Weaver Consultants Group

Project No. 5486-001-11-01
August 30, 2023

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

Re: HD Waste & Recycling Transfer Station
Type V Registration Application
Dallas County, Texas

Dear Ms. Keel:

On behalf of HD Waste Transfer Station, LLC (HDWTS), please find enclosed a Registration Application for the proposed HD Waste & Recycling Transfer Station. Included are four copies of the application for your technical review.

The HD Waste & Recycling Transfer Station (TS) is a proposed Type V municipal solid waste (MSW) processing facility to be located in southeast Dallas in Dallas County, Texas. The proposed facility is be located off of the US-175/CF Hawn Freeway Frontage Road in Dallas County, Texas within the city limits of Dallas.

The HD Waste & Recycling TS will provide an efficient means to transfer MSW that is generated in the City of Dallas, Dallas County, and the surrounding areas to a Texas Commission on Environmental Quality (TCEQ) permitted MSW landfill. The transfer station will have a maximum waste acceptance rate of 1,000 tons per day.

It is requested that this registration application be processed per Title 30 TAC §330.9(e). Specifically, the TS will qualify for registration by the diversion of recyclable materials from the TS. Refer to Parts I/II, Section 1 for more information.

HDWTS is fully committed to operating the HD Waste & Recycling Transfer Station consistent with TCEQ rules and regulations in order protect human health and the environment.

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

Sincerely,
Weaver Consultants Group, LLC

Charles R. Marsh, P.E.
Project Director

Nevzat Turan, P.E.
Principal

Enclosures: Registration Application (4 copies)

cc: Diana Martinez, HD Waste Transfer Station, LLC
Hugo Martinez, HD Waste Transfer Station, LLC
TCEQ, Region 4

Administrative and Technical Review Checklist for Municipal Solid Waste (MSW) Permits, Registrations and Amendments

This checklist is designed to provide guidance for the Municipal Solid Waste (MSW) rules found in Title 30 Texas Administrative Code (30 TAC) Chapter 330, for Type I, IV and V registration, permit, and permit amendment applications. Areas of the checklist that are shaded in gray are for information purposes only.

Please fill out application information before selecting and filling out a checklist.

Applicant Information

Company:	HD Waste Transfer Station, LLC				
First name:	Diana	Last name	Martinez		
Applicant Title:	CEO			Prefix:	
Street Address:	10631 CF Hawn Freeway				
City:	Dallas	State:	TX	Zip code:	75217
Applicant E-Mail:	diana@hdwastetx.com				

Consultant Information

First name:	Charles	Last name:	Marsh		
Consultant Title:	Project Director			Prefix:	
Consultant Firm:	Weaver Consultants Group, LLC				
Consultant Address:	6420 Southwest Boulevard, Suite 206				
City:	Fort Worth	State:	Texas	Zip code:	76109
Consultant E-Mail:	cmarsh@wcgrp.com				

Application Information

Facility Name:	HD Waste & Recycling Transfer Station		
Application Date	8/30/2023		
CN:		MSW ID:	
RN:		Authorization Type:	Registration
County:	Dallas	Application Type:	New Registration

ID	App. Part	Checklist Item	Item Type	Citation	Complete?	Location	Applicant Comments	Application Area
1	General	Submit all four parts of the permit, permit amendment or registration application	Required	330.57(a) & (b)	Yes	Type V Permit Registration Application		Format-Application
2	General	Submit TCEQ Part I Form (Form No. 0650)	Required	330.57(c)(1)	Yes	Part I - Application Form		Forms
8	General	Part II of the application contains location and coordination information.	Informational	330.57(c)(2)				Format-Application
9	General	Part III of the application contains design information	Informational	330.57(c)(3)				Format-Application
10	General	Part IV of the application contains the site operating plan	Informational	330.57(c)(4)				Format-Application
11	General	The application should address all aspects of application and design requirements, even to show why not applicable (N/A)	Informational	330.57(d)				Format-Application
12	General	Submit data of sufficient completeness, accuracy and clarity	Required	330.57(d)	Yes	Type V Permit Registration Application		Format-Application
13	General	Failure to provide complete information may be cause for ED to return application.	Informational	330.57(d)				Format-Application
14	General	Provide 4 Copies for Initial Submittal (1 original and 3 copies)	Required	330.57(e)	Yes	Type V Permit Registration Application	Four copies (1 original and 3 copies) were submitted.	Format-Application
15	General	Provide 4 copies for NOD Responses including 1 copy with marked revisions (redline/strikeout)	Required	330.57(g)(6)	Yes	Type V Permit Registration Application	New registration application. No redline/strikeout copies are necessary.	Format-Application
16	General	Application must be prepared in accordance with Texas Occupations Code, Texas Engineering Practice Act, Chapter 1001 and Texas Geoscience Practice Act, Chapter 1002	Informational	330.57(f)				Format-Application
17	General	Provide a PE signature, seal and date on the title page of each bound engineering report or individual engineering plan, and on each engineering drawing	Required	330.57(f)(1)	Yes	Type V Permit Registration Application	A PE signature, seal, and date has been provided on the title page of each report or plan, and on each drawing.	Format-Application
18	General	Provide PG sign, seal, & date for applicable items	Required	330.57(f)(2)	Yes	Not applicable	Not applicable	Format-Application
19	General	Applications that are not sealed are incomplete and shall be returned	Informational	330.57(f)(3)				Format-Application
20	General	Submit the application in three ring-binders	Required	330.57(g)(1)	Yes	Type V Permit Registration Application	Four hard copies of the registration application have been submitted in three ring binders.	Format-Application
21	General	Submit Title Page with Name, Application No., Site Operator Name, Operator Name (if applicable), Location, Date Prepared and Revision Date(s)	Required	330.57(g)(2)	Yes	Type V Permit Registration Application	A title page for every appendix with the name, application number, site operator, location, and date prepared is included.	Format-Application
22	General	Provide Table of Contents with PE seal	Required	330.57(g)(3)	Yes	Type V Permit Registration Application	All Tables of Contents include a PE seal.	Format-Application
23	General	Use 8.5x11 inch or 11x17 paper (folded to 8.5x11 inch)	Required	330.57(g)(4)	Yes	Type V Permit Registration Application	8.5x11 inch or 11x17 folded to 8.5x11 inch has been used.	Format-Application
24	General	Provide pages with date (original and revised) and sequential page numbers	Required	330.57(g)(5)	Yes	Type V Permit Registration Application	All pages include a date and sequential page numbers.	Format-Application
25	General	Provide legible drawings/maps	Required	330.57(h)(1)	Yes	Type V Permit Registration Application	Legible drawings and maps are provided.	Format-Maps/Drawings
26	General	Provide color coding on all figures and drawings that is legible and distinct after copying in black & white	Required	330.57(h)(2)	Yes	Type V Permit Registration Application	Color coding on all figures and drawings is provided.	Format-Maps/Drawings
27	General	Provide a standard engineering scale on each figure or drawing	Required	330.57(h)(3)	Yes	Type V Permit Registration Application	A standard engineering scale is provided on each figure or drawing.	Format-Maps/Drawings
28	General	Provide a dated title block on each figure or drawing	Required	330.57(h)(4)(A)	Yes	Type V Permit Registration Application	A dated title block is provided on each figure or drawing.	Format-Maps/Drawings
29	General	Provide a bar scale at least 1 inch on all figures and drawings	Required	330.57(h)(4)(B)	Yes	Type V Permit Registration Application	A bar scale at least 1 inch is provided on all figures and drawings.	Format-Maps/Drawings
30	General	Provide a revision block on all figures and drawings	Required	330.57(h)(4)(C)	Yes	Type V Permit Registration Application	New registration application. Space for future revisions is included on all figures and drawings.	Format-Maps/Drawings
31	General	Provide a PE or PG seal ,if required, on all figures and drawings	Required	330.57(h)(4)(D)	Yes	Type V Permit Registration Application	A PE seal is included on the figures and drawings as required.	Format-Maps/Drawings
32	General	Include drawing number and a page number on each drawing and figure	Required	330.57(h)(4)(E)	Yes	Type V Permit Registration Application	A drawing number and page number is included on each drawing and figure.	Format-Maps/Drawings
33	General	Include a north arrow on each map or plan drawing	Required	330.57(h)(5)(A)	Yes	Type V Permit Registration Application	Each map or plan drawing includes a north arrow.	Format-Maps/Drawings
34	General	Include a reference to base map & date of most current base map used, if the map is based upon another map	Required	330.57(h)(5)(B)	Yes	Type V Permit Registration Application	A reference to the base map and date of the most current base map used is included if the map is based upon another map.	Format-Maps/Drawings

35	General	Include a legend on each map or plan drawing	Required	330.57(h)(5)(C)	Yes	Type V Permit Registration Application	A legend is included on each map or drawing.	Format-Maps/Drawings
36	General	Provide match lines and section lines that reference the drawing where the match or section is shown.	Required	330.57(h)(6)	Yes	Type V Permit Registration Application	Match lines and section lines that reference the drawing where the match or section is shown is included as necessary.	Format-Maps/Drawings
37	General	Indicate that the registration is for an MSW transfer station facility that is used in the transfer of MSW to a solid waste processing or disposal facility from any of the following: a municipality with a population of less than 50,000; a county with a population of less than 85,000; a facility used in the transfer of MSW that transfers or will transfer 125 tons per day or less or a transfer station located within the permitted boundaries of an MSW Type I or Type IV facility	Required	330.9(b)(1) - (4)	Yes	Not Applicable	Not applicable. Registration application is per TAC 330.9(e)(1) and (2)	Application Eligibility
38	General	Provide a demonstration that the facility will recover 10% or more by weight or weight equivalent of the total incoming waste stream for reuse or recycling, ensure that the incoming waste has already been reduced by at least 10% through a source-separation recycling program; or, also operate one or more source-separation recycling programs in the county where the transfer station is located and those source-separation recycling programs manage a total weight or weight equivalent of recyclable materials equal to 10% or more by weight or weight equivalent of the incoming waste stream to all transfer stations to which credit is being applied	Required if Requested	330.9(f)(1)	Yes	Part III, Section 1.1		Application Eligibility
39	General	Provide a demonstration that the facility will transfer the remaining nonrecyclable waste to a landfill not more than 50 miles from the facility.	Required if Requested	330.9(f)(2)	Yes	Part III, Section 1.1		Application Eligibility
45	General	Acknowledge that the construction and operation of the waste management facility shall comply with Subchapter U of 30 TAC Chapter 330 (relating to Standard Air Permits for Municipal Solid Waste Landfill Facilities and Transfer Stations) or other approved air authorizations. Owners or operators of these types of facilities should consult with the Air Permits Division on or before the date that the municipal solid waste application is filed with the executive director	Acknowledgement	330.55(a)	Yes	Part IV, SOP		Other Authorizations
46	General	Acknowledge that all liquids resulting from the operation of solid waste facilities shall be disposed of in a manner that will not cause surface water or groundwater pollution. Facilities shall provide for the treatment of wastewaters resulting from waste management activities and from cleaning and washing. Owners or operators shall ensure that storm water and wastewater management is in compliance with the regulations of the commission.	Acknowledgement	330.55(a)	Yes	Part III, Section 2.3		Other Authorizations
49	General	It is the responsibility of an owner or operator to possess or acquire a sufficient interest in or right to the use of the surface estate of the property for which a permit is issued, including the access route. The granting of a permit does neither convey any property rights or interest in either real or personal property; nor does it authorize any injury to private property, invasion of personal rights, or impairment of previous contract rights; nor any infringement of federal, state, or local laws or regulations outside the scope of the authority under which a permit is issued	Informational	330.67(a)				General Information
51	General	Executive director approval or a permit will be required if any on-site operations subsequent to closure of a landfill facility involve disturbing the cover or liner of the landfill.	Informational	330.67(c)				General Information

52	General	It is the responsibility of an owner or operator to obtain any permits or approvals that may be required by local agencies such as for building construction, discharge of uncontaminated waters into ditches under control of a drainage district, discharge of effluent into a local sanitary sewer system, etc.	Informational	330.67(d)				General Information
54	General	The owner or operator shall provide notice of the opportunity to request a public meeting and post notice signs for all registration applications not later than 45 days of the executive director's receipt of the application in accordance with the procedures contained in 30 TAC §39.501(c)	Informational	330.69(b)				General Information
55	General	The owner or operator and the commission shall hold a public meeting in the local area, prior to facility authorization, if a public meeting is required based on the criteria contained in 30 TAC §55.154(c) or by Texas Health and Safety Code, §361.111(c)	Informational	330.69(b)				General Information
56	General	Notice of a public meeting shall be provided as specified in §39.501(e)(3) and (4) of this title	Informational	330.69(b)				General Information
57	General	At the owner's or operator's expense, a sign or signs must be posted at the site of the proposed facility declaring that the application has been filed and stating the manner in which the commission and owner or operator may be contacted for further information. Such signs must be provided by the owner or operator and must substantially meet the requirements of 30 TAC §330.69(b)(1) - (3)	Informational	330.69(b)				General Information
58	General	If at any time during the life of the facility the owner or operator becomes aware of any condition in the permit or registration that necessitates a change to accommodate new technology or improved methods or that makes it impractical to keep the facility in compliance, the owner or operator shall submit to the executive director requested changes to the permit or registration in accordance with 30 TAC §305.62 or §305.70 and must be approved prior to their implementation	Informational	330.73(a)				General Information
60	General	The owner or operator shall obtain and submit certification by a Texas-licensed professional engineer that the facility has been constructed as designed in accordance with the issued registration or permit and in general compliance with the regulations prior to initial operation. The owner or operator shall maintain that certification on site for inspection	Informational	330.73(d)				General Information
61	General	After all initial construction activity has been completed and prior to accepting any solid waste, the owner or operator shall contact the executive director and region office in writing and request a pre-opening inspection. A pre-opening inspection shall be conducted by the executive director within 14 days of notification by the owner or operator that all construction activities have been completed, accompanied by representatives of the owner or operator and the engineer	Informational	330.73(e)				General Information
62	General	The MSW facility shall not accept solid waste until the executive director has confirmed in writing that all applicable submissions required by the permit or registration and this chapter have been received and found to be acceptable, and that construction is in compliance with the permit or registration and the approved site development plan. If the executive director has not provided a written or verbal response within 14 days of completion of the pre-opening inspection, the facility shall be considered approved for acceptance of waste	Informational	330.73(f)				General Information
63	General	Identify if the Regulated Entity or Customer has any delinquent fees	Required	330.59(h), 330.671, 330.675	Yes	Not Applicable	No delinquent fees	Delinquent Fees

64	Part I	Provide a copy of the application, including all revisions and supplements on a publicly accessible Web site	Required in Part I Form	330.57(i)(1)				Part I Form
65	Part I	Provide the commission with the Web address link for the application materials	Required in Part I Form	330.57(i)(1)				Part I Form
66	Part I	Signature Page must have signature and notarization	Required in Part I Form	330.59(a)(1)				Part I Form
67	Part I	Applicant's name, mailing address & phone no.	Required in Part I Form	330.59(a)(1)				Part I Form
68	Part I	Description of the nature of the business	Required in Part I Form	330.59(a)(1)				Part I Form
69	Part I	Activities that require a permit (conducted at the facility)	Required in Part I Form	330.59(a)(1)				Part I Form
70	Part I	Location description, facility name & mailing address	Required in Part I Form	330.59(b)(1); 305.45(a)(1)				Part I Form
71	Part I	Access routes	Required in Part I Form	330.59(b)(2)				Part I Form
72	Part I	Lat. & Long. of the facility	Required in Part I Form	330.59(b)(3)				Part I Form
73	Part I	Lat. & Long. depicted	Required in Part I Form	330.59(c)(1)(A)				Part I Form
74	Part I	All maps should show the facility location	Required in Part I Form	305.45(a)(6)				Part I Form
76	Part I	All maps should show other structures or locations regarding the regulated facility and associated activities	Required in Part I Form	305.45(a)(6)				Part I Form
77	Part I	At least one map with a scale not less than 1 inch = 1 mile	Required in Part I Form	305.45(a)(6)				Part I Form
78	Part I	Permit/Registration boundary and 1 mile beyond to show the following:	Required in Part I Form	330.59(c)(1)(B)				Part I Form
79	Part I	Wells, springs, surface water bodies	Required in Part I Form	305.45(a)(6)(A)				Part I Form
80	Part I	Character of adjacent land including public roads, towns, development as residential, commercial, agricultural, etc.	Required in Part I Form	305.45(a)(6)(B)				Part I Form
81	Part I	Location of any waste disposal activities conducted on the tract but not included in the application	Required in Part I Form	305.45(a)(6)(C)				Part I Form
82	Part I	General location map, TXDOT, scale of ½ inch = 1 mile and most current map used	Required in Part I Form	330.59(c)(2)				Part I Form
83	Part I	Land Ownership Map, within ¼ mile & mineral interest ownership	Required in Part I Form	330.59(c)(3)(A)				Part I Form
84	Part I	Land Ownership List both in hardcopy and electronic form (alternatively pre-printed mailing labels)	Required in Part I Form	330.59(c)(3)(B)				Part I Form
85	Part I	Legal description of property or other documentation of ownership	Required in Part I Form	330.59(d)(1)(A)				Part I Form
86	Part I	If Platted; plat record with county, book, page number and acreage information	Required in Part I Form	330.59(d)(1)(B)				Part I Form
87	Part I	Signed, sealed and dated surveyed metes and bounds description of the facility	Required in Part I Form	330.59(d)(1)(C)				Part I Form
88	Part I	Signed & sealed metes & bounds drawing	Required in Part I Form	330.59(d)(1)(D)				Part I Form
89	Part I	Signed property owner affidavit	Required in Part I Form	330.59(d)(2)				Part I Form
90	Part I	Acknowledge that State may hold owner responsible	Required in Part I Form	330.59(d)(2)(A)				Part I Form
92	Part I	Acknowledge that the owner & State shall have access during life of the facility and during closure	Required in Part I Form	330.59(d)(2)(C)				Part I Form
94	Part I	Verified legal status of applicant and list of persons with 20% or more ownership in the facility	Required in Part I Form	330.59(e)				Part I Form
95	Part I	Ownership status as federal, state, private, public, or other	Required in Part I Form	305.45(a)(2)				Part I Form
96	Part I	List of all Texas solid waste sites that the owner or operator has owned or operated within the last ten years. The site name, site type, permit or registration number, county, and dates of operation shall also be submitted.	Required in Part I Form	330.59(f)(1)				Part I Form
97	Part I	List of all solid waste sites in all states, territories, or countries in which the owner or operator has a direct financial interest. The type of site shall be identified by location, operating dates, name, and address of the regulatory agency, and the name under which the site was operated.	Required in Part I Form	330.59(f)(2)				Part I Form
98	Part I	Shall employ a licensed solid waste facility supervisor before operating	Required in Part I Form	330.59(f)(3)				Part I Form
99	Part I	Names of principals & supervisors owner or operators organization together with previous affiliations with other organizations involved with solid waste activities	Required in Part I Form	330.59(f)(4)				Part I Form
101	Part I	Signatory meets 305.44, documentation of delegated signatory authority	Required in Part I Form	330.59(g)				Part I Form
102	Part I	Corporations – signed by a corporate officer	Required in Part I Form					Part I Form

103	Part I	Partnership or proprietorship –signed by a general partner or proprietor	Required in Part I Form					Part I Form
104	Part I	Municipality, public agency –signed by an executive officer or elected official	Required in Part I Form					Part I Form
105	Part I	Signatory certification statement	Required in Part I Form					Part I Form
106	Part I	Hazardous Waste Management	Required in Part I Form	305.45(a)(7)(A)				Part I Form
107	Part I	Underground Injection Control	Required in Part I Form	305.45(a)(7)(B)				Part I Form
108	Part I	NPDES	Required in Part I Form	305.45(a)(7)(C)				Part I Form
109	Part I	Prevention of Significant Deterioration	Required in Part I Form	305.45(a)(7)(D)				Part I Form
110	Part I	Nonattainment Program	Required in Part I Form	305.45(a)(7)(E)				Part I Form
111	Part I	NESHAPS	Required in Part I Form	305.45(a)(7)(F)				Part I Form
112	Part I	Ocean dumping permit	Required in Part I Form	305.45(a)(7)(G)				Part I Form
113	Part I	Dredge & fill permit	Required in Part I Form	305.45(a)(7)(H)				Part I Form
114	Part I	Licenses under the TRCA	Required in Part I Form	305.45(a)(7)(I)				Part I Form
115	Part I	Other environmental permits	Required in Part I Form	305.45(a)(7)(K)				Part I Form
116	Part I	Registration Application Fee is $150.00	Required in Part I Form	330.59(h)(1)				
117	Part I	A copy of the payment receipt to the MSW Permits Section, if paid by check.	Required in Part I Form	330.59(h)(1)				Part I Form
118	Part I	Prepared by PE, PG, or qualified person	Required in Part I Form	330.57(f)				Part I Form
119	Part I	Description of facility & systems	Required in Part I Form	305.45(a)(8)(A)				Part I Form
120	Part I	Volume, average & max rate of disposal for each place of disposal	Required in Part I Form	305.45(a)(8)(B)(i)				Part I Form
121	Part I	Physical, chemical, thermal, organic, bacteriological, radiological properties of waste	Required in Part I Form	305.45(a)(8)(B)(ii)				Part I Form
122	Part I	Other reasonable information	Required in Part I Form	305.45(a)(8)(C)				Part I Form
123	Part II	Provide the sources and characteristics of all waste to be accepted.	Required	330.61(b)(1)	Yes	Parts I/II, Section 2.1.1		Waste Acceptance Plan
124	Part II	Specify parametric limitations of each type of waste to be managed by the facility	Required	330.61(b)(1)	Yes	Parts I/II, Section 2		Waste Acceptance Plan
125	Part II	Provide a brief description of the general sources and generation areas contributing wastes to the facility. This description shall include an estimate of the population or population equivalent served by the facility	Required	330.61(b)(1)(A)	Yes	Parts I/II, Section 2.1.2		Waste Acceptance Plan
126	Part II	Provide a descriptive narrative that describes the percentage of incoming waste that must be recovered and its intended use	Required if Requested	330.61(b)(1)(A)	Yes	Will be provided upon request.		Waste Acceptance Plan
127	Part II	Provide the maximum amount of solid waste to be received daily and annually projected for five years. Provide the maximum amount of solid waste to be stored and the maximum and average lengths of time that solid waste is to remain at the facility. Provide the intended destination of the solid waste received at this facility.	Required	330.61(b)(1)(B)	Yes	Parts I/II, Section 2.1.2		Waste Acceptance Plan
129		Provide information to establish why a facility qualifies for a registration in accordance with 30 TAC §330.9	Required	330.61(b)(2)	Yes	Parts I/II, Section 1 amd 2.1	Registration application is per TAC 330.9(e)(1) and (2)	
130	Part II	Provide any site specific conditions that require special design considerations & possible mitigation of conditions identified under sections (h) – (o)	Required	330.61(a)	Yes	Parts I/II, Section 3		Facility Impact
131	Part II	Provide information regarding the likely impacts of the facility on cities, communities, groups of property owners, or individuals.	Required	330.61(h)	Yes	Parts I/II, Section 7.4		Facility Impact
132	Part II	Provide information on the compatibility of the facility with surrounding land use, zoning in the vicinity, community growth patterns, and other factors associated with the public interest.	Required	330.61(h)	Yes	Parts I/II, Section 7.3		Facility Impact
133	Part II	Provide information on the character of surrounding land use within one mile	Required	330.61(h)(2)	Yes	Parts I/II, Section 7.1 and 7.5		Existing Conditions
134	Part II	Provide information about the growth trends within five miles & directions of development	Required	330.61(h)(3)	Yes	Parts I/II, Section 7.4		Existing Conditions
135	Part II	Indicate the proximity to residences & items listed in 330.61(c)(4) & (12), ~ no. of residences & commercial establishments including direct & distance to nearest, population density, all within one mile.	Required	330.61(h)(4)	Yes	Parts I/II, Sections 7.4 and 7.5		Existing Conditions
136	Part II	Indicate all wells and the well density within 500 ft.	Required	330.61(h)(5)	Yes	Parts I/II, Section 7.7		Existing Conditions
137	Part II	Provide any other information requested by the ED	Required	330.61(h)(6)	Yes	Will be provided upon request.		Existing Conditions
138	Part II	Provide data on availability & adequacy of access roads	Required	330.61(i)(1)	Yes	Parts I/II, Appendix I/IIA		Transportation

139	Part II	Provide the existing & expected traffic volumes on access roads within one mile of the facility during the expected life of the facility	Required	330.61(i)(2)	Yes	Parts I/II, Appendix I/IIA		Transportation
140	Part II	Provide an estimate of traffic volume generated by the facility on access roads within one mile of the facility	Required	330.61(i)(3)	Yes	Parts I/II, Appendix I/IIA		Transportation
141	Part II	Provide documentation of coordination for roadway improvements and documentation of coordination with TXDOT for traffic and location restrictions	Required	330.61(i)(4)	Yes	Parts I/II, Appendix I/IIA		Transportation
146	Part II	Provide notice to the airport & the FAA for MSW units within 6 miles of a small airport or within 5 miles of a large commercial airport.	Required	330.545(b)	Yes	Not Applicable	There are no MSW units in this application nor are there airports located within 5 miles of the site.	Transportation
148	Part II	Discuss in general terms the geology and soils of the proposed site	Required	330.61(j)(1)	Yes	Parts I/II, Section 9		Geology
152	Part II	Provide data on site specific groundwater conditions	Required	330.61(k)(1)	Yes	Parts I/II, Section 10.1		Groundwater and Surface Water
153	Part II	Provide data on surface water at or near the site	Required	330.61(k)(2)	Yes	Parts I/II, Section 10.2		Groundwater and Surface Water
154	Part II	Provide information on how facility will comply with applicable Texas Pollutant Discharge Elimination System (TPDES) storm water permitting requirements and the Clean Water Act, §402, as amended.. This may include the information requires by 30 TAC 330.61(k)(3)(A) & (B)	Required	330.61(k)(3)	Yes	Parts I/II, Section 10.2		Groundwater and Surface Water
155	Part II	As applicable, provide a certification statement indicating the owner/operator will obtain the appropriate TPDES permit coverage when required	Required	330.61(k)(3)(A)	Yes	Parts I/II, Section 10.2		Groundwater and Surface Water
156	Part II	As applicable, provide a copy of permit number under an individual wastewater permit	Required	330.61(k)(3)(B)	Yes	Not applicable to this site.	Site doesn't have an industrial wastewater permit. Contaminated water will be stored in a tank and hauled offsite. If dicharging to POTW, site will provide wastewater permit	Groundwater and Surface Water
157	Part II	Provide the location of any water wells.	Required	330.61(l)(1)	Yes	Parts I/II, Figure I/II-4.2		Abandoned Oil and Water Wells
158	Part II	All water supply wells must be outside monitoring system or approved in the permit	Informational	330.61(l)(1)				Abandoned Oil and Water Wells
160	Part II	Provide the location of oil & gas wells production wells may remain if identified & don't disrupt operations	Required	330.61(l)(2)	Yes	Parts I/II, Section 2.4.2 and Appendix I/IIB		Abandoned Oil and Water Wells
161	Part II	Production wells may remain if identified & they do not disrupt facility operations	Informational	330.61(l)(2)				Abandoned Oil and Water Wells
162	Part II	Indicate if the facility is within the 100yr floodplain. If facility within a floodplain see location restrictions in 30 TAC Chapter 330 Subchapter M	Required	330.61(m)(1)	Yes	Parts I/II, Section 11.1		Floodplains and Wetlands
165	Part II	Acknowledge that the construction and operation of the facility shall not result in the destruction or adverse modification of the critical habitat or cause or contribute to the taking of endangered or threatened species.	Acknowledgement	330.61(n)(1)	Yes	Parts I/II, Section 12		Endangered Species
165	Part II	Acknowledge that the construction and operation of the facility shall not result in the destruction or adverse modification of the critical habitat or cause or contribute to the taking of endangered or threatened species. If the WWTP permit contains a coordination and a review letter from the United States Fish and Wildlife Service and the Texas Parks and Wildlife Department, the owner or operator shall submit these documents as an attachment/appendix to the registration application and by referencing where this information is addressed in the WWTP Permit and/or permit application.	Acknowledgement	330.61(n)(1)	Yes	Parts I/II, Section 12 and Appendix I/IID		Endangered Species
166	Part II	Provide a demonstration of whether facility is located within species range and provide a biological assessment.	Required	330.61(n)(2)	Yes	Parts I/II, Section 12 and Appendix I/IID		Endangered Species

166	Part II	Provide a demonstration of whether facility is located within species range and provide a biological assessment. If the WWTP permit contains a coordination and a review letter from the United States Fish and Wildlife Service and the Texas Parks and Wildlife Department, the owner or operator shall submit these documents as an attachment/appendix to the registration application and by referencing where this information is addressed in the WWTP Permit and/or permit application.	Required	330.61(n)(2)	Yes	Parts I/II, Section 12 and Appendix I/IID		Endangered Species
167	Part II	Provide documentation of compliance with Natural Resource Code, Chapter 191 (Texas Antiquities Code)	Required	330.61(o)	Yes	Parts I/II, Section 2.2 and Appendix I/IIA		Historical Commission
167	Part II	Provide documentation of compliance with Natural Resource Code, Chapter 191 (Texas Antiquities Code). If the WWTP permit contains coordination and a review letter from the Texas Historical Commission, the owner or operator shall submit these documents as an attachment/appendix to the registration application and by referencing where this information is addressed in the WWTP Permit and/or permit application.	Required	330.61(o)	Yes	Parts I/II, Section 2.2 and Appendix I/IIA		Historical Commission
168	Part II	Provide 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.	Required	330.61(p)	Yes	Parts I/II, Section 2.3 and Appendix I/IIA		COG Review
169	Part II	Acknowledgement that the owner or operator requested a review letter from any local government, 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.	Acknowledgement	330.61(p)	Yes	Parts I/II, Section 2.3 and Appendix I/IIA		COG Review
170	Part II	Provide a constructed map showing boundary, zoning, & land use within one mile including info from 330.61(c)(4), (5), & (10) (schools, hospitals, etc.)	Required	330.61(g)	Yes	Parts I/II, Figures I/II-7.1 through I/II-7.4		Maps/Drawings
171	Part II	Provide the prevailing wind direction with a wind rose.	Required	330.61(c)(1)	Yes	Figure I/II-4.2		Maps/Drawings
172	Part II	Provide the location of all known water wells within 500 feet of the proposed permit boundary with the state well numbering system designation for Water Development Board "located wells".	Required	330.61(c)(2)	Yes	Parts I/II, Figure I/II-4.2		Maps/Drawings
173	Part II	Provide the location of all structures and inhabitable buildings within 500 feet of the facility	Required	330.61(c)(3)	Yes	Parts I/II, Figure I/II-4.3		Maps/Drawings
174	Part II	Provide the location of all schools, licensed day-cares, churches, hospitals, cemeteries, ponds, lakes, residential, commercial, & recreational areas within one mile of the facility	Required	330.61(c)(4)	Yes	Parts I/II, Section 7.3, Figures I/II-4.3 and 7.1		Maps/Drawings
175	Part II	Provide the location and surface type of roads used for access within one mile of the facility	Required	330.61(c)(5)	Yes	Parts I/II, Section 8.1 and Figure I/II-4.2		Maps/Drawings
176	Part II	Provide the latitude & longitude of the facility	Required	330.61(c)(6)	Yes	Parts I/II, Section 13		Maps/Drawings
177	Part II	Provide the location of all area streams	Required	330.61(c)(7)	Yes	Parts I/II, Figure I/II-7.1		Maps/Drawings
178	Part II	Provide the location of all airports within six miles	Required	330.61(c)(8)	Yes	Parts I/II, Section 8.1 and Figure I/II-8.1		Maps/Drawings
179	Part II	Indicate the property boundary of facility	Required	330.61(c)(9)	Yes	Parts I/II, Section 3 and Figure I/II-4.4		Maps/Drawings
180	Part II	Indicate all drainage, pipeline, and utility easements within & adjacent to the facility	Required	330.61(c)(10)	Yes	Parts I/II, Figure I/II-4.4		Maps/Drawings
181	Part II	Provide the location of all access control features	Required	330.61(c)(11)	Yes	Part III, Figure IIIA-5		Maps/Drawings
182	Part II	Provide the location of all archaeological sites, historical sites, and sites with an aesthetic quality adjacent to the facility	Required	330.61(c)(12)	Yes	Parts I/II Appendix I/IIA, THC Coordination	No archaeoloigcal sites, historical sites, or sites with aethetic quality exist near the site.	Maps/Drawings
183	Part II	Provide a facility layout map	Required	330.61(d)	Yes	Parts I/II, Figures I/II-4.4		Maps/Drawings
184	Part II	A set of maps may be provided	Informational	330.61(d)				Maps/Drawings
186	Part II	Provide the location of interior roads	Required	330.61(d)(2)	Yes	Parts I/II, Figures I/II-4.1 and I/II-4.2		Maps/Drawings
187	Part II	Indicate the location of monitor wells	Required	330.61(d)(3)	Yes	Not applicable	Monitor wells not required for Type V facilities.	Maps/Drawings

188	Part II	Provide the location of all facility buildings	Required	330.61(d)(4)	Yes	Parts I/II, Figures I/II-4.1 and I/II-4.2		Maps/Drawings
189	Part II	Provide notes on sequence of development	Required	330.61(d)(5)	Yes	Parts I/II, Section 2.1.3		Maps/Drawings
190	Part II	Indicate the location of all facility fencing	Required	330.61(d)(6)	Yes	Parts I/II, Figure I/II-4.4 and Part III, IIIA-5		Maps/Drawings
192	Part II	Indicate the location of site entrance roads	Required	330.61(d)(8)	Yes	Parts I/II, Figures I/II-4.1 and I/II-4.2		Maps/Drawings
198	Part II	Provide a general topographic maps: USGS 7.5 minute or equivalent one map at scale 1 in. = 2,000 ft.	Required	330.61(e)	Yes	Parts I/II, Figure I/II-4.2		Maps/Drawings
199	Part II	Provide Aerial Photograph(s) that are at least 9 in. by 9 in. at scale range of one inch = 1,667-3,334 ft. that covers an area at least one mile in radius of the site. Facility boundary and fill areas (as applicable) must be shown.	Required	330.61(f)	Yes	Parts I/II, Section 6 and Figure I/II-6.1		Maps/Drawings
200	Part II	A series of photos showing growth trends may be used	Informational	330.61(f)(2)				Maps/Drawings
201	Part II	All submitted prints & photocopies must be legible	Informational	330.61(f)(3)				Maps/Drawings
202	Part II	Provide zoning map within two miles and a copy of any nonconforming use or special permit required for the facility	Required	330.61(h)(1)	Yes	Parts I/II, Section 7.2 and Figure I/II-7.3 and I/II-7.4.		Maps/Drawings
210	Part II	No solid waste disposal operations are permitted in the 100yr. floodway	Informational	330.547(a)				Floodplains and Wetlands
211	Part II	Demonstrate that, a facility located in 100 year flood plains, does not restrict the flow of the 100 yr. flood, reduce temporary storage capacity, or result in washout of solid waste so as to pose a hazard to human health and the environment	Required	330.547(b)	Yes	Not applicable. See Parts I/II Section 11.1 and Appendix I/IIB	Facility is not located within 100 year floodplain.	Floodplains and Wetlands
212	Part II	Demonstrate that storage and processing facilities are located outside of the 100 year floodplain.	Required	330.547(c)	Yes	Not applicable. See Parts I/II Section 11.1 and Appendix I/IIC	Facility is not located within 100 year floodplain.	Floodplains and Wetlands
213	Part II	For storage and processing facilities located within the 100 year floodplain, please provide a demonstration that the facility is designed to prevent washout during a 100 year storm event, or a conditional letter of map amendment from the Federal Emergency Management Administration administrator	Required	330.547(c)	Yes	Not applicable. See Parts I/II Section 11.1 and Appendix I/IIC	Facility is not located within 100 year floodplain.	Floodplains and Wetlands
214	Part II	Acknowledge if the facility will be located in wetlands.	Acknowledgement	330.553(a) & (b)	Yes	Not applicable. See Parts I/II Section 11.2 and Appendix I/IIC	Wetlands are not located within the facility.	Floodplains and Wetlands
215	Part II	Demonstrate, if located within wetlands, that there is no practicable alternative location	Required	330.553(b)(1)	Yes	Not applicable. See Parts I/II Section 11.2 and Appendix I/IIC	Wetlands are not located within the facility.	Floodplains and Wetlands
216	Part II	Acknowledge that the facility's construction & operations shall not cause or contribute to violations of state water quality standards, violation of any applicable toxic effluent standard or prohibition under the Clean Water Act §307; jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of a critical habitat, protected under the Endangered Species Act of 1973, or violate any requirement under the Marine protection, Research, & Sanctuaries Act	Acknowledgement	330.553(b)(2)(A) - (D)	Yes	Parts I/II, Section 10.2 and 12		Floodplains and Wetlands
217	Part II	If wetlands are located within the facility, submit a demonstration for the integrity of landfill unit by addressing erosion, stability, & migration potential of native wetland soils, muds, and deposits used to support the landfill unit	Required	330.553(b)(3)(A)	Yes	Not Applicable see Parts I/II, Appendix I/IIC	Wetlands are not located within the facility.	Floodplains and Wetlands
218	Part II	If wetlands are located within the facility, submit a demonstration for the integrity of landfill unit by addressing erosion, stability, & migration potential of dredged and fill materials used to support the landfill	Required	330.553(b)(3)(B)	Yes	Not Applicable see Parts I/II, Appendix I/IIC	Wetlands are not located within the facility.	Floodplains and Wetlands
219	Part II	If wetlands are located within the facility, submit a demonstration for the integrity of landfill unit by addressing the volume and chemical nature of the waste managed in the landfill unit	Required	330.553(b)(3)(C)	Yes	Not Applicable see Parts I/II, Appendix I/IIC	Wetlands are not located within the facility.	Floodplains and Wetlands
220	Part II	If wetlands are located within the facility, submit a demonstration for the integrity of landfill unit by addressing the impacts on fish, wildlife, and other aquatic resources and their habitat for the release of solid waste	Required	330.553(b)(3)(D)	Yes	Not Applicable see Parts I/II, Appendix I/IIC	Wetlands are not located within the facility.	Floodplains and Wetlands

221	Part II	If wetlands are located within the facility, submit a demonstration for the integrity of landfill unit by addressing the potential effects of catastrophic release of waste to the wetlands and the resulting impacts on the environment	Required	330.553(b)(3)(E)	Yes	Not Applicable see Parts I/II, Appendix I/IIC	Wetlands are not located within the facility.	Floodplains and Wetlands
222	Part II	If wetlands are located within the facility, submit a demonstration for the integrity of landfill unit by addressing any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected	Required	330.553(b)(3)(F)	Yes	Not Applicable see Parts I/II, Appendix I/IIC	Wetlands are not located within the facility.	Floodplains and Wetlands
223	Part II	Sufficient information shall be provided to the ED to allow a reasonable determination to be made with respect to the demonstrations cited in 30 TAC §330.553(b)	Informational	330.553(b)(5)				Floodplains and Wetlands
224	Part II	Provide the steps taken to achieve no net loss of wetlands	Required	330.553(b)(4)	Yes	Not Applicable see Parts I/II, Appendix I/IIC	Wetlands are not located within the facility.	Floodplains and Wetlands
225	Part II	Acknowledge that the operation of this facility shall not result in the destruction or adverse modification of the critical habitat of endangered or threatened species	Acknowledgement	330.551(a)	Yes	Parts I/II, Section 12		Endangered Species
226	Part II	The term "Harassing" means; An intentional or negligent act or omission that creates the likelihood of injury to wildlife	Informational	330.551(b)(1)				Endangered Species
227	Part II	The term "Harming" means; An act of omission that actually injures or kills wildlife, including acts that annoy it to such an extent as to significantly disrupt essential behavioral patterns	Informational	330.551(b)(2)				Endangered Species
228	Part II	The term "Taking" means; collecting an endangered or threatened species or attempting to engage in such conduct	Informational	330.551(b)(3)				Endangered Species
229	Part II	Acknowledge that no solid waste unloading, storage, disposal, or processing operations shall occur within any easement, buffer zone, or right-of-way that crosses the facility	Acknowledgement	330.543(a)	Yes	Part III SDP, Section 4.1		Easements and Buffer Zone
268	Part II	Submit information for on-site local geologic or geomorphologic features	Required	330.559(2)	Yes	Parts I/II, Section 9		Geology
269	Part II	Identify local human-made features or events	Required	330.559(3)	Yes	Parts I/II, Section 9	No unstable areas.	Geology
270	Part III	Describe facility access control features	Required	330.63(b)(1)	Yes	Part III Section 2		General Facility Design
271	Part III	Submit a process design for the facility [that includes items 330.63(b)(2)(A) through 330.63(b)(2)(I)]	Required	330.63(b)(2)	Yes	Part III-SDP, Figure III-2.1		General Facility Design
272	Part III	Submit a flow diagram(s) to describe the storage, processing, and disposal sequences for each type of waste and/or feedstock/recyclable	Required	330.63(b)(2)(A)	Yes	Part III-SDP, Figure III-2.1		General Facility Design
273	Part III	Submit a schematic view drawing(s) showing phases for collection, separation and processing/disposal of each type of waste and/or feedstock/recyclable material	Required	330.63(b)(2)(B)	Yes	Part III-SDP, Figures IIIA-1 through IIIA-4		General Facility Design
274	Part III	Provide ventilation & odor control measures for each unit	Required	330.63(b)(2)(C)	Yes	Part III-SDP, Section 2.2.3		General Facility Design
275	Part III	Provide construction details of storage, processing units & components, dimensions, capacity, materials used, etc.	Required	330.63(b)(2)(D)	Yes	Part III-SDP, Section 2.2.2, Figure IIIA-1 through IIIA-4		General Facility Design
276	Part III	Provide performance data for all storage and processing units and ancillary equipment	Required	330.63(b)(2)(D)	Yes	Part III-SDP, Section 2.2.4		General Facility Design
278	Part III	Submit location and engineering designs for containment of storage, processing and loading & unloading areas including freeboard	Required	330.63(b)(2)(F)	Yes	Part III-SDP, Section 2.2.4		General Facility Design
279	Part III	Describe the storage and handling of grease, oil and sludge, including the maximum time waste will be on-site and details of ultimate disposition	Required	330.63(b)(2)(G)	Yes	No grease, oil or sludge will be accepted at this site.		General Facility Design
280	Part III	Provide details of effluent disposal	Required	330.63(b)(2)(H)	Yes	Part III-SDP, 2.2.4 and 2.3.2		General Facility Design
281	Part III	Provide designs for noise pollution control	Required	330.63(b)(2)(I)	Yes	Part III-SDP, Section 2.2.5		General Facility Design
282	Part III	Describe how the processing areas will be designed for proper cleaning and to prevent surface water runoff onto, into, and off the treatment areas	Required	330.63(b)(3)(A)	Yes	Part III-SDP, Section 2.3		General Facility Design
283	Part III	Describe construction material used for walls and floors that can be hosed down and scrubbed	Required	330.63(b)(3)(B)	Yes	Part III-SDP, Section 2.3.2		General Facility Design
284	Part III	Describe water or steam connections and equipment for cleaning	Required	330.63(b)(3)(C)	Yes	Part III-SDP, Section 2.3		General Facility Design

285	Part III	Provide adequate floor drains and/or sumps	Required	330.63(b)(3)(D)	Yes	Part III-SDP, Section 2.3, Drawings IIIA-2 and IIIA-3		General Facility Design
286	Part III	Describe proper disposal of liquids resulting from waste processing, cleaning, and washing and provide for the treatment of waste water	Required	330.63(b)(4)	Yes	Part III-SDP, Section 2.3.1		General Facility Design
287	Part III	Describe how facility will be designed to protect endangered species	Required	330.63(b)(5)	Yes	Part III-SDP, Section 2.4		General Facility Design
336	Part III	Submit if applicable, a floodplain development permit from any agency with jurisdiction over the proposed improvements	Required if Requested	330.63(c)(2)(D)(ii)	Yes	Provided upon request, Part III-SDP, Section 3.2	Facility is not located within 100 year floodplain.	Surface Water Drainage Report
337	Part III	Submit if applicable a Conditional Letter of Map Amendment from FEMA	Required if Requested	330.63(c)(2)(D)(iii)	Yes	Not applicable See Part III-SDP, Section 3.2	Facility is not located within 100 year floodplain.	Surface Water Drainage Report
338	Part III	Submit if applicable, Corps of Engineers Section 404 Specification of Disposal Sites for Dredged or Fill Material permit for construction of all necessary improvements	Required if Requested	330.63(c)(2)(D)(iv)	Yes	Not applicable See Part III-SDP, Section 3.2	Facility is not located within 100 year floodplain.	Surface Water Drainage Report
339	Part III	Provide for storage & transfer units a description of design features for the rapid processing and minimum detention of solid waste at the facility	Required	330.63(d)(1)(A)	Yes	Part III-SDP, Section 4.1		Waste Management Unit Design
340	Part III	Provide design features for a facility to prevent the creation of nuisances or public health hazards	Required	330.63(d)(1)(A)	Yes	Part III-SDP, Section 4.1		Waste Management Unit Design
545	Part III	Indicate that a characterization of the contaminated groundwater, including concentrations of assessment constituents as defined in §330.409	Required	330.63(f)(7)(A)	Yes	Part III-SDP, Appendix IIIC, Section 2.1		Groundwater Sampling & Analysis Plan
701	Part III	Specify in the closure plan that the operator will begin closure no later than 30 days after final receipt of waste or no later than one year if the unit has remaining capacity and additional waste may be received	Required	330.457(f)(3)	Yes	Part III-SDP, Appendix IIIC, Section 2.1		Closure Plan
702	Part III	Provide for closure activities to be completed within 180 days of initiation	Required	330.457(f)(4)	Yes	Part III-SDP, Appendix IIIC, Section 2.1		Closure Plan
704	Part III	Acknowledge that following receipt of closure documents and the inspection report by the TCEQ region, the ED may acknowledge termination of operation & closure & deem the facility properly closed	Acknowledgement	330.457(f)(6)	Yes	Part III-SDP, Appendix IIIC, Section 2.2		Closure Plan
706	Part III	Indicate that notice of closure will be published in the newspaper of largest circulation 90 days prior to the initiation of a final facility closure. The notice shall provide the name, address, and physical location of the facility; the TCEQ authorization number; and the last date of intended receipt of waste.	Required	330.461(a)	Yes	Part III, Appendix IIIC, Section 2.2		Closure Plan
707	Part III	Acknowledge that notice of closure will be provided to the ED 90 days prior to the initiation of a final facility closure and that the owner or operator will also make available an adequate number of copies of the approved final closure and post-closure plans (if applicable) for public access and review	Acknowledgement	330.461(a)	Yes	Part III, Appendix IIIC, Section 2.2		Closure Plan
708	Part III	Acknowledge that least one closure sign will be posted at every point of access and notify all persons who utilize the facility of the date of closure and the prohibition against further receipt of waste materials.	Acknowledgement	330.461(b)	Yes	Part III, Appendix IIIC, Section 2.2		Closure Plan
709	Part III	Indicate that suitable barriers will be installed at all access points to adequately prevent the unauthorized dumping of solid waste at the closed facility.	Required	330.461(b)	Yes	Part III, Appendix IIIC, Section 2.2		Closure Plan
710	Part III	Indicate that an Affidavit to the Public will be submitted to the ED by registered mail, if waste will remain onsite and indicate that The Owner or Operator will also record a certified notation on the deed to the facility property that the land has been used as a landfill and submit a certified copy of the modified deed to the ED.	Required if Requested	330.461(c)(1)	Yes	Will be provided upon request.		Closure Plan
711	Part III	Acknowledge that a certification, signed by a P.E., will be provided within 10 days of final closure activities, verifying that final facility closure has been completed in accordance with the approved closure plan and will include all applicable documentation necessary for certification	Acknowledgement	330.461(c)(2)	Yes	Part III, Appendix IIIC, Section 3		Closure Plan

713	Part III	The owner or operator may request permission from the ED to remove the notation from the deed if all wastes are removed from the facility	Informational	330.461(d)				Closure Plan
714	Part III	Submit a closure plan for Storage and Processing units to remove all waste, waste residues, and any recovered materials. Units shall be dismantled and removed off-site or decontaminated.	Required	330.459(a)	Yes	Part III, Appendix IIIC, Section 2.1		Closure Plan For Processing Facilities
715	Part III	Provide plans for the evacuation of all material on-site to an authorized facility and the disinfecting of all contaminated water handling units, tipping areas, processing and post-processing areas (as applicable)	Required	330.459(b)	Yes	Part III, Appendix IIIC, Section 2.1		Closure Plan For Processing Facilities
716	Part III	Acknowledge that if there is evidence of a release, the ED may require an investigation, assessment, and or corrective action.	Acknowledgement	330.459(c)	Yes	Part III, Appendix IIIC, Section 2.2		Closure Plan For Processing Facilities
717	Part III	Submit a plan (if combustible material is stored outdoors) for closure of a recycling facility that includes collecting processed and unprocessed materials, and transporting the materials to an authorized facility for disposition	Required	330.459(d)(1)	Yes	Part III, Appendix IIIC, Section 2		Closure Plan For Processing Facilities
718	Part III	Provide for the closure plan to be implemented (if combustible material is stored outdoors) and completed within 180 days following the most recent acceptance of processed or unprocessed materials	Required	330.459(d)(2)	Yes	Part III, Appendix IIIC, Section 2		Closure Plan For Processing Facilities
737	Part III	Submit cost estimates for closure & post-closure. Existing facilities must submit a copy of the financial assurance documentation. New facilities must submit financial assurance within 60 days prior to receipt of waste	Required	330.63(j)	Yes	Part III, Appendix IIID		Closure Cost Estimates
742	Part III	Provide cost estimates to close a Recycling facility that stores combustible materials outdoors.	Required	330.505(a)(1)	Yes	Site does not store combustible materials outdoors.		Closure Cost Estimates
743	Part III	Provide a closure cost estimate that equals the costs of closure of the facility, including disposition of the maximum inventories of all waste; processed and unprocessed combustible materials stored outdoors on site during the life of the facility	Required	330.505(a)(2)(A)	Yes	Site does not store combustible materials outdoors.		Closure Cost Estimates
744	Part III	Provide a closure cost estimate that is based on the costs of hiring a third party that is not affiliated with the owner or operator; and is based on a per cubic yard and/or short ton measure for collection and disposition costs.	Required	330.505(a)(2)(B-(C)	Yes	Part III, Appendix IIID, Section 2		Closure Cost Estimates
745	Part III	Provide for the closure cost estimate & financial assurance to be increased if conditions change which increase the maximum cost of closure at any time during the active life of the facility	Required	330.505(a)(3)	Yes	Part III, Appendix IIID, Section 3		Closure Cost Estimates
746	Part III	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 at any time during the remaining life of the facility.	Required if Requested	330.505(a)(4)	Yes	Part III, Appendix IIID, Section 3		Closure Cost Estimates
747	Part III	Provide for the maintenance of financial assurance for Recycling facilities that store combustible materials outdoors or that pose a risk	Required	330.505(b)(1)	Yes	Site does not store combustible materials outdoors.		Closure Cost Estimates
748	Part III	Provide for the maintenance of financial assurance until closure is approved by ED.	Required	330.505(b)(2)	Yes	Part III, Appendix IIID, Section 3		Closure Cost Estimates
758	Part IV	A site operating plan shall cover all on-site units in accordance with Subchapters D & E of Chapter 330.	Informational	330.65(a)				Site Operating Plan
785	Part IV	Indicate that the facility will provide the reports required by 30 TAC §330.675 to the Executive Director	Required	330.675	Yes	Part IV-SOP, Section 6.8		Site Operating Plan
988	Part IV	Provide information identifying any permit required under the TPDES and any permit requirements imposed by other agencies for a grease, grit, & septage processing facility	Required	330.65(d)	Yes	Part IV-SOP		Site Operating Plan
989	Part IV	Identify source & characteristics of wastes that will be received and Specify any limiting parameters that may influence the design and operation of the facility	Required	330.203(a)	Yes	Part IV-SOP, Section 3.1		Site Operating Plan

990	Part IV	Provide estimate of the amount of each waste to be received daily, max amount stored at any one time, max & average time waste will remain on-site, max & average processing time, intended destination of generated wastes, & description of how 10% will be recovered if applicable.	Required	330.203(b)	Yes	Part IV-SOP, Section 3.2		Site Operating Plan
991	Part IV	Acknowledge that 10% recovery of material for beneficial use is considered to be the recovery of fats, oil, and greases, but does not include the recovery of water.	Acknowledgement	330.203(b)	Yes	No grease, oil or sludge will be accepted at this site.		Site Operating Plan
992	Part IV	Provide a description of the method of sampling and analysis for the effluent discharged to a trap, interceptor, or treatment facility permitted under Texas Water Code, Chapter 26. At a minimum, the method of sampling, the frequency of sampling, and the tests to be made shall be part of the sampling and analysis plan. All sampling and analysis shall be done according to approved United States Environmental Protection Agency (EPA) methods.	Required	330.203(c)(1)	Yes	Not applicable. Part IV-SOP, Section 4	No traps or interceptors on site. Not proposing to discharge to a treatment facility.	Site Operating Plan
993	Part IV	Indicate that records of sampling analysis of wastes and effluent shall be maintained for a three-year period.	Required	330.203(c)(1)	Yes	Not applicable. Part IV-SOP, Section 4		Site Operating Plan
994	Part IV	Provide a sampling and analysis plan that includes at minimum analyses for benzene, lead, & TPH for waste received	Required	330.203(c)(2)	Yes	Not applicable. Part IV-SOP, Section 4		Site Operating Plan
995	Part IV	Provide for the annual analysis of grit trap wastes for BOD, TSS, benzene, TPH, & lead	Required	330.203(c)(2)	Yes	Not applicable. Part IV-SOP, Section 4		Site Operating Plan
996	Part IV	Indicate that sludges to be landfilled must be analyzed annually for benzene, lead, & TPH.	Required	330.203(c)(2)	Yes	Not applicable.	No sludges accepted.	Site Operating Plan
997	Part IV	Indicate that effluent must be analyzed annually for TPH, fats, oil & grease, & pH	Required	330.203(c)(2)	Yes	Not applicable. Part IV-SOP, Section 4		Site Operating Plan
998	Part IV	Indicate if applicable that grit trap waste proposed to be accepted is solely from commercial car washes and not from other generators.	Required If Requested	330.9(g)	Yes	Not applicable.	No grit trap waste accepted	Site Operating Plan
999	Part IV	Acknowledge that a report with supporting documentation shall be submitted on a quarterly basis to demonstrate at least 10% of the volume of the waste received was processed to recover solid material that was recycled or reused	Acknowledgement	330.9(g)(1)	Yes	Part IV-SOP, Section 3.3		Site Operating Plan
1000	Part IV	Acknowledge that failure to achieve the relevant 10 percent recycling rate in any two quarters within any one-year period will cause a registration to terminate and will require the owner or operator of the facility to obtain a permit to continue facility operations.	Acknowledgement	330.9(g)(1)	Yes	Part IV-SOP, Section 3.3		Site Operating Plan
1001	Part IV	Provide for a quarterly report to be submitted that will include volume of waste received, percent solids, and the method of determining the percent solids, processed, disposed, and recycled or reused.	Required	330.9(g)(1)	Yes	Part IV-SOP, Section 3.3		Site Operating Plan
1002	Part IV	Provide in the quarterly report, the method(s) utilized to achieve at least 10% recycling or reuse of incoming material	Required	330.9(g)(1)	Yes	Part IV-SOP, Section 3.3		Site Operating Plan
1003	Part IV	Submit a quarterly report that reconciles the volume of waste with the amounts on manifests, shipping documents, or trip tickets and indicate where the recyclable material was taken for recycling.	Required	330.9(g)(1)	Yes	Part IV-SOP Section 6 Table 6-1		Site Operating Plan
1004	Part IV	Acknowledge that the addition of any material such as lime, polymer, or flocculent added as part of the recycling process is not allowed to be considered as part of the 10% recovery of material from the waste stream and must be subtracted from the material considered as recycled.	Acknowledgement	330.9(g)(1)	Yes	Acknowledged		Site Operating Plan
1005	Part IV	Acknowledge that diverting material from the waste stream without processing is not considered to be recycling as part of this activity.	Acknowledgement	330.9(g)(1)	Yes	Acknowledged		Site Operating Plan
1006	Part IV	Provide the characteristics and constituent concentrations of wastes generated by the facility and indicate that documentation that all wastes leaving the facility can be adequately managed by other authorized facilities will be provided	Required	330.205(a)	Yes	Part IV-SOP, Section 3..2		Site Operating Plan

1007	Part IV	Indicate that all wastes generated by a facility must be processed or disposed at an authorized solid waste management facility	Required	330.205(b)	Yes	Part IV-SOP, Section 3.2		Site Operating Plan
1008	Part IV	Indicate that all wastewaters generated by a facility shall be managed as contaminated water in accordance with 330.207	Required	330.205(c)	Yes	Part IV-SOP, Section 4		Site Operating Plan
1010	Part IV	Indicate that the facility shall be designed and operated to produce a sludge that is acceptable at municipal solid waste landfills and does not exceed standards specified in 30 TAC §330.205(d)	Required If Requested	330.205(d)	Yes	Sludge is not accepted at this site.		Site Operating Plan
1011	Part IV	Indicate that sludges exceeding the limits shall not be disposed in municipal solid waste landfills and must be sent to an authorized facility for further processing or disposal as a hazardous waste, as appropriate or disposed in a municipal solid waste landfill with dedicated Class 1 industrial solid waste cells if the sludge is nonhazardous.	Required If Requested	330.205(d)	Yes	Sludge is not accepted at this site.		Site Operating Plan
1012	Part IV	The owner or operator shall not discharge contaminated water without specific written authorization.	Informational	330.207(a)				Site Operating Plan
1013	Part IV	Provide a plan that describes how all liquids resulting from the operation of the facility shall be disposed of in a manner that will not cause surface water or groundwater pollution.	Required	330.207(a)	Yes	Part IV-SOP, Section 4		Site Operating Plan
1014	Part IV	Indicate that contaminated water shall be collected and contained until properly managed.	Required	330.207(b)	Yes	Part IV-SOP, Section 4		Site Operating Plan
1015	Part IV	Indicate that leachate shall be collected and contained until properly managed.	Required	330.207(b)	Yes	Not applicable	No leachate at this site.	Site Operating Plan
1016	Part IV	Indicate that collection units other than storage tanks shall have a clay or synthetic liner and the liner shall be constructed in accordance with 30 TAC §330.331(b)	Required If Requested	330.207(b)	Yes	Site only uses storage tanks.		Site Operating Plan
1018	Part IV	Indicate that the use of leachate & gas condensate in mining process is prohibited.	Required	330.207(c)	Yes	Not applicable	No mining at this site.	Site Operating Plan
1019	Part IV	Indicate that the facility will not discharge to a septic system	Required	330.207(d)	Yes	Part IV-SOP, Section 4		Site Operating Plan
1020	Part IV	Indicate that off-site discharge of contaminated waters shall be made only after approval under the Texas Pollutant Discharge Elimination System authority	Required	330.207(e)	Yes	Part IV-SOP, Section 4		Site Operating Plan
1021	Part IV	Acknowledge that wastewaters discharged to a facility permitted under Texas Water Code, Chapter 26 must not interfere with or pass-through the treatment facility processes or operations, interfere with or pass-through its sludge processes, use, or disposal or otherwise be inconsistent with the prohibited discharge standards, including 40 Code of Federal Regulations Part 403, General Pretreatment Regulations for Existing and New Source Pollution	Acknowledgement	330.207(f)(1)	Yes	Part IV-SOP, Section 4		Site Operating Plan
1022	Part IV	Indicate that the daily effluent design standard for oil and grease concentration leaving the facility and entering a public sewer system shall not exceed 200 milligrams per liter, the concentration established in the wastewater discharge permit pretreatment limit or the concentration established by the treatment facility permitted under Texas Water Code, Chapter 26, the National Pollutant Discharge Elimination System, or the limits established in 30 TAC §330.207, if the discharge points do not require compliance with locally set limits.	Required	330.207(g)	Yes	Not applicable	No grease, oil or sludge will be accepted at this site.	Site Operating Plan
1023	Part IV	Indicate that lagoons, open-top storage tanks, open vessels, and underground storage units are prohibited at liquid waste transfer facilities	Required	330.207(h)	Yes	Not applicable	Site does not accept liquid waste.	Site Operating Plan
1024	Part IV	Provide plans demonstrating that all waste shall be 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 shall be contained or bundled so as not to result in litter	Required	330.209(a)	Yes	Part IV-SOP, Section 5.1		Site Operating Plan

1025	Part IV	Provide a description of on-site storage area for source-separated or recyclable materials that is separate from a transfer station or process area and provides for the control of odors, vectors, and windblown waste	Required If Requested	330.209(b)	Yes	Part IV-SOP, Section 5.1		Site Operating Plan
1026	Part IV	Provide plans for process area of transfer stations that recover material from putrescible or liquid waste. Such plans shall provide for the storage of processed and unprocessed waste & recycled materials in enclosed buildings, vessels, or containers.	Required If Requested	330.209(c)	Yes	Not applicable	Site does not accept liquid waste.	Site Operating Plan
1027	Part IV	Provide a plan that describes how all waste containing food wastes shall be stored in covered or closed containers that are leak-proof, durable, and designed for safe handling and easy cleaning	Required	330.211	Yes	Part IV-SOP, Section 5.2		Site Operating Plan
1028	Part IV	Indicate that nonreusable containers shall be of suitable strength to minimize vector scavenging or rupturing.	Required	330.211(1)	Yes	Part IV-SOP, Section 5.2		Site Operating Plan
1029	Part IV	Indicate that reusable containers must be maintained in a clean condition as not to constitute a nuisance, harbor, feed, and propagate vectors.	Required	330.211(2)	Yes	Part IV-SOP, Section 5.2		Site Operating Plan
1030	Part IV	Indicate that any containers emptied manually must be capable of being serviced without physical contact with waste.	Required	330.211(2)(A)	Yes	Part IV-SOP, Section 5.2		Site Operating Plan
1031	Part IV	Indicate that containers that are mechanically handled must be designed to prevent spillage/leakage during storage, handling, and transport.	Required	330.211(2)(B)	Yes	Part IV-SOP, Section 5.2		Site Operating Plan
1032	Part IV	Provide a plan that describes how a citizen's collection stations shall be operated in accordance with 30 TAC §330.213	Required If Requested	330.213(a)	Yes	Part IV-SOP, Section 5.3		Site Operating Plan
1033	Part IV	Indicate that it is the responsibility of the person that owns or operates the collection center to provide for the collection of deposited waste on a scheduled basis and supervise the facility in order to maintain it in a sanitary condition.	Required If Requested	330.213(a)	Yes	Part IV-SOP, Section 5.1		Site Operating Plan
1034	Part IV	A citizen's collection station may accept sharps from single-family or multi-family dwellings, hotels, motels, or other establishments that provide lodging and related services for the public. The sharps will not be considered medical waste, as defined in 30 TAC §330.3	Required If Requested	330.213(b)	Yes	Facility not intended to accept medical waste.		Site Operating Plan
1035	Part IV	Provide operational standards for stationary compactors that describe how they will operated and maintained in such a way as not to create a public nuisance through material loss or spillage, odor, vector breeding or harborage, or other condition.	Required If Requested	330.215(1) and (2)	Yes	Not applicable	Facility not intended to have a stationary compactor.	Site Operating Plan
1036	Part IV	Indicate that a copy of the permit or registration, application, and any other plans or related documents, and as-built plans will be maintained in the site operating record and shall be made available for inspections by agency representatives or other interested parties	Required	330.219(a)	Yes	Part IV-SOP, Section 6.1		Site Operating Plan
1037	Part IV	Indicate that operator shall record & retain location restriction demonstrations, inspection records, training procedures, closure plans, monitoring, testing, analytical data relating to closure, cost estimates, financial assurance documents, all correspondence, modification, approvals, manifests, shipping documents, tickets relating to special waste, & documents as specified by the executive director in the operating record.	Required	330.219(b)(1) – (7)	Yes	Part IV-SOP, Section 6.2		Site Operating Plan
1038	Part IV	Indicate that trip tickets will be maintained according to the record retention provisions in 30 TAC §312.145.	Required	330.219(b)(8)	Yes	Part IV-SOP, Section 6.2		Site Operating Plan

1039	Part IV	Indicate that recordkeeping provisions to justify, on a quarterly basis, that the relevant percentage of the incoming waste is processed to recover recycled products for applicable facilities, that failure to achieve the relevant percent recycling rate in any two quarters within any one-year period will cause a change in a facility's status and require the owner or operator of the facility to obtain a registration or permit, as appropriate, to continue facility operations and that the owner or operator shall submit an annual report to the executive director by March 1st summarizing the recycling activities and percent of incoming solid waste that was recycled during the past calendar year	Required	330.219(b)(9)	Yes	Part IV-SOP, Section 6.2		Site Operating Plan
1040	Part IV	Indicate that all reports will be signed by a person who is a duly authorized as a signatory for reports. A person is duly authorized if authorized in in writing by the owner or operator in accordance with 30 TAC §305.44(a) and the authorization specifies individual or position with responsibility and this written authorization is submitted to the executive director	Required	330.219(c)(1)(A) - (C)	Yes	Part IV-SOP, Section 6.3		Site Operating Plan
1041	Part IV	Acknowledge that if the authorization to sign is not longer accurate a new authorization will be submitted	Acknowledgement	330.219(c)(2)	Yes	Part IV-SOP, Section 6.3		Site Operating Plan
1042	Part IV	Indicate that any person signing a report shall make the certification in 305.44(b).	Required	330.219(c)(3)	Yes	Part IV-SOP, Section 6.3		Site Operating Plan
1043	Part IV	Indicate that the operator shall maintain records on-site, available for inspection by the executive director for a period consisting of the two most recent calendar years	Required	330.219(d)	Yes	Part IV-SOP, Section 6.4		Site Operating Plan
1045	Part IV	Indicate that the results of final product testing under 30 TAC §330.613 or §332.71 will be maintained in the site operating record	Required	330.219(d)(2)	Yes	Not applicable	No final soil product produced at this site.	Site Operating Plan
1046	Part IV	Indicate that copies of annual reports will be maintained in the site operating record for 5yrs	Required	330.219(d)(3)	Yes	Part IV-SOP, Section 6 Table 6-1		Site Operating Plan
1047	Part IV	Indicate that the site operating record shall be furnished and available for inspection by executive director.	Required	330.219(e)	Yes	Part IV-SOP, Section 6.4		Site Operating Plan
1048	Part IV	Indicate that the operator shall retain site operating record for the life of the facility.	Required	330.219(f)	Yes	Part IV-SOP, Section 6.5		Site Operating Plan
1049	Part IV	Indicate that the executive director may set alternative recordkeeping & notification schedules.	Required	330.219(g)	Yes	Part IV-SOP, Section 6.6		Site Operating Plan
1051	Part IV	Provide a fire protection plan that describes the source of fire protection (a local fire department, fire hydrants, fire extinguishers, water tanks, water well, etc.), procedures for using the fire protection source, and employee training and safety procedures. The fire protection plan shall comply with local fire codes.	Required	330.221(c)	Yes	Part IV-SOP, Section 7		Site Operating Plan
1052	Part IV	Provide a description of the availability of water under pressure for firefighting purposes	Required	330.221(a)	Yes	Part IV-SOP, Section 7.1 and 7.3		Site Operating Plan
1053	Part IV	Provide a description of on-site firefighting equipment	Required	330.221(b)	Yes	Part IV-SOP, Section 7.1		Site Operating Plan
1054	Part IV	Indicate that all employees shall be trained in the contents and use of the fire protection plan	Required	330.221(c)	Yes	Part IV-SOP, Section 7.4		Site Operating Plan
1055	Part IV	Provide a description of the artificial barriers, natural barriers, or a combination of both, appropriate to protect human health and safety and the environment that are used to control access to the facility and indicate that uncontrolled access to the facility shall be prevented.	Required	330.223(a)	Yes	Part IV-SOP, Section 8.1		Site Operating Plan
1056	Part IV	Provide a description of the, minimum two lane, access road from the public road and how it is designed for expected traffic volumes and adequate turning radii.	Required	330.223(b)	Yes	Part IV-SOP, Section 8.1.3		Site Operating Plan

1057	Part IV	Provide a description of vehicle parking for equipment, employees, and visitors. Indicate that safety bumpers at hoppers must be provided for vehicles. And provide a description of the positive means to control dust and mud	Required	330.223(b)	Yes	Part IV-SOP, Section 8.1.3		Site Operating Plan
1058	Part IV	Provide a description of perimeter control fencing that includes having lockable gates and attendant on site during operating hours. Operating and transport areas shall be enclosed by walls or fencing	Required	330.223(c)	Yes	Part IV-SOP, Section 8.1.1		Site Operating Plan
1059	Part IV	Provide a description of the unloading areas and indicate that unloading areas will be confined to as small an area as practical and be monitored by attendant.	Required	330.225(a)	Yes	Part IV-SOP, Section 8.2.1		Site Operating Plan
1060	Part IV	Provide a description of the signs & forced access lanes used to prevent indiscriminate dumping	Required	330.225(a)	Yes	Part IV-SOP, Section 8.2.2		Site Operating Plan
1061	Part IV	Indicate that the facility is not required to accept any solid waste that he/she determines will cause or may cause problems in maintaining full and continuous compliance	Required	330.225(a)	Yes	Part IV-SOP, Section 8.2.1		Site Operating Plan
1062	Part IV	Provide procedures to ensure that waste in unauthorized areas is removed immediately and disposed of properly.	Required	330.225(b)	Yes	Part IV-SOP, Section 8.2.2		Site Operating Plan
1063	Part IV	Provide procedures for the detection and prevention of the unloading of processing of prohibited wastes.	Required	3330.225©	Yes	Part IV-SOP, Section 8.2.2		Site Operating Plan
1064	Part IV	Indicate that prohibited waste must be returned immediately to the transporter or generator.	Required	330.225(c)	Yes	Part IV-SOP, Section 8.2.2		Site Operating Plan
1065	Part IV	Provide a description of how storage & processing areas are designed to control and contain worst case spill or release and will account for precipitation from a 25-year, 24-hour storm.	Required	330.227	Yes	Part IV-SOP, Section 8.3		Site Operating Plan
1066	Part IV	Specify the waste acceptance and facility operating hours	Required	330.229(a)	Yes	Part IV-SOP, Section 8.4		Site Operating Plan
1067	Part IV	The waste acceptance hours may be any time between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, unless otherwise approved by the executive director or commission for a permit. The operating hours for operating heavy equipment and transporting materials on- or off-site may be any time between the hours of 5:00 a.m. and 9:00 p.m., Monday through Friday, unless otherwise approved in the authorization.	Required	330.229(a)	Yes	Part IV-SOP, Section 8.4		Site Operating Plan
1068	Part IV	Specify alternative operating hours of up to five days in a calendar year to accommodate special occasions, special purpose events, holidays, or other special occurrences	Required	330.229(b)	Yes	Part IV-SOP, Section 8.4		Site Operating Plan
1069	Part IV	Indicate that the facility will record in the site operating record the dates, times, and duration when any alternative operating hours are utilized.	Required	330.229(d)	Yes	Part IV-SOP, Section 8.4		Site Operating Plan
1070	Part IV	Indicate that the commission's regional offices may allow additional temporary operating hours to address disaster or other emergency situations, or other unforeseen circumstances that could result in the disruption of waste management services in the area.	Required	330.229(c)	Yes	Part IV-SOP, Section 8.4		Site Operating Plan
1071	Part IV	Indicate that a sign measuring at least 4' X 4' must be displayed at all entrances. Indicate that information on the sign must including the facility name and type, hours and days of operation, authorization number, and facility rules.	Required	330.231	Yes	Part IV-SOP, Section 8.5		Site Operating Plan
1072	Part IV	Indicate that windblown material and litter shall be collected as necessary, throughout the facility, along fences and access roads, and at the gate, at least once per day on days that the facility is in operation, to minimize unhealthy, unsafe, or unsightly conditions.	Required	330.233(a)	Yes	Part IV-SOP, Section 8.6		Site Operating Plan
1073	Part IV	Indicate the measures used to control windblown waste.	Required	330.233(a)(1)	Yes	Part IV-SOP, Section 8.6		Site Operating Plan
1074	Part IV	Provide a description of fence or screen used to minimize windblown waste if the facility is not completely enclosed.	Required	330.233(b)	Yes	Part IV-SOP, Section 8.6		Site Operating Plan

1075	Part IV	Provide procedures to encourage waste hauling vehicles to cover loads that may include posting signs, reporting offenders, and assessing surcharges.	Required	330.235	Yes	Part IV-SOP, Section 8.6 and 8.7		Site Operating Plan
1077	Part IV	Provide a description of all weather access roads at the facility and how the tracking of mud and debris onto public roadways will be minimized.	Required	330.237(a)	Yes	Part IV-SOP, Section 8.6 and 8.8		Site Operating Plan
1078	Part IV	Provide procedures use to ensure that dust from on-site and other access roadways shall not become a nuisance to surrounding areas and indicate that a water source and necessary equipment or other means of dust control shall be provided.	Required	330.237(b)	Yes	Part IV-SOP, Section 8.8		Site Operating Plan
1079	Part IV	Provide procedures to be used to maintain on site roads and minimize depressions, ruts, and potholes.	Required	330.237(c)	Yes	Part IV-SOP, Section 8.8		Site Operating Plan
1080	Part IV	Describe screening or other means used to prevent noise pollution & adverse visual impacts.	Required	330.239	Yes	Part IV-SOP, Section 8.9		Site Operating Plan
1081	Part IV	Provide procedures used to ensure that the design capacity of the facility shall not be exceeded and that waste will not be allowed to accumulate in quantities that create a nuisance, create odors, or harbor vectors.	Required	330.241(a)	Yes	Part IV-SOP, Section 8.10		Site Operating Plan
1082	Part IV	Provide procedures that describe how unprocessed grease, grit, & septage will only be stored up to 72hrs.	Required	330.241(a)(1)	Yes	Part IV-SOP, Section 8.10		Site Operating Plan
1083	Part IV	Provide procedures that provide for the restriction, diversion or removal of waste if the facility experiences a significant work stoppage.	Required	330.241(b)	Yes	Part IV-SOP, Section 8.10		Site Operating Plan
1084	Part IV	Provide an alternative processing/disposal procedures for when facility is inoperable for more than 24hrs.	Required	330.241(c)	Yes	Part IV-SOP, Section 8.10		Site Operating Plan
1085	Part IV	Provide procedures for washing down all working surfaces in contact with waste at least weekly or twice per week for facilities that operate continuously.	Required	330.243(a)	Yes	Part IV-SOP, Section 8.11		Site Operating Plan
1086	Part IV	Provide procedures to ensure that wash water shall not be allowed to accumulate without proper treatment.	Required	330.243(b)	Yes	Part IV-SOP, Section 8.11		Site Operating Plan
1087	Part IV	Provide procedures that demonstrate that wash water shall be collected & disposed of in an authorized manner.	Required	330.243(c)	Yes	Part IV-SOP, Section 8.11		Site Operating Plan
1088	Part IV	Acknowledge that air emissions from municipal solid waste facilities must not cause or contribute to a condition of air pollution as defined in the Texas Clean Air Act.	Acknowledgement	330.245(a)	Yes	Part IV-SOP, Section 8.12		Site Operating Plan
1090	Part IV	Provide a description of odor-retaining containers & vessels used to store liquid and solid waste	Required	330.245(c)	Yes	Part IV-SOP, Section 8.12		Site Operating Plan
1091	Part IV	Provide a description of how the facility has been designed and will be operated to provide adequate ventilation and prevent nuisance odors from leaving boundary of facility	Required	330.245(d)	Yes	Part IV-SOP, Section 8.12		Site Operating Plan
1092	Part IV	Indicate that air pollution emission capture & abatement equipment shall be cleaned and maintained per manufacturer's recommendations and as necessary so that the equipment efficiency can be adequately maintained.	Required	330.245(e)	Yes	Part IV-SOP, Section 8.12		Site Operating Plan
1093	Part IV	Provide a description of the measures/equipment, in accordance with 30 TAC §330.245(f)(1) – (4), that will be use to control odor at the facility.	Required	330.245(f)(1) – (4)	Yes	Part IV-SOP, Section 8.12		Site Operating Plan
1094	Part IV	Indicate that the process areas that recover material from solid waste that contains putrescibles shall be maintained totally within an enclosed building and describe how openings to the process area shall be controlled to prevent releases of nuisance odors from leaving the property boundary of the facility.	Required	330.245(g)	Yes	Part IV-SOP, Section 8.12		Site Operating Plan
1095	Part IV	Provide a description of how facility shall be designed to allow a minimal time of exposure of liquid waste to the air and minimize waste contact with air during unloading of liquid waste into the facility.	Required	330.245(h)	Yes	Not applicable	Site does not accept liquid waste.	Site Operating Plan

1096	Part IV	Acknowledge that the reporting of emissions events shall be made in accordance with §101.201 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements) and reporting of scheduled maintenance shall be made in accordance with §101.211 of this title (relating to Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements).	Acknowledgement	330.245(j)	Yes	Part IV-SOP, Section 8.13		Site Operating Plan
1097	Part IV	Provide procedures for the control of ponded water to avoid its becoming a nuisance and alleviate any objectionable odors	Required	330.245(k)	Yes	Part IV-SOP, Section 8.12		Site Operating Plan
1098	Part IV	Indicate that facility personnel will be trained in the appropriate sections of the facility's health and safety plan.	Required	330.247	Yes	Part IV-SOP, Section 8.13		Site Operating Plan
1099	Part IV	Indicate that the facility shall provide potable water and sanitary facilities for all employees and visitors.	Required	330.249	Yes	Part IV-SOP, Section 8.13		Site Operating Plan

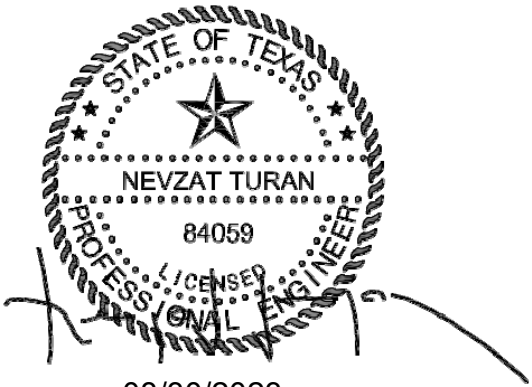
HD WASTE & RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY REGISTRATION APPLICATION

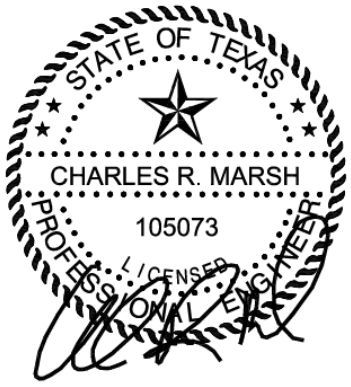
Prepared for

HD Waste Transfer Station, LLC

August 2023



08/30/2023



08/30/2023

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. 5486-001-11-01

This document is issued for permitting purposes only.

HD WASTE & RECYCLING TRANSFER STATION
MSW TRANSFER STATION AND MATERIAL RECOVERY FACILITY
REGISTRATION APPLICATION
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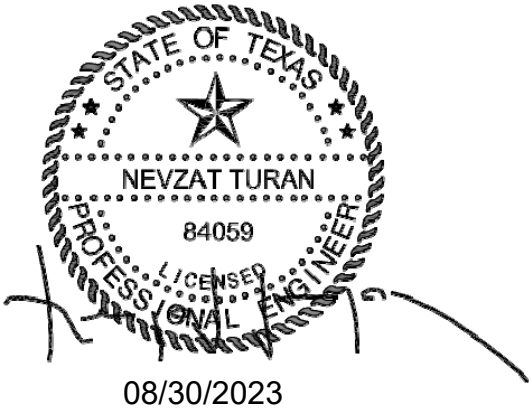

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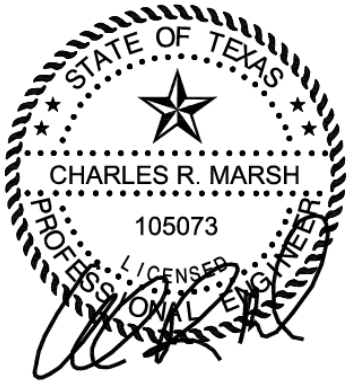


08/30/2023

Texas Commission on Environmental Quality

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

Application Tracking Information

Facility Name: HD Waste & Recycling Transfer Station

Permittee or Registrant Name: HD Waste Transfer Station, LLC

MSW Authorization Number: _____

Initial Submission Date: 08/232023

Revision Date: _____

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 another Core Data Form for the operator if different from the owner. If you have questions, contact the Municipal Solid Waste Permits Section by email to mswper@tceq.texas.gov, or by phone at 512-239-2335.

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

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, Landfill Limited Scope Major Amendments, Permit Amendments for Storage and Processing Facilities, and Registrations

Payment Method

☐ Check

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

If paid online, enter ePay Trace Number: 582EA000566613

5. Application URL

For applications other than those for arid exempt landfills, provide the URL address of a publicly accessible internet web site where the application and all revisions to the application will be posted.

http://www.ftwweaverboos.com

6. Party Responsible for Publishing Notice

Indicate who will be responsible for publishing notice:

☐ Applicant ☐ Agent in Service ☒ Consultant

Contact Name: Charles R. Marsh

Title: Project Director

Email Address: cmarsh@wcgrp.com

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: Kieberg-Rylie Branch Library

Physical Address: 1301 Edd Road

City: Dallas County: Dallas State: TX Zip Code: 75253

Phone Number: 214-670-8471

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

Permit or Approval	Received	Pending	Not Applicable
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):			
Other (describe):			

12. Facility General Information

Facility Name: HD Waste & Recycling Transfer Station

Contact Name: Diana Martinez Title: CEO

MSW Authorization Number (if existing): _____

Regulated Entity Reference Number: **RN**_____

Physical or Street Address (if available): 10631 CF Hawn Freeway

City: Dallas County: Dallas State: TX Zip Code: 75217

Phone Number: 214-792-9199

Latitude (Degrees, Minutes Seconds): 32° 41' 51.396"

Longitude (Degrees, Minutes Seconds): 96° 38' 32.6184"

Benchmark Elevation (above mean sea level): _____ feet

Description of facility location with respect to known or easily identifiable landmarks:
The facility is located in the City of Dallas. The existing entrance connects directly to the Highway 175 Frontage Road.

Access routes from the nearest United States or state highway to the facility:
Vehicles will travel from I-20 and west on Highway 175 Frontage Road for less than one mile to the site entrance driveway.

Coastal Management Program

Is the facility within the Coastal Management Program boundary?

☐ Yes ■ No

13. Facility Types

☐ 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) ☒ Container(s)

☐ Incinerator(s) ☒ Roll-off Boxes

☐ Class 1 Landfill Unit(s) ☐ Surface Impoundment

☐ Process Tank(s) ☐ Autoclave(s)

☒ Storage Tank(s) ☐ Refrigeration Unit(s)

☒ Tipping Floor ☐ Mobile Processing Unit(s)

☒ Storage Area ☐ Compost Pile(s) or Vessel(s)

☒ Other (specify): Citizens Collection Station, Recyclable Storage and Processing Building

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 transfer station will provide HD Waste Transfer Station, LLC with the ability to collect, load, and transport solid waste and recyclables more efficiently by allowing the MSW collection vehicles to transfer MSW into large transfer trailers before shipment to a permitted landfill. Recyclables will be processed and stored onsite prior to shipment offsite.

17. Facility Contact Information

Site Operator (Permittee or Registrant)

Name: HD Waste Transfer Station, LLC

Customer Reference Number: **CN**_____

Contact Name: Diana Martinez Title: CEO

Mailing Address: PO BOX 851734

City: Mesquite County: Dallas State: TX Zip Code: 75185

Phone Number: 214-792-9199

Email Address: diana@hdwastetx.com

Texas Secretary of State (SOS) Filing Number: _____

Operator (if different from *Site Operator*)

Name: Same as Site Operator

Customer Reference Number: **CN**_____

Contact Name: _____ Title: _____

Mailing Address: _____

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

Phone Number: _____

Email Address: _____

Texas Secretary of State (SOS) Filing Number: _____

Consultant (if applicable)

Firm Name: Weaver Consultants Group, LLC

Consultant Name: Charles R. Marsh

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

Contact Name: Charles R. Marsh Title: Project Director

Mailing Address: 6420 Southwest Blvd., Suite 206

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

Phone Number: 817-735-9770

Email Address: cmarsh@wcgrp.com

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. Ownership Status of the Facility

Business Type

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

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 other owners.

Owner Name: _____

Mailing Address: _____

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

Phone Number: _____

Email Address: _____

20. Other Government Entities Information

Texas Department of Transportation

District: Dallas

District Engineer's Name: Ceason Clemens, P.E.

Mailing Address: 4777 E. Highway 80

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

Phone Number: 214-320-6200

Email Address: ceason.clemens@txdot.gov

Local Government Authority Responsible for Road Maintenance (if applicable)

Government or Agency Name: City of Dallas Public Works
Contact Person's Name: Derek White
Mailing Address: 320 E. Jefferson Blvd.
City: Dallas County: Dallas State: TX Zip Code: 75203
Phone Number: 214-948-4308
Email Address: derek.white@dallas.gov

City Mayor Information

City Mayor's Name: Eric L. Johnson
Mailing Address: 1500 Marilla St., Ste. 5EN
City: Dallas County: Dallas State: TX Zip Code: 75201
Phone Number: 214-670-3301
Email Address: eric.johnson@dallas.gov

City Health Authority

Authority Name: Dallas County Health & Human Services
Contact Person's Name: Dr. Philip Huang, Director/Health Authority
Mailing Address: 2377 N. Stemmons Fwy.
City: Dallas County: Dallas State: TX Zip Code: 75207
Phone Number: 214-819-2000
Email Address: philip.huang@dallascounty.org

County Judge Information

County Judge's Name: Clay Jenkins
Mailing Address: 500 Elm St., Ste. 7000
City: Dallas County: Dallas State: TX Zip Code: 75202
Phone Number: 214-653-7949
Email Address: dcjudge@dallascounty.org

County Health Authority

Agency Name: Dallas County Health & Human Services
Contact Person's Name: Dr. Philip Huang, Director/Health Authority
Mailing Address: 2377 N. Stemmons Fwy.
City: Dallas County: Dallas State: TX Zip Code: 75207
Phone Number: 214-819-2000
Email Address: philip.huang@dallascounty.org

State Representative Information

District Number: 110

State Representative's Name: Toni Rose

District Office Mailing Address: 3155 S. Lancaster Rd., Ste. 220

City: Dallas County: Dallas State: TX Zip Code: 75216

Phone Number: 214-371-3300

Email Address: district110.rose@house.texas.gov

State Senator Information

District Number: 16

State Senator's Name: Nathan Johnson

District Office Mailing Address: 12222 Merit Dr., Ste. 1010

City: Dallas County: Dallas State: TX Zip Code: 75251

Phone Number: 972-701-0349

Email Address: district16.johnson@senate.texas.gov

Council of Governments (COG)

COG Name: North Central Texas Council of Governments

COG Representative's Name: Edith Marvin

COG Representative's Title: Director, Environment & Development

Mailing Address: Center Point II, 616 Six Flags Dr.

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

Phone Number: 817-695-9211

Email Address: emarvin@nctcog.org

River Basin Authority

Authority Name: Trinity River Authority

Contact Person's Name: Howard Slobodin

Watershed Sub-Basin Name: Prairie Creek - Trinity River

Mailing Address: 5300 S. Collins

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

Phone Number: 817-467-4343

Email Address: slobodinh@trinityra.org

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

☒ Ft. Worth, TX ☐ Tulsa, OK

Local Government Jurisdiction

Within City Limits of: Dallas

Within Extraterritorial Jurisdiction of: _____

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

☐ Yes ■ No

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

Signature Page

Site Operator 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: Diana Martinez Title: CEO

Email Address: diana@hdwastetx.com

Signature: Diana Martinez Date: 8/30/23

Operator or Principal Executive Officer Designation of Authorized Signatory

To be completed by the operator if the application is signed by an authorized representative for the operator.

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

Operator or Principal Executive Officer Name: _____

Email Address: _____

Signature: _____ Date: _____

Notary

SUBSCRIBED AND SWORN to before me by the said DIANA MARTINEZ

On this 30TH day of AUGUST, 2023

My commission expires on the 11TH day of MARCH, 2023

Notary Public in and for

DALLAS County, Texas

ALEJANDRO J GONZALEZ
Notary ID #12176904
My Commission Expires
March 11, 2025

Note: Application Must Bear Signature & Seal of Notary Public

Part I Attachments

Refer to instruction document 00650-instr for professional engineer seal requirements.

Attachments Table 1. Required attachments.

Required Attachments	Attachment Number
Supplementary Technical Report	Parts I-II, Section 2
Property Legal Description	Parts I-II, Section 13
Property Metes and Bounds Description	Parts I-II, Section 13
Facility Legal Description	Parts I-II, Section 13
Facility Metes and Bounds Description	Parts I-II, Section 13
Metes and Bounds Drawings	Parts I-II, Section 13
On-Site Easements Drawing	Parts I-II, Section 13
Land Ownership Map	Parts I-II, Section 5
Landowners List	Parts I-II, Section 5
Mailing Labels (printed and electronic)	Provided on flash drive
Texas Department of Transportation (TxDOT) County Map	Parts I-II, Section 4
General Location Map	Parts I-II, Section 4
General Topographic Map	Parts I-II, Section 4
Verification of Legal Status	Parts I-II, Section 15
Property Owner Affidavit	Parts I-II, Section 14
Evidence of Competency	Parts I-II, Section 16

Attachments Table 2. Additional attachments as applicable.

Additional Attachments as Applicable (select all that apply and add others as needed)	Attachment Number
☒ TCEQ Core Data Form(s)	
☒ Signatory Authority Delegation	
☒ Fee Payment Receipt	Page 2 of Form
☐ Confidential Documents	
☐ Waste Storage, Processing and Disposal Ordinances	
☐ Final Plat Record of Property	

Additional Attachments as Applicable (select all that apply and add others as needed)	Attachment Number
☐ Certificate of Fact (Certificate of Incorporation)	
☐ Assumed Name Certificate	
Other (describe):	
Other (describe):	
Other (describe):	

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		**RN**

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy) 7/28/2023

☒ 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:*

HD Waste Transfer Station, LLC

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

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

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

12. Number of Employees

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

13. Independently Owned and Operated?

☒ **Yes** ☐ **No**

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

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

15. Mailing Address:	PO BOX 851734							
	City	Mesquite	**State**	TX	**ZIP**	75185	**ZIP + 4**	1734

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

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

(214) 792-9199		(972) 364-1199

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.)*

HD Waste & Recycling Transfer Station

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	10631 CF Hawn Freeway							
	City	Dallas	**State**	TX	**ZIP**	75217	**ZIP + 4**	
24. County	Dallas							

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

25. Description to Physical Location:	The site is located in Dallas, Texas approximately one mile southwest of the intersection of I-20 and I-635. The existing site entrance connects directly to the Highway 175 Frontage Road.

26. Nearest City	**State**	**Nearest ZIP Code**
Dallas	TX	75217

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:	32.69761		**28. Longitude (W) In Decimal:**	-96.642394	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
32	41	51.396	96	38	32.6184

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		423930	

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

Solid Waste & Recycling Processing Fac.

34. Mailing Address:	**10631 CF Hawn Freeway**							
	City	**Dallas**	**State**	**TX**	**ZIP**	**75217**	**ZIP + 4**	
35. E-Mail Address:	**diana@hdwastetx.com**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(214) 792-9199		**(972) 364-1149**

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
	168133			
☐ Sludge	☒ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
	TXRO5FQ13			
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Charles R. Marsh, P.E.	**41. Title:**	Project Director

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(817) 735-9970		(817) 735-9775	cmarsh@wcgrp.com

SECTION V: Authorized Signature

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

Company:	HD Waste Transfer Station, LLC	**Job Title:**	CEO
Name *(In Print)*:	Diana Martinez	**Phone:**	(214) 792- **9199**
Signature:	Diana Martinez	**Date:**	8/30/23

HD WASTE & RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

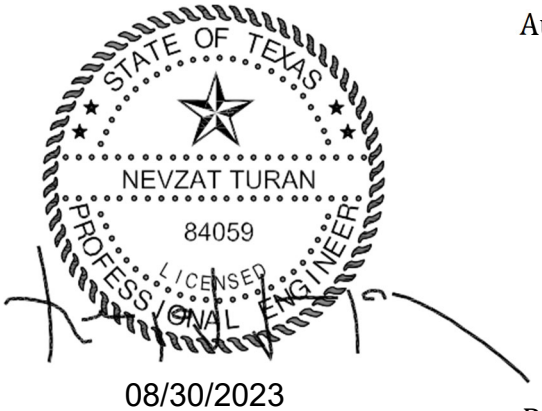
TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY REGISTRATION APPLICATION

PARTS I/II
GENERAL APPLICATION REQUIREMENTS

Prepared for

HD Waste Transfer Station, LLC

August 2023



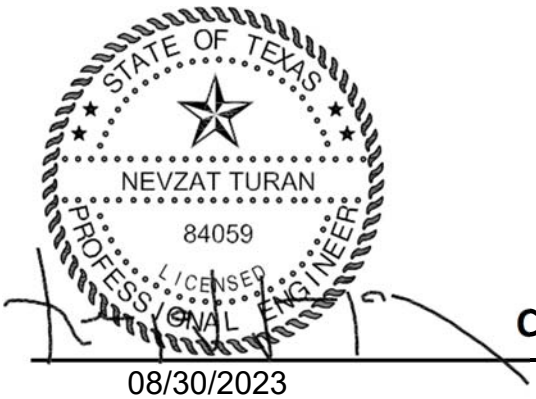
08/30/2023

08/30/2023

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. 5486-001-11-01-02

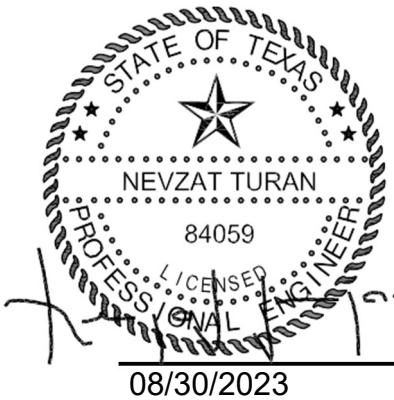
This document is issued for permitting purposes only.



08/30/2023

08/30/2023

CONTENTS



08/30/2023

08/30/2023

CONTENTS (CONTINUED)

STATE OF TEXAS
NEVZAT TURAN
84059
LICENSED PROFESSIONAL ENGINEER
08/30/2023

STATE OF TEXAS
CHARLES R. MARSH
105073
LICENSED PROFESSIONAL ENGINEER
08/30/2023

Tables **Page**

Figures

1 INTRODUCTION

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

The HD Waste & Recycling, LLC (HDWR) Transfer Station (TS) is a proposed Type V registered municipal solid waste (MSW) transfer station to be located in southeast Dallas, Dallas County, Texas. "Transfer Station" refers to the building that consists of the MSW tipping floor, transfer tunnel, and recyclables processing/tipping floor. The proposed facility address is 10631 C F Hawn Fwy, Dallas, Texas 75217. The HDWR TS will be owned and operated by HD Waste Transfer Station, LLC.

