

Part IV

FCC Materials Recovery Facility Houston

Houston, Texas

Harris County, Texas

Part IV

Site Operating Plan

Version 1 – Response to First NOD

8-15-18

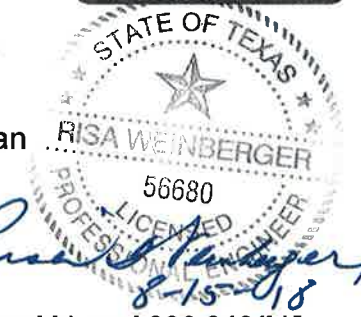
Risa Weinberger & Associates, Inc.  
Texas Registered Engineering Firm  
F-7861



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

Part IV

Part IV- Site Operating Plan



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

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*8-15-18*

## **Part IV – Site Operating Plan**

### **1.0 Waste Acceptance and Analysis [30TAC§330.203(a and b) and 330.213(b)]**

The facility will accept only non-putrescible, source-separated recyclable materials. It will not receive regulated hazardous waste or sharps. FCC is currently under contract with the City of Houston to accept and process non-putrescible, single-stream recyclable materials collected within the City of Houston by City of Houston Solid Waste Management Department forces. In the future, the proposed facility may accept non-putrescible, comingled recyclables generated outside the City of Houston and collected by FCC or other, outside collection forces.

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 3: 93,000 tons (325 tons per operating day)
- Year 4: 100,000 tons (350 tons per operating day)
- Year 5: 107,000 tons (374 tons per operating day)

The following materials will be recovered for recycling, from the mixed recyclables stream delivered to the facility.

- 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

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Incoming materials will be discharged on a 30,000 square foot indoor tipping floor where they will be loaded into a metering bin or, alternatively, directly onto an infeed conveyor. The infeed conveyor will move materials into the materials recovery process. 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 tipping floor has the capacity to store up to 1,200 tons of materials.

Any incidental non-recyclable materials delivered in incoming loads (accounted for in the 145,000 tons per year throughput) will typically be segregated from recyclables and transported to the McCarty Road Landfill or another Permitted Type I landfill in the area for disposal on the same day that they are received. However, if non-recyclable materials remain in the building at the close of business on Friday, they will be removed for disposal on the following Monday.

Because all materials delivered to the facility will typically be processed the same day that they are received, no unprocessed material will be accumulated on-site longer than 24 hours. If unprocessed materials remain in the building at the close of business on Friday, they will be processed or removed on the following Monday.

Figure IV.1 is a schematic diagram illustrating the flow of materials through the facility.

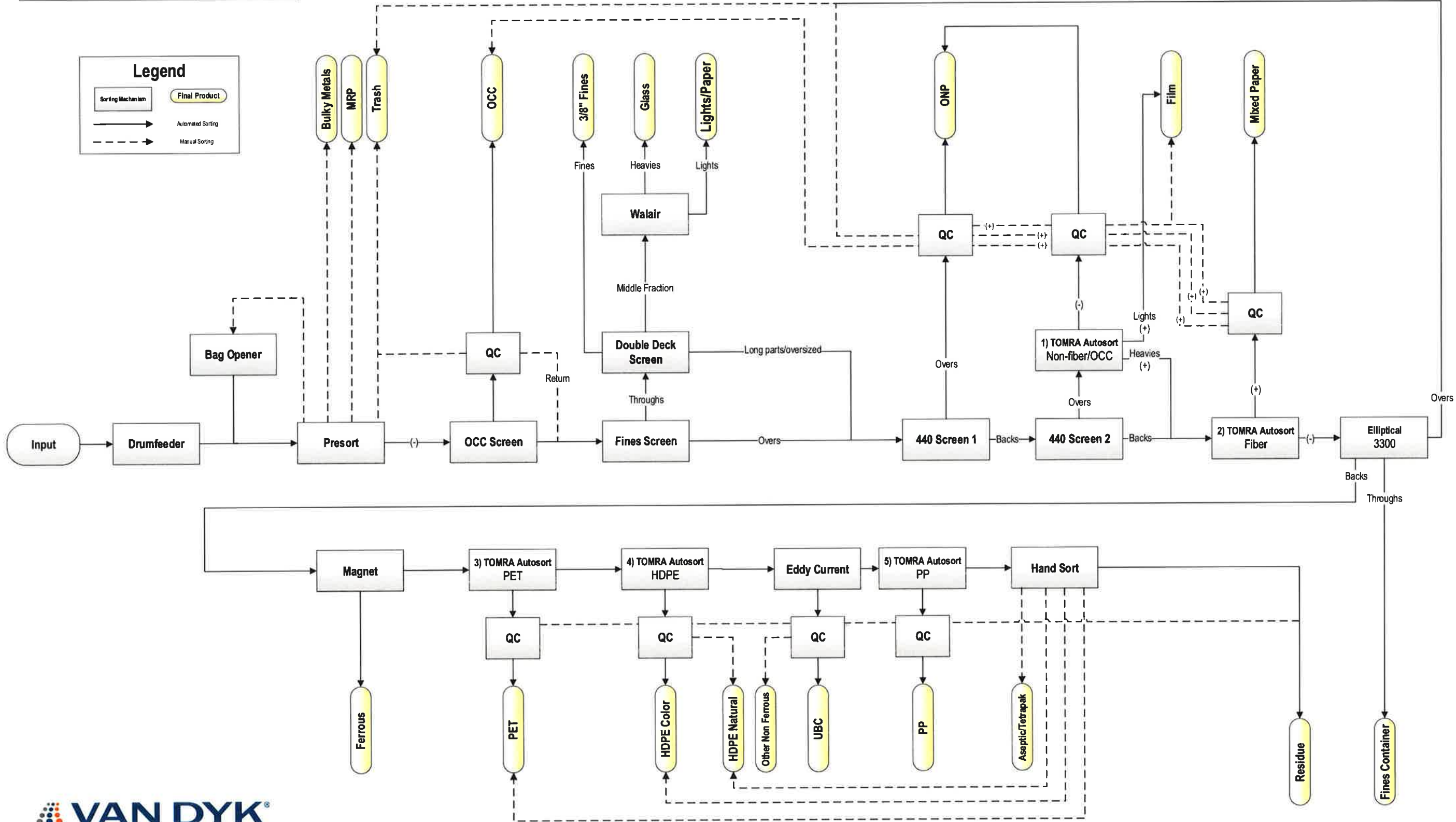
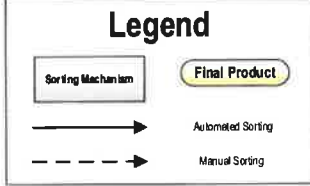
Materials delivered to the facility will be discharged on an indoor tipping floor and loaded into a metering bin. The metering bin will mechanically open bags and deliver materials to a manual pre-sort station where bulky recyclables and bulky non-recyclables are sorted and discharged into bunkers.

After manual pre-sorting, materials will be conveyed to the first disc screen which will remove OCC. After initial OCC removal, materials will pass through a glass breaker and be screened to separate glass and additional non-recyclables. The glass fraction is further separated into four fractions. The remaining materials will pass over a disc screen which will remove additional OCC, ONP and OMP for recovery. The separated OCC will pass through an OCC quality control station to further remove residue.

The remaining material will pass through a series of Near Infra-red (NIR) separators which will remove and separate plastics into PET, HDPE (2 grades) and other plastics. Remaining materials will pass by a magnetic separator removing ferrous metals (steel) and an eddy-current separator removing non-ferrous metals.

FCC anticipates that 75% to 80% of the total materials delivered to the facility for processing will be recovered and recycling. Recovered materials will be baled at the facility and hauled to materials markets for sale.

**FCC Houston**  
Residential Single Stream



REVISIONS:	DATE	BY	DESCRIPTION



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Risa Weinberger & Associates, Inc.  
DALLAS, TEXAS  
FIRM REGISTRATION No. F-7861

SCALE AS SHOWN	DRAWN T.A.S. INC.	CHECKED RW&AI	DATE 5/30/2018
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FCC ENVIRONMENTAL SERVICES  
FCC MATERIALS RECOVERY FACILITY - HOUSTON  
SCHEMATIC FLOW DIAGRAM

FIGURE IV.1

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FCC will continually monitor the effectiveness of its equipment and processes and identify new and improved elements as they may become available. Therefore, the process and equipment described here may be modified, replaced or updated as needed to maintain and increase effectiveness and efficiency.

**2.0 Facility Generated Waste [30TAC§330.205]**

Any materials remaining at the end of the processing line are non-recyclable residuals. All materials segregated from incoming loads on the tipping floor as non-recyclables will be collected and hauled along with residuals for disposal at McCarty Road Landfill, a Permitted, Type I Municipal Solid Waste Landfill authorized to accept them. If McCarty Road Landfill is not available to accept them, non-recyclable residuals and rejects will be hauled to another Municipal Solid Waste disposal facility authorized to accept them. FCC anticipates not more than 20% to 25% of the total materials delivered to the facility to be non-recyclables destined for landfill disposal.

