130 ENVIRONMENTAL PARK
CALDWELL COUNTY, TEXAS
TCEQ REGISTRATION NO. MSW _____

TYPE V REGISTRATION APPLICATION

PART III
FACILITY INVESTIGATION AND DESIGN
TABLE OF CONTENTS

Prepared for

130 ENVIRONMENTAL PARK, LLC

August 2013

8/30/2013

Prepared by

BIGGS & MATHEWS ENVIRONMENTAL
1700 Robert Road, Suite 100 • Mansfield, Texas 76063 • 817-563-1144

TEXAS BOARD OF PROFESSIONAL ENGINEERS
FIRM REGISTRATION NO. F-256

TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS
FIRM REGISTRATION NO. 50222

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130 ENVIRONMENTAL PARK
CALDWELL COUNTY, TEXAS
TCEQ REGISTRATION NO. MSW _____

TYPE V REGISTRATION APPLICATION

PART III
FACILITY INVESTIGATION AND DESIGN

APPENDIX IIIA
FACILITY INVESTIGATION AND DESIGN NARRATIVE

Prepared for

130 ENVIRONMENTAL PARK, LLC

August 2013

Prepared by

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FIRM REGISTRATION NO. 50222

CONTENTS

1 INTRODUCTION

30 TAC §330.63(a)

The 130 Environmental Park includes a proposed Type V transfer station to be located in Caldwell County, Texas.

The proposed transfer station facility is located more than two miles north of the limits of the City of Lockhart and is located outside the extraterritorial jurisdiction (ETJ) of the City of Lockhart. Because the transfer station is not in an incorporated area, there is no zoning at or near the site. Open land consisting of agricultural pasture lands or forested lands is the predominant land use (approximately 93.3%) within one mile of the facility boundary with single-family residential land use (approximately 4.9%), water bodies (approximately 1.5%), and commercial/industrial establishments (approximately 0.3%).

2 GENERAL FACILITY DESIGN

30 TAC §330.63(b)(1)-(5)

2.1 Facility Access

The site entrance to the 130 Environmental Park Transfer Station will be located approximately 1,500 feet north of the intersection of US183 and FM1185, east of SH130.

Unauthorized entry into the facility will be minimized by controlling access to the transfer station with a perimeter fence. The property will be fenced at the transfer station's facility boundary with perimeter fencing on all sides. Perimeter fencing will consist of either a four-foot barbed wire fence or a six-foot chain link fence or equivalent. A lockable gate will be located on the entrance road. The gate will be constructed of barbed wire, chain link, woven wire, pipe fencing or other suitable materials. The gate will be locked when the facility is not accepting waste. The operating area of the transfer station is located mainly within an enclosed facility that is open on one end. Entrance to the transfer station will be monitored by an attendant during site operating hours at the transfer station. Entry to the active portion of the transfer station will be restricted to designated personnel, approved waste haulers, TCEQ personnel, and properly identified persons whose entry is authorized by site management.

A sign will be conspicuously displayed at the gated entrance to the facility. This sign will measure at least four feet by four feet, and have lettering of at least three inches in height. The sign will state the name of the facility, type of facility, hours and days of operation, and the TCEQ registration number. The sign will be readable from the facility entrance. Signs which include the facility rules will also be posted. This includes a statement that all wastes except construction and demolition waste and inert material limited to brick and concrete are prohibited from receipt at the facility. A sign prohibiting smoking will also be posted at the transfer station building.

2.2 Waste Movement

In accordance with §330.63(b)(2)(A), a waste flow diagram indicating the processing, storage, and disposal sequences for the various types of wastes received is provided in Appendix IIIB as Drawing IIIB.3.

As required by §330.63(b)(2)(B), a schematic view indicating the various phases of collection, separation, processing, and disposal as applicable, is shown on Appendix IIIB, Drawing IIIB.4. This attachment includes the layout of the transfer station area and the traffic flow patterns.

Solid waste processing will be conducted on the tipping floors of the transfer station building. Ventilation in the transfer station building is provided by the open doors through which collection vehicles will enter and exit, and vents which are installed on the building walls. Ventilation is not anticipated to be an issue; however, dust control and

ventilation procedures will be in accordance with current TCEQ MSW Air Permitting rules and regulations applicable to municipal solid waste facilities.

The transfer station will feature a pre-fabricated metal building that covers the reinforced concrete pad used for waste processing and storage. The reinforced concrete slab for waste processing (i.e., tipping floor) will be sloped toward the in-floor trench drain located on the southeast side of the building. The northeast side of the building will be open for entrance to the tipping floor. The tipping floor for waste separation, sorting, and loading operations will be a maximum of 100 feet by 100 feet. The in-floor trench drain will also be designed to accept the floor washdown. Hose bibbs and hoses will be located on the southeast and southwest sides of the tipping floor. The maximum design dimensions of the structure are shown in Appendix IIIB on Drawings IIIB.2 and IIIB.4.

The facility will be designed to minimize the potential noise pollution. Since transfer activities will be mainly enclosed, generated noise will be mostly confined to the transfer station facility. Waste transfer operations will be screened from the public. In addition, the facility will have a minimum buffer zone of approximately 224 feet and a minimum distance of 4,200 feet from the nearest existing residence.

2.3 Sanitation

The tipping floor will be swept daily at the completion of the processing period and washed down at least two times per week. There will be no surface runoff onto or off of the floor of the transfer station. The floor is completely enclosed and a floor drain is provided to remove wash water. Wash water will not be allowed to accumulate on the tipping floor; all wash water will be collected and properly disposed of. The wash water will be directed to the floor drain through a sand/grit trap to the contaminated water storage tank located outside of the transfer station building. The contaminated water will then be transported offsite for treatment and disposal at a publicly owned treatment works (POTW) or a properly permitted treatment facility.

2.4 Water Pollution Control

The proposed transfer station will be constructed, maintained, and operated to manage run-on and runoff during the peak discharge of a 25-year rainfall event and will prevent the off-site discharge of waste and feedstock material, including, but not limited to, in-process and/or processed materials. Surface water in and around the facility will be controlled to minimize surface water running onto, into, and off the treatment area. Since all contaminated water will be managed in a controlled manner as discussed above, groundwater will be protected.

Waste processing operations will be conducted on the covered concrete-paved processing area. One in-floor trench drain will be provided to collect the tipping floor washdown water. Wash water collected in the drains will be removed by dual-contained HDPE pipes, or equivalent, installed at a minimum 0.5% slope towards the southeast side of the building where the contaminated water storage tank will be located.

A water supply required to clean the tipping floor will be provided either by a nearby water source or by trucking water in. The water source will supply water to a water supply tank, which will be connected to a pump system that will convey water to a standpipe and hose reel located within the transfer station. The storage tank will have a 15,000 gallon capacity. Hose bibs and hoses located on the southeast and southwest walls of the building will be used to wash down the concrete tipping floor.

2.5 Endangered Species Protection

An evaluation of endangered or threatened species at or near the project site was recently conducted for 130 Environmental Park by Halff Associates, provided in provided in Part II, Appendix IIE – Endangered or Threatened Species Documentation.

Based on the evaluation by Halff Associates, and coordination with the U.S. Fish and Wildlife Service and the Texas Parks and Wildlife Department, in accordance with §330.551(a), the facility and the operation of the facility will not result in the destruction or adverse modification of the critical habitat of endangered or threatened species, and will not cause or contribute to the taking of any endangered or threatened species.

3 FACILITY SURFACE WATER DRAINAGE REPORT

30 TAC §330.63(c)(1)-(2)

Consistent with 30 TAC §330.63(c)(1), 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 will prevent the off-site 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 minimize surface water running onto, into, and off the processing area.

Consistent with 30 TAC §330.303, the facility has been designed to convey the peak discharge from a 25-year rainfall event around and away from the transfer station building and parking areas.