The HDWR TS will provide an efficient means to transfer MSW that is generated in the City of Dallas, Dallas County, and the surrounding areas to a Texas Commission on Environmental Quality (TCEQ) properly permitted MSW landfill. This facility will comply with Title 30 Texas Administrative Code (TAC) §330.9(e)(1) by ensuring that the incoming waste has been reduced by at least 10 percent through on-site recycling, source separation, curbside recycling, and other materials recovery programs. Examples of diversion include source separation of household recyclables, concrete and other construction debris diversion, brush and woody waste diversion, and other recyclable waste streams that are identified for recycling. Refer to Part IV – SOP (Section 3.3) for additional information. Additionally, in accordance with Title 30 TAC §330.9(e)(2), unrecovered solid waste will be transferred to a permitted municipal solid waste landfill located within 50 miles of the TS (e.g., the McCommas Bluff Landfill, TCEQ Permit No. MSW-62).

The General Application Requirements section (Parts I and II) of this application for the HDWR 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 the registration 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

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 HDWR TS is a proposed Type V Registered MSW transfer station to be located in Dallas. The proposed facility address is 10631 C F Hawn Fwy, Dallas, Texas 75217 The longitudinal and latitudinal geographic coordinates for the HDWR TS are shown in Section 4. The proposed TS will provide HDWR 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. Additionally, recyclables will be sorted to separate acceptable materials that will be loaded to recyclable material transfer trailers. All unacceptable materials delivered to the recyclables tipping floor will be transported to waste transfer trailers for landfilling.

This facility will comply with Title 30 TAC §330.9(e)(1) by ensuring that the incoming waste has been reduced by at least 10 percent through source separation, curbside recycling, and other materials diversion programs in effect within the areas being served by the HDWR provides TS. HDWR provides recyclable materials management services to numerous municipal, community, commercial, institutional, recreational, and industrial customers in Dallas County and surrounding areas. HDWR intends to utilize the HDWR TS for servicing customers in those areas. Additionally, in accordance with Title TAC §330.9(e)(2), non-recyclable waste from the TS will be transferred to a permitted municipal solid waste landfill located within 50 miles of the TS (e.g., the McCommas Bluff Landfill, TCEQ Permit No. MSW-62).

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

The permit drawings for the TS building plan and elevations are shown on Drawings IIIA-3 and IIIA-4 in Appendix IIIA – General Facility Design Drawings. As shown in Appendix IIIA, the building will have two tipping floors for MSW and recyclables with a full tunnel for transfer trailers in-between the tipping floors. Both tipping floors and the tunnel will be drive-through, with openings on the north and south sides of the building. The building walls and roof will be metal that will be detailed during construction, consistent with the permit drawings in Appendix IIIA.

The TS area for waste collection vehicles will consist of a reinforced concrete tipping floor (where incoming waste will be deposited) that extends beneath the overhead roof structure. The tipping floor will be well-lit (via natural lighting and overhead lighting). Incoming loads will be directed to the tipping floor for transfer operations. Typically, MSW deposited on the tipping floor will be pushed by a front-end loader into the transfer trailer parked in the transfer trailer tunnel. A grapple loader may also be used to compact the waste or more evenly distribute the waste within the transfer trailer. The transfer trailer will haul the MSW to a permitted MSW landfill. Recyclables will be transferred to a recycled material processing facility or third-party recyclable vendor. Facility layout drawings are included in Part III, Appendix IIIA.

The facility also includes an optional citizens drop-off area. The optional citizens drop-off area provides disposal for citizens visiting the TS. It allows for the safe unloading and disposal of waste by citizens without having to enter the TS building or interfering with commercial waste transporters using the TS.

The TS includes a covered structure. Ventilation is provided in the structure by the two open (north and south) sides and ventilation openings on the east and west walls of the structure. No significant air pollution emissions are expected to result from operation of the facility.

2.1.1 Waste Acceptance Plan

The classifications of solid waste to be accepted at the HDWR TS include household waste, yard waste, commercial waste, certain types of industrial waste (nonhazardous), special waste (will be authorized by TCEQ on a case-by-case basis), and construction-demolition waste. Each classification of waste is defined in Title 30 TAC §330.3 and summarized below:

- **Household Waste:** Any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including single and multiple residences, hotels, motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas); does not include brush as defined in Title 30 TAC §330.3 definition (64).
- **Yard Waste:** Leaves, grass clippings, yard and garden debris, and brush, including clean woody vegetative material not greater than six 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 Waste:** Any solid waste or combination of solid wastes that because of its quantity, concentration, physical or chemical characteristics, or biological properties requires special handling and disposal to protect the human health or the environment. Special wastes that may be accepted at this facility include:
  - slaughterhouse waste;
  - dead animals that are incidental to routine collection of municipal solid waste and that can be systematically processed along with other solid waste;
  - drugs, contaminated foods, or contaminated beverages other than those contained in normal household waste on a case by case basis;
  - empty containers which have been used for pesticides, herbicides, fungicides or rodenticides, provided the containers have been triple rinsed, crushed, or rendered unusable upon receipt at the gate;
  - incidental amounts of non-regulated asbestos-containing materials (NRACM) (an incidental amount is defined as the maximum of 10 percent of the waste received on an annual basis by scale weight);
  - waste from oil, gas, and geothermal activities subject to regulation by the Railroad Commission of Texas when those wastes are to be processed, treated, or disposed of at a solid waste management facility;
  - waste generated outside the boundaries of Texas that contains any industrial waste (excluding Class 1 nonhazardous industrial waste): any waste associated with oil, gas, and geothermal exploration,

production, or development activities; or any material that is listed above; and

- other waste than as described above and approved for acceptance by the Executive Director.

The procedures in the Waste Acceptance Plan included in Appendix IVA will be followed for special waste acceptance.

- **Prohibited Waste:** Consistent with Title 30 TAC §330.15(e), the facility will not accept the following:
  - Regulated hazardous waste
  - PCBs
  - Liquid Wastes
  - Certain special wastes, including:
    - hazardous waste from conditionally exempt small-quantity generators that may be exempt from full controls under Chapter 335, Subchapter N of this title (relating to Household Materials Which Could Be Classified as Hazardous Wastes);
    - Class 1 industrial nonhazardous waste;
    - untreated medical waste;
    - municipal wastewater treatment plant sludges, other types of domestic sewage treatment plant sludges, and water-supply treatment plant sludges;
    - septic tank pumpings;
    - grease and grit trap wastes;
    - wastes from commercial or industrial wastewater treatment plants, air pollution control facilities, and tanks, drums, or containers used for shipping or storing any material that has been listed as a hazardous constituent in 40 C FR, Part 261, Appendix VIII but has not been listed as a commercial chemical product in 40 C FR, Section 261.33(e) or (f);
    - incinerator ash;
    - 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 §335.521(a)(1);
    - used oil;
    - lead acid storage batteries; and

- used-oil filters from internal combustion engines.

2.1.2 Service Area and Population Equivalent

The proposed HDWR TS will provide waste disposal services for the City of Dallas, Dallas County, and the surrounding areas. Generalized construction details for the TS building if discussed in Section 2.2.4 in Part III – Site Development Plan. The TS building, as described in Part III, will have the capacity to transfer up to 1,080 tons per day of MSW.

Waste will be transferred on a daily basis to a TCEQ permitted landfill located within 50 miles of the TS (e.g., the McCommas Bluff Landfill). As economic conditions, population growth, and waste generation rates change, the volume of incoming waste may vary. The estimated maximum annual waste acceptance rate for the facility for five years is shown in Table 2-1.

Table 2-1
Waste Acceptance Evaluation

Year	Waste Acceptance (tons/yr)	Daily Waste Acceptance (tons/day)
2023	343,830	942
2024	350,765	961
2025	357,700	980
2026	364,635	999
2027	365,000	1,000

Note in Table 2-1 that the daily acceptance rates for the first 5 years of TS operation are less than the proposed maximum daily waste acceptance rate of 1,000 tons per day averaged over four calendar quarters. The TS sizing has been designed to provide for the safe and efficient transfer of waste.

As shown below, the average population equivalent using the above projected waste acceptance rate ranges from 376,800 to 400,000 persons. As the transfer station service area conditions change, adjustments to the service area population may occur. The population equivalent of the areas that are served by the TS are calculated as follows (for 2020 and 2024):

$$\frac{(942\ tons/day)(2{,}000\ lbs/ton)}{(5\ lbs/\text{persons/day})} = 376{,}800\ persons$$

$$\frac{(\ 1{,}000\ \text{tons/day})(2{,}000\ \text{lbs/ton})}{(5\ \text{lbs/persons/day})} = 400{,}000\ persons$$

The maximum amount of waste that will be stored at the facility is 1,000 tons. If market conditions change and the facility stores more than 1,000 tons of waste overnight, a TCEQ authorization will be obtained to meet the provisions of Title 30

TAC §330.991(a)(2)(B). The maximum length of time material will remain onsite is 48 hours, except holidays and weekends, as discussed in Section 8.10 of Part IV – Site Operating Plan (SOP). During holidays, waste may be temporarily stored at the facility not to exceed a time period of 72 hours.

2.1.3 Site Development Plan

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

- The TS facility will be a steel-framed structure with a metal roof and walls covering an open concrete floor. Ventilation openings will be located on the east and west walls. The north and south sides will be open for vehicle access. Transfer trailers enter the facility loading tunnel from the south. The tunnel will be located toward the center of the building with two recyclables unloading bays on the west and five solid waste unloading bays on the east. The two western bays in the transfer station building will be used for recyclables, and the five eastern bays will be used for MSW. The MSW tipping floor will have an area of approximately 7,500 square feet (100 feet by 75 feet). The tipping floor for recyclables only (approximately 3,000 square feet) will be located on the west side of the loading tunnel.
- An optional scale house, consisting of an office for use by a scale house attendant, may be positioned at the entrance of the site with windows to allow for communication and exchange of paperwork. If the scale house is not constructed, the scale house attendant will be located in the current maintenance shop/office building.
- A minimum 2,000-gallon contaminated water holding tank will be located on the south side of the TS building. Contaminated water and wash water from the tipping floor will be stored in the holding tank prior to being pumped out and transported to a permitted wastewater treatment facility.
- A small area within the registration boundary is shown to be used as a Citizen's collection station area. However, the Site Operating Plan will also include provisions to allow citizens to use the MSW tipping floor within the TS building as a dropoff location.

2.1.4 Site Operating Plan

The SOP for the HDWR TS is presented in Part IV of this application. The SOP describes the equipment, personnel, and safety procedures required to operate the site in accordance with TCEQ regulations.

HDWTS, the general public, and other commercial waste hauling companies may utilize this facility for the receipt and processing of waste between the hours of 5:00

a.m. and 7:00 p.m., Monday through Friday, and 5:00 a.m. to 12:00 p.m. on 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 occur between 5:00 a.m. and 7:00 p.m. Monday through Friday, and between 5:00 a.m. and 12:00 p.m. on Saturday. 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 Texas Historical Commission coordination letter is included in Appendix I/IIA. The Historical Commission concluded that no historic properties will be affected by the proposed TS development.

2.3 North Central Texas Council of Governments

The proposed HDWR TS is consistent with the North Central Texas Council of Governments (NCTCOG) Regional Solid Waste Plan. In 4.10.3 of the NCTCOG Regional Solid Waste Plan, it is noted that transfer stations are a key component of the solid waste management infrastructure.

Parts I/II of this application was submitted to the NCTCOG on August 31, 2023. A letter documenting that Parts I/II was submitted to the NCTCOG is included in Appendix I/IIA. Also included is the _____ letter from the NCTCOG stating that, upon review, the NCTCOG found the proposed transfer station to be consistent with the goals of their Regional Management Plan.

2.4 Abandoned Oil and Water Wells

2.4.1 Water Wells

A water well search was conducted by GeoSearch, Inc., for an area that included the TS property boundary area and the area within 1.0 miles of the site. A copy of the GeoSearch report is included as Appendix I/IIC. As shown on Figure I/II-4.2, there are no water wells located within 500 feet of the permit boundary. There are five wells located within one mile of the permit boundary. The closest well is located approximately 2,025 feet from the permit boundary. If in the future any water well is discovered, WCLS 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 by Weaver Consultants Group, LLC (WCG) for the area within 500 feet of the permit boundary. A search of the records within the Texas Railroad Commission's oil and gas well GIS Viewer revealed that there were no producing well locations or plugged wells located within the study area.

2.5 Internet Posting

In accordance with Title 30 TAC §330.57(i), a complete copy of this application will be posted to the Internet at the following publicly accessible website: http://www.ftwweaverboos.com. All future revisions or supplements to this application will also be posted at the same location. This internet posting is for informational purposes only. The TCEQ web site will also contain information of the filing of this application along with a link to the above-mentioned web address.

2.6 Other Permits/Authorizations

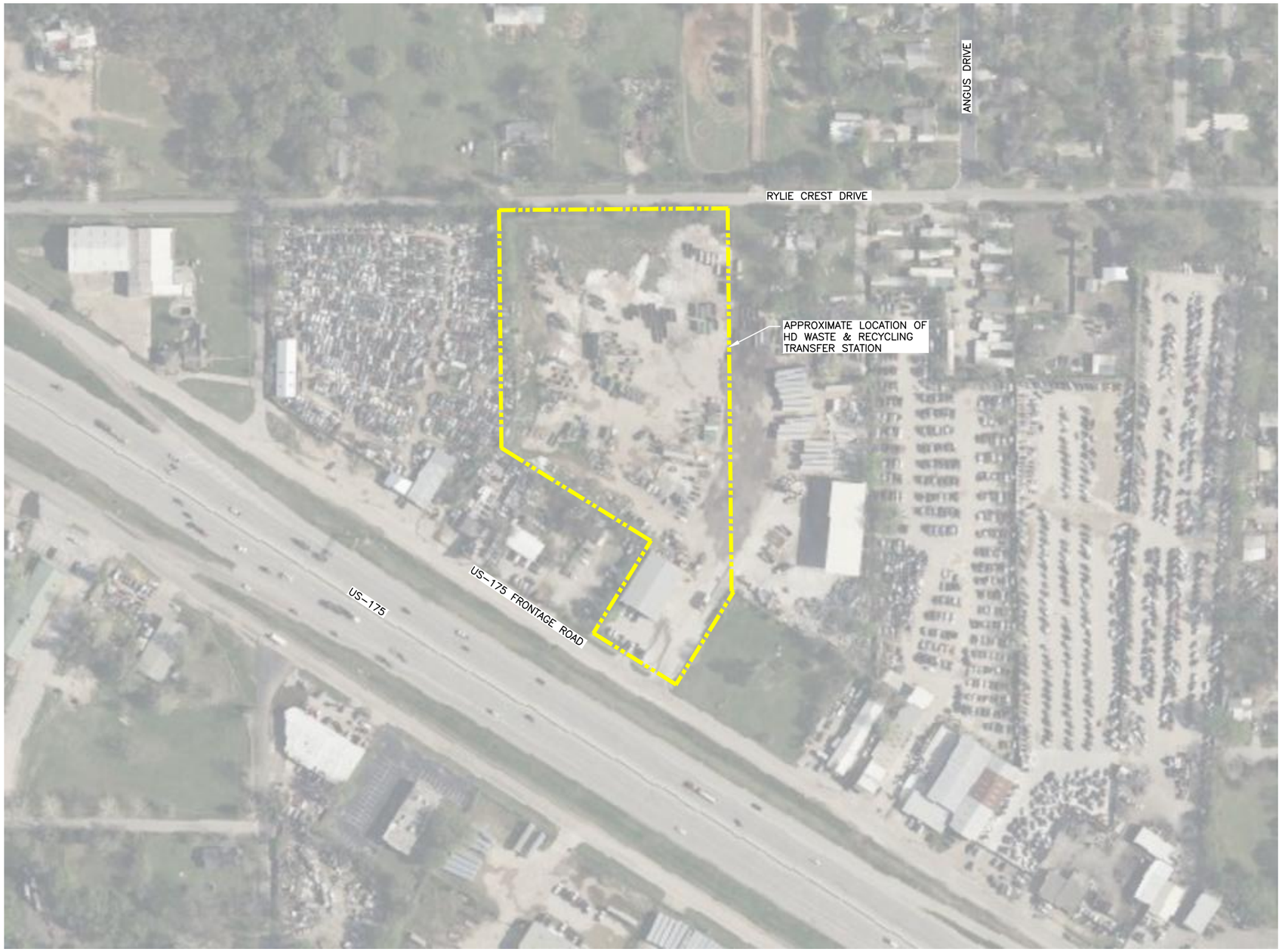
In accordance with Title 30 TAC §305.45(a)(7), the related permits and authorizations for the facility are summarized in the Part I Form (TCEQ-0650 Form).

3 EXISTING CONDITIONS SUMMARY

This section addresses §330.61(a).

The existing conditions of the site are shown on Figure I/II-3.1 and the existing contours are shown on Figure I/II-3.2. The property boundary encompasses 8.86 acres, and the registration boundary encompasses 5.72 acres. The east and west boundaries consist of industrial and commercial uses. The south boundary is formed by US-175 Frontage Road and the C F Hawn Fwy. The north side of the facility consists mostly of rural residences and agricultural use land.

The property is situated on an upland landform, which generally drains to Rylie Creek to the northwest. Vegetation within the undisturbed portions of the property includes some harwood trees, cedar elm, and hackberry. Common vegetation in the disturbed areas consists of patchy clump.



N

0 100 200

SCALE IN FEET

LEGEND

REGISTRATION BOUNDARY

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY MAXAR IMAGERY.
2. REGISTRATION BOUNDARY WAS PREPARED BY WEAVER CONSULTANTS GROUP. DATED FEBRUARY 21, 2022, AS SHOWN ON FIGURE I/II-13.1 (PER 30 TAC 330.59(d))

STATE OF TEXAS
CHARLES R. MARSH
105073
LICENSED
PROFESSIONAL ENGINEER

08/30/2023

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- [ ] ISSUED FOR CONSTRUCTION

DATE: 08/2023
FILE: 5486-001-11
CAD: 3.1-EXISTING CONDITIONS-AERIAL.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISION NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY EXISTING CONDITIONS-AERIAL

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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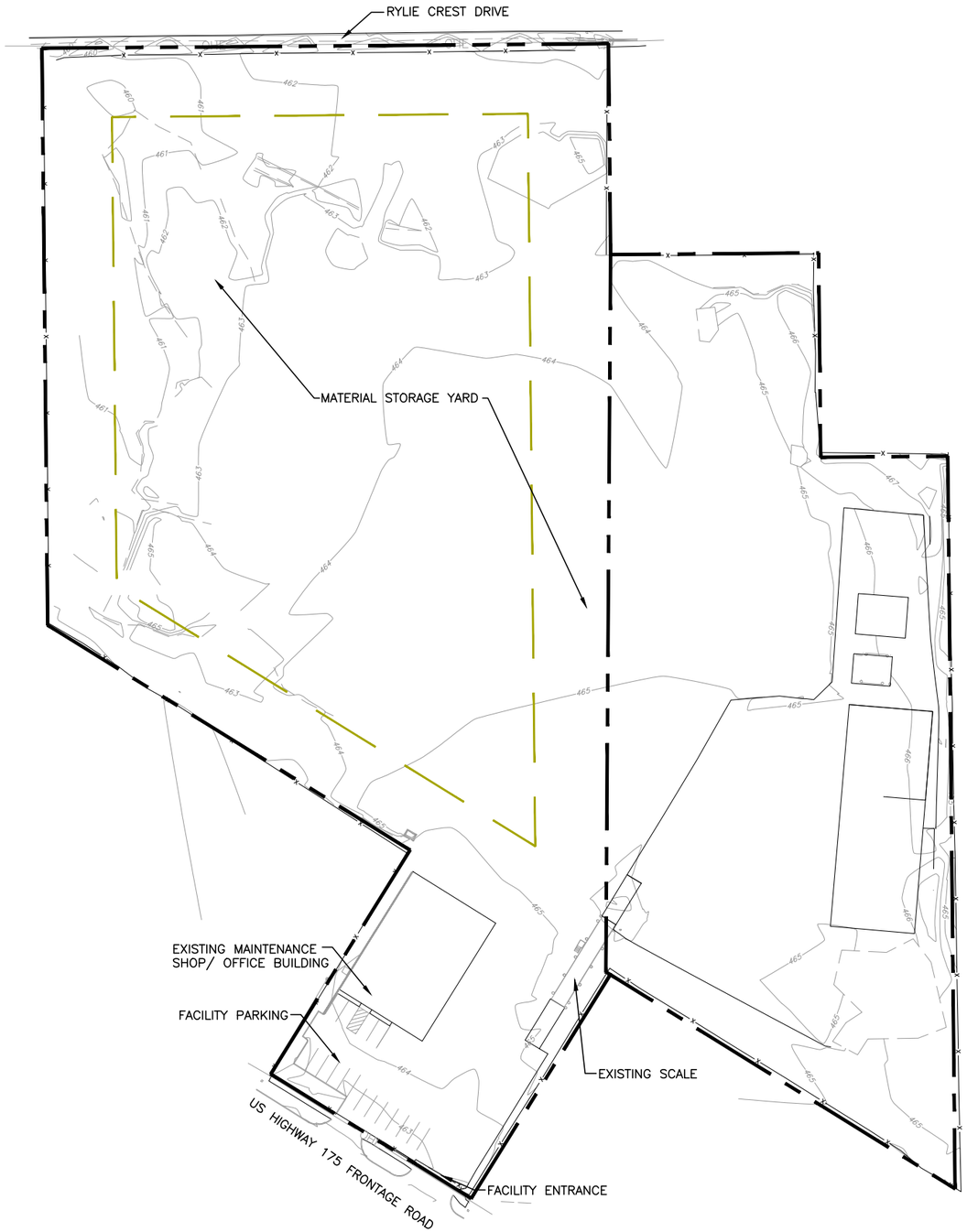
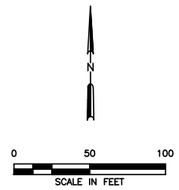
FIGURE I/II-3.1

O:\5486\TYPE V APPLICATION\PARTS I-II\3.1- EXISTING CONDITIONS-AERIAL.dwg, jpuhr, 1:2



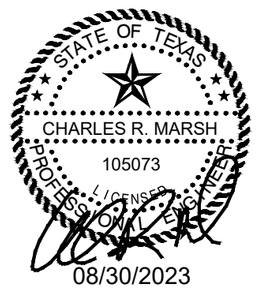


LEGEND

- REGISTRATION BOUNDARY
- PROPERTY BOUNDARY
- 1030 EXISTING GRADE
- 50–FOOT BUFFER ZONE (SEE NOTE 3)
- EXISTING FENCE
- OHE EXISTING OVERHEAD ELECTRIC LINES

NOTES:

1. THE EXISTING CONTOURS AND PROPERTY BOUNDARY HAVE BEEN DEVELOPED BASED ON THE GROUND SURVEY BY WEAVER CONSULTANTS GROUP ON FEBRUARY 14, 2022 AND FEBRUARY 21, 2022.
2. REGISTRATION BOUNDARY WAS PREPARED BY WEAVER CONSULTANTS GROUP. DATED FEBRUARY 21, 2022, AS SHOWN ON FIGURE I/II–13.1 (PER 30 TAC 330.59(d))
3. CONSISTENT WITH TITLE 30 TAC 330.543(b)(1) SOLID WASTE STORAGE OR PROCESSING WILL NOT TAKE PLACE BETWEEN THE PROPERTY BOUNDARY AND THE BUFFER LINE, WHICH IS 50 FEET FROM THE PROPERTY BOUNDARY.
4. THE EXISTING FACILITY IS CURRENTLY USED AS AN INDUSTRIAL FACILITY THAT PROCESSES SEPARATED RECYCLABLES.



- [ ] ISSUED FOR CONSTRUCTION
- [x] FOR REGISTRATION PURPOSES ONLY
- [ ] 50% SUBMITTAL

DATE: 08/2023
FILE: 5486–01–11
CAD: 3.2–SITE PLAN.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE LICENSE NO. F–3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY EXISTING SITE PLAN

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FIGURE I/II–3.2

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O:\5486\TYPE V APPLICATION\PARTS I–II\3.2– SITE PLAN.dwg, jpuhr, 1:2

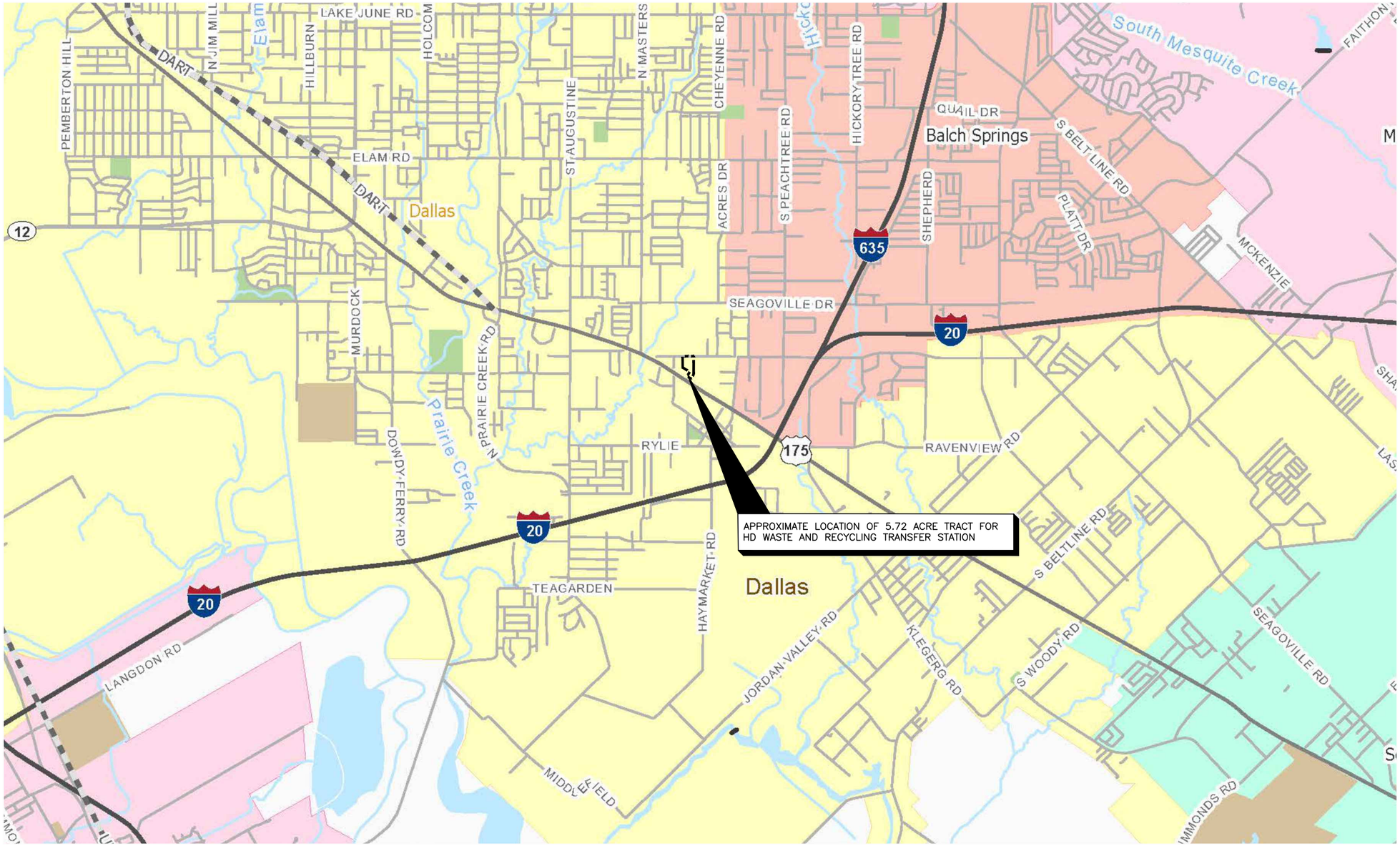
4 MAPS

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. In accordance with Title 30 TAC §330.61(c)(3), structures and inhabitable buildings located within 500 feet, as well as the nearest residences, are shown on Figure I/II-4.3.

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

Figure I/II-4.4 is a Facility Layout Map that includes the outline of the processing building, onsite roads, scalehouse and scales, and traffic patterns.



LEGEND

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

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PROFESSIONAL ENGINEER
08/30/2023

NOTES:

1. REPRODUCED FROM PAGES 708 OF THE TxDOT COUNTY MAPBOOK 2018 (TEXAS DEPARTMENT OF TRANSPORTATION PLANNING AND PROGRAMMING DIVISION). THIS MAP SHOWS DALLAS COUNTY, TEXAS.
2. THE CITY OF WEATHERFORD CITY LIMITS HAVE BEEN REVISED TO REFLECT THE ANNEXATION OF THESE AREAS IN 2016.

N

0 2000 4000
SCALE IN FEET

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DATE: 08/2023
FILE: 5486-01-11
CAD: 4.1-SITE LOCATION MAP.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

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TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY SITE LOCATION MAP

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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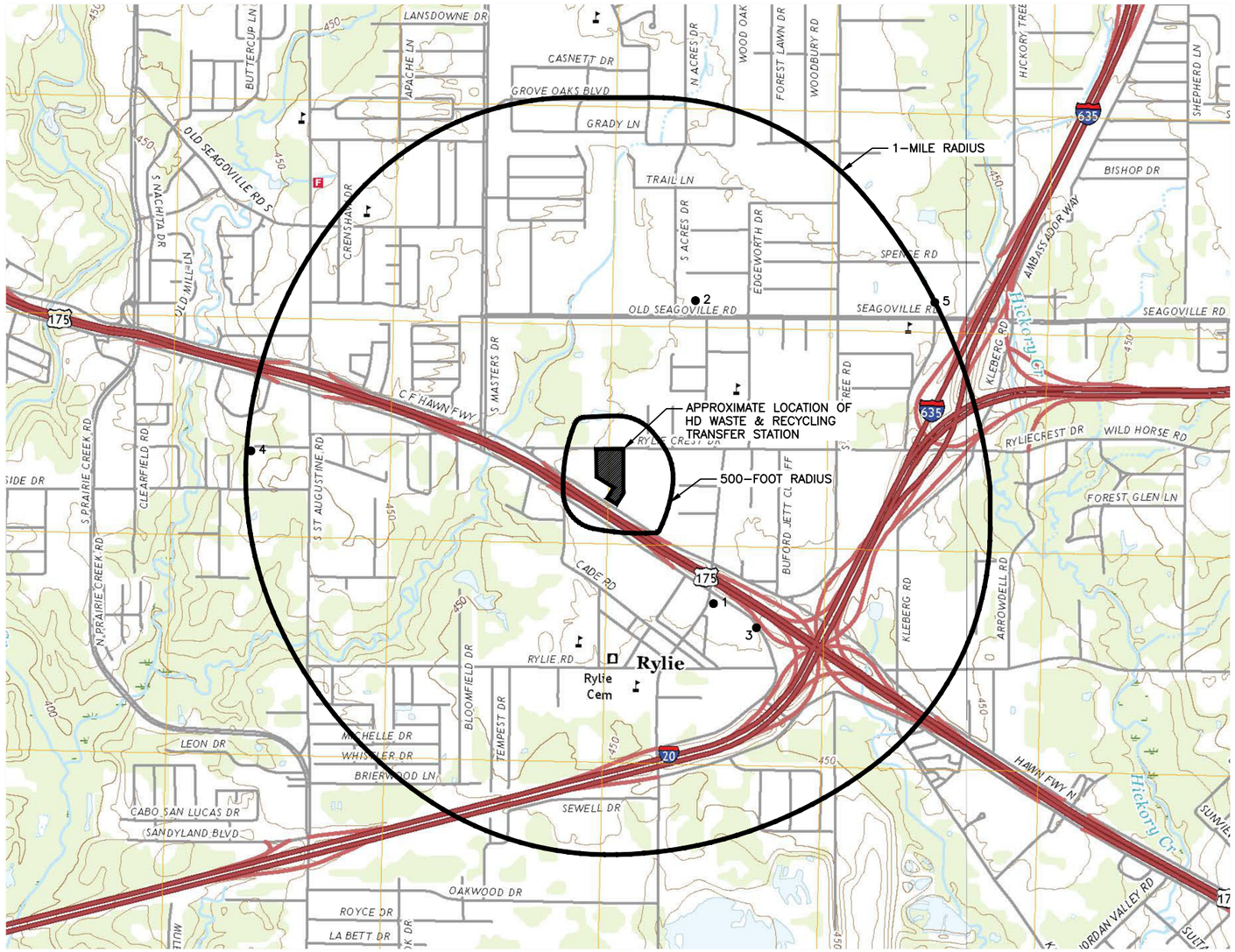
FIGURE I/II-4.1

O:\5486\TYPE V APPLICATION\PARTS I-II\4.1-SITE LOCATION MAP.dwg, jpnhr, 1:2



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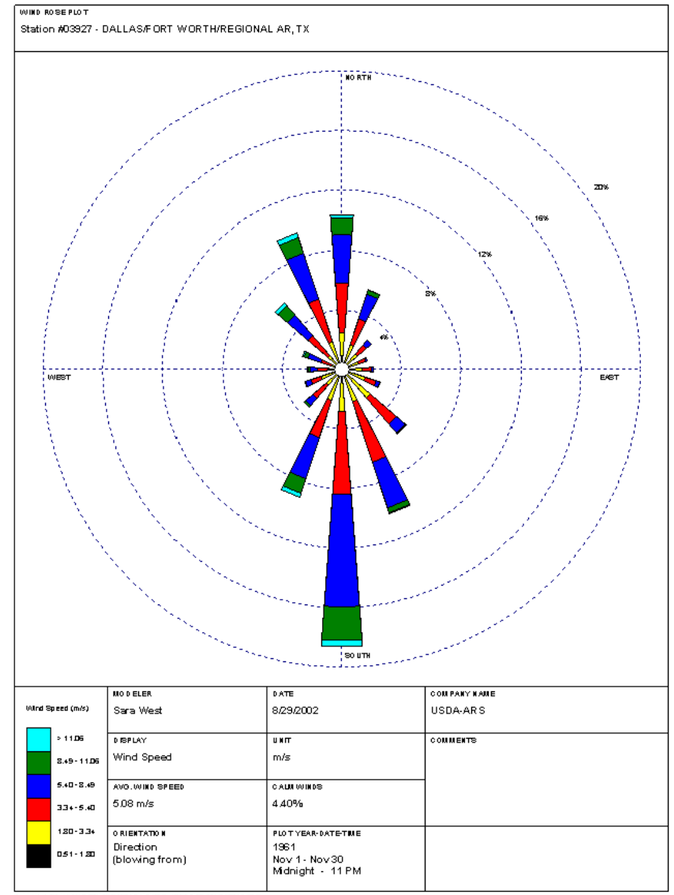
SCALE IN FEET

LEGEND:

● 1 REGISTERED WATER WELL LOCATION IDENTIFIED BY GEOSEARCH

ROAD CLASSIFICATION

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



NOTES:

1. ADAPTED FROM THE USGS 7.5 MINUTE QUADRANGLE TOPOGRAPHIC MAPS (HUTCHINS, TX 2022 AND SEAGOVILLE, TX 2022).
2. THE SITE ACCESS ROADS WITHIN ONE MILE OF THE SITE ARE US-175 FRONTAGE ROAD, HAYMARKET ROAD, HIGHWAY 175, AND INTERSTATE-20.
3. SEE FIGURE I/II-5.1 FOR PROPERTY OWNERS WITHIN 1/4 MILE.
4. SEE SECTION 7.7 FOR DISCUSSION OF WATER WELLS.
5. THERE ARE 13 CHURCHES, 6 SCHOOLS, 2 CEMETERIES (RYLIE CREST CEMETERY AND RILEY CEMETERY-HISTORIC), AND 1 DAY CARE CENTER WITHIN ONE-MILE OF THE REGISTRATION BOUNDARY.
6. ONE HISTORIC TEXAS CEMETERY IS LOCATED WITHIN THE ONE-MILE RADIUS, WHICH IS RYLIE CEMETERY. INFORMATION AND LOCATION OF CEMETERY OBTAINED FROM TEXAS HISTORIC SITES ATLAS.
7. REFER TO SECTION 7.5 FOR LOCATION OF THE NEAREST RESIDENCE.
8. REFER TO SECTION 8 FOR DISCUSSION ON AIRPORTS.
9. REFER TO SECTION 13 FOR EASEMENT INFORMATION AND PART III, APPENDIX IIIA FOR ACCESS CONTROL INFORMATION.
10. WIND ROSE REPRODUCED FROM USDA (UNITED STATES DEPARTMENT OF AGRICULTURE) PUBLISHED WIND ROSE FOR STATION #03527 DALLAS/FORT WORTH/REGIONAL AR, TX.
11. NO SPRINGS EXIST WITHIN A ONE-MILE RADIUS OF THE SITE.
12. THERE ARE SEVERAL STOCK PONDS LOCATED WITHIN 1 MILE OF THE SITE THAT ARE USED FOR AGRICULTURAL PURPOSES.
13. THE WATER WELL LOCATIONS WITHIN 1-MILE RADIUS WERE IDENTIFIED BY GEOSEARCH (2023). THERE ARE NO WATER WELLS LOCATED WITHIN 500 FEET OF THE SITE. THERE ARE 6 WELLS LOCATED WITHIN 1-MILE OF THE SITE.

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CAD: 2-GENERAL TOPO MAP.DWG
DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

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REVISION NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY GENERAL TOPOGRAPHIC MAP

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DALLAS COUNTY, TEXAS

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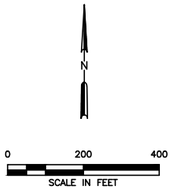
FIGURE I/II-4.2

O:\5486\TYPE V APPLICATION\PARTS I-II\4.2- GENERAL TOPO MAP.dwg, jpuhr, 1:2

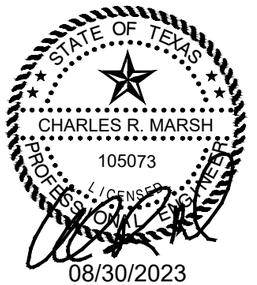


LEGEND

——— – – ———	REGISTRATION BOUNDARY (SEE NOTE 2)
IB	INHABITABLE STRUCTURE
IC	INDUSTRIAL/COMMERCIAL INHABITABLE STRUCTURE
R	RESIDENCE

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE EARTH FROM PHOTOGRAPH TAKEN 04–05–2022.
2. REGISTRATION BOUNDARY WAS PREPARED BY WEAVER CONSULTANTS GROUP, DATED FEBRUARY 21, 2022, AS SHOWN ON FIGURE I/II–13.1 (PER 30 TAC 330.59(d)).
3. ALL INHABITABLE STRUCTURES WITHIN 500 FEET ARE SHOWN ON THIS FIGURE. LAND USE WITHIN A 500–FOOT RADIUS OF THE REGISTRATION BOUNDARY CONSISTS MAINLY OF INDUSTRIAL/COMMERCIAL AREAS WITH SOME SCATTERED RESIDENCES, AND INHABITABLE BUILDINGS. THE NEAREST RESIDENCE TO THE REGISTRATION BOUNDARY IS APPROXIMATELY 100 FEET EAST OF THE REGISTRATION BOUNDARY, AND APPROXIMATELY 300 FEET EAST OF THE TRANSFER STATION STRUCTURE. THERE ARE 25 INHABITABLE BUILDINGS (INCLUDING RESIDENCES AND BUILDINGS) WITHIN 500 FEET OF THE REGISTRATION BOUNDARY, AND 7 COMMERCIAL BUILDINGS AS SHOWN ON THIS FIGURE.



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DATE: 08/2023
FILE: 5486–001–11
CAD: 4.3–STRUCTURES WITHIN 500–FT.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F–3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISION NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY STRUCTURES AND HABITABLE BUILDINGS WITHIN 500 FEET

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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FIGURE I/II–4.3

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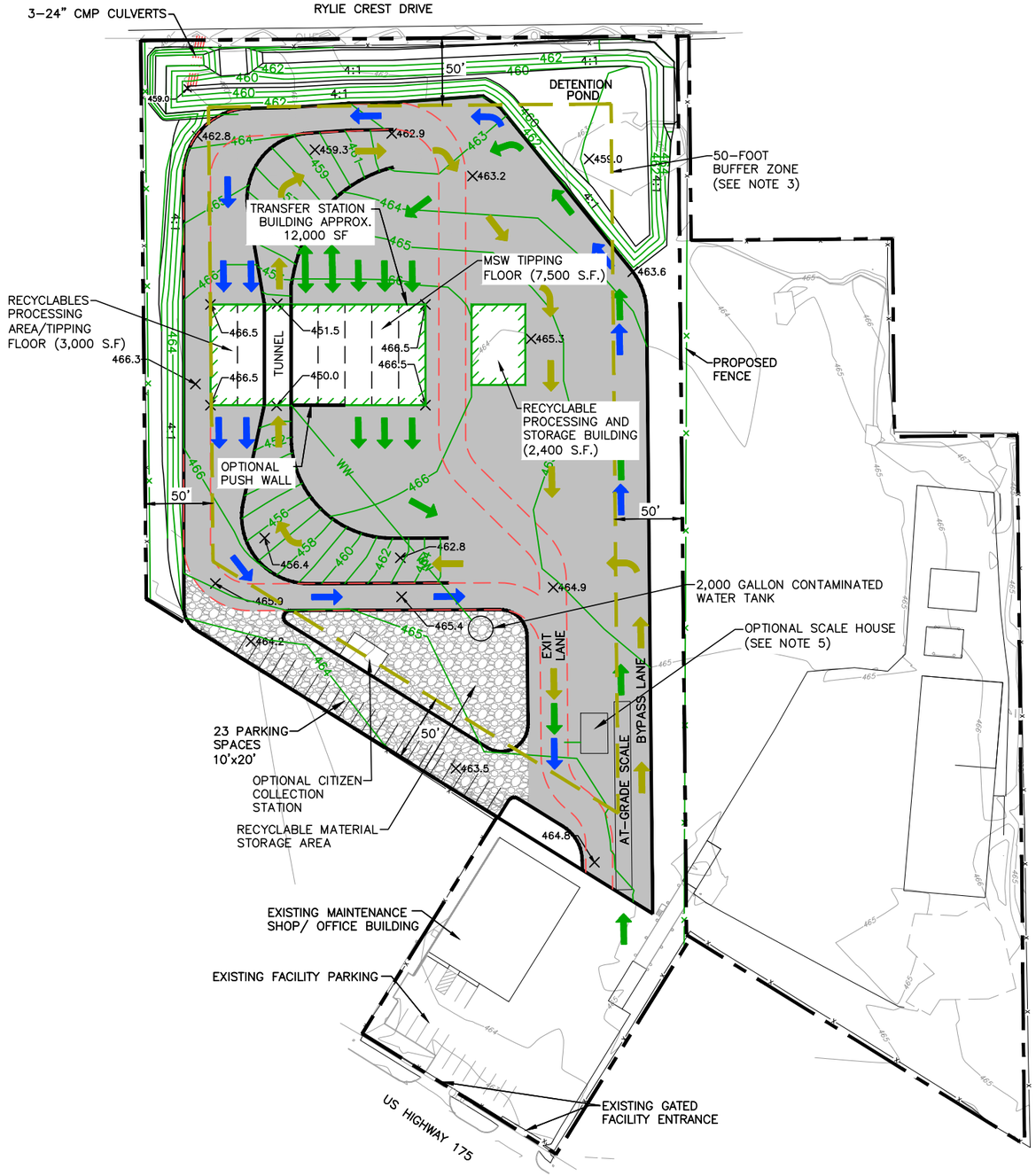
O:\5486\TYPE V APPLICATION\PARTS I-IV\4.3- STRUCTURES WITHIN 500 FEET.dwg, jpuhr, 1:2



0 50 100
SCALE IN FEET

LEGEND

- REGISTRATION BOUNDARY
- PROPERTY BOUNDARY
- 465 EXISTING GRADE (SEE NOTE 1)
- EXISTING FENCE
- 465 PROPOSED CONTOURS
- PROPERTY LINE
- FIRE LANE
- PROPOSED FENCE
- 50–FOOT BUFFER ZONE (SEE NOTE 3)
- OHE EXISTING OVERHEAD ELECTRIC LINES
- WW PROPOSED WASTEWATER LINE
- ALL–WEATHER SURFACE (E.G., AGGREGATE, ASPHALT, CONCRETE)
- GRAVEL SURFACE
- TRANSFER TRAILER ROUTE
- MSW VEHICLE ROUTE
- RECYCLING VEHICLE ROUTE
- NEW BUILDING
- ×464.9 SPOT ELEVATION

STATE OF TEXAS
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PROFESSIONAL ENGINEER
08/30/2023

NOTES:

1. THE EXISTING CONTOURS AND PROPERTY BOUNDARY HAVE BEEN DEVELOPED BASED ON THE GROUND SURVEY BY WEAVER CONSULTANTS GROUP ON FEBRUARY 14,2022 AND FEBRUARY 21, 2022.
2. REGISTRATION BOUNDARY PREPARED BY WEAVER CONSULTANTS GROUP, DATED FEBRUARY 21, 2022, AS SHOWN ON FIGURE I/II–3.1 (PER TAC 330.59(d).
3. CONSISTENT WITH TITLE 30 TAC 330.543(b)(1) SOLID WASTE STORAGE OR PROCESSING WILL NOT TAKE PLACE BETWEEN THE REGISTRATION BOUNDARY AND THE BUFFER LINE, WHICH IS 50 FEET FROM THE REGISTRATION BOUNDARY.
4. THE TRANSFER STATION WILL BE CONTROLLED BY A FENCE AROUND THE PROPERTY WITH GATES ON THE FACILITY ENTRANCE ROAD.
5. ACTUAL SIZE AND LOCATION OF SCALE HOUSE MAY VARY FROM SHOWN.
6. CONTAMINATED WATER TANK MAY BE EITHER AN UNDERGROUND STORAGE TANK OR AN ABOVEGROUND TANK WITH A SUMP.

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- [ ] 50% SUBMITTAL

DATE: 08/2023
FILE: 5486–01–11
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DRAWN BY: PME
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE LICENSE NO. F–3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY FACILITY LAYOUT MAP

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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FIGURE I/II–4.4

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O:\5486\TYPE V APPLICATION\PARTS I–II\4.4– FACILITY LAYOUT MAP.dwg, jpohr, 1:2

5 PROPERTY OWNERS LIST AND MAP

This section addresses §330.59(c)(3) 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 around the facility. The list is based on the Dallas County Appraisal District records as of June 2023 and includes tracts within 1/4 mile of the property boundary. Refer to Figure I/II-5.1, Property Owners Map, for the location of the properties. The numbers on the landowners list correspond to the numbers listed on Figure I/II-5.1. No mineral interests are identified in the Dallas County Appraisal District records.

TABLE 5-1
PROPERTY OWNER LIST

1. JOYCE F LIGHTFOOT
   11043 RYLICE CREST DR
   DALLAS TX 75217

2. JUAN CARLOS CUBIAS SORIANO
   725 HAYMARKET RD
   DALLAS TX 75217

3. MULTIPLE OWNERS
   ADDRESS NOT LISTED

4. BENITO & MAY MARGARITO
   717 HAYMARKET RD
   DALLAS TX 75217

5. ALFREDO & FELICITAS PARDO
   11003 RYLIE CREST DR
   DALLAS TX 75217

6. CRISTINO & MARIA VELASQUEZ
   10926 VAQUERO DR
   DALLAS TX 75217

7. ROGER ACOSTA
   10922 VAQUERO DR
   DALLAS TX 75217

8. JOSE ANTONIA HERNANDEZ & MINERVA HERNANDEZ
   10914 VAQUERO DR
   DALLAS TX 75217

9. REYNA YANEZ
   10910 VAQUERO DR
   DALLAS TX 75217

10. HECTOR GRAYTAN
    10906 VAQUERO DR
    DALLAS TX 75217

11. MA DELIA HOLGUIN & LUCIA HOLGUIN JR
    10915 VAQUERO DR
    DALLAS TX 75217

12. HIGINIO VALLE
    100 CHINABERRY TRL
    FORNEY TX 75126

13. YESENIA SANTACRUS HERNANDEZ & ALEJANDRO ROSAS CEBALLOS
    525 SOUTH ACRES DR
    DALLAS TX 75217

14. JOSE & PASTORA HERRERA
    529 SOUTH ACRES DR
    DALLAS TX 75217

15. JOSES & MARIA G DELASANCHA
    533 SOUTH ACRES DR
    DALLAS TX 75217

16. JUAN H PORTILLO
    541 SOUTH ACRES DR
    DALLAS TX 75217

17. JESSICA MENDOZA
    607 SOUTH ACRES DR
    DALLAS TX 75217

18. WILBERT LOPEZ RECINOS & REYNA LOPEZ HERRERA
    611 SOUTH ACRES DR
    DALLAS TX 75217

19. CESILIO & VERONICA GAMEZ
    615 SOUTH ACRES DR
    DALLAS TX 75217

20. SALVADOR & CARPIODE LOPEZ
    619 SOUTH ACRES DR
    DALLAS TX 75217

TABLE 5-1
PROPERTY OWNER LIST
(Continued)

21. RAMIRO M CHAVEZ
PO BOX 172196
DALLAS TX 75217

22. MARINO CASTRO
724 SOUTH ACRES DR
DALLAS TX 75217

23. HO LAO
1111 SADDLEBROOK DR
MURPHY TX 75094

24. JUAN BUENO
1128 HAYMARKET RD
DALLAS TX 75217

25. MATTHEW W BOND & JESSICA CAMPBELL
717 SOUTH ACRES DR
DALLAS TX 75217

26. BRADFORD K PENNINGTON
10823 RYLIE CREST DR
DALLAS TX 75217

27. ANGEL J MARTINEZ
730 SOUTH ACRES DR
DALLAS TX 75217

28. JOSE ALONZO CASTRO
724 SOUTH ACRES DR
DALLAS TX 75217

29. VANESSA CERVANTES
724 SOUTH ACRES DR
DALLAS TX 75217

30. LLAMAS JOSE DEJESUS GRIMALDO
724 SOUTH ACRES DR
DALLAS TX 75217

31. GLORIA REYES
724 SOUTH ACRES DR
DALLAS TX 75217

32. ALEJANDRA GALINDO
706 SOUTH ACRES DR
DALLAS TX 75217

33. JULIAN DEL CASTILLO
10708 OLD SEAGOVILLE RD
DALLAS TX 75217

34. JOSE OSCAL DEL CASTILLO & CAROLINA ARGUELLO
10704 OLD SEAGOVILLE RD
DALLAS TX 75217

35. JESUS OMAR PARRAFONSECA
1335 HAZEL CT
MESQUITE TX 75149

36. SAMANTAH PARRA
10510 OLD SEAGOVILLE RD
DALLAS TX 75217

37. TR LIFE ESTATE NOLA CHARLOTTE GIESE
10601 RYLIE CREST DR
DALLAS TX 75217

38. RACHEL EDITH RAMIREZ
1408 OLD SEAGOVILLE RD
DALLAS TX 75217

39. CENTRO EVANGELISTICO JERUSALEN INC
650 SOUTH MASTERS DR
DALLAS TX 75217

40. BOBBY HICKS
1420 CHAPMAN
LANCASTER TX 75134

TABLE 5-1
PROPERTY OWNER LIST
(Continued)

41. ATA RAHIMI
1702 PALOMINO DR
ROWLETT TX 75088

42. CORDER MANUFACTURING CO
815 CADE PKWY
DALLAS TX 75217

43. CEMETERY
10425 RYLIE CREST DR
DALLAS TX 75217

44. NEW FAITHFUL FOLLOWERS OF CHRIST CHURCH
10503 RYLIE CREST DR
DALLAS TX 75217

45. JOSEPH A & MARION WIMMER
10601 RYLIE CREST DR
DALLAS TX 75217

46. MARTIN MANRIQUEZ
10609 RYLIE CREST DR
DALLAS TX 75217

47. ERIKA H RAMIREZ
10408 SEAGOVILLE RD
DALLAS TX 75217

48. CHRIS TREVINO
705 ANGUS DR
DALLAS TX 75217

49. STEVEN & SUZIE TREVINO
8637 COUNTY ROAD 137
TERRELL TX 75161

50. MIRMAL NILVI
2040 N BELTLINE
STE 400
MESQUITE TX 75150

51. JUAN CARLOS RUVALCABA
PO BOX 270156
DALLAS TX 75227

52. RICKY L & KELLY R HERNANDEZ
721 ANGUS DR
DALLAS TX 75217

53. CLAUDIA PAULINE CORNELIUS
11971 SOUTHVIEW DR
KEMP TX 75143

54. JUAN M RAMIREZ
733 ANGUS DR
DALLAS TX 75217

55. GALDINO NORLEGA
1110 LONSDALE AVE
DALLAS TX 75217

56. CHRISTOPHER M HASSELL
737 ANGUS DR
DALLAS TX 75217

57. CHAD RANGEL & TAMMY M RODRIGUEZ
720 ANGUS DR
DALLAS TX 75217

58. MARINA CASTRO
724 SOUTH ACRES DR
DALLAS TX 75217

59. REFUGIO J HERNANDEZ
517 PLEASANT VISTA DR
DALLAS TX 75217

60. SERGIO RANGEL & SHARON LYNN
716 ANGUS DR
DALLAS TX 75217

TABLE 5-1
PROPERTY OWNER LIST
(Continued)

61. CHAD & TAMMY M RANGEL
700 ANGUS DR
DALLAS TX 75217

62. SAMMY MACK ROBINSON
944 W KEARNEY ST
MESQUITE TX 75149

63. WILLIAM GUEVARA
728 ANGUS DR
DALLAS TX 75217

64. FOREMAN PATSY ET AL JULE H CORDER III
815 CADE PKWY
DALLAS TX 75217

65. MATEO PAZ
11000 CADE RD
DALLAS TX 75217

66. NORMA AVELAR
9438 FAIRHOPE AVE
DALLAS TX 75217

67. PROPERTY HOLDINGS HD LCC
1421 CADE ST
MESQUITE TX 75149

68. RHINOS CAR CO INC
PO BOX 171655
DALLAS TX 75217

69. GONZALEZ PAINT & BODY
10629 C F HAWN FWY
DALLAS TX 75217

70. COMET AUTO SALVAGE INC
PO BOX 711
HUTCHINS TX 75141

71. SULE ETC LLC
10815 C F HAWN FWY
DALLAS TX 75217

72. FRANK BROWN
1212 LOTTIE LN
DALLAS TX 76253

73. JUAN CARRANZA
PO BOX 541743
DALLAS TX 75354

74. ISIDRO RODRIGUEZ
1300 FOWLER RD
WOODRUFF SC 29388

75. JIMMY MCKENZIE
1011 HAYMARKET RD
DALLAS TX 75217

76. HOMER L SR JOHNSON
1007 HAYMARKET RD
DALLAS TX 75217

77. CHECKERED ENTERPRISES LP
PO BOX 397840
DALLAS TX 75339

78. JAMIE LOPEZ
1143 BARREDO ST
DALLAS TX 75217

79. JESUS ROMERO
10908 CALMAR ST
DALLAS TX 75217

80. ALONSO MUNOZ
1225 N TILLERY AVE
DALLAS TX 75211

TABLE 5-1
PROPERTY OWNER LIST
(Continued)

81. RICARDO A & EVA GONZALEZ
13903 KLEBERG RD
DALLAS TX 75253

82. VILLASANA PEDRO F ROJAS
10909 CALMAR ST
DALLAS TX 75217

83. JESUS TREVINO
917 HAYMARKET RD
DALLAS TX 75217

84. AMERICAN DREAM INV INC
11201 PATTI LN
BALCH SPRINGS TX 75180

85. JUAN R GUERRERO
10906 STINSON DR
DALLAS TX 75217

86. JANICE SACRA FARRIS
10902 STINSON DR
DALLAS TX 75217

87. DANIEL & MAE DELL TURCKER
1011 MISTY GLEN LN
DALLAS TX 75232

88. AG TECHNICAL GROUP LLC
2119 PETUNIA ST
DALLAS TX 75228

89. JOSE CASTILLO
7116 LAKE JUNE RD
DALLAS TX 75217

90. AZAP WELDING & CONSTRUCTION LLC
12405 SEAGOVILLE RD
BALCH SPRINGS, TX 75180

91. DAVID D & BARBARA J PAULSEN TRUSTEES
2051 S BELTLINE RD
APT A
BALCH SPRINGS TX 75181

92. SALVADOR VENEGAS
10930 RYLIE CREST DR
DALLAS TX 75217

93. AUGUSTIN JAIME MARROQUIN & JOVITA LIMAR GARCIA
10920 RYLIE CREST DR
DALLAS TX 75217

94. FRANKLINE E FISHER
PO BOX 360806
DALLAS TX 75336

95. CATALINA REYNA
1461 TRAYMORE AVE
DALLAS TX 75217

96. ELENA GONZALEZ MARTINEZ & JUAN ROSAS
10710 RYLIE CREST DR
DALLAS TX 75217

97. RILEYCREST TRAILER PARK LLC
PO BOX 711
HUTCHINS TX 75141

98. JUAN IGNACIO AVILA & MERIA DEL SOCORRO AVILA
10294 MUSTANG RUN
FORNEY TX 75126

99. JUVENAL HERRERA
10706 RYLIE CREST DR
DALLAS TX 75217

100. TEXAS MASTER POOLS PLASTERING LLC
7074 ABNER RD
TERREL TX 75161

TABLE 5-1
PROPERTY OWNER LIST
(Continued)

101. SLCJSRT PROPERTIES HAWN HEIGHTS
3402 MONTEREY CT NE
RENTON WA 98056

102. GREG V WILSON
6008 RIDGECREST RD
APT 340
DALLAS TX 75231

103. RUSSEL J & ESMERALDA WILSON
716 STACIE LN
SEAGOVILLE TX 75159

104. EDMUNDO COLUNGA
1132 RICHARD DR
GARLAND TX 75040

105. JORGE A & MATILDE VALLE
10402 CORY ST
DALLAS TX 75217

106. MARCO ANTONIO & AYDEE VALLEJO
2924 MATERHORN DR
DALLAS TX 75228

107. MICHAEL HERNANDEZ
1009 CADE PKWY
DALLAS TX 75217

108. JUAN DELEON JR
11307 TRAIL LN
BALCH SPRINGS TX 75180

109. TOPLETZ PROPERTY PARTNERSHIP
7509 INWOOD RD
STE 300
DALLAS TX 75209

110. JAMES RAY RODDEN
5144 THRONDALE RD
BALCH SPRINGS TX 75180

111. BILLY EARL CHANDLER JR
626 ROUNDTREE DR
MESQUITE TX 75150

112. VONDA WHALEY
524 BRIGHT ANGEL TRL
DESOTO TX 75115

113. MARLAN LINDAMOOD
928 THELMA ST
DALLAS TX 75217

114. BONIFACIO SORIANO SR
2304 WINTERGREEN RD
HUTCHINS TX 75141

115. MARCELO DIAZ
913 THELMA ST
DALLAS TX 75217

116. CHARLES B ALLEN
UNKNOWN
DALLAS TX 75217

117. REGIO MOTORS AUTO SALES LLC
10312 C F HAWN FWY
DALLAS TX 75217

118. JOSE GUADALUPE VELASQUEZ
1001 MASTERS DR
DALLAS TX 75217

119. CHURCH OF GOD 7TH DAY
10518 C F HAWN FWY
DALLAS TX 75217

120. PATRICIO MENDOZA & GRACIELA V SANCHEZ
1022 CADE RD
DALLAS TX 75217

TABLE 5-1
PROPERTY OWNER LIST
(Continued)

121. METRO TRAILER LEASING INC
100 METRO PKWY
PELHAM AL 35124

122. MARK ROBERT GARDNER
1030 CADE PKWY
DALLAS TX 75217

123. BUILDERS CONCRETE
1033 CADE PKWY
DALLAS TX 75217

124. A+ CHARTER SCHOOLS INC.
8225 BRUTON RD
DALLAS TX 75217

125. MIDARY INVESTMENTS LLC
1022 GRAHAM AVE
DALLAS TX 75223

126. CANA PROPERTY GROUP LLC
1080 C F HAWN PFWY
DALLAS TX 75217

127. L&A HOLDINGS LP
10702 C F HAWN FWY
DALLAS TX 75217

128. FARZAD FARAHMAND
10918 C F HAWN FWY
DALLAS TX 75217

129. ALBERTO M CEDANO
13232 TIMOTHY LN
MESQUITE TX 75180

130. CITY OF DALLAS
1500 MARILLA ST
DALLAS TX 75201

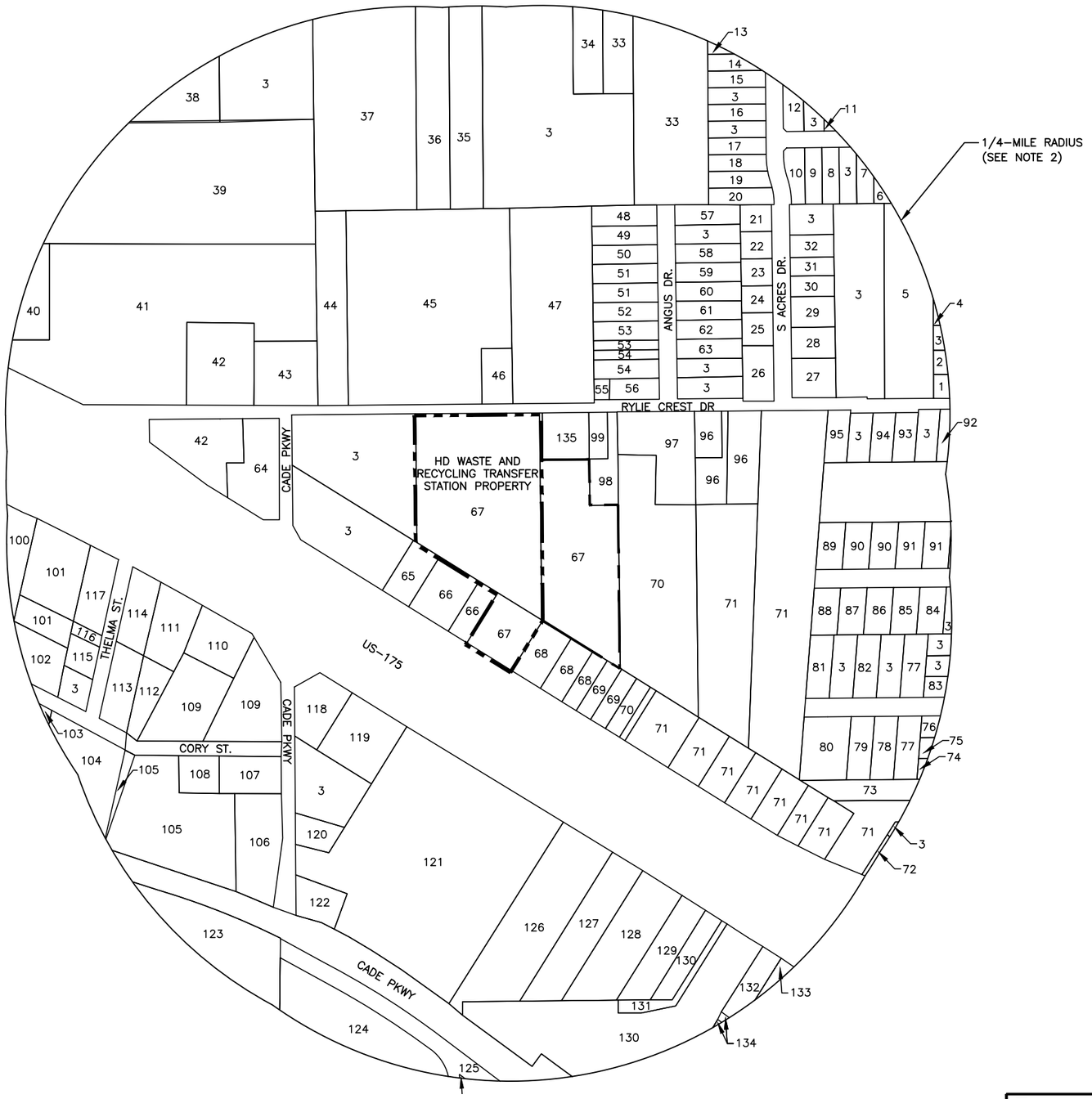
131. OMEGA INDUSTRIES INC
7610 N STEMMONS FWY
#355
DALLAS TX 75247

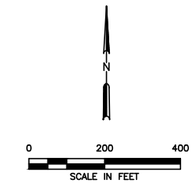
132. 10820 C F HAWN LLC
4514 COLE AVE
STE 600
DALLAS TX 75205

133. JUAN A & MATA CRISTINA PEREZ SAUCEDO
597 W 5TH ST
LANCASTER TX 75146

134. MM RYLIE HOLDINGS LLC
1115 ELLENWOOD DR
DALLAS TX 75217

135. JUVENAL HERRERA
4609 S PEACHTREE RD
BALCH SPRINGS TX 75180



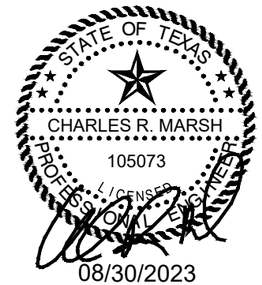


LEGEND

REGISTRATION BOUNDARY
(SEE NOTE 4)

NOTES:

1. (1) REFERS TO PROPERTY OWNERS LISTED ON PROPERTY OWNERS LIST IN SECTION 5, PROPERTY OWNERS LIST AND MAP.
2. THIS LINE REPRESENTS A 1/4–MILE DISTANCE FROM THE REGISTRATION BOUNDARY.
3. PROPERTY OWNERS LIST WAS DEVELOPED FROM DALLAS COUNTY APPRAISAL DISTRICT RECORDS AS OF JUNE 2023.
4. REGISTRATION BOUNDARY WAS PREPARED BY WEAVER CONSULTANTS GROUP. DATED FEBRUARY 21, 2022, AS SHOWN ON FIGURE I/II–13.1 (PER 30 TAC 330.59(d))



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DRAWN BY: JRP
DESIGN BY: CLR
REVIEWED BY: DEP

Weaver Consultants Group
TBPE REGISTRATION NO. F–3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISION NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY PROPERTY OWNERS MAP

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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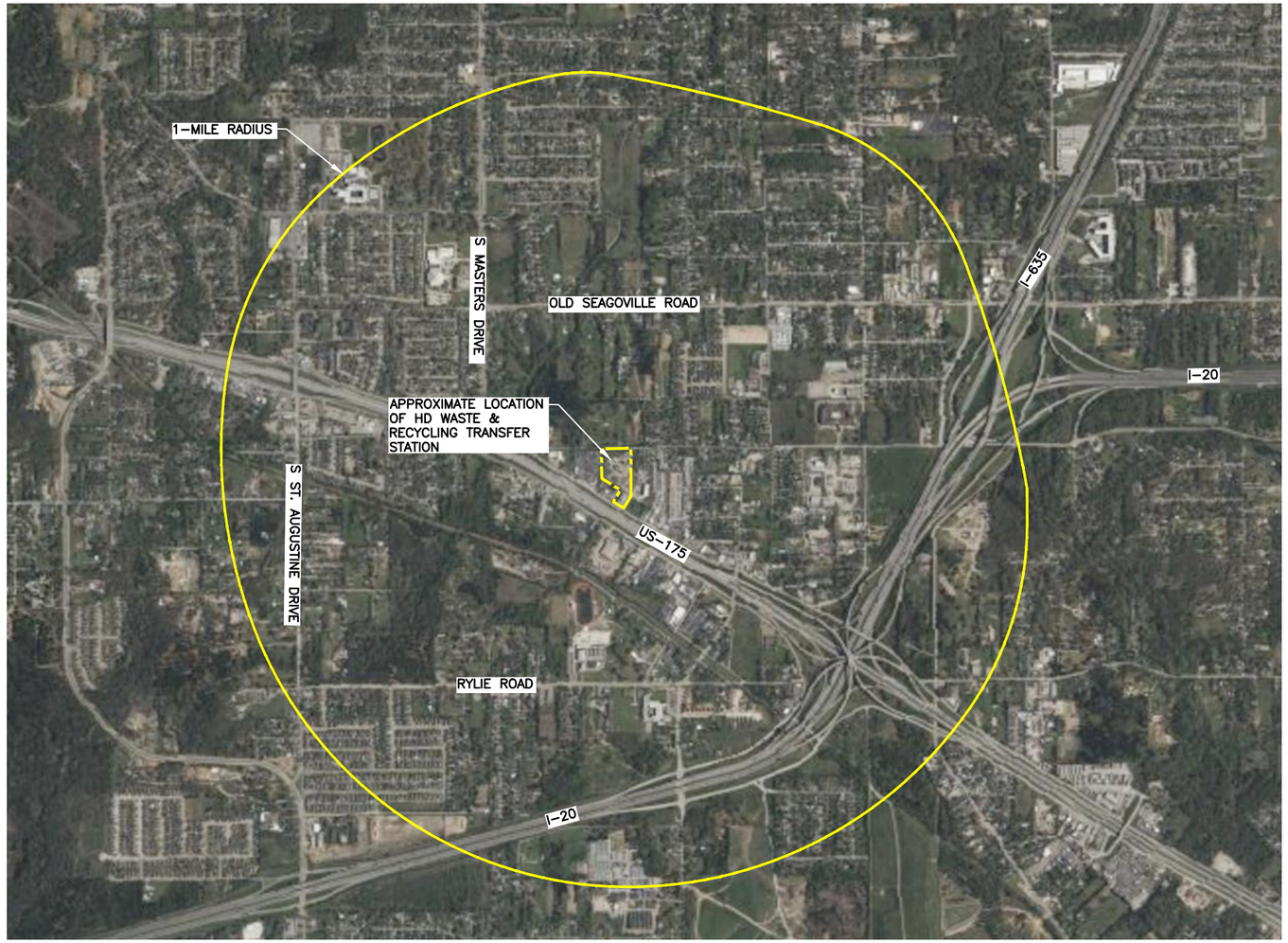
FIGURE I/II–5.1

O:\5486\TYPE V APPLICATION\PARTS I–II\5.1– PROPERTY OWNERS MAP.dwg, jpuhr, 1:2

6 AERIAL PHOTOGRAPH

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

This section addresses §330.61(f).



N

0 1000 2000

SCALE IN FEET

LEGEND

REGISTRATION BOUNDARY

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY MAXAR IMAGERY.
2. REGISTRATION BOUNDARY WAS PREPARED BY WEAVER CONSULTANTS GROUP. DATED FEBRUARY 21, 2022, AS SHOWN ON FIGURE I/II-13.1 (PER 30 TAC 330.59(d))

STATE OF TEXAS
CHARLES R. MARSH
105073
LICENSED
PROFESSIONAL ENGINEER
08/30/2023

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CAD: 6.1-AERIAL PHOTOGRAPH.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISION NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY AERIAL PHOTOGRAPH

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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FIGURE I/II-6.1

O:\5486\TYPE V APPLICATION\PARTS I-II\6.1- AERIAL PHOTOGRAPH.dwg, jpubr, 1:2

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 1 mile of the HDWR TS boundary. Land use information is summarized on the following maps.

- Figure I/II-7.1 (Land Use Map – Aerial). This map highlights land use within a one-mile radius of the site on an aerial photograph.
- Figure I/II-7.2 (Land Use Map). This map highlights land use within a one-mile radius of the property boundary.
- Figure I/II-7.3 (Zoning Map – City of Dallas). This map shows the City of Dallas's zoning designations within a two-mile radius of the site.
- Figure I/II-7.4 (Zoning Map – City of Balch Springs). This map shows the City of Balch Springs zoning designations within a two-mile radius of the site.
- Figure I/II-7.4 (Cities within 5 Miles – Aerial). This map is used to show area cities within 5 miles and to summarize growth trends.

7.2 Location and Zoning

The HDWR TS is located within the city limits of Dallas, Texas, off the US-175 Frontage Road. The facilities physical address is 10631 C F Hawn Fwy, Dallas, Texas 75217.

Zoning in the vicinity of the site is shown graphically on Figures I/II-7.3. As shown, the HDWR TS is located within the Dallas city limits. The primary zoning designations within one mile of the site include single family residential (R-10, SF-6 and R-7.5), commercial (CS), planned development (PD) and Agricultural (A).

7.3 Surrounding Land Use

Land use within a 1-mile radius of the registration boundary is predominantly single family residential and transportation corridor with some industrial facilities located along US-175. There are several residential neighborhoods scattered to the north,

east, and west sides of the facility. The properties located to the immediate west and east are industrial and the property to the north is single family residential. There are approximately 30 industrial/commercial inhabitable structures, two cemeteries, and five schools located within one mile of the facility.

Table 7-1
Zoning Within One Mile of Permit Boundary

Land Use	Acres	Percent
Cemetery	3.44	0.15
Transportation Corridor	375.45	16.19
Education	93.78	4.04
Industrial	104.45	4.50
Retail	59.15	2.55
Vacant	166.15	7.17
Office	12.51	0.54
Hotel	2.85	0.12
Flood Control	25.37	1.09
Single Family	1,399.61	60.37
Multi Family	20.72	0.89
Railroad	23.39	1.01
Church	31.31	1.35
Daycare	0.37	0.02
Total	**2,318.56**	**100**

7.4 Growth Trends of the Nearest Community

The facility property is located within Dallas.

The growth trends for the City of Dallas were assessed and are presented in Table 7-2. The population projections were taken from the Texas Water Development Board (TWDB) 2021 Regional Water Plan.

Table 7-2
Growth Trends
Average Annual Growth Rate

Community	2020-2030	2031-2040	2041-2050
City of Dallas	1.95%	1.98%	1.87%

As shown on Figure I/II-7.5, the area appears to be mostly developed; therefore, it is anticipated that growth will be minimal.

7.5 Proximity to Residences and Other Uses

The nearest residence is found approximately 100 feet east of the registration boundary and approximately 300 feet from the TS structure. The nearest business (Knights Unique Autos) is located approximately 130 feet south of the TS boundary.

There are no known hospitals, lakes, or sites with exceptional aesthetic qualities located within a one-mile radius.

7.6 Land Use Conclusions

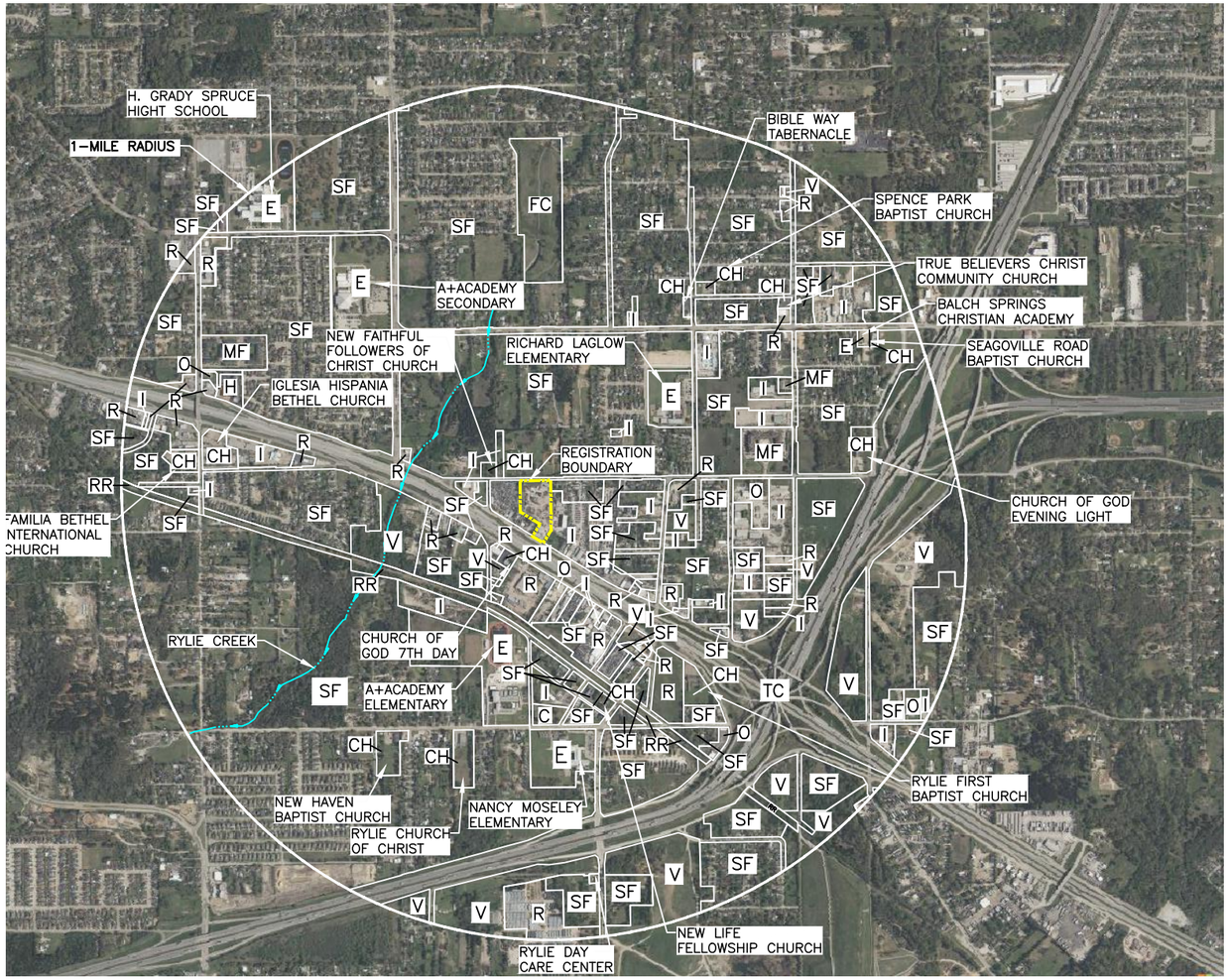
The use of this land as a transfer station represents a compatible land use for the following reasons.

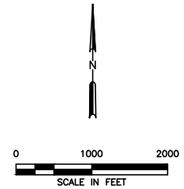
- The site is currently used as an industrial facility that processes source-separated recyclables, a similar industrial use, that will have minimal impact on the surrounding area. Existing vegetation screening and fencing will be provided to minimize visual and noise impacts.
- Land use in the area is governed by the City of Dallas. Portions of the property will be re-zoned to Industrial/Manufacturing, which will support the development and operation of the TS.

7.7 Oil and Water Wells Within 500 Feet

According to a June 2023 review of the Texas Railroad Commission oil and gas well GIS database, there are no known oil or gas wells located within 500 feet of the TS site.

A ½-mile water well search, which includes a review of records from the TWDB, Water Utility Database, Select Submitted Drillers Report Database Wells, United States Geological Survey National Water Information System, and TCEQ water wells, was conducted for the site by GeoSearch. The results of this search are contained in Appendix I/IIB. Twenty-five water wells are located within or near a ½-mile radius of the site. According to the searched records, only two of the water wells were identified to be within 500 feet of the site. The nearest water well is located less than 200 feet west of the facility boundary. A map indicating the identified well locations is provided as Figure I/II-4.2 in Section 4.





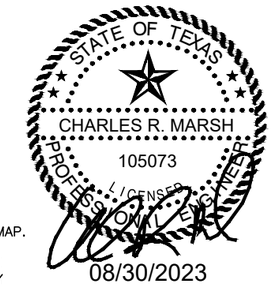
LEGEND

	PERMIT BOUNDARY
R	RETAIL
C	CEMETERY (SEE NOTE 4)
I	INDUSTRIAL
V	VACANT
O	OFFICE
E	EDUCATION
H	HOTEL
SF	SINGLE FAMILY
MF	MULTI FAMILY
RR	RAILROAD
FC	FLOOD CONTROL
TC	TRANSPORTATION CORRIDOR
CH	CHURCH
	EXISTING STREAM

LAND USE WITHIN 1 MILE OF PERMIT BOUNDARY	
CEMETERY	0.15%
TRANSPORTATION CORRIDOR	16.19%
EDUCATION	4.04%
INDUSTRIAL	4.50%
RETAIL	2.55%
VACANT	7.17%
OFFICE	0.54%
HOTEL	0.12%
FLOOD CONTROL	1.09%
SINGLE FAMILY	60.37%
MULTI FAMILY	0.89%
RAILROAD	1.01%
CHURCH	1.35%
DAY CARE	0.02%
TOTAL	100.00%

NOTES:

1. AERIAL PHOTOGRAPHY PROVIDED BY MAXAR IMAGERY.
2. LAND USE IS SHOWN WITHIN THE ONE-MILE BOUNDARY.
3. LAND USE MAP WAS REPRODUCED FROM NCTCOG LAND USE MAP.
4. THERE ARE 13 CHURCHES, 6 SCHOOLS, 2 CEMETERIES (RYLIE CREST CEMETERY AND RILEY CEMETERY-HISTORIC), AND 1 DAY CARE CENTER WITHIN ONE-MILE OF THE REGISTRATION BOUNDARY.



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FILE: 5486-001-11
CAD: 7.1-LAND USE MAP-AERIAL.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISION NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY LAND USE MAP-AERIAL

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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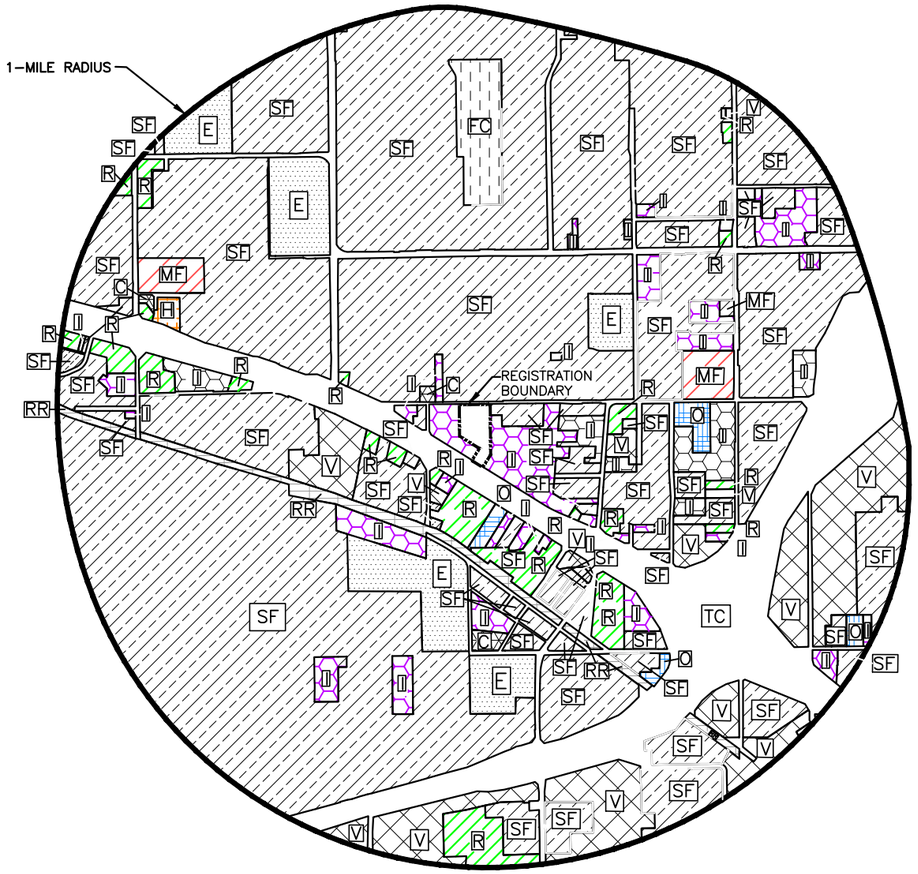
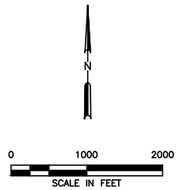
FIGURE I/II-7.1

O:\5486\TYPE V APPLICATION\PARTS I-II\7.1 LAND USE MAP-AERIAL.dwg, jpeg, 1:2





LEGEND

- REGISTRATION BOUNDARY
- R — RETAIL
- C — CEMETERY
- I — INDUSTRIAL
- V — VACANT
- O — OFFICE
- E — EDUCATION
- H — HOTEL
- SF — SINGLE FAMILY
- MF — MULTI FAMILY
- RR — RAILROAD
- FC — FLOOD CONTROL

LAND USE WITHIN 1 MILE OF PERMIT BOUNDARY (SEE NOTE 4)	
CEMETERY	0.15%
TRANSPORTATION CORRIDOR	16.19%
EDUCATION	4.04%
INDUSTRIAL	4.50%
RETAIL	2.55%
VACANT	7.17%
OFFICE	0.54%
HOTEL	0.12%
FLOOD CONTROL	1.09%
SINGLE FAMILY	60.37%
MULTI FAMILY	0.89%
RAILROAD	1.01%
CHURCH	1.35%
DAY CARE	0.02%
TOTAL	100.00%

NOTES:

1. AERIAL PHOTOGRAPHY PROVIDED BY MAXAR IMAGERY.
2. LAND USE IS SHOWN WITHIN THE ONE-MILE BOUNDARY.
3. LAND USE MAP WAS REPRODUCED FROM NCTCDG LAND USE MAP.
4. THERE ARE 13 CHURCHES, 6 SCHOOLS, 2 CEMETERIES (RYLIE CREST CEMETERY AND RILEY CEMETERY-HISTORIC), AND 1 DAY CARE CENTER WITHIN ONE-MILE OF THE REGISTRATION BOUNDARY.

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TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY LAND USE MAP

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DALLAS COUNTY, TEXAS

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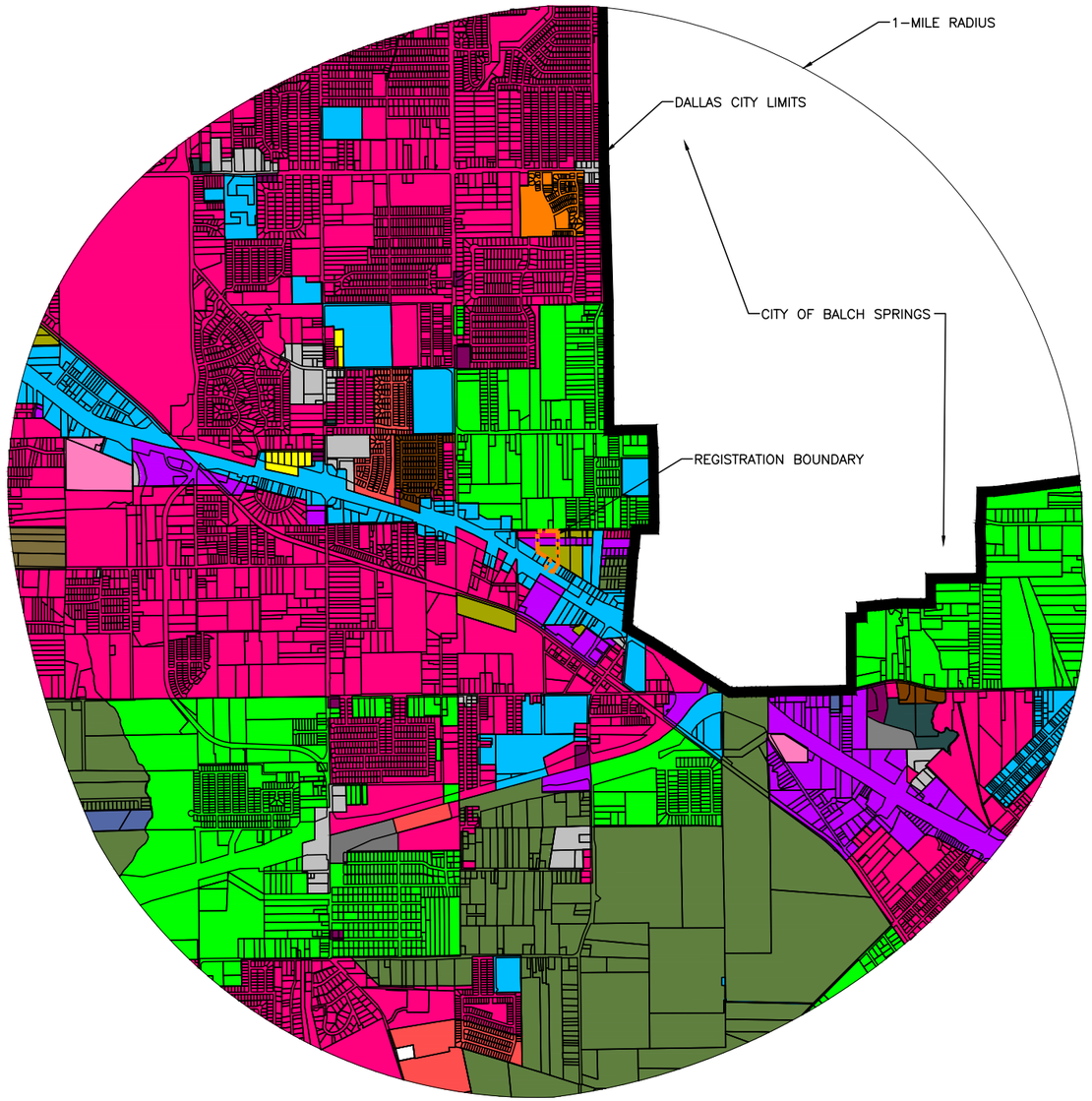
FIGURE I/II-7.2

G:\5486\TYPE V APPLICATION\PAPERS I-II\7.2 LAND USE MAP.dwg, jpnhr, 1:2



N

0 1500 3000
SCALE IN FEET

LEGEND

- REGISTRATION BOUNDARY
- R-5 (A) RESIDENTIAL 5,000 SQ. FEET
- R-7.5 (A) RESIDENTIAL 7,500 SQ. FEET
- R-10 (A) RESIDENTIAL 10,000 SQ. FEET
- TH-1 (A) TOWNHOUSE RESIDENTIAL 6 DU ACRE
- TH-2 (A) TOWNHOUSE RESIDENTIAL 9 DU ACRE
- PD PLANNED DEVELOPMENT
- NS (A) NEIGHBORHOOD SERVICES
- NO (A) NEIGHBORHOOD OFFICE
- MU-1 MIXED USE 1
- MH (A) MOBILE HOME
- MF-2 (A) MULTIFAMILY RESIDENTIAL
- LO-1 LIMITED OFFICE
- IR INDUSTRIAL RESEARCH
- IM INDUSTRIAL MANUFACTURING
- CS COMMERCIAL SERVICE
- CR COMMUNITY RETAIL
- CH CLUSTERED HOUSING
- A (A) AGRICULTURAL

STATE OF TEXAS
CHARLES R. MARSH
105073
LICENSED
PROFESSIONAL ENGINEER
08/30/2023

NOTE:

1. ZONING MAP PROVIDED BY THE CITY OF DALLAS, TECHNICAL SERVICES GIS DEPARTMENT (2022). THIS MAP IS A GRAPHIC REPRESENTATION AND IS NOT GUARANTEED FOR ACCURACY. THIS IS NOT A CERTIFIED DRAWING AND IS NOT INTENDED TO BE USED FOR DESIGN.

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TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY ZONING MAP-CITY OF DALLAS

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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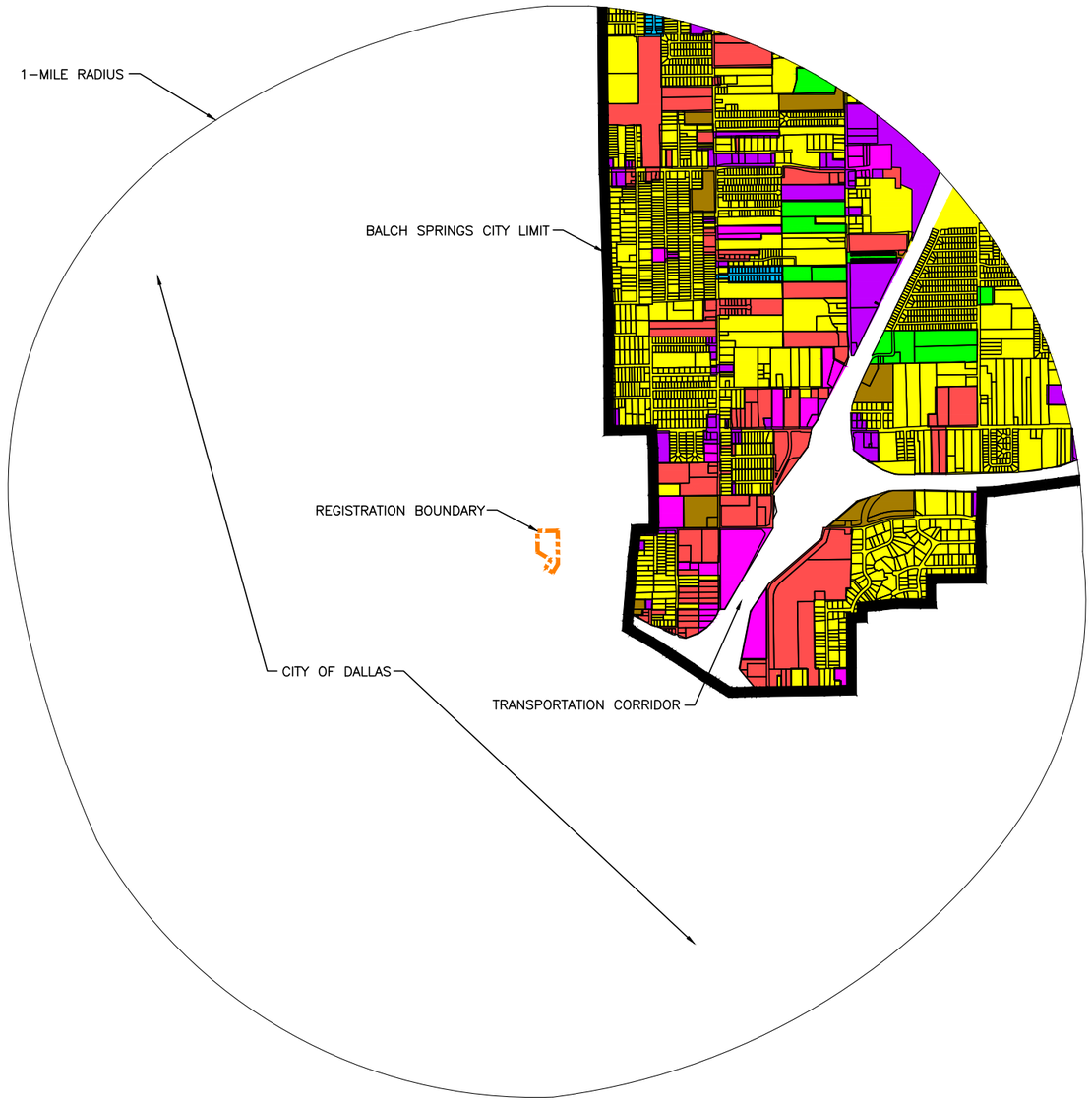
FIGURE 1/11-7.3

G:\5486\TYPE V APPLICATION\PARTS I-IV\7.3 ZONING MAP-CITY OF DALLAS.dwg, jpthr, 1:2



N

0 1500 3000

SCALE IN FEET

LEGEND

- REGISTRATION BOUNDARY
- C COMMERCIAL DISTRICT
- I INDUSTRIAL DISTRICT
- LR LOCAL RETAIL DISTRICT
- SF-6 SINGLE FAMILY DWELLING DISTRICT
- MF-16 MULTIPLE FAMILY DWELLING DISTRICT
- PD PLANNED DEVELOPMENT
- 2F TWO-FAMILY DWELLING DISTRICT

STATE OF TEXAS
CHARLES R. MARSH
105073
LICENSED
PROFESSIONAL ENGINEER
08/30/2023

NOTE:

1. ZONING MAP PROVIDED BY THE CITY OF BALCH SPRINGS. THIS MAP IS A GRAPHIC REPRESENTATION AND IS NOT GUARANTEED FOR ACCURACY. THIS IS NOT A CERTIFIED DRAWING AND IS NOT INTENDED TO BE USED FOR DESIGN.