**3.0 Contaminated Water [30TAC§330.207(b)]**

The operation will not use process water or water for washing the building or equipment. No liquid wastes other than municipal sanitary sewage will be generated. Municipal sanitary sewage will be discharged to a 10-inch sanitary sewer located along Ley Road, which discharges to the Homestead Wastewater Treatment Plant. The City of Houston has authorized this sanitary connection through Permit Number 18037180. The facility will not discharge to a septic system.

Stormwater will be discharged from the site during the construction phase pursuant to TPDES Construction Stormwater General Permit Authorization Number TXR15788L. Stormwater during operations will be discharged under the provisions of TPDES Multi-sector General Permit for Industrial Discharges TXR50000. Pursuant to the facility's Storm Water Pollution Prevention Plan, any spilled liquids or contaminated water will be properly contained prior to removal from the site and proper disposal.

**4.0 Storage Requirements [30TAC§330.209(a-b)]**

Materials inside the MRF building and outdoors on the site will be managed in such a way as to minimize the possibility of fire, attraction of vectors, generation of odors and litter. This will be accomplished through routine housekeeping procedures, storage of materials in appropriate containers and avoiding long-term storage of materials at the facility.

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No combustible or putrescible materials will be stored outside the MRF building. The only materials that are ever anticipated to be stored outside the building are baled metals that have been separated from the comingled materials stream and are ready to be marketed. Metals will only be stored outdoors if adequate space is not available to store these materials inside the MRF building.

All materials delivered to the facility will be discharged onto the tipping floor. FCC will have a spotter on the floor who will inspect every load of recyclables entering the facility. If any individual load is determined by the spotter to have more than 20% unrecyclable material, the load will be segregated from loads that meet FCC standards. The hauler will be contacted immediately and instructed to retrieve the entire load within twenty-four hours and remove it from the facility for proper disposal at a landfill authorized to take it. The spotters will take pictures of the contamination in the load and send them to the customer. Any rejected load that is not removed by the hauler within twenty-four hours will be collected by FCC within twenty-four hours and hauled to McCarty Road Landfill for disposal.

One employee will be responsible for removing any windblown debris or litter that is generated by the tipping process of the loading of baled, processed materials onto trucks for transport to markets.

Residuals collected throughout the materials separation process will be contained temporarily in enclosed compactors and removed daily for disposal. Compactors will be cleaned off-site by an outside vendor. The building will be cleaned at the end of every operating day to prevent the accumulation of dust, litter or other debris.

Because all materials delivered to the facility will typically be processed the same day that they are received, no unprocessed material will be accumulated on-site longer than twenty-four hours. If unprocessed materials remain in the building at the close of business on Friday, they will be processed or removed on the following Monday.

#### **5.0 Containers [30TAC§330.211(1-2)(A-B), 330.213(a) and 330.215(1-2)]**

It will be the responsibility of the facility manager to ensure that compactor containers of the following waste materials will be processed or removed from the facility in a timely manner and to ensure that no nuisance conditions exist and the facility is maintained in a sanitary condition.

- Rejected loads delivered to the facility
- Residual materials remaining after recyclables have been removed



#### Part IV

No food wastes will be accepted at the facility. No non-reusable containers will be used at the facility. No containers in the processing area will be manually emptied.

Compactor containers used to temporarily store rejects and residuals before they are hauled to a landfill will be cleaned off-site by an outside vendor to maintain them in a condition that will not attract vectors. These containers will be leak-proof and will be covered to prevent spillage during transport. They will be mechanically emptied at the landfill.

Compactors located at the public tipping area will be fully enclosed to prevent rain from being collected in them and to prevent spillage and windblown litter. The area around the compactors will be swept immediately by forklift operators after each container is removed to be transported to the tipping floor inside the building.

#### **6.0 Site Operating Record [330.125(d, f-h) and 219]**

During the construction period, the following documents will be maintained on-site at all times and will be available for inspection by TCEQ personnel.

- Registration documents (when issued)
- Approved Registration Application
- Construction plans
- Related plans and documentation

The Site Operating Record will be maintained at the facility throughout the operating life of the facility and will include operational records of the two most recent years of operation. The Site Operating Record will be available for inspection by the Executive Director and other TCEQ representatives upon request and will be made available at all reasonable times. The operator acknowledges that the Executive Director may set other schedules for recordkeeping and notification.

The following documents and information will be maintained in the Site Operating Record.

- Location Restriction demonstrations (See Section 7.0 through 11.0 in Part II)
- Inspection records and training procedures
- Closure Plan and related data
- TCEQ correspondence and responses related to operation of the facility
- Registration and Registration Modifications
- Applications for Registration and Registration Modifications
- Current Personnel Operating Licenses
- Documentation of other matters related to TCEQ Technical Assistance

Part IV

- Other documents specified in the Registration approval or otherwise by the Executive Director
- Annual Waste Acceptance Rate
- Records to justify on a quarterly basis that at least 10% of all incoming materials have been segregated and successfully marketed for recycling.
- Municipal Solid Waste Annual Summary Report
- Dates and times of operations outside the normal operating hours specified in Section 12.0 of this Part.

**7.0 Reporting [30TAC§330.675(b) and 330.219 (c) (2-3)]**

Annually, FCC will complete and submit to the Executive Director a completed Municipal Solid Waste Annual Summary Report on a form provided by the Executive Director. This Report will be unique to the FCC MRF Houston and reflect the unique registration number assigned to the facility. Data reflected on the form will reflect the period of time specific to the reporting period. The Annual Summary Report will be submitted within 45 days of the end of the calendar year reporting period and retain for five years.

All reports provided to the TCEQ will be signed by the corporate official who has demonstrated authority to sign and who has provided certification as reflected in Part I of this Registration Application. If the designated signatory is no longer authorized to sign documents on behalf of FCC, a new authorization/certification will be submitted to the Executive Director.

**8.0 Fire Protection Plan [30TAC§330.221(a-c)]**

Figure IV.2 is a Egress and Fire Extinguisher Plan. The entire building will be sprinkled for fire suppression. In addition, fire hydrants will be located at locations indicated on the drawing. Figure IV.1 has been reviewed for compliance by the City of Houston

Attachment IV.1 is a Fire Protection Plan.


**9.0 Access Control [30TAC§223(a-c) and 237(a-c)]**

Figure IV.3 is a Layout Plan which depicts a chain link fence (Note 14) around the perimeter of the site and an electrical security gate (Note 18). Figure IV.1 depicts locking gates across each of the driveways entering and exiting the site. An attendant will be on the site during operating hours to direct vehicles as needed.

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4/2/2018 10:00:37 AM

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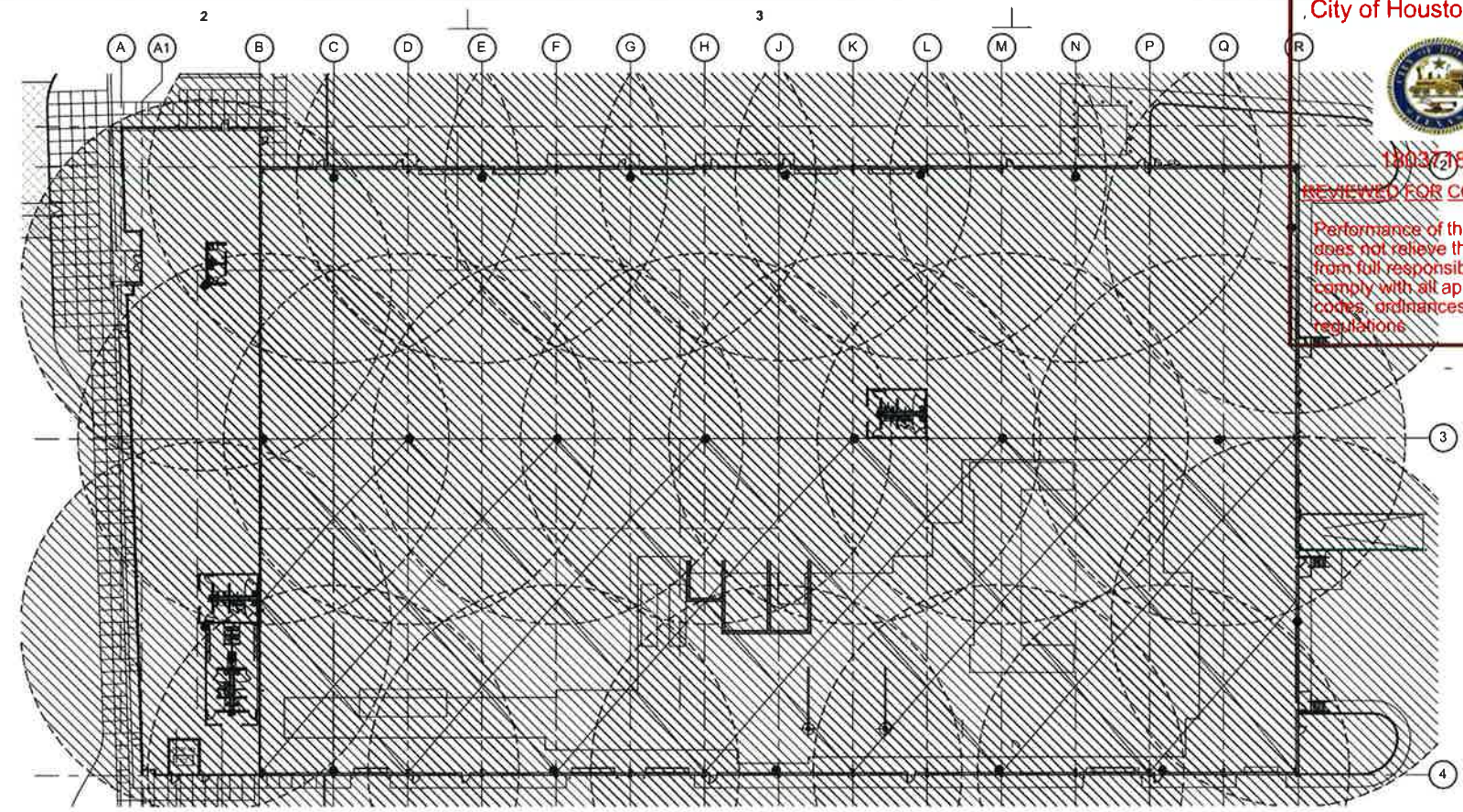


