

FCC Materials Recovery Facility Houston

Houston, Texas

Harris County, Texas

Part II

Version 1 - Response to First NOD  
8-15-18

Risa Weinberger & Associates, Inc.  
Texas Registered Engineering Firm  
F-7861



*Risa Weinberger, P.E.*  
8-15-18

Part II  
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8-15-12

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## **Part II – Existing Conditions**

### **1.0 Introduction and Existing Conditions [30TAC§330.61(a)]**

The site for the MRF is a 10.828 acre tract of land located in northeast Houston, Texas. The site is located in a primarily light industrial area of the City. The 10.828 acres of land is located on 9172 Ley Road, approximately 2000 feet from Mesa Road. The site has been evaluated for a variety of conditions that might affect its usefulness for the construction and operation of a material recovery facility. No wetlands, floodplains, endangered species habitat or historical structures have been identified. The site is not located in an area where faults, seismic impact zones or unstable conditions exist. Therefore, no specific site issues exist that would impact either the surrounding land uses or have significant impacts on the environment.

### **2.0 Waste Acceptance Plan [30TAC§330.61(b)]**

#### **2.1 Sources of Waste [30TAC§330.61(b)(1)(A)]**

The primary sources of materials and waste that will be sent to the facility will be residences in Houston. Materials collected from the City's residential single stream recycling program will be sent to the MRF for processing. The primary geographic sources of material is the City of Houston and surrounding communities. In 2015, the population of the City of Houston was 1.8 million; Harris County's population was 2.4 million; and the HGAC region was 3.2 million. (Source: H-GAC)

In the future, FCC may accept and process single-stream recyclable materials from outside the City of Houston. Another future source of incoming materials may be commercial or industrial entities that collect single-stream recyclable materials.

Acceptance of certain materials may be limited by their characteristics upon delivery. One major cause of damage to incoming materials that renders them unmarketable applies to fibers (paper, corrugated, etc.) if they should become so wet that they are unrecyclable. Although the City of Houston provides residents with covered, water-tight collection carts for recyclables, lids may be inadvertently left open by residents or may blow open by heavy wind such as may occur in severe storm events. Public education programs will be designed to instruct residents to close lids on their carts. However, a certain amount of damage is inevitable despite these efforts.

Excess contamination in curbside recyclables collection carts is another cause of damage which may render materials unrecyclable. Although the MRF process is carefully designed to remove contamination from the processed materials, truckloads of recyclables that are more than 25% contamination will be rejected on the tipping floor and removed for disposal.

## **2.2 Processing and Storage Rates [30TAC§330.61(b)(1)(B)]**

FCC estimates that the facility will process approximately 70,000 tons of materials in its first year of operation. Throughput is expected to increase over time. The maximum design throughput is approximately 145,000 tons per year.

The following is the projected materials acceptance rates for the first five years of operation. Daily rates are based on 5.5 operating days per week.

- Year 1: 70,000 tons (245 tons per operating day)
- Year 2: 78,000 tons (273 tons per operating day)
- Year 1: 93,000 tons (325 tons per operating day)
- Year 1: 100,000 tons (350 tons per operating day)
- Year 1: 107,000 tons (374 tons per operating day)

All materials delivered to the facility will typically be processed the same day that they are received. Therefore, the maximum amount of materials expected to be stored on the tipping floor will be approximately 580 tons based on the maximum throughput of approximately 145,000 tons per year and 5 operating days per week. The maximum storage capacity of the tipping floor is 1,200 tons. The maximum amount of processed materials expected to be stored in the facility is 540 tons which will be stored in baled form.

The maximum time that solid waste is expected to remain in the facility is 15 hours, the length of an operating day, because residue from the process is removed daily for disposal at a landfill. The average time that solid waste is expected to remain in the facility is 7.5 hours.

## **2.3 Intended Destination of Materials [30TAC§330.61(b)(1)(B)]**

FCC currently operates the FCC MRF Dallas as well as over 200 MRFs and recycling operations worldwide. Based on this experience, FCC is confident that the FCC MRF Houston will meet or exceed industry standards of marketability for both domestic and international markets. In the past ten years, more than 20-million tons of materials have been recycled in the marketplace after being processed in FCC MRFs.

FCC currently operates a sister-facility to the FCC Materials Recovery Facility Houston in Dallas. Throughout the operation of the Dallas facility, FCC has

demonstrated very high quality standards for its recovered materials. These high quality standards have enabled FCC to access markets for all of its recyclable products from both the Dallas MRF and the Houston MRF which are located entirely in the United States. In fact, most of the markets for materials from the Dallas and Houston MRFs are located within the State of Texas. Approximately 60% of materials recovered at FCC MRFs in the United States are currently marketed in Texas.

Paper, cardboard, plastics, metals and glass together are expected to represent 80% of the total materials entering the facility. At all the FCC MRFs in the United States, FCC sells over 99% of its recovered materials in the United States and 60% in Texas. The following are some of the current markets for materials recovered by FCC in the United States.

Paper

- WestRock \*
- International Paper
- PCA/Boise Cascade
- Smurfit Kappa \*
- Pratt Industries

\*Markets located in Texas

Note: Plastics and Metals are marketed by a broker who operates in Texas

Plastic

- Canusa Hershman
- Custom Polymers
- Seaman Polymers
- KW Plastics
- Custom Polymers
- Mohawk Industries
- ATTA International-ECO Recycling
- Envision Plastic

Metals

- Alter Trading Corp.
- Alcoa
- Novelis
- Commercial Metals \*
- DFW Metals \*
- Gold Metal Recyclers \*
- Gamtex Industries

Glass

- Strategic Materials \*

#### **2.4 Qualification for a Registration [30TAC§330.61(b)(2)]**

To meet the requirement for authorization through Registration as a Transfer Station that includes materials recovery, at least 10% by weight or weight equivalent must be recovered for reuse or recycling. Residuals remaining at the end of the materials separation process, rejects or contamination in contaminated loads, and tramp or damaged materials will be disposed at the McCarty Road Landfill, which is approximately 1,400 feet east of the site. Total materials disposed is anticipated to be no more than 25% by weight or volume of the total materials delivered to the facility. Therefore, at least 75% if the incoming materials are expected to be recovered for reuse or recycling. Materials delivered to the facility will be collected in a single-stream recyclables collection program which will constitute source-separation recycling program achieving reduction of the waste stream of more than 10%.

FCC will maintain records by weight of all incoming loads, all processed and marketed materials by type, and all loads of unrecyclable materials delivered to a landfill for disposal. These records will provide the necessary data to demonstrate compliance with the above minimum recycling rates.

Actual materials recovery rates will fluctuate with the characteristics of the incoming materials. Results may vary based on the specific conditions associated with the collection program and the effectiveness of public education programs.

Truck loads containing more than 25% contamination will be identified immediately upon unloading on the tipping floor and will either be removed by the hauler for disposal at a landfill or will be loaded and removed by FCC for disposal at McCarty Road Landfill. Any non-recyclables, including contaminated loads and residue, will be removed from the MRF building within 24 hours of its delivery.

#### **2.5 Types of Waste Accepted [30TAC§330.9(e) and 330.61(b)(2)]**

The majority of material to be accepted at the facility will be recoverable materials collected through the City of Houston's curbside, residential recyclables collection program. These materials are listed, below. As processing technology and

materials markets evolve, the list of acceptable materials may be modified. However, putrescible materials will not be accepted.

