

VOLUME 1 OF 3

# CONSTRUCTION & OPERATION PERMIT APPLICATION

*2002 North Orient Road  
Tampa, FL 33619*

*Permit No. 34875-HO-010*

## Prepared for

EQ Florida, Inc.  
7202 East 8th Avenue  
Tampa, FL 33619

## Prepared by

KCI Technologies, Inc.  
10401 Highland Manor Drive, Suite 120  
Tampa, FL 33610

July 2013





ISO 9001:2008 CERTIFIED

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

10401 Highland Manor Drive, Suite 120 • Tampa, FL 33610 • Phone 813-740-2300 • Fax 813-740-0158

Mr. Merlin D. Russell Jr.  
Division of Waste Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road M.S. 4560  
Tallahassee, Florida 32399-2400

July 29, 2013

**Subject: PERMIT APPLICATION**  
**FDEP Permit No. 34875-HO-010**  
**EQ Florida, Inc. Hazardous Waste Treatment & Storage Facility**  
**2002 North Orient Road**  
**Tampa, FL 33619**

Dear Mr. Russell:

On behalf of EQ Florida, Inc., KCI Technologies, Inc. is submitting this Permit Application for the facility indicated above. Enclosed herewith also please find the requisite executed and sealed permit application form 62-730.900(2)(d) and application fee in the amount of \$10,000.

We understand that this should constitute a complete application package for your review. Please do not hesitate to contact either Mr. Stuart Stapleton or the undersigned should you require anything further and/or have any questions or comments.

Sincerely,

Thomas G. Sprehe, PE, BCEE  
Senior Vice President  
Environmental Discipline Manager  
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CBP/  
Enclosure

cc: Mr. Stuart Stapleton, EQFL



029695

06/07/2013

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Tampa, FL 33619

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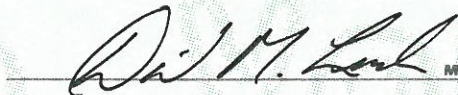
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VOLUME 1 OF 3

# Permit Application

FOR

**Construction of a Hazardous Waste Treatment Unit  
and Renewal Application for Operation of a  
Hazardous Waste Treatment and Storage Facility**

AT

**2002 North Orient Road  
Tampa, FL 33619**

***Permit No.: 34875-HO-009*** *10*

*Prepared For:*

**EQ Florida, Inc.  
7202 East 8<sup>th</sup> Avenue  
Tampa, FL 33619**



*Prepared By:*

**KCI Technologies, Inc.  
10401 Highland Manor Drive, Suite 120  
Tampa, FL 33610  
Project No. 12123014**



**July 2013**

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**APPLICATION FOR A HAZARDOUS WASTE PERMIT  
PART I – GENERAL  
TO BE COMPLETED BY ALL APPLICANTS**

Please Type or Print

**A. General Information**

1. Type of Facility in accordance with Part 270.13(a)

☐ DISPOSAL

☐ Landfill    ☐ Land Treatment    ☐ Surface Impoundment  
☐ Miscellaneous Units    Type of Unit \_\_\_\_\_

☒ STORAGE

☒ Containers    ☐ Tanks    ☐ Piles  
☐ Surface Impoundment    ☒ Containment Building  
☐ Miscellaneous Unit    Type of Unit \_\_\_\_\_

☒ TREATMENT

☒ Tanks    ☐ Piles    ☐ Surface Impoundment  
☐ Incineration    ☒ Containment Building  
☐ Boiler / Industrial Furnace    Type of Unit \_\_\_\_\_  
☒ Miscellaneous Unit    Type of Unit Filter Press/OWS

2. Type of application:

☐ Construction Permit  
☐ Operation Permit  
☒ Construction & Operation Permit  
☐ Research, Development & Demonstration (RD&D) Permit  
☐ Postclosure Permit  
☐ Clean Closure Plan  
☐ Subpart H Remedial Action Plan  
☐ Equivalency Demonstration

3. Revision Number: 00

4. Date current operation began, or is expected to begin: July / 01 / 1990

5. Facility Name EQ Florida, Inc.

6. EPA/DEP I.D. No. FLD981932494

7. Facility location or street address 2002 North Orient Road

8. Facility mailing address 7202 East 8th Avenue  
street or P.O. Box  
Tampa Florida 33619  
city state zip

9. Contact person Stuart Stapleton Telephone ( 813 ) 319-3423

Title EHS Manager

Mailing address 7202 East 8th Avenue  
street or P.O. Box  
Tampa Florida 33619  
city state zip

E-mail address stuart.stapleton@eqonline.com

10. Operator's name Gene Cieply Telephone ( 800 ) 624-5302

Mailing address 7202 East 8th Avenue  
street or P.O. Box  
Tampa Florida 33619  
city state zip

E-mail address gene.cieply@eqonline.com

11. Facility owner's name Gene Cieply Telephone ( 800 ) 624-5302

Mailing address 7202 East 8th Avenue  
street or P.O. Box  
Tampa Florida 33619  
city state zip

E-mail address gene.cieply@eqonline.com

12. Legal structure  
☒ Corporation   ☐ Non-profit corporation   ☐ Partnership   ☐ Individual  
☐ Local government   ☐ State government   ☐ Federal government   ☐ Other

13. If an individual, partnership, or business is operating under an assumed name, specify the county and state where the name is registered.

County N/A State N/A

14. If the legal structure is a corporation, indicate the state of incorporation.

State of incorporation Michigan

15. If the legal structure is an individual or partnership, list the owners.

Name N/A

Address N/A  
Street or P.O. Box city state zip

Name N/A

Address N/A  
Street or P.O. Box city state zip

16. Site ownership status

- ☒ Owned ☐ To be purchased ☐ To be leased \_\_\_\_\_ years  
☐ Presently leased; the expiration date of the lease is \_\_\_\_/\_\_\_\_/\_\_\_\_.

If leased, indicate land owner's name \_\_\_\_\_

Address \_\_\_\_\_  
Street or P.O. Box city state zip

E-mail address \_\_\_\_\_

17. Name of engineer Thomas Sprehe Registration No. 73679

Address 10401 Highland Manor Drive, Suite 120, Tampa, FL 33610  
Street or P.O. Box city state zip

Associated with KCI Technologies, Inc.

18. Is the facility located on Tribal land? ☐ Yes ☒ No

19. Existing or pending environmental permits (attach a separate sheet if necessary)

NAME OF PERMIT	AGENCY	PERMIT NUMBER	DATE ISSUED	EXPIRATION DATE
Haz Waste Ops.	FDEP	34875-HO-010	07/22/2011	01/22/2016
Solid Waste Ops.	FDEP	34757-006-SO/30	11/18/2008	11/18/2013
Waste Transporter	FDEP	FLD981932494	07/18/2013	06/30/2014
Used Oil	FDEP	FLD981932494	07/18/2013	06/30/2014

**B. Site Information**

- The facility is located in Hillsborough County.  
The nearest community to the facility is Tampa.  
Latitude 27 deg, 57 min, 44.95 sec N Longitude 82 deg, 22 min, 26.17 sec W  
Method and datum Facility Center on Google Earth
- The area of the facility site is 4.46 (MOL) acres.
- Attach a scale drawing and photographs of the facility showing the location of all past, present, and future treatment, storage and disposal areas. Also show the hazardous wastes traffic pattern including estimated volume and control.

4. Attach a topographic map which shows all the features indicated in the instructions for this part.
5. Is the facility located in a 100-year flood plain? ☐ Yes ☒ No
6. The facility complies with the wellhead protection requirements of Chapter 62-521, F.A.C.  
☒ Yes ☐ No

**C. Land Use Information**

1. The present zoning of the site is IH Industrial Heavy (See Figure 3).
2. If a zoning change is needed, what should the new zoning be? N/A.

**D. Operating Information**

1. Is waste generated on-site? ☒ Yes ☐ No
2. List the NAICS codes (5 to 6 digits) 562211  
\_\_\_\_\_  
\_\_\_\_\_
3. Use the codes and units provided in the instructions to complete the following table.  
Specify:
  - a. Each process used for treating, storing or disposing of hazardous waste (including design capacities) at the facility, and
  - b. The hazardous waste(s) listed or designated in 40 CFR Part 261, including the annual quantities, to be treated, stored, or disposed by each process at the facility.

PROCESS CODE	PROCESS DESIGN CAPACITY AND UNITS OF MEASURE	HAZARDOUS WASTE CODE	ANNUAL QUANTITY OF HAZARDOUS WASTE AND UNITS OF MEASURE
See Appendix B	in Application	Volume 2 of 2	

**P. Information Regarding Potential Releases From Solid Waste Management Units**

Facility Name EQ Florida, Inc.

EPA/DEP I.D. No. FLD981932494

Facility location Tampa Florida  
city state

1. Are there any of the following solid waste management units (existing or closed) at your facility? A solid waste management unit (SWMU) is a discernable unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include all areas at a facility where solid wastes have been routinely and systematically released.

**DO NOT INCLUDE HAZARDOUS WASTE UNITS CURRENTLY SHOWN IN YOUR PART B APPLICATION.**

landfill	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
surface impoundment	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
land farm	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
waste pile	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
incinerator	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
storage tank	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
container storage area	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
injection wells	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
wastewater treatment units	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
transfer station	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
waste recycling operations	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
land treatment facility	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
boiler/industrial furnace	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
other (units not listed above)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

2. If there is a "yes" answer to any of the items in one (1.) above, on separate sheet(s) of paper, provide a description of the wastes that were stored, treated or disposed of in each unit. In particular, focus on whether or not the wastes would be considered hazardous wastes or hazardous constituents under RCRA. (Hazardous wastes are those identified in 40 CFR Part 261. Hazardous constituents are those listed in Appendix VIII of 40 CFR Part 261.) Include any available data on quantities or volumes of wastes disposed of and the dates of disposal. Provide a description of each unit and include capacity, dimensions, and location at the facility. Provide a site plan, if available, and the dates of operation of the unit [40 CFR 270.14(d)(1)].



3. On separate sheet(s) of paper, describe all data available on all prior or current releases of hazardous wastes or constituents to the environment that may have occurred in the past or may still be occurring, for each unit noted in one (1.) above and also for each hazardous waste unit in your Part B application [40 CFR 270.14(d)(2)].

Provide the following information for each SWMU:

- a. Date of release.
  - b. Specifications of all wastes managed at the unit, to the extent available.
  - c. Quantity or volume of waste released.
  - d. Describe the nature of the release (i.e., spill, overflow, ruptured pipe or tank, etc.)
  - e. Location of the unit on the topographic map provided under 40 CFR 270.14(b)(19).
  - f. Designate the type of unit.
  - g. General dimensions and structural description (supply any available drawings).
  - h. Dates of operation.
4. On separate sheet(s) of paper, provide for each unit all analytical data that may be available which would describe the nature and extent of the environmental contamination that exists as a result of the prior releases described in three (3.) above. Focus on the concentrations of hazardous wastes or constituents present in contaminated soil or groundwater [40 CFR 270.14(d)(3)].

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**APPLICATION FOR A HAZARDOUS WASTE FACILITY PERMIT  
CERTIFICATION  
TO BE COMPLETED BY ALL APPLICANTS**

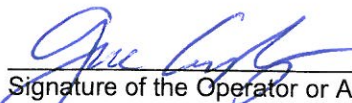
**Signature and Certification**

Facility Name EQ Florida, Inc.  
EPA/DEP I.D. No. FLD981932494

The following certifications must be included with the submittal of an application for a hazardous waste authorization. The certifications must be signed by the owner of a sole proprietorship; or by a general partner of a partnership; or by a principal executive officer of at least the level of vice president of a corporation or business association, or by a duly authorized representative of that person. If the same person is a facility operator, facility owner, and real property owner, that person can cross out and initial the signature blocks under "1. Facility Operator" and "2. Facility Owner," and add the words "Facility Owner and Operator" at the line "Signature of the Land Owner or Authorized Representative."

**1. Facility Operator**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Further, I agree to comply with the provisions of Chapter 403, Florida Statutes, and all rules of the Department of Environmental Protection. It is understood that the permit is only transferable in accordance with Chapter 62-730, Florida Administrative Code (F.A.C.), and, if granted a permit, the Department of Environmental Protection will be notified prior to the sale or legal transfer of the permitted facility.

  
Signature of the Operator or Authorized Representative\*  
**Gene Cieply / General Manager**

Name and Title (Please type or print)

Date July 29, 2013 E-mail address gene.cieply@eqonline.com

Telephone (800) 624-5302

- **Attach a letter of authorization**

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Date	July 29, 2013
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## 2. Facility Owner

This is to certify that I understand this application is submitted for the purpose of obtaining a permit to construct, operate, or conduct remedial activities at a hazardous waste management facility on the property as described. As owner of the facility, I understand fully that the facility operator and I are jointly responsible for compliance with the provisions of Chapter 403, Florida Statutes, and all rules of the Department of Environmental Protection.

Signature of the Facility Owner or Authorized Representative\*

**Gene Cieply / General Manager**

Name and Title (Please type or print)

Date July 29, 2013 E-mail address gene.cieply@eqonline.com

Telephone (800) 624-5302

\* Attach a letter of authorization

## 3. Land Owner

This is to certify that I, as land owner, understand that this application is submitted for the purpose of obtaining a permit for the construction, operation or postclosure of a hazardous waste management facility on the property as described. For hazardous waste facilities that close with waste in place, I further understand that I am responsible for providing the notice in the deed to the property required by 40 CFR 264.119 and 265.119, as adopted by reference in Chapter 62-730, F.A.C.

Signature of the Land Owner or Authorized Representative\*

**Gene Cieply / General Manager**

Name and Title (Please type or print)

Date July 29, 2013 E-mail address gene.cieply@eqonline.com

Telephone (800) 624-5302

\* Attach a letter of authorization

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4. **Professional Engineer Registered in Florida**

Complete this certification when required to do so by Chapter 471, F.S., or when not exempted by Rule 62-730.220(9), F.A.C.

This is to certify that the engineering features of this hazardous waste management facility have been designed or examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgement, this facility, when properly constructed, maintained and operated, or closed, will comply with all applicable statutes of the State of Florida and rules of the Department of Environmental Protection.

Signature

Thomas Sprehe

Name (please type)

Florida Registration Number 73679

Mailing Address 10401 Highland Manor Drive, Suite 120

street or P.O. Box

Tampa, FL 33610

city

state

zip

Date July 29, 2013

E-mail address thomas.sprehe@kci.com

Telephone (401) 241-4067

(PLEASE AFFIX SEAL)



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**5. Professional Geologist Registered in Florida**

Complete this certification when required to do so by Chapter 492, F.S., or when not exempted by Rule 62-730.220(10), F.A.C.

This is to certify that the interpretations of geology at this hazardous waste management facility have been examined by me, and the interpretations conform to sound geological principles. In my professional judgement, this facility, when properly constructed, maintained and operated, or closed, will comply with all applicable statutes of the State of Florida and the rules of the Department of Environmental Protection.

Signature \_\_\_\_\_

NA

Name (please type) \_\_\_\_\_

Florida Registration Number NA \_\_\_\_\_

Mailing Address NA \_\_\_\_\_  
street or P.O. Box

NA \_\_\_\_\_  
city state zip

Date NA \_\_\_\_\_ E-mail address \_\_\_\_\_

Telephone (\_\_\_\_) NA \_\_\_\_\_

**(PLEASE AFFIX SEAL)**



## THE ENVIRONMENTAL QUALITY COMPANY

36255 MICHIGAN AVENUE • WAYNE, MICHIGAN 48184 • tel 800-329-8000 • fax 734-329-8140 • [www.eqonline.com](http://www.eqonline.com)

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### MEMORANDUM OF AUTHORIZATION

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July 6, 2005

From: Scott Maris

Re: Delegation of Authority to sign applications and reports required under RCRA and various state equivalents

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#### Written Authorization to Sign Documents

The following positions are hereby authorized to sign on behalf of EQ The Environmental Quality Company and its subsidiaries letters, reports, applications and forms required by rules, regulations or permits or requested by governmental agencies: Plant Manager, General Manager, Site Manager, Director of HW Operations, Compliance Coordinator, or Regulatory Specialist.

  
\_\_\_\_\_  
Scott Maris, VP Regulatory Affairs

7/6/05  
\_\_\_\_\_  
Date

#### Regulatory Standards for Authority to Sign

The following standards restrict the signing of applications or reports to certain specified or authorized employees:

270.11(a) Applications: All permit applications shall be signed as follows

(1) For a Corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means (i) A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any person who performs similar policy – or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

*Note: EPA does not require specific assignments or delegation of authority to responsible corporate officers identified in Section 27.11(a)(1)(i). The Agency will presume that these responsible corporate officers have the same requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under Section 270.11(a)(1)(i) rather than to specific individuals.*



## **2.0 GENERAL FACILITY INFORMATION**

### **2.1 Introduction**

This submittal is intended to combine the existing solid and hazardous waste operating permits and satisfy the following permitting requirements for the EQ Florida, Inc (EQFL) facility (Figure 1) located at 7202 East 8th Avenue and 2002 North Orient Road, Tampa, Hillsborough County, FL 33619: (1) renewal of the existing Hazardous Waste Operating Permit (FLD 981 932 494); (2) construction and operation of a new on-ground hazardous waste treatment unit/tank to treat selected characteristic hazardous wastes (waste codes D002 and D004 thru D011); and, (3) renewal of the existing solid waste treatment permit (Number 34757-006-SO/30).

With this renewal application, EQFL is not requesting any change in waste codes accepted, nor an increase in quantities of materials received. The principal change in the renewal request is the addition of the on ground hazardous waste treatment tank to treat, on-site for off-site disposal, the limited list of characteristic hazardous waste treatment codes referenced in item (2) above.

The EQ Florida, Inc. facility was, formerly known as US Liquids Inc., hazardous waste container storage and treatment facility. EQFL is a division of EQ Holding Company, a Michigan Corporation.

ID No.: FLD 981 932 494  
County: Hillsborough  
Address: EQ Florida Inc.  
2002 North Orient Road  
Tampa, Florida 33619  
(813) 623-5302

The facility is a 4.46 acre site more or less, (MOL) consisting of an office building with small laboratory; a 5,866 square foot, totally enclosed building utilized for the container storage and treatment of hazardous waste (the waste management building), a 1,786 square foot, improved secondary containment area located on the loading dock side of Bay 2 utilized for container storage of hazardous waste, a covered vehicle loading/unloading area, and an 8,050 square foot covered waste processing building that will house the relocated solid waste solidification pit; existing shredder; new, on-ground hazardous waste treatment/solidification unit/tank and a reactivities magazine. In addition, a new 6,000-gallon oil-water separator will be placed just outside the northeast corner of the waste processing building.

This application proposes the following changes to the current permit:

1. Replacing the existing solid waste treatment unit with 20-ft wide x 20-ft long x 4-ft 7-in tall on-ground, hazardous waste solidification unit/tank, including removal of approximately 5-ft of the existing access ramp
2. Relocating the existing solid waste treatment unit approximately 30-ft north of its present location and changing the dimensions to 21-ft x 21-ft x 3-ft including adding a new access ramp
3. Adding a new reactivities magazine to the west-central part of the treatment building
4. Adding a 6,000 gallon oil-water separator outside the treatment building on the northeast corner
5. Adding a new ramp on the southwest corner of the treatment building providing access to a proposed reagent storage area/temporary hazardous waste staging area

6. Renewal of the existing solid waste permit (Volume 3 of 3), which includes the industrial waste shredder located in the waste processing building.

The facility operations approved in the original permit (i.e., container storage and treatment) will be retained, and the facility will construct and operate an on-ground treatment unit/tank where the solid waste treatment unit currently exists. The purpose of the new unit is to treat characteristically hazardous waste codes D002 (corrosivity); D004 (arsenic); D005 (barium); D006 (cadmium); D007 (chromium); D008 (lead); D009 (mercury); D010 (selenium); and D011 (silver). No listed hazardous wastes are being proposed for treatment at the facility.

The reactives magazine will be used for the temporary storage and pass-through of road flares, DOT 1.4 material, marine aerial and signal flares, small arms munitions, black powder, residential fireworks and other permitted explosives. No forbidden explosives will be transported to the site and/or stored in the magazine. No treatment or processing of explosive materials will be completed onsite.

A 6,000 gal oil/water separator is proposed to be housed on the northeast corner of the waste treatment building. The proposed tank is 8-foot in diameter and 16 feet tall. The tank will sit on a concrete foundation inside a water stopped containment pad surrounded by a 3 1/4-ft curb, 6-in thick, constructed of poured concrete containing Xypex as an admixture to form a crystalline, impervious concrete. The pad will provide sufficient freeboard to contain the contents of the tank plus the 25-yr, 24-hr storm event (a total of 8,348 gallons of containment versus the expected 8,132 gallon largest vessel plus the 25-yr rainfall event). From a practical standpoint, the tank will typically contain 5,400 gallons because the high level liquid sensor is set at 90 percent of tank capacity. The tank will be ground with a separate rod and will be anchored as required.

There are no immediate plans for utilizing the filter press for treatment but it may be utilized for treatment prior to the expiration of this permit should business, environmental regulations, or economics justify its use. This construction and operation permit will add an on-ground hazardous waste solidification unit/tank but the treated waste will be shipped off site for disposal. There will be no on-site disposal of treated wastes.

The facility General Information, Inspection Plan, Contingency Plan, Procedures, Training Program, Waste Analysis Plan, Container Management, Closure Plan, and other information have been updated and revised to reflect regulatory changes and more detailed and accurate conditions.

Non-RCRA regulated waste information does not apply to this permit and is for informational purposes only (see solid waste permit renewal application contained in Volume 3 of 3). These items are regulated under Subtitle D regulations, and RCRA Subtitle C regulations do not apply (by definition). EQFL currently has separate solid waste and hazardous waste management permits. It is the intent of this permit application to construct and operate a new, on-ground hazardous waste solidification unit/tank and to combine both the solid and hazardous waste permits for this facility.

EQFL is a registered hazardous waste transporter with a state registered (on site) transfer facility. EQFL far exceeds the minimum regulatory requirements often typical of solid waste and transporter facilities. Examples of this include HSWA SWMU requirements, on-site trained personnel and equipment to handle virtually any emergency, and more. Management of non-RCRA regulated waste does not interfere with the management or treatment of RCRA regulated hazardous waste.

A Solid Waste Management Unit (SWMU) RCRA Facility Assessment (RFA) of the EQFL facility was initiated on February 15, 1993. There have been no releases to the environment of hazardous waste or

hazardous waste constituents for any EQFL SWMU. Refer to Figure 17 and Appendix G for further information regarding the SWMUs at this facility.

This permit renewal includes a section addressing air-permitting requirements, including an exposure section on the significance of the proposed on-ground solidification unit/tank as it relates to the need for a substantial permit modification requiring the preparation of an RMP (Risk Management Plan). Calculations using conservative "worst case" data show the EQFL facility is far below applicable air permitting requirements and, based on "in-bound" records of waste shipments received, will operate the facility in such a fashion that will result in no increase in overall risk from site activities.

## **2.2 Facility Layout and Operations**

The EQFL facility is a permitted hazardous waste storage and treatment facility. No on-site disposal occurs at the EQFL facility. EQFL manages non-RCRA regulated waste, household hazardous waste, used oil and filters, mercury containing lamps and devices, TSCA exempt and limited quantity exempt PCB and asbestos wastes, recyclable materials, and other similar substances, materials, and wastes. The primary waste management operations are storage, transfer and treatment of listed and characteristically hazardous wastes.

The facility consists of the 4.46-acre MOL site. The permitted facility, the waste management building, located on the site is a 5,866 square foot building and a 1,786 square foot improved secondary containment area, which was specifically designed for hazardous waste management and an 8,050 square foot covered waste processing building that will house the relocated solid waste solidification pit; existing shredder; new, on-ground hazardous waste solidification unit/tank, a reactives magazine and an oil-water separator to be constructed inside a containment pad located adjacent to and just northeast of the waste processing building. The facility remains essentially a transfer facility with container storage and no on-site disposal.

The container storage building is composed of three separate bays. The bays are separated by an eight-inch wide concrete block wall and fire doors. The wall extends from the floor to the roof and has been designed with a minimum fire resistance of four hours. The improved secondary containment area is located in the loading/unloading area on the west-side of the building and has two concrete containment walls that provide improved secondary containment.

The EQFL facility hazardous waste capacity is 50,000 gallons; a maximum of 20,000 gallons each in Bays 1 and 3, and a maximum of 10,000 gallons in Bay 2. An improved secondary containment area is provided on the loading dock side of Bay 2 with a capacity of 10,000 gallons. The capacity of the improved secondary containment is included in the total permitted facility capacity of 50,000 gallons. The capacity is consistent with the physical limitations of the facility and is used throughout this application to determine containment, closure cost, financial assurances, and aisle space requirements. Actual day to day volume is usually less than 25,000 gallons. EQFL will utilize the container arrangement shown on Figure 14. The containers will normally be stored in a "single-stacked" arrangement. "Single-stacked" indicates that no forklift is necessary to load, unload, or move any container. Although the storage is referred to as "single stacked," small containers (such as 5-gallon pails) and aerosol 55 gallon drums will be manually stacked on top of the "single stacked" containers.

EQFL will occasionally utilize a double-stack container arrangement. The same storage arrangement (Figure 14) shown for single-stacking will be utilized for double-stacking with the exception that adjacent storage rows will not be utilized for container storage so that each row of double-stacked containers has access to an eight-foot aisle (if needed). The eight-foot aisle will allow turning radius access for a forklift

to stack and unstack containers. Forklifts will not be utilized in the ignitable/reactive bay (Bay 2) unless they are Class I rated, explosion proof, or equivalent.

The sectioning between single and double stacked storage utilization will be by a containment sump basis. Specifically, the stacking requirements will apply to all containers utilizing the same containment sump. This would make it permissible to have the containers in Bay 1A double stacked and the containers in Bay 1B single stacked since Bay 1A utilizes different containment sumps from Bay 1B. If any containers are double stacked (other than small containers manually stacked on top of single-stacked containers) in the area contained by a common containment sump, then all containers in that area would have to meet the double stacked requirements. Small containers may be manually stacked on top of single stacked containers.

The single and double stacked container arrangements are summarized below:

**SINGLE STACKED**

- No forklift required.
- Two-foot (minimum) aisle space.
- All bays and the improved secondary containment area.
- Small containers manually stacked on top of single-stacked containers.

**DOUBLE STACKED**

- Forklift utilized.
- Eight-foot (minimum) aisle access for each row.
- Bays 1A, 1B, 3A, 3B, and the improved secondary containment area only (not Bay 2).
- Small containers manually stacked on top of single-stacked containers.
- Aerosol Drums made from Lab packs.

The sump grids utilized in the EQFL facility warehouse are 2 inch by 3/16 inch bar grating. The gratings are ten square feet in area (each section) and cover a span of three feet. The uniform load capacity of each section of bar grating (of these specifications) is 18,330 pounds. This far exceeds the maximum expected load of 2,400 pounds for the stacking forklift plus 2,400 pounds for a pallet of four heavy 55-gallon drums (4,800 pounds total).

Double stacking of containers and pallets of containers is a common practice throughout the chemical processing and commercial hazardous waste storage and treatment industries. These facilities are able to inspect containers, respond to and manage leaks, and move the containers. Double stacking of containers (or pallets of containers) actually makes waste management easier in many instances. Emergency movement of hazardous waste containers can be done four containers at a time rather than manually one at a time. Leaks and damaged containers are more easily detected when double stacked since they are usually at eye level during inspections.

A boundary survey drawing is provided as Figure 6 and a facility layout plan is provided as Figure 7. The land was previously undeveloped and no solid waste management units (SWMUs) were located on the site. The SWMUs currently identified on site are described in the SWMU section. The surrounding land uses are heavy industrial. These include two National Priority List (NPL) (Superfund) sites, metals recyclers, a construction debris transfer facility, steel cleaning and coating, fishery, gas manufacturing, pesticide formulator, and bail bonds businesses.

The surrounding land use is shown on Figure 8. The facility is located in the city of Tampa in a heavy industrial zoned area known as Orient Park. The area zoning is shown on Figure 3. The City of Tampa classifies this area as suitable for hazardous waste facilities. The West Florida Regional Planning Council

(WFRPC) in 1985 performed in-depth evaluations to locate a suitable area for a hazardous waste storage and treatment facility. This area was among those chosen.

An aerial photograph of the site is included as Figure 2, and a topographic map at a scale of 1 inch to 2,000 feet is included as Figure 4. Facility and hazardous waste management building as-built record drawings are included in Appendix D. The facility is located outside the 100-year flood plain. A Federal Emergency Management Agency (FEMA) map indicating this fact is included as Figure 5.

## **2.3 Operations Description**

The hazardous waste operations at the EQFL facility consist of the proposed treatment/solidification of selected characteristically hazardous wastes (Waste Codes D002, D004-D011) and storage of hazardous waste in containers, primarily 55-gal drums, although waste may also be received in 250-gal, 275-gal, and 330-gal totes. A minimum of 10 percent of each hazardous waste stream entering the facility is sampled. Some waste is recontainerized or consolidated in other containers. Recontainerization operations may also include use of the following equipment: paint can crusher, aerosol spray can recycler, drum crusher, and rag compactor. Wastes not solidified on site are primarily shipped out of the facility in 55-gallon drums or tanker trucks. Solidified, characteristic hazardous wastes treated in the on-ground solidification unit/tank that no longer exhibit hazardous waste characteristics based on TCLP test results will be loaded into roll off boxes for subsequent off-site disposal at an approved disposal facility.

### **2.3.1 Waste Received**

Waste may be received at the facility in any size container up to 330-gallon totes. Waste is also received in other D.O.T. approved containers including bulk shipments. Drums and other man portable containers are off-loaded into the warehouse. Bulk shipments are stored in the improved 10,000 gallon containment area located on the loading dock in front of Bay 2. Received containers are moved, categorized and stored according to waste type. The following waste type categories are handled at the facility:

1. Non-RCRA regulated waste
2. Flammables (D001)
3. Poison/Toxic (40CFR Part, 261.24, Table 1)
4. Acid (D002)
5. Alkaline (D002)
6. Hazardous Organic Compounds (HOC)
7. Oxidizers (D001)
8. Reactive (D003)
9. Otherwise Regulated Material (ORM or Class 9)

No forbidden explosives as defined in 40 CFR 261.23(a)(8), regulated radioactive, or regulated biohazardous waste will be managed at the EQFL facility.

Waste types include liquids, solids, sludges, and a variety of lab packs (waste which is packaged in its original container)

The following operations are fully described in the Processes, Procedures, Structures, and Equipment section (Section 13.0) of this permit renewal. Equipment specifications are included in Appendix I.

### **2.3.2 Recontainerization**

Some of the waste received will be recontainerized or overpacked from one container to another. In general, recontainerization includes consolidation of like waste into similar sized or larger

containers. Wastes are transferred between containers by pumping (using a portable pump) or pouring directly from one container to another. All container transfer operations take place within the storage building, except paint can crushing, and loading to roll-offs or tankers. As noted in the Exposure Information Section 17.0, even if recontainerized, there will be no increase in the largest container size for any of the waste categories and therefore no increase in overall risk at the facility.

Other recontainerization operations will include paint can crushing, aerosol can recycle, drum crushing and rag compacting, loading to roll-offs, and loading to tanker truck. All waste transfer and recontainerization is conducted utilizing best management practices. Hazardous wastes have already been profiled and approved as described in the EQFL Waste Analysis Plan. Each hazardous waste stream has been sampled and quality control verified as described in the EQFL Waste Analysis Plan. Only compatible wastes are transferred or recontainerized in each batch operation. The same waste management practices for inspections, contingency, preparedness and prevention, training, precautions for ignitable, reactive, and incompatible wastes, waste analysis, record keeping, and container management that apply for treatment and storage will also apply for waste transfer and recontainerization. Waste processing areas, to include recontainerization operations and paint can crushing locations, are identified on Figure 16.

### ***2.3.3 Paint Can Crushing***

The facility receives water-based latex and solvent-based paint in containers up to 5-gallons for recontainerization and disposal. The majority of the paint received is from household waste. This operation will include opening the container, crushing the paint can, collecting the paint waste, collecting the empty containers and containerizing the paint for transport off-site. This operation will take place within the permitted processing areas identified on Figure 16.

### ***2.3.4 Aerosol Can Recycle***

The aerosol can recycler is a machine which crushes aerosol cans while simultaneously capturing all liquids into a 55 gallon drum. The aerosol can is placed within an enclosed unit and is punctured. The material within the can is ejected into the drum. A filter unit is attached to the machine to capture any vapors expelled from the drum/can during the recycling operation. This operation will take place within the paint can crushing operations located in area 2A as illustrated on Figure 14.

### ***2.3.5 Drum Crushing and Rag Compacting***

The drum crusher and rag compactor consists of a closed cabinet unit located on the ramp outside Bay 3. A drum is placed inside the unit and a ram is used to crush the drum. The unit contains a grate and collection pan at the bottom to catch any liquid or solid residue material from the crushed drum. The material is drummed as waste.

The rag compactor works in a similar manner in that a drum of waste rags is placed inside the unit. A ram, which is slightly smaller than the drum opening, is used to compact the rags inside the drum.

### ***2.3.6 Treatment of Characteristically Hazardous Wastes***

The hazardous waste solidification unit/ treatment tank is a custom manufactured piece of equipment, essentially meeting the 40 CFR, Part 264.10 definition of an on-ground tank. The unit will be fabricated on site and is constructed of steel plates that have been welded into the shape of a box. The box is 20 ft. wide by 20 ft. long and is 4 ft. 7 in tall. The floor of the tank is 3/4-in steel plate and the side walls of the tank are 1/2-in steel plate. The top of the box is open. The



connections between the plates will be joined together with full penetration welded joints so that the box is liquid-tight and will not allow waste to escape. The treatment tank will also be anchored to the floor on the north, west and south sides. The design and installation of the new on ground solidification tank will comply with all the requirements specified in 40 CFR, Subpart J, and the design drawings and specifications for the treatment tank as well as the engineering certification of the design are provided in Appendix I.

The primary reagents used for treatment of the waste include hydrated lime/lime kiln dust, ferrous sulfate, sodium sulfide/sulfide flakes and hypochlorite. The reagents are stored in roll-off boxes or other containers. The amount of reagent varies based on the waste stream but is generally a 5:1 ratio when absorbing liquids and 10:1 for solids (i.e., 1 ton of waste to 200 pounds of lime). Because this is a new process for EQFL, there will be a learning curve involved in which reagents to use and the quantities involved.

Waste is to be deposited directly into the top of the box, the pH adjusted, and then a solidification agent is introduced. The process will consist of raising the pH for metals treatment into the 9 to 13 range which appears to be the optimal range based on similar treatment processes at other EQ facilities. The materials are mixed using a backhoe, portable mixer, or similar piece of equipment. Additional solidification agent is added until no free liquids are present. Frequent bench testing will be required and samples will be collected at suspected endpoints of treatment and analyzed for a short duration (30-90 min) TCLP test or possibly, because the material will be a solid, a total metals analysis for the D004-D011 waste codes. EQ has found at other facilities that if a sample does not pass a TCLP test after 90 minutes, it's not likely to pass a full, 24-hr TCLP. Treated materials that "pass" the short duration TCLP test will be followed by a representative sampling of the waste which will be sent off site for TCLP verification analysis by a NELAC/NELAP certified laboratory.

Treated materials that pass the TCLP test will be loaded into roll off boxes and/or dump trailers for subsequent disposal at an approved disposal facility (Subtitle D landfill). If the treated material fails the initial TCLP screening and is still characteristically hazardous, it will continue to be treated until a TCLP test has confirmed the material no longer retains the hazardous characteristics for the waste being treated. It should also be pointed out that the disposal facility accepting the treated material may require additional testing above and beyond a TCLP test before they will accept the waste. EQFL will determine testing requirements for the proposed disposal facility and have the samples analyzed accordingly.

### ***2.3.7 Loading to Roll-Offs***

Recontainerization operations will include loading material to roll-off boxes and/or dump trailers for transport off-site. Roll-offs or dump trailers will be loaded in the loading/unloading area located outside the storage building. Loaded roll-offs or dump trailers will be manifested and shipped off-site for ultimate treatment and disposal.

Treated/solidified hazardous wastes that no longer exhibit hazardous waste characteristics based on TCLP test results will be loaded into roll off boxes and/or dump trailers. They will be subsequently manifested off-site for disposal at an approved disposal facility.

Typically, only solid material is loaded to the roll-off containers and/or dump trailers, although some sludge material may also be off-loaded. However, free-flowing liquids are not typically contained in the roll-offs or dump trailers. The roll-offs and dump trailers will be kept closed except when loading.

Roll-off containers approved for storing or transporting liquids will be utilized if the hazardous waste being transported or stored contains free liquids. These containers may include "sludge boxes" or sealed roll-offs with liners.

### **2.3.8 *Reactives Magazine***

The proposed reactives magazine will consist of a custom Type 2 Class ABC, Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) spec indoor magazine manufactured by Armag Corporation. The exterior of the magazine will be constructed of ¼-inch ASTM A-36 prime steel and the interior lined with 2-inch hardwood to meet bullet resistant requirements. It will have a front opening door (cabinet type), casters, shelving, double lock system with ¼-inch steel lock covers, two ATF approved padlocks, one 12-inch by 24-inch magnetic sign reading "DANGER-EXPLOSIVES," top lifting D-rings, and a red exterior finish. The proposed dimensions of the magazine are 6 feet long by 6 feet wide by 7 feet tall, and the approximate weight of the unit is 6,000 pounds empty. Information on the reactives magazine is contained in Appendix I.

The reactives magazine will be used for the temporary storage and pass-through of road flares, DOT 1.4 material, marine aerial and signal flares, small arms munitions, black powder, residential fireworks and other permitted explosives. No forbidden explosives will be transported to the site and/or stored in the magazine. No treatment or processing of explosive materials will be completed onsite.

### **2.3.9 *Oil-Water Separation***

A 6,000 gallon oil-water separation tank is proposed to be installed outside the northeast corner of the waste processing building. Although designed as a 6,000 gal tank, the high liquid sensor is set at 90 percent of this value so the tank will normally only store 5400 gal. The tank will be installed in a new 18-foot by 20-foot impermeable secondary containment area that will be designed to hold the contents of the tank plus the 25 year, 24 hr. rainfall event (available containment of 8,348 gal vs. required 8,132 gal for the required largest vessel plus rainfall). The tank will be used for the separation and temporary storage of oil, oily water, petroleum contact water, and nonhazardous liquid/solid/sludge transported to the facility. Separated oil will be transported offsite for treatment at a used oil processor/recycler. Water removed from the tank will either be managed onsite under the provisions of the facility solid waste permit, or transported offsite for proper treatment and disposal at a permitted wastewater treatment facility.

### **2.3.10 *Tanker Loading***

Liquid wastes will be loaded to a tanker truck for transport off-site. Wastes will be pumped from a container directly to the tanker. Tankers will be kept closed except when loading.

### **3.0 GENERAL FACILITY STANDARDS**

#### **3.1 Location Standards**

In regard to seismic location standards, the EQFL facility is not located within 200 feet of a fault which has had displacement in Holocene time. Political jurisdictions requiring demonstration of the seismic location standard are listed in Appendix VI to 40 CFR, Part 264. There are no such locations in the state of Florida and therefore the facility is assumed to be in compliance with the seismic location standard.

The EQFL facility is not located in a 100-year floodplain. This is shown on the Federal Insurance Administration (FIA) of the Federal Emergency Management Agency (FEMA) 100-year floodplain map included on Figure 5. The only water body within a one-mile radius of the EQFL facility is the Tampa Bypass Canal which is located approximately 3/4 mile east.

No on-site disposal occurs at the EQFL facility. Wastes will not be placed in any salt dome formation, salt bed formation, underground mine, or cave. There are no surface impoundments, waste piles, or landfills.

#### **3.2 Facility Security**

A seven-foot high security fence surrounds the entire EQFL facility. The fence includes six foot of chain link fabric and a one-foot barbed wire parapet. Entry is controlled at all times through closed locked gates. The entry control gates consist of a lockable pedestrian gate and a lockable vehicle gate. The vehicle gate may remain open for no longer than one (1) hour during normal operations in which trailers will be changed out. A sign with the legend "Danger - Unauthorized Personnel Keep Out" is posted at this entrance. A second vehicular entrance is located at the southwest corner of the facility. This entrance facilitates improved traffic flow by allowing vehicles to enter at the southeast gate and exit at the southwest gate. This minimizes vehicles turning around and two-way traffic. The second gate remains closed and locked when not in use. It is also constructed of chain link with barbed wire parapet similar to the existing vehicle gate. Signs are also posted on the north, south, east, and west portions of the fence surrounding the facility. The legend is written in English and Spanish and is legible from a distance of at least 25 feet. The facility hazardous waste management building is fully enclosed and all doors are locked during non-working hours. The warehouse building is also monitored by an automatic alarm system for fire. The fire alarm automatically notifies the City of Tampa Fire Department.

All site security features including fencing, gates, and signs are shown on Figure 10.

#### **3.3 Traffic Information**

The EQFL facility is located in an area of Tampa zoned heavy industrial. The location is within easy access of major roads I-4, I-75, I-275, US 301, Highway 60, Highway 41 and the Crosstown Expressway. Vehicles may use these roads and others to access Orient Road. Vehicles heading south on Orient Road will turn right onto 9th Avenue then turn right into the entrance of the facility. Vehicles heading north on Orient Road will turn left onto 9th Avenue then turn right into the entrance of the facility. Exiting vehicles will turn left onto 9th Avenue from the exit of the facility. The vehicles will then be able to turn either left (north) or right (south) onto Orient Road to proceed to their destination. The two vehicle gates allow vehicles to enter one gate and exit another while minimizing turnarounds and two-way traffic. Traffic flow is shown on Figure 9.

Traffic volume usually consists of two 24-foot semi-truck van loads per day and three truck loads (tractor trailer, roll-off, or tanker) per week. The semi-truck vans are utilized primarily for inbound waste shipments and tractor trailers are utilized primarily for outbound shipments. Inbound vehicles are utilized

for outbound shipments when possible. Access roadways (9th Avenue) are constructed of 8-inch lime rock base primed and compacted to 98% maximum density and 2 inches of type S-1 asphaltic concrete. The design load bearing capacity is 2,500 psi at 95% of Standard Proctor. The roadways are maintained by the City of Tampa

### **3.4 Ignitable, Reactive, or Incompatible Wastes**

EQFL has taken precautions to prevent accidental ignition or reaction of ignitable or reactive waste. Ignitable and reactive wastes are separated from other wastes. Ignitable and reactive wastes are stored in Bay 2. All cyanide bearing waste will be stored in the northwest corner of Bay 2, the area identified as 2A in Figure 14. Bay 2 has been specifically designed and built for the storage of ignitable and reactive hazardous wastes. All four walls of Bay 2 are constructed of eight-inch wide concrete block, extending from the floor to the roof. The walls are designed for a minimum fire resistance of four hours. The floor is five inches of 4,000 psi concrete placed monolithically and coated with three layers of chemical resistant coatings and sealants. The roof is also constructed of concrete.

Lighting and other fixtures in Bay 2 are intrinsically safe (explosion proof). Bay 2 has smoke, flame, lower explosive limit (LEL) monitors. There are two LEL meters. One is mounted in the spill containment sump to detect vapors more dense than air. The second is mounted near the roof to detect vapors less dense than air. The LELs are set to automatically activate two blowers at 10% LEL and to automatically close magnetically released doors to the bay, activate the high expansion foam fire suppression system, the fire alarm, and automatically dispatches the Tampa Fire Department. ABC and Halon (or equivalent) fire extinguishers are located in Bay 2.