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TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY ZONING MAP-CITY OF BALCH SPRINGS

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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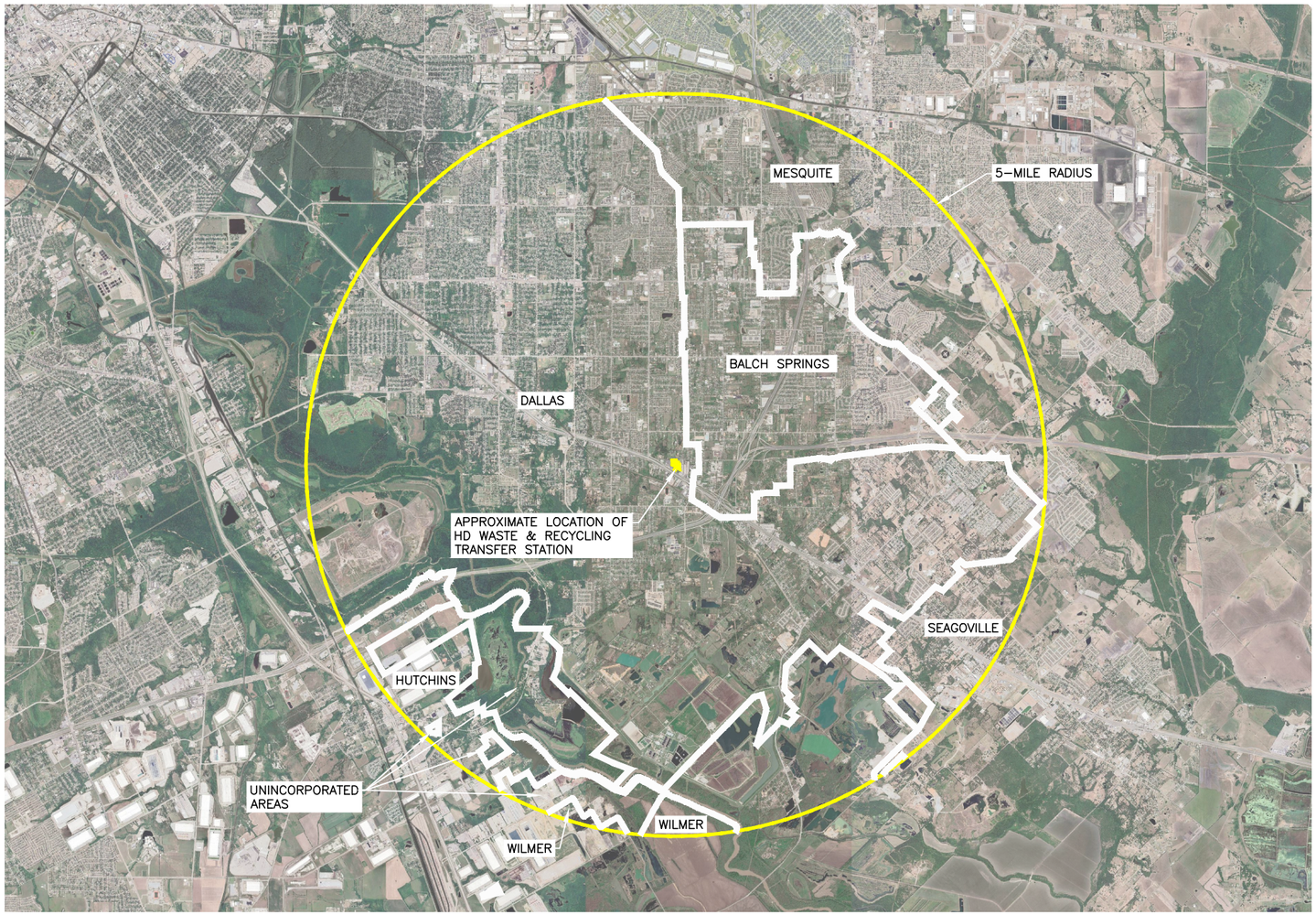
FIGURE I/II-7.4

O:\5486\TYPE V APPLICATION\PARTS I-II\7.4 ZONING MAP-CITY OF BALCH SPRINGS.dwg, jpohr, 1:2



LEGEND

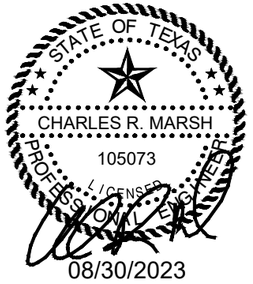
REGISTRATION BOUNDARY

PROPERTY BOUNDARY (SEE NOTE 2)

CITY LIMITS

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE EARTH FROM PHOTOGRAPH TAKEN 06-11-2022.
2. REGISTRATION BOUNDARY WAS PREPARED BY WEAVER CONSULTANTS GROUP. DATED FEBRUARY 21, 2022, AS SHOWN ON FIGURE I/II-13.1 (PER 30 TAC 330.59(d))



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FILE: 5486-001-11
CAD: 7.5-CITIES WITHIN 5-MILES.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISION NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY CITIES WITHIN 5 MILES-AERIAL

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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FIGURE I/II-7.5

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G:\5486\TYPE V APPLICATION\PART5 I-II\7.5- CITIES WITHIN 5 MILES.dwg, jpohr, 1:2

8 TRANSPORTATION

8.1 Traffic Information

This section addresses §330.61(i).

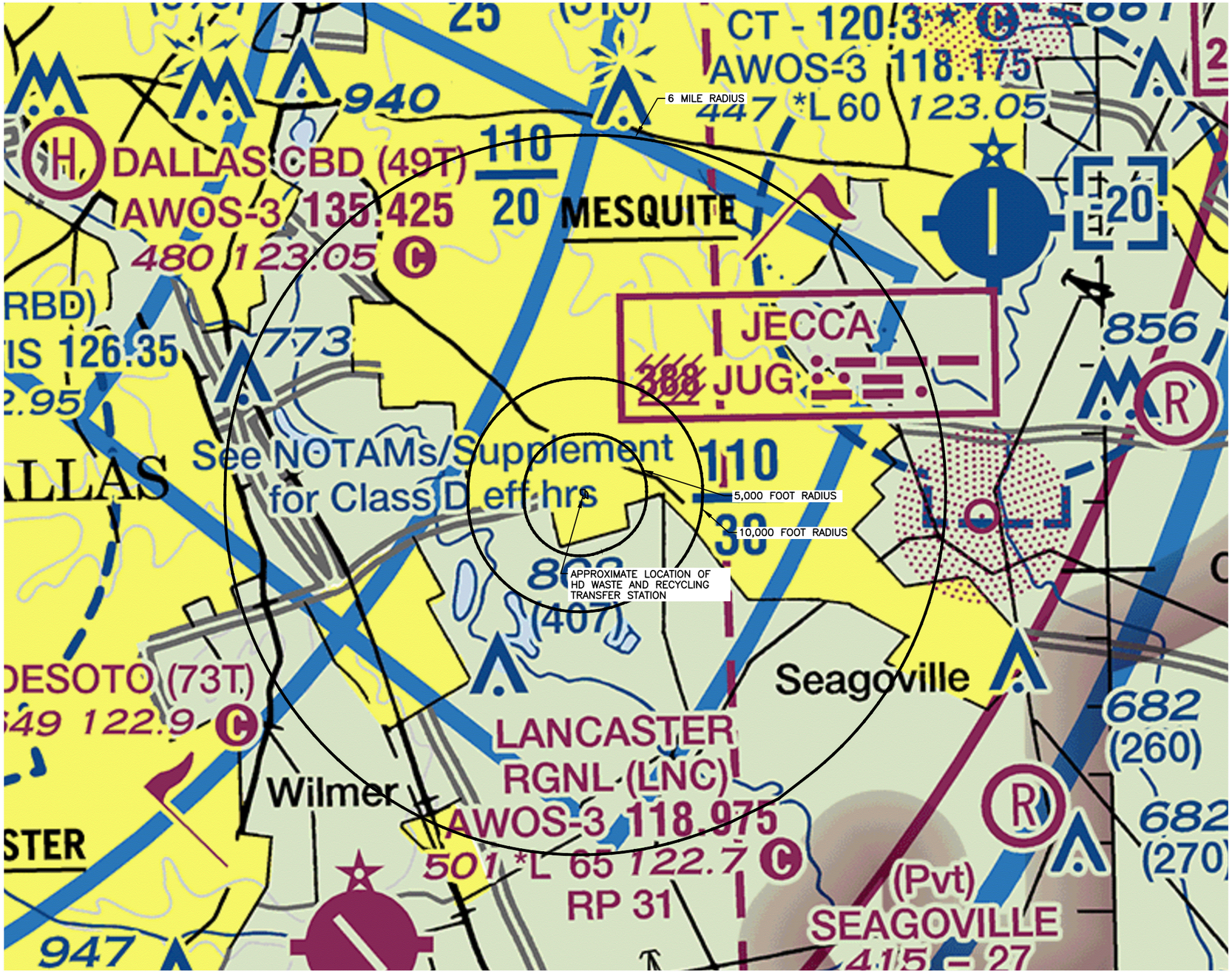
The proposed HDWR TS will be located on the north side of the Highway 175 Frontage Road, in southeast Dallas, Dallas County, Texas. The entrance to the proposed TS connects directly to the Highway 175 Frontage Road. Vehicles bound for the HDWR TS will access the site using I-20, I-635, Highway 175, Rylie Crest Road, Peachtree Road, and the Highway 175 Frontage Road. Waste collection vehicles will enter the site by travelling west on the Highway 175 Frontage Road to the existing driveway into the site. Other 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 routinely use to access the site.

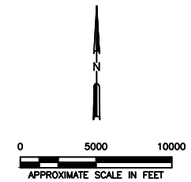
Highway 175 is a six-lane, median-divided, concrete road; I-20 is an eight-lane, median-divided, concrete road; and I-635 is an eight-lane concrete road. The Highway 175 Frontage Road is a two-lane one-way concrete road that vehicles will use to access the facility. Rylie Crest Road and Peachtree Road are both two-lane asphalt roads. These access roads will provide adequate access to the site.

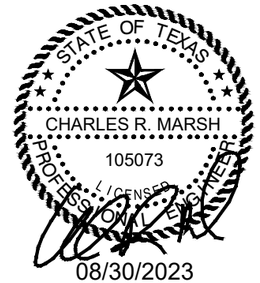
Consistent with Title 30 TAC §330.61(i)(3), a traffic study for the TS was completed and submitted to TxDOT on May 31, 2023. The traffic study concluded that the existing roads and intersections will provide adequate access to the site. TxDOT coordination is included in Appendix I/IIA (refer to the TxDOT tab).

8.2 Airport Impact

No public-use airports exist within six miles of the HDWR TS. The closest public-use airport to the facility is the Mesquite Metro Airport, which is located approximately 6.39 miles northeast of the site, as shown on Figure I/II-8.1. In accordance with Title 30 TAC §330.61(i)(5), an airport impact evaluation of the facility is required only for landfill units and landfill mining operations and thus is not required for a transfer station.







08/30/2023

AIRPORTS

Other than hard-surfaced runways

Seaplane Base

Hard-surfaced runways 1500 ft. or greater

Open dot within hard-surfaced runway configuration indicates approximate VOR, VOR-DME, or VORTAC location.

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

ADDITIONAL AIRPORT INFORMATION

Private "(Pvt)" - Non-public use having emergency or landmark value.

Military - Other than hard-surfaced. All military airports are identified by abbreviations AFB, NAS, AAF, etc. For complete airport information consult DOD FLIP.

Heliport Selected

Unverified

Abandoned - paved having landmark value, 3000 ft. or greater

Ultralight Flight Park Selected

Services-fuel available and field tended during normal working hours depicted by use of ticks around basic airport symbol. (Normal working hours are Mon thru Fri 10:00 A.M. to 4:00 P.M. local time.) Consult A/FD for service availability at airports with hard-surfaced runways 1500 ft. or greater.

☆ Rotating airport beacon in operation Sunset to Sunrise.

TOPOGRAPHIC INFORMATION

Roads

Road Markers

Railroad

Bridges And Viaducts

Power Transmission Lines

Aerial Cable

Landmark Feature - stadium, factory, school, golf course, etc.

Outdoor Theatre

Lookout Tower P-17 (Site Number) 618 (Elevation Base of Tower)

CG Coast Guard Station

Race Track

Tank - water, oil or gas

Oil Well

Water Well

Mines And Quarries

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.)

Non-Perennial Lake

Rocks

Dams

Pier

Perennial Lake

NOTES:

1. THIS MAP REPRODUCED FROM THE FAA DALLAS–FT. WORTH SECTIONAL AERONAUTICAL CHART 97TH EDITION DATED SEPTEMBER 15, 2016.
2. THE NEAREST PUBLIC AIRPORT IS THE MESQUITE METRO AIRPORT, WHICH IS LOCATED APPROXIMATELY 6.39 MILES NORTHEAST OF THE SITE.

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DATE: 08/2023
FILE: 5486-01-11
CAD: 8-1 AREA AIRPORTS.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISION NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY AREA AIRPORTS

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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FIGURE I/II-8.1

O:\5486\TYPE V APPLICATION\PARTS I-II\8-1 AREA AIRPORTS.dwg, jpnhr, 1:2

9 GENERAL GEOLOGY AND SOILS STATEMENT

This section addresses §330.61(j).

The U.S. Department of Agriculture (USDA) Web Soil Survey (dated August 2022 for Dallas County, Texas) indicates the soils beneath the proposed TS property are classified wholly as Rader-Urban land complex soils. The Rader-Urban complex soils are described as fine sandy loam, sandy clay loam, clay loam, clay, and sandy clay derived from mixed sources. These soils are characterized as moderately well drained with low permeability (USDA, August 2022).

According to the Dallas Sheet of the Bureau of Economic Geology (BEG) Geologic Atlas of Texas (1987), the site is located wholly upon an outcrop of the Cretaceous-Age Ozan Formation. The Ozan Formation is characterized as claystone and mudstone with interbedded silt and sand and occasional thin limestone lenses (BEG, 1987). The Ozan Formation overlies, from youngest to oldest, the Austin Chalk, Eagle Ford Shale, Woodbine, and Grayson Marl formations.

The Austin Chalk underlies the Ozan Formation and is characterized as chalk with interbedded calcareous clay and a maximum thickness of about 700-feet regionally. The Eagle Ford Shale underlies the Austin Chalk and is characterized as claystone shale with interbedded sandstone and limestone and a maximum thickness of about 500-feet regionally. The Woodbine Formation underlies the Eagle Ford Shale and is characterized as sandstone and with interbedded shale and sandy shale and a maximum thickness of about 250-feet regionally. The Woodbine Formation is underlain by low permeability calcareous shale, limestone, and clay sediments of the Washita Group and Fredericksburg Group sediments which are greater than 500 feet thick regionally.

According to the TWDB, the uppermost regional aquifer beneath the proposed TS property is the Woodbine Aquifer, which is classified as a Minor Aquifer of Texas and is an important source of groundwater regionally.

10 GROUNDWATER AND SURFACE WATER STATEMENT

10.1 Groundwater Statement

This section addresses §330.61(k).

According to the TWDB, the uppermost regional aquifer beneath the proposed TS property is the Woodbine Aquifer, which is classified as Minor Aquifer or Texas.

Water wells in the vicinity of the proposed TS property are mostly screened within surficial sediments of Quaternary Alluvium and Terrace deposits which are not present at the TS property. A nearby public supply water well located approximately 0.4-miles north-northeast of the TS property is screened in the Woodbine Aquifer at a depth of 1,471 feet below ground surface.

Woodbine groundwater is present under confined conditions throughout most of north Texas but may be unconfined in areas of outcrop. The regional Woodbine Aquifer groundwater flow direction follows the regional dip of the formation, toward the east-southeast. The primary source of recharge to the aquifer is precipitation infiltration on the Woodbine Formation outcrop and through Quaternary Alluvium sediments overlaying the Woodbine Formation (where present). According to the BEG (1987), the Woodbine Formation outcrops greater than 30 miles west of the TS property at closest extent. Low permeability calcareous shale, limestone, and clay sediments of the underlying Washita Group function as an aquitard to the overlying saturated Woodbine Aquifer regionally.

10.2 Surface Water Statement

The proposed TS facility will be located at a local topographic high point. The majority of the uncontaminated runoff will be diverted to an onsite pond and then discharged offsite in accordance with the TPDS MSGP. The southern portion of the property will maintain its current drainage pattern after TS development.

The majority of the property will drain west towards Rylie Creek. Rylie Creek flows from northeast to southwest and drains into Prairie Creek approximately 1.7 miles southwest of the site. Prairie Creek drains into the Dallas Hunting and Fishing Club Lake approximately 1.5 miles southwest of the confluence of Rylie Creek and Prairie Creek. The Dallas Hunting and Fishing Club Lake discharges into Prairie Creek and

then into to Upper Trinity River segment 0805-06 approximately 0.5 miles from the lake. The drainage design for the facility is provided in Part III, Appendix III-B.

According to Brune (TWBD, 1975), there are no springs within 500 feet of the site.

The TS has been designed to achieve the following goals:

1. Prevent the discharge of solid waste or pollutants adjacent to or into waters in the state of Texas.
2. Prevent a discharge of pollutants into waters of the United States.
3. Prevent a discharge of nonpoint source pollution to waters of the United States.

The TS facility will consist of a steel structure with a reinforced concrete slab. Drainage from the facility property is designed to prevent erosion over areas associated with the registration boundary and avoid the offsite discharge of waste. Surface water drainage in and around the facility will be controlled to prevent surface water running onto, into, and from the TS structure.

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 is subject to the TCEQ's stormwater permit requirements and will operate under the TPDES General Permit for Stormwater Discharges, under Standard Industrial Code (SIC) 4212 (Transportation and Warehousing).

The site currently has TPDES authorization and will operate in accordance with a site-specific Storm Water Pollution Prevention Plan (SWPPP) for the operation.

11 FLOODPLAIN AND WETLANDS STATEMENT

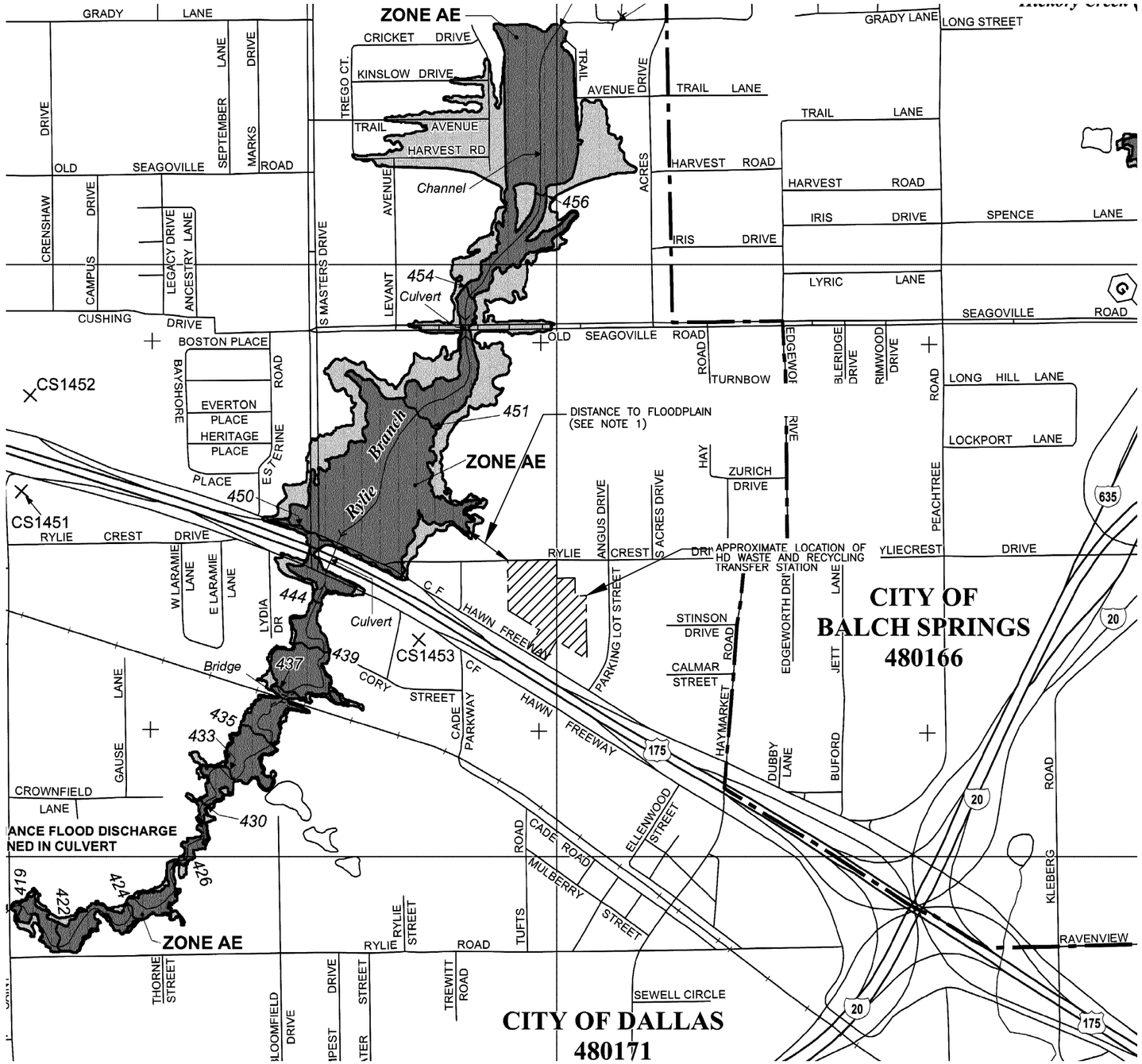
11.1 Floodplain Statement

As shown on Figure I/II-11.1, the TS registration boundary is not located within the 100-year floodplain. The nearest FEMA defined floodplain is located 415 feet northwest of the TS registration boundary.

This section addresses §330.61(m).

11.2 Wetlands Statement

WCG performed a general determination of "Waters of the US" (including wetlands for the TS). The jurisdictional determination consisted of a pre-field literature review and a site assessment. A copy of the WCG report is included in Appendix I/IIC. Based on the information included in WCG's report, no waters of the US, including wetlands, are located on the TS site.



0 500 1000
SCALE IN FEET

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	1% Annual Chance Floodplain Boundary
	0.2% Annual Chance Floodplain Boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

A — A	Cross section line
23 — 23	Transect line
45° 02' 08", 93° 02' 12"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
3100000 FT	5000-foot ticks: Texas State Plane North Central Zone (FIPS Zone 4202), Lambert Conformal Conic projection
4°89'000" N	1000-meter Universal Transverse Mercator grid values, zone 14
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
M1.5	River Mile

STATE OF TEXAS
CHARLES R. MARSH
105073
LICENSED
PROFESSIONAL ENGINEER
08/30/2023

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0510K

FIRM

FLOOD INSURANCE RATE MAP

DALLAS COUNTY, TEXAS AND INCORPORATED AREAS

PANEL 510 OF 725

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BALCH SPRINGS, CITY OF	480166	0510	K
DALLAS, CITY OF	480171	0510	K
MESQUITE, CITY OF	485490	0510	K

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
48113C0510K
MAP REVISED
JULY 7, 2014

Federal Emergency Management Agency

NOTES:

1. THE SHORTEST DISTANCE TO THE FEMA DEFINED FLOOD PLAIN IS APPROXIMATELY 415 FEET.

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- [ ] ISSUED FOR CONSTRUCTION
- [X] FOR REGISTRATION PURPOSES ONLY
- [ ] 50% SUBMITTAL

DATE: 08/2023
FILE: 5486-001-11
CAD: FIG 2 FIRM.DWG
DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE LICENSE NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY FEMA FLOOD INSURANCE RATE MAP (FIRM)

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE I/II-11.1

O:\5486\TYPE V APPLICATION\PARTS I-II\11.1- FEMA.dwg, jpmir, 1:2

12 PROTECTION OF ENDANGERED SPECIES

WCG conducted a threatened and endangered survey for the TS project property to determine whether the project would have an adverse effect on threatened and endangered species and/or their habitat. Based on the information included in the WCG report, the proposed construction of the TS will not likely have an adverse effect on federal or state listed threatened or endangered species. Therefore, this facility will be in compliance with all applicable federal, state and local laws regarding threatened and endangered species. A copy of the WCG report is included in Appendix I/IID.

13 LEGAL DESCRIPTION

A legal description of the 5.72-acre registration boundary is included on the following pages. The current ownership record for the property is found in Book 2433, Page 1343 and Book 2404, Page 1235 of the Official Records of Dallas County, Texas.

This section addresses §330.59(d)(1).

"EXHIBIT A"
REGISTRATION BOUNDARY LEGAL DESCRIPTION
249,124 SQUARE FEET (5.72 ACRES) OUT OF THE
JAMES R. RYLIE SURVEY, ABSTRACT NO. 1245
CITY OF DALLAS, DALLAS COUNTY, TEXAS

Being a 249,124 square foot (5.72 acre) tract of land situated in the James R. Rylie Survey, Abstract No. 1245, City of Dallas, Dallas County, Texas and being all of Lot 7 and a portion of Lot 11 of the Union Central Life Insurance Co. Addition, according to the plat recorded in Volume 5, Page 282, Map Records, Dallas County, Texas (M.R.D.C.T.) and being a portion of a called 8.8647 acre tract of land described in a Deed of Trust to Property Holdings HD, LLC, recorded in Instrument No. 201600353434, Official Public Records, Dallas County, Texas (O.P.R.D.C.T.) and being more particularly described as follows:

BEGINNING at a 1/2" iron rod with yellow cap stamped "WCG" set in the south right-of-way (R.O.W.) line of Rylie Crest Drive (40 Foot R.O.W.) and in the north line of said 8.8647 acre tract and for the northerly common corner of Lot 6 and Lot 7 of said Union Central Life Insurance Co. Addition, from which a 1/2" iron rod with yellow cap stamped "WCG" found in the north line of said Lot 6 and for the northwest corner of a called 0.517 acre tract of land recorded in Volume 2001003, Page 9076, Deed Records, Dallas County, Texas (D.R.D.C.T.) and for the most northerly, northeast corner of said 8.8647 acre tract bears North 89° 32' 42" East (called South 89° 57' 28" East) a distance of 8.63 feet;

THENCE South 00° 34' 30" East (called North 00° 07' 00" West), over and across said 8.8647 acre tract and along the common line of said of Lots 6 and 7 of said Union Central Life Insurance Co. Addition, a distance of 669.02 feet (called 668.4 feet) to a 1/2" iron rod with yellow cap stamped "WCG" set in the north line of Lot 11 of said Union Central Life Insurance Co. Addition and for the southerly common corner of Lot 6 and Lot 7 of said Union Central Life Insurance Co. Addition;

THENCE South 58° 08' 18" East (called North 57° 41' 00" West), along the common line of Lot 6 and Lot 11 of said Union Central Life Insurance Co. Addition, a distance of 3.85 feet to a 1/2" iron rod with yellow cap stamped "DCA INC" found for the north corner of a called 1.06 acre tract of land described in a General Warranty Deed to Rhino's Car Co, Inc., recorded in Instrument No. 201500234542, O.P.R.D.C.T. and for an inner ell corner of said 8.8647 acre tract;

THENCE South 31° 53' 09" West (called South 32° 19" 00" West), along the common line of said 1.06 acre tract and said 8.8647 acre tract, for a distance of 190.00 feet to a 1/2" iron rod with yellow cap stamped "West 682" found in the northeast R.O.W. of U.S. Highway 175 (330 Foot R.O.W.) (A.K.A. C.F. Hawn Freeway) and for the west corner of said 1.06 acre tract and for the southernmost corner of said 8.8647 acre tract, and from which a railroad spike found for the southwest corner of a tract of land described as "Tract 1" to Gonzalez Paint & Body, Inc., recorded in Instrument No. 201400234302, O.P.R.D.C.T. and for the south corner of said 1.06 acre tract bears South 58° 08' 18" East (called North 57° 41' 00" West) a distance of 244.68 feet;

THENCE North 58° 08' 18" West (called North 57° 41' 00" West), along the common line of said U.S. Highway 175 and said 8.8647 acre tract, a distance of 170.00 feet to a 1/2" iron rod with yellow cap stamped "WCG" found for the south corner of a called 0.964 acre tract of land described in a General Warranty deed to Norma Avelar, recorded in Instrument No. 202000205633, O.P.R.D.C.T. and for the southernmost southwest corner of said 8.8647 acre tract;

THENCE North 31° 53' 09" East (called North 32° 19" 00" East), along the common line of said 0.964 acre tract and said 8.8647 acre tract, a distance of 190.00 feet to a 1/2" iron rod with yellow cap stamped "WCG" found in the common line of Lot 7 and Lot 11 of said Union Central Life Insurance Co. Addition and for the east corner of said 0.964 acre tract and for an inner ell corner of said 8.8647 acre tract;

THENCE North 58° 08' 18" West (called North 57° 41' 00" West), along the common line of said 0.964 acre tract and said 8.8647 acre tract and the common line of Lots 7, 11 and 10 of said Union Central Life Insurance Co. Addition, passing at distance of 20.83 feet, a point for the common northerly corner of Lot 10 and Lot 11 of said Union Central Life Insurance Co. Addition, continuing and passing at a distance of 221.00 feet, a 1" iron rod found for the east corner of a tract of land to Mateo Paz, recorded in Instrument No. 201600113630, O.P.R.D.C.T. and for the north corner of said 0.964 acre tract, continuing along the common line of said Mateo Paz Tract and said 8.8647 acre tract and Lots 7 and 10 of said Union Central Life Insurance Co. Addition, for a total distance of 307.50 feet to a 1/2" iron rod with yellow cap stamped "DCA INC" found in the northeast line of Lot 10 of said Union Central Life Insurance Co. Addition and for the southerly east corner of a tract of land described in a Quitclaim Deed to Fidel Udenze, recorded in Instrument No. 200600032895, O.P.R.D.C.T. and for the northerly southwest corner of said 8.8647 acre tract and for the southeast corner of Lot 8 of said Union Central Life Insurance Co. Addition and for the southwest corner of Lot 7 of said Union Central Life Insurance Co. Addition, from which a 5/8" iron rod found in the east R.O.W. line of Cade Road (34 foot R.O.W.) and in the west line of said Fidel Udenze Tract and for the southwest corner of Lot 8 of said Union Central Life Insurance Co. Addition and the northwest corner of Lot 9 of said Union Central Life Insurance Co. Addition bears North 58°08' 18" West (called North 57° 41' 00" West), over and across said Fidel Udenze Tract and along the common line of Lot 8 and Lot 9 of said Union Central Life Insurance Co. Addition a distance of 474.23 feet (called 473.6 feet);

THENCE North 00° 34' 18" West (called North 00° 07' 00" West), along the common line of said Fidel Udenze Tract and Lot 7 and 8 of said Union Central Life Insurance Co. Addition and said 8.8647 acre tract, a distance of 415.85 feet to a point in the south R.O.W. of said Rylie Crest Drive and for the northeast corner of said Fidel Udenze Tract and for the northwest corner of said 8.8647 acre tract, from which a 1/2" iron rod found bears North 66° 51' 08" East a distance of 1.18 feet;

THENCE North 89° 32' 42" East (called North 90° 00' 00" East), along the common line of the south R.O.W. of said Rylie Crest Drive and Lot 7 of said Union Central Life Insurance Co. Addition and said 8.8647 acre tract, a distance of 399.67 feet to the **POINT OF BEGINNING**, containing **249,124 square feet (5.72 acres),** more or less.

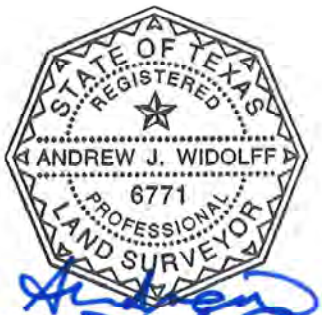
SURVEY NOTES:

1. A survey exhibit of even date accompanies this description, shown on sheet 4 of this document.

2. Basis of Bearings: Grid North, relative to the Texas Coordinate System of 1983, North Central Zone, NAD83 (2011) epoch 2010.00, (Geoid18) based on real time kinematic observations utilizing Allterra's RTKNET VRS network. Distances and Coordinates shown hereon are surface and may be converted to grid by multiplying the combined project scale factor of 0.999863513 from an origin of 0,0.

3. This survey has been prepared based on field observations completed on June 14, 2023, and information provided by the client, if any, and was prepared without the benefit of a title commitment and is subject to any easements or encumbrances not visible on the ground which might be identified in a current title search.

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



7.7.23

Andrew J. Widolff RPLS No. 6771

RYLIE CREST DRIVE (40 FOOT ROW)

N89°32'42"E 399.67' POB

N89°32'42"E 8.63'

1/2" IRF (CM) BEARS N66°51'08"E 1.18'

12.40'

(CALLED N90°00'00"E)

4.28'

1/2" IRF "WCG"

JAMES R. RYLIE SURVEY ABSTRACT NO. 1245

JUVENAL HERRERA CALLED 0.517 AC VOL. 20010003, PG. 9076 D.R.D.C.T.

JUVENAL HERRERA CALLED 0.207 AC VOL. 2001094, PG. 5829 D.R.D.C.T.

RILEYCREST TRAILER PARK LLC CALLED 1.26 AC INST. NO. 202002253401 O.P.R.D.C.T.

FIDEL UDENZE INST. NO. 200600032895 O.P.R.D.C.T. LOT 8

19.98'

(CALLED N00°07'00"W) N00°34'18"W 415.85'

LOT 7

PROPERTY HOLDINGS HD, LLC CALLED 8.8647 AC INST. NO. 201600353434 O.P.R.D.C.T.

REGISTRATION BOUNDARY 249,124 SQUARE FEET (5.72 ACRES)

DALLAS CITY BLOCK 8777 UNION CENTRAL LIFE INSURANCE CO. ADDITION VOL. 5, PG. 282 M.R.D.C.T.

1/2" IRF "WCG"

JUAN IGNACIO AVILA AND MARIA DEL SOCORRO AVILA CALLED 0.6257 AC SAVE AND EXCEPT 0.207 AC INST. NO. 200600401784 O.P.R.D.C.T.

1/2" IRF "WCG"

1/2" IRF "WCG"

5/8" IRF (CM)

(CALLED N57°41'00"W 473.6') N58°08'18"W 474.23'

31.40'

LOT 9

LOT 6

PROPERTY HOLDINGS HD, LLC CALLED 8.8647 AC INST. NO. 201600353434 O.P.R.D.C.T.

1/2" IRF "DCA" (CM)

1.48'

86.50'

1" IRF (CM)

UNSHADED ZONE X (SEE NOTE #4)

(CALLED N00°07'00"W 668.4') S00°34'30"E 669.02'

UNSHADED ZONE X (SEE NOTE #4)

(CALLED N57°41'00"W) N58°08'18"W 307.50'

221.00'

INST. MATEO PAZ INST. NO. 201600113630 O.P.R.D.C.T.

LOT 10

NORMA AVELAR CALLED 0.964 AC INST. NO. 202000205633 O.P.R.D.C.T.

20.83'

1/2" IRF "WCG"

(CALLED N32°19'00"E) N31°53'09"E 190.00'

9.91'

MULTI-STORY METAL BUILDING

LOT 11

69.81'

77.82'

(CALLED N57°41'00"W) N58°08'18"W 170.00'

1/2" IRF "WCG"

UNSHADED ZONE X (SEE NOTE #4)

IRS

1/2" IRF "DCA" (CM)

L1

PARTIALLY ENCLOSED STEEL CANOPY

15.94'

2.79'

S31°53'09"W 190.00' (CALLED S32°19'00"W)

1/2" IRF BEARS S50°10'30"W 0.71'

LOT 12

RHINO'S CAR CO, INC. CALLED 1.06 AC INST. NO. 201500234542 O.P.R.D.C.T.

(CALLED N57°41'00"W) S58°08'18"E 244.68'

1/2" IRF "WCG"

FRRS (CM)

"TRACT 1" GONZALEZ PAINT & BODY, INC. INST. NO. 201400234302 O.P.R.D.C.T.

"TRACT 2" GONZALEZ PAINT & BODY, INC. INST. NO. 201400234302 O.P.R.D.C.T.

COMET AUTO SALVAGE, INC. CALLED 4.25 AC INST. NO. 200900253402 O.P.R.D.C.T.

U.S. HWY 175 (330 FOOT ROW) (A.K.A. C.F. HAWN FREEWAY)

1/2" IRF W/ YELLOW CAP "WEST 682" (CM)

LINE TABLE			
LINE	BEARING	LENGTH	(CALLED)
L1	S58°08'18"E	3.85'	N57°41'00"W

NOTES:

1. BASIS OF BEARINGS: GRID NORTH RELATIVE TO THE TEXAS COORDINATE SYSTEM OF 1983, NORTH CENTRAL ZONE, NAD83 (2011) EPOCH 2010.00, (GEOID18) BASED ON REAL TIME KINEMATIC OBSERVATIONS UTILIZING ALLTERRA'S RTKNET VRS NETWORK. DISTANCES AND COORDINATES SHOWN HEREON ARE SURFACE AND MAY BE CONVERTED TO GRID BY MULTIPLYING THE PROJECT COMBINED SCALE FACTOR OF 0.999863513.
2. THIS SURVEY HAS BEEN PREPARED BASED UPON INFORMATION PROVIDED BY THE CLIENT, IF ANY, AND WAS PREPARED WITHOUT THE BENEFIT OF A TITLE COMMITMENT AND IS SUBJECT TO ANY EASEMENTS OR ENCUMBRANCES NOT VISIBLE ON THE GROUND WHICH MIGHT BE IDENTIFIED IN A CURRENT TITLE SEARCH.
3. CONTROLLING MONUMENTS: AS SHOWN
4. THE SUBJECT TRACT IS DEPICTED WITHIN UNSHADED ZONE X AS SHOWN ON THE FLOOD INSURANCE RATE MAP NUMBER 48113C0510K, DATED JULY 7, 2014 AND IS DEFINED THEREON TO BE "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN."

N

0 50 100

(FEET)

1 inch = 100 ft.

VICINITY MAP NOT TO SCALE

LEGEND

	REGISTRATION BOUNDARY LINE (BY THIS SURVEY)
	LOT LINE
	OLD LOT LINE
	BUILDING
POB	POINT OF BEGINNING
IRF	IRON ROD FOUND
1/2" IRF "WCG"	1/2" IRON ROD W/ YELLOW CAP STAMPED "WCG" FOUND
1/2" IRF "DCA"	1/2" IRON ROD W/YELLOW CAP STAMPED "DCA" FOUND
IRS	1/2" IRON ROD W/ YELLOW CAP STAMPED "WCG" SET
FRRS	RAILROAD SPIKE FOUND
NF60D	60D NAIL FOUND
PFC	POINT FOR CORNER
(R)	RECORD BEARING AND DISTANCE
(CM)	CONTROLLING MONUMENT
M.R.D.C.T.	MAP RECORDS, DALLAS COUNTY, TX
D.R.D.C.T.	DEED RECORDS, DALLAS COUNTY, TX
O.P.R.D.C.T.	OFFICIAL PUBLIC RECORDS, DALLAS COUNTY, TX
INST. NO.	INSTRUMENT NUMBER
VOL.	VOLUME
PG.	PAGE

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

7.7.23

Andrew J. Widolff RPLS No. 6771
TBPELS Reg. No. 10095400

PREPARED FOR: HD WASTE & RECYCLING, LLC

"EXHIBIT A" REGISTRATION BOUNDARY
249,124 SQUARE FEET (5.72 ACRES)
SITUATED IN THE JAMES R. RYLIE SURVEY, ABSTRACT NO. 1245, DALLAS COUNTY, TX
10631 C F HAWN PWY, DALLAS, TX 75217

REVISION DESCRIPTION	DATE	No.

Weaver Consultants Group

WEAVER CONSULTANTS GROUP
4230 SOUTHWEST FWY STE #200
HOUSTON, TEXAS 77027
(817)-735-9770
www.wcgrp.com

RELEASE 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:	EA/CS
REVIEWED BY:	AJW
DATE:	07/07/2023
FILE:	5486-001-11-01
CAD:	SEE PLOT STAMP
SHEET	4 OF 4

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14 PROPERTY OWNER AFFIDAVIT

The property owner affidavit is included on the following page.

This section addresses §330.59(d)(2).

PROPERTY OWNER AFFIDAVIT

STATE OF TEXAS §
§
COUNTY OF DALLAS §

On this day, Diana Martinez, on behalf of HD Waste and Recycling, LLC, appeared before me, the undersigned notary public, and after I administered an oath to him, upon his oath he said:

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

HD Waste and Recycling, LLC, hereafter referred to as the property owner, acknowledges that:

- HD Waste Transfer Station, LLC is filing an application with the Texas Commission on Environmental Quality to operate a Type V municipal solid waste and recyclables transfer station on real property owned by HD Waste and Recycling, LLC and located in Dallas County, Texas, being more particularly described in Parts I/II – Section 13 of the application (the Site).
- HD Waste and Recycling, LLC 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 closure care of the facility.
- HD Waste and Recycling, LLC 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 closure period, and if required, after closure for the purpose of inspection and maintenance.

Diana Martinez
Chief Executive Officer (CEO)

Diana Martinez
Signature

8/30/2023
Date

SWORN TO AND SUBSCRIBED BEFORE ME by TXDL on the 30TH day of AUGUST, 2023, which witness my hand and seal of office.

ALEJANDRO J GONZALEZ
Notary ID #12176904
My Commission Expires
March 11, 2025

Notary Public in and for the State of Texas

ALEJANDRO J. GONZALEZ
Printed Name

My Commission Expires 3/11/2025

15 LEGAL AUTHORITY

The certificates provided on the following pages document the legal status of the applicant.

This section addresses §330.59(e).

16 EVIDENCE OF COMPETENCY

16.1 Solid Waste Sites

The HDWR TS is owned and operated by HD Waste Transfer Station, LLC. HD Waste Transfer Station, LLC is a subsidiary of HD Waste & Recycling, LLC, which has operated solid waste and recyclable material collection companies for over 14 years. The current property has been in operation as an exempt recycling facility for more than 7 years. HD Waste & Recycling, LLC has 21 employees and a Class B MSW License.

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

16.2 HDWR Transfer Station Key Personnel

The key personnel that will be involved in the management and operations of the proposed HDWR TS are listed below:

Diana Martinez, Chief Executive Officer (CEO)

Diana Martinez serves as the CEO for the site. Mrs. Martinez began her waste industry experience at a garbage collection company over 32 years ago. She manages the ongoing waste removal and recycling services.

Hugo Martinez, Operations Manager

Hugo Martinez serves as the COO and Operations Manager for the site. Mr. Martinez began his waste industry experience at a MSW collection company over 30 years ago. He manages the operations aspect of the waste removal and recycling services. He holds an active MSW Class B License.

AJ Gonzalez, General Manager

AJ Gonzalez is the Facility General Manager. Mr. Gonzales has 2 years' experience in the MSW field, including ongoing experience with the City of Dallas Environmental Quality & Sustainability Division. He also oversees stormwater management issues, Texas Pollutant Discharge Elimination System (TPDES) certificate responsibilities, and alcohol misuse in the work place in accordance with 48 CFR Part 40 & 382.603.

16.3 Equipment

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

17 APPOINTMENTS

The appointment prepared for this application meets the requirements of Title 30 TAC §330.59(g) and §305.44.

This section addresses §330.59(g).

NOTICE OF APPOINTMENT
Agent for the Applicant

Ms. Kelly Keel
Interim Executive Director
Texas Commission on Environmental Quality
MC 109
PO Box 13087
Austin, Texas 78711-3087

Dear Ms. Keel:

I am an Authorized Agent of HD Waste Transfer Station, LLC in matters concerning this Type V Registration Application.

ATTEST:

HD Waste Transfer Station, LLC

Diana Martinez
Signature

Diana Martinez, Chief Executive Officer
Name, Title

8/30/23
Date

SWORN TO AND SUBSCRIBED BEFORE ME by TXDL on the 30TH day of AUGUST, 2023, which witness my hand and seal of office.

ALEJANDRO J GONZALEZ
Notary ID #12176904
My Commission Expires
March 11, 2025

Notary Public in and for the State of Texas

ALEJANDRO J. GONZALEZ
Printed Name

My Commission Expires 3/11/2025

APPENDIX I/IIA

DEMONSTRATION OF COORDINATION

- Coordination with Texas Department of Transportation
- Coordination with Texas Historical Commission
- Coordination with Texas Parks and Wildlife Department
- Coordination with North Central Texas Council of Governments

COORDINATION WITH
TEXAS DEPARTMENT OF TRANSPORTATION

CONTENTS

TXDOT APPROVAL LETTER

Marsh, Chuck

From: Dung Nguyen <Dung.Nguyen@txdot.gov>
Sent: Monday, August 21, 2023 3:10 PM
To: Marsh, Chuck; Collin Miller
Cc: Nathan Petter
Subject: RE: HD Waste Transfer Station Traffic Study

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

Good Afternoon Chuck,

After review, the Texas Department of Transportation's roadway systems will not be affected with this after reviewing the Traffic Study and Proposed Drainage plan that was sent. As such, TxDOT has no objections. If this e-mail is not sufficient for your needs, please let me know.

Thank You,
Dung Nguyen, P.E.
4777 E. US Hwy. 80
Mesquite, TX 75150
214-320-4474

From: Marsh, Chuck <cmarsh@wcgrp.com>
Sent: Wednesday, August 16, 2023 8:23 AM
To: Dung Nguyen <Dung.Nguyen@txdot.gov>; Collin Miller <Collin.Miller@txdot.gov>
Subject: RE: HD Waste Transfer Station Traffic Study

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Dung and Collin,

Have you had an opportunity to look over the drainage calculations prepared for the proposed transfer station facility? If so, please let me know if you have any questions or if there is any other information you need to complete your review.

Thanks,

Chuck

Charles Marsh, PE
Project Director

Weaver Consultants Group

6420 Southwest Blvd. | Suite 206
Fort Worth, TX 76109
O: 817-735-9770 | F: 817-735-9775
cmarsh@wcgrp.com | www.wcgrp.com

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From: Marsh, Chuck
Sent: Friday, August 11, 2023 3:57 PM
To: Dung Nguyen <Dung.Nguyen@txdot.gov>; Collin Miller <Collin.Miller@txdot.gov>
Subject: RE: HD Waste Transfer Station Traffic Study

Thank you Dung. I've sent you and Collin a link to download a PDF of our drainage calculations via Sharefile that should be there shortly. In summary, the attached drawing shows that the site generally drains south-to-north. The small portion of the site that does drain south towards TxDOT ROW (drainage areas DA2 and DA3) include minimal development, and those drainage areas decrease in size due to the proposed development. In short, there is no increase in Q onto TxDOT ROW.

If you have any questions or need any additional information, please let me know.

Chuck

From: Dung Nguyen <Dung.Nguyen@txdot.gov>
Sent: Friday, August 11, 2023 3:22 PM
To: Marsh, Chuck <cmarsh@wcgrp.com>; Collin Miller <Collin.Miller@txdot.gov>
Subject: RE: HD Waste Transfer Station Traffic Study

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

Most likely we will need both pieces of information to give our approval/denial. If the traffic/roadway capacity piece works out, but there is an issue with the drainage, we cannot approve the concept. So unfortunately, we cannot give approval separately.

Dung Nguyen, P.E.
4777 E. US Hwy. 80
Mesquite, TX 75150
214-320-4474

From: Marsh, Chuck <cmarsh@wcgrp.com>
Sent: Friday, August 11, 2023 3:09 PM
To: Dung Nguyen <Dung.Nguyen@txdot.gov>; Collin Miller <Collin.Miller@txdot.gov>
Subject: RE: HD Waste Transfer Station Traffic Study

MAY 31, 2023 TXDOT TRAFFIC STUDY
SUBMITTED TO TXDOT

Weaver Consultants Group

May 31, 2023
Project #: 5486-001-11-01

Mr. Nathan Petter, P.E.
Mesquite Area Engineer
Texas Department of Transportation, Dallas District
4777 E. Highway 80
Mesquite, Texas 75150

Re: Traffic Study
HD Waste & Recycling Transfer Station
Dallas County, Texas

Dear Mr. Petter:

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

Weaver Consultants Group, LLC is preparing a Type V MSW Transfer Station Permit Application, under contract with HDWR to obtain the necessary authorization for the proposed HD Waste & Recycling Transfer Station (TS). The site will be located in southeast Dallas, Dallas County, Texas at 1061 CF Hawn Freeway, Dallas, Texas 75217.

The proposed HD Waste & Recycling TS will provide waste disposal services for the City of Dallas, Dallas County, its residents, businesses, and the surrounding areas. The proposed TS will provide HDWR 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. Although waste is planned to be transferred to the McCommas Bluff Landfill, other permitted landfills such as the ECD Landfill or the Skyline Landfill may be utilized.

To assist you in your review, a project summary and site location maps have been provided as an overview of the TS.

The attached traffic study demonstrates that the site access roads will provide adequate access to the site now and in the foreseeable future. As presented in the attached traffic study, the entrance to the proposed transfer station is located on the CF Hawn Freeway (US 175) access road. The site has been in operation as a recycling facility for over 10 years, and the traffic patterns created by the collection vehicles that use area access roads are well established. Waste collection vehicles will begin using the TS when it opens, and it is expected the main change to the

traffic patterns will be the addition of transfer trailers that will transport waste from the TS to regional permitted solid waste landfills.

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

Charles R. Marsh, P.E.
Project Director

Attachment 1 – HD Waste & Recycling Transfer Station Traffic Study

cc: Diana Martinez, HD Waste & Recycling, LLC
AJ Gonzalez, HD Waste & Recycling, LLC

ATTACHMENT 1

HD WASTE & RECYCLING TRANSFER STATION TRAFFIC STUDY

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

TRAFFIC STUDY

Prepared for

HD Waste and Recycling, LLC

May 2023

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. 5486-001-11-01

I/IIA-8

CONTENTS

1 INTRODUCTION

1.1 Purpose

HD Waste & Recycling, LLC (HDWR) is in the process of preparing a Type V MSW Transfer Station (TS) Permit Application. The proposed HDWR TS will provide waste transportation services for the City of Dallas, Dallas County, its residents, businesses and the surrounding areas. The proposed TS will provide HDWR with the ability to collect, load, and transport solid waste and recyclables more efficiently by allowing the MSW collection vehicles to transfer MSW into large transfer trailers before shipment to permitted MSW landfills or recyclable material vendors.

The purpose of the permit application to the Texas Commission on Environmental Quality (TCEQ) is to permit the HDWR TS facility to process up to a maximum daily rate of 1,000 tons per day (tpd) of MSW and to transfer this waste to a TCEQ-permitted MSW landfill. 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 excellent 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 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.

1.2 Summary of Proposed Transfer Station

The transfer station building will be a steel-framed structure with a metal roof and a total area of approximately 12,000 square feet. All transfer station vehicles (i.e., transfer trailers, collection vehicles, and self-haul vehicles) will enter the site by the driveway from the Highway 175 Frontage Road.

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-lighted (overhead lighting) tipping floor where waste is unloaded onto the floor. 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 to a pit and into transfer trailers and hauled to an area landfill.

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 West Highway 175, Interstate 20, Interstate 635, and the Highway 175 Frontage Road. Other roads within one mile of the site are shown on Figure 2-1. These other 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 existing HDWR Transfer Station site entrance driveway connects directly to the Highway 175 Frontage Road. From I-20, vehicles will travel west on the Highway 175 Frontage Road for less than one mile to the site entrance driveway. Vehicles eastbound on Highway 175 will u-turn under I-20 to access the westbound Highway 175 Frontage Road to enter the site. Vehicles southbound on Interstate 635 will need to utilize Rylie Crest Road and Peachtree Road to access the facility. The existing access roads are suitable to handle the projected traffic load associated with the TS. Highway 175 is a six-lane, median-divided, concrete road; I-20 is an eight-lane, median-divided, concrete road; and I-635 is an eight-lane concrete road. The Highway 175 Frontage Road is a two-lane one-way concrete road that vehicles will use to access the facility.

Figure 2-2 shows the existing entrance to the facility and provides an overview of the intersection of Highway 175 and the site entrance driveway. As shown on Figure 2-2, the site entrance driveway is a 40-foot-wide, 200-foot-long, concrete-paved driveway from the facility gate to the scalehouse. The 200 feet of queuing space allows for 5 waste hauling vehicles to queue inside the facility gate. This layout provides a sufficient queuing area for waste vehicles, as noted in Section 2.4.

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 Highway 175, I-20, I-635, and the Highway 175 Frontage Road were taken from the TxDOT Dallas District Traffic Map (2021). The TxDOT traffic counts were adjusted to account for the additional traffic created by

area growth from 2021 to 2023. Existing traffic volumes were projected to the year 2043 to evaluate the future performance of the site access roads.

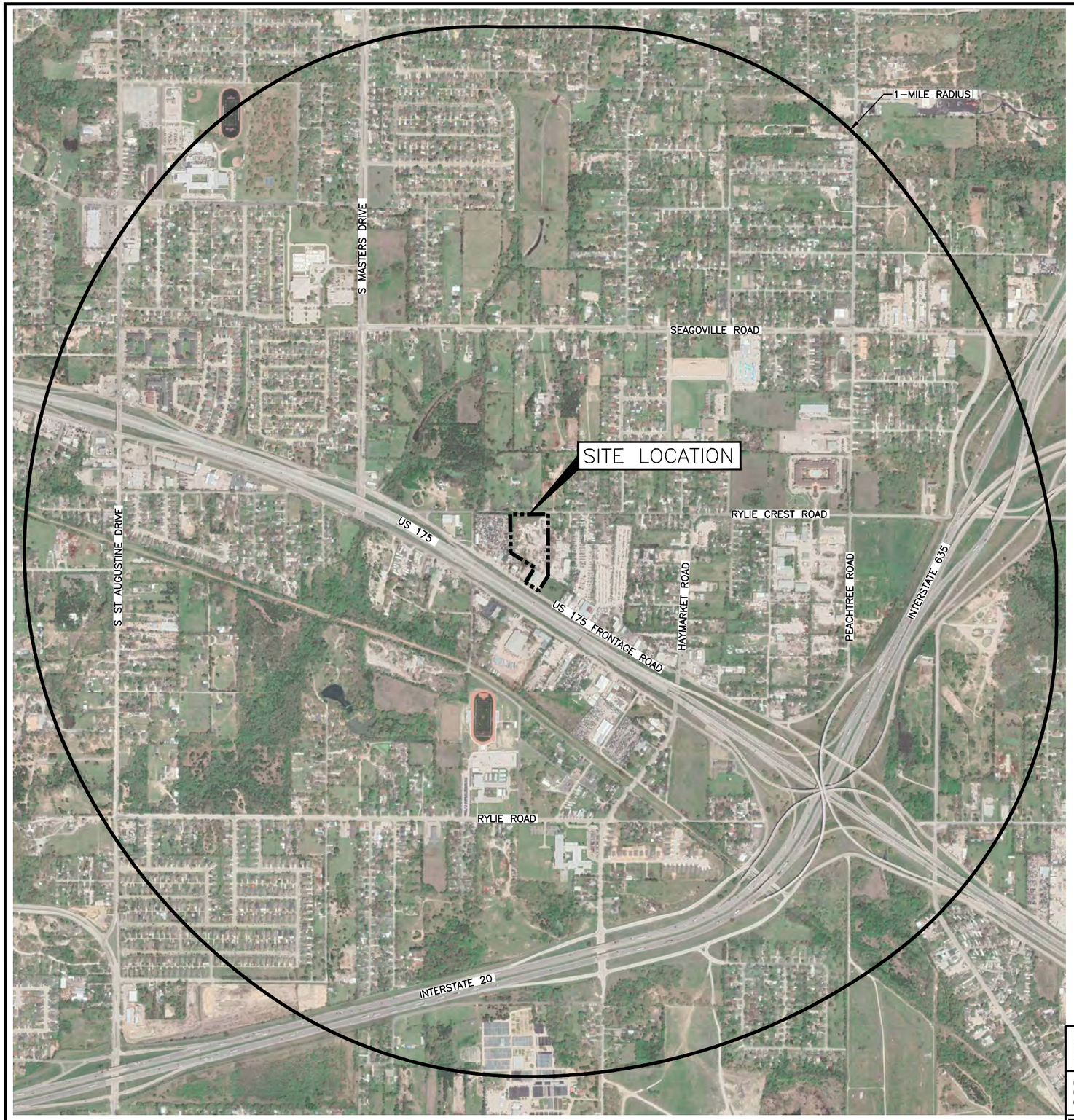
Traffic counts associated with the transfer station are estimated as shown on Table 2.1. The proposed maximum transfer capacity of the facility is 1,000 tons/day. Therefore, traffic projections were developed for traffic patterns that will occur at the proposed transfer station capacity of 1,000 tons/day.

Table 2.2 presents a summary of the estimated traffic patterns and vehicle counts for the access roads within 1 mile of the site. A list of the various assumptions that were used to derive the estimates is also presented in Table 2.1.

The traffic volume impact assessment is summarized in Table 2.2. As shown, there is a minimal impact on all access roads throughout the projected life of the TS facility. The level of service (LOS) for each access road was calculated using road characteristics, road capacities, and formulas obtained from the Highway Capacity Manual, 2016. As shown on Table 2.2, the LOS for Interstate 20 and 635 is C, and Highway 175 is D. The Highway 175 Frontage Roads (northbound and southbound), Highway 175 ramp to Highway 175 Frontage Road (northbound and southbound) and Highway 175 Frontage Road ramp to Highway 175 (northbound) all have an LOS of A. The projected traffic counts to 2043 will decrease the LOS for Interstate 635 from D to E and for Highway 175 from C to D, while the LOS for other roads remains the same as 2023. Any decrease in LOS is due to the increase in non-TS traffic, as the transfer station only utilizes a small percentage of the capacity of the access roads (less than 2 percent in all cases) for the current and future projection.

2.3 Queuing

As shown on Figure 2-2, approximately 200 feet of queuing space within the facility gate provides for approximately five waste hauling vehicles between the scale and the frontage road. An additional 300 feet (two lanes) of queueing space is available between the scale and the TS building. The available queuing area is sufficient to avoid disturbance on the Highway 175 Frontage Road.



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SCALE IN FEET

LEGEND

PERMIT BOUNDARY

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE EARTH FROM PHOTOGRAPH TAKEN 04-05-2022.

STATE OF TEXAS
CHARLES R. MARSH
105073
LICENSED
PROFESSIONAL ENGINEER

05/31/2023

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DATE: 05/2023
FILE: 5486-001-11
CAD: FIG 2.1-PUBLIC ROADS.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE & RECYCLING, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

PUBLIC ROADS WITHIN 1-MILE RADIUS

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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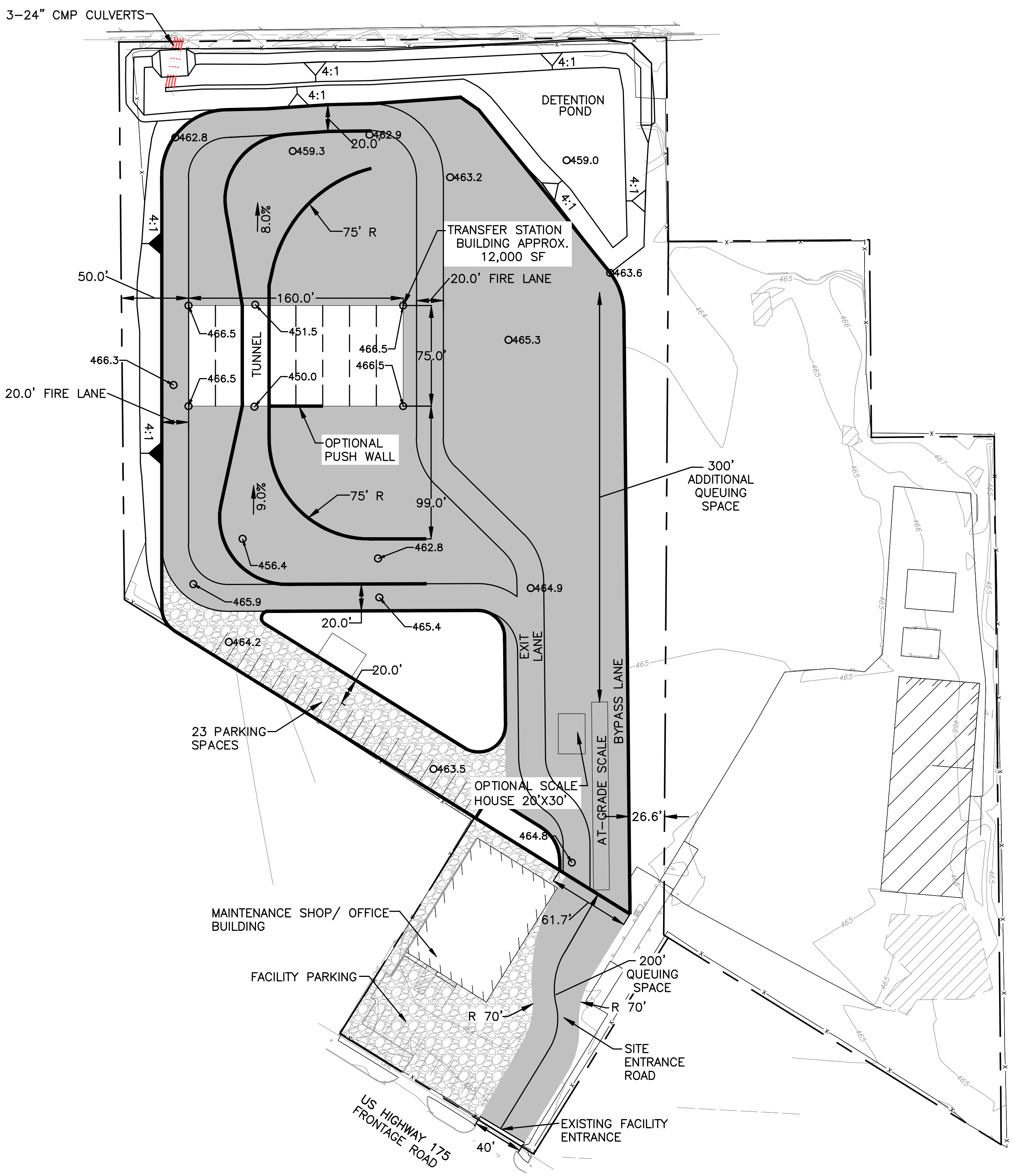
FIGURE 2-1

O:\5486\TYPE V APPLICATION\PARTS I-II\TxDOT\FIG 2-1- ROADS WITHIN 1-MILE.dwg, jpeltr, 1:2



N

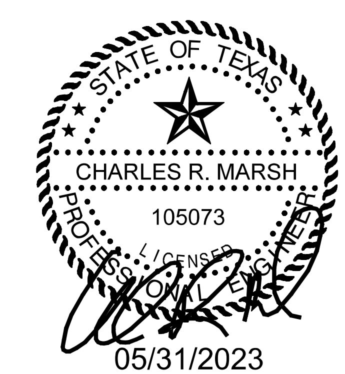
0 50 100
SCALE IN FEET

LEGEND

- PERMIT BOUNDARY
- PROPERTY BOUNDARY
- 1030 EXISTING GRADE
- EXISTING FENCE
- PROPERTY LINE
- ALL-WEATHER SURFACE (E.G., AGGREGATE, ASPHALT, CONCRETE)
- GRAVEL SURFACE
- ✕459.0 SPOT ELEVATION

NOTES:

1. THE EXISTING CONTOURS AND PROPERTY BOUNDARY HAVE BEEN DEVELOPED BASED ON THE GROUND SURVEY BY WEAVER CONSULTANTS GROUP ON FEBRUARY 14,2022 AND FEBRUARY 21, 2022.
2. THE BOUNDARY SHOWN IS BASED ON RECORD INFORMATION.



☐ ISSUED FOR CONSTRUCTION	
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☐ 50% SUBMITTAL	
DATE: 05/2023 FILE: 5486-01-11 CAD: FIG 2-2-SITE ENTRANCE ROAD.DWG	DRAWN BY: RAA DESIGN BY: JBP REVIEWED BY: CRM

Weaver Consultants Group
TBPE LICENSE NO. F-3727

PREPARED FOR
HD WASTE AND RECYCLING, LLC

REVISIONS

NO.	DATE	DESCRIPTION

U.S. HIGHWAY 175 AND SITE ENTRANCE ROAD

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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FIGURE 2-2

O:\5486\TYPE V APPLICATION\PARTS I-II\TxDOT\FIGURE 2-2 - SITE ENTRANCE ROAD.dwg, jpuhr, 1:2

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Table 2-1
2-Way Traffic Volumes

Facility Capacity (Tons/Day)	Road	2-Way Traffic Volumes		Existing Traffic Volume 2023						Projected Traffic Volume[2] 2043					
				Daily			Peak Hour[3]			Daily			Peak Hour[3]		
		Daily	Peak Hour[3]	TS Trips[4]	Non-TS Trips	Total[1]	TS Trips	Non-TS Trips	Total	TS Trips	Non-TS Trips	Total	TS Trips	Non-TS Trips	Total
1,000	Interstate 20	124,724	12,472	618	126,728	127,346	62	12,673	12,735	618	154,551	155,169	62	15,455	15,517
	Interstate 635	148,124	14,812		150,620	151,238		15,062	15,124		183,663	184,281		18,366	18,428
	U.S. Highway 175	78,713	7,871		79,750	80,368		7,975	8,037		97,309	97,927		9,731	9,793
	U.S. 175 Southbound	3,362	336		2,815	3,433		281	343		3,572	4,190		357	419
	U.S. 175 Northbound	2,916	292		2,359	2,977		236	298		3,016	3,634		302	363
	U.S. 175 RAMP TO U. S. 175 FR. Southbound	3,034	303		2,480	3,098		248	310		3,163	3,781		316	378
	U.S. 175 RAMP TO U. S. 175 FR. Northbound	1,136	114		542	1,160		54	116		798	1,416		80	142
	U. S. 175 FR. RAMP TO U. S. 175 Northbound	4,720	472		4,201	4,819		420	482		5,264	5,882		526	588

Notes:

1. Traffic count data was obtained from Texas Department of Transportation 2021 Traffic Count Database for Interstate 20, U.S. Highway 175, Interstate 635, U. S. 175 Frontage Road (Northbound and Southbound), U. S. Highway Ramp to U. S. 175 Frontage (Northbound and Southbound) and U. S. 175 Frontage to U. S. Highway 175 Ramp (East of the facility) .
2. The projected traffic volumes were obtained using projected growth rates for the surrounding area growth rate (non-Transfer Station vehicles). The growth rates were obtained from the Texas Water Development Board, 2021 Regional Water Plan. The annual population increase for 2021-2030 is 1.05%, for 2031-2040 is 1.03%, for 2041-2043 is 0.76%.
3. Peak hour volumes are assumed to be ten percent of total daily traffic.
4. One-way transfer station trips are estimated in the table below, then doubled to account for incoming and outgoing traffic.

24-Hour One-Way Transfer Station Vehicle Estimates[5]

Facility Capacity (Tons/Day)	Vehicle Type						Totals
	Rear Loader	Front	Roll-Off	Low-	Facility Personal/ Misc. Vehicles	Transfer Trailers	
1,000	78	41	38	50	60	42	309

Notes:

5. The number of vehicles per day was calculated based on truck capacity, density, and tonnage then doubled to account for all trucks entering and leaving the transfer station.

Table 2-2
Traffic Impact Assessment[1]

Facility Capacity (Tons/Day)	Road	Roadway Capacity[4] (Vehicles/ Day)	2023 Traffic Conditions[2,3]					Projected 2043 Traffic Conditions[2,3]				
			Transfer Station Traffic (vpd)	Total Traffic (vpd)	% of Roadway Capacity Used	Level of Service	% of Roadway Capacity Used by Transfer Station Vehicles	Transfer Station Traffic (vpd)	Total Traffic (vpd)	% of Roadway Capacity Used	Level of Service	% of Roadway Capacity Used by Transfer Station Vehicles
1,000	Interstate 20	336,000	618	127,346	37.9%	D	0.2%	618	155,169	46.2%	D	0.2%
	Interstate 635	336,000		151,238	45.0%	D	0.2%		184,281	54.8%	E	0.2%
	U.S. Highway 175	201,600		80,368	39.9%	C	0.3%		97,927	48.6%	D	0.3%
	U.S. 175 Southbond	43,200		3,433	7.9%	A	1.4%		4,190	9.7%	A	1.4%
	U.S. 175 Northbound	43,200		2,977	6.9%	A	1.4%		3,634	8.4%	A	1.4%
	U.S. 175 RAMP TO U. S. 17F FR. Southbond	43,200		3,098	7.2%	A	1.4%		3,781	8.8%	A	1.4%
	U.S. 175 RAMP TO U. S. 17F FR. Northbound	43,200		1,160	2.7%	A	1.4%		1,416	3.3%	A	1.4%
	U. S. 175 FR. RAMP TO U. S. 175 Northbound	43,200		4,819	11.2%	B	1.4%		5,882	13.6%	B	1.4%

Notes:

1. Traffic volumes listed in this table include two-way traffic volumes.
2. Traffic count data was obtained from Texas Department of Transportation 2021 Traffic Count Database for Interstate 20, U.S. Highway 175, Interstate 635, U. S. 175 Frontage Road (Northbound and Southbound), U. S. Highway Ramp to U. S. 175 Frontage (Northbound and Southbound) and U. S. 175 Frontage to U. S. Highway 175 Ramp (before the facility).
3. The projected traffic volumes were obtained using projected growth rates for the surrounding area growth rate (non-Transfer Station vehicles). The growth rates were obtained from the Texas Water Development Board, 2021 Regional Water Plan. The annual population increase for 2021-2030 is 1.05%, for 2031-2040 is 1.03%, for 2041-2043 is 0.76%.
4. Capacities were obtained or estimated using the Highway Capacity Manual, 2016.

3 SUMMARY

In summary, the current 2023 area roadway system providing access to the HDWR Transfer Station provides adequate access to the facility. Additionally, the current and projected 2043 traffic conditions would be minimally impacted by the proposed TS development. Therefore, the existing access roads within one mile of the site (U.S. Highway 75 and Highway 175 Frontage Roads, Interstate 20 and 635) will not be significantly impacted due to the proposed development of a transfer station.

APPENDIX A

PROJECT SUMMARY AND SITE LOCATION MAPS

Project Summary

HD Waste & Recycling Transfer Station
HD Waste & Recycling, LLC
Dallas County, Texas

Introduction

Weaver Consultants Group, LLC is in the process of developing a Type V municipal solid waste (MSW) transfer station permit application for the proposed HD Waste & Recycling Transfer Station (TS) on behalf of HD Waste & Recycling, LLC (HDWR).

The proposed HDWR TS will provide waste transportation services for the City of Dallas, Dallas County its residents, businesses and the surrounding areas. The proposed TS will provide HDWR with the ability to collect, load, and transport solid waste and recyclables more efficiently by allowing the MSW collection vehicles to transfer MSW into large transfer trailers before shipment to permitted MSW landfills or recyclable material vendors.

As shown on Figure 3, the entrance to the proposed TS is located off of the US-175/CF Hawn Freeway Frontage Road. This recycling collection service company has been in operation for many years, and the traffic patterns created by the solid waste collection vehicles that use area access roads are well established. HDWR and its clients will begin using the TS when it opens, and it is expected that the traffic patterns will remain consistent with the current traffic patterns. The main change to the traffic patterns will be the addition of waste vehicles and transfer trailers for transport of waste from the transfer station to permitted MSW landfills.

The purpose of this application is to permit the HDWR TS facility to process up to a maximum daily rate of 1,000 tons per day (tpd) of MSW from the City of Dallas, Dallas County, its residents, businesses and surrounding areas, and to transfer this waste to a TCEQ-permitted MSW landfill. The facility's application will undergo a thorough technical review by the TCEQ before obtaining authorization to operate.

The proposed TS structure will consist of a 75-foot by 100-foot tipping floor (where incoming waste will be unloaded and transferred to waste transfer trailers) and an area where transfer trailers will park during loading from the tipping floor. Waste deposited on the tipping floor within the building will be pushed into top-loader transfer trailers and hauled to an area landfill. An additional tipping floor (approximately 3,000 square feet) for recyclables only will be located on the west side of the loading tunnel. The facility is proposed to have a permitted maximum rate of waste acceptance of 1,000 tpd of MSW. This summary provides an overview of the proposed TS. 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

The HDWR TS will be owned and operated by HD Waste & Recycling, LLC. HDWR is an integrated solid waste services company that operates, and provides non-hazardous waste collection, transfer, recycling, and disposal services to residential, municipal, and commercial customers across the County of Dallas.

Site Information

The following drawings are attached to this summary.

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

The HDWR TS will be located within the city limits on the southeast side of Dallas, Texas. The site will be accessed from the US-175 Frontage Road, which is approximately 1 mile southwest of the intersection of Interstates 20 and 635. The service area will include the City of Dallas, Dallas County, and residents, businesses and surrounding rural areas.

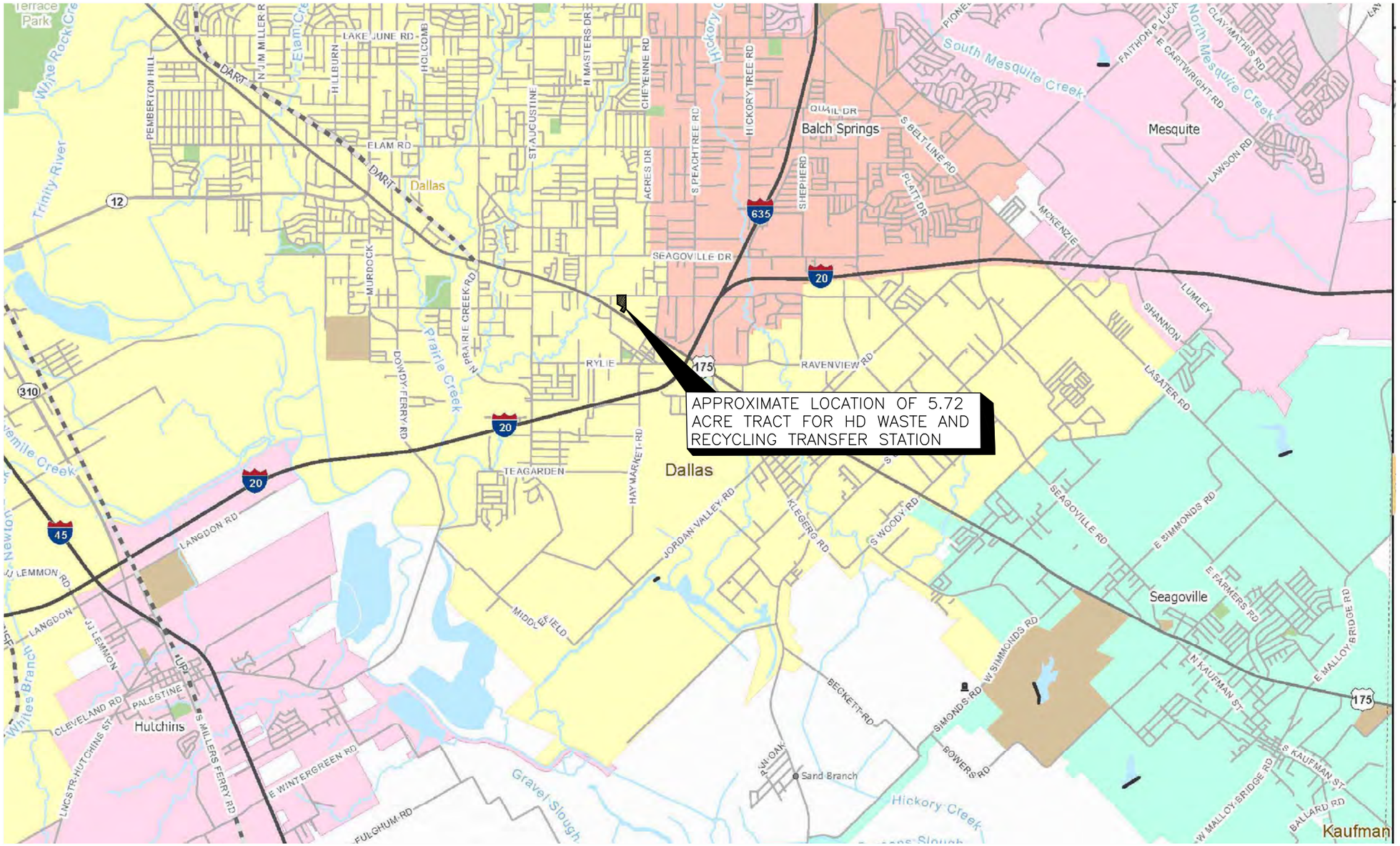
Design Summary

The following information presents a summary of the design and operations for HDWR TS.

- The TS will be open on two sides and will consist of a steel-framed structure with a metal roof and partial siding on two sides. The proposed maximum transfer capacity of the facility is 1,000 tpd of MSW. Incoming loads will be directed to the transfer area for transfer operations. The TS area will consist of a well-lit tipping floor (via natural lighting and overhead lighting) where transfer operations from collection vehicles to transfer trailers will occur. MSW transfer operations will occur completely within the structure. MSW unloaded on the tipping floor within the TS will typically be pushed by front-end loaders (or similar materials handling equipment) to a tunnel, which will load the MSW into a transfer trailer. A grapple may also be used to compact the waste or more evenly distribute the waste within the transfer trailer. The transfer trailer will haul waste to a properly permitted MSW landfill.
- Upon issuance of the required TCEQ authorization, the TS will accept MSW, construction and demolition wastes, special wastes, wood waste, green waste,

recyclables and non-hazardous industrial waste as allowed by the TCEQ regulations.

- Once approved by the TCEQ, the facility will be operated in accordance with the TCEQ-approved site operating plan. This plan includes procedures that govern day-to-day operations of the facility as well as routine inspections and housekeeping to ensure compliance with the TCEQ regulations. As part of the operations, litter, dust, and odor control measures and procedures will be implemented.
- Access to the TS will be provided via an existing driveway on the north side of the US-175 Frontage Road. From I-20, vehicles will travel west on US-175 Frontage Road for less than one mile to the site entrance. The existing access roads are suitable to handle the projected traffic load associated with the TS.
- Properly trained personnel will operate the TS, and HDWR will staff the facility in the future based on the personnel needs to effectively serve the community. A detailed site operating plan will be included in the transfer station application. The plan will provide details on the required equipment, personnel, and safety procedures necessary to operate the facility in accordance with TCEQ regulations. The HDWR will be inspected by the TCEQ on a regular basis to ensure the site is in compliance with state regulations.



Legend

- IH, BI
- US, BU, UA, UP
- SH, BS
- SL, SS, PR
- FM, BF, RM, RR, RE, RS, PA
- County Road
- City Street or other Non-County Maintained Road
- Railroad
- Incorporated City
- Unincorporated Community
- Airport
- Airport
- Airport Runway
- School
- Military Installation
- Prison
- National or State Park
- National or State Forest
- Other Public Land
- Cemetery
- Dam
- County Line
- District Line
- Canal
- Flowing Stream
- Intermittent Stream
- River
- Gulf Intracoastal Waterway
- Other Body of Water

NOTES:

1. REPRODUCED FROM PAGES 708 OF THE TXDOT COUNTY MAPBOOK 2018 (TEXAS DEPARTMENT OF TRANSPORTATION PLANNING AND PROGRAMMING DIVISION). THIS MAP SHOWS DALLAS COUNTY, TEXAS.

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SCALE IN MILES

I/IIA-23

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- [ ] DRAFT
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DATE: 08/2023
FILE: 5486-001-11
CAD: FIG 1-SITE LOCATION MAP.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE & RECYCLING, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY SITE LOCATION MAP

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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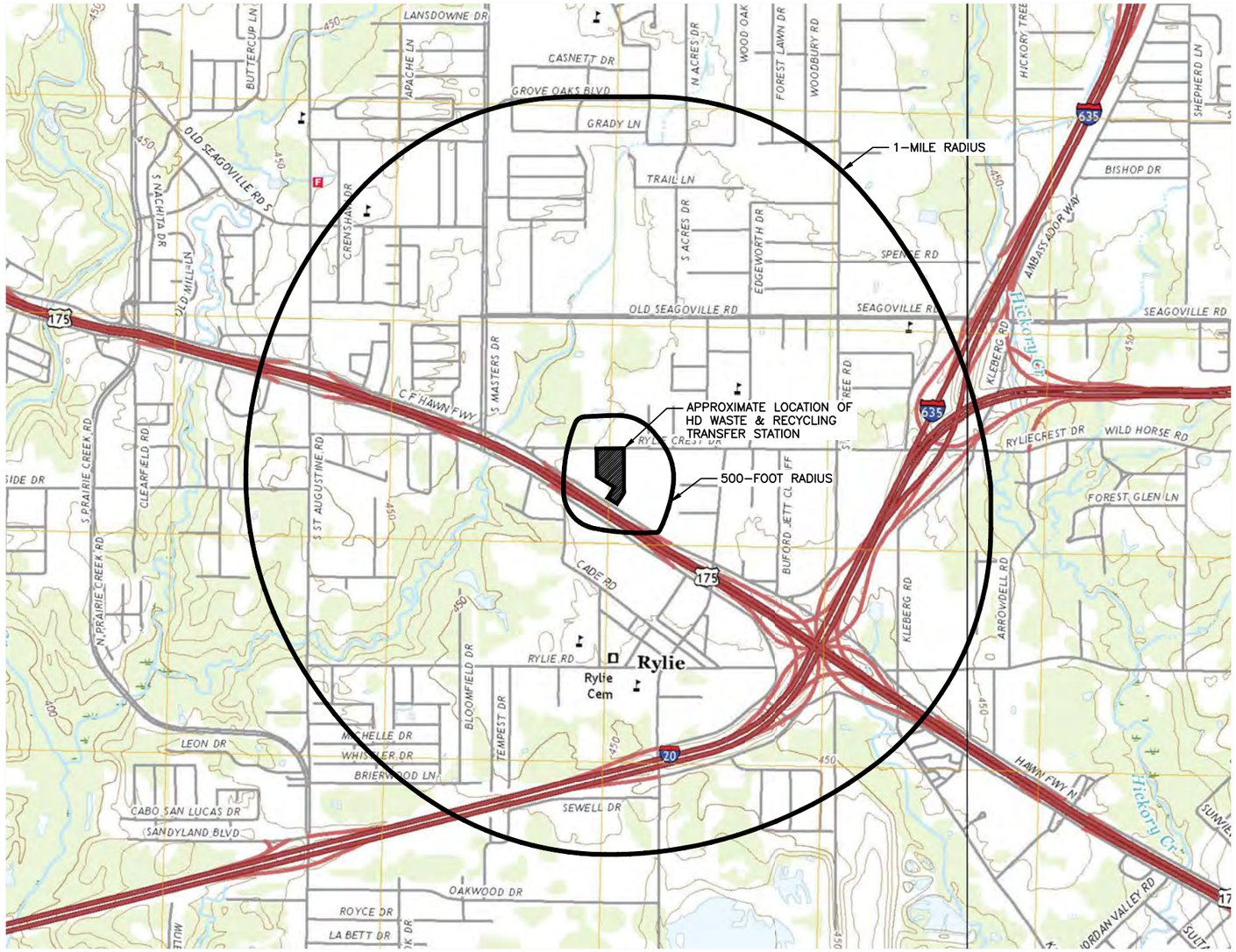
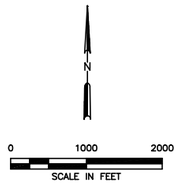
FIGURE 1

O:\5486\TYPE V APPLICATION\COORDINATION LETTERS\FIG 1-SITE LOCATION MAP.dwg, jpnlr, 1:2

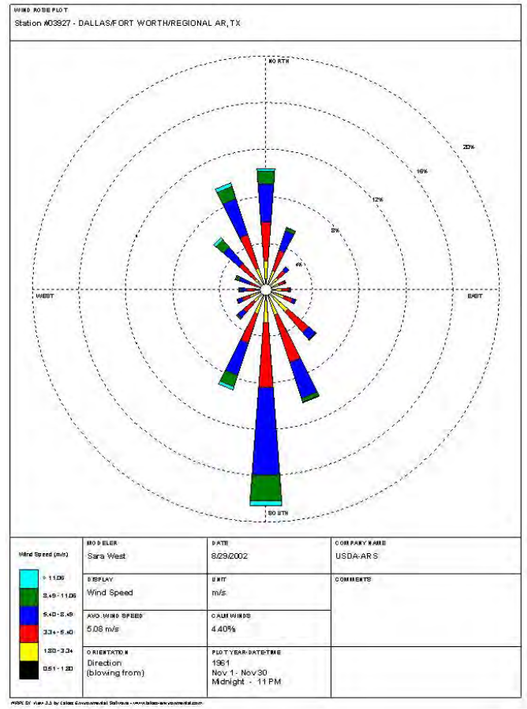




LEGEND:

ROAD CLASSIFICATION

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



NOTES:

1. ADAPTED FROM THE USGS 7.5 MINUTE QUADRANGLE TOPOGRAPHIC MAPS (HUTCHINS, TX 2022 AND SEAGOVILLE, TX 2022).
2. WIND ROSE REPRODUCED FROM USDA (UNITED STATES DEPARTMENT OF AGRICULTURE) PUBLISHED WIND ROSE FOR STATION #03527 DALLAS/FORT WORTH/REGIONAL AR, TX.

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FILE: 5486-001-11
CAD: 2-GENERAL TOPO MAP.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

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TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE & RECYCLING, LLC

REVISIONS

NO.	DATE	DESCRIPTION

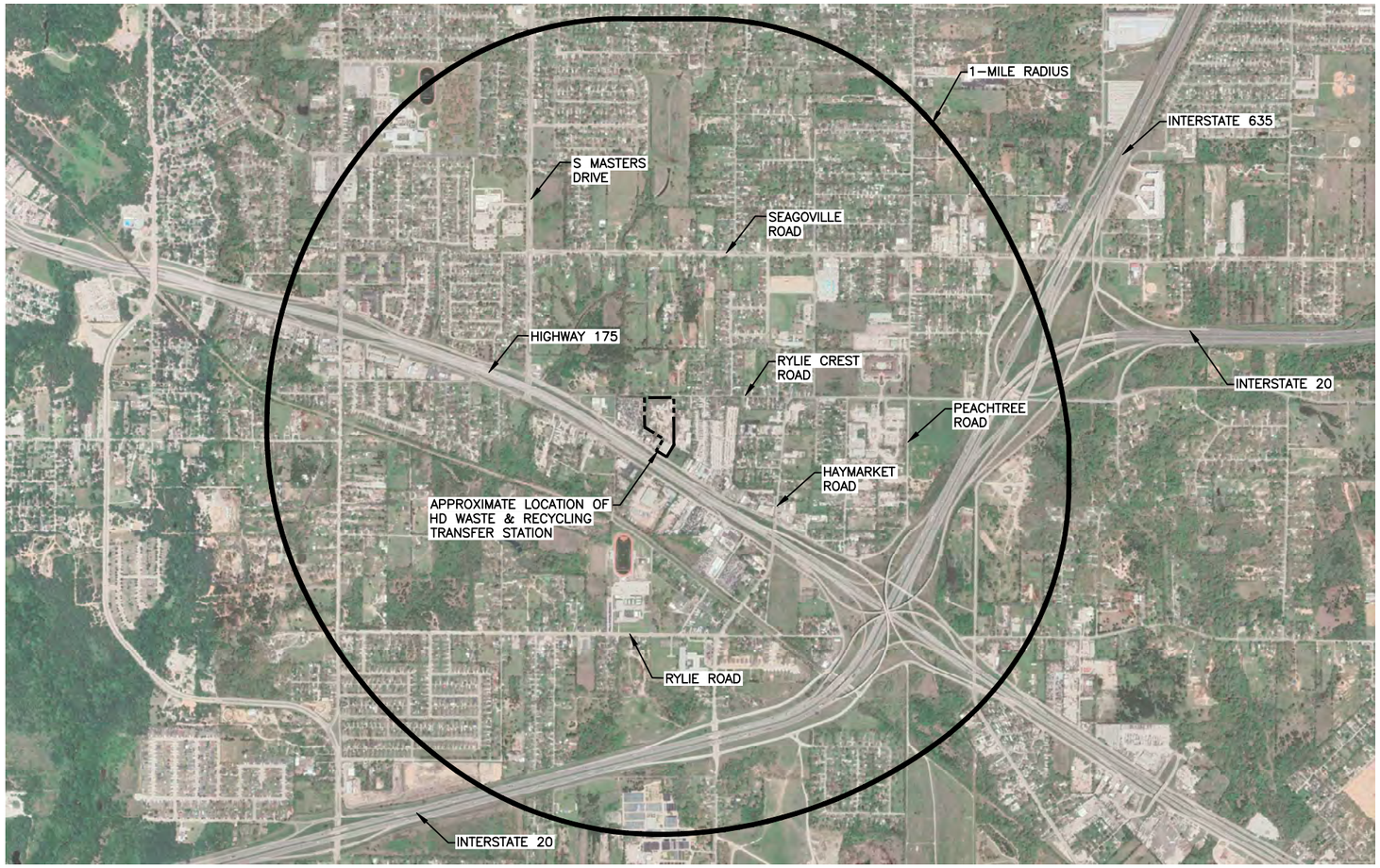
TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY GENERAL TOPOGRAPHIC MAP

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 2

O:\5486\TYPE V APPLICATION\COORDINATION LETTERS\FIG 2-TOPO MAP.dwg, jpuhr, 1:2



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SCALE IN FEET

LEGEND

PERMIT BOUNDARY

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE EARTH FROM PHOTOGRAPH TAKEN 04-05-2022.

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

DATE: 08/2023
FILE: 5486-001-11
CAD: 3-AERIAL PHOTOGRAPH.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE & RECYCLING, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY AERIAL PHOTOGRAPH

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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FIGURE 3

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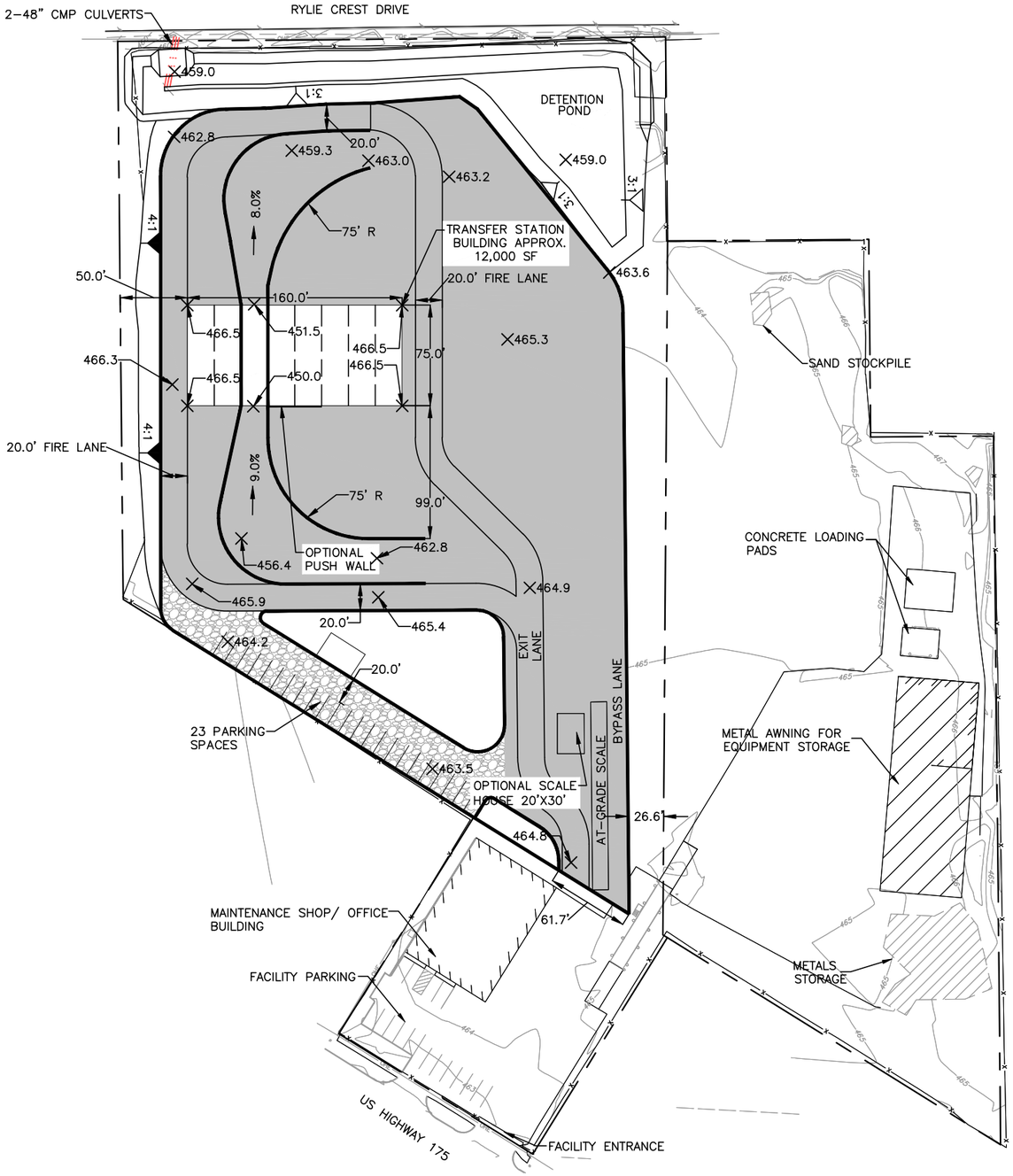

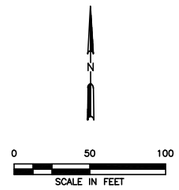

LEGEND

- PERMIT BOUNDARY
- PROPERTY BOUNDARY
- 1030 EXISTING GRADE
- EXISTING FENCE
- PROPERTY LINE
- ALL-WEATHER SURFACE (E.G., AGGREGATE, ASPHALT, CONCRETE)
- GRAVEL SURFACE
- 459.0 SPOT ELEVATION

NOTES:

1. THE EXISTING CONTOURS AND PROPERTY BOUNDARY HAVE BEEN DEVELOPED BASED ON THE GROUND SURVEY BY WEAVER CONSULTANTS GROUP ON FEBRUARY 14,2022 AND FEBRUARY 21, 2022.
2. THE BOUNDARY SHOWN IS BASED ON RECORD INFORMATION.

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DATE: 04/2023
FILE: 5486-01-11
CAD: FIG 4-SITE PLAN.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE LICENSE NO. F-3727

PREPARED FOR
HD WASTE AND RECYCLING, LLC

REVISIONS

NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION SITE PLAN

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 4

O:\5486\TYPE V APPLICATION\COORDINATION LETTERS\FIGURE 4 - SITE PLAN.dwg, jpmhr, 1:2

COORDINATION WITH TEXAS HISTORICAL COMMISSION

CONTENTS

Puhr, Johnna

From: noreply@thc.state.tx.us
Sent: Wednesday, May 3, 2023 8:32 AM
To: Puhr, Johnna; reviews@thc.state.tx.us; matthew.udenenwu@tceq.texas.gov
Subject: HD Waste & Recycling Transfer Station

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

Re: Project Review under Section 106 of the National Historic Preservation Act
THC Tracking #202307056
Date: 05/03/2023
HD Waste & Recycling Transfer Station
10631 C F Hawn Fwy
Dallas,TX 75217

Description: HD Waste & Recycling, LLC is in the process of applying for a Type V municipal solid waste (MSW) transfer station permit application for the proposed HD Waste & Recycling Transfer Station (TS).

Dear Johnna Puhr:
Thank you for your submittal regarding the above-referenced project. This response represents the comments of the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC), pursuant to review under Section 106 of the National Historic Preservation Act.

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

Above-Ground Resources

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

Archeology Comments

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

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If the project changes, or if new historic properties are found, please contact the review staff. If you have any questions concerning our review or if we can be of further assistance, please email the following reviewers: rebecca.shelton@thc.texas.gov, caitlin.brashear@thc.texas.gov.