- Old Newspaper (ONP)
- Mixed Paper (OMP)
- Old Corrugated Cardboard (OCC)
- Plastics (Resins #1 through #7)
- Steel
- Tin Cans
- Bi-metal cans
- Aluminum and Foil
- Plastic Film
- Mixed Glass

### **3.0 General Location Maps [30TAC§330.61(c-g)]**

Features surrounding the facility are illustrated on Figures II.1 through II.4 in Appendix II.1 General Location Maps. Figure II.1 is a Facility Layout Map. Figure II.2 is a General Topographic Map. Figure II.3 is an aerial photograph and Figure II.4 is a Land Use map

### **4.0 Land Use Map [30TAC§330.61.(g)]**

The City of Houston does not provide zoning within its jurisdiction. Current Land Use is reflected on Figure II.4. This map illustrates areas of various categories of land use.

### **5.0 Impact on Surrounding Area [30TAC§330.61.(h) (1-5)]**

“The overall impact of recycling MSW on the Texas economy exceeded \$3.3 billion (in 2015). The recycling industry was also responsible for generating nearly \$195 million of revenue for state and local governments in 2015, through sales taxes, property taxes, and other taxes and fees. Expanding recycling activities has the potential to generate greater economic impact and public revenue....” (Study of the Economic Impact of Recycling Final Report, TCEQ, July 2017) Therefore, it is logical to conclude that the operation of the FCC Materials Recovery Facility Houston, with its access to domestic markets through very high materials quality standards will further contribute to the Texas economy.

The site is located in a light industrial, commercial area. There is no zoning in Houston that defines the requirements for facilities such as the MRF. When selecting the site for this facility, FCC focused on identifying a tract of land that was compatible with



surrounding land uses, had good access and was suitable for the construction and operation of the MRF. The majority of the area around the site is light industrial with some residential properties located within ¼ mile of the site. The McCarty Road Landfill is located approximately 1400 feet to the east of the site. It is noted that in wording the FCC contract, the City of Houston City Council understood and approved the location of the facility. No unloading, storage, disposal or processing operations will occur within any easement, buffer zone or right of way crossing the site.

Another impact to the surrounding area will be the jobs that will be created as a result of the construction and operation of the facility. The facility is estimated to cost approximately \$10 Million to build. Construction of the site will include access roads, a structure of approximately 120,000 square feet, and other site amenities such as a public tipping area for residents to deliver their own recyclables. Construction is anticipated to take approximately 9 months to complete. Operations at the site are anticipated to require a mix of management staff and general labor. FCC estimates that a total staffing of 70 to 100 people will be employed at the facility. This does not include the labor it supports, including truck drivers to collect material and the mills that receive recovered materials.

**5.1 Growth Patterns [30TAC§330.61(h)(3)]**

The area around the site is fully developed with the exception of flood-prone and other undevelopable areas. The area includes the McCarty Road Landfill to the east, which is also a municipal solid waste management land use and is not likely to be redeveloped for other purposes until its post-closure period. Growth in Houston has generally been toward the north. The City of Houston is not zoned and the City Planning Department does not maintain land use records or projections.

The Houston-Galveston Area Council of Governments (H-GAC) provides population forecasts for the Houston-Galveston Region. The overall regional population is projected to increase from 6.5 million in 2015 to a total of 10.8 million in 2045. This represents a

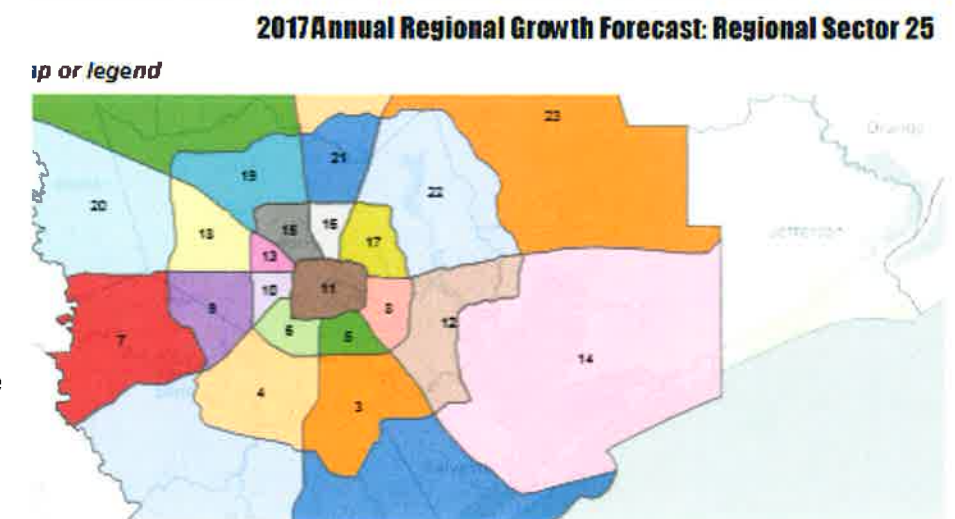


Figure II.5 - Area Subregions (Source: H-GAC Population Forecast, 2017)

total increase of 4.2 million people, or a 65% increase in population over the 30-year timeframe. The H-GAC also projects population based on 25 distinct regions, shown in Figure II.5, above. The MRF is located in Sector 17. In 2015, the H-GAC reported the population of this sector as 198,141. Sector 17 is projected to increase to 269,659 by 2045. This represents a 36% increase over the 2015 – 2045 period. Sector 17 is anticipated to grow at a slower rate than the City as a whole.

**Table II.1 H-GAC Population Projection (<http://arcgis02.h-gac.com/RGF2017/> (2017))**

Year	Sector 17 Population	% Increase	City of Houston	% Increase
2015	198,141		6,533,662	
2020	213,909	108%	7,253,865	111%
2025	237,195	111%	7,969,590	110%
2030	246,000	104%	8,684,492	109%
2035	256,865	104%	9,393,321	108%
2040	260,762	102%	10,084,468	107%
2045	269,659	103%	10,761,907	107%
2015	71,518	136%	4,228,245	165%
-				
2045				

**5.2 Proximity to Land Uses [30TAC§330.61(h)(4)]**

Figure II.4 in Appendix II.1 shows the locations of the closest examples of each land use to the site.

**5.3 Wells within 500 Feet [30TAC§330.61(h)(5) and 330.61(i)]**

There are no water or oil and gas wells on the site or within 500 feet of the site. A review of Texas Water Development Board Water Data Interactive Map (data does identify 13 environmental soil borings and five monitoring wells located within approximately 500 feet of the site. They are all located north of Ley Road and west of Roundhouse Lane from the site. This map is Figure II.7 in Appendix II.2.

**6.0 Transportation [30TAC§330.61(i)]**

FCC estimates that approximately 80 trucks per day will be delivering or transporting materials to and from the facility each day, or approximately 160 one-way trips. The facility will receive materials for processing Monday through Friday between the hours of 7:00 A.M. at the earliest and 7:00 P.M. at the latest. Processing will typically take place Monday Through Friday between the hours of 4:00 A.M. at the earliest and 10:00 P.M. at the latest. Operations may be extended to Saturday if needed. Operations on Saturday will be limited to between the hours of 7:00 A.M. at the earliest and noon at the latest. If required to accommodate special circumstances, the facility may operate outside the above-mentioned hours on no more than five days in any calendar year. Such special circumstances will not require prior authorization by the TCEQ. If operations outside the normal operating hours are required in order to prevent disruption of solid waste management services in the area, such as in the event of an

emergency or disaster, they may be authorized if requested of the TCEQ Regional Office.

According to TxDOT Saturation Count, 24-hour traffic volume data, Mesa Drive, the primary route for the trucks using the facility, had average daily traffic counts south of Ley Road of approximately 11,260 in 2012. This was actually 7% less than 2006 volumes. Based on the estimated 160 truck trips per day entering and exiting the facility, if all vehicles entering and exiting the facility were to approach Ley Road from the south on Mesa Drive, the 2012 traffic on Mesa Road would only experience a 1.4% increase. City of Houston Count, 24-hour traffic volume on Ley Road west of the facility and west of E. Houston Road was 5,940 in 2008. The same projected 160 round trips per day generated by the facility would represent a 2.7% increase of that volume if all vehicles arrived on Ley Road from the west.

