25	0.93	0.12	-0.81
7416	0.16	0.16	0.00	0.21	0.22	0.01	0.36	0.41	0.05	0.87	0.79	-0.08
7278	0.19	0.23	0.04	0.23	0.32	0.09	0.35	0.48	0.13	0.57	0.60	0.03
BNSF Railroad												

Table 13: Pre-project vs Post-Project 100-year Channel Velocity Comparison

Channel velocities increase and decrease throughout the stream with the maximum increase of 2.67 ft/sec at the cross-section 8588 downstream of PGA Parkway due to the decrease in WSEL within the channel banks to a max velocity of 4.81 ft/s. All other velocity increases are under 5.5 ft/s or within 5% of pre-project conditions. A negative difference indicates a decrease from pre-project to post-project conditions. A multiprofile hydraulic output table is shown in Appendix C.

Valley Storage

A comparison of pre-project vs post-project 100-year valley storage was made at each cross-section based on volume calculations in the hydraulic model. Table 14 below compares the cumulative 100-year volume at each cross section between pre-project and post-project conditions.

SECTION ID	100-YR VALLEY STORAGE (ACRE-FT)		
	Pre-Project	Post-Project	DIFF
10443	143.00	170.99	27.99
10122	141.34	169.35	28.01
9880	140.64	168.65	28.01
9752	140.07	168.09	28.02
Gateway Drive			
9640	140.00	168.02	28.02
9383	136.14	164.22	28.08
9123	127.27	155.44	28.17
Culvert			
9057	126.44	154.61	28.17
9010	125.21	153.46	28.25
PGA Parkway			
8588	124.28	152.55	28.27
8430	123.32	152.08	28.76
7954	107.83	120.99	13.16
7596	88.97	87.7	-1.27
7416	67.52	63.13	-4.39
7278	58.38	56.37	-2.01
BNSF Railroad			

Table 14: Pre-Project vs Post-Project 100-year Valley Storage Comparison

The model indicates there will be a total of 28 % valley-storage increase due to proposed channel volume cuts.

5.3 Existing Conditions Hydraulic Impacts

Hydrologic comparisons of the pre-and post-existing condition of the Panther Creek Unnamed Tributary 1 (PNU1) depict slight rises in the 2-, 5-, and 25-year storm events upstream of the proposed improvements. Pre- and Post Existing Conditions plans were created to show the slight increases in discharges have minimal hydraulic impact upstream of PGA Parkway for the previously mentioned storm events. Table 13 below compares the impacts to WSEL's for the 2-, 5- , and 25-, and existing condition discharges.

SECTION ID	2-YR WSEL (FT)			5-YR WSEL (FT)			25-YR WSEL (FT)		
	Pre-Project	Post-Project	DIFF	Pre-Project	Post-Project	DIFF	Pre-Project	Post-Project	DIFF
10443	653.42	653.44	0.02	653.52	653.53	0.01	653.64	653.64	0.00
10122	647.77	647.80	0.03	648.08	648.10	0.02	648.42	648.42	0.00
9880	644.34	644.36	0.02	644.61	644.63	0.02	644.92	644.93	0.01
9752	639.76	639.81	0.05	641.08	640.39	-0.69	641.08	641.08	0.00
Gateway Drive									
9640	639.34	639.38	0.04	639.91	639.93	0.02	640.70	640.67	-0.03
9383	639.28	639.32	0.04	639.83	639.85	0.02	640.61	640.58	-0.03
9123	639.28	639.32	0.04	639.83	639.85	0.02	640.61	640.57	-0.04
Culvert									
9057	632.24	632.24	0.00	633.77	633.77	0.00	636.24	636.25	0.01
9010	629.18	629.18	0.00	629.61	629.72	0.11	636.24	630.91	-5.33
PGA Parkway									
8588	628.53	628.03	-0.50	628.75	628.2	-0.55	628.99	628.35	-0.64
8430	627.53	625.59	-1.94	628.07	625.76	-2.31	627.7	625.9	-1.80
7954	624.73	623.93	-0.80	624.82	623.93	-0.89	627.4	626.05	-1.35
7596	623.01	622.48	-0.53	624.84	623.89	-0.95	627.4	626.05	-1.35
7416	622.95	622.47	-0.48	624.83	623.89	-0.94	627.4	626.05	-1.35
7278	622.95	622.46	-0.49	624.83	623.88	-0.95	627.4	626.05	-1.35
Dallas North Tollway									

WSEL's have are minor increases at the upstream sections of PNU1. The rises are contained within the channel are there are no increases in flow in the 100-year discharges. The rise at cross-sections 9057 and 9880 in the 25-year storm less than 0.01 feet and contained within the channel with sufficient freeboard. The rises in the 2-, 5-, and 25-year storms are below the fully developed WSEL's required by the City of Frisco.

6.0 CONCLUSION

This study determines the hydrologic and hydraulic impacts of the proposed Luminant Industrial Site Development on Panther Creek Unnamed Tributary 1 (PNU1). Comparisons were made between pre-project and post-project conditions models based on the 2-, 5-, 25- and 100-year storm events. Comparisons include a review of:

- Pre-project vs post-project hydrology for Existing and Fully Developed Conditions (2-, 5-, 25- and 100-year);
- Pre-project vs post-project floodplain inundation limits across the sites;
- Pre-project vs post-project conditions (peak discharges, water-surface elevations, velocities and valley storage);
- Floodplain reclamation alternatives (proposed grading limits);
- Detention requirements (storage volume);

Two (2) regional detention locations are proposed for the industrial park development. The railroad detention includes 22 ac-ft of channel excavation along Unnamed Tributary 1 (PNU1) to Panther Creek. The regional detention will mitigate the post-project 2-, 5-, 25-, and 100-year storm peak discharges to pre-project conditions downstream of the proposed detention improvements for both existing and fully-developed conditions. Due to improvements at PNU1_A5, there are slight increases in peak discharge upstream of the proposed detention improvements in the more frequent storm events. In fully-developed conditions there are minor increases in the 2-year storm peak discharges but they do not impact WSELs. In existing conditions there are minor increases in the 2- and 5-year storm peak discharges and negligible increases in the 25-year storm, all which are contained in the existing channel with at least one-foot of free board and are mitigated downstream of the detention improvements. The second pond requires 3.4 ac-ft of detention volume and reduces the 2-,5-,25, and 100-year post-project storm events to pre-project conditions for both existing and fully-developed conditions. It should be noted there is an increase in peak discharge for the 2-year storm in both existing and fully-developed conditions at the confluence of PNU1 and Panther Creek, 43.3 cfs, and 55.5 cfs, respectively. These increases are contained within the existing channel. All other storm events are mitigated to pre-project conditions.

The hydraulic model shows the proposed improvements will decrease the 100-year water-surface elevations throughout the project. The maximum decreases in water-surface elevation is 1.50 feet. Channel velocities increase and decrease throughout the stream with the maximum increase of 2.67 ft/sec at the cross-section 8588 downstream of PGA Parkway to a max velocity of 4.81 ft/s. All other velocity increases are under 5.5 ft/s or within 5% of pre-project conditions. Valley storage comparisons show the 100-year valley storage of the Panther Creek Unnamed Tributary 1 (PNU1) will increase by approximately 28% due to the proposed channel improvements.

The proposed improvements and floodplain alterations included in this report meet the minimum criteria for the City of Frisco.

7.0 DEFINITIONS & ACRONYMS

100-Year Flood. The flood event that has a 1-percent chance of being equaled or exceeded each year, also referred to as the 1-percent annual chance flood.

AC-FT. Acre-Feet

City. City of Frisco

Existing Conditions Model. A hydraulic model that represents the existing conditions and corrects any errors in, adds cross-sections to or adds more detailed topography to the effective model.

FEMA. Federal Emergency Management Agency

FIRM. Flood Insurance Rate Map

FIS. Flood Insurance Study

FPS. Feet Per Second

HEC-HMS. The Hydrologic Engineering Center – Hydrologic Modeling System is designed to simulate the precipitation-runoff processes of dendritic drainage basins. This includes large river basin water supply and flood hydrology, and small urban or natural watershed runoff. Hydrographs produced by the program are used directly or in conjunction with other software for studies of water availability, urban drainage, flow forecasting, future urbanization impact, reservoir spillway design, flood damage reduction, floodplain regulation , and systems operation.

HEC-RAS. The Hydrologic Engineering Center – River Analysis System software developed by the US Army Corps of Engineers to perform one-dimensional steady flow and unsteady flow river hydraulic computations. The computer program models the hydraulics of water flow through natural rivers and other channels.

Jurisdictional Waters of the US. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide. All interstate waters including interstate wetlands. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters.

NAD83. 1983 North American Datum

NAVD88. 1988 North American Vertical Datum

PN. Panther Creek

PNU1. Panther Creek Unnamed Tributary 1

PNU1A. Panther Creek Unnnamed Tributary 1A

Pre-Project Conditions Model. A hydraulic model that represents the existing conditions within the stream.

Post-Project Conditions Model. A hydraulic model that represents the proposed improvements within the stream.

Overbank. Area outside of the defined channel located within the floodfringe. Right refers to the right side of the channel looking downstream.

USACE. United States Army Corps of Engineers

Valley Storage. The water volume between the water surface and the ground surface that occupies a given reach of the river.

WSEL. Water-Surface Elevation

8.0 REFERENCES

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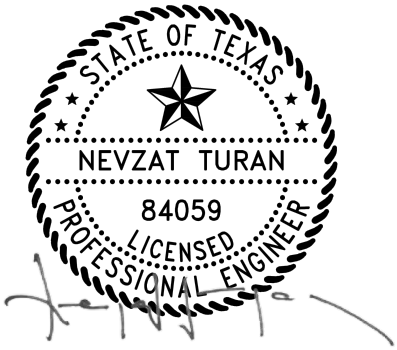
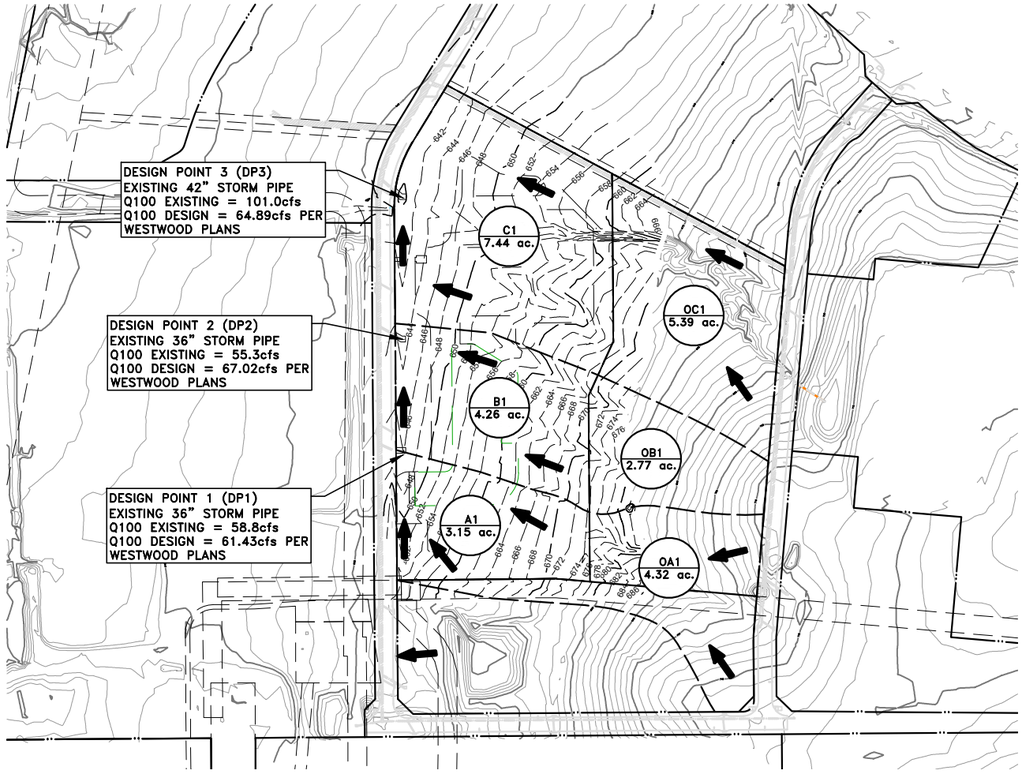
APPENDIX IIIB-3