Consistent with 30 TAC §330.63(c)(2), the development of the 130 Environmental Park will be conducted outside the 100-year floodplain. The Federal Emergency Management Agency (FEMA) has prepared a Flood Insurance Rate Map (FIRM), Community Panel Number 48055C0125E, with an effective date of June 19, 2012. A copy of the FIRM is located in Part II, Appendix IIA, Drawing IIA.9 and depicts the 130 Environmental Park transfer station in relation to the FEMA identified floodplain along the unnamed tributary of Dry Creek, which traverses the western portion of the facility boundary. Zone A, where no base flood elevations have been determined, is located within the southeastern portion of the facility property boundary with arms reaching northwest and northeast; however, as noted on the FIRM map, the transfer station will be outside the 100-year floodplain.

Refer to Appendix IIIA1 – Surface Water Drainage Certification for the surface water drainage statement provided consistent with §330.63(c).

4 WASTE MANAGEMENT UNIT DESIGN

30 TAC §330.63(d)(1)(A)-(C)

The Type V transfer station has been designed for efficient waste processing. All solid waste capable of creating public health hazards or nuisances will be stored indoors only, processed or transferred promptly, and shall not be allowed to result in nuisances or public health hazards.

As shown in Appendix IIIB on Drawing IIIB.2, waste will be transported to the tipping floors from the northeast entrance to the building. After the waste has been processed and separated, the recyclables may be temporarily stored in the roll-off boxes and the non-recyclable waste will be placed in transfer trailers, separate roll-off boxes, or other suitable containers for prompt landfill disposal.

The proposed recycling operations will be conducted manually by either the laborers located on the tipping floor, the equipment operators, or a combination of both. The equipment operators will push the dumped materials around on the tipping floor. The laborers may manually sort through the materials and place the recyclables in the appropriate roll-off boxes or other suitable containers. The equipment operators may also group different recyclables in areas on the tipping floors. The laborers can then place the materials in the appropriate boxes or the equipment operators may move large quantities of the materials into the boxes with the equipment.

The storage and processing areas of the facility are designed to control and contain spills and contaminated water from leaving the facility. The design will control and discharge a worst case release of contaminated water for the washdown of the entire tipping floor. A standard pressurized nozzle that provides a maximum flow rate of 10 gpm (gallons per minute) at a pressure of 50 psi may be used to wash down the concrete pad. This nozzle will have a variable stream that ranges from a cone to a steady stream. The generated contaminated water will be collected via the floor drain and discharged to the contaminated water storage tank immediately.

The floor drain has been designed to intercept any spills from the tipping floor and any incidental amount of rainfall that falls in the area. Note that this area is covered with a roof and the surrounding ground surfaces are designed to slope away. Therefore, the contaminated water to be intercepted by the floor drain from spills and rainfall is expected to be a negligible amount.

The pipes are designed with adequate capacity to convey the contaminated water from the floor/trench drains to the contaminated water storage tank. Dual-contained (four-inch) HDPE, or equivalent, pipes are proposed to convey the contaminated water from the floor drain to the storage tank. The proposed pipe slope is a minimum 0.5 percent. The pipe flow capacity is ensured based on the tipping floor drain flow rate. Using Manning's Equation to calculate the pipe flow capacity:

$$Q = (1.49/n)(A)(R^{2/3})(S_o^{1/2})$$

Where:
Q = Pipe Flow Capacity, cfs
n = Manning's Coefficient, unitless = 0.011 for HDPE pipe
A = Cross-sectional area, $ft^2 = \pi r^2 = 0.085\ ft^2$
R = Hydraulic Radius, ft = 0.082 ft
S_o = Slope, ft/ft = 0.005

Therefore, the pipe flow capacity is 0.153 cfs or 68.7 gpm. Thus, with a floor washdown rate of 10 gpm, the pipes have been designed with adequate capacity to convey the contaminated water from the floor drain to the contaminated water storage tank.

The calculation for determining the storage tank volume is shown below. The calculation takes into account that the tipping floor will be washed down twice a week for one hour with the standard pressurized nozzle and that the storage tank will be emptied monthly to maintain storage volume.

(10 gpm) x (60 min.) x (2 times per week) x (52 weeks per year) / (12 months per year) = 5,200 gallons per month

Thus, a 5,500 gallon contaminated water storage tank will be used.

The estimated anticipated maximum daily rate of waste receipt ranges from 50 tons in year one to a maximum waste acceptance of approximately 94 tons. For purposes of this registration, it is assumed that the maximum volume of waste that may be on-site at any given time is 100 tons. The 100 tons was developed in accordance with the requirements of the Closure Cost Estimate as further described in Appendix IIID. This maximum of 100 tons may include unprocessed materials on the tipping floor, waste and recyclables in recovery boxes/transfer trailers in the loading area, and recyclables in boxes being temporarily stored on-site.

The roll-off boxes filled with recyclables will be hauled to their respective markets as the boxes have been filled, with no prolonged storage of the full boxes. However, if necessary and depending on end-market needs, these boxes may be stored on-site for a maximum of 180 days. On average, the recyclable materials may be stored on-site for approximately 60 days.

The transfer trailers or other suitable containers that contain non-recyclables will be hauled to a landfill for disposal when full or at a minimum of once per day, unless severe weather or other unforeseeable conditions prohibits it. The maximum time for non-

recyclable waste to remain at the site is 72 hours. On average, the non-recyclable waste will not be allowed to accumulate on site for more than 24 hours. The waste disposal schedule is designed to minimize the creation of nuisances or public health hazards due to odors, fly breeding, or harborage of other vectors.

The 5,500 gallon contaminated water storage tank will be designed to have an 11.5-foot diameter and 7.7-foot height and will be installed within a concrete pad enclosed by a 6-inch-thick wall for secondary containment. The calculations for the minimum wall height are shown below. The parameters used in calculating the minimum wall height are the amount of the containment area, the total tank volume, and the 25-year, 24-hour rainfall event. The containment area, as shown in Drawing IIIB.2, is 21 feet by 21 feet (441 ft^2), the tank volume is 5,500 gallons (735 ft^3), and the 25-year, 24-hour rainfall event for Caldwell County is 7.8 inches (.65 feet). The minimum wall height calculation below conservatively includes a safety factor of 2 for the total tank volume.

$$\text{Minimum wall height (ft)} = \frac{\text{Safety Factor} \times \text{Total Tank Volume}}{\text{Containment Area}} + \text{25-year, 24-hour rainfall}$$

$$= \frac{2 \times 735\ ft^3}{441\ ft^2} + 0.65\ ft$$

$$= 4.0\ ft$$

Therefore, the minimum wall height will be 4.0 feet to contain the 5,500 gallon contaminated water storage tank and the 25-year, 24-hour rainfall event.

All applicable generalized construction details of slab and subsurface supports of storage and processing components are included in Appendix IIIB.

5 CLOSURE PLAN

30 TAC §330.63(h)

Consistent with 30 TAC §330.63(h), the required closure plan is provided in Appendix IIIC – Closure Plan of this registration application.

6 COST ESTIMATE FOR CLOSURE

30 TAC §330.63(j)

Consistent with 30 TAC §330.63(j), the required cost estimate for closure is provided in Appendix IIID – Cost Estimate for Closure of this registration application.

130 ENVIRONMENTAL PARK

APPENDIX IIIA1
SURFACE WATER DRAINAGE CERTIFICATION

Surface Water Drainage
Certification Statement

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

RE: 130 Environmental Park
TCEQ Registration Application No. MSW ___

Dear Mr. Covar:

This certification statement consistent with 30 TAC §330.63(c) indicates that the facility design for the 130 Environmental Park complies with the requirements included in 30 TAC §330.303 – Surface Water Drainage for Municipal Solid Waste Facilities. Supporting documentation is provided in Part III, Appendix IIIA, Section 3 – Facility Surface Water Drainage Report.

ATTEST:
130 Environmental Park, LLC

Ernest Kaufmann
President and Manager of 130 Environmental Park, LLC

SWORN TO AND SUBSCRIBED BEFORE ME by Ernest Kaufmann on this 30th day of August, 2013, which witness my hand and seal of office.