WALL MOUNTED FIRE EXTINGUISHER OR RECESSED FIRE EXTINGUISHER CABINET (FEC) - REFER TO PLANS FOR EXACT LOCATIONS

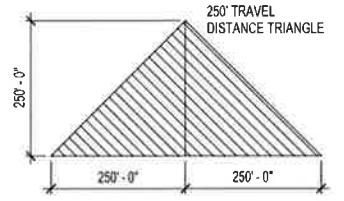
PER NFPA 10: MAXIMUM TRAVEL DISTANCE BETWEEN FIRE EXTINGUISHERS = 75'-0". ALL PORTABLE FIRE EXTINGUISHERS TO MEET NFPA 10.

FE = SURFACE MOUNTED EXTINGUISHER

TOTAL FE PROVIDED = 22



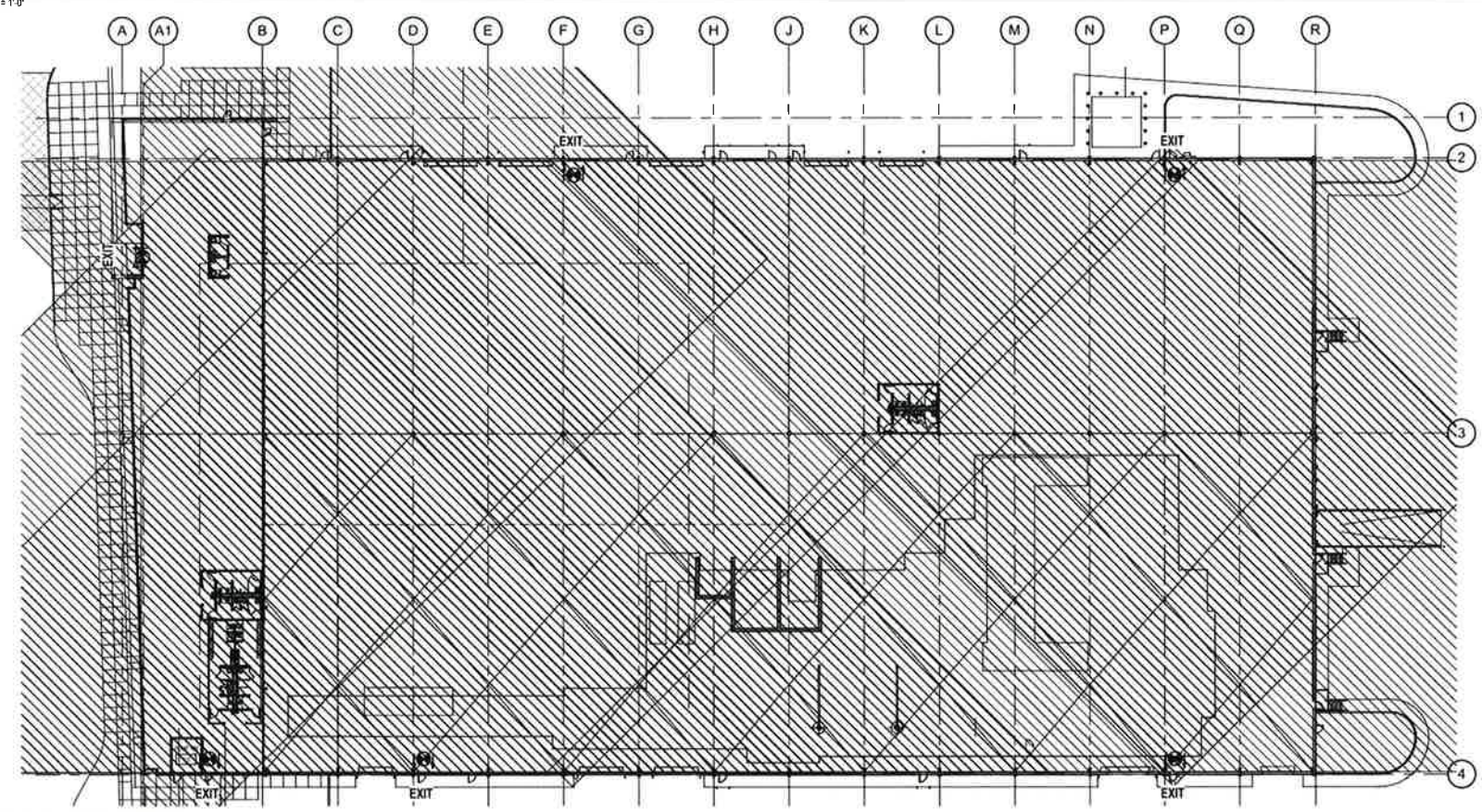
FIRE PROTECTION DIAGRAM  
SCALE: 1/32" = 1'-0"



EMERGENCY EGRESS LIGHT FIXTURE TO BE PROVIDED BY TENANT DURING TENANT FINISH OUT  
TOTAL EXITS PROVIDED = 6

A EMERGENCY EXIT LIGHT FIXTURE TO BE LOCATED AT EACH EXIT DOOR AND PROVIDED BY TENANT DURING TENANT FINISH OUT

B FIRE EXTINGUISHERS TO BE PROVIDED BY TENANT DURING TENANT FINISH OUT



MEANS OF EGRESS DIAGRAM  
SCALE: 1/32" = 1'-0"

City of Houston Texas



13037180  
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

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2100 Travis St., Suite 501  
Houston, Texas 77002  
713.224.0456  
TEXAS REGISTERED ENGINEERING FIRM # 3426

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

GENERAL NOTES

DATE	REVISION
03/30/2018	ISSUE FOR PERMIT

PROJECT NO: 161282  
DRAWN BY: TT  
CHECKED BY: NK  
SHEET TITLE  
EGRESS AND FIRE EXTINGUISHER PLAN

SEAL  
  
03-30-2018

SHEET NUMBER  
G003

REVISIONS	DESCRIPTION	DATE	BY

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. & A.I.  
DATE 5/30/2018

FCC ENVIRONMENTAL SERVICES  
FCC MATERIALS RECOVERY FACILITY - HOUSTON  
EGRESS & FIRE EXTINGUISHER PLAN

FIGURE IV.2  
VERSION 1

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#### Part IV

Figure IV.3 depicts two entrance lanes and two exit lanes from Roundhouse Lane. The one-way entrance lane for commercial trucks is 35 feet wide with 25-foot turning radii. The one-way exit lane for commercial trucks is 40 feet wide with 25-foot turning radii. These driveways and on-site roadways are designed to accommodate collection trucks delivering unprocessed, single-stream, residential recyclables as well as trucks removing non-recyclables for disposal and segregated materials to markets. The concrete pavement materials are designed to prevent depressions, rutting and potholes. Any such roadway conditions will be periodically repaired.

The two-way entrance/exit exclusively for individual residents from Roundhouse Lane has two lanes which are a total of 26 feet wide with 25-foot turning radii and are designed to accommodate visitors' and employees' vehicles. Fifty-five parking spaces are provided for private vehicles in addition to space for busses to drop off visitors.

The entrance and exit for trucks servicing compactors in the public tipping area off of Ley road will be 30 feet wide with 25-foot turning radii and will be constructed of concrete.

Figure IV.3 indicates that entrances and exits to the facility and around the perimeter of the building will be 5" and 7" thick concrete per City of Houston requirements and the parking lot will be crushed concrete.

Safety bumpers are not required for collection trucks delivering recyclables to the facility because they will discharge onto the flat, indoor tipping area and not into hoppers.