This response has been sent through the electronic THC review and compliance system (eTRAC). Submitting your project via eTRAC eliminates mailing delays and allows you to check the status of the review, receive an electronic response, and generate reports on your submissions. For more information, visit http://thc.texas.gov/etrac-system.

Sincerely,

for Mark Wolfe, State Historic Preservation Officer
Executive Director, Texas Historical Commission

Please do not respond to this email.

cc: matthew.udenenwu@tceq.texas.gov</p

Weaver Consultants Group

April 11, 2023
Project #: 5486-001-11-01

Ms. Rebecca Shelton
Texas Historical Commission
Archeology Division
P.O. Box 12276
Austin, Texas 78711-2276

Re: Historical and Cultural Resources Evaluation
HD Waste & Recycling Transfer Station
Dallas County, Texas

Dear Ms. Shelton,

The purpose of this letter, submitted on behalf of HD Waste & Recycling, LLC (HDWR), is to demonstrate coordination with the Texas Historical Commission (THC), consistent with Title 30 Texas Administrative Code (TAC) §330.61(o). This Texas Commission on Environmental Quality (TCEQ) regulation requires that an applicant for a municipal solid waste (MSW) facility coordinate with the THC regarding the potential impact of the project to the cultural resources of the State of Texas and compliance with the Texas Antiquities Code (Code).

Weaver Consultants Group, LLC (WCG) is preparing a Type V MSW Transfer Station Permit Application for the proposed HD Waste & Recycling Transfer Station, in southeast Dallas, Dallas County, Texas. The site address is 1061 CF Hawn Freeway Dallas, Texas 75217.

As shown on the attached aerial photograph (Figure 3 in the Attachments), the site is currently used for industrial activity, and has been in operation since 2009. In addition, a review of the THC Atlas website, which contains over 100,000 sites recorded at the Texas Archeological Research Laboratory in Austin, was performed. Based on information included in the THC website, three recorded sites are located within 3 miles of the transfer station tract. A McKinney Family Cemetery is located approximately 940 feet northwest of the site. Rylie Cemetery and Historical Rylie Cemetery are located approximately 0.5 miles south of the site. Lincoln Memorial Park Cemetery is approximately 2 miles west of the site. Historical Kleberg Park is located approximately 2.5 miles southeast of the transfer station tract.

Please note that the transfer station permit documents will include a requirement that if material that may have a cultural resource value is uncovered during site development, the THC will be notified and construction immediately stopped in that area until proper investigations can be completed.

To verify compliance with Title 30 TAC §330.61(o), we will need to include a letter from the THC within the TCEQ application. A determination of the potential impact of the

project to the historical and cultural resources of the state of Texas, in compliance with the Code, is respectfully requested.

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

Sincerely,
Weaver Consultants Group, LLC

Charles R. Marsh, P.E.
Project Director

cc: Diana Martinez, HD Waste & Recycling, LLC
AJ Gonzalez, HD Waste & Recycling, LLC

Attachment: Project Summary and Site Location Maps

ATTACHMENT 1

PROJECT SUMMARY AND SITE LOCATION MAPS

Project Summary

HD Waste & Recycling Transfer Station
HD Waste & Recycling, LLC
Dallas County, Texas

Introduction

Weaver Consultants Group, LLC is in the process of developing a Type V municipal solid waste (MSW) transfer station permit application for the proposed HD Waste & Recycling Transfer Station (TS) on behalf of HD Waste & Recycling, LLC (HDWR).

The proposed HDWR TS will provide waste transportation services for the City of Dallas, Dallas County its residents, businesses and the surrounding areas. The proposed TS will provide HDWR with the ability to collect, load, and transport solid waste and recyclables more efficiently by allowing the MSW collection vehicles to transfer MSW into large transfer trailers before shipment to permitted MSW landfills or recyclable material vendors.

As shown on Figure 3, the entrance to the proposed TS is located off of the US-175/CF Hawn Freeway Frontage Road. This recycling collection service company has been in operation for many years, and the traffic patterns created by the solid waste collection vehicles that use area access roads are well established. HDWR and its clients will begin using the TS when it opens, and it is expected that the traffic patterns will remain consistent with the current traffic patterns. The main change to the traffic patterns will be the addition of waste vehicles and transfer trailers for transport of waste from the transfer station to permitted MSW landfills.

The purpose of this application is to permit the HDWR TS facility to process up to a maximum daily rate of 1,000 tons per day (tpd) of MSW from the City of Dallas, Dallas County, its residents, businesses and surrounding areas, and to transfer this waste to a TCEQ-permitted MSW landfill. The facility's application will undergo a thorough technical review by the TCEQ before obtaining authorization to operate.

The proposed TS structure will consist of a 75-foot by 100-foot tipping floor (where incoming waste will be unloaded and transferred to waste transfer trailers) and an area where transfer trailers will park during loading from the tipping floor. Waste deposited on the tipping floor within the building will be pushed into top-loader transfer trailers and hauled to an area landfill. An additional tipping floor (approximately 3,000 square feet) for recyclables only will be located on the west side of the loading tunnel. The facility is proposed to have a permitted maximum rate of waste acceptance of 1,000 tpd of MSW. This summary provides an overview of the proposed TS. 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

The HDWR TS will be owned and operated by HD Waste & Recycling, LLC. HDWR is an integrated solid waste services company that operates, and provides non-hazardous waste collection, transfer, recycling, and disposal services to residential, municipal, and commercial customers across the County of Dallas.

Site Information

The following drawings are attached to this summary.

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

The HDWR TS will be located within the city limits on the southeast side of Dallas, Texas. The site will be accessed from the US-175 Frontage Road, which is approximately 1 mile southwest of the intersection of Interstates 20 and 635. The service area will include the City of Dallas, Dallas County, and residents, businesses and surrounding rural areas.

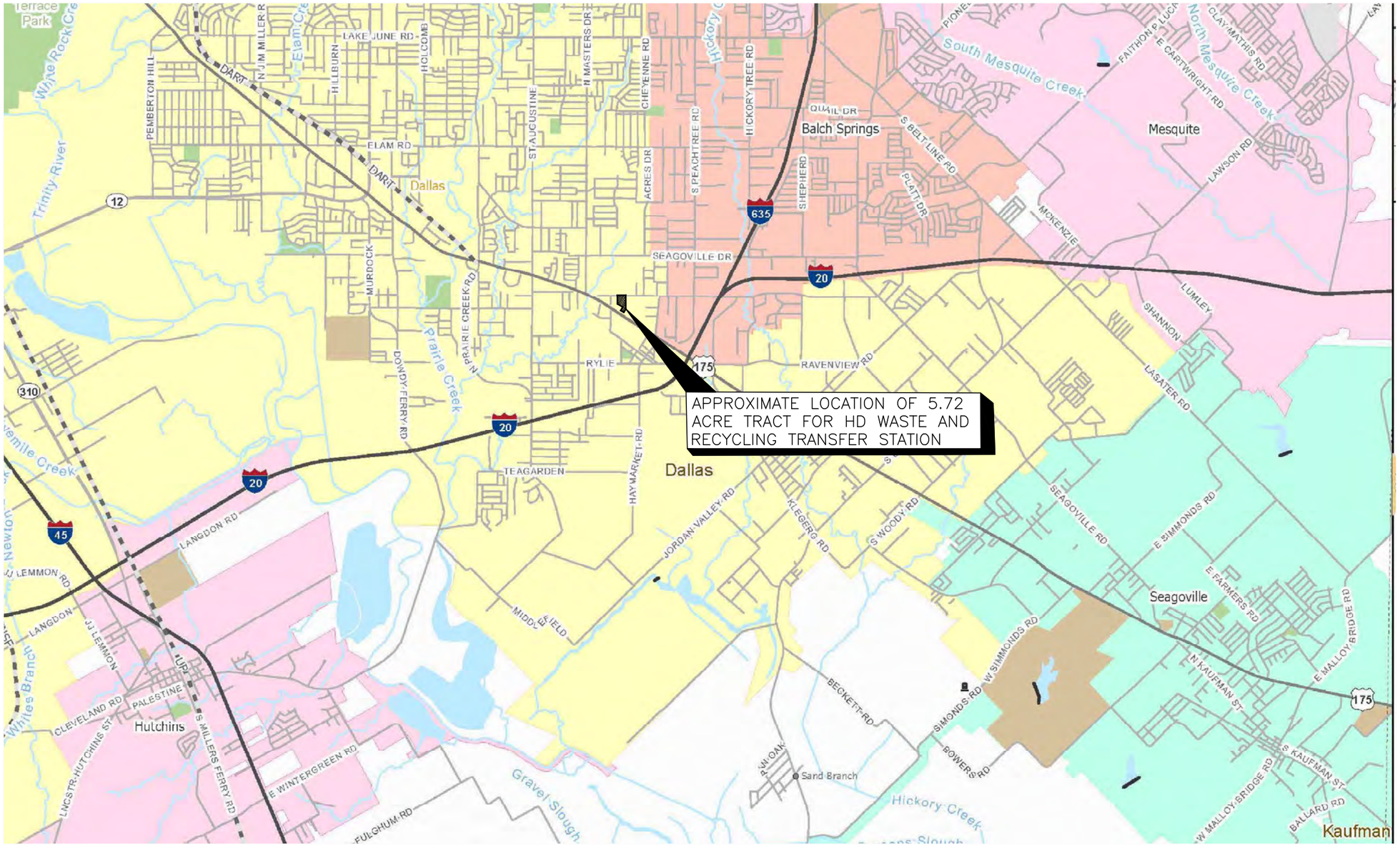
Design Summary

The following information presents a summary of the design and operations for HDWR TS.

- The TS will be open on two sides and will consist of a steel-framed structure with a metal roof and partial siding on two sides. The proposed maximum transfer capacity of the facility is 1,000 tpd of MSW. Incoming loads will be directed to the transfer area for transfer operations. The TS area will consist of a well-lit tipping floor (via natural lighting and overhead lighting) where transfer operations from collection vehicles to transfer trailers will occur. MSW transfer operations will occur completely within the structure. MSW unloaded on the tipping floor within the TS will typically be pushed by front-end loaders (or similar materials handling equipment) to a tunnel, which will load the MSW into a transfer trailer. A grapple may also be used to compact the waste or more evenly distribute the waste within the transfer trailer. The transfer trailer will haul waste to a properly permitted MSW landfill.
- Upon issuance of the required TCEQ authorization, the TS will accept MSW, construction and demolition wastes, special wastes, wood waste, green waste,

recyclables and non-hazardous industrial waste as allowed by the TCEQ regulations.

- Once approved by the TCEQ, the facility will be operated in accordance with the TCEQ-approved site operating plan. This plan includes procedures that govern day-to-day operations of the facility as well as routine inspections and housekeeping to ensure compliance with the TCEQ regulations. As part of the operations, litter, dust, and odor control measures and procedures will be implemented.
- Access to the TS will be provided via an existing driveway on the north side of the US-175 Frontage Road. From I-20, vehicles will travel west on US-175 Frontage Road for less than one mile to the site entrance. The existing access roads are suitable to handle the projected traffic load associated with the TS.
- Properly trained personnel will operate the TS, and HDWR will staff the facility in the future based on the personnel needs to effectively serve the community. A detailed site operating plan will be included in the transfer station application. The plan will provide details on the required equipment, personnel, and safety procedures necessary to operate the facility in accordance with TCEQ regulations. The HDWR will be inspected by the TCEQ on a regular basis to ensure the site is in compliance with state regulations.



Legend

- IH, BI
- US, BU, UA, UP
- SH, BS
- SL, SS, PR
- FM, BF, RM, RR, RE, RS, PA
- County Road
- City Street or other Non-County Maintained Road
- Railroad
- Incorporated City
- Unincorporated Community
- Airport
- Airport
- Airport Runway
- School
- Military Installation
- Prison
- National or State Park
- National or State Forest
- Other Public Land
- Cemetery
- Dam
- County Line
- District Line
- Canal
- Flowing Stream
- Intermittent Stream
- River
- Gulf Intracoastal Waterway
- Other Body of Water

NOTES:

1. REPRODUCED FROM PAGES 708 OF THE TXDOT COUNTY MAPBOOK 2018 (TEXAS DEPARTMENT OF TRANSPORTATION PLANNING AND PROGRAMMING DIVISION). THIS MAP SHOWS DALLAS COUNTY, TEXAS.

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- [ ] DRAFT
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DATE: 08/2023
FILE: 5486-001-11
CAD: FIG 1-SITE LOCATION MAP.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE & RECYCLING, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY SITE LOCATION MAP

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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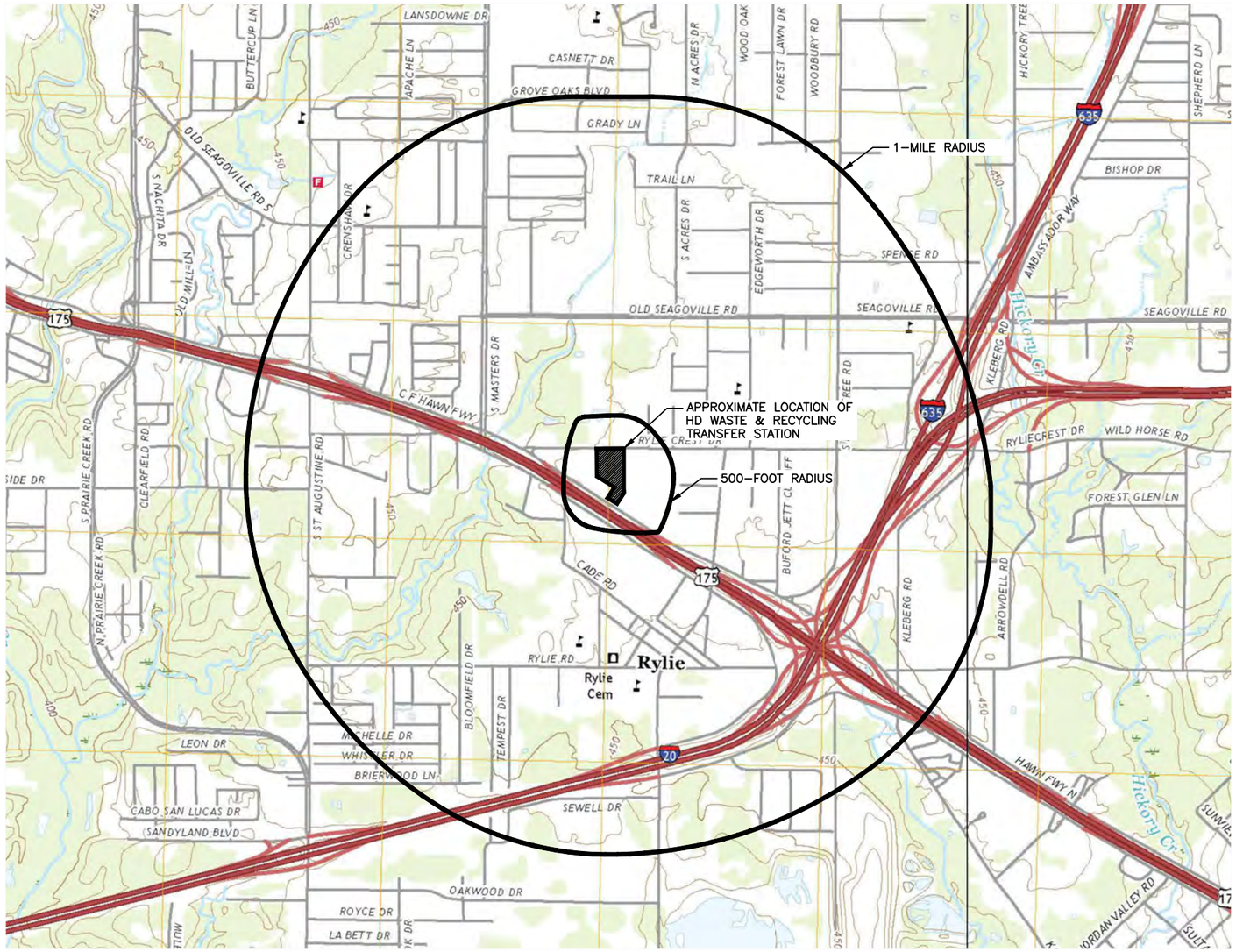
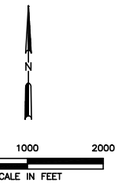
FIGURE 1

O:\5486\TYPE V APPLICATION\COORDINATION LETTERS\FIG 1-SITE LOCATION MAP.dwg, jpnlr, 1:2

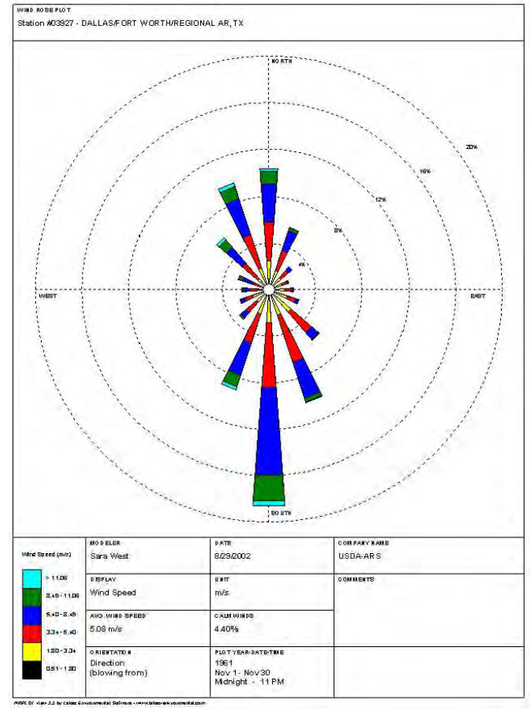




LEGEND:

ROAD CLASSIFICATION

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



NOTES:

1. ADAPTED FROM THE USGS 7.5 MINUTE QUADRANGLE TOPOGRAPHIC MAPS (HUTCHINS, TX 2022 AND SEAGOVILLE, TX 2022).
2. WIND ROSE REPRODUCED FROM USDA (UNITED STATES DEPARTMENT OF AGRICULTURE) PUBLISHED WIND ROSE FOR STATION #03527 DALLAS/FORT WORTH/REGIONAL AR, TX.

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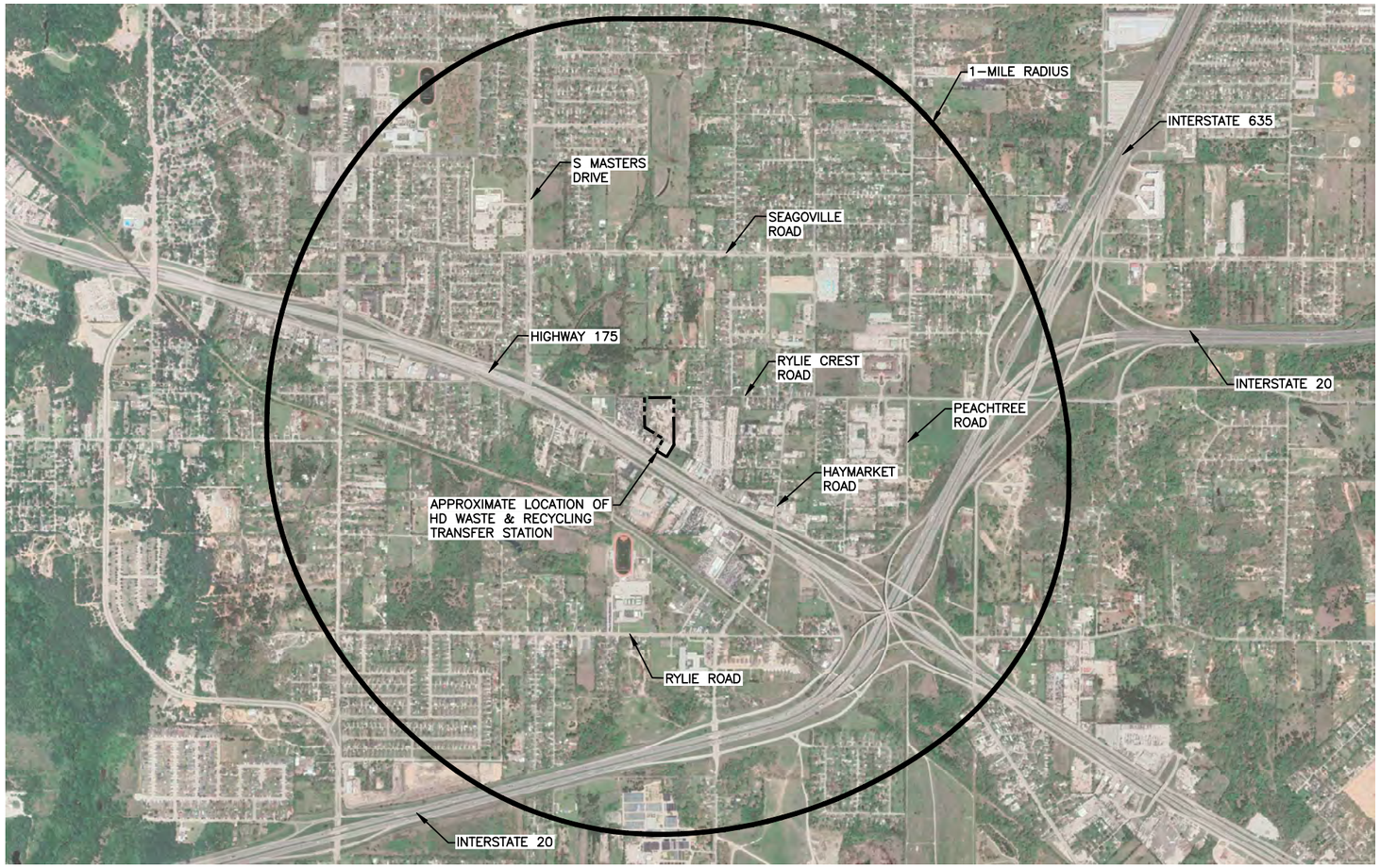

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FIGURE 3

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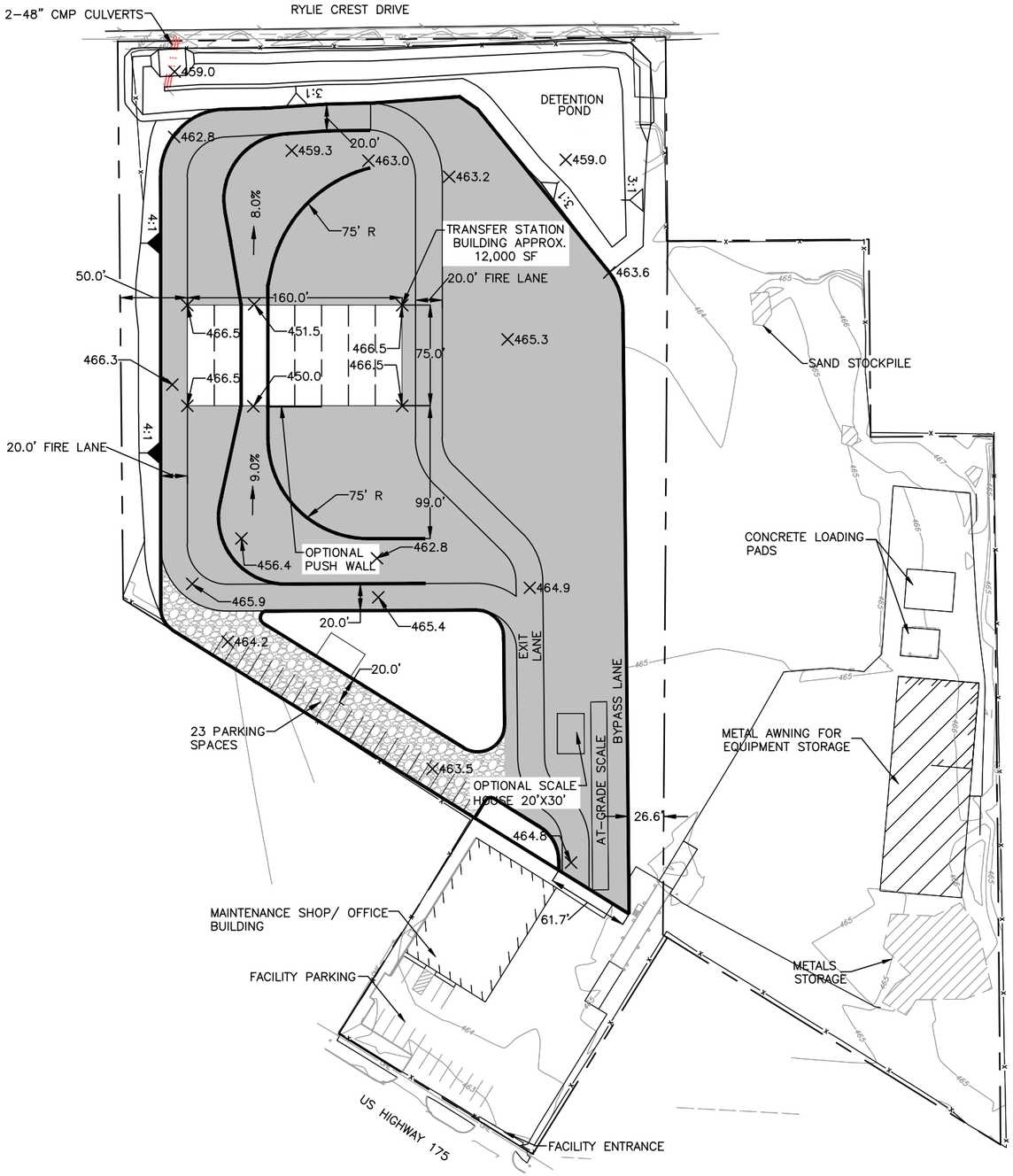

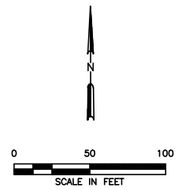

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DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE LICENSE NO. F-3727

PREPARED FOR
HD WASTE AND RECYCLING, LLC

REVISIONS

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TYPE V TRANSFER STATION SITE PLAN

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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FIGURE 4

O:\5486\TYPE V APPLICATION\COORDINATION LETTERS\FIGURE 4 - SITE PLAN.dwg, jpmhr, 1:2

COORDINATION WITH TEXAS PARKS AND WILDLIFE DEPARTMENT

CONTENTS

- May 9, 2023, TPWD conclusion that the site development would not have an adverse impact to rare, threatened, or endangered species or other fish and wildlife resources.
- April 11, 1023, TPWD Conformance Review Request Letter

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Chairman
Lake Jackson

Dick Scott
Vice-Chairman
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Dallas

Lee M. Bass
Chairman-Emeritus
Fort Worth

T. Dan Friedkin
Chairman-Emeritus
Houston

David Yoskowitz, Ph.D.
Executive Director

May 9, 2023

Mr. Charles R. Marsh, P.E.
Weaver Consultants Group, LLC
6420 Southwest Boulevard, Suite 206
Fort Worth, TX 76109

RE: HD Waste and Recycling Transfer Station, Dallas County

Dear Mr. Charles R. Marsh, P.E.:

Texas Parks and Wildlife Department (TPWD) received a review request regarding the proposed HD Waste and Recycling Transfer Station, dated April 11, 2023.

Please note, TPWD prefers that review requests be provided electronically to WHAB@tpwd.texas.gov to improve efficiency. Once a project is submitted electronically you will receive an autoreply that TPWD received your project. Your project will be logged into our database and assigned to an environmental review biologist.

The proposed transfer station would be located at 1061 CF Hawn Freeway and would involve redevelopment of an existing developed site. Based on a review of the documentation and description provided, TPWD does not anticipate significant adverse impacts to rare, threatened, or endangered species or other fish and wildlife resources in implementing the proposed project. However, TPWD recommends that all new developments minimize light pollution. Sky glow because of light pollution can have negative impacts on wildlife and ecosystems by disrupting natural diurnal and nocturnal behaviors such as migration, reproduction, nourishment, rest, and cover from predators.

Recommendation: As a beneficial management practice (BMP) to protect migratory birds and other wildlife, TPWD recommends utilizing the minimum amount of night-time lighting needed for safety and security for permanent outdoor lighting at the proposed development. TPWD recommends minimizing the project's contribution to skyglow by focusing light downward, with cutoff luminaries to avoid light emitting above the horizontal, and to use dark-sky friendly lighting that is illuminated only when needed, fully shielded, as bright as needed, and minimizes blue light emissions. Appropriate lighting technologies, BMP, and other dark sky resources can be found at the International Dark-Sky Association and McDonald Observatory websites.

While TPWD makes recommendations for minimizing potential impacts to federal listed species, which are also listed at the state level, TPWD does not make effects determinations pursuant to the Endangered Species Act. It is the responsibility of the project sponsor to coordinate with the U. S. Fish and Wildlife Service when a project is likely to have impacts to federal listed species at a level higher than no effect.

4200 SMITH SCHOOL ROAD
AUSTIN, TEXAS 78744-3291
512.389.4800
www.tpwd.texas.gov

Thank you for considering the fish and wildlife resources of Texas. If you have any questions, please contact me at Karen.Hardin@tpwd.texas.gov or (903) 322-5001.

Sincerely,

Karen B. Hardin
Environmental Review Biologist
Ecological and Environmental Planning Program
Wildlife Division

kbh/50652

Weaver Consultants Group

April 11, 2023
Project #: 5486-001-11-01

Mr. John Silovsky
Director of Wildlife
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744

Re: Threatened or Endangered Species Assessment
Proposed HD Waste and Recycling Transfer Station
Dallas County, Texas

Dear Mr. Silovsky,

The purpose of this letter is to demonstrate coordination with the Texas Parks and Wildlife Department (TPWD), at the request of the Texas Commission on Environmental Quality (TCEQ). The TCEQ requires that a permit applicant for a municipal solid waste (MSW) facility consider the impact on threatened or endangered species and not result in the destruction or adverse modification of the critical habitat of threatened or endangered species, or cause or contribute to the taking of any threatened or endangered species.

Weaver Consultants Group, LLC is preparing a Type V MSW Transfer Station Permit Application, on behalf of HD Waste and Recycling, LLC, for the proposed HD Waste and Recycling Transfer Station (TS) located in the City of Dallas, Dallas County, Texas. The facility address is 1061 CF Hawn Freeway Dallas, TX 75217. The proposed HD Waste & Recycling TS will provide waste disposal services for the City of Dallas, Dallas County, its residents, businesses, and the surrounding areas.

WCG completed the attached site specific Biological Report (BR) for the proposed transfer station site based on available species data and a field visit completed on February 10, 2023. The BR reported that the United States Fish and Wildlife Service lists 4 species as federally threatened/endangered in Dallas County, and the Texas Parks and Wildlife Department lists 12 species as threatened or endangered in the same area.

As noted in the BR, no critical habitat for any threatened or endangered species occurs within the Project Site.

A request for rare species occurrences information was submitted to the Texas Parks and Wildlife Department Natural Diversity Database. No rare species or ecosystems were mapped within the vicinity of the Project Site.

Based on the research and field observations, there are no threatened/endangered species or their critical habitat within the Project Site. Based on the BR, the proposed

transfer station will not result in the destruction or adverse modification to any critical habitat of any endangered or threatened species, or cause or contribute to the taking of any endangered or threatened species. It is WCG's opinion that the proposed expansion would have no effect on federally or state-listed Threatened and Endangered (T&E) species.

To assist you in your determination regarding threatened or endangered species or their critical habitat within or near the referenced project, please find attached a project summary and site location maps.

To verify compliance with TCEQ, this letter is to request concurrence from the TPWD that the proposed transfer station will have no effect on any federal or state-listed T&E species to include with the permit application. If you need further information, please do not hesitate to contact Mr. Charles Marsh, P.E. with Weaver Consultants Group at 817-735-9770.

Sincerely,
Weaver Consultants Group, LLC

Charles R. Marsh, P.E.
Project Director

cc: Diana Martinez, HD Waste & Recycling, LLC
AJ Gonzalez, HD Waste & Recycling, LLC

Attachment 1 – Project Summary and Site Location Maps
Attachment 2 – Biological Report by Weaver Consultants Group

ATTACHMENT 1

PROJECT SUMMARY AND SITE LOCATION MAPS

Project Summary

HD Waste & Recycling Transfer Station
HD Waste & Recycling, LLC
Dallas County, Texas

Introduction

Weaver Consultants Group, LLC is in the process of developing a Type V municipal solid waste (MSW) transfer station permit application for the proposed HD Waste & Recycling Transfer Station (TS) on behalf of HD Waste & Recycling, LLC (HDWR).

The proposed HDWR TS will provide waste transportation services for the City of Dallas, Dallas County its residents, businesses and the surrounding areas. The proposed TS will provide HDWR with the ability to collect, load, and transport solid waste and recyclables more efficiently by allowing the MSW collection vehicles to transfer MSW into large transfer trailers before shipment to permitted MSW landfills or recyclable material vendors.

As shown on Figure 3, the entrance to the proposed TS is located off of the US-175/CF Hawn Freeway Frontage Road. This recycling collection service company has been in operation for many years, and the traffic patterns created by the solid waste collection vehicles that use area access roads are well established. HDWR and its clients will begin using the TS when it opens, and it is expected that the traffic patterns will remain consistent with the current traffic patterns. The main change to the traffic patterns will be the addition of waste vehicles and transfer trailers for transport of waste from the transfer station to permitted MSW landfills.

The purpose of this application is to permit the HDWR TS facility to process up to a maximum daily rate of 1,000 tons per day (tpd) of MSW from the City of Dallas, Dallas County, its residents, businesses and surrounding areas, and to transfer this waste to a TCEQ-permitted MSW landfill. The facility's application will undergo a thorough technical review by the TCEQ before obtaining authorization to operate.

The proposed TS structure will consist of a 75-foot by 100-foot tipping floor (where incoming waste will be unloaded and transferred to waste transfer trailers) and an area where transfer trailers will park during loading from the tipping floor. Waste deposited on the tipping floor within the building will be pushed into top-loader transfer trailers and hauled to an area landfill. An additional tipping floor (approximately 3,000 square feet) for recyclables only will be located on the west side of the loading tunnel. The facility is proposed to have a permitted maximum rate of waste acceptance of 1,000 tpd of MSW. This summary provides an overview of the proposed TS. 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

The HDWR TS will be owned and operated by HD Waste & Recycling, LLC. HDWR is an integrated solid waste services company that operates, and provides non-hazardous waste collection, transfer, recycling, and disposal services to residential, municipal, and commercial customers across the County of Dallas.

Site Information

The following drawings are attached to this summary.

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

The HDWR TS will be located within the city limits on the southeast side of Dallas, Texas. The site will be accessed from the US-175 Frontage Road, which is approximately 1 mile southwest of the intersection of Interstates 20 and 635. The service area will include the City of Dallas, Dallas County, and residents, businesses and surrounding rural areas.

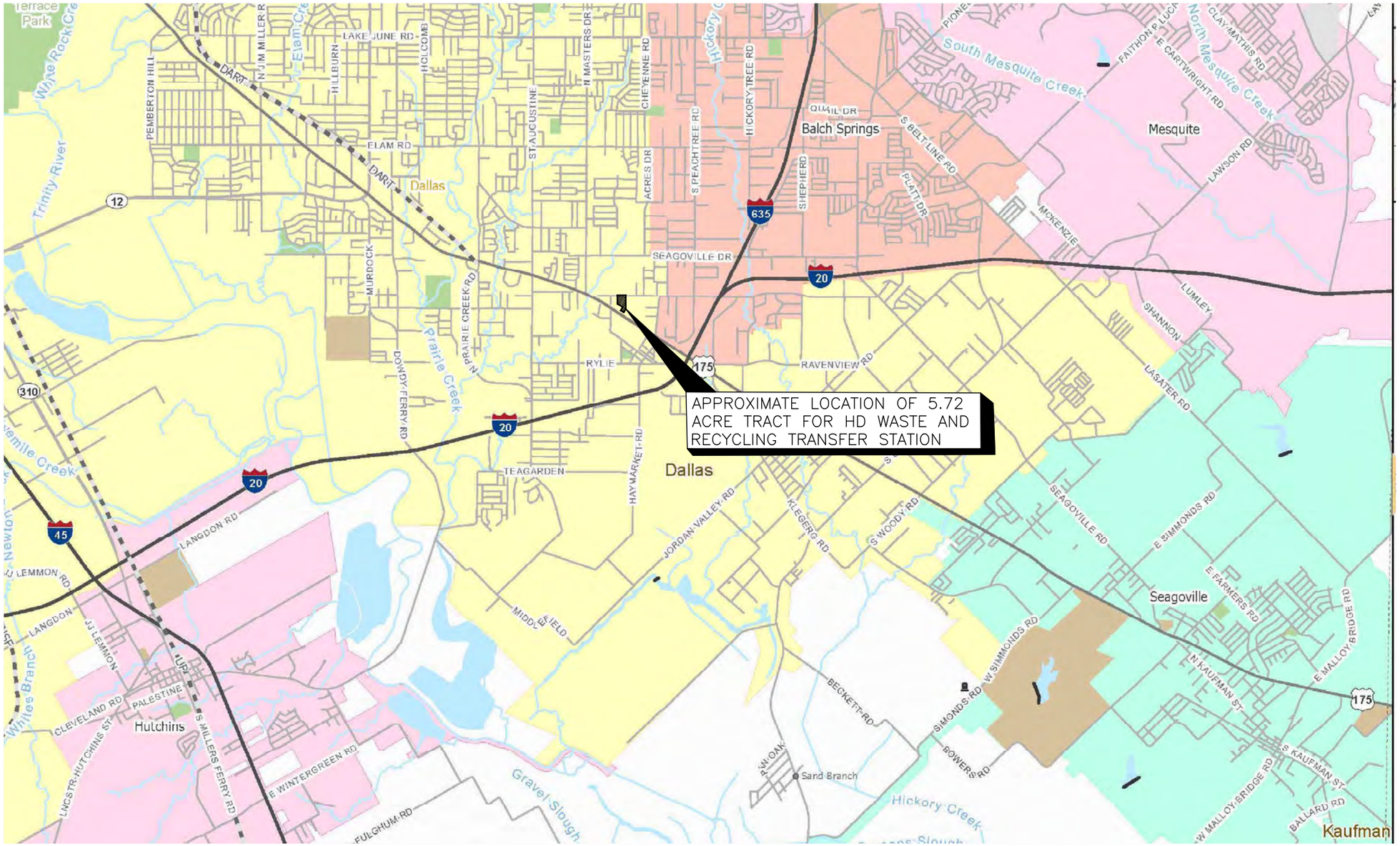
Design Summary

The following information presents a summary of the design and operations for HDWR TS.

- The TS will be open on two sides and will consist of a steel-framed structure with a metal roof and partial siding on two sides. The proposed maximum transfer capacity of the facility is 1,000 tpd of MSW. Incoming loads will be directed to the transfer area for transfer operations. The TS area will consist of a well-lit tipping floor (via natural lighting and overhead lighting) where transfer operations from collection vehicles to transfer trailers will occur. MSW transfer operations will occur completely within the structure. MSW unloaded on the tipping floor within the TS will typically be pushed by front-end loaders (or similar materials handling equipment) to a tunnel, which will load the MSW into a transfer trailer. A grapple may also be used to compact the waste or more evenly distribute the waste within the transfer trailer. The transfer trailer will haul waste to a properly permitted MSW landfill.
- Upon issuance of the required TCEQ authorization, the TS will accept MSW, construction and demolition wastes, special wastes, wood waste, green waste,

recyclables and non-hazardous industrial waste as allowed by the TCEQ regulations.

- Once approved by the TCEQ, the facility will be operated in accordance with the TCEQ-approved site operating plan. This plan includes procedures that govern day-to-day operations of the facility as well as routine inspections and housekeeping to ensure compliance with the TCEQ regulations. As part of the operations, litter, dust, and odor control measures and procedures will be implemented.
- Access to the TS will be provided via an existing driveway on the north side of the US-175 Frontage Road. From I-20, vehicles will travel west on US-175 Frontage Road for less than one mile to the site entrance. The existing access roads are suitable to handle the projected traffic load associated with the TS.
- Properly trained personnel will operate the TS, and HDWR will staff the facility in the future based on the personnel needs to effectively serve the community. A detailed site operating plan will be included in the transfer station application. The plan will provide details on the required equipment, personnel, and safety procedures necessary to operate the facility in accordance with TCEQ regulations. The HDWR will be inspected by the TCEQ on a regular basis to ensure the site is in compliance with state regulations.



Legend

- IH, BI
- US, BU, UA, UP
- SH, BS
- SL, SS, PR
- FM, BF, RM, RR, RE, RS, PA
- County Road
- City Street or other Non-County Maintained Road
- Railroad
- Incorporated City
- Unincorporated Community
- Airport
- Airport
- Airport Runway
- School
- Military Installation
- Prison
- National or State Park
- National or State Forest
- Other Public Land
- Cemetery
- Dam
- County Line
- District Line
- Canal
- Flowing Stream
- Intermittent Stream
- River
- Gulf Intracoastal Waterway
- Other Body of Water

NOTES:

1. REPRODUCED FROM PAGES 708 OF THE TXDOT COUNTY MAPBOOK 2018 (TEXAS DEPARTMENT OF TRANSPORTATION PLANNING AND PROGRAMMING DIVISION). THIS MAP SHOWS DALLAS COUNTY, TEXAS.

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SCALE IN MILES

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- [ ] DRAFT
- [X] FOR REGISTRATION PURPOSES ONLY
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DATE: 08/2023
FILE: 5486-001-11
CAD: FIG 1-SITE LOCATION MAP.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE & RECYCLING, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY SITE LOCATION MAP

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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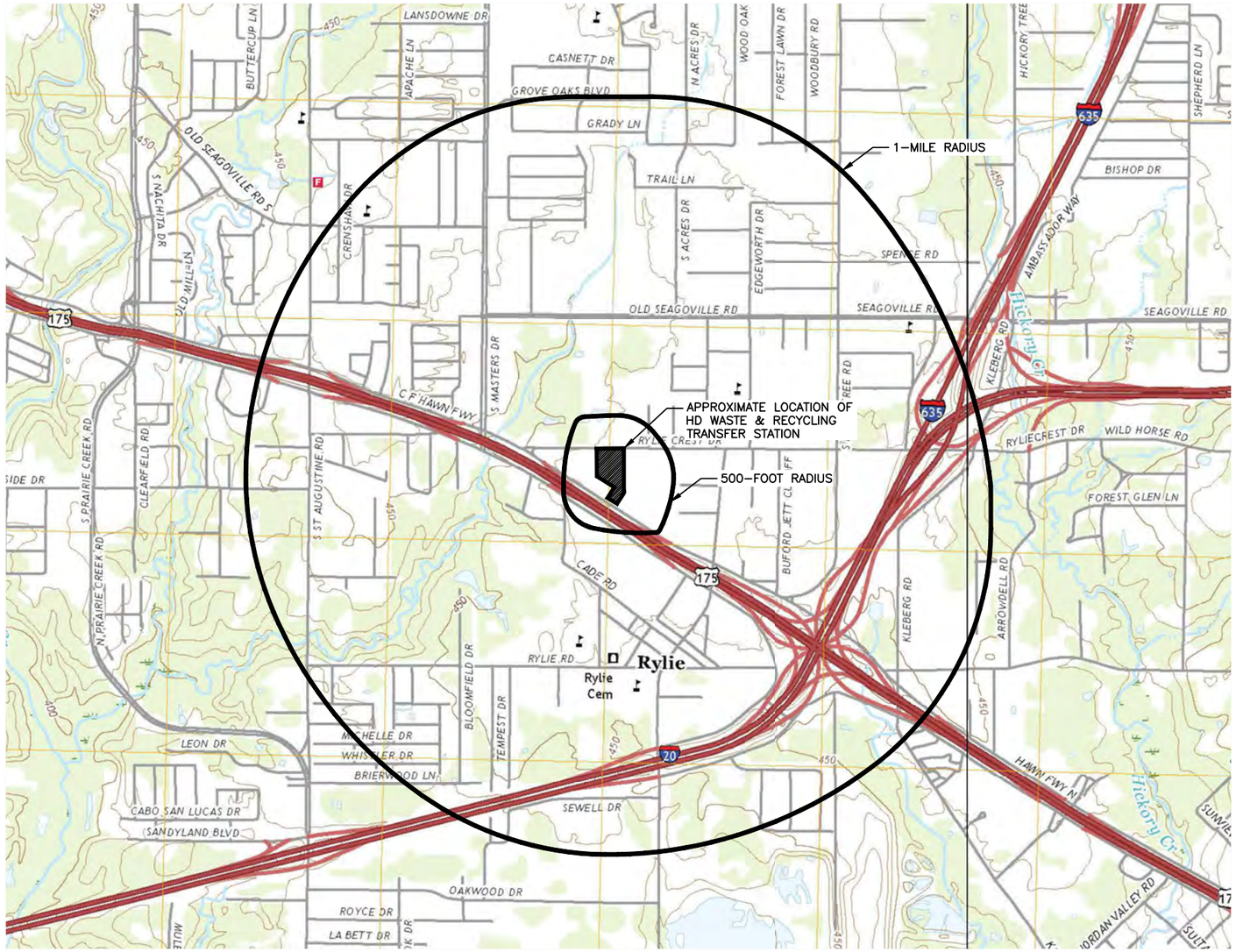
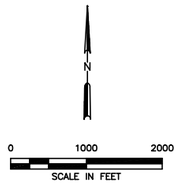
FIGURE 1

O:\5486\TYPE V APPLICATION\COORDINATION LETTERS\FIG 1-SITE LOCATION MAP.dwg, jpuhr, 1:2

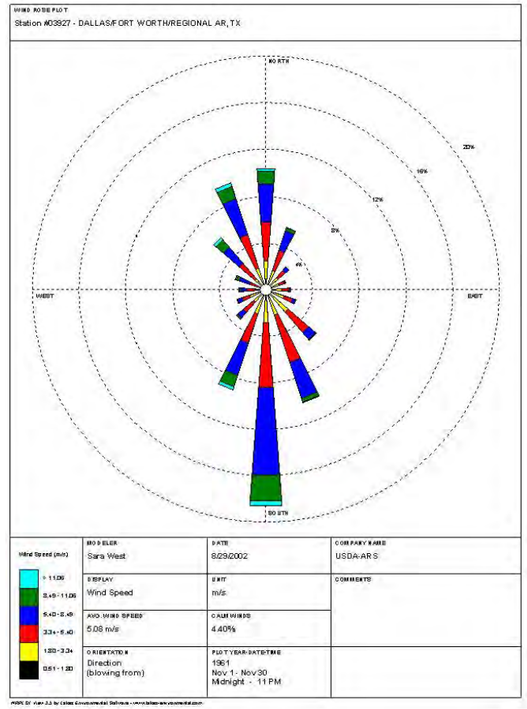




LEGEND:

ROAD CLASSIFICATION

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



NOTES:

1. ADAPTED FROM THE USGS 7.5 MINUTE QUADRANGLE TOPOGRAPHIC MAPS (HUTCHINS, TX 2022 AND SEAGOVILLE, TX 2022).
2. WIND ROSE REPRODUCED FROM USDA (UNITED STATES DEPARTMENT OF AGRICULTURE) PUBLISHED WIND ROSE FOR STATION #03527 DALLAS/FORT WORTH/REGIONAL AR, TX.

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DATE: 08/2023
FILE: 5486-001-11
CAD: 2-GENERAL TOPO MAP.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE & RECYCLING, LLC

REVISIONS

NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY GENERAL TOPOGRAPHIC MAP

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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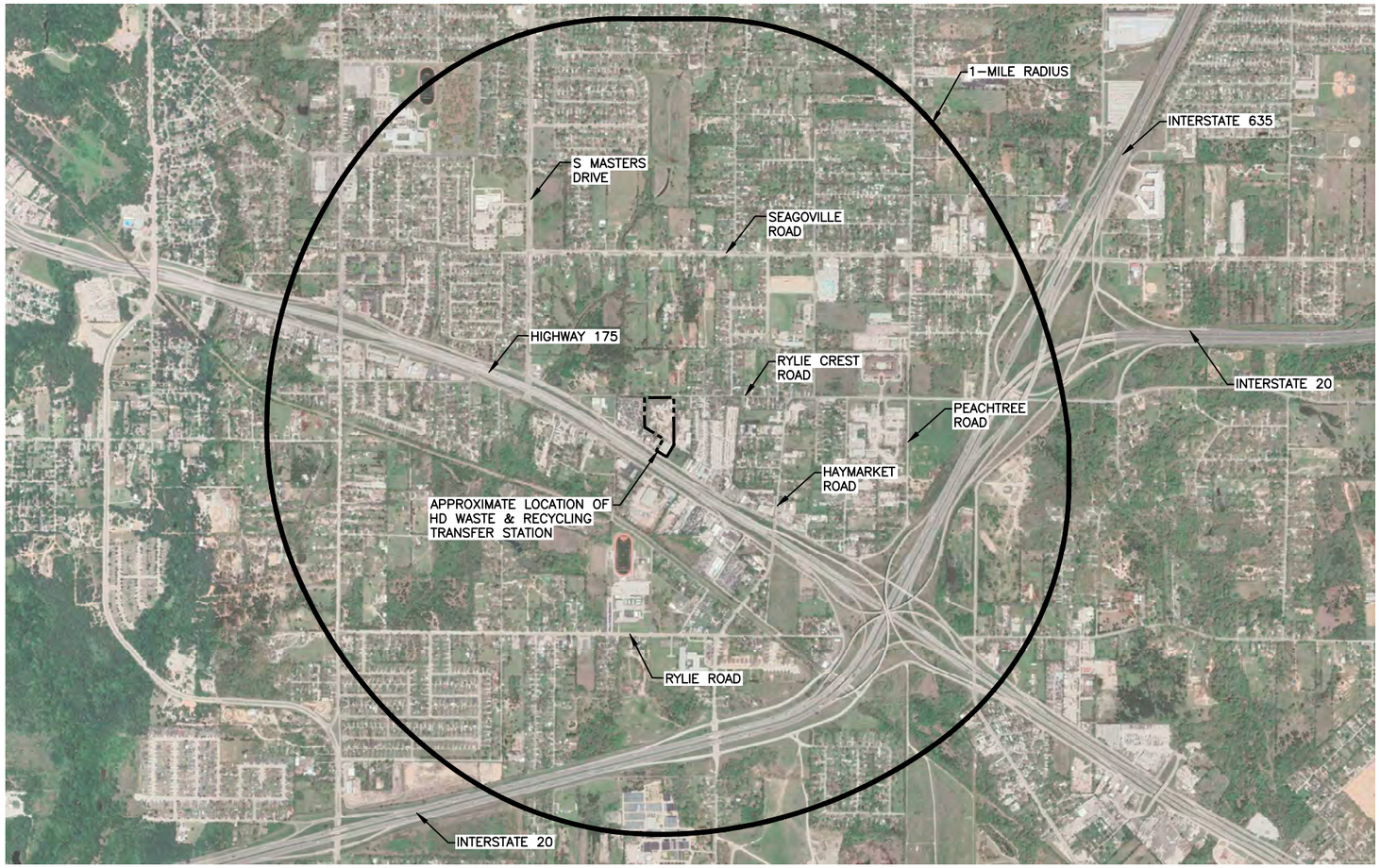
FIGURE 2

O:\5486\TYPE V APPLICATION\COORDINATION LETTERS\FIG 2-TOPO MAP.dwg, jpuhr, 1:2



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SCALE IN FEET

LEGEND

PERMIT BOUNDARY

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE EARTH FROM PHOTOGRAPH TAKEN 04-05-2022.

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DATE: 08/2023
FILE: 5486-001-11
CAD: 3-AERIAL PHOTOGRAPH.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

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HD WASTE & RECYCLING, LLC

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NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY AERIAL PHOTOGRAPH

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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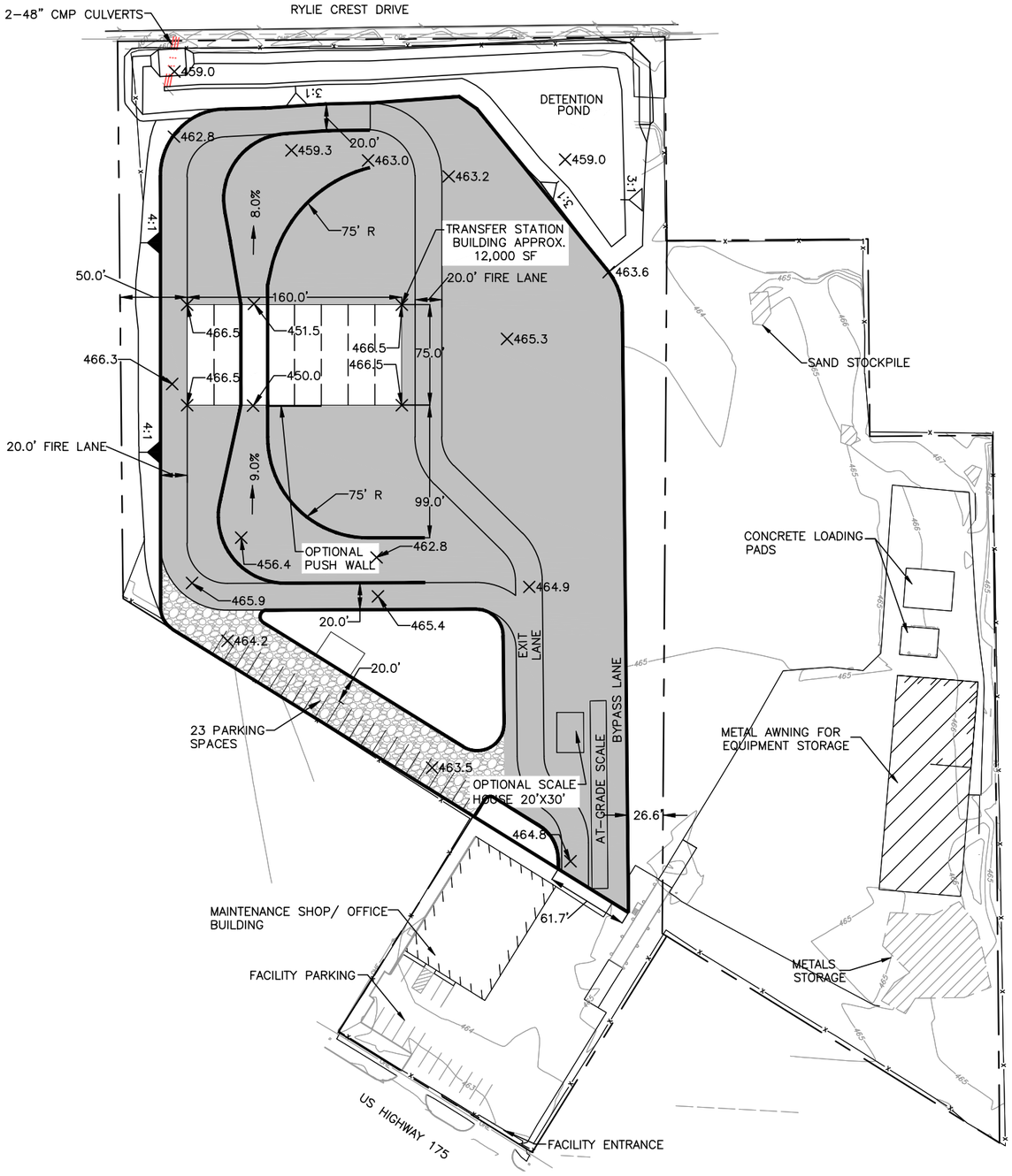
FIGURE 3

O:\5486\TYPE V APPLICATION\COORDINATION LETTERS\FIG 3-AERIAL.dwg, jpnhr, 1:2



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0 50 100

SCALE IN FEET

LEGEND

- PERMIT BOUNDARY
- PROPERTY BOUNDARY
- 1030 EXISTING GRADE
- EXISTING FENCE
- PROPERTY LINE
- ALL-WEATHER SURFACE (E.G., AGGREGATE, ASPHALT, CONCRETE)
- GRAVEL SURFACE
- 459.0 SPOT ELEVATION

NOTES:

1. THE EXISTING CONTOURS AND PROPERTY BOUNDARY HAVE BEEN DEVELOPED BASED ON THE GROUND SURVEY BY WEAVER CONSULTANTS GROUP ON FEBRUARY 14,2022 AND FEBRUARY 21, 2022.
2. THE BOUNDARY SHOWN IS BASED ON RECORD INFORMATION.

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DATE: 04/2023
FILE: 5486-01-11
CAD: FIG 4-SITE PLAN.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE LICENSE NO. F-3727

PREPARED FOR
HD WASTE AND RECYCLING, LLC

REVISIONS

NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION SITE PLAN

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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FIGURE 4

O:\5486\TYPE V APPLICATION\COORDINATION LETTERS\FIGURE 4 - SITE PLAN.dwg, jpnhr, 1:2

ATTACHMENT 2

BIOLOGICAL REPORT BY WEAVER CONSULTANTS GROUP

March 2023
5486-001-11-01

BIOLOGICAL REPORT

HD Waste & Recycling, LLC

Transfer Station
Dallas County, Texas

PREPARED BY

Weaver Consultants Group

TABLE OF CONTENTS

1 INTRODUCTION

1.1 Project Description

HD Waste & Recycling, LLC contracted Weaver Consultants Group, LLC (WCG) to perform a biological assessment of the 5.72-acre proposed transfer station in Dallas County, Texas. The proposed project site will be in an area with an existing recycling operation. The site is located at 10631 CF Hawn Freeway approximately 3,650 feet northwest of the I-20/I-635 Interchange in southeast Dallas (**Attachment 1, Figures 1-3**). Site photos are located in **Attachment 2**.

The purpose of this biological assessment is to characterize the ecological conditions at the proposed project location and provide a review of the potential presence threatened and endangered species, migratory birds, and other sensitive species.

2 ECOLOGICAL SITE CHARACTERIZATION

2.1 EPA Ecoregion Description

Ecoregions are areas where ecosystems (and the type, quality, and quantity of environmental resources) are generally similar. Based on U.S. Environmental Protection Agency (EPA) Level III and Level IV Ecoregions the proposed project is located within the Northern Blackland Prairie of the Texas Blackland Prairies (*EPA, 2013*).

The Texas Blackland Prairies, as the name implies, consists of predominantly prairie vegetation that forms a distinct ecological region. This ecoregion is distinguished from adjacent ecoregions by the fine-textured, clayey soils. Croplands have taken over the vast majority of this ecoregion with a continuously increasing expansion of urban and industrial uses (*EPA, 2013*).

The Northern Blackland Prairie ecoregion is characterized by rolling to nearly level plains that are underlain by interbedded chalks, marls, limestones, and shales of Cretaceous age. Soils are mostly fine-textured, dark, calcareous, and productive Vertisols. Historical vegetation was dominated by little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), yellow Indiangrass (Sorghastrum nutans), and tall dropseed (*Sporobolus asper*). In lowlands and more mesic sites, such as on some of the clayey Vertisol soils in the higher precipitation areas to the northeast, dominant grasses were eastern gamagrass (*Tripsacum dactyloides*) and switchgrass (*Panicum virgatum*). Most of the prairie has been converted to cropland, non-native pasture, and expanding urban uses around Dallas (*Griffith, et al., 2007*).

2.2 Vegetation

The natural vegetation of the Northern Blackland Prairie was predominantly prairie with woodlands mainly along riparian corridors, mesic slope forests, and the Austin Chalk escarpment. Grassland areas were dominated by the species mentioned in Section 2.1 as well as side-oats grama (*Bouteloua curtipendula*), Texas winter grass (*Nasella leucotricha*), prairie bluets (*Hedyotis nigricans*), black-eyed susan (*Rudbeckia hirta*), and old-plainsman (*Hymenopappus scabiosaeus*). Wooded areas, primarily located in riparian areas, included bur oak (*Quercus macrocarpa*), Shumard oak (*Q. shumardii*), sugar hackberry (*Celtis laevigata*), elms (*Ulmus* spp.), ashes (*Fraxinus* spp.), eastern cottonwood (*Populus deltoides*), and pecans (*Carya illinoinensis*). Virtually all of the original tallgrass prairies are gone as a result of cultivation and urbanization (*Griffith, G. et al, 2007*).

2.3 Soils

The only soil type within the proposed project area includes the Rader-Urban land complex, 0 to 2 percent slopes. The Rader-Urban complex consists of moderately well drained soils that formed in stream terraces weathered from loamy alluvium of Quaternary age derived from mixed sources. The runoff class is high and there is no frequency of ponding or flooding. These soils are not considered prime farmland. Neither these soils nor their minor components are considered hydric. Their ecological site classification is Claypan Savannah.

2.4 Geology

The proposed site's geology is the Quaternary to Tertiary silty clay decomposition residuum. Soil formation occurred from Cretaceous chalk, marl, limestone, and shale (*Griffith, G., et al., 2007*).

2.5 Climate

The area has an average January minimum temperature of 30˚F and maximum of 52˚F and July temperature minimum of 72˚F and maximum of 94˚F, and this ecoregion has between 230 to 270 annual frost free days *(Griffith, G., et al, 2007).* This ecoregion receives 42 inches of rainfall on an annual basis.

3 ENVIRONMENTAL IMPACTS DESKTOP REVIEW

3.1 Potential Impacted Species and Migratory Birds

3.1.1 Threatened/Endangered Species

The Endangered Species Act (ESA) aims to conserve endangered and threatened species and the ecosystems they depend on. To implement the ESA, National Oceanic and Atmospheric Administration (NOAA) works with U.S. Fish and Wildlife Service (USFWS) and other federal, tribal, state, and local agencies, as well as nongovernmental organizations and private citizens.

The USFWS IPaC tool (*IPAC, n.d.*) lists four bird species, two as endangered and two as threatened (**Attachment 3**). The Texas Parks and Wildlife Department (TPWD) lists five birds as threatened and one as endangered, five mollusks as threatened, and two reptiles as threatened (**Attachment 4**).

The golden-cheeked warbler (*Setophaga chrysoparia*) is an endangered species that nests in mixed Ashe-juniper and oak woodlands in ravines and canyons. They use long strips of cedar bark and spider webs to build their nests. Sufficient habitat was not present on the project site.

The whooping crane (*Grus americana*) is an endangered species that prefers small ponds, marshes, and flooded grain fields for both roosting and foraging. This species is a migrant throughout most of the state. Sufficient habitat was not present within the project site.

The piping plover (*Charadrius melodus*) is a threatened species that prefers sand flats and algal flats. Optimal sites appear to be large in area, sparsely vegetated, continuously available or in close proximity to secondary habitat and with limited human disturbance. This species is not expected to occur within the project site.

The red knot (*Calidris canutus rufa*) is a threatened species that prefers seacoast on tidal flats and beaches and herbaceous wetlands. This species is not expected to occur within the project site.

The white-faced ibis (*Plegadis chihi*) is a state-listed species that prefers freshwater marshes, sloughs, and irrigated rice fields. This species currently resided in near-coastal rookeries. This species is not expected to occur within the project site.

The wood stork (*Mycteria americana*) is a state-listed species that prefers to nest in large tracts of cypress swamps and red mangrove swamps. This species is not expected to occur within the project site.

The Louisiana pigtoe (*Pleurobema riddellii*) is a state-listed threatened mollusk that occurs in small streams and large river with slow to moderate currents. This species is not expected to occur within the project site.

The sandback pocketbook (*Lampsilis satura*) is a state-listed threatened mollusk that occurs in small streams and large rivers with slow to moderate currents. This species is not expected to occur within the project site.

The Texas fawnsfoot (*Truncilla macrodon*) is a state-listed threatened mollusk that occurs in large rivers. This species is not expected to occur within the project site.

The Texas heelsplitter (*Potamilus amphichaenus*) is a state-listed threatened mollusk that occurs in small streams and large rivers. This species is not expected to occur within the project site.

The Trinity pigtoe (*Fusconaia chunii*) is a state-listed threatened mollusk that occurs in riffles of a wide variety of stream and river systems. This species is not expected to occur within the project site.

The alligator snapping turtle (*Macrochlemys temminkii*) is a state-listed threatened species that occurs in perennial waterbodies. This species is not expected to occur within the project site.

3.1.2 Candidate Species

The USFWS also lists the Monarch Butterfly (*Danaus plexippus*) as a potential candidate species. Candidate species are species that are being considered for possible addition to the threatened and endangered species list. They currently have no legal protection under the ESA. If you find you have potential project impacts to these species the USFWS can provide technical assistance to help avoid or minimize any adverse impacts.

Candidate Conservation Agreements (CCAs) are voluntary conservation agreements between the U.S. Fish and Wildlife Service (Service) and one or more public or private parties. The Service works with its partners to identify threats to candidate species, plan the measures needed to address the threats and conserve these species, identify willing landowners, develop agreements, and design and implement conservation measures and monitor their effectiveness. Candidate Conservation Agreements with Assurances (CCAAs) expand on the success of traditional CCAs by providing non-federal landowners with additional incentives for engaging in voluntary proactive conservation through assurances that limit future conservation obligations. One of the primary reasons for developing the CCAA program was to address landowner

concerns about the potential regulatory implications of having a listed species on their land. The CCAA program specifically targets non-federal landowners and provides them with the assurance that if they implement various conservation activities, they will not be subject to additional restrictions if the species becomes listed under the ESA. These assurances are only available to non-federal entities for actions on non-federal lands.

If a candidate species is found at the proposed site, implementing conservation efforts before species are listed increases the likelihood that simpler, flexible, and more cost-effective conservation options are available. For additional information regarding CCAs and CCAAs please contact the U. S. Fish and Wildlife Service Ecological Services Program or please see the below link for additional information:

https://www.fws.gov/endangered/esa-library/pdf/CCAs.pdf.

3.1.3 Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). The Migratory Bird Treaty Act of 1918 provides protection for a large number of migratory bird species. The MBTA specifically is a treaty between the U.S., Japan, Canada, Mexico, and Russia which protect birds that migrate across international borders. The take of all migratory birds, including bald eagles, is governed by the MBTA regulations.

The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests except as authorized under a valid permit. Additionally, the MBTA authorizes and directs the Secretary of the Interior to determine if, and by what means, the take of migratory birds should be allowed and to adopt suitable regulations permitting and governing take (for example, hunting seasons for ducks and geese). The bald eagle is protected by the BGEPA even though it has been delisted under the Endangered Species Act. This law, originally passed in 1940, provides for the protection of the bald eagle and the golden eagle (as amended in 1962) by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures. The birds in the below table are of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location.

Please note, this is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area:

Table 1. Potential Birds of Conservation Concern

Migratory Bird Species Name	Breeding Season	Level of Concern (BCC or ESA Status)
Bald Eagle (*Haliaeetus leucocephalus)*	Breeds Sep 1 to Jul 31	Non-BCC Vulnerable
Chimney Swift *(Chaetura pelagica)*	Breeds March 15 to Aug 25	BCC Rangewide
Little Blue Heron *(Egretta caerulea)*	Breeds March 10 to Oct 15	BCC in BCRs

When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. 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. If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Nationwide Conservation Measures (NCM) describes measures that can help avoid and minimize impacts to all birds at any location year-round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. These measures are grouped into three categories: General, Habitat Protection, and Stressor Management. These measures may be updated through time. We recommend checking the USFWS NCM website regularly for the most up-to-date list:

https://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

Please note, if one of the birds in Table 1 is found at the proposed project site the MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the USFWS. The MBTA is regulated by the USFWS. If a species is found, or an active nest is found, a permit from the USFWS must be obtained before take of the species can occur. The MBTA makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations. The migratory bird species protected by the Act are listed in 50 CFR 10.13.

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present under the BGEPA, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment. A violation of the Act can result in a fine of $100,000 ($200,000 for organizations), imprisonment for one year, or both, for a first offense. Penalties

increase substantially for additional offenses, and a second violation of this Act is a felony.

3.2 Observations

A field investigation was conducted of the proposed project site on February 10, 2023. The project site occupied by the existing recycling operations. The vast majority of the area does not contain vegetation. The dominant vegetation consists of woody species along the perimeter fenceline and includes eastern redcedar (*Juniperus virginiana*), Chinese privet (*Ligustrum sinense*), and oaks (*Quercus* spp.).

4 RESULTS AND RECOMMENDATIONS

4.1 Summary of Results and Recommendations

The proposed project site is dominated by an existing recycling operation. The vast majority of the site has been disturbed by the recycling operation and does not contain viable habitat for any threatened and/or endangered species.

The proposed project will not result in the destruction or adverse modification of any federally designated critical habitat for any threatened or endangered species, nor cause or contribute to the taking of any listed threatened or endangered species. Please note, Table 1 provides a list of the Potential Birds of Conservation Concern list or warrant special attention in the project location and the Nationwide Conservation Measures (NCM) can help avoid and minimize impacts to all birds at any location year-round. If any birds listed in Table 1 or any other threatened/endangered species are found at the project location, the U. S. Fish and Wildlife Service Ecological Services Program and Texas Parks and Wildlife Department should be contacted. Based on this environmental review, no further investigation for threatened and endangered species is recommended at this time.

5 REFERENCES

Environmental Protection Agency (EPA), 2013, Level III and IV ecoregions of the continental United States: Corvallis, Oregon, U.S. EPA, National Health and Environmental Effects Research Laboratory, map scale 1:3,000,000, https://www.epa.gov/eco-research/level-iii-and-iv-ecoregions-continental-united-states.

U.S. Environmental Protection Agency, 2013, Level III ecoregions of the continental United States: Corvallis, Oregon, U.S. EPA – National Health and Environmental Effects Research Laboratory, map scale 1:7,500,000, *http://www.epa.gov/wed/pages/ecoregions/level_iii_iv.htm.*

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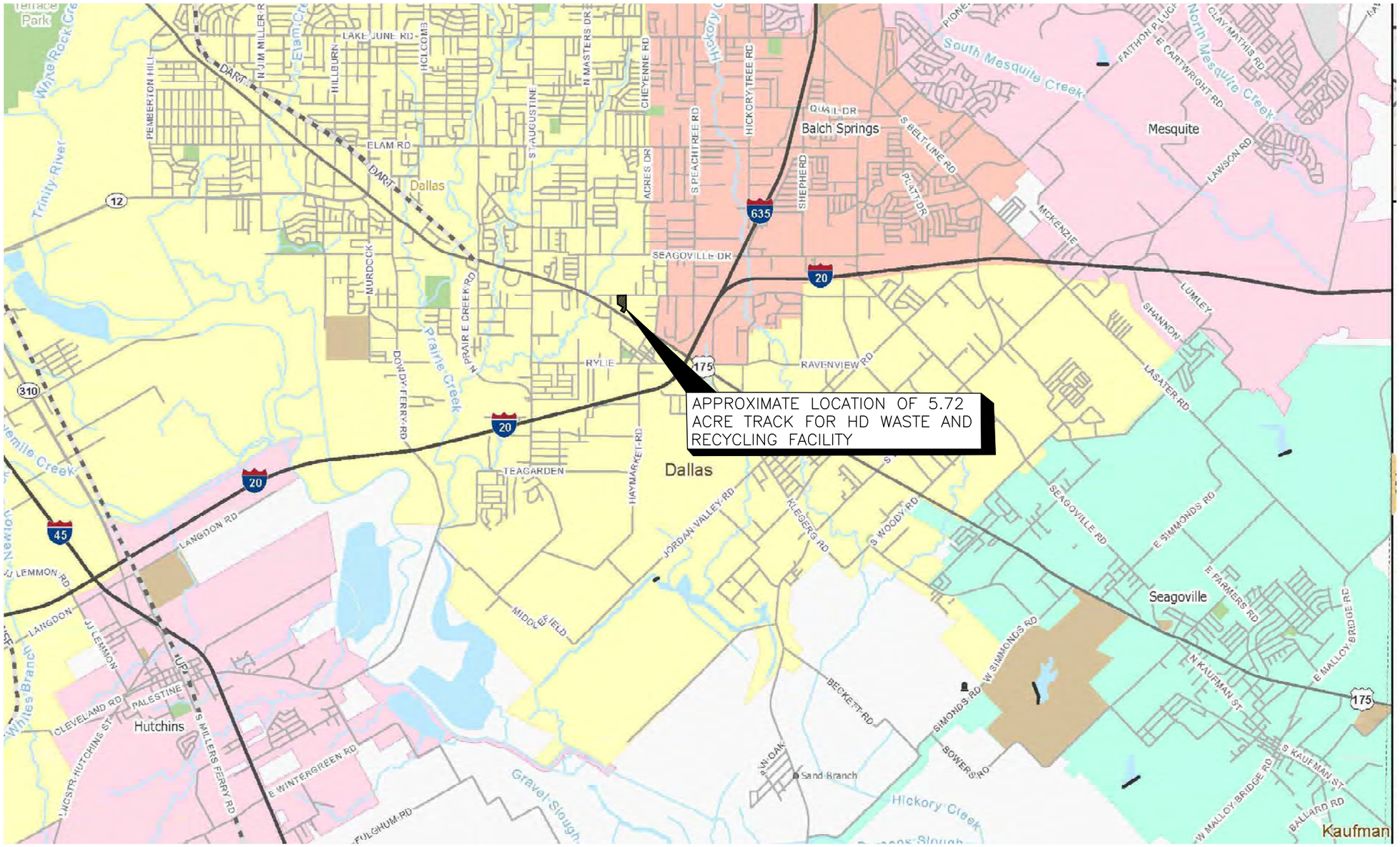
ATTACHMENT 1

FIGURES



NOTES:

1. REPRODUCED FROM PAGES 708 OF THE TXDOT COUNTY MAPBOOK 2018 (TEXAS DEPARTMENT OF TRANSPORTATION PLANNING AND PROGRAMMING DIVISION). THIS MAP SHOWS DALLAS COUNTY, TEXAS.

N

0 0.5 1
SCALE IN MILES

I/IIA-67

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- [ ] DRAFT
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- [ ] ISSUED FOR CONSTRUCTION

DATE: 03/2023
FILE: 5486-001-11
CAD: FIG 1-SITE LOCATION MAP.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE & RECYCLING, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

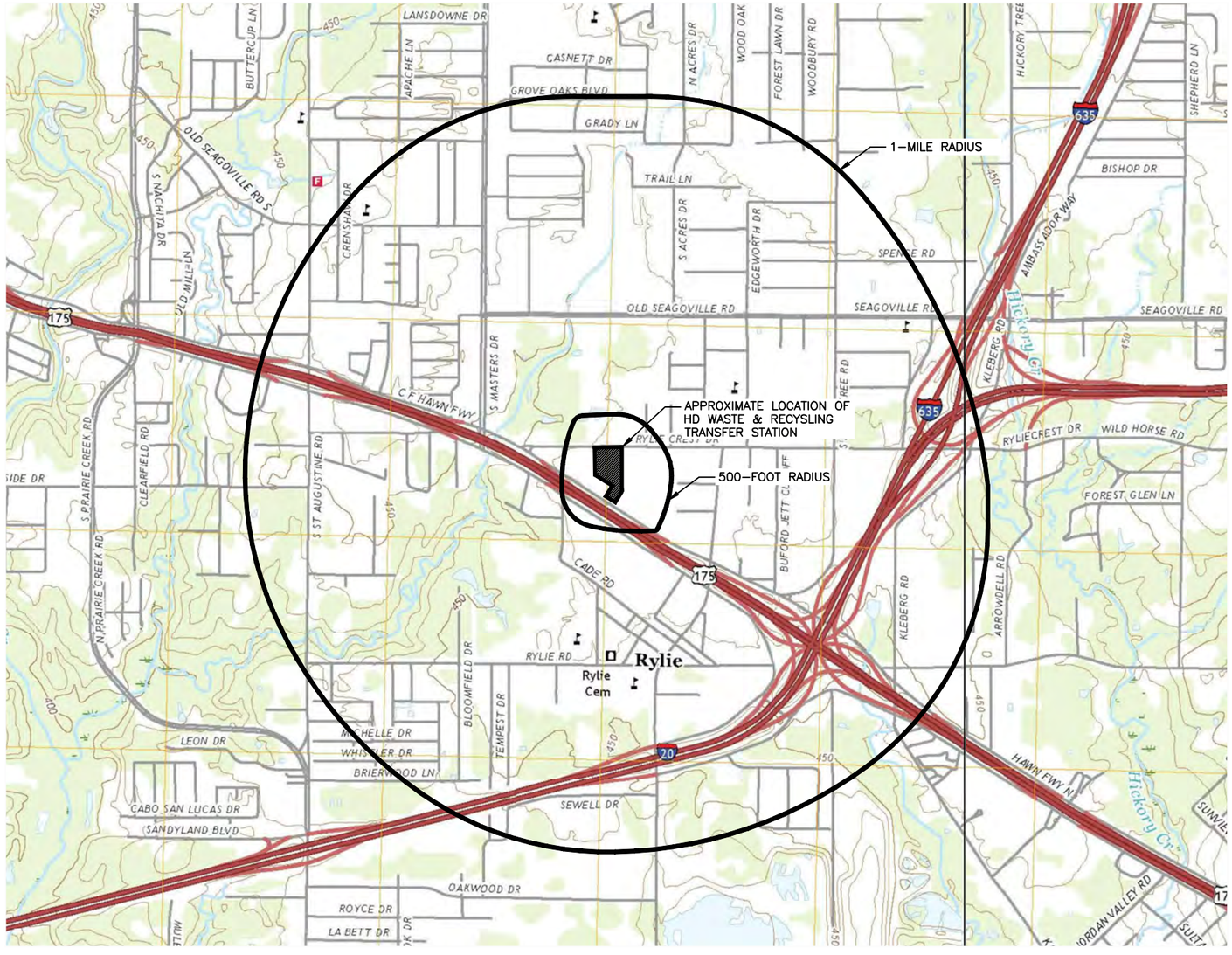
TYPE V TRANSFER STATION REGISTRATION SITE LOCATION MAP

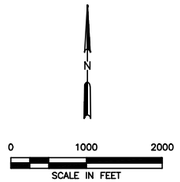
HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 1

O:\5486\TYPE V APPLICATION\COORDINATION LETTERS\FIG 1-SITE LOCATION MAP.dwg, jpmhr, 1:2

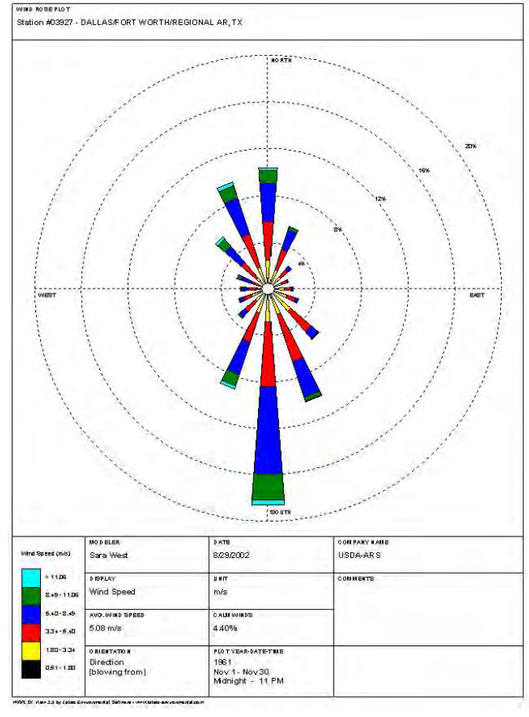




LEGEND:

ROAD CLASSIFICATION

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



NOTES:

1. ADAPTED FROM THE USGS 7.5 MINUTE QUADRANGLE TOPOGRAPHIC MAPS (HUTCHINS, TX 2022 AND SEAGOVILLE, TX 2022).
2. WIND ROSE REPRODUCED FROM USDA (UNITED STATES DEPARTMENT OF AGRICULTURE) PUBLISHED WIND ROSE FOR STATION #03527 DALLAS/FORT WORTH/REGIONAL AR, TX.

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DATE: 03/2023
FILE: 5486-001-11
CAD: 2-GENERAL TOPO MAP.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE & RECYCLING, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

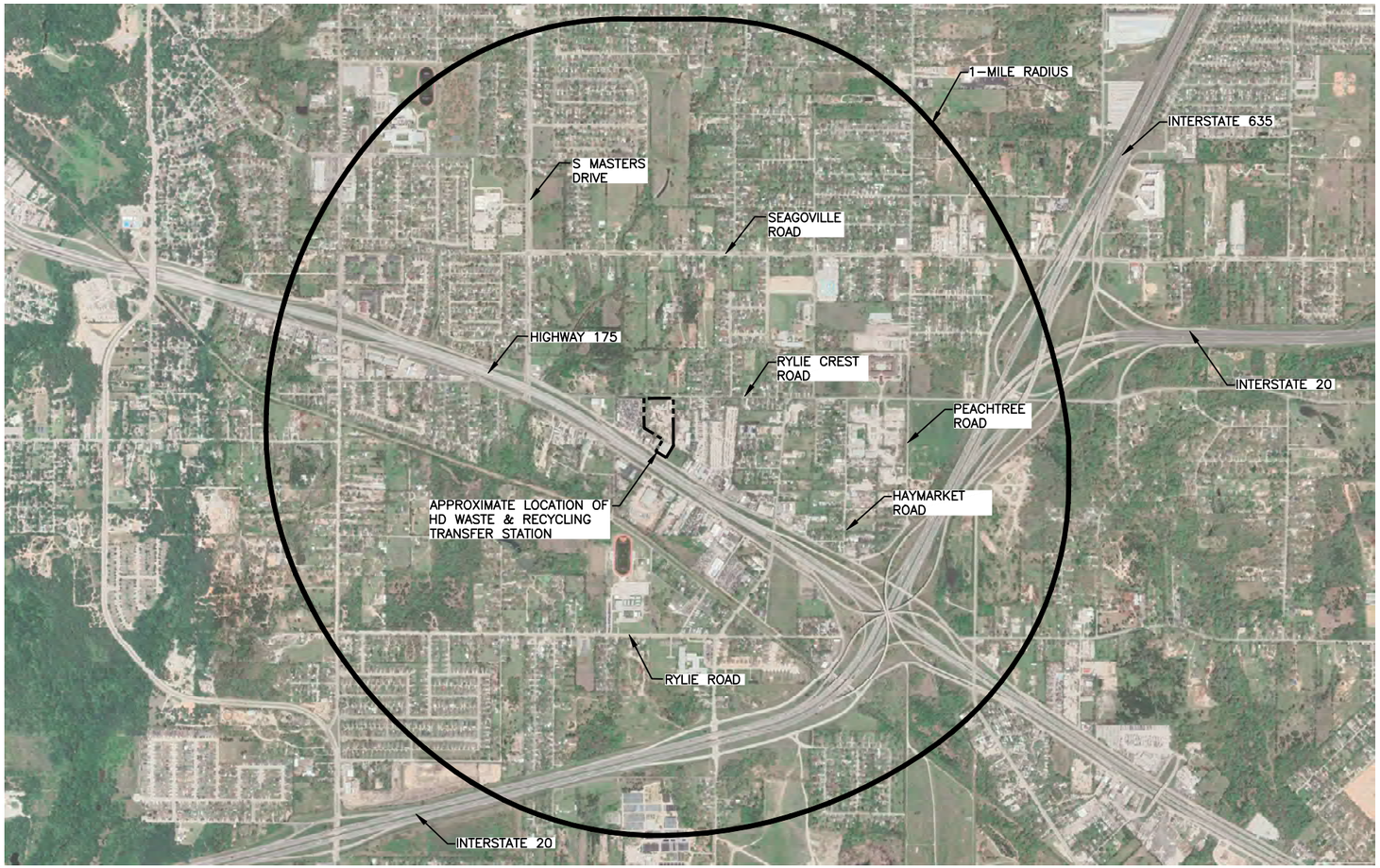
TYPE V TRANSFER STATION REGISTRATION GENERAL TOPOGRAPHIC MAP

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 2

O:\5486\TYPE V APPLICATION\COORDINATION LETTERS\FIG 2-TOPO MAP.dwg, jpuhr, 1:2



N

0 1000 2000

SCALE IN FEET

LEGEND

PERMIT BOUNDARY

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE EARTH FROM PHOTOGRAPH TAKEN 04-05-2022.

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DATE: 03/2023
FILE: 5486-001-11
CAD: 3-AERIAL PHOTOGRAPH.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

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TBPE REGISTRATION NO. F-3727

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NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION REGISTRATION
AERIAL PHOTOGRAPH

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 3

O:\5486\TYPE V APPLICATION\COORDINATION LETTERS\FIG 3-AERIAL.dwg, jpothr, 1:2

ATTACHMENT 2

SITE PHOTOS

Photo 1 – View of the northwest corner.

Photo 2 – View looking east along the north boundary.

Photo 3 – View looking toward the center of the site.

Photo 4 – View from the north boundary looking north at the adjacent land use.

ATTACHMENT 3

USFWS IPAC SPECIES LIST

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.

NOT FOR CONSULTATION

Location

Dallas County, Texas

Local office

Arlington Ecological Services Field Office

(817) 277-1100
(817) 277-1129
arles@fws.gov

2005 Ne Green Oaks Blvd
Suite 140
Arlington, TX 76006-6247

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.

---

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).

NOT FOR CONSULTATION

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
Golden-cheeked Warbler *Setophaga chrysoparia* Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/33	Endangered
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
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. https://ecos.fws.gov/ecp/species/1864	Threatened
Whooping Crane *Grus americana* There is **final** critical habitat for this species.Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/758	Endangered

NOT FOR CONSULTATION

Reptiles

NAME	STATUS
Alligator Snapping Turtle Macrochelys temminckii Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4658	Proposed Threatened

Clams

NAME	STATUS
Texas Fawnsfoot Truncilla macrodon Wherever found There is **proposed** critical habitat for this speciesYour location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8965	Proposed Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

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.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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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:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

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.	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

NOT FOR CONSULTATION

Little Blue Heron Egretta caerulea Breeds Mar 10 to Oct 15

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

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 and understand the FAQ "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 (|)

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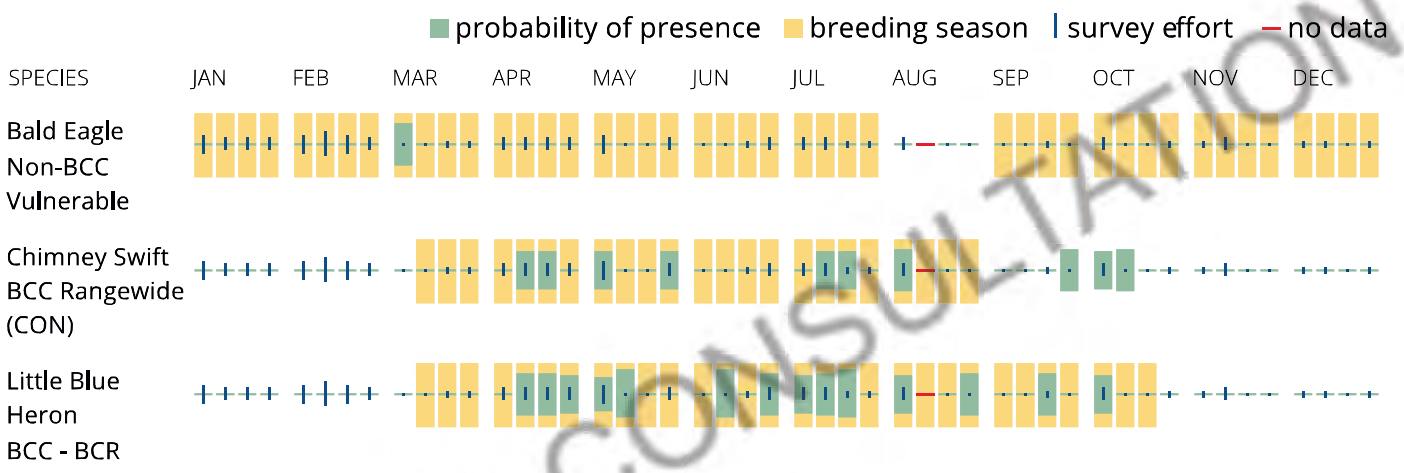
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

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.



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Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding 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 USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

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) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle 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, please visit the Rapid Avian Information Locator (RAIL) Tool

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 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?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at 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 migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, 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 Eagle 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 try 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 eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

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.

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Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

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 also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). 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 is not perfect; 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 helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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.

This location did not intersect any wetlands mapped by NWI.

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.

NOT FOR CONSULTATION

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.

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ATTACHMENT 4

TPWD THREATENED AND ENDANGERED SPECIES LISTS

Last Update: 1/4/2023

DALLAS COUNTY

AMPHIBIANS

eastern tiger salamander *Ambystoma tigrinum*

Terrestrial adults generally occur under cover objects or in burrows surrounding a variety of lentic freshwater habitats, such as ponds, lakes, bottomland wetlands, or upland ephemeral pools. The specific terrestrial habitats are also varied and the occurrence of this species seems to be more closely associated with sandy, loamy or other soils which have easy burrowing properties, rather than any particular ecological system type. Requires fishless breeding pools for successful reproduction.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S3

spotted dusky salamander *Desmognathus conanti*

This species occurs in association with aquatic habitats in forested areas. Small, clear, spring fed streams with sandy substrate bordered with ferns and moss as well as murky, stagnant water bodies in cypress swamps, baygalls, and flood plains in bottomland forests support populations of this species.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S1

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: SU

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: Y
Endemic: N	Global Rank: G5	State Rank: S3B,S3N

DISCLAIMER
The information on this web application is provided "as is" without warranty as to the currentness, completeness, or accuracy of any specific data. The data provided are for planning, assessment, and informational purposes. Refer to the Frequently Asked Questions (FAQs) on the application website for further information.

DALLAS COUNTY

BIRDS

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: LT	State Status: T	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2

black-capped vireo *Vireo atricapilla*

Oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S3B

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

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

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: LT	State Status: T	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2N

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DALLAS 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: LT	State Status: T	SGCN: Y
Endemic: N	Global Rank: G4T2	State Rank: S2N

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: Y
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: Y
Endemic: N	Global Rank: G5	State Rank: S4B

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: LE	State Status: E	SGCN: Y
Endemic: N	Global Rank: G1	State Rank: S1S2N

wood stork *Mycteria americana*

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DALLAS COUNTY

BIRDS

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,S2N

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

FISH

american eel *Anguilla rostrata*

Originally found in all river systems from the Red River to the Rio Grande. Aquatic habtiats include large rivers, streams, tributaries, coastal watersheds, estuaries, bays, and oceans. Spawns in Sargasso Sea, larva move to coastal waters, metamorphose, and begin upstream movements. Females tend to move further upstream than males (who are often found in brackish estuaries). American Eel are habitat generalists and may be found in a broad range of habitat conditions including slow- and fast-flowing waters over many substrate types. Extirpation in upstream drainages attributed to reservoirs that impede upstream migration.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S4

Mississippi silvery minnow *Hybognathus nuchalis*

Found in eastern Texas streams, from the Brazos River eastward and northward to the Red River; found in moderate current; silty, muddy, or rocky substrate. In Texas, adults likely to inhabit smaller tributary streams.

Federal Status:	State Status:	SGCN: Y
Endemic:	Global Rank: G5	State Rank: S4

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

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DALLAS COUNTY

INSECTS

Comanche harvester ant *Pogonomyrmex comanche*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G2G3	State Rank: S2

No accepted common name *Arethaea ambulator*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic:	Global Rank: GNR	State Rank: SNR

MAMMALS

big brown bat *Eptesicus fuscus*

Any wooded areas or woodlands except south Texas. Riparian areas in west Texas.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S5

cave myotis bat *Myotis velifer*

Colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4G5	State Rank: S2S3

eastern red bat *Lasiurus borealis*

Red bats are migratory bats that are common across Texas. They are most common in the eastern and central parts of the state, due to their requirement of forests for foliage roosting. West Texas specimens are associated with forested areas (cottonwoods). Also common along the coastline. These bats are highly mobile, seasonally migratory, and practice a type of "wandering migration". Associations with specific habitat is difficult unless specific migratory stopover sites or wintering grounds are found. Likely associated with any forested area in East, Central, and North Texas but can occur statewide.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S4

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

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DALLAS COUNTY

MAMMALS

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: S4

long-tailed weasel *Mustela frenata*

Includes brushlands, fence rows, upland woods and bottomland hardwoods, forest edges & rocky desert scrub. Usually live close to water.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S5

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

muskrat *Ondatra zibethicus*

Found in fresh or brackish marshes, lakes, ponds, swamps, and other bodies of slow-moving water. Most abundant in areas with cattail. Dens in bank burrow or conical house of vegetation in shallow vegetated water. It is primarily found in the Rio Grande near El Paso and in SE Texas in the Houston area.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S5

southeastern myotis bat *Myotis austroriparius*

Caves are rare in Texas portion of range; buildings, hollow trees are probably important. Historically, lowland pine and hardwood forests with large hollow trees; associated with ecological communities near water. Roosts in cavity trees of bottomland hardwoods, concrete culverts, and abandoned man-made structures.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G4 State Rank: S3?

swamp rabbit *Sylvilagus aquaticus*

Primarily found in lowland areas near water including: cypress bogs and marshes, floodplains, creeks and rivers.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S5

tricolored bat *Perimyotis subflavus*

Forest, woodland and riparian areas are important. Caves are very important to this species.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G3G4 State Rank: S2

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DALLAS COUNTY

MAMMALS

western hog-nosed skunk *Conepatus leuconotus*

Habitats include woodlands, grasslands & deserts, to 7200 feet, most common in rugged, rocky canyon country; little is known about the habitat of the ssp. telmalestes

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S4

MOLLUSKS

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:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G1G2	State Rank: S1

sandbank pocketbook *Lampsilis satura*

Occurs in small streams to large rivers in slow to moderate current in sandy mud to sand and gravel substrate. Can occur in a variety of habitats but most common in littoral habitats such as banks or backwaters or in protected areas along point bars (Randklev et al. 2013b; Randklev et al. 2014a; Troia et al. 2015). [Mussels of Texas 2019]

Federal Status:	State Status: T	SGCN: Y
Endemic:	Global Rank: G2?	State Rank: S1

Texas fawnsfoot *Truncilla macrodon*

Occurs in large rivers but may also be found in medium-sized streams. Is found in protected near shore areas such as banks and backwaters but also riffles and point bar habitats with low to moderate water velocities. Typically occurs in substrates of mud, sandy mud, gravel and cobble. Considered intolerant of reservoirs (Randklev et al. 2010; Howells 2010o; Randklev et al. 2014b,c; Randklev et al. 2017a,b). [Mussels of Texas 2019]

Federal Status: PT	State Status: T	SGCN: Y
Endemic: Y	Global Rank: G1	State Rank: S2

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:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G1G3	State Rank: S1

Trinity pigtoe *Fusconaia chunii*

Found in a variety of habitats but most common in riffles. Inhabits various substrates though most often sand, gravel, and cobble (species was recently split from Texas Pigtoe and occurs in similar habitats; Howells 2010a; Randklev et al. 2013b; Randklev et al. 2014a; Troia et al 2015). [Mussels of Texas 2020]

Federal Status:	State Status: T	SGCN: Y
Endemic: Y	Global Rank: GNR	State Rank: S1

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DALLAS COUNTY

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:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G3	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

prairie skink *Plestiodon septentrionalis*

The prairie skink can occur in any native grassland habitat across the Rolling Plains, Blackland Prairie, Post Oak Savanna and Pineywoods ecoregions.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S2

pygmy rattlesnake *Sistrurus miliarius*

The pygmy rattlesnake occurs in a variety of wooded habitats from bottomland coastal hardwood forests to upland savannas. The species is frequently found in association with standing water.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S2S3

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 garter snake *Thamnophis sirtalis annectens*

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: Y	Global Rank: G5T4	State Rank: S1

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DALLAS COUNTY

REPTILES

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

timber (canebrake) rattlesnake *Crotalus horridus*

Terrestrial: Swamps, floodplains, upland pine and deciduous woodland, riparian zones, abandoned farmland. Limestone bluffs, sandy soil or black clay. Prefers dense ground cover, i.e. grapevines, palmetto.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S4

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: G5	State Rank: S3

western chicken turtle *Deirochelys reticularia miaria*

Aquatic and terrestrial: This species uses aquatic habitats in the late winter, spring and early summer and then terrestrial habitats the remainder of the year. Preferred aquatic habitats seem to be highly vegetated shallow wetlands with gentle slopes. Specific terrestrial habitats are not well known.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5T5	State Rank: S2S3

western massasauga *Sistrurus tergeminus*

Terrestrial: Shortgrass or mixed grass prairie, with gravel or sandy soils. Often found associated with draws, floodplains, and more mesic habitats within the arid landscape. Frequently occurs in shrub encroached grasslands.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S3

PLANTS

glandular gay-feather *Liatris glandulosa*

Occurs in herbaceous vegetation on limestone outcrops (Carr 2015)

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G3	State Rank: S2

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DALLAS COUNTY

PLANTS

Glass Mountains coral-root *Hexalectris nitida*

Apparently rare in mixed woodlands in canyons in the mountains of the Brewster County, but encountered with regularity, albeit in small numbers, under Juniperus ashei in woodlands over limestone on the Edwards Plateau, Callahan Divide and Lampasas Cutplain; Perennial; Flowering June-Sept; Fruiting July-Sept

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S3

Glen Rose yucca *Yucca necopina*

Grasslands on sandy soils and limestone outcrops; flowering April-June

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G1G2	State Rank: S3

Hall's prairie clover *Dalea hallii*

In grasslands on eroded limestone or chalk and in oak scrub on rocky hillsides; Perennial; Flowering May-Sept; Fruiting June-Sept

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G3	State Rank: S2

Oklahoma phlox *Phlox oklahomensis*

Known from a 1958 collection from an oak woodland four miles east of Garland, Texas (Carr 2015).