Notary Public, State of Georgia

Joy Hammonds
Printed Name

My Commission Expires: 1-8-17

JOY HAMMONDS
NOTARY PUBLIC
CHEROKEE CO., GEORGIA
MY COMMISSION EXPIRES
JAN. 8 2017

130 ENVIRONMENTAL PARK
CALDWELL COUNTY, TEXAS
TCEQ REGISTRATION NO. MSW ____

TYPE V REGISTRATION APPLICATION

PART III
FACILITY INVESTIGATION AND DESIGN

APPENDIX IIIB
GENERAL FACILITY DESIGN

Prepared for

130 ENVIRONMENTAL PARK, LLC

August 2013

Prepared by

BIGGS & MATHEWS ENVIRONMENTAL
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FIRM REGISTRATION NO. F-256

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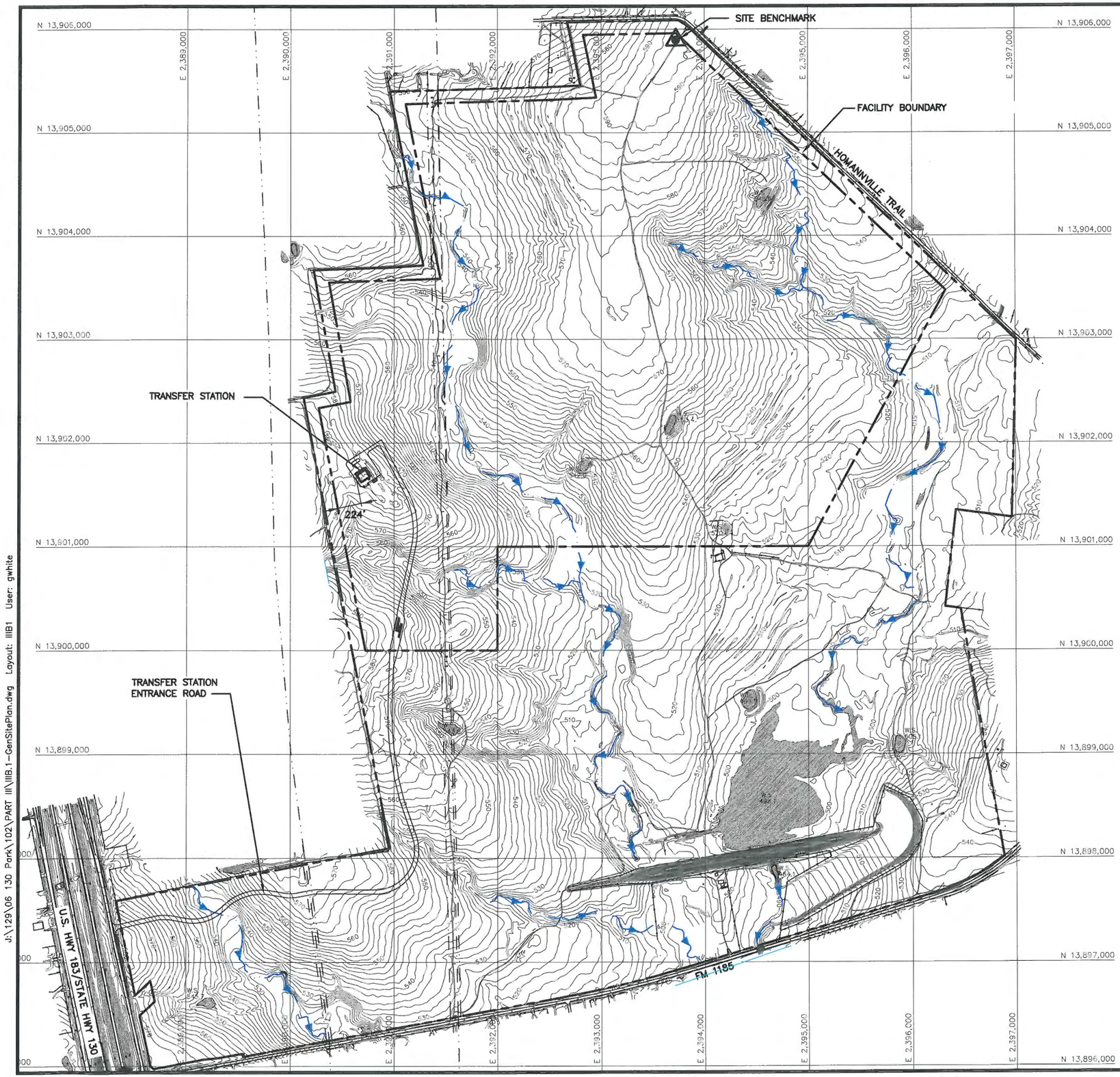
FIRM REGISTRATION NO. 50222

CONTENTS



LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- SITE BENCHMARK
- 510 EXISTING CONTOUR
- N 6753000 STATE PLANE GRID
- STREAM FLOWLINE
- APPROXIMATE EASEMENT LOCATION

NOTES:

1. CONTOURS AND ELEVATIONS PROVIDED BY DALLAS AERIAL SERVICE FROM AERIAL PHOTOGRAPHY FLOWN MAY 13, 2013. HORIZONTAL DATUM IS TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE (NAD 83). ELEVATIONS ARE RELATIVE TO NAVD88 – GEOID 12A.
2. PROPERTY BOUNDARY, FACILITY BOUNDARY, EASEMENT LOCATIONS, AND PERMANENT BENCHMARK PROVIDED BY HODDE & HODDE LAND SURVEYING, INC.
3. ACCESS CONTROL WILL BE PROVIDED BY FENCE ALONG FACILITY BOUNDARY. SITE ENTRANCE WILL BE GATED.
4. PERMANENT BENCHMARK INFORMATION:
   COORDINATES (NAD 83): N 13905896.44
   E 2393722.33
   LATITUDE: N 29°58'43.75"
   LONGITUDE: W 97°39'24.76"
   ELEVATION: 592.37 FT–MSL
5. REFER TO PART II, APPENDIX IID FOR WETLANDS DOCUMENTATION WITHIN THE FACILITY BOUNDARY AS PREPARED BY HALFF ASSOCIATES.
6. REFER TO PART II, APPENDIX IIE FOR ENDANGERED AND THREATENED SPECIES DOCUMENTATION AS PREPARED BY HALFF ASSOCIATES.