Paved, all weather roadways are designed throughout the facility to minimize the generation of dust and tracking of mud. No unpaved surfaces are provided for vehicles. If necessary, designated employees will sweep or blade mud from outdoor paved surfaces to prevent nuisance conditions and tracking mud onto public roadways. In the unlikely event that dust from roadways creates nuisance conditions, roadways will be sprinkled using a water truck, hose or other similar method of delivering water to on-site roadway surfaces. Water for this purpose will be available from the on-site stormwater detention pond or on-site potable water hydrants.

2

City of Houston Texas



SCALE: 1"=50'

ARCHITECT: powers brown architecture

CIVIL: Dally ASSOCIATES

PROJECT MANAGER: JOSE DEGO VOROBY, CFM

PROJECT ENGINEER: FRED DALLY, P.E.

PROJECT TITLE

OWNER: FOMENTO DE CONSTRUCCIONES Y CONTRATAS INC.



HOUSTON MATERIALS RECYCLING FACILITY

9172 LEY RD. HOUSTON, TX 77078

FLOOD INFORMATION: THIS TRACT OR LOT IS NOT IN THE 100 YEAR FLOOD PLAIN...

BOUNDARY & TOPOGRAPHICAL

USED FLOODPLAIN MAP NO. 15037D, BRASS DISC STAMPING 1987D...

DATE: MARCH 8, 2018

Table with columns: DATE, REVISION. Includes entries for 05-29-2018 (ISSUED FOR PERMIT), 04-27-2018 (ADDENDUM 01), 05-11-2018 (ADDENDUM 02).

PROJECT NO: C18-010-00

DRAWN BY: CO

CHECKED BY: JDM

SHEET TITLE

LAYOUT PLAN

SEAL: FRED DALLY 30904

SHEET NUMBER: C-5.0

SHEET 5 OF 29

DATE: 05/11/18

SITE LAYOUT NOTES

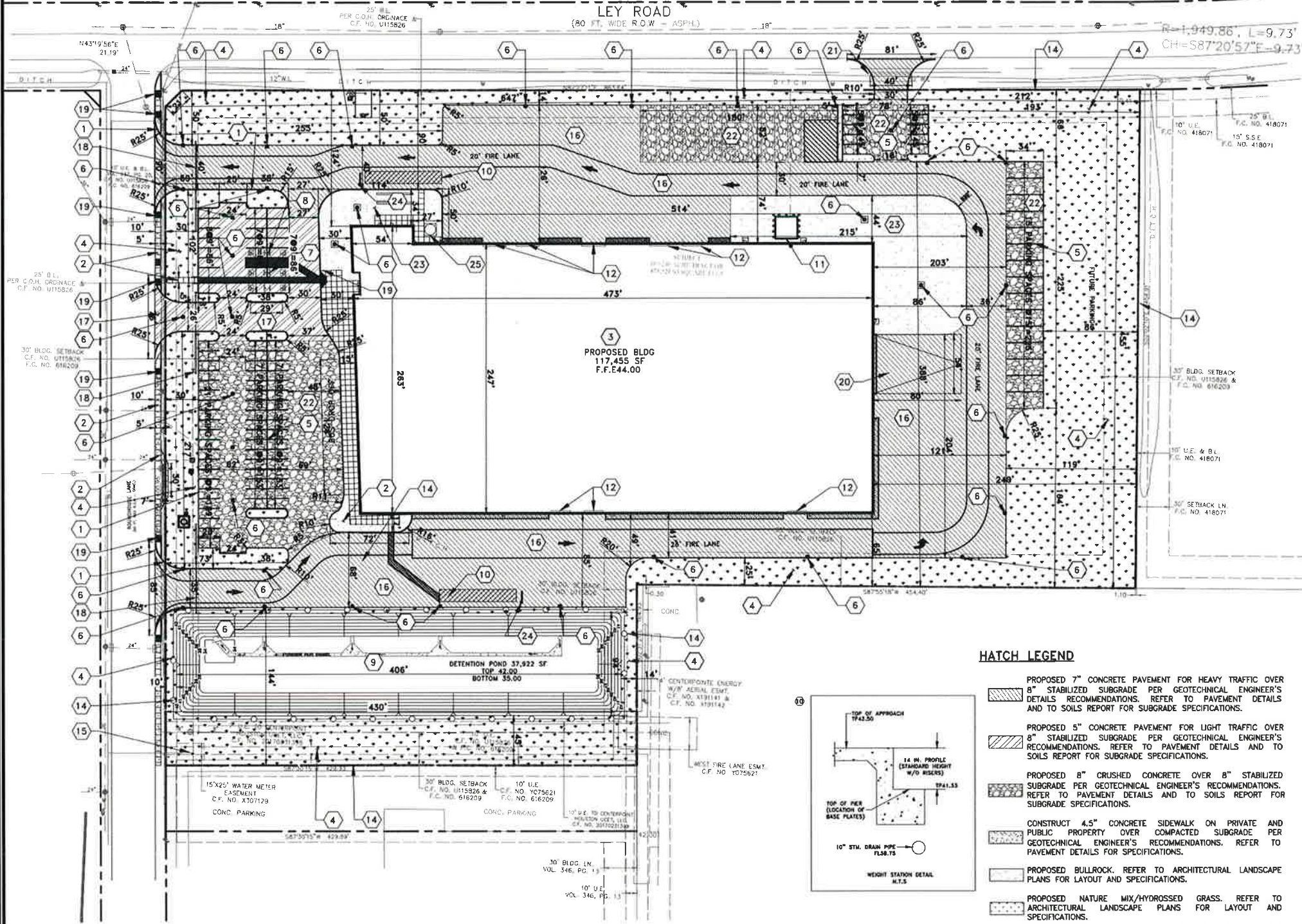
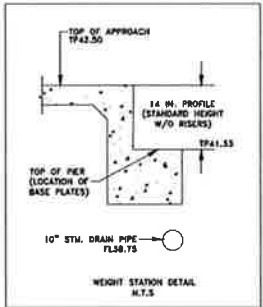
- 1. THE HORIZONTAL AND VERTICAL UTILITIES HAVE BEEN DETERMINED FROM DATA PROVIDED BY OTHERS... 2. ALL DIMENSIONS ARE FROM FACE OF CURB UNLESS OTHERWISE NOTED... 3. ALL DIMENSIONS ARE TO FACE OF BUILDING... 4. REFER TO ARCHITECTURAL PLANS FOR ALL STAIRS, HANDICAPPED RAMP AND RETAINING WALL DETAILS... 5. REFER TO LANDSCAPE ARCHITECT PLANS FOR DETAILS AND DIMENSIONS OF LANDSCAPE AND HARDSCAPE AREAS.

LAYOUT KEY NOTES

- 1 PROPOSED 6" CONCRETE CURB PER PAVEMENT DETAILS. 2 PROPOSED 4.5" CONCRETE SIDEWALK PER PAVEMENT DETAILS. 3 PROPOSED BUILDING PER STRUCTURAL AND ARCHITECTURAL DRAWINGS. 4 PROPOSED LANDSCAPE/GRASS AREA PER LANDSCAPE DRAWINGS. 5 PROPOSED 4" YELLOW STRIPPING PER PAVEMENT DETAILS. 6 PROPOSED STORM DRAIN INLET TYPE "A" AND "B" PER STORM DRAIN DETAILS. 7 PROPOSED PARKING WHEEL-STOP AT ADA PARKING SPACE PER PAVEMENT DETAILS. 8 PROPOSED ADA SIGN PER PAVEMENT DETAILS. 9 PROPOSED DETENTION POND PER DETENTION CALCULATION. 10 PROPOSED WEIGHT STATION, THE SCALE SHALL BE 70"x11" CONCRETE DECK PITTED TRUCK SCALE PER BRIDGEMONT HEAVY DUTY BMC 7011 OR APPROVED EQUAL CONTRACTOR TO PROVIDE DRAINAGE TO CLOSEST STORM DRAIN INLET... 11 PROPOSED TRANSFORMER BY OTHERS. 12 OH DOOR PER ARCHITECTURAL DRAWINGS. 13 NOT USED. 14 PROPOSED 6' ALONG ROUNHOUSE LANE AND 4' TALL AROUND DETENTION POND CHAIN LINK FENCE BY OTHERS. 15 EXISTING WATER METER TO REMAIN. PROTECT IN-PLACE. 16 PROPOSED 7" HEAVY DUTY CONCRETE PER PAVEMENT DETAILS. CONCRETE ROADWAY WILL SUPPORT A LOAD OF 90,000lbs. 17 PROPOSED 5" LIGHT DUTY CONCRETE PER PAVEMENT DETAILS. 18 PROPOSED ELECTRICAL GATE FOR PASSENGER CAR DRIVEWAY AND MANUAL FOR TRUCK ENTRANCE AND EXIT DRIVEWAYS BY OTHERS. 19 PROPOSED ADA RAMPS PER PAVEMENT DETAILS. 20 PROPOSED TRUCK WELL. DETAILS AND SPECIFICATIONS BY OTHERS. 21 PROPOSED 24" RCP CULVERT PIPE ON LEY ROAD PER UTILITY PLAN. 22 PROPOSED CRUSHED CONCRETE PER PAVEMENT DETAILS. 23 PROPOSED BULLROCK PER PAVEMENT DETAILS. 24 PROPOSED BARRIER ARM BY OTHERS. 25 PROPOSED FIRE BREAK TANK PER MEP DRAWINGS FOR LAYOUT AND SPECIFICATIONS.