There is a single 1,001-gallon spill containment sump in Bay 2. The floor of the bay is sloped at 1/8 inch per foot so that all leaks and spills will be directed to the containment sump located in the center of the bay. The location of safety and fire control equipment located (or available) in Bay 2 is indicated on Figure 11 and on the building as-built record drawings included in Appendix D. Emergency and safety equipment available at the facility is listed in Appendix H.

Transfer of ignitable liquids is by pouring, manual repack, manually operated pump, or air operated pump. Grounding cables are utilized when transferring ignitable liquids. Intrinsically safe, explosion proof, and non-sparking equipment is used in the ignitable/reactive storage bay (Bay 2). "No Smoking" signs are located prominently throughout the facility. Smoking is only permitted in the designated smoking area located outside the north office entrance and west of the office in the undeveloped (inactive) portion of the facility. These designated areas are over 100 feet away from all ignitable, reactive, or any other hazardous waste area. Operational controls are in place to insure that no open flames are allowed within 50 feet of any ignitable or reactive waste. All ignitable and reactive waste is stored at least fifty feet from all property lines. All areas of Bay 2 (including the east wall and loading dock and 10,000-gallon improved secondary containment area) are at least 50 feet from the property line. This permit application is structured to provide detailed information on the precautions EQFL has taken to prevent reactions which may:

1. Generate extreme heat, pressure, fire, explosion, or violent reaction;
2. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantity to threaten human health or the environment;
3. Produce uncontrolled flammable fumes or gases in sufficient quantities to threaten human health or the environment;
4. Damage the structural integrity of the device or facility; and,
5. Through other similar means which threaten human health or the environment.

These precautions begin before any waste is transported or received by the facility.

All prospective waste materials are thoroughly reviewed by EQFL technical services staff prior to approval for transportation to or receipt by EQFL. The waste generator prepares a profile of the prospective waste for EQFL Technical Services Staff on EQFL Waste Profile form (included in Appendix J). The form fully characterizes the waste including any applicable analytical results. A sample of the waste is included with the Waste Profile if necessary. This waste approval process is thoroughly described in the EQFL Waste Analysis Plan.

All waste containers meet DOT specifications. The transporter inspects each container for proper DOT approved containers, container condition and integrity, proper closure, labels, and manifesting prior to receipt by EQFL. EQFL personnel double-check each of these items upon receipt at the facility. Representative samples of each waste are taken to verify the container contents are the materials approved on the EQFL Waste Profile form. Selected samples are analyzed in the EQFL laboratory (or subcontractor lab) to verify this information. These procedures are fully detailed in the EQFL Waste Analysis Plan.

Waste containers are placed in the proper storage location based on the Waste Profile or laboratory quality control information. The storage of ignitable and reactive wastes in Bay 2 was previously discussed in this section. Bays 1 and 3 are further subdivided into two different containment areas each. Bay 1 has two different 1,001-gallon containment sumps to further segregate incompatible wastes within this bay. The north half of Bay 1 is sloped to one containment sump and the south half of Bay 1 is sloped to another containment sump. Bay 3 is subdivided into two different containment areas in the same manner. Incompatible wastes such as acids and alkalines are in either separate containment sections or bays. Three major incompatibility groups (acids/alkalines, oxidizers/ignitable organic solvents, and acids/cyanides) are stored in separate bays with floor to roof walls and separate 1,001-gallon containment sumps separating them.

There is no mixing of incompatible wastes at the facility. Waste compatibility is determined by test methods from "SW-846: Test Methods for Evaluating Solid Waste - Physical/Chemical Methods"; or equivalent accepted methods. No material will be transferred into an empty container or unit that previously contained an incompatible waste, unless the container or unit has been properly cleaned or decontaminated. All pumps and hoses will be properly cleaned or decontaminated to eliminate cross contamination with incompatible wastes. Processing or treatment is by batch mode. Only compatible wastes will be processed by any unit or treated in any batch. All units will be cleaned or decontaminated at the end of processing or between batches of incompatible wastes. All cleaning and decontamination fluids and residues collected will be analyzed and managed in accordance with all applicable local, state, and federal regulations.

### **3.5 Hazardous Debris**

#### ***3.5.1 Debris Categories Stored or Treated***

The EQFL facility will manage hazardous debris. Hazardous debris will be managed in the same manner and in the same locations as other non-debris hazardous waste. The only difference is that the land disposal restrictions of some hazardous debris may vary from those of non-debris hazardous waste. EQFL will comply with land disposal restrictions specified in 40 CFR Part 268 for all hazardous waste whether it is debris or non-debris. The debris will include solid materials exceeding a 60 mm particle size that is a manufactured object, plant matter, animal matter, or natural geologic material. Mixtures comprised primarily of debris, by volume, based on visual inspection will be managed as debris.

Debris will include non-friable, inorganic solids that may require cutting or crushing and grinding in mechanical sizing equipment prior to treatment. These materials include:

- Metal Slags
- Glassified Slags
- Glass
- Concrete
- Bricks
- Metal Containers
- Industrial Equipment (pumps, pipes, valves, etc.)
- Scrap Metal

### ***3.5.2 Contaminant Categories Stored or Treated***

Hazardous debris contaminants include debris that contains a hazardous waste listed in Subpart D of Part 261 of 40 CFR or that exhibits a characteristic of hazardous waste identified in Subpart C of Part 261 of 40 CFR.

Hazardous debris will be managed in the same manner as the hazardous waste contaminants that cause it to be hazardous. All applicable land disposal restrictions for hazardous debris will be met. The land disposal restrictions specified in Part 268.45 of 40 CFR (Treatment Standards for Hazardous Debris) will be utilized for the management of hazardous debris.

## **3.6 Considerations under Federal Law**

No other federal environmental laws apply to the EQFL facility.

## **4.0 WASTE ANALYSIS PLAN**

### **4.1 Introduction**

In accordance with the regulatory requirements set forth in 40 CFR 264.13 (b) and 40 CFR 268.7, EQFL has developed this Waste Analysis Plan (WAP). The procedures set forth in this plan ensure that this facility will be in compliance with all the requirements of 40 CFR 264.13 and 268.7. A copy of the current plan will be available at the facility.

The purpose of this Waste Analysis Plan (WAP) is to identify and document the necessary sampling methods, analytical techniques and overall procedures that are undertaken for hazardous wastes that enter this facility for treatment or storage. The plan describes the following:

1. **Pre-Acceptance Procedures**—Used to determine the acceptability of a particular waste stream pursuant to facility permit conditions and operating capabilities prior to shipment of that waste to the facility.
2. **Incoming Waste Shipment Procedures**—Used to identify that the delivered waste shipment matches the accompanying manifest, as well as the pre-acceptance description (the profile), and the conditions of the facility permit.
3. **Sampling Methods**—Used to ensure that adequate quality control (QC) waste identification samples are properly obtained.
4. **Analytical Techniques**—Used to verify that the waste received at the facility conforms to the properties and characterization approved on the waste profile form so that the appropriate treatment or storage techniques can be utilized.
5. **Operational Procedures**—Used to maintain safe and appropriate methods of storage, treatment and ultimate outbound shipment of wastes.

All RCRA-regulated wastes treated or stored at the facility will be handled in accordance with the Waste Analysis Plan procedures. Non-RCRA regulated waste is, by definition, not regulated by RCRA. Non-RCRA regulated waste will be managed at the facility. This will not interfere with the management of hazardous waste at the facility. It is EQFL's policy to screen non-RCRA regulated waste for hazardous characteristics utilizing the EQFL WAP. This is to ensure that the facility will be in compliance with all applicable permits and regulations to properly, safely manage all waste.

All forms shown within this WAP are typical forms currently used by the facility. These forms may change or be updated to equivalent forms as regulations, customer needs, operations or company policy dictates. Updated copies of all forms outlined in this plan will be provided to the FDEP as these are put into use by the facility.

### **4.2 Pre-Acceptance Procedures**

EQFL has developed procedures to determine the acceptability of specific wastes for management at the facility in accordance with safe storage, treatment and all prohibitions on Land Disposal (40 CFR Part 268). The pre-acceptance procedures dictate what information a potential customer will provide to enable EQFL to determine the acceptability of the waste for treatment, storage and ultimate off-site disposal.

The Pre-Acceptance Procedure is the mechanism for deciding to reject or accept a particular type of waste, prior to its shipment to the facility, based upon the conditions or limitations of existing permits, applicable land disposal restrictions and its compatibility with other wastes being treated and stored, at the facility. EQFL operations, technical, and field personnel are trained annually in completing waste

profiles, DOT regulations (hazard classes, shipping names, and more) manifesting, and Land Disposal Restrictions (LDR).

The procedures listed below are utilized to review information and approve or reject waste prior to delivery to the facility.

1. The generator will provide EQFL with a completed Waste Profile form. A copy of the current EQFL Waste Profile is included in Appendix J. The completed profile provides the following information:

- General Information
- Physical Characteristics
- Chemical/Physical Composition
- Characteristic Constituents
- Reactivity & Other Hazards
- Hazardous Characterization
- Shipping Information
- Certification

At a minimum, the generator supplies all the information needed to treat, store, or dispose of the waste as required by 40 CFR Part 264.13(a)(1).

2. The generator will provide EQFL with a representative sample, if requested. A copy of the current EQFL Sample Chain of Custody form is included in Appendix J.
3. The generator will provide EQFL with other supporting documentation, which may include Material Safety Data Sheets (MSDS), laboratory analysis, and any information concerning Land Disposal Restrictions (LDR) of 40 CFR Part 268. A completed Land Disposal Restriction (LDR) form will describe the LDRs that apply to the waste. A copy of the current Land Disposal Restrictions form is included in Appendix J. This form was recently updated to include the new Phase IV LDR regulations.
4. EQFL will review information presented on the Profile, Toxicity Characteristic (TC) Certification, analytical data supplied by the generator, MSDSs, and other applicable documentation as supplied by the generator for:
  - Completeness
  - Process producing waste
  - Chemical constituents of waste
  - Analytical results (minimum TC certification)
  - Land Disposal Restrictions requirements
5. EQFL will determine the acceptability of the waste based on:
  - The permit conditions for the facility
  - Facility operational requirements
  - The compatibility of the waste being consolidated or treated
  - The status of waste under current Land Disposal Restrictions
  - The available on-site treatment capabilities
  - The available off-site recycling, reclamation, treatment or disposal options



6. The pre-acceptance evaluation will be recertified at minimum biennially. Recertification or pre-acceptance evaluations will be done when any of the following occur:
  - Biennially (every two years)
  - Waste Generation Process Changes
  - Waste Analyses or Screening Changes
  - Regulatory Changes Related to Waste Analysis
7. EQFL may perform necessary annual analysis, dependent on the particular waste stream characteristics, from a representative sample of the waste received to ensure that the initial analysis is accurate and up-to-date.
8. Samples may be requested when the situation is warranted, such as for waste requiring treatment by solidification in order to perform solidification evaluation testing.

**Note:** Laboratory Packaged (Lab Pack) wastes are the exception to the above procedures. Lab pack procedures are discussed in the lab pack section of the WAP.

### **4.3 EQFL Technical Services**

Approval chemists (or equivalent) are responsible for the pre-acceptance evaluation decision (i.e., whether to accept for storage, treatment, and off-site disposal or reject the waste). The approval chemist or coordinator reviews the profiles for general information, physical characteristics, chemical/physical composition, characteristic constituents, reactivity/other hazards, hazardous characterization, shipping information, and certifications. The chemist or coordinator also reviews the process producing the waste, waste description, EPA waste code identifications, and chemical constituents to determine the facility's ability to safely and properly manage the waste for storage, treatment, and ultimate disposal.

Problems with the profile sheet form encountered during the evaluation process, such as EPA waste codes that do not correspond with the process producing waste statement, chemical constituents that do not correspond with analytical data supplied, or analytical data that does not confirm treatment standards have been met for land disposal restricted waste (when applicable), are noted by approval personnel. An attempt to resolve discrepancies will be made by contacting the generator for additional information, documentation or analytical data. Discrepancies that cannot be resolved will result in the rejection of the waste profile. A Technical Services Manager or equivalent is available to review approval and rejection decisions if necessary.

The pre-acceptance evaluation is concluded with the final decision regarding the acceptability of the waste. Storage, treatment and disposal decisions are based on (but not limited to):

- Conditions or limitations of existing permits and regulations
- Capability to safely manage the waste
- Regulatory requirements
- Results of compatibility evaluation or treatability tests (as appropriate)
- Management decision

#### **4.3.1 Waste Characterization**

Indicated below are the waste characterizations of the various waste streams managed at the treatment/storage and transfer facilities. Actual waste analysis information (if available), waste profile information, supporting lab analytical, QC lab reports, manifests, land ban forms, and the EQFL computer data base information will be retained as part of the facility operating record.

### **Flammable Liquids**

Physical State: Liquid  
Flash Point: <140 F  
Chemical Composition: Solvents, paints, thinners, alcohols, fuels, oils, etc.  
Disposal: Disposal is off-site via fuel blending and/or incineration.  
Other Data: Facility warehouse storage is in an explosion-proof designed area.  
Vehicles are placarded and meet all DOT requirements.

### **Oxidizers/Reactives/Flammable Solids**

Physical State: Liquid/Solid/Semi-Solid  
Chemical Composition: Oxidizers: permanganates, nitrates, nitrites, perchlorates, etc.  
Reactives: cyanides, sulfides, and water-reactive metals  
Flammable Solids: water-reactive metals, phosphorous, paint sludges, and solid residues.  
Disposal: Disposal is off-site via deactivation or incineration.  
Other Data: Cyanides and sulfides must be kept separate from acids.  
Oxidizers must be kept separate from organics.  
Flammable solid/water reactives must be kept dry and usually immersed in kerosene.

### **Poisons**

Physical State: Liquid/Solid  
Chemical Composition: Arsenics, carbamates, endrin, lindane, toxaphene, methoxychlor, etc.  
Disposal: Disposal is off-site via incineration.  
Other Data: May be an inhalation hazard.

### **Corrosives**

Physical State: Aqueous  
pH: Acids: 2.0  
Caustics: 12.5  
Chemical Composition: Acids: Hydrochloric, nitric, chromic, phosphoric, sulfuric, etc.  
Caustics: Sodium hydroxide, potassium hydroxide, etc.  
Disposal: Disposal is off site via neutralization.  
Other Data: Keep acids and caustics separated from each other and do not add water to acids or caustics.

### **Characteristic and Others**

Physical State: Liquid/Solid/Sludge  
Chemical Composition: Listed plating sludges, toxic metals (chrome, lead, etc.) D018-43 TC wastes.  
Disposal: Disposal is off site via stabilization, incineration, or landfill.

#### **4.4 Sampling Methods**

Sampling is performed at the facility by EQFL personnel trained to sample incoming materials. The training includes personal protective equipment, sampling requirements, sampling equipment, and sampling techniques. Specific sampling procedures are dependent on both the nature of the material and the type of container. This section presents sampling methods to be utilized by EQFL personnel. The generator provides EQFL with information concerning the concentration, as well as the nature of the waste components on the profile sheet form. The analysis to be performed is a conformance check. Sampling protocols will follow approved sampling methods.

The sampling equipment and procedures described in this Waste Analysis Plan represents the facility's recommended sampling protocol for general types of waste materials and containers. Certain waste materials or containers may require different sampling procedures or equipment. Procedures and equipment may be updated and revised as new equipment or procedures become available. In general, the methods utilized for sampling correspond to those referenced in 40 CFR 261, Appendix I. The general sampling methods and the equipment utilized for waste materials are presented in the Sampling Methods and Equipment Table which follows.

In addition to ASTM and EPA sampling procedures, EQFL has instituted specific methods for ensuring that samples taken from various types of containers are representative. The types of containers to be sampled at the facility vary, but usually are 55-gallon steel drums. Containers may consist of pails, drums, overpacks, totes, tankers, roll-off boxes, the hazardous waste treatment tank, or other DOT approved containers. The sampling devices are selected, depending on the size and type of containers and on the specific material involved.

Access to a container (e.g., barrel bungs) influence the location within the container from which samples can be taken. Every effort to achieve representative samples will be taken. Sampling of small containers (e.g., drums and pails) varies with the nature of the waste material. For flowable materials, the sampling device of choice is a Coliwasa unit, tubing or sample rods, to draw a full vertical section. For non-flowable wastes, tubing or a trier is normally used to obtain a sample. Table 4-1 shows sampling methods and equipment.

**Table 4-1**  
**SAMPLING METHODS AND EQUIPMENT**

<u>Material</u>	<u>Method</u>	<u>Equipment</u>	<u>Sample Container</u>
Extremely viscous	ASTM D140-70, E300 (a)	Tubing (b) or thief	Plastic/Glass jar w/screw top
Crushed or powdered material	ASTM D364-75, E300 (a)	Tubing (b), trier, scoop, or shovel	Plastic/Glass jar w/screw top
Soil material	ASTM D420-69, E300 (a)	Tubing (b), trier, auger, scoop, or shovel	Plastic/Glass jar w/screw top
Soil-like material	ASTM D1462.65, E300 (a)	Tubing (b), trier, auger, scoop, or shovel	Plastic/Glass jar w/screw top
Fly ash-like material	ASTM D2234-76 (a)	Tubing (b), trier, auger, scoop, or shovel	Plastic/Glass jar w/screw top
Containerized Liquids	SW-846 (c) ASTM E300 (a)	Coli-wasa or tubing (b) or sampling rod	Plastic/Glass jar w/screw top
NOTES:			
(a) ASTM International. Annual Book of ASTM Standards. Philadelphia, PA. 1982 or most recent edition.			
(b) Personal Protection and Safety Training Manual (Cincinnati, OH: USEPA National Training and Operational Technology Center 1981), pp. 3-1 and 3-4.			
(c) U.S. Environmental Protection Agency. Test Method for Evaluating Solid Waste. SW-846. Office of Solid Waste and Emergency Response, Washington, D.C., second edition 1982 or most recent edition.			

Liquids in large containers are sampled with a Coli-wasa, tubing, or sample rod to obtain a vertical section. A composite sample is obtained by taking equal volumes from each applicable port and mixing in a common container. Light, dry powders, granules and heavier solids are sampled by trier or shovel, or by coring with heavy tubing or an auger.

#### 4.5 Analytical Rationale

Analyses are performed on selected incoming wastes by EQFL to verify conformance with the approved profile. Analytical methods are classified as "Fingerprint Analyses," "Additional Analyses" and "Supplemental Analyses." This arrangement allows a progressive decision approach to waste identification enabling EQFL to analyze and to adequately identify the waste and to provide operational controls for the various treatment processes as well as compatibility determinations. In addition, a minimum of 10 percent of all waste received will be Quality Assurance (QA) checked for accuracy of classification.

All incoming waste shipments are subjected to the "Fingerprint Analyses." "Fingerprint Analyses" are sufficient to properly verify that the waste received is the same as the waste that was characterized and identified on the pre-acceptance evaluation (waste profile). This is not designed to characterize the waste.

EQFL may perform other "Additional Analyses" or "Supplemental Analyses" to provide further verification of waste characterization. "Additional Analyses" and/or "Supplemental Analyses" are performed at the direction of the Facility Management to further identify a waste or to make certain proper handling and treatment can be achieved. EQFL management may select these additional and/or supplemental analyses to perform the annual analysis, when fingerprint analyses indicate non-conformance or to provide additional operational control and compatibility determinations. A summary of the analytical parameters within each category and their use is provided below

#### **4.5.1 Fingerprint Analyses**

The "Fingerprint Analyses" include six screening procedures that may be performed to provide a general identification of the waste received. These analyses provide the basis for the conformance check against the profile and manifest in confirming the identity of the waste. Based on a review of the Waste Characterization Report and a visual examination of the waste, the following fingerprint analyses may be performed based on the observations. The parameters and associated rationale of the six "Fingerprint Analyses" are as follows:

1. Physical Description (i.e. appearance, physical state, layers, etc.) is used to determine the general physical properties of the waste. This facilitates subjective comparison of the sampled waste with prior waste descriptions or samples. It is used to identify obvious differences in waste type. It is also used to identify the presence or absence of free liquid.
2. The pH Screen is undertaken to indicate the pH and, in general, the corrosive nature of the waste. The pH Screen will also aid in the compatibility determinations. pH may not apply to certain waste types (e.g., organic solvent waste, oil waste, or insoluble solid waste).
3. Water Mix is used to determine whether the waste has a potential to vigorously react with water to form gases or other products and to indicate whether it generates extreme heat when mixed with water. This test does not apply to wastes that are already in contact with excess water, or for which sufficient analytical data exist that indicate no potential reactivity with water.
4. Flammability Potential Screen is used to indicate the ignitability potential of the waste. It is also used to identify obvious differences in waste type, such as waste solvent substituted for a waste acid. This test can be applied to all waste liquids, semi-solids, or solids.
5. Organic Halogen Screen is used to indicate whether or not halogenated organics are present in the waste and the need for further analysis. It is also used to identify obvious differences in waste type such as waste solvent substituted for a waste acid. This test can be applied to all waste liquids, semi-solids, or solids. The Organic Halogen Screen will be used for wastes where halogen information is necessary. For example, hazardous wastes carrying halogen waste codes would not require this screen since it would not provide any useful information.
6. Oxidizer Screen is used to indicate whether or not the waste is a potential oxidizer. No EPA test method exists for identifying oxidizers. 40 CFR 261.21(a)(4) identifies oxidizers as defined in 49 CFR 173.151 by DOT. The DOT test involves igniting the material and a known oxidizer for comparison testing. The EQFL Oxidizer Screen will not involve igniting oxidizers. The EQFL Oxidizer Screen will be utilized to screen potential oxidizers. For example, obvious organic wastes would not require this screen since they cannot be oxidizers.

#### **4.5.2 Additional Analyses**

The applicability of these analyses as described below, are based on procedures and protocol formulated by EQFL (when determined necessary for proper classification):

1. Solidification Evaluation Test is run to determine whether the waste is amenable to solidification and to determine the ratio of solidification reagent-to-waste required to effect solidification.
2. Land Disposal Restriction (LDR) Stabilization Evaluation Test is run to demonstrate whether or not a Land Disposal Restricted Waste can be stabilized to meet the appropriate treatment standard.
3. Oxidizer Screen is used to determine the presence of organic peroxides or inorganic oxidizers. It is not required if the waste is not suspected of being an oxidizer.
4. Cyanide Screen is used to indicate whether the waste has the potential to produce hydrogen cyanide upon acidification. It is not required if the pH of the waste is less than 6.0 or if the waste is not suspected of containing cyanides.
5. Sulfide Screen is used to indicate whether the waste has the potential to produce hydrogen sulfide upon acidification. It is not required if the pH of the waste is less than 6.0 or if the waste is not suspected of containing sulfides.
6. Peroxide Screen is used to indicate the presence of peroxides. It is not required if the waste is not suspected of containing peroxides.
7. BTU Screen is used on organic material to determine if BTU's are greater or less than 5,000 BTU/lb. for energy recovery by fuels substitution. It is not required for wastes not applicable to fuels substitution. It is also not required for fuels known to have greater than 5,000 BTU/lb.
8. Nitric Acid Screen is used to determine if material contains nitric acid. It is not required if the waste is not acidic or not suspected of containing nitric acid.
9. Radiation Screen is used to screen wastes for radioactivity above background. This screening is only performed if the waste is suspected of a potential for radioactivity.
10. GC Scan is used to identify separate organic compounds. A GC Scan may be requested by management if they believe it is needed.
11. Metals scan is used to identify metals constituents. A metals scan may be requested by management if they believe it is needed.
12. Compatibility Testing to determine if material is compatible prior to consolidation or treatment.

**Note:** Any sample failing the 10% QC screen will be further analyzed in detail for the particular parameter

#### **4.5.3 Supplemental Analyses Using Standard Techniques**

These test methods are adopted from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA Office of Solid Waste SW-846, Updates and Appended Materials) and other EPA approved methods. Other methods may be added as required.

#### **4.6 Incoming Waste Shipment Procedures**

Each hazardous waste shipment, upon arrival at the facility, will be inspected, sampled and analyzed as defined herein. All RCRA-regulated waste shipments will be sampled and analyzed according to this WAP. This includes bulk shipments manifested to EQFL even though it may be remanifested out immediately without entering or not stored at the facility. All shipments received on manifest will be entered into the EQ electronic waste tracking system (EQAI). This serves two purposes. First, it compares the actual waste shipment identity with that identified in the pre-acceptance phase and that listed on the waste manifest. Second, it ensures the proper management of the waste through final disposal off site.

The Quality Control (QC) sheets or computer EQAI container tracking system tracks the waste through the facility from point of arrival at the receiving area to its final disposal. The current EQFL QC sheet is included in Appendix J. The identity, quantity, and types of waste from each generator's incoming shipment are tracked and documented by the EQAI tracking system and QC sheets. Fingerprint Analysis results are also tracked and documented by this method.

Incoming waste shipment identification verification begins upon arrival of the waste at the facility. The sampling and analysis of the incoming waste will be performed in accordance with the methods described in this WAP. The shipping papers for the waste are checked and compared to the approved profile. The waste will be accepted (pending quality control verification) if the shipping documents are correct. Shipping document discrepancies are resolved with the generator prior to acceptance (pending quality control verification) of any waste material. Hazardous waste shipments will be sampled and analyzed for at least the mandatory waste fingerprint analyses. This occurs every time a shipment is received. A flow chart of the EQFL Waste Screening process is included in Appendix J.

A minimum of 10 percent of the containers per each waste stream will be selected for sampling of non-lab pack waste. Example: For a shipment of one waste stream of 80 containers, a minimum of 8 samples will be taken. Container samples that are related to one generator and one process may be composited prior to analysis, providing the individual samples are similar in physical appearance. If discrepancies are noted in samples taken from 10 percent of the containers, such as the material approved is a solid and liquids are found, all remaining containers will be opened and inspected (at minimum).

Certain types of waste are not sampled or analyzed. These are lab packs from facilities such as households, laboratories and schools, and "empty" containers. A visual inspection of at least 10 percent of the "empty" containers will be performed to ensure the containers are empty as per 40 CFR 261.7(b)(1). Lab pack procedures are described in the Lab Pack section of this WAP. Wastes such as light bulbs, lamps, batteries and aerosol containers are also not sampled.

The general logic utilized by the facility personnel in deciding whether to accept or reject a particular waste load is based on "Fingerprint Analyses." Other major decisions regarding waste acceptance is the need for additional analyses, the actual waste identification, and an evaluation of whether a waste found to be off-specification can still be accepted.

The EQFL chemist or facility manager decides whether additional analyses are required for a particular waste based on the following:

- Results of "Fingerprint Analyses"
- Knowledge of generator and/or waste-generating process
- Results of pre-acceptance evaluation.

Further testing will be required if the results indicate unexpected presence or absence of screen parameters with respect to pre-acceptance analytical results or if there is reason to suspect that the waste composition has changed. The effectiveness of the waste identification step is dependent on the following components:

- Inspection
- Sampling
- Analytical Results
- Waste Profile
- Any additional documentation supplied by the generator
- Land Disposal Restrictions of 40 CFR Part 268
- Waste Manifest
- Pre-Acceptance Analytical Results
- Management Decision

Laboratory personnel must classify the waste as being "off-specification" if it is significantly different in waste type from the information shown in the profile, the pre-acceptance evaluation or on the manifest. Wastes found to be in non-conformance may be rejected. They may be re-evaluated for possible acceptance by the facility despite the non-conformance or they may be shipped to an alternate TSD facility if the proper treatment method is available. The re-evaluation may be based on the following criteria:

- Permit Authorization
- Discussions with the Generator
- Facility Conditions
- Facility Manager's or Designee's Judgment

Pursuant to 40 CFR Part 265.72, the facility personnel must discuss and attempt to resolve with the generator any discrepancies between the actual waste and that shown on the manifest.

EQFL does not accept the materials listed below:

1. Regulated Explosives
2. Regulated Biomedical Waste. If incidental biomedical waste is discovered in the shipment and it is identified by the material being placed in a "red bag" or is clearly labeled as such, the material will be rejected back to the generator. If non-hazardous material, which is not regulated by chapter 64E-16 F.A.C. is discovered, the material will be handled as solid waste.
3. Regulated Radioactive Materials

#### **4.7 Operational Procedures**

Each movement of a waste within the facility during which any change in its type or overall properties occur may make it subject to additional inspection, sampling and analysis to determine appropriate handling and management of the waste. Many of the analyses needed for the treatment, storage, and disposal functions are performed during incoming shipment identification. These are not repeated unless it is known or believed that the waste identity may have changed during storage or processing.



#### **4.8 Analysis of Treated Characteristic Hazardous Wastes**

EQFL, as part of this renewal permit application, will construct and operate an on-ground solidification unit/treatment tank where the solid waste treatment unit currently resides. The purpose of the new unit is to treat characteristically hazardous waste codes D002 (corrosives); D004 (arsenic); D005 (barium); D006 (cadmium); D007 (chromium); D008 (lead); D009 (mercury); D010 (selenium); and D011 (silver). No listed hazardous wastes are being proposed for treatment at the facility. EQFL intends to initially treat chromium and lead, followed by cadmium and silver as they gain operational knowledge concerning the use and practical capabilities of the treatment tank.

Waste that is treated such that it no longer exhibits the hazardous waste characteristic(s) for which it was listed is no longer considered hazardous and can be disposed of at a non-RCRA regulated facility. In the case of the material EQFL intends to treat, the objective would be to assure through analytical testing of representative samples that the waste no longer meets the characteristics.

Waste is to be deposited directly into the top of the box, the pH adjusted, and then a solidification agent is introduced. The process will consist of raising the pH for metals treatment into the 9 to 13 range which appears to be the optimal range based on similar treatment processes at other EQ facilities. The materials are mixed using a backhoe, portable mixer, or similar piece of equipment. Additional solidification agent is added until no free liquids are present. Frequent bench testing will be required and samples will be collected at suspected endpoints of treatment and analyzed for a short duration (30-90 min) TCLP test or possibly, because the material will be a solid, a total metals analysis for the D004-D011 waste codes. EQ has found at other facilities that if a sample does not pass a TCLP test after 90 minutes, it's not likely to pass a full, 24-hr TCLP. Treated materials that "pass" the short duration TCLP test will be followed by a representative sampling of the waste which will be sent off site for TCLP analysis by a NELAC/NELAP certified laboratory.

Treated materials that pass the TCLP test will be loaded into roll off boxes and/or dump trailers for subsequent disposal at an approved disposal facility (Subtitle D landfill). If the treated material fails the initial TCLP screening and is still characteristically hazardous, it will continue to be treated until a TCLP test has confirmed the material no longer retains the hazardous characteristics for the waste being treated. It should also be pointed out that the disposal facility accepting the treated material may require additional testing above and beyond a TCLP test before they will accept the waste. EQFL will determine testing requirements for the proposed disposal facility and have the samples analyzed accordingly.

EQFL intends to establish a fully equipped, specialty laboratory on site that will perform the preliminary test results of treated materials (i.e., short duration TCLP test and/or total metals testing). The laboratory will contain a refrigerator, an agitator with stir bars, an atomic adsorption machine (requiring acetylene, nitrous oxide and air), fume hood, industrial strength mixer, pH meter, scale, titrator, and appropriate laboratory reagents.

#### **4.9 Quality Control Policy**

EQFL intends to follow all sampling and testing criteria set forth in accordance with applicable SW-846 methods. For methods not addressed in SW-846, ASTM or comparably standardized laboratory methods will be used. It is EQFL's understanding that this will be acceptable since our sampling and analysis at the facility are primarily for "Fingerprint Screening" of incoming wastes to assure that they meet profiled parameters. If a NELAC certified laboratory has provided sufficient results then waste codes may be removed from the sampled containers.

EQFL has developed a program of quality control practices and procedures to ensure that precision and accuracy are maintained throughout its laboratory. Contract laboratories employed by the company must be NELAC certified. Data produced for use by DEP will use applicable DEP SOPs per the DEP Quality Assurance Rule, 62-160.210, .240, .300 & .320, F.A.C.

The EQFL QC Sampling and Analysis Procedures are utilized to verify waste characterization and not to quantitatively analyze the waste. This section does not provide specific performance standards of quality control procedures for individual sampling and analysis techniques. Such specifics can be found in the facility Laboratory SOP manual. The specific performance standards are dynamic and are revised as warranted to reflect technological advances in sampling and analytical techniques.

#### **4.10 Analytical Procedures**

##### ***4.10.1 Fingerprint Analyses***

These are analytical procedures designated to identify or screen waste. They have been developed by EQFL based upon its operating experience as rapid but effective means for establishing key decision parameters pertinent to proper waste management.

1. Physical Description. Samples are inspected and the physical appearance of the waste is recorded Physical State (solid, semi-solid, liquid, etc.)
2. pH Screen. Full-range pH paper or a pH meter is used directly on liquid samples and on the free liquid portion of liquid/solid samples.
3. Water Mix Test. Approximately equal volumes of waste and water are mixed. Water should be added to the waste rather than addition of wastes to water. The following characteristics are noted:
  - Gross Solubility in H<sub>2</sub>O
  - Gross Specific Gravity (heavier or lighter than water)

If water reactivity is noted (generation of gases, heat, turbulence or sudden physical changes such as solidification, thickening or emulsification) record the results.

4. Flammability Potential Screen. A small amount of a liquid waste sample or a solid waste sample is placed into an aluminum-weighing tray (or similar laboratory container). A flame is very briefly applied to the sample. If the sample does not ignite, the result is recorded as a negative flammability potential (e.g., negative). If the sample ignites with the application of a flame, then the result is recorded as positive and may require further investigation. Liquids with a negative flammability potential may be quantified using an approved flash point tester.

Solids may be further investigated (e.g., via review of the Generator's Waste Material Profile Sheet or other supporting documentation) to determine flammability and BTU value for possible fuel blending disposal off site. The investigation will also examine the waste's potential to cause fire through friction, absorption of moisture, or spontaneous chemical changes.

**Note:** Halogenated solvents typically give off vapors that burn with a yellow (or greenish) smokey (sooty) flame in the presence of an external flame. Wastes with this type of non-sustaining flame are reported as having a negative flammability potential.

##### ***4.10.2 Additional Waste Analyses***

1. Specific Gravity. This test is performed to aid in determining if an acid or base may be concentrated or to determine the weight of the material.

2. Cyanide Screen. This screening test is performed using Cyantessmo (or equivalent) test paper according to the laboratory operating procedure.
3. Sulfide Screen. This screening test is performed using lead acetate test paper (or equivalent) according to the laboratory operating procedure.
4. Radiation Screen. The sample is placed in a position below the Geiger-Mueller probe (or equivalent) for a period of at least five (5) seconds. An audible alarm and meter reading above the background reading will indicate radioactivity.
5. Oxidizer Screen. This screening test is performed using potassium-iodide starch test paper (or equivalent) according to the laboratory operating procedure. All positive oxidizer screen results will be verified with an ORP test (or equivalent).
6. Compatibility Test. Proportional amounts of material will be mixed in a container. The mixture will be evaluated by observing physical and chemical changes which may occur. Temperature changes, formation of precipitates, change in pH, or evolution of gas will be noted. A significant change in any of these parameters indicates possible incompatibility.

#### **4.11 Acceptance of Packaged Laboratory Wastes (Lab Packs)**

Laboratory chemicals from many different sources are accepted at the facility. The majority of the "laboratory chemicals" (lab packs) received by the facility are household exempt wastes. The household waste lab packs consist primarily of paints and paint related materials. Other household wastes include cleaners, pool chemicals, pesticides, and lawn chemicals. Lab packs from industrial generators consist of virtually any type of chemical acceptable by the EQFL permit. Lab packs may be EQFL packed or be "customer" (generator) packed. Lab packs that are EQFL packed have been packed by EQFL personnel (chemist or equivalent). The container contents have been reviewed, packed, documented, approved, and verified by an EQFL chemist or equivalent. Generator packed lab packs have been packed by generator personnel. The generator submits a container contents sheet to EQFL for review and approval. A copy of the current EQFL lab pack container contents sheet is included in Appendix J.

The following is a partial example of lab pack guidelines and procedures that are used for lab pack wastes. Complete EQFL lab pack guidelines are available on site at the EQFL facility.

##### ***4.11.1 Guidelines for Acceptable Lab Packs***

##### **Group 1: Alkali (with pH greater than 12.5)**

- A. Inorganic alkaline chemicals (e.g. sodium hydroxide, calcium hydroxide including alkaline salts,  $\text{Na}_3\text{PO}_4$ , sodium borate).
- B. Organic bases (e.g. triethanolamine)

##### **Group 2: Acids (with pH less than 2)**

- A. Inorganic acids (e.g. hydrochloric acid, sulfuric acid) as solids or as liquids.
- B. Organic acids, (e.g. stearic acid, citric acids, acetic acid)

##### **Group 3: Non-Hazardous - (e.g., plastics, oils)**

- A. No container larger than 5 gallons to be packed in drum.
- B. No more than 50#/containers of solids to be packed without special permission.
- C. Maximum quantities per lab pack container are as follows:
  - a) 20 gallons per 55-gallon drum
  - b) 11 gallons per 30-gallon drum

- c) 2 gallons per 5-gallon drum
- d) For solids, use spacing rule (e.g. 2-3 inches between drum walls and materials)
- e) Sealed liquid containers should be overpacked in drum with enough compatible absorbent to absorb all liquid if broken.

The above list is not all-inclusive but should be regarded as an example of a basic packing guideline for lab packs.

#### ***4.11.2 Unacceptable Lab Packs***

- A. Regulated Explosives
- B. Regulated Bio-Hazardous
- C. Regulated Radioactive Materials

### **4.12 Procedure for Waste Acceptance**

Before containers are shipped to EQFL, a waste profile form or electronic version must be submitted to EQFL, including a complete set of container contents sheets describing the contents of each drum in terms of explicit chemical identification, quantities, concentrations, pH, etc., as applicable. EQFL Technical Services (chemist or equivalent) will review the profile and the container contents sheets and inform the generator of any materials that are not acceptable, the packing of incompatible materials that are not acceptable, or the packing of incompatible materials within the same drum. When the necessary corrections have been made by the generator, corrected container contents (changes indicated, initialed, and dated) should be sent to EQFL. After review of the corrections, the generator will be notified that the waste is approved for shipment. When the hazardous waste arrives at EQFL, a chemist or equivalent will quality control check the lab packs. A minimum of 10% of EQFL packed hazardous waste lab packs will be opened and inspected. Each generator packed hazardous waste lab pack (100%) will be opened and inspected. See the Waste Screening Flow Chart in Appendix J for further information.

### **4.13 Site Generated Waste**

Site-generated wastes include the following:

- Containment sump liquids and residues
- Spent fluorescent lamps
- Spent batteries
- Lab trash
- Lab wastes and rinses
- Samples (when hold time is complete)
- Personal protective equipment
- Chemical rags

Site-generated wastes are characterized and managed according to all applicable requirements and regulations.

## **5.0 INSPECTION PLAN**

### **5.1 General**

The EQFL facility is regularly inspected for malfunctions and deterioration, operator errors, and discharges, which may cause (or lead to) release of hazardous waste constituents to the environment or a threat to human health. These inspections are intended to identify problems in time to correct them before a release of hazardous waste or constituents occur. A facility inspection log is maintained to document the results of these inspections.

### **5.2 Schedule**

All monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment, including the on ground treatment/solidification tank and oil-water separator, that are important to preventing, detecting, or responding to human health or environmental hazards will be inspected daily (each operating day). The inspections will be performed by trained EQFL operations personnel. All inspections will be reviewed and approved by a senior EQFL employee (manager, supervisor, or chemist).

The inspector will look for the items listed on the EQFL Facility Inspection Log. All areas subject to spills, such as the loading/unloading, container storage areas, hazardous waste treatment tank, and oil-water separator are inspected daily (each operating day). All containers are inspected for container condition, closure, labeling, and aisle space. Housekeeping and proper storage in the storage building are also inspected daily. The vehicle loading and unloading areas and transfer facility vehicles and wastes are inspected daily to identify problems. External areas such as the area for storage of empty containers and the stormwater systems (trenches, filter, and retention pond) are inspected daily to identify problems. Safety and emergency equipment is inspected daily for condition, availability, and operations capability. The safety and emergency equipment inspected includes fire control equipment, communication devices, safety showers and eye washes, spill kits, exits, safety supply lockers, fire suppression and alarm systems, and LEL meter and sensors. The contents of the safety supply lockers will be inspected and inventoried monthly. The date of inspection and inventory will also be noted on the Facility Inspection Log. The contents of the safety supply lockers are to be used only in the event of an emergency. The date of re-inspection and re-inventory will be noted on the Facility Inspection Log. The waste inventory for each hazard class and bay, to include transfer facility waste, is noted daily on the inspection log.

### **5.3 Remedial Actions**

Every unsatisfactory condition noted during the inspection will be immediately corrected if possible. Items not immediately corrected will be noted on the inspection log. Unsatisfactory conditions noted on the inspection log will be corrected within fourteen (14) days. EQFL will submit a written schedule to correct the deficiency to the FDEP should any deficiency not be corrected within fourteen (14) days. Where a hazard is imminent or has already occurred, remedial action will be taken immediately. The EQFL Contingency Plan will be implemented if a fire, explosion, or unplanned release of hazardous waste or hazardous waste constituents occurs to the air, soil, groundwater, or surface water, which could threaten human health or the environment. All remedial actions completed will be noted on the inspection log.

### **5.4 Inspection Log**

A copy of the EQFL Inspection Log is included as the following page. Inspections will be recorded on the inspection log. These records will be kept for a minimum of three (3) years from the date of the inspection. The inspection log records include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or remedial actions.