STATE OF TEXAS
KENNETH J. WELCH
60773
REGISTERED
PROFESSIONAL ENGINEER
8/30/2013

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GENERAL SITE PLAN

130 ENVIRONMENTAL PARK, LLC
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TYPE V REGISTRATION APPLICATION

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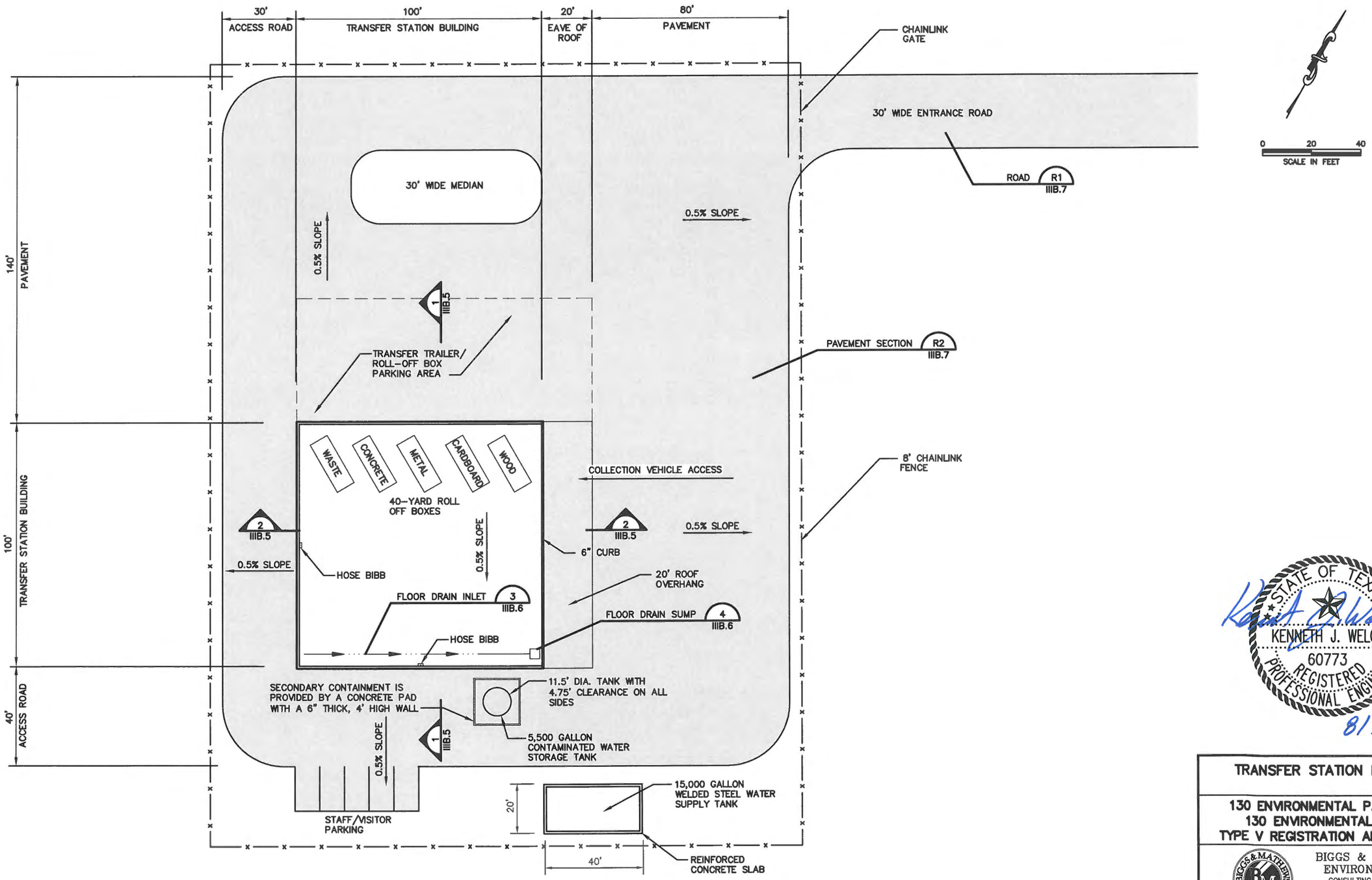

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TRANSFER STATION LAYOUT

130 ENVIRONMENTAL PARK, LLC
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TYPE V REGISTRATION APPLICATION

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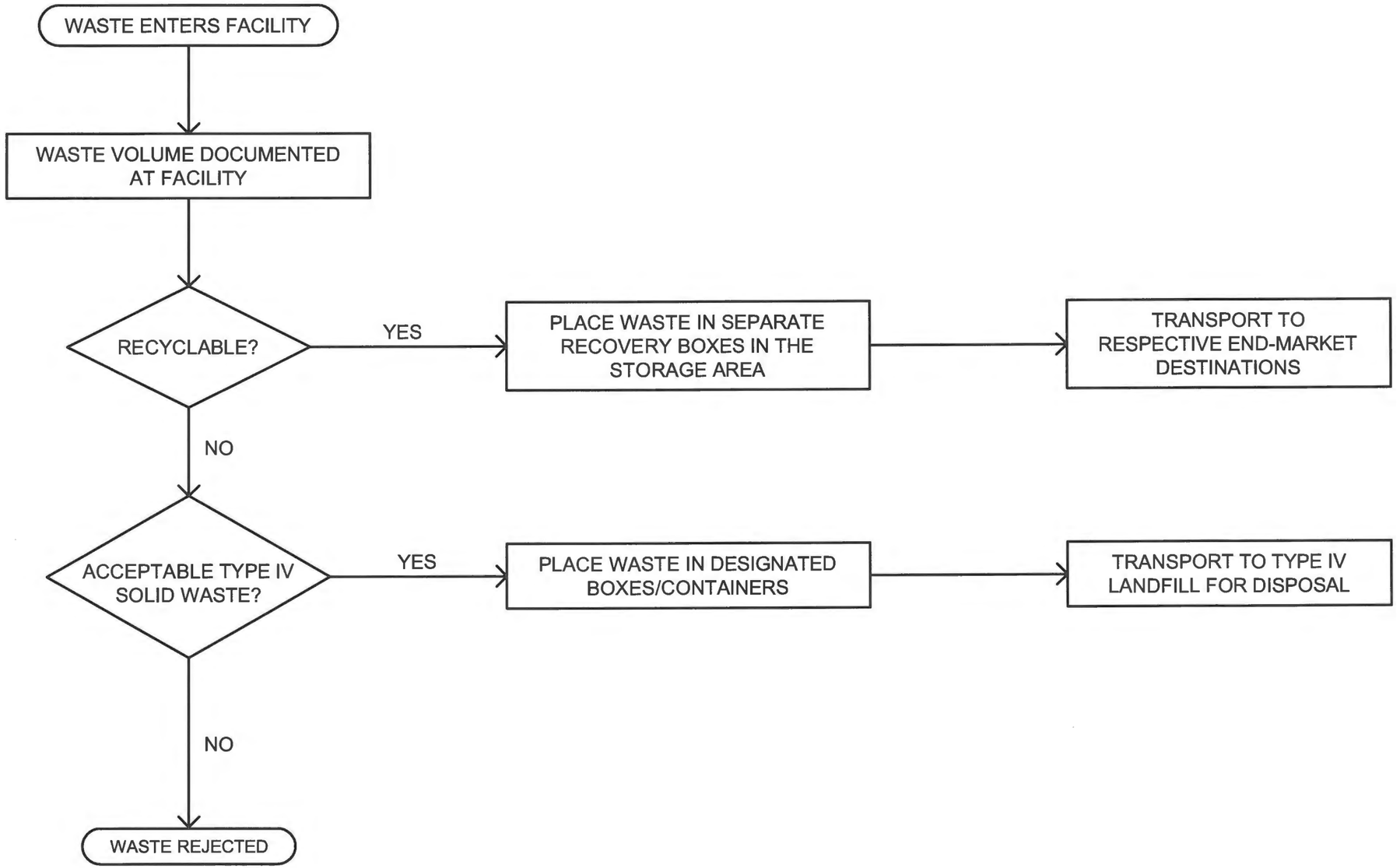