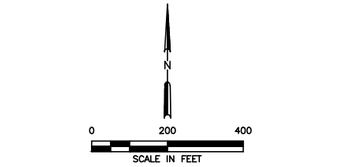
ALTERNATIVE CONVEYANCE DESIGN



11/12/2025

EXISTING DRAINAGE AREA MAP

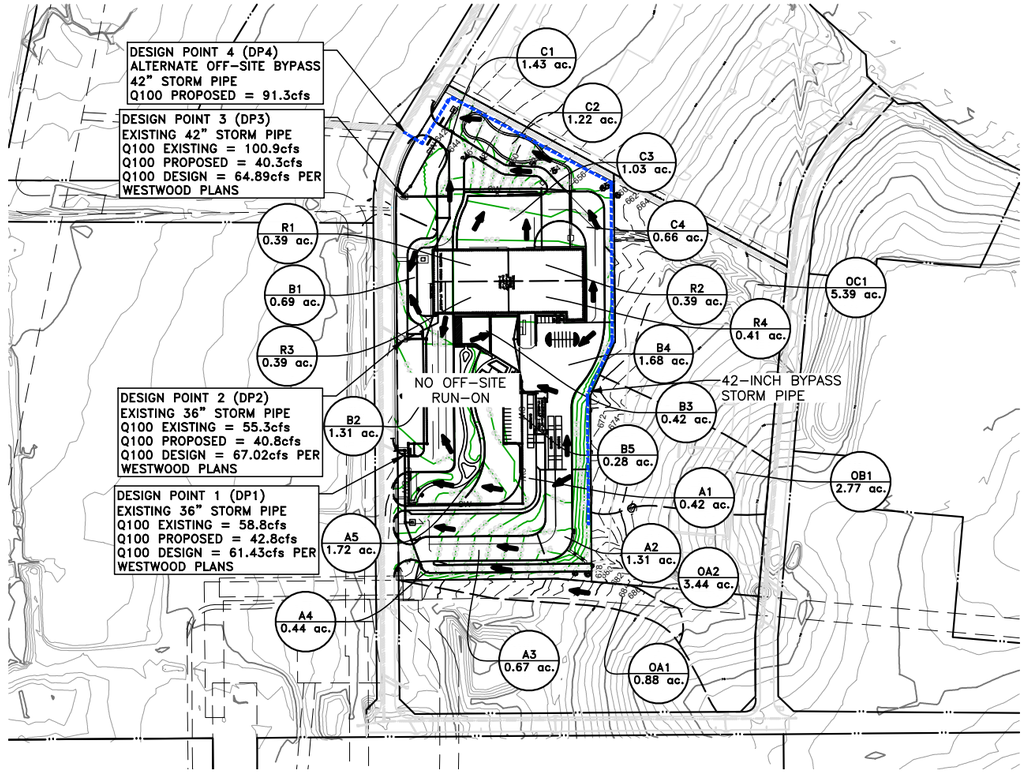




LEGEND

- SITE PROPERTY BOUNDARY
- DRAINAGE BASIN LIMIT
- 1A / X.XX ac. — DRAINAGE BASIN LABEL
- FLOW DIRECTION

ULTIMATE ALTERNATE DRAINAGE AREA MAP



EXISTING DRAINAGE AREA CALCULATIONS

Rational Method Q=CIA

AREA	ACRES	C	Tc (min)	I_2 (In/Hr)	I_5 (In/Hr)	I_{25} (In/Hr)	I_{100} (In/Hr)	Q_2 (cfs)	Q_5 (cfs)	Q_{25} (cfs)	Q_{100} (cfs)	Comments
A1	3.15	0.90	10	4.91	5.81	7.26	8.74	13.9	16.5	20.6	24.8	Sheet and shallow concentrated flow to existing wye inlet (DP1).
OA1	4.32	0.90	10	4.91	5.81	7.26	8.74	19.1	22.6	28.2	34.0	Sheet and shallow concentrated flow to Bas in 1.
							TOTAL =	33.0	39.1	48.8	58.8	
B1	4.26	0.90	10	4.91	5.81	7.26	8.74	18.8	22.3	27.8	33.5	Sheet and shallow concentrated flow to existing wye inlet (DP2).
OB1	2.77	0.90	10	4.91	5.81	7.26	8.74	12.2	14.5	18.1	21.8	Sheet and shallow concentrated flow to Bas in 2.
							TOTAL =	31.0	36.8	45.9	55.3	
C1	7.44	0.90	10	4.91	5.81	7.26	8.74	32.9	38.9	48.6	58.5	Sheet and shallow concentrated flow to existing wye inlet (DP3).
OC1	5.39	0.90	10	4.91	5.81	7.26	8.74	23.8	28.2	35.2	42.4	Sheet and shallow concentrated flow to Bas in 3.
							TOTAL =	56.6	67.1	83.8	101.0	

NOTES:
1) Discharge from drainage areas was obtained using the Rational Method based on the most current City of Frisco Engineering Standards.
2) Drainage areas were delineated using surveyed property information and contours from the approved Preliminary Site Plan PSP23-0069.
3) A 'C' factor of 0.90 was used per Table 4.1 in the City of Frisco Engineering Standards for non-residential use.
4) The minimum allowable time of concentration of 10 minutes was used for the overall drainage basin per Table 4.1 in the City of Frisco Engineering Standards for non-residential use.

	Intensity Table (10 Min. Time of Concentration)			
	2-year	5-year	25-year	100-year
B	81.319	82.686	106.665	112.783
D	15.768	15.497	18.069	17.572
E	0.864	0.82	0.806	0.771
Intensities	**4.91**	**5.81**	**7.26**	**8.74**

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED
PROFESSIONAL ENGINEER

11/12/2025

NOTES:

1. EXISTING TOPOGRAPHIC MAP HAS BEEN PREPARED BY WEAVER CONSULTANTS GROUP ON 11-13-2024. 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 OCTOBER 28, 2025 WAS PREPARED BY WEAVER CONSULTANTS GROUP.
3. THE DRAINAGE AREA DELINEATION WAS BASED ON TOPOGRAPHIC CONTOURS, DESIGN INFORMATION, AND INLET LOCATIONS AS SHOWN.
4. THE TOTAL PEAK FLOW WAS DETERMINED BY THE RATIONAL METHOD FOR THE 2, 5, 25, AND 100-YEAR STORM EVENTS UTILIZING ATLAS 14 INTENSITIES. REFER TO THE DOWNSTREAM ASSESSMENT (APPENDIX IIIB-2) FOR ADDITIONAL INFORMATION.
5. WASH WATER AND THE STORMWATER FROM THE TRANSFER TRAILER UNLOADING TUNNEL WILL BE COLLECTED AND DISCHARGED INTO A SUMP BEFORE DISCHARGING TO A SAND/OIL SEPARATOR. IT WILL THEN BE DISCHARGED TO THE CITY OF FRISCO SANITARY SEWER SYSTEM. THE UNCONTAMINATED STORMWATER WILL BE COLLECTED IN A BELOW GROUND STORMWATER SYSTEM BEFORE PASSING THROUGH MECHANICAL SEPARATORS AND DISCHARGING TO THE CITY OF FRISCO STORMWATER SYSTEM LOCATED IN GATEWAY DRIVE.
6. IN THE EVENT THAT THE EASTERN PROPERTY IS NOT DEVELOPED, THIS OPTION PRESENTED, OR ONE OF SIMILAR DESIGN, WILL BE ELECTED FOR USE.

ULTIMATE DRAINAGE AREA CALCULATIONS

Rational Method Q=CIA

AREA	ACRES	C	Tc (min)	I_2 (In/Hr)	I_5 (In/Hr)	I_{25} (In/Hr)	I_{100} (In/Hr)	Q_2 (cfs)	Q_5 (cfs)	Q_{25} (cfs)	Q_{100} (cfs)	Comments
A1	0.42	0.90	10	4.91	5.81	7.26	8.74	1.9	2.2	2.7	3.3	Drains to proposed wye inlet in Basin A2.
A2	1.31	0.90	10	4.91	5.81	7.26	8.74	5.8	6.8	8.6	10.3	Drains to wye inlet.
A3	0.67	0.90	10	4.91	5.81	7.26	8.74	3.0	3.5	4.4	5.3	Drains to proposed curb inlet.
A4	0.44	0.90	10	4.91	5.81	7.26	8.74	1.9	2.3	2.9	3.5	Drains to proposed curb inlet.
A5	1.72	0.90	10	4.91	5.81	7.26	8.74	7.6	9.0	11.2	13.5	Drains to inlets in open space area.
OA1	0.88	0.90	10	4.91	5.81	7.26	8.74	3.9	4.6	5.7	6.9	Drains to Basin A4.
							TOTAL (DP1) =	**24.0**	**28.4**	**35.5**	**42.8**	
B1	0.69	0.90	10	4.91	5.81	7.26	8.74	3.0	3.6	4.5	5.4	Drains to proposed curb inlet.
B2	1.31	0.90	10	4.91	5.81	7.26	8.74	5.8	6.8	8.6	10.3	Drains to proposed curb inlet.
B3	0.42	0.90	10	4.91	5.81	7.26	8.74	1.9	2.2	2.7	3.3	Drains to proposed curb inlet.
B4	1.68	0.90	10	4.91	5.81	7.26	8.74	7.4	8.8	11.0	13.2	Drains to proposed curb inlet.
B5	0.28	0.90	10	4.91	5.81	7.26	8.74	1.2	1.5	1.8	2.2	Drains to proposed curb inlet.
R3	0.39	0.90	10	4.91	5.81	7.26	8.74	1.7	2.0	2.5	3.1	Roof drains Basin B3.
R4	0.41	0.90	10	4.91	5.81	7.26	8.74	1.8	2.1	2.7	3.2	Roof drains to Basin B4.
							TOTAL (DP2) =	**22.9**	**27.1**	**33.8**	**40.8**	
C1	1.43	0.90	10	4.91	5.81	7.26	8.74	6.3	7.5	9.3	11.3	Drains to proposed curb inlet.
C2	1.22	0.90	10	4.91	5.81	7.26	8.74	5.4	6.4	8.0	9.6	Drains to wye inlet.
C3	1.03	0.90	10	4.91	5.81	7.26	8.74	4.5	5.4	6.7	8.1	Drains to proposed curb inlet.
C4	0.66	0.90	10	4.91	5.81	7.26	8.74	2.9	3.5	4.3	5.2	Drains to proposed curb inlet.
R1	0.39	0.90	10	4.91	5.81	7.26	8.74	1.7	2.0	2.5	3.1	Roof drains to Basin C1.
R2	0.39	0.90	10	4.91	5.81	7.26	8.74	1.7	2.0	2.5	3.1	Roof drains to Basin C3.
							TOTAL (DP3) =	**22.6**	**26.8**	**33.4**	**40.3**	
OA2	3.44	0.90	10	4.91	5.81	7.26	8.74	15.2	18.0	22.5	27.1	Drains to proposed bypass stormwater system.
OB1	2.77	0.90	10	4.91	5.81	7.26	8.74	12.2	14.5	18.1	21.8	Drains to proposed bypass stormwater system.
OC1	5.39	0.90	10	4.91	5.81	7.26	8.74	23.8	28.2	35.2	42.4	Drains to proposed bypass stormwater system.
							TOTAL (DP4) =	**51.2**	**60.6**	**75.8**	**91.3**	

NOTES:
1) Discharge from drainage areas was obtained using the Rational Method based on the most current City of Frisco Engineering Standards.
2) Drainage areas were delineated using surveyed property information and contours from the approved Preliminary Site Plan PSP23-0069.
3) A 'C' factor of 0.90 was used per Table 4.1 in the City of Frisco Engineering Standards for non-residential use.
4) The minimum allowable time of concentration of 10 minutes was used for the overall drainage basin per Table 4.1 in the City of Frisco Engineering Standards for non-residential use.