A letter of coordination has been submitted to the Texas Department of Transportation regarding transportation issues associated with the facility. That letter is provided in Appendix II.3.

#### **7.0 General Geology and Soils [30TAC§330.61 (j)]**

According to the 1982 Geologic Atlas of Texas, Houston Sheet, published by the Bureau of Economic Geology, the uppermost geologic formation in the area of the Site is the Beaumont Formation. A geologic Map of the site, prepared by ESE Partners for a Phase I Environmental Site Assessment (ESA) of the property in 2013 is provided as Figure II.8 in Appendix II.2.

#### **8.0 Groundwater and Surface Water [30TAC§330.61 (k)]**

The following information regarding hydrogeology and surface water is quoted from the ESE Partners Phase I ESA.

*According to the Texas Water Development Board description of major aquifers posted on their official web page, the Site is located over the Gulf Coast Aquifer. The Gulf Coast Aquifer is composed of the Catahoula, Jasper, Evangeline, and Chicot Formations, ranging from most deep to most shallow, with the Burkeville confining system separating the Jasper and Evangeline Formations. The aquifer consists of complex interbedded clays, silts, sands, and gravels of Cenozoic Age, which are hydrologically connected to form a large, leaky artesian aquifer system. The Catahoula Formation contains ground water near the outcrop in relatively restricted sand layers. The Jasper Formation is primarily contained within the Oakville Sandstone. The Burkeville confining system separates the Jasper and overlying Evangeline Aquifer, which is contained within the Fleming and Goliad Sands. The Chicot Aquifer, which is the upper component of the Gulf Coast Aquifer system, consists of Lissie,*

*Willis, Bentley, Montgomery, and Beaumont Formations, and overlying alluvial deposits.*

*The Gulf Coast Aquifer forms a wide belt along the Gulf of Mexico from Florida to Mexico. In Texas, the aquifer provides water to all or parts of 54 counties and extends from Rio Grande northeastward to the Louisiana-Texas border. The largest municipal user of this aquifer is the Greater Houston and metropolitan Area, where well yields average approximately 9,600 gal/min.*

*It is estimated that about 4 percent of the mean annual rainfall on the outcrop of the aquifer would be necessary to support the estimated annual effective recharge to the aquifer.*

*Surface water appears to be directed by overland flow toward a drainage ditch located along the north property boundary of the site.*

FCC will obtain the appropriate TPDES Permit coverage when required.

## **9.0 Floodplains and Wetlands [30TAC§330.61(m)]**

### **9.1 Floodplains [30TAC§330.61(m)(1)]**

There are no wetlands on the site. Refer to Figure II.9 in Appendix II.2 for a map by Federal Emergency Management Agency illustrating floodplains in the vicinity.

### **9.2 Wetlands [30TAC§330.61(m)(2-3)]**

There are no wetlands on the property. A copy of the National Wetlands Inventory Map is provided as Figure II.10 in Appendix II.2.

## **10.0 Endangered or Threatened Species [30 TAC§330.61(n)]**

The 10.828 acre site is located in an industrial development. A review of US Fish and Wildlife Service data indicates that the site is not US Fish and Wildlife Service Critical Habitat, or the Southern Great Plains Crucial Habitat. The operation of the facility shall not result in the destruction or adverse modification of the critical habitat of threatened or endangered species. Refer to Figure II.11 in Appendix II.2. The map is blank because there are no habitats of concern on the site.

## **11.0 Historical and Archaeological Review [30 TAC§330.61(o)]**

A review of a Texas Historical Commission (THC) map reveals no historic or archaeological sites of significance on the site. Figure II.12 in Appendix II.2 Presents

the THC map for the site. Correspondence to the THC is provided in Appendix II.3. The only site identified within one mile of the site is the Gulf Coast Railroad Museum located at Mesa Drive. This museum is no longer operational.

**12.0 Council of Governments and Local Government 30 TAC § 330.61(p)**

Parts I and II of this document have been submitted to the Houston-Galveston Area Council of Governments (G-GAC) requesting a determination of compliance with the H-GAC regional solid waste plan. A copy of the transmittal letter is provided in Appendix II.3.

**Appendix II.1- General Location Maps**

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 713.224.0457 fax  
 www.powersbrown.com

18037180  
**REVIEWED FOR COMPLIANCE**  
 Performance of this review does not relieve the applicant from full responsibility to comply with all applicable codes, ordinances and regulations  
 05/25/18



**PROJECT TITLE**  
**FOMENTO DE CONSTRUCCIONES Y CONTRATAS INC**  
**FCC ENVIRONMENTAL HOUSTON MATERIALS RECYCLING FACILITY**  
 9172 LEY RD. HOUSTON, TX 77078

**GENERAL NOTES**

- FIRE APPARATUS ACCESS LANE - 20'-0" TYPICAL - 28' RADIUS
- AERIAL FIRE APPARATUS ACCESS LANE - 26'-0" TYPICAL - 28' RADIUS
- FIRE HYDRANT
- FDC FIRE DEPARTMENT CONNECTION
- HFD HOUSTON FIRE DEPARTMENT ACCESS
- HOSE LAY (600'-0" MAX)

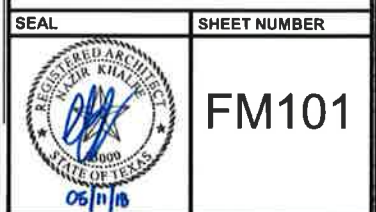
A PROVIDE FIRE LANE STRIPING PER LOCAL JURISDICTION  
 B FIRE DEPARTMENT ACCESS ROAD TO BE ALL WEATHER PAVEMENT TO WITHSTAND 90,000 LBS  
 C ACCESS DOORS TO BE LABELED WITH "HFD" ON THE EXTERIOR IN THE TOP LEFT HAND CORNER. THE LETTERS SHALL BE NOT LESS THAN FOUR INCHES IN HEIGHT ON A CONTRASTING BACKGROUND. LETTERING SHALL BE LEGIBLE, DURABLE, AND REFLECTIVE IN NATURE.  
 D ACCESS DOORS TO BE PROVIDED WITH APPROVED HARDWARE TO ALLOW ACCESS FROM EXTERIOR AND EGRESS FROM INTERIOR.  
 E ACCESS GATES WILL COMPLY WITH LSB #4