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WASTE MOVEMENT FLOW CHART

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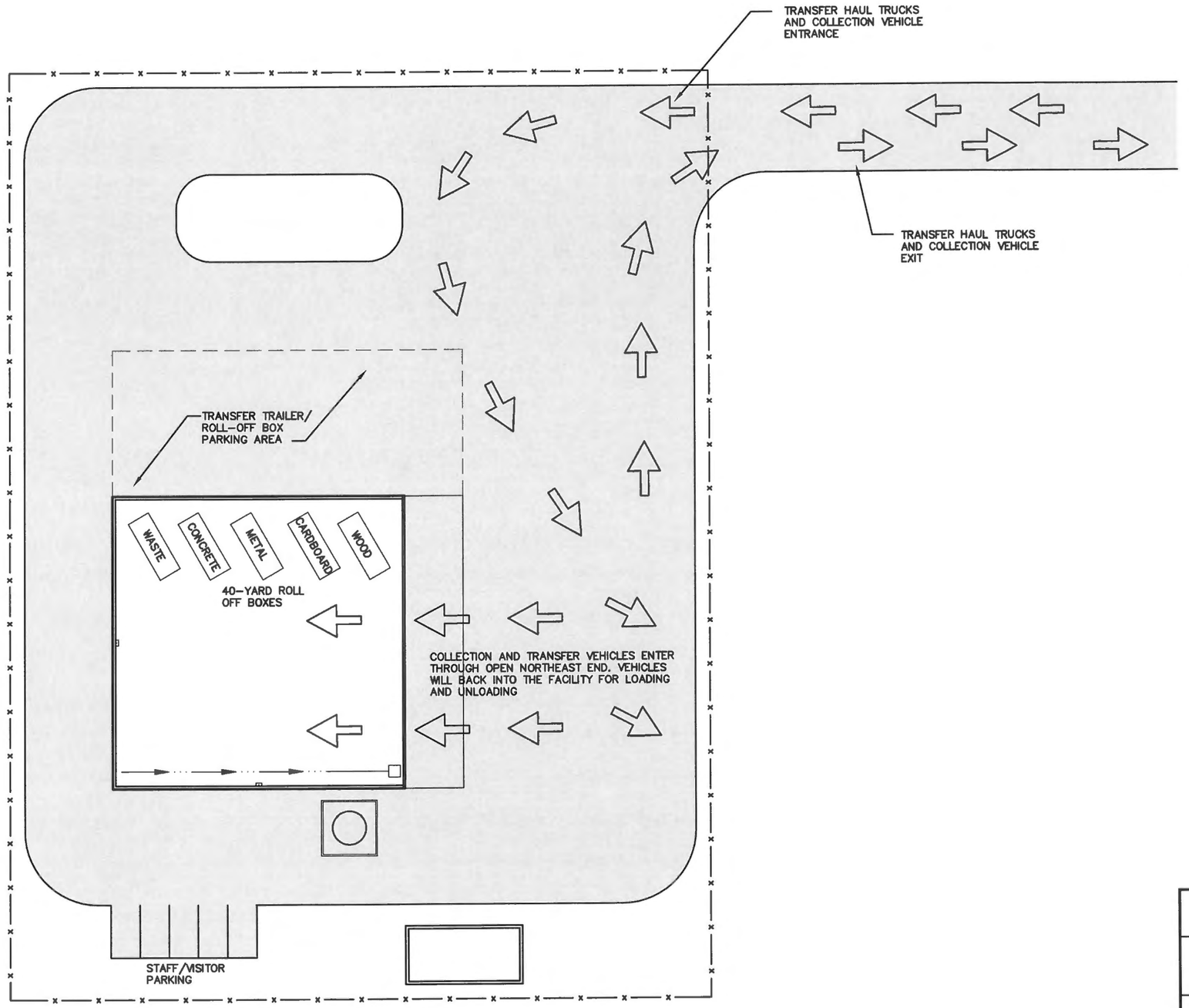

NOTES:

1. THE NUMBER OF ROLL-OFF BOXES MAY BE ADJUSTED DURING OPERATIONS BASED ON WASTE STREAM.
2. FACILITY RECEIVING AND RECYCLING AREA IS 10,000 SQUARE FEET.

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WASTE PROCESSING PLAN

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TYPE V REGISTRATION APPLICATION

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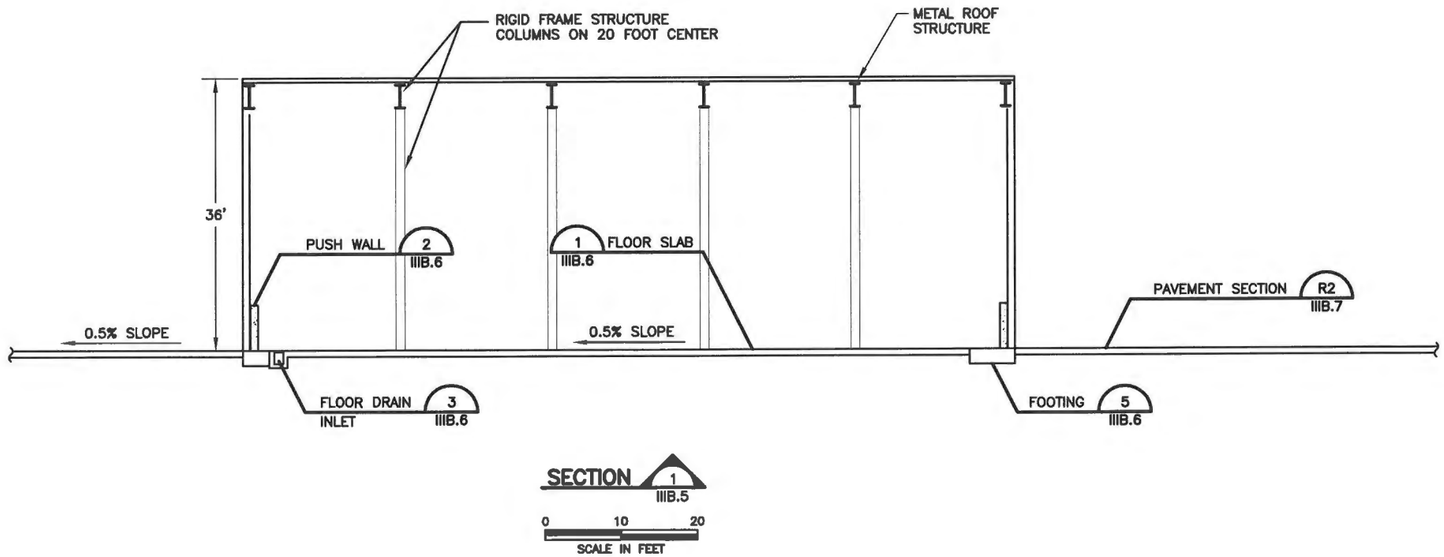

SECTION 1 IIIB.5

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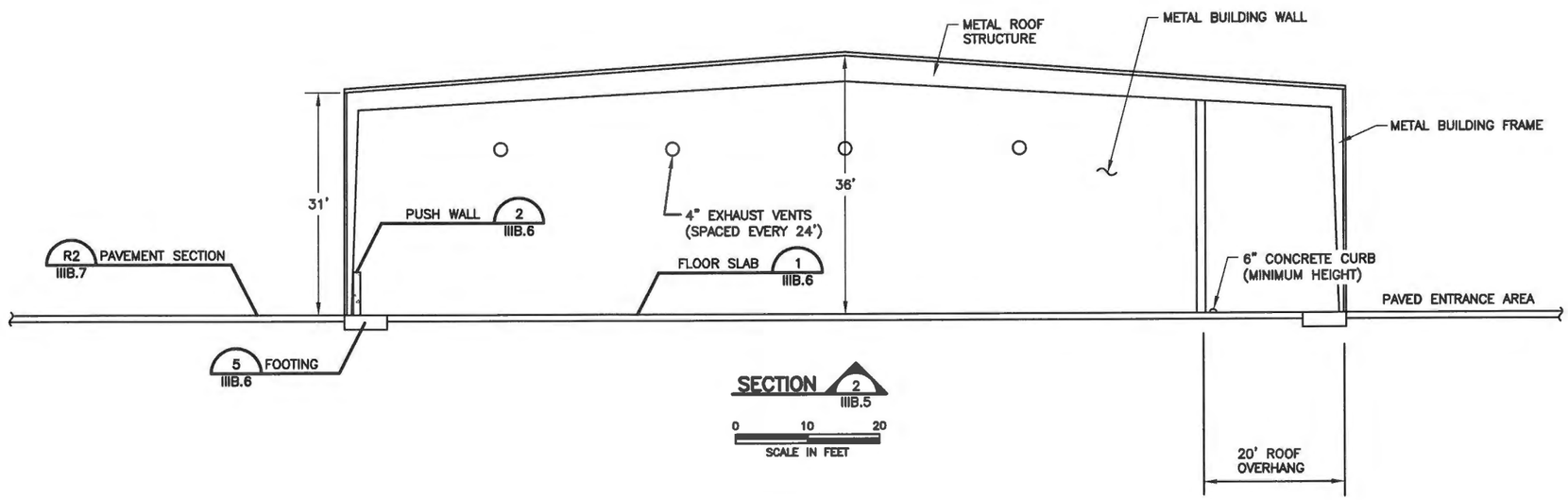
SCALE IN FEET



SECTION 2 IIIB.5

0 10 20

SCALE IN FEET

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TRANSFER STATION CROSS SECTIONS