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

DATE: 11/2025
FILE: 1678-13-11-08
CAD: FIG IIIB-3-1 ALT DRAINAGE PLAN.DWG

DRAWN BY: PME
DESIGN BY: PME
REVIEWED BY: NT

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
NORTH TEXAS MUNICIPAL WATER DISTRICT

REVISIONS

NO.	DATE	DESCRIPTION

TYPE V PERMIT APPLICATION
ALTERNATIVE CONVEYANCE DESIGN

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE IIIB-3-1

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O:\1678\13\TYPE V APPLICATION\PART III\IIIB\IIIB-3-1 Drainage Area Map.dwg, carrington, 1:2

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2429

TYPE V PERMIT APPLICATION

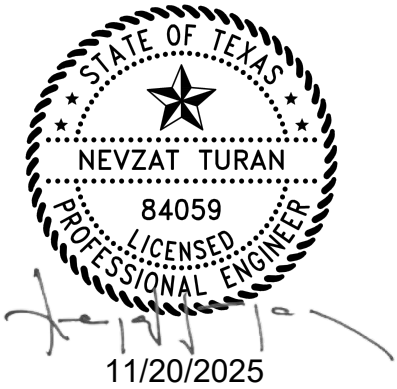
PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIC
CLOSURE PLAN

Prepared for

North Texas Municipal Water District

November 2025

Revised November 20, 2025



Prepared by

Weaver Consultants Group, LLC
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Fort Worth, Texas 76109
817-735-9770

Project No. 1678-013-11-08

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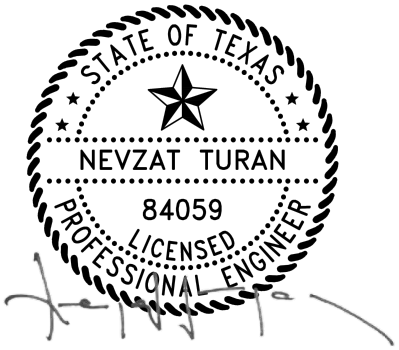
CONTENTS

1	**INTRODUCTION**	**IIIC-1**
2	**CLOSURE REQUIREMENTS**	**IIIC-2**
3	**CERTIFICATION OF FINAL FACILITY CLOSURE**	**IIIC-4**
4	**AFTER-CLOSURE LAND USE**	**IIIC-5**



11/12/2025

1 INTRODUCTION

This Closure Plan has been prepared for the Gateway Drive 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 TCEQ 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.

NTMWD will, unless specifically authorized by the TCEQ, close the facility in accordance with the closure provisions of the permit. The District 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 entrances 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 signs 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 TCEQ 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 TCEQ 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, NTMWD will submit within 10 days to the TCEQ 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 Title 30 TAC §330.459. The submittal to the TCEQ 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.

Voluntary revocation of the TS permit will be submitted to the TCEQ Executive Director after the certification of the closure, which will be prepared in accordance with Title 30 TAC §330.459 by an independent licensed professional engineer, is approved by TCEQ.

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 TCEQ 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.

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2429

TYPE V PERMIT APPLICATION

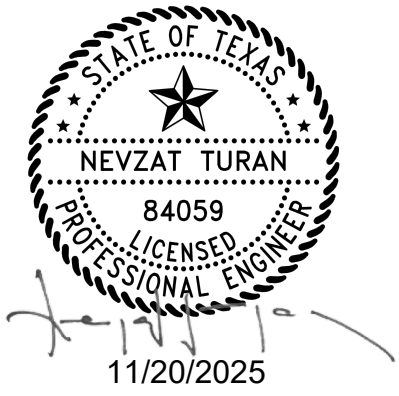
PART III - SITE DEVELOPMENT PLAN
APPENDIX IIID
CLOSURE COST ESTIMATE

Prepared for

North Texas Municipal Water District

November 2025

Revised November 20, 2025



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Project No. 1678-013-11-08

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CONTENTS

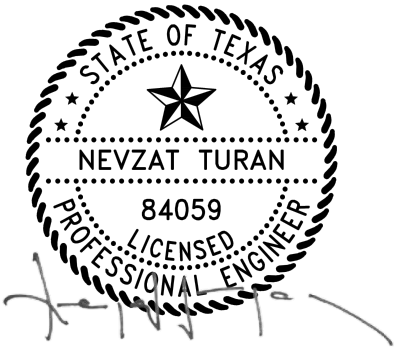
1 INTRODUCTION **IIID-1**

2 CLOSURE COST ESTIMATE **IIID-2**

3 COST ESTIMATE ADJUSTMENTS **IIID-4**

LIST OF TABLES

Table IIID-1 – Cost Estimate for Third Party Closure (in 2025 Dollars) IIID-3



11/12/2025

1 INTRODUCTION

This Cost Estimate for closure of the Gateway Drive 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 Gateway Drive TS and is consistent with Title 30 TAC §330.505.

2 CLOSURE COST ESTIMATE

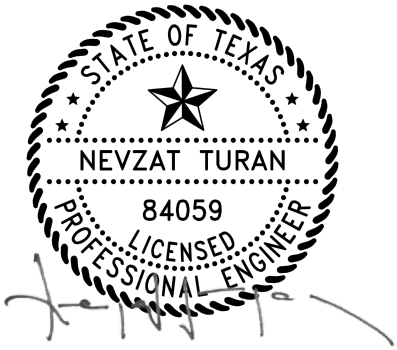
At any point in its active life, the maximum amount of waste that may be temporarily stored overnight at the facility and any processed and unprocessed waste and materials onsite is 1,000 tons. A detailed estimate is prepared, in current dollars, of the cost of hiring a third party that is not affiliated with NTMWD 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 application.

Table IIID-1
Gateway Drive Transfer Station
Cost Estimate for Third Party Closure (in 2025 Dollars)

Item	Description	Cost
A	State Administration of third-party site closure	
1	Site survey and file review to determine closure activities	$11,500
2	Preparation of engineering plans	$6,500
3	Procurement of bids	$15,000
4	Contract award and administration of contract	$3,500
5	Installation of sign stating facility closure	$1,200
6	Buildings and site secured (locks and/or fencing, etc.)	$60,000
B	Contractor mobilization	$5,000
C	Sampling/testing/classification of waste to include lab reports, chain of custody, quality assurance and quality control.	$9,000
D	Disposal of waste (1,000 tons) (approximate maximum storage capacity)*	
1	Cleanup/Removal of waste stored on site (1,000 tons @ $10.00/ton)	$10,000
2	Transport of waste by a properly authorized transporter (1,000 tons @ $10.00/ton)	$10,000
3	Treatment and/or disposal of waste at a properly authorized facility (1,000 tons @ $52.00/ton)	$52,000
E	General cleanup to include washdown and disinfection of facility (floors, walls, containment areas, processing areas) and removal, transport, treatment, and disposal of all wash down waters/media.	$15,000
F	Removal, treatment, and disposal of any contaminated soils, concrete, stormwater, or other contaminated materials on site.	$15,000
G	Cleanup and decommission (equipment should be rendered unusable) of process equipment/facility	$11,000
H	Cleanup/Removal of recyclable materials on site	$35,000
I	Vector control	$2,500
J	Inspection and certification of closure	$12,000
	Closure Subtotal	$274,200
	Contingency Cost (15%)	$41,130
	Total	**$315,330**

* The value is assumed based on Site Operating Plan, Section 7.10; the expected overnight waste storage capacity is 1,000 tons for this facility.



11/12/2025

3 COST ESTIMATE ADJUSTMENTS

During the active life of the facility, NTMWD 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 TCEQ 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 TCEQ Executive Director.

APPENDIX IIIE

WASTEWATER DISCHARGE AUTHORIZATION

Mike Friesen

From: Brooke Noack
Sent: Friday, November 7, 2025 10:21 AM
To: Mike Friesen
Cc: Jeff Mayfield; Kristen Suprobo
Subject: Gateway Drive Transfer Station

Mike,

As we have discussed, wastewater, including washdown water, will be discharged from the Gateway Drive Transfer Station to the City of Frisco's sanitary sewer system and ultimately to an NTMWD wastewater treatment facility. No industrial pretreatment control mechanism (permit) is required for this discharge because the anticipated quantity and quality of discharge is not expected to meet the criteria requiring an industrial user permit from the pretreatment program.

Regards,
Brooke

Brooke Noack
Environmental Services Manager
North Texas Municipal Water District
201 E. Brown Street | Wylie, TX 75098
O: 469-626-4603 | C: 972-890-7526
[redacted]
NTMWD.COM

Regional Service Through Unity – Meeting Our Region's Needs Today and Tomorrow!

OPEN RECORDS NOTICE: This email and responses may be subject to the Texas Public Information Act and may be disclosed to the public upon request. Please respond accordingly.

GATEWAY DRIVE TRANSFER STATION
COLLIN COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2429

TYPE V PERMIT APPLICATION

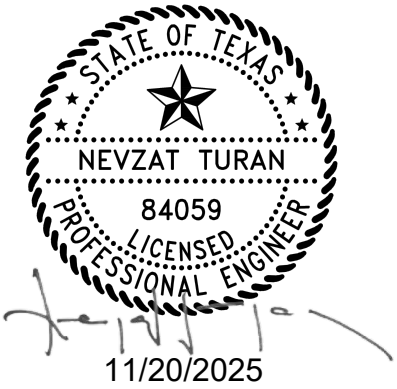
PART IV – SITE OPERATING PLAN

Prepared for

North Texas Municipal Water District

November 2025

Revised November 20, 2025



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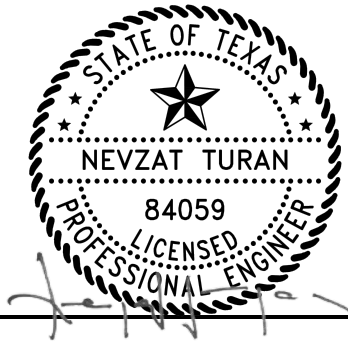


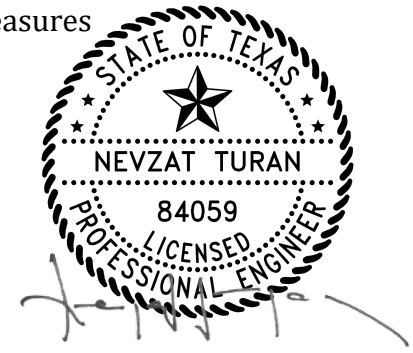
11/12/2025

CONTENTS

1	**INTRODUCTION**		**IV-1**
2	**WASTE ACCEPTANCE AND ANALYSIS (30 TAC §330.203 AND §330.205)**		**IV-2**
	2.1	Properties and Characteristics of Waste (§330.203(a))	IV-2
	2.2	Special Wastes Received	IV-3
		2.2.1 Receipt of Special Wastes	IV-4
	2.3	Prohibited Wastes	IV-5
		2.3.1 Measures for Controlling Prohibited Wastes	IV-6
	2.4	Volume and Rate of Transfer (§330.203(b) and §330.205(a) and (b))	IV-8
	2.5	Facility-Generated Wastes (§330.205 (b), (c), (d), and §330.203(c)(2))	IV-9
3	**CONTAMINATED WATER MANAGEMENT (30 TAC §330.207)**		**IV-10**
4	**STORAGE REQUIREMENTS (30 TAC §330.209, §330.211 AND §330.213)**		**IV-11**
	4.1	Solid Waste Storage (§330.209(a))	IV-11
	4.2	Approved Containers (§330.211)	IV-11
	4.3	Citizens' Collection Station (§§330.209(b) and 330.213)	IV-12
5	**RECORDKEEPING AND REPORTING REQUIREMENTS (30 TAC §330.219)**		**IV-13**
	5.1	Documents (§330.219(a) and (b))	IV-13
	5.2	Report Signatories (§330.219(c))	IV-13
	5.3	Notification (§330.219(e))	IV-15
	5.4	Record Retention (§330.219(f))	IV-15
	5.5	Alternative Schedules (§330.219(g))	IV-15
	5.6	Personnel Training Records and Licenses	IV-15
6	**FIRE PROTECTION PLAN (30 TAC §330.221)**		**IV-16**
	6.1	Fire Prevention Procedures	IV-16
	6.2	General Fire-Fighting Rules	IV-17
	6.3	Specific Fire-Fighting Procedures	IV-18
	6.4	Fire Protection Training	IV-19
7	**OPERATIONAL PROCEDURES (30 TAC §330.223 THROUGH §330.249)**		**IV-20**
	7.1	Access Control (§330.223)	IV-20

CONTENTS (Continued)