DATE	REVISION
03/30/2018	ISSUE FOR PERMIT
1 04/30/2018	ADDENDUM 01
2 05/11/2018	ADDENDUM 02

PROJECT NO: 161282  
 DRAWN BY: SD/TT  
 CHECKED BY: NK

**SHEET TITLE**  
**FIRE MARSHAL PLAN**

SEAL SHEET NUMBER  
**FM101**



REVISIONS	DATE	BY	DESCRIPTION



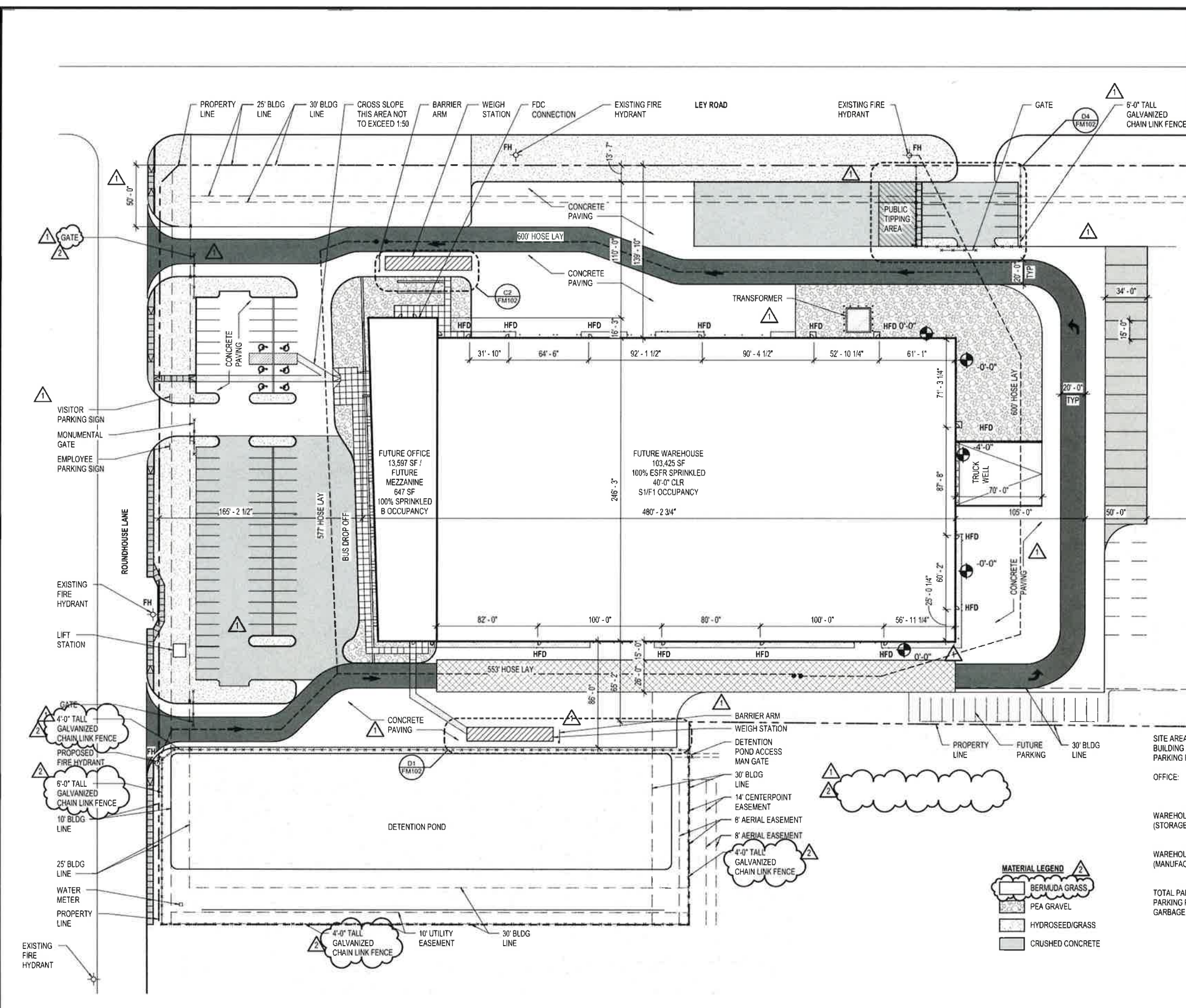
*Risa Weinberger*  
 June 1, 2018

**FOR PERMITTING PURPOSES ONLY**  
 Risa Weinberger & Associates, Inc.  
 DALLAS, TEXAS  
 FIRM REGISTRATION NO. F-7861

SCALE AS SHOWN  
 DRAWN T.A.S. INC.  
 CHECKED R.W.S. AI  
 DATE 5/30/2018

FCC ENVIRONMENTAL SERVICES  
 FCC MATERIALS RECOVERY FACILITY - HOUSTON  
 FACILITY LAYOUT MAP

FIGURE II.1



SITE AREA : 10.8 ACRES (471,653 SF)  
 BUILDING AREA : 117,022 SF  
 PARKING REQUIREMENTS:

OFFICE: 2.5 SPACES PER 1,000 SF OF GSF  
 2.5 X (14,244/1,000) = 36 SPACES REQUIRED

WAREHOUSE (STORAGE): 1.0 SPACES PER 7,000 SF OF GSF  
 1.0 X (56,994/7,000) = 9 SPACES REQUIRED

WAREHOUSE (MANUFACTURING): 1.0 SPACES PER 2,000 SF OF GSF  
 1.0 X (46,431/2,000) = 24 SPACES REQUIRED

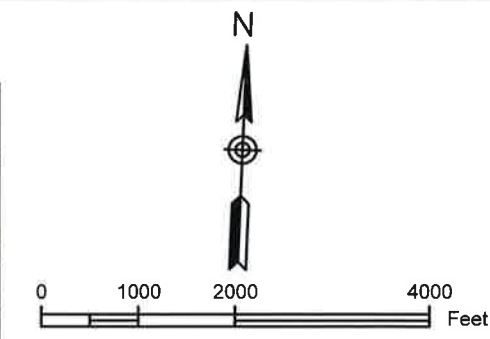
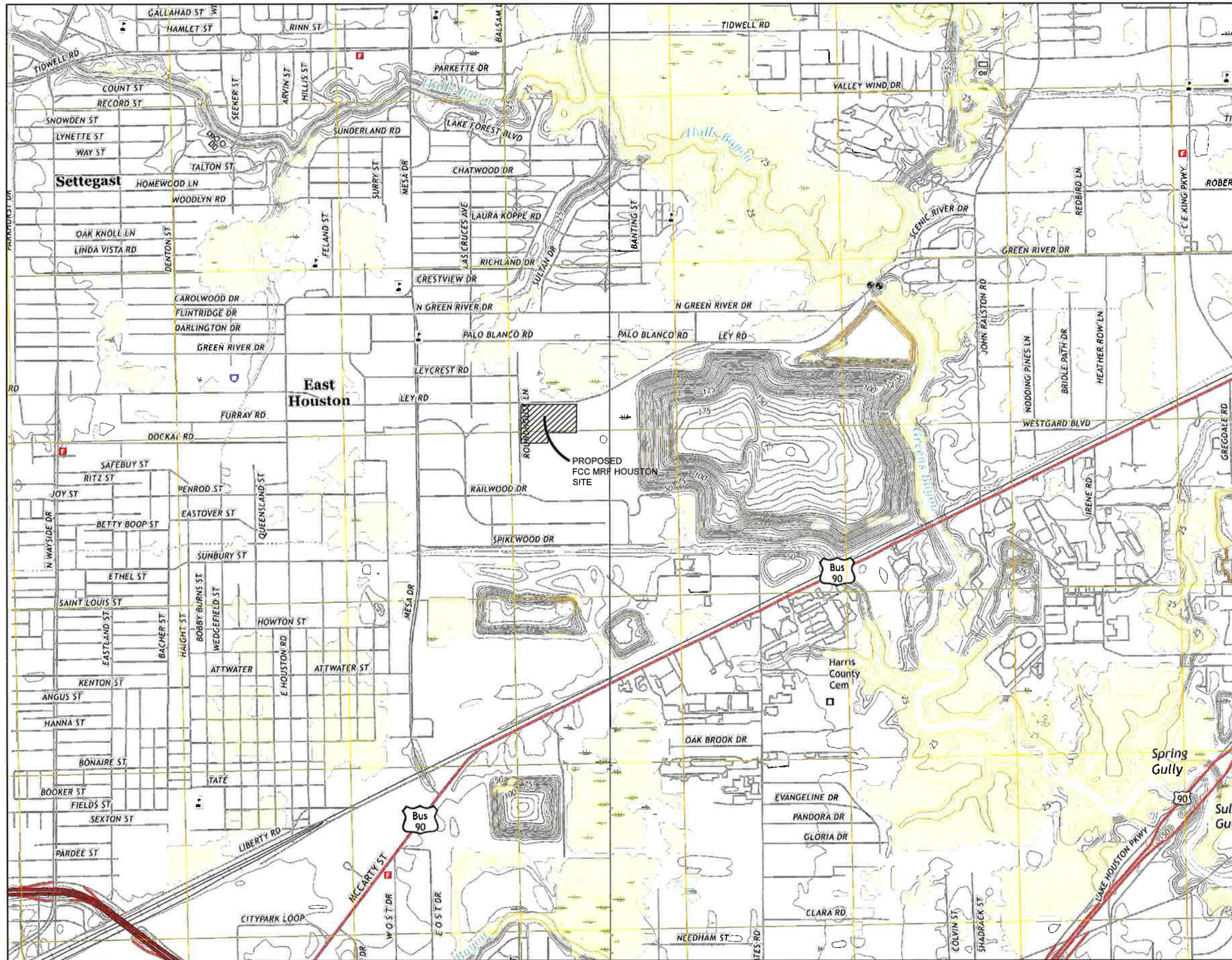
TOTAL PARKING REQUIRED: 69  
 PARKING PROVIDED: 87 SPACES  
 GARBAGE TRUCK PARKING: 15 SPACES