HATCH LEGEND

- PROPOSED 7" CONCRETE PAVEMENT FOR HEAVY TRAFFIC OVER 8" STABILIZED SUBGRADE... PROPOSED 5" CONCRETE PAVEMENT FOR LIGHT TRAFFIC OVER 8" STABILIZED SUBGRADE... PROPOSED 8" CRUSHED CONCRETE OVER 8" STABILIZED SUBGRADE... CONSTRUCT 4.5" CONCRETE SIDEWALK ON PRIVATE AND PUBLIC PROPERTY... PROPOSED BULLROCK... PROPOSED NATURE MIX/HYDROSSED GRASS... PROPOSED BUILDING...



ONE - CALL NOTIFICATION SYSTEM CALL BEFORE YOU DIG!!!

Table with columns: REVISIONS, DESCRIPTION, REV, DATE, BY.

FOR PERMITTING PURPOSES ONLY



Risa Weinberger & Associates, Inc. DALLAS, TEXAS FIRM REGISTRATION NO. F-7861

Table with columns: SCALE, AS SHOWN, DRAWN, TAB, INC., CHECKED, RW, AL, DATE, 5/30/2018.

FCC ENVIRONMENTAL SERVICES FCC MATERIALS RECOVERY FACILITY - HOUSTON LAYOUT PLAN

FIGURE IV.3

**10.0 Unloading of Waste [30TAC§330.225(a-b)]**

Haulers of materials delivered to the facility for processing will be allowed to deposit materials only on the indoor tipping floor as directed by a scale attendant. Signs, traffic cones, barriers, or other means as necessary will identify the appropriate unloading area on the floor and prohibit unloading in unauthorized areas. Any material unloaded in unauthorized areas will be removed immediately and relocated to the appropriate area. The unloading area will be confined to as small a space as practical. No materials will be discharged or stored outside the MRF building. Any incoming materials discharged outside the building will be immediately loaded back onto the vehicle that delivered it or collected by operating personnel and delivered to the tipping floor or removed for landfill disposal.

The operator shall not be required to accept any material that will interfere with the proper operation of the facility in conformance with this Plan. If any unacceptable loads are discharged at the facility, an attendant on the tipping floor will identify the materials and immediately notify the driver who delivered that load that the material will be reloaded onto the truck and removed from the facility for proper disposal at a landfill. If the driver refuses to remove the rejected material, FCC personnel will collect the rejected material from the tipping floor and load it into containers which will be hauled by FCC to a landfill for disposal.

**11.0 Spill Prevention and Control [30TAC§330.227]**

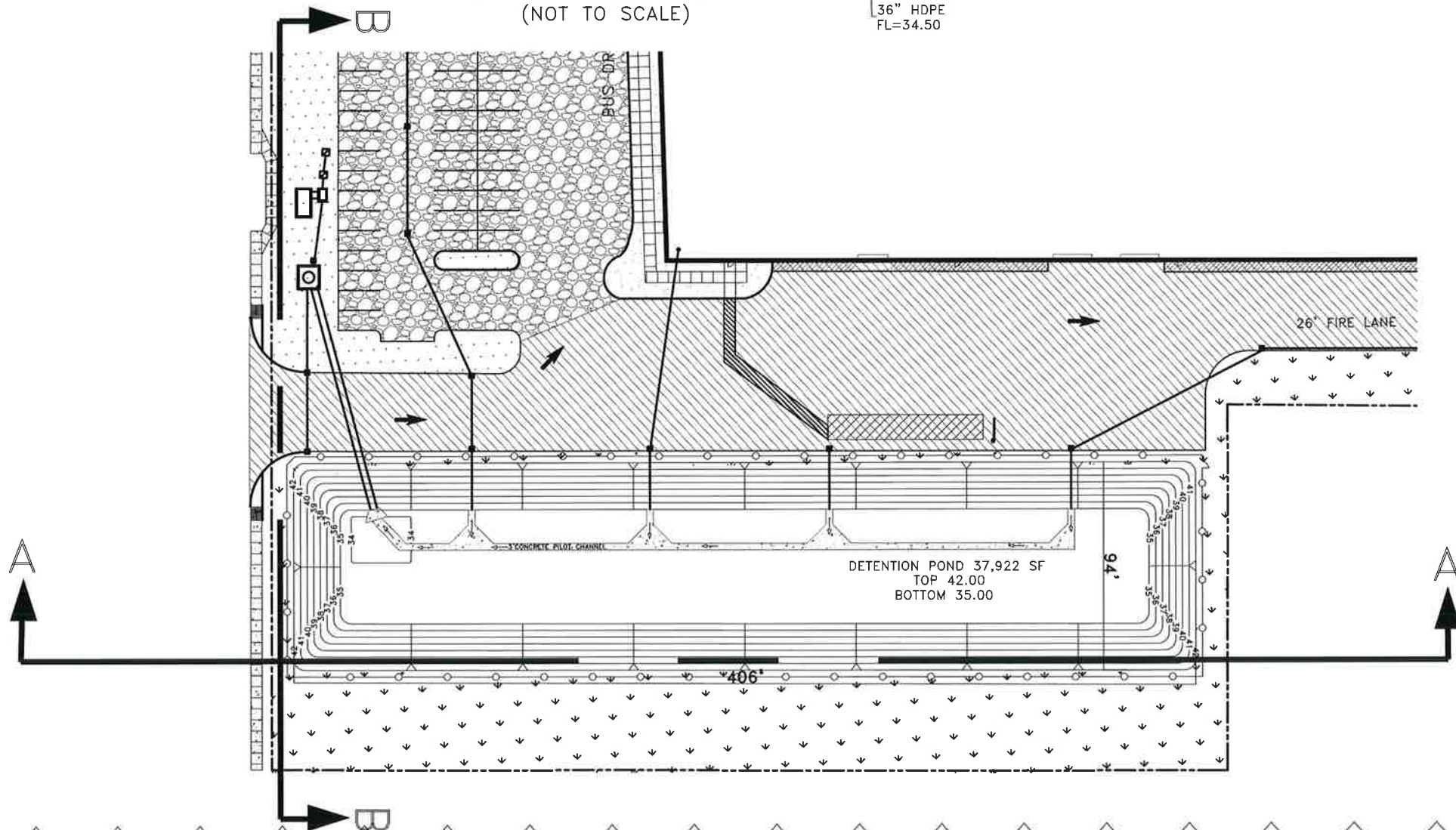
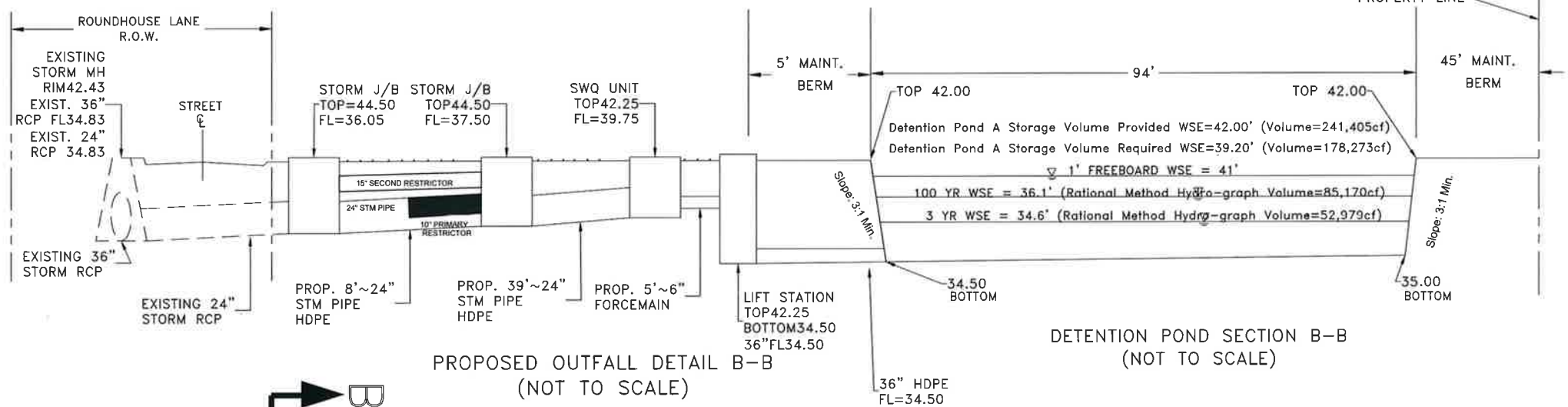
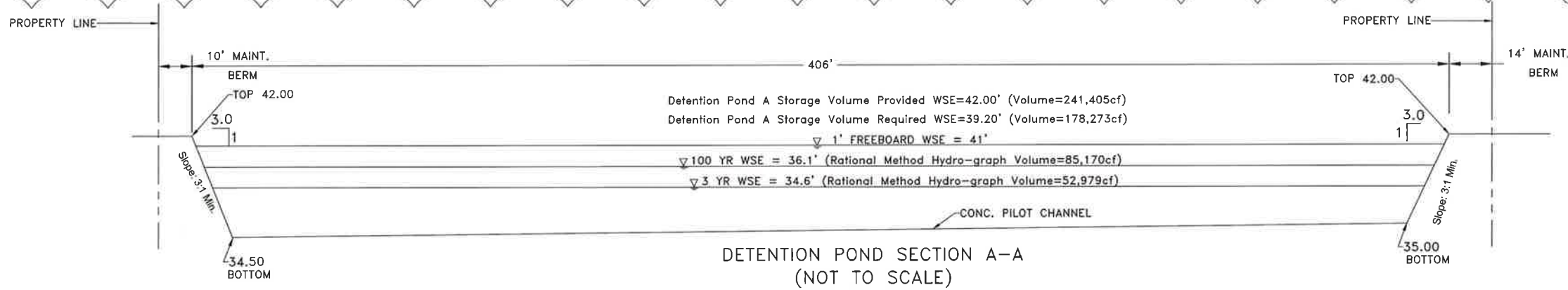
All processing activities will be located inside the MRF building. Any spills which occur on the site will be contained within the building and addressed using spill kits which will be located at various locations throughout the facility. Employees will be trained periodically to identify, contain and control spills, and in appropriate methods of removing contamination from the site for disposal at a facility authorized to accept it.