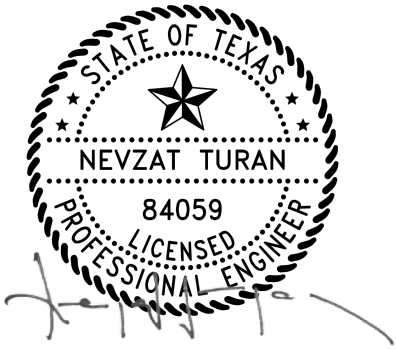
	7.1.1	Facility Security	IV-20
	7.1.2	Traffic Control	IV-21
7.2		Unloading of Waste (§330.225)	IV-22
	7.2.1	Waste and Recyclable Unloading Procedures	IV-22
	7.2.2	Load Inspection Procedure	IV-23
7.3		Spill Prevention and Control (§330.227)	IV-23
7.4		Operating Hours (§330.229)	IV-24
7.5		Facility Sign (§330.231)	IV-24
7.6		Control of Windblown Material and Litter (§330.233)	IV-25
7.7		Materials Along the Route to the Facility (§330.235)	IV-25
7.8		Facility Access Roads (§330.223(b) and §330.237)	IV-25
7.9		Noise Pollution and Visual Screening (§330.239)	IV-26
7.10		Overloading and Breakdown (§330.241)	IV-26
7.11		Sanitation (§330.243)	IV-26
7.12		Ventilation and Air Pollution Control (§330.245)	IV-27
	7.12.1	Odor Management Plan	IV-28
7.13		Health and Safety (§330.247)	IV-28
7.14		Employee Sanitation Facilities (§330.249)	IV-29
7.15		Vector Control	IV-29
7.16		Facility Inspection and Maintenance Schedule	IV-30
8		**PERSONNEL AND TRAINING**	**IV-31**
8.1		Personnel	IV-31
8.2		General Personnel Instructions	IV-32
8.3		Training	IV-33
9		**GENERAL INSTRUCTIONS**	**IV-38**
9.1		General Facility Safety	IV-38
9.2		Preparedness and Prevention Measures	IV-39
	9.2.1	General	IV-39
	9.2.2	TS Building	IV-39
	9.2.3	Facility Entrance Road	IV-40
	9.2.4	Scalehouse	IV-40
10		**EQUIPMENT**	**IV-41**



11/12/2025

CONTENTS (Continued)

APPENDIX IVA
Example Load Inspection Report



11/12/2025

TABLES AND FIGURES

Tables **Page**

5-1 Records to be Maintained in the Site Operating Record IV-14

7-1 Notification Requirements for Access Breach IV-21

8-1 Facility Personnel Summary IV-36

10-1 Facility Equipment List IV-41

Figures

8.1 NTMWD Organizational Chart IV-35

LIST OF ACRONYMS

CFCs – Chlorinated Fluorocarbons

CFR - Code of Federal Regulations

EPA – U.S. Environmental Protection Agency

MSW – Municipal Solid Waste

Non-RACM - non-regulated asbestos-containing material

NTMWD – North Texas Municipal Water District

PCBs – polychlorinated biphenyls

POTW – publicly-owned treatment works

RACM - regulated asbestos-containing material

SDP – Site Development Plan

SOP – Site Operating Plan

SOR – Site Operating Record

TAC – Texas Administrative Code

TCEQ – Texas Commission on Environmental Quality

TS – Transfer Station

TxDOT – Texas Department of Transportation

VSQG – Very Small Quantity Generators

1 INTRODUCTION

This section addresses §330.65 and §330.201. Additional specific regulatory citations addressed by each section of Part IV are listed in the heading.

This Site Operating Plan (SOP) has been prepared for the Gateway Drive Transfer Station (Gateway Drive TS), consistent with Title 30 TAC §330.65, and contains the information required by §330.201. The Gateway Drive TS design and operations meet all applicable local (e.g., City of Frisco development permits), state (e.g., TPDES requirements), and federal (e.g., 40 CFR §112 – Oil Pollution Prevention) rules and regulations. This SOP includes provisions for facility management and operating personnel to meet the general and facility-specific requirements in Subchapter E, Operational Standards for Municipal Solid Waste Storage and Processing Units, for the facility's day-to-day operation.

The Gateway Drive TS, a Type V municipal solid waste (MSW) management facility, is owned and operated by North Texas Municipal Water District (NTMWD). The Gateway Drive TS is located east of Gateway Drive, south of PGA Parkway, and west of Executive Drive in the City of Frisco, Collin County, Texas. The Gateway Drive TS accepts municipal solid waste from the Solid Waste System Member Cities (currently Allen, Frisco, McKinney, Plano, and Richardson) and other customers in proximity to the TS facility in Collin County and the surrounding areas. Waste is then transferred into transfer trailer trucks for hauling and disposal at the NTMWD 121 Regional Disposal Facility (RDF), Type I municipal solid waste (MSW) landfill, or other properly permitted MSW disposal facilities. The Gateway Drive TS support facilities include a transfer station building, site access roads (waste delivery vehicle entrance and exit, transfer trailer entrance and exit), a Scalehouse, scales, a citizens' collection station (both for waste and recyclables) inside the TS building, environmental controls (e.g. sand/oil separator) and all screening and access control components.

The SOP presents general instructions for facility management and personnel to operate the facility in a manner consistent with the approved design and facility-specific requirements for the waste acceptance rate established in the permit and the Texas Commission on Environmental Quality's (TCEQ's) rules to protect human health and the environment and prevent nuisances. This SOP will be retained onsite throughout the facility's active life and until certification of closure.

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 Gateway Drive TS include household waste, brush, yard waste, commercial solid waste, Class 2 and Class 3 nonhazardous industrial waste, special waste, and construction-demolition waste. The waste classifications are defined in Title 30 TAC §330.3.

Consistent with Title 30 TAC §330.15, the facility does not accept Class 1 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. A more detailed list of prohibited waste, as well as the procedures for preventing prohibited waste, is provided in Section 2.3.

Class 2 industrial solid waste is any individual solid waste or combination of industrial solid wastes that cannot be described as Class 1 or Class 3, as defined in Title 30 TAC §335.506 (relating to Class 2 waste determination). Class 3 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 3 waste determination). Class 2 and Class 3 industrial solid wastes may be accepted at the Gateway Drive TS, provided processing of these wastes does not interfere with the transfer station operations.

The Gateway Drive TS will accept special wastes in accordance with Section 2.2. No additional special wastes other than those listed will be accepted at the facility without prior written authorization from TCEQ. Small quantities of special wastes may inadvertently be received if they are unidentified and included as part of the mixed municipal waste stream. These wastes, if identified, will not be accepted. If any waste is determined to be not acceptable, it will be separated and returned to the waste delivering vehicle. The waste rejection incident will be documented, and the customer will be directed to a properly permitted facility.

The Gateway Drive TS will receive waste from third-party haulers, residents of the Solid Waste System Member Cities (currently Allen, Frisco, McKinney, Plano, and Richardson), and surrounding areas. As economic conditions and/or conditions of other area MSW facilities change (landfill disposal capacity, etc.), the facility may

accept waste from areas other than those identified above. Based on the type of wastes received, there are no chemical constituents or characteristics of waste that would impact or influence the design and operation of the facility.

Recyclables (white goods/metals, used oil, used oil filters, and tires) are not waste but may be accepted within the citizens' collection station (inside the TS building, that is also referred to as citizens' collection area). These materials will be moved and all recyclables and special wastes that will not be transferred to a landfill will be stored in designated areas within the TS building. When sufficient quantities are accumulated, they will be transported off-site to an authorized facility for recycling or disposal. Tires accepted for recycling will be managed in accordance with the following per Title 30 TAC Chapter 328, Subchapter F.

- Used tires will be stored at a dedicated area and will not be comingled with waste.
- Used tire storage will be limited to 500 tires or less (inside the building and no tire storage will occur outside the building).
- Used tires will be removed from the storage area by a transporter registered with the TCEQ.

Solid waste received at the facility is transferred to a properly permitted Type I MSW landfill for disposal. Currently, all solid waste received is transferred to the NTMWD 121 RDF. If for any reason 121 RDF will not accept waste on a temporary or permanent basis, waste accepted will be transferred to other properly permitted landfills in the area.

2.2 Special Wastes Received

The following special wastes may be accepted at this facility:

- Used oil (separately collected and recycled);
- Used oil filters from internal combustion engines (separately collected and removed from the TS by a recycler);
- Whole used or scrap tires or tire pieces (for recycling only); and
- White goods and metals (that are not recycled).
- Waste other than as described above and approved for acceptance by the TCEQ Executive Director on a case-by-case basis.

Special wastes received will be transferred to a properly permitted facility for disposal or processing. Special waste acceptance related activities will be documented, and the documentation will be kept in the site operating record (SOR).

2.2.1 Receipt of Special Wastes

In accordance with Title 30 TAC §324, Subchapter A – Used Oil Recycling, used oil will be separately collected and temporarily stored in a container located inside the TS building until it is transported off-site by an authorized hauler to an approved oil recycling facility. The used oil storage container size and material may vary. The container will be made of steel, HDPE, or other material compatible with the storage of used oil, be double-walled (or have sufficient secondary containment to contain 110 percent of the volume of the container), and have a maximum capacity of 500 gallons. The container may be located in a corner or adjacent to a wall of the transfer station building to protect it from facility operations. Additionally, floor paint, cones, barricades, or other traffic control devices may be used as necessary around the container to make it more visible to vehicles. The facility will comply with all applicable requirements of Title 30 TAC §324, Subchapter A for Used Oil Recycling as discussed in this section.

Used oil filters will be separately collected and temporarily stored in a container inside the TS building and will be managed in accordance with TCEQ regulation Title 30 TAC Chapter 328, Subchapter D for Used Oil Filter Management and Recycling, until full, then transported. Used oil filter containers are required to be leak proof, securely closed, waterproof, and maintained in good condition. Used oil filters will not be stored longer than 120 days.

Used tires, 500 or less, accepted for recycling will be managed in accordance with requirements prescribed in Title 30 TAC §328.54 – General Requirements as applicable. More specifically, in accordance with §328.54(d), the used tire storage area inside the TS building will be constructed, operated, and maintained to prevent loss of used or scrap tires or tire pieces during storage. The used and scrap tire storage containers will not cause health nuisances and safety hazards to the TS operating personnel and the public. The storage containers will be properly maintained to prevent odors and insect and rodent breeding. The facility is not required to register as a storage site per Title 30 TAC §328, Subchapter F regulations for Management of Used or Scrap Tires.

Source separated large, heavy, or bulky items including white goods (household appliances), air conditioning units, metal tanks, large metal pieces, etc., may be accepted at the citizens' collection station; however, they may be segregated for recycling. If segregated for recycling, these items will be placed in the designated recyclables area. Removal of recyclables commingled with waste will not be allowed at the citizens' collection station and the tipping floor. When sufficient quantities of large items are accumulated, they will be transported off-site to an authorized facility for recycling. The large items will be stored onsite for a maximum of 90 days. The large items designated for recycling will be removed as needed to prevent nuisance conditions.

Items potentially containing chlorinated fluorocarbons (CFCs), such as refrigerators, freezers, and air conditioners, will only be accepted (i) if the generator or transporter provides written certification that the CFCs have been evacuated from the unit and that it was not knowingly allowed to escape into the atmosphere, or (ii) without certification, at the discretion of NTMWD staff, they may be stored until removed from the facility by a third-party recycler who will engage a certified operator to properly remove the CFCs.

Details concerning onsite storage of special wastes are described in Section 4.1.

2.3 Prohibited Wastes

The following wastes will not be accepted at the Gateway Drive TS:

- Polychlorinated Biphenyl (PCB) waste, as defined under Title 40 Code of Federal Regulations (CFR), Part 761.
- Items containing CFCs, such as refrigerators, freezers, and air conditioners, unless (i) the generator or transporter provides written certification that the CFCs have been evacuated from the unit and that it was not knowingly allowed to escape into the atmosphere or (ii) without certification, at the discretion of NTMWD staff, they may be stored until removed from the facility by a third-party recycler who will engage a certified operator to properly remove the CFCs.
- Liquid waste that does not pass EPA Method 9095 Paint Filter Test unless it is bulk or non-containerized liquid waste that is:
  - household waste other than septic waste;
  - contained liquid waste and the container is a small container similar in size to that normally found in the household waste; or
  - in a container designated to hold liquids for use other than storage.
- Regulated Asbestos Containing Materials (RACM) and Non-Regulated Asbestos-Containing Materials (Non-RACM).
- Lead-acid storage batteries.
- Radioactive materials.
- Class 1 industrial nonhazardous waste.
- Untreated medical waste.
- Septic tank pumpings.
- Commercial and publicly owned domestic wastewater treatment plant sludges, other types of domestic sewage treatment plant sludges, and water-supply treatment plant sludges.