**MATERIAL LEGEND**

- BERMUDA GRASS
- PEA GRAVEL
- HYDROSEED/GRASS
- CRUSHED CONCRETE

**FIRE MARSHAL PLAN**  
 SCALE: 1" = 40'

II-14



Data Source:  
<https://www.usgs.gov/>  
 7.5 minute Topographic Map

Primary Access Roads within One Mile  
 Mesa Dr. - 4 lane, divided asphalt  
 Ley Road - 2 lane, asphalt

FCC ENVIRONMENTAL SERVICES		SCALE AS SHOWN	DESCRIPTION
FCC MATERIALS RECOVERY FACILITY - HOUSTON		DRAWN T.A.S. INC.	ADD ACCESS ROAD SURFACE TYPE
GENERAL TOPOGRAPHIC MAP		CHECKED R.W. & A.I.	
FIGURE II.2		DATE 5/30/2018	
FOR PERMITTING PURPOSES ONLY			
Risa Weinberger & Associates, Inc.		REV. DATE BY	
DALLAS, TEXAS		1	8/14/18 T.A.S.
FIRM REGISTRATION No. F-7861			

VERSION 1 REV. 9-15-18  
 II-15



**Legend**

- Schools
- Water Wells
- Hospitals
- Elev\_Contour
- MRF Site
- Parks\_City\_of\_Houston

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,

FCC ENVIRONMENTAL SERVICES		SCALE: AS SHOWN	DESCRIPTION
FCC MATERIALS RECOVERY FACILITY - HOUSTON		DRAWN: TAS, INC.	
AERIAL PHOTOGRAPH		CHECKED: RWAI	
<small>           Data Source:            Texas Natural Resources Information System            ESRI, DigitalGlobe, GeoEye,            Google Earth Pro         </small>		DATE: 5/31/2018	BY
<small>           DATUM: North American 1983            PROJECTION: NAD_1983_UTM_Zone_14N            GEOGCS: GCS_North_American_1983            SPHEROID: GRS_1980         </small>			DATE
<b>FOR PERMITTING PURPOSES ONLY</b> <b>Risa Weinberger &amp; Associates, Inc.</b> <small>DALLAS, TEXAS</small> <small>FIRM REGISTRATION No. F-7861</small>			REV
			DATE
			BY
<small>FIGURE No.</small> <b>II.3</b>			





SOURCE:  
<http://mycity.houstontx.gov/houstonmapviewer/>

CLOSEST FACILITIES	
<b>SINGLE FAMILY RESIDENTIAL = 2</b>	
1. PHYLLIS KETCHAM (518ft Northwest)	9034 LEYCREST RD HOUSTON TX, 77078
2. DENNIS GEORGE VILLARREAL (672ft Northwest)	9022 LEYCREST RD HOUSTON TX, 77078
<b>MULTI-FAMILY RESIDENTIAL = 1</b>	
1. JOSEFA ROMERO (2,395ft Northwest)	7731 MESA DR HOUSTON TX, 77078
<b>COMMERCIAL = 1</b>	
1. TECHNI-KOTE (347ft North)	9105 LEY RD HOUSTON TX, 77078
<b>OFFICE = 2</b>	
1. G & I VII RAILWOOD INDUSTRIAL LP (60ft South)	7350 ROUNDHOUSE LN HOUSTON TX, 77078
2. CENTERPOINT HOUSTON UCET LLC (Adjacent to property, South)	9255 RAILWOOD DR HOUSTON TX, 77078
<b>PUBLIC &amp; INSTITUTIONAL = 2</b>	
1. UNITED COVENANT OF HOPE CHURCH OF GOD (2,964ft Southwest)	6555 MESA DR HOUSTON TX, 77078
2. VARNETT CHARTER SCHOOL (3,145ft Northwest)	8305 MESA DR HOUSTON TX, 77078
<b>INDUSTRIAL = 4</b>	
1. DELTA STEEL PROPERTY LLC (65ft West)	7355 ROUNDHOUSE LN HOUSTON TX, 77078
2. G & I VII RAILWOOD INDUSTRIAL LP (Adjacent to property, South)	0 ROUND HOUSE HOUSTON TX, 77078
3. NL VENTURES X LEY LLC (Adjacent to property, East)	9302 LEY RD HOUSTON TX, 77078
4. ROLAND C & DENISE M PARSONS LIVING TRUST (80ft North)	9107 LEY RD HOUSTON TX, 77078
<b>TRANSPORTATION = 1</b>	
1. SOUTHERN PACIFIC RAILROAD COMPANY (1,047ft West & 1,680ft South)	0 RAILWOOD DR HOUSTON TX, 77078
<b>PARKS &amp; OPEN SPACES = 2</b>	
1. HOUSTON PARKS BOARD (4,564ft Northeast)	0 OATES RD HOUSTON TX, 77078
2. BROWNING FERRIS INC (2,268ft South)	0 MESA DR HOUSTON TX, 77078
<b>UNDEVELOPED: 1</b>	
1. MARYFIELD LTD (82ft North)	0 LEY RD HOUSTON TX, 77078

CITY OF HOUSTON LAND USE	
	Single Family Residential (1186)
	Multi-Family Residential (8)
	Commercial (34)
	Office (17)
	Public and Institutional (17)
	Industrial (56)
	Transportation and Utilities (17)
	Parks and Open Space (11)
	Undeveloped (344)