A stormwater detention pond is located on the south side of the property. It is designed to contain the 100-year, 24-hour storm event plus almost six feet of freeboard as depicted on Figure IV.4 – Detention Pond Cross Section. Therefore, the capacity of the detention pond significantly exceeds the minimum required capacity of the 25-year, 24-hour storm event.

Part IV

**12.0 Waste Acceptance and Facility Operating Hours [30TAC§330.229.(a-d)]**

Normal operating hours are defined as follows. 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.



1

**ARCHITECT:**  
**powers brown architecture**  
 2100 Travis St., Suite 501  
 Houston, Texas 77002  
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 8000 Richmond Avenue, Suite 400  
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 TEXAS REGISTERED ENGINEER NO. 11987-0018

PROJECT MANAGER: JOSE DIEGO MONROY, CFM  
 PROJECT ENGINEER: FRED DALLY, P.E.

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

DATE	REVISION
03-29-2018	ISSUED FOR PERMIT
04-30-2018	ADDENDUM 01

PROJECT NO: C18-010-00  
 DRAWN BY: CO  
 CHECKED BY: JDM  
 SHEET TITLE

DETENTION POND CROSS SECTION

SEAL  
 SHEET NUMBER  
 C-23.0  
 SHEET 23 OF 29  
 04-30-2018

ONE-CALL NOTIFICATION SYSTEM  
 CALL BEFORE YOU DIG!!!  
 (713) 223-4567 (In Houston, Tx)  
 (New Statewide Number Outside Houston)  
 1-800-545-8005

FIGURE IV.4  
 IV-13  
 VERSION 1



Part IV

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.

Any operations occur outside the normal operating hours, dates and times of such operations will be noted in the Operating Record.

**13.0 Facility Sign [30TAC§231]**

A sign with dimensions of at least 4 feet by 4 feet will be located at the entrance of the facility. The sign will display the following information at a minimum. Lettering will be at least three inches tall.

FCC Materials Recovery Houston

TCEQ Registration Number XXXXX

Single-stream, Residential, Recyclable Materials Processing

No municipal solid waste or hazardous waste accepted.

Hours Accepting Materials:

Monday through Friday: 7:00 A.M. through 7:00 P.M.

Cover all loads.

PLEASE OBEY ALL SIGNS AND INSTRUCTIONS!

IN CASE OF EMERGENCY CONTACT XXX-XXX-XXXX OR CALL 911

**14.0 Nuisance Conditions [30TAC§330.233, 235, 239 and 245]**

All processing activities will take place inside the MRF building. The building will maintain negative air pressure in the tipping area and all areas other than processing

Part IV

Pods to ensure that dust and odors are brought into the building rather than exhausted out. Each processing pod will be individually enclosed and climate controlled to provide clean and odor free working conditions for employees performing manual separation and quality control activities on the processing line. The facility will not require the use of air pollution control and abatement equipment and will not cause or contribute to air pollution.

The only containers used to contain solid wastes will be compactor containers for rejects and residuals. These containers will be removed from the facility on a daily basis which will prevent the creation of nuisance odor conditions. No containers will be used to store liquid wastes. The only open containers in the building will contain clean, processed materials prior to transport to markets. Since these containers will not contain putrescible materials, they will not attract vectors or generate odors.

Because processing activities will all be inside the MRF building, the effects of noise and visibility of the operation will be minimal. The surrounding land use around the facility is predominantly industrial and the McCarty Road Type I Municipal Solid Waste Landfill.

The operator will enforce a policy of requiring that all open trucks delivering materials to the facility will be covered using a tarp, net or similar material to prevent materials from blowing out of the vehicles and creating litter. This policy will be stated on a sign at the facility entrance and enforced through imposing fines, rejecting uncovered vehicles, or other similar methods. Most vehicles delivering materials will be enclosed, residential collection vehicles which typically do not deposit materials along their routes.

Windblown material and litter will be collected daily on days of operation along the perimeter fence and throughout the property. In addition, personnel will inspect Ley Road and Roundhouse Lane on every day that materials are accepted for a distance of two miles in either direction from the entrance of the facility for litter deposited along the roadway by trucks delivering recyclables. If such materials identified, they will be collected and delivered to the facility for processing or disposal.

**15.0 Overloading and Breakdown [30TAC§330.241]**

The processing equipment in operation when the facility begins operation will be appropriate to process approximately 145,000 tons of material per year. It is anticipated that approximately 70,000 tons of material will be delivered to the facility in its first year of operation. Although the operator will attempt to increase the facility acceptance rate over time, processing agreements with other generators or haulers will be limited by the ability to process the materials delivered in a timely manner. Quantities of materials

Part IV

accepted will be limited to that able to be processed without storing materials longer than twenty-four hours.

In the event that the facility must temporarily cease operation for longer than twenty-four hours on a typical operating day, additional incoming materials will not be accepted until the facility is again operational. Any materials remaining in the building during a temporary shut down longer than twenty-four hours will be hauled to another processing facility or to a landfill authorized to accept it.

**16.0 Sanitation [30TAC§330.243]**

The facility will be cleaned at the end of every operating day using compressed air or sweeping. Steam or water will be used to clean any areas where liquid municipal solid waste comes in contact with the floor, as necessary. If water used for sanitation accumulates it will be immediately dried or removed to a drain in order to prevent nuisance conditions or attraction of vectors.

**Attachment IV.1 – Fire Prevention Plan**

# Fire Prevention Plan



Part IV

**Fire Prevention Plan  
Table of Contents**

- I. Objective
- II. Background
- III. Assignment of Responsibility
- IV. Plan Implementation
  - A. Good Housekeeping
  - B. Maintenance
- V. Types of Hazards
  - A. Electrical Hazards
  - B. Portable Heaters
  - C. Office Fire Hazards
  - D. Cutting, Welding, and Open-Flame Work
  - E. Flammable and Combustible Materials
  - F. Smoking
- VI. Training
- VII. Program Review
- VIII. Attachments
  - A. Fire Risk Survey
  - B. General Fire Prevention Checklist
  - C. Exits Checklist
  - D. Flammable and Combustible Material Checklist
  - E. DWC Resources

**Fire Prevention Plan  
for  
FOMENTO DE CONSTRUCCIONES Y CONTRATAS INC. dba FCCSA /Houston MRF  
Last Revised: (Date)**

**OBJECTIVE**

The purpose of this Fire Prevention Plan is to eliminate the causes of fire, prevent loss of life and property by fire, and comply with the Occupational Safety and Health Administration's (OSHA) standard on fire prevention, 29 CFR 1910.39. The plan helps employees recognize, report, and control fire hazards.

**BACKGROUND**

FCC is committed to minimizing the threat of fire to employees, visitors, and property. FCC complies with all applicable laws, regulations, codes, and good practices pertaining to fire prevention. This Fire Prevention Plan reduces the risk of fires at FCC Houston MRF in the following ways:

- A. identifies materials that are potential fire hazards and their proper handling and storage procedures;
- B. distinguishes potential ignition sources and the proper procedures for control of those materials;
- C. describes fire protection equipment or systems;
- D. identifies people responsible for maintaining the equipment and systems installed to prevent or control ignition of fires;
- E. identifies people responsible for the control and accumulation of flammable or combustible material;
- F. describes good housekeeping procedures for ensuring control of accumulated flammable and combustible waste material and residues; and
- G. provides employee training about fire hazards they may encounter.