- Grease and grit trap wastes.
- Incinerator ash.
- Dead animals.
- 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.
- Waste from oil, gas, and geothermal activities.
- Certain special wastes, including:
  - Regulated hazardous waste other than from Very Small Quantity Generators (VSQG). Municipal hazardous waste from a VSQG may be accepted provided the generator provides a certification that it generates no more than 220 pounds of hazardous waste per calendar month. Associated hazardous waste from VSQG that may be exempt from full controls is regulated under 30 TAC Chapter 335, Subchapter N (relating to Household Materials Which Could Be Classified as Hazardous Wastes);
  - Wastes from commercial or industrial wastewater treatment plants, air pollution control facilities, and tanks, drums, or containers used for shipping or storing any material that has been listed as a hazardous constituent in Title 40 CFR, Part 261, Appendix VIII but has not been listed as a commercial chemical product in Title 40 CFR §261.33(e) or (f); and
  - 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).

2.3.1 Measures for Controlling Prohibited Wastes

Procedures to detect and control the receipt of prohibited wastes include:

- Informing facility customers of prohibited wastes by posting one or more signs at the facility entrances listing prohibited wastes.
- Observing all incoming loads.
- Facility personnel training and activities:
  - Training for appropriate facility personnel responsible for inspecting or observing incoming loads to recognize regulated hazardous waste and PCB waste;

  - Random hazardous waste inspections of incoming loads in accordance with procedures described in this section;
  - Maintaining records of all inspections, as discussed in Section 5.4 – Record Retention;
  - Notification of the TCEQ Executive Director of any incident involving a regulated hazardous waste or a PCB waste; and
  - Remediation of any regulated hazardous waste or PCB waste discovered at the facility in accordance with §335.349.
- Vehicles containing suspicious loads will be inspected. Suspicious loads may include:
  - Drums or containers with warning labels; and
  - Loads which have visible emission, smoke, strong chemical odor, or cause physical symptoms (e.g., irritation of eyes, nose throat, skin, nausea, dizziness, or headache).

The facility personnel will not inspect any vehicle that appears to present possible physical danger. The TS Supervisor, or his designee, will be contacted immediately if such a load enters the facility. The TS Supervisor, or his designee, will determine when to conduct inspections of incoming loads. Such inspections will be conducted in a manner that allows the facility personnel to view all contents of the waste load. However, there may be some situations where it is not feasible to view the entire contents of the waste load (e.g., baled wastes). In these situations, the facility personnel will make an effort to view as much of the load as possible and note on the inspection form that all material was not visible and state the reason why. Such inspections will be conducted in an expeditious manner to minimize disruption to normal operations.

If the waste is not readily identifiable, hazardous, contains regulated levels of PCBs, or is deemed otherwise unacceptable by the facility personnel, the load will be rejected. The facility personnel will make an effort to determine whether the waste is acceptable for disposal by performing at least one of the following: 1) questioning the transporter about the origin of the waste; 2) contacting the generator; 3) reviewing paperwork (e.g., manifests, trip tickets, safety data sheets); or 4) using knowledge based on container packaging labels. If the load is acceptable, the facility personnel will then complete a Random Waste Screening Report, the driver will be allowed to proceed, and the waste moved to the tipping area.

If prohibited wastes are suspected or discovered, the materials will be isolated until they can be identified to determine the proper handling procedures. During this identification process, the generator or generator representative will be contacted to determine the origin and identity of the material. If the material is determined to be a regulated hazardous waste or contain regulated levels of PCBs, radioactive or other prohibited material, the TCEQ Region 4 office and any local pollution control agency

that has requested to be notified will be verbally notified of the incident and the planned handling or disposal of the material. Proper handling of the prohibited waste will be specific to that waste and will be implemented upon TCEQ concurrence. If the waste is prohibited or is unacceptable for disposal as determined by the facility personnel, the load will be rejected. The TS Supervisor, or his designee with a Class B license, will determine how to manage the unacceptable materials based on regulations, permit restrictions, and the NTMWD's policies and procedures for waste acceptance. Regulated hazardous wastes and regulated PCB wastes discovered during the inspection will be returned immediately to the transporter or generator. If the transporter or generator cannot be reached, the waste will be disposed of off-site at a permitted treatment, storage, or disposal facility.

Where the transporter or generator cannot be identified and the facility has received prohibited waste, NTMWD or facility operator will be responsible for complying with applicable federal, state, and local regulations regarding the removal and proper disposal of the waste. Activities related to waste rejection and rerouting will be documented in the site operating record.

2.4 Volume and Rate of Transfer (§330.203(b) and §330.205(a) and (b))

The Gateway Drive TS serves the individuals and public and private collection vehicles from the Solid Waste System Member Cities service areas. The TS will receive a maximum of 3,000 tons per day (tpd) of municipal solid waste for transfer to properly permitted MSW disposal facilities.

The TS operation is designed to transfer all solid waste to the landfill on the same day it is received. The maximum length of time MSW will remain within the TS building is 72 hours, and the average length of time that waste remains at the facility is 24 hours or less. Solid waste will not be stored overnight at the facility except for extenuating emergency situations, such as inclement weather or mechanical breakdown. The maximum amount of waste to be stored overnight at any time on the facility tipping floor is 1,000 tons. This tonnage refers to the waste stored on the tipping floor and does not include recyclables.

The intended destination of the solid waste processed by the facility is a TCEQ-permitted Type I MSW landfill. The destination of the liquids generated by the facility (e.g., washdown water) is the City of Frisco sanitary sewer system. Sand/oil separator will be serviced by a properly certified transporter, and each removal service will be documented in the SOR.

In addition to the MSW transfer operations, used oil, used oil filters, and used tires received at the facility will also be transferred (or removed by authorized handlers) through the facility. The non municipal solid waste (i.e., recyclables) transfer

operations will not exceed 40,000 tons per year. No sorting of recyclables occurs at the site – only transfer operations. Additionally, recyclable materials comingled with incoming waste (by residents or hauling vehicles) will be transferred as part of the waste transfer operation.

2.5 Facility-Generated Wastes (§330.205 (b), (c), (d), and §330.203(c)(2))

Wastes generated by the transfer station will be processed or disposed at an authorized solid waste management facility.

The only solid wastes generated onsite are typical office wastes. The office-generated waste will be transferred to the TS tipping floor or the citizens' collection station. Office wastes generated at the facility are authorized for disposal at a Type I MSW Landfill.

Wastewaters generated by the transfer station will be managed in accordance with §330.207, Contaminated Water Management. Wastewater at the Gateway Drive TS is generated by facilities serving employees and customers, tipping floor washdown, and from other cleaning activities, and if installed, by the wheelwash facility. Wastewater from facilities used by employees and the customers is directly discharged to the City of Frisco sanitary sewer line. Wastewater from other activities (i.e., tipping floor washdown, loadout tunnel, and wheelwash) is discharged to the sanitary sewer line after going through pretreatment (e.g., sand/oil separator). Wastewaters discharged to the sanitary sewer are subject to any applicable pretreatment requirements of the POTW; refer to Appendix IIIE – Wastewater Discharge Authorization for documentation regarding the requirements of the pretreatment program.

No sludges are generated onsite.

3 CONTAMINATED WATER MANAGEMENT (30 TAC §330.207)

The Gateway Drive 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 transfer station, including tipping floor washdown water and water that has come into contact with waste, is disposed of in a manner that will not cause surface water or groundwater pollution. Contaminated water generated by the TS consists of washdown water resulting from wash water applied to the tipping floor and citizens' collection station, loadout tunnel, and water from the wheelwash operation, if installed. Any water that contacts waste or is otherwise contaminated is discharged into the City of Frisco's sanitary sewer system. Contaminated water is collected and properly managed to limit odors and vectors. Contaminated water from the above-mentioned activities is discharged to the sanitary sewer line after going through a pretreatment (e.g., sand/oil separator) as shown on the site plan included in Part III, Site Development Plan, Attachment IIIA. The Gateway Drive TS will discharge wastewater from the facilities and pretreated contaminated water to the City of Frisco's sanitary sewer system in accordance with the City of Frisco's public sewers and industrial wastes discharges ordinance requirements for discharging to the City of Frisco sanitary sewer system. Wastewaters discharged to the sanitary sewer are subject to any applicable pretreatment requirements of the POTW; refer to Appendix IIIE – Wastewater Discharge Authorization for documentation regarding the requirements of the pretreatment program.

There is no off-site discharge of contaminated waters at the facility.

The facility does not process grease, grit trap waste, and septage. The facility will not have a liquid waste processing unit. The sand/oil separator will be serviced by a properly certified transporter for clean up, and each service event will be documented in the site operating record.

4 STORAGE REQUIREMENTS (30 TAC §330.209, §330.211 AND §330.213)

4.1 Solid Waste Storage (§330.209(a))

All solid waste is stored in such a manner that it does not constitute a fire, safety, or health hazard or provide food or harborage for animals and vectors and is contained within the TS building. The tipping area is located inside the building and sized to contain the solid wastes delivered by hauling vehicles and transferred daily; however, up to 1,000 tons of solid waste may be stored in the transfer station overnight if needed. Total solid waste (on the tipping floor and/or transfer trailers parked in the tunnel) amount stored overnight will not exceed 1,000 tons. White goods, metals, and tires received for recycling will be stored in a combination of the tipping floor, citizens' collection station, and roll-off boxes. The citizens' collection station is a designated area within the TS building and is sized to contain the solid waste delivered by residents and small businesses as discussed in Section 4.3 in this SOP. Used oil and used oil filter recycling receptacles will be managed within individually designated areas inside the TS building. All material storage areas are inspected weekly for ponding water and the harborage of vectors. Any ponded water will be promptly removed. Vectors will be discouraged by maintaining a clean and neat area and by the removal of items once sufficient quantities are accumulated to warrant off-site transport.

4.2 Approved Containers (§330.211)

All solid waste entering the TS building is transferred from the tipping floor to the transfer trailers. Since the waste that is received by the Gateway Drive TS may contain food waste, the transfer trailers will be leakproof, durable, and designed for safe handling and easy cleaning. The transfer trailers are equipped with tarps (or equivalent) 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.

All containers in the citizens' collection station and recyclables collection area inside the TS building will be maintained properly to prevent liquid spillage, odors, insect and vector harborage.

4.3 Citizens' Collection Station (§§330.209(b) and 330.213)

Residents and small businesses will access the TS building from a designated drive through door to be serviced at the citizens' collection station (also referred as citizens' collection area). Signs will guide them to the designated area to unload their waste. Additional signage may be used to control residential vehicular traffic throughout the facility. The recyclable materials will be placed in a designated recyclables area. Residents delivering recyclables, used tires, used oil, etc. will be directed to each designated area by guiding signs and/or facility personnel. Signs will be posted at the TS entrance for the residents governing the use of the facility, including who may use it, and what types of waste are acceptable or not acceptable at the facility.

5 RECORDKEEPING AND REPORTING REQUIREMENTS (30 TAC §330.219)

5.1 Documents (§330.219(a) and (b))

Gateway Drive TS maintains 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 are considered part of the operating record for the facility. The Gateway Drive 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. These documents may be stored in electronic format and will be made available for inspection by TCEQ representatives.

A copy of the permit, the approved permit application, and all other related or required plans or documents are maintained in electronic format, and are considered a part of the SOR of this facility.

An as-built set of construction plans and specifications and any other required plan or other related documents are maintained in electronic format. These plans and documents are part of the facility SOR. All information contained within the operating record and the different required plans will be retained during the active life of the facility until after certification of closure.

5.2 Report Signatories (§330.219(c))

NTMWD will assign responsibility for the overall operations of the facility to the Transfer Station Supervisor, and this position, or someone in the chain of command above this position, will be the duly authorized representative of the owner/operator responsible for signing any reports, information, or applications. For a person to be an authorized representative of the Gateway Drive 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 TS, and (3) be submitted in writing to the TCEQ Executive Director. Any person signing a report will make the certification included in Title 30 TAC §305.44(b). If the authorization to sign is no longer accurate due to a change in individuals or position, a new authorization will be submitted by this position to the TCEQ Executive Director prior to or with any submittal to be signed by an authorized representative.