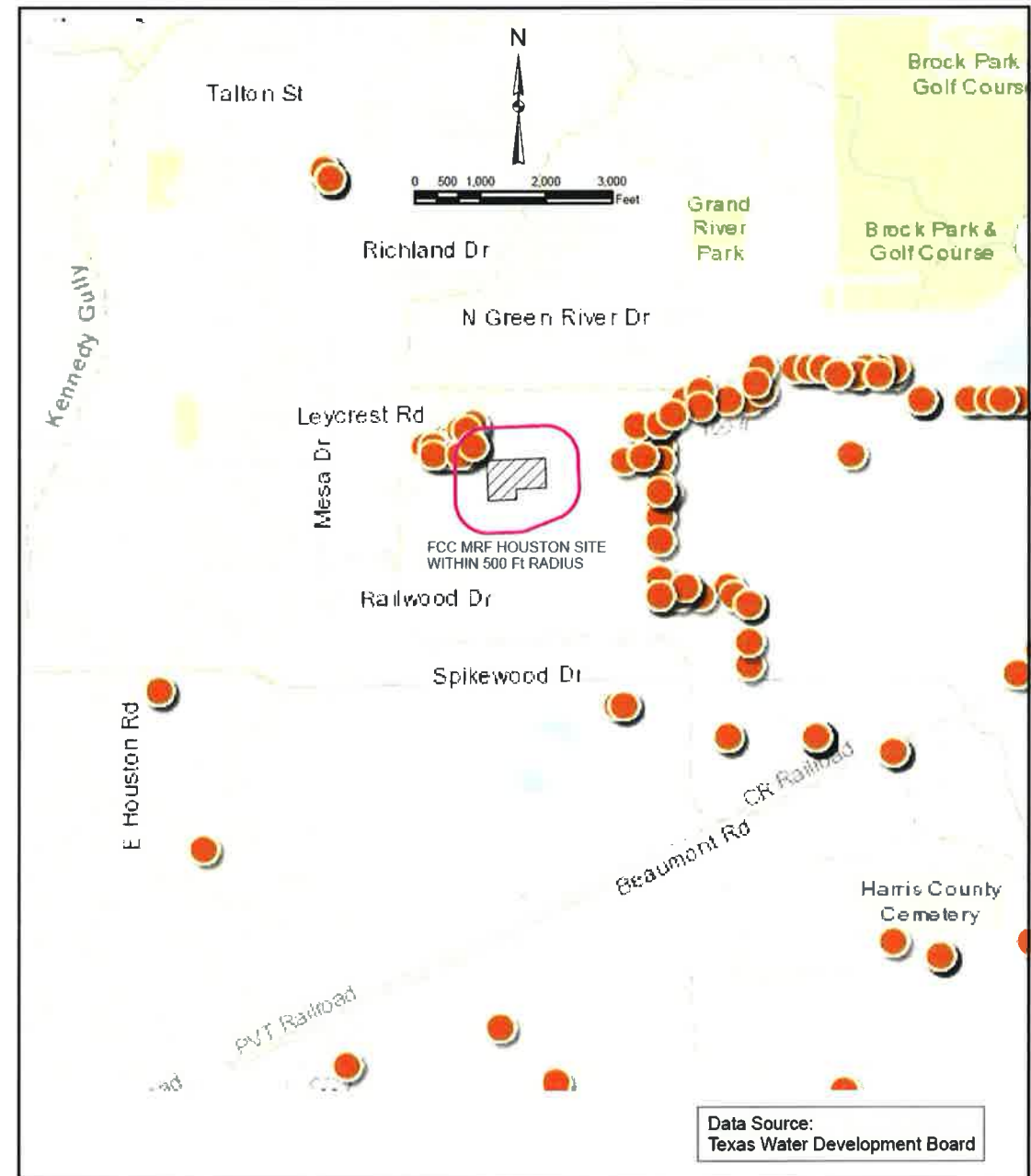
REVISIONS: 1 8/3/18	TAS	REVISED LAND USE LEGEND, ADDED DIRECTION TO CLOSEST FACILITIES FROM SITE	BY
	REV	DATE	
<b>FOR PERMITTING PURPOSES ONLY</b> Risa Weinberger & Associates, Inc. DALLAS, TEXAS FIRM REGISTRATION No. F-7861			
SCALE AS SHOWN	DRAWN TAS, INC.	CHECKED RW&AI	DATE 5/30/2018
FCC ENVIRONMENTAL SERVICES	FCC MATERIALS RECOVERY FACILITY - HOUSTON	LAND USAGE MAP	1 MILE RADIUS
FIGURE			II.4

Version 1 - REV. 8-15-18  
 II-17

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**Appendix II.2 - Other Supporting Maps**

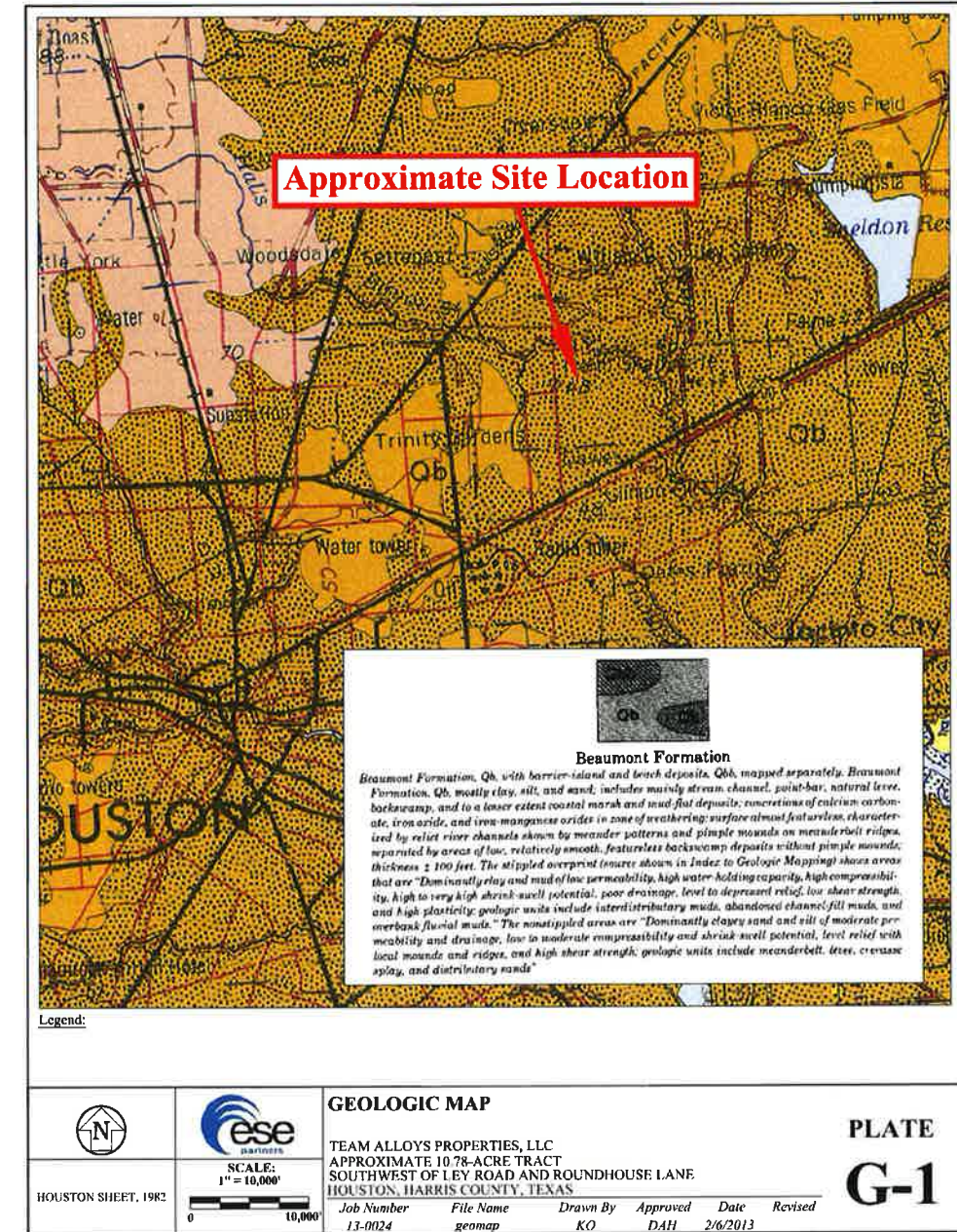
**Figure II.7**  
**Wells Within 500'**



FCC ENVIRONMENTAL SERVICES	SCALE: AS SHOWN	<b>FOR PERMITTING PURPOSES ONLY</b>	FIGURE NO. II.7
FCC MATERIALS RECOVERY FACILITY - HOUSTON	DRAWN: IAS, INC.		
WELLS WITHIN 500 FT RADIUS	CHECKED: RWA	Risa Weinberger & Associates, Inc.	
	DATE: 5/31/2018	<small>DALLAS, TEXAS FIRM REGISTRATION NO. F.1881</small>	