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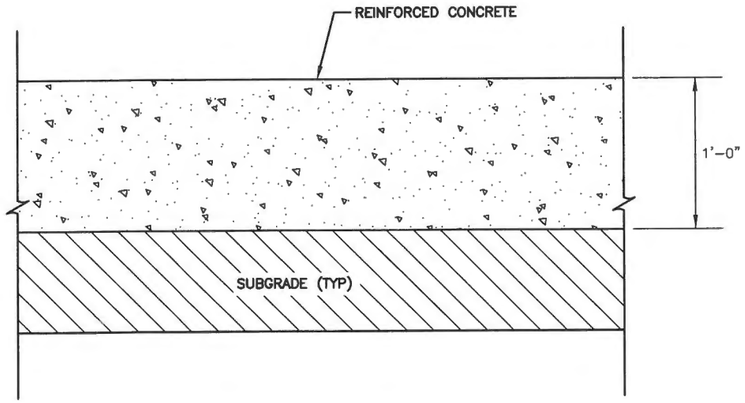

FLOOR SLAB 1 IIIB.6
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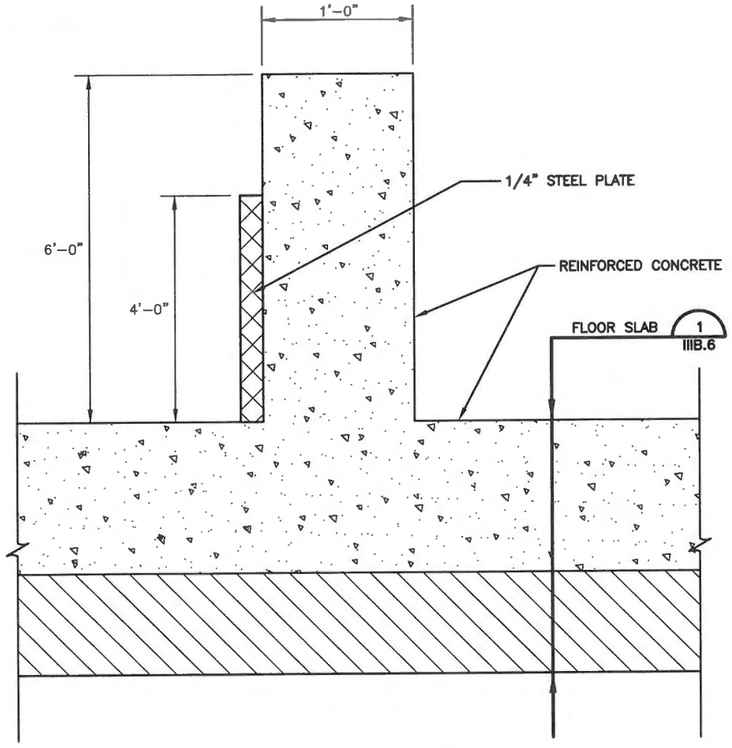
NOTE: PAVEMENT DESIGN TO BE VERIFIED AND STRUCTURAL DESIGN TO BE DETERMINED PRIOR TO CONSTRUCTION.



PUSH WALL 2 IIIB.6
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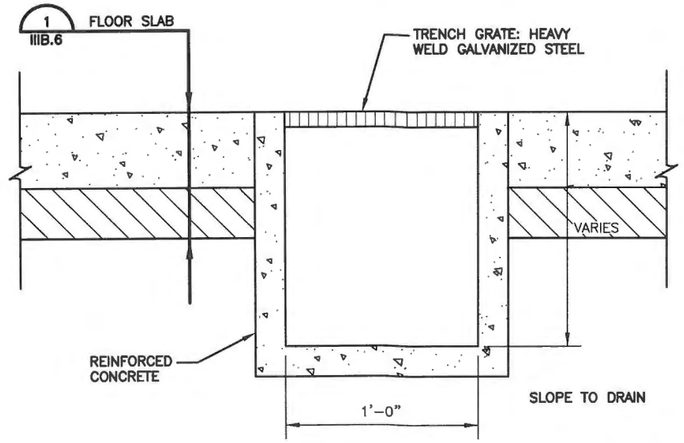

FLOOR DRAIN INLET 3 IIIB.6
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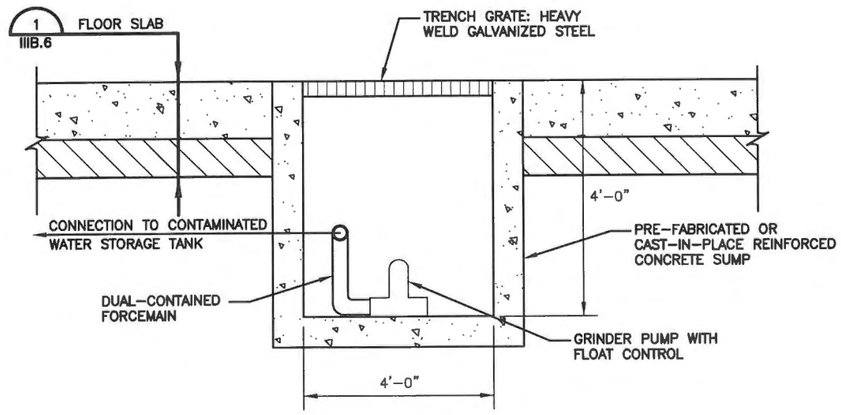

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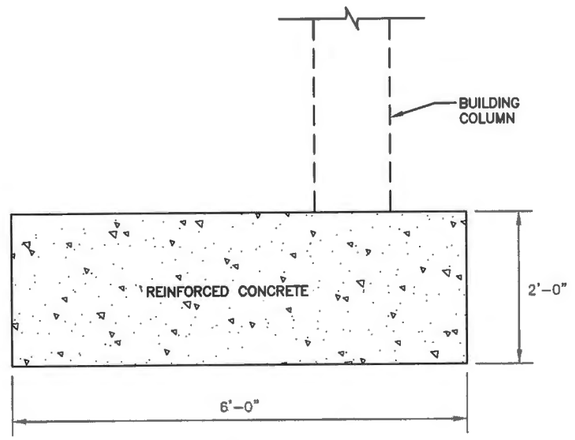

FOOTING 5 IIIB.6
NTS

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REGISTERED PROFESSIONAL ENGINEER
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TRANSFER STATION DETAILS

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TBPE FIRM NO. F–256 TBPG FIRM NO. 50222

DSN. JHP	DATE : 8/13	DRAWING
DWN. GLW	SCALE : GRAPHIC	IIIB.6
CHK. KJW	DWG : IIIB.6–TSDETS.dwg	

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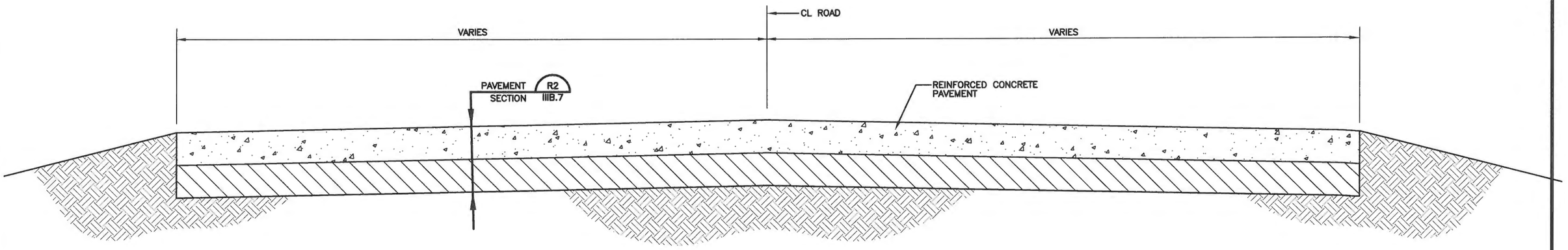

ROAD R1 IIIB.7

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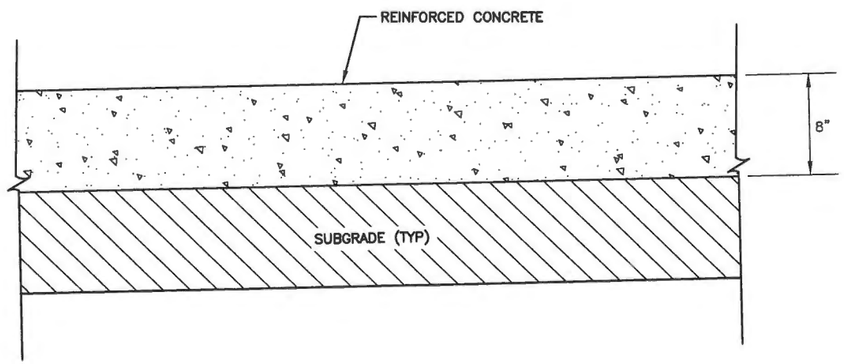