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 Permit	Once	§330.219(a)
Approved permit application for MSW Permit Parts I/II Part III – Site Development Plan (See SDP below for contents) General Facility Design Drawings (Appendix IIIA of SDP) Surface Water Drainage Report (Appendix IIIB of SDP) Closure Plan (Appendix IIIC of SDP) Closure Cost Estimate (Appendix IIID of SDP) Wastewater Discharge Authorization (Appendix IIIE of SDP) Part IV – Site Operating Plan Amendments, corrections, and modifications approved by TCEQ	Submittal of Permit Application	§330.219(a)
SDP - 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)
Financial assurance documentation relating to closure	Annually	§330.219(b)(4)
Correspondence and responses relating to facility operation, permit modification, 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)
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 and annual solid waste summary reports	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 including sand/oil separator waste leaving the facility are being adequately managed by other licensed or permitted facilities	As needed	§330.205(a)

5.3 Notification (§330.219(e))

The Gateway Drive TS, in accordance with Title 30 TAC §330.219(e), will furnish the operating record to the TCEQ Executive Director upon request and make it available at all reasonable times at the facility for inspection by the TCEQ Executive Director.

5.4 Record Retention (§330.219(f))

In accordance with Title 30 TAC §330.219(f), the site will retain all information contained within the SOR of the facility and all plans required for the facility for the life of the facility. Records will be maintained in electronic format and will be made available to TCEQ upon request.

5.5 Alternative Schedules (§330.219(g))

The TCEQ 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).

5.6 Personnel Training Records and Licenses

The Gateway Drive TS will maintain personnel training records. Personnel training requirements will be consistent with Section 8 - Personnel and Training. 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 Gateway Drive TS related to transfer operations and the name of the employee filling each position 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 Title 30 TAC Chapter 30, Subchapter F. Personnel training records and personnel operator licenses will be maintained in the SOR as listed in Table 5-1.

6 FIRE PROTECTION PLAN (30 TAC §330.221)

6.1 Fire Prevention Procedures

Fire protection and prevention training is required for all employees involved in waste and recyclables acceptance, process, and transfer.

The following steps will be taken regularly by designated site personnel to prevent fires.

- Operators will be alert for signs of burning waste such as smoke, steam or heat being released from incoming waste loads.
- Equipment used to move waste will be routinely cleaned through the use of scraper tools, water, or steam cleaners. The water or steam cleaning will remove combustible waste and caked material, which can cause equipment overheating and increase fire potential.
- Open burning of waste is prohibited.
- Burning waste, also described as a "hot load," from incoming waste loads will not be allowed to enter to the TS Building. The TS scale attendant and equipment operators will be alert for signs of burning waste such as smoke, steam, or heat being released from incoming waste loads. If any suspect waste delivery is noticed by the personnel, the TS Supervisor will be contacted immediately. The vehicle will be directed to a safe spot away from the building, vehicles, and isolated from the stormwater infrastructure. Once the vehicle is relocated, 911 may be called. Waste will remain in the delivering vehicle if flames are not present. If flames are present, the waste load will be ejected, and the vehicle will be moved away from the ejected waste. If the load is in a rolloff or trailer, the vehicle will disconnect and move away from the ejected waste. To prevent spread of the fire, the local fire department and/or trained site personnel will assist to extinguish the fire. The extinguished waste will be placed in rolloff boxes, and placed at the tipping floor for transfer. The area where the fire is extinguished will be cleaned up following good house keeping procedures such as power washing.
- 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 customers, TS personnel, and visitors, and is strictly enforced by all personnel.

- The facility is equipped with fire extinguishers of a type, size, location, and number as recommended by the local fire department. Each fire extinguisher is fully charged and ready for use at all times. Each extinguisher is inspected annually (or at a frequency required by the fire department) and recharged as needed. A qualified service company will perform these inspections, and all fire extinguishers display a current inspection tag. Inspection and recharging is performed following each use. At a minimum, all TS moving equipment will be equipped with a fire extinguisher, and fire extinguishers will be mounted on the interior walls of the TS building.
- The transfer station development permit as approved by the City of Frisco complies with the City's fire protection requirements. An adequate supply of potable water under pressure is available from the City of Frisco, and a looped sprinkler system is installed in the TS building for firefighting purposes. Additionally, the City of Frisco Fire Department is available to provide assistance with firefighting, if needed. Hose bibs will be located along the wall of the tipping floor, which is where the washdown hoses are connected. As required by the City development permit approval, fire hydrants are located on the TS property as shown on Figure IIIA-1, Site Plan of the SDP. Additionally, fire lanes are incorporated into the site plan as required by the City development permit.
- 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.

6.2 General Fire-Fighting Rules

The following procedures will be followed in the event of a fire at the site:

- Immediately contact the TS Supervisor.
- If the fire is not extinguished after 10 minutes, contact the City of Frisco Fire Department by calling 911 or (972) 292-6300.
- TS Equipment Operators will be equipped with two-way radios or cell phones.
- Alert other facility personnel.
- Assess the extent of the fire, possibilities for the fire to spread, and alternatives for extinguishing the fire.
- If it appears that the fire can be safely fought, attempt to contain or extinguish the fire until the Fire Department arrives, if contacted.
- Upon arrival of the Fire Department personnel, direct them to the fire and provide assistance, if requested by Fire Department personnel.
- Do not attempt to fight the fire alone.

- Do not attempt to fight the fire without adequate personal protective equipment.
- When using a fire extinguisher to extinguish a fire, as appropriate, stand up-wind from the fire, pull the pin, and aim the hose or nozzle toward the base of the fire.
- Fires may also be extinguished using the large washdown hoses or the looped sprinkler system. The TS water supply is connected to the City of Frisco's public water supply system. The City of Frisco provides an adequate supply of water under pressure for firefighting purposes.
- Firefighting methods include separating burning material from other waste and spraying with water from the large washdown hoses. If detected soon enough, a small fire can be extinguished with a handheld fire extinguisher. Fire extinguishers are located in the TS building and on each piece of equipment. Under these circumstances, the fire area should be watered or otherwise controlled to ensure the fire is fully extinguished.

6.3 Specific Fire-Fighting Procedures

The following procedures will be followed in the event of a fire at the site:

- If a fire occurs on a vehicle or piece of equipment, the equipment operator will bring the vehicle or equipment to a safe stop. If the safety of personnel permits, the vehicle must be parked outside the facility, away from fuel supplies, solid waste, and other vehicles. The engine will be shut off and the brake engaged, or other methods should be used to prevent the vehicle or piece of equipment from moving. Fire extinguishers will be used to extinguish a fire, if possible, without risk to the equipment operator.
- If a fire is on the tipping floor, the burning area will be isolated and pushed away from the other waste quickly. The burning area will be sprayed with water from the large washdown 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 a fire extinguisher, as appropriate. The extinguished materials will then be transported into the TS building tipping floor and loaded into transfer trailers.
- If a fire occurs in a material storage area (e.g., tire storage, citizens' collection station, recyclable drop-off area, or white goods/metal recyclable area), site personnel will redirect incoming loads away from the affected area. Firefighting methods include separating burning material from other waste and/or spraying with water from the large washdown water hoses. If detected soon enough, a small fire may be controlled with a hand-held extinguisher.

Upon extinguishing the fire, the storage area will remain closed while the area is inspected to verify that the fire is completely extinguished. Inspection of the fire area will be conducted by the TS Supervisor or designee. Once it is determined that burned materials can safely be handled, all material cleaned up from the area will be moved to the TS tipping floor for loading to transfer trailers. The looped sprinkler system should be used to extinguish the fire, as appropriate.

6.4 Fire Protection Training

All on-site TS personnel will be trained in the contents of Section 6 – Fire Protection Plan on an annual basis and records of the training will be placed in the SOR. The following topics will be addressed:

- Fire Prevention
- Fire Safety
- Fire Fighting Procedures
- Fire extinguisher use and capabilities
- Familiar with use and limitations of firefighting equipment available onsite.

7 OPERATIONAL PROCEDURES (30 TAC §330.223 THROUGH §330.249)

7.1 Access Control (§330.223)

Public access to the facility is limited to the gated facility entrances. The site staff controls access and monitors vehicles entering and exiting the site. The site 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, unauthorized and illegal dumping, public exposure to hazards associated with waste management, and to prevent disruption of facility operations caused by unauthorized facility entry.

Access to the site is controlled at the scalehouse and by perimeter fencing, gates at entrances/exits, and natural barriers. An employee trained to operate the scales will be on-site during the hours of waste acceptance. The entrance gates will be locked when the site is not in operation. A minimum six-foot-high wrought iron fence (or equivalent) and natural barriers restrict access to the remainder of the TS facility. Walking paths located on the TS property are part of the City of Frisco's open space requirements; however, these open space areas are located inside of the site perimeter fencing.

Entry to the TS will be restricted to designated personnel, approved waste haulers, Solid Waste System Member City residents, others authorized by NTMWD 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 will be on the lookout for unauthorized persons. Visitors may be allowed in the TS only when accompanied by a facility representative.

The facility will comply with the schedule and notification requirements for any access breach as indicated in Table 7-1.

Table 7-1
Notification Requirements for 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

On-site roads and the access road are large enough to allow for two-way traffic and are paved with concrete to provide all-weather access. An Engineering Study is included in Parts I/II, Appendix I/IIA, which provides a detailed analysis that demonstrates the adequacy of the public roads for facility access.

Public access to the facility is provided via Gateway Drive and the adjacent City of Frisco environmental services development to the east. Gateway Drive is designed with adequate turning radii to safely handle the vehicles expected at the facility to maintain normal traffic flow. Only vehicles authorized by the TS Supervisor, personnel vehicles, and authorized vehicles have access beyond the facility entrance.

Signs are located along the entrance road directing traffic to the scalehouse. Signs are placed at proper locations between the scalehouse and the TS building to manage traffic flow. Signs with directional arrows and portable traffic barricades help to restrict traffic to the designated unloading locations. In addition, rules for waste unloading and prohibited waste are permanently displayed using conspicuous signs at the site entrance.

The Scale Operator (or other personnel as assigned by the TS Supervisor) will restrict facility access to authorized vehicles and direct these vehicles appropriately. Additional signage within the facility provides direction to public unloading areas. Site personnel will direct traffic as necessary to facilitate safe movement of vehicles. Parking areas are provided on site for equipment, employees, and visitors. The access roadway, interior roadways and unloading areas are concrete to minimize dust and mud.

Within the facility, signs are placed along the entrance road at an adequate frequency to guide users to the proper TS areas and which roads are to be used.

7.2 Unloading of Waste (§330.225)

7.2.1 Waste and Recyclable Unloading Procedures

The Gateway Drive TS receives 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 2.3.

Trained personnel monitor the incoming waste on the trucks at the tipping floor unloading area. These personnel are 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 330.173. The personnel also have a basic understanding of both industrial and hazardous waste, as well as their transportation and disposal requirements. Trained personnel on the tipping floor are on duty during waste acceptance hours to observe the unloading of waste.

Certain wastes are prohibited from management at the facility, and the unloading of prohibited wastes is not allowed. Prohibited wastes are described in Section 2.3. Monitoring incoming loads of waste helps mitigate the potential for receiving prohibited wastes. The Scale Operator is 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 visually inspects open containers to verify contents. In the event prohibited wastes are identified in the load, the entire load is turned away from the gate and is not allowed entrance to the site. Trained personnel on the tipping floor have the authority and responsibility to reject loads that contain prohibited wastes. The personnel also have the authority to have prohibited waste removed by the waste haul vehicle or transporter, immediately upon discovery. Trained personnel on the tipping floor immediately notifies the TS Supervisor or designee of suspected prohibited waste. The TS Supervisor or designee directs TS personnel to remove or manage prohibited waste in an appropriate manner. 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 is to be placed back in the offending transporter's vehicle, if possible, or otherwise returned promptly to the transporter or generator of 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 delivery vehicle is gone, the waste is segregated and properly controlled. An effort will first be made to identify the entity that deposited the prohibited waste and have them return to the facility with a proper vehicle to remove and properly dispose of the waste. In the event identification is not possible, the waste is properly handled at an appropriate facility. A record of unauthorized material rejection or removal is placed in the site operating record.

The unloading of solid waste in unauthorized areas is prohibited. Solid waste unloading is controlled to prevent processing in locations other than those specified

by facility management. Random load inspections are conducted as outlined in Section 7.2.2. Any waste deposited in an unauthorized area is removed immediately and managed properly. Appropriate signs are provided to indicate where vehicles are to unload. The unloading of solid waste is confined to as small an area of the tipping floor as practicable to a minimum width consistent with the rate of incoming waste, while allowing for safe and efficient operation. Residents unload in the citizens' collection station separate from the collection vehicles, and both areas are contained within the building. A facility employee directs each vehicle to the appropriate area for unloading and monitors all incoming loads of waste before they are loaded into the transfer trailers.