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: SH

Osage Plains false foxglove *Agalinis densiflora*

Most records are from grasslands on shallow, gravelly, well drained, calcareous soils; Prairies, dry limestone soils; Annual; Flowering Aug-Oct

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2

plateau milkvine *Matelea edwardsensis*

Occurs in various types of juniper-oak and oak-juniper woodlands; Perennial; Flowering March-Oct; Fruiting May-June

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G3	State Rank: S3

Sutherland 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

Texas milk vetch *Astragalus reflexus*

Grasslands, prairies, and roadsides on calcareous and clay substrates; Annual; Flowering Feb-June; Fruiting April-June

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DALLAS COUNTY

PLANTS

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G3	State Rank: S3

tree dodder *Cuscuta exaltata*

Parasitic on various Quercus, Juglans, Rhus, Vitis, Ulmus, and Diospyros species as well as Acacia berlandieri and other woody plants; Annual; Flowering May-Oct; Fruiting July-Oct

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S3

Warnock's coral-root *Hexalectris warnockii*

In leaf litter and humus in oak-juniper woodlands on shaded slopes and intermittent, rocky creekbeds in canyons; in the Trans Pecos in oak-pinyon-juniper woodlands in higher mesic canyons (to 2000 m [6550 ft]), primarily on igneous substrates; in Terrell County under Quercus fusiformis mottes on terrraces of spring-fed perennial streams, draining an otherwise rather xeric limestone landscape; on the Callahan Divide (Taylor County), the White Rock Escarpment (Dallas County), and the Edwards Plateau in oak-juniper woodlands on limestone slopes; in Gillespie County on igneous substrates of the Llano Uplift; flowering June-September; individual plants do not usually bloom in successive years

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G2G3	State Rank: S2

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COORDINATION WITH
NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

CONTENTS

[NCTCOG APPROVAL LETTER TO BE INSERTED]

APPENDIX I/IIB

AREA WATER WELL INFORMATION
PERFORMED BY GEOSEARCH, INC.

Includes pages I/IIB-1 through I/IIB-30

TEXAS WATER WELL REPORT

Project Property:	*HD Waste and Recycling Transfer Station* *10631 C F Hawn Fwy* *Dallas TX 75217*
Project No:	*5486-001-11-01*
Order No:	*23031400562*
Requested by:	*Weaver Consultants Group*
Date Completed:	*June 1, 2023*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Table of Contents

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Executive Summary

Property Information:

Project Property:	*HD Waste and Recycling Transfer Station* *10631 C F Hawn Fwy Dallas TX 75217*
Project No:	*5486-001-11-01*
Coordinates:	
Latitude:	*32.69865*
Longitude:	*-96.64256344*
UTM Northing:	*3,620,336.96*
UTM Easting:	*720,993.65*
UTM Zone:	*14S*
Target Property Geometry:	*POLYGON*
County/Parish Covered:	*Dallas (TX)*
Zipcode(s) Covered:	*Balch Springs TX: 75180* *Dallas TX: 75217, 75253*
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	**5**	**5**
SDRW WELLS	Y	0	0	0
GWDB	Y	0	**1**	**1**
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	**6**	**6**

PO – Property Only

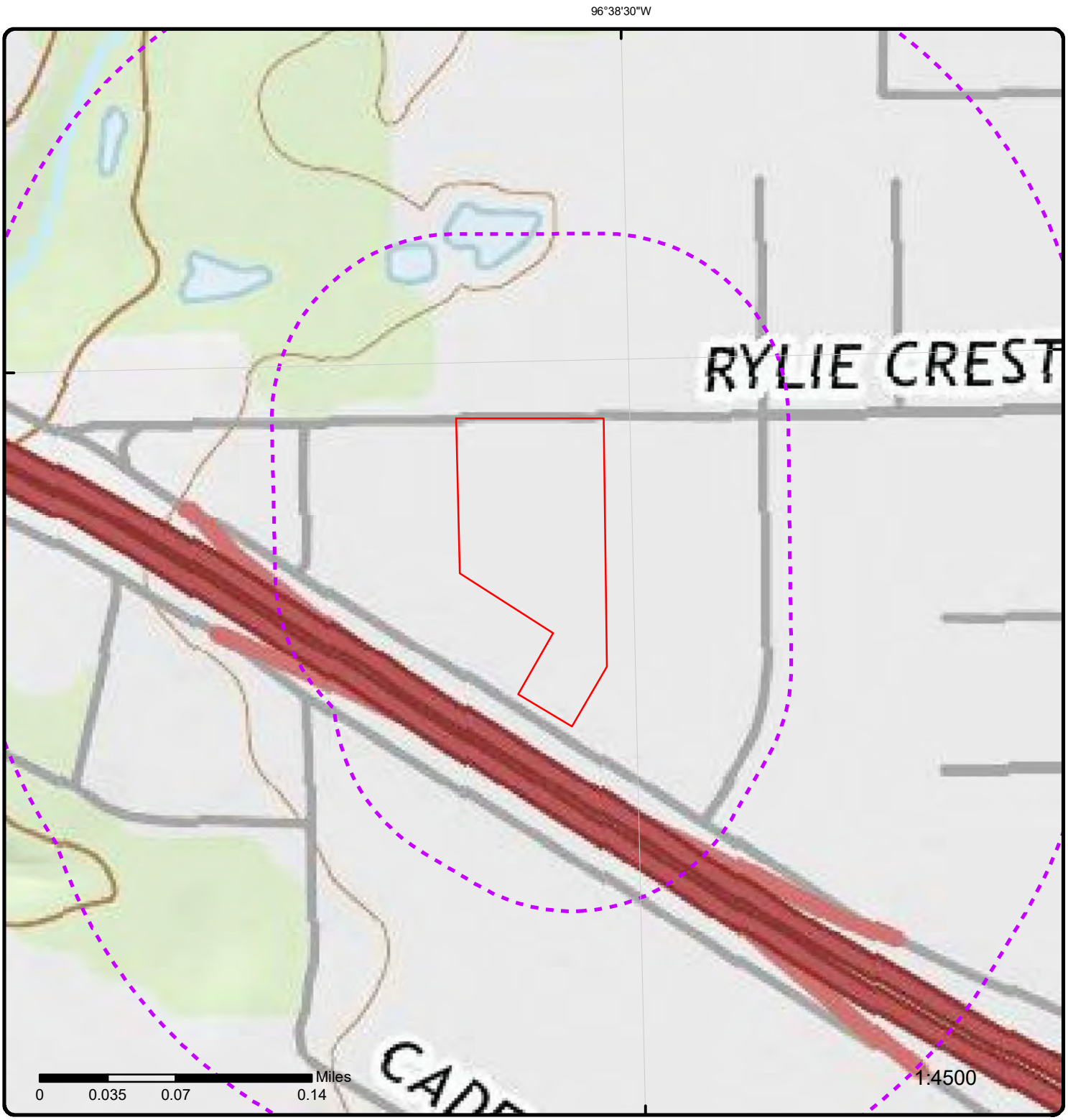
Executive Summary: Site Report Summary - Project Property

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	TCEQ WELL LOGS	MR. J.H. TERRELL	TX	SE	0.38 / 2,025.25	12
			***Grid No** | **Owners Name:** 33-20-4A | MR. J.H. TERRELL*			
2	GWDB	Community Water Service	TX	NNE	0.45 / 2,388.07	14
			***State Well NO** | **Owner Name:** 3319601 | Community Water Service*			
3	TCEQ WELL LOGS	OAK GROVE BAPTIST CHURCH	TX	SE	0.51 / 2,717.45	21
			***Grid No** | **Owners Name:** N/A | OAK GROVE BAPTIST CHURCH*			
4	TCEQ WELL LOGS	VERNON ADAMS	TX	W	0.96 / 5,063.94	23
			***Grid No** | **Owners Name:** 33-19-2D | VERNON ADAMS*			
5	TCEQ WELL LOGS	JOHNSON & DURHAM	TX	ENE	1.00 / 5,269.23	25
			***Grid No** | **Owners Name:** 33-19-6C | JOHNSON & DURHAM*			
5	TCEQ WELL LOGS	JOHNSON & DURHAM	TX	ENE	1.00 / 5,269.23	27
			***Grid No** | **Owners Name:** 33-19-6C | JOHNSON & DURHAM*			



Map: 1.0 Mile Radius | Zoom Level: 3
Order Number: 23031400562
Address: 10631 C F Hawn Fwy, Dallas, TX

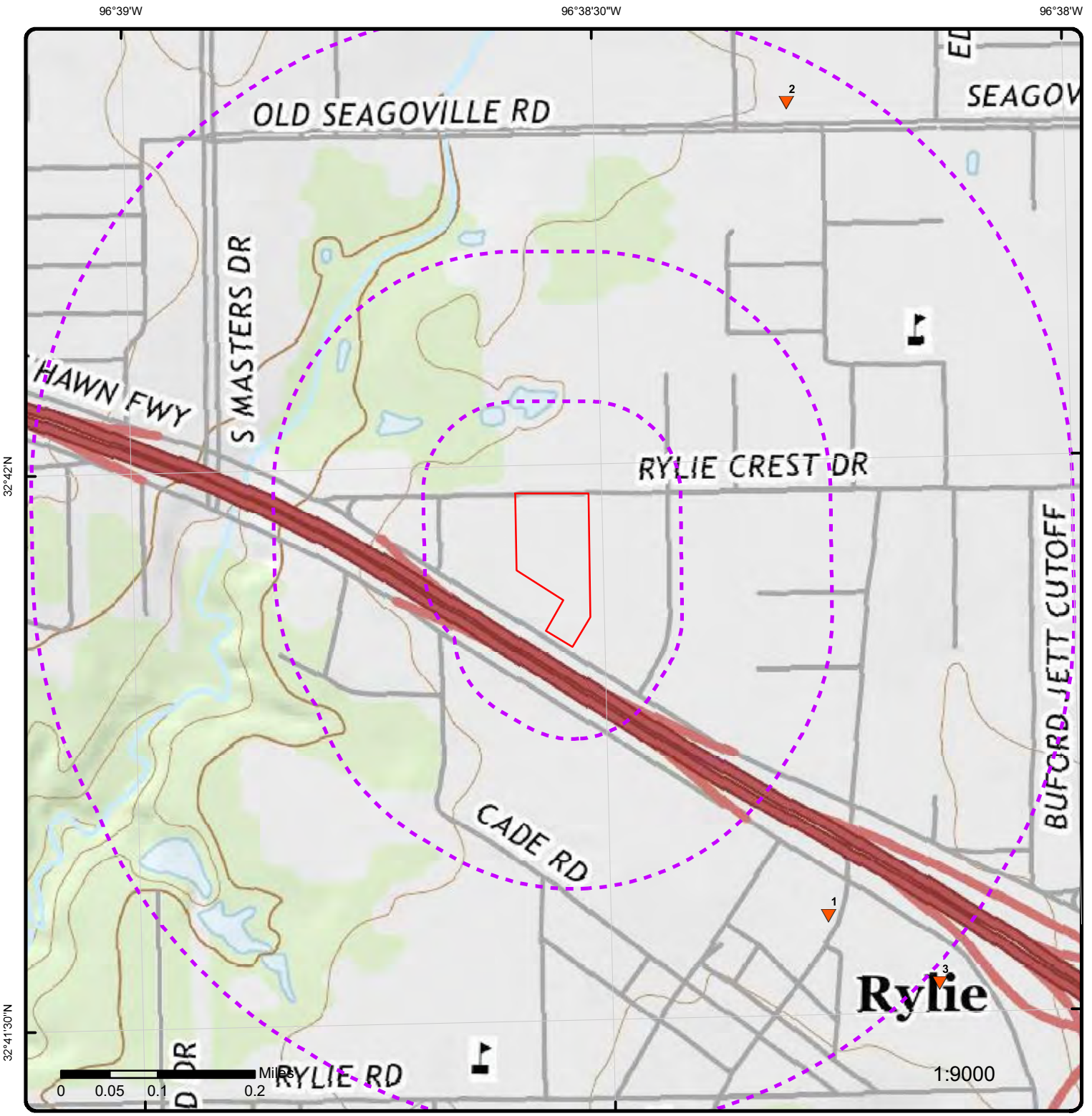
ERIS

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.



Map: 1.0 Mile Radius | Zoom Level: 2
Order Number: 23031400562
Address: 10631 C F Hawn Fwy, Dallas, 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
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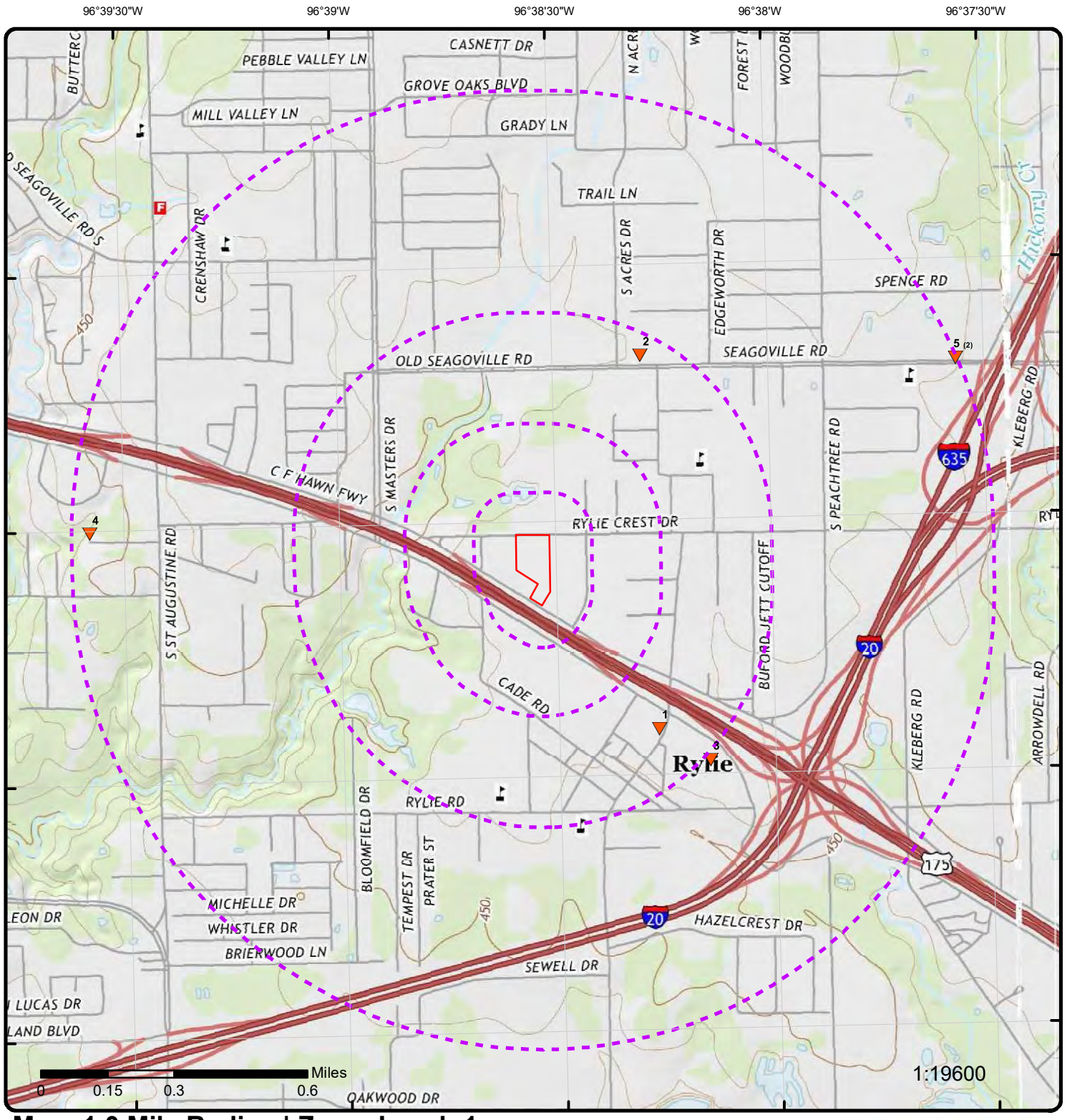


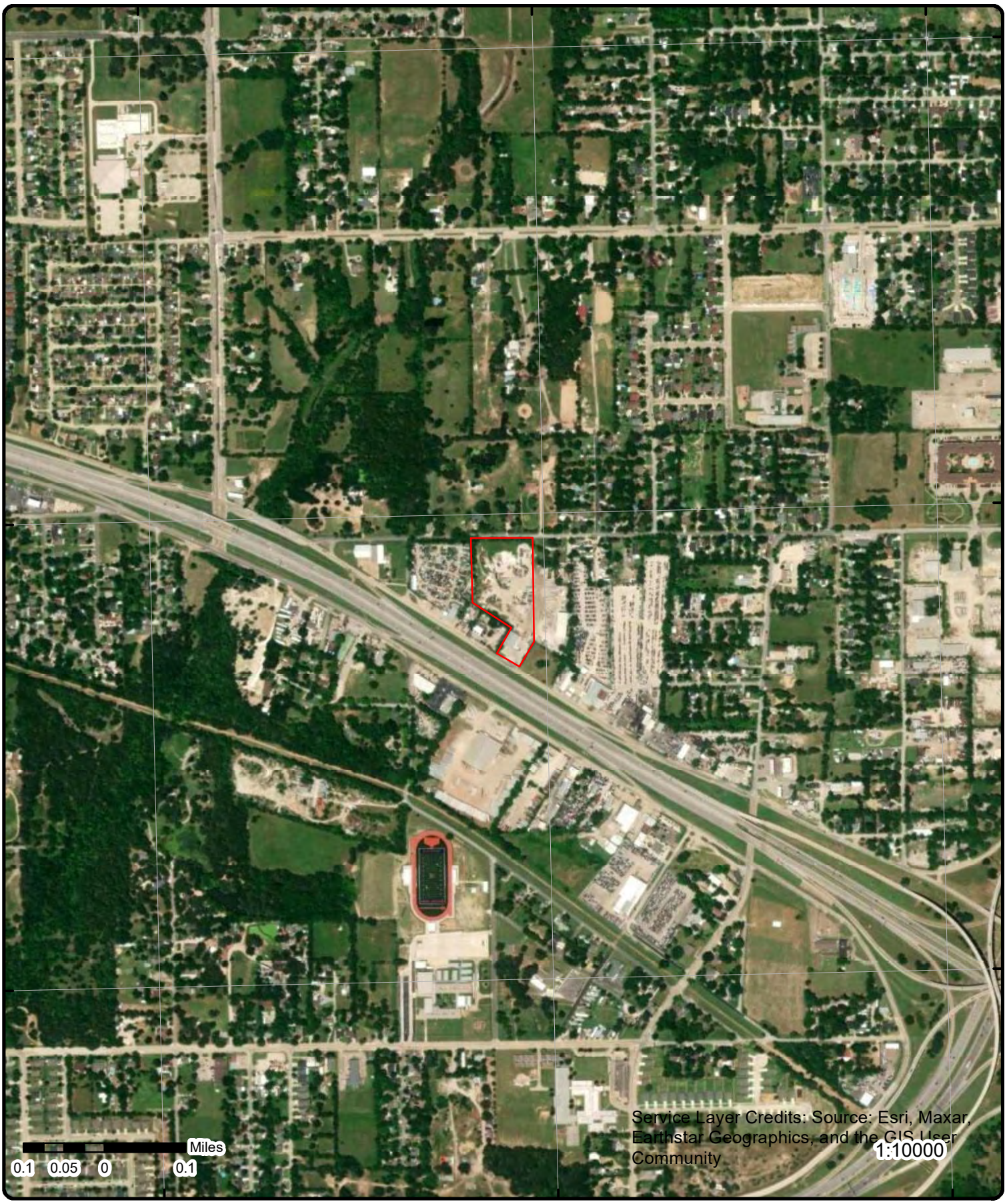
Map: 1.0 Mile Radius | Zoom Level: 1
Order Number: 23031400562
Address: 10631 C F Hawn Fwy, Dallas, TX

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: 23031400562

Address: 10631 C F Hawn Fwy, Dallas, TX

© ERIS Information Inc.

Source: ESRI World Imagery

Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
1	1 of 1	SE	0.38 / 2,025.25	MR. J.H. TERRELL TX	TCEQ WELL LOGS

Grid No:	33-20-4A
Date Drilled:	03/04/1967
Owners Name:	MR. J.H. TERRELL
County:	DALLAS
Water Usage:	FOR HOME
Static Level:	32
Depth Drilled:	75
Latitude:	32.69316
Longitude:	-96.637894

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB

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

State of Texas

DRILLERS LOG AND WELL DATA REPORT

For use by TWC only
Well No. 33-20-4A
Located on map Y-25
By AH Date 4-67
Map no.

1) Well Owner: Mr J. H. Terrell 1115 Hay Market Rd
2) Land Owner: Same
3) Intended use: Industrial ☐ Municipal ☐ Irrigation ☐ Other FOR HOME
4) Location of well: County Dallas Labor League Abstract No.
NW¼ NE¼ SW¼ SE¼ of Section Block No. Survey

1 miles in South direction of Rylie on 175 Hwy.
from Town

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

DRILLERS LOG OF WELL

Method of drilling: Cable Tool Rig Diameter of hole 8 in. Date drilled 3-4-1967

All measurements made from ft. above ground level.

From (ft)	To (ft)	Description and color of formation material	From (ft)	To (ft)	Description and color of formation material
0'	3'	8' TOP SOIL			
3'	22'	19' YELLOW CLAY			
22'	32'	10' " SAND-CLAY			
32'	41'	9' " SAND			
41'	45'	4' WATER BARING GRAVEL			
45'	75	30' HARD BLUE SHALE			

(Use continuation sheets if necessary)

COMPLETION DATA

COMPLETION
Straight wall ☑
Under reamed ☐
Gravel packed ☐
Open hole ☑ 30' HARD
Other BLUE SHALE

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

Diameter (inches)	Setting from (ft)	Setting to (ft)
7	6'	45

SCREEN
Type
Perforated ☑ Slotted ☑

Diameter (inches)	Setting from (ft)	Setting to (ft)
7	39'	45'

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.

E. W. Ehlert Same Reg. No. 265
Signature Company Name

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

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

WATER LEVEL AND PUMP DATA

Static water level 32 43 ft. below

Pumping level

feet	hours	gpm

Pump type Jacuzzi
Designed pumping rate 300 Gal per hr gpm ☐ gph ☐
Type power unit T.E.T.
Horsepower ½ H.P.
Depth to bowls, cylinder, jet, etc., 70' ft. below pump base.

Name of contractor testing well or installing permanent pump if other than your company:
Driller E. W. Ehlert Bailed out 150 gal IN 7 MIN 8' DRAW DOWN.

-34 (62-4)

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
2	1 of 1	NNE	0.45 / 2,388.07	Community Water Service TX	GWDB

Well Rep Track No:	
State Well NO:	3319601
Owner Name:	Community Water Service
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	
Well Depth:	1471
Well Usage:	Public Supply
Water Level Status:	
Latitude:	32.7052780
Longitude:	-96.6383340
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=3319601&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=3319601&Cnty=Dallas

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer ~~XXXX~~ Woodbine

Field No. ______

Owner's Well No. ______

State Well No. 33-19-601

County ______

1. Location: ___ 1/4, ___ 1/4 Sec. ___, Block ___ Survey ______
2. Owner: Community Water Service Inc. Address: 107 St Augustine Dr. Dallas, Tex.
   Tenant: Robert G. Sneed (Water Service) Address: ______
   Driller: UKN Address: ______
3. Elevation of ______ is 462 ft. above msl, determined by TOPO
4. Drilled: ______ 19 Old; Dug, Cable Tool, (Rotary)
5. Depth: Rept. 1471 ft. Meas. ______ ft.
6. Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed
7. Pump: Mfgr. ______ Type Sub.
   No. Stages ___, Bowls Diam. ___ in., Setting ___ ft.
   Column Diam. ___ in., Length Tailpipe ___ ft.
8. Motor: Fuel Elect Make & Model ______ HP. 30
9. Yield: Flow ___ gpm, Pump 130 gpm, Meas. (Rept.), Est. ___
10. Performance Test: Date ___ Length of Test ___ Made by ___
    Static Level ___ ft. Pumping Level ___ ft. Drawdown ___ ft.
    Production ___ gpm Specific Capacity ___ gpm/ft.
11. Water Level: (UN) ft. rept. meas. 7-1 1975 above below Sealed 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.
    ___ 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 ___ Laboratory ___
    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: Gene Davis Date 7-1 1975
    Source of Data Mr. Robert Sneed, Obs.
16. Remarks:

CASING & BLANK PIPE

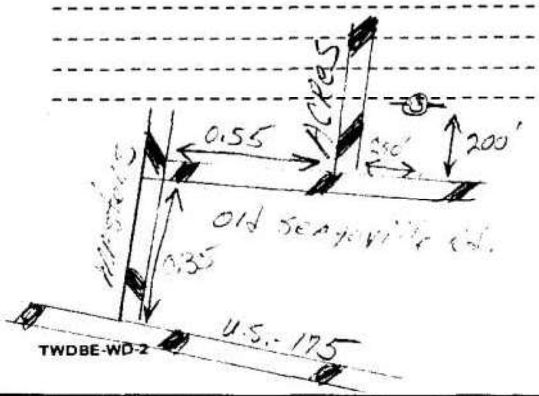
Cemented From ___ ft. to ___ ft.

Diam. (in.)	Type	Setting, ft. From	to
7	Steel	0	1471

WELL SCREEN

Screen Openings ___

Diam. (in.)	Type	Setting, ft. From	to
7	Steel	?	



TWDBE-WD-2

(Sketch)

33-19-601

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer ~~XXXX~~ Woodbine | Field No. | State Well No. 33-19-601
Owner's Well No. | County

1. Location: 1/4, 1/4 Sec., Block, Survey
2. Owner: Community Water Service Inc Address: 107 St Augustine Cir
   Tenant: Robert G. Sneed (water supt) Address: Dallas, Tex
   Driller: UKN Address:
3. Elevation of is 462 ft. above msl, determined by TOPO
4. Drilled: 19 Old; Dug, Cable Tool, (Rotary)
5. Depth: Rept. 1471 ft. Meas. ft.
6. Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed
7. Pump: Mfgr. Type Sub.
   No. Stages, Bowls Diam. in., Setting ft.
   Column Diam. in., Length Tailpipe ft.
8. Motor: Fuel Elect Make & Model HP. 30
9. Yield: Flow gpm, Pump 130 gpm, Meas. (Rept), Est.
10. Performance Test: Date Length of Test Made by
    Static Level ft. Pumping Level ft. Drawdown ft.
    Production gpm Specific Capacity gpm/ft.
11. Water Level: U(M) ft. rept./meas. 7-1-1975 above/below Sealed 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.
    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 Laboratory
    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: Gene Davis Date 7-1-1975
    Source of Data Mr. Robert Sneed, Obs.
16. Remarks:

CASING & BLANK PIPE

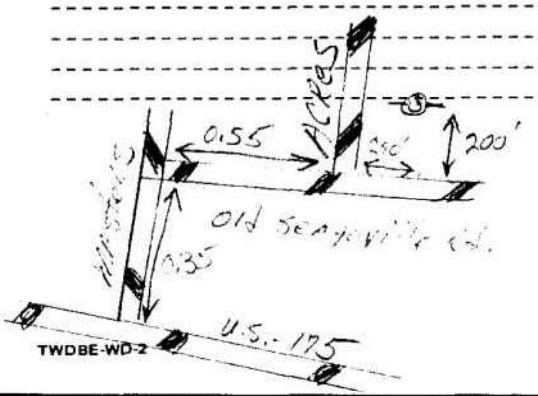
Cemented From ft. to ft.

Diam. (in.)	Type	Setting, ft. From	to
7	Steel	0	1471

WELL SCREEN

Screen Openings

Diam. (in.)	Type	Setting, ft. From	to
7	Steel	?	



TWDBE-WD-2 (Sketch) 33-19-601

Form GW-1

TEXAS BOARD OF WATER ENGINEERS

GROUND-WATER DIVISION

WELL SCHEDULE

Date 4/5, 19 61 Field No. _____

Record by _____ Office No. HR3[illegible]01

Source of data Mrs Bell HR3319601

1. Location: County Dallas

~~Map~~ Old Seagoville Road & Acree Drive

~~Survey~~

2. Owner: Comm. Water South Inc Address 8730 Lake June Rd

Tenant _____ Address _____

Driller D.W. Ritchie Address _____

3. Topography: _____

4. Elevation: 461 ± 3 ft. above / below

5. Type: Dug, drilled, driven, bored, jetted ____ 19 50

6. Depth: Rept. 1471 ft. Meas. _____ ft.

7. Casing: Diam. 7-8 in. to _____ in., Type ____

Depth _____ ft., Finish _____

8. Chief Aquifer: Kiamichi 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 E Horsepower 40

11. Yield: Flow _____ gpm, Pump 150 gpm, Meas., Rept., Est. 61

Drawdown _____ ft. after _____ hours pumping _____ gpm

12. Use: Dom., Stock, PS., RR., Ind., Obs. Irr. _____

Adequacy, permanence _____

13. Quality: _____

Temp. _____ °F _____ Sample Yes / No

14. Log: Yes / No _____

15. Remarks: P.S. @ 650

Mrs Aikins

Form GW-1

TEXAS BOARD OF WATER ENGINEERS

GROUND-WATER DIVISION

WELL SCHEDULE

Date 4/5, 19 61 Field No. _____

Record by cnb Office No. HR3[illegible]01

Source of data Mrs Bell HR3319601

1. Location: County Dallas

~~Map~~ Old Seagoville Road ½ Acres Drive

~~Survey~~

2. Owner: Comm. Water South 6 Address 8730 Lake June Rd

Tenant _____ Address _____

Driller D.W. Ritchie Address _____

3. Topography: _____

4. ~~Elevation~~ 461 ± 3 ft. above / below

5. Type: Dug, drilled, driven, bored, jetted 19 50

6. Depth: Rept. 147' ft. Meas. _____ ft.

7. Casing: Diam. 7-8 in. to _____ in., Type _____

Depth _____ ft., Finish _____

8. Chief Aquifer: Kiamichi 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 E Horsepower 40

11. Yield: Flow _____ gpm, Pump 150 gpm, Meas., Rept., Est. 61

Drawdown _____ ft. after _____ hours pumping _____ gpm

12. Use: Dom., Stock, PS., RR., Ind., Obs. Irr. _____

Adequacy, permanence _____

13. Quality: _____

Temp. _____ °F _____ Sample Yes / No

14. Log: Yes / No

15. Remarks: P.S. @ 650

Mrs Ritchie

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

TDWR ONLY
Program No. _____ Lab No. 03
Work No. _____

CHEMICAL WATER ANALYSIS REPORT

Send report to:
Ground Water Division
Texas Department of Water Resources
P.O. Box 13087
Austin, Texas 78711

County 057 Dallas
State Well No. 33-19-601
Well No. C
Date Collected 10-05-62

Location _____ Sample No. _____ By _____
Source (type of well) _____ Owner Community Water Service
Date Drilled _____ Depth 1471 ft. WBF KGW
Producing intervals _____ Water level _____ ft. Sample depth _____ ft.
Sampled after pumping _____ hrs. Yield _____ GPM meas. est. Temperature _____ °F _____ °C
Point of collection well Appearance ☐ clear ☐ turbid ☐ colored ☐ other
Use P Remarks _____

(FOR LABORATORY USE ONLY)

CHEMICAL ANALYSIS

KEY PUNCHED

Laboratory No. _____ Date Received _____ Date Reported _____

	MG/L	ME/L
Silica		
Calcium	3	
Magnesium	1	
Sodium	676	
Total		
☐ Potassium		
☐ Manganese		
☐ Boron		
3/ ☐ Total Iron		
☐ (other) _____	MG/L	
Specific Conductance (micromhos/cm3)	3025	
Diluted Conductance (micromhos/cm3)	_____ X _____	

%Na _____
SAR _____
RSC _____

" ☐ " items will be analyzed if checked.

	MG/L	ME/L
Carbonate		
Bicarbonate	803	
Sulfate	348	
Chloride	295	
Fluoride	3.3	
Nitrate	6.0	
pH	8.1	
Total		
1/ Dissolved Solids (sum in MG/L)	1735	
Phenolphthalein Alkalinity as $CaCO_3$		
Total Alkalinity as $CaCO_3$		
Total Hardness as $CaCO_3$	14	
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.

TDWR-0148

Analyst _____ Checked By _____

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

TDWR ONLY
Program No. _____ Lab No. 03
Work No. _____

CHEMICAL WATER ANALYSIS REPORT

Send report to:
Ground Water Division
Texas Department of Water Resources
P.O. Box 13087
Austin, Texas 78711

County 057 Dallas
State Well No. 33-19-601
Well No. C
Date Collected 10-05-62

Location _____ Sample No. _____ By _____
Source (type of well) _____ Owner Community Water Service
Date Drilled _____ Depth 1471 ft. WBF KGW
Producing intervals _____ Water level _____ ft. Sample depth _____ ft.
Sampled after pumping _____ hrs. Yield _____ GPM meas. est. Temperature _____ °F _____ °C
Point of collection well Appearance ☐ clear ☐ turbid ☐ colored ☐ other
Use P Remarks _____

(FOR LABORATORY USE ONLY)

CHEMICAL ANALYSIS

KEY PUNCHED

Laboratory No. _____ Date Received _____ Date Reported _____

	MG/L	ME/L
Silica		
Calcium	3	
Magnesium	1	
Sodium	676	
Total		
☐ Potassium		
☐ Manganese		
☐ Boron		
3/ ☐ Total Iron		
☐ (other) _____	MG/L	
Specific Conductance (micromhos/cm3)	3025	
Diluted Conductance (micromhos/cm3)	_____ X _____	

%Na _____
SAR _____
RSC _____

	MG/L	ME/L
Carbonate		
Bicarbonate	803	
Sulfate	348	
Chloride	295	
Fluoride	3.3	
Nitrate	6.0	
pH	8.1	
Total		
1/ Dissolved Solids (sum in MG/L)	1735	
Phenolphthalein Alkalinity as $CaCO_3$		
Total Alkalinity as $CaCO_3$		
Total Hardness as $CaCO_3$	14	
2/ Nitrogen Cycle		
Ammonia - N		
Nitrite - N		
Nitrate - N		
Organic Nitrogen		

" ☐ " items will be analyzed if checked.

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.

TDWR-0148

Analyst _____ Checked By _____

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
3	1 of 1	SE	0.51 / 2,717.45	OAK GROVE BAPTIST CHURCH TX	TCEQ WELL LOGS

Grid No:	N/A
Date Drilled:	08/01/1966
Owners Name:	OAK GROVE BAPTIST CHURCH
County:	DALLAS
Water Usage:	NOT REPORTED
Static Level:	8
Depth Drilled:	50
Latitude:	32.69206
Longitude:	-96.635814

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB

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

State of Texas

DRILLERS LOG AND WELL DATA REPORT

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

1) Well Owner: Oak Grove Baptist Church (Name) Haymarket Rd (Street or RFD) (City) (State)
2) Land Owner: authorized by Rev Jack Nevins (Name) (Street or RFD) (City) (State)
3) Intended use: Industrial ☐ Municipal ☐ Irrigation ☐ Other
4) Location of well: County Dallas Labor League Abstract No.
NW¼ NE¼ SW¼ SE¼ of Section Block No. Survey

4 miles in West (N, SW, etc.) direction of Hwy 175@ Rylie Texas.
from (Town)
on Haymarket Rd.

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

DRILLERS LOG OF WELL

Method of drilling: Cable Tool Rig Diameter of hole 8 in. Date drilled 8-1-1966

All measurements made from ft. above ground level.

From (ft)	To (ft)	Description and color of formation material	From (ft)	To (ft)	Description and color of formation material
0'	5'	5' TOP SOIL			
5'	11'	6' YELLOW CLAY			
11'	25'	14' WATER BARING QUICK SAND			
25'	50	25' HARD BLUE SHALE			

(Use continuation sheets if necessary)

COMPLETION DATA

COMPLETION
Straight wall ☑
Under reamed ☐
Gravel packed ☑
Open hole ☑ 25' open hole
Other Hard blue shale

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

Diameter (inches)	Setting from (ft)	Setting to (ft)
5	0	26'-9"

SCREEN
Type
Perforated ☑ Slotted ☑

Diameter (inches)	Setting from (ft)	Setting to (ft)
5	26'9"	26'-9"

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.

T, W, Tidwell (Signature) Sand (Company Name) Reg. No. 265

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

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

WATER LEVEL AND PUMP DATA

Static water level 8'
ft. below 42'

Pumping level

feet	hours	gpm

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

Name of contractor testing well or installing permanent pump if other than your company: Church
Driller T, W. Tidwell. Bailed out 150 gal in 10 min
NO DRAW DOWN.

C-34 (62-4)

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
4	1 of 1	W	0.96 / 5,063.94	VERNON ADAMS TX	TCEQ WELL LOGS

Grid No:	33-19-2D
Date Drilled:	??/??/????
Owners Name:	VERNON ADAMS
County:	DALLAS
Water Usage:	DOMESTIC
Static Level:	NOT REPORTED
Depth Drilled:	30
Latitude:	32.699167
Longitude:	-96.659683

2D

nd original copy by
rtified mail to the
xas Water Development Board
. O. Box 13087
stin, Texas 78711

State of Texas

WATER WELL REPORT

For TWDB use only
Well No. 33-19-2D
Located on map yes
Received: 7-5-
DF

1)OWNER:
Person having well drilled Vernon Adams (Name) Address 9551 Rylie Crest Drive (Street or RFD) Dallas (City) Texas (State)

Landowner Same (Name) Address Same (Street or RFD) (City) (State)

2)LOCATION OF WELL:
County Dallas, City Limits miles in (N.E., S.W., etc.) direction from (Town)

Locate by sketch map showing landmarks, roads, creeks, hiway number, etc.
Rylie Crest Drive
North
(Rylie Crest Drive 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 X Deepening
Reconditioning Plugging

4)PROPOSED USE (Check):
Domestic X Industrial Municipal
Irrigation Test Well Other

5)TYPE OF WELL (Check):
Rotary Driven Dug
Cable Jetted Bored X

6)WELL LOG:
Diameter of hole 36" in. Depth drilled 30 ft. Depth of completed well Covered Up Dry Hole ft. Date drilled
All measurements made from ft. above ground level.

From (ft.)	To (ft.)	Description and color of formation material

9) Casing:
Type: Old New Steel Plastic Other
Cemented from ft. to ft.

Diameter (inches)	Setting From (ft.)	To (ft.)	Gage

10) SCREEN:
Type
Perforated Slotted

Diameter (inches)	Setting From (ft.)	To (ft.)	Slot Size

(Use reverse side if necessary)

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 Liberty Drilling Company (Type or Print) Water Well Drillers Registration No. 1142

ADDRESS P.O. Box 648 (Street or RFD) Mesquite (City) Texas 75149 (State)

(Signed) Mike Singleton (Water Well Driller) Liberty Drilling Company (Company Name)

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

*Additional instructions on reverse side.

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
5	1 of 2	ENE	1.00 / 5,269.23	JOHNSON & DURHAM TX	TCEQ WELL LOGS

Grid No:	33-19-6C
Date Drilled:	07/12/1979
Owners Name:	JOHNSON & DURHAM
County:	DALLAS
Water Usage:	DOMESTIC
Static Level:	NOT REPORTED
Depth Drilled:	100
Latitude:	32.705062
Longitude:	-96.626142

DUP

Send original copy by certified mail to the Texas Department of Water Resources P. O. Box 13087 Austin, Texas 78711

State of Texas
WATER WELL REPORT

For TDWR use only
Well No. 33-19-6C
Located on map
Received:

1) OWNER Johnson & Durham (Name) Address 10314 Old Seagoville Rd. (Street or RFD) Dallas (City) Tx. (State) 75253 (Zip)

2) LOCATION OF WELL:
County Dallas, _____ miles in city of Dallas (N.E., S.W., etc.) direction from _____ (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.

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:
Date drilled 7-12-79

Dia. (in.)	From (ft.)	To (ft.)
6 3/4	Surface	60
4 1/2	60	100

From (ft.)	To (ft.)	Description and color of formation material
0	43	Sand & Clay
43	100	Clay Shale

7) BOREHOLE COMPLETION:
☐ Open Hole ☐ Straight Wall ☐ Underreamed
☒ Gravel Packed ☐ Other _____
If Gravel Packed give interval . . . from 20 ft. to 100 ft.

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
4	N	Plastic	0	20	sc40
4	N	Plastic Slotted	20	60	1/16

CEMENTING DATA
Cemented from 0 ft. to 10 ft.
Method used Gravity
Cemented by C. K. Curtiss (Company or Individual)

9) WATER LEVEL:
Static level _____ ft. below land surface Date _____
Artesian flow _____ gpm. Date _____

10) PACKERS: Type Depth

11) TYPE PUMP:
☐ Turbin ☐ Jet ☐ Submersible ☐ Cylinder
☐ Other _____
Depth to pump bowls, cylinder, jet, etc., _____ ft.

12) WELL TESTS:
☐ Type Test: ☐ Pump ☐ Bailer ☐ Jetted ☐ Estimated
Yield: _____ gpm with _____ ft. drawdown after _____ hrs.

(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

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 C. K. Curtiss (Type or Print) Water Well Drillers Registration No. 1875

ADDRESS 520 North Haskell (Street or RFD) Dallas (City) Texas (State) 75246 (Zip)

(Signed) _____ (Water Well Driller) Kentry Waterwells (Company Name)

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

*Additional instructions on reverse side.

TDWR-0393

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
5	2 of 2	ENE	1.00 / 5,269.23	JOHNSON & DURHAM TX	TCEQ WELL LOGS

Grid No:	33-19-6C
Date Drilled:	07/10/1979
Owners Name:	JOHNSON & DURHAM
County:	DALLAS
Water Usage:	DOMESTIC
Static Level:	35
Depth Drilled:	60
Latitude:	32.705062
Longitude:	-96.626142

Send original copy by certified mail to the
Texas Department of Water Resources
P. O. Box 13087
Austin, Texas 78711

State of Texas
WATER WELL REPORT

For TDWR use only
Well No. 33-19-6C
Located on map YES
Received: TM

1) OWNER Johnson & Durham (Name) Address 10314 Old Seagoville Rd. (Street or RFD) Dallas (City) Tx (State) 75253 (Zip)

2) LOCATION OF WELL:
County Dallas, _____ miles in city of Dallas (N.E., S.W., etc.) direction from _____ (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.

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:
Date drilled 7-10-79

DIAMETER OF HOLE

Dia. (in.)	From (ft.)	To (ft.)
6 3/4	Surface	60

7) BOREHOLE COMPLETION:
☐ Open Hole ☐ Straight Wall ☐ Underreamed
☒ Gravel Packed ☐ Other _____
If Gravel Packed give interval . . . from 20 ft. to 60 ft.

From (ft.)	To (ft.)	Description and color of formation material
0	39	Sand & Clay
39	60	Clay

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
4	N	Plastic	0	30	sc40
4	N	Plastic Slotted	30	60	1/16

CEMENTING DATA
Cemented from 0 ft. to 10 ft.
Method used Gravity
Cemented by C. K. Curtiss (Company or Individual)

9) WATER LEVEL:
Static level 35 ft. below land surface Date 7-10-79
Artesian flow _____ gpm. Date _____

10) PACKERS: Type Depth

11) TYPE PUMP:
☐ Turbin ☐ Jet ☐ Submersible ☐ Cylinder
☐ Other _____
Depth to pump bowls, cylinder, jet, etc., _____ ft.

12) WELL TESTS:
☐ Type Test: ☐ Pump ☐ Bailer ☐ Jetted, ☐ Estimated
Yield: _____ gpm with _____ ft. drawdown after _____ hrs.

(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

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 C. K. Curtiss (Type or Print) Water Well Drillers Registration No. 1875

ADDRESS 520 North Haskell (Street or RFD) Dallas (City) Texas (State) 75246 (Zip)

(Signed) _____ (Water Well Driller) Kentry Waterwells (Company Name)

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

*Additional instructions on reverse side.
TDWR-0392

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 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 NWIW dataset contains select 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.

Government Publication Date: Mar 21, 2022

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: Mar 6, 2023

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: Oct 19, 2022

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: Nov 18, 2022

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 20, 2022

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: Nov 18, 2022

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

WATERS OF THE U.S. REPORT

Includes pages I/IIC-1 through I/IIC-17

March 2023
5486-001-11-01

WATERS OF THE U.S. REPORT

HD Waste & Recycling, LLC

Transfer Station
Dallas County, Texas

PREPARED BY

Weaver Consultants Group

TABLE OF CONTENTS

1 INTRODUCTION

1.1 Project Description

HD Waste & Recycling, LLC contracted Weaver Consultants Group, LLC (WCG) to perform a Waters of the United States (WOTUS) assessment of the 5.72-acre proposed transfer station in Dallas County, Texas. The proposed project site will be in an area with an existing recycling operation. The site is located at 10631 CF Hawn Freeway approximately 3,650 feet northwest of the I-20/I-635 Interchange in southeast Dallas (**Attachment 1, Figures 1-3**). Site photos are located in **Attachment 2**.

The purpose of this WOTUS assessment is to characterize the ecological conditions at the proposed project location and provide a review of the potential presence of threatened and endangered species, migratory birds, and other sensitive species.

2 ECOLOGICAL SITE CHARACTERIZATION

2.1 EPA Ecoregion Description

Ecoregions are areas where ecosystems (and the type, quality, and quantity of environmental resources) are generally similar. Based on U.S. Environmental Protection Agency (EPA) Level III and Level IV Ecoregions the proposed project is located within the Northern Blackland Prairie of the Texas Blackland Prairies (*EPA, 2013*).

The Texas Blackland Prairies, as the name implies, consists of predominantly prairie vegetation that forms a distinct ecological region. This ecoregion is distinguished from adjacent ecoregions by the fine-textured, clayey soils. Croplands have taken over the vast majority of this ecoregion with a continuously increasing expansion of urban and industrial uses (*EPA, 2013*).

The Northern Blackland Prairie ecoregion is characterized by rolling to nearly level plains that are underlain by interbedded chalks, marls, limestones, and shales of Cretaceous age. Soils are mostly fine-textured, dark, calcareous, and productive Vertisols. Historical vegetation was dominated by little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), yellow Indiangrass (Sorghastrum nutans), and tall dropseed (*Sporobolus asper*). In lowlands and more mesic sites, such as on some of the clayey Vertisol soils in the higher precipitation areas to the northeast, dominant grasses were eastern gamagrass (*Tripsacum dactyloides*) and switchgrass (*Panicum virgatum*). Most of the prairie has been converted to cropland, non-native pasture, and expanding urban uses around Dallas (*Griffith, et al., 2007*).

2.2 Topography

The United States Department of the Interior Geologic Survey (USGS) 7.5-Minute Topographic Maps of the Site were reviewed to identify drainages or suspect WOTUS within the site. No streams or other drainages were observed within the project site.

2.3 Vegetation

The natural vegetation of the Northern Blackland Prairie was predominantly prairie with woodlands mainly along riparian corridors, mesic slope forests, and the Austin Chalk escarpment. Grassland areas were dominated by the species mentioned in Section 2.1 as well as side-oats grama (*Bouteloua curtipendula*), Texas winter grass

(*Nasella leucotricha*), prairie bluets (*Hedyotis nigricans*), black-eyed susan (*Rudbeckia hirta*), and old-plainsman (*Hymenopappus scabiosaeus*). Wooded areas, primarily located in riparian areas, included bur oak (*Quercus macrocarpa*), Shumard oak (*Q. shumardii*), sugar hackberry (*Celtis laevigata*), elms (*Ulmus* spp.), ashes (*Fraxinus* spp.), eastern cottonwood (*Populus deltoides*), and pecans (*Carya illinoinensis*). Virtually all of the original tallgrass prairies are gone as a result of cultivation and urbanization (*Griffith, G. et al, 2007*).

2.4 Soils

The only soil type within the proposed project area includes the Rader-Urban land complex, 0 to 2 percent slopes. The Rader-Urban complex consists of moderately well drained soils that formed in stream terraces weathered from loamy alluvium of Quaternary age derived from mixed sources. The runoff class is high and there is no frequency of ponding or flooding. These soils are not considered prime farmland. Neither these soils nor their minor components are considered hydric. Their ecological site classification is Claypan Savannah.

2.5 Geology

The proposed site's geology is the Quaternary to Tertiary silty clay decomposition residuum. Soil formation occurred from Cretaceous chalk, marl, limestone, and shale (*Griffith, G., et al., 2007*).

2.6 Climate

The area has an average January minimum temperature of 30˚F and maximum of 52˚F and July temperature minimum of 72˚F and maximum of 94˚F, and this ecoregion has between 230 to 270 annual frost free days *(Griffith, G., et al, 2007).* This ecoregion receives 42 inches of rainfall on an annual basis.

3 ENVIRONMENTAL IMPACTS DESKTOP REVIEW

3.1 Waters of the United States

3.1.1 Legal Background

The 1972 amendments to the Clean Water Act established federal jurisdiction over "navigable waters," defined in the Act as the "Waters of the United States" (CWA Section 502(7)). Many Clean Water Act programs apply only to "Waters of the United States." (WOTUS). The Clean Water Act provides discretion for EPA and the U.S. Department of the Army Corps of Engineers to define "Waters of the United States" in regulations.

The Clean Water Act requires enforceable water quality standards to maintain overall water quality. Standards for bodies of water are based on the water's designated use; such uses include industrial water supplies, swimming, fishing, agricultural irrigation, and more. States establish water quality standards for waterways within their borders, though the EPA may disapprove and replace state standards with its own if they do not meet the act's minimum requirements. The act also requires that standards outline the maximum allowable concentrations of various pollutants that would not inhibit a waterway's designated use

The U.S. Army Corps of Engineers (USACE) regulates certain activities occurring in WOTUS per Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act of 1899 (RHA). Under Section 404 of the CWA, authorization must be obtained from the USACE for discharges of dredged and fill material into WOTUS. Under Section 10 of the RHA, the USACE regulates work in, or affecting, navigable WOTUS.

Federal agencies that regulate impacts to the nation's water resources located within Texas include the USACE, U.S. Environmental Protection Agency (EPA), and U.S. Fish and Wildlife Service (USFWS). Jurisdictional waters, or WOTUS, are protected under guidelines outlined in Executive Order 11990 (Protection of Wetlands) in Sections 401 and 404 of the CWA and by the state's water quality review process. The USACE has primary regulatory authority for enforcing Section 404 requirements for WOTUS, including wetlands.

Like other federal environmental statutes, the Clean Water Act includes provisions to address civil and criminal violations. Enforcement is shared by the EPA and states, though states generally have primary responsibility given their role in enforcing the

discharge permit program and water quality standards. Additionally, the EPA has oversight authority over states and can intervene to bring direct action against private individuals, businesses, and organizations for violations if the agency believes a state has failed to take the necessary and appropriate action or if a state requests EPA involvement. Civil enforcement involves EPA or state-initiated legal action to compel compliance with federal law and may involve fines or penalties leveled against private parties. Criminal enforcement, which is the sole purview of the federal government, involves criminal investigation and prosecution of deliberate and/or severe violations of federal environmental law.

Under Section 10 of the RHA, the USACE regulates navigable WOTUS. Navigable waters are defined at 33 CFR 329 as those waters that are subject to the ebb and flow of the tide and/or are presently used, have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the waterbody and is not extinguished by later actions or events that impede or destroy navigability. Navigable WOTUS include many coastal waters, including bays and portions of major rivers.

The limit of USACE jurisdiction for non-tidal WOTUS in the absence of adjacent wetlands is the ordinary high-water mark (OHWM). The OHWM is defined as that line on the shore established by the fluctuations of water and indicated by physical characteristics such as the following:

- Clear, natural line impressed on the bank,
- Shelving,
- Changes in the character of the soil,
- Destruction of terrestrial vegetation,
- Presence of litter and debris, or
- Other appropriate means that consider the characteristics of the surrounding areas.

Jurisdictional wetlands are a category of WOTUS and are defined as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Delineations of wetlands must be conducted using the "Corps of Engineers Wetland Delineation Manual" USACE Waterways Experiment Station Wetlands Research Program Technical Report Y-87-1, dated January 1987, including the supplemental guidance. Dallas County, Texas is located within the region covered by the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0), dated March 2010 (USACE 2010).

In January 2001, the U.S. Supreme Court decided the Solid Waste Agency of Northern Cook County (SWANCC) v. U.S. case. This case centered on how isolated wetlands would be regulated. In its decision, the court ruled that the USACE does not have jurisdiction over intrastate isolated waters that have no nexus to interstate commerce other than use by migratory birds. In the Western U.S., the ruling mostly affected regulation/protection of playa lakes, abandoned mining and borrow pits, hillside seeps, and other potentially isolated waters.

On June 19, 2006, the U.S. Supreme Court decided the Rapanos et ux., et al v. U.S. case. Following this decision, the USACE and EPA issued joint guidance on delineation of WOTUS based on the Supreme Court decision. Under this guidance, potential WOTUS have been classified as traditional navigable waters (TNW), relatively permanent waters (RPW) (having flow most of the year at least seasonally), or non-RPWs. Based on the guidance, TNWs and their adjacent wetlands and RPWs and their adjacent wetlands are WOTUS. Wetlands that are bordering, contiguous, or neighboring another WOTUS are considered adjacent. Additionally, wetlands that are within the 100-year floodplain of another WOTUS are considered adjacent. Non-RPWs, wetlands contiguous or adjacent to non-RPWs, and wetlands adjacent to but that do not directly abut an RPW must demonstrate significant nexus on a case-by-case basis to determine the jurisdictional nature of these water features. The significant nexus test requires that a waterbody must have a substantial connection to a TNW by direct flow or have a biological, chemical, and/or hydrological influence on a TNW. This guidance did not void the SWANCC decision. Currently, the EPA and USACE are administering the 404 permit program under the Rapanos definition for WOTUS. The U.S. Supreme Court recently heard a case (Sackett, October 2022) and will be issuing an opinion most likely by Summer/Fall 2023. In addition, the USACE and EPA are currently working on revising the definition so the jurisdictional parameters for WOTUS may change again.

Observations

A field investigation was conducted of the proposed project site on February 10, 2023. The project site occupied by the existing recycling operations. The vast majority of the area does not contain vegetation. The dominant vegetation consists of woody species along the perimeter fenceline and includes eastern redcedar (*Juniperus virginiana*), Chinese privet (*Ligustrum sinense*), and oaks (*Quercus* spp.).

A ditch was located along the northern boundary. Based on observations in the field, this ditch would be considered a manmade, upland ditch. As such, it would not be considered a jurisdictional Water of the U.S.

4 RESULTS AND RECOMMENDATIONS

4.1 Summary of Results and Recommendations

The proposed project site is dominated by an existing recycling operation. The vast majority of the site has been disturbed by the recycling operation. Based on field observations and research, there were no Waters of the U.S. on the project site.

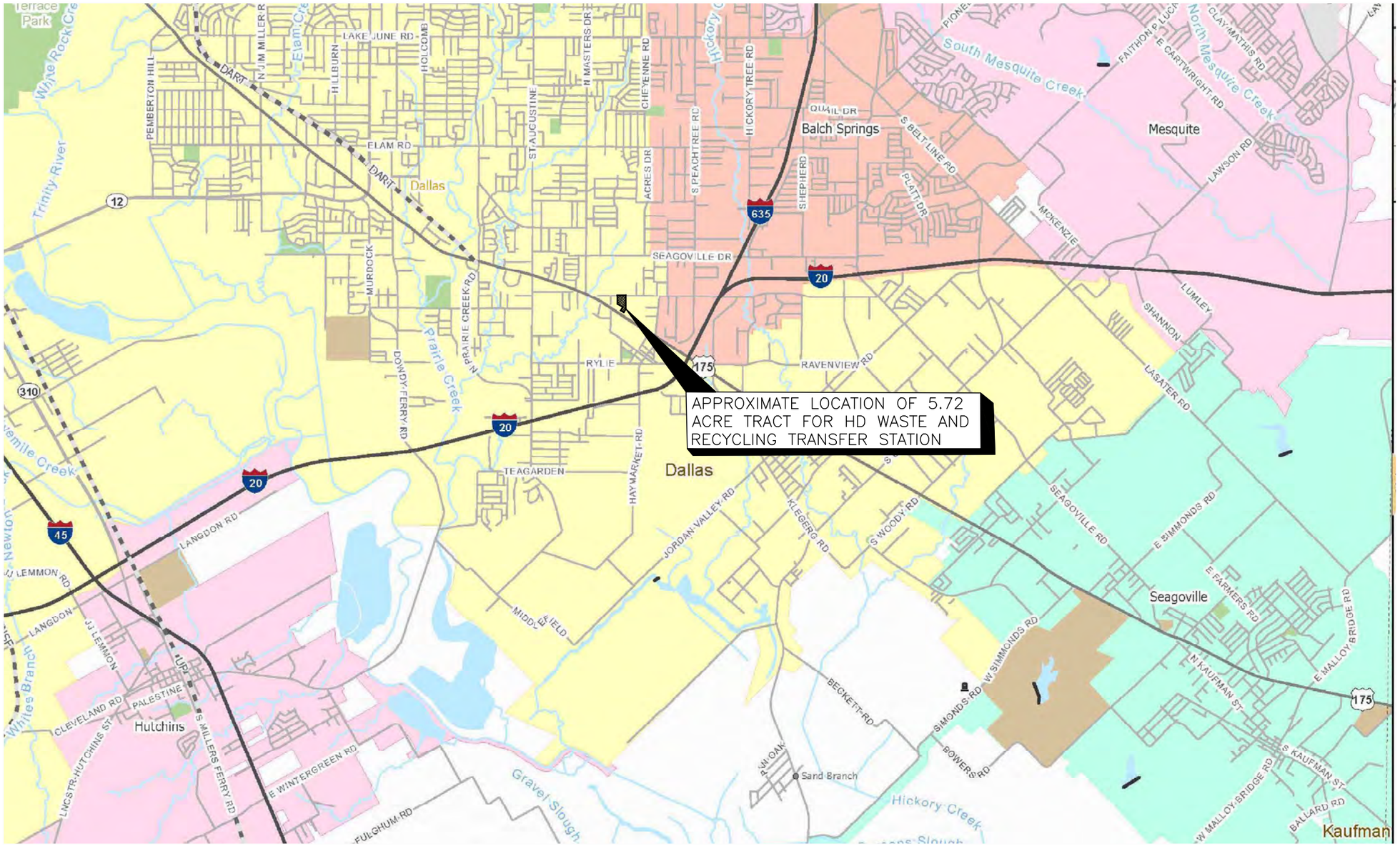
5 REFERENCES

Environmental Protection Agency (EPA), 2013, Level III and IV ecoregions of the continental United States: Corvallis, Oregon, U.S. EPA, National Health and Environmental Effects Research Laboratory, map scale 1:3,000,000, https://www.epa.gov/eco-research/level-iii-and-iv-ecoregions-continental-united-states.

Griffith, G., Griffith, S., Omernick, J., and Rogers, A., 2007, Ecoregions of Texas: Texas Commission on Environmental Quality.

ATTACHMENT 1

FIGURES



NOTES:

1. REPRODUCED FROM PAGES 708 OF THE TXDOT COUNTY MAPBOOK 2018 (TEXAS DEPARTMENT OF TRANSPORTATION PLANNING AND PROGRAMMING DIVISION). THIS MAP SHOWS DALLAS COUNTY, TEXAS.

N

0 0.5 1
SCALE IN MILES

I/IIC-12

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- [ ] DRAFT
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HD WASTE & RECYCLING, LLC

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TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY SITE LOCATION MAP

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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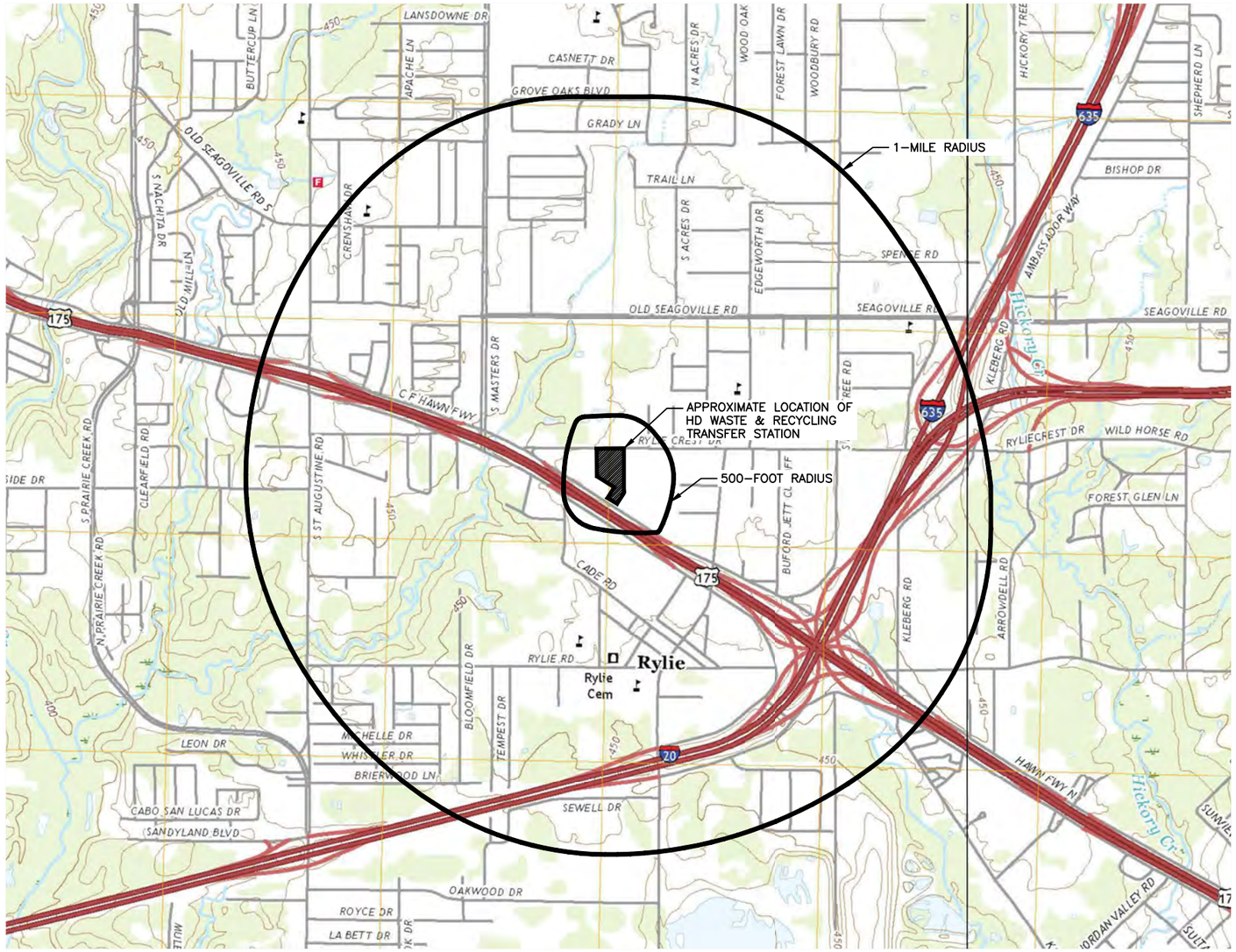
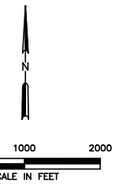
FIGURE 1

O:\5486\TYPE V APPLICATION\COORDINATION LETTERS\FIG 1-SITE LOCATION MAP.dwg, jpnlr, 1:2

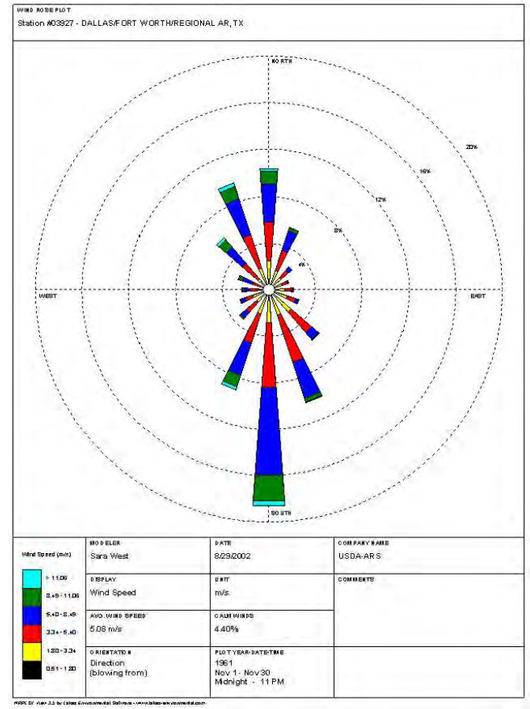




LEGEND:

ROAD CLASSIFICATION

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



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1. ADAPTED FROM THE USGS 7.5 MINUTE QUADRANGLE TOPOGRAPHIC MAPS (HUTCHINS, TX 2022 AND SEAGOVILLE, TX 2022).
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DALLAS COUNTY, TEXAS

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FIGURE 2

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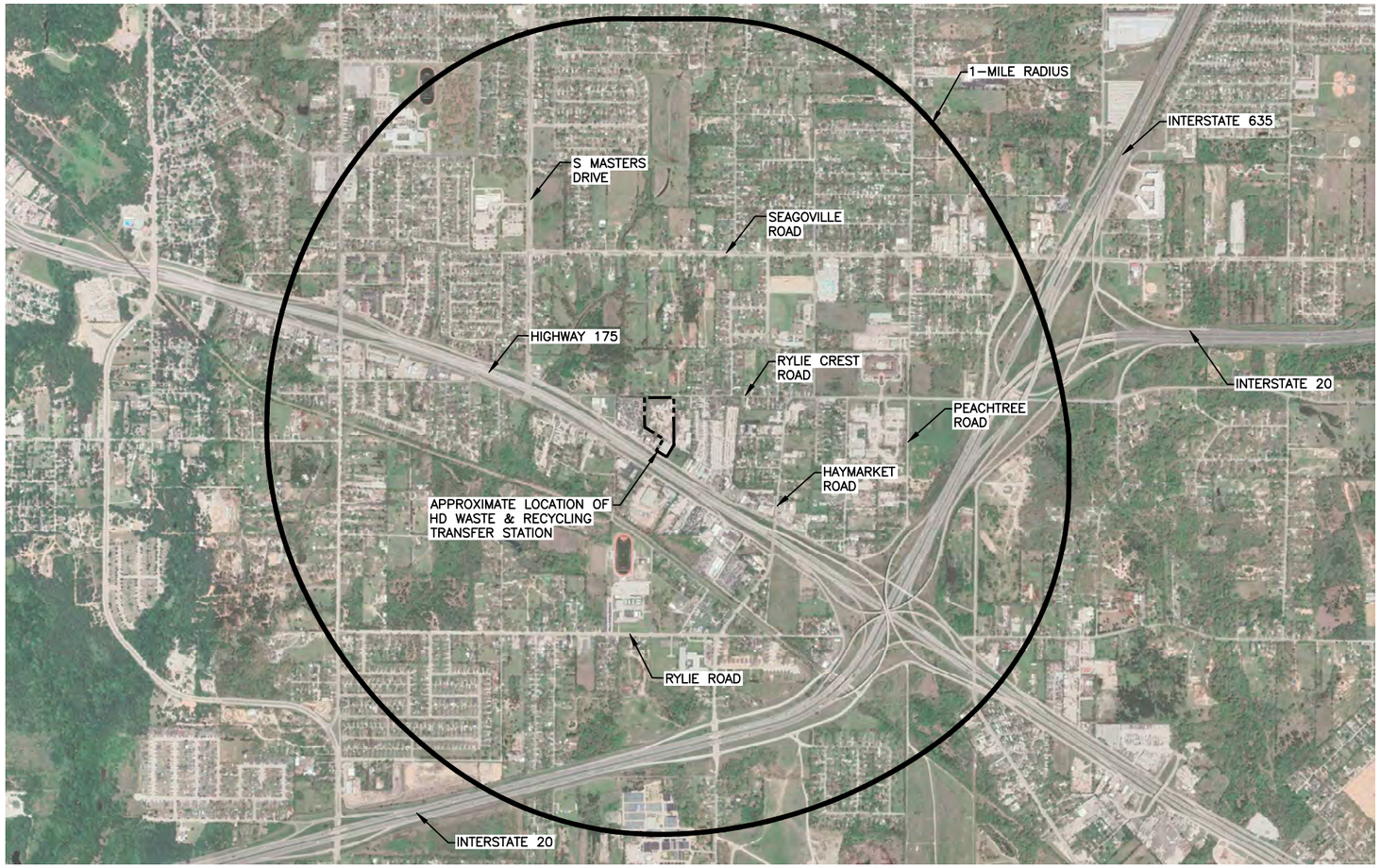
O:\5486\TYPE V APPLICATION\COORDINATION LETTERS\FIG 2-TOPO MAP.dwg, jpuhr, 1:2



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SCALE IN FEET

LEGEND

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FIGURE 3

O:\5486\TYPE V APPLICATION\COORDINATION LETTERS\FIG 3-AERIAL.dwg, jpnhr, 1:2

ATTACHMENT 2

SITE PHOTOS

Photo 1 – View of the northwest corner.

Photo 2 – View looking east along the north boundary.

Photo 3 – View looking toward the center of the site.

Photo 4 – View from the north boundary looking north at the adjacent land use.

APPENDIX I/IID

BIOLOGICAL REPORT

Includes pages I/IID-1 through I/IID-44

March 2023
5486-001-11-01

BIOLOGICAL REPORT

HD Waste & Recycling, LLC

Transfer Station
Dallas County, Texas

PREPARED BY

Weaver Consultants Group

TABLE OF CONTENTS

1 INTRODUCTION

1.1 Project Description

HD Waste & Recycling, LLC contracted Weaver Consultants Group, LLC (WCG) to perform a biological assessment of the 5.72-acre proposed transfer station in Dallas County, Texas. The proposed project site will be in an area with an existing recycling operation. The site is located at 10631 CF Hawn Freeway approximately 3,650 feet northwest of the I-20/I-635 Interchange in southeast Dallas (**Attachment 1, Figures 1-3**). Site photos are located in **Attachment 2**.

The purpose of this biological assessment is to characterize the ecological conditions at the proposed project location and provide a review of the potential presence threatened and endangered species, migratory birds, and other sensitive species.

2 ECOLOGICAL SITE CHARACTERIZATION

2.1 EPA Ecoregion Description

Ecoregions are areas where ecosystems (and the type, quality, and quantity of environmental resources) are generally similar. Based on U.S. Environmental Protection Agency (EPA) Level III and Level IV Ecoregions the proposed project is located within the Northern Blackland Prairie of the Texas Blackland Prairies (*EPA, 2013*).

The Texas Blackland Prairies, as the name implies, consists of predominantly prairie vegetation that forms a distinct ecological region. This ecoregion is distinguished from adjacent ecoregions by the fine-textured, clayey soils. Croplands have taken over the vast majority of this ecoregion with a continuously increasing expansion of urban and industrial uses (*EPA, 2013*).

The Northern Blackland Prairie ecoregion is characterized by rolling to nearly level plains that are underlain by interbedded chalks, marls, limestones, and shales of Cretaceous age. Soils are mostly fine-textured, dark, calcareous, and productive Vertisols. Historical vegetation was dominated by little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), yellow Indiangrass (Sorghastrum nutans), and tall dropseed (*Sporobolus asper*). In lowlands and more mesic sites, such as on some of the clayey Vertisol soils in the higher precipitation areas to the northeast, dominant grasses were eastern gamagrass (*Tripsacum dactyloides*) and switchgrass (*Panicum virgatum*). Most of the prairie has been converted to cropland, non-native pasture, and expanding urban uses around Dallas (*Griffith, et al., 2007*).

2.2 Vegetation

The natural vegetation of the Northern Blackland Prairie was predominantly prairie with woodlands mainly along riparian corridors, mesic slope forests, and the Austin Chalk escarpment. Grassland areas were dominated by the species mentioned in Section 2.1 as well as side-oats grama (*Bouteloua curtipendula*), Texas winter grass (*Nasella leucotricha*), prairie bluets (*Hedyotis nigricans*), black-eyed susan (*Rudbeckia hirta*), and old-plainsman (*Hymenopappus scabiosaeus*). Wooded areas, primarily located in riparian areas, included bur oak (*Quercus macrocarpa*), Shumard oak (*Q. shumardii*), sugar hackberry (*Celtis laevigata*), elms (*Ulmus* spp.), ashes (*Fraxinus* spp.), eastern cottonwood (*Populus deltoides*), and pecans (*Carya illinoinensis*). Virtually all of the original tallgrass prairies are gone as a result of cultivation and urbanization (*Griffith, G. et al, 2007*).

2.3 Soils

The only soil type within the proposed project area includes the Rader-Urban land complex, 0 to 2 percent slopes. The Rader-Urban complex consists of moderately well drained soils that formed in stream terraces weathered from loamy alluvium of Quaternary age derived from mixed sources. The runoff class is high and there is no frequency of ponding or flooding. These soils are not considered prime farmland. Neither these soils nor their minor components are considered hydric. Their ecological site classification is Claypan Savannah.

2.4 Geology

The proposed site's geology is the Quaternary to Tertiary silty clay decomposition residuum. Soil formation occurred from Cretaceous chalk, marl, limestone, and shale (*Griffith, G., et al., 2007*).

2.5 Climate

The area has an average January minimum temperature of 30˚F and maximum of 52˚F and July temperature minimum of 72˚F and maximum of 94˚F, and this ecoregion has between 230 to 270 annual frost free days *(Griffith, G., et al, 2007).* This ecoregion receives 42 inches of rainfall on an annual basis.

3 ENVIRONMENTAL IMPACTS DESKTOP REVIEW

3.1 Potential Impacted Species and Migratory Birds

3.1.1 Threatened/Endangered Species

The Endangered Species Act (ESA) aims to conserve endangered and threatened species and the ecosystems they depend on. To implement the ESA, National Oceanic and Atmospheric Administration (NOAA) works with U.S. Fish and Wildlife Service (USFWS) and other federal, tribal, state, and local agencies, as well as nongovernmental organizations and private citizens.

The USFWS IPaC tool (*IPAC, n.d.*) lists four bird species, two as endangered and two as threatened (**Attachment 3**). The Texas Parks and Wildlife Department (TPWD) lists five birds as threatened and one as endangered, five mollusks as threatened, and two reptiles as threatened (**Attachment 4**).

The black rail (Laterallus jamaicensis), a threatened species, is a migratory species that prefers marshes, pond borders, and grassy wet meadows. Sufficient habitat was not present on the project site.

The golden-cheeked warbler (*Setophaga chrysoparia*) is an endangered species that nests in mixed Ashe-juniper and oak woodlands in ravines and canyons. They use long strips of cedar bark and spider webs to build their nests. Sufficient habitat was not present on the project site.

The whooping crane (*Grus americana*) is an endangered species that prefers small ponds, marshes, and flooded grain fields for both roosting and foraging. This species is a migrant throughout most of the state. Sufficient habitat was not present within the project site.

The piping plover (*Charadrius melodus*) is a threatened species that prefers sand flats and algal flats. Optimal sites appear to be large in area, sparsely vegetated, continuously available or in close proximity to secondary habitat and with limited human disturbance. This species is not expected to occur within the project site.

The red knot (*Calidris canutus rufa*) is a threatened species that prefers seacoast on tidal flats and beaches and herbaceous wetlands. This species is not expected to occur within the project site.

The white-faced ibis (*Plegadis chihi*) is a state-listed species that prefers freshwater marshes, sloughs, and irrigated rice fields. This species currently resided in near-coastal rookeries. This species is not expected to occur within the project site.

The wood stork (*Mycteria americana*) is a state-listed species that prefers to nest in large tracts of cypress swamps and red mangrove swamps. This species is not expected to occur within the project site.

The Louisiana pigtoe (*Pleurobema riddellii*) is a state-listed threatened mollusk that occurs in small streams and large river with slow to moderate currents. This species is not expected to occur within the project site.

The sandback pocketbook (*Lampsilis satura*) is a state-listed threatened mollusk that occurs in small streams and large rivers with slow to moderate currents. This species is not expected to occur within the project site.

The Texas fawnsfoot (*Truncilla macrodon*) is a state-listed threatened mollusk that occurs in large rivers. This species is not expected to occur within the project site.

The Texas heelsplitter (*Potamilus amphichaenus*) is a state-listed threatened mollusk that occurs in small streams and large rivers. This species is not expected to occur within the project site.

The Trinity pigtoe (*Fusconaia chunii*) is a state-listed threatened mollusk that occurs in riffles of a wide variety of stream and river systems. This species is not expected to occur within the project site.

The alligator snapping turtle (*Macrochlemys temminkii*) is a state-listed threatened species that occurs in perennial waterbodies. This species is not expected to occur within the project site.

The Texas horned lizard (Phrynosoma cornutum) is a state-listed threatened species that prefers open habitats. This species is not expected to occur within the project site.

3.1.2 Candidate Species

The USFWS also lists the Monarch Butterfly (*Danaus plexippus*)#as a potential candidate species. Candidate species are species that are being considered for possible addition to the threatened and endangered species list. They currently have no legal protection under the ESA. If you find you have potential project impacts to these species the USFWS can provide technical assistance to help avoid or minimize any adverse impacts.

Candidate Conservation Agreements (CCAs) are voluntary conservation agreements between the U.S. Fish and Wildlife Service (Service) and one or more public or private parties. The Service works with its partners to identify threats to candidate species,

plan the measures needed to address the threats and conserve these species, identify willing landowners, develop agreements, and design and implement conservation measures and monitor their effectiveness. Candidate Conservation Agreements with Assurances (CCAAs) expand on the success of traditional CCAs by providing non-federal landowners with additional incentives for engaging in voluntary proactive conservation through assurances that limit future conservation obligations. One of the primary reasons for developing the CCAA program was to address landowner concerns about the potential regulatory implications of having a listed species on their land. The CCAA program specifically targets non-federal landowners and provides them with the assurance that if they implement various conservation activities, they will not be subject to additional restrictions if the species becomes listed under the ESA. These assurances are only available to non-federal entities for actions on non-federal lands.

If a candidate species is found at the proposed site, implementing conservation efforts before species are listed increases the likelihood that simpler, flexible, and more cost-effective conservation options are available. For additional information regarding CCAs and CCAAs please contact the U. S. Fish and Wildlife Service Ecological Services Program or please see the below link for additional information:

https://www.fws.gov/endangered/esa-library/pdf/CCAs.pdf.

3.1.3 Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). The Migratory Bird Treaty Act of 1918 provides protection for a large number of migratory bird species. The MBTA specifically is a treaty between the U.S., Japan, Canada, Mexico, and Russia which protect birds that migrate across international borders. The take of all migratory birds, including bald eagles, is governed by the MBTA regulations.

The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests except as authorized under a valid permit. Additionally, the MBTA authorizes and directs the Secretary of the Interior to determine if, and by what means, the take of migratory birds should be allowed and to adopt suitable regulations permitting and governing take (for example, hunting seasons for ducks and geese). The bald eagle is protected by the BGEPA even though it has been delisted under the Endangered Species Act. This law, originally passed in 1940, provides for the protection of the bald eagle and the golden eagle (as amended in 1962) by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures. The

birds in the below table are of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location.

Please note, this is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area:

Table 1. Potential Birds of Conservation Concern

Migratory Bird Species Name	Breeding Season	Level of Concern (BCC or ESA Status)
Bald Eagle (*Haliaeetus leucocephalus)*	Breeds Sep 1 to Jul 31	Non-BCC Vulnerable
Chimney Swift *(Chaetura pelagica)*	Breeds March 15 to Aug 25	BCC Rangewide
Little Blue Heron *(Egretta caerulea)*	Breeds March 10 to Oct 15	BCC in BCRs

When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. 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. If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Nationwide Conservation Measures (NCM) describes measures that can help avoid and minimize impacts to all birds at any location year-round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. These measures are grouped into three categories: General, Habitat Protection, and Stressor Management. These measures may be updated through time. We recommend checking the USFWS NCM website regularly for the most up-to-date list:

https://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

Please note, if one of the birds in Table 1 is found at the proposed project site the MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the USFWS. The MBTA is regulated by the USFWS. If a species is found, or an active nest is found, a permit from the USFWS must be obtained before take of the species can occur. The MBTA makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations. The migratory bird species protected by the Act are listed in 50 CFR 10.13.

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present under the BGEPA, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment. A violation of the Act can result in a fine of $100,000 ($200,000 for organizations), imprisonment for one year, or both, for a first offense. Penalties increase substantially for additional offenses, and a second violation of this Act is a felony.

3.2 Observations

A field investigation was conducted of the proposed project site on February 10, 2023. The project site occupied by the existing recycling operations. The vast majority of the area does not contain vegetation. The dominant vegetation consists of woody species along the perimeter fenceline and includes eastern redcedar (*Juniperus virginiana*), Chinese privet (*Ligustrum sinense*), and oaks (*Quercus* spp.).

4 RESULTS AND RECOMMENDATIONS

4.1 Summary of Results and Recommendations

The proposed project site is dominated by an existing recycling operation. The vast majority of the site has been disturbed by the recycling operation and does not contain viable habitat for any threatened and/or endangered species.

The proposed project will not result in the destruction or adverse modification of any federally designated critical habitat for any threatened or endangered species, nor cause or contribute to the taking of any listed threatened or endangered species. Please note, Table 1 provides a list of the Potential Birds of Conservation Concern list or warrant special attention in the project location and the Nationwide Conservation Measures (NCM) can help avoid and minimize impacts to all birds at any location year-round. If any birds listed in Table 1 or any other threatened/endangered species are found at the project location, the U. S. Fish and Wildlife Service Ecological Services Program and Texas Parks and Wildlife Department should be contacted. Based on this environmental review, no further investigation for threatened and endangered species is recommended at this time.

5 REFERENCES

Environmental Protection Agency (EPA), 2013, Level III and IV ecoregions of the continental United States: Corvallis, Oregon, U.S. EPA, National Health and Environmental Effects Research Laboratory, map scale 1:3,000,000, https://www.epa.gov/eco-research/level-iii-and-iv-ecoregions-continental-united-states.

U.S. Environmental Protection Agency, 2013, Level III ecoregions of the continental United States: Corvallis, Oregon, U.S. EPA – National Health and Environmental Effects Research Laboratory, map scale 1:7,500,000, *http://www.epa.gov/wed/pages/ecoregions/level_iii_iv.htm.*

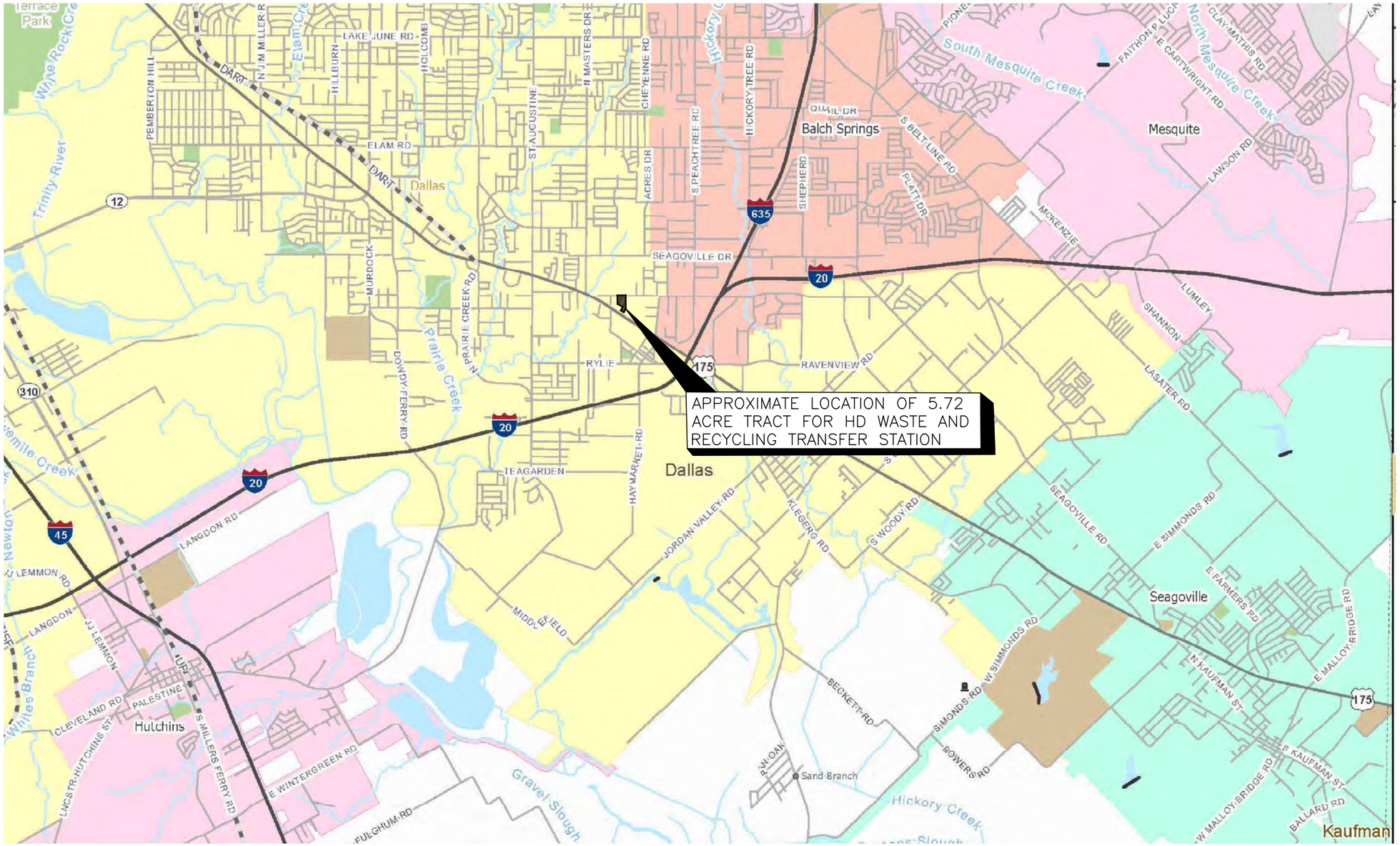
Griffith, G., Griffith, S., Omernick, J., and Rogers, A., 2007, Ecoregions of Texas: Texas Commission on Environmental Quality.

IPaC - Information for Planning and Consultation, n.d., https://ecos.fws.gov/ipac/

Texas Parks and Wildlife Department, Accessed 4 January 2023, Dallas County: Annotated County Lists of Rare Species

ATTACHMENT 1

FIGURES



Legend

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- SH, BS
- SL, SS, PR
- FM, BF, RM, RR, RE, RS, PA
- County Road
- City Street or other Non-County Maintained Road
- Railroad
- Incorporated City
- Unincorporated Community
- Airport
- Airport
- Airport Runway
- School
- Military Installation
- Prison
- National or State Park
- National or State Forest
- Other Public Land
- Cemetery
- Dam
- County Line
- District Line
- Canal
- Flowing Stream
- Intermittent Stream
- River
- Gulf Intracoastal Waterway
- Other Body of Water

NOTES:

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FIGURE 1

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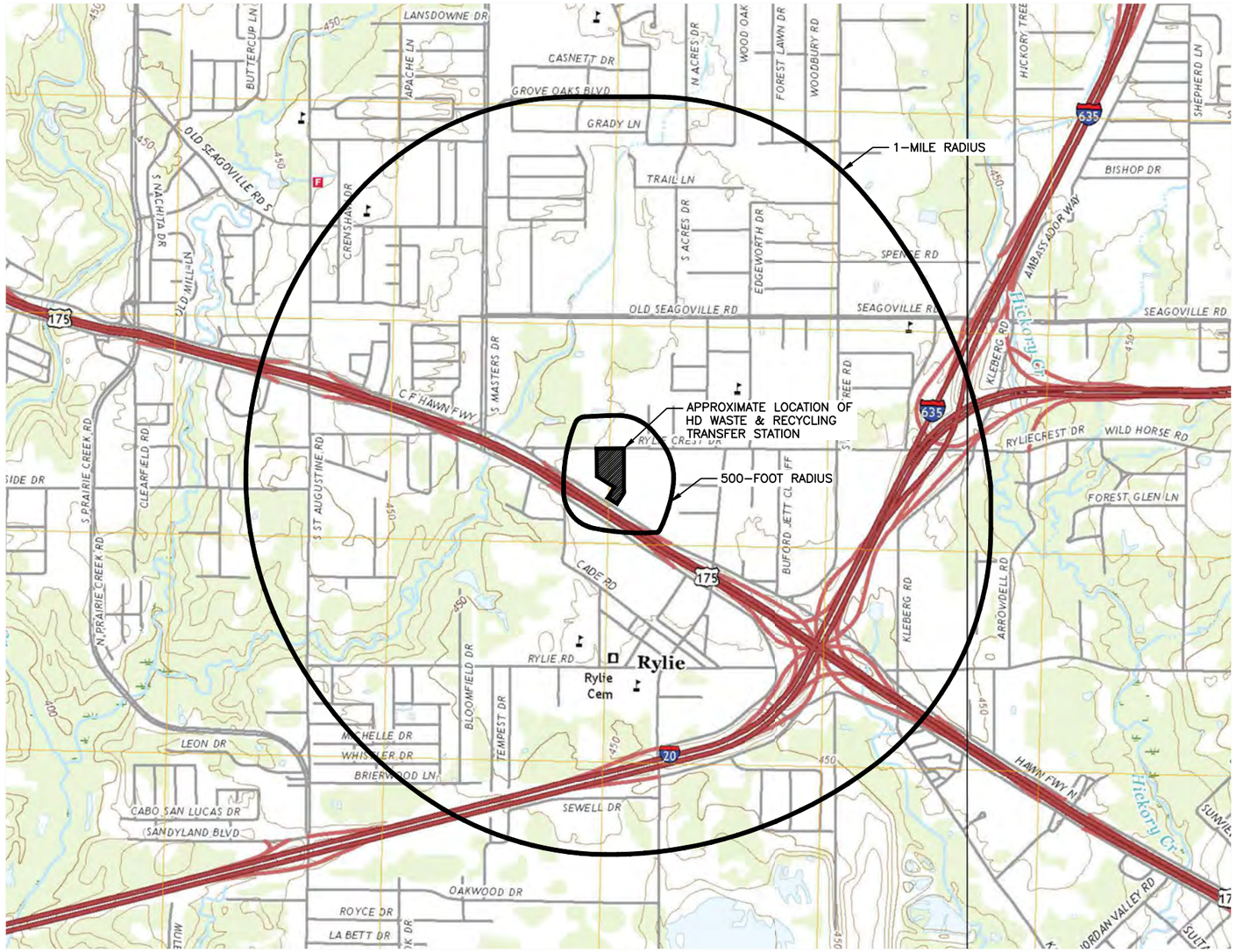

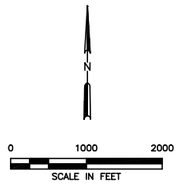

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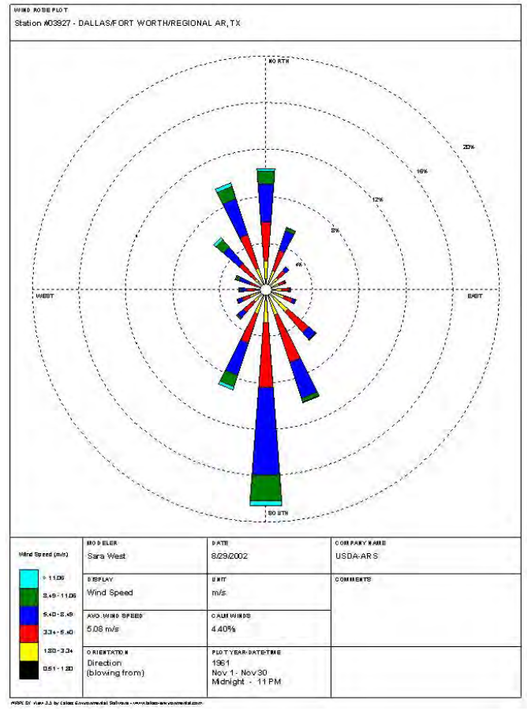

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FIGURE 2

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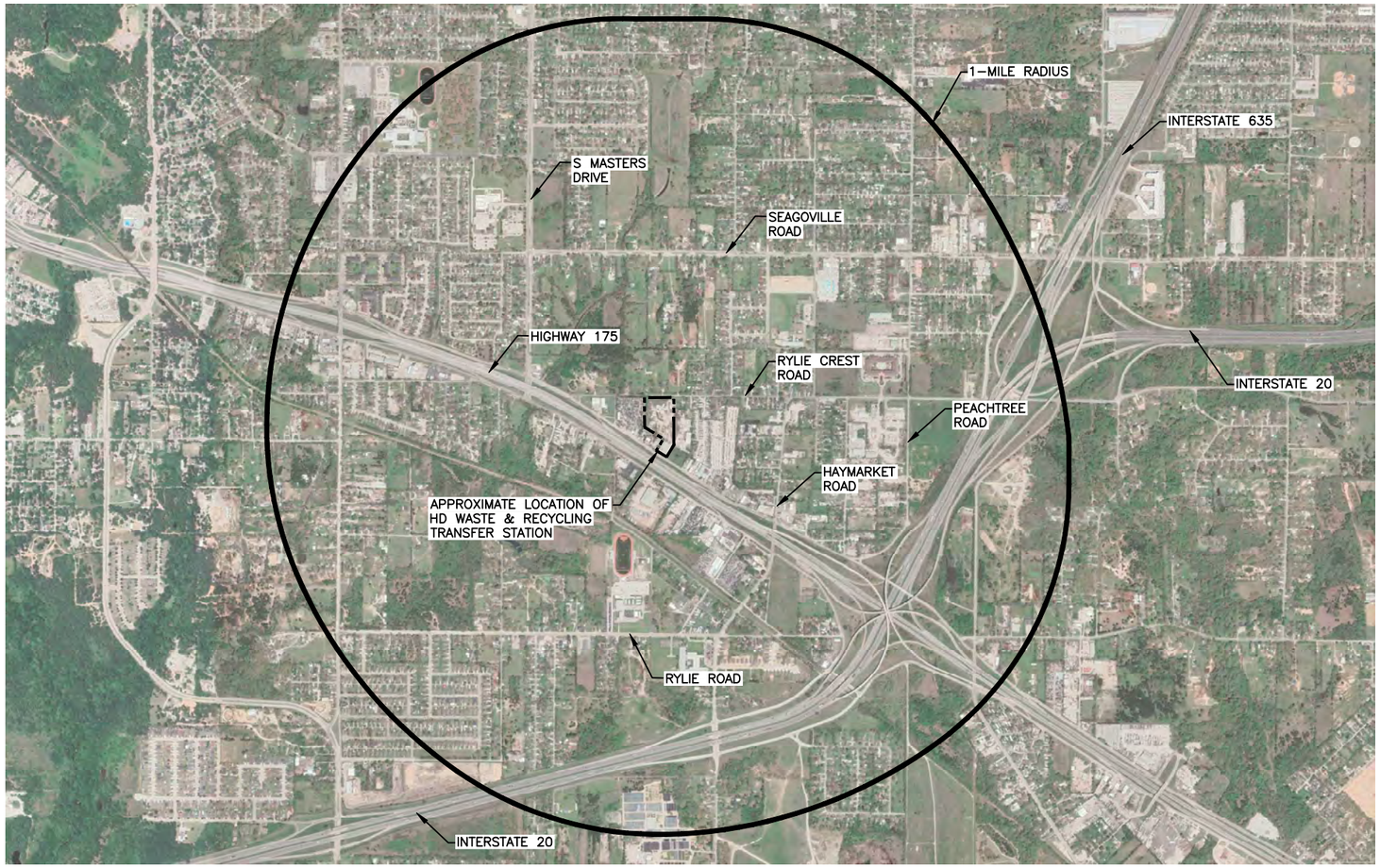

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FIGURE 3

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ATTACHMENT 2

SITE PHOTOS

Photo 1 – View of the northwest corner.