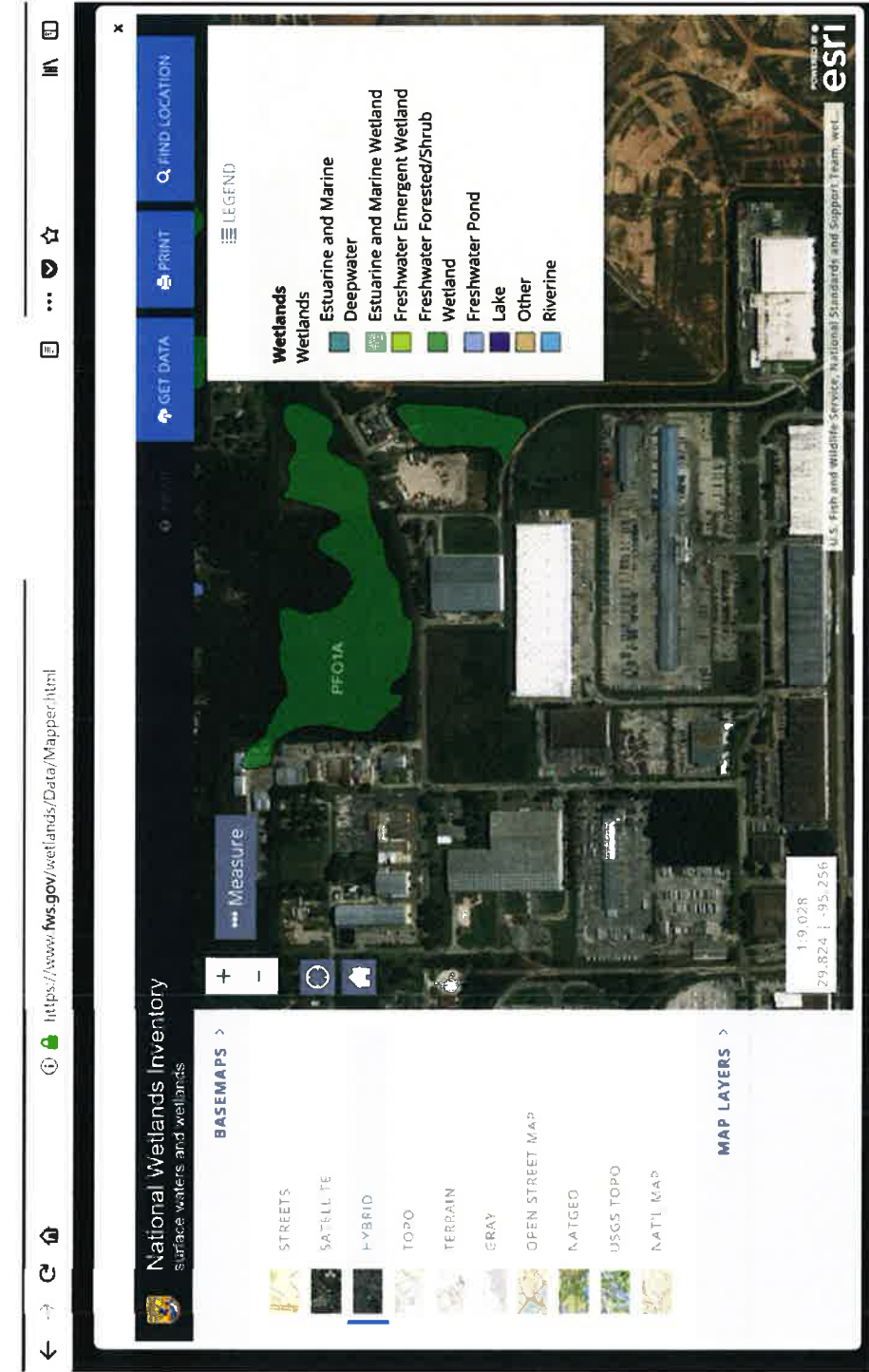
**Figure II.8  
Geologic Map**

ESE Partners Phase I Environmental Site Assessment (February 12, 2013)