## EQ Florida Inc. – Facility Inspection Log

Date: \_\_\_\_\_

Inspector: \_\_\_\_\_

Time: \_\_\_\_\_

Approved By: \_\_\_\_\_

		<u>SATISFACTORY</u>	<u>UNSATISFACTORY</u>
1.	Containers:		
1.1	Condition, Closure, and Compatibility	_____	_____
1.2	No Leaks	_____	_____
1.3	Proper Labeling	_____	_____
1.4	Aisle Space & Housekeeping	_____	_____
1.5	Proper Storage Location	_____	_____
1.6	Over 1 year Accumulation start date	_____	_____
	Drum Numbers (if applicable);	_____	_____
2.	Vehicle Unloading Area:	_____	_____
3.	Transfer Facility/Staging Area Vehicles and Wastes:	_____	_____
4.	Empty Container Storage:	_____	_____
5.	Stormwater System:		
5.1	Trenches	_____	_____
5.2	Sump and Filter System	_____	_____
5.3	Retention Pond	_____	_____
5.4	Lock Out Box Installed	_____	_____
6.	Containment Areas and Sumps (cracks, leaks etc.)	_____	_____
7.	Safety Equipment:		
7.1	Fire Extinguisher	_____	_____
7.2	Telephones & Air Horns	_____	_____
7.3	Safety Shower & Eye Wash	_____	_____
7.4	Acid, Caustic, Solvent, and Mercury Spill Kits	_____	_____
7.5	Emergency Exits (including flammable bay)	_____	_____
7.6	Safety Supply Lockers	_____	_____
7.7	Fire Suppression System	_____	_____
7.8	LEL Meter and Sensors	_____	_____
8.	Miscellaneous Unit		
8.1	Filter Press	_____	_____
9.	On Ground Hazardous Waste Solidification Unit/Tank	_____	_____
10.	Oil/Water Separation Unit	_____	_____
11.	Waste Inventory:	<u>55-Gallon Containers</u>	<u>5-Gallon Containers</u>
			<u>Total Gallons</u>
	Bay 1    ORM	_____	_____
	Bay 1    Acids	_____	_____
	Bay 2    Flammables	_____	_____
	Bay 2    Flammable Solids	_____	_____
	Bay 2    Reactives	_____	_____
	Bay 2    Aerosols	_____	_____
	Bay 3    Oxidizers	_____	_____
	Bay 3    Alkalines	_____	_____
	Bay 3    Poisons	_____	_____
	Bay 3    Non-Regs	_____	_____
	Bulk Shipments	_____	_____

TOTAL HAZARDOUS WASTE \_\_\_\_\_ Gallons

12. Additional information for unsatisfactory items: \_\_\_\_\_

11. Remedial actions necessary for unsatisfactory items: \_\_\_\_\_

## **6.0 TRAINING PROGRAMS**

### **6.1 General**

All EQFL operations personnel involved in any hazardous waste handling, transportation, emergency response, storage or treatment will successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a safe manner that ensures the facility compliance with the requirements of 40 CFR Part 264.16. Contingency Plan training for EQFL employees is documented in the Employee Training record. EQFL personnel who do not typically visit the facility more than once per year, do not have to have a training record. These employees will be treated as visitors. They will be given a safety briefing and be accompanied by an employee with Contingency Plan training if they visit the facility. Training includes a combination of continuing education courses, university or community college courses, seminars, off-site courses, classroom instruction, video films, computerized courses, on-the-job training, readings, or safety meeting briefings. The training given to each employee will be documented on the Employee Training Record according to job description.

### **6.2 Training Director**

The EQFL Training Program is directed by personnel trained in hazardous waste management procedures. The Training Program is under the direction of the EQFL Compliance Manager. Training and management of the Training Program is conducted by the EQFL Technical Staff consisting of a senior chemist, technical manager, and facility manager. Training is also conducted by outside professional training organizations and consultants. Trainer qualifications will include a combination of degrees, training, certifications, or experience in the field that is taught. Qualifications of all EQFL trainers and personnel are included in the Employee Training Record. These records are filed in the Compliance Managers Office.

### **6.3 Contingency Plan (Emergency) Training**

All EQFL employees have reviewed and are familiar with the EQFL Contingency Plan. "Hands on" operations personnel involved in hazardous waste handling, transportation, emergency response, storage, or treatment have successfully completed a program of classroom instruction or on-the-job training that teaches Contingency Plan implementation. The course outline for the EQFL Contingency Plan training is included in the Training Program. The Contingency Plan training includes an on-site emergency response drill and post-drill evaluation.

### **6.4 Training Schedule**

EQFL facility operations personnel will successfully complete the EQFL training program within six months of their assignment to hazardous waste operations or to a new position in hazardous waste operations. EQFL operations personnel training will be updated and reviewed at least annually.

### **6.5 Annual Training Review**

Facility operations personnel will take part in an annual review of the initial training. The annual review will, at minimum, include Contingency Plan training review and update as well as the OSHA required 8-hour HAZWOPER training review and update. The Contingency Plan training review and update may be included within the 8-hour HAZWOPER training review and update.

### **6.6 Training Records**

The following documents and records are maintained for full-time EQFL employees.

1. Job title for each position at the facility related to hazardous waste management.

2. The name of the employee filling each job.
3. A written job description for each position at the facility related to hazardous waste management.
4. The required skills, education, qualifications, and duties of employees assigned to these positions.
5. A written description of the type and amount of introductory and continuing training given to each person filling these positions.
6. Records or certificates that document the training or job experience required, given to, and completed by facility operations personnel.



### **COURSE OUTLINE**

#### **EQFL 24- (or 40-) Hour OSHA HAZWOPER Training (As Required by 29 CFR 1910.120)**

- ✓ Regulatory Review 29 CFR 1910.120
- ✓ Toxicology
- ✓ Principles of Hazardous Materials
- ✓ Right-To-Know (HAZ-COM)
- ✓ Personnel Protective Equipment (PPE)
- ✓ Respiratory Protection
- ✓ Contingency Plan Implementation
- ✓ Spill Clean-up Drill
- ✓ Decontamination
- ✓ Manifests, Profiles, Labels, & Land Bans
- ✓ DOT Labeling, Placarding, & Shipping
- ✓ On-The-Job Training
- ✓ Site Control/Site Safety & Health Plan
- ✓ Emergency Response
- ✓ Hazardous Waste Operations
- ✓ Firefighting Procedures
- ✓ Emergency First Aid/CPR

**COURSE OUTLINE**

**EQFL 8-Hour OSHA HAZWOPER Refresher**  
*(As Required by 29 CFR 1910.120)*

- ✓ Contingency Plan Implementation
- ✓ Mock Chemical Spill Drill
- ✓ SCBA and Air Line
- ✓ Cartridge Respirator
- ✓ Respirator Fit Test
- ✓ PPE (Vendors)
- ✓ Florida Right-To-Know
- ✓ Manifests, Profiles, Labels, & Land Bans
- ✓ DOT Labeling, Placarding, & Shipping
- ✓ On-The-Job Training
- ✓ Safety Meetings
- ✓ Emergency Response
- ✓ Hazardous Waste Operations
- ✓ Firefighting Procedures
- ✓ Emergency First Aid/CPR

### **COURSE OUTLINE**

#### **EQFL Hazardous Waste Management Procedures & Contingency Plan Implementation**

- ✓ Emergency Response
- ✓ Emergency Procedures
- ✓ Emergency Equipment
- ✓ Emergency Systems
- ✓ Communications and Alarms
- ✓ Response to Fires and Explosions
- ✓ Response to Groundwater Incidents
- ✓ Shutdown of Operations
- ✓ Response Drill
- ✓ Response Drill Evaluation

## **COURSE OUTLINE**

### **EQFL Hazardous Waste Management Operations**

- ✓ Introduction to Hazardous Waste Management Operations
- ✓ Waste Management Procedures
- ✓ Waste Management Documentation
- ✓ Safety and Emergency Procedures
- ✓ Transportation Procedures and Documentation

## **COURSE OUTLINE**

### **EQFL Personal Protective Equipment (PPE) Training (*Protection Required by Hazard Level*)**

#### **A. LEVEL A**

- a) Recognition of Level A Hazards
- b) Description of PPE Required

#### **B. LEVEL B**

- a) Recognition of Level B Hazards
- b) Description of PPE Required

#### **C. LEVEL C**

- a) Recognition of Level C Hazards
- b) Description of PPE Required

#### **D. LEVEL D**

- a) Recognition of Level D Hazards
- b) Description of PPE Required

**JOB DESCRIPTION**

**GENERAL MANAGER**

**Job Title:** General Manager

**Job Description:** The General Manager has the overall responsibility for administrative, profitability, environmental, health, and safety operations and maintenance of the company.

**Reports To:** Vice President.

**Qualifications:** Minimum four-year degree in chemistry, engineering or related physical science and seven years' experience in waste management or similar field. Equivalent years of education and/or experience may be substituted.

Applicants must pass pre-employment physical and drug screening.

**Responsibilities:** Plan, direct and monitor facility operations.

Ensure environmental, health and safety regulatory compliance of all company operations.

Plan, direct and monitor administrative operations and profitability.

Represent EQFL in community, regulatory, and public relation activities.

Carry out corporate policy and standards regarding facility, equipment, operations and maintenance.

## **JOB DESCRIPTION**

### **MANAGER**

**Job Title:** Facility Manager  
Operations Manager  
Field Service Manager

**Job Description:** Managers have the overall responsibility for facility/field operations and maintenance.

**Reports To:** General Manager.

**Qualifications:** Minimum four-year degree in chemistry or equivalent experience, engineering or related physical science and five years' experience in waste management or similar field. Equivalent years of education and/or experience may be substituted.

Applicants must pass pre-employment physical and drug screening.

**Responsibilities:** Plan, direct and monitor waste operations.

Train waste handlers.

Carry out corporate policy and standards regarding facility, equipment, operations and maintenance.

Ensure the regular inspection of the facility and equipment and the implementation of any necessary repairs or remedial actions.

Coordinate with Technical Service Department and implement necessary actions or plans for training programs, environmental, safety and health regulatory compliance.

Act as the primary emergency response coordinator.

Manage EQFL laboratory operations.

## **JOB DESCRIPTION**

### **TECHNICAL SERVICES MANAGER**

**Job Title:** Compliance Manager

**Job Description:** The Technical Manager has responsibility for the development and implementation of programs and procedures required for training, environmental, safety, and health regulatory compliance related to waste operations.

**Reports To:** General Manager/Vice President Regulatory Affairs

**Qualifications:** Minimum four-year degree in chemistry or equivalent experience, engineering or related physical science and five years' experience in waste management or similar field. Equivalent years of education and/or experience may be substituted.

Applicants must pass pre-employment physical and drug screening.

**Responsibilities:** Plan, direct and monitor training, environmental, safety, and health compliance activities.

Evaluate and approve in-bound waste streams.

Develop outbound waste approvals.

Represent EQFL in local community affairs and public relation activities.

Carry out corporate policy and standards regarding facility, equipment, operations and maintenance.

Evaluate laboratory data.

Evaluate incoming waste for acceptability.

Manage EQFL training program



## **JOB DESCRIPTION**

### **SUPERVISOR**

**Job Title:** Plant Supervisor  
Shift Supervisor  
Field Supervisor

**Job Description:** The Supervisors have the responsibility, under general supervision, for waste handling activities such as sampling, identifying, packaging, storing and loading of waste materials in the field or at the facility.

**Reports To:** Facility, Operations or Field Service Manager.

**Qualifications:** Graduation from high school or equivalent (GED) and three years' experience in waste handling operations.

Applicants must pass pre-employment physical and drug screening. Drivers must possess CDL license and pass DOT physical and drug screening.

**Responsibilities:** Supervise and conduct waste stream sampling.

Supervise and conduct labeling of waste containers.

Supervise and conduct loading and unloading waste materials.

Supervise and conduct transfer, storage, or treatment of hazardous and non-hazardous wastes.

Supervise and conduct facility and equipment maintenance as directed.

Transportation of waste materials.

Transportation documentation.

**JOB DESCRIPTION**

**WASTE TECHNICIAN**

**Job Title:** Waste Technician

**Job Description:** The Waste Technician has the responsibility, under direct supervision, for sampling, packaging, storing, loading and transferring of waste materials.

**Reports To:** Shift Supervisor  
Field Supervisor

**Qualifications:** Graduation from high school or equivalent (GED).  
  
Applicants must pass pre-employment physical and drug screening.

**Responsibilities:** Sampling waste streams.  
  
Labeling waste containers.  
  
Loading waste materials onto trucks.  
  
Transfer of hazardous and non-hazardous wastes.  
  
Facility and equipment maintenance as directed.

## **JOB DESCRIPTION**

### **FIELD SERVICE MANAGER**

**Job Title:** Field Service Manager/Industrial Service Manager

**Job Description:** The Field Service Manager has the direct responsibility for activities involving transportation of waste materials.

**Reports To:** Operations or Facility Manager.

**Qualifications:** Minimum four-year degree in chemistry, engineering or related physical science and two years' experience in waste management transportation. Equivalent years of education and/or experience may be substituted.

Applicants must pass pre-employment physical and drug screening.

**Responsibilities:** Plan, direct and monitor waste transportation operations.

Maintain transportation records.

Carry out corporate policy and standards regarding waste transportation.

Coordinate with Technical Service Department and implement necessary actions or plans for regulatory compliance.

Documentation of waste shipments.

## **JOB DESCRIPTION**

### **CHEMIST**

**Job Title:** Facility Chemist  
Approvals Chemist  
Laboratory Chemist  
Field Chemist

**Job Description:** The Chemists have the responsibility, under general supervision, for facility operations.

**Reports To:** Facility or Operations Manager  
Technical Manager  
Field Service Manager

**Qualifications:** Minimum four-year degree in chemistry, engineering or related physical science and two years' experience in waste management or similar field. Equivalent years of education and/or experience may be substituted.

Applicants must pass pre-employment physical and drug screening.

**Responsibilities:** Plan, direct, conduct, and monitor facility operations.

Plan, direct, conduct, and monitor field service operations.

Analyze and evaluate incoming waste streams for acceptability.

Direct appropriate waste management actions.

Carry out corporate policy and standards regarding facility, equipment, operations and maintenance.

Prepare shipments for outbound disposal.

Ensure the regular inspection of the facility and equipment and the implementation of any necessary repairs or remedial action.

Documentation of waste management activities.

Quality control analysis of waste samples.

## **JOB DESCRIPTION**

### **ADMINISTRATIVE**

**Job Title:** Resource Coordinator  
Secretary  
Data Entry Clerk  
Receptionist

**Job Description:** Administrative personnel have the responsibility, under general and/or direct supervision, for administrative duties related to the efficient operation of the facility, such as, maintaining written record of all waste-handling activities.

**Reports To:** Facility or Operations Manager.

**Qualifications:** Graduation from high school or equivalent (GED) and one year's clerical experience.  
  
Applicants must pass pre-employment physical and drug screening.

**Responsibilities:** Answering phones and directing calls.  
  
Operate gate.  
  
Recordkeeping (preparation, distribution, and retention).  
  
Maintain clerical supplies.  
  
Computer data entry.  
  
Administrative equipment maintenance (fax and copy machine).

## 6.7 Training Records Retention

Training records on current personnel will be kept until closure of the facility. Training records on inactive former employees will be kept at least three years from the date the employee last worked at the facility. Inactive files will be kept in storage in archive files.

### EQFL Personnel Training Summary

Employee Name	Job Title	EQFL HW Date	24- or 40-Hour OSHA	8-Hour OSHA
Doe, John	Chemist	8/99	8/99	8/99

## **7.0 FACILITY PREPAREDNESS AND PREVENTION**

### **7.1 Design and Operation of Facility**

The EQFL facility was specially designed and built for hazardous waste storage, transfer, and treatment. The facility consists of a 4.46 acre MOL site with a loading/unloading area, office building, 5,866 square foot MOL storage building, a 1,786 square foot MOL improved secondary containment area and an 8,050 square foot covered waste processing building that will house the relocated solid waste solidification pit; existing shredder; new, on-ground hazardous waste treatment/solidification unit/tank, a reactivities magazine and, just outside the northeast corner of the building, a new 6,000-gal oil-water separator. Facility boundary survey and layout plans are provided as Figures 6 and 7, respectively.

The office building does not conduct commercial hazardous waste storage, transfer, or treatment. The EQFL quality control laboratory is located in the office building. The lab generates small quantities (5 gallons or less) of satellite accumulation wastes, which are taken to the hazardous waste storage building for storage prior to shipment to an off-site permitted disposal facility.

The loading/unloading area is used for the loading, unloading, and permitted 10-day transfer storage of hazardous waste. Transport vehicles delivering shipments of hazardous waste back into any one of seven available loading/unloading docks. The docks have roll-up doors, which allow unloading directly from transport vehicle to the waste storage building. Outbound waste shipments are loaded in a similar manner. The loading and unloading areas are shown on Figure 16. Loading, unloading, and transfer facility operations are described in more detail in Section 13.0 of this permit application.

The waste is loaded directly from the storage building to the transport vehicle. The loading/unloading area is an impervious contained surface constructed of concrete and asphalt. An epoxy coating covers the 10,000-gallon improved containment area in front of Bay 2. There is a 60-foot roof overhang from the storage building over the loading/unloading area. All stormwater run-offs from the loading/unloading area can be contained and inspected prior to release to the stormwater management system. Surface water flow and the stormwater management system are shown on Figure 13 and described in more detail in the Section 13.12 of this permit application.

The hazardous waste storage building was designed and built specifically for hazardous waste storage, transfer, and treatment. The building is 5,866 square feet (MOL) and features a floor that is five inches of 4,000 psi concrete placed monolithically and coated with a chemical resistant sealant and two layers of chemical resistant polyurethane coating. Manufacturer's specifications for the coatings are included in Appendix I. The container storage area consists of three separate bays. An eight-inch wide concrete block wall separates each bay. The walls extend from the floor to the roof and are designed with a minimum fire resistance of 4 (four) hours. Storage Bays 1 and 3 are at opposite ends of the building and have identical dimensions of approximately 48 feet by 50 feet.

Storage Bay 2 is in the center of the building approximately half the size of Bays 1 and 3. The dimensions of Bay 2 are approximately 22 ft. by 50 ft. The storage building has five separate containment sumps with a capacity of 1,001 gallons each. This provides a total of 5,005 gallons of containment sump capacity. The floors of each bay are sloped 1/8 inch per foot to each containment sump. The 1/8 inch per foot slope of the floors provides additional containment beyond the 1,001 gallons of each containment sump. Conservatively, the additional containment available from the floor slope has not been included in containment calculations. Each containment sump is available to contain spills or leaks of different hazard class materials. This eliminates the potential for incompatible materials to spill or leak into the same containment sump. The sloping of the floors directs potential spills or leaks to the appropriate containment sump. Two sumps each are in Bays 1 and 3 and one sump is in Bay 2.

Containment is described in more detail in the Containment section of this permit renewal. The hazardous waste storage/management building is shown on Figure 14 and the as-built record drawings for the building are included in Appendix D.

The facility operations approved in the original permit (i.e., container storage and treatment) will be retained, and the facility will construct and operate an on-ground treatment unit/tank where the solid waste treatment unit currently exists in the 8,050 square foot covered waste processing building. This building will eventually house the relocated solid waste solidification pit; existing shredder; new, on-ground hazardous waste treatment/solidification unit/tank and an explosives magazine. The purpose of the new unit is to treat characteristically hazardous waste codes D002 (corrosivity); D004 (arsenic); D005 (barium); D006 (cadmium); D007 (chromium); D008 (lead); D009 (mercury); D010 (selenium); and D011 (silver). No listed hazardous wastes are being proposed for treatment at the facility.

The reactivities magazine will be housed in the covered waste processing building, in the west central part of the structure. The location of the magazine is shown on Figure 15A, and the specifications are provided in Appendix I.

EQFL will also add a 6,000 gal oil/water separator outside the waste processing building on the northeast corner. Refer to Sections 2.3.9 and 15.2 for additional details regarding the oil/water separator.

As shown on the containment building improvements plan (Figure 15A), the area in the southern part of the building just to the west of the treatment tank will be used to store reagents used in the treatment process and to temporarily stage drums/totes scheduled for treatment.

## **7.2 Required Equipment**

### **7.2.1 Internal Communications**

The facility is equipped with an internal communications and alarm system capable of providing immediate emergency instruction (or signal) to facility personnel. Internal communications and alarms consist of the following:

1. Emergency air horns;
2. Pull alarms; and
3. Telephones.

### **7.2.2 External Communications**

The facility is equipped with telephones and pull alarms capable of summoning emergency assistance from local police departments, fire departments, or other emergency response departments. Local emergency assistance is readily available by dialing 911. The facility fire alarms are direct to the Tampa Fire Department.

### **7.2.3 Fire, Spill and Decontamination Equipment**

The facility is equipped with portable, multipurpose (ABC) fire extinguishers; Halon and Metal-X fire extinguishers are also available. The hazardous waste storage building is equipped with sprinkler systems. The facility is equipped with smoke and flame detectors. The facility has a continuous automatic fire monitoring system. Fire alarms automatically notify the Tampa Fire Department of emergency fire or smoke conditions.

The flammable materials storage bay (Bay 2) is equipped with an automatic high expansion foam fire suppression system. Bay 2 is also equipped with a lower explosive limit (LEL) monitoring system. The LEL meters are mounted so that vapors less dense than air and vapors more dense than air are both monitored. Emergency exhaust fan ventilation is automatically activated at 10%



of LEL. The foam system is automatically activated at 10% of LEL. An alarm to the Tampa Fire Department is also activated at the 10% LEL. Fire control equipment is identified on the building as-built record drawings included in Appendix D.

The new industrial shredder located in the waste processing building is intrinsically safe and has a self-contained CO<sub>2</sub> fire suppression system. The fire suppression system utilizes automatic detection, manual activation, notification signals and relay contacts for equipment shutdown controls. The system automatically notifies the Tampa Fire Department of emergency fire conditions. For further information regarding the shredder system, please refer to the shredder system as-built documentation provided as Appendix L to Volume 3 of 3.

Spill control and other safety equipment are located throughout the facility. The equipment is readily available to facility personnel. The equipment is described in the Contingency Plan (see Section 8.0) and listed in Appendix H. Decontamination equipment is readily available at the facility. The need for decontamination is minimal. Most personal protective equipment (PPE) and sampling equipment is disposable, thereby eliminating the need for decontamination. Water and decontamination solutions such as trisodiumphosphate (TSP), bleach, detergent, lime, and citric acid, are available for decontamination. Mercury spill cleanup materials (e.g. HgX, Mercsorb or equivalent) are also available.

#### **7.2.4 Water Volume and Pressure**

The facility has water available at adequate volume and pressure to supply firefighting equipment. The water volume is rated at 463 gallons per minute (gpm) volume and 32.4 pounds per square inch (psi) pressure at the base of a 6-inch diameter riser. A jockey pump connected to the city water supply augments the suppression system.

### **7.3 Testing and Maintenance of Equipment**

All equipment at the EQFL facility will be maintained and tested in accordance with the manufacturer's recommendations. EQFL has a maintenance agreement with a fire control firm to maintain the fire control equipment. The equipment included in this agreement include the foam, LEL, smoke detector, flame detector, fire control panel, sprinkler, water, piping, and fire alarm systems. EQFL will inspect this equipment as outlined in the inspection plan. The fire control firm will inspect the equipment (at minimum) annually. This will serve to keep the equipment operational for use in times of emergency.

### **7.4 Access to Communications or Alarm Systems**

Communications and alarm systems are indicated on the building as-built record drawings included in Appendix D. Access to communications and alarm systems is readily available to all employees regardless of their location. It is EQFL company policy that at least two employees will be present before entering any active operating portion of the facility. If there is ever just one employee entering any active operating portion of the facility, the employee will have immediate access, at the scene of operation, to a communications device (such as telephone) capable of summoning external emergency assistance.

### **7.5 Required Aisle Space**

The EQFL facility has been designed for the safe unobstructed movement of personnel, fire protection equipment, spills control equipment, and decontamination equipment to any area of facility operation in an emergency. There will be a minimum of two feet of aisle space between double rows of containers (or between rows of pallets of containers). The actual aisle space between rows of containers and pallets is usually three feet. The hazardous waste storage/management building is shown on Figure 14 and the as-built record drawings for the building are included in Appendix D. Containers (or pallets of containers) may be stored over the containment sumps. The containment sumps will be visible and aisle space will

be maintained with containers (or pallets of containers) stored over the sump. The containers (or pallets of containers) can easily be moved to remove any material from the sumps. No containers (or pallets of containers) will be stored within two feet of any safety equipment located on any wall. Adequate aisle space will be maintained to access all safety, spill control, and decontamination equipment stored along any wall. Hazardous waste inbound, outbound, and transfer facility shipments are loaded on transportation vehicles in accordance with all applicable DOT and RCRA regulations. Materials such as containers or pallets of containers can be easily unloaded and transferred to the storage building or another transport vehicle should any emergency require unloading of waste containers from a transport vehicle.

## **7.6 Arrangements with Local Authorities**

The EQFL Contingency Plan has been submitted to all required agencies. All agencies have been invited to tour the facility to become familiar with the layout, properties of hazardous waste managed at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and facility evacuation routes.

No agency identified in the EQFL Contingency Plan has notified EQFL that they would not be able to respond to any potential emergency. Most of the agencies listed have utilized or contracted EQFL for emergency response operations. This has provided a degree of familiarity between EQFL and responding agency personnel.

## **8.0 HAZARDOUS WASTE CONTINGENCY/EMERGENCY RESPONSE PLAN**

### **8.1 General Information/Introduction**

EQ Florida, Inc. (EQ) operates a hazardous waste storage, treatment, and transfer facility at:

2002 N. Orient Road  
Tampa, Florida 33619  
FLD 981 932 494

The facility consists of a 4.46 acres (M.O.L.) site. The storage and treatment areas are located within a 5,866 square foot building and the 1,786 square foot improved secondary containment area. The building is divided into three (3) Bays. Each of the bays has front and rear exits, spill containment sumps, safety and fire alarms and equipment. In addition, the facility includes an 8,050 square foot covered waste processing building that will house the relocated solid waste solidification pit; existing shredder; new, on-ground hazardous waste treatment/solidification unit/tank, an explosives magazine and, just outside the northeast corner of the building, a new 6,000-gal oil-water separator. The equipment and systems are described in other sections of this Plan. Facility boundary survey and layout plans are provided as Figures 6 and 7, respectively.

The facility is designed to minimize the potential for any release of hazardous wastes or constituents. Vehicles are able to load and unload directly to and from the warehouse. Virtually any potential release would be contained by the warehouse and its sumps, or within the vehicle. The vehicle transfer area, referred to as the covered processing area, is sloped and diked for containment (Figure 14). A 10,000-gallon epoxy lined improved secondary containment area is located in front of Bay\_Waste materials are segregated by hazard class to insure that no incompatible wastes are stored together. All flammable materials are stored in a separate Bay designed solely for that purpose. The building is fully sprinkled. The flammable storage area has an automatic foam fire suppression system. The building has both smoke and flame detectors which are continuously monitored. A lower explosion limit (LEL) system is located in the flammable area. An automatic ventilation system is activated at 10% of the LEL. The automatic foam fire suppression system, fire alarm, and monitoring service emergency call to the Tampa Fire Department are activated at 10% of the LEL.

Fire extinguishers and fire hoses are located throughout the facility. Safety equipment, proximity suits, SCBA and material handling equipment are located at the site. Emergency safety equipment is listed in Appendix H. Hazardous materials potentially on-site may include: acids, alkalis, poisons, flammables, combustibles, oxidizers, reactives and other regulated solids or liquids which do not fall into these classifications. Most will be present in small quantities or in diluted concentrations when compared to the original raw material. No regulated radioactive, pathological, or explosive materials will be located at this facility. A daily inventory of all materials stored at this facility is readily available.

In the event of a power outage, emergency backup lighting is provided in the facility, and the ADT security system will activate its backup battery.

In order to prevent releases to the atmosphere, containers will remain closed at all times except when it is necessary to add or remove waste from the container.

All operations personnel at this site are trained in emergency response, hazardous waste operations, firefighting procedures, emergency first aid, and CPR.

### **8.1.1 Purpose**

The purpose of this plan is to provide EQ employees and responding agencies with an organized procedure for responding to unusual occurrences or emergencies involving hazardous chemicals and/or wastes when such releases could cause potential harm to human health or the environment. This plan is designed to present as simply as possible the necessary steps required in an emergency.

Emergencies covered under this procedure are fires, explosions, floods, hurricanes or an unplanned sudden and non-sudden release into the environment of hazardous waste including liquids, vapors and particulates which could cause harm to human health or the environment.

### **8.1.2 Implementation**

This Contingency Plan will be implemented immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents to air, soil, surface water, or groundwater at the facility, which could threaten human health or the environment.

### **8.1.3 Copies of Contingency Plan**

A copy of the Contingency Plan is maintained at the facility. Key personnel such as Emergency Response Coordinators and Alternates have copies of the Contingency Plan.

Copies of the Contingency Plan have previously been submitted to Tampa Police, Tampa Fire, FDEP, Tampa General Hospital and Brandon General Hospital and will be resubmitted following approval of this renewal permit application.

### **8.1.4 Amendment of Contingency Plan**

The EQ Contingency Plan will be reviewed and immediately amended, if necessary, whenever:

1. The EQ facility permit is revised;
2. The plan fails in an emergency;
3. The facility changes design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;
4. The Emergency Coordinators list changes; or,
5. The emergency equipment list changes.

## **8.2 EQ Emergency Response Coordinator**

At all times, there will be at least one employee either at the facility or on call with the responsibility for coordinating all emergency response operations. The coordinator and alternates are thoroughly familiar with all aspects of the EQ Contingency Plan, all facility operations, the location and characteristic of wastes managed, the location of facility records, and the facility layout. The designated Emergency Response Coordinator and Alternates are summarized below:

	<b>Coordinator</b>	<b>Primary Alternate</b>	<b>Secondary Alternate</b>
<b>Name</b>	Gene Cieply	Stuart Stapleton	Ken Dean
<b>Address</b>	2051 Vista del Sol Circle Unit 207	619 Cedar Grove Dr.	30039 Bermuda Dunes Way
<b>City, State, &amp; Zip</b>	Lutz, FL 33558	Brandon, FL 33511	Wesley Chapel, FL 33543
<b>Work Phone #</b>	813-319-3410	813-319-3423	813-319-3433
<b>Home Phone #</b>	813-777-3998	813-412-2302	813-994-3892
<b>Mobile #</b>	813-777-3998	813-770-9954	813-748-4403

All emergency Coordinators and Alternates have authority to commit corporate funds and resources during an emergency incident involving a fire, explosion, or release of hazardous waste(s) and or constituents to the air, soil, surface water, or ground water at the facility which could threaten human health or the environment.

### 8.3 Coordination Agreements

The City of Tampa Fire Department, Tampa Police Department, FDEP, hospitals (Tampa General and Brandon General Hospitals) and an outside spill response contractor have been notified as to the operation of this facility. All agencies have been invited to inspect the site and become aware and familiar of waste locations, access, on-site emergency equipment, and available fire protection items. A copy of the contingency plan has been sent to these organizations. An agency notification contact list is provided below.

Agency	Emergencies Notified For:	Telephone #
Tampa Fire Department	Any Potential fire or explosion	911 (Emergencies) 813-232-6800
Tampa Police Department	Any evacuation, traffic or security issue	911 (Emergencies) 813-231-6130
Florida Department of Environmental Protection (FDEP)-Tallahassee	All Contingency Plan incidents	850-413-9911(24hr) 850-245-8705
Florida DEP SW District	All Contingency Plan incidents	813-632-7600
EQ Florida, Inc.	All Contingency Plan incidents	813-623-5302 800-624-5302(24hr)
Brandon General Hospital	Any Medical emergency	911 (Emergencies) 813-681-5551
Tampa General Hospital	Any Medical emergency	911 (Emergencies) 813-844-7000

### 8.4 Emergency Equipment & Communications Systems

This chapter describes the emergency equipment and alarm systems within the waste management building and the waste processing building at the EQ facility. The emergency equipment is listed in Appendix H and summarized below:

1. **Fire extinguishers** are located throughout the building and prominently identified by signs and red markings. ABC extinguishers are located in Bays 1 and 3. Halon and metal-x extinguishers are located in the flammable storage area (Bay 2). ABC fire extinguishers are also located throughout the waste processing building and prominently identified by signs and red markings.
2. **Chemical Spill Treatment Kit** containing 6 2-pound containers of Spill-X-S (100% carbon) used for solvent spills is located in Bay 2.
3. **Oil-Dri** and **Vermiculite** are used for solvent and oil spills. Located on the ramp leading to Bay 3 in bags identified with the words Oil-Dri or Vermiculite.
4. **Soda Ash** is used to neutralize acids. Located in Bay 1 in bags identified by the words Soda Ash.
5. **Caustic Spill Treatment Kit** containing 6 2-pound containers of Spill-X-C (75% Citric Acid) used for caustic spills is located in Bay 3.
6. **Spill control/sorbent booms/pads** used to contain any spill. Spill control booms are available in various lengths and are located in Bay 3. Secondary containment is provided in the waste processing building and spill control supplies are available onsite for incidents within this structure as necessary.

7. **Protective Clothing** including PVC suits and polyethylene splash suits are located in Bays 1 and 3. PVC suits are rubberized suits while the splash suits are polyethylene coated paper clothing. Protective Suits are available in Levels A through D. Appropriate PPE, including PVC suits, safety glasses, splash guards, and hardhats, for the activities completed in the waste processing building is available within the facility office building.
8. **Full-face respirators**, located in Bays 1 and 3, and **SCBA**, located in Bay 3, are available for respiratory protection.
9. **Gloves, boots, face shields, goggles and hard hats** may be used as protective equipment and are located in Bays 1 and 3. This protective equipment is also available in the facility office building for waste management activities conducted in the waste processing building.
10. **Acid Spill Treatment Kit** containing 6-2 pond containers of Spill-X-A (78% Magnesium Oxide) used for acid spills is located in Bay 1.
11. **Air powered pumps with hose** for removal of liquids or water. Identified by lack of electrical connection and are capable of fitting inside of a drum bung are located in Bays 1 and 3.
12. **Manual pump** for removal of any flammable liquids.
13. **Shovels, brooms, buckets, mops, tools, bung wrenches**, etc. are located in Bays 1, 2 and 3, as well as at the waste processing building.
14. **Telephones** located on the north and south walls of the main storage area and in the office area.
15. Empty **DOT-approved containers** for recontainerizing damaged or leaking containers are located in Bays 1 and 3.
16. Empty **85 and 110 gallon overpack drums** for recontainerizing damaged or leaking containers are located in on the ramp leading to Bay 3.
17. An **emergency eye wash/shower** is located in both Bays 1 and 3. An emergency eye wash/shower is also located in the northeast corner of the waste processing building.
18. **Flame and smoke detectors** are located in the flammable storage area. **Lower explosive limit (LED)** monitors are located in the flammable storage area and smoke detectors are available in the general storage area. As discussed above in Section 7.2.3, the new industrial shredder located in the waste processing building has a self-contained CO<sub>2</sub> fire suppression system. The fire suppression system utilizes automatic detection, manual activation, notification signals and relay contacts for equipment shutdown controls.

The emergency communication system equipment consists of:

1. **Air horns** are located throughout the hazardous waste storage area. In case of a spill, explosion, or other emergency, these can be used to alert all employees that evacuation is necessary.
2. An **intercom system** for verbal notification is located throughout the waste management building. Non-evacuation commands are to be given over the intercom.
3. Twenty-four hour **monitored alarms** are located throughout the facility.
4. **Mobile phones** are available at the facility.
5. **Telephones** are available at the facility.

## 8.5 Evacuation Plan

Emergency situation and evacuation notification procedures are discussed in this section.

1. Notification to evacuate the EQ facility in an emergency would be handled by one of several methods. These are:
  - a. Emergency air horns are located throughout the facility and are sounded when evacuation is necessitated.
  - b. An intercom system is also located throughout the facility and can also be used for notifying employees to evacuate the building. Verbal commands will be given should the intercom system be inoperative.
  - c. Pull alarms are located throughout the facility.
  - d. Phones are available throughout the facility.
  - e. Mobile phones are also available at the facility.
2. In the event of an emergency situation (spill, fire, explosion) the first employee to notice the emergency is to immediately sound the emergency air horns and/or alarms located throughout the building.
3. All personnel are to evacuate the facility. The evacuation routes are shown on Figure 11. The primary evacuation route should be used unless blocked or impassable. In that situation, the secondary evacuation route should be employed.

## 8.6 Emergency Procedures & Facility Personnel Actions

The purpose of this section is to establish the organizational structure which will be in force during a response to a chemical emergency and what procedures will be utilized to notify corporate officials, outside response teams, local government authorities, and State and Federal Regulatory Agencies.

### 8.6.1 Internal Communications

In the event of an emergency situation involving hazardous chemicals or wastes, the emergency response coordinator or designate alternate shall be responsible for coordinating the necessary response and/or cleanup.

EQ Florida, Inc.  
2002 N. Orient Road  
Tampa, FL 33619  
813-623-5302 or 800-624-5302

EQ management is to be notified immediately upon discovery of an emergency situation involving hazardous chemicals or wastes. Management will notify, via telephone, radio, mobile telephone or pager, the required EQ personnel for response to the scene. EQ emergency response vehicles are equipped with necessary cleanup/safety materials and first aid supplies. Trailers, sheds, and lockers on site also contain safety equipment and supplies.

### 8.6.2 External Communications

In any emergency situation, contact the following:

1. Tampa Fire Department (**911**). Indicate the extent and type of emergency which exists (fire, spill, etc.).
2. In the event of emergencies involving chemical spills, leaks, or explosions (which may require additional assistance), at the direction of the EQ Emergency Coordinator/Alternate a spill response contractor can be notified.

### **8.6.3 Government Agency Notification**

In the event of an emergency where environmental contamination is eminent, in addition to notifying the Tampa Fire Department (**911 emergencies**), the following governmental agencies will be notified by the EQ Emergency Coordinator/Alternate.

- |  |  |
|--|--|
| 1. FDEP Main Office<br>850-245-8705 (normal working hours)<br>850-413-9911 (24 hour)       | 2. National Response Center (NRC)<br>800-424-8802                |
| 3. FDEP Southwest District Office<br>Tampa, Florida<br>813-632-7600 (normal working hours) | 4. Hillsborough County<br>Solid Waste Department<br>813-272-5680 |

In addition to the NRC, the government official designated as the FDEP On-Scene Coordinator (OSC) must be contacted. This can be accomplished by calling 850-488-1320.

The following information will be communicated to the governmental agencies contacted:

1. Name and telephone number of the reporter.
2. Name and address of the facility.
3. Time of the incident.
4. Type of incident (whether fire, explosion, or release).
5. Name of the material released.
6. Quantity of the material released.
7. Additional information such as liquid, vapor, or solid.
8. Type of incident (release from drum, tank, truck, or warehouse).
9. Extent of injury or injuries, if any.
10. Possible hazards to human health or the environment, outside the facility.
11. Weather conditions (wind direction, rain, etc.).
12. Potential for release or spill of material into surface waters.

Within 15 days of any incident the facility manager will notify, in writing, the Regional Administrator that the Contingency Plan has been implemented. All of the aforementioned items will be addressed as well as the quantity and disposition of all recovered materials resulting from the incident.

### **8.6.4 Identification of Hazardous Materials Locations**

The warehouse doors (west / front side) are placarded with the hazard class of the material stored in that particular Bay. The Bay contents are summarized below.

#### **Bay 1 – North Bay:**

1. Acids
2. Toxic Organics and Metals
3. Non-flammable solvents and halogens
4. Asbestos

#### **Bay 2 – Center Bay:**

1. Flammable liquids and solids
2. Reactive cyanides, sulfides, and metals



**Bay 3 – South Bay:**

1. Poisons
2. Oxidizers
3. Caustics
4. Non-Regulated Materials

All vehicles containing hazardous waste are placarded and manifested per DOT and RCRA requirements. The placards will identify the hazard class of each trailer, roll-off, tanker, or vehicle.

**Transfer Facility Vehicles – Located in the vehicle loading and unloading areas:**

1. Trailers
2. Box Trucks
3. Vans
4. Tankers
5. Roll-Offs

Processing equipment at the facility operates on a batch mode. The equipment will be shut off and disconnected when emergency situations occur. Waste containers in process will be closed when the equipment is shut down for an emergency.

**Processing Equipment**

1. Aerosol Recycling Unit
2. Paint Can Crusher
3. Drum Crusher
4. Fluorescent Bulb Crusher
5. Transfer Pumps (portable air, electric, and manual)

The satellite accumulation (5 gallon or less) of flammable, corrosive, chemical rags, and battery wastes also occurs in the Office/Lab.

***8.6.5 Waste Types Managed***

Approximately 1/3 of the waste managed at the facility is non-hazardous or non-regulated. These containers and vehicles can be identified by a blue "Non-Regulated Waste" DOT label. The material presents **no hazard** (such as poison, flammable, corrosive, reactive, oxidizer) if the container does not have a DOT label. However, any release must be contained to prevent a release which may potentially contaminate waters or soils.

Several trailers may be at the facility which do not contain hazardous or non-hazardous wastes. These trailers may be empty, contain new empty drums, contain used empty drums for recycling, or contain safety equipment and supplies. No potential hazard is associated with these vehicles.

The emergency response coordinator or alternate will coordinate the identification of hazardous materials involved in an emergency incident requiring implementation of the contingency plan. A complete inventory of all waste materials is available at the facility. The identification can be narrowed by the source of the incident. For example, if an incident occurred in Bay 2 of the warehouse, the materials would be limited to flammables and reactives. All containers are identified by a unique EQ identification number, DOT hazard class labels, and hazardous waste shipping labels. The contents of any container can be fully characterized if the EQ identification

number is known. EQ has an on-site laboratory and HAZCAT identification kit available should it be necessary to characterize a sample of a potential hazardous material. The coordinator or alternate is therefore able to identify the source, characteristics, amount, and extent of any released materials, by observations, review of facility data, records and shipping documents, or by chemical analysis.

#### **8.6.6 Hazardous Materials Emergency Response References**

The following is a list of references available at EQ:

1. HAZARDOUS CHEMICAL DATA, Department of Transportation/U.S. Coast Guard.
2. HAZARDOUS MATERIALS EMERGENCY RESPONSE GUIDEBOOK, Department of Transportation/DOT P 5800.2.
3. MERCK INDEX.
4. HANDBOOK OF HAZARDOUS MATERIALS, Sax.
5. NFPA 101 LIFE SAFETY CODE.
6. CANCER CAUSING CHEMICALS, Sax.
7. TOXIC ORGANIC CHEMICALS, E. Ellsworth Hackman III.
8. NIOSH REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES.
9. EMERGENCY FIRST AID, American Red Cross.
10. CONDENSED CHEMICAL DICTIONARY, Hawley.
11. HAZARDOUS MATERIALS, SUBSTANCES, & WASTES COMPLIANCE GUIDE.

### **8.7 Hazard Assessment**

The emergency response coordinator or alternate will assess the potential hazards to human health or the environmental that may result from a release, fire, or explosion of hazardous waste or hazardous waste constituents. The assessment will consider both direct and indirect effects of the release, fire, or explosion.

The contingency plan will be implemented whenever the emergency coordinator/alternate determines an imminent or actual hazard exists which could threaten human health or the environment. This section provides the criteria used by the emergency coordinator/alternate in making the decision to implement the contingency plan.

#### **8.7.1 Fire or Explosion**

For incidents involving a fire or explosion, the following situations will result in contingency plan implementation:

1. A fire which could cause the release of toxic fumes.
2. A fire which could spread and possibly ignite other materials or which could cause heat-induced explosions.
3. A fire which could spread to off-site areas.
4. The use of water or chemical fire suppressants which could result in contaminated runoff.
5. The imminent danger of an explosion which could result in a safety hazard due to flying fragments or shock waves.
6. The imminent danger of an explosion which could result in the release of toxic materials.
7. The occurrence of any explosion.

### **8.7.2 Fire Fighting Procedures**

The EQ facility is equipped with both smoke and flame detectors. Both are monitored on a twenty-four hour per day basis. If either are activated, the sprinkler and/or foam systems will automatically engage. The Tampa Fire Department is notified automatically by the continuous alarm/monitory system.

Also included in the monitoring system is a lower explosive limit (LEL) detector within the flammable storage area. There are two detectors. One is mounted in the spill sump to detect vapors which are denser than air. The second is mounted on the ceiling to detect vapors less dense than air. If vapors in the flammable area exceed 10% of the lower explosive limit, the ventilation system will automatically engage and the sprinkler and foam systems will be activated automatically. The Tampa Fire Department is notified automatically at 10% LEL.

Located throughout the facility are fire extinguishers for Class A, B or C fires. Located in the flammable area are Halon extinguishers (or equivalent). Fire hoses are located throughout the building.