PAVEMENT SECTION R2 IIIB.7

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STATE OF TEXAS
KENNETH J. WELCH
60773
REGISTERED
PROFESSIONAL ENGINEER

8/30/2013

ISSUED FOR REGISTRATION PURPOSES ONLY

REVISIONS							
REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY	

ROAD DETAILS

130 ENVIRONMENTAL PARK, LLC
130 ENVIRONMENTAL PARK
TYPE V REGISTRATION APPLICATION

BIGGS & MATHEWS ENVIRONMENTAL
CONSULTING ENGINEERS
MANSFIELD ◆ WICHITA FALLS
817-563-1144

TBPE FIRM NO. F-256 | TBPG FIRM NO. 50222

DSN. KJW	DATE : 8/13		DRAWING
DWN. GLW	SCALE : GRAPHIC		IIIB.7
CHK. MJW	DWG : IIIB.7-RoadDtls.dwg		

130 ENVIRONMENTAL PARK
CALDWELL COUNTY, TEXAS
TCEQ REGISTRATION NO. MSW _____

TYPE V REGISTRATION APPLICATION

PART III
FACILITY INVESTIGATION AND DESIGN

APPENDIX IIIC
CLOSURE PLAN

Prepared for

130 ENVIRONMENTAL PARK, LLC

August 2013

Prepared by

BIGGS & MATHEWS ENVIRONMENTAL
1700 Robert Road, Suite 100 • Mansfield, Texas 76063 • 817-563-1144

TEXAS BOARD OF PROFESSIONAL ENGINEERS
FIRM REGISTRATION NO. F-256

TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS
FIRM REGISTRATION NO. 50222

CONTENTS

1 INTRODUCTION

30 TAC §330.63(h) and §330.459

1.1 Facility Description

The 130 Environmental Park includes a proposed Type V transfer station to be located in Caldwell County, Texas. The transfer station will be operated by 130 Environmental Park, LLC.

The site entrance to the 130 Environmental Park Transfer Station will be located approximately 1,500 feet north of the intersection of US183 and FM1185, east of SH130.

1.2 Regulations

This Closure Plan has been prepared for the Type V transfer station and is consistent with 30 TAC §330.459. 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 30 TAC §330.459(a).

2 CLOSURE REQUIREMENTS

30 TAC §330.459

At the time of closure, 130 Environmental Park will remove all waste, waste residues, and any recovered materials. The transfer station units shall either be dismantled and removed off-site or decontaminated. All material on-site, whether in process or processed will be evacuated to an authorized facility and the tipping floors, processing areas, and post-processing areas will be disinfected. A layout of the transfer station facility is provided in Appendix IIIB as Drawing IIIB.1.

No later than 90 days prior to the initiation of final closure, 130 Environmental Park shall, 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 for processing at the facility. 130 Environmental Park 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 to be processed.

The following steps will be taken:

- Notify the TCEQ.
- No later than 90 days prior to the initiation of final closure, 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.
- No later than 90 days prior to the initiation of final closure, install suitable barriers to all gates or access points or alternatively, fence around the entire waste processing area, to adequately prevent the unauthorized dumping of solid waste at the closed facility.
- Remove wastes, waste residues, and any recovered materials for disposal at an appropriate off-site location.
- Dismantle and remove or decontaminate facility units.
- Wash transfer station tipping floor and any surfaces that have been in contact with waste.
- Disinfect the tipping floor, processing area, and post-processing areas.
- Perform facility inspection and prepare certification of closure.
- If there is evidence of a release from the transfer station, the executive director may require an investigation into the nature and extent of the release and an assessment of measures necessary to correct an impact to groundwater.

3 CERTIFICATION OF FINAL FACILITY CLOSURE

30 TAC §330.461

Following completion of all final closure activities for the transfer station, 130 Environmental Park will submit within 10 days to the executive director for review and approval a documented certification signed by an independent registered professional engineer, verifying that final closure has been completed in accordance with the approved Closure Plan and the applicable rule provisions of 30 TAC Chapter 330 Subchapter K. The submittal to the executive director shall include all applicable documentation necessary for certification of final closure.

Within 10 days after completion of final closure activities for the facility, 130 Environmental Park will submit to the executive director a request for voluntary revocation of the facility's registration.

Following receipt of the required final closure documents, as applicable, the commission's 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.

The provisions of §330.461(c)(1) and (d) do not apply to the transfer station as no wastes will remain at the closed facility.

4 POST CLOSURE LAND USE

All wastes and waste residues will be removed from the facility upon closure. At the time of closure, the executive director will be provided with documentation of waste removal and a request will be made that there be no restrictions to the post-closure use of the facility related to its previous use as a municipal solid waste transfer station facility.

130 ENVIRONMENTAL PARK
CALDWELL COUNTY, TEXAS
TCEQ REGISTRATION NO. MSW _____

TYPE V REGISTRATION APPLICATION

PART III
FACILITY INVESTIGATION AND DESIGN

APPENDIX IIID
COST ESTIMATE FOR CLOSURE

Prepared for

130 ENVIRONMENTAL PARK, LLC

August 2013

Prepared by

BIGGS & MATHEWS ENVIRONMENTAL
1700 Robert Road, Suite 100 • Mansfield, Texas 76063 • 817-563-1144

TEXAS BOARD OF PROFESSIONAL ENGINEERS
FIRM REGISTRATION NO. F-256

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FIRM REGISTRATION NO. 50222

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APPENDIX IIID1
Closure Cost Estimate Calculations
30 TAC §330.505

APPENDIX IIID2
Evidence of Financial Assurance
30 TAC §37.8031

1 INTRODUCTION

30 TAC §330.63(j)

This cost estimate for closure has been prepared for the Type V transfer station and is consistent with 30 TAC §330.505. Post-closure maintenance for the transfer station is not required by the current TCEQ rules.

2 CLOSURE COST ESTIMATE

30 TAC §330.505(a)

At any point in its active life, the maximum amount of waste that may be temporarily stored onsite at the facility and any processed and unprocessed combustible materials, if any, stored outdoors on site is conservatively assumed as 100 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 in Appendix IIID1. The cleanup and disposition costs for onsite waste material are based on a per ton measurement. No dismantling of the concrete pad or other structures will be conducted at closure. No changes to the site elevations at closure will occur that will affect the final contour map.

The estimated closure cost based on the above considerations is $96,600 in 2013 dollars. A copy of the required documentation to demonstrate financial assurance shall be submitted 60 days prior to the initial receipt of waste.

3 COST ESTIMATE ADJUSTMENTS

30 TAC §330.505(b)

During the active life of the facility, 130 Environmental Park, LLC will annually adjust the closure cost estimate and the amount of financial assurance for inflation in accordance with 30 TAC Chapter 37, Subchapter J.

An increase in the closure cost estimate and the amount of financial assurance must be made if changes to the final 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 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.

4 FINANCIAL ASSURANCE

30 TAC §330.505(b)

Financial assurance for closure care for the facility will be established in accordance with 30 TAC Chapter 37, Subchapter R as related to Financial Assurance for Municipal Solid Waste Facilities. The evidence of financial assurance for the facility is provided in Appendix IIID2 – Evidence of Financial Assurance.

APPENDIX IIID1

CLOSURE COST ESTIMATE CALCULATIONS

30 TAC §330.505

Includes pages IIID1-1 through IIID1-4

CLOSURE COST ESTIMATE CALCULATIONS

30 TAC §330.505

This section provides the basis for the closure cost estimate. The following sections describe the line items included in the closure cost estimate calculations presented in the Closure Cost Estimate on page IIID1-4.