7.2.2 Load Inspection Procedure

A properly trained qualified facility staff person visually inspects incoming waste loads. Should any indication of prohibited waste be detected, appropriate TS personnel stop unloading of the vehicle to allow facility personnel to conduct a thorough evaluation of the load. The driver is directed to a load inspection area of the tipping floor separated from other incoming waste, where the load is discharged from the vehicle. The load inspector breaks up the waste pile and inspects the material for any prohibited waste. Known prohibited waste is placed back into the vehicle, and the driver is instructed to depart the facility. If any regulated hazardous waste is detected, the entire load is refused.

In addition to the above procedure, incoming loads are inspected on a random basis. The TS Supervisor or designee is responsible for determining the random load inspection schedule. The driver of the randomly selected load is notified and instructed to proceed to a designated load inspection area.

The TS Supervisor or designee maintains and includes in the SOR the load inspection reports for randomly inspected loads. Load inspection reports, recorded on standardized forms, are completed for each inspected load. The reports 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. An example load inspection report form is included in Appendix IVA of this SOP.

7.3 Spill Prevention and Control (§330.227)

Waste transfer operations occur within the Gateway Drive TS building. All waste is located inside the TS building including source separated recyclable materials. Washwater or leachate from waste in the TS building is collected and discharged into the sanitary sewer system through drains located within the building. Spills are contained within the building, analyzed as necessary, and properly disposed of. All petroleum product containers are provided with secondary containment (e.g., double-walled tanks) to prevent spills.

7.4 Operating Hours (§330.229)

The facility waste acceptance hours are from 7:00 am to 7:00 pm Monday through Saturday. Saturday operating hours are provided to serve Solid Waste System Member City residents, non-member city residents, and contractors to prevent traffic congestion during the week and reduce illegal dumping. The site is closed on Sunday. Site operations, such as cleaning the tipping floor, operating equipment, transporting materials on or off-site, completing truck loading, and maintaining housekeeping, may be performed outside of waste acceptance hours. The operation of equipment at the site is prohibited between the hours of 9:00 pm to 5:00 am, Monday through Saturday, unless specific authorization is provided. The information on public waste acceptance hours and days of operation is posted at the entrances to the facility. In addition to the waste acceptance and operating hours, any non-waste acceptance/processing and management activities, including administrative, maintenance, and repair activities, may occur twenty-four hours a day, seven days a week.

When warranted, the Director of Solid Waste or his designee may request approval from the TCEQ regional office to allow additional temporary operating hours to address disaster or other emergency situations, or other unforeseen circumstances (such as traffic delays or adverse weather) that could result in the disruption of waste management services in the area. The Director of Solid Waste or his designee will document in the operating record the communication with the regional office, dates, times, and duration when any alternative operational hours are utilized.

7.5 Facility Sign (§330.231)

A sign will be conspicuously displayed at the gated entrances to the Gateway Drive TS. The signs will measure a minimum of 4 feet by 4 feet and have lettering of at least 3 inches in height. The signs will state the name of the facility, type of facility, hours and days of operation, and the TCEQ permit number. The signs will be visible and readable from the facility entrances.

These signs also list all prohibited waste at the facility. Additional signs regarding site rules, such as speed limits and directions to the unloading areas, are posted as appropriate.

Signs designating smoking area(s) are posted near the scalehouse and TS building. A sign is prominently displayed at the facility entrance stating that all loads are required to be enclosed, covered, or secured unless the load cannot blow or spill over the top of the load-carrying compartment. Additional signs may be installed for visibility, if needed.

7.6 Control of Windblown Material and Litter (§330.233)

Control of windblown materials and litter at the facility entrance area is performed as part of routine facility inspections. Any litter scattered throughout the site, including along fences and access roads and at the gates, is collected at least daily on the days the facility is in operation. All collected material is placed on the transfer station tipping floor. Windblown materials onsite are minimized as all waste unloading and waste loading activities are handled within the transfer station building, and the facility is fenced.

7.7 Materials Along the Route to the Facility (§330.235)

The NTMWD uses its own employees or contract laborers for litter pickup. Litter is policed around the entire site perimeter, along the access roads, and for a distance of 2 miles from the site entrance within the public right-of-way along PGA Parkway, Gateway Drive, Executive Drive, and Monroe Drive at least once per day when the facility is in operation. The City of Frisco has maintenance responsibility and authority over all the public roadways providing access to the facility. The facility will coordinate with the City of Frisco for litter pickup on public roadways.

The NTMWD will take steps to encourage vehicles hauling waste to the facility to be enclosed with a tarpaulin, net, or other means to effectively secure the load, preventing the escape of any part of the load by blowing or spilling. The operator will take actions such as posting signs, reporting offenders to proper law enforcement officers, or similar measures.

7.8 Facility Access Roads (§330.223(b) and §330.237)

Gateway Drive and the City of Frisco Environmental Services access road provides access to the Gateway Drive TS for waste hauling vehicles, operating personnel, and visitors. The entrance road is surfaced with an all-weather surface. Site personnel will remove mud and trash from the all-weather onsite roads and access roads to minimize the tracking of mud and trash onto public roadways. The facility may incorporate a wheel wash system at the exit of the TS building, as needed. Should mud or other associated debris be tracked onto a public roadway, the material is removed on days when these materials can be reasonably associated with TS operations. The onsite access road is maintained on a regular basis to minimize depressions, ruts, and potholes.

Litter onsite is picked up daily when the facility is in operation, and the waste is taken to the TS building. Dust from onsite and the offsite access road should not become a nuisance to surrounding areas, as dust is controlled by using paved concrete roads rather than dirt or gravel roads. A water source and necessary equipment, or other

means of dust control is provided and utilized when conditions warrant water spraying. The entrance, access, and internal roads are maintained in a clean and safe condition.

7.9 Noise Pollution and Visual Screening (§330.239)

The nearest residence to the site is approximately 0.65 miles east of the permit boundary. To minimize noise resulting from the transfer station's operations, TS operations are primarily conducted within the TS building, and white noise backup alarms are utilized on equipment. In addition, landscaping meeting the City of Frisco requirements will help reduce noise and provide visual screening to mitigate adverse visual impacts. The Gateway Drive TS is located within a planned industrial development area within the jurisdiction of the City of Frisco.

7.10 Overloading and Breakdown (§330.241)

In the event that the facility is inoperable for a period of 24 hours or more, the operator will have incoming solid waste redirected to another appropriate disposal or transfer facility and remove any accumulated waste from the site.

Solid waste will not be allowed to accumulate in quantities that cannot be handled in such a time to preclude the creation of odors, insect breeding, or harborage of vectors. If such an accumulation occurs, no additional solid waste will be received and arriving vehicles will be directed to other transfer stations or disposal sites.

The maximum daily receipt of waste at the transfer station will not be exceeded during operation. The maximum and average lengths of time that solid waste will remain at the facility are 72 hours and 24 hours, respectively. During normal operation, solid waste received at the site will be transferred on the day it is received. Solid waste exceeding 1,000 tons will not be stored overnight at the facility except in the event of extenuating emergency circumstances, such as inclement weather or mechanical breakdown.

In the event of equipment repairs or during equipment maintenance periods, the facility may obtain equipment from other facilities, contractors, or local rental companies to avoid interruption of waste services.

7.11 Sanitation (§330.243)

All building working surfaces that come in contact with waste are washed at least weekly at the completion of the processing period (end of the workday). Water used to wash down the TS floor is collected in drains and discharged through a sand/oil separator, as shown on Figure IIIA-1, Site Plan of the SDP, and then into the sanitary

sewer to prevent the creation of odors or an attraction to vectors. Waste transfer and recyclables collection occurs inside of the TS building. Surface drainage is controlled through a combination of grading and piping systems to prevent surface water contact with waste or contaminated water. Any water that comes into contact with waste or contaminated water is collected and disposed of in the sanitary sewer system. The site grading design prevents stormwater from discharging into the sanitary sewer system and contaminated water from discharging into stormwater.

7.12 Ventilation and Air Pollution Control (§330.245)

The TS is designed and operated to provide adequate ventilation for odor control and employee safety. To control odors, waste transfer operations are confined within the TS building. These provisions provide for operator safety and odor control within the building.

The TS is 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.

Any ponded water at the facility is removed to avoid becoming a nuisance.

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. The facility will not store more than 1,000 tons of municipal solid waste overnight.

The TS personnel will prevent nuisance odors from leaving the boundary of the TS. If nuisance odors are found to be passing the TS boundary, the site will immediately take action to abate the nuisance by employing one or all of the following measures:

- Additional odor control measures within on site buffer zones;
- 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.
- Review and upgrades as needed to Part III – Site Development Plan, Section 2.2.3 – Ventilation and Odor Control;
- Cleaning all working surfaces that come in contact with waste weekly as described in Section 7.11.

If any air pollution, capture, and abatement equipment is utilized, it will be maintained and operated during the facility operation to adequately maintain its effectiveness.

7.12.1 Odor Management Plan

The Gateway Drive TS is located in a planned industrial development area within the limits of the City of Frisco in Collin County. The land use within one mile of the TS is primarily planned as industrial developments with retail, residential, agricultural, mixed use, and public roads.

The TS manages odors associated with waste acceptance and processing operations consistent with this section. This section addresses sources of odors and provides general instructions on controlling 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 is not permitted at this facility.
- Unloading of wastes directly to the tipping floor inside the TS building will be consistent with procedures established in Section 7.2 - Unloading of Wastes in this SOP.
- Solid waste spills outside the TS building are managed by collecting and transporting wastes to the tipping floor for prompt processing.
- Incoming waste is promptly loaded into transfer trucks and hauled to a landfill for disposal.
- Transfer trailers meet the requirements of Section 4.2.
- Waste received at the TS is transported to a properly permitted MSW landfill for disposal as soon as practical, with storage at the TS not to exceed 72 hours. During normal operations, solid waste received at the site is transferred on the day it is received. Solid waste amounts exceeding 1,000 tons is not stored overnight at the facility, except for extenuating circumstances such as inclement weather or mechanical breakdown.
- 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.

7.13 Health and Safety (§330.247)

Facility personnel are trained in the facility's health and safety plan, as revised periodically and in accordance with Section 8.3 – Training. Records of required training are maintained in the SOR.

7.14 Employee Sanitation Facilities (§330.249)

Potable water and sanitary facilities are provided for use by employees, customers, and visitors. These are located convenient to the scalehouse and the TS building. Potable water is also available at hydrants and washdown hose connections located throughout the site. Portable sanitary facilities may also be utilized around the site, as needed.

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 gates 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 when operating	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 when operating	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
Fire Extinguishers	Each extinguisher is inspected monthly and recharged as needed. A qualified service company will perform these inspections, and all extinguishers display a current inspection tag. Inspection and recharging is performed following each use.	Monthly, as needed, and following each use	TS Supervisor or Designee	Document in the Operating Record
First Aid Kits	Check for damaged or soiled items. Review expiration dates in medications and supplies. Ensure kit is stocked with appropriate items for the potential risks associated with TS operations.	Quarterly	TS Supervisor or Designee	Document in the Operating Record

8 PERSONNEL AND TRAINING

8.1 Personnel

Gateway Drive TS is staffed with qualified individuals experienced with municipal solid waste transfer operations. NTMWD is the owner and operator responsible for the day-to-day operations of Gateway Drive TS. The NTMWD Organizational Chart for the TS personnel organization is presented in Figure 8-1. Table 8-1 includes a summary of job descriptions, minimum qualifications, and required training for TS personnel. NTMWD will provide a sufficient number of employees for each position to ensure proper facility operations. NTMWD executive management may change employee titles and position labels; however, they will all fall in similar categories to ensure site operations are in compliance with applicable rules and regulations.

The administrative management structure of the NTMWD consists of the Board of Directors, Executive Director/General Manager, Assistant General Manager, Director of Solid Waste, and Transfer Station Manager.

The Director of Solid Waste is responsible for environmental review, permitting, compliance, reporting, and environmental oversight of TS operations; however, he may delegate certain tasks to Transfer Station Manager or TS Supervisor to ensure continued compliance with the applicable rules and regulations.