In the event of a fire, the following activities will be performed:

1. Notify other employees. If evacuation is necessary, sound the air horns and alarms.
2. Notify the Tampa Fire Department (911).
3. Move all transport vehicles away from the loading or unloading areas.
4. Control the fire with extinguishers if it can be done safely.
5. The facility is designed for minimal manual fire suppression.
6. Notify necessary agencies as indicated.

### **8.7.3 Unplanned Material Release**

The contingency plan will be implemented for any release to the environment which results in one or more of the following conditions:

1. A spill which could result in the release of flammable liquids or vapors, thereby causing a fire or explosion hazard.
2. A spill which could cause the release of toxic liquids or fumes.
3. A spill which could be contained on the site, but which could potentially result in groundwater contamination.
4. A spill which cannot be contained on the site resulting in off-site soil, groundwater, or surface water contamination.
5. Any flooding of the site which could result in surface water contamination.

## **8.8 Personal Protective Equipment**

In order to provide adequate protection from hazardous exposures, personal protective equipment must be used. The following indicates various hazardous situations and the personnel protective equipment which is required.

### **8.8.1 Level A Protection**

#### **Hazard Involved:**

- Situations immediately dangerous to life and health.

- Oxygen deficient atmospheres.
- Unknown hazardous materials.
- Chemicals which can be absorbed through the skin.
- Materials which cannot be removed with an air purifying respirator.

Required Personal Protective Equipment:

- SCBA or airline respirator with SCBA escape air system.
- Full body encapsulation suit.

**8.8.2 Level B Protection**

Hazard Involved:

- Oxygen deficient atmosphere where chemical composition of the material is known and falls into the classification of an irritant.

Required Personal Protective Equipment:

- SCBA or airline respirator with SCBA for emergency use.
- PVC splash suit with hood.
- Neoprene/nitrile/butyl rubber arm length gloves.
- Steel-toed rubber boots.

**8.8.3 Level C Protection**

Hazard Involved:

- Situations not immediately dangerous to life and health.
- Sufficient oxygen present to support life.
- Irritant or corrosive chemicals.
- Contaminated soils.
- Liquid/solvents not immediately dangerous to life and health.

Required Personal Protective Equipment:

- Full face mask with air purifying (cartridge) respirator; or, half face (cartridge) respirator with goggles and face shield.
- PVC splash suit.
- Protective gloves (type dependent on chemical being handled).
- Steel-toed rubber boots.

**8.8.4 Level D Protection**

Hazard Involved

- Situations which contain no immediate hazard, but where there is the potential for accidental release of a hazardous substance.

Required Personal Protective Equipment

- Half face air purifying (cartridge) respirator.
- Safety goggles.
- Disposable coveralls.
- Surgical rubber gloves or suitable hand protection. Rubber boots.
- Steel-toed shoes.

## 8.9 Containment and Control Measures

The purpose of this section is to alert all emergency response groups, regulatory agencies and affected parties, as to the location of the hazardous waste storage areas within the facility, the design of containment control, and the procedures to be followed in response to emergencies. **It must be understood that potentially toxic gases and vapors may be present in any incident involving hazardous materials.**

### 8.9.1 Employee Response

1. Notification to evacuate the EQ facility in an emergency would be handled by one of several methods. These are:
  - a. Emergency air horns are located throughout the facility and are sounded when evacuation is necessitated.
  - b. An intercom system is also located throughout the facility and can also be used for notifying employees to evacuate the building. Verbal commands will be given should the intercom system be inoperative.
  - c. Pull alarms are located throughout the facility.
  - d. Phones are available throughout the facility.
  - e. Two-way radios are available at the facility.
  - f. Most hazardous waste operations employees have pagers.
  - g. Mobile phones are available at the facility.
2. In the event of an emergency situation (spill, fire, explosion) the first employee to notice the emergency is to immediately sound the emergency air horns and/or alarms located throughout the building.
3. All employees are to don the necessary protective equipment including self-contained breathing apparatus (SCBA). This equipment is located in the safety equipment cabinets in Bay 3 of the facility, in the storage room in the office, and on the safety equipment and supply trailer. Additional safety equipment is provided in these locations. A complete outline of required safety equipment for various situations is included in Appendix H.
4. Firefighting or spill containment should begin immediately under the direction of the facility manager/supervisor until the EQ Emergency Coordinator/Alternate arrives on-site. Procedures are identified later in this chapter. Refer to the CHRIS Manual for additional information.
5. The facility supervisor is to contact the EQ Emergency Coordinator/Alternate immediately (telephone numbers are listed).
6. In the event of a fire or explosion, the sprinkler and foam systems will be automatically activated. Both the alarm and sprinkler system are monitored on a 24-hour basis. When the alarm or sprinklers are activated, the Tampa Fire Department will be notified immediately and automatically.
7. Electric service to the building should be shut off in the event of a fire or explosion. The main electric shut off is located on the outside south wall of the container storage building. No additional process systems, valves, gauges or equipment are required to be monitored or shut down since no potentially dangerous processes are employed at the facility.

8. All waste handling or processing in the affected area will be stopped immediately.
9. All waste feed lines and waste processing equipment will be shut down when this can be done safely. There are no continuous treatment processes. All treatment is on a batch basis. Power outages will simply make these processes inoperable.
10. In situations immediately dangerous to life and health (IDLH), evacuation of the facility may be necessary. This decision will be made by the Emergency Coordinator/Alternate or facility supervisor. If the evacuation occurs, the primary evacuation route should be used unless blocked or impassable. In that situation, the secondary evacuation route should be employed. Both routes are prominently outlined at the facility and are included with this plan.

#### **8.9.2 Entrance Procedures**

The following procedures are to be followed by all response personnel before entering the hazardous waste storage areas in emergency situations:

1. Consult the attached facility drawing which indicates both types and locations of materials which would be stored in the area to be entered. A general description of these areas is included in the next section.
2. Assume toxic/hazardous materials are present in the area. A complete inventory is kept in the office area.
3. Select proper protective gear, including SCBA.
4. Consult DOT P 5800.2 HAZARDOUS MATERIALS EMERGENCY RESPONSE GUIDE BOOK which is in the office area.

Remember, the primary responsibility during initial emergency response efforts is to save lives and protect the environment.

#### **8.9.3 Spill or Release Response Procedures**

In the event of a spill, certain procedures must be instituted immediately. The facility is designed so that the rupture of containers would result in no release of contaminants outside of the facility.

The storage area for acidic and alkaline wastes are segregated to insure that no co-mingling of these materials will result.

All flammable/combustible materials are stored in a separate Bay.

All incompatible materials have separate containments.

Immediately contact all required individuals/agencies indicated on Chapter 1 of this document. These telephone numbers are posted at all facility telephones.

Should a spill or release occur, the following steps are to be taken:

1. Sound an alarm to notify an emergency.
2. Don protective equipment located in safety cabinets.
3. Contact EQ Emergency Coordinator/Alternate.
4. The source of the spill/release will be determined and corrected.

5. Waste handling or processing in the affected area will be stopped immediately.
6. All waste feed lines and waste processing equipment will be shut down as soon as this can be done safely.
7. All non-response personnel will leave the area immediately.
8. All injured persons will be removed from the area and treated by qualified medical personnel.
9. Contain the spill with sorbent boom, sorbent pillows, or bulk sorbent material. All sorbents and booms are stored in the spill control storage area.
10. In the event of an acid spill, use calcium carbonate or lime to neutralize the spill.
11. Use citric acid to neutralize alkaline spills.
12. Once the spill has been contained, begin cleanup.
13. Contact the response contractors listed in and request mobilization of personnel or equipment, if necessary.
14. The emergency coordinator/alternate will contact all required agencies.
15. Note the discharge in the operating record.
16. A complete list of response action for specific chemical spills is included.
17. If immediate evacuation of the building is required, two 5-minute egress bottles are attached to the supplied air system. Additional respiratory and personal protective clothing are located in the safety equipment cabinet located in Bay 3 of the facility.
18. In the event that a release outside the facility leads to surface water, groundwater or soil contamination, EQ will contact the contractors listed or other suitable contractor for all required remediation efforts.

#### ***8.9.4 Care of the Injured***

The objective is to provide first aid or immediate care for a person who has been injured, or has been suddenly taken ill, in the event of an emergency. Implement emergency first aid as required.

All facility employees of EQ shall have been trained in standard first aid and cardiopulmonary resuscitation (CPR) programs offered and presented by the American Red Cross. First aid kits will be located in the office area.

In the event of an emergency, the EQ facility manager shall be in charge until the arrival of the Emergency Coordinator/Alternate.

All injured shall be taken to Brandon Hospital or Tampa General Hospital by the local ambulance service. These hospitals will have been notified as to the type of injuries which may result at our facility. In an emergency situation, they should be informed of the extent of the emergency and what injuries to expect. Routes to the hospitals are included on Figure 12.

The nearest life squad is the City of Tampa. They can be contacted by dialing 911.

## **8.10 Post-Emergency Operations**

### ***8.10.1 Decontamination Procedure***

After an emergency incident, decontamination of equipment is required. All expendable items, such as sorbent, booms and so on are to be placed into 55 gallon drums and disposed as required by state and federal law. Non-expendable items such as tools, chemical suites and material handling equipment are to be cleaned in an appropriate solvent and placed back in their normal location. The suitable solvent will be determined by an EQ senior chemist. Disposal of the spent solvent will comply with applicable regulations.

All tanks and containerized waste will be thoroughly inspected for leaks, pressure build-up and structural integrity by the site supervisor. Any deficiencies will be immediately corrected.

Air monitoring will be performed as required to insure the facility is safe to resume normal operations.

A complete list of all available emergency equipment is included in Appendix H. Specific decontamination solutions are included in this Contingency Plan.

Operations at the facility will not commence until such time as all emergency equipment has been cleaned, replaced and restored to its original location. All emergency equipment will be tested to determine its effectiveness prior to resuming operation after an emergency incident.

### ***8.10.2 Re-Entry Monitoring***

Before employees are allowed to return to the area after an emergency, the on-site Emergency Coordinator/Alternate will confirm the area is safe for re-entry. This will be accomplished by physical inspection of the area, the use of detection equipment, followed by decontamination as necessary. Chemical detection equipment available to the Emergency Coordinator/Alternate is as follows (note, these items are located in the office area):

1. Chemical detector tubes (Draeger, MSA)
2. Explosion meter
3. Portable Organic Vapor Analyzer (OVA)
4. Portable pH/specific ion meter
5. Hazcat Kit
6. A fully equipped environmental laboratory is located nearby. Any wet chemical or instrumental analyses can be performed as required.

### ***8.10.3 Decontamination Procedures***

#### **Inorganic/Organic Acids**

Prepare mixture of 10% sodium carbonate or 10% hydrated lime or 10% trisodium phosphate in water; clean items/area with mop or cloth. Wear protective equipment.

#### **Alkalai (Caustics)**

Prepare mixture of 5% acetic acid (vinegar) or 5% citric acid in water; clean items/area with mop or cloth. Wear protective equipment.



### **Oils and PCB**

Methylene chloride or isooctane applied directly to the contaminated area. Remove solvent and contaminant with sorbent or absorbent cloths. Wear protective equipment.

### **Alkalai and Alkaline Earth**

Metals (sodium, potassium, phosphorus)

Cover immediately with dry soda ash (sodium-carbonate) and remove with broom and shovel. Keep dry; do not contact with water. Wear protective equipment.

### **Solvents**

Cover with absorbent material as quickly as possible. Remove with broom and shovel. Wear protective equipment.

### **Mercury**

Recover as much bulk Mercury as possible. Cover the spill area using Mercsorb, HgX or equivalent. Spray with water to activate the material. Wear protective equipment. Keep area well ventilated.

#### ***8.10.4 Emergency Waste Movement Coordination***

In the event of an emergency situation where the movement of waste materials is required, the following procedures are to be employed:

1. Contact the emergency response coordinator or alternate.
2. Contact EQ and/or subcontract drivers.
3. Perform waste characterization verification as described in the EQ Waste Analysis Plan.
4. Contact FDEP Emergency Response Group, and the District Office in Tampa to inform them of the emergency waste movement.
5. Load waste into drums, tankers, roll-off containers, or other suitable containers.
6. Load the containers to the vehicles. Follow all applicable DOT regulations pertaining to placarding, labeling, and loading.
7. Complete all shipping documents as required.
8. Dispatch waste shipments to secondary approved permitted waste treatment or disposal facilities.

#### ***8.10.5 Post-Emergency Assurances***

No waste material that may be incompatible with any released material will be treated or stored in the portion of the facility where any release occurred until cleanup procedures are complete. All emergency equipment listed in this Contingency Plan will be cleaned and fit for its intended use before hazardous waste management operations are resumed. Inoperable emergency equipment will be serviced, repaired, or replaced.

#### ***8.10.6 Post-Emergency Documentation***

##### **Operating Record**

EQ will note in the facility operating record the time, date, and details of any incident that requires implementing the EQ Contingency Plan.

**Reporting**

EQ will submit a written incident report to the Regional Administrator within 15 days after any incident requiring implementation of the EQ Contingency Plan. The report will include the following information:

1. Name, address, and telephone number of EQ's contact (operator);
2. Name, address, and telephone number of EQ facility;
3. Date, time, and type of incident;
4. Name and quantity of materials involved;
5. The extent of injuries, if any;
6. An assessment of hazards to human health or the environment, if applicable; and the estimated quantity and disposition of any recovered materials which may result from the incident.

The report will be mailed to the following parties, as necessary and/or appropriate:

Assistant Fire Chief Scott Ehlers Tampa Fire Department 808 East Zack Street Tampa, FL 33602	National Response Center (NRC) c/o U.S. Coast Guard (CG-5335) - Stop 7581 2100 2nd Street, SW Washington, DC 20593-0001
Jeff Greenwell Florida DEP Southwest District Division of Waste Management 13051 North Telecom Parkway Temple Terrace, FL 33637	Merlin D. Russell, Jr. Florida DEP Division of Waste Management 2600 Blair Stone Road M.S. 4560 Tallahassee, FL 32399-2400

## **9.0 MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING**

### **9.1 Required Notices**

Generators will be notified in writing that EQFL has the appropriate permit for, and will accept, the waste the generator is shipping. Copies of this written notice are kept as part of the operating record. Copies of the EQFL permit are available for review. EQFL does not receive hazardous waste directly from a foreign source. The Regional Administrator will be notified in writing at least 2 (two) weeks in advance of the date the waste is expected to arrive at the facility if EQFL arranges to receive hazardous waste from a foreign source.

The EQFL owner or operator will notify any new owner or operator in writing of the required notices of 40 CFR Parts 264.12 and 270 before transferring ownership or operation of the EQFL facility during its operating life. There are currently no plans to transfer ownership or operation of the EQFL facility.

### **9.2 Manifest System Use**

All hazardous wastes entering and leaving the EQFL facility will be accompanied by a Uniform Hazardous Waste Manifest. All manifested hazardous waste shipments will be accompanied by Land Disposal Restrictions certifications.

For inbound (receiving) waste shipments, the EQFL facility owner, operator, or agent will:

1. Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest is received;
2. Significant discrepancies in the manifest [as defined in 40 CFR 264.72(a)] will be noted on each copy of the manifest; *[Note: The EQFL facility waste analysis may not be complete prior to signing the manifest and giving it to the transporter. Unreconciled discrepancies discovered during later analysis will be reported as per 40 CFR 264.72 (b).]*
3. The transporter will be given one copy of the signed manifest;
4. A copy of the signed manifest will be sent to the generator within 30 days after the delivery; and,
5. EQFL will retain a copy of each manifest at the facility for at least three years from the date of delivery.

For outbound (exiting) waste shipments, the EQFL facility owner, operator, or agent will:

1. Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest is properly shipped;
2. Have the designated transporter sign acknowledging receipt of the waste shipment;
3. Retain a copy of the manifest (generator copy) and submit the other copies (complete with Land Disposal Restriction notifications) to the designated transporter;
4. Significant discrepancies in the manifest [as defined in 40 CFR 264.72 (a)] will be noted on the manifest;
5. The returned copy of the manifest (signed by designated Facility) will be filed with the original manifest copy retained; and,
6. EQFL will retain a copy of each manifest at the facility for at least three years from the date of delivery.

The EQFL facility does not have rail or water access in order to receive hazardous waste directly from a rail or water transporter. Shipments of hazardous waste initiated from the EQFL facility will comply with the requirements of 40 CFR 262.

### **9.3 Manifest Discrepancies**

Upon discovering a significant manifest discrepancy, the EQFL owner, operator, or agent will attempt to reconcile the discrepancy with the waste generator, transporter or designated facility. Manifest discrepancies are differences in quantity or type of hazardous waste designated on the manifest, and the quantity or type of hazardous waste a facility actually receives. Significant discrepancies in quantity are:

1. Variations greater than 10 percent in weight for bulk waste, and
2. Any variation in piece count (quantity of containers in a truckload for containerized wastes).

Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or hazardous waste constituents not reported on the manifest. Discrepancies not resolved within 15 days after receiving the waste, will require notification to the FDEP. The EQFL owner, operator, or agent will submit to the FDEP a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest at issue.

### **9.4 Operating Record**

A written operating record will be kept at the EQFL facility. The following information will be recorded and maintained in the operating record until closure of the facility:

1. A description and the quantity of each hazardous waste received, and the method(s) and date(s) of its storage, shipment or treatment at the facility.
2. A description of the common name and EPA hazardous waste number which applies to the waste.
3. The physical form of the waste.
4. The process generating the waste (for hazardous waste not listed in 40 CFR, 261, Subpart D).
5. The manifest-reported weight or volume and density; and
6. The methods (by handling codes) and dates of storage or treatment.
7. The location of each hazardous waste within the facility and quantity at each location.
8. Records and results of waste analyses performed.
9. Reports and details of all incidents that require implementing the contingency plan.
10. Records and results of inspections (these data need be kept only three years).
11. Monitoring, testing or analytical data, and corrective action where required by 40 CFR 264, Subpart F (Solid Waste Management Units), Miscellaneous Units, and Air Emission Standards for Equipment Leaks.
12. Notices to generators.
13. All closure cost estimates.
14. A certification no less often than annually, that a program is in place to reduce the volume and toxicity of hazardous waste that is generated to the degree determined to be economically practicable; and the method of treatment or storage is that practicable method currently available which minimizes the present and future threat to human health and the environment.
15. A copy of the Land Disposal Restriction notice, and the certification and demonstration, if applicable, required by the generator or owner or operator.

Most of the operating record information will be entered and stored on the EQFL computer management information system.

### **9.5 Records Retention**

All records, including plans, will be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of the FDEP who is duly designated by the Administrator.

The retention period for all records required under this part will be extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Administrator or FDEP.

A copy of records of waste disposal locations and quantities will be submitted to the FDEP and local land authority upon closure of the facility.

### **9.6 Biennial Report**

EQFL will prepare and submit a biennial report to the FDEP by March 1 of each even numbered year. The report will cover facility activities during the previous calendar year and will include:

1. The EPA identification number, name, and address of the facility.
2. The calendar year covered by the report.
3. The EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the year; for imported shipments, the report will give the name and address of the foreign generator;
4. A description and the quantity of each hazardous waste the facility received, treated, and shipped during the year. This information will be listed by EPA identification number of each generator;
5. The method of treatment, storage, or shipment for each hazardous waste;
6. The most recent closure cost estimate;
7. A description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated;
8. A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years; and
9. The certification signed by the owner or operator of the facility or his authorized representative.

### **9.7 Unmanifested Waste Report**

If the facility accepts for treatment or storage, any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper, and if the waste is not excluded from the manifest required by 40 CFR, 261.5, EQFL will prepare and submit a report to the FDEP within fifteen days after receiving the waste. The report will be designated "Unmanifested Waste Report" and include the following information:

1. The EPA identification number, name, and address of the facility;
2. The date the facility received the waste;
3. The EPA identification number, name, and address of the generator and the transporter, if available;

4. A description and the quantity of each unmanifested hazardous waste and facility received;
5. The method of treatment or storage for each hazardous waste
6. The certification signed by the EQFL owner or operator or authorized representative.
7. A brief explanation of why the waste was unmanifested, if known; *[Note: Conditionally exempt small quantities of hazardous waste are excluded from regulation under this part and do not require a manifest.]*

## **9.8 Waste Minimization**

EQFL certifies that a program is in place to reduce the volume and toxicity of waste generated to the degree determined to be economically practicable and that selected practicable methods of storage or treatment minimize the present and future threat to human health and the environment.

## **9.9 Additional Reports**

EQFL will also report to the FDEP:

1. Releases, fires, and explosions requiring implementation of the Contingency Plan;
2. Facility closure; and
3. As otherwise required

## **10.0 SOLID WASTE MANAGEMENT UNITS**

### **10.1 Facility Setting**

The EQFL facility is located in a heavily industrialized area (Orient Park) in Tampa, Florida. The previous use of the EQFL property was residential (one residence) and vacant land. There is significant documented groundwater contamination in the Orient Park area. Two NPL (Superfund) sites adjacent to the EQFL facility are being investigated and remediated under the direction of the EPA. There are also several other sites or former sites potentially contributing to the documented Orient Park groundwater contamination.

The requirements of 40 CFR 264 Subpart F (releases from Solid Waste Management Units (SWMU)) do not apply to the EQFL facility. There have been no releases from any SWMU at the EQFL facility. EQFL will comply with the EPA and FDEP requirements of the Final RFA Report.

### **10.2 SWMU Discussion**

A SWMU RCRA Facility Assessment (RFA) of the EQ Florida, Inc. facility was initiated on February 15, 1993. The RFA was based on a preliminary review (PR) of US EPA Region IV and Florida Department of Environmental Protection (FDEP) files and a visual site inspection (VSI) of the EQFL facility. The PR was performed during the week of February 15-19, 1993. The VSI was conducted on February 25, 1993. A RFA report was issued by FDEP and EPA Region IV.

The purpose of the RFA was to identify SWMUs and other potential sources of environmental contamination not necessarily involving hazardous wastes. The SWMUs were evaluated for their potential of release of hazardous wastes or hazardous waste constituents to the air, surface water, soil, and groundwater.

An RFA of the EQFL facility was also conducted by the EPA on August 18, 1988. The EQFL facility was a new facility planned for construction at the time of the 1988 RFA. It was determined that there was no evidence of solid waste management activities at the site. It was also determined that there was no evidence of a prior or continuing release of hazardous waste or hazardous waste constituents at the site. Therefore, at the time of 1988 RFA, Section 3004 (u) of the Hazardous and Solid Waste Amendments (HSWA) of 1984 did not apply. The summary letter from the EPA concerning the 1988 RFA and a RFA Addendum prepared by the FDEP, dated May 13, 2011, are included in Appendix G.

The 1993 draft RFA (PR and VSI) resulted in the identification of six (6) SWMUs. The units identified are the container storage building and five sumps (SWMU #1), the entire loading/unloading dock area (SWMU #2), the stormwater retention pond (SWMU #3), the filter press (SWMU #4 no longer in use), the municipal waste dumpster (SWMU #5) and the sand and carbon stormwater filtration system (SWMU #6). All SWMUs identified at the EQFL facility were determined to have no evidence of release prior to or at the time of the draft 1993 RFA. The EQFL SWMUs previously and currently have not had any release of hazardous waste or hazardous waste constituents. The EQFL SWMUs are identified on Figure 17.

The SWMUs at the facility are listed in Appendix G and the following information describes the waste generation and activity at each identified SWMU:

#### **SWMU #1 (Concrete Container Storage Area (Enclosed Building) and Five (5) Sumps)**

The concrete container storage area enclosed building is used to store and treat containers (primarily 55- gallon drums) of permitted hazardous and non-hazardous wastes. The container storage area is composed of three (3) separate containment bays having a total of five (5)

collection sumps. Each collection sump has a capacity of 1,000 gallons. The collection sumps are seamless and made of pre-cast concrete coated with sealant. The floor is sloped at a grade of 1/8 inch per foot on all four sides to the collection sump. A similar floor design and collection sump exists in the flammable/combustible storage area. The maximum storage area and sump volumes capacities are 50,000 gallons and 5,000 gallons respectfully. The interior storage areas and sumps are visually inspected daily.

**SWMU #2 (Loading/Unloading Dock)**

The loading/unloading dock is a concrete surface to load and unload permitted hazardous and non-hazardous wastes. The loading area is covered by a roof and sloped towards the containment trench. The area also contains an epoxy coated improved containment area in front of Bay 2.

**SWMU #3 (Retention Pond)**

The retention pond has dimensions of 126 ft. by 35 ft. with an average volume of 0.1355 acre-feet and a slope of 3:1. The pond is used to retain stormwater runoff.

**SWMU #4 (Filter Press no longer in use)**

The physical treatment of semi-solid wastes requiring filtration is performed on a batch basis. The solidification process utilizes a filter press having approximate dimensions of 2.6 ft. by 10.25 ft. by 3.6 ft. The filter press is manufactured of structural steel and pneumatically operated. There is no utilization of electrical components. The steel filter press was operated only once (test batch) utilizing non-hazardous waste.

**SWMU #5 (Municipal Waste Dumpster)**

The steel municipal waste dumpster is located on the concrete loading/unloading area. The dumpster has an approximate capacity of 2.5 cubic yards and is used for municipal solid wastes until disposal pick-up.

**SWMU #6 (Stormwater Pre-Treatment Unit)**

Stormwater from the truck loading/unloading area drains to a concrete trench drain which flows from north to south along the loading area. The trench drain flows to a 640-gallon concrete holding sump, which is equipped with a sump pump with a capacity of approximately 30 to 40 gallons per minute. The 5.0 amp, 380 watt, 1.6 horsepower sump pump pumps the stormwater from the holding tank through sand and carbon filters and then to the stormwater retention pond. The pump is set to keep the sump level to below 300 gallons. The carbon filter utilizes activated carbon to remove contaminants and has specifications which include 24 inch by 36 inch dimensions (diameter/height), 200 pounds of carbon, and a flow rate of twenty gallons per minute (gpm) at 2 ½ minute contact time. The sand filter is constructed of triple-wrapped fiberglass windings on a seamless water-tight polymeric inner shell with high-temperature, high-strength plastic internal components. The sand filter has specifications which include 24.5 inch by 37.5 inch dimensions, a flow rate of 20 gpm per square foot, and a 3.1 square foot filter area.

**SWMU #7 (Solid Waste Processing Facility)**

The waste processing building is an 8,050 square foot building located on the 8<sup>th</sup> Avenue property. The building is used for processing, staging, storage and management of non-RCRA regulated solid waste. Processing includes segregation, decanting, filtration, transfer, shredding, or solidification. The storage capacity of the waste processing building is 185,650 gallons. The entire waste processing building is surrounded by a concrete curb. The slab in the north side of the building (the original building area) is sloped towards the center of the north side, which directs liquids towards a 50-gallon subsurface sump in that location. The concrete slab in the southern portion of the building (the building expansion area constructed in 2010) is sloped



towards a subsurface sump located near the south side of the building. The building curbing and subsurface sumps provide 28,835 gallons of containment. This is sufficient to hold 110 percent of the largest planned container (the 14,064 gallon constructed steel welded box hazardous waste treatment unit) or 10 percent (18,556 gallons) of the total volume of waste (185,560 gallons) that can potentially be stored in the waste processing building, whichever is greater.

**SWMU #8 (Universal Waste Battery Storage Area)**

Universal Waste Battery Storage Area is located in the loading/unload dock 3C. This area is covered by a roof and sloped towards the containment trench.

**SWMU #9 (Paint Can Crushing Area)**

Solvent-based paints are received in one-gallon cans for re-containerization and disposal. The operation takes place in the permitted hazardous waste processing areas. The operation includes manually placing the paint can in the enclosed unit and crushing the can. The paint drains into a 55-gallon drum for off-site transport. The empty crushed paint cans are handled as solid waste. EQ uses best management practices such as using plastic sheeting to contain any drippage. Each waste stream is characterized to determine appropriate management.

**SWMU #10 (Roll-off Storage Area)**

The Roll-off Storage Area is located on the 8<sup>th</sup> Avenue property and is used for the storage of roll-off boxes that are full of the solidified material created in the Solid Waste Processing Facility. The roll-off boxes are staged in this area and are waiting for outbound transportation. The area consists of a 2,288 square foot covered concrete pad and has a capacity of 20,200 gallons. Since no liquids are stored in this area, there is a leachate collection system for secondary purposes.

**SWMU #11 (Transfer Facility)**

The Transfer Facility is located on the 8<sup>th</sup> Avenue property. Vehicles/trailers parked in this area are marked as a 10-Day vehicle/trailer to avoid being confused with other vehicles/trailers that may also be located in the same vicinity. Transfer facility waste shipments are noted in a separate Transfer Log (operating record). Vehicles/trailers located in this area are parked on a man-made impervious surface. Secondary containment is provided if vehicles/trailers are going to be parked in this area for more than 24-hours.

**SWMU #12 (Used Oil Facility)**

The Used Oil Facility is located in, and part of, the Concrete Container Storage Area (SWMU#1) and is discussed above. This SWMU will no longer exist/be used once the proposed oil-water separator system adjacent to the waste processing building (SWMU#7) is constructed and put into operation. The proposed oil-water separator has been assigned a new SWMU designation: SWMU #19, as discussed below.

**SWMU #13 (Satellite Accumulation Area)**

The Satellite Accumulation Area is located in the Laboratory on the 8<sup>th</sup> Avenue property. The material collected in the satellite accumulation area includes various types of debris associated with container sampling and the containerization of collected samples. Accumulated material is transferred to the Orient Road property for further processing and disposal.

**SWMU #14 (Parts Washer)**

The parts washer is located in the maintenance area on the 8<sup>th</sup> Avenue property. The washer consists of a metal sink fixed to a 30-gallon drum of part cleaning solution. The solution is pumped from the drum into the sink where the parts are washed and cleaned. The solution is

drained back into the drum when the cleaning is completed. The solution is reused until it is no longer useful and at that point it is sent off-site for recycling.

**SWMU #15 (Additional Retention Pond)**

The additional Retention Pond is located on the 8<sup>th</sup> Avenue property and collects storm water from the roof of the Material Processing Facility. The retention pond was sized for both the permanent pool volume required and the 1" runoff storage (temporary pool).

**SWMU #16 (Universal Waste Lamp Storage Area)**

The Universal Waste Lamp Storage Area is located on the Orient Road property. The material is stored in a box van with a storage capacity of 1,104 cubic feet.

**SWMU #17 (Aerosol Can Crushing)**

The aerosol can recycler is a machine that crushes aerosol cans while simultaneously capturing all liquids into a 55-gallon container. The aerosol can is placed within an enclosed unit and punctured. The material within the can is ejected into the drum. A filter unit is attached to the machine that captures vapors expelled from the can/drum during the recycling operation. This operation is carried out in area 2A of the hazardous waste storage area. The filters are changed out as per the manufacturer's specifications and are characterized and managed as solid or hazardous waste. Both the Aerosolv and TeeMark crushers have been used. The TeeMark is no longer in operation and a replacement is being considered. The empty cans are sent off-site to a metal recycler. The collected paint is sent off-site for fuels blending.

**SWMU #18 (Drum Crushing)**

The crushing unit is a Drumbeaters of America crusher, model # DC5000-10. Additional details of the compactor are located in Appendix I. The drum crusher consists of a closed cabinet unit located at the top of the ramp leading into Bay 3. A drum is placed inside the container and a ram is used to crush the drum. The unit contains a grate and collection pan at the bottom to catch any liquid or solid residues from the crushed drum. The residue is managed as a waste. The unit is used to crush drums and other various RCRA empty metal containers. Crushed drums are sent off-site to a metal recycler.

**SWMU #19 (Oil-Water Separator System)**

This is a new unit which will replace the oil-water separation unit described in SWMU 12. As such, it will be assigned a new SWMU number to avoid any confusion with the former SWMU 12.

A 6000 gal oil/water separator is proposed to be housed on the northeast corner of the waste treatment building. A schematic of tank construction and operation is included in Appendix I. The tank will sit on a concrete foundation inside a water stopped containment pad surrounded by a 3 1/4-ft curb, 6 -in thick, constructed of poured concrete containing Xypex as an admixture to form a crystalline, impervious concrete. The pad will provide sufficient freeboard to contain the contents of the tank including the 25-yr, 24-hr storm event (a total of 8348 gal of containment versus the expected 8132 gal largest vessel plus the 25-yr rainfall event). From a practical standpoint, the tank will typically contain 5400 gal because the high level liquid sensor is set at 90 percent of tank capacity. The tank will be ground with a separate rod and will be anchored as required.

## 11.0 CLOSURE PLAN

### 11.1 General/Applicability

This section outlines closure requirements for both the permitted EQFL facility (storage and treatment) and the EQFL on-site transfer facility (transporter). Although closure requirements are mandatory for both TSDF and transfer operations, financial assurances are required only for permitted TSDF operations. The EQFL financial assurances will cover permitted TSDF operations (only) as required by 40 CFR 264 Subpart H. This closure plan has been adopted in accordance with the Code of Federal Regulations, Part 264, Subpart G for the EQFL facility:

Facility Name: EQ Florida, Inc.  
EPA ID Number: FLD 981 932 494  
Facility Address: 2002 North Orient Road  
Tampa, Florida 33619  
Facility Telephone: (813) 623-5302  
Facility Contact: Gene Cieply  
Mailing Address: 7202 East Eighth Avenue  
Tampa, Florida 33619

Storage at the facility occurs in containers only. The maximum storage inventory is as indicated below:

<u>Process Type</u>	<u>Storage Capacity</u>
Container Storage	50,000 gallons
10-Day Transfer	20,000 gallons, or 100 cubic yards

No other RCRA regulated units are located on site.

#### ***11.1.1 Waste Characterization***

Indicated below is the waste characterization of the various waste streams managed at the treatment/storage and transfer facilities. Actual waste analysis information on the waste materials will be retained on waste profile, supporting lab analytical, QC lab reports, manifests, land ban forms, and the EQFL computer database.

#### **Flammable Liquids**

Physical State: Liquid

Flash Point: <140 F

Chemical Composition: Solvents, paints, thinners, alcohols, fuels, oils, etc.

Other Data: Facility warehouse storage is in an explosion-proof designed area.  
Vehicles are placarded and meet all DOT requirements.  
Disposal is off-site via fuel blending and/or incineration.

**Oxidizers/Reactives/Flammable Solids**

Physical State: Liquid/Solid/Semi-Solid

Chemical Composition: Oxidizers – permanganates, nitrates, nitrites, perchlorates, etc.  
Reactives – cyanides, sulfides, and water-reactive metals  
Flammable Solids – water-reactive metals, phosphorous, paint sludges, and solid residues.

Other Data: Cyanides and sulfides must be kept separate from acids.  
Oxidizers must be kept separate from organics.  
Flammable solid/water reactives must be kept dry and usually immersed in kerosene.  
Disposal is off-site via deactivation or incineration.

**Poisons**

Physical State: Liquid/Solid

Chemical Composition: Arsenics, carbamates, endrin, lindane, toxaphene, methoxychlor, etc.

Other Data: May be an inhalation hazard.  
Disposal is off-site via incineration.

**Corrosives**

Physical State: Liquid/Semi-Solid

PH: Acids – 2.0  
Caustics – 12.5

Chemical Composition: Acids – hydrochloric, nitric, chromic, phosphoric, sulfuric, etc.  
Caustics – sodium hydroxide, potassium hydroxide, etc.

Other Data: Keep acids and caustics separated from each other and do not add water to acids or caustics.  
Disposal is off-site via neutralization.

**Characteristic and Others**

Physical State: Liquid/Solid/Sludge

Chemical Composition: Listed plating sludges, toxic metals (chrome, lead), D018-43 TC wastes

Other Data: Disposal is off-site via stabilization and landfill.

## **11.2 Closure Performance Standards**

EQFL plans to continue operating the EQFL permitted facility as long as it is a viable business activity, both economically and environmentally. There are currently no plans to stop waste management activities or close the facility. This Closure Plan is submitted to plan, prepare, and secure financial assurances so that closure can be completed when necessary.

Closure of the EQFL facility will be done in a manner that minimizes the need for further care. All hazardous waste and hazardous waste constituents will be properly managed at closure so that post closure care and post closure potential for releases of hazardous waste or hazardous waste constituents are eliminated. The EQFL Closure Plan complies with the requirements of 40 CFR 264 Subpart G. It is the intent of this plan to protect human health and the environment from any release of hazardous materials or constituents.

Closure and the closure cost estimate are based upon a third party completely managing and conducting all closure activities.

### 11.3 Final Closure Activities

Final closure activities will include the removal of all hazardous waste and hazardous waste constituents from the facility for shipment to permitted treatment and disposal facilities. Final closure also includes the decontamination of all equipment, the floors inside of the waste management building, the containment sumps, the inside walls of the building (three feet up), and the loading/unloading areas (the paved area from the building to five feet out and the outside of the warehouse dock wall from the ground up to the floor level).

The facility land, office, and decontaminated waste management building will require no post closure care. The facility will then be available for commercial use.

### 11.4 Maximum Waste Inventory

A maximum total of 50,000 gallons of hazardous waste from the permitted container storage facility will require shipment off-site to treatment or disposal facilities at closure. A maximum total of 20,000 gallons plus 100 cubic yards of hazardous waste from transfer (transporter) operations will require shipment to off-site treatment or disposal facilities at closure. These quantities are summarized below:

<b>Waste Materials</b>	<b>TSDF Operations Maximum Quantity (Gallons)</b>	<b>Transfer Operations Maximum Quantity (Gallons)</b>	<b>Total Combined Maximum Quantity (Gallons)</b>
Flammable Liquids	7,700	4,400	12,100
Oxidizers	6,655	2,400	9,055
Reactives & Flammable Solids	2,370	1,100	3,470
Other Hazardous Waste	13,310	4,400 100 cu yd.	17,710 100 cu yd.
Corrosives	13,310	4,400	17,710
Poisons	6,655	3,300	9,955
<b><i>Inventory Totals</i></b>	<b><i>50,000</i></b>	<b><i>20,000</i></b> <b><i>100 cu yd.</i></b>	<b><i>70,000</i></b> <b><i>100 cu yd.</i></b>

### 11.5 Closure Items

The facility hazardous waste inventory will be consolidated as much as possible based upon waste hazard class, compatibility, and treatability. Compatible hazardous waste liquids will be pumped to tankers for outbound shipment to ultimate treatment and disposal facilities. Compatible hazardous waste solids will be consolidated to roll-off or sludge box containers for outbound shipment to ultimate treatment and disposal facilities.

#### ***11.5.1 Waste Inventory***

##### **Flammable Liquids**

All flammable liquids on hand at the time of closure will be removed by vacuum tanker or pump and tanker and transported to a permitted fuel blending facility (or equivalent). A maximum total (from TSDF and transfer operations combined) of 12,100 gallons of waste flammable liquids would be on hand at closure. The 12,100 gallons would be loaded to tankers and transported by a permitted hazardous waste transporter. Removal would take a maximum of twenty (20) days.

### **Oxidizers**

All oxidizers on hand at the time of closure will be sent for treatment and disposal. A maximum total (from TSDF and transfer operations combined) of 9,055 gallons of oxidizers would be on hand at closure. The 9,055 gallons of oxidizers would be loaded to trucks and transported by a permitted hazardous waste transporter. Removal would take a maximum of twenty (20) days.

### **Flammable Solids/Reactives**

All flammable solids and reactive wastes on hand at the time of closure will be sent to a permitted hazardous waste treatment facility or incinerator (or equivalent) for disposal. A maximum total (from TSDF and transfer operations combined) of 3,470 gallons would be on hand at closure. The 3,470 gallons would be sent in 63 drums to the designated facility. The shipment would be transported by a permitted hazardous waste transporter. Removal would take a maximum of ten (10) days.

### **Poisons**

All poisonous hazardous waste on hand at the time of closure will be sent in 55-gallon drums to a permitted incinerator (or equivalent). A maximum total (from TSDF and transfer operations combined) of 9,955 gallons of poisons would be on hand at closure. The 9,955 gallons would be loaded to trucks and transported by a permitted hazardous waste transporter. Removal would take a maximum of twenty (20) days.

### **Corrosives**

All corrosive hazardous waste on hand at the time of closure will be sent to a permitted treatment facility (or equivalent) for treatment and disposal. A maximum total (from TSDF and transfer operations combined) of 17,710 gallons of corrosives would be on hand at closure. The 17,710 gallons of corrosives would be sent in tankers to the designated treatment facility. All acids would be transferred to separate tankers and all caustics would be transferred to separate tankers to avoid commingling acids and caustics to the same tankers. The tankers would be transported by permitted hazardous waste transporters. Removal would take a maximum of forty (40) days.

### **Other Hazardous Waste**

All other hazardous wastes on hand at the time of closure (such as listed plating sludges, toxic metals, and characteristic D002, D004-011, and D018-043 TC wastes) would be sent to a permitted hazardous waste treatment/disposal facility (or equivalent) for treatment or incineration (or equivalent) and disposal. Liquids may be transferred to tankers and solids would be transferred to 20 cubic yard roll-off boxes. A maximum total (from TSDF and transfer operations combined) of 17,710 gallons and 100 cubic yards of characteristic waste would be on hand at closure. The 17,710 gallons of characteristic wastes would be sent in tankers to the designated treatment/disposal facility. The 100 cubic yards of characteristic wastes would be sent in 20 cubic yard roll-off boxes to the designated treatment/disposal facility. The tankers and boxes would be transported by permitted hazardous waste transporters. Removal would take a maximum of ten (10) days for each set of tankers and roll-off bins (one tanker and one roll-off each per ten days). This would be a maximum of fifty (50) days total.

#### ***11.5.2 Filter Press (Treatment) – Not Currently in Use***

The filter press is the only treatment unit at the EQFL facility other than the on ground solidification unit/tank. The filter press capacity is included in the permitted storage capacity of the facility so no additional waste will be included for closure. The filter press will be cleaned and decontaminated by pumping a dilute muriatic acid solution followed by water through the press. The press will also be cleaned and decontaminated using a pressure washer. All collected

rinsates will be managed as hazardous waste with the other facility decontamination rinsates. The press will be sold for any residual value or as scrap metal.

### ***11.5.3 Other Items***

#### **Empty Containers**

All empty containers resulting from the bulking of material will be sent to a drum recycling facility or metal reclamation facility. These facilities will pick up the empties at the EQFL site at no charge.

These empty containers will not meet the criteria for classification as an acutely toxic waste and therefore will not require triple rinsing.

Any empty containers from acutely toxic waste will be managed as hazardous waste or triple rinsed with resulting rinses managed as hazardous waste.

There will be no additional cost to EQFL for the recycling of non-acutely toxic empty containers and therefore no change in the closure cost estimate.

#### **Equipment**

Most of the equipment necessary for decontamination and closure will already be owned by EQFL. Equipment which may require decontamination includes the aerosol unit, a forklift, a compactor, a paint can processor, and an industrial shredder.

## **11.6 Decontamination**

The EQFL storage/treatment and transfer facilities are totally enclosed. The facility construction is concrete and concrete block with containment. The transfer loading and unloading area is concrete and paved with sloped and diked containment. Loading and unloading of waste is direct from trailer to warehouse and direct from warehouse to trailer. Soil sampling will be performed at locations around the site. One soil sample will be taken from the stormwater retention pond. In the unlikely event that releases of hazardous waste or hazardous waste constituents were to occur by the facility, the most likely path of migration would be the stormwater system. The inclusion of two additional soil samples allows an upgradient sample from the northeast corner of the facility and a downgradient sample from the southeast corner of the facility to be investigated beyond the stormwater retention area. A soil sample from under the building will also be taken. Additional soil samples will be taken in any area with visual evidence of contamination. Soil samples will also be taken under buildings or in sumps if there are visible cracks or indications that contamination could have migrated into soils and/or groundwater.