Photo 2 – View looking east along the north boundary.

Photo 3 – View looking toward the center of the site.

Photo 4 – View from the north boundary looking north at the adjacent land use.

ATTACHMENT 3

USFWS IPAC SPECIES LIST

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.

NOT FOR CONSULTATION

Location

Dallas County, Texas

Local office

Arlington Ecological Services Field Office

(817) 277-1100
(817) 277-1129
arles@fws.gov

2005 Ne Green Oaks Blvd
Suite 140
Arlington, TX 76006-6247

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).

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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
Golden-cheeked Warbler *Setophaga chrysoparia* Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/33	Endangered
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
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. https://ecos.fws.gov/ecp/species/1864	Threatened
Whooping Crane *Grus americana* There is **final** critical habitat for this species.Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/758	Endangered

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Reptiles

NAME	STATUS
Alligator Snapping Turtle Macrochelys temminckii Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4658	Proposed Threatened

Clams

NAME	STATUS
Texas Fawnsfoot Truncilla macrodon Wherever found There is **proposed** critical habitat for this speciesYour location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8965	Proposed Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

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.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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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:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

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.	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

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Little Blue Heron Egretta caerulea Breeds Mar 10 to Oct 15

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

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 and understand the FAQ "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 (|)

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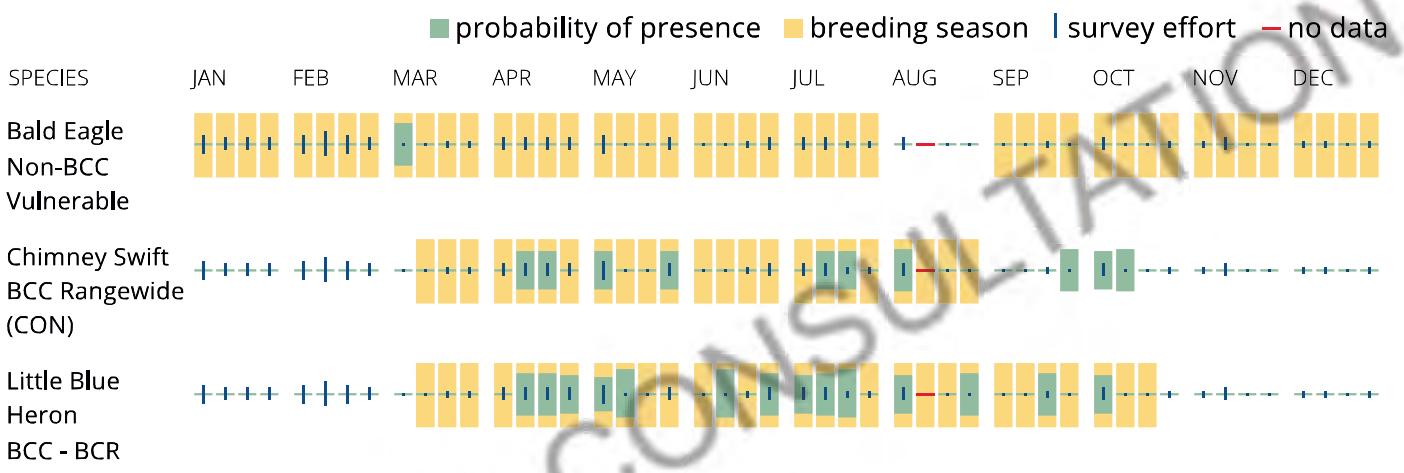
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

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.



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Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding 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 USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

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) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle 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, please visit the Rapid Avian Information Locator (RAIL) Tool

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 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?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at 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 migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, 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 Eagle 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 try 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 eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

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.

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Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

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 also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). 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 is not perfect; 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 helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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.

This location did not intersect any wetlands mapped by NWI.

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.

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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.

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ATTACHMENT 4

TPWD THREATENED AND ENDANGERED SPECIES LISTS

Last Update: 1/4/2023

DALLAS COUNTY

AMPHIBIANS

eastern tiger salamander *Ambystoma tigrinum*

Terrestrial adults generally occur under cover objects or in burrows surrounding a variety of lentic freshwater habitats, such as ponds, lakes, bottomland wetlands, or upland ephemeral pools. The specific terrestrial habitats are also varied and the occurrence of this species seems to be more closely associated with sandy, loamy or other soils which have easy burrowing properties, rather than any particular ecological system type. Requires fishless breeding pools for successful reproduction.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S3

spotted dusky salamander *Desmognathus conanti*

This species occurs in association with aquatic habitats in forested areas. Small, clear, spring fed streams with sandy substrate bordered with ferns and moss as well as murky, stagnant water bodies in cypress swamps, baygalls, and flood plains in bottomland forests support populations of this species.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S1

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: SU

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: Y
Endemic: N	Global Rank: G5	State Rank: S3B,S3N

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DALLAS COUNTY

BIRDS

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: LT	State Status: T	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2

black-capped vireo *Vireo atricapilla*

Oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S3B

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

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

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: LT	State Status: T	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2N

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DALLAS 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: LT	State Status: T	SGCN: Y
Endemic: N	Global Rank: G4T2	State Rank: S2N

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: Y
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: Y
Endemic: N	Global Rank: G5	State Rank: S4B

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: LE	State Status: E	SGCN: Y
Endemic: N	Global Rank: G1	State Rank: S1S2N

wood stork *Mycteria americana*

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DALLAS COUNTY

BIRDS

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,S2N

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

FISH

american eel *Anguilla rostrata*

Originally found in all river systems from the Red River to the Rio Grande. Aquatic habtiats include large rivers, streams, tributaries, coastal watersheds, estuaries, bays, and oceans. Spawns in Sargasso Sea, larva move to coastal waters, metamorphose, and begin upstream movements. Females tend to move further upstream than males (who are often found in brackish estuaries). American Eel are habitat generalists and may be found in a broad range of habitat conditions including slow- and fast-flowing waters over many substrate types. Extirpation in upstream drainages attributed to reservoirs that impede upstream migration.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S4

Mississippi silvery minnow *Hybognathus nuchalis*

Found in eastern Texas streams, from the Brazos River eastward and northward to the Red River; found in moderate current; silty, muddy, or rocky substrate. In Texas, adults likely to inhabit smaller tributary streams.

Federal Status:	State Status:	SGCN: Y
Endemic:	Global Rank: G5	State Rank: S4

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

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DALLAS COUNTY

INSECTS

Comanche harvester ant *Pogonomyrmex comanche*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G2G3	State Rank: S2

No accepted common name *Arethaea ambulator*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic:	Global Rank: GNR	State Rank: SNR

MAMMALS

big brown bat *Eptesicus fuscus*

Any wooded areas or woodlands except south Texas. Riparian areas in west Texas.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S5

cave myotis bat *Myotis velifer*

Colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4G5	State Rank: S2S3

eastern red bat *Lasiurus borealis*

Red bats are migratory bats that are common across Texas. They are most common in the eastern and central parts of the state, due to their requirement of forests for foliage roosting. West Texas specimens are associated with forested areas (cottonwoods). Also common along the coastline. These bats are highly mobile, seasonally migratory, and practice a type of "wandering migration". Associations with specific habitat is difficult unless specific migratory stopover sites or wintering grounds are found. Likely associated with any forested area in East, Central, and North Texas but can occur statewide.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S4

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

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DALLAS COUNTY

MAMMALS

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: S4

long-tailed weasel *Mustela frenata*

Includes brushlands, fence rows, upland woods and bottomland hardwoods, forest edges & rocky desert scrub. Usually live close to water.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S5

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

muskrat *Ondatra zibethicus*

Found in fresh or brackish marshes, lakes, ponds, swamps, and other bodies of slow-moving water. Most abundant in areas with cattail. Dens in bank burrow or conical house of vegetation in shallow vegetated water. It is primarily found in the Rio Grande near El Paso and in SE Texas in the Houston area.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S5

southeastern myotis bat *Myotis austroriparius*

Caves are rare in Texas portion of range; buildings, hollow trees are probably important. Historically, lowland pine and hardwood forests with large hollow trees; associated with ecological communities near water. Roosts in cavity trees of bottomland hardwoods, concrete culverts, and abandoned man-made structures.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G4 State Rank: S3?

swamp rabbit *Sylvilagus aquaticus*

Primarily found in lowland areas near water including: cypress bogs and marshes, floodplains, creeks and rivers.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S5

tricolored bat *Perimyotis subflavus*

Forest, woodland and riparian areas are important. Caves are very important to this species.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G3G4 State Rank: S2

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DALLAS COUNTY

MAMMALS

western hog-nosed skunk *Conepatus leuconotus*

Habitats include woodlands, grasslands & deserts, to 7200 feet, most common in rugged, rocky canyon country; little is known about the habitat of the ssp. telmalestes

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S4

MOLLUSKS

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:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G1G2	State Rank: S1

sandbank pocketbook *Lampsilis satura*

Occurs in small streams to large rivers in slow to moderate current in sandy mud to sand and gravel substrate. Can occur in a variety of habitats but most common in littoral habitats such as banks or backwaters or in protected areas along point bars (Randklev et al. 2013b; Randklev et al. 2014a; Troia et al. 2015). [Mussels of Texas 2019]

Federal Status:	State Status: T	SGCN: Y
Endemic:	Global Rank: G2?	State Rank: S1

Texas fawnsfoot *Truncilla macrodon*

Occurs in large rivers but may also be found in medium-sized streams. Is found in protected near shore areas such as banks and backwaters but also riffles and point bar habitats with low to moderate water velocities. Typically occurs in substrates of mud, sandy mud, gravel and cobble. Considered intolerant of reservoirs (Randklev et al. 2010; Howells 2010o; Randklev et al. 2014b,c; Randklev et al. 2017a,b). [Mussels of Texas 2019]

Federal Status: PT	State Status: T	SGCN: Y
Endemic: Y	Global Rank: G1	State Rank: S2

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:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G1G3	State Rank: S1

Trinity pigtoe *Fusconaia chunii*

Found in a variety of habitats but most common in riffles. Inhabits various substrates though most often sand, gravel, and cobble (species was recently split from Texas Pigtoe and occurs in similar habitats; Howells 2010a; Randklev et al. 2013b; Randklev et al. 2014a; Troia et al 2015). [Mussels of Texas 2020]

Federal Status:	State Status: T	SGCN: Y
Endemic: Y	Global Rank: GNR	State Rank: S1

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DALLAS COUNTY

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:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G3	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

prairie skink *Plestiodon septentrionalis*

The prairie skink can occur in any native grassland habitat across the Rolling Plains, Blackland Prairie, Post Oak Savanna and Pineywoods ecoregions.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S2

pygmy rattlesnake *Sistrurus miliarius*

The pygmy rattlesnake occurs in a variety of wooded habitats from bottomland coastal hardwood forests to upland savannas. The species is frequently found in association with standing water.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S2S3

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 garter snake *Thamnophis sirtalis annectens*

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: Y	Global Rank: G5T4	State Rank: S1

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DALLAS COUNTY

REPTILES

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

timber (canebrake) rattlesnake *Crotalus horridus*

Terrestrial: Swamps, floodplains, upland pine and deciduous woodland, riparian zones, abandoned farmland. Limestone bluffs, sandy soil or black clay. Prefers dense ground cover, i.e. grapevines, palmetto.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S4

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: G5	State Rank: S3

western chicken turtle *Deirochelys reticularia miaria*

Aquatic and terrestrial: This species uses aquatic habitats in the late winter, spring and early summer and then terrestrial habitats the remainder of the year. Preferred aquatic habitats seem to be highly vegetated shallow wetlands with gentle slopes. Specific terrestrial habitats are not well known.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5T5	State Rank: S2S3

western massasauga *Sistrurus tergeminus*

Terrestrial: Shortgrass or mixed grass prairie, with gravel or sandy soils. Often found associated with draws, floodplains, and more mesic habitats within the arid landscape. Frequently occurs in shrub encroached grasslands.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S3

PLANTS

glandular gay-feather *Liatris glandulosa*

Occurs in herbaceous vegetation on limestone outcrops (Carr 2015)

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G3	State Rank: S2

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DALLAS COUNTY

PLANTS

Glass Mountains coral-root *Hexalectris nitida*

Apparently rare in mixed woodlands in canyons in the mountains of the Brewster County, but encountered with regularity, albeit in small numbers, under Juniperus ashei in woodlands over limestone on the Edwards Plateau, Callahan Divide and Lampasas Cutplain; Perennial; Flowering June-Sept; Fruiting July-Sept

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S3

Glen Rose yucca *Yucca necopina*

Grasslands on sandy soils and limestone outcrops; flowering April-June

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G1G2	State Rank: S3

Hall's prairie clover *Dalea hallii*

In grasslands on eroded limestone or chalk and in oak scrub on rocky hillsides; Perennial; Flowering May-Sept; Fruiting June-Sept

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G3	State Rank: S2

Oklahoma phlox *Phlox oklahomensis*

Known from a 1958 collection from an oak woodland four miles east of Garland, Texas (Carr 2015).

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: SH

Osage Plains false foxglove *Agalinis densiflora*

Most records are from grasslands on shallow, gravelly, well drained, calcareous soils; Prairies, dry limestone soils; Annual; Flowering Aug-Oct

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2

plateau milkvine *Matelea edwardsensis*

Occurs in various types of juniper-oak and oak-juniper woodlands; Perennial; Flowering March-Oct; Fruiting May-June

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G3	State Rank: S3

Sutherland 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

Texas milk vetch *Astragalus reflexus*

Grasslands, prairies, and roadsides on calcareous and clay substrates; Annual; Flowering Feb-June; Fruiting April-June

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DALLAS COUNTY

PLANTS

Federal Status: | State Status: | SGCN: Y
Endemic: Y | Global Rank: G3 | State Rank: S3

tree dodder *Cuscuta exaltata*

Parasitic on various Quercus, Juglans, Rhus, Vitis, Ulmus, and Diospyros species as well as Acacia berlandieri and other woody plants; Annual; Flowering May-Oct; Fruiting July-Oct

Federal Status: | State Status: | SGCN: Y
Endemic: N | Global Rank: G3 | State Rank: S3

Warnock's coral-root *Hexalectris warnockii*

In leaf litter and humus in oak-juniper woodlands on shaded slopes and intermittent, rocky creekbeds in canyons; in the Trans Pecos in oak-pinyon-juniper woodlands in higher mesic canyons (to 2000 m [6550 ft]), primarily on igneous substrates; in Terrell County under Quercus fusiformis mottes on terrraces of spring-fed perennial streams, draining an otherwise rather xeric limestone landscape; on the Callahan Divide (Taylor County), the White Rock Escarpment (Dallas County), and the Edwards Plateau in oak-juniper woodlands on limestone slopes; in Gillespie County on igneous substrates of the Llano Uplift; flowering June-September; individual plants do not usually bloom in successive years

Federal Status: | State Status: | SGCN: Y
Endemic: N | Global Rank: G2G3 | State Rank: S2

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HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY REGISTRATION APPLICATION

PART III
SITE DEVELOPMENT PLAN

Prepared for

HD Waste Transfer Station, LLC

August 2023

08/30/2023

Prepared by

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WCG Project No. 5486-001-11-01

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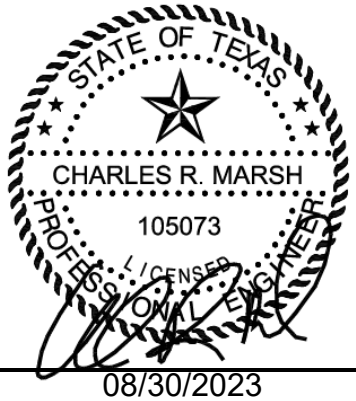

08/30/2023

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1 INTRODUCTION

This Part III – Site Development Plan (SDP) has been prepared for the HD Waste and Recycling Transfer Station (HDWR TS) consistent with Title 30 Texas Administrative Code (TAC) §330.63. "Transfer Station" refers to the building that consists of the transfer tunnel and MSW and recyclables processing/tipping floors.

This section addresses §330.63. Additional specific regulatory citations are indicated within the Part III subsection headings.

Part III – SDP addresses the general facility design, closure plan, and cost estimate for closure. Site design plans for the HDWR TS are presented in Appendix IIIA – General Facility Design Drawings.

1.1 Background

The HDWR TS will provide an efficient means to process and transfer the waste that is generated in the City of Dallas, Dallas County, and the surrounding areas and transfer the waste to a Texas Commission on Environmental Quality (TCEQ) permitted landfill. The facility will transfer recyclables to a material recovery facility or third-party recyclables vendor. This facility will comply with Title 30 Texas Administrative Code (TAC) §330.9(e)(1) by ensuring that the incoming waste has been reduced by at least 10 percent through a source separation recycling program. Examples of diversion include source separation of household recyclables, concrete and other construction debris diversion, brush and woody waste diversion, and other recyclable waste streams that may be identified in the future for diversion for recycling. Refer to Part IV – SOP (Section 3.3) for additional information. Additionally, in accordance with Title 30 TAC 330.9(e)(2), non-recyclable waste from the TS will be transferred to a permitted landfill located within 50 miles of the TS (e.g., McCommas Bluff, TCEQ Permit No. MSW-62).

Support facilities for the HDWR TS include site entrance roads, an optional scale house, a collection and transfer equipment parking/staging area, a transfer station building, an optional citizens collection station, a recyclable material storage and processing building, and a maintenance shop/office building.

1.2 Site Location

The HDWR TS will be located in Dallas County at 10631 C F Hawn Freeway, Dallas, Texas, 75217. The site location is shown on Figure I/II-4.1.

1.3 Land Use and Zoning §330.63(a)

The HDWR TS is located within the city limits of Dallas, Texas. A detailed discussion of area land use and zoning for the site is presented in Section 7 of Parts I/II. Portions of the proposed 5.72-acre registration boundary will be rezoned to "industrial/manufacturing", which will provide for the continued operation of the proposed TS.

2 GENERAL FACILITY DESIGN

2.1 Facility Access

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

Vehicles bound for the HDWR TS will access the TS entrance from an existing driveway from the C F Hawn Freeway Frontage Road. The main access roads within one mile of the site are Interstate 20, Interstate 635, C F Hawn Freeway (Highway 175) and its frontage roads, Rylie Crest Road and Peachtree Road. Other roads (e.g., Haymarket Road) 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 other collection vehicles will routinely use to access the site.

The existing HDWR Transfer Station site entrance driveway connects directly to the Highway 175 Frontage Road. From I-20, vehicles will travel west on the Highway 175 Frontage Road for less than one mile to the site entrance driveway. Vehicles eastbound on Highway 175 will u-turn under I-20 to access the westbound Highway 175 Frontage Road to enter the site. Vehicles southbound on Interstate 635 will need to utilize Rylie Crest Road and Peachtree Road to access the facility. The existing access roads are suitable to handle the projected traffic load associated with the TS.

As noted in Parts I/II, Section 8.0 and in the Traffic Study included in Appendix I/IIA, the site access roads will provide adequate access throughout the life of the facility.

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 coordination information 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 will be controlled by HDWTS staff during operating hours. Staff will be on site during all operating hours to regulate access to the TS. Outside of operating hours, a gate constructed of 6-foot chain link fence is located across the facility entrance road to prevent unauthorized vehicle access. The remainder of the property is secured by existing 6-foot chain link fencing to preclude unauthorized access. The height and material for the entrance gate may vary. Vehicle access to the site at points other than the entry gate will be minimized by suitable fencing,

which will be a 6-foot chain link fence, 4-foot barbed wire, screening fences, or other acceptable fencing.

HDWTS policy will restrict entry to the site only to designated site operations personnel, solid waste haulers authorized to use the facility, TCEQ personnel, and properly identified persons whose entry is authorized by the Site Manager. HDWTS reserves the right to restrict access to the site to persons not demonstrating a legitimate purpose for visiting. Visitors are allowed only when accompanied by a HDWR representative.

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 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)

Schematic views indicating the phases, waste processing, storage, and disposal as applicable, are shown on Drawings IIIA-2 through IIIA-4 in Appendix IIIA. These drawings include the layout of the TS within the 5.72-acre registration boundary and the traffic flow patterns.

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

The TS structure is designed to provide adequate ventilation. The north and south sides of the structure are open, and vent openings are located on the upper portions of the east and west walls of the structure. Excessive dust and particulates that occur at the TS facility will be controlled using water sprays or similar methods. No significant air pollution emissions are expected to result from the operation of the TS.

The facility will obtain authorization under 30 TAC Chapter 116 (relating to Control of Air Pollution by Permits for New Construction or Modifications) or Subchapter U of Chapter 330 (relating to Standard Air Permits for Municipal Solid Waste Landfill Facilities and Transfer Stations), as applicable, from the Air Permits Division prior to the start of construction, except as authorized in Texas Health and Safety Code §382.004, Construction While Permit Application Pending.

The TS is operated to provide adequate ventilation for odor control and employee safety. The operator will prevent nuisance odors from leaving the TS registration boundary. If nuisance odors are detected near the TS registration boundary, the site will immediately take action to abate the condition. Odors are controlled by limiting operations to within the structure and limiting the time solid waste may be stored

on the tipping floor (refer to Part IV – SOP, Section 8.10). All processing of solid waste will occur within the TS structure. Mist systems (using water) may be used within the TS structure to suppress odors, if needed. The mist (or similar) systems may also be used to control odors through the addition of chemical deodorizers. Ponding water will be controlled to avoid objectionable odors.

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

The TS will consist of a metal structure with a total MSW tipping floor area of approximately 7,500 square feet and recyclables processing area/tipping floor area of approximately 3,000 square feet. The structure covers a reinforced concrete pad (two tipping floors) used for waste and recycling processing. The MSW tipping floor areas are designed with a slope to drain toward the transfer trailer tunnel located in-between the tipping floor areas. Drain inlets are located on both sides of the tunnel for each tipping floor area. The north and south sides of the building have openings for entrance to the tipping floor for collection vehicles. Contaminated water collected on the tipping floor will drain to floor drains on tipping floor and within the loading tunnel. As shown on Figure IIIA-2 (Appendix IIIA), drains will collect contaminated water, which will then be conveyed to a minimum 2,000-gallon holding tank on the south side of the building. Waste grease, oil, or sludge will not be received or accepted at the TS.

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

Since TS activities take place within the structure, generated noise is mostly confined to the structure. Waste transfer operations are screened and buffered from the public by existing trees and bushes and a future screening fence. The TS structure is located at a sufficient distance from nearby residences and businesses so that activities at the site are not readily visible. The registration boundary is located approximately 100 feet from the nearest residence, with the TS structure located approximately 300 feet from the nearest residence/business. A Facility Screening Plan is provided as Figure IIIA-5.

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

The TS structure will include a metal roof that covers the concrete slab waste processing area (tipping floor) and the waste storage area. Waste will be unloaded and processed on the concrete tipping floor. As shown on Figures IIIA-2 and IIIA-3 (Appendix IIIA), drains will collect contaminated water from the tipping floor, which will then be stored in a holding tank. As discussed in Appendix IIIB, the TS site will be graded to prevent run-on drainage and flow of stormwater onto the tipping floor.

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

As discussed in the Parts I/II, Section 10, the TS site is 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 rainfall event and prevent the off-site discharge of waste material, including, but not limited to, in-process and/or processed materials. Surface water drainage in and around the facility will be controlled to prevent surface water from running into, onto, and off the processing area. Since all contaminated water is managed in a controlled manner, as discussed above, groundwater is protected.

2.3.2 Floor Wash Down §330.63(b)(3)(A) through (D) and §330.243(a)

Waste processing operations within the TS structure will be conducted on a covered tipping floor. All walls and floors in operating areas will be constructed of masonry, concrete, or other hard-surfaced materials that can be hosed down and scrubbed. Tipping floor washdown water will be collected in floor drains and stored in a minimum 2,000-gallon contaminated water holding tank.

Water supply will be provided by a public water system that is capable of providing the facility with an around-the-clock supply of potable water.

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

Since the majority of the TS will be located on developed land and based on the findings from the recent Biological Report, 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.

3 SURFACE WATER DRAINAGE REPORT §330.63(c)

3.1 Drainage Design §330.63(c)

The TS will be constructed, maintained, and operated to manage run-on and runoff during the peak discharge of a 25-year storm event and prevent the off-site discharge of waste material, including, but not limited to, in-process and/or processed materials. Additional drainage design requirements from the City of Dallas (e.g., 100-year pond sizing) have also been addressed for this facility. Surface water drainage in and around the facility will be controlled to minimize surface water running onto, into, and off the processing area. Details of the drainage system and associated design demonstrations are included in Appendix IIIB, Surface Water Drainage Report.

3.2 Floodplain Considerations §330.63(c)

As shown on Figure I/II-11.1, the TS property is not located within a 100-year floodplain as defined by FEMA.

4 WASTE PROCESSING FACILITY DESIGN §330.63(D)(1)

4.1 Waste Operations §330.63(d)(1)(A)

The TS is designed for efficient waste processing. The building footprint will be 160 feet by 75 feet with a maximum limit of waste acceptance of 1,000 tons per day averaged over four calendar quarters. The solid waste tipping floor on the east side of the tunnel (MSW side) will have an area of approximately 7,500 square feet (100 feet by 75 feet). The tipping floor on the west side of the loading tunnel will have an area of approximately 3,000 square feet (40 feet by 75 feet) for recyclable processing.

All solid waste capable of creating public health hazards or nuisances will be stored within the building, processed or transferred promptly, and will not be allowed to result in a nuisance or public health hazard. All solid waste stored overnight at the facility will either be in a transfer trailer with a tarp over it or on the tipping floor with a tarp over it. Recyclable materials on the tipping floor or within enclosed containers will not require tarping.

The scale house attendant or HDWR staff directs incoming waste collection traffic to the tipping floor or unloading area of the TS once the incoming vehicle's weight or volume has been recorded. HDWR staff informs the customer that the waste is only to be unloaded in the area where the customer is directed by site operating personnel to unload. Signs directing traffic to the TS structure are located, as needed, along the route to the unloading areas. The unloading of waste is directed by personnel working inside the TS. Equipment operators and other personnel are on duty during operating hours to direct traffic to the unloading areas.

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

Prohibited waste is not allowed to enter the site. The scale house attendant or HDWR staff are the first point of contact with the hauler. The hauler is asked to inform HDWR staff of the content of the load. HDWR staff visually inspects 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. Prohibited waste identified as having been dumped onto the TS floor will be managed in accordance with Section 8.2.1 in Part IV.

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

Staging and processing areas at this facility will be located within the TS structure. The unloading areas are designed to control and contain spills and contaminated water. Contaminated water generated by the TS consists of washdown water applied to the MSW and recyclables processing/tipping floor areas. The tipping floor areas are designed to control and contain spills and contaminated water. Contaminated water is conveyed from the tipping floor areas and tunnel to a sump that is located within the tunnel area. The water collected within the sump is pumped to a contaminated water holding tank. The contaminated water within the holding tank is transferred to a properly permitted wastewater treatment facility as needed. All documentation regarding transporting contaminated water offsite will be documented in the site operating record.

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

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. Solid waste will be stored in a manner to prevent fires, ensure safety, prevent a health hazard, or preclude food or harborage for animals and vectors, and contained to minimize windblown solid waste and litter. Solid waste will be stored either in a transfer trailer with a tarp cover or on the tipping floor with a tarp cover. Recyclable materials stored on the tipping floor or in enclosed containers will not require tarping. The maximum time waste material will be stored will not exceed 48 hours for the TS, except on holidays or weekends. On holidays and/or weekends the maximum time 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.

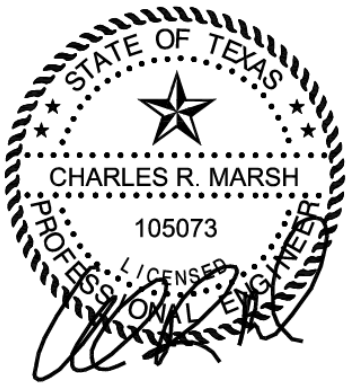
HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS
TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY
REGISTRATION APPLICATION

PART III
SITE DEVELOPMENT PLAN
APPENDIX IIIA
GENERAL FACILITY DESIGN DRAWINGS

Prepared for

HD Waste Transfer Station, LLC

August 2023



08/30/2023

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. 5486-001-11-01

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CONTENTS

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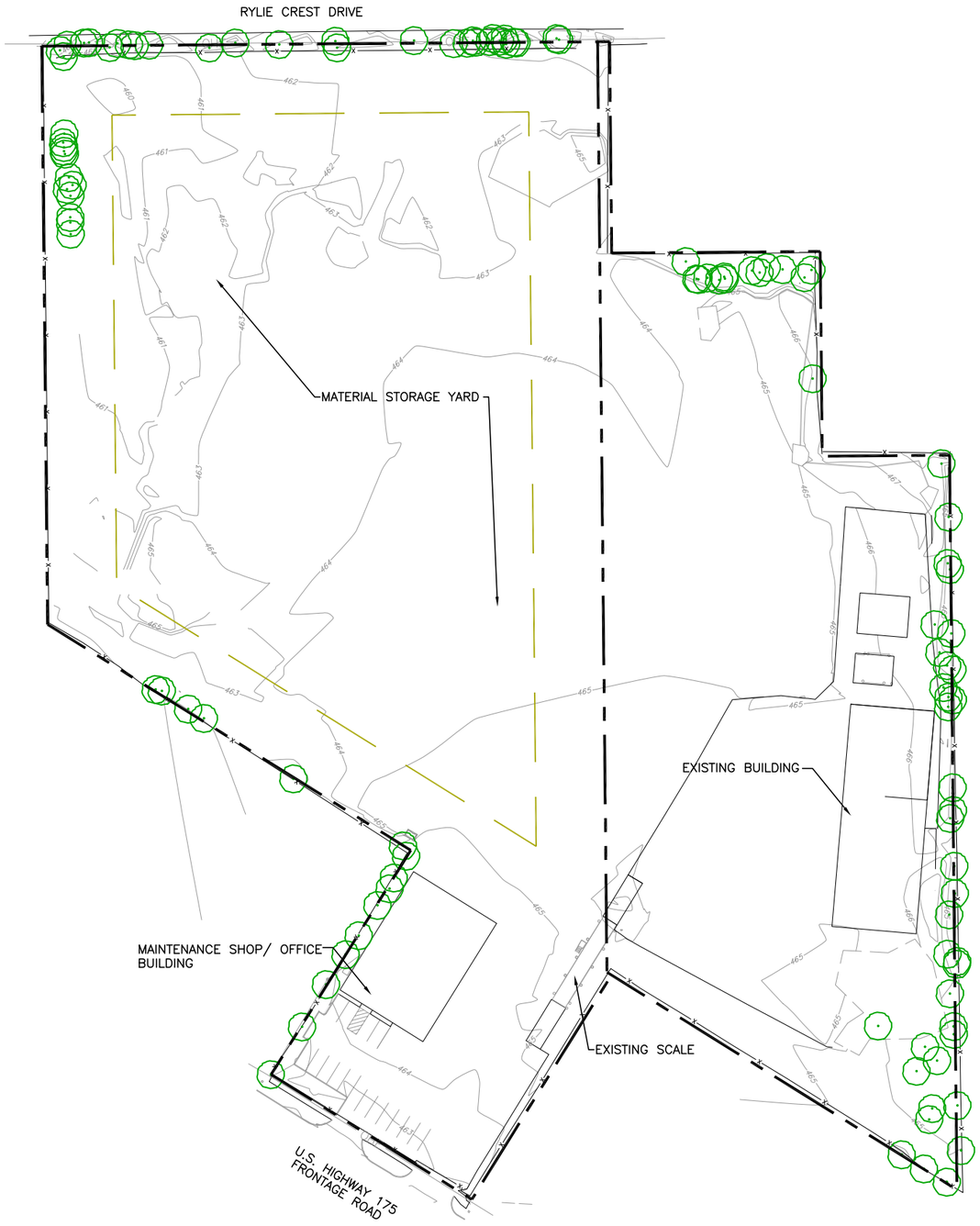

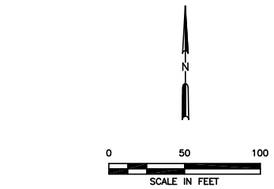

LEGEND

- REGISTRATION BOUNDARY
- PROPERTY BOUNDARY
- 1030 EXISTING GRADE
- EXISTING FENCE
- 50–FOOT BUFFER ZONE (SEE NOTE 3)
- EXISTING TREES
- OHE EXISTING OVERHEAD ELECTRIC LINES

08/30/2023

NOTES:

1. THE EXISTING CONTOURS AND PROPERTY BOUNDARY HAVE BEEN DEVELOPED BASED ON THE GROUND SURVEY BY WEAVER CONSULTANTS GROUP ON FEBRUARY 14,2022 AND FEBRUARY 21, 2022.
2. REGISTRATION BOUNDARY PREPARED BY WEAVER CONSULTANTS GROUP, DATED FEBRUARY 21, 2022.
3. CONSISTENT WITH TITLE 30 TAC 330.543(b)(1) SOLID WASTE STORAGE OR PROCESSING WILL NOT TAKE PLACE BETWEEN THE REGISTRATION BOUNDARY AND THE BUFFER LINE, WHICH IS 50 FEET FROM THE REGISTRATION BOUNDARY.

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DATE: 08/2023
FILE: 5486-01-11
CAD: DRAWING IIIA-1.DWG

DRAWN BY: PME
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE LICENSE NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY EXISTING SITE PLAN

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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DRAWING IIIA-1

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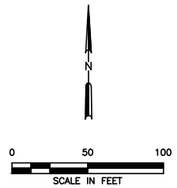

LEGEND

- REGISTRATION BOUNDARY
- PROPERTY BOUNDARY
- 465 EXISTING GRADE (SEE NOTE 1)
- EXISTING FENCE
- 465 PROPOSED CONTOURS
- PROPERTY LINE
- FIRE LANE
- PROPOSED FENCE
- 50–FOOT BUFFER ZONE (SEE NOTE 3)
- OHE EXISTING OVERHEAD ELECTRIC LINES
- WW PROPOSED WASTEWATER LINE
- ALL–WEATHER SURFACE (E.G., AGGREGATE, ASPHALT, CONCRETE)
- GRAVEL SURFACE
- TRANSFER TRAILER ROUTE
- MSW VEHICLE ROUTE
- RECYCLING VEHICLE ROUTE
- NEW BUILDING

STATE OF TEXAS
CHARLES R. MARSH
105073
PROFESSIONAL LICENSED ENGINEER
08/30/2023

NOTES:

1. THE EXISTING CONTOURS AND PROPERTY BOUNDARY HAVE BEEN DEVELOPED BASED ON THE GROUND SURVEY BY WEAVER CONSULTANTS GROUP ON FEBRUARY 14,2022 AND FEBRUARY 21, 2022.
2. REGISTRATION BOUNDARY PREPARED BY WEAVER CONSULTANTS GROUP, DATED FEBRUARY 21, 2022, AS SHOWN ON FIGURE I/II–3.1 (PER TAC 330.59(d).
3. CONSISTENT WITH TITLE 30 TAC 330.543(b)(1) SOLID WASTE STORAGE OR PROCESSING WILL NOT TAKE PLACE BETWEEN THE REGISTRATION BOUNDARY AND THE BUFFER LINE, WHICH IS 50 FEET FROM THE REGISTRATION BOUNDARY.
4. THE TRANSFER STATION WILL BE CONTROLLED BY A FENCE AROUND THE PROPERTY WITH GATES ON THE FACILITY ENTRANCE ROAD.
5. ACTUAL SIZE AND LOCATION OF SCALE HOUSE MAY VARY FROM SHOWN.
6. CONTAMINATED WATER TANK MAY BE EITHER AN UNDERGROUND STORAGE TANK OR AN ABOVEGROUND TANK WITH A SUMP.

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FILE: 5486–01–11
CAD: DRAWING IIIA–2.DWG

DRAWN BY: PME
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE LICENSE NO. F–3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY PROPOSED SITE PLAN

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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DRAWING IIIA–2

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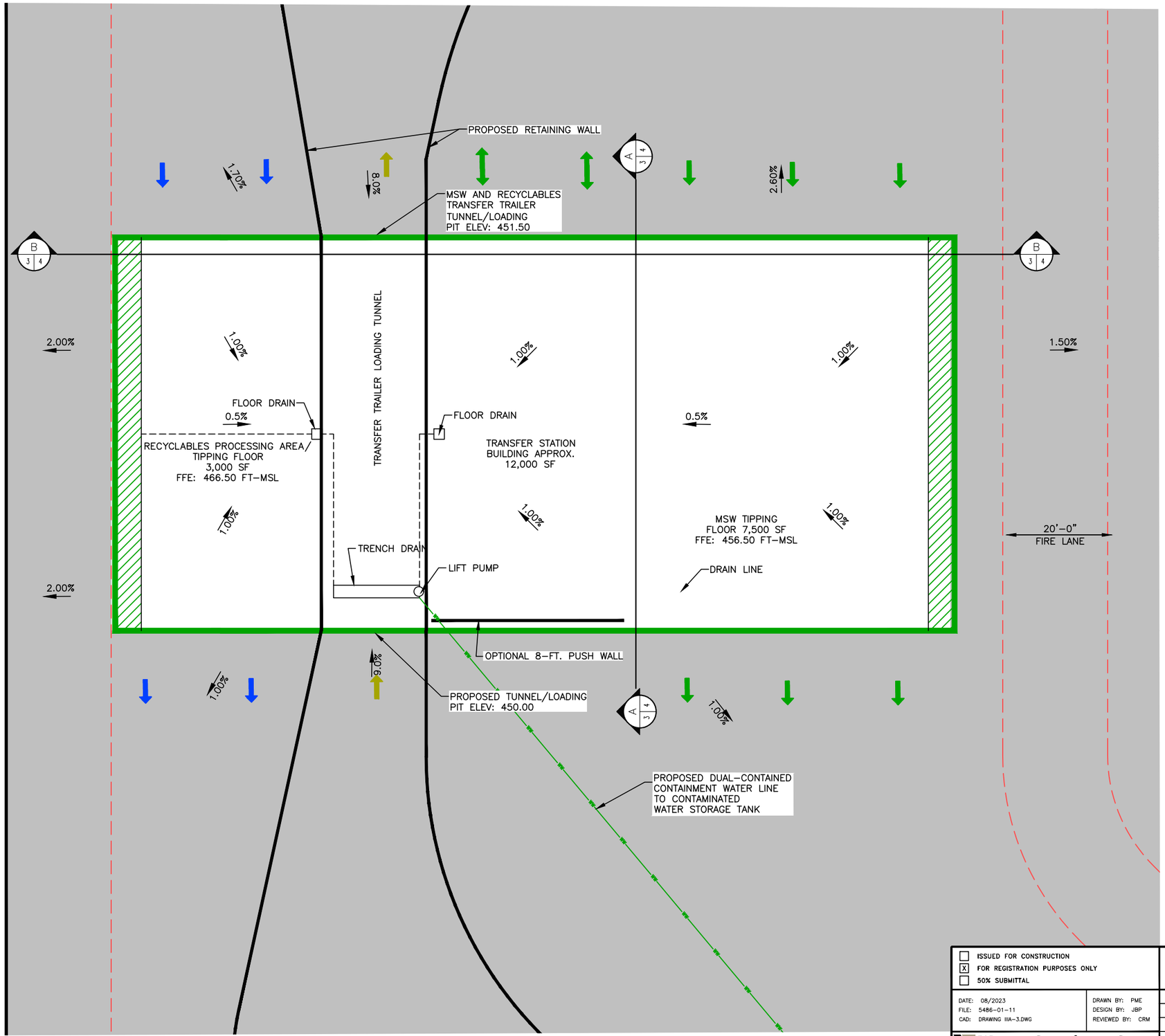

N

0 10 20

SCALE IN FEET

LEGEND

- FIRE LANE
- PROPOSED FENCE
- WW — PROPOSED WASTEWATER LINE
- ALL-WEATHER SURFACE (E.G., AGGREGATE, ASPHALT, CONCRETE)
- PROPOSED BUILDING
- BUILDING WALL
- TRANSFER TRAILER ROUTE
- MSW VEHICLE ROUTE
- RECYCLING VEHICLE ROUTE

STATE OF TEXAS
CHARLES R. MARSH
105073
LICENSED
PROFESSIONAL ENGINEER
08/30/2023

NOTES:

1. REFER TO DRAWING IIIA-2 FOR INTERNAL ROADS AND TRAFFIC PATTERNS.
2. WATER COLLECTED IN THE FLOOR DRAINS WILL BE PUMPED TO A 2,000 GALLON CONTAMINATED WATER TANK AND HAULED OFFSITE TO AN APPROVED TREATMENT FACILITY FOR DISPOSAL.
3. THE MSW AND RECYCLING PROCESS AREA TIPPING FLOORS ARE DESIGNED WITH SLOPES (TYPICAL SURFACE SLOPE IS SHOWN) TO DRAIN TO COLLECTION DRAINS. AT THE TIME OF CONSTRUCTION, ADDITIONAL DRAINS MAY BE INSTALLED AND TIPPING FLOOR SLOPE CONFIGURATION MAY VARY TO ENSURE PROPER DRAINAGE OF THE PROCESSING AREAS.
4. BOTH WASTE AND RECYCLABLES FROM THE TIPPING FLOORS WILL BE LOADED TO TRANSFER TRAILERS PARKED IN THE TUNNEL. SOLID WASTE LOADED INTO THE TRAILERS WILL BE TRANSFERRED TO A LANDFILL. RECYCLABLES WILL BE SORTED AND HAULED OFFSITE. ANY RECYCLABLES COMBINED WITH WASTE WILL BE PLACED INTO WASTE HAULER TRANSFER TRAILERS FOR PROPER LANDFILLING.
5. BUILDING EQUIPMENT (i.e. BALER OR COMPACTOR) MAY BE INSTALLED ON THE RECYCLABLES SECTION OF THE BUILDING FOR TRANSFERRING AND/OR PROCESSING OF THE RECYCLABLE MATERIALS.

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FILE: 5486-01-11
CAD: DRAWING IIIA-3.DWG

DRAWN BY: PME
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE LICENSE NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISIONS

NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY TRANSFER STATION BUILDING PLAN

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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DRAWING IIIA-3

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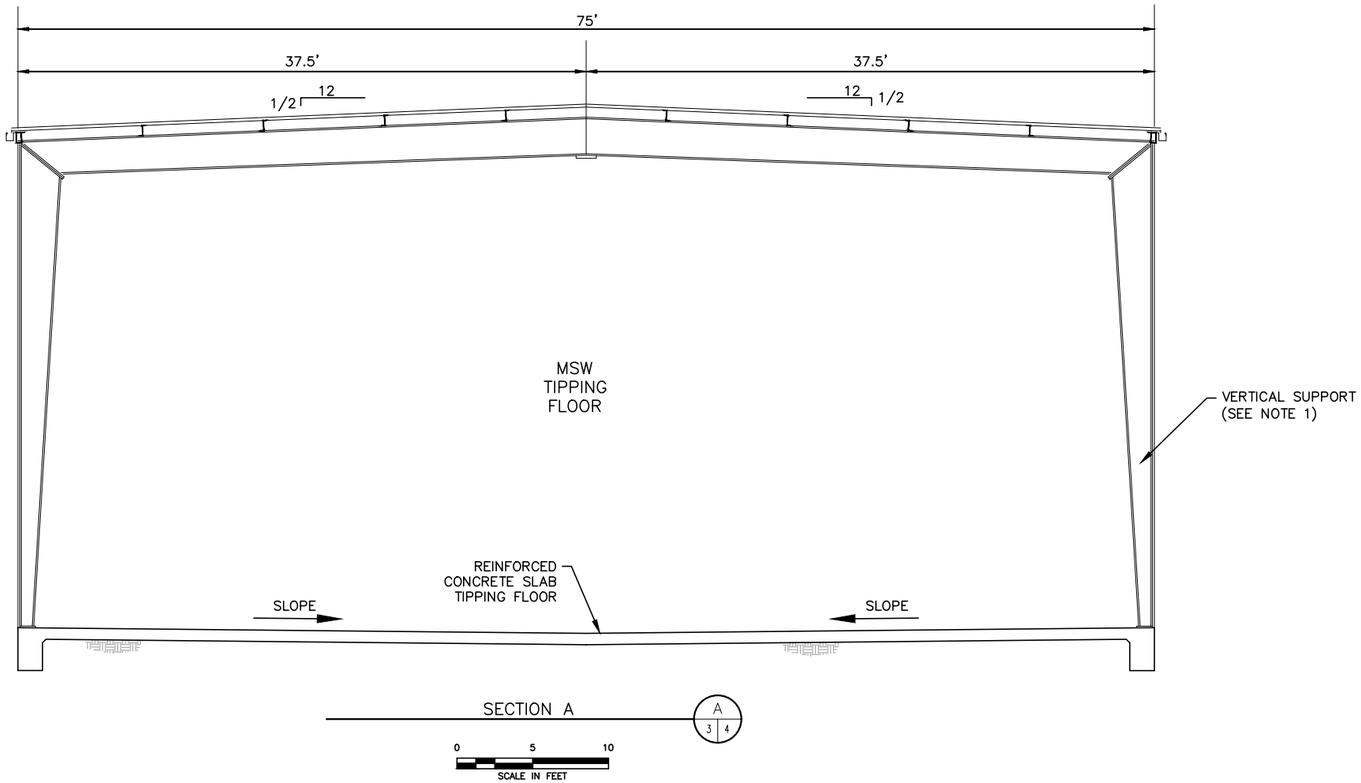

SECTION A

A
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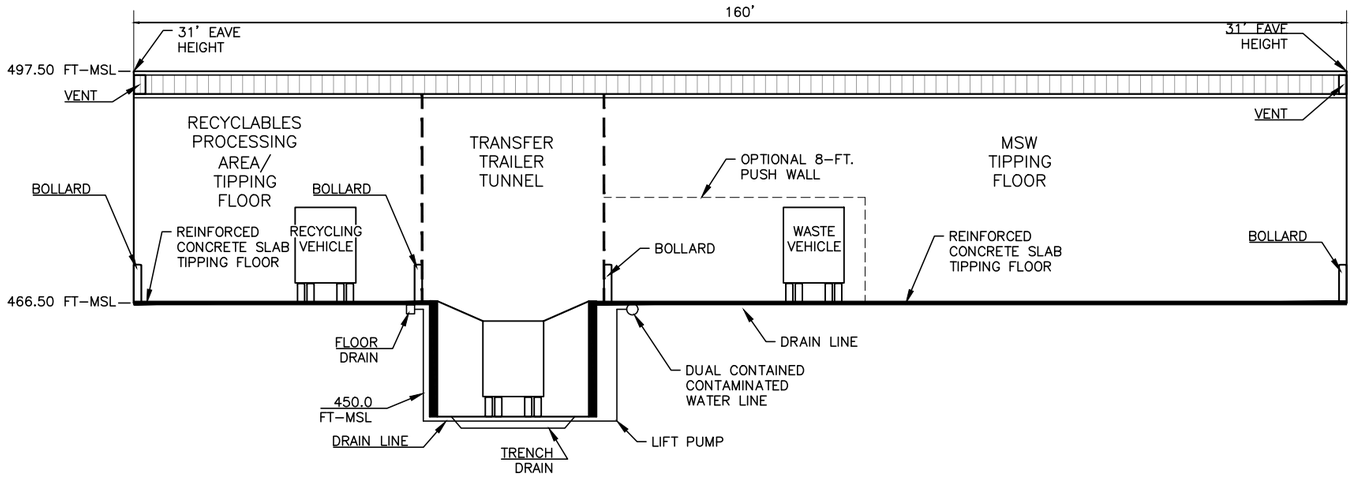

SECTION B

B
3 | 4

0 10 20
SCALE IN FEET

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STATE OF TEXAS
CHARLES R. MARSH
105073
PROFESSIONAL ENGINEER
LICENSED
08/30/2023

NOTES:

1. PROPOSED BUILDING WILL BE OPEN ON THE NORTH AND SOUTH SIDES WITH VERTICAL SUPPORTS ON THE EAST AND WEST ENDS.
2. REFER TO DRAWING IIIA-3 FOR FLOOR CONFIGURATION.

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FILE: 5486-01-11
CAD: DRAWING IIIA-4.DWG

DRAWN BY: PME
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE LICENSE NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISIONS

NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY BUILDING SECTIONS A AND B

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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DRAWING IIIA-4

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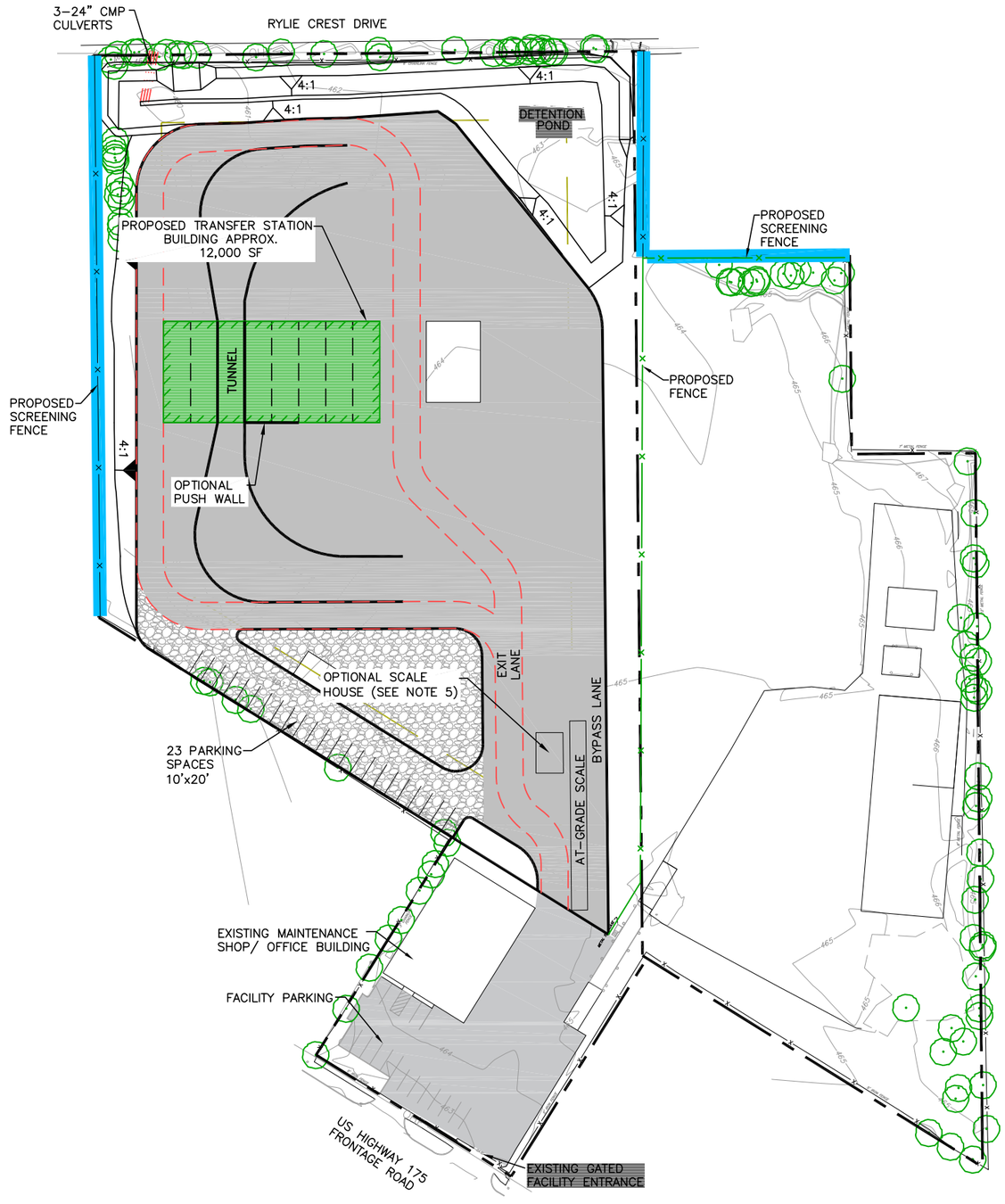
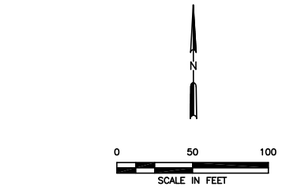
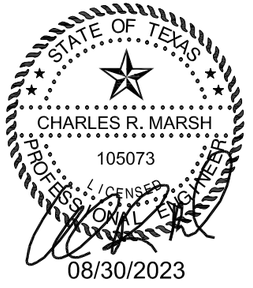




LEGEND

- REGISTRATION BOUNDARY
- PROPERTY BOUNDARY
- 1030 EXISTING GRADE
- EXISTING FENCE
- PROPERTY LINE
- FIRE LANE
- PROPOSED FENCE
- PROPOSED SCREENING FENCE
- 50–FOOT BUFFER ZONE (SEE NOTE 3)
- OHE EXISTING OVERHEAD ELECTRIC LINES
- ALL–WEATHER SURFACE (E.G., AGGREGATE, ASPHALT, CONCRETE)
- GRAVEL SURFACE
- NEW BUILDING
- EXISTING TREE/SHRUB



08/30/2023

NOTES:

1. THE EXISTING CONTOURS AND PROPERTY BOUNDARY HAVE BEEN DEVELOPED BASED ON THE GROUND SURVEY BY WEAVER CONSULTANTS GROUP ON FEBRUARY 14, 2022 AND FEBRUARY 21, 2022.
2. THE BOUNDARY SHOWN IS BASED ON RECORD INFORMATION.
3. CONSISTENT WITH TITLE 30 TAC 330.543(b)(1) SOLID WASTE STORAGE OR PROCESSING WILL NOT TAKE PLACE BETWEEN THE REGISTRATION BOUNDARY AND THE BUFFER LINE, WHICH IS 50 FEET FROM THE REGISTRATION BOUNDARY.
4. ACCESS TO THE FACILITY WILL BE CONTROLLED BY A FENCE AROUND THE PROPERTY WITH A GATE ALONG US HIGHWAY 175 ACCESS ROAD.
5. ACTUAL SIZE AND LOCATION OF SCALE HOUSE MAY VARY FROM SHOWN.

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CAD: DRAWING IIIA-5.DWG

DRAWN BY: PME
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE LICENSE NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY FACILITY SCREENING PLAN

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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DRAWING IIIA-5

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HD WASTE & RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

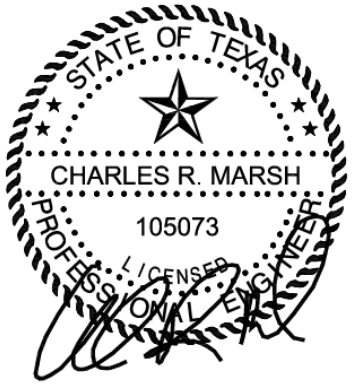
TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY REGISTRATION APPLICATION

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

Prepared for

HD Waste Transfer Station, LLC

August 2023



08/30/2023

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. 5486-001-11-01

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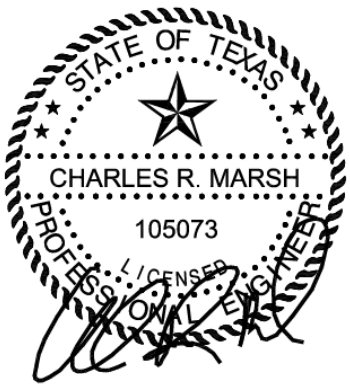

08/30/2023

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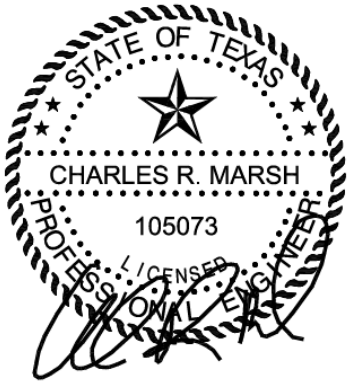

08/30/2023

TABLES AND FIGURES

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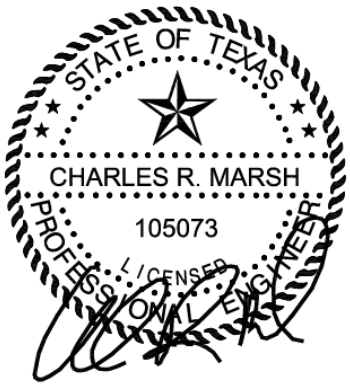
Figures



08/30/2023

1 INTRODUCTION

This Facility Surface Water Drainage Report is prepared as part of the HD Waste Transfer Station Type V Registration Application for the HD Waste and Recycling Transfer Station (HDWR TS) consistent with Title 30 Texas Administrative Code (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 section addresses §330.63(c) and §330.303.

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, 24-hour rainfall event and will prevent the off-site discharge of waste and in-process and/or processed materials. Surface water drainage in and around a facility shall be controlled to prevent surface water running onto, into, and off the transfer station processing area. Although not specifically required by the rules, the drainage analysis for a 25-year, 24-hour storm event is used to demonstrate that the Pre-Development drainage of the TS site will not be adversely altered. To comply with City of Dallas drainage design requirements, a drainage analysis for a 100-year, 24-hour storm event was also performed. The supporting hydrologic demonstrations are included in Appendices IIIB-A and IIIB-C for post-development and pre-development condition respectively. The hydrologic analysis and design of post-development conditions were completed using both TCEQ and the City of Dallas drainage design requirements.

Section 2 of this report includes a discussion of the regional drainage, stormwater management system, and TPDES compliance. Section 3 discusses the detailed drainage design methodology. Section 4 demonstrates that the TS development will not adversely alter the pre-development drainage patterns.

2 STORMWATER MANAGEMENT

2.1 Regional Drainage Information

According to the USGS Watershed Boundary Dataset, the HDWR TS is located in the Prairie Creek-Trinity River Watershed (HUC: 120301050203). The facility drains west to Rylie Creek, which then flows south to the Dallas Hunting and Fish Club Lake before joining the Trinity River.

2.2 Surface Water Protection

The TS has been designed to achieve the following goals.

1. Prevent a discharge of solid wastes or pollutants adjacent to or into waters of the state.
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 adverse alteration of Pre-Development drainage patterns.

The HDWR TS facility will consist of a building with a reinforced concrete slab foundation with the transfer truck tunnel located below the grade of the slab. Drainage from the facility is designed to maintain the existing drainage patterns at the registration boundary and will prevent the offsite discharge of waste and feedstock material, including, but not limited to, in-process and/or processed materials. Surface water drainage in and around the facility will be controlled to prevent surface water running onto, into, and off the processing area. For example:

- Uncontaminated stormwater run-on and runoff will be directed away from the transfer station building entrances by site grading. The inside of the transfer station building will not result in any storm-generated contaminated water since the transfer station building is completely covered. Stormwater will be managed by maintaining the Pre-Development stormwater patterns in areas outside of the transfer station building footprint.

- Pre-development runoff originating in the north drainage area (DA1) of the facility flows to the northwest corner of the facility and offsite. After development, runoff will flow to the proposed detention pond at the north side of the facility as shown in Figure 4.2. The southern drainage area (DA3) of the site flows offsite to the U.S. 175 frontage road drainage ditch. DA2 flows southwest via sheet flow to DP3. A portion of drainage area DA2 will flow north to the detention pond, becoming part of DA1 after development.
- Site grading will prevent runoff from entering the Transfer Station building.

2.3 Drainage System Layout

The general drainage pattern of the Pre-Development HDWR TS site is from south to the north. The HDWR TS site is located at a topographic high point, generally isolating the site from upland flow. The south portion of the site generally drains south to U.S. 175 right-of-way. Rylie Creek, located west of the HDWR TS site, receives the majority of on-site runoff and conveys it to Prairie Creek and, ultimately, the Trinity River.

After the development of the proposed TS is complete, drainage patterns will remain similar to the Pre-Development drainage patterns at the HDWR TS site. Runoff within the registration boundary is conveyed mainly by sheet flow to discharge locations on the north, south, and west sides of the registration boundary. A proposed detention pond on the north side of the site will detain and attenuate the runoff generated within the registration boundary. The detention pond discharges north into an existing drainage ditch that flows towards Rylie Creek.

2.4 TPDES Compliance

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

HD Waste Transfer Station, LLC will maintain the current Notice of Intent (NOI) for the HDWR TS. The facility Stormwater Pollution Prevention Plan (SWPPP) will be revised and implemented prior to operating the improved facility. The current TCEQ TPDES MSGP Authorization number for this site is TXR05FQ13.

2.5 Erosion and Sedimentation Control Plan

Erosion and sedimentation control will be provided, as necessary, during construction activities through the use of temporary diversion berms, silt fences, and hay bales. 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. Permanent erosion control features have been included in the final site design. These features include the establishment of vegetation or other landscaping on the non-paved portion of the site. In addition, site grading is designed to convey runoff without causing erosion (i.e., runoff velocities are less than 6 ft/sec during a 25-year, 24-hour storm event).

3 DRAINAGE SYSTEM DESIGN

3.1 Methodology

Drainage calculations for the HDWR TS are based on the peak flow rates resulting from the 25-year, 24-hour and 100-year, 24-hour rainfall events for the area. The Modified Rational method was used to compute peak flow rates produced from the design storms. The hydrologic methods employed in this study are consistent with those presented in the *Drainage Design Manual* (City of Dallas, September 2019). Manning's n values for culverts, pavement, and vegetated areas were also taken from the City of Dallas' *Drainage Design Manual.*

3.2 Hydrologic Analysis

3.2.1 Watershed Subareas and Schematization

The HDWR TS site was delineated to derive peak flow rates entering and leaving the HDWR TS registration boundary. The drainage areas for the post-development and pre-development conditions are discussed in Appendix IIIB-A and Appendix IIIB-C, respectively.

3.2.2 Precipitation Intensity

The precipitation intensity of the storm was obtained from the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 for the project area. The precipitation is assumed to be evenly distributed over the TS site for each time interval.

3.2.3 Precipitation Losses

Precipitation losses (the precipitation that does not contribute to the runoff) are calculated using the Soil Conservation Service (SCS) Curve Number (CN) method. CN is a function of soil cover, land use, and antecedent moisture conditions. A CN of 98 was selected to represent the post-development concrete-paved areas at the site, 93 for gravel-surfaced areas, and 84 for natural (pre-development) ground or vegetated areas. A CN of 100 was used for the low-lying storm water storage areas upstream of the culvert. Further discussion on selection of CN values is provided in Appendices IIIB-A and IIIB-C for post-development and pre-development conditions.

3.2.4 Modified Rational Method

The Modified Rational method was used to determine the peak flow rates and minimum detention volume required for the proposed development. The time of concentration was found for each discharge point. The precipitation intensity was determined using data from NOAA Atlas 14 for the time of concentrations. The composite runoff coefficients were calculated based on the ratio of total area for each basin zone, then weighted to determine the composite values used. These values were then used to calculate the peak flow rates for each discharge point and the detention pond volume required for the proposed condition.

4 SITE DRAINAGE PATTERNS

This section provides a demonstration that the HDWR TS development will not adversely alter the existing drainage patterns. A summary of drainage patterns and stormwater flows produced by the 25-year, 24-hour storm event are presented on the following Appendices.

- Appendix IIIB-A – Post-development Condition Hydrologic Calculations
- Appendix IIIB-C – Pre-development Condition Hydrologic Calculations

The following two sections discuss: (1) site drainage patterns and (2) the effect of the proposed development on peak flows, volumes, and velocities discharged from the site.

4.1 Site Drainage Patterns

The post-development drainage patterns are consistent with the permitted drainage patterns. Runoff exits the registration boundary in both analyzed conditions from discharge locations DP1, DP2, and DP3. The total drainage area to each of the three outfalls is approximately the same for the Pre-Development and post-development conditions.

Runoff exiting the registration boundary on the south side of the site (DP2 and DP3) discharges via sheet flow across the registration boundary towards pre-development drainage features that convey runoff to Rylie Creek. DP1 discharges north to existing drainage features that convey runoff to Rylie Creek.

4.2 Effect of Site Development on Drainage from the Site

4.2.1 Peak Flow Rates

As shown on Tables 4-1 and 4-2, the comparison of pre-development and post-development drainage conditions at the site shows that the peak flows generated by a 25-year or 100-year storm event and discharging off the registration boundary of the site are not adversely altered by the proposed HDWR TS development. Additionally, the HDWR TS site design will minimally change the direction at which stormwater runoff leaves the site. Drainage analyses for post-development

conditions and pre-development conditions at the site are presented in Appendices IIIB-A and IIIB-C, respectively.

Peak flow rates entering the registration boundary (DPO1 through DPO5) are unchanged between the pre-and post-development conditions. Stormwater exiting the registration boundary discharges at three main locations, northwest (DP1), south (DP2), and southwest (DP3). The proposed development includes adding paved areas to the site, and results in no increase in the peak discharge rate at all discharge points. However, the increased runoff generated by paved areas is mitigated by the proposed detention pond such that there is no increase in peak flow rate at DP1.

4.2.2 Volumes

Post-development runoff volume generated at the north discharge point (DP1) is slightly increased due to the addition of more paved areas relative to pre-development condition. However, the increased volume is discharged at the same peak flow rate as the pre-development condition, as shown on Tables 4-1 and 4-2. This increase in volume is not an adverse alteration.

4.2.3 Velocities

A summary of the 25-year and 100-year frequency storm peak flow velocities that enter and exit the site are shown on Tables 4-1 and 4-2, respectively, and Figure 4.3. Flow velocities at discharge points DP2 and DP3 are reduced after the proposed development. 25-year flow velocity at DP1 decreased by 1.26 ft/sec. from pre-development conditions and does not result in the creation of erosive velocities. All 25-year flow velocities are less than the erosive threshold. Velocity calculations are provided in Appendices IIIB-A and IIIB-C for the post-development and pre-development conditions, respectively.

4.3 Summary

From the hydrologic evaluations of the pre-development and post-development conditions, the pre-development drainage conditions at the permit boundary will not be adversely altered by the proposed development. Given that: (1) drainage patterns are not adversely altered, (2) the post-development peak discharge rates are less or equal to the pre-development condition peak discharge rates at the registration boundary, (3) total volume of stormwater leaving the registration boundary is not significantly altered for the pre-development and post-development conditions, (4) there is no increase in velocity at discharge points from the registration boundary and all 25-year velocities are non-erosive (less than 6 fps), (5) the stormwater discharge outfall locations are consistent with the pre-development configuration, and (6) the floodplain is not impacted, it is concluded that the proposed development will not adversely alter pre-development drainage patterns.

Table 4-1
Flow Rates, Drainage Areas, Runoff Volumes, and Velocities for the 25-Year Design Storm Event

Stormwater Discharge Point[1]	Pre-development Conditions				Post-development Conditions			
	Flow Rate (cfs)	Drainage Area (acres)	Runoff Volume (ac-ft)	Velocity at Registration Boundary[2] (ft/sec)	Flow Rate (cfs)	Drainage Area (acres)	Runoff Volume (ac-ft)	Velocity at Registration Boundary[2] (ft/sec)
DPO1	5.50	0.80	0.45	2.39	5.50	0.80	0.45	2.39
DPO2	2.91	0.52	0.28	0.24	2.91	0.52	0.28	0.24
DPO3	7.20	1.00	0.58	1.51	7.20	1.00	0.58	1.51
DPO4	11.23	1.56	0.86	2.67	11.23	1.56	0.86	2.67
DPO5	2.38	0.33	0.15	0.12	2.38	0.33	0.15	0.12
DP1	52.54	8.22	4.79	6.82	52.54	8.42	4.91	5.56
DP2	29.77	4.41	2.41	3.91	29.23	4.33	2.37	3.88
DP3	3.17	0.44	0.24	1.64	2.30	0.32	0.18	1.46

[1] Stormwater discharge points are shown on Figure 4.3. The volume shown is the total volume of runoff for the hydrograph duration.
[2] Runoff volume and velocity calculations are provided in Appendix IIIB-A and IIIB-C.
[3] Discharges onto access road owned by Permittee.

Table 4-2
Flow Rates, Drainage Areas, Runoff Volumes, and Velocities for the 100-Year Design Storm Event

Stormwater Discharge Point[1]	Pre-development Conditions				Post-development Conditions			
	Flow Rate (cfs)	Drainage Area (acres)	Runoff Volume (ac-ft)	Velocity at Registration Boundary[2] (ft/sec)	Flow Rate (cfs)	Drainage Area (acres)	Runoff Volume (ac-ft)	Velocity at Registration Boundary[2] (ft/sec)
DPO1	6.76	0.80	0.61	2.56	6.76	0.80	0.61	2.56
DPO2	3.57	0.52	0.38	0.25	3.57	0.52	0.38	0.25
DPO3	8.84	1.00	0.78	1.61	8.84	1.00	0.78	1.61
DPO4	13.79	1.56	1.17	2.86	13.79	1.56	1.17	2.86
DPO5	2.92	0.33	0.22	0.13	2.92	0.33	0.22	0.13
DP1	64.39	8.22	6.39	7.25	64.39	8.42	6.55	6.82
DP2	36.50	4.41	3.27	4.20	35.84	4.33	3.21	4.18
DP3	3.89	0.44	0.33	1.77	2.83	0.32	0.24	1.58

[1] Stormwater discharge points are shown on Figure 4.2. The volume shown is the total volume of runoff for the hydrograph duration.
[2] Runoff volume and velocity calculations are provided in Appendix IIIB-A and IIIB-C.
[3] Discharges onto access road owned by Permittee.

DRAWINGS

Figure 4.1 – Permitted Drainage Conditions

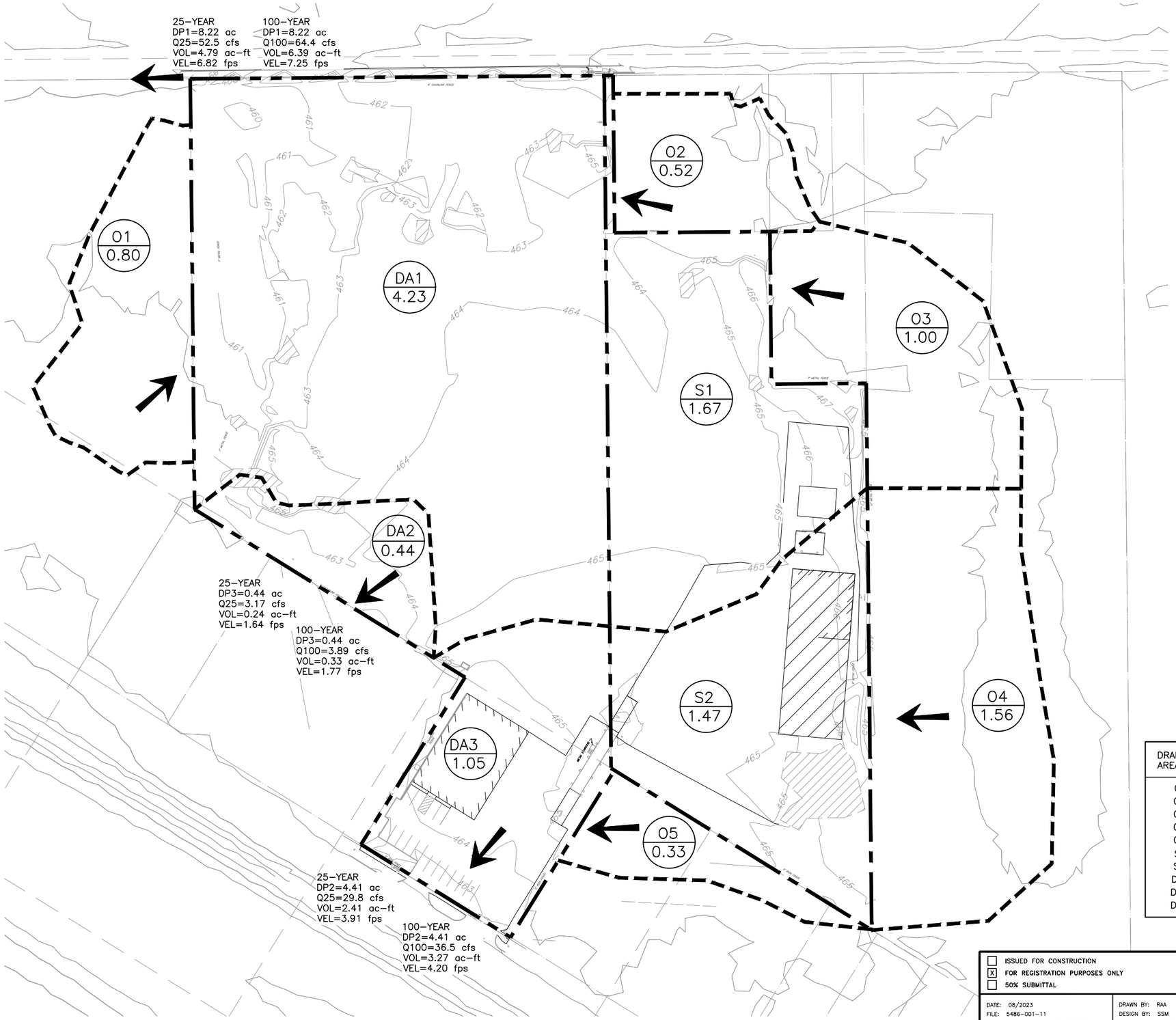
Figure 4.2 – Post-Development Drainage Conditions

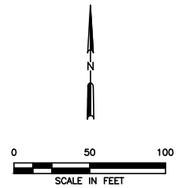
Figure 4.3 – Permitted and Post-Development Drainage Comparison

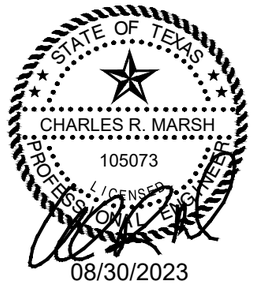
Figure 4.4 – Flood Insurance Rate Map

Figure 4.5 – Pond P1 Plan

08/30/2023



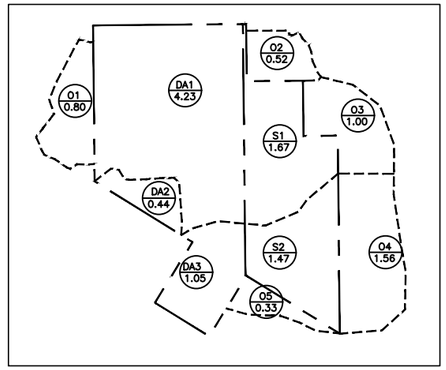




LEGEND

- PROPERTY BOUNDARY (SEE NOTE 2)
- REGISTRATION BOUNDARY (SEE NOTE 2)
- N 10648700 — STATE PLANE GRID
- 1030 — EXISTING GROUND CONTOUR (SEE NOTE 1)
- x — EXISTING FENCE
- DA1 / 4.33 — DRAINAGE BASIN DESIGNATION AND AREA (ACRES)
- 49.23 CFS — 100-YR FREQUENCY PEAK FLOW (SHOWN WITH GENERAL FLOW DIRECTION)
- DRAINAGE BOUNDARY (SHOWN AS PERMIT/PROPERTY BOUNDARY WHERE LINES COINCIDE)

DRAINAGE AREA SCHEMATIC



DRAINAGE AREA NO.	AREA (ACRES)
01	0.80
02	0.52
03	1.00
04	1.56
05	0.33
S1	1.67
S2	1.47
DA1	4.23
DA2	0.44
DA3	1.05

NOTES:

1. THE EXISTING CONTOURS HAVE BEEN DEVELOPED BASED ON THE GROUND SURVEY BY WEAVER CONSULTANTS GROUP ON FEBRUARY 14 AND FEBRUARY 21 2022 AND OFFSITE CONTOURS BY TEXAS NATIONAL RESOURCES INFORMATIONAL SYSTEMS (TNRIS 2019).
2. BOUNDARIES HAVE BEEN DEVELOPED BASED ON GROUND SURVEY AS SHOWN ON FIGURE I/II-13.1 (PER 30 TAC 330.59(d)).

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FILE: 5486-001-11
CAD: FIG 4.1-EXISTING DRAINAGE.DWG

DRAWN BY: RAA
DESIGN BY: SSM
REVIEWED BY: CRM

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TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY PRE-DEVELOPMENT DRAINAGE CONDITIONS

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DALLAS COUNTY, TEXAS

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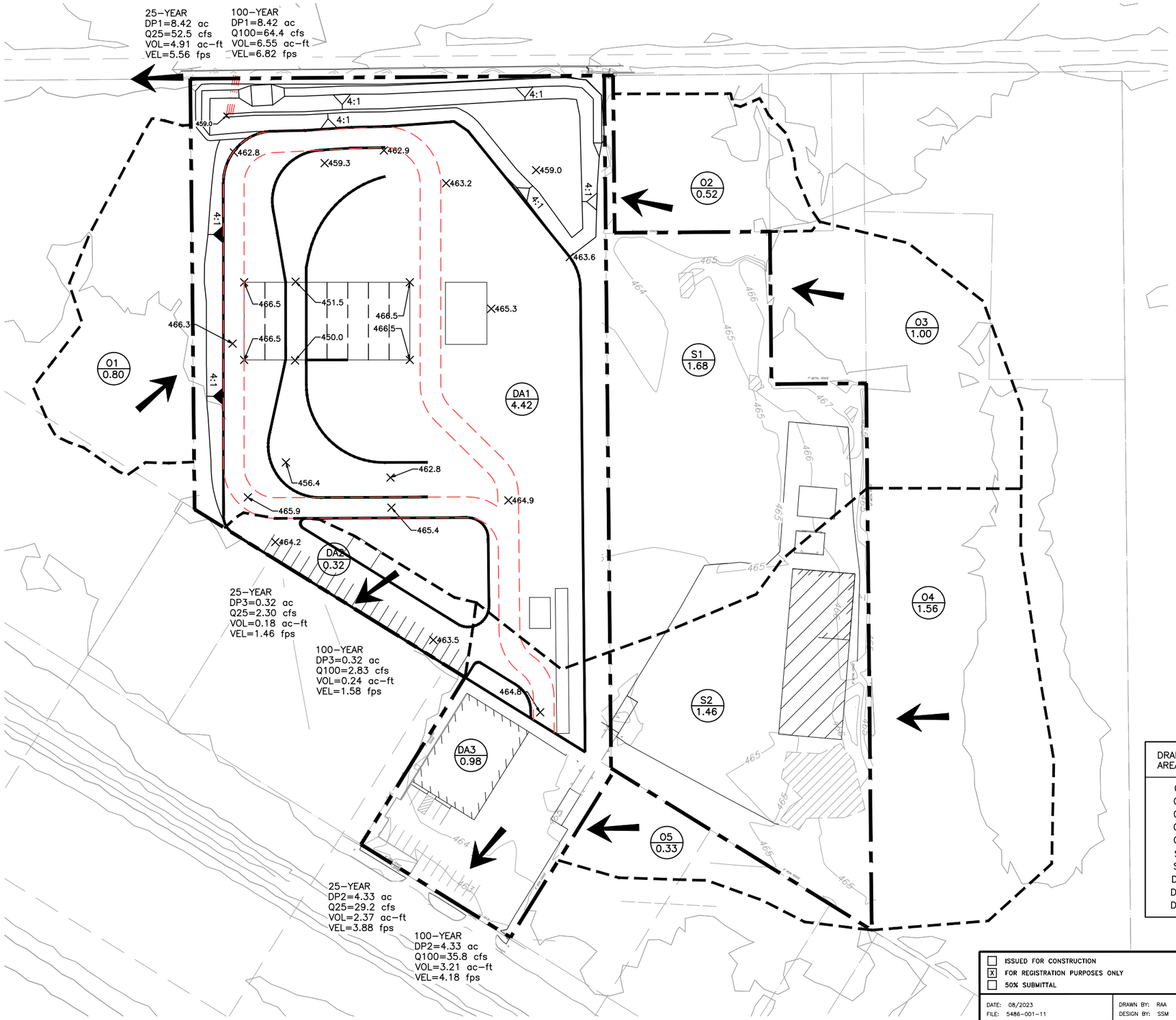
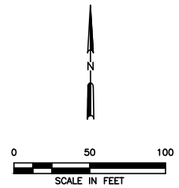
FIGURE 4.1

O:\5486\TYPE V APPLICATION\PART III\FIG 4.1-EXITING DRAINAGE CONDITIONS.dwg, jpuhr, 1:2

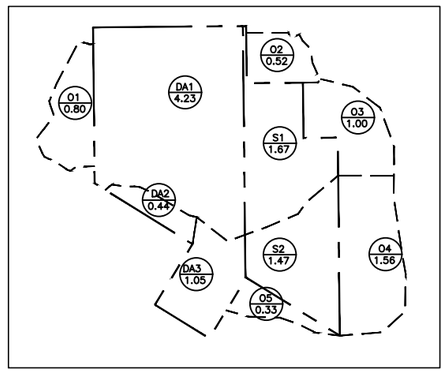




LEGEND

- PROPERTY BOUNDARY (SEE NOTE 2)
- REGISTRATION BOUNDARY (SEE NOTE 2)
- N 10648700 — STATE PLANE GRID
- 1030 — EXISTING GROUND CONTOUR (SEE NOTE 1)
- x — EXISTING FENCE
- DA1 / 4.33 — DRAINAGE BASIN DESIGNATION AND AREA (ACRES)
- 49.23 CFS — 100-YR FREQUENCY PEAK FLOW (SHOWN WITH GENERAL FLOW DIRECTION)
- DRAINAGE BOUNDARY (SHOWN AS PERMIT/PROPERTY BOUNDARY WHERE LINES COINCIDE)

DRAINAGE AREA SCHEMATIC



DRAINAGE AREA NO.	AREA (ACRES)
01	0.80
02	0.52
03	1.00
04	1.56
05	0.33
S1	1.68
S2	1.46
DA1	4.42
DA2	0.32
DA3	0.98

NOTES:

1. THE EXISTING CONTOURS HAVE BEEN DEVELOPED BASED ON THE GROUND SURVEY BY WEAVER CONSULTANTS GROUP ON FEBRUARY 14 AND FEBRUARY 21 2022 AND OFFSITE CONTOURS BY TEXAS NATIONAL RESOURCES INFORMATIONAL SYSTEMS (TNRIS 2019).
2. BOUNDARIES HAVE BEEN DEVELOPED BASED ON GROUND SURVEY AS SHOWN ON FIGURE I/II-13.1 (PER 30 TAC 330.59(d)).

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REVIEWED BY: CRM

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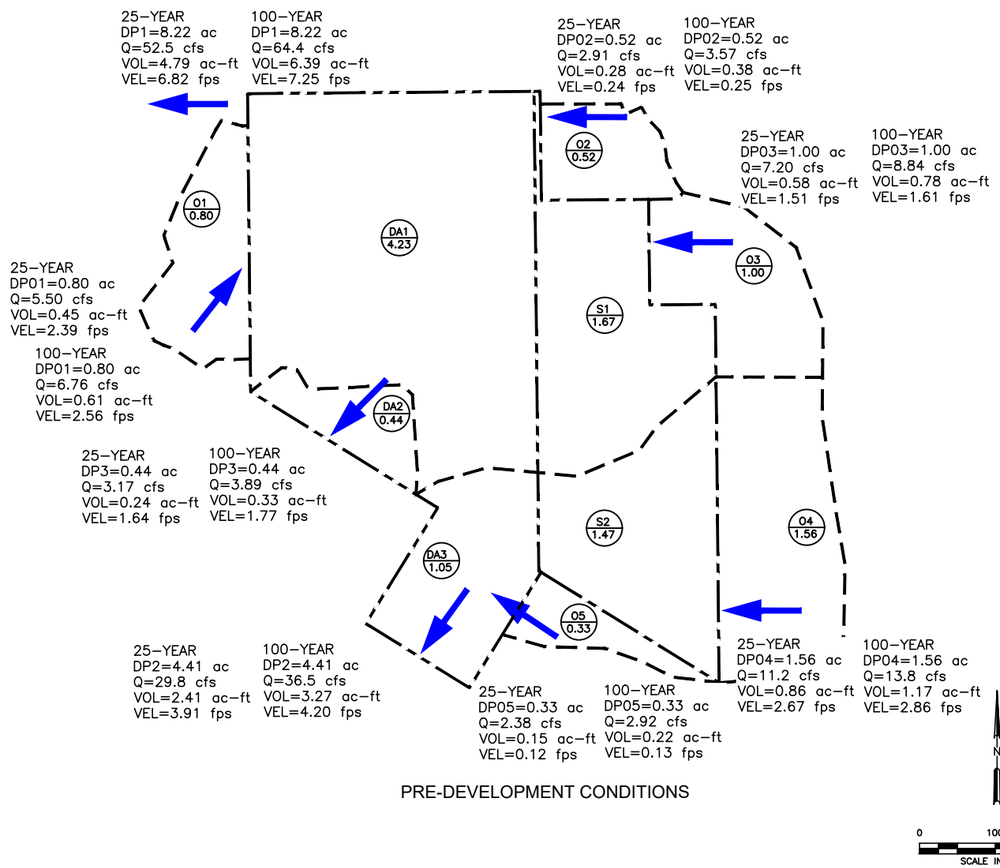
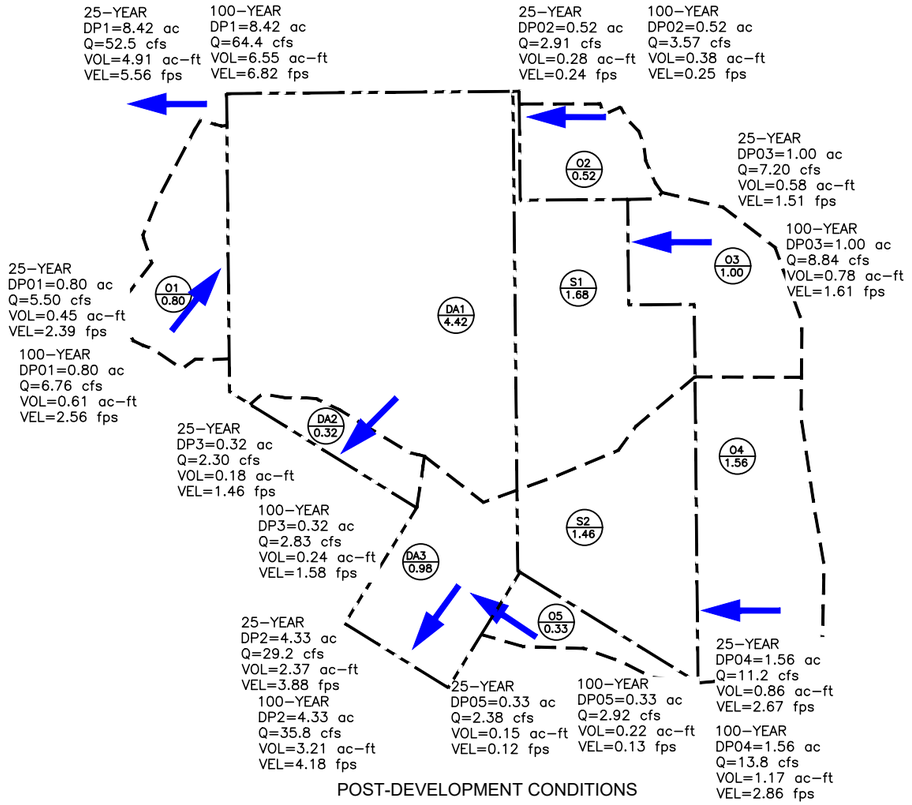
FIGURE 4.2

O:\5486\TYPE V APPLICATION\PART III\FIG 4.2-POST DEVELOPMENT DRAINAGE.dwg, jpuhr, 1:2



PRE-DEVELOPMENT CONDITIONS



POST-DEVELOPMENT CONDITIONS

LEGEND

	PROPERTY BOUNDARY
	REGISTRATION BOUNDARY
	DRAINAGE BOUNDARY
DP1	STORMWATER DISCHARGE POINT
Q= 11.00 cfs	STORM EVENT PEAK FLOW RATE
VEL= 3.39 fps	FLOW VELOCITY
VOL= 2.80 ac-ft	FLOW VOLUME

NOTE:

1. BOUNDARIES HAVE BEEN DEVELOPED BASED ON GROUND SURVEY AS SHOWN ON FIGURE I/II-13.1 (PER 30 TAC 330.59(d)).

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PROFESSIONAL ENGINEER
08/30/2023

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DESIGN BY: SSM
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TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY PERMITTED AND POST-DEVELOPEMNT DRAINAGE COMPARISON

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DALLAS COUNTY, TEXAS

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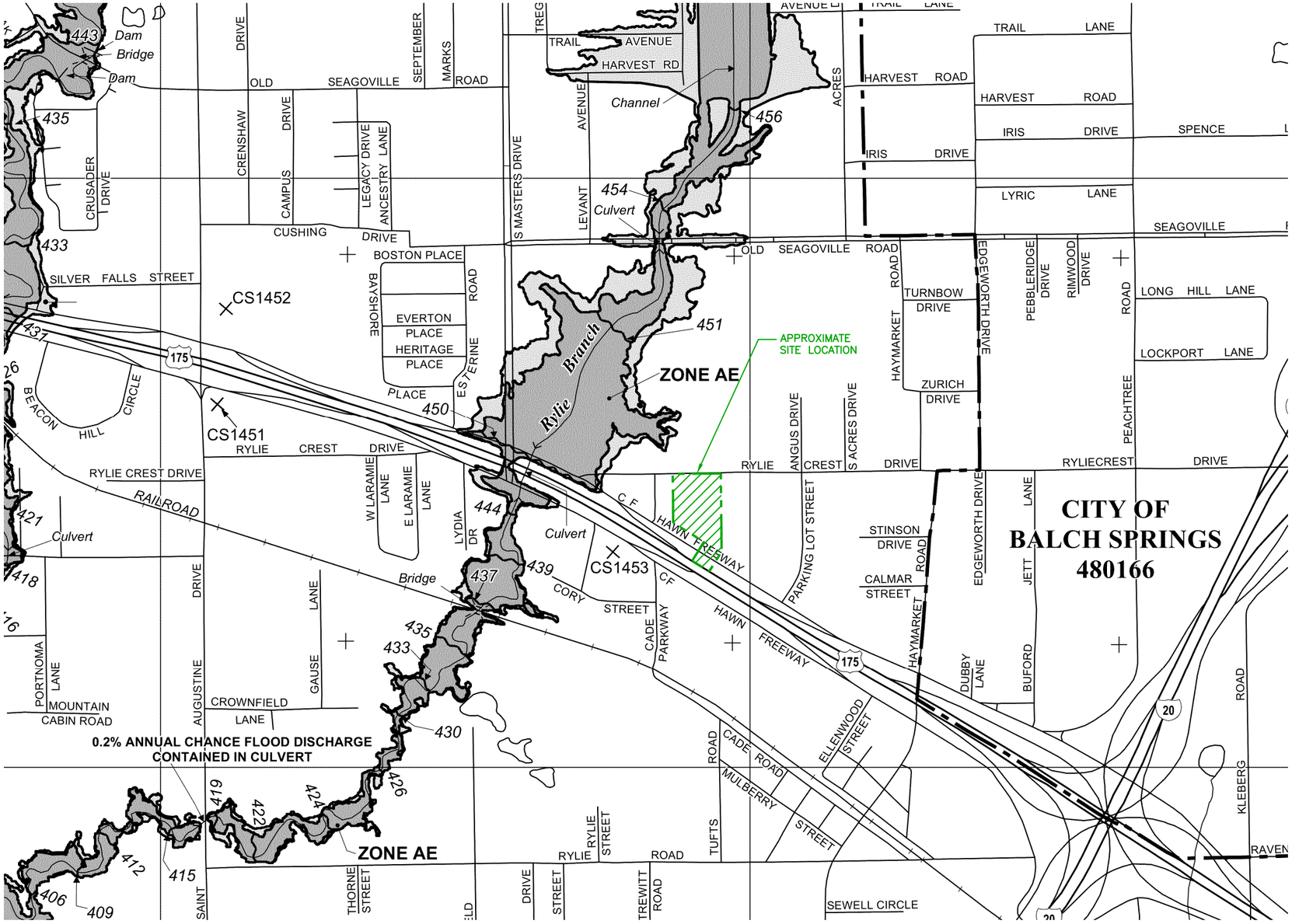
FIGURE 4.3

O:\5486\TYPE V APPLICATION\PART III\FIG 4.3 DRAINAGE COMPARISON.dwg, jpuhr, 1:2



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CHARLES R. MARSH
105073
LICENSED
PROFESSIONAL ENGINEER
08/30/2023

N

0 500 1000
SCALE IN FEET

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- **ZONE A** — No Base Flood Elevations determined.
- **ZONE AE** — Base Flood Elevations determined.
- **ZONE AH** — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- **ZONE AO** — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** — Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- **ZONE A99** — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- **ZONE V** — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- **ZONE VE** — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- **ZONE X** — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- **ZONE X** — Areas determined to be outside the 0.2% annual chance floodplain.
- **ZONE D** — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% Annual Chance Floodplain Boundary
- 0.2% Annual Chance Floodplain Boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- 45° 02' 08", 93° 02' 12" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
- 3100000 FT — 5000-foot ticks: Texas State Plane North Central Zone (FIPS Zone 4202), Lambert Conformal Conic projection
- 9889000 N — 1000-meter Universal Transverse Mercator grid values, zone 14
- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

REGISTRATION BOUNDARY

NOTE:

1. FLOODPLAIN INFORMATION PROVIDED BY FEMA FIRM PANEL 0510K FOR DALLAS COUNTY, TEXAS AND INCORPORATED AREAS REVISED JUNE 7, 2014.