1.0 STATE ADMINISTRATION OF FACILITY CLOSURE

The state administration costs are based on the facility having to be administratively closed.

1.1 Facility Survey

A topographic survey will be used to evaluate permit compliance and to design the facility closure improvements if required. A boundary survey prepared by a Registered Professional Land Surveyor (RPLS) is required for the filing of the affidavit of closure and deed recording of the facility. Other activities include the publishing of Public Notice of the Closure Activities.

1.2 Facility Evaluation

A facility evaluation will be performed by a Registered Professional Engineer to identify waste processing areas, analyze facility drainage, and to determine other site operational features that are not in compliance with the registration.

1.3 Development of Plans

Construction plans, specifications, and contract documents will be prepared by a Registered Professional Engineer in suitable detail to allow the facility closure to be competitively bid.

1.4 Procurement of Bids

The facility will be competitively bid. Bids will be received and evaluated by a Registered Professional Engineer.

1.5 Contract Awards and Administration of Contract

A Registered Professional Engineer will award the closure construction contract and administer the contract during construction.

2.0 PROCESS UNIT DISMANTLING

Waste processing units will be decommissioned, including cleanup of process equipment, and will render equipment unusable.

3.0 GENERAL CLEANUP OF FACILITY

Facility cleanup consisting of waste removal and cleanup of the transfer station facility, tipping floor, and surrounding area.

3.1 Cleanup/Removal of Waste Stored

It is assumed that the maximum volume of waste that may be on site at any given time is 100 tons. This maximum of 100 tons may include unprocessed materials on the tipping floor, waste and recyclables in recovery boxes/transfer trailers in the loading area, and recyclables in boxes being temporarily stored on site. The unit cost used in the cost estimate was based on the cost of operation of this facility and similar facilities.

3.2 Transportation of Waste

The waste removed from the transfer station will be transported to a properly permitted Type IV municipal solid waste disposal facility. A one-way haul distance of 50 miles is estimated for transportation costs. The unit cost used in this cost estimate was based on the use of large capacity transfer trucks.

3.3 Treatment/Disposal of Waste

The transfer station will accept construction or demolition waste and inert waste limited to bricks and concrete. The maximum waste on site will be disposed of at a Type IV municipal solid waste disposal facility. The unit cost used in this cost estimate was based on the average tipping fees at area landfills.

3.4 General Cleanup

General cleanup includes washdown and disinfection of the facility.

3.5 Removal/Transportation of Contaminated Water

The contaminated water removed from the 5,500-gallon contaminated water storage tank will be transported to a publicly owned treatment works (POTW) or a properly permitted treatment facility for treatment/disposal. A one-way haul distance of 50 miles is estimated for transportation costs.

3.6 Treatment/Disposal of Contaminated Water

The contaminated water generated at the transfer station will be treated and/or disposed of at a POTW or a properly permitted treatment facility. The cost used in this cost estimate is based on typical treatment/disposal costs at properly permitted treatment facilities.

3.7 Vector Control

A commercial company will be contracted to apply pesticides to the facility for vector control.

4.0 SECURE SITE

4.1 Install Site Sign

A site sign will be installed noting the facility is closed.

4.2 Secure Fences/Gates

Installation of locks on any gate and any needed repairs to the fence and/or gate to secure the site.

5.0 CERTIFICATION OF ABANDONMENT

5.1 Sampling/Testing/Classification of Waste

Cost of sampling, testing, or classification of waste is included. It is not anticipated this activity will be required. The cost estimate includes an estimate for waste classification for estimating purposes only.

5.2 Site Inspection and Closure Certification

A final site inspection and closure certification will be issued.

6.0 CONTINGENCY COST

The TCEQ requires a minimum 15 percent contingency cost for Type V closure.

Prepared by: JHP
Date: 8/15/2013

130 ENVIRONMENTAL PARK TRANSFER STATION
CLOSURE COST ESTIMATE

Checked by: KJW
Date: 8/16/2013

Required: Estimate the cost to hire a third party to conduct final closure activities.

References: 1. Texas Natural Resources Conservation Commmission, *Cost Estimate Handbook for Closure and Postclosure Care,* Version 1, August 1993.

Solution: Maximum amount of waste to be removed: 100 tons

No.	ITEM	QTY	UNIT	UNIT COST	TOTAL COST
1.0	**State Administration of Transfer Station Closure**				
1.1	Transfer Station Survey	1	LS	$ 2,500.00	$ 2,500.00
1.2	Transfer Station Evaluation	1	LS	$ 10,000.00	$ 10,000.00
1.3	Development of Plans	1	LS	$ 10,000.00	$ 10,000.00
1.4	Procurement of Bids	1	LS	$ 5,000.00	$ 5,000.00
1.5	Contract Award and Administration of Contract	1	LS	$ 5,000.00	$ 5,000.00
	State Administration of Transfer Station Closure Total				$ 32,500.00
2.0	**Process Unit Dismantling**				
2.1	Equipment Cleanup/Decommission	1	LS	$ 10,000.00	$ 10,000.00
	Process Unit Dismantling Total				$ 10,000.00
3.0	**General Cleanup of Transfer Station**				
3.1	Cleanup/Removal of Waste Stored	100	tons	$ 11.00	$ 1,100.00
3.2	Transportation of Waste	100	tons	$ 53.00	$ 5,300.00
3.3	Treatment/Disposal of Waste	100	tons	$ 37.00	$ 3,700.00
3.4	General Cleanup	1	LS	$ 1,000.00	$ 1,000.00
3.5	Removal/Transportation of Contaminated Water	1	LS	$ 600.00	$ 600.00
3.6	Treatment/Disposal of Contaminated Water	1	LS	$ 3,700.00	$ 3,700.00
3.7	Vector Control	1	LS	$ 2,600.00	$ 2,600.00
	General Cleanup of Transfer Station Total				$ 18,000.00
4.0	**Secure Transfer Station**				
4.1	Install Transfer Station Sign	1	LS	$ 2,500.00	$ 2,500.00
4.2	Secure Fences/Gates	1	LS	$ 5,500.00	$ 5,500.00
	Secure Transfer Station Total				$ 8,000.00
5.0	**Certification of Abandonment**				
5.1	Sampling/Testing/Classification of Waste	1	LS	$ 5,500.00	$ 5,500.00
5.2	Transfer Station Inspection/Closure Certificate	1	LS	$ 10,000.00	$ 10,000.00
	Certification of Abandonment Total				$ 15,500.00
	Subtotal				$ 84,000.00
6.0	**Contingency**	15	%		$ 12,600.00
	Total				**$ 96,600.00**

***This closure cost estimate was developed in 2013 dollars.**

APPENDIX IIID2

EVIDENCE OF FINANCIAL ASSURANCE

30 TAC §37.8031

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

Re: 130 Environmental Park
Caldwell County, Texas
Registration Application, TCEQ Registration Application No. MSW _____

Dear Mr. Covar:

This letter is to provide Evidence of Financial Responsibility pursuant to 30 TAC §330.505(b) of the Municipal Solid Waste Management Regulations with respect to the above-referenced project.

130 Environmental Park, LLC agrees to provide financial assurance for this registration in accordance with the financial assurance schedule developed in Part III, Appendix IIID – Cost Estimate for Closure, or other amount specified by the Texas Commission on Environmental Quality (TCEQ).

In accordance with §37.8031 the assurance will be provided by, but is not limited to, one or more of the following:

1. Trust Fund
2. Surety Bond Guaranteeing Payment or Performance
3. Letter of Credit
4. Insurance
5. Corporate Guarantee

After this registration application is approved by TCEQ, 130 Environmental Park, LLC will file the required financial assurance. A copy of the documentation required to demonstrate financial assurance, as specified in 30 TAC Chapter 37, Subchapter R, will be submitted to the executive director of the TCEQ 60 days prior to the initial receipt of waste. The financial assurance will indicate the TCEQ as beneficiary and shall remain in full force and effect throughout the life of the registration.

ATTEST:

130 Environmental Park, LLC

Ernest Kaufmann
President and Manager,
130 Environmental Park, LLC