All process equipment will be cleaned with water, solvent or both and the resultant liquid sent to a permitted hazardous waste treatment/disposal facility. The floors and sumps will then be decontaminated by steam cleaning. The facility warehouse inner walls will be decontaminated three feet up from the floor. The loading/unloading area will be decontaminated. The loading/unloading area to be decontaminated includes the dock exterior wall from the ground up to the warehouse floor level and the paved ground from the building to out five feet. This liquid will be analyzed for organic solvents and TCLP constituents to determine its acceptability for disposal.

All decontamination will be done and certified by outside contractors. Samples of rinse waters will be taken and analyzed to confirm all washed areas as sufficiently decontaminated.

It is estimated that no more than four weeks will be required to fully decontaminate all equipment and the storage facility itself.

Additional details regarding closure and decontamination activities at the waste processing building are provided in Volume 3 of 3.

### 11.6.1 Closure Certification

Closure certification (as well as all other closure activities) will be conducted by an independent third party.

An independent registered professional engineer licensed in the State of Florida will certify closure of the EQFL hazardous waste facility. It is anticipated that three on-site inspections by the registered professional engineer will occur during the closure period. Those inspections are indicated below:

- First Inspection: Final date of waste acceptance
- Second Inspection: Upon completion of all removal for off-site disposal
- Third Inspection: Upon completion of all decontamination

It is the intent of these inspections to ensure that all materials are being handled in accordance with our Closure Plan. Upon completion of the final inspection by the registered professional engineer, a certification that closure has been completed will be submitted to the Regional Administrator and Florida DEP. This certification will be sent within 60 days of completion of closure by registered mail.

### 11.7 Closure Cost Estimate (TSDF Operation)

Indicated below is the most recent closure cost estimate for the TSDF operation based upon the maximum quantities indicated in the Closure Plan and the methods indicated for treatment and/or disposal.

Waste Materials	Disposal Volume (Units)	Disposal Cost (Per Unit)	Cost Estimate
Flammable Liquids	7,700 gallons	\$1.14/gallon	\$8,778
Oxidizers	121 drums	\$261/drum	\$31,581
Reactives & Flammable Solids	43 drums	\$407/drum	\$17,501
Poisons	121 drums	\$315/drum	\$38,115
Corrosives – Caustics	6,655 gallons	\$2.30/gallon	\$15,306
Corrosives – Acids	6,655 gallons	\$2.50/gallon	\$16,637
Characteristics – Liquids	6,655 gallons	\$2.29/gallon	\$15,239
Characteristics – Solids	33 cubic yards	\$426/cubic yard	\$14,058
<b>Total Closure Disposal Cost Estimate for TSDF Operation</b>			<b>\$139,215</b>

### 11.8 Closure Cost Estimate (Combined Operations)

Indicated below is the most recent closure cost estimate for the combined TSDF and transfer operations based upon the maximum quantities indicated in the Closure Plan and the methods indicated for treatment and/or disposal.

Waste Materials	Disposal Volume (Units)	Disposal Cost (Per Unit)	Cost Estimate
Flammable Liquids	12,100 gallons	\$1.14/gallon	\$13,794
Oxidizers	165 drums	\$261/drum	\$43,065
Reactives & Flammable Solids	63 drums	\$407/drum	\$25,641
Poisons	181 drums	\$315/drum	\$57,015
Corrosives – Caustics	8,855 gallons	\$2.30/gallon	\$20,366



Corrosives – Acids	8,855 gallons	\$0.542.50/gallon	\$22,137
Characteristics – Liquids	17,710 gallons	\$2.29/gallon	\$40,555
Characteristics – Solids	100 cubic yards	\$426/cubic yard	\$42,600
<b><i>Total Closure Disposal Cost Estimate for Combined Operations</i></b>			<b><i>\$265,173</i></b>

Treatment and disposal costs were calculated in the closure plan instead of using worksheet TD-2.

Total cost of Closure for the combined operations is estimated to be \$265,173. The current Letter of Credit of \$266,659, dated December 8, 2009, exceeds this cost.

### 11.9 Financial Assurance

EQFL, a division of EQ Holding Company, will meet its financial assurance requirements under 40 CFR 264.143 Subpart H Letter of credit guaranteeing payment into a closure trust fund.

After initial submission of financial information, annual updates will be provided after the close of each succeeding fiscal year. Updated information will consist of the following:

1. An inflationary increase in the Letter of Credit held for facility closure.
2. A copy of the current Standby Trust Fund Agreement.
3. A copy of the current Certificate of Liability Insurance.

Requisite insurance documentation and a Letter of Credit in favor of the State of Florida will be issued upon the Department's review and acceptance of the facility closure cost estimate provided in Section 11.8, as necessary. This information will demonstrate compliance with Rule 62-730.300(2)(b), Florida Administrative Code (F.A.C.) and 40 CFR Part 264 Subpart H as adopted by reference in Rule 62-730.180, F.A.C.

### 11.10 Schedule for Final Closure

EQFL plans to continue operating the EQFL permitted facility as long as it is a viable business activity, both economically and environmentally. There are currently no plans to stop waste management activities or close the facility. The schedule for final closure is listed below in the event closure is necessary.

EQFL will notify the FDEP in writing at least 45 days prior to the date on which final closure is expected to begin. This date (beginning of final closure) will be no more than 30 days after the receipt of the final volume of hazardous waste.

Indicated below is a list of tasks for final closure of the EQFL storage/treatment facility. These tasks will be performed within a schedule of 90 days from beginning closure activities.

- |   |                       |
|---|-----------------------|
| 1. Final Waste Acceptance                           | 15 Days               |
| 2. Processing Complete                              | 21 Days               |
| 3. Offsite Disposal Shipments Complete              | 30 Days               |
| 4. Facility Decontamination Complete                | 45 Days               |
| 5. Soil Sampling and Analysis Complete              | 60 Days               |
| 7. Closure Certification                            | 89 Days               |
| 8. Final Date of Facility Closure                   | 90 Days               |
| <b><i>Total time required to close facility</i></b> | <b><i>90 Days</i></b> |

All hazardous wastes will be removed within 90 days of receiving the final volume of hazardous waste. All closure activities will be complete within 180 days of receiving the final volume of hazardous waste.

### **11.11 Certificate of Closure**

Prior to the implementation of the closure plan, EQFL will meet with FDEP to discuss the details of the closure plan. Based upon new regulations and/or guidance or policy issues, the plan may need to be amended and/or updated prior to its implementation.

Within 60 days of the closure of each hazardous waste unit and within 60 days of the final closure of the facility, EQFL will submit to the FDEP, by registered mail, a certification that the facility has been closed in accordance with the EQFL Closure Plan. The certification will be signed by the owner or operator and by an independent registered professional engineer. Documentation supporting the closure certification will be included in this submittal.

The EQFL facility has no disposal units. Therefore, no survey or post closure care is required.

The EQFL Closure Plan will be amended as per the requirements of 40 CFR 264 Subpart G if amendments are necessary.

### **11.12 Closure Summary**

Closure activity quantities and costs are calculated using the following closure worksheets:

- CS-1      Container Storage Areas
- CS-2      Summary Worksheet
- CS-6      Certification of Closure
- DC-1      Decontamination Summary
- DC-2      Steam Clean / Pressure Wash
- SA-1      Sampling and Analysis
- SA-2      Sampling and Analysis Summary
- SA-3      Borings
- SA-3      Analysis
- SA-6      Sampling and Analysis
- TR-1      Transportation
- TD-1      Treatment and Disposal Summary
- TD-3      Decontamination Fluids

The following closure worksheets were not applicable or were not utilized:

- CS-3      Demolition and Removal –  
No structural demolition or removal is required.
- CS-4      Soil Removal –  
No removal of soil is required.

- CS-5 Backfill –  
No backfill is required.
- DC-3 Sandblasting –  
No sandblasting is required. All decontamination will be done by steam cleaning or pressure washing.
- SA-4 Concrete Core Sample –  
No concrete core sampling is required. Core samples will consist of soil cores.
- SA-5 Wipe Sample –  
No wipe samples are required.
- SA-7 Non-aqueous Sample –  
No non-aqueous sampling is required.
- SA-10 Subsurface Soil Sample –  
No groundwater monitoring wells are required, therefore, no subsurface soils will be sampled.
- TD-2 Treatment and Disposal –  
Treatment and Disposal cost calculations are shown in the Closure Plan. Therefore, this worksheet was not used. Two different cost values were calculated for transportation, disposal and total cost of closure cost. The first calculation covers both the TSDF and Transfer Facility operations. The second calculation covers only TSDF operations. Financial Assurances are required only for TSDF operations.

Equipment decontamination will be performed on the aerosol, paint can processor, compactor and forklift. All other equipment is small enough that it could be drummed up and managed as hazardous waste (worst case) if necessary.

Three surface soil bore samples will be obtained and analyzed. The main sample will be from the retention pond. The EPA (HSWA permit) has confirmed that confirmatory sampling and analysis of only the retention pond is sufficient from a SWMU and HSWA permit standpoint. Upgradient, downgradient and quality control samples will be taken and analyzed also for a total of four samples.

Analysis includes full TCLP, 624, 8240, and 8260. This covers all characteristic waste as well as many solvents.

Additional tanker loads are included in the transportation worksheet calculations to keep incompatible hazard class loads separate as follows:

<b>Waste Materials</b>	<b>TSDF Operations Only</b>	<b>TSDF &amp; Transfer Operations Combined</b>
Flammable	2 loads	2 loads
Corrosive (Acid)	1 load	2 loads
Corrosive (Alkaline)	1 load	2 loads
Characteristic	1 load	3 loads
<b>Total</b>	<b>5 loads</b>	<b>9 loads</b>

## **12.0 USE AND MANAGEMENT OF CONTAINERS**

### **12.1 Condition of Containers**

All hazardous waste containers are inspected by a EQFL driver or subcontract transporter prior to removal from the generator's site. The containers are checked for compliance with DOT (or other applicable) regulations. Containers are specifically checked for container and waste compatibility, container integrity, excess rust, excess corrosion, excess dents or defects, leakage, closure, labels, and proper shipping documents. All storage containers will comply with 40 CFR 264, Subpart I requirements. Unacceptable containers will be corrected at the generator's site. These corrections include things such as relabeling a container or tightening the closure. Unacceptable containers can be overpacked or the materials can be transferred to a new or acceptable container. Unacceptable containers, not resolved to EQFL satisfaction, will be left at the generator's site.

Containers are double checked for the same problems and conditions upon receipt at the EQFL facility. The same corrections or actions occur at the EQFL facility except unacceptable containers will be rejected and returned to the generator.

### **12.2 Compatibility of Waste with Containers**

EQFL will use containers made of or lined with materials, which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired. Chemical compatibility of the wastes with the containers will be in accordance with DOT regulations specified by 49 CFR. The DOT lists standards for containers made of steel, aluminum, metal (other than steel or aluminum), plywood, fiber, plastic, wood, natural wood, reconstituted wood, fiberboard, woven plastic, plastic film, textile, paper, composite with plastic liner, and composite with glass, porcelain, or stoneware liners.

EQFL utilizes many of these types of containers. The most common container types utilized are steel, plastic, fiber, and woven fiber. Most of the waste managed by EQFL is in 55-gallon steel drums. Fiber and woven fiber containers may be used for solid materials. Steel containers are used for nearly all types of waste materials except corrosives. Corrosives may be stored in steel containers if a plastic liner is used or if the corrosives are in lab pack form. Corrosive materials are usually stored in plastic (poly) containers. The container sizes usually range from a 5-gallon pail to one cubic yard totes. Bulk transport containers such as roll-off boxes and tankers are occasionally utilized for outbound or transfer shipments. All bulk tanker storage will be in the improved containment area located in front of Bay 2.

### **12.3 Management of Containers**

All containers at the EQFL facility will remain closed. The containers will be opened only when it is necessary to add or remove waste materials for sampling, transfer, or treatment. All containers managed by EQFL will be handled to ensure that no damage, rupture, or leakage will occur. Containers will be moved manually, by drum truck, forklift with proper container handling attachment, pallet jack, or suitable means designed or utilized for movement of containers of hazardous waste.

### **12.4 Inspections**

Container storage areas are inspected daily (each operating day) by EQFL personnel. The inspector will check for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors. Inspection of containers is described in the EQFL Inspection Plan provided as Section 5 of this permit renewal.

## 12.5 Containment Design & Operations

### 12.5.1 Base

The EQFL container storage building has a containment system designed and built to contain leaks or spills of hazards waste. The building is 5,866 square feet (MOL) and features a floor, which is five inches of 4,000 PSI concrete placed monolithically with 6x6, 10/10 wire mesh woven throughout. The base is free of gaps and cracks. The floor has been coated with a chemical resistant sealant and two layers of chemical resistant polyurethane coating. The specifications and manufacturer's information on the coating material are included in Appendix I. All floors and containments in the container storage building are built and coated to these specifications. The floors, sumps, and coatings are compatible with the materials stored in the building. The floors and sumps with coatings are impervious to contain leaks or spills.

### 12.5.2 Slope and Drainage

The building is divided into 3 (three) separate bays. An eight-inch wide concrete block wall separates each bay. The walls extend from the floor to the roof and are designed with a minimum fire resistance of 4 (four) hours. Bays 1 (north) and 3 (south) are for general storage (non-flammable) of hazardous waste. Bay 2 (center) is for the storage of flammable and reactive waste. Bays 1 and 3 have dimensions of approximately 48 feet by 50 feet. Bays 1 and 3 are each subdivided into two equal sections of approximately 24 feet by 50 feet. Each equal subdivided section of Bays 1 and 3 has its own containment sump (one sump each section, or two sumps each bay). Bay 2 is in the center of the building approximately half the size of Bays 1 and 3. The dimensions of Bay 2 are approximately 22 feet by 50 feet. Bay 2 has a separate containment sump giving the entire building a total of five separate equal size containment sumps. The floors of Bay 2 and the floors of each of the subdivided sections of Bays 1 and 3 slope 1/8 inch per foot to the central containment sumps. This ensures that any liquids resulting from leaks or spills will be directed to a central containment sump. Each containment sump is available to contain spills or leaks of different hazard class materials. This prevents the potential for incompatible materials to spill or leak into the same containment sump. No container will be more than 25 feet from a containment sump. The EQFL container storage building is located completely under roof (complete with 10-foot overhang and 50-foot roof extension) and there is no potential of accumulation of precipitation in the building. The containment sumps and container storage areas are shown on Figure 14 and the as-built record drawings for the hazardous waste/management building included in Appendix D.

Details regarding the capacity and containment provided within the waste processing building are provided in Section 6.2 of Volume 3 of 3.

### 12.5.3 Capacity

The five (5) warehouse containment sumps are of identical (MOL) rectangular dimensions of 8.5 feet (length) by 3.5 feet (width) by 4.5 feet (depth). The containment volume of each sump and the improved exterior containment areas located in front of Bay 2 are calculated below:

Containment Area	Containment Calculations (L x W x H x 7.48 Gallons/Cubic Foot)	Total Volume (Gallons)
Warehouse Sumps (Total 5)	$(8.5' \times 3.5' \times 4.5' \times 7.48) \times 5$	5,007
Improved Exterior Area #1	$(46' \times 25.41' \times 1.16' \times 7.48) / 2$	5,071
Improved Exterior Area #2	$46' \times 19.33' \times 0.59' \times 7.48$	3,924
Improved Exterior Area #3	$(46' \times 19.33' \times 1.16' \times 7.48) / 2$	3,858
<b>Total Containment Capacity</b>		<b>17,860</b>

The calculated containment volume of the warehouse sumps is approximately 5,007 gallons. The EQFL facility capacity of hazardous waste is 50,000 gallons. The containment capacity of the five sumps alone exceeds the required 10% containment of the maximum quantity of hazardous waste, which may potentially be on site at any time. The total containment capacity provided is 17,860 gallons, which is more than triple the containment capacity needed.

The EQFL facility containment is actually much greater if the following considerations are taken. Approximately one-fifth of the containers managed by the EQFL facility are lab packs (mostly exempt household waste). The lab pack containers contain a maximum of 20 gallons of hazardous waste per container. The remaining (non lab packed) containers are approximately half with free liquids and half with no free liquids. The slope of the floors would also provide additional containment in an emergency. There is an approximate total of 3 inches of slope to each of the five containment sumps. The actual containment of the facility would actually far exceed the minimum required 10% when all these other conditions are considered. Containers without free liquids and lab packs (counted as 55 gallons instead of the actual 20-gallon maximum) have been included in the containment calculation to provide a worst case scenario. For the purposes of storage capacity, the actual quantity of liquids being stored will always be less than the permitted capacity.

#### ***12.5.4 Run-On***

Run-on into the containment system is not possible. The floors to the storage building are approximately four feet above the exterior ground elevation. The storage building is totally enclosed to prevent run-on into the building. The exterior drainage is away from the building.

#### ***12.5.5 Waste Removal***

Spilled or leaked waste will be removed from the containment sump in as timely a manner as is necessary to prevent overflow of the containment system or a threat to human health or the environment. Where a hazard is imminent or has already occurred, waste removal will be immediate. Wastes will be removed from sumps as soon as possible. Wastes will be removed the same day that waste is discovered in the sump by the daily (or other) inspections. The containment sumps are inspected daily as indicated in the Inspection Plan. All liquids which accumulate in the containment sumps, unless already identified, will be sampled and analyzed in accordance with the Waste Analysis Plan. The accumulated liquids will be pumped into appropriate containers and managed as hazardous waste if required.

### **12.6 Containers without Liquids**

Calculation of the containment capacity of the facility already includes all containers including those without free liquids. This is a conservative approach. The waste materials managed include liquids, sludges, and solids. Solids represent approximately one-third of the waste managed at the facility yet containers of solids (with no free liquids) are counted as liquids and are included in the containment calculation. Should the facility need to test for free liquids, the procedures described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" US EPA SW 846 (latest edition) will be utilized. The test for free liquids is described in the Waste Analysis Plan of this permit renewal. The facility is designed and operated such that storage areas are able to drain and remove liquids so that containers do not remain in contact with accumulated liquids.

All wastes (including solids with no free liquids) which include waste codes F020, F021, F022, F023, F026, and F027 will have a containment system as required by 40 CFR 264.175.

### **12.7 Ignitable or Reactive Wastes**

Containers holding ignitable or reactive wastes will be located at least 50 feet from the facility's property line. Ignitable or reactive wastes are described in the Ignitable, Reactive, or Incompatible Wastes section of this permit renewal.

### **12.8 Incompatible Wastes**

The EQFL facility incompatible waste requirements and procedures are described in the Ignitable, Reactive, or Incompatible Wastes section of this permit renewal.

### **12.9 Closure**

At closure, all hazardous waste and hazardous waste residues will be removed from the containment systems. All containers, liners, bases, and soil containing or contaminated with hazardous waste (or residues) will be decontaminated or removed. This and the closure cost estimate are described in the Closure Plan, discussed in Section 11.0 of this permit renewal.

## **13.0 PROCESSES, PROCEDURES, STRUCTURES, AND EQUIPMENT**

### **13.1 Inbound Shipments**

Hazardous waste shipments are unloaded for inbound receipt. Inbound hazardous waste shipments are inspected, sampled, and analyzed according to the procedures described in the EQFL Inspection Plan, EQFL Waste Analysis Plan (WAP), and Manifest sections (Sections 5, 4 and 9 respectively) of this permit. Inbound waste shipments may be in semi-truck van, tractor trailer, roll-off box containers, tanker, or other similar DOT approved forms of transportation.

Hazardous waste container shipments are unloaded directly to the warehouse. The vehicle backs directly to the facility warehouse (in the loading/unloading area shown on Figure 16) where containers are unloaded directly from the vehicle (trailer or van) to the warehouse. Container unloading is usually done manually utilizing a "drum truck" (dolly). A forklift may be utilized for unloading, but will not be utilized in Bay 2, the flammable storage bay. EQFL will sign manifests acknowledging receipt of hazardous waste shipments within 24 hours of arrival at the facility or prior to the transporter leaving the facility, whichever is sooner. Inbound hazardous waste container shipments will be unloaded within (5) five calendar days (excluding holidays) of arrival at the facility. If the arrival dates or unloading dates are different from the receipt dates, they will be noted in the operating record.

### **13.2 Bulk Shipments**

Bulk hazardous waste shipments may include tankers, roll-off box, and other similar type shipments. Bulk hazardous waste shipments manifested to EQFL will be sampled and analyzed per the EQFL WAP to verify conformance to its waste profile. Other requirements for containerized hazardous waste shipments would also apply to bulk hazardous waste shipments manifested to EQFL. Specifically, EQFL will sign manifests acknowledging receipt of bulk hazardous waste shipments manifested to EQFL within 24 hours of arrival at the facility or prior to the transporter leaving the facility, whichever is sooner. Inbound bulk hazardous waste shipments manifested to EQFL to be unloaded (if applicable) will be unloaded within five (5) consecutive calendar days (excluding holidays) of arrival at the facility. Bulk hazardous waste shipments manifested to EQFL will be shipped off-site upon approval from the final disposal facility for acceptance and scheduling of waste. EQFL will notify the DEP if any unforeseen problems require exceeding the original 24 hours.

### **13.3 Processing Areas**

Inbound waste shipments may be unloaded into the warehouse to a temporary processing area for obtaining samples and waste verification. The temporary processing area will have separate containment by utilizing a temporary dike, boom or berm. Inbound waste will be stored in the temporary processing area for a maximum of 5 operating days. All applicable requirements such as inspections and operating record will apply to these wastes. The processing area will be designated with a sign. Upon completion of verification sampling, the Operations Manager may designate a portion of inbound waste shipments for staging and treatment within the waste processing building.

Temporary processing areas have been identified on Figure 14. The areas are normally utilized as permitted hazardous waste storage and processing areas. A temporary berm or containment will be utilized to designate and contain the temporary processing area when in use. A sign designating "Temporary Processing Area" and "Temporary Processing Start Date \_\_\_\_\_" will also be utilized for each temporary processing area. The temporary processing area, temporary berm or containment will contain the volume of the largest container or 10% of all containers in the temporary area (whichever is greater).



Hazardous waste designated for outbound shipments may be moved to a temporary processing area. Outbound hazardous wastes will be stored a maximum of 10 days in the temporary processing area. All applicable requirements such as inspections and operating records will apply to these hazardous wastes.

### **13.4 Transfer Facility/Staging Area**

EQFL plans to continue utilization of the transfer facility located on the 8<sup>th</sup> Avenue property. The transfer facility is incorporated in the EQFL Contingency and Closure Plans and exceeds all applicable requirements. Transfer facility waste shipments do not include shipments to EQFL (designated facility) or from EQFL (generator). Vehicles/trailers parked in this area are marked as a 10-Day vehicle/trailer to avoid being confused with other vehicles/trailers that may also be located in the same vicinity. Transfer facility waste shipments are noted in a separate Transfer Log (operating record).

This staging area on the 8<sup>th</sup> Avenue property will also continue to be used by EQFL. The staging area is only used for inbound loads waiting for unloading and receipt, and outbound loads waiting completed transportation paperwork. Vehicles/trailers in this area are marked as either an inbound load or an outbound load to avoid being confused with other vehicles/trailers that may also be located in the same vicinity.

Vehicles/trailers located in both areas are parked on a man-made impervious surface. Secondary containment is provided if vehicles/trailers are going to be parked in this area for more than 24-hours. All vehicle/trailers with ignitable and/or reactive waste onboard will be parked at least 50 feet from the property line. The location of these areas are identified as the Transfer Facility/Staging Area on Figure 16.

### **13.5 Outbound Shipments**

Outbound shipments of hazardous waste may be loaded to bulk containers (roll-off box or tanker). Outbound roll-off shipments will be loaded by emptying containers into the roll-off container. Containers are emptied utilizing a forklift with a container handling attachment. Outbound tanker shipments are loaded by pumping the container directly to the tanker utilizing the tanker pump (or a portable pump).

Outbound hazardous waste vehicles back directly to the facility warehouse (in the loading/unloading area shown on Figure 16). Hazardous waste containers are loaded to outbound vehicles directly from the warehouse. Container loading is usually done manually utilizing a "drum truck" (dolly). A forklift may be utilized for loading, but will not be utilized in Bay 2, the flammable storage bay. The waste is physically removed from the warehouse and placed into the transport vehicle. Outbound hazardous waste paperwork is reviewed for completeness, accuracy, quantities, and piece count.

The loading of outbound hazardous waste container shipments will be completed within 10 consecutive workdays of initiating the loading of the outbound shipment. All hazardous waste outbound shipment load quantities will continue to be inspected daily and counted towards the total facility capacity until the outbound shipment has departed from the facility. The EQFL operating record will document the loading operations of hazardous waste.

### **13.6 Hazardous Waste Processing/Flow Summary**

#### ***13.6.1 Inbound Transportation***

Hazardous waste container shipment manifests will be signed within 24 hours of arrival at the facility or prior to the transporter leaving the facility, whichever is sooner.

### ***13.6.2 Bulk Inbound Shipments***

Hazardous waste bulk shipments are received, managed, and will depart from the facility upon approval from the final disposal facility for disposal and scheduling of waste. All hazardous waste bulk inbound shipment load quantities will be counted towards the total facility capacity until the bulk inbound shipment has departed from the facility.

### ***13.6.3 Unloading***

Hazardous waste container shipments will be unloaded within five (5) consecutive calendar days (excluding holidays) of arrival at the facility.

### ***13.6.4 Loading of Outbound Shipments***

The loading of outbound shipments of hazardous waste will be completed within 10 consecutive working days of initiation of the loading of the outbound shipment.

### ***13.6.5 Waste Receipt, Sampling, and QC Analysis***

Waste receipt, sampling, and QC analysis procedures are described in the EQFL Waste Analysis Plan.

### ***13.6.6 Waste Storage***

All applicable requirements for waste storage are described in the appropriate section of this permit.

### ***13.6.7 Waste Treatment***

Waste treatment (solidification) in the on ground treatment tank is described in Section 14, while treatment in the filter press is described in the Miscellaneous Unit, Section 15 of this renewal permit along with operation of the oil/water separation tank.

### ***13.6.8 Waste Recontainerization or Consolidation***

Some of the waste received will be recontainerized. In general, recontainerization includes consolidation of like waste into similar size or larger containers; however, there will be no increase in container size for any of the waste categories. Other recontainerization operations will include paint can processing, aerosol can recycling, empty container and or rag compacting, loading to roll-offs, and loading to tanker truck. All waste transfer and recontainerization is conducted utilizing best management practices.

Hazardous wastes will have already been profiled and approved as described in the EQFL Waste Analysis Plan prior to recontainerization. In addition, each hazardous waste stream will also have been sampled and quality control verified as described in the EQFL Waste Analysis Plan. Only compatible wastes are transferred or recontainerized in each batch operation. The same waste management practices for inspections, contingency, preparedness and prevention, training, precautions for ignitable, reactive, and incompatible wastes, waste analysis, recordkeeping, and container management that apply for treatment and storage will also apply for hazardous waste transfer and recontainerization.

Additional precautions will be taken when bulk (roll-offs, sludge boxes, and tankers) recontainerization occurs. The loading/unloading area will be inspected prior to the recontainerization. The EQFL stormwater system will be shut off. Additional precautions such as the use of plastic sheeting, pads, and booms will be utilized if necessary to contain possible drippage. Roll-offs will be utilized for solid material, sludge boxes will be utilized for sludges, and tankers will be utilized for liquids. A liner will be utilized for roll-offs. Containers will be dumped into the top of the roll-off. The roll-off will be covered by a lid or tarp when loading is

complete. Containers will be dumped or pumped through the top opening of the sludge box. The box will be closed and sealed when loading is complete. Containers will be pumped directly to tankers. Special care will be taken to prevent drippage from hoses or fittings. The tanker will be closed and sealed when loading is complete. The loading/unloading area will be inspected after each loading operation. Any drippage or residue will be cleaned up. If drippage occurs, it will be contained by disposable plastic sheeting and/or absorbent materials. Disposable items containing waste residues will be managed appropriately as solid or hazardous waste. The stormwater system will be turned back on only when any material processing has been stopped and inspection verifies that the area has been properly cleaned if necessary.

#### ***13.6.9 Universal Waste***

The facility receives Universal Waste including batteries and mercury-containing lamps such as fluorescent lamps. Lamps are also received from Conditionally Exempt Small Quantity Generators (CESQGs). If Universal Waste is received in containers that show evidence of leakage, spillage, or damage that could cause leakage, the material will be repackaged into containers that are structurally sound and compatible with the waste. All Universal Waste is handled in a manner that will prevent breakage, releases of their components, and their exposure to moisture. Once received, the lamps and batteries are placed in storage. Universal Waste batteries are stored on the ramp located adjacent to Bay 3B as shown on Figure 14. Universal Waste Lamps are stored in the cargo area of a box truck that is able to be sealed from the weather. The storage location for the Universal Waste Lamps is also illustrated on Figure 17.

#### ***13.6.10 Paint Can Processing***

The facility receives water-based latex and solvent-based paint in cans for recontainerization and disposal. The majority of the paint received is from household waste. This operation includes manually pouring the paint to a container or processing the paint cans through the processing unit which crushes the cans, separating the paint from the emptied container. Equipment specifications of the paint can processor are included in Appendix I.

EQFL will use best management practices when operating the unit. Practices include using plastic sheeting to contain any drippage. Each hazardous waste stream processed by the unit will have had waste analysis completed as described in the Waste Analysis Plan.

#### ***13.6.11 Aerosol Can Recycle***

The aerosol can recycler is a machine which crushes aerosol cans while simultaneously capturing all liquids into a 55 gallon drum. The aerosol can is placed within an enclosed unit and is punctured. The material within the can is ejected into the drum. A filter unit is attached to the machine to capture any vapors expelled from the drum/can during the recycling operation. This operation will take place within the paint can crushing operations located in area 2A as illustrated on Figure 14. Equipment specifications of the aerosol can recycling unit are included in Appendix I.

The filters or filter media will be changed out as per the manufacturer's specifications (or equivalent). Spent filters will be managed as solid or hazardous waste (based upon waste determination). Filter specifications for the aerosol recycling unit suggest using approximately ½ pound of activated carbon per 1,200 aerosols.

#### ***13.6.12 Empty Container and Rag Compacting***

The drum crusher and rag compactor will consist of a closed cabinet unit located inside the storage building. A drum is placed inside the unit and a ram is used to crush the drum. The unit

contains a grate and collection pan at the bottom to catch any liquid or solid residue material from the crushed drum. The material is drummed as waste.

The rag compactor works in a similar manner in that a drum of waste rags is placed inside the unit. A ram which is slightly smaller than the drum opening is used to compact the rags inside the drum. Equipment specifications of the drum compactor are included in Appendix I.

### **13.7 Empty Container Management**

Empty containers and/or inner liners removed from empty containers which meet the requirements of 40 CFR 261.7 will be managed as RCRA Empty. Empty containers and/or liners that have held an acute hazardous waste listed in 40 CFR 261.31, 231.32, 261.33(e) will be managed as Acute Empty. Containers and/or liners which do not meet the requirements of RCRA Empty will be managed as Non-Empty Containers.

#### ***13.7.1 RCRA Empty***

RCRA Empty containers smaller than 55 gallons will be recycled or managed as non-RCRA regulated solid waste. RCRA Empty containers 55 gallons and larger will be recycled, returned to reconditioners, or managed as non-RCRA regulated solid waste.

RCRA-Empty containers will be accumulated on an empty trailer, and/or at the truck loading/unloading area. The empty containers will be sent off-site for recycling, reconditioning, and/or disposal when sufficient quantity is available (usually a truckload). The empty container storage area will be inspected as per the inspection plan. Empty containers may be crushed and/or compacted on site.

#### ***13.7.2 Acute Empty***

Acute empty containers will be triple rinsed or managed as hazardous waste. Containers that are triple rinsed will be thoroughly rinsed using an appropriate solvent a minimum of three (3) times. The container will be fully emptied into a container, typically a 55-gallon drum or 5-gallon bucket following each rinse. The collected rinse solvent will be managed as hazardous waste. The rinsing will occur within the warehouse above the impervious floor.

#### ***13.7.3 Non-Empty***

Non-Empty containers will be managed as per the requirements for the material within the container.

### **13.8 Unknown Waste Handling Procedures**

EQFL is currently authorized to store any RCRA hazardous waste under the special provisions detailed in Specific Condition Part I, Item 3, and Part V, Item 2 of the existing permit. (i.e., unknown waste received during emergency clean-up activities) The unknown waste referred to are actually not totally unknown. The "unknown wastes" in all cases have been sufficiently characterized (by Hazcat Kit, laboratory quality control, or similar means) to determine the waste compatibility and hazard class. This information will be sufficient for DOT approved shipping and handling of the waste, but may not be sufficient to fully manage the waste per 40 CFR Part 268 (Land Disposal Restrictions) until further information is received. EQFL will utilize the following procedure for the management of "not fully characterized" (i.e., unknown) wastes.

1. EQFL (or other approved) personnel will sample the container of waste following DEP SOP 5000 (Waste Sampling) and/or other "procedures and guidelines" mentioned in this paragraph procedures and guidelines for approaching and sampling unknown waste.

2. Field screening tests for color, density, physical state, pH, ignitability, oxidizer potential, solubility, and water reactivity will be performed to characterize the compatibility and hazard class of the waste.
3. The waste will be labeled and manifested for transport to the EQFL facility. Shipping name will be determined by the field characterization and, at minimum, will be Hazardous Waste Solid (or Liquid), Not Otherwise Specified (NOS). The legend "Pending Analysis" will be written on the container (or label) and manifest.
4. Any "not fully characterized" (unknown) waste received by the EQFL facility will be segregated from all other hazardous wastes until the wastes are identified and waste compatibility is determined. This is an extra precautionary measure since waste compatibility will have been field determined prior to receipt. The segregated area utilized for these wastes will have a separate containment system not contiguous with the containment systems provided for the known wastes. EQFL utilizes containment pallets for separate containment.
5. Each container of "not fully characterized" (unknown) waste will be sampled and analyzed following the procedures specified in the EQFL Waste Analysis Plan.
6. Once the waste is fully characterized, the waste will be moved to the appropriate storage location and scheduled for treatment or shipment to an off-site disposal facility.
7. EQFL will notify the Department detailing waste type and quantity if characterization of the waste indicates the waste is not authorized by the EQFL permit. The waste will be removed within 10 working days to a permitted treatment, storage, disposal facility if it is not authorized by the EQFL permit.

### **13.9 Transfer Facility Operating Record Procedures**

EQFL is also a registered hazardous waste transporter with a state registered (on site) transfer facility. EQFL exceeds all applicable regulations for transporter transfer facility operations. The EQFL transporter transfer facility is similar to transfer facilities of other transporters except it happens to be located at a permitted facility. EQFL exceeds the minimum regulatory requirements for transfer facilities.

The EQFL Transfer Facility operating record will track shipments of hazardous waste by EQFL (as transporter), where EQFL is not the generator or designated TSDF and the shipment is stored in the transfer facility more than 24 hours and not to exceed ten (10) consecutive calendar days.

1. Record the manifest number for each shipment that enters and leaves the facility, or, for a shipment from a CESQG without a manifest, an identifying number from the shipping document.
2. Record the date when all hazardous waste enters and leaves the facility.
3. Record the generator's name and the EPA/DEP identification number. For CESQGs without and EPA/DEP identification number, record the name and address of the generator.
4. Record the amount of hazardous waste and hazardous waste codes associated with each shipment into and out of the facility.
5. File the signed transporter copy of the manifest.
6. Transfer facility storage must not exceed ten days.
7. All shipments must meet all applicable DOT and RCRA requirements such as placarding and manifesting.
8. Transfer shipments must be inspected daily.

### **13.10 Non-RCRA Regulated Waste Management**

The inclusion of non-RCRA regulated waste information in this document is for informational purposes only. These items are regulated under Subtitle D regulations and RCRA Subtitle C regulations do not apply (by definition). EQFL exceeds all applicable regulations for solid waste transfer facility operations. The EQFL solid waste transfer facility is similar to transfer facilities of other solid waste facilities except it happens to be located at a permitted facility. One of the primary purposes of this renewal submittal is to combine the Solid Waste and Hazardous waste permits under one umbrella and the Solid Waste renewal application is contained in Volume 3 of 3 in this set of documents.

### **13.11 Household Hazardous Waste Management**

EQFL manages a significant quantity of Household Hazardous Waste (HHW). The HHW is solid waste (mostly labpacks) which is not hazardous waste as defined in 40 CFR 261.4 (b) 1). The HHW is regulated under Subtitle D regulations which (by definition) do not apply to this permit. The inclusion of HHW information is for informational purposes only. EQFL exceeds all applicable regulations for HHW Management. Nearly all HHW managed at the EQFL facility is managed as if it were hazardous waste. EQFL typically manifests (including Land Disposal Restriction notification) labels, and enters this information into the facility operating record for HHW shipments. Other permit requirements such as training, inspections, and contingency are typically adhered to by EQFL for the management of HHW. The management of HHW is included in EQFL facility capacity as labpack waste (20 gallons maximum per 55 gal. drum), containment, closure, and financial assurance calculations. Management of HHW does not interfere with management of RCRA regulated hazardous waste.

### **13.12 Stormwater Management System**

The EQFL facility is designed and built to minimize the potential release of hazardous waste or hazardous waste constituents to the air, soil or surface water. The waste storage and treatment building is totally enclosed. The building floor is more than four (4) feet above the grounds of the site to allow loading and unloading directly from truck to warehouse and from warehouse to truck. The building roof overhangs ten feet out over the loading and unloading docks.

Many features have minimized the potential of stormwater contacting hazardous waste or hazardous waste constituents. The 10-foot roof overhang reduces the amount of stormwater in the loading and unloading area. All waste managed in the loading and unloading area is in closed containers. Currently, an extra precautionary design of the facility is a stormwater filtration system. It should be noted that this system is not a required by this permit and is included for information purposes only.

The loading and unloading area is constructed of concrete and asphalt materials. The surface is sloped to containment trench. The containment trench runs from the north loading and unloading area to the south accumulation sump. All stormwater from the loading and unloading area flows to the 640-gallon concrete sump through the containment trench. The accumulated stormwater is pumped from the sump through a sand filter, two (2) carbon filters, and then to the stormwater drain where it flows (by gravity) to the stormwater retention pond.

The pump remains off during waste management operations with a potential of release of hazardous waste or hazardous waste constituents. When these operations (such as loading or unloading) are complete, the area, stormwater and stormwater systems are inspected. Unsatisfactory conditions (if any) are corrected prior to turning the pump on to activate the system. These inspections are also conducted daily (each operating day) as indicated the EQFL Inspection Plan.

The retention pond has dimensions of 126 feet x 35 feet with an average volume of 0.1335 acre-feet and a slope of 3:1. The pond retains filtered stormwater. Non-filtered stormwater from roof drains also discharges into the pond. The stormwater containment trenches and sump are constructed of concrete. The holding sump has a capacity of 640 gallons. The sump pump can pump 30-40 gallons per minute. The sand filter has 3.1 square feet of filter area in a fiberglass wrapped shell. The sand filter can accommodate flow rates of 20-62 gallons per minute. The sand filter is an efficient means of filtering out potential solids, oils and greases. The sand in the sand filter system typically lasts for many years and is changed out as required. The filter can be back flushed when the filter pressure is high or the flow rate is restricted. Back flushed materials will be managed as either solid or hazardous waste depending upon the waste characterization. The carbon filter consists of a 55-gallon drum/carbon filter. The filter contains 200 pounds of activated carbon, which provides approximately three minutes of contact time at 20 gallons per minute. The filter is an effective means of filtering potentially toxic (organic and metal) constituents. The carbon will be replaced at least annually. Documentation of filter carbon replacement will be included in the facility operating record. EQFL may increase the amount of sand or carbon if it becomes necessary. More frequent changing will occur if breakout or breakthrough is detected. The spent carbon will be managed as solid or hazardous waste (depending upon the waste characterization) if it is not returned to the manufacturer for regeneration.

### **13.13 Structures**

The facility structures include an office building, a 5,866 square foot (MOL) totally enclosed building utilized for the container storage and treatment of hazardous waste, a loading/unloading vehicle area and an 8,050 square foot waste processing building that will house the hazardous waste treatment tank and the solid waste solidification pit.. The laboratory is located across the street at our 8<sup>th</sup> Avenue office complex. These structures are shown on Figures 6 and 7. The office building is not utilized for RCRA regulated hazardous waste management other than QC analysis of samples in the laboratory as described in the Waste Analysis Plan.

The waste storage and treatment building is described in the Use and Management of Containers section of this permit renewal. The loading and unloading area is described in the Stormwater System part of this section.

There are several temporary or portable structures at the EQFL facility. These include supply shed and trailers, empty container (new or reconditioned) trailers, and an empty container (used) trailer.

### **13.14 Equipment**

The EQFL facility equipment includes the items previously described in this section. Equipment specifications for these items are included as Appendix I. These items are:

- Empty Drum and Waste Rags Compactor
- Fluorescent Bulb Processor
- Aerosol Recycling Unit
- Paint Can Processor

Each piece of equipment will be inspected prior to each batch use. The inspections will be included in the facility operating record. Filter replacement will be according to the manufacturer's specifications and will be documented in the facility operating record.

The EQFL facility also includes the filter press described below in Section 15.0. Specifications for the filter press are included in Appendix I. It should be noted that this equipment is not currently in use at the EQFL facility.

Other small portable equipment utilized at the EQFL facility includes containers, adsorbents, pallets, pumps, funnels, drum trucks (dollies), pallet jacks/stackers, forklifts, fork attachments, bung wrenches, ratchets, slings, vacuums, and other similar waste handling, emergency, and safety equipment.



## **14.0 ON GROUND TREATMENT TANK SYSTEM**

### **14.1 Design of New Tank System**

As described in the introductory sections, EQFL plans to construct and operate a new on ground treatment tank system to treat selected characteristic hazardous wastes (waste codes D002 and D004 through D011). No listed hazardous wastes are being proposed for treatment at the facility and no treated hazardous waste is being proposed for disposal at the facility.

The design of the new tank system and/or ancillary equipment is provided in Appendix I. Although the tank will be on ground, it will not be directly in contact with the soil, or with water, and therefore does not require, as part of the design, and evaluation by a corrosion expert. The new tank will sit on the covered, concrete slab that forms the foundation of the existing treatment building. Because the tank is not being placed in a saturated zone, not being located in a seismic fault zone, and not being subject to the effects of frost heave, it will not require anchoring to prevent flotation or dislodgement. However, the tank will be anchored on the north, west and south sides as shown on the design drawings.

The tank dimensions are 20-ft wide x 20-ft long x 4-ft 7-in tall. The tank capacity is approximately 68 cubic yards (CY) but the proposed working volume will be approximately 2/3 of that, or between 40-45 CY. This will allow adequate freeboard to prevent over topping of the tank due to wave or wind action and precipitation is not considered an issue because the tank is located inside a covered building. The building does contain open sides on the west and east and provisions will be made to counteract wind-related impacts, as necessary, if it is determined that wind becomes an issue during operation of the treatment unit.