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CAD: FIG 4.4 FIRM MAP.DWG

DRAWN BY: RAA
DESIGN BY: SSM
REVIEWED BY: CRM

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TBPE REGISTRATION NO. F-3727

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TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY FLOOD INSURANCE RATE MAP

HD WASTE & RECYCLING TRANSFER STATION
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FIGURE 4.4

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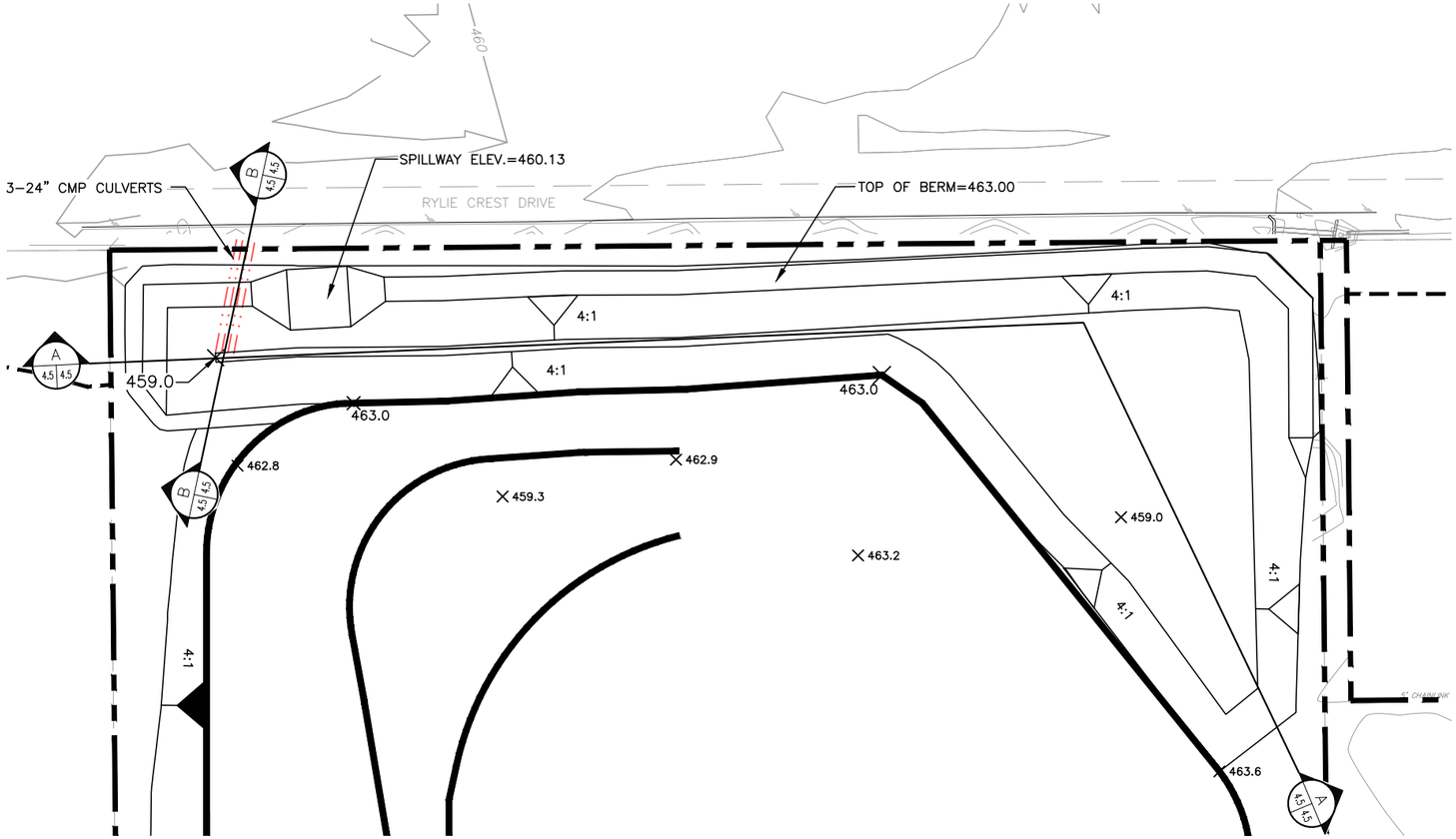
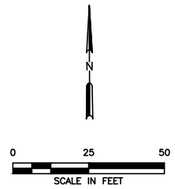
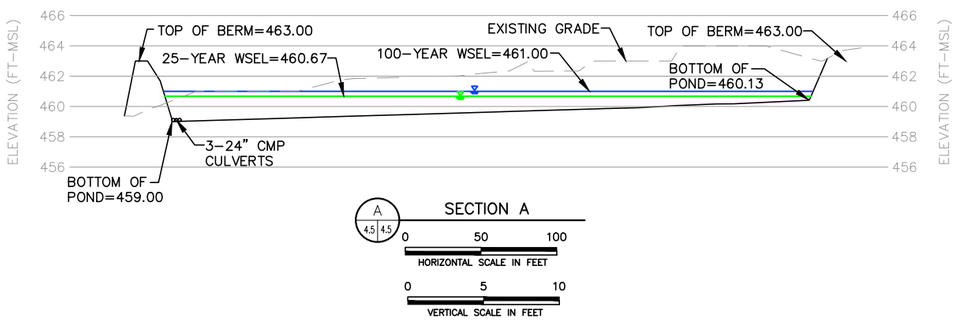
O:\5486\TYPE V APPLICATION\PART III\FIG 4.4-FIRM.dwg, rarrington, 1:2

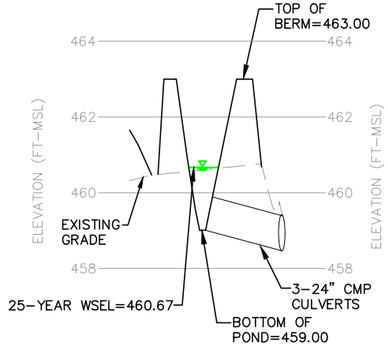


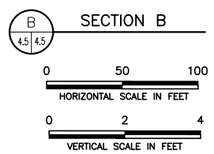


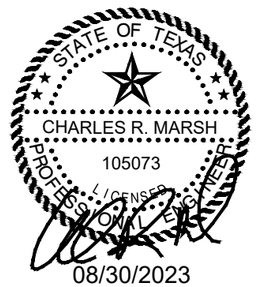
LEGEND

- PROPERTY BOUNDARY (SEE NOTE 2)
- REGISTRATION BOUNDARY (SEE NOTE 2)
- N 10648700 — STATE PLANE GRID
- 464 — EXISTING GROUND CONTOUR (SEE NOTE 1)









NOTES:

1. THE EXISTING CONTOURS HAVE BEEN DEVELOPED BASED ON THE GROUND SURVEY BY WEAVER CONSULTANTS GROUP ON FEBRUARY 14 AND FEBRUARY 21 2022 AND OFFSITE CONTOURS BY TEXAS NATIONAL RESOURCES INFORMATIONAL SYSTEMS (TNRIS 2019).
2. BOUNDARIES HAVE BEEN DEVELOPED BASED ON GROUND SURVEY AS SHOWN ON FIGURE I/II–13.1 (PER 30 TAC 330.59(d)).

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CAD: FIG 4.5-POND P1 PLAN.DWG
DRAWN BY: RAA
DESIGN BY: SSM
REVIEWED BY: CRM

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NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY POND P1 PLAN

HD WASTE & RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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FIGURE 4.5

G:\5486\TYPE V APPLICATION\PART III\FIG 4.5-POND P1 PLAN.dwg, jpthr, 1:2

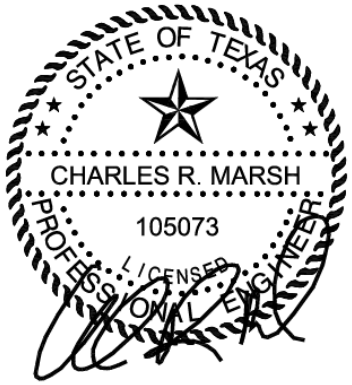
APPENDIX IIIB-A

POST-DEVELOPMENT CONDITION HYDROLOGIC CALCULATIONS

Includes pages IIIB-A-1 through IIIB-A-31

08/30/2023

CONTENTS



08/30/2023

PRECIPITATION AND INTENSITY DATA

Precipitation and Intensity Data

Precipitation Intensity (in/hr) data taken from NOAA Atlas 14 rainfall data.

Time	5 min	10 min	15 min	30 min	60 min
2-Year Event	6.00	4.80	3.99	2.79	1.82
10-Year Event	8.48	6.79	5.63	3.91	2.57
25-Year Event	9.98	8.00	6.62	4.59	3.03
50-Year Event	11.10	8.92	7.36	5.10	3.37
100-Year Event	12.20	9.82	8.10	5.60	3.71

Precipitation data, 100-year (1% AEP), 25-year (4% AEP) and 2-year (50% AEP) 24-hour rainfall (in), taken from NOAA Atlas 14 rainfall data.

Time	24-hr
100-Year Event	9.82
25-Year Event	7.48
2-Year Event	4.04

NOAA Atlas 14 - Precipitation-Frequency Atlas of the United States, Volume 11, Version 2.0: Texas (*U.S. Department of Commerce, National Oceanic and Atmospheric Administration, and National Weather Service, 2018*) was used to identify precipitation values for storm durations ranging from 5 minutes to 24 hours.

PRECIPITATION LOSS DATA

Required: Determine the SCS curve numbers for the site drainage areas and pond for use in the SCS Runoff Volume calculations analysis.

References:

1. Drainage Design Manual, City of Dallas, September 2019.
   Online Document : https://dallascityhall.com/departments/public-works/DCH%20Documents/Public%20Works/pdf/Drainage%20Design%20Manual_091019.pdf
2. United States Department of Agriculture, National Resource Conservation Service, Web Soil Survey for Collin County, Texas (http://websoilsurvey.nrcs.usda.gov).

Solution:

Based on the soil survey information found in Ref. 2, hydrologic group D soils predominate the soils within the registration boundary drainage area (see pages IIIB-A-5 through IIIB-A-9).

The underdeveloped portions of subbasins (e.g., non-paved areas) were considered to be open space, contoured and in good condition. A curve number was selected using Reference 1 Page 14.

Use:	CN = 84

The curve number for the proposed concrete-paved areas was selected using the chart on IIIB-A-8.

Use:	CN = 98

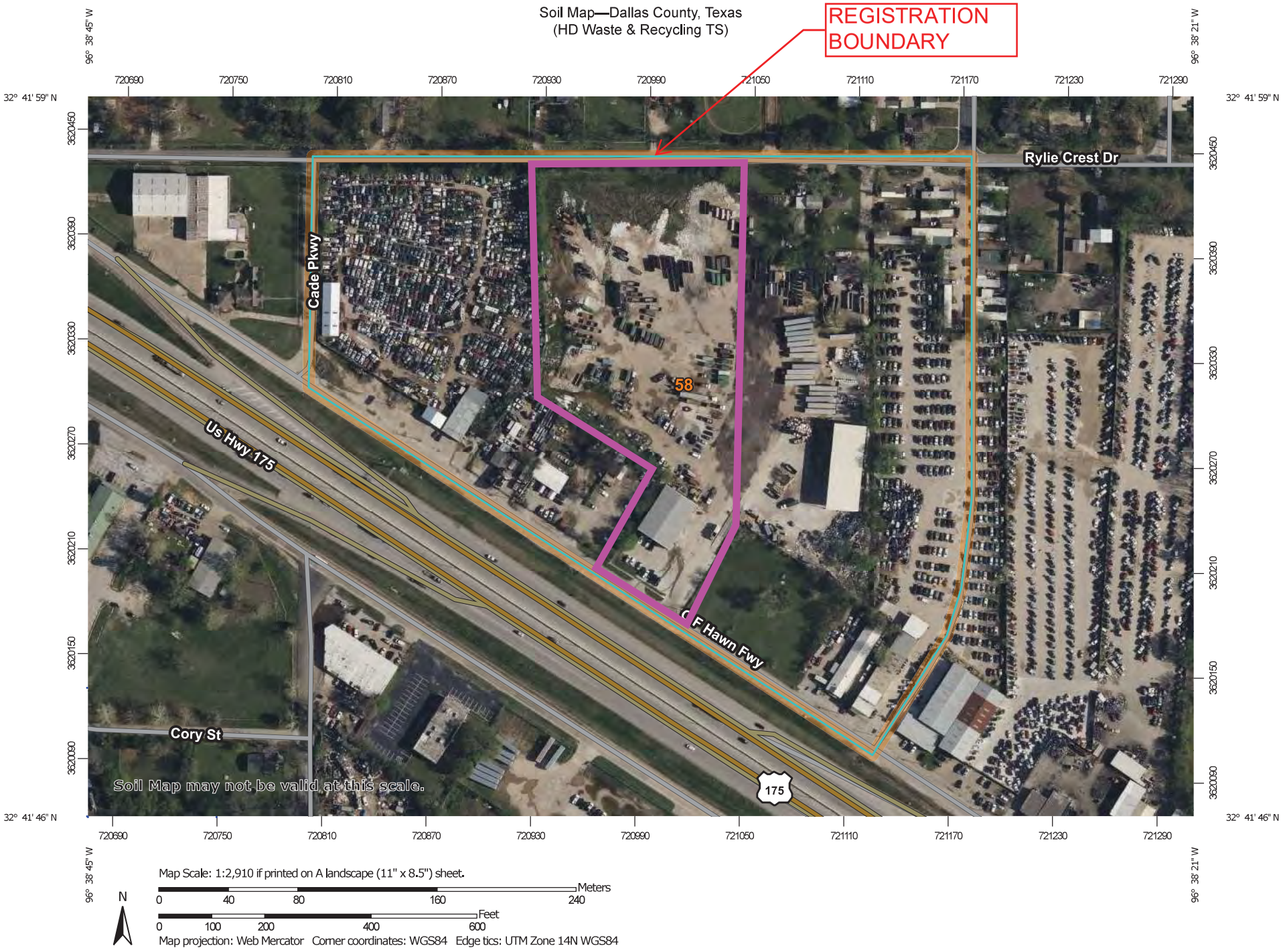
The curve number for the proposed gravel areas was selected using the chart on IIIB-A-8.

Use:	CN = 93

The pond area is assumed to consist of areas that have zero precipitation losses (water surfaces) with vegetated sideslopes and gravel-surfaced top of embankment areas

Use:	CN = 100

Soil Map—Dallas County, Texas
(HD Waste & Recycling TS)



Map Scale: 1:2,910 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 40 80 160 240

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Dallas County, Texas
Survey Area Data: Version 20, Aug 24, 2022

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

Date(s) aerial images were photographed: Apr 3, 2022—Apr 7, 2022

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
58	Rader-Urban land complex, 0 to 2 percent slopes	23.2	100.0%
Totals for Area of Interest		**23.2**	**100.0%**

Dallas County, Texas

58—Rader-Urban land complex, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: d7n3
Elevation: 0 to 4,000 feet
Mean annual precipitation: 8 to 60 inches
Mean annual air temperature: 54 to 73 degrees F
Frost-free period: 180 to 310 days
Farmland classification: Not prime farmland

Map Unit Composition

Rader and similar soils: 65 percent
Urban land: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rader

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy alluvium of quaternary age derived from mixed sources

Typical profile

H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 16 inches: sandy clay loam
H3 - 16 to 25 inches: clay loam
H4 - 25 to 38 inches: clay
H5 - 38 to 64 inches: sandy clay

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 24 to 48 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 10.0

Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R087AY003TX - Claypan Savannah
Hydric soil rating: No

Description of Urban Land

Typical profile

H1 - 0 to 40 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

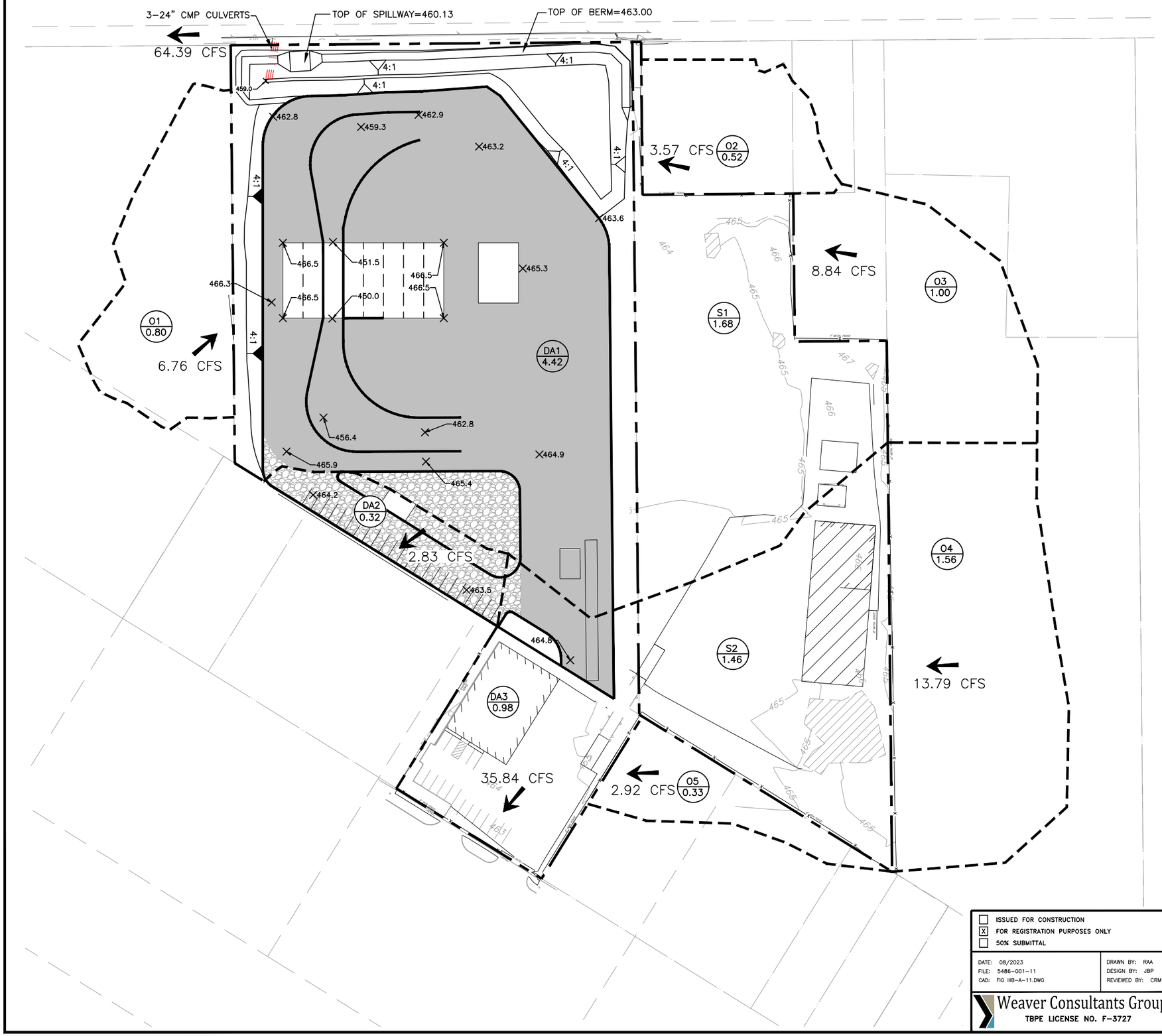
Unnamed

Percent of map unit: 15 percent
Hydric soil rating: No

Data Source Information

Soil Survey Area: Dallas County, Texas
Survey Area Data: Version 20, Aug 24, 2022

POST-DEVELOPMENT DRAINAGE AREAS



0 50 100
SCALE IN FEET

LEGEND

- PROPERTY BOUNDARY (SEE NOTE 2)
- REGISTRATION BOUNDARY (SEE NOTE 2)
- N 10648700 — STATE PLANE GRID
- 1030 — EXISTING GROUND CONTOUR (SEE NOTE 1)
- x — EXISTING FENCE
- DA1 / 4.53 AREA / ACRE — DRAINAGE BASIN DESIGNATION AND AREA (ACRES)
- 49.23 CFS — 100–YR FREQUENCY PEAK FLOW (SHOWN WITH GENERAL FLOW DIRECTION)
- DRAINAGE BOUNDARY (SHOWN AS PERMIT/PROPERTY BOUNDARY WHERE LINES COINCIDE)

NOTES:

1. THE EXISTING CONTOURS HAVE BEEN DEVELOPED BASED ON THE GROUND SURVEY BY WEAVER CONSULTANTS GROUP ON FEBRUARY 14 AND FEBRUARY 21 2022 AND OFFSITE CONTOURS BY TEXAS NATIONAL RESOURCES INFORMATIONAL SYSTEMS (TNRIS 2019).
2. BOUNDARIES HAVE BEEN DEVELOPED BASED ON GROUND SURVEY AS SHOWN ON FIGURE I/II–13.1 (PER 30 TAC 330.59(d)).

DRAINAGE AREA NO.	AREA (ACRES)
01	0.80
02	0.52
03	1.00
04	1.56
05	0.33
S1	1.68
S2	1.46
DA1	4.42
DA2	0.32
DA3	0.98

STATE OF TEXAS
CHARLES R. MARSH
105073
LICENSED
PROFESSIONAL ENGINEER
08/30/2023

☐ ISSUED FOR CONSTRUCTION
☒ FOR REGISTRATION PURPOSES ONLY
☐ 50% SUBMITTAL

DATE: 08/2023
FILE: 5486-001-11
CAD: FIG IIIB-A-11.DWG
DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE LICENSE NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISIONS

NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY POST–DEVELOPMENT DRAINAGE PLAN

HD WASTE & RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE IIIB–A–11

O:\5486\TYPE V APPLICATION\PART III\IIIB DRAINAGE\IIIB–A\IIIB–A–11 –Proposed Drainage Area Map.dwg, jpuhr, 1:2

POST-DEVELOPMENT
MODIFIED RATIONAL METHOD ANALYSIS

Required: Drainage Analysis for Post-Development Conditions and volume generated by the site and offsite areas Using the Modified Rational Method for the HD Waste & Recycling Transfer Station.

Method:

1. Precipitation Intensity (in/hr).
2. Estimate the Peak Flow rate for Post-Development/Proposed Conditions.
3. Determine the volume generated by the site and offsite areas using the Modified Rational Method analysis of the Post-Development Conditions.

References:

1. Drainage Design Manual, City of Dallas, September 2019.
   Online Document : https://dallascityhall.com/departments/public-works/DCH%20Documents/Public%20Works/pdf/Drainage%20Design%20Manual_091019.pdf
2. NOAA Atlas 14 - Precipitation-Frequency Atlas of the United States, Volume 11, Version 2.0: Texas (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, and National Weather Service, 2018) was used to identify precipitation values for storm durations ranging from 5 minutes to 60 minutes.

Solution:

1. Precipitation Intensity (in/hr).

Precipitation Intensity (in/hr) for 2-yr, 10-yr, 25-yr, 50-yr and 100-yr Storm Events.

Time	5 min	10 min	15 min	30 min	60 min
2-Year Event	6.00	4.80	3.99	2.79	1.82
10-Year Event	8.48	6.79	5.63	3.91	2.57
25-Year Event	9.98	8.00	6.62	4.59	3.03
50-Year Event	11.10	8.92	7.36	5.10	3.37
100-Year Event	12.20	9.82	8.10	5.60	3.71

Precipitation data taken from NOAA Atlas 14 rainfall data.

1b. Rational Formula for Computing Peak Flow Rate

$$Q = CIA$$ (Ref. 1 Page 9)

Where,

Q = Peak Flow Rate (cfs)

C = Runoff Coefficients based on Land Use
I = Rainfall Intensity (in/hr)
A = The Size of the Drainage Area (acres)

2. Estimate Peak Flow Rates for Post-Development/Proposed Conditions

Proposed Time of Concentration Calculations:

Time of Concentration

(Ref. 1 Page 10)

$$T_c = T_{cs} + T_{csc} + T_{cp} + T_{cc} \quad \textit{(Equation 2.3)}$$

T_c = Time of concentration (hr)

T_{cs} = Time of concentration representing sheet flow (hr)

T_{csc} = Time of concentration representing shallow concentrated flow (hr)

T_{cp} = Time of the concentration representing pipe flow (hr)

T_{cc} = Time of concentration representing stream or channel flow (hr)

Sheet Flow Time of Concentration

(Ref. 1 Page 10)

$$T_{cs} = \frac{0.007(nL)^{0.8}}{(P_2)^{0.5}(S_0)^{0.4}} \quad \textit{(Equation 2.4)}$$

T_{cs} = Time of concentration representing sheet flow (hr)

n = Manning's roughness coefficient (reference Table 2.5)

L = Flow length (ft) (≤ 100 ft)

P_2 = 2-year (50% AEP) 24-hour rainfall (in)

S_0 = Slope of land surface (ft/ft)

Shallow Concentrated Flow

(Ref. 1 Page 11)

The equation for shallow concentrated flow travel time is as follows:

$$T_{csc} = \frac{L_{sc}}{3600V_{sc}} \quad \textit{(Equation 2.5)}$$

T_{csc} = Time of concentration representing shallow concentrated flow (hr)

L_{sc} = Length of shallow concentrated flow (ft)

V_{sc} = Average velocity (ft/s)

These equations can be used to determine average velocities, including for slopes less than 0.005 ft/ft.

Unpaved $V_{sc} = 16.13(S)^{0.5}$ *(Equation 2.6)*

Paved $V_{sc} = 20.33(S)^{0.5}$ *(Equation 2.7)*

V_{sc} = Average velocity for shallow concentrated flow (ft/s)

S = Slope of land surface (ft/ft)

Peak Flow Rates are Calculated for Discharge Points DP1, DP2, and DP3 below (refer to Sheet IIIB-A-11 for location of drainage area).

Tc Calculations:

Tc CALCULATIONS FOR DP1

TYPE	CONDITION	DIST	SLOPE	Coeff.	P_2	VELOCITY	TIME (MIN)
SHEET	GRAVEL	50	0.8%	0.011	4.04	0.93	0.89
SHALLOW	GRAVEL	499	0.5%	16.13		1.10	7.59
						TOTAL	8.49

Tc CALCULATIONS FOR DP2

TYPE	CONDITION	DIST	SLOPE	Coeff.	P_2	VELOCITY	TIME (MIN)
SHEET	GRAVEL	50	0.8%	0.011	4.04	0.93	0.89
SHALLOW	GRAVEL	679	0.4%	16.13		1.04	10.91
						TOTAL	11.81

Tc CALCULATIONS FOR DP3

TYPE	CONDITION	DIST	SLOPE	Coeff.	P_2	VELOCITY	TIME (MIN)
SHEET	GRAVEL	50	3.1%	0.011	4.04	1.61	0.52
SHALLOW	PAVED	51.7	1.1%	20.33		2.17	0.40
						TOTAL	0.91

P_2 = 2-year (50% AEP) 24-hour rainfall (in),From Ref. 2

Estimate Precipitation Intensity for Calculated Time of Concentration (in/hr):

Discharge Point	Basin IDs	T_c Used[1]	2-year Intensity (in/hr)	10-year Intensity (in/hr)	25-year Intensity (in/hr)	50-year Intensity (in/hr)	100-year Intensity (in/hr)
DP1	O1+O2+O3+DA1+S1	10.00	4.80	6.79	8.00	8.92	9.82
DP2	DA3+S2+O4+O5	11.81	4.51	6.37	7.50	8.36	9.20
DP3	DA2	10.00	4.80	6.79	8.00	8.92	9.82

[1] If calculated Tc < 10 minutes, use Tc = 10 minutes.

Proposed Drainage Areas:

Basin ID[1]	Area (ac)	Composite Runoff Coefficient[2]	Zonning[3]	Mannings, n[4]
DA1	4.42	0.90	LI	0.011
DA2	0.32	0.90	LI	0.011
DA3	0.98	0.90	LI	0.011
S1	1.68	0.90	IM	0.011
S2	1.46	0.90	IM	0.011
O1	0.80	0.86	CS/R	0.011
O2	0.52	0.70	R	0.13
O3	1.00	0.90	CS	0.011
O4	1.56	0.90	IM	0.011
O5	0.33	0.90	PD	0.011
Total	13.07 acres			

[1] Refer to Sheet IIIB-A-11 for location of drainage area.

[2] See Table below.

[3] Zone, From Ref. 1 page 9.

[4] Roughness Coefficient (Manning's n) for Seet Flow, From Ref. 1 Page 11.

Calculated Composite C Value

Proposed Composite "C"							
Composite C Value	**Drainage Area**	**Basin ID/Zone**	**AREA (acres)**	**C**	**Ratio of Total Area**	**Weighted C Value**	**Composite C**
CC_1	O1	O1-A [R]	0.19	0.70	0.24	0.17	0.86
		O1-B [CS]	0.61	0.90	0.76	0.69	
CC_2	DP1	DA1 [LI]	4.42	0.90	0.52	0.47	0.88
		S1 [IM]	1.68	0.90	0.20	0.18	
		O1 [CS/R]	0.80	0.86	0.10	0.08	
		O2[R]	0.52	0.70	0.06	0.04	
		O3 [CS]	1.00	0.90	0.12	0.11	

Example Calculation for the 100-Year Peak Runoff Rate.

Composite C Value, drainage area "O1" is used in this example calculation for CC_1.

CC_1 for:

O1=O1-A+O1-B

Area:

O1-A=	0.19	ac
O1-B=	0.61	ac
Total Area=	0.80	ac

Zone C Value:

O1-A=	0.70	R-7.5(A)
O1-B=	0.90	CS

Ratio of Total Area:

O1-A =	0.19 / 0.80	
O1-A =	24	Percent
O1-B=	0.61/0.80	
O1-B=	76	Percent

Weighted C Value:

O1-A =	0.24 * 0.70	
O1-A =	0.17	
O1-B=	0.76 * 0.90	
O1-B=	0.69	

Composite C Value:

$CC_1 = 0.17 + 0.69$

$CC_1 =$ 0.86 vh

Rational Method

Proposed Drainage Area Calculations

Discharge Point[1]	Basin IDs[4]	Area, ac (A)[4]	Runoff Coefficient C [2]	T_c Used[3]	2-year Intensity (in/hr)[6]	10-year Intensity (in/hr)[6]	25-year Intensity (in/hr)[6]	50-year Intensity (in/hr)[6]	100-year Intensity (in/hr)[6]	2-year Q (CFS)[5]	10-year Q (CFS)[5]	25-year Q (CFS)[5]	50-year Q (CFS)[5]	100-year Q (CFS)[5]
DPO1	O1	0.80	0.86	10.00	4.80	6.79	8.00	8.92	9.82	3.30	4.67	5.50	6.14	6.76
DPO2	O2	0.52	0.70	10.00	4.80	6.79	8.00	8.92	9.82	1.75	2.47	2.91	3.25	3.57
DPO3	O3	1.00	0.90	10.00	4.80	6.79	8.00	8.92	9.82	4.32	6.11	7.20	8.03	8.84
DPO4	O4	1.56	0.90	10.00	4.80	6.79	8.00	8.92	9.82	6.74	9.53	11.23	12.52	13.79
DPO5	O5	0.33	0.90	10.00	4.80	6.79	8.00	8.92	9.82	1.43	2.02	2.38	2.65	2.92
DP1 -Into Pond	O1+O2+O3+DA1+S1	8.42	0.88	10.00	4.80	6.79	8.00	8.92	9.82	35.57	50.31	59.28	66.09	72.76
DP1 -Out of Pond[7]	O1+O2+O3+DA1+S1	8.42	0.88	10.00	4.80	6.79	8.00	8.92	9.82	31.55	44.58	52.47	58.43	64.30
DP2	DA3+S2+O4+O5	4.33	0.90	11.81	4.51	6.37	7.50	8.36	9.20	17.56	24.82	29.23	32.56	35.84
DP3	DA2	0.32	0.90	10.00	4.80	6.79	8.00	8.92	9.82	1.38	1.96	2.30	2.57	2.83

[1] Discharge Points See Sheet IIIB-A-11.

[2] C = Runoff Coefficient

[3] T_c =Time of Concentration

[4] See Drawing IIIB-A-11.

[5] Q = CiA

[6] i = Rainfall intensity (in/hr) from Ref. 1

[7] Refer to pages IIIB-A-19 and 20 for peak discharge rates out of the detention pond.

3. Determine the volume generated by the site and offsite areas using the Modified Rational Method at peak flow rates for Post-Development/Proposed Conditions

Detention Volume Required.

Maximum Allowable Release Rate:

ID AREA	(ACRES)	C	Tc (MIN)	i2 (in/hr)	i10 (in/hr)	i25 (in/hr)	i50 (in/hr)	i100 (in/hr)	Q2 (CFS)	Q10 (CFS)	Q25 (CFS)	Q50 (CFS)	Q100 (CFS)	COMMENTS
DP1	8.21	0.88	12.67	4.37	6.17	7.26	8.09	8.90	31.55	44.58	52.47	58.43	64.30	Maximum Allowable Release Rate, Q_A

Required storage volume by the Modified Rational Method:

Runoff from Storm Event						Inflow During Storm Event			Outflow During Storm Event				Detention Volume					
K[1]	Time (min)	i-100yr	C value	Area (ac)	Runoff (cfs)	Time (min)	Runoff (cfs)	Inflow (ft^3)	Time (min.)	Time	Allowable Release[2]	Outflow (ft^3)	Time (min)	Inflow	Outflow	Storage (ft^3)	Storage (acre-ft)	
1.15	5	12.20	0.88	8.21	101.36	5	101.36	30409.2	5	17.7	64.30	34085.4	5	30409.2	34085.4	(3676.25)	-0.084	
1.15	10	9.82	0.88	8.21	81.59	10	81.59	48953.8	10	22.7	64.30	43730.4	10	48953.8	43730.4	5223.37	0.120	
1.15	15	8.10	0.88	8.21	67.30	15	67.30	60569.1	15	27.7	64.30	53375.4	15	60569.1	53375.4	7193.68	0.165	
1.15	20	7.27	0.88	8.21	60.38	20	60.38	72450.3	20	32.7	64.30	63020.4	20	72450.3	63020.4	9429.86	0.216	<<=Detention Volume Required
1.15	25	6.43	0.88	8.21	53.45	25	53.45	80177.2	25	37.7	64.30	72665.4	25	80177.2	72665.4	7511.79	0.172	
1.15	30	5.60	0.88	8.21	46.53	30	46.53	83749.9	30	42.7	64.30	82310.4	30	83749.9	82310.4	1439.45	0.033	
1.15	35	5.29	0.88	8.21	43.91	35	43.91	92212.1	35	47.7	64.30	91955.4	35	92212.1	91955.4	256.68	0.006	
1.15	40	4.97	0.88	8.21	41.29	40	41.29	99104.0	40	52.7	64.30	101600.4	40	99104.0	101600.4	(2496.40)	-0.057	

[1] Application of the "K" factor provides a factor of safety to account for the inherent uncertainty associated with the Modified Rational Method volume assessments.

[2] Maximum allowable release rate (Q_A) for the 1% annual chance event.

Required Storage Volume (ft^3)

(Ref. 1 Page 18)

$$V_{req} = V_{in} - V_{out} \quad \textit{(Equation 2.21)}$$

$$V_{in} = T_i * Q_i * 60\ sec/min \quad \textit{(Equation 2.22)}$$

$$V_{out} = 0.5 * (T_i + T_c) * Q_A * 60\ sec/min \quad \textit{(Equation 2.23)}$$

V_{req} = Required storage volume (ft^3)

V_{in} = Volume in (ft^3)

V_{out} = Volume out (ft^3)

T_i = Time step duration (min)

Q_i = Rate of discharge for the time step duration (cfs)

T_c = Time of concentration in the basin (min)

Q_A = Maximum allowable release rate (cfs)

Pond Volume Calculations:

ELEVATION (ft)	AREA (sf)	VOLUME TOTAL (cu.ft.)
459.0	0	0.0
459.2	255	3.5
459.4	617	68.9
459.6	1,088	221.0
459.8	2,262	477.0
460.0	5,480	1,177.0
460.2	8,975	2,579.0
460.4	11,399	4,631.0
460.6	12,117	6,983.0
460.8	12,836	9,478.0
461.0	13,558	12,118.0
461.2	14,287	14,902.0
462.0	17,277	27,520.0

[1] Refer to Sheet IIIB-A-11 for location of detention pond area.

Detention Pond Summary:

COMPUTATION SUMMARY SHEET HYDROLOGY BY MODIFIED RATIONAL METHOD							
STORM EVENT	PEAK DISCHARGE IN (cfs)	TOP OF BERM	REQUIRED STORAGE[1] (cu.ft.)	PROVIDED STORAGE[1] (cu.ft.)	DISCHARGE OUT (cfs)	PEAK ELEVATION	FREEBOARD (ft)
100-YEAR	72.76	463.00	9,429.86	9,478.00	64.30	461.00	2.00
50-YEAR	66.09	463.00	8,605.97	9,478.00	58.43	460.73	2.27
25-YEAR	59.28	463.00	7,826.30	9,478.00	52.47	460.67	2.33
10-YEAR	50.31	463.00	146.19	9,478.00	44.58	459.50	3.50
2-YEAR	35.57	463.00	198.34	9,478.00	31.55	459.57	3.43

[1] See Sheet IIIB-A-19 for detention volume required.

DENTENTION POND INFORMATION

Required: Analyze drainage discharge flowing out the detention pond.

Reference:
1. Sturm, Terry W. Open Channel Hydraulics. McGraw-Hill, 2001.
2. Dodson's and Associates, Inc., *ProHec-1 Plus Program Documentation* , 1995.

Solution:

1. Use the Orfice equation to calculate flow through the culverts.

$$Q = ca(2gh)^{0.5}$$

Where:

c= orifice coefficient = 0.8 Ref 1

a= cross sectional area of culvert (ft^2)

g= acceleration due to gravity 32.2 ft/s^2

h= head on pipe (ft)

2. Calculate the flow over the spillway using the Weir Equation

$$Q = clh^{1.5}$$

Where:

c= discharge coefficient (2.6, Ref. 2)

l= length of spillway crest

h= head above spillway crest

Pond	Culvert Size	Culvert Inlet	Culvert Outlet	Culvert Length	Spillway Elevation	Spillway Length
P1	24	459	458.8	26	460.8	20

1. **Pond 1**

Elevation	Head on Culvert	Head on Spillway	Pipe Flow
459.00	--	0	--
459.50	0.5	0	--
460.00	1	0	3
460.50	1.5	0	18
460.80	1.8	0	27
461.00	2	0.2	30

VOLUME CALCULATIONS

EXCESS RAINFALL VOLUME CALCULATION

The volume generated by the site and the surrounding properties is calculated for the 25-year, 24-hour storm event. A summary of the design information that is included in this Appendix and related appendices are listed below.

- Excess rainfall was calculated using the modified rational analysis method.
- Post-development condition volume information is summarized on page IIIB-A-31.

Required: Detrmine 25-year and 100-year runoff volume.

Reference:

1. Drainage Design Manual, City of Dallas, September 2019.
   Online Document : https://dallascityhall.com/departments/public-works/DCH%20Documents/Public%20Works/pdf/Drainage%20Design%20Manual_091019.pdf

2. NOAA Atlas 14 - Precipitation-Frequency Atlas of the United States, Volume 11, Version 2.0: Texas (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, and National Weather Service, 2018) was used to identify precipitation values for storm events.

Solution:

1. Use the SCS equation to calculate accumulated direct runoff (in).

Equation 2.11 can be used to estimate direct runoff from a 24-hour storm rainfall.

$$Q = \frac{(P-0.2S)^2}{P+0.8S} \quad \textit{(Equation 2.11)}$$

$$S = \frac{1000}{CN-10} \quad \textit{(Equation 2.12)}$$

Q = Accumulated direct runoff (in)

P = Design precipitation (in)

CN = Runoff curve number

[1] Average runoff conditions and initial abstraction = 0.2S

Time	P
25-Year	7.48 in
100-Year	9.82 in

Precipitation data, 100-year and 25-year 24-hour rainfall (in), taken from NOAA Atlas 14 rainfall data.

Calculated Composite CN Values

Proposed Composite "CN"							
Drainage Area	**Sub-Basin Drainage**	**Zone/Use**	**AREA (acres)**	**CN**	**Ratio of Total Area**	**Weighted CN Value**	**Composite CN**
O1	O1a	R-75 (A)	0.19	92	0.24	21.85	94
	O1b	CS	0.61	95	0.76	72.44	
O2	--	R-75 (A)	0.52	92	--	--	92
O3	O3a	CS	0.65	95	0.65	61.75	96
	O3b	CS	0.35	98	0.35	34.30	
O4	--	IM	1.56	93	--	--	93
O5	--	Open	0.33	84	--	--	84
S1	--	IM	1.57	93	--	--	93
S2	--	IM	1.44	93	--	--	93
DA1	DA1-basin	IM -Basin	0.59	100	0.13	13.02	98
	DA1-site	IM -Concrete	3.94	98	0.87	85.24	
DA2	--	IM	0.32	93	--	--	93
DA3	--	IM	1.00	93	--	--	93

1a. Total Volume at DP1.

DA	AREA	CN	S	Q_{25}	V_{25}	Q_{100}	V_{100}
DA1	4.53	98	0.2	7.24	2.73	9.58	3.62
S1	1.57	93	0.8	6.65	0.87	8.97	1.17
O1	0.80	94	0.6	6.77	0.45	9.09	0.61
O2	0.52	92	0.9	6.53	0.28	8.85	0.38
O3	1.00	96	0.4	7.00	0.58	9.34	0.78

Total 25-Year Volume at DP1 = **4.92** **ac-ft**

Total 100-Year Volume at DP1 = **6.56** **ac-ft**

1b. Total Volume at DP3.

DA	AREA	CN	S	Q_{25}	V_{25}	Q_{100}	V_{100}
DA2	0.32	93	0.8	6.65	0.18	8.97	0.24

Total 25-Year Volume at DP3 = **0.18** **ac-ft**

Total 100-Year Volume at DP3 = **0.24** **ac-ft**

1c. Total Volume at DP2.

DA	AREA	CN	S	Q_{25}	V_{25}	Q_{100}	V_{100}
DA3	1.00	93	0.8	6.65	0.55	8.97	0.75
S2	1.44	93	0.8	6.65	0.80	8.97	1.08
O4	1.56	93	0.8	6.65	0.86	8.97	1.17
O5	0.33	84	1.9	5.60	0.15	7.85	0.22

Total 25-Year Volume at DP2 = **2.37** **ac-ft**

Total 100-Year Volume at DP2 = **3.21** **ac-ft**

Total 25-Year Volume Discharge from Site= **7.47** **ac-ft**

Total 100-Year Volume Discharge from Site= **10.00** **ac-ft**

VELOCITY CALCULATIONS

HD WASTE & RECYCLING TS
5486-001-11-01
VELOCITY CALCULATIONS

Required: Determine the flow velocities entering and exiting the permit boundary using HYDROCALC HYDRAULICS (Version 2.0, 1996-2010) for the flows calculated for the 100-year storm event in the Modified Rational Method analysis.

Method:

1. Use the flow data generated by the Modified Rational Method analysis to determine velocity of runoff entering the registration boundary.

2. Use the flow data generated by the Modified Rational Method analysis to determine velocity of runoff exiting the registration boundary.

1. Flow Velocity entering the Registration Boundary

- Flows were obtained from the Modified Rational Method included in this Appendix, see page IIIB-A-18, and are summarized below.

DPO1

Q_{100} = 6.76 cfs Q_{25} = 5.50 cfs

Storm Year	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)
100	6.76	0.0200	0.011	100.00	100.00	44.44	0.05	2.56
25	5.50						0.05	2.39

Note: Calculations were performed using the HYDROCALC HYDRAULICS for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010)

DPO2

Q_{100} = 3.57 cfs Q_{25} = 2.91 cfs

Storm Year	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)
100	3.57	0.0055	0.13	100.00	100.00	44.23	0.22	0.25
25	2.91						0.19	0.24

Note: Calculations were performed using the HYDROCALC HYDRAULICS for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010)

DPO3

Q_{100} = 8.84 cfs Q_{25} = 7.20 cfs

Storm Year	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)
100	8.84	0.0032	0.011	100.00	100.00	29.95	0.13	1.61
25	7.20						0.11	1.51

Note: Calculations were performed using the HYDROCALC HYDRAULICS for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010)

DPO4

Q_{100} = 13.79 cfs Q_{25} = 11.23 cfs

Storm Year	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)
100	13.79	0.0150	0.011	100.00	100.00	52.26	0.08	2.86
25	11.23						0.07	2.67

Note: Calculations were performed using the HYDROCALC HYDRAULICS for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010)

DPO5

Q_{100} = 2.92 cfs Q_{25} = 2.38 cfs

Storm Year	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)
100	2.92	0.0010	0.13	100.00	100.00	54.57	0.28	0.13
25	2.38						0.25	0.12

Note: Calculations were performed using the HYDROCALC HYDRAULICS for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010)

2. Flow Velocity exiting the registration boundary

DP1

- Flows were obtained from the Modified Rational Method included in this Appendix, see page IIIB-A-18, and are summarized below.

Q_{100} = 64.30 cfs Q_{25} = 52.47 cfs

Storm Year	Flow Rate (cfs)	Culvert Slope (ft/ft)	Manning's n	Pipe Size	Tailwater (ft)	Headwater (ft)	Normal Depth (ft)	Flow Vel. (fps)
100	64.30	0.0040	0.024	3 - 24" CMP	0.50	3.66	2.00	6.82
25	52.47				1.00	2.92	2.00	5.56

Note: Calculations were performed using the HYDROCALC HYDRAULICS for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010)

DP2

- Flows through the culvert are calculated in Appendix IIIB-B

Q_{100} = 35.84 cfs Q_{25} = 29.23 cfs

Storm Year	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)
100	35.84	0.0250	0.011	100.00	100.00	80.86	0.09	4.18
25	29.23						0.08	3.88

Note: Calculations were performed using the HYDROCALC HYDRAULICS for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010)

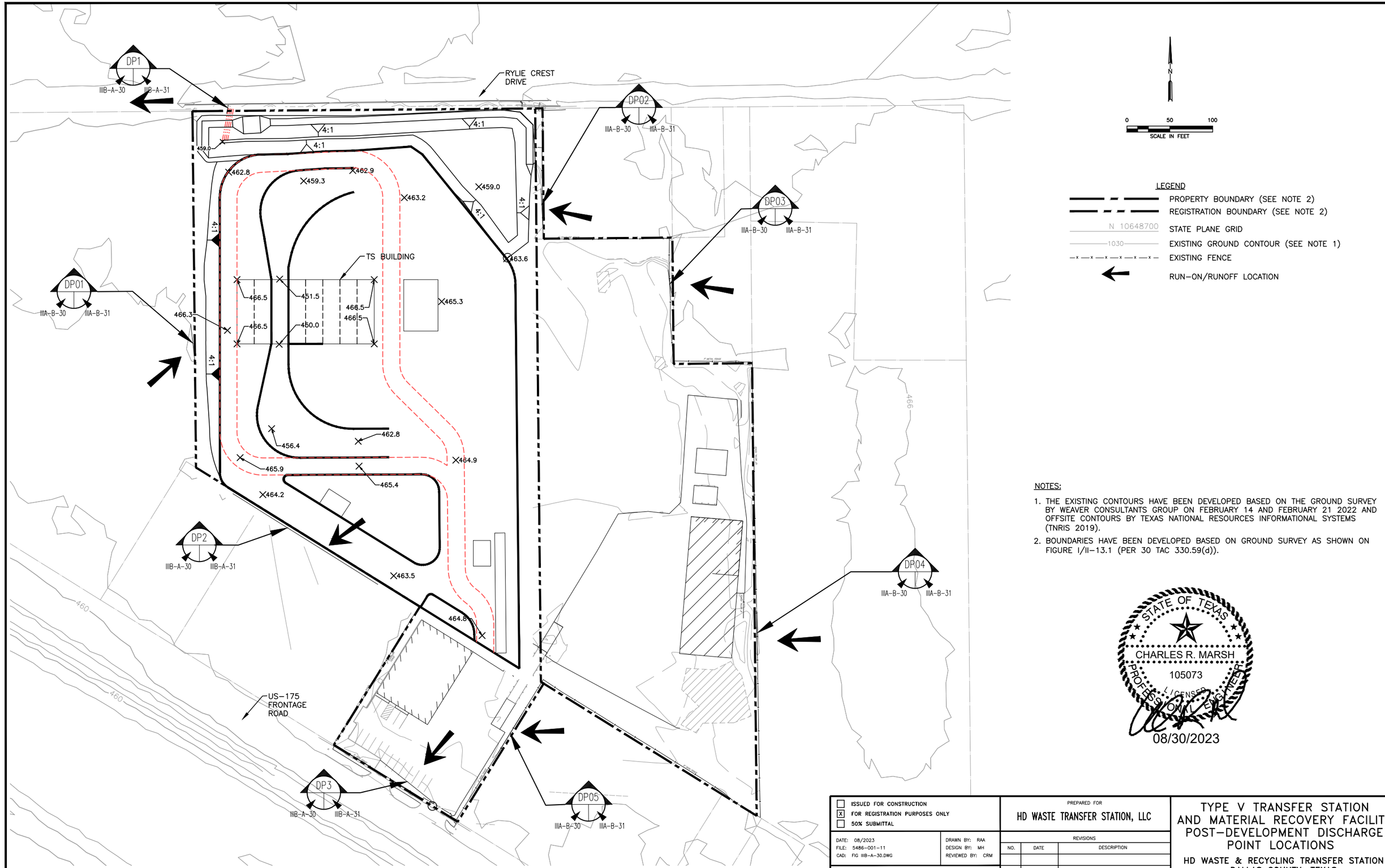
DP3

Flows were obtained from the Modified Rational Method included in this Appendix, see page IIIB-A-9, and are summarized below.

Q_{100} = 2.83 cfs Q_{25} = 2.30 cfs

Storm Year	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)
100	2.83	0.0110	0.011	100.00	48.29	43.00	0.04	1.58
25	2.30						0.03	1.46

Note: Calculations were performed using the HYDROCALC HYDRAULICS for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010).



LEGEND

- PROPERTY BOUNDARY (SEE NOTE 2)
- REGISTRATION BOUNDARY (SEE NOTE 2)
- N 10648700 — STATE PLANE GRID
- 1030 — EXISTING GROUND CONTOUR (SEE NOTE 1)
- EXISTING FENCE
- RUN-ON/RUNOFF LOCATION

NOTES:

1. THE EXISTING CONTOURS HAVE BEEN DEVELOPED BASED ON THE GROUND SURVEY BY WEAVER CONSULTANTS GROUP ON FEBRUARY 14 AND FEBRUARY 21 2022 AND OFFSITE CONTOURS BY TEXAS NATIONAL RESOURCES INFORMATIONAL SYSTEMS (TNRIS 2019).
2. BOUNDARIES HAVE BEEN DEVELOPED BASED ON GROUND SURVEY AS SHOWN ON FIGURE I/II-13.1 (PER 30 TAC 330.59(d)).

STATE OF TEXAS
CHARLES R. MARSH
105073
LICENSED
PROFESSIONAL ENGINEER
08/30/2023

- [ ] ISSUED FOR CONSTRUCTION
- [x] FOR REGISTRATION PURPOSES ONLY
- [ ] 50% SUBMITTAL

DATE: 08/2023
FILE: 5486-001-11
CAD: FIG IIIB-A-30.DWG
DRAWN BY: RAA
DESIGN BY: MH
REVIEWED BY: CRM

Weaver Consultants Group
TBPE LICENSE NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY POST-DEVELOPMENT DISCHARGE POINT LOCATIONS

HD WASTE & RECYCLING TRANSFER STATION
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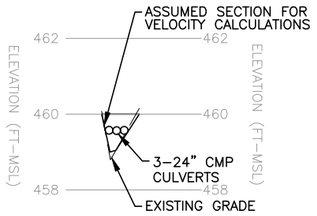
FIGURE IIIB-A-30

G:\5486\TYPE V APPLICATION\PART III\IIIB DRAINAGE\IIIB-A\IIIB-A-30- PROPOSED DRAINAGE AREA MAP.dwg, jpeltr, 1:2



DISCHARGE POINT 1 (DP1)

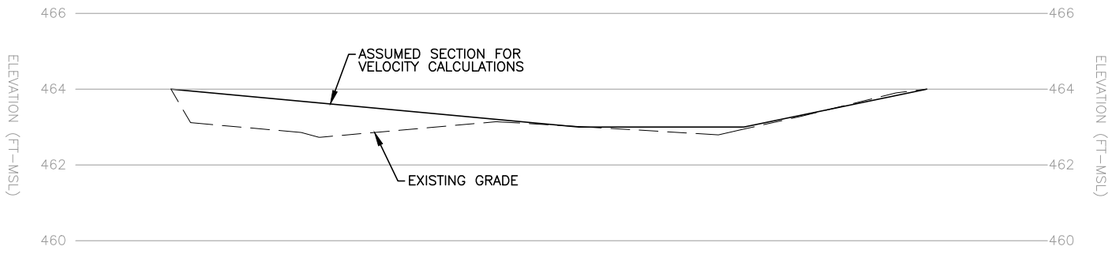
IIIB-A-30 IIIB-A-31

0 20 40

SCALE IN FEET (HORIZONTAL)

0 2 4

SCALE IN FEET (VERTICAL)



DISCHARGE POINT 2 (DP2)

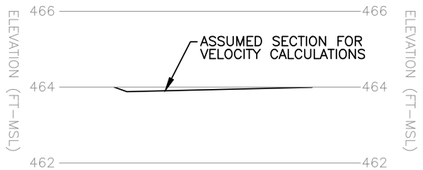
IIIB-A-30 IIIB-A-31

0 20 40

SCALE IN FEET (HORIZONTAL)

0 2 4

SCALE IN FEET (VERTICAL)



DISCHARGE POINT 01 (DP01)

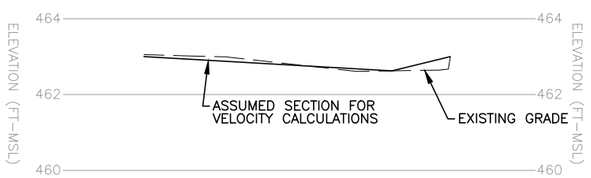
IIIB-A-30 IIIB-A-31

0 20 40

SCALE IN FEET (HORIZONTAL)

0 2 4

SCALE IN FEET (VERTICAL)



DISCHARGE POINT 3 (DP3)

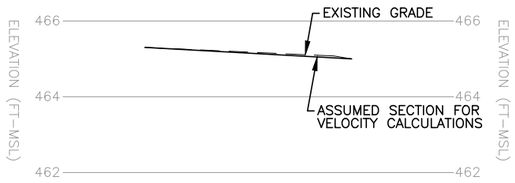
IIIB-A-30 IIIB-A-31

0 20 40

SCALE IN FEET (HORIZONTAL)

0 2 4

SCALE IN FEET (VERTICAL)



DISCHARGE POINT 5 (DP05)

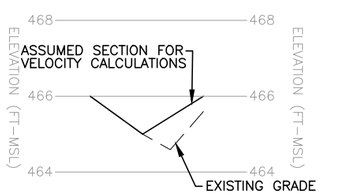
IIIB-A-30 IIIB-A-31

0 20 40

SCALE IN FEET (HORIZONTAL)

0 2 4

SCALE IN FEET (VERTICAL)



DISCHARGE POINT 03 (DP03)

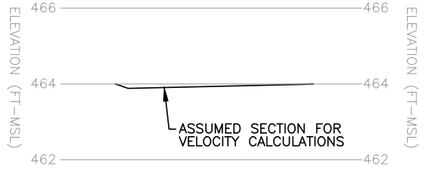
IIIB-A-30 IIIB-A-31

0 20 40

SCALE IN FEET (HORIZONTAL)

0 2 4

SCALE IN FEET (VERTICAL)



DISCHARGE POINT 04 (DP04)

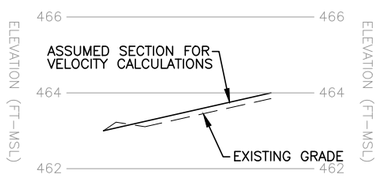
IIIB-A-30 IIIB-A-31

0 20 40

SCALE IN FEET (HORIZONTAL)

0 2 4

SCALE IN FEET (VERTICAL)



DISCHARGE POINT 02 (DP02)

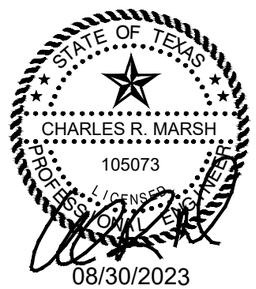
IIIB-A-30 IIIB-A-31

0 20 40

SCALE IN FEET (HORIZONTAL)

0 2 4

SCALE IN FEET (VERTICAL)



08/30/2023

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DATE: 08/2023
FILE: 5486-001-11
CAD: IIIF-E-31-DISCHARGE POINT SEC.DWG

DRAWN BY: RAA
DESIGN BY: MH
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY UPDATED PERMITTED DISCHARGE POINT VELOCITY CALCULATIONS

HD WASTE & RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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FIGURE IIIB-A-31

O:\5486\TYPE V APPLICATION\PART III\IIIB DRAINAGE\IIIB-A\IIIB-A-31-DISCHARGE POINT SECTIONS.dwg, jpubr, 1:2

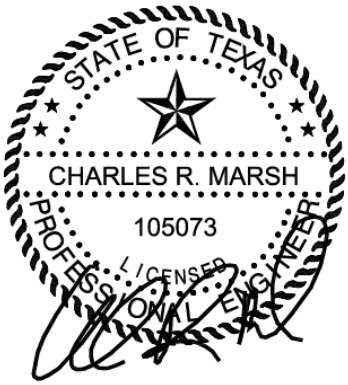
APPENDIX IIIB-B

CULVERT CALCULATION

Includes pages IIIB-B-1 through IIIB-B-8

08/30/2023

CONTENTS



08/30/2023

DETENTION POND DESIGN

Purpose: Demonstrate that the detention pond outlet structure design is adequate to convey runoff from the subbasins to its discharge point.

Method:
1. Use the 1% annual chance event peak runoff rate on the site and water surface elevations for the drainage area that will discharge to the detention pond from the Modified Rational Method analysis (see Appendix IIIB-A).
2. Use the Weir Equation to calculate the flow rate over the spillways as appropriate.

Solution:

DETENTION BASIN	
Bottom ELEV, ft[1]	459.00
Spillway ELEV, ft	460.80
Spillway Length, ft	20.00
Top of Berm, ft	643.00
Discharge Pipe Downstream Invert ELEV, ft	458.80
Peak Inflow Q_{100}, cfs	72.76
Peak Outflow Q_{100}, cfs	63.54
Peak Stage in Pond Q_{100}, ft	461.00
Est. Flow (Q_{100}) over Spillway, cfs	4.65

Note: 1) Details of the pond outlet structures are presented on Appendix IIIB-A

2) The flow over the spillway is estimated using the formula $Q = CLH^{3/2}$ where C = 2.6, L is the length of the spillway in feet, and H is the head on the spillway in feet.

CULVERT CALCULATION

HD WASTE & RECYCLING TS
5486-001-11-01
CULVERT DESIGN

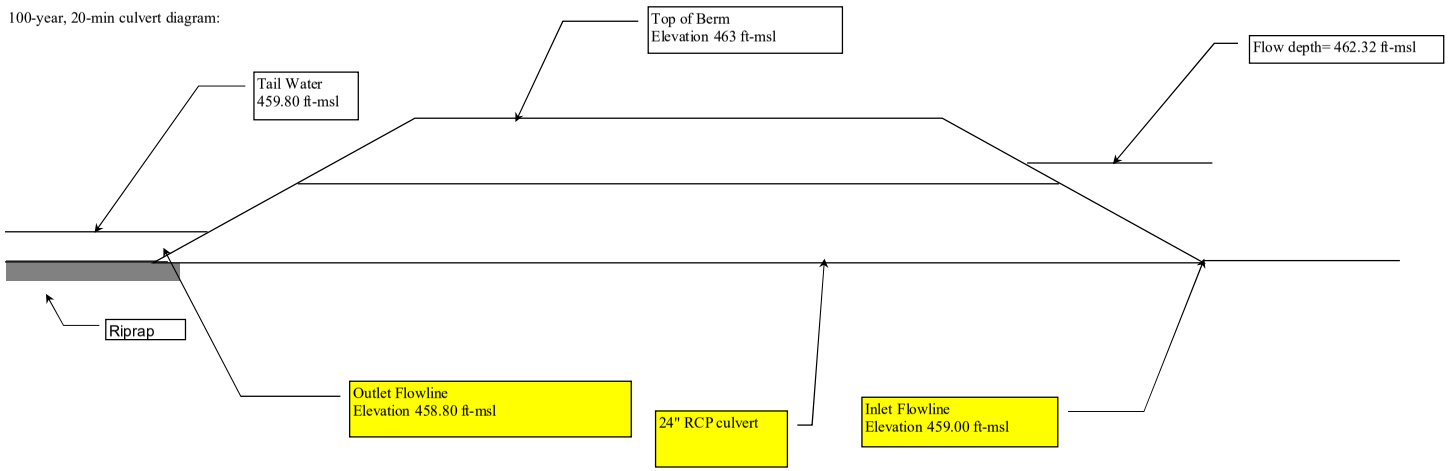
For culvert conveying discharge the detention basin to the northwest of the facilty.

	100-year	
Total Flow=	64.3	cfs
No. of Culverts=	3	
Culvert Span=	--	inches
Culvert Rise=	--	inches
Culvert Diameter=	24	inches

Storm Frequency	Culvert	Culvert Span (ft)	Culvert Rise (ft)	FHWA Chart Number	FHWA Scale Number	Culvert Diameter (ft)	Manning's Coefficient	End Loss Coefficient	Culvert Length (ft)	Downstream Invert Elevation (ft msl)	Upstream Invert Elevation (ft msl)	Flow Rate (cfs)	Tailwater Depth[2] (ft)	Headwater Inlet Control (ft)	Headwater Outlet Control (ft)	Normal Depth (ft)	Critical Depth (ft)	Depth at Outlet (ft)	Outlet Velocity (fps)
100-year	CMP	--	--	2	2	2	0.024	0.8	37	458.8	459	21.43	1.00	3.66	3.35	2.00	1.66	2.00	6.82

1. Calculations were performed using the HYDROCALC Hydraulics for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010).
2. Tailwater depth is assumed to be the 100-year, 20-min water surface elevation at cross section.

100-year, 20-min culvert diagram:



HD WASTE & RECYCLING TS
5486-001-11-01
CULVERT DESIGN

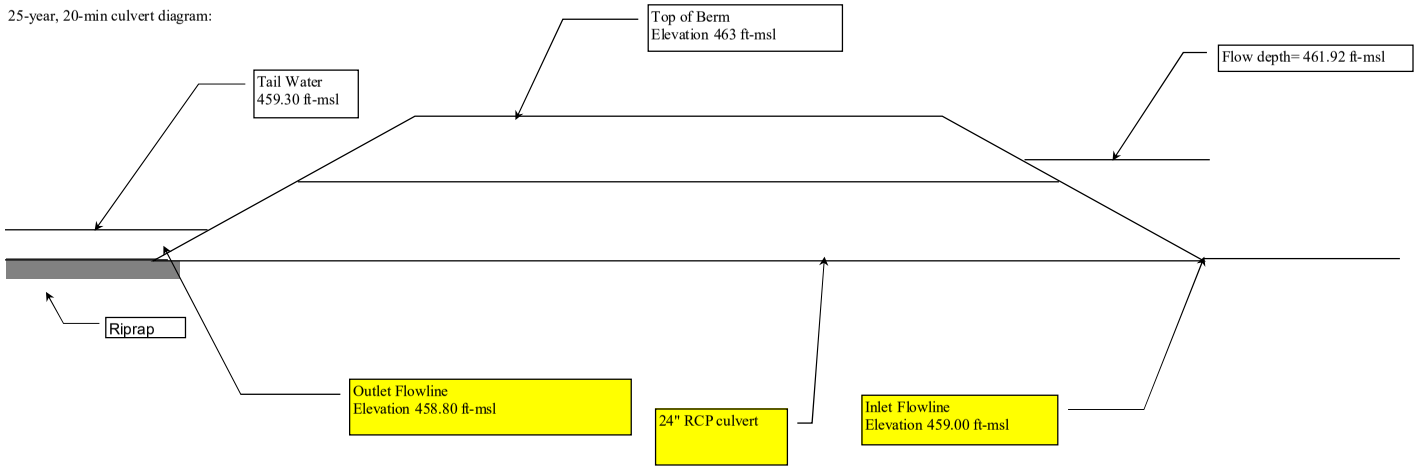
For culvert conveying discharge the detention basin to the northwest of the facilty.

	25-year	
Total Flow=	52.47	cfs
No. of Culverts=	3	
Culvert Span=	--	inches
Culvert Rise=	--	inches
Culvert Diameter=	24	inches

Storm Frequency	Culvert	Culvert Span (ft)	Culvert Rise (ft)	FHWA Chart Number	FHWA Scale Number	Culvert Diameter (ft)	Manning's Coefficient	End Loss Coefficient	Culvert Length (ft)	Downstream Invert Elevation (ft msl)	Upstream Invert Elevation (ft msl)	Flow Rate (cfs)	Tailwater Depth[2] (ft)	Headwater Inlet Control (ft)	Headwater Outlet Control (ft)	Normal Depth (ft)	Critical Depth (ft)	Depth at Outlet (ft)	Outlet Velocity (fps)
25-year	CMP	--	--	2	2	2	0.024	0.8	24	458.80	459	17.49	0.50	2.92	2.67	2.00	1.51	2.00	5.56

1. Calculations were performed using the HYDROCALC Hydraulics for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010).
2. Tailwater depth is assumed to be the 100-year, 20-min water surface elevation at cross section.

25-year, 20-min culvert diagram:



EROSION PROTECTION CALCULATION

Required: Determine the minimum length and median diameter of riprap required at the detention pond outlet structure and culvert to control erosion in the detention pond outlet channel.

Reference:

1. Haan, Barfield, and Hayes, *Design Hydrology and Sedimentology for Small Catchments* , 1994.
2. U.S. Army Corps of Engineers, Hydrologic Engineering Center, *HEC-HMS Hydrologic Modeling System 4.9,* January 2022.
3. Freeman, Gary E., J. Craig Fischenich, Gabion for Streambank Erosion Control, 2000. EMRRP Technical Notes Collection (ERDC TN-EMRRP-SR-22), U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Solution: The riprap will be designed for the 100-year flow rate at the detention pond outlet structure and culvert. The flow at the outlet structure and culvert can be divided into two categories:

1. Flow over the Spillway

Erosion protection calculations for the drainage structure will be based on flow through broad weir top and side slope sections.

Flow Structure Spillway Topslope	100-Year Flow Rate (cfs)	100-Year Velocity (ft/s)	100-Year Flow Depth (ft)	100-Year Foude Number	100-Year Velocity Head (ft)	100-Year Energy Head (ft)	100-Year Flow Area (sq. ft.)	100-Year Top Width (ft)
Detention Pond	4.65	0.59	0.37	0.174	0.01	0.38	7.91	22.25

Flow Structure Spillway Sideslope	100-Year Flow Rate (cfs)	100-Year Velocity (ft/s)	100-Year Flow Depth (ft)	100-Year Foude Number	100-Year Velocity Head (ft)	100-Year Energy Head (ft)	100-Year Flow Area (sq. ft.)	100-Year Top Width (ft)
Detention Pond	4.65	3.28	0.06	2.703	0.17	0.22	1.42	31.11

2. Flow through the Low Water Outlet

The flow rate through the low water outlet (LWO) is summarized below.

Flow Structure	Pond Bottom Elev (ft-msl)	LWO Invert Elev. Upstream (ft-msl)	LWO Invert Elev. Downstream (ft-msl)	LWO Dimensions (in)	100-Year Flow Rate[2] (cfs)	100-Year Outlet Velocity[1] (ft/s)
Detention Pond	459.00	459.00	458.80	3 X 24 (DIA)	21.43	6.82

[1] Velocities through the low water outlet for all culverts were calculated using the HYDROCALC HYDRAULICS FOR WINDOWS program developed by Dodson and Associates (Version 2.01, 1996-2010).

[2] The flowrates for all low water outlets are the peak discharges for the respective areas.

The velocity through the low water outlet is larger than the velocity over the spillway. The flowrate through the low water outlet is used to design the riprap apron.

The nomograph used for design of the length of the riprap and the median stone diameter are shown on page IIIF-B-8 (Figure 5.24 and 5.25).

The minimum riprap length and diameter for each outlet is summarized below. The length of the riprap is increased by 20 percent to provide for a conservative design.

Pond	Riprap Design Flowrate (cfs)	Pipe Diameter (in)	Riprap Length (ft)	Length L x 1.2 (ft)	Rock Diameter (ft)
Detention Pond	21.43	3 X 24 (DIA)	10	12	0.25

Apron width required for the ponds (e.g., width of erosion protection in outlet channel) are:
W_{req}=Spillway Sideslope Diameter + 0.4*(RipRap Length)

Pond	W_{req} (ft)	$W_{provided}$ (ft)
Detention Pond	8.0	24.0

The median diameter of riprap is intended to determine the minimum diameter of the riprap that will be used. As an alternative, 2-foot thick gabions with a d_{50} of 6-inches can be used.

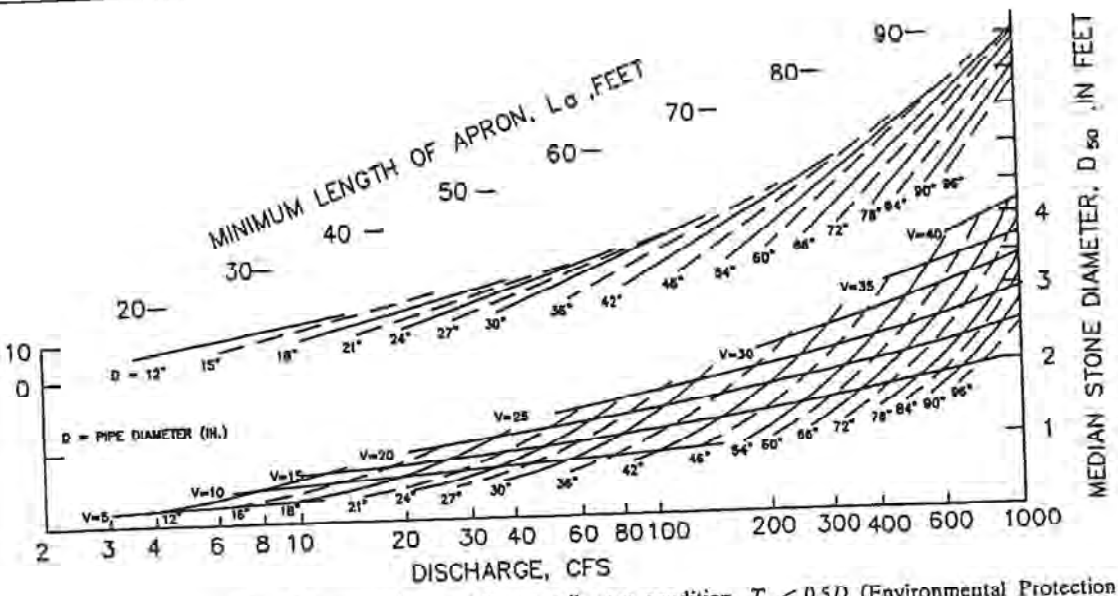


Figure 5.24 Design of outlet protection—minimum tailwater condition, $T_w < 0.5D$ (Environmental Protection Agency, 1976).

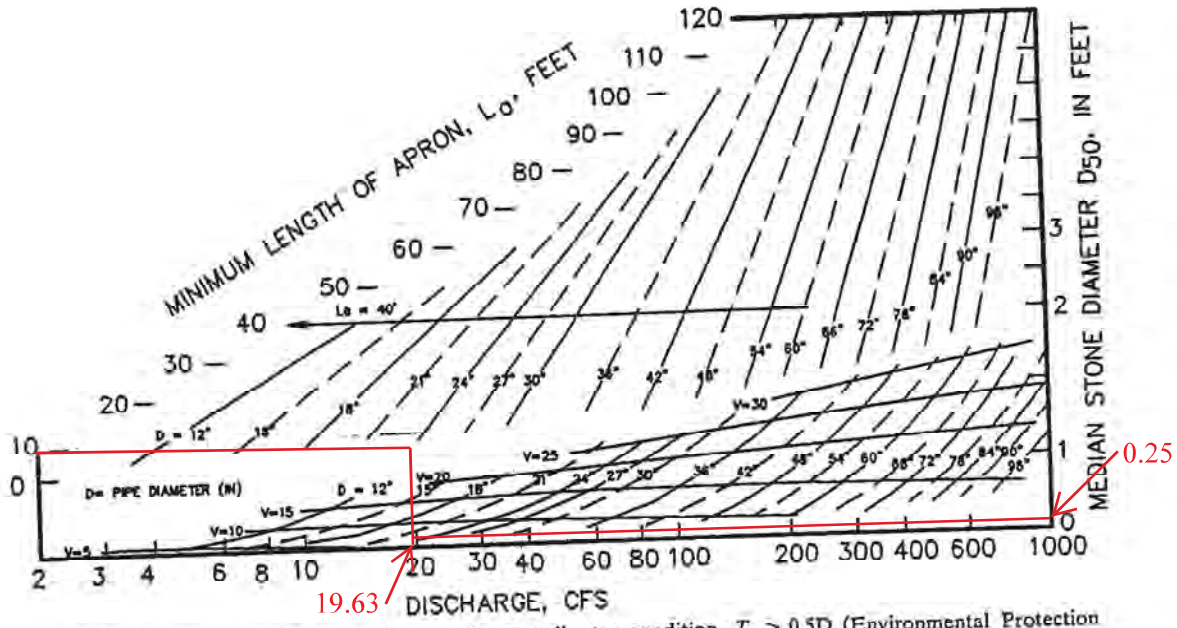


Figure 5.25 Design of outlet protection—maximum tailwater condition, $T_w \geq 0.5D$ (Environmental Protection Agency, 1976).

into the riser 3 ft below its top, what discharge will pass through the four holes with the water level at 1, 2, 4, and 8 ft above the riser? (c) What is the total discharge through the pipe? (d) How might the orifices be sized to provide better stormwater control? (e) Explain whether you would expect two rows (each consisting of four holes) of 8-in.-diameter holes to provide better results? Assume that one row is 2 ft below the riser invert and the other row is 4 ft below the riser invert.

(5.6) A gravel roadway is constructed in a low-lying area such that the roadway is frequently overtopped as a result of severe storms. The roadway is 40 ft wide, and its elevation is 36 ft. (a) If the water level upstream of the roadway is 2 ft above the crest of the roadway, what is the discharge across the roadway? (b) If the roadway is paved, what upstream depth would be required to carry the same flow? (c) Would paving reduce flooding problems?

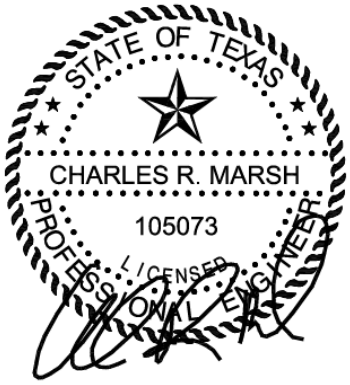
APPENDIX IIIB-C

PRE-DEVELOPMENT CONDITION
DRAINAGE ANALYSIS

Includes pages IIIB-C-1 through IIIB-C-27

08/30/2023

CONTENTS



08/30/2023

PRECIPITATION AND INTESITY DATA

Precipitation and Intensity Data

Precipitation Intensity (in/hr) data taken from NOAA Atlas 14 rainfall data.

Time	5 min	10 min	15 min	30 min	60 min
2-Year Event	6.00	4.80	3.99	2.79	1.82
10-Year Event	8.48	6.79	5.63	3.91	2.57
25-Year Event	9.98	8.00	6.62	4.59	3.03
50-Year Event	11.10	8.92	7.36	5.10	3.37
100-Year Event	12.20	9.82	8.10	5.60	3.71

Precipitation data, 100-year (1% AEP), 25-year (4% AEP) and 2-year (50% AEP) 24-hour rainfall (in), taken from NOAA Atlas 14 rainfall data.

Time	24-hr
100-Year Event	9.82
25-Year Event	7.48
2-Year Event	4.04

NOAA Atlas 14 - Precipitation-Frequency Atlas of the United States, Volume 11, Version 2.0: Texas (*U.S. Department of Commerce, National Oceanic and Atmospheric Administration, and National Weather Service, 2018*) was used to identify precipitation values for storm durations ranging from 5 minutes to 24 hours.

PRECIPITATION LOSS DATA

Required: Determine the SCS curve numbers for the site drainage areas and pond for use in the SCS Runoff Volume calculations analysis.

References:

1. Drainage Design Manual, City of Dallas, September 2019.
   Online Document : https://dallascityhall.com/departments/public-works/DCH%20Documents/Public%20Works/pdf/Drainage%20Design%20Manual_091019.pdf
2. United States Department of Agriculture, National Resource Conservation Service, Web Soil Survey for Collin County, Texas (http://websoilsurvey.nrcs.usda.gov).

Solution:

Based on the soil survey information found in Ref. 2, hydrologic group D soils predominate the soils within the registration boundary drainage area (see pages IIIB-C-5 through IIIB-C-9).

The underdeveloped portions of subbasins (e.g., non-paved areas) were considered to be open space, contoured and in good condition. A curve number was selected using Reference 1 Page 14.

Use:	CN = 84

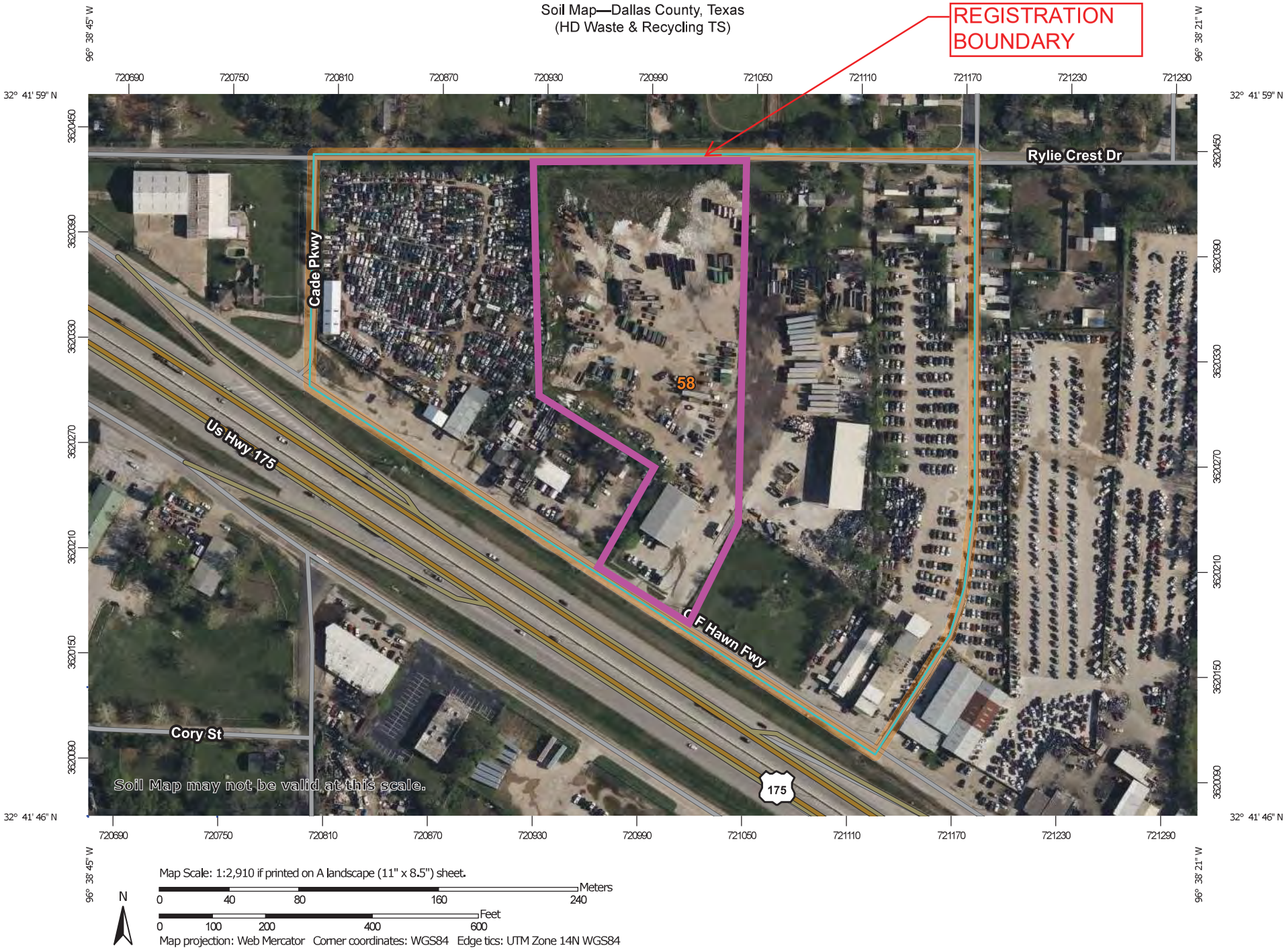
The curve number for the concrete-paved areas was selected using the chart on IIIB-C-8.

Use:	CN = 98

The curve number for the gravel areas was selected using the chart on IIIB-C-8.

Use:	CN = 93

Soil Map—Dallas County, Texas
(HD Waste & Recycling TS)



Map Scale: 1:2,910 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 40 80 160 240

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Dallas County, Texas
Survey Area Data: Version 20, Aug 24, 2022

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

Date(s) aerial images were photographed: Apr 3, 2022—Apr 7, 2022

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
58	Rader-Urban land complex, 0 to 2 percent slopes	23.2	100.0%
Totals for Area of Interest		**23.2**	**100.0%**

Dallas County, Texas

58—Rader-Urban land complex, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: d7n3
Elevation: 0 to 4,000 feet
Mean annual precipitation: 8 to 60 inches
Mean annual air temperature: 54 to 73 degrees F
Frost-free period: 180 to 310 days
Farmland classification: Not prime farmland

Map Unit Composition

Rader and similar soils: 65 percent
Urban land: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rader

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy alluvium of quaternary age derived from mixed sources

Typical profile

H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 16 inches: sandy clay loam
H3 - 16 to 25 inches: clay loam
H4 - 25 to 38 inches: clay
H5 - 38 to 64 inches: sandy clay

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 24 to 48 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 10.0

Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R087AY003TX - Claypan Savannah
Hydric soil rating: No

Description of Urban Land

Typical profile

H1 - 0 to 40 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

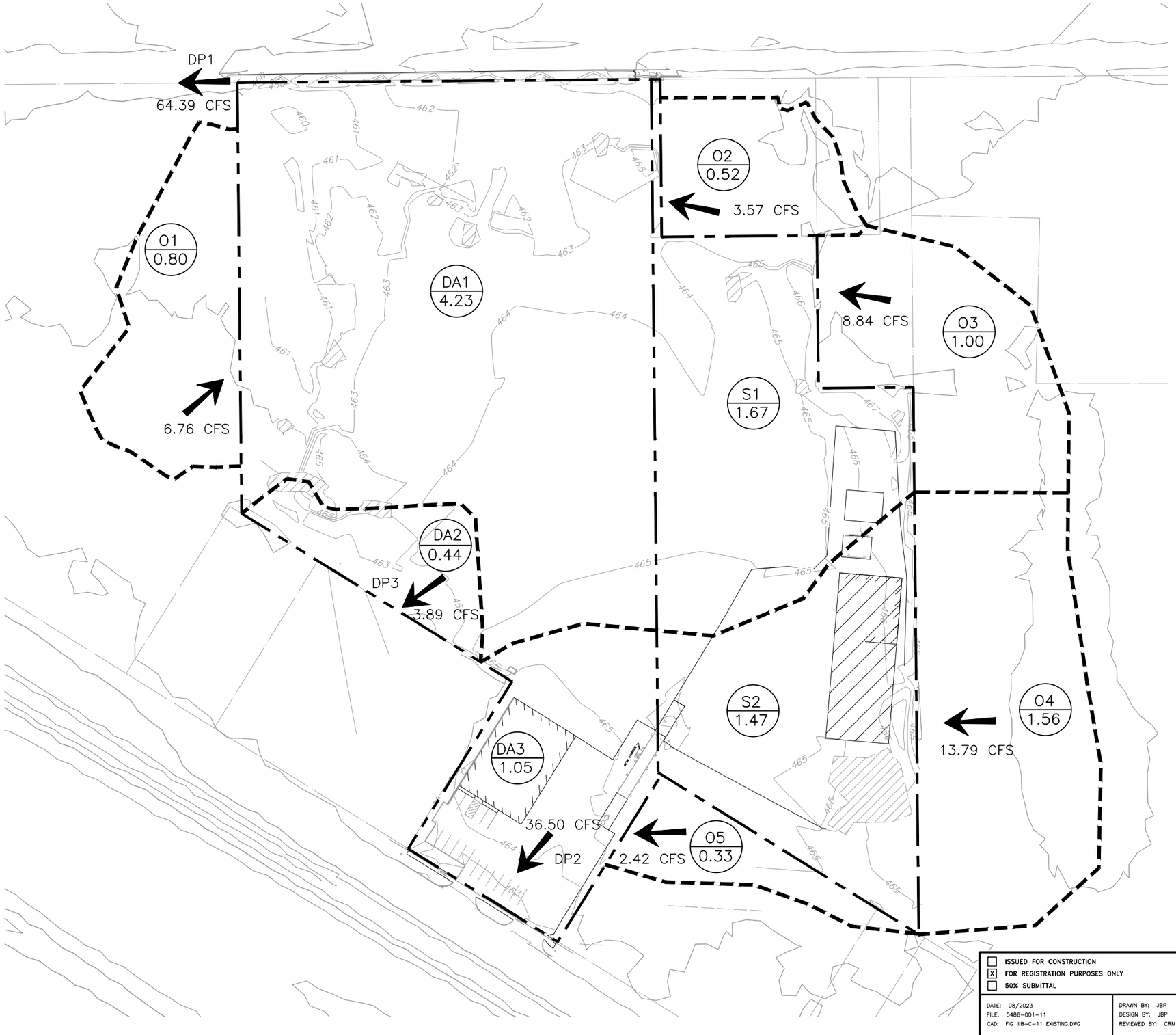
Unnamed

Percent of map unit: 15 percent
Hydric soil rating: No

Data Source Information

Soil Survey Area: Dallas County, Texas
Survey Area Data: Version 20, Aug 24, 2022

PRE-DEVELOPMENT CONDITION DRAINAGE AREAS



0 50 100
SCALE IN FEET

STATE OF TEXAS
CHARLES R. MARSH
105073
LICENSED
PROFESSIONAL ENGINEER
08/30/2023

LEGEND

- PROPERTY BOUNDARY (SEE NOTE 2)
- REGISTRATION BOUNDARY (SEE NOTE 2)
- N 10648700 — STATE PLANE GRID
- 1030 — EXISTING GROUND CONTOUR (SEE NOTE 1)
- x — EXISTING FENCE
- DA1 / 4.33 — DRAINAGE BASIN DESIGNATION AND AREA (ACRES)
- 49.23 CFS — 100-YR FREQUENCY PEAK FLOW (SHOWN WITH GENERAL FLOW DIRECTION)
- DRAINAGE BOUNDARY (SHOWN AS PERMIT/PROPERTY BOUNDARY WHERE LINES COINCIDE)

NOTES:

1. THE EXISTING CONTOURS HAVE BEEN DEVELOPED BASED ON THE GROUND SURVEY BY WEAVER CONSULTANTS GROUP ON FEBRUARY 14 AND FEBRUARY 21 2022 AND OFFSITE CONTOURS BY TEXAS NATIONAL RESOURCES INFORMATIONAL SYSTEMS (TNRIS 2019).
2. BOUNDARIES HAVE BEEN DEVELOPED BASED ON GROUND SURVEY AS SHOWN ON FIGURE I/II-13.1 (PER 30 TAC 330.59(d)).

DRAINAGE AREA NO.	AREA (ACRES)
01	0.80
02	0.52
03	1.00
04	1.56
05	0.33
S1	1.67
S2	1.47
DA1	4.23
DA2	0.44
DA3	1.05

- [ ] ISSUED FOR CONSTRUCTION
- [x] FOR REGISTRATION PURPOSES ONLY
- [ ] 50% SUBMITTAL

DATE: 08/2023
FILE: 5486-001-11
CAD: FIG IIIB-C-11 EXISTING.DWG
DRAWN BY: JBP
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE LICENSE NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISIONS

NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY PRE-DEVELOPMENT DRAINAGE PLAN

HD WASTE & RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE IIIB-C-11

O:\5486\TYPE V APPLICATION\PART III\IIIB DRAINAGE\IIIB-C\IIIB-C-11 -Existing Drainage Area Map.dwg, jpohr, 1:2

PRE-DEVELOPMENT MODIFIED RATIONAL METHOD ANALYSIS

Required: Drainage Analysis for Existing Conditions and volume generated by the site and offsite areas Using the Modified Rational Method for the HD Waste & Recycling Transfer Station.

Method:

1. Precipitation Intensity (in/hr).
2. Estimate the Peak Flow rate for Existing Conditions.
3. Determine the volume generated by the site and offsite areas using the Modified Rational Method analysis of the Pre-Development Conditions.

References:

1. Drainage Design Manual, City of Dallas, September 2019.
   Online Document : https://dallascityhall.com/departments/public-works/DCH%20Documents/Public%20Works/pdf/Drainage%20Design%20Manual_091019.pdf
2. NOAA Atlas 14 - Precipitation-Frequency Atlas of the United States, Volume 11, Version 2.0: Texas (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, and National Weather Service, 2018) was used to identify precipitation values for storm durations ranging from 5 minutes to 60 minutes.

Solution:

1. Precipitation Intensity (in/hr).

Precipitation Intensity (in/hr) for 2-yr, 10-yr, 25-yr, 50-yr and 100-yr Storm Events.

Time	5 min	10 min	15 min	30 min	60 min
2-Year Event	6.00	4.80	3.99	2.79	1.82
10-Year Event	8.48	6.79	5.63	3.91	2.57
25-Year Event	9.98	8.00	6.62	4.59	3.03
50-Year Event	11.10	8.92	7.36	5.10	3.37
100-Year Event	12.20	9.82	8.10	5.60	3.71

Precipitation data taken from NOAA Atlas 14 rainfall data.

1b. Rational Formula for Computing Peak Flow Rate

$$Q = CIA$$ (Ref. 1 Page 9)

Where,

Q = Peak Flow Rate (cfs)

C = Runoff Coefficients based on Land Use
I = Rainfall Intensity (in/hr)
A = The Size of the Drainage Area (acres)

2. Estimate Peak Flow Rates for Pre-Development Conditions

Time of Concentration Calculations:

Time of Concentration (Ref. 1 Page 10)

$$T_c = T_{cs} + T_{csc} + T_{cp} + T_{cc} \quad \textit{(Equation 2.3)}$$

T_c = Time of concentration (hr)

T_{cs} = Time of concentration representing sheet flow (hr)

T_{csc} = Time of concentration representing shallow concentrated flow (hr)

T_{cp} = Time of the concentration representing pipe flow (hr)

T_{cc} = Time of concentration representing stream or channel flow (hr)

Sheet Flow Time of Concentration (Ref. 1 Page 10)

$$T_{cs} = \frac{0.007(nL)^{0.8}}{(P_2)^{0.5}(S_0)^{0.4}} \quad \textit{(Equation 2.4)}$$

T_{cs} = Time of concentration representing sheet flow (hr)

n = Manning's roughness coefficient (reference Table 2.5)

L = Flow length (ft) (≤ 100 ft)

P_2 = 2-year (50% AEP) 24-hour rainfall (in)

S_0 = Slope of land surface (ft/ft)

Shallow Concentrated Flow (Ref. 1 Page 11)

The equation for shallow concentrated flow travel time is as follows:

$$T_{csc} = \frac{L_{sc}}{3600V_{sc}} \quad \textit{(Equation 2.5)}$$

T_{csc} = Time of concentration representing shallow concentrated flow (hr)

L_{sc} = Length of shallow concentrated flow (ft)

V_{sc} = Average velocity (ft/s)

These equations can be used to determine average velocities, including for slopes less than 0.005 ft/ft.

Unpaved $V_{sc} = 16.13(S)^{0.5}$ *(Equation 2.6)*

Paved $V_{sc} = 20.33(S)^{0.5}$ *(Equation 2.7)*

V_{sc} = Average velocity for shallow concentrated flow (ft/s)

S = Slope of land surface (ft/ft)

Peak Flow Rates are Calculated for Discharge Points DP1, DP2, and DP3 below (refer to Sheet IIIB-C-11 for location of drainage area).

Tc Calculations:

Tc CALCULATIONS FOR DP-1

TYPE	CONDITION	DIST	SLOPE	Coeff.	P_2[1]	VELOCITY	TIME (MIN)
SHEET	GRAVEL	50	0.8%	0.011	4.04	0.93	0.89
SHALLOW	GRAVEL	935	0.7%	16.13		1.32	11.77
						TOTAL	12.67

Tc CALCULATIONS FOR DP2

TYPE	CONDITION	DIST	SLOPE	Coeff.	P_2[1]	VELOCITY	TIME (MIN)
SHEET	GRAVEL	50	0.8%	0.011	4.04	0.93	0.89
SHALLOW	GRAVEL	678	0.4%	16.13		1.04	10.91
						TOTAL	11.81

Tc CALCULATIONS FOR DP3

TYPE	CONDITION	DIST	SLOPE	Coeff.	P_2[1]	VELOCITY	TIME (MIN)
SHEET	GRAVEL	50	2.0%	0.011	4.04	1.35	0.62
SHALLOW	GRAVEL	93	0.2%	16.13		0.75	2.07
						TOTAL	2.69

P_2 = 2-year (50% AEP) 24-hour rainfall (in),From Ref. 2

Estimate Precipitation Intensity for Calculated Time of Concentration (in/hr):

Discharge Point	Basin IDs	T_c Used[1]	2-year Intensity (in/hr)	10-year Intensity (in/hr)	25-year Intensity (in/hr)	50-year Intensity (in/hr)	100-year Intensity (in/hr)
DP1	O1+O2+O3+DA1+S1	12.67	4.37	6.17	7.26	8.09	8.90
DP2	DA3+S2+O4+O5	11.81	4.51	6.37	7.50	8.36	9.20
DP3	DA2	10.00	4.80	6.79	8.00	8.92	9.82

[1] If calculated Tc < 10 minutes, use Tc = 10 minutes.

Existing Drainage Areas:

Basin ID[1]	Area (ac)	Composite Runoff Coefficient[2]	Zonning[3]	Mannings, n[4]
DA1	4.33	0.90	LI	0.011
DA2	0.44	0.90	LI	0.011
DA3	1.08	0.90	LI	0.011
S1	1.56	0.90	IM	0.011
S2	1.45	0.90	IM	0.011
O1	0.80	0.86	CS/R	0.011
O2	0.52	0.70	R	0.130
O3	1.00	0.90	CS	0.011
O4	1.56	0.90	IM	0.011
O5	0.33	0.90	PD	0.011
Total	13.07 acres			

[1] Refer to Sheet IIIB-C-11 for location of drainage area.

[2] See Table below.

[3] Zone, From Ref. 1 page 9.

[4] Roughness Coefficient (Manning's n) for Seet Flow, From Ref. 1 Page 11.

Calculated Composite C Value

Proposed Composite "C"							
Composite C Value	**Drainage Area**	**Basin ID/Zone**	**AREA (acres)**	**C**	**Ratio of Total Area**	**Weighted C Value**	**Composite C**
CC_1	O1	O1-A [R]	0.19	0.70	0.24	0.17	0.86
		O1-B [CS]	0.61	0.90	0.76	0.69	
CC_2	DP1	DA1 [LI]	4.33	0.90	0.53	0.47	0.88
		S1 [IM]	1.56	0.90	0.19	0.17	
		O1 [CS/R]	0.80	0.86	0.10	0.08	
		O2[R]	0.52	0.70	0.06	0.04	
		O3 [CS]	1.00	0.90	0.12	0.11	

Example Calculation for the 100-Year Peak Runoff Rate.

Composite C Value, drainage area "O1" is used in this example calculation for CC_1.