**ASSIGNMENT OF RESPONSIBILITY**

Fire safety is everyone's responsibility. All employees should know how to prevent and respond to fires, and should understand that they are responsible for adhering to company policy regarding fire emergencies.

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### Management

Management determines the FCC fire prevention and protection policies. Management will provide adequate controls to provide a safe workplace, and will provide adequate resources and training to its employees to encourage fire prevention and the safest possible response in a fire emergency.

### Plan Administrator

Sharon Wuthrich will manage the Fire Prevention Plan for FCC and will maintain all records pertaining to the plan. The Plan Administrator will also:

1. develop and administer the FCC fire prevention training program;
2. ensure that fire control equipment and systems are properly maintained;
3. control fuel source hazards; and

### Supervisors

Supervisors are responsible for ensuring that employees receive appropriate fire safety training and for notifying the General Manger at the plant when changes in operation increase the risk of fire. Supervisors are also responsible for enforcing FCC fire prevention and protection policies.

### Employees

All employees will:

1. complete all required training before working without supervision;
2. conduct operations safely to limit fire risk;
3. report potential fire hazards to supervisors; and
4. follow fire emergency procedures.

## PLAN IMPLEMENTATION

### A. Good Housekeeping

To limit the risk of fires, employees will take the following precautions:

1. Minimize storage of combustible (fiber bales and plastics bales) materials for long period of times



#### Part IV

2. Make sure doors, hallways, stairs, and other exit routes are free of obstructions.
3. Dispose of combustible waste in covered, airtight, metal containers.
4. Use and store flammable materials in well-ventilated areas away from ignition sources.
5. Use only nonflammable cleaning products.
6. Keep incompatible (chemically reactive) substances away from each other.
7. Perform "hot work" (welding or working with an open flame or other ignition source) in controlled and well-ventilated areas.
8. Keep equipment in good working order; inspect electrical wiring and appliances regularly and keep motors and machine tools free of dust and grease.
9. Ensure that heating units are safeguarded.
10. Report all gas leaks immediately to the General Manager at the facility who will ensure they are repaired immediately.
11. Repair and clean up flammable liquid leaks immediately.
12. Keep work areas free of dust, lint, sawdust, scraps, and similar material. Daily cleaning is essential in this type of facilities.
13. Do not rely on extension cords if wiring improvements are needed, and take care not to overload circuits with multiple pieces of equipment.
14. Ensure that required hot-work permits are obtained.
15. Turn off electrical equipment when not in use.

#### Maintenance

The maintenance manager will ensure that equipment is maintained according to manufacturers' specifications. FCC must also comply with requirements of National Fire Protection Association (NFPA) codes for specific equipment. Only properly trained people may perform maintenance work.

The following equipment is subject to maintenance, inspection, and testing procedures:

1. equipment installed to detect fuel leaks, control heating, and control pressurized systems;
2. portable fire extinguishers, automatic sprinkler systems, and fixed extinguishing systems;
3. detection systems for smoke, heat, or flame;
4. fire alarm systems; and
5. emergency backup systems and the equipment they support.

Part IV

**TYPES OF HAZARDS**

The following sections address the major workplace fire hazards at FCC 's facilities and the procedures for controlling the hazards.

## Part IV

### A. Electrical Fire Hazards

Electrical system failures and the misuse of electrical equipment are leading causes of workplace fires. Fires can result from loose ground connections; wiring with frayed insulation; or overloaded fuses, circuits, motors, or outlets.

To prevent electrical fires, employees will:

1. make sure worn wires are replaced;
2. use only appropriately rated fuses;
3. never use extension cords as substitutes for permanent wiring;
4. use only approved extension cords [those with the Underwriters Laboratory (UL) or Factory Mutual (FM) label];
5. check wiring in hazardous locations where the risk of fire is especially high;
6. check electrical equipment to ensure it is properly grounded or double insulated; and
7. ensure adequate spacing during maintenance.

### Hot Loads

All the material received in the facility will be by trucks. Some trucks can arrive with material that is combustibile and that is already on flames when picking it by the City of Houston trucks. Due to the lack of oxygen when the truck transport it to the facility does not combust, but once is unloaded it will ignite.

At FCC we have a clear procedure on how to act when a hot load is deliver to the facility

1. All loads must be unload separately from the rest of the material and let them sit on the floor for a couple of minutes.
2. Loader operator should remove the material around before mix it with the entire big pile of material.
3. Once he assures there is no fire coming from the material he can mix it with the pile
4. If material has flames should be scoop in the loader and take it outside of the building immediately, unloading it in the concrete pad outside the building. All material in flames should be taking outside.
5. Close overhead doors to avoid spread the fire inside of the building.
6. Call 911

### Office Fire Hazards

#### Part IV

Fire risks are not limited to FCC industrial facilities. Office fires have become more likely due to increased use of electrical equipment, such as computers and copiers. To prevent office fires, employees must:

1. avoid overloading circuits with office equipment;
2. turn off and unplug nonessential electrical equipment, such as coffee pots, at the end of each workday;
3. keep storage areas clear of rubbish;
4. ensure that extension cords are not placed under carpets; and
5. ensure that trash and paper set aside for recycling is not allowed to accumulate.

## Part IV

### Cutting, Welding, and Open-Flame Work

Maintenance Manager will ensure the following:

1. All necessary hot work permits have been obtained before work begins.
2. Cutting and welding are done by authorized personnel in designated areas whenever possible.
3. Adequate ventilation is provided.
4. Torches, regulators, pressure-reducing valves, and manifolds are UL-listed or FM-approved.
5. Oxygen-fuel gas systems are equipped with listed or approved backflow valves and pressure-relief devices.
6. Cutters, welders, and helpers are wearing eye protection and protective clothing, as appropriate.
7. Cutting or welding is prohibited in sprinklered buildings while sprinkler protection is out of service.
8. Cutting or welding is prohibited in areas where explosive atmospheres of gases, vapors, or dusts could develop from residues or accumulations in confined spaces.
9. Cutting or welding is prohibited on metal walls, ceilings, or roofs built of combustible sandwich-type panel construction or combustible covering.
10. Confined spaces, such as tanks, are tested to ensure that the atmosphere is not more than 10 percent of the lower flammable limit before cutting or welding in or on the tank.
11. Small tanks, piping, or containers that cannot be entered are cleaned, purged, and tested before cutting or welding on them begins.
12. Fire watch has been established.

### Flammable and Combustible Materials

Certain types of substances can ignite at relatively low temperatures or pose a risk of catastrophic explosion if ignited. Such substances obviously require special care and handling.

#### Class A combustibles.

These include common combustible materials (paper, and plastics) that are found in Material Recycling Facility as part of the materials received in the trucks

#### Part IV

To handle Class A combustibles safely:

- a. Keep work areas clean and free of fuel paths that could allow a fire to spread.
- b. Keep combustibles away from accidental ignition sources, such as hot plates, soldering irons, or other heat- or spark-producing devices.
- c. Store paper bales in a high pile designated area that has an adequate sprinkler design for this type of materials
- d. Store plastics bales in a high pile designated area that has an adequate sprinkler design for this type of materials
- e. Frequently inspect areas where combustibles are kept.

Water, multi-purpose dry chemical (ABC), and halon 1211 are approved fire-extinguishing agents for Class A combustibles.

Class B combustibles.

These include flammable and combustible liquids (oils, greases, tars, oil-based paints, and lacquers), flammable gases, and flammable aerosols.

To handle Class B combustibles safely:

- a. Use only approved pumps, taking suction from the top, to dispense liquids from tanks, drums, barrels, or similar containers (or use approved self-closing valves or faucets).
- b. Do not dispense Class B flammable liquids into containers unless the nozzle and container are electrically interconnected by contact or a bonding wire. Either the tank or container must be grounded.
- c. Store, handle, and use Class B combustibles only in approved locations where vapors are prevented from reaching ignition sources, such as heating or electric equipment, open flames, or mechanical or electric sparks.
- d. Do not use a flammable liquid as a cleaning agent inside a building. The only exception is in a closed machine approved for cleaning with flammable liquids.
- e. Do not use, handle, or store Class B combustibles near exits, stairs, or other areas normally used as exits.
- f. Do not weld, cut, grind, or use unsafe electrical appliances or equipment near Class B combustibles.
- g. Do not generate heat, allow an open flame, or smoke near Class B combustibles.

Part IV

- h. Know the location of and how to use the nearest portable fire extinguisher rated for Class B fire.

Do not use water to extinguish Class B fires caused by flammable liquids. Water can cause burning liquid to spread, making the fire worse. To extinguish a fire caused by flammable liquids, exclude the air around the burning liquid. The following fire-extinguishing agents are approved for Class B combustibles: carbon dioxide, multi-purpose dry chemical (ABC), halon 1301, and halon 1211. (NOTE: Halon is an ozone-depleting substance and is no longer being manufactured. Existing systems using halon can be kept in place, but employers must post signs indicating where halon or other agents that pose a serious health hazard are used.)

Smoking

Smoking is prohibited in all FCC Houston MRT buildings and surrenders. Certain outdoor areas may also be designated as no smoking areas.