The hazardous waste tank is a custom manufactured piece of equipment, essentially meeting the 40 CFR, Part 264.10 definition of an on-ground tank. The unit will be fabricated on site and is constructed of steel plates that have been welded into the shape of a box. The box is 20-ft. wide by 20-ft. long and is 4-ft. 7-in tall. The floor and walls of the box are 3/4-inch and 1/2-inch steel plate, respectively, and the top of the box is open. The connections between the plates will be joined together with full penetration welded joints so that the box is liquid-tight and will not allow waste to escape. The design and installation of the new on ground solidification tank will comply with all the requirements specified in 40 CFR, Subpart J, and the design drawings and specifications for the treatment tank as well as the engineering certification of the design are provided in Appendix I.

Once constructed and prior to being placed in use, the new tank system will be inspected by an independent, qualified, installation inspector or a qualified P.E., for the presence of any of the following items which will be remedied before the tank system is placed in use:

- (1) Weld Breaks
- (2) Punctures
- (3) Scrapes of protective coatings
- (4) Cracks
- (5) Corrosion
- (6) Any other structural damage or inadequate construction/installation

EQFL will keep on file at the facility written statements by those individuals required to certify the design and installation of the tank system and attest that it was properly designed and installed and that any required repairs, described above, were performed. Appropriate written statements will contain the requisite certification statement provided in 40CFR, Part 270.11(d).

The primary reagents used for treatment of the waste include hydrated lime/lime kiln dust, ferrous sulfate, sodium sulfide/sulfide flakes and hypochlorite. The reagents may be stored in roll-off boxes and/or other types of containers. The amount of reagent varies based on the waste stream but is generally a 5:1 ratio when absorbing liquids and 10:1 for solids (i.e., 1 ton of waste to 200 pounds of lime). Because this is a new process for EQFL, there will be a learning curve involving which reagents to use and the quantities involved.

Waste is to be deposited directly into the top of the box, the pH adjusted, and then a solidification agent is introduced. The process will consist of raising the pH for metals treatment into the 9 to 13 range which appears to be the optimal range based on similar treatment processes at other EQ facilities. The materials are mixed using a backhoe, portable mixer, or similar piece of equipment. Additional solidification agent is added until no free liquids are present. Frequent bench testing will be required and samples will be collected at suspected endpoints of treatment and analyzed for a short duration (30 to 90 minutes) TCLP test or possibly, because the material will be a solid, a total metals analysis for the D004-D011 waste codes. EQ has found at other facilities that if a sample does not pass a TCLP test after 90 minutes, it's not likely to pass a full, 24-hr TCLP. Treated materials that "pass" the short duration TCLP test will be followed by a representative sampling of the waste which will be sent off site for TCLP analysis by a NELAC/NELAP certified laboratory.

Treated materials that pass the TCLP test will be loaded into roll off boxes and/or dump trailers for subsequent disposal at an approved disposal facility (Subtitle D landfill). If the treated material fails the initial TCLP screening and is still characteristically hazardous, it will continue to be treated until a TCLP test has confirmed the material no longer retains the hazardous characteristics for the waste being treated. It should also be pointed out that the disposal facility accepting the treated material may require additional testing above and beyond a TCLP test before they will accept the waste. EQFL will determine testing requirements for the proposed disposal facility and have the samples analyzed accordingly.

## **14.2 Routine Maintenance**

As previously noted in Section 5.0, the hazardous waste treatment tank will be inspected daily. Depending on usage rates and quantities of materials treated, the treatment tank will require periodic decontamination. This will consist of a rough brush of the sides and bottom, followed by a high pressure water rinse. The resulting liquid/sediment mixture will be pumped out of the tank into 55 gallon drums and allowed to decant. The liquids will be disposed of at an approved waste treatment plant facility, while the accumulated sediment (which is no longer characteristically hazardous) will be added to the solid waste solidification unit and treated/disposed of as a solid waste.

## **14.3 Post Closure Care**

It is not anticipated that post closure care is applicable to the treatment tank which will remain in the treatment building during its active life. The unit will be subject to chemical attack and the metals used for construction will be sacrificed during treatment. Therefore, the tank will need periodic replacement. It is anticipated that the lifetime of the unit is approximately 5 years. It will be routinely inspected and when it is determined that it needs replacement, the unit will be taken out of service, decontaminated and the unit will be converted into scrap metal.

## **15.0 MISCELLANEOUS UNITS**

There are two miscellaneous units at the EQFL facility, the filter press and the oil-water separator. It should be noted that the filter press is not currently in use and EQFL has no immediate plans to resume/commence use of this equipment.

### **15.1 Filter Press Description**

The filter press is approximately 3 feet wide by 10.5 feet long by 4.5 feet high, is constructed of steel, and is pneumatically and hydraulically operated. It consists of gasketed polypropylene chamber plates that are covered with filter cloth of synthetic nylon. The filter cloth is held in place by a caulking cord in a recessed groove. Low volume in-plant compressed air is required for operation.

When in use, the filter press will be located within an enclosed building with containment. Treatment by the filter press is a batch process and not continuous. The filter press is air-operated, has no electrical parts, and will automatically shut down if air pressure is lost. If an emergency occurs, the process will cease and all open waste containers will be closed.

The filter press separates sludges into solids and liquids. Wastes managed in the filter press will include "D" characteristic wastes (excluding D001 and D003), and "F" listed wastes (excluding F020 through F023, F026, and F027) with a process code of T40. The maximum volume of waste that can be treated by the filter press is estimated to be 6,000 gallons per day. EQFL currently does not currently use the filter press, but may (in the future) treat waste up to this maximum estimated daily volume prior to the expiration of the permit should business, environmental regulations, or economics justify the treatment. The filter press is included in this renewal for that reason.

#### **15.1.1 Filter Press Operation**

The filter press may be used to treat any hazardous wastes accepted at the EQFL facility, with the exception of ignitable, reactive, or "dioxin" wastes. A summary of the characteristic and listed hazardous waste codes that may be treated utilizing the filter press is provided in Appendix B. All waste received by the facility is analyzed, and an EQFL waste profile sheet is prepared. This analytical data is used to determine individual filter press operating conditions and treatability of the waste. After receipt of a waste deemed acceptable for filtration, the waste will be moved to the filter press area. If necessary, the waste will be recontainerized to allow the addition of filter aids such as diatomaceous earth to precipitate solids or neutralize corrosive waste prior to processing through the filter press. After addition of the filter aids, if necessary, the sludge will be pumped into the filter press.

Treatment in the filter press will be by batch process and no continuous treatment will occur. Liquid filtrate will be discharged into a container. A qualified EQFL operator will be in the immediate vicinity of the press supervising each batch treatment operation. The press will be shut down and plates opened allowing the filtered solids to be discharged to a container. Liquids and solids treated by the press will be analyzed to verify treatment and Land Disposal Restrictions (LDR) compliance as specified in 40 CFR 268. Hazardous waste solids will be placed in the proper transfer or storage location pending scheduling of outbound shipment to a permitted facility. Solids which are not hazardous waste will be placed in the proper transfer or storage location pending scheduling of outbound shipment to an approved facility. Filtered liquids will usually have been treated to the treatment standards specified in the LDR of 40 CFR 268. Treatment will be verified prior to disposal or off-site shipment. Treated filtered liquids may be discharged to Publicly Owned Treatment Works (POTW) or placed in the proper transfer or storage location pending scheduling of outbound shipment to an approved facility. Filtered liquids that are hazardous waste will be placed in the proper transfer or storage location pending

scheduling of outbound shipment to a permitted facility. All analytical data and individualized filter press operating conditions will become part of the facility operating record.

The EQFL Treatment Log (see Appendix I) will be completed to document all treatment in the EQFL Operating Record. The filter press will be cleaned and decontaminated, as necessary. All rinses and residues will be managed (at a minimum) in the same manner as the waste processed though the press unless waste analysis determines otherwise. The press will be inspected daily and after the completion of each batch cycle of waste processed. It will be serviced, as necessary, in accordance with the manufacturer's manual. Manufacturer's recommendations will be followed for routine operation of the filter press. A copy of the filter press operating instructions is included in Appendix I.

Because the unit will be used in the enclosed building with containment, no impact to air, land, surface water, or groundwater is expected; however, these considerations are discussed in detail in the following section.

#### ***15.1.2 Environmental Considerations***

##### **Migration to Groundwater or Subsurface**

The filter press will be operated in an enclosed high-dock warehouse building that is approximately 4 feet above natural ground surface. The floor slab in which the filter press operates is 5 inches thick. The filter press will be operated so that all fluids will be directed into bins or containers beneath it. Sumps located in the floor slab provide a secondary collection system within the building to collect any liquids associated with the operations of the press or from other ongoing activities. All liquids collected in the floor sumps are disposed off-site in accordance with applicable federal, state, and local regulations. Consequently, there is negligible potential for any infiltration into the subsurface environment or groundwater. Thus, the requirements of soil and groundwater characterization and management are not applicable to the filter press, and Part 264.601a(2) through Part 264.601a(9) requirements do not apply to the filter press.

##### **Migration to Surface Water or Soils**

Because the filter press will be used in an enclosed building with containment, there is very low potential for any product of the press to migrate to the surface water management system on the site or soil surface. Thus, the requirements of Part 264.601b(1) through Part 264.601b(11) are not applicable to the filter press.

##### **Migration to Air**

The filter press will be used to treat primarily heavy metal, nonorganic sludges in an enclosed building with containment. Very negligible air emission is associated with the filter press. Because air emissions from the filter press are negligible and the unit is located inside an enclosed building, the requirements of Part 264.601c(1) through Part 264.601c(71) are not applicable to the filter press.

##### **Hydrologic, Geologic, and Meteorological Assessments**

As previously discussed, hydrologic, geologic, or meteorological assessments are not applicable to the filter press because the unit is used in an enclosed building with containment and has negligible potential to contaminate air, surface water, soil, groundwater, or the subsurface.

##### **Pathways of Exposure to Human or Environmental Receptors**

For the same reasons as stated previously, this requirement is not applicable.

### ***15.1.3 Performance Standards***

All applicable information for the filter press required by 40 CFR 264 Subpart X is included in this permit renewal application, specifically:

- The miscellaneous environmental performance standards as required under Part 264.601 applicable to the filter press have been discussed in the preceding sections.
- As required under Part 264.15, when in use, the filter press will be inspected in accordance with the Inspection Plan included in this permit application.
- As required under Part 264.33, when in use, the filter press will be tested and maintained as indicated in the Preparedness and Prevention Plan section of this permit application.
- The biennial reporting for the filter press as required under Part 264.75 will follow as outlined in the Manifest System, Recording, and Reporting Section of this permit application.
- The unmanifested waste report required under Part 264.76 will follow as outlined in the Manifest System, Recording, and Reporting Section of this permit application.
- The additional reports requirement for the filter press under Part 264.77 will follow the Manifest System, Recording, and Reporting Section of this permit application.
- The corrective action for solid waste management units requirement under Part 264.101 for the filter press will follow as outlined in the Manifest System, Recording, and Reporting Section of this permit application.

### ***15.1.4 Post Closure Care***

Post closure care is not applicable to the filter press because the unit will not be disposed, and it remains in the enclosed building with containment. Only closure care is applicable. As part of closure care, the unit will be decontaminated and the unit will either be sold or converted into scrap metal. Additional information on closure care is discussed in the Closure Plan presented in Section 11 of this permit application.

## **15.2 Oil Water Separator Tank Description**

A 6,000 gal oil/water separator is proposed to be housed on the northeast corner of the waste treatment building. A schematic of tank construction and operation is included in Appendix I. The tank will sit on a concrete foundation inside a water stopped containment pad surrounded by a 3 1/4-ft curb, 6 -in thick, constructed of poured concrete containing Xypex as an admixture to form a crystalline, impervious concrete. The pad will provide sufficient freeboard to contain the contents of the tank plus the 25-yr, 24-hr storm event (a total of 8,348 gallons of containment versus the expected 8,132 gallon largest vessel plus the 25-yr rainfall event). From a practical standpoint, the tank will typically contain 5,400 gallons because the high level liquid sensor is set at 90 percent of tank capacity. The tank will be ground with a separate rod and will be anchored as required.

The proposed tank is 8-foot in diameter and 16 feet tall. It will be constructed of carbon steel to meet UL 142 construction standards. No baffles are proposed for the inside of the tank. The top thickness will be 1/4-inch. The sides will be constructed from two different thicknesses of carbon steel, 1/4-inch from the top down to the first 6 feet, and increasing to 3/16-inch for the bottom 10 feet to the containment pad. When completed, the tank will be sandblasted and painted white with urethane epoxy.

### ***15.2.1 Operation of the Oil-Water Separator***

Operationally, the system uses cam lock fittings and the input and output is through the same pump system with the direction reversed depending on the process being conducted (i.e., filling

or removal). The north, south and east sides of the area adjacent to the oil-water separator will be enclosed by 3-in bump curbs with outside dimensions of 18-ft X 9-ft. The purpose of the bump curbs are to contain any oily wastewater that may leak from the loading or unloading operations and the standard operating procedures required that the vehicle operator remain at the site to observe the filling operations and to prevent any substantial losses due to loose connections, hose break, etc., at which time the valves would be closed to stop the flow.

A tank load of oily wastewater will back up over the bump curbs to the unit, where it will connect to the tank with a 2-in or 3-in hose inlet. From this point the oily water mixture is routed through a coarse filter and pumped into the bottom of the tank. Gravity operation of the contents separate the fluids in the tank into water, "rag," and oil. There are sample ports set at various heights within the tank which can be opened and the nature of the material can be visually observed at that point. When sufficient oil has accumulated, the oil will be pumped out and sent to a reclaimer and the water will go to an approved wastewater treatment plant. The containment pad is sloped to the northeast toward a sump and accumulations of liquids on the pad will be disposed of in an appropriate fashion based on its makeup.

### ***15.2.2 Environmental Considerations***

#### **Migration to Groundwater or Subsurface**

The oil-water separator will be operated in an enclosed containment pad that has sufficient freeboard to contain the entire contents of the tank and the 25-yr, 24-hr storm event. The floor slab on which the oil-water separator will sit will be designed to accommodate the structural loads of the unit. The oil-water separator will be operated such that all accumulations of fluids will be directed into a sump located in the northeast corner of the pad. All liquids collected in the sumps will be disposed of in accordance with applicable federal, state, and local regulations. Consequently, there is negligible potential for any infiltration into the subsurface environment or groundwater.

#### **Migration to Surface Water or Soils**

Because the oil-water separator will be sit on a pad with containment, there is very low potential for any product from the unit to migrate to the surface water or soils on the site.

#### **Migration to Air**

The oil-water separator will be a completely enclosed tank and negligible air emissions are associated with this unit.

#### **Hydrologic, Geologic, and Meteorological Assessments**

Due to the location of the oil-water separator system outside adjacent to the waste processing building, the tank will be properly grounded in the event of a lighting strike. The base slab and anchoring of the tank will also be designed to prevent uplift during high wind events.

#### **Pathways of Exposure to Human or Environmental Receptors**

For the same reasons as stated previously, this requirement is not applicable.

### ***15.2.3 Post Closure Care***

Post closure care is not applicable to the oil/water separator because the unit will not be disposed, and it remains on the containment pad. Only closure care is applicable. As part of closure care, the unit will be decontaminated and the unit will either be sold or converted into scrap metal.

## **16.0 FACILITY AIR EMISSIONS REQUIREMENTS**

### **16.1 Introduction**

EQFL operates a hazardous waste treatment and storage facility located in Tampa, Florida. The primary operation at the EQFL facility is storage and processing of hazardous waste in containers, primarily 55-gallon drums. A minimum of 10 percent of each waste stream entering the facility is sampled. Some waste is processed (recontainerized or consolidated) in other containers of similar size or larger. Recontainerization operations may also include use of a paint can crusher, fluorescent light bulb crusher, aerosol spray can recycler, drum crusher, and rag compactor. A filter press is also located at the facility, which separates liquid and solid components of sludges. Wastes are primarily shipped out of the facility in 55-gallon drums, although some wastes will be consolidated in roll-off dumpsters or tanker trucks for transport off-site.

The facility has recently renewed its Part B Hazardous Waste Permit. The facility currently does not require an air permit. The potential air emissions of volatile organic compounds (VOCs), to include these activities, have been evaluated and are presented herein to provide information that shows levels to be below air permitting requirements. Because this renewal application is not requesting any change in waste codes or quantities, the write up and analysis provided below is still considered accurate and applicable to this evaluation.

### **16.2 Description of Operations**

Waste is received at the facility primarily in 5-gallon drums to 330 gallon totes. The containers are offloaded at the concrete loading/unloading area just outside the storage building. The containers are moved inside the building and are categorized and stored according to waste type. The following waste type categories are handled at the facility:

1. Non-RCRA
2. Flammable
3. Poisons/Toxic and Other Regulated Materials
4. Acids
5. Alkaline
6. Hazardous organic compounds (HOC)
7. Oxidizers
8. Reactives

The containers are inspected and a portion, i.e., a minimum of 10 percent of each waste type received, are sampled and analyzed. Waste types include liquids, solids, sludges, and a variety of lab packs, i.e., waste that is packaged in its original container. Waste handling and associated operations completed at the site include:

- |                         |                                       |
|-------------------------|---------------------------------------|
| • Container Sampling    | • Filter Press (Not Currently In Use) |
| • Recontainerization    | • Drum Crushing and Rag Compacting    |
| • Container Loading     | • Loading to Roll-Offs                |
| • Paint Can Processing  | • Bulk Tank Loading                   |
| • Aerosol Can Recycling | • Laboratory Analysis                 |

## 16.3 Potential Air Emissions

### 16.3.1 Volatile Organic Compounds

The facility is currently permitted to handle virtually all types of hazardous waste. The primary VOCs handled at the facility are methyl ethyl ketone (MEK), methanol, xylenes, toluene, and benzene. In order to conservatively estimate emissions, the vapor pressure of acetone was used to represent all potentially evaporative waste at the facility. Acetone has the highest vapor pressure of the evaporative waste managed at the facility. Therefore, for the emission calculations, all evaporative liquid is assumed to contain 100 percent acetone and approximately half of the waste handled at the facility is assumed to contain all VOC. This assumption produces conservative emission estimates because:

1. Assuming that all liquid waste is 100 percent volatile produces emission estimates significantly higher than actually expected, since liquid waste does not contain 100 percent VOC.
2. Because primary VOC constituents have vapor pressures less than acetone, the assumption that all VOC at the facility is acetone is conservative.

Other assumptions made for the emission estimates will also produce conservative results:

1. The effect of the storage building for containment of VOC emissions was not taken into consideration. All evaporation was assumed to occur outdoors to ambient air. Most operations occur within the storage building by the roll up doors.
2. True vapor pressure at a temperature of 90 degrees Fahrenheit (deg F) was assumed for all emission calculations. Mean annual temperatures in the Tampa area for years 1961 through 1998 were approximately 82 deg F. Therefore, assuming a vapor pressure at 90 deg F would result in higher emission estimates on an annual basis.

Potential VOC emissions have been estimated for several operations at the facility. A summary of primary activities at the facility and estimated emissions is included on Table 16-1. Emission calculations for individual operations are included on Tables 16-2 through 16-6.

Total facility emissions were estimated to be just 3.25 tons per year. As mentioned, these emissions are based on conservative assumptions and actual emissions are expected to be much less.

### 16.3.2 Lead

Lead is considered to be the most significant toxic heavy metal constituent handled at the facility. It is estimated that approximately 20 percent of all waste handled contains some quantity of lead. RCRA regulated lead hazardous waste managed usually ranges from 5 to 500 parts per million in concentration. Therefore, the amount of lead present at the facility is less than the amount of VOCs present. The vapor pressure of lead in aqueous solution is much lower than VOCs, and, as such, lead emissions are expected to be negligible based on the same conservative assumptions used and emission estimates calculated for VOC emissions.

## 16.4 Regulatory Applicability

### 16.4.1 Stationary Sources

Because the facility handles waste which may contain small amounts of benzene, the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations relating to benzene were analyzed for potential applicability.



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#### **40 CFR 60 Subpart A-Standards of Performance for New Stationary Sources**

There are no stationary sources or affected facilities as defined in this section that apply to this permit renewal application.

##### ***16.4.2 Pumps in Light Liquid Service***

EQFL will utilize pumps to transfer materials within the processing area of the permitted facility. The total use of equipment subject to the requirements of this subpart will not exceed 300 hours per calendar year. Each pump will be inspected visually each calendar week to determine that no indications of leaking liquids from the pump seals are present. Additionally, if an instrument reading of greater than 10,000 ppm is measured the pump will be considered to be leaking. If a leak is detected it will be repaired as soon as practical, not to exceed 15 calendar days. No pump that is known to leak will be used for hazardous waste transfer operations.

#### **40 CFR 61 Subpart J-National Emission Standards for Equipment Leaks (Fugitive Emission Sources) of Benzene**

This subpart applies to sources (i.e., pumps, compressors, pressure relief devices, sampling connections, etc.) which are intended to operate in benzene service. However, "benzene service" refers to facilities with process units that contain equipment in benzene service. A "process unit" is defined under 61.241 as equipment assembled to produce a volatile hazardous air pollutant (VHAP) or its derivatives as intermediates or final products, or equipment assembled to use a VHAP in the production of a product. Because the facility does not produce or manufacture a product, it is not subject to this subpart.

#### **40 CFR 61 Subpart V-National Emission Standards for Equipment Leaks (Fugitive Emission Sources)**

Again, this unit applies to equipment operating in VHAP service, which is part of a process unit. Because the facility does meet the requirements of a process unit (see Section 4.2.1), the facility is not subject to this subpart.

#### **40 CFR 61 Subpart BB-National Emission Standards for Benzene Emissions from Benzene Transfer Operations**

This subpart applies to loading racks at benzene production facilities and bulk terminals only. Therefore, the facility is not subject to this subpart.

#### **40 CFR 61 Subpart FF-Emission Standards for Benzene Waste Operations**

This subpart applies to owners and operators of chemical manufacturing plants, coke byproduct recovery plants, and petroleum refineries, or owners and operators of hazardous waste treatment, storage, and disposal facilities that treat, store, or dispose of hazardous waste generated by any of the affected facilities. Because EQFL does not currently accept waste from these facility types, this subpart does not apply.

#### **40 CFR 264 Subpart BB-Emission Standards for Equipment Leaks General**

Compliance with the requirements of 40 CFR 264, Subpart BB will be attained by the following the procedures described in this section. This section requires facilities to identify and repair leaks in specified pieces of equipment. Equipment is considered to be leaking when materials are dripping from pump seals or valves, or when an instrument reading of greater than 10,000 ppm is measured. The detection instrument used for monitoring will meet the performance criteria of Reference Method 21 in 40 CFR Part 60. Equipment used to transfer hazardous waste (with an organic concentration of at least 10 percent by weight) at EQFL is used less than 300 hours per calendar year. This equipment is exempt from the requirements of Sections 264.1052 through

264.1060 once identified as required by 264.1050 (e) and (f). EQFL uses pumps in light liquid service as identified herein.

#### ***16.4.3 Trucks in Vacuum Service***

EQFL will utilize equipment that is in vacuum service. Vacuum trucks are used to transport and transfer hazardous materials.

#### **40 CFR 264 Subpart BB-Emission Standards for Equipment Leaks General**

Compliance with the requirements of 40 CFR 264, Subpart BB will be attained by the following the procedures described in this section. This section requires facilities to identify and repair leaks in specified pieces of equipment. Equipment is considered to be leaking when materials are dripping from pump seals or valves, or when an instrument reading of greater than 10,000 ppm is measured. The detection instrument used for monitoring will meet the performance criteria of Reference Method 21 in 40 CFR Part 60. Equipment used to transfer hazardous waste (with an organic concentration of at least 10 percent by weight) at EQFL is used less than 300 hours per calendar year. Equipment in vacuum service is also used. This equipment is exempt from the requirements of Sections 264.1052 through 264.1060 once identified as required by 264.1050 (e) and (f). EQFL uses trucks in vacuum service as identified herein.

#### ***16.4.4 Containers***

EQFL stores hazardous waste in containers greater than 26 gallons and as such must follow the requirements of 40 CFR 264 Subpart CC. Most of the hazardous waste processed by EQFL will have a VOC concentration of greater than 500 ppmw. In most cases, hazardous waste that may have a VOC concentration of less than 500 ppmw and will be managed as if it does have a VOC concentration of greater than 500 ppmw. EQFL does not have any existing tanks, surface impoundments or hazardous waste stabilization treatment processes and therefore these items are not addressed in this permit renewal.

#### **40 CFR 264 Subpart CC- Air Emission Standards for Tanks, Surface Impoundments, and Containers**

EQFL shall control air pollutant emissions from all containers stored or processed at the permitted facility. The transfer of hazardous waste in or out of containers will be accomplished in a manner that minimizes the exposure of hazardous waste to the atmosphere. This will be done to the extent practical, considering the physical properties of the hazardous waste and good engineering practices. Containers having a design capacity of  $0.1\text{ m}^3$  -  $0.46\text{ m}^3$  will be managed using U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as a Level 1 control standard. Containers will comply with the requirements of 49 CFR part 178, except as permitted by EQFL approved DOT exemption for lab packs managed in accordance with 49 CFR part 178 or combination packages specified in 49 CFR 173.12. Containers having a capacity of greater than  $0.46\text{ m}^3$ , that are in light service, will also comply with these DOT standards, as required, to provide Level 2 control. Containers meeting these standards are designed so that any potential release of VOC concentrations are eliminated with proper care and use. EQFL will ensure that containers have secured closure devices (drum lid, tanker lid or equivalent) in place and closed when materials are not being loaded to the container. This will be done within 15 minutes, when the person performing the loading operation leaves the immediate vicinity of the container, or the process generating the material being added to the container shuts down, whichever occurs first. Containers will also be opened as needed to allow access for routine activities other than the transfer of hazardous waste. These activities may include sampling, measurement, inventory, or repackaging. The container will be properly closed and secured immediately following the completion of the activity.

All containers will be inspected for visible cracks, holes, gaps or other spaces into the interior of the container when closed and secured in order to insure that no emission release into the environment will occur. If defects are discovered they will be corrected (repaired, replaced, repacked or overpacked) within 24 hours of detection. Section 12, Use and Management of Containers, provides detailed information on inspection practices.

## **16.5 Conclusions**

Potential emissions of VOCs have been estimated for operations at the EQFL facility. Because the proposed treatment tank will only treat characteristically hazardous wastes (D002 corrosives and D004-D011 metals), which have low volatilities and do not contain any VOCs, the calculations previously performed by EQFL for the facility appear appropriate for the current renewal application. The emission estimates have been prepared based on conservative assumptions. Therefore, the estimated emissions are expected to be far lower than presented herein. These data show that current air emission estimates are below the existing standard of 10 tons per year (TPY). Rule 62-210.300(3)(b), F.A.C. requires a level of greater than 10 TPY for air permitting to be required. These data have been presented to the Hillsborough County Environmental Protection Commission (HCEPC) during prior permit renewals.

## **16.6 Section References**

Environmental Protection Agency, 1987. Hazardous Waste Treatment, Storage, and Disposal Facilities, (TSDF)-Air Emission Models. EPA-450/3-87-026. Section 7.3.1.

Florida Department of Environmental Protection, 1994a. Letter from Howard L. Rhodes to Angela R. Morrison, May 20, 1994. Title V Insignificant Source Summary-Electric Power Plants.

Florida Department of Environmental Protection, 1994b. Letter from Howard L. Rhodes to Jose F. Alvarez, October 5, 1994. Title V Insignificant Source Summary-Sugar Cane Industry.

Florida Department of Environmental Protection, 1994c. Letter from Howard L. Rhodes to Nancy Stephens, January 26, 1994. Title V Insignificant Source Summary-Chemical Industry.

Weather History at: [http://www.ncdc.noaa.gov/cgi/bin/gsod\\_xmgr](http://www.ncdc.noaa.gov/cgi/bin/gsod_xmgr)

**Table 16-1 – Summary of Primary Activities and Estimated Emissions**

<b>Activity Description</b>	<b>Activity Location</b>	<b>Potential Air Emissions</b>	<b>Comments/ Assumptions</b>	<b>Reference for Emission Calculation</b>	<b>Estimated VOC Emissions (Tons Per Year)</b>
Closed container loading/unloading	Loading/unloading dock	None	Containers remain closed	NA	NA
Container sampling	Inside Building	Minimal	10% of containers are sampled	Table 16-2	0.0009
Recontainerization operations:					
Container to container	Inside building	Minimal	Typically pumped or poured; include lab packs	Table 16-3	0.26
Paint can crushing	Outside processing area	Minimal	Solvent-based paints	Table 16-6	0.40
Aerosol recycling	Inside building	Negligible	Carbon filter used	NA	NA
Fluorescent bulb crushing	Inside building	Negligible	Carbon filter used	NA	NA
Filter Press	Inside building	Negligible	Not currently in use; used with non-VOC waste	NA	NA
Drum crushing/rag compacting	Inside building	Negligible	Low use, enclosed unit	NA	NA
Container to roll-off	Outside processing area	Minimal	Typically solid material	Table 16-4	2.02
Tanker loading	Loading/unloading dock	Minimal	Liquids only	Table 16-5	0.57
Emergency exhaust fans	Flammable storage area	Negligible	Emergency use only	NA	NA
Portable floor fans	Bays 1 & 2	Negligible	Personnel cooling	NA	NA
Roll-off storage	Outside storage area	Negligible	Covered when not active	NA	NA
Laboratory hood exhaust	8 <sup>th</sup> Ave. office area	Negligible	Activity exempt (F.A.C. rule)	NA	NA
<b>TOTAL</b>					<b>3.25</b>

**Table 16-2 – Worksheet for Estimating Emissions from Container Sampling**

<b>Calculation Parameters:</b>			
<b>Variable</b>	<b>Descriptions</b>	<b>Value</b>	<b>Basis</b>
Po	Atmospheric Pressure, mm Hg	760	Standard Value
MW	Molecular Weight, g/g mol	58.08	Chemical database
yi*	Equil mole fraction in gas phase (xi*Pi*/Po)	0.20	Calculated
xi*	Mole fraction in aqueous liquid	0.5	Assumption
Pi*	Component vapor pressure, mm Hg	306	Based on 5.917 psia at 90 deg F
w	Width of dump to wind flow, cm	7.62	Assume 15 feet dumpster length
R	Gas constant, 62,300 mm Hg* cm <sup>3</sup> /g mol*K	62,300	Given
T	Temperature, Deg K	305.4	90 Deg F
Di	Diffusivity in air, cm <sup>2</sup> /s	0.124	Chemical database
l	Length of dump in direction of wind flow, cm	7.6	Assume 10 feet dumpster width
U	Windspeed, cm/s	22.35	Assume nominal 1 mph
Fv	Flicks law correction factor (function of yi*)	0.85	From Graph 16-1
<b>Equation:</b>	<b><math>(2)(Po)(MW)(yi*)(w)/(R/T) \times ((Di)(l)(U)(3.14)(Fv))^{0.5}</math></b>	<b>0.02 g/s</b>	<b>Calculated emission factor</b>
<b>Operating Data:</b>			
<b>Variable</b>	<b>Descriptions</b>	<b>Value</b>	<b>Basis</b>
NC	Number of containers sampled, containers/ yr.	1,560	10% of all containers
t	Typical sampling time, seconds per container	25	Conservative assumption
<b>Equation:</b>	<b>Calculated emission factor x NC x t/454 g/lb</b>	<b>1.72</b>	<b>Pounds per year</b>
	<b>Total Emissions</b>	<b>0.0009</b>	<b>Tons per year</b>

Assumptions: Conservatively assume that half (by mole fraction) of all liquid waste sampled is acetone.

Source: Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF) - Air Emission Models. EPA-450/3/87-026, December 1987.

**Table 16-3 – Worksheet for Estimating Emissions from Drum Loading (Recontainerization)**

<b>Calculation Parameters:</b>			
<b>Variable</b>	<b>Descriptions</b>	<b>Value</b>	<b>Basis</b>
S	Saturation Factor	1.45	Based on splash loading
P	True Vapor Pressure of Liquid (psi)	5.917	VP of acetone at 90 deg F
M	Molecular Weight of Vapors (lb/lb-mole)	58.08	MW of acetone
T	Temperature of Bulk Liquid (deg R)	550	90 deg F
<b>Equation:</b>	<b><i>12.46(S)(P)(M)(T)</i></b>	<b><i>11.3 lbs/1,000 gal</i></b>	<b><i>Calculated emission factor</i></b>
<b>Operating Data:</b>			
<b>Variable</b>	<b>Descriptions</b>	<b>Value</b>	<b>Basis</b>
Q	Quantity loaded (gal/year)	47,850	Pumping or pouring operations
Pct	Amount of solids in waste loaded (percent)	95	Assumption
<b>Equation:</b>	<b><i>Calculated Emission Factor x Q/1000/2000 lbs/ton x Pct/100</i></b>	<b><i>0.26</i></b>	<b><i>Tons per year</i></b>

Assumptions: Conservatively assume that half of all liquid waste recontainerized is acetone.

Source: Compilation of Air Pollutant Factors (AP-42), Section 4.4. EPA, September 1985.

**Table 16-4 – Worksheet for Estimating Emissions from Loading Roll-Off Containers**

<b>Calculation Parameters:</b>			
<b>Variable</b>	<b>Descriptions</b>	<b>Value</b>	<b>Basis</b>
Po	Atmospheric Pressure, mm Hg	760	Standard Value
MW	Molecular Weight, g/g mol	58.08	Chemical database
yi*	Equil mole fraction in gas phase (xi*Pi*/Po)	0.40	Calculated
xi*	Mole fraction in aqueous liquid	1	Assumption
Pi*	Component vapor pressure, mm Hg	306	Based on 5.917 psia at 90 deg F
w	Width of roll-off to wind flow, cm	457.2	Assume 15 feet dumpster length
R	Gas constant, 62,300 mm Hg* cm <sup>3</sup> /g mol*K	62,300	Given
T	Temperature, Deg K	305.4	90 Deg F
Di	Diffusivity in air, cm <sup>2</sup> /s	0.124	Chemical database
l	Length of roll-off in direction of wind flow, cm	304.8	Assume 10 feet dumpster width
U	Windspeed, cm/s	44.7	Assume nominal 1 mph
Fv	Flicks law correction factor (function of yi*)	0.7	From Graph 16-1
<b>Equation:</b>	<b><math>(2)(Po)(MW)(yi^*)/(R/T) \times ((Di)(l)(3.14)(Fv))^{0.5}</math></b>	<b>23.53 g/s</b>	<b>Calculated emission factor</b>
<b>Operating Data:</b>			
<b>Variable</b>	<b>Descriptions</b>	<b>Value</b>	<b>Basis</b>
Nr	Number of roll-offs loaded, roll-offs/month	12	20 nonhazardous/ 4 toxic (assume half acetone)
t	Typical loading time, hours/roll-off	1.5	Average loading time
Pct	Amount of solids in waste loaded, percent	95	Assumption
<b>Equation:</b>	<b><math>Calculated\ emission\ factor \times Nr \times t \times 3600\ s/hr / 454\ g/lb \times (1-Pct/100)</math></b>	<b>335.85</b>	<b>Pounds per year</b>
	<b>Total Emissions</b>	<b>2.02</b>	<b>Tons per year</b>

Assumptions: Conservatively assume that half of all liquid loaded to roll-offs is acetone.  
Roll-offs kept covered except when loading.

Source: Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF) - Air Emission Models. EPA-450/3/87-026, December 1987.

**Table 16-5 – Worksheet for Estimating Emissions from Tanker Truck Loading**

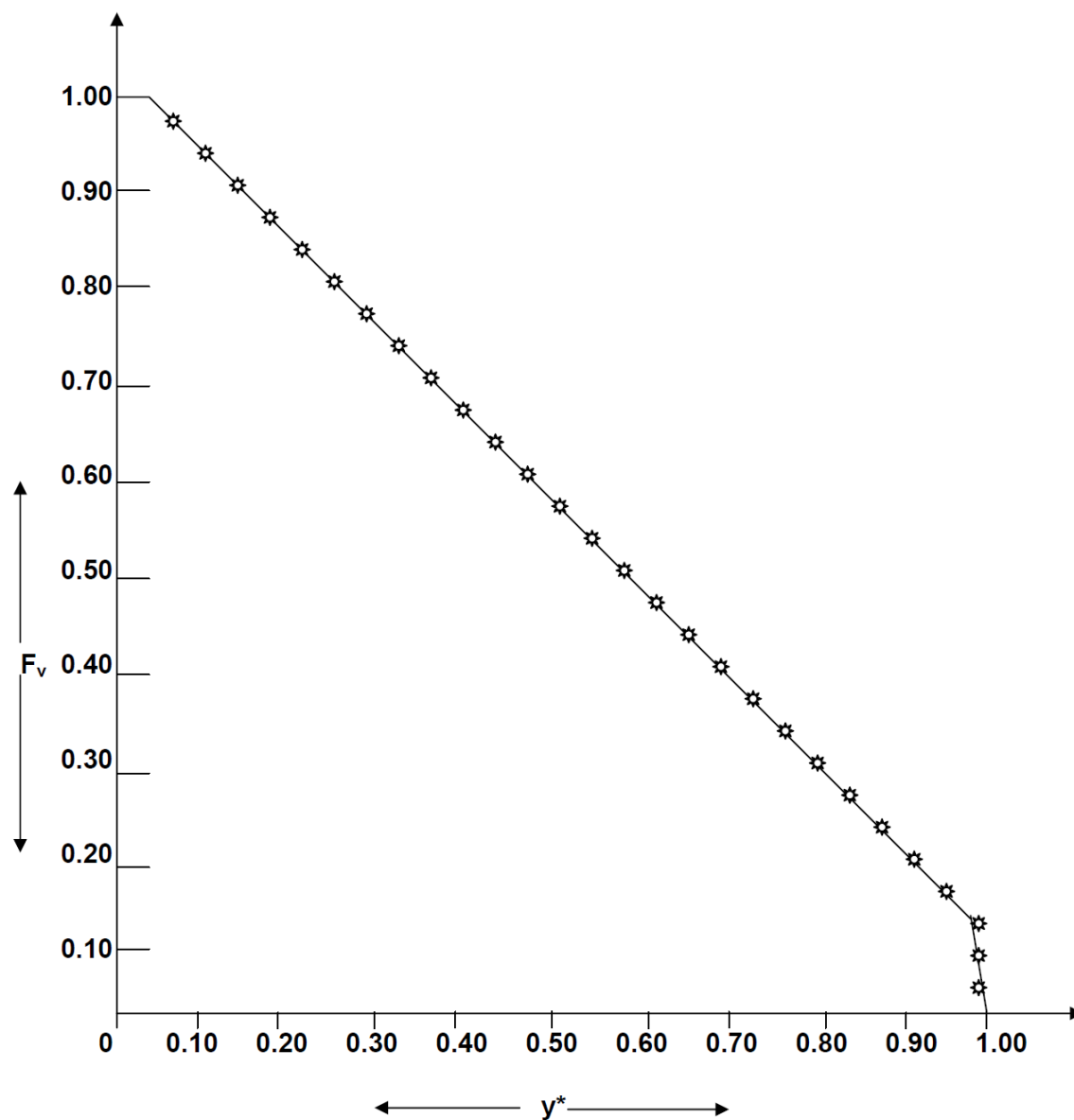
<b>Calculation Parameters:</b>			
<b>Variable</b>	<b>Descriptions</b>	<b>Value</b>	<b>Basis</b>
S	Saturation Factor	1.45	Based on splash loading
P	True Vapor Pressure of Liquid (psi)	5.917	VP of acetone at 90 deg F
M	Molecular Weight of Vapors (lb/lb-mole)	58.08	MW of acetone
T	Temperature of Bulk Liquid (deg R)	550	90 deg F
<b>Equation:</b>	<b><i>12.46(S)(P)(M)(T)</i></b>	<b><i>11.3 lbs/1,000 gal</i></b>	<b><i>Calculated emission factor</i></b>
<b>Operating Data:</b>			
<b>Variable</b>	<b>Descriptions</b>	<b>Value</b>	<b>Basis</b>
Q	Quantity loaded (gal/year)	99,000	Assume 100 drums/tanker; 3 tankers loaded/month (½ acetone)
Pct	Amount of solids in waste loaded (percent)	95	Assumption
<b>Equation:</b>	<b><i>Calculated Emission Factor x Q/1000/2000 lbs/ton x Pct/100</i></b>	<b><i>0.57</i></b>	<b><i>Tons per year</i></b>

Assumptions: Conservatively assume that half of all liquid waste loaded to tanker trucks is acetone.

Source: Compilation of Air Pollutant Factors (AP-42), Section 4.4. EPA, September 1985.



**Graph 16-1 – Fick's law correction factor  $F_v$  as a function of  $y^*$  <sup>31</sup>**



## 17.0 EXPOSURE INFORMATION

As part of the permit renewal and construction of the treatment tank, an exposure analysis was conducted to determine if the proposed activities represent a substantial modification of the permit, thereby requiring modeling and a RMP (Risk Management Plan). The results of this analysis were provided to the Department in an e-mail from Jerry Kubal to Tony Tripp, dated April 16, 2013. The discussion in this section is consistent to the discussion provided in the referenced e-mail.

As noted in the Introduction (Section 2.0) EQFL is not requesting any change in waste codes accepted, nor an increase in quantities of materials received. The principal change in the renewal request is the addition of the on ground hazardous waste treatment tank to treat, on-site for off-site disposal, a limited list of characteristic hazardous waste treatment codes including: D002 (corrosivity); D004 (arsenic); D005 (barium); D006 (cadmium); D007 (chromium); D008 (lead); D009 (mercury); D010 (selenium); and D011 (silver).

As part of the exposure analysis, a review of the in-bound records for EQFL for the period 1/1/12-12/31/12 was evaluated for materials they plan to treat under the new hazardous waste permit. These in-bound records are summarized in Appendix K. The table is broken out by waste category and size and number of containers received. The FDEP is supplied with reports of this type routinely from EQFL under the existing permit, but this table has been broken out to summarize just those shipments they intend to begin treating.

The summary table provides both waste type and size container, which consists primarily of a mixture of container sizes from 5-gallon drums to 330-gallon totes. This material is currently stored on the "hazardous waste" side of the facility (Orient Road property). The new treatment unit will be in the existing waste processing building on the 8<sup>th</sup> Avenue property and some wastes will be staged in this area prior to treatment..

From a substantial modification standpoint, EQFL will only store material in containers up to the maximum size shown for the various waste categories summarized in the table in Appendix K. While some of the material will be staged in the existing waste processing building after construction of the hazardous waste treatment unit, none of the material stored either in this area or on the Orient Road property will be present in containers of a larger size than has been received in the past. In fact, EQFL anticipates that the largest container it will process in the new hazardous waste treatment unit will be a 275-gallon tote, which is smaller than the largest capacity units currently received at the facility. In the rare event a larger size container than is shown in the table is received at the facility which would potentially trigger an increase in the risk, the material will be repackaged into containers of similar size to those previously received/stored so there is no increase in the overall risk.

Based on the expected quantities, waste codes, and how the material will be stored before treatment, any increase in risk would be considered negligible. Further, there will be no increase in container size for any of the waste categories and it does not appear that any of the operating permit modifications being proposed by EQ will cause an increase in overall risk at the facility. As such, there will be no need to conduct risk management modeling since the proposed changes do not represent a substantial modification.