CC_1 for:

O1=O1-A+O1-B

Area:

O1-A=	0.19	ac
O1-B=	0.61	ac
Total Area=	0.80	ac

Zone C Value:

O1-A=	0.70	R-7.5(A)
O1-B=	0.90	CS

Ratio of Total Area:

O1-A =	0.19 / 0.80	
O1-A =	24	Percent
O1-B=	0.61/0.80	
O1-B=	76	Percent

Weighted C Value:

O1-A =	0.24 * 0.70	
O1-A =	0.17	
O1-B=	0.76 * 0.90	
O1-B=	0.69	

Composite C Value:

$CC_1 = 0.17 + 0.69$

$CC_1 =$ 0.86 vh

Rational Method

Pre-Development Drainage Area Calculations

Discharge Point[1]	Basin IDs[4]	Area, ac (A)[4]	Runoff Coefficient C [2]	T_c Used[3]	2-year Intensity (in/hr)[6]	10-year Intensity (in/hr)[6]	25-year Intensity (in/hr)[6]	50-year Intensity (in/hr)[6]	100-year Intensity (in/hr)[6]	2-year Q (CFS)[5]	10-year Q (CFS)[5]	25-year Q (CFS)[5]	50-year Q (CFS)[5]	100-year Q (CFS)[5]
DPO1	O1	0.80	0.86	10.00	4.80	6.79	8.00	8.92	9.82	3.30	4.67	5.50	6.14	6.76
DPO2	O2	0.52	0.70	10.00	4.80	6.79	8.00	8.92	9.82	1.75	2.47	2.91	3.25	3.57
DPO3	O3	1.00	0.90	10.00	4.80	6.79	8.00	8.92	9.82	4.32	6.11	7.20	8.03	8.84
DPO4	O4	1.56	0.90	10.00	4.80	6.79	8.00	8.92	9.82	6.74	9.53	11.23	12.52	13.79
DPO5	O5	0.33	0.90	10.00	4.80	6.79	8.00	8.92	9.82	1.43	2.02	2.38	2.65	2.92
DP1	O1+O2+O3+DA1+S1	8.21	0.88	12.67	4.37	6.17	7.26	8.09	8.90	31.55	44.58	52.47	58.43	64.31
DP2	DA3+S2+O4+O5	4.42	0.90	11.81	4.51	6.37	7.50	8.36	9.20	17.93	25.34	29.84	33.24	36.59
DP3	DA2	0.44	0.90	10.00	4.80	6.79	8.00	8.92	9.82	1.90	2.69	3.17	3.53	3.89

[1] Discharge Points See Sheet IIIB-C-11.
[2] C = Runoff Coefficient
[3] T_c =Time of Concentration
[4] See Drawing IIIB-C-11.
[5] Q = CiA
[6] i = Rainfall intensity (in/hr) from Ref. 1

VOLUME CALCULATIONS

EXCESS RAINFALL VOLUME CALCULATION

The volume generated by the site and the surrounding properties is calculated for the 25-year, 24-hour storm event. A summary of the design information that is included in this appendix and related appendices are listed below.

- Excess rainfall and drainage areas used in the volume calculations were obtained from the modified rational analysis method located in Appendix IIIB-C (permitted).
- Permitted condition volume information is summarized on page IIIB-C-26.

Required: Detrmine 25-year and 100-year runoff volume.

Reference:

1. Drainage Design Manual, City of Dallas, September 2019.
   Online Document : https://dallascityhall.com/departments/public-works/DCH%20Documents/Public%20Works/pdf/Drainage%20Design%20Manual_091019.pdf

2. NOAA Atlas 14 - Precipitation-Frequency Atlas of the United States, Volume 11, Version 2.0: Texas (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, and National Weather Service, 2018) was used to identify precipitation values for storm events.

Solution:

1. Use the SCS equation to calculate accumulated direct runoff (in).

Equation 2.11 can be used to estimate direct runoff from a 24-hour storm rainfall.

$$Q = \frac{(P-0.2S)^2}{P+0.8S} \quad \textit{(Equation 2.11)}$$

$$S = \frac{1000}{CN-10} \quad \textit{(Equation 2.12)}$$

Q = Accumulated direct runoff (in)

P = Design precipitation (in)

CN = Runoff curve number

[1] Average runoff conditions and initial abstraction = 0.2S

Time	P
25-Year	7.48 in
100-Year	9.82 in

Precipitation data, 100-year and 25-year 24-hour rainfall (in), taken from NOAA Atlas 14 rainfall data.

Calculated Composite CN Values

Proposed Composite "CN"							
Drainage Area	**Sub-Basin Drainage**	**Zone/Use**	**AREA (acres)**	**CN**	**Ratio of Total Area**	**Weighted CN Value**	**Composite CN**
O1	O1a	R-75 (A)	0.19	92	0.24	21.85	94
	O1b	CS	0.61	95	0.76	72.44	
O2	--	R-75 (A)	0.52	92	--	--	92
O3	O3a	CS	0.65	95	0.65	61.75	96
	O3b	CS	0.35	98	0.35	34.30	
O4	--	IM	1.56	93	--	--	93
O5	--	Open	0.33	84	--	--	84
S1	--	IM	1.56	93	--	--	93
S2	--	IM	1.45	93	--	--	93
DA1	DA1-site	IM -Concrete	4.33	98	--	--	98
DA2	--	IM	0.44	93	--	--	93
DA3	--	IM	1.08	93	--	--	93

1a. Total Volume at DP1.

DA	AREA	CN	S	Q_{25}	V_{25}	Q_{100}	V_{100}
DA1	4.33	98	0.2	7.24	2.61	9.58	3.46
S1	1.56	93	0.8	6.65	0.86	8.97	1.17
O1	0.80	94	0.6	6.77	0.45	9.09	0.61
O2	0.52	92	0.9	6.53	0.28	8.85	0.38
O3	1.00	96	0.4	7.00	0.58	9.34	0.78

Total 25-Year Volume at DP1 = **4.79** **ac-ft**

Total 100-Year Volume at DP1 = **6.39** **ac-ft**

1b. Total Volume at DP3.

DA	AREA	CN	S	Q_{25}	V_{25}	Q_{100}	V_{100}
DA2	0.44	93	0.8	6.65	0.24	8.97	0.33

Total 25-Year Volume at DP3 = **0.24** **ac-ft**

Total 100-Year Volume at DP3 = **0.33** **ac-ft**

1c. Total Volume at DP2.

DA	AREA	CN	S	Q_{25}	V_{25}	Q_{100}	V_{100}
DA3	1.08	93	0.8	6.65	0.60	8.97	0.81
S2	1.45	93	0.8	6.65	0.80	8.97	1.08
O4	1.56	93	0.8	6.65	0.86	8.97	1.17
O5	0.33	84	1.9	5.60	0.15	7.85	0.22

Total 25-Year Volume at DP2 = **2.42** **ac-ft**

Total 100-Year Volume at DP2 = **3.27** **ac-ft**

Total 25-Year Volume Discharge from Site= **7.46** **ac-ft**

Total 100-Year Volume Discharge from Site= **9.99** **ac-ft**

VELOCITY CALCULATIONS

Required: Determine the flow velocities entering and exiting the permit boundary using HYDROCALC HYDRAULICS (Version 2.0, 1996-2010) for the flows calculated for the 100-year storm event in the Modified Rational Method analysis.

Method:

1. Use the flow data generated by the Modified Rational Method analysis to determine velocity of runoff entering the registration boundary.

2. Use the flow data generated by the Modified Rational Method analysis to determine velocity of runoff exiting the registration boundary.

1. Flow Velocity entering the registration boundary

- Flows were obtained from the Modified Rational Method included in this Appendix, see page IIIB-C-18, and are summarized below.

DPO1

Q_{100} = 6.76 cfs Q_{25} = 5.50 cfs

Storm Year	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)
100	6.76	0.0200	0.011	100.00	100.00	44.44	0.05	2.56
25	5.50						0.05	2.39

Note: Calculations were performed using the HYDROCALC HYDRAULICS for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010)

DPO2

Q_{100} = 3.57 cfs Q_{25} = 2.91 cfs

Storm Year	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)
100	3.57	0.0055	0.13	100.00	100.00	44.23	0.22	0.25
25	2.91						0.19	0.24

Note: Calculations were performed using the HYDROCALC HYDRAULICS for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010)

DPO3

Q_{100} = 8.84 cfs Q_{25} = 7.20 cfs

Storm Year	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)
100	8.84	0.0032	0.011	100.00	100.00	29.95	0.13	1.61
25	7.20						0.11	1.51

Note: Calculations were performed using the HYDROCALC HYDRAULICS for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010)

DPO4

Q_{100} = 13.79 cfs Q_{25} = 11.23 cfs

Storm Year	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)
100	13.79	0.0150	0.011	100.00	100.00	52.26	0.08	2.86
25	11.23						0.07	2.67

Note: Calculations were performed using the HYDROCALC HYDRAULICS for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010)

DPO5

Q_{100} = 2.92 cfs Q_{25} = 2.38 cfs

Storm Year	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)
100	2.92	0.0010	0.13	100.00	100.00	54.57	0.28	0.13
25	2.38						0.25	0.12

Note: Calculations were performed using the HYDROCALC HYDRAULICS for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010)

2. Flow Velocity exiting the site registration boundary

DP1

- Flows were obtained from the Modified Rational Method included in this Appendix, see page IIIB-C-18, and are summarized below.

Q_{100} = 64.31 cfs Q_{25} = 52.47 cfs

Storm Year	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)
100	64.31	0.0370	0.04	23.75	30.34	5.42	0.69	3.83
25	52.47						0.64	3.63

Note: Calculations were performed using the HYDROCALC HYDRAULICS for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010)

DP2

- Flows through the culvert are calculated in Appendix IIIB-B

Q_{100} = 36.59 cfs Q_{25} = 29.84 cfs

Storm Year	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)
100	36.59	0.0250	0.011	100.00	100.00	80.86	0.09	4.21
25	29.84						0.08	3.91

Note: Calculations were performed using the HYDROCALC HYDRAULICS for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010)

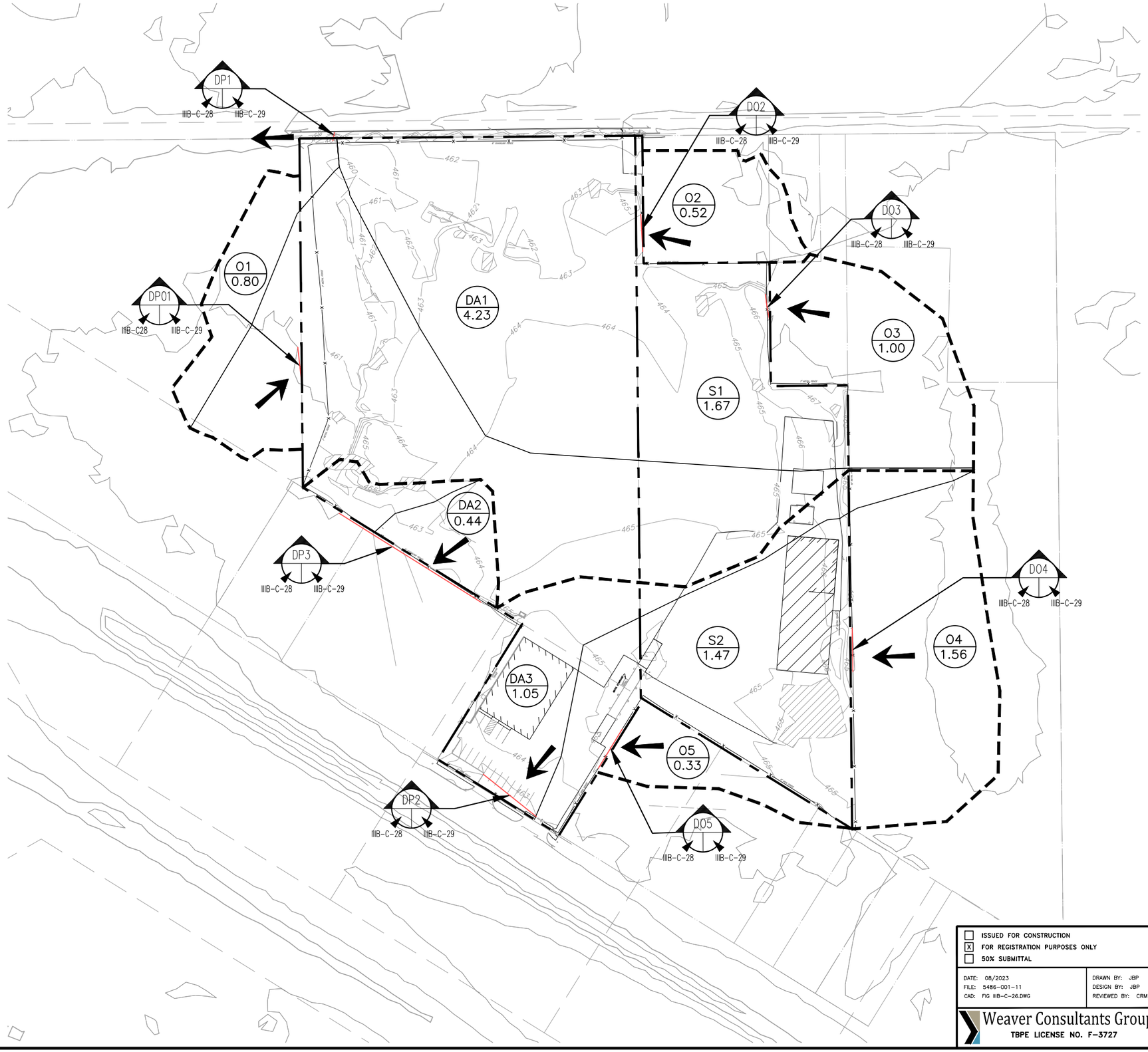
DP3

Flows were obtained from the Modified Rational Method included in this Appendix, see page IIIB-C-9, and are summarized below.

Q_{100} = 3.89 cfs Q_{25} = 3.17 cfs

Storm Year	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)
100	3.89	0.0110	0.011	100.00	48.29	43.00	0.04	1.77
25	3.17						0.03	1.64

Note: Calculations were performed using the HYDROCALC HYDRAULICS for Windows program developed by Dodson and Associates (Version 2.01, 1996-2010).



N

0 50 100

SCALE IN FEET

LEGEND

- PROPERTY BOUNDARY (SEE NOTE 2)
- REGISTRATION BOUNDARY (SEE NOTE 2)
- N 10648700 — STATE PLANE GRID
- 1030 — EXISTING GROUND CONTOUR (SEE NOTE 1)
- x — EXISTING FENCE
- 1 — POINT OF INTEREST
- DA1 / 4.33 — AREA / ACRE — DRAINAGE AREA LABEL
- RUN-ON/RUN-OFF LOCATION
- DRAINAGE BOUNDARY (SHOWN AS PERMIT/PROPERTY BOUNDARY WHERE LINES COINCIDE)

NOTES:

1. THE EXISTING CONTOURS HAVE BEEN DEVELOPED BASED ON THE GROUND SURVEY BY WEAVER CONSULTANTS GROUP ON FEBRUARY 14 AND FEBRUARY 21 2022 AND OFFSITE CONTOURS BY TEXAS NATIONAL RESOURCES INFORMATIONAL SYSTEMS (TNRIS 2019).
2. BOUNDARIES HAVE BEEN DEVELOPED BASED ON GROUND SURVEY AS SHOWN ON FIGURE I/II-13.1 (PER 30 TAC 330.59(d)).

STATE OF TEXAS
CHARLES R. MARSH
105073
LICENSED
PROFESSIONAL ENGINEER

08/30/2023

- [ ] ISSUED FOR CONSTRUCTION
- [x] FOR REGISTRATION PURPOSES ONLY
- [ ] 50% SUBMITTAL

DATE: 08/2023
FILE: 5486-001-11
CAD: FIG IIIB-C-26.DWG

DRAWN BY: JBP
DESIGN BY: JBP
REVIEWED BY: CRM

Weaver Consultants Group
TBPE LICENSE NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY PRE-DEVELOPMENT DISCHARGE POINT LOCATIONS

HD WASTE & RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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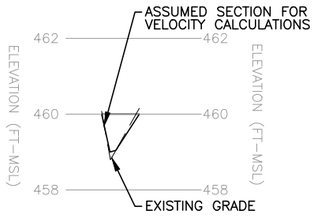
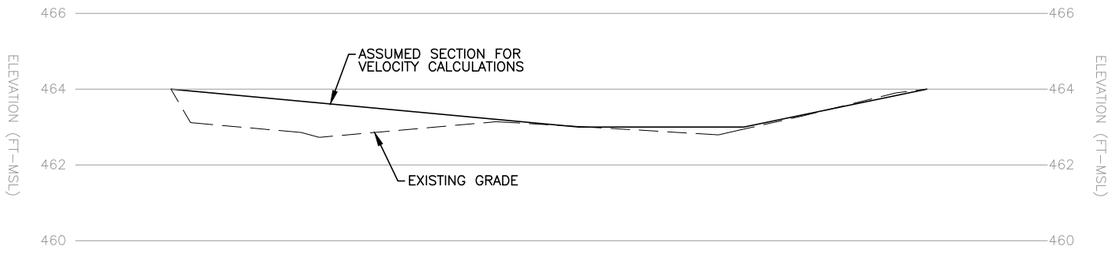
FIGURE IIIB-C-26

G:\5486\TYPE V APPLICATION\PART III\IIIB DRAINAGE\IIIB-C\IIIB-C-26 -Existing Drainage Area Map.dwg, jpubr, 1:2



DISCHARGE POINT 1 DP1 IIIB-C-28 IIIB-C-29

0 20 40
SCALE IN FEET (HORIZONTAL)
0 2 4
SCALE IN FEET (VERTICAL)



DISCHARGE POINT 2 DP2 IIIB-C-28 IIIB-C-29

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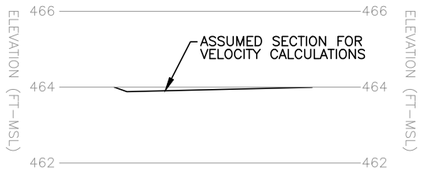
SCALE IN FEET (HORIZONTAL)
0 2 4
SCALE IN FEET (VERTICAL)



DISCHARGE POINT 01 DP01 IIIB-C-28 IIIB-C-29

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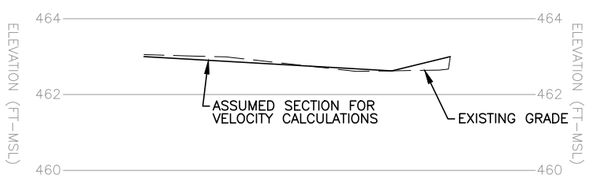
SCALE IN FEET (HORIZONTAL)
0 2 4
SCALE IN FEET (VERTICAL)



DISCHARGE POINT 3 DP3 IIIB-C-28 IIIB-C-29

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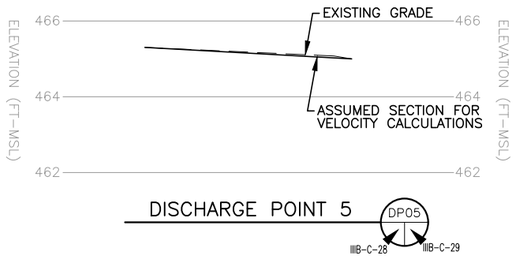
SCALE IN FEET (HORIZONTAL)
0 2 4
SCALE IN FEET (VERTICAL)



DISCHARGE POINT 5 DP05 IIIB-C-28 IIIB-C-29

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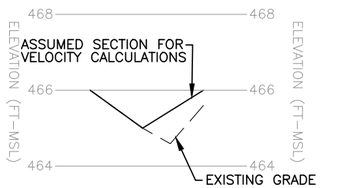
0 2 4
SCALE IN FEET (VERTICAL)



DISCHARGE POINT 03 DP03 IIIB-C-28 IIIB-C-29

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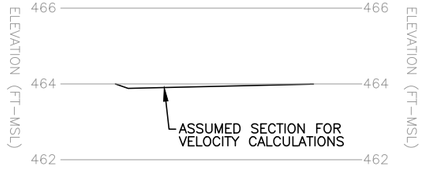
0 2 4
SCALE IN FEET (VERTICAL)



DISCHARGE POINT 04 DP04 IIIB-C-28 IIIB-C-29

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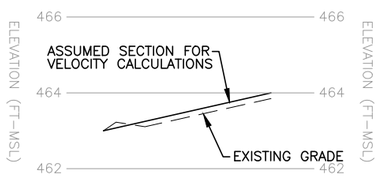
0 2 4
SCALE IN FEET (VERTICAL)



DISCHARGE POINT 02 DP02 IIIB-C-28 IIIB-C-29

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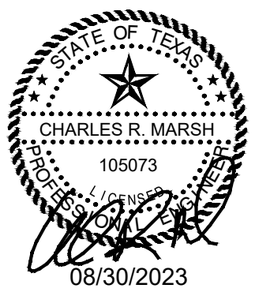
SCALE IN FEET (HORIZONTAL)
0 2 4
SCALE IN FEET (VERTICAL)



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DATE: 08/2023
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CAD: IIIB-C-27-DISCHARGE POINT SEC.DWG
DRAWN BY: RAA
DESIGN BY: MH
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
HD WASTE TRANSFER STATION, LLC

REVISIONS		
NO.	DATE	DESCRIPTION

TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY PRE-DEVELOPMENT DISCHARGE POINT VELOCITY CALULATIONS

HD WASTE & RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

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FIGURE IIIB-C-27

O:\5486\TYPE V APPLICATION\PART III\IIIB DRAINAGE\IIIB-C\IIIB-C-27-DISCHARGE POINT SECTIONS.dwg, jpuhr, 1:2

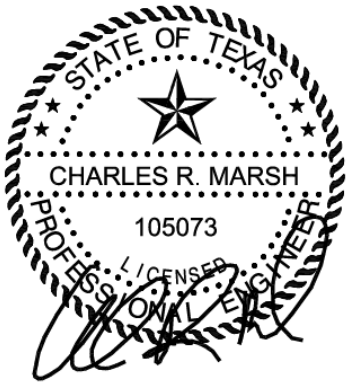
HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS
TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY
REGISTRATION APPLICATION

PART III
SITE DEVELOPMENT PLAN
APPENDIX IIIC
CLOSURE PLAN

Prepared for

HD Waste Transfrer Station, LLC

August 2023



08/30/2023

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. 5486-001-11-01

This document is issued for permitting purposes only.

CONTENTS

08/30/2023

1 INTRODUCTION

HD Waste Transfer Station, LLC (HDWTS) will, unless specifically authorized by the Texas Commission on Environmental Quality (TCEQ), close the facility in accordance with the closure provisions of the registration. HDWTS is also subject to the applicable provisions in Subchapter K of Title 30 TAC Chapter 330 (relating to Closure and Post-Closure).

This Closure Plan has been prepared for the HDWR Transfer Station (TS) and is consistent with Title 30 Texas Adminstrative Code (TAC) §330.63(h) and §330.459. Title 30 TAC §330.459 states that closure of the facility "must be completed within 180 days following the most recent acceptance of processed or unprocessed materials unless otherwise directed or approved in writing by the executive director." Section 2 of this Closure Plan describes the steps necessary to close the facility at any point during its active life, and Section 3 of this Closure Plan discusses post-closure land use of the site. Post-closure maintenance of the site is not required as all wastes and waste residues will be removed during closure in accordance with Title 30 TAC §330.459(a) – (b).

2 CLOSURE REQUIREMENTS

2.1 Title 30 TAC §330.459 Closure Requirements

At the time of closure, the site will remove all waste, waste residues, and any recovered materials. Facility units will either be dismantled and removed off-site or decontaminated. All material on site will be transported to an authorized facility for disposal, and the tipping floors will be disinfected by washing down with industrial cleaners. The operator shall then complete the closure activities for the facility in accordance with the approved plan with 180 days of initiation of closure activities.

2.2 Title 30 TAC §330.461 Certification of Final Facility Closure

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 registration number, and the last day of intended receipt of materials at the facility. The facility 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 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.

The following steps will be taken:

- Notify the TCEQ of when closure is initiated.
- Post a minimum of one sign at the main entrance and all other frequently used points of access for the facility notifying all persons who may utilize the facility of the date of closing for the facility and the prohibition against further receipt of waste materials after the stated date.
- Install suitable barriers to all gates or access points or alternatively, fence around the entire property boundary, 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.
- Wash down tipping floor.
- Wash transfer station tipping floor and any surfaces that have been in contact with waste.
- Perform facility inspection and prepare certification of closure. The certification will be signed by an independent licensed professional engineer, verifying that final facility closure has been completed in accordance with the approved closure plan. The submittal to the executive director will include all applicable documentation necessary for certification of final facility closure.
- If there is evidence of a release from the TS, the executive director may require an investigation into the nature and extent of the release and an assessment of measures necessary to correct any impacts to groundwater. As part of the closure activities, the underground contaminated water storage tank and any contaminated water in the tank will be removed and properly disposed of. Soils below the tank will be tested for contamination before regrading the area. As part of the closure activities and prior to sampling for testing, TCEQ will be contacted for sampling and testing requirements of the soil below (or around the tank).

3 CERTIFICATION OF FINAL FACILITY CLOSURE

Within 10 days after completion of all final closure activities for the facility, HDWTS will submit to the executive director for review and approval a documented certification signed by an independent licensed professional engineer, verifying that final closure has been completed in accordance with the approved Closure Plan and the applicable rule provisions of Title 30 TAC Chapter 330 Subchapter K. The submittal to the executive director will include all applicable documentation necessary for certification of final closure.

Following the 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 facility according to the approved Closure Plan before termination of operation and closure of the facility will be acknowledged and the facility deemed properly closed.

Since the facility does not require postclosure care, a request for voluntary revocation of the facility's registration will be submitted to the executive director.

4 POSTCLOSURE LAND USE

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 are no restrictions to the postclosure use of the facility related to its previous use as a muiciapal solid waste transfer station facility.

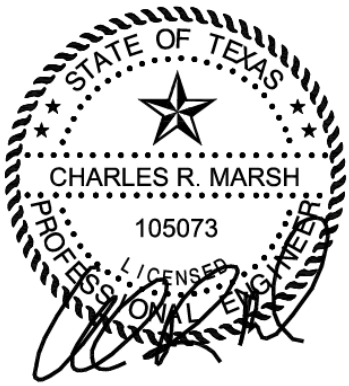
HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS
TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY
REGISTRATION APPLICATION

PART III
SITE DEVELOPMENT PLAN
APPENDIX IIID
COST ESTIMATE FOR CLOSURE

Prepared for

HD Waste Transfer Station, LLC

August 2023



08/30/2023

Prepared by
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WCG Project No. 5486-001-11-01

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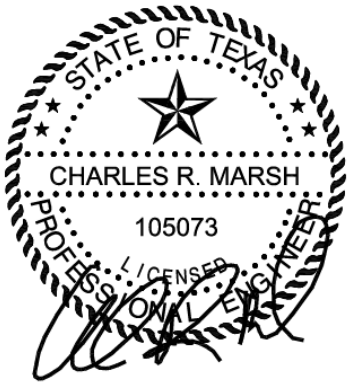


08/30/2023

1 INTRODUCTION

This Cost Estimate for closure of the HD Waste and Recycling (HDWR) Transfer Station (TS) has been prepared consistent with Title 30 Texas Administrative Code (TAC) §330.63(j). Cost estimates for closure are 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 HDWR TS and is consistent with Title 30 TAC §330.505.

2 CLOSURE COST ESTIMATE

At any point in its active life, the maximum amount of waste that may be temporarily stored onsite at the TS facility and any processed and unprocessed waste and materials onsite is 1,000 tons. A detailed estimate, in current dollars, of the cost of hiring a third party that is not affiliated with the owner or operator to close the facility at any time during the active life, when the extent and manner of the facility's operations would make closure most expensive, is provided. The cleanup and disposition costs for onsite waste material are based on a weight measurement as shown in Table 2-1. No dismantling of the concrete pad (tipping floor) 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 $96,025 in 2023 dollars. A copy of the required documentation to demonstrate financial assurance shall be submitted 60 days prior to the initial receipt of waste.

Table 2-1
HD Waste and Recycling Transfer Station
Cost Estimate for Third Party Closure (in 2023 Dollars)

Item	Description	Cost
A	State Administration of third party site closure	
1	Site survey and file review to determine closure activities	$1,500
2	Preparation of engineering plans	$1,500
3	Procurement of bids	$1,500
4	Contract award and administration of contract	$1,000
5	Installation of sign stating facility closure	$500
6	Buildings and site secured (locks and/or fencing, etc.)	$500
B	Contractor mobilization	$500
C	Sampling/testing/classification of waste (ash, liquids, sludge, other waste not readily identifiable as garbage, trash, refuse), to include lab reports, chain of custody, quality assurance and quality control.	$2,000
D	Disposal of waste (1,000 tons @ $65/ton) (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 @ $45.00/ton)	$45,000
E	Disposal of recycled materials (1,000 tons @ $30/ton)	
1	Cleanup/Removal of recycled materials stored on site (1,000 tons @ $7.78/ton)	$7,780
2	Transport of recycled materials by a properly authorized transporter (1,000 tons @ $7.78/ton)	$7,780
3	Disposal of recycled materials at a properly authorized facility (1,000 tons @ $14.44/ton)	$14,440
F	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.	$1,500
G	Removal, treatment, and disposal of any contaminated soils, concrete, stormwater, or other contaminated materials on site.	$1,000
H	Cleanup and decommission (equipment should be rendered unusable) of process equipment/facility	$1,500
I	Vector control	$500
J	Inspection and certification of closure	$5,000
	Closure Subtotal	$113,500
	Contingency cost (15%)	$17,025
	Total	**$130,525**

* As noted in the Site Operating Plan, Section 8.10, the expected waste storage capacity is 1,000 tons for this facility.

3 COST ESTIMATE ADJUSTMENTS

During the active life of the facility, HDWTS will establish and maintain financial assurance for closure in accordance with Title 30 TAC Chapter 37, Subchapter R.

An increase in the closure cost estimate and the amount of financial assurance provided must 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 registration modification. The closure cost estimate will be evaluated annually to determine if an increase in the closure cost estimate is required as a result of continued facility operation.

A reduction in the closure cost estimate and the amount of financial assurance may be approved if the cost estimate exceeds the maximum cost of closure and the owner/operator has provided written notice to the Executive Director of the detailed justification for the reduction. A request for reduction in the closure cost estimate and financial assurance will also be submitted as a registration modification.

Continuous financial assurance coverage for closure must be provided until all requirements of the Closure Plan are completed and the facility is determined to be closed in writing by the Executive Director.

HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS

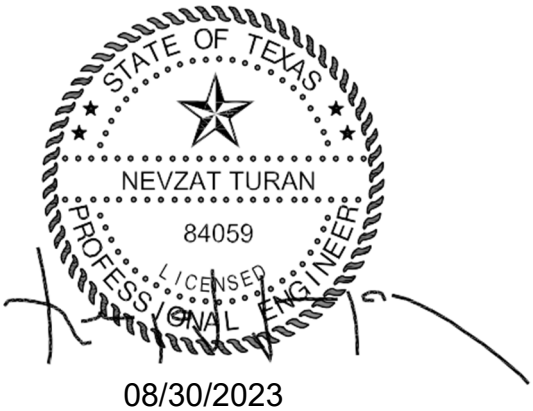
TYPE V TRANSFER STATION AND MATERIAL RECOVERY FACILITY REGISTRATION APPLICATION

PART IV
SITE OPERATING PLAN

Prepared for

HD Waste Transfer Station, LLC

August 2023



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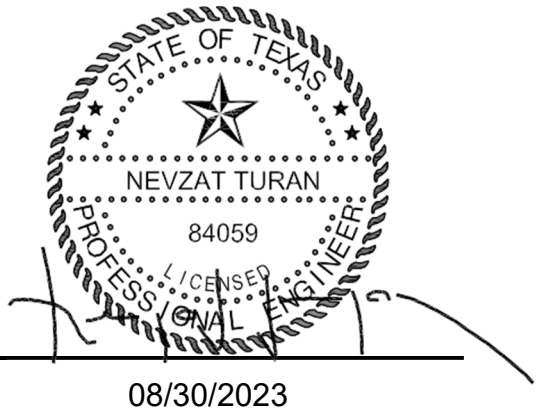

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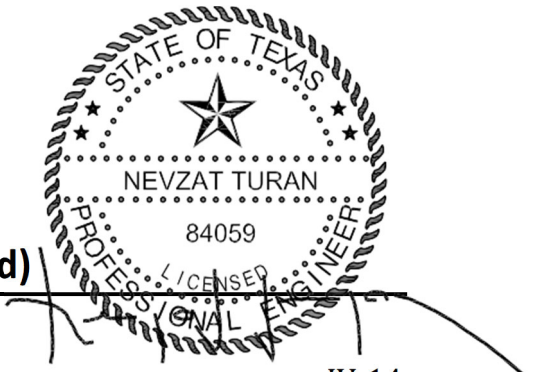

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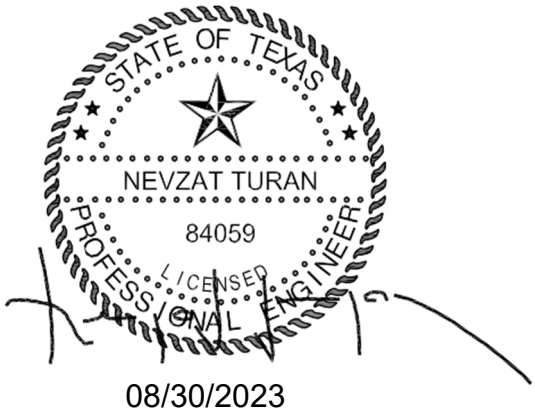

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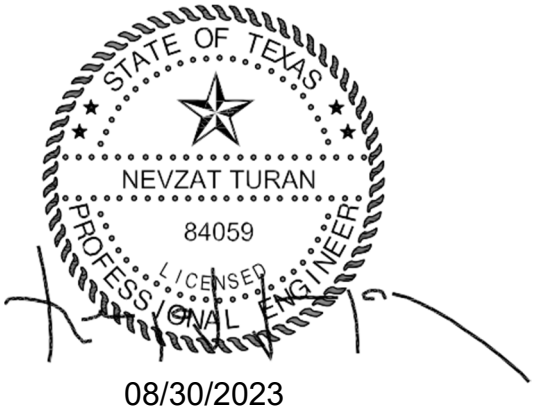


08/30/2023

1 INTRODUCTION

This section addresses §330.65 and §330.201. Additional specific regulatory citations are indicated within the Part IV section headings.

This Site Operating Plan (SOP) has been prepared for HD Waste Transfer Staion, LLC, for the HD Waste and Recycling Transfer Station (HDWR TS), a Type V MSW processing and material recovery facility, and contains the information required by Title 30 Texas Administrative Code (TAC) §330.65 and Title 30 TAC §330, Subchapter E. Throughout this document, "transfer station" or "TS" refers to the building which contains the MSW tipping floor area, transfer trailer tunnel, and recyclables processing area/tipping floor. This SOP includes provisions for facility management and facility operating personnel to meet the general and facility-specific requirements included in Subchapter E: Operational Standards for Municipal Solid Waste Storage and Processing Units for the day-to-day operation of the facility. This SOP will be retained onsite throughout the active life of the facility until after certification of closure.

The HDWR TS is located in the City of Dallas in Dallas County, Texas and is accessed from C F Hawn Freeway (US-175 Frontage Road). The site is located at 10631 C F Hawn Freeway, Dallas, Texas, 75127. The HDWR TS will accept waste/recyclables from public and private waste/recyclables hauling vehicles and directly from the public. Waste material will be transferred into transfer trailers for hauling and disposal at a permitted municipal solid waste (MSW) landfill located not more than 50 miles from the facility. Recyclable materials may be transferred to transfer trailers for hauling and recycling or transferred to the storage and processing building. Support facilities include access roads, TS building, scale house, scale, optional citizens collection station, recyclable material storage and processing building, and a maintenance shop/office building. Either a scale house will be constructed, or the scale will be operated from the maintenance shop/office building.

This SOP provides guidance for facility management and operating personnel for daily operation of the HDWR TS. This SOP also includes provisions for facility management and operating personnel to meet the general and facility-specific requirements for the waste acceptance rate established in the registration.

2 PERSONNEL, TRAINING, AND EQUIPMENT

2.1 Personnel

The HDWR TS will be staffed with qualified individuals experienced with municipal solid waste processing operations. The personnel are responsible for the day-to-day operations of the facility. The following subsections describe the personnel involved with operating the HDWR TS, the minimum qualifications, and the required training for each position.

2.1.1 Site Supervisor

The Site Supervisor is responsible for daily operations, administers the facility's SDP and SOP, and will also serve as the emergency coordinator. The Site Supervisor is responsible for assuring that adequate personnel and equipment are available to provide facility operation in accordance with this SOP, the SDP, TCEQ regulations, and other applicable local, state, and federal regulations. The Site Supervisor will maintain an adequate level of competency, training, and experience to fulfill these duties. The Site Supervisor will designate an individual(s) to fulfill his or her duties during periods when the Site Supervisor is absent. These individuals will have similar training and certification as the Site Supervisor. Wherever this SOP provides that responsibility or authority is assigned to the Site Supervisor, this responsibility or authority may be routinely delegated to the individual(s) so designated by the Site Supervisor for this duty. All onsite employees, which may include a Scale Attendant, Equipment Operators, Mechanics, and Laborers, are under the supervision of the Site Supervisor or his designee. The Site Supervisor is responsible for hiring and terminating personnel in these positions.

The Site Supervisor must hold an MSW Supervisor Occupational License of Class B or above. The Site Supervisor must be familiar with the specific operating procedures set forth in this plan and will participate in training with other employees. The Site Supervisor or his designee is also responsible for routine site inspections as described herein, as well as any other requirements set forth in this SOP that are not specifically designated to certain personnel.

2.1.2 Scale Attendant

The primary job of the Scale Attendant, stationed near the site entrance, is to maintain complete and accurate records of vehicles and solid waste entering the facility. The Scale Attendant will be familiar with site safety procedures, to visually check for unauthorized wastes, to weigh vehicles, collect waste disposal fees, and direct

vehicles to the appropriate unloading area. The Scale Attendant reports to the Site Supervisor. Specifically, the Scale Attendant is required to: (1) monitor the incoming vehicles for type of waste and exclude prohibited waste; (2) inspect waste loads to confirm that they are authorized for disposal; (3) review manifests and other shipping documents: (4) record incoming waste loads; (5) review and confirm special waste documents; and (6) accept tipping fees. The Scale Attendant will direct visitors to their destination within the facility. If a Scale Attendant is not utilized, the Site Supervisor or his trained designee will assume these duties.

Any questions regarding acceptance of waste are to be addressed to the Site Supervisor and may include coordination with the engineering and compliance staff.

The minimum qualifications for the Scale Attendant are being able to fulfill the duties described in this section.

2.1.3 Equipment Operators

The Equipment Operators report to the Site Supervisor. Equipment Operators are responsible for the safe operation of the equipment and may perform necessary and routine maintenance on equipment. As the personnel most closely involved with the actual site operation, these employees are responsible for being alert for potentially dangerous conditions, or careless and improper actions on the part of nonemployees and other persons while on the premises. Equipment Operators monitor and direct unloading vehicles and can also be responsible for maintenance, construction, litter abatement, and general site cleanup. Equipment Operators are also responsible for identifying prohibited wastes. The Equipment Operators will intervene as necessary to prevent accidents. Equipment Operators will also report any operational problems to the Site Supervisor. The minimum qualifications for the Equipment Operators are being able to fulfill the duties described in this section. Equipment Operators that are hired on the basis of specific heavy equipment experience may be assigned to operate specific types of equipment without additional training.

All Equipment Operators are required to wear personal safety equipment, as appropriate, for their work assignments.

2.1.4 Laborers

Laborers will provide miscellaneous operations support at the facility. This support will include but is not limited to checking for unauthorized materials, sweeping the operation area, performing facility wash-down, collecting and disposing of windblown litter, general equipment and building maintenance, and directing and spotting vehicles in the unloading areas. Other laborers may be employed from time to time in categories such as maintenance, construction, litter abatement, and general site cleanup. Laborers report to the Site Supervisor or his designee. Also, additional laborers will be utilized in the event of a temporary waste inflow increase due to a large special event project.

2.1.5 Other Corporate Resources

HD Waste Transfer Station, LLC possesses additional solid waste management and operational resources, including consulting and management resources, which are available to site personnel, as needed. The Site Supervisor can contact appropriate personnel to provide additional assistance at any time.

Engineering and compliance staff will provide review and approval of pre-authorized requests for certain wastes received at the site. They may also provide pre-authorization approval for wastes and will provide oversight for waste acceptance by the Scale Attendant or trained designee and assist with other site regulatory matters, as requested by the Site Supervisor.

2.2 Training

Site personnel will be properly trained in the operations of the facility as described in this SOP, operational standards required by the registration, and the relevant TCEQ MSW regulations. Job-specific training may include SOP requirements, regulatory compliance, and compliance with other plans such as the Spill Prevention Control and Countermeasure Plan (SPCC) (if required), the Storm Water Pollution Prevention Plan (SWP3) (if required), the content and use of the fire protection plan, the Special Waste Acceptance Plan, and general safety procedures.

A description of training provided to each employee will be maintained in the site operating record.

2.2.1 Training Requirements

The owner or operator will ensure that the Site Supervisor at the facility is knowledgeable in the proper operation of a municipal solid waste facility and the current operational standards required by the TCEQ. The Site Supervisor will be experienced and will maintain a Class A or B license as defined in 30 TAC Chapter 30, Subchapter F. The supervisor will ensure that all personnel are properly trained and are operating the facility in accordance with this SOP, operational standards required by the registration, and TCEQ MSW regulations.

The personnel training program will be directed by a person trained in waste management procedures and will include instruction that teaches facility personnel waste management procedures and contingency plan implementation relevant to the positions in which they are employed.

Prior to performing their assigned work and duties, new employees will receive a comprehensive overview of all aspects of facility operations, focusing on information that is necessary to protect the health and welfare of the new employee and enable them to perform their duties in accordance with this SOP, operational standards required by the registration, and TCEQ MSW regulations. Initial training subject

matter will include applicable requirements found in the SDP, attachments to the SDP, the SOP, and other plans such as the SPCC (if required), the SWP3 (if required), and general safety procedures. Following the initial training, the new employee training will continue during monthly training sessions, during on-the job training, and during the annual review of their initial training.

Training meetings will be scheduled and conducted for all employees at least once per month. If a regular monthly meeting is cancelled, it will be rescheduled or combined with the scheduled training the next month. Training sessions will be scheduled to allow facility operations to be uninterrupted. Records of personnel attending each training session and the topics covered will be maintained at the facility. Topics for training may vary and will be conducted annually for the following:

- Safety
- Fire protection, prevention, and evacuation
- Fire extinguisher use
- Emergency response
- Litter control and windblown waste pick-up
- Hazardous waste and PCB waste detection and control (waste screening), if applicable
- Prohibited waste management
- Random inspection procedures

Facility personnel will take part in an annual review of their initial training. A written description of the type and amount of introductory and continued training provided to each employee will be maintained in the site operating record.

2.3 Equipment

Sufficient equipment will be provided to conduct site operations in accordance with the facility design, SOP, and waste acceptance rates. The facility will typically use one front-end loader (or similar equipment) for transfer operations. Collection vehicles will unload MSW and recyclables within the TS on the appropriate tipping floor areas. A front-end loader will typically push the MSW and recyclables into transfer trailers located in the tunnel. Grapples may also be used to compact waste or more evenly distribute the waste within the transfer trailer. The facility will have a permitted maximum rate of waste acceptance of 1,000 tpd averaged over four calendar quarters. HDWR TS will provide sufficient equipment if the volume of daily waste transfer requires additional equipment. Refer to Table 2-1 for a summary of facility equipment.

Additional company-owned or rental equipment, such as road tractors, water trucks, and backhoes, may be provided as necessary to enhance operational efficiency. At

infrequent times, such as during equipment breakdown or periodic maintenance, additional equipment stationed at other company facilities will be transported to the transfer station as needed. Other equivalent types of equipment may be substituted on an as-needed basis to adequately maintain the facility and meet the operational standards required by the TCEQ's regulations in accordance with all applicable local, state, and federal regulations.

Equipment used for waste staging and loading (front-end loader or similar equipment) will be maintained in an operational state and will periodically be cleaned (e.g., sweeping, washing, etc.) on an as-needed basis to prevent the accumulation of waste residue on the equipment and the creation of odors.

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 needed for increasing volumes of incoming solid waste and recyclables and for the sorting and processing of recyclable materials (e.g., baler). In case of breakdowns, backup equipment may be provided by third parties to ensure uninterrupted operations.

Table 2-1
Facility Equipment List

Equipment	Typical Size [1]	Function
Front-End Loader	Various makes and types	Moving materials
Transfer Trailers	80 yd	Hauling waste off-site for landfilling
Drop-off Boxes and Containers	Up to 40 yd	Store materials collected at the citizens collection station prior to hauling off-site
Recyclables Baler	Various makes and types	Baling recyclable material for storage or transportation off-site

[1] Types and equipment manufacturers will vary based on operational needs.

3 WASTE ACCEPTANCE AND ANALYSIS (30 TAC §330.203 AND §330.205)

3.1 Properties and Characteristics of Waste (§330.203(a))

The major classifications of solid waste accepted at the HDWR TS for transfer to a properly permitted municipal solid waste facility include household waste; yard waste; commercial waste; Class 2 and Class 3 non-hazardous industrial waste; and construction-demolition waste. The waste classifications are defined in Title 30 TAC §330.3. Special wastes may also be accepted at the facility. Appendix IVA – Special Waste Acceptance Plan details the special waste acceptance and handling procedures. In addition to MSW, the facility will accept source-separated recyclables.

The HDWR TS accepts waste generated from residential, commercial, institutional, municipal, manufacturing, industrial, recreational, and construction sources within the City of Dallas, Dallas County, and the surrounding areas. It is anticipated that wastes accepted will include paper, food wastes, glass, aluminum, metals, plastics, grass clippings, other organic wastes, wood wastes, textiles, bricks, and other inert materials.

Consistent with Title 30 TAC §330.15 (relative to general prohibitions), the facility will not accept Class 1 non-hazardous industrial wastes, regulated hazardous wastes, regulated asbestos-containing material (RACM), liquid wastes, radioactive wastes, PCB wastes, untreated medical wastes, or other wastes prohibited by TCEQ regulations. Class 1 waste is further defined in 30 TAC §335.505.

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). Examples of Class 2 industrial waste include “plant trash” or waste originating in the facility offices or plant production areas that are composed of paper and/or wooden packaging materials, glass, aluminum foil, aluminum cans, aluminum scrap, stainless steel, steel, iron scrap, Styrofoam, rope, twine, uncontaminated rubber, uncontaminated wooden materials, equipment belts, wiring, uncontaminated cloth, metal buildings, empty containers with a holding capacity of five gallons or less, uncontaminated floor sweepings, or food packaging that are produced as a result of plant production. 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 facility provided processing of these wastes does not interfere with proper operation of the facility.

Bulky and large items arriving at the TS will be placed on the tipping floor so as to allow equipment to crush and flatten the items prior to loading into the transfer trailer. Where this is not possible, bulky or large items will be loaded into transfer trailers that have been partially filled to prevent damage to the trailer from impact due to the heavy weight of the bulky and large items. Appliances potentially containing refrigerant will be inspected to ensure that any refrigerant has been extracted in accordance with Section 608 of the Federal Clean Air Act. Items containing chlorinated fluorocarbons (CFCs) will be handled in accordance with 40 CFR Part 82.

3.2 Volume and Rate of Transfer (§330.203(b) and §330.205(a) and (b))

The HDWR TS serves individuals and public and private collection vehicles from the City of Dallas, Dallas County, and surrounding areas. The TS will be developed to process and transfer solid waste up to the permitted maximum daily waste acceptance rate of 1,000 tons/day averaged over four calendar quarters. The TS is designed for efficient waste and recyclables processing. The area to be used for waste transfer operations will be approximately 7,500 square feet (sf), and the area used for recyclables will be approximately 3,000 sf. Facility layout drawings are included in Part III, Appendix IIIA.

Materials will be transferred to a permitted municipal solid waste facility, a recycled material processing facility, or a third-party recyclables vendor, typically on a daily basis. As economic conditions, population growth, and waste generation rates change, the volume of incoming waste may vary. As noted in Section 6.8, the waste acceptance rate for the facility will be reported quarterly. As discussed in Section 3.3, the incoming waste stream will be reduced by at least 10 percent through source separation, diversion, and/or recycling programs (see Section 3.3, below).

The facility is designed to transfer waste/recyclable materials received so they can be efficiently transported to a landfill, recycled material processing facility, or third-party recyclables vendor. The maximum amount of waste that may be stored overnight at the facility is 1,000 tons. MSW accepted at the TS will typically be transferred on a daily basis. The maximum length of time waste material will remain onsite is 48 hours, except holidays as discussed in Section 8.10; and during holidays, waste may be temporarily stored at the facility not to exceed a time period of 72 hours. Waste may be stored on the tipping floor at night or in transfer trailers on the facility premises after closing hours on Saturdays and Sundays. Waste that is stored overnight will be tarped, or a similar method will be taken to cover waste. Contaminated water generated from washing the tipping floor areas or transfer trailer tunnel will be stored in a minimum 2,000-gallon holding tank and transported

to a permitted treatment facility for disposal. The HDWR TS will not discharge contaminated water without a separate, specific written authorization from TCEQ or local POTW.

The HDWR TS will maintain documentation at the facility that all wastes leaving the facility are being adequately managed by other licensed or permitted facilities, including the requirement that waste be diverted to a permitted landfill facility within a 50-mile radius of the TS, unless the materials are recyclable, as described in the following section.

3.3 Materials Recovery and Diversion (§330.9(e)(l))

To comply with Title 30 TAC §330.9(e)(1), HDWR TS will utilize source separation, curbside recycling, and other materials diversion programs in effect within the areas being served by the facility to ensure a reduction of the total incoming waste stream by at least 10 percent by weight or weight equivalent. The facility will maintain records demonstrating that the total incoming waste hauled to the HDWR TS has been reduced by at least 10 percent.

The actual amount of recyclables will be recorded based on the net weight of each transaction at the scale, which will be inspected, calibrated, and maintained to assure accuracy. Facility personnel will maintain the scale records as well as additional documentation to demonstrate that the total incoming waste was previously reduced by at least 10 percent in accordance with the materials recovery provisions of Title 30 TAC §330.9(f)(1). HDWR TS will keep operating records and provide a report to the Executive Director on a quarterly basis that demonstrates the total incoming waste was reduced by at least 10 percent.

Documentation will be updated annually and maintained in the operating record at the TS for inspection by the TCEQ during regular business hours. By maintaining and making such records available for inspection by the TCEQ, HDWR TS does not waive any applicable rights or privileges with respect to such information, which may constitute protected trade secrets and proprietary or confidential business information. Further, HDWR TS will provide reports to TCEQ consistent with Title 30 TAC §§330.671-675.

As required per Title 30 TAC Chapter 328 regarding waste minimization and recycling and Chapter 332 regarding composting, HDWR TS will confirm through audit that materials recovered are being reused and/or recycled.

3.4 Waste Sampling and Analysis for Processing and Experimental Facilities (§330.203(c))

This regulation is not applicable to this facility. This facility transfers waste and recyclables. There is no on-site processing of grit trap wastes, sludges, or effluent from a treatment process.

Management of contaminated water generated at the facility is discussed in Section 4.

4 CONTAMINATED WATER MANAGEMENT (30 TAC §330.207)

The HDWR TS will take the steps necessary to control and prevent the discharge of contaminated water from the facility. As noted in Section 2.3.1 of the SDP, the HDWR TS is designed to manage stormwater in a controlled manner that will not cause surface water or groundwater pollution. Contaminated water generated by the facility will consist of water resulting from wash water applied to the tipping floor areas and transfer trailer tunnel. Wash water drained from the tipping floor areas and the tunnel will be collected in a sump, from where it will be pumped into a holding tank. The holding tank will be pumped, as necessary, and the water will be hauled to a permitted treatment facility for disposal. The owner/operator will not discharge contaminated water without a separate, specific written authorization from TCEQ or local POTW. Contaminated water transported to a permitted treatment facility will conform to the testing requirements of the receiving facility.

Uncontaminated stormwater run-on and runoff will be directed away from the TS structure entrances by site grading. Stormwater will be managed by maintaining the existing surface water patterns in areas outside of the TS structure footprint.

5 STORAGE REQUIREMENTS (30 TAC §330.209 AND §330.213)

5.1 Solid Waste Storage (§330.209(a))

Solid waste entering the facility will be stored in the covered TS structure or loaded in transfer trailers. All solid waste will be stored in a manner to prevent fires, ensure safety, prevent and control vectors and odors, and contained to prevent windblown solid waste and litter. In the event additional measures are deemed necessary for vector or pest control, methods of control might include spraying, baits, traps, or other measures suitable for the identified pest or vector.

No solid waste loading or storage will occur within any easement, buffer zone, or right-of-way that crosses the facility. When necessary, MSW material will be stored onsite for a maximum time not to exceed 48 hours, except on holidays, as discussed in Section 8.10. Waste may be temporarily stored at the facility for a time period not to exceed 72 hours. Waste may be stored on the tipping floor at night or in transfer trailers on the facility premises after closing hours on Saturdays and Sundays. The volume of MSW stored overnight will not exceed 1,000 tons; and waste that is stored overnight will be in tarped transfer trailers or will be covered with a tarp on the TS tipping floor. Tarping of segregated recyclable materials will not be required.

5.2 Approved Containers (§330.211)

Citizen vehicles entering the TS facility may deposit waste onto the MSW tipping floor area at HDWTS discretion. Solid waste from waste/recycling hauling vehicles and filled bins or roll-off containers from the citizens collection station may be unloaded onto the TS tipping floor in designated areas. Waste placed on the TS tipping floor will be transferred to transfer trailers. The transfer trailers used by the TS are leak proof, durable, and designed for safe handling and easy cleaning. The transfer trailers are equipped with tarps or covers to be used 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.

Non-reusable containers will be of suitable strength to minimize scavenging or rupturing. If used, any container emptied manually will be capable of being serviced without the collector coming into contact with waste.

5.3 Citizens Collection Station

An optional area separate from the TS building may be provided for staging of one or more separate weatherproof bins and/or containers for receipt of MSW and recyclables from citizens. Depending on the residential use of the citizens collection station, a sufficient number of drop-off and/or roll-off containers in varying sizes will be provided, as needed. Waste disposed at the citizens collection station will be visually screened by trained personnel. A sign at the entrance of the facility will notify citizens of the types of waste allowed to be disposed and wastes prohibited from disposal into the bins/containers. The bins/containers will be emptied as needed, and MSW bins/containers will be emptied at a minimum of daily. The optional citizens collection station will be over paved or gravel areas and will be cleaned of litter or material that is spilled during use on a regular basis.

Any ponded water will be promptly removed. Odors, vectors, and windblown waste from the citizens collection station will be discouraged by maintaining a clean and neat area and by removal of items once sufficient quantities are accumulated to warrant off-site transport.

6 RECORDKEEPING AND REPORTING REQUIREMENTS (30 TAC §330.219)

6.1 Documents (§330.219(a))

The HDWR TS will maintain the operating record for the facility on site. Consistent with Title 30 TAC §330.219(a), copies of documents that are part of the approved permitting process that are considered part of the operating record for the facility are listed in Table 6-1. As noted in Table 6-1, trip tickets will be retained for 5 years.

These documents will be made available for inspection by TCEQ representatives or other interested parties.

6.2 Records to be Maintained (§330.219(b))

The HDWR 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 6-1.

6.3 Report Signatories (§330.219(c))

HDWR TS personnel will sign all reports and other information requested by the Executive Director as described in Title 30 TAC §305.44(a) or by an authorized representative of the HDWR TS. For a person to be an authorized representative of the HDWR 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 HDWR TS, and (3) submitted in writing to the Executive Director.

If an authorization is no longer accurate because of a change in individuals or position, a new authorization will be submitted to the Executive Director prior to or with any submittal to be signed by an authorized representative. Any person signing such a report will make the certification included in Title 30 TAC §305.44(b).

6.4 Notification (§330.219(e))

The HDWR TS, in accordance with Title 30 TAC §330.219(e), will furnish the operating record to the Executive Director upon request and will be made available at all reasonable times at the facility for inspection by the Executive Director.

6.5 Record Retention (§330.219(f))

In accordance with Title 30 TAC §330.219(f), the site will retain all information contained within the operating record of the facility, and all plans required for the facility for the life of the facility until after certification of closure.

6.6 Alternative Schedules (§330.219(g))

The Executive Director, in accordance with Title 30 TAC §330.219(g), may set alternative schedules for recordkeeping and notification requirements as specified in Title 30 TAC §330.219(a) – (e).

6.7 Personnel Training Records and Licenses

The HDWR TS will maintain personnel training records. Personnel training requirements will be consistent with Section 2 – Personnel and Training. Personnel training records for current facility personnel will be maintained until closure of the facility. The facility will maintain operator licenses for municipal solid waste supervisors as required by 30 TAC Chapter 30, Subchapter F. Personnel training records and personnel operator licenses will be maintained in the operating record as listed in Table 6-1.

Copies of special waste manifests and approval forms utilized by the landfill receiving the waste will be maintained on site for at least three years. Other documents, such as agency correspondence and waste acceptance records (e.g., manifests, trip tickets, and other waste acceptance records), older than three years may be maintained at (1) the site or (2) an off-site storage facility which is under contract with the site to manage these records.

6.8 Annual Waste Acceptance Rate Documentation and Recording (§330.675)

As listed in Table 6-1, the facility will maintain records to document the annual waste acceptance rate for the facility. Documentation will include maintaining the quarterly solid waste summary reports and the annual solid waste summary reports required by Title 30 TAC §330.675 in the site operating record.

Table 6-1
Records to be Maintained in the Site Operating Record

Records to be Maintained in the Site Operating Record	Frequency	Rule Citation
MSW Registration	Once	§330.219(a)
Approved registration application	Updated as modifications are approved	§330.219(a)
Site Operating Plan	As updated	§330.219(a)
Other required plans or related documents	As updated	§330.219(a)
As-built set of construction plans and specifications	As needed	§330.219(a)
Location restriction demonstrations	As updated	§330.219(b)(1)
Inspection records (including drainage inspections and actions taken for drainage repairs) and training procedures	Per occurrence	§330.219(b)(2)
Closure plans and any monitoring, testing, or analytical data relating to closure requirements	As required	§330.219(b)(3)
Cost estimates and financial assurance documentation relating to closure	Annually	§330.219(b)(4)
Correspondence and responses relating to facility operation, registration modifications, approvals, and technical assistance	Per occurrence	§330.219(b)(5)
All documents, manifests, shipping documents, trip tickets, etc., involving special waste	Per occurrence	§330.219(b)(6)
Other documents specified in the registration or by the Executive Director	As required	§330.219(b)(7)
Trip tickets as required by §312.145(b)(2)	Per occurrence (retained for 5 years)	§330.219(b)(8)
Scale tickets and database records demonstrating minimum 10% source separation and diversion recycling	Per occurrence	§330.9(f)(l)
Dates, times, and durations of alternative operating hours (e.g., if not as stated in Section 8.4)	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 (including topics covered and attendee list) and detailed job descriptions	As needed	§330.219(b)(2)
Records to document the amount of waste and recyclables transferred (including quarterly and annual summary reports)	Quarterly and Annually (retained for 5 years)	§330.219(b)(9) and §330.675
Load inspection records	Per occurrence	§330.225
Personnel operator licenses	As needed	§330.219(b)(2)
All site inspection and maintenance documentation noted in Section 8.15 – Facility Inspection and Maintenance Schedule	As required	§§330.223 – 330.243
A record of each unauthorized material removal event	Per occurrence	§330.225
Documentation that all wastes leaving the facility are being adequately managed by other licensed or permitted facilities.	As needed	§330.205(a)
Log of abnormal events	Per occurrence	§330.219(d)(1)
Report and supporting records demonstrating that at least 10% of the volume of the waste received was processed to recover solid material that was recycled or reused.	Quarterly (sent to Executive Director and maintained in site operating record)	§330.9(f)(1)

7 FIRE PROTECTION PLAN (30 TAC §330.221)

7.1 Fire Prevention Procedures

The following steps will be taken regularly by designated site personnel to prevent fires.

- Open burning of waste is prohibited.
- Burning waste from incoming waste loads will be prevented from being unloaded within the TS building. The Scale Attendant or Trained personnel observing site operations will be alert for signs of burning waste such as smoke, steam, or heat being released from incoming waste loads. The vehicle will be directed to an area away from and not adjacent to the building or within 40 feet of any building, where waste can be safely discharged and the fire extinguished. Upon extinguishing the fire, the waste will be monitored until deemed fully under control and then moved inside the TS building. Fire extinguisher water will be managed as contaminated water (refer to Section 4).
- Equipment used at the facility will be routinely cleaned through the use of water, steam cleaners, or compressed air. The water or steam cleaning will remove combustible waste and caked material which can cause equipment overheating and increase fire potential. Equipment wash water will be managed as contaminated water (refer to Section 4).
- Fuel spills will be contained and cleaned up immediately and will be properly managed as directed by the Site Supervisor.
- Smoking is not allowed in the working areas of the site. Smoking is confined to designated areas only, away from the active tipping floor areas, waste handling areas, and other fire-sensitive areas.
- The facility will be equipped with fire extinguishers of a type, size, location, and number as required by the local fire department. Each fire extinguisher will be fully charged and ready for use at all times. Each extinguisher will be inspected on an annual basis and recharged as necessary. These inspections will be performed by a qualified service company, and all extinguishers will display a current inspection tag. Inspection and recharging will be performed following each use. At a minimum, each building and applicable equipment will have fire extinguishers.

- The facility will be equipped with fire extinguishers located throughout the facility. A City of Dallas Fire Station is located on S. St. Augustine Drive approximately two miles northeast of the facility. Emergency response telephone numbers will be located throughout the facility.
- An adequate supply of water under pressure is available for firefighting purposes. Two hose bibs are located along the wall of the tipping floor, which is where the wash-down hoses are connected. In addition, a fire hydrant is located on the TS property.
- A minimum separating distance of 50 feet is maintained between solid waste processing activities and the boundary of the facility to allow for firefighting and other emergency vehicles.

7.2 General Rules for Fires

The following rules will be implemented in the event of a fire at the HDWR TS.

- Contact the City of Dallas Fire Department by calling 911.
- Immediately contact the Site Supervisor.
- Equipment operators may be equipped with two-way radios or cell phones.
- Alert other facility personnel.
- Assess extent of fire, possibilities for the fire to spread, and alternatives for extinguishing the fire.
- If it appears that the fire can be safely fought with available fire fighting devices until arrival of the Fire Department, attempt to contain or extinguish the fire.
- Upon arrival of Fire Department personnel, direct them to the fire and provide assistance as appropriate.
- Do not attempt to fight the fire alone.
- Do not attempt to fight the fire without adequate personal protective equipment.
- Be familiar with the use and limitations of firefighting equipment available onsite.
- Firefighting methods include spraying the burning material with water from the hose. If detected soon enough, a small fire may be fought with a hand-held fire extinguisher.

7.3 Specific Fire-Fighting Procedures

The following procedures will be followed in the event of a fire.

- If a fire occurs on a vehicle or piece of equipment, the operators should bring the vehicle or equipment to a safe stop. If safety of personnel will allow, the vehicle must be parked away from fuel supplies, solid wastes, and other vehicles. The vehicle will be directed to park on a paved area at least 40 feet from any building. The engine should be shut off and the brake engaged to prevent movement of the vehicle. Fire extinguishers should be used to extinguish a fire if possible, without risk to operators.
- If a fire is on the tipping floor, the burning area should be isolated and pushed away from the other waste quickly. The burning area should be sprayed with water from the large wash down hoses or, if small enough, extinguished with a hand-held fire extinguisher.
- If burning waste materials are discovered after having been delivered to the site, the vehicle will be directed to an area away from buildings. Then the waste will be discharged and the fire extinguished. Upon extinguishing the fire, the waste will be monitored until deemed fully under control and then moved into the TS building and loaded into transfer trailers.
- Fire extinguisher(s) will be located within each building or on each piece of equipment or vehicle. Hose bibs in the TS building may be used to extinguish a fire, as appropriate.
- The site water supply is provided by a TCEQ approved public water system that is capable of providing the facility with an around-the-clock supply of potable water with adequate pressure for firefighting purposes.

7.4 Fire Protection Training

Site personnel will be trained in the contents of Section 7 – Fire Protection Plan. Training will be conducted annually. The following topics will be addressed:

- Fire Prevention
- Fire Safety
- Fire Fighting Procedures
- Fire Extinguisher Use and Capabilities

7.5 TCEQ Notification

The HDWR TS will make every reasonable effort to contact the TCEQ regional office immediately upon detection of a fire if the fire is not extinguished within ten minutes of detection. At a minimum if not extinguished within 10 minutes, the TCEQ regional office will be contacted within no more than four hours by phone after detection and in writing within 14 days. The notification will include a description of the fire and resulting response.

8 OPERATIONAL PROCEDURES (30 TAC §330.223 THROUGH §330.249)

8.1 Access Control (§330.223)

Public access to the facility will be limited to the gated facility entrance. The Scale Attendant or trained personnel observing operations controls access and monitors vehicles entering and exiting the site. The site will be fenced with a 6-foot-high chain link fence, visual screening fence, 4-foot-high barbed wire fence, or other suitable fencing to prevent unauthorized public access.

8.1.1 Facility Security

Facility security measures are designed to prevent unauthorized persons from entering the facility, to protect the site and its equipment from possible damage caused by trespassers, and to prevent disruption of facility operations caused by unauthorized facility entry.

Unauthorized entry into the facility will be minimized by controlling access to the site with fencing (see Section 8.1). A gate constructed of suitable fencing materials will be located on the entrance road. The gate will be locked when the facility is not accepting waste and the offices are closed.

Entrance to the facility will be monitored by site personnel during facility operating hours. A sign regulating access at the C F Hawn Freeway Frontage Road entrance will be posted to restrict access during non-operating hours to company personnel only.

Entry to the facility will be restricted to designated personnel, appropriate subcontractors, approved waste haulers, the public, TCEQ personnel, and properly identified persons whose entry is authorized by facility management. Visitors may be allowed on the site only when accompanied by a facility representative.

The facility will comply with the following schedule and notification requirements for any access breach:

Table 8-1
Facility Security Schedule

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

8.1.2 Traffic Control

Access to the facility is via the access roadway and through the gate on the southwest side of the facility. The Scale Attendant or trained personnel observing operations will restrict facility access to authorized vehicles and direct these vehicles appropriately. Vehicles allowed to enter the facility are identified in Section 8.1.1.

Public and private waste/recycling hauling vehicles will be directed to the appropriate tipping floor areas. These vehicles will deposit their loads within the facility and depart the site. The public will be directed to the appropriate unloading area. Facility personnel will provide traffic directions as necessary to facilitate safe movement of vehicles into and out of the TS building. Signs may be utilized to direct vehicles to the facility exit.

Within the facility, signs may be placed along the entrance road at a frequency adequate to guide users to the proper areas and which roads are to be used. An adequate turning radius for the vehicles utilizing the facility will be provided to maintain normal traffic flow.

Refer to Section 8.8 for access road dust and mud control requirements.

8.1.3 On-site Access Roads and Parking

On-site access roads will have a minimum of two-lane widths and all-weather surfaces (e.g., aggregate, asphalt, concrete).

Parking for over 20 vehicles is provided immediately west of the maintenance shop/office building for HDWR TS staff and visitors.

Equipment parking and staging will be directed by trained personnel so as not to block or hinder ingress or egress to the tipping floor areas by waste/recycling hauling vehicles or transfer trailers. Equipment and employee parking will be designated based on observed waste hauler traffic patterns and will provide a safe place for employee parking. Parking areas are shown on Figures I/II-4.4 and IIIA-2.

8.2 Unloading of Waste (§330.225)

8.2.1 Waste Unloading Procedures

The HDWR TS is authorized to receive municipal solid waste and the wastes specified in Section 3.1, as well as recyclables. The categories of wastes that are prohibited at this site by state and federal regulations are discussed in Section 3.1 of this SOP.

Trained personnel will monitor the incoming waste/recyclables on the trucks at the unloading area. These personnel will be familiar with the rules and regulations governing the various types of waste that can or cannot be accepted into this facility, including knowledge of Title 30 TAC §330.171 and Title 30 TAC §330.173. The personnel will also have a basic understanding of both industrial and hazardous waste and their transportation and disposal requirements. Trained personnel at the tipping floor areas will be on-duty during waste acceptance hours to observe waste/recyclables unloading.

Incoming waste collection traffic will be directed to the TS building tipping floor areas, or unloading areas, by trained personnel once the vehicle incoming weight or volume has been recorded. The Scale Attendant or trained personnel will inform the customer that the waste is only to be unloaded in the area where the customer is directed by trained site operating personnel to unload. Signs directing traffic from the scales to the TS structure may be located, as needed, along the route to the unloading areas. The unloading of waste/recyclables will be directed by trained personnel working inside the TS building. Equipment operators and other personnel will be on duty during operating hours to direct traffic to the unloading areas. Waste/recyclable unloading and transfer operations will only occur within the TS building.

The operator will use the front-end loader (or similar equipment) to push the waste to the push wall (optional) or into the transfer trailers and to push recyclables into the transfer trailers.

Waste will not be unloaded within any easements, zones, or rights-of-way. 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.

Trained personnel at the tipping floor areas will have the authority and responsibility to reject loads which contain prohibited wastes. The personnel will also have the authority to have prohibited waste removed by the waste haul vehicle or transporter, immediately upon discovery. Trained personnel at the tipping floor will immediately notify the Site Supervisor or designee of suspected prohibited waste. The Site Supervisor will direct the trained personnel to remove or manage prohibited waste appropriately. The Site Supervisor may assess appropriate surcharges to the waste hauler, transporter, or generator.

Prohibited waste will not be allowed to enter the facility. Before unloading, the hauler will be asked to inform the trained personnel of the content of the load. The trained personnel may visually inspect hauling vehicles to verify contents. In the event prohibited wastes are identified in the load, the entire load is turned away from the gate and not allowed entrance to the site. In addition, if the waste haul vehicle is delivering special or industrial waste, site personnel will visually compare the material presented for disposal to the Special Waste Profile (SWP) or similar form to confirm that the physical characteristics (i.e., color, odor, and appearance) of the material match those detailed on the SWP. In the event that the physical characteristics of the waste differ from the approved waste stream, or other discrepancies (e.g., paperwork) are unresolved, the waste load will be rejected (refer to Section 2 of Appendix IVA).

Any prohibited waste that is not discovered by the operators until after it is unloaded will be returned to the vehicle that delivered the waste. That party will be responsible for the proper disposal of this rejected waste.

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

8.2.2 Procedures for the Detection and Prevention of Unauthorized Waste

Procedures for the detection and prevention of the disposal of unauthorized waste, including regulated hazardous waste as defined in 40 CFR Part 261 and polychlorinated biphenyl (PCB) wastes as defined in 40 CFR Part 761, are provided in this section.

Properly trained and qualified personnel will visually inspect incoming loads. Should any indication of prohibited waste be detected, appropriate site personnel will stop

unloading of the vehicle to allow trained personnel to conduct a thorough evaluation of the load. The load inspector will break up a portion of waste placed on the tipping floor and inspect the material for any prohibited waste. Known prohibited waste will be placed back into the vehicle, and the driver will be instructed to depart the facility. Should any regulated hazardous waste be detected, the entire load will be refused.

Random visual load inspections of incoming waste will be conducted. Although the inspection location may vary, all inspections will be made in areas where containment is provided and/or potential spills of unauthorized waste would be minimized. Vehicles that transport commercial and industrial waste will be considered for inspections. Such vehicles typically include front-end loaders, commercial rear-end loaders, side loaders, trucks with roll-off boxes, stake-bed trucks, dump trucks, pick-up trucks, and pick-up trucks with trailers transporting non-household wastes.

Vehicles containing suspicious loads will be inspected. Suspicious loads may include:

- Drums or containers with warning labels
- Loads which have a visible emission, smoke, strong chemical odor, or cause physical symptoms (e.g., irritation of eyes, nose, throat, skin, nausea, dizziness, or headache).

The inspector will not physically inspect any vehicle that appears to present possible physical danger. The Site Supervisor or his designee will be contacted immediately if such a load enters the facility.

The Site Supervisor or his designee will determine when to conduct inspections of incoming loads. The inspections will be conducted in a manner that allows the inspector 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 inspector will make an effort to view as much as possible. The inspections will be conducted in an expeditious manner to minimize disruption to normal operations.

The Site Supervisor will maintain and include in the operating record the load inspection reports for randomly inspected loads. Load inspection reports, recorded on standardized forms, will be completed for each inspected load. The reports will include at a minimum, the date and time of inspection, the name and address of the hauling company and driver, the type of vehicle, the size and source of the load, contents of the load, indicators of prohibited waste, and results of the inspection. A copy of an example load inspection report form is included in Appendix IVA of this SOP.

8.3 Spill Prevention and Control (§330.227)

The tipping floor areas have been designed to control and contain spills and contaminated water. Contaminated water generated by the TS building will consist of wash water applied to the tipping floor areas and the transfer trailer tunnel. Contaminated water will be directed to drains within the tipping floor areas and transfer trailer tunnel trench drain before it is conveyed to a sump, which will have a pump to pump the water to the holding tank. The holding tank will be pumped, as necessary, and hauled to or discharged into a POTW or permitted facility by a registered hauler.

8.4 Operating Hours (§330.229)

The facility will be authorized to accept and process waste/recyclables and operate during the timeframes described in this section.

HDWR TS personnel, the general public, and other commercial waste transportation companies may utilize this facility for the receipt and processing of waste/recyclables between the hours of 5:00 a.m. and 7:00 p.m., Monday through Friday, and 5:00 a.m. to 12:00 p.m. on Saturday. The site is closed on Sunday. Waste/recycling acceptance hours for the public will be posted on the entrance sign and will be within the hours listed above. The extended operating hours (beyond the hours described in Title 30 TAC §330.229) are justified by the volume of waste being accepted by the facility and the future needs of the community.

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.

In addition, the site may request alternative operating hours to accommodate special occasions, special purpose events, holidays, or other special occurrences. The facility will notify the TCEQ regional office in advance for these alternative hours.

When warranted, the Site Supervisor will request approval from the commission's 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 facility personnel will document the reason or reasons for the delay for each day on which a delay occurs and place the documentation in the operating record.

The facility will record the dates, time, and duration when any alternative operating hours are utilized. The information will be maintained with the site operating record.

8.5 Facility Sign (§330.231)

A conspicuous sign measuring a minimum four feet by four feet will be maintained at the public entrance to the facility. The sign states, in letters at least three inches high, the following information:

Type of MSW Facility: Type V
Authorized by TCEQ Registration Number: MSW-_____
Hours of Operation for Waste Acceptance (actual hours within the hours listed below may vary):
5:00 a.m. to 7:00 p.m., Monday through Friday
5:00 a.m. to 12:00 p.m., Saturday
Local Emergency Fire Department Number: 911

Other relevant information may also be included on the sign. Waste acceptance hours for both commercial waste haulers and the public may differ from the permitted hours shown above and, if different, will be posted on the facility sign. In no instance will normal waste acceptance hours be outside permitted hours for waste acceptance, listed in Section 8.4.

The sign will be visible and readable from the facility entrance. A sign will be prominently displayed at the facility entrance stating that all loads will be properly covered or otherwise secured, in addition to stating the wastes that are prohibited from receipt at the facility.

8.6 Control of Windblown Material and Litter (§330.233)

Windblown material and litter will be collected and properly managed to control unhealthy, unsafe, or unsightly conditions by the following methods:

- Waste and recyclable transportation vehicles using this facility will be required to use adequate covers, such as a tarp, net or other means to effectively secure the load consistent with Title 30 TAC §330.235 and Section 8.7. The adequacy of covers or other means to secure incoming wastes will be checked at the facility entrance.
- Windblown material and litter along the entrance road that has accumulated along fences, along the registration boundary, and throughout the facility will be collected once a day during facility operations and returned to the facility for processing.
- The TS facility will be a covered structure with two open sides to facilitate the safe and efficient flow of vehicles through the facility. Unloading and loading of waste will be performed completely underneath the structure to control windblown material and litter. The facility will provide litter control devices, as necessary, at appropriate locations near the unloading areas and elsewhere.

The litter control devices will be constructed of appropriate materials for the control of windblown material and litter.

8.7 Materials Along the Route to the Facility (§330.235)

The site will take steps to encourage that vehicles hauling waste and recyclables to the facility are enclosed or provided with a tarp, net, or other means to properly secure the load. These steps are necessary to prevent the escape of any part of the load by blowing or spilling. The facility will provide for the cleanup of waste materials spilled along and within the right-of-way of the public access roads serving the facility for a distance of two miles in either direction from the entrance. Cleanup for the spilled materials will be performed once per day on days when the facility accepts waste. The facility will consult with TxDOT, county, and local government officials concerning cleanup of roads and rights-of-way consistent with Title 30 TAC §330.235.

8.8 Facility Access Roads (§330.223(b) and §330.237)

The entrance road will provide access from C F Hawn Freeway (US Highway 175 Frontage Road) to the TS for waste/recyclable hauling vehicles, operating personnel, and visitors. The entrance road will be two lanes with a concrete or asphalt surface from the C F Hawn Freeway connection. All other internal access roads will be constructed with an all-weather surface. The paved entrance, access road, and internal roads will provide mud control for the hauling vehicles and transfer trailers prior to exiting the facility and returning to public access roads. It is not anticipated that mud or other debris will be tracked onto C F Hawn Freeway given the concrete or asphalt surface that will exist on these roads. The onsite access roads will be maintained in a reasonably mud and dust free condition by sweeping and/or periodic water spraying from a water truck dispatched to the site (or from the wash down hose), as necessary. The entrance, access, and internal roads will be maintained in a clean and safe condition. Repairs will be performed as identified during routine inspections.

8.9 Noise Pollution and Visual Screening (§330.239)

Since MSW transfer activities will occur beneath the roof of the TS structure, generated noise is mostly confined to the TS facility and waste transfer operations are screened from the public. Existing trees and bushes provide screening for the facility. Consistent with City of Dallas ordinances, additional landscaping may be installed. A Facility Screening Plan is shown on Drawing IIIA-5. The facility is located at a sufficient distance from most nearby residences and businesses that activities at the site will not be readily visible. The registration boundary is approximately 125 feet from the nearest residence, with the TS structure located approximately 300 feet

from the nearest residence. The registration boundary is approximately 130 feet from the nearest business. There are five schools, 10 churches, 2 cemeteries, and no aesthetically significant sites within a half mile radius of the facility.

8.10 Overloading and Breakdown (§330.241)

The maximum time waste material will be stored will not exceed 48 hours, except during holidays, where waste may be temporarily stored at the facility not to exceed a time period of 72 hours. Waste may be stored on the tipping floor at night or in transfer trailers on the facility premises after closing hours on Saturdays and Sundays. Waste that is stored overnight will be tarped, or a similar method will be taken to cover waste.

If a significant work stoppage should occur at the facility due to a mechanical breakdown or other causes or the site is expected to become inoperable more than 24 hours beyond above listed storage periods, or the site cannot operate in accordance with the SOP, the site will accordingly restrict the receiving of solid waste/recyclable materials. Under such circumstances, incoming solid waste/ recyclables will be diverted directly to an authorized facility. If the work stoppage is anticipated to last long enough to create nuisance odors, insect breeding, or harborage of vectors, steps will be taken to remove the accumulated solid waste materials from the site to a properly permitted area landfill, materials recovery facility, or third-party recyclables vendor.

The site will be able to store a maximum of 1,000 tons of waste on the tipping floor. Recyclables that have had MSW separated out do not have a limit for storage onsite.

8.11 Sanitation (§330.243)

Both tipping floor areas will be washed down on a weekly basis at the completion of a daily processing period.

The site is sloped to direct wash water to the drains within the tipping floor areas and transfer trailer tunnel before it is conveyed to the minimum 2,000-gallon contaminated water holding tank via a sump and pump located within the transfer trailer tunnel. Wash water will not be allowed to accumulate.

8.12 Ventilation and Air Pollution Control (§330.245)

The HDWR TS includes a partially enclosed structure. Ventilation is provided by the two open sides and two gable vents. No significant air pollution emissions are expected to result from the operation of the facility. Prior to operations, the appropriate air registration or authorization will be obtained.

If air pollution emission capture and abatement equipment is utilized, it will be properly maintained and operated consistent with Title 30 TAC §330.245(e).

The facility is designed and will be operated to provide adequate ventilation for odor control and employee safety. The operator will prevent nuisance odors from leaving the boundary of the facility. An odor misting system (using water) may be installed at the facility and used, if needed, along with other measures to suppress nuisance odors from migrating off site. The mist system may also be used to control odors through the addition of chemical deodorizers in the water in nonaqueous odor control systems. Air authorization will be obtained from the TCEQ if necessary for the odor control system used. Ponded water will be controlled to avoid objectionable odors.

No liquid waste will be processed or stored at this facility. As noted in Section 5.1, solid waste will be stored or transferred within the TS building or stored within approved containers outside of the TS building.

8.13 Health and Safety (§330.247)

Facility personnel will be trained in accordance with the procedures outlined in Section 2 – Personnel and Training. The general facility safety measures are included in Section 9 – General Instructions.

8.14 Employee Sanitation Facilities (§330.249)

Potable water and sanitary facilities will be provided for all employees and visitors.

8.15Facility Inspection and Maintenance Schedule

Table 8-2
Facility Inspection and Maintenance Schedule

Item	Task	Frequency	Inspector	Type of Inspection
Windblown Waste	Police working area, entrance area, and perimeter fence for loose trash. Clean up as necessary.	Daily	Site Supervisor or Designee	Document in the Operating Record.
Materials along the Route to the Facility	Police the entrance area and public access roads (i.e., C F Hawn Freeway (US 175 Frontage Road), Rylie Crest Dr., and Haymarket Road) for a distance of 2 miles in either direction from the entrance for litter. Clean up as necessary.	Daily	Site 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 to ensure uninterrupted service.	Minimum weekly; more often during extreme wet/dry weather	Site Supervisor or Designee	Document in the Operating Record.
Contaminated Water Holding Tank	Inspect integrity of the cover and check level in tank	Weekly	Site Supervisor or Designee	Document in the Operating Record and Coordinate Contaminated Water Removal Per Section 8.3.
Tipping Floor	Wash down and sweep	Daily (if receiving special waste)/weekly	Site Supervisor or Designee	Document in the Operating Record

9 GENERAL INSTRUCTIONS

9.1 General Facility Safety

Facility safety will be promoted by personnel using well-maintained equipment to perform standard work procedures. Facility safety will be enhanced by limiting access to the working areas to only authorized personnel. In the event of an emergency, planned emergency response procedures will be followed.

Access to the facility will be limited to authorized personnel as described in Section 8 of this SOP. Access is controlled by a combination of signs and physical barriers. Facility personnel are responsible to be alert for the entrance of unauthorized personnel or the entrance of authorized personnel into prohibited areas.

In the event of an emergency, facility personnel will assess the situation, notify the Site Supervisor or designated supervisor, and take appropriate actions such as rendering aid, calling for assistance, or closing access to the emergency scene. Emergency numbers will be posted beside the telephone in the scalehouse (if constructed) or maintenance shop/office building.

These include:

Office	Phone
Ambulance	911
Dallas Fire Department	911
Dallas Police Department	911
Dallas County Sheriff Department	911

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 (potentially co-located

within the Maintenance Shop/Office Building). These preparedness and prevention measures are detailed in the following sections.

9.2.1 General

General preparedness and prevention measures that will be followed are:

- Employee breaks or rest periods will be provided to minimize fatigue, improve alertness, and thereby reduce accident potential.
- Access controls will provide for the safety of non-transfer operations personnel.
- Routine preventive maintenance of equipment will be provided.
- Facility inspections of the working areas will be performed by a management representative.
- Appropriate personnel safety equipment will be kept onsite and maintained in good repair.
- Adequate turning area for hauling vehicles will be provided.
- Scavenging will not be allowed, and individuals are required to stay close to their vehicles for their own protection.
- Waste unloading will be restricted to designated areas only.
- Site personnel will be alert for possible prohibited wastes.
- Nonapproved wastes will be controlled or contained and removed as necessary.

9.2.2 TS Building

Preventative measures that will be followed in the TS building include the following:

- Visually screen incoming waste loads for unauthorized wastes.
- Individuals are required to stay close to their vehicles for their own protection.
- Visually observe incoming vehicles for evidence of improper operation, faulty equipment, or other conditions that could be hazardous to personnel or others.
- Maintain access to appropriate emergency equipment and first-aid materials.
- Provide emergency telephone numbers that are conspicuously posted in the TS building.
- A "No Smoking" rule is enforced.
- Emergency fire-fighting equipment is provided in or on equipment.

9.2.3 Facility Entrance Road

Preventative measures for the facility entrance road include the following:

- Display speed limit, directional, and other precautionary signs.
- Maintain roadway free from obstructions.
- Enforce requirements for safe operation of vehicles onsite.

9.2.4 Scalehouse (Optional)

Preventative measures that will be followed by the Scale Attendant or trained designee 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 near the location of scale operations.
- Display signs warning transporters which wastes, including regulated hazardous wastes and nonallowable special wastes, are prohibited.
- Ask self-haulers what type of waste they have brought for disposal.

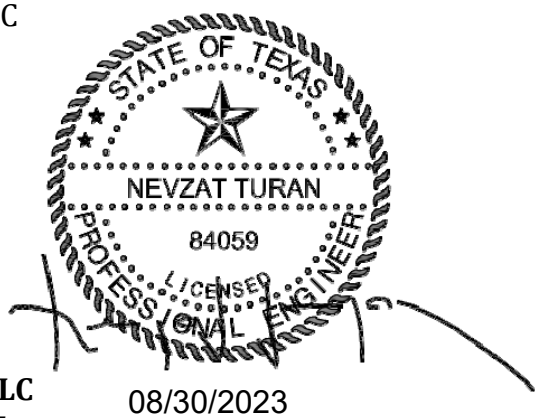
HD WASTE AND RECYCLING TRANSFER STATION
DALLAS COUNTY, TEXAS
TYPE V TRANSFER STATION REGISTRATION APPLICATION
PART IV
SITE OPERATING PLAN

APPENDIX IVA
SPECIAL WASTE ACCEPTANCE PLAN

Prepared for

HD Waste Transfer Station, LLC

August 2023



Prepared by

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WCG Project No. 5486-001-11-01

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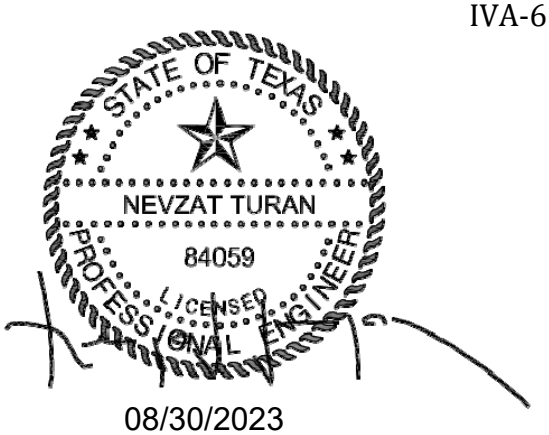

08/30/2023

1 INTRODUCTION

This Waste Acceptance Plan (WAP) outlines the acceptance requirements and review and approval process that will be used to accept special waste, as defined by the Texas Commission on Environmental Quality (TCEQ), for transfer at the HD Waste & Recycling Transfer Station (TS). HD Waste and Recycling, LLC owns and operates the transfer station.

The TCEQ solid waste regulations define a special waste as "any solid waste or combination of solid wastes that because of its quantity, concentration, physical, or chemical characteristics, or biological properties requires special handling and disposal to protect the human health or the environment."

Only those special wastes listed below will be accepted at this facility without written approval from the Executive Director. Any requests for approval of other special waste will be in accordance with Title 30 Texas Administrative Code (TAC) §330.171(b). The following special wastes may be accepted at this facility.

- Dead animals and slaughterhouse waste incidental to routine municipal solid waste collection can be systematically processed along with other solid waste.
- Drugs, contaminated foods, or beverages other than those in normal household waste.
- Empty containers used for pesticides, herbicides, fungicides, or rodenticides will be accepted for disposal provided the containers have been triple rinsed, crushed, or rendered unusable upon receipt at the gate.
- Incidental amounts of non-regulated asbestos-containing materials (NRACM). The incidental amount is defined as the maximum of 10 percent of the waste received on an annual basis by scale weight (the annual basis is defined as the last four consecutive quarters).
- Waste from oil, gas, and geothermal activities is subject to regulation by the Railroad Commission of Texas when those wastes are to be processed, treated, or disposed of at a solid waste management facility. Only those wastes authorized for disposal at a solid waste management facility will be accepted.
- Waste generated outside the boundaries of Texas that contains any industrial waste; any waste associated with oil, gas, and geothermal exploration,

production, or development activities; or any material listed in the bullets above.

- Other waste than described above and approved for acceptance by the Executive Director.

No special waste will be received at the facility unless it is compatible with the equipment operated at the facility or modifications are made to accommodate the special waste. Any changes in operations will be approved in writing by the Executive Director of the TCEQ prior to implementation.

The following wastes will not be accepted at this facility:

- Regulated hazardous waste
- PCBs
- Liquid Wastes
- Certain special wastes, including:
  - hazardous waste from conditionally exempt small-quantity generators that may be exempt from full controls under Title 30 TAC Chapter 335, Subchapter N (relating to Household Materials Which Could Be Classified as Hazardous Wastes);
  - Class 1 industrial non-hazardous waste;
  - untreated medical waste;
  - municipal wastewater treatment plant sludges, other types of domestic sewage treatment plant sludges, and water-supply treatment plant sludges;
  - septic tank pumpings;
  - grease and grit trap wastes;
  - wastes from commercial or industrial wastewater treatment plants; air pollution control facilities; and tanks, drums, or containers used for shipping or storing any material that has been listed as a hazardous constituent in 40 CFR, Part 261, Appendix VIII but has not been listed as a commercial chemical product in 40 CFR §261.33(e) or (f);
  - Soil contaminated by petroleum products, crude oils, or chemicals in concentrations of greater than 1,500 milligrams per kilogram of total petroleum hydrocarbons; or contaminated by constituents of concern that exceed the concentrations listed in Table 1 of §335.521(a)(1).
  - incinerator ash;
  - used oil;
  - lead acid storage batteries; and
  - used oil filters from internal combustion engines.

2 WASTE ACCEPTANCE

Before being accepted at the TS, special waste will be preapproved by the landfill that will receive the waste in accordance with the receiving landfill's special waste screening and acceptance procedures. Special waste evaluation and approval will occur before the waste is delivered to the transfer station. Typically, the special waste analyst for the landfill will utilize information provided by the generator (e.g., waste-specific chemical and characteristic information or process knowledge information) to determine the acceptability of waste for disposal at the landfill. The special waste analyst will be responsible for maintaining and utilizing current regulatory guidelines and constituent limits for the evaluation of waste. The special waste analyst also will be responsible for knowing and applying applicable future changes to state and federal disposal regulations, review, and acceptance procedures. This information will be provided to transfer station personnel prior to waste acceptance at the transfer station.

The preceding special waste review procedures will include the following.

- The Special Waste Profile (SWP) sheet or waste profile document will be reviewed for completeness. The review will include:
  - The generator of the waste must completely and legibly fill out the SWP with all appropriate addresses, contact names, phone and fax numbers, and signatures.
  - The "Waste Stream Information" must include sufficient information to provide the special waste analyst a clear understanding of the waste's type, origin, shipping method, and anticipated frequency of disposal. The special waste analyst will use this information to compare the waste with the appropriate state and federal regulations. The generator will be requested to submit additional information if the description is not explicit. The "Physical Characteristics of Waste" will include information on the chemical and physical properties of the waste sufficient to allow the special waste analyst to identify the waste and correlate the waste properties to the appropriate state and Federal regulations.
  - The generator will provide analytical data to the transfer station showing the analytical testing results used to comply with §330.203(c)(2) and RG-003 for wastes regulated by the Railroad Commission and related wastes.

- Site Specific Evaluation – It will be confirmed that all special waste is acceptable in accordance with the following: (1) TCEQ and local regulations and (2) landfill permits. The special waste analyst may request additional information from the generator before deciding. This may include additional analytical, process description, SDS, or other applicable information.

As Section 8.21 of the SOP notes, site personnel at the facility will visually compare the material presented for disposal to the SWP to confirm that the material's physical characteristics (i.e., color, odor, and appearance) match those detailed on the SWP. The waste load will be rejected if the physical characteristics of the waste differ from the approved waste stream. The generator will be notified of the reasons for rejecting the load. Additional processing by the generator and chemical analyses may be required to characterize the waste further.

In accordance with Title 30 TAC §330.219(B)(b), the facility will maintain all documents, manifests, shipping documents, trip tickets, etc., involving special waste.

3 OPERATING PROCEDURES

The TS personnel will exercise appropriate care and safeguards when processing special wastes. Specific handling/disposal procedures are detailed in Table 3-1 for the special wastes processed at this TS.

Drivers of transfer trucks containing special waste will provide the required documentation to the receiving landfill concerning the special waste contained within the transfer trailer. The landfill will be responsible for ensuring that the transferred special waste is disposed of in accordance with the landfill's permit.

Table 3-1
Special Waste Processing Procedures

Special Waste	Special Handling Procedures
Slaughterhouse waste and dead animals	Slaughterhouse waste including plant trash, shipping and packaging waste will be accepted. Also, dead animals that are incidental to the routine collection of municipal solid waste and that can be systematically processed along with other solid waste will be accepted at this facility. This waste may contain animal remains; however, this facility will not accept bulk quantities of dead animals, or animal remains in a specific shipment or load. All slaughterhouse waste, including contaminated packaging materials and dead animals, will be processed upon receipt or covered with a minimum of three feet of solid waste until it is processed into transfer trailers. The tipping floor and equipment will be cleaned at the end of each day when special waste containing dead animals or slaughterhouse waste is processed.
Drugs and contaminated foods that are not considered controlled substances	These wastes will be processed into transfer trailers promptly upon receipt. Operators will observe the unloading and loading of these waste materials to ensure no scavenging or salvaging of waste. The tipping floor and equipment will be cleaned at the end of each day when special waste containing contaminated food waste is processed.
Empty containers, including paper, cardboard, and metal, that have been used for pesticides, herbicides, fungicides, or rodenticides	These containers will be processed in the transfer station upon receipt. These containers will not be allowed to accumulate on the tipping floor. All containers received will be handled per Title 30 TAC §330.171 and triple-rinsed before arrival. If containers cannot be processed upon receipt, they will be crushed with the loader and rendered unusable.
Incidental amounts of non-regulated asbestos-containing materials (NRACM)	Loads of primarily NRACM will be transferred directly from the tipping floor of the transfer station into the transfer trailers. The front-end loader will not attempt to compact or travel over the NRACM. These procedures will minimize the handling of NRACM so that the integrity of the material is maintained.
Selected waste from oil, gas, and geothermal activities is subject to regulation by the Railroad Commission of Texas	This waste may be accepted at this facility, provided the incoming loads are delivered in quantities that will allow the waste to be processed safely and efficiently along with other solid waste. In addition, prior to acceptance at the transfer station, waste acceptance approval information from the landfill that will dispose of this waste will be obtained. The approval information will include all applicable information used to characterize this material. No liquids or sludges will be accepted. This waste material will only be accepted if the requirements set forth in TCEQ RG-003 are met.
Waste generated outside the boundaries of Texas that contains any industrial waste; any waste associated with oil, gas, and geothermal exploration, production, or development activities: or any other special waste that is accepted at the TS	This waste will be handled per the provisions outlined above and as indicated within this Special Waste Acceptance Plan for each type of waste.

APPENDIX IVB

EXAMPLE LOAD INSPECTION REPORT

08/30/2023

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		

EXAMPLE
Actual form may vary.

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**