The Transfer Station Manager conducts overall facility management and is responsible for the administrative oversight of the facility management of this and other NTMWD transfer stations. The Transfer Station Manager manages the TS Supervisors who are responsible for each of the transfer stations operations.

The TS Supervisor is responsible for facility management and ensuring adequate personnel and equipment are available to provide facility operation per TCEQ regulations. The TS Supervisor is responsible for daily operations of the scalehouse, waste transfer operations, and all related activities. The TS Supervisor or his designee serves as the emergency coordinator. The TS Supervisor, at a minimum, has a high school diploma or equivalent, experience in municipal solid waste processing operations, and maintains a Class A or Class B MSW Operator license consistent with the requirements of Title 30 TAC Chapter 30, Subchapter F. The TS Supervisor is also responsible for maintaining the SOR and required logs. Upon hiring, the TS Supervisor will obtain necessary licenses within 6 months.

The Scale Operator, stationed at the Scalehouse, is primarily responsible for maintaining complete and accurate records of vehicles and solid waste entering the facility. Multiple employees may be in this position. The Scale Operator is trained in site safety procedures, to visually check for unauthorized waste, to weigh vehicles, measure waste volumes if necessary, and to collect waste disposal fees. The Scale Operator is present at all hours the Gateway Drive TS is open to the public. The Scale Operator, at a minimum, has a basic understanding of accounting principles and basic communication skills.

TS Equipment Operators 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. TS Equipment Operators monitor and direct unloading vehicles and are also responsible for facility maintenance and repairs, litter abatement, and general site cleanup. The TS Equipment Operators intervene as necessary to prevent accidents and report unsafe conditions immediately to the TS Supervisor. TS Equipment Operators, at a minimum, are experienced in the operation of heavy equipment, and demonstrate the ability to be trained in municipal solid waste processing operations. TS Equipment Operators have a minimum of six months experience in heavy equipment operation or on-the-job training by the TS Supervisor.

Other site personnel or full or part time (permanent or temporary) laborer(s) may be employed from time to time in categories such as maintenance, repairs, litter abatement, and general site cleanup. Site personnel may be permanent or part-time.

8.2 General Personnel Instructions

The Gateway Drive TS personnel have a basic understanding of the contents of this SOP. The TS Supervisor has a basic knowledge of the approved permit. Gateway Drive TS personnel follow the general instructions provided in the Site Operating Plan and approved permit. Section 7.16 – Facility Inspection and Maintenance Schedule contains general tasks and procedures required.

The site may employ contract 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. Record keeping requirements in this Site Operating Plan are applicable to 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 Gateway Drive TS personnel receive training through a combination of classroom instruction and on-the-job training. Training requirements are also included in Table 8-1, Facility Personnel Summary. The training program provides instruction to personnel to allow performance of their duties to ensure facility compliance. Training is conducted by NTMWD or consultants that are experienced and trained in municipal solid waste processing procedures. The facility personnel are trained in procedures relevant to the position for which they are employed. Training will address the following topics:

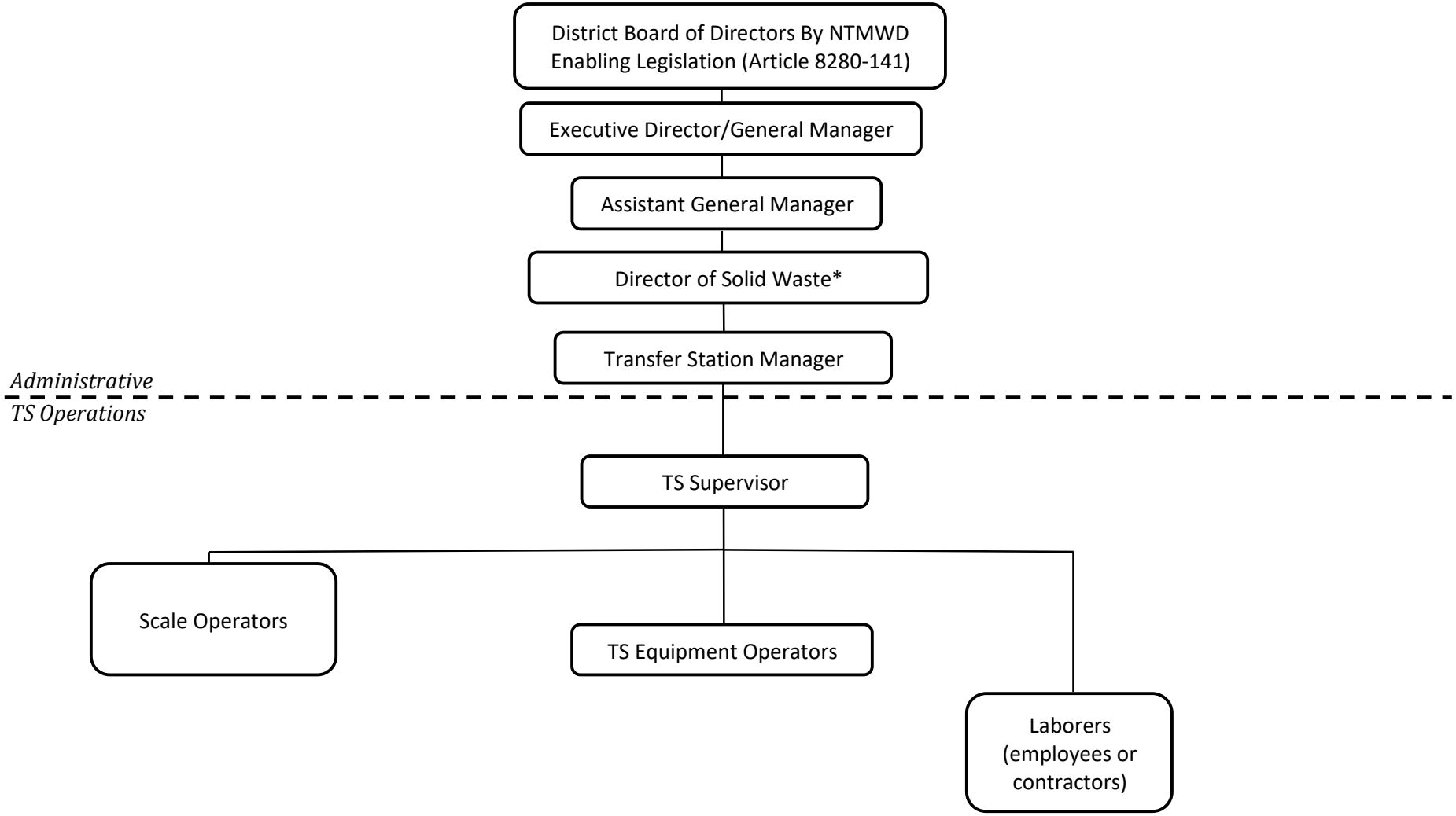
- Site Operating Plan
- Facility emergency monitoring equipment and plans
- Emergency response including communication and alarm systems
- Health and safety
- Fire Protection Plan
- Litter control and windblown waste pick-up
- Customer notification and load inspection procedures
- Identification of prohibited wastes including hazardous wastes and PCB wastes
- Waste handling procedures (acceptable and prohibited wastes)
- Equipment operation and maintenance
- Recordkeeping

The Gateway Drive TS personnel must successfully complete the in-house training programs required by both this Site Operating Plan and the NTMWD training requirements. The in-house training program consists of training and routine safety meetings (typically once per month). The topics addressed are the topics identified as part of the training program above. Personnel are trained on topics relevant to their position. On-going regular training and safety meetings are scheduled monthly. Should a monthly meeting be cancelled, it is rescheduled or combined with the next regular meeting. Documentation of training is placed in the operating record as required by Section 5 - Recordkeeping and Reporting Requirements.

The TS Supervisor, TS Equipment Operators, Scale Operator(s), and other personnel receive training at TCEQ-sponsored or approved training courses, as deemed appropriate by facility management. TCEQ or other qualified consultants may also provide training as appropriate. The Gateway Drive TS maintains personnel operator licenses issued consistent with Title 30 TAC Chapter 30, Subchapter F – Municipal Solid Waste Facility Supervisors.

New employees receive a comprehensive overview of all aspects of TS operations with a 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 are subject to training requirements (initial and periodic) included in this Site Operating Plan.

Figure 8.1 – NTMWD Organizational Chart



*Director of Solid Waste or his designee is responsible for the compliance with applicable rules and regulations. Additional staffing positions, or collaborating with other departments of NTMWD may occur if needed.

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 • Facility management • Ensuring adequate personnel and equipment are available to provide facility operation in accordance with TCEQ regulations • Directing the TS 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 and compliance • Maintaining the site operating record and required logs • Other tasks as required by NTMWD	• 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
Scale Operators	The Scale Operators are responsible for: • Stationed at the scalehouse • 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 • Weighing Vehicles • Measure waste volumes, as necessary • Collecting waste disposal fees • Other training as required by the TS Supervisor

(Continued on the next page)

Table 8-1 (Continued)
Facility Personnel Summary[1]

Position	Summary of Job Description	Minimum Qualifications	Required Training
TS Equipment Operators	The TS 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 • Site 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	• Experience in heavy equipment operation either a minimum of six months experience or on the job training by the TS Supervisor • 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[2]	The laborers are responsible for: • Collecting litter • Directing vehicles at the tipping floor or citizens' service area Other tasks as needed including but not limited to site maintenance, repairs, 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 site operating record.

2. Laborers may receive in part or all required training from the hiring agency prior to start date. Personnel records for contract laborers will not be maintained.

9 GENERAL INSTRUCTIONS

9.1 General Facility Safety

Facility safety is promoted by properly trained personnel using well-maintained equipment to perform standard work procedures. Facility safety is enhanced by limiting access to the working areas to only authorized personnel. In the event of an emergency, planned emergency response procedures are followed.

Well-maintained equipment is vital to the safe conduct of daily transfer operations. Therefore, all facility equipment is maintained in proper working order and safety guards, backup alarms, and engine kill switches or any other safety features required by equipment manufacturers and site safety procedures will be operational. TS Equipment Operators perform an equipment check at the beginning of each workday. Problems are reported to the TS Supervisor. Fire extinguishers and first aid kits are inspected monthly.

Access to the facility is limited to authorized personnel as described in Section 7. 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 designee and take appropriate actions such as rendering aid, calling for assistance, or closing access to the emergency scene. Emergency numbers are posted beside the telephone in the facility office and scalehouse.

These include:

Office	Phone
Ambulance	911
Frisco Fire Department	911 or (972) 292-6300
Frisco Police Department	911 or (972) 292-6010
Collin Co. Sheriff's Office	911 or (972) 547-5100

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. 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 are provided to minimize fatigue, improve alertness, and thereby reduce accident potential.
- Access controls are provided for the safety of non-transfer operations personnel.
- Routine preventive maintenance of equipment is provided.
- Facility inspections of the working areas is performed by a management representative.
- Appropriate personnel safety equipment is kept onsite and maintained in good repair.
- Adequate turning area for hauling vehicles is provided.
- Scavenging from incoming solid waste is not allowed, and individuals are required to stay close to their vehicles for their own protection.
- Waste unloading is restricted to designated areas only.
- Site personnel are alert for possible prohibited wastes.
- Non-approved wastes are controlled or contained and removed as necessary.

9.2.2 TS Building

Preventative measures that are 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 is provided to conduct site operations in accordance with the design, Site Operating Plan, 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 NTMWD. Other equivalent types of equipment by other manufacturers may be substituted on an as-needed basis.

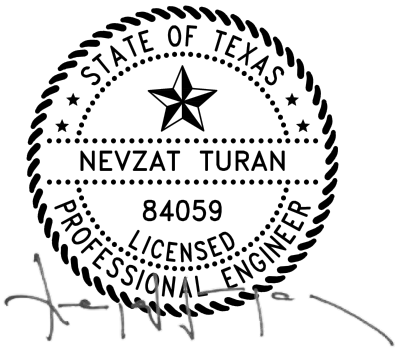
Table 10-1
Facility Equipment List

Equipment	Typical Size[(1)]	Number[(2)]	Function
Wheel Loader	Various makes and types	1	Moving materials
Open-top, Tarpable, Transfer Trailers	Minimum 80 yd^3	2	Hauling waste off-site for landfilling
Roll-off Boxes and Containers	Up to 40 yd^3	2	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.

APPENDIX IVA

EXAMPLE LOAD INSPECTION REPORT



11/12/2025

EXAMPLE 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**