## **18.0 ITEMS NOT APPLICABLE TO THE PERMIT RENEWAL APPLICATION**

The following items are not applicable to the EQFL facility and information pertaining to them is not included in this permit renewal application:

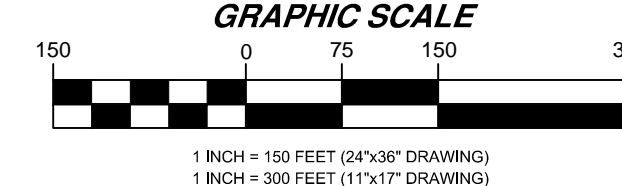
- Surface Impoundments
- Waste Piles
- Land Treatment
- Landfills
- Incinerators
- Compliance Schedule
- Groundwater Protection
- Research, Development, and Demonstration
- Air Emission Standards for Process Vents
- Air Emission Standards for Equipment Leaks
- Boilers and Industrial Furnaces
- Requirements for Drip Pads
- Professional Geologist Certification

## **FIGURES**





SOURCE:  
1. [http://data.labins.org/2003/MappingData/DOQQ/hi-res\\_search.cfm](http://data.labins.org/2003/MappingData/DOQQ/hi-res_search.cfm)



**KCI TECHNOLOGIES**  
ENGINEERS, SURVEYORS AND PLANNERS  
LICENSED BUSINESS 6901  
10401 HIGHLAND MANOR DRIVE, SUITE 120  
TAMPA, FL 33613  
PHONE (813) 740-2300 \* FAX (813) 740-0159

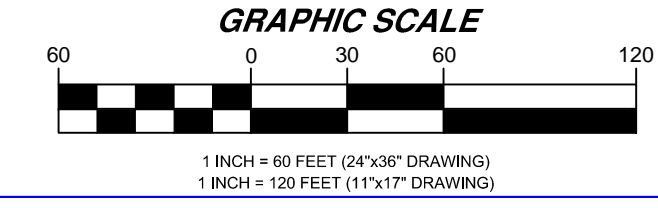
FIGURE 1  
SITE AREA/LOCATION MAP  
FOR  
EQ FLORIDA, INC.  
DATE: JULY 9, 2013 SCALE: 1\"/>

KCI JOB# 12123014





SOURCE:  
1. [http://data.labins.org/2003/MappingData/DOQQ/hi-res\\_search.cfm](http://data.labins.org/2003/MappingData/DOQQ/hi-res_search.cfm)



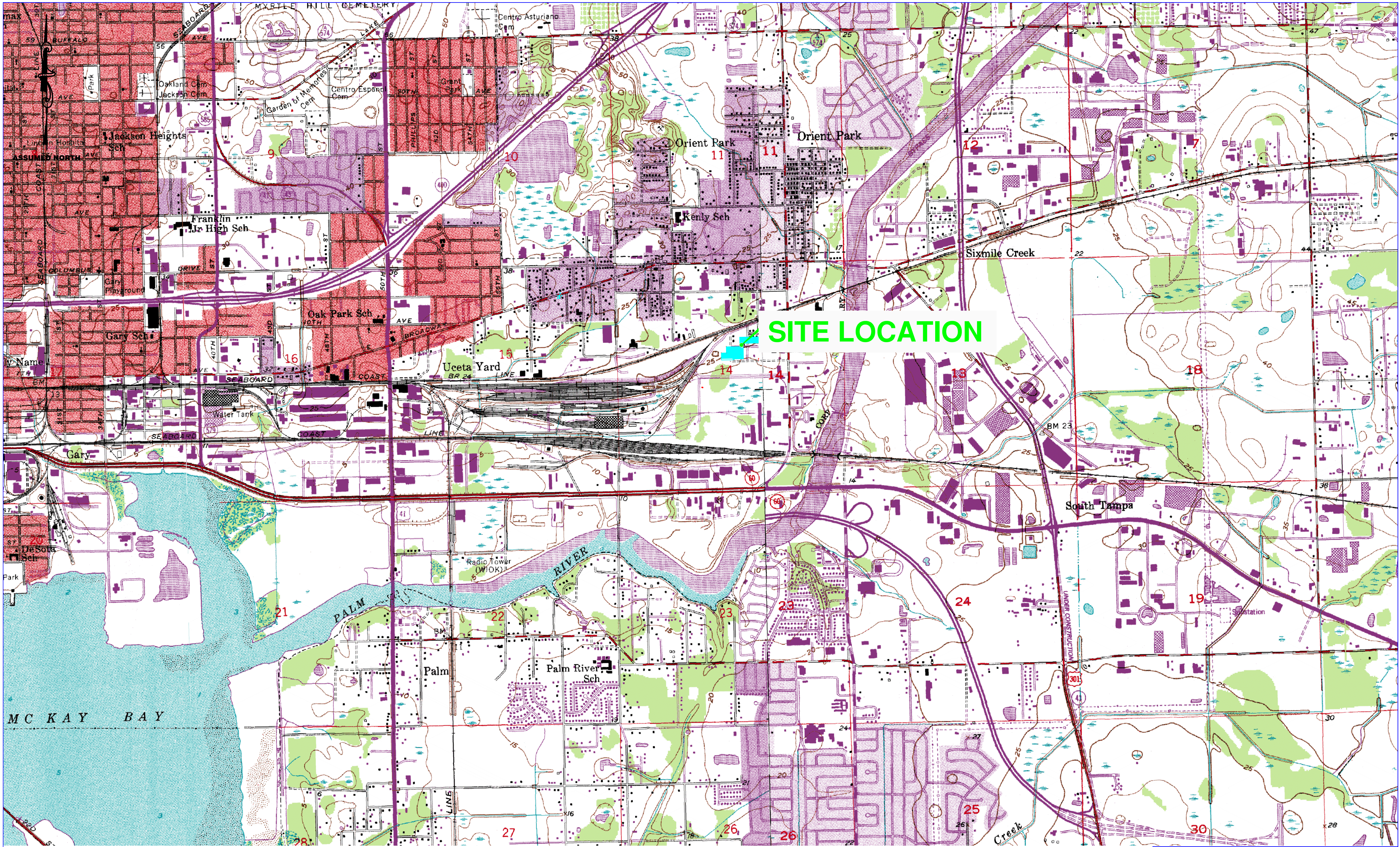
**KCI TECHNOLOGIES**  
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10401 HIGHLAND MANOR DRIVE, SUITE 120  
TAMPA, FL 33615  
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FIGURE 2  
AERIAL PHOTOGRAPH  
FOR  
EQ FLORIDA, INC.  
DATE: JULY 9, 2013 SCALE: 1" = 60' SHEET: 2 OF 19

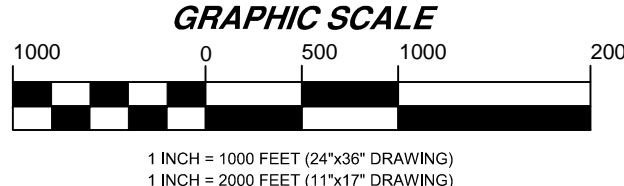








SOURCE:  
1. DRG-USGS DIGITAL RASTER GRAPHICS (TOPOGRAPHIC MAPS) (MSRMAPS.COM)



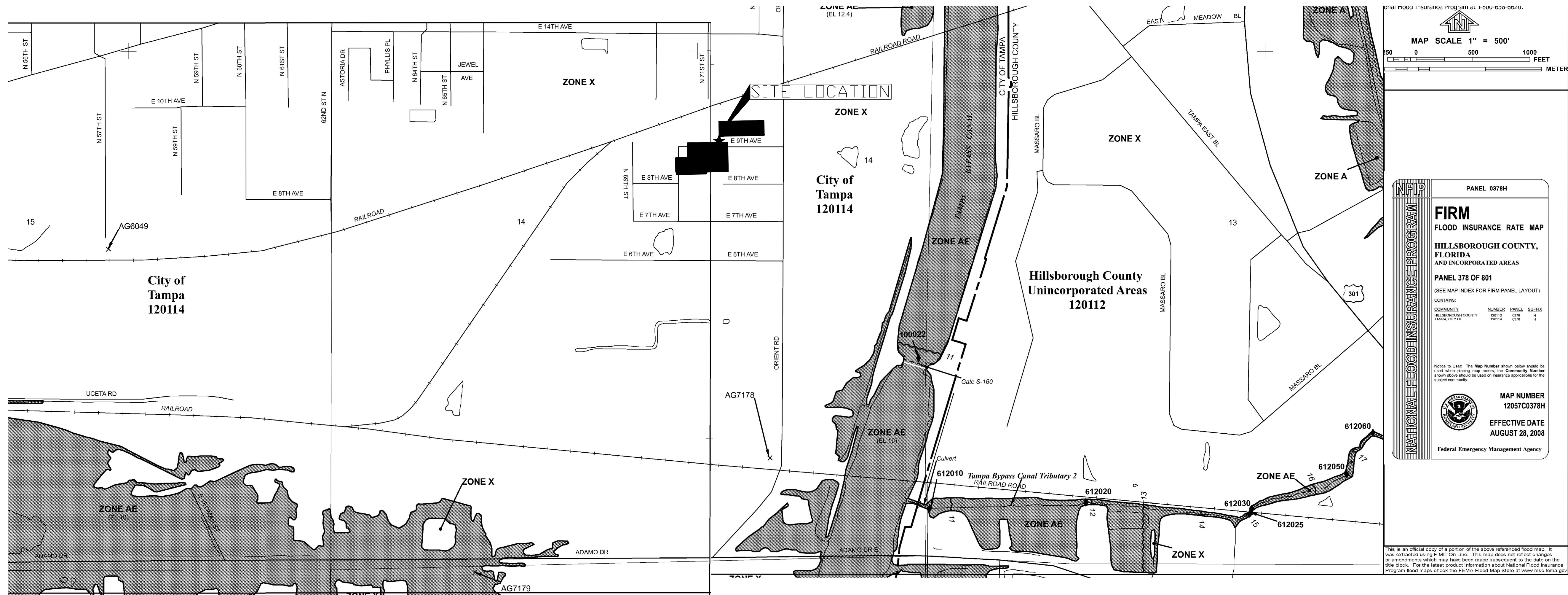
KCI JOB# 12123014



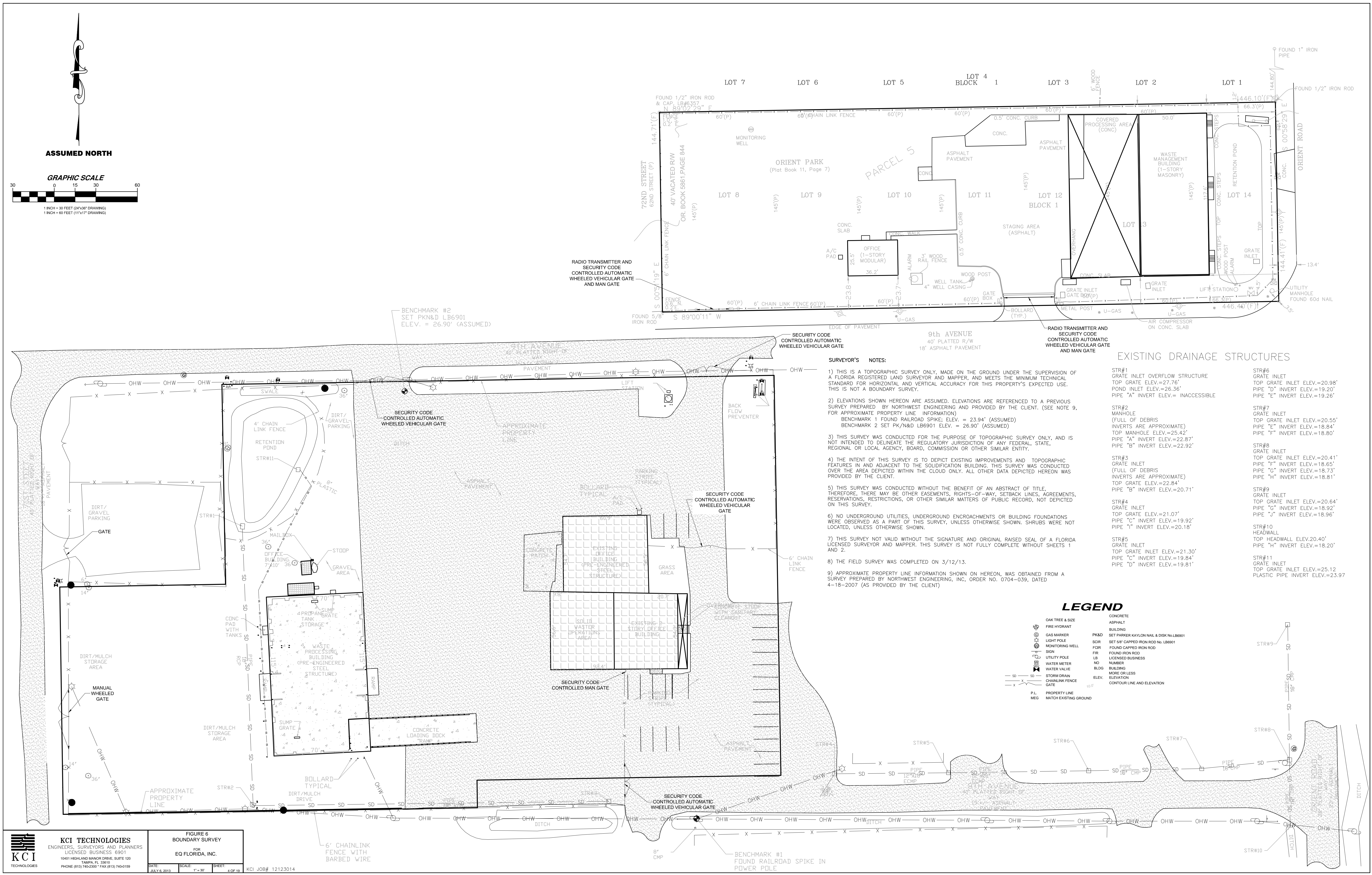
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TAMPA, FL 33610  
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FIGURE 4  
TOPOGRAPHIC MAP  
FOR  
EQ FLORIDA, INC.  
DATE: JULY 9, 2013 SCALE: 1\"/>









**SURVEYOR'S NOTES:**

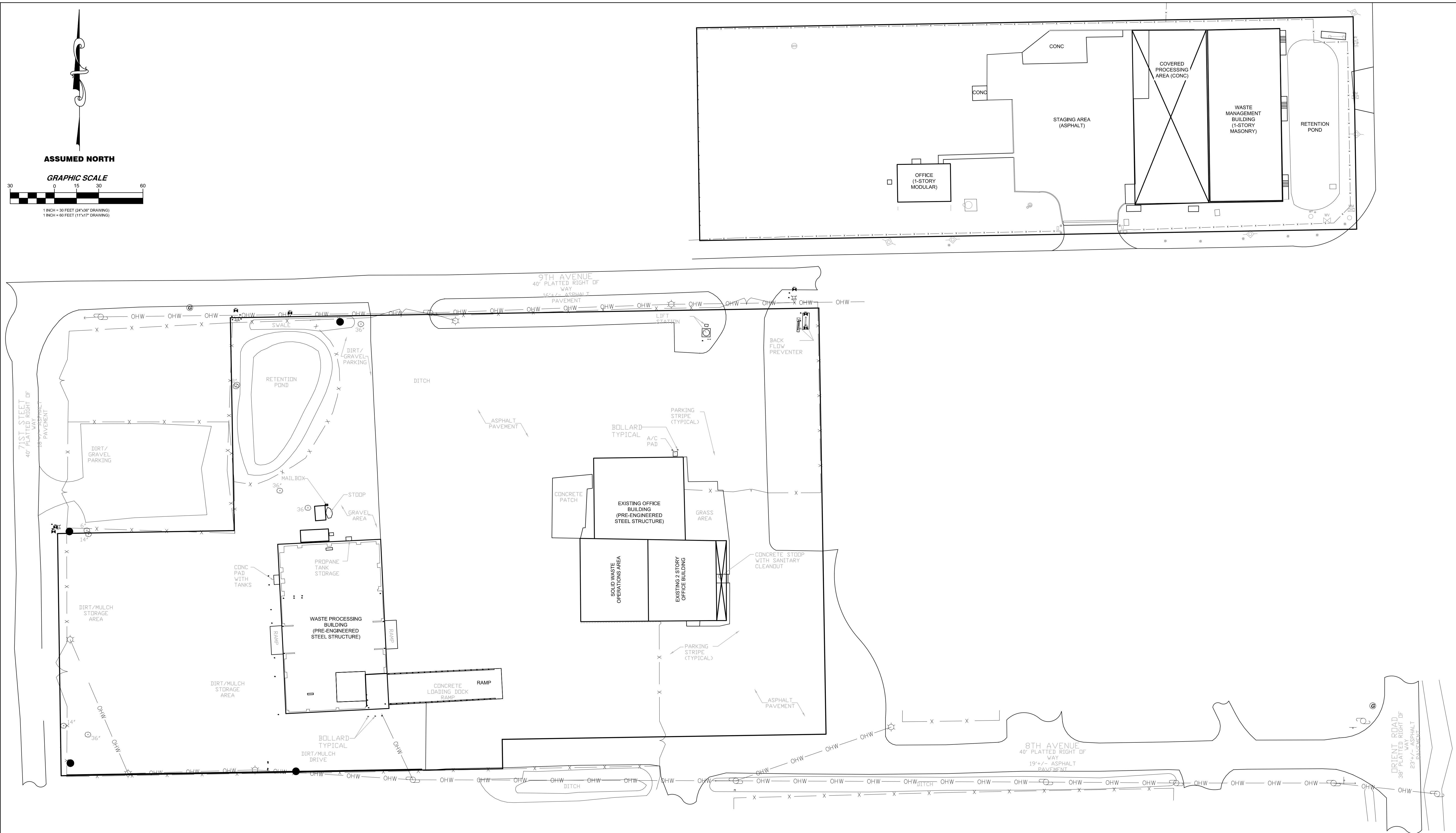
- THIS IS A TOPOGRAPHIC SURVEY ONLY, MADE ON THE GROUND UNDER THE SUPERVISION OF A FLORIDA REGISTERED LAND SURVEYOR AND MAPPER, AND MEETS THE MINIMUM TECHNICAL STANDARD FOR HORIZONTAL AND VERTICAL ACCURACY FOR THIS PROPERTY'S EXPECTED USE. THIS IS NOT A BOUNDARY SURVEY.
- ELEVATIONS SHOWN HEREON ARE ASSUMED. ELEVATIONS ARE REFERENCED TO A PREVIOUS SURVEY PREPARED BY NORTHWEST ENGINEERING AND PROVIDED BY THE CLIENT. (SEE NOTE 9, FOR APPROXIMATE PROPERTY LINE INFORMATION)  
BENCHMARK 1 FOUND RAILROAD SPIKE; ELEV. = 23.94' (ASSUMED)  
BENCHMARK 2 SET PK/N&D LB6901 ELEV. = 26.90' (ASSUMED)
- THIS SURVEY WAS CONDUCTED FOR THE PURPOSE OF TOPOGRAPHIC SURVEY ONLY, AND IS NOT INTENDED TO DELINEATE THE REGULATORY JURISDICTION OF ANY FEDERAL, STATE, REGIONAL OR LOCAL AGENCY, BOARD, COMMISSION OR OTHER SIMILAR ENTITY.
- THE INTENT OF THIS SURVEY IS TO DEPICT EXISTING IMPROVEMENTS AND TOPOGRAPHIC FEATURES IN AND ADJACENT TO THE SOLIDIFICATION BUILDING. THIS SURVEY WAS CONDUCTED OVER THE AREA DEPICTED WITHIN THE CLOUD ONLY. ALL OTHER DATA DEPICTED HEREON WAS PROVIDED BY THE CLIENT.
- THIS SURVEY WAS CONDUCTED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE. THEREFORE, THERE MAY BE OTHER EASEMENTS, RIGHTS-OF-WAY, SETBACK LINES, AGREEMENTS, RESERVATIONS, RESTRICTIONS, OR OTHER SIMILAR MATTERS OF PUBLIC RECORD, NOT DEPICTED ON THIS SURVEY.
- NO UNDERGROUND UTILITIES, UNDERGROUND ENCROACHMENTS OR BUILDING FOUNDATIONS WERE OBSERVED AS A PART OF THIS SURVEY, UNLESS OTHERWISE SHOWN. SHRUBS WERE NOT LOCATED, UNLESS OTHERWISE SHOWN.
- THIS SURVEY NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. THIS SURVEY IS NOT FULLY COMPLETE WITHOUT SHEETS 1 AND 2.
- THE FIELD SURVEY WAS COMPLETED ON 3/12/13.
- APPROXIMATE PROPERTY LINE INFORMATION SHOWN ON HEREON, WAS OBTAINED FROM A SURVEY PREPARED BY NORTHWEST ENGINEERING, INC. ORDER NO. 0704-039, DATED 4-18-2007 (AS PROVIDED BY THE CLIENT)

**EXISTING DRAINAGE STRUCTURES**

STR#1 GRATE INLET OVERFLOW STRUCTURE TOP GRATE ELEV.=27.76' POND INLET ELEV.=26.36' PIPE "A" INVERT ELEV.= INACCESSIBLE	STR#6 GRATE INLET TOP GRATE INLET ELEV.=20.98' PIPE "D" INVERT ELEV.=19.20' PIPE "E" INVERT ELEV.=19.26'
STR#2 MANHOLE (FULL OF DEBRIS) INVERTS ARE APPROXIMATE TOP MANHOLE ELEV.=25.42' PIPE "A" INVERT ELEV.=22.87' PIPE "B" INVERT ELEV.=22.92'	STR#7 GRATE INLET TOP GRATE INLET ELEV.=20.55' PIPE "E" INVERT ELEV.=18.84' PIPE "F" INVERT ELEV.=18.80'
STR#3 GRATE INLET (FULL OF DEBRIS) INVERTS ARE APPROXIMATE TOP GRATE ELEV.=22.84' PIPE "B" INVERT ELEV.=20.71'	STR#8 GRATE INLET TOP GRATE INLET ELEV.=20.41' PIPE "F" INVERT ELEV.=18.65' PIPE "G" INVERT ELEV.=18.73' PIPE "H" INVERT ELEV.=18.81'
STR#4 GRATE INLET TOP GRATE ELEV.=21.07' PIPE "C" INVERT ELEV.=19.92' PIPE "I" INVERT ELEV.=20.18'	STR#9 GRATE INLET TOP GRATE INLET ELEV.=20.64' PIPE "G" INVERT ELEV.=18.92' PIPE "J" INVERT ELEV.=18.96'
STR#5 GRATE INLET TOP GRATE INLET ELEV.=21.30' PIPE "C" INVERT ELEV.=19.84' PIPE "D" INVERT ELEV.=19.81'	STR#10 HEADWALL TOP HEADWALL ELEV.=20.40' PIPE "H" INVERT ELEV.=18.20'
	STR#11 GRATE INLET TOP GRATE INLET ELEV.=25.12' PLASTIC PIPE INVERT ELEV.=23.97'

**LEGEND**

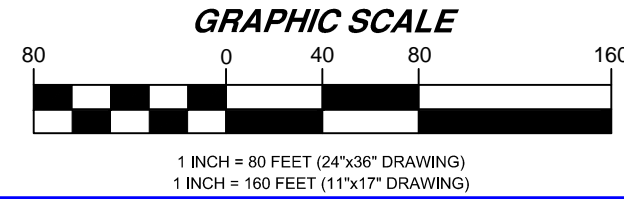
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	ASPHALT
	BUILDING
	SET PARKER KAYLON NAIL & DISK NO. LB6901
	SCIR SET 5/8" CAPPED IRON ROD NO. LB6901
	FCIR FOUND CAPPED IRON ROD
	FBIR FOUND IRON ROD
	LB LICENSED BUSINESS
	NO NUMBER
	BLDG BUILDING
	ELEV. MORE OR LESS ELEVATION
	CONTOUR LINE AND ELEVATION







SOURCE:  
1. [http://data.labins.org/2003/MappingData/DOQQ/hi-res\\_search.cfm](http://data.labins.org/2003/MappingData/DOQQ/hi-res_search.cfm)

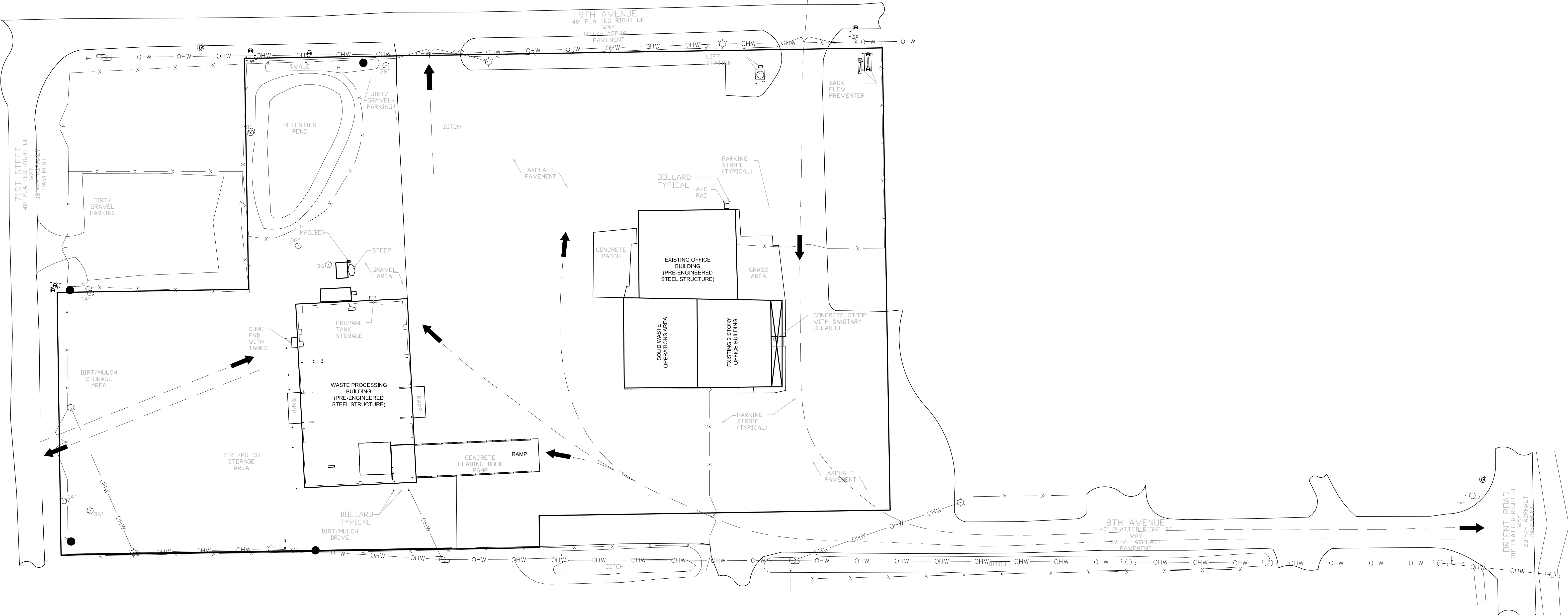
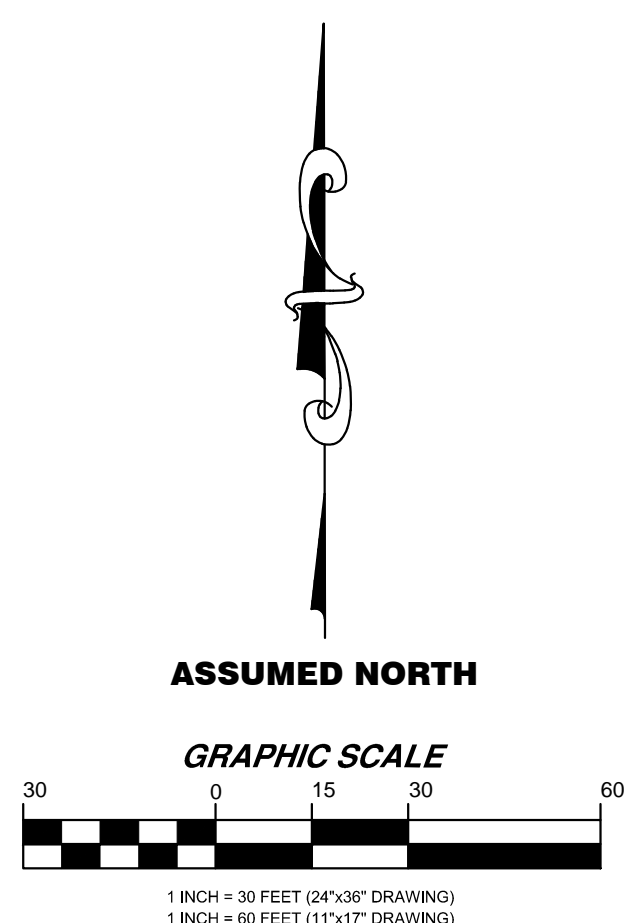


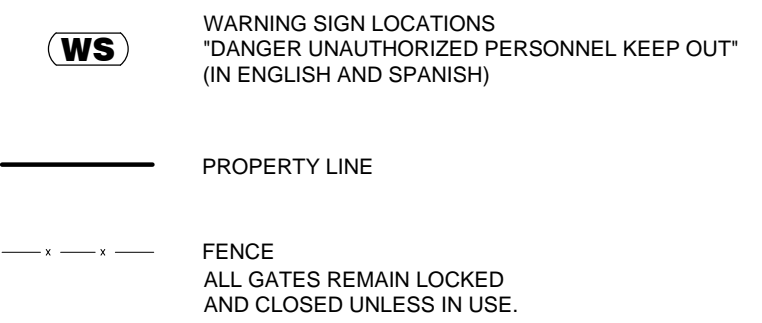
KCI TECHNOLOGIES  
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LICENSED BUSINESS 6901  
10401 HIGHLAND MANOR DRIVE, SUITE 120  
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PHONE (813) 740-2300 \* FAX (813) 740-0199

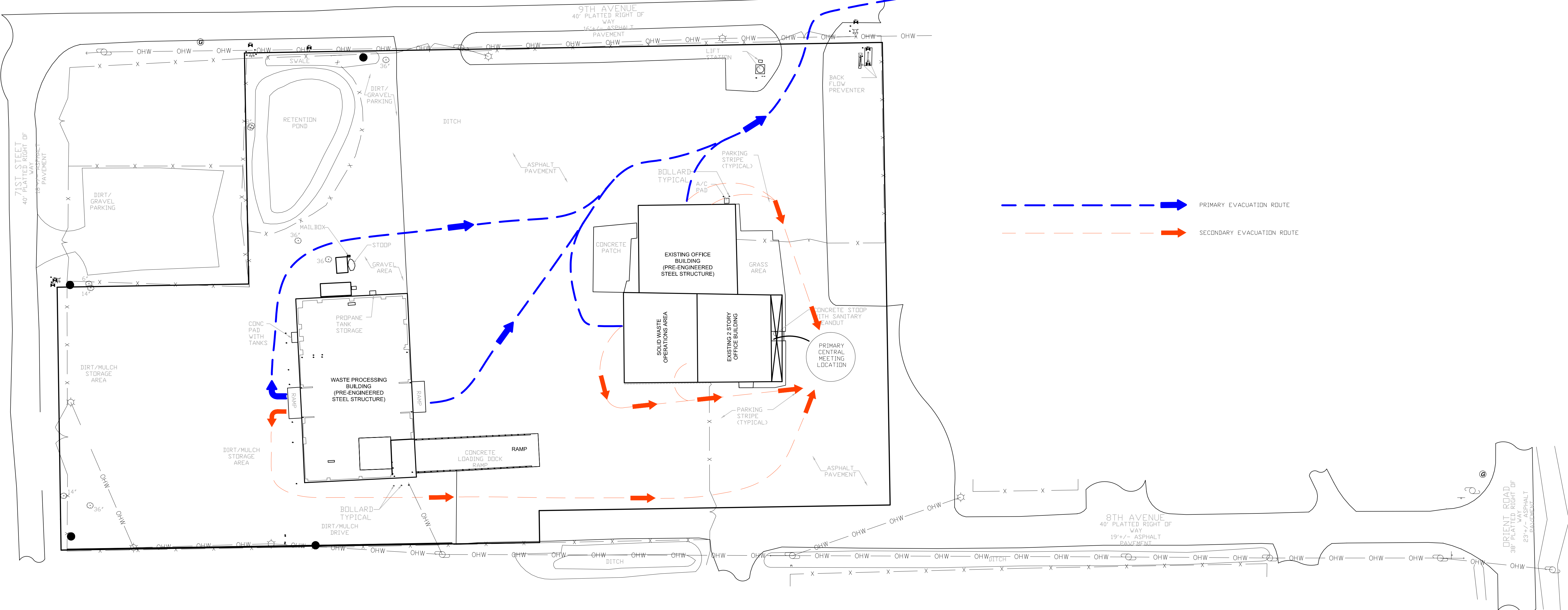
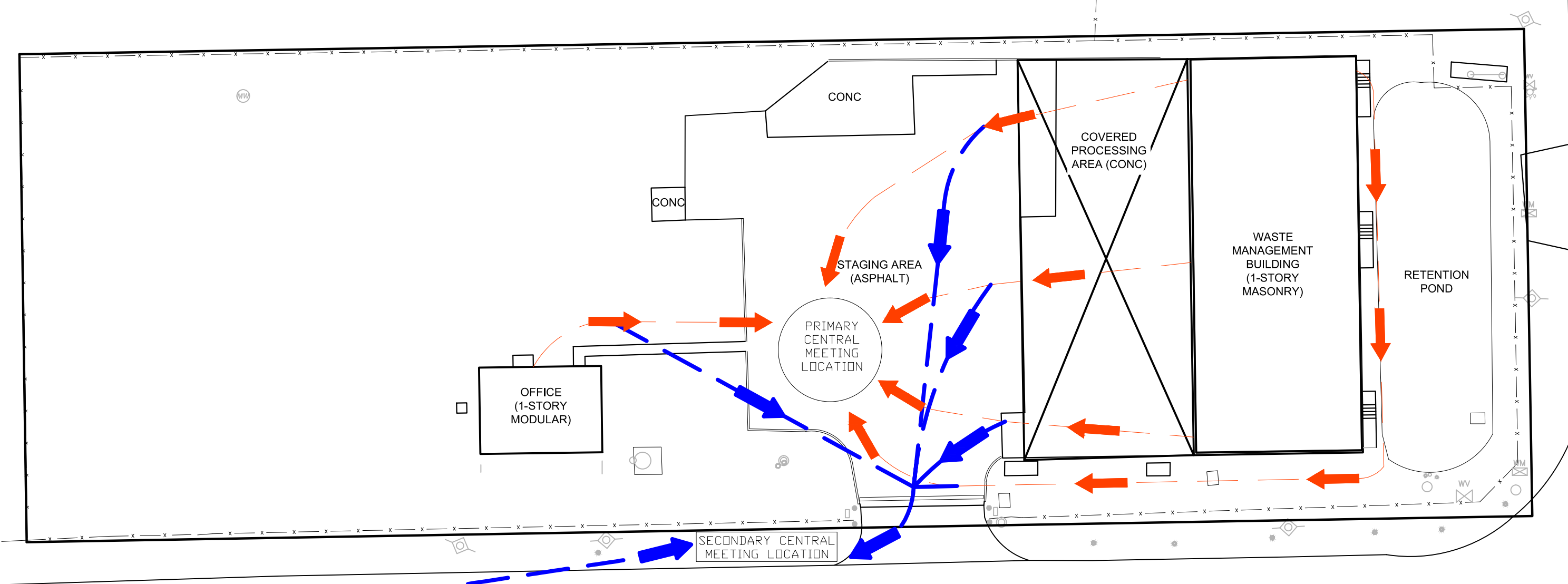
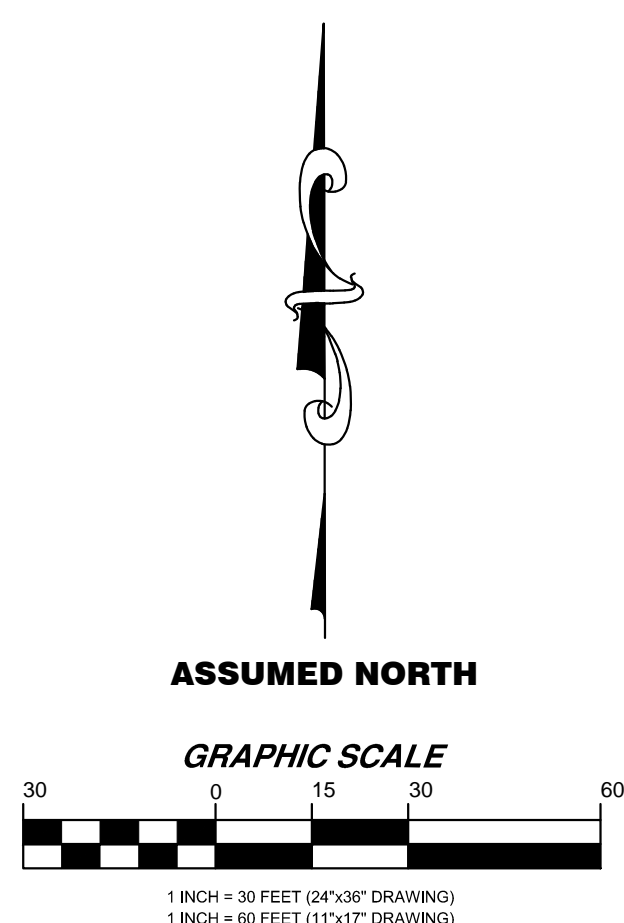
KCI JOB# 12123014

FIGURE 8  
EXISTING LAND USE & OWNERS  
FOR  
EQ FLORIDA, INC.  
DATE: JULY 9, 2013 SCALE: 1" = 80' SHEET: 8 OF 19



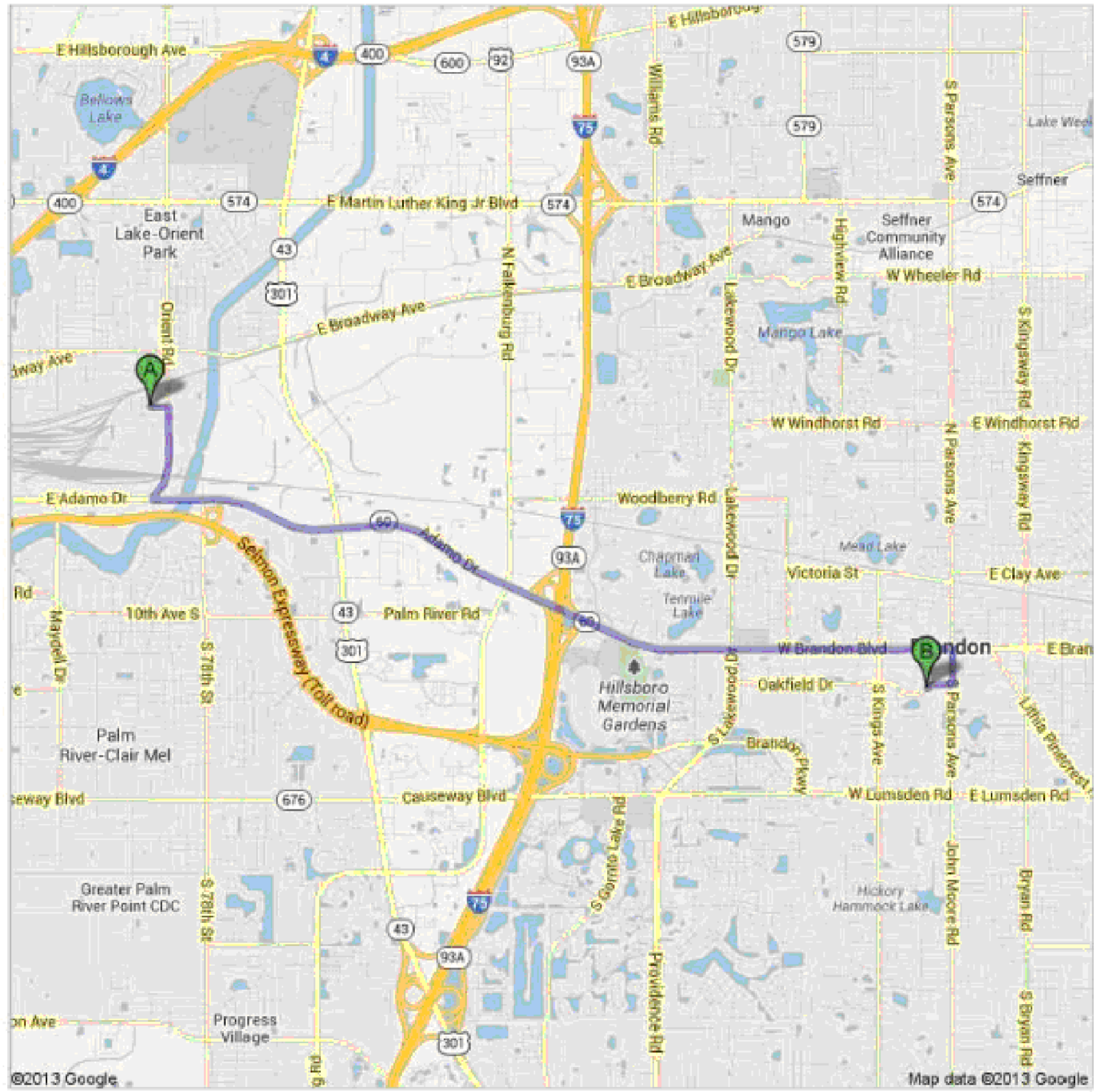
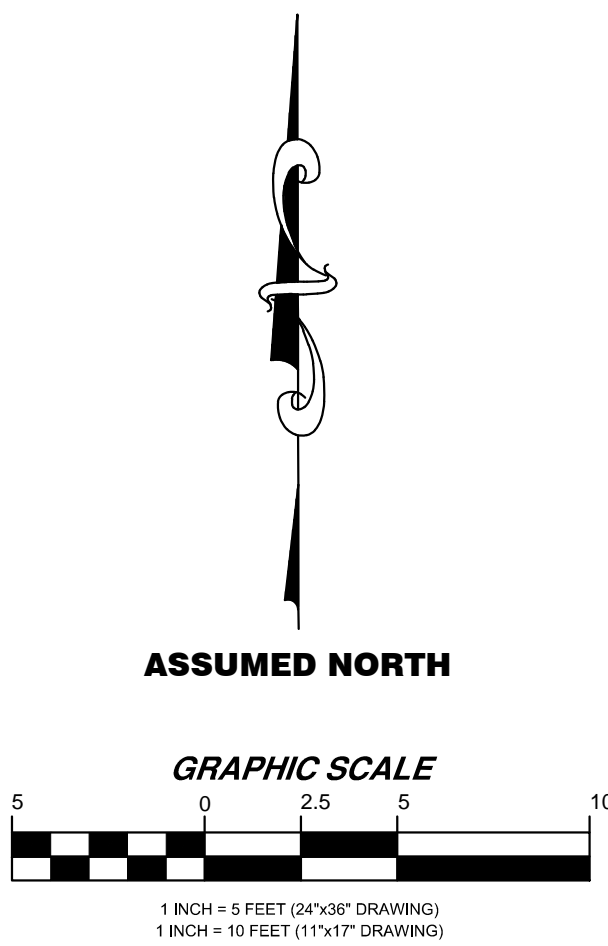