**Figure II.10**  
**Wetlands Map**  
 US Fish and Wildlife Service, National Wetlands Inventory (5-26-18)



**Figure II.9**  
**FEMA Floodplain Map**

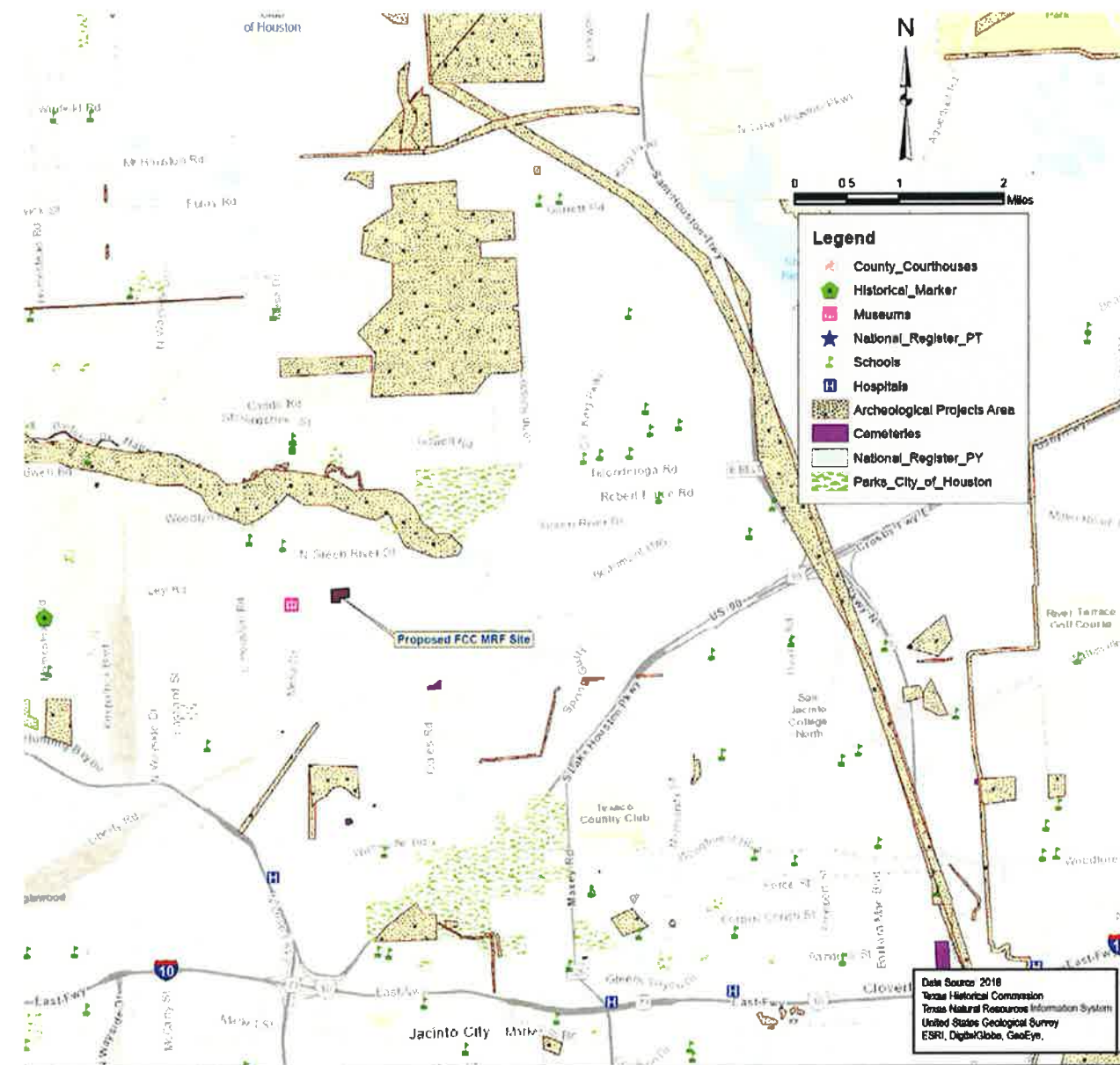


**LEGEND**  
**SPECIAL FLOOD HAZARD AREAS SUBJECT TO OVERWASHING BY THE TARRANT SOURCE FLOODPLAIN**  
 Zone A: Areas of high water table, shallow water table, or other conditions which may result in flooding of buildings and structures.  
 Zone B: Areas of high water table, shallow water table, or other conditions which may result in flooding of buildings and structures.  
 Zone C: Areas of high water table, shallow water table, or other conditions which may result in flooding of buildings and structures.  
 Zone D: Areas of high water table, shallow water table, or other conditions which may result in flooding of buildings and structures.  
 Zone X: Areas of high water table, shallow water table, or other conditions which may result in flooding of buildings and structures.  
 Zone V: Areas of high water table, shallow water table, or other conditions which may result in flooding of buildings and structures.  
 Zone VE: Areas of high water table, shallow water table, or other conditions which may result in flooding of buildings and structures.  
 Zone VE-1 through VE-50: Various sub-zones of Zone VE.

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
 HARRIS COUNTY, TEXAS  
 AND UNINCORPORATED AREAS  
 PANEL 06 OF 108  
 DATE: 08/06/18  
 SCALE: 1" = 1000'

**FCC MRF Location**

**Figure II.12  
Historical Resources**



**Appendix II.3 - Correspondence**

## TxDOT Correspondence

Risa Weinberger & Associates, Inc.

5501 Bryan Street, Suite 200  
Dallas, Texas 75206

Phone: 214-729-7071  
Email: [Risa@RisaWAssoc.com](mailto:Risa@RisaWAssoc.com)  
[www.risawassoc.com](http://www.risawassoc.com)

May 31, 2018

Mr. Quincy Allen, P.E.  
Texas Department of Transportation  
Houston District  
7600 Washington Avenue  
Houston, Texas 77007

Subject: Proposed FCC Materials Recovery Facility Houston, 9172 Ley Road, Houston, TX

Dear Mr. Allen:

The City of Houston has contracted with FCC Environmental Services (FCC) to construct and operate a Materials Recovery Facility (MRF) at 9172 Ley Road in Houston. The Texas Commission for Environmental Quality (TCEQ) requires that FCC notify TxDOT of their proposed facility and seek your comments related to transportation issues. This letter is sent to your attention to obtain review and direction from your agency and to fulfill the TCEQ requirement of coordination with TxDOT.

This facility will process mixed recyclable materials collected from the residents of the City of Houston. The facility is located at the intersection of Ley Road and Roundhouse Lane, approximately 2000 feet east of Mesa Drive as reflected on the attached map. The entrance is approximately 2 miles from Business 90 on the south. McCarty Road Landfill is located approximately 1400 feet east of the facility.

Materials will be delivered 5.5 days per week. The initial delivery rate will be approximately 245 tons per operating day which corresponds to 80 trucks entering and exiting the facility per operating day. The facility will initially employ 70 employees in total.

The primary route for delivering and removing materials from the site will be along Mesa Road north and the south of Ley Road, Ley Road for approximately 2000 feet between Mesa Drive and Roundhouse Lane, and Roundhouse Lane from between 500 feet and 1800 feet to the entrances and exits along Roundhouse Lane. The facility will have two entrance lanes and two exit lanes.

Any information that your office can provide related to the impact of this facility on TxDOT roadways would be appreciated.

Please forward a response to this letter to the address on this letterhead. Please feel free to contact me at 214-729-7071

Sincerely,

  
Risa Weinberger, P.E.  
Project Manager

**Texas Historical Commission**

**Risa Weinberger & Associates, Inc.**

5501 Bryan Street, Suite 200  
Dallas, Texas 75206

Phone: 214-729-7071  
Email: [Risa@RisaWAssoc.com](mailto:Risa@RisaWAssoc.com)  
[www.risawassoc.com](http://www.risawassoc.com)

May 31, 2018

Mr. Mark Wolf  
State Historic Preservation Officer  
Texas Historical Commission  
P.O. Box 12276  
Austin, Texas 78771-2276

Subject: Letter of Coordination for FCC Materials Recovery Facility Houston

Dear Mr. Wolf:

Risa Weinberger & Associates, Inc. is preparing an application to the Texas Commission on Environmental Quality for a Type V Municipal Solid Waste Processing facility in Houston. The facility is a Materials Recovery Facility to process recyclable materials collected from the residents of the City of Houston. The site and facility will be owned and operated by FCC, a corporation under contract to the City of Houston. The 10.828 acre site is located at 9172 Ley Road in Houston, Texas. (See the attached location map.)

The entire materials processing activity will take place inside a 145,000 square foot, metal building (See attached site layout.) This building will require approximately nine months to construct and it expected to be in operation approximately on March 1, 2018.

This letter is provided to you to document our coordination with you and request any comments or concerns that you may have regarding this project. Please reply to me at the address on this letterhead. Feel free to contact me at any time at 214-729-7071. Thank you for your assistance in complying with TCEQ permitting requirements.

Sincerely,  
**Risa Weinberger & Associates, Inc.**

  
Risa Weinberger, P.E.  
Project Manager

## H-GAC Correspondence

Risa Weinberger & Associates, Inc.

5501 Bryan Street, Suite 200  
Dallas, Texas 75206

Phone: 214-729-7071  
Email: [Risa@RisaWAssoc.com](mailto:Risa@RisaWAssoc.com)  
[www.risawassoc.com](http://www.risawassoc.com)

May 31, 2018

Mr. Jack Steele, Executive Director  
Houston-Galveston Area Council  
3555 Timmons, Suite 120  
Houston, Texas 77027

Subject: Regional Solid Waste Management Plan Compliance Review  
FCC Materials Recovery Facility Houston

Dear Mr. Steele:

FCC Environmental Services (FCC) is submitting an application to the Texas Commission on Environmental Quality (TCEQ) for authorization through Registration for a Type V Municipal Solid Waste Processing Facility, a Materials Recovery Facility (MRF), in Houston, Texas.

The City of Houston has contracted with FCC to build, own and operate a single-stream MRF to process recyclables collected from City of Houston residences. The initial throughput of the MRF is expected to be approximately 70,000 tons per year. The estimated capacity of the facility is 145,000 tons per year. The facility will process fiber, plastics, metals and glass.

Per the requirements of 30TAC§330.61(p) pertaining to documentation of coordination with applicable agencies, FCC is providing your agency with notice of its intent to seek approval of its application for authorization of the MRF. We are seeking documentation from the Houston-Galveston Area Council (H-GAC) that the request for a Registration has been provided to the H-GAC and that it is in conformance with the H-GAC regional solid waste management plan.

Risa Weinberger & Associates, Inc. has prepared the Registration application for the proposed project. Parts I and II are attached to this letter for your review. Please contact me if you have any questions or comments about the project. You may respond to me at the address on this letterhead. Thank you for your consideration of this matter.

Sincerely,  
**Risa Weinberger & Associates, Inc.**

Risa Weinberger, P.E.  
Project Manager