**TRAINING**

Sharon Wuthrich will present basic fire prevention training to all employees upon employment and will maintain documentation of the training, which includes:

- A. review of 29 CFR 1910.38, including how it can be accessed;
- B. this Fire Prevention Plan, including how it can be accessed;
- C. good housekeeping practices;
- D. proper response and notification in the event of a fire;
- E. instruction in the use of portable fire extinguishers, as determined by company policy in the Emergency Action Plan; and
- F. how to recognize potential fire hazards.

Supervisors will train employees about fire hazards associated with the specific materials and processes to which they are exposed, and will maintain documentation of the training. Employees will receive this training:

- A. at their initial assignment;
- B. annually; and
- C. when changes in work processes necessitate additional training.

**PROGRAM REVIEW**

Sharon Wuthrich will review this Fire Prevention Plan at least annually for necessary changes.

**Appendix A**

**Fire Risk Survey  
FCC HOUSTON MRF**

Perform a walkthrough of the facility with the local fire department and other emergency responders to assess the layout of the structures, types and volume of hazardous chemical storage, and other hazards they may encounter when responding to an emergency. Provide a copy of this survey to local authorities for their records.

Type of Fire Hazard	Location	Emergency Actions	Required PPE



Part IV

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

**Appendix B**

**FCC HOUSTON MRF  
General Fire Prevention Checklist**

Use this checklist to ensure that fire prevention measures conform with the general fire prevention requirements found in OSHA standards.

- Yes  No Is the local fire department acquainted with your facility, its location, and its specific hazards?
- Yes  No If you have a fire alarm system, is it tested at least annually?
- Yes  No If you have interior stand pipes and valves, are they inspected regularly?
- Yes  No If you have outside, private fire hydrants, are they on a routine preventive maintenance schedule and flushed at least once a year?
- Yes  No Are fire doors and shutters in good operating condition?
- Yes  No Are fire doors and shutters unobstructed and protected against obstructions, including their counterweights?
- Yes  No Are automatic sprinkler system water-control valves, air pressure, and water pressure checked weekly or at other intervals?
- Yes  No Has responsibility for the maintenance of automatic sprinkler systems been assigned to an employee or contractor?
- Yes  No Are sprinkler heads protected by metal guards?
- Yes  No Is proper clearance maintained below sprinkler heads?
- Yes  No Are portable fire extinguishers provided in adequate number and type?\*
- Yes  No Are fire extinguishers mounted in readily accessible locations?\*
- Yes  No Are fire extinguishers recharged regularly with the recharge date noted on an inspection tag?\*
- Yes  No Are employees periodically instructed in the use of extinguishers and fire protection procedures?\*

Part IV

\*(NOTE: Use of fire extinguishers is based on company policy regarding employee firefighting in your Emergency Action Plan and local fire code.)

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

**Appendix C**

**FCC HOUSTON MRF  
Exits Checklist**

Use this checklist to evaluate FCC compliance with OSHA's standard on emergency exit routes.

- Yes  No Is each exit marked with an exit sign and illuminated by a reliable light source?
- Yes  No Are the directions to exits, when not immediately apparent, marked with visible signs?
- Yes  No Are doors, passageways, or stairways that are neither exits nor access to exits, and which could be mistaken for exits, marked "NOT AN EXIT" or with another appropriate marking?
- Yes  No Are exit signs provided with the word "EXIT" in letters at least 5 inches high with lettering at least 1 inch wide?
- Yes  No Are exit doors side-hinged?
- Yes  No Are all exits kept free of obstructions?
- Yes  No Are there at least two exit routes provided from elevated platforms, pits, or rooms where the absence of a second exit would increase the risk of injury from hot, poisonous, corrosive, suffocating, flammable, or explosive substances?
- Yes  No Is the number of exits from each floor of a building and from the building itself appropriate for the building occupancy? (NOTE: Do not count revolving, sliding, or overhead doors when evaluating whether there is a sufficient number of exits.)
- Yes  No Are exit stairways that are required to be separated from other parts of a building enclosed by at least one-hour fire-resistant walls (or at least two-hour fire-resistant walls in buildings more than four stories high)?
- Yes  No Are the slopes of ramps used as part of emergency building exits limited to dimensions of 1 foot vertical and 12 feet horizontal?

Part IV

- Yes  No Are glass doors or storm doors fully tempered, and do they meet the safety requirements for human impact?
- Yes  No Can exit doors be opened from the direction of exit travel without a key or any special knowledge or effort?
- Yes  No Are doors on cold storage rooms provided with an inside release mechanism that will release the latch and open the door even if it's padlocked or otherwise locked on the outside?
- Yes  No Where exit doors open directly onto any street, alley, or other area where vehicles may be operated, are adequate barriers and warnings provided to prevent employees from stepping into the path of traffic?
- Yes  No Are doors that swing in both directions and are located between rooms where there is frequent traffic equipped with glass viewing panels?

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

**Appendix D**

**FCC HOUSTON MRF  
Flammable and Combustible Material Checklist**

Use this checklist to evaluate FCC's compliance with OSHA's standards on flammable and combustible materials:

- Yes No Are combustible scrap, debris, and waste materials, such as oily rags, stored in covered metal receptacles and removed from the worksite promptly?
- Yes No Are approved containers and tanks used to store and handle flammable and combustible liquids?
- Yes No Are all connections tight on drums and combustible liquid piping, vapor, and liquid?
- Yes No Are all flammable liquids kept in closed containers when not in use?
- Yes No Are metal drums of flammable liquids electrically grounded during dispensing?
- Yes No Do storage rooms for flammable and combustible liquids have appropriate ventilation systems?
- Yes No Are NO SMOKING signs posted on liquefied petroleum gas tanks?
- Yes No Are all solvent wastes and flammable liquids kept in fire-resistant, covered containers until they are removed from the worksite?
- Yes No Is combustible dust vacuumed rather than blown or swept whenever possible?
- Yes No Are fuel gas cylinders and oxygen cylinders separated by distances or fire-resistant barriers while in storage?
- Yes No Are fire extinguishers appropriate for the materials in the areas they are mounted?\*

Part IV

- Yes No Are appropriate fire extinguishers mounted within 75 feet of outside areas containing flammable liquids and within 10 feet of any inside storage area for such materials?\*
- Yes No Are extinguishers free from obstruction or blockage?\*
- Yes No Are all extinguishers serviced, maintained, and tagged at least once a year?\*
- Yes No Are all extinguishers fully charged and in their designated places?\*
- Yes No Where sprinkler systems are permanently installed, are the nozzle heads directed or arranged so that water will not be sprayed into operating electrical switchboards and equipment?
- Yes No Are NO SMOKING signs posted in areas where flammable or combustible materials are used or stored?
- Yes No Are safety cans utilized for dispensing flammable or combustible liquids available at the point they would be used?
- Yes No Are all spills of flammable or combustible liquids cleaned up promptly?
- Yes No Are storage tanks adequately vented to prevent development of an excessive vacuum or pressure that could result from filling, emptying, or temperature changes?

\*(NOTE: Use of fire extinguishers is based on company policy regarding employee firefighting in your Emergency Action Plan and local fire code.)

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

**Appendix D: DWC Resources**

DWC features a free occupational safety and health DVD loan library. Call 512-804-4620 for more information or visit the DWC website at [www.txsafetyatwork.com](http://www.txsafetyatwork.com). DVDs on emergency action plans include:

**Chemical Handling: Flammables**  
**DVD2084ES, 14 min.**

#### Part IV

NOTE: This DVD should be supplemented with one of the Global Harmonization System DVDs. Defines the three forms of flammables. Discusses the properties of flammable materials and what makes fire burn. Covers how to identify flammables and how they should be handled and stored, safety data sheets, emergency responses, spills, fires, and first aid for both exposure and burns. 2004, 2003. Coastal. Includes quiz.

#### **Egress/Exit Safety**

**DVD545, DVD545S, 5 min.**

Discusses obstructions, exit doors, and how to exit safely. Safety Shorts. Includes quiz.

#### **Fire! In the Workplace**

**DVD1453ES, 17 min.**

Trains employees about causes and dangers of workplace fires. Covers classes of fires, proper housekeeping, and how to extinguish small fires. Coastal. No copyright date. 2006/1991. Includes employee quiz.

#### **Fire Prevention**

**DVD2317, 5 min.**

Teaches employees to take simple precautions and to keep alert to fire hazards. Discusses flammable storage, smoke inhalation, smoke detectors, and heat sources. Safety Shorts. Includes brief quiz.

#### **Fire Prevention & Safety in Industrial Facilities**

**DVD1603, DVD1603S, 20 min.**

Explains that when a workplace fire consumes chemicals, plastics, and other modern substances, it can create toxic infernos that spread quickly and kill instantly. Shows employees in industrial facilities how they can do their part in fire prevention by staying alert and following their company's Fire Prevention Plan. Reviews the precautions employees must take to prevent office fires and the things they should do if a workplace fire breaks out. ERI. 2003. Includes quiz.