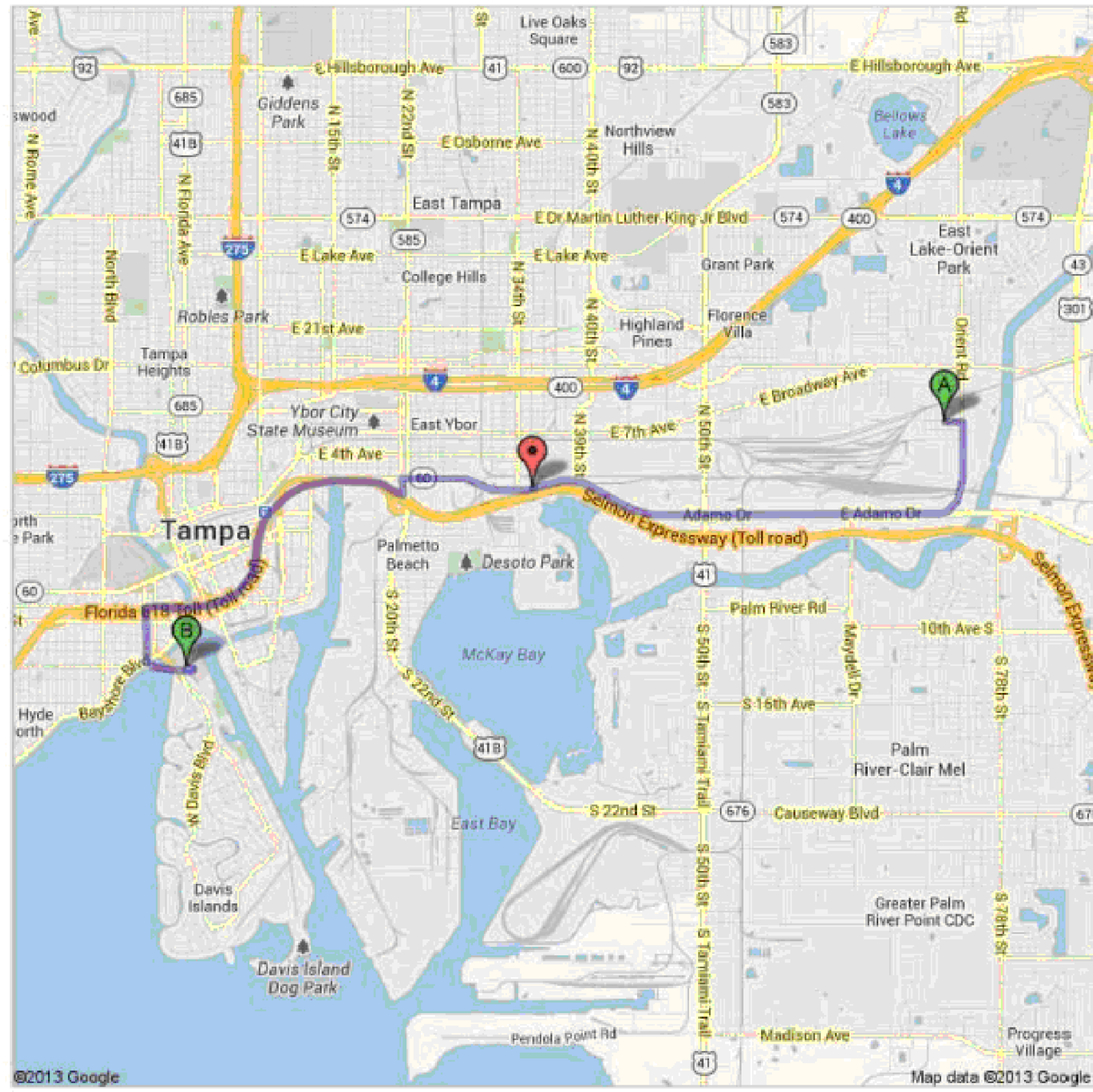
--- --> PRIMARY EVACUATION ROUTE  
--- --> SECONDARY EVACUATION ROUTE





7202 E 8th Ave, Tampa, FL 33619

1. Head **east** on **E 8th Ave** toward **N 72nd St**  
go 0.1 mi  
total 0.1 mi
  2. Turn right onto **Orient Rd**  
About 3 mins  
go 0.7 mi  
total 0.8 mi
  3. Turn left onto **FL-60 E/E Adamo Dr**  
Continue to follow FL-60 E  
About 10 mins  
go 5.7 mi  
total 6.5 mi
  4. Turn right onto **S Parsons Ave**  
go 0.2 mi  
total 6.7 mi
  5. Take the 2nd right onto **Oakfield Dr**  
Destination will be on the left  
go 0.2 mi  
total 6.9 mi
- Brandon Regional Hospital**  
119 Oakfield Dr, Brandon, FL 33511



7202 E 8th Ave, Tampa, FL 33619

1. Head **east** on **E 8th Ave** toward **N 72nd St**  
go 0.1 mi  
total 0.1 mi
  2. Turn right onto **Orient Rd**  
About 2 mins  
go 0.6 mi  
total 0.8 mi
  3. Take the 3rd right onto **E Adamo Dr**  
About 7 mins  
go 3.8 mi  
total 4.6 mi
  4. Turn left onto **N 21st St**  
About 1 min  
go 495 ft  
total 4.7 mi
  5. Turn right onto the **Florida 618 West Toll** ramp to **St Petersburg**  
Toll road  
About 45 secs  
go 0.3 mi  
total 4.9 mi
  6. Merge onto **Selmon Expressway**  
Toll road  
About 2 mins  
go 1.8 mi  
total 6.7 mi
  7. Take exit **5** toward **Hyde Park Ave/Davis Islands**  
Toll road  
go 0.2 mi  
total 6.8 mi
  8. Merge onto **W Brerein St**  
go 381 ft  
total 6.9 mi
  9. Turn left onto **S Hyde Park Ave**  
About 2 mins  
go 0.3 mi  
total 7.2 mi
  10. Take the exit toward **Tampa General Cir**  
About 45 secs  
go 0.2 mi  
total 7.4 mi
  11. Keep left at the fork, follow signs for **Tampa General Hospital**  
go 0.1 mi  
total 7.6 mi
  12. Keep left at the fork, follow signs for **Emergency/Physician Parking** and merge onto **Tampa General Cir**  
go 194 ft  
total 7.6 mi
  13. Turn left to stay on **Tampa General Cir**  
go 85 ft  
total 7.6 mi
  14. Turn left to stay on **Tampa General Cir**  
Destination will be on the right  
go 233 ft  
total 7.7 mi
- Tampa General Hospital**  
1 Tampa General Cir, Tampa, FL 33606



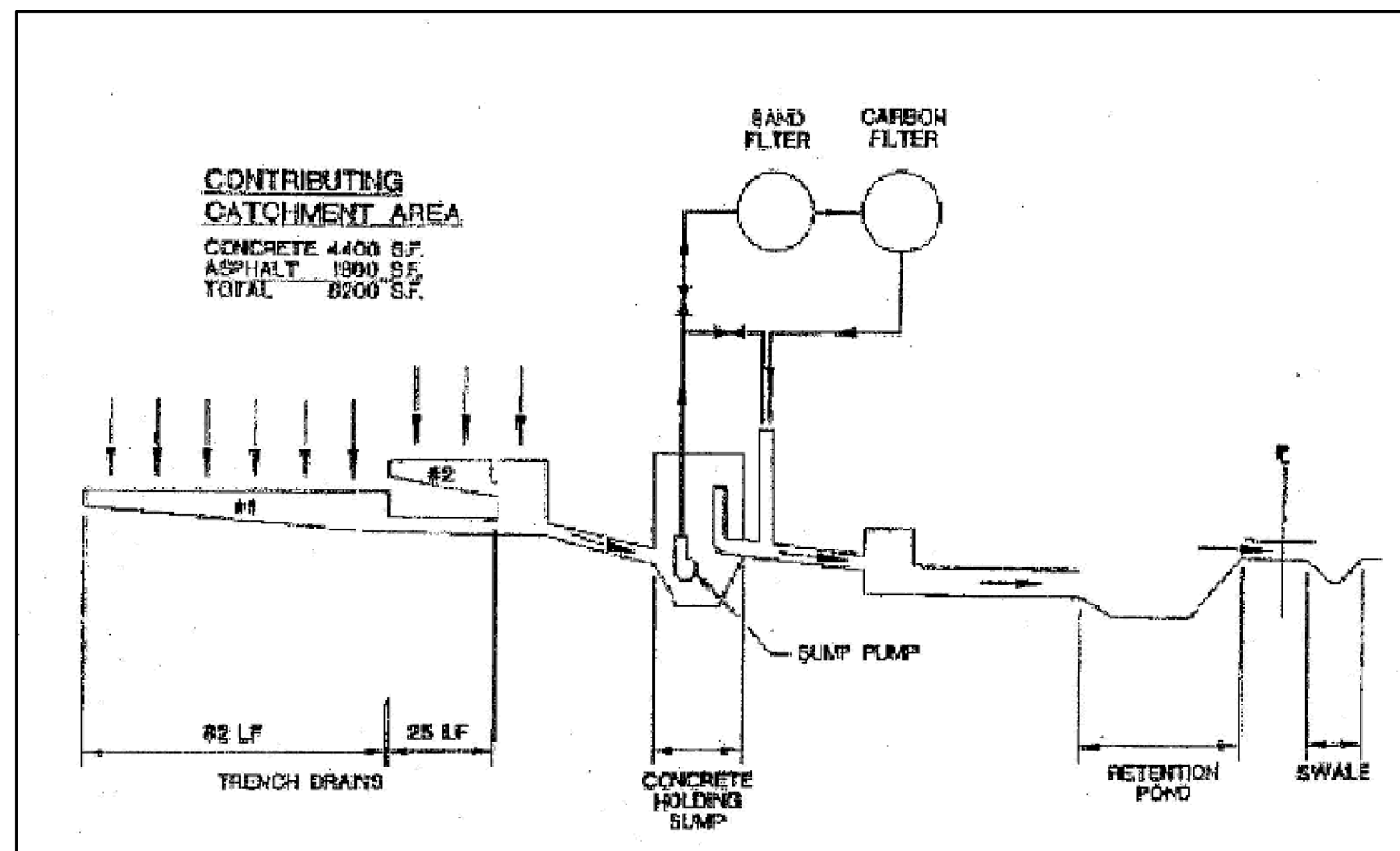
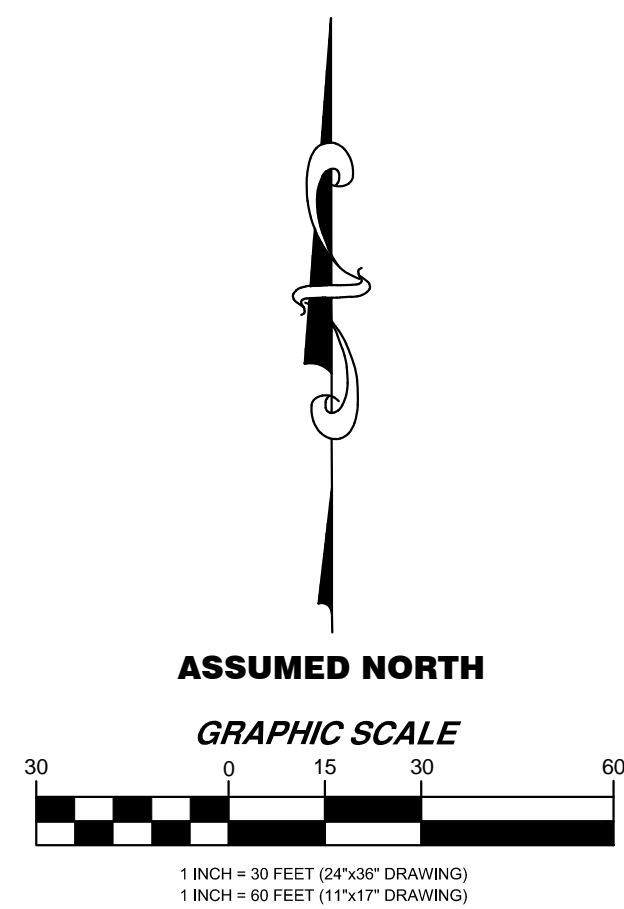
**KCI TECHNOLOGIES**  
ENGINEERS, SURVEYORS AND PLANNERS  
LICENSED BUSINESS 6901  
10401 HIGHLAND MANOR DRIVE, SUITE 120  
TAMPA, FL 33615  
PHONE (813) 740-2300 \* FAX (813) 740-0199

FIGURE 12  
ROUTES TO HOSPITAL  
FOR  
EQ FLORIDA, INC.

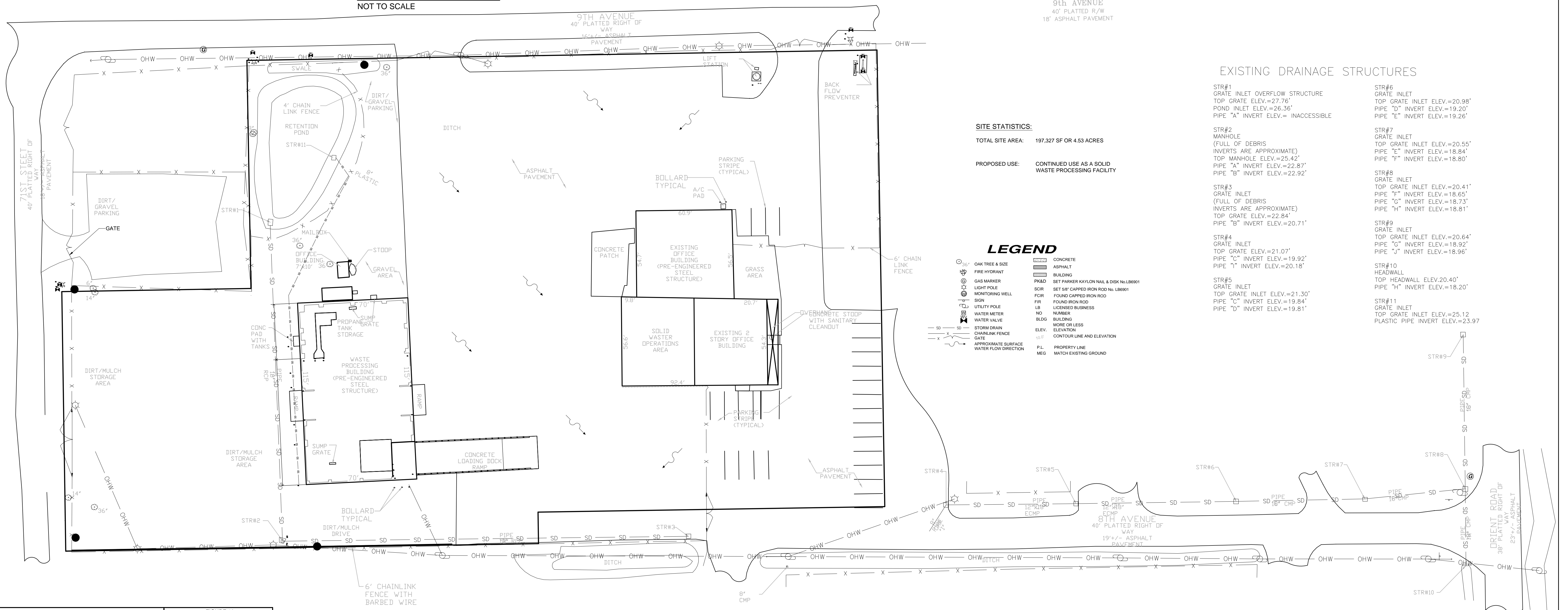
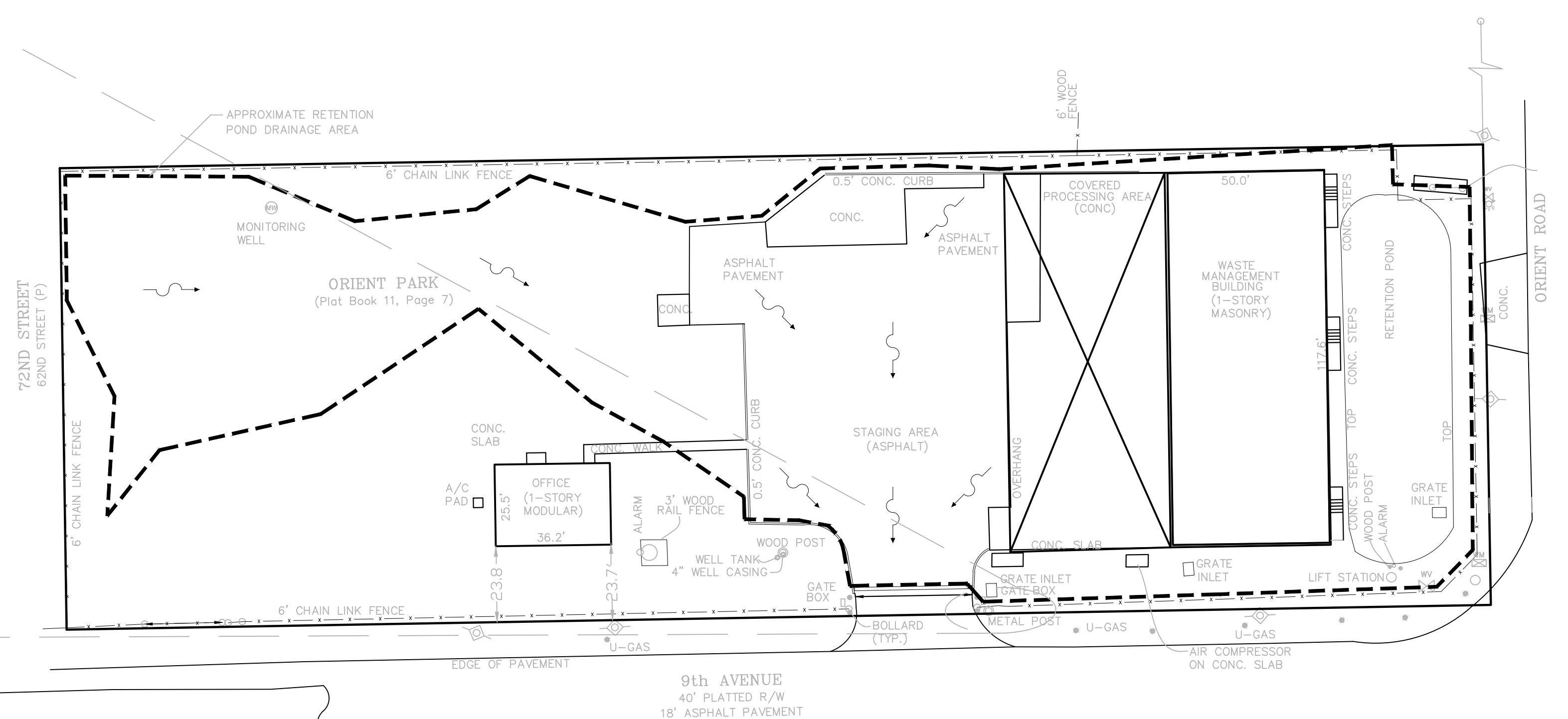
DATE: JULY 9, 2013 SCALE: 1" = 5 SHEET: 12 OF 19

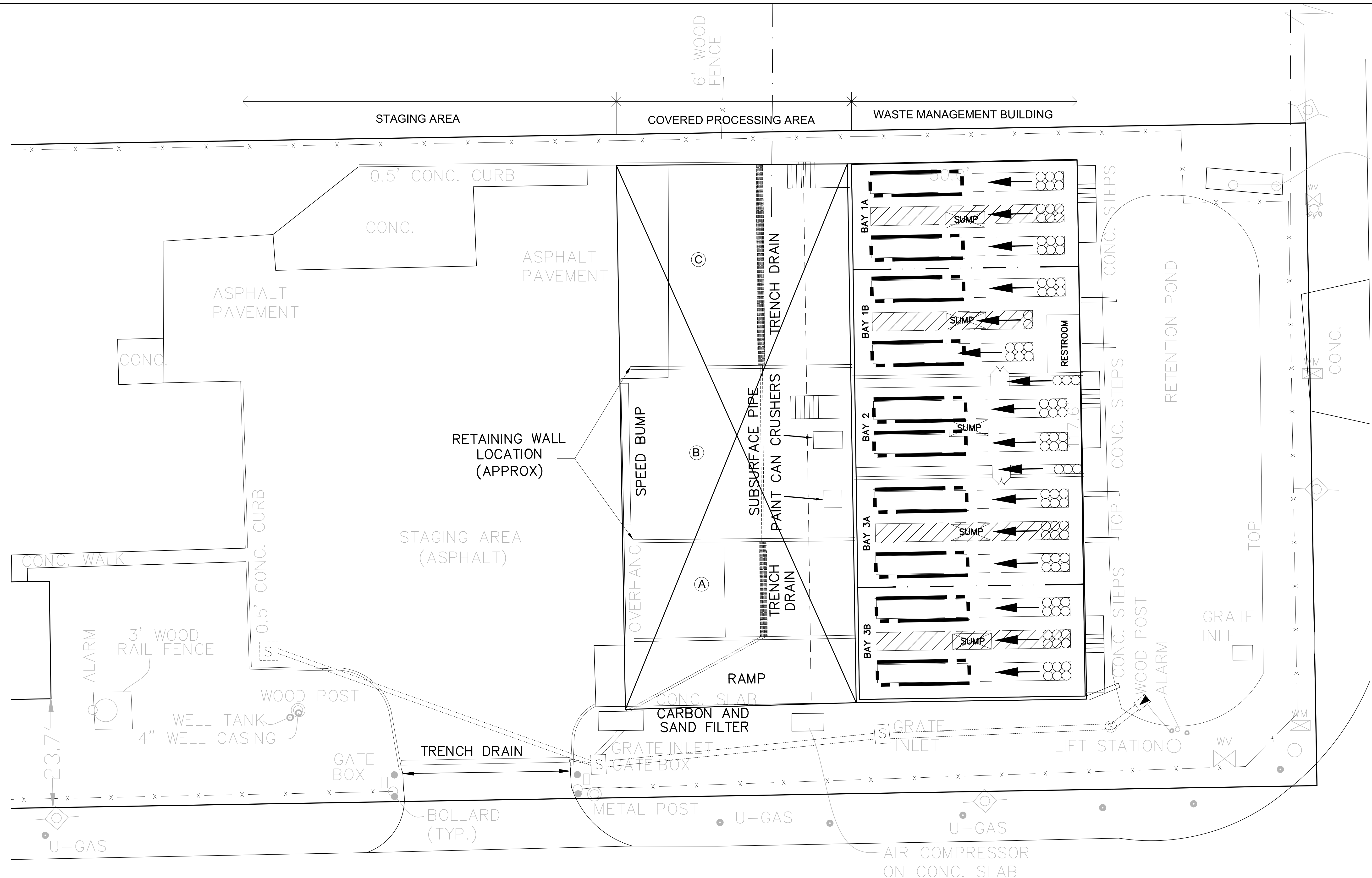
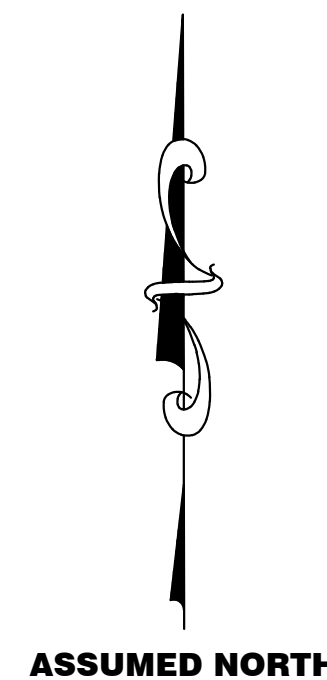
KCI JOB# 12123014





**FLOW SCHEMATIC**  
NOT TO SCALE





9th AVENUE

INDICATES AREA MAY ALSO BE UTILIZED FOR TEMPORARY PROCESSING AREA.

INDICATES AREA WHERE STORAGE WILL NOT OCCUR WHEN CONTAINERS ARE DOUBLE STACKED

LEGEND

FENCELINE

SUMP

STORM DRAIN INLET

APPROXIMATE STORMWATER FLOW (SEE FIG. II FOR MORE DETAIL)

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TECHNOLOGIES

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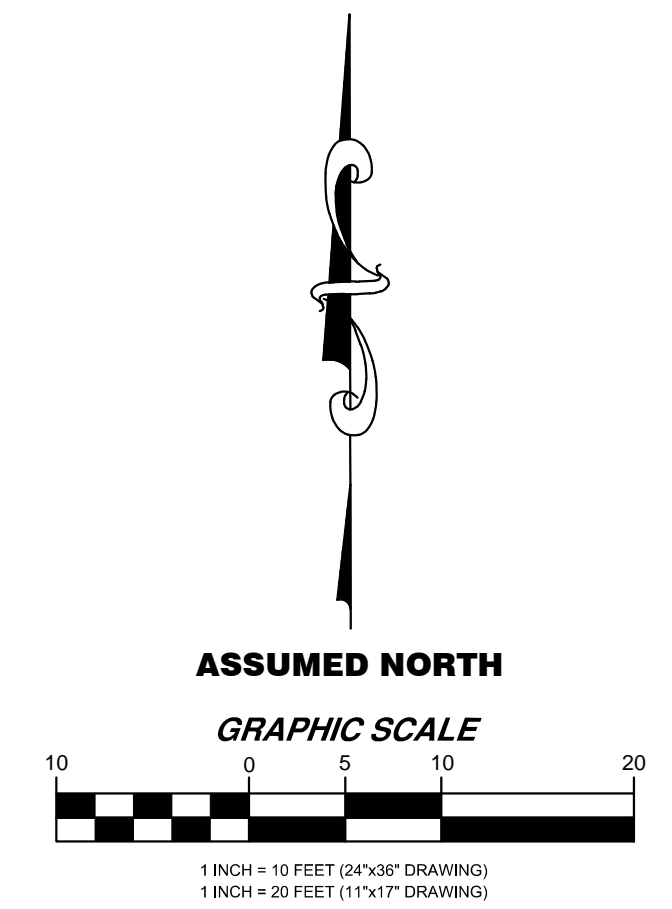
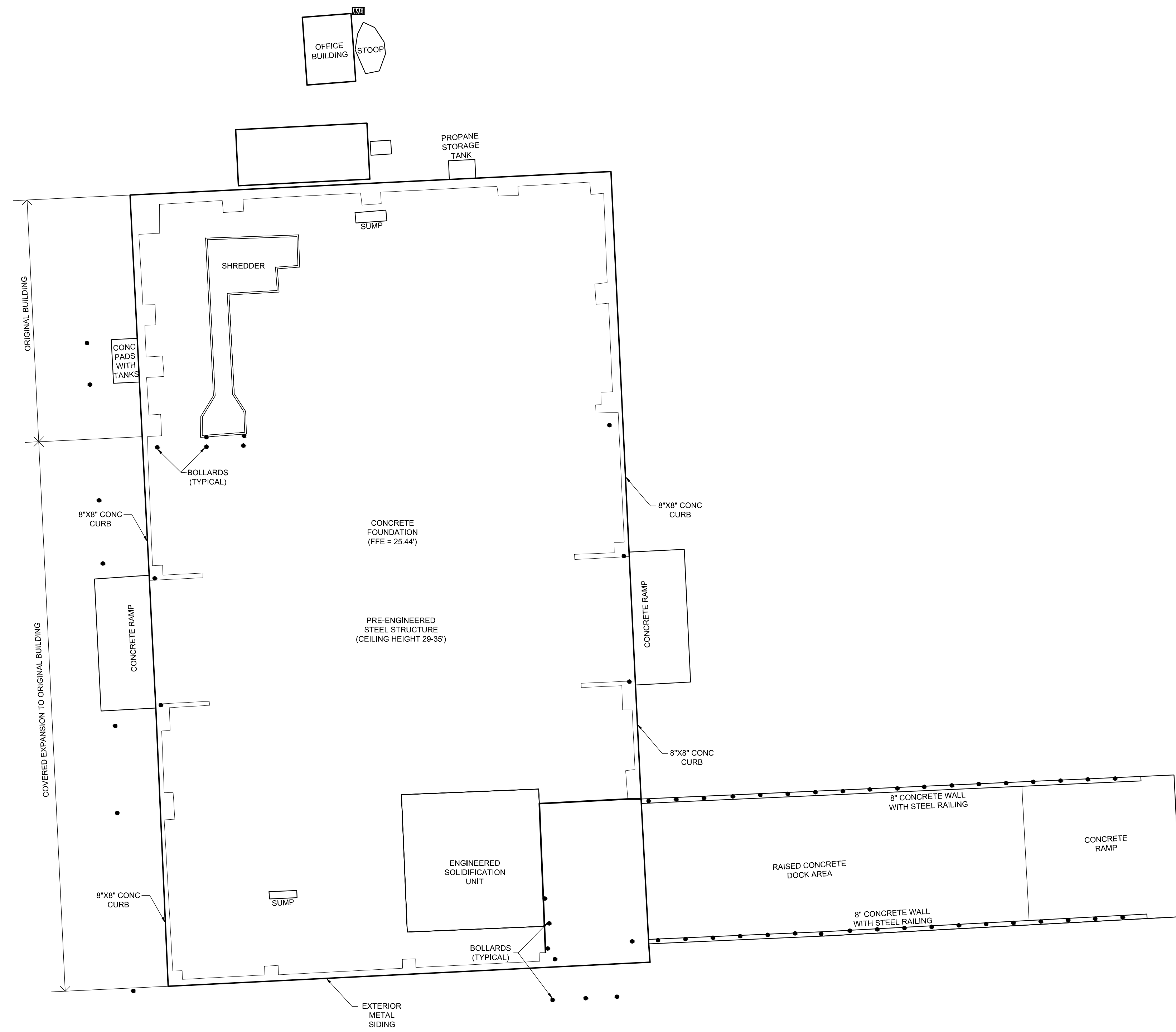
FIGURE 14  
WASTE MANAGEMENT BUILDING  
AND COVERED PROCESSING  
AREA LAYOUT  
FOR  
EQ FLORIDA, INC.

DATE: JULY 9, 2013

SCALE: 1" = 10'

SHEET: 14 OF 19

KCI JOB# 12123014



KCI JOB# 12123014

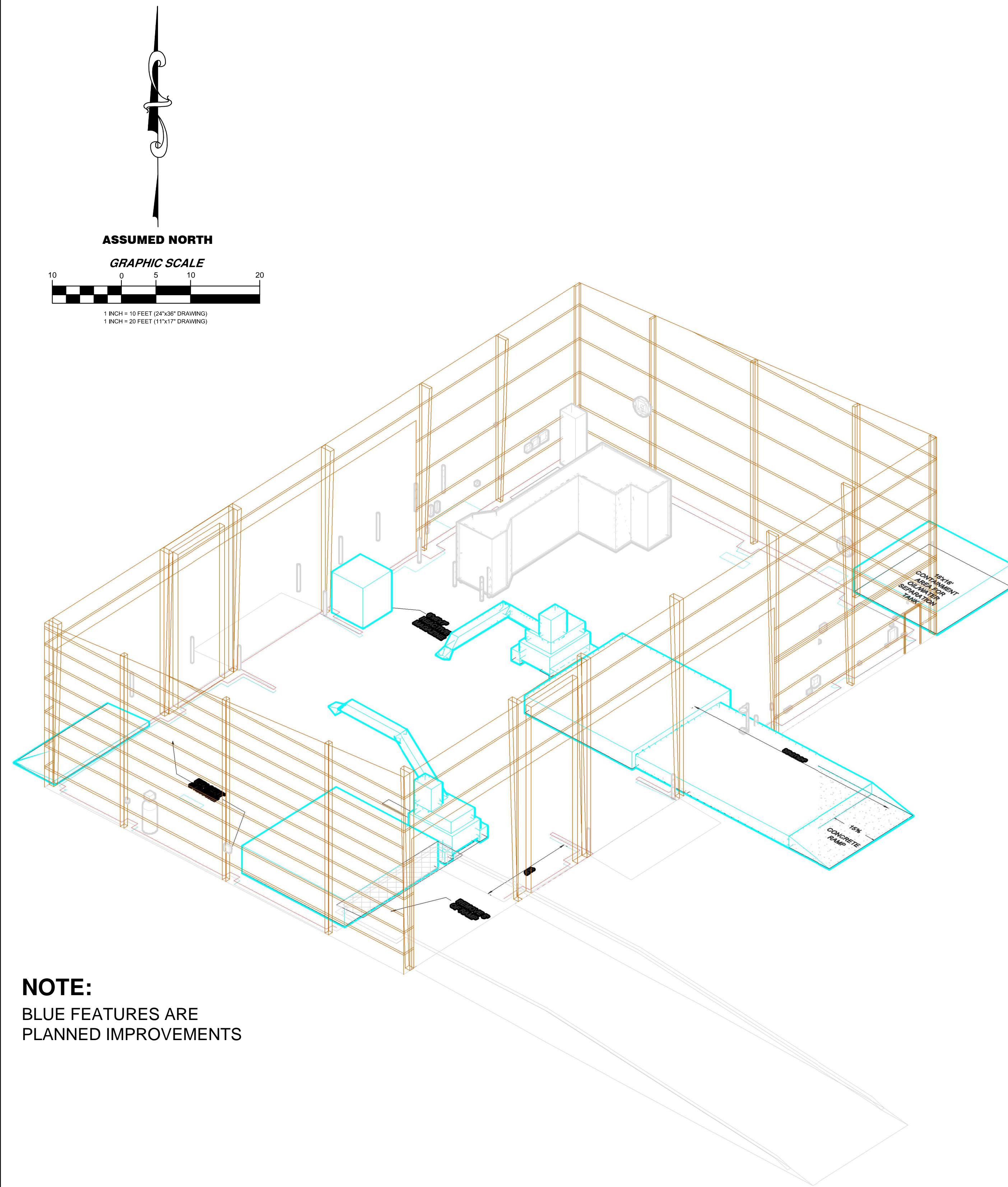


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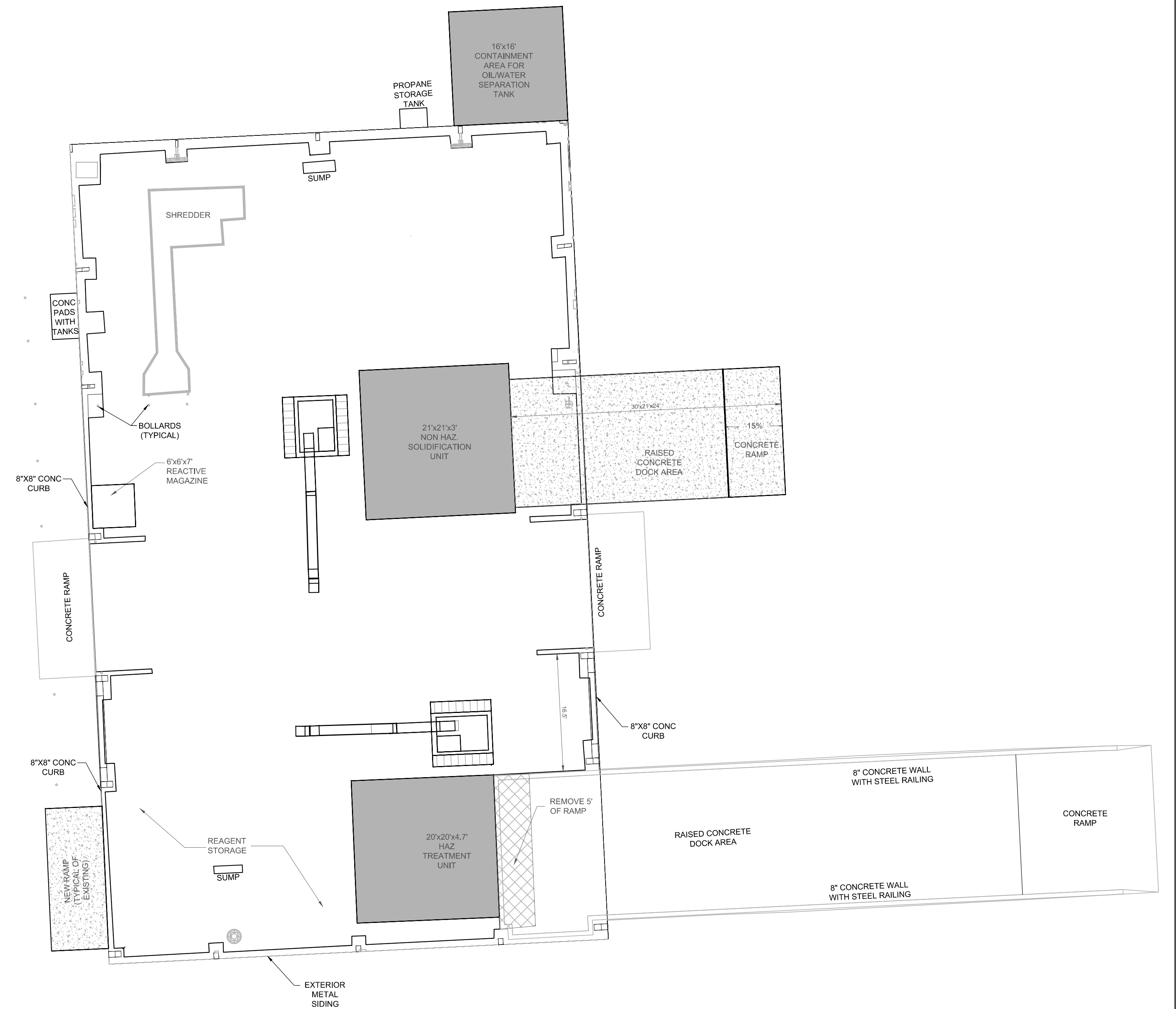
FIGURE 15  
WASTE PROCESSING BUILDING  
(EXISTING LAYOUT)  
FOR  
EQ FLORIDA, INC.

DATE: JULY 9, 2013 SCALE: 1" = 10' SHEET: 15 OF 19





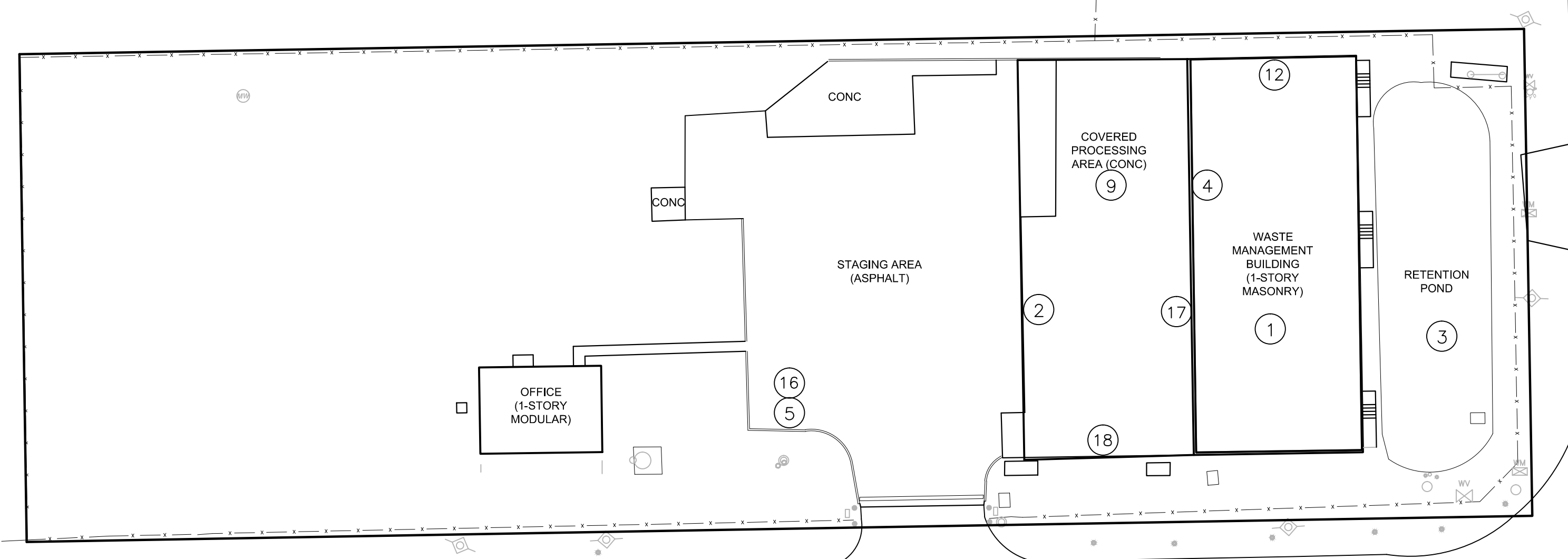
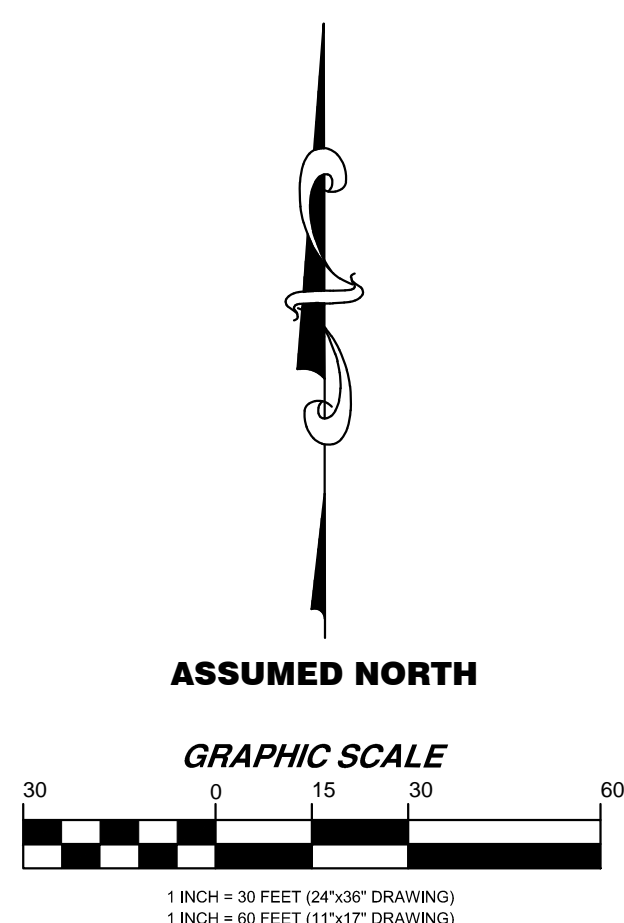
**THREE DIMENSIONAL VIEW**



**PLAN VIEW**







- ① CONTAINER STORAGE AREA/5 SUMPS
- ② LOADING/UNLOADING DOCKS
- ③ STORMWATER RETENTION POND
- ④ FILTER PRESS
- ⑤ MUNICIPAL PRESS
- ⑥ STORMWATER CARBON AND SAND FILTER
- ⑦ SOLID WASTE PROCESSING AREA
- ⑧ UNIVERSAL WASTE BATTERY STORAGE AREA
- ⑨ PAINT CAN CRUSHING AREA
- ⑩ ROLL-OFF STORAGE AREA
- ⑪ TRANSFER FACILITY/STAGING AREA
- ⑫ USED OIL FACILITY
- ⑬ SATELLITE ACCUMULATION AREA
- ⑭ PARTS WASHER
- ⑮ ADDITIONAL RETENTION POND
- ⑯ UNIVERSAL WASTE LAMP STORAGE AREA
- ⑰ AEROSOL CAN RECYCLING
- ⑱ DRUM CRUSHING
- ⑲ OIL-WATER SEPERATOR (PROPOSED)

